2024 PERIODIC REVIEW REPORT

for

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No. C231152

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1.0 INTRODUCTION

1.1 General

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) prepared this Periodic Review Report (PRR) on behalf of CP VII 78th Street Owner, LLC (the Volunteer) for the NYSDEC Brownfield Cleanup Program (BCP) Site No. C231152 (BCP Site or Site) located at First Avenue between East 77th and East 78th Streets for the 27 December 2023 to 27 April 2025 certification period. Site remediation was completed in accordance with the 5 April 2023 Remedial Action Work Plan (RAWP). On 27 December 2023, NYSDEC issued the Certificate of Completion for the Site, which certifies that the applicable remediation requirements set forth in the New York State Environmental Conservation Law (ECL) have been achieved to the satisfaction of the NYSDEC Commissioner, pursuant to the 27 July 2022 Brownfield Cleanup Agreement (BCA) Index No. C231152-06-22. This PRR was prepared in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved 22 December 2023 Site Management Plan (SMP). A periodic review of all institutional controls and engineering controls (IC/ECs) and a site evaluation are required by the SMP. A 27 December 2023 Certificate of Completion was issued for the Site, which acknowledges that the applicable remediation requirements set forth in the New York State Environmental Conservation Law (ECL) have been achieved to the satisfaction of the NYSDEC Commissioner, pursuant to the 27 July 2022 Brownfield Cleanup Agreement (BCA) Index No. C231152-06-22.

1.2 Site Summary

According to the Phase I Environmental Site Assessment (ESA) completed by Langan in January 2022, historical operations on the subject site included dyeing and cleaning operations between 1920 and 2005 on former Lot 28 and former Lot 30. A solvent tank was identified on the Sanborn Maps from 1951 to 2005 on former Lot 30 in the northern portion of the Site. The Site was identified in the NY Spills database for a release reported to the NYSDEC on 4 November 2009 and assigned Spill No. 0908776. According to the case narrative, a supply line for two 275-gallon fuel oil aboveground storage tanks (ASTs) was suspected to have leaked. The supply line was replaced and the spill was administratively closed on 2 December 2009. Two former fuel oil ASTs have been documented at the Site: one was located in the basement of the vacant building in the northwestern corner of the Site and another was found buried in the debris of the building demolished by the previous owners. A

release was observed when the second AST was discovered and reported to NYSDEC on 25 January 2022 and assigned Spill No. 2109276; the spill case was administratively close on 28 November 2023.

These historical releases and historical uses of concern contributed to the contamination on the Site that was subsequently remediated. As discussed below in Section 2.2, all impacted soil above the NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) was removed to bedrock, and the site achieved a Conditional Track 1 Unrestricted Use cleanup, provided that the remedial goals for soil vapor intrusion and groundwater are achieved within five years of the date of the Certificate of Completion. A Soil Vapor Intrusion Evaluation Memorandum (Appendix B) was submitted to NYSDEC on 7 March 2025 during this certification period and is discussed in Section 4.4 of this PRR. Groundwater performance monitoring reports (Appendix B) were also submitted during the certification period and are discussed in Section 4.2 of this PRR.

Langan conducted subsurface investigations between August 2022 and January 2023. The investigations were documented in the March 2023 Remedial Investigation Report (RIR). Based on the results of the investigations:

- Up to four feet of fill material was identified below an approximately 0.5- to 5-foot thick layer of remnant demolition debris surface cover prior to the remedial excavation. Fill was encountered to a maximum depth of 12 feet below street level (bsl) throughout the Site footprint. The fill was underlain by a layer of silty sand. Drilling refusal on presumed bedrock was encountered between approximately 17 and 22 feet bsl during the August 2022 RI and between 22 and 27 feet bsl during the geotechnical investigations. Contaminants in fill or soil included volatile organic compounds (VOCs) including acetone and tetrachloroethylene (PCE), metals, and pesticides, which were detected at concentrations above the NYSDEC Unrestricted SCOs and/or Restricted Residential Restricted Use SCOs (RUSCOs) within this layer. Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were also detected above the Unrestricted Use and/or Protection of Groundwater guidance values in two samples in this layer during the August 2022 RI.

- VOCs including chlorinated volatile organic compounds (CVOCs), semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs), metals, PFOS were detected in perched groundwater at concentrations exceeding the NYSDEC Technical and Operation Guidance Series 1.1.1 Ambient Water Quality Standards and

Guidance Values (collectively referred to as SGVs). VOCs were also detected above the SGVs in bedrock groundwater.

- Results of the soil vapor evaluation completed as part of the previous investigations and the Remedial Investigation (RI) identified impacts of chlorinated VOCs including PCE, trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-1,2-DCE), and 1,1-dichloroethylene (1,1-DCE) that would require monitoring and/or mitigation per the New York State Department of Health (NYSDOH) matrix guidance values in three samples. Additionally, concentrations of petroleum compounds including benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX) were identified above laboratory reporting limits in the sample results. Although concentrations of petroleum-related VOCs were not screened against the NYSDOH Soil Vapor Intrusion Matrices in the RIR, a review of the concentrations screened against Matrices D, E, and F dated February 2024 has since been completed. Petroleum-related VOCs cyclohexane, ethylbenzene, n-heptane, and o-xylene were all detected at concentrations exceeding the minimum threshold for which mitigation is required at RI location LSV-8. Additionally, n-hexane at LSV-14 and 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, and m,p-xylenes at LSV-8 were detected at concentrations exceeding the minimum threshold for which identification of sources and resampling or mitigation is recommended. As the presence of petroleum-related VOCs were not detected at elevated concentrations in soil or groundwater at the Site and no historical source of these impacts had been identified, the presence of these compounds in soil vapor was attributed to an off-Site source.

As discussed in Section 2.2, remediation was completed in 2023, and a Certification of Completion for the Site was issued in December 2023. Site Management has been conducted in accordance with the approved SMP and subsequent NYSDEC correspondence since that date.

1.3 Effectiveness of the Remedial Program

The remedial program was designed to eliminate and mitigate environmental and potential human health exposure to adverse environmental conditions still present in groundwater and soil vapor underlying the Site. The Institutional and Engineering Controls (IC/ECs) for the certification period achieved their remedial objectives.

1.4 Compliance with the Site Management Plan

All ICs and ECs remain fully in place for the certification period and continue to be effective.

1.5 Recommendations

A revised SMP reflecting an updated groundwater sampling plan has been prepared for the Site and will be submitted following this PRR for Department review and approval.

2.0 SITE OVERVIEW

2.1 Site Location

The Site is located in the Upper East Side section of Manhattan, New York and is identified as Block 1452, Lot 27 [formerly consisting of Lots 27, 28, 29, and 30] on the New York City Tax Map. The Site is an approximately 10,050-square foot parcel located in an urban area and is bounded by the four-story 354 East 78th Street building to the west, East 78th Street to the north, First Avenue to the east, and the nine-story 1485 First Avenue building to the south. A Site location map is shown on Figure 1. The Site consists of a 35-story mixed-use commercial and residential building with two full cellar levels.

2.2 Site Background

Remedial activities implemented in accordance with the NYSDEC-approved October 2022 Advance Notice of Site Change of Use, 4 January 2023 IRMWP, 5 April 2023 RAWP, and April 2023 Decision Document were completed between 10 March and 15 August 2023. Implementation of the remedy, in accordance with the Change of Use, IRMWP, RAWP, and Decision Document, included the following elements:

1. Development and implementation of a Construction Health and Safety Plan (CHASP) and Community Air Monitoring Plan (CAMP) for the protection of on-site workers, community/residents, and the environment during remediation and construction activities.

2. Completion of in-situ treatment of chlorinated VOC-impacted groundwater via injection of undiluted SRS-ZVI® reagent, followed by application of injection mix (calcium carbonate, alkaline buffer, yeast extract, DAP, and reducing reagent), and injection of undiluted bioaugmentation culture SDC-9TM between 10 March and 10 April 2023.

3. Removal of soil imported to facilitate the demolition of the former on-Site buildings.

4. Removal of 16 bedrock monitoring wells installed during the RI.

5. Re-installation of 10 bedrock monitoring wells in close proximity to the original well locations. Downhole geophysical evaluation of the bedrock wells to verify fracture depths, and performance monitoring well sampling following the completion of treatment injections in accordance with the Emulsified Zero Valent Iron (EZVI) Injection Remedial Design. (To be documented in a Groundwater Monitoring Report following the completion of installation and sampling activities.)

6. Design and construction of the support of excavation (SOE) system around the Site boundary to facilitate the remedial excavation up to a depth of 20 feet bsl (with development excavation generally being to 23 feet bsl and some deeper excavations to between 31 and 42 feet bsl for deeper foundation elements).

7. Dewatering in compliance with city, state, and federal laws and regulations. Extracted groundwater was treated in a settling tank prior to discharge to the NYC sewer system under a permit from NYCDEP (Permit No. C002018100). Further treatment of dewatering effluent to meet NYCDEP limitations was not required by the permit.

8. Implementation of soil erosion, pollution and sediment control measures in compliance with applicable laws and regulations.

9. Screening for indications of contamination (by visual means, odor, and monitoring with PIDs) of excavated material during intrusive Site work.

10. Excavation, stockpiling, and off-Site transport of contaminated fill and/or soil exceeding the Track 1 Unrestricted Use SCOs (shown in Table 1) as defined by 6 NYCRR Part 375-6.8(a), as described below:

    a. The entire Site footprint was excavated to between 12 and 20 feet for completion of the remedial excavation and the removal of contaminated fill and soil with concentrations of VOCs, pesticides, and metals exceeding the Unrestricted Use SCOs.

    b. Additional hotspot excavations were completed throughout the Site footprint as follows:

        i. One 20-by-30-foot hotspot was excavated to the top of bedrock (approximately 18.5 feet bsl) for the removal of chlorinated VOCs in saturated soil in the CVOC contamination source area during the IRM.

ii. One 12-by-15-foot hotspot was excavated the top of bedrock (between approximately 14 and 15.5 feet bsl) for the remediation of the petroleum-impacted hotspot identified during the remedial excavation.

11. Appropriate off-Site disposal of the following waste streams in accordance with federal, state, and local rules and regulations for handling, transport, and disposal:

    a. approximately 9,696.28 tons of non-hazardous contaminated soil/fill and native material with contaminant concentrations exceeding the Track 1 Unrestricted Use SCOs.

    b. approximately 2,548.7 tons of clean fill (previously imported to facilitate the demolition of the former Site buildings).

    c. approximately 1,519.7 tons of additional soil/fill meeting the Unrestricted Use SCOs to achieve redevelopment grades.

12. Decommissioning and removal of one previously known AST and disposal off-Site during Site redevelopment in accordance with DER-10, 6 NYCRR Part 613.9, NYSDEC CP-51, and other applicable NYSDEC AST closure requirements.

13. Collection and analysis of 24 confirmation soil samples from the excavation base, in accordance with DER-10, to confirm Track 1 Unrestricted Use SCOs were achieved. Except as noted below, all confirmation samples were collected from the native soil or weathered bedrock immediately above the bedrock interface to document the condition of the soil fully removed from the Site.

    a. 15 confirmation soil samples were collected from between 12 and 19.5 feet bsl from the excavation base.

        i. 10 of these were collected from immediately above the bedrock interface.

        ii. 5 of these were collected from the base of the remedial excavation between 12 and 14 feet bsl prior to the excavation encountering bedrock.

    b. 4 confirmation soil samples were collected from between 13.5 and 15.5 feet bsl from immediately above the bedrock interface and sidewalls of the petroleum-impacted hotspot.

c. 5 confirmation soil samples were collected from between 17.5 and 18.5 feet bsl from immediately above the bedrock interface and sidewalls of the chlorinated VOC-impacted source area excavation.

14. Importation of 121.81 tons of virgin stone for the construction of a temporary truck tracking pad.

15. Installation of a vapor barrier membrane below the slab of the proposed building and along sidewalls of any subgrade foundation elements beneath occupied spaces as a green remediation component.

16. Sub-slab soil vapor monitoring points would be installed as part of the final building construction for completion of a soil vapor intrusion evaluation provided that there is no groundwater intrusion which prevents the ability to collect soil vapor samples. The results of the soil vapor intrusion evaluation would be provided in the first Periodic Review Report.

17. Recording of an Environmental Easement (EE) to memorialize the institutional controls (ICs) and engineering controls (ECs) and require future owners of the Site to comply with certain land use restrictions and continue to maintain these controls.

18. Establishment of a NYSDEC-approved SMP to ensure appropriate management of the institutional controls, including the performance of periodic inspections and certification that the controls are performing as they were intended.

Remedial activities were completed as of August 2023. NYSDEC issued a Certificate of Completion on 26 December 2023.

Superstructure construction of the 35-story building was completed between August 2023 and April 2025. The New York City Department of Buildings (NYCDOB) has not yet issued a Temporary Certificate of Occupancy although one is anticipated in the next certification period.

3.0 IC/EC PLAN COMPLIANCE REPORT

IC/ECs are required to protect human health and the environment from remaining contaminated soil, groundwater, and soil vapor beneath the site. The Engineering and Institutional Control Plan included in the SMP describes the procedures for the implementation and management of the IC/ECs.

3.1 IC/EC Components

Consistent with the Final Engineering Report (FER) and SMP, the site-specific IC/ECs are summarized below.

3.1.1 Engineering Controls

The site has one Engineering Control.

Monitoring Wells Associated with EZVI Injections

As documented in the FER, the previously installed bedrock monitoring wells were removed during foundation construction for the new development. Remedial excavation of soil was completed to between 12 and 20 feet bsl; however, general excavation was completed across the majority of the Site footprint to approximately 23 feet bsl for construction of the cellar and sub-cellar, with excavation for deeper foundation elements advancing to between 31 and 42 feet bsl. The top of bedrock was encountered between 14 and 20 feet bsl across the Site footprint.

To implement performance monitoring at the Site, five shallow wells (LMW-6R-S through LMW-10R-S) and five deep wells (LMW-6R-D through LMW-10R-D) were re-installed throughout the Site footprint. The original well locations were selected based on proximity to the former chlorinated solvent tank and the highest concentrations of PCE and TCE detected during the initial bedrock groundwater sampling event competed via passive diffusion bags (PDBs) in September 2022 and the baseline bedrock groundwater sampling event collected via low-flow sampling from within a straddle packer assembly in December 2022 as reported in the March 2023 EZVI Injection Remedial Design.

Post-construction bedrock well re-installation was completed between November 2023 and February 2024. LMW-6R-S through LMW-10R-S were constructed during the certification period between November 2023 and February 2024 by installing five and a half-inch steel casing to a depth of 3.75 feet below top of slab (btos), corresponding to elevation (el) 11 feet North American Vertical Datum 1988 (NAVD88). The casing and open annulus were sealed with bentonite pellets that were allowed to expand prior to initiating coring of the four-inch open hole, which was completed to between 29.75 feet btos and 35.78 feet btos, corresponding to between el -15 feet and el -21 feet. LMW-6R-D through LMW-10R-D were constructed by installing five and a half-inch steel casing installed to a depth between 23 feet btos and 23.77 feet btos, corresponding to el -9 feet. The casing and open annulus were sealed with bentonite pellets that were allowed to expand prior to initiating coring, which was

completed to between 59.79 feet btos and 64.77 feet btos, corresponding to between el -45 feet and el -50 feet. All bedrock wells were constructed as four-inch open-hole wells below the steel casing. All ten bedrock monitoring wells were fitted with custom-designed Westbay System fixed multi-level monitoring equipment. Each well construction consists of a vertically separated series of hydraulically inflated packers connected with central access casing to provide engineered seals between discrete groundwater monitoring zones.

Groundwater monitoring activities to assess the effectiveness of the EZVI injections were completed during the 2023-2025 certification period in February, August, and November 2024 and March 2025. An additional remedial injection event was also completed in May 2024. Sampling and injection activities completed during this certification period are discussed in further detail in Section 4.2. Refer to Figure 2A of this PRR for the monitoring well locations and the well construction logs provided in Appendix I of the SMP.

3.1.2 Institutional Controls

The Site also has a series of ICs in the form of Site restrictions. Adherence to these ICs is required by the Environmental Easement included in Appendix A. Site restrictions that apply to the Controlled Property are:

- The Site may be used for: Restricted-Residential use as defined in 6 New York Codes, Rules and Regulations (NYCRR) Part 375-1.8(g)(2)(ii), Commercial use as defined in 6 NYCRR Part 375-1.8(g)(2)(iii), and Industrial use as defined in 6 NYCRR Part 375-1.8(g)(2)(iv), although land use is subject to local zoning laws;
- All ECs must be operated and maintained as specified in the SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the Site is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene (NYCDOHMH) to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater monitoring and a soil vapor intrusion evaluation consisting of collocated soil vapor and indoor air sample collection must be performed as defined in the SMP;

- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed within the IC boundaries noted in the SMP, and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the Site are prohibited unless in raised containers; and,
- An evaluation shall be performed to determine the need for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.

3.2 Goal Status and Corrective Measures

No deviations of the IC/ECs have been documented during the certification period except for the initiation of the above-grade modifications to the monitoring wells to install permanent flushmount covers. This work began in February 2024 was ongoing at the end of the certification period and, as such, will be discussed in further detail in the next PRR.

3.3 Conclusions and Recommendations

The IC/ECs continue to function as designed and in compliance with the SMP. No changes to the SMP are recommended as related to the IC/ECs; however, a revised SMP reflecting an updated groundwater sampling plan was prepared for the Site and will be submitted following this PRR for Department review and approval.

4.0 MONITORING AND SAMPLING PLAN COMPLIANCE REPORT

4.1 Monitoring and Sampling Plan Components

Consistent with the FER and SMP, the components of the Monitoring and Sampling Plan during the 2023 to 2025 certification period are as follows:

- Post-remediation groundwater sampling at up to 10 post-construction monitoring wells;
- Soil vapor intrusion sampling; and,
- An annual Site-wide inspection.

4.2 Post-Remediation Groundwater Sampling and Injections

Following the monitoring well installation discussed in Section 3.1.1, performance monitoring groundwater samples were collected in February, August, and November 2024 and March 2025. An additional injection event was also completed in May 2024, as will be discussed in further detail below. The injection activities and performance monitoring groundwater sampling events completed during this certification period are discussed in detail in the following reports provided in Appendix B:

- Groundwater Performance Monitoring Report and Injection Design prepared by Langan, dated 24 April 2024.
- Emulsified Zero-Valent Iron Remedial Injection and Groundwater Performance Monitoring Report prepared by Langan, dated 15 October 2024.
- Groundwater Performance Monitoring Report prepared by Langan, dated March 2025.
- Groundwater Performance Monitoring Report prepared by Langan, dated May 2025.

Based on the performance groundwater monitoring analytical results from February, August, and November 2024 and March 2025, PCE and daughter products have been successfully reduced to non-detect, to concentrations below the SGVs, or to concentrations not detected above the elevated laboratory reporting limit. Table 1 provides all groundwater analytical results from the 2024 to 2025 performance monitoring events.

4.2.1 February 2024 Groundwater Monitoring

Performance monitoring groundwater samples were collected in February 2024, approximately 10 months following the first round of EZVI injections. Performance monitoring groundwater sample analytical results revealed the successful reduction of PCE and TCE by one order of magnitude in the wells that had previously contained the highest concentrations of these compounds during the initial and baseline sampling events, and elimination of PCE and TCE concentrations above the SGVs across the remainder of the treatment area. Concentrations of breakdown products including cis-1,2-DCE and vinyl chloride (VC) were detected during performance monitoring, confirming the ongoing degradation of PCE and TCE. Analytical results were reported in the April 2024 Groundwater Monitoring Report and Injection Design provided in Appendix B.

4.2.2 May 2024 Injections

Based on the February 2024 performance monitoring analytical results, an additional focused injection was proposed in the April 2024 Groundwater Performance Monitoring Report and Injection Design to further address the highest concentrations of PCE and breakdown products remaining in groundwater. The NYSDEC and NYSDOH approved the injection design on 26 April 2024; the approval is provided in Appendix C.

The additional injection was conducted at the four well intervals where COC concentrations greater than one order of magnitude above the SGV were detected during the February 2024 event. As shown in Figures 2A through 2C, these locations included:

- LMW-7R-S at el 8 to 3 NAVD88 and el -2 to -7 NAVD88 intervals,
- LMW-7R-D at el -9 to -14 NAVD88 interval, and
- LMW-8R-S at el 8 to 3 NAVD88 interval.

EZVI was also injected into LMW-9R-S, at injection interval el 1 to -5 NAVD88, to treat impacts in LMW-7R-S, as communication between these two wells was observed during the 2023 injection event.

In addition to EZVI injections, additional emulsified vegetable oil (EVO) was added at these five intervals (prior to and/or following the EZVI injection) and at the following well intervals where only cis-1,2-DCE and/or VC remained above the SGVs:

- LMW-6R-S at el -4 to -9 NAVD88, and
- LMW-8R-D at el -43 to -50 NAVD88.

The injection activities were summarized in the October 2024 EZVI Remedial Injection and Groundwater Performance Monitoring Report provided in Appendix B.

4.2.3 August 2024 Groundwater Monitoring

Performance monitoring groundwater samples were collected in August 2024. The analytical results revealed the elimination of PCE and TCE concentrations above the SGVs across the treatment area. Concentrations of breakdown products including cis-1,2-DCE and VC were detected during performance monitoring, confirming the continued degradation of PCE and TCE. Based on observations of reagent in some wells during the performance monitoring event, a small volume of reagent and groundwater was purged from LMW-7R-S at el 8 to 3 NAVD88 and additional anaerobic chase water was injected into LMW-7R-S at el 8 to 3 NAVD88 and el -2 to -7 NAVD88 in September 2024, in accordance with the April 2024 Groundwater Performance Monitoring Report and Injection Design. Analytical results were reported in the October 2024 EZVI Remedial Injection and Groundwater Performance Monitoring Report provided in Appendix B.

4.2.4 November 2024 Groundwater Monitoring

Sixteen performance monitoring groundwater samples were collected on 20, 21, 22 and 25 November 2024. The analytical results revealed that CVOCs were not detected at concentrations above the SGVs across the treatment area. CVOCs were either not detected or were detected below the SGVs at the following seven intervals/locations in four of the monitoring wells: all three intervals at LMW-6R-D, the only interval at LMW-9R-D, the only interval at LMW-10R-S, and both at LMW-10R-D. Elevated reporting limits were reported by the laboratory for PCE and/or breakdown products at nine well intervals in six of the monitoring wells (the only interval at LMW-6R-S, the two intervals at LMW-7R-S, the only interval at LMW-7R-D, both intervals at LMW-8R-S, both intervals at LMW-8R-D, and the only interval at LMW-9R-S).

Elevated concentrations of fermentation byproducts (acetone and methyl ethyl ketone) remain above the SGVs in nine well intervals at six of the monitoring wells (LMW-6R-D, LMW-7R-S/D, LMW-8R-S/D, and LMW-9R-S) although the concentrations of one or both byproducts decreased in November 2024 compared to peak concentrations detected in either February or August 2024 at LMW-6R-S/D, one of the intervals at LMW-8R-D, LMW-9R-D, and LMW-10R-S/D. Analytical results were reported in the March 2025 Groundwater Performance Monitoring Report provided in Appendix B.

Based on the August and November 2024 analytical results, which were submitted to NYSDEC via email on 14 December 2024 and discussed during a conference call with NYSDEC on 10 January 2025, Langan proposed the elimination of LMW-9R-D, LMW-10R-D, and two of the intervals at LMW-6R-D (el -18 to -23 and el -28 to -33) from the sampling program for all future sampling events. The rationale for the removal of each well or well interval is summarized below.

- LMW-9R-D (el -40.5 to -48.5), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024);
- LMW-10R-D (el -12 to -21 and el -26 to -31), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024); and,
- LMW-6R-D (el -18 to -23 and el -28 to -33), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024).

In an email dated 17 January 2025, NYSDEC approved the modification to the sampling program. This revision to the Groundwater Sampling Plan (GSP) is reflected in the revised 2025 SMP that will be submitted following this PRR, and the modified sampling plan was implemented starting with the fourth quarterly performance monitoring sampling event in March 2025. The approval is included in Appendix C.

4.2.5 March 2025 Groundwater Monitoring

Eight performance monitoring groundwater samples were collected on 5 through 7 March 2025 from one interval at LMW-6R-S, one interval at LMW-7R-D, two intervals from LMW-8R-S, two intervals from LMW-8R-D, one interval from LMW-9R-S, and one interval from LMW-10R-S. Three performance monitoring groundwater samples could not be collected from the remaining interval at LMW-6R-D, and the two intervals at LMW-7R-S that were to be included in the sampling event could not be sampled, as discussed in further detail in Appendix B. The analytical results revealed that CVOCs were not detected at concentrations above the SGVs across the treatment area. CVOCs were either not detected or were detected below the SGVs at the following four intervals in four of the monitoring wells: the only interval at LMW-6R-S, one interval at LMW-8R-S, one interval at LMW-8R-D, and the only interval at LMW-10R-S. Elevated reporting limits were reported by the laboratory for PCE and/or breakdown products at four well intervals in four of the monitoring wells (the only interval at LMW-7R-D, one interval at LMW-8R-S, one interval at LMW 8R-D, and the only interval at LMW-9R-S).

Elevated concentrations of fermentation byproducts (acetone and methyl ethyl ketone) remain above the SGVs in four well intervals at four of the monitoring wells (LMW-7R-D, LMW-8R-S/D, and LMW-9R-S) although the concentrations of one or both byproducts decreased in March 2025 compared to peak concentrations detected in either February, August, or November 2024 at LMW 6R-S, one of the intervals at LMW-8R-S, LMW-8R-D, LMW-9R-S, and LMW-10R-S.

Analytical results were reported in the May 2025 Groundwater Performance Monitoring Report provided in Appendix B. These data were also transmitted to NYSDEC via email on 1 April 2025, along with recommendations that will be discussed in further detail in Section 4.7.

4.2.6 Groundwater and Injection Mix Disposal

As identified in the reports in Appendix B, 12 55-gallon drums of purge groundwater and injection mix were generated in 2024 from the well installation and injection activities completed that year. These drums were disposed of on 6 June 2024. The drummed material was transported to Dale Transfer Corporation by AARCO Environmental Services, Corp. The executed manifest is provided in Appendix D.

Documentation of the disposal of purge water generated during the ongoing well modification activities discussed in Section 3.1.1 will be provided in the 2025-2026 PRR.

4.2.7 Groundwater Monitoring Evaluation

The maximum concentrations of PCE, TCE, cis-1,2-DCE, VC, and chloroform detected during the initial September 2022 sampling event and December 2022 baseline sampling event were 900 µg/l (LMW-8R-S), 390 µg/l (LMW-8R-S), 710 µg/l (LMW-7R-S), 6.7 µg/l (LMW-8R-D), and 56 µg/l (LMW-6R-D), respectively. Maximum concentrations of PCE and TCE decreased by an order of magnitude following the 2023 EZVI injections and were not detected above laboratory reporting limits during the August 2024, November 2024, or March 2025 performance monitoring events following the May 2024 EZVI targeted injections. Breakdown products, including cis-1,2-DCE, VC, and chloroform, were detected at concentrations above the SGVs during the February and August 2024 performance monitoring events but were not detected above laboratory reporting limits or SGVs since the November 2024 performance monitoring event.

Elevated reporting limits were reported by the laboratory for CVOCs at several well locations; based on correspondence with the laboratory, elevated reporting limits are attributed to sample matrix interference and/or interferences from the elevated concentrations of methyl ethyl ketone and acetone. Concentrations of acetone and methyl ethyl ketone were detected below the SGVs at all well locations during the initial September 2022 sampling event and December 2022 baseline sampling event. Elevated concentrations of these compounds were detected above the SGVs during the initial performance monitoring sampling event in February 2024, and as of the March 2025 sampling event, are present in four well intervals at four of the monitoring wells (LMW-7R-D, LMW-8R-S/D, and LMW-9R-S). These compounds are fermentation byproducts that are typically formed as a result of the introduction of electron donors, including the soybean oil and sodium lactate components of EZVI and EVO. Increases in concentrations of these byproducts are typically observed to be temporary and limited to the treatment area. Decreased concentrations were detected in March 2025 at LMW-6R-S, one of the intervals at LMW-8R-S, LMW-8R-D, LMW-9R-S, and LMW-10R-S compared to previously detected peak concentrations. The presence of these ketone compounds is the result of fermentation byproducts, and concentrations are expected to continue to reduce over time.

Monitoring activities will continue, as determined by the NYSDEC project manager and in consultation with NYSDOH project manager, as follows:

- until residual groundwater concentrations of CVOCs are found to be consistently below ambient water quality standards or the site SGVs for two consecutive rounds of quarterly sampling, or until residual groundwater concentrations of CVOCs have become asymptotic at an acceptable level over a minimum of four rounds of quarterly sampling, and

- until groundwater concentrations of fermentation byproducts (acetone and methyl ethyl ketone) display a declining trend over a minimum of three rounds of quarterly sampling.

Additional conclusions and recommendations, including the removal of two additional intervals from the sampling program, are discussed in Section 4.7.

4.3 Soil Vapor Intrusion (SVI) Evaluation

As required in the decision document, a SVI evaluation was prepared and submitted to NYSDEC on 7 March 2025 (Appendix B) and is summarized below.

As discussed in Section 1.2, an historical solvent tank was identified on the Sanborn Fire Insurance Maps in the northern portion of the Site from 1951 to 2005. Subsequent testing of on-Site soil, groundwater, and soil vapor during the 2021/2022 Phase II Environmental Site Investigation (ESI) and 2022 RI revealed chlorinated VOC impacts to soil, groundwater, and soil vapor at concentrations exceeding NYSDEC and NYSDOH standards. As part of the site remediation, an approximately 30-foot-long-by-20-foot-wide area was excavated between 6 feet bsl to the top of bedrock (approximately 18.5 feet bsl) for the removal of CVOCs in saturated soil in the contamination source area where the historical solvent tank was formerly located. Based on the final confirmation sample analytical results, Track 1 Unrestricted Use SCOs were achieved at all excavation base and sidewall samples collected, with the exception of one sample. However, excavation for the entire Site was advanced to the bedrock interface, resulting in the removal of all soil with VOCs present at concentrations above Track 1 Unrestricted Use SCOs. As such, all soil related to the CVOC source area was removed from the Site.

As discussed in Section 4.2, an EZVI injection was performed in 2023 and a second, focused EZVI injection was performed in 2024 to support the abiotic and biological degradation of chlorinated VOCs in groundwater. As documented in Section 4.2.7, maximum concentrations of PCE and TCE decreased by an order of magnitude following the 2023 EZVI injections and were not detected above laboratory reporting limits during either the August or November 2024 or March 2025 performance monitoring events following the May 2024 EZVI targeted injections.

There are no known potential pathways for soil vapor intrusion into the building through the newly constructed 12-inch building slab and foundation walls, which were constructed with an exterior waterproofing membrane. The new building is constructed immediately above bedrock and no residual contaminated soil remains beneath the building, as all soil across the Site footprint was excavated as part of the completed remedial action and cellar construction advanced into bedrock. In addition, based on observations made during site visits in January and February 2025, groundwater is present immediately below the subcellar slab elevation, as shown in the photolog included with the memorandum in Appendix B. PVC sleeve penetrations were installed through the subcellar slab during foundation construction which were intended to be completed as soil vapor monitoring points. However, vapor monitoring points could not be installed at the Site as groundwater was observed immediately below the slab at four of the proposed locations. As

such, there is limited to no potential for the production or accumulation of soil vapor between the water table and the base of the subcellar slab. Based on the soil and groundwater remedies implemented at the Site and the 7 March 2025 soil vapor intrusion evaluation, engineering controls relating to soil vapor intrusion are not necessary, because on-site sources of contamination have been removed and the construction of the new building directly on top of rock and within the groundwater table limits the potential for soil vapor production and accumulation.

4.4 Annual Site-Wide Inspections

The annual site-wide inspection was conducted on 10 March 2024. This consisted of spot inspections of all ECs and verification of ICs. All IC/EC components inspected were functioning in compliance with the SMP, and the site use was consistent with, at minimum, restricted-residential requirements. The completed site-wide inspection form is included in Appendix E.

4.5 Comparisons with Remedial Objectives

Remedial action objectives (RAOs) were identified in the RAWP for the protection and public health and the environmental.

Regarding the soil RAOs, no soil contamination remains as the entire Site footprint was excavated into bedrock and a Track 1 Unrestricted Use remedy was achieved for the Site. Similarly for soil vapor, as discussed in Section 4.3, soil vapor intrusion is not considered a concern for the new development due to the source removal, groundwater treatment, and construction of the new building directly on top of rock and within the groundwater table.

As discussed in Sections 4.2.1 through 4.2.7, the groundwater monitoring analytical results across the four performance monitoring events completed during the certification period revealed that PCE and daughter products have been successfully reduced to either non-detect, concentrations below the SGVs, or not detected above the elevated laboratory reporting limit. The presence of elevated fermentation byproducts concentrations are expected to continue to reduce over time. Recommendations for continued monitoring in the 2025-2026 certification period are provided in Section 4.7. The need for continued groundwater monitoring beyond the 2025-2026 period will be evaluated as part of the 2025-2026 PRR.

4.6 Monitoring Deficiencies

No deficiencies were identified during the site-wide inspection or groundwater performance monitoring events.

4.7 Conclusions and Recommendations

Changes to the SMP are proposed in the revised, draft June 2025 (revised August 2025) SMP, that will be submitted following this PRR. In addition to the already-approved elimination of LMW-9R-D, LMW-10R-D, and two of the intervals at LMW-6R-D from the groundwater sampling program, the elimination of the following two additional sampling intervals from the sampling program is proposed for all future sampling events based on the March 2025 analytical results discussed in Section 4.2.5:

- LMW-6R-S (el -4 to -9), due to CVOCs, methyl ethyl ketone, and acetone either not being detected or being detected below the SGVs for two consecutive sampling events (November 2024 and March 2025); and,

- LMW-8R-D (el -13 to -20), due to CVOCs, methyl ethyl ketone, and acetone either not being detected or being detected below the SGVs for three consecutive sampling events (August and November 2024 and March 2025, with elevated reporting limits for three CVOCs in November).

LMW-6R-S is proposed to be removed from the monitoring plan as PCE, breakdown products, chloroform, and fermentation byproducts were not detected above the SGVs in the November 2024 or March 2025 performance monitoring events. Similarly, these compounds were not detected above the SGVs in August or November 2024 or March 2025 at the el -13 to -20 interval at LMW-8R-D. In an email dated 8 July 2025, NYSDEC approved this modification to the sampling program provided that a sentinel well remained in the program.

Downgradient monitoring well LMW-10R-S was initially proposed to NYSDEC to be removed from the program due to the reduction of PCE and breakdown products within the source area, the limited lateral extents of impacts at the Site, the limited impacts at this well during the baseline event, and the lack of CVOC or fermentation byproduct impacts detected above the SGVs during the November 2024 and March 2025 events. However, during a call with NYSDEC on 11 August 2025, it was determined that LMW-10R-S would remain in the program as the sentinel well.

In addition to the downgradient well LMW-10R-S, continued monitoring is proposed for the following eight intervals at the monitoring wells in the list below. As discussed above, the potential for these bedrock fractures to produce the necessary groundwater sample volume will continue to be evaluated during future sampling events.

- LMW-6R-D (el -38 to -45), due to elevated concentrations of acetone in November 2024 and an inability to collect sufficient sample volume for analysis in March 2025; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in the acetone concentrations.

- LMW-7R-S (el 8 to 3), due to elevated concentrations of CVOCs in August 2024 followed by elevated reporting limits for CVOCs in November 2024, elevated concentrations of acetone and methyl ethyl ketone detected in August and November 2024, and an inability to collect sufficient sample volume for analysis in March 2025; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in the CVOC, acetone, and methyl ethyl ketone concentrations.

- LMW-7R-S (el -2 to -7), due to elevated concentrations of PCE and breakdown products in February 2024, elevated reporting limits for CVOCs in August and November 2024, an elevated concentration of acetone in November 2024 following an elevated reporting limit for acetone in August 2024, and an inability to collect sufficient sample volume for analysis March 2025; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in CVOC and acetone concentrations.

- LMW-7R-D (el -9 to -14), LMW-8R-S (el 8 to 3), LMW-8R-D (el -43 to -50), and LMW-9R-S (el 1 to -5) due to elevated concentrations of acetone and/or methyl ethyl ketone detected in August and November 2024 and March 2025, and elevated reporting limits for CVOCs in November 2024 and March 2025; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in the CVOC, acetone, and methyl ethyl ketone concentrations.

- LMW-8R-S (el -2 to -9), due to an elevated concentration of methyl ethyl ketone in November 2024 that has since reduced to below the SGVs in March 2025; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in methyl ethyl ketone concentrations.

5.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

5.1 SMP Compliance

Each component of the SMP, including the IC/EC Plan and Monitoring and Sampling Plan, was in compliance for the certification period.

5.2 Remedy Performance Evaluation

5.2.1 Groundwater Monitoring

Groundwater monitoring was implemented per the NYSDECE-approved December 2023 SMP. Based on the groundwater sampling results for the 2023-2025 certification period, Langan proposes the revised sampling plan presented in Section 4.7 and in accordance with the revised, draft June 2025 SMP. The need for continued groundwater monitoring beyond the 2025-2026 reporting period will be evaluated as part of the 2025-2026 PRR.

5.2.2 IC Components

All ICs were maintained during the 2023-2025 certification period, and the environmental easement remains effective.

5.3 Future Submittals

Site-wide inspections and quarterly groundwater performance monitoring will continue to be conducted as specified in the Reporting Plan of the revised, draft June 2025 SMP. Forms and other information generated during regular monitoring events and inspections will be submitted at the time of the annual Periodic Review Report.

6.0 CERTIFICATION OF IC/ECS

6.1 IC/EC Certification Form

The completed IC/EC Certification Form is presented in Appendix F.

6.2 IC/EC Certification

I, Jessica Friscia, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program for the 1487 1st Avenue Redevelopment Site (NYSDEC BCP Site No. C231152).

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and,
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Jessica Friscia, of Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C., am certifying as the Remedial

Party's Designated Site Representative: I have been authorized and designated by all site owners/remedial parties to sign this certification for the site.

099567	21 August 2025	Jessica Friscia
New York State Professional Engineer No.	Date	Signature

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

TABLES

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6RS_21.5	LMW-6RS_20.5	LMW-6RS_31	LMW-6RS_18.75	LMW-6RS_18.75	LMW-6RS_18.75	LMW-6RS_18.75	LMW-6RD_46	LMW-6RD_47.75	LMW-6RD_32.75	LMW-6RD_32.75	LMW-6RD_32.75
			Sample Date	09/29/2022	12/28/2022	09/29/2022	02/14/2024	8/13/2024	11/22/2024	3/5/2025	09/29/2022	12/28/2022	02/13/2024	08/12/2024	11/20/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	21.5	20.5	31	18.75-23.75	18.75-23.75	18.75-23.75	18.75-23.75	46	47.75	32.75-37.75	32.75-37.75	32.75-37.75
			Sample El.	9.77 - 7.77	10.77 - 5.77	0.27 - -1.73	-4 - -9	-4 - -9	-4 - -9	-4 - -9	-14.43 - -16.43	-16.18 - -21.18	-18 - -23	-18 - -23	-18 - -23
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 UJ	<15 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 UJ	<2 U	<2 U	0.55 J	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	1 J	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.27 J
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 UJ	<10 U	<1 UJ	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 UJ	<2 U	<2 U	0.79 J	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 UJ	<2,500 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	1.2 J	2.3 J	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	8.8	10 J	6.7	22	**390**	<50 U	21	19	4.4 J	**59**	6.5	15
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	0.72	<0.5 U	0.23 J	0.44 J	<5 U	0.47 J	<0.5 U	<0.5 U	0.17 J	0.17 J	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 UJ	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	1.1 J	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	1.4 J	**25**	<2.5 U	<5 UJ	<25 U	<2.5 U	**55**	**7.4**	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**29**	**16**	3.3	<5 UJ	<25 U	<2.5 U	4.3	3.1	1.2 J	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	1 J	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	1.1 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1 J	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	4.8 J	**420**	<50 U	24	2.7 J	<5 U	**57**	3.2 J	8.3
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	2.1 J	<50 U	2.8 J	<5 U	<5 U	<5 UJ	1 J	<5 U
Methylene Chloride	75-09-2	5	ug/l	2.6	<2.5 U	2.9	<2.5 U	<5 UJ	<25 U	<2.5 U	3.9	1.6 J	<2.5 U	<2.5 U	1.7 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.87 J	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**25**	**10**	**24**	0.28 J	<1 UJ	<5 U	<0.5 UJ	0.19 J	0.57	<0.5 U	<0.5 U	1.1
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	**8.3**	3.4 J	<25 U	**9.3**	<2.5 U	1.5 J	**13**	3.4	**7.6**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	29	16	3.3	<5 UJ	<25 U	<2.5 U	4.3	3.1	1.2 J	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1.9 J	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**10**	**6.3**	**9.7**	0.31 J	<1 UJ	<5 U	<0.5 U	0.29 J	0.33 J	<0.5 U	<0.5 U	0.35 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.31 J	<1 U	0.34 J	**2.8**	0.14 J	<10 U	0.19 J	<1 U	<1 U	1.2	0.36 J	0.46 J
Metals															
Calcium	7440-70-2	NS	ug/l	NA	220,000	NA	133,000	NA	NA	NA	NA	90,800	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	788,400	NA	411,500	NA	NA	NA	NA	235,400	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**14,900**	NA	**25,700**	NA	NA	NA	NA	**7,230**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**58,100**	NA	19,200	NA	NA	NA	NA	2,140	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**2,978**	NA	**666**	NA	NA	NA	NA	108	NA	NA	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	NA	494,000	NA	NA	NA	NA	193,000 J	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	110,000	NA	180,000	NA	NA	NA	NA	25,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	8,200	NA	14,000	NA	NA	NA	NA	8,000 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	93 J	NA	100	NA	NA	NA	NA	<100 U	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**580,000**	NA	3,500 J	NA	NA	NA	NA	55,000	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	8,400	NA	15,000	NA	NA	NA	NA	7,600	NA	NA	NA

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6R-D_42.75	LMW-6R-D_42.75	LMW-6R-D_42.75	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-D_54.75	LMW-6R-D_54.75	LMW-6R-D_54.75
			Sample Date	02/13/2024	08/15/2024	11/20/2024	09/29/2022	09/29/2022	02/13/2024	08/14/2024	11/20/2024
			Sample Event	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	42.75-47.75	42.75-47.75	42.75-47.75	70	75	52.75-59.75	42.75-47.75	42.75-47.75
			Sample El.	-28 - -33	-28 - -33	-28 - -33	-38.43 - -40.43	-43.43 - -45.43	-38 - -45	-38 - -45	-38 - -45
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.21 J	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	0.95 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.74 J	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.28 J
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 UJ	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	**51**	15	13	17	33	44	6.1	**54**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2.3 J
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	**56**	**55**	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	1.2 J	<2.5 U	<2.5 U	4	3.8	0.8 J	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	**53**	6.3	7.6	<5 UJ	<5 U	**55**	3.3 J	9.7
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	0.73 J	4	3.6	0.81 J	<2.5 U	1.6 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.67	0.18 J	<0.5 U	<0.5 U	<0.5 U	0.63
Toluene	108-88-3	**5**	ug/l	**12**	3.1	**7.6**	<2.5 U	<2.5 U	**7.8**	<2.5 U	**5.8**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	1.2 J	<2.5 U	<2.5 U	4	3.8	0.8 J	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	0.18 J	0.18 J	0.34 J	0.18 J	<0.5 U	<0.5 U	0.23 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1	0.38 J	0.5 J	0.09 J	0.12 J	0.61 J	<1 U	0.33 J
Metals											
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry											
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S
			Sample Name	LMW-7R-S_21.5	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_27	LMW-7R-S_6.75	LMW-7R-S_6.75	LMW-7R-S_6.75	LMW-7R-S_39	LMW-7R-S_38	LMW-7R-S_16.75	LMW-7R-S_16.75	LMW-7R-S_16.75
			Sample Date	09/29/2022	12/19/2022	12/20/2022	09/29/2022	02/13/2024	08/12/2024	11/22/2024	09/29/2022	12/21/2022	02/13/2024	8/13/2024	11/21/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	21.5	20	25.5	27	6.75-11.75	6.75-11.75	6.75-11.75	39	38	16.75-21.75	16.75-21.75	16.75-21.75
			Sample El.	12.67 - 10.67	14.17 - 9.17	8.67 - 3.67	7.17 - 5.17	8 - 3	8 - 3	8 - 3	-4.83 - -6.83	-3.83 - -8.83	-2 - -7	-2 - -7	-2 - -7
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<15 UJ	<60 U	<7.5 U	<3.8 U	<7.5 U	<3,000 U	<7.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.53 J	0.34 J	0.47 J	0.69 J	<2.5 U	<5 UJ	<20 U	0.88 J	0.75 J	<2.5 U	<1,000 U	<2.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<1 U	<2 U	<2.5 U	<5 U	<10 UJ	<40 U	<5 U	<2.5 U	<5 U	<2,000 U	<5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 U	<250 U	<500 U	<620 UJ	<1,200 U	<2,500 UJ	<10,000 U	<1,200 U	<620 U	<1,200 U	<500,000 U	<1,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<5 UJ	<10 U	<12 U	<25 U	12 J	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
Acetone	67-64-1	50	ug/l	34	<5 U	6 J	25	9.1 J	**220 J**	**170 J**	26	26	<25 U	<10,000 U	**64**
Acrylonitrile	107-13-1	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Benzene	71-43-2	**1**	ug/l	0.63 J	0.52	0.47 J	0.46 J	<2.5 U	<5 UJ	<20 U	<2.5 U	0.51 J	<2.5 U	<1,000 U	<2.5 U
Bromobenzene	108-86-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Bromoform	75-25-2	50	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
Bromomethane	74-83-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Chloroethane	75-00-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Chloroform	67-66-3	**7**	ug/l	2.9 J	<2.5 U	<5 U	2.5 J	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	3.8 J
Chloromethane	74-87-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**330**	**120**	**340**	**390**	**500**	**42 J**	<100 U	**480**	**400**	**560**	<5,000 U	<12 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Cymene	99-87-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Dibromomethane	74-95-3	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 U	<5 U	<10 U	<12 UJ	<25 U	**3,400**	**640**	<25 U	<12 U	<25 U	<10,000 U	42
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 UJ	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	**9.1 J**	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Naphthalene	91-20-3	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Styrene	100-42-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**11**	**20**	**43**	**23**	**21**	<5 UJ	<20 U	**31**	**50**	**25**	<1,000 U	<2.5 U
Toluene	108-88-3	**5**	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	**5.3 J**	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	330	120	340 J	390	500 J	42 J	<100 U	480	400 J	570 J	<5,000 U	<12 U
Total Xylenes	1330-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<2.5 U	1.9 J	<6.2 U	4 J	<25 UJ	<100 U	<12 U	2 J	**5.1 J**	<5,000 U	<12 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**50**	**18**	**56**	**90**	**21**	<5 UJ	<20 U	**110**	**61**	**25**	<1,000 U	<2.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1 J	0.44 J	0.64 J	1.1 J	**46**	**4 J**	<40 U	1.2 J	0.71 J	**70**	<2,000 U	<5 U
Metals															
Calcium	7440-70-2	NS	ug/l	NA	200,000	234,000	NA	NA	124,000	NA	NA	236,000	371,000	660,000 J	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	800,300	864,600	NA	NA	450,100	NA	NA	1,048,000	1,413,000	2,566,000	NA
Iron	7439-89-6	**300**	ug/l	NA	**17,700**	**29,500**	NA	NA	**302,000**	NA	NA	**76,300**	**88,200**	**1,860,000 J**	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**73,100**	**67,700**	NA	NA	34,200	NA	NA	**111,000**	**118,000**	**223,000 J**	NA
Manganese	7439-96-5	**300**	ug/l	NA	**5,733**	**4,074**	NA	NA	**860.3**	NA	NA	**8,344**	**6,149**	**9,277 J**	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	128,000	NA	NA	2,060,000 J	NA	NA	129,000	166,000	3,260,000 J	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	**520,000**	**600,000**	NA	NA	100,000	NA	NA	**600,000**	**1,200,000**	**490,000**	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	2,400 J	1,100	NA	NA	3,500,000	NA	NA	2,500	<2,000 U	7,100,000	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	261	212	NA	NA	100	NA	NA	175	117	107	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**520,000**	**510,000**	NA	NA	<10,000 U	NA	NA	**510,000**	150,000	<100,000 U	NA
Total Organic Carbon	TOC	NS	ug/l	NA	2,200	920	NA	NA	3,500,000	NA	NA	2,300	<1,000 U	7,700,000	NA

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs		Location	LMW-7R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D
				Sample Name	LMW-7R-S_42.5	LMW-7R-D_42	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_48	LMW-7R-D_66	LMW-7R-D_68.5	LMW-7R-D_49.75	LMW-7R-D_75
				Sample Date	09/29/2022	12/21/2022	02/13/2024	8/13/2024	11/22/2024	3/7/2025	09/29/2022	12/21/2022	09/29/2022	02/13/2024	09/29/2022
				Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections
				Sample Depth	42.5	42	23.75-28.75	23.75-28.75	23.75-28.75	23.75-28.75	48	66	68.5	49.75-54.75	75
				Sample El.	-8.33 - -10.33	-8.66 - -13.66	-9 - -14	-9 - -14	-9 - -14	-9 - -14	-13.83 - -15.83	-32.66 - -37.66	-35.16 - -37.16	-35 - -40	-41.66 - -43.66
				Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l		<7.5 U	<3 U	<6 U	<15 U	<380 U	<75 U	<3 U	<1.5 U	<3 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l		1.2 J	0.42 J	<2 U	<5 U	<120 U	<25 U	<1 U	0.31 J	<1 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l		<5 U	<2 U	<4 U	<10 U	<250 U	<50 U	<2 U	<1 U	<2 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l		<1,200 U	<500 U	<1,000 U	<2,500 U	<62,000 U	<12,000 U	<500 U	<250 U	<500 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l		30	9.5 J	**54**	**140**	**480 J**	**1,400 J**	31	6	23	**53**	19
Acrylonitrile	107-13-1	5	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 UJ	<10 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l		<2.5 U	0.77 J	<2 U	<5 U	<120 U	<25 U	**1.1**	0.52	**1.1**	0.29 J	0.34 J
Bromobenzene	108-86-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	1.8 J
Chloromethane	74-87-3	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l		**710**	**220**	**29**	<25 U	<620 U	<120 U	**170**	**160**	**180**	**20**	**100**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l		<25 U	<10 U	**410**	**4,000**	**6,100**	**5,600**	<10 U	2 J	<10 UJ	**420**	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l		<25 U	<10 U	<20 UJ	<50 U	<1,200 U	<250 U	<10 U	<5 UJ	<10 U	<5 UJ	<5 U
Methylene Chloride	75-09-2	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l		**26**	**18**	1.2 J	<5 U	<120 U	<25 U	**12**	2.5	**9.4**	0.28 J	2.1
Toluene	108-88-3	**5**	ug/l		<12 U	<5 U	4.2 J	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	4.2	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l		710	220	29	<25 U	<620 U	<120 U	170	160	180	20	100
Total Xylenes	1330-20-7	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l		**86**	**22**	1 J	<5 U	<120 U	<25 U	**20**	**16**	**20**	0.21 J	**8.2**
Trichlorofluoromethane	75-69-4	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l		1.6 J	0.62 J	**17**	<10 U	<250 U	<50 U	1 J	**4.4**	1 J	**27**	1
Metals															
Calcium	7440-70-2	NS	ug/l		NA	205,000	NA	NA	NA	NA	NA	146,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l		NA	995,100	NA	NA	NA	NA	NA	547,900	NA	NA	NA
Iron	7439-89-6	**300**	ug/l		NA	**98,500**	NA	NA	NA	NA	NA	**25,600**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l		NA	**117,000**	NA	NA	NA	NA	NA	**44,200**	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l		NA	**7,510**	NA	NA	NA	NA	NA	**2,320**	NA	NA	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l		NA	119,000	NA	NA	NA	NA	NA	187,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l		NA	**340,000**	NA	NA	NA	NA	NA	190,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l		NA	3,700	NA	NA	NA	NA	NA	8,900 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l		NA	429	NA	NA	NA	NA	NA	89 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l		NA	**610,000**	NA	NA	NA	NA	NA	**670,000**	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l		NA	3,100	NA	NA	NA	NA	NA	9,200 J	NA	NA	NA

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S
			Sample Name	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-8R-S_24.75	LMW-8R-S_6.75	DUP01_021424	LMW-8R-S_6.75	LMW-8R-S_6.75	LMW-8R-S_6.75	LMW-8R-S_18.75	LMW-8R-S_18.75	LMW-8R-S_18.75	LMW-8R-S_18.75
			Sample Date	09/29/2022	09/29/2022	09/29/2022	12/22/2022	02/14/2024	02/14/2024	8/15/2024	11/22/2024	3/7/2025	02/14/2024	8/12/2024	11/22/2024	3/5/2025
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	17.5	22.5	27	24.75	6.75-11.75	6.75-11.75	6.75-11.75	6.75-11.75	6.75-11.75	16.75-23.75	16.75-23.75	16.75-23.75	16.75-23.75
			Sample El.	14.68 - 12.68	9.68 - 7.68	5.18 - 3.18	7.43 - 2.43	8 - 3	8 - 3	8 - 3	8 - 3	8 - 3	-2 - -9	-2 - -9	-2 - -9	-2 - -9
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
1,1,1-Trichloroethane	71-55-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<7.5 U	<7.5 U	<7.5 U	<3.8 U	<1.5 U	<1.5 U	<3.8 U	<15 U	<3.8 U	<1.5 U	<1.5 U	<38 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.74 J	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 UJ
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<5 U	<5 U	<5 U	<2.5 U	<1 U	<1 U	<2.5 U	<10 U	<2.5 U	<1 U	<1 U	<25 U	<1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
1,3-Dichloropropane	142-28-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<1,200 UJ	<1,200 U	<1,200 UJ	<620 U	<250 U	<250 U	<620 U	<2,500 U	<620 U	<250 U	<250 U	<6,200 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	25 J	3.6 J	<5 U	<5 U	<120 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 U
Acetone	67-64-1	50	ug/l	27	17 J	26	<12 U	13	14	**120**	**140**	9.5 J	3.5 J	17	43 J	**180**
Acrylonitrile	107-13-1	5	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<50 U	<5 U	<5 U	<1.2 U	<120 U	<5 U
Benzene	71-43-2	**1**	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	0.31 J	0.29 J	0.48 J	<5 U	0.54 J	0.18 J	0.2 J	<12 U	0.18 J
Bromobenzene	108-86-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Bromochloromethane	74-97-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 UJ
Bromomethane	74-83-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	5.4 J	<5 U	<5 U	<120 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**190**	**190**	**180**	**390**	**14**	**17**	<6.2 U	<25 U	<6.2 U	2.9	0.88 J	<62 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Cymene	99-87-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<12 U	<5 U	<5 U	<120 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<12 U	<5 U	<5 U	<120 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	2.7 J	<2.5 U	<2.5 U	<62 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
M,P-Xylene	179601-23-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1.2 J	1.4 J	<6.2 U	<25 U	3.5 J	<2.5 U	<2.5 U	<62 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<25 UJ	<25 U	<25 UJ	<12 UJ	2 J	<5 U	**360**	**1,000**	15	7.1	12	**210**	8.7
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<50 U	2.6 J	<5 U	<5 U	<120 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
n-Propylbenzene	103-65-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1 J	1.2 J	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Sec-Butylbenzene	135-98-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Styrene	100-42-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**600**	**640**	**570**	**63**	0.54	0.64	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 UJ
Toluene	108-88-3	**5**	ug/l	<12 U	<12 U	<12 U	<6.2 U	**8.7**	**10**	<6.2 U	<25 U	**18**	2.3 J	3.5	<62 U	1.5 J
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	190	190	180	390 J	14	17	<6.2 U	<25 U	<6.2 U	2.9	0.88 J	<62 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	2.2 J	2.6 J	<6.2 U	<25 U	3.5 J	<2.5 U	<2.5 U	<62 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<12 U	<12 U	<12 U	1.8 J	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**390**	**390**	**350**	**52**	0.56	0.7	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<12 U	<5 U	<5 U	<120 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.42 J	<5 U	0.41 J	1.2 J	**4.4**	**5.2**	0.2 J	<10 U	<2.5 U	1.6	1.3	<25 U	0.53 J
Metals																
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	234,000	127,000	NA	353,000	NA	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	868,600	398,900	NA	1,327,000	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**34,200**	**8,330**	NA	**1,180,000**	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	**68,700**	19,900	NA	**108,000**	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**6,069**	**662.1**	NA	**2,066**	NA	NA	NA	NA	NA	NA
General Chemistry																
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	155,000	260,000	NA	1,840,000 J	NA	NA	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	**340,000**	**410,000**	NA	88,000	NA	NA	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	4,400 J	6,600	NA	5,400,000 J	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	116	164	NA	89 J	NA	NA	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	**600,000**	30,000	NA	<10,000 U	NA	NA	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	3,800	6,700	NA	2,800,000 J	NA	NA	NA	NA	NA	NA

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NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs		Location	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D
				Sample Name	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_47.25	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_56.75	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-D_76	LMW-8R-D_59.75	LMW-8R-D_59.75	LMW-8R-D_59.75	LMW-8R-D_59.75
				Sample Date	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024	11/22/2024	3/5/2025	12/27/2022	09/29/2022	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024	11/22/2024	3/5/2025
				Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
				Sample Depth	46.5	48.5	47.25	27.75-34.75	27.75-34.75	27.75-34.75	27.75-34.75	56.75	58	73	77	76	57.75-64.75	57.75-64.75	57.75-64.75	57.75-64.75
				Sample El.	-15.19 - -17.19	-17.19 - -19.19	-15.94 - -20.94	-13 - -20	-13 - -20	-13 - -20	-13 - -20	-20.44 - -25.44	-26.69 - -28.69	-41.69 - -43.69	-45.69 - -47.69	-44.69 - -49.69	-43 - -50	-43 - -50	-43 - -50	-43 - -50
				Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,1,1-Trichloroethane	71-55-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
1,1,2-Trichloroethane	79-00-5	1	ug/l		<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<6 U	<30 U	<30 U
1,1-Dichloroethane	75-34-3	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,1-Dichloroethene	75-35-4	5	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
1,1-Dichloropropene	563-58-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l		<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 UJ	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l		<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l		<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
1,2-Dichlorobenzene	95-50-1	3	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2-Dichloroethane	107-06-2	0.6	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
1,2-Dichloropropane	78-87-5	1	ug/l		<1 U	<1 U	<1 U	<1 U	<1 U	<5 U	<1 UJ	<1 U	<1 U	<1 U	<2 U	<1 U	<1 U	<4 U	<20 U	<20 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,3-Dichlorobenzene	541-73-1	3	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,3-Dichloropropane	142-28-9	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,4-Dichlorobenzene	106-46-7	3	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l		<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 UJ	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l		<250 U	<250 U	<250 U	<250 U	<250 U	<1,200 U	<250 U	<250 U	<250 UJ	<250 U	<500 U	<250 U	<250 U	<1,000 U	<5,000 U	<5,000 U
2,2-Dichloropropane	594-20-7	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
2-Chlorotoluene	95-49-8	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
2-Hexanone (MBK)	591-78-6	50	ug/l		<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	7.4 J	<100 U	<100 U
4-Chlorotoluene	106-43-4	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
4-Ethyltoluene	622-96-8	NS	ug/l		<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
Acetone	67-64-1	50	ug/l		8.5	10	24 J	**69**	1.6 J	<25 U	<4.9 U	29 J	11	28	17	5.5 J	**52**	**300**	**920**	**380**
Acrylonitrile	107-13-1	5	ug/l		<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Benzene	71-43-2	**1**	ug/l		<0.5 U	<0.5 U	0.16 J	**3.8**	0.95	**1.2 J**	**1.3**	**2**	<0.5 U	<0.5 U	**31**	**5.5**	**8.1**	0.8 J	<10 U	<10 U
Bromobenzene	108-86-1	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Bromochloromethane	74-97-5	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Bromodichloromethane	75-27-4	50	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Bromoform	75-25-2	50	ug/l		<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 UJ	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
Bromomethane	74-83-9	5	ug/l		<2.5 U	<2.5 U	<2.5 U	0.94 J	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Carbon Disulfide	75-15-0	60	ug/l		<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Carbon Tetrachloride	56-23-5	5	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 UJ
Chlorobenzene	108-90-7	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Chloroethane	75-00-3	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Chloroform	67-66-3	**7**	ug/l		1.5 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Chloromethane	74-87-3	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l		0.8 J	0.85 J	**8.2**	1.3 J	1.2 J	<12 U	1.3 J	**7.7**	1 J	0.86 J	**200**	**47**	2.3 J	<10 U	<50 U	<50 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Cymene	99-87-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Dibromochloromethane	124-48-1	50	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Dibromomethane	74-95-3	5	ug/l		<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Dichlorodifluoromethane	75-71-8	5	ug/l		<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 UJ
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Ethylbenzene	100-41-4	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Hexachlorobutadiene	87-68-3	0.5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
M,P-Xylene	179601-23-1	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l		<5 U	<5 U	8.7	**82**	<5 U	<25 U	3.6 J	4.6 J	<5 UJ	<5 U	<10 U	<5 U	**120**	**470**	**760**	580 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l		<5 U	<5 U	1.5 J	<5 UJ	1.7 J	<25 U	3.2 J	<5 U	<5 U	<5 U	<10 U	<5 U	<5 UJ	<20 U	<100 U	<100 U
Methylene Chloride	75-09-2	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	3 J	<50 U	<50 U
Naphthalene	91-20-3	10	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
n-Butylbenzene	104-51-8	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
n-Propylbenzene	103-65-1	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Sec-Butylbenzene	135-98-8	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Styrene	100-42-5	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
T-Butylbenzene	98-06-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l		<0.5 U	<0.5 U	0.18 J	<0.5 U	<0.5 U	<2.5 U	<0.5 UJ	0.54	0.25 J	<0.5 U	0.41 J	0.21 J	<0.5 U	<2 U	<10 U	<10 U
Toluene	108-88-3	**5**	ug/l		<2.5 U	<2.5 U	<2.5 U	1.3 J	<2.5 U	<12 U	1.3 J	**9**	<2.5 U	<2.5 U	<5 U	2 J	<2.5 U	<10 U	<50 U	<50 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l		0.8 J	0.85 J	8.2	1.3 J	1.2 J	<12 U	1.3 J	7.7	1 J	0.86 J	200	47	2.3 J	<10 U	<50 U	<50 U
Total Xylenes	1330-20-7	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l		<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Trichloroethene (TCE)	79-01-6	**5**	ug/l		<0.5 U	<0.5 U	0.37 J	<0.5 U	<0.5 U	<2.5 U	<0.5 U	0.24 J	0.18 J	<0.5 U	0.39 J	0.24 J	<0.5 U	<2 U	<10 U	<10 U
Trichlorofluoromethane	75-69-4	5	ug/l		<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Vinyl Acetate	108-05-4	NS	ug/l		<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Vinyl Chloride	75-01-4	**2**	ug/l		<1 U	<1 U	<1 U	0.94 J	0.18 J	<5 U	0.24 J	1	<1 U	<1 U	**6.7**	**6.4**	**2.7**	<4 U	<20 U	<20 UJ
Metals																				
Calcium	7440-70-2	NS	ug/l		NA	NA	54,400	NA	NA	NA	NA	58,500	NA	NA	NA	95,000	NA	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l		NA	NA	174,600	NA	NA	NA	NA	185,100	NA	NA	NA	303,800	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l		NA	NA	**5,660**	NA	NA	NA	NA	**9,480**	NA	NA	NA	**6,650**	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l		NA	NA	9,420	NA	NA	NA	NA	9,450	NA	NA	NA	16,200	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l		NA	NA	235.1	NA	NA	NA	NA	**363.8**	NA	NA	NA	**448.3**	NA	NA	NA	NA
General Chemistry																				
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l		NA	NA	85,800 J	NA	NA	NA	NA	116,000	NA	NA	NA	141,000	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l		NA	NA	54,000	NA	NA	NA	NA	48,000	NA	NA	NA	83,000	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l		NA	NA	6,900	NA	NA	NA	NA	8,700	NA	NA	NA	4,000 J	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l		NA	NA	27 J	NA	NA	NA	NA	104	NA	NA	NA	44 J	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l		NA	NA	140,000	NA	NA	NA	NA	130,000	NA	NA	NA	130,000	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l		NA	NA	7,100	NA	NA	NA	NA	8,500	NA	NA	NA	3,500	NA	NA	NA	NA

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs		Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
				Sample Name	LMW-9R-S_22	LMW-9R-S_30.5	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76	LMW-9R-D_58.25	LMW-9R-D_58.25	LMW-9R-D_58.25	DUP_11222024
				Sample Date	09/29/2022	09/29/2022	02/13/2024	8/15/2024	11/22/2024	3/7/2025	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	02/14/2024	8/14/2024	11/22/2024	11/22/2024
				Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
				Sample Depth	22	30.5	13.75-19.75	13.75-19.75	13.75-19.75	13.75-19.75	43.5	46.5	60.5	63.5	76	55.25-63.25	55.25-63.25	55.25-63.25	55.25-63.25
				Sample EI.	11.34 - 9.34	2.84 - 0.84	1 - -5	1 - -5	1 - -5	1 - -5	-10.16 - -12.16	-13.16 - -15.16	-26.6 - -28.6	-29.6 - -31.6	-42.1 - -44.1	-40.5 - -48.5	-40.5 - -48.5	-40.5 - -48.5	-40.5 - -48.5
				Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																			
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l		<1 U	<1.2 U	0.18 J	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l		<3 U	<3.8 U	<1.5 U	<38 U	<75 U	<15 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2,3-Trichlorobenzene	87-61-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l		<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l		<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l		<2 U	<2.5 U	<1 U	<25 U	<50 U	<10 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l		<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l		<500 UJ	<620 UJ	<250 U	<6,200 U	<12,000 U	<2,500 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l		<10 U	<12 U	1.2 J	<120 U	**62 J**	22 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l		<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l		16	26	**100**	**650**	**1,200**	**70 J**	8.4	6.8	20	6.2	13	9.7	2.2 J	2 J	3 J
Acrylonitrile	107-13-1	5	ug/l		<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l		**8.5**	**7.4**	**1.3**	<12 U	<25 U	<5 U	0.6	0.56	0.65	**1.6**	0.19 J	**5.7**	**3.9**	**3.2**	**3**
Bromobenzene	108-86-1	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.33 J
Bromoform	75-25-2	50	ug/l		<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l		<10 U	<12 U	<5 U	<120 U	<250 U	14 J	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l		**7.9**	**7.5**	<2.5 U	<62 U	<120 U	<25 U	1.2 J	1.2 J	<2.5 U	3.8	**34**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.3 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l		**28**	**28**	<2.5 U	<62 U	<120 U	<25 U	**9.6**	**8.8**	**9.6**	**11**	2.3 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.43 J
Dibromomethane	74-95-3	5	ug/l		<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l		<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l		<10 UJ	<12 UJ	**82**	**3,600**	**6,000**	**360**	2 J	<5 U	1.9 J	<5 UJ	<5 U	16	<5 U	6.5 J	18 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l		<10 U	<12 U	4.3 J	<120 U	<250 U	12 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.75 J	0.65 J	0.52 J	0.7 J
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l		**190**	**250**	0.2 J	<12 U	<25 U	<5 U	2.7	2.5	2.4	2.1	0.34 J	<0.5 U	<0.5 U	0.27 J	0.22 J
Toluene	108-88-3	**5**	ug/l		<5 U	<6.2 U	**85**	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.77 J	0.77 J
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l		28	28	<2.5 U	<62 U	<120 U	<25 U	9.6	8.8	9.6	11	2.3 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l		<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l		**56**	**58**	<0.5 U	<12 U	<25 U	<5 U	0.75	0.68	0.65	0.65	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l		<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l		<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l		1 J	0.96 J	**4.6**	<25 U	<50 U	<10 U	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J	0.24 J	0.27 J	0.15 J	0.19 J
Metals																			
Calcium	7440-70-2	NS	ug/l		NA	NA	NA	374,000	NA	NA	NA	NA	NA	NA	NA	148,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l		NA	NA	NA	1,262,000	NA	NA	NA	NA	NA	NA	NA	478,100	NA	NA	NA
Iron	7439-89-6	**300**	ug/l		NA	NA	NA	**1,210,000**	NA	NA	NA	NA	NA	NA	NA	**16,700**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l		NA	NA	NA	**79,500**	NA	NA	NA	NA	NA	NA	NA	26,400	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l		NA	NA	NA	**744.2**	NA	NA	NA	NA	NA	NA	NA	**785.9**	NA	NA	NA
General Chemistry																			
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l		NA	NA	NA	3,140,000 J	NA	NA	NA	NA	NA	NA	NA	272,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l		NA	NA	NA	**460,000**	NA	NA	NA	NA	NA	NA	NA	230,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l		NA	NA	NA	9,200,000	NA	NA	NA	NA	NA	NA	NA	3,900	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l		NA	NA	NA	60 J	NA	NA	NA	NA	NA	NA	NA	<100 U	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l		NA	NA	NA	34,000	NA	NA	NA	NA	NA	NA	NA	<10,000 U	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l		NA	NA	NA	8,600,000	NA	NA	NA	NA	NA	NA	NA	2,100	NA	NA	NA

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs		Location	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S
				Sample Name	LMW-10R-S_18.25	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36	LMW-10R-D_40.5	LMW-10R-S_24.75	LMW-10R-S_24.75	LMW-10R-S_24.75	LMW-10R-S_24.75	DUP_20250306
				Sample Date	12/23/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	12/23/2022	02/13/2024	8/14/2024	11/22/2024	3/6/2025	3/6/2025
				Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
				Sample Depth	18.25	21.5	26.5	28.5	34	36	40.5	23.75-29.75	23.75-29.75	23.75-29.75	23.75-29.75	23.75-29.75
				Sample El.	12.67 - 7.67	9.42 - 7.42	4.42 - 2.42	2.42 - 0.42	-3.08 - -5.08	-5.08 - -7.08	-11.93 - -16.93	-9 - -15	-9 - -15	-9 - -15	-9 - -15	-9 - -15
				Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result		
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.17 J	<1 U	<0.5 U	<0.5 U	<0.5 U	
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<1.5 U	
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,1-Dichloroethene	75-35-4	5	ug/l	0.23 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 UJ	<2.5 U	<2.5 U	
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<1 UJ	<1 UJ	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 UJ	<2 UJ	
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<500 U	<250 U	<250 U	<250 U	
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	1.4 J	<5 U	<5 U	
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 UJ	<2.5 UJ	
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 UJ	<2 UJ	
Acetone	67-64-1	50	ug/l	2.1 J	**91**	**84**	**88**	**100**	**160**	2.3 J	30	**160**	2.7 J	5.3 J	5.1 J	
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	
Benzene	71-43-2	**1**	ug/l	0.25 J	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J	0.2 J	<0.5 U	<1 U	0.24 J	0.23 J	0.23 J	
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.81	<1 U	<0.5 U	<0.5 U	<0.5 U	
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	0.7 J	<2.5 UJ	
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.6	**13**	<5 U	<2.5 U	<2.5 U	<2.5 U	
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 UJ	<2.5 UJ	
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**140**	**100**	**110**	**90**	**91**	**92**	**18**	**7.5**	<5 U	1.5 J	1.2 J	1.1 J	
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	2.5	2.4 J	
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	0.71 J	1.6 J	1.3 J	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	21	17 J	21	24	35	<5 U	5.6	**100**	<5 U	2.3 J	2.4 J	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2.4 J	1.7 J	1 J	<5 U	
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.82 J	<5 U	<2.5 U	<2.5 U	<2.5 U	
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 UJ	<2.5 UJ	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	0.78 J	0.8 J	
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	0.84 J	0.83 J	
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**26**	2.7	2.6	2	2	2.1	2.1	0.41 J	<1 U	0.34 J	0.2 J	<0.5 U	
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	4.2 J	**6.9**	**7.7**	**7.5**	
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	140	100	110	90	91	92	18	7.5	<5 U	1.5 J	1.2 J	1.1 J	
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	0.71 J	2.4 J	2.1 J	
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 UJ	<0.5 UJ	
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**33**	**5.4**	**5.5**	4.9	4.8	4.7	1.1	0.33 J	<1 U	0.21 J	0.33 J	0.22 J	
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 UJ	<5 U	<5 U	
Vinyl Chloride	75-01-4	**2**	ug/l	0.37 J	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J	0.11 J	1.8	<2 U	0.69 J	0.32 J	<1 UJ	
Metals																
Calcium	7440-70-2	NS	ug/l	184,000	NA	NA	NA	NA	NA	97,700	NA	140,000 J	NA	NA	NA	
Hardness (As CaCO3)	HARD	NS	ug/l	693,900	NA	NA	NA	NA	NA	362,800	NA	458,900	NA	NA	NA	
Iron	7439-89-6	**300**	ug/l	**33,000**	NA	NA	NA	NA	NA	**12,600**	NA	**36,800 J**	NA	NA	NA	
Magnesium	7439-95-4	**35,000**	ug/l	**57,100**	NA	NA	NA	NA	NA	28,800	NA	26,600 J	NA	NA	NA	
Manganese	7439-96-5	**300**	ug/l	**2,861**	NA	NA	NA	NA	NA	**1,638**	NA	**1,017 J**	NA	NA	NA	
General Chemistry																
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	156,000	NA	NA	NA	NA	NA	177,000	NA	477,000 J	NA	NA	NA	
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	97,000	NA	NA	NA	NA	NA	66,000	NA	130,000	NA	NA	NA	
Dissolved Organic Carbon	DOC	NS	ug/l	5,600	NA	NA	NA	NA	NA	5,300	NA	120,000	NA	NA	NA	
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	79 J	NA	NA	NA	NA	NA	47 J	NA	40 J	NA	NA	NA	
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	**530,000**	NA	NA	NA	NA	NA	190,000	NA	<10,000 U	NA	NA	NA	
Total Organic Carbon	TOC	NS	ug/l	5,500	NA	NA	NA	NA	NA	5,700	NA	120,000	NA	NA	NA	

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D
			Sample Name	LMW-10R-D_49	LMW-10R-D_30.75	LMW-10R-D_30.75	LMW-10R-D_30.75	LMW-10R-D_40.75	LMW-10R-D_40.75	LMW-10R-D_40.75	LMW-10R-D_63
			Sample Date	09/29/2022	02/13/2024	8/14/2024	11/25/2024	02/13/2024	8/14/2024	11/25/2024	09/29/2022
			Sample Event	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections
			Sample Depth	49	26.75-35.75	26.75-35.75	26.75-35.75	40.75-45.75	40.75-45.75	40.75-45.75	63
			Sample El.	-20.43 - -22.43	-12 - -21	-12 - -21	-12 - -21	-26 - -31	-26 - -31	-26 - -31	-34.43 - -36.43
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	**100**	4.3 J	7.6	<5 U	5.1	7.8	2.9 J	**91**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	0.76	0.55	0.42 J	0.66	0.53	0.31 J	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	0.44 J	<0.5 U	<0.5 U	0.42 J	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**52**	7	<2.5 U	<2.5 U	6.4	<2.5 U	<2.5 U	**47**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	23 J	<5 U	27	<5 U	<5 U	19	<5 U	21
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	3	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.5
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.29 J	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.78	<0.5 U	<0.5 U	0.48 J	<0.5 U	<0.5 U	0.23 J	0.74
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	1.4 J	1.7 J	<2.5 U	3.4	2.7	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	1.6	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.6
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	0.63 J	<1 U	<1 U	0.75 J	0.18 J	0.16 J	<1 U
Metals											
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	153,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	NA	493,800	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	**15,200**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	NA	27,200	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	**702.8**	NA	NA	NA
General Chemistry											
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	335,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	NA	160,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	3,400	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	NA	63 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	NA	11,000	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	3,200	NA	NA	NA

Table 1
Periodic Review Report
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

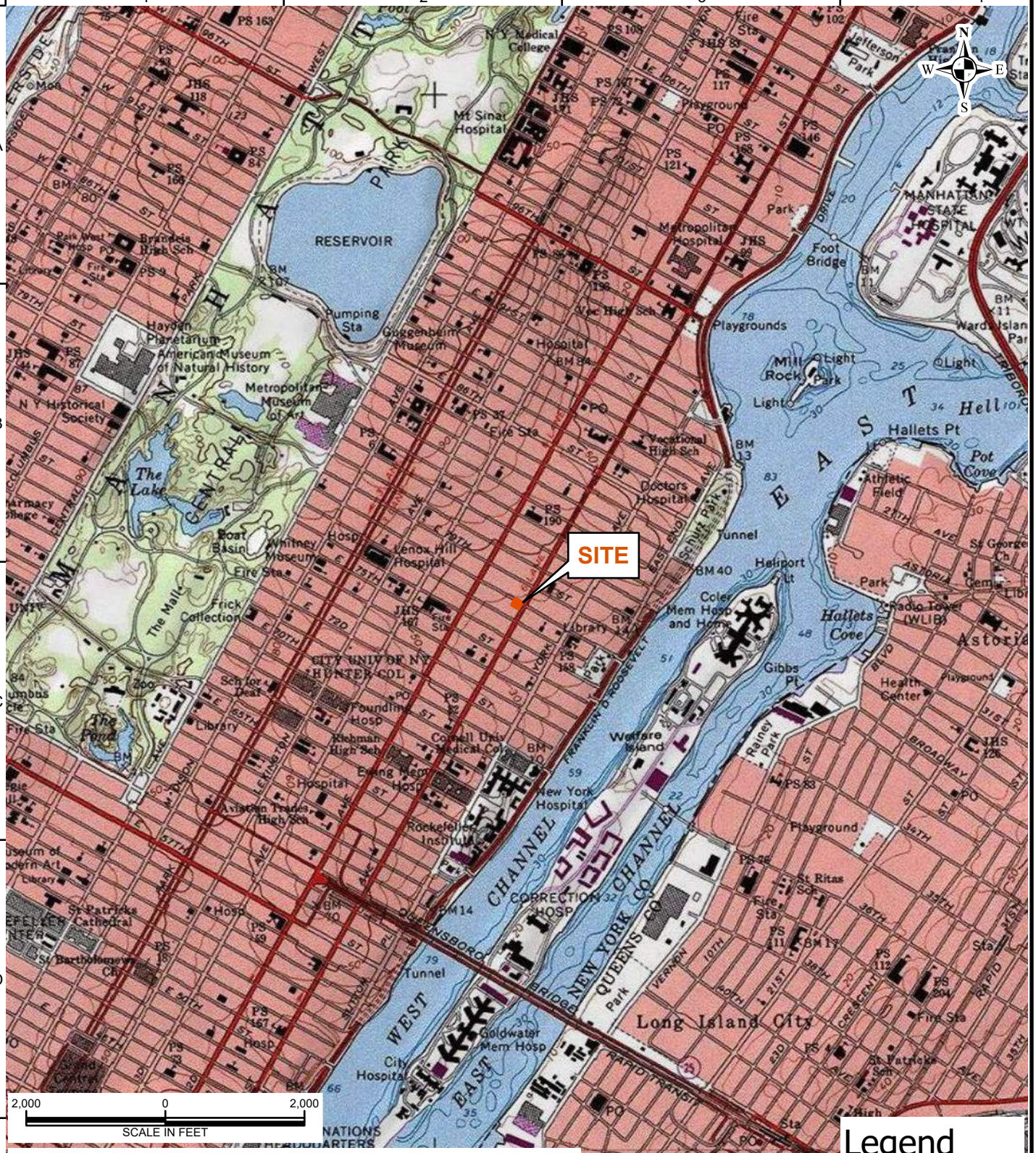
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected
The following groundwater samples and groundwater monitoring wells are not shown on Table 1 due to excavation for the basement construction: LMW-8R-S_14.5, LMW-8R-S_15, LMW-9R-S_15, LMW-10R-S_13, LMW-11R-S, LMW-11R-D, LMW-12R-S, LMW-12R-D, LMW-13R-S, and LMW-13R-D and overburden wells LMW-6, LMW-7, LMW-8, LMW-9, and LMW-10.
Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

FIGURES



Notes:
Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online © 2011 National Geographic Society, i-cubed.

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

Project
1487 1ST AVENUE REDEVELOPMENT SITE
BLOCK No. 1452, LOT No.27
MANHATTAN
NEW YORK NEW YORK

Drawing Title
SITE LOCATION MAP

Project No.	100963701
Date	7/31/2023
Scale	1"=2,000'
Drawn By	JF
Submission Date	
Figure	1

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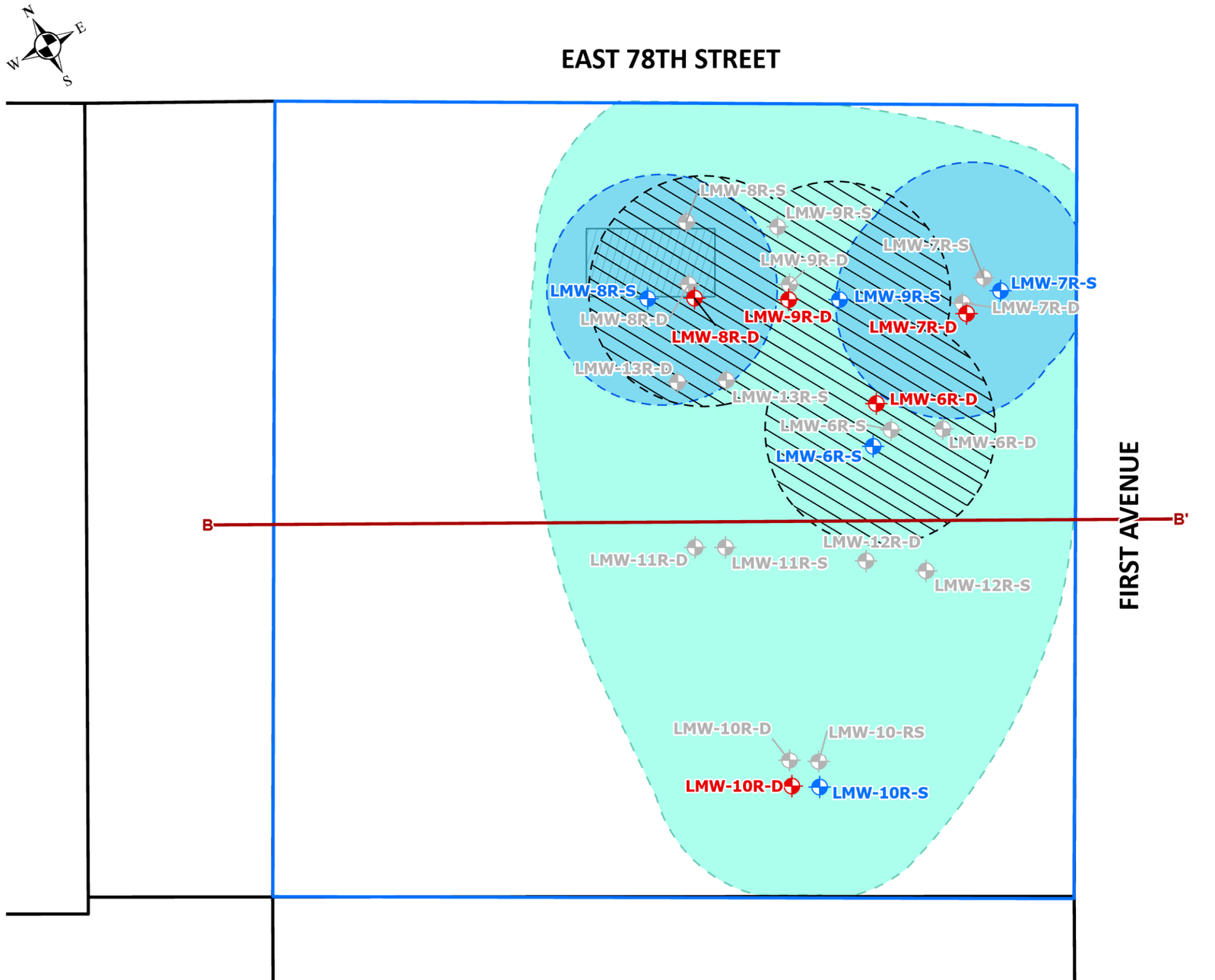
Path: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\APRX\100963701\100963701.aprx Date: 7/31/2023 User: ibaker Time: 11:27 AM



LEGEND

- SITE BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- TAX LOT BOUNDARY
- CROSS SECTION
- 2023 TREATMENT ZONE
- 2024 EZVI TREATMENT ZONE
- 2024 EVO INJECTION ZONE
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
4. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.
3. 2023 TREATMENT ZONE IS SHOWN AS PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN.

15 0 15
SCALE IN FEET

LANGAN
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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 FIRST AVENUE REDEVELOPMENT SITE
BLOCK No. 1452, LOT No. 27
MANHATTAN
NEW YORK NEW YORK

Drawing Title
SITE AND INJECTION LOCATION PLAN

Project No.	100963701
Date	2/25/2025
Scale	1"=15'
Drawn By	IHB
Figure	2A

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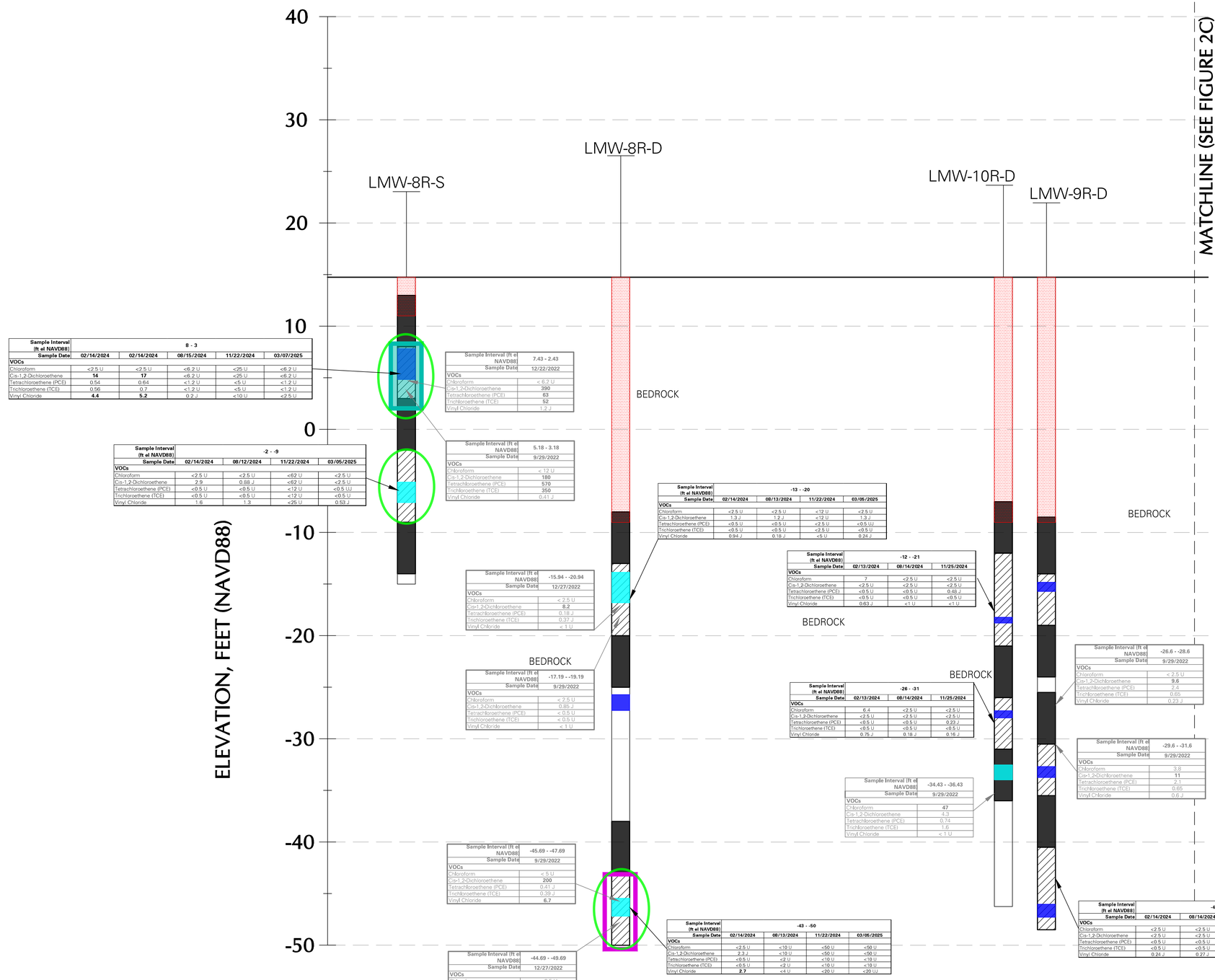
Path: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\APRX\2024-03 - Monitoring Report\Monitoring Report_2025.aprx Date: 2/25/2025 User: aruane Time: 11:15 AM



LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY, AUGUST AND NOVEMBER 2024 AND MARCH 2025 PERFORMANCE GROUNDWATER MONITORING EVENTS.

SECTION B-B' WEST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

LANGAN
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400
MANHATTAN NEW YORK

Project
1487 1ST AVENUE REDEVELOPMENT SITE

Drawing Title
POST-REMEDIATION CVOC GROUNDWATER ANALYTICAL RESULTS ON SUBSURFACE PROFILE B-B' WEST

Project No. 100963701
Date 05/30/2025
Drawn By AR
Checked By CR
Drawing No. 2B

LANGAN
PROJECT NO. 100963701

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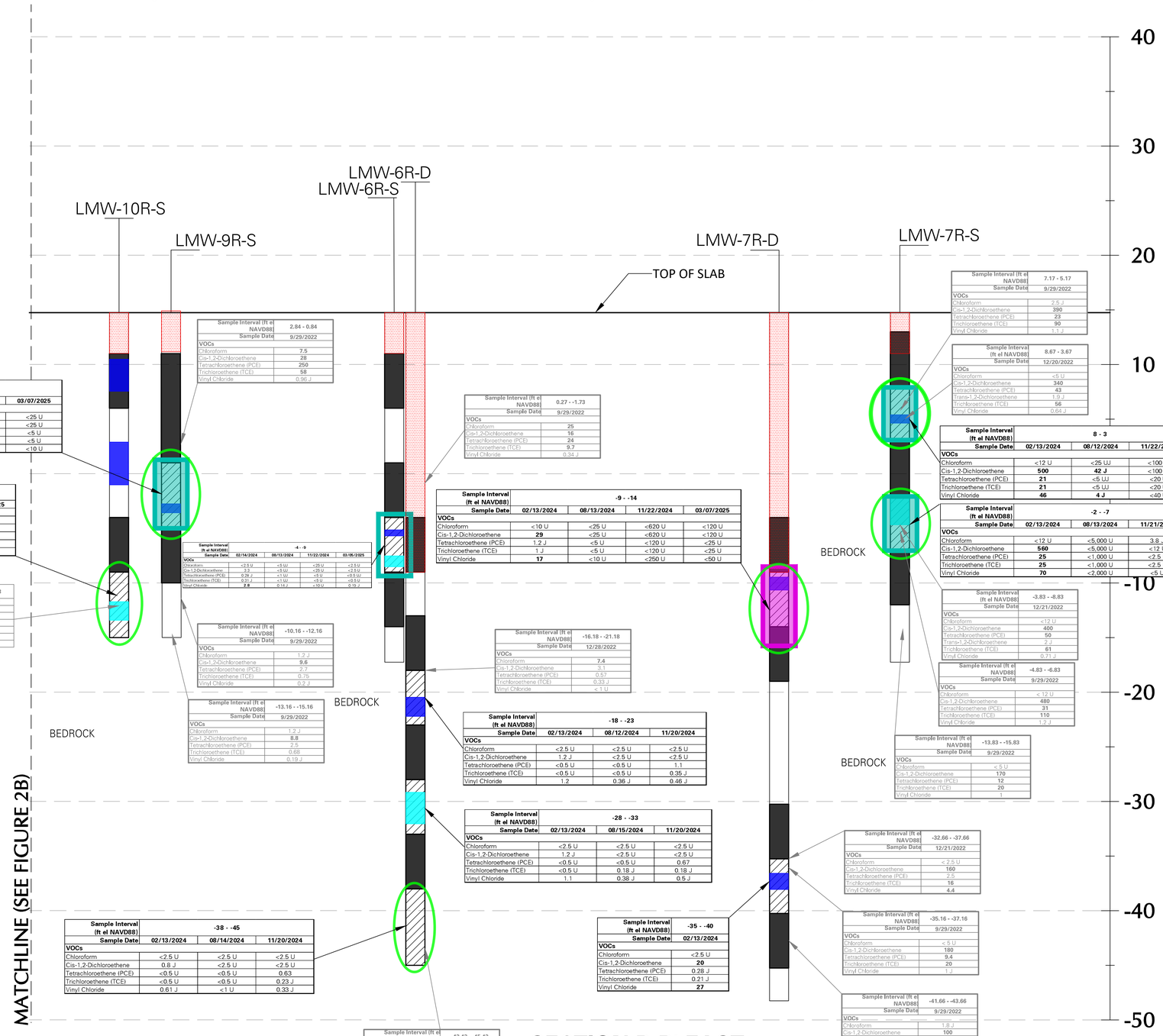
Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Monitoring_Report_04-2025.dwg Date: 8/14/2025 Time: 14:03 User: ibaker Style Table: Langan.stb Layout: Figure 2B - Chlorinated VOC Analytical Results



Sample Interval (ft el NAVD88)	1 - -5			
Sample Date	02/13/2024	08/15/2024	11/22/2024	03/07/2025
VOCs				
Chloroform	<2.5 U	<62 U	<120 U	<25 U
Cis-1,2-Dichloroethene	<2.5 U	<62 U	<120 U	<25 U
Tetrachloroethene (PCE)	0.2 J	<12 U	<25 U	<5 U
Trichloroethene (TCE)	<0.5 U	<12 U	<25 U	<5 U
Vinyl Chloride	**4.6**	<25 U	<50 U	<10 U

Sample Interval (ft el NAVD88)	-9 - -15				
Sample Date	02/13/2024	08/14/2024	11/22/2024	03/06/2025	03/06/2025
VOCs					
Chloroform	**13**	<5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	**7.5**	<5 U	1.5 J	1.2 J	1.1 J
Tetrachloroethene (PCE)	0.41 J	<1 U	0.34 J	0.2 J	<0.5 U
Trichloroethene (TCE)	0.33 J	<1 U	0.21 J	0.33 J	0.22 J
Vinyl Chloride	1.8	<2 U	0.69 J	0.32 J	<1 UJ

Sample Interval (ft el NAVD88)	-9.58 - -14.58
Sample Date	12/23/2022
VOCs	
Chloroform	2.6
Cis-1,2-Dichloroethene	18
Tetrachloroethene (PCE)	2.1
Trichloroethene (TCE)	1.1
Vinyl Chloride	0.11 J

Sample Interval (ft el NAVD88)	2.84 - 0.84
Sample Date	9/29/2022
VOCs	
Chloroform	7.5
Cis-1,2-Dichloroethene	28
Tetrachloroethene (PCE)	250
Trichloroethene (TCE)	58
Vinyl Chloride	0.96 J

Sample Interval (ft el NAVD88)	-4 - -9			
Sample Date	02/14/2024	08/13/2024	11/22/2024	03/05/2025
VOCs				
Chloroform	<2.5 U	<5 U	<25 U	<2.5 U
Cis-1,2-Dichloroethene	3.3	<5 U	<25 U	<2.5 U
Tetrachloroethene (PCE)	0.28 J	<1 U	<5 U	<0.5 U
Trichloroethene (TCE)	0.31 J	<1 U	<5 U	<0.5 U
Vinyl Chloride	**2.8**	0.14 J	<10 U	0.19 J

Sample Interval (ft el NAVD88)	-10.16 - -12.16
Sample Date	9/29/2022
VOCs	
Chloroform	1.2 J
Cis-1,2-Dichloroethene	**9.6**
Tetrachloroethene (PCE)	2.7
Trichloroethene (TCE)	0.75
Vinyl Chloride	0.2 J

Sample Interval (ft el NAVD88)	-13.16 - -15.16
Sample Date	9/29/2022
VOCs	
Chloroform	1.2 J
Cis-1,2-Dichloroethene	**8.8**
Tetrachloroethene (PCE)	2.5
Trichloroethene (TCE)	0.68
Vinyl Chloride	0.19 J

Sample Interval (ft el NAVD88)	0.27 - -1.73
Sample Date	9/29/2022
VOCs	
Chloroform	25
Cis-1,2-Dichloroethene	16
Tetrachloroethene (PCE)	24
Trichloroethene (TCE)	9.7
Vinyl Chloride	0.34 J

Sample Interval (ft el NAVD88)	-9 - -14			
Sample Date	02/13/2024	08/13/2024	11/22/2024	03/07/2025
VOCs				
Chloroform	<10 U	<25 U	<620 U	<120 U
Cis-1,2-Dichloroethene	**29**	<25 U	<620 U	<120 U
Tetrachloroethene (PCE)	1.2 J	<5 U	<120 U	<25 U
Trichloroethene (TCE)	1 J	<5 U	<120 U	<25 U
Vinyl Chloride	**17**	<10 U	<250 U	<50 U

Sample Interval (ft el NAVD88)	-16.18 - -21.18
Sample Date	12/28/2022
VOCs	
Chloroform	**7.4**
Cis-1,2-Dichloroethene	3.1
Tetrachloroethene (PCE)	0.57
Trichloroethene (TCE)	0.33 J
Vinyl Chloride	< 1 U

Sample Interval (ft el NAVD88)	-18 - -23		
Sample Date	02/13/2024	08/12/2024	11/20/2024
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	1.2 J	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	1.1
Trichloroethene (TCE)	<0.5 U	<0.5 U	0.35 J
Vinyl Chloride	1.2	0.36 J	0.46 J

Sample Interval (ft el NAVD88)	-28 - -33		
Sample Date	02/13/2024	08/15/2024	11/20/2024
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	1.2 J	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	0.67
Trichloroethene (TCE)	<0.5 U	0.18 J	0.18 J
Vinyl Chloride	1.1	0.38 J	0.5 J

Sample Interval (ft el NAVD88)	-38 - -45		
Sample Date	02/13/2024	08/14/2024	11/20/2024
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	0.8 J	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	0.63
Trichloroethene (TCE)	<0.5 U	<0.5 U	0.23 J
Vinyl Chloride	0.61 J	<1 U	0.33 J

Sample Interval (ft el NAVD88)	-43.43 - -45.43
Sample Date	9/29/2022
VOCs	
Chloroform	55
Cis-1,2-Dichloroethene	3.8
Tetrachloroethene (PCE)	< 0.5 U
Trichloroethene (TCE)	0.18 J
Vinyl Chloride	0.12 J

Sample Interval (ft el NAVD88)	35 - -40
Sample Date	02/13/2024
VOCs	
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	**20**
Tetrachloroethene (PCE)	0.28 J
Trichloroethene (TCE)	0.21 J
Vinyl Chloride	**27**

Sample Interval (ft el NAVD88)	7.17 - 5.17
Sample Date	9/29/2022
VOCs	
Chloroform	2.5 J
Cis-1,2-Dichloroethene	**390**
Tetrachloroethene (PCE)	**23**
Trichloroethene (TCE)	**90**
Vinyl Chloride	1.1 J

Sample Interval (ft el NAVD88)	8.67 - 3.67
Sample Date	12/20/2022
VOCs	
Chloroform	<5 U
Cis-1,2-Dichloroethene	**340**
Tetrachloroethene (PCE)	**43**
Trans-1,2-Dichloroethene	1.9 J
Trichloroethene (TCE)	**56**
Vinyl Chloride	0.64 J

Sample Interval (ft el NAVD88)	8 - 3		
Sample Date	02/13/2024	08/12/2024	11/22/2024
VOCs			
Chloroform	<12 U	<25 UJ	<100 U
Cis-1,2-Dichloroethene	**500**	**42 J**	<100 U
Tetrachloroethene (PCE)	**21**	<5 UJ	<20 U
Trichloroethene (TCE)	**21**	<5 UJ	<20 U
Vinyl Chloride	**46**	**4 J**	<40 U

Sample Interval (ft el NAVD88)	-2 - -7		
Sample Date	02/13/2024	08/13/2024	11/21/2024
VOCs			
Chloroform	<12 U	<5,000 U	3.8 J
Cis-1,2-Dichloroethene	**560**	<5,000 U	<12 U
Tetrachloroethene (PCE)	**25**	<1,000 U	<2.5 U
Trichloroethene (TCE)	**25**	<1,000 U	<2.5 U
Vinyl Chloride	**70**	<2,000 U	<5 U

Sample Interval (ft el NAVD88)	-3.83 - -8.83
Sample Date	12/21/2022
VOCs	
Chloroform	<12 U
Cis-1,2-Dichloroethene	**400**
Tetrachloroethene (PCE)	**50**
Trans-1,2-Dichloroethene	2 J
Trichloroethene (TCE)	**61**
Vinyl Chloride	0.71 J

Sample Interval (ft el NAVD88)	-4.83 - -6.83
Sample Date	9/29/2022
VOCs	
Chloroform	< 12 U
Cis-1,2-Dichloroethene	**480**
Tetrachloroethene (PCE)	**31**
Trichloroethene (TCE)	**110**
Vinyl Chloride	1.2 J

Sample Interval (ft el NAVD88)	-13.83 - -15.83
Sample Date	9/29/2022
VOCs	
Chloroform	< 5 U
Cis-1,2-Dichloroethene	**170**
Tetrachloroethene (PCE)	**12**
Trichloroethene (TCE)	**20**
Vinyl Chloride	1

Sample Interval (ft el NAVD88)	-32.66 - -37.66
Sample Date	12/21/2022
VOCs	
Chloroform	< 2.5 U
Cis-1,2-Dichloroethene	**160**
Tetrachloroethene (PCE)	2.5
Trichloroethene (TCE)	**16**
Vinyl Chloride	**4.4**

Sample Interval (ft el NAVD88)	-35.16 - -37.16
Sample Date	9/29/2022
VOCs	
Chloroform	< 5 U
Cis-1,2-Dichloroethene	**180**
Tetrachloroethene (PCE)	**9.4**
Trichloroethene (TCE)	**20**
Vinyl Chloride	1 J

Sample Interval (ft el NAVD88)	-41.66 - -43.66
Sample Date	9/29/2022
VOCs	
Chloroform	1.8 J
Cis-1,2-Dichloroethene	**100**
Tetrachloroethene (PCE)	2.1
Trichloroethene (TCE)	**8.2**
Vinyl Chloride	1

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
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SECTION B-B' EAST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project: 1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title: POST-REMEDIATION CVOC GROUNDWATER ANALYTICAL RESULTS ON SUBSURFACE PROFILE B-B' EAST

Project No.	Drawing No.
100963701	2C
Date: 05/30/2025	
Drawn By: AR	
Checked By: CR	

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Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Monitoring_Report_04-2025.dwg Date: 8/14/2025 Time: 14:02 User: ibaker Style Table: Langan.stb Layout: Figure 2C - Chlorinated VOC Analytical Results

PROJECT NO. 100963701

APPENDIX A

Environmental Easement

KEVIN A. ROGERS
DIRECT DIAL: 646.378.7275
KROGERS@SPRLAW.COM

November 1, 2023

VIA FEDEX AND FTS

Environmental Easement Attorney
Bureau of Remediation
Office of General Counsel, 14th Floor
New York State Dept. of Environmental Conservation
625 Broadway
Albany, NY 12233-1500

Re: Brownfield Cleanup Program,
1487 1st Avenue Redevelopment Site, Site No. C231152
Proofs of Recording and Mailing of Municipal Notice of Environmental Easement

Dear Sir or Madam,

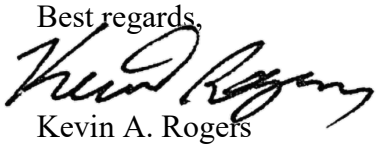
Enclosed please find the following documents that are being submitted to the Department as proofs that the environmental easement for the above-referenced BCP Site has been recorded in the New York City Register and that the Municipal Notice of Environmental Easement has been mailed to the affected local government:

1) Environmental Easement for 1487 1st Avenue, Manhattan, Block 1452, Lot 27, dated October 23, 2023, and recorded in the Office of the City Register of the City of New York ("City Register") on October 31, 2023, as City Register File Number ("CRFN") 2023000282567;
2) Copy of the Municipal Notice of Environmental Easement that was sent via United States Postal Service ("USPS") certified mail, return receipt requested, to New York City Mayor Eric Adams on November 1, 2023;
3) Scanned copy of the USPS certified mailing slip for the Municipal Notice of Environmental Easement sent to Mayor Adams.

Electronic (PDF) copies of the enclosed documents have also been uploaded to the Department's File Transfer Service ("FTS") portal and were directed to Ms. Cheryl Salem of the Office of General Counsel ("OGC"). Additional electronic copies were directly submitted to the Project Attorney, Mr. Kyle Pero, Esq., via email.

Please do not hesitate to contact me if there are any questions or concerns. Thank you for your time and attention to this matter.

Best regards,



Kevin A. Rogers

NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER

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2023103000510001001E78C8

RECORDING AND ENDORSEMENT COVER PAGE **PAGE 1 OF 10**

Document ID: 2023103000510001 Document Date: 10-23-2023 Preparation Date: 10-30-2023
Document Type: EASEMENT
Document Page Count: 9

PRESENTER:
SIVE PAGET & RIESEL, P.C.
560 LEXINGTON AVENUE, 15TH FLOOR
NEW YORK, NY 10022
212-421-2150
NDUNCAN@SPRLAW.COM

RETURN TO:
SIVE PAGET & RIESEL, P.C.
560 LEXINGTON AVENUE, 15TH FLOOR
NEW YORK, NY 10022
212-421-2150
NDUNCAN@SPRLAW.COM

PROPERTY DATA

Borough	Block	Lot	Unit	Address
MANHATTAN	1452	27	Entire Lot	1487 1 AVENUE

Property Type: NON-RESIDENTIAL VACANT LAND Easement

CROSS REFERENCE DATA

CRFN_____ *or* DocumentID_____ *or* _____ Year_____ Reel____ Page_____ *or* File Number_____

PARTIES

GRANTOR/SELLER:
CP VII 78TH STREET OWNER, LLC
C/O: CARMEL PARTNERS, 510 MADISON AVENUE, 8TH FLOOR
NEW YORK, NY 10022

GRANTEE/BUYER:
PEOPLE OF NEW YORK BY DEPT. ENVIRONMENTAL CONSERVA
625 BROADWAY
ALBANY, NY 12233

FEES AND TAXES

Mortgage :

Mortgage Amount:	$	0.00
Taxable Mortgage Amount:	$	0.00
Exemption:		
TAXES: County (Basic):	$	0.00
City (Additional):	$	0.00
Spec (Additional):	$	0.00
TASF:	$	0.00
MTA:	$	0.00
NYCTA:	$	0.00
Additional MRT:	$	0.00
TOTAL:	$	0.00
Recording Fee:	$	82.00
Affidavit Fee:	$	0.00

Filing Fee: $ 100.00

NYC Real Property Transfer Tax: $ 0.00

NYS Real Estate Transfer Tax: $ 0.00

RECORDED OR FILED IN THE OFFICE OF THE CITY REGISTER OF THE CITY OF NEW YORK
Recorded/Filed 10-31-2023 16:59
City Register File No.(CRFN): **2023000282567**

City Register Official Signature

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 23rd day of October, 2023 between Owner, CP VII 78th Street Owner, LLC, having an office at 510 Madison Avenue, 8th Floor, New York, NY 10022 (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 1487 1st Avenue, in the City of New York, County of New York and State of New York, known and designated on the tax map of the New York City Department of Finance as tax map parcel number: Block 1452 Lot 27, being the same as that property conveyed to Grantor by deed dated January 06, 2022, and recorded in the City Register of the City of New York as CRFN # 2022000029939. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.23 +/- acres, and is hereinafter more fully described in the Land Title Survey dated May 25, 2023 prepared by John J. Vida, License No. 050298, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is

extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C231152-06-22, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation

pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C231152
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and

communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

11. Consistency with the SMP. To the extent there is any conflict or inconsistency between the terms of this Environmental Easement and the SMP, regarding matters specifically addressed by the SMP, the terms of the SMP will control.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

CP VII 78th Street Owner, LLC:

By: _____

Print Name: Matthew Feldman

Title: Authorized Signatory Date: 9/28/23

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF NY)

On the 28 day of SEPTEMBER, in the year 2023, before me, the undersigned, personally appeared MATTHEW FELDMAN, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of New York

ALLISON KELLER
Notary Public - State of New York
NO. 01KE0005603
Qualified in Queens County
My Commission Expires Apr 14, 2027

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Andrew O. Guglielmi, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 23rd day of October in the year 2023 before me, the undersigned, personally appeared Andrew O. Guglielmi, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

Cheryl A. Salem
Notary Public State of New York
Registration No. 01SA0002177
Qualified in Albany County
My Commission Expires March 3, 2027

SCHEDULE "A" PROPERTY DESCRIPTION

BOROUGH OF MANHATTAN, BLOCK: 1452, CURRENT LOT: 27

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough of Manhattan, County, City and State of New York, bounded and described as follows:

BEGINNING at the corner formed by the intersection of the southerly side of East 78th Street with the westerly side of 1st Avenue.

RUNNING THENCE southerly along the said westerly line of 1st Avenue, 100.50 feet;

THENCE westerly and parallel with the said southerly side of East 78th Street, 100.00 feet;

THENCE northerly and parallel with the said westerly side of 1st Avenue, 100.50 feet to the said southerly side of East 78th Street.

THENCE easterly along the said southerly side of East 78th Street, 100.00 feet to the point or place of BEGINNING.

Environmental Easement Area: 10,050.00 Sq. Ft / 0.23 Acres±

KEVIN A. ROGERS
DIRECT DIAL: 646.378.7275
KROGERS@SPRLAW.COM

November 1, 2023

VIA CERTIFIED MAIL

Mayor Eric Adams
City Hall
New York, NY 10007

Re: Notice of Environmental Easement:
1487 1st Avenue Redevelopment Site,
1487 1st Avenue, Manhattan
Block 1452, Lot 27
DEC Site No. C231152

Dear Mayor Eric Adams,

Attached please find a copy of an Environmental Easement granted to the New York State Department of Environmental Conservation ("Department") on October 23, 2023 by CP VII 78th Street Owner, LLC ("Grantor") for property located at 1487 1st Avenue, Block 1452, Lot 27, known as DEC Site No. C231152 and by the DEC Site name, 1487 1st Avenue Redevelopment Site.

This Environmental Easement restricts future use of the above referenced property to restricted-residential, commercial, and industrial uses. Any on-site activity must be done in accordance with the Environmental Easement and Site Management Plan, which is incorporated into the Environmental Easement. Department approval is also required prior to any groundwater use. Article 71, Section 71-3607 of the New York State Environmental Conservation Law requires that:

1. Whenever the Department is granted an Environmental Easement, it shall provide each affected local government with a copy of such Easement and shall also provide a copy of any documents modifying or terminating such Environmental Easement.

2. Whenever an affected local government receives an application for a building permit or any other application affecting land use or development of land that is subject to an Environmental Easement and that may relate to or impact such Easement, the affected local government shall notify the Department and refer such application to the Department. The Department shall evaluate whether the application is consistent with the Environmental Easement, and shall notify the

affected local government of its determination in a timely fashion, considering the time frame for the local government's review of the application. The affected local government shall not approve the application until it receives formal approval from the Department.

An electronic version of every Environmental Easement that has been accepted by the Department is available to the public at: http://www.dec.ny.gov/chemical/36045.html. Please forward this notice to your Building and/or Planning Departments, as applicable, to ensure your compliance with the provisions of the New York State Environmental Conservation Law. If you have any questions or comments regarding this matter, please do not hesitate to contact me.

Best regards,

Kevin A. Rogers

Enclosure

7019 2280 0001 0227 1747

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

OFFICIAL USE

Certified Mail Fee
$

Extra Services & Fees *(check box, add fee as appropriate)*
- ☐ Return Receipt (hardcopy) $
- ☐ Return Receipt (electronic) $
- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
$

Total Postage and Fees
$

Postmark Here

Sent To MAYOR ERIC ADAMS
Street and Apt. No., or PO Box No. CITY HALL
City, State, ZIP+4® NEW YORK CITY, N.Y. 10007

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

APPENDIX B

2024-2025 Reports

LANGAN

GROUNDWATER PERFORMANCE MONITORING REPORT & INJECTION DESIGN

for

1487 1st Avenue Redevelopment Site
New York County
New York, New York

NYSDEC Site Number: C231152

Prepared for:

CP VII 78th Street Owner, LLC
510 Madison Avenue, 8th Floor
New York, New York 10022

Prepared by:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, New Jersey 07054

Jessica Friscia, P.E.
Senior Project Engineer

Amanda Forsburg, CHMM
Associate Principal

27 March 2024
Revised 24 April 2024
Langan Project No. 100963701

LANGAN

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1.0 BACKGROUND

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this Groundwater Performance Monitoring Report & Injection Design for the 1487 1st Avenue Redevelopment Site, New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231152. The Site is an approximately 10,050-square-foot parcel identified as Block 1452, Lot 27 in the Upper East Side neighborhood of Manhattan, New York (the "Site"). A site location plan is provided as Figure 1. A Certificate of Completion for remediation through the BCP was issued on 26 December 2023 and is currently undergoing construction for redevelopment. Ongoing groundwater monitoring and remediation is being implemented under a NYSDEC-approved Site Management Plan (SMP) dated 22 December 2023.

Chlorinated volatile organic compounds (CVOCs), including the contaminants of concern (COCs) tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride (VC), and chloroform were detected in groundwater samples collected from the eastern portion of the Site during the completion of the Remedial Investigation at concentrations exceeding the NYSDEC Ambient Water Quality Standards and Guidance Values (SGVs). The concentrations of PCE and associated breakdown compounds detected in groundwater are indicative of a release that had migrated into bedrock at the site from the former solvent tank. Analytical results from the initial and baseline sampling events are presented in Tables 1 and 2, respectively, and CVOC analytical results from these events are summarized on Figures 4A and 4B.

To address these exceedances, an emulsified zero valent iron (EZVI) injection was proposed in the NYSDEC-approved January 2023 Interim Remedial Measures Work Plan (IRMWP) to achieve reduction in groundwater concentrations of the chlorinated solvents, such that natural attenuation would be supported. The EZVI remedy objectives were to:

- Both chemically reduce, as well as anaerobically degrade the CVOCs;
- Further promote monitored natural attenuation (MNA); and,
- Mitigate potential for off-Site migration of on-Site CVOC-impacted groundwater.

The EZVI injection scope was presented in the 6 March 2023 EZVI Remedial Design prepared by Langan, the draft of which had been approved by NYSDEC via email correspondence on 27 February 2023. Completion of the EZVI injections in March and April 2023 was documented in the EZVI Remedial Injection Report dated 29 September 2023, which was included in the 18 December 2023 Final Engineering Report as Appendix E. A COC was issued for the Site on 26 December 2023.

A Bedrock Well Re-Installation and Performance Monitoring Groundwater Sampling Plan (GSP) dated 16 October 2023 proposed the re-installation of ten bedrock monitoring wells that were originally installed during the Remedial Investigation (RI) and subsequently removed as a result of foundation construction. The GSP also proposed Site-specific well construction and sampling methodology for the groundwater performance monitoring following the EZVI injection. NYSDEC approved the GSP on 18 October 2023.

Bedrock well re-installation was completed between November 2023 and February 2024 and performance monitoring groundwater samples were collected approximately 10 months following the EZVI injections in February 2024. Performance monitoring groundwater sample analytical results revealed the successful reduction in maximum concentrations of PCE and TCE by one order of magnitude in the wells that had previously contained the highest concentrations of these compounds during the initial and baseline sampling events, and the elimination of PCE and TCE concentrations above the SGVs across the rest of the treatment area. Concentrations of breakdown products including cis-1,2-DCE and VC were detected during performance monitoring, confirming the anticipated degradation of PCE and TCE. Based on the performance monitoring analytical results, a round of focused EZVI injections is proposed at three monitoring well locations to address remaining concentrations of PCE and TCE and one elevated detection of cis-1,2-DCE. Emulsified vegetable oil (EVO) only will also be injected at four monitoring well locations to promote further bioremediation of the residual degradation compound concentrations.

Bedrock well re-installation, performance monitoring groundwater sample collection and analytical results, and the design for the additional EZVI injections are discussed in detail below.

2.0 MONITORING WELL INSTALLATION

As proposed in the October 2023 GSP, rock cores for the reinstallation of ten bedrock monitoring wells were advanced at the Site between 15 and 28 November 2023. Well locations are shown on Figure 2. Re-installed wells were placed as close to the original well locations as practicable based on the design and location of deep foundation elements and interior architectural structures, and no greater than approximately 10 feet from the original installation locations.

The top of the sub-cellar slab was constructed at elevation 14.75 North American Vertical Datum 1988 (NAVD88). Rock coring and casing installation was completed by ECD NY Inc. of Astoria, New York. LMW-6R-S through LMW-10R-S were constructed by installing five-inch inner-diameter steel casing to a maximum depth of 3.75 feet below the top of the sub-cellar slab (btos) and coring to between approximately 29.75 and 35.78 feet btos. The well casing and open anulus was sealed with grout. LMW-6R-D through LMW-10R-D were constructed by installing five-inch

inner-diameter steel casing to a depth between 23 and 23.77 feet btos. The well casing and open annulus were sealed with bentonite pellets, which were allowed to expand prior to initiating coring to between 59.79 and 64.77 feet btos. All bedrock wells were constructed as 4-inch-diameter open-hole below the steel casing. Following installation, the bedrock monitoring wells were flushed until the purge water ran clear. Monitoring wells were installed with temporary stainless-steel stick-ups to contain pressurized bedrock groundwater and/or perched water within the open hole. A well cap was placed at each stickup following installation. Well construction logs are provided in Appendix A.

Pursuant to the 10 October 2023 NYSDEC email correspondence approving the October 2023 GSP, air monitoring was conducted for VOCs during rock coring for well installation. The air monitoring consisted of continuous upwind and downwind perimeter monitoring of organic vapor utilizing PIDs capable of recording data and calculating 15-minute averages. Site perimeters were also monitored for odors. CAMP exceedances of the 15-minute action levels were not observed at any time during the injection event.

Water generated during bedrock well installation and flushing was containerized in 55-gallon steel drums and staged in a designated area for future offsite disposal.

3.0 BEDROCK MONITORING WELL BOREHOLE GEOPHSYCAL ASSESSMENTS

Borehole geophysical logging was completed by Hager Richter Geoscience, Inc. of Fords, NJ (Hager-Richter) between 22 December 2023 and 8 January 2024 in all five pairs of bedrock monitoring wells to characterize the bedrock water-bearing fractures, verify the previously targeted sampling intervals, and finalize the well sampling system design (discussed below). The geophysical analysis included fluid temperature, fluid conductivity, fluid resistivity, caliper, natural gamma, single-point resistance, optical and acoustic televiewer, and heat pulse flow meter logs.

The geophysical observations were generally consistent with those reported in the RIR. Using the geophysical data, 10 of the sampling intervals identified in the October 2023 GSP were confirmed, six of the proposed sampling intervals were modified to better align with water bearing fractures either by moving them vertically up or down approximately 5 feet or horizontally shifting the interval to the other well in its pair, and the deepest sampling interval proposed to be installed at LMW-7R-D instead was installed at LMW-9R-D due to the location of the detected water-bearing fracture. The borehole geophysical logging report is provided as Appendix B.

4.0 MULTI-LEVEL MONITORING WELL SYSTEM CONSTRUCTION AND BEDROCK WELL SAMPLING METHDOLOGY

All ten bedrock monitoring wells were fitted with custom-designed Westbay System fixed multi-level monitoring equipment between 31 January and 5 February 2024. Installation was completed by a technician from Earth Data Northeast, Inc. of Exton, Pennsylvania who was trained to install Westbay Systems. Each well construction consists of a vertically separated series of hydraulically inflated packers connected with central access casing to provide engineered seals between discrete groundwater monitoring zones. Field quality control procedures for verification of the quality of the well installation included evaluating the central access casing for rising water levels as an indicator of potential leaks in the Westbay System construction, verifying operation and location of System components, and checking pressure in the measurement ports before and after packer inflation. Installation and quality review documentation provided by Earth Data Northeast, Inc. is provided in Appendix C.

Seventeen sampling zones ranging in length from five to seven feet were isolated between packers across the ten wells. Each sampling zone overlapped with a well interval or was within 5 feet of a well interval previously sampled as part of the initial September 2022 sampling event or December 2022 baseline sampling event. Based on the results of the borehole geophysical assessment 10 of the sampling intervals identified in the October 2023 GSP were installed as proposed, 6 of the proposed sampling intervals were modified to better align with water bearing fractures (either by moving them vertically up or down approximately 5 feet or horizontally shifting the interval to the other well in its pair), and the deepest sampling interval proposed to be installed at LMW-7R-D instead was installed at LMW-9R-D due to the location of the detected water-bearing fracture. A subsurface profile presenting the well construction, monitoring zones, and fracture intervals is provided as Figure 3. Deviations from the sampling intervals proposed in the October 2023 GSP are shown on Figure 3.

Langan groundwater samplers were trained in sample collection field techniques by the Earth Data Northeast, Inc. technician. Groundwater samples were collected in accordance with the NYSDEC-approved October 2023 GSP on 13 and 16 February 2024. Purging is not required with the Westbay System due to the isolated nature of each monitoring zone; however, one single volume of the respective interval was purged from each sampling interval to remove any water remaining from rock coring and/or well installation activities. Purge water was containerized in 55-gallon steel drums and staged in a designated area for future offsite disposal. Purging prior to sample collection is not anticipated to be implemented during future sampling events, as the Westbay Systems have already been installed and equilibrated. Valved ports within

each monitoring zone provided access to each sampling interval for discrete groundwater sample collection. Discrete groundwater samples were collected at each designated sampling zone in a container that was sealed before being brought to the surface.

Performance monitoring samples were collected by lowering between one and four 250 milliliter (ml) sample containers through the central access casing to the designated sampling zone. The number of sample containers lowered at one time depended on the length of the specific sampling zone. The sealed sample container(s) was then pulled to the surface and the collected sample placed in laboratory-provided bottleware. No notable field observations of impacts were identified during sample collection.

Seventeen groundwater samples were collected from the ten bedrock wells, plus quality assurance/quality control (QA/QC) samples including one duplicate sample, one field blank, and one trip blank. Samples were collected into laboratory-supplied containers and were sealed, labeled, and placed in an ice-chilled cooler (to maintain a temperature of about 4° C) for delivery to Alpha Analytical of Westborough, Massachusetts, a NYSDOH ELAP-certified laboratory. All groundwater samples were analyzed for volatile organic compounds (VOCs). Additional analytical parameters including metals (iron, calcium, manganese, and magnesium), anions (chloride, sulfate, and nitrate), total organic carbon, dissolved organic carbon, alkalinity, hardness, and microbial genes (for total bacteria and *Dehalococcoides*), were analyzed in five of the seventeen samples.

5.0 PERFORMANCE MONITORING RESULTS

Groundwater analytical results were compared to the NYSDEC SGVs and are summarized in Table 1 and on Figure 4. The laboratory data reports and data summary usability reports are provided in Appendix D and Appendix E, respectively.

Performance monitoring groundwater analytical results revealed the presence of CVOCs above the SGVs in six of the ten wells sampled, including all five shallow wells and one deep well, as summarized below.

- PCE was detected above the SGV of 5 µg/l in only one of the ten wells sampled: LMW-7R-S from 6.75 to 11.75 feet btos (el 8 to 3 NAVD88) (21 µg/l) and from 16.75 to 21.75 feet btos (el -2 to -7 NAVD88) (25 µg/l).

- TCE was detected above the SGV of 5 µg/l in only one of the ten wells sampled: LMW-7R-S from 6.75 to 11.75 feet btos (el 8 to 3 NAVD88) (21 µg/l) and from 16.75 to 21.75 feet btos (el -2 to -7 NAVD88) (25 µg/l).

- Cis-1,2-DCE was detected above the SGV of 5 µg/l in three of the five well pairs: LMW-7R-S from 6.75 to 11.75 btos (el 8 to 3 NAVD88) (500 µg/l) and from 16.75 to 21.75 feet btos (el -2 to -7 NAVD88) (560 µg/l), LMW-7R-D from 23.75 to 28.75 feet btos (el -9 to -14 NAVD88) (29 µg/l) and from 49.75 to 54.75 feet btos (el -35 to -40 NAVD88) (20 µg/l), LMW-8R-S from 6.75 to 11.75 feet btos (el 8 to 3 NAVD88) (14 µg/l), and LMW-10R-S from 24.75 to 29.75 feet btos (el -9 to -15 NAVD88) (7.5 µg/l).

- VC was detected above the SGV of 2 µg/l in four of the five well pairs: LMW-6R-S from 18.75 to 23.75 feet btos (el -4 to -9 NAVD88) (2.8 µg/l), LMW-7R-S from 6.75 to 11.75 feet btos (el 8 to 3 NAVD88) (46 µg/l) and from 16.75 to 21.75 feet btos (el -2 to -7 NAVD88) (70 µg/l), LMW-7R-D from 23.75 to 28.75 feet btos (el -9 to -14 NAVD88) (17 µg/l) and from 49.75 to 54.75 feet btos (el -35 to -40 NAVD88) (27 µg/l), LMW-8R-S from 6.75 to 11.75 feet btos (el 8 to 3 NAVD88)(4.4 µg/l), LMW-8R-D from 57.75 to 64.75 feet btos (el -43 to -50 NAVD88) (2.7 µg/l), and LMW-9R-S from 13.75 to 19.75 feet btos (el 1 to -5 NAVD88) (4.6 µg/l).

- Chloroform was detected above the SGV of 7 µg/l in only one of the ten wells sampled: LMW-10R-S from 23.75 to 29.75 feet btos (el -9 to -15 NAVD88) (13 µg/l).

Concentrations of acetone, benzene, methyl ethyl ketone, toluene, and trans-1,2-dichloroethene, were also detected above the SGVs in four of the five well pairs.

The maximum concentrations of PCE, TCE, Cis-1,2-DCE, VC, and chloroform detected during the initial September 2022 sampling event and December 2022 baseline sampling events were 900 µg/l (LMW-8R-S), 390 µg/l (LMW-8R-S), 710 µg/l (LMW-7R-S), 6.7 µg/l (LMW-8R-D), and 56 µg/l (LMW-6R-D), respectively. With the exception of chloroform, the maximum concentrations of these compounds were detected in LMW-7R-S during the performance monitoring event at concentrations of 25 µg/l (PCE), 25 µg/l (TCE), 560 µg/l (cis-1,2-DCE), and 70 µg/l (VC). The maximum detection of chloroform during the performance monitoring event was 13 µg/l detected at LMW-10R-S. Maximum concentrations of PCE and TCE decreased by an order of magnitude following the 2023 EZVI injections. As both compounds were detected in only one of the ten wells during performance monitoring, the analytical results also reveal a reduction in the horizontal and vertical extents of the detections of these compounds at concentrations exceeding the SGVs. Maximum concentrations of breakdown products including

cis-1,2-DCE and chloroform also decreased from those detected during the baseline sampling event, while the maximum concentration of vinyl chloride increased an order of magnitude. Elevated concentrations of breakdown products were expected due to the anticipated degradation of PCE and TCE.

On average, iron and total organic carbon (TOC) concentrations were similar to the baseline event. The iron concentrations ranged from 15,200 to 88,200 µg/l and TOC concentrations, where detected, ranged from 2,100 to 15,000 µg/l. It should be noted however that on an individual well basis, the iron concentrations increased at all locations except for LMW-8R-S.

Sulfate concentrations notably decreased compared to the baseline event (55,000 to 1,100,000 µg/l), with concentrations ranging from 3,500 to 150,000 µg/l. Sulfate reduction was anticipated, as the result of reducing conditions created by the EZVI injection.

Total bacteria (EBAC) concentrations increased, with concentrations ranging from $3.8x10^6$ to $5.57x10^8$ cell/ml. *Dehalococcoides* (DHC) concentrations increased, with concentrations ranging from 1.4 to $9.1x10^4$ cell/ml.

6.0 PERFORMANCE MONITORING CONCLUSIONS/RECOMMENDATIONS

The maximum concentrations of three COCs, PCE, TCE, and cis-1,2-DCE were successfully reduced, as compared to the baseline concentrations. Concentrations of PCE, TCE, and cis-1,2-DCE remain present at concentrations above the SGVs by an order of magnitude at only three wells: LMW-7R-S, LMW-7R-D, and LMW-8R-S. Vinyl chloride exceedances of the SGVs are still present at LMW-6R-S, LMW-7R-S, LMW-7R-D, LMW-8R-S, LMW-8R-D, and LMW-9R-S; the concentration of vinyl chloride exceeds the SGV by over one order of magnitude at LMW-7R-S and LMW-7R-D. A concentration of chloroform was detected above the SGV at LMW-10R-S.

Completion of an additional focused injection is proposed to be conducted at the four specific well intervals with COC concentrations greater than one order of magnitude above the SGV (LMW-7R-S at the el 8 to 3 NAVD88 and el -2 to -7 NAVD88 intervals, LMW-7R-D at the el -9 to -14 NAVD88 interval, and LMW-8R-S at the el 8 to 3 NAVD88 interval). The additional injection reagents and dosages will be generally consistent with the first injection at these locations, while accounting for specific geochemical conditions that may exist. In addition to the injections of EZVI, the injection of additional emulsified vegetable oil (EVO) is proposed at these four intervals (prior to the EZVI injection) and also at the following well intervals where only cis-1,2-DCE and/or vinyl chloride remain above the SGVs: LMW-6R-S from 18.75 to 23.75 feet (el -4 to -9 NAVD88); LMW-8R-D from 57.75 to 64.75 (el -43 to -50 NAVD88); LMW-9R-S at 13.75 to 19.75 feet

(el 1 to -5 NAVD88); and LMW-10R-S from 23.75 to 29.75 feet (-9 to -15 NAVD88). Due to the lack of PCE and TCE above SGVs at these four intervals and the daughter product concentrations, which are all below 10 ug/l, the more aggressive approach of injecting EZVI is not necessary to address these lingering concentrations. The addition of EVO at these intervals will increase the total organic carbon content to assist in the bioremediation of these residual daughter product concentrations. The additional injection is proposed to be completed within the existing well infrastructure. The design for the proposed additional injection event is provided in Section 7.0.

7.0 ADDITIONAL REMEDIAL INJECTION

The injection solution for the additional injection event will consist of similar reagents as the previous injection event. The reagents will consist of SRS®-ZVI (20%, 4 micron) emulsified vegetable oil (EVO), 60% SRS®-SD buffered EVO, TSI®-FSS ferrous sulfide solution, nutrients (yeast extract and diammonium phosphate [DAP]), and bioaugmentation culture TSI-DC®. The reagent demands and injection volumes for the additional injection event are summarized on Table 4.

The following tasks will be completed as a part of the additional EZVI injection implementation and are described herein.

- Health and Safety Requirements
- Permit and Notifications;
- Mobilization;
- Injection Event;
- Community Air Monitoring; and
- Post-Injection Groundwater Monitoring Events.

7.1 Health and Safety Requirements

A site-specific construction health and safety plan (CHASP) was developed as Appendix A of the January 2023 IRMWP and will be enforced to protect on-Site workers during the implementation of the EZVI remedy. This CHASP includes reagent and chemical substance handling and storage guidelines, first aid and spill control measures, and exposure limits for all additives to be used in the field. Supplemental Safety Data Sheets (SDS) were provided in Appendix C of the March 2023 EZVI Remedial Design. Personal protective equipment (PPE) to be used while handling reagents will include full-face respirators, as applicable, chemical resistant coveralls and booties, nitrite gloves, steel toed shoes, and hard hat. A job safety analysis will be prepared before all field activities.

Appropriate storage, handling, and spill cleanup guidelines will be followed to minimize the potential for accidental release and exposure to injection reagents. The injection area and surroundings will be continuously monitored for surfacing and leaks during the injection process. In the event of surfacing or leak, the injections will be immediately stopped, and the leaked or surfaced materials will be removed and contained in drums. At the end of each workday, once application of injection pressure is ceased, injection area and surroundings will be monitored for an additional half hour to identify any potential surfacing or leaks. During this time the pressure at the injection points is expected to subside to ambient conditions, reducing the potential for surfacing.

All injection reagents will be stored on-Site within a secured area with secondary containment and appropriate labeling and warning signs.

7.2 Permits and Notifications

An underground control notification letter along with Inventory of Injection Wells form (USEPA form 7520-16) and a copy of the approved design for the additional remedial injection event will be submitted to the USEPA before field activities for injections are started.

A permit for access to the New York City fire hydrant has been issued by the New York City Department of Environmental Protection (NYCDEP). Hydrant water will be used to provide dilution water for injection activities.

7.3 Mobilization

Prior to starting the injection activities, Langan and its subcontractors will mobilize the necessary equipment and reagents to the Site. Mobilization will be completed over the course of one to two days. Reagents and equipment mobilized to the Site will be staged adjacent to the treatment areas as shown on Figure 5A. Equipment needed for the injection includes the following: air compressor, generator (if on-site power is not available), injection mixing totes, electric mixer, injection hoses, injection pumps, injection manifold, well head fittings, groundwater sampling/monitoring equipment, work zone and perimeter air monitoring equipment, and 55-gallon steel drums. Reagents will be delivered to the Site. The remedial reagents (SRS-ZVI®, calcium bicarbonate, yeast extract, DAP, sodium ascorbate, and bioaugmentation culture TSI-DC®) will be sourced from Terra Systems, Inc. of Claymont, Delaware. The safety data sheets (SDS) for all remedial reagents were provided in Appendix C of the March 2023 EZVI Remedial Design. All mixing and injection equipment will be staged within secondary containment in the treatment areas. Water for dilution of injection reagents will be sourced

directly from a nearby fire hydrant. An inert chemical reducing agent may be added to the injection water to assure that it is anaerobic and reducing. The proposed injection locations are existing bedrock wells located in the sub-cellar of the building currently under construction.

7.4 Injections

The injection event will include preparation for the injection of undiluted SRS-ZVI® reagent, application of injection mix (calcium carbonate, yeast extract, DAP, and reducing reagent), and injection of undiluted bioaugmentation culture TSI-DC®, at the aforementioned intervals at the existing bedrock wells, LMW-7R-S, LMW-7R-D, and LMW-8R-S.

Injection of EVO: EVO will be diluted with anaerobic water to reach the target pore volume summarized in Table 4. The injection of EVO will occur before and after the application of the bioaugmentation culture.

Application of Injection Mixture: An injection mixture of calcium carbonate, yeast extract, and DAP, will be prepared in water that has been made anaerobic (<0.5 milligrams per liter dissolved oxygen and ~-75 millivolts oxidation reduction potential), using the reducing reagent as necessary. Injection mixture will be prepared in small batches of about 100-200 gallons, and will be continuously mixed to avoid settling of solids. Remedial reagents are provided in Table 4.

Application of Bioaugmentation culture TSI-DC®: The bioaugmentation culture will be injected without dilution and in-line before the injection point, to minimize the exposure of the oxygen sensitive microbial culture to air. Volume of bioaugmentation culture to be applied at each interval is provided in Table 4.

Injection of EZVI: Following the second injection of EVO, SRS-ZVI® will be injected without dilution and directly pumped from the reagent tote into the targeted injection intervals summarized in Table 4. Finally, an additional injection of anaerobic water will be completed following the injection of SRS-ZVI®.

Injections: The EZVI injection mix will be applied within the treatment zones using the existing shallow (LMW-7R-S and LMW-8R-S) and deep (LMW-7R-D) bedrock well intervals via the Westbay System. For the four aforementioned intervals at LMW-6R-S, LMW-8R-D, LMW-9R-S, and LMW-10R-S, the procedure shall be the same with exception that EZVI will not be injected at these locations. During the March/April 2023 EZVI injections, injection attempts at LMW-7R-S were unsuccessful as evidenced by immediate daylighting of the injection media. During the monitoring well re-installation, LMW-7R-S and LMW-7R-D were evaluated to verify the presence

of groundwater-producing fractures in the four performance monitoring sampling intervals. The presence of these fractures was confirmed in both intervals within LMW-7R-S and the shallow interval in LMW-7R-D; therefore, EZVI injection will be attempted at low pressure within these three fracture zones. If injections at LMW-7R-S are unsuccessful (i.e., all reagents daylight or otherwise do not enter the formation) then EZVI may also be injected at LMW-9R-S, which had communication with LMW-7R-S during the first injection event and enabled reductions in the PCE and TCE concentrations in LMW-7R-S.

Proposed injection locations are shown on Figure 5A and injection intervals are shown in Figure 5B and provided in Table 4. Injections at each location will be performed from top to bottom, opening only one interval at a time and utilizing the mechanical pumping port at each of the injection intervals isolated by the Westbay System packers. The injection reagents will be pumped from the mixing tank or directly from the reagent tote into the well head through an injection manifold. The injection manifold will be equipped with ball valves, gate valves, and flow totalizers to regulate and monitor the injection flow. Each injection location will be fitted with a well head that will be equipped with a pressure gauge and a threaded adaptor to connect to the injection location and Camlock fittings to connect with similarly fitted hoses. One bedrock well will be injected at a time. An injection process diagram is provided as Figure 6.

All reagents will be injected at the target injection interval followed by injection of up to 50 to 100 gallons of anaerobic chase water, to rinse the injection hoses and push out reagents within the fractures away from the injection location. Changes to the injections (e.g., reagent volume, treatment intervals, extent of dilution of reagents [calcium carbonate, alkaline buffer yeast extract, and DAP], and volume of chase water) will be made based on field observations. The injection event is estimated to be completed within one to two weeks.

7.5 Community Air Monitoring Plan (CAMP)

Pursuant to the NYSDEC-approved IRMWP dated January 2023, air monitoring is required for particulates (i.e., dust) and VOCs during intrusive activities. As no soil movement will occur during remedial injections, the CAMP will not be implemented.

As noted above, the reagents included in the proposed second injection event are SRS®-ZVI (20%, 4 micron) EVO, 60% SRS®-SD buffered EVO, TSI®-FSS ferrous sulfide solution, nutrients (yeast extract and DAP), and bioaugmentation culture TSI-DC®. SDS were provided in Appendix C of the March 2023 EZVI Remedial Design. The mixing and injection of these reagents through the Westbay system infrastructure is not anticipated to result in the release of VOCs, dust, or odors.

As such, the exposure potential for downwind communities and users is low. If odors or dust are observed to be migrating beyond the work zone, the CAMP will be implemented.

7.6 Injection Monitoring

Injection monitoring will consist of batch, field, and process monitoring. The injection monitoring plan is summarized in Table 5.

Batch Monitoring: During preparation of each batch of injection solution, the mixing ratios and volumes will be recorded.

Field Monitoring: Water quality parameters (e.g., pH, temperature, ORP, dissolved oxygen, turbidity, conductivity, and total dissolved solids) and head will be measured daily at the existing bedrock wells before the injections and daily after the injections. During injections at the bedrock monitoring well intervals, water quality will be monitored at other similar bedrock well intervals. Field monitoring will be used to monitor the injections. In addition, monitoring will be performed to identify leaks and surfacing of injection fluid at the injection wells heads, and within and around the treatment zone. Any injection fluid that surfaces will be contained in 55-gallon drums and disposed of off-Site.

Process Monitoring: During EZVI injections, process parameters (injection pressure, flow rate, and volume) will be monitored. The process monitoring will be performed to assess the injection process.

Preparation of batches of injection solutions, the injection process parameters, and field monitoring will be recorded in field logs.

7.7 Post-Injection Performance Monitoring

A post-injection groundwater monitoring event will be performed three months after the completion of injections and the need for additional monitoring will be determined following review of the performance monitoring analytical results. Seventeen groundwater samples will be collected from the same seventeen monitoring intervals that were sampled during the February 2024 performance monitoring event, in addition to quality assurance/quality control samples. Samples will be collected in laboratory-supplied containers and will be sealed, labeled, and placed in an ice-chilled cooler (to maintain a temperature of about 4° C) for delivery to a NYSDOH ELAP-certified laboratory. All groundwater samples will be analyzed for volatile organic compound (VOC) analysis. Additional analytical parameters including metals (iron, calcium, manganese, and magnesium), anions (chloride, sulfate, and nitrate), total organic carbon,

dissolved organic carbon, alkalinity, hardness, and microbial genes (for total bacteria and Dehalococcoides), will be analyzed in five of the seventeen samples including three locations where a second EZVI injection is proposed (LMW-7R-S, LMW-7R-D, and LMW-8R-S) and two locations where an EVO injection is proposed (LMW-8R-D and LMW-10R-S). Water pressure measurements and groundwater quality parameters (e.g., pH, temperature, ORP, DO, turbidity, and conductivity) will be collected during each groundwater monitoring event. Purged groundwater collected during the sampling event, if any, will be contained in 55-gallon drums and properly disposed of off-Site.

8.0 REPORTING

Category B deliverables will be requested from the laboratory and a DUSR will be prepared. VOC analytical results in groundwater will be reviewed to assess reductions from the initial September 2022 and baseline December 2022 pre-remediation concentrations and the February 2024 performance monitoring concentrations, and the additional parameters will be reviewed to assess the potential for ongoing reductions resulting from the second remedial injection event. In addition to the analytical results, the performance monitoring report will include injection volumes, reagent dosage, and injection and field monitoring data.

As the additional injection event will continue to reduce the concentrations of breakdown products in groundwater, Langan anticipates that a petition for well closure of LMW-6R-S/D, LMW-8R-D, LMW-9R-S/D, and LMW-10R-S/D will be included in the next performance monitoring report following the 3-month sampling event. Analytical results for LMW-7R-S/D and LMW-8R-S will be reviewed to confirm the efficacy of the second injection event and determine if closure of these wells can also be completed at these locations.

TABLES

Table 1
Groundwater Monitoring Report and Injection Plan
Passive Diffusion Bag (PDB) Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-S	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S
			Sample Name	LMW-6R-D_46	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-S_21.5	LMW-6R-S_31	LMW-7R-D_48	LMW-7R-D_68.5	LMW-7R-D_75	LMW-7R-S_21.5	LMW-7R-S_27	LMW-7R-S_39	LMW-7R-S_42.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46	70	75	21.5	31	48	68.5	75	21.5	27	39	42.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<7.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	0.53 J	0.69 J	0.88 J	1.2 J
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<2 U	<1 U	<2 U	<2.5 U	<5 U	<5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 UJ	<250 U	<250 U	<250 UJ	<500 U	<500 UJ	<250 U	<500 U	<620 UJ	<1,200 U	<1,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Acetone	67-64-1	**50**	ug/l	19	17	33	8.8	6.7	31	23	19	34	25	26	30
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	0.16 J	<0.5 U	**1.1**	**1.1**	0.34 J	0.63 J	0.46 J	<2.5 U	<2.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroform	67-66-3	**7**	ug/l	**55**	**56**	**55**	**24**	**25**	<5 U	<5 U	1.8 J	2.9 J	2.5 J	<12 U	<12 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	4.3	4	3.8	**17**	**16**	**170**	**180**	**100**	**330**	**390**	**480**	**710**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	1 J	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	2.7 J	<5 UJ	<5 U	<5 U	<5 UJ	<10 U	<10 UJ	<5 U	<10 U	<12 UJ	<25 U	<25 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Methylene Chloride	75-09-2	**5**	ug/l	3.9	4	3.6	2.6	2.9	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.19 J	0.18 J	<0.5 U	**25**	**24**	**12**	**9.4**	2.1	**11**	**23**	**31**	**26**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	4.3	4	3.8	17	16	170	180	100	330	390	480	710
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.29 J	0.34 J	0.18 J	**10**	**9.7**	**20**	**20**	**8.2**	**50**	**90**	**110**	**86**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	0.09 J	0.12 J	0.31 J	0.34 J	1 J	1 J	1	1.1 J	1.1 J	1.2 J	1.6 J

Table 1
Groundwater Monitoring Report and Injection Plan
Passive Diffusion Bag (PDB) Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-S_15	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46.5	48.5	58	73	77	15	17.5	22.5	27	43.5	46.5	60.5	63.5	76
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<7.5 U	<7.5 U	<7.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 U	<5 U	<5 U	<5 U	<5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 U	<1,200 U	<1,200 UJ	<1,200 U	<1,200 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	8.5	10	11	28	17	17 J	27	17 J	26	8.4	6.8	20	6.2	13
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	**31**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.6	0.56	0.65	**1.6**	0.19 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	1 J
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	1.5 J	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	1.2 J	1.2 J	<2.5 U	3.8	**34**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	0.8 J	0.85 J	1 J	0.86 J	**200**	**200**	**190**	**190**	**180**	**9.6**	**8.8**	**9.6**	**11**	2.3 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	<5 U	<10 U	<25 U	<25 UJ	<25 U	<25 UJ	2 J	<5 U	1.9 J	<5 UJ	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.25 J	<0.5 U	0.41 J	**540**	**600**	**640**	**570**	2.7	2.5	2.4	2.1	0.34 J
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	0.8 J	0.85 J	1 J	0.86 J	200	200	190	190	180	9.6	8.8	9.6	11	2.3 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	<0.5 U	0.18 J	<0.5 U	0.39 J	**380**	**390**	**390**	**350**	0.75	0.68	0.65	0.65	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	<1 U	<1 U	**6.7**	<5 U	0.42 J	<5 U	0.41 J	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J

Table 1
Groundwater Monitoring Report and Injection Plan
Passive Diffusion Bag (PDB) Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-10R-D	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S
			Sample Name	LMW-9R-S_15	LMW-9R-S_22	LMW-9R-S_30.5	LMW-10R-D_49	LMW-10R-D_63	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	15	22	30.5	49	63	21.5	26.5	28.5	34	36
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<500 UJ	<620 UJ	<250 UJ	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	12	16	26	**100**	**91**	**91**	**84**	**88**	**100**	**160**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8**	**8.5**	**7.4**	<0.5 U	<0.5 U	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**8.9**	**7.9**	**7.5**	**52**	**47**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	**28**	5	4.3	**100**	**110**	**90**	**91**	**92**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<10 UJ	<12 UJ	23 J	21	21	17 J	21	24	35
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<5 U	<6.2 U	3	2.5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**140**	**190**	**250**	0.78	0.74	2.7	2.6	2	2	2.1
Toluene	108-88-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	28	5	4.3	100	110	90	91	92
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**58**	**56**	**58**	1.6	1.6	**5.4**	**5.5**	4.9	4.8	4.7
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1	1 J	0.96 J	<1 U	<1 U	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J

Table 1
Groundwater Monitoring Report and Injection Plan
Passive Diffusion Bag (PDB) Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-11R-D	LMW-11R-D	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S
			Sample Name	LMW-11R-D_57.5	LMW-11R-D_76	LMW-11R-S_20.5	LMW-11R-S_23	LMW-11R-S_26.5	LMW-11R-S_29.5	LMW-11R-S_40.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	57.5	76	20.5	23	26.5	29.5	40.5
			Unit	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	14	25	11	10	12	9.2	8.9
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**15**	**13**	0.6	0.63	0.79	0.64	0.61
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	**20**	**7.2**	**7.4**	**8.4**	6.9	6.7
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**15**	**28**	**29**	**35**	**28**	**28**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	0.94 J	0.99 J	1.2 J	0.97 J	0.91 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	3.6	2.9	**12**	**12**	**14**	**12**	**12**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	15	28	29	35	28	28
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	1.9	1.6	**11**	**12**	**14**	**11**	**11**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.17 J	0.13 J	0.2 J	0.24 J	0.32 J	0.2 J	0.2 J

Table 1
Groundwater Monitoring Report and Injection Plan
Passive Diffusion Bag (PDB) Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-12R-D	LMW-12R-D	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-13R-D	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-12R-D_53	LMW-12R-D_67	LMW-12R-S_17	LMW-12R-S_20.5	LMW-12R-S_24.5	LMW-12R-S_28.5	LMW-12R-S_36	LMW-13R-D_55.5	LMW-13R-D_75	LMW-13R-S_26
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	53	67	17	20.5	24.5	28.5	36	55.5	75	26
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 UJ	<250 UJ	<250 UJ
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	10	**170**	11	26	26	12	22	11	14	8.2
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.21 J	0.16 J	0.28 J	0.31 J	0.2 J	0.24 J	0.23 J	**28**	**27**	0.39 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	6.3	**18**	**18**	**16**	**20**	**8.8**	**30**	**29**	**19**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**23**	**27**	**29**	**27**	**32**	**35**	**9.6**	**9.6**	**33**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	41	<5 U	2.2 J	<5 U	<5 UJ	2.4 J	<5 UJ	<5 UJ	<5 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	**9.4**	**8.1**	2.3 J	2.4 J	3.5	4.1	1.8 J	<2.5 U	<2.5 U	2.6
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	1	0.97	3.3	3.6	1.4	2.5	3	3.9	3.7	1.7
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	23	27	29	27	32	35	9.6	9.6	33
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.66	0.54	3.7	3.8	3.7	4.2	4.9	1.3	1.3	3.3
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	**3.8**	**2.7**	0.08 J	0.07 J	0.17 J	0.23 J	0.2 J	0.25 J	0.29 J	0.1 J

Table 2
Groundwater Monitoring Report and Injection Plan
Baseline Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-6R-D_47.75	LMW-6R-S_20.5	LMW-7R-D_42	LMW-7R-D_66	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_38	LMW-8R-D_47.25	LMW-8R-D_56.75	LMW-8R-D_76	LMW-8R-S_14.5	LMW-8R-S_24.75	LMW-10R-D_40.5	LMW-10R-S_13	LMW-10R-S_18.25	LMW-13R-D_45.25	LMW-13R-S_25.75
			Sample Date	12/28/2022	12/28/2022	12/21/2022	12/21/2022	12/19/2022	12/20/2022	12/21/2022	12/27/2022	12/27/2022	12/27/2022	12/22/2022	12/22/2022	12/23/2022	12/22/2022	12/23/2022	12/28/2022	12/28/2022
			Pump Intake Depth	47.75	20.5	42	66	20	25.5	38	47.25	56.75	76	14.5	24.75	40.5	13	18.25	45.25	25.75
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<15 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	0.42 J	0.31 J	0.34 J	0.47 J	0.75 J	<0.5 U	<0.5 U	<0.5 U	<5 U	0.74 J	<0.5 U	<0.5 U	0.23 J	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 UJ	<2.5 UJ	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<2 U	<1 U	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<10 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<500 U	<250 U	<250 U	<500 U	<620 U	<250 U	<250 U	<250 U	<2,500 U	<620 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<10 U	<5 U	<5 UJ	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	4.4 J	10 J	9.5 J	6	<5 U	6 J	26	24 J	29 J	5.5 J	<50 U	<12 U	2.3 J	<5 U	2.1 J	12 J	4.5 J
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	0.72	0.77 J	0.52	0.52	0.47 J	0.51 J	0.16 J	**2**	**5.5**	<5 U	<1.2 U	0.2 J	<0.5 U	0.25 J	**8.5**	0.45 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	1.4 J	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	2.6	<2.5 U	<2.5 U	2.2 J	1.7 J
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	3.1	**29**	**220**	**160**	**120**	**340**	**400**	**8.2**	**7.7**	**47**	**270**	**390**	**18**	**16**	**140**	**10**	**47**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	1 J
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<10 U	2 J	<5 U	<10 U	<12 U	8.7	4.6 J	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	1.5 J	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	1.6 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.57	**10**	**18**	2.5	**20**	**43**	**50**	0.18 J	0.54	0.21 J	**900**	**63**	2.1	**10**	**26**	**7.2**	**35**
Toluene	108-88-3	**5**	ug/l	1.5 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	**9**	2 J	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	3.1	29	220	160	120	340 J	400 J	8.2	7.7	47	270	390 J	18	16	140	10	47
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	1.9 J	2 J	<2.5 U	<2.5 U	<2.5 U	<25 U	1.8 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.33 J	**6.3**	**22**	**16**	**18**	**56**	**61**	0.37 J	0.24 J	0.24 J	**360**	**52**	1.1	**8.8**	**33**	2.2	**9.7**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	0.62 J	**4.4**	0.44 J	0.64 J	0.71 J	<1 U	1	**6.4**	2 J	1.2 J	0.11 J	<1 U	0.37 J	0.18 J	0.27 J
Metals																				
Calcium	7440-70-2	NS	ug/l	90,800	220,000	205,000	146,000	200,000	234,000	236,000	54,400	58,500	95,000	289,000	234,000	97,700	264,000	184,000	136,000	178,000
Hardness (As CaCO3)	HARDNESS	NS	ug/l	235,400	788,400	995,100	547,900	800,300	864,600	1,048,000	174,600	185,100	303,800	1,146,000	868,600	362,800	891,400	693,900	508,600	641,300
Iron	7439-89-6	**300**	ug/l	**7,230**	**14,900**	**98,500**	**25,600**	**17,700**	**29,500**	**76,300**	**5,660**	**9,480**	**6,650**	**31,300**	**34,200**	**12,600**	**17,500**	**33,000**	**17,500**	**12,600**
Magnesium	7439-95-4	**35000**	ug/l	2,140	**58,100**	**117,000**	**44,200**	**73,100**	**67,700**	**111,000**	9,420	9,450	16,200	**103,000**	**68,700**	28,800	**56,600**	**57,100**	**40,800**	**47,800**
Manganese	7439-96-5	**300**	ug/l	108	**2,978**	**7,510**	**2,320**	**5,733**	**4,074**	**8,344**	235.1	**363.8**	**448.3**	**9,421**	**6,069**	**1,638**	**4,386**	**2,861**	**2,363**	**2,307**
General Chemistry - Total																				
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	193,000 J	158,000	119,000	187,000	158,000	128,000	129,000	85,800 J	116,000	141,000	163,000	155,000	177,000	220,000	156,000	220,000	185,000
Chloride (As Cl)	16887-00-6	**250000**	ug/l	25,000	110,000	**340,000**	190,000	**520,000**	**600,000**	**600,000**	54,000	48,000	83,000	110,000	**340,000**	66,000	88,000	97,000	45,000	85,000
Dissolved Organic Carbon	DOC	NS	ug/l	8,000 J	8,200	3,700	8,900 J	2,400 J	1,100	2,500	6,900	8,700	4,000 J	6,100 J	4,400 J	5,300	7,800	5,600	14,000	7,000
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	<100 U	93 J	429	89 J	261	212	175	27 J	104	44 J	120	116	47 J	153	79 J	<100 U	<100 U
Sulfate (As SO4)	14808-79-8	**250000**	ug/l	55,000	**580,000**	**610,000**	**670,000**	**520,000**	**510,000**	**510,000**	140,000	130,000	130,000	**1,100,000**	**600,000**	190,000	**630,000**	**530,000**	**540,000**	**560,000**
Total Organic Carbon	TOC	NS	ug/l	7,600	8,400	3,100	9,200 J	2,200	920	2,300	7,100	8,500	3,500	6,200	3,800	5,700	7,800	5,500	14,000	7,100

Table 3
Groundwater Monitoring Report and Injection Plan
Performance Monitoring Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-9R-D	LMW-9R-S	LMW-10R-D	LMW-10R-D	LMW-10R-S
			Sample Name	LMW-6R-D_32.75	LMW-6R-D_42.75	LMW-6R-D_54.75	LMW-6R-S_18.75	LMW-7R-D_23.75	LMW-7R-D_49.75	LMW-7R-S_16.75	LMW-7R-S_6.75	LMW-8R-D_27.75	LMW-8R-D_59.75	LMW-8R-S_18.75	LMW-8R-S_6.75	DUP01_021424	LMW-9R-D_58.25	LMW-9R-S_13.75	LMW-10R-D_30.75	LMW-10R-D_40.75	LMW-10R-S_24.75
			Sample Date	02/13/2024	02/13/2024	02/13/2024	02/14/2024	02/13/2024	02/13/2024	02/13/2024	02/13/2024	02/14/2024	02/14/2024	02/14/2024	02/14/2024	02/14/2024	02/14/2024	02/13/2024	02/13/2024	02/13/2024	02/13/2024
			Sample Depth	32.75-37.75	42.75-47.75	52.75-59.75	18.75-23.75	23.75-28.75	49.75-54.75	16.75-21.75	6.75-11.75	27.75-34.75	57.75-64.75	16.75-23.75	6.75-11.75	6.75-11.75	55.25-63.25	13.75-19.75	26.75-35.75	40.75-45.75	23.75-29.75
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																					
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	0.21 J	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.18 J	<0.5 U	<0.5 U	0.17 J
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<6 U	<1.5 U	<7.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	0.55 J	<2 U	<2 U	<2 U	<8 U	<2 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	1 J	0.95 J	0.74 J	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<8 U	<2 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<4 U	<1 U	<5 U	<5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	0.79 J	<2 U	<2 U	<2 U	<8 U	<2 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<250 U	<250 U	<250 U	<250 U	<1,000 U	<250 U	<1,200 U	<1,200 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	1.2 J	<5 U	<5 U	<5 U	<20 U	<5 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1.2 J	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<8 U	<2 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	**59**	**51**	44	22	**54**	**53**	<25 U	9.1 J	**69**	**52**	3.5 J	13	14	9.7	**100**	4.3 J	5.1	30
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<20 U	<5 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.17 J	0.16 J	<0.5 U	0.23 J	<2 U	0.29 J	<2.5 U	<2.5 U	**3.8**	**8.1**	0.18 J	0.31 J	0.29 J	**5.7**	**1.3**	0.76	0.66	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.44 J	0.42 J	0.81
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<8 U	<2 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	0.94 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	1 J	<5 U	<5 U	<20 U	<5 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	7	6.4	**13**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	1.2 J	1.2 J	0.8 J	3.3	**29**	**20**	**560**	**500**	1.3 J	2.3 J	2.9	**14**	**17**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**7.5**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<20 U	<5 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<20 U	<5 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1 J	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	1.2 J	1.4 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	**57**	**53**	**55**	4.8 J	**410**	**420**	<25 U	<25 U	**82**	**120**	7.1	2 J	<5 U	16	**82**	<5 U	<5 U	5.6
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 UJ	<5 UJ	<5 UJ	<5 U	<20 UJ	<5 UJ	<25 U	<25 UJ	<5 UJ	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	4.3 J	<5 UJ	<5 UJ	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	0.81 J	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.82 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.87 J	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	1 J	1.2 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.75 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	<0.5 U	0.28 J	1.2 J	0.28 J	**25**	**21**	<0.5 U	<0.5 U	<0.5 U	0.54	0.64	<0.5 U	0.2 J	<0.5 U	<0.5 U	0.41 J
Toluene	108-88-3	**5**	ug/l	**13**	**12**	**7.8**	**8.3**	4.2 J	4.2	<12 U	**5.3 J**	1.3 J	<2.5 U	2.3 J	**8.7**	**10**	<2.5 U	**85**	<2.5 U	<2.5 U	**8**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	1.2 J	1.2 J	0.8 J	3.3	29	20	570 J	500 J	1.3 J	2.3 J	2.9	14	17	<2.5 U	<2.5 U	<2.5 U	<2.5 U	7.5
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1.9 J	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	2.2 J	2.6 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	**5.1 J**	4 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2 U	<0.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	<0.5 U	<0.5 U	0.31 J	1 J	0.21 J	**25**	**21**	<0.5 U	<0.5 U	<0.5 U	0.56	0.7	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.33 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<10 U	<2.5 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<20 U	<5 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.2	1.1	0.61 J	**2.8**	**17**	**27**	**70**	**46**	0.94 J	**2.7**	1.6	**4.4**	**5.2**	0.24 J	**4.6**	0.63 J	0.75 J	1.8
Metals																					
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	133,000	NA	NA	371,000	NA	NA	NA	NA	127,000	NA	148,000	NA	NA	153,000	NA
Hardness, Total	HARD	NS	ug/l	NA	NA	NA	411,500	NA	NA	1,413,000	NA	NA	NA	NA	398,900	NA	478,100	NA	NA	493,800	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**25,700**	NA	NA	**88,200**	NA	NA	NA	NA	**8,330**	NA	**16,700**	NA	NA	**15,200**	NA
Magnesium	7439-95-4	**35000**	ug/l	NA	NA	NA	19,200	NA	NA	**118,000**	NA	NA	NA	NA	19,900	NA	26,400	NA	NA	27,200	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**666**	NA	NA	**6,149**	NA	NA	NA	NA	**662.1**	NA	**785.9**	NA	NA	**702.8**	NA
General Chemistry																					
Alkalinity, Total (As CaCO3)	ALK	NS	ug/l	NA	NA	NA	494,000	NA	NA	166,000	NA	NA	NA	NA	260,000	NA	272,000	NA	NA	335,000	NA
Chloride (As Cl)	16887-00-6	**250000**	ug/l	NA	NA	NA	180,000	NA	NA	**1,200,000**	NA	NA	NA	NA	**410,000**	NA	230,000	NA	NA	160,000	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	14,000	NA	NA	<2,000 U	NA	NA	NA	NA	6,600	NA	3,900	NA	NA	3,400	NA
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	NA	NA	NA	100	NA	NA	117	NA	NA	NA	NA	164	NA	<100 U	NA	NA	63 J	NA
Sulfate (As SO4)	14808-79-8	250000	ug/l	NA	NA	NA	3,500 J	NA	NA	150,000	NA	NA	NA	NA	30,000	NA	<10,000 U	NA	NA	11,000	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	15,000	NA	NA	<1,000 U	NA	NA	NA	NA	6,700	NA	2,100	NA	NA	3,200	NA

Table 4
Groundwater Monitoring Report and Injection Plan
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs											
			Location	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6R-S_21.5	LMW-6R-S_20.5	LMW-6R-S_31	LMW-6R-S_18.75	LMW-6R-D_46	LMW-6R-D_47.75	LMW-6R-D_32.75	LMW-6R-D_42.75	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-D_54.75
			Sample Date	09/29/2022	12/28/2022	09/29/2022	02/14/2024	09/29/2022	12/28/2022	02/13/2024	02/13/2024	09/29/2022	09/29/2022	02/13/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections
			Sample Depth	21.5	20.5	31	18.75-23.75	46	47.75	32.75-37.75	42.75-47.75	70	75	52.75-59.75
			Sample El.	9.77 - 7.77	10.77 - 5.77	0.27 - -1.73	-4 - -9	-14.43 - -16.43	-16.18 - -21.18	-18 - -23	-28 - -33	-38.43 - -40.43	-43.43 - -45.43	-38 - -45
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.21 J
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	0.55 J	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	1 J	0.95 J	<2.5 U	<2.5 U	0.74 J
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	0.79 J	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1.2 J	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	8.8	10 J	6.7	22	19	4.4 J	**59**	**51**	17	33	44
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	0.72	<0.5 U	0.23 J	<0.5 U	<0.5 U	0.17 J	0.16 J	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	1.4 J	**25**	<2.5 U	**55**	**7.4**	<2.5 U	<2.5 U	**56**	**55**	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**29**	**16**	3.3	4.3	3.1	1.2 J	1.2 J	4	3.8	0.8 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	4.8 J	2.7 J	<5 U	**57**	**53**	<5 UJ	<5 U	**55**
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U	<5 U	<5 UJ
Methylene Chloride	75-09-2	5	ug/l	2.6	<2.5 U	2.9	<2.5 U	3.9	1.6 J	<2.5 U	<2.5 U	4	3.6	0.81 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.87 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**25**	**10**	**24**	0.28 J	0.19 J	0.57	<0.5 U	<0.5 U	0.18 J	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	**8.3**	<2.5 U	1.5 J	**13**	**12**	<2.5 U	<2.5 U	**7.8**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	29	16	3.3	4.3	3.1	1.2 J	1.2 J	4	3.8	0.8 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1.9 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**10**	**6.3**	**9.7**	0.31 J	0.29 J	0.33 J	<0.5 U	<0.5 U	0.34 J	0.18 J	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.31 J	<1 U	0.34 J	**2.8**	<1 U	<1 U	1.2	1.1	0.09 J	0.12 J	0.61 J
Metals														
Calcium	7440-70-2	NS	ug/l	NA	220,000	NA	133,000	NA	90,800	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	788,400	NA	411,500	NA	235,400	NA	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**14,900**	NA	**25,700**	NA	**7,230**	NA	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**58,100**	NA	19,200	NA	2,140	NA	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**2,978**	NA	**666**	NA	108	NA	NA	NA	NA	NA
General Chemistry - Total														
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	NA	494,000	NA	193,000 J	NA	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	110,000	NA	180,000	NA	25,000	NA	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	8,200	NA	14,000	NA	8,000 J	NA	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	93 J	NA	100	NA	<100 U	NA	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**580,000**	NA	3,500 J	NA	55,000	NA	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	8,400	NA	15,000	NA	7,600	NA	NA	NA	NA	NA

Table 4
Groundwater Monitoring Report and Injection Plan
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs																
								Proposed Re-Injection Interval				Proposed Re-Injection Interval			Proposed Re-Injection Interval			
			Location	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D
			Sample Name	LMW-7R-S_21.5	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_27	LMW-7R-S_6.75	LMW-7R-S_39	LMW-7R-S_38	LMW-7R-S_16.75	LMW-7R-S_42.5	LMW-7R-D_42	LMW-7R-D_23.75	LMW-7R-D_48	LMW-7R-D_66	LMW-7R-D_68.5	LMW-7R-D_49.75	LMW-7R-D_75
			Sample Date	09/29/2022	12/19/2022	12/20/2022	09/29/2022	02/13/2024	09/29/2022	12/21/2022	02/13/2024	09/29/2022	12/21/2022	02/13/2024	09/29/2022	12/21/2022	09/29/2022	02/13/2024	09/29/2022
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections
			Sample Depth	21.5	20	25.5	27	6.75-11.75	39	38	16.75-21.75	42.5	42	23.75-28.75	48	66	68.5	49.75-54.75	75
			Sample El.	12.67 - 10.67	14.17 - 9.17	8.67 - 3.67	7.17 - 5.17	8 - 3	-4.83 - -6.83	-3.83 - -8.83	-2 - -7	-8.33 - -10.33	-8.66 - -13.66	-9 - -14	-13.83 - -15.83	-32.66 - -37.66	-35.16 - -37.16	-35 - -40	-41.66 - -43.66
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																			
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<7.5 U	<3.8 U	<7.5 U	<7.5 U	<3 U	<6 U	<3 U	<1.5 U	<3 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.53 J	0.34 J	0.47 J	0.69 J	<2.5 U	0.88 J	0.75 J	<2.5 U	1.2 J	0.42 J	<2 U	<1 U	0.31 J	<1 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U	<5 U	<10 U	<10 U	<4 U	<8 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U	<5 U	<10 U	<10 U	<4 U	<8 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<1 U	<2 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<5 U	<2 U	<4 U	<2 U	<1 U	<2 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U	<5 U	<10 U	<10 U	<4 U	<8 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 U	<250 U	<500 U	<620 UJ	<1,200 U	<1,200 U	<620 U	<1,200 U	<1,200 U	<500 U	<1,000 U	<500 U	<250 U	<500 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<5 UJ	<10 U	<12 U	<25 U	<25 U	<12 U	<25 U	<25 U	<10 U	<20 U	<10 U	<5 U	<10 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U	<5 U	<10 U	<10 U	<4 U	<8 U	<4 U	<2 U	<4 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	34	<5 U	6 J	25	9.1 J	26	26	<25 U	30	9.5 J	**54**	31	6	23	**53**	19
Acrylonitrile	107-13-1	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U	<12 U	<25 U	<25 U	<10 U	<20 U	<10 U	<5 UJ	<10 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.63 J	0.52	0.47 J	0.46 J	<2.5 U	<2.5 U	0.51 J	<2.5 U	<2.5 U	0.77 J	<2 U	**1.1**	0.52	**1.1**	0.29 J	0.34 J
Bromobenzene	108-86-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U	<5 U	<10 U	<10 U	<4 U	<8 U	<4 U	<2 U	<4 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<5 U	<5 U	<10 U	<12 U	<25 U	<12 U	<25 U	<25 U	<10 U	<20 U	<10 U	<5 U	<10 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	2.9 J	<2.5 U	<5 U	2.5 J	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	1.8 J
Chloromethane	74-87-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**330**	**120**	**340**	**390**	**500**	**480**	**400**	**560**	**710**	**220**	**29**	**170**	**160**	**180**	**20**	**100**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U	<12 U	<25 U	<25 U	<10 U	<20 U	<10 U	<5 U	<10 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U	<12 U	<25 U	<25 U	<10 U	<20 U	<10 U	<5 U	<10 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 U	<5 U	<10 U	<12 UJ	<25 U	<25 U	<12 U	<25 U	<25 U	<10 U	**410**	<10 U	2 J	<10 UJ	**420**	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 UJ	<25 U	<12 U	<25 U	<25 U	<10 U	<20 UJ	<10 U	<5 UJ	<10 U	<5 UJ	<5 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**11**	**20**	**43**	**23**	**21**	**31**	**50**	**25**	**26**	**18**	1.2 J	**12**	2.5	**9.4**	0.28 J	2.1
Toluene	108-88-3	**5**	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	**5.3 J**	<12 U	<6.2 U	<12 U	<12 U	<5 U	4.2 J	<5 U	<2.5 U	<5 U	4.2	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	330	120	340 J	390	500 J	480	400 J	570 J	710	220	29	170	160	180	20	100
Total Xylenes	1330-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<2.5 U	1.9 J	<6.2 U	4 J	<12 U	2 J	**5.1 J**	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U	<1.2 U	<2.5 U	<2.5 U	<1 U	<2 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**50**	**18**	**56**	**90**	**21**	**110**	**61**	**25**	**86**	**22**	1 J	**20**	**16**	**20**	0.21 J	**8.2**
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U	<6.2 U	<12 U	<12 U	<5 U	<10 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U	<12 U	<25 U	<25 U	<10 U	<20 U	<10 U	<5 U	<10 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1 J	0.44 J	0.64 J	1.1 J	**46**	1.2 J	0.71 J	**70**	1.6 J	0.62 J	**17**	1 J	**4.4**	1 J	**27**	1
Metals																			
Calcium	7440-70-2	NS	ug/l	NA	200,000	234,000	NA	NA	NA	236,000	371,000	NA	205,000	NA	NA	146,000	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	800,300	864,600	NA	NA	NA	1,048,000	1,413,000	NA	995,100	NA	NA	547,900	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**17,700**	**29,500**	NA	NA	NA	**76,300**	**88,200**	NA	**98,500**	NA	NA	**25,600**	NA	NA	NA
Magnesium	7439-95-4	**35.000**	ug/l	NA	**73,100**	**67,700**	NA	NA	NA	**111,000**	**118,000**	NA	**117,000**	NA	NA	**44,200**	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**5,733**	**4,074**	NA	NA	NA	**8,344**	**6,149**	NA	**7,510**	NA	NA	**2,320**	NA	NA	NA
General Chemistry - Total																			
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	128,000	NA	NA	NA	129,000	166,000	NA	119,000	NA	NA	187,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250.000**	ug/l	NA	**520,000**	**600,000**	NA	NA	NA	**600,000**	**1,200,000**	NA	**340,000**	NA	NA	190,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	2,400 J	1,100	NA	NA	NA	2,500	<2,000 U	NA	3,700	NA	NA	8,900 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10.000	ug/l	NA	261	212	NA	NA	NA	175	117	NA	429	NA	NA	89 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250.000**	ug/l	NA	**520,000**	**510,000**	NA	NA	NA	**510,000**	150,000	NA	**610,000**	NA	NA	**670,000**	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	2,200	920	NA	NA	NA	2,300	<1,000 U	NA	3,100	NA	NA	9,200 J	NA	NA	NA

Table 4
Groundwater Monitoring Report and Injection Plan
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs																	Proposed Re-Injection Interval
			Location	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D
			Sample Name	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-8R-S_24.75	LMW-8R-S_6.75	DUP01_021424	LMW-8R-S_18.75	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_47.25	LMW-8R-D_27.75	LMW-8R-D_56.75	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-D_76	LMW-8R-D_59.75
			Sample Date	09/29/2022	09/29/2022	09/29/2022	12/22/2022	02/14/2024	02/14/2024	02/14/2024	09/29/2022	09/29/2022	12/27/2022	02/14/2024	12/27/2022	09/29/2022	09/29/2022	09/29/2022	12/27/2022	02/14/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections
			Sample Depth	17.5	22.5	27	24.75	6.75-11.75	6.75-11.75	16.75-23.75	46.5	48.5	47.25	27.75-34.75	56.75	58	73	77	76	57.75-64.75
			Sample El.	14.68 - 12.68	9.68 - 7.68	5.18 - 3.18	7.43 - 2.43	8 - 3	8 - 3	-2 - -9	-15.19 - -17.19	-17.19 - -19.19	-15.94 - -20.94	-13 - -20	-20.44 - -25.44	-26.69 - -28.69	-41.69 - -43.69	-45.69 - -47.69	-44.69 - -49.69	-43 - -50
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<7.5 U	<7.5 U	<7.5 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.74 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<5 U	<5 U	<5 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<1,200 UJ	<1,200 U	<1,200 UJ	<620 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<500 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	27	17 J	26	<12 U	13	14	3.5 J	8.5	10	24 J	**69**	29 J	11	28	17	5.5 J	**52**
Acrylonitrile	107-13-1	5	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	0.31 J	0.29 J	0.18 J	<0.5 U	<0.5 U	0.16 J	**3.8**	**2**	<0.5 U	<0.5 U	**31**	**5.5**	**8.1**
Bromobenzene	108-86-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.94 J	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	1.5 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**190**	**190**	**180**	**390**	**14**	**17**	2.9	0.8 J	0.85 J	**8.2**	1.3 J	**7.7**	1 J	0.86 J	**200**	**47**	2.3 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1.2 J	1.4 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<25 UJ	<25 U	<25 UJ	<12 UJ	2 J	<5 U	7.1	<5 U	<5 U	8.7	**82**	4.6 J	<5 UJ	<5 U	<10 U	<5 U	**120**
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	1.5 J	<5 UJ	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1 J	1.2 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**600**	**640**	**570**	**63**	0.54	0.64	<0.5 U	<0.5 U	<0.5 U	0.18 J	<0.5 U	0.54	0.25 J	<0.5 U	0.41 J	0.21 J	<0.5 U
Toluene	108-88-3	**5**	ug/l	<12 U	<12 U	<12 U	<6.2 U	**8.7**	**10**	2.3 J	<2.5 U	<2.5 U	<2.5 U	1.3 J	**9**	<2.5 U	<2.5 U	<5 U	2 J	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	190	190	180	390 J	14	17	2.9	0.8 J	0.85 J	8.2	1.3 J	7.7	1 J	0.86 J	200	47	2.3 J
Total Xylenes	1330-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	2.2 J	2.6 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<12 U	<12 U	<12 U	1.8 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**390**	**390**	**350**	**52**	0.56	0.7	<0.5 U	<0.5 U	<0.5 U	0.37 J	<0.5 U	0.24 J	0.18 J	<0.5 U	0.39 J	0.24 J	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.42 J	<5 U	0.41 J	1.2 J	**4.4**	**5.2**	1.6	<1 U	<1 U	<1 U	0.94 J	1	<1 U	<1 U	**6.7**	**6.4**	**2.7**
Metals																				
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	234,000	127,000	NA	NA	NA	NA	54,400	NA	58,500	NA	NA	NA	95,000	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	NA	NA	868,600	398,900	NA	NA	NA	NA	174,600	NA	185,100	NA	NA	NA	303,800	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**34,200**	**8,330**	NA	NA	NA	NA	**5,660**	NA	**9,480**	NA	NA	NA	**6,650**	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	**68,700**	19,900	NA	NA	NA	NA	9,420	NA	9,450	NA	NA	NA	16,200	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**6,069**	**862.1**	NA	NA	NA	NA	235.1	NA	**363.8**	NA	NA	NA	**448.3**	NA
General Chemistry - Total																				
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	155,000	260,000	NA	NA	NA	NA	85,800 J	NA	116,000	NA	NA	NA	141,000	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	**340,000**	**410,000**	NA	NA	NA	NA	54,000	NA	48,000	NA	NA	NA	83,000	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	4,400 J	6,600	NA	NA	NA	NA	6,900	NA	8,700	NA	NA	NA	4,000 J	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	116	164	NA	NA	NA	NA	27 J	NA	104	NA	NA	NA	44 J	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	**600,000**	30,000	NA	NA	NA	NA	140,000	NA	130,000	NA	NA	NA	130,000	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	3,800	6,700	NA	NA	NA	NA	7,100	NA	8,500	NA	NA	NA	3,500	NA

Table 4
Groundwater Monitoring Report and Injection Plan
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs					Proposed Re-Injection Interval					
			Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-9R-S_22	LMW-9R-S_30.5	LMW-9R-S_13.75	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76	LMW-9R-D_58.25
			Sample Date	09/29/2022	09/29/2022	02/13/2024	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	02/14/2024
			Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections
			Sample Depth	22	30.5	13.75-19.75	43.5	46.5	60.5	63.5	76	55.25-63.25
			Sample El.	11.34 - 9.34	2.84 - 0.84	1 - -5	-10.16 - -12.16	-13.16 - -15.16	-26.6 - -28.6	-29.6 - -31.6	-42.1 - -44.1	-40.5 - -48.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<1.2 U	0.18 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 UJ	<620 UJ	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<12 U	1.2 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	16	26	**100**	8.4	6.8	20	6.2	13	9.7
Acrylonitrile	107-13-1	5	ug/l	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8.5**	**7.4**	**1.3**	0.6	0.56	0.65	**1.6**	0.19 J	**5.7**
Bromobenzene	108-86-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	1 J	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.9**	**7.5**	<2.5 U	1.2 J	1.2 J	<2.5 U	3.8	**34**	<2.5 U
Chloromethane	74-87-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	<2.5 U	**9.6**	**8.8**	**9.6**	**11**	2.3 J	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 UJ	<12 UJ	**82**	2 J	<5 U	1.9 J	<5 UJ	<5 U	16
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<12 U	4.3 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ
Methylene Chloride	75-09-2	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	<2.5 U
Naphthalene	91-20-3	10	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.75 J
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**190**	**250**	0.2 J	2.7	2.5	2.4	2.1	0.34 J	<0.5 U
Toluene	108-88-3	**5**	ug/l	<5 U	<6.2 U	**85**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	<2.5 U	9.6	8.8	9.6	11	2.3 J	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**56**	**58**	<0.5 U	0.75	0.68	0.65	0.65	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1 J	0.96 J	**4.6**	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J	0.24 J
Metals												
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	148,000
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	478,100
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	**16,700**
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	26,400
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	**785.9**
General Chemistry - Total												
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	272,000
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	230,000
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	3,900
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	<100 U
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	<10,000 U
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	2,100

Table 4
Groundwater Monitoring Report and Injection Plan
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-D	LMW-10R-S (Proposed Re-Injection Interval)	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D
			Sample Name	LMW-10R-S_18.25	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36	LMW-10R-D_40.5	LMW-10R-S_24.75	LMW-10R-D_49	LMW-10R-D_30.75	LMW-10R-D_40.75	LMW-10R-D_63
			Sample Date	12/23/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	12/23/2022	02/13/2024	09/29/2022	02/13/2024	02/13/2024	09/29/2022
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections
			Sample Depth	18.25	21.5	26.5	28.5	34	36	40.5	23.75-29.75	49	26.75-35.75	40.75-45.75	63
			Sample El.	12.67 - 7.67	9.42 - 7.42	4.42 - 2.42	2.42 - 0.42	-3.08 - -5.08	-5.08 - -7.08	-11.93 - -16.93	-9 - -15	-20.43 - -22.43	-12 - -21	-26 - -31	-34.43 - -36.43
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.17 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.23 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	2.1 J	**91**	**84**	**88**	**100**	**160**	2.3 J	30	**100**	4.3 J	5.1	**91**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.25 J	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J	0.2 J	<0.5 U	<0.5 U	0.76	0.66	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.81	<0.5 U	0.44 J	0.42 J	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.6	**13**	**52**	7	6.4	**47**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**140**	**100**	**110**	**90**	**91**	**92**	**18**	**7.5**	5	<2.5 U	<2.5 U	4.3
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	21	17 J	21	24	35	<5 U	5.6	23 J	<5 U	<5 U	21
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 UJ	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.82 J	3	<2.5 U	<2.5 U	2.5
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**26**	2.7	2.6	2	2	2.1	2.1	0.41 J	0.78	<0.5 U	<0.5 U	0.74
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	140	100	110	90	91	92	18	7.5	5	<2.5 U	<2.5 U	4.3
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**33**	**5.4**	**5.5**	4.9	4.8	4.7	1.1	0.33 J	1.6	<0.5 U	<0.5 U	1.6
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.37 J	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J	0.11 J	1.8	<1 U	0.63 J	0.75 J	<1 U
Metals															
Calcium	7440-70-2	NS	ug/l	184,000	NA	NA	NA	NA	NA	97,700	NA	NA	NA	153,000	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	693,900	NA	NA	NA	NA	NA	362,800	NA	NA	NA	493,800	NA
Iron	7439-89-6	**300**	ug/l	**33,000**	NA	NA	NA	NA	NA	**12,600**	NA	NA	NA	**15,200**	NA
Magnesium	7439-95-4	**35,000**	ug/l	**57,100**	NA	NA	NA	NA	NA	28,800	NA	NA	NA	27,200	NA
Manganese	7439-96-5	**300**	ug/l	**2,861**	NA	NA	NA	NA	NA	**1,638**	NA	NA	NA	**702.8**	NA
General Chemistry - Total															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	156,000	NA	NA	NA	NA	NA	177,000	NA	NA	NA	335,000	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	97,000	NA	NA	NA	NA	NA	66,000	NA	NA	NA	160,000	NA
Dissolved Organic Carbon	DOC	NS	ug/l	5,600	NA	NA	NA	NA	NA	5,300	NA	NA	NA	3,400	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	79 J	NA	NA	NA	NA	NA	47 J	NA	NA	NA	63 J	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	**530,000**	NA	NA	NA	NA	NA	190,000	NA	NA	NA	11,000	NA
Total Organic Carbon	TOC	NS	ug/l	5,500	NA	NA	NA	NA	NA	5,700	NA	NA	NA	3,200	NA

Table 4
Groundwater Monitoring Report and Injection Plan
Combined Groundwater Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Notes:
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected
The following groundwater samples and groundwater monitoring wells are not shown on Table 4 due to excavation for the basement construction: LMW-8R-S_14.5, LMW-8R-S_15, LMW-9R-S_15, LMW-10R-S_13, LMW-11R-S, LMW-11R-D, LMW-12R-S, LMW-12R-D, LMW-13R-S, and LMW-13R-D and overburden wells LMW-6, LMW-7, LMW-8, LMW-9, and LMW-10.
Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

Table 5
Groundwater Monitoring Report and Injection Plan
Bedrock Reagent Demand Summary

1487 1st Avenue Redevelopment Site
New York City, New York
Langan Project No. 100963701

		SRS-Z and SRS-EVO Injections				SRS-EVO Injections				Total
Bedrock Injection Wells		**LMW-7R-S**		**LMW-7R-D**	**LMW-8R-S**	**LMW-6R-S**	**LMW-9R-S**	**LMW-10R-S**	**LMW-8R-D**	
Treatment Interval	feet btoc	6.75-11.75	16.75-21.75	23.75-28.75	6.75-11.75	18.75-23.75	13.75- 19.75	23.75 - 29.75	57.75 - 64.75	-
Treatment Zone Thickness	feet	5	5	5	5	5	6	6	7	-
Injection ROI	feet	15	15	15	15	15	15	15	15	-
Fracture Porosity	fraction	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-
Treatment Pore Volume Under the Injection ROI	gallons	2,119	2,119	2,119	2,127	2,661	3,188	3,194	3,240	-
Pore Volume Targeted for Injections	%	15%	15%	15%	15%	15%	15%	15%	15%	-
Injection Solution Volume	gallons	318	318	318	319	399	478	479	486	-
Pore Volume Targeted for Injections	%	10%	10%	10%	10%	10%	10%	10%	10%	-
Injection Solution Volume	gallons	212	212	212	213	266	319	319	324	-
Reagent Demand										
ZVI Target Levels in Pore Volume	g/L	3.0	3.0	3.0	2.0	-	-	-	-	-
ZVI Demand	pounds	53	53	53	35	-	-	-	-	194
ZVI in EVO+ZVI Emulsion (SRS®-Z)	%	20%	20%	20%	20%	-	-	-	-	-
EVO in EVO+ZVI Emulsion (SRS®-Z)	%	80%	80%	80%	80%	-	-	-	-	-
EVO Demand	pounds	211	211	211	141	-	-	-	-	-
EVO Loading in Pore Volume	g/L	12	12	12	8	-	-	-	-	-
SRS®-Z Demand	gallons	27	27	27	18	-	-	-	-	100
	pounds	264	264	264	177	-	-	-	-	-
SRS®-EVO Demand	gallons	16	16	16	11	27	49	8	19	164
	pounds	132	132	132	88	221	398	66	157	-
TSI-Ferrous Sulfide Activator Dosage	g/L	0.3	0.3	0.3	0.2	-	-	-	-	-
TSI-Ferrous Sulfide Activator Demand in Pore Volume	pounds	5.3	5.3	5.3	3.5	-	-	-	-	-
	gallons	0.5	0.5	0.5	0.4	-	-	-	-	2.0
TSI-DC® Target Levels	cells/Liter	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	-
TSI-DC® Demand	liters	2.2	2.2	2.2	2.2	1.8	2.2	2.2	2.2	17.0
DAP Target Levels in Pore Volume	mg/L	250	250	250	250	250	250	250	250	-
DAP Total Demand	pounds	7	7	7	7	6	7	7	7	-
DAP supplied by EVO	pounds	0.2	0.2	0.2	0.1	0.1	0.2	0.0	0.1	-
Additional DAP Demand	pounds	6.4	6.4	6.4	6.5	5.4	6.4	6.6	6.7	51
Yeast Extract Target Levels in Pore Volume	mg/L	250	250	250	250	250	250	250	250	-
Yeast Extract Total Demand	pounds	7	7	7	7	6	7	7	7	-
Yeast Extract Supplied by EVO	pounds	1	1	1	1	1	1	0.2	0.5	-
Additional Yeast Extract Demand	pounds	6	6	6	6	5	5	6	6	46
Calcium Carbonate Target Levels in Pore Volume	g/L	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	-
Calcium Carbonate Demand	pounds	93	93	93	93	77	93	93	94	728
Target level of Sodium Ascorbate in Injection Mix	lb/1000 gallons	8	8	8	8	8	8	8	8	-
Sodium Ascorbate Demand	pounds	4	4	4	4	3	4	4	4	30

Notes:
btoc - below top of the casing
DAP - diammonium phosphate
EVO - emulsified vegetable oil
g/L - grams per liter
mg/L - milligrams per liter
lb/1000 gallon - pounds per 1000 gallons
ROI - radius of influence
ZVI - Zero valent iron (4 micron)
TOC - total organic carbon
NA - data is not available
Hydraulic gradient is an average of low and high gradient computed from September 14, 2022 groundwater monitoring data.
Hydraulic conductivity in a well is an average of hydraulic conductivity calculated for different packer intervals in the well. For wells where packer tests were not performed, data from adjacent wells is used.
A fracture porosity of 0.1 was used for injection calculations.
Based on field observations up to 15% of pore volume will be injected.
ZVI target levels in pore volume range from 0.5 to 3.5 g/L depending upon the concentration of chlorinated volatile organic compounds (CVOCs) in the well and the levels of total organic carbon that are reached in the pore volume using a EVO and ZVI emulsion.
EVO demand is calculated based on percentage of ZVI and EVO in the SRS®-Z emulsion and was adjusted to reach at least approximately 500 mg/L TOC levels in the design volume.
EVO demand meets or is in excess of EVO demand estimated using Environmental Security Technology Certification Program (ESTCP) substrate requirements for hydrogen demand calculation sheet.
SRS®-ZVI is a proprietary product, combined emulsified vegetable oil substrate and zero valent, formulated by Terra Systems, Inc. (Claymont, DE).
The density of SRS®-Z with 20% ZVI is 9.7 pounds/gallon and with 10% ZVI is 8.81 pounds/gallon.
SRS®-EVO is a proprietary emulsified vegetable oil substrate, formulated by Terra Systems, Inc. (Claymont, DE).
TSI-Ferrous Sulfide Activator (mix of ferrous sulfide and sodium sulfide solution) distributed by Terra Systems, Inc. will be added to the SRS®-Z to form the sulfidated ZVI.
The density of ferrous sulfide solution is 1.15 to 1.22 grams per milliliter or an average of 9.88 pounds per gallon.
TSI-DC® Bioaugmentation Culture® - *Dehalococcoides* containing microbial consortium for anaerobic bioremediation is cultured by Terra Systems, Inc. (Claymont, DE).
Approximately 0.3% yeast extract and 0.05% diammonium phosphate (DAP) are included in commercial SRS®-ZVI formulation. Additional dosage of yeast extract and diammonium phosphate will be added to facilitate microbial growth.

Table 6
Groundwater Monitoring Report and Injection Plan
Injection Monitoring

1487 1st Avenue Redevelopment Site
New York City, New York
Langan Project No. 100963701

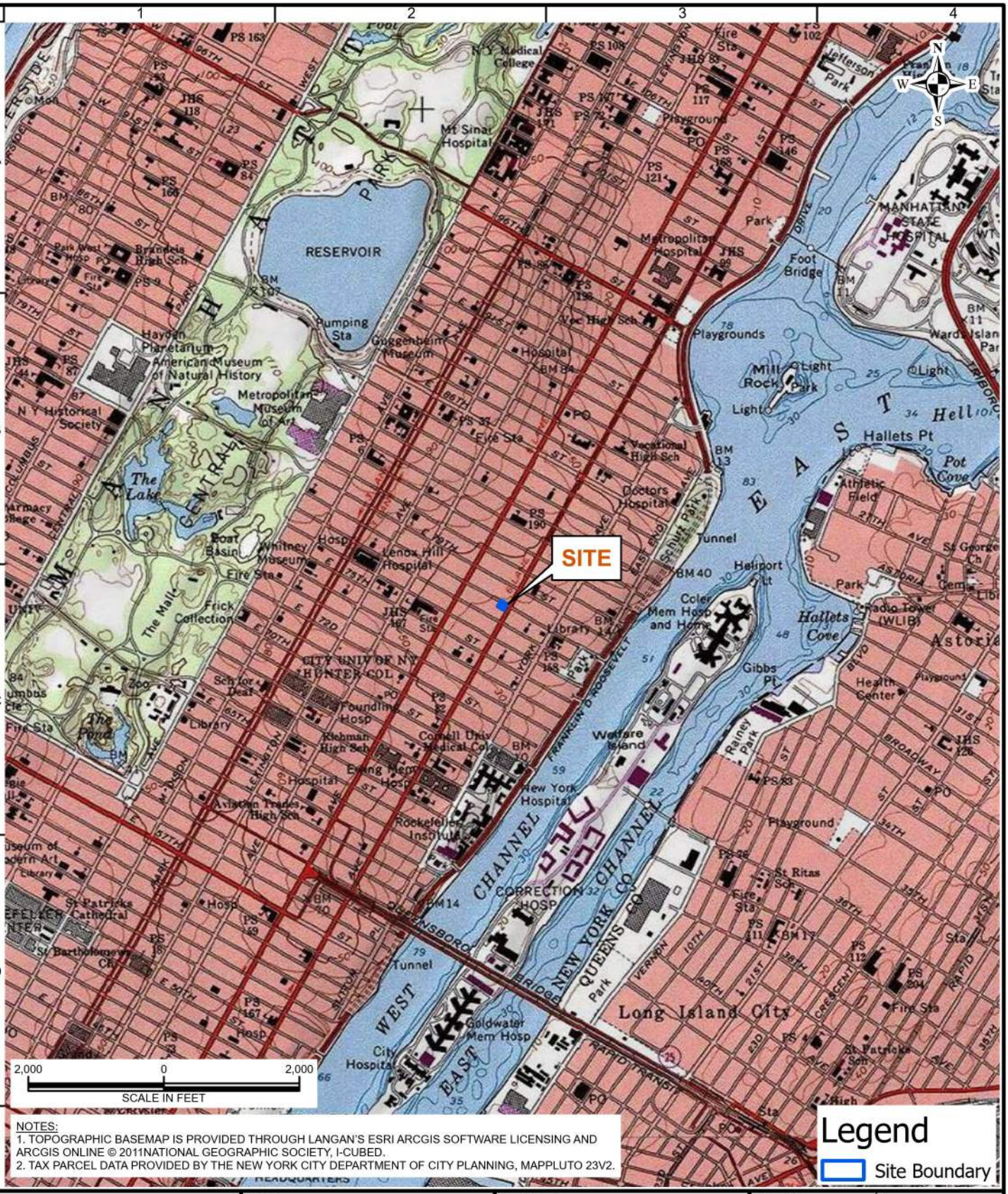
Location	Matrix	Parameters	Frequency	Monitoring Instruments/Method
Monitoring Locations[a]	Groundwater[b]	Groundwater pressure	Before injection event begins and 2 to 3 times daily during injections	Transducer
		Field parameters	Before injection event begins and 2 to 3 times daily during injection	Horiba U-52 or YSI meter
	Well Field	Surfacing/Leaks	Before injection event begins and every 30 - 60 mins	Visual Inspection
Injection System including Skid, Distribution Manifold and Injection Well Heads[c]	Injection Mix	Flow-rate, volume injected and injection pressure	Every 30 - 60 mins	Pressure gauges, and totalizers
Anaerobic Water Tank	Water	Dissolved oxygen and pH	2 to 3 times daily during injection	Horiba U-52 or YSI meter

Notes:
Field parameters - dissolved oxygen, oxidation-reduction potential, conductivity, pH, temperature, turbidity, total dissolved solids and salinity

[a] - Wells for injection monitoring will include all wells identified for injections in Table 3.

[b] - In well water quality measurements will be performed.

FIGURES



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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

Project

1487 1ST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No.27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

SITE LOCATION MAP

Project No.	100963701
Date	9/28/2023
Scale	1"=2,000'
Drawn By	JF
Submission Date	

Figure 1

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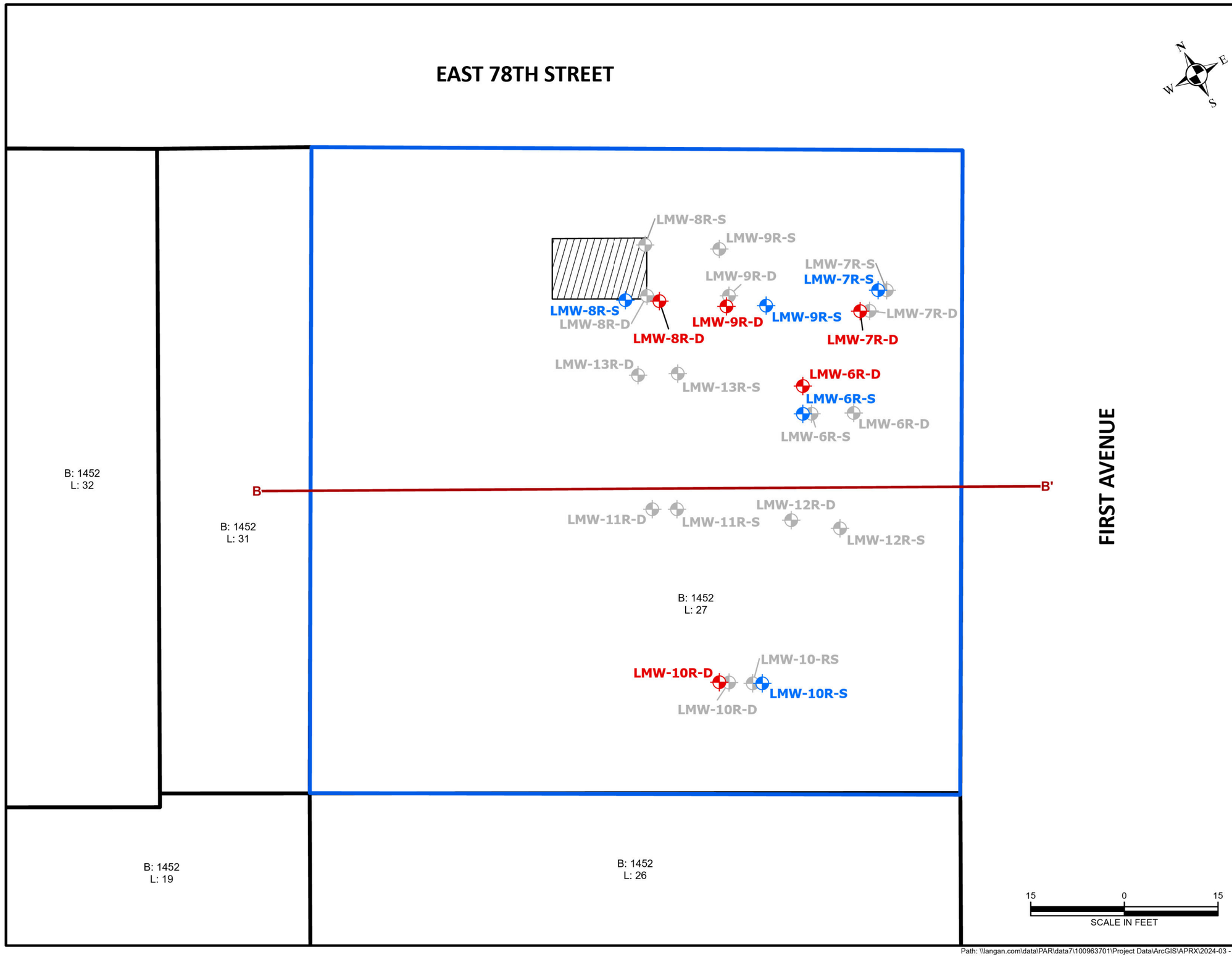

LEGEND

- SITE BOUNDARY
- TAX LOT BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- CROSS SECTION
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
3. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

1487 FIRST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No. 27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

BEDROCK WELL LOCATION PLAN

Project No. 100963701	Figure 2
Date 3/25/2024	
Scale 1"=15'	
Drawn By ATR	

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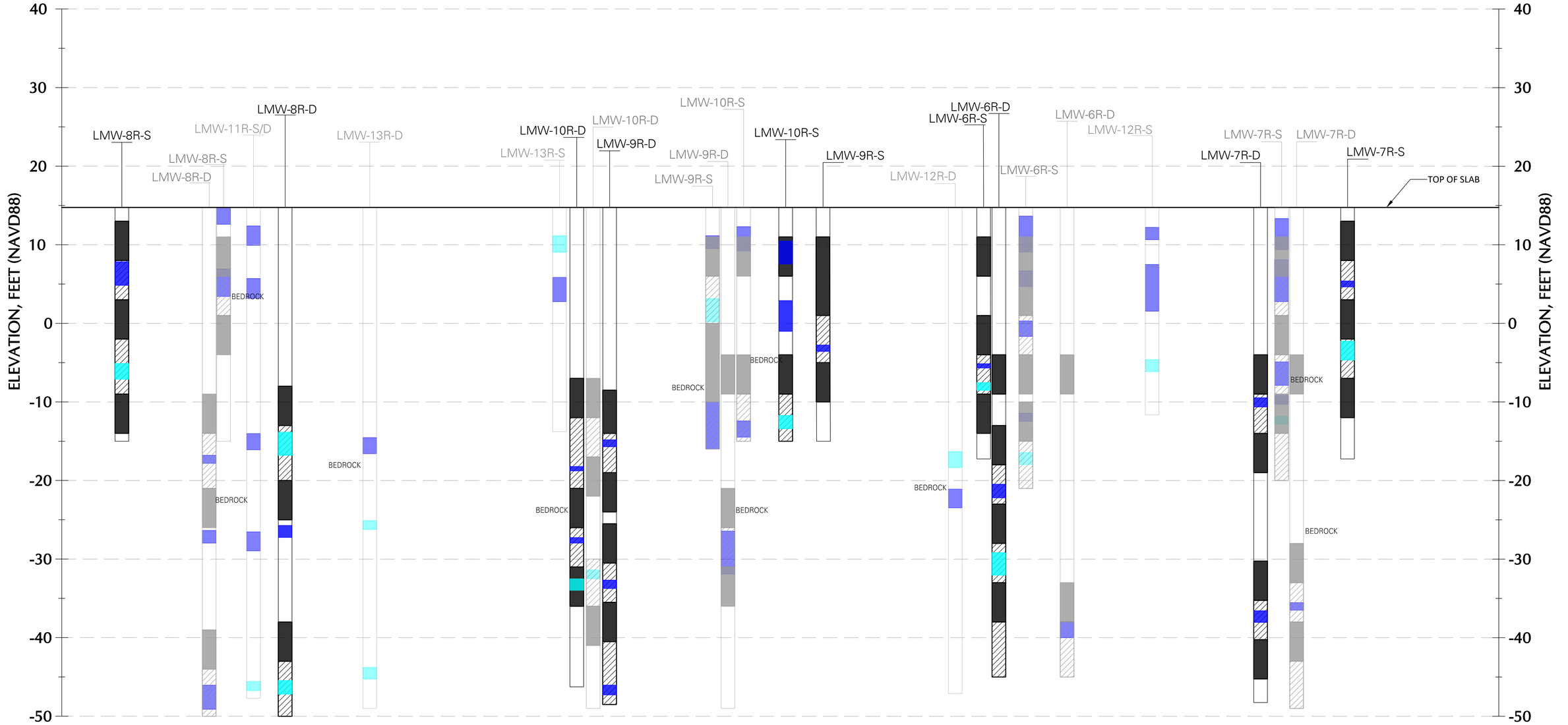

SECTION B-B'

VERTICAL SCALE: 1" = 6'
HORIZONTAL SCALE: N.T.S.

WELL KEY:

LMW-X LMW-X

NOTES:

1. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
2. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORTS PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED NOVEMBER 2022 AND JANUARY 2024.
3. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
4. PROPOSED WELL CONSTRUCTION IS SHOWN AS PRESENTED IN THE 16 OCTOBER 2023 PERFORMANCE MONITORING GROUNDWATER SAMPLING PLAN.
5. BASED ON THE RESULTS OF THE JANUARY 2024 BOREHOLE GEOPHYSICAL ASSESSMENT 10 OF THE SAMPLING INTERVALS IDENTIFIED IN THE OCTOBER 2023 GSP WERE CONFIRMED, SIX OF THE PROPOSED SAMPLING INTERVALS WERE MODIFIED TO BETTER ALIGN WITH WATE BEARING FRACTURES EITHER BY MOVING THEM VERTICALLY UP OR DOWN APPROXIMATELY 5 FEET OR HORIZONTALLY SHIFTING THE INTERVAL TO THE OTHER WELL IN ITS PAIR, AND THE DEEPEST SAMPLING INTERVAL PROPOSED TO BE INSTALLED AT LMW-7R-D INSTEAD WAS INSTALLED AT LMW-9R-D DUE TO THE LOCATION OF THE DETECTED WATER-BEARING FRACTURE.

PROPOSED WELL CONSTRUCTION
- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE

FINAL WELL CONSTRUCTION
- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

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MANHATTAN NEW YORK

Project	1487 1ST AVENUE REDEVELOPMENT SITE
Drawing Title	PROPOSED AND COMPLETED WELL CONSTRUCTION
Project No.	100963701
Date	3/22/2024
Drawn By	AR
Checked By	CR
Drawing No.	3

LANGAN PROJECT NO. 100963701

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Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Monitoring_Report_2024.dwg Date: 3/26/2024 Time: 09:29 User: jfraser Style Table: Langan.stb Layout: Figure 3 - Well Construction And Performance

EAST 78TH STREET

Location	LMW-8R-D	LMW-8R-D
Sample Name	LMW-8R-D_27.75	LMW-8R-D_59.75
Sample Date	02/14/2024	02/14/2024
Sample Depth	27.75-34.75	57.75-64.75
VOCs		
Chloroform	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	1.3 J	2.3 J
Tetrachloroethene (PCE)	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U	<2.5 U
Trichloroethene (TCE)	<0.5 U	<0.5 U
Vinyl Chloride	0.94 J	**2.7**

Location	LMW-9R-D
Sample Name	LMW-9R-D_58.25
Sample Date	02/14/2024
Sample Depth	55.25-63.25
VOCs	
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U
Tetrachloroethene (PCE)	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U
Trichloroethene (TCE)	<0.5 U
Vinyl Chloride	0.24 J

Location	LMW-9R-S
Sample Name	LMW-9R-S_13.75
Sample Date	02/13/2024
Sample Depth	13.75-19.75
VOCs	
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U
Tetrachloroethene (PCE)	0.2 J
Trans-1,2-Dichloroethene	<2.5 U
Trichloroethene (TCE)	<0.5 U
Vinyl Chloride	**4.6**

Location	LMW-8R-S	LMW-8R-S	LMW-8R-S
Sample Name	LMW-8R-S_6.75	DUP01_021424	LMW-8R-S_18.75
Sample Date	02/14/2024	02/14/2024	02/14/2024
Sample Depth	6.75-11.75	6.75-11.75	16.75-23.75
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	**14**	**17**	2.9
Tetrachloroethene (PCE)	0.54	0.64	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	0.56	0.7	<0.5 U
Vinyl Chloride	**4.4**	**5.2**	1.6

Location	LMW-7R-S	LMW-7R-S
Sample Name	LMW-7R-S_6.75	LMW-7R-S_16.75
Sample Date	02/13/2024	02/13/2024
Sample Depth	6.75-11.75	16.75-21.75
VOCs		
Chloroform	<12 U	<12 U
Cis-1,2-Dichloroethene	**500**	**560**
Tetrachloroethene (PCE)	**21**	**25**
Trans-1,2-Dichloroethene	4 J	**5.1 J**
Trichloroethene (TCE)	**21**	**25**
Vinyl Chloride	**46**	**70**

Location	LMW-6R-D	LMW-6R-D	LMW-6R-D
Sample Name	LMW-6R-D_32.75	LMW-6R-D_42.75	LMW-6R-D_54.75
Sample Date	02/13/2024	02/13/2024	02/13/2024
Sample Depth	32.75-37.75	42.75-47.75	52.75-59.75
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	1.2 J	1.2 J	0.8 J
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	<0.5 U	<0.5 U	<0.5 U
Vinyl Chloride	1.2	1.1	0.61 J

Location	LMW-7R-D	LMW-7R-D
Sample Name	LMW-7R-D_23.75	LMW-7R-D_49.75
Sample Date	02/13/2024	02/13/2024
Sample Depth	23.75-28.75	49.75-54.75
VOCs		
Chloroform	<10 U	<2.5 U
Cis-1,2-Dichloroethene	**29**	**20**
Tetrachloroethene (PCE)	1.2 J	0.28 J
Trans-1,2-Dichloroethene	<10 U	<2.5 U
Trichloroethene (TCE)	1 J	0.21 J
Vinyl Chloride	**17**	**27**

Location	LMW-6R-S
Sample Name	LMW-6R-S_18.75
Sample Date	02/14/2024
Sample Depth	18.75-23.75
VOCs	
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	3.3
Tetrachloroethene (PCE)	0.28 J
Trans-1,2-Dichloroethene	<2.5 U
Trichloroethene (TCE)	0.31 J
Vinyl Chloride	**2.8**

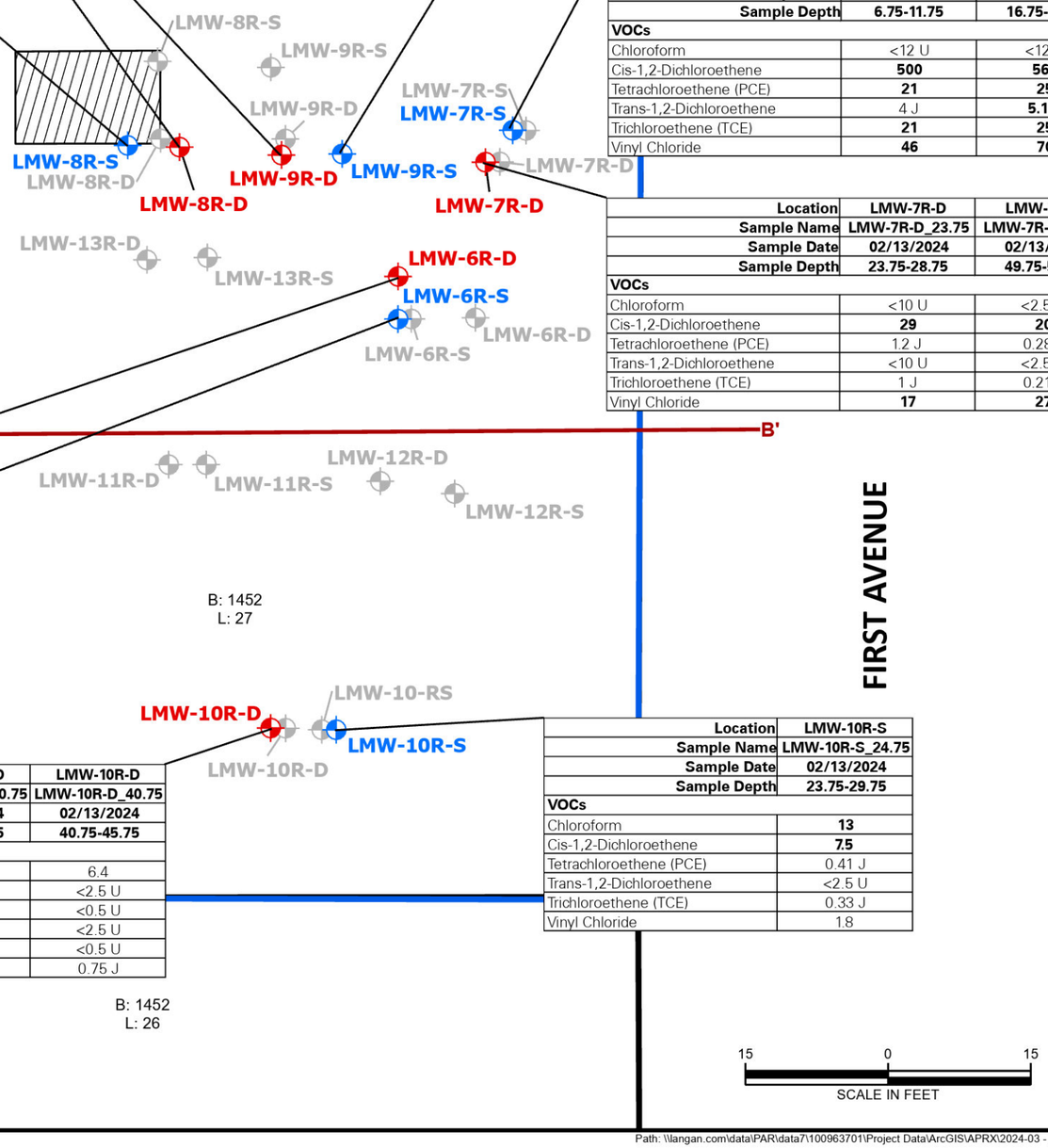
Location	LMW-10R-D	LMW-10R-D
Sample Name	LMW-10R-D_30.75	LMW-10R-D_40.75
Sample Date	02/13/2024	02/13/2024
Sample Depth	26.75-35.75	40.75-45.75
VOCs		
Chloroform	7	6.4
Cis-1,2-Dichloroethene	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U	<2.5 U
Trichloroethene (TCE)	<0.5 U	<0.5 U
Vinyl Chloride	0.63 J	0.75 J

Location	LMW-10R-S
Sample Name	LMW-10R-S_24.75
Sample Date	02/13/2024
Sample Depth	23.75-29.75
VOCs	
Chloroform	**13**
Cis-1,2-Dichloroethene	**7.5**
Tetrachloroethene (PCE)	0.41 J
Trans-1,2-Dichloroethene	<2.5 U
Trichloroethene (TCE)	0.33 J
Vinyl Chloride	1.8

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs



LEGEND

- SITE BOUNDARY
- TAX LOT BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- CROSS SECTION
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
3. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.

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Project

1487 FIRST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No. 27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

CHLORINATED VOC ANALYTICAL RESULTS

Project No.	Figure
100963701	4A
Date: 4/22/2024	
Scale: 1"=15'	
Drawn By: ATR	

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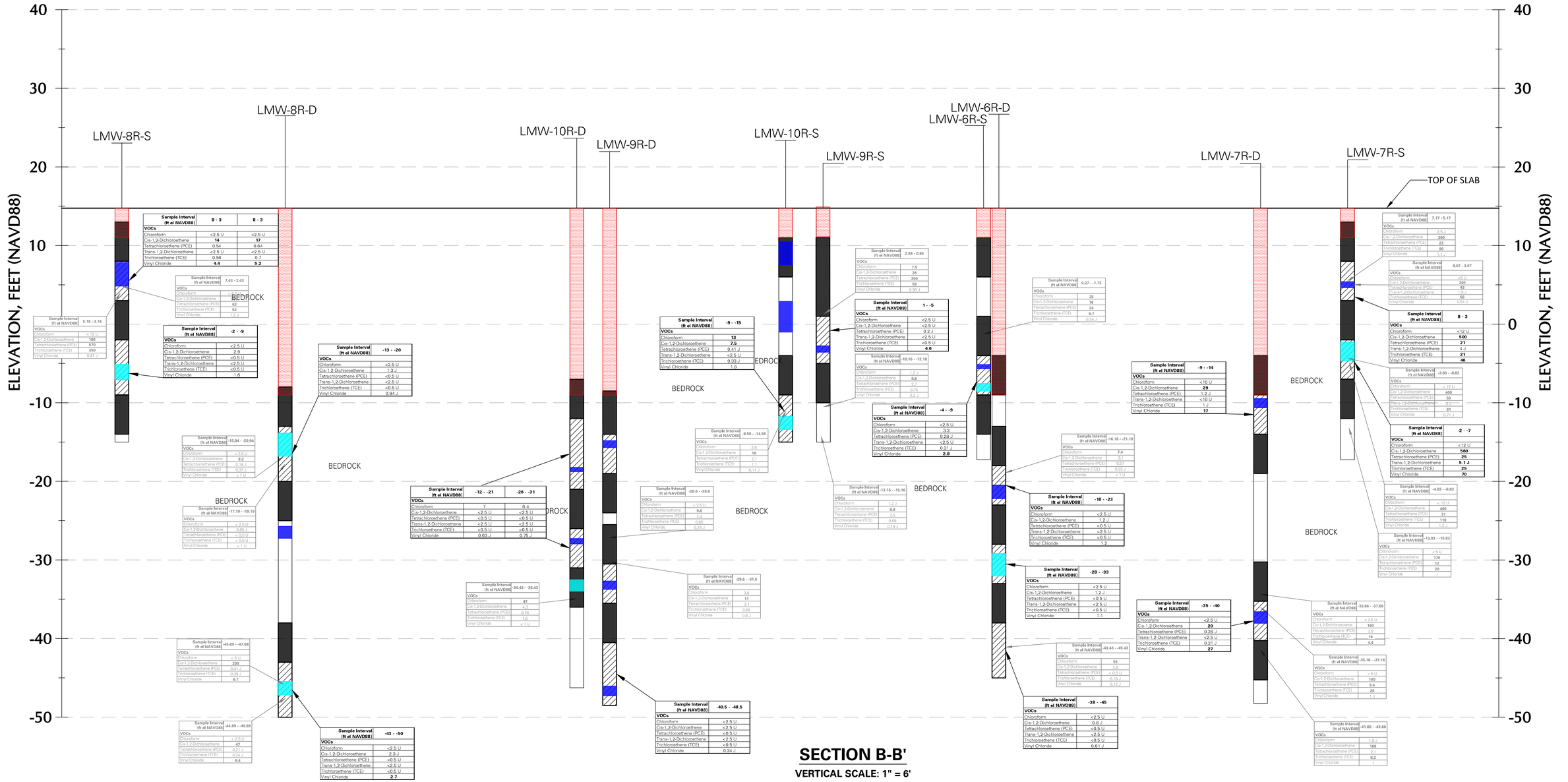

SECTION B-B'

VERTICAL SCALE: 1" = 6'
HORIZONTAL SCALE: N.T.S.

WELL KEY:

LMW-X LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
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4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE 2024 PERFORMANCE GROUNDWATER MONITORING EVENT.

GROUNDWATER PRODUCING INTERVAL
MINOR GROUNDWATER PRODUCING INTERVAL
PACKER INTERVAL
MONITORING ZONE
CASING LENGTH

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

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Project
1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title
CHLORINATED VOC ANALYTICAL RESULTS

Project No. 100963701
Date 4/24/2024
Drawn By AR
Checked By CR

Drawing No. 4B

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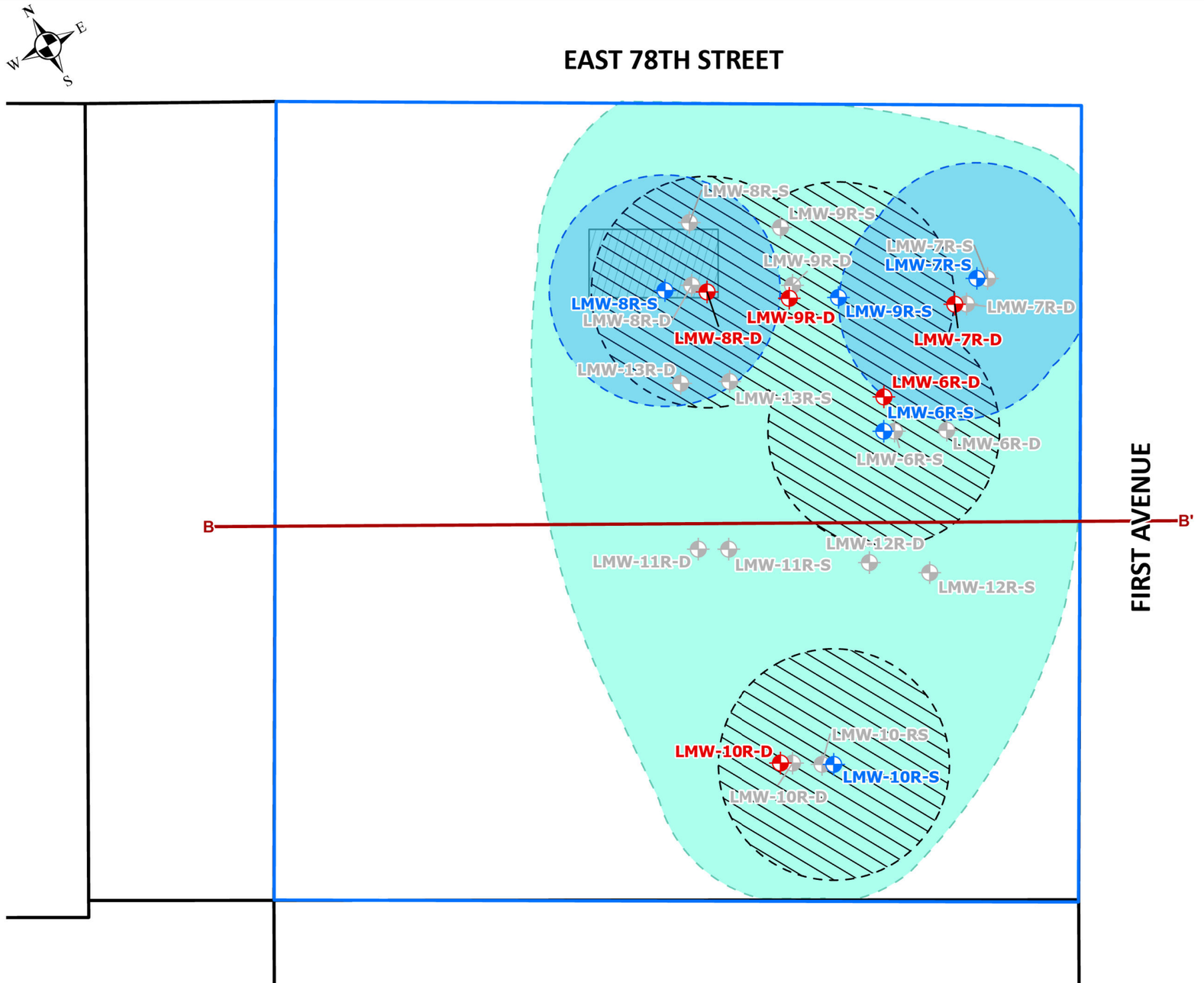
LANGAN
PROJECT NO. 100963701



LEGEND

- SITE BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- TAX LOT BOUNDARY
- CROSS SECTION
- 2023 TREATMENT ZONE
- PROPOSED EZVI TREATMENT ZONE
- PROPOSED EVO INJECTION ZONE
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
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4. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.
3. 2023 TREATMENT ZONE IS SHOWN AS PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN.

15 0 15
SCALE IN FEET

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Project
1487 FIRST AVENUE REDEVELOPMENT SITE
BLOCK No. 1452, LOT No. 27
MANHATTAN
NEW YORK NEW YORK

Drawing Title
PROPOSED BEDROCK TREATMENT AREA AND INJECTION LOCATIONS

Project No.	100963701
Date	3/26/2024
Scale	1"=15'
Drawn By	PDT
Figure	5A

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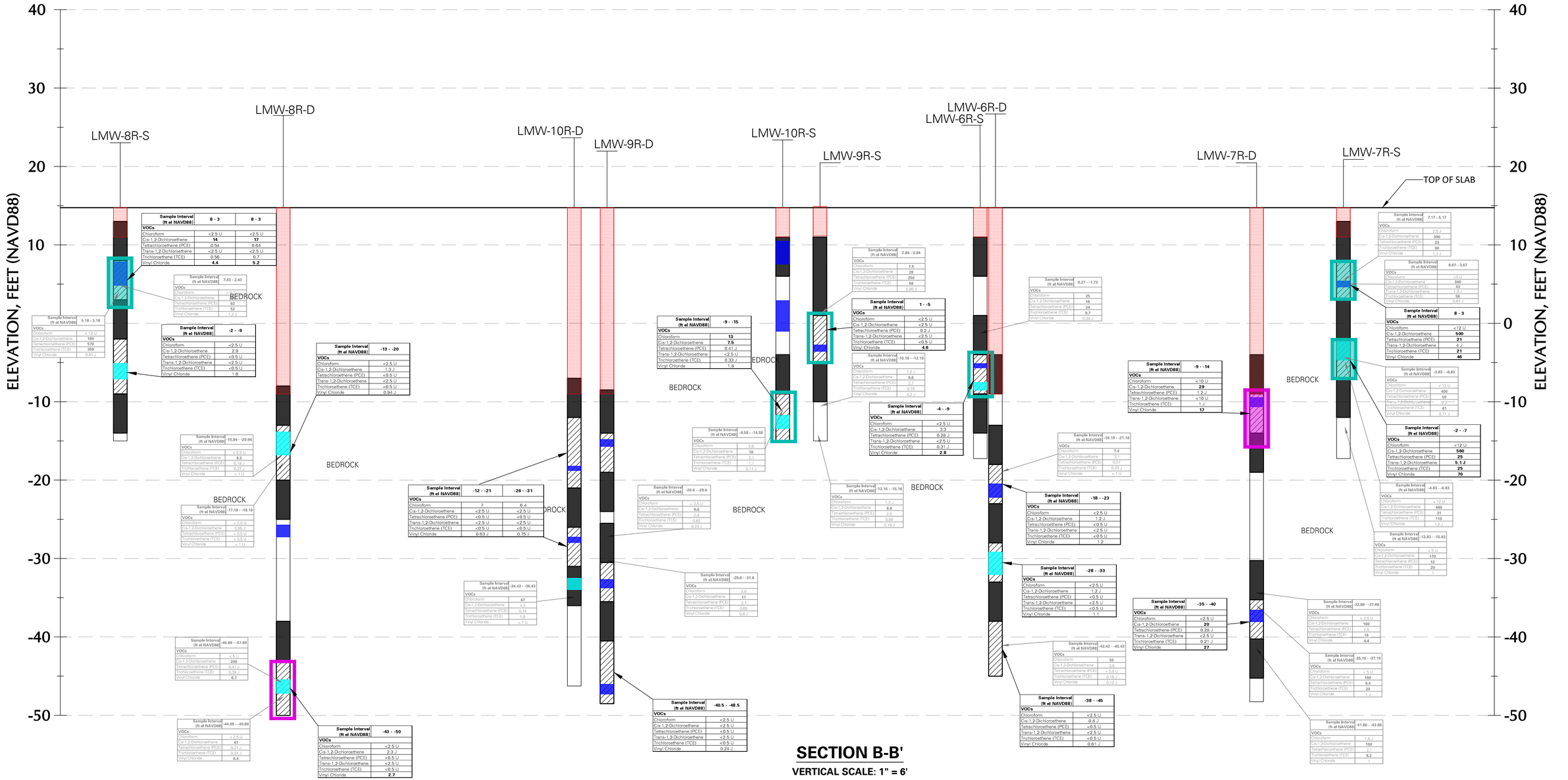
Path: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\APRX\2024-03 - Monitoring Report\Monitoring Report.aprx Date: 3/26/2024 User: jfraser Time: 9:32 AM



SECTION B-B'

VERTICAL SCALE: 1" = 6'
HORIZONTAL SCALE: N.T.S.

WELL KEY:

LMW-X

NOTES:

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Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

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Project
1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title
PROPOSED BEDROCK TREATMENT INJECTION INTERVALS

Project No. 100963701
Date 4/24/2024
Drawn By AR
Checked By CR

Drawing No. 5B

LANGAN
PROJECT NO. 100963701

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APPENDIX A

Well Construction Logs

WELL CONSTRUCTION SUMMARY

Well No. LMW-6R-S

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/18/2023 **DATE FINISHED** 02/02/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-6R-S to a depth of 3.75-feet below top of slab (btos). 5-inch ID steel casing was grouted in place from 0-feet to 3.75-feet btos. Following casing installation, the borehole for LMW-6R-S was advanced with a 4-inch air hammer bit to a depth of 35.78-feet btos on 22 November 2023. Following drilling, the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 3.75-feet to 8.75-feet btos, 13.75-feet to 18.75-feet btos, and 23.75-feet to 28.75-feet btos, sampling ports at 8.75-feet, 18.75-feet, and 28.75-feet btos, and a pumping port at 23.75-feet btos on 2 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

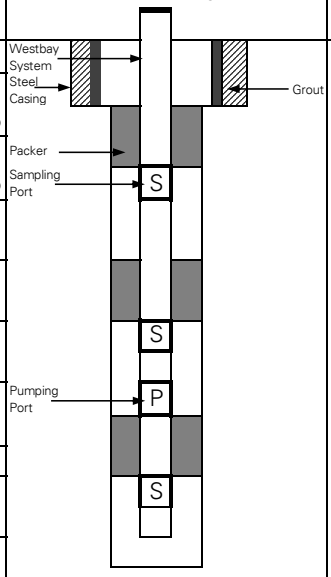
TYPE OF WELL CASING Steel		**DIAMETER** 5-inch	**TYPE OF BACKFILL MATERIAL** Grout	
BOTTOM OF CASING	**ELEVATION** 11.00	**DEPTH (ft)** 3.75	**TYPE OF SEAL MATERIAL** Grout	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 14.75 **DEPTH (ft)** 0.00
BOTTOM OF WELL	**ELEVATION** -21.03	**DEPTH (ft)** 35.78		

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** -4	**DEPTH (ft)** 18.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -9	**DEPTH (ft)** 23.75
TOP OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
TOP OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	DATE	PIEZOMETRIC LEVEL
18.75	2/2/2024	-8.11
	--	--
	--	--



SUMMARY SOIL CLASSIFICATION	DEPTH (FT) bgs
Bedrock	3.75
	8.75
	13.75
	18.75
	23.75
	28.75
	31.75
	35.78

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive, Parsippany, New Jersey 07054

WELL CONSTRUCTION SUMMARY

Well No. LMW-6R-D

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/20/23 **DATE FINISHED** 02/02/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-6R-D to a depth of 23.75-feet below top of slab (btos). 5-inch ID steel casing was installed to 23.75-feet btos, bentonite was placed from 3 to 23.75-feet btos followed by grout between 0-feet and 3-feet btos. Following casing installation, the borehole for LMW-6R-D was advanced with a 4-inch air hammer bit to a depth of 59.79-feet btos on 28 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 18.75-feet to 23.75-feet btos, 27.75-feet to 32.75-feet btos, 37.75-feet to 42.75-feet btos, and 47.75-feet to 52.75-feet btos, sampling ports at 23.75-feet, 32.75-feet, 42.75-feet, and 54.75-feet btos, and pumping ports at 37.75-feet, 47.75-feet, and 52.75-feet btos on 2 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

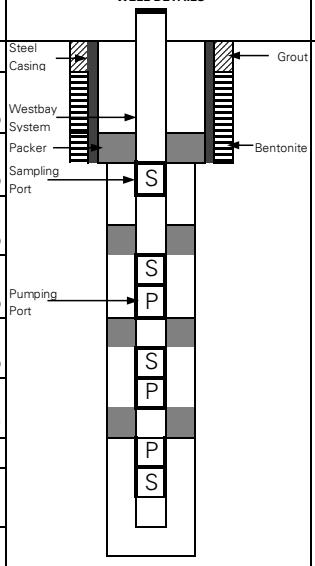
TYPE OF WELL CASING Steel	**DIAMETER** 5-inch		**TYPE OF BACKFILL MATERIAL** Grout and Bentonite	
BOTTOM OF CASING	**ELEVATION** -9.00	**DEPTH (ft)** 23.75	**TYPE OF SEAL MATERIAL** Bentonite	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 11.75 **DEPTH (ft)** 3.00
BOTTOM OF WELL	**ELEVATION** -45.04	**DEPTH (ft)** 59.79		

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** -18	**DEPTH (ft)** 32.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -23	**DEPTH (ft)** 37.75
TOP OF SAMPLE INTERVAL	**ELEVATION** -28	**DEPTH (ft)** 42.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -33	**DEPTH (ft)** 47.75
TOP OF SAMPLE INTERVAL	**ELEVATION** -38	**DEPTH (ft)** 52.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -45.04	**DEPTH (ft)** 59.79

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	DATE	PIEZOMETRIC LEVEL
32.75	2/2/2024	-8.38
42.75	2/2/2024	-9.78
54.75	2/2/2024	-11.48



SUMMARY SOIL CLASSIFICATION	DEPTH (FT) bgs
Bedrock	3.00
	18.75
	23.75
	27.75
	32.75
	37.75
	42.75
	47.75
	52.75
	54.75
	59.75
	59.79

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WELL CONSTRUCTION SUMMARY

Well No. LMW-7R-S

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/16/2023 **DATE FINISHED** 02/05/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-7R-S to a depth of 3.75-feet below top of slab (btos). 5-inch ID steel casing was grouted in place from 0-feet to 3.75-feet btos. Following casing installation, the borehole for LMW-7R-S was advanced with a 4-inch air hammer bit to a depth of 34.78-feet btos on 24 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 1.75-feet to 6.75-feet btos, 11.75-feet to 16.75-feet btos, and 21.75-feet to 26.75-feet btos, sampling ports at 6.75-feet, 11.75-feet, and 26.75-feet btos, and pumping ports at 11.75-feet and 21.75-feet btos on 5 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

TYPE OF WELL CASING Steel	**DIAMETER** 5-inch	**TYPE OF BACKFILL MATERIAL** Grout	
BOTTOM OF CASING	**ELEVATION** 11.00	**DEPTH (ft)** 3.75	**TYPE OF SEAL MATERIAL** Grout
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL** **ELEVATION** 14.75 **DEPTH (ft)** 0.00
BOTTOM OF WELL	**ELEVATION** -20.03	**DEPTH (ft)** 34.78	

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** 8	**DEPTH (ft)** 6.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** 3	**DEPTH (ft)** 11.75
TOP OF SAMPLE INTERVAL	**ELEVATION** -2	**DEPTH (ft)** 16.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -7	**DEPTH (ft)** 21.75
TOP OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	**DATE**	**PIEZOMETRIC LEVEL**
6.75	02/05/2024	-9.50
SAMPLING PORT DEPTH	**DATE**	**PIEZOMETRIC LEVEL**
16.75	02/05/2024	-9.49
SAMPLING PORT DEPTH	**DATE**	**PIEZOMETRIC LEVEL**
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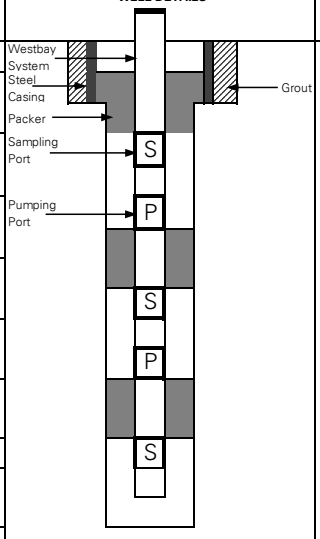
WELL DETAILS



SUMMARY SOIL CLASSIFICATION	**DEPTH (FT) bgs**
Bedrock	1.75
	3.75
	6.75
	11.75
	16.75
	21.75
	26.75
	31.75
	34.78

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WELL CONSTRUCTION SUMMARY

Well No. LMW-7R-D

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/16/2023 **DATE FINISHED** 02/01/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-7R-D to a depth of 23.75-feet below top of slab (btos). 5-inch ID steel casing was installed to 23.75-feet btos, bentonite was placed from 3 to 23.75-feet btos followed by grout between 0-feet and 3-feet btos. Following casing installation, the borehole for LMW-7R-D was advanced with a 4-inch air hammer bit to a depth of 63.81-feet btos on 27 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 18.75-feet to 23.75-feet btos, 28.75-feet to 33.75-feet btos, 44.75-feet to 49.75-feet btos, and 54.75-feet to 59.75-feet btos, sampling ports at 23.75-feet, 33.75-feet, 49.75-feet, and 59.75-feet btos, and pumping ports at 28.75-feet and 54.75-feet btos on 1 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

TYPE OF WELL CASING Steel		**DIAMETER** 5-inch	**TYPE OF BACKFILL MATERIAL** Grout and Bentonite	
BOTTOM OF CASING	**ELEVATION** -9.00	**DEPTH (ft)** 23.75	**TYPE OF SEAL MATERIAL** Bentonite	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 11.75 **DEPTH (ft)** 3.00
BOTTOM OF WELL	**ELEVATION** -49.06	**DEPTH (ft)** 63.81		

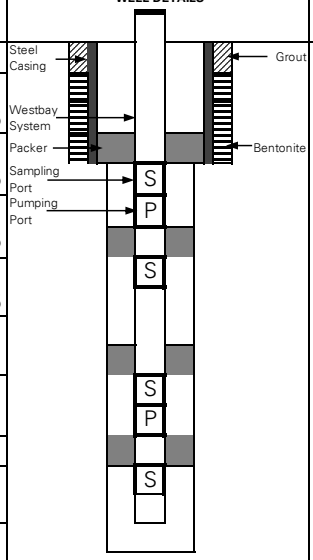
WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** -9	**DEPTH (ft)** 23.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -14	**DEPTH (ft)** 28.75
TOP OF SAMPLE INTERVAL	**ELEVATION** -35	**DEPTH (ft)** 49.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -40	**DEPTH (ft)** 54.75
TOP OF SAMPLE INTERVAL	**ELEVATION** –	**DEPTH (ft)** –
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** –	**DEPTH (ft)** –

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	DATE	PIEZOMETRIC LEVEL
23.75	2/1/2024	-6.98
49.75	2/1/2024	-4.11
	–	–

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT) bgs
Bedrock	3.00
	18.75
	23.75
	28.75
	33.75
	44.75
	49.75
	54.75
	59.75
	63.75
	63.81

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WELL CONSTRUCTION SUMMARY

Well No. LMW-8R-S

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/18/2023 **DATE FINISHED** 02/01/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-8R-S to a depth of 3.75-feet below top of slab (btos). 5-inch ID steel casing was grouted in place from 0-feet to 3.75-feet btos. Following casing installation, the borehole for LMW-7R-S was advanced with a 4-inch air hammer bit to a depth of 30.10-feet btos on 25 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 1.75-feet to 6.75-feet btos, 11.75-feet to 16.75-feet btos, and 23.75-feet to 28.75-feet btos, sampling ports at 6.75-feet, 18.75-feet, and 28.75-feet btos, and pumping ports at 11.75-feet and 23.75-feet btos on 1 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

TYPE OF WELL CASING Steel		**DIAMETER** 5-inch	**TYPE OF BACKFILL MATERIAL** Grout	
BOTTOM OF CASING	**ELEVATION** 11.00	**DEPTH (ft)** 3.75	**TYPE OF SEAL MATERIAL** Grout	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 14.75 **DEPTH (ft)** 0.00
BOTTOM OF WELL	**ELEVATION** -15.35	**DEPTH (ft)** 30.10	**WELL DETAILS**	

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** 8	**DEPTH (ft)** 6.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** 3	**DEPTH (ft)** 11.75
TOP OF SAMPLE INTERVAL	**ELEVATION** -2	**DEPTH (ft)** 16.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -9	**DEPTH (ft)** 23.75
TOP OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	DATE	PIEZOMETRIC LEVEL
6.75	02/01/2024	-7.27
18.75	02/01/2024	-7.33
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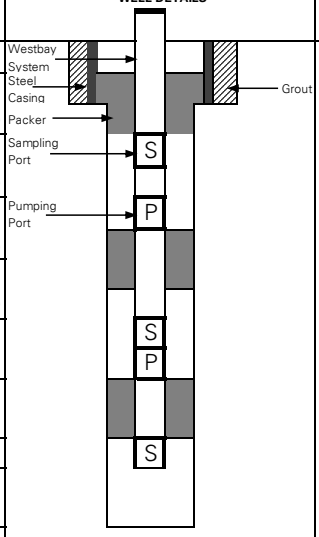

SUMMARY SOIL CLASSIFICATION	DEPTH (FT) bgs
Bedrock	1.75
	3.75
	6.75
	11.75
	16.75
	18.75
	23.75
	28.75
	29.75
	34.78

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WELL CONSTRUCTION SUMMARY

Well No. LMW-8R-D

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/20/23 **DATE FINISHED** 02/05/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-8R-D to a depth of 23.75-feet below top of slab (btos). The outer 7-inch steel casing was installed to a depth of 7-feet btos. The inner 5-inch ID steel casing was installed from 0-feet to 23.75-feet btos, bentonite was placed from 3 to 23.75-feet btos followed by grout between 0-feet and 3-feet btos. Following casing installation, the borehole for LMW-8R-D was advanced with a 4-inch air hammer bit to a depth of 64.77-feet btos on 25 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 22.75-feet to 27.75-feet btos, 34.75-feet to 39.75-feet btos, and 52.75-feet to 57.75-feet btos, sampling ports at 27.75-feet, 39.75-feet, and 59.75-feet btos, and pumping ports at 32.75-fee and 57.75-feet btos on 5 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

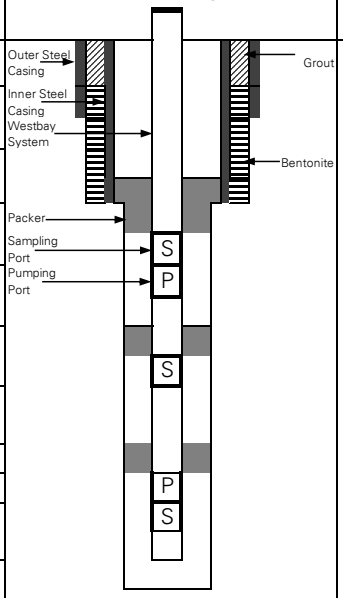
TYPE OF WELL CASING Steel		**DIAMETER** 5-inch	**TYPE OF BACKFILL MATERIAL** Grout and Bentonite	
BOTTOM OF CASING	**ELEVATION** -9.00	**DEPTH (ft)** 23.75	**TYPE OF SEAL MATERIAL** Bentonite	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 11.75 **DEPTH (ft)** 3.00
BOTTOM OF WELL	**ELEVATION** -50.02	**DEPTH (ft)** 64.77		

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** -13	**DEPTH (ft)** 27.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -20	**DEPTH (ft)** 34.75
TOP OF SAMPLE INTERVAL	**ELEVATION** -43	**DEPTH (ft)** 57.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -50.02	**DEPTH (ft)** 64.77
TOP OF SAMPLE INTERVAL	**ELEVATION** –	**DEPTH (ft)** –
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** –	**DEPTH (ft)** –

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	DATE	PIEZOMETRIC LEVEL
27.75	2/5/2024	-3.57
59.75	2/5/2024	-9.18
	–	–



SUMMARY SOIL CLASSIFICATION	DEPTH (FT) bgs
Bedrock	3.00
	7.00
	22.75
	23.75
	27.75
	32.75
	34.75
	39.75
	52.75
	57.75
	59.75
	64.75
	64.77

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WELL CONSTRUCTION SUMMARY

Well No. LMW-9R-S

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/18/2023 **DATE FINISHED** 02/06/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-9R-S to a depth of 3.75-feet below top of slab (btos). 5-inch ID steel casing was grouted in place from 0-feet to 3.75-feet btos. Following casing installation, the borehole for LMW-9R-S was advanced with a 4-inch air hammer bit to a depth of 30.76-feet btos on 22 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 3.75-feet to 8.75-feet btos, 8.75-feet to 13.75-feet btos, and 19.75-feet to 24.75-feet btos, sampling ports at 8.75-feet, 13.75-feet, and 24.75-feet btos, and a pumping port at 18.75-feet btos on 6 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

TYPE OF WELL CASING Steel	**DIAMETER** 5-inch		**TYPE OF BACKFILL MATERIAL** Grout	
BOTTOM OF CASING	**ELEVATION** 11.00	**DEPTH (ft)** 3.75	**TYPE OF SEAL MATERIAL** Grout	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 14.75 **DEPTH (ft)** 0.00
BOTTOM OF WELL	**ELEVATION** -16.01	**DEPTH (ft)** 30.76		

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** 1	**DEPTH (ft)** 13.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -5	**DEPTH (ft)** 19.75
TOP OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
TOP OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	**DATE**	**PIEZOMETRIC LEVEL**
13.75	2/6/2024	-8.72
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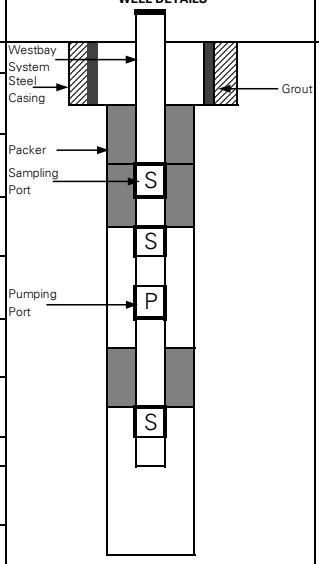

SUMMARY SOIL CLASSIFICATION	**DEPTH (FT) bgs**
Bedrock	3.75
	8.75
	13.75
	18.75
	19.75
	24.75
	27.75
	30.76

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WELL CONSTRUCTION SUMMARY

Well No. LMW-9R-D

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/20/23 **DATE FINISHED** 02/06/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-9R-D to a depth of 23.75-feet below top of slab (btos). The outer 7-inch steel casing was installed to a depth of 7-feet btos. The inner 5-inch ID steel casing was installed from 0-feet to 23.75-feet btos, bentonite was placed from 3 to 23.75-feet btos followed by grout between 0-feet and 3-feet btos. Following casing installation, the borehole for LMW-9R-D was advanced with a 4-inch air hammer bit to a depth of 63.75-feet btos on 27 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 23.25-feet to 28.25-feet btos, 33.25-feet to 38.25-feet btos, 40.25-feet to 45.25-feet btos, and 50.25-feet to 55.25-feet btos, sampling ports at 28.25-feet, 38.25-feet, 45.25-feet, and 58.25-feet btos, and pumping ports at 33.25-feet, 50.25-feet, and 55.25-feet btos on 6 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

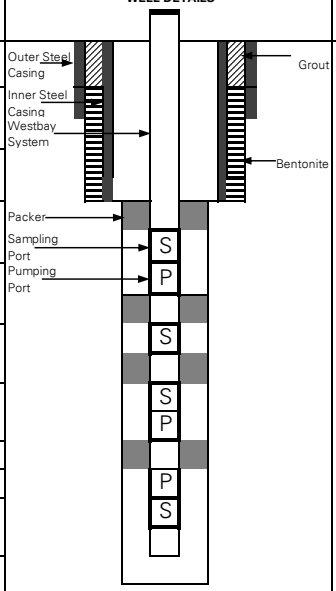
TYPE OF WELL CASING Steel		**DIAMETER** 5-inch	**TYPE OF BACKFILL MATERIAL** Grout and Bentonite	
BOTTOM OF CASING	**ELEVATION** -9.00	**DEPTH (ft)** 23.75	**TYPE OF SEAL MATERIAL** Bentonite	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 11.75 **DEPTH (ft)** 3.00
BOTTOM OF WELL	**ELEVATION** -49.00	**DEPTH (ft)** 63.75		

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** -13.5	**DEPTH (ft)** 28.25
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -18.5	**DEPTH (ft)** 33.25
TOP OF SAMPLE INTERVAL	**ELEVATION** -30.5	**DEPTH (ft)** 45.25
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -35.5	**DEPTH (ft)** 50.25
TOP OF SAMPLE INTERVAL	**ELEVATION** -40.5	**DEPTH (ft)** 55.25
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -49	**DEPTH (ft)** 63.75

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	DATE	PIEZOMETRIC LEVEL
28.25	2/9/2024	-8.10
45.25	2/9/2024	-8.84
58.25	2/9/2024	-9.15



SUMMARY SOIL CLASSIFICATION	DEPTH (FT) bgs
Bedrock	3.00
	7.00
	23.75
	28.25
	33.25
	38.25
	40.25
	45.25
	50.25
	55.25
	58.25
	63.25
	63.75

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WELL CONSTRUCTION SUMMARY

Well No. LMW-10R-S

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/15/2023 **DATE FINISHED** 02/07/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-10R-S to a depth of 3.75-feet below top of slab (btos). 5-inch ID steel casing was grouted in place from 0-feet to 3.75-feet btos. Following casing installation, the borehole for LMW-10R-S was advanced with a 4-inch air hammer bit to a depth of 29.75-feet btos on 22 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 3.75-feet to 8.75-feet btos and 18.75-feet to 23.75-feet btos, sampling ports at 8.75-feet and 24.75-feet btos, and a pumping port at 23.75-feet btos on 7 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

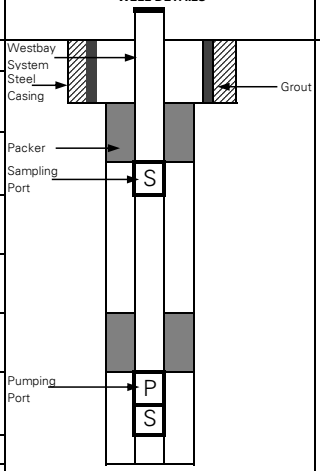
TYPE OF WELL CASING	**DIAMETER**		**TYPE OF BACKFILL MATERIAL**	
Steel	5-inch		Grout	
BOTTOM OF CASING	**ELEVATION**	**DEPTH (ft)**	**TYPE OF SEAL MATERIAL**	
	11.00	3.75	Grout	
BOREHOLE DIAMETER			**TOP OF SEAL**	**ELEVATION** 14.75 **DEPTH (ft)** 0.00
4-inch				
BOTTOM OF WELL	**ELEVATION**	**DEPTH (ft)**		
	-15.00	29.75		

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION**	**DEPTH (ft)**
	-9	23.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION**	**DEPTH (ft)**
	-15	29.75
TOP OF SAMPLE INTERVAL	**ELEVATION**	**DEPTH (ft)**
	--	--
BOTTOM OF SAMPLE INTERVAL	**ELEVATION**	**DEPTH (ft)**
	--	--
TOP OF SAMPLE INTERVAL	**ELEVATION**	**DEPTH (ft)**
	--	--
BOTTOM OF SAMPLE INTERVAL	**ELEVATION**	**DEPTH (ft)**
	--	--

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	**DATE**	**PIEZOMETRIC LEVEL**
24.75	2/7/2024	-9.04
	--	--
	--	--



SUMMARY SOIL CLASSIFICATION	**DEPTH (FT) bgs**
Bedrock	3.75
	8.75
	13.75
	18.75
	23.75
	24.75
	29.75

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300 Kimball Drive, Parsippany, New Jersey 07054

WELL CONSTRUCTION SUMMARY

Well No. LMW-10R-D

PROJECT 1487 1st Avenue	**PROJECT NO.** 100963701
LOCATION New York, NY	**ELEVATION AND DATUM** 14.75 NAVD 88 (Subcellar slab surface)
DRILLING AGENCY ECD NY	**DATE STARTED** 11/15/2023 **DATE FINISHED** 02/08/2024
DRILLING EQUIPMENT Comacchio MC 8D	**DRILLER** Willmer
SIZE AND TYPE OF BIT 4-inch Air Hammer	**INSPECTOR** Leo Thottumari

METHOD OF INSTALLATION

Drilling and Casing Installation: A Comacchio MC 8D track mounted air-rotary drill rig with a 5.75-inch air hammer bit was used to advance LMW-10R-D to a depth of 23.75-feet below top of slab (btos). 5-inch ID steel casing was installed to 23.75-feet btos, bentonite was placed from 3 to 23.75-feet btos followed by grout between 0-feet and 3-feet btos. Following casing installation, the borehole for LMW-10R-D was advanced with a 4-inch air hammer bit to a depth of 63.84-feet btos on 22 November 2023. Following drilling the borehole was flushed and capped until the Westbay System installation. All flushed water was containerized in a 55-gallon drum.

Westbay Installation: The Westbay System was installed with packers from 21.75-feet to 26.75-feet btos, 35.75-feet to 40.75-feet btos, and 45.75-feet to 50.75-feet btos, sampling ports at 30.75-feet, 40.75-feet, and 50.75-feet btos, and pumping ports at 35.75-feet and 45.75-feet btos on 8 February 2024.

SAMPLING INTERVAL PURGING

Each sampling interval was purged by opening the associated pumping port and removing one interval-volume with a D-25 foot valve connected to 0.5-inch-tubing. All water purged was containerized in a 55-gallon drum.

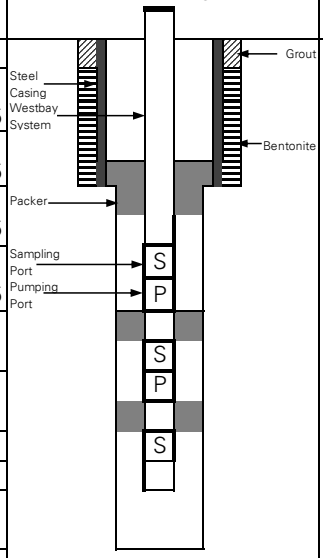
TYPE OF WELL CASING Steel		**DIAMETER** 5-inch	**TYPE OF BACKFILL MATERIAL** Grout and Bentonite	
BOTTOM OF CASING	**ELEVATION** -9.00	**DEPTH (ft)** 23.75	**TYPE OF SEAL MATERIAL** Bentonite	
BOREHOLE DIAMETER 4-inch			**TOP OF SEAL**	**ELEVATION** 11.75 **DEPTH (ft)** 3.00
BOTTOM OF WELL	**ELEVATION** -49.09	**DEPTH (ft)** 63.84		

WESTBAY SYSTEM

TOP OF SAMPLE INTERVAL	**ELEVATION** -12	**DEPTH (ft)** 26.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -21	**DEPTH (ft)** 35.75
TOP OF SAMPLE INTERVAL	**ELEVATION** -26	**DEPTH (ft)** 40.75
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** -31	**DEPTH (ft)** 45.75
TOP OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --
BOTTOM OF SAMPLE INTERVAL	**ELEVATION** --	**DEPTH (ft)** --

WESTBAY PIEZOMETRIC LEVELS

SAMPLING PORT DEPTH	DATE	PIEZOMETRIC LEVEL
30.75	2/8/2023	-9.18
40.75	2/8/2023	-9.10
	--	--



SUMMARY SOIL CLASSIFICATION	DEPTH (FT) bgs
Bedrock	3.00
	21.75
	23.75
	26.75
	30.75
	35.75
	40.75
	45.75
	50.75
	55.75
	63.84

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APPENDIX B

Geophysical Report

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GEOPHYSICS FOR THE ENGINEERING & ENVIRONMENTAL COMMUNIITIES

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BOREHOLE GEOPHYSICAL LOGGING - DATA REPORT
1487 FIRST AVENUE REDEVELOPMENT SITE
MANHATTAN, NEW YORK

BOREHOLES

LMW-6R-S LMW-7R-S LMW-8R-S LMW-9R-S LMW-10R-S
LMW-6R-D LMW-7R-D LMW-8R-D LMW-9R-D LMW-10R-D

Prepared for:

Langan
300 Kimball Drive, 4th Floor
Parsippany, New Jersey 07054

Prepared by:

Hager-Richter Geoscience, dba HR Geological Services in New York
2 Industrial Way S/2 — Atkinson, New Hampshire 03811
846 Main Street — Fords, New Jersey 08863

Robert L. Garfield

Robert L. Garfield, P.G. (NY 000041)
Owner / Principal Borehole Geophysicist

File 22RG53
January 2024

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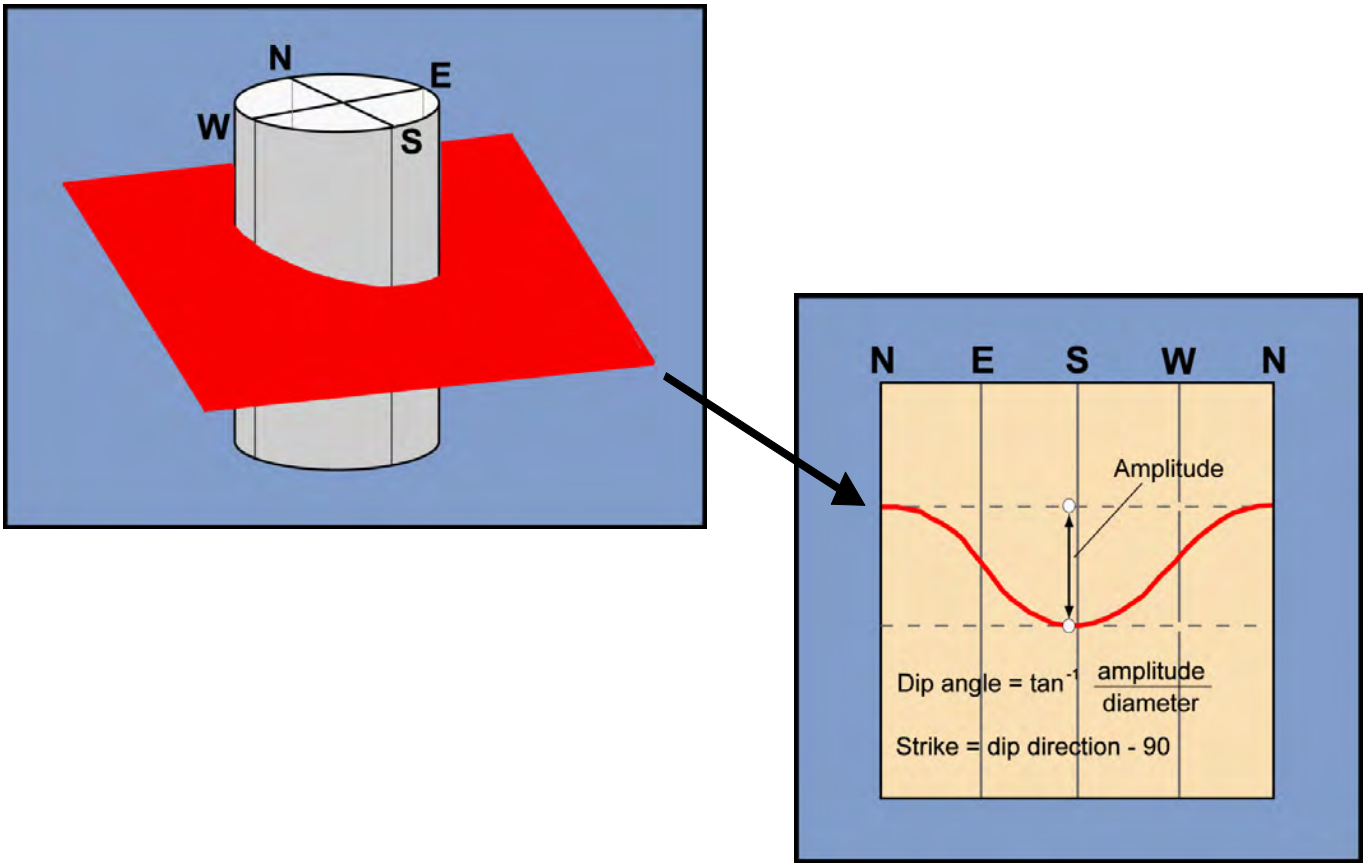

Figure 1. Televiewer explanation. The image on the left depicts a planar structure in red, such as a fracture or bedding plane, intersected by a borehole. The image on the right depicts the same structure unwrapped as it would be displayed in an optical televiewer (OTV) or acoustic televiewer (ATV) log.

Figure modified from: Garfield, R.L., Day-Lewis, F.D., Gray, M.B., Johnson, C.D., Williams, J.H. and Day-Lewis, A.D.F., 2003, Fractured-Rock Aquifer Characterization within a Regional Geologic Context: Results from the Bucknell University Hydrogeophysics Test Site, GSA Northeastern Section, 38th Annual Meeting, Paper No. 25-19.

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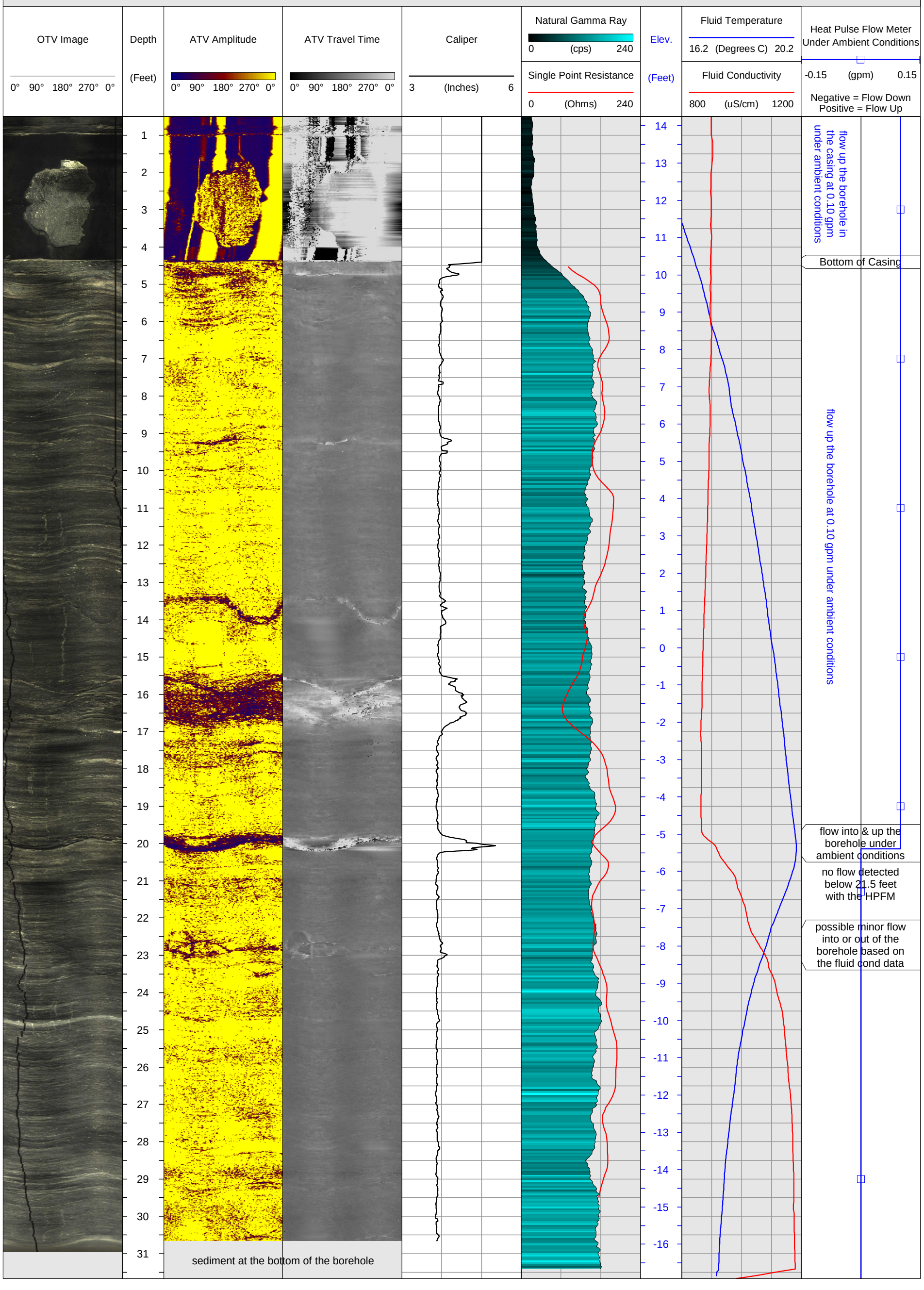
LMW-6R-S - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: January 2 & 8, 2024

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Robert Bandstra & Gabriella DeGennaro	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	Flowing Artesian at ~0.1 gpm

LMW-6R-S - Borehole Geophysical Logs



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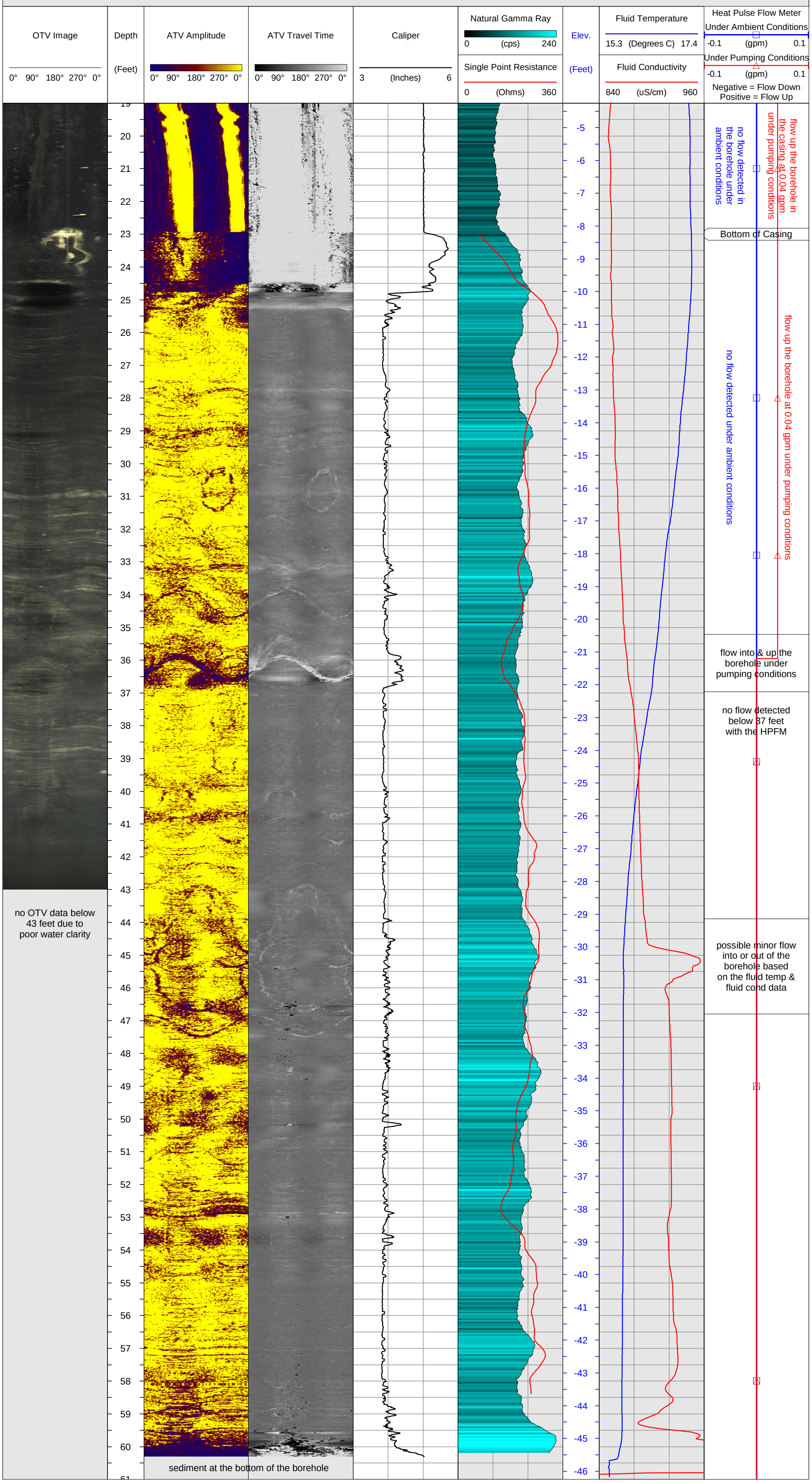
LMW-6R-D - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: December 22 & 28, 2023

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio & Alex Collier	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Leo Thottumari	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	0.7 Feet

LMW-6R-D - Borehole Geophysical Logs



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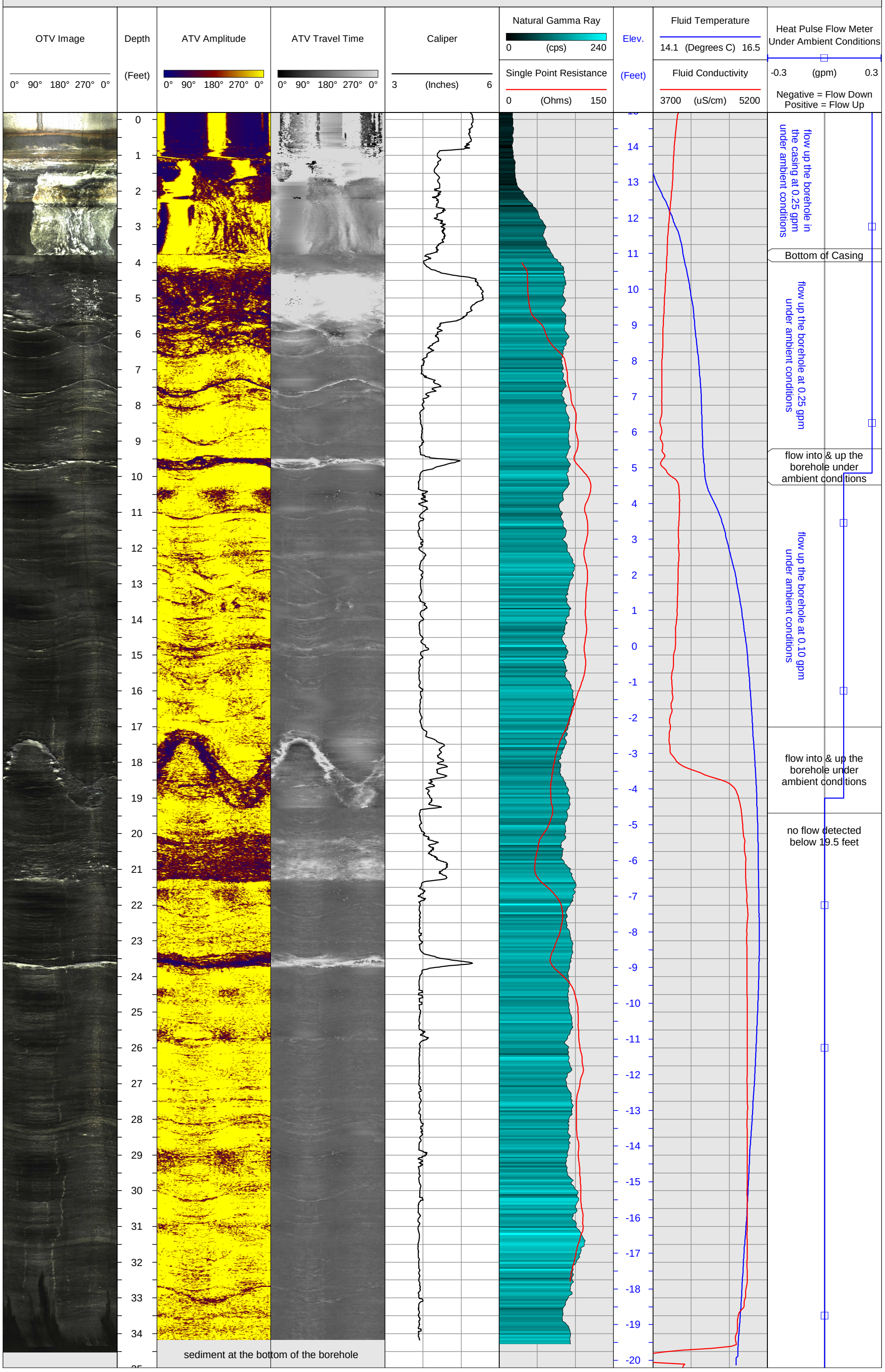
LMW-7R-S - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: December 22, 2023

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio & Alex Collier	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Leo Thottumari	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	Flowing Artesian at ~0.25 gpm

LMW-7R-S - Borehole Geophysical Logs



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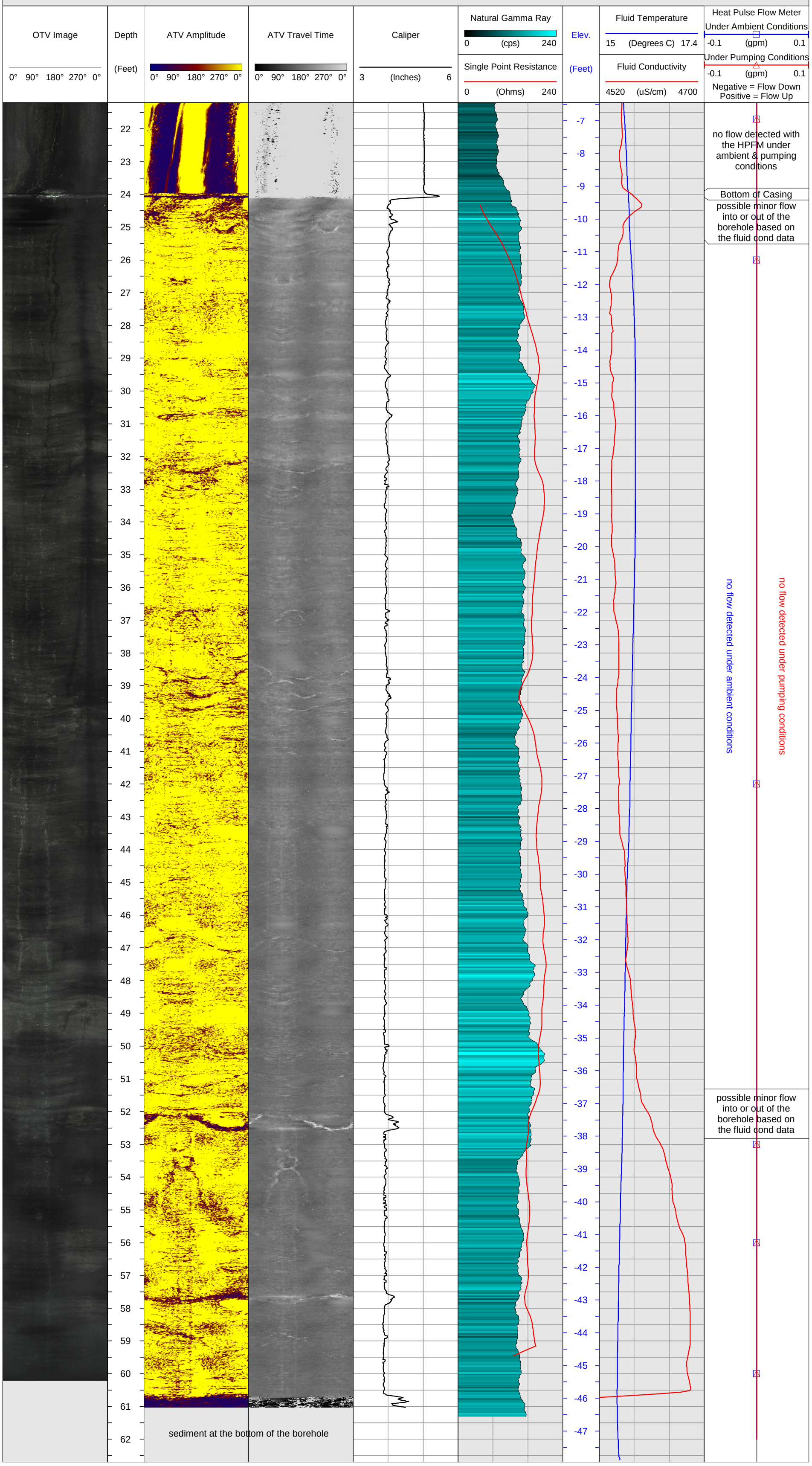
LMW-7R-D - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: December 29, 2023

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Leo Thottumari	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	-0.2 Feet (inside a riser pipe)

LMW-7R-D - Borehole Geophysical Logs



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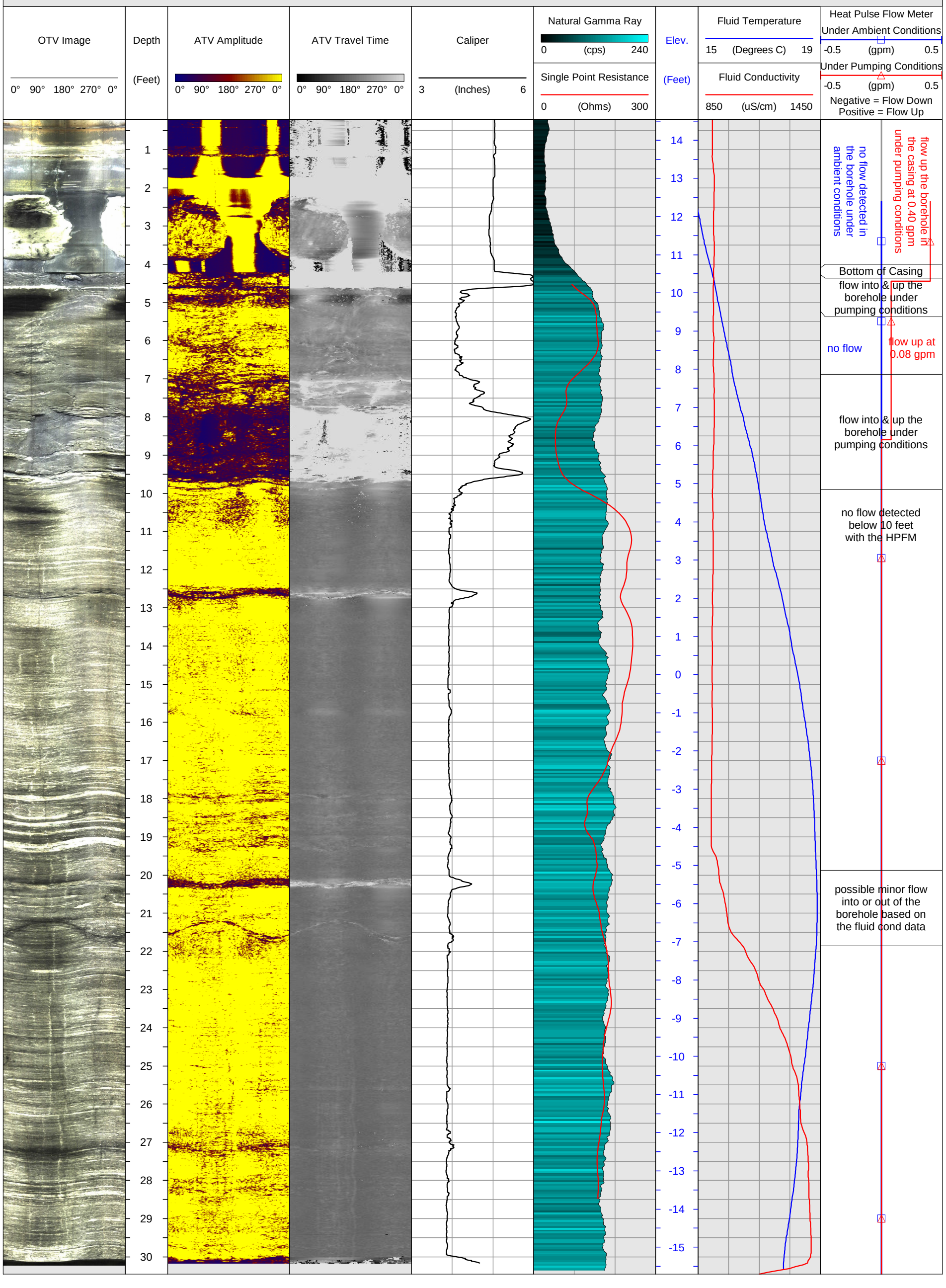
LMW-8R-S - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: January 2, 2024

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Robert Bandstra	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	-7.8 Feet (inside a riser pipe)

LMW-8R-S - Borehole Geophysical Logs



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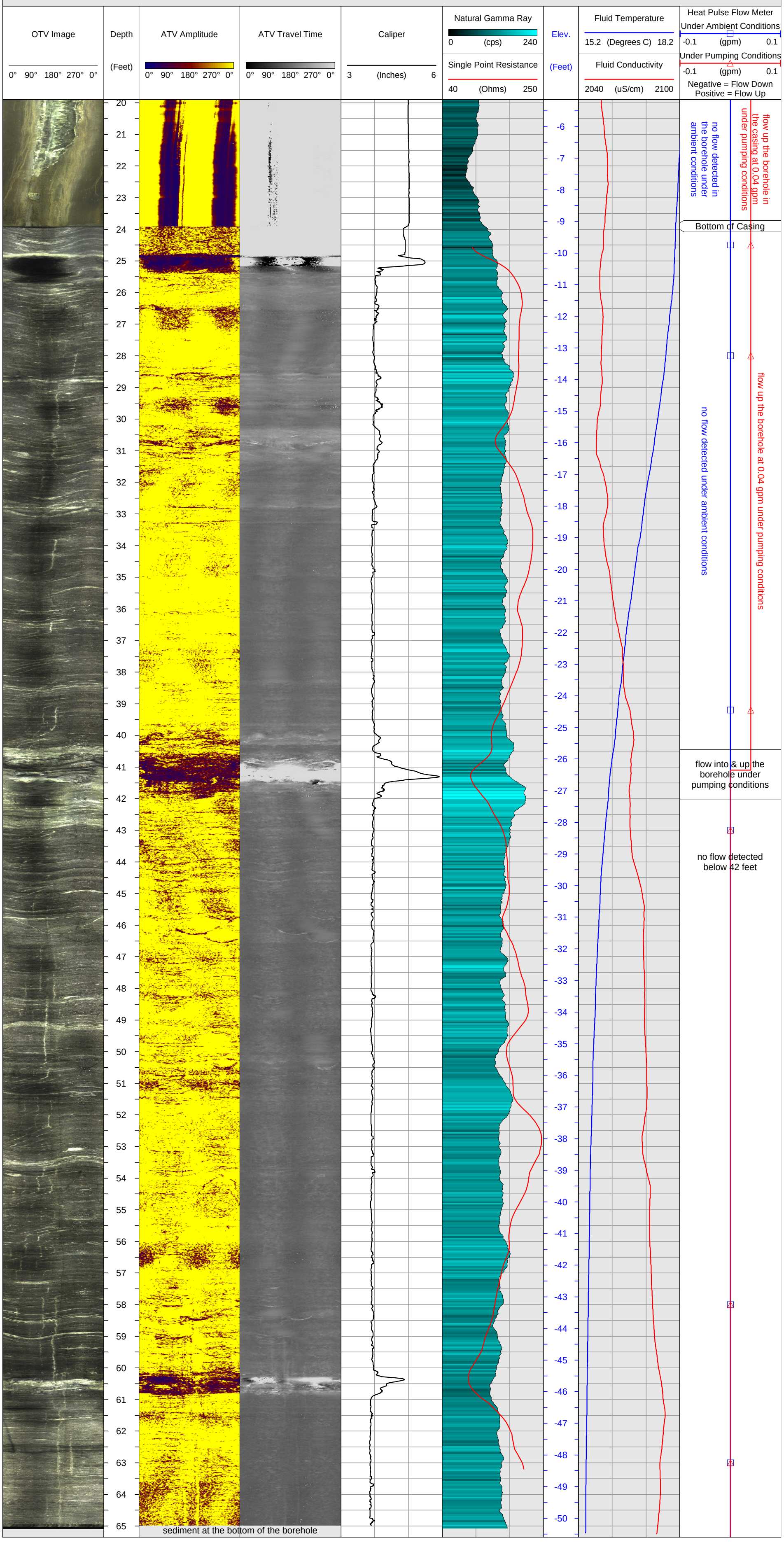
LMW-8R-D - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: December 29, 2023 & January 2, 2024

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Leo Thottumari & Robert Bandstra	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	0.7 Feet

LMW-8R-D - Borehole Geophysical Logs



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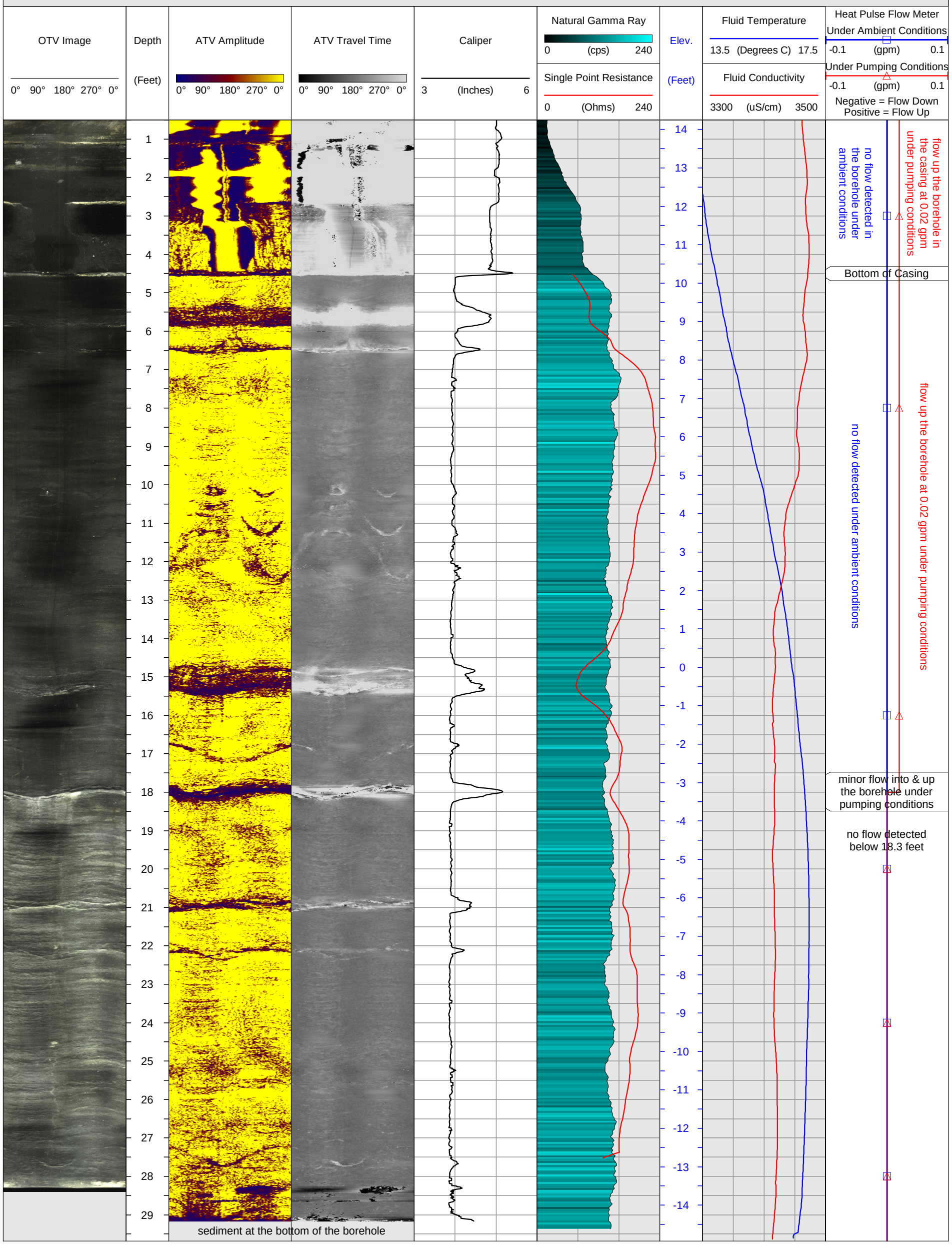
LMW-9R-S - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: December 28, 2023

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Leo Thottumari	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	-4.5 Feet (inside a riser pipe)

LMW-9R-S - Borehole Geophysical Logs



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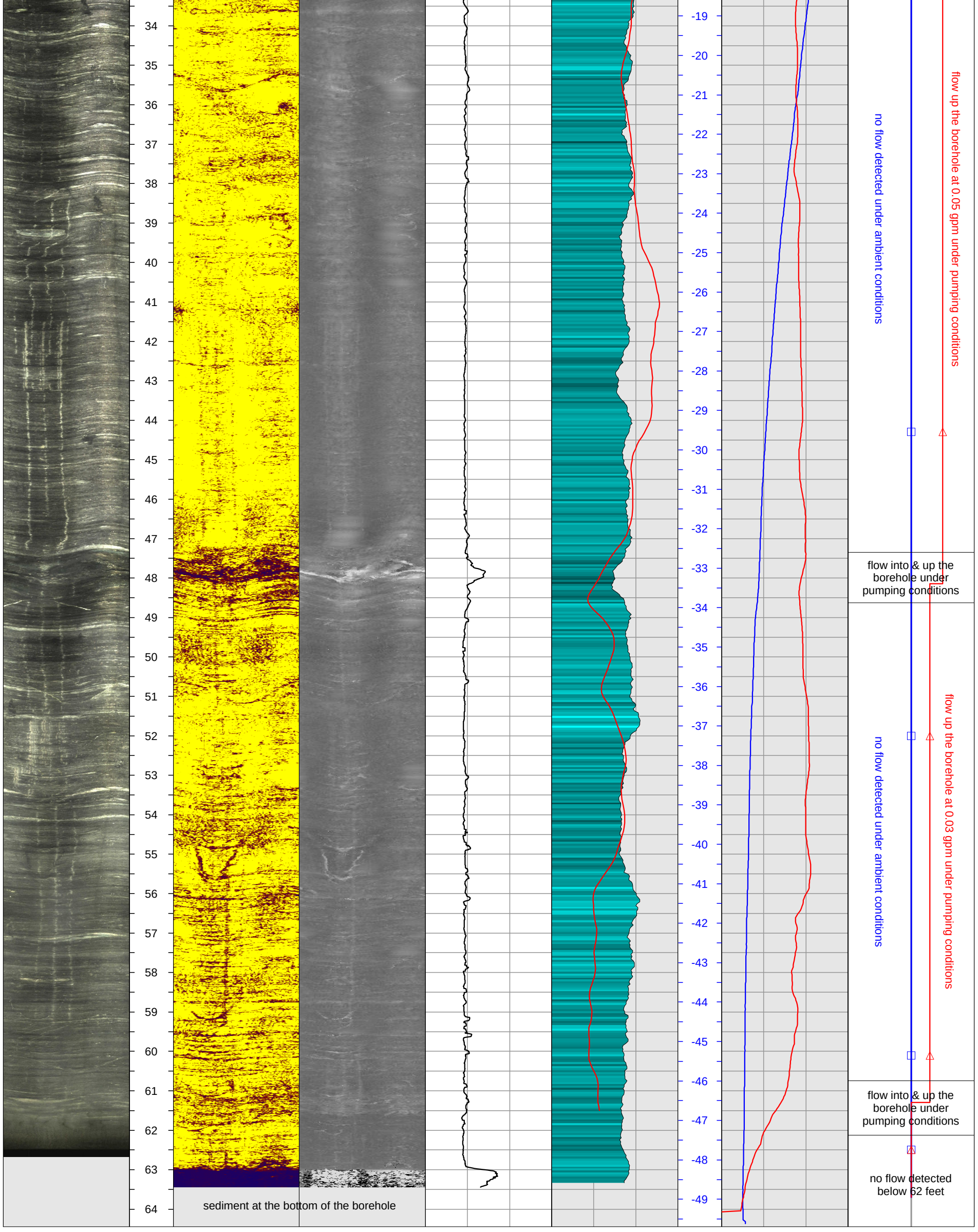
LMW-9R-D - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: December 28 & 29, 2023

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Leo Thottumari	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	-2.9 Feet (inside a riser pipe)

LMW-9R-D - Borehole Geophysical Logs



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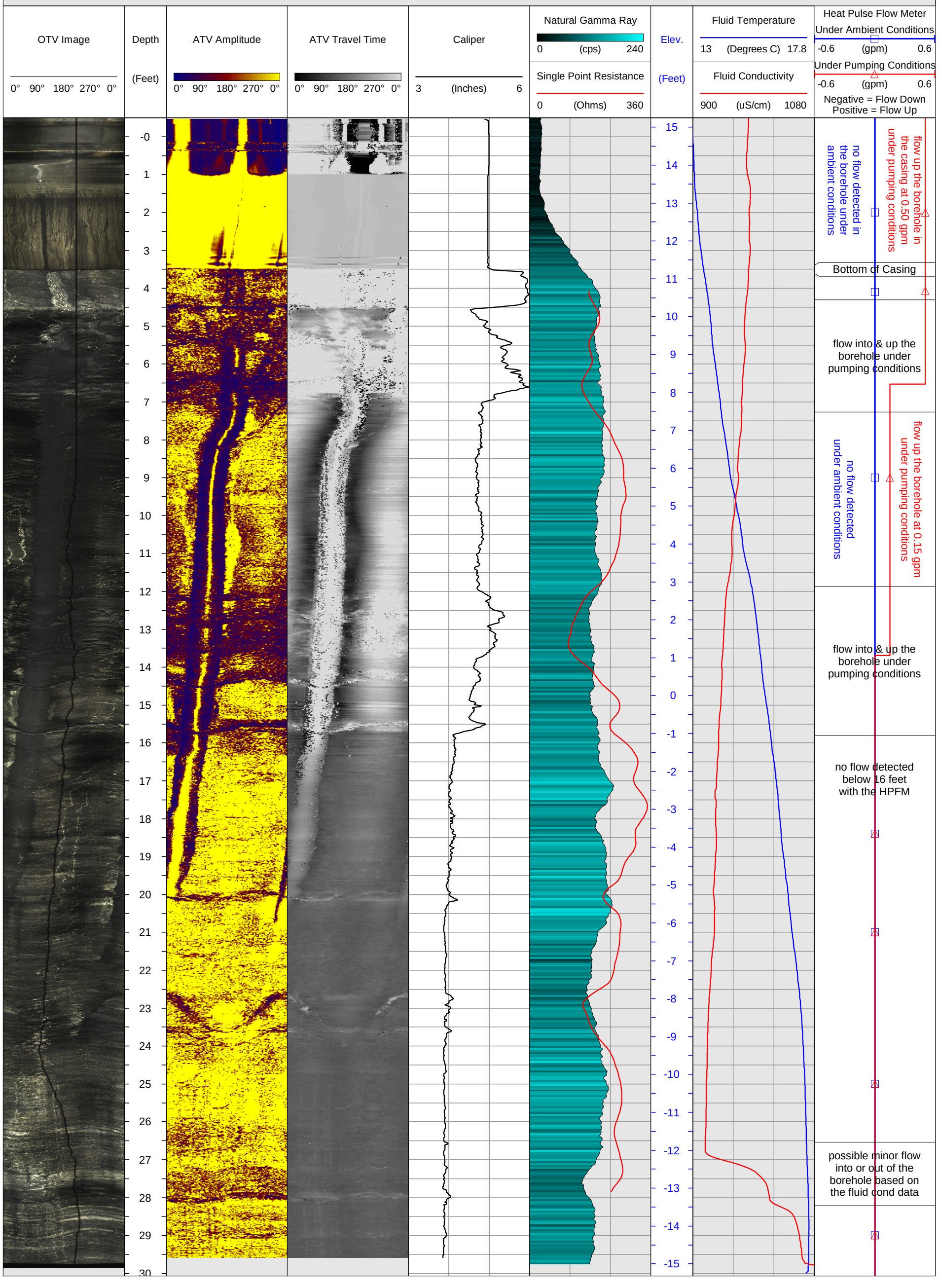
LMW-10R-S - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: January 8, 2023

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Gabriella DeGennaro	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	-7.9 Feet (inside a riser pipe)

LMW-10R-S - Borehole Geophysical Logs



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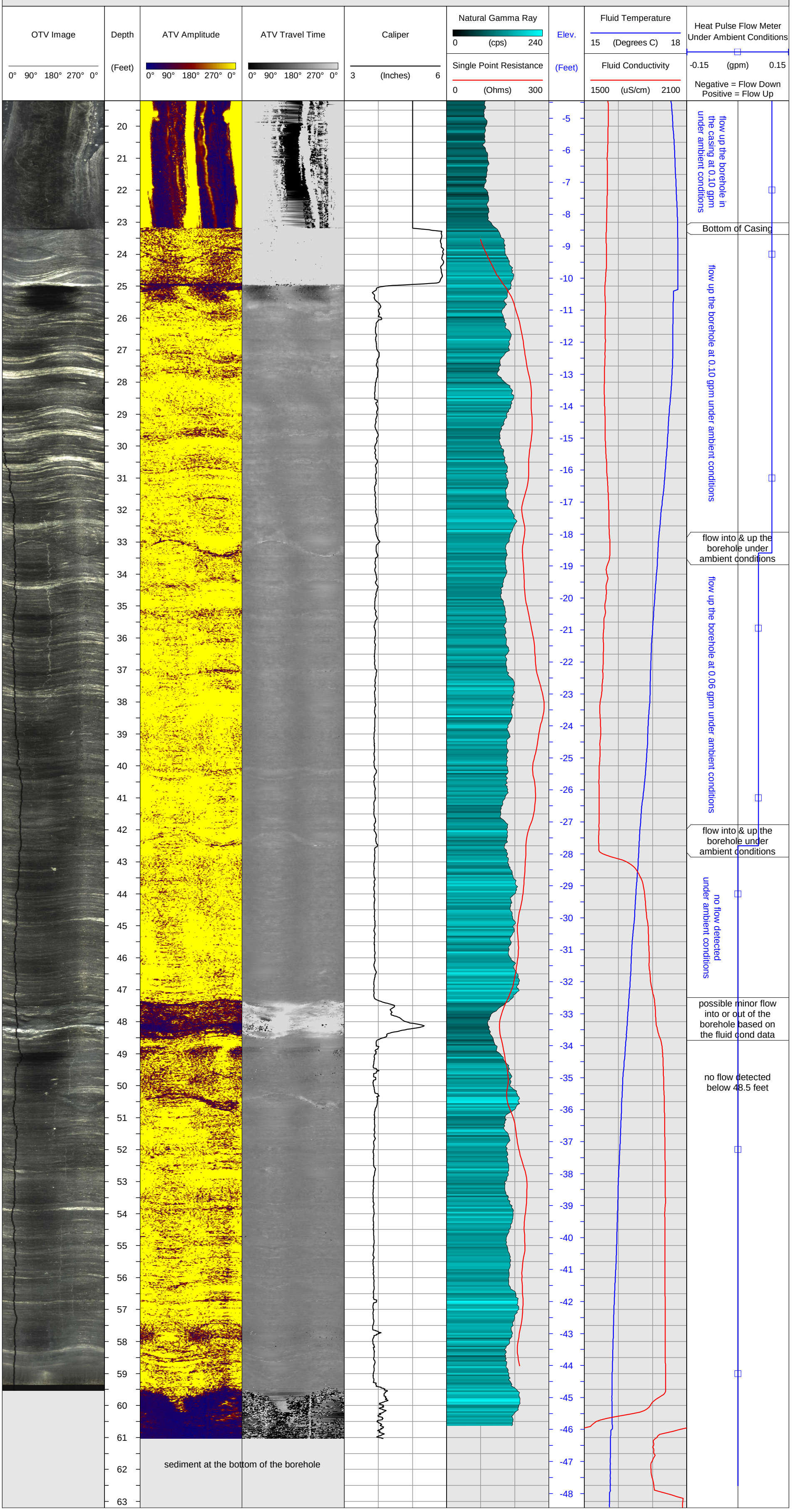
LMW-10R-D - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: January 8, 2024

CLIENT:	Langan	HRGS FILE:	22RG53
PROJECT:	1487 First Avenue Redevelopment Site	LOG DATUM:	Top of the Subcellar Slab | Elevation = 14.75 Feet
LOCATION:	Manhattan, New York	ORIENTATION REFERENCE:	True North
LOGGING GEOPHYSICIST(S):	Mikko Aarnio	MAGNETIC DECLINATION:	13° West
PROJECT REP(S) ON-SITE:	Gabriella DeGennaro	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	Flowing Artesian at ~0.1 gpm

LMW-10R-D - Borehole Geophysical Logs



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HAGER-RICHTER GEOSCIENCE

LMW-6R-S - Summary of Borehole Flow Under Ambient (Artesian) Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	January 2 & 8, 2024
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-6R-S - Summary of Borehole Flow Under Ambient (Artesian) Conditions

Depth (Feet)	Comments
-10.3	Top of the 4-Inch PVC Riser Pipe
-8.0	Ambient Water Level
-5.0	Top of the 5-Inch Steel Casing flowing artesian at 0.10 gpm out at the PVC riser and steel casing joint
-5.0 - 0.0	flow up the borehole in the casing at 0.10 gpm under ambient conditions
0.0	Top of the Concrete Floor Slab
0.0 - 4.4	flow up the borehole in the casing at 0.10 gpm under ambient conditions
4.4	Bottom of the 5-Inch Steel Casing
4.4 - 19.7	flow up the borehole at 0.10 gpm under ambient conditions
19.7 - 20.3	flow into & up the borehole under ambient conditions
20.3 - 22.3	no flow detected under ambient conditions
22.3 - 23.1	possible minor flow into or out of the borehole based on the fluid cond data
23.1 - 31.6	no flow detected under ambient conditions
31.6	Bottom of the Borehole (based on the geophysical logging)

HRGS

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LMW-6R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	December 22 & 28, 2023
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-6R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
0.0	Top of the Concrete Floor Slab
0.7	Ambient Water Level
8.0 - 9.0	Location of Pump for HPFM Under Pumping Conditions
9.0 - 23.0	flow up the borehole in the casing at 0.04 gpm under pumping conditions
23.0	Bottom of the 5-Inch Steel Casing
23.0 - 35.2	flow up the borehole at 0.04 gpm under pumping conditions
35.2 - 37.0	flow into & up the borehole under pumping conditions
37.0 - 43.9	no flow detected under pumping conditions
43.9 - 46.8	possible minor flow into or out of the borehole based on the fluid temp & cond data
46.8 - 61.0	no flow detected under pumping conditions
61.0	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-7R-S - Summary of Borehole Flow Under Ambient (Artesian) Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	December 22, 2023
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-7R-S - Summary of Borehole Flow Under Ambient (Artesian) Conditions

Depth (Feet)	Comments
-5.2	Top of the 5-Inch Steel Casing Ambient Water Level (flowing artesian at 0.25 gpm out the top of casing)
-5.2 - 0.0	flow up the borehole in the casing at 0.25 gpm under ambient conditions
0.0	Top of the Concrete Floor Slab
0.0 - 3.8	flow up the borehole in the casing at 0.25 gpm under ambient conditions
3.8	Bottom of the 5-Inch Steel Casing
3.8 - 9.3	flow up the borehole at 0.25 gpm under ambient conditions
9.3 - 10.1	flow into & up the borehole under ambient conditions
10.1 - 17.0	flow up the borehole at 0.10 gpm under ambient conditions
17.0 - 19.4	flow into & up the borehole under ambient conditions
19.4 - 35.0	no flow detected under ambient conditions
35.0	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-7R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	December 29, 2023
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-7R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient or pumping conditions)
-0.2	Ambient Water Level
0.0	Top of the Concrete Floor Slab
7.0 - 8.0	Location of Pump for HPFM Under Pumping Conditions
24.0	Bottom of the 5-Inch Steel Casing
24.0 - 25.4	possible minor flow into or out of the borehole based on the fluid cond data
51.3 - 52.8	possible minor flow into or out of the borehole based on the fluid cond data
63.0	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-8R-S - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	January 2, 2024
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-8R-S - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
-7.8	Ambient Water Level
0.0	Top of the Concrete Floor Slab
1.0 - 2.0	Location of Pump for HPFM Under Pumping Conditions
2.0 - 4.3	flow up the borehole in the casing at 0.40 gpm under pumping conditions
4.3	Bottom of the 5-Inch Steel Casing
4.3 - 5.2	flow into & up the borehole under pumping conditions
5.2 - 6.9	flow up the borehole at 0.08 gpm under pumping conditions
6.9 - 9.9	flow into & up the borehole under pumping conditions
9.9 - 19.9	no flow detected under pumping conditions
19.9 - 21.9	possible minor flow into or out of the borehole based on the fluid cond data
21.9 - 30.4	no flow detected under pumping conditions
30.4	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-8R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	December 29, 2023 & January 2, 2024
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-8R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
0.0	Top of the Concrete Floor Slab
0.7	Ambient Water Level
6.0 - 7.0	Location of Pump for HPFM Under Pumping Conditions
7.0 - 24.0	flow up the borehole in the casing at 0.04 gpm under pumping conditions
24.0	Bottom of the 5-Inch Steel Casing
24.0 - 40.4	flow up the borehole at 0.04 gpm under pumping conditions
40.4 - 42.0	flow into & up the borehole under pumping conditions
42.0 - 65.3	no flow detected under pumping conditions
65.3	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-9R-S - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	December 28, 2023
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-9R-S - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
-4.5	Ambient Water Level
0.0	Top of the Concrete Floor Slab
3.0 - 4.0	Location of Pump for HPFM Under Pumping Conditions
4.0 - 4.5	flow up the borehole in the casing at 0.02 gpm under pumping conditions
4.5	Bottom of the 5-Inch Steel Casing
4.5 - 17.5	flow up the borehole at 0.02 gpm under pumping conditions
17.5 - 18.4	flow into & up the borehole under pumping conditions
18.4 - 29.7	no flow detected under pumping conditions
29.7	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-9R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	December 28 & 29, 2023
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-9R-D - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
-2.9	Ambient Water Level
0.0	Top of the Concrete Floor Slab
6.0 - 7.0	Location of Pump for HPFM Under Pumping Conditions
7.0 - 23.7	flow up the borehole in the casing at 0.07 gpm under pumping conditions
23.7	Bottom of the 5-Inch Steel Casing
23.7 - 29.5	flow up the borehole at 0.07 gpm under pumping conditions
29.5 - 30.4	flow into & up the borehole under pumping conditions
30.4 - 47.3	flow up the borehole at 0.05 gpm under pumping conditions
47.3 - 48.6	flow into & up the borehole under pumping conditions
48.6 - 60.7	flow up the borehole at 0.03 gpm under pumping conditions
60.7 - 62.1	flow into & up the borehole under pumping conditions
62.1 - 64.4	no flow detected under pumping conditions
64.4	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-10R-S - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	January 8, 2024
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-10R-S - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
-7.9	Ambient Water Level
-5.0	Location of Pump for HPFM Under Pumping Conditions
-5.0 - 3.5	flow up the borehole in the casing at 0.50 gpm under pumping conditions
0.0	Top of the Concrete Floor Slab
0.0 - 3.5	flow up the borehole in the casing at 0.50 gpm under pumping conditions
3.5	Bottom of the 5-Inch Steel Casing
3.5 - 4.3	flow up the borehole at 0.50 gpm under pumping conditions
4.3 - 7.3	flow into & up the borehole under pumping conditions
7.3 - 11.9	flow up the borehole at 0.15 gpm under pumping conditions
11.9 - 15.8	flow into & up the borehole under pumping conditions
15.8 - 26.5	no flow detected under pumping conditions
26.5 - 28.2	possible minor flow into or out of the borehole based on the fluid cond data
28.2 - 30.0	no flow detected under pumping conditions
30.0	Bottom of the Borehole (based on the geophysical logging)

HRGS

HAGER-RICHTER GEOSCIENCE

LMW-10R-D - Summary of Borehole Flow Under Ambient (Artesian) Conditions	
CLIENT	Langan
PROJECT	1487 First Avenue Redevelopment Site
LOCATION	Manhattan, New York
HRGS FILE	22RG53
DATE LOGGED	January 8, 2024
LOG DATUM	Top of the Subcellar Slab | Elevation = 14.75 Feet

LMW-10R-D - Summary of Borehole Flow Under Ambient (Artesian) Conditions

Depth (Feet)	Comments
-5.7	Top of the 5-Inch Steel Casing Ambient Water Level (flowing artesian at 0.10 gpm out the top of casing)
-5.7 - 0.0	flow up the borehole in the casing at 0.10 gpm under ambient conditions
0.0	Top of the Concrete Floor Slab
0.0 - 23.2	flow up the borehole in the casing at 0.10 gpm under ambient conditions
23.2	Bottom of the 5-Inch Steel Casing
23.2 - 32.9	flow up the borehole at 0.10 gpm under ambient conditions
32.9 - 33.5	flow into & up the borehole under ambient conditions
33.5 - 42.0	flow up the borehole at 0.06 gpm under ambient conditions
42.0 - 42.7	flow into & up the borehole under ambient conditions
42.7 - 47.2	no flow detected under ambient conditions
47.2 - 48.5	possible minor flow into or out of the borehole based on the fluid cond data
48.5 - 63.1	no flow detected under ambient conditions
63.1	Bottom of the Borehole (based on the geophysical logging)

APPENDIX C

Westbay Installation Documents

LANGAN

Westbay Completion Report

Westbay Monitoring Wells: LMW-6R-S, LMW-6R-D, LMW-7R-S, LMW-7R-D, LMW-8R-S, LMW-8R-D, LMW-9R-S, LMW-9R-D, LMW-10R-S, LMW-10R-D

1487 1st Ave.
New York, NY
February 2024

Prepared for:

Langan
300 Kimball Dr.
Parsippany, NJ 07054

Prepared by:

Earth Data Northeast, Inc.
Whiteland Technology Center
924 Springdale Drive
Exton, PA 19341

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Appendix F – LMW-8R-D
Appendix G – LMW-9R-S
Appendix H – LMW-9R-D
Appendix I – LMW-10R-S
Appendix J – LMW-10R-D

1. Introduction

This report details the onsite technical services performed by Earth Data Northeast, Inc. (EDN) for Langan. Westbay System monitoring wells were installed in boreholes LMW-6R-S, LMW-6R-D, LMW-7R-S, LMW-7R-D, LMW-8R-S, LMW-8R-D, LMW-9R-S, LMW-9R-D, LMW-10R-S and LMW-10R-D at 1487 1st Ave., New York, NY.

EDN installation technician Mr. George Seidman was onsite to perform the installations from January 31, 2024 through February 8, 2024. The EDN technician was assisted onsite by Langan personnel. This report documents the installation tasks and related QA checks.

2. Previous Site Activities

The monitoring wells were completed as open bedrock boreholes, 4-inches in diameter. Surface casing was 5-inches in diameter an extended to various depths. Geophysical logging was performed in each of the boreholes prior to Westbay System installation.

Table 1. Summary of Westbay System Installations

Well-ID	Installation Date	Borehole Depth	MP Casing Depth	No. Monitoring Zones
LMW-6R-S	February 2, 2024	32.0’	31.75’	1
LMW-6R-D	February 2, 2024	60.0’	59.75’	3
LMW-7R-S	February 5, 2024	32.0’	31.75’	2
LMW-7R-D	February 1, 2024	63.0’	62.75’	2
LMW-8R-S	February 1, 2024	30.0’	29.75’	2
LMW-8R-D	February 5, 2024	65.0’	64.75’	2
LMW-9R-S	February 6, 2024	28.0’	27.75’	1
LMW-9R-D	February 6, 2024	64.0’	63.25’	3

LMW-10R-S	February 7, 2024	30.0’	29.75’	1
LMW-10R-D	February 8, 2024	56.0’	55.75’	2

All depths are with respect to ground surface.

3. Installation

3.1 Preparation of Monitoring Well Design

Well designs were completed by EDN based on requested packer locations provided by Langan. Westbay casing installation logs were produced from the well design, and were reviewed and approved in the field by Langan. Copies of the well designs and installation logs are included in the Appendices.

All of the wells were completed with MP38 Westbay Systems. The monitoring intervals contained Model 0205 measurement port couplings, used to collect fluid pressures and groundwater samples. Each monitoring zone also contained a Model 0224 mechanical pumping port, which can be used for purging and hydraulic conductivity testing.

Langan declined to have optional synthetic filters installed over the measurement port couplings in each well.

3.2 Layout of Westbay Casing Components

Prior to the installation, the Westbay System casing components were laid out near the wellhead of the borehole in the order in which they were to be installed, as indicated on the approved installation log. Each casing component was numbered in order, beginning with the deepest components and continuing to the shallowest. Once numbered, each component received the proper Westbay System coupling as indicated on the installation log.

Magnetic Locating Collars were attached approximately 2.0 feet below the shallowest measurement port in each interval, where possible. Each casing component was visually inspected for any damage or defect prior to installation. Serial numbers for each Westbay packer and Westbay measurement port couplings were recorded on the Casing Installation Log. Each well component and attached coupling was confirmed with the log prior to being lowered into the well.

3.3 Lowering of Westbay Components

The open-hole water level of each borehole was above ground surface at the time of installation, allowing the Westbay Systems to be lowered by hand. As the components were joined, each

casing joint was tested with a minimum internal hydraulic pressure of 150 psi for 1 minute to confirm hydraulic seals. Check marks on the casing installation log provide a record of the joint testing.

Clean water was added to the Westbay casing when necessary to compensate for buoyancy effects during lowering. All data presented in this report is based on the final, as-built position of the Westbay components

3.4 Positioning of Westbay Components

After the components were lowered in to the well, the Westbay casing string was positioned as shown on the Summary Casing Logs. The Westbay casing string was supported in this position while packer inflation was carried out.

The positioning of the Westbay casing components is based on the "nominal" lengths of Westbay casing components. The positioning calculations do not include allowances for borehole temperature or deviation effects, which are site dependant. The attached figure titled "MOSDAX Transducer Position" provides information to correlate the position of MOSDAX Transducer sensors to the reference position at the top of the Measurement Port. The attached figure titled "Dimensions of Packer Seals and Monitoring Zones" outlines the calculations used to determine the packer centerline depths and zone lengths.

3.5 Hydraulic Integrity Testing

After the Westbay casing was lowered into in the borehole and prior to packer inflation, the water pressure inside the Westbay casing was monitored to confirm the hydraulic integrity of the casing. The water pressure inside the casing was monitored for a period of 30 minutes and observed for changes. In each of the wells the groundwater elevation was above the ground surface, so any leaks would result in an increasing water pressure inside the Westbay casing. The integrity tests indicated that the Westbay Systems were water tight prior to packer inflation. The results of the tests can be seen in Tables 2-11.

Table 2. Integrity Test Results-LMW-6R-S

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-6R-S	14:25	24.89
2/2/24	14:35	24.88
Borehole Depth to Water AGS	14:45	24.89
	14:55	24.88

Table 3. Integrity Test Results-LMW-6R-D

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-6R-D	9:57	34.17
2/2/24	10:07	34.16
Borehole Depth to Water AGS	10:17	34.16
	10:27	34.16

Table 4. Integrity Test Results-LMW-7R-S

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-7R-S	10:29	25.03
2/5/24	10:39	25.02
Borehole Depth to Water AGS	10:49	25.03
	10:59	25.02

Table 5. Integrity Test Results-LMW-7R-D

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-7R-D	15:39	32.07
2/1/24	15:49	32.08
Borehole Depth to Water AGS	15:59	32.07
	16:09	32.06

Table 6. Integrity Test Results-LMW-8R-S

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-8R-S	9:46	18.84
2/1/24	9:56	18.84
Borehole Depth to Water AGS	10:06	18.84
	10:16	18.83

Table 7. Integrity Test Results-LMW-8R-D

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-8R-D	15:01	31.80
2/5/24	15:11	31.79
Borehole Depth to Water AGS	15:21	31.78
	15:31	31.78

Table 8. Integrity Test Results-LMW-9R-S

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-9R-S	14:27	22.77
2/6/24	14:37	22.77
Borehole Depth to Water AGS	14:47	22.77
	14:57	22.77

Table 9. Integrity Test Results-LMW-9R-D

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-9R-D	10:24	31.66
2/6/24	10:34	31.65
Borehole Depth to Water AGS	10:44	31.65
	10:54	31.65

Table 10. Integrity Test Results-LMW-10R-S

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-10R-S	9:07	26.69
2/7/24	9:17	26.67
Borehole Depth to Water AGS	9:27	26.67
	9:37	26.67

Table 11. Integrity Test Results-LMW-10R-D

Borehole	Time	Water Pressure (psi) Inside Westbay Casing
LMW-10R-D	10:16	31.91
2/8/24	10:26	31.89
Borehole Depth to Water AGS	10:36	31.90
	10:46	31.90

3.6 Pre-inflation Profile

Prior to inflating the packers in each well, a pressure profile was performed. The goal of the pressure profile was to confirm the proper operation and location of the measurement ports and magnetic collars. A plot of the Pre-Inflation Piezometric levels in all zones in the wells is shown

on Figures 3, 5, 7, 9, 11, 13, 15, 17, 19 and 21 in the Appendices along with the field profile forms.

3.7 Inflation of MP System Packers

The Westbay packers were inflated sequentially beginning at the bottom of the well using clean water either brought to the Site by EDN or provided by Langan. Westbay model No. 6055 vented inflation tool was used for packer inflation. The data for inflation of each packer are provided on the Westbay Packer Inflation Records included in the Appendices.

4. Fluid Pressure Measurements

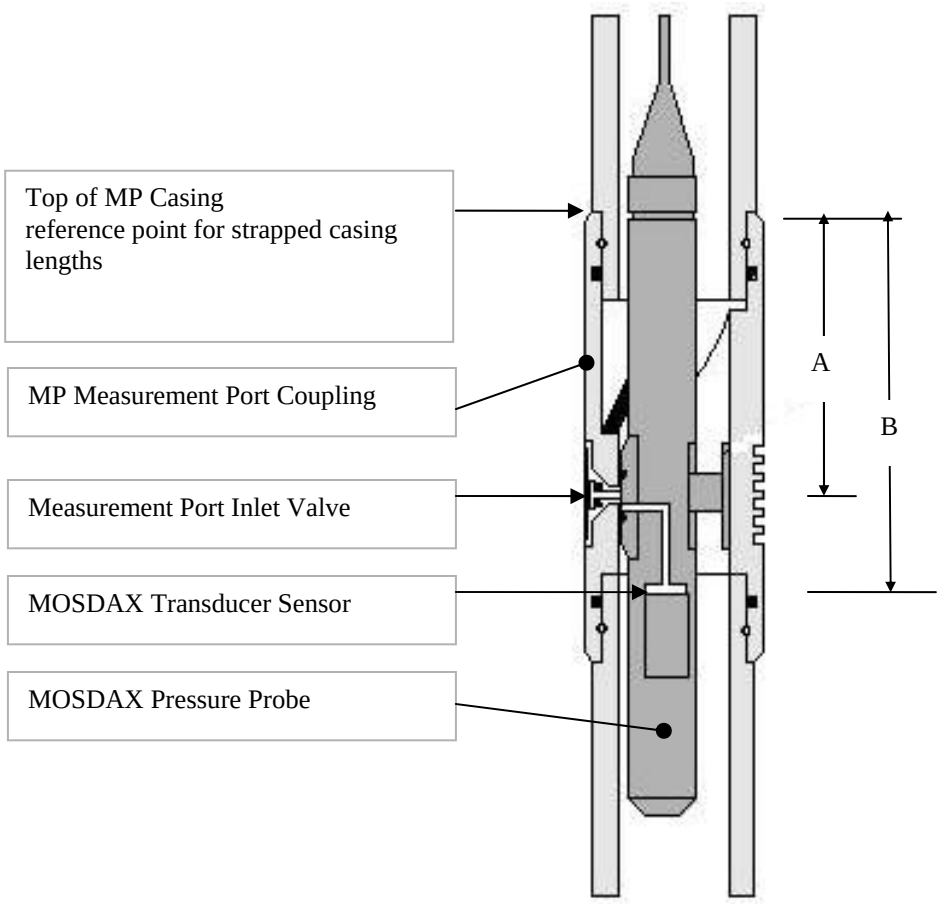
Following inflation of the packers, a post-inflation pressure profile was completed. At the time the measurements were taken, the isolated intervals may not have reached their final equilibrated fluid pressure levels. Longer term monitoring may be required to establish representative fluid pressures.

A plot of the Post –Inflation Piezometric levels is shown in Figure 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22. The data was reviewed to confirm proper operation of the measurement ports and check the presence of the annulus seals between monitoring zones.

Figure 1

MOSDAX Transducer Position

In an MP System Measurement Port Coupling



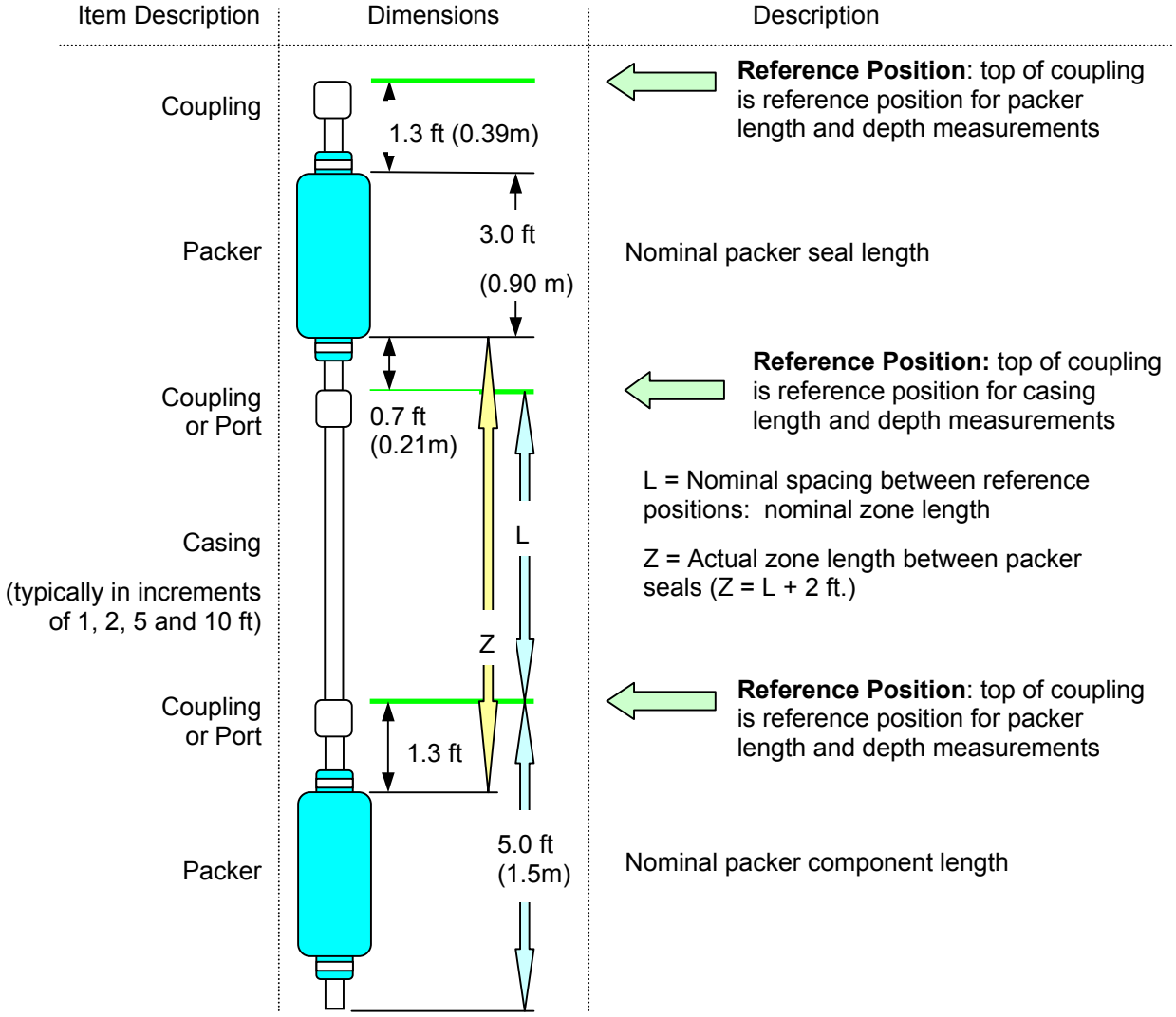
System	Measurement Port Type	A	B
Plastic MP38	0222, 0205	4.5" (114.3 mm)	6.5" (165.1 mm)

Technical Note

Schlumberger WATER SERVICES

Dimensions of Packer Seals and Monitoring Zones

Westbay System – Plastic MP38



Discussion Points:

- The top of a coupling (Regular Coupling, Measurement Port or Pumping Port) is the reference point for describing nominal depths and nominal lengths. Actual positions of packer seals and zone lengths are determined with respect to the appropriate reference positions.
- Packer Position Example: A packer with a nominal depth of 50 ft (15.2m), will have a nominal packer seal position of 51.3 to 54.3 ft. (15.59 to 16.49m)
- Zone Length Example: A zone whose upper packer is at 50 ft (15.2m) and bottom packer is at 70 ft (21.3m) will have a nominal zone length of 15 ft (4.6m) and an actual zone length (between packer seals) of 15.0+1.3+0.7 = 17.0ft. (4.6 + 0.39 + 0.2 = 5.19m)
- Information on the position of Measurement Port Valve and MOSDAX Transducer sensor, used for detailed calculation of piezometric level measurements, are described separately.

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APPENDIX A – LMW-6R-S

As-Built Packer and Port Summary (Table 12)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 2, 2024)	- 1 Pages
Figure 3, Pre-Inflation Piezometric Pressure Profile	- 1 Page
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet ((February 2, 2024)	- 1 Pages
Figure 4, Post-Inflation Piezometric Pressure Profile	- 1 Page
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 3 Pages

Table 12. LMW-6R-S As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
3	QA2	28.75	23.75	28.05	32.00	
2	**Zone 1**	18.75	13.75	18.05	25.05	
1	QA1	8.75	3.75	8.05	15.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.
All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-6R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 31.91 ft.

Borehole Depth: 35.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-6R-S.WWD
Report Date: Tue Jan 30 17:03:43 2024

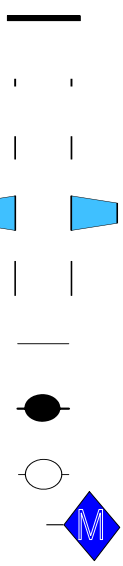
File Date: Jan 30 10:26:06 2024

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(2) 020101 - MP38 Casing 4 (1F/0.3M)

(2) 020103 - MP38 Casing 6 (3F/0.9M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(2) 020105 - MP38 Casing 2 (5F/1.5M)

(5) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(1) 0224 - MP38 Pumping Port

(1) 0216 - Magnetic Location Collar

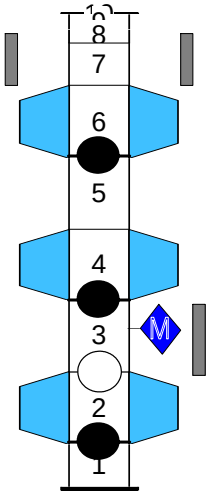
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-6R-S



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-CoR-S
Datum: GS
Elev. G.S.: –
Height of Westbay above G.S.: –
Elev. top of Westbay Casing: –
Reference Elevation: –
Boreholeangle: 90°

Probe Type: Sampler
Serial No.: 3555
Probe Range: 0-500
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/2/24
Client: Langan
Job No.: FS1419
Location: 1487 1st Ave
Weather: –
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.69 psi

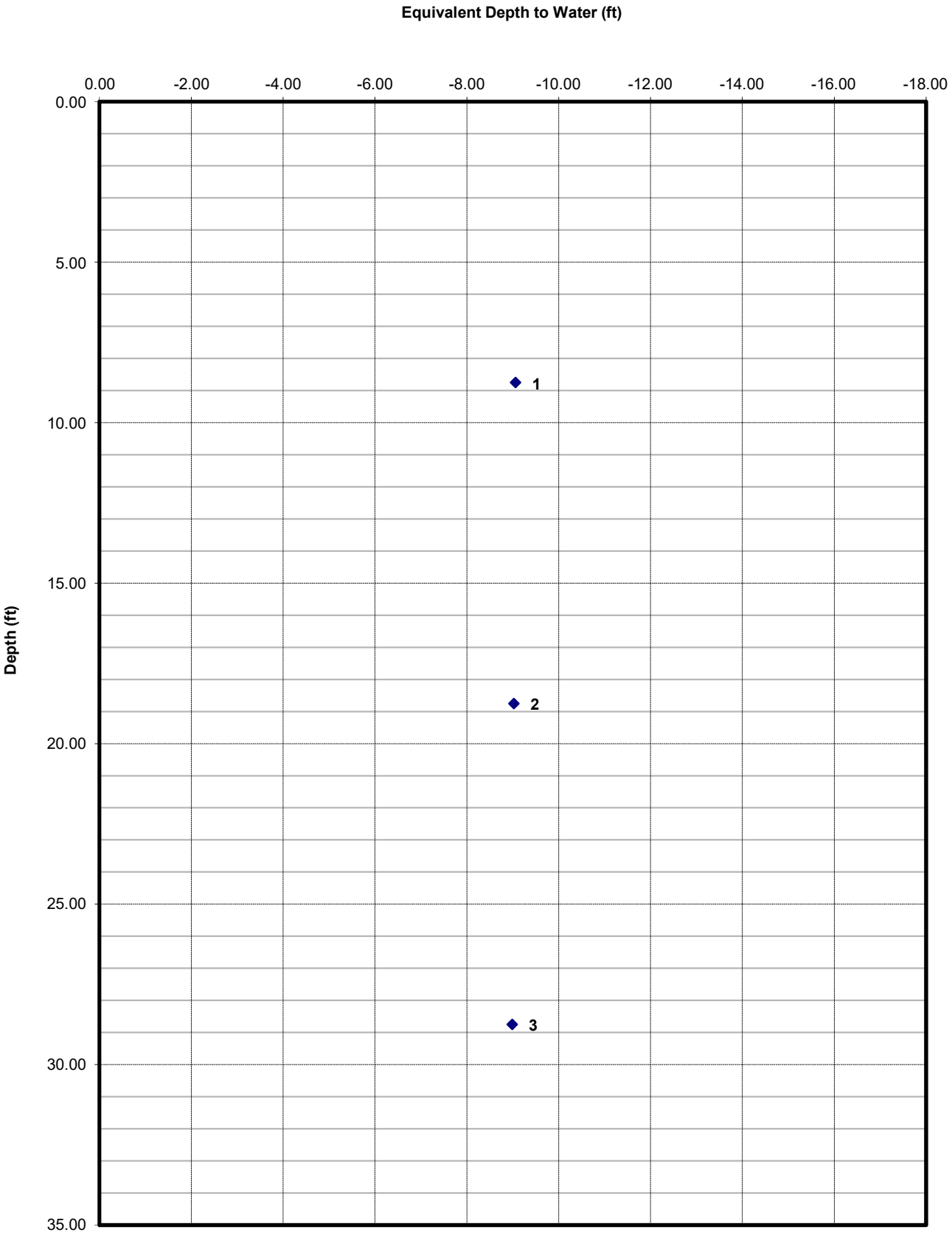
Ambient Reading (P_{atm}) (pressure, temperature, time)

	Start	Finish
Pressure	14.69	14.67
Temp	6.67	16.50
Time	14:21	15:07

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
3	28.75	28.5	–	24.89	31.05	15:03	17.47	24.88	32.76	-9.01	Pro Tech
2	18.75	18.6	–	20.54	26.73	15:05	17.47	20.54	27.77	-9.02	
1	8.75	8.6	–	16.19	22.41	15:06	17.20	16.19	17.81	-9.06	

Notes: w = 0.4335 psi/ft (1.42psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 3
Well: LMW-6R-S
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Westbay Instruments

Well No.: CMW-6R-S
Datum: GS
Elev. G.S.: -
Height of Westbay above G.S.: -
Elev. top of Westbay Casing: -
Reference Elevation: -
Borehole angle: 90

Probe Type: Sampler
Serial No.: 3555
Probe Range: 0-520
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/5/24
Client: Langan
Job No.: FS1497
Location: 148 1st Ave
Weather: -
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.70 psi

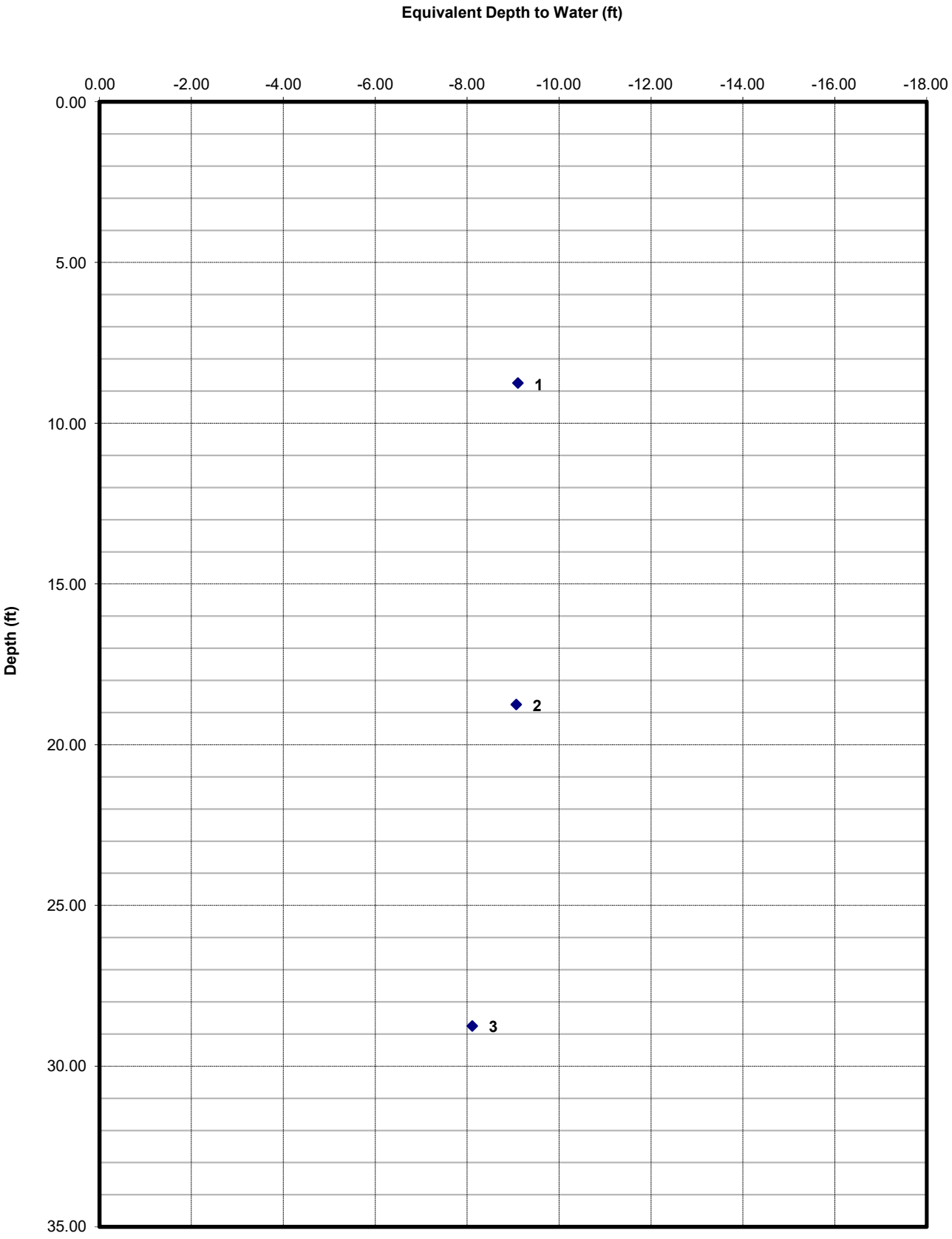
Ambient Reading (P_{atm}) (pressure, temperature, time)

	Start	Finish
Pressure	14.76	14.69
Temp	41.7	13.59
Time	16:40	16:47

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings					Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
				Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)			
3	28.75	29.0	-	30.15	30.68	16:43	12.01	30.16	26.86	-8.11	Psi mAbs
2	18.75	19.0	-	25.82	24.76	16:45	12.87	25.82	27.82	-9.07	
1	8.75	9.0	-	21.47	22.44	16:46	13.43	21.47	17.85	-9.10	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 4
Well: LMW-6R-S
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-6R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 31.91 ft.

Borehole Depth: 35.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-6R-S.WWD
Report Date: Tue Jan 30 17:22:35 2024

File Date: Jan 30 17:05:16 2024

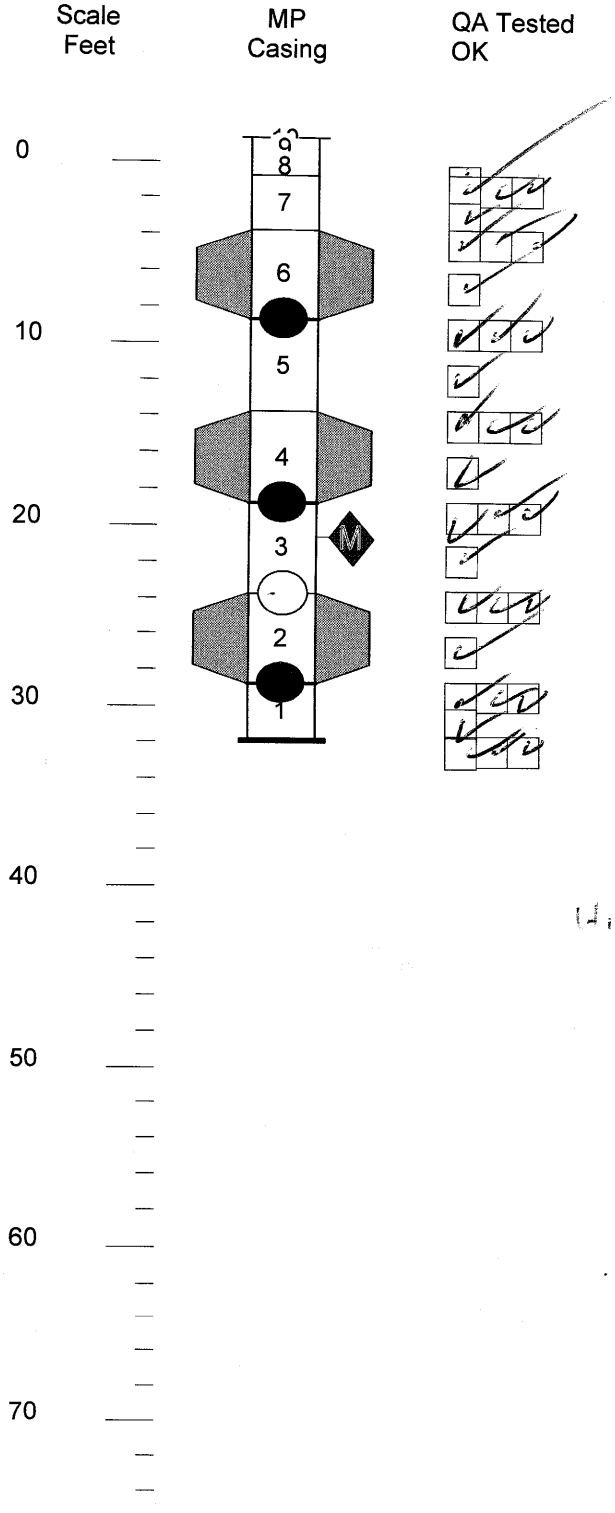
Comments

Log Information

Borehole condition confirmed.	*(method)* Logsh	Date:
MP well design & preparation.	By:	Date: 1/30/24
MP well design checked.	By:	Date: 2/2/24
MP well and borehole approved to install.	By:	Date: 2/2/24

Well Designer Report
Langan

Job No:
Well: LMW-6R-S



MP Casing Description

020101 - MP38 Casing 4 (1F/0.3M)
020103 - MP38 Casing 6 (3F/0.9M)

0238 - MP38 Packer - 74mm (5F/1.5M 20071 170/145
0205 - MP38 Measurement Port 10287
020105 - MP38 Casing 2 (5F/1.5M)

0238 - MP38 Packer - 74mm (5F/1.5M 20170 170/145
0205 - MP38 Measurement Port 10289
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9240
0238 - MP38 Packer - 74mm (5F/1.5M ~~10285~~ 20171 170/145
0205 - MP38 Measurement Port 10285
020103 - MP38 Casing 6 (3F/0.9M)
0203 - MP38 End Cap

Unit bottom 31.30'
+ 0.4 ft above expected

Sheet 1 of 3

Westbay Packer Inflation Record

Project: Langan - 1487 1st Ave Project No.: FS1499 Well No.: LMW-6R-S

Location: 1487 1st Ave Completed by: CJ Date Inflated: 2/2/24

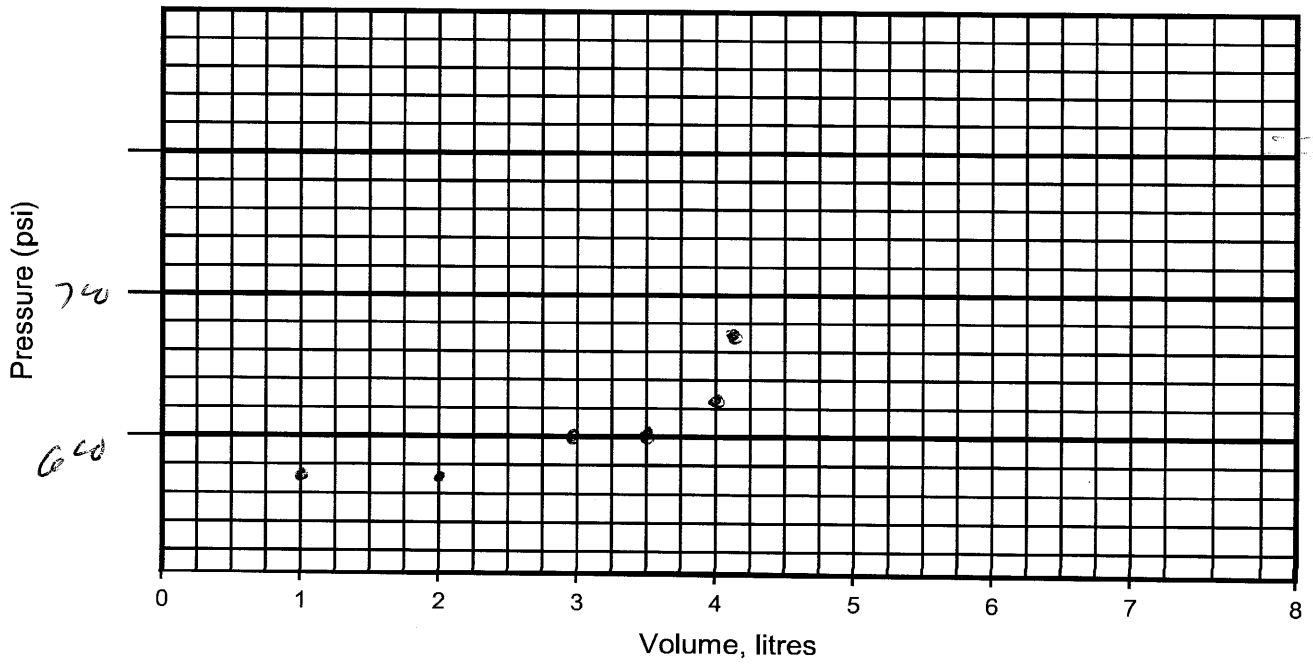
Packer No. 1 - 20171 Depth (ft / m): 23.75 Inflation Tool No.: TIW 3544

Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 675 psi Tool Pressure, P_T: 400 psi

Borehole Water Level: - (ft / m) = ~ psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 120 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.10	~~4.10~~	4.10		
Pressure, psi	575	575	600	600	625	675	/	0		
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 15:52

Sheet 2 of 3

Westbay Packer Inflation Record

Project: Langan - 1487 1st Ave Project No.: FS1479 Well No.: LMW-6R-S

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/2/24

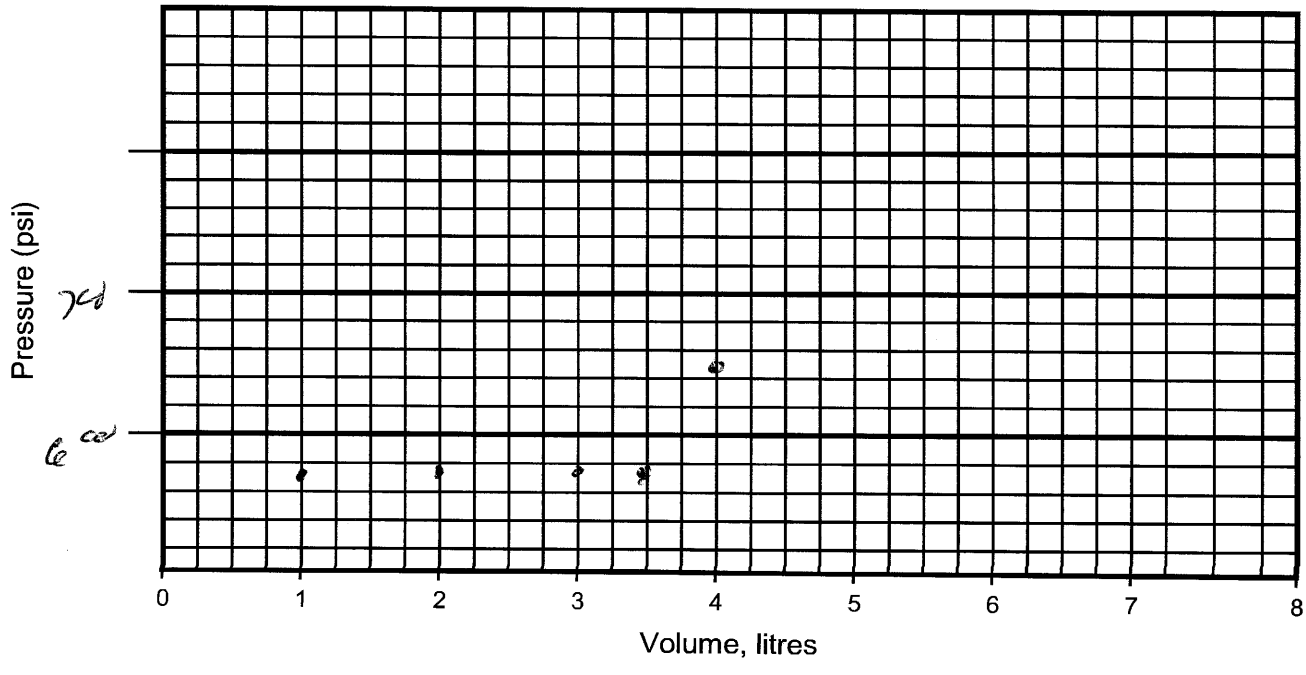
Packer No. 2 - 20170 Depth (ft / m): 13.75 Inflation Tool No.: TIW 3554

Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 450 psi Tool Pressure, P_T: 460 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 105 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	/	4.0			
Pressure, psi	575	575	575	575	610	/	0			
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 14:06

Sheet 3 of 3

Westbay Packer Inflation Record

Project: ~~1587~~ Langan - 1487 1st Ave Project No.: F51499 Well No.: LMW-COR-5

Location: 1487 1st Ave Completed by: CoS Date Inflated: 2/2/24

Packer No. 3 - 20071 Depth (ft / m): 375 Inflation Tool No.: TIW 3594

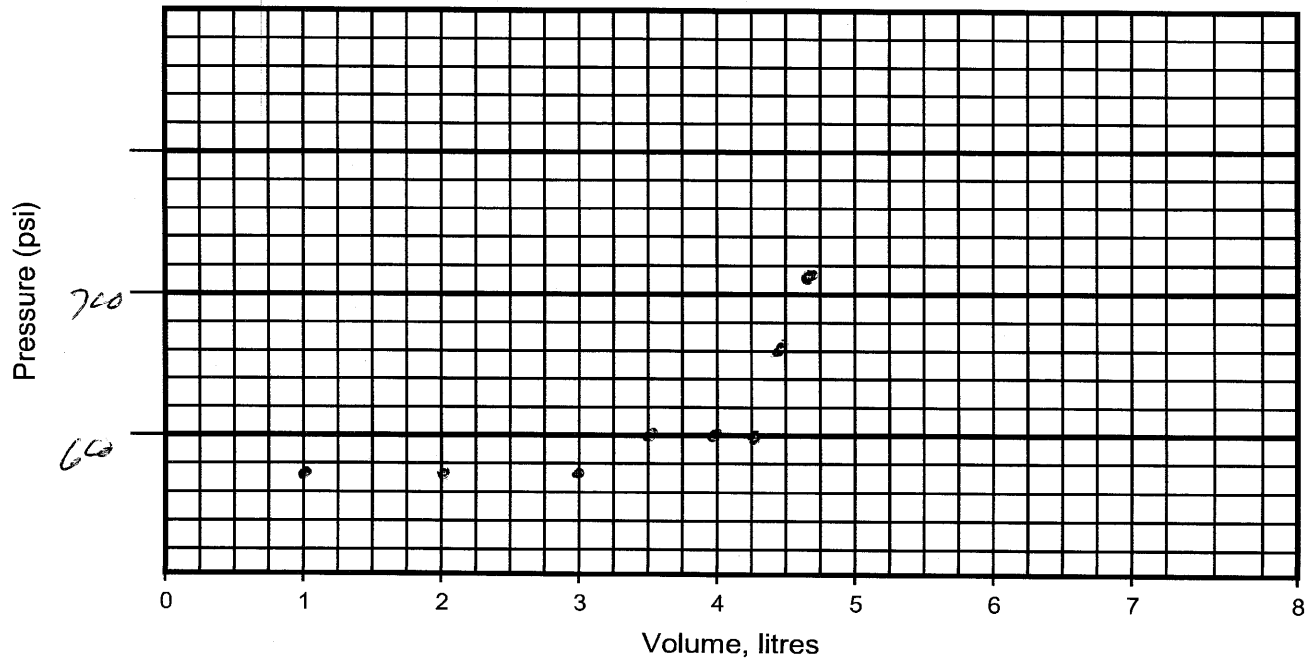
Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 660 psi Tool Pressure, P_T: 460 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = ~~715~~ 165 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.25	4.50	/	4.40	4.55
Pressure, psi	575	575	575	660	660	660	660	/	¢	760
Volume, litres	4.60	/	4.60							
Pressure, psi	710	/	0							

Add pressure 2/5/24



Comments: Packer # 3 Time - 16:20

APPENDIX B – LMW-6R-D

As-Built Packer and Port Summary (Table 13)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 2, 2024)	- 1 Pages
Figure 5, Pre-Inflation Piezometric Pressure Profile	- 1 Page
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet February 2, 2024)	- 1 Pages
Figure 6, Post-Inflation Piezometric Pressure Profile	- 1 Page
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 4 Pages

Table 13. LMW-6R-D As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
4	**Zone 3**	54.75	47.75	52.05	60.00	
3	**Zone 2**	42.75	37.75	42.05	49.05	
2	**Zone 1**	32.75	27.75	32.05	39.05	
1	QA1	23.75	18.75	23.05	29.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.

All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-6R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 59.91 ft.

Borehole Depth: 59.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-6R-D.WWD
Report Date: Tue Jan 30 11:18:13 2024

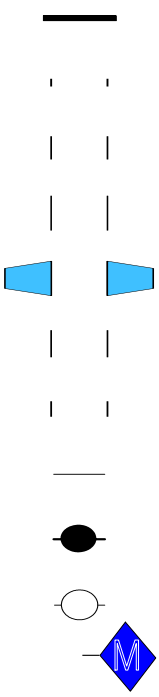
File Date: Sep 18 14:50:00 2023

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(2) 020101 - MP38 Casing 4 (1F/0.3M)

(1) 020103 - MP38 Casing 6 (3F/0.9M)

(6) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020104 - MP38 Casing 5 (4F/1.2M)

(1) 020102 - MP38 Casing 3 (2F/0.6M)

(8) 0202 - MP38 Regular Coupling

(4) 0205 - MP38 Measurement Port

(3) 0224 - MP38 Pumping Port

(3) 0216 - Magnetic Location Collar

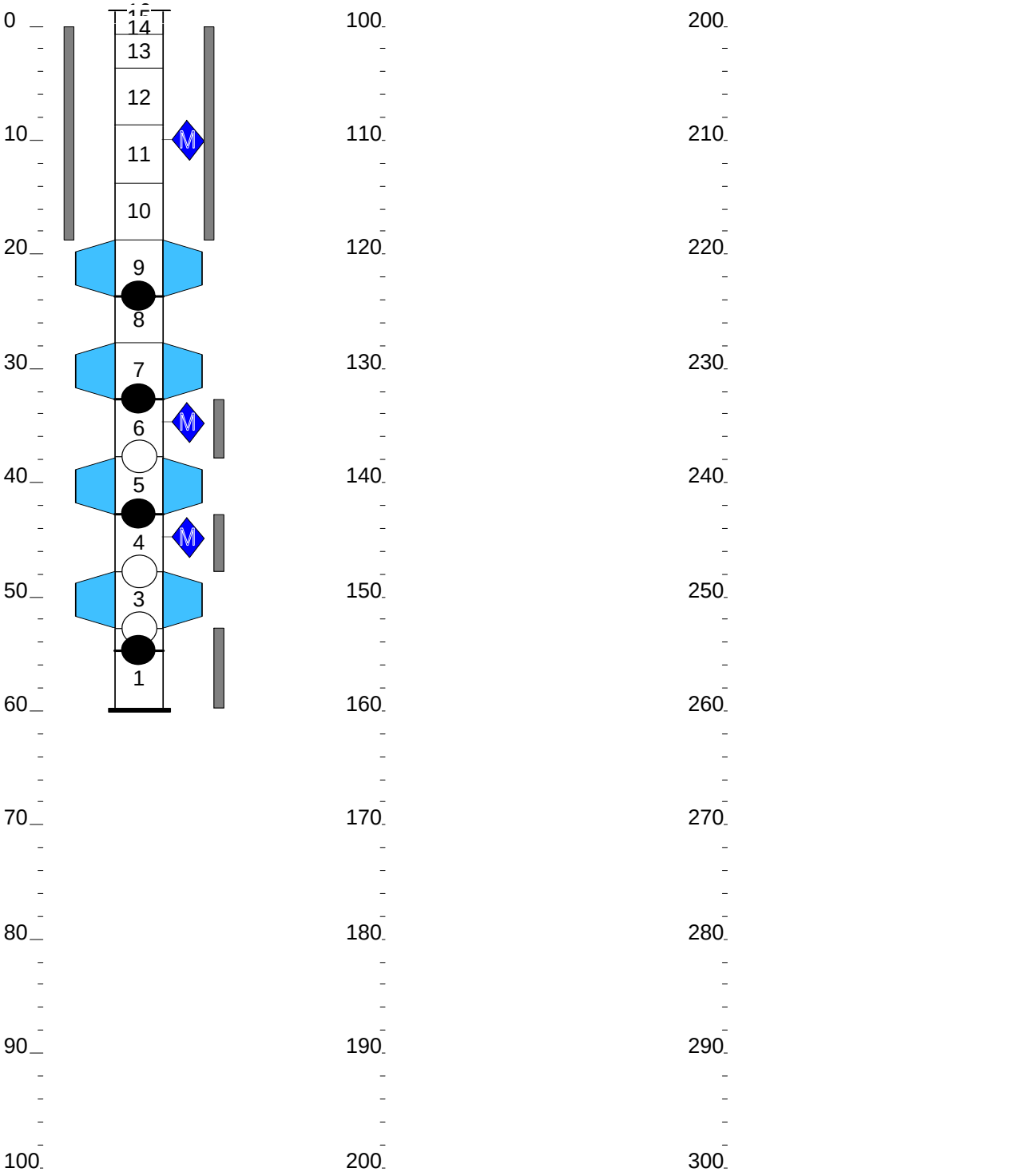
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-6R-D



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-6R-D
Datum: GS
Elev. G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3555
Probe Range: 0-50
Westbay Casing Type: MP38
Sampler Valve Position: CLOSED

Date: 2/2/24
Client: Langan
Job No.: F3947.5
Location: 1487 1st Ave
Weather: —
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.65 psi

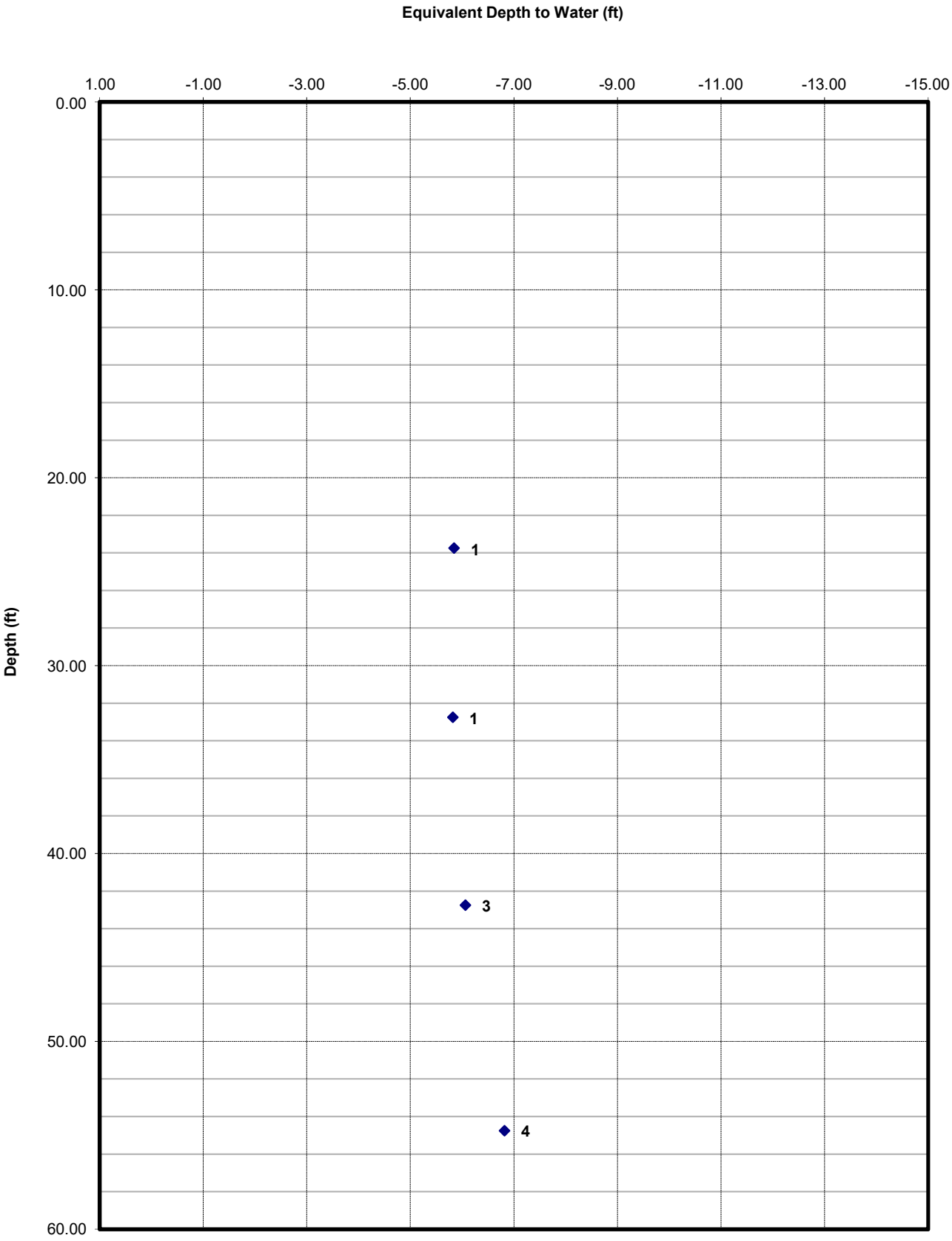
Ambient Reading (P_{atm}) (pressure, temperature, time)

		Start:	Finish:
Pressure		14.65	14.66
Temp		6.49	16.55
Time		9:53	10:35

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
4	54.75	54.80	—	34.16	41.34	10:29	16.03	34.15	61.57	6.82	Pre Inflate
3	42.75	42.98	—	28.97	35.81	10:31	16.07	28.57	48.81	6.06	
2	32.75	32.90	—	24.64	31.37	10:32	16.03	24.64	38.57	5.81	
1	23.75	24.0	—	20.73	27.48	10:34	16.44	20.73	29.60	5.84	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 5
Well: LMW-6R-D
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-6R-1D
Datum: GS
Elev. G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3355
Probe Range: 0-500
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/2/24
Client: Hargan
Job No.: FS1455
Location: 1487 1st Ave
Weather: —
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.68 psi

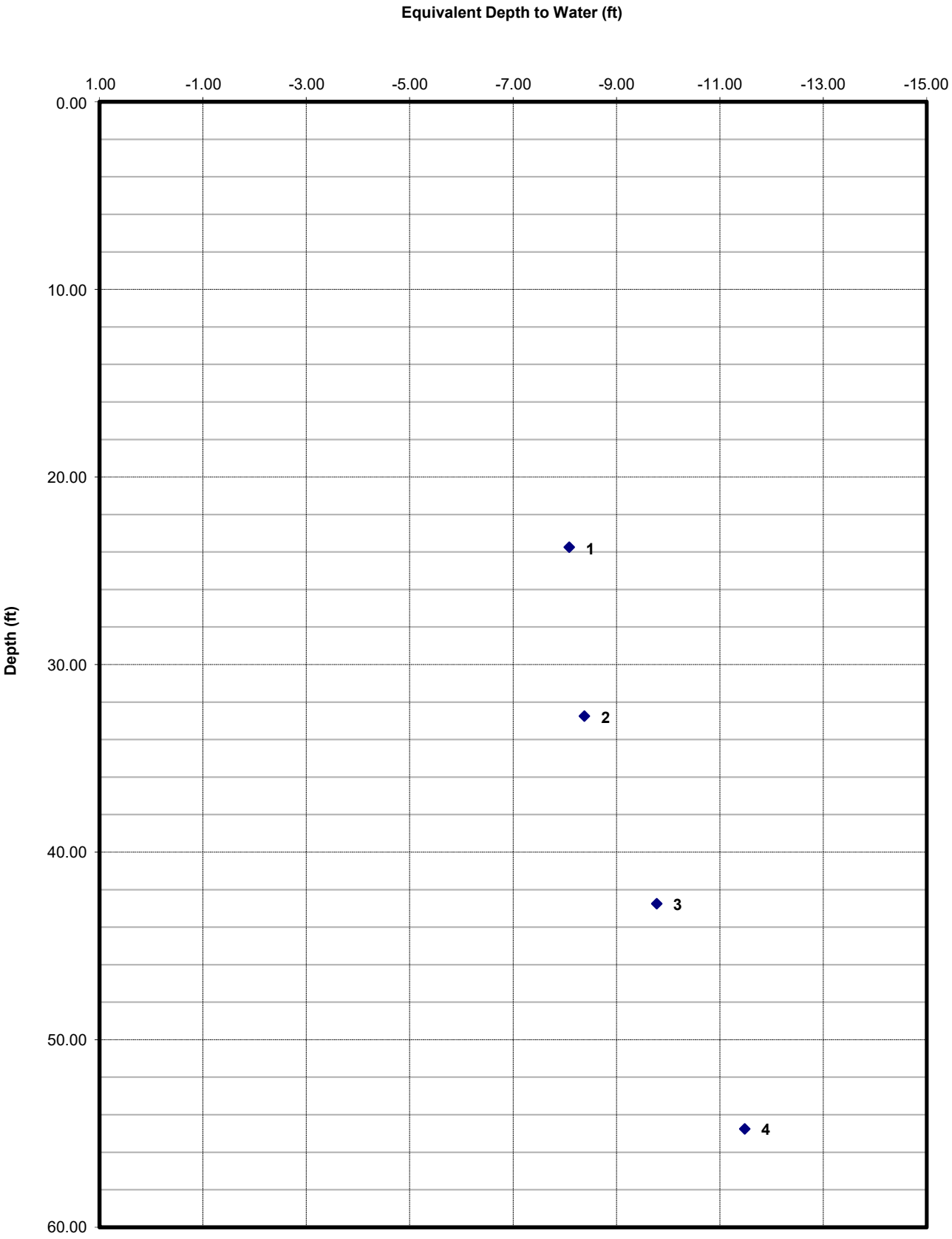
Ambient Reading (P_{atm}) (pressure, temperature, time)

Start: Pressure	14.68	Finish:	14.69
Temp	11.30		11.88
Time	12:08		12:17

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings					Pressure Head Outside Port (ft)	Piez. Level Outside Port (ft)	Comments
				Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	H = (P2-Patm)/w	Dz = Dp - H	
4	54.75	54.5	—	41.22	43.39	12:11	12.46	41.22	46.23	-11.48	Post mlkh
3	42.75	42.5	—	36.01	37.45	12:13	13.32	36.01	52.53	-9.78	
2	32.75	32.6	—	31.68	32.51	12:14	13.96	31.69	41.13	-8.38	
1	23.75	23.6	—	27.78	28.48	12:16	14.60	27.77	31.83	-8.08	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 6
Well: LMW-6R-D
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-6R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 59.91 ft.

Borehole Depth: 59.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-6R-D.WWD
Report Date: Tue Jan 30 17:29:14 2024

File Date: Jan 30 11:22:20 2024

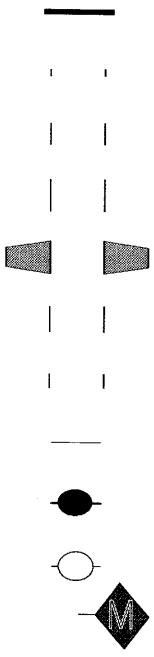
Comments

Log Information

Borehole condition confirmed. (method) Logging Date:
MP well design & preparation. By: [signature] Date: 1/30/24
MP well design checked. By: [signature] Date: 2/2/24
MP well and borehole approved to install. By: [signature] Date: 2/2/24

Legend

(Qty) MP Components
(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(2) 020101 - MP38 Casing 4 (1F/0.3M)

(1) 020103 - MP38 Casing 6 (3F/0.9M)

(6) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020104 - MP38 Casing 5 (4F/1.2M)

(1) 020102 - MP38 Casing 3 (2F/0.6M)

(8) 0202 - MP38 Regular Coupling

(4) 0205 - MP38 Measurement Port

(3) 0224 - MP38 Pumping Port

(3) 0216 - Magnetic Location Collar

Geology

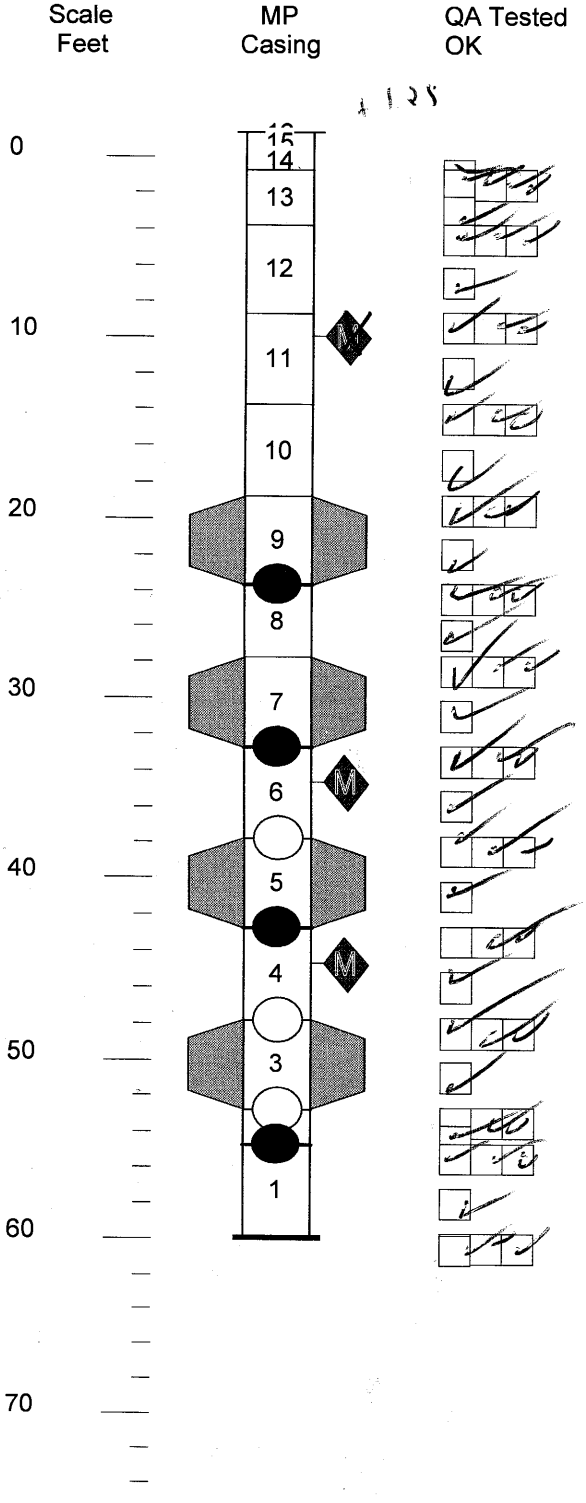
Backfill/Casing

Mild Steel

(c) Westbay Instruments Inc. 2000

Well Designer Report
Langan

Job No:
Well: LMW-6R-D



MP Casing Description

020101 - MP38 Casing 4 (1F/0.3M)
020103 - MP38 Casing 6 (3F/0.9M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
0238 - MP38 Packer - 74mm (5F/1.5M 20140 165/140
0205 - MP38 Measurement Port 10274
020104 - MP38 Casing 5 (4F/1.2M)
0238 - MP38 Packer - 74mm (5F/1.5M 20159 170/145
0205 - MP38 Measurement Port 10273
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9360
0238 - MP38 Packer - 74mm (5F/1.5M 20158 165/140
0205 - MP38 Measurement Port 10295
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9297
0238 - MP38 Packer - 74mm (5F/1.5M 20172 165/140
0224 - MP38 Pumping Port 9299
020102 - MP38 Casing 3 (2F/0.6M)
0205 - MP38 Measurement Port 10273
020105 - MP38 Casing 2 (5F/1.5M)
0203 - MP38 End Cap

(c) Westbay Instruments Inc. 2000

Tue Jan 30 17:30:12 2024

Sheet 1 of 1

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1499 Well No.: LMW-CO7-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/2/24

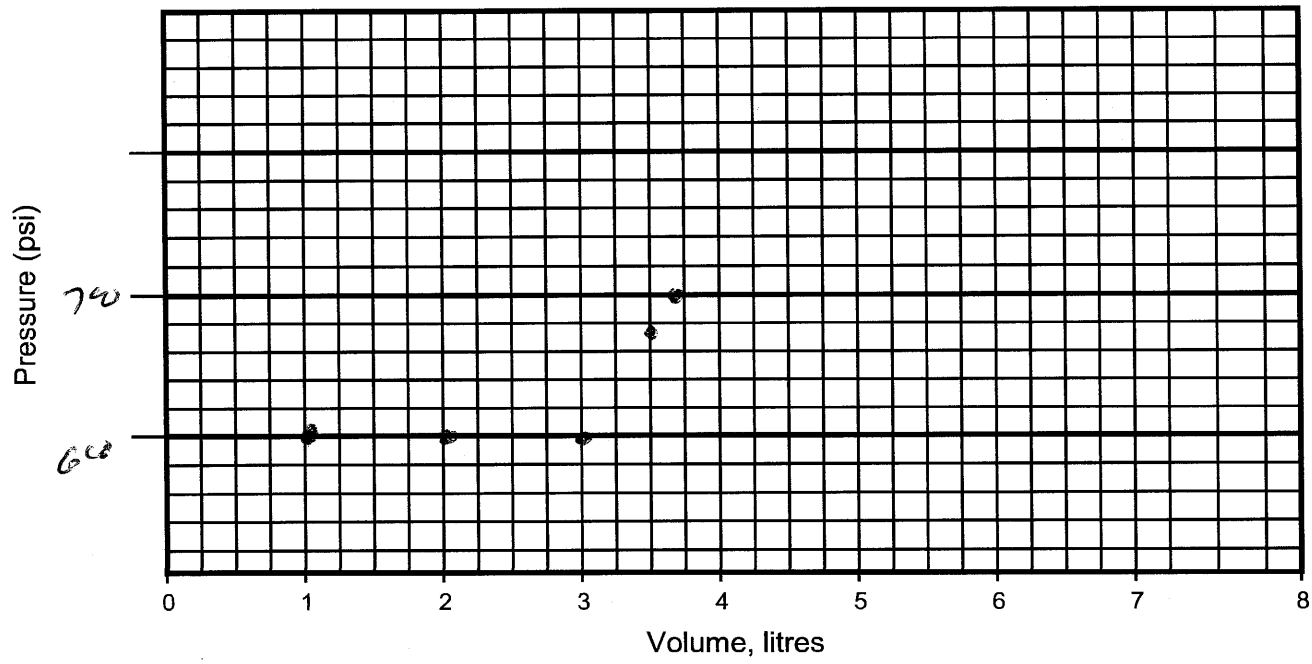
Packer No. 1 - 20172 Depth (ft / m): 47.85 Inflation Tool No.: TIV 3994

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 720 psi Tool Pressure, P_T: 425 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 135 psi

Volume, litres	1.0	2.0	3.0	3.5	3.65	/	3.45			
Pressure, psi	600	600	640	675	740	/	0			
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 10:42

Westbay Packer Inflation Record

Project: Langan - 1487 1st Ave Project No.: F5149.91 Well No.: LMW-CBR-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/2/24

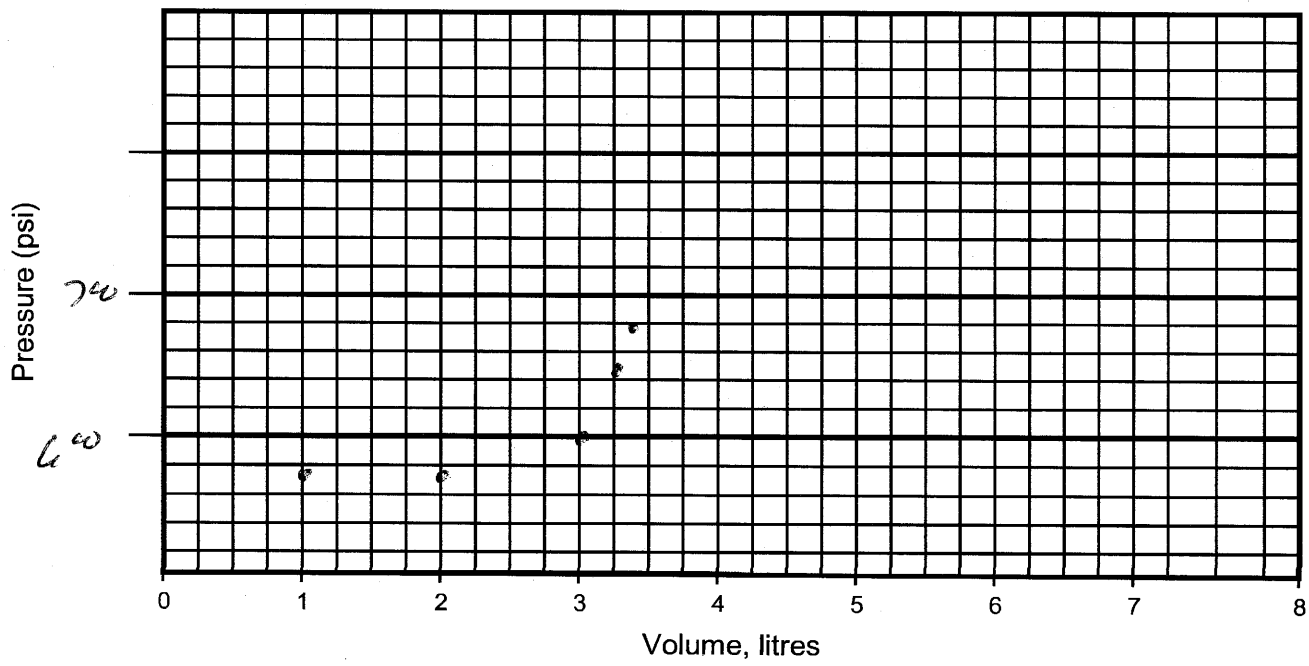
Packer No. 2 - 20158 Depth (ft / m): 37.75 Inflation Tool No.: TIW 3994

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 675 psi Tool Pressure, P_T: 425 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.25 ~~3.5~~	3.35 ~~4.0~~	/	3.55			
Pressure, psi	575	575	600	650	675	/	0			
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 10:56

Sheet 3 of 4

Westbay Packer Inflation Record

Project: Langan - 1487 1st Ave Project No.: FS1499 Well No.: LMW-CoR-1

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/2/24

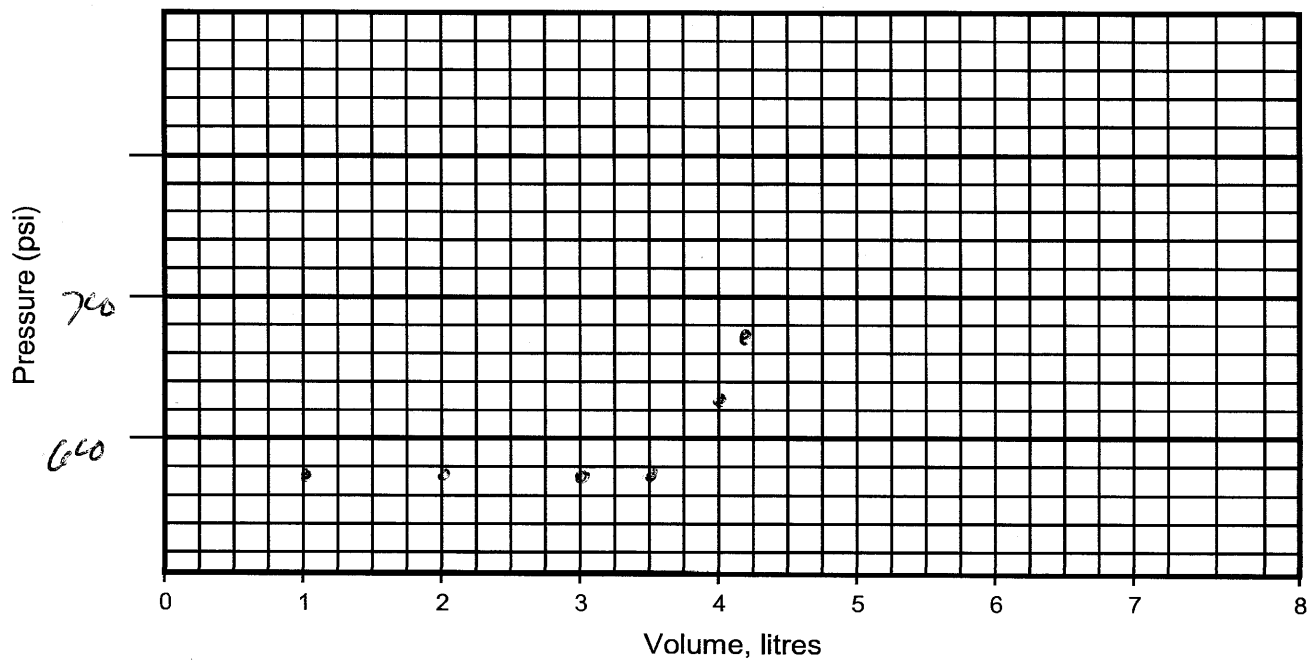
Packer No. 3-20159 Depth (ft / m): 2775 Inflation Tool No.: TW 3994

Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 675 psi Tool Pressure, P_T: 425 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = ~~1127~~ 105 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.20	/	4.20		
Pressure, psi	575	575	575	575	625	675	/	0		
Volume, litres										
Pressure, psi										



Comments: Packer # 3 Time - 1127

Sheet 4 of 4

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1499 Well No.: LMW-6A-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/2/24

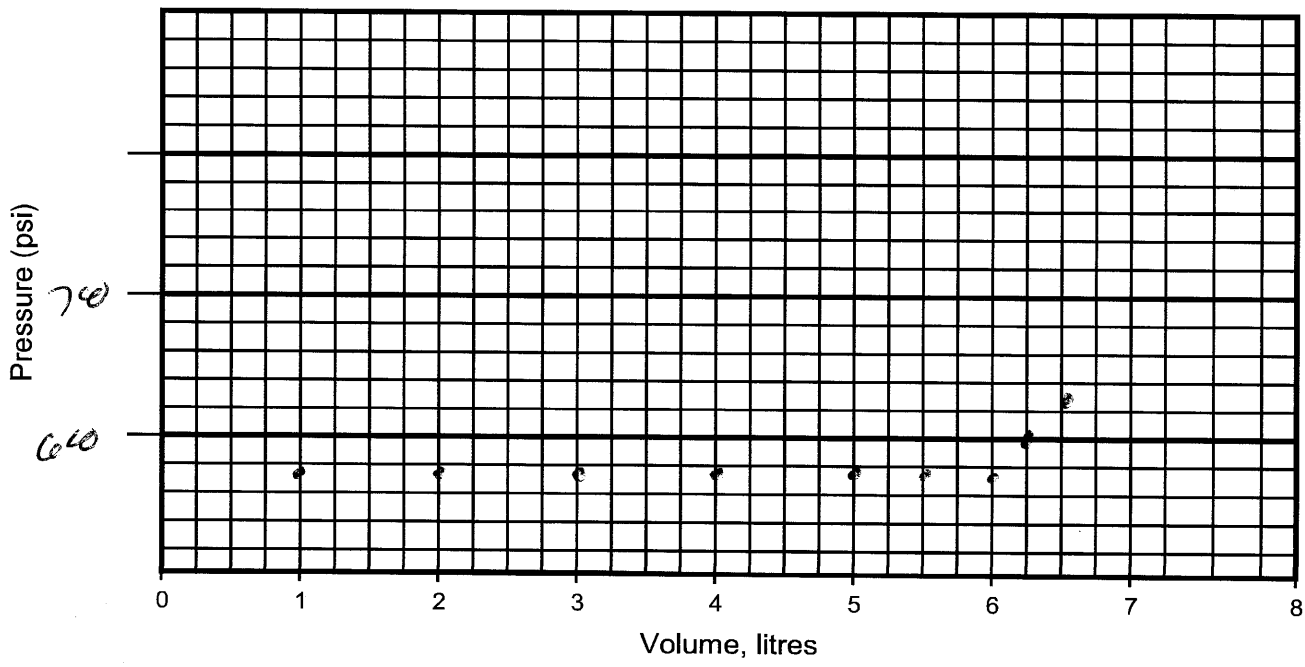
Packer No. 4 - 20160 Depth (ft / m): 18.75 Inflation Tool No.: TIW 3994

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 625 psi Tool Pressure, P_T: 425 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	4.0	5.0	5.5	6.0	6.25	6.50	/
Pressure, psi	575	575	575	575	575	575	575	640	625	/
Volume, litres	6.5									
Pressure, psi	0									



Comments: Packer # 4 Time - 11:44

APPENDIX C – LMW-7R-S

As-Built Packer and Port Summary (Table 14)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 5, 2024)	- 1 Pages
Figure 7, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 5, 2024)	- 1 Pages
Figure 8, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 3 Pages

Table 14. LMW-7R-S As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
3	QA1	26.75	21.75	26.05	32.00	
2	**Zone 2**	16.75	11.75	16.05	23.05	
1	**Zone 1**	6.75	1.75	6.05	13.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.
All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-7R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 31.91 ft.

Borehole Depth: 34.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-7R-S.WWD
Report Date: Tue Jan 30 17:11:31 2024

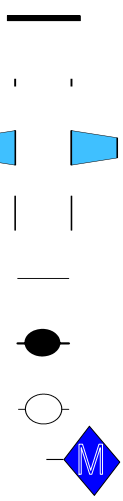
File Date: Jan 30 10:34:11 2024

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(3) 020101 - MP38 Casing 4 (1F/0.3M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(3) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(2) 0216 - Magnetic Location Collar

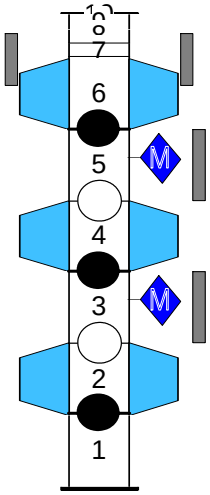
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-7R-S



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-70R-S
Datum: GS
Elev. G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 50°

Probe Type: Sampler
Serial No.: 3535
Probe Range: 0-125
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/5/24
Client: Lenjan
Job No.: FS1499
Location: 1487 1st Ave
Weather: —
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

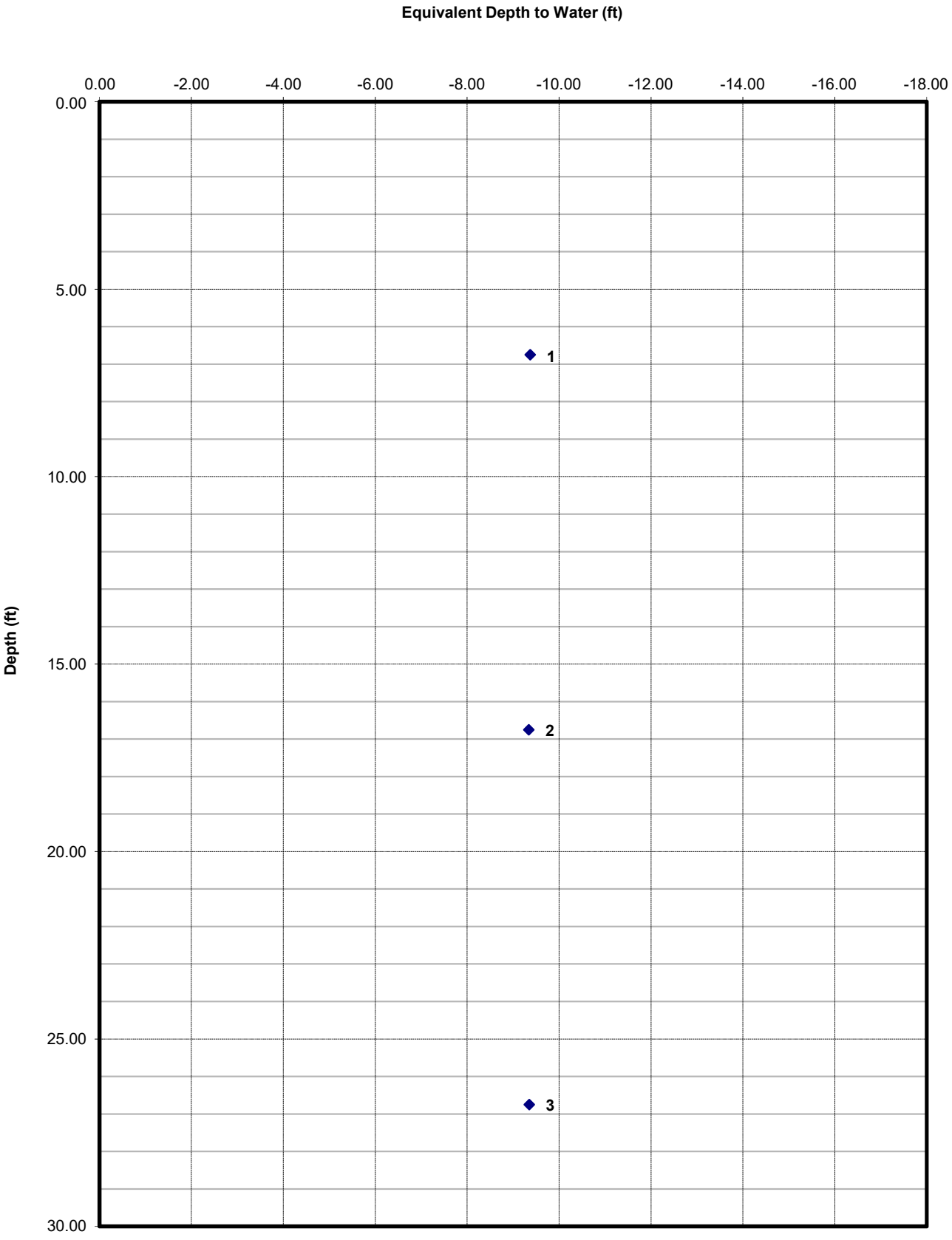
		Finish:
Start: Pressure	14.71	14.71
Temp	74	74
Time	10:26	11:04

P_{atm} 14.71 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
3	2675	27.0	—	25.02	30.36	10:59	15.29	25.02	34.10	-9.35	Pre Install
2	1675	17.2	—	20.68	24.02	11:01	15.28	20.68	24.09	-9.34	
1	675	7.20	—	16.31	21.70	11:03	14.93	16.32	14.12	-9.37	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 7
Well: LMW-7R-S
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-7R-S
Datum: GS
Elev. G.S.: –
Height of Westbay above G.S.: –
Elev. top of Westbay Casing: –
Reference Elevation: –
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3333
Probe Range: 0-520
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/5/24
Client: Langan
Job No.: F51495
Location: 1487 1st Ave
Weather: –
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.71 psi

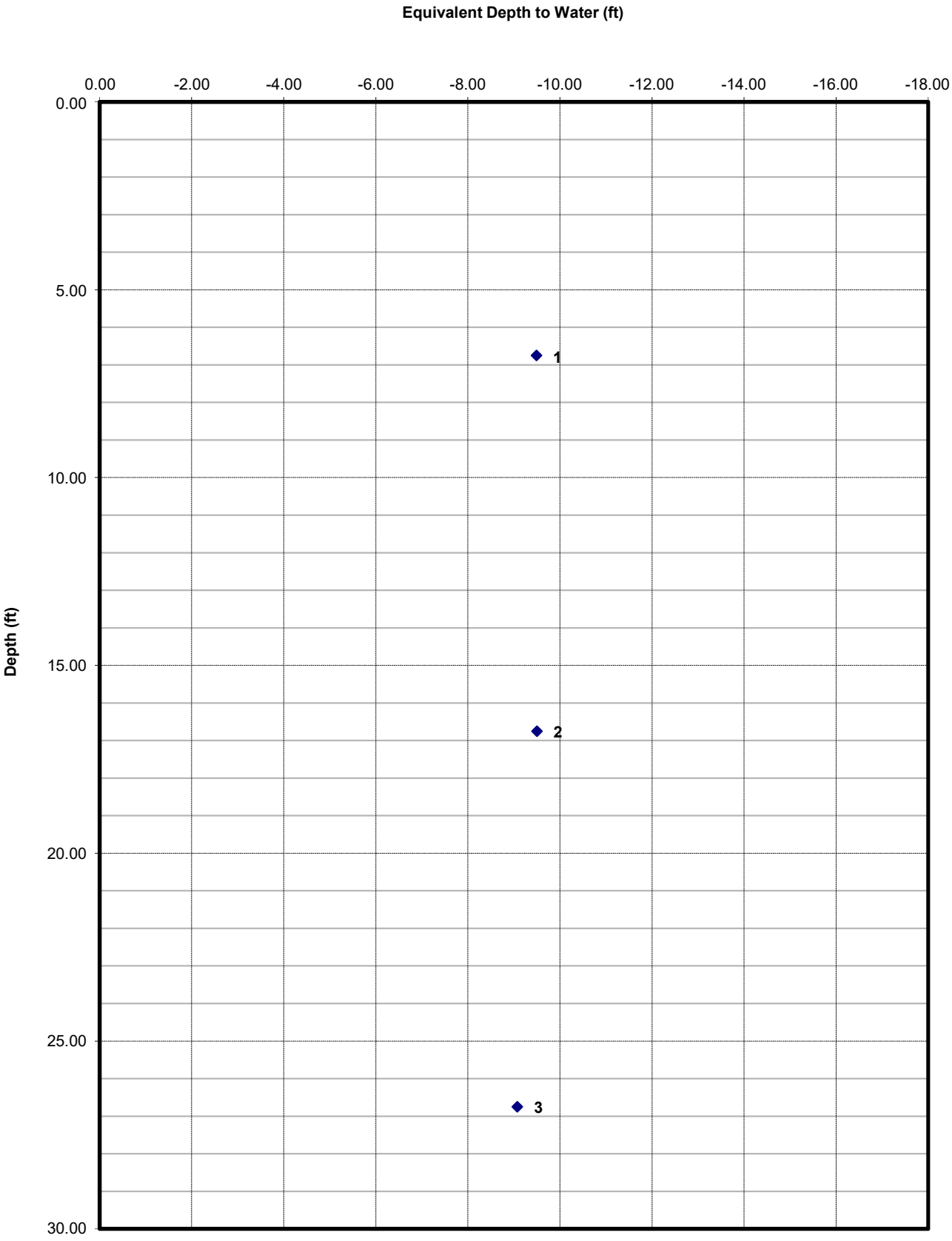
Ambient Reading (P_{atm}) (pressure, temperature, time)

	Start	Finish
Pressure	14.71	14.72
Temp	34.5	11.95
Time	12:10	12:16

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings					Pressure Head Outside Port (ft)	Piez. Level Outside Port (ft)	Comments
				Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	H = (P2-Patm)/w	Dz = Dp - H	
3	26.75	26.6	–	29.62	30.24	12:12	10.54	29.63	35.82	-9.07	Post mtn
2	16.75	16.6	–	25.28	26.09	12:13	11.40	25.28	26.25	-9.50	
1	6.75	6.7	–	20.93	21.75	12:15	11.87	20.93	16.24	-9.49	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 8
Well: LMW-7R-S
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-7R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 31.91 ft.

Borehole Depth: 34.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-7R-S.WWD
Report Date: Tue Jan 30 17:32:28 2024

File Date: Jan 30 17:13:04 2024

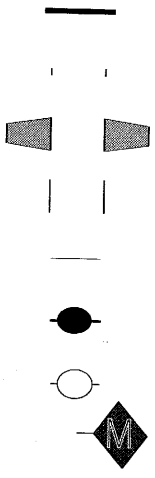
Comments

Log Information

Borehole condition confirmed. (method) hoses Date:
MP well design & preparation. By: Date: 2/5/24
MP well design checked. By: Date: 2/5/24
MP well and borehole approved to install. By: Date: 2/5/24

Legend

(Qty) MP Components
(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(3) 020101 - MP38 Casing 4 (1F/0.3M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(3) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(2) 0216 - Magnetic Location Collar

Geology

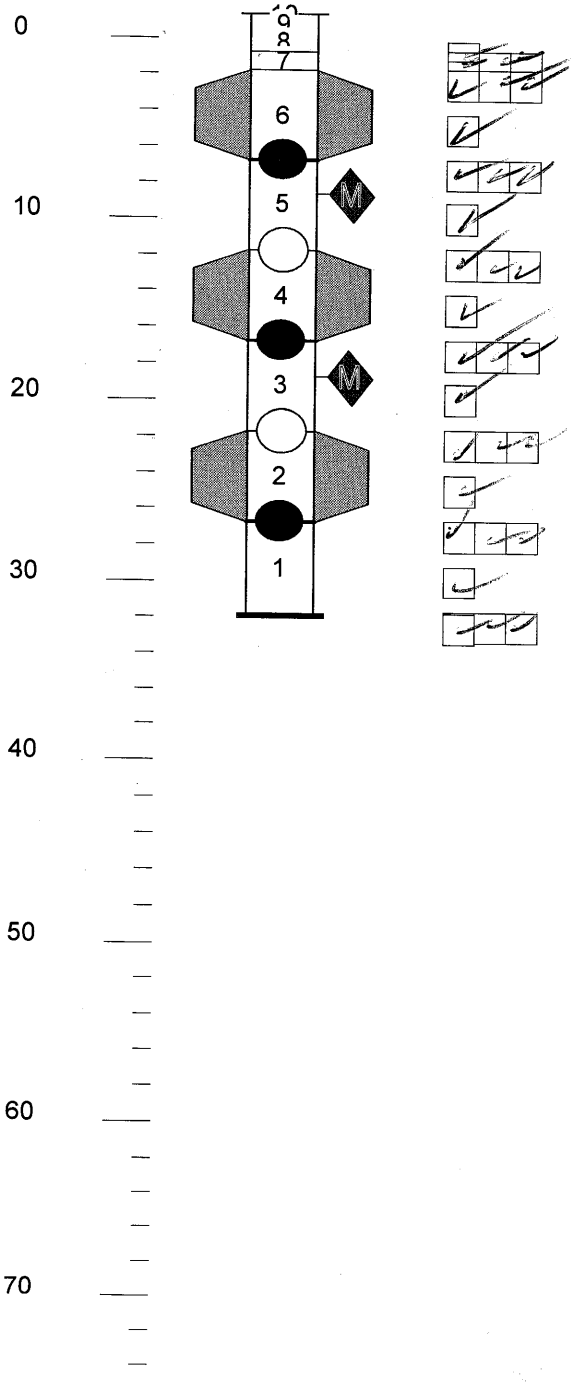
Backfill/Casing

Mild Steel

(c) Westbay Instruments Inc. 2000

Well Designer Report
Langan

Job No:
Well: LMW-7R-S



(c) Westbay Instruments Inc. 2000

Tue Jan 30 17:33:16 2024

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1499 Well No.: LMW-7R-S

Location: 1487 1st Ave Completed by: GS Date Inflated: 2/5/24

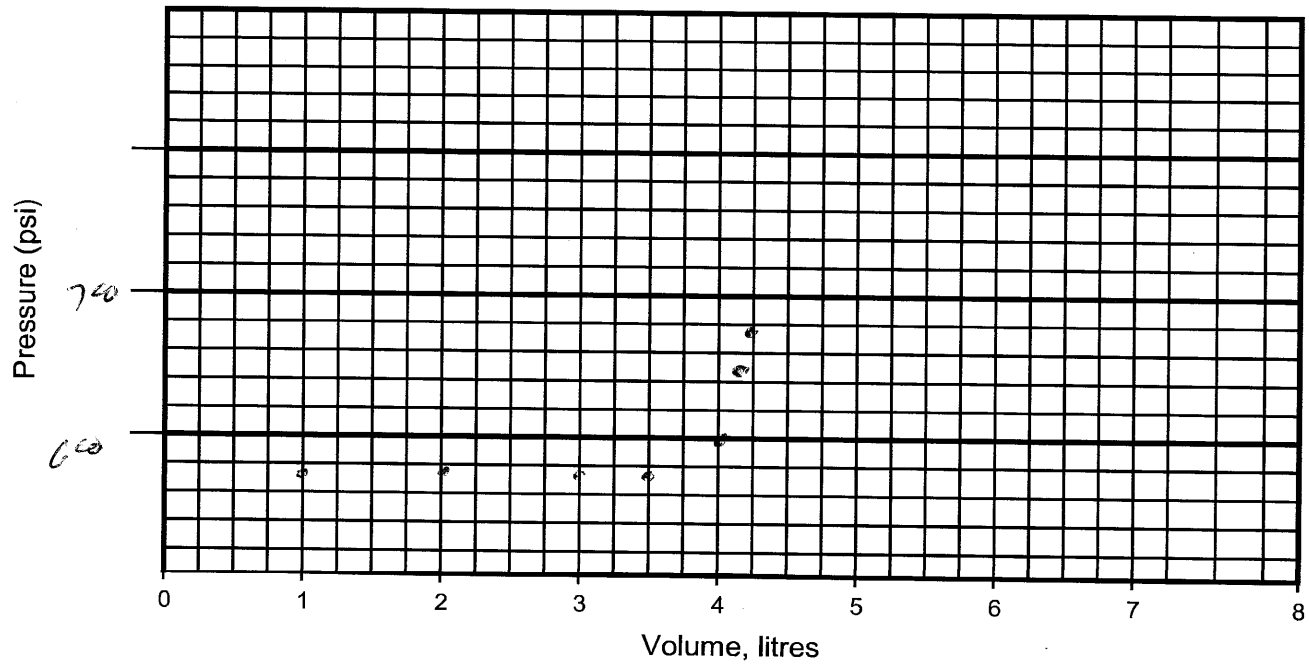
Packer No. 1 - 20167 Depth (ft / m): 2175 Inflation Tool No.: JW 3554

Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 675 psi Tool Pressure, P_T: 460 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 130 psi

Volume, litres	1.0	2.0	3.0	3.5	4.05	4.20	/			
Pressure, psi	575	575	575	575	630	675	/	0		
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 11:11

Westbay Packer Inflation Record

Project: Langan - 1487 1st Ave Project No.: F514 99 Well No.: LMW-79-S

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/5/24

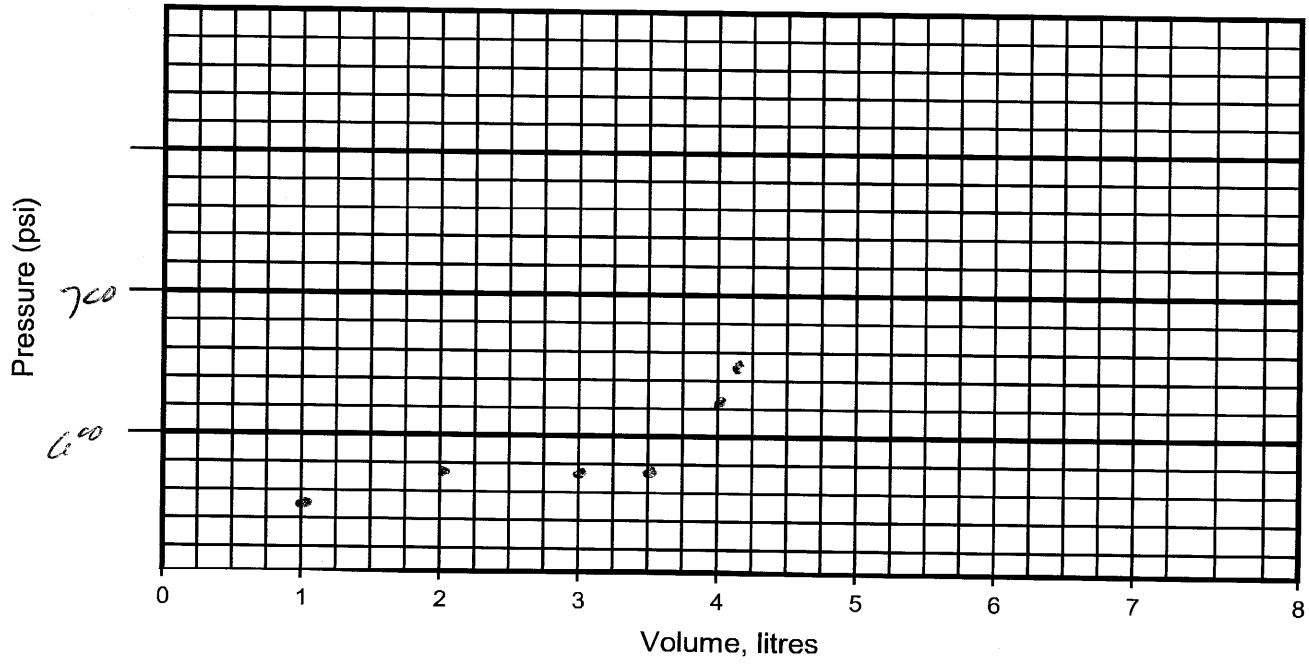
Packer No. 2 - 20168 Depth (ft / m): 11.75 Inflation Tool No.: TIW 3954

Packer Valve Pressure, P_V: 135 psi Final Line Pressure, P_L: 620 psi Tool Pressure, P_T: 400 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 115 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.10				
Pressure, psi	538	525	525	525	425	632				
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 11:28

Westbay Packer Inflation Record

Project: Langen - ~~Law~~ 1487 1st Ave Project No.: FS1499 Well No.: Law-MW-5

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/5/24

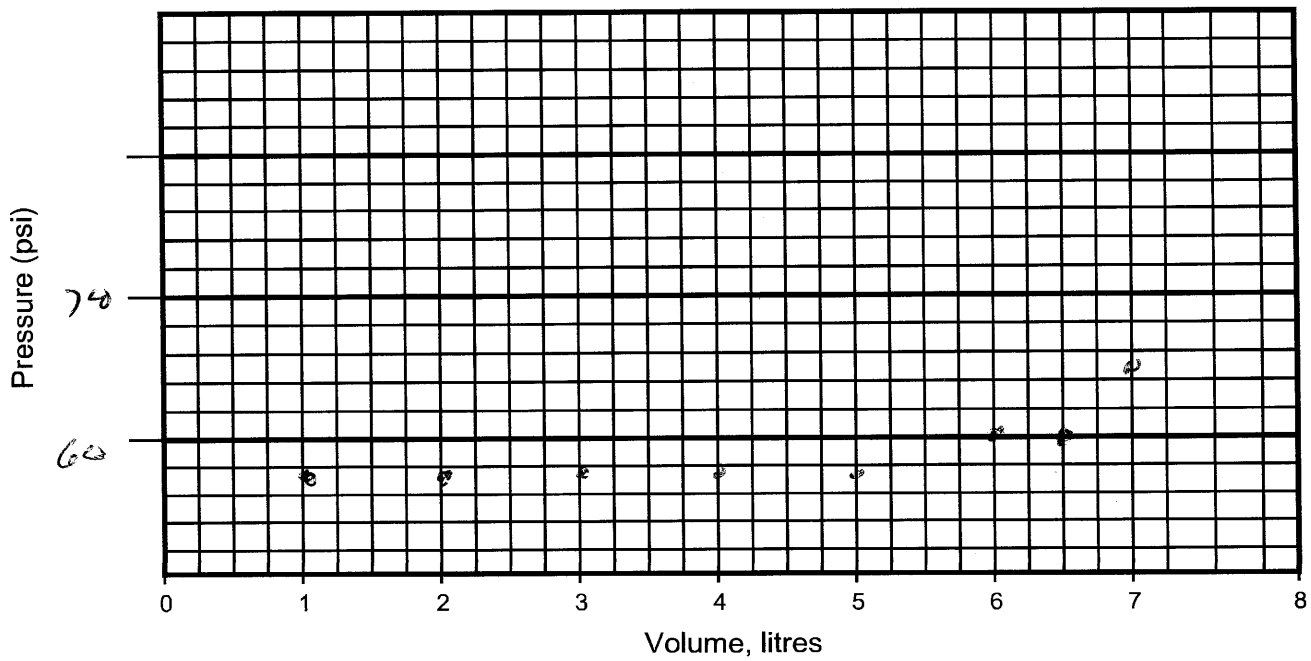
Packer No. 3 - 20169 Depth (ft / m): 1.75 Inflation Tool No.: JW 3554

Packer Valve Pressure, P_V: 150 psi Final Line Pressure, P_L: 650 psi Tool Pressure, P_T: 400 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 100 psi

Volume, litres	1.0	2.0	3.0	4.0	5.0	6.0	6.5	7.0	/	6.9
Pressure, psi	575	575	575	575	575	600	600	650	/	0
Volume, litres	7.25	7.40	/	7.40						
Pressure, psi	650	675	/	0						



Comments: Packer # 3 Time - 11:41

_____

_____

APPENDIX D – LMW-7R-D

As-Built Packer and Port Summary (Table 15)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 1, 2024)	- 1 Pages
Figure 9, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 1, 2024)	- 1 Pages
Figure 10, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 4 Pages

Table 15. LMW-7R-D As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
4	QA2	59.75	54.75	59.05	64.00	
3	**Zone 2**	49.75	44.75	49.05	56.05	
2	QA1	33.75	28.75	33.05	46.05	
1	**Zone 1**	23.75	18.75	23.05	30.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.

All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-7R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 62.91 ft.

Borehole Depth: 63.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-7R-D.WWD
Report Date: Tue Jan 30 17:17:52 2024

File Date: Jan 30 11:39:04 2024

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)

(2) 0203 - MP38 End Cap

(3) 020101 - MP38 Casing 4 (1F/0.3M)

(2) 020103 - MP38 Casing 6 (3F/0.9M)

(7) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0238 - MP38 Packer - 74mm (5F/1.5M)

(10) 0202 - MP38 Regular Coupling

(4) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(3) 0216 - Magnetic Location Collar

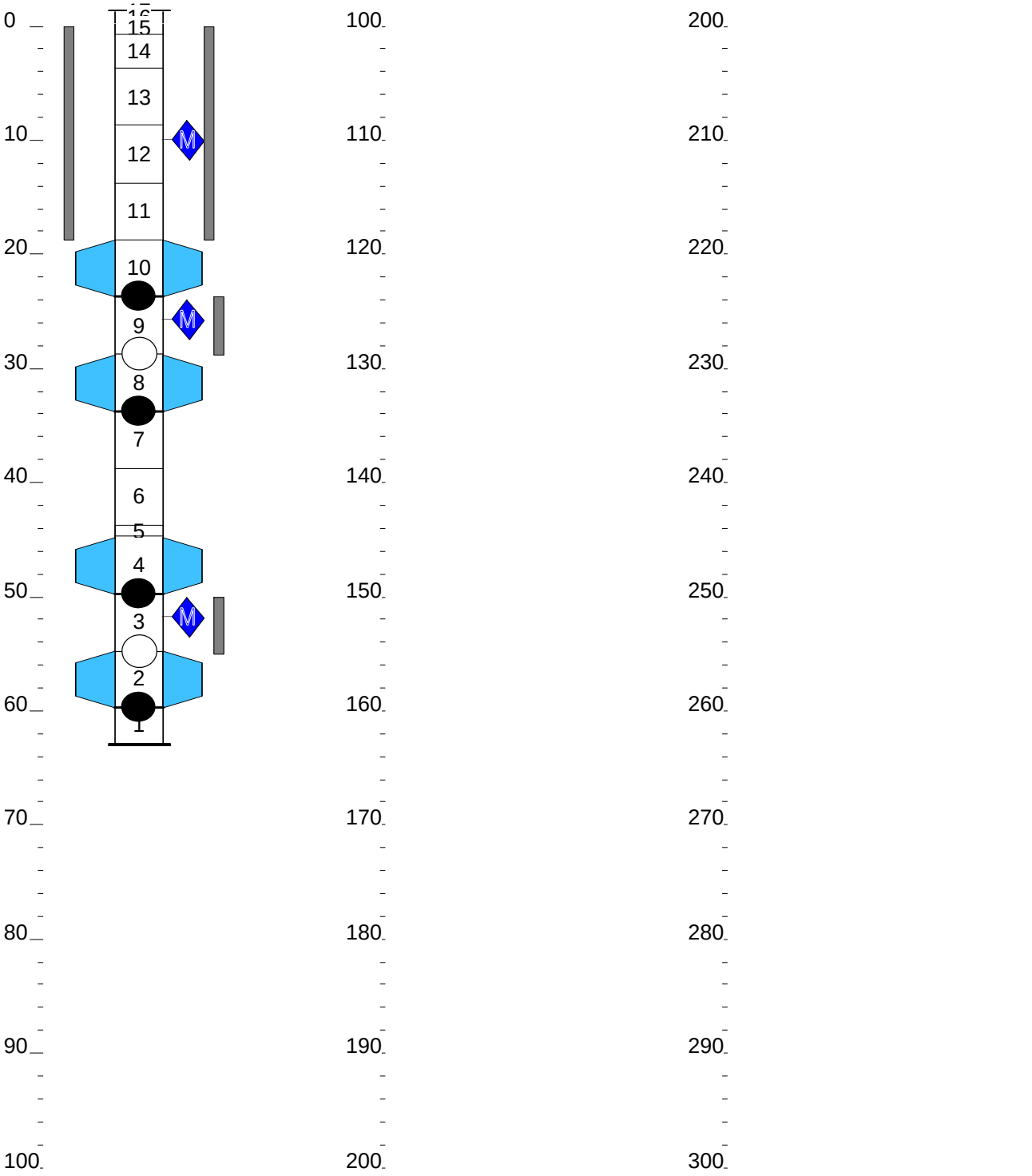
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-7R-D



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-7R-D
Datum: CS
Elev. G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 30°

Probe Type: QS sampler
Serial No.: 3355
Probe Range: 0-50
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/1/24
Client: Langan
Job No.: FS1479
Location: 1487 1st Ave
Weather: —
Operator: CS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.72 psi

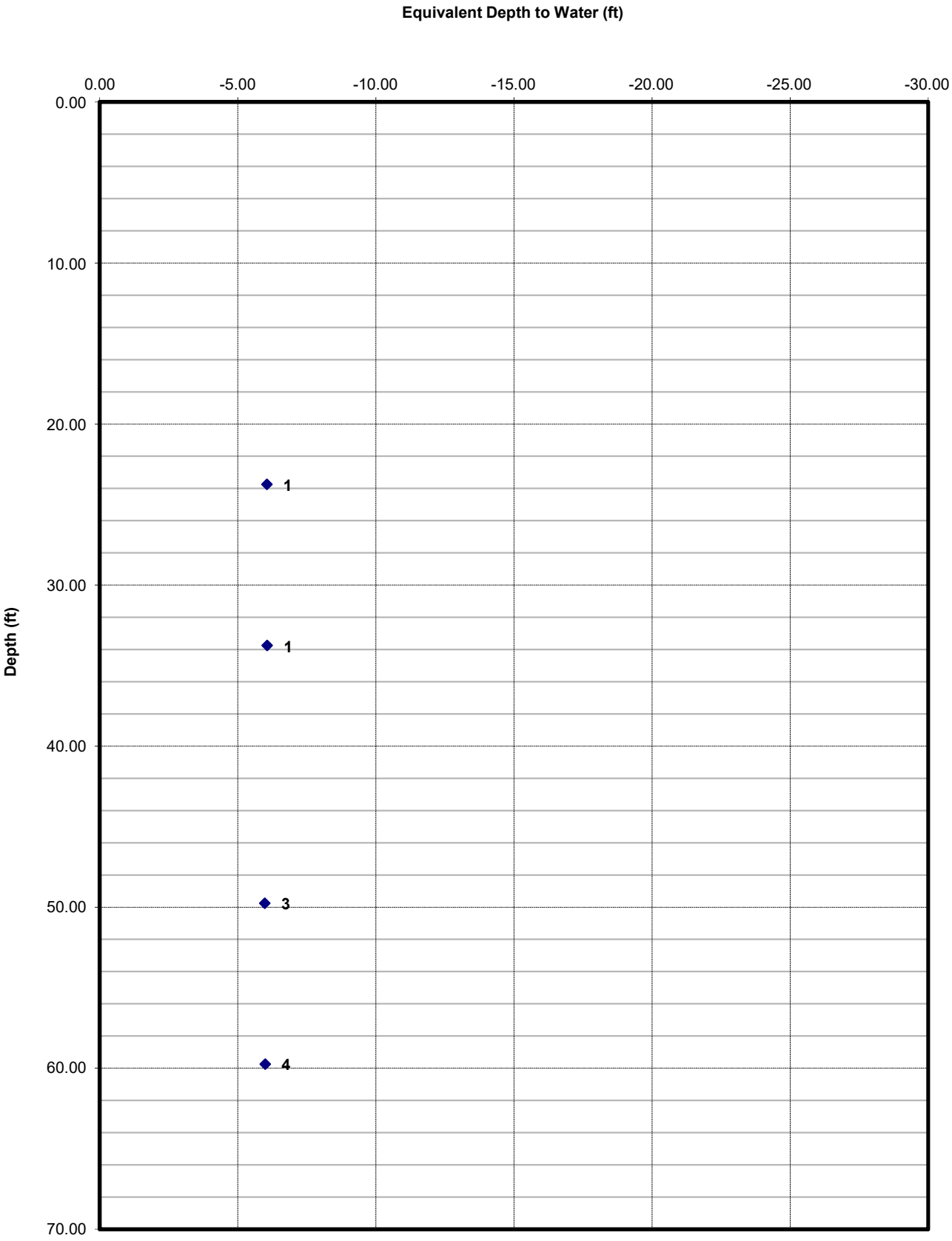
Ambient Reading (P_{atm}) (pressure, temperature, time)

		Start	Finish
Pressure		14.72	14.73
Temp		8.16	10.77
Time		15:24	15:37

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings					Pressure Head Outside Port (ft)	Piez. Level Outside Port (ft)	Comments
				Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	H = (P2-Patm)/w	Dz = Dp - H	
4	59.75	59.6	—	31.43	43.22	15:29	9.24	31.43	45.74	-5.99	Pre Install
3	49.75	49.6	—	27.10	38.58	15:30	10.37	27.10	55.73	-5.98	
2	33.75	33.7	—	20.18	31.98	15:32	11.23	20.18	39.82	-6.06	
1	23.75	23.7	—	15.83	27.64	15:35	12.53	15.84	29.80	-6.05	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 9
Well: LMW-7R-D
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-7R-D
Datum: GS
Elev. G.S.: –
Height of Westbay above G.S.: –
Elev. top of Westbay Casing: –
Reference Elevation: –
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 2335
Probe Range: 0-320
Westbay Casing Type: MP38
Sampler Valve Position: Close

Date: 2/1/24
Client: Langan
Job No.: F1917
Location: 1487 1st Ave
Weather: –
Operator: dr

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.71 psi

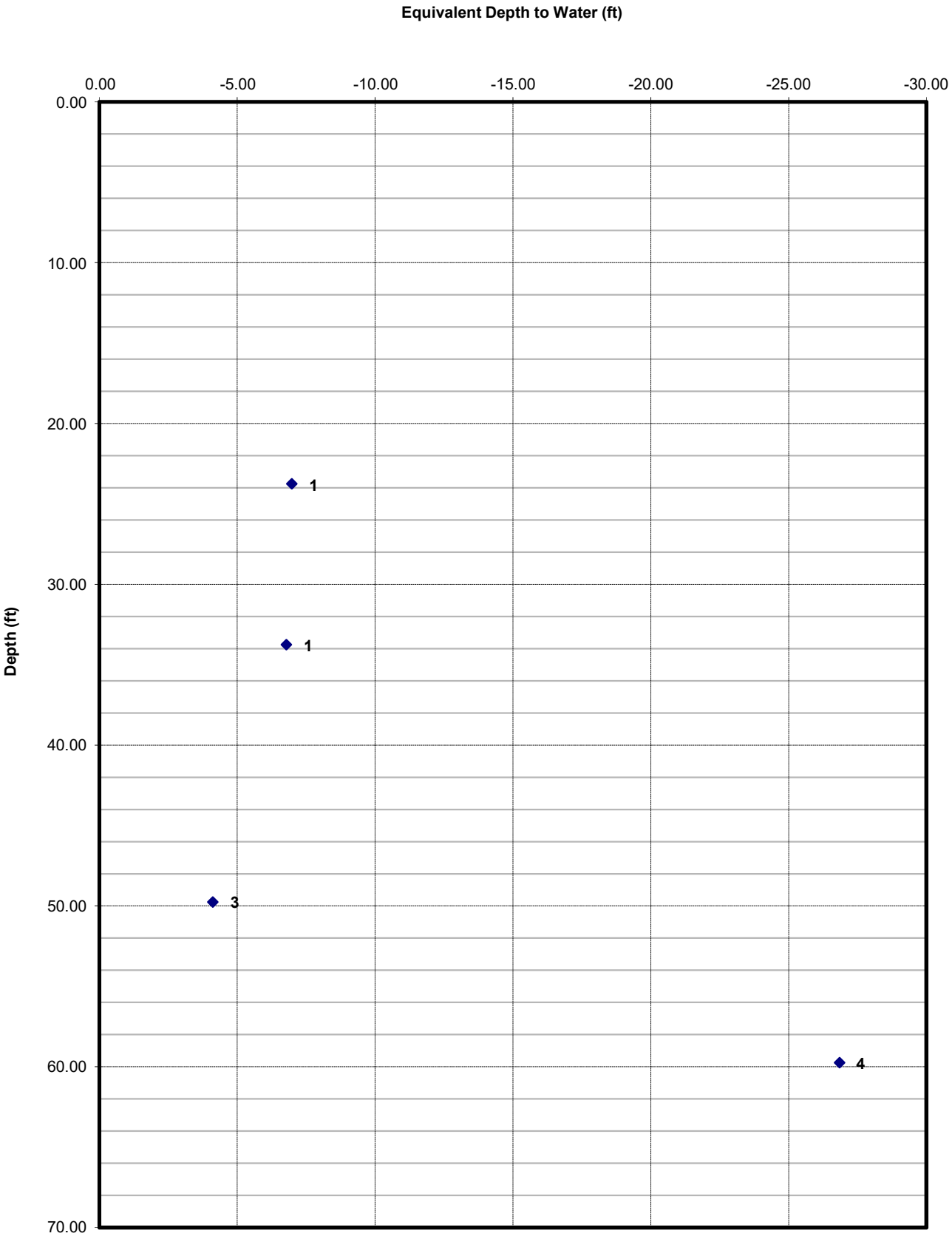
Ambient Reading (P_{atm}) (pressure, temperature, time)

		Start:	Finish:
Pressure		14.73	14.72
Temp		11.52	11.47
Time		17:20	17:30

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
4	59.75	59.40	–	42.77	32.27	17:24	12.56	42.77	50.60	-26.85	Psi In Psi
3	49.75	49.50	–	38.43	38.08	17:25	13.27	38.43	53.86	-4.11	
2	33.75	33.60	–	31.50	32.30	17:27	13.91	31.50	40.53	-6.78	
1	23.76	23.60	–	27.15	28.05	17:29	14.34	27.15	30.73	-6.98	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 10
Well: LMW-7R-D
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-7R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 62.91 ft.

Borehole Depth: 63.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-7R-D.WWD
Report Date: Tue Jan 30 17:30:47 2024

File Date: Jan 30 17:19:10 2024

Comments

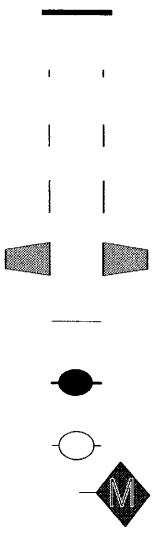
Log Information

Borehole condition confirmed.	(method) Logging	Date:
MP well design & preparation.	By: [signature]	Date: 1/30/24
MP well design checked.	By: [signature]	Date: 2/1/24
MP well and borehole approved to install.	By: [signature]	Date: 2/1/24

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(3) 020101 - MP38 Casing 4 (1F/0.3M)

(2) 020103 - MP38 Casing 6 (3F/0.9M)

(7) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0238 - MP38 Packer - 74mm (5F/1.5M)

(10) 0202 - MP38 Regular Coupling

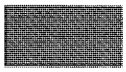
(4) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(3) 0216 - Magnetic Location Collar

Geology

Backfill/Casing

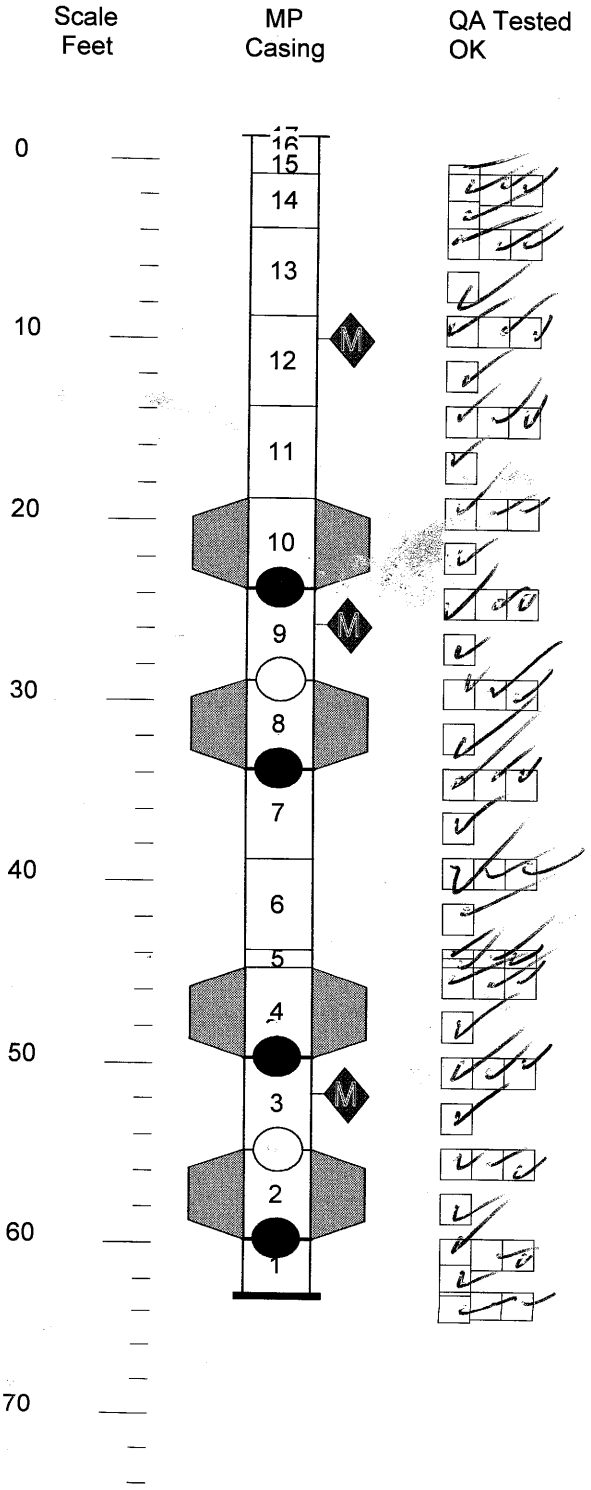


Mild Steel

(c) Westbay Instruments Inc. 2000

Well Designer Report
Langan

Job No:
Well: LMW-7R-D



MP Casing Description

020101 - MP38 Casing 4 (1F/0.3M)
020103 - MP38 Casing 6 (3F/0.9M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
0238 - MP38 Packer - 74mm (5F/1.5M 20165 165/140
0205 - MP38 Measurement Port 10280
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9291
0238 - MP38 Packer - 74mm (5F/1.5M 20164 165/140
0205 - MP38 Measurement Port 10282
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020101 - MP38 Casing 4 (1F/0.3M)
0238 - MP38 Packer - 74mm (5F/1.5M 20157 165/140
0205 - MP38 Measurement Port 10279
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9293
0238 - MP38 Packer - 74mm (5F/1.5M 20163 165/140
0205 - MP38 Measurement Port 10278
020103 - MP38 Casing 6 (3F/0.9M)
0203 - MP38 End Cap

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Tue Jan 30 17:31:33 2024

Sheet 1 of 4

Westbay Packer Inflation Record

Project: Langan - 1487 1st Ave Project No.: FS1499 Well No.: LMW-708-D

Location: 1487 1st Ave Completed by: GS Date Inflated: 2/16/04

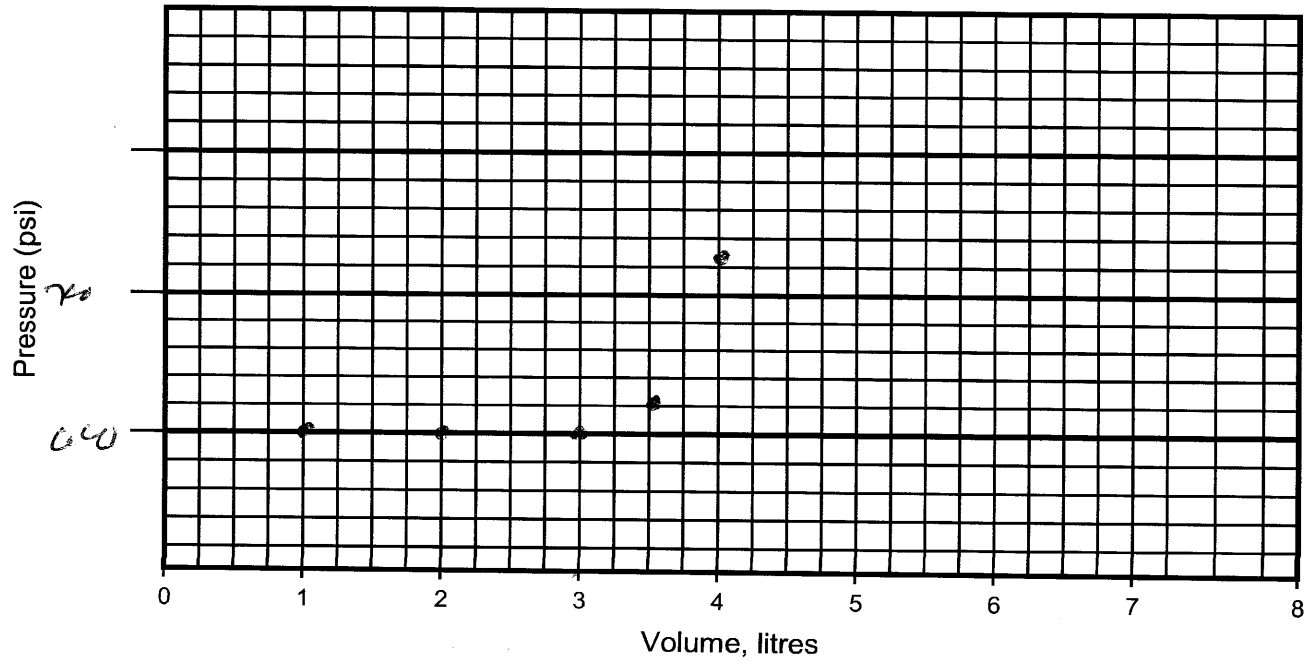
Packer No. 1 - 20163 Depth (ft / m): 547.5 Inflation Tool No.: TW 3594

Packer Valve Pressure, P_V: 1110 psi Final Line Pressure, P_L: 725 psi Tool Pressure, P_T: 450 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 135 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	/	3.95			
Pressure, psi	640	640	640	625	725	/	0			
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 1614

Westbay Packer Inflation Record

Project: Langen – 1487 - 1st Ave Project No.: FS1499 Well No.: LMW - 7R-D

Location: 1487 1st Ave Completed by: GS Date Inflated: 9/1/24

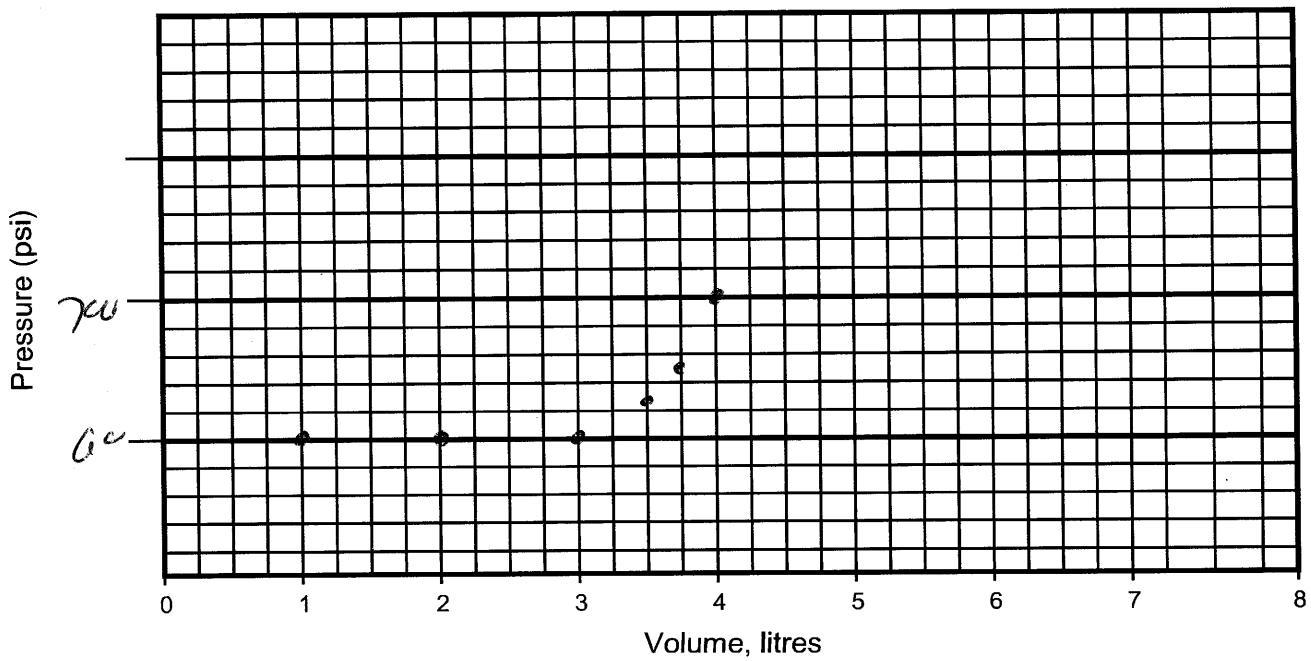
Packer No. 2 - 10279 Depth (ft / m): 49.75' Inflation Tool No.: TW 3994

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 700 psi Tool Pressure, P_T: 450 psi

Borehole Water Level: – (ft / m) = – psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	3.75	4.0	/	4.0		
Pressure, psi	600	600	600	625	650	700	/	#		
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 16:38

Westbay Packer Inflation Record

Project: Langa - 1487 1st Ave Project No.: FS1494 Well No.: LMW-709-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/1/24

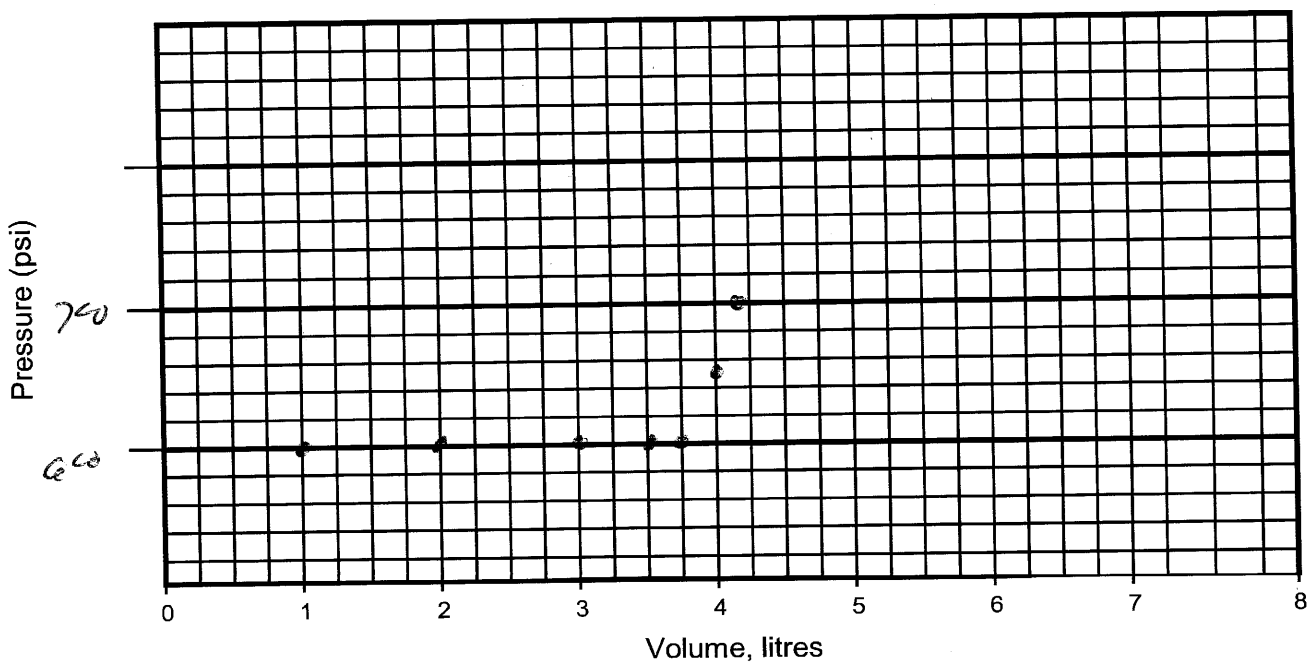
Packer No. 3 - 20164 Depth (ft / m): 28.75 Inflation Tool No.: JW 3594

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 760 psi Tool Pressure, P_T: 1520 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	3.75	4.0	4.15	4.15		
Pressure, psi	600	600	600	600	600	650	760	760		
Volume, litres										
Pressure, psi										



Comments: Packer # 3 Time - 16:45

Sheet 4 of 4

Westbay Packer Inflation Record

Project: Langa 1487 1st Ave. Project No.: F-51475 Well No.: LAW-7R-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/1/24

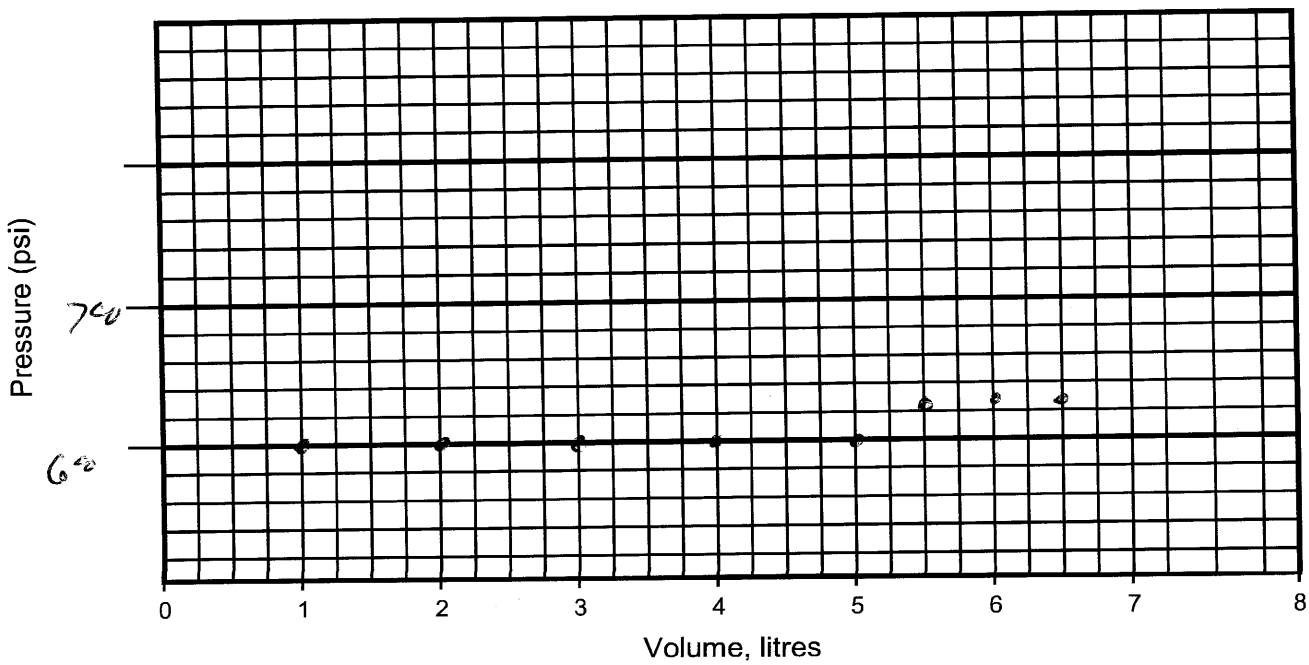
Packer No. 20165 - 4 Depth (ft / m): 18.75 Inflation Tool No.: TW 3545

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 425 psi Tool Pressure, P_T: 150 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 35 psi

Volume, litres	1.0	2.0	3.0	4.0	5.0	5.5	6.0	6.5	/	6.5
Pressure, psi	600	600	600	600	600	425	425	425	/	9
Volume, litres										
Pressure, psi										



Comments: Packer # 4 Time - 16:56

APPENDIX E – LMW-8R-S

As-Built Packer and Port Summary (Table 16)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 1, 2024)	- 1 Pages
Figure 11, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 1, 2023)	- 1 Pages
Figure 12, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 3 Pages

Table 16. LMW-8R-S As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
3	QA1	28.75	23.75	28.05	30.00	
2	**Zone 2**	18.75	11.75	16.05	25.05	
1	**Zone 1**	6.75	0.75	5.05	13.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.
All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-8R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 29.91 ft.

Borehole Depth: 29.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-8R-S.WWD
Report Date: Tue Jan 30 10:44:05 2024

File Date: Jan 30 10:38:57 2024

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)

(2) 0203 - MP38 End Cap

(4) 020101 - MP38 Casing 4 (1F/0.3M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(2) 020105 - MP38 Casing 2 (5F/1.5M)

(1) 020102 - MP38 Casing 3 (2F/0.6M)

(5) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(2) 0216 - Magnetic Location Collar

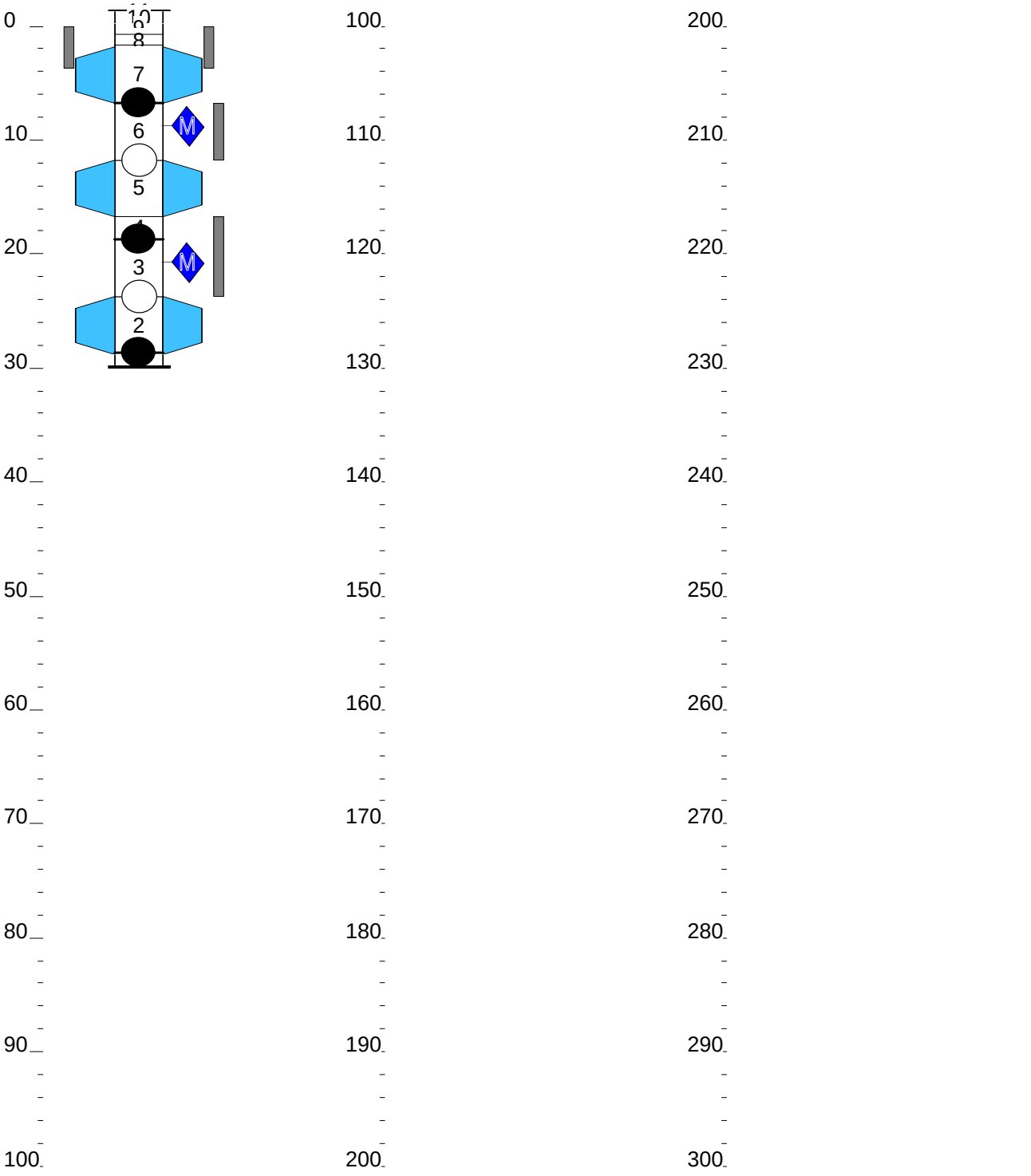
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-8R-S



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-8R-S
Datum: CGS
Elev.G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3555
Probe Range: 0-52
Westbay Casing Type: MP35
Sampler Valve Position: Closed

Date: 2/1/24
Client: Langan
Job No.: FS1479
Location: 1487 First Ave
Weather: —
Operator: CC

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

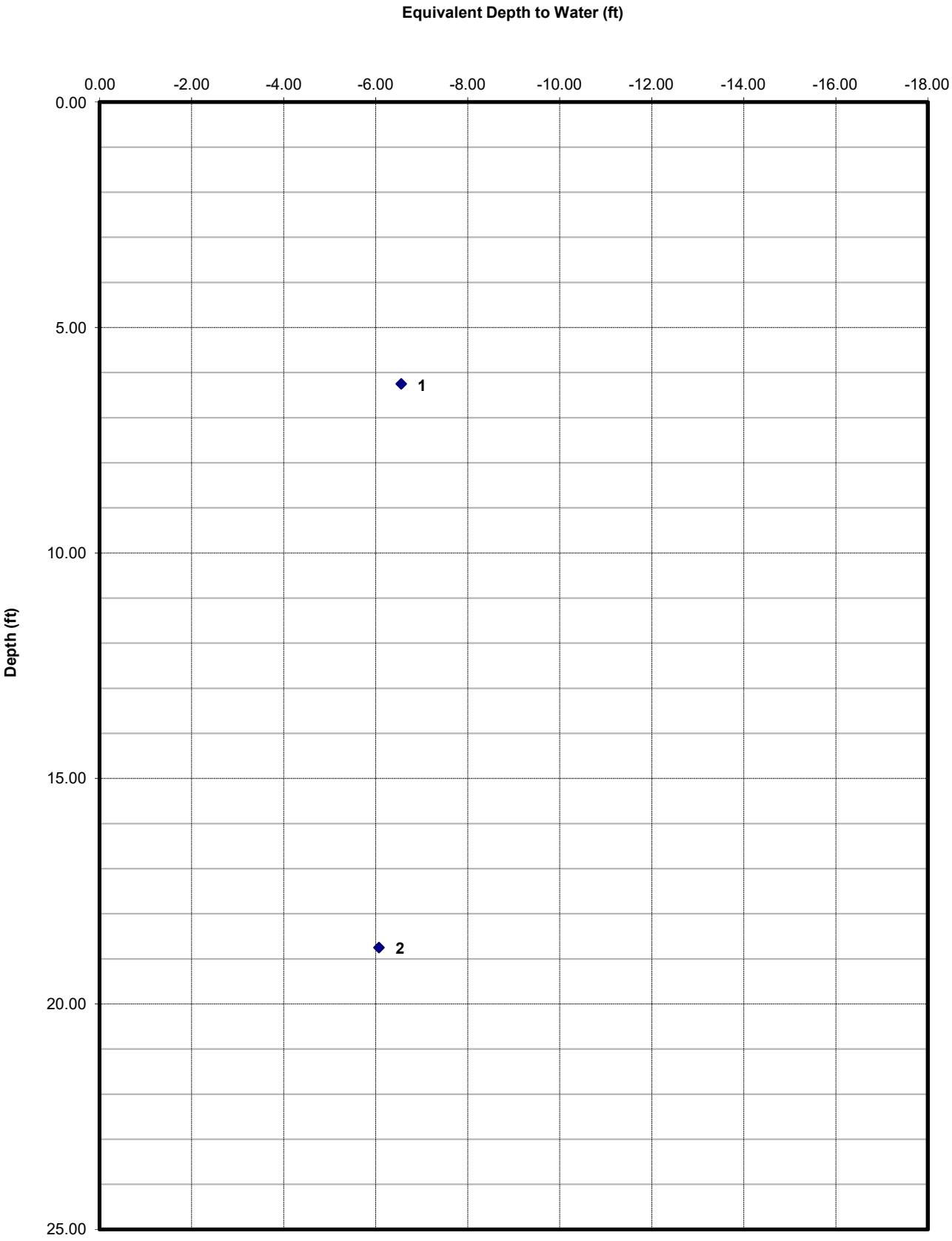
Start: Pressure	14.80	Finish: 14.75
Temp	15.91	15.53
Time	10:16	10:24

P_{atm} 14.80 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
2	18.75	19.0	—	18.82	25.56	10:19	15.75	18.83	24.52	-6.07	Pz Inflate
1	6.75	17.0	—	14.77	20.35	10:22	15.62	14.78	12.80	-6.05	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 11
Well: LMW-8R-S
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Westbay Instruments

Well No.: CMW-8A-S
Datum: CS
Elev.G.S.: -
Height of Westbay above G.S.: -
Elev. top of Westbay Casing: -
Reference Elevation: -
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3333
Probe Range: 0-50
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/1/24
Client: Lawson
Job No.: F31477
Location: 1487 1st Ave
Weather: -
Operator: CS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

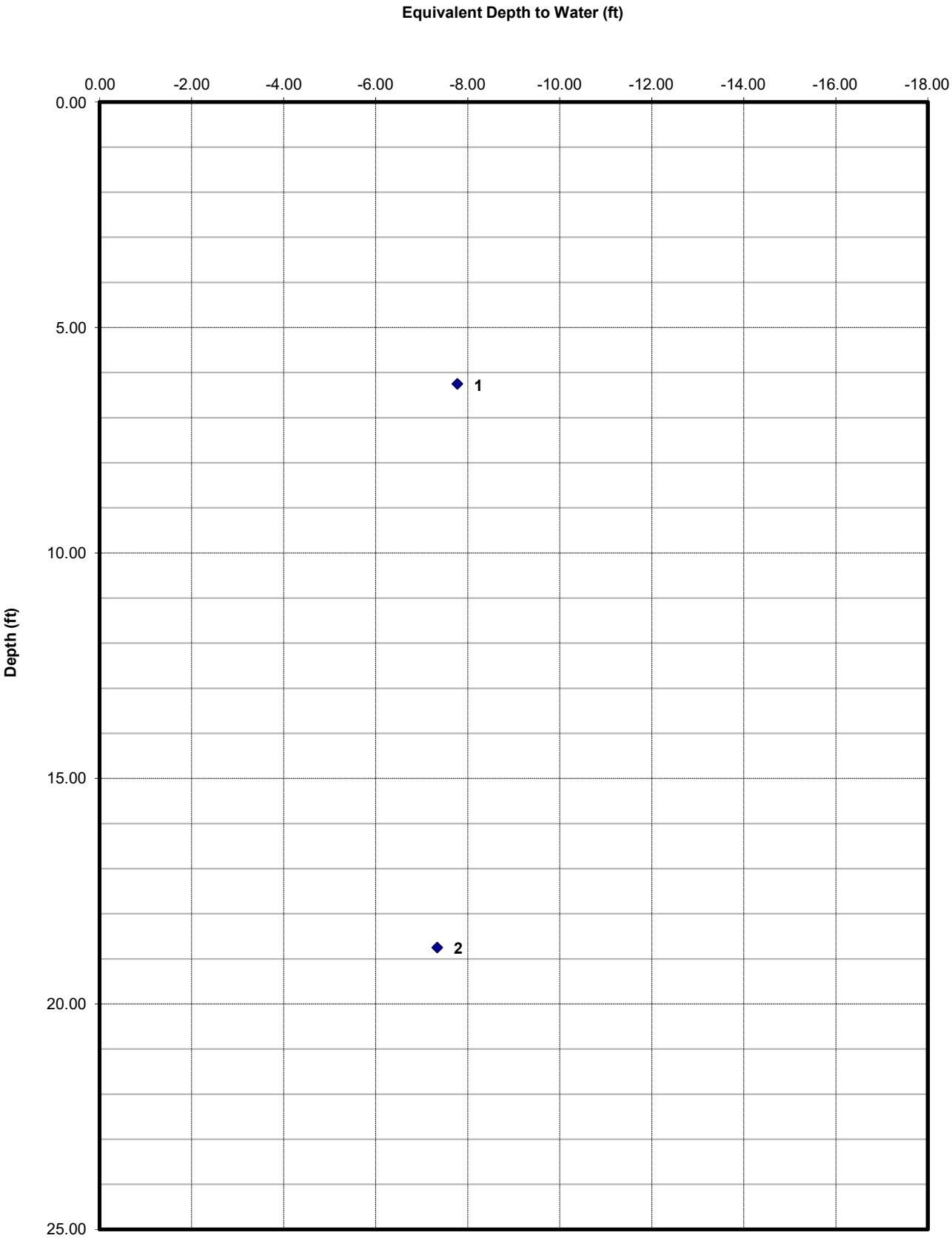
		Finish:
Start: Pressure	14.77	14.77
Temp	10.5C	12.99
Time	11:41	11:52

P_{atm} 14.77 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
2	18.75	18.90	-	25.03	26.09	11:47	11.96	25.03	26.09	-7.33	Post Install
1	6.25	6.90	-	19.81	20.85	11:50	12.75	19.81	19.09	-7.27	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 12
Well: LMW-8R-S
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-8R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 29.91 ft.

Borehole Depth: 29.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-8R-S.WWD
Report Date: Tue Jan 30 17:35:32 2024

File Date: Jan 30 10:46:06 2024

Comments

Log Information

Borehole condition confirmed. (method) Logging Date:
MP well design & preparation. By: Date: 1/31/24
MP well design checked. By: Date: 2/1/24
MP well and borehole approved to install. By: Date: 2/1/24

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)

- (2) 0203 - MP38 End Cap
- (4) 020101 - MP38 Casing 4 (1F/0.3M)
- (3) 0238 - MP38 Packer - 74mm (5F/1.5M)
- (2) 020105 - MP38 Casing 2 (5F/1.5M)
- (1) 020102 - MP38 Casing 3 (2F/0.6M)
- (5) 0202 - MP38 Regular Coupling
- (3) 0205 - MP38 Measurement Port
- (2) 0224 - MP38 Pumping Port
- (2) 0216 - Magnetic Location Collar

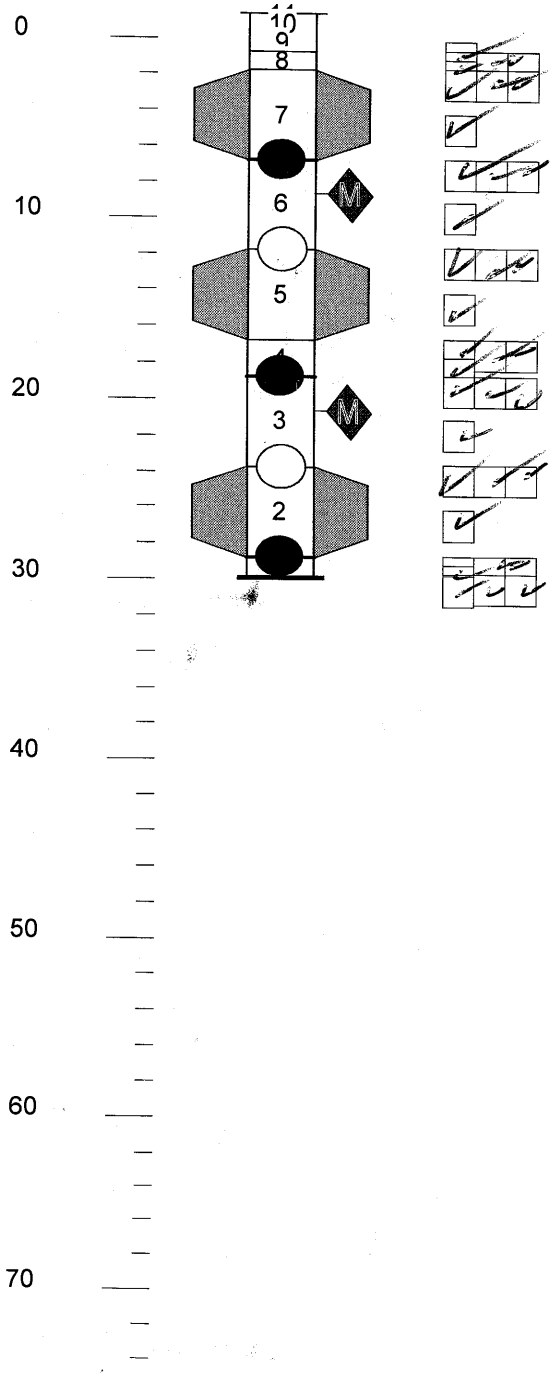
Geology

Backfill/Casing

- Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-8R-S



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Tue Jan 30 17:36:17 2024

Sheet 1 of 3

Westbay Packer Inflation Record

Project: Langley - 1487 First Ave Project No.: FS1491 Well No.: LMW-8R-S

Location: 1487 - First Ave Completed by: GS Date Inflated: 01/12/17

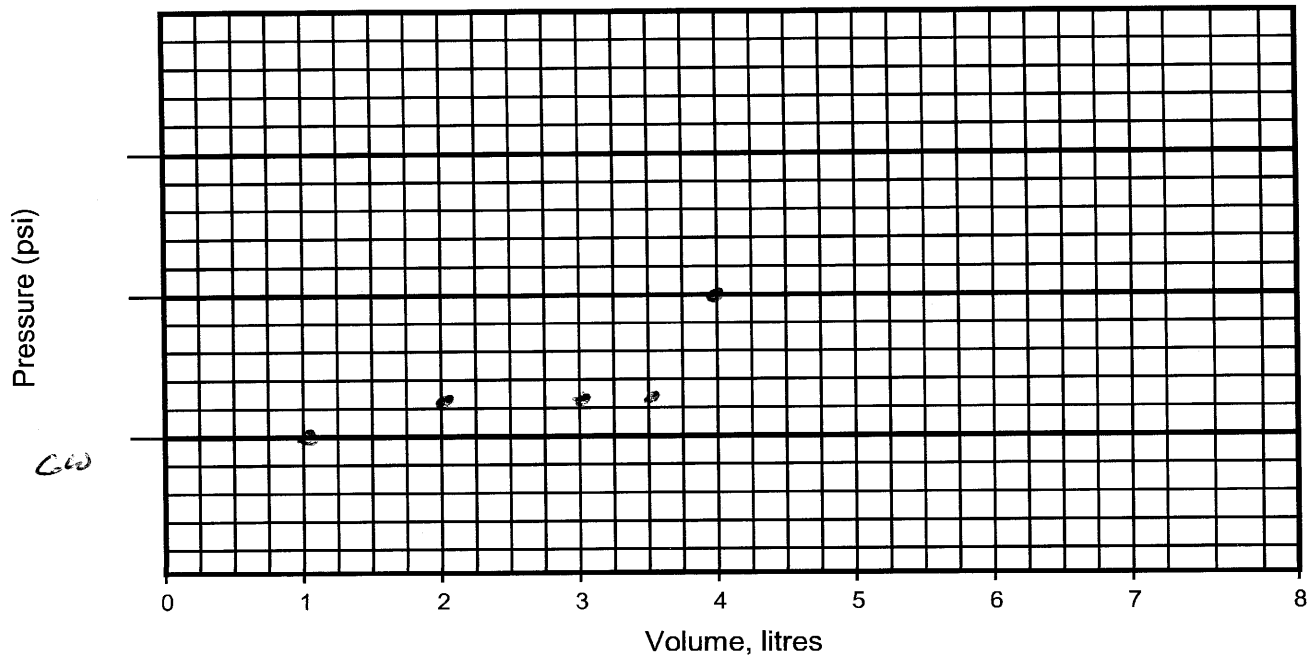
Packer No. 1 - 20162 Depth (ft / m): 2375 Inflation Tool No.: TIW ~~DCR~~ Y

Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 740 psi Tool Pressure, P_T: 450 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 105 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	1	4.0			
Pressure, psi	600	625	625	625	~~625~~ 700	1	0			
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 10:45

Westbay Packer Inflation Record

Project: Langan - 1487 First Ave Project No.: FS1477 Well No.: LMW-8R-S

Location: 1487 First Ave. Completed by: CoS Date Inflated: 2/1/24

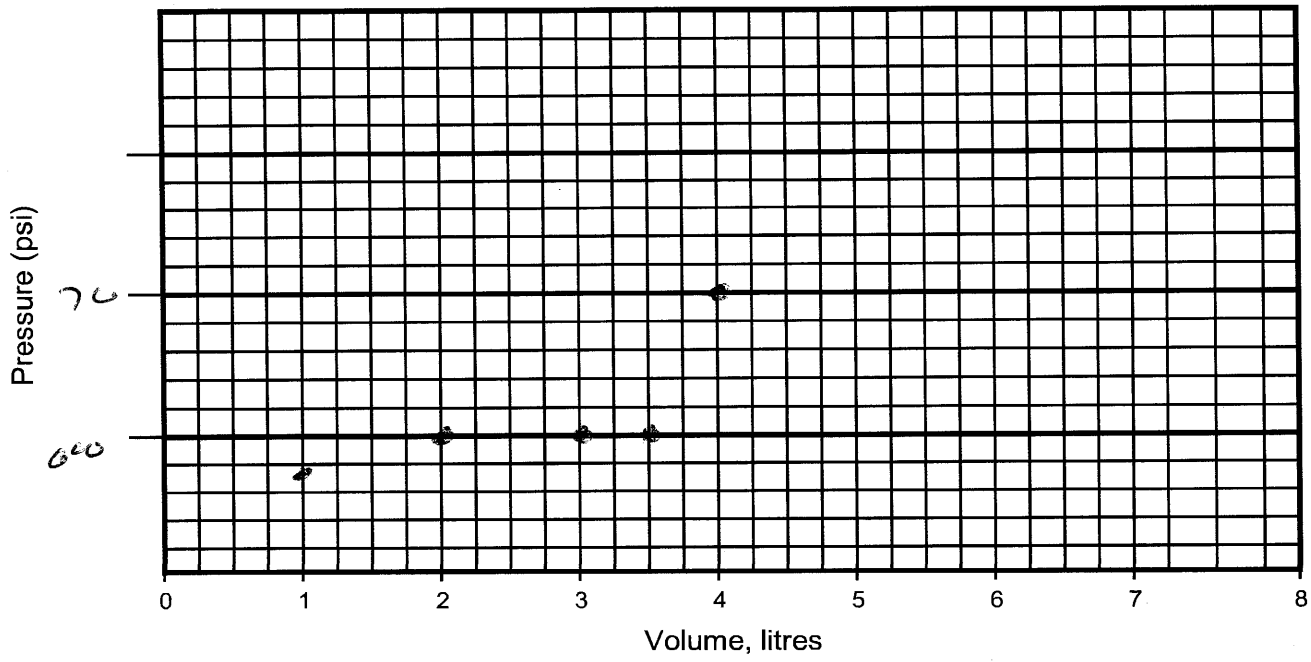
Packer No. 2 - 20156 Depth (ft / m): 11.75 Inflation Tool No.: TIW 3744

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 700 psi Tool Pressure, P_T: 450 psi

Borehole Water Level: - (ft / m) = - psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	2.0	3.5	4.0	/	4.0			
Pressure, psi	575	600	600	600	700	/	0			
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 11:02

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: ES1499 Well No.: LMW-8A-S

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/16/4

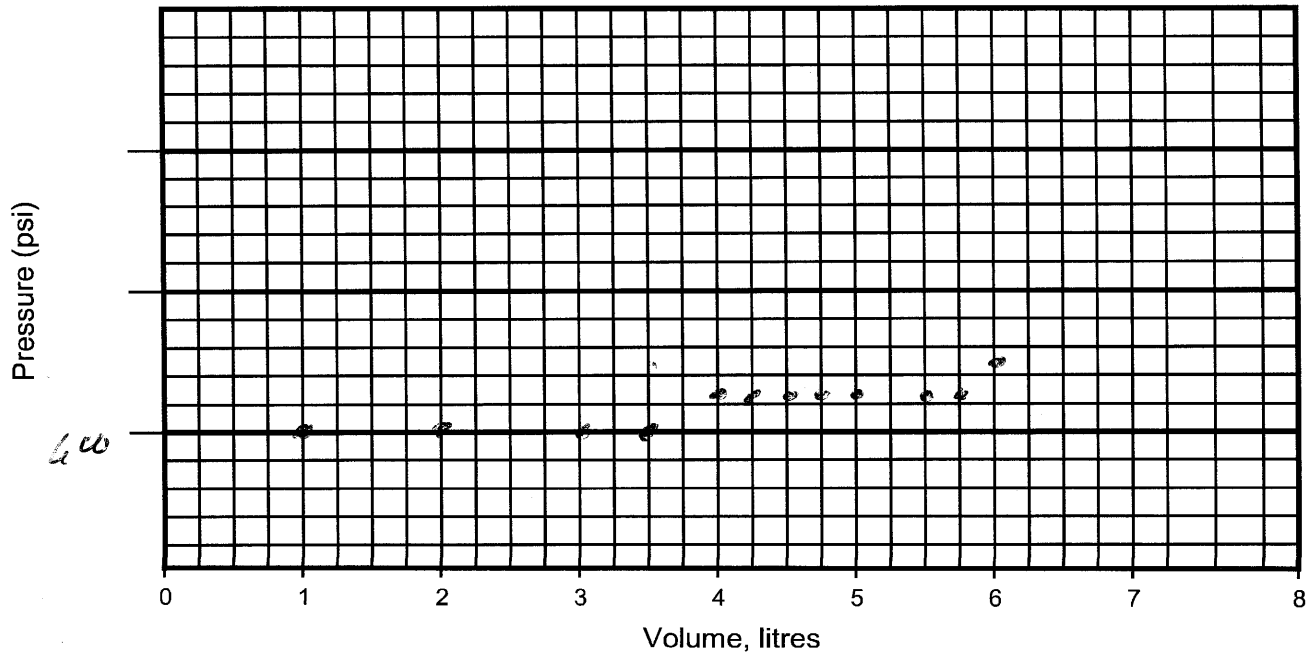
Packer No. 3 - 20141 Depth (ft / m): 1.75 Inflation Tool No.: JW 3554

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 650 psi Tool Pressure, P_T: 450 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.25	4.5	4.75	/	4.75
Pressure, psi	600	600	600	600	625	625	625	625	/	∅
Volume, litres	5.0	5.5	5.75	6.0	/	6.0				
Pressure, psi	625	625	625	650	/	∅				



Comments: Packer # 3 Time - 11:37

APPENDIX F – LMW-8R-D

As-Built Packer and Port Summary (Table 17)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 5, 2024)	- 1 Pages
Figure 13, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 5, 2024)	- 1 Pages
Figure 14, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 3 Pages

Table 17. LMW-8R-D As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
3	**Zone 2**	59.75	52.75	57.05	65.00	
2	QA1	39.75	34.75	39.05	54.05	
1	**Zone 1**	27.75	22.75	27.05	36.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.
All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-8R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 64.91 ft.

Borehole Depth: 64.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-8R-D.WWD
Report Date: Tue Jan 30 11:46:54 2024

File Date: Jan 30 11:43:10 2024

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)

(2) 020101 - MP38 Casing 4 (1F/0.3M)

(3) 020102 - MP38 Casing 3 (2F/0.6M)

(8) 020105 - MP38 Casing 2 (5F/1.5M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020103 - MP38 Casing 6 (3F/0.9M)

(1) 0203 - MP38 End Cap

(12) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(2) 0216 - Magnetic Location Collar

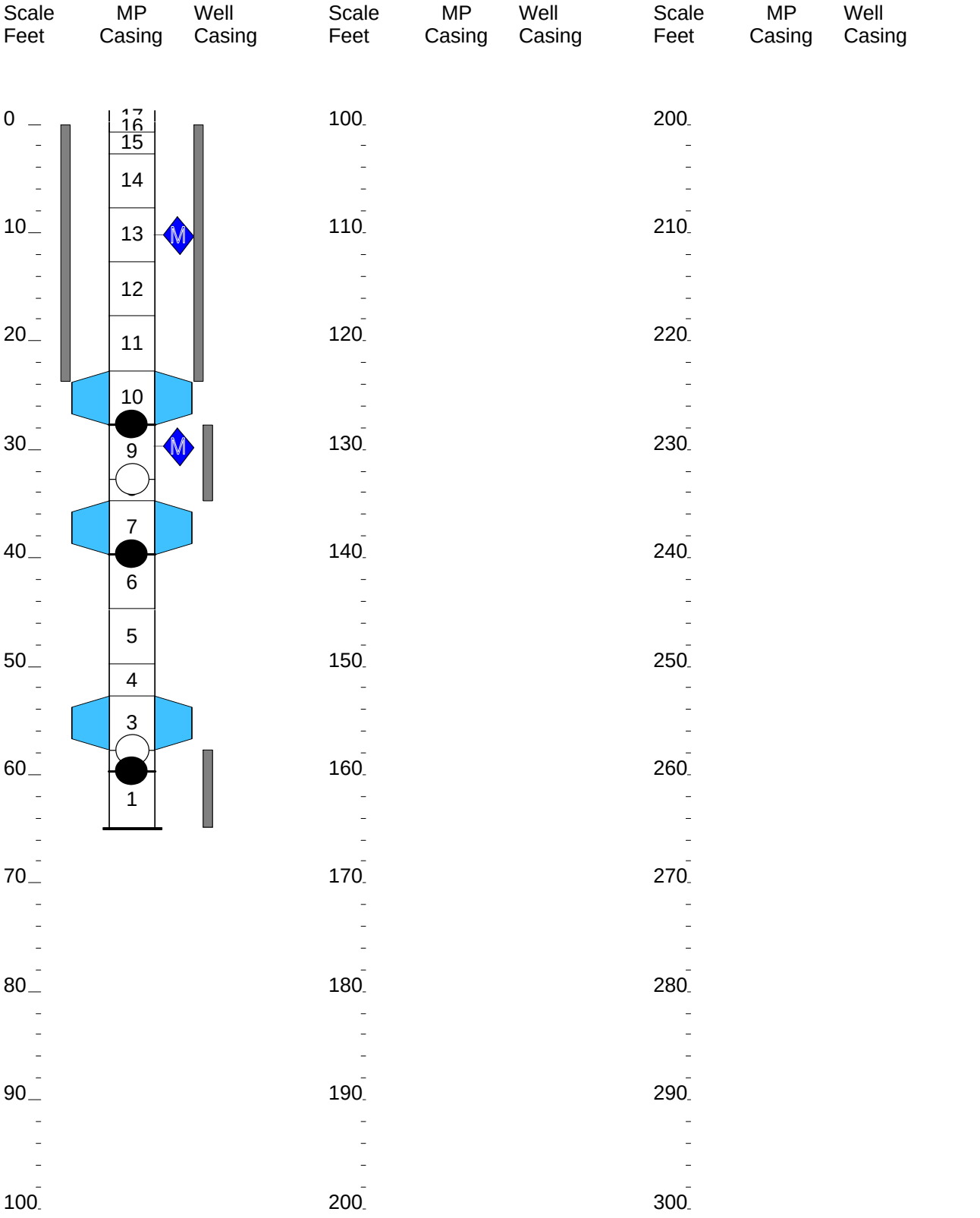
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-8R-D



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: WLM-8R-1
Datum: GS
Elev. G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 90°

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Probe Type: Sample
Serial No.: 3335
Probe Range: 0-320
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/5/24
Client: Langan
Job No.: F5[illegible]491
Location: 1487 1st Ave
Weather: —
Operator: GS

Ambient Reading (P_{atm}) (pressure, temperature, time)

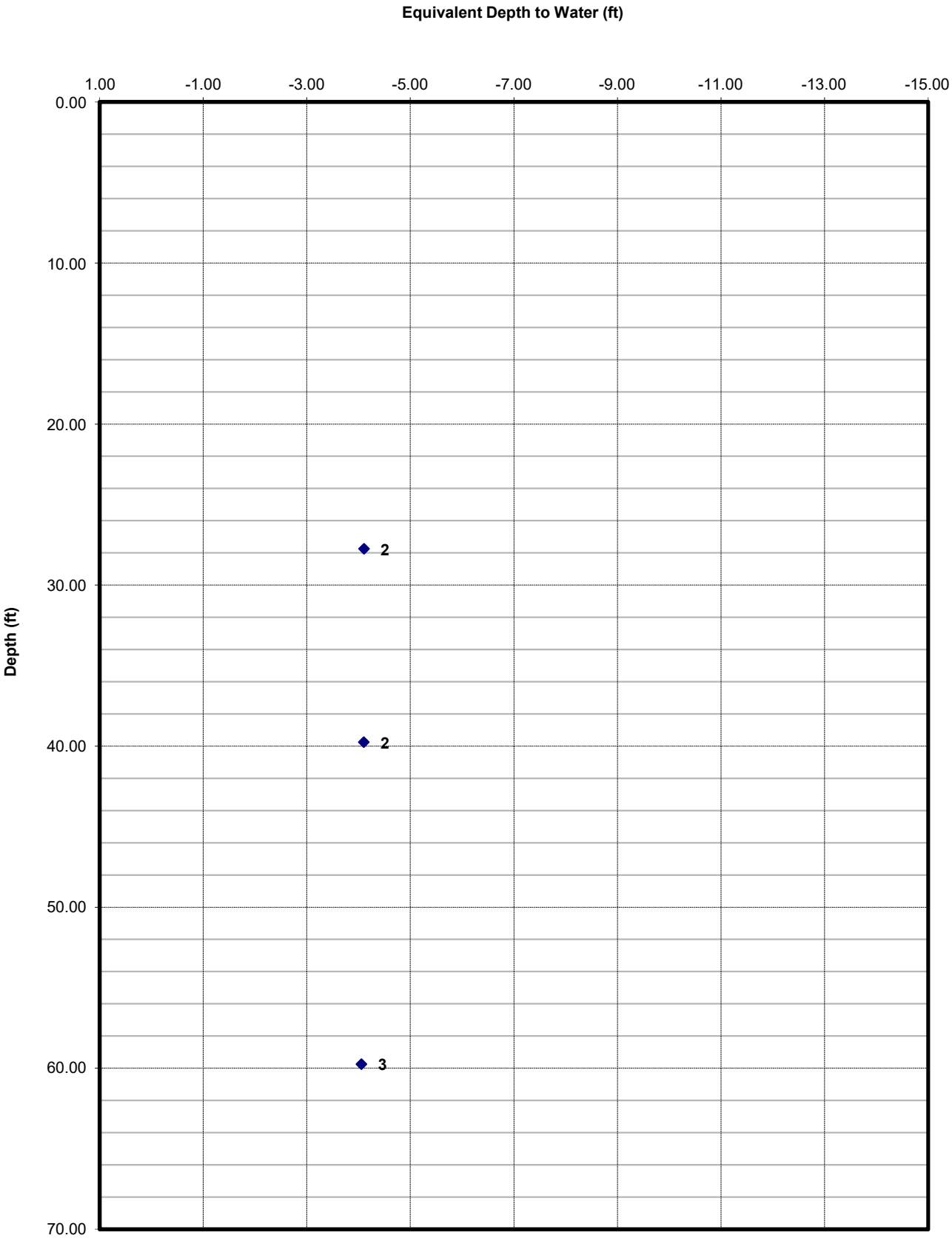
		Start	Finish
Pressure		14.70	14.64
Temp		6.09°	16.0C
Time		14:58	15:38

P_{atm} 14.70 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
3	59.75	59.4	—	31.74	42.36	15:31	15.60	31.74	63.81	-4.06	Pre Inflate
2	39.75	39.5	—	23.12	33.71	15:32	15.68	23.12	43.85	-4.10	
1	27.75	27.6	—	17.90	28.51	15:34	15.80	17.91	31.86	-4.11	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 13
Well: LMW-8R-D
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Westbay Instruments

Well No.: LMW-8R2-D
Datum: GS
Elev. G.S.: -
Height of Westbay above G.S.: -
Elev. top of Westbay Casing: -
Reference Elevation: -
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3335
Probe Range: 0-320
Westbay Casing Type: MP35
Sampler Valve Position: Closed

Date: 2/5/24
Client: Langan
Job No.: TS1459
Location: 1487 1st Ave
Weather: -
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

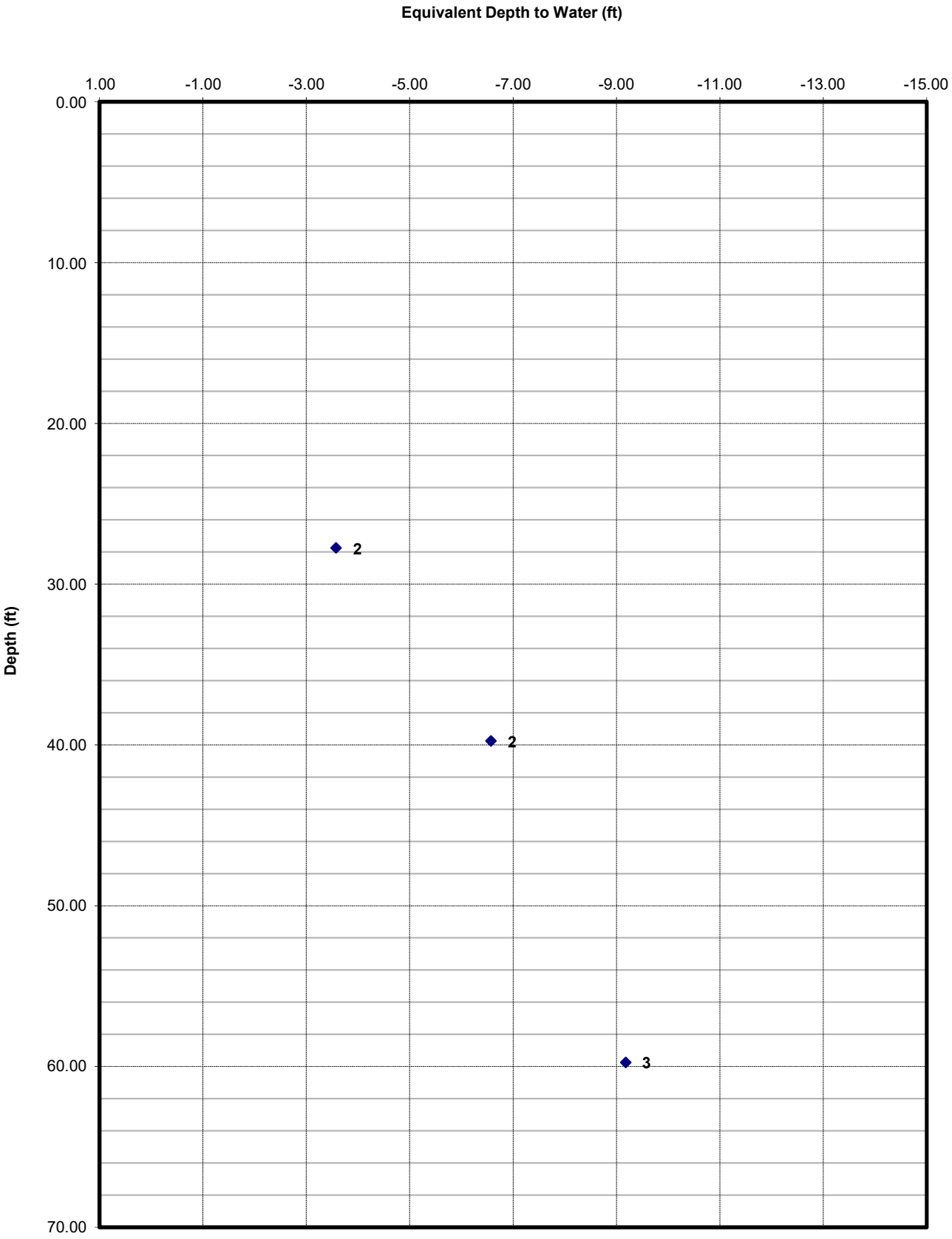
		Finish:
Start: Pressure	14.70	14.72
Temp	10.78	15.10
Time	17:10	17:26

P_{atm} 14.76 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
3	59.75	59.8	-	41.02	41.58	17:14	11.77	41.01	08.93	-9.18	Post Install
2	34.75	34.8	-	32.38	~~32.34~~	17:16	13.09	32.30	~~10.62~~	-0.87	34.78 46.32 -6.57
1	27.75	27.8	-	27.12	27.10	17:17	13.86	27.13	~~28.60~~	-0.85	28.28 31.33 -3.57

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 14
Well: LMW-8R-D
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-8R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 64.91 ft.

Borehole Depth: 64.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-8R-D.WWD
Report Date: Tue Jan 30 17:34:10 2024

File Date: Jan 30 14:35:02 2024

Comments

Log Information

Borehole condition confirmed.	(method) Logging	Date:
MP well design & preparation.	By:	Date: 1/30/24
MP well design checked.	By:	Date: 2/5/24
MP well and borehole approved to install.	By:	Date: 2/5/24

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)

(2) 020101 - MP38 Casing 4 (1F/0.3M)

(3) 020102 - MP38 Casing 3 (2F/0.6M)

(8) 020105 - MP38 Casing 2 (5F/1.5M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020103 - MP38 Casing 6 (3F/0.9M)

(1) 0203 - MP38 End Cap

(12) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(2) 0216 - Magnetic Location Collar

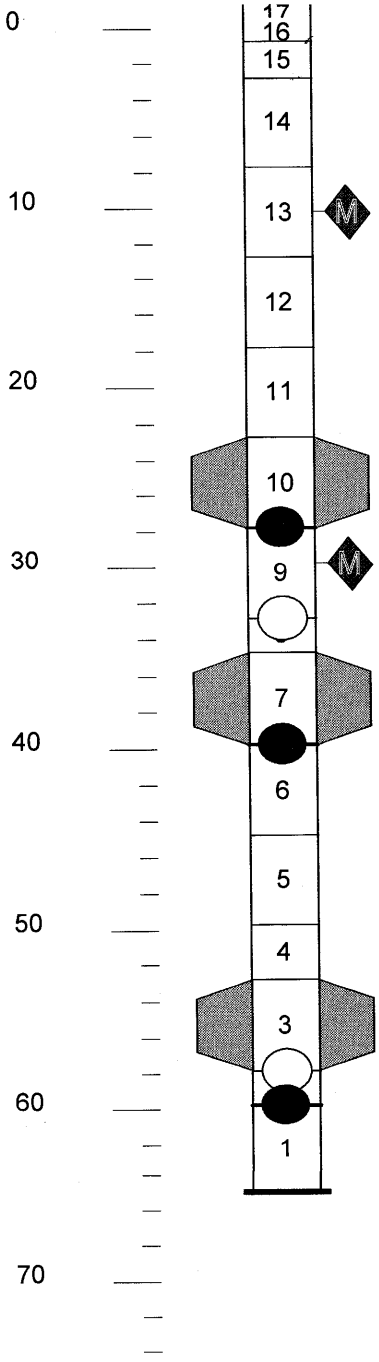
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-8R-D



MP Casing Description

020101 - MP38 Casing 4 (1F/0.3M)
020102 - MP38 Casing 3 (2F/0.6M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
0238 - MP38 Packer - 74mm (5F/1.5M
0205 - MP38 Measurement Port 10284
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9301
020102 - MP38 Casing 3 (2F/0.6M)
0238 - MP38 Packer - 74mm (5F/1.5M 20015 165/140
0205 - MP38 Measurement Port 10283
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020103 - MP38 Casing 6 (3F/0.9M)
0238 - MP38 Packer - 74mm (5F/1.5M 20166 170/145
0224 - MP38 Pumping Port 9296
020102 - MP38 Casing 3 (2F/0.6M)
0205 - MP38 Measurement Port 10280
020105 - MP38 Casing 2 (5F/1.5M)
0203 - MP38 End Cap

Westbay Packer Inflation Record

Project: Langan - 1487 1st Ave Project No.: F514199 Well No.: LMW-8R-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/5/24

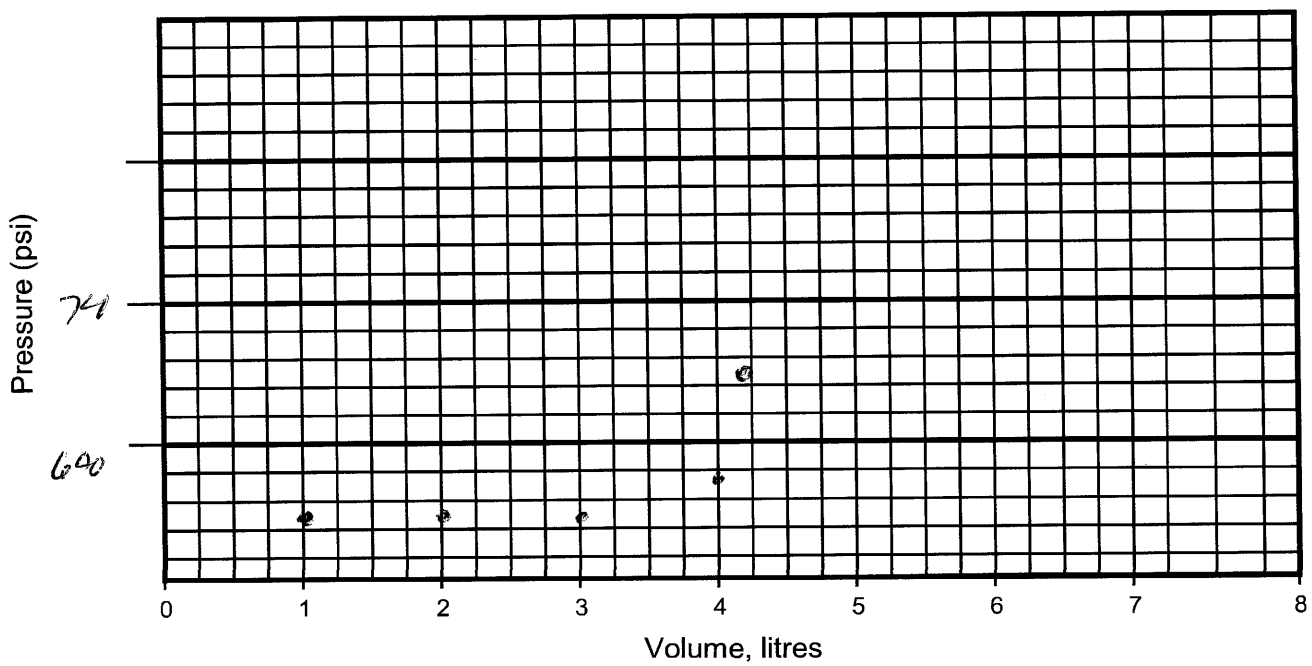
Packer No. 1 - 20166 Depth (ft / m): 52.75 Inflation Tool No.: TW3554

Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 630 psi Tool Pressure, P_T: 460 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 105 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.15	/	4.05		
Pressure, psi	550	550	550	550	575	650	/	∅		
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 15:46

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS4999 Well No.: LMW-809-D

Location: 1487 1st Ave Completed by: CJ Date Inflated: 2/5/21

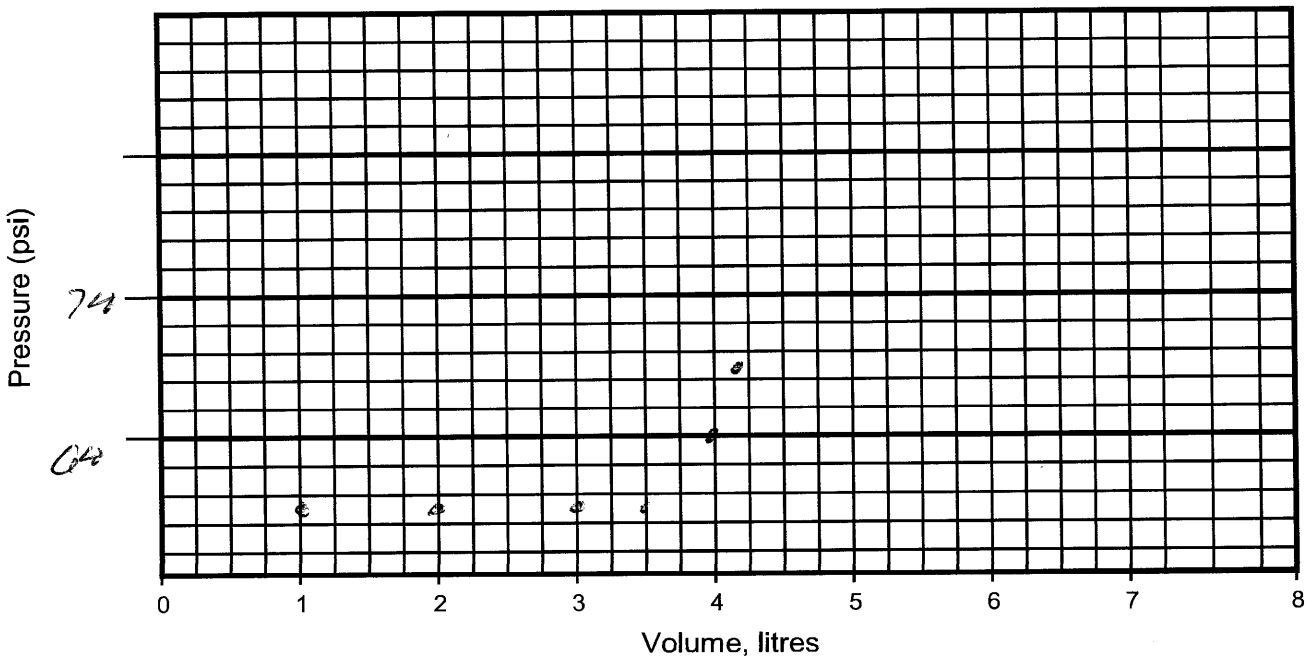
Packer No. 2 - 90015 Depth (ft / m): 3475 Inflation Tool No.: TW 3594

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 650 psi Tool Pressure, P_T: 90 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.20	/	4.20		
Pressure, psi	550	550	550	550	600	650	/	0		
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 16:15

Westbay Packer Inflation Record

Project: Kerger - 1487 1st Ave Project No.: F5149A Well No.: KMW-8A-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/5/24

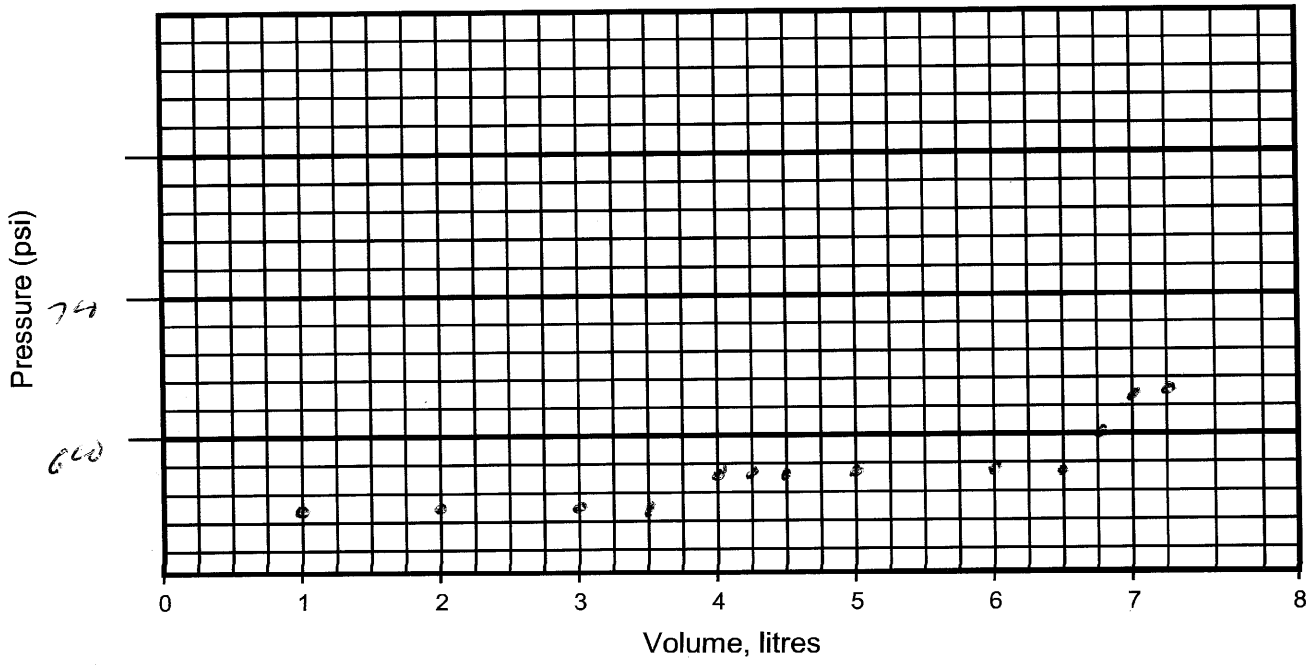
Packer No. 3 Depth (ft / m): 22.75 Inflation Tool No.: TIW 3754

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 625 psi Tool Pressure, P_T: 400 psi

Borehole Water Level: — (ft / m) = - psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 85 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.25	4.5	5.0	6.0	6.5
Pressure, psi	550	550	552	558	575	575	575	573	575	575
Volume, litres	6.25	7.0	7.25	/	3.5					
Pressure, psi	600	628	625	/	0					



Comments: Packer # 3 Time - 1635

APPENDIX G – LMW-9R-S

As-Built Packer and Port Summary (Table 18)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 6, 2024)	- 1 Pages
Figure 15, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 6, 2024)	- 1 Pages
Figure 16, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 3 Pages

Table 18. LMW-9R-S As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
3	QA2	24.75	19.75	24.05	28.00	
2	**Zone 1**	13.75	8.75	13.05	21.05	
1	QA1	8.75	3.75	8.05	10.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.
All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-9R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 27.91 ft.

Borehole Depth: 30.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-9R-S.WWD
Report Date: Tue Jan 30 10:54:19 2024

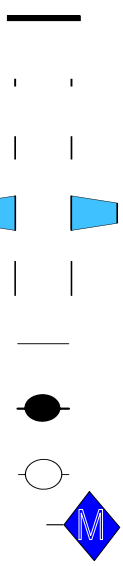
File Date: Jan 30 10:52:47 2024

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(3) 020101 - MP38 Casing 4 (1F/0.3M)

(2) 020103 - MP38 Casing 6 (3F/0.9M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020105 - MP38 Casing 2 (5F/1.5M)

(5) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(1) 0224 - MP38 Pumping Port

(1) 0216 - Magnetic Location Collar

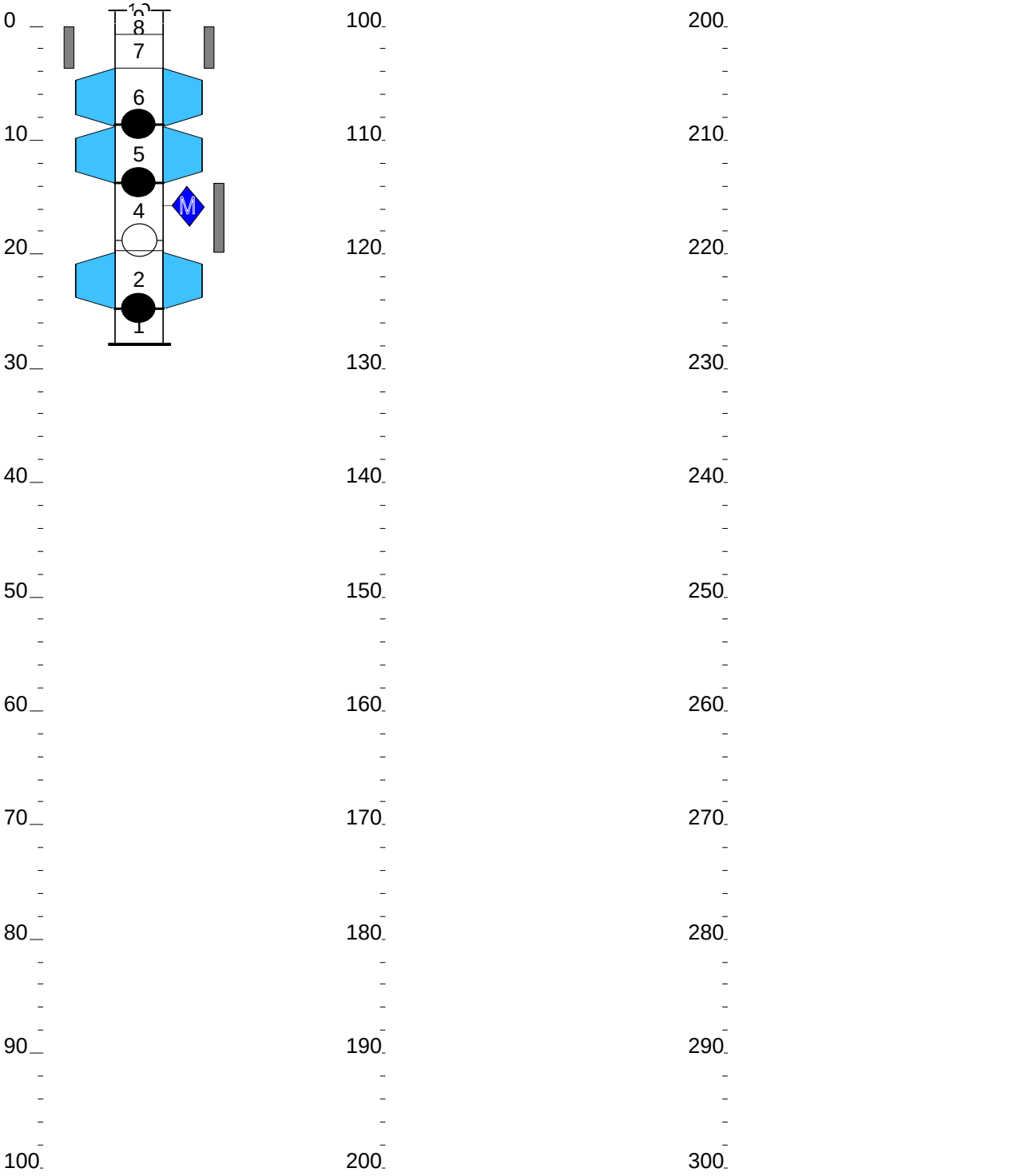
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-9R-S



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-9R-S
Datum: GS
Elev.G.S.: -
Height of Westbay above G.S.: -
Elev. top of Westbay Casing: -
Reference Elevation: -
Borehole angle: 90°

Probe Type: Sammler
Serial No.: 3535
Probe Range: 0-500
Westbay Casing Type: MP38
Sampler Valve Position: C/O 82

Date: 2/6/24
Client: Longview
Job No.: FSTV 99
Location: 1487 1st Ave
Weather: -
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

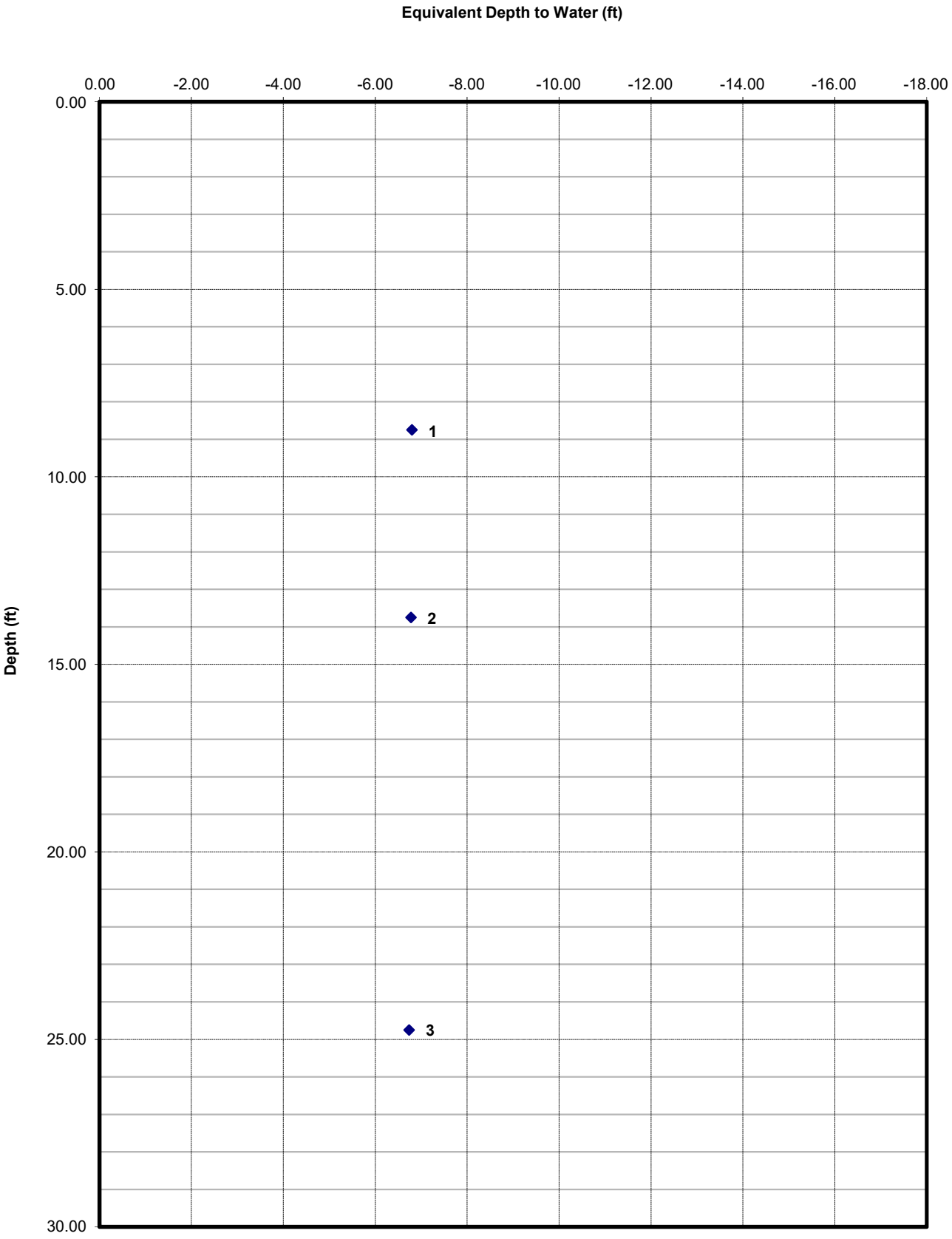
		Finish:
Start: Pressure	14.82	14.82
Temp	9.51	12.68
Time	16:27	16:35

P_{atm} 14.82 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings					Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
				Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)			
3	24.75	24.8	-	29.34	28.71	16:30	10.84	29.34	32.04	-7.29	Post mHalo
2	13.75	13.8	-	24.55	24.56	16:32	11.83	24.55	22.47	-8.72	
1	8.75	8.9	-	22.37	22.60	16:34	12.61	22.36	17.95	-9.20	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 15
Well: LMW-9R-S
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Westbay Instruments

Well No.: LMW-9R-S
Datum: GS
Elev.G.S.: —
Height of Westbay aboveG.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3155
Probe Range: 0-50
Westbay Casing Type: MP35
Sampler Valve Position: Closed

Date: 2/6/24
Client: Langan
Job No.: FS1495
Location: 1487 1st Ave
Weather: —
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.81 psi

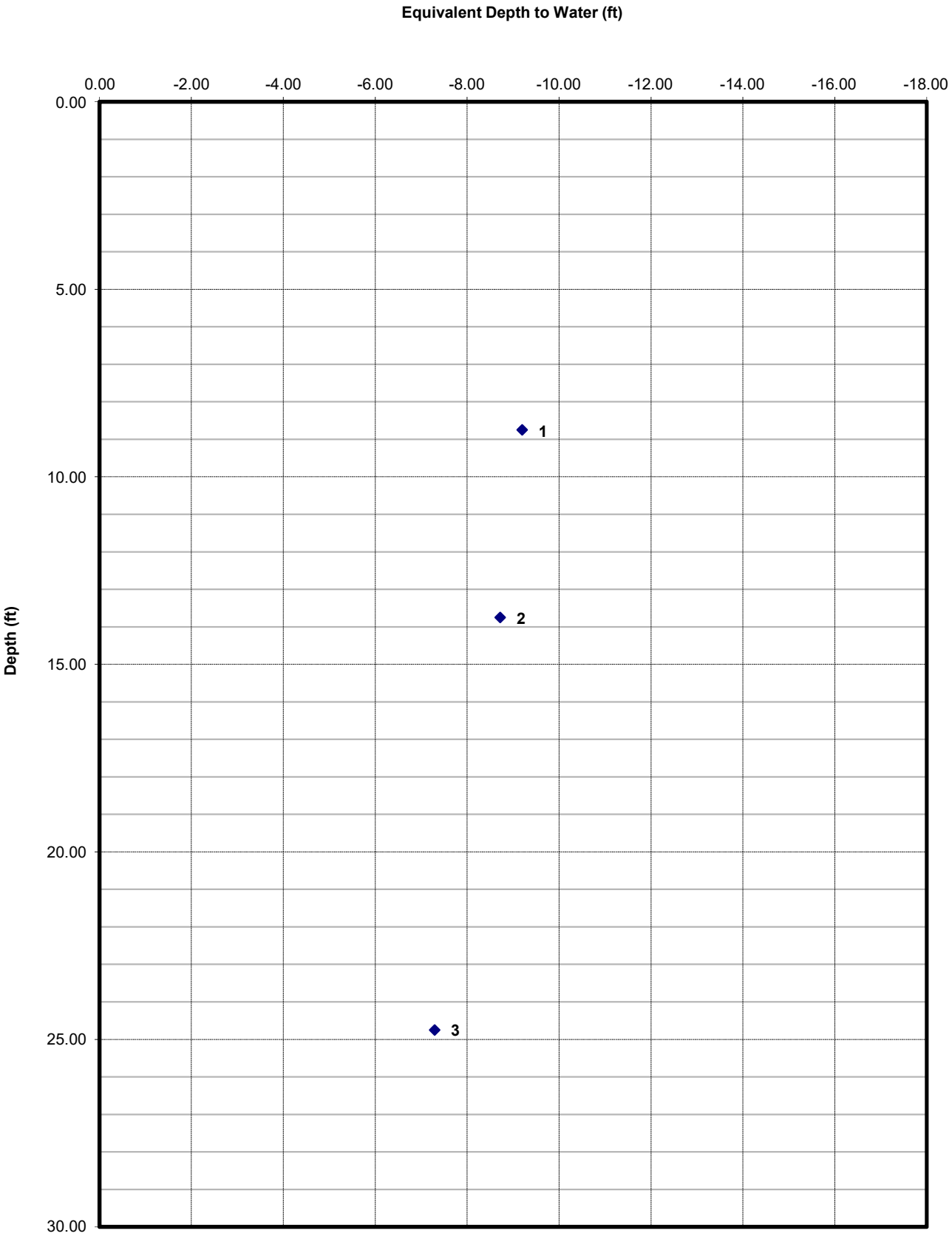
Ambient Reading (P_{atm}) (pressure, temperature, time)

	Start	Finish
Pressure	14.81	14.81
Temp	7.15	14.19
Time	14:24	15:02

Port No.	Port Position From Log (ft)	Port Position FromCable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
3	24.75	24.9	—	22.77	28.46	14:58	14.47	22.78	31.49	-6.74	Pz Inhib
2	13.75	13.9	—	17.48	23.71	14:59	14.46	17.99	20.53	-6.78	
1	8.75	9.0	—	15.81	21.55	15:01	14.43	15.81	15.55	-6.80	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 16
Well: LMW-9R-S
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-9R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 27.91 ft.

Borehole Depth: 30.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-9R-S.WWD
Report Date: Tue Jan 30 17:38:58 2024

File Date: Jan 30 10:55:24 2024

Comments

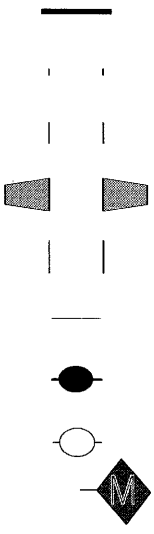
Log Information

Borehole condition confirmed.	(method) Logging	Date:
MP well design & preparation.	By:	Date: 1/26/24
MP well design checked.	By:	Date: 2/6/24
MP well and borehole approved to install.	By:	Date: 2/6/24

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(3) 020101 - MP38 Casing 4 (1F/0.3M)

(2) 020103 - MP38 Casing 6 (3F/0.9M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020105 - MP38 Casing 2 (5F/1.5M)

(5) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(1) 0224 - MP38 Pumping Port

(1) 0216 - Magnetic Location Collar

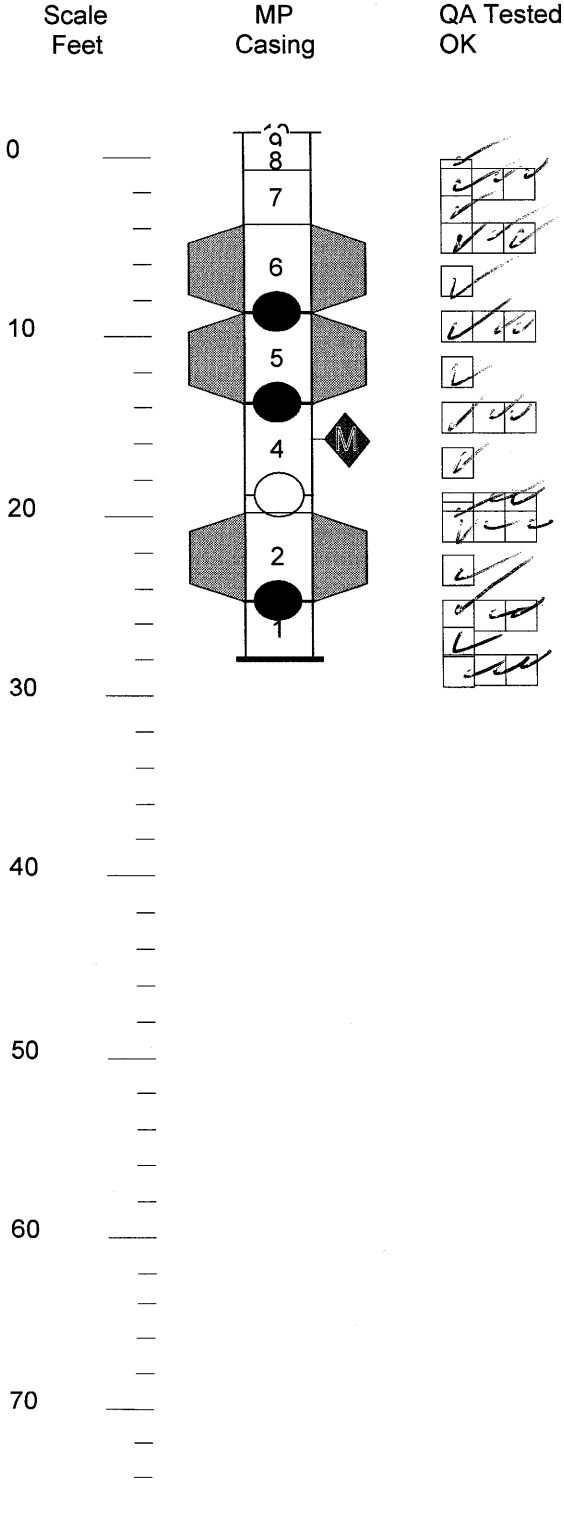
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-9R-S



MP Casing Description

020101 - MP38 Casing 4 (1F/0.3M)
020103 - MP38 Casing 6 (3F/0.9M)
0238 - MP38 Packer - 74mm (5F/1.5M 20150 170/145
0205 - MP38 Measurement Port 10296
0238 - MP38 Packer - 74mm (5F/1.5M 20149 165/140
0205 - MP38 Measurement Port 10295
020105 - MP38 Casing 2 (5F/1.5M)
020101 - MP38 Casing 4 (1F/0.3M) 5114
0238 - MP38 Packer - 74mm (5F/1.5M 20153 165/140
0205 - MP38 Measurement Port ~~10247~~ 10292
020103 - MP38 Casing 6 (3F/0.9M)
0203 - MP38 End Cap

(c) Westbay Instruments Inc. 2000

Tue Jan 30 17:40:10 2024

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1459 Well No.: LMW-9R-S

Location: 1487 1st Ave Completed by: CJ Date Inflated: 2/6/24

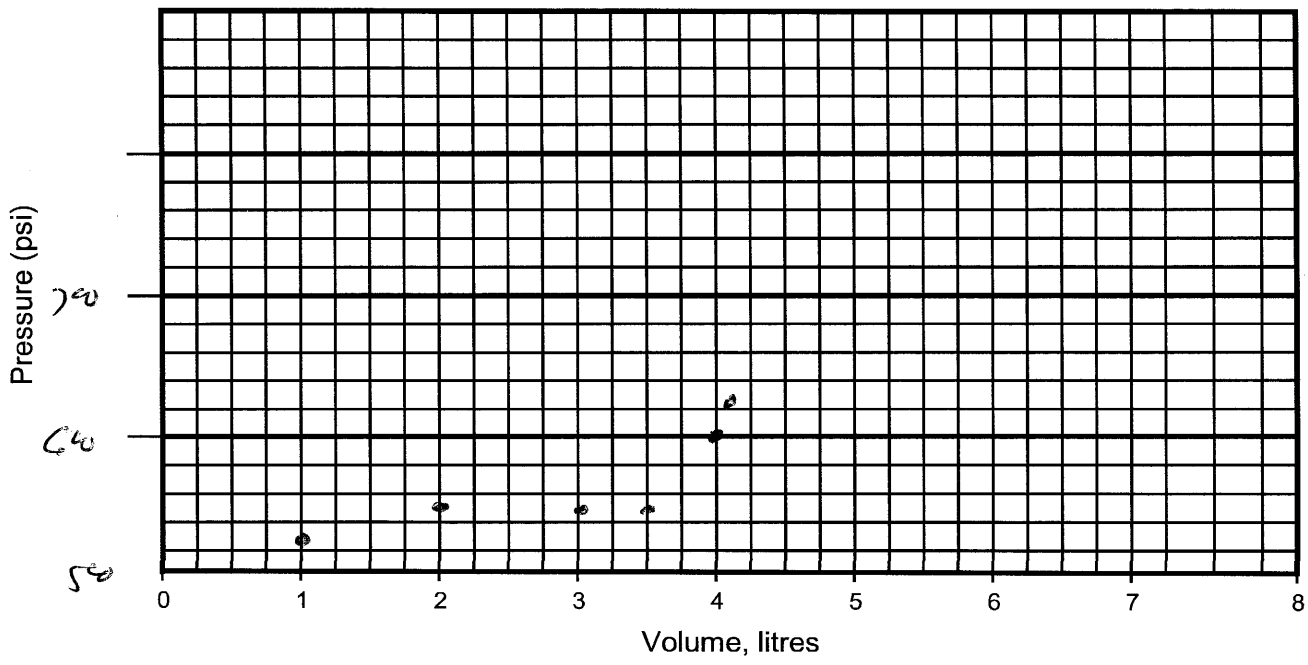
Packer No. 1 - 20153 Depth (ft / m): 1975 Inflation Tool No.: TW 3554

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 625 psi Tool Pressure, P_T: 375 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.05	/	4.0		
Pressure, psi	525	550	550	550	600	625	/	0		
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 15:18

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FSI4 99 Well No.: LMW-99-5

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/6/24

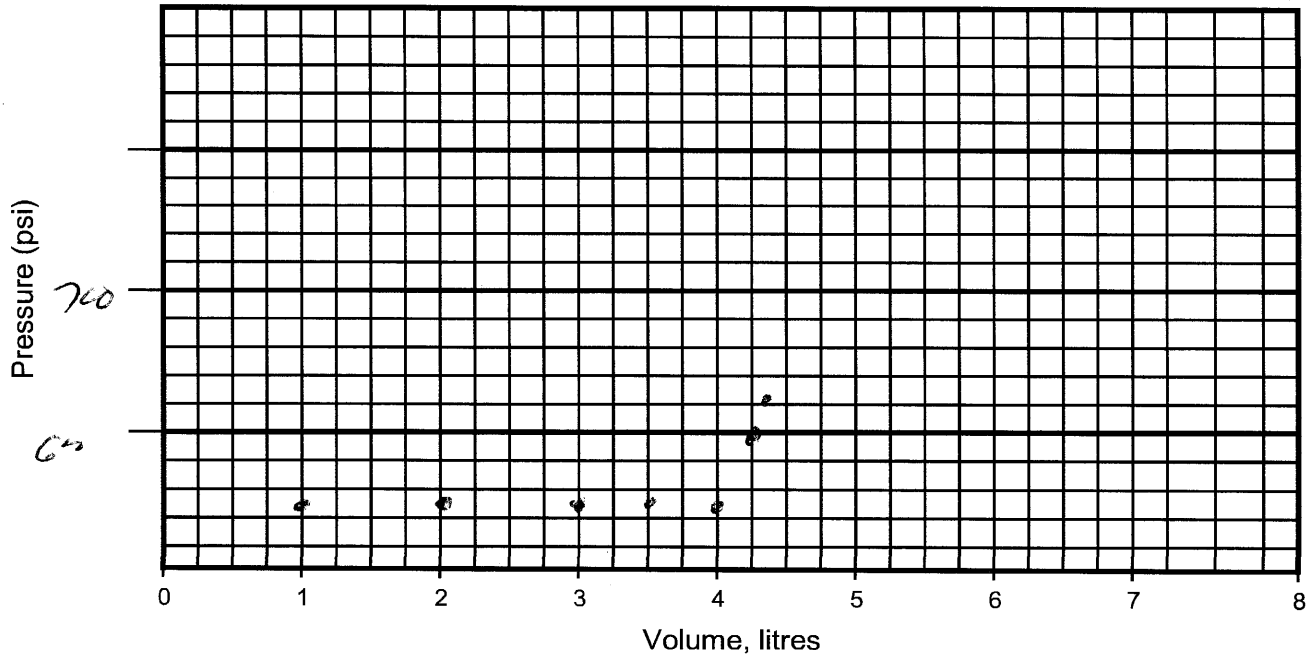
Packer No. 2 - 20149 Depth (ft / m): 8.75 Inflation Tool No.: TW 3594

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 625 psi Tool Pressure, P_T: 375 psi

Borehole Water Level: - (ft / m) = - psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.25	4.30	/	4.1	
Pressure, psi	550	550	550	550	550	600	625	/	0	
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 15:34

Sheet 3 of 3

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1459 Well No.: LMW-9B-S

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/4/24

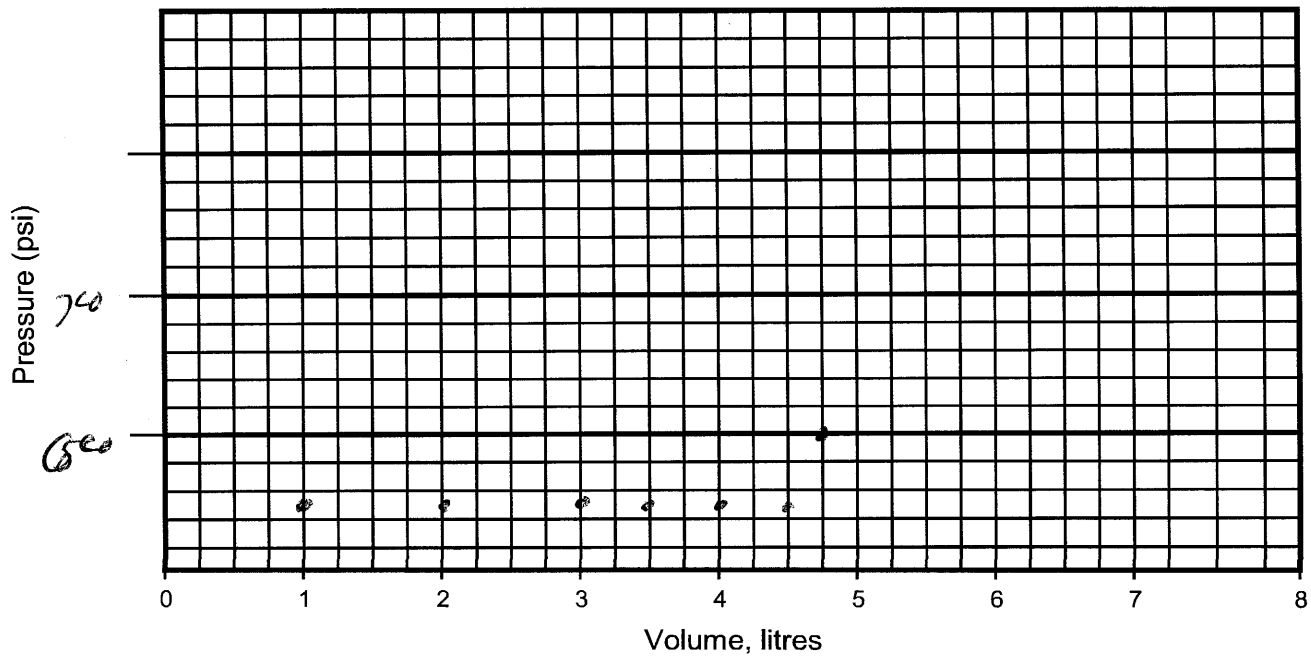
Packer No. 3 - 10250 Depth (ft / m): 375 Inflation Tool No.: TLW3954

Packer Valve Pressure, P_V: 145 psi Final Line Pressure, P_L: 038 psi Tool Pressure, P_T: 375 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 130 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.5	4.75	4.90	4.85	4.85
Pressure, psi	550	550	550	550	550	550	600	650	/	0
Volume, litres										
Pressure, psi										



Comments: Packer # 3 Time - 15:52

APPENDIX H – LMW-9R-D

As-Built Packer and Port Summary (Table 19)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 6, 2024)	- 1 Pages
Figure 17, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 6, 2024)	- 1 Pages
Figure 18, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 4 Pages

Table 19. LMW-9R-D As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
4	**Zone 3**	58.25	50.25	54.55	64.00	
3	**Zone 2**	45.25	40.25	44.55	51.55	
2	QA1	38.25	33.25	37.55	41.55	
1	**Zone 1**	28.25	23.25	27.55	34.55	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.

All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-9R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 63.41 ft.

Borehole Depth: 63.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-9R-D.WWD
Report Date: Tue Jan 30 11:57:53 2024

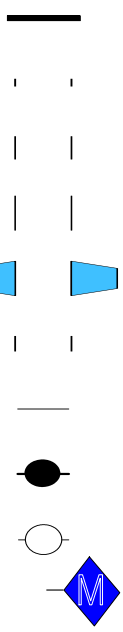
File Date: Sep 18 15:24:06 2023

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(2) 020101 - MP38 Casing 4 (1F/0.3M)

(2) 020103 - MP38 Casing 6 (3F/0.9M)

(7) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020102 - MP38 Casing 3 (2F/0.6M)

(9) 0202 - MP38 Regular Coupling

(4) 0205 - MP38 Measurement Port

(3) 0224 - MP38 Pumping Port

(3) 0216 - Magnetic Location Collar

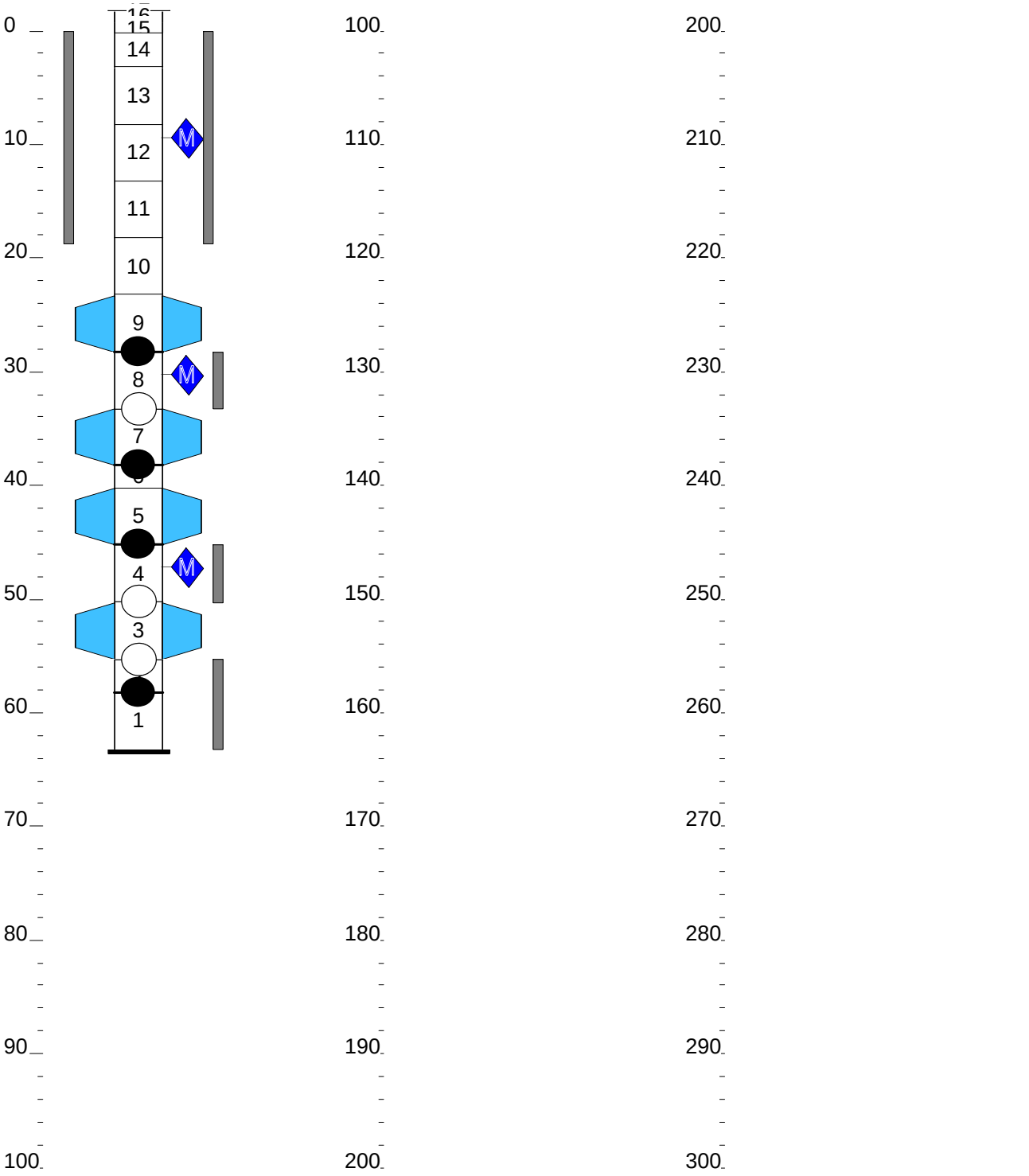
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-9R-D



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-9R-D
Datum: GS
Elev. G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3555
Probe Range: 0-500
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/6/24
Client: Langan
Job No.: F514
Location: 1487 1st Ave
Weather: —
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.85 psi

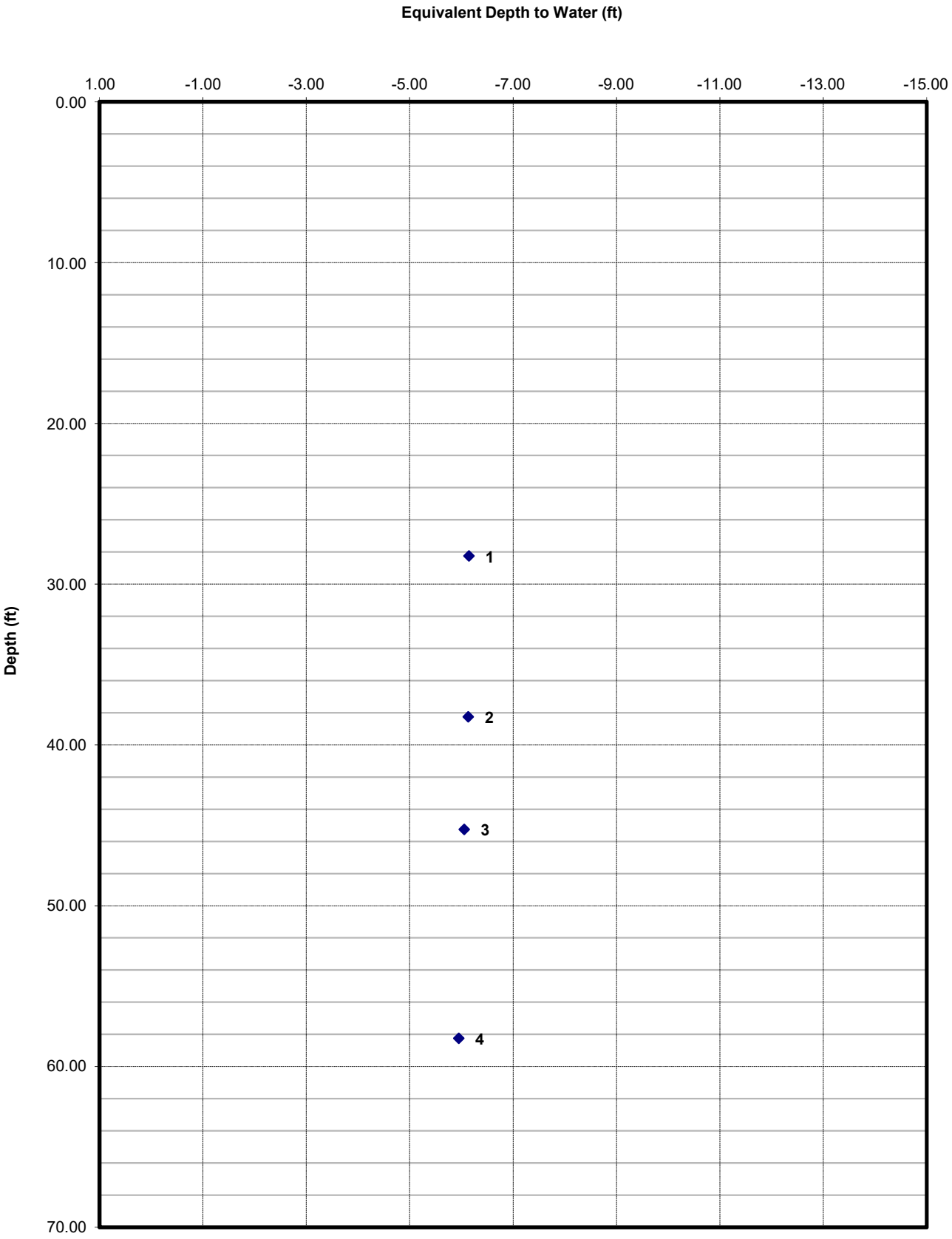
Ambient Reading (P_{atm}) (pressure, temperature, time)

	Start	Finish
Pressure	14.85	14.83
Temp	6.67	15.53
Time	10:20	10:59

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings					Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
				Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)			
4	55.25	58.40	—	31.45	42.68	10:54	15.39	31.45	64.20	-5.95	Pre Inflate
3	45.25	45.40	—	26.03	37.09	10:55	15.43	26.03	51.30	-6.05	
2	35.25	38.40	—	23.01	34.09	10:57	15.42	23.01	44.38	-6.13	
1	25.25	28.40	—	18.68	29.76	10:58	15.46	18.69	34.39	-6.14	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 17
Well: LMW-9R-D
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: MW-9R-D
Datum: GS
Elev. G.S.: -
Height of Westbay above G.S.: -
Elev. top of Westbay Casing: -
Reference Elevation: -
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3553
Probe Range: 0-500
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/6/24
Client: Langan
Job No.: ESPV
Location: 1483 1st Ave
Weather: -
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

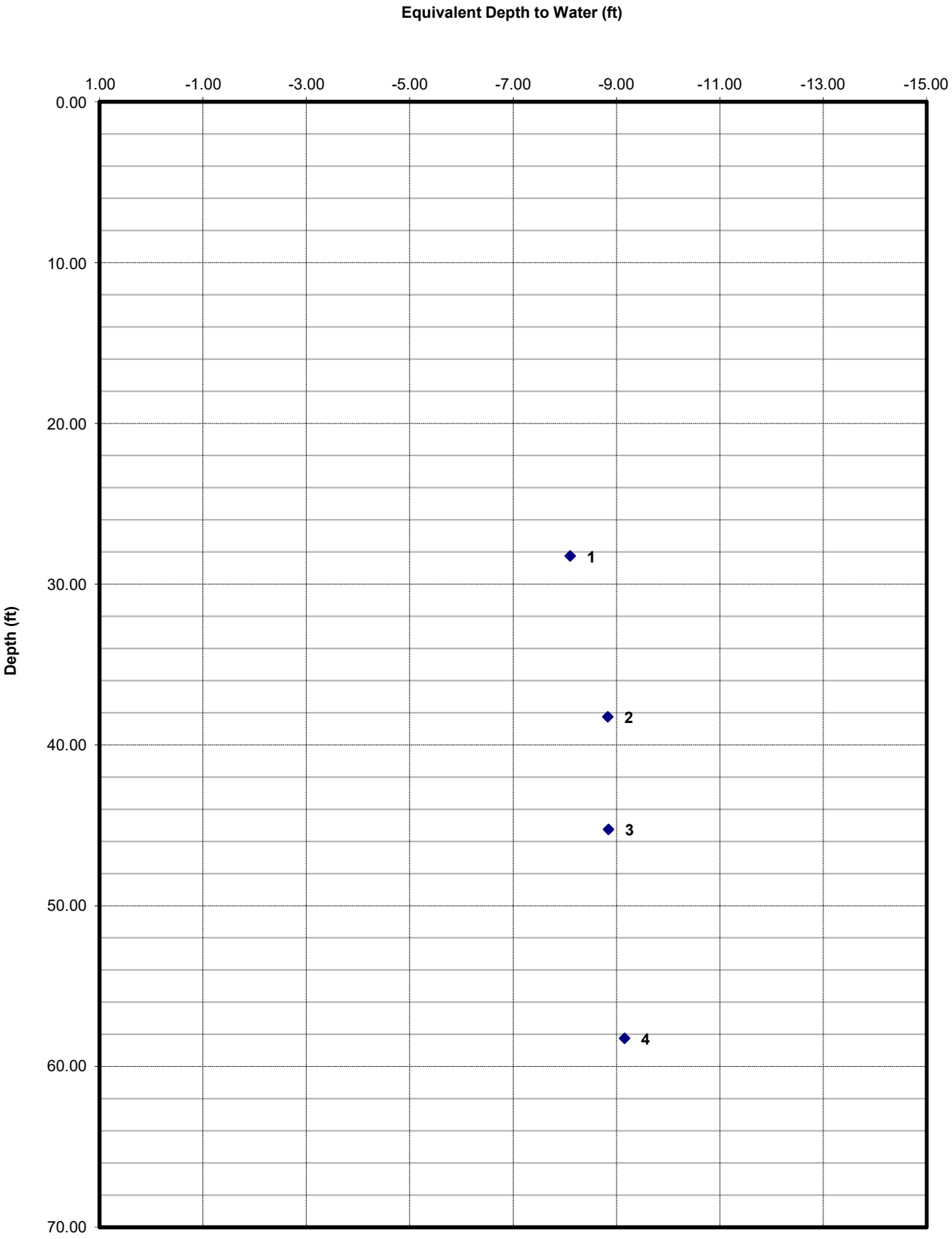
Start: Pressure	11.84	Finish: 14.83
Temp	10.43	14.15
Time	12:22	12:31

P_{atm} 11.84 psi

Port No.	Port Position From Log (ft)	Port position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
4	58.25	477	-	41.41	44.06	12:25	11.55	41.62	62.40	-9.15	Desi Inlet
3	45.25	478	-	36.0	38.29	12:27	12.41	35.99	54.09	-8.84	
2	38.25	378	-	32.97	35.25	12:28	13.23	32.97	47.08	-8.83	
1	28.25	279	-	28.62	30.66	12:30	13.91	28.63	36.36	-8.10	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 18
Well: LMW-9R-D
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-9R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 63.41 ft.

Borehole Depth: 63.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW-9R-D.WWD
Report Date: Tue Jan 30 17:36:56 2024

File Date: Jan 30 11:58:18 2024

Comments

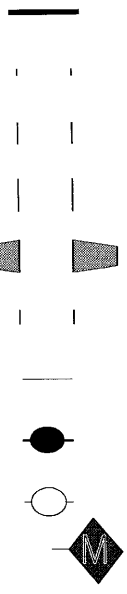
Log Information

Borehole condition confirmed.	(method) Lessing	Date:
MP well design & preparation.	By:	Date: 1/30/24
MP well design checked.	By:	Date: 2/6/24
MP well and borehole approved to install.	By:	Date: 2/6/24

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(2) 0203 - MP38 End Cap

(2) 020101 - MP38 Casing 4 (1F/0.3M)

(2) 020103 - MP38 Casing 6 (3F/0.9M)

(7) 020105 - MP38 Casing 2 (5F/1.5M)

(4) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020102 - MP38 Casing 3 (2F/0.6M)

(9) 0202 - MP38 Regular Coupling

(4) 0205 - MP38 Measurement Port

(3) 0224 - MP38 Pumping Port

(3) 0216 - Magnetic Location Collar

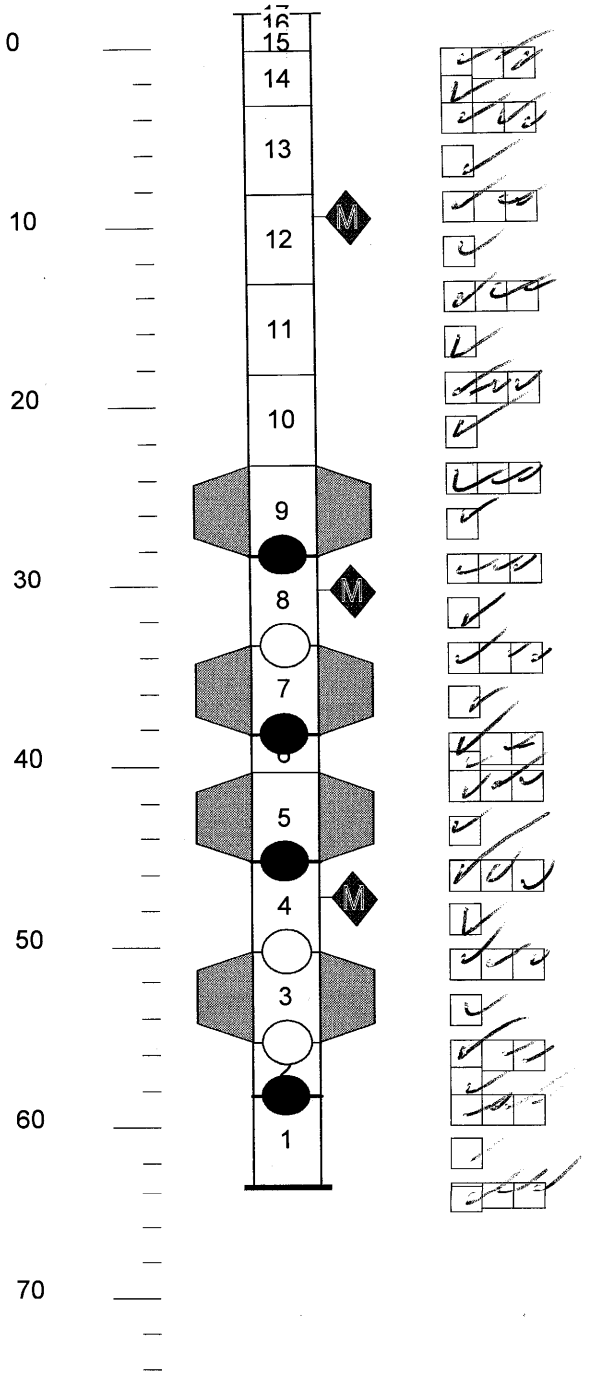
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-9R-D



MP Casing Description

020103 - MP38 Casing 6 (3F/0.9M)

020105 - MP38 Casing 2 (5F/1.5M)

020105 - MP38 Casing 2 (5F/1.5M)

020105 - MP38 Casing 2 (5F/1.5M)

020105 - MP38 Casing 2 (5F/1.5M)

0238 - MP38 Packer - 74mm (5F/1.5M 20151 165/140

0205 - MP38 Measurement Port 10294

020105 - MP38 Casing 2 (5F/1.5M)

0224 - MP38 Pumping Port 9295

0238 - MP38 Packer - 74mm (5F/1.5M 20152 165/140

0205 - MP38 Measurement Port 10295

020102 - MP38 Casing 3 (2F/0.6M)

0238 - MP38 Packer - 74mm (5F/1.5M 20153 175/150

0205 - MP38 Measurement Port 10291

020105 - MP38 Casing 2 (5F/1.5M)

0224 - MP38 Pumping Port 9287

0238 - MP38 Packer - 74mm (5F/1.5M 200154 165/140

0224 - MP38 Pumping Port 9289

020103 - MP38 Casing 6 (3F/0.9M)

0205 - MP38 Measurement Port 10293

020105 - MP38 Casing 2 (5F/1.5M)

0203 - MP38 End Cap

Sheet 1 of 4

Westbay Packer Inflation Record

Project: Langen - 1487 1st Ave Project No.: FS1491 Well No.: LMW-9R-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 9/6/24

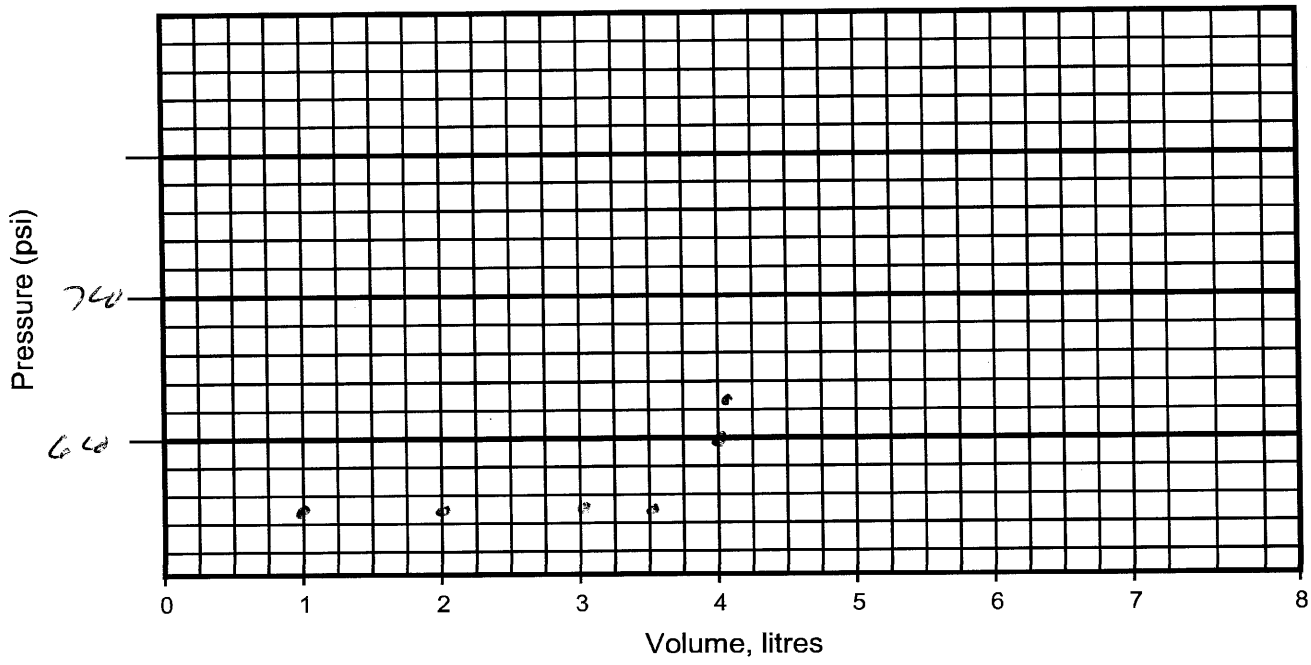
Packer No. 1 - 2CQ154 Depth (ft / m): 50.25 Inflation Tool No.: TU 3544

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 625 psi Tool Pressure, P_T: 375 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.05	1	4.05		
Pressure, psi	550	550	548	550	600	625	1	0		
Volume, litres										
Pressure, psi										



Comments: Packer # 1 Time - 11:10

Sheet 2 of 4

Westbay Packer Inflation Record

Project: Langan - 148T 1st Ave Project No.: 151495 Well No.: LMW9R-D

Location: 148T 1st Ave Completed by: CS Date Inflated: 01/16/24

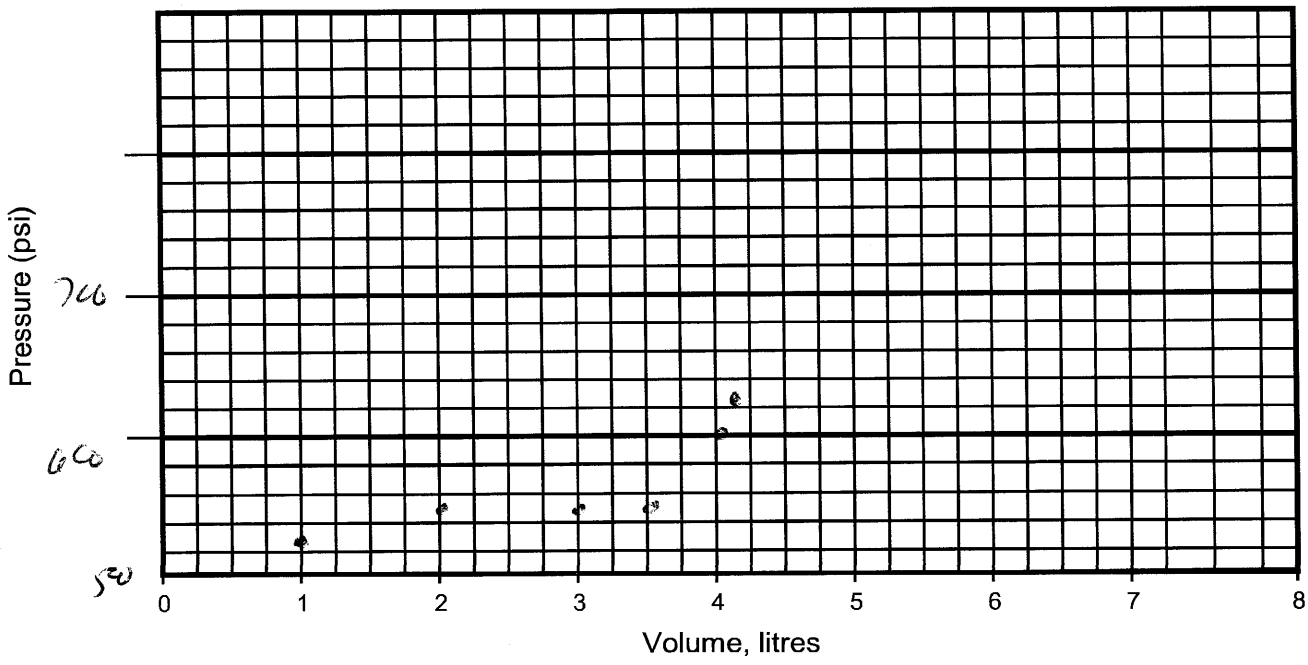
Packer No. 2 - 20153 Depth (ft / m): 40.25 Inflation Tool No.: TW 3546

Packer Valve Pressure, P_V: 150 psi Final Line Pressure, P_L: 625 psi Tool Pressure, P_T: 375 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 100 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.10	1	4.10		
Pressure, psi	525	550	530	530	400	625	1	0		
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 1124

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1479 Well No.: LMW-9R-D

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/4/24

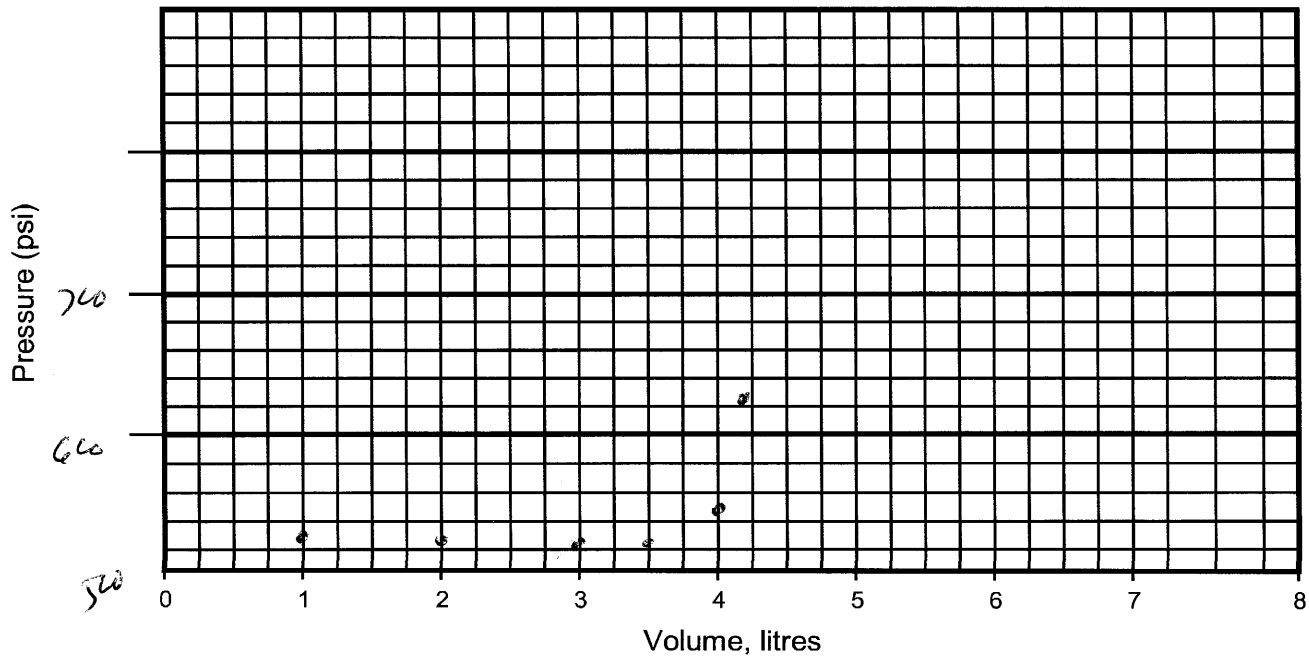
Packer No. 3 - 20152 Depth (ft / m): 33.35 Inflation Tool No.: TIW3996

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 625 psi Tool Pressure, P_T: 375 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.15	/	4.15		
Pressure, psi	525	525	525	525	550	625	/	ø		
Volume, litres										
Pressure, psi										



Comments: Packer # 3 Time - 11:41

Sheet 4 of 4

Westbay Packer Inflation Record

Project: Langa - 1487 1st Ave Project No.: FS14 Well No.: MW-9R-1

Location: 1487 1st Ave Completed by: CS Date Inflated: 5/6/24

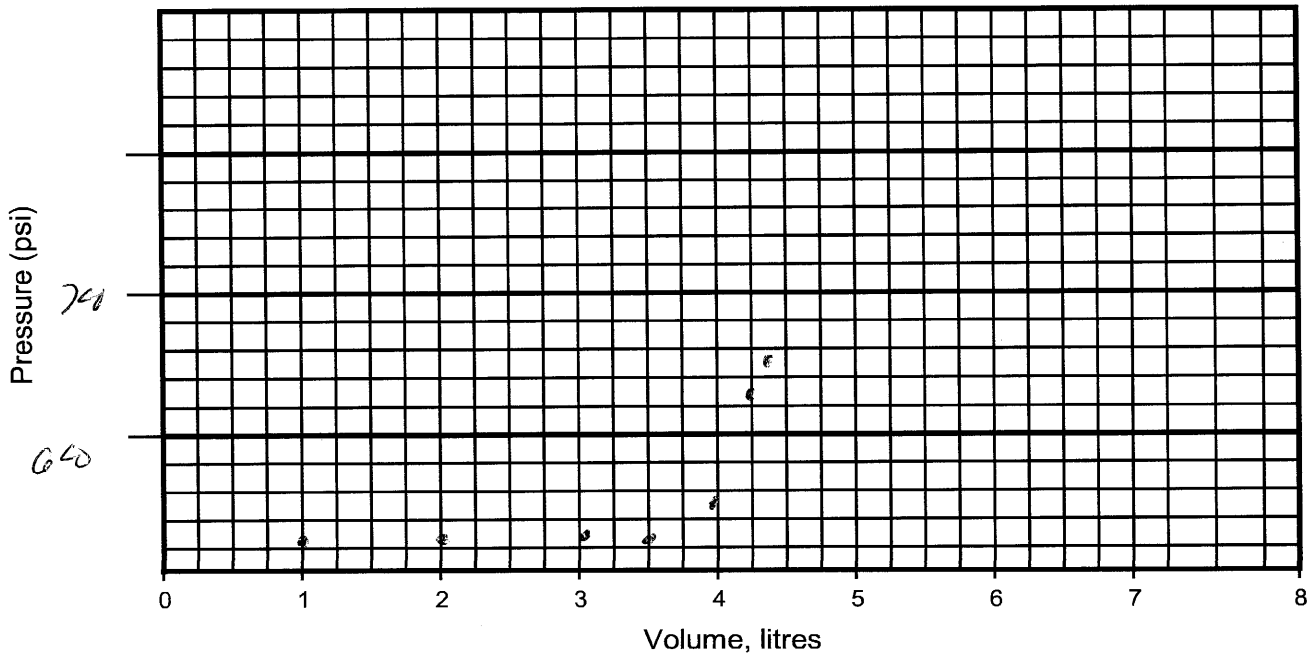
Packer No. 4-P6151 Depth (ft / m): 93.25 Inflation Tool No.: 714 3554

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 650 psi Tool Pressure, P_T: 325 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 135 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.25	4.35	1	4.30	
Pressure, psi	525	525	525	525	550	625	650	1	0	
Volume, litres										
Pressure, psi										



Comments: Packer # 4 Time - 12:01

APPENDIX I – LMW-10R-S

As-Built Packer and Port Summary (Table 20)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 7, 2024)	- 1 Pages
Figure 19, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 7, 2024)	- 1 Pages
Figure 20, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 2 Pages

Table 20. LMW-10R-S As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
2	**Zone 1**	24.75	18.75	23.05	30.00	
1	QA1	8.75	3.75	8.05	20.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.
All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-10R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 29.91 ft.

Borehole Depth: 29.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW10R-S.WWD
Report Date: Tue Jan 30 11:02:47 2024

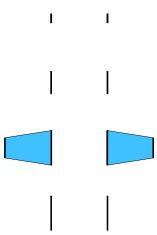
File Date: Nov 17 14:27:28 2023

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)



(3) 020101 - MP38 Casing 4 (1F/0.3M)

(1) 020103 - MP38 Casing 6 (3F/0.9M)

(2) 0238 - MP38 Packer - 74mm (5F/1.5M)

(3) 020105 - MP38 Casing 2 (5F/1.5M)

(1) 0203 - MP38 End Cap

(6) 0202 - MP38 Regular Coupling

(2) 0205 - MP38 Measurement Port

(1) 0224 - MP38 Pumping Port

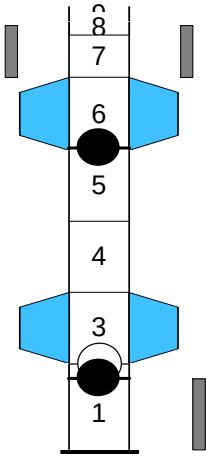
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-10R-S



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Westbay Instruments

Well No.: LAW-102-S
Datum: GS
Elev. G.S.: –
Height of Westbay above G.S.: –
Elev. top of Westbay Casing: –
Reference Elevation: –
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3553
Probe Range: 0-500
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/7/24
Client: Langan
Job No.: F514
Location: 1487 1st Ave
Weather: –
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

P_{atm} 14.87 psi

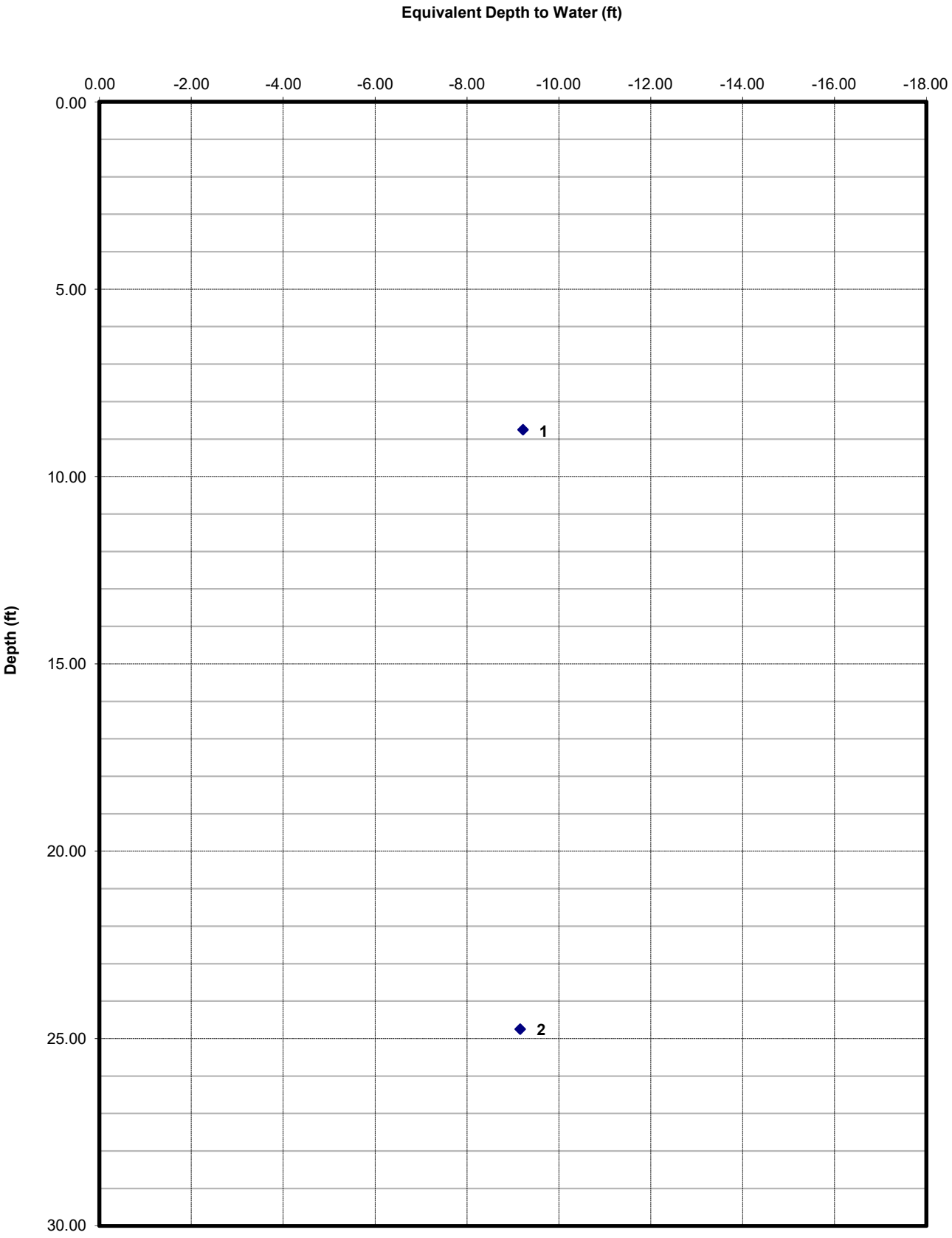
Ambient Reading (P_{atm}) (pressure, temperature, time)

	Start	Finish
Pressure	14.87	14.87
Temp	5.57	15.70
Time	9:04	9:41

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
2	24.75	24.9	–	24.67	29.57	9:39	16.19	26.67	33.91	-9.16	Pc Inlet
1	8.75	9.0	–	19.71	22.66	9:40	16.05	19.72	17.97	-9.22	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 19
Well: LMW-10R-S
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: SMW-10R-J
Datum: GS
Elev. G.S.: -
Height of Westbay above G.S.: -
Elev. top of Westbay Casing: -
Reference Elevation: -
Borehole angle: 90°

Probe Type: Sample
Serial No.: 3173
Probe Range: 0-320
Westbay Casing Type: MP38
Sampler Valve Position: Close

Date: 2/7/24
Client: Kinross
Job No.: FJ1459
Location: 1487 1st floor
Weather: -
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

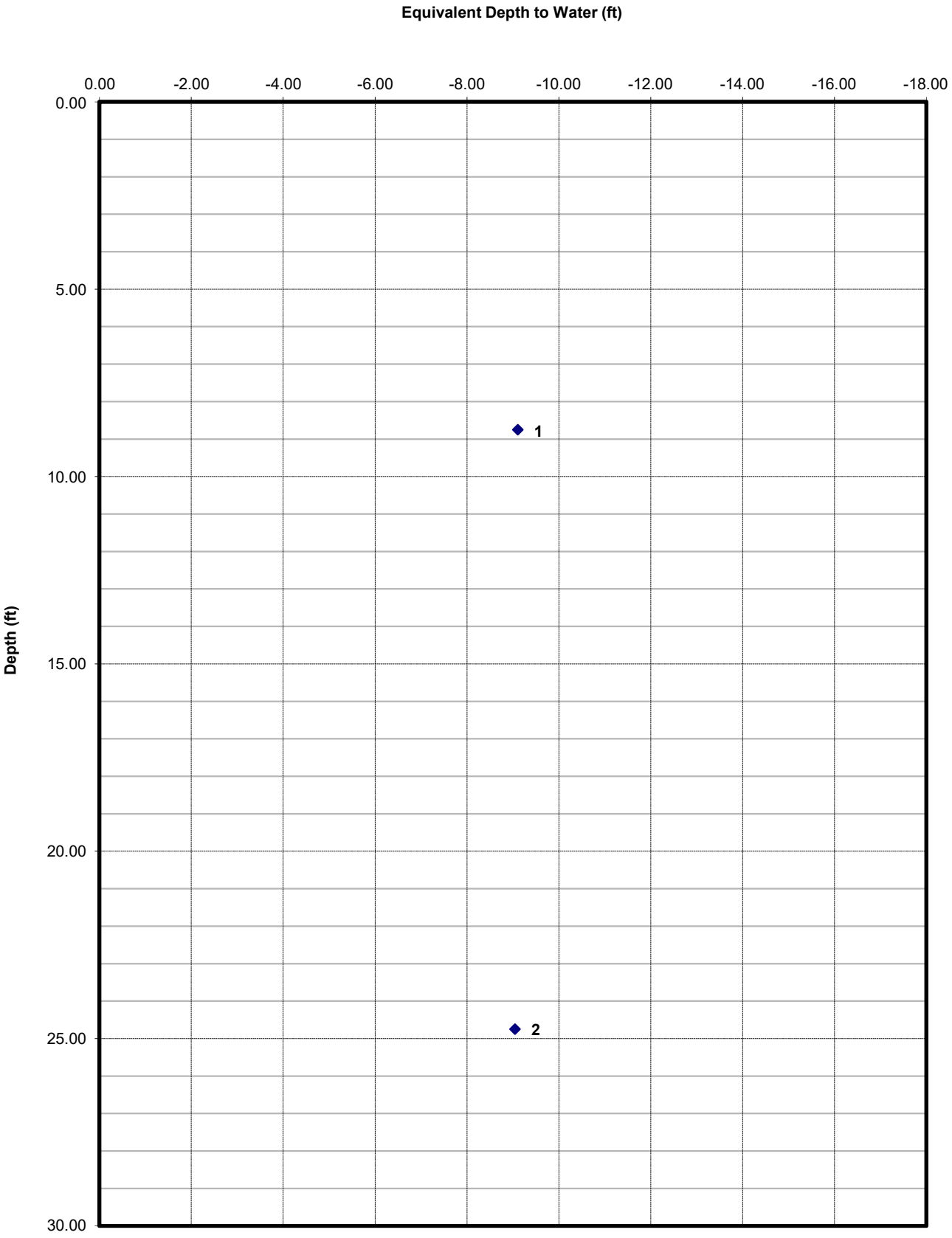
Start: Pressure 14.90 Finish: 14.88
Temp ~~71.2~~ 11.73
Time 11:25 11:30

P_{atm} 14.90 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
2	20.75	24.7	-	28.41	29.55	11:28	10.46	28.41	33.79	-9.04	Psi In/Hz
1	8.75	8.80	-	21.66	22.09	11:29	11.39	21.65	17.85	-9.10	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 20
Well: LMW-10R-S
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-10R-S
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 29.91 ft.

Borehole Depth: 29.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW10R-S.WWD
Report Date: Tue Jan 30 17:42:08 2024

File Date: Jan 30 11:05:07 2024

Comments

Log Information

Borehole condition confirmed.	(method) Logging	Date:
MP well design & preparation.	By:	Date: 1/30/24
MP well design checked.	By:	Date: 2/7/24
MP well and borehole approved to install.	By:	Date: 2/7/24

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)

- (3) 020101 - MP38 Casing 4 (1F/0.3M)
- (1) 020103 - MP38 Casing 6 (3F/0.9M)
- (2) 0238 - MP38 Packer - 74mm (5F/1.5M)
- (3) 020105 - MP38 Casing 2 (5F/1.5M)
- (1) 0203 - MP38 End Cap
- (6) 0202 - MP38 Regular Coupling
- (2) 0205 - MP38 Measurement Port
- (1) 0224 - MP38 Pumping Port

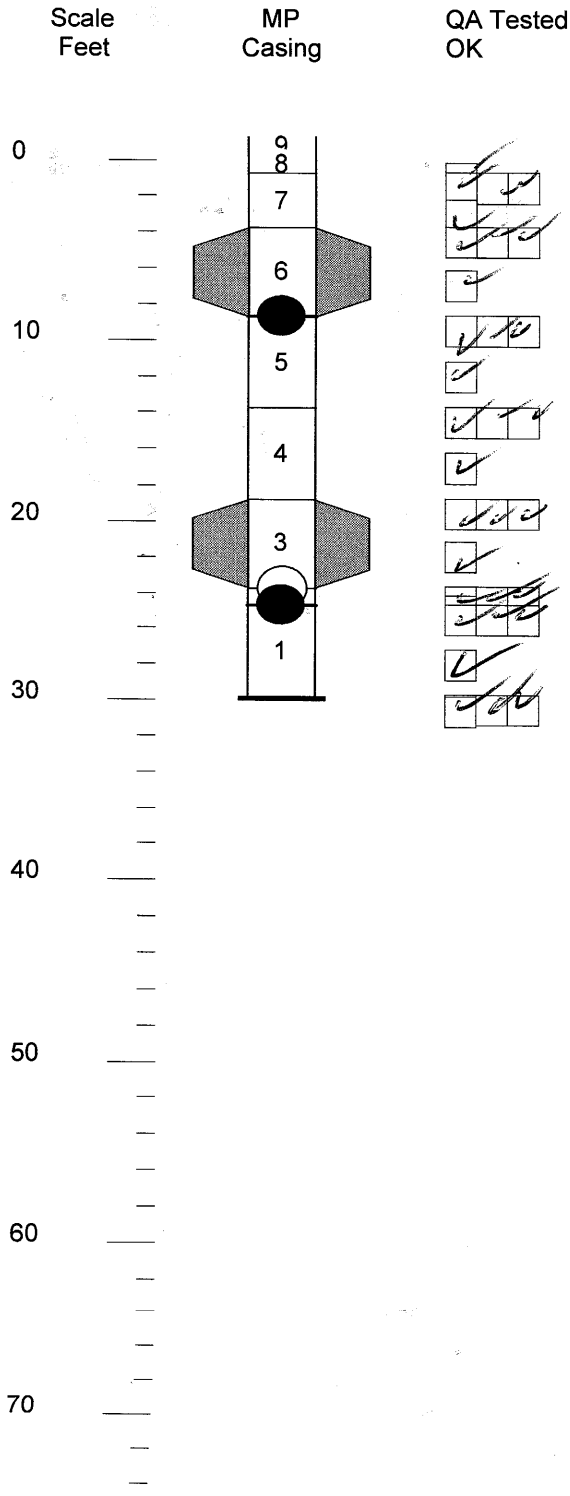
Geology

Backfill/Casing

- Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-10R-S



(c) Westbay Instruments Inc. 2000

Tue Jan 30 17:43:10 2024

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1499 Well No.: LMW-10-PZ-S

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/7/24

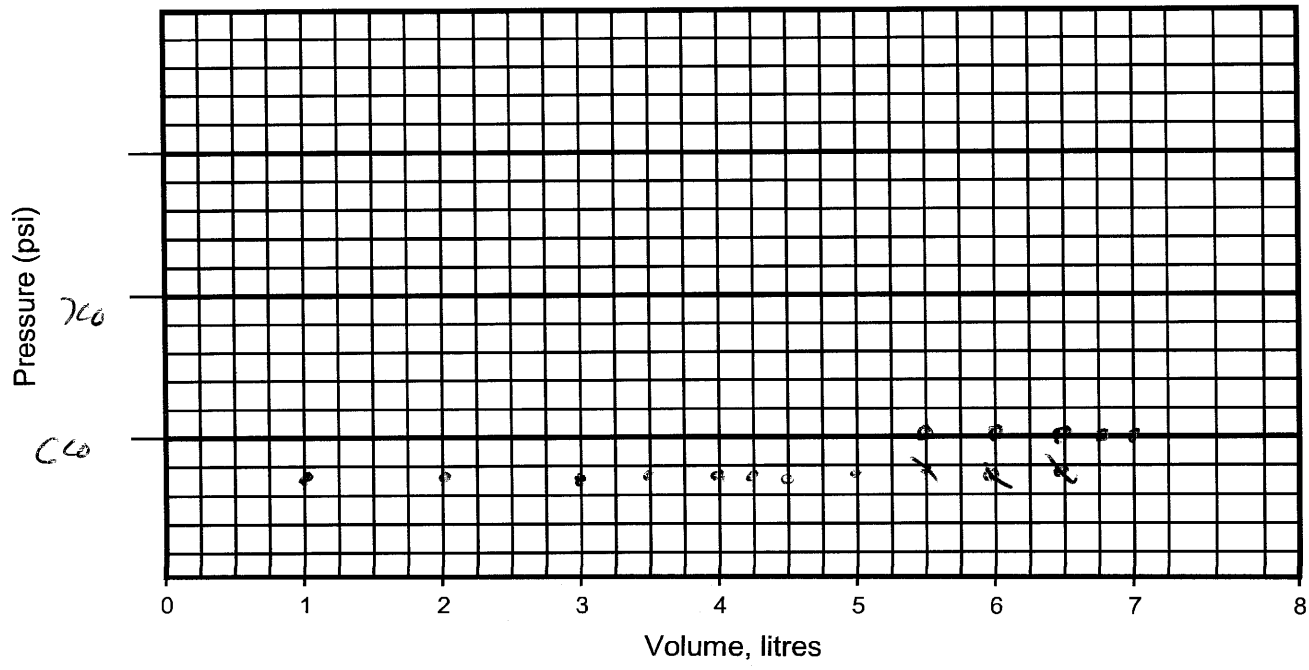
Packer No. 1 - Depth (ft / m): 18.75 Inflation Tool No.: TW 3554

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 60 psi Tool Pressure, P_T: 325 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 85 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.25	4.50	5.0	5.5	6.0
Pressure, psi	575	575	575	575	575	575	575	575	600	600
Volume, litres	6.5	7.0	/	7.0						
Pressure, psi	600	600	/	0						



Comments: Packer # 1 Time - 9:45

Sheet 2 of 2

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: FS1499 Well No.: LMW-10A-S

Location: 1487 1st Ave Completed by: GS Date Inflated: 01/12/14

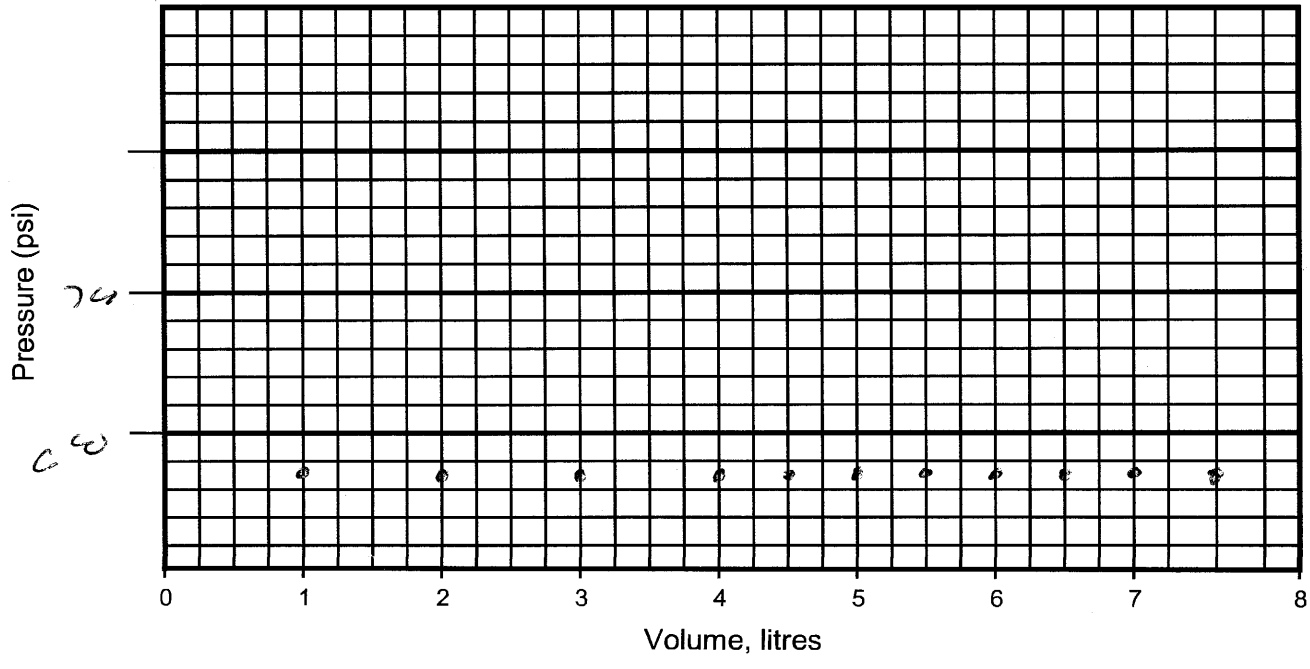
Packer No. 2 - 20146 Depth (ft / m): 3.75 Inflation Tool No.: TIW 5554

Packer Valve Pressure, P_V: 1475 psi Final Line Pressure, P_L: 575 psi Tool Pressure, P_T: 375 psi

Borehole Water Level: - (ft / m) = - psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 55 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5
Pressure, psi	575	575	575	575	575	575	575	575	575	575
Volume, litres	7.0	7.5	1							
Pressure, psi	575	575	1	ϕ						



Comments: Packer # 2 Time - 10:32

APPENDIX J – LMW-10R-D

As-Built Packer and Port Summary (Table 21)	- 1 Page
Summary Casing Log	- 3 Pages
Pre-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 8, 2024)	- 1 Pages
Figure 21, Pre-Inflation Piezometric Pressure Profile	- 1 Pages
Post-Inflation Piezometric Pressure/Levels Field Data and Calculation Sheet (February 8, 2024)	- 1 Pages
Figure 22, Post-Inflation Piezometric Pressure Profile	- 1 Pages
Casing Installation Log	- 3 Pages
MP Packer Inflation Records	- 3 Pages

Table 21. LMW-10R-D As-Built Packer and Port Summary

Port No.	Zone	Measurement Port Depth (ft)	Depth to Top of Packer (ft)	Top of Zone (ft)	Bottom of Zone (ft)	Comments
3	QA1	50.75	45.75	50.05	56.00	
2	**Zone 2**	40.75	35.75	40.05	47.05	
1	**Zone 1**	30.75	21.75	26.05	37.05	

All depth measurements in feet below ground surface (bgs).

All depth measurements use 'Nominal' tubing lengths.

Not corrected for borehole deviation or borehole temperature effects.
All depth measurement to upper edge of Westbay System coupling item.

Summary Casing Log

Company: Langan
Well: LMW-10R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 55.91 ft.

Borehole Depth: 63.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW10R-D.WWD
Report Date: Tue Jan 30 14:40:35 2024

File Date: Jan 30 12:14:14 2024

Sketch of Wellhead Completion

Legend

(Qty) MP Components

(Library - WD Library 04/29/15)

(2) 0203 - MP38 End Cap

(3) 020101 - MP38 Casing 4 (1F/0.3M)

(7) 020105 - MP38 Casing 2 (5F/1.5M)

(3) 0238 - MP38 Packer - 74mm (5F/1.5M)

(1) 020104 - MP38 Casing 5 (4F/1.2M)

(9) 0202 - MP38 Regular Coupling

(3) 0205 - MP38 Measurement Port

(2) 0224 - MP38 Pumping Port

(2) 0216 - Magnetic Location Collar

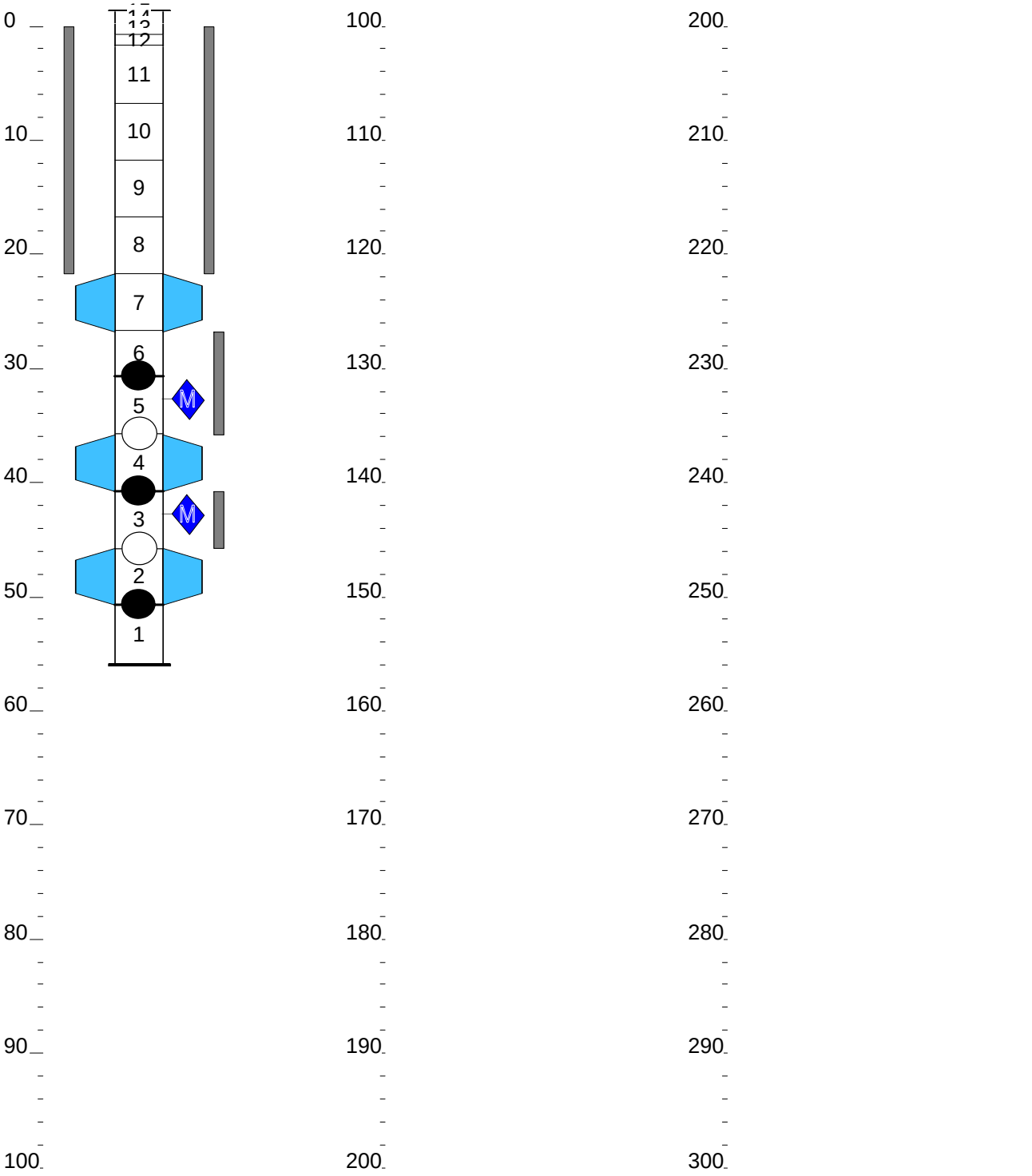
Geology

Backfill/Casing

Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-10R-D



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: LMW-10R-D
Datum: GS
Elev. G.S.: —
Height of Westbay above G.S.: —
Elev. top of Westbay Casing: —
Reference Elevation: —
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3535
Probe Range: 0-500
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/8/24
Client: Langan
Job No.: F5[illegible]99
Location: 1487 1st Ave
Weather: —
Operator: GS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

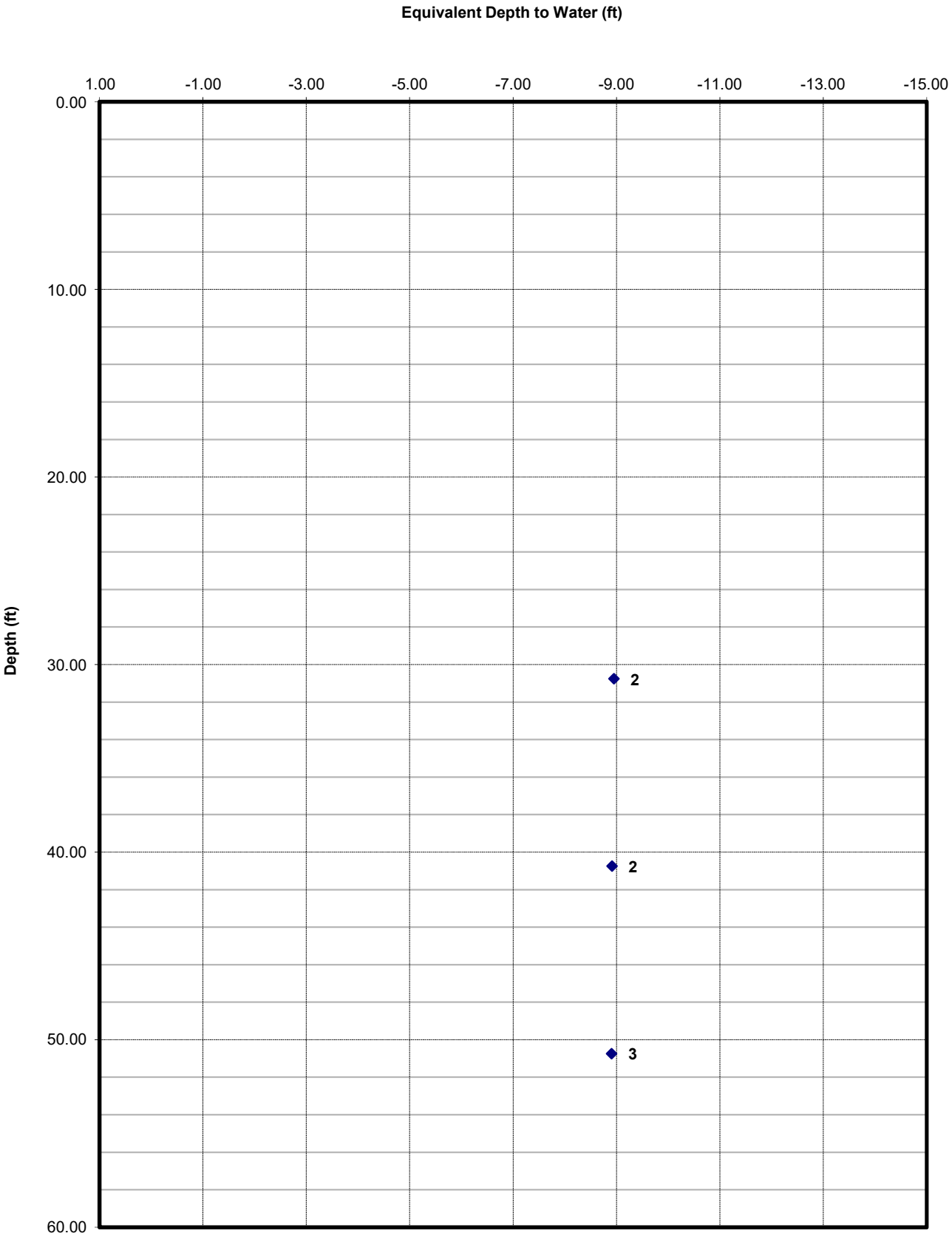
Start: Pressure	1488	Finish:	1488
Temp	6.6		15.95
Time	10:13		10:50

P_{atm} 1488 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
3	50.75	50.30	—	31.91	40.74	10:46	15.77	31.91	5965	8.90	Pz In Hz
2	40.75	40.30	—	27.57	36.41	10:48	15.81	2757	49.67	8.91	
1	30.75	30.40	—	23.23	32.09	10:49	15.93	2323	39.70	8.95	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 21
Well: LMW-10R-D
Pre-Inflation Pressure Profile



Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Westbay Instruments

Well No.: LMW-10R-D
Datum: GS
Elev. G.S.: -
Height of Westbay above G.S.: -
Elev. top of Westbay Casing: -
Reference Elevation: -
Borehole angle: 90°

Probe Type: Sampler
Serial No.: 3337
Probe Range: 0-50
Westbay Casing Type: MP38
Sampler Valve Position: Closed

Date: 2/8/24
Client: Hengan
Job No.: FS1499
Location: 1487 1st Ave
Weather: -
Operator: CS

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

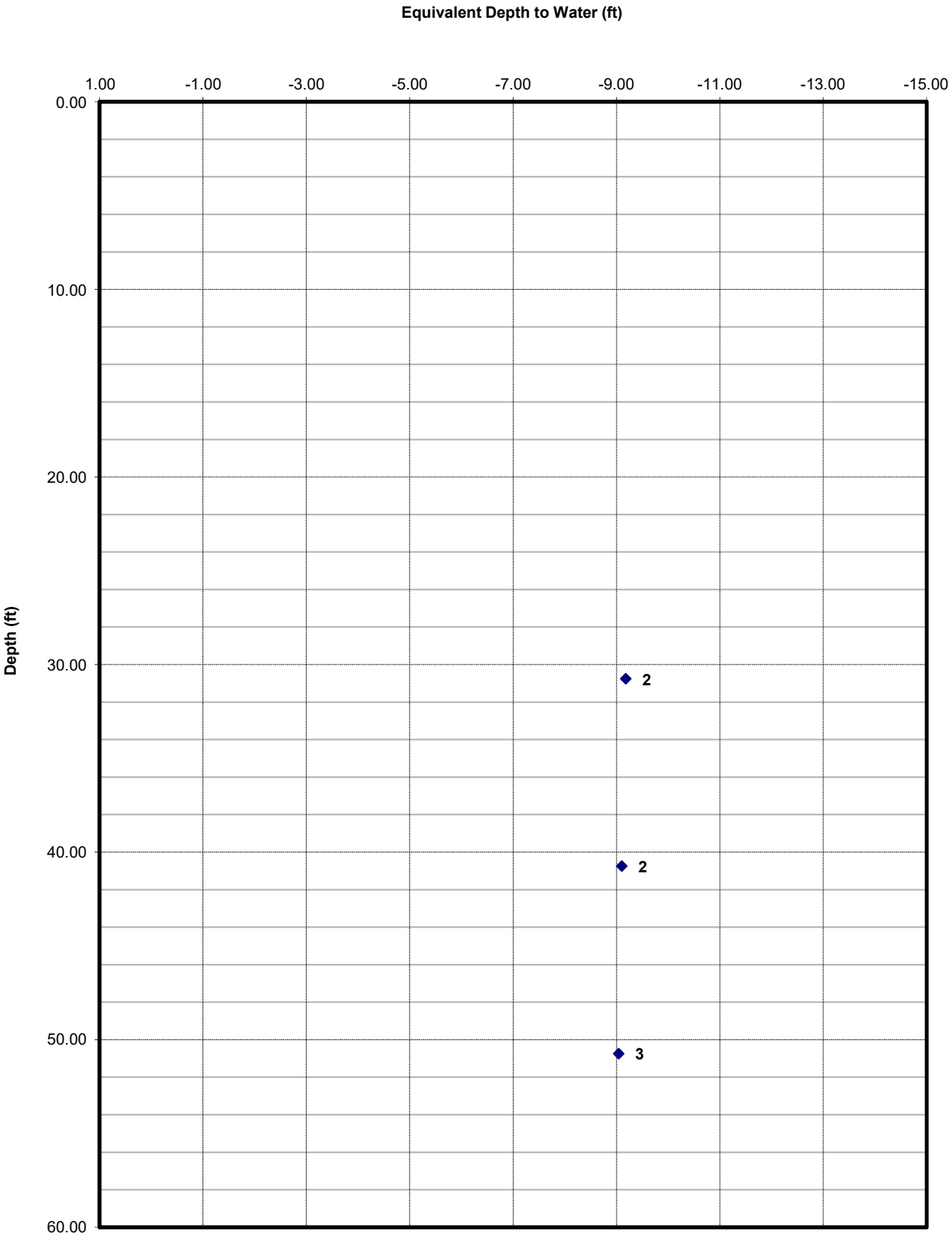
Start: Pressure	1487	Finish:	1487
Temp	11.22		11.61
Time	12:21		12:27

P_{atm} 14.87 psi

Port No.	Port Position From Log (ft)	Port Position From Cable (ft)	True Port Depth "Dp" (ft)	Fluid Pressure Readings: Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	Pressure Head Outside Port (ft) H = (P2-Patm)/w	Piez. Level Outside Port (ft) Dz = Dp - H	Comments
3	50.25	50.76	-	39.15	40.79	12:23	11.89	39.15	59.79	9.04	Post Install
2	40.25	40.80		34.81	36.48	12:25	12.97	34.81	49.85	9.10	
1	30.75	30.9	-	30.45	32.18	12:27	13.70	30.45	39.93	9.18	

Notes: w = 0.4335 psi/ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Figure 22
Well: LMW-10R-D
Post-Inflation Pressure Profile



Casing Installation Log

Company: Langan
Well: LMW-10R-D
Site: 1487 First Ave
Project: Langan - 1487 First Ave.

Job No:
Author: GS

Well Information

Reference Datum:
Elevation of Datum: 0.00 ft.
MP Casing Top: 0.00 ft.
MP Casing Length: 55.91 ft.

Borehole Depth: 63.75 ft.
Borehole Inclination:
Borehole Diameter: 4.00 in.

Well Description:

Other References:

File Information

File Name: LMW10R-D.WWD
Report Date: Tue Jan 30 17:40:45 2024

File Date: Jan 30 12:14:14 2024

Comments

Log Information

Borehole condition confirmed. (method) logging Date:
MP well design & preparation. By: [signature] Date: 1/30/24
MP well design checked. By: [signature] Date: 2/8/24
MP well and borehole approved to install. By: [signature] Date: 2/8/24

Legend

(Qty) MP Components
(Library - WD Library 04/29/15)

- (2) 0203 - MP38 End Cap
- (3) 020101 - MP38 Casing 4 (1F/0.3M)
- (7) 020105 - MP38 Casing 2 (5F/1.5M)
- (3) 0238 - MP38 Packer - 74mm (5F/1.5M)
- (1) 020104 - MP38 Casing 5 (4F/1.2M)
- (9) 0202 - MP38 Regular Coupling
- (3) 0205 - MP38 Measurement Port
- (2) 0224 - MP38 Pumping Port
- (2) 0216 - Magnetic Location Collar

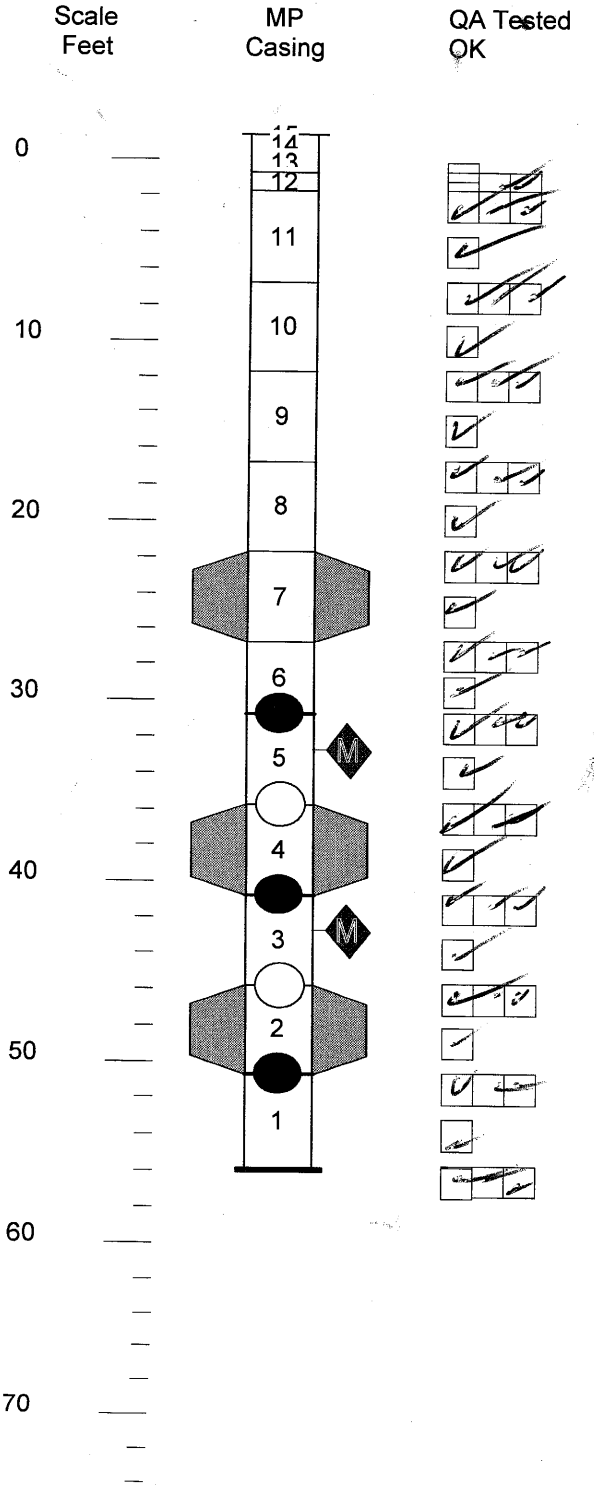
Geology

Backfill/Casing

- Mild Steel

Well Designer Report
Langan

Job No:
Well: LMW-10R-D



MP Casing Description

020101 - MP38 Casing 4 (1F/0.3M)
020101 - MP38 Casing 4 (1F/0.3M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
020105 - MP38 Casing 2 (5F/1.5M)
0238 - MP38 Packer - 74mm (5F/1.5M 20147 165/140
020104 - MP38 Casing 5 (4F/1.2M)
0205 - MP38 Measurement Port 10202
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9245
0238 - MP38 Packer - 74mm (5F/1.5M 18180 165/145
0205 - MP38 Measurement Port 10203
020105 - MP38 Casing 2 (5F/1.5M)
0224 - MP38 Pumping Port 9288
0238 - MP38 Packer - 74mm (5F/1.5M 20148 165/140
0205 - MP38 Measurement Port 10297
020105 - MP38 Casing 2 (5F/1.5M)
0203 - MP38 End Cap

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Tue Jan 30 17:41:37 2024

Sheet 1 of 3

Westbay Packer Inflation Record

Project: Langley - 1487 151st Ave Project No.: FS1459 Well No.: LMW-101B-1

Location: 1487 151 Ave Completed by: CS Date Inflated: 2/8/24

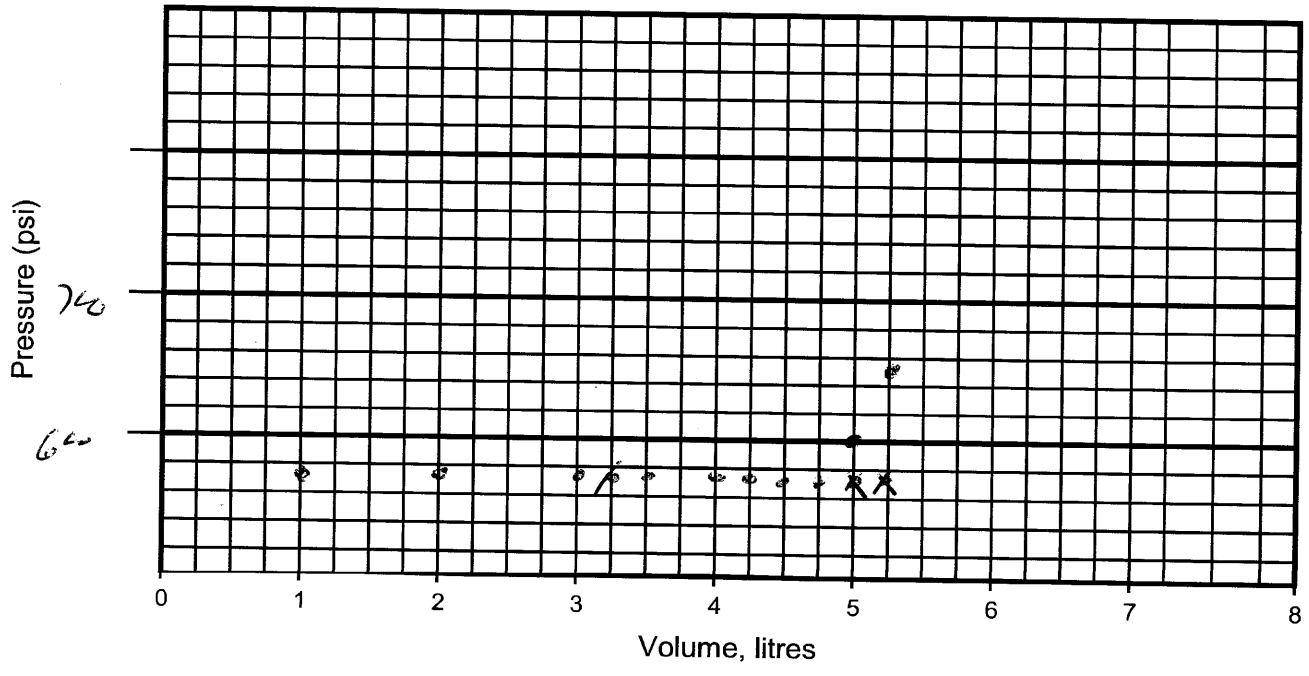
Packer No. 1 - 30148 Depth (ft / m): 45.75 Inflation Tool No.: TW 356

Packer Valve Pressure, P_V: 140 psi Final Line Pressure, P_L: 650 psi Tool Pressure, P_T: 400 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 110 psi

Volume, litres	1.0	2.0	3.0	3.5	4.0	4.25	4.50	4.75	5.0	5.25
Pressure, psi	575	575	575	575	575	575	575	575	640	650
Volume, litres	/	5.20								
Pressure, psi	/	0								



Comments: Packer # 1 Time - 10:58

Sheet 2 of 3

Westbay Packer Inflation Record

Project: Langley - 1487 1st Ave Project No.: P31454 Well No.: LMW-10B-D

Location: 1487 - 1st Ave Completed by: CS Date Inflated: 2/8/24

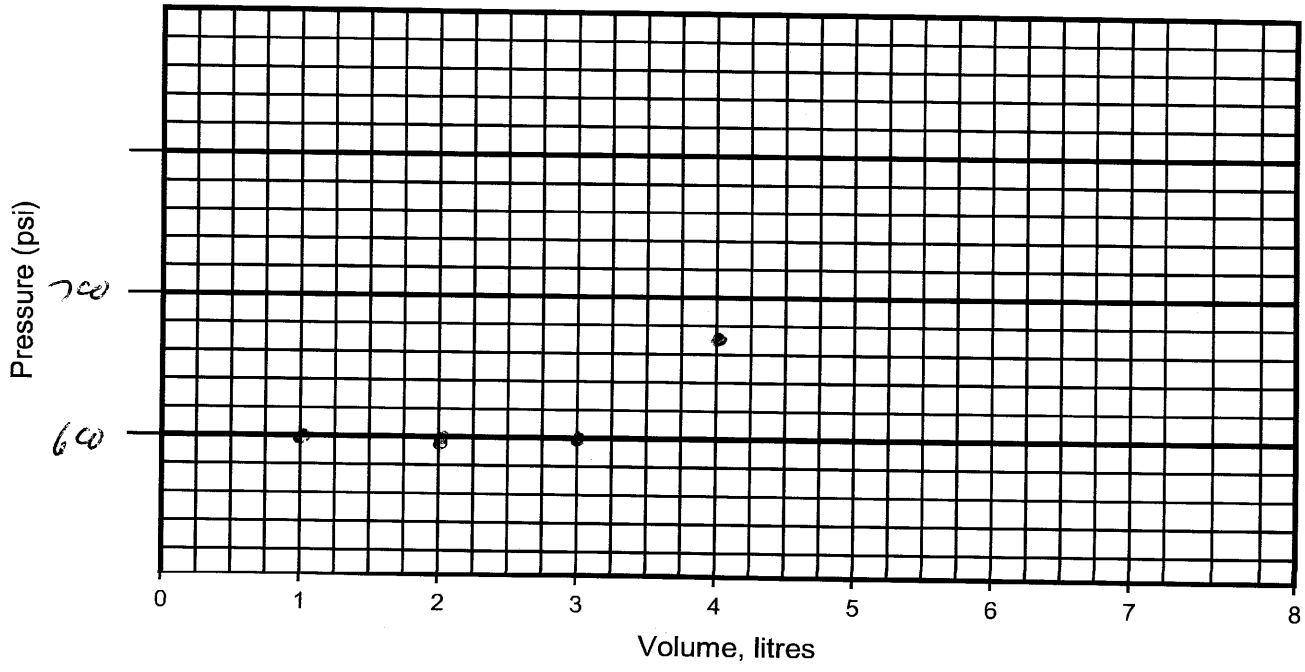
Packer No. 2 - ~~10207~~ 18180 Depth (ft / m): 3575 Inflation Tool No.: TW 3594

Packer Valve Pressure, P_V: 105 psi Final Line Pressure, P_L: 675 psi Tool Pressure, P_T: 900 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 130 psi

Volume, litres	1.0	2.0	3.0	4.0	/	4.0				
Pressure, psi	600	600	600	675	/	6				
Volume, litres										
Pressure, psi										



Comments: Packer # 2 Time - 11:21

Westbay Packer Inflation Record

Project: Horgan - 1487 1st Ave Project No.: FS1499 Well No.: L.M.W-10R-1

Location: 1487 1st Ave Completed by: CS Date Inflated: 2/8/24

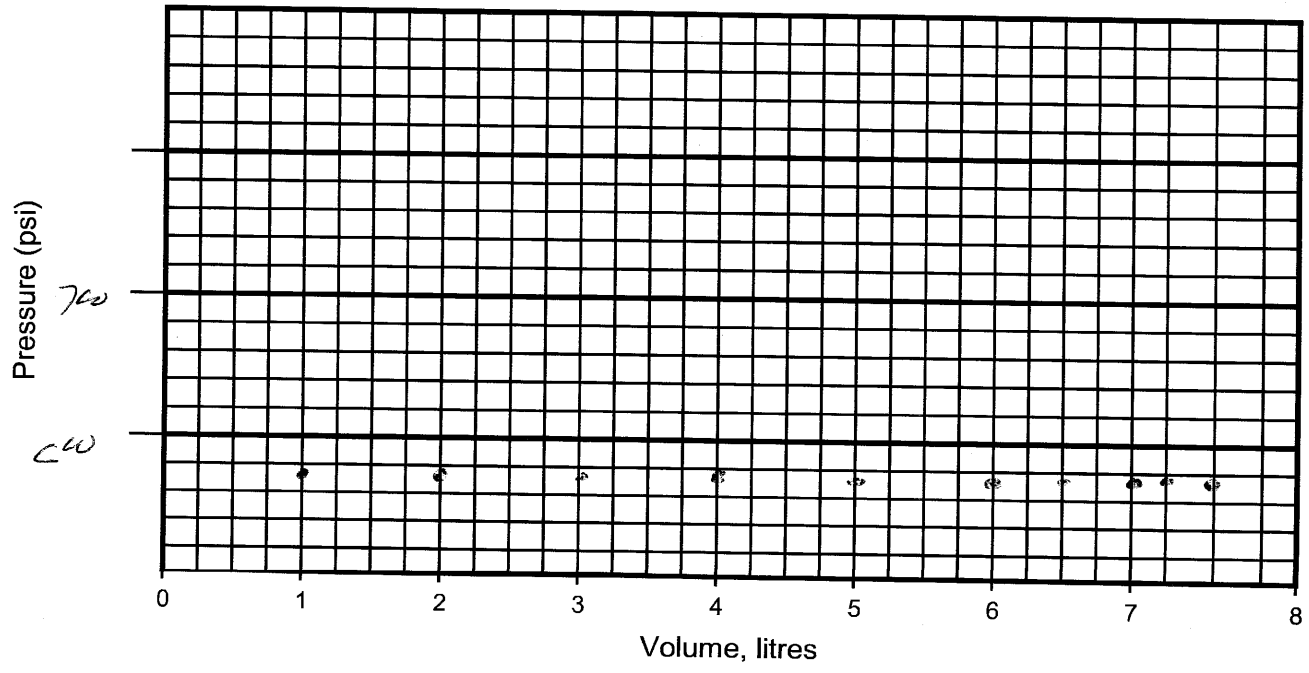
Packer No. 3 - 20147 Depth (ft / m): 01.75 Inflation Tool No.: T/W 3884

Packer Valve Pressure, P_V: 190 psi Final Line Pressure, P_L: 575 psi Tool Pressure, P_T: 460 psi

Borehole Water Level: — (ft / m) = — psi (P_W)

Calculated Packer Element Pressure, $P_E = P_L + P_W - P_V - P_T$ = 31 psi

Volume, litres	1.0	2.0	3.0	4.0	4.5	5.0	5.5	6.0	6.5	7.0
Pressure, psi	575	575	575	575	575	575	575	575	575	575
Volume, litres	7.25	7.50	/	7.5						
Pressure, psi	575	575	/	0						



Comments: Packer # 3 Time - 11:54

APPENDIX D

Laboratory Data Reports

ANALYTICAL REPORT

Lab Number:	L2408247
Client:	Langan Engineering & Environmental 300 Kimball Drive 4th Floor Parsippany, NJ 07054
ATTN:	Ashley Sandve
Phone:	(973) 560-4871
Project Name:	1487 FIRST AVE
Project Number:	100963701
Report Date:	02/16/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408247
Report Date: 02/16/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2408247-01	LMW-6R-D_54.75	WATER	NEW YORK	02/13/24 12:00	02/14/24
L2408247-02	LMW-6R-D_42.75	WATER	NEW YORK	02/13/24 12:20	02/14/24
L2408247-03	LMW-6R-D_32.75	WATER	NEW YORK	02/13/24 12:40	02/14/24
L2408247-04	LMW-9R-S_13.75	WATER	NEW YORK	02/13/24 13:15	02/14/24
L2408247-05	LMW-10R-S_24.75	WATER	NEW YORK	02/13/24 10:00	02/14/24
L2408247-06	LMW-10R-D_40.75	WATER	NEW YORK	02/13/24 10:45	02/14/24
L2408247-07	LMW-10R-D_30.75	WATER	NEW YORK	02/13/24 11:20	02/14/24
L2408247-08	LMW-7R-S_6.75	WATER	NEW YORK	02/13/24 14:15	02/14/24
L2408247-09	LMW-7R-S_16.75	WATER	NEW YORK	02/13/24 15:10	02/14/24
L2408247-10	LMW-7R-D_23.75	WATER	NEW YORK	02/13/24 15:25	02/14/24
L2408247-11	LMW-7R-D_49.75	WATER	NEW YORK	02/13/24 15:48	02/14/24
L2408247-12	LMW-9R-D_58.25	WATER	NEW YORK	02/14/24 14:45	02/14/24
L2408247-13	LMW-8R-D_27.75	WATER	NEW YORK	02/14/24 11:00	02/14/24
L2408247-14	LMW-8R-D_59.75	WATER	NEW YORK	02/14/24 12:00	02/14/24
L2408247-15	LMW-8R-S_6.75	WATER	NEW YORK	02/14/24 12:30	02/14/24
L2408247-16	DUP01_021424	WATER	NEW YORK	02/14/24 12:40	02/14/24
L2408247-17	LMW-8R-S_18.75	WATER	NEW YORK	02/14/24 13:00	02/14/24
L2408247-18	LMW-6R-S_18.75	WATER	NEW YORK	02/14/24 09:45	02/14/24
L2408247-19	TB01_021424	WATER	NEW YORK	02/14/24 00:00	02/14/24

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408247
Project Number:	100963701	**Report Date:**	02/16/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408247
Project Number:	100963701	**Report Date:**	02/16/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 02/16/24

ORGANICS

VOLATILES

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-01
Client ID: LMW-6R-D_54.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 19:31
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	0.81	J	ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	0.21	J	ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	7.8		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.61	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-01
Client ID: LMW-6R-D_54.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.80	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	0.80	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	44		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	55		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-01
Client ID: LMW-6R-D_54.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	0.74	J	ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	110		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-02
Client ID: LMW-6R-D_42.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:20
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 19:57
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.16	J	ug/l	0.50	0.16	1
Toluene	12		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.1		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-02
Client ID: LMW-6R-D_42.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:20
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	51		ug/l	5.0	1.5	1
Carbon disulfide	1.0	J	ug/l	5.0	1.0	1
2-Butanone	53		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-02
Client ID: LMW-6R-D_42.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:20
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	0.95	J	ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	109		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-03
Client ID: LMW-6R-D_32.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:40
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 20:22
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.17	J	ug/l	0.50	0.16	1
Toluene	13		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-03
Client ID: LMW-6R-D_32.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:40
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	59		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	57		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	1.2	J	ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-03
Client ID: LMW-6R-D_32.75
Sample Location: NEW YORK
Date Collected: 02/13/24 12:40
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	1.0	J	ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	0.79	J	ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	0.55	J	ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	107		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-04
Client ID: LMW-9R-S_13.75
Sample Location: NEW YORK
Date Collected: 02/13/24 13:15
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 20:48
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.20	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	0.18	J	ug/l	0.50	0.17	1
Benzene	1.3		ug/l	0.50	0.16	1
Toluene	85		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	4.6		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-04 Date Collected: 02/13/24 13:15

Client ID: LMW-9R-S_13.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	100		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	82		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	4.3	J	ug/l	5.0	1.0	1
2-Hexanone	1.2	J	ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-04
Client ID: LMW-9R-S_13.75
Sample Location: NEW YORK
Date Collected: 02/13/24 13:15
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-05
Client ID: LMW-10R-S_24.75
Sample Location: NEW YORK
Date Collected: 02/13/24 10:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 08:29
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	0.82	J	ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	13		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.41	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.81		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	0.17	J	ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	8.0		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.8		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-05 Date Collected: 02/13/24 10:00

Client ID: LMW-10R-S_24.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.33	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	0.84	J	ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	0.84	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	7.5		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	7.5		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	30		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	5.6		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-05
Client ID: LMW-10R-S_24.75
Sample Location: NEW YORK
Date Collected: 02/13/24 10:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	101		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-06
Client ID: LMW-10R-D_40.75
Sample Location: NEW YORK
Date Collected: 02/13/24 10:45
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 21:13
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	6.4		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.42	J	ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.66		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.75	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-06 Date Collected: 02/13/24 10:45

Client ID: LMW-10R-D_40.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.1		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-06
Client ID: LMW-10R-D_40.75
Sample Location: NEW YORK
Date Collected: 02/13/24 10:45
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	111		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-07
Client ID: LMW-10R-D_30.75
Sample Location: NEW YORK
Date Collected: 02/13/24 11:20
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 21:38
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	7.0		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.44	J	ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.76		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.63	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-07 Date Collected: 02/13/24 11:20

Client ID: LMW-10R-D_30.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-07
Client ID: LMW-10R-D_30.75
Sample Location: NEW YORK
Date Collected: 02/13/24 11:20
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	114		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-08 D
Client ID: LMW-7R-S_6.75
Sample Location: NEW YORK

Date Collected: 02/13/24 14:15
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 23:44
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	21		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	5.3	J	ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	46		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	4.0	J	ug/l	12	3.5	5

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-08 D Date Collected: 02/13/24 14:15

Client ID: LMW-7R-S_6.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	21		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	500		ug/l	12	3.5	5
1,2-Dichloroethene, Total	500	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	9.1	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: 1487 FIRST AVE
Lab Number: L2408247
Project Number: 100963701
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-08 D
Client ID: LMW-7R-S_6.75
Sample Location: NEW YORK
Date Collected: 02/13/24 14:15
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	ND		ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	106		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-09 D
Client ID: LMW-7R-S_16.75
Sample Location: NEW YORK

Date Collected: 02/13/24 15:10
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 09:35
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	25		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	70		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	5.1	J	ug/l	12	3.5	5

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-09 D Date Collected: 02/13/24 15:10
Client ID: LMW-7R-S_16.75 Date Received: 02/14/24
Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	25		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	560		ug/l	12	3.5	5
1,2-Dichloroethene, Total	570	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: 1487 FIRST AVE
Lab Number: L2408247
Project Number: 100963701
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-09 D
Client ID: LMW-7R-S_16.75
Sample Location: NEW YORK
Date Collected: 02/13/24 15:10
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	ND		ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-10 D
Client ID: LMW-7R-D_23.75
Sample Location: NEW YORK

Date Collected: 02/13/24 15:25
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 00:09
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	ND		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	1.2	J	ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	ND		ug/l	2.0	0.64	4
Toluene	4.2	J	ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	17		ug/l	4.0	0.28	4
Chloroethane	ND		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-10 D Date Collected: 02/13/24 15:25

Client ID: LMW-7R-D_23.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.0	J	ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	29		ug/l	10	2.8	4
1,2-Dichloroethene, Total	29		ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	54		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	410		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-10 D Date Collected: 02/13/24 15:25

Client ID: LMW-7R-D_23.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	ND		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	108		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-11
Client ID: LMW-7R-D_49.75
Sample Location: NEW YORK
Date Collected: 02/13/24 15:48
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 22:03
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.28	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.29	J	ug/l	0.50	0.16	1
Toluene	4.2		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	27		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-11 Date Collected: 02/13/24 15:48

Client ID: LMW-7R-D_49.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.21	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	20		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	20		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	53		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	560	E	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-11
Client ID: LMW-7R-D_49.75
Sample Location: NEW YORK
Date Collected: 02/13/24 15:48
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	106		70-130

Project Name: 1487 FIRST AVE
Lab Number: L2408247
Project Number: 100963701
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-11 D
Client ID: LMW-7R-D_49.75
Sample Location: NEW YORK

Date Collected: 02/13/24 15:48
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 11:04
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
2-Butanone	420		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-12
Client ID: LMW-9R-D_58.25
Sample Location: NEW YORK
Date Collected: 02/14/24 14:45
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 22:28
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	5.7		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.24	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-12 Date Collected: 02/14/24 14:45

Client ID: LMW-9R-D_58.25 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	0.75	J	ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	9.7		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	16		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-12
Client ID: LMW-9R-D_58.25
Sample Location: NEW YORK
Date Collected: 02/14/24 14:45
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	106		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-13
Client ID: LMW-8R-D_27.75
Sample Location: NEW YORK
Date Collected: 02/14/24 11:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 22:54
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	3.8		ug/l	0.50	0.16	1
Toluene	1.3	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	0.94	J	ug/l	2.5	0.70	1
Vinyl chloride	0.94	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-13 Date Collected: 02/14/24 11:00

Client ID: LMW-8R-D_27.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.3	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.3	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	69		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	82		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-13
Client ID: LMW-8R-D_27.75
Sample Location: NEW YORK
Date Collected: 02/14/24 11:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	105		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-14
Client ID: LMW-8R-D_59.75
Sample Location: NEW YORK
Date Collected: 02/14/24 12:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 23:19
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	8.1		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	2.7		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-14 Date Collected: 02/14/24 12:00

Client ID: LMW-8R-D_59.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.3	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	2.3	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	52		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	120		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-14
Client ID: LMW-8R-D_59.75
Sample Location: NEW YORK
Date Collected: 02/14/24 12:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	105		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-15
Client ID: LMW-8R-S_6.75
Sample Location: NEW YORK
Date Collected: 02/14/24 12:30
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 08:07
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.54		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.31	J	ug/l	0.50	0.16	1
Toluene	8.7		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	4.4		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-15 Date Collected: 02/14/24 12:30

Client ID: LMW-8R-S_6.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.56		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.2	J	ug/l	2.5	0.70	1
o-Xylene	1.0	J	ug/l	2.5	0.70	1
Xylenes, Total	2.2	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	14		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	14		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	13		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	2.0	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-15
Client ID: LMW-8R-S_6.75
Sample Location: NEW YORK
Date Collected: 02/14/24 12:30
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-16
Client ID: DUP01_021424
Sample Location: NEW YORK

Date Collected: 02/14/24 12:40
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 08:51
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.64		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.29	J	ug/l	0.50	0.16	1
Toluene	10		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	5.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-16
Client ID: DUP01_021424
Sample Location: NEW YORK
Date Collected: 02/14/24 12:40
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.70		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.4	J	ug/l	2.5	0.70	1
o-Xylene	1.2	J	ug/l	2.5	0.70	1
Xylenes, Total	2.6	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	17		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	17		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	14		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-16
Client ID: DUP01_021424
Sample Location: NEW YORK
Date Collected: 02/14/24 12:40
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	100		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-17
Client ID: LMW-8R-S_18.75
Sample Location: NEW YORK
Date Collected: 02/14/24 13:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 07:45
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.18	J	ug/l	0.50	0.16	1
Toluene	2.3	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.6		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-17 Date Collected: 02/14/24 13:00

Client ID: LMW-8R-S_18.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.9		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	2.9		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	7.1		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-17
Client ID: LMW-8R-S_18.75
Sample Location: NEW YORK
Date Collected: 02/14/24 13:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-18
Client ID: LMW-6R-S_18.75
Sample Location: NEW YORK
Date Collected: 02/14/24 09:45
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/16/24 09:13
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.28	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.23	J	ug/l	0.50	0.16	1
Toluene	8.3		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	2.8		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-18 Date Collected: 02/14/24 09:45

Client ID: LMW-6R-S_18.75 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.31	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.0	J	ug/l	2.5	0.70	1
o-Xylene	0.87	J	ug/l	2.5	0.70	1
Xylenes, Total	1.9	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	3.3		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	3.3		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	22		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	4.8	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-18
Client ID: LMW-6R-S_18.75
Sample Location: NEW YORK
Date Collected: 02/14/24 09:45
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	100		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-19
Client ID: TB01_021424
Sample Location: NEW YORK

Date Collected: 02/14/24 00:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 02/15/24 19:06
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2408247

Project Number: 100963701 **Report Date:** 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-19 Date Collected: 02/14/24 00:00

Client ID: TB01_021424 Date Received: 02/14/24

Sample Location: NEW YORK Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

SAMPLE RESULTS

Lab ID: L2408247-19
Client ID: TB01_021424
Sample Location: NEW YORK
Date Collected: 02/14/24 00:00
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	110		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/15/24 18:41
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-08,10-14,19 Batch: WG1885883-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/15/24 18:41
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-08,10-14,19 Batch: WG1885883-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/15/24 18:41
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-08,10-14,19 Batch: WG1885883-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	109		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/16/24 07:23
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,09,11,15-18 Batch: WG1886026-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/16/24 07:23
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,09,11,15-18 Batch: WG1886026-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 02/16/24 07:23
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,09,11,15-18 Batch: WG1886026-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-08,10-14,19 Batch: WG1885883-3 WG1885883-4								
Methylene chloride	88		95		70-130	8		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	97		100		70-130	3		20
Carbon tetrachloride	110		100		63-132	10		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	87		95		63-130	9		20
1,1,2-Trichloroethane	82		100		70-130	20		20
Tetrachloroethene	96		95		70-130	1		20
Chlorobenzene	98		99		75-130	1		20
Trichlorofluoromethane	120		110		62-150	9		20
1,2-Dichloroethane	100		110		70-130	10		20
1,1,1-Trichloroethane	110		100		67-130	10		20
Bromodichloromethane	99		97		67-130	2		20
trans-1,3-Dichloropropene	77		93		70-130	19		20
cis-1,3-Dichloropropene	94		98		70-130	4		20
1,1-Dichloropropene	94		99		70-130	5		20
Bromoform	86		88		54-136	2		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	93		99		70-130	6		20
Toluene	85		100		70-130	16		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	**140**	Q	120		64-130	15		20
Bromomethane	100		95		39-139	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-08,10-14,19 Batch: WG1885883-3 WG1885883-4								
Vinyl chloride	120		100		55-140	18		20
Chloroethane	120		130		55-138	8		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	94		96		70-130	2		20
Trichloroethene	97		93		70-130	4		20
1,2-Dichlorobenzene	97		99		70-130	2		20
1,3-Dichlorobenzene	99		100		70-130	1		20
1,4-Dichlorobenzene	98		100		70-130	2		20
Methyl tert butyl ether	86		93		63-130	8		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	95		97		70-130	2		20
Dibromomethane	96		95		70-130	1		20
1,2,3-Trichloropropane	99		100		64-130	1		20
Acrylonitrile	95		100		70-130	5		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	110		93		36-147	17		20
Acetone	86		95		58-148	10		20
Carbon disulfide	100		110		51-130	10		20
2-Butanone	95		110		63-138	15		20
Vinyl acetate	**140**	Q	**160**	Q	70-130	13		20
4-Methyl-2-pentanone	70		89		59-130	**24**	Q	20
2-Hexanone	76		88		57-130	15		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-08,10-14,19 Batch: WG1885883-3 WG1885883-4								
Bromochloromethane	110		96		70-130	14		20
2,2-Dichloropropane	120		120		63-133	0		20
1,2-Dibromoethane	86		96		70-130	11		20
1,3-Dichloropropane	82		100		70-130	20		20
1,1,1,2-Tetrachloroethane	95		95		64-130	0		20
Bromobenzene	95		96		70-130	1		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	98		99		70-130	1		20
o-Chlorotoluene	100		110		70-130	10		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	85		91		41-144	7		20
Hexachlorobutadiene	83		85		63-130	2		20
Isopropylbenzene	99		100		70-130	1		20
p-Isopropyltoluene	93		94		70-130	1		20
Naphthalene	86		92		70-130	7		20
n-Propylbenzene	100		110		69-130	10		20
1,2,3-Trichlorobenzene	91		93		70-130	2		20
1,2,4-Trichlorobenzene	88		91		70-130	3		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	90		92		70-130	2		20
1,4-Dioxane	60		60		56-162	0		20
p-Diethylbenzene	89		90		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-08,10-14,19 Batch: WG1885883-3 WG1885883-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	85		88		70-130	3		20
Ethyl ether	94		100		59-134	6		20
trans-1,4-Dichloro-2-butene	110		120		70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	113		115		70-130
Toluene-d8	87		102		70-130
4-Bromofluorobenzene	101		103		70-130
Dibromofluoromethane	102		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,09,11,15-18 Batch: WG1886026-3 WG1886026-4								
Methylene chloride	99		98		70-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		98		70-130	2		20
Carbon tetrachloride	92		90		63-132	2		20
1,2-Dichloropropane	100		99		70-130	1		20
Dibromochloromethane	92		91		63-130	1		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	91		86		70-130	6		20
Chlorobenzene	98		94		75-130	4		20
Trichlorofluoromethane	96		90		62-150	6		20
1,2-Dichloroethane	98		98		70-130	0		20
1,1,1-Trichloroethane	95		90		67-130	5		20
Bromodichloromethane	96		95		67-130	1		20
trans-1,3-Dichloropropene	93		93		70-130	0		20
cis-1,3-Dichloropropene	94		92		70-130	2		20
1,1-Dichloropropene	93		91		70-130	2		20
Bromoform	89		85		54-136	5		20
1,1,2,2-Tetrachloroethane	100		97		67-130	3		20
Benzene	100		97		70-130	3		20
Toluene	99		95		70-130	4		20
Ethylbenzene	98		94		70-130	4		20
Chloromethane	110		110		64-130	0		20
Bromomethane	92		86		39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,09,11,15-18 Batch: WG1886026-3 WG1886026-4								
Vinyl chloride	110		110		55-140	0		20
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	94		91		61-145	3		20
trans-1,2-Dichloroethene	98		94		70-130	4		20
Trichloroethene	99		94		70-130	5		20
1,2-Dichlorobenzene	98		97		70-130	1		20
1,3-Dichlorobenzene	98		95		70-130	3		20
1,4-Dichlorobenzene	98		96		70-130	2		20
Methyl tert butyl ether	91		92		63-130	1		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	98		96		70-130	2		20
Dibromomethane	95		96		70-130	1		20
1,2,3-Trichloropropane	100		95		64-130	5		20
Acrylonitrile	100		110		70-130	10		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	98		95		36-147	3		20
Acetone	110		110		58-148	0		20
Carbon disulfide	98		95		51-130	3		20
2-Butanone	110		110		63-138	0		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	83		85		59-130	2		20
2-Hexanone	80		82		57-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,09,11,15-18 Batch: WG1886026-3 WG1886026-4								
Bromochloromethane	98		97		70-130	1		20
2,2-Dichloropropane	98		95		63-133	3		20
1,2-Dibromoethane	94		92		70-130	2		20
1,3-Dichloropropane	99		98		70-130	1		20
1,1,1,2-Tetrachloroethane	96		92		64-130	4		20
Bromobenzene	100		90		70-130	11		20
n-Butylbenzene	100		99		53-136	1		20
sec-Butylbenzene	97		90		70-130	7		20
tert-Butylbenzene	96		89		70-130	8		20
o-Chlorotoluene	110		93		70-130	17		20
p-Chlorotoluene	100		95		70-130	5		20
1,2-Dibromo-3-chloropropane	90		94		41-144	4		20
Hexachlorobutadiene	86		88		63-130	2		20
Isopropylbenzene	100		90		70-130	11		20
p-Isopropyltoluene	96		90		70-130	6		20
Naphthalene	86		91		70-130	6		20
n-Propylbenzene	110		93		69-130	17		20
1,2,3-Trichlorobenzene	87		87		70-130	0		20
1,2,4-Trichlorobenzene	88		90		70-130	2		20
1,3,5-Trimethylbenzene	110		92		64-130	18		20
1,2,4-Trimethylbenzene	98		92		70-130	6		20
1,4-Dioxane	156		156		56-162	0		20
p-Diethylbenzene	96		95		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,09,11,15-18 Batch: WG1886026-3 WG1886026-4								
p-Ethyltoluene	100		91		70-130	9		20
1,2,4,5-Tetramethylbenzene	93		94		70-130	1		20
Ethyl ether	110		100		59-134	10		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		106		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	100		93		70-130
Dibromofluoromethane	97		98		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408247
Report Date: 02/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,09,11,15-18 QC Batch ID: WG1886026-6 WG1886026-7 QC Sample: L2408247-18 Client ID: LMW-6R-S_18.75												
Methylene chloride	ND	10	10	100		11	110		70-130	10		20
1,1-Dichloroethane	ND	10	10	100		11	110		70-130	10		20
Chloroform	ND	10	10	100		11	110		70-130	10		20
Carbon tetrachloride	ND	10	10	100		11	110		63-132	10		20
1,2-Dichloropropane	ND	10	10	100		11	110		70-130	10		20
Dibromochloromethane	ND	10	9.0	90		9.7	97		63-130	7		20
1,1,2-Trichloroethane	ND	10	9.9	99		11	110		70-130	11		20
Tetrachloroethene	0.28J	10	9.6	96		10	100		70-130	4		20
Chlorobenzene	ND	10	9.6	96		10	100		75-130	4		20
Trichlorofluoromethane	ND	10	10	100		11	110		62-150	10		20
1,2-Dichloroethane	ND	10	9.8	98		11	110		70-130	12		20
1,1,1-Trichloroethane	ND	10	10	100		11	110		67-130	10		20
Bromodichloromethane	ND	10	9.6	96		10	100		67-130	4		20
trans-1,3-Dichloropropene	ND	10	9.2	92		9.8	98		70-130	6		20
cis-1,3-Dichloropropene	ND	10	9.1	91		9.8	98		70-130	7		20
1,1-Dichloropropene	ND	10	10	100		11	110		70-130	10		20
Bromoform	ND	10	8.6	86		8.6	86		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	10	10	100		11	110		67-130	10		20
Benzene	0.23J	10	10	100		11	110		70-130	10		20
Toluene	8.3	10	18	97		19	107		70-130	5		20
Ethylbenzene	ND	10	10	100		11	110		70-130	10		20
Chloromethane	ND	10	11	110		12	120		64-130	9		20
Bromomethane	ND	10	6.0	60		6.9	69		39-139	14		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408247
Report Date: 02/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,09,11,15-18 QC Batch ID: WG1886026-6 WG1886026-7 QC Sample: L2408247-18 Client ID: LMW-6R-S_18.75												
Vinyl chloride	2.8	10	15	122		16	132		55-140	6		20
Chloroethane	ND	10	12	120		13	130		55-138	8		20
1,1-Dichloroethene	ND	10	10	100		11	110		61-145	10		20
trans-1,2-Dichloroethene	ND	10	10	100		11	110		70-130	10		20
Trichloroethene	0.31J	10	10	100		11	110		70-130	10		20
1,2-Dichlorobenzene	ND	10	9.4	94		10	100		70-130	6		20
1,3-Dichlorobenzene	ND	10	9.4	94		10	100		70-130	6		20
1,4-Dichlorobenzene	ND	10	9.4	94		10	100		70-130	6		20
Methyl tert butyl ether	ND	10	9.4	94		10	100		63-130	6		20
p/m-Xylene	1.0J	20	20	100		22	110		70-130	10		20
o-Xylene	0.87J	20	20	100		21	105		70-130	5		20
cis-1,2-Dichloroethene	3.3	10	13	97		14	107		70-130	7		20
Dibromomethane	ND	10	9.6	96		10	100		70-130	4		20
1,2,3-Trichloropropane	ND	10	10	100		10	100		64-130	0		20
Acrylonitrile	ND	10	11	110		12	120		70-130	9		20
Styrene	ND	20	20	100		21	105		70-130	5		20
Dichlorodifluoromethane	ND	10	12	120		13	130		36-147	8		20
Acetone	22	10	31	90		33	110		58-148	6		20
Carbon disulfide	ND	10	11	110		12	120		51-130	9		20
2-Butanone	4.8J	10	16	**160**	Q	17	**170**	Q	63-138	6		20
Vinyl acetate	ND	10	10	100		11	110		70-130	10		20
4-Methyl-2-pentanone	ND	10	9.8	98		10	100		59-130	2		20
2-Hexanone	ND	10	9.4	94		10	100		57-130	6		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408247
Report Date: 02/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,09,11,15-18 QC Batch ID: WG1886026-6 WG1886026-7 QC Sample: L2408247-18 Client ID: LMW-6R-S_18.75												
Bromochloromethane	ND	10	9.7	97		10	100		70-130	3		20
2,2-Dichloropropane	ND	10	10	100		11	110		63-133	10		20
1,2-Dibromoethane	ND	10	9.2	92		9.9	99		70-130	7		20
1,3-Dichloropropane	ND	10	9.8	98		10	100		70-130	2		20
1,1,1,2-Tetrachloroethane	ND	10	9.3	93		9.9	99		64-130	6		20
Bromobenzene	ND	10	9.3	93		9.7	97		70-130	4		20
n-Butylbenzene	ND	10	10	100		10	100		53-136	0		20
sec-Butylbenzene	ND	10	9.8	98		10	100		70-130	2		20
tert-Butylbenzene	ND	10	9.7	97		10	100		70-130	3		20
o-Chlorotoluene	ND	10	9.8	98		10	100		70-130	2		20
p-Chlorotoluene	ND	10	9.8	98		10	100		70-130	2		20
1,2-Dibromo-3-chloropropane	ND	10	9.3	93		9.4	94		41-144	1		20
Hexachlorobutadiene	ND	10	8.5	85		8.6	86		63-130	1		20
Isopropylbenzene	ND	10	9.8	98		9.8	98		70-130	0		20
p-Isopropyltoluene	ND	10	9.7	97		10	100		70-130	3		20
Naphthalene	ND	10	9.4	94		9.7	97		70-130	3		20
n-Propylbenzene	ND	10	10	100		11	110		69-130	10		20
1,2,3-Trichlorobenzene	ND	10	8.6	86		8.9	89		70-130	3		20
1,2,4-Trichlorobenzene	ND	10	8.7	87		8.8	88		70-130	1		20
1,3,5-Trimethylbenzene	ND	10	9.7	97		10	100		64-130	3		20
1,2,4-Trimethylbenzene	ND	10	9.8	98		11	110		70-130	12		20
1,4-Dioxane	ND	500	830	**166**	Q	890	**178**	Q	56-162	7		20
p-Diethylbenzene	ND	10	9.4	94		10	100		70-130	6		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408247

Report Date: 02/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Client ID: LMW-6R-S_18.75	Associated sample(s): 05,09,11,15-18					QC Batch ID: WG1886026-6	WG1886026-7		QC Sample: L2408247-18			
p-Ethyltoluene	ND	10	9.8	98		10	100		70-130	2		20
1,2,4,5-Tetramethylbenzene	ND	10	8.9	89		9.5	95		70-130	7		20
Ethyl ether	ND	10	10	100		11	110		59-134	10		20
trans-1,4-Dichloro-2-butene	ND	10	9.6	96		10	100		70-130	4		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		101		70-130
4-Bromofluorobenzene	97		93		70-130
Dibromofluoromethane	99		98		70-130
Toluene-d8	100		99		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408247
Report Date: 02/16/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408247-01A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-01B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-01C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-02A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-02B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-02C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-03A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-03B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-03C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-04A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-04B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-04C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-05A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-05B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-05C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-06A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-06B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-06C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-07A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-07B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-07C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-08A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-08B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408247
Report Date: 02/16/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408247-08C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-09A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-09B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-09C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-10A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-10B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-10C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-11A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-11B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-11C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-12A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-12B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-12C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-13A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-13B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-13C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-14A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-14B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-14C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-15A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-15B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-15C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-16A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-16B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-16C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-17A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-17B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-17C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408247
Report Date: 02/16/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408247-18A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18A1	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18A2	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18B1	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18B2	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18C1	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-18C2	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-19A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2408247-19B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408247
Project Number:	100963701	**Report Date:**	02/16/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408247
Project Number:	100963701	**Report Date:**	02/16/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408247
Project Number:	100963701	**Report Date:**	02/16/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408247
Project Number:	100963701	**Report Date:**	02/16/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 7

Date Rec'd in Lab: 2/15/24

ALPHA Job #: L2408247

Client Information
Client: Langan
Address: 300 Kimball Dr.
Parsippany NJ, 07054
Phone: 973-560-4900
Fax:
Email: asandve@langan.com

Project Information
Project Name: 1487 First Ave
Project Location: New York
Project #: 1009 63701
(Use Project name as Project #)
Project Manager: Ashley Sandve
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS
VOC (LT) (LT)

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	Total Bottle
08247-01	LMW-6R-D-54.75	2/13	12:00	~~AQ~~GW	RB	X	
-02	LMW-6R-D-42.75	2/13	12:20	~~AQ~~	RB	X	
-03	LMW-6R-D-32.75	2/13	12:40	AQ	RB	X	
-04	LMW-9R-S-13.75	2/13	1315	~~AQ~~	RB	X	
-05	LMW-10R-S-21.75	2/13	1000	~~AQ~~	RB	X	
-06	LMW-10R-D-40.75	2/13	1045	AQ	RB	X	
-07	LMW-10R-D-30.75	2/13	1120	AQ	RB	X	
-08	LMW-7R-S-6.75	2/13	1415	AQ	RB	X	
-09	LMW-7R-S-16.75	2/13	1510	AQ	RB	X	
10	LMW-7R-D-22.75	2/13	1525	AQ	RB	X	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
(Langan)	2/14/2024 16:37		
	2/14/24 1830		2/14/24 18:51
	2/14/24		2/14 22:00
	2/14 22:00		2/15/24 0030

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-9288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 2/15/24

ALPHA Job #: L2408247

Client Information
Client: Langan
Address: 300 Kimball Dr. Parsippany NJ, 07054
Phone: 973-580-4400
Fax:
Email: asandve@langan.com

Project Information
Project Name: 1487 First Ave
Project Location: New York, NY
Project #: 100963701
(Use Project name as Project #): ☐
Project Manager: Ashley Sandve
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Billing Information
☒ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

VOC, (1), (2)

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	Sample Specific Comments
08247-11	LMW-7R-D_49.75	2/13	15:48	GW	RD	X	
-12	LMW-9R-D_58.25	2/14	14:45	GW	LT	X	
-13	LMW-8R-D_27.75	↓	11:00	↓	↓	X	
-14	LMW-8R-D_59.75		12:00			X	
-15	LMW-8R-S_6.75		12:30			X	
-16	DUP01_021424		12:40			X	
-17	LMW-8R-S_18.75		13:00			X	
-18	LMW-6R-S_18.75		9:45	↓	↓	X	volume for MS/MSD
-19	TB01_021424	↓	—		—	X	Trip Blank

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
(Langan)	2/14/2024 16:57	Tyler McGowan	2/14/24 17:00
Tyler McGowan	2/14/2024 18:00		2/14/24 18:55
	2/14/24		2/14 22:00
	2/15 01:30		2/15/24 0030

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2408532
Client:	Langan Engineering & Environmental 300 Kimball Drive 4th Floor Parsippany, NJ 07054
ATTN:	Ashley Sandve
Phone:	(973) 560-4871
Project Name:	1487 FIRST AVE
Project Number:	100963701
Report Date:	02/27/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2408532-01	TB02_02152024	WATER	NEW YORK, NY	02/15/24 00:00	02/15/24
L2408532-02	LMW-8R-S_6.75	WATER	NEW YORK, NY	02/15/24 13:00	02/15/24
L2408532-03	LMW-9R-D_58.25	WATER	NEW YORK, NY	02/14/24 17:00	02/15/24
L2408532-04	LMW-7R-S_16.75	WATER	NEW YORK, NY	02/15/24 11:00	02/15/24
L2408532-05	FB01_02152024	WATER	NEW YORK, NY	02/15/24 16:15	02/15/24

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408532
Project Number:	100963701	**Report Date:**	02/27/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408532
Project Number:	100963701	**Report Date:**	02/27/24

Case Narrative (continued)

Report Submission

February 27, 2024: This final report includes the results of all requested analyses.

February 26, 2024: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analyses of Dehalococcoides and Total Eubacteria were subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Sample Receipt

The analyses performed were specified by the client.

L2408532-02, -03, and -05: Headspace was noted in the sample containers submitted for Total Alkalinity - SM 2320. The analysis was performed at the client's request.

Dissolved Organic Carbon

L2408532-02 through -05: The sample was filtered with the method required holding time exceeded.

L2408532-03: The DOC result is greater than the TOC result due to the filtering procedure required by the DOC method.

L2408532-04: The sample has an elevated detection limit due to the dilution required by the sample matrix.

Total Organic Carbon

L2408532-04: The sample has an elevated detection limit due to the dilution required by the sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 02/27/24

METALS

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-02
Client ID: LMW-8R-S_6.75
Sample Location: NEW YORK, NY
Date Collected: 02/15/24 13:00
Date Received: 02/15/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Calcium, Total	127.		mg/l	0.100	0.0394	1	02/17/24 08:16	02/19/24 13:41	EPA 3005A	1,6020B	EJF
Iron, Total	8.33		mg/l	0.0500	0.0191	1	02/17/24 08:16	02/19/24 13:41	EPA 3005A	1,6020B	EJF
Magnesium, Total	19.9		mg/l	0.0700	0.0242	1	02/17/24 08:16	02/19/24 13:41	EPA 3005A	1,6020B	EJF
Manganese, Total	0.6621		mg/l	0.00100	0.00044	1	02/17/24 08:16	02/19/24 13:41	EPA 3005A	1,6020B	EJF
Total Hardness (by calculation) - Mansfield Lab											
Hardness	398.9		mg/l	0.5400	NA	1	02/17/24 08:16	02/19/24 13:41	EPA 3005A	1,6020B	EJF

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-03
Client ID: LMW-9R-D_58.25
Sample Location: NEW YORK, NY
Sample Depth:
Matrix: Water

Date Collected: 02/14/24 17:00
Date Received: 02/15/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Calcium, Total	148.		mg/l	0.100	0.0394	1	02/17/24 08:16	02/19/24 13:45	EPA 3005A	1,6020B	EJF
Iron, Total	16.7		mg/l	0.0500	0.0191	1	02/17/24 08:16	02/19/24 13:45	EPA 3005A	1,6020B	EJF
Magnesium, Total	26.4		mg/l	0.0700	0.0242	1	02/17/24 08:16	02/19/24 13:45	EPA 3005A	1,6020B	EJF
Manganese, Total	0.7859		mg/l	0.00100	0.00044	1	02/17/24 08:16	02/19/24 13:45	EPA 3005A	1,6020B	EJF
Total Hardness (by calculation) - Mansfield Lab											
Hardness	478.1		mg/l	0.5400	NA	1	02/17/24 08:16	02/19/24 13:45	EPA 3005A	1,6020B	EJF

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-04
Client ID: LMW-7R-S_16.75
Sample Location: NEW YORK, NY
Date Collected: 02/15/24 11:00
Date Received: 02/15/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Calcium, Total	371.		mg/l	1.00	0.394	10	02/17/24 08:16	02/19/24 20:27	EPA 3005A	1,6020B	WKP
Iron, Total	88.2		mg/l	0.0500	0.0191	1	02/17/24 08:16	02/19/24 13:50	EPA 3005A	1,6020B	EJF
Magnesium, Total	118.		mg/l	0.700	0.242	10	02/17/24 08:16	02/19/24 20:27	EPA 3005A	1,6020B	WKP
Manganese, Total	6.149		mg/l	0.1000	0.04400	100	02/17/24 08:16	02/19/24 20:51	EPA 3005A	1,6020B	WKP
Total Hardness (by calculation) - Mansfield Lab											
Hardness	1413.		mg/l	5.400	NA	10	02/17/24 08:16	02/19/24 20:27	EPA 3005A	1,6020B	WKP

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-05
Client ID: FB01_02152024
Sample Location: NEW YORK, NY
Date Collected: 02/15/24 16:15
Date Received: 02/15/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Calcium, Total	0.0970	J	mg/l	0.100	0.0394	1	02/17/24 08:16	02/19/24 13:36	EPA 3005A	1,6020B	EJF
Iron, Total	ND		mg/l	0.0500	0.0191	1	02/17/24 08:16	02/19/24 13:36	EPA 3005A	1,6020B	EJF
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	02/17/24 08:16	02/19/24 13:36	EPA 3005A	1,6020B	EJF
Manganese, Total	0.00066	J	mg/l	0.00100	0.00044	1	02/17/24 08:16	02/19/24 13:36	EPA 3005A	1,6020B	EJF
Total Hardness (by calculation) - Mansfield Lab											
Hardness	ND		mg/l	0.5400	NA	1	02/17/24 08:16	02/19/24 13:36	EPA 3005A	1,6020B	EJF

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408532
Report Date: 02/27/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02-05 Batch: WG1886150-1										
Calcium, Total	ND		mg/l	0.100	0.0394	1	02/17/24 08:16	02/19/24 11:01	1,6020B	EJF
Iron, Total	ND		mg/l	0.0500	0.0191	1	02/17/24 08:16	02/19/24 11:01	1,6020B	EJF
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	02/17/24 08:16	02/19/24 11:01	1,6020B	EJF
Manganese, Total	ND		mg/l	0.00100	0.00044	1	02/17/24 08:16	02/19/24 11:01	1,6020B	EJF

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 02-05 Batch: WG1886150-1										
Hardness	ND		mg/l	0.5400	NA	1	02/17/24 08:16	02/19/24 11:01	1,6020B	EJF

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408532

Report Date: 02/27/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02-05 Batch: WG1886150-2								
Calcium, Total	80		-		80-120	-		
Iron, Total	110		-		80-120	-		
Magnesium, Total	99		-		80-120	-		
Manganese, Total	102		-		80-120	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 02-05 Batch: WG1886150-2								
Hardness	92		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02-05 QC Batch ID: WG1886150-3 QC Sample: L2408462-01 Client ID: MS Sample												
Calcium, Total	67.6	10	74.7	**71**	Q	-	-		75-125	-		20
Iron, Total	0.501	1	1.50	100		-	-		75-125	-		20
Magnesium, Total	8.15	10	17.3	92		-	-		75-125	-		20
Manganese, Total	6.576	0.5	7.415	**168**	Q	-	-		75-125	-		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 02-05 QC Batch ID: WG1886150-3 QC Sample: L2408462-01 Client ID: MS Sample												
Hardness	202.4	66.2	257.9	84		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408532

Report Date: 02/27/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02-05 QC Batch ID: WG1886150-4 QC Sample: L2408462-01 Client ID: DUP Sample						
Iron, Total	0.501	0.527	mg/l	5		20

INORGANICS
&
MISCELLANEOUS

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-02
Client ID: LMW-8R-S_6.75
Sample Location: NEW YORK, NY

Date Collected: 02/15/24 13:00
Date Received: 02/15/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	260.		mg CaCO3/L	2.00	NA	1	-	02/19/24 10:24	121,2320B	MKT
Chloride	410		mg/l	10	8.9	10	-	02/19/24 21:19	121,4500CL-E	TLH
Nitrogen, Nitrate	0.164		mg/l	0.100	0.022	1	-	02/16/24 08:00	121,4500NO3-F	KAF
Sulfate	30.		mg/l	10	1.4	1	02/21/24 15:40	02/21/24 15:40	1,9038	MRW
Total Organic Carbon	6.7		mg/l	2.0	0.39	4	-	02/20/24 03:24	1,9060A	DEW
Dissolved Organic Carbon	6.6		mg/l	4.0	0.17	4	02/20/24 07:40	02/20/24 11:39	1,9060A	DEW

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-03
Client ID: LMW-9R-D_58.25
Sample Location: NEW YORK, NY

Date Collected: 02/14/24 17:00
Date Received: 02/15/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	272.		mg CaCO3/L	2.00	NA	1	-	02/19/24 10:24	121,2320B	MKT
Chloride	230		mg/l	10	8.9	10	-	02/19/24 21:43	121,4500CL-E	TLH
Nitrogen, Nitrate	ND		mg/l	0.100	0.022	1	-	02/16/24 08:01	121,4500NO3-F	KAF
Sulfate	1.5	J	mg/l	10	1.4	1	02/21/24 15:40	02/21/24 15:40	1,9038	MRW
Total Organic Carbon	2.1		mg/l	0.50	0.09	1	-	02/20/24 03:24	1,9060A	DEW
Dissolved Organic Carbon	3.9		mg/l	2.0	0.08	2	02/20/24 07:40	02/20/24 11:39	1,9060A	DEW

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-04
Client ID: LMW-7R-S_16.75
Sample Location: NEW YORK, NY

Date Collected: 02/15/24 11:00
Date Received: 02/15/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	166.		mg CaCO3/L	2.00	NA	1	-	02/19/24 10:24	121,2320B	MKT
Chloride	1200		mg/l	100	89.	100	-	02/19/24 22:15	121,4500CL-E	TLH
Nitrogen, Nitrate	0.117		mg/l	0.100	0.022	1	-	02/16/24 08:17	121,4500NO3-F	KAF
Sulfate	150		mg/l	100	14.	10	02/21/24 15:40	02/21/24 15:40	1,9038	MRW
Total Organic Carbon	0.72	J	mg/l	1.0	0.19	2	-	02/20/24 03:24	1,9060A	DEW
Dissolved Organic Carbon	0.80	J	mg/l	2.0	0.08	2	02/20/24 07:40	02/20/24 11:39	1,9060A	DEW

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

SAMPLE RESULTS

Lab ID: L2408532-05
Client ID: FB01_02152024
Sample Location: NEW YORK, NY

Date Collected: 02/15/24 16:15
Date Received: 02/15/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	02/19/24 10:24	121,2320B	MKT
Chloride	ND		mg/l	1.0	0.89	1	-	02/19/24 22:15	121,4500CL-E	TLH
Nitrogen, Nitrate	ND		mg/l	0.100	0.022	1	-	02/16/24 08:03	121,4500NO3-F	KAF
Sulfate	1.7	J	mg/l	10	1.4	1	02/21/24 15:40	02/21/24 15:40	1,9038	MRW
Total Organic Carbon	0.17	J	mg/l	0.50	0.09	1	-	02/20/24 03:24	1,9060A	DEW
Dissolved Organic Carbon	0.24	J	mg/l	1.0	0.04	1	02/20/24 07:40	02/20/24 11:39	1,9060A	DEW

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408532
Report Date: 02/27/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 02-05 Batch: WG1885813-1										
Nitrogen, Nitrate	ND		mg/l	0.100	0.022	1	-	02/16/24 03:07	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 02-05 Batch: WG1886895-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	02/19/24 10:24	121,2320B	MKT
General Chemistry - Westborough Lab for sample(s): 02-05 Batch: WG1886968-1										
Chloride	ND		mg/l	1.0	0.89	1	-	02/19/24 20:59	121,4500CL-E	TLH
General Chemistry - Westborough Lab for sample(s): 02-05 Batch: WG1887039-1										
Total Organic Carbon	ND		mg/l	0.50	0.09	1	-	02/20/24 03:24	1,9060A	DEW
General Chemistry - Westborough Lab for sample(s): 02-05 Batch: WG1887040-1										
Dissolved Organic Carbon	0.05	J	mg/l	1.0	0.04	1	-	02/20/24 03:24	1,9060A	DEW
General Chemistry - Westborough Lab for sample(s): 02-05 Batch: WG1887773-1										
Sulfate	1.6	J	mg/l	10	1.4	1	02/21/24 15:40	02/21/24 15:40	1,9038	MRW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408532

Report Date: 02/27/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-05 Batch: WG1885813-2								
Nitrogen, Nitrate	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02-05 Batch: WG1886895-2								
Alkalinity, Total	106		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 02-05 Batch: WG1886968-2								
Chloride	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02-05 Batch: WG1887039-2								
Total Organic Carbon	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02-05 Batch: WG1887040-2								
Dissolved Organic Carbon	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02-05 Batch: WG1887773-2								
Sulfate	100		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1885813-4 QC Sample: L2408390-01 Client ID: MS Sample												
Nitrogen, Nitrate	1.70	4	5.64	98		-	-		83-113	-		17
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1886895-4 QC Sample: L2408656-01 Client ID: MS Sample												
Alkalinity, Total	145.	100	163	**18**	Q	-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1886968-4 QC Sample: L2408532-02 Client ID: LMW-8R-S_6.75												
Chloride	410	20	430	100		-	-		58-140	-		7
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1887039-4 QC Sample: L2408532-02 Client ID: LMW-8R-S_6.75												
Total Organic Carbon	6.7	40	47	102		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1887040-4 QC Sample: L2408838-01 Client ID: MS Sample												
Dissolved Organic Carbon	14.	80	100	110		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1887773-4 QC Sample: L2408651-01 Client ID: MS Sample												
Sulfate	140	200	350	106		-	-		55-147	-		14

Lab Duplicate Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1885813-3 QC Sample: L2408390-01 Client ID: DUP Sample						
Nitrogen, Nitrate	1.70	1.70	mg/l	0		17
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1886895-3 QC Sample: L2408656-01 Client ID: DUP Sample						
Alkalinity, Total	145.	145	mg CaCO3/L	0		10
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1886968-3 QC Sample: L2408532-02 Client ID: LMW-8R-S_6.75						
Chloride	410	400	mg/l	2		7
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1887039-3 QC Sample: L2408532-02 Client ID: LMW-8R-S_6.75						
Total Organic Carbon	6.7	6.6	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1887040-3 QC Sample: L2408838-01 Client ID: DUP Sample						
Dissolved Organic Carbon	14.	14	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG1887773-3 QC Sample: L2408651-01 Client ID: DUP Sample						
Sulfate	140	150	mg/l	7		14

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408532-01A	Vial HCl preserved	A	NA		2.1	Y	Absent		HOLD-8260(14)
L2408532-01B	Vial HCl preserved	A	NA		2.1	Y	Absent		HOLD-8260(14)
L2408532-02A	Vial unpreserved	B	NA		2.0	Y	Absent		HOLD-8260(14)
L2408532-02B	Vial unpreserved	B	NA		2.0	Y	Absent		HOLD-8260(14)
L2408532-02C	Vial unpreserved	B	NA		2.0	Y	Absent		FILTER(1)
L2408532-02D	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-02E	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-02F	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-02G	Plastic 250ml unpreserved/No Headspace	B	NA		2.0	Y	Absent		ALK-T-2320(14)
L2408532-02H	Plastic 250ml unpreserved	B	7	7	2.0	Y	Absent		SO4-9038(28),CL-4500(28),NO3-4500(2)
L2408532-02I	Plastic 250ml HNO3 preserved	B	<2	<2	2.0	Y	Absent		FE-6020T(180),CA-6020T(180),MN-6020T(180),MG-6020T(180),HARDT-6020(180)
L2408532-02X	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-02Y	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-02Z	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-03A	Vial unpreserved	B	NA		2.0	Y	Absent		HOLD-8260(14)
L2408532-03B	Vial unpreserved	B	NA		2.0	Y	Absent		HOLD-8260(14)
L2408532-03C	Vial unpreserved	B	NA		2.0	Y	Absent		FILTER(1)
L2408532-03D	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-03E	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-03F	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-03G	Plastic 250ml unpreserved/No Headspace	B	NA		2.0	Y	Absent		ALK-T-2320(14)
L2408532-03H	Plastic 250ml unpreserved	B	7	7	2.0	Y	Absent		SO4-9038(28),CL-4500(28),NO3-4500(2)

*Values in parentheses indicate holding time in days

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408532-03I	Plastic 250ml HNO3 preserved	B	<2	<2	2.0	Y	Absent		FE-6020T(180),CA-6020T(180),MN-6020T(180),HARDT-6020(180),MG-6020T(180)
L2408532-03X	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-03Y	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-03Z	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-04A	Vial unpreserved	B	NA		2.0	Y	Absent		HOLD-8260(14)
L2408532-04B	Vial unpreserved	B	NA		2.0	Y	Absent		HOLD-8260(14)
L2408532-04C	Vial unpreserved	B	NA		2.0	Y	Absent		FILTER(1)
L2408532-04D	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-04E	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-04F	Vial H2SO4 preserved	B	NA		2.0	Y	Absent		TOC-9060(28)
L2408532-04G	Plastic 250ml unpreserved/No Headspace	B	NA		2.0	Y	Absent		ALK-T-2320(14)
L2408532-04H	Plastic 250ml unpreserved	B	7	7	2.0	Y	Absent		SO4-9038(28),CL-4500(28),NO3-4500(2)
L2408532-04I	Plastic 250ml HNO3 preserved	B	<2	<2	2.0	Y	Absent		FE-6020T(180),CA-6020T(180),MN-6020T(180),MG-6020T(180),HARDT-6020(180)
L2408532-04X	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-04Y	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-04Z	Vial H2SO4 preserved Filtrates	B	NA		2.0	Y	Absent		DOC-9060(28)
L2408532-05A	Vial unpreserved	A	NA		2.1	Y	Absent		FILTER(1)
L2408532-05B	Vial unpreserved	A	NA		2.1	Y	Absent		FILTER(1)
L2408532-05C	Vial unpreserved	A	NA		2.1	Y	Absent		FILTER(1)
L2408532-05D	Vial HCl preserved	A	NA		2.1	Y	Absent		HOLD-8260(14)
L2408532-05E	Vial HCl preserved	A	NA		2.1	Y	Absent		HOLD-8260(14)
L2408532-05F	Vial HCl preserved	A	NA		2.1	Y	Absent		HOLD-8260(14)
L2408532-05G	Vial H2SO4 preserved	A	NA		2.1	Y	Absent		TOC-9060(28)
L2408532-05H	Vial H2SO4 preserved	A	NA		2.1	Y	Absent		TOC-9060(28)
L2408532-05I	Vial H2SO4 preserved	A	NA		2.1	Y	Absent		TOC-9060(28)
L2408532-05J	Plastic 250ml unpreserved/No Headspace	A	NA		2.1	Y	Absent		ALK-T-2320(14)
L2408532-05K	Plastic 250ml unpreserved	A	7	7	2.1	Y	Absent		SO4-9038(28),CL-4500(28),NO3-4500(2)

*Values in parentheses indicate holding time in days

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408532
Report Date: 02/27/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408532-05L	Plastic 250ml HNO3 preserved	A	<2	<2	2.1	Y	Absent		FE-6020T(180),CA-6020T(180),MN-6020T(180),MG-6020T(180),HARDT-6020(180)
L2408532-05X	Vial H2SO4 preserved Filtrates	A	NA		2.1	Y	Absent		DOC-9060(28)
L2408532-05Y	Vial H2SO4 preserved Filtrates	A	NA		2.1	Y	Absent		DOC-9060(28)
L2408532-05Z	Vial H2SO4 preserved Filtrates	A	NA		2.1	Y	Absent		DOC-9060(28)
L2408532-06A	Vial HCl preserved	A	NA		2.1	Y	Absent		-
L2408532-06B	Vial HCl preserved	A	NA		2.1	Y	Absent		-
L2408532-06C	Vial HCl preserved	A	NA		2.1	Y	Absent		-
L2408532-06D	Plastic 250ml HNO3 preserved	A	<2	<2	2.1	Y	Absent		-
L2408532-06E	Amber 120ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06F	Amber 120ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06G	Amber 120ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06H	Amber 120ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06I	Amber 250ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06J	Amber 250ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06K	Amber 1000ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06L	Amber 1000ml unpreserved	A	7	7	2.1	Y	Absent		-
L2408532-06M	Amber 1000ml HCl preserved	A	<2	<2	2.1	Y	Absent		-
L2408532-06N	Amber 1000ml HCl preserved	A	<2	<2	2.1	Y	Absent		-

*Values in parentheses indicate holding time in days

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408532
Project Number:	100963701	**Report Date:**	02/27/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

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Project Number:	100963701	**Report Date:**	02/27/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408532
Project Number:	100963701	**Report Date:**	02/27/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 2/16/24

ALPHA Job #: L2408532

Client Information
Client: Langan
Address: 300 Kimball Dr. Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: a.sandve@langan.com

Project Information
Project Name: 1487 First Ave
Project Location: New York NY
Project #: 100963701
(Use Project name as Project #)
Project Manager: Ashley Sandve
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: 8260-T-3300	TOC	SO4, Cl, NO3	DOC	Total Metals	Sub Diss/EBAC	VOCs-8260	Total Bottles	Sample Specific Comments
08532-01	TB02-02152024	2/15/24	—	AQ	—	X	X	X	X	X	X	X		Samples with Diss/EBAC
02	LMW-8R-S_6.75	2/15/24	1300	AQ	RB	X	X	X	X	X	X	X		
03	LMW-9R-D_58.25	2/14/24	1700	AQ	LT	X	X	X	X	X	X	X		Send directly to Microbial Insights
04	LMW-7R-S-16.75	2/15/24	1100	AQ	RB	X	X	X	X	X	X	X		
	~~FB01-02152024~~	~~2/15/24~~	~~—~~	~~AQ~~	~~RB~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	RB	
05	FB01-02152024	2/16/24	1615	AQ	RB	X	X	X	X	X	X	X		

RB

Preservative Code: A = None; B = HCl; C = HNO_3; D = H_2SO_4; E = NaOH; F = MeOH; G = $NaHSO_4$; H = $Na_2S_2O_3$; K/E = Zn Ac/NaOH; O = Other

Container Code: P = Plastic; A = Amber Glass; V = Vial; G = Glass; B = Bacteria Cup; C = Cube; O = Other; E = Encore; D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	2/15/24 1640	MBN	2/15 4:40
	2/15 19:45	Anthony Green	FEB 15 2024 2247
Anthony Green	2/16/24 0025		2/16/24 0025
	2/16/24 0220		2/16/24 0220

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

microbialinsights
10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

ilac-MRA
ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17025
TESTING LABORATORY

Client: Ben Rao
Pace Analytical (Formerly AlphaLab)
8 Walkup Dr
Westborough, MA 01581

Phone: 201-812-2633

Fax:

Identifier: 068VB **Date Rec:** 02/16/2024 **Report Date:** 02/27/2024

Client Project #: 100963701 **Client Project Name:** 1487 First Ave

Purchase Order #: L2408532

Test results provided for: CENSUS

Reviewed By:

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Pace Analytical (Formerly AlphaLab)**
Project: 1487 First Ave

MI Project Number: **068VB**
Date Received: 02/16/2024

Sample Information

Client Sample ID:		**LMW-8R-S_6.75**	**LMW-9R-D_58.25**	**LMW-7R-S_16.75**	**FB01_02152024**
Sample Date:		02/15/2024	02/15/2024	02/15/2024	02/15/2024
Units:		cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		AR/SK	AR/SK	AR/SK	AR/SK
Dechlorinating Bacteria					
Dehalococcoides	*DHC*	**1.80E+03**	**9.10E+03**	**4.40E+03**	**1.40E+00**
Phylogenetic Group					
Total Eubacteria	EBAC	**1.75E+07**	**1.44E+07**	**2.13E+07**	**1.50E+02**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **2/16/2024**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	02/16/2024	02/27/2024	0 °C	102%	non-detect	non-detect
EBAC	02/16/2024	02/27/2024	0 °C	97%	non-detect	non-detect

ANALYTICAL REPORT

Lab Number:	L2408838
Client:	Langan Engineering & Environmental 300 Kimball Drive 4th Floor Parsippany, NJ 07054
ATTN:	Ashley Sandve
Phone:	(973) 560-4871
Project Name:	1487 FIRST AVE
Project Number:	100963701
Report Date:	02/26/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408838
Report Date: 02/26/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2408838-01	LMW-6R-S_18.75	WATER	NEW YORK, NY	02/15/24 17:00	02/16/24
L2408838-02	LMW-10R-D_40.75	WATER	NEW YORK, NY	02/16/24 10:00	02/16/24
L2408838-03	TB03_02162024	WATER	NEW YORK, NY	02/16/24 00:00	02/16/24

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408838
Project Number:	100963701	**Report Date:**	02/26/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408838
Project Number:	100963701	**Report Date:**	02/26/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analyses of Dehalococcoides and Total Eubacteria were subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Sample Receipt

The analyses performed were specified by the client.

L2408838-02: Headspace was noted in the sample container submitted for Total Alkalinity - SM 2320. The analysis was performed at the client's request.

L2408838-03: A Trip Blank was received, but not listed on the Chain of Custody. At the client's request, this sample was not analyzed. The Client ID is reported as "TB03_02162024".

Dissolved Organic Carbon

L2408838-01 and -02: The sample was filtered with the method required holding time exceeded.

L2408838-02: The DOC result is greater than the TOC result due to the filtering procedure required by the DOC method.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 02/26/24

METALS

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408838
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408838-01
Client ID: LMW-6R-S_18.75
Sample Location: NEW YORK, NY
Sample Depth:
Matrix: Water

Date Collected: 02/15/24 17:00
Date Received: 02/16/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Calcium, Total	133.		mg/l	1.00	0.394	10	02/20/24 10:54	02/23/24 08:40	EPA 3005A	1,6020B	EJF
Iron, Total	25.7		mg/l	0.0500	0.0191	1	02/20/24 10:54	02/23/24 08:17	EPA 3005A	1,6020B	EJF
Magnesium, Total	19.2		mg/l	0.700	0.242	10	02/20/24 10:54	02/23/24 08:40	EPA 3005A	1,6020B	EJF
Manganese, Total	0.6660		mg/l	0.00100	0.00044	1	02/20/24 10:54	02/23/24 08:17	EPA 3005A	1,6020B	EJF
Total Hardness (by calculation) - Mansfield Lab											
Hardness	411.5		mg/l	5.400	NA	10	02/20/24 10:54	02/23/24 08:40	EPA 3005A	1,6020B	EJF

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408838
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408838-02
Client ID: LMW-10R-D_40.75
Sample Location: NEW YORK, NY
Sample Depth:
Matrix: Water

Date Collected: 02/16/24 10:00
Date Received: 02/16/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Calcium, Total	153.		mg/l	1.00	0.394	10	02/20/24 10:54	02/23/24 08:45	EPA 3005A	1,6020B	EJF
Iron, Total	15.2		mg/l	0.0500	0.0191	1	02/20/24 10:54	02/23/24 08:22	EPA 3005A	1,6020B	EJF
Magnesium, Total	27.2		mg/l	0.700	0.242	10	02/20/24 10:54	02/23/24 08:45	EPA 3005A	1,6020B	EJF
Manganese, Total	0.7028		mg/l	0.00100	0.00044	1	02/20/24 10:54	02/23/24 08:22	EPA 3005A	1,6020B	EJF
Total Hardness (by calculation) - Mansfield Lab											
Hardness	493.8		mg/l	5.400	NA	10	02/20/24 10:54	02/23/24 08:45	EPA 3005A	1,6020B	EJF

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408838
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1886950-1										
Calcium, Total	ND		mg/l	0.100	0.0394	1	02/20/24 10:54	02/23/24 06:18	1,6020B	EJF
Iron, Total	ND		mg/l	0.0500	0.0191	1	02/20/24 10:54	02/23/24 06:18	1,6020B	EJF
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	02/20/24 10:54	02/23/24 06:18	1,6020B	EJF
Manganese, Total	ND		mg/l	0.00100	0.00044	1	02/20/24 10:54	02/23/24 06:18	1,6020B	EJF

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 01-02 Batch: WG1886950-1										
Hardness	ND		mg/l	0.5400	NA	1	02/20/24 10:54	02/23/24 06:18	1,6020B	EJF

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408838

Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1886950-2								
Calcium, Total	106		-		80-120	-		
Iron, Total	105		-		80-120	-		
Magnesium, Total	106		-		80-120	-		
Manganese, Total	104		-		80-120	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-02 Batch: WG1886950-2								
Hardness	106		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408838
Report Date: 02/26/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1886950-3 WG1886950-4 QC Sample: L2408684-01 Client ID: MS Sample												
Calcium, Total	195	10	222	**270**	Q	225	**300**	Q	75-125	1		20
Iron, Total	10.9	1	12.7	**180**	Q	12.9	**200**	Q	75-125	2		20
Magnesium, Total	27.5	10	39.2	117		39.5	120		75-125	1		20
Manganese, Total	1.101	0.5	1.661	124		1.704	**133**	Q	75-125	3		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1886950-3 WG1886950-4 QC Sample: L2408684-01 Client ID: MS Sample												
Hardness	600.6	66.2	716.0	**174**	Q	724.7	**188**	Q	75-125	1		20

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2408838
Report Date: 02/26/24

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1886950-6 QC Sample: L2408684-01 Client ID: DUP Sample						
Iron, Total	10.9	11.2	mg/l	3		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1886950-6 QC Sample: L2408684-01 Client ID: DUP Sample						
Manganese, Total	1.101	1.114	mg/l	1		20

INORGANICS
&
MISCELLANEOUS

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408838
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408838-01
Client ID: LMW-6R-S_18.75
Sample Location: NEW YORK, NY

Date Collected: 02/15/24 17:00
Date Received: 02/16/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	494.		mg CaCO3/L	4.00	NA	2	-	02/19/24 10:24	121,2320B	MKT
Chloride	180		mg/l	10	8.9	10	-	02/20/24 22:12	121,4500CL-E	TLH
Nitrogen, Nitrate	0.100		mg/l	0.100	0.022	1	-	02/17/24 05:29	121,4500NO3-F	MRM
Sulfate	3.5	J	mg/l	10	1.4	1	02/22/24 12:30	02/22/24 12:30	1,9038	MRW
Total Organic Carbon	15.		mg/l	5.0	0.97	10	-	02/20/24 03:24	1,9060A	DEW
Dissolved Organic Carbon	14.		mg/l	10	0.43	10	02/17/24 11:49	02/20/24 03:24	1,9060A	DEW

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408838
Report Date: 02/26/24

SAMPLE RESULTS

Lab ID: L2408838-02
Client ID: LMW-10R-D_40.75
Sample Location: NEW YORK, NY

Date Collected: 02/16/24 10:00
Date Received: 02/16/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	335.		mg CaCO3/L	2.00	NA	1	-	02/19/24 10:24	121,2320B	MKT
Chloride	160		mg/l	10	8.9	10	-	02/20/24 22:14	121,4500CL-E	TLH
Nitrogen, Nitrate	0.063	J	mg/l	0.100	0.022	1	-	02/17/24 05:31	121,4500NO3-F	MRM
Sulfate	11.		mg/l	10	1.4	1	02/22/24 12:30	02/22/24 12:30	1,9038	MRW
Total Organic Carbon	3.2		mg/l	1.0	0.19	2	-	02/20/24 03:24	1,9060A	DEW
Dissolved Organic Carbon	3.4		mg/l	2.0	0.08	2	02/17/24 11:49	02/20/24 03:24	1,9060A	DEW

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2408838
Report Date: 02/26/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1886245-1										
Nitrogen, Nitrate	ND		mg/l	0.100	0.022	1	-	02/17/24 03:54	121,4500NO3-F	MRM
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1886895-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	02/19/24 10:24	121,2320B	MKT
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1887039-1										
Total Organic Carbon	ND		mg/l	0.50	0.09	1	-	02/20/24 03:24	1,9060A	DEW
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1887040-1										
Dissolved Organic Carbon	0.05	J	mg/l	1.0	0.04	1	-	02/20/24 03:24	1,9060A	DEW
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1887354-1										
Chloride	ND		mg/l	1.0	0.89	1	-	02/20/24 20:21	121,4500CL-E	TLH
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1888130-1										
Sulfate	ND		mg/l	10	1.4	1	02/22/24 12:30	02/22/24 12:30	1,9038	MRW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408838

Report Date: 02/26/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1886245-2								
Nitrogen, Nitrate	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1886895-2								
Alkalinity, Total	106		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1887039-2								
Total Organic Carbon	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1887040-2								
Dissolved Organic Carbon	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1887354-2								
Chloride	93		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1888130-2								
Sulfate	100		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408838
Report Date: 02/26/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1886245-4 QC Sample: L2408656-01 Client ID: MS Sample												
Nitrogen, Nitrate	2.48	4	6.36	97		-	-		83-113	-		17
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1886895-4 QC Sample: L2408656-01 Client ID: MS Sample												
Alkalinity, Total	145.	100	163	**18**	Q	-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1887039-4 QC Sample: L2408532-02 Client ID: MS Sample												
Total Organic Carbon	6.7	40	47	102		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1887040-4 QC Sample: L2408838-01 Client ID: LMW-6R-S_18.75												
Dissolved Organic Carbon	14.	80	100	110		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1887354-4 QC Sample: L2408651-01 Client ID: MS Sample												
Chloride	420	20	420	**0**	Q	-	-		58-140	-		7
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1888130-4 QC Sample: L2408651-07 Client ID: MS Sample												
Sulfate	51.	100	150	102		-	-		55-147	-		14

Lab Duplicate Analysis

Batch Quality Control

Project Name: 1487 FIRST AVE

Project Number: 100963701

Lab Number: L2408838

Report Date: 02/26/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1886245-3 QC Sample: L2408656-01 Client ID: DUP Sample						
Nitrogen, Nitrate	2.48	2.50	mg/l	1		17
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1886895-3 QC Sample: L2408656-01 Client ID: DUP Sample						
Alkalinity, Total	145.	145	mg CaCO3/L	0		10
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1887039-3 QC Sample: L2408532-02 Client ID: DUP Sample						
Total Organic Carbon	6.7	6.6	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1887040-3 QC Sample: L2408838-01 Client ID: LMW-6R-S_18.75						
Dissolved Organic Carbon	14.	14	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1887354-3 QC Sample: L2408651-01 Client ID: DUP Sample						
Chloride	420	410	mg/l	2		7
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1888130-3 QC Sample: L2408651-07 Client ID: DUP Sample						
Sulfate	51.	50	mg/l	2		14

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408838
Report Date: 02/26/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408838-01A	Vial unpreserved	A	NA		2.0	Y	Absent		HOLD-8260(14)
L2408838-01B	Vial unpreserved	A	NA		2.0	Y	Absent		HOLD-8260(14)
L2408838-01C	Vial unpreserved	A	NA		2.0	Y	Absent		DOC-9060(28),FILTER(1)
L2408838-01D	Vial H2SO4 preserved	A	NA		2.0	Y	Absent		TOC-9060(28)
L2408838-01E	Vial H2SO4 preserved	A	NA		2.0	Y	Absent		TOC-9060(28)
L2408838-01F	Vial H2SO4 preserved	A	NA		2.0	Y	Absent		TOC-9060(28)
L2408838-01G	Plastic 250ml unpreserved/No Headspace	A	NA		2.0	Y	Absent		ALK-T-2320(14)
L2408838-01H	Plastic 250ml unpreserved	A	7	7	2.0	Y	Absent		CL-4500(28),SO4-9038(28),NO3-4500(2)
L2408838-01J	Plastic 250ml HNO3 preserved	A	<2	<2	2.0	Y	Absent		FE-6020T(180),CA-6020T(180),MN-6020T(180),MG-6020T(180),HARDT-6020(180)
L2408838-01Z	Vial H2SO4 preserved Filtrates	A	NA		2.0	Y	Absent		DOC-9060(28)
L2408838-02A	Vial unpreserved	A	NA		2.0	Y	Absent		HOLD-8260(14)
L2408838-02B	Vial unpreserved	A	NA		2.0	Y	Absent		HOLD-8260(14)
L2408838-02C	Vial unpreserved	A	NA		2.0	Y	Absent		DOC-9060(28),FILTER(1)
L2408838-02D	Vial H2SO4 preserved	A	NA		2.0	Y	Absent		TOC-9060(28)
L2408838-02E	Vial H2SO4 preserved	A	NA		2.0	Y	Absent		TOC-9060(28)
L2408838-02F	Vial H2SO4 preserved	A	NA		2.0	Y	Absent		TOC-9060(28)
L2408838-02G	Plastic 250ml unpreserved/No Headspace	A	NA		2.0	Y	Absent		ALK-T-2320(14)
L2408838-02H	Plastic 250ml unpreserved	A	7	7	2.0	Y	Absent		CL-4500(28),SO4-9038(28),NO3-4500(2)
L2408838-02J	Plastic 250ml HNO3 preserved	A	<2	<2	2.0	Y	Absent		FE-6020T(180),CA-6020T(180),MN-6020T(180),HARDT-6020(180),MG-6020T(180)
L2408838-02Z	Vial H2SO4 preserved Filtrates	A	NA		2.0	Y	Absent		DOC-9060(28)
L2408838-03A	Vial HCl preserved	A	NA		2.0	Y	Absent		HOLD-8260(14)
L2408838-03B	Vial HCl preserved	A	NA		2.0	Y	Absent		HOLD-8260(14)

*Values in parentheses indicate holding time in days

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2408838
Report Date: 02/26/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)

*Values in parentheses indicate holding time in days

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408838
Project Number:	100963701	**Report Date:**	02/26/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408838
Project Number:	100963701	**Report Date:**	02/26/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408838
Project Number:	100963701	**Report Date:**	02/26/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	1487 FIRST AVE	**Lab Number:**	L2408838
Project Number:	100963701	**Report Date:**	02/26/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 2/16/24

ALPHA Job #: L2408838

Client Information

Client: Langan
Address: 300 Kimball Drive Parsippany
Phone: 973, 560-4900
Fax:
Email: asandve@langan.com

Project Information

Project Name: 1487 First Ave
Project Location: New York NY
Project #: 100963701
(Use Project name as Project #)
Project Manager: Ashley Sandve
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☑ ASP-B
☐ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other

Billing Information

☒ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Alk-Total 310	TOC	SO4, Cl, NO3	DOC	Total Metals	Sub DHK /EBAC	NYTCL-8260	Sample Specific Comments
08838-01	LMW-6R-S_18.75	2/15	1700	AQ	RB	X	X	X	X	X	X	X	Bottles for DHK
-02	LMW-10R-D_40.75	2/16	1000	AQ	RB	X	X	X	X	X	X	X	EBAC sent to Sub

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code:
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
RB	2/16/24 1642	DM	2/16/24 1643
DM	2/16/24 1643	Paul Mazzella	2/16/24 1643
Paul Mazzella	2/16/24 2240		2/16/24 22:40

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

microbialinsights
10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

ANAB ANSI National Accreditation Board ACCREDITED ISO/IEC 17025 TESTING LABORATORY

Client: Ben Rao
Pace Analytical (Formerly AlphaLab)
8 Walkup Dr
Westborough, MA 01581

Phone: 201-812-2633

Fax:

Identifier: 069VB **Date Rec:** 02/17/2024 **Report Date:** 02/23/2024

Client Project #: 100963701 **Client Project Name:** 1487 First Ave

Purchase Order #: L2408838

Test results provided for: CENSUS

Reviewed By:

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Pace Analytical (Formerly AlphaLab)**
Project: 1487 First Ave

MI Project Number: **069VB**
Date Received: 02/17/2024

Sample Information

Client Sample ID:		**LMW-10R-D_40.75**	**LMW-6R-S_18.75**
Sample Date:		02/16/2024	02/15/2024
Units:		cells/mL	cells/mL
Analyst/Reviewer:		AR/SK	AR/SK
Dechlorinating Bacteria			
Dehalococcoides	*DHC*	**3.50E+03**	**1.40E+03**
Phylogenetic Group			
Total Eubacteria	EBAC	**3.80E+06**	**5.57E+07**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **2/16/2024**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	02/17/2024	02/23/2024	0 °C	102%	non-detect	non-detect
EBAC	02/17/2024	02/23/2024	0 °C	97%	non-detect	non-detect

Samples Received **2/17/2024**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	02/17/2024	02/23/2024	0 °C	102%	non-detect	non-detect
EBAC	02/17/2024	02/23/2024	0 °C	97%	non-detect	non-detect

APPENDIX E

Data Summary Usability Reports

LANGAN

Technical Memorandum

To: Ashley Sandve, Langan Project Engineer

From: Joe Conboy, Langan Senior Staff Chemist

Date: March 4, 2024

Re: Data Usability Summary Report
For 1487 First Avenue Development
February 2024 Groundwater Samples
Langan Project No.: 100963701

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in February 2024 by Langan Engineering and Environmental Services at 1487 First Avenue Development. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs), metals & total hardness, sulfate, total organic carbon (TOC) & dissolved organic carbon (DOC), nitrate, total alkalinity and chloride by the methods specified below.

- VOCs by SW-846 Method 8260D
- Metals & Total Hardness by SW-846 Method 6020B
- Sulfate (as SO4) by SW-846 Method 9038
- TOC and DOC by SW-846 Method 9060
- Nitrate (as N) by SM Method 4500NO3F
- Total Alkalinity by SM Method 2320B
- Chloride (as Cl) by SM Method 4500-CL-E

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, level of data validation, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedures (SOPs) for Data Validation
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020)
- USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. Three (3) SDGs underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and our best professional judgment:

- **R –** The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned, these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified because of minor data-quality anomalies are usable, as qualified in Table 2 (attached).

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2408247

The LCS/LCSD for batch WG1885883 exhibited a RPD above the control limit for 4-methyl-2-pentanone (24%). The associated results in samples LMW-6R-D_54.75, LMW-6R-D_42.75, LMW-6R-D_32.75, LMW-9R-S_13.75, LMW-10R-D_40.75, LMW-10R-D_30.75, LMW-7R-S_6.75, LMW-7R-D_23.75, LMW-7R-D_49.75, LMW-9R-D_58.25, LMW-8R-D_27.75, and LMW-8R-D_59.75 are qualified as J or UJ because of potential indeterminate bias.

Sulfate (As SO4) by SW-846 Method 9038

L2408532

The FB (FB01_02152024) exhibited a detection of sulfate (1.7 mg/l). The associated results <10x blank concentration in samples LMW-8R-S_6.75, LMW-9R-D_58.25, and LMW-7R-S_16.75 are qualified as U at the reporting limit because of potential blank contamination.

The MB for batch WG1887773 exhibited a detection of sulfate (1.6 mg/l). The associated results <10x the blank concentration in samples LMW-8R-S_6.75, LMW-9R-D_58.25, and LMW-7R-S_16.75 are qualified as U at the reporting limit because of potential blank contamination.

TOC and DOC by SW-846 Method 9060

L2408532

The FB (FB01_02152024) exhibited detections of dissolved organic carbon (0.24 mg/l) and total organic carbon (0.17 mg/l). The associated results <10x blank concentrations in samples LMW-8R-S_6.75, LMW-9R-D_58.25, and LMW-7R-S_16.75 are qualified as U at the reporting limit because of potential blank contamination.

The MB for batch WG1887040 exhibited a detection of dissolved organic carbon (0.05 mg/l). The associated results <10x the blank concentration in samples LMW-8R-S_6.75, LMW-9R-D_58.25, and LMW-7R-S_16.75 are qualified as U at the reporting limit because of potential blank contamination.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2408247

The LCS and/or LCSD for batch WG1885883 exhibited percent recoveries above the UCL for chloromethane (140%) and vinyl acetate (140%, 160%). The associated results are non-detect. No qualification is necessary.

The MS/MSD performed on sample LMW-6R-S_18.75 exhibited percent recoveries above the UCL for 1,4-dioxane (166%, 178%) and 2-butanone (160%, 170%). Organic results are not qualified on the basis of MS/MSD recoveries alone. No qualification is necessary.

Metals & Total Hardness by SW-846 Method 6020B

L2408532

The FB (FB01_02152024) exhibited detections of total calcium (0.0970 mg/l) and total manganese (0.00066 mg/l). The associated results are >10X the contamination. No qualification is necessary.

TOC and DOC by SW-846 Method 9060

L2408838

The MB for batch WG1887040 exhibited a detection of dissolved organic carbon (0.05 mg/l). The associated results are >10X the contamination. No qualification is necessary.

FIELD DUPLICATES:

Zero field duplicate and parent sample pairs were collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than ±1X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the

RPD is less than or equal to 30% for groundwater. The following field duplicate and parent sample pairs were compared to and met the precision criteria:

- DUP01_021424 and LMW-8R-S_6.75

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Joe Conboy
Senior Staff Chemist

EMULSIFIED ZERO-VALENT IRON REMEDIAL INJECTION AND GROUNDWATER PERFORMANCE MONITORING REPORT

for

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No. C231152

Prepared For:

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15 October 2024

Langan Project No. 100963701

LANGAN

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CERTIFICATION

I, Jessica Friscia, P.E., certify that I am currently a NYS registered professional engineer and that the Emulsified Zero-Valent Iron Remedial Injection and Groundwater Performance Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Jessica Friscia

Signature

10/15/2024

Date

1.0 BACKGROUND

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this Groundwater Performance Monitoring Report & Injection Design for the 1487 1st Avenue Redevelopment Site, New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231152. The Site is an approximately 10,050-square-foot parcel identified as Block 1452, Lot 27 in the Upper East Side neighborhood of Manhattan, New York (the "Site"). A site location plan is provided as Figure 1. A Certificate of Completion for remediation through the BCP was issued on 26 December 2023 and the site is currently undergoing construction for redevelopment as a 35-story mixed-use residential and commercial building with an affordable housing component that will occupy the entirety of the Site footprint. Ongoing groundwater monitoring and remediation is being implemented under the 22 December 2023 NYSDEC-approved Site Management Plan (SMP).

March/April 2023 Injections

Chlorinated volatile organic compounds (CVOCs), including the contaminants of concern (COCs) tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride (VC), and chloroform were detected at concentrations exceeding the NYSDEC Ambient Water Quality Standards and Guidance Values (SGVs) in groundwater samples collected from the eastern portion of the Site during the completion of the Remedial Investigation. The concentrations of PCE and associated breakdown compounds detected in groundwater were indicative of a release that had migrated into bedrock at the site from a former solvent tank. Analytical results from the initial and baseline sampling events are presented in Tables 1 and 2, respectively, and CVOC analytical results from these events are summarized on Figures 2B and 3B.

To address these exceedances, an emulsified zero valent iron (EZVI) injection was proposed in the NYSDEC-approved January 2023 Interim Remedial Measures Work Plan (IRMWP) to achieve reduction in groundwater concentrations of the chlorinated solvents, such that natural attenuation would be supported. The EZVI remedy objectives were to:

- Both chemically reduce and anaerobically degrade the CVOCs;
- Further promote monitored natural attenuation (MNA); and,
- Mitigate potential for off-Site migration of on-Site CVOC-impacted groundwater.

The EZVI injection scope was presented in Langan's 6 March 2023 EZVI Remedial Design, the draft of which was approved by NYSDEC via email correspondence on 27 February 2023. Completion of the EZVI injections in March and April 2023 was documented in the 29 September 2023 EZVI Remedial Injection Report, which was included in the 18 December 2023 Final Engineering Report as Appendix E. A Certificate of Completion was issued for the Site on 26 December 2023.

Post construction bedrock well re-installation was completed between November 2023 and February 2024 and performance monitoring groundwater samples were collected in February 2024, approximately 10 months following the EZVI injections. Performance monitoring groundwater sample analytical results revealed the successful reduction of PCE and TCE by one order of magnitude in the wells that had previously contained the highest concentrations of these compounds during the initial and baseline sampling events, and elimination of PCE and TCE concentrations above the SGVs across the remainder of the treatment area. Concentrations of breakdown products including cis-1,2-DCE and VC were detected during performance monitoring, confirming the ongoing degradation of PCE and TCE.

May 2024 Injections

Based on the February 2024 performance monitoring analytical results, an additional focused injection was proposed in the April 2024 Groundwater Performance Monitoring Report and Injection Design to further address the highest concentrations of PCE and breakdown products remaining in groundwater. The additional injection was conducted at the four specific well intervals where COC concentrations greater than one order of magnitude above the SGV were detected during the February 2024 event. These locations included:

- LMW-7R-S at el 8 to 3 NAVD88 and el -2 to -7 NAVD88 intervals,
- LMW-7R-D at el -9 to -14 NAVD88 interval, and
- LMW-8R-S at el 8 to 3 NAVD88 interval.

EZVI was also injected into LMW-9R-S at el 1 to -5 NAVD88 to treat impacts in LMW-7R-S, as communication was observed between these two wells during the 2023 injection event.

In addition to EZVI injections, additional emulsified vegetable oil (EVO) was added at these five intervals (prior to and/or following the EZVI injection) and also at the following well intervals where only cis-1,2-DCE and/or VC remained above the SGVs:

- LMW-6R-S at el -4 to -9 NAVD88, and
- LMW-8R-D at el -43 to -50 NAVD88.

As shown in Table 3, EVO injection was also proposed at LMW-10R-S at el -9 to -15 NAVD88, but was not completed during the injection event, which will be discussed in further detail in Section 2.5.

Performance monitoring groundwater samples were collected on 12 to 16 August 2024. The analytical results revealed the elimination of PCE and TCE concentrations above the SGVs across the treatment area. Concentrations of breakdown products including cis-1,2-DCE and VC were detected during performance monitoring, confirming the continued degradation of PCE and TCE. Based on observations of reagent in some wells during the performance monitoring event, a small volume of reagent and groundwater was purged from LMW-7R-S at el 8 to 3 NAVD88 and additional anaerobic chase water was injected into LMW-7R-S at el 8 to 3 NAVD88 and el -2 to -7 NAVD88 in September 2024 in accordance with the April 2024 Groundwater Performance Monitoring Report and Injection Design.

The second round of injections, performance monitoring groundwater sample collection and analytical results, and the proposed next steps are discussed in detail below.

2.0 REMEDIAL IMPLEMENTATION

The following tasks were completed as a part of the additional EZVI injection implementation:

- Permit and Notifications;
- Pre-Injection Activities;
- Mobilization and Staging;
- Injection Reagents and Dosages;
- Reagent Mixing, Injections, and Monitoring;
- Health and Safety Requirements; and,
- Post-Injection Groundwater Performance Monitoring Events.

The EZVI reagents were delivered into the subsurface through four out of the ten on-site bedrock wells installed as proposed in the NYSDEC-approved April 2024 Groundwater Performance Monitoring Report and Injection Design. Field implementation modifications from the proposed plan included the final injection volumes and the use of Newman Zone OS™, sourced from RNAS Remediation Products Inc. (Brooklyn Center, MN), in lieu of sodium ascorbate as an oxygen scavenger. Following the post-injection performance monitoring event, additional

anaerobic chase water was injected into one of the on-site bedrock wells in September 2024. All remediation activities were completed between 1 May and 17 May 2024, and on 25 September 2024.

2.1 Permits and Notifications

An underground control notification letter, Inventory of Injection Wells form (USEPA form 7520-16), and a copy of the approved Emulsified Zero Valent Iron Remedial Design were submitted to the USEPA on 12 April 2024, prior to initiation of field activities.

2.2 Pre-Injection Activities

The reagent dosage and volume were calculated based on the February 2024 performance monitoring data. The table summarizing the proposed reagent dosage and volume along with the treatment interval at each injection location is provided in Table 3.

2.3 Mobilization and Staging

Prior to starting the injection activities, Langan and its subcontractors mobilized the necessary equipment and reagents to the Site. Mobilization was completed on 1 May 2024. Reagents and equipment were staged within the central portion of the Site. Remedial reagents including SRS®-ZVI (20%, 4 micron) emulsified vegetable oil (EVO) substrate, 60% SRS®-SD buffered EVO, TSI®-FSS ferrous sulfide solution, TSI-DC® *Dehalococcoides mccartyi*, diammonium phosphate (DAP), yeast extract, and calcium carbonate, sourced from Terra Systems, Inc. (Claymont, DE) were delivered to the site. All injection reagents were stored on-Site within a secured area with secondary containment and appropriate labeling and warning signs.

2.4 Injection Reagents and Dosages

The injection solution for the additional injection event consisted of similar reagents as the previous injection event. The reagents consisted of SRS®-ZVI (20%, 4 micron) emulsified vegetable oil (EVO), 60% SRS®-SD buffered EVO, TSI®-FSS ferrous sulfide solution, nutrients (yeast extract and DAP), and bioaugmentation culture TSI-DC®. Additionally, Newman Zone OS™ was used as an oxygen scavenger in lieu of the previously-proposed sodium ascorbate. Reagent dosages were estimated based upon field data collected during February 2024 groundwater performance sampling event in accordance with NYSDEC-approved October 2023 GSP. The proposed reagent dosages and volumes along with the treatment interval at each injection location is provided **in Table 3.**

2.5 Reagent Mixing, Injections, and Monitoring

The injection event included preparation for the injection of SRS-ZVI® and ferrous sulfide reagent, followed by application of injection mix (calcium carbonate, yeast extract, DAP, and Newman Zone OS™), and injection of undiluted bioaugmentation culture TSI-DC®, at three out of the ten bedrock wells and the application of injection mix and undiluted bioaugmentation culture in four out of the ten bedrock wells. Water sourced from the existing building's water main was used to provide dilution water for injection activities. Injections were completed by Cascade Environmental of Jackson, NJ. The field injection and monitoring logs are provided in Appendix A and the field services contractor report is provided by in Appendix B.

Anaerobic Water: Prior to the injection of remedial reagents, up to 10 gallons of anaerobic water were injected into the selected intervals as a test to confirm the injections through the Westbay system installed in the wells would be successful and to determine the minimum pressures necessary to inject the reagents.

EZVI: SRS-ZVI®, was initially injected without dilution and directly pumped from the reagent tote into the targeted injection intervals. However, multiple attempts were made at LMW-7R-D using this method and maximum pressures were reached without the pump being able to push SRS-ZVI® into the targeted interval. A 2-parts SRS-ZVI® to 1-part anaerobic water dilution was applied to the SRS-ZVI® using deoxygenated water for the remainder of the injection event. Even after the dilution, maximum pressures were reached at LMW-7R-S without the pump being able to push the full proposed volume of SRS-ZVI® into the targeted intervals. As such, a limited injection of SRS-ZVI® was also performed at LMW-9R-S to address LMW-7R-S, as these two wells had communication during the first injection event. SRS-ZVI® injections were thus performed at LMW-7R-S (41 gal), LMW-7R-D (27 gal), LMW-8R-S (37 gal), and LMW-9R-S (9 gal).

The reagent volume injected at each interval is provided is provided in Appendix A.

Application of Injection Mixture: An injection mixture of EVO, calcium carbonate, alkaline buffer, yeast extract, and DAP, was prepared in water that was treated with Newman Zone OS™ reducing reagent. The injection mixture was prepared in small batches and continuously mixed to avoid settling of solids. This mixture was injected prior to or following the EZVI injections at the targeted intervals at LMW-7R-S, LMW-7R-D, and LMW-8R-S, and was also injected at the targeted intervals at LMW-6R-S, LMW-8R-D, and LMW-9R-S. The water quality parameters of the anaerobic water and the volume of reagents injected at each interval are provided in Appendix A.

Application of Bioaugmentation culture TSI-DC®: The bioaugmentation culture was injected without dilution, in-line, before the injection point, to minimize the exposure of the oxygen sensitive microbial culture to air. The volume of bioaugmentation culture applied at each interval is provided in Appendix A.

Injections: The injection mix was applied within the treatment zones using the shallow and deep bedrock wells. The injection locations are shown on Figures 2A and 2B, the design injection intervals are provided in Table 3, and injection logs are provided in Appendix A. Injections at each location were performed through the Westbay systems. The Westbay system intervals include a pump port that can be opened with a specialty open/close tool to allow access to a specific injection interval. The targeted interval was opened with this tool, the tool removed, and the injection manifold attached. The injection reagents were then pumped from the mixing tank or directly from the reagent tote into the well head through the injection manifold. The injection manifold was equipped with ball valves, gate valves, and flow totalizers to regulate and monitor the injection flow. Each injection location was fitted with a well head that was equipped with a pressure gauge and a threaded adaptor to connect to the injection location and Camlock fittings to connect with similarly fitted hoses. One bedrock well was injected at a time.

All reagents were injected at the target injection interval followed by injection of anaerobic chase water, to rinse the injection hoses and push out reagents within the fractures away from the injection location. The volume of the anaerobic chase water used at each interval is provided in Appendix A. Once injections were complete at a treatment interval, the injection manifold was removed, and the Westbay open/close tool was used to close the targeted interval. Next, either the tool was used to open the next targeted interval in that monitoring well and the injection manifold was reattached for injecting regent into that second interval, or the open/close tool and injection manifold were then moved to the next targeted monitoring well. Changes to the injections (reagent volume, treatment intervals, extent of dilution of reagents, and volume of chase water) were made based on field observations. The injection system log provided in Appendix A summarizes the actual volumes of reagents injected and the injection pressures observed. Injection of reagents were not conducted at bedrock well LMW-10R-S due to observations of daylighted EVO at the well while injections were being performed at LMW-7R-S and LMW-8R-S. This observation suggests that well connectivity is present amongst the wells LMW-7R-S, LMW-8R-S, and LMW-10R-S. Similarly, as shown in Appendix A, daylighting of EVO was observed at LMW-9R-D during injections at LMW-9R-S.

Injection monitoring: Water quality parameters (pH, dissolved oxygen, oxidation reduction potential, turbidity, and temperature) were collected at the monitoring wells targeted for injections. Additional groundwater quality monitoring parameters were collected at monitoring wells during injections if the wells were accessible (not sealed to prevent short circuiting through the well casing). Periodically, Langan personnel also collected groundwater via the custom designed Westbay System fixed multi-level monitoring equipment to confirm the presence of injection media in bedrock monitoring wells included in the remedial injection scope. Water quality monitoring data is provided in Appendix A.

Based on field monitoring (Appendix A) and field services report (Appendix B), approximately 1,900 gallons of injection mixture (consisting of 114 gallons of SRS-ZVI, 24 pounds of DAP, 24 pounds of yeast extract, 360 pounds of calcium carbonate, 97 gallons of SRS-EVO, 22 liters of bioaugmentation culture TSI-DC®, 1,400 gallons of dilution water and 260 gallons of anaerobic chase water) were applied in the bedrock treatment zone. An average of 37 gallons of anaerobic chase water were injected into the targeted intervals. Once all injections were complete, excess reagent remaining within the Westbay casing was pumped into twelve 55-gallon steel drums and staged in a designated area for future offsite disposal. The non-hazardous drums (which included purge water from the Westbay well installation) were disposed of at Dale Transfer Corporation of West Babylon, NY on 6 June 2024.

Anaerobic Water: Based on observations of reagent during the performance monitoring event discussed in Section 6.0, additional anaerobic chase water was proposed to be injected into LMW-7R-S. Langan mobilized to the Site on 25 September 2024. A limited volume of reagent and groundwater (four gallons) was purged from LMW-7R-S at el 8 to 3 NAVD88 using a foot valve and stored in a 55-gallon drum for future off-site disposal. Langan mixed food-grade sodium ascorbate with water in a 55-gallon drum, and injected the anaerobic chase water into LMW-7R-S at el 8 to 3 NAVD88 (two gallons) and el -2 to -7 NAVD88 (13.5 gallons) in accordance with the April 2024 Groundwater Performance Monitoring Report and Injection Design.

3.0 HEALTH AND SAFETY REQUIREMENTS

A site-specific construction health and safety plan (CHASP) was developed as Appendix A of the January 2023 IRMWP and was enforced to protect on-Site workers during the implementation May 2024 remedial injection event. The CHASP includes reagent and chemical substance handling and storage guidelines, first aid and spill control measures, and exposure limits for all additives to be used in the field. Supplemental Safety Data Sheets (SDS) are provided in Appendix C. Personal protective equipment (PPE) was used while handling reagents included

full-face respirators, as applicable, chemical resistant coveralls and boots, nitrite gloves, steel toed shoes, and hard hat.

Appropriate storage, handling, and spill cleanup guidelines were followed to minimize the potential for accidental release and exposure to injection reagents. The injection area and surroundings were continuously monitored for surfacing and leaks during the injection process. In an event of surfacing or leak, the injections were immediately stopped, and the leaked or surfaced materials were removed, cleaned, and contained in drums. At the end of each workday, once application of injection pressure was ceased, the injection area and surroundings were monitored for an additional half-hour to identify any potential surfacing or leaks. During this time the pressure at the injection points would have subsided to ambient conditions, reducing potential for surfacing.

4.0 COMMUNITY AIR MONITORING

Pursuant to the NYSDEC-approved IRMWP dated January 2023, air monitoring was planned for particulates (i.e., dust) and VOCs during intrusive activities. As no soil movement occurred during the course of remedial injections and in accordance with the April 2024 Groundwater Performance Monitoring Report & Injection Design, CAMP was not implemented. The April 2024 Injection Design identified that the mixing and injection of the reagents through the Westbay system infrastructure was not anticipated to result in the release of VOCs, dust, or odors. As such, the exposure potential for downwind communities and users is low and during the injection activities, dust and odors were not observed to migrate from the work zone.

5.0 REPORTING

Qualified Langan field staff documented the implementation of remedial injections in daily field reports with photographs. The daily field reports were submitted to the NYSDEC for the agency's records. Copies of the daily field reports are included as Appendix D.

6.0 POST-INJECTION PERFORMANCE MONITORING AND BEDROCK WELL SAMPLING METHDOLOGY

A post-injection groundwater monitoring event was performed in August 2024, three months after the completion of second round of injections. Sixteen groundwater samples were collected from the same monitoring intervals that were sampled during the February 2024 performance monitoring event (with the exception of the lower interval at LMW-7R-D) in addition to quality

assurance/quality control samples including one field blank and three trip blanks. As discussed in the April 2024 Groundwater Performance Monitoring Report & Injection Design, during the monitoring well re-installation activities, LMW-7R-S and LMW-7R-D were evaluated for the presence of groundwater-producing fractures in the four performance monitoring sampling intervals that had been installed. A water-producing fracture was not detected in the deeper interval in LMW-7R-D and, as such, a sample was not collected from this interval during the August 2024 sampling.

Samples were collected in laboratory-supplied containers and were sealed, labeled, and placed in an ice-chilled cooler (to maintain a temperature of about 4° C) for delivery to Alpha Analytical of Westborough, Massachusetts, a NYSDOH ELAP-certified laboratory. All groundwater samples were analyzed for VOC analysis. Additional analytical parameters including metals (iron, calcium, manganese, and magnesium), anions (chloride, sulfate, and nitrate), total organic carbon, dissolved organic carbon, alkalinity, hardness, and microbial genes (for total bacteria and Dehalococcoides), were analyzed in five of the sixteen samples, including those collected at LMW-7R-S, LMW-8R-S, LMW-9R-S and LMW-10R-S. Water pressure measurements and groundwater quality parameters (e.g., pH, temperature, ORP, DO, turbidity, and conductivity) were collected during the groundwater monitoring event.

Groundwater samples were collected in accordance with the NYSDEC-approved October 2023 GSP on 12 through 16 August 2024. Purging is not required with the Westbay System due to the isolated nature of each monitoring zone. Valved ports within each monitoring zone provided access to each sampling interval for discrete groundwater sample collection. Discrete groundwater samples were collected at each designated sampling zone in a container that was sealed before being brought to the surface. As discussed below, the open/close tool was used to open the pump ports at the intervals at which the non-VOC samples were collected. Due to an excessive presence of reagent in the samples, approximately one to two gallons were purged from the two intervals at LMW-7R-S using a foot valve and/or peristaltic pump prior to sampling for the non-VOC parameters. Purged water was containerized in a 55-gallon steel drum and staged in a designated area for future offsite disposal.

Performance monitoring samples for VOC analysis were collected by lowering between one and four 250 milliliter (ml) sample containers through the central access casing to the designated sampling zone. The number of sample containers lowered at one time depended on the length of the specific sampling zone. The sealed sample container(s) was then pulled to the surface and the collected sample placed in laboratory-provided bottleware. Low sample recovery was observed at the locations where injections occurred in May 2024 and several rounds of lowering

and raising the sample containers was required to collect the full volume to submit to the laboratory. The low recovery is attributed to some permeability reduction at the fractures or sample ports as a result of the injections (discussed in more detail below) and/or the opening and closing of the pump port during the May 2024 injection activities, which may have created a void in the vicinity of the sample ports. As discussed in Section 2.5, injection of additional anaerobic chase water and purging excess reagent was completed to increase permeability in the fractures and sample ports noted above. . The potential void was addressed by leaving the sample port open with the container attached in order to purge the potential air void for an extended period (30 minutes to one hour) before again attempting to sample the groundwater.

No notable field observations of impacts were identified during sample collection. However, the presence of ZVI and EVO was observed at all intervals at LMW-7R-S and LMW-7R-D, and the presence of EVO was observed at the remaining injected locations (LMW-6R-S, LMW-8R-S, LMW-8R-D, LMW-9R-S, and LMW-10R-S) and at another monitoring well that was not injected into in May 2024 (LMW-6R-D).

7.0 PERFORMANCE MONITORING RESULTS

Groundwater analytical results were compared to the NYSDEC SGVs and are summarized in Table 2 and on Figures 3A through 3C. The laboratory data reports and data summary usability reports are provided in Appendix E and Appendix F, respectively.

Performance monitoring groundwater analytical results revealed the presence of CVOCs above the SGVs in only one of the ten wells sampled. Cis-1,2-DCE (42 µg/l) was detected above the SGV of 5 µg/l and VC (4 µg/l) was detected above the SGV of 2 µg/l in shallow well LMW-7R-S at el 8 to 3 NAVD88. PCE, trans-1,2-DCE, and chloroform were not detected in any of the monitoring wells, and TCE was not detected in any of the monitoring wells above the SGVs.

Concentrations of acetone, benzene, methyl ethyl ketone, and methylene chloride were also detected above the SGVs in all well pairs. It should be noted that acetone and methyl ethyl ketone concentrations were greater than their baseline or February 2024 performance monitoring concentrations. Elevated concentrations (3,400 to 4,000 µg/l) or reporting limits (10,000 µg/l) of methyl ethyl ketone were detected at the three well locations where SRS-ZVI® was injected, LMW-7R-S, LMW-7R-D, and LMW-9R-S, the latter of which likely has communication with LMW-7R-S. The presence of these compounds is attributed to temporary fermentation byproducts, and concentrations are expected to reduce over time.

The maximum concentrations of PCE, TCE, Cis-1,2-DCE, VC, and chloroform detected during the initial September 2022 sampling event and December 2022 baseline sampling events were 900 µg/l (LMW-8R-S), 390 µg/l (LMW-8R-S), 710 µg/l (LMW-7R-S), 6.7 µg/l (LMW-8R-D), and 56 µg/l (LMW-6R-D), respectively. With the exception of PCE, TCE, and chloroform (which did not exceed the SGVs in August 2024), the maximum concentrations of these compounds were detected in LMW-7R-S during the August 2024 performance monitoring event at concentrations of 42 µg/l (cis-1,2-DCE) and 4 µg/l (VC). These concentrations also represent an order of magnitude reduction from the February 2024 event (560 and 70 µg/l, respectively). Maximum concentrations of PCE and TCE decreased by an order of magnitude following the 2023 EZVI injections and were not detected following the 2024 EZVI targeted injections. Maximum concentrations of breakdown products including cis-1,2-DCE, VC, and chloroform also decreased from those detected during the baseline sampling event. Elevated concentrations of the breakdown products cis-1,2-DCE and VC in particular were detected at LMW-7R-S, which is expected due to the degradation of PCE and TCE following the two EZVI injections. Chloroform was not detected during the August 2024 performance monitoring event.

On average, iron and total organic carbon (TOC) concentrations were greater than the baseline event and the February 2024 performance monitoring event. The iron concentrations ranged from 36,800 to 1,860,000 µg/l and TOC concentrations, where detected, ranged from 120,000 to 8,600,000 µg/l. The continued elevated presence of TOC supports the continued bioremediation of the COCs where they remain.

Sulfate concentrations continued to show a decrease compared to the baseline event (55,000 to 1,100,000 µg/l), with concentrations ranging from non-detect to 34,000 µg/l. Sulfate reduction was anticipated, as the result of reducing conditions created by the EZVI injections.

Total bacteria (EBAC) concentrations increased compared to the baseline event, with concentrations ranging from $2.36x10^7$ to $2.26x10^8$ cell/ml. *Dehalococcoides* (DHC) concentrations increased, with concentrations ranging from 95 to $1.1x10^3$ cell/ml.

8.0 PERFORMANCE MONITORING CONCLUSIONS/RECOMMENDATIONS

The maximum concentrations of the COCs, PCE, TCE, cis-1,2-DCE, VC, and chloroform, were successfully reduced, as compared to the baseline concentrations and the February 2024 performance monitoring concentrations. Concentrations of cis-1,2-DCE and VC remain present at concentrations above the SGVs at only LMW-7R-S, and are expected to further reduce at this location with time.

Low recovery during sampling, visual observations of the reagents, and elevated concentrations of fermentation byproducts revealed that the reagents injected in May 2024 may not have fully entered the fractures. This is further supported by the maximum pressures achieved during injections and an inability to inject more than 260 gallons of anaerobic chase water during the May 2024 event. As such, an additional anaerobic chase water and purge excess reagent injection was conducted in September 2024, prior to the next performance monitoring event scheduled in November 2024.

Continued monitoring in November 2024 is proposed for monitoring wells LMW-7R-S/D, LMW-8R-S, and LMW-9R-S. Elevated concentrations of cis-1,2-DCE and VC remain at the shallow interval at LMW-7R-S, and elevated concentrations of fermentation products were detected and/or the presence of reagent was observed at the remaining intervals at LMW-7R-S/D, LMW-8R-S, and LMW-9R-S. Following the purging and anaerobic chase water injection at LMW-7R-S/D, an additional round of sampling is necessary to assess the effectiveness of the remedy. Langan proposes to remove the following wells from the monitoring program: LMW-10R-S/D, LMW-6R-S/D, LMW-8R-D, and LMW-9R-/D.

Abandonment of downgradient wells LMW-10R-S and LMW-10R-D is proposed, as sampling of these wells is no longer required due to the reduction of PCE and breakdown products within the source area, the limited lateral extents of impacts at the Site, the limited impacts at this well pair during the baseline event, and the lack of impacts detected above the SGVs during the August 2024 event. Monitoring wells LMW-6R-D and LMW-9R-D are also not included in the proposed monitoring plan as PCE, breakdown products, and chloroform were not detected above the SGVs in either the February or August 2024 performance monitoring events. Similarly, monitoring wells LMW-6R-S and LMW-8R-D are not included in the proposed monitoring plan because the only exceedance of the SGVs in February 2024 were for VC (2.8 and 2.7 µg/l, respectively) and, as of August 2024, VC was either below the SGVs or not detected at these locations.

TABLES

Table 1
EZVI Injection and Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-S	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S
			Sample Name	LMW-6R-D_46	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-S_21.5	LMW-6R-S_31	LMW-7R-D_48	LMW-7R-D_68.5	LMW-7R-D_75	LMW-7R-S_21.5	LMW-7R-S_27	LMW-7R-S_39	LMW-7R-S_42.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46	70	75	21.5	31	48	68.5	75	21.5	27	39	42.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<7.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	0.53 J	0.69 J	0.88 J	1.2 J
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<2 U	<1 U	<2 U	<2.5 U	<5 U	<5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 UJ	<250 U	<250 U	<250 UJ	<500 U	<500 UJ	<250 U	<500 U	<620 UJ	<1,200 U	<1,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Acetone	67-64-1	**50**	ug/l	19	17	33	8.8	6.7	31	23	19	34	25	26	30
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	0.16 J	<0.5 U	**1.1**	**1.1**	0.34 J	0.63 J	0.46 J	<2.5 U	<2.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroform	67-66-3	**7**	ug/l	**55**	**56**	**55**	**24**	**25**	<5 U	<5 U	1.8 J	2.9 J	2.5 J	<12 U	<12 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	4.3	4	3.8	**17**	**16**	**170**	**180**	**100**	**330**	**390**	**480**	**710**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	1 J	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	2.7 J	<5 UJ	<5 U	<5 U	<5 UJ	<10 U	<10 UJ	<5 U	<10 U	<12 UJ	<25 U	<25 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Methylene Chloride	75-09-2	**5**	ug/l	3.9	4	3.6	2.6	2.9	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.19 J	0.18 J	<0.5 U	**25**	**24**	**12**	**9.4**	2.1	**11**	**23**	**31**	**26**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	4.3	4	3.8	17	16	170	180	100	330	390	480	710
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.29 J	0.34 J	0.18 J	**10**	**9.7**	**20**	**20**	**8.2**	**50**	**90**	**110**	**86**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	0.09 J	0.12 J	0.31 J	0.34 J	1 J	1 J	1	1.1 J	1.1 J	1.2 J	1.6 J

Table 1
EZVI Injection and Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-S_15	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46.5	48.5	58	73	77	15	17.5	22.5	27	43.5	46.5	60.5	63.5	76
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<7.5 U	<7.5 U	<7.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 U	<5 U	<5 U	<5 U	<5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 U	<1,200 U	<1,200 UJ	<1,200 U	<1,200 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	8.5	10	11	28	17	17 J	27	17 J	26	8.4	6.8	20	6.2	13
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	**31**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.6	0.56	0.65	**1.6**	0.19 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	1 J
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	1.5 J	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	1.2 J	1.2 J	<2.5 U	3.8	**34**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	0.8 J	0.85 J	1 J	0.86 J	**200**	**200**	**190**	**190**	**180**	**9.6**	**8.8**	**9.6**	**11**	2.3 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	<5 U	<10 U	<25 U	<25 UJ	<25 U	<25 UJ	2 J	<5 U	1.9 J	<5 UJ	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.25 J	<0.5 U	0.41 J	**540**	**600**	**640**	**570**	2.7	2.5	2.4	2.1	0.34 J
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	0.8 J	0.85 J	1 J	0.86 J	200	200	190	190	180	9.6	8.8	9.6	11	2.3 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	<0.5 U	0.18 J	<0.5 U	0.39 J	**380**	**390**	**390**	**350**	0.75	0.68	0.65	0.65	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	<1 U	<1 U	**6.7**	<5 U	0.42 J	<5 U	0.41 J	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J

Table 1
EZVI Injection and Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-10R-D	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S
			Sample Name	LMW-9R-S_15	LMW-9R-S_22	LMW-9R-S_30.5	LMW-10R-D_49	LMW-10R-D_63	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	15	22	30.5	49	63	21.5	26.5	28.5	34	36
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<500 UJ	<620 UJ	<250 UJ	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	12	16	26	**100**	**91**	**91**	**84**	**88**	**100**	**160**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8**	**8.5**	**7.4**	<0.5 U	<0.5 U	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**8.9**	**7.9**	**7.5**	**52**	**47**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	**28**	5	4.3	**100**	**110**	**90**	**91**	**92**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<10 UJ	<12 UJ	23 J	21	21	17 J	21	24	35
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<5 U	<6.2 U	3	2.5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**140**	**190**	**250**	0.78	0.74	2.7	2.6	2	2	2.1
Toluene	108-88-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	28	5	4.3	100	110	90	91	92
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**58**	**56**	**58**	1.6	1.6	**5.4**	**5.5**	4.9	4.8	4.7
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1	1 J	0.96 J	<1 U	<1 U	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J

Table 1
EZVI Injection and Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-11R-D	LMW-11R-D	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S
			Sample Name	LMW-11R-D_57.5	LMW-11R-D_76	LMW-11R-S_20.5	LMW-11R-S_23	LMW-11R-S_26.5	LMW-11R-S_29.5	LMW-11R-S_40.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	57.5	76	20.5	23	26.5	29.5	40.5
			Unit	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	14	25	11	10	12	9.2	8.9
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**15**	**13**	0.6	0.63	0.79	0.64	0.61
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	**20**	**7.2**	**7.4**	**8.4**	6.9	6.7
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**15**	**28**	**29**	**35**	**28**	**28**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	0.94 J	0.99 J	1.2 J	0.97 J	0.91 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	3.6	2.9	**12**	**12**	**14**	**12**	**12**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	15	28	29	35	28	28
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	1.9	1.6	**11**	**12**	**14**	**11**	**11**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.17 J	0.13 J	0.2 J	0.24 J	0.32 J	0.2 J	0.2 J

Table 1
EZVI Injection and Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-12R-D	LMW-12R-D	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-13R-D	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-12R-D_53	LMW-12R-D_67	LMW-12R-S_17	LMW-12R-S_20.5	LMW-12R-S_24.5	LMW-12R-S_28.5	LMW-12R-S_36	LMW-13R-D_55.5	LMW-13R-D_75	LMW-13R-S_26
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	53	67	17	20.5	24.5	28.5	36	55.5	75	26
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 UJ	<250 UJ	<250 UJ
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	10	**170**	11	26	26	12	22	11	14	8.2
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.21 J	0.16 J	0.28 J	0.31 J	0.2 J	0.24 J	0.23 J	**28**	**27**	0.39 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	6.3	**18**	**18**	**16**	**20**	**8.8**	**30**	**29**	**19**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**23**	**27**	**29**	**27**	**32**	**35**	**9.6**	**9.6**	**33**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	41	<5 U	2.2 J	<5 U	<5 UJ	2.4 J	<5 UJ	<5 UJ	<5 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	**9.4**	**8.1**	2.3 J	2.4 J	3.5	4.1	1.8 J	<2.5 U	<2.5 U	2.6
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	1	0.97	3.3	3.6	1.4	2.5	3	3.9	3.7	1.7
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	23	27	29	27	32	35	9.6	9.6	33
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.66	0.54	3.7	3.8	3.7	4.2	4.9	1.3	1.3	3.3
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	**3.8**	**2.7**	0.08 J	0.07 J	0.17 J	0.23 J	0.2 J	0.25 J	0.29 J	0.1 J

Table 2
EZVI Remedial Injection and Groundwater Performance Monitoring Report
Baseline Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-6R-D_47.75	LMW-6R-S_20.5	LMW-7R-D_42	LMW-7R-D_66	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_38	LMW-8R-D_47.25	LMW-8R-D_56.75	LMW-8R-D_76	LMW-8R-S_14.5	LMW-8R-S_24.75	LMW-10R-D_40.5	LMW-10R-S_13	LMW-10R-S_18.25	LMW-13R-D_45.25	LMW-13R-S_25.75
			Sample Date	12/28/2022	12/28/2022	12/21/2022	12/21/2022	12/19/2022	12/20/2022	12/21/2022	12/27/2022	12/27/2022	12/27/2022	12/22/2022	12/22/2022	12/23/2022	12/22/2022	12/23/2022	12/28/2022	12/28/2022
			Pump Intake Depth	47.75	20.5	42	66	20	25.5	38	47.25	56.75	76	14.5	24.75	40.5	13	18.25	45.25	25.75
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<15 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	0.42 J	0.31 J	0.34 J	0.47 J	0.75 J	<0.5 U	<0.5 U	<0.5 U	<5 U	0.74 J	<0.5 U	<0.5 U	0.23 J	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 UJ	<2.5 UJ	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<2 U	<1 U	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<10 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<500 U	<250 U	<250 U	<500 U	<620 U	<250 U	<250 U	<250 U	<2,500 U	<620 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<10 U	<5 U	<5 UJ	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	4.4 J	10 J	9.5 J	6	<5 U	6 J	26	24 J	29 J	5.5 J	<50 U	<12 U	2.3 J	<5 U	2.1 J	12 J	4.5 J
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	0.72	0.77 J	0.52	0.52	0.47 J	0.51 J	0.16 J	**2**	**5.5**	<5 U	<1.2 U	0.2 J	<0.5 U	0.25 J	**8.5**	0.45 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	1.4 J	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	2.6	<2.5 U	<2.5 U	2.2 J	1.7 J
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	3.1	**29**	**220**	**160**	**120**	**340**	**400**	**8.2**	**7.7**	**47**	**270**	**390**	**18**	**16**	**140**	**10**	**47**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	1 J
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<10 U	2 J	<5 U	<10 U	<12 U	8.7	4.6 J	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	1.5 J	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	1.6 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.57	**10**	**18**	2.5	**20**	**43**	**50**	0.18 J	0.54	0.21 J	**900**	**63**	2.1	**10**	**26**	**7.2**	**35**
Toluene	108-88-3	**5**	ug/l	1.5 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	**9**	2 J	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	3.1	29	220	160	120	340 J	400 J	8.2	7.7	47	270	390 J	18	16	140	10	47
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	1.9 J	2 J	<2.5 U	<2.5 U	<2.5 U	<25 U	1.8 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.33 J	**6.3**	**22**	**16**	**18**	**58**	**61**	0.37 J	0.24 J	0.24 J	**360**	**52**	1.1	**8.8**	**33**	2.2	**9.7**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	0.62 J	**4.4**	0.44 J	0.64 J	0.71 J	<1 U	1	**6.4**	2 J	1.2 J	0.11 J	<1 U	0.37 J	0.18 J	0.27 J
Metals																				
Calcium	7440-70-2	NS	ug/l	90,800	220,000	205,000	146,000	200,000	234,000	236,000	54,400	58,500	95,000	289,000	234,000	97,700	264,000	184,000	136,000	178,000
Hardness (As CaCO3)	HARDNESS	NS	ug/l	235,400	788,400	995,100	547,900	800,300	864,600	1,048,000	174,600	185,100	303,800	1,146,000	868,600	362,800	891,400	693,900	508,600	641,300
Iron	7439-89-6	**300**	ug/l	**7,230**	**14,900**	**98,500**	**25,600**	**17,700**	**29,500**	**76,300**	**5,660**	**9,480**	**6,650**	**31,300**	**34,200**	**12,600**	**17,500**	**33,000**	**17,500**	**12,600**
Magnesium	7439-95-4	**35000**	ug/l	2,140	**58,100**	**117,000**	**44,200**	**73,100**	**67,700**	**111,000**	9,420	9,450	16,200	**103,000**	**68,700**	28,800	**56,600**	**57,100**	**40,800**	**47,800**
Manganese	7439-96-5	**300**	ug/l	108	**2,978**	**7,510**	**2,320**	**5,733**	**4,074**	**8,344**	235.1	**363.8**	**448.3**	**9,421**	**6,069**	**1,638**	**4,386**	**2,861**	**2,363**	**2,307**
General Chemistry - Total																				
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	193,000 J	158,000	119,000	187,000	158,000	128,000	129,000	85,800 J	116,000	141,000	163,000	155,000	177,000	220,000	156,000	220,000	185,000
Chloride (As Cl)	16887-00-6	**250000**	ug/l	25,000	110,000	**340,000**	190,000	**520,000**	**600,000**	**600,000**	54,000	48,000	83,000	110,000	**340,000**	66,000	88,000	97,000	45,000	85,000
Dissolved Organic Carbon	DOC	NS	ug/l	8,000 J	8,200	3,700	8,900 J	2,400 J	1,100	2,500	6,900	8,700	4,000 J	6,100 J	4,400 J	5,300	7,800	5,600	14,000	7,000
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	<100 U	93 J	429	89 J	261	212	175	27 J	104	44 J	120	116	47 J	153	79 J	<100 U	<100 U
Sulfate (As SO4)	14808-79-8	**250000**	ug/l	55,000	**580,000**	**610,000**	**670,000**	**520,000**	**510,000**	**510,000**	140,000	130,000	130,000	**1,100,000**	**600,000**	190,000	**630,000**	**530,000**	**540,000**	**560,000**
Total Organic Carbon	TOC	NS	ug/l	7,600	8,400	3,100	9,200 J	2,200	920	2,300	7,100	8,500	3,500	6,200	3,800	5,700	7,800	5,500	14,000	7,100

Table 3
EZVI Remedial Injection and Groundwater Performance Monitoring Report
Bedrock Reagent Demand Summary

1487 1st Avenue Redevelopment Site
New York City, New York
Langan Project No. 100963701

Bedrock Injection Wells		SRS-Z and SRS-EVO Injections				SRS-EVO Injections				Total
		LMW-7R-S		LMW-7R-D	LMW-8R-S	LMW-6R-S	LMW-9R-S	LMW-10R-S	LMW-8R-D	
Treatment Interval	feet btoc	6.75-11.75	16.75-21.75	23.75-28.75	6.75-11.75	18.75-23.75	13.75- 19.75	23.75 - 29.75	57.75 - 64.75	-
Treatment Zone Thickness	feet	5	5	5	5	5	6	6	7	-
Injection ROI	feet	15	15	15	15	15	15	15	15	-
Fracture Porosity	fraction	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-
Treatment Pore Volume Under the Injection ROI	gallons	2,119	2,119	2,119	2,127	2,661	3,188	3,194	3,240	-
Pore Volume Targeted for Injections	%	15%	15%	15%	15%	15%	15%	15%	15%	-
Injection Solution Volume	gallons	318	318	318	319	399	478	479	486	-
Pore Volume Targeted for Injections	%	10%	10%	10%	10%	10%	10%	10%	10%	-
Injection Solution Volume	gallons	212	212	212	213	266	319	319	324	-
Reagent Demand										
ZVI Target Levels in Pore Volume	g/L	3.0	3.0	3.0	2.0	-	-	-	-	-
ZVI Demand	pounds	53	53	53	35	-	-	-	-	194
ZVI in EVO+ZVI Emulsion (SRS®-Z)	%	20%	20%	20%	20%	-	-	-	-	-
EVO in EVO+ZVI Emulsion (SRS®-Z)	%	80%	80%	80%	80%	-	-	-	-	-
EVO Demand	pounds	211	211	211	141	-	-	-	-	-
EVO Loading in Pore Volume	g/L	12	12	12	8	-	-	-	-	-
SRS®-Z Demand	gallons	27	27	27	18	-	-	-	-	100
	pounds	264	264	264	177	-	-	-	-	-
SRS®-EVO Demand	gallons	16	16	16	11	27	49	8	19	164
	pounds	132	132	132	88	221	398	66	157	-
TSI-Ferrous Sulfide Activator Dosage	g/L	0.3	0.3	0.3	0.2	-	-	-	-	-
TSI-Ferrous Sulfide Activator Demand in Pore Volume	pounds	5.3	5.3	5.3	3.5	-	-	-	-	-
	gallons	0.5	0.5	0.5	0.4	-	-	-	-	2.0
TSI-DC® Target Levels	cells/Liter	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	2.E+07	-
TSI-DC® Demand	liters	2.2	2.2	2.2	2.2	1.8	2.2	2.2	2.2	17.0
DAP Target Levels in Pore Volume	mg/L	250	250	250	250	250	250	250	250	-
DAP Total Demand	pounds	7	7	7	7	6	7	7	7	-
DAP supplied by EVO	pounds	0.2	0.2	0.2	0.1	0.1	0.2	0.0	0.1	-
Additional DAP Demand	pounds	6.4	6.4	6.4	6.5	5.4	6.4	6.6	6.7	51
Yeast Extract Target Levels in Pore Volume	mg/L	250	250	250	250	250	250	250	250	-
Yeast Extract Total Demand	pounds	7	7	7	7	6	7	7	7	-
Yeast Extract Supplied by EVO	pounds	1	1	1	1	1	1	0.2	0.5	-
Additional Yeast Extract Demand	pounds	6	6	6	6	5	5	6	6	46
Calcium Carbonate Target Levels in Pore Volume	g/L	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	-
Calcium Carbonate Demand	pounds	93	93	93	93	77	93	93	94	728
Target level of Sodium Ascorbate in Injection Mix	lb/1000 gallons	8	8	8	8	8	8	8	8	-
Sodium Ascorbate Demand	pounds	4	4	4	4	3	4	4	4	30

Notes:
btoc - below top of the casing
DAP - diammonium phosphate
EVO - emulsified vegetable oil
g/L - grams per liter
mg/L - milligrams per liter
lb/1000 gallon - pounds per 1000 gallons
ROI - radius of influence
ZVI - Zero valent iron (4 micron)
TOC - total organic carbon
NA - data is not available
Hydraulic gradient is an average of low and high gradient computed from September 14, 2022 groundwater monitoring data.
Hydraulic conductivity in a well is an average of hydraulic conductivity calculated for different packer intervals in the well. For wells where packer tests were not performed, data from adjacent wells is used.
A fracture porosity of 0.1 was used for injection calculations.
Based on field observations up to 15% of pore volume will be injected.
ZVI target levels in pore volume range from 0.5 to 3.5 g/L depending upon the concentration of chlorinated volatile organic compounds (CVOCs) in the well and the levels of total organic carbon that are reached in the pore volume using a EVO and ZVI emulsion.
EVO demand is calculated based on percentage of ZVI and EVO in the SRS®-Z emulsion and was adjusted to reach at least approximately 500 mg/L TOC levels in the design volume.
EVO demand meets or is in excess of EVO demand estimated using Environmental Security Technology Certification Program (ESTCP) substrate requirements for hydrogen demand calculation sheet.
SRS®-ZVI is a proprietary product, combined emulsified vegetable oil substrate and zero valent, formulated by Terra Systems, Inc. (Claymont, DE).
The density of SRS®-Z with 20% ZVI is 9.7 pounds/gallon and with 10% ZVI is 8.81 pounds/gallon.
SRS®-EVO is a proprietary emulsified vegetable oil substrate, formulated by Terra Systems, Inc. (Claymont, DE).
TSI-Ferrous Sulfide Activator (mix of ferrous sulfide and sodium sulfide solution) distributed by Terra Systems, Inc. will be added to the SRS®-Z to form the sulfidated ZVI.
The density of ferrous sulfide solution is 1.15 to 1.22 grams per milliliter or an average of 9.88 pounds per gallon.
TSI-DC® Bioaugmentation Culture® - *Dehalococcoides* containing microbial consortium for anaerobic bioremediation is cultured by Terra Systems, Inc. (Claymont, DE).
Approximately 0.3% yeast extract and 0.05% diammonium phosphate (DAP) are included in commercial SRS®-ZVI formulation. Additional dosage of yeast extract and diammonium phosphate will be added to facilitate microbial growth.

Table 4
EZVI Remedial Injection and Groundwater Performance Monitoring Report
August 2024 Performance Monitoring Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-S	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-D	LMW-8R-S	LMW-8R-S
			Sample Name	LMW-6RS_18.75_08132024	LMW-6RD_32.75_08122024	LMW-6R-D_42.75_08152024	LMW-6R-D_54.75_08142024	LMW7RS_6.75_08122024	LMW-7RS_16.75_08132024	LMW-7R-S_16.75_08152024	LMW-7R-S_6.75_08162024	LMW-7RD_23.75_08132024	LMW-8R-S_6.75_08152024	LMW8RS_18.75_08122024
			Sample Date	8/13/2024	08/12/2024	08/15/2024	08/14/2024	08/12/2024	08/13/2024	08/15/2024	08/16/2024	08/13/2024	08/15/2024	08/12/2024
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 UJ	<1.5 U	<1.5 U	<1.5 U	<15 UJ	<3,000 U	NA	NA	<15 U	<3.8 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 UJ	<2 U	<2 U	<2 U	<20 UJ	<4,000 U	NA	NA	<20 U	<5 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 UJ	<2 U	<2 U	<2 U	<20 UJ	<4,000 U	NA	NA	<20 U	<5 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 UJ	<1 U	<1 U	<1 U	<10 UJ	<2,000 U	NA	NA	<10 U	<2.5 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 UJ	<2 U	<2 U	<2 U	<20 UJ	<4,000 U	NA	NA	<20 U	<5 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<500 UJ	<250 U	<250 UJ	<250 U	<2,500 UJ	<500,000 U	NA	NA	<2,500 U	<620 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 UJ	2.3 J	<5 U	<5 U	12 J	<10,000 U	NA	NA	<50 U	<12 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 UJ	<2 U	<2 U	<2 U	<20 UJ	<4,000 U	NA	NA	<20 U	<5 U	<2 U
Acetone	67-64-1	**50**	ug/l	**390**	6.5	15	6.1	**220 J**	<10,000 U	NA	NA	**140**	**120**	17
Acrylonitrile	107-13-1	5	ug/l	<10 UJ	<5 U	<5 U	<5 U	<50 UJ	<10,000 U	NA	NA	<50 U	<12 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.44 J	0.17 J	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	0.48 J	0.2 J
Bromobenzene	108-86-1	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<4 UJ	<2 U	<2 U	<2 U	<20 UJ	<4,000 U	NA	NA	<20 U	<5 U	<2 U
Bromomethane	74-83-9	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<10 UJ	<5 U	<5 U	<5 U	<50 UJ	<10,000 U	NA	NA	<50 U	<12 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	**42 J**	<5,000 U	NA	NA	<25 U	<6.2 U	0.88 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Cymene	99-87-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<10 UJ	<5 U	<5 U	<5 U	<50 UJ	<10,000 U	NA	NA	<50 U	<12 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 UJ	<5 U	<5 U	<5 U	<50 UJ	<10,000 U	NA	NA	<50 U	<12 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	**420**	3.2 J	6.3	3.3 J	**3,400**	<10,000 U	NA	NA	**4,000**	**360**	12
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	2.1 J	1 J	<5 U	<5 U	<50 UJ	<10,000 U	NA	NA	<50 U	<12 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	**9.1 J**	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<5 UJ	<2.5 U	<2.5 UJ	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Styrene	100-42-5	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Toluene	108-88-3	5	ug/l	3.4 J	3.4	3.1	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	3.5
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	42 J	<5,000 U	NA	NA	<25 U	<6.2 U	0.88 J
Total Xylenes	1330-20-7	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<1 UJ	<0.5 U	0.18 J	<0.5 U	<5 UJ	<1,000 U	NA	NA	<5 U	<1.2 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<25 UJ	<5,000 U	NA	NA	<25 U	<6.2 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 UJ	<5 U	<5 U	<5 U	<50 UJ	<10,000 U	NA	NA	<50 U	<12 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.14 J	0.36 J	0.38 J	<1 U	**4 J**	<2,000 U	NA	NA	<10 U	0.2 J	1.3
Total CVOCs	CVOCS	NS	ug/l	0.14	0.36	0.56	ND	46	ND	ND	ND	ND	0.2	2.18
Metals														
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	NA	NA	660,000 J	124,000	NA	353,000	NA
Hardness, Total	HARD	NS	ug/l	NA	NA	NA	NA	NA	NA	2,566,000	450,100	NA	1,327,000	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	NA	NA	**1,860,000 J**	**302,000**	NA	**1,180,000**	NA
Magnesium	7439-95-4	**35000**	ug/l	NA	NA	NA	NA	NA	NA	**223,000 J**	34,200	NA	**108,000**	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	NA	NA	**9,277 J**	**860.3**	NA	**2,066**	NA
General Chemistry - Dissolved														
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	NA	NA	7,100,000	3,500,000	NA	5,400,000 J	NA
General Chemistry - Total														
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	NA	NA	3,260,000 J	2,060,000 J	NA	1,840,000 J	NA
Chloride (As Cl)	16887-00-6	**250000**	ug/l	NA	NA	NA	NA	NA	NA	**490,000**	100,000	NA	88,000	NA
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	NA	NA	NA	NA	NA	NA	107	100	NA	89 J	NA
Sulfate (As SO4)	14808-79-8	250000	ug/l	NA	NA	NA	NA	NA	NA	<100,000 U	<10,000 U	NA	<10,000 U	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	NA	NA	7,700,000	3,500,000	NA	2,800,000 J	NA

Table 4
EZVI Remedial Injection and Groundwater Performance Monitoring Report
August 2024 Performance Monitoring Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-D	LMW-8R-D	LMW-9R-S	LMW-9R-D	LMW-10R-S	LMW-10R-S	LMW-10R-D	LMW-10R-D
			Sample Name	LMW-8RD_27.75_08132024	LMW-8RD_59.75_08132024	LMW-9R-S_13.75_08152024	LMW-9R-D_58.25_08142024	LMW-10RS_24.75_08142024	LMW-10R-S_24.75_08162024	LMW-10RD_30.75_08142024	LMW-10RD_40.75_08142024
			Sample Date	08/13/2024	08/13/2024	08/15/2024	08/14/2024	08/14/2024	08/16/2024	08/14/2024	08/14/2024
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<6 U	<38 U	<1.5 U	<3 U	NA	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<8 U	<50 U	<2 U	<4 U	NA	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<8 U	<50 U	<2 U	<4 U	NA	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<4 U	<25 U	<1 U	<2 U	NA	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<8 U	<50 U	<2 U	<4 U	NA	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<250 U	<1,000 U	<6,200 U	<250 U	<500 U	NA	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	7.4 J	<120 U	<5 U	<10 U	NA	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<8 U	<50 U	<2 U	<4 U	NA	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	1.6 J	**300**	**650**	2.2 J	**160**	NA	7.6	7.8
Acrylonitrile	107-13-1	5	ug/l	<5 U	<20 U	<120 U	<5 U	<10 U	NA	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.95	0.8 J	<12 U	**3.9**	<1 U	NA	0.55	0.53
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<8 U	<50 U	<2 U	<4 U	NA	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<20 U	<120 U	<5 U	<10 U	NA	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	1.2 J	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<20 U	<120 U	<5 U	<10 U	NA	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<20 U	<120 U	<5 U	<10 U	NA	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	<5 U	**470**	**3,600**	<5 U	**100**	NA	27	19
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	1.7 J	<20 U	<120 U	<5 U	2.4 J	NA	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	3 J	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<10 U	<62 U	0.65 J	<5 U	NA	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Toluene	108-88-3	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	4.2 J	NA	1.4 J	3.4
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	1.2 J	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<0.5 U	<2 U	<12 U	<0.5 U	<1 U	NA	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<10 U	<62 U	<2.5 U	<5 U	NA	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<20 U	<120 U	<5 U	<10 U	NA	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.18 J	<4 U	<25 U	0.27 J	<2 U	NA	<1 U	0.18 J
Total CVOCs	CVOCS	NS	ug/l	1.38	ND	ND	0.27	ND	ND	ND	0.18
Metals											
Calcium	7440-70-2	NS	ug/l	NA	NA	374,000	NA	NA	140,000 J	NA	NA
Hardness, Total	HARD	NS	ug/l	NA	NA	1,262,000	NA	NA	458,900	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	**1,210,000**	NA	NA	**36,800 J**	NA	NA
Magnesium	7439-95-4	**35000**	ug/l	NA	NA	**79,500**	NA	NA	26,600 J	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	**744.2**	NA	NA	**1,017 J**	NA	NA
General Chemistry - Dissolved											
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	9,200,000	NA	NA	120,000	NA	NA
General Chemistry - Total											
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	3,140,000 J	NA	NA	477,000 J	NA	NA
Chloride (As Cl)	16887-00-6	**250000**	ug/l	NA	NA	**460,000**	NA	NA	130,000	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	NA	NA	60 J	NA	NA	40 J	NA	NA
Sulfate (As SO4)	14808-79-8	250000	ug/l	NA	NA	34,000	NA	NA	<10,000 U	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	8,600,000	NA	NA	120,000	NA	NA

Table 5
EZVI Remedial Injections and Groundwater Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Re-Injection Interval

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6R-S_21.5	LMW-6R-S_20.5	LMW-6R-S_31	LMW-6R-S_18.75	LMW-6R-S_18.75	LMW-6R-D_46	LMW-6R-D_47.75	LMW-6R-D_32.75	LMW-6R-D_32.75	LMW-6R-D_42.75	LMW-6R-D_42.75	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-D_54.75	LMW-6R-D_54.75
			Sample Date	09/29/2022	12/28/2022	09/29/2022	02/14/2024	8/13/2024	09/29/2022	12/28/2022	02/13/2024	08/12/2024	02/13/2024	08/15/2024	09/29/2022	09/29/2022	02/13/2024	08/14/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections
			Sample Depth	21.5	20.5	31	18.75-23.75	18.75-23.75	46	47.75	32.75-37.75	32.75-37.75	42.75-47.75	42.75-47.75	70	75	52.75-59.75	42.75-47.75
			Sample El.	9.77 - -7.77	10.77 - -5.77	0.27 - -1.73	-4 - -9	-4 - -9	-14.43 - -16.43	-16.18 - -21.18	-18 - -23	-18 - -23	-28 - -33	-28 - -33	-38.43 - -40.43	-43.43 - -45.43	-38 - -45	-38 - -45
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																		
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.21 J	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 UJ	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<2 U	<2 U	0.55 J	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	1 J	<2.5 U	0.95 J	<2.5 U	<2.5 U	<2.5 U	0.74 J	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 UJ	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<2 U	<2 U	0.79 J	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 UJ	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<5 U	<5 U	1.2 J	2.3 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	8.8	10 J	6.7	22	**390**	19	4.4 J	**59**	6.5	**51**	15	17	33	44	6.1
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	0.72	<0.5 U	0.23 J	0.44 J	<0.5 U	<0.5 U	0.17 J	0.17 J	0.16 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	1.4 J	**25**	<2.5 U	<5 UJ	**55**	**7.4**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**56**	**55**	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**29**	**16**	3.3	<5 UJ	4.3	3.1	1.2 J	<2.5 U	1.2 J	<2.5 U	4	3.8	0.8 J	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	1 J	<5 U	<10 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1 J	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	4.8 J	**420**	2.7 J	<5 U	**57**	3.2 J	**53**	6.3	<5 UJ	<5 U	**55**	3.3 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	2.1 J	<5 U	<5 U	<5 UJ	1 J	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	<5 U
Methylene Chloride	75-09-2	5	ug/l	2.6	<2.5 U	2.9	<2.5 U	<5 UJ	3.9	1.6 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4	3.6	0.81 J	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.87 J	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**25**	**10**	**24**	0.28 J	<1 UJ	0.19 J	0.57	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.18 J	<0.5 U	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	**8.3**	3.4 J	<2.5 U	1.5 J	**13**	3.4	**12**	3.1	<2.5 U	<2.5 U	**7.8**	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	29	16	3.3	<5 UJ	4.3	3.1	1.2 J	<2.5 U	1.2 J	<2.5 U	4	3.8	0.8 J	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1.9 J	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**10**	**6.3**	**9.7**	0.31 J	<1 UJ	0.29 J	0.33 J	<0.5 U	<0.5 U	<0.5 U	0.18 J	0.34 J	0.18 J	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.31 J	<1 U	0.34 J	**2.8**	0.14 J	<1 U	<1 U	1.2	0.36 J	1.1	0.38 J	0.09 J	0.12 J	0.61 J	<1 U
Metals																		
Calcium	7440-70-2	NS	ug/l	NA	220,000	NA	133,000	NA	NA	90,800	NA	NA	NA	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	788,400	NA	411,500	NA	NA	235,400	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**14,900**	NA	**25,700**	NA	NA	**7,230**	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**58,100**	NA	19,200	NA	NA	2,140	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**2,978**	NA	**666**	NA	NA	108	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry																		
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	NA	494,000	NA	NA	193,000 J	NA	NA	NA	NA	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	110,000	NA	180,000	NA	NA	25,000	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	8,200	NA	14,000	NA	NA	8,000 J	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	93 J	NA	100	NA	NA	<100 U	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**580,000**	NA	3,500 J	NA	NA	55,000	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	8,400	NA	15,000	NA	NA	7,600	NA	NA	NA	NA	NA	NA	NA	NA

Table 5
EZVI Remedial Injections and Groundwater Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

							Re-Injection Interval					Re-Injection Interval				Re-Injection Interval					
Analyte	**CAS Number**	**NYSDEC SGVs**	**Location**	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D
			Sample Name	LMW-7R-S_21.5	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_27	LMW-7R-S_6.75	LMW-7R-S_6.75	LMW-7R-S_39	LMW-7R-S_38	LMW-7R-S_16.75	LMW-7R-S_16.75	LMW-7R-S_42.5	LMW-7R-D_42	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_48	LMW-7R-D_66	LMW-7R-D_68.5	LMW-7R-D_49.75	LMW-7R-D_75
			Sample Date	09/29/2022	12/19/2022	12/20/2022	09/29/2022	02/13/2024	08/12/2024	09/29/2022	12/21/2022	02/13/2024	8/13/2024	09/29/2022	12/21/2022	02/13/2024	8/13/2024	09/29/2022	12/21/2022	09/29/2022	02/13/2024	09/29/2022
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections
			Sample Depth	21.5	20	25.5	27	6.75-11.75	6.75-11.75	39	38	16.75-21.75	16.75-21.75	42.5	42	23.75-28.75	23.75-28.75	48	66	68.5	49.75-54.75	75
			Sample El.	12.67 - 10.67	14.17 - 9.17	8.67 - 3.67	7.17 - 5.17	8 - 3	8 - 3	-4.83 - -6.83	-3.83 - -8.83	-2 - -7	-2 - -7	-8.33 - -10.33	-8.66 - -13.66	-9 - -14	-9 - -14	-13.83 - -15.83	-32.66 - -37.66	-35.16 - -37.16	-35 - -40	-41.66 - -43.66
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																						
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<15 UJ	<7.5 U	<3.8 U	<7.5 U	<3,000 U	<7.5 U	<3 U	<6 U	<15 U	<3 U	<1.5 U	<3 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.53 J	0.34 J	0.47 J	0.69 J	<2.5 U	<5 UJ	0.88 J	0.75 J	<2.5 U	<1,000 U	1.2 J	0.42 J	<2 U	<5 U	<1 U	0.31 J	<1 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<10 U	<5 U	<10 U	<4,000 U	<10 U	<4 U	<8 U	<20 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<10 U	<5 U	<10 U	<4,000 U	<10 U	<4 U	<8 U	<20 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<1 U	<2 U	<2.5 U	<5 U	<10 UJ	<5 U	<2.5 U	<5 U	<2,000 U	<5 U	<2 U	<4 U	<10 U	<2 U	<1 U	<2 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<10 U	<5 U	<10 U	<4,000 U	<10 U	<4 U	<8 U	<20 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 U	<250 U	<500 U	<620 UJ	<1,200 U	<2,500 UJ	<1,200 U	<620 U	<1,200 U	<500,000 U	<1,200 U	<500 U	<1,000 U	<2,500 U	<500 U	<250 U	<500 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<5 UJ	<10 U	<12 U	<25 U	12 J	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	<20 U	<50 U	<10 U	<5 U	<10 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<10 U	<5 U	<10 U	<4,000 U	<10 U	<4 U	<8 U	<20 U	<4 U	<2 U	<4 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	34	<5 U	6 J	25	9.1 J	**220 J**	26	26	<25 U	<10,000 U	30	9.5 J	**54**	**140**	31	6	23	**53**	19
Acrylonitrile	107-13-1	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	<20 U	<50 U	<10 U	<5 UJ	<10 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.63 J	0.52	0.47 J	0.46 J	<2.5 U	<5 UJ	<2.5 U	0.51 J	<2.5 U	<1,000 U	<2.5 U	0.77 J	<2 U	<5 U	**1.1**	0.52	**1.1**	0.29 J	0.34 J
Bromobenzene	108-86-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<10 U	<5 U	<10 U	<4,000 U	<10 U	<4 U	<8 U	<20 U	<4 U	<2 U	<4 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	<20 U	<50 U	<10 U	<5 U	<10 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**2.9 J**	<2.5 U	<5 U	**2.5 J**	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	**1.8 J**
Chloromethane	74-87-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**330**	**120**	**340**	**390**	**500**	**42 J**	**480**	**400**	**560**	<5,000 U	**710**	**220**	**29**	<25 U	**170**	**160**	**180**	**20**	**100**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	<20 U	<50 U	<10 U	<5 U	<10 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	<20 U	<50 U	<10 U	<5 U	<10 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 U	<5 U	<10 U	<12 UJ	<25 U	**3,400**	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	**410**	**4,000**	<10 U	2 J	<10 UJ	**420**	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 UJ	<50 UJ	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	<20 UJ	<50 U	<10 U	<5 UJ	<10 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	**9.1 J**	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**11**	**20**	**43**	**23**	**21**	<5 UJ	**31**	**50**	**25**	<1,000 U	**26**	**18**	1.2 J	<5 U	**12**	2.5	**9.4**	0.28 J	2.1
Toluene	108-88-3	**5**	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	**5.3 J**	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	4.2 J	<25 U	<5 U	<2.5 U	<5 U	4.2	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	**330**	120	**340** J	**390**	500 J	42 J	**480**	**400** J	**570** J	<5,000 U	**710**	**220**	29	<25 U	170	160	180	20	**100**
Total Xylenes	1330-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<2.5 U	1.9 J	<6.2 U	4 J	<25 UJ	<12 U	2 J	**5.1 J**	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U	<1 U	<2 U	<5 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**50**	**18**	**56**	**90**	**21**	<5 UJ	**110**	**61**	**25**	<1,000 U	**86**	**22**	1 J	<5 U	**20**	**16**	**20**	0.21 J	**8.2**
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<12 U	<6.2 U	<12 U	<5,000 U	<12 U	<5 U	<10 U	<25 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<25 U	<12 U	<25 U	<10,000 U	<25 U	<10 U	<20 U	<50 U	<10 U	<5 U	<10 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1 J	0.44 J	0.64 J	1.1 J	**46**	**4 J**	1.2 J	0.71 J	**70**	<2,000 U	1.6 J	0.62 J	**17**	<10 U	1 J	**4.4**	1 J	**27**	1
Metals																						
Calcium	7440-70-2	NS	ug/l	NA	200,000	234,000	NA	NA	124,000	NA	236,000	371,000	660,000 J	NA	205,000	NA	NA	NA	146,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	800,300	864,600	NA	NA	450,100	NA	1,048,000	1,413,000	2,566,000	NA	995,100	NA	NA	NA	547,900	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**17,700**	**29,500**	NA	NA	**302,000**	NA	**76,300**	**88,200**	**1,860,000 J**	NA	**98,500**	NA	NA	NA	**25,600**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**73,100**	**67,700**	NA	NA	34,200	NA	**111,000**	**118,000**	**223,000 J**	NA	**117,000**	NA	NA	NA	**44,200**	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**5,733**	**4,074**	NA	NA	**860.3**	NA	**8,344**	**6,149**	**9,277 J**	NA	**7,510**	NA	NA	NA	**2,320**	NA	NA	NA
General Chemistry																						
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	128,000	NA	NA	2,060,000 J	NA	129,000	166,000	3,260,000 J	NA	119,000	NA	NA	NA	187,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	**520,000**	**600,000**	NA	NA	100,000	NA	**600,000**	**1,200,000**	**490,000**	NA	**340,000**	NA	NA	NA	190,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	2,400 J	1,100	NA	NA	3,500,000	NA	2,500	<2,000 U	7,100,000	NA	3,700	NA	NA	NA	8,900 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	261	212	NA	NA	100	NA	175	117	107	NA	429	NA	NA	NA	89 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**520,000**	**510,000**	NA	NA	<10,000 U	NA	**510,000**	150,000	<100,000 U	NA	**610,000**	NA	NA	NA	**670,000**	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	2,200	920	NA	NA	3,500,000	NA	2,300	<1,000 U	7,700,000	NA	3,100	NA	NA	NA	9,200 J	NA	NA	NA

Table 5
EZVI Remedial Injections and Groundwater Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs		Re-Injection Interval																		Re-Injection Interval	
			Location	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D
			Sample Name	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-8R-S_24.75	LMW-8R-S_6.75	DUP01_021424	LMW-8R-S_6.75	LMW-8R-S_6.75	LMW-8R-S_18.75	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_47.25	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_56.75	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-D_76	LMW-8R-D_59.75	LMW-8R-D_59.75
			Sample Date	09/29/2022	09/29/2022	09/29/2022	12/22/2022	02/14/2024	02/14/2024	8/15/2024	02/14/2024	8/12/2024	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024	12/27/2022	09/29/2022	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections
			Sample Depth	17.5	22.5	27	24.75	6.75-11.75	6.75-11.75	6.75-11.75	16.75-23.75	16.75-23.75	46.5	48.5	47.25	27.75-34.75	27.75-34.75	56.75	58	73	77	76	57.75-64.75	57.75-64.75
			Sample EI.	14.68 -12.68	9.68 - 7.68	5.18 - 3.18	7.43 - 2.43	8 - 3	8 - 3	8 - 3	-2 - -9	-2 - -9	-15.19 - -17.19	-17.19 - -19.19	-15.94 - -20.94	-13 - -20	-13 - -20	-20.44 - -25.44	-26.69 - -28.69	-41.69 - -43.69	-45.69 - -47.69	-44.69 - -49.69	-43 - -50	-43 - -50
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<7.5 U	<7.5 U	<7.5 U	<3.8 U	<1.5 U	<1.5 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<6 U
1,1-Dichloroethane	75-34-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,1-Dichloroethene	75-35-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.74 J	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
1,1-Dichloropropene	563-58-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
1,2-Dichloropropane	78-87-5	1	ug/l	<5 U	<5 U	<5 U	<2.5 U	<1 U	<1 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<1 U	<4 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,3-Dichloropropane	142-28-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<1,200 UJ	<1,200 U	<1,200 UJ	<620 U	<250 U	<250 U	<620 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<500 U	<250 U	<250 U	<1,000 U
2,2-Dichloropropane	594-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
2-Chlorotoluene	95-49-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	7.4 J
4-Chlorotoluene	106-43-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
4-Ethyltoluene	622-96-8	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U
Acetone	67-64-1	50	ug/l	27	17 J	26	<12 U	13	14	120	3.5 J	17	8.5	10	24 J	69	1.6 J	29 J	11	28	17	5.5 J	52	300
Acrylonitrile	107-13-1	5	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U
Benzene	71-43-2	1	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	0.31 J	0.29 J	0.48 J	0.18 J	0.2 J	<0.5 U	<0.5 U	0.16 J	3.8	0.95	2	<0.5 U	<0.5 U	31	5.5	8.1	0.8 J
Bromobenzene	108-86-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Bromochloromethane	74-97-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Bromodichloromethane	75-27-4	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
Bromoform	75-25-2	50	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U
Bromomethane	74-83-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.94 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Carbon Disulfide	75-15-0	60	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U
Carbon Tetrachloride	56-23-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
Chlorobenzene	108-90-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Chloroethane	75-00-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Chloroform	67-66-3	7	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	1.5 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Chloromethane	74-87-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	190	190	180	390	14	17	<6.2 U	2.9	0.88 J	0.8 J	0.85 J	8.2	1.3 J	1.2 J	7.7	1 J	0.86 J	200	47	2.3 J	<10 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
Cymene	99-87-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Dibromochloromethane	124-48-1	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
Dibromomethane	74-95-3	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Ethylbenzene	100-41-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
M,P-Xylene	179601-23-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1.2 J	1.4 J	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<25 UJ	<25 U	<25 U	<12 UJ	2 J	<5 U	360	7.1	12	<5 U	0.85 J	8.7	82	<5 U	4.6 J	<5 U	<5 U	<10 U	<5 U	120	470
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<5 U	<5 U	<5 U	<5 U	1.5 J	<5 UJ	1.7 J	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U
Methylene Chloride	75-09-2	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	3 J
Naphthalene	91-20-3	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
n-Butylbenzene	104-51-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
n-Propylbenzene	103-65-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1 J	1.2 J	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Sec-Butylbenzene	135-98-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Styrene	100-42-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
T-Butylbenzene	98-06-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	600	640	570	63	0.54	0.64	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.18 J	<0.5 U	<0.5 U	0.54	0.25 J	<0.5 U	0.41 J	0.21 J	<0.5 U	<2 U
Toluene	108-88-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	8.7	10	<6.2 U	2.3 J	3.5	<2.5 U	<2.5 U	<2.5 U	1.3 J	1.2 J	9	<2.5 U	<2.5 U	<5 U	2 J	<2.5 U	<10 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	190	190	180	390 J	14	17	<6.2 U	2.9	0.88 J	0.8 J	0.85 J	8.2	1.3 J	1.2 J	7.7	1 J	0.86 J	200	47	2.3 J	<10 U
Total Xylenes	1330-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	2.2 J	2.6 J	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<12 U	<12 U	<12 U	1.8 J	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Trichloroethene (TCE)	79-01-6	5	ug/l	390	390	350	52	0.56	0.7	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.37 J	<0.5 U	<0.5 U	0.24 J	0.18 J	<0.5 U	0.39 J	0.24 J	<0.5 U	<2 U
Trichlorofluoromethane	75-69-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U
Vinyl Acetate	108-05-4	NS	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U
Vinyl Chloride	75-01-4	2	ug/l	0.42 J	<5 U	0.41 J	1.2 J	4.4	5.2	0.2 J	1.6	1.3	<1 U	>1 U	<1 U	0.94 J	0.18 J	1	<1 U	<1 U	6.7	6.4	2.7	<4 U
Metals																								
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	234,000	127,000	NA	353,000	NA	NA	NA	NA	54,400	NA	NA	58,500	NA	NA	NA	95,000	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	868,600	398,900	NA	1,327,000	NA	NA	NA	NA	174,600	NA	NA	185,100	NA	NA	NA	303,800	NA	NA
Iron	7439-89-6	300	ug/l	NA	NA	NA	34,200	8,330	NA	1,180,000	NA	NA	NA	NA	5,660	NA	NA	9,480	NA	NA	NA	6,650	NA	NA
Magnesium	7439-95-4	35,000	ug/l	NA	NA	NA	68,700	19,900	NA	108,000	NA	NA	NA	NA	9,420	NA	NA	9,450	NA	NA	NA	16,200	NA	NA
Manganese	7439-96-5	300	ug/l	NA	NA	NA	6,069	662.1	NA	2,066	NA	NA	NA	NA	235.1	NA	NA	363.8	NA	NA	NA	448.3	NA	NA
General Chemistry																								
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	155,000	260,000	NA	1,840,000 J	NA	NA	NA	NA	85,800 J	NA	NA	116,000	NA	NA	NA	141,000	NA	NA
Chloride (As Cl)	16887-00-6	250,000	ug/l	NA	NA	NA	340,000	410,000	NA	88,000	NA	NA	NA	NA	54,000	NA	NA	48,000	NA	NA	NA	83,000	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	4,400 J	6,600	NA	5,400,000 J	NA	NA	NA	NA	6,900	NA	NA	8,700	NA	NA	NA	4,000 J	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	116	164	NA	89 J	NA	NA	NA	NA	27 J	NA	NA	104	NA	NA	NA	44 J	NA	NA
Sulfate (As SO4)	14808-79-8	250,000	ug/l	NA	NA	NA	600,000	30,000	NA	<10,000 U	NA	NA	NA	NA	140,000	NA	NA	130,000	NA	NA	NA	130,000	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	3,800	6,700	NA	2,800,000 J	NA	NA	NA	NA	7,100	NA	NA	8,500	NA	NA	NA	3,500	NA	NA

Table 5
EZVI Remedial Injections and Groundwater Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Re-Injection Interval

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-9R-S_22	LMW-9R-S_30.5	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76	LMW-9R-D_58.25	LMW-9R-D_58.25
			Sample Date	09/29/2022	09/29/2022	02/13/2024	8/15/2024	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	02/14/2024	8/14/2024
			Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections
			Sample Depth	22	30.5	13.75-19.75	13.75-19.75	43.5	46.5	60.5	63.5	76	55.25-63.25	55.25-63.25
			Sample El.	11.34 - 9.34	2.84 - 0.84	1 - -5	1 - -5	-10.16 - -12.16	-13.16 - -15.16	-26.6 - -28.6	-29.6 - -31.6	-42.1 - -44.1	-40.5 - -48.5	-40.5 - -48.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<1.2 U	0.18 J	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<3.8 U	<1.5 U	<38 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<5 U	<2 U	<50 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<5 U	<2 U	<50 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<2.5 U	<1 U	<25 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<5 U	<2 U	<50 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 UJ	<620 UJ	<250 U	<6,200 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<12 U	1.2 J	<120 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<5 U	<2 U	<50 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	16	26	**100**	**650**	8.4	6.8	20	6.2	13	9.7	2.2 J
Acrylonitrile	107-13-1	5	ug/l	<10 U	<12 U	<5 U	<120 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8.5**	**7.4**	**1.3**	<12 U	0.6	0.56	0.65	**1.6**	0.19 J	**5.7**	**3.9**
Bromobenzene	108-86-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<4 U	<5 U	<2 U	<50 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<12 U	<5 U	<120 U	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.9**	**7.5**	<2.5 U	<62 U	1.2 J	1.2 J	<2.5 U	3.8	**34**	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	<2.5 U	<62 U	**9.6**	**8.8**	**9.6**	**11**	2.3 J	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<10 U	<12 U	<5 U	<120 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<12 U	<5 U	<120 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 UJ	<12 UJ	**82**	**3,600**	2 J	<5 U	1.9 J	<5 UJ	<5 U	16	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<12 U	4.3 J	<120 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.75 J	0.65 J
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**190**	**250**	0.2 J	<12 U	2.7	2.5	2.4	2.1	0.34 J	<0.5 U	<0.5 U
Toluene	108-88-3	**5**	ug/l	<5 U	<6.2 U	**85**	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	<2.5 U	<62 U	9.6	8.8	9.6	11	2.3 J	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**56**	**58**	<0.5 U	<12 U	0.75	0.68	0.65	0.65	<0.5 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<12 U	<5 U	<120 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1 J	0.96 J	**4.6**	<25 U	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J	0.24 J	0.27 J
Metals														
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	374.000	NA	NA	NA	NA	NA	148,000	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	1,262.000	NA	NA	NA	NA	NA	478,100	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**1,210,000**	NA	NA	NA	NA	NA	**16,700**	NA
Magnesium	7439-95-4	**35.000**	ug/l	NA	NA	NA	**79,500**	NA	NA	NA	NA	NA	26,400	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**744.2**	NA	NA	NA	NA	NA	**785.9**	NA
General Chemistry														
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	3,140.000 J	NA	NA	NA	NA	NA	272,000	NA
Chloride (As Cl)	16887-00-6	**250.000**	ug/l	NA	NA	NA	**460.000**	NA	NA	NA	NA	NA	230,000	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	9,200,000	NA	NA	NA	NA	NA	3,900	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	60 J	NA	NA	NA	NA	NA	<100 U	NA
Sulfate (As SO4)	14808-79-8	**250.000**	ug/l	NA	NA	NA	34,000	NA	NA	NA	NA	NA	<10,000 U	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	8,600,000	NA	NA	NA	NA	NA	2,100	NA

Table 5
EZVI Remedial Injections and Groundwater Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Proposed Re-Injection Interval (Not Completed)

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D
			Sample Name	LMW-10R-S_18.25	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36	LMW-10R-D_40.5	LMW-10R-S_24.75	LMW-10R-S_24.75	LMW-10R-D_49	LMW-10R-D_30.75	LMW-10R-D_30.75	LMW-10R-D_40.75	LMW-10R-D_40.75	LMW-10R-D_63
			Sample Date	12/23/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	12/23/2022	02/13/2024	8/14/2024	09/29/2022	02/13/2024	8/14/2024	02/13/2024	8/14/2024	09/29/2022
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections
			Sample Depth	18.25	21.5	26.5	28.5	34	36	40.5	23.75-29.75	23.75-29.75	49	26.75-35.75	26.75-35.75	40.75-45.75	40.75-45.75	63
			Sample El.	12.67 - 7.67	9.42 - 7.42	4.42 - 2.42	2.42 - 0.42	-3.08 - -5.08	-5.08 - -7.08	-11.93 - -16.93	-9 - -15	-9 - -15	-20.43 - -22.43	-12 - -21	-12 - -21	-26 - -31	-26 - -31	-34.43 - -36.43
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																		
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.17 J	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.23 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<500 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	2.1 J	**91**	**84**	**88**	**100**	**160**	2.3 J	30	**160**	**100**	4.3 J	7.6	5.1	7.8	**91**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.25 J	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J	0.2 J	<0.5 U	<1 U	<0.5 U	0.76	0.55	0.66	0.53	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.81	<1 U	<0.5 U	0.44 J	<0.5 U	0.42 J	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.6	**13**	<5 U	**52**	7	<2.5 U	6.4	<2.5 U	**47**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**140**	**100**	**110**	**90**	**91**	**92**	**18**	**7.5**	<5 U	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	21	17 J	21	24	35	<5 U	5.6	**100**	23 J	<5 U	27	<5 U	19	21
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2.4 J	<5 U	<5 UJ	<5 U	<5 UJ	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.82 J	<5 U	3	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.5
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**26**	2.7	2.6	2	2	2.1	2.1	0.41 J	<1 U	0.78	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.74
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	4.2 J	<2.5 U	<2.5 U	<2.5 U	1.4 J	<2.5 U	3.4	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	140	100	110	90	91	92	18	7.5	<5 U	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**33**	**5.4**	**5.5**	4.9	4.8	4.7	1.1	0.33 J	<1 U	1.6	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.6
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.37 J	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J	0.11 J	1.8	<2 U	<1 U	0.63 J	<1 U	0.75 J	0.18 J	<1 U
Metals																		
Calcium	7440-70-2	NS	ug/l	184,000	NA	NA	NA	NA	NA	97,700	NA	140,000 J	NA	NA	NA	153,000	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	693,900	NA	NA	NA	NA	NA	362,800	NA	458,900	NA	NA	NA	493,800	NA	NA
Iron	7439-89-6	**300**	ug/l	**33,000**	NA	NA	NA	NA	NA	**12,600**	NA	**36,800 J**	NA	NA	NA	**15,200**	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	**57,100**	NA	NA	NA	NA	NA	28,800	NA	26,600 J	NA	NA	NA	27,200	NA	NA
Manganese	7439-96-5	**300**	ug/l	**2,861**	NA	NA	NA	NA	NA	**1,638**	NA	**1,017 J**	NA	NA	NA	**702.8**	NA	NA
General Chemistry																		
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	156,000	NA	NA	NA	NA	NA	177,000	NA	477,000 J	NA	NA	NA	335,000	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	97,000	NA	NA	NA	NA	NA	66,000	NA	130,000	NA	NA	NA	160,000	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	5,600	NA	NA	NA	NA	NA	5,300	NA	120,000	NA	NA	NA	3,400	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	79 J	NA	NA	NA	NA	NA	47 J	NA	40 J	NA	NA	NA	63 J	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	**530,000**	NA	NA	NA	NA	NA	190,000	NA	<10,000 U	NA	NA	NA	11,000	NA	NA
Total Organic Carbon	TOC	NS	ug/l	5,500	NA	NA	NA	NA	NA	5,700	NA	120,000	NA	NA	NA	3,200	NA	NA

Table 5
EZVI Remedial Injections and Groundwater Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

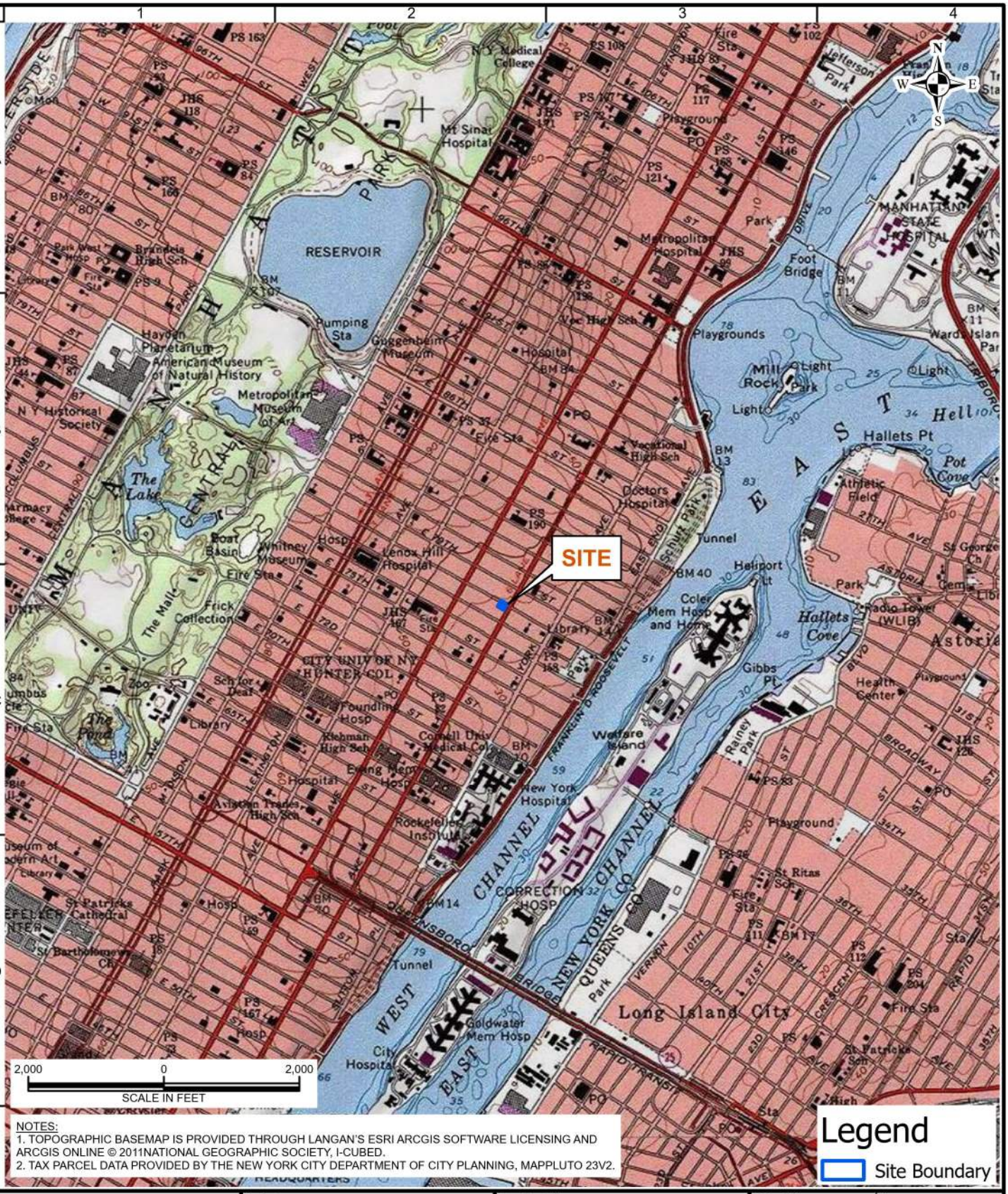
Notes:
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected
The following groundwater samples and groundwater monitoring wells are not shown on Table 4 due to excavation for the basement construction: LMW-8R-S_14.5, LMW-8R-S_15, LMW-9R-S_15, LMW-10R-S_13, LMW-11R-S, LMW-11R-D, LMW-12R-S, LMW-12R-D, LMW-13R-S, and LMW-13R-D and overburden wells LMW-6, LMW-7, LMW-8, LMW-9, and LMW-10.
Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

FIGURES



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Langan International LLC
Collectively known as Langan

Project

1487 1ST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No.27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

SITE LOCATION MAP

Project No.	100963701
Date	9/28/2023
Scale	1"=2,000'
Drawn By	JF
Submission Date	

Figure 1

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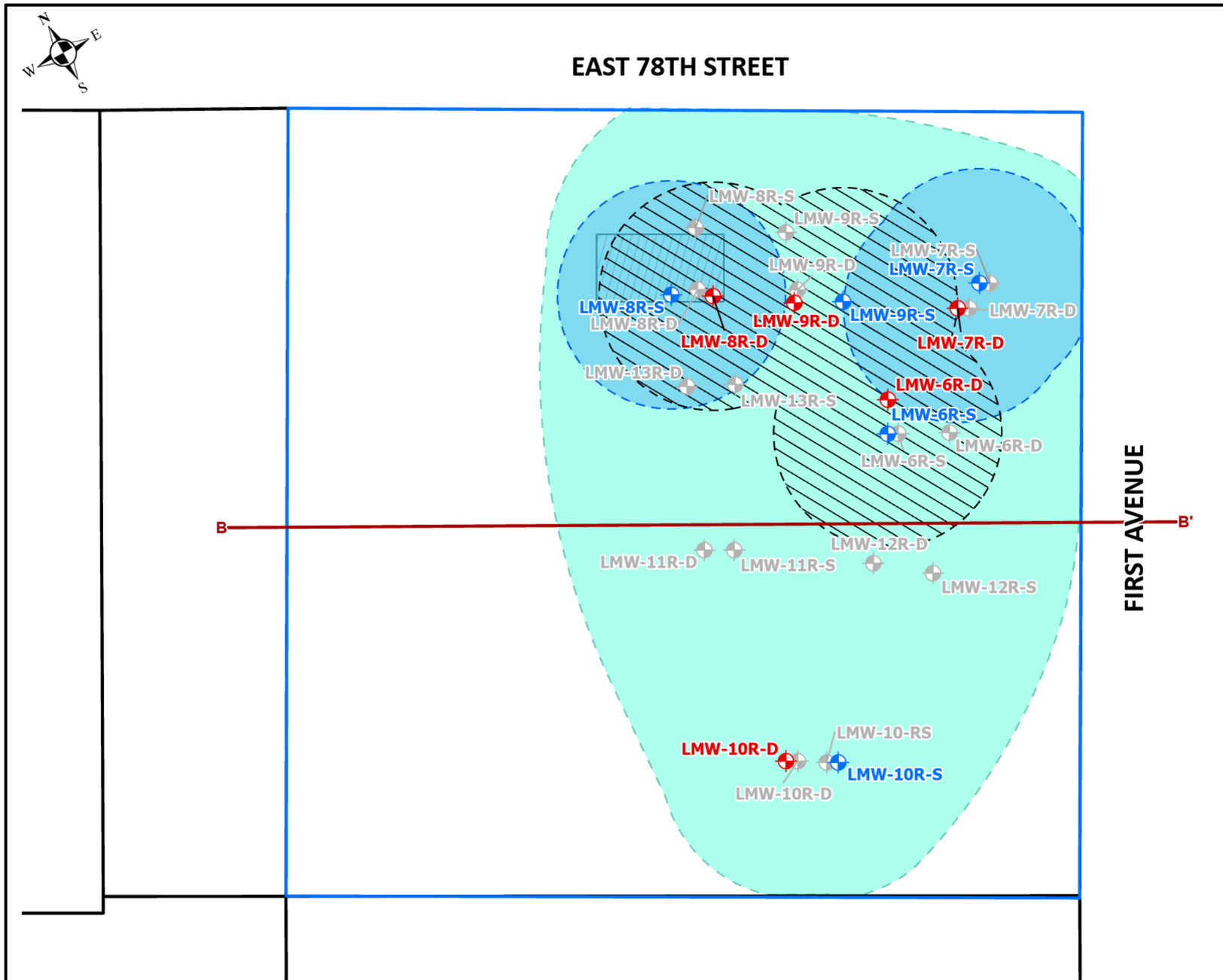

LEGEND

- SITE BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- TAX LOT BOUNDARY
- CROSS SECTION
- 2023 TREATMENT ZONE
- 2024 EZVI TREATMENT ZONE
- 2024 EVO INJECTION ZONE
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
4. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.
3. 2023 TREATMENT ZONE IS SHOWN AS PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN.

15 0 15
SCALE IN FEET

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 FIRST AVENUE REDEVELOPMENT SITE
BLOCK No. 1452, LOT No. 27
MANHATTAN
NEW YORK NEW YORK

Drawing Title
SITE AND INJECTION LOCATION PLAN

Project No.	Figure
100963701	2A
Date: 10/3/2024	
Scale: 1"=15'	
Drawn By: IHB	

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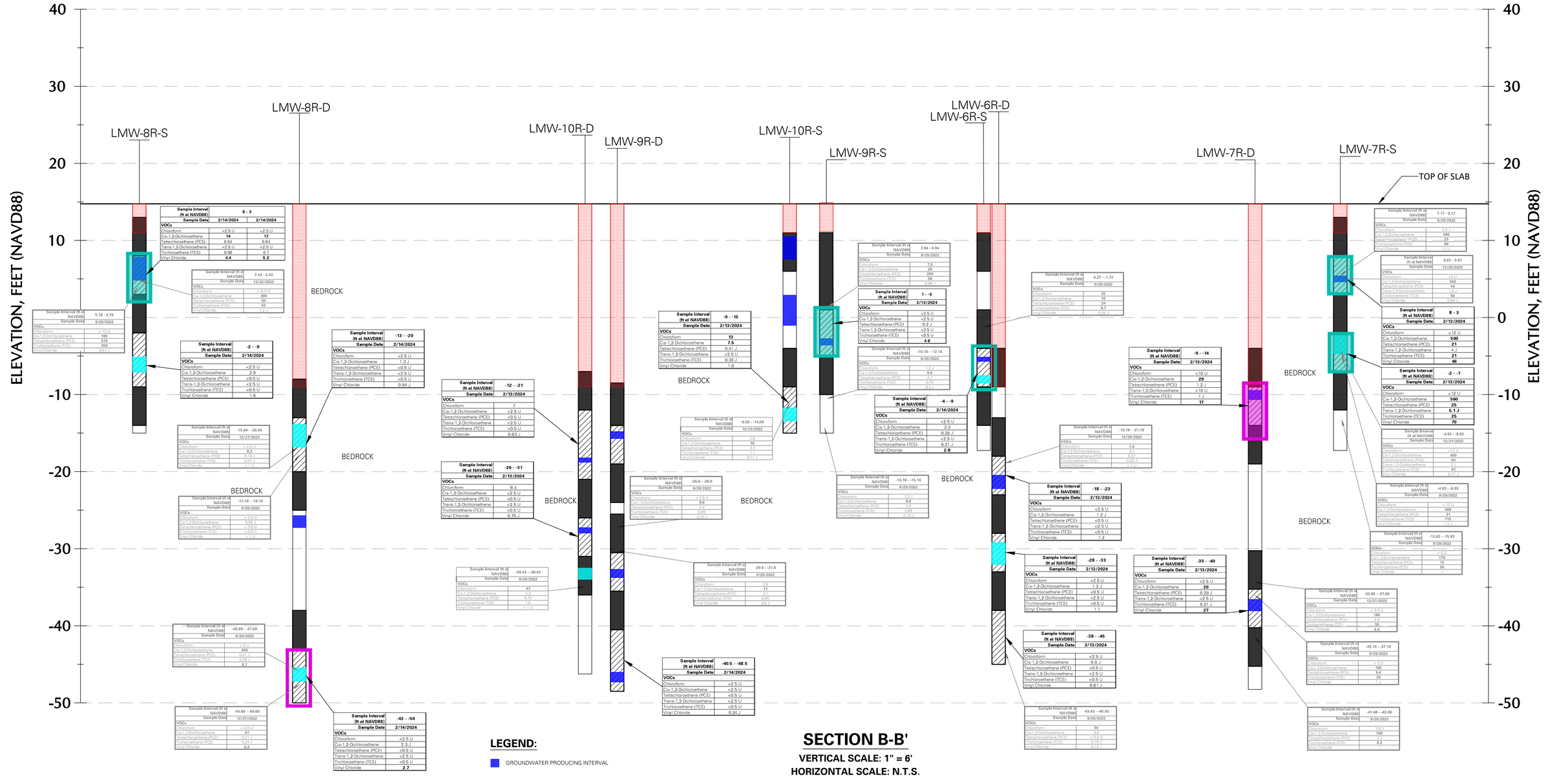
Path: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\APRX\2024-03 - Monitoring Report\Monitoring Report.aprx Date: 10/3/2024 User: ibaker Time: 11:25 AM



WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY 2024 PERFORMANCE GROUNDWATER MONITORING EVENT.

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

VERTICAL SCALE: 1 INCH = 6 FEET

SECTION B-B'

VERTICAL SCALE: 1" = 6'
HORIZONTAL SCALE: N.T.S.

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400
MANHATTAN NEW YORK

Project: 1487 1ST AVENUE REDEVELOPMENT SITE

Drawing Title: BEDROCK TREATMENT INJECTION INTERVALS

Project No.	Drawing No.
100963701	2B
Date: 10/11/2024	
Drawn By: AR	
Checked By: CR	

PROJECT NO. 100963701

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Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Injection_and_Groundwater_Monitoring_Report_2024.dwg Date: 10/11/2024 Time: 14:55 User: aruane Style Table: Langan.stb Layout: Figure 2B - Bedrock Treatment Injection Intervals

EAST 78TH STREET

Location	LMW-8R-D	LMW-8R-D
Sample Name	LMW-8RD_27.75_08132024	LMW-8RD_59.75_08132024
Sample Date	08/13/2024	08/13/2024
Sample Depth	27.75-34.75	57.75-64.75
VOCs		
Chloroform	<2.5 U	<10 U
Cis-1,2-Dichloroethene	1.2 J	<10 U
Tetrachloroethene (PCE)	<0.5 U	<2 U
Trans-1,2-Dichloroethene	<2.5 U	<10 U
Trichloroethene (TCE)	<0.5 U	<2 U
Vinyl Chloride	0.18 J	<4 U

Location	LMW-9R-D
Sample Name	LMW-9R-D_58.25_08142024
Sample Date	08/14/2024
Sample Depth	55.25-63.25
VOCs	
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U
Tetrachloroethene (PCE)	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U
Trichloroethene (TCE)	<0.5 U
Vinyl Chloride	0.27 J

Location	LMW-7R-S	LMW-7R-S
Sample Name	LMW7RS_6.75_08122024	LMW-7RS_16.75_08132024
Sample Date	08/12/2024	08/13/2024
Sample Depth	6.75-11.75	16.75-21.75
VOCs		
Chloroform	< 25 UJ	<5,000 U
Cis-1,2-Dichloroethene	**42 J**	<5,000 U
Tetrachloroethene (PCE)	< 5 UJ	<1,000 U
Trans-1,2-Dichloroethene	< 25 UJ	<5,000 U
Trichloroethene (TCE)	< 5 UJ	<1,000 U
Vinyl Chloride	**4 J**	<2,000 U

Location	LMW-8R-S	LMW-8R-S
Sample Name	LMW-8R-S_6.75_08152024	LMW8RS_18.75_08122024
Sample Date	08/15/2024	08/12/2024
Sample Depth	6.75-11.75	16.75-23.75
VOCs		
Chloroform	<6.2 U	<2.5 U
Cis-1,2-Dichloroethene	<6.2 U	0.88 J
Tetrachloroethene (PCE)	<1.2 U	<0.5 U
Trans-1,2-Dichloroethene	<6.2 U	<2.5 U
Trichloroethene (TCE)	<1.2 U	<0.5 U
Vinyl Chloride	0.2 J	1.3

Location	LMW-9R-S
Sample Name	LMW-9R-S_13.75_08152024
Sample Date	08/15/2024
Sample Depth	13.75-19.75
VOCs	
Chloroform	<62 U
Cis-1,2-Dichloroethene	<62 U
Tetrachloroethene (PCE)	<12 U
Trans-1,2-Dichloroethene	<62 U
Trichloroethene (TCE)	<12 U
Vinyl Chloride	<25 U

Location	LMW-6R-D	LMW-6R-D	LMW-6R-D
Sample Name	LMW-6RD_32.75_08122024	LMW-6R-D_42.75_08152024	LMW-8R-D_54.75_08142024
Sample Date	08/12/2024	08/15/2024	08/14/2024
Sample Depth	32.75-37.75	42.75-47.75	52.75-59.75
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	<0.5 U	0.18 J	<0.5 U
Vinyl Chloride	0.36 J	0.38 J	<1 U

Location	LMW-7R-D
Sample Name	LMW-7RD_23.75_08132024
Sample Date	08/13/2024
Sample Depth	23.75-28.75
VOCs	
Chloroform	<25 U
Cis-1,2-Dichloroethene	<25 U
Tetrachloroethene (PCE)	<5 U
Trans-1,2-Dichloroethene	<25 U
Trichloroethene (TCE)	<5 U
Vinyl Chloride	<10 U

L: 32

B: 1452
L: 31

B: 1452
L: 27

Location	LMW-6R-S
Sample Name	LMW-6RS_18.75_08132024
Sample Date	08/13/2024
Sample Depth	18.75-23.75
VOCs	
Chloroform	<5 UJ
Cis-1,2-Dichloroethene	<5 UJ
Tetrachloroethene (PCE)	<1 UJ
Trans-1,2-Dichloroethene	<5 UJ
Trichloroethene (TCE)	<1 UJ
Vinyl Chloride	0.14 J

Location	LMW-10R-D	LMW-10R-D
Sample Name	LMW-10RD_30.75_08142024	LMW-10RD_40.75_08142024
Sample Date	08/14/2024	08/14/2024
Sample Depth	26.75-35.75	40.75-45.75
VOCs		
Chloroform	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	<2.5 U	<2.5 U
Trichloroethene (TCE)	<0.5 U	<0.5 U
Vinyl Chloride	<1 U	0.18 J

Location	LMW-10R-S
Sample Name	LMW-10RS_24.75_08142024
Sample Date	08/14/2024
Sample Depth	23.75-29.75
VOCs	
Chloroform	<5 U
Cis-1,2-Dichloroethene	<5 U
Tetrachloroethene (PCE)	<1 U
Trans-1,2-Dichloroethene	<5 U
Trichloroethene (TCE)	<1 U
Vinyl Chloride	<2 U

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

LMW-8R-S
LMW-9R-S
LMW-9R-D
LMW-7R-S
LMW-8R-D
LMW-9R-D
LMW-7R-D
LMW-13R-D
LMW-13R-S
LMW-6R-D
LMW-6R-S
LMW-11R-D
LMW-11R-S
LMW-12R-D
LMW-12R-S
LMW-10R-D
LMW-10-RS
LMW-10R-S

B
B'

FIRST AVENUE

15 0 15
SCALE IN FEET

LEGEND

- SITE BOUNDARY
- TAX LOT BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- CROSS SECTION
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI
- PROPOSED PERFORMANCE MONITORING WELLS

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
3. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.

LANGAN
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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

1487 FIRST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No. 27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

CHLORINATED VOC ANALYTICAL RESULTS

Project No. 100963701	Figure 3A
Date 10/11/2024	
Scale 1"=15'	
Drawn By IHB	

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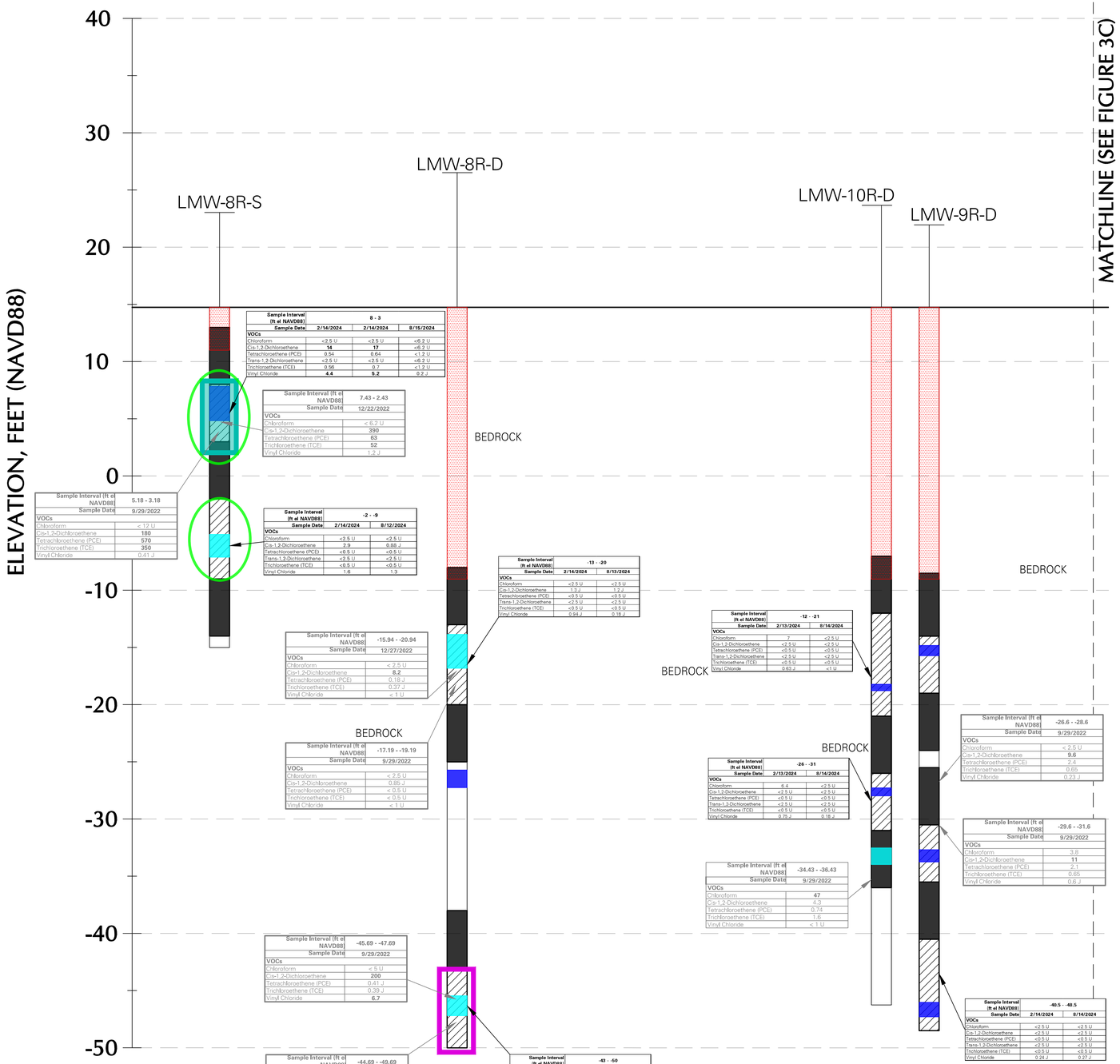

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY AND AUGUST 2024 PERFORMANCE GROUNDWATER MONITORING EVENTS.

SECTION B-B' WEST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

LANGAN
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title
CHLORINATED VOC ANALYTICAL RESULTS (SECTION B-B' WEST)

Project No. 100963701	Drawing No. 3B
Date 10/11/2024	
Drawn By AR	
Checked By CR	

LANGAN
PROJECT NO. 100963701

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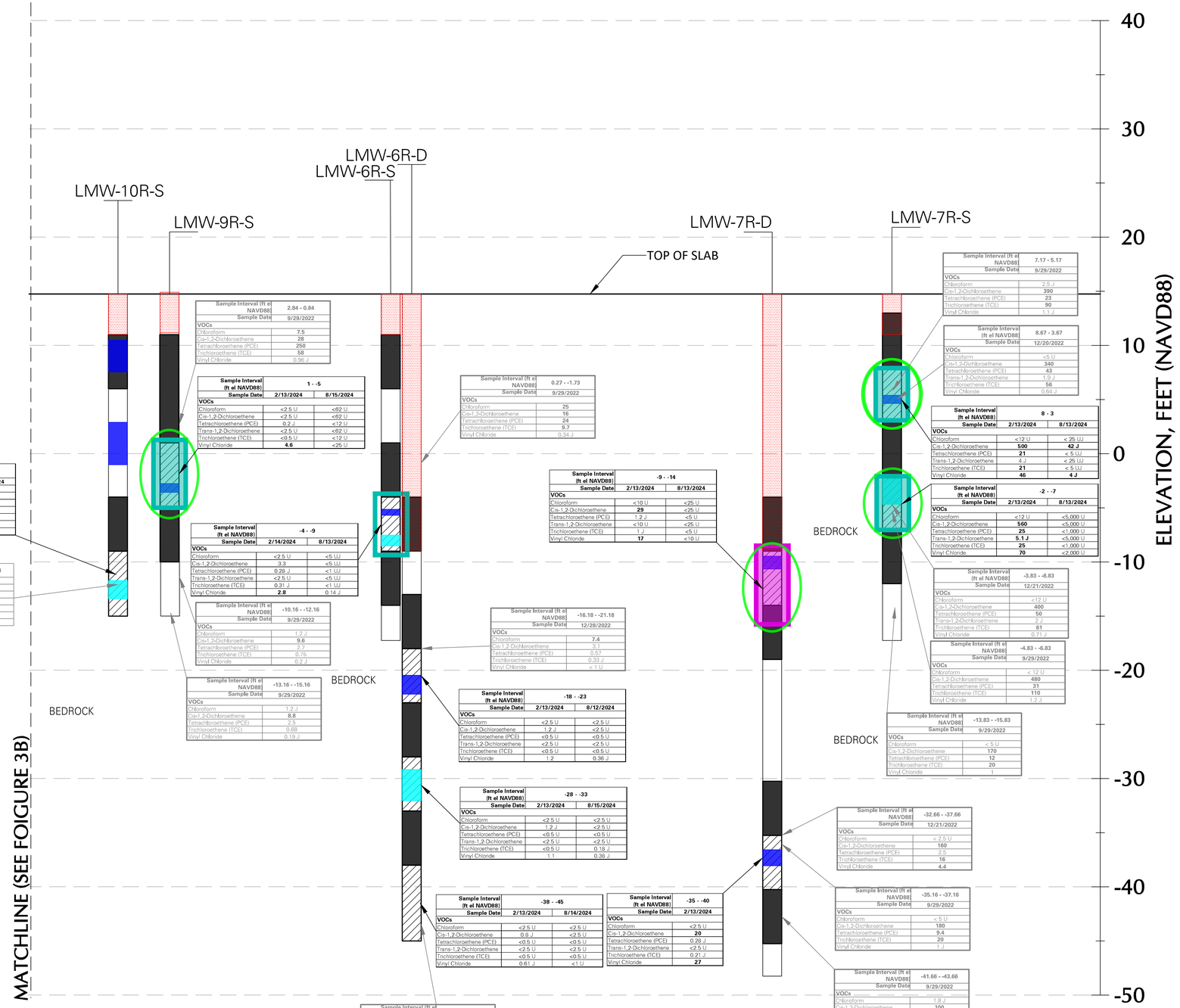
Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Injection_and_Groundwater_Monitoring_Report_2024.dwg Date: 10/11/2024 Time: 15:45 User: aruane Style Table: Langan.stb Layout: Figure 3B - Chlorinated VOC Analytical Results



LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
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EVO ONLY

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- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

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3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY AND AUGUST 2024 PERFORMANCE GROUNDWATER MONITORING EVENTS.

SECTION B-B' EAST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project: 1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title: CHLORINATED VOC ANALYTICAL RESULTS (SECTION B-B' EAST)

Project No. 100963701
Date 10/11/2024
Drawn By AR
Checked By CR

Drawing No. 3C

LANGAN
PROJECT NO. 100963701

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Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Injection_and_Groundwater_Monitoring_Report_2024.dwg Date: 10/11/2024 Time: 11:26 User: aruane Style Table: Langan.stb Layout: Figure 3C - Chlorinated VOC Analytical Results

APPENDIX A

Injection and Field Monitoring Logs

Appendix A
Field Visual Inspection Log

1487 First Avenue
New York City, New York
Langan Project No.:100963701

Langan Crew:	MJ

Checked the well field/treatment and surrounding areas for visual signs of daylighting and leaks before injection begins, and every 30 to 60 minutes during injection.

Date / Time	Injection Well	Injection Interval (ft btoc)	Observations + Location (surfacing, leaks, etc.)
5/7/2024 12:25	LMW-9R-S	13.75-19.75'	Daylighting occured near LMW-9R-D.
5/10/2024 9:01	LMW-7R-S	6.75-11.75'	Daylighting occured at LMW-10R-S.
5/10/2024 11:04	LMW-8R-S	6.75-11.75'	Daylighting occured at LMW-10R-S.
5/14/2024 12:50	LMW-7R-S	6.75-11.75'	Daylighting occured at LMW-10R-S and in the elevator shaft.

Notes:
ft - feet
btoc - below top of casing
Injection was not performed at well LMW-10R-S due to daylighting around the well while injecting at LMW-7R-S and LMW-8R-S.

Appendix A
Anaerobic Water Tank Monitoring Log

1487 First Avenue
New York City, New York
Langan Project No.:100963701

Tote Name	Date	Time	Water Quality Parameters (Horiba U-22)				Sodium Ascorbate Mass	Water Volume	Notes
			Temp	pH	ORP	DO			
		hh:mm	°C	S.U.	mV	mg/L	lbs	gallons	
#1	5/3/2024	12:30	13.07	6.78	270	3.02	2	275	
#2	5/3/2024	12:40	12.86	12.47	23	4.91	2	275	
#2	5/6/2024	8:02	13.25	12.41	53	6.3	2	275	
#1	5/6/2024	8:04	13.18	8.77	179	0.85	2.8	275	Increase dose to 2.8 lbs.
#1	5/6/2024	9:39	13.11	6.61	36	0	2.8	275	
#2	5/6/2024	9:51	12.95	12.44	-27	3.06	2.8	275	
#2	5/6/2024	10:15	12.96	12.44	-21	1.14	2.8	275	
#1	5/6/2024	10:35	12.96	12.44	-13	0.6	2.8	275	
#2	5/6/2024	11:03	12.96	12.44	-7	0.44	2.8	275	
#1	5/6/2024	11:09	13.01	8.13	-52	0.2	2.8	275	
#2	5/7/2024	9:10	13.4	12.46	13	3.67	2.8	275	
#1	5/7/2024	9:18	13.38	10.44	-6	0.44	2.8	275	
#2	5/7/2024	9:36	13.38	12.15	-176	0	2.8	275	Tote was remixed to make sure Newman Zone was properly dissolved.
#3/Mix tote	5/7/2024	11:15	12.16	7.58	-147	0.49	2.8	275	
#1	5/8/2024	8:00	12.55	7.64	-1	0.47	2.8	275	
#2	5/8/2024	8:06	13.45	12.28	-73	0.23	2.8	275	
#1	5/9/2024	8:21	12.54	12.54	16	1.3	2.8	275	
#2	5/9/2024	8:28	13.37	12.1	-193	0.11	2.8	275	
#2	5/10/2024	6:45	13.41	9.46	-266	0.27	2.8	275	
#2	5/13/2024	9:43	13.41	9.72	-471	0	2.8	275	
#2	5/14/2024	7:37	13.7	9.14	-62	0.39	2.8	275	
#2	5/15/2024	10:34	13.88	9.1	-10	0.29	2.8	275	
#2	5/16/2024	12:33	14.41	9.56	-383	0.86	2.8	275	

Notes:
hh:mm - hour:minute
Temp - temperature
°C - degrees Celsius/Centigrade
S.U. - standard units
ORP- oxidation-reduction potential
mV - millivolts
DO - dissolved oxygen
mg/L - milligrams per liter
lbs - pounds
gal - gallons
Anaerobic tote number refers physical tote number.
Newman Zone would be added when the dissolved oxygen reading became too high.

Appendix A
Injection System Summary and Field Visual Inspection Log

1487 First Avenue
New York City, New York
Langan Project No.:100963701

Date	Well ID	Start time	Stop time	Injection Media	EVO	EZVI + FSS	Bioaugmentation Culture	Injection Pressure	Flowrate	Chase Water	Notes
		hh:mm	hh:mm	gal	gal	gal	L	PSI	GPM	gallons	
5/7/2024	LMW-9R-S	9:06	9:21	0	0	0	0	35	0.67	10	Pre-check with anerobic water
5/7/2024	LMW-9R-S	10:16	11:40	217.5	24.5	0	0	40	2.59	0	1st tote injected
5/7/2024	LMW-9R-S	11:54	12:28	12		0	0	5	0.35	0	Stopped due to daylighting near LMW-9R-D
5/7/2024	LMW-9R-S	15:05	15:48	0	0	0	2.2	4	0.47	20	Injected full volume of bio-culture with 5 gallons of anerobic water before the bio-culture and 15 gallons of chase water after
5/8/2024	LMW-8R-D	8:48	8:53	0	0	0	0	20	2	10	Pre-check with anerobic water
5/8/2024	LMW-8R-D	8:55	16:16	467	24.5	0	2.2	60	1.06	10	Full batch injected
5/8/2024	LMW-8R-D	16:27	16:41	0	0	0	0	60	1.54	20	20 gallons of chase water
5/9/2024	LMW-7R-D	9:00	9:09	0	0	0	0	1	1.11	10	Pre-check with anerobic water
5/9/2024	LMW-7R-D	9:13	12:19	0	0	27	2.2	70	0.32	20	EZVI and bacteria volume injected
5/9/2024	LMW-7R-D	12:23	16:30	272	16	0	0	70	1.32	0	Full injection mix volume injected. When switching to chase water, well maintained max pressure and allowed no flow.
5/10/2024	LMW-7R-S (6.75-11.75')	7:43	7:50	0	0	0	0	20	1	7	Pre-check with anerobic water
5/10/2024	LMW-7R-S(6.75-11.75')	7:57	9:03	0	0	13.5	0	20	0.31	0	Stopped due to daylighting at LMW-10R-S
5/10/2024	LMW-8R-S	10:54	11:06	0	0	0	0	30	0.83	10	Stopped due to daylighting at LMW-10R-S
5/10/2024	LMW-6R-S	14:14	14:16	0	0	0	0	1	5	10	Pre-check with anerobic water
5/10/2024	LMW-6R-S	14:19	16:51	181	13.5	0	2.2	15	1.32	20	Around half of the injection mix injected
5/13/2024	LMW-6R-S	7:47	9:52	156	12	0	0	30		10	Finished injection mix for 6R-S
5/13/2024	LMW-7R-S(6.75-11.75')	9:57	13:51	0	0	13.5	0	75	0.06	1	EZVI volume, switch to water for bio-culture. Well only accepted 1 gallon of water before loss of flow at max pressure
5/13/2024	LMW-8R-S	13:55	16:45	182	7.36	0	2.2	75	1.1	10	Pre-check with anaerobic water first. Stopped injecting due to end of day
5/14/2024	LMW-8R-S	7:40	8:43	0	0	5	0	75	-	1	Stopped due to no flow at max pressure
5/14/2024	LMW-8R-S	10:28	-	0	0	8	0	80	-	0	Stopped due to no flow at max pressure
5/14/2024	LMW-7R-S (6.75-11.75')	12:18	12:54	40	0	0	2.2	70	1.11	10	Stopped due to daylighting near the elevator near LMW-10 and in the open shaft
5/14/2024	LMW-8R-S	14:25	16:04	0	0	2	0	90	0.02	0	Stopped due to no flow at max pressure
5/15/2024	LMW-7R-S(16.75-21.75')	9:15	12:45	0	0	3	0	90	-	0	Stopped due to no flow at max pressure
5/15/2024	LMW-9R-S	13:49	15:49	0	0	6	0	80	-	0	Stopped due to no flow at max pressure
5/15/2024	LMW-9R-S	15:55	16:50	0	0	3	0	80	-	2	EZVI stopped at end of day.
5/16/2024	LMW-7R-S(16.75-21.75')	7:51	8:08	0	0	0	0	90	-	1	Stopped due to no flow at max pressure
5/16/2024	LMW-8R-S	8:30	8:37	0	0	0	0	60	0.7	5	Flush water
5/16/2024	LMW-8R-S	8:50	9:12	0	0	0	0	90	-	0	EZVI, stopped due to no flow
5/16/2024	LMW-8R-S	9:35	9:50	0	0	0	0	35	-	10	Flush water
5/16/2024	LMW-8R-S	10:05	11:00	0	0	15	0	80	0.3	0	EZVI, injected half of new volume required. High pressure after 15 gallons, switch to water
5/16/2024	LMW-8R-S	11:13	11:27	0	0	0	0	35	0.4	5	Flush water
5/16/2024	LMW-7R-S(16.75-21.75')	11:32	11:45	0	0	0	0	90	-	0	Stopped due to no flow at max pressure. Langan to manually pump out well with check valve and tubing to free up the flow
5/16/2024	LMW-7R-S(16.75-21.75')	12:05	12:14	0	0	0	0	65	0.5	5	Flush water
5/16/2024	LMW-7R-S(16.75-21.75')	12:35	12:45	0	0	0	2.2	65	0.5	5	Injected 2.2L of bio-culture followed by 5 gallons of anerobic chase water
5/16/2024	LMW-7R-S(16.75-21.75')	12:46	12:56	0	0	4	0	90	0.4	0	Stopped due to high pressure, flush with anerobic water to see if flow rate improves
5/16/2024	LMW-7R-S(16.75-21.75')	12:57	13:25	0	0	0	0	80	0.4	10	Flush water
5/16/2024	LMW-7R-S(16.75-21.75')	13:27	14:34	0	0	7	0	90	-	0	Stopped due to low flow and high pressure
5/16/2024	LMW-7R-S(16.75-21.75')	14:35	14:55	0	0	0	0	80	0.5	10	Flush water
5/16/2024	LMW-8R-S	15:32	15:37	0	0	0	0	20	1	5	Flush water
5/16/2024	LMW-8R-S	15:48	16:06	0	0	0	6.6	25	0.6	10	Emptied the rest of the bacteria keg with 5 gallons of chase water on each side
5/16/2024	LMW-8R-S	16:07	16:26	0	0	7	0	75	0.5	0	EZVI into LMW-9R-S
5/16/2024	LMW-8R-S	16:28	16:36	0	0	0	0	60	1.9	15	Flush water
5/16/2024	LMW-9R-S	16:41	16:50	0	0	0	0	90	-	0	Stopped due to end of day, no flow due to high pressure

Notes:
GPM - gallons per minute
psi - pounds per square inch
EZVI - emulsified zero-valent iron
FSS - ferrous sulfide
EVO - emulsified vegetable oil
L - liters
gal - gallons
hh:mm - hour:minute
Injection media is a mixture of anaerobic water+sodium ascorbate+diammonium phosphate (DAP)+yeast extract+calcium carbonate
Bioaugmentation culture used was TSI-DC®
Injection was not performed at well LMW-10R-S due to daylighting around the well while injecting at LMW-7R-S, and LMW-8R-S.

Appendix A
Groundwater Quality Log

1487 First Avenue
New York City, New York
Langan Project No.:100963701

Well ID	Depth	Date	Time	West Bay pressure	Zone Pressure	Temperature	pH	ORP	Conductivity	Turbidity	DO	Notes
Well ID	Feet		hh:mm	PSIA	PSIA	°C	S.U.	mV	ms/cm	NTU	mg/L	
LMW-7R-S	6.75	5/1/2024	12:25	18.43	21.77	14.07	6.69	89	3.54	86.9	3.48	
LMW-7R-S	16.75	5/1/2024	14:41	22.75	23.04	14.71	6.04	119	4.84	10.9	1.89	
LMW-7R-D	23.75	5/1/2024	15:22	19.15	29.1	15.56	8.89	26	1.17	11.9	2.08	
LMW-9R-S	13.75	5/1/2024	16:04	25.82	14.6	-						No water recovered after 3 attempts.
LMW-8R-S	6.75	5/2/2024	12:53	17.83	21.78	15.64	6.62	131	1.71	12.6	3.67	
LMW-6R-S	18.75	5/2/2024	-	23.14	26.78	14.17	6.32	-16	2.11	45.8	2.46	
LMW-10R-S	23.75	5/2/2024	15:01	41.23	25.46	-						No water recovered after 3 attempts.
LMW-7R-S	6.75	5/9/2024	13:45	18.54	21.74	14.27	7	-118	3.18	104	1.64	
LMW-7R-S	16.75	5/9/2024	14:54	22.6	26.08	14.92	6.1	-16	5.03	23.9	0.86	
LMW-6R-D	32.75	5/9/2024	15:24	21.46	33.69	-						No water recovered after 3 attempts.
LMW-9R-D	40.25	5/10/2024	7:45	40.55	43.98	14.93	7.05	-236	1.21	43.1	1.19	
LMW-8R-D	57.75	5/14/2024	15:09	40.25	44.77	15.37	5.59	-124	2.97	0	0.63	Injection media present
LMW-10R-S	24.75	5/14/2024	17:58	24.75	26.49	15.22	6.65	-227	0.928	0	1.25	Injection media present
LMW-9R-S	13.75	5/15/2024	10:51	21.8	26	-						Injection media present. After 3 attempts only a few drops were recovered by the sampler.
LWM-6R-S	18.75	5/15/2024	14:17	23.34	27.35	14.99	6.54	-75	2.33	0	0.23	Injection media present
LMW-7R-D	23.75	5/25/2024	16:05	26.6	30.52	-						Injection media present, with ZVI present as well.

Notes:
hh:mm - hour:minute
Temp - temperature
°C - degrees Celsius/Centigrade
S.U. - standard units
ORP- oxidation-reduction potential
mV - millivolts
DO - dissolved oxygen
mg/L - milligrams per liter
lbs - pounds
gal - gallons
ms/cm - milliSiemens/cm
PSIA - pounds per square-inch absolute
NTU - nephelometric turbidity unit

APPENDIX B

Remediation Field Services Report (Cascade)

LANGAN

REMEDIATION FIELD SERVICES REPORT

Well Injections of SRS-Z and SRS-SD
1487 First Avenue
Manhattan, New York 10075

Date:
August 2, 2024

Project Number:
202-24-1056

Prepared For:
Langan Engineering & Environmental Services
300 Kimball Drive, 4th Floor
Parsippany, NJ 07054

Prepared by:
Cascade Remediation Services
631 Wright Debow Road
Jackson, NJ 08527
WWW.CASCADE-ENV.COM

CASCADE

August 2, 2024
Project No. 202-24-1056

Ms. Jessica Friscia, PE
Langan Engineering & Environmental Services
300 Kimball Drive, 4th Floor
Parsippany, NJ 07054

Subject: Remediation Field Services Report
Well Injections of SRS-Z and SRS-SD
1487 First Avenue
Manhattan, NY 10075

Dear Ms. Friscia,

In accordance with your request and authorization, Cascade Remediation Services (Cascade) has performed remediation field services for the subject site. The field services were performed in general accordance with Cascade's proposal dated March 22, 2024.

Cascade appreciates the opportunity to provide our services to you. If you have any questions or comments regarding this report, please contact the undersigned at your convenience.

Respectfully submitted,
Cascade Remediation Services

Christine Jurczak
Operations Manager

Michael Lang
Project Manager

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1 INTRODUCTION

Langan (client), subcontracted Cascade Remediation Services (Cascade) to perform remediation field services at the subject site located at 1487 First Avenue, Manhattan, NY. Field services were conducted in general accordance with Cascade's proposal dated March 22, 2024.

2 REMEDIATION APPROACH

The scope of this work was to inject SRS-Z®, an SRS-SD® mix, and a KB-1® bioaugmentation culture into previously installed Westbay multilevel system wells to reduce PCE concentrations and lingering daughter products. A well head was adapted to attach to the top of each well and used to deliver the amendment into the subsurface.

3 PROJECT ACTIVITIES

The following sections describe the field activities conducted at the site. The activities were conducted between May 1, and May 17, 2024.

3.1 PRE-MOBILIZATION ACTIVITIES

A site-specific health and safety plan was prepared to address worker and general public safety.

3.2 ONSITE ACTIVITIES

On May 1, 2024, Cascade mobilized all necessary injection equipment required to complete the scope of work. Prior to the commencement of field activities, a tailgate safety meeting was performed. The safety meeting was followed by a site walk to review the proposed injection wells marked by the client. The mixing platform was placed inside a containment berm located within the work area. The injection wells were located within the sub-cellar of a building within an active construction site. All equipment was carried into the work area via a lift in the loading dock area. Spill kits and portable vacuums were placed within the work area for immediate deployment. Langan provided a gas monitor to monitor air quality in the subcellar within the work area. Cascade provided fans and retractable ducts to circulate fresh air throughout the work area. Injection material transportation was coordinated by Langan. Unloading and handling of the injection material was coordinated and completed by Cascade.

The scope of work performed by Cascade included a 10-gallon anaerobic water injection test performed on injection well 9R-S. The injection test was done to determine if the Westbay well screen port was open. Once the flow rate was established, a batch of SRS-SD®, calcium carbonate, diammonium phosphate, yeast extract, and anaerobic water was mixed and injected into 9R-S. After the first ten minutes (approximately 30 gallons injected), a drop in pressure and increase in the flow rate was observed (40 PSI to 12 PSI). Daylighting was observed out of a hole in the concrete next to the well, as a result, the pressure and flow rate were reduced. Approximately 10 gallons of anaerobic "pillow" water was injected at a very low flow rate to minimize daylighting, then 2.2 Liters of KB-1® bioaugmentation culture, followed by an additional 10 gallons of pillow water. It was decided by Langan to move to the next location (8R-D) due to daylighting.

An initial water test was performed on injection well 8R-D before switching to the SRS-SD® mix. No issues were encountered while injecting on 8R-D at a low flow rate (approximately 1 GPM). Upon completion, 20 gallons of anaerobic chase water was pumped downhole to clear any residual amendment from the well. The injection line was then moved to injection well 7R-D.

SRS-Z® was intended to be injected undiluted into injection well 7R-D. After the initial water test, an attempt was made to inject the SRS-Z® neat, but no flow was achieved. As a result, the SRS-Z® was diluted with anaerobic water which allowed a low flow rate to be achieved, followed by 2.2 Liters of KB-1®, 20 gallons of pillow water, and more diluted SRS-Z®. Anaerobic water was not able to be injected following the SRS-Z®. The chase water intended for 7R-D was injected into injection well 9R-S instead.

After the initial water test on 7R-S-1, diluted SRS-Z® was injected until daylighting was observed around 10R-S. It was decided by Langan to move to the next location and revisit 7R-S-1 at another time. Upon revisiting, the remaining SRS-Z® was injected but no flow was achieved while trying to pump the anaerobic chase water. It was revisited the following day and received 2.2 Liters of KB-1® and the SRS-SD® mix. Injections were discontinued on this well after daylighting was observed in a nearby elevator shaft.

Daylighting was observed around injection well 10R-S after the initial water test on injection well 8R-S, and it was determined by Langan to revisit later. Upon revisiting, the SRS-SD® mix was injected, followed by 2.2 Liters of KB-1®, 10 gallons of pillow water, and additional SRS-SD® mix. Before achieving the target volume of the SRS-SD® mix, the pressure increased (30 PSI to 70 PSI) while the flow rate decreased until eventually coming to a stop. Undiluted SRS-Z® was injected the following day, but after 5 gallons, the flow rate ceased again, not allowing any flush water to be injected as well. This well was revisited again and received more SRS-Z® and an additional 6.6 Liters of KB-1®.

No issues were encountered while injecting on injection well 6R-S. It received the designed SRS-SD® mix, 2.2 Liters of KB-1®, 10 gallons of pillow water, the remaining SRS-SD® mix, and 10 gallons of chase water.

Both injection wells 7R-S-2 and 9R-S had issues establishing flow. Injection well 9R-S received a small amount of SRS-Z® before a decision was made by Langan to stop attempting to inject. SRS-Z® was manually cleared out of injection well 7R-S-2 by hand and helped to establish flow. It received a small amount of SRS-Z®, 2.2 Liters of KB-1®, and 10 gallons of pillow water before reclogging from additional SRS-Z®.

Total volume injected into the 7 Westbay injection wells was approximately 1,926 gallons (114 gallons of SRS-Z®, 94 gallons of SRS-SD®, 363 pounds of calcium carbonate, 24 pounds of diammonium phosphate, 24 pounds of yeast extract, 22 Liters of KB-1® bioaugmentation culture, 1,400 gallons of anaerobic dilution water, and 266 gallons of anaerobic flush water).

Remediation activities were completed on May 17, 2024 (see injection logs for details).

3.3 SITE RESTORATION

Upon completion of injection activities, the wells were relieved of pressure and the well heads were safely removed.

Investigation-derived waste generated during remediation activities was containerized in 55-gallon drums and staged onsite in an area marked by the client. Other waste (i.e. personal protective equipment, packaging material, etc.) was collected in large trash bags and disposed as municipal solid waste.

4 LIMITATIONS

The implementation of the scope of work was performed in accordance with the clients design specification as described above (Section 2) and supporting injection logs (Appendix A). Cascade bears no responsibility for remediation results or impact to existing conditions.

APPENDIX A

Injection Summary and Logs

DAILY PROJECT SUMMARY

PROJECT NUMBER/NAME: 202-24-1056 - Langan - Manhattan, NY

Day	Date	On-site Time	Off-site Time	Wells Completed	Amendments						Slurry / Solution Injected (Gallons)	Anaerobic Flush Water Injected (Gallons)	Total Injected (Gallons)	KB-1 (Liters)
					SRS-Z (gals)	SRS-SD (gals)	Calcium Carbonate (lbs)	DAP (lbs)	Yeast Extract (lbs)	Anaerobic Mix Water (gals)				
Monday	5/6/2024													
Tuesday	5/7/2024	7:30 AM	5:30 PM	0	0.0	26.5	50.0	3.0	3.0	204.0	230	30	260	2.2
Wednesday	5/8/2024	7:30 AM	5:30 PM	1	0.0	19.0	94.0	6.7	6.0	448.0	467	40	507	2.2
Thursday	5/9/2024	7:30 AM	5:30 PM	1	27.0	16.0	93.0	6.4	6.0	270.0	313	40	353	2.2
Friday	5/10/2024	7:30 AM	5:30 PM	0	13.5	13.5	38.5	2.0	3.0	174.0	201	47	248	2.2
Saturday	5/11/2024													
Sunday	5/12/2024													
Monday	5/13/2024	7:30 AM	5:30 PM	1	13.5	18.0	79.0	6.0	5.0	282.0	359	20	349	2.2
Tuesday	5/14/2024	7:30 AM	5:30 PM	0	15.0	1.0	8.0	0.0	1.0	22.0	45	21	96	2.2
Wednesday	5/15/2024	7:30 AM	5:30 PM	0	12.0	0.0	0.0	0.0	0.0	0.0	12	2	14	0.0
Thursday	5/16/2024	7:30 AM	5:30 PM	0	33.0	0.0	0.0	0.0	0.0	0.0	33	66	99	8.8
Friday	5/17/2024													
Saturday	5/18/2024													
Sunday	5/19/2024													
			Totals	3	114	94	363	24	24	1400	1660	266	1926	22
			Project Average	0.4	14.3	11.8	45.3	3.0	3.0	175.0	207.5	33.3	240.8	2.8

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INJECTION FIELD LOG

PROJECT NUMBER/NAME: 202-24-1056 - Langan - Manhattan, NY

LEAD OPERATOR: Michael Bono

Well ID	Start Date	Start Time	End Time	Injection Interval			Initial Pressure (PSI)	Sustained Pressure (PSI)	Average Flow Rate (GPM)	Amendments						Slurry / Solution Injected (Gallons)	Flush Water Injected (Gallons)	Total Injected (Gallons)	Day Lighting (X)	Field Notes
										SRS-Z (gals)	SRS-SD (gals)	Calcium Carbonate (lbs)	DAP (lbs)	Yeast Extract (lbs)	Anaerobic Mix Water (gals)					
9RS		9:07 AM	9:22 AM	13.75	to	14.75	30	40	1	0	0	0	0	0	0	0	10	10		Established flow and pressure before mixing
		10:16 AM	11:36 AM	13.75	to	14.75	40	12	3	0	25	47	3	3	193	218	0	218		Increased flow and pressures dropped within first 10 minutes
	5/7/24	11:54 AM	11:54 AM	13.75	to	14.75	5	5	0	0	0	0	0	0	0	0	0	0	X	DL out of concrete next to well. Decreased flow and pressure
		2:24 PM	3:07 PM	13.75	to	14.75	2	2	0	0	1	3	0	0	11	12	0	12	X	Immediate DL
		3:08 PM	4:19 PM	13.75	to	14.75	5	7	0	0	0	0	0	0	0	0	20	20	X	Added 2.2L of KB-1. Stopped due to minor DL out of same spot
	5/9/24	4:13 PM	4:19 PM	13.75	to	14.75	5	5	2	0	0	0	0	0	0	0	10	10		Added pillow water
		1:49 PM	3:49 PM	13.75	to	19.75	20	80	0	6	0	0	0	0	0	6	0	6		Begin with SRS-Z. No flow over time
	5/15/24	3:55 PM	4:04 PM	13.75	to	19.75	20	80	0	0	0	0	0	0	0	0	2	2		Attempted to establish flow with anaerobic water
		4:06 PM	4:50 PM	13.75	to	19.75	60	80	0	3	0	0	0	0	0	3	0	3		Switched back to SRS-Z. No flow
	5/16/24	4:39 PM	4:50 PM	13.75	to	19.75	80	80	0	0	0	0	0	0	0	0	0	0		Resume SRS-Z. No flow
									TOTALS	**9**	**26**	**50**	**3**	**3**	**204**	**239**	**42**	**281**		
8RD		8:47 AM	8:52 AM	57.75	to	64.25	50	20	2	0	0	0	0	0	0	0	10	10		
		8:55 AM	12:38 PM	57.75	to	64.25	20	50	1	0	10	47	3	3	224	234	0	234		
	5/8/24	12:40 PM	12:42 PM	57.75	to	64.25	50	50	3	0	0	0	0	0	0	0	5	5		Added 2.2L KB-1
		12:49 PM	12:51 PM	57.75	to	64.25	50	50	3	0	0	0	0	0	0	0	5	5		
		12:53 PM	4:16 PM	57.75	to	64.25	50	65	1	0	10	47	3	3	224	234	0	234		
		4:27 PM	4:41 PM	57.75	to	64.25	60	60	1	0	0	0	0	0	0	0	20	20		Complete
									TOTALS	**0**	**20**	**94**	**6**	**6**	**448**	**467**	**40**	**507**		
7RD		9:00 AM	9:04 AM	23.75	to	28.75	20	20	3	0	0	0	0	0	0	0	10	10		
		9:13 AM	10:17 AM	23.75	to	28.75	20	20	0	0	0	0	0	0	0	0	0	0		Attempted to SRS-Z. No flow
		10:25 AM	11:23 AM	23.75	to	28.75	20	60	0	14	0	0	0	0	7	20	0	20		Diluted SRS-Z with water
	5/9/24	11:24 AM	11:38 AM	23.75	to	28.75	30	60	1	0	0	0	0	0	0	0	10	10		
		11:43 AM	11:53 AM	23.75	to	28.75	20	20	1	0	0	0	0	0	0	0	10	10		Added 2.2L of KB-1
		12:03 PM	12:20 PM	23.75	to	28.75	40	60	1	14	0	0	0	0	7	20	0	20		
		12:22 PM	3:49 PM	23.75	to	28.75	50	30	1	0	16	93	6	6	256	272	0	272		
		3:50 PM	4:30 PM	23.75	to	28.75	75	75	0	0	0	0	0	0	0	0	0	0		Attempted flush. No flow
									TOTALS	**27**	**16**	**93**	**6**	**6**	**270**	**313**	**30**	**343**		
7RS-1		7:43 AM	7:50 AM	6.75	to	11.75	20	20	1	0	0	0	0	0	0	0	7	7		
	5/10/24	7:57 AM	9:03 AM	6.75	to	11.75	20	20	0	14	0	0	0	0	7	20	0	20	X	Stopped due to DL around 10RS
	5/13/24	9:57 AM	1:32 PM	6.75	to	11.75	60	60	0	14	0	0	0	0	7	20	0	20		
		1:34 PM	1:51 PM	6.75	to	11.75	60	60	0	0	0	0	0	0	0	0	0	0		Attempted pillow water. No flow
	5/14/24	11:43 AM	11:56 AM	6.75	to	11.75	45	55	1	0	0	0	0	0	0	0	10	10		Added 2.2L KB-1
		12:18 PM	12:54 PM	6.75	to	11.75	45	45	1	0	1	8	1	0	22	30	10	40	X	Stopped due to DL in elevator shaft nearby
									TOTALS	**27**	**1**	**8**	**1**	**1**	**35**	**71**	**27**	**98**		

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INJECTION FIELD LOG

PROJECT NUMBER/NAME: 202-24-1056 - Langan - Manhattan, NY

LEAD OPERATOR: Michael Bono

Well ID	Start Date	Start Time	End Time	Injection Interval			Initial Pressure (PSI)	Sustained Pressure (PSI)	Average Flow Rate (GPM)	Amendments						Slurry / Solution Injected (Gallons)	Flush Water Injected (Gallons)	Total Injected (Gallons)	Day Lighting (X)	Field Notes
										SRS-Z (gals)	SRS-SD (gals)	Calcium Carbonate (lbs)	DAP (lbs)	Yeast Extract (lbs)	Anaerobic Mix Water (gals)					
8RS	5/10/24	10:54 AM	11:06 AM	6.75	to	11.75	20	30	1	0	0	0	0	0	0	0	10	10	x	Stopped due to DL around 10RS
	5/13/24	1:55 PM	3:03 PM	6.75	to	11.75	30	30	2	0	4	31	2	2	88	122	0	122		
		3:04 PM	3:06 PM	6.75	to	11.75	30	30	3	0	0	0	0	0	0	0	5	5		
		3:11 PM	3:15 PM	6.75	to	11.75	30	30	1	0	0	0	0	0	0	0	5	5		Added 2.2L KB-1
		3:16 PM	4:26 PM	6.75	to	11.75	30	70	1	0	2	15	1	1	43	60	0	60		
		4:30 PM	4:35 PM	6.75	to	11.75	70	70	0	0	0	0	0	0	0	0	0	0		No flow
	5/14/24	7:40 AM	7:43 AM	6.75	to	11.75	40	40	0	0	0	0	0	0	0	0	1	1		Established flow with anaerobic water
		7:43 AM	8:43 AM	6.75	to	11.75	40	80	0	5	0	0	0	0	0	5	0	5		Started SRS-Z. No flow
		8:50 AM	9:02 AM	6.75	to	11.75	90	90	0	0	0	0	0	0	0	0	0	0		Attempted flush water. No flow
		10:29 AM	11:30 AM	6.75	to	11.75	20	90	0	8	0	0	0	0	0	8	0	8		Resume SRS-Z. No flow
		2:25 PM	4:04 PM	6.75	to	11.75	60	90	0	2	0	0	0	0	0	2	0	2		Resume SRS-Z. No flow
	5/16/24	8:30 AM	8:37 AM	6.75	to	11.75	80	60	1	0	0	0	0	0	0	0	5	5		Established flow with anaerobic water
		8:50 AM	9:12 AM	6.75	to	11.75	60	60	0	0	0	0	0	0	0	0	0	0		Resume SRS-Z. No flow
		9:35 AM	9:50 AM	6.75	to	11.75	80	35	1	0	0	0	0	0	0	0	10	10		Established flow with anaerobic water
		10:05 AM	11:00 AM	6.75	to	11.75	30	80	0	15	0	0	0	0	0	15	0	15		No flow over time
		11:13 AM	11:27 AM	6.75	to	11.75	60	60	0	0	0	0	0	0	0	0	5	5		Established flow with anaerobic water
		3:32 PM	4:05 PM	6.75	to	11.75	40	40	0	0	0	0	0	0	0	0	10	10		Added 6.6L KB-1
		4:06 PM	4:26 PM	6.75	to	11.75	40	80	0	7	0	0	0	0	0	7	0	7		Resume SRS-Z. No flow over time
		4:27 PM	4:37 PM	6.75	to	11.75	75	40	2	0	0	0	0	0	0	0	15	15		Established flow with anaerobic water
									TOTALS	**37**	**6**	**46**	**3**	**3**	**131**	**219**	**66**	**285**		
6RS	5/10/24	2:14 PM	2:16 PM	18.75	to	23.75	0	0	5	0	0	0	0	0	0	0	10	10		
		2:19 PM	4:20 PM	18.75	to	23.75	0	10	1	0	12	33	2	2	144	156	0	156		
		4:27 PM	4:28 PM	18.75	to	23.75	10	10	5	0	0	0	0	0	0	0	5	5		
		4:29 PM	4:32 PM	18.75	to	23.75	10	10	2	0	0	0	0	0	0	0	5	5		Added 2.2L KB-1
		4:35 PM	4:44 PM	18.75	to	23.75	10	10	3	0	2	5	0	0	23	25	0	25		
		4:45 PM	4:51 PM	18.75	to	23.75	10	10	2	0	0	0	0	0	0	0	10	10		
	5/13/24	7:47 AM	9:46 AM	18.75	to	23.75	5	25	1	0	12	33	2	2	144	156	0	156		
		9:47 AM	9:52 AM	18.75	to	23.75	25	25	2	0	0	0	0	0	0	0	10	10		Complete
									TOTALS	**0**	**26**	**72**	**5**	**5**	**311**	**337**	**40**	**377**		
7RS-2	5/15/24	9:15 AM	12:45 PM	16.75	to	21.75	20	80	0	3	0	0	0	0	0	3	0	3		No flow. Swapped out pumps. Still no flow
	5/16/24	7:49 AM	8:08 AM	16.75	to	21.75	20	80	0	0	0	0	0	0	0	0	1	1		Established flow with anaerobic water. No flow
		11:32 AM	11:45 AM	16.75	to	21.75	80	80	0	0	0	0	0	0	0	0	0	0		Established flow with anaerobic water. No flow
		12:05 PM	12:14 PM	16.75	to	21.75	20	20	1	0	0	0	0	0	0	0	5	5		Cleared SRS-Z out of well by hand. Established flow with anaerobic water
		12:35 PM	12:45 PM	16.75	to	21.75	20	20	1	0	0	0	0	0	0	0	5	5		Added 2.2L Kb-1
		12:46 PM	12:56 PM	16.75	to	21.75	20	80	0	4	0	0	0	0	0	4	0	4		Resume SRS-Z. No flow
		12:57 PM	1:27 PM	16.75	to	21.75	75	75	0	0	0	0	0	0	0	0	10	10		Established flow with anaerobic water
		1:27 PM	2:34 PM	16.75	to	21.75	75	80	0	7	0	0	0	0	0	7	0	7		Resume SRS-Z. No flow
									TOTALS	**14**	**0**	**0**	**0**	**0**	**0**	**14**	**21**	**35**		

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APPENDIX B

Injection Location Map

EAST 78TH STREET

FIRST AVENUE

LMW-8R-S
LMW-9R-S
LMW-9R-D
LMW-7R-S
LMW-7R-S
LMW-8R-S
LMW-8R-D
LMW-9R-D
LMW-9R-S
LMW-7R-D
LMW-8R-D
LMW-7R-D
LMW-13R-D
LMW-13R-S
LMW-6R-D
LMW-6R-S
LMW-6R-S
LMW-6R-D

B
B'

LMW-11R-D
LMW-11R-S
LMW-12R-D
LMW-12R-S

LMW-10R-D
LMW-10R-D
LMW-10R-S
LMW-10-RS

B: 1452
L: 32

B: 1452
L: 31

B: 1452
L: 27

B: 1452
L: 19

B: 1452
L: 26

15 0 15
SCALE IN FEET

LEGEND

- SITE BOUNDARY
- TAX LOT BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- CROSS SECTION
- PROPOSED DEEP BEDROCK WELL RE-INSALLATION LOCATION
- PROPOSED SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

1487 FIRST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No. 27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

PROPOSED BEDROCK WELL LOCATION PLAN

Project No.	Figure
100963701	1
Date: 10/6/2023	
Scale: 1"=15'	
Drawn By: SH	

© 2023 Langan

Path: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\APRX\100963701\100963701.aprx Date: 10/6/2023 User: shennessy Time: 9:19 AM

APPENDIX C

Safety Data Sheets and Technical Specifications

LANGAN

TSI DC *Dehalococcoides mccartyi* Bioaugmentation Culture®

Containing >1 x 10^{11} Dehalococcoides cells/L

Terra Systems TSI DC *Dehalococcoides mccartyi* Bioaugmentation Culture® is added to the groundwater at sites where the native microorganisms of Dehalococcoides are not present, are not in sufficient quantity, where the native population does not express all of the required functional genes for TCE and vinyl chloride reduction, or when the client wants to decrease the remediation time frame for the biodegradation of chlorinated solvents such as tetrachloroethene (PCE) and trichloroethene (TCE) to innocuous end products including ethene and ethane.

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Key Communication Points

- TSI DC *Dehalococcoides mccartyi* Bioaugmentation Culture® is an enriched natural bacteria culture that contains *Dehalococcoides* species for bioaugmentation.
- TSI DC® contains >1 x 10^{11} *Dehalococcoides* cells/L
- This culture dechlorinates tetrachloroethene (PCE) and trichloroethene (TCE) to the non-toxic product ethene.
- The culture also biodegrades 1,1,1-trichloroethane to 1,1-dichloroethene, 1,1-dichloroethane, and chloroethane.
- It also can biodegrade carbon tetrachloride and chloroform to methylene chloride and innocuous products.
- It can be used at sites where bacteria capable of complete reductive dechlorination are not present or there is a need to decrease the remediation time frame. It is estimated that *Dehalococcoides* are not present in 10 to 40 percent of chlorinated solvent contaminated sites.

- **Key Benefits of TSI DC *Dehalococcoides mccartyi* Bioaugmentation Culture®**

- The TSI-DC® Bioaugmentation Culture has been proven to be effective with a growing body of laboratory and field data demonstrating that the *Dehalococcoides* group of microorganisms is primarily responsible for the complete dechlorination of PCE and TCE to ethene. Some *Dehalogenimonas* species can also biodegrade PCE and TCE.
- At sites where *Dehalococcoides* microorganisms are not present or are found at low numbers, the process will often "**stall**" at cis-1,2-dichloroethene (cDCE). Low pH or insufficient substrate can also contribute to the cDCE stall.

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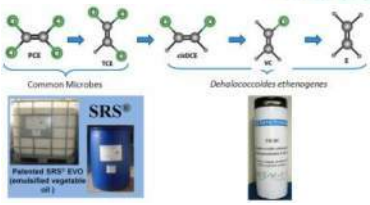

- The TSI-DC® Bioaugmentation Culture will promote the complete dechlorination of PCE or TCE.
- The TSI-DC® Bioaugmentation Culture contains greater than **1 x 10^{11}** *Dehalococcoides*/L.

Terra Systems QA/QC

Terra Systems owns and operates a state-of-the-art US based "*just-in-time*" manufacturing plant with an in-house quality control laboratory for strict quality assurance of our products. With every shipment, we include a QA/QC sheet for the actual batch that the customer receives. Included are the date manufactured, batch#, DHC concentration (cells/L), PCE dechlorination activity and cDCE dechlorination activity.

Manufacturing Quality Control Checklist for TSI DC
***Dehalococcoides mccartyi* Bioaugmentation Culture®**

I. Product Information

Parameter	Value
Product manufactured	TSI DC *Dehalococcoides mccartyii* Bioaugmentation Culture®
Date manufactured	07/16/2019
Batch#	805-19
Customer packaging	Two (2) 19 L Kegs
Customer	Navarro Research and Engineering, Inc.
Volume of Culture	76 L concentrated 2X to fit into (2) 19 L Kegs
Date shipped	8/19/2019
Date delivered	8/21/2019
Site location	Largo, FL.

II. Ingredients Information

Test	Results	Acceptable Range	Date	Method
DHC content of Pre-concentrated culture (copies/L)	>1E11	1E11	07/25/2019	qPCR
PCE dechlorination activity, mg/h per gram of dry weight	98	50	08/13/2019	Bottle Assay
cDCE declorination activity, mg/h per gram of dry weight	61	50	08/13/2019	Bottle Assay

Michael D Lee, PhD.

August 19th, 2019

Michael D. Lee, Ph.D.
Vice President Research and Development
Terra Systems, Inc.
130 Hickman Road Suite 1
Claymont DE 19703
Phone 302-798-9553
Email mlee@terrasystems.net

Date

SRS®-Z_{VI} (4 µm)
Combined Emulsified Vegetable Oil Substrate and 4 µm Zero Valent Iron
for DNAPL, Freon 113, and Biobarrier Applications

Terra Systems "*injection ready*" **SRS®-Z_{VI}** combines Terra Systems patented SRS® Emulsified Vegetable Oil Substrate with 4 µm zero valent iron (ZVI) and is added to the groundwater at complex and challenging remediation sites to rapidly generate reducing conditions. SRS®-Z_{VI} provides the necessary carbon and hydrogen to support native or introduced microorganisms (*Dehalococcoides*) for the biodegradation of dense non-aqueous phase liquids (DNAPLs) like tetrachloroethene (PCE) and trichloroethene (TCE) and to support abiotic degradation by the ZVI.

Key Communication Points

- The 4 µm ZVI should be injected via DPT for optimal distribution and because of the smaller particle size provides very good distribution and contact with the contaminants of concern (COC), easier injectability for the driller and fewer injection points for the consultant, thereby lowering costs.
- Provides both abiotic and biotic reductive dechlorination processes.
- SRS®-Z_{VI} is a combination of ZVI, biodegradable soybean oil, surfactants, sodium lactate, nutrients, and water that form a stable emulsion.
- SRS®-Z_{VI} contains a proprietary shear thinning agent, which under pressure thins the SRS®-Z_{VI} out for ease of injection and improved radius of influence.
- The exterior oil layer has similar hydrophobic properties as chlorinated compounds. Therefore, the emulsion attracts the contaminants for abiotic degradation.
- Terra Systems, Inc.'s manufacturing facility is configured to allow us to provide our customers with custom blended EVO/ZVI combinations without a cost premium.
- Includes sodium or potassium lactate to kick-start the anaerobic degradation process, nutrients and Vitamin B_{12}, a micronutrient, which *He et al. 2007* demonstrated is an important micronutrient to enhance dechlorination activity.
- It arrives at the site as a homogenous ***injection ready substrate*** and does not require mixing, which results in lower field labor costs from inefficient field mixing.
- Proven effective with high concentrations of chlorinated solvents, DNAPL, Biobarriers to prevent migration across property boundaries and Freon 113 treatment. Zero Valent Iron can promote the abiotic dechlorination of solvents including tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), and Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane).
- Proven effective at military installations, dry cleaners, semiconductor manufacturers, fabricators and manufacturing firms that use and clean metal parts (air conditioners, dishwashers, etc.).

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Table I: SRS®- Z_{VI} Emulsified Vegetable Oil with 10-12.5% 4 µm zero valent iron (ZVI) Substrate Specifications

Ingredient	Percent by Weight/ Attributes	Description
Food Grade U.S. Grown Soybean Oil	52-54%	Terra Systems operates its own state-of-the-art manufacturing facility for SRS® production and can custom blend substrate packages as site conditions require.
Zero Valent Iron in suspension	10-12.5%	Microscale Iron (4 µm)
Sodium Lactate	4-5%	Quick Release Substrate
Proprietary Food Grade Emulsifiers and Nutrient Package Containing Nitrogen, Phosphorus and Vitamin B_{12}	6-7%	Food grade emulsifiers and nutrients are used.
pH	6.0 – 7.5	Neutral pH
Specific Gravity	8.81-9.03 pounds/ gallon	Denser than water
Viscosity	440 - 1,942 centipoises	Highly viscous

How it Works

ZVI is a strong reductant that reacts rapidly with a variety of constituents including chlorinated compounds, nitrate, and oxidized metals such as hexavalent chromium. ZVI reacts directly with the chlorinated compounds and typically generates little daughter products like cis-1,2-dichloroethene or vinyl chloride. In groundwater, iron metal (Fe^0) will consume oxygen and subsequently corrode to form dissolved hydrogen gas (H_2) and dissolved ferrous iron (Fe^{2+}). The hydrogen generated from the corrosion of ZVI has been shown to serve as an electron donor that stimulates biological reductive dechlorination of chlorinated solvents. The soybean oil is also biodegraded to generate hydrogen to support reductive dechlorination. SRS®-Z_{VI} supports both biological and abiotic degradation for the best of both worlds.

Terra Systems Flexible Manufacturing Capability

Terra Systems, Inc.'s manufacturing facility is configured to allow us to provide our customers with custom blended SRS®-Z_{VI} packages without a cost premium. In general, the smaller the average ZVI particle, the more expensive the product.

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Because of our manufacturing capability, Terra Systems has the broadest EVO/ZVI product line in the industry, which allows our customers to specify the percent and particle size of the ZVI based on their remediation goals.

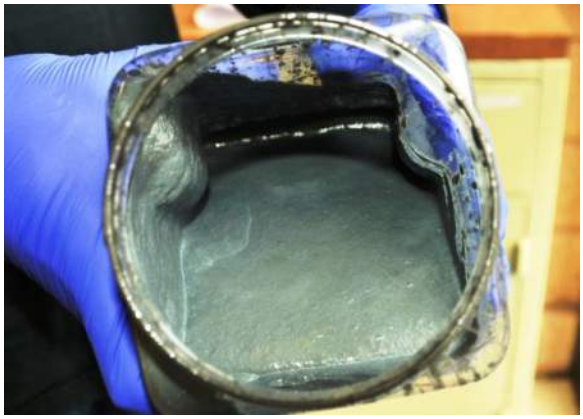
ZVI %/ZVI Average Particle Size	SRS®-Z_{VI} 2 µm	SRS®-Z_{VI} 4 µm	SRS®-Z_{VI} <44 µm	SRS®-Z_{VI} <125 µm
5 % ↓ 40%				
Customer Specified				

2 µm ZVI: Can be injected via wells or DPT. Easiest to inject with improved radius of influence.

4 µm ZVI: Can be injected via DPT.

<44 µm ZVI: Can be injected via DPT. Can incorporate higher percentage of ZVI with less impact on cost.

<125 µm ZVI: Can be injected via DPT. Can incorporate higher percentage of ZVI with less impact on cost.



Packaging: Terra Systems patented SRS® - Z_{VI} is shipped in 330-gallon IBC totes with 250 gallons in each tote.

Delivered Injection Ready: Terra Systems patented SRS® - Z_{VI} is shipped ready-to-inject.

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The TSI-DC® Bioaugmentation Culture is cost effective and is typically a minor component of the total remediation project cost. At sites where the *Dehalococcoides* is present, but at low numbers or poorly distributed, bioaugmentation can be used to reduce the treatment time. Bioaugmentation can also reduce the time required to grow the *Dehalococcoides* population to effective cell densities. Therefore, future costs can be reduced.

- The TSI-DC® Bioaugmentation Culture works with all commonly used electron donors.
- The TSI-DC® Bioaugmentation Culture is not genetically modified or engineered.
- The TSI-DC® Bioaugmentation Culture is certified to be free of known human pathogens.
- Each purchase comes with free technical phone support from an experienced Terra Systems microbiologist.
- The TSI-DC® Bioaugmentation Culture has rigorous quality control procedures in place to ensure that each shipment is of the highest quality, stable, safe, effective and free of chlorinated volatile organic compounds.
- The TSI-DC® Bioaugmentation Culture is shipped overnight in specially designed stainless-steel containers that prevent exposure to air and are safe & easy to handle.
- A senior level microbiologist is also available to be on-site to support the successful application at $1,200 per day plus travel expenses

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Safety Data Sheet

Lactic Acid, 85% ACS

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lactic Acid, 85%, ACS

Synonyms/Generic Names: DL-Lactic acid; 2-Hydroxypropanoic Acid; 2-Hydroxypropionic acid; Racemic lactic acid; Ordinary lactic acid; Propanoic acid, 2-hydroxy-

Product Number: 2905

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Hazard Not Otherwise Classified (HNOC): None

Signal Words: Danger

Pictograms:

GHS Classification

Skin irritation	Category 2
Serious eye damage	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H315	Causes skin irritation.
H318	Causes serious eye damage.

Precautionary Statements:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician.
P332+P313	If skin irritation occurs: Get medical advice/attention.

P362+P364	Take off contaminated clothing and wash it before reuse.

Potential Health Effects

Eyes	Causes eye burns.
Inhalation	Causes respiratory tract irritation.
Skin	Causes skin irritation.
Ingestion	May be harmful if swallowed.

NFPA Ratings

Health	2
Flammability	1
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	1
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Lactic Acid	85	50-21-5	200-018-0	$C_3H_6O_3$	90.08 g/mol
Water	Balance	7732-18-5	231-791-2	H_2O	18.00 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
Ingestion	**Do Not Induce Vomiting!** Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is flammable. Use water, dry chemical, foam, or carbon dioxide on fires involving this product. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.

Methods and materials for containment and cleaning up	Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling
See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities
Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Contains no substances with occupational exposure limit values.

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and face shield.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations
Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	White to slightly yellow liquid.
Odor	Acrid (Slight.)
Odor threshold	Not Available
pH	2
Melting point/freezing point	17 °C (63 °F)
Initial boiling point and boiling range	122 °C (252 °F) at 20 hPa (15 mmHg) - lit.
Flash point	113 °C (235 °F) - closed cup
Evaporation rate	Not Available
Flammability (solid, gas)	Class II Combustible liquid.
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	0 kPa (@ 20°C)
Vapor density	>1 (air=1)
Density	1.209 g/cm^3 at 25 °C (77 °F)
Solubility (ies)	Soluble in cold water, hot water. Partially soluble in diethyl ether. Soluble in Furfurol, alcohol. Practically insoluble in chloroform, petroleum ether, carbon disulfide.
Partition coefficient: n-octanol/water	Log Pow: -0.7
Auto-ignition temperature	Not Available

Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Extremes of temperature, open flames, sparks, sources of ignition.
Incompatible Materials	Moisture, bases, organic materials, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates, phosphorus.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Lactic Acid

Skin	LD50 Dermal- rabbit- >2,000 mg/kg
Eyes	Eyes- rabbit- Severe eye irritation- Draize test
Respiratory	Not Available
Ingestion	LD50 Oral – rat- 3,543 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Burning, itching, redness, inflammation and/or swelling of exposed tissues.
Eyes	Eye burns, watering eyes.
Respiratory	Burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea.
Ingestion	Burning, choking, nausea, vomiting and severe pain.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Target Organ(s)	Not Available
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Lactic Acid

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	EC50 Daphnia magna (Water flea)- 180-320 mg/l – 48 h

Terrestrial	Mortality NOEC- Pseudokirchneriella subcapitata- 320 mg/l -96 h EC50- Pseudokirchneriella subcapitata (green algae)- >2,800 mg/l- 84 h

Persistence and Degradability	Readily biodegradable
Bioaccumulative Potential	Not Available
Mobility in Soil	Completely soluble
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Product or Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN3265, Corrosive liquid, acidic, organic, n.o.s., (lactic acid), 8, pg III
TDG	UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (LATIC ACID), 8, pg III
IMDG	UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (LATIC ACID), 8, pg III
Marine Pollutant	No
IATA/ICAO	UN3265, Corrosive liquid, acidic, organic, n.o.s., (lactic acid), 8, pg III

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Rhode Island: Hazardous Substance List	Not Listed
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Not Listed
Pennsylvania: Hazardous Substance List	Not Listed
New Jersey: Right to Know Hazardous Substance List	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute Health Hazard
SARA 312	Acute Health Hazard
SARA 313	Not Listed
WHMIS Canada	Class D2B: Poisonous and infectious material – Other effects – Toxic. Class E: Corrosive material

16. OTHER INFORMATION

Revision	Date
Original	03/21/2013
Revision 1	08/27/2015
Revision 2	10/18/2021

Disclaimer: The information provided in this Safety Data Sheet (“SDS”) is correct to the best of our knowledge, information, and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing, or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPOSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.

TSI-Ferrous Sulfide Activator
SAFETY DATA SHEET

SECTION 1: Identification

1.1. Identification

Product form:	Mixture
Trade name:	TSI -FSA
CAS No:	1317-37-9
Formula:	FeS
Synonyms:	Ferrous sulfide / Iron sulfide / Iron sulphide / Iron(II) sulfide / Ferrous sulfide / Iron sulfide / Iron sulphide / Iron(II) sulfide

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Chemical used for the activation of persulfate.

1.3. Details of the supplier of the safety data sheet

Terra Systems, Inc.
130 Hickman Road, Suite 1
Claymont, DE 19703

Company Contact: Michael D. Lee, Ph.D.
Telephone Number: (302)798-9553

1.4. Emergency telephone number

CHEMTREC: (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation Category 2	H315
Serious eye damage/eye irritation Category 2A	H319
Full text of H statements:	see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US):

GHS07

Signal word (GHS-US): Warning

Hazard statements (GHS-US):	H315 - Causes skin irritation H319 - Causes serious eye irritation
Precautionary statements (GHS-US):	P264 - Wash hands thoroughly after handling P280 - Wear eye protection, protective clothing, protective gloves P302+P352 - If on skin: Wash with plenty of water P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P321 - Specific treatment (see Consult a doctor/medical service if you feel unwell on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse

2.3. Other hazards

HMIS Classification:

Health hazard: 0
Flammability: 0
Physical hazards: 0

NFPA Rating:

Health hazard: 1
Fire: 0
Reactivity Hazard: 0

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.
Other Hazards not contributing to the classification: Generates toxic gas in contact with acid.

2.4. Unknown acute toxicity (GHSUS)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Iron sulfide (FeS)	(CAS No) 1317-37-9	7 -11	Not classified
Sodium Sulfide	(CAS No) 1313-82-2	0.1 - 1	Acute Tox. 3 (Oral), H301

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Descriptionoffirstaidmeasures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor/physician. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries: Causes skin and eye irritation.

Symptoms/injuries after skin contact : Irritation.

Symptoms/injuries after eye contact: Causes serious eye damage. Eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity:	Corrosive vapors.

5.3. Advice for firefighters

Firefighting instructions:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting:	Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures:	Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment:	Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures:	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up:	Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other information:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling:	Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent

	formation of vapor. Do not breathe dust, fume, gas, mist, spray, vapors. Avoid contact during pregnancy/while nursing. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures:	Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures:	Comply with applicable regulations.
Storage conditions:	Keep only in the original container in a cool, well ventilated place away from : Ignition sources, Incompatible materials. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.
Incompatible products:	Strong bases. Strong acids.
Incompatible materials:	Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TSI-FSA (1317-37-9)

ACGIH	ACGIH TWA (mg/m³)	1.4 mg/m³
ACGIH	ACGIH TWA (ppm)	1 ppm
ACGIH	ACGIH STEL (mg/m³)	7 mg/m³
ACGIH	ACGIH STEL (ppm)	5 ppm

Iron sulfide (FeS) (1317-37-9)

Not applicable

Sodium sulfide (1313-82-2)

Not applicable

8.2. Exposure controls

Appropriate engineering controls:	Ensure good ventilation of the work station.
Personal protective equipment:	Avoid all unnecessary exposure.
Hand protection:	Wear protective gloves.
Eye protection:	Chemical goggles or face shield. Safety glasses.
Skin and body protection:	Wear suitable protective clothing.
Respiratory protection:	Wear appropriate mask.
Environmental exposure controls:	Avoid release to the environment.
Other information:	Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Black liquid with visible suspended solids.
Color:	Black
Odor:	Rotten eggs
Odor threshold:	No data available
pH:	11.5 - 12.8
Melting point:	Not applicable
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Relative evaporation rate (butyl acetate=1):	No data available
Flammability (solid, gas):	Non-flammable
Vapor pressure:	No data available
Relative vapor density at 20 °C:	No data available
Relative density:	1.15 - 1.22
Solubility:	Minimally soluble in water.
Log Pow:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Acidic vapors.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Acids will cause the release of highly toxic Hydrogen Sulfide. Reacts violently with diazonium salts. Ferrous sulfide(s) solution is not compatible with copper, zinc, aluminum or their **alloys** (i.e. bronze, brass, galvanized metals, etc.). Corrosive to steel above 150º F (65.5º C). These materials of construction should not be used in handling systems or storage containers for this product.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire may include sulfur oxides, iron oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

Sodium Sulfide (113-82-2)	
LD50 oral rat	208 mg/kg
ATE US (oral)	208.000 mg/kg body weight
LD50 dermal rabbit	< 340 mg/kg
ATE US (dermal)	300.000 mg/kg body weight

Skin corrosion/irritation: Causes skin irritation. pH: 11.5 - 12.8

Serious eye damage/irritation: Causes eye irritation. pH: 11.5 - 12.8

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met

Symptoms/injuries after skin contact : Irritation.

Symptoms/injuries after eye contact: Causes eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

TSI-FSA (1317-37-9)

LC50 fish 1 > 10000 mg/l Mosquito fish

Sodium Sulfide (1313-82-2)	
LC50 fish 1	7.7 - 29.1 mg/l (Exposure time: 96 h - Species: Poecilia reticulata)
EC50 Daphnia 1	2.1 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability TSI-FSA (1317-37-9)

Persistence and degradability	Not established.

12.3. Bioaccumulative potential TSI-FSA (1317-37-9)

Bioaccumulative potential	Not established.
Sodium Sulfide (16721-80-5)	
Log Pow	-3.5 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming: No known effects from this product.

GWPmix comment: No known effects from this product.

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Waste disposal recommendations: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT Not Regulated

Transport by sea

Not Regulated

Air transport

Not Regulated

SECTION 15: Regulatory information

15.1.US Federal regulations

Iron sulfide (FeS) (1317-37-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium Sulfide (1313-82-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2.International regulations

CANADA

Iron sulfide (FeS) (1317-37-9)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Sodium Sulfide (1313-82-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Iron sulfide (FeS) (1317-37-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Sodium Sulfide (1313-82-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Iron sulfide (FeS) (1317-37-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Sodium Sulfide (1313-82-2)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

15.3.US State Regulations

Sodium Sulfide (1313-82-2)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Revision date: 06/14/2016

Other information: None.

Full text of H-phrases:

H301	Toxic if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H400	Very toxic to aquatic life

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SRS®-Z_{VI} (4 μm)
Combined Emulsified Vegetable Oil Substrate and 4 μm Zero Valent Iron
SAFETY DATA SHEET

January 1st, 2020

1. Product Identification

Synonyms: Combined Emulsified Vegetable Oil Substrate and 4 μm Zero Valent Iron [SRS®-Z_{VI} (4 μm)]; Emulsified Vegetable Oil (EVO) and Zero Valent Iron (ZVI)

Recommended Use: Treatment of groundwater contaminated with DNAPL level concentrations of chlorinated solvents and other anaerobically degradable compounds.

Supplier:
Terra Systems, Inc.
130 Hickman Road, Suite 1
Claymont, Delaware 19703
Telephone (302) 798-9553
Fax (302) 798-9554
www.terrasystems.net

2. Hazards Identification

Emergency Overview

Caution: May cause eye irritation.
Health Rating: 1 - Slight
Flammability Rating: 1 - Slight
Reactivity Rating: 1 - Slight
Contact Rating: 1 - Slight
Protective Equipment: Goggles; Proper Gloves
Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation: Not expected to be a health hazard. May irritate lungs and mucous membranes and cause irritation, dizziness, and nausea. Remove to fresh air.

Ingestion: Not expected to be a health hazard via ingestion. Large doses may produce abdominal spasms, diarrhea.

Skin Contact: No adverse effects expected. May cause irritation or sensitization in sensitive individuals.

Eye Contact: May cause irritation, watering, and possible reddening.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

3. Composition/Information on Ingredients

Ingredient	Synonyms	CAS #	Percent	Hazardous
Soybean oil	Soya oil	8001-22-7	52-54%	No
Iron suspension	ZVI	7439-89-6	10-12.5%	No
60% Sodium Lactate	2-hydroxpropionic acid sodium salt	72-17-3	4-5%	No
Emulsifiers and proprietary nutrient package containing nitrogen, phosphorus and vitamin B_{12}		Mixture	6-7%	No

The emulsifiers are a trade secret and consists of ingredients of unknown acute toxicity.

4. First Aid Measures

Inhalation: Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact: Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire: The zero valent iron powder, when dry, may self-combust and has the potential to catch paper towels, rags, etc. on fire. Avoid airborne dispersion of fine powder in an enclosed area to reduce potential dust ignition. Keep SRS®-EZVI wet and avoid contact with combustible materials.

Explosion: May generate hydrogen gas vapors that can cause explosion when exposed to a spark or flame. Closed containers may explode if exposed to extreme heat.

Fire Extinguishing Media: Dry chemical, sand, foam, graphite, or carbon dioxide. Water spray may be ineffective on fire but can protect fire-fighters and cool closed containers. Use fog nozzles if water is used.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Clean-up personnel may require protective clothing. Absorb in sand, paper towels, “Oil Dry”, or other inert material. Scoop up and containerize for disposal. Flush trace residues to sewer with soap and water. Containerized waste may be sent to an approved waste disposal facility.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material are not hazardous when empty since they do not contain vapors or harmful substances; observe all warnings and precautions listed for the product. Do not store above 49 C (120 F). Keep container tightly closed and upright when not in use to prevent leakage.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:	None established.
Ventilation System:	Not expected to require any special ventilation.
Personal Respirators (NIOSH Approved):	Not expected to require personal respirator usage.
Skin Protection:	Wear protective gloves and clean body-covering clothing.
Eye Protection:	Use chemical safety goggles and/or a full-face shield where splashing is possible. Provide readily accessible eye wash stations and safety showers.
Slips, Trips, and Falls:	Material is slippery when spilled. Clean up with sand, paper towels, “Oil Dry”, or other inert material.

9. Physical and Chemical Properties

Appearance:	Gray viscous liquid.
Odor:	Vegetable oil.
Solubility:	Not soluble in water.
Specific Gravity (water=1):	1.07 (8.93 pounds per gallon)
pH:	6-8
% Volatiles by volume @ 21C (70F):	Negligible.
Boiling Point:	≥ 100C (≥ 212F)
Melting Point:	No information found.
Flash Point (F):	No information found.
Autoignition Temperature:	No information found.
Decomposition Temperature:	No information found.
Vapor Density (Air=1):	No information found.
Vapor Pressure (mm Hg):	< 1.0 @ 20C (68F).
Evaporation Rate (BuAc=1):	No information found.
Viscosity @23 C (73 F):	440-1,942 centipoises
Partition Coefficient (octanol/water):	No information found.

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. May generate hydrogen gas.

Reactivity: Not reactive under ordinary conditions.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong oxidizers, acids.

Conditions to Avoid: Incompatibles. Isolate from heat and open flame.

11. Toxicological Information

Soybean Oil: No information found on toxicology. It is not a carcinogen listed by IARC, NTP, NIOSH, OSHA, or ACGIH.

Emulsifier/Nutrient Mixture: No information found on toxicology. It is not a carcinogen listed by IARC, NTP, NIOSH, OSHA, or ACGIH.

Sodium Lactate: Oral rat LD50: 2000 mg/kg. Irritation for sodium lactate: standard Draize 100 mg - mild. This compound is not listed as a carcinogen by IARC, NRP, NIOSH, OSHA, or ACGIM.

Zero Valent Iron: No information found on toxicology. It is not a carcinogen listed by IARC, NTP, NIOSH, OSHA, or ACGIH.

Glycerol: Practically non-toxic.

SRS-EZVI: The toxicity of the mixture has not been measured.

12. Ecological Information

Environmental Fate: No information found.

Environmental Toxicity: No information found.

Degradability: SRS is completely biodegradable under both aerobic and anaerobic conditions.

Soil Mobility: SRS will move with groundwater until the adsorbed onto the soil. Degradation products may be mobile. The ZVI portion will not be mobile.

Bioaccumulation Potential: No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

OSHA STATUS: This product is not hazardous under the criteria of the Federal OSHA hazard Communication Standard 29 CFR 1910.1200. However, thermal processing and decomposition fumes from this product may be hazardous as noted in Section 10.

TSCA STATUS: No component of this product is listed on the TSCA inventory.

CERCLA (Comprehensive Response Compensation, and Liability Act): Not reportable.

SARA TITLE III (Superfund Amendments and Reauthorization Act)
Section 312 Extremely Hazardous Substances: None
Section 311/312 Hazard Categories: Non-hazardous Under Section 311/312
Section 313 Toxic Chemicals: None

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California safe Drinking Water and Toxic Enforcement Act of 1986. The product contains no chemicals known to the State of California to cause cancer.

16. Other Information

NFPA Ratings:	Health: **1** Flammability: **1** Reactivity: **1**
Date Revised:	January 1, 2018
Revision Information:	SDS Section(s) changed since last revision of document include: Added glycerol as component.
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Prepared by: Terra Systems, Inc.
Phone Number: (302) 798-9553 (U.S.A.)

CALCIUM CARBONATE
SAFETY DATA SHEET

1. Product Identification

Synonyms: Precipitated chalk; powdered limestone

Recommended Use: Buffering of groundwater contaminated with chlorinated solvents and other anaerobically degradable compounds.

Supplier:
Terra Systems, Inc.
130 Hickman Road, Suite 1
Claymont, Delaware 19703
Telephone (302) 798-9553
Fax (302) 798-9554
www.terrasystems.net

2. Hazards Identification

Emergency Overview

Danger May causes irritation to skin, eyes, and respiratory tract

Health Rating: 1 - Slight
Flammability Rating: 0 - None
Reactivity Rating: 0 - None
Contact Rating: 1 - Slight
Lab Protective Equipment: Goggles; Lab Coat; Vent Hood; Proper Gloves
Storage Color Code: Orange (General Storage)

Potential Health Effects

Inhalation: May cause respiratory irritation.
Ingestion: No information found...
Skin Contact: Causes skin irritation.
Eye Contact: Causes eye irritation.
Chronic Exposure: No information found.
Aggravation of Pre-existing Conditions: No information found.

3. Composition

Ingredient	Synonym	CAS #	Percent	Hazardous
Calcium Carbonate $CaCO_3$	Carbonic acid, calcium salt; powdered limestone	471-34-1	100	No

4. First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention if adverse symptoms occur.

Skin Contact: Causes mechanical irritation. Wash affected area with plenty of soap and water. If irritation persists, seek medical attention.

Eye Contact: Immediately flush eyes with plenty of water for at least 5 minutes, lifting lower and upper eyelids occasionally. Get medical attention.

5. Fire Fighting Measures

Fire: Not considered to be a fire hazard.

Explosion: Not considered an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire including foam, dry powder, carbon dioxide, water spray, or sand. .

Special Information: Use protective clothing and breathing equipment appropriate for the surrounding fire.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Avoid breathing dust. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Wash the area clean with water and detergent.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances including strong acids or oxidizers.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: USA OSHA PEL (TWA) 5 mg/m^3.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document,

	Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
Personal Respirators (NIOSH Approved):	For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:	Wear protective gloves and clean body-covering clothing.
Eye Protection:	Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:	White powder or granules.
Molecular Weight:	100.09 g/mole
Odor:	Odorless.
Solubility:	Insoluble in water. Soluble in acids.
Specific Gravity:	2.7-2.9
pH:	No information found.
% Volatiles by volume @ 21C (70F):	0
Boiling Point:	825 C (1517 F)
Melting Point:	520 C (968 F)
Flash Point	No information found
Autoignition Temperature	No information found
Decomposition Temperature	No information found
Vapor Density (Air=1):	No information found
Vapor Pressure (mm Hg):	No information found
Evaporation Rate (BuAc=1):	No information found.

10. Stability and Reactivity

Stability:	Stable under ordinary conditions of use and storage.
Reactivity:	Slight
Hazardous Decomposition Products:	Carbon dioxide (CO_2)
Hazardous Polymerization:	Will not occur.
Incompatibilities:	Acids
Conditions to Avoid:	Direct sunlight, extremely high or low temperatures. Strong acids or strong oxidizers...

11. Toxicological Information

Calcium Carbonate	Oral rat LD50: 6450 mg/kg. Causes skin and eye irritation.		
Cancer Lists:	Not classified.		
Calcium Carbonate (471-34-1)	No	No	None

12. Ecological Information

Environmental Fate:	No information found.
Environmental Toxicity:	No information found.
Degradability	No information found
Soil Mobility	No information found
Bioaccumulation Potential	No information found

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Listed on the Canadian DSL (Domestic Substances List) inventory).
WHMIS Classification: Class D Davison 2 Subdivision B Toxic material causing other toxic effects.

16. Other Information

NFPA Ratings:	Health: **1** Flammability: **0** Reactivity: **0**
Label Hazard Warning:	Exposure could cause irritation, but only minor residual injury even if no treatment is given...
Label Precautions:	Eye, skin, and respiratory irritant
Label First Aid:	In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to

	fresh air. Get medical attention for any breathing difficulty. In all cases, get medical attention.
Product Use:	Laboratory Reagent.
Revision Information:	SDS Section(s) changed since last revision of document includes: None
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Prepared by:	Terra Systems, Inc.
Phone Number:	(302) 798--9553 (U.S.A.)

SODIUM ASCORBATE
SAFETY DATA SHEET

1. Product Identification

Synonyms: Sodium Salt of Vitamin C
Recommended Use: Additive for treatment of water to remove dissolved oxygen.
CAS#: 134-03-2
Supplier: Terra Systems, Inc.
130 Hickman Road, Suite 1
Claymont, Delaware 19703
Telephone (302) 798-9553
Fax (302) 798-9554
www.terrasystems.net

2. Hazards Identification

Emergency Overview
Caution: May cause eye or skin irritation.
Health Rating: 2 - Moderate
Flammability Rating: 1 - Slight
Reactivity Rating: 0 - None
Contact Rating: 1 - Slight
Protective Equipment: Goggles; Proper Gloves
Storage Color Code: Green (General Storage)
Potential Health Effects
Inhalation: Not expected to be a health hazard.
Ingestion: Hazard via ingestion.
Skin Contact: May cause irritation or sensitization in sensitive individuals.
Eye Contact: May cause mild irritation.
Chronic Exposure: No information found.
Aggravation of Pre-existing Conditions: No information found.

3. Composition/Information on Ingredients

Ingredient	Synonyms	CAS #	Percent	Hazardous
Sodium Ascorbate	Sodium Salt of Vitamin C	134-03-2	100	No

4. First Aid Measures

Inhalation: Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact: Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire: Flash point and auto ignition: not available. May be combustible at high temperature. Isolate from heat and open flame.

Explosion: Slightly explosive in presence of open flames and sparks. Non-flammable in presence of shocks.

Fire Extinguishing Media: Dry chemical powder for small fires. Water spray, fog, or foam may be effective for large fires. Do not use water jet. .

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Fine dust dispersed in air at sufficient concentrations with an ignition source is a potential dust explosion hazard.

6. Accidental Release Measures

Clean-up personnel may require protective clothing. Scoop up and containerize for disposal. Flush trace residues to sewer with soap and water. Containerized waste may be sent to an approved waste disposal facility.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Containers of this material may pose a fire risk due to dusts. Keep container tightly closed and upright when not in use to prevent leakage. Sensitive to light. Store in light-resistant containers.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: None established.

Ventilation System: Use ventilation to keep exposure below exposure limits.

Personal Respirators (NIOSH

Approved):	Use dust respirator usage.
Skin Protection:	Wear protective gloves and clean body-covering clothing.
Eye Protection:	Use chemical safety goggles and/or a full face shield where splashing is possible. Provide readily accessible eye wash stations and safety showers.

9. Physical and Chemical Properties

Appearance:	White to yellowish granular or crystalline solid
Molecular Weight:	198.11 g/mole
Odor:	Odorless.
Solubility:	620 g/L solubility in water at 25 C.
Specific Gravity (water=1):	1.66 (water = 1).
pH:	Not available
% Volatiles by volume @ 21C (70F):	Negligible.
Boiling Point:	No information found.
Melting Point:	No information found.
Flash Point (F):	No information found.
Autoignition Temperature:	No information found.
Decomposition Temperature:	Decomposition temperature 200 C (392 F)
Vapor Density (Air=1):	No information found.
Vapor Pressure (mm Hg):	Not applicable.
Evaporation Rate (BuAc=1):	Not applicable.
Partition Coefficient (octanol/water):	No information found.

10. Stability and Reactivity

Stability:	Stable under ordinary conditions of use and storage.
Reactivity:	Not reactive under ordinary conditions.
Hazardous Decomposition Products:	Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization:	Will not occur.
Incompatibilities:	Strong oxidizers, reducing agents, acids, alkalis.
Conditions to Avoid:	Incompatibles. Isolate from heat and open flame.

11. Toxicological Information

Routes of Entry	Inhalation and ingestion.
Toxicity to Animals:	Acute oral toxicity (LD50): 16300 mg/kg Rat.
Chronic Effects on Humans:	Carcinogenic effects – classified 4 (no evidence) by NTP and none by OSHA. Mutagenic effects – mutagenic to mammalian somatic cells. May cause damage to kidneys, gastrointestinal tract, and upper respiratory tract. May affect genetic material (mutagenic) based on animal test data. No human data found

(Registry of Toxic Effects of Chemicals). May cause cancer based on animal test data. No human data found (Registry of Toxic Effects of Chemicals).

Other Toxic Effects: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant) or inhalation.

12. Ecological Information

Environmental Fate: No information found.
Environmental Toxicity: No information found.
Degradability: This product is inherently biodegradable under both aerobic and anaerobic conditions.
Soil Mobility: No information found.
Bioaccumulation Potential: Does not bioaccumulate.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

OSHA STATUS: This product is not hazardous under the criteria of the Federal OSHA hazard Communication Standard 29 CFR 1910.1200. However, thermal processing and decomposition fumes from this product may be hazardous as noted in Section 10.

TSCA STATUS: No component of this product is listed on the TSCA inventory.

CERCLA (Comprehensive Response Compensation, and Liability Act): Not reportable.

SARA TITLE III (Superfund Amendments and Reauthorization Act)
Section 312 Extremely Hazardous Substances: None
Section 311/312 Hazard Categories: Non-hazardous Under Section 311/312
Section 313 Toxic Chemicals: None

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California safe Drinking Water and Toxic Enforcement Act of 1986. The product contains no chemicals known to the State of California to cause cancer.

16. Other Information

NFPA Ratings:	Health: **2** Flammability: **1** Reactivity: **0**
Date Prepared:	February 3, 2015
Revision Information:	SDS Section(s) changed since last revision of document include: None.
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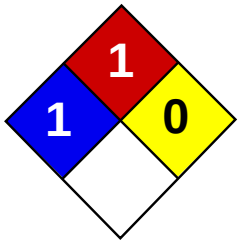
Prepared by:	Terra Systems, Inc.
Phone Number:	(302) 798-9553 (U.S.A.)

130 Hickman Road – Suite 1 – Claymont – Delaware – 19703
For More Information Call Michael Free at 302-798-9553 or Email: mfree@terrasystems.net



Health	1
Fire	1
Reactivity	0
Personal Protection	E

Material Safety Data Sheet
Yeast extract MSDS

Section 1: Chemical Product and Company Identification

Product Name: Yeast extract

Catalog Codes: SLY1108

CAS#: 8013-01-2

RTECS: ZF6610000

TSCA: TSCA 8(b) inventory: Yeast extract

CI#: Not available.

Synonym:

Chemical Name: Not available.

Chemical Formula: Not available.

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Yeast extract	8013-01-2	100

Toxicological Data on Ingredients: Not applicable.

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:
Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

Section 4: First Aid Measures

Eye Contact: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact: Not available.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Not available.

Ingestion:
Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust.

Storage:
Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Granular solid.)

Odor: Characteristic.

Taste: Not available.

Molecular Weight: Not available.

Color: Yellowish.

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: Decomposes.

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: Easily soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: Not available.

Toxicity to Animals:
LD50: Not available. LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Nuisance dust.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Yeast extract

Other Regulations: Not available..

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

This product is not classified according to the EU regulations.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/10/2005 08:33 PM

Last Updated: 05/21/2013 12:00 PM

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Diammonium Phosphate
SAFETY DATA SHEET

Effective Date: 01-01-2018

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1. Product Identification

Synonyms:	Diammonium Phosphate, Ammonium Phosphate Dibasic
Recommended Use:	Treatment of groundwater contaminated with chlorinated solvents and other anaerobically degradable compounds.
Supplier:	Terra Systems, Inc. 130 Hickman Road, Suite 1 Claymont, Delaware 19703 Telephone (302) 798-9553 Fax (302) 798-9554 www.terrasystems.net

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2. Hazards Identification

Emergency Overview	
Caution:	May cause eye and skin irritation. Acute aquatic toxicity.
Health Rating:	2 - Moderate
Flammability Rating:	0 - None
Reactivity Rating:	0 - None
Contact Rating:	2 - Moderate
Protective Equipment:	Goggles; Proper Gloves
Storage Color Code:	Orange (General Storage)
Potential Health Effects	
Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	May be harmful if swallowed.
Skin Contact:	Causes skin irritation.
Eye Contact:	Causes eye irritation.
Chronic Exposure:	No information found No adverse effects expected
Aggravation of Pre-existing Conditions:	No information found

3. Composition/Information on Ingredients

Ingredient	CAS#	Percent	Hazardous
Diammonium Phosphate	7783-28-0	100	Yes

Molecular Weight: 132.1
Chemical Formula: $(NH_4)_2PO_4$

4. First Aid Measures

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If swallowed, give water to rinse mouth and get medical advice.

Skin Contact: Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Hazardous Combustion Products: Hazardous decomposition products formed under fire conditions – nitrogen oxides and phosphorus oxides.

6. Accidental Release Measures

Clean-up personnel should wear protective clothing and gloves. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Scoop up and containerize for disposal. Discharge into environment should be avoided. Containerized waste may be sent to an approved waste disposal facility.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Avoid long storage times. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide adequate exhaust ventilation where dust is formed. Containers of this material may be hazardous when empty since they do retain product residues (vapors, liquid). Observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:	None established.
Ventilation System:	Not expected to require any special ventilation.
Personal Respirators (NIOSH Approved):	For nuisance exposures, use type P95 particle respirator. For higher level protection use type OV/AG/P99 respirator cartridges.
Skin Protection:	Wear protective nitrile rubber gloves (at least 0.11 mm thick) and clean impervious body-covering clothing.
Eye Protection:	Use chemical safety goggles and/or a full face shield where splashing is possible. Provide readily accessible eye wash stations and safety showers.

9. Physical and Chemical Properties

Appearance:	White crystalline.
Odor:	Ammonia.
Solubility:	About 132 g/L at 20 C (68 F)
Specific Gravity (water=1):	1.62 g/cm^3
pH:	7.5-9.0 at 132 g/L at 25 C (77 F)
% Volatiles by volume @ 21C (70F):	No information found.
Boiling Point:	No data available
Melting Point:	155 C (311 F)
Flash Point (F):	No information found.
Autoignition Temperature:	No information found
Decomposition Temperature:	No information found.
Vapor Density (Air=1):	No information found.
Vapor Pressure (mm Hg):	No information found.
Evaporation Rate (BuAc=1):	No information found.
Viscosity @23 C (73 F):	No information found.
Partition Coefficient (octanol/water):	No information found

Terra Systems, Inc.
130 Hickman Road, Suite 1, Claymont, Delaware 19703
Contact: Michael Free, VP, Sales and Marketing
Office: 302-798-9553; Cell: 484-889-2214 Email: mfree@terrasystems.net

10. Stability and Reactivity

Stability:	Stable under ordinary conditions of use and storage.
Reactivity:	Not reactive under ordinary conditions.
Hazardous Decomposition Products:	Nitrogen oxides and oxides of phosphorus may form when heated to decomposition.
Hazardous Polymerization:	Will not occur.
Incompatibilities:	Avoid strong oxidizing agents, strong acids, strong bases, and magnesium.
Conditions to Avoid:	Incompatibles. Isolate from heat and open flame.

11. Toxicological Information

Acute Toxicity:	Oral LD50 rat 6,500 mg/lg Inhalation LC50 – no data available Dermal LD50 – rabbit 7,950 mg/kg
Chronic Toxicity:	Carcinogenicity – no component of this product present at levels greater than 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA. Reproductive toxicity – no data available. Teratogenicity – no data available.

12. Ecological Information

Environmental Fate:	Mobile with water and biodegradable.
Environmental Toxicity:	Toxic to fish. LC50 *Oncorhynhus mykiss* (rainbow trout) 26.5 mg/L – 96 hr. LC50 *Pimephales promelas* (fathead minnow) 33 mg/L -96 hr.
Degradability:	No information is available.
Soil Mobility:	No information is available.
Bioaccumulation Potential:	No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Non-hazardous - not regulated.

15. Regulatory Information

This product is considered an irritant by the U. S. Occupational Safety and Health Administration's Hazard Communication Standard.

16. Other Information

NFPA Ratings:	Health: **2** Flammability: **0** Reactivity: **0**
Date Prepared:	January 1, 2018
Revision Information:	SDS Section(s) changed since last revision of document include: None.
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Prepared by:	Terra Systems, Inc.
Phone Number:	(302) 798-9553 (U.S.A.)

Terra Systems, Inc.
130 Hickman Road, Suite 1, Claymont, Delaware 19703
Contact: Michael Free, VP, Sales and Marketing
Office: 302-798-9553; Cell: 484-889-2214 Email: mfree@terrasystems.net

TERRA SYSTEMS, INC DECHLORINATING BIOAUGMENTATION CULTURE (TSI-DC) SAFETY DATA SHEET

1. Product Identification

Synonyms: *Dehalococcoides* or DHC Microbial Consortium (TSI-DC)

Recommended Use: Bioremediation of groundwater and soil contaminated with chlorinated solvents such as tetrachloroethene and trichloroethene.

Supplier:
Terra Systems, Inc.
130 Hickman Road, Suite 1
Claymont, Delaware 19703
Telephone (302) 798-9553
Fax (302) 798-9554
www.terrasystems.net

2. Hazards Identification

The available data indicates no known hazards associated with exposure to this product. Nevertheless, individuals who are allergic to enzymes or other related proteins should avoid exposure and handling. Health effects associated with exposure to similar organisms are listed below.

Emergency Overview

Caution: May cause eye irritation or discomfort if ingested or inhaled or allergic reaction to sensitive individuals.

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 1 - Slight

Protective Equipment: Goggles; Proper Gloves

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation: Not expected to be a health hazard. Hypersensitive individuals may experience breathing difficulties after inhalation of aerosols.

Ingestion: Not expected to be a health hazard via ingestion. Ingestion of large quantities may result in abdominal discomfort including nausea, vomiting, cramps, diarrhea, and fever.

Skin Contact: No adverse effects expected. May cause irritation or sensitization in sensitive individuals upon prolonged contact.

Eye Contact: May cause mild irritation, possible reddening unless immediately rinsed.

Chronic Exposure: No information found.
Aggravation of Pre-existing Conditions: No information found.

3. Composition/Information on Ingredients

Ingredient	Synonyms	CAS #	Percent	Hazardous
Non-hazardous ingredients	DHC	Not applicable	100%	No

4. First Aid Measures

Inhalation: Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty or if allergic symptoms develop.

Ingestion: Thoroughly rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Skin Contact: Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

Note to Physicians: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this material may have occurred.

5. Fire Fighting Measures

Fire: Non-flammable. Flash point and flammable limits are not available.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Dry chemical, foam, carbon dioxide, or water.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Clean-up personnel may require protective clothing and avoid skin contact. Absorb in sand, paper towels, or other inert material. Scoop up and containerize for disposal. Flush trace residues to sewer with soap and water. Containerized waste may be sent to an approved waste disposal facility. After clean-up, disinfect all cleaning materials and storage containers that come in contact with the spilled liquid.

7. Handling and Storage

Avoid breathing breathe aerosol. Avoid contact with skin. Use personal protective equipment recommended in Section 8. Keep containers tightly closed in a cool, well-ventilated area. The DHC microbial consortium (TSI-DC) can be supplied in stainless steel kegs designed for maximum working pressure of 130 psi and equipped with pressure relief valves. The kegs are pressurized with nitrogen gas up to the pressure of 15 psi. Do not exceed pressure of 15 psi during transfer of DHC microbial consortium (TSI-DC) from kegs. Don't open keg if content of the keg is under pressure. DHC microbial consortium (TSI-DC) may be stored for up to 3 weeks at temperature 2-4°C without aeration. Avoid freezing.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:	None established.
Ventilation System:	Not expected to require any special ventilation. Provide adequate ventilation to remove odors.
Personal Respirators (NIOSH Approved):	Not expected to require personal respirator usage. If aerosols might be generated, use N95 respirator.
Skin Protection:	Wear protective rubber, nitrile, or vinyl gloves and clean body-covering clothing.
Eye Protection:	Use chemical safety goggles and/or a full face shield where splashing is possible. Provide readily accessible eye wash stations and safety showers.

9. Physical and Chemical Properties

Appearance:	Light greenish, murky liquid.
Odor:	Musty.
Solubility:	Soluble in water.
Specific Gravity (water=1):	1.0. 8.34 pounds per gallon.
pH:	6-8
% Volatiles by volume @ 21C (70F):	Negligible.
Boiling Point:	100C (212F)
Melting Point:	0C (32F)
Flash Point (F):	No information found.
Autoignition Temperature:	No information found.
Decomposition Temperature:	No information found.
Vapor Density (Air=1):	No information found.
Vapor Pressure (mm Hg):	24 mm @ 25C (77F).
Evaporation Rate (BuAc=1):	No information found.
Viscosity @23 C (73 F):	1 centipoises

Partition Coefficient (octanol/water): No information found.

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.
Reactivity: Not reactive under ordinary conditions.
Hazardous Decomposition Products: None.
Hazardous Polymerization: Will not occur.
Incompatibilities: Strong oxidizers, acids, water reactive materials.
Conditions to Avoid: Incompatibles. Isolate from heat and open flame.

11. Toxicological Information

TSI-DC No information found on toxicology. It is not a carcinogen listed by IARC, NTP, NIOSH, OSHA, or ACGIH. It has tested negative for pathogenic microorganisms such as *Bacillus cereus, Listeria monocytogens, Salmonella* sp., *Pseudomonas* sp., fecal coliform, total coliform, yeast, and mold.

12. Ecological Information

Environmental Fate: No information found.
Environmental Toxicity: No information found.
Degradability: This product is completely biodegradable under both aerobic and anaerobic conditions.
Soil Mobility: This compound will move with groundwater until the adsorbed onto the soil.
Bioaccumulation Potential: No information found.

13. Disposal Considerations

Waste Disposal Method: No special disposal methods are required. The material is compatible with all known biological treatment methods. To reduce odors and permanently inactivate microorganisms, mix 100 parts (by volume) of TSI-DC consortium with 1 part (by volume) of bleach. Dispose of in accordance with local, state and federal regulations.

14. Transport Information

DOT Classification: N/A
Labeling: NA
Shipping Name: Not regulated

15. Regulatory Information

OSHA STATUS: This product is not hazardous under the criteria of the Federal OSHA hazard Communication Standard 29 CFR 1910.1200.

Patented *Injection Ready* 60% SRS®-SD Small Droplet Emulsified Vegetable Oil (EVO) Substrate for Maximum Radius of Influence

United States Patent #RE40,448

SAFETY DATA SHEET

1. Product Identification

Synonyms:	60% Small Droplet Slow Release Substrate (SRS®-SD) Emulsified Vegetable Oil Substrate (EVO)
Recommended Use:	Treatment of groundwater contaminated with chlorinated solvents and other anaerobically degradable compounds.
Supplier:	Terra Systems, Inc. 130 Hickman Road, Suite 1 Claymont, Delaware 19703 Telephone (302) 798-9553 Fax (302) 798-9554 www.terrasystems.net

2. Hazards Identification

Emergency Overview	
Caution:	May cause eye irritation.
Health Rating:	1 - Slight
Flammability Rating:	1 - Slight
Reactivity Rating:	1 - Slight
Contact Rating:	1 - Slight
Protective Equipment:	Goggles; Proper Gloves
Storage Color Code:	Green (General Storage)
Potential Health Effects	
Inhalation:	Not expected to be a health hazard. If heated, may produce vapors or mists that irritate the mucous membranes and cause irritation, dizziness, and nausea. Remove to fresh air.
Ingestion:	Not expected to be a health hazard via ingestion. Large doses may produce abdominal spasms or diarrhea.
Skin Contact:	No adverse effects expected. May cause irritation or sensitization in sensitive individuals.
Eye Contact:	May cause mild irritation, possible reddening.
Chronic Exposure:	No information found.
Aggravation of Pre-existing Conditions:	No information found.

3. Composition/Information on Ingredients

Ingredient	Synonyms	CAS #	Percent	Hazardous
Soy bean oil	Soya oil	8001-22-7	60%	No
Emulsifiers and proprietary nutrient package containing nitrogen, phosphorus and vitamin B_{12}		Mixture	7.5 - 10%	No
Sodium lactate	2-hydroxpropionic acid sodium salt	72-17-3	5.5%	Yes
Water		7732-18-5	Difference	No

The emulsifiers and nutrient package mixture is a trade secret and consists of ingredients of unknown acute toxicity.

4. First Aid Measures

Inhalation: Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact: Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire: Flash point: >200 C (>392 F). Not considered to be a fire hazard. Isolate from heat and open flame.

Explosion: Not considered to be an explosion hazard. Closed containers may explode if exposed to extreme heat.

Fire Extinguishing Media: Dry chemical, foam, or carbon dioxide. Water spray may be ineffective on fire but can protect fire-fighters and cool closed containers. Use fog nozzles if water is used.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Clean-up personnel may require protective clothing. Absorb in sand, paper towels, “Oil Dry”, or other inert material. Scoop up and containerize for disposal. Flush trace residues to sewer with soap and water. Containerized waste may be sent to an approved waste disposal facility.

7. Handling and Storage

Store in a cool, dry, ventilated area. Do not store in sunlight or above 32 C (90 F). Keep container tightly closed and upright when not in use to prevent leakage. Observe all warnings and precautions listed for the product. Protect against physical damage.

If container begins to bulge, open cap slowly to release carbon dioxide from biological activity on the SRS-SD and call TSI.

Containers of this material are not hazardous when empty since they do not contain vapors or harmful substances; if drum or tote is observed to bulge, keep cap off as pressurization can occur on empty container with caps in place unless container is thoroughly rinsed.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:	None established.
Ventilation System:	Not expected to require any special ventilation.
Personal Respirators (NIOSH Approved):	Not expected to require personal respirator usage.
Skin Protection:	Wear protective gloves and clean body-covering clothing.
Eye Protection:	Use chemical safety goggles and/or a full-face shield where splashing is possible. Provide readily accessible eye wash stations and safety showers.
Slips, Trips, and Falls:	Material is slippery when spilled. Clean up with sand, paper towels, “Oil Dry”, or other inert material.

9. Physical and Chemical Properties

Appearance:	White liquid.
Odor:	Vegetable oil.
Solubility:	Miscible in water.
Specific Gravity (water=1):	0.95-0.98. 8.09 pounds per gallon.
pH:	6-7 (40% aqueous solution)
% Volatiles by volume @ 21C (70F):	Negligible.
Boiling Point:	$\geq$ 100C ($\geq$ 212F)
Melting Point:	No information found.
Flash Point (F):	No information found.
Autoignition Temperature:	No information found.
Decomposition Temperature:	No information found.
Vapor Density (Air=1):	No information found.
Vapor Pressure (mm Hg):	< 1.0 @ 20C (68F).
Evaporation Rate (BuAc=1):	No information found.
Viscosity @23 C (73 F):	213 centipoises (1.2 centipoises diluted 1:10)
Partition Coefficient (octanol/water):	No information found.

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.
Reactivity: Not reactive under ordinary conditions.
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization: Will not occur.
Incompatibilities: Strong oxidizers, acids.
Conditions to Avoid: Incompatibles. Isolate from heat and open flame.

11. Toxicological Information

Soybean Oil: No information found on toxicology. It is not a carcinogen listed by IARC, NTP, NIOSH, OSHA, or ACGIH.
Emulsifier/Nutrient Mixture: No information found on toxicology. It is not a carcinogen listed by IARC, NTP, NIOSH, OSHA, or ACGIH.
Sodium Lactate: Oral rat LD50: 2,000 mg/kg. 100 mg caused mild irritation to rabbit eye in Draize test. This compound is not listed as a carcinogen by IARC, NRP, NIOSH, OSHA, or ACGIM.
SRS-SD: The toxicity of the mixture has not been measured.

12. Ecological Information

Environmental Fate: No information found.
Environmental Toxicity: No information found.
Degradability: This product is completely biodegradable under both aerobic and anaerobic conditions.
Soil Mobility: This compound will move with groundwater until the adsorbed onto the soil. Degradation products may be mobile.
Bioaccumulation Potential: No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

OSHA STATUS: This product is not hazardous under the criteria of the Federal OSHA hazard Communication Standard 29 CFR 1910.1200. However, thermal processing and decomposition fumes from this product may be hazardous as noted in Section 10.

TSCA STATUS: No component of this product is listed on the TSCA inventory.

CERCLA (Comprehensive Response Compensation, and Liability Act): Not reportable.

SARA TITLE III (Superfund Amendments and Reauthorization Act)
Section 312 Extremely Hazardous Substances: None
Section 311/312 Hazard Categories: Non-hazardous Under Section 311/312
Section 313 Toxic Chemicals: None

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California safe Drinking Water and Toxic Enforcement Act of 1986. The product contains no chemicals known to the State of California to cause cancer.

16. Other Information

NFPA Ratings:	Health: **1** Flammability: **1** Reactivity: **1**
Date Prepared:	September 11, 2019
Revision Information:	SDS Section(s) changed since last revision of document include: Updated Section 3 Composition/Information on Ingredients.
Disclaimer:	Terra Systems, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. TERRA SYSTEMS, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, TERRA SYSTEMS, INC. WILL NOT BE RESPONSIBLE FOR

DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Prepared by: Terra Systems, Inc.
Phone Number: (302) 798-9553 (U.S.A.)

TSCA STATUS: No component of this product is listed on the TSCA inventory.
CERCLA (Comprehensive Response Compensation, and Liability Act): Not reportable.

SARA TITLE III (Superfund Amendments and Reauthorization Act)
Section 312 Extremely Hazardous Substances: None
Section 311/312 Hazard Categories: Non-hazardous Under Section 311/312
Section 313 Toxic Chemicals: None

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California safe Drinking Water and Toxic Enforcement Act of 1986. The product contains no chemicals known to the State of California to cause cancer.

16. Other Information

NFPA Ratings:	Health: **1** Flammability: **0** Reactivity: **0**
Date Prepared:	March 26, 2014
Revision Information:	SDS Section(s) changed since last revision of document include: None.
Disclaimer:	Terra Systems, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. TERRA SYSTEMS, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, TERRA SYSTEMS, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.
Prepared by:	Terra Systems, Inc.
Phone Number:	(302) 798-9553 (U.S.A.)

EOS Remediation, LLC

CoBupH$_{Mg}$

SAFETY DATA SHEET

Section 1: Identification	
Product Name:	**CoBupH$_{Mg}$**
Chemical Description:	Mixture; colloidal buffer
Manufacturer:	EOS Remediation PO Box 14266 Reseacrh Triangle Park NC, 27709 (P): 919-873-2204
Recommended Use:	Groundwater pH adjustment (environmental applications)
Restricted Use:	Not for human consumption.
24-Hour Emergency Contact:	ChemTel: United States (P): 800-255-3924 ChemTel: International (P): 813-248-0585

Section 2: Hazard(s) Identification	
Hazard Classification:	Potential Respiratory Tract Irritant; irritant (skin and eye)
Signal Word:	Warning
Hazard Statement(s):	Potential eye and skin irritant; Inhalation may aggravate any preexisting respiratory disease.
Pictograms:	
Precautionary Statement(s):	Prolonged/frequent skin contact may lead to dermatitis; Ingestion generally causes purging of the bowels. Keep from freezing. Keep below 100 F to avoid evaporation of free water, which could lead to increased viscosity.

Section 3: Composition/Information on Ingredients		
Common Name(s)	**CAS NO.**	**% by Weight**
Alkaline Buffer Patent Pending Trade Secret[1]	Proprietary	45-50
Dispersant Trade Secret[1]	Proprietary	1-2
Stabilizer Trade Secret[1]	Proprietary	0.5-1
Water	7732-18-5	47-53.5

1 – The precise composition of this product is proprietary information. A more complete disclosure will be provided to a physician in the event of a medical emergency.

Section 4: First-Aid Measures	
Routes of Exposure	**Emergency First-Aid Procedures**
Inhalation	Remove to fresh air; as with exposure to any environment without adequate personal protection, inhalation may aggravate any preexisting respiratory disease.
Eye Contact	Flush with water for 15 minutes; if irritation persists see a physician.
Dermal	Wash with mild soap and water; prolonged/frequent skin contact may lead to dermatitis.
Ingestion	Product is non-toxic. If nausea occurs, induce vomiting and seek medical attention.

Section 5: Fire-Fighting Measures	
Extinguishing Media:	Use media appropriate to primary source of fire. Otherwise, use CO_2, foam, dry chemical. Note: Water, fog and foam may cause frothing and spattering.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and chemical resistant clothing. Use water spray to cool fire exposed containers.
Fire Hazard(s):	None known.

Section 6: Accidental Release Measures	
Personal Precautions:	Avoid contact with eyes and skin. Do not consume.
Emergency Procedures:	N/A
Methods & Materials used for Containment:	Compatible granular absorbent
Cleanup Procedures:	Spread compatible granular absorbent over spill area and sweep using broom and pan; dispose in appropriate receptacle. Clean area with water.

Section 7: Handling and Storage	
Safe Handling & Storage:	Keep container closed when not in use. Avoid contact with eyes. Keep from freezing. Keep below 100 F to avoid evaporation of free water, which could lead to increased viscosity.
Other Precautions:	Consumption of food and beverages should be prevented in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking, or smoking.

Section 8: Exposure Controls/Personal Protection		
Exposure Limits		
OSHA PEL:	NE	
ACGIH TLV:	NE	
NIOSH REL:	NE	

Personal Protective Measures	
Respiratory Protection:	Not normally required. N95 respirator if aerosols might be generated.
Hand Protection:	Protective gloves are recommended
Eye Protection:	Recommended
Engineering Measures:	Local exhaust ventilation if aerosols are generated
Hygiene Measures:	Wash promptly with soap & water following skin contact. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking or smoking.
Other Protection:	Wear appropriate clothing to prevent skin contact

Section 9: Physical and Chemical Properties			
Appearance:	Milky white aqueous suspension	Explosive Limits:	NE
Odor:	None	Vapor Pressure:	NE
Odor Threshold:	NE	Vapor Density:	N/A
pH:	10.5-11.5	Relative Density:	1.6
Melting Point/Freezing Point:	32° F (0°C)	Solubility:	Slightly Soluble
Boiling Point:	N/A	Partition coefficient:	NE
Flash Point:	Not flammable or combustible	Auto-ignition Temperature:	N/A
Evaporation Rate:	NE	Decomposition Temperature:	100-110°F (38°-43° C) (water will evaporate)
Flammability (solid, gas):	NE	Viscosity:	100-200 cP

NE – Not Established
N/A - Not Applicable

Section 10: Stability and Reactivity	
Stability:	Stable
Incompatibility:	ACID (Strong) - vigorous reaction, heat generated; MALEIC ANHYDRIDE - Alkali and other alkaline earth compounds, including magnesium compounds will cause explosive decomposition. PHOSPHORUS - when boiled with alkaline hydroxides yields mixed phosphine that may ignite spontaneously in air.
Hazardous Decomposition Products:	If container is left open at 100-110 F, water will evaporate causing product to become extremely viscous.
Hazardous Reactions/Polymerization:	Will not occur
Conditions to Avoid:	None known

Section 11: Toxicological Information		
Likely Routes of Exposure:		Ingestion, dermal and eye contact
Signs and Symptoms of Exposure:		Eye Contact: redness, tearing, conjunctivitis Skin Contact: drying, chapping, dermatitis
Health Hazards		
	Acute:	Ingestion generally causes purging of the bowels; Swallowing large amounts may lead to bowel obstruction. Potential eye and skin irritant.
	Chronic:	None known
Carcinogenicity		
	NTP:	No
	IARC:	No
	OSHA:	No

Section 12: Ecological Information (non-mandatory)
There is no data on the ecotoxicity of this product.

Section 13: Disposal Considerations (non-mandatory)	
Waste Disposal Methods:	Dispose of according to Federal and local regulations for non-hazardous waste.

Section 14: Transport Information (non-mandatory)
The product is not covered by international regulation on the transport of dangerous goods.
No transport warning required.

Section 15: Regulatory Information (non-mandatory)
N/A

Section 16: Other Information	
Date of Preparation:	29 May 2014
Last Modified Date:	12 August 2019
The information contained herein is based on available data and is believed to be correct. However, EOS Remediation, LLC makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained thereof. This information and product are furnished on the condition that the person receiving them shall make his/her own determination as to the suitability of the product for his/her particular purpose.	

SAFETY DATA SHEET

Newman Zone OS

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	**Newman Zone OS**
SYNONYMS:	Newman Zone Oxygen Scavenger
CAS#:	Mixture
PRODUCT USE:	This product is used to deoxygenate water for anaerobic subsurface injections.
CHEMICAL SHIPPING NAME/CLASS:	Non-Regulated Material
U.N. NUMBER:	None
MANUFACTURER'S NAME:	**RNAS Remediation Products**
ADDRESS:	6712 West River Road, Brooklyn Center, MN 55430
BUSINESS PHONE:	1-763-585-6191
EMERGENCY PHONE:	1-800-424-9300 (Chemtrec 24 Hr Service – Emergency Only)
DATE OF CURRENT REVISION:	July 19, 2016
DATE OF LAST REVISION:	New

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a white and brownish-yellow powder with a mild, sweet odor.
Health Hazards: Not expected to cause adverse health effects when used as intended. Prolonged or repeated exposure may cause irritation to skin. May cause irritation to eyes upon contact. Inhalation may cause respiratory irritation. Ingestion of large amounts of this product may cause gastrointestinal irritation.
Flammability Hazards: This product is a Non-Flammable powder.
Reactivity Hazards: None known
Environmental Hazards: The Environmental effects of this product have not been investigated. Release of this product is not anticipated to have significant adverse effects in the aquatic environment.

US DOT SYMBOLS	CANADA (WHMIS) SYMBOLS	EUROPEAN and (GHS) Hazard Symbols
		None
Non-Regulated Material	Complies with WHMIS 2015	Signal Word: **None**

GHS LABELING AND CLASSIFICATION:
This product does not meet the definition of a hazardous substance or preparation as defined by 29CFR 1910.1200 or the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:
None of the ingredients are listed in Annex VI
Substances not listed either individually or in group entries must be self classified.

Component(s) Contributing to Classification(s):
All Ingredients

GHS Hazard Classification(s):
Not applicable

Hazard Statement(s):
Not applicable

Response Statement(s):
Not applicable

Prevention Statement(s):
Not applicable

Storage Statement(s):
Not applicable

Disposal Statement(s):
Not applicable

HEALTH HAZARDS OR RISKS FROM EXPOSURE:
SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation of vapors and ingestion. The symptoms of overexposure are described below.
ACUTE:
INHALATION: Not expected to cause adverse health effects when used as intended. Inhalation of vapors/mist/spray may cause respiratory irritation.
CONTACT WITH SKIN: Not expected to cause adverse health effects when used as intended. Prolonged and repeated contact may cause irritation to skin.
EYE CONTACT: Direct eye contact can cause irritation with redness, tearing and blurred vision.

INGESTION: Under normal conditions of intended use, this material is not expected to be an ingestion hazard. Ingestion of large quantities may cause gastrointestinal irritation, nausea and vomiting.
CHRONIC: None known
TARGET ORGANS: Acute: Skin, Respiratory System and Eyes **Chronic:** None known

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	GHS Hazard Classification(s)
All ingredients are either nonhazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

NOTE: This product has been classified in accordance with the hazard criteria of 29CFR1910.1200 and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*.

4. FIRST-AID MEASURES

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.
SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known
RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

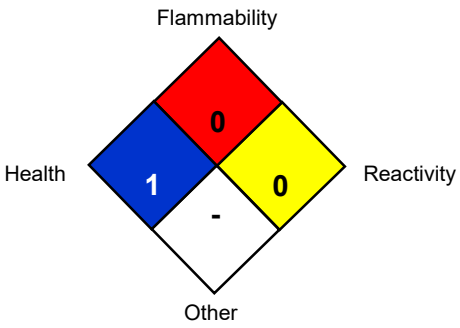
5. FIRE-FIGHTING MEASURES

FLASH POINT: Non-Flammable
AUTOIGNITION TEMPERATURE: Not Available
FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA
FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:

Water Spray: Yes	Carbon Dioxide: Yes
Foam: Yes	Dry Chemical: Yes
Halon: Yes	Other: Any "C" Class

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not considered a fire or explosion hazard.
Explosion Sensitivity to Mechanical Impact: No
Explosion Sensitivity to Static Discharge: No
SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE)	1
FLAMMABILITY HAZARD (RED)	0
PHYSICAL HAZARD (YELLOW)	0

PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8

For Routine Industrial Use and Handling Applications

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Personnel should be trained for spill response operations.

SPILLS: Contain spill if safe to do so. Sweep or vacuum up and place in an appropriate closed container. Clean up residual material by washing area with water and detergent. Dike or retain dilution water or water from firefighting for later disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices.

STORAGE AND HANDLING PRACTICES: Store in original container. Keep container closed when not in use. Store in a cool, dry location. Avoid freezing or extended storage in high temperatures and away from incompatible materials.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION

	TWA	STEL
OSHA	5 mg/cu m	

PARTICULATES NOT OTHERWISE REGULATED TOTAL DUST

	TWA	STEL
OSHA	15 mg/cu m	

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not required when using this product. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended to avoid eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

SKIN PROTECTION: Wear impervious gloves for prolonged or repeated exposure as appropriate to task when using this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE (Physical State) and COLOR: This product is a white and brownish-yellow powder. **ODOR:** Mild, sweet odor
ODOR THRESHOLD: Not Available
pH (in solution at 1.0 g/L): 7.0 - 8.0
MELTING/FREEZING POINT: Not Available
BOILING POINT: Not Available
FLASH POINT: Not Available
EVAPORATION RATE (n-BuAc=1): Not Available
FLAMMABILITY (SOLID, GAS): Not Available
UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available
VAPOR PRESSURE (mm Hg @ 20°C (68°F)): Not Available
VAPOR DENSITY: Not Available
DENSITY: 1.0-1.2 g/cm^3
SOLUBILITY IN WATER: Soluble in water
PARTITION COEFFICENT (n-octanol/water): Not Available
AUTO-IGNITION TEMPERATURE: Not Available
DECOMPOSITION TEMPERATURE: Not Available
VISCOSITY: Not Available

10. STABILITY and REACTIVITY

STABILITY: Stable under conditions of normal storage and use.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides (monoxide, dioxide), Metal oxide fumes, Sodium oxides.
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizing agents, strong bases, strong acids, lime.
POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.
CONDITIONS TO AVOID: Extreme heat and humidity.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:
No data available for this product.
SUSPECTED CANCER AGENT: Ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.
IRRITANCY OF PRODUCT: No specific data available
SENSITIZATION TO THE PRODUCT: This product is not a skin and respiratory sensitizer.
REPRODUCTIVE TOXICITY INFORMATION: No information concerning the effects of this product and its components on the human reproductive system.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.
TOXICITY DATA:
No data available for this product.
ENVIRONMENTAL STABILITY: This material will degrade in the environment.
CHEMICAL EFFECT ON PLANTS, ANIMALS AND AQUATIC LIFE: This product is not expected to cause significant harm to plants, animals or aquatic life.
WATER ENDANGERMENT CLASS: Water endangering in accordance with EU Guideline 91/155-EWG – Not Determined.
SPECIFIC AVAILABLE COMPONENT INFORMATION: No additional data available at this time.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.
EU Waste Code: Not determined

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows:

PROPER SHIPPING NAME: Non-Regulated Material
HAZARD CLASS NUMBER and DESCRIPTION: None
UN IDENTIFICATION NUMBER: None
PACKING GROUP: NA
DOT LABEL(S) REQUIRED: None
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: None
RQ QUANTITY: None
MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is not considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015.

EUROPEAN ECONOMIC COMMUNITY INFORMATION:
This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.
See Section 2 for Details

AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:
Asia-Pac: Listed or Exempt from listing
Australian Inventory of Chemical Substances (AICS): Listed or Exempt from listing
Korean Existing Chemicals List (ECL): Listed or Exempt from listing
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or Exempt from listing
Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed or Exempt from listing
Swiss Giftliste List of Toxic Substances: Listed or Exempt from listing
U.S. TSCA: Listed

16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

EPA: United States Environmental Protection Agency
ARD: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Chris Eigbrett – (**MSDS to GHS Compliance)**
DATE OF PRINTING: July 19, 2016

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Remediation and Natural Attenuation Services Inc. assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Remediation and Natural Attenuation Services Inc. assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET

APPENDIX D

Daily Field Reports (Langan)

LANGAN

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain		Overcast		Partly Cloudy		Bright Sun	X
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/07/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 - 17:00

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental) and Rob Bandstra (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Michael Lang and two laborers

EQUIPMENT ON SITE:
Pallet Jack

Pre-Mobilization Activities

- On Wednesday, May 1, 2024 Cascade Environmental (Cascade), the remedial contractor, mobilized to the Site in preparation for remedial injections for the treatment of chlorinated volatile organic compounds (CVOCs) within the bedrock throughout the Site in accordance with the April 2024 Groundwater Performance Monitoring Report & Injection Design. Equipment was staged within the central portion of the Site.
- On Wednesday, May 1, 2024 Cascade received a delivery of the injection reagents from Terra Systems, Inc. consisting of one tote of combined emulsified vegetable oil substrate and zero valent iron (SRS-ZVI) reagent, one tote of emulsified vegetable oil (SRS-SD EVO), 50 pounds of yeast extract, 1 bag of diammonium phosphate (DAP), one bucket of TSI ferrous sulfide solution, and 15 bags of calcium carbonate. All reagents delivered were staged within the sub-cellar of the Site.
- Between Wednesday, May 1 and Thursday, May 2, 2024 Langan collected baseline ground water parameters from the bedrock monitoring wells utilizing the Westbay System sampler tool before the injection event starts.
- On Monday, May 6, 2024, Langan and Cascade performed field tests by injecting deoxygenated water (i.e. potable water mixed with Newman Zone OS) into LMW-7R-S from 6.75 to 11.75 feet below top of casing (btoc), LMW-8R-S from 6.75 to 11.75 feet btoc, and LMW-8R-D from 57.75 to 64.75 feet btoc through the Westbay System.

Site Activities

- Cascade set up for remedial injections at bedrock monitoring wells LMW-9R-S and LMW-8R-D.
- Cascade began remedial injections in the northern portion of the Site. One remedial injection consisting of emulsified vegetable oil (EVO), diammonium phosphate, yeast extract, calcium carbonate, bioaugmentation cultures, and anaerobic chase water was partially completed within the treatment zone at bedrock monitoring well LMW-9R-S from 13.75 to 19.75 feet below top of casing (btoc). Surfacing of the amendment was monitored within the treatment zone.

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

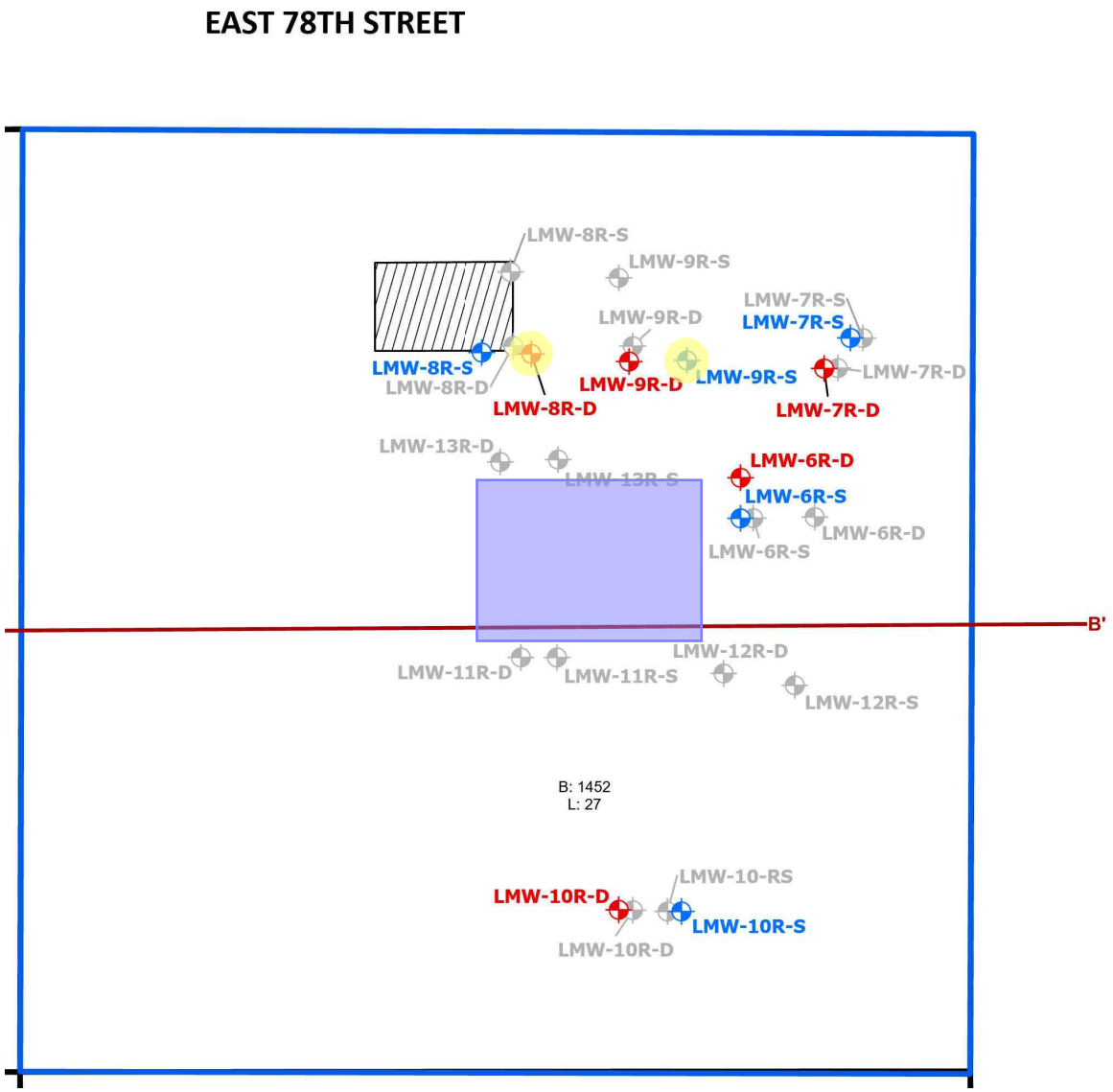
- Cascade and Langan will continue remedial injections for the treatment of CVOCs within the bedrock throughout the Site.

LANGAN

Photo Log

Photo 1 – Injection media tote mixed for LMW-9R-S, facing west.	
Photo 2 – Injection well head set up at LMW-9RS, facing south. It should be noted that stormwater has accumulated in the basement.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow	X	Rain	X	Overcast		Partly Cloudy		Bright Sun	
TEMP.	< 32		32-50		50-70		70-85	X	>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/08/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 - 17:00

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Mike Bono and one laborer

EQUIPMENT ON SITE:
Pallet Jack

Site Activities

- Cascade performed remedial injections in the northern portion of the Site. One remedial injection consisting of emulsified vegetable oil (EVO), diammonium phosphate, yeast extract, calcium carbonate, bioaugmentation cultures, and anaerobic chase water was fully completed within the treatment zone at bedrock monitoring well LMW-8R-D from 57.75 to 64.75 feet below top of casing (btoc).

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

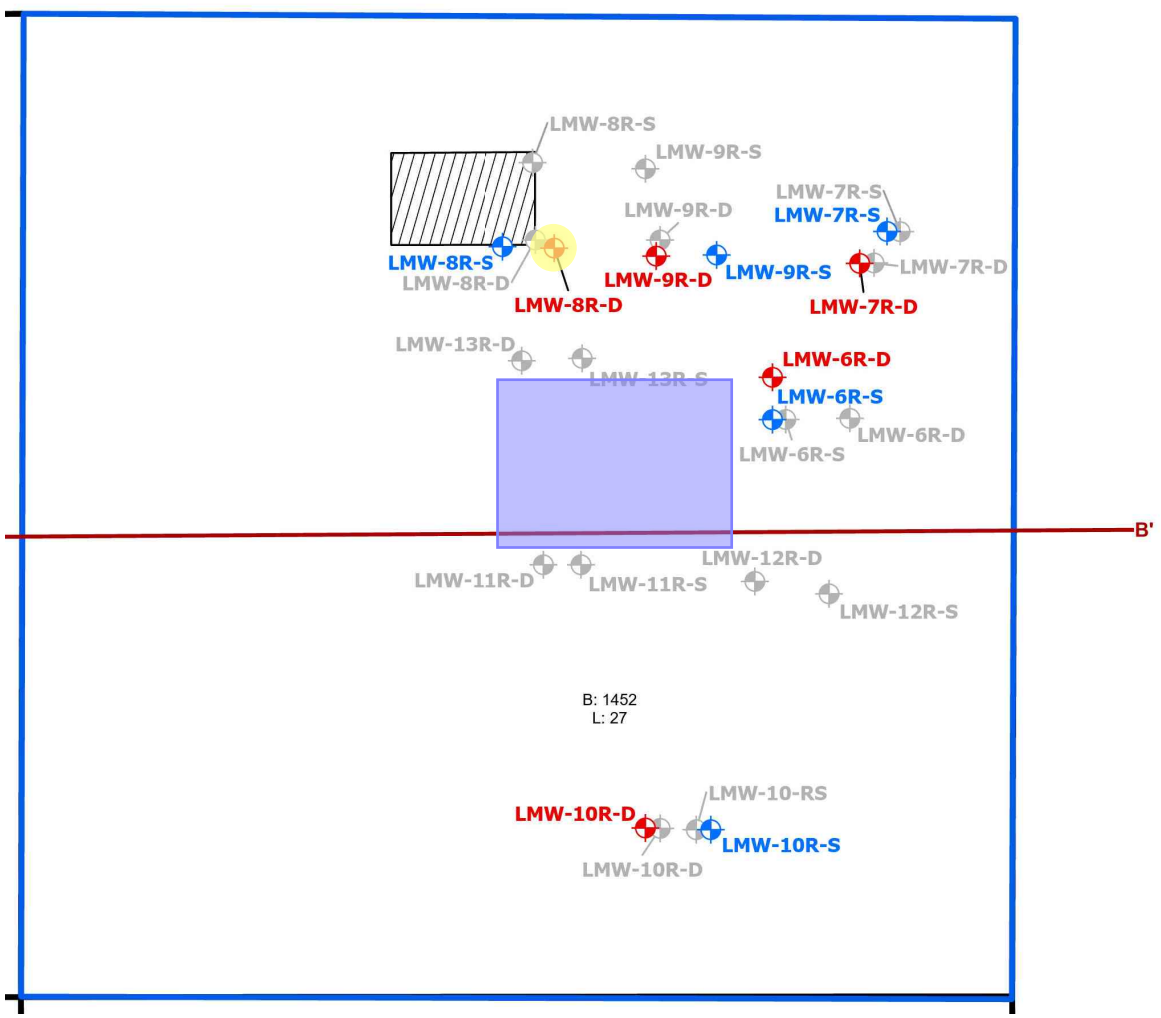
- Cascade and Langan will continue remedial injections for the treatment of CVOCs within the bedrock throughout the Site.

LANGAN

Photo Log

Photo 1 – Injection media tote mixed for LMW-8R-D, facing west.	
Photo 2 – Injection well head set up at LMW-8R-D, facing south.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain		Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50		50-70		70-85	X	>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/09/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 - 17:30

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Mike Bono and one laborer

EQUIPMENT ON SITE:
Pallet Jack

Site Activities

- Cascade performed remedial injections in the northern portion of the Site. One remedial injection consisting of emulsified zero valent iron (EZVI) reagent, ferrous sulfide activator, emulsified vegetable oil (EVO), diammonium phosphate, yeast extract, calcium carbonate, bioaugmentation cultures, and anaerobic chase water was fully completed within the treatment zone at bedrock monitoring well LMW-7R-D from 23.75 to 28.75 feet below top of casing (btoc).

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

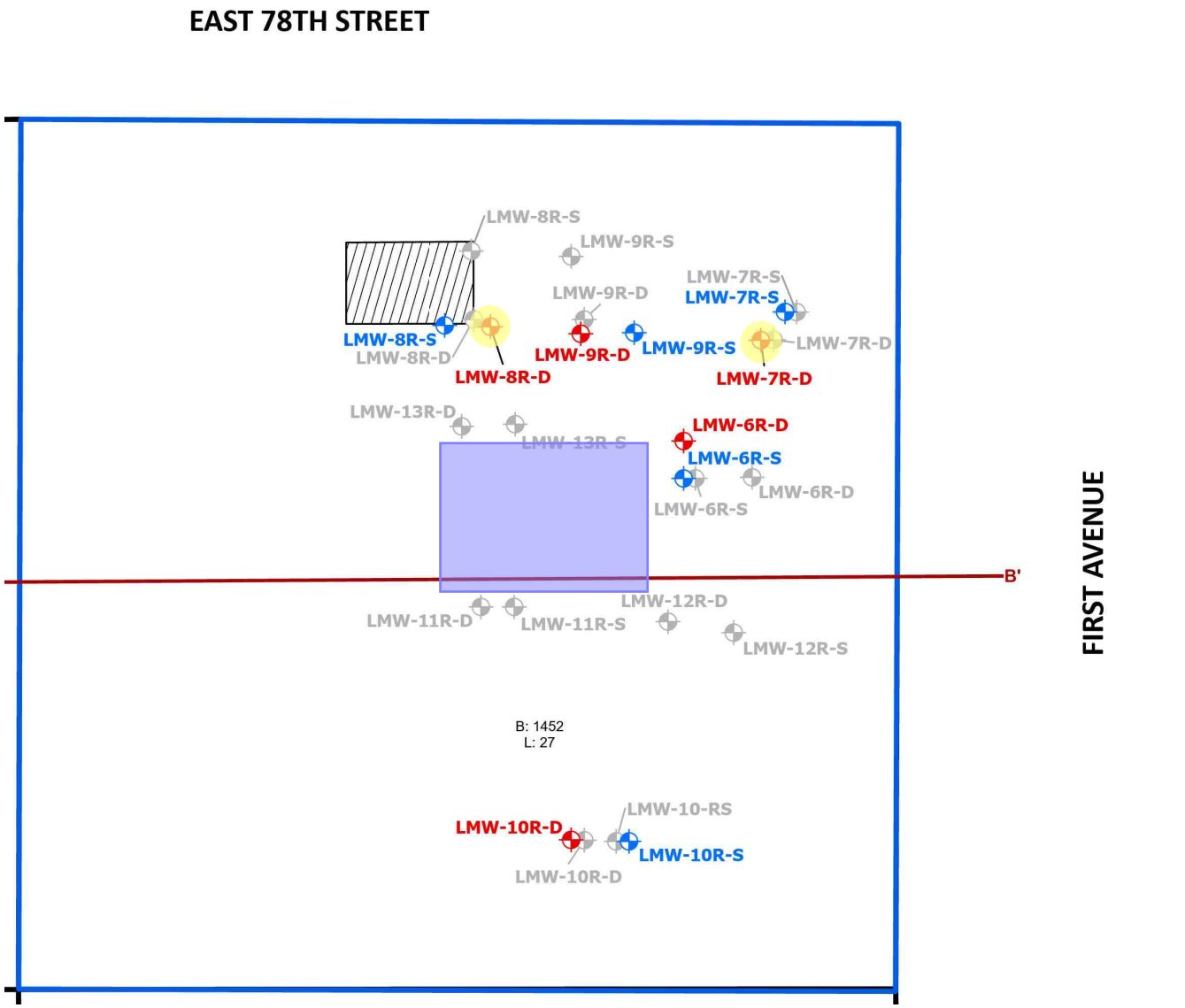
- Cascade and Langan will continue remedial injections for the treatment of CVOCs within the bedrock throughout the Site.

LANGAN

Photo Log

Photo 1 – Injection media tote mixed for LMW-7R-D, facing west.	
Photo 2 – Injection well head set up in LMW-8R-D, facing north. It should be noted that stormwater has accumulated in the basement.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain		Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/10/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 - 17:30

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental), Leo Thottumari (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Mike Bono and one laborer

EQUIPMENT ON SITE:
Pallet Jack

Site Activities

- Cascade performed remedial injections in the northern portion of the Site. One remedial injection consisting of emulsified vegetable oil (EVO), diammonium phosphate, yeast extract, calcium carbonate, bioaugmentation cultures, and anaerobic chase water was half completed within the treatment zone at bedrock monitoring well LMW-6R-S from 18.75 to 23.75 feet below top of casing (btoc).

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

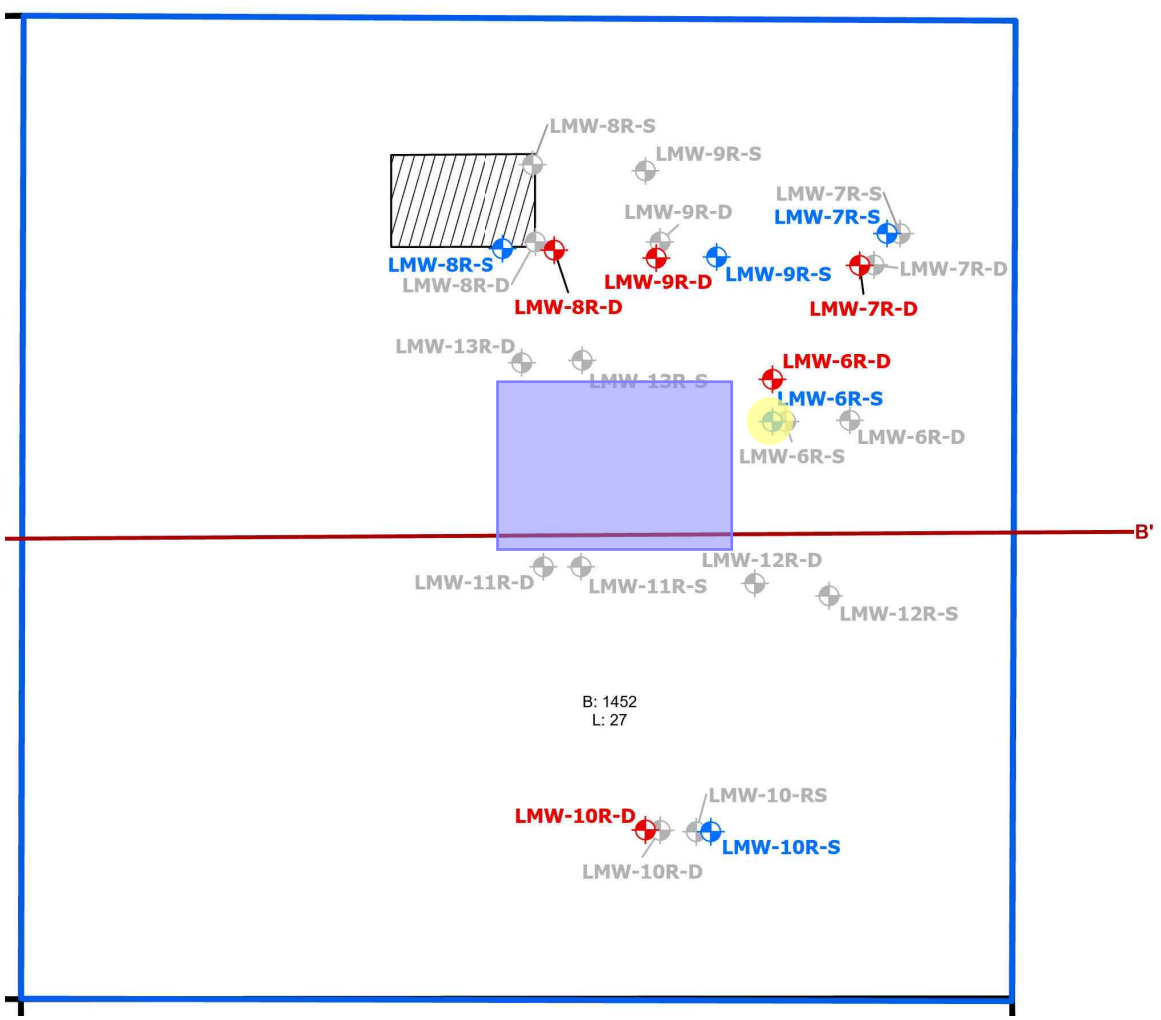
- Cascade and Langan will continue remedial injections for the treatment of CVOCs within the bedrock throughout the Site.

LANGAN

Photo Log

Photo 1 –Injection media tote mixed for LMW-6R-S, facing south.	
Photo 2 – Injection well head set up in LMW-6R-S, facing west. It should be noted that stormwater has accumulated in the basement.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain		Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/13/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 - 17:30

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Mike Bono and one laborer

EQUIPMENT ON SITE:
Pallet Jack

Site Activities

- Cascade performed remedial injections in the northern portion of the Site. Two remedial injections consisting of emulsified vegetable oil (EVO), diammonium phosphate, yeast extract, calcium carbonate, bioaugmentation cultures, and anaerobic chase water were completed within the treatment zone. The remedial injection at bedrock monitoring well LMW-6R-S from 18.75 to 23.75 feet below top of casing (btoc) was fully completed and the remedial injection at bedrock monitoring well LMW-8R-S from 6.75 to 11.75 feet btoc was partially completed.
- Cascade performed remedial injections in the northern portion of the Site. One remedial injection consisting of emulsified zero valent iron (EZVI) reagent and anaerobic water was fully completed within the treatment zone at bedrock monitoring well LMW-7R-S from 6.75 to 11.75 feet btoc.

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

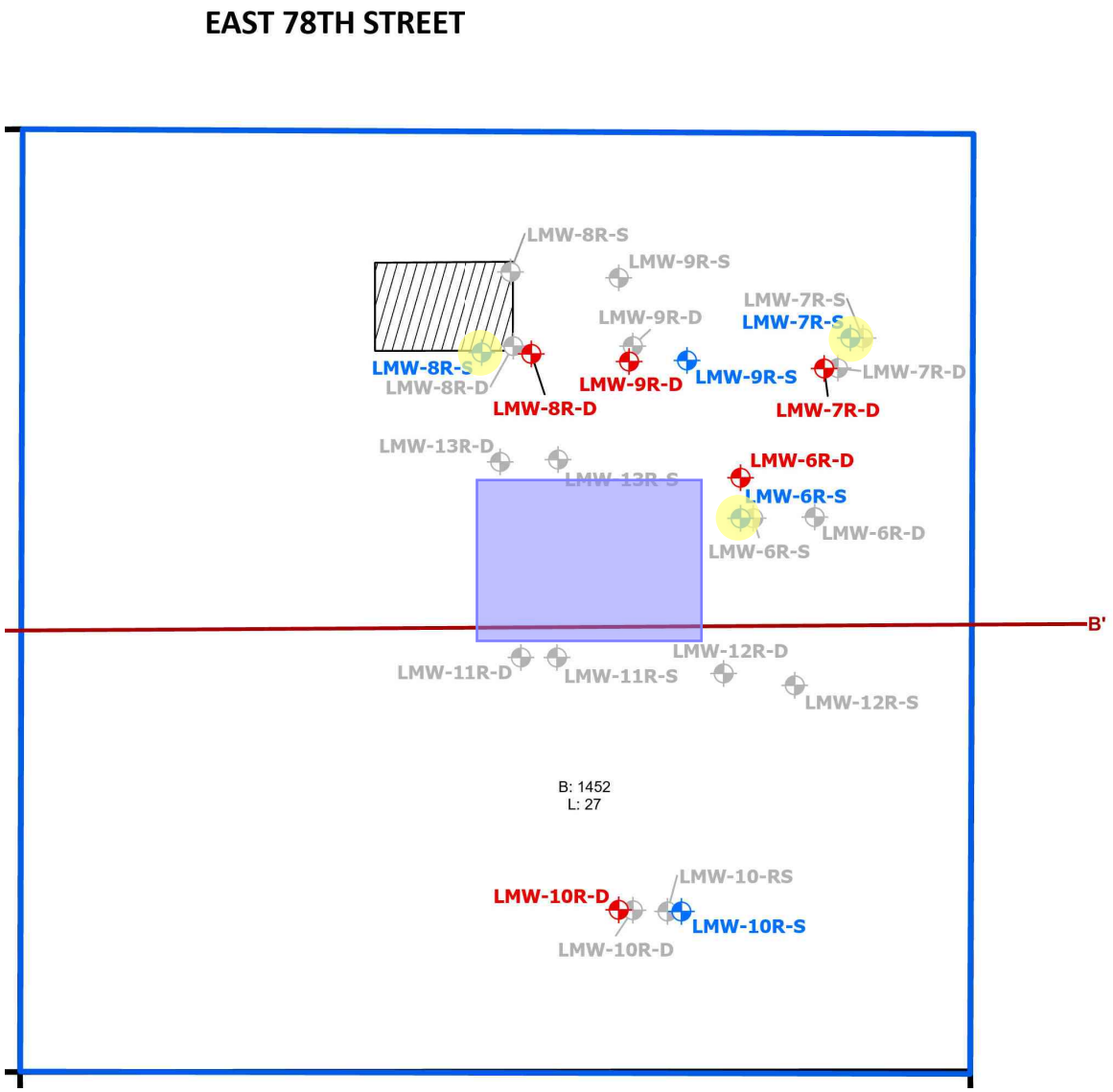
- Cascade and Langan will continue remedial injections for the treatment of CVOCs within the bedrock throughout the Site.

LANGAN

Photo Log

Photo 1 – Injection media tote mixed for LMW-8R-S, facing south.	
Photo 2 – Injection well head set up in LMW-7R-S, facing northwest. It should be noted that stormwater has accumulated in the basement.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain		Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/14/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 - 17:30

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Mike Bono and one laborer

EQUIPMENT ON SITE:
Pallet Jack

Site Activities

- Cascade performed remedial injections in the northern portion of the Site. Two remedial injections consisting of emulsified vegetable oil (EVO), diammonium phosphate, yeast extract, calcium carbonate, bioaugmentation cultures, and anaerobic chase water were partially completed within the treatment zone at bedrock monitoring well LMW-7R-S from 6.75 to 11.75 feet below top of casing (btoc) and at LMW-8R-S from 6.75 to 11.75 feet btoc.

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

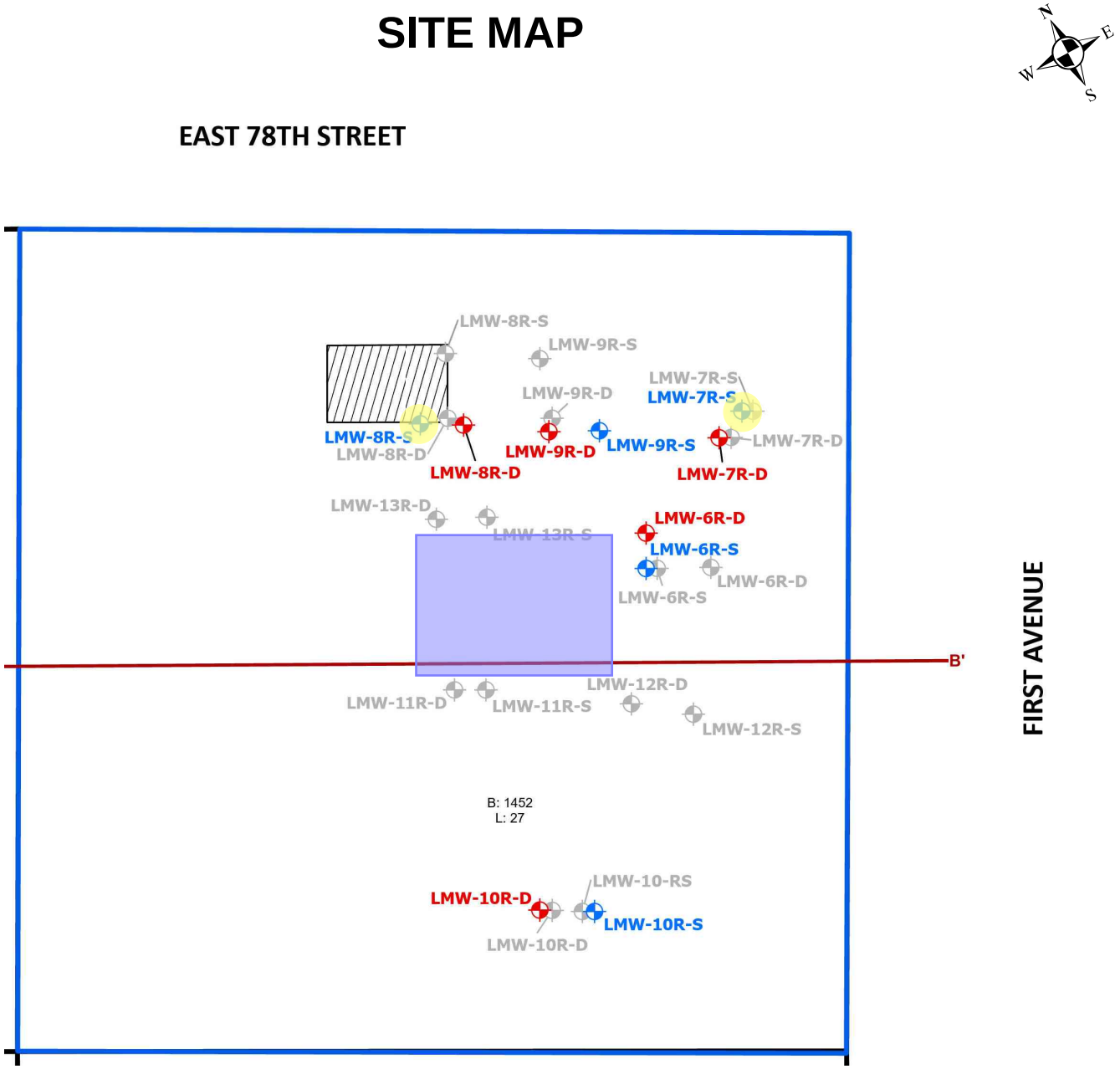
- Cascade and Langan will continue remedial injections for the treatment of CVOCs within the bedrock throughout the Site.

LANGAN

Photo Log

Photo 1 – Injection media tote mixed for LMW-7R-S, facing south.	
Photo 2 – West Bay sampler being used at LMW-7R-S to check water parameters, facing west.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain	X	Overcast		Partly Cloudy	X	Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/15/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 – 18:00

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Mike Bono and one laborer

EQUIPMENT ON SITE:
Pallet Jack

Site Activities

- Cascade performed remedial injections in the northern portion of the Site. Three remedial injections consisting of emulsified zero valent iron (EZVI) reagent and anaerobic water were partially completed within the treatment zone at bedrock monitoring well LMW-7R-S from 16.75 to 21.75 feet below top of casing (btoc), at LMW-9R-S from 13.75 to 19.75 feet btoc, and at LMW-8R-S from 6.75 to 11.75 feet btoc.

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

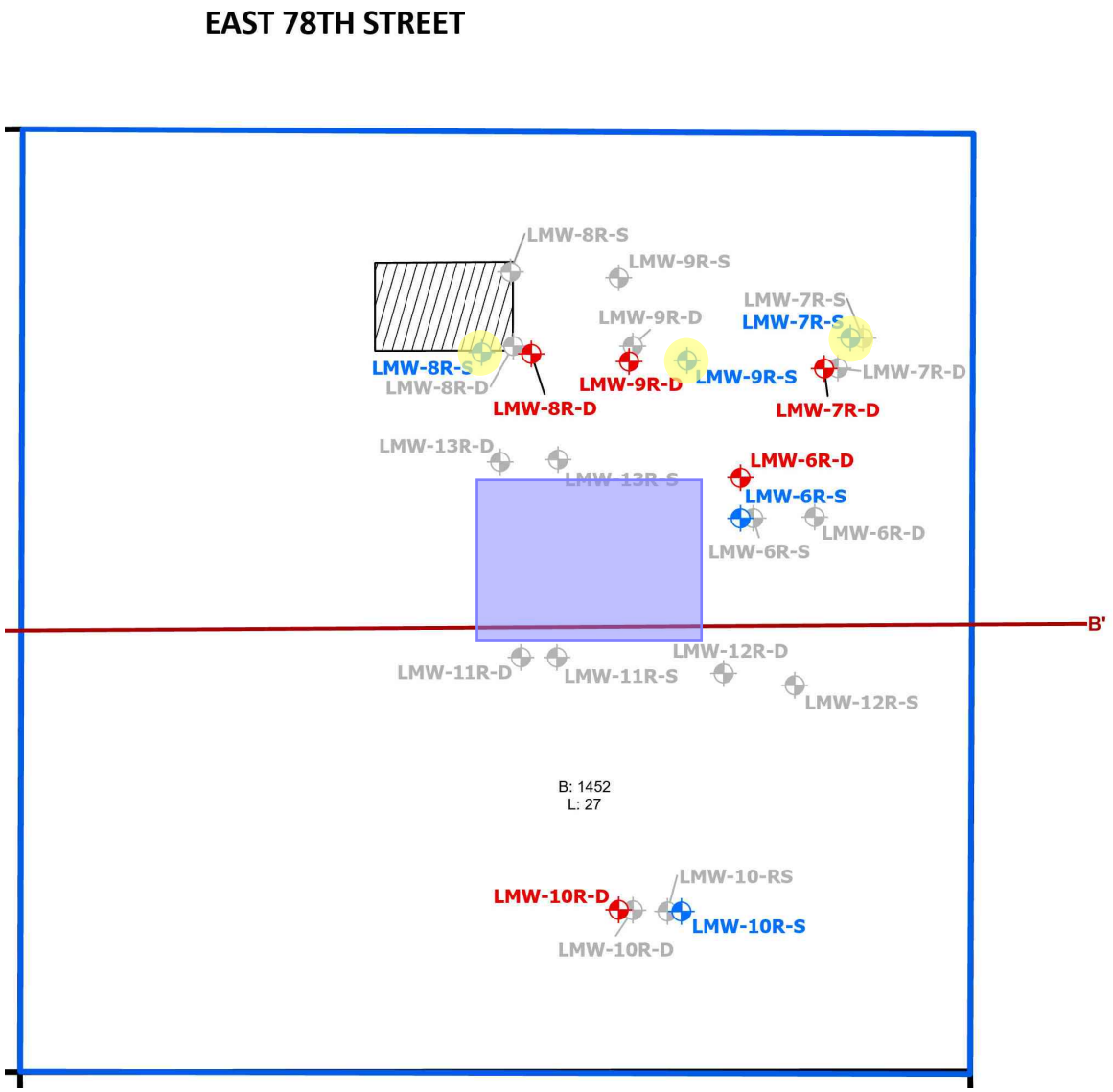
- Cascade and Langan will continue remedial injections for the treatment of CVOCs within the bedrock throughout the Site.

LANGAN

Photo Log

Photo 1 – ZVI injection tote being mixed, facing southwest.	
Photo 2 – Injection well head set up in LMW-7R-S, facing southeast.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain	X	Overcast	X	Partly Cloudy		Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/16/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 – 17:30

Consultant:
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

PERSONNEL ON SITE:
Langan: Mitchel Johnson (Environmental)
Carmel: Esteban Alvarez (Foreman)
Cascade: Mike Bono and one laborer

EQUIPMENT ON SITE:
Pallet Jack

Site Activities

- Cascade performed remedial injections in the northern portion of the Site. Two remedial injections consisting of emulsified zero valent iron (EZVI) reagent, bacteria, and anaerobic water were partially completed within the treatment zone at bedrock monitoring well LMW-7R-S from 16.75 to 21.75 feet below top of casing (btoc) and at LMW-8R-S from 6.75 to 11.75 feet btoc.

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

- None.

Activities Scheduled for Next Work Day

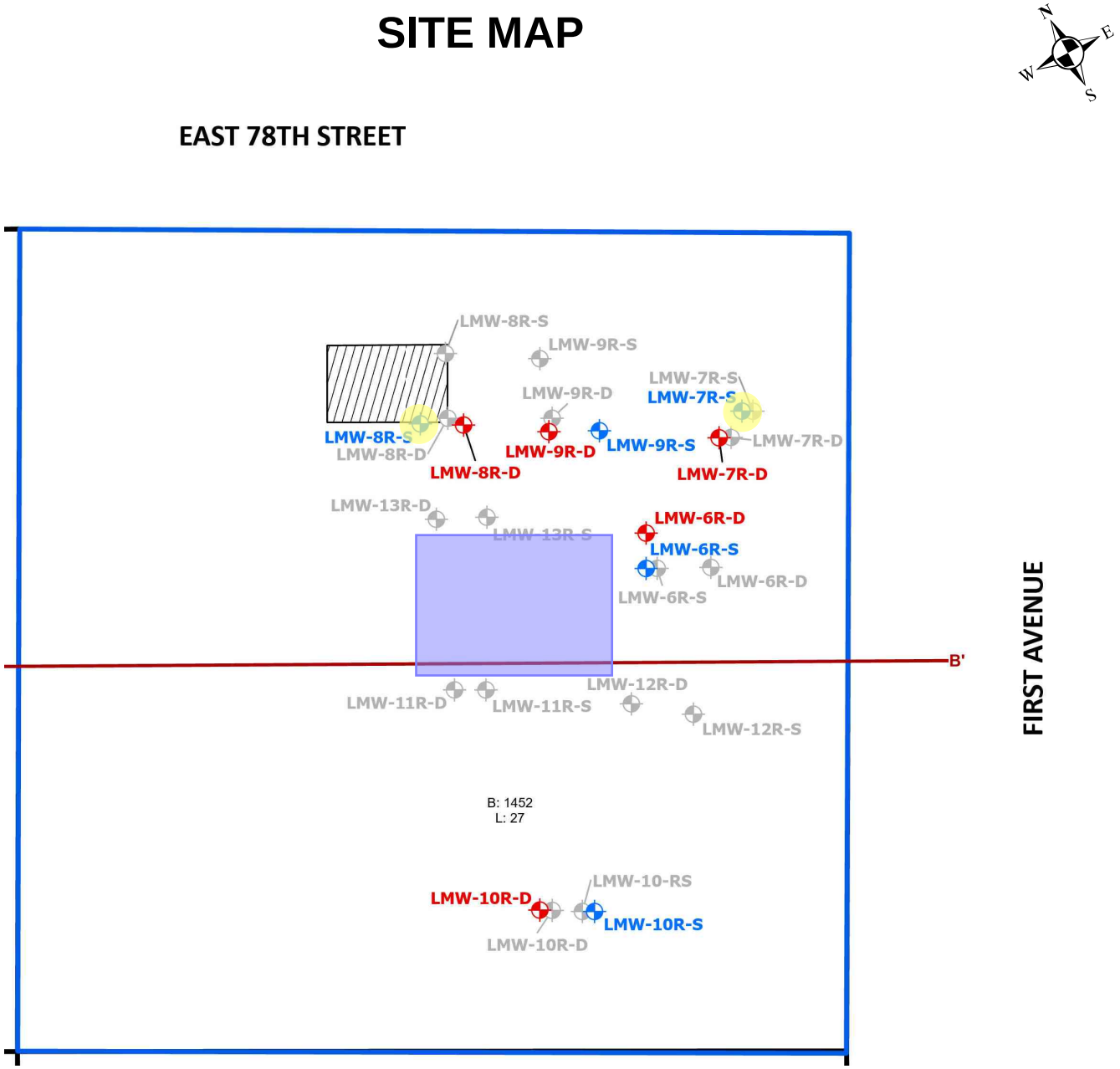
- Cascade and Langan will demobilize equipment from the site.

LANGAN

Photo Log

Photo 1 – Bacteria being injected into LMW-7R-S, facing southwest.	
Photo 2 – Injection well head set up in LMW-7R-S, facing southeast.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

LANGAN

DAILY STATUS REPORT

Prepared By: Mitchel Johnson

WEATHER	Snow		Rain	X	Overcast	X	Partly Cloudy		Bright Sun	
TEMP.	< 32		32-50		50-70	X	70-85		>85	

Langan Project No:	100963701	Project:	1487 1st Avenue Development Site	Date:	05/17/2024
NYSDEC BCP Site No:	C231152			Time:	07:00 – 17:30

Consultant:	**PERSONNEL ON SITE:**
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.	**Langan:** Mitchel Johnson (Environmental) **Carmel**: Esteban Alvarez (Foreman) **Cascade**: Mike Bono and one laborer **EQUIPMENT ON SITE:** Pallet Jack

Site Activities

- Cascade Environmental (Cascade), the remedial injection contractor, demobilized from the Site following the completion of remedial injections for the treatment of chlorinated volatile organic compounds (CVOCs) within the bedrock in accordance with the April 2024 Groundwater Performance Monitoring Report & Injection Design.
- Cascade loaded three empty totes for off-Site disposal.

Samples Collected

- None.

Problems Encountered

- None.

Community Air Monitoring Program (CAMP)

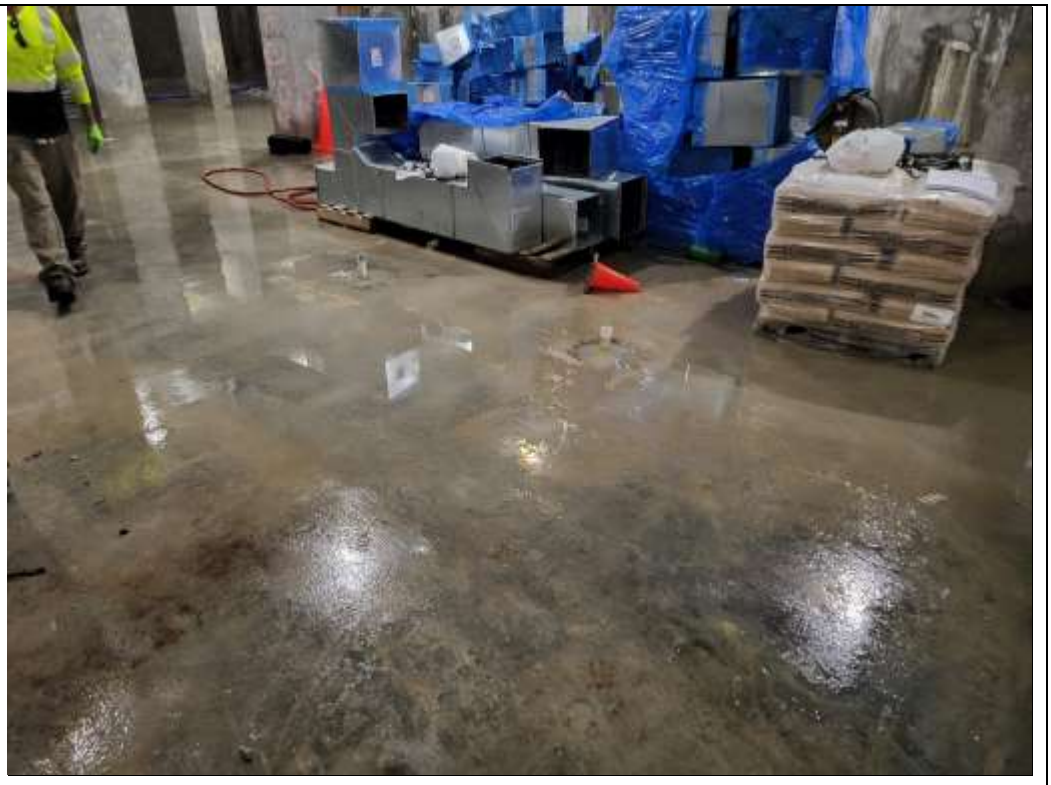
- None.

Activities Scheduled for Next Work Day

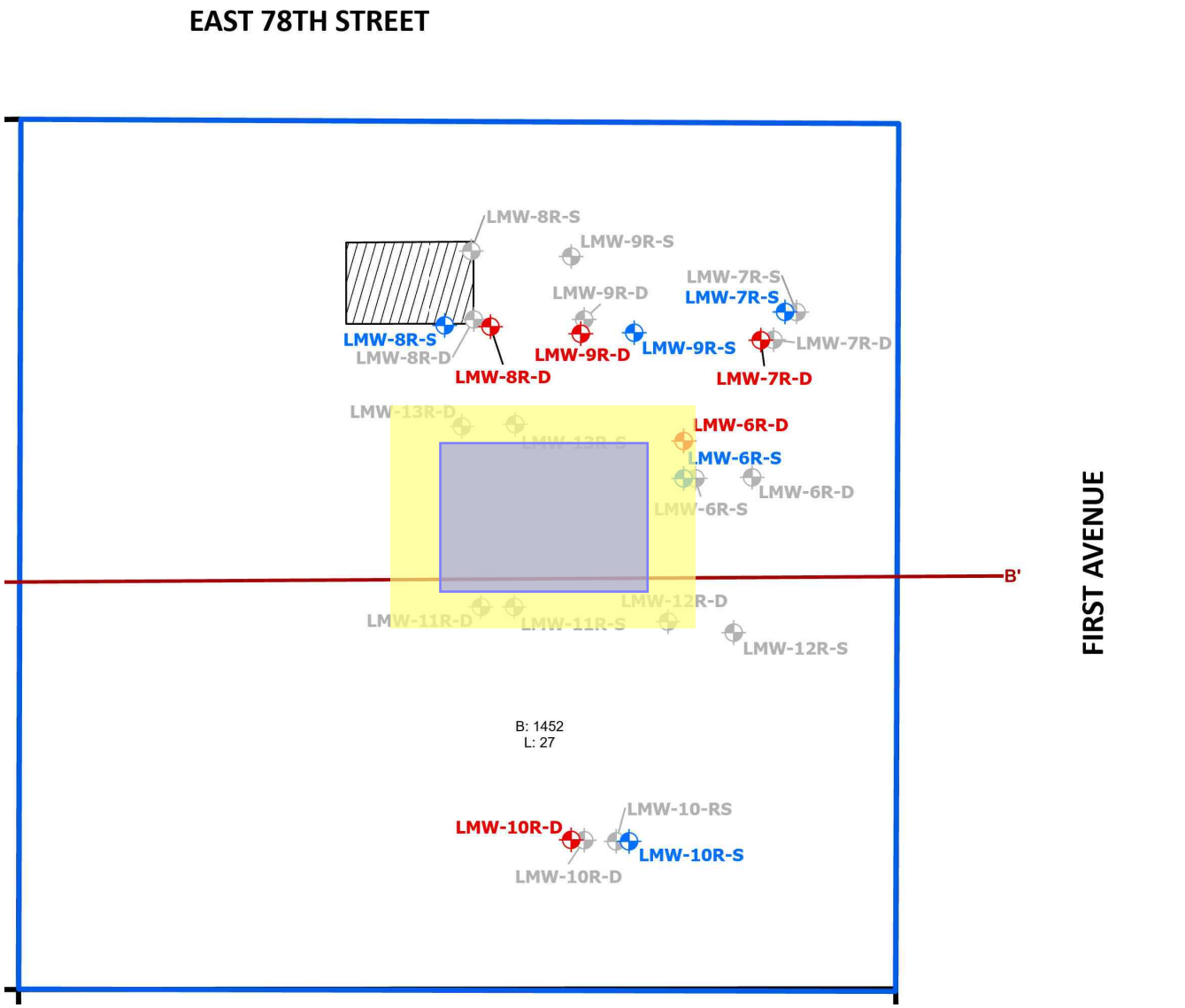
- None.

LANGAN

Photo Log

Photo 1 – General site conditions after demobilizing equipment, facing southeast. It should be noted that stormwater has accumulated in the basement.	
Photo 2 – General site conditions during demobilizing equipment, facing northeast. It should be noted that stormwater has accumulated in the basement.	

SITE MAP



Approximate and Not to Scale

LEGEND

- BCP Site Boundary
- Work Area
- Reagent Staging Area
- W — Work Zone Air Monitoring Station

NOTES

1. This drawing is taken from the Groundwater Performance Monitoring Report & Injection Design dated 24 April 2024.
2. Re-installed monitoring well locations were surveyed in the field before rock coring began.

APPENDIX E

Laboratory Reports

www.alphalab.com

Alpha Analytical

Laboratory Code: 11148

SDG Number: L2445487

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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Project Name:	1487 FIRST AVE	**Lab Number:**	L2445487
Project Number:	100963701	**Report Date:**	08/13/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2445487-01	LMW7RS_6.75	WATER	1487 FIRST AVE NY, NY	08/12/24 09:30	08/12/24
L2445487-02	LMW8RS_18.75	WATER	1487 FIRST AVE NY, NY	08/12/24 11:00	08/12/24
L2445487-03	TRIPBLANK_08122024	WATER	1487 FIRST AVE NY, NY	08/12/24 00:00	08/12/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The project number was specified by the client.

Volatile Organics

L2445487-01D: The pH was greater than two; however, the sample was analyzed within the method required holding time.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristen Walker Report Date: 08/13/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD	
	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2445487

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVE

Received : 12-AUG-2024
Reviewer : Brendan Grady

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	2.3	

Condition Information

1) All samples on COC received?	**YES**
2) Extra samples received?	**NO**
3) Are there any sample container discrepancies?	**NO**
4) Are there any discrepancies between COC & sample labels?	**NO**
5) Are samples in appropriate containers for requested analysis?	**YES**
6) Are samples properly preserved for requested analysis?	**YES**
7) Are samples within holding time for requested analysis?	**YES**
8) All sampling equipment returned?	**NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	**NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 13 2024, 02:59 pm

Login Number: L2445487
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 12AUG24 Due Date: 13AUG24

Sample #	Client ID	Mat	PR	Collected
L2445487-01	LMW7RS_6.75	1	1A	12AUG24 09:30

Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 08/13/24

ASP-B,NYTCL-8260

L2445487-02	LMW8RS_18.75	1	1A	12AUG24 11:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/13/24

NYTCL-8260

L2445487-03	TRIPBLANK_08122024	1	1A	12AUG24 00:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/13/24

NYTCL-8260

Logged By: Brendan Grady

L2445487 13AUG24
LANGAN – NJ

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab 8/12/24

Project Information
Project Name: 1487 First Ave
Project Location: 1487 First Ave NY, NY
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date: 8/13
Rush (only if pre approved) ☑ # of Days: 1

Client Information
Client: LANGAN
Address: 300 Kimball Drive Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: JFiscina@langan.com

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☒ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

☐ These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS
VOC

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	Sample Specific Comments	Total Bottle
45847-01	LMW7RS-6.75	8/12	0930	AQ	RB	X	VIALS	3
-02	LMW8RS-18.75	8/12	1100	AQ	RB	X	↓	3
-03	TripBlank-08122024					X	↓	2

RB

RB

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	
Preservative	

Relinquished By:	Date/Time	Received By:	Date/Time
Rob Bandrowski	8/12 1516	[illegible]	8/12/24 15:16
[illegible]	8/12/24 1716	Paul Mazzella	8/12/24 17:16
Paul Mazzella	8/12/24 2225	[illegible]	8/12/24 22:25

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVE

Lab Number: L2445487
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
LMW7RS_6.75 (L2445487-01D)	109	97	90	107	0
LMW8RS_18.75 (L2445487-02)	97	92	82	112	0
TRIPBLANK_08122024 (L2445487-03)	94	92	83	110	0
WG1958655-3LCS	97	92	84	106	0
WG1958655-4LCSD	95	93	86	103	0
WG1958655-5BLANK	96	92	83	112	0
WG1958701-3LCS	113	98	89	103	0
WG1958701-4LCSD	114	99	91	101	0
WG1958701-5BLANK	109	97	95	103	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1958655-3 **Analysis Date** : 08/13/24 06:52	**File ID**	: V22240813A01
LCSD Sample ID	: WG1958655-4 **Analysis Date** : 08/13/24 07:16	**File ID**	: V22240813A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.2	92	10	8.6	86	7	70-130	20
1,1-Dichloroethane	10	9.6	96	10	8.9	89	8	70-130	20
Chloroform	10	9.5	95	10	9.2	92	3	70-130	20
Carbon tetrachloride	10	11	110	10	11	110	0	63-132	20
1,2-Dichloropropane	10	9.1	91	10	8.9	89	2	70-130	20
Dibromochloromethane	10	9.3	93	10	9.2	92	1	63-130	20
1,1,2-Trichloroethane	10	8.5	85	10	8.7	87	2	70-130	20
Tetrachloroethene	10	12	120	10	11	110	9	70-130	20
Chlorobenzene	10	10	100	10	9.6	96	4	75-130	20
Trichlorofluoromethane	10	11	110	10	10	100	10	62-150	20
1,2-Dichloroethane	10	9.6	96	10	9.2	92	4	70-130	20
1,1,1-Trichloroethane	10	11	110	10	9.9	99	11	67-130	20
Bromodichloromethane	10	9.5	95	10	9.2	92	3	67-130	20
trans-1,3-Dichloropropene	10	7.7	77	10	7.7	77	0	70-130	20
cis-1,3-Dichloropropene	10	9.2	92	10	9.2	92	0	70-130	20
1,1-Dichloropropene	10	9.4	94	10	9.2	92	2	70-130	20
Bromoform	10	9.7	97	10	9.7	97	0	54-136	20
1,1,2,2-Tetrachloroethane	10	8.0	80	10	8.2	82	2	67-130	20
Benzene	10	9.7	97	10	9.3	93	4	70-130	20
Toluene	10	9.2	92	10	8.9	89	3	70-130	20
Ethylbenzene	10	9.6	96	10	9.2	92	4	70-130	20
Chloromethane	10	9.4	94	10	8.5	85	10	64-130	20
Bromomethane	10	6.7	67	10	6.4	64	5	39-139	20
Vinyl chloride	10	10	100	10	9.5	95	5	55-140	20
Chloroethane	10	10	100	10	9.5	95	5	55-138	20
1,1-Dichloroethene	10	11	110	10	10	100	10	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1958655-3 **Analysis Date** : 08/13/24 06:52	**File ID**	: V22240813A01
LCSD Sample ID	: WG1958655-4 **Analysis Date** : 08/13/24 07:16	**File ID**	: V22240813A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	10	100	10	9.8	98	2	70-130	20
Trichloroethene	10	9.4	94	10	9.4	94	0	70-130	20
1,2-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,3-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,4-Dichlorobenzene	10	10	100	10	9.9	99	1	70-130	20
Methyl tert butyl ether	10	9.2	92	10	9.4	94	2	63-130	20
p/m-Xylene	20	21	105	20	20	100	5	70-130	20
o-Xylene	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	9.7	97	3	70-130	20
Dibromomethane	10	10	100	10	9.6	96	4	70-130	20
1,2,3-Trichloropropane	10	8.0	80	10	8.2	82	2	64-130	20
Acrylonitrile	10	9.8	98	10	9.8	98	0	70-130	20
Styrene	20	21	105	20	20	100	5	70-130	20
Dichlorodifluoromethane	10	9.8	98	10	9.0	90	9	36-147	20
Acetone	10	9.3	93	10	9.5	95	2	58-148	20
Carbon disulfide	10	10	100	10	9.4	94	6	51-130	20
2-Butanone	10	9.3	93	10	9.1	91	2	63-138	20
Vinyl acetate	10	8.7	87	10	9.2	92	6	70-130	20
4-Methyl-2-pentanone	10	7.9	79	10	8.6	86	8	59-130	20
2-Hexanone	10	8.1	81	10	8.4	84	4	57-130	20
Bromochloromethane	10	12	120	10	11	110	9	70-130	20
2,2-Dichloropropane	10	10	100	10	9.9	99	1	63-133	20
1,2-Dibromoethane	10	9.9	99	10	9.8	98	1	70-130	20
1,3-Dichloropropane	10	8.6	86	10	8.6	86	0	70-130	20
1,1,1,2-Tetrachloroethane	10	10	100	10	10	100	0	64-130	20
Bromobenzene	10	10	100	10	9.9	99	1	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1958655-3 **Analysis Date** : 08/13/24 06:52	**File ID**	: V22240813A01
LCSD Sample ID	: WG1958655-4 **Analysis Date** : 08/13/24 07:16	**File ID**	: V22240813A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	9.1	91	10	8.7	87	4	53-136	20
sec-Butylbenzene	10	9.4	94	10	9.0	90	4	70-130	20
tert-Butylbenzene	10	10	100	10	9.8	98	2	70-130	20
o-Chlorotoluene	10	8.4	84	10	8.3	83	1	70-130	20
p-Chlorotoluene	10	8.6	86	10	8.5	85	1	70-130	20
1,2-Dibromo-3-chloropropane	10	9.3	93	10	9.6	96	3	41-144	20
Hexachlorobutadiene	10	11	110	10	10	100	10	63-130	20
Isopropylbenzene	10	9.5	95	10	9.4	94	1	70-130	20
p-Isopropyltoluene	10	9.7	97	10	9.4	94	3	70-130	20
Naphthalene	10	9.4	94	10	9.5	95	1	70-130	20
n-Propylbenzene	10	9.1	91	10	8.8	88	3	69-130	20
1,2,3-Trichlorobenzene	10	11	110	10	11	110	0	70-130	20
1,2,4-Trichlorobenzene	10	11	110	10	11	110	0	70-130	20
1,3,5-Trimethylbenzene	10	9.5	95	10	9.2	92	3	64-130	20
1,2,4-Trimethylbenzene	10	9.3	93	10	9.2	92	1	70-130	20
1,4-Dioxane	500	530	106	500	510	102	4	56-162	20
p-Diethylbenzene	10	9.7	97	10	9.4	94	3	70-130	20
p-Ethyltoluene	10	9.4	94	10	9.2	92	2	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.2	92	10	9.0	90	2	70-130	20
Ethyl ether	10	9.3	93	10	9.1	91	2	59-134	20
trans-1,4-Dichloro-2-butene	10	8.6	86	10	8.8	88	2	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1958701-3 **Analysis Date** : 08/13/24 08:09	**File ID**	: VG240813A01
LCSD Sample ID	: WG1958701-4 **Analysis Date** : 08/13/24 08:33	**File ID**	: VG240813A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.3	93	10	10	100	7	70-130	20
1,1-Dichloroethane	10	11	110	10	11	110	0	70-130	20
Chloroform	10	9.7	97	10	11	110	13	70-130	20
Carbon tetrachloride	10	10	100	10	10	100	0	63-132	20
1,2-Dichloropropane	10	10	100	10	11	110	10	70-130	20
Dibromochloromethane	10	9.3	93	10	10	100	7	63-130	20
1,1,2-Trichloroethane	10	9.2	92	10	11	110	18	70-130	20
Tetrachloroethene	10	10	100	10	10	100	0	70-130	20
Chlorobenzene	10	9.8	98	10	10	100	2	75-130	20
Trichlorofluoromethane	10	11	110	10	9.5	95	15	62-150	20
1,2-Dichloroethane	10	11	110	10	12	120	9	70-130	20
1,1,1-Trichloroethane	10	10	100	10	10	100	0	67-130	20
Bromodichloromethane	10	9.7	97	10	10	100	3	67-130	20
trans-1,3-Dichloropropene	10	8.9	89	10	9.8	98	10	70-130	20
cis-1,3-Dichloropropene	10	9.2	92	10	10	100	8	70-130	20
1,1-Dichloropropene	10	10	100	10	10	100	0	70-130	20
Bromoform	10	7.9	79	10	9.4	94	17	54-136	20
1,1,2,2-Tetrachloroethane	10	8.6	86	10	10	100	15	67-130	20
Benzene	10	10	100	10	11	110	10	70-130	20
Toluene	10	9.8	98	10	10	100	2	70-130	20
Ethylbenzene	10	9.5	95	10	9.9	99	4	70-130	20
Chloromethane	10	10	100	10	10	100	0	64-130	20
Bromomethane	10	6.4	64	10	8.0	80	22 Q	39-139	20
Vinyl chloride	10	11	110	10	10	100	10	55-140	20
Chloroethane	10	12	120	10	13	130	8	55-138	20
1,1-Dichloroethene	10	9.8	98	10	10	100	2	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1958701-3 **Analysis Date** : 08/13/24 08:09	**File ID**	: VG240813A01
LCSD Sample ID	: WG1958701-4 **Analysis Date** : 08/13/24 08:33	**File ID**	: VG240813A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Trichloroethene	10	9.8	98	10	9.6	96	2	70-130	20
1,2-Dichlorobenzene	10	9.4	94	10	10	100	6	70-130	20
1,3-Dichlorobenzene	10	9.7	97	10	10	100	3	70-130	20
1,4-Dichlorobenzene	10	9.6	96	10	10	100	4	70-130	20
Methyl tert butyl ether	10	8.0	80	10	9.5	95	17	63-130	20
p/m-Xylene	20	19	95	20	20	100	5	70-130	20
o-Xylene	20	19	95	20	20	100	5	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Dibromomethane	10	9.5	95	10	10	100	5	70-130	20
1,2,3-Trichloropropane	10	8.2	82	10	9.6	96	16	64-130	20
Acrylonitrile	10	10	100	10	12	120	18	70-130	20
Styrene	20	19	95	20	20	100	5	70-130	20
Dichlorodifluoromethane	10	10	100	10	9.3	93	7	36-147	20
Acetone	10	7.1	71	10	10	100	34 Q	58-148	20
Carbon disulfide	10	11	110	10	11	110	0	51-130	20
2-Butanone	10	9.2	92	10	11	110	18	63-138	20
Vinyl acetate	10	13	130	10	16	160 Q	21 Q	70-130	20
4-Methyl-2-pentanone	10	7.2	72	10	9.6	96	29 Q	59-130	20
2-Hexanone	10	7.2	72	10	9.4	94	27 Q	57-130	20
Bromochloromethane	10	9.9	99	10	11	110	11	70-130	20
2,2-Dichloropropane	10	10	100	10	10	100	0	63-133	20
1,2-Dibromoethane	10	8.8	88	10	10	100	13	70-130	20
1,3-Dichloropropane	10	9.3	93	10	11	110	17	70-130	20
1,1,1,2-Tetrachloroethane	10	9.1	91	10	10	100	9	64-130	20
Bromobenzene	10	9.4	94	10	9.9	99	5	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1958701-3 **Analysis Date** : 08/13/24 08:09	**File ID**	: VG240813A01
LCSD Sample ID	: WG1958701-4 **Analysis Date** : 08/13/24 08:33	**File ID**	: VG240813A02

	Laboratory Control Sample				Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R		True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	9.2	92		10	9.7	97	5	53-136	20
sec-Butylbenzene	10	9.1	91		10	9.3	93	2	70-130	20
tert-Butylbenzene	10	9.2	92		10	9.4	94	2	70-130	20
o-Chlorotoluene	10	9.1	91		10	9.5	95	4	70-130	20
p-Chlorotoluene	10	9.1	91		10	9.6	96	5	70-130	20
1,2-Dibromo-3-chloropropane	10	7.1	71		10	8.7	87	20	41-144	20
Hexachlorobutadiene	10	9.8	98		10	11	110	12	63-130	20
Isopropylbenzene	10	9.0	90		10	9.4	94	4	70-130	20
p-Isopropyltoluene	10	9.2	92		10	9.4	94	2	70-130	20
Naphthalene	10	6.2	62	Q	10	8.0	80	25 Q	70-130	20
n-Propylbenzene	10	9.3	93		10	9.5	95	2	69-130	20
1,2,3-Trichlorobenzene	10	8.2	82		10	9.8	98	18	70-130	20
1,2,4-Trichlorobenzene	10	8.6	86		10	9.5	95	10	70-130	20
1,3,5-Trimethylbenzene	10	9.2	92		10	9.5	95	3	64-130	20
1,2,4-Trimethylbenzene	10	8.9	89		10	9.4	94	5	70-130	20
1,4-Dioxane	500	330	66		500	450	90	31 Q	56-162	20
p-Diethylbenzene	10	8.9	89		10	9.3	93	4	70-130	20
p-Ethyltoluene	10	9.2	92		10	9.5	95	3	70-130	20
1,2,4,5-Tetramethylbenzene	10	7.9	79		10	8.3	83	5	70-130	20
Ethyl ether	10	9.0	90		10	10	100	11	59-134	20
trans-1,4-Dichloro-2-butene	10	9.4	94		10	12	120	24 Q	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1958655-5	**Lab File ID**	: V22240813A05
Instrument ID	: VOA122		
Matrix	: WATER	**Analysis Date**	: 08/13/24 08:32

Client Sample No.	Lab Sample ID	Analysis Date
WG1958655-3LCS	WG1958655-3	08/13/24 06:52
WG1958655-4LCSD	WG1958655-4	08/13/24 07:16
TRIPBLANK_08122024	L2445487-03	08/13/24 08:56
LMW8RS_18.75	L2445487-02	08/13/24 09:21

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1958701-5	**Lab File ID**	: VG240813A05
Instrument ID	: GONZO		
Matrix	: WATER	**Analysis Date**	: 08/13/24 09:44

Client Sample No.	Lab Sample ID	Analysis Date
WG1958701-3LCS	WG1958701-3	08/13/24 08:09
WG1958701-4LCSD	WG1958701-4	08/13/24 08:33
LMW7RS_6.75	L2445487-01D	08/13/24 11:04

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 07/12/24 20:14
Tune Standard	: WG1947004-1	**Tune File ID**	: VG240712PBF3_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 80.0% of mass 95	49.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9 (1)1
174	Greater than 50.0% of mass 95	84.6
175	5.0 - 9.0% of mass 174	5.9 (7)1
176	Greater than 95.0% but less than 101% of mass	82.2 (97.1)1
177	5.0 - 9.0% of mass 176	5.6 (6.8)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1852824-1	VG240712P03	07/12/24 21:20
STD0.5PPB	R1852824-2	VG240712P06	07/12/24 22:32
STD2PPB	R1852824-4	VG240712P07	07/12/24 22:56
STD10PPB	R1852824-3	VG240712P08	07/12/24 23:20
STD30PPB	R1852824-5	VG240712P09	07/12/24 23:44
STD80PPB	R1852824-6	VG240712P10	07/13/24 00:09
STD120PPB	R1852824-7	VG240712P11	07/13/24 00:32
STD200PPB	R1852824-8	VG240712P12	07/13/24 00:56
Correlation Data Summary	R1852824-9	VG240712P17	07/13/24 02:55
ICV Quant Report	R1852824-9	VG240712P17	07/13/24 02:55

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 08/13/24 07:56
Tune Standard	: WG1958701-1	**Tune File ID**	: VG240813ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	20.8
75	30.0 - 80.0% of mass 95	51.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	1.6 (1.7)1
174	Greater than 50.0% of mass 95	94.8
175	5.0 - 9.0% of mass 174	7.1 (7.5)1
176	Greater than 95.0% but less than 101% of mass	92 (97.1)1
177	5.0 - 9.0% of mass 176	5.8 (6.3)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1958701-2CCAL	WG1958701-2	VG240813A01	08/13/24 08:09
WG1958701-3LCS	WG1958701-3	VG240813A01	08/13/24 08:09
WG1958701-4LCSD	WG1958701-4	VG240813A02	08/13/24 08:33
WG1958701-5BLANK	WG1958701-5	VG240813A05	08/13/24 09:44
LMW7RS_6.75	L2445487-01D	VG240813A08	08/13/24 11:04

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 07/29/24 12:26
Tune Standard	: WG1953132-1	**Tune File ID**	: V22240729ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	23.9
75	30.0 - 80.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (.7)1
174	Greater than 50.0% of mass 95	78.4
175	5.0 - 9.0% of mass 174	6.1 (7.7)1
176	Greater than 95.0% but less than 101% of mass	76.6 (97.7)1
177	5.0 - 9.0% of mass 176	5.2 (6.8)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1858437-1	V22240729A03	07/29/24 13:23
STD0.5PPB	R1858437-2	V22240729A04	07/29/24 13:47
STD2PPB	R1858437-3	V22240729A06	07/29/24 14:36
STD10PPB	R1858437-4	V22240729A08	07/29/24 15:25
STD30PPB	R1858437-5	V22240729A09	07/29/24 15:50
STD80PPB	R1858437-6	V22240729A10	07/29/24 16:15
STD120PPB	R1858437-7	V22240729A11	07/29/24 16:40
STD200PPB	R1858437-8	V22240729A12	07/29/24 17:04
Correlation Data Summary	R1858437-9	V22240729A17	07/29/24 19:08
ICV Quant Report	R1858437-9	V22240729A17	07/29/24 19:08

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 08/13/24 06:38
Tune Standard	: WG1958655-1	**Tune File ID**	: V22240813ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	21.9
75	30.0 - 80.0% of mass 95	45.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6 (.6)1
174	Greater than 50.0% of mass 95	93.2
175	5.0 - 9.0% of mass 174	6.8 (7.3)1
176	Greater than 95.0% but less than 101% of mass	92 (98.7)1
177	5.0 - 9.0% of mass 176	6.1 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1958655-2CCAL	WG1958655-2	V22240813A01	08/13/24 06:52
WG1958655-3LCS	WG1958655-3	V22240813A01	08/13/24 06:52
WG1958655-4LCSD	WG1958655-4	V22240813A02	08/13/24 07:16
WG1958655-5BLANK	WG1958655-5	V22240813A05	08/13/24 08:32
TRIPBLANK_08122024	L2445487-03	V22240813A06	08/13/24 08:56
LMW8RS_18.75	L2445487-02	V22240813A07	08/13/24 09:21

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 08/13/24 06:52:00
Sample No	: WG1958655-2	**Lab File ID**	: V22240813A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1958655-2	446456	5.98	376565	9.52	206350	12.24
Upper Limit	892912	6.48	753130	10.02	412700	12.74
Lower Limit	223228	5.48	188283	9.02	103175	11.74
Sample ID						
WG1958655-3 LCS	446456	5.98	376565	9.52	206350	12.24
WG1958655-4 LCSD	460054	5.98	383761	9.52	205569	12.23
WG1958655-5 BLANK	413845	5.98	367897	9.52	189675	12.24
TRIPBLANK_08122024	412555	5.98	355605	9.52	182370	12.23
LMW8RS_18.75	403770	5.98	362677	9.52	186479	12.23

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 08/13/24 08:09:00
Sample No	: WG1958701-2	**Lab File ID**	: VG240813A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1958701-2	357071	6.09	287977	9.62	175101	12.31
Upper Limit	714142	6.59	575954	10.12	350202	12.81
Lower Limit	178536	5.59	143989	9.12	87551	11.81
Sample ID						
WG1958701-3 LCS	357071	6.09	287977	9.62	175101	12.31
WG1958701-4 LCSD	325808	6.09	263280	9.63	158272	12.31
WG1958701-5 BLANK	306500	6.09	245625	9.63	136410	12.31
LMW7RS_6.75	273260	6.09	216684	9.63	120833	12.31

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14094-1
Page: 1

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14095-1
Page: 1

VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-01D	**Date Collected**	: 08/12/24 09:30
Client ID	: LMW7RS_6.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 11:04
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VG240813A08	**Instrument ID**	: GONZO
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	62	18.	U
75-34-3	1,1-Dichloroethane	ND	62	18.	U
67-66-3	Chloroform	ND	62	18.	U
56-23-5	Carbon tetrachloride	ND	12	3.4	U
78-87-5	1,2-Dichloropropane	ND	25	3.4	U
124-48-1	Dibromochloromethane	ND	12	3.7	U
79-00-5	1,1,2-Trichloroethane	ND	38	12.	U
127-18-4	Tetrachloroethene	ND	12	4.5	U
108-90-7	Chlorobenzene	ND	62	18.	U
75-69-4	Trichlorofluoromethane	ND	62	18.	U
107-06-2	1,2-Dichloroethane	ND	12	3.3	U
71-55-6	1,1,1-Trichloroethane	ND	62	18.	U
75-27-4	Bromodichloromethane	ND	12	4.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	12	4.1	U
10061-01-5	cis-1,3-Dichloropropene	ND	12	3.6	U
542-75-6	1,3-Dichloropropene, Total	ND	12	3.6	U
563-58-6	1,1-Dichloropropene	ND	62	18.	U
75-25-2	Bromoform	ND	50	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	12	4.2	U
71-43-2	Benzene	ND	12	4.0	U
108-88-3	Toluene	ND	62	18.	U
100-41-4	Ethylbenzene	ND	62	18.	U
74-87-3	Chloromethane	ND	62	18.	U
74-83-9	Bromomethane	ND	62	18.	U
75-01-4	Vinyl chloride	4.0	25	1.8	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-01D	**Date Collected**	: 08/12/24 09:30
Client ID	: LMW7RS_6.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 11:04
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VG240813A08	**Instrument ID**	: GONZO
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	62	18.	U
75-35-4	1,1-Dichloroethene	ND	12	4.2	U
156-60-5	trans-1,2-Dichloroethene	ND	62	18.	U
79-01-6	Trichloroethene	ND	12	4.4	U
95-50-1	1,2-Dichlorobenzene	ND	62	18.	U
541-73-1	1,3-Dichlorobenzene	ND	62	18.	U
106-46-7	1,4-Dichlorobenzene	ND	62	18.	U
1634-04-4	Methyl tert butyl ether	ND	62	4.2	U
179601-23-1	p/m-Xylene	ND	62	18.	U
95-47-6	o-Xylene	ND	62	18.	U
1330-20-7	Xylenes, Total	ND	62	18.	U
156-59-2	cis-1,2-Dichloroethene	42	62	18.	J
540-59-0	1,2-Dichloroethene, Total	42	62	18.	J
74-95-3	Dibromomethane	ND	120	25.	U
96-18-4	1,2,3-Trichloropropane	ND	62	18.	U
107-13-1	Acrylonitrile	ND	120	38.	U
100-42-5	Styrene	ND	62	18.	U
75-71-8	Dichlorodifluoromethane	ND	120	25.	U
67-64-1	Acetone	210	120	36.	
75-15-0	Carbon disulfide	ND	120	25.	U
78-93-3	2-Butanone	3400	120	48.	
108-05-4	Vinyl acetate	ND	120	25.	U
108-10-1	4-Methyl-2-pentanone	ND	120	25.	U
591-78-6	2-Hexanone	ND	120	25.	U
74-97-5	Bromochloromethane	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-01D	**Date Collected**	: 08/12/24 09:30
Client ID	: LMW7RS_6.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 11:04
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VG240813A08	**Instrument ID**	: GONZO
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	62	18.	U
106-93-4	1,2-Dibromoethane	ND	50	16.	U
142-28-9	1,3-Dichloropropane	ND	62	18.	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	18.	U
108-86-1	Bromobenzene	ND	62	18.	U
104-51-8	n-Butylbenzene	ND	62	18.	U
135-98-8	sec-Butylbenzene	ND	62	18.	U
98-06-6	tert-Butylbenzene	ND	62	18.	U
95-49-8	o-Chlorotoluene	ND	62	18.	U
106-43-4	p-Chlorotoluene	ND	62	18.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	62	18.	U
87-68-3	Hexachlorobutadiene	ND	62	18.	U
98-82-8	Isopropylbenzene	ND	62	18.	U
99-87-6	p-Isopropyltoluene	ND	62	18.	U
91-20-3	Naphthalene	ND	62	18.	U
103-65-1	n-Propylbenzene	ND	62	18.	U
87-61-6	1,2,3-Trichlorobenzene	ND	62	18.	U
120-82-1	1,2,4-Trichlorobenzene	ND	62	18.	U
108-67-8	1,3,5-Trimethylbenzene	ND	62	18.	U
95-63-6	1,2,4-Trimethylbenzene	ND	62	18.	U
123-91-1	1,4-Dioxane	ND	6200	1500	U
105-05-5	p-Diethylbenzene	ND	50	18.	U
622-96-8	p-Ethyltoluene	ND	50	18.	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	50	14.	U
60-29-7	Ethyl ether	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-01D	**Date Collected**	: 08/12/24 09:30
Client ID	: LMW7RS_6.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 11:04
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VG240813A08	**Instrument ID**	: GONZO
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-02	**Date Collected**	: 08/12/24 11:00
Client ID	: LMW8RS_18.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 09:21
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.20	0.50	0.16	J
108-88-3	Toluene	3.5	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	1.3	1.0	0.07	

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-02	**Date Collected**	: 08/12/24 11:00
Client ID	: LMW8RS_18.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 09:21
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	0.88	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	0.88	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	17	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	12	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-02	**Date Collected**	: 08/12/24 11:00
Client ID	: LMW8RS_18.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 09:21
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-02	**Date Collected**	: 08/12/24 11:00
Client ID	: LMW8RS_18.75	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 09:21
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-03	**Date Collected**	: 08/12/24 00:00
Client ID	: TRIPBLANK_08122024	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-03	**Date Collected**	: 08/12/24 00:00
Client ID	: TRIPBLANK_08122024	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-03	**Date Collected**	: 08/12/24 00:00
Client ID	: TRIPBLANK_08122024	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445487-03	**Date Collected**	: 08/12/24 00:00
Client ID	: TRIPBLANK_08122024	**Date Received**	: 08/12/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/13/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V22240813A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958655-5	**Date Collected**	: NA
Client ID	: WG1958655-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 08:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240813A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958655-5	**Date Collected**	: NA
Client ID	: WG1958655-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 08:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240813A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958655-5	**Date Collected**	: NA
Client ID	: WG1958655-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 08:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240813A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958655-5	**Date Collected**	: NA
Client ID	: WG1958655-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 08:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240813A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958701-5	**Date Collected**	: NA
Client ID	: WG1958701-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 09:44
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240813A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958701-5	**Date Collected**	: NA
Client ID	: WG1958701-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 09:44
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240813A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958701-5	**Date Collected**	: NA
Client ID	: WG1958701-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 09:44
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240813A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1958701-5	**Date Collected**	: NA
Client ID	: WG1958701-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/13/24 09:44
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240813A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A06.D
Acq On : 13 Aug 2024 08:56 am
Operator : VOA122:MJV
Sample : L2445487-03,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 13 09:23:47 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.977	96	412555	10.000 ug/L	0.00
Standard Area 1 = 446456			Recovery =	92.41%	
62) Chlorobenzene-d5	9.519	117	355605	10.000 ug/L	0.00
Standard Area 1 = 376565			Recovery =	94.43%	
83) 1,4-Dichlorobenzene-d4	12.229	152	182370	10.000 ug/L	0.00
Standard Area 1 = 206350			Recovery =	88.38%	
System Monitoring Compounds					
38) Dibromofluoromethane	5.164	113	158200	10.975 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.75%	
46) 1,2-Dichloroethane-d4	5.688	65	114105	9.364 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.64%	
63) Toluene-d8	7.675	98	416989	9.203 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	92.03%	
87) 4-Bromofluorobenzene	11.019	95	137767	8.296 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	82.96%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.188	94	78	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.968	76	280	N.D.	
15) Methylene chloride	3.473	84	196	N.D.	
17) Acetone	3.512	43	1179	0.855 ug/L #	67
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	0.000		0	N.D.	
30) cis-1,2-Dichloroethene	4.804	96	76	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
32) Bromochloromethane	0.000		0	N.D.	
34) Chloroform	0.000		0	N.D.	

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A06.D
Acq On : 13 Aug 2024 08:56 am
Operator : VOA122:MJV
Sample : L2445487-03,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 13 09:23:47 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.		
39) 1,1,1-Trichloroethane	0.000		0	N.D.		
41) 2-Butanone	0.000		0	N.D.		
42) 1,1-Dichloropropene	0.000		0	N.D.		
44) Benzene	5.564	78	1199	N.D.		
47) 1,2-Dichloroethane	0.000		0	N.D.		
51) Trichloroethene	0.000		0	N.D.		
53) Dibromomethane	0.000		0	N.D.		
54) 1,2-Dichloropropane	0.000		0	N.D.		
57) Bromodichloromethane	0.000		0	N.D.		
60) 1,4-Dioxane	0.000		0	N.D.		
61) cis-1,3-Dichloropropene	0.000		0	N.D.		
64) Toluene	7.737	92	1455	0.099	ug/L	89
65) 4-Methyl-2-pentanone	0.000		0	N.D.		
66) Tetrachloroethene	0.000		0	N.D.		
68) trans-1,3-Dichloropropene	0.000		0	N.D.		
71) 1,1,2-Trichloroethane	0.000		0	N.D.		
72) Chlorodibromomethane	0.000		0	N.D.		
73) 1,3-Dichloropropane	0.000		0	N.D.		
74) 1,2-Dibromoethane	0.000		0	N.D.		
76) 2-Hexanone	0.000		0	N.D.		
77) Chlorobenzene	0.000		0	N.D.		
78) Ethylbenzene	9.589	91	169	N.D.		
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
80) p/m Xylene	0.000		0	N.D.		
81) o Xylene	0.000		0	N.D.		
82) Styrene	0.000		0	N.D.		
84) Bromoform	0.000		0	N.D.		
86) Isopropylbenzene	0.000		0	N.D.		
88) Bromobenzene	0.000		0	N.D.		
89) n-Propylbenzene	11.019	91	409	N.D.		
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
92) 4-Ethyltoluene	11.300	105	72	N.D.		
93) 2-Chlorotoluene	0.000		0	N.D.		
94) 1,3,5-Trimethylbenzene	11.300	105	72	N.D.		
95) 1,2,3-Trichloropropane	0.000		0	N.D.		
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
97) 4-Chlorotoluene	0.000		0	N.D.		
98) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A06.D
Acq On : 13 Aug 2024 08:56 am
Operator : VOA122:MJV
Sample : L2445487-03,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 13 09:23:47 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	0.000		0	N.D.		
102) sec-Butylbenzene	0.000		0	N.D.		
103) p-Isopropyltoluene	0.000		0	N.D.		
104) 1,3-Dichlorobenzene	12.250	146	63	N.D.		
105) 1,4-Dichlorobenzene	12.250	146	63	N.D.		
106) p-Diethylbenzene	0.000		0	N.D.		
107) n-Butylbenzene	0.000		0	N.D.		
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
114) Naphthalene	14.387	128	159	0.294	ug/L	100
115) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

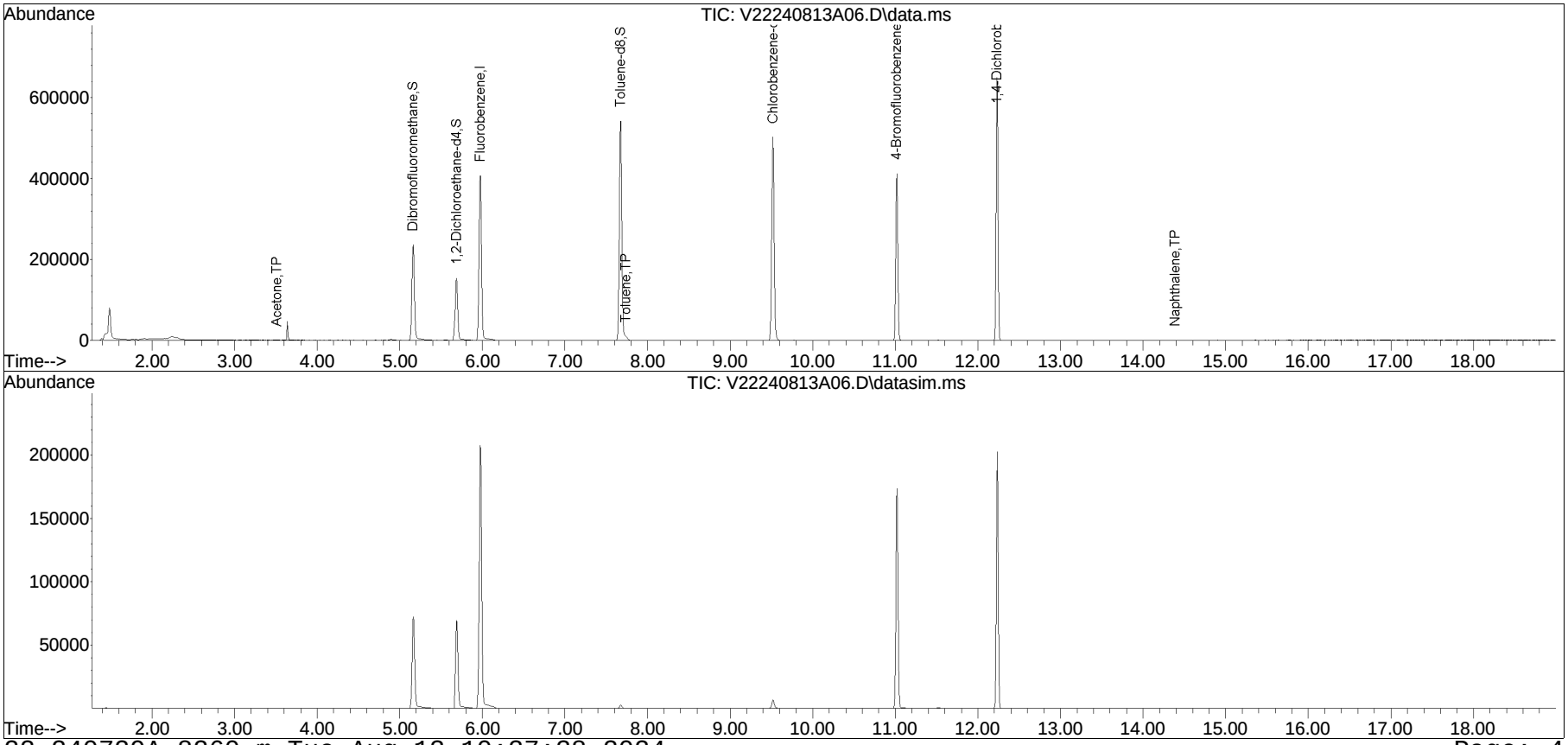
(#) = qualifier out of range (m) = manual integration (+) = signals summed

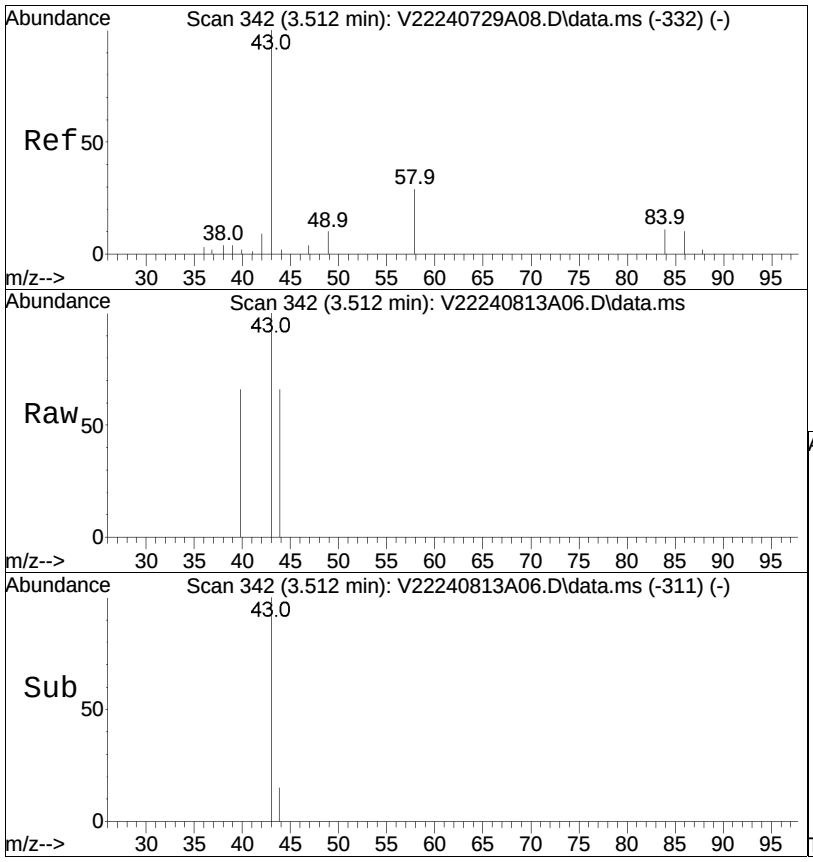
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A06.D
Acq On : 13 Aug 2024 08:56 am
Operator : VOA122:MJV
Sample : L2445487-03,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 13 09:23:47 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240813A01.D•

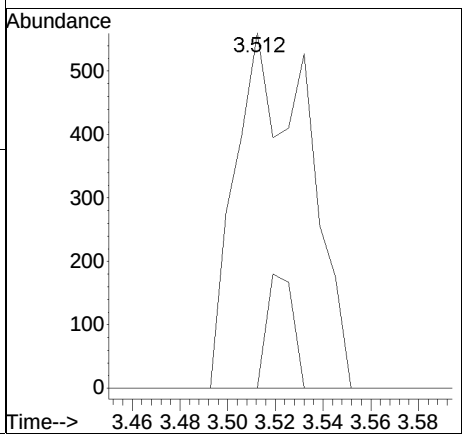


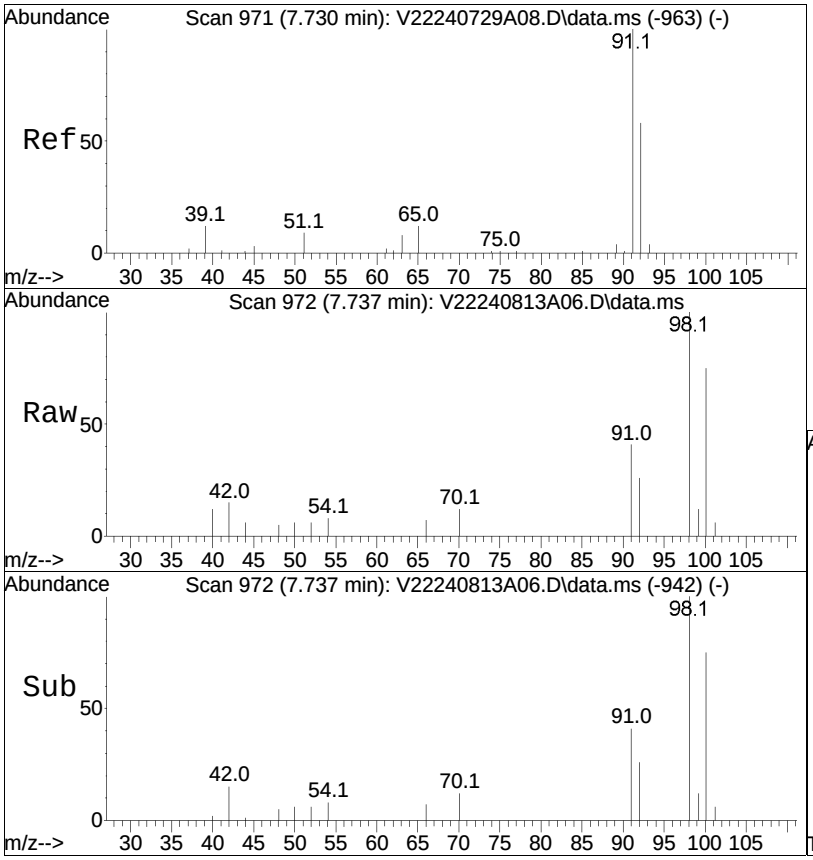


#17
Acetone
Concen: 0.85 ug/L
RT: 3.512 min Scan# 342
Delta R.T. 0.000 min
Lab File: V22240813A06.D
Acq: 13 Aug 2024 08:56 am

Tgt Ion: 43 Resp: 1179

Ion	Ratio	Lower	Upper
43	100		
58	11.5	23.1	34.7#

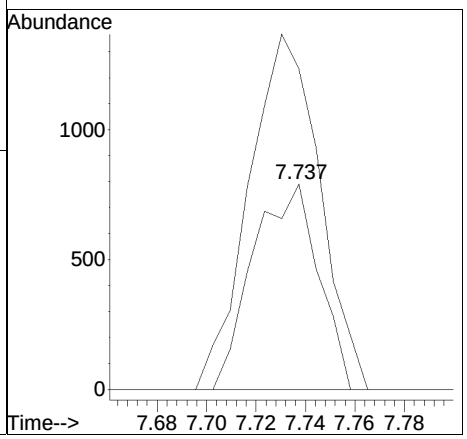


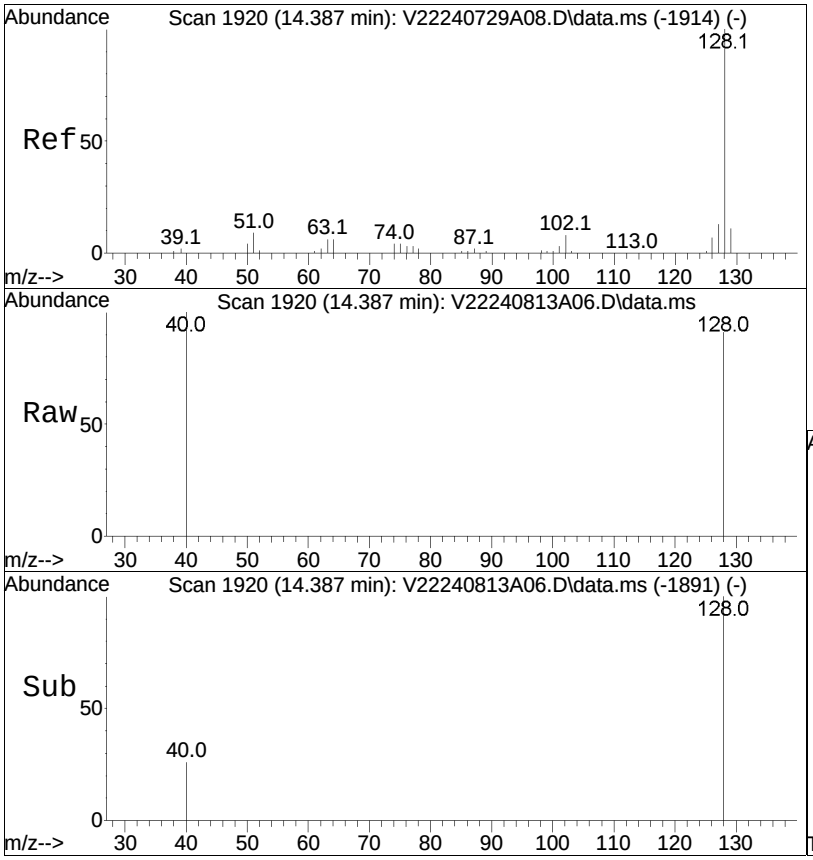


#64
Toluene
Concen: 0.10 ug/L
RT: 7.737 min Scan# 972
Delta R.T. 0.007 min
Lab File: V22240813A06.D
Acq: 13 Aug 2024 08:56 am

Tgt Ion: 92 Resp: 1455

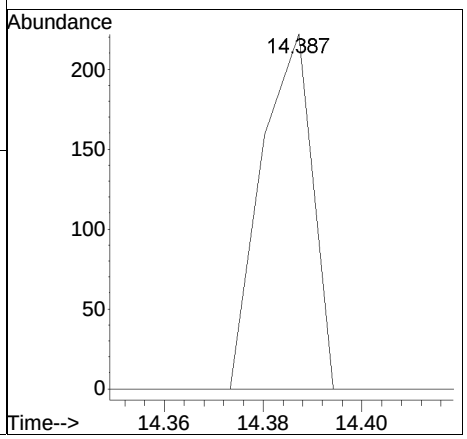
Ion	Ratio	Lower	Upper
92	100		
91	186.5	137.0	205.6





#114
Naphthalene
Concen: 0.29 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240813A06.D
Acq: 13 Aug 2024 08:56 am

Tgt Ion:128 Resp: 159



Manual Integration Report

Data Path	: K:\VOA122\2024\240813A\	QMethod	: V122_240729A_8260.m
Data File	: V22240813A06.D	Operator	: VOA122:MJV
Date Inj'd	: 8/13/2024 8:56 am	Instrument	: VOA 122
Sample	: L2445487-03,31,10,10,,A,R1	Quant Date	: 8/13/2024 9:23 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A07.D
Acq On : 13 Aug 2024 09:21 am
Operator : VOA122:MJV
Sample : L2445487-02,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 13 09:49:08 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	403770	10.000	ug/L	0.00
Standard Area 1 = 446456			Recovery =	90.44%		
62) Chlorobenzene-d5	9.519	117	362677	10.000	ug/L	0.00
Standard Area 1 = 376565			Recovery =	96.31%		
83) 1,4-Dichlorobenzene-d4	12.230	152	186479	10.000	ug/L	0.00
Standard Area 1 = 206350			Recovery =	90.37%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	158431	11.230	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	112.30%		
46) 1,2-Dichloroethane-d4	5.688	65	115543	9.689	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.89%		
63) Toluene-d8	7.675	98	423569	9.166	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	91.66%		
87) 4-Bromofluorobenzene	11.019	95	139497	8.215	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	82.15%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	1.881	62	11066	1.315	ug/L	99
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D. d		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.962	76	3875	0.211	ug/L	91
15) Methylene chloride	3.480	84	334	N.D.		
17) Acetone	3.513	43	23201	17.187	ug/L	97
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	3.729	73	1418	0.113	ug/L #	55
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	4.253	53	88	N.D.		
29) Vinyl acetate	4.286	43	69	N.D.		
30) cis-1,2-Dichloroethene	4.718	96	6342	0.876	ug/L #	84
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A07.D
Acq On : 13 Aug 2024 09:21 am
Operator : VOA122:MJV
Sample : L2445487-02,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 13 09:49:08 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.		
39) 1,1,1-Trichloroethane	0.000		0	N.D.		
41) 2-Butanone	5.276	43	22488	11.854	ug/L #	44
42) 1,1-Dichloropropene	0.000		0	N.D.		
44) Benzene	5.557	78	5009	0.196	ug/L #	81
47) 1,2-Dichloroethane	0.000		0	N.D.		
51) Trichloroethene	6.154	95	318	N.D.		
53) Dibromomethane	0.000		0	N.D.		
54) 1,2-Dichloropropane	0.000		0	N.D.		
57) Bromodichloromethane	0.000		0	N.D.		
60) 1,4-Dioxane	0.000		0	N.D.		
61) cis-1,3-Dichloropropene	0.000		0	N.D.		
64) Toluene	7.731	92	52854	3.538	ug/L	98
65) 4-Methyl-2-pentanone	0.000		0	N.D.		
66) Tetrachloroethene	0.000		0	N.D.		
68) trans-1,3-Dichloropropene	0.000		0	N.D.		
71) 1,1,2-Trichloroethane	0.000		0	N.D.		
72) Chlorodibromomethane	0.000		0	N.D.		
73) 1,3-Dichloropropane	0.000		0	N.D.		
74) 1,2-Dibromoethane	0.000		0	N.D.		
76) 2-Hexanone	0.000		0	N.D. d		
77) Chlorobenzene	0.000		0	N.D.		
78) Ethylbenzene	9.582	91	4664	0.165	ug/L	100
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
80) p/m Xylene	9.778	106	1485	0.136	ug/L	89
81) o Xylene	10.311	106	914	0.088	ug/L	80
82) Styrene	10.381	104	1446	0.087	ug/L	91
84) Bromoform	0.000		0	N.D.		
86) Isopropylbenzene	10.704	105	77	N.D.		
88) Bromobenzene	0.000		0	N.D.		
89) n-Propylbenzene	11.012	91	378	N.D.		
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
92) 4-Ethyltoluene	11.300	105	142	N.D.		
93) 2-Chlorotoluene	0.000		0	N.D.		
94) 1,3,5-Trimethylbenzene	11.300	105	142	N.D.		
95) 1,2,3-Trichloropropane	0.000		0	N.D.		
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
97) 4-Chlorotoluene	0.000		0	N.D.		
98) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A07.D
Acq On : 13 Aug 2024 09:21 am
Operator : VOA122:MJV
Sample : L2445487-02,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 13 09:49:08 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	441	N.D.		
102) sec-Butylbenzene	0.000		0	N.D.	d	
103) p-Isopropyltoluene	0.000		0	N.D.	d	
104) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
105) 1,4-Dichlorobenzene	12.243	146	1719	0.128	ug/L #	3
106) p-Diethylbenzene	0.000		0	N.D.		
107) n-Butylbenzene	0.000		0	N.D.		
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	14.088	180	676	0.102	ug/L #	77
114) Naphthalene	14.387	128	512	0.316	ug/L	100
115) 1,2,3-Trichlorobenzene	14.548	180	148	N.D.		

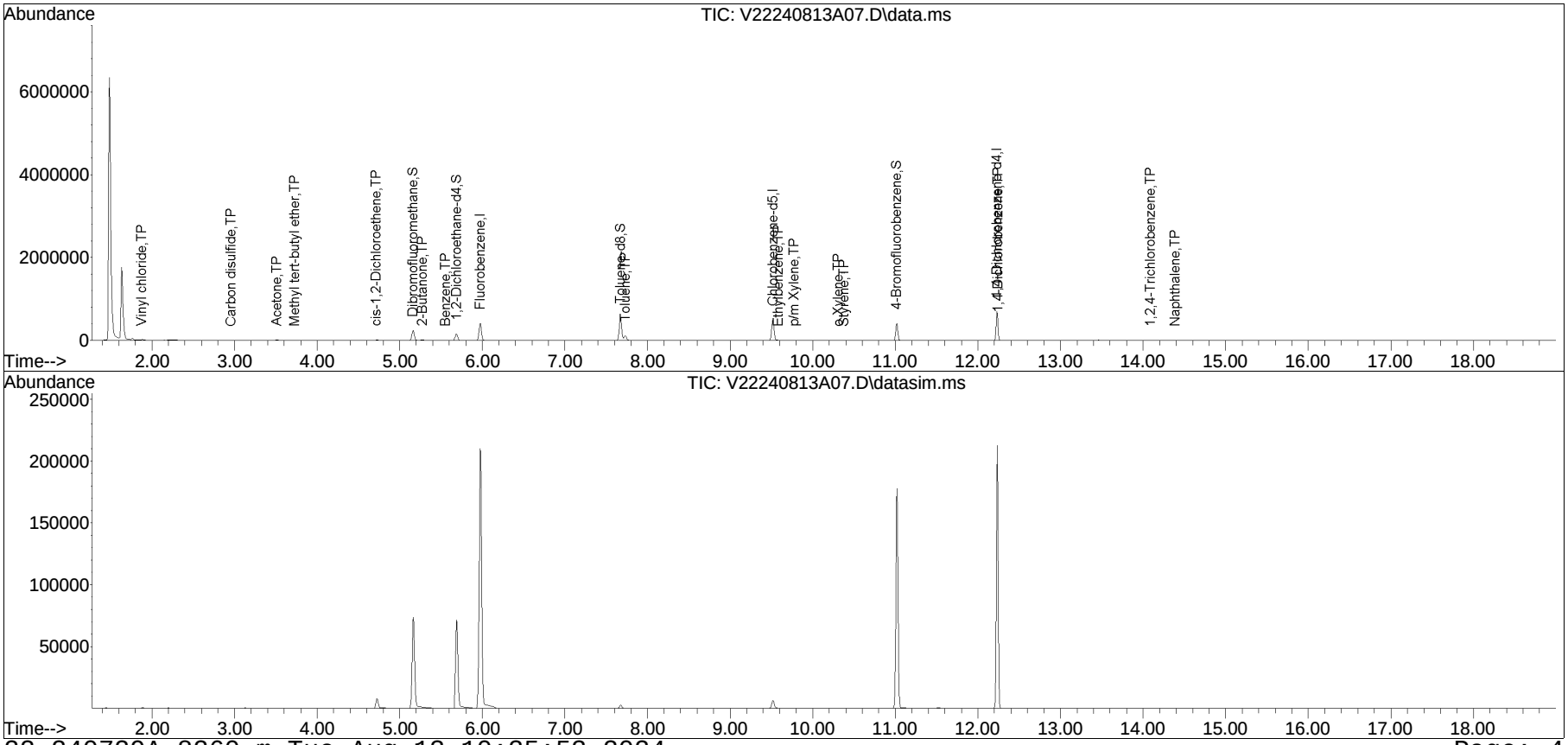
(#) = qualifier out of range (m) = manual integration (+) = signals summed

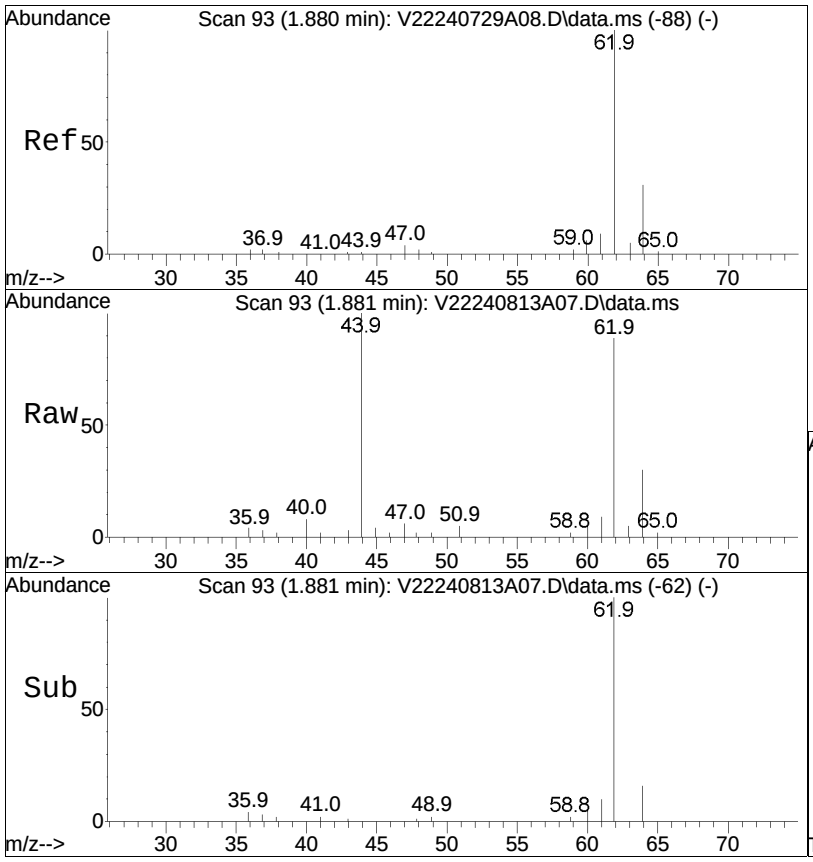
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A07.D
Acq On : 13 Aug 2024 09:21 am
Operator : VOA122:MJV
Sample : L2445487-02,31,10,10,,A,R1A
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 13 09:49:08 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240813A01.D•

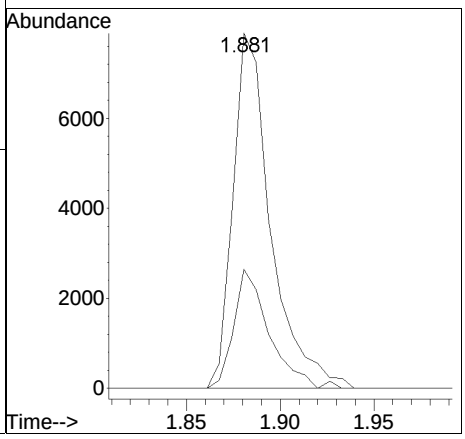


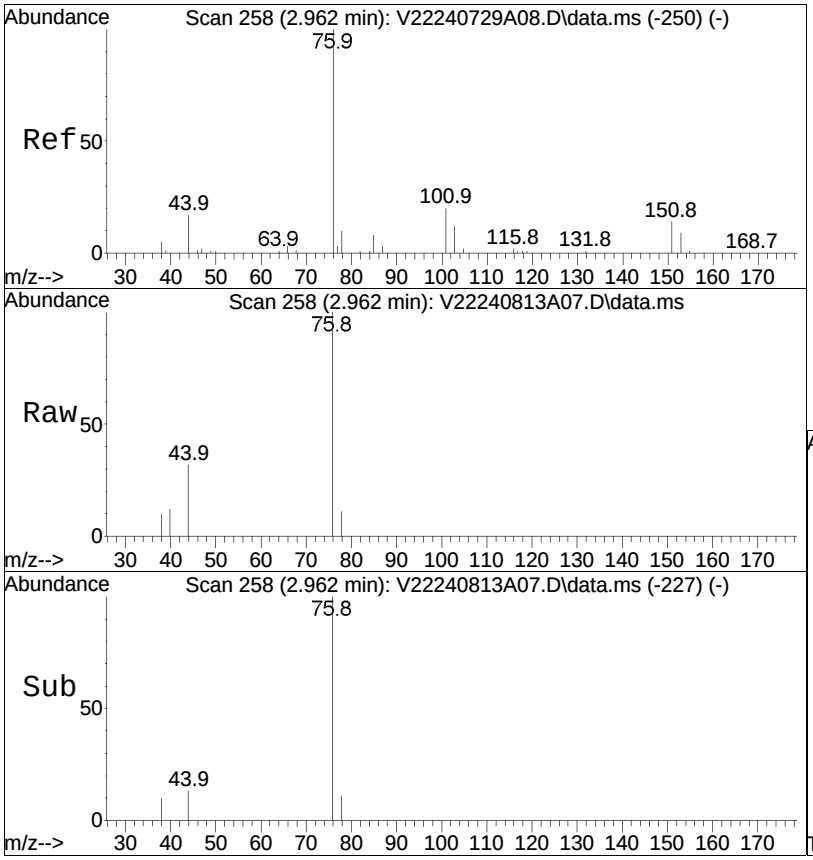


#4
Vinyl chloride
Concen: 1.32 ug/L
RT: 1.881 min Scan# 93
Delta R.T. 0.001 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 62 Resp: 11066

Ion	Ratio	Lower	Upper
62	100		
64	31.6	12.0	52.0

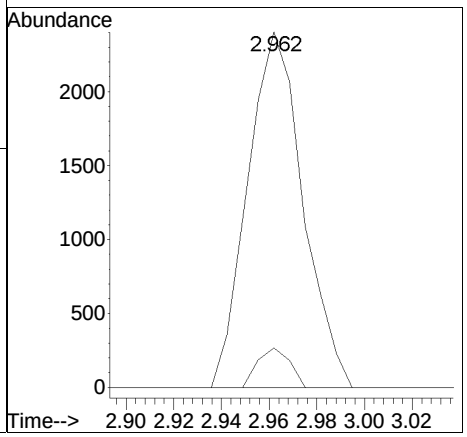


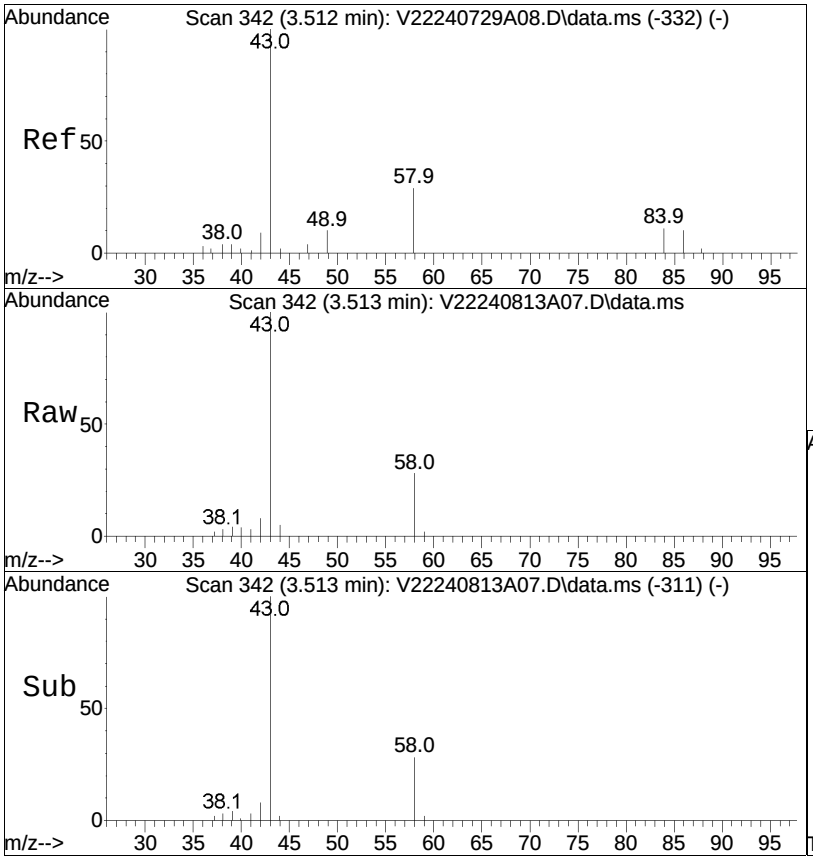


#11
Carbon disulfide
Concen: 0.21 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 76 Resp: 3875

Ion	Ratio	Lower	Upper
76	100		
78	6.5	6.4	13.4

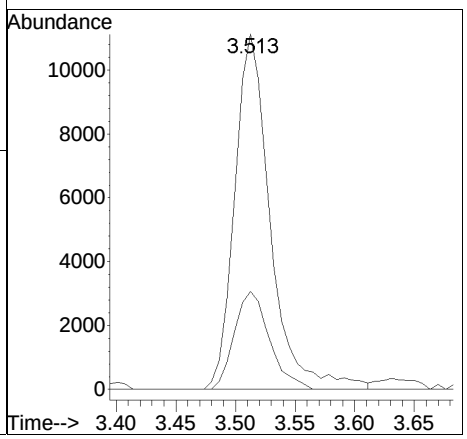


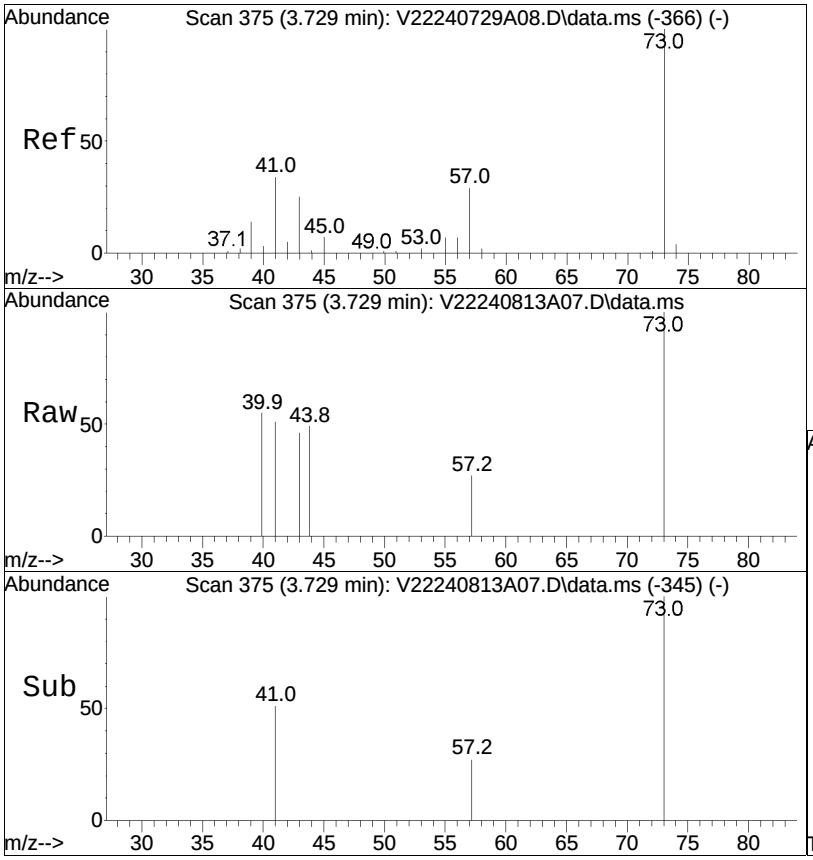


#17
Acetone
Concen: 17.19 ug/L
RT: 3.513 min Scan# 342
Delta R.T. 0.001 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 43 Resp: 23201

Ion	Ratio	Lower	Upper
43	100		
58	27.2	23.1	34.7

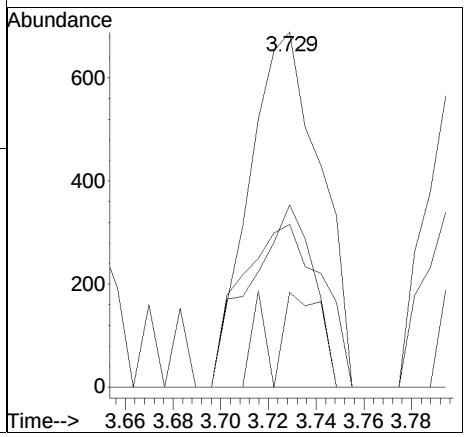


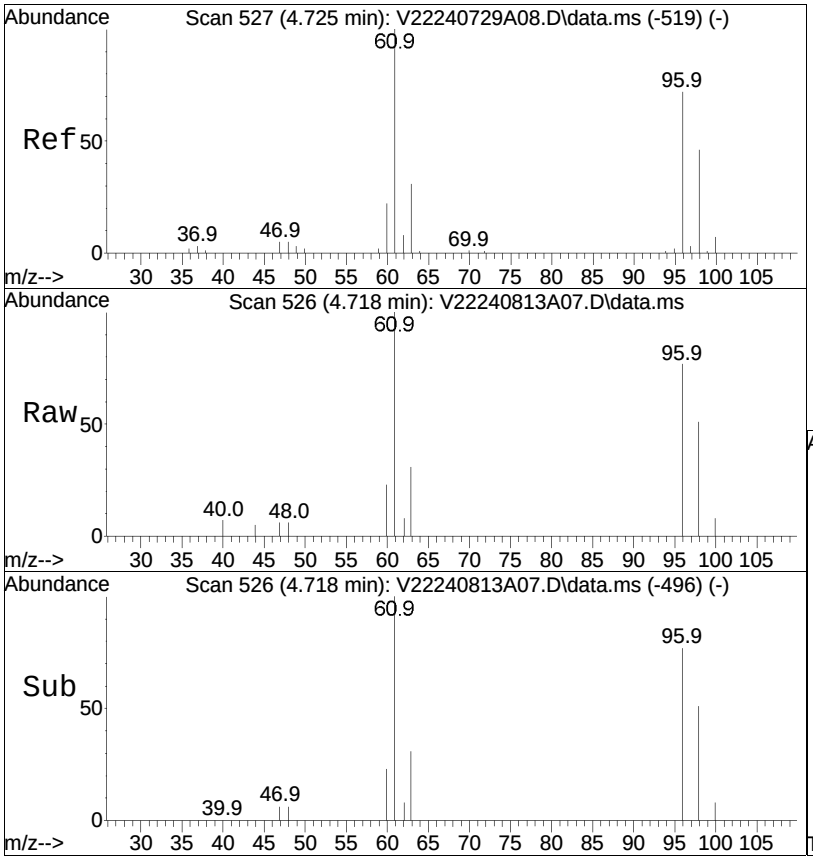


#21
Methyl tert-butyl ether
Concen: 0.11 ug/L
RT: 3.729 min Scan# 375
Delta R.T. -0.000 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 73 Resp: 1418

Ion	Ratio	Lower	Upper
73	100		
57	19.3	13.6	28.2
43	52.2	12.7	26.5#
41	46.3	11.4	23.8#

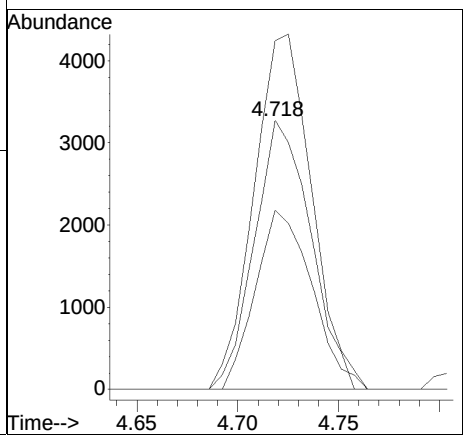


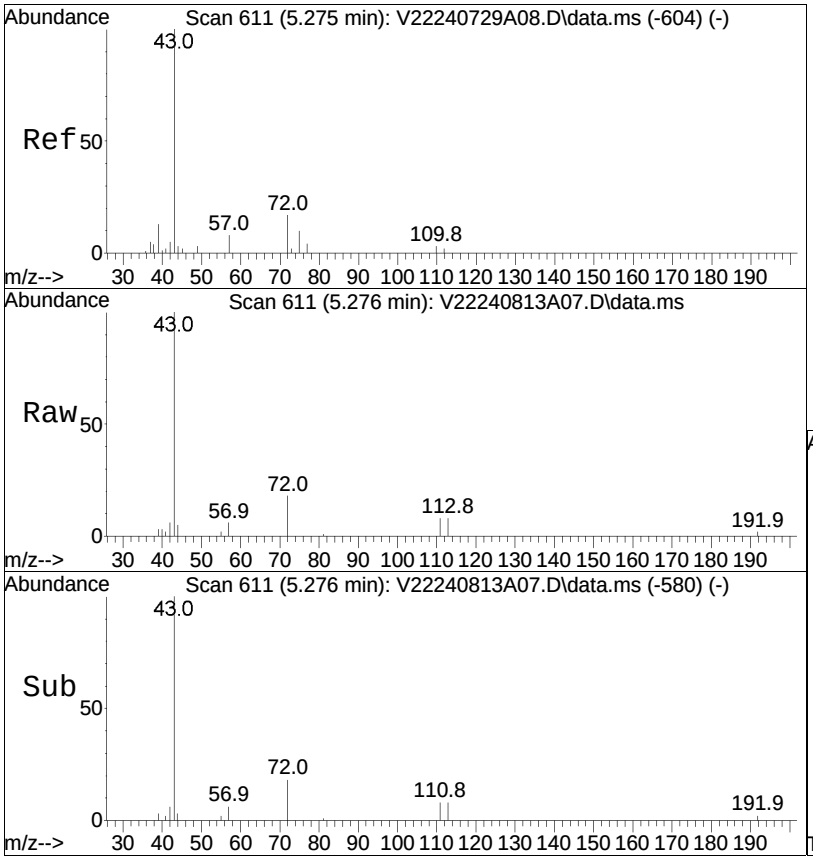


#30
cis-1,2-Dichloroethene
Concen: 0.88 ug/L
RT: 4.718 min Scan# 526
Delta R.T. -0.007 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 96 Resp: 6342

Ion	Ratio	Lower	Upper
96	100		
61	136.0	90.3	135.5#
98	67.2	50.8	76.2

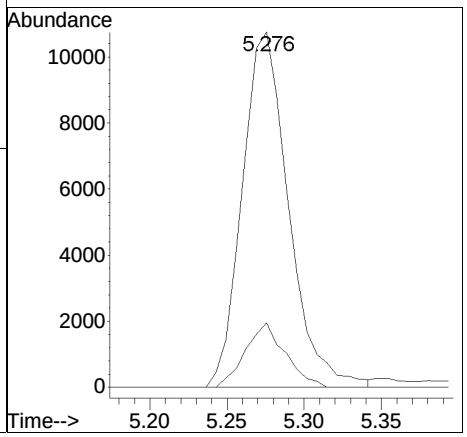


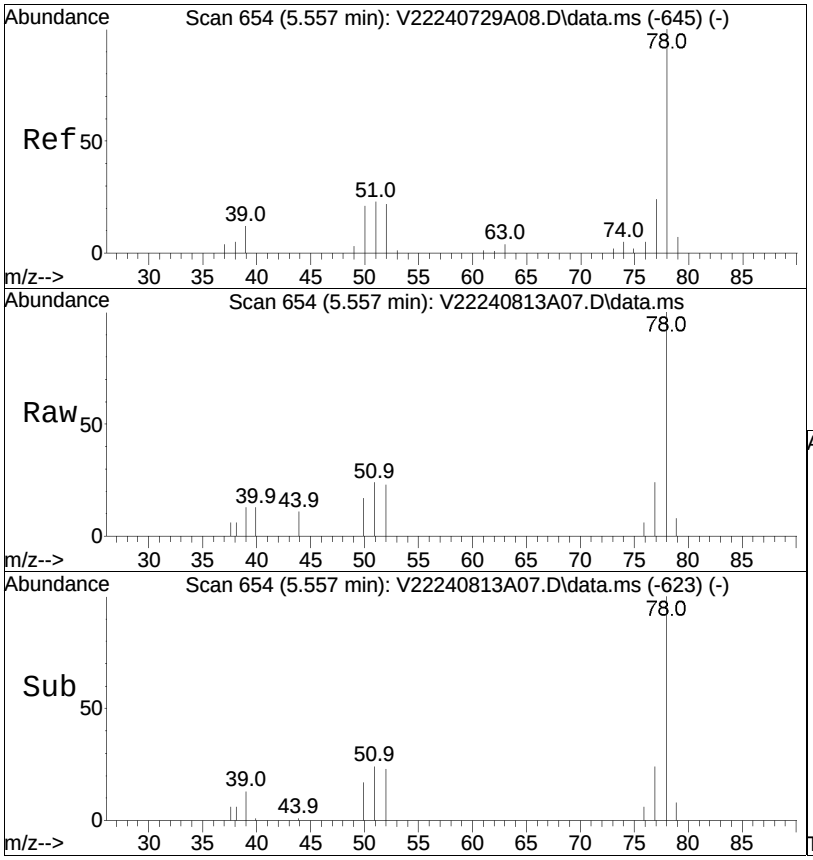


#41
2-Butanone
Concen: 11.85 ug/L
RT: 5.276 min Scan# 611
Delta R.T. 0.001 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 43 Resp: 22488

Ion	Ratio	Lower	Upper
43	100		
72	15.6	45.8	68.8#

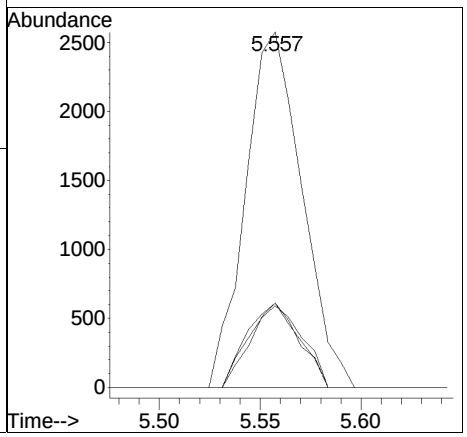


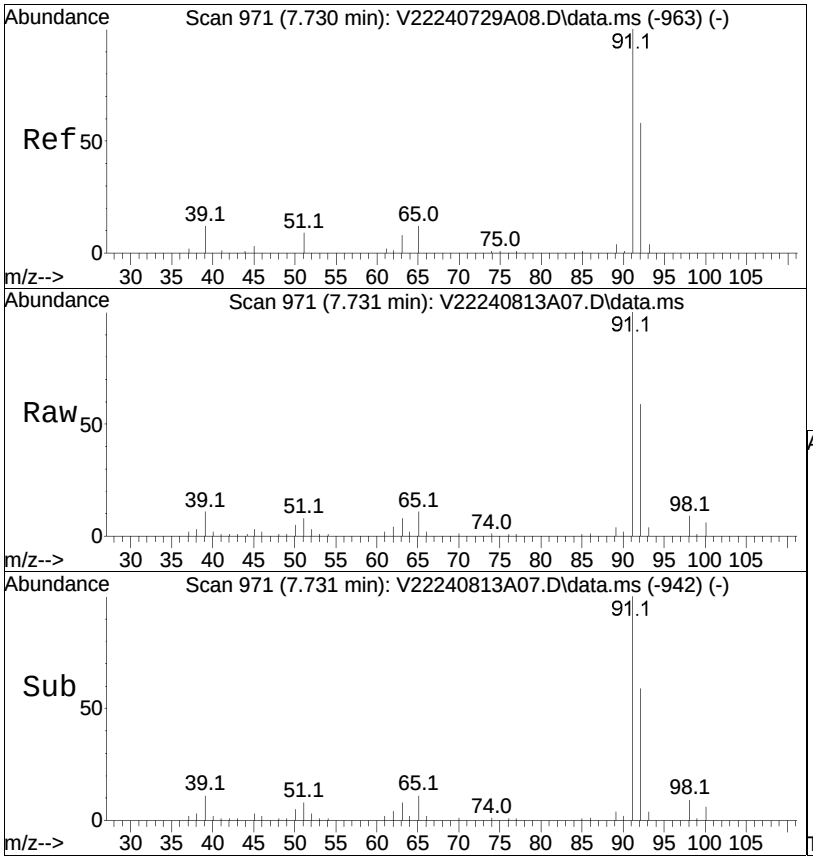


#44
Benzene
Concen: 0.20 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 78 Resp: 5009

Ion	Ratio	Lower	Upper
78	100		
77	20.3	15.4	32.0
51	0.0	9.8	20.4#
52	22.1	9.2	19.2#

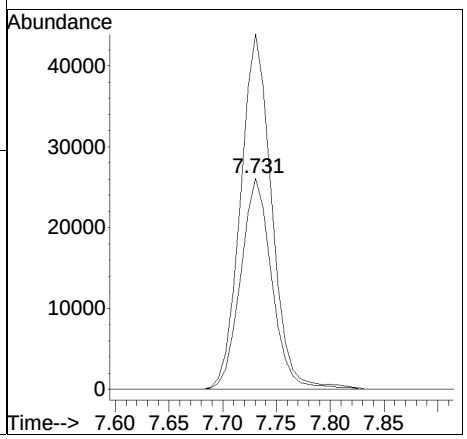


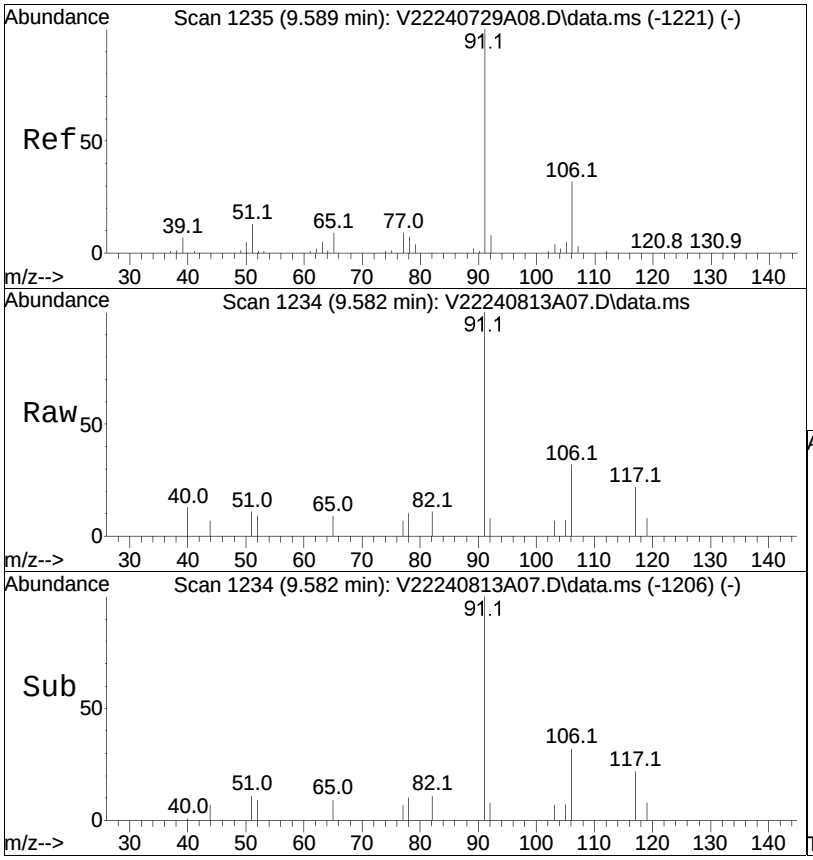


#64
Toluene
Concen: 3.54 ug/L
RT: 7.731 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 92 Resp: 52854

Ion	Ratio	Lower	Upper
92	100		
91	167.9	137.0	205.6

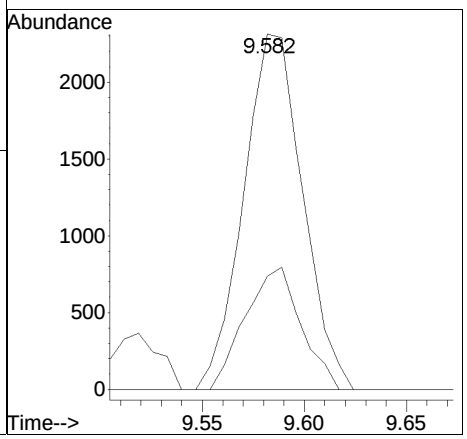


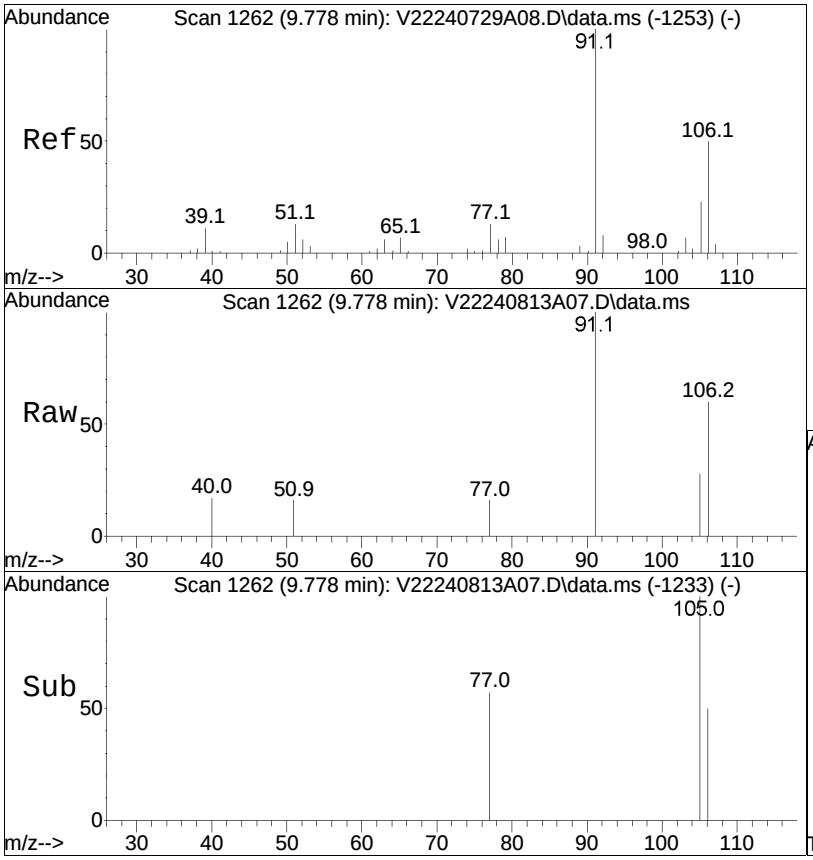


#78
Ethylbenzene
Concen: 0.17 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion: 91 Resp: 4664

Ion	Ratio	Lower	Upper
91	100		
106	32.4	25.8	38.6

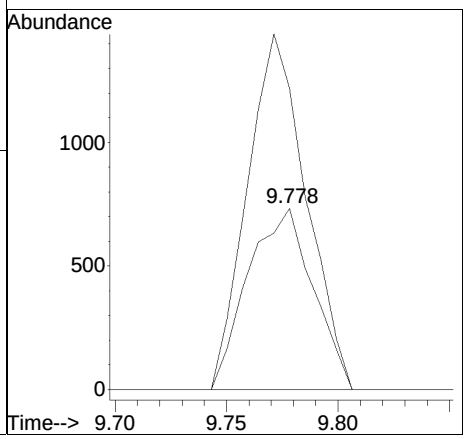


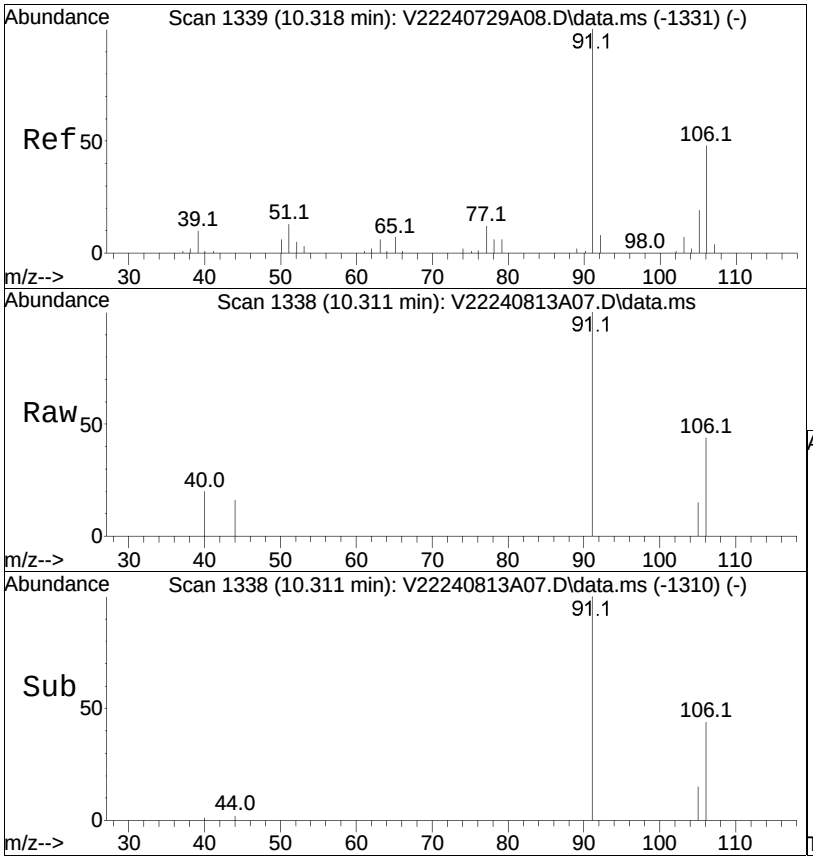


#80
p/m Xylene
Concen: 0.14 ug/L
RT: 9.778 min Scan# 1262
Delta R.T. 0.000 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion:106 Resp: 1485

Ion	Ratio	Lower	Upper
106	100		
91	178.0	156.0	234.0

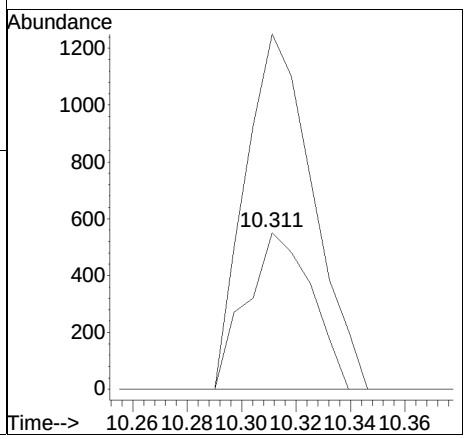


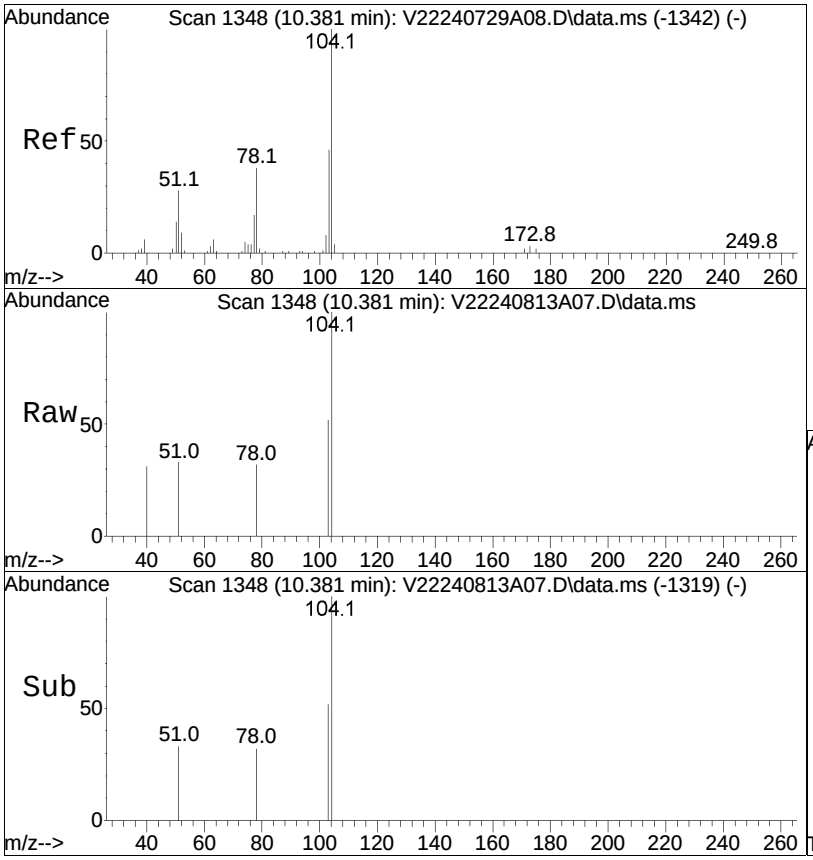


#81
o Xylene
Concen: 0.09 ug/L
RT: 10.311 min Scan# 1338
Delta R.T. -0.007 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion:106 Resp: 914

Ion	Ratio	Lower	Upper
106	100		
91	235.2	164.0	246.0

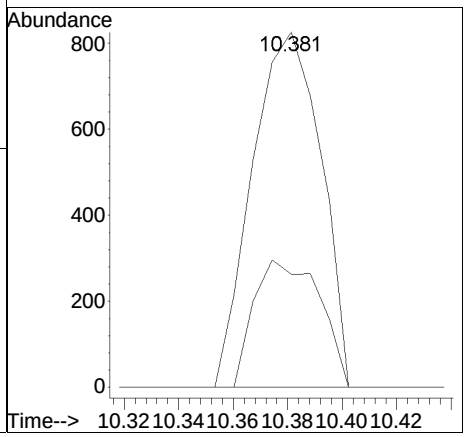


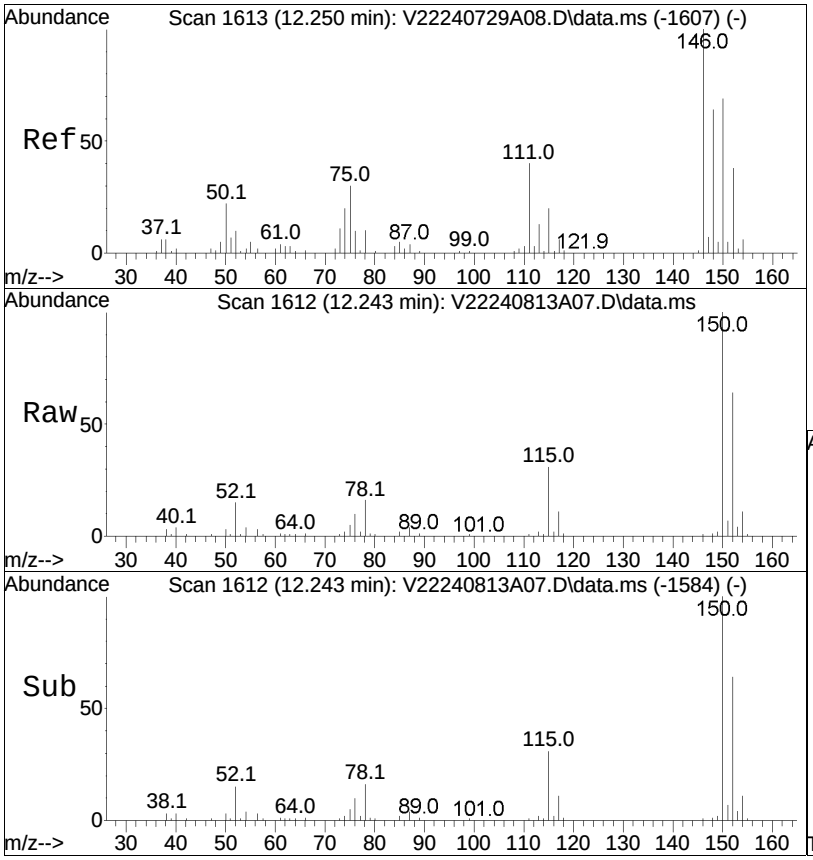


#82
Styrene
Concen: 0.09 ug/L
RT: 10.381 min Scan# 1348
Delta R.T. 0.000 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion:104 Resp: 1446

Ion	Ratio	Lower	Upper
104	100		
78	34.4	32.1	48.1

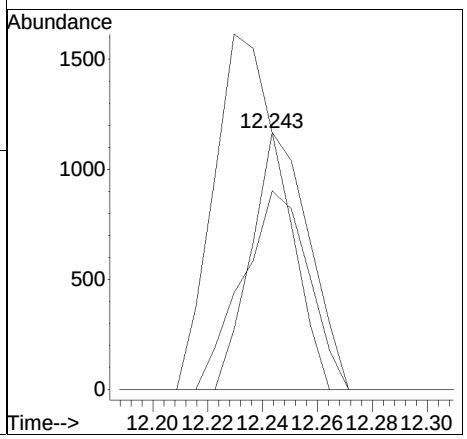


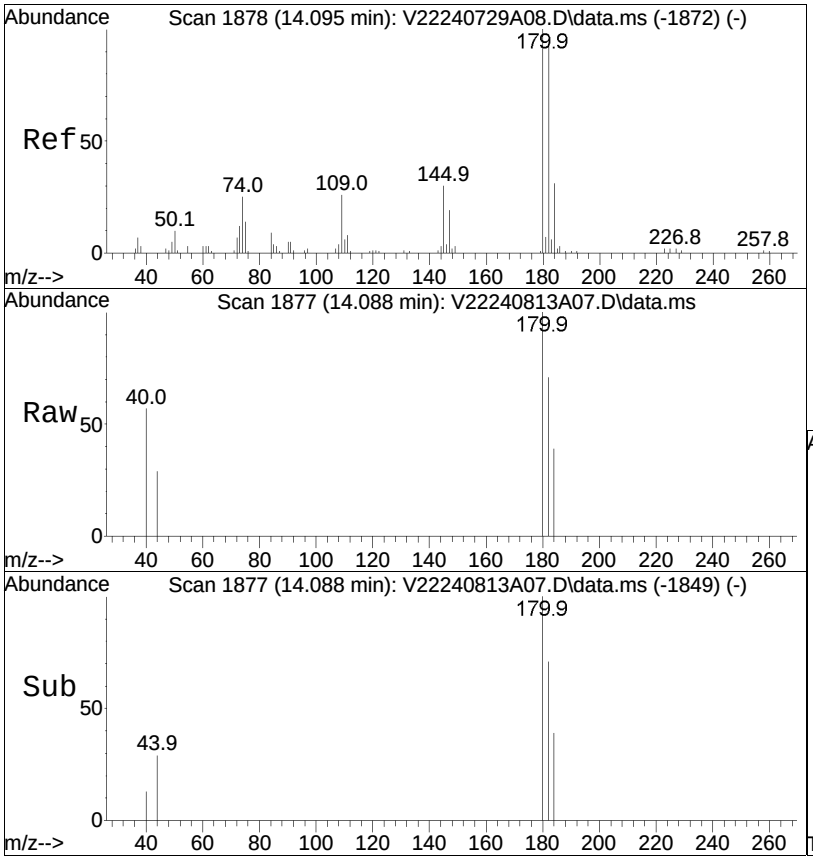


#105
1,4-Dichlorobenzene
Concen: 0.13 ug/L
RT: 12.243 min Scan# 1612
Delta R.T. -0.007 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion:146 Resp: 1719

Ion	Ratio	Lower	Upper
146	100		
111	163.1	28.9	43.3#
148	88.0	51.4	77.2#

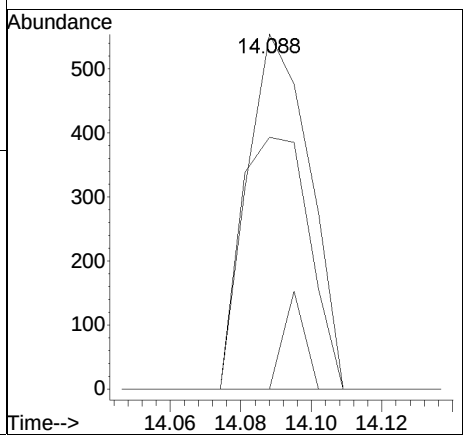


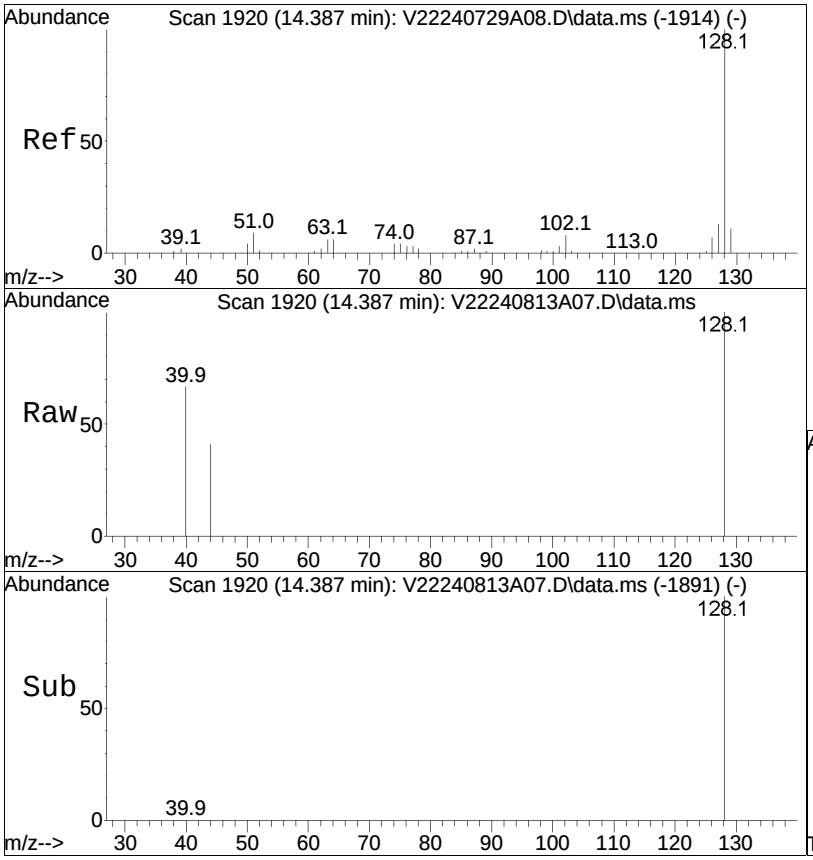


#113
1,2,4-Trichlorobenzene
Concen: 0.10 ug/L
RT: 14.088 min Scan# 1877
Delta R.T. -0.007 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

Tgt Ion:180 Resp: 676

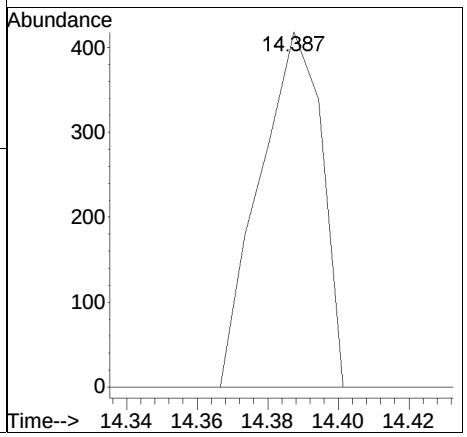
Ion	Ratio	Lower	Upper
180	100		
182	78.6	76.6	114.8
145	9.5	25.5	38.3#





#114
Naphthalene
Concen: 0.32 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240813A07.D
Acq: 13 Aug 2024 09:21 am

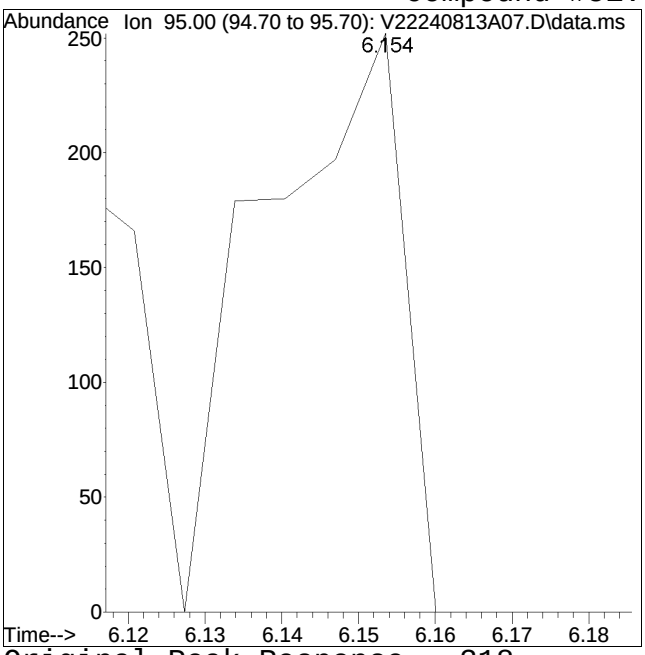
Tgt Ion:128 Resp: 512



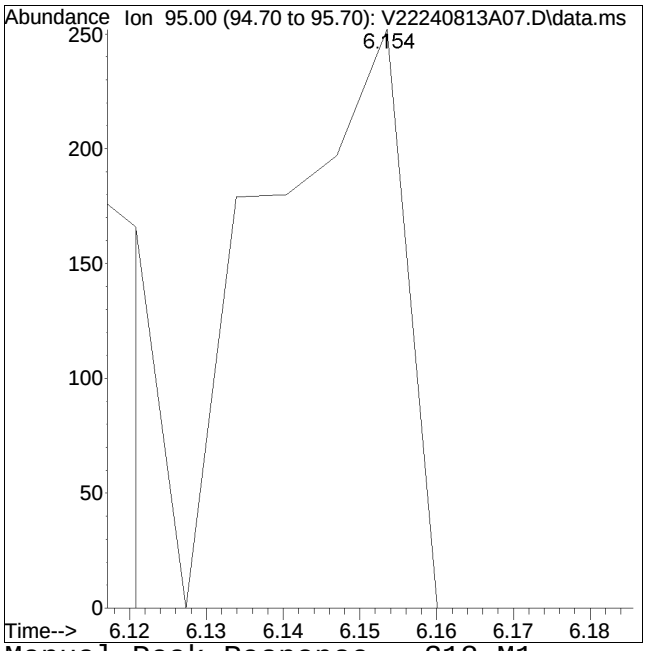
Manual Integration Report

Data Path : K:\VOA122\2024\240813A\ QMethod : V122_240729A_8260.m
Data File : V22240813A07.D Operator : VOA122:MJV
Date Inj'd : 8/13/2024 9:21 am Instrument : VOA 122
Sample : L2445487-02,31,10,10,,A,R1 Quant Date : 8/13/2024 9:47 am

Compound #51: Trichloroethene



Original Peak Response = 318



Manual Peak Response = 318 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A08.D
Acq On : 13 Aug 2024 11:04 am
Operator : GONZO:mjv
Sample : l2445487-01d,31,0.4,10,,c,r1a
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 13 11:45:25 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.086	96	273260	10.000 ug/L	0.00
Standard Area 1 = 357071			Recovery = 76.53%		
59) Chlorobenzene-d5	9.629	117	216684	10.000 ug/L	0.00
Standard Area 1 = 287977			Recovery = 75.24%		
79) 1,4-Dichlorobenzene-d4	12.311	152	120833	10.000 ug/L	0.00
Standard Area 1 = 175101			Recovery = 69.01%		
System Monitoring Compounds					
36) Dibromofluoromethane	5.281	113	76439	10.710 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.10%		
43) 1,2-Dichloroethane-d4	5.805	65	82509	10.882 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.82%		
60) Toluene-d8	7.779	98	265091	9.745 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.45%		
83) 4-Bromofluorobenzene	11.110	95	90440	8.961 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.61%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.520	85	305	N.D.	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl chloride	1.953	62	1023	0.159 ug/L	83
5) Bromomethane	2.272	94	456	0.134 ug/L #	1
6) Chloroethane	2.333	64	104	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	2.812	96	75	N.D.	
11) Carbon disulfide	0.000		0	N.D. d	
15) Methylene chloride	3.587	84	2080	0.340 ug/L	83
17) Acetone	3.625	43	12382	8.494 ug/L	99
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
20) Methyl tert-butyl ether	0.000		0	N.D.	
23) 1,1-Dichloroethane	0.000		0	N.D.	
25) Acrylonitrile	0.000		0	N.D.	
27) Vinyl acetate	0.000		0	N.D. d	
28) cis-1,2-Dichloroethene	4.833	96	11000	1.692 ug/L	90
29) 2,2-Dichloropropane	0.000		0	N.D.	
30) Bromochloromethane	0.000		0	N.D.	
32) Chloroform	0.000		0	N.D.	

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A08.D
Acq On : 13 Aug 2024 11:04 am
Operator : GONZO:mjv
Sample : l2445487-01d,31,0.4,10,,c,r1a
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 13 11:45:25 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34) Carbon tetrachloride	0.000		0	N.D.			
37) 1,1,1-Trichloroethane	0.000		0	N.D.			
39) 2-Butanone	5.387	43	271154	136.811	ug/L	#	57
40) 1,1-Dichloropropene	0.000		0	N.D.			
41) Benzene	5.668	78	313	N.D.			
44) 1,2-Dichloroethane	0.000		0	N.D.		d	
48) Trichloroethene	0.000		0	N.D.		d	
50) Dibromomethane	0.000		0	N.D.			
51) 1,2-Dichloropropane	0.000		0	N.D.			
54) Bromodichloromethane	0.000		0	N.D.			
57) 1,4-Dioxane	0.000		0	N.D.			
58) cis-1,3-Dichloropropene	0.000		0	N.D.			
61) Toluene	7.836	92	569	N.D.			
62) 4-Methyl-2-pentanone	0.000		0	N.D.			
63) Tetrachloroethene	0.000		0	N.D.			
65) trans-1,3-Dichloropropene	0.000		0	N.D.			
68) 1,1,2-Trichloroethane	0.000		0	N.D.			
69) Chlorodibromomethane	8.739	129	70	N.D.			
70) 1,3-Dichloropropane	0.000		0	N.D.			
71) 1,2-Dibromoethane	0.000		0	N.D.			
72) 2-Hexanone	9.255	43	100	N.D.			
73) Chlorobenzene	9.826	112	81	N.D.			
74) Ethylbenzene	9.629	91	431	N.D.			
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
76) p/m Xylene	0.000		0	N.D.			
77) o Xylene	0.000		0	N.D.			
78) Styrene	0.000		0	N.D.			
80) Bromoform	0.000		0	N.D.			
82) Isopropylbenzene	0.000		0	N.D.			
84) Bromobenzene	0.000		0	N.D.			
85) n-Propylbenzene	11.290	91	79	N.D.			
87) 1,1,2,2-Tetrachloroethane	11.200	83	75	N.D.			
88) 4-Ethyltoluene	0.000		0	N.D.			
89) 2-Chlorotoluene	11.290	91	79	N.D.			
90) 1,3,5-Trimethylbenzene	0.000		0	N.D.			
91) 1,2,3-Trichloropropane	0.000		0	N.D.			
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		d	
93) 4-Chlorotoluene	11.652	91	77	N.D.			
94) tert-Butylbenzene	0.000		0	N.D.			

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A08.D
Acq On : 13 Aug 2024 11:04 am
Operator : GONZO:mjv
Sample : l2445487-01d,31,0.4,10,,c,r1a
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 13 11:45:25 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) 1,2,4-Trimethylbenzene	12.023	105	90	N.D.		
98) sec-Butylbenzene	12.023	105	90	N.D.		
99) p-Isopropyltoluene	0.000		0	N.D.		
100) 1,3-Dichlorobenzene	12.319	146	197	N.D.		
101) 1,4-Dichlorobenzene	12.319	146	197	N.D.		
102) p-Diethylbenzene	0.000		0	N.D.		
103) n-Butylbenzene	0.000		0	N.D.		
104) 1,2-Dichlorobenzene	0.000		0	N.D.		
105) 1,2,4,5-Tetramethylben...	13.446	119	88	N.D.		
106) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108) Hexachlorobutadiene	0.000		0	N.D.		
109) 1,2,4-Trichlorobenzene	14.194	180	109	N.D.		
110) Naphthalene	0.000		0	N.D.		
111) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

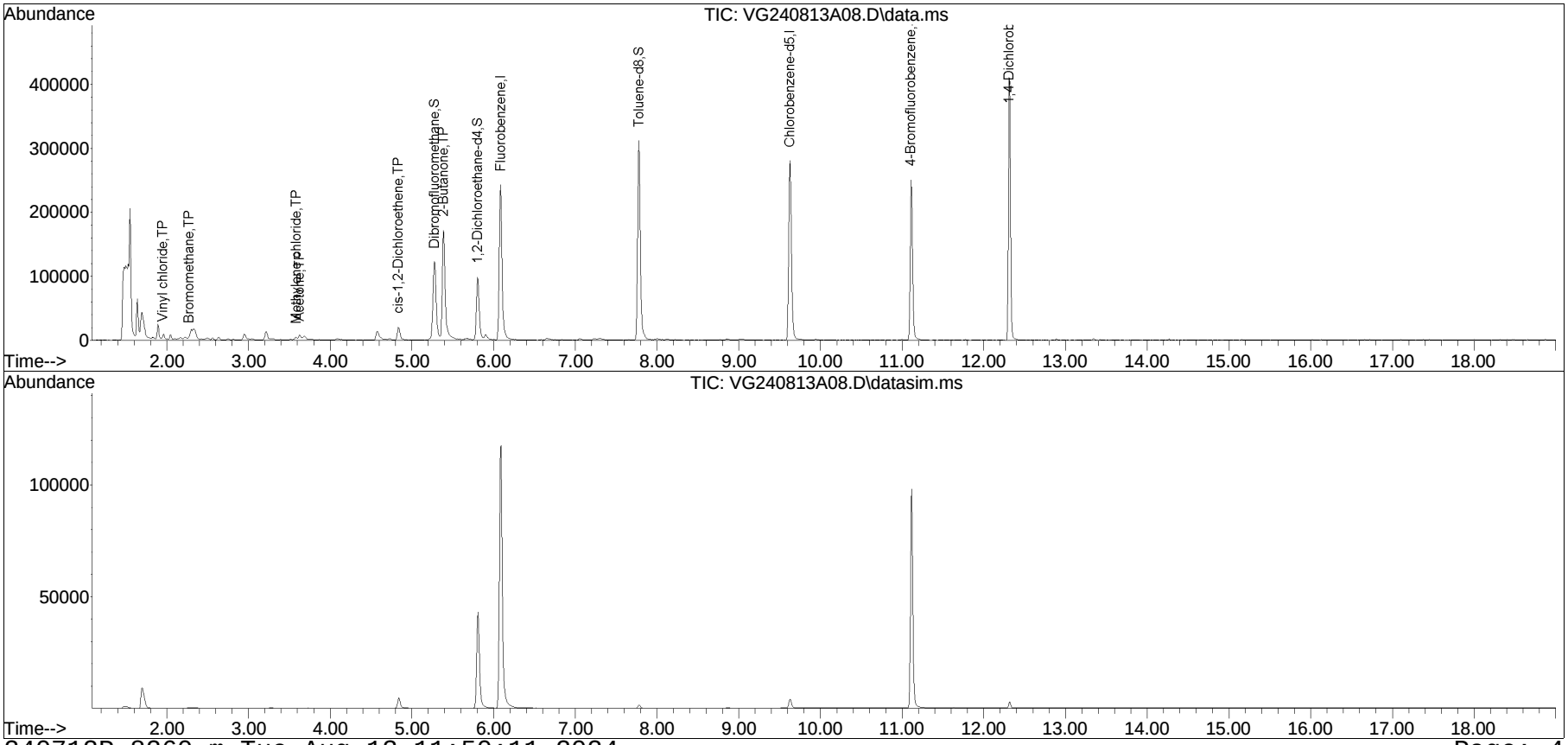
(#) = qualifier out of range (m) = manual integration (+) = signals summed

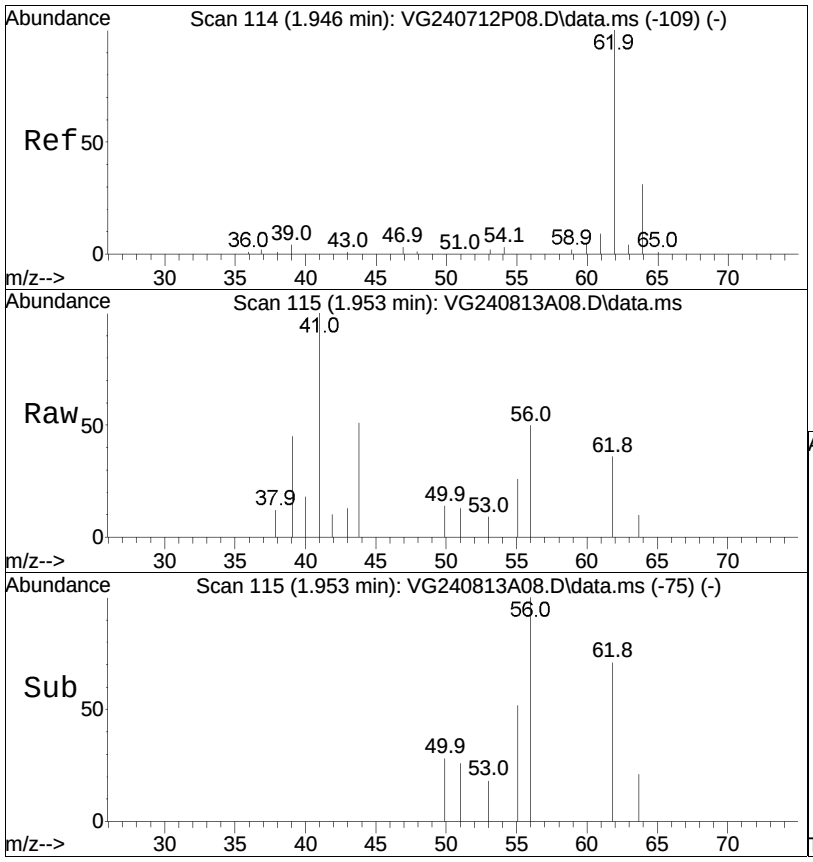
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A08.D
Acq On : 13 Aug 2024 11:04 am
Operator : GONZO:mjv
Sample : l2445487-01d,31,0.4,10,,c,r1a
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 13 11:45:25 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox0813A01.D•

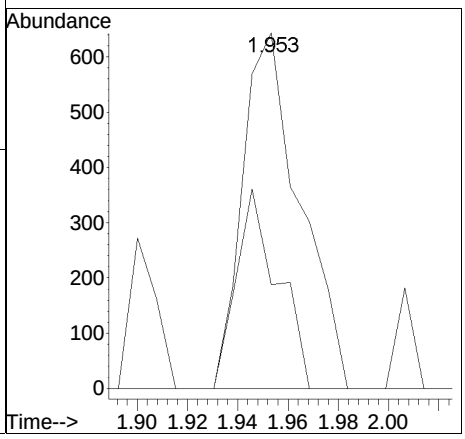


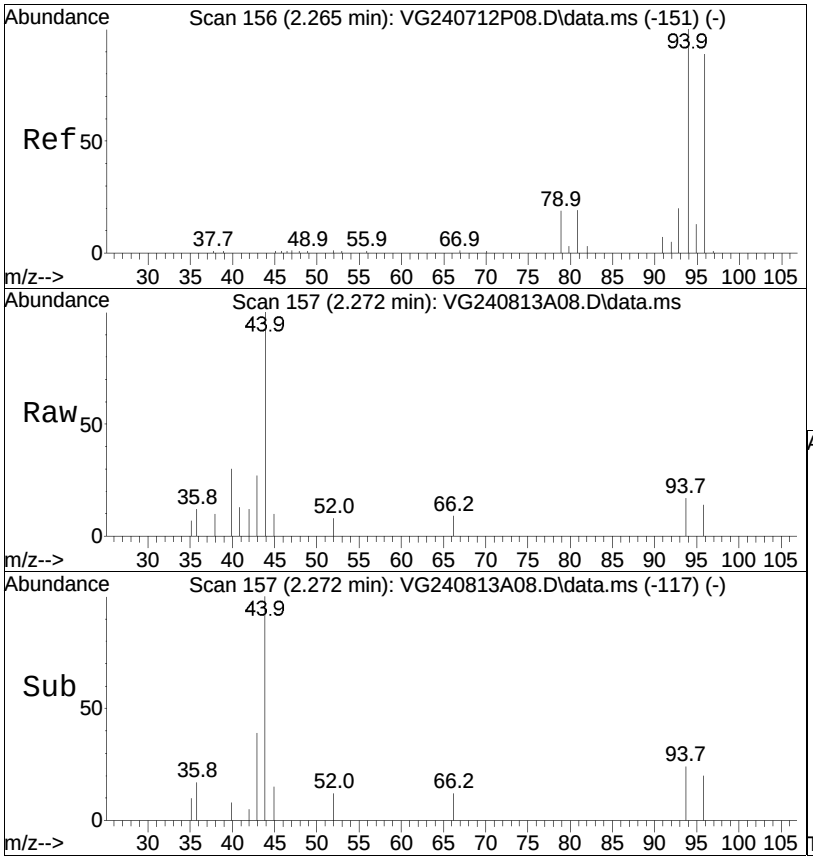


#4
Vinyl chloride
Concen: 0.16 ug/L
RT: 1.953 min Scan# 115
Delta R.T. 0.007 min
Lab File: VG240813A08.D
Acq: 13 Aug 2024 11:04 am

Tgt Ion: 62 Resp: 1023

Ion	Ratio	Lower	Upper
62	100		
64	40.6	11.3	51.3

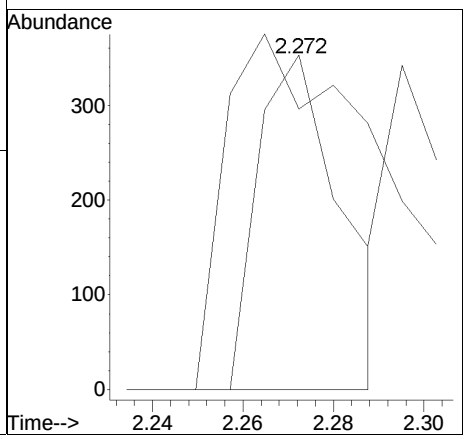


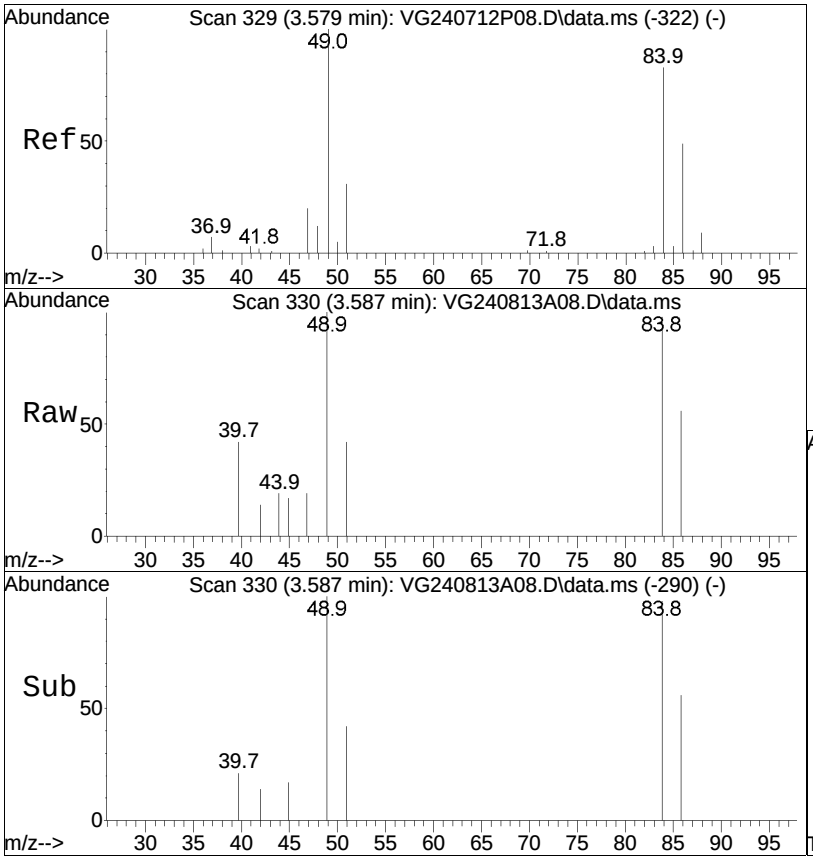


#5
Bromomethane
Concen: 0.13 ug/L
RT: 2.272 min Scan# 157
Delta R.T. 0.007 min
Lab File: VG240813A08.D
Acq: 13 Aug 2024 11:04 am

Tgt Ion: 94 Resp: 456

Ion	Ratio	Lower	Upper
94	100		
96	193.6	75.2	115.2#

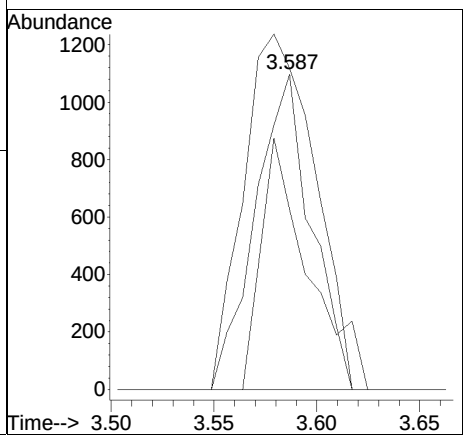


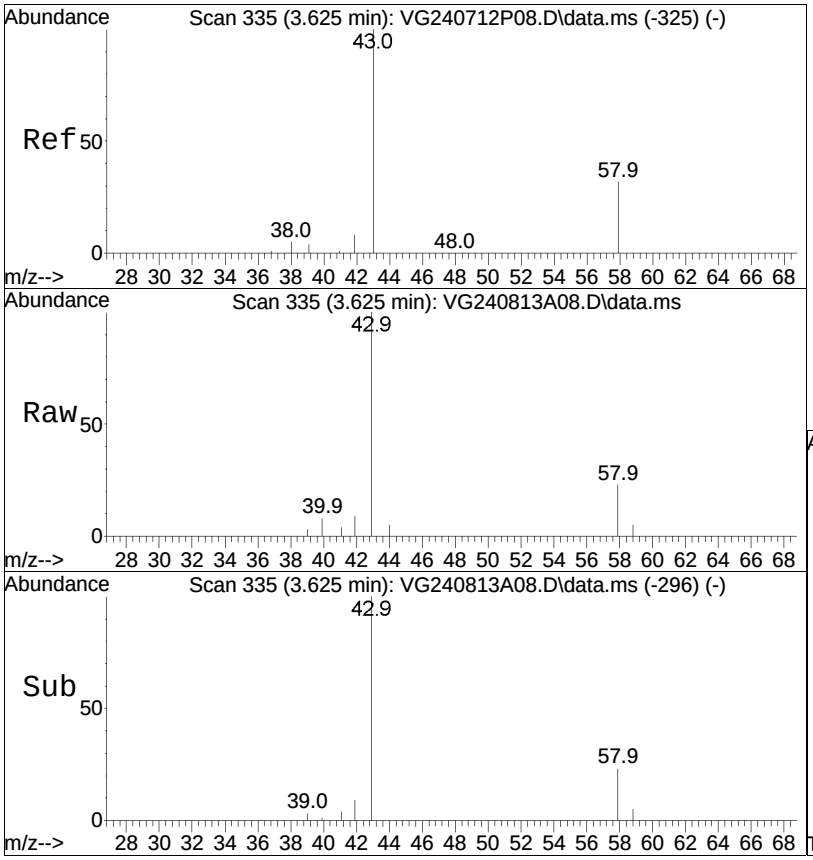


#15
Methylene chloride
Concen: 0.34 ug/L
RT: 3.587 min Scan# 330
Delta R.T. 0.008 min
Lab File: VG240813A08.D
Acq: 13 Aug 2024 11:04 am

Tgt Ion: 84 Resp: 2080

Ion	Ratio	Lower	Upper
84	100		
86	67.8	41.1	85.5
49	143.1	76.2	158.2

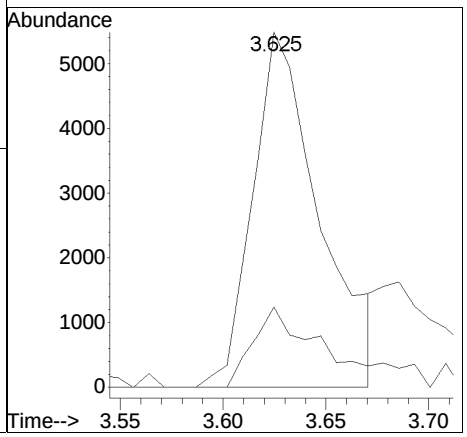


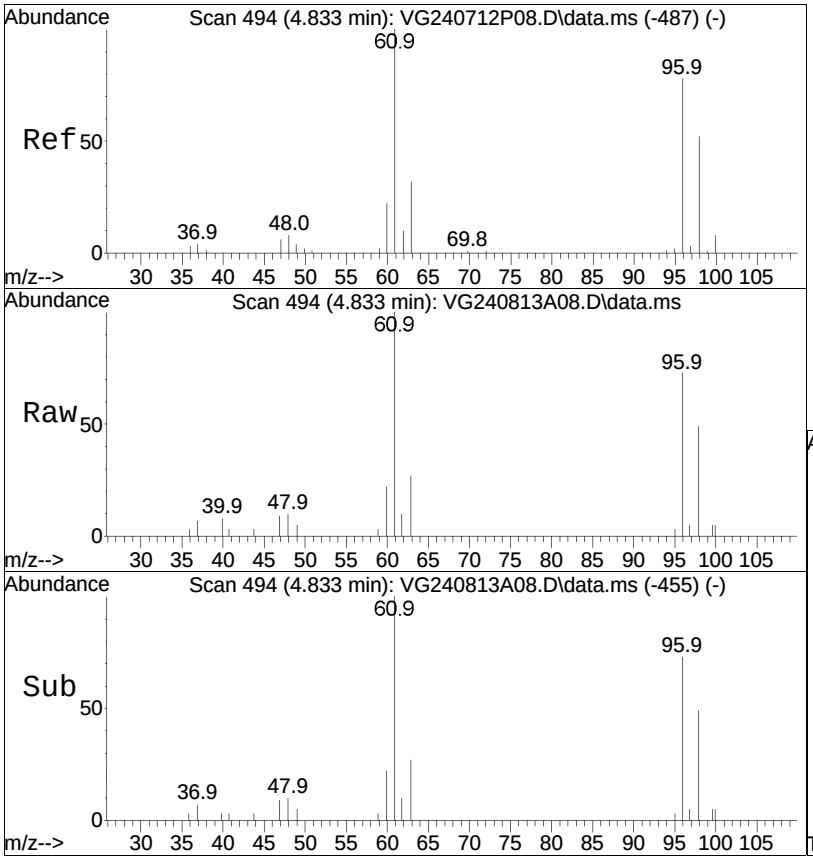


#17
Acetone
Concen: 8.49 ug/L
RT: 3.625 min Scan# 335
Delta R.T. -0.000 min
Lab File: VG240813A08.D
Acq: 13 Aug 2024 11:04 am

Tgt Ion: 43 Resp: 12382

Ion	Ratio	Lower	Upper
43	100		
58	27.2	22.2	33.4

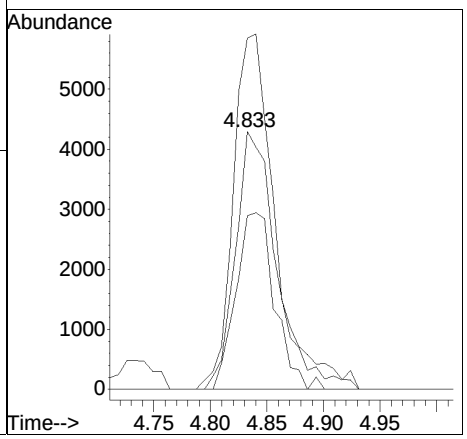


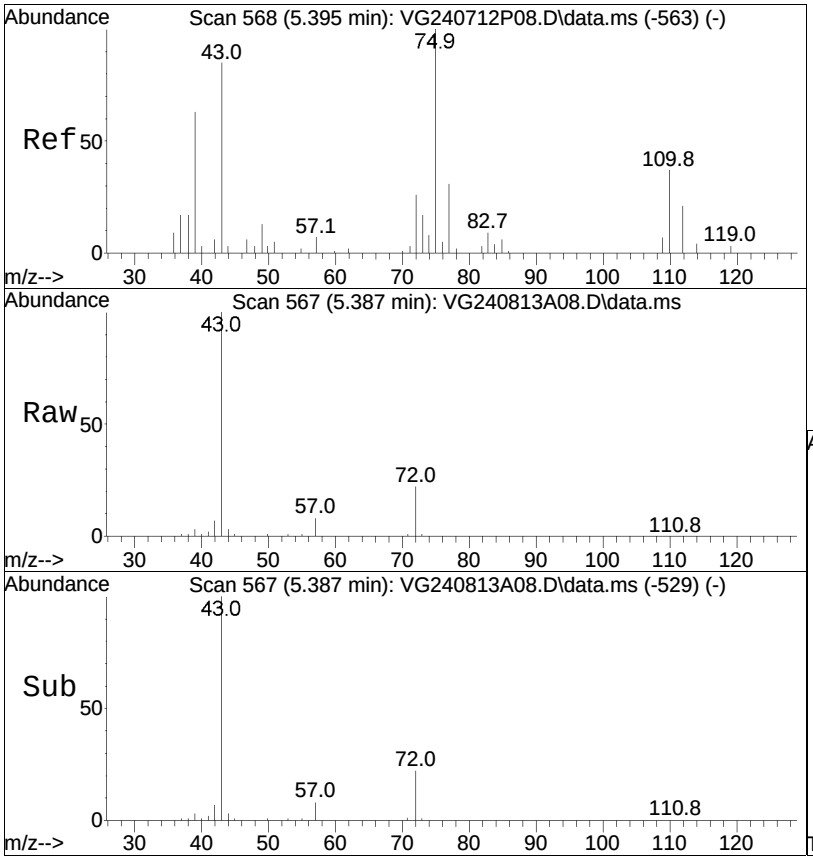


#28
cis-1,2-Dichloroethene
Concen: 1.69 ug/L
RT: 4.833 min Scan# 494
Delta R.T. -0.000 min
Lab File: VG240813A08.D
Acq: 13 Aug 2024 11:04 am

Tgt Ion: 96 Resp: 11000

Ion	Ratio	Lower	Upper
96	100		
61	138.3	96.6	144.8
98	64.2	51.3	76.9

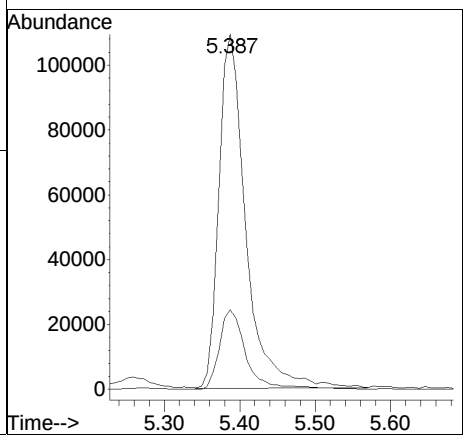




#39
2-Butanone
Concen: 136.81 ug/L
RT: 5.387 min Scan# 567
Delta R.T. -0.008 min
Lab File: VG240813A08.D
Acq: 13 Aug 2024 11:04 am

Tgt Ion: 43 Resp: 271154

Ion	Ratio	Lower	Upper
43	100		
72	22.5	42.6	63.8#



Manual Integration Report

Data Path	: K:\Gonzo\2024\240813A\	QMethod	: G_240712P_8260.m
Data File	: VG240813A08.D	Operator	: GONZO:mjv
Date Inj'd	: 8/13/2024 11:04 am	Instrument	: Gonzo
Sample	: l2445487-01d,31,0.4,10,,c,	Quant Date	: 8/13/2024 11:39 am

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445487**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21287**
Calibration dates	**: 07/12/24 21:20 07/13/24 00:56**		

Calibration Files

L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D

L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.203	0.284	0.294	0.290	0.281	0.234	0.273	0.265	12.90
3)	TP	Chloromethane		0.237	0.243	0.227	0.229	0.227	0.190	0.236	0.227	7.62
4)	TP	Vinyl chloride	0.191	0.177	0.268	0.263	0.256	0.251	0.211	0.266	0.235	15.50
5)	TP	Bromomethane		0.089	0.117	0.124	0.130	0.151	0.136		0.125	16.72
6)	TP	Chloroethane		0.165	0.201	0.188	0.190	0.192	0.160	0.163	0.180	9.11
7)	TP	Trichlorofluor		0.246	0.359	0.340	0.382	0.375	0.318	0.394	0.345	14.74
8)	TP	Ethyl ether		0.107	0.125	0.114	0.114	0.117	0.100	0.124	0.115	7.96
10)	TP	1,1-Dichloroet		0.136	0.194	0.200	0.204	0.202	0.172	0.216	0.189	14.31
11)	TP	Carbon disulfide		0.447	0.585	0.573	0.562	0.581	0.503	0.644	0.556	11.38
12)	TP	Freon-113		0.150	0.220	0.215	0.226	0.224	0.188	0.228	0.208	13.82
13)	TP	Iodomethane			0.298	0.350	0.383	0.407	0.333	0.421	0.365	12.81
14)	TP	Acrolein		0.034	0.029	0.034	0.032	0.034	0.029	0.036	0.033	8.15
15)	TP	Methylene chlo		0.251	0.229	0.224	0.219	0.223	0.186	0.233	0.224	8.80
17)	TP	Acetone			0.075	0.048	0.051	0.050	0.042	0.052	*L	0.9901
18)	TP	trans-1,2-Dich		0.159	0.222	0.218	0.215	0.219	0.182	0.233	0.207	12.68
19)	TP	Methyl acetate			0.154	0.111	0.107	0.110	0.092	0.115	0.115	17.92
20)	TP	Methyl tert butyl ether		0.590	0.643	0.631	0.652	0.672	0.559	0.708	0.636	7.82
21)	TP	tert-Butyl alc		0.016	0.017	0.017	0.018	0.019	0.016	0.020	0.018	8.32
22)	TP	Diisopropyl ether		0.541	0.639	0.669	0.682	0.702	0.582	0.734	0.650	10.50
23)	TP	1,1-Dichloroet		0.306	0.400	0.395	0.386	0.395	0.331	0.410	0.375	10.68
24)	TP	Halothane		0.143	0.173	0.180	0.180	0.182	0.153	0.192	0.172	10.04
25)	TP	Acrylonitrile			0.052	0.058	0.059	0.063	0.053	0.067	0.058	10.02
26)	TP	Ethyl tert-but		0.551	0.632	0.643	0.664	0.687	0.570	0.728	0.639	9.79
27)	TP	Vinyl acetate		0.286	0.333	0.370	0.382	0.372	0.337	0.351	0.347	9.47
28)	TP	cis-1,2-Dichlo		0.198	0.259	0.245	0.246	0.248	0.208	0.263	0.238	10.52
29)	TP	2,2-Dichloropr		0.292	0.331	0.321	0.320	0.324	0.267	0.333	0.313	7.81
30)	TP	Bromochloromet		0.110	0.121	0.121	0.119	0.121	0.100	0.123	0.116	7.32
31)	TP	Cyclohexane		0.258	0.366	0.374	0.400	0.384	0.321	0.385	0.356	13.97
32)	TP	Chloroform		0.339	0.386	0.407	0.392	0.405	0.331	0.426	0.384	9.27
33)	TP	Ethyl acetate			0.167	0.162	0.175	0.179	0.150	0.186	0.170	7.75
34)	TP	Carbon tetrachloride	0.226	0.257	0.327	0.345	0.346	0.343	0.287	0.356	0.311	15.54
35)	TP	Tetrahydrofuran			0.061	0.059	0.056	0.055	0.046	0.057	0.056	9.03
36)	S	Dibromofluoromethane	0.266	0.264	0.262	0.260	0.260	0.258	0.259	0.263	0.261	1.02
37)	TP	1,1,1-Trichlor		0.286	0.360	0.374	0.377	0.377	0.314	0.390	0.354	10.89
39)	TP	2-Butanone			0.055	0.072	0.076	0.080	0.067	0.084	0.073	14.30

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445487**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21287**
Calibration dates	**: 07/12/24 21:20 07/13/24 00:56**		

Calibration Files

L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D

L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40) TP	1,1-Dichloropr		0.207	0.287	0.297	0.312	0.305	0.256	0.317	0.283	13.83
41) TP	Benzene	0.745	0.717	0.890	0.923	0.917	0.917	0.768	0.976	0.857	11.42
42) TP	Tertiary-Amyl Methyl Ether		0.544	0.559	0.586	0.605	0.621	0.519	0.662	0.585	8.39
43) S	1,2-Dichloroethane-d4	0.288	0.279	0.281	0.289	0.268	0.272	0.264	0.278	0.277	3.23
44) TP	1,2-Dichloroet		0.270	0.289	0.274	0.278	0.279	0.231	0.290	0.273	7.30
47) TP	Methyl cyclohe		0.234	0.330	0.364	0.384	0.364	0.301	0.353	0.333	15.41
48) TP	Trichloroethene	0.246	0.210	0.248	0.249	0.253	0.250	0.207	0.270	0.242	9.05
50) TP	Dibromomethane		0.135	0.140	0.139	0.136	0.137	0.114	0.144	0.135	7.28
51) TP	1,2-Dichloropr		0.171	0.219	0.220	0.219	0.221	0.183	0.231	0.209	10.76
53) TP	2-Chloroethyl		0.109	0.117	0.122	0.135	0.140	0.117	0.146	0.126	10.96
54) TP	Bromodichlorom		0.278	0.312	0.313	0.314	0.321	0.264	0.334	0.305	8.10
57) TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.92
58) TP	cis-1,3-Dichlo		0.308	0.338	0.350	0.350	0.359	0.301	0.383	0.341	8.39
59) I	Chlorobenzene-d5	----------ISTD----------									
60) S	Toluene-d8	1.258	1.266	1.270	1.267	1.248	1.246	1.258	1.232	1.255	1.03
61) TP	Toluene		0.628	0.724	0.733	0.716	0.720	0.606	0.738	0.695	7.82
62) TP	4-Methyl-2-pen		0.061	0.077	0.079	0.081	0.083	0.070	0.086	0.077	11.14
63) TP	Tetrachloroethene		0.238	0.323	0.326	0.324	0.321	0.274	0.329	0.305	11.51
65) TP	trans-1,3-Dich		0.347	0.369	0.394	0.389	0.403	0.341	0.421	0.380	7.79
67) TP	Ethyl methacry		0.299	0.305	0.320	0.331	0.340	0.287	0.358	0.320	7.77
68) TP	1,1,2-Trichlor		0.191	0.188	0.193	0.193	0.198	0.166	0.207	0.191#	6.61
69) TP	Chlorodibromom		0.263	0.303	0.312	0.311	0.320	0.270	0.331	0.302	8.47
70) TP	1,3-Dichloropr		0.367	0.389	0.397	0.386	0.392	0.327	0.403	0.380	6.83
71) TP	1,2-Dibromoethane		0.241	0.246	0.245	0.242	0.250	0.211	0.257	0.242	6.11
72) TP	2-Hexanone		0.159	0.134	0.135	0.148	0.145	0.123	0.151	0.142	8.54
73) TP	Chlorobenzene		0.704	0.802	0.813	0.790	0.801	0.673	0.839	0.775	7.92
74) TP	Ethylbenzene		1.116	1.365	1.404	1.372	1.389	1.178	1.465	1.327	9.70
75) TP	1,1,1,2-Tetrac		0.230	0.294	0.301	0.303	0.310	0.258	0.321	0.288	11.16
76) TP	p/m Xylene		0.438	0.518	0.557	0.544	0.554	0.468	0.593	0.525	10.39
77) TP	o Xylene		0.426	0.524	0.538	0.525	0.530	0.446	0.567	0.508	10.15
78) TP	Styrene		0.686	0.836	0.902	0.891	0.920	0.779	1.014	0.861	12.32
79) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80) TP	Bromoform		0.330	0.332	0.345	0.368	0.372	0.325	0.408	0.354	8.43
82) TP	Isopropylbenzene		1.696	2.246	2.377	2.403	2.343	2.056	2.540	2.237	12.60
83) S	4-Bromofluorobenzene	0.840	0.858	0.860	0.809	0.839	0.814	0.843	0.820	0.835	2.31
84) TP	Bromobenzene		0.578	0.641	0.639	0.638	0.629	0.541	0.664	0.619	6.94

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445487**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21287**
Calibration dates	**: 07/12/24 21:20 07/13/24 00:56**		

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
85) TP	n-Propylbenzene		2.100	2.663	2.727	2.750	2.704	2.365	2.933	2.606	10.73
86) TP	1,4-Dichlorobu		0.723	0.770	0.719	0.709	0.709	0.618	0.776	0.718	7.24
87) TP	1,1,2,2-Tetrac		0.515	0.495	0.493	0.507	0.497	0.443	0.530	0.497	5.44
88) TP	4-Ethyltoluene		1.755	2.192	2.303	2.301	2.260	1.982	2.456	2.179	10.80
89) TP	2-Chlorotoluene		1.433	1.674	1.648	1.628	1.612	1.414	1.779	1.598	8.22
90) TP	1,3,5-Trimethy		1.589	1.978	2.035	2.015	1.977	1.723	2.181	1.929	10.48
91) TP	1,2,3-Trichlor		0.421	0.448	0.417	0.408	0.407	0.357	0.452	0.416	7.60
92) TP	trans-1,4-Dich		0.098	0.090	0.103	0.115	0.127	0.115	0.149	0.114	17.34
93) TP	4-Chlorotoluene		1.409	1.669	1.738	1.694	1.690	1.470	1.847	1.645	9.31
94) TP	tert-Butylbenzene		1.193	1.577	1.675	1.680	1.631	1.411	1.743	1.559	12.38
97) TP	1,2,4-Trimethy		1.561	1.932	2.022	1.989	1.960	1.715	2.121	1.900	10.20
98) TP	sec-Butylbenzene		1.744	2.245	2.376	2.373	2.310	2.014	2.458	2.217	11.38
99) TP	p-Isopropyltol		1.451	1.944	2.048	2.063	2.024	1.761	2.183	1.925	12.77
100) TP	1,3-Dichlorobe		1.005	1.162	1.195	1.185	1.157	1.006	1.245	1.136	8.27
101) TP	1,4-Dichlorobe		1.065	1.241	1.216	1.201	1.179	1.026	1.266	1.170	7.75
102) TP	p-Diethylbenzene		0.812	1.117	1.183	1.187	1.167	1.010	1.264	1.106	13.67
103) TP	n-Butylbenzene		1.116	1.529	1.621	1.628	1.599	1.409	1.752	1.522	13.62
104) TP	1,2-Dichlorobe		0.974	1.109	1.132	1.129	1.108	0.955	1.181	1.084	7.87
105) TP	1,2,4,5-Tetram		1.330	1.611	1.676	1.726	1.759	1.528	1.955	1.655	11.84
106) TP	1,2-Dibromo-3-		0.092	0.087	0.087	0.096	0.095	0.085	0.105	0.092	7.58
107) TP	1,3,5-Trichlor		0.606	0.711	0.737	0.758	0.750	0.652	0.781	0.713	8.82
108) TP	Hexachlorobuta		0.149	0.190	0.199	0.217	0.218	0.192	0.234	0.200	13.72
109) TP	1,2,4-Trichlor		0.533	0.582	0.619	0.666	0.668	0.576	0.682	0.618	9.16
110) TP	Naphthalene		1.390	1.296	1.316	1.427	1.441	1.281	1.558	1.387	7.11
111) TP	1,2,3-Trichlor		0.469	0.501	0.514	0.539	0.546	0.477	0.550	0.514	6.42

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445487**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D

L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo			0.147	0.215	0.223	0.209	0.195	0.195	0.197	13.62
3)	TP	Chloromethane		0.252	0.295	0.303	0.277	0.253	0.239	0.225	0.263	10.94
4)	TP	Vinyl chloride	0.202	0.176	0.199	0.232	0.231	0.217	0.206	0.203	0.208	8.84
5)	TP	Bromomethane		0.070	0.076	0.075	0.079	0.088	0.095	0.102	0.084	14.11
6)	TP	Chloroethane		0.118	0.132	0.133	0.126	0.117	0.110	0.108	0.120	8.39
7)	TP	Trichlorofluor		0.144	0.179	0.257	0.263	0.252	0.238	0.239	*L	0.9987
8)	TP	Ethyl ether		0.067	0.069	0.073	0.070	0.071	0.070	0.068	0.070	2.76
10)	TP	1,1-Dichloroet		0.110	0.126	0.152	0.154	0.146	0.139	0.139	0.138	11.23
11)	TP	Carbon disulfide		0.404	0.455	0.510	0.491	0.451	0.438	0.433	0.454	7.85
12)	TP	Freon-113			0.097	0.154	0.159	0.150	0.147	0.151	0.143	16.09
13)	TP	Iodomethane			0.122	0.172	0.190	0.199	0.203	0.204	0.182	17.53
14)	TP	Acrolein		0.018	0.024	0.025	0.025	0.025	0.025	0.024	0.024	11.30
15)	TP	Methylene chlo		0.237	0.204	0.191	0.173	0.164	0.159	0.156	0.183	16.00
17)	TP	Acetone			0.040	0.035	0.033	0.032	0.031	0.030	0.033	10.98
18)	TP	trans-1,2-Dich		0.148	0.169	0.177	0.166	0.160	0.157	0.155	0.162	5.98
19)	TP	Methyl acetate		0.103	0.089	0.085	0.084	0.083	0.081	0.077	0.086	9.89
21)	TP	Methyl tert butyl ether		0.254	0.268	0.317	0.328	0.328	0.339	0.333	0.309	11.02
22)	TP	tert-Butyl alc		0.004	0.006	0.007	0.007	0.007	0.007	0.007	0.006#	15.62
24)	TP	Diisopropyl ether		0.493	0.543	0.594	0.622	0.617	0.616	0.586	0.581	8.17
25)	TP	1,1-Dichloroet		0.311	0.358	0.365	0.340	0.319	0.315	0.306	0.331	7.23
26)	TP	Halothane		0.096	0.110	0.132	0.127	0.127	0.126	0.126	0.121	10.56
27)	TP	Acrylonitrile		0.045	0.044	0.049	0.048	0.046	0.045	0.043	0.046	4.17
28)	TP	Ethyl tert-but		0.324	0.354	0.413	0.457	0.456	0.468	0.453	0.418	13.74
29)	TP	Vinyl acetate		0.273	0.289	0.353	0.379	0.386	0.385	0.367	0.348	13.51
30)	TP	cis-1,2-Dichlo		0.168	0.196	0.197	0.183	0.172	0.172	0.168	0.179#	6.96
31)	TP	2,2-Dichloropr		0.174	0.196	0.224	0.220	0.211	0.211	0.212	0.207	8.20
32)	TP	Bromochloromet		0.084	0.092	0.093	0.084	0.081	0.080	0.078	0.085#	6.73
33)	TP	Cyclohexane			0.183	0.351	0.378	0.354	0.352	0.353	*L	0.9993
34)	TP	Chloroform		0.283	0.310	0.303	0.286	0.274	0.278	0.268	0.286#	5.37
35)	TP	Ethyl acetate			0.096	0.111	0.116	0.118	0.118	0.114	0.112	7.47
36)	TP	Carbon tetrachloride	0.179	0.145	0.171	0.233	0.236	0.228	0.228	0.231	0.206	17.40
37)	TP	Tetrahydrofuran			0.035	0.038	0.038	0.037	0.037	0.036	0.037	3.72
38)	S	Dibromofluoromethane	0.356	0.382	0.381	0.359	0.339	0.326	0.329	0.324	0.349	6.78
39)	TP	1,1,1-Trichlor		0.184	0.221	0.263	0.260	0.255	0.254	0.252	0.241	11.85
41)	TP	2-Butanone			0.042	0.044	0.049	0.050	0.049	0.047	0.047	6.75

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445487**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D

L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
42) TP	1,1-Dichloropr		0.128	0.160	0.214	0.222	0.214	0.213	0.213	0.195	18.52
44) TP	Benzene	0.577	0.517	0.672	0.656	0.692	0.662	0.658	0.633	0.633	9.17
45) TP	Tertiary-Amyl Methyl Ether		0.172	0.171	0.190	0.208	0.218	0.230	0.228	0.202	12.43
46) S	1,2-Dichloroethane-d4	0.286	0.306	0.301	0.305	0.293	0.289	0.294	0.289	0.295	2.57
47) T	1,2-Dichloroet		0.154	0.165	0.170	0.162	0.154	0.154	0.149	0.158	4.65
50) TP	Methyl cyclohe			0.094	0.200	0.226	0.224	0.233	0.238	*L	0.9996
51) TP	Trichloroethene	0.133	0.113	0.124	0.143	0.143	0.140	0.141	0.141	0.135#	8.23
53) TP	Dibromomethane		0.065	0.068	0.071	0.070	0.068	0.069	0.067	0.068	2.99
54) TP	1,2-Dichloropr		0.115	0.131	0.154	0.152	0.147	0.147	0.143	0.141#	9.64
56) TP	2-Chloroethyl		0.039	0.041	0.053	0.059	0.063	0.063	0.061	0.054	18.80
57) TP	Bromodichlorom		0.138	0.157	0.175	0.176	0.174	0.176	0.173	0.167#	8.74
60) TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.34
61) TP	cis-1,3-Dichloropropene	0.121	0.126	0.149	0.186	0.197	0.199	0.201	0.197	0.172#	19.89
62) I	Chlorobenzene-d5	----------ISTD----------									
63) S	Toluene-d8	1.265	1.258	1.267	1.262	1.281	1.288	1.295	1.276	1.274	1.03
64) TP	Toluene		0.347	0.400	0.427	0.437	0.427	0.429	0.416	0.412	7.55
65) TP	4-Methyl-2-pen			0.023	0.028	0.034	0.037	0.038	0.037	0.033	18.50
66) TP	Tetrachloroethene		0.107	0.132	0.169	0.181	0.179	0.181	0.181	0.162	18.41
68) TP	trans-1,3-Dichloropropene		0.112	0.139	0.175	0.208	0.214	0.217	0.212	*L	0.9992
70) TP	Ethyl methacry			0.090	0.124	0.141	0.147	0.149	0.144	0.133	17.01
71) TP	1,1,2-Trichlor		0.072	0.079	0.094	0.102	0.111	0.111	0.108	0.097#	16.46
72) TP	Chlorodibromom		0.089	0.117	0.139	0.157	0.162	0.164	0.161	*L	0.9995
73) TP	1,3-Dichloropr		0.151	0.163	0.188	0.207	0.208	0.208	0.200	0.190	12.35
74) TP	1,2-Dibromoethane		0.077	0.089	0.107	0.119	0.123	0.123	0.120	0.108#	16.86
76) TP	2-Hexanone			0.045	0.055	0.064	0.069	0.069	0.066	0.061	15.23
77) TP	Chlorobenzene		0.417	0.478	0.486	0.486	0.471	0.470	0.458	0.467	5.15
78) TP	Ethylbenzene		0.611	0.710	0.850	0.854	0.821	0.817	0.780	0.778	11.36
79) TP	1,1,1,2-Tetrac		0.107	0.127	0.144	0.161	0.166	0.168	0.166	0.148	15.82
80) TP	p/m Xylene		0.220	0.271	0.332	0.334	0.323	0.322	0.310	0.302	13.84
81) TP	o Xylene		0.200	0.259	0.313	0.315	0.308	0.308	0.296	0.285	14.79
82) TP	Styrene		0.304	0.416	0.503	0.521	0.507	0.499	0.464	0.459	16.79
83) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
84) TP	Bromoform		0.110	0.118	0.137	0.162	0.172	0.176	0.179	0.150	19.06
86) TP	Isopropylbenzene		1.046	1.323	1.726	1.771	1.679	1.676	1.637	1.551	17.18
87) S	4-Bromofluorobenzene	0.911	0.911	0.900	0.932	0.924	0.900	0.900	0.908	0.911	1.31
88) TP	Bromobenzene		0.335	0.355	0.374	0.380	0.370	0.371	0.370	0.365	4.18

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445487**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
89) TP	n-Propylbenzene		1.282	1.530	1.993	2.048	1.948	1.952	1.864	1.802	15.83
90) TP	1,4-Dichlorobu		0.423	0.442	0.474	0.497	0.492	0.489	0.483	0.472	5.94
91) TP	1,1,2,2-Tetrac		0.237	0.231	0.246	0.267	0.266	0.266	0.263	0.254	6.06
92) TP	4-Ethyltoluene		1.049	1.261	1.602	1.644	1.579	1.593	1.555	1.469	15.29
93) TP	2-Chlorotoluene		0.883	1.048	1.156	1.157	1.108	1.131	1.117	1.086	8.88
94) TP	1,3,5-Trimethy		0.876	1.095	1.350	1.365	1.327	1.358	1.343	1.245	15.14
95) TP	1,2,3-Trichlor		0.162	0.186	0.191	0.205	0.202	0.204	0.205	0.194	8.07
96) TP	trans-1,4-Dich		0.063	0.078	0.083	0.094	0.095	0.096	0.095	0.086	14.50
97) TP	4-Chlorotoluene		0.906	1.071	1.192	1.204	1.158	1.166	1.146	1.121	9.26
98) TP	tert-Butylbenzene		0.714	0.853	1.187	1.236	1.189	1.202	1.183	1.081	19.23
101) TP	1,2,4-Trimethy		0.970	1.245	1.527	1.538	1.479	1.505	1.471	1.391	15.13
102) TP	sec-Butylbenzene		0.953	1.168	1.721	1.779	1.693	1.711	1.646	*L	0.9992
103) TP	p-Isopropyltol		0.760	0.980	1.439	1.476	1.423	1.444	1.406	*L	0.9995
104) TP	1,3-Dichlorobe		0.643	0.722	0.760	0.757	0.734	0.732	0.718	0.724	5.42
105) TP	1,4-Dichlorobe		0.681	0.712	0.743	0.738	0.714	0.722	0.712	0.718	2.86
106) TP	p-Diethylbenzene			0.566	0.809	0.846	0.825	0.842	0.840	0.788	13.93
107) TP	n-Butylbenzene		0.629	0.830	1.214	1.226	1.171	1.197	1.177	*L	0.9996
108) TP	1,2-Dichlorobe		0.568	0.628	0.667	0.670	0.653	0.655	0.639	0.640	5.50
109) TP	1,2,4,5-Tetram			0.737	1.085	1.193	1.167	1.175	1.128	1.081	16.00
110) TP	1,2-Dibromo-3-		0.007	0.027	0.033	0.037	0.040	0.040	0.040	*L	0.9993
111) TP	1,3,5-Trichlor		0.347	0.382	0.443	0.449	0.433	0.439	0.427	0.417	9.11
112) TP	Hexachlorobuta		0.091	0.104	0.150	0.152	0.147	0.155	0.160	*L	0.9989
113) TP	1,2,4-Trichlor		0.285	0.311	0.368	0.385	0.380	0.381	0.374	0.355#	11.26
114) TP	Naphthalene		0.486	0.583	0.770	0.883	0.870	0.861	0.815	*L	0.9987
115) TP	1,2,3-Trichlor		0.237	0.280	0.315	0.328	0.320	0.320	0.310	0.301#	10.69

Response Factor Report Gonzo

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo...		0.203	0.284	0.294	0.290	0.281	0.234	0.273	0.265	12.90
3)	TP	Chloromethane		0.237	0.243	0.227	0.229	0.227	0.190	0.236	0.227	7.62
4)	TP	Vinyl chloride	0.191	0.177	0.268	0.263	0.256	0.251	0.211	0.266	0.235	15.50
5)	TP	Bromomethane		0.089	0.117	0.124	0.130	0.151	0.136		0.125	16.72
6)	TP	Chloroethane		0.165	0.201	0.188	0.190	0.192	0.160	0.163	0.180	9.11
7)	TP	Trichlorofluor...		0.246	0.359	0.340	0.382	0.375	0.318	0.394	0.345	14.74
8)	TP	Ethyl ether		0.107	0.125	0.114	0.114	0.117	0.100	0.124	0.115	7.96
10)	TP	1,1-Dichloroet...		0.136	0.194	0.200	0.204	0.202	0.172	0.216	0.189	14.31
11)	TP	Carbon disulfide		0.447	0.585	0.573	0.562	0.581	0.503	0.644	0.556	11.38
12)	TP	Freon-113		0.150	0.220	0.215	0.226	0.224	0.188	0.228	0.208	13.82
13)	TP	Iodomethane			0.298	0.350	0.383	0.407	0.333	0.421	0.365	12.81
14)	TP	Acrolein		0.034	0.029	0.034	0.032	0.034	0.029	0.036	0.033	8.15
15)	TP	Methylene chlo...		0.251	0.229	0.224	0.219	0.223	0.186	0.233	0.224	8.80
17)	TP	Acetone			0.075	0.048	0.051	0.050	0.042	0.052	*L	0.9901
18)	TP	trans-1,2-Dich...		0.159	0.222	0.218	0.215	0.219	0.182	0.233	0.207	12.68
19)	TP	Methyl acetate			0.154	0.111	0.107	0.110	0.092	0.115	0.115	17.92
20)	TP	Methyl tert-bu...		0.590	0.643	0.631	0.652	0.672	0.559	0.708	0.636	7.82
21)	TP	tert-Butyl alc...		0.016	0.017	0.017	0.018	0.019	0.016	0.020	0.018	8.32
22)	TP	Diisopropyl ether		0.541	0.639	0.669	0.682	0.702	0.582	0.734	0.650	10.50
23)	TP	1,1-Dichloroet...		0.306	0.400	0.395	0.386	0.395	0.331	0.410	0.375	10.68
24)	TP	Halothane		0.143	0.173	0.180	0.180	0.182	0.153	0.192	0.172	10.04
25)	TP	Acrylonitrile			0.052	0.058	0.059	0.063	0.053	0.067	0.058	10.02
26)	TP	Ethyl tert-but...		0.551	0.632	0.643	0.664	0.687	0.570	0.728	0.639	9.79
27)	TP	Vinyl acetate		0.286	0.333	0.370	0.382	0.372	0.337	0.351	0.347	9.47
28)	TP	cis-1,2-Dichlo...		0.198	0.259	0.245	0.246	0.248	0.208	0.263	0.238	10.52
29)	TP	2,2-Dichloropr...		0.292	0.331	0.321	0.320	0.324	0.267	0.333	0.313	7.81
30)	TP	Bromochloromet...		0.110	0.121	0.121	0.119	0.121	0.100	0.123	0.116	7.32
31)	TP	Cyclohexane		0.258	0.366	0.374	0.400	0.384	0.321	0.385	0.356	13.97
32)	TP	Chloroform		0.339	0.386	0.407	0.392	0.405	0.331	0.426	0.384	9.27
33)	TP	Ethyl acetate			0.167	0.162	0.175	0.179	0.150	0.186	0.170	7.75

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
34)	TP	Carbon tetrach...	0.226	0.257	0.327	0.345	0.346	0.343	0.287	0.356	0.311	15.54
35)	TP	Tetrahydrofuran		0.061	0.059	0.056	0.055	0.046	0.057	0.056		9.03
36)	S	Dibromofluorom...	0.266	0.264	0.262	0.260	0.260	0.258	0.259	0.263	0.261	1.02
37)	TP	1,1,1-Trichlor...		0.286	0.360	0.374	0.377	0.377	0.314	0.390	0.354	10.89
39)	TP	2-Butanone			0.055	0.072	0.076	0.080	0.067	0.084	0.073	14.30
40)	TP	1,1-Dichloropr...		0.207	0.287	0.297	0.312	0.305	0.256	0.317	0.283	13.83
41)	TP	Benzene	0.745	0.717	0.890	0.923	0.917	0.917	0.768	0.976	0.857	11.42
42)	TP	tert-Amyl meth...		0.544	0.559	0.586	0.605	0.621	0.519	0.662	0.585	8.39
43)	S	1,2-Dichloroet...	0.288	0.279	0.281	0.289	0.268	0.272	0.264	0.278	0.277	3.23
44)	TP	1,2-Dichloroet...		0.270	0.289	0.274	0.278	0.279	0.231	0.290	0.273	7.30
47)	TP	Methyl cyclohe...		0.234	0.330	0.364	0.384	0.364	0.301	0.353	0.333	15.41
48)	TP	Trichloroethene	0.246	0.210	0.248	0.249	0.253	0.250	0.207	0.270	0.242	9.05
50)	TP	Dibromomethane		0.135	0.140	0.139	0.136	0.137	0.114	0.144	0.135	7.28
51)	TP	1,2-Dichloropr...		0.171	0.219	0.220	0.219	0.221	0.183	0.231	0.209	10.76
53)	TP	2-Chloroethyl ...		0.109	0.117	0.122	0.135	0.140	0.117	0.146	0.126	10.96
54)	TP	Bromodichlorom...		0.278	0.312	0.313	0.314	0.321	0.264	0.334	0.305	8.10
57)	TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.92
58)	TP	cis-1,3-Dichlo...		0.308	0.338	0.350	0.350	0.359	0.301	0.383	0.341	8.39
59)	I	Chlorobenzene-d5	----------ISTD----------									
60)	S	Toluene-d8	1.258	1.266	1.270	1.267	1.248	1.246	1.258	1.232	1.255	1.03
61)	TP	Toluene		0.628	0.724	0.733	0.716	0.720	0.606	0.738	0.695	7.82
62)	TP	4-Methyl-2-pen...		0.061	0.077	0.079	0.081	0.083	0.070	0.086	0.077	11.14
63)	TP	Tetrachloroethene		0.238	0.323	0.326	0.324	0.321	0.274	0.329	0.305	11.51
65)	TP	trans-1,3-Dich...		0.347	0.369	0.394	0.389	0.403	0.341	0.421	0.380	7.79
67)	TP	Ethyl methacry...		0.299	0.305	0.320	0.331	0.340	0.287	0.358	0.320	7.77
68)	TP	1,1,2-Trichlor...		0.191	0.188	0.193	0.193	0.198	0.166	0.207	0.191#	6.61
69)	TP	Chlorodibromom...		0.263	0.303	0.312	0.311	0.320	0.270	0.331	0.302	8.47
70)	TP	1,3-Dichloropr...		0.367	0.389	0.397	0.386	0.392	0.327	0.403	0.380	6.83
71)	TP	1,2-Dibromoethane		0.241	0.246	0.245	0.242	0.250	0.211	0.257	0.242	6.11
72)	TP	2-Hexanone		0.159	0.134	0.135	0.148	0.145	0.123	0.151	0.142	8.54
73)	TP	Chlorobenzene		0.704	0.802	0.813	0.790	0.801	0.673	0.839	0.775	7.92

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
74)	TP	Ethylbenzene		1.116	1.365	1.404	1.372	1.389	1.178	1.465	1.327	9.70
75)	TP	1,1,1,2-Tetrac...		0.230	0.294	0.301	0.303	0.310	0.258	0.321	0.288	11.16
76)	TP	p/m Xylene		0.438	0.518	0.557	0.544	0.554	0.468	0.593	0.525	10.39
77)	TP	o Xylene		0.426	0.524	0.538	0.525	0.530	0.446	0.567	0.508	10.15
78)	TP	Styrene		0.686	0.836	0.902	0.891	0.920	0.779	1.014	0.861	12.32
79)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80)	TP	Bromoform		0.330	0.332	0.345	0.368	0.372	0.325	0.408	0.354	8.43
82)	TP	Isopropylbenzene		1.696	2.246	2.377	2.403	2.343	2.056	2.540	2.237	12.60
83)	S	4-Bromofluorob...	0.840	0.858	0.860	0.809	0.839	0.814	0.843	0.820	0.835	2.31
84)	TP	Bromobenzene		0.578	0.641	0.639	0.638	0.629	0.541	0.664	0.619	6.94
85)	TP	n-Propylbenzene		2.100	2.663	2.727	2.750	2.704	2.365	2.933	2.606	10.73
86)	TP	1,4-Dichlorobu...		0.723	0.770	0.719	0.709	0.709	0.618	0.776	0.718	7.24
87)	TP	1,1,2,2-Tetrac...		0.515	0.495	0.493	0.507	0.497	0.443	0.530	0.497	5.44
88)	TP	4-Ethyltoluene		1.755	2.192	2.303	2.301	2.260	1.982	2.456	2.179	10.80
89)	TP	2-Chlorotoluene		1.433	1.674	1.648	1.628	1.612	1.414	1.779	1.598	8.22
90)	TP	1,3,5-Trimethy...		1.589	1.978	2.035	2.015	1.977	1.723	2.181	1.929	10.48
91)	TP	1,2,3-Trichlor...		0.421	0.448	0.417	0.408	0.407	0.357	0.452	0.416	7.60
92)	TP	trans-1,4-Dich...		0.098	0.090	0.103	0.115	0.127	0.115	0.149	0.114	17.34
93)	TP	4-Chlorotoluene		1.409	1.669	1.738	1.694	1.690	1.470	1.847	1.645	9.31
94)	TP	tert-Butylbenzene		1.193	1.577	1.675	1.680	1.631	1.411	1.743	1.559	12.38
97)	TP	1,2,4-Trimethy...		1.561	1.932	2.022	1.989	1.960	1.715	2.121	1.900	10.20
98)	TP	sec-Butylbenzene		1.744	2.245	2.376	2.373	2.310	2.014	2.458	2.217	11.38
99)	TP	p-Isopropyltol...		1.451	1.944	2.048	2.063	2.024	1.761	2.183	1.925	12.77
100)	TP	1,3-Dichlorobe...		1.005	1.162	1.195	1.185	1.157	1.006	1.245	1.136	8.27
101)	TP	1,4-Dichlorobe...		1.065	1.241	1.216	1.201	1.179	1.026	1.266	1.170	7.75
102)	TP	p-Diethylbenzene		0.812	1.117	1.183	1.187	1.167	1.010	1.264	1.106	13.67
103)	TP	n-Butylbenzene		1.116	1.529	1.621	1.628	1.599	1.409	1.752	1.522	13.62
104)	TP	1,2-Dichlorobe...		0.974	1.109	1.132	1.129	1.108	0.955	1.181	1.084	7.87
105)	TP	1,2,4,5-Tetram...		1.330	1.611	1.676	1.726	1.759	1.528	1.955	1.655	11.84
106)	TP	1,2-Dibromo-3-...		0.092	0.087	0.087	0.096	0.095	0.085	0.105	0.092	7.58
107)	TP	1,3,5-Trichlor...		0.606	0.711	0.737	0.758	0.750	0.652	0.781	0.713	8.82

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

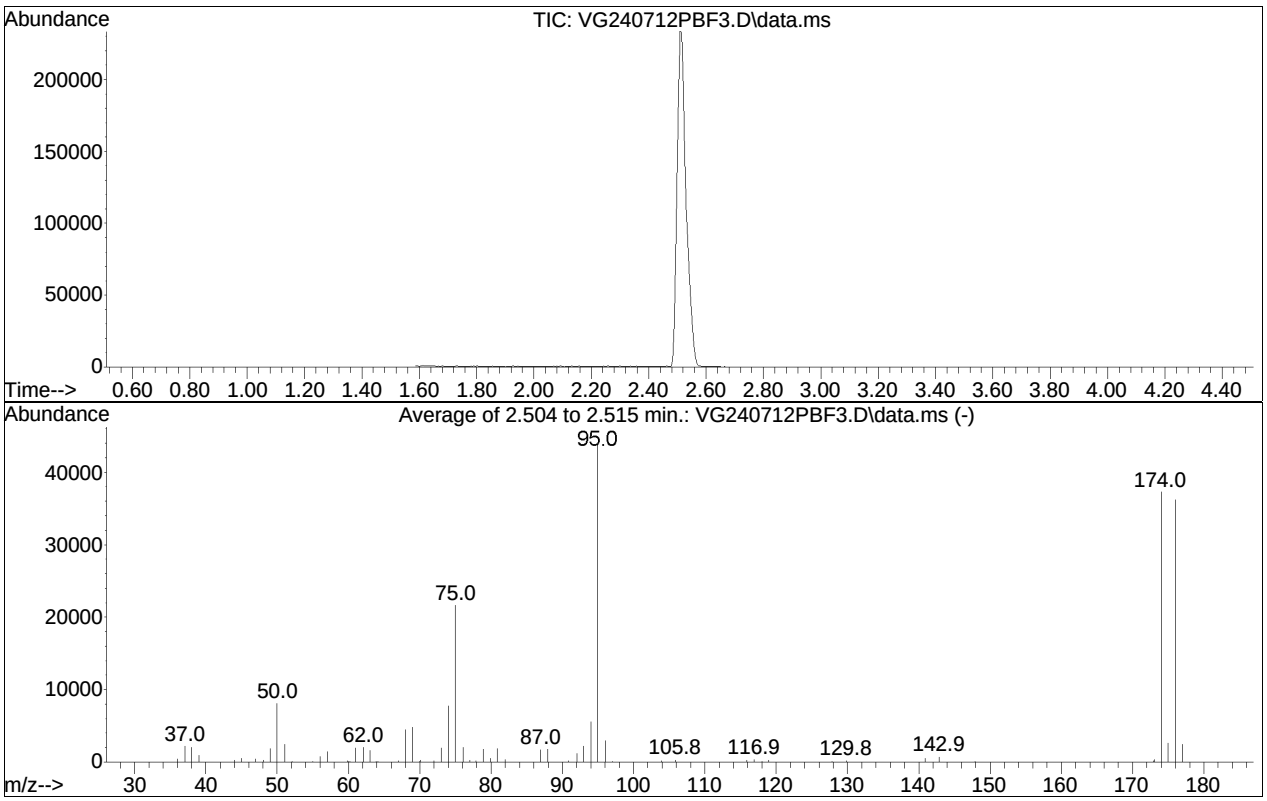
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
108)	TP Hexachlorobuta...	0.149	0.190	0.199	0.217	0.218	0.192	0.234	0.200	13.72	
109)	TP 1,2,4-Trichlor...	0.533	0.582	0.619	0.666	0.668	0.576	0.682	0.618	9.16	
110)	TP Naphthalene	1.390	1.296	1.316	1.427	1.441	1.281	1.558	1.387	7.11	
111)	TP 1,2,3-Trichlor...	0.469	0.501	0.514	0.539	0.546	0.477	0.550	0.514	6.42	

(#) = Out of Range

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712PBF3.D
Acq On : 12 Jul 2024 8:14 pm
Operator : GONZO:LAC
Sample : WG1947004-1
Misc : WG1947004
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024



AutoFind: Scans 176, 177, 178; Background Corrected with Scan 168

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	8143	PASS
75	95	30	60	49.1	21632	PASS
95	95	100	100	100.0	44088	PASS
96	95	5	9	6.7	2957	PASS
173	174	0.00	2	1.0	377	PASS
174	95	50	100	84.6	37320	PASS
175	174	5	9	7.0	2610	PASS
176	174	95	101	97.1	36251	PASS
177	176	5	9	6.8	2465	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P03.D
Acq On : 12 Jul 2024 9:20 pm
Operator : GONZO:PID
Sample : I8260STD0.19PPB
Misc : WG1947004,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 15 09:37:31 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-L11 - Level 11 for 8260-LRR product

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	310780	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery =	87.72%		
59) Chlorobenzene-d5	9.629	117	249910	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery =	90.23%		
79) 1,4-Dichlorobenzene-d4	12.311	152	134693	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery =	84.16%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	82545	10.169	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.69%		
43) 1,2-Dichloroethane-d4	5.805	65	89609	10.392	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.92%		
60) Toluene-d8	7.779	98	314288	10.018	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.18%		
83) 4-Bromofluorobenzene	11.110	95	113149	10.058	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.58%		
Target Compounds						Qvalue
4) Vinyl chloride	1.946	62	1126M6	0.154	ug/L	
34) Carbon tetrachloride	5.228	117	1334	0.138	ug/L #	80
41) Benzene	5.668	78	4399	0.165	ug/L #	87
48) Trichloroethene	6.268	95	1454	0.194	ug/L	90

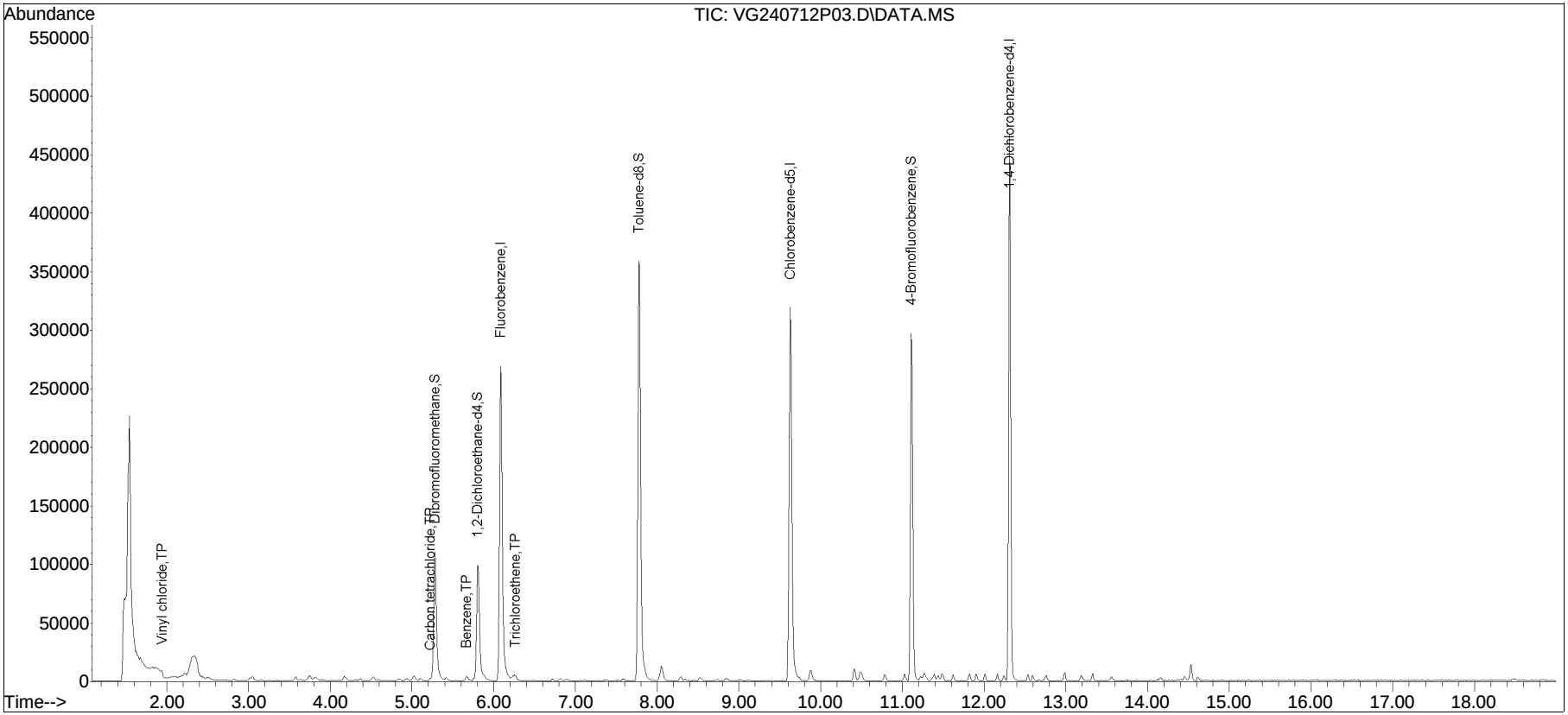
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P03.D
Acq On : 12 Jul 2024 9:20 pm
Operator : GONZO:PID
Sample : I8260STD0.19PPB
Misc : WG1947004,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 15 09:37:31 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

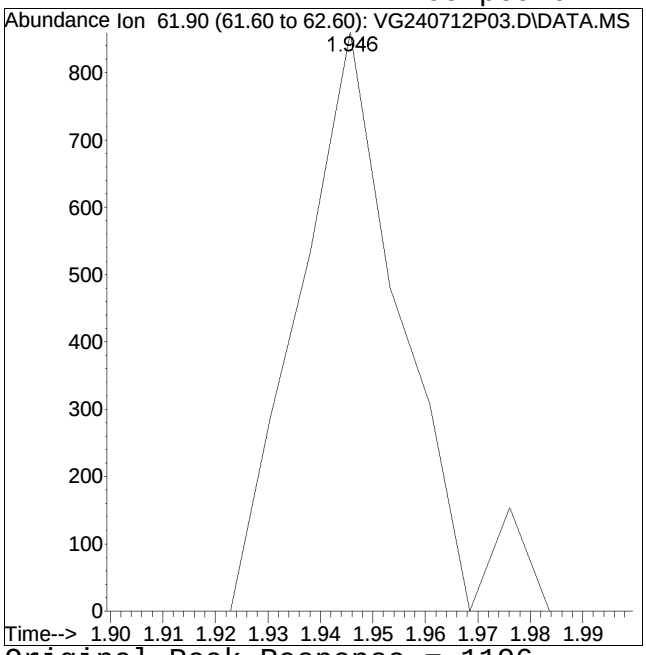
Sub List : 8260-L11 - Level 11 for 8260-LRR product8.D•



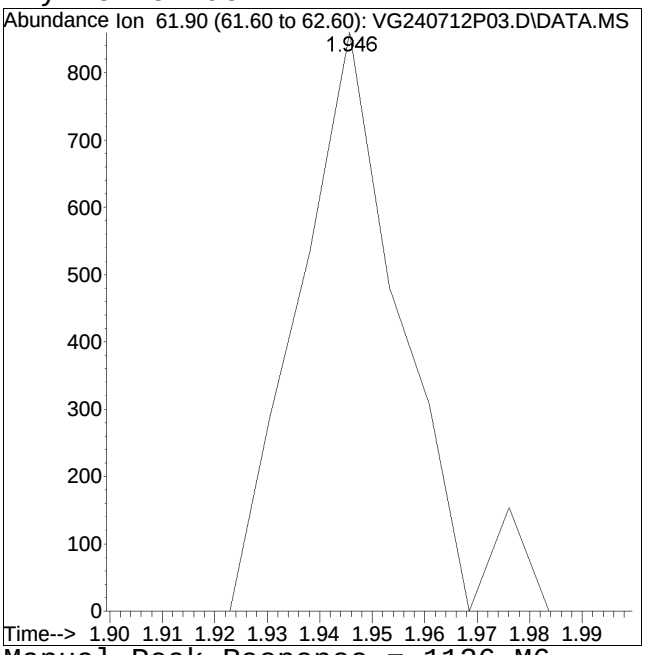
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P03.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 9:20 pm Instrument : Gonzo
Sample : I8260STD0.19PPB Quant Date : 7/15/2024 9:37 am

Compound #4: Vinyl chloride



Original Peak Response = 1196



Manual Peak Response = 1126 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	335173	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery =	94.60%		
59) Chlorobenzene-d5	9.629	117	262430	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery =	94.75%		
79) 1,4-Dichlorobenzene-d4	12.311	152	142379	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery =	88.97%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	88340	10.091	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.91%		
43) 1,2-Dichloroethane-d4	5.805	65	93465	10.050	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.50%		
60) Toluene-d8	7.779	98	332128	10.081	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.81%		
83) 4-Bromofluorobenzene	11.110	95	122190	10.275	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.75%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.680	85	3395	0.382	ug/L	94
3) Chloromethane	1.893	50	3979M6	0.523	ug/L	
4) Vinyl chloride	1.946	62	2973	0.377	ug/L	94
5) Bromomethane	2.257	94	1496M3	0.336	ug/L	
6) Chloroethane	2.371	64	2770	0.459	ug/L	89
7) Trichlorofluoromethane	2.516	101	4120	0.356	ug/L	96
8) Ethyl ether	2.819	74	1796	0.468	ug/L #	73
10) 1,1-Dichloroethene	3.017	96	2275	0.359	ug/L	97
11) Carbon disulfide	3.047	76	7497	0.402	ug/L	98
12) Freon-113	3.047	101	2519	0.362	ug/L #	70
13) Iodomethane	3.154	142	3499	0.305	ug/L	96
14) Acrolein	3.366	56	569M6	0.522	ug/L	
15) Methylene chloride	3.572	84	4200	0.560	ug/L	91
17) Acetone	3.640	43	2464M6	1.106	ug/L	
18) trans-1,2-Dichloroethene	3.739	96	2668	0.385	ug/L	90
19) Methyl acetate	3.754	43	5881M6	1.180	ug/L	
20) Methyl tert-butyl ether	3.822	73	9884	0.463	ug/L #	81
21) tert-Butyl alcohol	3.913	59	1371	2.317	ug/L #	71
22) Diisopropyl ether	4.179	45	9064	0.416	ug/L #	87
23) 1,1-Dichloroethane	4.316	63	5121	0.408	ug/L	95
24) Halothane	4.354	117	2400	0.417	ug/L	81

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	0.000		0	N.D.	d		
26) Ethyl tert-butyl ether	4.521	59	9240	0.431	ug/L	#	73
27) Vinyl acetate	4.567	43	4789M3	0.411	ug/L		
28) cis-1,2-Dichloroethene	4.840	96	3318	0.416	ug/L		93
29) 2,2-Dichloropropane	4.924	77	4893	0.467	ug/L		97
30) Bromochloromethane	5.030	128	1836	0.471	ug/L	#	81
31) Cyclohexane	5.023	56	4324	0.363	ug/L		87
32) Chloroform	5.099	83	5683	0.442	ug/L		96
33) Ethyl acetate	0.000		0	N.D.	d		
34) Carbon tetrachloride	5.235	117	4313	0.414	ug/L		98
35) Tetrahydrofuran	5.243	42	1660	0.801	ug/L	#	54
37) 1,1,1-Trichloroethane	5.288	97	4794	0.404	ug/L		96
39) 2-Butanone	0.000		0	N.D.	d		
40) 1,1-Dichloropropene	5.425	75	3465	0.365	ug/L		97
41) Benzene	5.668	78	12021	0.419	ug/L		98
42) tert-Amyl methyl ether	5.775	73	9109	0.465	ug/L		92
44) 1,2-Dichloroethane	5.881	62	4529	0.495	ug/L		96
47) Methyl cyclohexane	6.253	83	3917	0.351	ug/L	#	79
48) Trichloroethene	6.276	95	3511	0.434	ug/L		85
50) Dibromomethane	6.724	93	2256	0.498	ug/L		96
51) 1,2-Dichloropropane	6.816	63	2871	0.410	ug/L		96
53) 2-Chloroethyl vinyl ether	7.514	63	1826	0.431	ug/L	#	84
54) Bromodichloromethane	6.884	83	4664	0.456	ug/L	#	93
57) 1,4-Dioxane	7.106	88	6862	96.286	ug/L		89
58) cis-1,3-Dichloropropene	7.586	75	5155	0.451	ug/L		96
61) Toluene	7.844	92	8239	0.452	ug/L		97
62) 4-Methyl-2-pentanone	8.288	58	798	0.397	ug/L	#	53
63) Tetrachloroethene	8.288	166	3122	0.390	ug/L		97
65) trans-1,3-Dichloropropene	8.345	75	4551	0.456	ug/L		97
67) Ethyl methacrylate	8.524	69	3918	0.467	ug/L		90
68) 1,1,2-Trichloroethane	8.517	83	2500	0.500	ug/L		98
69) Chlorodibromomethane	8.732	129	3450	0.436	ug/L		93
70) 1,3-Dichloropropane	8.839	76	4812	0.482	ug/L		95
71) 1,2-Dibromoethane	9.018	107	3162	0.498	ug/L		87
72) 2-Hexanone	9.298	43	2082	0.558	ug/L	#	63
73) Chlorobenzene	9.645	112	9242	0.455	ug/L	#	79
74) Ethylbenzene	9.686	91	14639	0.420	ug/L		98
75) 1,1,1,2-Tetrachloroethane	9.728	131	3019	0.399	ug/L	#	63
76) p/m Xylene	9.876	106	11498	0.835	ug/L		96
77) o Xylene	10.410	106	11190	0.839	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.484	104	18007	0.797	ug/L		94
80) Bromoform	10.509	173	2349	0.466	ug/L		98
82) Isopropylbenzene	10.789	105	12071	0.379	ug/L		92
84) Bromobenzene	11.225	156	4114	0.467	ug/L		99
85) n-Propylbenzene	11.266	91	14951	0.403	ug/L		99
86) 1,4-Dichlorobutane	11.291	55	5148	0.504	ug/L		92
87) 1,1,2,2-Tetrachloroethane	11.365	83	3665	0.518	ug/L		97
88) 4-Ethyltoluene	11.389	105	12497	0.403	ug/L		98
89) 2-Chlorotoluene	11.439	91	10202M4	0.448	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	11312	0.412	ug/L		97
91) 1,2,3-Trichloropropane	11.496	75	2998	0.506	ug/L		97
92) trans-1,4-Dichloro-2-b...	11.554	53	701M6	0.432	ug/L		
93) 4-Chlorotoluene	11.620	91	10033M6	0.428	ug/L		
94) tert-Butylbenzene	11.825	119	8494	0.383	ug/L		95
97) 1,2,4-Trimethylbenzene	11.899	105	11113	0.411	ug/L		98
98) sec-Butylbenzene	12.014	105	12415	0.393	ug/L		98
99) p-Isopropyltoluene	12.163	119	10327	0.377	ug/L		97
100) 1,3-Dichlorobenzene	12.245	146	7154	0.442	ug/L		98
101) 1,4-Dichlorobenzene	12.327	146	7579	0.455	ug/L	#	82
102) p-Diethylbenzene	12.533	119	5781	0.367	ug/L		95
103) n-Butylbenzene	12.590	91	7943	0.367	ug/L		96
104) 1,2-Dichlorobenzene	12.747	146	6935	0.449	ug/L		95
105) 1,2,4,5-Tetramethylben...	13.331	119	9465	0.402	ug/L		94
106) 1,2-Dibromo-3-chloropr...	13.536	155	655	0.499	ug/L		87
107) 1,3,5-Trichlorobenzene	13.561	180	4315	0.425	ug/L		96
108) Hexachlorobutadiene	14.120	225	1063	0.373	ug/L		93
109) 1,2,4-Trichlorobenzene	14.153	180	3793	0.431	ug/L	#	96
110) Naphthalene	14.449	128	9895	0.501	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	3339	0.456	ug/L		94

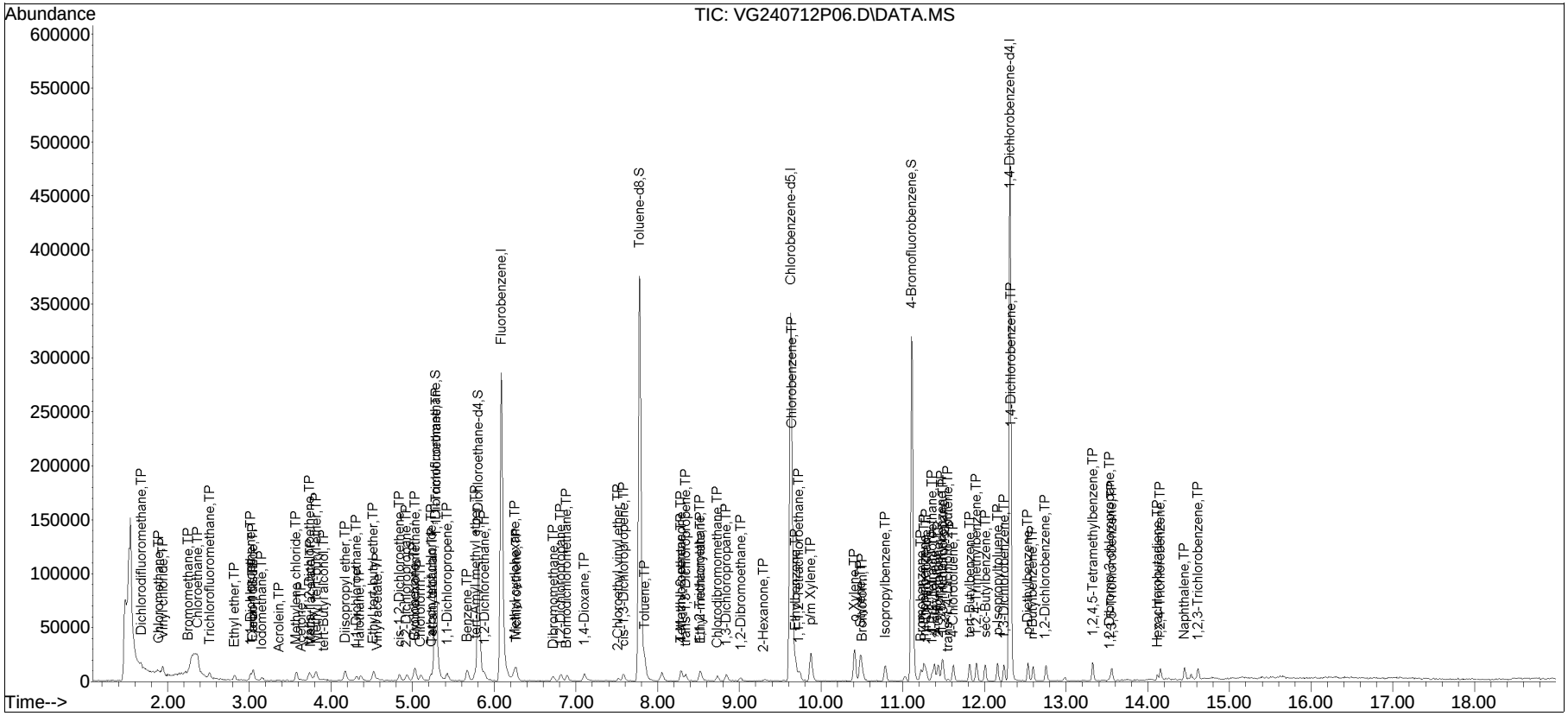
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

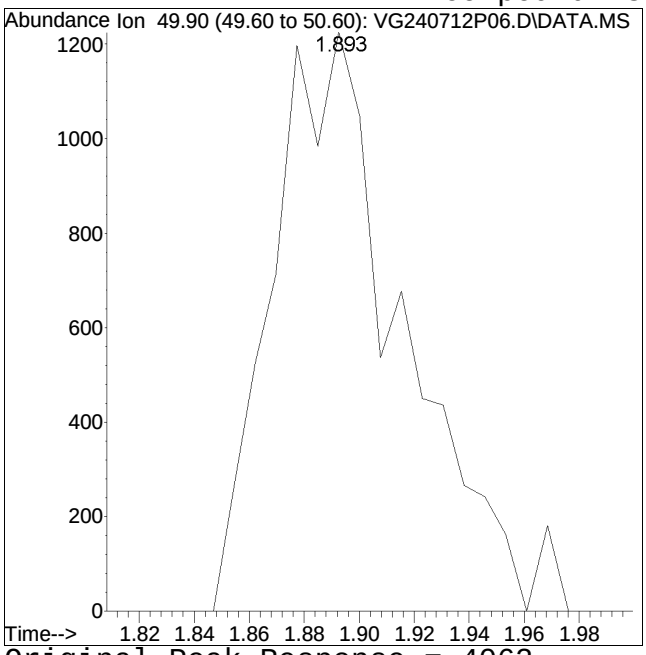
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



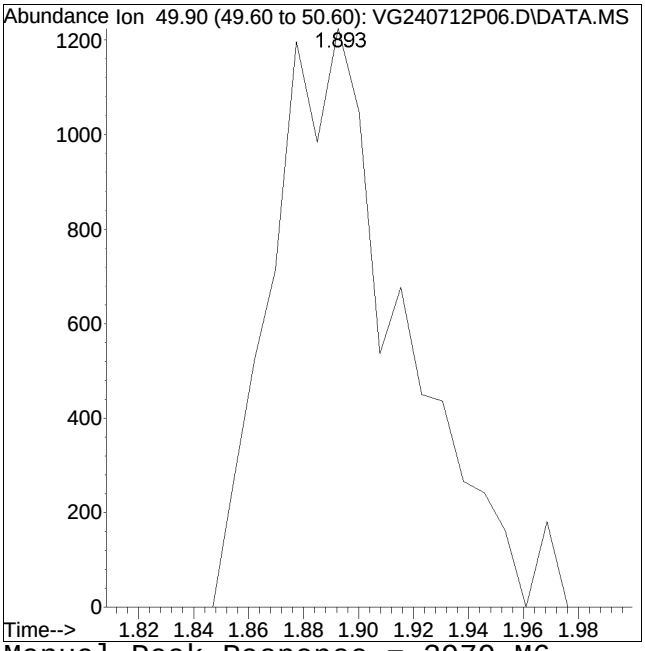
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #3: Chloromethane



Original Peak Response = 4062



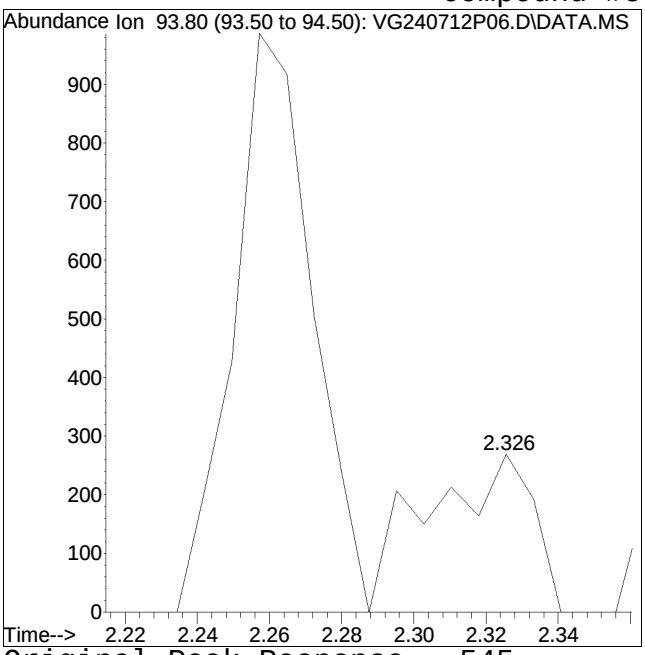
Manual Peak Response = 3979 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

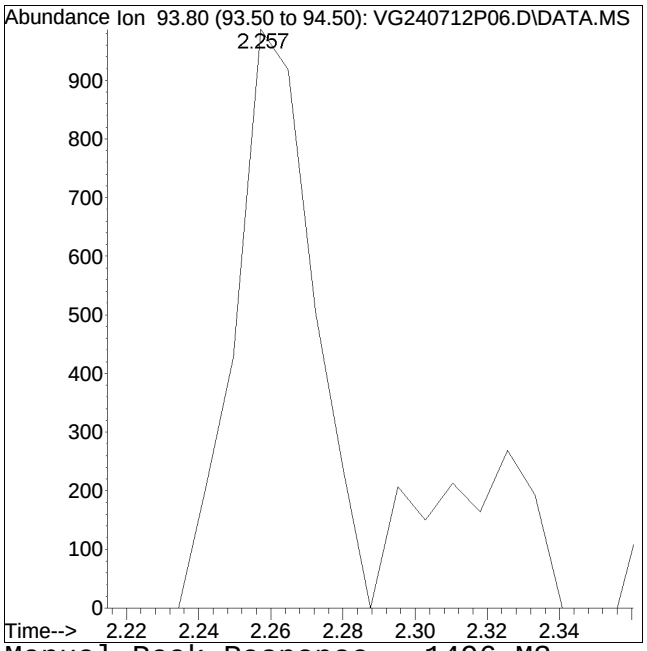
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #5: Bromomethane



Original Peak Response = 545



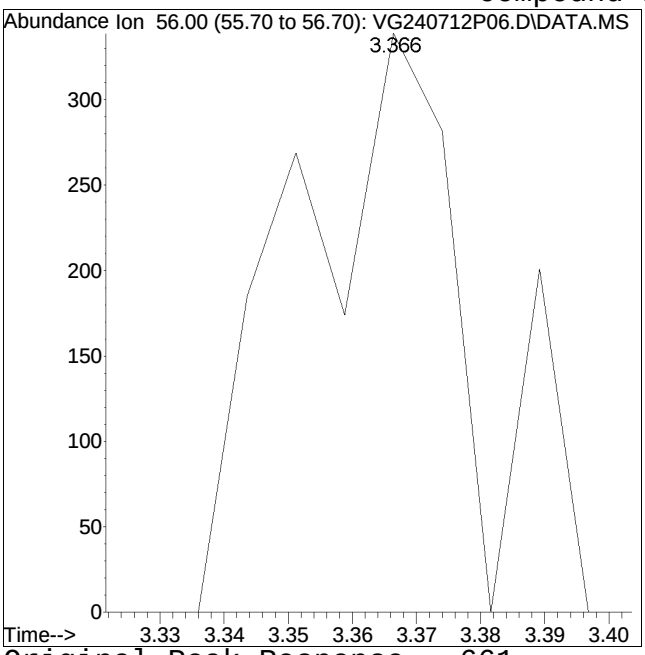
Manual Peak Response = 1496 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

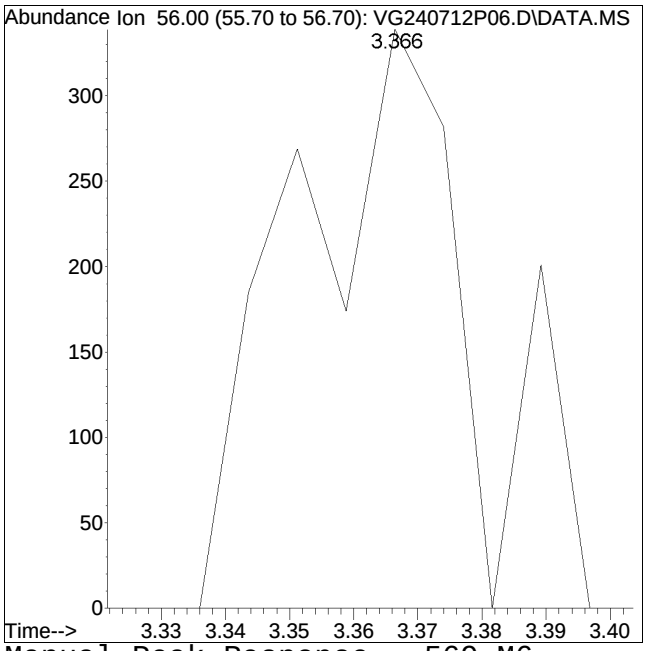
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #14: Acrolein



Original Peak Response = 661



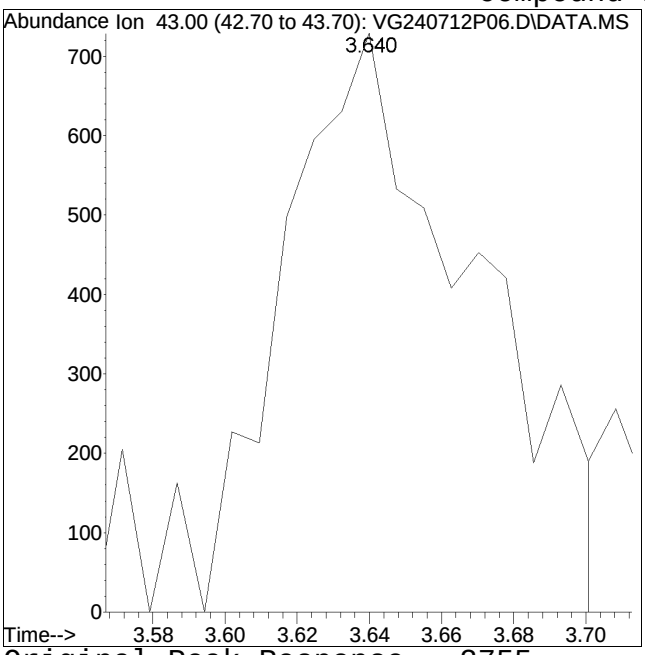
Manual Peak Response = 569 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

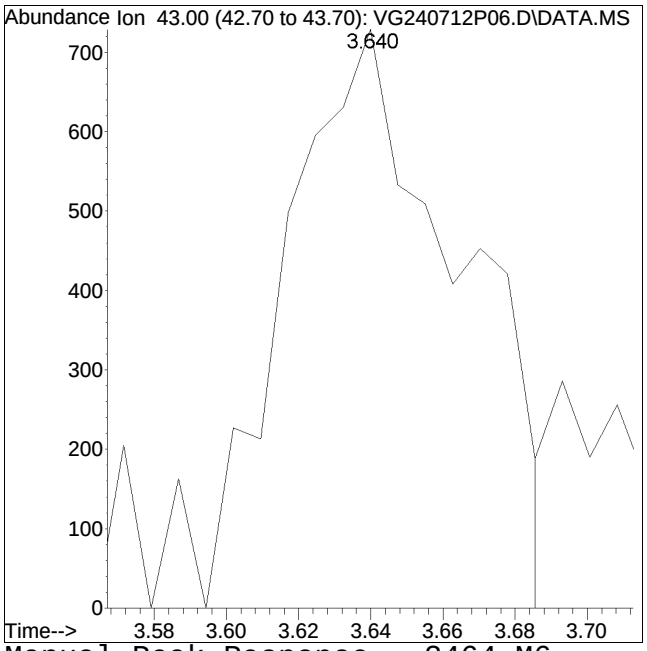
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #17: Acetone



Original Peak Response = 2755



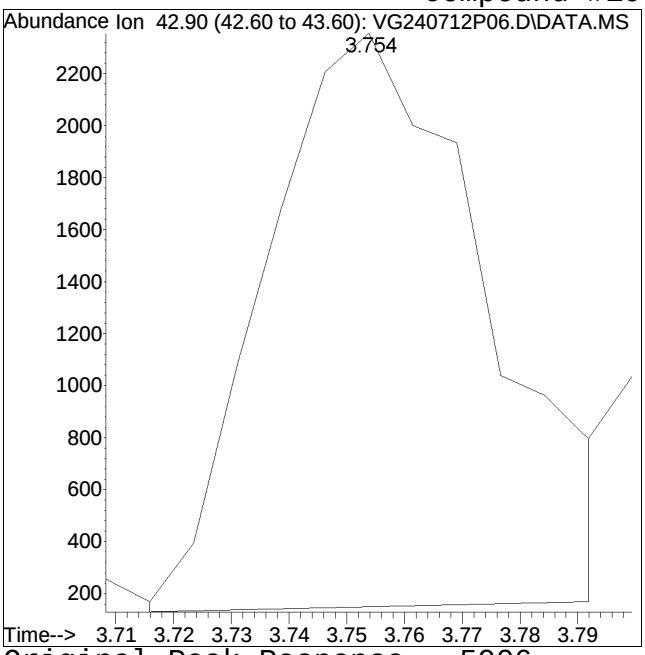
Manual Peak Response = 2464 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

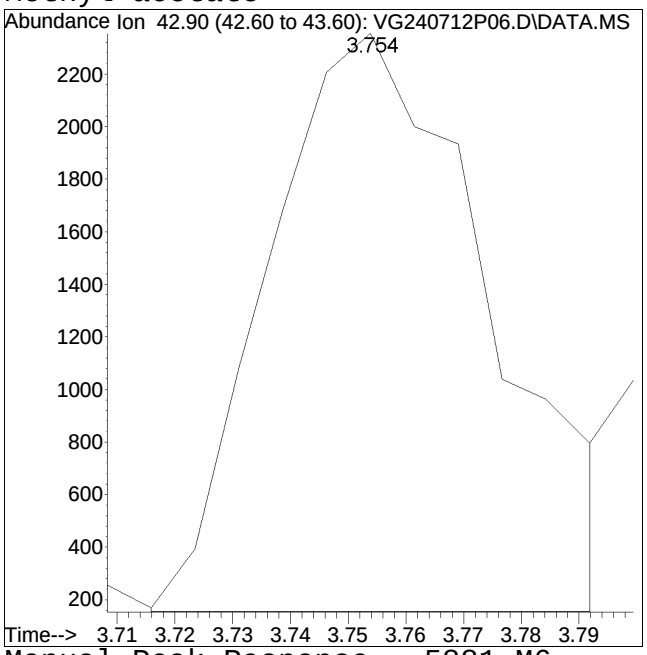
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #19: Methyl acetate



Original Peak Response = 5906



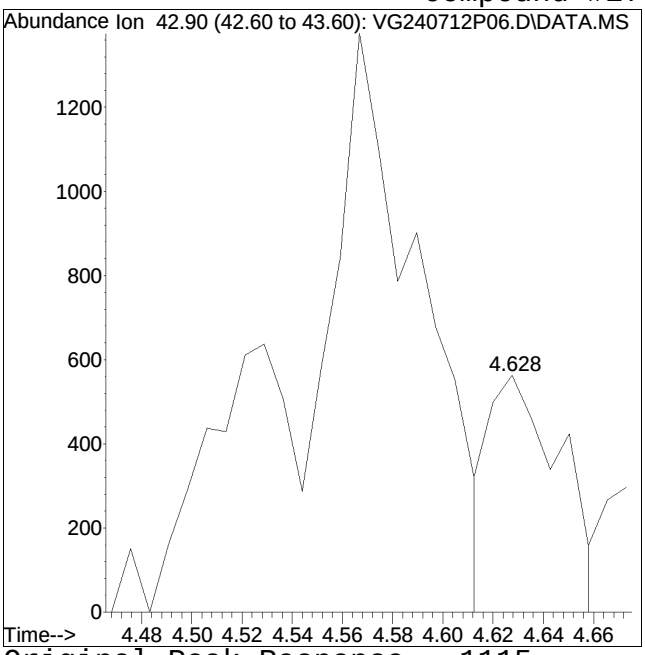
Manual Peak Response = 5881 M6

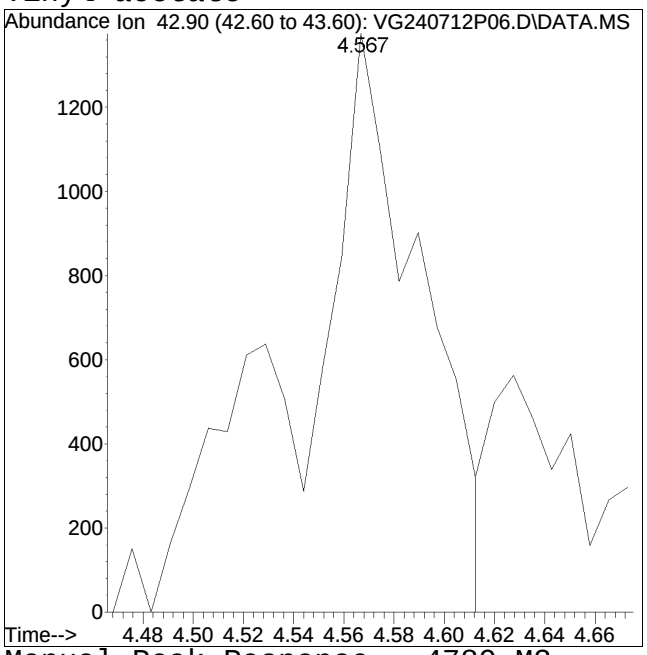
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #27: Vinyl acetate





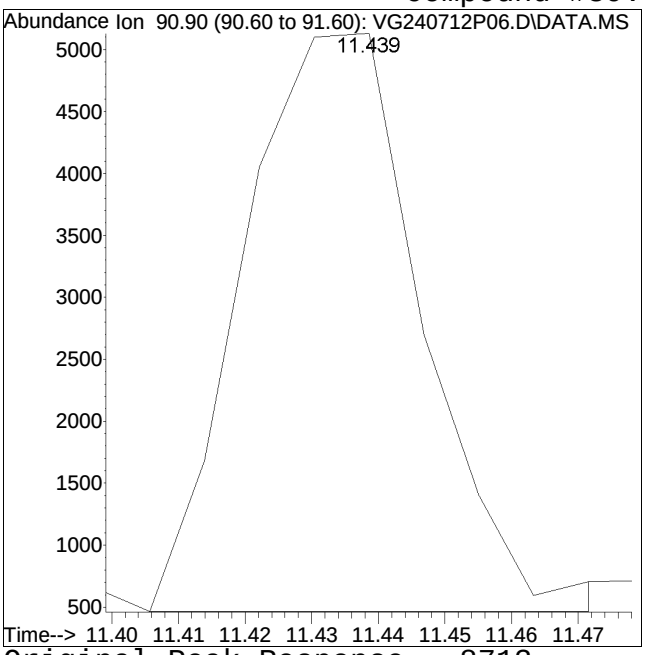
Original Peak Response = 1115 Manual Peak Response = 4789 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

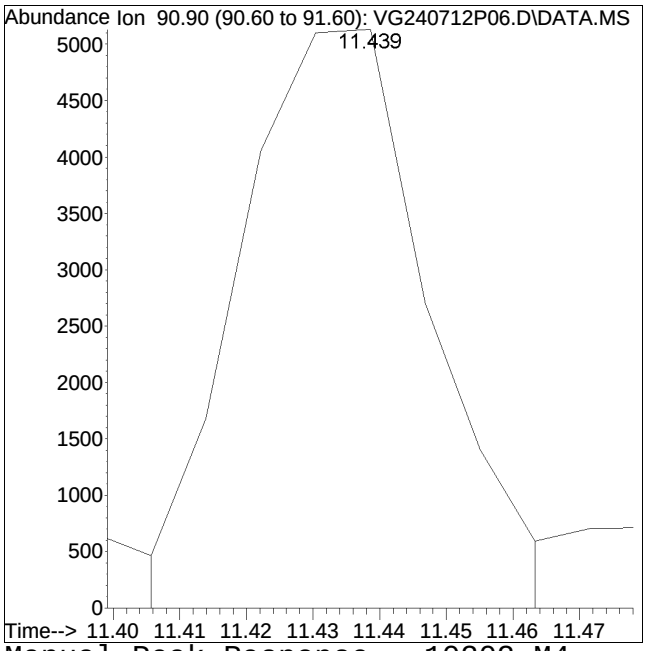
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 8713



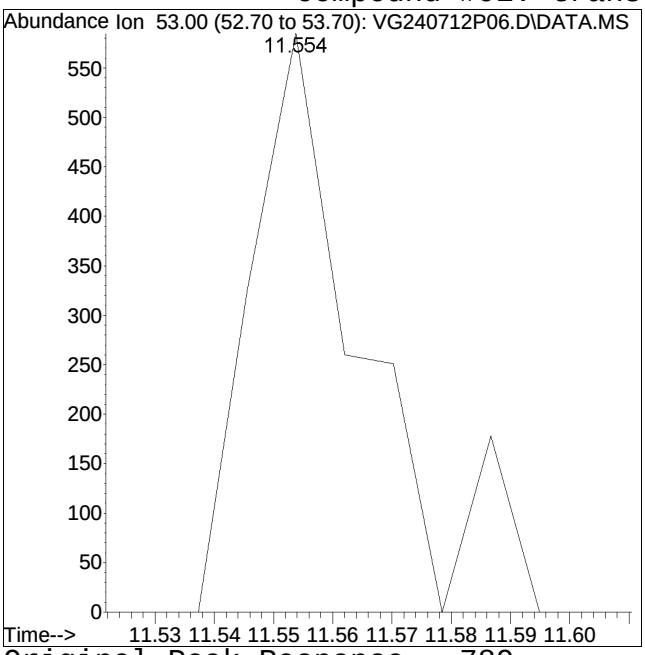
Manual Peak Response = 10202 M4

M4 = Poor automated baseline construction.

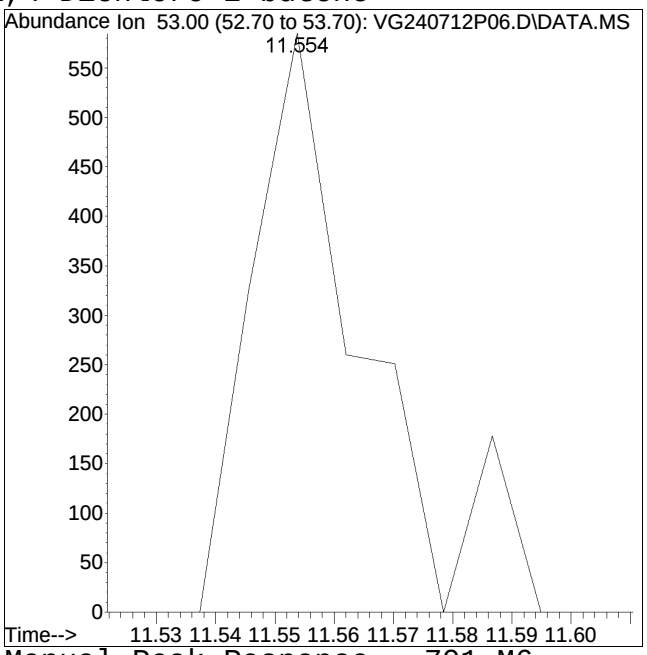
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 789



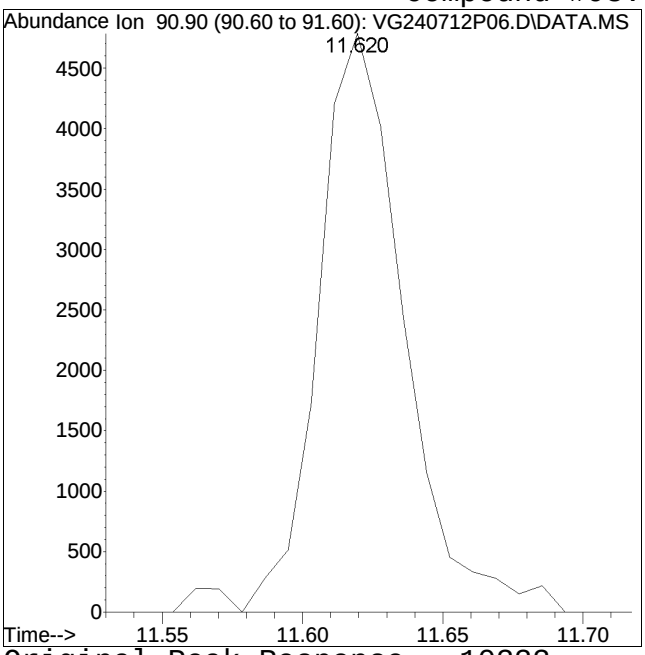
Manual Peak Response = 701 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

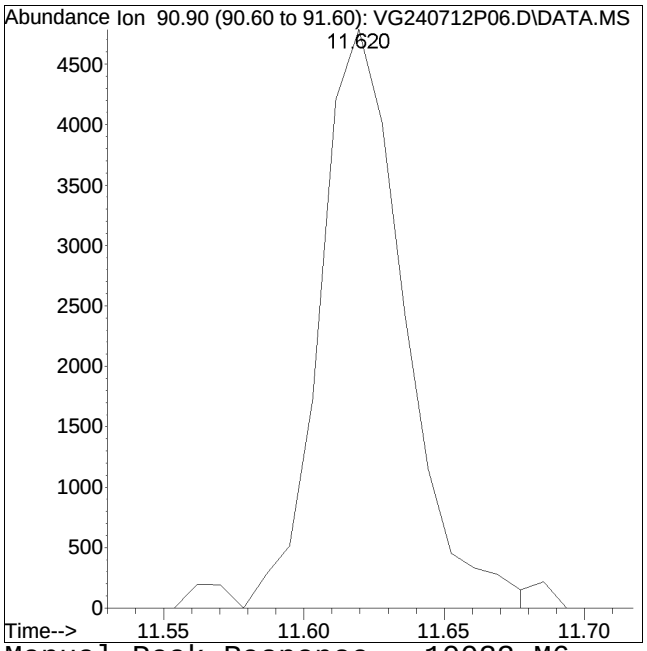
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 10333



Manual Peak Response = 10033 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	339095	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery =	95.71%		
59) Chlorobenzene-d5	9.629	117	267471	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery =	96.57%		
79) 1,4-Dichlorobenzene-d4	12.311	152	146727	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery =	91.68%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	88717	10.017	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.17%		
43) 1,2-Dichloroethane-d4	5.805	65	95269	10.126	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.26%		
60) Toluene-d8	7.779	98	339712	10.117	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.17%		
83) 4-Bromofluorobenzene	11.110	95	126143	10.293	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.93%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.680	85	19249	2.138	ug/L	99
3) Chloromethane	1.885	50	16465	2.138	ug/L	99
4) Vinyl chloride	1.946	62	18154	2.275	ug/L	97
5) Bromomethane	2.265	94	7941	1.763	ug/L	96
6) Chloroethane	2.371	64	13605	2.231	ug/L	95
7) Trichlorofluoromethane	2.516	101	24371	2.084	ug/L	98
8) Ethyl ether	2.819	74	8500	2.189	ug/L	95
10) 1,1-Dichloroethene	3.009	96	13159	2.051	ug/L	92
11) Carbon disulfide	3.047	76	39642	2.101	ug/L	98
12) Freon-113	3.055	101	14950	2.124	ug/L	84
13) Iodomethane	3.154	142	20184	1.737	ug/L	97
14) Acrolein	3.351	56	1942	1.760	ug/L #	81
15) Methylene chloride	3.579	84	15558	2.051	ug/L	89
17) Acetone	3.625	43	5068	2.249	ug/L #	84
18) trans-1,2-Dichloroethene	3.724	96	15023	2.141	ug/L	99
19) Methyl acetate	3.746	43	10439	2.070	ug/L #	94
20) Methyl tert-butyl ether	3.815	73	43598	2.021	ug/L	97
21) tert-Butyl alcohol	3.913	59	5817	9.717	ug/L #	74
22) Diisopropyl ether	4.172	45	43322	1.966	ug/L	96
23) 1,1-Dichloroethane	4.316	63	27160	2.137	ug/L	99
24) Halothane	4.362	117	11719	2.011	ug/L	90

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.384	53	3499	1.765	ug/L		95
26) Ethyl tert-butyl ether	4.521	59	42838	1.976	ug/L		94
27) Vinyl acetate	4.559	43	22580	1.917	ug/L		96
28) cis-1,2-Dichloroethene	4.840	96	17545	2.175	ug/L		93
29) 2,2-Dichloropropane	4.931	77	22451	2.119	ug/L		97
30) Bromochloromethane	5.030	128	8234	2.086	ug/L		91
31) Cyclohexane	5.023	56	24829	2.059	ug/L		84
32) Chloroform	5.099	83	26195	2.013	ug/L		93
33) Ethyl acetate	5.220	43	11333	1.967	ug/L	#	93
34) Carbon tetrachloride	5.235	117	22186	2.104	ug/L	#	96
35) Tetrahydrofuran	5.258	42	4122M6	1.966	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	24403	2.034	ug/L		97
39) 2-Butanone	5.418	43	3735	1.519	ug/L		94
40) 1,1-Dichloropropene	5.418	75	19439	2.026	ug/L		99
41) Benzene	5.668	78	60361	2.078	ug/L		97
42) tert-Amyl methyl ether	5.767	73	37905	1.911	ug/L		97
44) 1,2-Dichloroethane	5.881	62	19600	2.117	ug/L		99
47) Methyl cyclohexane	6.246	83	22413	1.985	ug/L		89
48) Trichloroethene	6.269	95	16818	2.053	ug/L		95
50) Dibromomethane	6.717	93	9528	2.079	ug/L		98
51) 1,2-Dichloropropane	6.808	63	14837	2.093	ug/L		98
53) 2-Chloroethyl vinyl ether	7.514	63	7911	1.845	ug/L		95
54) Bromodichloromethane	6.892	83	21170	2.046	ug/L		97
57) 1,4-Dioxane	7.099	88	30548	423.683	ug/L		100
58) cis-1,3-Dichloropropene	7.571	75	22927	1.981	ug/L		95
61) Toluene	7.836	92	38753	2.085	ug/L		96
62) 4-Methyl-2-pentanone	8.273	58	4127	2.014	ug/L		81
63) Tetrachloroethene	8.288	166	17253	2.114	ug/L		96
65) trans-1,3-Dichloropropene	8.338	75	19727	1.938	ug/L		99
67) Ethyl methacrylate	8.517	69	16341	1.910	ug/L		99
68) 1,1,2-Trichloroethane	8.517	83	10049	1.970	ug/L		96
69) Chlorodibromomethane	8.732	129	16191	2.008	ug/L		98
70) 1,3-Dichloropropane	8.839	76	20789	2.045	ug/L		94
71) 1,2-Dibromoethane	9.011	107	13176	2.036	ug/L		94
72) 2-Hexanone	9.305	43	7172	1.887	ug/L		95
73) Chlorobenzene	9.654	112	42909	2.071	ug/L		94
74) Ethylbenzene	9.686	91	73017	2.057	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.736	131	15752	2.043	ug/L		97
76) p/m Xylene	9.867	106	55393	3.947	ug/L		96
77) o Xylene	10.410	106	56091	4.126	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	89487	3.885	ug/L		99
80) Bromoform	10.509	173	9748	1.875	ug/L		94
82) Isopropylbenzene	10.781	105	65915	2.008	ug/L		98
84) Bromobenzene	11.225	156	18817	2.073	ug/L		96
85) n-Propylbenzene	11.258	91	78139	2.043	ug/L		99
86) 1,4-Dichlorobutane	11.282	55	22587	2.145	ug/L		95
87) 1,1,2,2-Tetrachloroethane	11.356	83	14540	1.993	ug/L		99
88) 4-Ethyltoluene	11.381	105	64338	2.013	ug/L		97
89) 2-Chlorotoluene	11.430	91	49112M1	2.094	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	58055	2.052	ug/L		97
91) 1,2,3-Trichloropropane	11.496	75	13152M1	2.156	ug/L		
92) trans-1,4-Dichloro-2-b...	11.546	53	2644	1.581	ug/L	#	86
93) 4-Chlorotoluene	11.611	91	48983	2.029	ug/L		96
94) tert-Butylbenzene	11.817	119	46267	2.023	ug/L		94
97) 1,2,4-Trimethylbenzene	11.899	105	56701	2.034	ug/L		100
98) sec-Butylbenzene	12.006	105	65866	2.025	ug/L		98
99) p-Isopropyltoluene	12.163	119	57060	2.021	ug/L		96
100) 1,3-Dichlorobenzene	12.237	146	34096	2.045	ug/L		98
101) 1,4-Dichlorobenzene	12.327	146	36405	2.120	ug/L		96
102) p-Diethylbenzene	12.533	119	32769	2.020	ug/L		99
103) n-Butylbenzene	12.590	91	44868	2.009	ug/L		99
104) 1,2-Dichlorobenzene	12.755	146	32532	2.046	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.323	119	47276	1.947	ug/L		96
106) 1,2-Dibromo-3-chloropr...	13.528	155	2543	1.879	ug/L		95
107) 1,3,5-Trichlorobenzene	13.553	180	20867	1.993	ug/L		99
108) Hexachlorobutadiene	14.120	225	5584	1.904	ug/L		96
109) 1,2,4-Trichlorobenzene	14.153	180	17073	1.883	ug/L		98
110) Naphthalene	14.450	128	38026	1.869	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	14701	1.950	ug/L		97

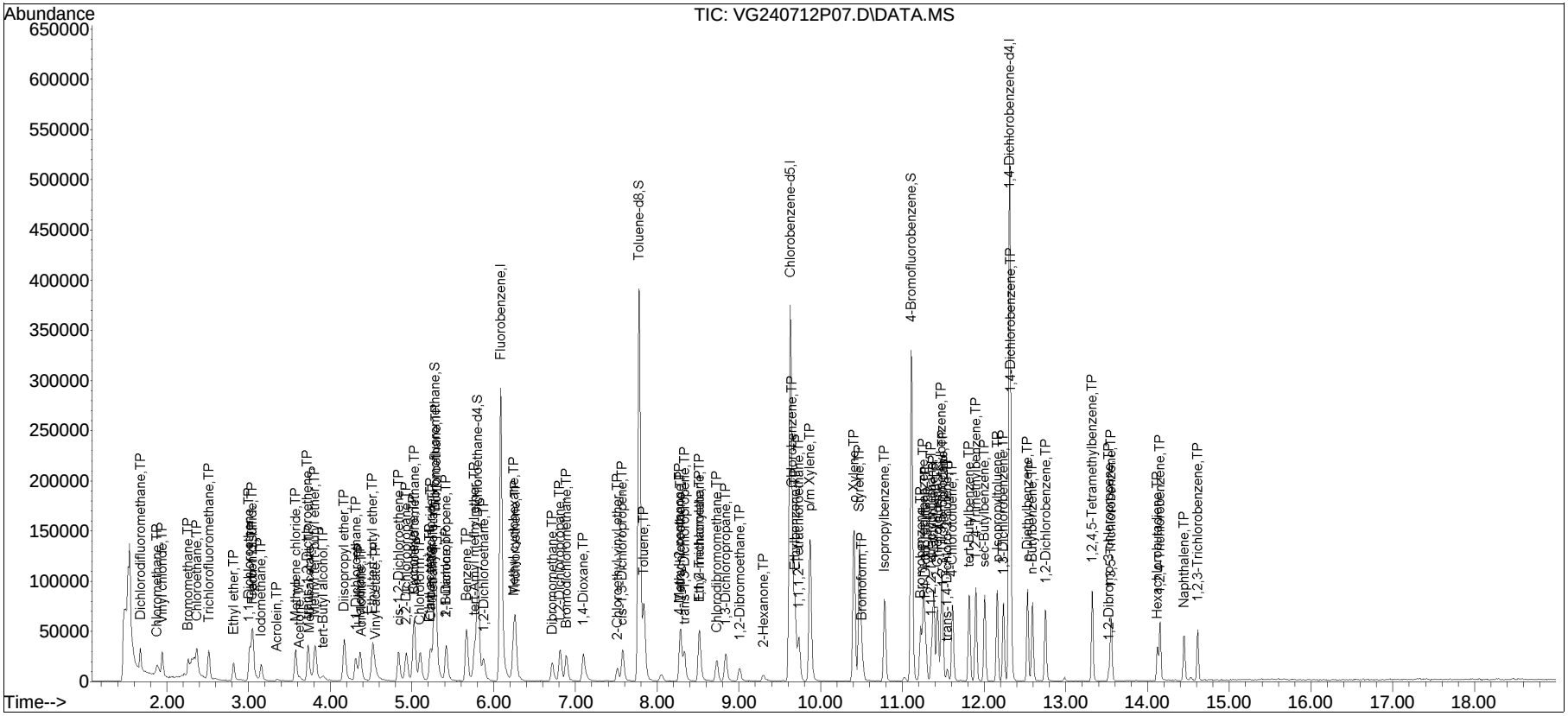
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

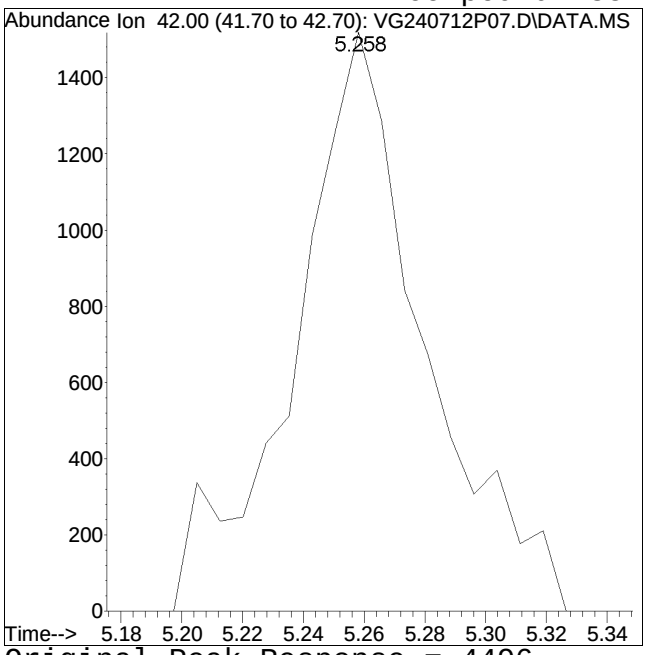
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



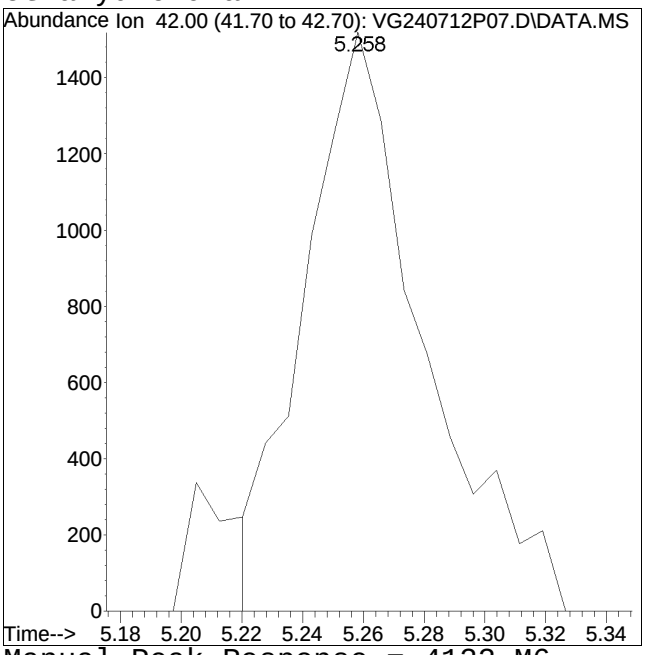
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P07.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:56 pm Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 7/15/2024 9:37 am

Compound #35: Tetrahydrofuran



Original Peak Response = 4496



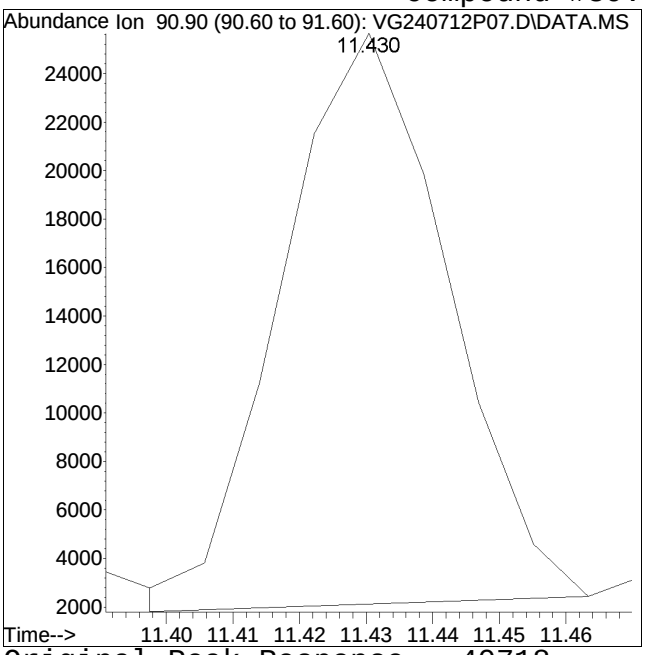
Manual Peak Response = 4122 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

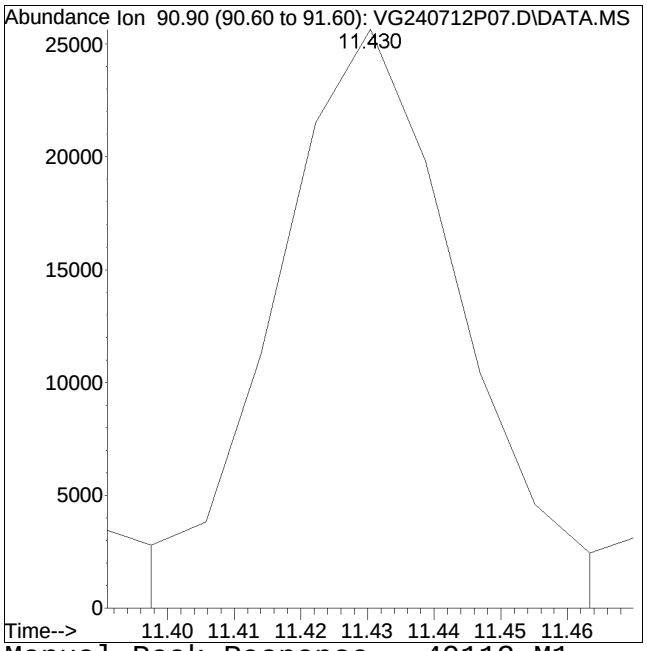
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P07.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:56 pm Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 7/15/2024 9:37 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 40718



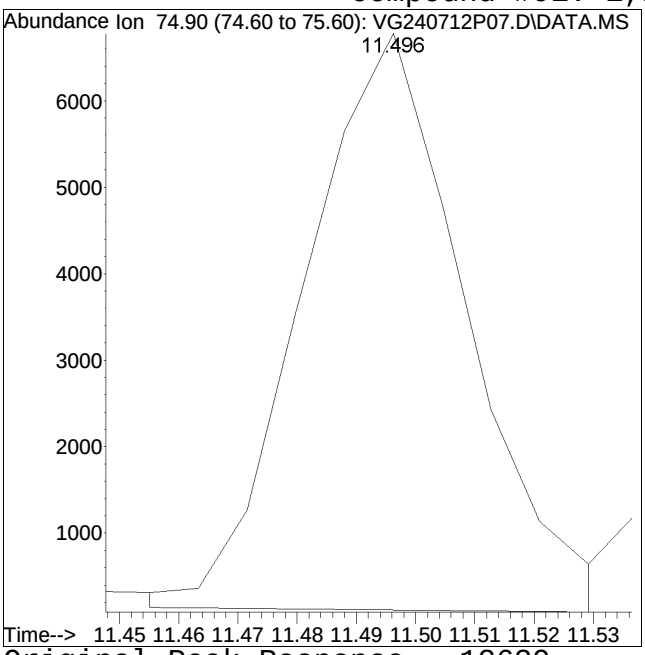
Manual Peak Response = 49112 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

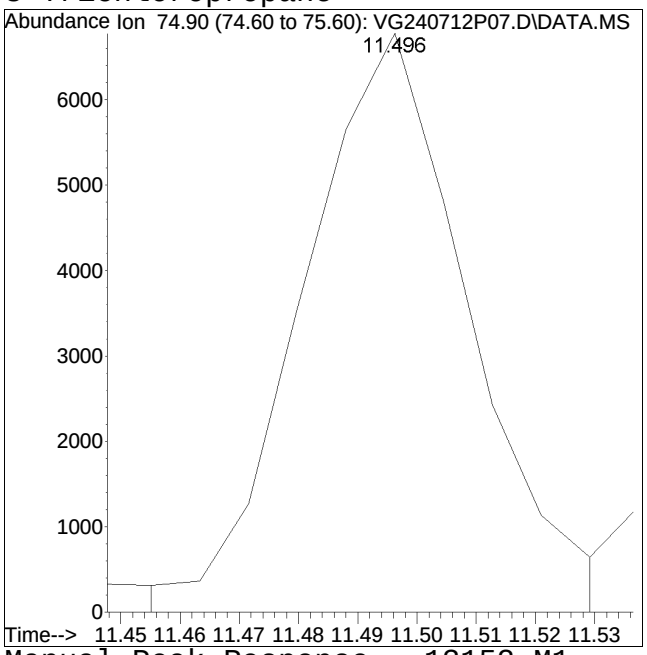
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P07.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:56 pm Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 7/15/2024 9:37 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 12639



Manual Peak Response = 13152 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	354306	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 100.00%			
59) Chlorobenzene-d5	9.629	117	276985	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 100.00%			
79) 1,4-Dichlorobenzene-d4	12.311	152	160037	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 100.00%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	92133	9.956	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.56%			
43) 1,2-Dichloroethane-d4	5.805	65	102401	10.416	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.16%			
60) Toluene-d8	7.779	98	350971	10.093	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.93%			
83) 4-Bromofluorobenzene	11.110	95	129463	9.686	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.86%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	104073	11.064	ug/L	98
3) Chloromethane	1.885	50	80582	10.015	ug/L	96
4) Vinyl chloride	1.946	62	93018	11.159	ug/L	100
5) Bromomethane	2.265	94	43942	9.335	ug/L	96
6) Chloroethane	2.371	64	66558	10.444	ug/L	99
7) Trichlorofluoromethane	2.516	101	120321	9.845	ug/L	91
8) Ethyl ether	2.819	74	40300	9.932	ug/L	94
10) 1,1-Dichloroethene	3.017	96	70738	10.554	ug/L	98
11) Carbon disulfide	3.047	76	202979	10.298	ug/L	99
12) Freon-113	3.047	101	76313	10.377	ug/L	85
13) Iodomethane	3.154	142	124010	10.212	ug/L	98
14) Acrolein	3.344	56	12033	10.440	ug/L	99
15) Methylene chloride	3.579	84	79539	10.037	ug/L	95
17) Acetone	3.625	43	17021	7.230	ug/L	98
18) trans-1,2-Dichloroethene	3.724	96	77412	10.559	ug/L	98
19) Methyl acetate	3.739	43	39376	7.472	ug/L	99
20) Methyl tert-butyl ether	3.815	73	223554	9.917	ug/L	97
21) tert-Butyl alcohol	3.906	59	30651	49.004	ug/L	98
22) Diisopropyl ether	4.172	45	236966	10.292	ug/L	99
23) 1,1-Dichloroethane	4.316	63	139835	10.530	ug/L	99
24) Halothane	4.362	117	63937	10.500	ug/L	98

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	4.369	53	20495	9.896	ug/L	94
26) Ethyl tert-butyl ether	4.521	59	227890	10.061	ug/L	97
27) Vinyl acetate	4.544	43	131130	10.656	ug/L	99
28) cis-1,2-Dichloroethene	4.833	96	86739	10.289	ug/L	96
29) 2,2-Dichloropropane	4.931	77	113646	10.264	ug/L	94
30) Bromochloromethane	5.030	128	42938	10.411	ug/L	96
31) Cyclohexane	5.023	56	132450	10.515	ug/L	86
32) Chloroform	5.099	83	144183	10.606	ug/L	99
33) Ethyl acetate	5.205	43	57402	9.537	ug/L	99
34) Carbon tetrachloride	5.228	117	122210	11.092	ug/L	98
35) Tetrahydrofuran	5.258	42	20810M6	9.498	ug/L	
37) 1,1,1-Trichloroethane	5.296	97	132414	10.561	ug/L	99
39) 2-Butanone	5.395	43	25684	9.995	ug/L	89
40) 1,1-Dichloropropene	5.418	75	105224	10.498	ug/L	98
41) Benzene	5.668	78	326866	10.769	ug/L	98
42) tert-Amyl methyl ether	5.767	73	207586	10.015	ug/L	99
44) 1,2-Dichloroethane	5.874	62	97001	10.027	ug/L	98
47) Methyl cyclohexane	6.246	83	128925	10.930	ug/L	92
48) Trichloroethene	6.261	95	88397	10.328	ug/L	100
50) Dibromomethane	6.717	93	49277	10.292	ug/L	95
51) 1,2-Dichloropropane	6.816	63	77980	10.529	ug/L	99
53) 2-Chloroethyl vinyl ether	7.507	63	43244	9.650	ug/L	99
54) Bromodichloromethane	6.884	83	110833	10.252	ug/L	100
57) 1,4-Dioxane	7.099	88	35915	476.735	ug/L	96
58) cis-1,3-Dichloropropene	7.579	75	123908	10.248	ug/L	97
61) Toluene	7.836	92	203126	10.552	ug/L	98
62) 4-Methyl-2-pentanone	8.273	58	21862	10.301	ug/L	96
63) Tetrachloroethene	8.288	166	90280	10.684	ug/L	98
65) trans-1,3-Dichloropropene	8.331	75	109161	10.358	ug/L	96
67) Ethyl methacrylate	8.510	69	88709	10.011	ug/L	99
68) 1,1,2-Trichloroethane	8.517	83	53589	10.145	ug/L	99
69) Chlorodibromomethane	8.725	129	86439	10.350	ug/L	97
70) 1,3-Dichloropropane	8.839	76	110016	10.450	ug/L	98
71) 1,2-Dibromoethane	9.004	107	67957	10.142	ug/L	100
72) 2-Hexanone	9.283	43	37271	9.469	ug/L	98
73) Chlorobenzene	9.645	112	225099	10.492	ug/L	100
74) Ethylbenzene	9.678	91	389004	10.584	ug/L	99
75) 1,1,1,2-Tetrachloroethane	9.736	131	83492	10.457	ug/L	99
76) p/m Xylene	9.867	106	308831	21.252	ug/L	99
77) o Xylene	10.402	106	298234	21.186	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	499564	20.942	ug/L		98
80) Bromoform	10.509	173	55204	9.737	ug/L		99
82) Isopropylbenzene	10.781	105	380415	10.625	ug/L		100
84) Bromobenzene	11.225	156	102225	10.327	ug/L		99
85) n-Propylbenzene	11.258	91	436489	10.466	ug/L		99
86) 1,4-Dichlorobutane	11.282	55	115065	10.019	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	78939	9.921	ug/L		98
88) 4-Ethyltoluene	11.381	105	368555	10.571	ug/L		100
89) 2-Chlorotoluene	11.430	91	263738M1	10.311	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	325688	10.553	ug/L		99
91) 1,2,3-Trichloropropane	11.496	75	66787	10.036	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.546	53	16540	9.065	ug/L	#	96
93) 4-Chlorotoluene	11.611	91	278152	10.563	ug/L		99
94) tert-Butylbenzene	11.817	119	268117	10.748	ug/L		99
97) 1,2,4-Trimethylbenzene	11.899	105	323593	10.642	ug/L		100
98) sec-Butylbenzene	12.006	105	380308	10.718	ug/L		100
99) p-Isopropyltoluene	12.163	119	327721	10.640	ug/L		99
100) 1,3-Dichlorobenzene	12.237	146	191268	10.517	ug/L		100
101) 1,4-Dichlorobenzene	12.327	146	194645	10.392	ug/L		99
102) p-Diethylbenzene	12.533	119	189303	10.699	ug/L		99
103) n-Butylbenzene	12.590	91	259443	10.652	ug/L		99
104) 1,2-Dichlorobenzene	12.747	146	181112	10.441	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.323	119	268152	10.125	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.528	155	13870	9.398	ug/L		95
107) 1,3,5-Trichlorobenzene	13.553	180	117896	10.325	ug/L		98
108) Hexachlorobutadiene	14.120	225	31839	9.952	ug/L		97
109) 1,2,4-Trichlorobenzene	14.153	180	99009	10.014	ug/L		99
110) Naphthalene	14.441	128	210646	9.491	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	82318	10.012	ug/L		99

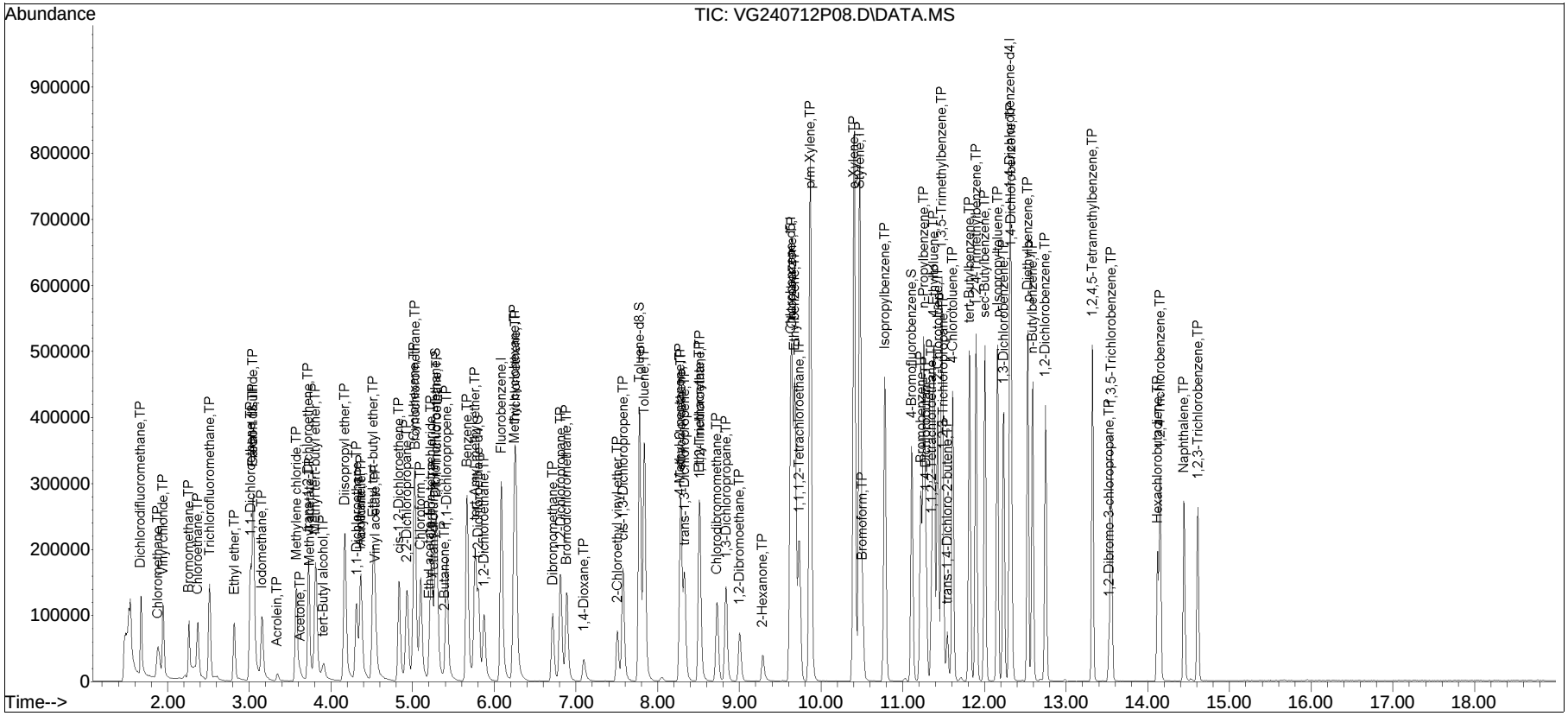
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

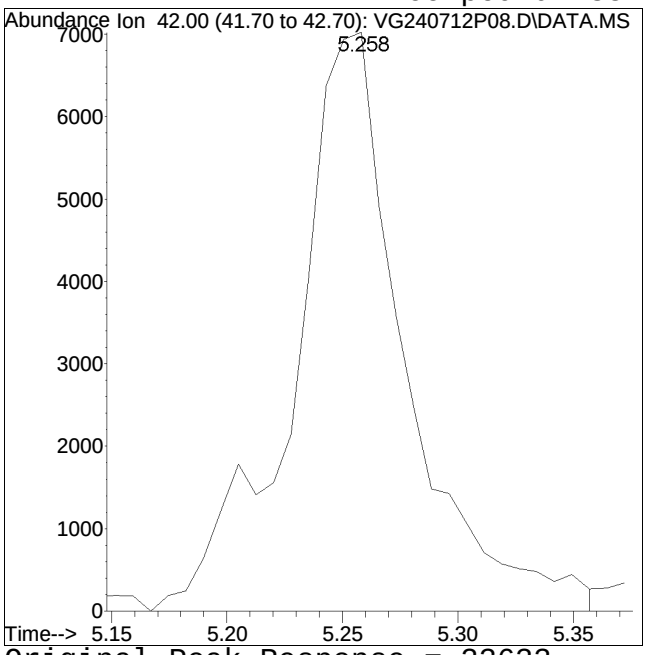
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



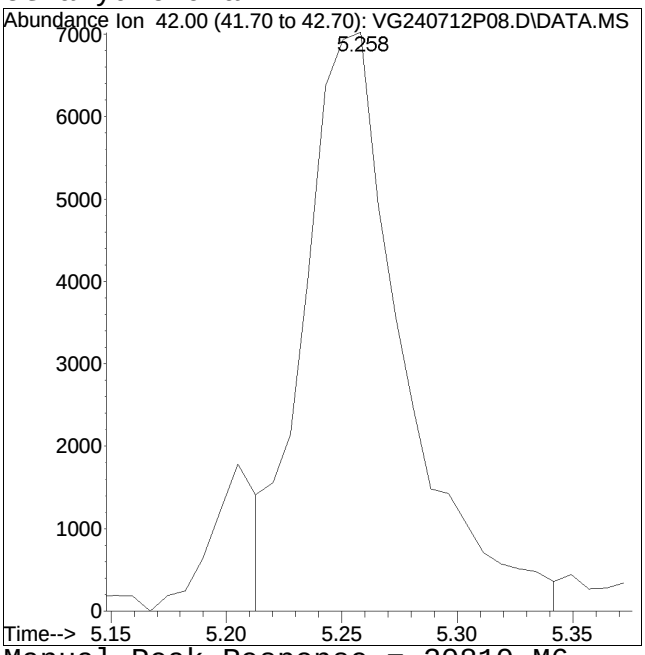
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P08.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:20 pm Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 7/15/2024 9:37 am

Compound #35: Tetrahydrofuran



Original Peak Response = 23633



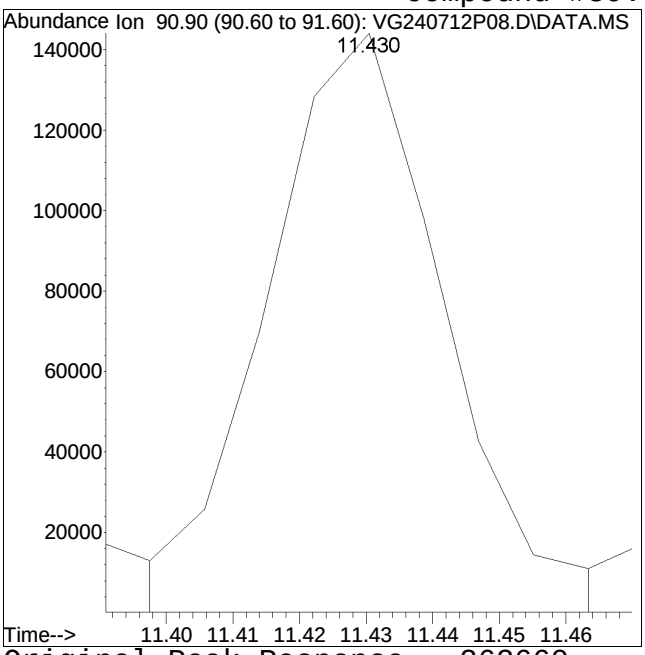
Manual Peak Response = 20810 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

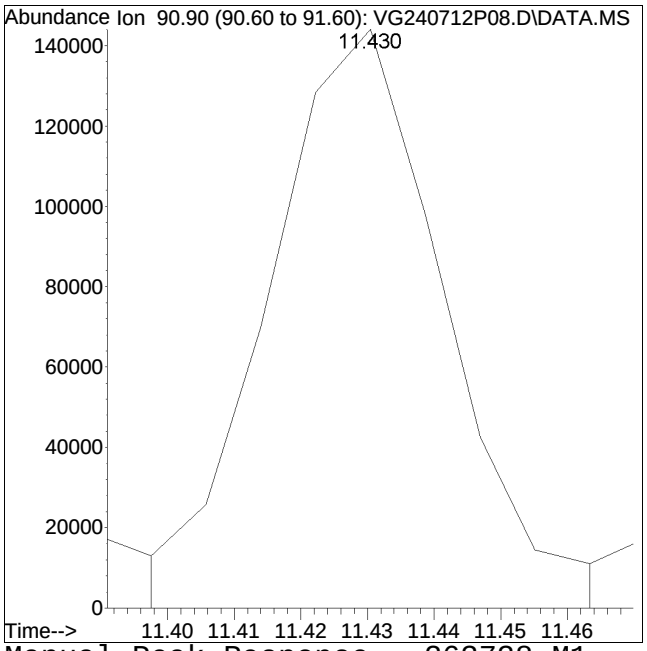
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P08.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:20 pm Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 7/15/2024 9:37 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 262660



Manual Peak Response = 263738 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	372719	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 105.20%			
59) Chlorobenzene-d5	9.629	117	299867	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 108.26%			
79) 1,4-Dichlorobenzene-d4	12.311	152	171304	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 107.04%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	96776	9.941	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.41%			
43) 1,2-Dichloroethane-d4	5.805	65	100020	9.671	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.71%			
60) Toluene-d8	7.779	98	374235	9.941	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.41%			
83) 4-Bromofluorobenzene	11.110	95	143682	10.042	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	324565	32.799	ug/L	99
3) Chloromethane	1.885	50	255836	30.224	ug/L	98
4) Vinyl chloride	1.946	62	286164	32.633	ug/L	99
5) Bromomethane	2.265	94	145483	29.379	ug/L	98
6) Chloroethane	2.364	64	212529	31.701	ug/L	97
7) Trichlorofluoromethane	2.516	101	427640	33.261	ug/L	99
8) Ethyl ether	2.812	74	127609	29.895	ug/L	94
10) 1,1-Dichloroethene	3.009	96	228092	32.351	ug/L	100
11) Carbon disulfide	3.047	76	628055	30.289	ug/L	99
12) Freon-113	3.047	101	252957	32.698	ug/L	93
13) Iodomethane	3.154	142	427847	33.492	ug/L	99
14) Acrolein	3.336	56	35475	29.258	ug/L	98
15) Methylene chloride	3.572	84	244841	29.371	ug/L	95
17) Acetone	3.617	43	57477	23.208	ug/L	94
18) trans-1,2-Dichloroethene	3.724	96	239932	31.110	ug/L	99
19) Methyl acetate	3.731	43	119708	21.594	ug/L	99
20) Methyl tert-butyl ether	3.815	73	728561	30.722	ug/L	98
21) tert-Butyl alcohol	3.906	59	100969	153.451	ug/L	92
22) Diisopropyl ether	4.172	45	763008	31.502	ug/L	99
23) 1,1-Dichloroethane	4.308	63	432018	30.924	ug/L	98
24) Halothane	4.362	117	200927	31.366	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	65880	30.239	ug/L		96
26) Ethyl tert-butyl ether	4.521	59	742121	31.145	ug/L		97
27) Vinyl acetate	4.544	43	427564	33.028	ug/L		100
28) cis-1,2-Dichloroethene	4.833	96	274947	31.004	ug/L		96
29) 2,2-Dichloropropane	4.931	77	357399	30.684	ug/L		93
30) Bromochloromethane	5.030	128	132953	30.643	ug/L		96
31) Cyclohexane	5.023	56	447301	33.755	ug/L		86
32) Chloroform	5.099	83	438380	30.654	ug/L		97
33) Ethyl acetate	5.205	43	195972	30.951	ug/L		98
34) Carbon tetrachloride	5.228	117	386449	33.343	ug/L		98
35) Tetrahydrofuran	5.251	42	62108M6	26.946	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	421180	31.934	ug/L		99
39) 2-Butanone	5.387	43	85414	31.596	ug/L	#	82
40) 1,1-Dichloropropene	5.418	75	348555	33.056	ug/L		99
41) Benzene	5.668	78	1025888	32.129	ug/L		98
42) tert-Amyl methyl ether	5.767	73	676608	31.030	ug/L		99
44) 1,2-Dichloroethane	5.873	62	311218	30.582	ug/L		99
47) Methyl cyclohexane	6.246	83	429499	34.614	ug/L		92
48) Trichloroethene	6.261	95	282627	31.388	ug/L		100
50) Dibromomethane	6.709	93	152501	30.278	ug/L		99
51) 1,2-Dichloropropane	6.808	63	244606	31.396	ug/L		100
53) 2-Chloroethyl vinyl ether	7.507	63	151030	32.039	ug/L		94
54) Bromodichloromethane	6.884	83	350592	30.827	ug/L		99
57) 1,4-Dioxane	7.099	88	47572	600.274	ug/L		98
58) cis-1,3-Dichloropropene	7.571	75	391518	30.782	ug/L		98
61) Toluene	7.836	92	643877	30.895	ug/L		98
62) 4-Methyl-2-pentanone	8.273	58	72792	31.680	ug/L		97
63) Tetrachloroethene	8.281	166	291708	31.888	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	349573	30.639	ug/L		94
67) Ethyl methacrylate	8.503	69	297496	31.011	ug/L		97
68) 1,1,2-Trichloroethane	8.517	83	173270	30.299	ug/L		100
69) Chlorodibromomethane	8.725	129	280060	30.975	ug/L		99
70) 1,3-Dichloropropane	8.839	76	346843	30.432	ug/L		99
71) 1,2-Dibromoethane	9.004	107	218120	30.069	ug/L		99
72) 2-Hexanone	9.283	43	132929	31.195	ug/L		97
73) Chlorobenzene	9.645	112	710577	30.594	ug/L		100
74) Ethylbenzene	9.678	91	1233930	31.011	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.736	131	272925	31.575	ug/L		99
76) p/m Xylene	9.867	106	979290	62.247	ug/L		98
77) o Xylene	10.402	106	944700	61.989	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78)	Styrene	10.476	104	1602988	62.069	ug/L		99
80)	Bromoform	10.509	173	189180	31.172	ug/L		99
82)	Isopropylbenzene	10.781	105	1234887	32.221	ug/L		100
84)	Bromobenzene	11.225	156	327754	30.934	ug/L		99
85)	n-Propylbenzene	11.258	91	1413029	31.652	ug/L		100
86)	1,4-Dichlorobutane	11.282	55	364471	29.647	ug/L		99
87)	1,1,2,2-Tetrachloroethane	11.356	83	260616	30.598	ug/L		98
88)	4-Ethyltoluene	11.381	105	1182608	31.688	ug/L		100
89)	2-Chlorotoluene	11.430	91	836860M1	30.566	ug/L		
90)	1,3,5-Trimethylbenzene	11.480	105	1035689	31.350	ug/L		100
91)	1,2,3-Trichloropropane	11.496	75	209842	29.459	ug/L		97
92)	trans-1,4-Dichloro-2-b...	11.546	53	58880	30.149	ug/L	#	93
93)	4-Chlorotoluene	11.611	91	870420	30.882	ug/L		98
94)	tert-Butylbenzene	11.817	119	863614	32.343	ug/L		99
97)	1,2,4-Trimethylbenzene	11.899	105	1022060	31.402	ug/L		100
98)	sec-Butylbenzene	12.006	105	1219756	32.115	ug/L		99
99)	p-Isopropyltoluene	12.154	119	1060162	32.155	ug/L		99
100)	1,3-Dichlorobenzene	12.237	146	608789	31.274	ug/L		99
101)	1,4-Dichlorobenzene	12.327	146	617006	30.775	ug/L		100
102)	p-Diethylbenzene	12.533	119	609843	32.201	ug/L		99
103)	n-Butylbenzene	12.590	91	836761	32.095	ug/L		99
104)	1,2-Dichlorobenzene	12.747	146	580058	31.240	ug/L		99
105)	1,2,4,5-Tetramethylben...	13.322	119	887011	31.289	ug/L		98
106)	1,2-Dibromo-3-chloropr...	13.528	155	49106	31.084	ug/L		99
107)	1,3,5-Trichlorobenzene	13.553	180	389689	31.884	ug/L		99
108)	Hexachlorobutadiene	14.120	225	111654	32.606	ug/L		99
109)	1,2,4-Trichlorobenzene	14.153	180	342320	32.345	ug/L		98
110)	Naphthalene	14.441	128	733269	30.865	ug/L		100
111)	1,2,3-Trichlorobenzene	14.614	180	277050	31.481	ug/L		99

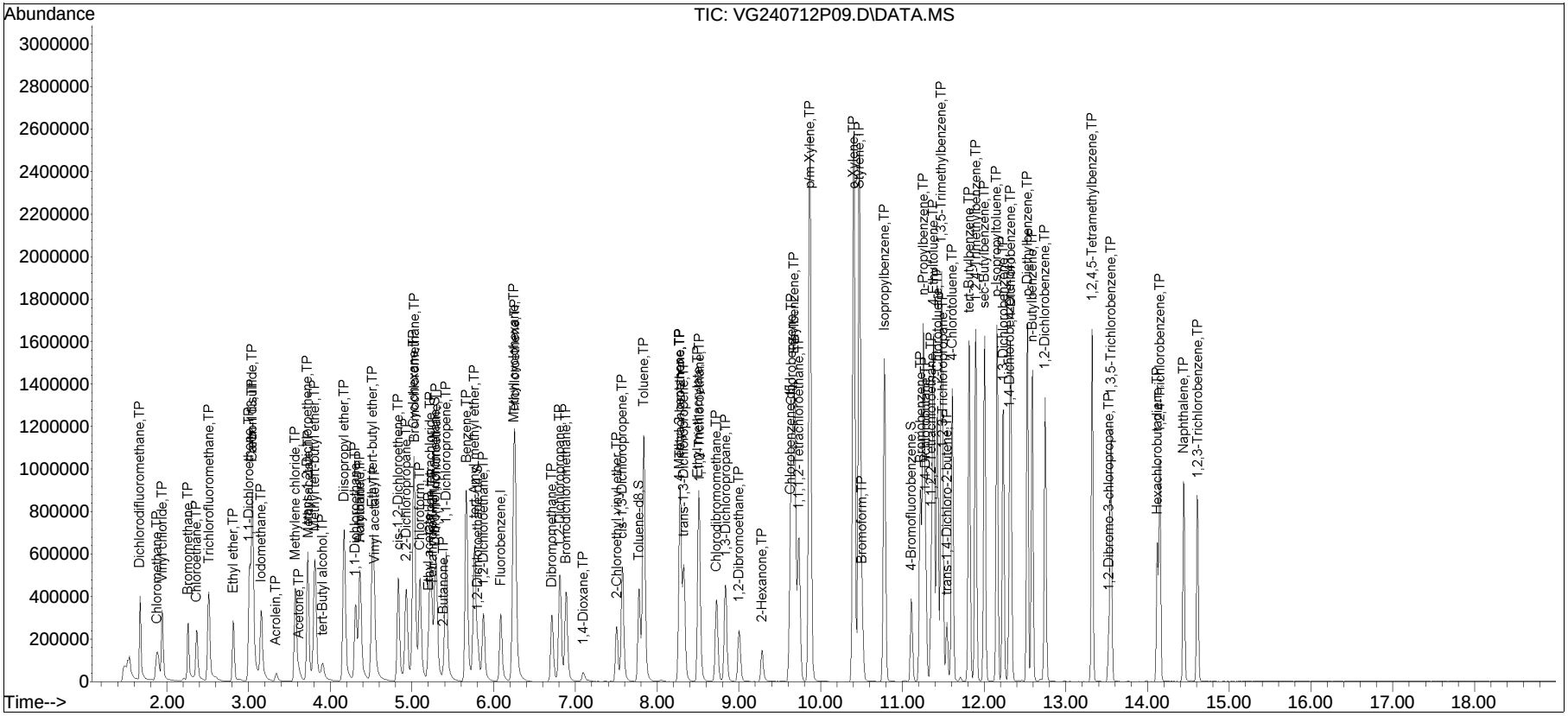
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

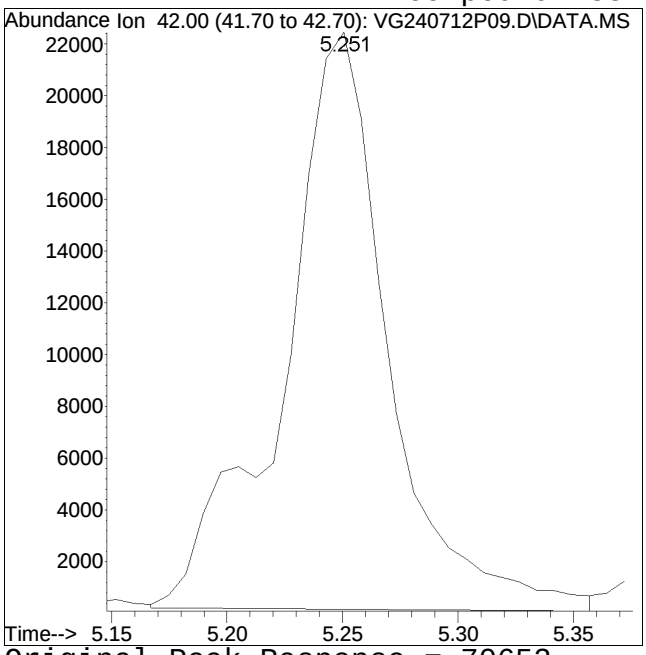
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



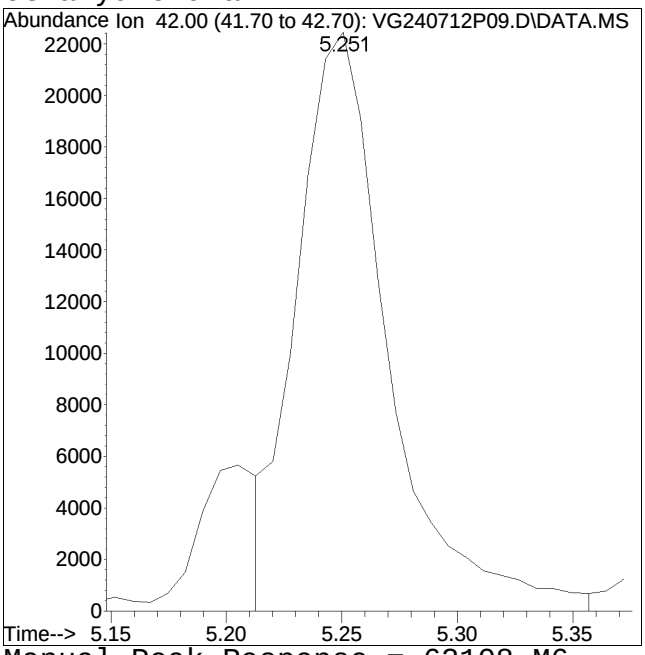
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P09.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:44 pm Instrument : Gonzo
Sample : I8260STD30PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 70652



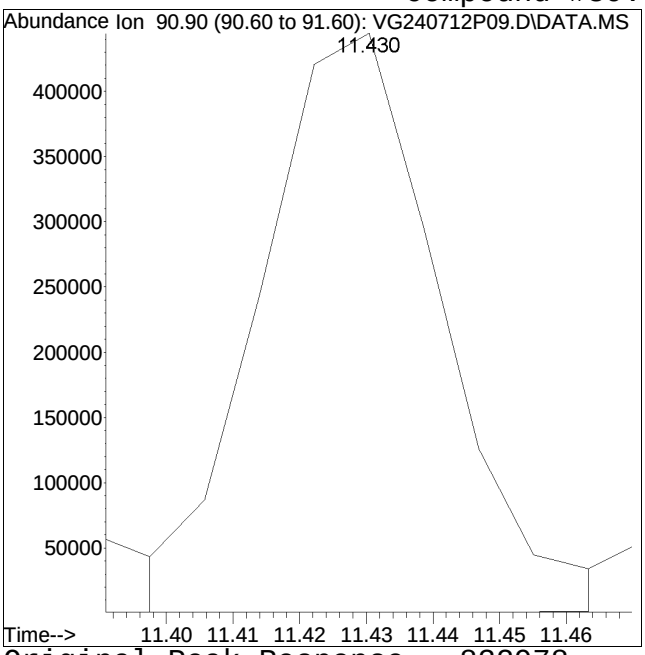
Manual Peak Response = 62108 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

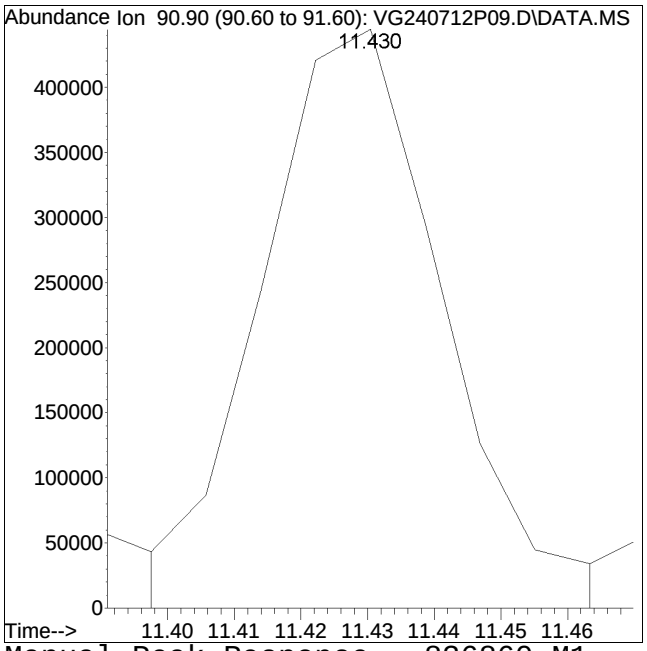
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P09.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:44 pm Instrument : Gonzo
Sample : I8260STD30PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 832978



Manual Peak Response = 836860 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	383032	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 108.11%			
59) Chlorobenzene-d5	9.629	117	309567	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 111.76%			
79) 1,4-Dichlorobenzene-d4	12.311	152	180694	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 112.91%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	98748	9.870	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.70%			
43) 1,2-Dichloroethane-d4	5.805	65	104156	9.800	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.00%			
60) Toluene-d8	7.779	98	385574	9.921	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.21%			
83) 4-Bromofluorobenzene	11.110	95	147049	9.744	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.44%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	862472	84.810	ug/L	99
3) Chloromethane	1.885	50	695432	79.945	ug/L	99
4) Vinyl chloride	1.946	62	769310	85.366	ug/L	99
5) Bromomethane	2.265	94	463493	91.078	ug/L	99
6) Chloroethane	2.364	64	587477	85.270	ug/L	97
7) Trichlorofluoromethane	2.516	101	1150188	87.052	ug/L	99
8) Ethyl ether	2.812	74	359838	82.030	ug/L	92
10) 1,1-Dichloroethene	3.017	96	620430	85.628	ug/L	98
11) Carbon disulfide	3.047	76	1778961	83.483	ug/L	100
12) Freon-113	3.047	101	687108	86.425	ug/L	88
13) Iodomethane	3.154	142	1245768	94.893	ug/L	99
14) Acrolein	3.336	56	105198	84.427	ug/L	96
15) Methylene chloride	3.572	84	683427	79.776	ug/L	96
17) Acetone	3.617	43	152239	59.817	ug/L	91
18) trans-1,2-Dichloroethene	3.724	96	670424	84.588	ug/L	98
19) Methyl acetate	3.731	43	338259	59.375	ug/L	98
20) Methyl tert-butyl ether	3.815	73	2058933	84.483	ug/L	98
21) tert-Butyl alcohol	3.906	59	289665	428.375	ug/L	92
22) Diisopropyl ether	4.172	45	2152115	86.462	ug/L	98
23) 1,1-Dichloroethane	4.309	63	1211459	84.382	ug/L	99
24) Halothane	4.362	117	557588	84.699	ug/L	99

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	193173	86.281	ug/L		92
26) Ethyl tert-butyl ether	4.521	59	2105888	86.000	ug/L		95
27) Vinyl acetate	4.544	43	1140924	85.760	ug/L		99
28) cis-1,2-Dichloroethene	4.833	96	758949	83.276	ug/L		97
29) 2,2-Dichloropropane	4.932	77	993680	83.013	ug/L		93
30) Bromochloromethane	5.030	128	369889	82.957	ug/L		96
31) Cyclohexane	5.023	56	1178107	86.511	ug/L		87
32) Chloroform	5.099	83	1240690	84.421	ug/L		99
33) Ethyl acetate	5.197	43	548149	84.242	ug/L		97
34) Carbon tetrachloride	5.228	117	1052509	88.367	ug/L		99
35) Tetrahydrofuran	5.243	42	168967M6	71.334	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	1154438	85.173	ug/L		99
39) 2-Butanone	5.387	43	245796	88.475	ug/L	#	84
40) 1,1-Dichloropropene	5.418	75	934892	86.276	ug/L		98
41) Benzene	5.661	78	2809967	85.633	ug/L		98
42) tert-Amyl methyl ether	5.767	73	1903739	84.957	ug/L		99
44) 1,2-Dichloroethane	5.874	62	854820	81.737	ug/L		100
47) Methyl cyclohexane	6.246	83	1114480	87.400	ug/L		93
48) Trichloroethene	6.261	95	767225	82.914	ug/L		99
50) Dibromomethane	6.709	93	420450	81.230	ug/L		99
51) 1,2-Dichloropropane	6.808	63	676967	84.551	ug/L		100
53) 2-Chloroethyl vinyl ether	7.500	63	427961	88.342	ug/L		95
54) Bromodichloromethane	6.884	83	983509	84.151	ug/L		99
57) 1,4-Dioxane	7.099	88	63356	777.915	ug/L		97
58) cis-1,3-Dichloropropene	7.571	75	1100773	84.214	ug/L		99
61) Toluene	7.837	92	1782574	82.854	ug/L		99
62) 4-Methyl-2-pentanone	8.273	58	204922	86.389	ug/L		99
63) Tetrachloroethene	8.281	166	795917	84.279	ug/L		98
65) trans-1,3-Dichloropropene	8.324	75	999200	84.834	ug/L		94
67) Ethyl methacrylate	8.503	69	841792	85.000	ug/L		96
68) 1,1,2-Trichloroethane	8.510	83	491058	83.179	ug/L		100
69) Chlorodibromomethane	8.725	129	792845	84.941	ug/L		99
70) 1,3-Dichloropropane	8.832	76	971521	82.571	ug/L		99
71) 1,2-Dibromoethane	9.004	107	620246	82.824	ug/L		100
72) 2-Hexanone	9.276	43	360048	81.847	ug/L		99
73) Chlorobenzene	9.645	112	1983776	82.737	ug/L		100
74) Ethylbenzene	9.678	91	3439373	83.730	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.736	131	766504	85.899	ug/L		99
76) p/m Xylene	9.868	106	2742934	168.888	ug/L		97
77) o Xylene	10.402	106	2624144	166.795	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	4557406	170.938	ug/L		98
80) Bromoform	10.509	173	537544	83.970	ug/L		99
82) Isopropylbenzene	10.781	105	3387062	83.782	ug/L		100
84) Bromobenzene	11.217	156	908955	81.331	ug/L		99
85) n-Propylbenzene	11.258	91	3908848	83.007	ug/L		100
86) 1,4-Dichlorobutane	11.282	55	1024805	79.028	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	717844	79.901	ug/L		99
88) 4-Ethyltoluene	11.381	105	3267391	83.000	ug/L		100
89) 2-Chlorotoluene	11.431	91	2329687M1	80.670	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	2857961	82.014	ug/L		99
91) 1,2,3-Trichloropropane	11.488	75	587774	78.227	ug/L		97
92) trans-1,4-Dichloro-2-b...	11.546	53	183515	89.085	ug/L	#	91
93) 4-Chlorotoluene	11.611	91	2443388	82.184	ug/L		99
94) tert-Butylbenzene	11.817	119	2357887	83.717	ug/L		99
97) 1,2,4-Trimethylbenzene	11.899	105	2833212	82.526	ug/L		99
98) sec-Butylbenzene	12.006	105	3339056	83.345	ug/L		99
99) p-Isopropyltoluene	12.163	119	2925150	84.109	ug/L		99
100) 1,3-Dichlorobenzene	12.237	146	1672782	81.466	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	1703845	80.567	ug/L		100
102) p-Diethylbenzene	12.533	119	1686786	84.438	ug/L		99
103) n-Butylbenzene	12.590	91	2311763	84.062	ug/L		99
104) 1,2-Dichlorobenzene	12.747	146	1601713	81.780	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.323	119	2542605	85.027	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.528	155	137995	82.813	ug/L		96
107) 1,3,5-Trichlorobenzene	13.553	180	1084044	84.085	ug/L		99
108) Hexachlorobutadiene	14.121	225	314745	87.137	ug/L		99
109) 1,2,4-Trichlorobenzene	14.145	180	965002	86.441	ug/L		99
110) Naphthalene	14.441	128	2082405	83.098	ug/L		100
111) 1,2,3-Trichlorobenzene	14.606	180	789706	85.070	ug/L		99

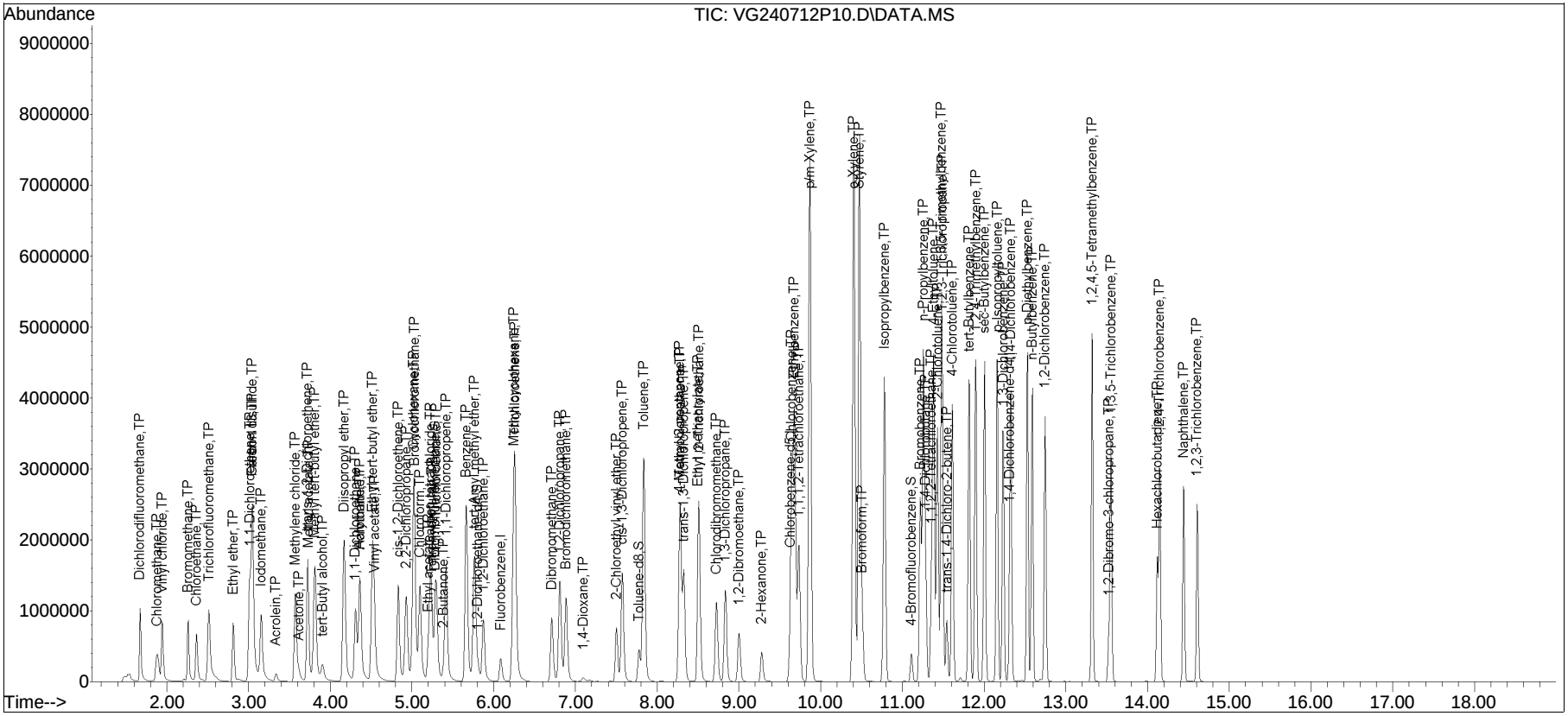
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

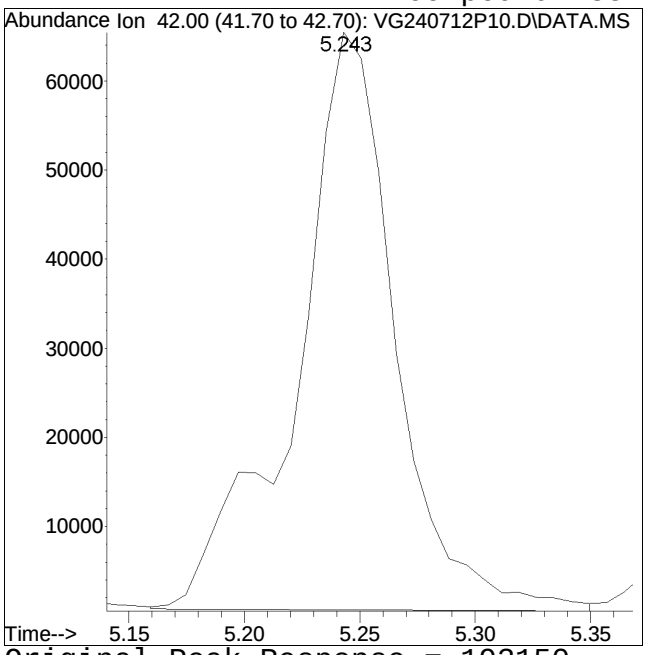
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



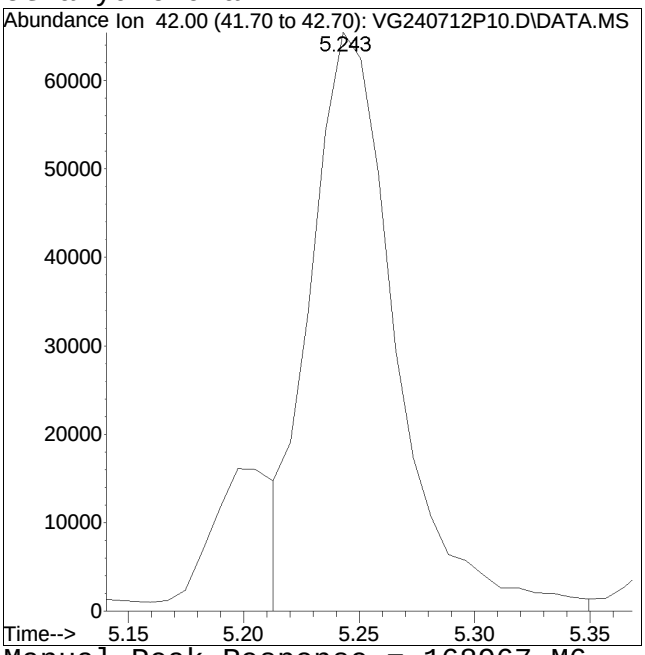
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P10.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:09 am Instrument : Gonzo
Sample : I8260STD80PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 193150



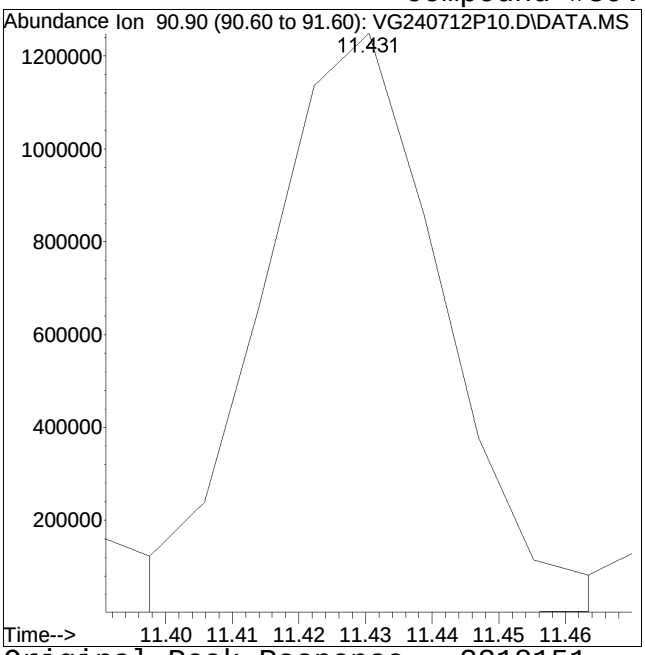
Manual Peak Response = 168967 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

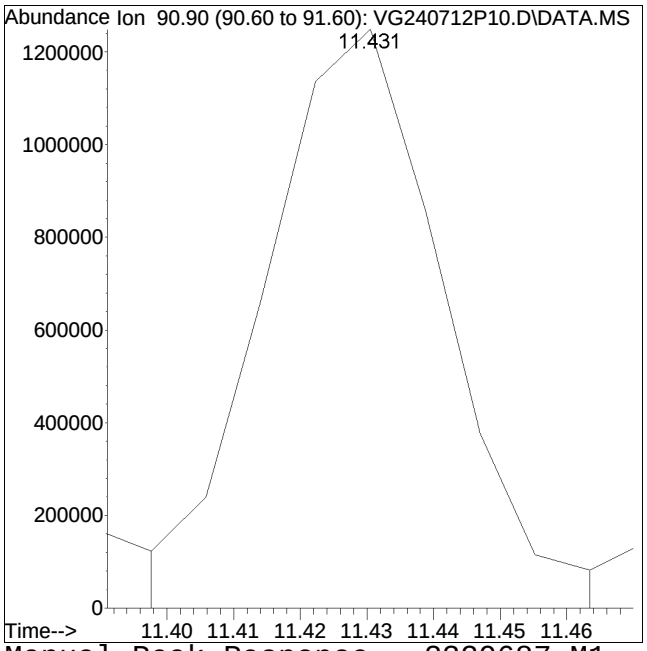
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P10.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:09 am Instrument : Gonzo
Sample : I8260STD80PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 2318151



Manual Peak Response = 2329687 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	377936	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 106.67%			
59) Chlorobenzene-d5	9.629	117	302217	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 109.11%			
79) 1,4-Dichlorobenzene-d4	12.310	152	171302	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 107.04%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	97723	9.900	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.00%			
43) 1,2-Dichloroethane-d4	5.805	65	99788	9.516	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.16%			
60) Toluene-d8	7.779	98	380044	10.017	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.17%			
83) 4-Bromofluorobenzene	11.109	95	144339	10.088	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	1059142	105.554	ug/L	99
3) Chloromethane	1.885	50	862812	100.524	ug/L	99
4) Vinyl chloride	1.946	62	958158	107.755	ug/L	98
5) Bromomethane	2.265	94	615199	122.518	ug/L	99
6) Chloroethane	2.363	64	727175	106.969	ug/L	96
7) Trichlorofluoromethane	2.515	101	1442684	110.661	ug/L	99
8) Ethyl ether	2.812	74	451593	104.335	ug/L	95
10) 1,1-Dichloroethene	3.017	96	780991	109.241	ug/L	98
11) Carbon disulfide	3.047	76	2282406	108.553	ug/L	100
12) Freon-113	3.047	101	852944	108.731	ug/L	84
13) Iodomethane	3.154	142	1509994	116.571	ug/L	99
14) Acrolein	3.336	56	133657	108.713	ug/L	98
15) Methylene chloride	3.571	84	841960	99.606	ug/L	96
17) Acetone	3.609	43	189682	75.534	ug/L	91
18) trans-1,2-Dichloroethene	3.723	96	827161	105.771	ug/L	97
19) Methyl acetate	3.731	43	419216	74.578	ug/L	98
20) Methyl tert-butyl ether	3.815	73	2534557	105.401	ug/L	98
21) tert-Butyl alcohol	3.906	59	357581	535.944	ug/L	98
22) Diisopropyl ether	4.172	45	2637814	107.404	ug/L	98
23) 1,1-Dichloroethane	4.308	63	1500414	105.918	ug/L	99
24) Halothane	4.362	117	695872	107.130	ug/L	99

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	238475	107.951	ug/L		94
26) Ethyl tert-butyl ether	4.521	59	2583270	106.918	ug/L		98
27) Vinyl acetate	4.536	43	1528446	116.437	ug/L		99
28) cis-1,2-Dichloroethene	4.833	96	942272	104.786	ug/L		97
29) 2,2-Dichloropropane	4.931	77	1208765	102.343	ug/L		93
30) Bromochloromethane	5.030	128	453303	103.036	ug/L		96
31) Cyclohexane	5.022	56	1457858	108.497	ug/L		93
32) Chloroform	5.098	83	1500849	103.500	ug/L		99
33) Ethyl acetate	5.197	43	678282	105.648	ug/L		98
34) Carbon tetrachloride	5.228	117	1303399	110.907	ug/L		99
35) Tetrahydrofuran	5.243	42	210002M6	89.854	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	1425900	106.619	ug/L		99
39) 2-Butanone	5.387	43	304291	111.007	ug/L	#	84
40) 1,1-Dichloropropene	5.418	75	1162603	108.736	ug/L		98
41) Benzene	5.661	78	3481925	107.541	ug/L		98
42) tert-Amyl methyl ether	5.767	73	2351567	106.357	ug/L		99
44) 1,2-Dichloroethane	5.873	62	1047471	101.509	ug/L		99
47) Methyl cyclohexane	6.246	83	1366320	108.595	ug/L		93
48) Trichloroethene	6.261	95	937809	102.715	ug/L		99
50) Dibromomethane	6.709	93	516891	101.209	ug/L		99
51) 1,2-Dichloropropane	6.808	63	828576	104.882	ug/L		100
53) 2-Chloroethyl vinyl ether	7.500	63	529545	110.785	ug/L		95
54) Bromodichloromethane	6.884	83	1197815	103.869	ug/L		99
57) 1,4-Dioxane	7.098	88	99538	1238.654	ug/L		95
58) cis-1,3-Dichloropropene	7.571	75	1366954	105.988	ug/L		99
61) Toluene	7.836	92	2196660	104.584	ug/L		98
62) 4-Methyl-2-pentanone	8.273	58	254155	109.750	ug/L		99
63) Tetrachloroethene	8.280	166	995011	107.923	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	1235583	107.454	ug/L		94
67) Ethyl methacrylate	8.502	69	1039952	107.563	ug/L		97
68) 1,1,2-Trichloroethane	8.517	83	600812	104.245	ug/L		100
69) Chlorodibromomethane	8.725	129	979830	107.526	ug/L		99
70) 1,3-Dichloropropane	8.839	76	1186604	103.304	ug/L		99
71) 1,2-Dibromoethane	9.004	107	764085	104.513	ug/L		100
72) 2-Hexanone	9.276	43	446306	103.922	ug/L		99
73) Chlorobenzene	9.645	112	2439959	104.237	ug/L		100
74) Ethylbenzene	9.678	91	4271202	106.509	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.736	131	936936	107.553	ug/L		99
76) p/m Xylene	9.867	106	3391427	213.896	ug/L		97
77) o Xylene	10.410	106	3236266	210.706	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	5649135	217.039	ug/L		97
80) Bromoform	10.509	173	668617	110.172	ug/L		100
82) Isopropylbenzene	10.780	105	4226170	110.270	ug/L		100
84) Bromobenzene	11.225	156	1112838	105.033	ug/L		99
85) n-Propylbenzene	11.258	91	4862561	108.922	ug/L		100
86) 1,4-Dichlorobutane	11.282	55	1270210	103.323	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	911294	106.994	ug/L		99
88) 4-Ethyltoluene	11.381	105	4073585	109.153	ug/L		100
89) 2-Chlorotoluene	11.430	91	2905702M1	106.132	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	3542742	107.239	ug/L		99
91) 1,2,3-Trichloropropane	11.496	75	733961	103.039	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.545	53	236928	121.319	ug/L	#	93
93) 4-Chlorotoluene	11.611	91	3021687	107.208	ug/L		99
94) tert-Butylbenzene	11.817	119	2900762	108.639	ug/L		98
97) 1,2,4-Trimethylbenzene	11.899	105	3524887	108.302	ug/L		99
98) sec-Butylbenzene	12.006	105	4140838	109.025	ug/L		100
99) p-Isopropyltoluene	12.162	119	3619561	109.782	ug/L		99
100) 1,3-Dichlorobenzene	12.236	146	2067463	106.208	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	2108277	105.157	ug/L		100
102) p-Diethylbenzene	12.533	119	2075192	109.577	ug/L		98
103) n-Butylbenzene	12.590	91	2895891	111.076	ug/L		99
104) 1,2-Dichlorobenzene	12.746	146	1963112	105.727	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.322	119	3140805	110.791	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.528	155	173972	110.127	ug/L		98
107) 1,3,5-Trichlorobenzene	13.553	180	1339414	109.590	ug/L		99
108) Hexachlorobutadiene	14.120	225	393823	115.008	ug/L		99
109) 1,2,4-Trichlorobenzene	14.153	180	1183732	111.848	ug/L		99
110) Naphthalene	14.441	128	2632511	110.809	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	980116	111.370	ug/L		99

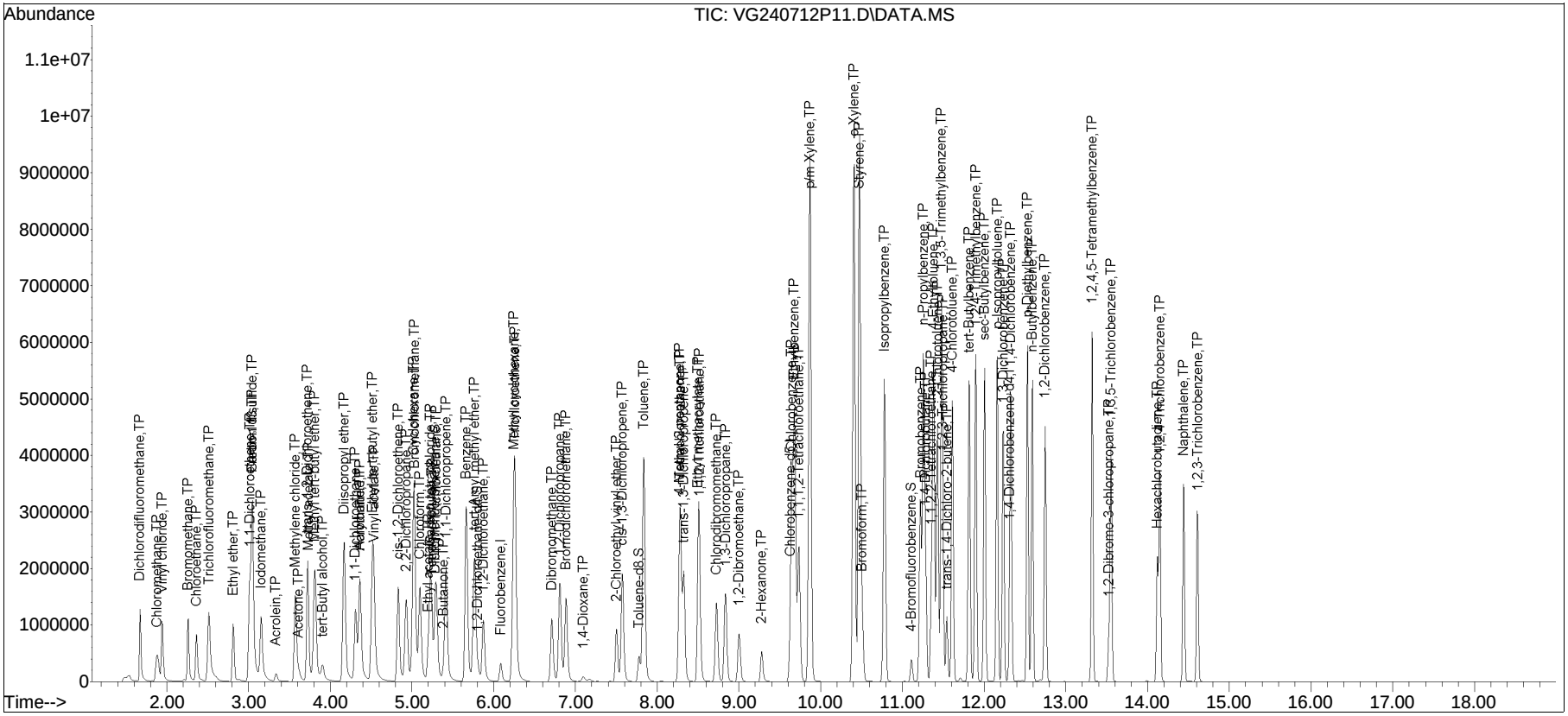
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

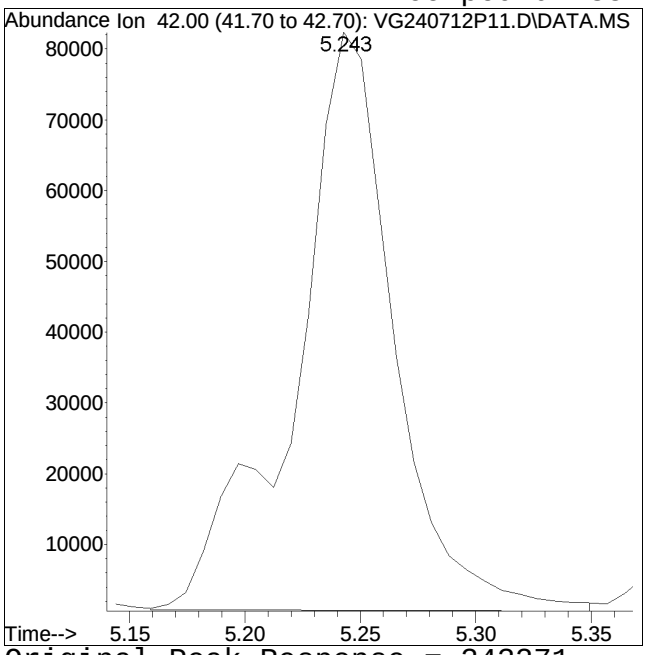
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



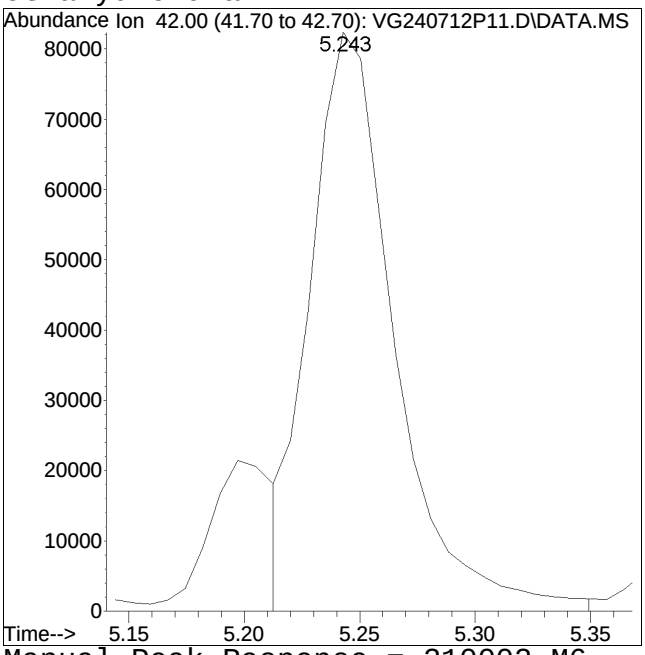
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P11.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:32 am Instrument : Gonzo
Sample : I8260STD120PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 243271



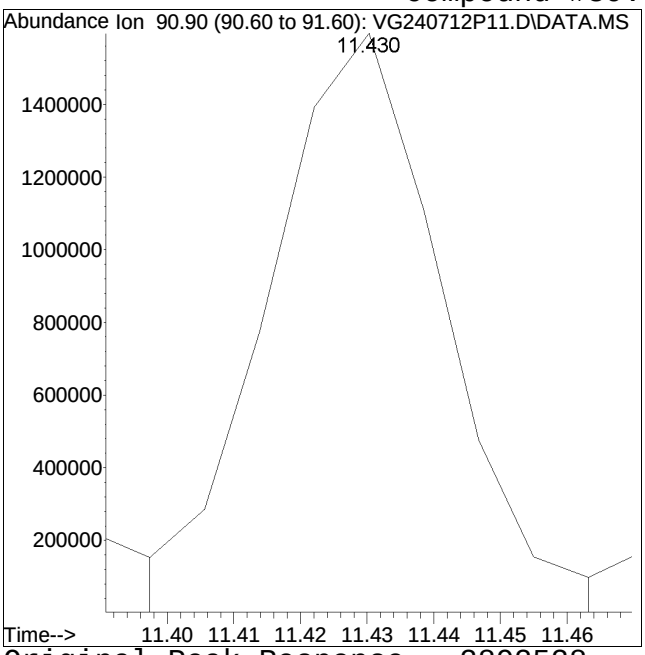
Manual Peak Response = 210002 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

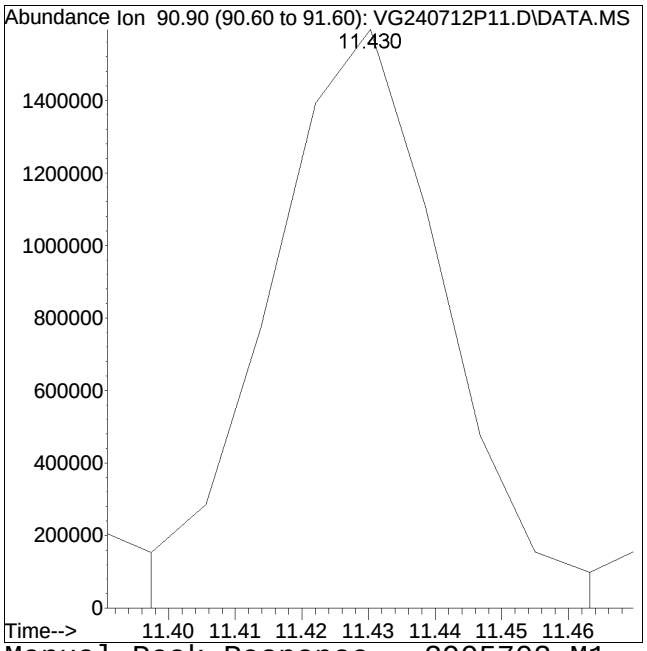
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P11.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:32 am Instrument : Gonzo
Sample : I8260STD120PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 2892528



Manual Peak Response = 2905702 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	386380	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 109.05%			
59) Chlorobenzene-d5	9.629	117	319803	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 115.46%			
79) 1,4-Dichlorobenzene-d4	12.310	152	177767	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 111.08%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.273	113	101487	10.056	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.56%			
43) 1,2-Dichloroethane-d4	5.805	65	107518	10.029	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.29%			
60) Toluene-d8	7.779	98	393921	9.812	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.12%			
83) 4-Bromofluorobenzene	11.109	95	145700	9.813	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.13%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	2110199	205.706	ug/L	99
3) Chloromethane	1.885	50	1824456	207.918	ug/L	99
4) Vinyl chloride	1.938	62	2052905	225.825	ug/L	98
5) Bromomethane	2.257	94	1411260	274.914	ug/L	99
6) Chloroethane	2.356	64	1261279	181.483	ug/L	96
7) Trichlorofluoromethane	2.508	101	3044262	228.408	ug/L	99
8) Ethyl ether	2.812	74	960523	217.067	ug/L	93
10) 1,1-Dichloroethene	3.017	96	1669643	228.436	ug/L	98
11) Carbon disulfide	3.040	76	4976838	231.530	ug/L	100
12) Freon-113	3.040	101	1764003	219.955	ug/L #	77
13) Iodomethane	3.154	142	3250628	245.462	ug/L	99
14) Acrolein	3.336	56	275384	219.095	ug/L	100
15) Methylene chloride	3.571	84	1804030	208.757	ug/L	96
17) Acetone	3.609	43	405037	157.765	ug/L	91
18) trans-1,2-Dichloroethene	3.723	96	1804294	225.678	ug/L	98
19) Methyl acetate	3.723	43	890738	154.998	ug/L	98
20) Methyl tert-butyl ether	3.815	73	5470454	222.520	ug/L	98
21) tert-Butyl alcohol	3.906	59	773650	1134.209	ug/L	99
22) Diisopropyl ether	4.172	45	5672664	225.926	ug/L	99
23) 1,1-Dichloroethane	4.308	63	3171928	219.021	ug/L	99
24) Halothane	4.362	117	1480015	222.871	ug/L	100

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	515668	228.327	ug/L		92
26) Ethyl tert-butyl ether	4.521	59	5628078	227.848	ug/L		92
27) Vinyl acetate	4.536	43	2710445	201.970	ug/L		100
28) cis-1,2-Dichloroethene	4.833	96	2030006	220.814	ug/L		98
29) 2,2-Dichloropropane	4.931	77	2576116	213.347	ug/L		93
30) Bromochloromethane	5.030	128	951515	211.553	ug/L		95
31) Cyclohexane	5.022	56	2973713	216.474	ug/L		86
32) Chloroform	5.098	83	3289177	221.868	ug/L		98
33) Ethyl acetate	5.197	43	1440671	219.491	ug/L		98
34) Carbon tetrachloride	5.228	117	2749711	228.861	ug/L		99
35) Tetrahydrofuran	5.243	42	442965M6	185.389	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	3010744	220.203	ug/L		99
39) 2-Butanone	5.387	43	648512	231.411	ug/L	#	84
40) 1,1-Dichloropropene	5.418	75	2447948	223.949	ug/L		98
41) Benzene	5.661	78	7545706	227.960	ug/L		98
42) tert-Amyl methyl ether	5.767	73	5115122	226.291	ug/L		99
44) 1,2-Dichloroethane	5.873	62	2240678	212.396	ug/L		100
47) Methyl cyclohexane	6.246	83	2729273	212.181	ug/L		93
48) Trichloroethene	6.261	95	2082595	223.115	ug/L		100
50) Dibromomethane	6.709	93	1114091	213.376	ug/L		99
51) 1,2-Dichloropropane	6.808	63	1782489	220.698	ug/L		99
53) 2-Chloroethyl vinyl ether	7.507	63	1129499	231.137	ug/L		95
54) Bromodichloromethane	6.884	83	2581110	218.931	ug/L		99
57) 1,4-Dioxane	7.098	88	167499	2038.811	ug/L		97
58) cis-1,3-Dichloropropene	7.578	75	2956730	224.242	ug/L		99
61) Toluene	7.836	92	4720477	212.385	ug/L		97
62) 4-Methyl-2-pentanone	8.273	58	548428	223.801	ug/L		98
63) Tetrachloroethene	8.280	166	2104713	215.733	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	2692029	221.242	ug/L		94
67) Ethyl methacrylate	8.502	69	2287886	223.624	ug/L		96
68) 1,1,2-Trichloroethane	8.517	83	1320957	216.592	ug/L		99
69) Chlorodibromomethane	8.725	129	2119297	219.782	ug/L		99
70) 1,3-Dichloropropane	8.839	76	2577242	212.034	ug/L		99
71) 1,2-Dibromoethane	9.004	107	1644629	212.585	ug/L		99
72) 2-Hexanone	9.276	43	967153	212.818	ug/L		99
73) Chlorobenzene	9.653	112	5365625	216.619	ug/L		99
74) Ethylbenzene	9.686	91	9371930	220.852	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.736	131	2050168	222.401	ug/L		99
76) p/m Xylene	9.875	106	7591569	452.468	ug/L		95
77) o Xylene	10.410	106	7258699	446.609	ug/L		93

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	12976391	471.137	ug/L		95
80) Bromoform	10.509	173	1449234	230.113	ug/L		99
82) Isopropylbenzene	10.780	105	9032081	227.096	ug/L		99
84) Bromobenzene	11.225	156	2359837	214.628	ug/L		99
85) n-Propylbenzene	11.258	91	10428370	225.101	ug/L		99
86) 1,4-Dichlorobutane	11.282	55	2757804	216.171	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.356	83	1883791	213.131	ug/L		99
88) 4-Ethyltoluene	11.389	105	8732627	225.484	ug/L		99
89) 2-Chlorotoluene	11.430	91	6326654M6	222.680	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	7755534	226.223	ug/L		98
91) 1,2,3-Trichloropropane	11.496	75	1607514	217.468	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.545	53	530929	261.976	ug/L	#	93
93) 4-Chlorotoluene	11.611	91	6566691	224.509	ug/L		99
94) tert-Butylbenzene	11.817	119	6197300	223.659	ug/L		97
97) 1,2,4-Trimethylbenzene	11.899	105	7541150	223.275	ug/L		99
98) sec-Butylbenzene	12.006	105	8737521	221.687	ug/L		100
99) p-Isopropyltoluene	12.162	119	7760233	226.810	ug/L		98
100) 1,3-Dichlorobenzene	12.236	146	4426516	219.125	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	4502235	216.396	ug/L		99
102) p-Diethylbenzene	12.533	119	4494489	228.693	ug/L		98
103) n-Butylbenzene	12.590	91	6227543	230.178	ug/L		99
104) 1,2-Dichlorobenzene	12.746	146	4199734	217.959	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.322	119	6952315	236.321	ug/L		97
106) 1,2-Dibromo-3-chloropr...	13.528	155	371736	226.757	ug/L		97
107) 1,3,5-Trichlorobenzene	13.553	180	2775675	218.844	ug/L		99
108) Hexachlorobutadiene	14.120	225	832535	234.282	ug/L		99
109) 1,2,4-Trichlorobenzene	14.153	180	2424607	220.764	ug/L		99
110) Naphthalene	14.441	128	5539160	224.678	ug/L		100
111) 1,2,3-Trichlorobenzene	14.606	180	1954213	213.980	ug/L		98

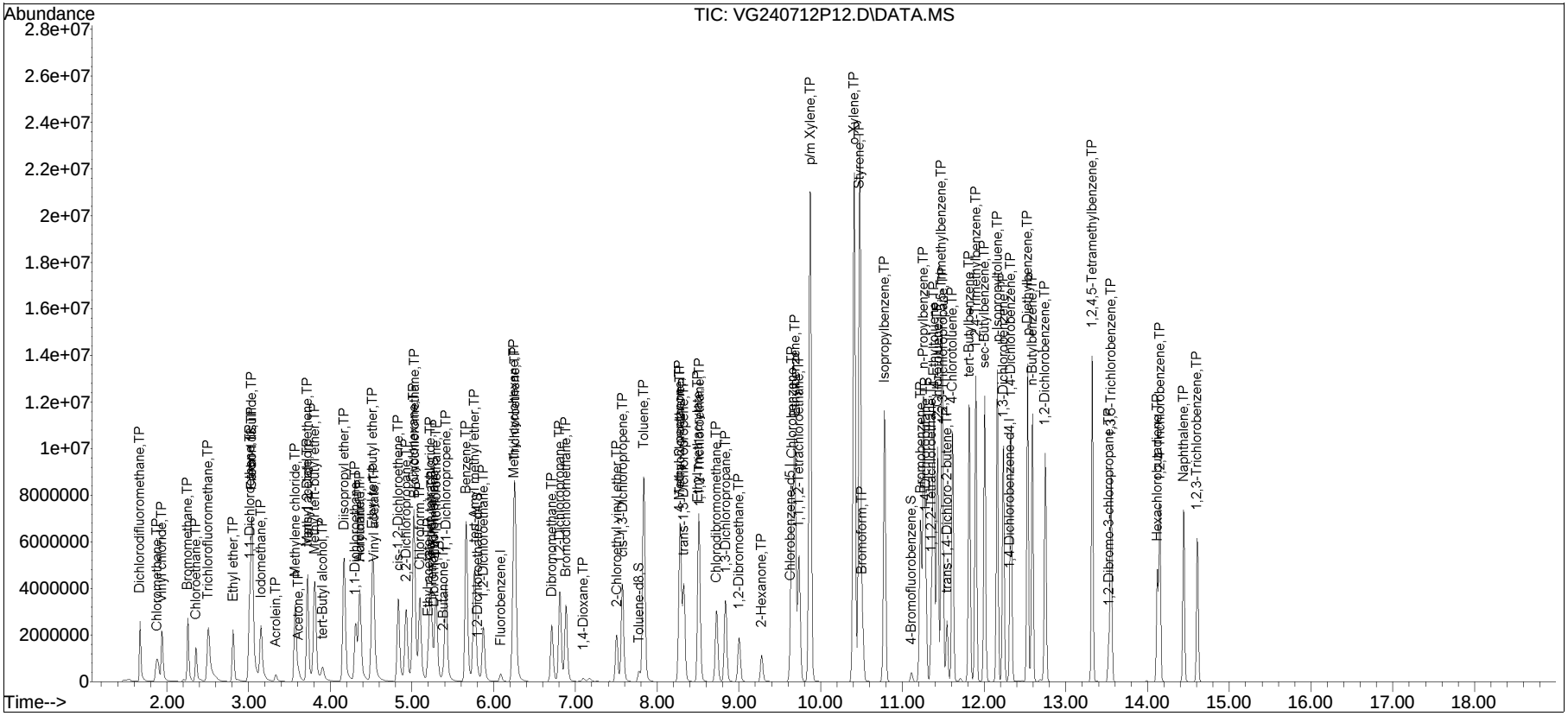
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

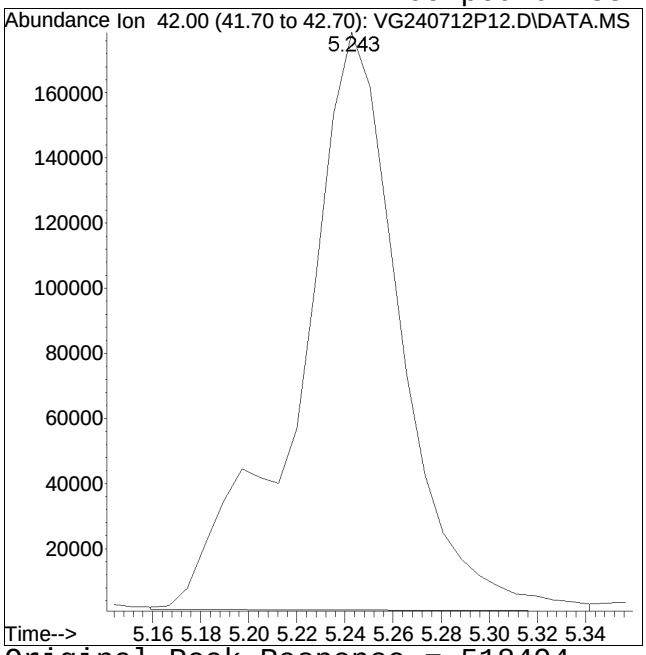
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



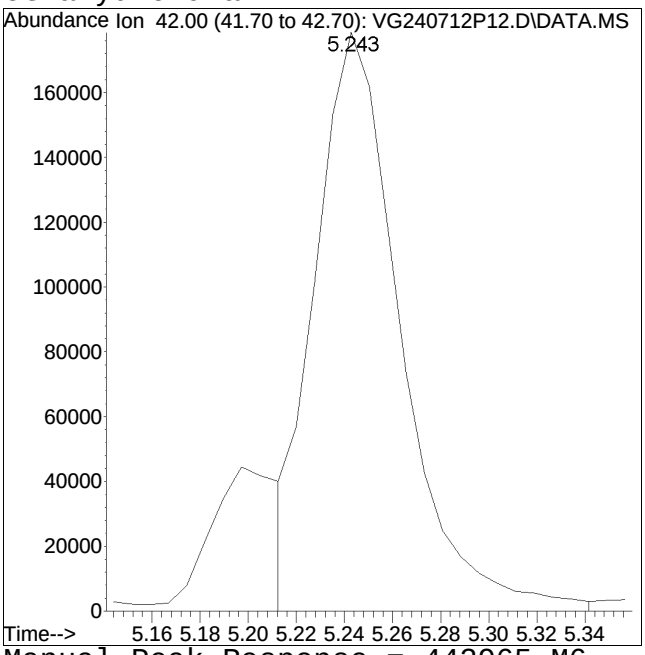
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P12.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:56 am Instrument : Gonzo
Sample : I8260STD200PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 518494



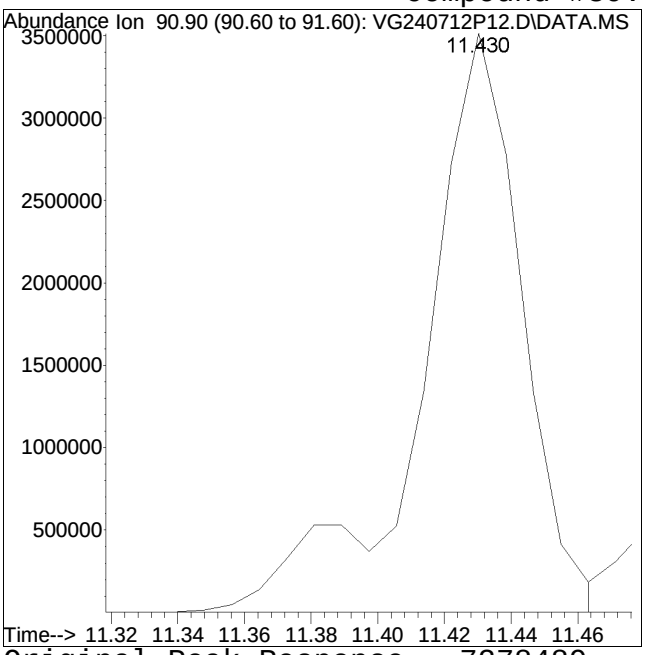
Manual Peak Response = 442965 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

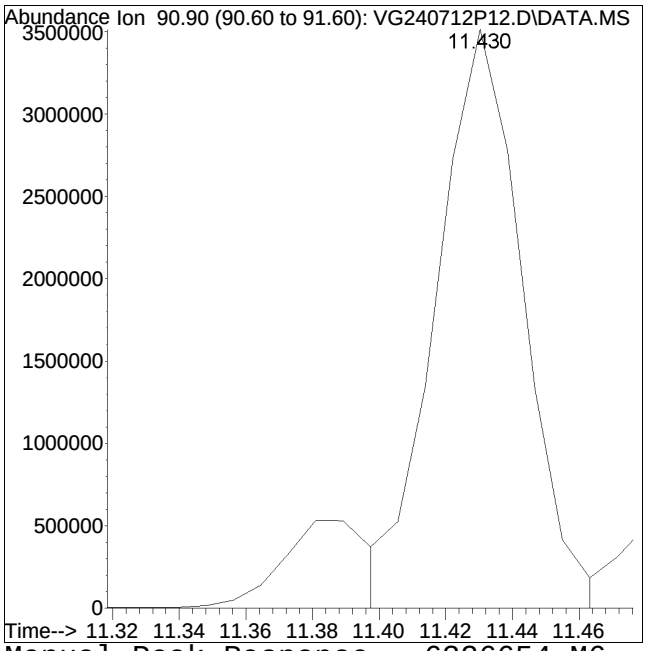
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P12.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:56 am Instrument : Gonzo
Sample : I8260STD200PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 7278489



Manual Peak Response = 6326654 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	100	0.00
2	TP	Dichlorodifluoromethane	0.265	0.246	7.2	84	0.00
3	TP	Chloromethane	0.227	0.260	-14.5	114	0.00
4	TP	Vinyl chloride	0.235	0.243	-3.4	93	0.00
5	TP	Bromomethane	0.125	0.212	-69.6#	172	0.00
6	TP	Chloroethane	0.180	0.196	-8.9	105	0.00
7	TP	Trichlorofluoromethane	0.345	0.344	0.3	101	0.00
8	TP	Ethyl ether	0.115	0.116	-0.9	102	0.00
10	TP	1,1-Dichloroethene	0.189	0.187	1.1	94	0.00
11	TP	Carbon disulfide	0.556	0.499	10.3	87	0.00
12	TP	Freon-113	0.208	0.195	6.2	91	0.00
13	TP	Iodomethane	0.365	0.234	35.9#	67	0.00
14	TP	Acrolein	0.033	0.022	33.3#	63	0.00
15	TP	Methylene chloride	0.224	0.220	1.8	98	0.00
17	TP	Acetone	* 10.000	9.753	2.5	107	0.00
18	TP	trans-1,2-Dichloroethene	0.207	0.205	1.0	94	0.00
19	TP	Methyl acetate	0.115	0.111	3.5	101	0.00
20	TP	Methyl tert-butyl ether	0.636	0.546	14.2	87	0.00
21	TP	tert-Butyl alcohol	0.018	0.018	0.0	102	0.00
22	TP	Diisopropyl ether	0.650	0.658	-1.2	99	0.00
23	TP	1,1-Dichloroethane	0.375	0.385	-2.7	98	0.00
24	TP	Halothane	0.172	0.169	1.7	94	0.00
25	TP	Acrylonitrile	0.058	0.053	8.6	91	0.00
26	TP	Ethyl tert-butyl ether	0.639	0.611	4.4	95	0.00
27	TP	Vinyl acetate	0.347	0.348	-0.3	94	0.00
28	TP	cis-1,2-Dichloroethene	0.238	0.242	-1.7	99	0.00
29	TP	2,2-Dichloropropane	0.313	0.278	11.2	87	0.00
30	TP	Bromochloromethane	0.116	0.113	2.6	94	0.00
31	TP	Cyclohexane	0.356	0.319	10.4	85	0.00
32	TP	Chloroform	0.384	0.402	-4.7	99	0.00
33	TP	Ethyl acetate	0.170	0.168	1.2	104	0.00
34	TP	Carbon tetrachloride	0.311	0.319	-2.6	93	0.00
35	TP	Tetrahydrofuran	0.056	0.054	3.6	93	0.00
36	S	Dibromofluoromethane	0.261	0.258	1.1	99	0.00
37	TP	1,1,1-Trichloroethane	0.354	0.365	-3.1	98	0.00
39	TP	2-Butanone	0.073	0.075	-2.7	104	0.00
40	TP	1,1-Dichloropropene	0.283	0.296	-4.6	100	0.00
41	TP	Benzene	0.857	0.889	-3.7	97	0.00
42	TP	tert-Amyl methyl ether	0.585	0.570	2.6	98	0.00

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	S	1,2-Dichloroethane-d4	0.277	0.297	-7.2	103	0.00
44	TP	1,2-Dichloroethane	0.273	0.285	-4.4	104	0.00
47	TP	Methyl cyclohexane	0.333	0.308	7.5	85	0.00
48	TP	Trichloroethene	0.242	0.245	-1.2	98	0.00
50	TP	Dibromomethane	0.135	0.137	-1.5	99	0.00
51	TP	1,2-Dichloropropane	0.209	0.217	-3.8	99	0.00
53	TP	2-Chloroethyl vinyl ether	0.126	0.109	13.5	90	0.00
54	TP	Bromodichloromethane	0.305	0.298#	2.3	95	0.00
57	TP	1,4-Dioxane	0.00213	0.00212#	0.5	105	0.00
58	TP	cis-1,3-Dichloropropene	0.341	0.350	-2.6	100	0.00
59	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
60	S	Toluene-d8	1.255	1.277	-1.8	101	0.00
61	TP	Toluene	0.695	0.721	-3.7	98	0.00
62	TP	4-Methyl-2-pentanone	0.077	0.078	-1.3	99	0.00
63	TP	Tetrachloroethene	0.305	0.310	-1.6	95	0.00
65	TP	trans-1,3-Dichloropropene	0.380	0.396	-4.2	100	0.00
67	TP	Ethyl methacrylate	0.320	0.313	2.2	97	0.00
68	TP	1,1,2-Trichloroethane	0.191	0.195#	-2.1	101	0.00
69	TP	Chlorodibromomethane	0.302	0.307	-1.7	98	0.00
70	TP	1,3-Dichloropropane	0.380	0.402	-5.8	101	0.00
71	TP	1,2-Dibromoethane	0.242	0.245	-1.2	100	0.00
72	TP	2-Hexanone	0.142	0.143	-0.7	106	0.00
73	TP	Chlorobenzene	0.775	0.821	-5.9	101	0.00
74	TP	Ethylbenzene	1.327	1.359	-2.4	97	0.00
75	TP	1,1,1,2-Tetrachloroethane	0.288	0.307	-6.6	102	0.00
76	TP	p/m Xylene	0.525	0.552	-5.1	99	0.00
77	TP	o Xylene	0.508	0.530	-4.3	98	0.00
78	TP	Styrene	0.861	0.911	-5.8	101	0.00
79	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
80	TP	Bromoform	0.354	0.346	2.3	100	0.00
82	TP	Isopropylbenzene	2.237	2.332	-4.2	98	0.00
83	S	4-Bromofluorobenzene	0.835	0.818	2.0	101	0.00
84	TP	Bromobenzene	0.619	0.642	-3.7	101	0.00
85	TP	n-Propylbenzene	2.606	2.616	-0.4	96	0.00
86	TP	1,4-Dichlorobutane	0.718	0.708	1.4	99	0.00
87	TP	1,1,2,2-Tetrachloroethane	0.497	0.510	-2.6	104	0.00
88	TP	4-Ethyltoluene	2.179	2.268	-4.1	99	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
89 TP	2-Chlorotoluene	1.598	1.654	-3.5	101	0.00
90 TP	1,3,5-Trimethylbenzene	1.929	1.994	-3.4	98	0.00
91 TP	1,2,3-Trichloropropane	0.416	0.415	0.2	100	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.114	0.107	6.1	104	0.00
93 TP	4-Chlorotoluene	1.645	1.750	-6.4	101	0.00
94 TP	tert-Butylbenzene	1.559	1.645	-5.5	98	0.00
97 TP	1,2,4-Trimethylbenzene	1.900	2.055	-8.2	102	0.00
98 TP	sec-Butylbenzene	2.217	2.267	-2.3	96	0.00
99 TP	p-Isopropyltoluene	1.925	2.004	-4.1	98	0.00
100 TP	1,3-Dichlorobenzene	1.136	1.229	-8.2	103	0.00
101 TP	1,4-Dichlorobenzene	1.170	1.242	-6.2	102	0.00
102 TP	p-Diethylbenzene	1.106	1.078	2.5	91	0.00
103 TP	n-Butylbenzene	1.522	1.638	-7.6	101	0.00
104 TP	1,2-Dichlorobenzene	1.084	1.160	-7.0	103	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.655	1.668	-0.8	100	0.00
106 TP	1,2-Dibromo-3-chloropropane	0.092	0.096	-4.3	111	0.00
107 TP	1,3,5-Trichlorobenzene	0.713	0.707	0.8	96	0.00
108 TP	Hexachlorobutadiene	0.200	0.184	8.0	93	0.00
109 TP	1,2,4-Trichlorobenzene	0.618	0.609	1.5	99	0.00
110 TP	Naphthalene	1.387	1.373	1.0	105	0.00
111 TP	1,2,3-Trichlorobenzene	0.514	0.509	1.0	99	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 3 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	355201	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 100.25%			
59) Chlorobenzene-d5	9.629	117	276630	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 99.87%			
79) 1,4-Dichlorobenzene-d4	12.311	152	160431	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 100.25%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	91568	9.870	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.70%			
43) 1,2-Dichloroethane-d4	5.805	65	105560	10.711	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.11%			
60) Toluene-d8	7.779	98	353216	10.171	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.71%			
83) 4-Bromofluorobenzene	11.110	95	131167	9.789	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.89%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	87365	9.264	ug/L	99
3) Chloromethane	1.885	50	92176	11.427	ug/L	99
4) Vinyl chloride	1.946	62	86491	10.349	ug/L	97
5) Bromomethane	2.257	94	75469	17.057	ug/L	93
6) Chloroethane	2.364	64	69571	10.889	ug/L	97
7) Trichlorofluoromethane	2.508	101	122027	9.959	ug/L	98
8) Ethyl ether	2.812	74	41081	10.099	ug/L	93
10) 1,1-Dichloroethene	3.009	96	66382	9.879	ug/L	99
11) Carbon disulfide	3.047	76	177336	8.974	ug/L	100
12) Freon-113	3.047	101	69376	9.410	ug/L	90
13) Iodomethane	3.154	142	83271	6.422	ug/L	96
14) Acrolein	3.344	56	7638	6.610	ug/L	97
15) Methylene chloride	3.579	84	78000	9.818	ug/L	96
17) Acetone	3.625	43	18260	9.753	ug/L	100
18) trans-1,2-Dichloroethene	3.724	96	72939	9.924	ug/L	94
19) Methyl acetate	3.731	43	39593	9.690	ug/L	99
20) Methyl tert-butyl ether	3.815	73	194005	8.584	ug/L	96
21) tert-Butyl alcohol	3.906	59	31230	49.804	ug/L	97
22) Diisopropyl ether	4.172	45	233777	10.128	ug/L	99
23) 1,1-Dichloroethane	4.309	63	136804	10.275	ug/L	98
24) Halothane	4.362	117	59863	9.806	ug/L	98

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	4.369	53	18701	9.007	ug/L	97
26) Ethyl tert-butyl ether	4.521	59	217157	9.563	ug/L	97
27) Vinyl acetate	4.544	43	123564	10.016	ug/L	100
28) cis-1,2-Dichloroethene	4.833	96	86005	10.176	ug/L	93
29) 2,2-Dichloropropane	4.924	77	98778	8.899	ug/L	94
30) Bromochloromethane	5.030	128	40236	9.731	ug/L	97
31) Cyclohexane	5.023	56	113236	8.967	ug/L	89
32) Chloroform	5.099	83	142940	10.488	ug/L	99
33) Ethyl acetate	5.205	43	59660	9.887	ug/L	96
34) Carbon tetrachloride	5.228	117	113189	10.248	ug/L	98
35) Tetrahydrofuran	5.251	42	19334M6	9.783	ug/L	
37) 1,1,1-Trichloroethane	5.296	97	129507	10.303	ug/L	98
39) 2-Butanone	5.395	43	26613	10.330	ug/L	90
40) 1,1-Dichloropropene	5.418	75	105202	10.469	ug/L	99
41) Benzene	5.668	78	315948	10.383	ug/L	98
42) tert-Amyl methyl ether	5.767	73	202501	9.745	ug/L	98
44) 1,2-Dichloroethane	5.874	62	101162	10.431	ug/L	99
47) Methyl cyclohexane	6.246	83	109578	9.267	ug/L	91
48) Trichloroethene	6.261	95	87053	10.145	ug/L	99
50) Dibromomethane	6.709	93	48791	10.165	ug/L	97
51) 1,2-Dichloropropane	6.808	63	77021	10.373	ug/L	98
53) 2-Chloroethyl vinyl ether	7.507	63	38817	8.641	ug/L	99
54) Bromodichloromethane	6.884	83	105820	9.764	ug/L	99
57) 1,4-Dioxane	7.099	88	37634	498.294	ug/L	95
58) cis-1,3-Dichloropropene	7.579	75	124306	10.255	ug/L	97
61) Toluene	7.836	92	199542	10.379	ug/L	98
62) 4-Methyl-2-pentanone	8.273	58	21705	10.240	ug/L	98
63) Tetrachloroethene	8.288	166	85687	10.154	ug/L	97
65) trans-1,3-Dichloropropene	8.324	75	109467	10.400	ug/L	94
67) Ethyl methacrylate	8.510	69	86448	9.768	ug/L	97
68) 1,1,2-Trichloroethane	8.510	83	54047	10.245	ug/L	100
69) Chlorodibromomethane	8.725	129	84807	10.168	ug/L	98
70) 1,3-Dichloropropane	8.832	76	111331	10.589	ug/L	100
71) 1,2-Dibromoethane	9.004	107	67902	10.147	ug/L	99
72) 2-Hexanone	9.283	43	39496	10.047	ug/L	97
73) Chlorobenzene	9.645	112	227169	10.603	ug/L	99
74) Ethylbenzene	9.678	91	375983	10.243	ug/L	99
75) 1,1,1,2-Tetrachloroethane	9.736	131	84883	10.645	ug/L	96
76) p/m Xylene	9.867	106	305427	21.045	ug/L	100
77) o Xylene	10.402	106	293118	20.849	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	504179	21.162	ug/L		99
80) Bromoform	10.509	173	55431	9.753	ug/L		96
82) Isopropylbenzene	10.781	105	374070	10.422	ug/L		98
84) Bromobenzene	11.225	156	103042	10.384	ug/L		100
85) n-Propylbenzene	11.258	91	419745	10.039	ug/L		99
86) 1,4-Dichlorobutane	11.282	55	113635	9.870	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.356	83	81821	10.257	ug/L		97
88) 4-Ethyltoluene	11.381	105	363815	10.409	ug/L		99
89) 2-Chlorotoluene	11.430	91	265430M1	10.352	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	319940	10.341	ug/L		99
91) 1,2,3-Trichloropropane	11.496	75	66579M1	9.980	ug/L		
92) trans-1,4-Dichloro-2-b...	11.546	53	17125	9.363	ug/L	#	90
93) 4-Chlorotoluene	11.611	91	280755	10.636	ug/L		97
94) tert-Butylbenzene	11.817	119	263971	10.556	ug/L		100
97) 1,2,4-Trimethylbenzene	11.899	105	329670	10.815	ug/L		99
98) sec-Butylbenzene	12.006	105	363744	10.226	ug/L		100
99) p-Isopropyltoluene	12.154	119	321524	10.413	ug/L		99
100) 1,3-Dichlorobenzene	12.237	146	197162	10.815	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	199238	10.611	ug/L		99
102) p-Diethylbenzene	12.533	119	173022	9.755	ug/L		98
103) n-Butylbenzene	12.590	91	262856	10.765	ug/L		100
104) 1,2-Dichlorobenzene	12.747	146	186115	10.703	ug/L		100
105) 1,2,4,5-Tetramethylben...	13.323	119	267638	10.081	ug/L		97
106) 1,2-Dibromo-3-chloropr...	13.528	155	15353	10.377	ug/L		97
107) 1,3,5-Trichlorobenzene	13.553	180	113458	9.912	ug/L		99
108) Hexachlorobutadiene	14.120	225	29501	9.199	ug/L		97
109) 1,2,4-Trichlorobenzene	14.153	180	97695	9.856	ug/L		99
110) Naphthalene	14.441	128	220203	9.897	ug/L		100
111) 1,2,3-Trichlorobenzene	14.606	180	81692	9.912	ug/L		98

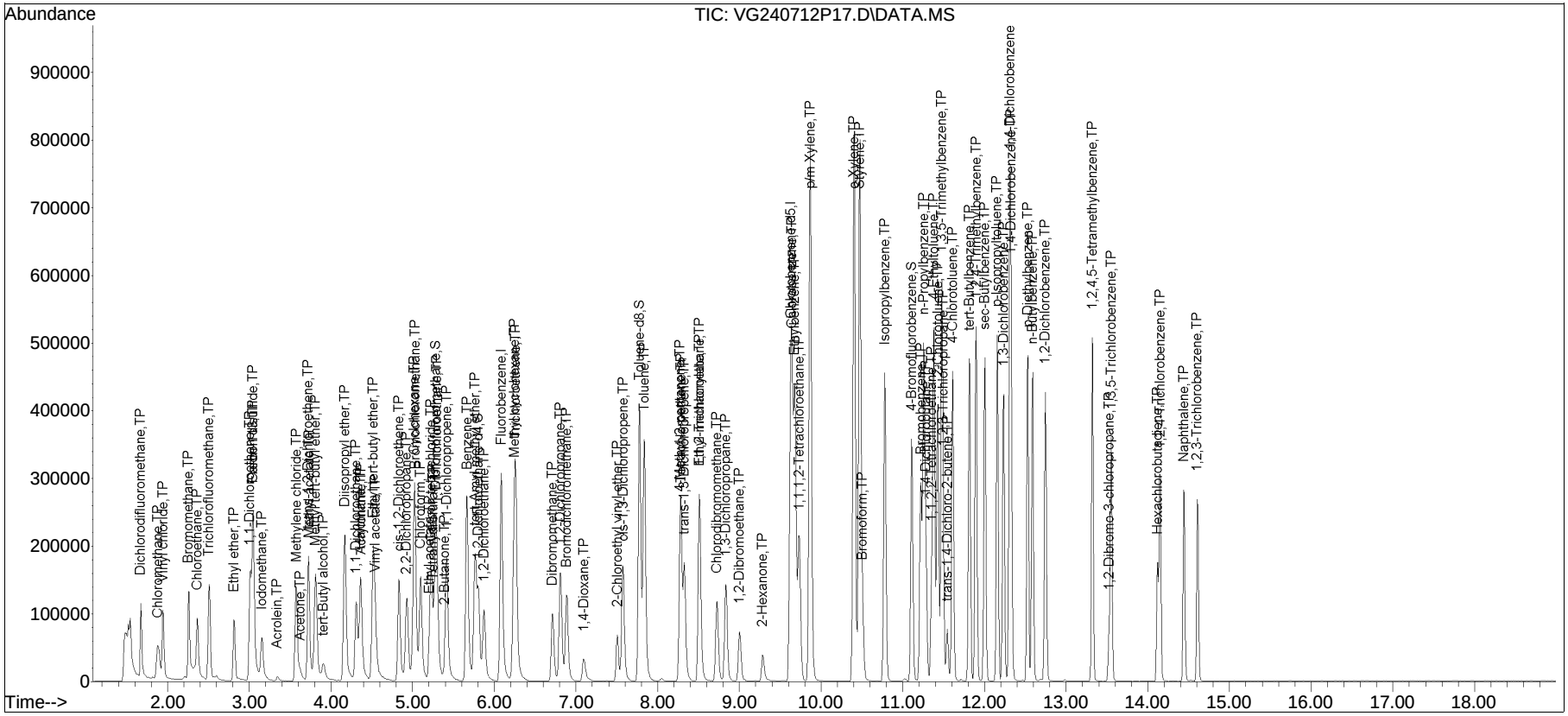
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

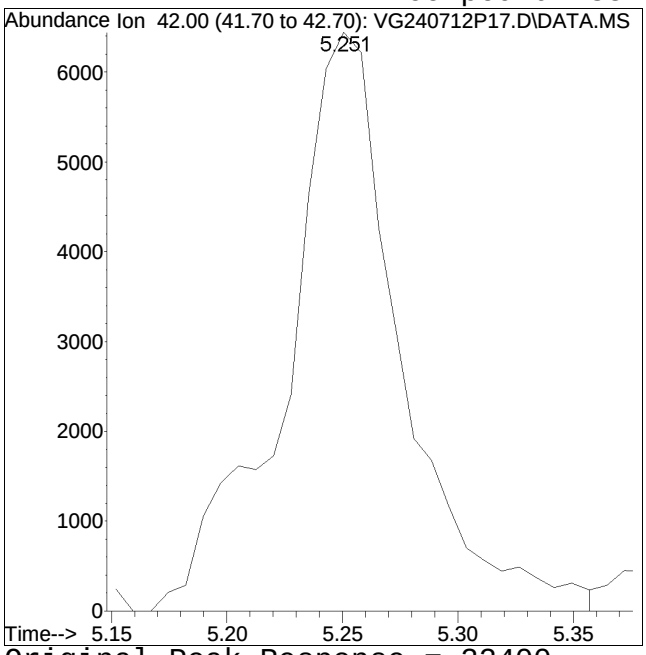
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



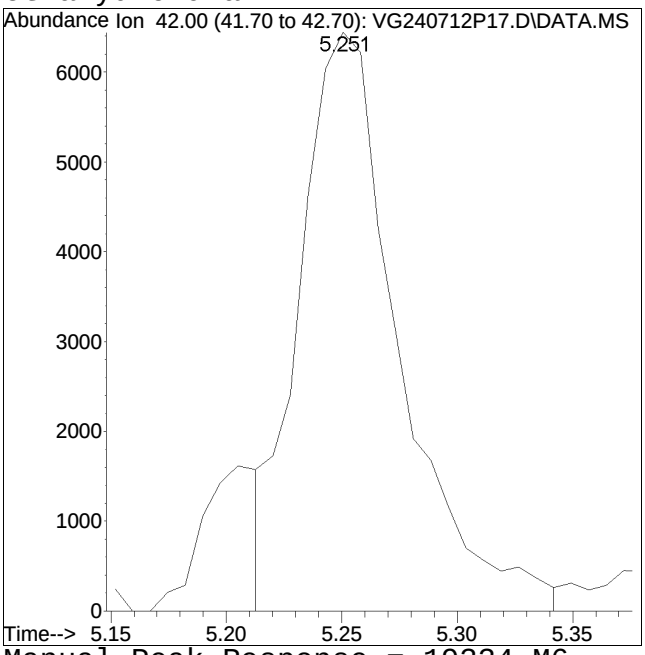
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P17.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 2:55 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 7/15/2024 9:45 am

Compound #35: Tetrahydrofuran



Original Peak Response = 22400



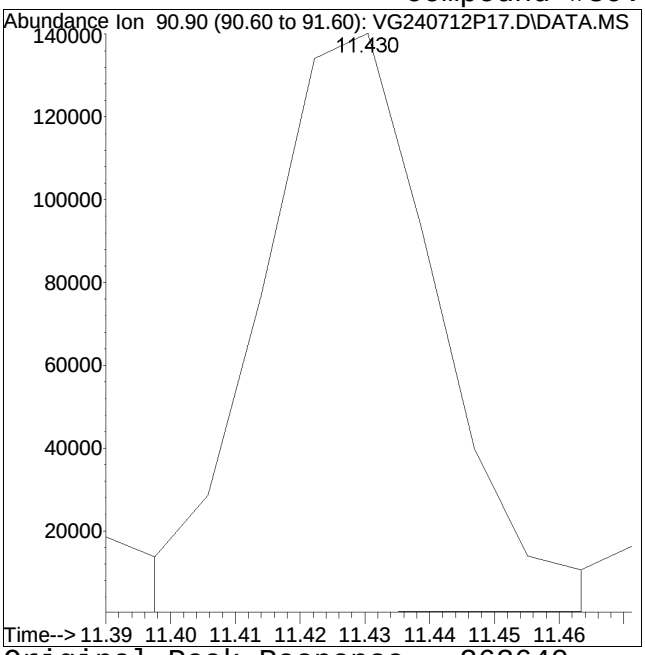
Manual Peak Response = 19334 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

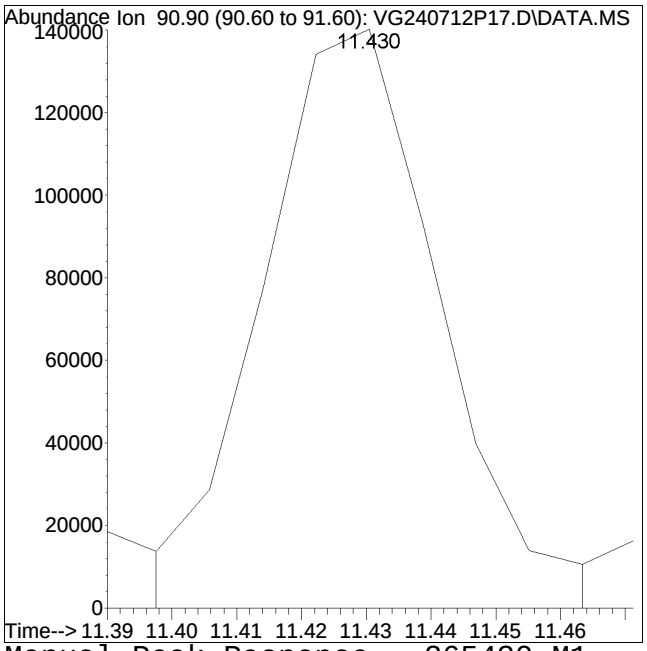
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P17.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 2:55 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 7/15/2024 9:45 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 263640



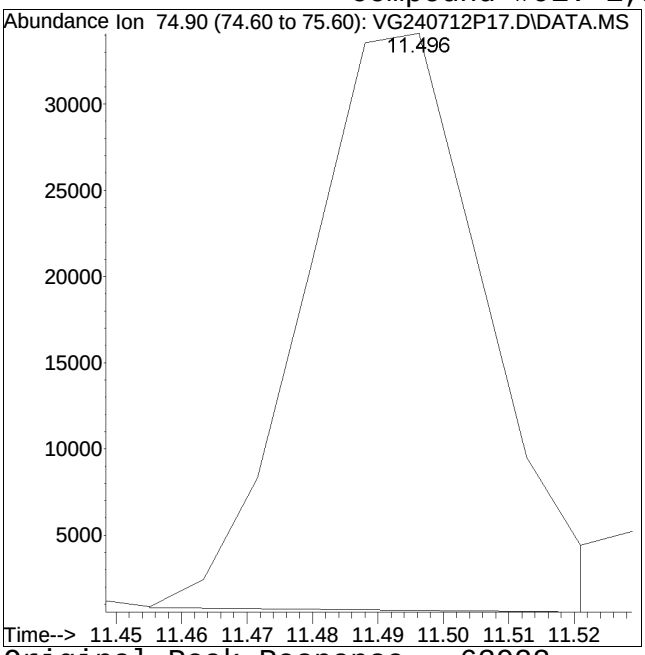
Manual Peak Response = 265430 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

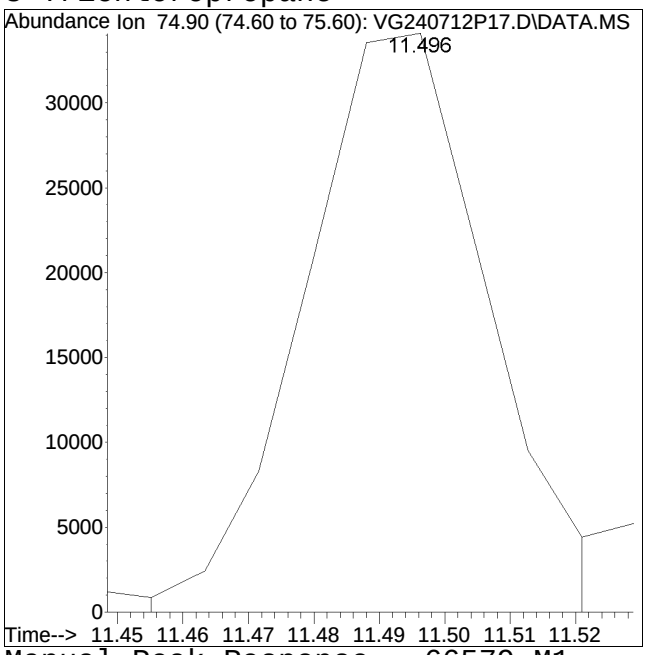
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P17.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 2:55 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 7/15/2024 9:45 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 63922



Manual Peak Response = 66579 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Relative Error Report Gonzo

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
17	TP Acetone	L	ug/L	10.0	9.058	-9.4	2.00	2.221	11.1

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
17	TP Acetone	Linear	0.990142	0.000000	0.0484088	0.00419312

Response Factor Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------	ISTD	----------							
2)	TP	Dichlorodifluo...		0.147	0.215	0.223	0.209	0.195	0.195	0.197		13.62
3)	TP	Chloromethane	0.252	0.295	0.303	0.277	0.253	0.239	0.225	0.263		10.94
4)	TP	Vinyl chloride	0.202	0.176	0.199	0.232	0.231	0.217	0.206	0.203	0.208	8.84
5)	TP	Bromomethane		0.070	0.076	0.075	0.079	0.088	0.095	0.102	0.084	14.11
6)	TP	Chloroethane		0.118	0.132	0.133	0.126	0.117	0.110	0.108	0.120	8.39
7)	TP	Trichlorofluor...		0.144	0.179	0.257	0.263	0.252	0.238	0.239	*L	0.9987
8)	TP	Ethyl ether		0.067	0.069	0.073	0.070	0.071	0.070	0.068	0.070	2.76
10)	TP	1,1-Dichloroet...		0.110	0.126	0.152	0.154	0.146	0.139	0.139	0.138	11.23
11)	TP	Carbon disulfide		0.404	0.455	0.510	0.491	0.451	0.438	0.433	0.454	7.85
12)	TP	Freon-113			0.097	0.154	0.159	0.150	0.147	0.151	0.143	16.09
13)	TP	Iodomethane			0.122	0.172	0.190	0.199	0.203	0.204	0.182	17.53
14)	TP	Acrolein		0.018	0.024	0.025	0.025	0.025	0.025	0.024	0.024	11.30
15)	TP	Methylene chlo...		0.237	0.204	0.191	0.173	0.164	0.159	0.156	0.183	16.00
17)	TP	Acetone			0.040	0.035	0.033	0.032	0.031	0.030	0.033	10.98
18)	TP	trans-1,2-Dich...		0.148	0.169	0.177	0.166	0.160	0.157	0.155	0.162	5.98
19)	TP	Methyl acetate		0.103	0.089	0.085	0.084	0.083	0.081	0.077	0.086	9.89
21)	TP	Methyl tert-bu...		0.254	0.268	0.317	0.328	0.328	0.339	0.333	0.309	11.02
22)	TP	tert-Butyl alc...		0.004	0.006	0.007	0.007	0.007	0.007	0.007	0.006#	15.62
24)	TP	Diisopropyl ether		0.493	0.543	0.594	0.622	0.617	0.616	0.586	0.581	8.17
25)	TP	1,1-Dichloroet...		0.311	0.358	0.365	0.340	0.319	0.315	0.306	0.331	7.23
26)	TP	Halothane		0.096	0.110	0.132	0.127	0.127	0.126	0.126	0.121	10.56
27)	TP	Acrylonitrile		0.045	0.044	0.049	0.048	0.046	0.045	0.043	0.046	4.17
28)	TP	Ethyl tert-but...		0.324	0.354	0.413	0.457	0.456	0.468	0.453	0.418	13.74
29)	TP	Vinyl acetate		0.273	0.289	0.353	0.379	0.386	0.385	0.367	0.348	13.51
30)	TP	cis-1,2-Dichlo...		0.168	0.196	0.197	0.183	0.172	0.172	0.168	0.179#	6.96
31)	TP	2,2-Dichloropr...		0.174	0.196	0.224	0.220	0.211	0.211	0.212	0.207	8.20
32)	TP	Bromochloromet...		0.084	0.092	0.093	0.084	0.081	0.080	0.078	0.085#	6.73
33)	TP	Cyclohexane			0.183	0.351	0.378	0.354	0.352	0.353	*L	0.9993
34)	TP	Chloroform		0.283	0.310	0.303	0.286	0.274	0.278	0.268	0.286#	5.37
35)	TP	Ethyl acetate			0.096	0.111	0.116	0.118	0.118	0.114	0.112	7.47

Response Factor Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
36)	TP	Carbon tetrach...	0.179	0.145	0.171	0.233	0.236	0.228	0.228	0.231	0.206	17.40
37)	TP	Tetrahydrofuran			0.035	0.038	0.038	0.037	0.037	0.036	0.037	3.72
38)	S	Dibromofluorom...	0.356	0.382	0.381	0.359	0.339	0.326	0.329	0.324	0.349	6.78
39)	TP	1,1,1-Trichlor...		0.184	0.221	0.263	0.260	0.255	0.254	0.252	0.241	11.85
41)	TP	2-Butanone			0.042	0.044	0.049	0.050	0.049	0.047	0.047	6.75
42)	TP	1,1-Dichloropr...		0.128	0.160	0.214	0.222	0.214	0.213	0.213	0.195	18.52
44)	TP	Benzene	0.577	0.517	0.672	0.656	0.692	0.662	0.658	0.633	0.633	9.17
45)	TP	tert-Amyl meth...		0.172	0.171	0.190	0.208	0.218	0.230	0.228	0.202	12.43
46)	S	1,2-Dichloroet...	0.286	0.306	0.301	0.305	0.293	0.289	0.294	0.289	0.295	2.57
47)	T	1,2-Dichloroet...		0.154	0.165	0.170	0.162	0.154	0.154	0.149	0.158	4.65
50)	TP	Methyl cyclohe...			0.094	0.200	0.226	0.224	0.233	0.238	*L	0.9996
51)	TP	Trichloroethene	0.133	0.113	0.124	0.143	0.143	0.140	0.141	0.141	0.135#	8.23
53)	TP	Dibromomethane		0.065	0.068	0.071	0.070	0.068	0.069	0.067	0.068	2.99
54)	TP	1,2-Dichloropr...		0.115	0.131	0.154	0.152	0.147	0.147	0.143	0.141#	9.64
56)	TP	2-Chloroethyl ...		0.039	0.041	0.053	0.059	0.063	0.063	0.061	0.054	18.80
57)	TP	Bromodichlorom...		0.138	0.157	0.175	0.176	0.174	0.176	0.173	0.167#	8.74
60)	TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.34
61)	TP	cis-1,3-Dichlo...	0.121	0.126	0.149	0.186	0.197	0.199	0.201	0.197	0.172#	19.89
62)	I	Chlorobenzene-d5	----------ISTD----------									
63)	S	Toluene-d8	1.265	1.258	1.267	1.262	1.281	1.288	1.295	1.276	1.274	1.03
64)	TP	Toluene		0.347	0.400	0.427	0.437	0.427	0.429	0.416	0.412	7.55
65)	TP	4-Methyl-2-pen...			0.023	0.028	0.034	0.037	0.038	0.037	0.033	18.50
66)	TP	Tetrachloroethene		0.107	0.132	0.169	0.181	0.179	0.181	0.181	0.162	18.41
68)	TP	trans-1,3-Dich...		0.112	0.139	0.175	0.208	0.214	0.217	0.212	*L	0.9992
70)	TP	Ethyl methacry...			0.090	0.124	0.141	0.147	0.149	0.144	0.133	17.01
71)	TP	1,1,2-Trichlor...		0.072	0.079	0.094	0.102	0.111	0.111	0.108	0.097#	16.46
72)	TP	Chlorodibromom...		0.089	0.117	0.139	0.157	0.162	0.164	0.161	*L	0.9995
73)	TP	1,3-Dichloropr...		0.151	0.163	0.188	0.207	0.208	0.208	0.200	0.190	12.35
74)	TP	1,2-Dibromoethane		0.077	0.089	0.107	0.119	0.123	0.123	0.120	0.108#	16.86
76)	TP	2-Hexanone			0.045	0.055	0.064	0.069	0.069	0.066	0.061	15.23
77)	TP	Chlorobenzene		0.417	0.478	0.486	0.486	0.471	0.470	0.458	0.467	5.15

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
78)	TP	Ethylbenzene		0.611	0.710	0.850	0.854	0.821	0.817	0.780	0.778	11.36
79)	TP	1,1,1,2-Tetrac...		0.107	0.127	0.144	0.161	0.166	0.168	0.166	0.148	15.82
80)	TP	p/m Xylene		0.220	0.271	0.332	0.334	0.323	0.322	0.310	0.302	13.84
81)	TP	o Xylene		0.200	0.259	0.313	0.315	0.308	0.308	0.296	0.285	14.79
82)	TP	Styrene		0.304	0.416	0.503	0.521	0.507	0.499	0.464	0.459	16.79
83)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
84)	TP	Bromoform		0.110	0.118	0.137	0.162	0.172	0.176	0.179	0.150	19.06
86)	TP	Isopropylbenzene		1.046	1.323	1.726	1.771	1.679	1.676	1.637	1.551	17.18
87)	S	4-Bromofluorob...	0.911	0.911	0.900	0.932	0.924	0.900	0.900	0.908	0.911	1.31
88)	TP	Bromobenzene		0.335	0.355	0.374	0.380	0.370	0.371	0.370	0.365	4.18
89)	TP	n-Propylbenzene		1.282	1.530	1.993	2.048	1.948	1.952	1.864	1.802	15.83
90)	TP	1,4-Dichlorobu...		0.423	0.442	0.474	0.497	0.492	0.489	0.483	0.472	5.94
91)	TP	1,1,2,2-Tetrac...		0.237	0.231	0.246	0.267	0.266	0.266	0.263	0.254	6.06
92)	TP	4-Ethyltoluene		1.049	1.261	1.602	1.644	1.579	1.593	1.555	1.469	15.29
93)	TP	2-Chlorotoluene		0.883	1.048	1.156	1.157	1.108	1.131	1.117	1.086	8.88
94)	TP	1,3,5-Trimethy...		0.876	1.095	1.350	1.365	1.327	1.358	1.343	1.245	15.14
95)	TP	1,2,3-Trichlor...		0.162	0.186	0.191	0.205	0.202	0.204	0.205	0.194	8.07
96)	TP	trans-1,4-Dich...		0.063	0.078	0.083	0.094	0.095	0.096	0.095	0.086	14.50
97)	TP	4-Chlorotoluene		0.906	1.071	1.192	1.204	1.158	1.166	1.146	1.121	9.26
98)	TP	tert-Butylbenzene		0.714	0.853	1.187	1.236	1.189	1.202	1.183	1.081	19.23
101)	TP	1,2,4-Trimethy...		0.970	1.245	1.527	1.538	1.479	1.505	1.471	1.391	15.13
102)	TP	sec-Butylbenzene		0.953	1.168	1.721	1.779	1.693	1.711	1.646	*L	0.9992
103)	TP	p-Isopropyltol...		0.760	0.980	1.439	1.476	1.423	1.444	1.406	*L	0.9995
104)	TP	1,3-Dichlorobe...		0.643	0.722	0.760	0.757	0.734	0.732	0.718	0.724	5.42
105)	TP	1,4-Dichlorobe...		0.681	0.712	0.743	0.738	0.714	0.722	0.712	0.718	2.86
106)	TP	p-Diethylbenzene			0.566	0.809	0.846	0.825	0.842	0.840	0.788	13.93
107)	TP	n-Butylbenzene		0.629	0.830	1.214	1.226	1.171	1.197	1.177	*L	0.9996
108)	TP	1,2-Dichlorobe...		0.568	0.628	0.667	0.670	0.653	0.655	0.639	0.640	5.50
109)	TP	1,2,4,5-Tetram...			0.737	1.085	1.193	1.167	1.175	1.128	1.081	16.00
110)	TP	1,2-Dibromo-3-...		0.007	0.027	0.033	0.037	0.040	0.040	0.040	*L	0.9993
111)	TP	1,3,5-Trichlor...		0.347	0.382	0.443	0.449	0.433	0.439	0.427	0.417	9.11

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

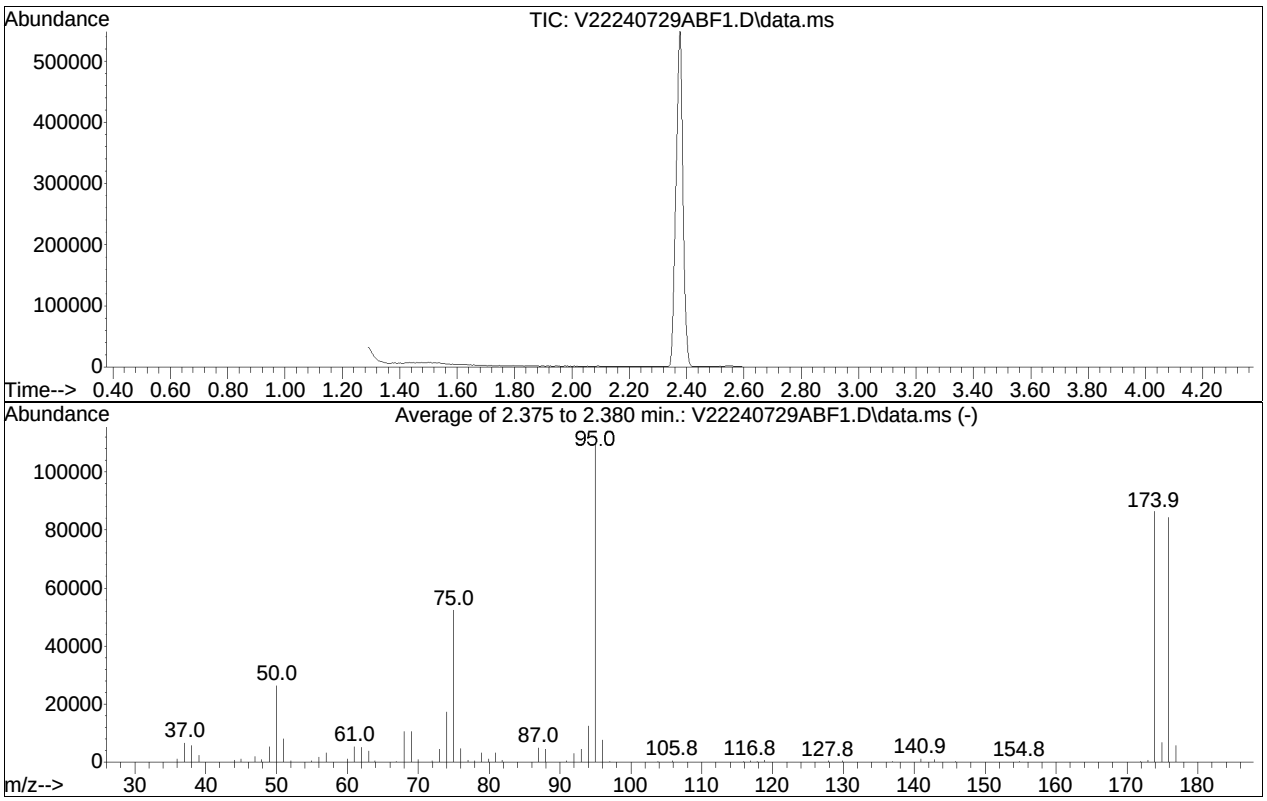
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
112) TP	Hexachlorobuta...	0.091	0.104	0.150	0.152	0.147	0.155	0.160	*L	0.9989	
113) TP	1,2,4-Trichlor...	0.285	0.311	0.368	0.385	0.380	0.381	0.374	0.355#	11.26	
114) TP	Naphthalene	0.486	0.583	0.770	0.883	0.870	0.861	0.815	*L	0.9987	
115) TP	1,2,3-Trichlor...	0.237	0.280	0.315	0.328	0.320	0.320	0.310	0.301#	10.69	

(#) = Out of Range

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729ABF1.D
Acq On : 29 Jul 2024 12:26 pm
Operator : VOA122:PID
Sample : WG1953132-1
Misc : WG1953132
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 374

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.9	26280	PASS
75	95	30	60	47.7	52499	PASS
95	95	100	100	100.0	110096	PASS
96	95	5	9	6.9	7556	PASS
173	174	0.00	2	0.7	585	PASS
174	95	50	100	78.4	86301	PASS
175	174	5	9	7.7	6687	PASS
176	174	95	101	97.7	84309	PASS
177	176	5	9	6.8	5766	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A03.D
Acq On : 29 Jul 2024 01:23 pm
Operator : VOA122:PID
Sample : I8260STD0.19PPB
Misc : WG1953132,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 06:56:43 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.977	96	488909	10.000 ug/L	0.00
Standard Area 1 = 507125			Recovery =	96.41%	
62) Chlorobenzene-d5	9.519	117	403292	10.000 ug/L	0.00
Standard Area 1 = 414608			Recovery =	97.27%	
83) 1,4-Dichlorobenzene-d4	12.236	152	193032	10.000 ug/L	0.00
Standard Area 1 = 204327			Recovery =	94.47%	
System Monitoring Compounds					
38) Dibromofluoromethane	5.158	113	173978	10.184 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.84%	
46) 1,2-Dichloroethane-d4	5.688	65	140055	9.699 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.99%	
63) Toluene-d8	7.675	98	510117	9.927 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.27%	
87) 4-Bromofluorobenzene	11.019	95	175827	10.003 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.03%	
Target Compounds					Qvalue
4) Vinyl chloride	1.881	62	1880	0.185 ug/L	92
36) Carbon tetrachloride	5.118	117	1663	0.165 ug/L #	87
44) Benzene	5.557	78	5360	0.173 ug/L #	85
51) Trichloroethene	6.147	95	1239	0.188 ug/L #	80
61) cis-1,3-Dichloropropene	7.459	75	1125	0.134 ug/L #	82
68) trans-1,3-Dichloropropene	8.210	75	841	0.120 ug/L #	62

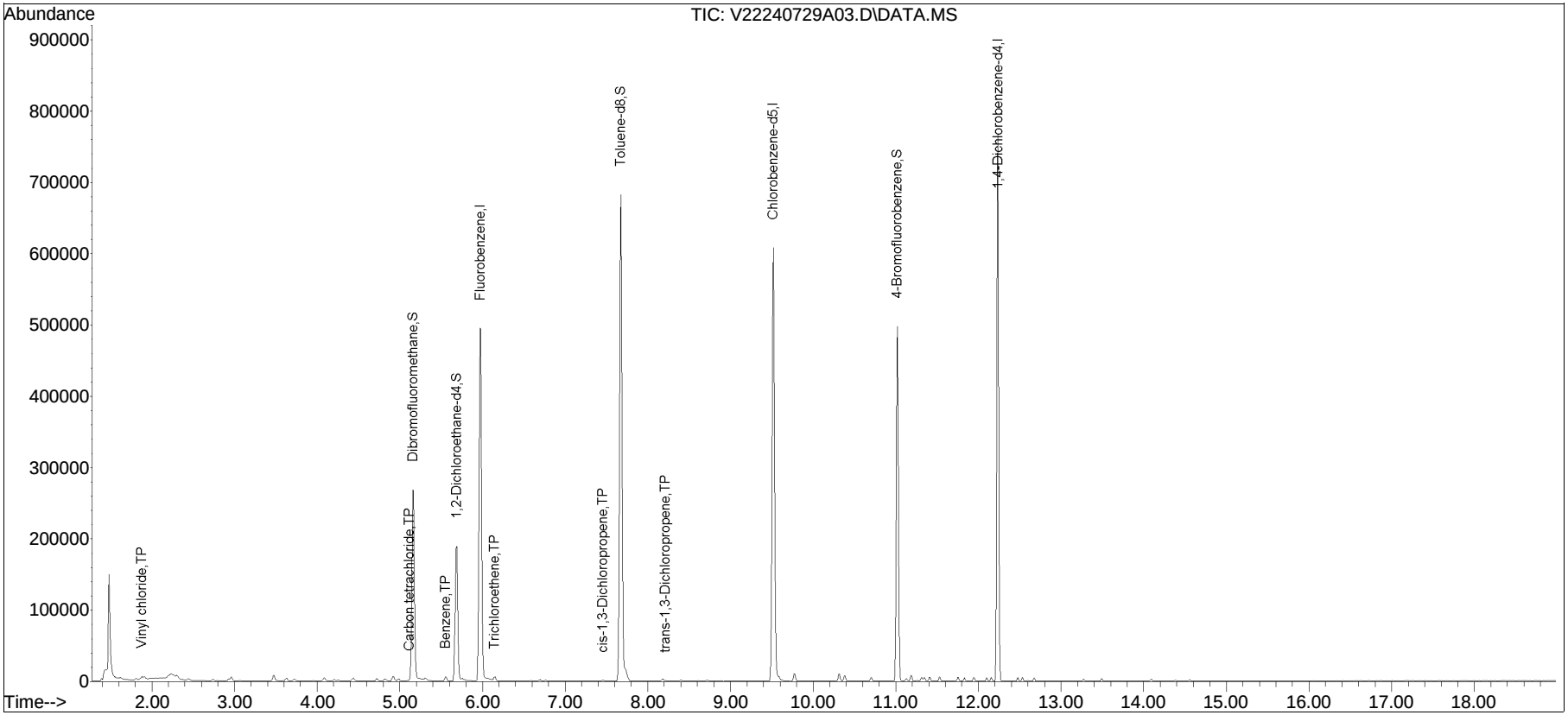
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A03.D
Acq On : 29 Jul 2024 01:23 pm
Operator : VOA122:PID
Sample : I8260STD0.19PPB
Misc : WG1953132,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 06:56:43 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-L11_MCP - L11 MCP729AICAL\V22240729A08.D•



Manual Integration Report

Data Path	: K:\VOA122\2024\240729AICALQ	Method	: V122_240729A_8260.m
Data File	: V22240729A03.D	Operator	: VOA122:PID
Date Inj'd	: 7/29/2024 1:23 pm	Instrument	: VOA 122
Sample	: I8260STD0.19PPB	Quant Date	: 7/30/2024 6:56 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	466096	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery =	91.91%		
62) Chlorobenzene-d5	9.519	117	404492	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery =	97.56%		
83) 1,4-Dichlorobenzene-d4	12.236	152	191762	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery =	93.85%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	178166	10.940	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.40%		
46) 1,2-Dichloroethane-d4	5.688	65	142623	10.360	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.60%		
63) Toluene-d8	7.675	98	509018	9.877	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.77%		
87) 4-Bromofluorobenzene	11.019	95	174668	10.003	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.03%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	2766	0.319	ug/L	94
3) Chloromethane	1.808	50	5873	0.478	ug/L	97
4) Vinyl chloride	1.880	62	4099	0.422	ug/L	96
5) Bromomethane	2.188	94	1633	0.419	ug/L	99
6) Chloroethane	2.306	64	2753	0.490	ug/L	92
7) Trichlorofluoromethane	2.444	101	3353	0.320	ug/L	94
8) Ethyl ether	2.739	74	1553	0.479	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	2572	0.399	ug/L	82
11) Carbon disulfide	2.962	76	9420	0.445	ug/L	100
12) Freon-113	2.968	101	1784	0.287	ug/L	88
13) Iodomethane	3.067	142	1778	0.229	ug/L #	89
14) Acrolein	3.250	56	413	0.373	ug/L	90
15) Methylene chloride	3.480	84	5525	0.646	ug/L #	57
17) Acetone	3.512	43	1541	0.868	ug/L #	77
18) trans-1,2-Dichloroethene	3.630	96	3455	0.458	ug/L	83
19) Methyl acetate	3.637	43	2412	0.602	ug/L #	63
21) Methyl tert-butyl ether	3.729	73	5913	0.410	ug/L #	68
22) tert-Butyl alcohol	3.814	59	517	1.712	ug/L #	70
24) Diisopropyl ether	4.089	45	11490	0.424	ug/L #	88
25) 1,1-Dichloroethane	4.207	63	7248	0.470	ug/L	93
26) Halothane	4.260	117	2244	0.399	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	1040	0.489	ug/L		90
28) Ethyl tert-butyl ether	4.437	59	7540	0.387	ug/L	#	79
29) Vinyl acetate	4.443	43	6371	0.393	ug/L	#	87
30) cis-1,2-Dichloroethene	4.718	96	3923	0.469	ug/L	#	79
31) 2,2-Dichloropropane	4.823	77	4065	0.421	ug/L	#	60
32) Bromochloromethane	4.915	128	1950	0.494	ug/L	#	61
33) Cyclohexane	4.928	56	3547	0.251	ug/L	#	61
34) Chloroform	4.981	83	6604	0.495	ug/L	#	93
35) Ethyl acetate	0.000		0	N.D.	d		
36) Carbon tetrachloride	5.125	117	3370	0.350	ug/L	#	89
37) Tetrahydrofuran	0.000		0	N.D.	d		
39) 1,1,1-Trichloroethane	5.190	97	4298	0.382	ug/L		94
41) 2-Butanone	0.000		0	N.D.	d		
42) 1,1-Dichloropropene	5.315	75	2981	0.329	ug/L		93
44) Benzene	5.557	78	12050	0.408	ug/L	#	89
45) tert-Amyl methyl ether	5.669	73	4001	0.424	ug/L	#	77
47) 1,2-Dichloroethane	5.754	62	3598	0.488	ug/L		96
50) Methyl cyclohexane	6.153	83	1780	0.207	ug/L	#	58
51) Trichloroethene	6.153	95	2622	0.418	ug/L		88
53) Dibromomethane	6.591	93	1506	0.474	ug/L	#	81
54) 1,2-Dichloropropane	6.702	63	2689	0.408	ug/L	#	92
56) 2-Chloroethyl vinyl ether	7.390	63	908	0.360	ug/L	#	63
57) Bromodichloromethane	6.764	83	3207	0.412	ug/L	#	96
60) 1,4-Dioxane	6.980	88	2443	93.931	ug/L	#	60
61) cis-1,3-Dichloropropene	7.459	75	2939	0.367	ug/L	#	79
64) Toluene	7.730	92	7012	0.421	ug/L		93
65) 4-Methyl-2-pentanone	0.000		0	N.D.	d		
66) Tetrachloroethene	8.182	166	2168	0.332	ug/L		97
68) trans-1,3-Dichloropropene	8.210	75	2272	0.324	ug/L	#	74
70) Ethyl methacrylate	8.405	69	1492	0.297	ug/L	#	83
71) 1,1,2-Trichloroethane	8.398	83	1448	0.370	ug/L		90
72) Chlorodibromomethane	8.600	129	1794	0.314	ug/L		96
73) 1,3-Dichloropropane	8.719	76	3059	0.399	ug/L		95
74) 1,2-Dibromoethane	8.880	107	1564	0.357	ug/L		100
76) 2-Hexanone	9.175	43	718	0.308	ug/L	#	62
77) Chlorobenzene	9.540	112	8428	0.447	ug/L	#	78
78) Ethylbenzene	9.589	91	12355	0.393	ug/L		96
79) 1,1,1,2-Tetrachloroethane	9.631	131	2169	0.361	ug/L	#	62
80) p/m Xylene	9.771	106	8908	0.729	ug/L		99
81) o Xylene	10.318	106	8107	0.702	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	12295	0.662	ug/L		98
84) Bromoform	10.395	173	1056	0.366	ug/L		94
86) Isopropylbenzene	10.704	105	10025	0.337	ug/L		95
88) Bromobenzene	11.132	156	3209	0.459	ug/L		97
89) n-Propylbenzene	11.188	91	12295	0.356	ug/L		97
90) 1,4-Dichlorobutane	11.188	55	4059	0.449	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	2271	0.467	ug/L	#	94
92) 4-Ethyltoluene	11.314	105	10057	0.357	ug/L		94
93) 2-Chlorotoluene	11.349	91	8470M6	0.407	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	8399	0.352	ug/L		96
95) 1,2,3-Trichloropropane	11.398	75	1558	0.419	ug/L		89
96) trans-1,4-Dichloro-2-b...	11.454	53	602	0.363	ug/L	#	50
97) 4-Chlorotoluene	11.531	91	8687	0.404	ug/L		97
98) tert-Butylbenzene	11.756	119	6844	0.330	ug/L		95
101) 1,2,4-Trimethylbenzene	11.833	105	9303	0.349	ug/L		99
102) sec-Butylbenzene	11.944	105	9142	0.313	ug/L		92
103) p-Isopropyltoluene	12.104	119	7286	0.298	ug/L		98
104) 1,3-Dichlorobenzene	12.160	146	6161	0.444	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	6529M3	0.474	ug/L		
106) p-Diethylbenzene	12.473	119	4233	0.299	ug/L		98
107) n-Butylbenzene	12.536	91	6027	0.296	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	5443	0.443	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	5385	0.279	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.461	155	71	0.115	ug/L	#	1
111) 1,3,5-Trichlorobenzene	13.496	180	3325	0.416	ug/L		97
112) Hexachlorobutadiene	14.074	225	875	0.333	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	2734	0.402	ug/L		95
114) Naphthalene	14.387	128	4657	0.323	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	2275	0.394	ug/L		98

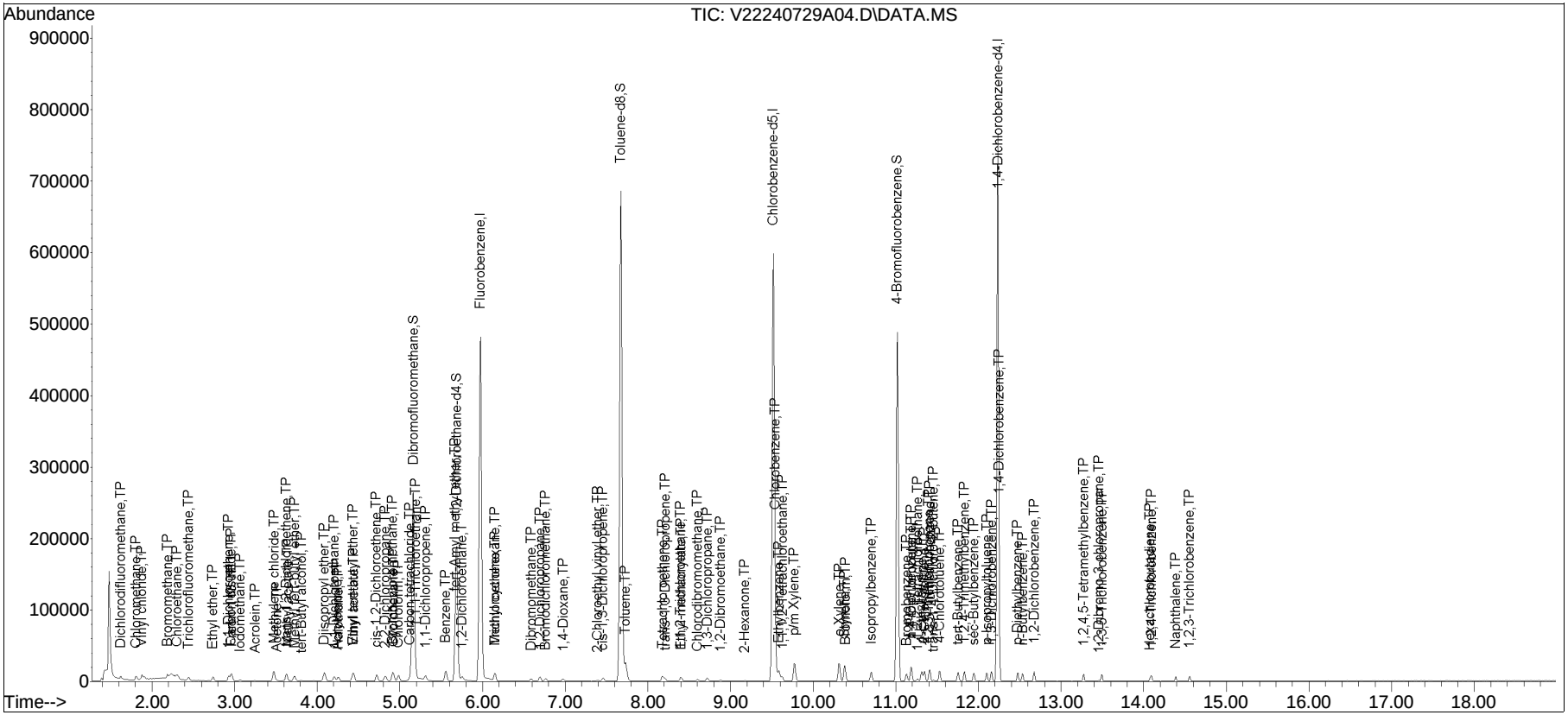
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

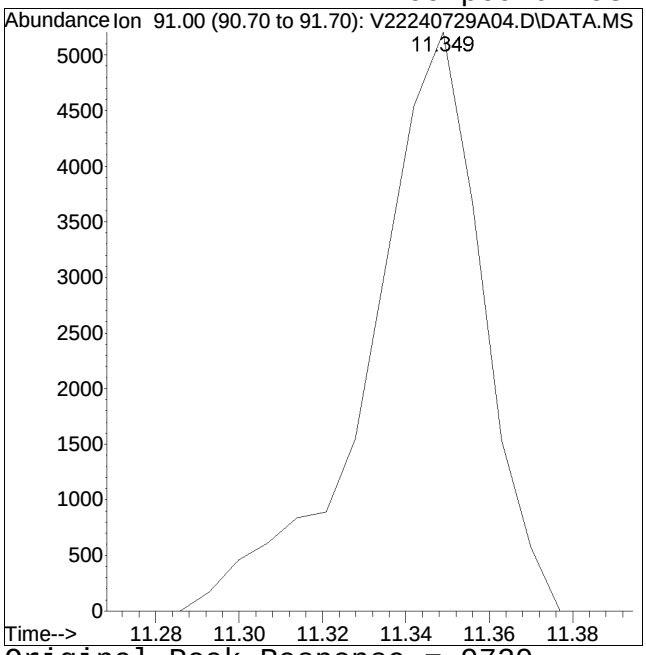
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



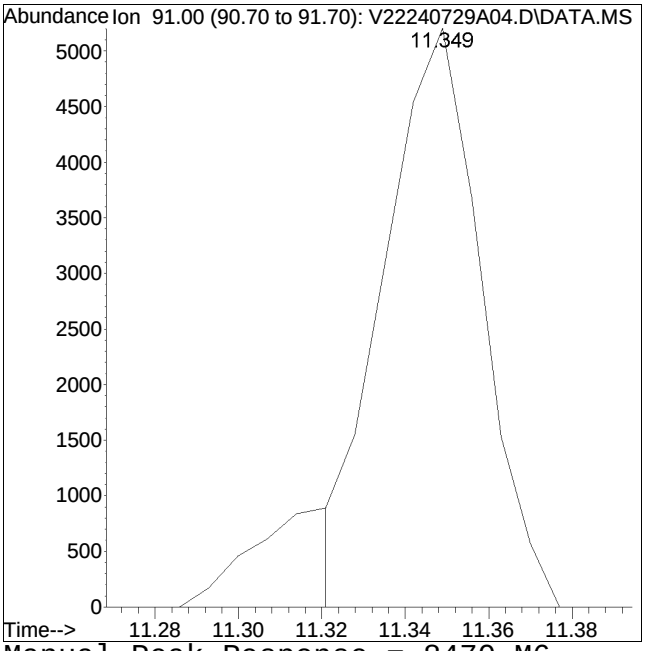
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A04.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 1:47 pm Instrument : VOA 122
Sample : I8260STD0.5PPB Quant Date : 7/30/2024 6:56 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 9720



Manual Peak Response = 8470 M6

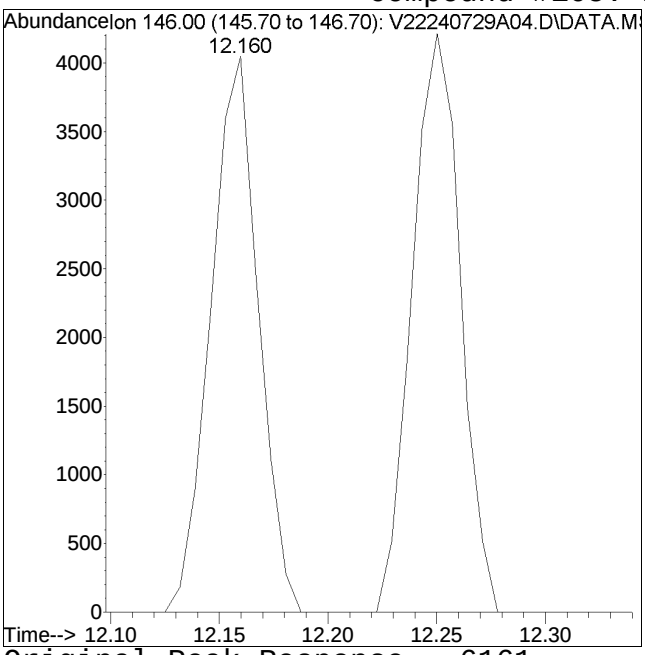
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

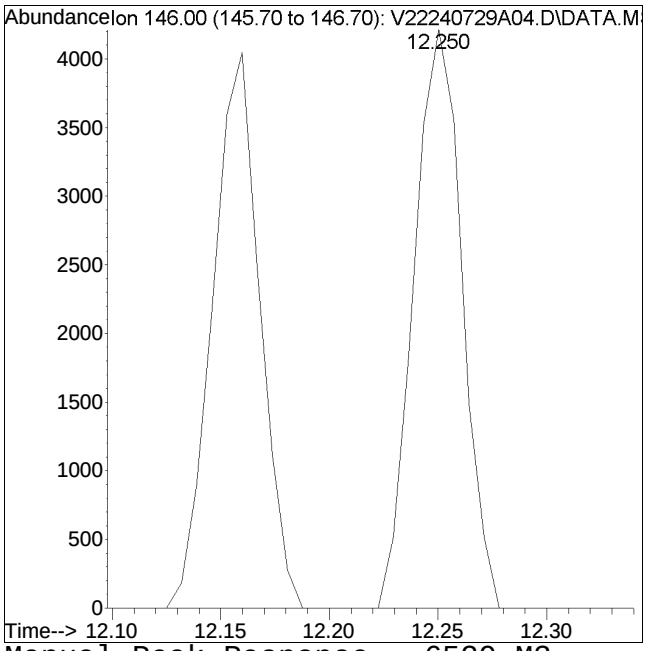
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A04.D
Date Inj'd : 7/29/2024 1:47 pm
Sample : I8260STD0.5PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:56 am

Compound #105: 1,4-Dichlorobenzene



Original Peak Response = 6161



Manual Peak Response = 6529 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	487751	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 96.18%			
62) Chlorobenzene-d5	9.519	117	406918	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 98.15%			
83) 1,4-Dichlorobenzene-d4	12.236	152	199758	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 97.76%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	185775	10.901	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.01%			
46) 1,2-Dichloroethane-d4	5.688	65	146804	10.191	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.91%			
63) Toluene-d8	7.675	98	515453	9.942	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.42%			
87) 4-Bromofluorobenzene	11.019	95	179700	9.879	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	14374	1.583	ug/L #	97
3) Chloromethane	1.808	50	28731	2.237	ug/L	98
4) Vinyl chloride	1.880	62	19430	1.912	ug/L	97
5) Bromomethane	2.188	94	7454	1.826	ug/L	99
6) Chloroethane	2.306	64	12862	2.189	ug/L	95
7) Trichlorofluoromethane	2.444	101	17429	1.592	ug/L	97
8) Ethyl ether	2.739	74	6753	1.989	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	12332	1.828	ug/L #	77
11) Carbon disulfide	2.962	76	44351	2.001	ug/L	98
12) Freon-113	2.975	101	9445	1.450	ug/L	93
13) Iodomethane	3.067	142	11855	1.459	ug/L	96
14) Acrolein	3.237	56	2376	2.049	ug/L	95
15) Methylene chloride	3.473	84	19892	2.224	ug/L #	57
17) Acetone	3.512	43	3914	2.106	ug/L #	84
18) trans-1,2-Dichloroethene	3.630	96	16471	2.087	ug/L	81
19) Methyl acetate	3.637	43	8697	2.073	ug/L #	77
21) Methyl tert-butyl ether	3.729	73	26147	1.732	ug/L #	70
22) tert-Butyl alcohol	3.807	59	2896	9.162	ug/L #	65
24) Diisopropyl ether	4.089	45	52947	1.867	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	34894	2.164	ug/L	95
26) Halothane	4.253	117	10748	1.827	ug/L	98

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	4335	1.948	ug/L		93
28) Ethyl tert-butyl ether	4.436	59	34490	1.693	ug/L		82
29) Vinyl acetate	4.443	43	28178	1.662	ug/L	#	86
30) cis-1,2-Dichloroethene	4.725	96	19099	2.183	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	19123	1.893	ug/L	#	68
32) Bromochloromethane	4.915	128	8964	2.171	ug/L	#	63
33) Cyclohexane	4.928	56	17826	1.205	ug/L		66
34) Chloroform	4.987	83	30215	2.165	ug/L	#	93
35) Ethyl acetate	5.098	43	9383	1.713	ug/L	#	88
36) Carbon tetrachloride	5.125	117	16650	1.653	ug/L	#	92
37) Tetrahydrofuran	5.144	42	3376M6	1.880	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	21558	1.832	ug/L		94
41) 2-Butanone	5.275	43	4092	1.786	ug/L	#	46
42) 1,1-Dichloropropene	5.315	75	15587	1.642	ug/L		99
44) Benzene	5.557	78	65545	2.122	ug/L	#	90
45) tert-Amyl methyl ether	5.675	73	16639	1.686	ug/L	#	75
47) 1,2-Dichloroethane	5.754	62	16066	2.081	ug/L		96
50) Methyl cyclohexane	6.153	83	9145	1.017	ug/L	#	55
51) Trichloroethene	6.153	95	12084	1.839	ug/L		95
53) Dibromomethane	6.591	93	6620	1.993	ug/L	#	80
54) 1,2-Dichloropropane	6.695	63	12801	1.856	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	4048	1.532	ug/L	#	72
57) Bromodichloromethane	6.764	83	15295	1.879	ug/L		100
60) 1,4-Dioxane	6.973	88	11033	405.375	ug/L	#	57
61) cis-1,3-Dichloropropene	7.459	75	14552	1.735	ug/L	#	80
64) Toluene	7.730	92	32572	1.943	ug/L		99
65) 4-Methyl-2-pentanone	8.161	58	1861	1.387	ug/L	#	51
66) Tetrachloroethene	8.175	166	10779	1.640	ug/L		91
68) trans-1,3-Dichloropropene	8.210	75	11279	1.599	ug/L	#	79
70) Ethyl methacrylate	8.411	69	7358	1.454	ug/L		91
71) 1,1,2-Trichloroethane	8.398	83	6445	1.637	ug/L		98
72) Chlorodibromomethane	8.607	129	9532	1.658	ug/L		99
73) 1,3-Dichloropropane	8.719	76	13298	1.723	ug/L		99
74) 1,2-Dibromoethane	8.880	107	7274	1.649	ug/L		100
76) 2-Hexanone	9.175	43	3695	1.577	ug/L	#	79
77) Chlorobenzene	9.540	112	38909	2.050	ug/L		95
78) Ethylbenzene	9.589	91	57821	1.827	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	10358	1.715	ug/L		98
80) p/m Xylene	9.778	106	44163	3.595	ug/L		99
81) o Xylene	10.318	106	42079	3.622	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	67724	3.624	ug/L		99
84) Bromoform	10.395	173	4704	1.565	ug/L		99
86) Isopropylbenzene	10.704	105	52842	1.705	ug/L		97
88) Bromobenzene	11.132	156	14174	1.945	ug/L		99
89) n-Propylbenzene	11.188	91	61128	1.698	ug/L		98
90) 1,4-Dichlorobutane	11.188	55	17672	1.876	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	9230	1.821	ug/L		99
92) 4-Ethyltoluene	11.314	105	50390	1.717	ug/L		100
93) 2-Chlorotoluene	11.349	91	41875M6	1.931	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	43761	1.760	ug/L		97
95) 1,2,3-Trichloropropane	11.398	75	7434	1.921	ug/L		94
96) trans-1,4-Dichloro-2-b...	11.454	53	3119	1.808	ug/L	#	56
97) 4-Chlorotoluene	11.531	91	42805	1.912	ug/L		99
98) tert-Butylbenzene	11.756	119	34068	1.578	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	49753	1.791	ug/L		100
102) sec-Butylbenzene	11.944	105	46682	1.533	ug/L		98
103) p-Isopropyltoluene	12.104	119	39172	1.537	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	28831	1.995	ug/L		98
105) 1,4-Dichlorobenzene	12.250	146	28455M3	1.985	ug/L		
106) p-Diethylbenzene	12.473	119	22597	1.532	ug/L		97
107) n-Butylbenzene	12.536	91	33165	1.561	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	25083	1.962	ug/L		97
109) 1,2,4,5-Tetramethylben...	13.273	119	29425	1.464	ug/L		97
110) 1,2-Dibromo-3-chloropr...	13.461	155	1071	1.661	ug/L		98
111) 1,3,5-Trichlorobenzene	13.496	180	15256	1.832	ug/L		96
112) Hexachlorobutadiene	14.074	225	4160	1.520	ug/L		97
113) 1,2,4-Trichlorobenzene	14.095	180	12408	1.751	ug/L		99
114) Naphthalene	14.387	128	23297	1.550	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	11179	1.857	ug/L		97

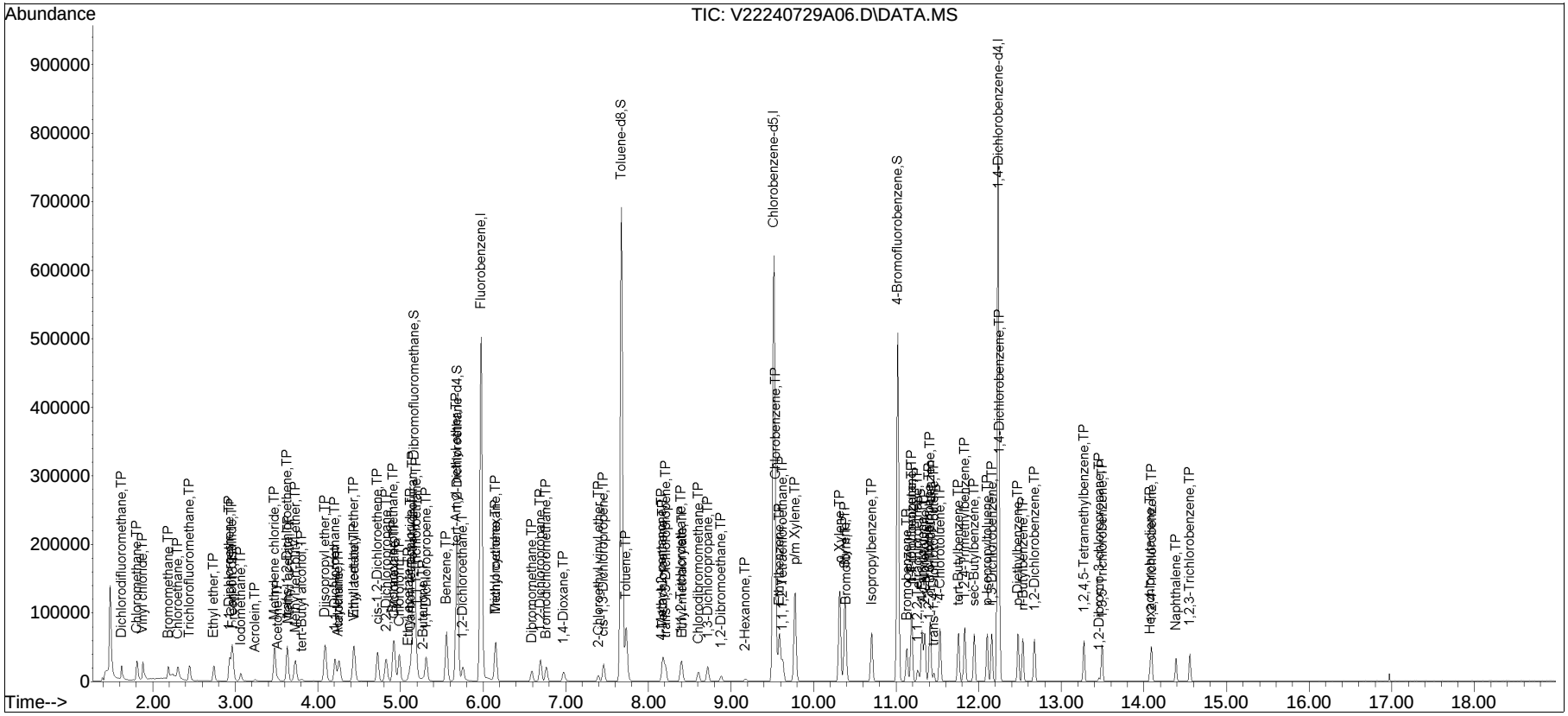
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

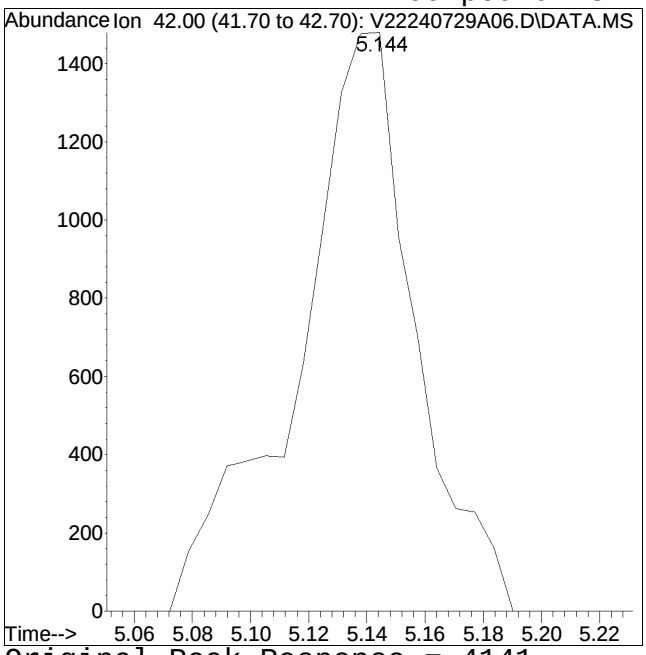


Manual Integration Report

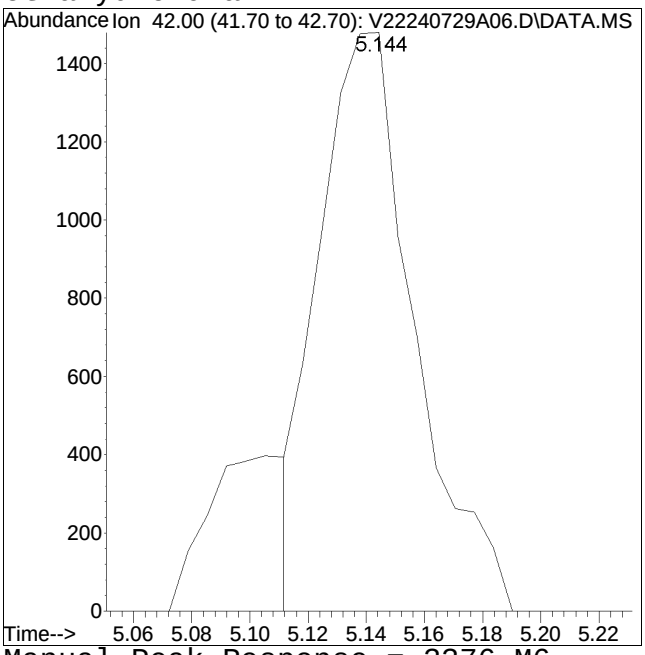
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A06.D
Date Inj'd : 7/29/2024 2:36 pm
Sample : I8260STD2PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:56 am

Compound #37: Tetrahydrofuran



Original Peak Response = 4141



Manual Peak Response = 3376 M6

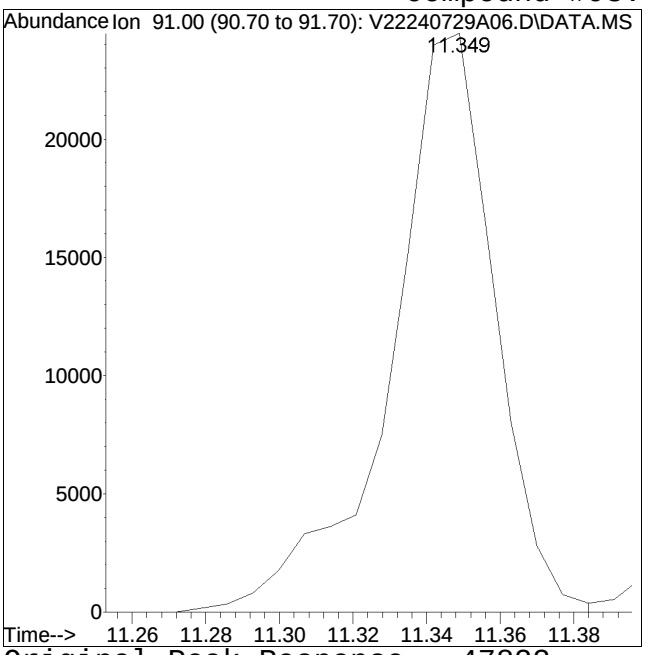
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

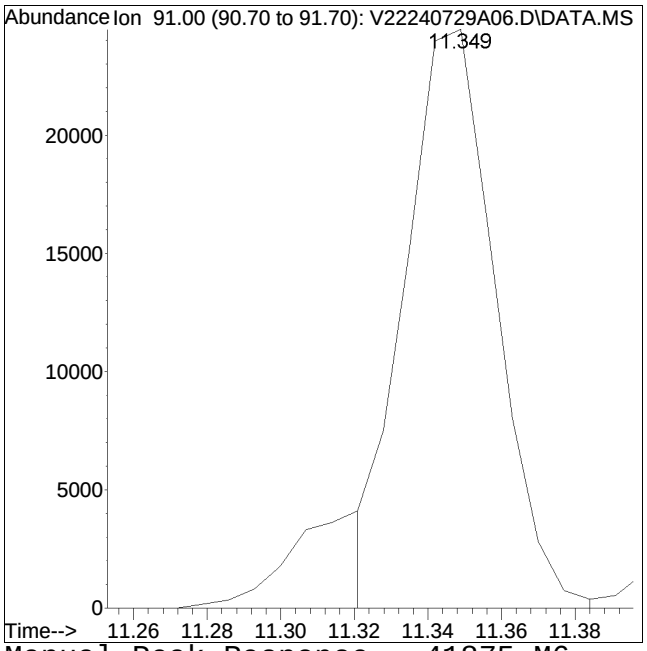
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A06.D
Date Inj'd : 7/29/2024 2:36 pm
Sample : I8260STD2PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:56 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 47822



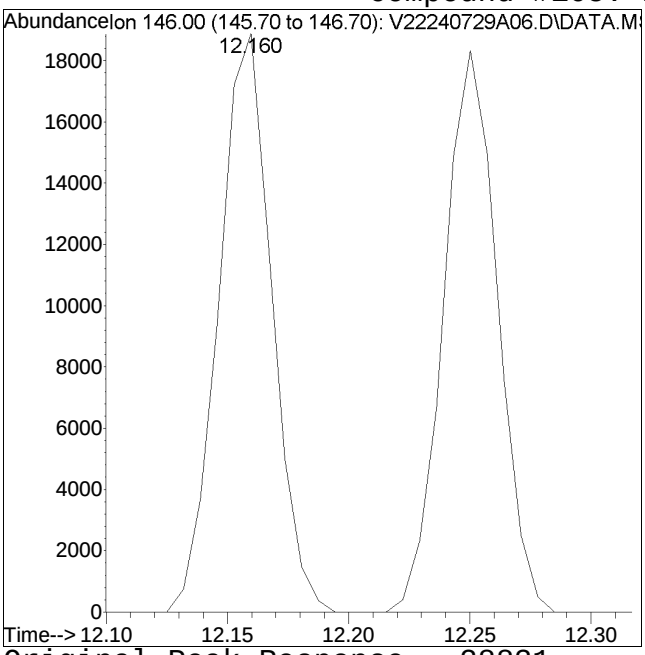
Manual Peak Response = 41875 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

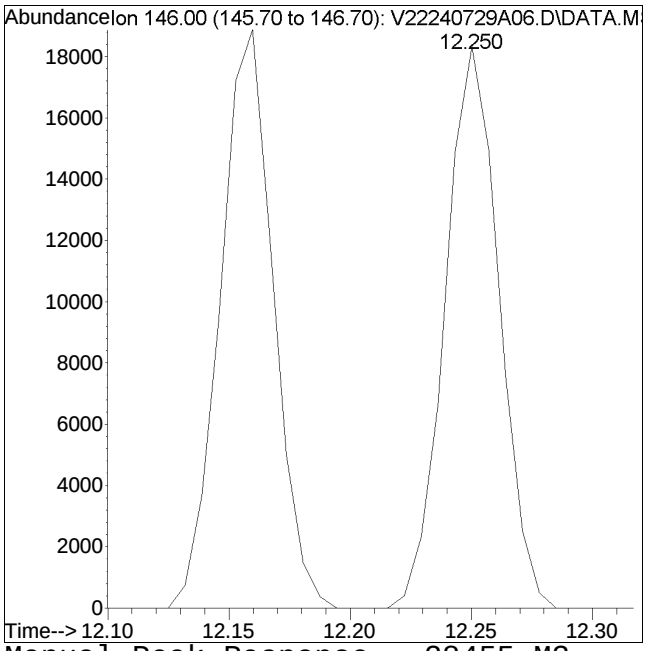
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A06.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 2:36 pm Instrument : VOA 122
Sample : I8260STD2PPB Quant Date : 7/30/2024 6:56 am

Compound #105: 1,4-Dichlorobenzene



Original Peak Response = 28831



Manual Peak Response = 28455 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	507125	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 100.00%			
62) Chlorobenzene-d5	9.519	117	414608	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 100.00%			
83) 1,4-Dichlorobenzene-d4	12.236	152	204327	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 100.00%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	181826	10.262	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.62%			
46) 1,2-Dichloroethane-d4	5.688	65	154528	10.317	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.17%			
63) Toluene-d8	7.675	98	523398	9.908	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.08%			
87) 4-Bromofluorobenzene	11.019	95	190463	10.237	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.37%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	108996	11.544	ug/L	97
3) Chloromethane	1.808	50	153481	11.492	ug/L	98
4) Vinyl chloride	1.880	62	117707	11.140	ug/L	98
5) Bromomethane	2.188	94	38034	8.960	ug/L	97
6) Chloroethane	2.306	64	67600	11.068	ug/L	98
7) Trichlorofluoromethane	2.444	101	130266	11.442	ug/L	100
8) Ethyl ether	2.739	74	36785	10.423	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	77321	11.021	ug/L #	74
11) Carbon disulfide	2.962	76	258420	11.212	ug/L	100
12) Freon-113	2.968	101	78230	11.549	ug/L	93
13) Iodomethane	3.067	142	86985	10.298	ug/L	94
14) Acrolein	3.237	56	12611	10.460	ug/L	99
15) Methylene chloride	3.473	84	96763	10.403	ug/L #	59
17) Acetone	3.512	43	17562	9.089	ug/L	94
18) trans-1,2-Dichloroethene	3.630	96	89864	10.949	ug/L	83
19) Methyl acetate	3.630	43	43051	9.868	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	160594	10.233	ug/L #	76
22) tert-Butyl alcohol	3.801	59	16964	51.618	ug/L #	83
24) Diisopropyl ether	4.089	45	301148	10.213	ug/L #	92
25) 1,1-Dichloroethane	4.207	63	185342	11.057	ug/L	95
26) Halothane	4.260	117	67082	10.965	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	24656	10.655	ug/L		99
28) Ethyl tert-butyl ether	4.437	59	209281	9.882	ug/L	#	80
29) Vinyl acetate	4.437	43	179190	10.167	ug/L	#	87
30) cis-1,2-Dichloroethene	4.725	96	99687	10.960	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	113817	10.834	ug/L	#	72
32) Bromochloromethane	4.915	128	47106	10.975	ug/L	#	66
33) Cyclohexane	4.928	56	177898	11.568	ug/L		66
34) Chloroform	4.987	83	153810	10.602	ug/L	#	94
35) Ethyl acetate	5.092	43	56116	9.852	ug/L	#	93
36) Carbon tetrachloride	5.125	117	118186	11.288	ug/L		98
37) Tetrahydrofuran	5.138	42	19281M6	10.330	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	133168	10.885	ug/L		95
41) 2-Butanone	5.275	43	22509	9.447	ug/L	#	41
42) 1,1-Dichloropropene	5.308	75	108351	10.976	ug/L		99
44) Benzene	5.557	78	332787	10.361	ug/L	#	90
45) tert-Amyl methyl ether	5.669	73	96339	9.388	ug/L	#	81
47) 1,2-Dichloroethane	5.754	62	86117	10.731	ug/L		97
50) Methyl cyclohexane	6.153	83	101349	10.837	ug/L	#	63
51) Trichloroethene	6.153	95	72595	10.626	ug/L		95
53) Dibromomethane	6.591	93	35862	10.384	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	78055	10.882	ug/L	#	94
56) 2-Chloroethyl vinyl ether	7.397	63	26732	9.728	ug/L	#	76
57) Bromodichloromethane	6.764	83	88515	10.459	ug/L		99
60) 1,4-Dioxane	6.980	88	15178	536.365	ug/L	#	52
61) cis-1,3-Dichloropropene	7.459	75	94563	10.843	ug/L	#	83
64) Toluene	7.730	92	177081	10.369	ug/L		100
65) 4-Methyl-2-pentanone	8.168	58	11706	8.565	ug/L	#	62
66) Tetrachloroethene	8.182	166	69874	10.434	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	72626	10.102	ug/L	#	82
70) Ethyl methacrylate	8.412	69	51468	9.985	ug/L		98
71) 1,1,2-Trichloroethane	8.398	83	38889	9.697	ug/L		96
72) Chlorodibromomethane	8.607	129	57490	9.816	ug/L		100
73) 1,3-Dichloropropane	8.719	76	78139	9.937	ug/L		99
74) 1,2-Dibromoethane	8.880	107	44345	9.867	ug/L		99
76) 2-Hexanone	9.175	43	22658	9.491	ug/L	#	84
77) Chlorobenzene	9.540	112	201339	10.409	ug/L		91
78) Ethylbenzene	9.589	91	352544	10.933	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.624	131	59593	9.686	ug/L		97
80) p/m Xylene	9.778	106	275639	22.022	ug/L		99
81) o Xylene	10.318	106	259398	21.915	ug/L		99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	417260	21.916	ug/L		100
84) Bromoform	10.395	173	27898	9.076	ug/L		98
86) Isopropylbenzene	10.704	105	352704	11.128	ug/L		98
88) Bromobenzene	11.132	156	76366	10.247	ug/L		100
89) n-Propylbenzene	11.188	91	407322	11.060	ug/L		98
90) 1,4-Dichlorobutane	11.188	55	96756	10.043	ug/L		93
91) 1,1,2,2-Tetrachloroethane	11.265	83	50331	9.708	ug/L		99
92) 4-Ethyltoluene	11.314	105	327354	10.906	ug/L		99
93) 2-Chlorotoluene	11.349	91	236113M6	10.643	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	275826	10.844	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	39105	9.881	ug/L		97
96) trans-1,4-Dichloro-2-b...	11.454	53	17036	9.653	ug/L	#	67
97) 4-Chlorotoluene	11.531	91	243559	10.638	ug/L		99
98) tert-Butylbenzene	11.756	119	242602	10.988	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	312105	10.982	ug/L		99
102) sec-Butylbenzene	11.944	105	351706	11.291	ug/L		98
103) p-Isopropyltoluene	12.104	119	294081	11.285	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	155327	10.507	ug/L		98
105) 1,4-Dichlorobenzene	12.250	146	151816	10.355	ug/L		96
106) p-Diethylbenzene	12.480	119	165253	10.953	ug/L		99
107) n-Butylbenzene	12.536	91	248066	11.416	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	136372	10.427	ug/L		97
109) 1,2,4,5-Tetramethylben...	13.274	119	221635	10.778	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.454	155	6822	10.341	ug/L		96
111) 1,3,5-Trichlorobenzene	13.489	180	90492	10.622	ug/L		96
112) Hexachlorobutadiene	14.074	225	30687	10.961	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	75100	10.360	ug/L		98
114) Naphthalene	14.387	128	157343	10.234	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	64316	10.445	ug/L		98

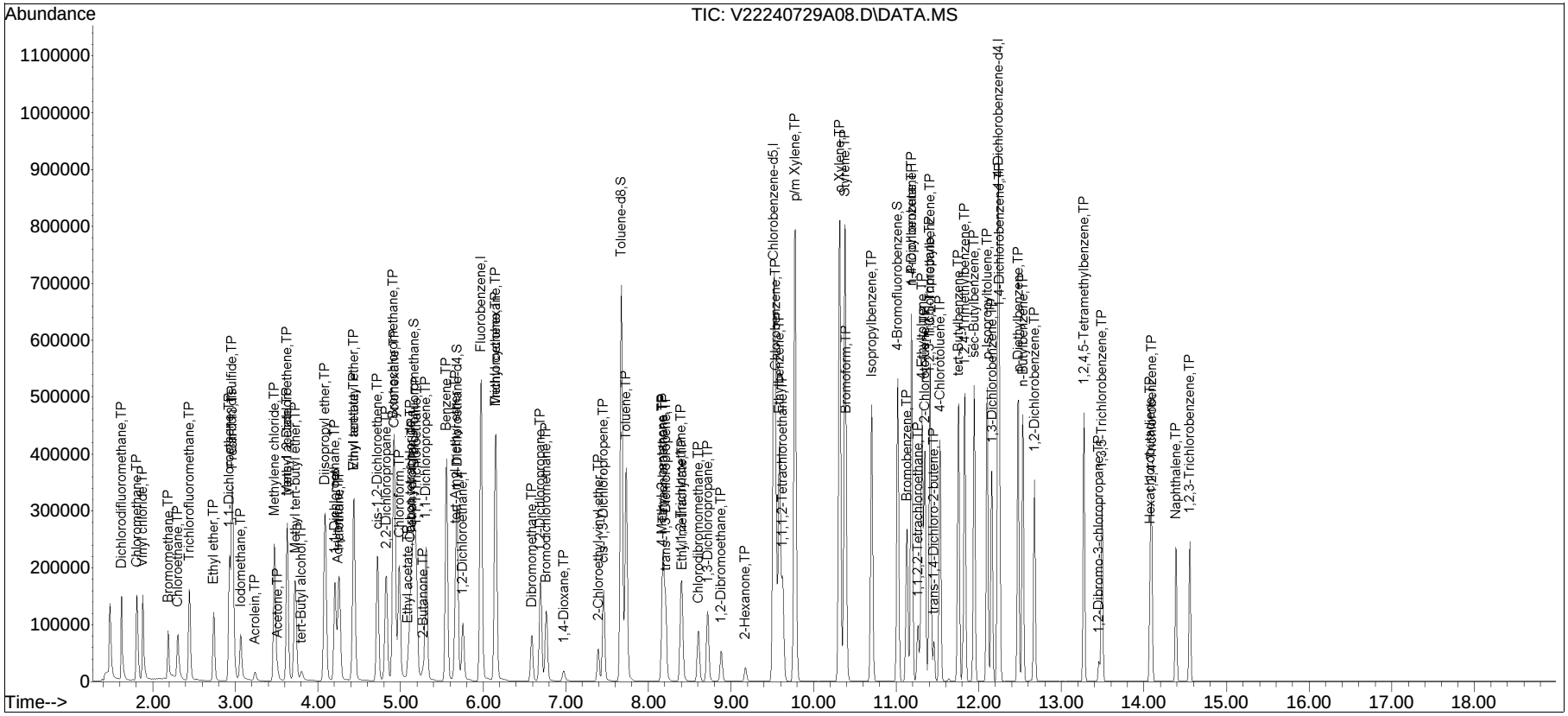
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

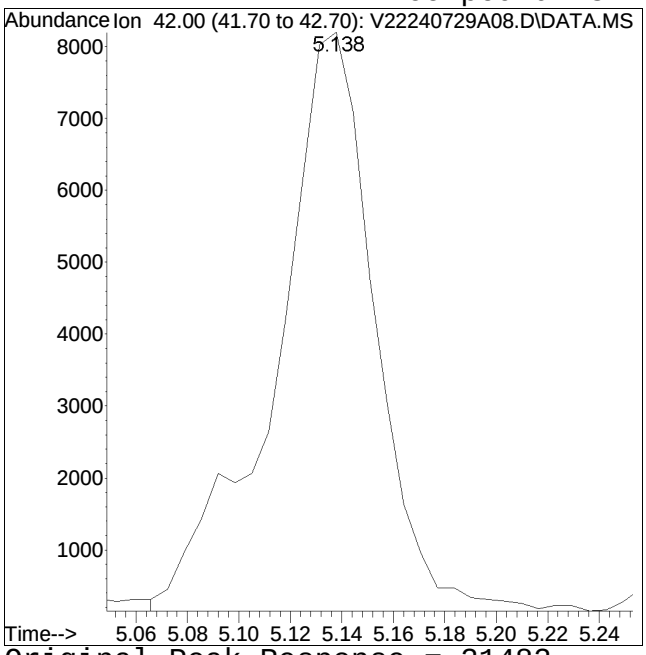


Manual Integration Report

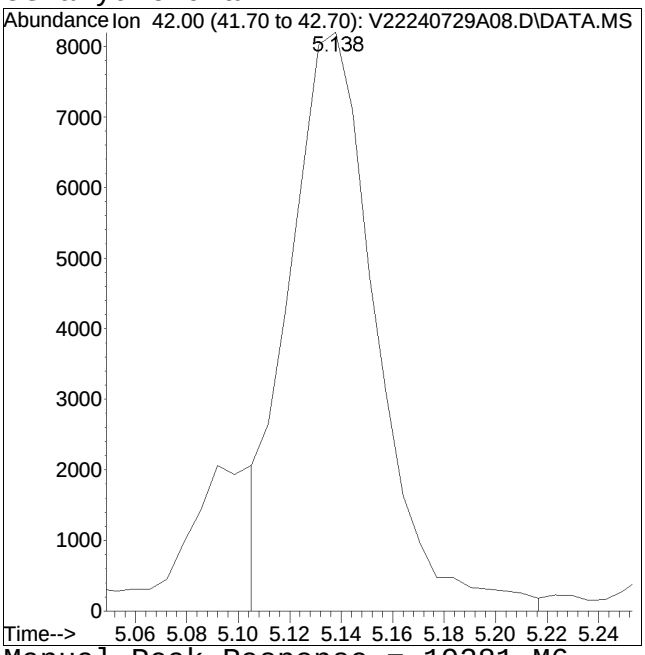
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A08.D
Date Inj'd : 7/29/2024 3:25 pm
Sample : I8260STD10PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 21482



Manual Peak Response = 19281 M6

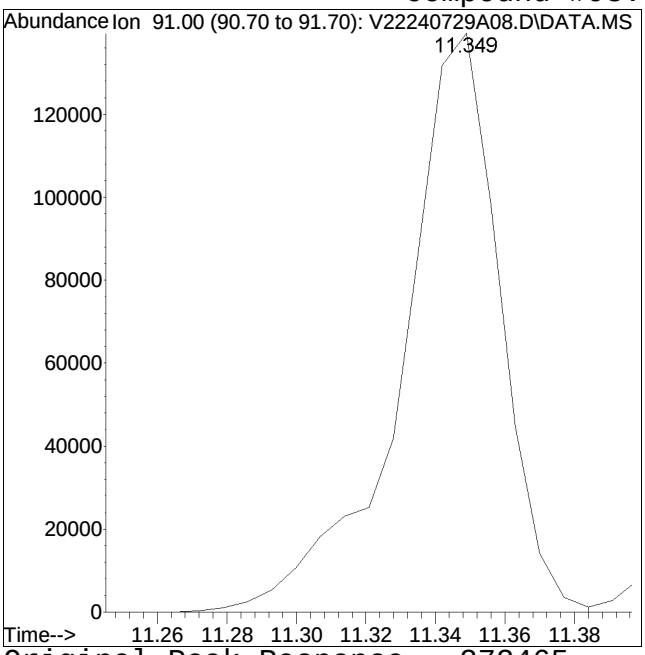
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

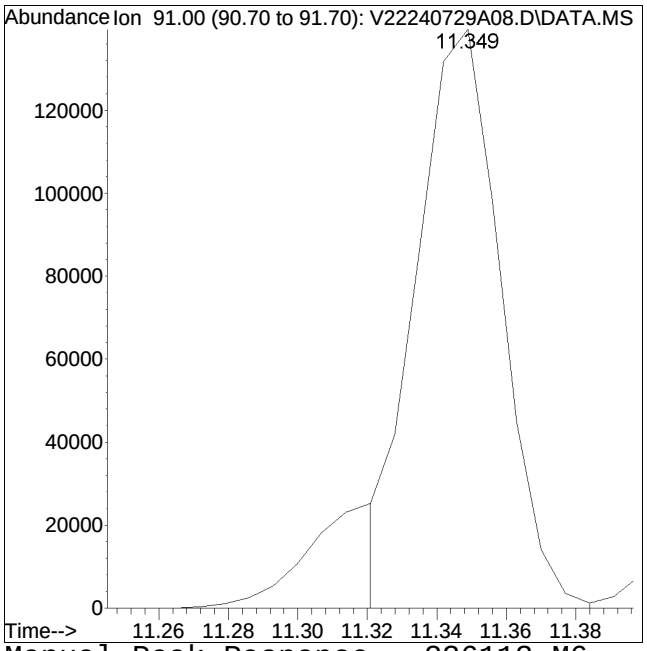
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A08.D
Date Inj'd : 7/29/2024 3:25 pm
Sample : I8260STD10PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 272465



Manual Peak Response = 236113 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	565935	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 111.60%			
62) Chlorobenzene-d5	9.519	117	434743	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 104.86%			
83) 1,4-Dichlorobenzene-d4	12.236	152	212864	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 104.18%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	191820	9.701	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.01%			
46) 1,2-Dichloroethane-d4	5.688	65	165884	9.924	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%			
63) Toluene-d8	7.675	98	557077	10.057	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.57%			
87) 4-Bromofluorobenzene	11.019	95	196659	10.146	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.46%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	378740	35.946	ug/L #	96
3) Chloromethane	1.808	50	470305	31.556	ug/L	98
4) Vinyl chloride	1.880	62	392548	33.292	ug/L	97
5) Bromomethane	2.188	94	133556	28.195	ug/L	98
6) Chloroethane	2.306	64	213118	31.267	ug/L	96
7) Trichlorofluoromethane	2.444	101	446957	35.178	ug/L	98
8) Ethyl ether	2.739	74	118047	29.972	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	262276	33.498	ug/L #	75
11) Carbon disulfide	2.962	76	833671	32.412	ug/L	100
12) Freon-113	2.975	101	270274	35.754	ug/L	93
13) Iodomethane	3.067	142	322209	34.183	ug/L	94
14) Acrolein	3.237	56	42198	31.364	ug/L	97
15) Methylene chloride	3.473	84	292914	28.219	ug/L #	60
17) Acetone	3.512	43	56239	26.080	ug/L	95
18) trans-1,2-Dichloroethene	3.630	96	282376	30.830	ug/L	81
19) Methyl acetate	3.630	43	142046	29.175	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	556748	31.788	ug/L #	78
22) tert-Butyl alcohol	3.801	59	57232	156.049	ug/L #	85
24) Diisopropyl ether	4.089	45	1055329	32.070	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	577354	30.863	ug/L	96
26) Halothane	4.260	117	216034	31.641	ug/L	98

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	80853	31.309	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	775535	32.814	ug/L		81
29) Vinyl acetate	4.437	43	644173	32.750	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	310342	30.573	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	374216	31.919	ug/L	#	76
32) Bromochloromethane	4.915	128	143259	29.908	ug/L	#	65
33) Cyclohexane	4.928	56	641466	37.378	ug/L		68
34) Chloroform	4.987	83	486176	30.028	ug/L	#	95
35) Ethyl acetate	5.099	43	197775	31.115	ug/L	#	92
36) Carbon tetrachloride	5.131	117	400986	34.319	ug/L		99
37) Tetrahydrofuran	5.138	42	64462M6	30.946	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	441094	32.307	ug/L		95
41) 2-Butanone	5.275	43	83376	31.356	ug/L	#	48
42) 1,1-Dichloropropene	5.315	75	376784	34.203	ug/L		100
44) Benzene	5.557	78	1175448	32.792	ug/L	#	91
45) tert-Amyl methyl ether	5.669	73	353712	30.887	ug/L	#	85
47) 1,2-Dichloroethane	5.754	62	274844	30.689	ug/L		97
50) Methyl cyclohexane	6.153	83	384184	36.812	ug/L	#	64
51) Trichloroethene	6.153	95	243495	31.937	ug/L		98
53) Dibromomethane	6.591	93	118845	30.835	ug/L	#	81
54) 1,2-Dichloropropane	6.695	63	257294	32.144	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	100117	32.647	ug/L	#	78
57) Bromodichloromethane	6.764	83	299476	31.708	ug/L		100
60) 1,4-Dioxane	6.980	88	20073	635.634	ug/L	#	60
61) cis-1,3-Dichloropropene	7.459	75	334440	34.362	ug/L	#	83
64) Toluene	7.730	92	570532	31.860	ug/L		99
65) 4-Methyl-2-pentanone	8.168	58	44980	31.387	ug/L	#	66
66) Tetrachloroethene	8.182	166	236210	33.640	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	270746	35.916	ug/L		84
70) Ethyl methacrylate	8.412	69	184206	34.083	ug/L		93
71) 1,1,2-Trichloroethane	8.398	83	133185	31.672	ug/L		97
72) Chlorodibromomethane	8.607	129	204242	33.258	ug/L		100
73) 1,3-Dichloropropane	8.719	76	270530	32.812	ug/L		99
74) 1,2-Dibromoethane	8.880	107	155746	33.049	ug/L		99
76) 2-Hexanone	9.175	43	83715	33.444	ug/L	#	86
77) Chlorobenzene	9.540	112	633572	31.239	ug/L		90
78) Ethylbenzene	9.589	91	1113856	32.943	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	209804	32.521	ug/L		98
80) p/m Xylene	9.778	106	870043	66.291	ug/L		100
81) o Xylene	10.318	106	821986	66.227	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82)	Styrene	10.381	104	1360113	68.130	ug/L		100
84)	Bromoform	10.395	173	103387	32.285	ug/L		99
86)	Isopropylbenzene	10.704	105	1131099	34.257	ug/L		99
88)	Bromobenzene	11.132	156	242548	31.239	ug/L		99
89)	n-Propylbenzene	11.188	91	1307573	34.081	ug/L		99
90)	1,4-Dichlorobutane	11.195	55	317576	31.642	ug/L		94
91)	1,1,2,2-Tetrachloroethane	11.265	83	170195	31.511	ug/L		99
92)	4-Ethyltoluene	11.314	105	1049570	33.564	ug/L		100
93)	2-Chlorotoluene	11.349	91	738915M6	31.972	ug/L		
94)	1,3,5-Trimethylbenzene	11.412	105	871493	32.889	ug/L		99
95)	1,2,3-Trichloropropane	11.405	75	130817	31.730	ug/L		97
96)	trans-1,4-Dichloro-2-b...	11.454	53	60092	32.684	ug/L	#	73
97)	4-Chlorotoluene	11.531	91	769042	32.242	ug/L		99
98)	tert-Butylbenzene	11.756	119	789435	34.322	ug/L		98
101)	1,2,4-Trimethylbenzene	11.833	105	982161	33.172	ug/L		99
102)	sec-Butylbenzene	11.944	105	1135952	35.007	ug/L		98
103)	p-Isopropyltoluene	12.104	119	942343	34.710	ug/L		99
104)	1,3-Dichlorobenzene	12.160	146	483221	31.376	ug/L		97
105)	1,4-Dichlorobenzene	12.250	146	471520	30.871	ug/L		97
106)	p-Diethylbenzene	12.473	119	540120	34.363	ug/L		98
107)	n-Butylbenzene	12.536	91	782912	34.586	ug/L		99
108)	1,2-Dichlorobenzene	12.675	146	428145	31.424	ug/L		96
109)	1,2,4,5-Tetramethylben...	13.274	119	761613	35.551	ug/L		99
110)	1,2-Dibromo-3-chloropr...	13.454	155	23868	34.730	ug/L		98
111)	1,3,5-Trichlorobenzene	13.489	180	286550	32.287	ug/L		97
112)	Hexachlorobutadiene	14.074	225	96947	33.240	ug/L		98
113)	1,2,4-Trichlorobenzene	14.095	180	246099	32.588	ug/L		98
114)	Naphthalene	14.387	128	563728	35.196	ug/L		100
115)	1,2,3-Trichlorobenzene	14.554	180	209547	32.665	ug/L		98

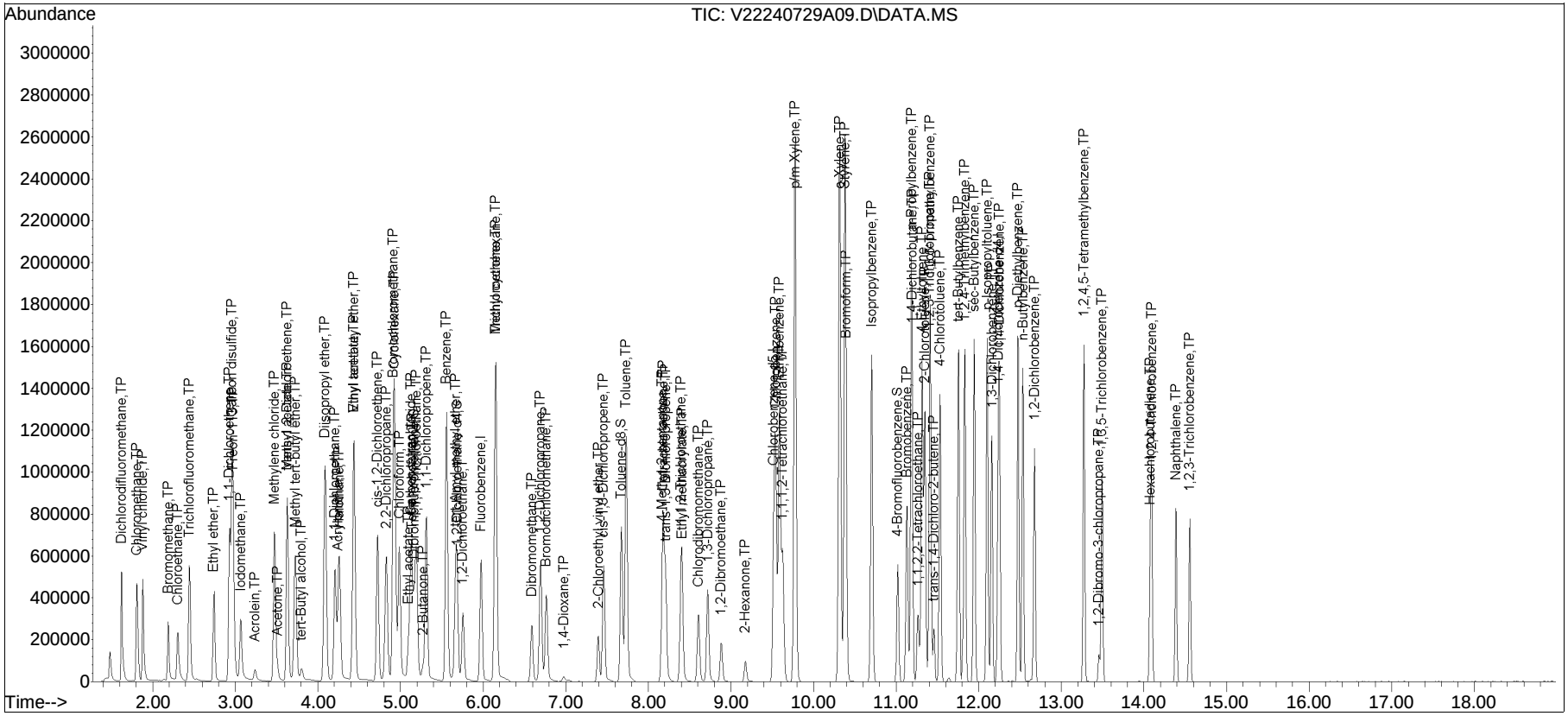
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

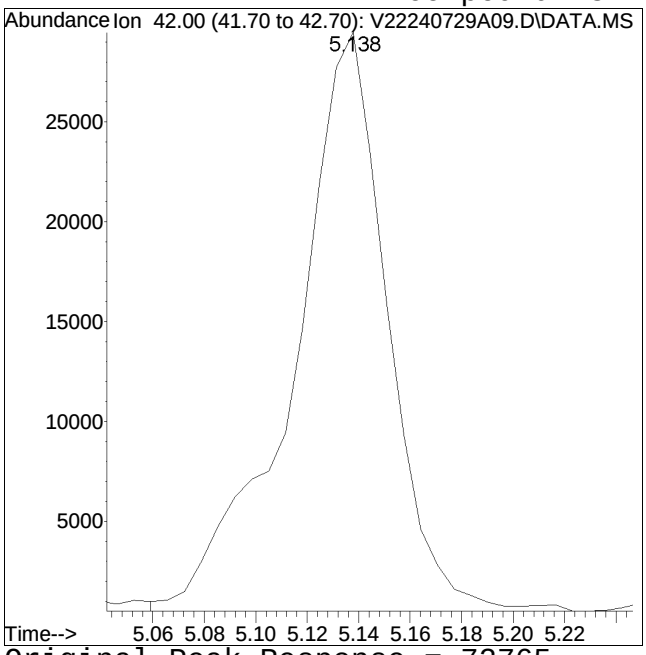
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



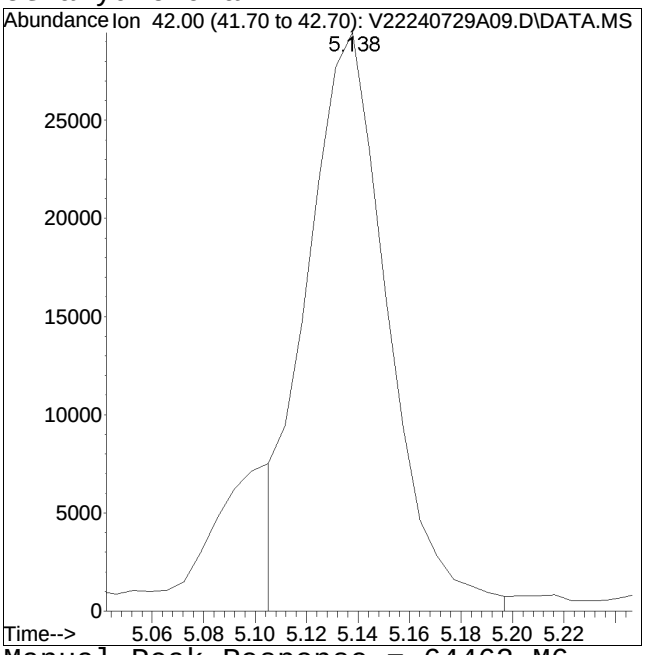
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A09.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 3:50 pm Instrument : VOA 122
Sample : I8260STD30PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 72765



Manual Peak Response = 64462 M6

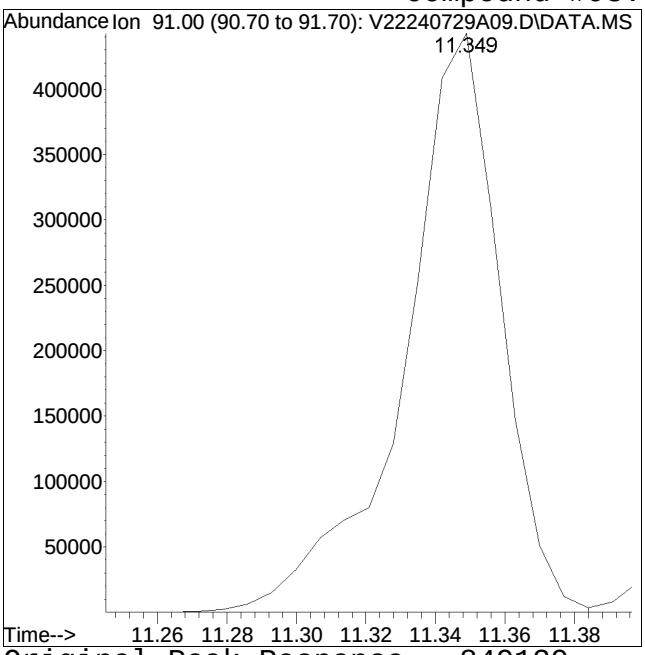
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

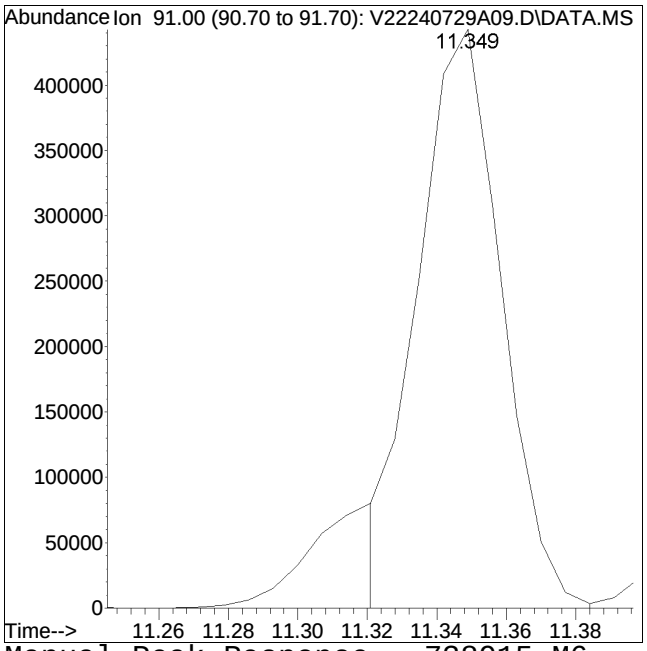
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A09.D
Date Inj'd : 7/29/2024 3:50 pm
Sample : I8260STD30PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 849129



Manual Peak Response = 738915 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	604048	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 119.11%			
62) Chlorobenzene-d5	9.519	117	456299	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 110.06%			
83) 1,4-Dichlorobenzene-d4	12.237	152	226202	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 110.71%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	196896	9.329	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.29%			
46) 1,2-Dichloroethane-d4	5.689	65	174684	9.791	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
63) Toluene-d8	7.675	98	587934	10.113	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.13%			
87) 4-Bromofluorobenzene	11.020	95	203677	9.888	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	1009587	89.774	ug/L	96
3) Chloromethane	1.809	50	1222744	76.866	ug/L	98
4) Vinyl chloride	1.881	62	1050049	83.434	ug/L	97
5) Bromomethane	2.189	94	426766	84.410	ug/L	98
6) Chloroethane	2.300	64	563492	77.455	ug/L	97
7) Trichlorofluoromethane	2.444	101	1217222	89.757	ug/L	99
8) Ethyl ether	2.746	74	341896	81.329	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	706380	84.526	ug/L #	78
11) Carbon disulfide	2.962	76	2177308	79.309	ug/L	99
12) Freon-113	2.975	101	724978	89.856	ug/L	93
13) Iodomethane	3.067	142	963932	95.809	ug/L	93
14) Acrolein	3.237	56	121266	84.445	ug/L	98
15) Methylene chloride	3.473	84	790851	71.383	ug/L #	62
17) Acetone	3.513	43	153155	66.542	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	773909	79.164	ug/L	83
19) Methyl acetate	3.631	43	400524	77.073	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	1586398	84.861	ug/L #	80
22) tert-Butyl alcohol	3.801	59	168322	429.989	ug/L #	79
24) Diisopropyl ether	4.090	45	2981253	84.879	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	1541876	77.223	ug/L	96
26) Halothane	4.260	117	611759	83.948	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	221081	80.210	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	2201604	87.275	ug/L	#	81
29) Vinyl acetate	4.443	43	1863003	88.740	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	833067	76.891	ug/L	#	83
31) 2,2-Dichloropropane	4.830	77	1021587	81.639	ug/L	#	79
32) Bromochloromethane	4.915	128	392233	76.720	ug/L	#	69
33) Cyclohexane	4.928	56	1709623	93.334	ug/L		69
34) Chloroform	4.987	83	1323780	76.604	ug/L	#	94
35) Ethyl acetate	5.099	43	569659	83.967	ug/L	#	92
36) Carbon tetrachloride	5.132	117	1103046	88.449	ug/L		99
37) Tetrahydrofuran	5.132	42	180135M6	81.020	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	1232348	84.566	ug/L		96
41) 2-Butanone	5.276	43	240159	84.621	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	1031814	87.753	ug/L		100
44) Benzene	5.558	78	3201040	83.667	ug/L	#	91
45) tert-Amyl methyl ether	5.669	73	1054687	86.288	ug/L	#	88
47) 1,2-Dichloroethane	5.754	62	742873	77.716	ug/L		98
50) Methyl cyclohexane	6.154	83	1081945	97.129	ug/L	#	64
51) Trichloroethene	6.154	95	674311	82.863	ug/L		97
53) Dibromomethane	6.591	93	329723	80.152	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	712653	83.414	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	302915	92.545	ug/L	#	79
57) Bromodichloromethane	6.765	83	842655	83.590	ug/L		100
60) 1,4-Dioxane	6.973	88	26263	779.173	ug/L	#	56
61) cis-1,3-Dichloropropene	7.460	75	959633	92.377	ug/L	#	84
64) Toluene	7.731	92	1559743	82.986	ug/L		98
65) 4-Methyl-2-pentanone	8.162	58	135905	90.355	ug/L	#	67
66) Tetrachloroethene	8.182	166	653514	88.674	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	782486	98.897	ug/L		85
70) Ethyl methacrylate	8.412	69	536517	94.579	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	404802	91.716	ug/L		98
72) Chlorodibromomethane	8.607	129	592883	91.983	ug/L		100
73) 1,3-Dichloropropane	8.720	76	760068	87.831	ug/L		99
74) 1,2-Dibromoethane	8.881	107	447228	90.418	ug/L		100
76) 2-Hexanone	9.175	43	250363	95.295	ug/L		88
77) Chlorobenzene	9.540	112	1720439	80.820	ug/L		90
78) Ethylbenzene	9.589	91	2998362	84.490	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	607602	89.732	ug/L		99
80) p/m Xylene	9.778	106	2360025	171.323	ug/L		98
81) o Xylene	10.318	106	2248914	172.634	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.382	104	3701149	176.638	ug/L		99
84) Bromoform	10.396	173	311735	91.606	ug/L		99
86) Isopropylbenzene	10.704	105	3038692	86.604	ug/L		100
88) Bromobenzene	11.132	156	669659	81.163	ug/L		99
89) n-Propylbenzene	11.188	91	3524612	86.450	ug/L		100
90) 1,4-Dichlorobutane	11.195	55	890525	83.496	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	481761	83.938	ug/L		99
92) 4-Ethyltoluene	11.314	105	2856846	85.971	ug/L		100
93) 2-Chlorotoluene	11.349	91	2005453M6	81.657	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	2400965	85.266	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	364924M1	83.294	ug/L		
96) trans-1,4-Dichloro-2-b...	11.454	53	171854	87.959	ug/L	#	78
97) 4-Chlorotoluene	11.532	91	2095062	82.655	ug/L		100
98) tert-Butylbenzene	11.756	119	2152120	88.051	ug/L		97
101) 1,2,4-Trimethylbenzene	11.833	105	2676166	85.056	ug/L		99
102) sec-Butylbenzene	11.944	105	3063225	88.833	ug/L		99
103) p-Isopropyltoluene	12.104	119	2574669	89.241	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	1327463	81.110	ug/L		97
105) 1,4-Dichlorobenzene	12.251	146	1292372	79.623	ug/L		97
106) p-Diethylbenzene	12.480	119	1493217	89.397	ug/L		98
107) n-Butylbenzene	12.536	91	2119410	88.106	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	1181566	81.607	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	2111496	92.750	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	72691	99.534	ug/L		99
111) 1,3,5-Trichlorobenzene	13.490	180	783599	83.086	ug/L		97
112) Hexachlorobutadiene	14.074	225	265905	85.793	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	687445	85.663	ug/L		98
114) Naphthalene	14.388	128	1573928	92.472	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	579519	85.011	ug/L		98

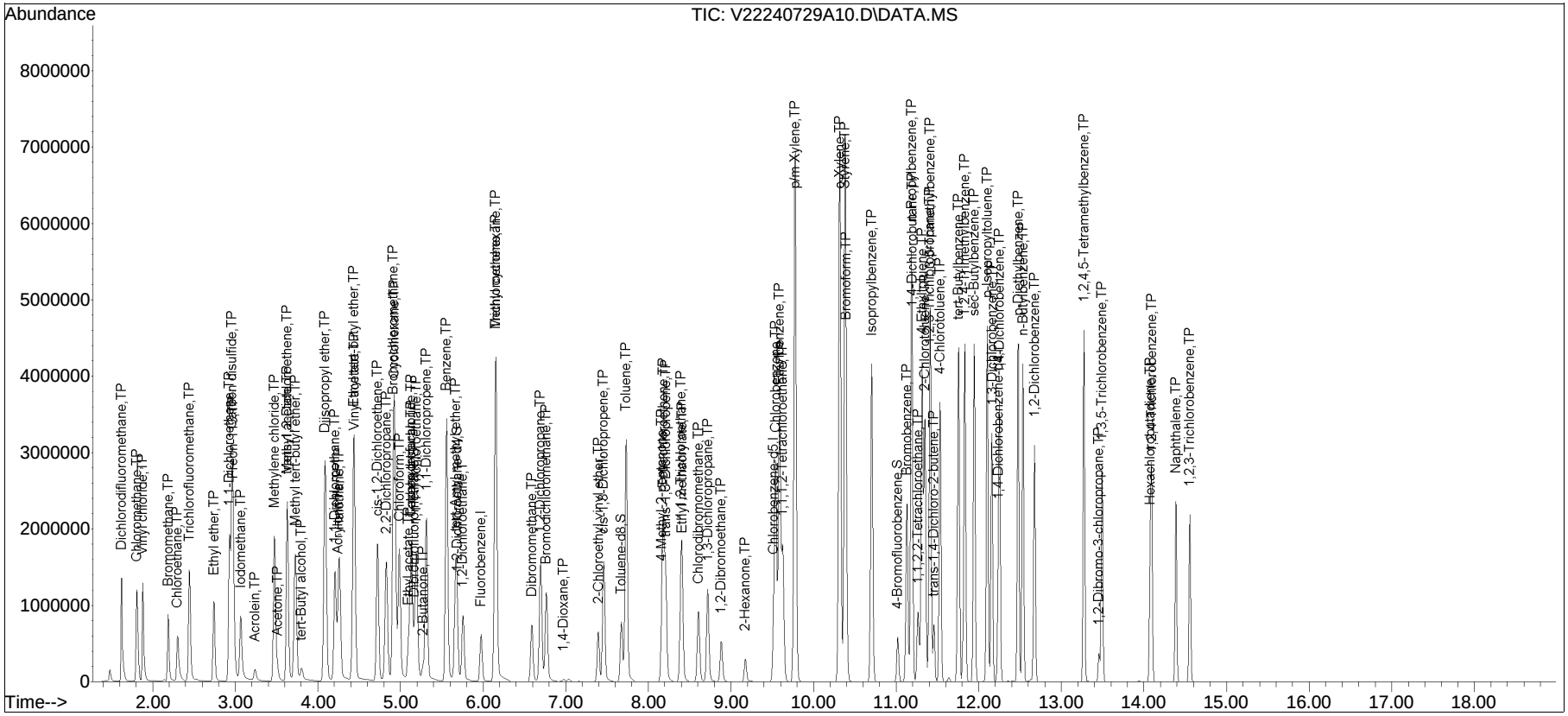
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

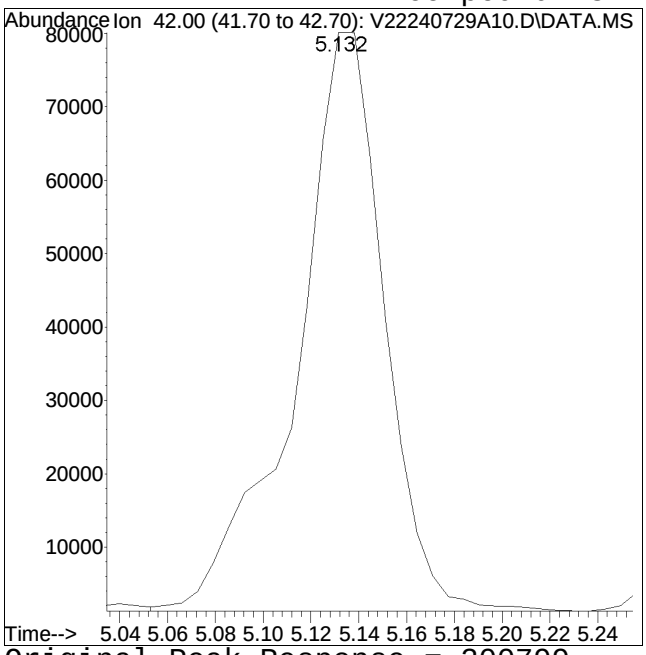
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



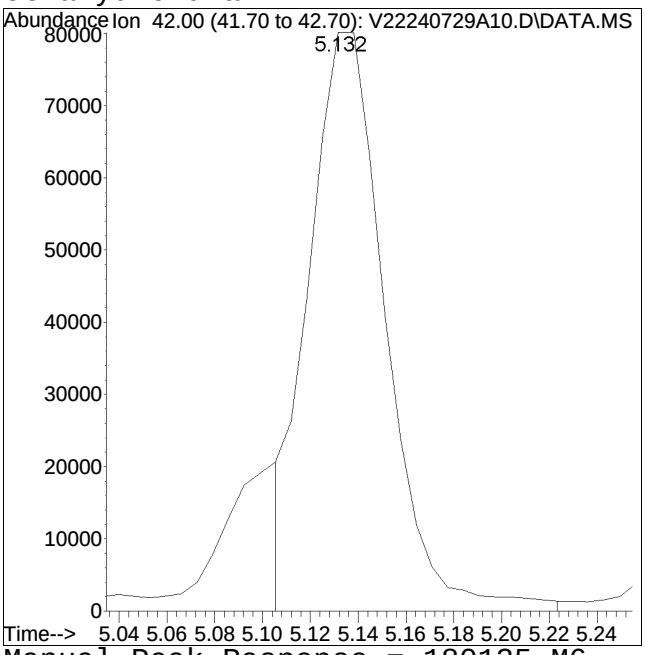
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A10.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:15 pm Instrument : VOA 122
Sample : I8260STD80PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 200799



Manual Peak Response = 180135 M6

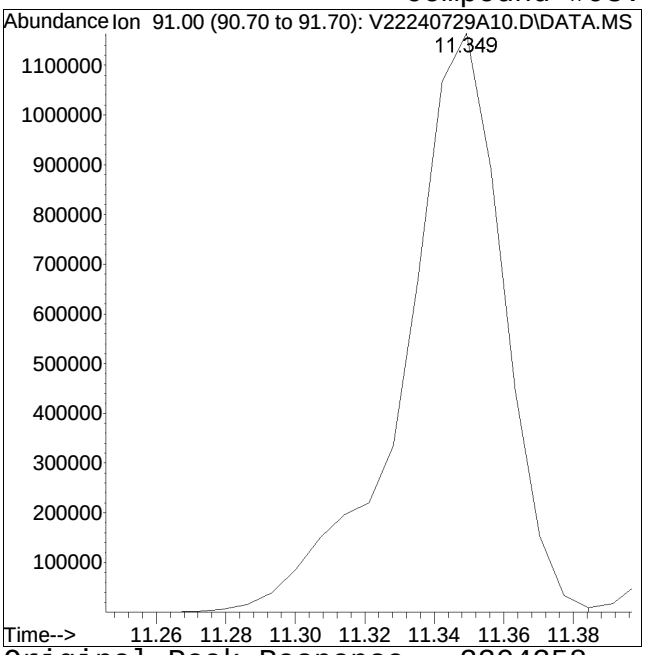
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

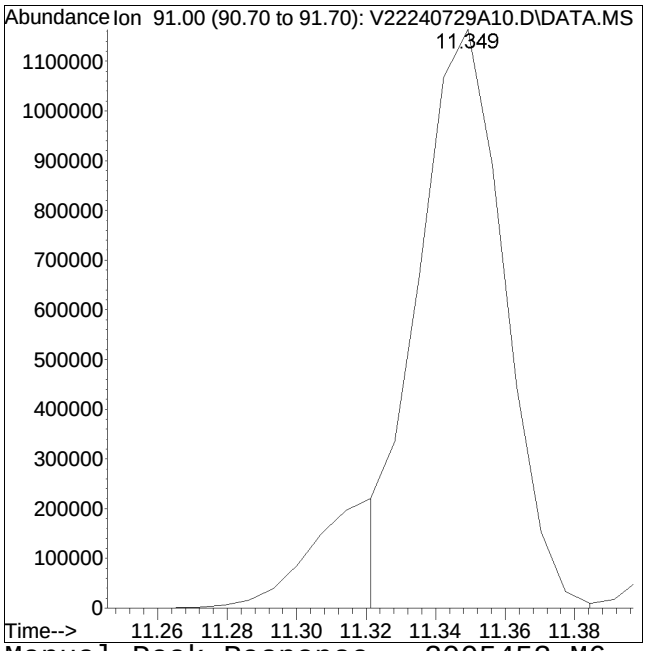
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A10.D
Date Inj'd : 7/29/2024 4:15 pm
Sample : I8260STD80PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 2304358



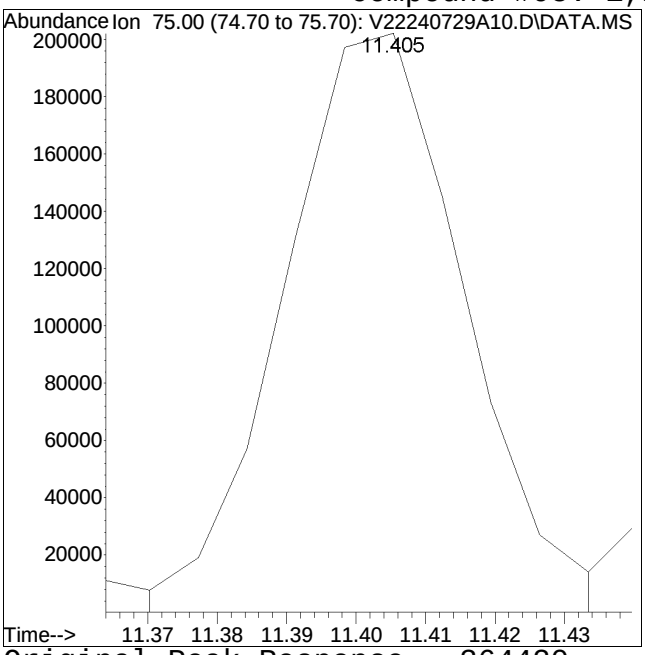
Manual Peak Response = 2005453 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

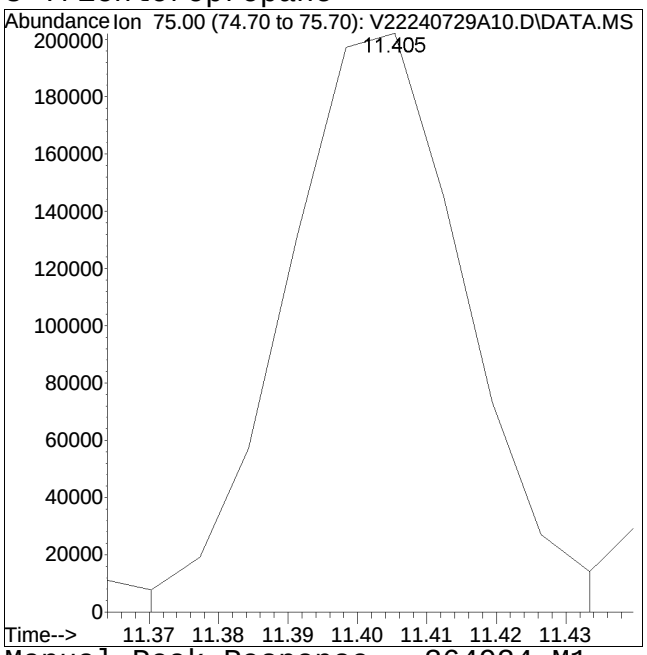
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A10.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:15 pm Instrument : VOA 122
Sample : I8260STD80PPB Quant Date : 7/30/2024 6:57 am

Compound #95: 1,2,3-Trichloropropane



Original Peak Response = 364420



Manual Peak Response = 364924 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	636656	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 125.54%			
62) Chlorobenzene-d5	9.519	117	481172	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 116.05%			
83) 1,4-Dichlorobenzene-d4	12.237	152	237970	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 116.47%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	209609	9.423	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.23%			
46) 1,2-Dichloroethane-d4	5.689	65	187007	9.945	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.45%			
63) Toluene-d8	7.675	98	622956	10.161	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.61%			
87) 4-Bromofluorobenzene	11.020	95	214064	9.879	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	1490231	125.726	ug/L	96
3) Chloromethane	1.809	50	1825294	108.868	ug/L	98
4) Vinyl chloride	1.881	62	1571853	118.499	ug/L	98
5) Bromomethane	2.189	94	727783	136.575	ug/L	98
6) Chloroethane	2.300	64	839174	109.441	ug/L	97
7) Trichlorofluoromethane	2.444	101	1816739	127.104	ug/L	99
8) Ethyl ether	2.746	74	538297	121.490	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	1065210	120.936	ug/L #	78
11) Carbon disulfide	2.962	76	3349244	115.749	ug/L	99
12) Freon-113	2.975	101	1124795	132.270	ug/L	93
13) Iodomethane	3.067	142	1554676	146.612	ug/L	95
14) Acrolein	3.237	56	192119	126.932	ug/L	97
15) Methylene chloride	3.473	84	1218040	104.310	ug/L #	64
17) Acetone	3.513	43	238764	98.424	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	1199643	116.428	ug/L	84
19) Methyl acetate	3.631	43	616839	112.619	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	2589702	131.436	ug/L #	82
22) tert-Butyl alcohol	3.808	59	280164	679.040	ug/L #	86
24) Diisopropyl ether	4.089	45	4705000	127.095	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	2404388	114.253	ug/L	97
26) Halothane	4.260	117	959668	124.944	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	345403	118.896	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	3574338	134.435	ug/L		82
29) Vinyl acetate	4.443	43	2940318	132.883	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	1310832	114.792	ug/L	#	83
31) 2,2-Dichloropropane	4.830	77	1612721	122.278	ug/L	#	81
32) Bromochloromethane	4.915	128	613361	113.828	ug/L	#	70
33) Cyclohexane	4.928	56	2688133	139.238	ug/L		70
34) Chloroform	4.987	83	2126576	116.757	ug/L		95
35) Ethyl acetate	5.099	43	904461	126.488	ug/L	#	92
36) Carbon tetrachloride	5.131	117	1745572	132.802	ug/L		99
37) Tetrahydrofuran	5.138	42	284868M6	121.564	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	1939297	126.262	ug/L		96
41) 2-Butanone	5.276	43	377919	126.341	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	1623956	131.039	ug/L		100
44) Benzene	5.558	78	5023994	124.588	ug/L	#	92
45) tert-Amyl methyl ether	5.675	73	1754429	136.185	ug/L	#	90
47) 1,2-Dichloroethane	5.761	62	1177151	116.840	ug/L		98
50) Methyl cyclohexane	6.154	83	1778581	151.490	ug/L	#	66
51) Trichloroethene	6.154	95	1078382	125.731	ug/L		96
53) Dibromomethane	6.591	93	524090	120.875	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	1125455	124.984	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	484192	140.352	ug/L	#	80
57) Bromodichloromethane	6.765	83	1342082	126.313	ug/L		100
60) 1,4-Dioxane	6.980	88	42731	1202.816	ug/L	#	60
61) cis-1,3-Dichloropropene	7.460	75	1533188	140.030	ug/L	#	84
64) Toluene	7.731	92	2475033	124.876	ug/L		97
65) 4-Methyl-2-pentanone	8.168	58	218495	137.755	ug/L	#	71
66) Tetrachloroethene	8.182	166	1047153	134.741	ug/L		95
68) trans-1,3-Dichloropropene	8.210	75	1253964	150.294	ug/L		85
70) Ethyl methacrylate	8.412	69	861890	144.083	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	642415	138.028	ug/L		95
72) Chlorodibromomethane	8.607	129	947780	139.442	ug/L		99
73) 1,3-Dichloropropane	8.719	76	1202975	131.826	ug/L		99
74) 1,2-Dibromoethane	8.888	107	712084	136.523	ug/L		99
76) 2-Hexanone	9.175	43	396357	143.066	ug/L		89
77) Chlorobenzene	9.540	112	2715525	120.972	ug/L		90
78) Ethylbenzene	9.589	91	4715031	125.995	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.631	131	967804	135.540	ug/L		98
80) p/m Xylene	9.778	106	3723497	256.330	ug/L		97
81) o Xylene	10.318	106	3556703	258.912	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.388	104	5764621	260.895	ug/L		98
84) Bromoform	10.402	173	502384	140.330	ug/L		99
86) Isopropylbenzene	10.704	105	4785956	129.656	ug/L		100
88) Bromobenzene	11.132	156	1058436	121.940	ug/L		99
89) n-Propylbenzene	11.188	91	5573770	129.950	ug/L		99
90) 1,4-Dichlorobutane	11.195	55	1395871	124.405	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	760794	126.000	ug/L		99
92) 4-Ethyltoluene	11.314	105	4550357	130.163	ug/L		99
93) 2-Chlorotoluene	11.349	91	3229129M6	124.980	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	3878994	130.943	ug/L		100
95) 1,2,3-Trichloropropane	11.405	75	583428M4	126.582	ug/L		
96) trans-1,4-Dichloro-2-b...	11.461	53	274309	133.455	ug/L	#	81
97) 4-Chlorotoluene	11.531	91	3329483	124.860	ug/L		100
98) tert-Butylbenzene	11.756	119	3431836	133.465	ug/L		96
101) 1,2,4-Trimethylbenzene	11.833	105	4298979	129.877	ug/L		99
102) sec-Butylbenzene	11.944	105	4884700	134.651	ug/L		100
103) p-Isopropyltoluene	12.104	119	4123679	135.864	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	2090877	121.439	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	2063151	120.825	ug/L		98
106) p-Diethylbenzene	12.480	119	2404432	136.832	ug/L		98
107) n-Butylbenzene	12.536	91	3418449	135.081	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	1870262	122.786	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	3355659	140.112	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	115498	150.329	ug/L		100
111) 1,3,5-Trichlorobenzene	13.496	180	1252542	126.241	ug/L		96
112) Hexachlorobutadiene	14.074	225	442150	135.603	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	1087707	128.838	ug/L		98
114) Naphthalene	14.387	128	2458485	137.300	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	913013	127.308	ug/L		98

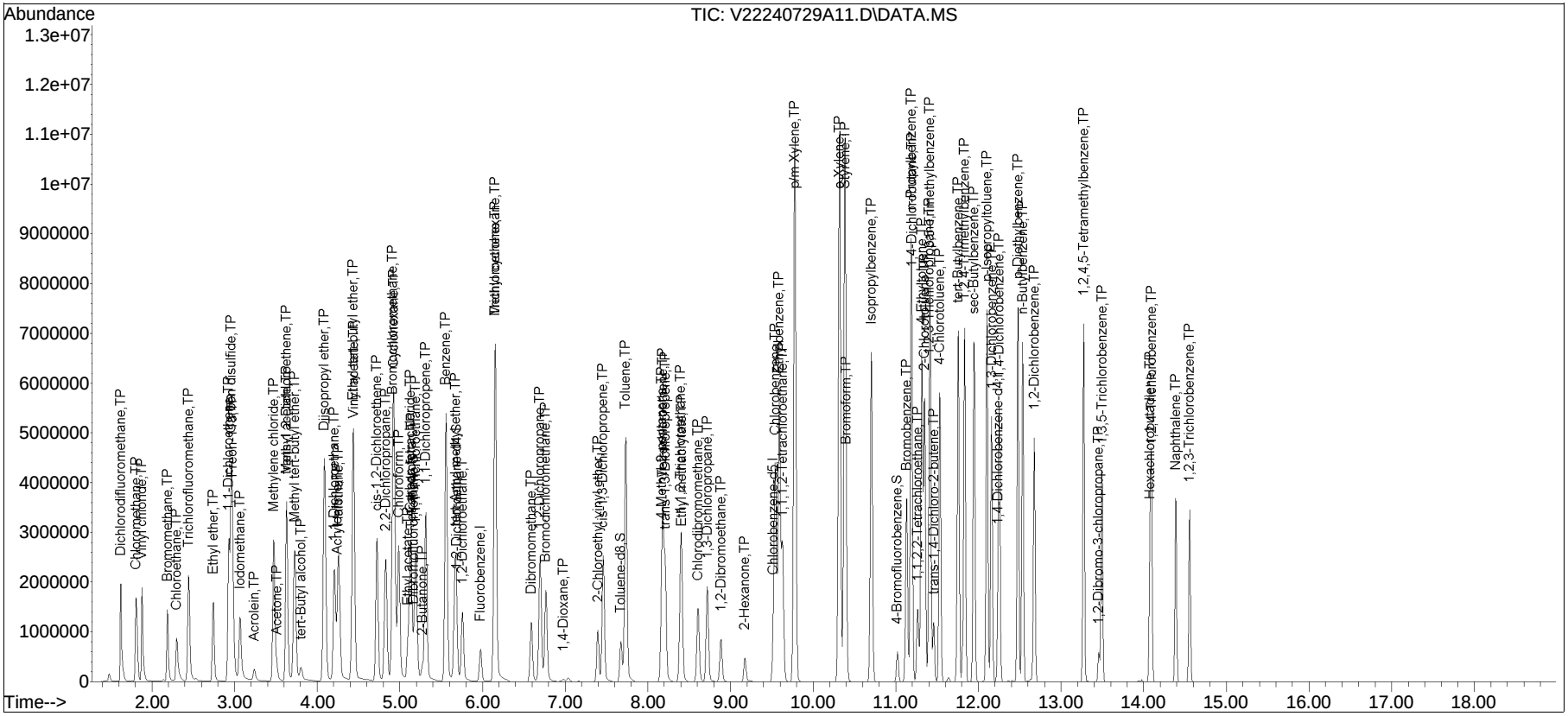
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

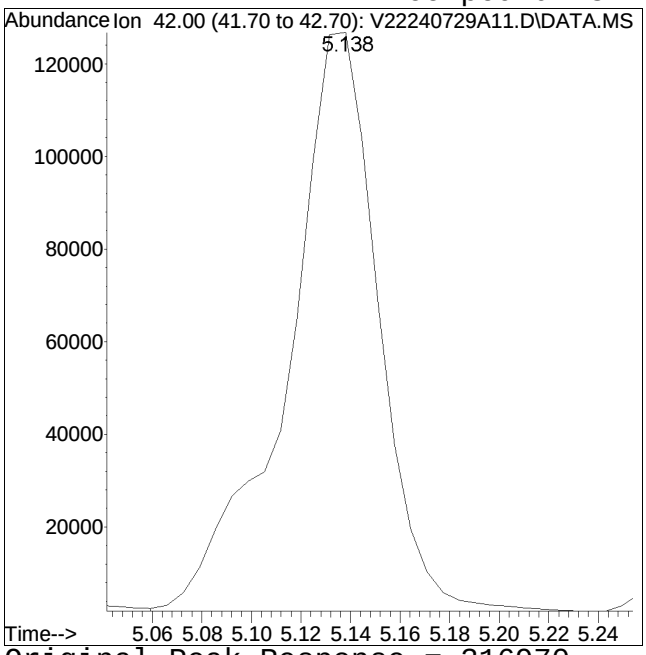


Manual Integration Report

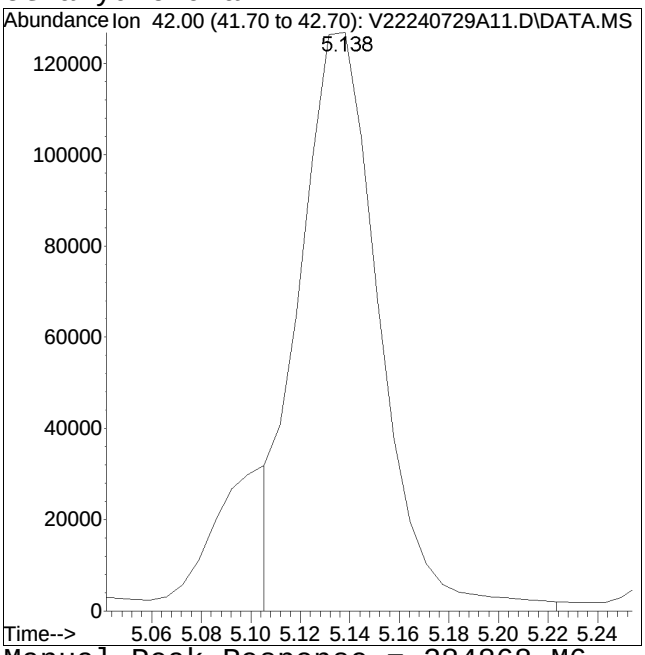
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A11.D
Date Inj'd : 7/29/2024 4:40 pm
Sample : I8260STD120PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 316970



Manual Peak Response = 284868 M6

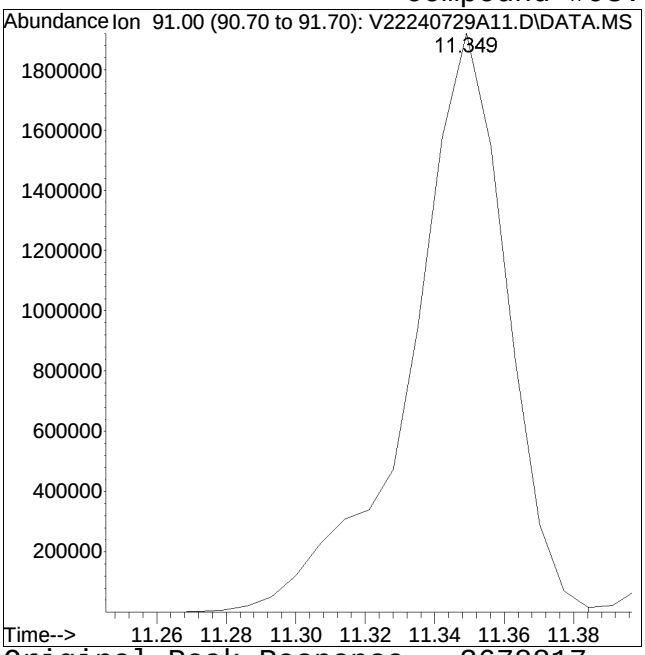
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

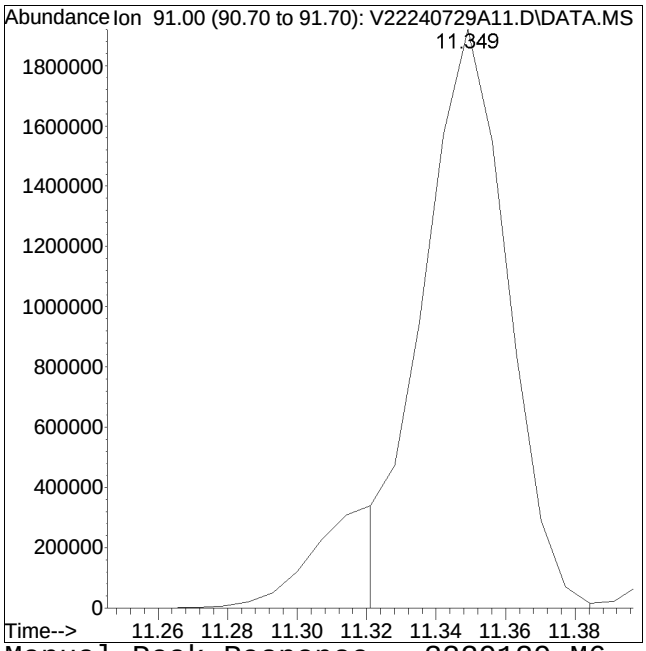
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A11.D
Date Inj'd : 7/29/2024 4:40 pm
Sample : I8260STD120PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 3678817



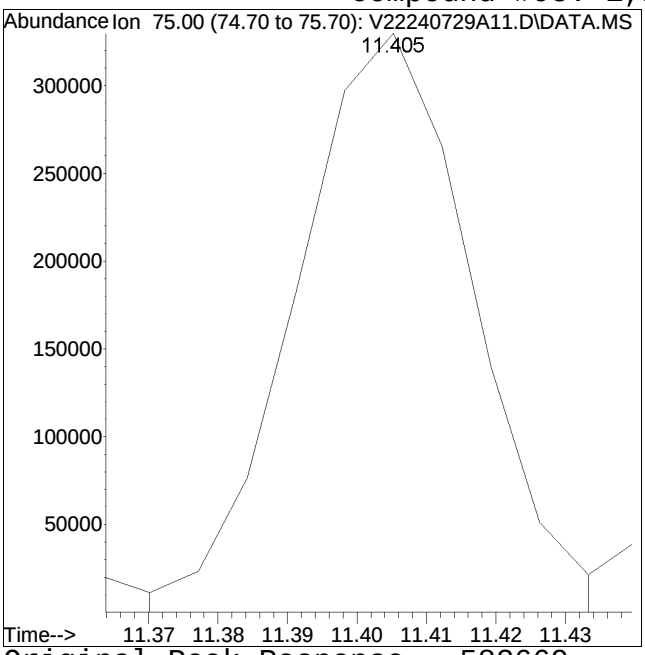
Manual Peak Response = 3229129 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

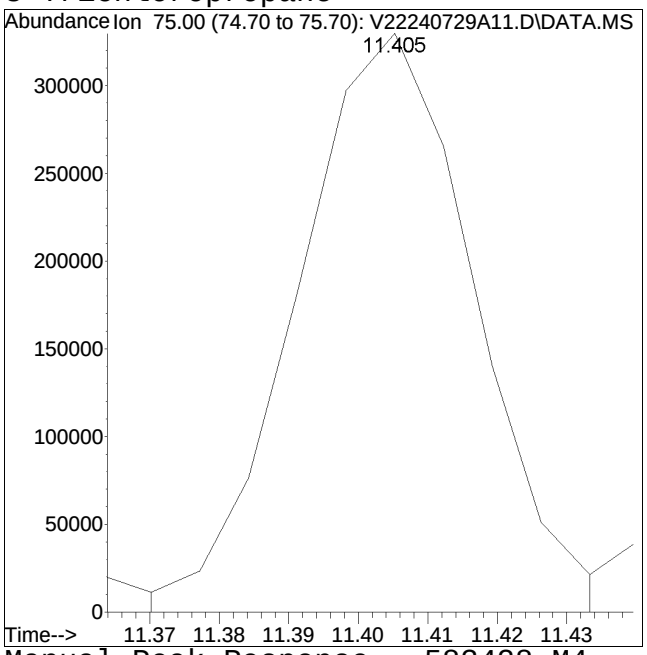
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A11.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:40 pm Instrument : VOA 122
Sample : I8260STD120PPB Quant Date : 7/30/2024 6:57 am

Compound #95: 1,2,3-Trichloropropane



Original Peak Response = 582669



Manual Peak Response = 583428 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	671267	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 132.37%			
62) Chlorobenzene-d5	9.519	117	507270	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 122.35%			
83) 1,4-Dichlorobenzene-d4	12.237	152	245235	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 120.02%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	217210	9.261	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.61%			
46) 1,2-Dichloroethane-d4	5.689	65	193758	9.773	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.73%			
63) Toluene-d8	7.675	98	647303	10.015	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.15%			
87) 4-Bromofluorobenzene	11.020	95	222560	9.966	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	2620678	209.699	ug/L	96
3) Chloromethane	1.809	50	3024576	171.097	ug/L	98
4) Vinyl chloride	1.881	62	2725266	194.859	ug/L	98
5) Bromomethane	2.189	94	1371795	244.156	ug/L	98
6) Chloroethane	2.300	64	1447475	179.040	ug/L	97
7) Trichlorofluoromethane	2.444	101	3211175	213.079	ug/L	99
8) Ethyl ether	2.746	74	913253	195.487	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	1867542	201.095	ug/L	80
11) Carbon disulfide	2.962	76	5813289	190.547	ug/L	99
12) Freon-113	2.975	101	2026043	225.967	ug/L	93
13) Iodomethane	3.067	142	2736295	244.738	ug/L	95
14) Acrolein	3.237	56	327212	205.041	ug/L	98
15) Methylene chloride	3.473	84	2100777	170.630	ug/L #	66
17) Acetone	3.513	43	399764	156.295	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	2082235	191.665	ug/L	85
19) Methyl acetate	3.631	43	1038900	179.897	ug/L #	83
21) Methyl tert-butyl ether	3.729	73	4467075	215.029	ug/L #	83
22) tert-Butyl alcohol	3.808	59	487122	1119.774	ug/L #	82
24) Diisopropyl ether	4.089	45	7871258	201.661	ug/L #	91
25) 1,1-Dichloroethane	4.207	63	4105423	185.024	ug/L	97
26) Halothane	4.260	117	1695601	209.376	ug/L	99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	579249	189.111	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	6085697	217.089	ug/L		83
29) Vinyl acetate	4.443	43	4933617	211.470	ug/L	#	89
30) cis-1,2-Dichloroethene	4.725	96	2256530	187.420	ug/L	#	84
31) 2,2-Dichloropropane	4.830	77	2850431	204.979	ug/L	#	82
32) Bromochloromethane	4.915	128	1049579	184.738	ug/L	#	71
33) Cyclohexane	4.928	56	4745720	233.141	ug/L		71
34) Chloroform	4.987	83	3591714	187.030	ug/L	#	94
35) Ethyl acetate	5.099	43	1534300	203.508	ug/L	#	92
36) Carbon tetrachloride	5.132	117	3106185	224.132	ug/L		99
37) Tetrahydrofuran	5.138	42	479075M6	193.898	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	3384148	208.972	ug/L		96
41) 2-Butanone	5.276	43	634993	201.337	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	2862641	219.081	ug/L		100
44) Benzene	5.558	78	8491811	199.727	ug/L	#	90
45) tert-Amyl methyl ether	5.675	73	3060918	225.348	ug/L	#	91
47) 1,2-Dichloroethane	5.761	62	2002259	188.491	ug/L		98
50) Methyl cyclohexane	6.154	83	3194114	258.030	ug/L	#	68
51) Trichloroethene	6.154	95	1889273	208.916	ug/L		96
53) Dibromomethane	6.591	93	895312	195.846	ug/L	#	83
54) 1,2-Dichloropropane	6.702	63	1922728	202.513	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	820387	225.543	ug/L	#	81
57) Bromodichloromethane	6.765	83	2320380	207.128	ug/L		100
60) 1,4-Dioxane	6.980	88	70331	1877.641	ug/L	#	61
61) cis-1,3-Dichloropropene	7.460	75	2640789	228.754	ug/L	#	85
64) Toluene	7.738	92	4219933	201.960	ug/L		96
65) 4-Methyl-2-pentanone	8.168	58	376605	225.224	ug/L	#	73
66) Tetrachloroethene	8.182	166	1835616	224.044	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	2152927	244.764	ug/L		86
70) Ethyl methacrylate	8.412	69	1465362	232.363	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	1098091	223.795	ug/L		98
72) Chlorodibromomethane	8.607	129	1634986	228.172	ug/L		99
73) 1,3-Dichloropropane	8.719	76	2033705	211.395	ug/L		99
74) 1,2-Dibromoethane	8.888	107	1216125	221.164	ug/L		99
76) 2-Hexanone	9.175	43	670301	229.499	ug/L		89
77) Chlorobenzene	9.547	112	4644841	196.274	ug/L		90
78) Ethylbenzene	9.589	91	7918098	200.702	ug/L		98
79) 1,1,1,2-Tetrachloroethane	9.631	131	1679969	223.173	ug/L		99
80) p/m Xylene	9.778	106	6291057	410.802	ug/L		93
81) o Xylene	10.318	106	5996592	414.066	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.388	104	9407196	403.847	ug/L		94
84) Bromoform	10.402	173	875851	237.402	ug/L		99
86) Isopropylbenzene	10.704	105	8030356	211.105	ug/L		98
88) Bromobenzene	11.132	156	1812458	202.623	ug/L		99
89) n-Propylbenzene	11.188	91	9141124	206.808	ug/L		97
90) 1,4-Dichlorobutane	11.195	55	2369414	204.915	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	1288747	207.114	ug/L		99
92) 4-Ethyltoluene	11.314	105	7628386	211.745	ug/L		97
93) 2-Chlorotoluene	11.349	91	5478052M6	205.742	ug/L		
94) 1,3,5-Trimethylbenzene	11.419	105	6585839	215.732	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	1005558	211.705	ug/L		98
96) trans-1,4-Dichloro-2-b...	11.461	53	467214	220.572	ug/L	#	82
97) 4-Chlorotoluene	11.539	91	5623105	204.626	ug/L		99
98) tert-Butylbenzene	11.756	119	5800367	218.895	ug/L		95
101) 1,2,4-Trimethylbenzene	11.833	105	7215932	211.544	ug/L		100
102) sec-Butylbenzene	11.951	105	8071276	215.900	ug/L		98
103) p-Isopropyltoluene	12.104	119	6895602	220.461	ug/L		97
104) 1,3-Dichlorobenzene	12.160	146	3520453	198.411	ug/L		97
105) 1,4-Dichlorobenzene	12.257	146	3490349	198.351	ug/L		97
106) p-Diethylbenzene	12.480	119	4120448	227.542	ug/L		98
107) n-Butylbenzene	12.536	91	5772758	221.355	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	3135480	199.751	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	5530218	224.068	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	198195	250.322	ug/L		100
111) 1,3,5-Trichlorobenzene	13.496	180	2092624	204.664	ug/L		96
112) Hexachlorobutadiene	14.074	225	784582	233.496	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	1834176	210.820	ug/L		98
114) Naphthalene	14.387	128	3996300	216.571	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	1518580	205.474	ug/L		98

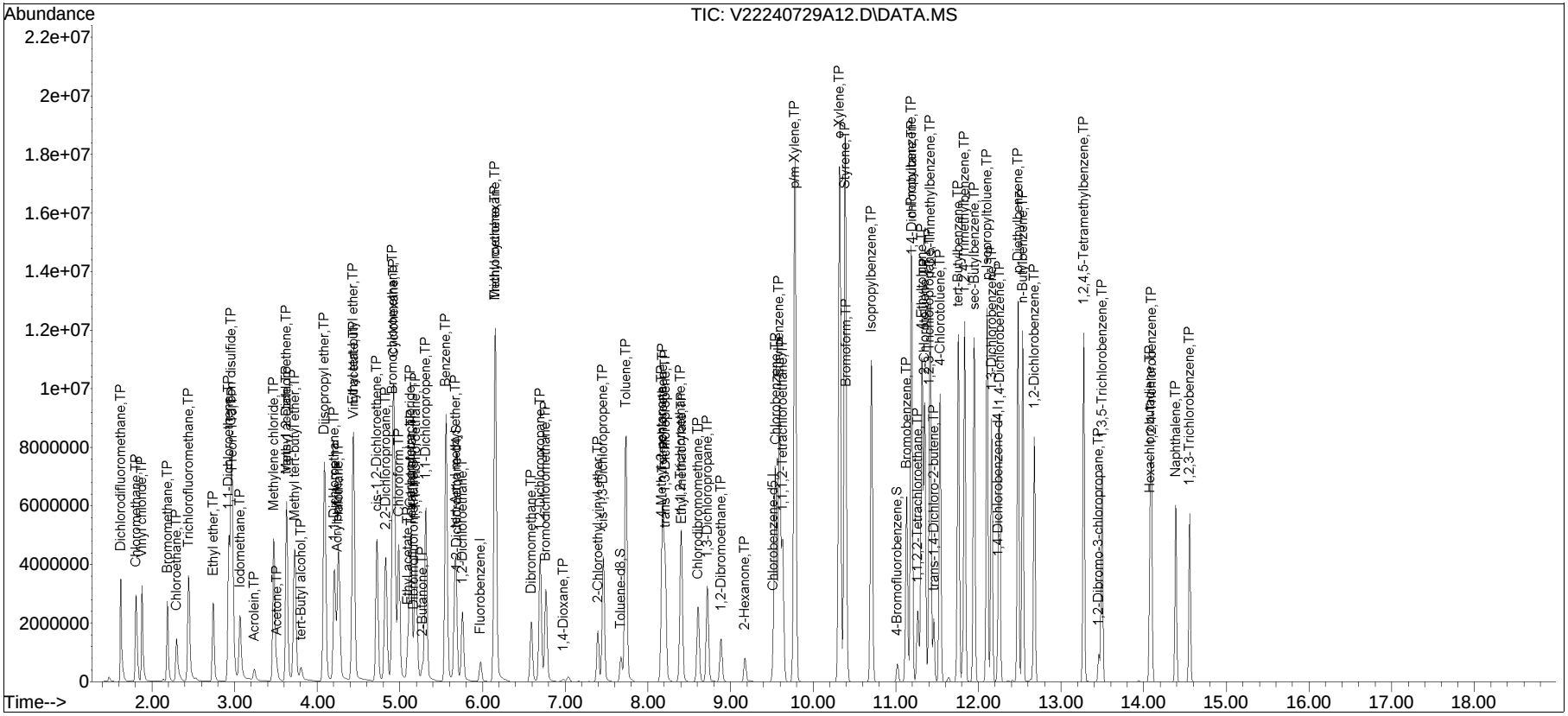
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

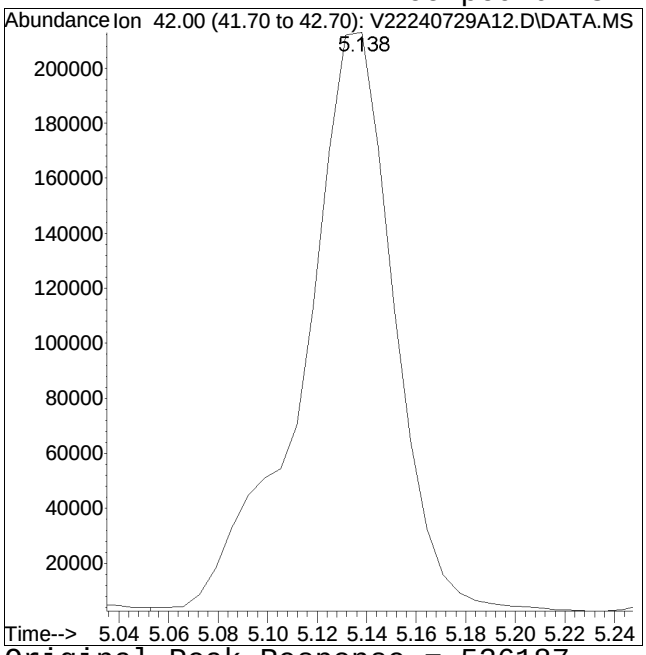
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



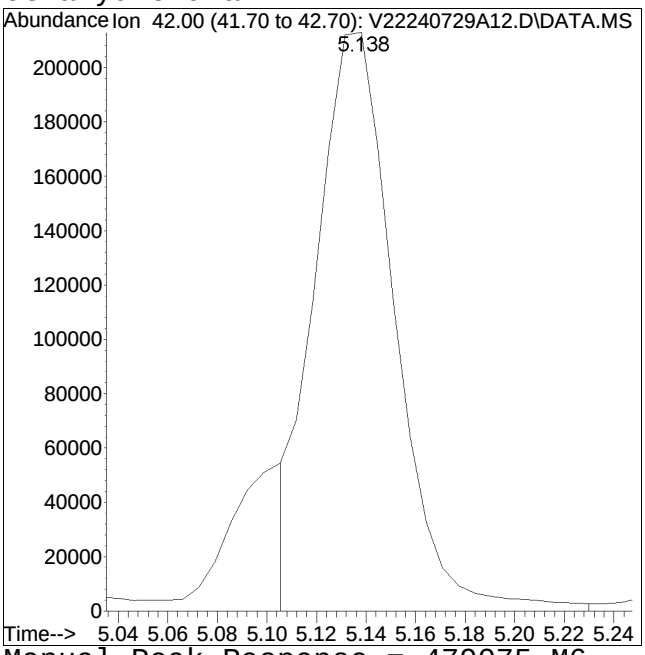
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A12.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 5:04 pm Instrument : VOA 122
Sample : I8260STD200PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 536187



Manual Peak Response = 479075 M6

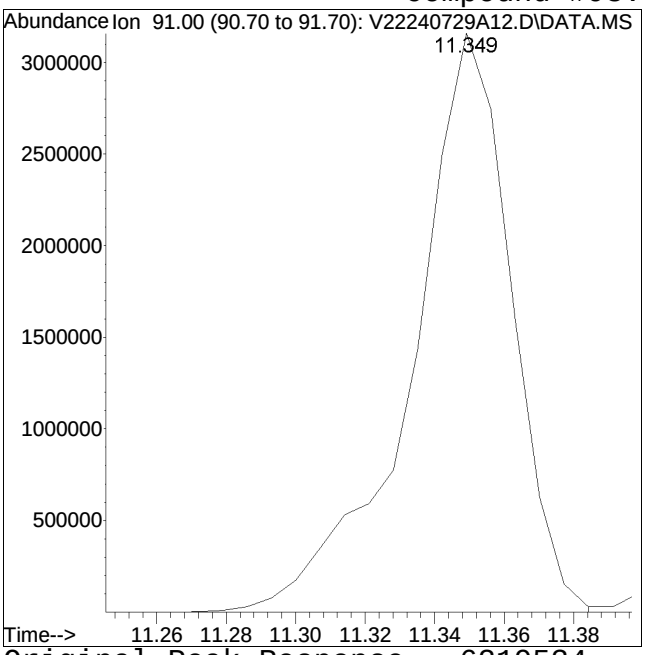
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

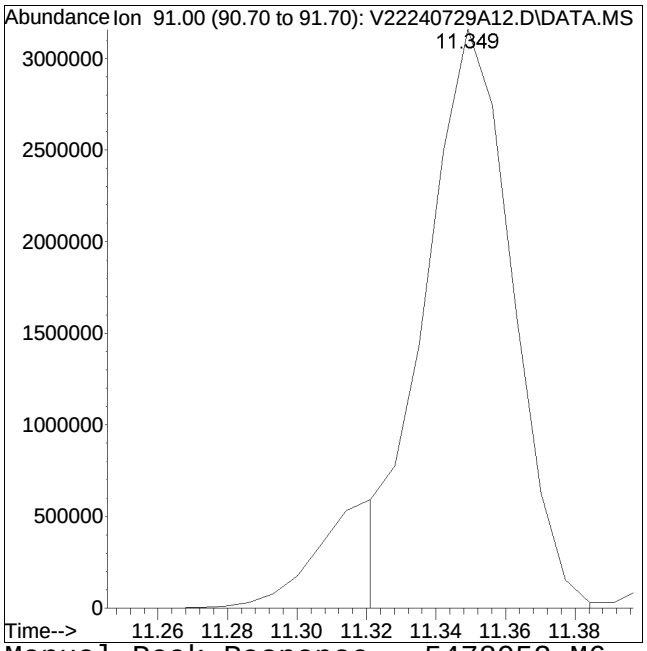
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A12.D
Date Inj'd : 7/29/2024 5:04 pm
Sample : I8260STD200PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 6219534



Manual Peak Response = 5478052 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	115	0.00
2	TP	Dichlorodifluoromethane	0.197	0.162	17.8	87	0.00
3	TP	Chloromethane	0.263	0.280	-6.5	107	0.00
4	TP	Vinyl chloride	0.208	0.209	-0.5	104	0.00
5	TP	Bromomethane	0.084	0.074	11.9	114	0.00
6	TP	Chloroethane	0.120	0.124	-3.3	107	0.00
7	TP	Trichlorofluoromethane	* 10.000	10.782	-7.8	115	0.00
8	TP	Ethyl ether	0.070	0.073	-4.3	116	0.00
10	TP	1,1-Dichloroethene	0.138	0.143	-3.6	108	0.00
11	TP	Carbon disulfide	0.454	0.435	4.2	98	0.00
12	TP	Freon-113	0.143	0.170	-18.9	127	0.00
13	TP	Iodomethane	0.182	0.085	53.3#	57	0.00
14	TP	Acrolein	0.024	0.017	29.2#	78	0.00
15	TP	Methylene chloride	0.183	0.173	5.5	104	0.00
17	TP	Acetone	0.033	0.033	0.0	111	0.00
18	TP	trans-1,2-Dichloroethene	0.162	0.165	-1.9	107	0.00
19	TP	Methyl acetate	0.086	0.082	4.7	112	0.00
21	TP	Methyl tert-butyl ether	0.309	0.278	10.0	101	0.00
22	TP	tert-Butyl alcohol	0.00648	0.00709#	-9.4	122	0.00
24	TP	Diisopropyl ether	0.581	0.562	3.3	109	0.00
25	TP	1,1-Dichloroethane	0.331	0.339	-2.4	107	0.00
26	TP	Halothane	0.121	0.135	-11.6	117	0.00
27	TP	Acrylonitrile	0.046	0.044	4.3	104	0.00
28	TP	Ethyl tert-butyl ether	0.418	0.405	3.1	113	0.00
29	TP	Vinyl acetate	0.348	0.305	12.4	99	0.00
30	TP	cis-1,2-Dichloroethene	0.179	0.183#	-2.2	107	0.00
31	TP	2,2-Dichloropropane	0.207	0.191	7.7	98	0.00
32	TP	Bromochloromethane	0.085	0.081#	4.7	100	0.00
33	TP	Cyclohexane	* 10.000	10.905	-9.0	119	0.00
34	TP	Chloroform	0.286	0.286#	0.0	109	0.00
35	TP	Ethyl acetate	0.112	0.110	1.8	114	0.00
36	TP	Carbon tetrachloride	0.206	0.220	-6.8	109	0.00
37	TP	Tetrahydrofuran	0.037	0.036	2.7	110	0.00
38	S	Dibromofluoromethane	0.349	0.346	0.9	111	0.00
39	TP	1,1,1-Trichloroethane	0.241	0.249	-3.3	109	0.00
41	TP	2-Butanone	0.047	0.045	4.3	116	0.00
42	TP	1,1-Dichloropropene	0.195	0.208	-6.7	112	0.00
44	TP	Benzene	0.633	0.643	-1.6	113	0.00
45	TP	tert-Amyl methyl ether	0.202	0.185	8.4	112	0.00

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	S	1,2-Dichloroethane-d4	0.295	0.300	-1.7	113	0.00
47	T	1,2-Dichloroethane	0.158	0.160	-1.3	108	0.00
50	TP	Methyl cyclohexane	* 10.000	10.681	-6.8	128	0.00
51	TP	Trichloroethene	0.135	0.133#	1.5	107	0.00
53	TP	Dibromomethane	0.068	0.068	0.0	111	0.00
54	TP	1,2-Dichloropropane	0.141	0.143#	-1.4	107	0.00
56	TP	2-Chloroethyl vinyl ether	0.054	0.046	14.8	101	0.00
57	TP	Bromodichloromethane	0.167	0.161#	3.6	106	0.00
60	TP	1,4-Dioxane	0.00056	0.00064#	-14.3	122	0.00
61	TP	cis-1,3-Dichloropropene	0.172	0.178#	-3.5	110	0.00
62	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00
63	S	Toluene-d8	1.274	1.269	0.4	111	0.00
64	TP	Toluene	0.412	0.409	0.7	106	0.00
65	TP	4-Methyl-2-pentanone	0.033	0.030#	9.1	116	0.00
66	TP	Tetrachloroethene	0.162	0.169	-4.3	111	0.00
68	TP	trans-1,3-Dichloropropene	* 10.000	8.883	11.2	115	0.00
70	TP	Ethyl methacrylate	0.133	0.125	6.0	112	0.00
71	TP	1,1,2-Trichloroethane	0.097	0.092#	5.2	108	0.00
72	TP	Chlorodibromomethane	* 10.000	8.735	12.7	108	0.00
73	TP	1,3-Dichloropropane	0.190	0.193	-1.6	113	0.00
74	TP	1,2-Dibromoethane	0.108	0.108#	0.0	112	0.00
76	TP	2-Hexanone	0.061	0.055	9.8	112	0.00
77	TP	Chlorobenzene	0.467	0.474	-1.5	108	0.00
78	TP	Ethylbenzene	0.778	0.808	-3.9	105	0.00
79	TP	1,1,1,2-Tetrachloroethane	0.148	0.143	3.4	110	0.00
80	TP	p/m Xylene	0.302	0.316	-4.6	105	0.00
81	TP	o Xylene	0.285	0.299	-4.9	106	0.00
82	TP	Styrene	0.459	0.486	-5.9	107	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00
84	TP	Bromoform	0.150	0.143	4.7	115	0.00
86	TP	Isopropylbenzene	1.551	1.679	-8.3	106	0.00
87	S	4-Bromofluorobenzene	0.911	0.938	-3.0	110	0.00
88	TP	Bromobenzene	0.365	0.367	-0.5	107	0.00
89	TP	n-Propylbenzene	1.802	1.934	-7.3	106	0.00
90	TP	1,4-Dichlorobutane	0.472	0.463	1.9	107	0.00
91	TP	1,1,2,2-Tetrachloroethane	0.254	0.246	3.1	109	0.00
92	TP	4-Ethyltoluene	1.469	1.668	-13.5	114	0.00

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
93 TP	2-Chlorotoluene		1.086	1.126	-3.7	106	0.00
94 TP	1,3,5-Trimethylbenzene		1.245	1.282	-3.0	104	0.00
95 TP	1,2,3-Trichloropropane		0.194	0.192	1.0	110	0.00
96 TP	trans-1,4-Dichloro-2-butene		0.086	0.079	8.1	103	0.00
97 TP	4-Chlorotoluene		1.121	1.158	-3.3	106	0.00
98 TP	tert-Butylbenzene		1.081	1.152	-6.6	106	0.00
101 TP	1,2,4-Trimethylbenzene		1.391	1.492	-7.3	107	0.00
102 TP	sec-Butylbenzene	*	10.000	10.208	-2.1	107	0.00
103 TP	p-Isopropyltoluene	*	10.000	10.063	-0.6	106	0.00
104 TP	1,3-Dichlorobenzene		0.724	0.738	-1.9	106	0.00
105 TP	1,4-Dichlorobenzene		0.718	0.720	-0.3	106	0.00
106 TP	p-Diethylbenzene		0.788	0.793	-0.6	107	0.00
107 TP	n-Butylbenzene	*	10.000	10.574	-5.7	110	0.00
108 TP	1,2-Dichlorobenzene		0.640	0.646	-0.9	106	0.00
109 TP	1,2,4,5-Tetramethylbenzene		1.081	1.082	-0.1	109	0.00
110 TP	1,2-Dibromo-3-chloropropane	*	10.000	9.267	7.3	115	0.00
111 TP	1,3,5-Trichlorobenzene		0.417	0.443	-6.2	109	0.00
112 TP	Hexachlorobutadiene	*	10.000	9.570	4.3	105	0.00
113 TP	1,2,4-Trichlorobenzene		0.355	0.361#	-1.7	107	0.00
114 TP	Naphthalene	*	10.000	9.621	3.8	112	0.00
115 TP	1,2,3-Trichlorobenzene		0.301	0.310#	-3.0	108	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 14 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	584007	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 115.16%			
62) Chlorobenzene-d5	9.519	117	458173	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 110.51%			
83) 1,4-Dichlorobenzene-d4	12.237	152	223186	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 109.23%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	202204	9.909	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.09%			
46) 1,2-Dichloroethane-d4	5.689	65	175085	10.150	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.50%			
63) Toluene-d8	7.675	98	581628	9.963	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.63%			
87) 4-Bromofluorobenzene	11.020	95	209243	10.296	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.96%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	94372	8.185	ug/L	96
3) Chloromethane	1.809	50	163643	10.640	ug/L	98
4) Vinyl chloride	1.881	62	122120	10.036	ug/L	97
5) Bromomethane	2.189	94	43319	8.862	ug/L	99
6) Chloroethane	2.300	64	72184	10.263	ug/L	97
7) Trichlorofluoromethane	2.444	101	150424	10.782	ug/L	99
8) Ethyl ether	2.739	74	42825	10.537	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	83581	10.345	ug/L #	76
11) Carbon disulfide	2.962	76	253815	9.563	ug/L	99
12) Freon-113	2.969	101	99012	11.850	ug/L	93
13) Iodomethane	3.067	142	49697	4.686	ug/L	98
14) Acrolein	3.237	56	9847	7.092	ug/L	95
15) Methylene chloride	3.473	84	100942	9.424	ug/L #	61
17) Acetone	3.513	43	19531	10.003	ug/L	96
18) trans-1,2-Dichloroethene	3.631	96	96422	10.202	ug/L	83
19) Methyl acetate	3.631	43	48058	9.565	ug/L #	83
21) Methyl tert-butyl ether	3.729	73	162342	8.982	ug/L #	78
22) tert-Butyl alcohol	3.801	59	20700	54.694	ug/L #	85
24) Diisopropyl ether	4.090	45	327927	9.657	ug/L #	91
25) 1,1-Dichloroethane	4.207	63	197951	10.254	ug/L	95
26) Halothane	4.260	117	78666	11.165	ug/L	99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	25607	9.609	ug/L		98
28) Ethyl tert-butyl ether	4.430	59	236254	9.687	ug/L		86
29) Vinyl acetate	4.437	43	178159	8.777	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	106770	10.193	ug/L	#	84
31) 2,2-Dichloropropane	4.830	77	111687	9.232	ug/L	#	74
32) Bromochloromethane	4.915	128	47316	9.573	ug/L	#	68
33) Cyclohexane	4.928	56	212214	10.905	ug/L		71
34) Chloroform	4.987	83	166972	9.994	ug/L	#	95
35) Ethyl acetate	5.092	43	64050	9.765	ug/L	#	93
36) Carbon tetrachloride	5.125	117	128483	10.656	ug/L		99
37) Tetrahydrofuran	5.138	42	21217M6	9.870	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	145522	10.329	ug/L		95
41) 2-Butanone	5.276	43	26172	9.538	ug/L	#	49
42) 1,1-Dichloropropene	5.315	75	121434	10.682	ug/L		99
44) Benzene	5.558	78	375381	10.148	ug/L	#	90
45) tert-Amyl methyl ether	5.669	73	107964	9.136	ug/L	#	83
47) 1,2-Dichloroethane	5.754	62	93169	10.081	ug/L		96
50) Methyl cyclohexane	6.154	83	129337	10.681	ug/L	#	66
51) Trichloroethene	6.154	95	77622	9.866	ug/L		96
53) Dibromomethane	6.591	93	39829	10.014	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	83335	10.089	ug/L		94
56) 2-Chloroethyl vinyl ether	7.390	63	26989	8.529	ug/L	#	79
57) Bromodichloromethane	6.765	83	94265	9.672	ug/L		99
60) 1,4-Dioxane	6.973	88	18562	569.597	ug/L	#	62
61) cis-1,3-Dichloropropene	7.460	75	103964	10.351	ug/L	#	83
64) Toluene	7.731	92	187194	9.919	ug/L		100
65) 4-Methyl-2-pentanone	8.169	58	13593	9.000	ug/L	#	69
66) Tetrachloroethene	8.182	166	77381	10.457	ug/L		93
68) trans-1,3-Dichloropropene	8.210	75	83193	8.883	ug/L		82
70) Ethyl methacrylate	8.412	69	57396	9.437	ug/L		97
71) 1,1,2-Trichloroethane	8.398	83	42135	9.507	ug/L		97
72) Chlorodibromomethane	8.607	129	62322	8.735	ug/L		99
73) 1,3-Dichloropropane	8.720	76	88647	10.202	ug/L		100
74) 1,2-Dibromoethane	8.881	107	49511	9.969	ug/L		100
76) 2-Hexanone	9.175	43	25391	9.047	ug/L	#	85
77) Chlorobenzene	9.540	112	217224	10.163	ug/L		91
78) Ethylbenzene	9.589	91	370010	10.384	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.624	131	65595	9.648	ug/L		98
80) p/m Xylene	9.778	106	289785	20.951	ug/L		100
81) o Xylene	10.318	106	274261	20.967	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.382	104	445592	21.179	ug/L		100
84) Bromoform	10.396	173	31976	9.523	ug/L		99
86) Isopropylbenzene	10.704	105	374649	10.822	ug/L		99
88) Bromobenzene	11.132	156	81872	10.057	ug/L		99
89) n-Propylbenzene	11.188	91	431536	10.728	ug/L		98
90) 1,4-Dichlorobutane	11.195	55	103370	9.823	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	54939	9.701	ug/L		98
92) 4-Ethyltoluene	11.314	105	372364	11.357	ug/L		99
93) 2-Chlorotoluene	11.349	91	251254M6	10.369	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	286082	10.297	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	42822	9.906	ug/L		98
96) trans-1,4-Dichloro-2-b...	11.454	53	17614	9.137	ug/L	#	67
97) 4-Chlorotoluene	11.532	91	258494	10.336	ug/L		99
98) tert-Butylbenzene	11.756	119	257016	10.658	ug/L		97
101) 1,2,4-Trimethylbenzene	11.833	105	332931	10.725	ug/L		99
102) sec-Butylbenzene	11.944	105	374658	10.208	ug/L		98
103) p-Isopropyltoluene	12.104	119	311843	10.063	ug/L		98
104) 1,3-Dichlorobenzene	12.160	146	164608	10.194	ug/L		97
105) 1,4-Dichlorobenzene	12.251	146	160763	10.038	ug/L		96
106) p-Diethylbenzene	12.480	119	176923	10.061	ug/L		98
107) n-Butylbenzene	12.536	91	273141	10.574	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	144252	10.098	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	241429	10.011	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.455	155	7856	9.267	ug/L		99
111) 1,3,5-Trichlorobenzene	13.490	180	98813	10.619	ug/L		96
112) Hexachlorobutadiene	14.074	225	32190	9.570	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	80638	10.184	ug/L		98
114) Naphthalene	14.388	128	175725	9.621	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	69157	10.282	ug/L		97

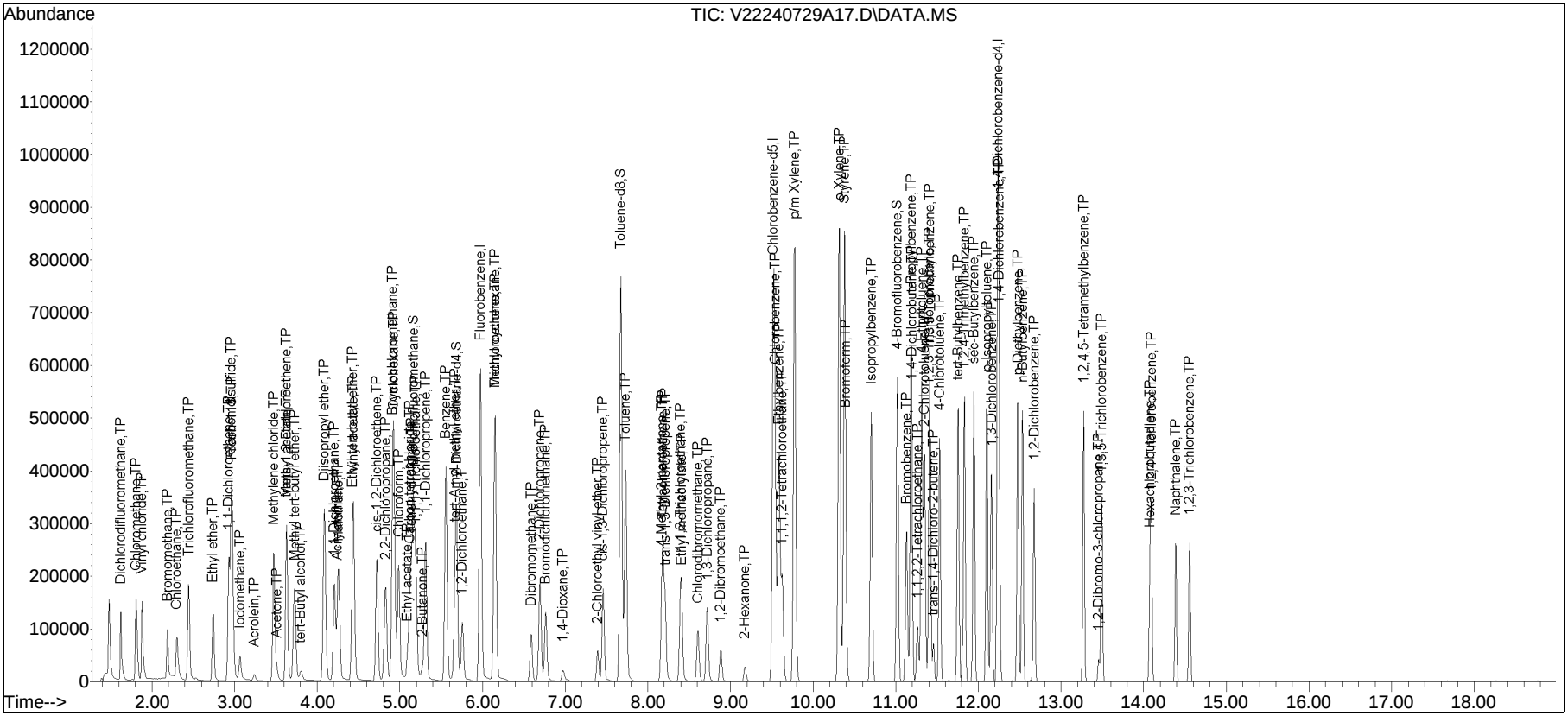
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

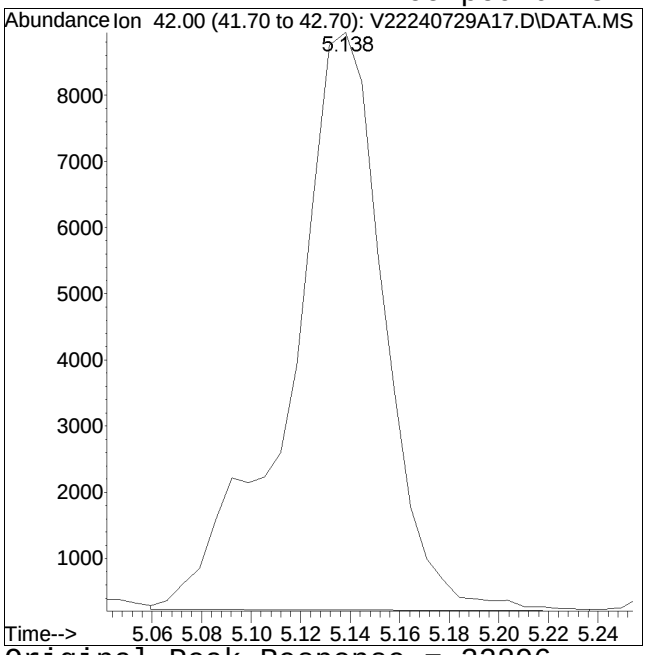


Manual Integration Report

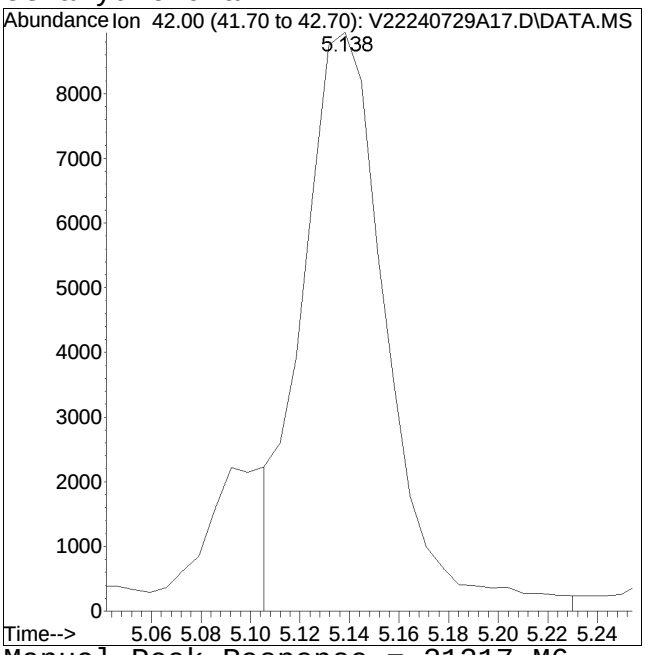
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A17.D
Date Inj'd : 7/29/2024 7:08 pm
Sample : C8260STD10PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 7:08 am

Compound #37: Tetrahydrofuran



Original Peak Response = 22896



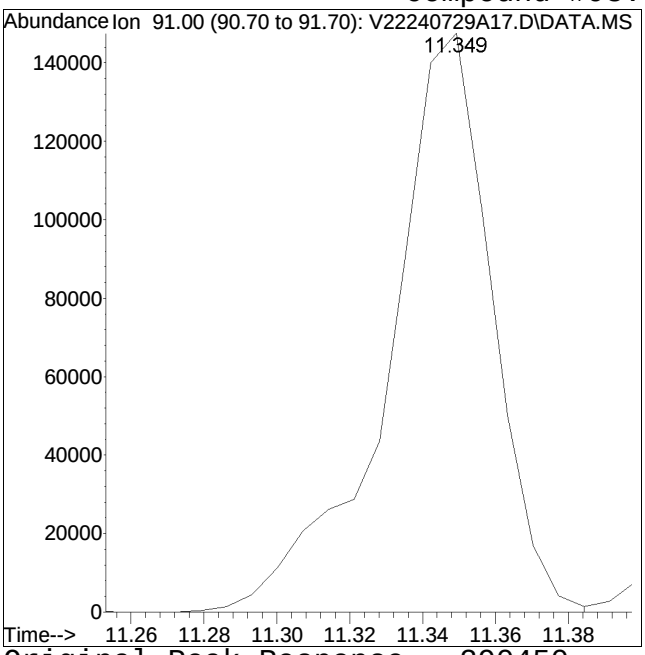
Manual Peak Response = 21217 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

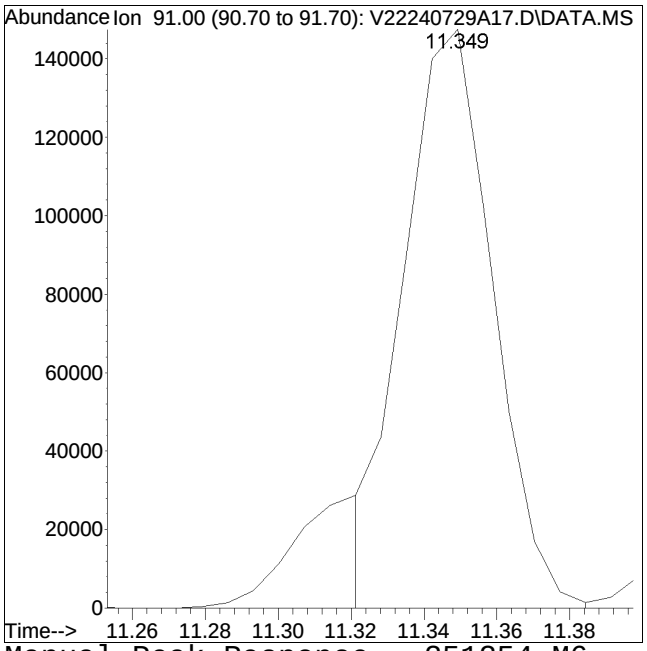
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A17.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 7:08 pm Instrument : VOA 122
Sample : C8260STD10PPB Quant Date : 7/30/2024 7:08 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 290450



Manual Peak Response = 251254 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Relative Error Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
7	TP Trichlorofluoromethane	L	ug/L	10.0	10.753	7.5	0.50	0.501	0.2
33	TP Cyclohexane	L	ug/L	10.0	10.553	5.5	2.00	1.763	-11.9
50	TP Methyl cyclohexane	L	ug/L	10.0	9.764	-2.4	2.00	2.084	4.2
68	TP trans-1,3-Dichloropropene	L	ug/L	10.0	8.583	-14.2	0.50	0.647	29.4
72	TP Chlorodibromomethane	L	ug/L	10.0	8.898	-11.0	0.50	0.610	22.0
102	TP sec-Butylbenzene	L	ug/L	10.0	10.460	4.6	0.50	0.535	7.0
103	TP p-Isopropyltoluene	L	ug/L	10.0	10.357	3.6	0.50	0.548	9.6
107	TP n-Butylbenzene	L	ug/L	10.0	10.492	4.9	0.50	0.542	8.4
110	TP 1,2-Dibromo-3-chloropropane	L	ug/L	10.0	8.817	-11.8	0.50	0.613	22.6
112	TP Hexachlorobutadiene	L	ug/L	10.0	9.952	-0.5	0.50	0.612	22.4
114	TP Naphthalene	L	ug/L	10.0	9.416	-5.8	0.50	0.571	14.2

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
7	TP Trichlorofluoromethane	Linear	0.998671	0.000000	0.24355	-0.00501306
33	TP Cyclohexane	Linear	0.999276	0.000000	0.357513	-0.0264869
50	TP Methyl cyclohexane	Linear	0.999608	0.000000	0.235814	-0.0304005
68	TP trans-1,3-Dichloropropene	Linear	0.999155	0.000000	0.213644	-0.00820122
72	TP Chlorodibromomethane	Linear	0.999477	0.000000	0.161958	-0.00544907
102	TP sec-Butylbenzene	Linear	0.999175	0.000000	1.68629	-0.0426095
103	TP p-Isopropyltoluene	Linear	0.999544	0.000000	1.42851	-0.0402949
107	TP n-Butylbenzene	Linear	0.999611	0.000000	1.18857	-0.0329415
110	TP 1,2-Dibromo-3-chloropropane	Linear	0.999329	0.000000	0.040244	-0.00209494
112	TP Hexachlorobutadiene	Linear	0.998879	0.000000	0.155902	-0.00497102
114	TP Naphthalene	Linear	0.998664	0.000000	0.843196	-0.0238888

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: VOA122	**Calibration Date**	: 08/13/24 06:52	
Lab File ID	: V22240813A01	**Init. Calib. Date(s)**	: 07/29/24	07/29/24
Sample No	: WG1958655-2	**Init. Calib. Times**	: 13:23	17:04
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	88	0
Dichlorodifluoromethane	0.197	0.194	-	1.5	20	80	0
Chloromethane	0.263	0.247	-	6.1	20	72	0
Vinyl chloride	0.208	0.214	-	-2.9	20	81	0
Bromomethane	0.084	0.056	-	33.3*	20	66	0
Chloroethane	0.12	0.124	-	-3.3	20	82	0
Trichlorofluoromethane	10	11.289	-	-12.9	20	93	0
Ethyl ether	0.07	0.065	-	7.1	20	79	0
1,1-Dichloroethene	0.138	0.153	-	-10.9	20	89	0
Carbon disulfide	0.454	0.46	-	-1.3	20	79	0
Freon-113	0.143	0.164	-	-14.7	20	93	0
Acrolein	0.024	0.021	-	12.5	20	75	0
Methylene chloride	0.183	0.169	-	7.7	20	78	0
Acetone	0.033	0.031	-	6.1	20	79	0
trans-1,2-Dichloroethene	0.162	0.171	-	-5.6	20	85	0
Methyl acetate	0.086	0.078	-	9.3	20	81	0
Methyl tert-butyl ether	0.309	0.283	-	8.4	20	79	0
tert-Butyl alcohol	0.00648	0.00716*	-	-10.5	20	94	0
Diisopropyl ether	0.581	0.522	-	10.2	20	77	0
1,1-Dichloroethane	0.331	0.317	-	4.2	20	76	0
Halothane	0.121	0.134	-	-10.7	20	89	0
Acrylonitrile	0.046	0.045	-	2.2	20	81	0
Ethyl tert-butyl ether	0.418	0.377	-	9.8	20	80	0
Vinyl acetate	0.348	0.303	-	12.9	20	76	0
cis-1,2-Dichloroethene	0.179	0.184*	-	-2.8	20	82	0
2,2-Dichloropropane	0.207	0.218	-	-5.3	20	86	0
Bromochloromethane	0.085	0.101	-	-18.8	20	96	0
Cyclohexane	10	9.888	-	1.1	20	82	0
Chloroform	0.286	0.273*	-	4.5	20	79	0
Ethyl acetate	0.112	0.098	-	12.5	20	78	0
Carbon tetrachloride	0.206	0.237	-	-15	20	90	0
Tetrahydrofuran	0.037	0.036	-	2.7	20	83	0
Dibromofluoromethane	0.349	0.369	-	-5.7	20	91	0
1,1,1-Trichloroethane	0.241	0.266	-	-10.4	20	89	0
2-Butanone	0.047	0.044	-	6.4	20	86	0
1,1-Dichloropropene	0.195	0.184	-	5.6	20	76	0
Benzene	0.633	0.617	-	2.5	20	83	0
tert-Amyl methyl ether	0.202	0.179	-	11.4	20	83	0
1,2-Dichloroethane-d4	0.295	0.288	-	2.4	20	83	0
1,2-Dichloroethane	0.158	0.152	-	3.8	20	79	0
Methyl cyclohexane	10	9.613	-	3.9	20	86	0
Trichloroethene	0.135	0.127*	-	5.9	20	78	0
Dibromomethane	0.068	0.068	-	0	20	85	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: VOA122	**Calibration Date**	: 08/13/24 06:52		
Lab File ID	: V22240813A01	**Init. Calib. Date(s)**	: 07/29/24	07/29/24	
Sample No	: WG1958655-2	**Init. Calib. Times**	: 13:23	17:04	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.141	0.129*	-	8.5	20	74	0
Bromodichloromethane	0.167	0.159*	-	4.8	20	80	0
1,4-Dioxane	0.00056	0.00059*	-	-5.4	20	86	0
cis-1,3-Dichloropropene	0.172	0.159*	-	7.6	20	75	0
Chlorobenzene-d5	1	1	-	0	20	91	0
Toluene-d8	1.274	1.176	-	7.7	20	85	0
Toluene	0.412	0.381	-	7.5	20	81	0
4-Methyl-2-pentanone	0.033	0.026*	-	21.2*	20	84	0
Tetrachloroethene	0.162	0.194	-	-19.8	20	104	0
trans-1,3-Dichloropropene	10	7.73	-	22.7*	20	81	0
Ethyl methacrylate	0.133	0.094	-	29.3*	20	69	0
1,1,2-Trichloroethane	0.097	0.082*	-	15.5	20	80	0
Chlorodibromomethane	10	9.319	-	6.8	20	95	0
1,3-Dichloropropane	0.19	0.164	-	13.7	20	79	0
1,2-Dibromoethane	0.108	0.107*	-	0.9	20	91	0
2-Hexanone	0.061	0.049	-	19.7	20	82	0
Chlorobenzene	0.467	0.469	-	-0.4	20	88	0
Ethylbenzene	0.778	0.744	-	4.4	20	79	0
1,1,1,2-Tetrachloroethane	0.148	0.153	-	-3.4	20	97	0
p/m Xylene	0.302	0.313	-	-3.6	20	86	0
o Xylene	0.285	0.292	-	-2.5	20	85	0
Styrene	0.459	0.475	-	-3.5	20	86	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	101	0
Bromoform	0.15	0.146	-	2.7	20	108	0
Isopropylbenzene	1.551	1.472	-	5.1	20	86	0
4-Bromofluorobenzene	0.911	0.769	-	15.6	20	83	0
Bromobenzene	0.365	0.367	-	-0.5	20	99	0
n-Propylbenzene	1.802	1.64	-	9	20	83	0
1,4-Dichlorobutane	0.472	0.382	-	19.1	20	81	0
1,1,2,2-Tetrachloroethane	0.254	0.203	-	20.1*	20	83	0
4-Ethyltoluene	1.469	1.383	-	5.9	20	87	0
2-Chlorotoluene	1.086	0.918	-	15.5	20	80	0
1,3,5-Trimethylbenzene	1.245	1.184	-	4.9	20	89	0
1,2,3-Trichloropropane	0.194	0.155	-	20.1*	20	82	0
trans-1,4-Dichloro-2-buten	0.086	0.074	-	14	20	90	0
4-Chlorotoluene	1.121	0.961	-	14.3	20	81	0
tert-Butylbenzene	1.081	1.103	-	-2	20	94	0
1,2,4-Trimethylbenzene	1.391	1.298	-	6.7	20	86	0
sec-Butylbenzene	10	9.429	-	5.7	20	91	0
p-Isopropyltoluene	10	9.733	-	2.7	20	95	0
1,3-Dichlorobenzene	0.724	0.744	-	-2.8	20	99	0
1,4-Dichlorobenzene	0.718	0.73	-	-1.7	20	99	0
p-Diethylbenzene	0.788	0.764	-	3	20	95	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Calibration Date**	: 08/13/24 06:52
Lab File ID	: V22240813A01	**Init. Calib. Date(s)**	: 07/29/24 07/29/24
Sample No	: WG1958655-2	**Init. Calib. Times**	: 13:23 17:04
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	10	9.086	-	9.1	20	87	0
1,2-Dichlorobenzene	0.64	0.651	-	-1.7	20	99	0
1,2,4,5-Tetramethylbenzene	1.081	0.996	-	7.9	20	93	0
1,2-Dibromo-3-chloropropan	10	9.316	-	6.8	20	107	0
1,3,5-Trichlorobenzene	0.417	0.462	-	-10.8	20	105	0
Hexachlorobutadiene	10	11.004	-	-10	20	112	0
1,2,4-Trichlorobenzene	0.355	0.388*	-	-9.3	20	107	0
Naphthalene	10	9.408	-	5.9	20	101	0
1,2,3-Trichlorobenzene	0.301	0.327*	-	-8.6	20	105	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: GONZO	**Calibration Date**	: 08/13/24 08:09		
Lab File ID	: VG240813A01	**Init. Calib. Date(s)**	: 07/12/24	07/13/24	
Sample No	: WG1958701-2	**Init. Calib. Times**	: 21:20	00:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	101	0
Dichlorodifluoromethane	0.265	0.271	-	-2.3	20	93	0
Chloromethane	0.227	0.227	-	0	20	101	0
Vinyl chloride	0.235	0.25	-	-6.4	20	96	0
Bromomethane	0.125	0.079	-	36.8*	20	64	0
Chloroethane	0.18	0.22	-	-22.2*	20	118	0
Trichlorofluoromethane	0.345	0.374	-	-8.4	20	111	0
Ethyl ether	0.115	0.103	-	10.4	20	91	0
1,1-Dichloroethene	0.189	0.185	-	2.1	20	94	0
Carbon disulfide	0.556	0.603	-	-8.5	20	106	0
Freon-113	0.208	0.215	-	-3.4	20	101	0
Acrolein	0.033	0.028	-	15.2	20	82	0
Methylene chloride	0.224	0.209	-	6.7	20	94	0
Acetone	10	7.112	-	28.9*	20	81	0
trans-1,2-Dichloroethene	0.207	0.209	-	-1	20	96	0
Methyl acetate	0.115	0.099	-	13.9	20	90	0
Methyl tert-butyl ether	0.636	0.51	-	19.8	20	82	0
tert-Butyl alcohol	0.018	0.012	-	33.3*	20	70	0
Diisopropyl ether	0.65	0.661	-	-1.7	20	100	0
1,1-Dichloroethane	0.375	0.402	-	-7.2	20	103	0
Halothane	0.172	0.173	-	-0.6	20	97	0
Acrylonitrile	0.058	0.06	-	-3.4	20	104	0
Ethyl tert-butyl ether	0.639	0.56	-	12.4	20	88	0
Vinyl acetate	0.347	0.466	-	-34.3*	20	127	0
cis-1,2-Dichloroethene	0.238	0.243	-	-2.1	20	100	0
2,2-Dichloropropane	0.313	0.315	-	-0.6	20	99	0
Bromochloromethane	0.116	0.116	-	0	20	96	0
Cyclohexane	0.356	0.373	-	-4.8	20	100	0
Chloroform	0.384	0.374	-	2.6	20	93	0
Ethyl acetate	0.17	0.16	-	5.9	20	100	0
Carbon tetrachloride	0.311	0.32	-	-2.9	20	94	0
Tetrahydrofuran	0.056	0.052	-	7.1	20	90	0
Dibromofluoromethane	0.261	0.268	-	-2.7	20	104	0
1,1,1-Trichloroethane	0.354	0.361	-	-2	20	97	0
2-Butanone	0.073	0.067	-	8.2	20	93	0
1,1-Dichloropropene	0.283	0.292	-	-3.2	20	99	0
Benzene	0.857	0.881	-	-2.8	20	96	0
tert-Amyl methyl ether	0.585	0.439	-	25*	20	75	0
1,2-Dichloroethane-d4	0.277	0.313	-	-13	20	109	0
1,2-Dichloroethane	0.273	0.292	-	-7	20	107	0
Methyl cyclohexane	0.333	0.319	-	4.2	20	88	0
Trichloroethene	0.242	0.236	-	2.5	20	95	0
Dibromomethane	0.135	0.129	-	4.4	20	93	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: GONZO	**Calibration Date**	: 08/13/24 08:09		
Lab File ID	: VG240813A01	**Init. Calib. Date(s)**	: 07/12/24	07/13/24	
Sample No	: WG1958701-2	**Init. Calib. Times**	: 21:20	00:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.209	0.209	-	0	20	96	0
Bromodichloromethane	0.305	0.297*	-	2.6	20	96	0
1,4-Dioxane	0.00213	0.00141*	-	33.8*	20	70	0
cis-1,3-Dichloropropene	0.341	0.313	-	8.2	20	90	0
Chlorobenzene-d5	1	1	-	0	20	104	0
Toluene-d8	1.255	1.229	-	2.1	20	101	0
Toluene	0.695	0.685	-	1.4	20	97	0
4-Methyl-2-pentanone	0.077	0.055	-	28.6*	20	73	0
Tetrachloroethene	0.305	0.31	-	-1.6	20	99	0
trans-1,3-Dichloropropene	0.38	0.339	-	10.8	20	89	0
Ethyl methacrylate	0.32	0.23	-	28.1*	20	75	0
1,1,2-Trichloroethane	0.191	0.175*	-	8.4	20	94	0
Chlorodibromomethane	0.302	0.279	-	7.6	20	93	0
1,3-Dichloropropane	0.38	0.354	-	6.8	20	93	0
1,2-Dibromoethane	0.242	0.212	-	12.4	20	90	0
2-Hexanone	0.142	0.103	-	27.5*	20	79	0
Chlorobenzene	0.775	0.759	-	2.1	20	97	0
Ethylbenzene	1.327	1.256	-	5.4	20	93	0
1,1,1,2-Tetrachloroethane	0.288	0.262	-	9	20	90	0
p/m Xylene	0.525	0.502	-	4.4	20	94	0
o Xylene	0.508	0.479	-	5.7	20	92	0
Styrene	0.861	0.821	-	4.6	20	95	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	109	0
Bromoform	0.354	0.281	-	20.6*	20	89	0
Isopropylbenzene	2.237	2.017	-	9.8	20	93	0
4-Bromofluorobenzene	0.835	0.743	-	11	20	100	0
Bromobenzene	0.619	0.584	-	5.7	20	100	0
n-Propylbenzene	2.606	2.421	-	7.1	20	97	0
1,4-Dichlorobutane	0.718	0.676	-	5.8	20	103	0
1,1,2,2-Tetrachloroethane	0.497	0.43	-	13.5	20	95	0
4-Ethyltoluene	2.179	1.995	-	8.4	20	95	0
2-Chlorotoluene	1.598	1.455	-	8.9	20	97	0
1,3,5-Trimethylbenzene	1.929	1.778	-	7.8	20	96	0
1,2,3-Trichloropropane	0.416	0.342	-	17.8	20	90	0
trans-1,4-Dichloro-2-buten	0.114	0.108	-	5.3	20	114	0
4-Chlorotoluene	1.645	1.493	-	9.2	20	94	0
tert-Butylbenzene	1.559	1.427	-	8.5	20	93	0
1,2,4-Trimethylbenzene	1.9	1.696	-	10.7	20	92	0
sec-Butylbenzene	2.217	2.02	-	8.9	20	93	0
p-Isopropyltoluene	1.925	1.771	-	8	20	95	0
1,3-Dichlorobenzene	1.136	1.107	-	2.6	20	101	0
1,4-Dichlorobenzene	1.17	1.125	-	3.8	20	101	0
p-Diethylbenzene	1.106	0.981	-	11.3	20	91	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445487	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: GONZO	**Calibration Date**	: 08/13/24 08:09	
Lab File ID	: VG240813A01	**Init. Calib. Date(s)**	: 07/12/24	07/13/24
Sample No	: WG1958701-2	**Init. Calib. Times**	: 21:20	00:56
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.522	1.398	-	8.1	20	94	0
1,2-Dichlorobenzene	1.084	1.017	-	6.2	20	98	0
1,2,4,5-Tetramethylbenzene	1.655	1.31	-	20.8*	20	86	0
1,2-Dibromo-3-chloropropan	0.092	0.065	-	29.3*	20	82	0
1,3,5-Trichlorobenzene	0.713	0.687	-	3.6	20	102	0
Hexachlorobutadiene	0.2	0.196	-	2	20	108	0
1,2,4-Trichlorobenzene	0.618	0.531	-	14.1	20	94	0
Naphthalene	1.387	0.853	-	38.5*	20	71	0
1,2,3-Trichlorobenzene	0.514	0.422	-	17.9	20	90	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	88	0.00
2	TP	Dichlorodifluoromethane	0.197	0.194	1.5	80	0.00
3	TP	Chloromethane	0.263	0.247	6.1	72	0.00
4	TP	Vinyl chloride	0.208	0.214	-2.9	81	0.00
5	TP	Bromomethane	0.084	0.056	33.3#	66	0.00
6	TP	Chloroethane	0.120	0.124	-3.3	82	0.00
7	TP	Trichlorofluoromethane	* 10.000	11.289	-12.9	93	0.00
8	TP	Ethyl ether	0.070	0.065	7.1	79	0.00
10	TP	1,1-Dichloroethene	0.138	0.153	-10.9	89	0.00
11	TP	Carbon disulfide	0.454	0.460	-1.3	79	0.00
12	TP	Freon-113	0.143	0.164	-14.7	93	0.00
14	TP	Acrolein	0.024	0.021	12.5	75	0.00
15	TP	Methylene chloride	0.183	0.169	7.7	78	0.00
17	TP	Acetone	0.033	0.031	6.1	79	0.00
18	TP	trans-1,2-Dichloroethene	0.162	0.171	-5.6	85	0.00
19	TP	Methyl acetate	0.086	0.078	9.3	81	0.00
21	TP	Methyl tert-butyl ether	0.309	0.283	8.4	79	0.00
22	TP	tert-Butyl alcohol	0.00648	0.00716#	-10.5	94	0.00
24	TP	Diisopropyl ether	0.581	0.522	10.2	77	0.00
25	TP	1,1-Dichloroethane	0.331	0.317	4.2	76	0.00
26	TP	Halothane	0.121	0.134	-10.7	89	0.00
27	TP	Acrylonitrile	0.046	0.045	2.2	81	0.00
28	TP	Ethyl tert-butyl ether	0.418	0.377	9.8	80	0.00
29	TP	Vinyl acetate	0.348	0.303	12.9	76	0.00
30	TP	cis-1,2-Dichloroethene	0.179	0.184#	-2.8	82	0.00
31	TP	2,2-Dichloropropane	0.207	0.218	-5.3	86	0.00
32	TP	Bromochloromethane	0.085	0.101	-18.8	96	0.00
33	TP	Cyclohexane	* 10.000	9.888	1.1	82	0.00
34	TP	Chloroform	0.286	0.273#	4.5	79	0.00
35	TP	Ethyl acetate	0.112	0.098	12.5	78	0.00
36	TP	Carbon tetrachloride	0.206	0.237	-15.0	90	0.00
37	TP	Tetrahydrofuran	0.037	0.036	2.7	83	0.00
38	S	Dibromofluoromethane	0.349	0.369	-5.7	91	0.00
39	TP	1,1,1-Trichloroethane	0.241	0.266	-10.4	89	0.00
41	TP	2-Butanone	0.047	0.044	6.4	86	0.00
42	TP	1,1-Dichloropropene	0.195	0.184	5.6	76	0.00
44	TP	Benzene	0.633	0.617	2.5	83	0.00
45	TP	tert-Amyl methyl ether	0.202	0.179	11.4	83	0.00
46	S	1,2-Dichloroethane-d4	0.295	0.288	2.4	83	0.00

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	T	1,2-Dichloroethane	0.158	0.152	3.8	79	0.00
50	TP	Methyl cyclohexane	* 10.000	9.613	3.9	86	0.00
51	TP	Trichloroethene	0.135	0.127#	5.9	78	0.00
53	TP	Dibromomethane	0.068	0.068	0.0	85	0.00
54	TP	1,2-Dichloropropane	0.141	0.129#	8.5	74	0.00
57	TP	Bromodichloromethane	0.167	0.159#	4.8	80	0.00
60	TP	1,4-Dioxane	0.00056	0.00059#	-5.4	86	0.00
61	TP	cis-1,3-Dichloropropene	0.172	0.159#	7.6	75	0.00
62	I	Chlorobenzene-d5	1.000	1.000	0.0	91	0.00
63	S	Toluene-d8	1.274	1.176	7.7	85	0.00
64	TP	Toluene	0.412	0.381	7.5	81	0.00
65	TP	4-Methyl-2-pentanone	0.033	0.026#	21.2#	84	0.00
66	TP	Tetrachloroethene	0.162	0.194	-19.8	104	0.00
68	TP	trans-1,3-Dichloropropene	* 10.000	7.730	22.7#	81	0.00
70	TP	Ethyl methacrylate	0.133	0.094	29.3#	69	0.00
71	TP	1,1,2-Trichloroethane	0.097	0.082#	15.5	80	0.00
72	TP	Chlorodibromomethane	* 10.000	9.319	6.8	95	0.00
73	TP	1,3-Dichloropropane	0.190	0.164	13.7	79	0.00
74	TP	1,2-Dibromoethane	0.108	0.107#	0.9	91	0.00
76	TP	2-Hexanone	0.061	0.049	19.7	82	0.00
77	TP	Chlorobenzene	0.467	0.469	-0.4	88	0.00
78	TP	Ethylbenzene	0.778	0.744	4.4	79	0.00
79	TP	1,1,1,2-Tetrachloroethane	0.148	0.153	-3.4	97	0.00
80	TP	p/m Xylene	0.302	0.313	-3.6	86	0.00
81	TP	o Xylene	0.285	0.292	-2.5	85	0.00
82	TP	Styrene	0.459	0.475	-3.5	86	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
84	TP	Bromoform	0.150	0.146	2.7	108	0.00
86	TP	Isopropylbenzene	1.551	1.472	5.1	86	0.00
87	S	4-Bromofluorobenzene	0.911	0.769	15.6	83	0.00
88	TP	Bromobenzene	0.365	0.367	-0.5	99	0.00
89	TP	n-Propylbenzene	1.802	1.640	9.0	83	0.00
90	TP	1,4-Dichlorobutane	0.472	0.382	19.1	81	0.00
91	TP	1,1,2,2-Tetrachloroethane	0.254	0.203	20.1#	83	0.00
92	TP	4-Ethyltoluene	1.469	1.383	5.9	87	0.00
93	TP	2-Chlorotoluene	1.086	0.918	15.5	80	0.00
94	TP	1,3,5-Trimethylbenzene	1.245	1.184	4.9	89	0.00

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
95 TP	1,2,3-Trichloropropane		0.194	0.155	20.1#	82	0.00
96 TP	trans-1,4-Dichloro-2-butene		0.086	0.074	14.0	90	0.00
97 TP	4-Chlorotoluene		1.121	0.961	14.3	81	0.00
98 TP	tert-Butylbenzene		1.081	1.103	-2.0	94	0.00
101 TP	1,2,4-Trimethylbenzene		1.391	1.298	6.7	86	0.00
102 TP	sec-Butylbenzene	*	10.000	9.429	5.7	91	0.00
103 TP	p-Isopropyltoluene	*	10.000	9.733	2.7	95	0.00
104 TP	1,3-Dichlorobenzene		0.724	0.744	-2.8	99	0.00
105 TP	1,4-Dichlorobenzene		0.718	0.730	-1.7	99	0.00
106 TP	p-Diethylbenzene		0.788	0.764	3.0	95	0.00
107 TP	n-Butylbenzene	*	10.000	9.086	9.1	87	0.00
108 TP	1,2-Dichlorobenzene		0.640	0.651	-1.7	99	0.00
109 TP	1,2,4,5-Tetramethylbenzene		1.081	0.996	7.9	93	0.00
110 TP	1,2-Dibromo-3-chloropropane	*	10.000	9.316	6.8	107	0.00
111 TP	1,3,5-Trichlorobenzene		0.417	0.462	-10.8	105	0.00
112 TP	Hexachlorobutadiene	*	10.000	11.004	-10.0	112	0.00
113 TP	1,2,4-Trichlorobenzene		0.355	0.388#	-9.3	107	0.00
114 TP	Naphthalene	*	10.000	9.408	5.9	101	0.00
115 TP	1,2,3-Trichlorobenzene		0.301	0.327#	-8.6	105	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 13 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	446456	10.000	ug/L	0.00
Standard Area 1 = 446456			Recovery = 100.00%			
62) Chlorobenzene-d5	9.519	117	376565	10.000	ug/L	0.00
Standard Area 1 = 376565			Recovery = 100.00%			
83) 1,4-Dichlorobenzene-d4	12.236	152	206350	10.000	ug/L	0.00
Standard Area 1 = 206350			Recovery = 100.00%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	164891	10.570	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.70%			
46) 1,2-Dichloroethane-d4	5.688	65	128360	9.734	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.34%			
63) Toluene-d8	7.675	98	442880	9.231	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.31%			
87) 4-Bromofluorobenzene	11.019	95	158619	8.442	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 84.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.632	85	86672	9.833	ug/L	98
3) Chloromethane	1.815	50	110420	9.392	ug/L	97
4) Vinyl chloride	1.887	62	95642	10.282	ug/L	97
5) Bromomethane	2.195	94	25215	6.748	ug/L	98
6) Chloroethane	2.307	64	55496	10.321	ug/L	96
7) Trichlorofluoromethane	2.451	101	120507	11.289	ug/L	99
8) Ethyl ether	2.746	74	28975	9.325	ug/L #	1
10) 1,1-Dichloroethene	2.936	96	68445	11.081	ug/L	85
11) Carbon disulfide	2.962	76	205203	10.113	ug/L	99
12) Freon-113	2.975	101	73048	11.436	ug/L	97
14) Acrolein	3.244	56	9468	8.920	ug/L	97
15) Methylene chloride	3.480	84	75323	9.199	ug/L #	60
17) Acetone	3.519	43	13947	9.344	ug/L	96
18) trans-1,2-Dichloroethene	3.637	96	76167	10.541	ug/L	91
19) Methyl acetate	3.637	43	34762	9.050	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	126566	9.160	ug/L #	77
22) tert-Butyl alcohol	3.807	59	15979	55.228	ug/L #	88
24) Diisopropyl ether	4.089	45	233132	8.980	ug/L #	91
25) 1,1-Dichloroethane	4.207	63	141739	9.605	ug/L	95
26) Halothane	4.260	117	59922	11.125	ug/L	100
27) Acrylonitrile	4.247	53	19895	9.766	ug/L	96

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Ethyl tert-butyl ether	4.437	59	168230	9.023	ug/L		83
29) Vinyl acetate	4.443	43	135399	8.726	ug/L	#	89
30) cis-1,2-Dichloroethene	4.725	96	82075	10.249	ug/L		88
31) 2,2-Dichloropropane	4.830	77	97492	10.541	ug/L	#	79
32) Bromochloromethane	4.915	128	45314	11.992	ug/L	#	82
33) Cyclohexane	4.928	56	146005	9.888	ug/L		72
34) Chloroform	4.987	83	121895	9.544	ug/L	#	94
35) Ethyl acetate	5.099	43	43948	8.764	ug/L	#	93
36) Carbon tetrachloride	5.131	117	105975	11.497	ug/L		98
37) Tetrahydrofuran	5.138	42	16077M6	9.783	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	118742	11.025	ug/L		96
41) 2-Butanone	5.276	43	19445	9.270	ug/L	#	41
42) 1,1-Dichloropropene	5.315	75	81993	9.435	ug/L		95
44) Benzene	5.557	78	275685	9.749	ug/L	#	92
45) tert-Amyl methyl ether	5.675	73	79874	8.841	ug/L	#	80
47) 1,2-Dichloroethane	5.754	62	67951	9.618	ug/L		96
50) Methyl cyclohexane	6.154	83	87630	9.613	ug/L	#	57
51) Trichloroethene	6.154	95	56574	9.406	ug/L		93
53) Dibromomethane	6.591	93	30397	9.997	ug/L		93
54) 1,2-Dichloropropane	6.695	63	57710	9.139	ug/L		94
57) Bromodichloromethane	6.764	83	71002	9.529	ug/L		98
60) 1,4-Dioxane	6.973	88	13104	526.001	ug/L	#	61
61) cis-1,3-Dichloropropene	7.459	75	70791	9.220	ug/L	#	82
64) Toluene	7.731	92	143367	9.243	ug/L		99
65) 4-Methyl-2-pentanone	8.161	58	9866	7.948	ug/L	#	63
66) Tetrachloroethene	8.175	166	72909	11.988	ug/L		99
68) trans-1,3-Dichloropropene	8.210	75	59097	7.730	ug/L		84
70) Ethyl methacrylate	8.405	69	35528	7.107	ug/L	#	79
71) 1,1,2-Trichloroethane	8.391	83	30992	8.509	ug/L		98
72) Chlorodibromomethane	8.607	129	54782	9.319	ug/L		99
73) 1,3-Dichloropropane	8.712	76	61643	8.632	ug/L		99
74) 1,2-Dibromoethane	8.881	107	40251	9.861	ug/L		99
76) 2-Hexanone	9.175	43	18632	8.077	ug/L	#	84
77) Chlorobenzene	9.540	112	176690	10.058	ug/L	#	84
78) Ethylbenzene	9.582	91	280152	9.566	ug/L		97
79) 1,1,1,2-Tetrachloroethane	9.624	131	57526	10.294	ug/L		97
80) p/m Xylene	9.771	106	235901	20.751	ug/L		93
81) o Xylene	10.311	106	220059	20.469	ug/L		94
82) Styrene	10.381	104	357403	20.669	ug/L		93
84) Bromoform	10.395	173	30195	9.727	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
86)	Isopropylbenzene	10.704	105	303778	9.491	ug/L		98
88)	Bromobenzene	11.132	156	75637	10.049	ug/L		99
89)	n-Propylbenzene	11.181	91	338416	9.099	ug/L		97
90)	1,4-Dichlorobutane	11.188	55	78728	8.092	ug/L		93
91)	1,1,2,2-Tetrachloroethane	11.258	83	41848	7.993	ug/L		99
92)	4-Ethyltoluene	11.314	105	285469	9.417	ug/L		98
93)	2-Chlorotoluene	11.342	91	189334M6	8.451	ug/L		
94)	1,3,5-Trimethylbenzene	11.412	105	244417	9.515	ug/L		97
95)	1,2,3-Trichloropropane	11.398	75	31976	8.001	ug/L		95
96)	trans-1,4-Dichloro-2-b...	11.454	53	15302	8.585	ug/L	#	66
97)	4-Chlorotoluene	11.531	91	198326	8.577	ug/L		92
98)	tert-Butylbenzene	11.749	119	227560	10.206	ug/L		93
101)	1,2,4-Trimethylbenzene	11.826	105	267778	9.330	ug/L		96
102)	sec-Butylbenzene	11.944	105	319312	9.429	ug/L		98
103)	p-Isopropyltoluene	12.097	119	278581	9.733	ug/L		98
104)	1,3-Dichlorobenzene	12.153	146	153552	10.285	ug/L		99
105)	1,4-Dichlorobenzene	12.250	146	150538	10.167	ug/L		99
106)	p-Diethylbenzene	12.473	119	157639	9.696	ug/L		97
107)	n-Butylbenzene	12.529	91	216047	9.086	ug/L		98
108)	1,2-Dichlorobenzene	12.675	146	134405	10.176	ug/L		99
109)	1,2,4,5-Tetramethylben...	13.274	119	205619	9.222	ug/L		99
110)	1,2-Dibromo-3-chloropr...	13.455	155	7304	9.316	ug/L		98
111)	1,3,5-Trichlorobenzene	13.489	180	95337	11.081	ug/L		98
112)	Hexachlorobutadiene	14.074	225	34375	11.004	ug/L		98
113)	1,2,4-Trichlorobenzene	14.088	180	80092	10.941	ug/L		99
114)	Naphthalene	14.387	128	158758	9.408	ug/L		100
115)	1,2,3-Trichlorobenzene	14.554	180	67441	10.845	ug/L		98

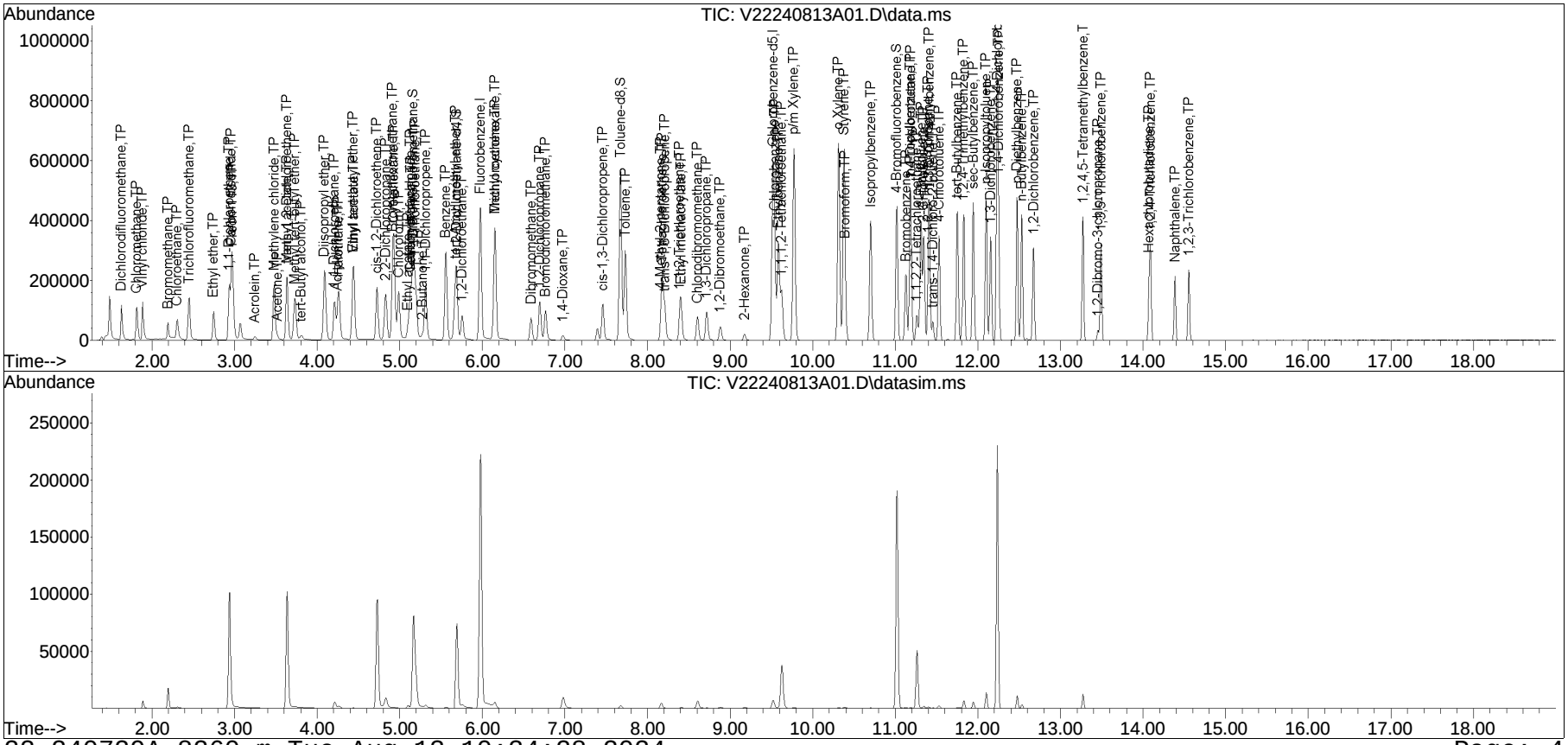
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

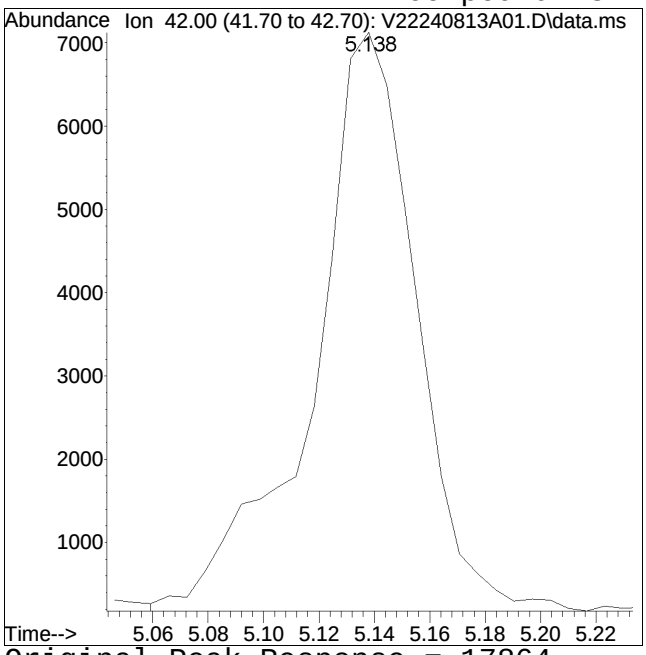
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



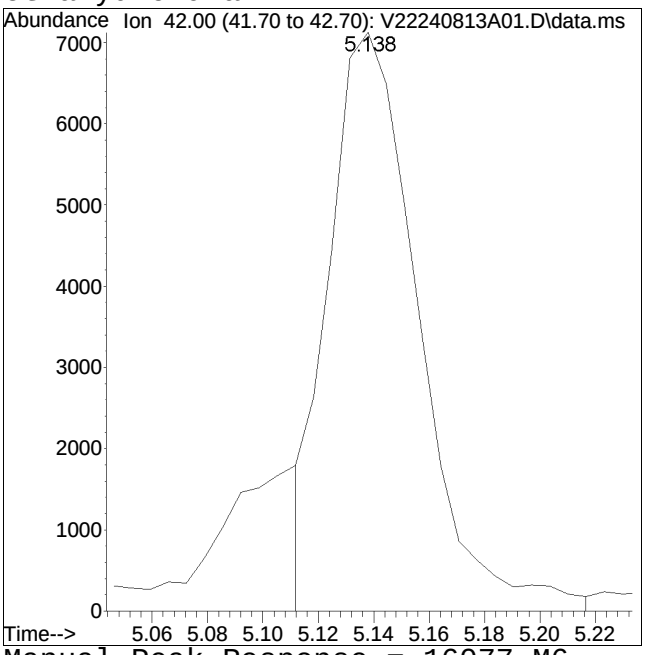
Manual Integration Report

Data Path	: K:\VOA122\2024\240813A\	QMethod	: V122_240729A_8260.m
Data File	: V22240813A01.D	Operator	: VOA122:PID
Date Inj'd	: 8/13/2024 6:52 am	Instrument	: VOA 122
Sample	: WG1958655-2	Quant Date	: 8/13/2024 7:14 am

Compound #37: Tetrahydrofuran



Original Peak Response = 17864



Manual Peak Response = 16077 M6

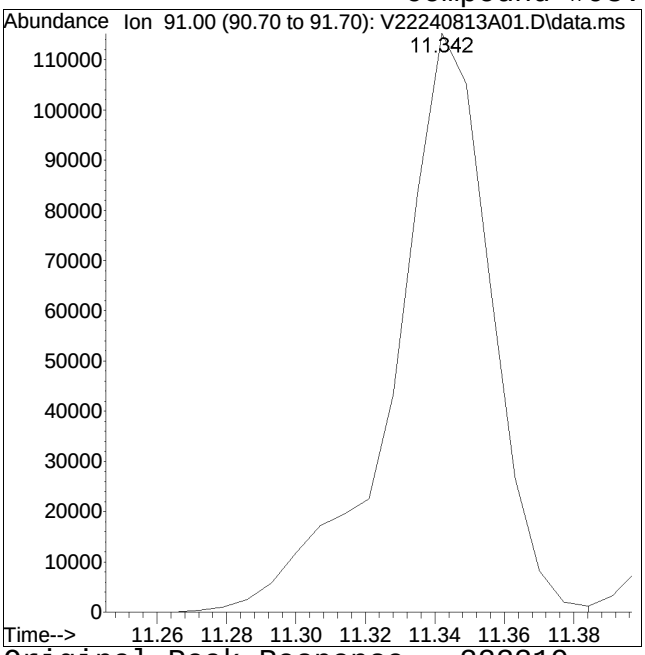
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

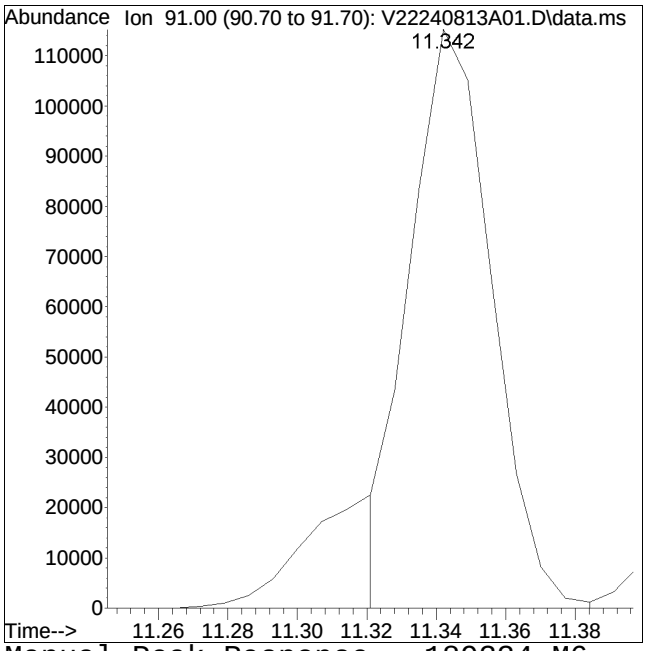
Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Date Inj'd : 8/13/2024 6:52 am
Sample : WG1958655-2

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/13/2024 7:14 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 223319



Manual Peak Response = 189334 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	101	0.00
2	TP	Dichlorodifluoromethane	0.265	0.271	-2.3	93	0.00
3	TP	Chloromethane	0.227	0.227	0.0	101	0.00
4	TP	Vinyl chloride	0.235	0.250	-6.4	96	0.00
5	TP	Bromomethane	0.125	0.079	36.8#	64	0.00
6	TP	Chloroethane	0.180	0.220	-22.2#	118	0.00
7	TP	Trichlorofluoromethane	0.345	0.374	-8.4	111	0.00
8	TP	Ethyl ether	0.115	0.103	10.4	91	0.00
10	TP	1,1-Dichloroethene	0.189	0.185	2.1	94	0.00
11	TP	Carbon disulfide	0.556	0.603	-8.5	106	0.00
12	TP	Freon-113	0.208	0.215	-3.4	101	0.00
14	TP	Acrolein	0.033	0.028	15.2	82	0.00
15	TP	Methylene chloride	0.224	0.209	6.7	94	0.00
17	TP	Acetone	* 10.000	7.112	28.9#	81	0.00
18	TP	trans-1,2-Dichloroethene	0.207	0.209	-1.0	96	0.00
19	TP	Methyl acetate	0.115	0.099	13.9	90	0.00
20	TP	Methyl tert-butyl ether	0.636	0.510	19.8	82	0.00
21	TP	tert-Butyl alcohol	0.018	0.012	33.3#	70	0.00
22	TP	Diisopropyl ether	0.650	0.661	-1.7	100	0.00
23	TP	1,1-Dichloroethane	0.375	0.402	-7.2	103	0.00
24	TP	Halothane	0.172	0.173	-0.6	97	0.00
25	TP	Acrylonitrile	0.058	0.060	-3.4	104	0.00
26	TP	Ethyl tert-butyl ether	0.639	0.560	12.4	88	0.00
27	TP	Vinyl acetate	0.347	0.466	-34.3#	127	0.00
28	TP	cis-1,2-Dichloroethene	0.238	0.243	-2.1	100	0.00
29	TP	2,2-Dichloropropane	0.313	0.315	-0.6	99	0.00
30	TP	Bromochloromethane	0.116	0.116	0.0	96	0.00
31	TP	Cyclohexane	0.356	0.373	-4.8	100	0.00
32	TP	Chloroform	0.384	0.374	2.6	93	0.00
33	TP	Ethyl acetate	0.170	0.160	5.9	100	0.00
34	TP	Carbon tetrachloride	0.311	0.320	-2.9	94	0.00
35	TP	Tetrahydrofuran	0.056	0.052	7.1	90	0.00
36	S	Dibromofluoromethane	0.261	0.268	-2.7	104	0.00
37	TP	1,1,1-Trichloroethane	0.354	0.361	-2.0	97	0.00
39	TP	2-Butanone	0.073	0.067	8.2	93	0.00
40	TP	1,1-Dichloropropene	0.283	0.292	-3.2	99	0.00
41	TP	Benzene	0.857	0.881	-2.8	96	0.00
42	TP	tert-Amyl methyl ether	0.585	0.439	25.0#	75	0.00
43	S	1,2-Dichloroethane-d4	0.277	0.313	-13.0	109	0.00

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
44	TP	1,2-Dichloroethane	0.273	0.292	-7.0	107	0.00
47	TP	Methyl cyclohexane	0.333	0.319	4.2	88	0.00
48	TP	Trichloroethene	0.242	0.236	2.5	95	0.00
50	TP	Dibromomethane	0.135	0.129	4.4	93	0.00
51	TP	1,2-Dichloropropane	0.209	0.209	0.0	96	0.00
54	TP	Bromodichloromethane	0.305	0.297#	2.6	96	0.00
57	TP	1,4-Dioxane	0.00213	0.00141#	33.8#	70	0.00
58	TP	cis-1,3-Dichloropropene	0.341	0.313	8.2	90	0.00
59	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
60	S	Toluene-d8	1.255	1.229	2.1	101	0.00
61	TP	Toluene	0.695	0.685	1.4	97	0.00
62	TP	4-Methyl-2-pentanone	0.077	0.055	28.6#	73	0.00
63	TP	Tetrachloroethene	0.305	0.310	-1.6	99	0.00
65	TP	trans-1,3-Dichloropropene	0.380	0.339	10.8	89	0.00
67	TP	Ethyl methacrylate	0.320	0.230	28.1#	75	0.00
68	TP	1,1,2-Trichloroethane	0.191	0.175#	8.4	94	0.00
69	TP	Chlorodibromomethane	0.302	0.279	7.6	93	0.00
70	TP	1,3-Dichloropropane	0.380	0.354	6.8	93	0.00
71	TP	1,2-Dibromoethane	0.242	0.212	12.4	90	0.00
72	TP	2-Hexanone	0.142	0.103	27.5#	79	0.00
73	TP	Chlorobenzene	0.775	0.759	2.1	97	0.00
74	TP	Ethylbenzene	1.327	1.256	5.4	93	0.00
75	TP	1,1,1,2-Tetrachloroethane	0.288	0.262	9.0	90	0.00
76	TP	p/m Xylene	0.525	0.502	4.4	94	0.00
77	TP	o Xylene	0.508	0.479	5.7	92	0.00
78	TP	Styrene	0.861	0.821	4.6	95	0.00
79	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00
80	TP	Bromoform	0.354	0.281	20.6#	89	0.00
82	TP	Isopropylbenzene	2.237	2.017	9.8	93	0.00
83	S	4-Bromofluorobenzene	0.835	0.743	11.0	100	0.00
84	TP	Bromobenzene	0.619	0.584	5.7	100	0.00
85	TP	n-Propylbenzene	2.606	2.421	7.1	97	0.00
86	TP	1,4-Dichlorobutane	0.718	0.676	5.8	103	0.00
87	TP	1,1,2,2-Tetrachloroethane	0.497	0.430	13.5	95	0.00
88	TP	4-Ethyltoluene	2.179	1.995	8.4	95	0.00
89	TP	2-Chlorotoluene	1.598	1.455	8.9	97	0.00
90	TP	1,3,5-Trimethylbenzene	1.929	1.778	7.8	96	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
91 TP	1,2,3-Trichloropropane	0.416	0.342	17.8	90	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.114	0.108	5.3	114	0.00
93 TP	4-Chlorotoluene	1.645	1.493	9.2	94	0.00
94 TP	tert-Butylbenzene	1.559	1.427	8.5	93	0.00
97 TP	1,2,4-Trimethylbenzene	1.900	1.696	10.7	92	0.00
98 TP	sec-Butylbenzene	2.217	2.020	8.9	93	0.00
99 TP	p-Isopropyltoluene	1.925	1.771	8.0	95	0.00
100 TP	1,3-Dichlorobenzene	1.136	1.107	2.6	101	0.00
101 TP	1,4-Dichlorobenzene	1.170	1.125	3.8	101	0.00
102 TP	p-Diethylbenzene	1.106	0.981	11.3	91	0.00
103 TP	n-Butylbenzene	1.522	1.398	8.1	94	0.00
104 TP	1,2-Dichlorobenzene	1.084	1.017	6.2	98	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.655	1.310	20.8#	86	0.00
106 TP	1,2-Dibromo-3-chloropropane	0.092	0.065	29.3#	82	0.00
107 TP	1,3,5-Trichlorobenzene	0.713	0.687	3.6	102	0.00
108 TP	Hexachlorobutadiene	0.200	0.196	2.0	108	0.00
109 TP	1,2,4-Trichlorobenzene	0.618	0.531	14.1	94	0.00
110 TP	Naphthalene	1.387	0.853	38.5#	71	0.00
111 TP	1,2,3-Trichlorobenzene	0.514	0.422	17.9	90	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 3 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	357071	10.000	ug/L	0.00
Standard Area 1 = 357071			Recovery = 100.00%			
59) Chlorobenzene-d5	9.621	117	287977	10.000	ug/L	0.00
Standard Area 1 = 287977			Recovery = 100.00%			
79) 1,4-Dichlorobenzene-d4	12.311	152	175101	10.000	ug/L	0.00
Standard Area 1 = 175101			Recovery = 100.00%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	95676	10.259	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.59%			
43) 1,2-Dichloroethane-d4	5.805	65	111654	11.270	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.70%			
60) Toluene-d8	7.772	98	353927	9.790	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.90%			
83) 4-Bromofluorobenzene	11.110	95	130015	8.890	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 88.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.680	85	96613	10.191	ug/L	98
3) Chloromethane	1.893	50	81040	9.993	ug/L	99
4) Vinyl chloride	1.946	62	89140	10.611	ug/L	98
5) Bromomethane	2.265	94	28288	6.360	ug/L	99
6) Chloroethane	2.364	64	78635	12.243	ug/L	94
7) Trichlorofluoromethane	2.516	101	133708	10.855	ug/L	93
8) Ethyl ether	2.820	74	36697	8.974	ug/L #	81
10) 1,1-Dichloroethene	3.017	96	66178	9.797	ug/L	87
11) Carbon disulfide	3.048	76	215357	10.841	ug/L	97
12) Freon-113	3.048	101	76798	10.362	ug/L #	78
14) Acrolein	3.352	56	9869	8.496	ug/L	98
15) Methylene chloride	3.579	84	74500	9.329	ug/L	75
17) Acetone	3.617	43	13790	7.112	ug/L	94
18) trans-1,2-Dichloroethene	3.724	96	74552	10.090	ug/L	94
19) Methyl acetate	3.739	43	35437	8.627	ug/L	94
20) Methyl tert-butyl ether	3.815	73	182263	8.022	ug/L #	87
21) tert-Butyl alcohol	3.906	59	21367	33.896	ug/L #	73
22) Diisopropyl ether	4.172	45	235864	10.165	ug/L	95
23) 1,1-Dichloroethane	4.309	63	143508	10.723	ug/L	100
24) Halothane	4.362	117	61945	10.094	ug/L	97
25) Acrylonitrile	4.370	53	21289	10.200	ug/L	98

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
26) Ethyl tert-butyl ether	4.521	59	200020	8.762	ug/L	#	83
27) Vinyl acetate	4.544	43	166331	13.412	ug/L		100
28) cis-1,2-Dichloroethene	4.833	96	86698	10.205	ug/L		98
29) 2,2-Dichloropropane	4.932	77	112568	10.088	ug/L		94
30) Bromochloromethane	5.030	128	41289	9.933	ug/L	#	85
31) Cyclohexane	5.023	56	133097	10.484	ug/L		81
32) Chloroform	5.099	83	133565	9.749	ug/L		92
33) Ethyl acetate	5.205	43	57194	9.429	ug/L		96
34) Carbon tetrachloride	5.228	117	114402	10.303	ug/L		98
35) Tetrahydrofuran	5.251	42	18662M6	9.394	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	128989	10.209	ug/L		96
39) 2-Butanone	5.395	43	23788	9.185	ug/L	#	82
40) 1,1-Dichloropropene	5.418	75	104261	10.321	ug/L		98
41) Benzene	5.661	78	314733	10.289	ug/L		96
42) tert-Amyl methyl ether	5.760	73	156617	7.497	ug/L	#	87
44) 1,2-Dichloroethane	5.874	62	104124	10.680	ug/L		99
47) Methyl cyclohexane	6.238	83	113870	9.579	ug/L		85
48) Trichloroethene	6.261	95	84390	9.783	ug/L		97
50) Dibromomethane	6.709	93	45915	9.516	ug/L		99
51) 1,2-Dichloropropane	6.808	63	74672	10.004	ug/L		97
54) Bromodichloromethane	6.884	83	106177	9.745	ug/L		99
57) 1,4-Dioxane	7.092	88	25139	331.110	ug/L		87
58) cis-1,3-Dichloropropene	7.572	75	111865	9.180	ug/L		93
61) Toluene	7.830	92	197269	9.856	ug/L		100
62) 4-Methyl-2-pentanone	8.274	58	15887	7.200	ug/L		82
63) Tetrachloroethene	8.281	166	89367	10.172	ug/L		98
65) trans-1,3-Dichloropropene	8.324	75	97621	8.910	ug/L		98
67) Ethyl methacrylate	8.503	69	66353	7.202	ug/L		89
68) 1,1,2-Trichloroethane	8.510	83	50279	9.155	ug/L		98
69) Chlorodibromomethane	8.725	129	80479	9.268	ug/L		98
70) 1,3-Dichloropropane	8.832	76	101864	9.307	ug/L		100
71) 1,2-Dibromoethane	8.997	107	60960	8.751	ug/L		99
72) 2-Hexanone	9.284	43	29630	7.241	ug/L		91
73) Chlorobenzene	9.646	112	218488	9.796	ug/L		99
74) Ethylbenzene	9.678	91	361691	9.465	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.728	131	75400	9.083	ug/L		97
76) p/m Xylene	9.859	106	289072	19.133	ug/L		99
77) o Xylene	10.402	106	275670	18.836	ug/L		99
78) Styrene	10.468	104	472932	19.068	ug/L		99
80) Bromoform	10.501	173	49230	7.936	ug/L		95

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Isopropylbenzene	10.781	105	353225	9.016	ug/L		99
84) Bromobenzene	11.217	156	102175	9.434	ug/L		100
85) n-Propylbenzene	11.258	91	423879	9.289	ug/L		100
86) 1,4-Dichlorobutane	11.283	55	118317	9.416	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.357	83	75281	8.647	ug/L		99
88) 4-Ethyltoluene	11.381	105	349262	9.156	ug/L		100
89) 2-Chlorotoluene	11.422	91	254840M4	9.106	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	311259	9.217	ug/L		99
91) 1,2,3-Trichloropropane	11.488	75	59966M4	8.236	ug/L		
92) trans-1,4-Dichloro-2-b...	11.546	53	18873	9.454	ug/L	#	93
93) 4-Chlorotoluene	11.612	91	261379	9.072	ug/L		96
94) tert-Butylbenzene	11.817	119	249786	9.152	ug/L		99
97) 1,2,4-Trimethylbenzene	11.900	105	297037	8.928	ug/L		100
98) sec-Butylbenzene	12.007	105	353728	9.111	ug/L		100
99) p-Isopropyltoluene	12.155	119	310072	9.201	ug/L		99
100) 1,3-Dichlorobenzene	12.237	146	193807	9.740	ug/L		98
101) 1,4-Dichlorobenzene	12.327	146	197049	9.615	ug/L		99
102) p-Diethylbenzene	12.533	119	171836	8.877	ug/L		97
103) n-Butylbenzene	12.591	91	244722	9.183	ug/L		99
104) 1,2-Dichlorobenzene	12.747	146	178107	9.384	ug/L		98
105) 1,2,4,5-Tetramethylben...	13.323	119	229428	7.917	ug/L		97
106) 1,2-Dibromo-3-chloropr...	13.528	155	11429	7.078	ug/L		93
107) 1,3,5-Trichlorobenzene	13.553	180	120291	9.629	ug/L		99
108) Hexachlorobutadiene	14.121	225	34320	9.805	ug/L		93
109) 1,2,4-Trichlorobenzene	14.154	180	92997	8.596	ug/L		99
110) Naphthalene	14.442	128	149397	6.152	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	73978	8.224	ug/L		95

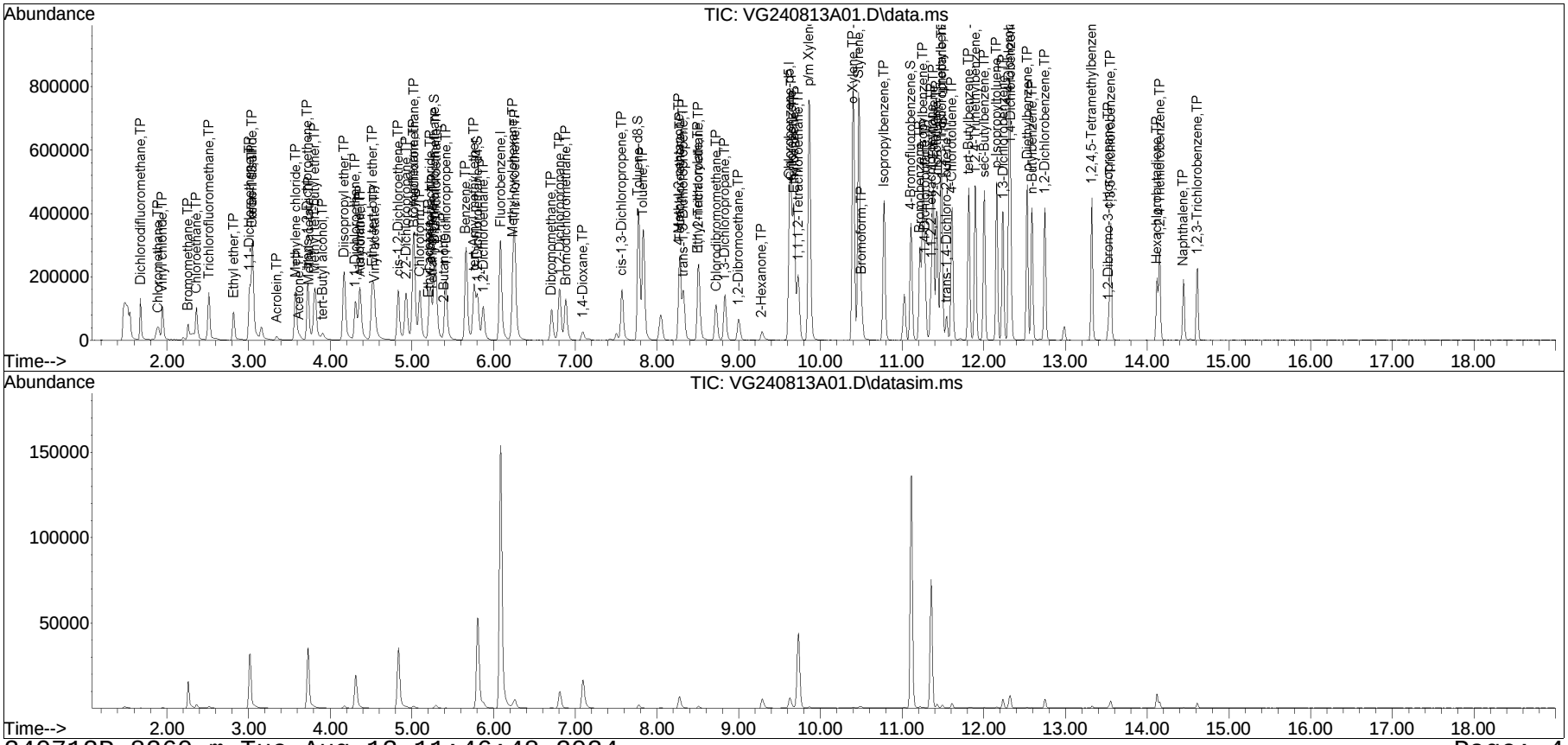
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

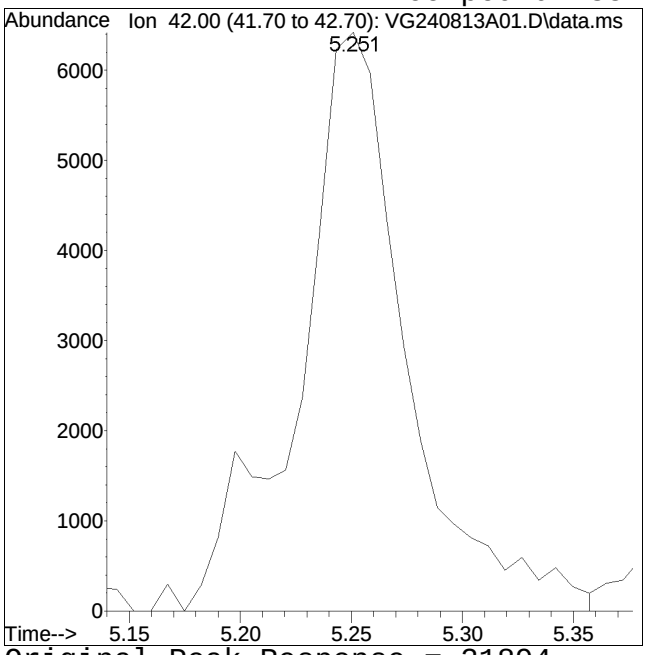


Manual Integration Report

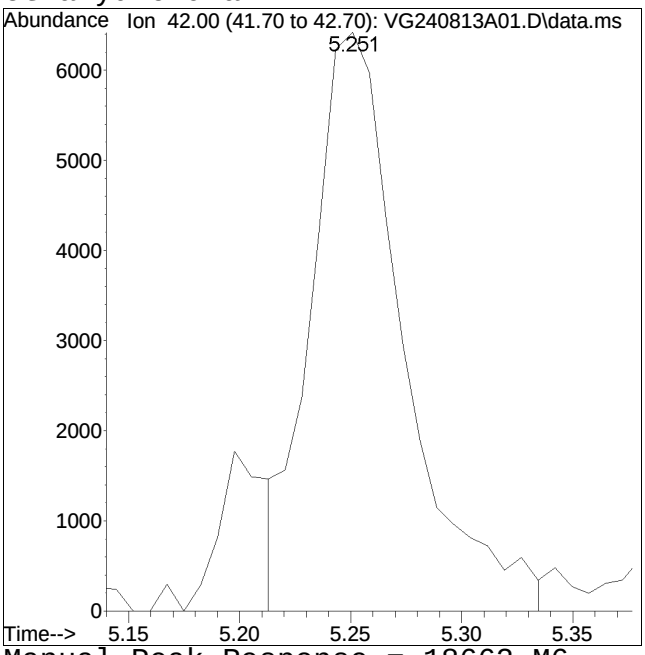
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Date Inj'd : 8/13/2024 8:09 am
Sample : WG1958701-2

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 8:48 am

Compound #35: Tetrahydrofuran



Original Peak Response = 21894



Manual Peak Response = 18662 M6

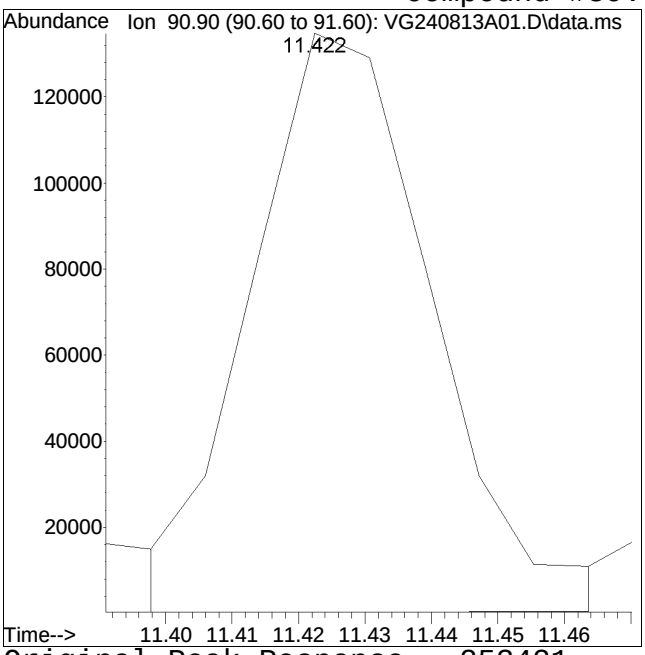
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

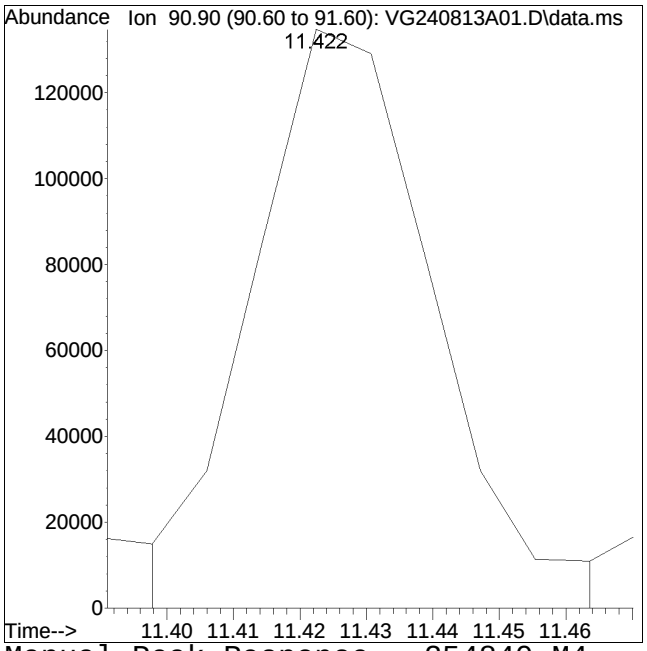
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Date Inj'd : 8/13/2024 8:09 am
Sample : WG1958701-2

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 8:48 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 253421



Manual Peak Response = 254840 M4

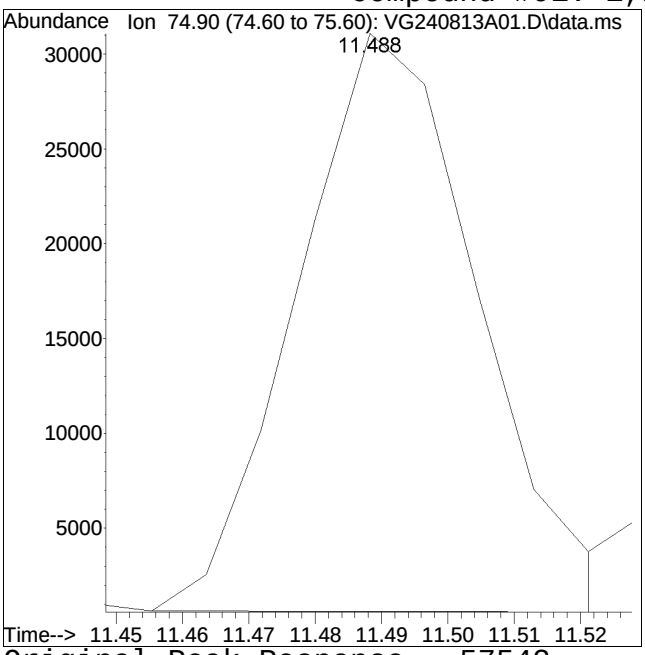
M4 = Poor automated baseline construction.

Manual Integration Report

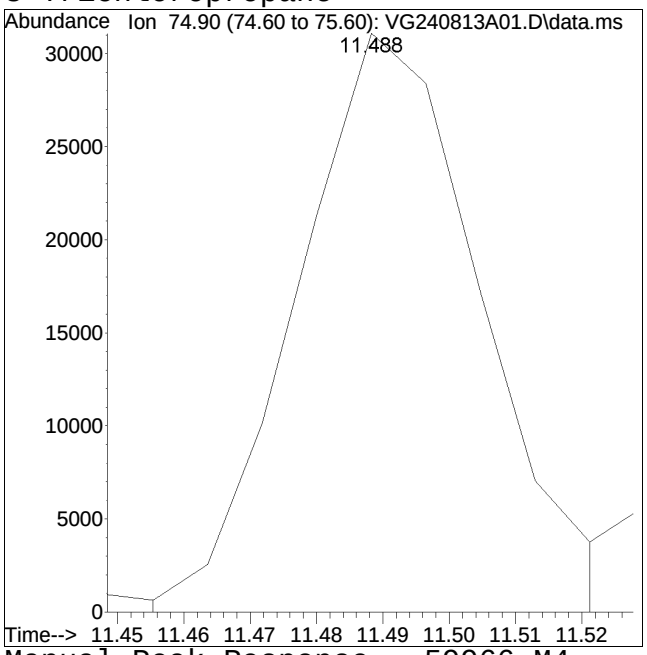
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Date Inj'd : 8/13/2024 8:09 am
Sample : WG1958701-2

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 8:48 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 57542



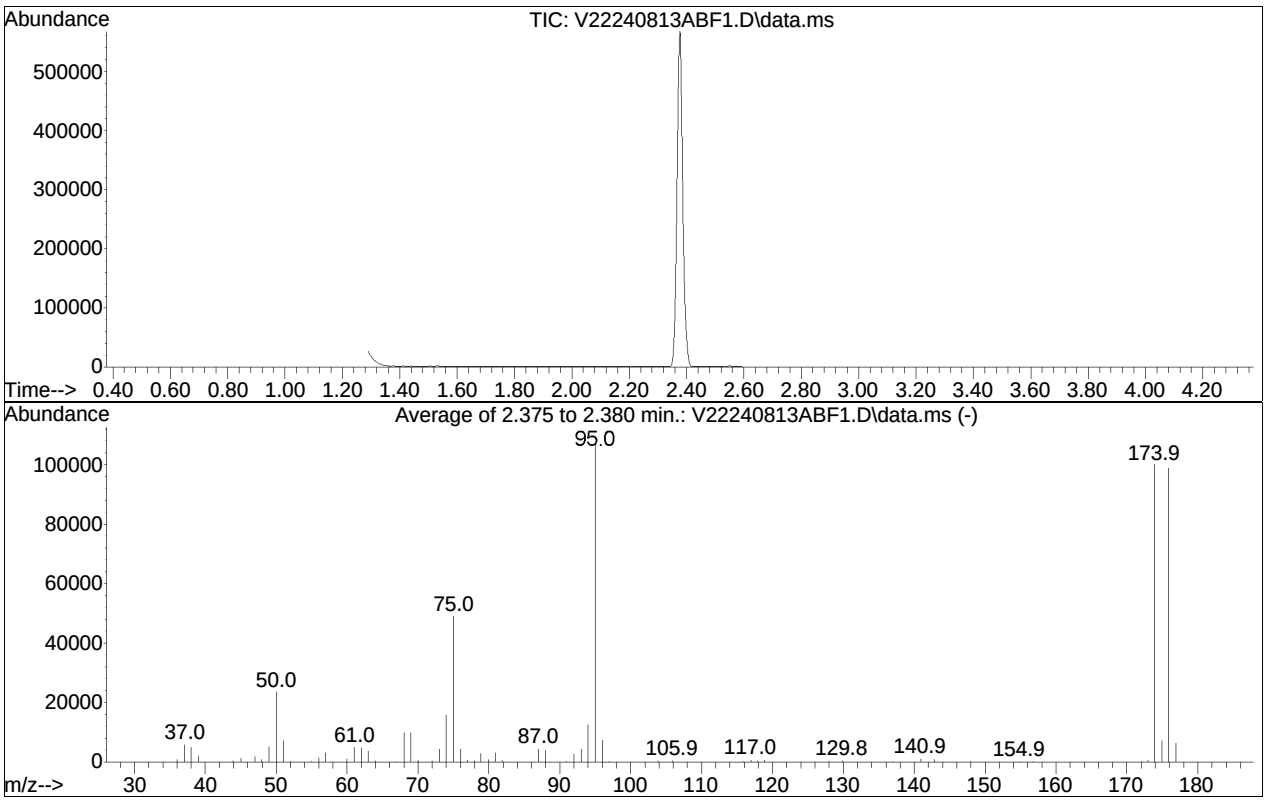
Manual Peak Response = 59966 M4

M4 = Poor automated baseline construction.

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813ABF1.D
Acq On : 13 Aug 2024 06:38 am
Operator : VOA122:PID
Sample : WG1958655-1
Misc : WG1958655,ICAL21346
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024



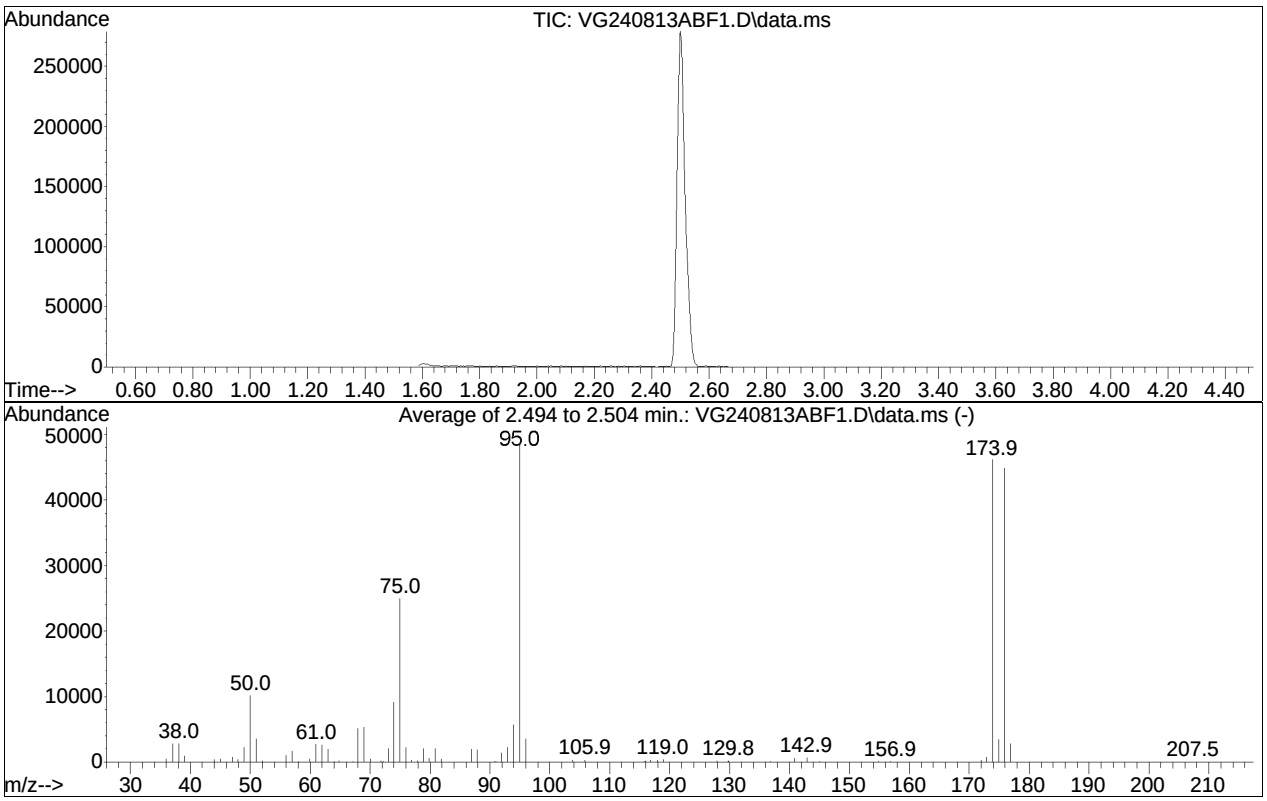
Spectrum Information: Average of 2.375 to 2.380 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.9	23557	PASS
75	95	30	60	45.8	49147	PASS
95	95	100	100	100.0	107419	PASS
96	95	5	9	6.9	7370	PASS
173	174	0.00	2	0.6	637	PASS
174	95	50	100	93.2	100165	PASS
175	174	5	9	7.3	7287	PASS
176	174	95	101	98.7	98864	PASS
177	176	5	9	6.6	6511	PASS

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813ABF1.D
Acq On : 13 Aug 2024 7:56 am
Operator : GONZO:PID
Sample : WG1958701-1
Misc : WG1958701,ICAL21287
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024



Spectrum Information: Average of 2.494 to 2.504 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	10148	PASS
75	95	30	60	51.2	24973	PASS
95	95	100	100	100.0	48747	PASS
96	95	5	9	7.3	3555	PASS
173	174	0.00	2	1.7	767	PASS
174	95	50	100	94.8	46205	PASS
175	174	5	9	7.5	3447	PASS
176	174	95	101	97.1	44861	PASS
177	176	5	9	6.3	2833	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A05.D
Acq On : 13 Aug 2024 08:32 am
Operator : VOA122:PID
Sample : WG1958655-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 09:09:23 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	413845	10.000	ug/L	0.00
Standard Area 1 = 446456			Recovery = 92.70%			
62) Chlorobenzene-d5	9.519	117	367897	10.000	ug/L	0.00
Standard Area 1 = 376565			Recovery = 97.70%			
83) 1,4-Dichlorobenzene-d4	12.236	152	189675	10.000	ug/L	0.00
Standard Area 1 = 206350			Recovery = 91.92%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	162088	11.209	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.09%			
46) 1,2-Dichloroethane-d4	5.688	65	117449	9.609	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.09%			
63) Toluene-d8	7.675	98	428936	9.151	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.51%			
87) 4-Bromofluorobenzene	11.019	95	143673	8.318	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 83.18%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.195	94	156	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.962	76	384	N.D.		
15) Methylene chloride	3.473	84	543	0.072	ug/L #	43
17) Acetone	3.512	43	59	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A05.D
Acq On : 13 Aug 2024 08:32 am
Operator : VOA122:PID
Sample : WG1958655-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 09:09:23 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	0.000		0		N.D.	
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	0.000		0		N.D.	
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	9.512	91	471		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	11.019	91	349		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A05.D
Acq On : 13 Aug 2024 08:32 am
Operator : VOA122:PID
Sample : WG1958655-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 09:09:23 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	0.000		0	N.D.		
102) sec-Butylbenzene	0.000		0	N.D.		
103) p-Isopropyltoluene	0.000		0	N.D.		
104) 1,3-Dichlorobenzene	12.250	146	174	N.D.		
105) 1,4-Dichlorobenzene	12.250	146	174	N.D.		
106) p-Diethylbenzene	0.000		0	N.D.		
107) n-Butylbenzene	0.000		0	N.D.	d	
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	14.088	180	64	N.D.		
114) Naphthalene	0.000		0	N.D.	d	
115) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

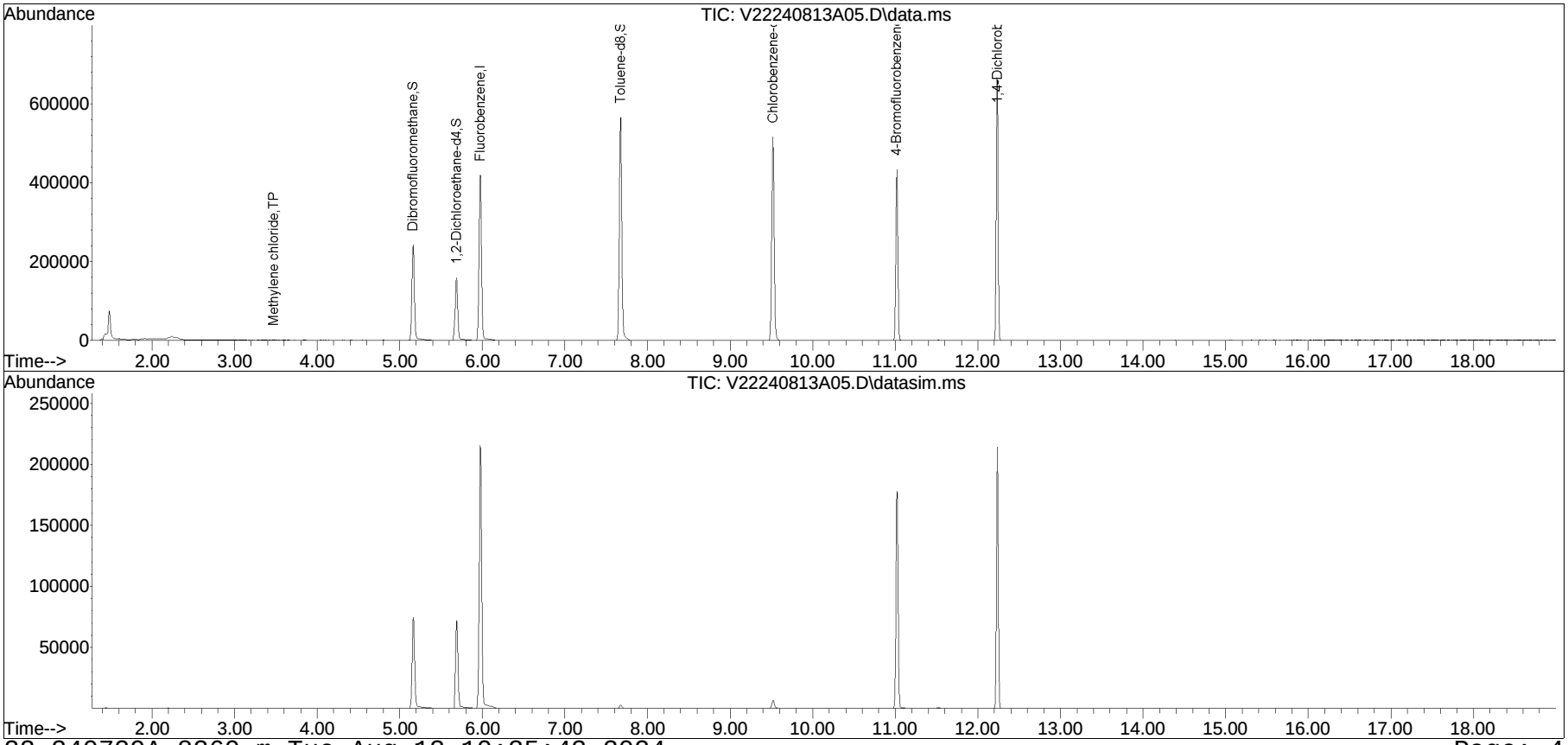
(#) = qualifier out of range (m) = manual integration (+) = signals summed

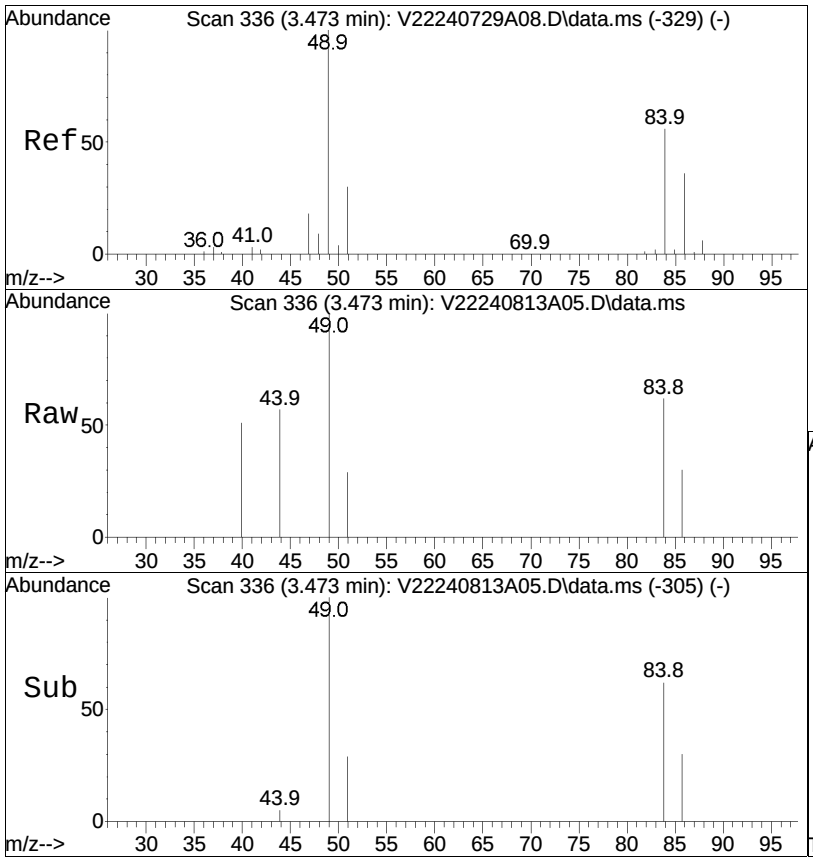
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A05.D
Acq On : 13 Aug 2024 08:32 am
Operator : VOA122:PID
Sample : WG1958655-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 09:09:23 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

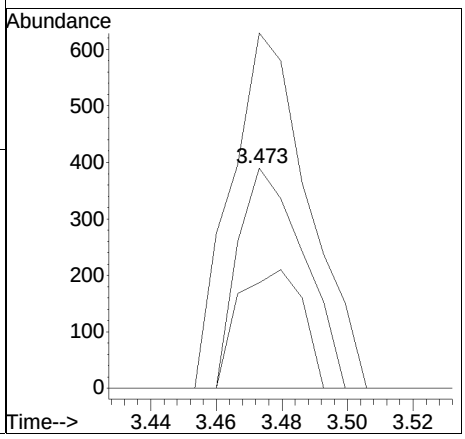




#15
Methylene chloride
Concen: 0.07 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240813A05.D
Acq: 13 Aug 2024 08:32 am

Tgt Ion: 84 Resp: 543

Ion	Ratio	Lower	Upper
84	100		
86	52.5	41.5	86.3
49	190.4	68.8	143.0#



Manual Integration Report

Data Path	: K:\VOA122\2024\240813A\	QMethod	: V122_240729A_8260.m
Data File	: V22240813A05.D	Operator	: VOA122:PID
Date Inj'd	: 8/13/2024 8:32 am	Instrument	: VOA 122
Sample	: WG1958655-5,31,10,10	Quant Date	: 8/13/2024 9:08 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT/LSC Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A05.D
Acq On : 13 Aug 2024 9:44 am
Operator : GONZO:PID
Sample : WG1958701-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 10:11:13 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	306500	10.000	ug/L	0.00
Standard Area 1 = 357071			Recovery = 85.84%			
59) Chlorobenzene-d5	9.629	117	245625	10.000	ug/L	0.00
Standard Area 1 = 287977			Recovery = 85.29%			
79) 1,4-Dichlorobenzene-d4	12.311	152	136410	10.000	ug/L	0.00
Standard Area 1 = 175101			Recovery = 77.90%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	82531	10.309	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.09%			
43) 1,2-Dichloroethane-d4	5.805	65	92874	10.921	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.21%			
60) Toluene-d8	7.779	98	297845	9.659	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.59%			
83) 4-Bromofluorobenzene	11.110	95	107852	9.466	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d	
3) Chloromethane	1.900	50	160	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.272	94	927	0.243	ug/L #	76
6) Chloroethane	2.310	64	169	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	2.933	74	97	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.055	76	1044	N.D.		
15) Methylene chloride	3.571	84	392	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	3.594	96	75	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	4.339	43	86	N.D.		
28) cis-1,2-Dichloroethene	4.825	96	83	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	0.000		0	N.D.		

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A05.D
Acq On : 13 Aug 2024 9:44 am
Operator : GONZO:PID
Sample : WG1958701-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 10:11:13 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0	N.D.		
37) 1,1,1-Trichloroethane	0.000		0	N.D.		
39) 2-Butanone	5.418	43	80	N.D.		
40) 1,1-Dichloropropene	0.000		0	N.D.		
41) Benzene	5.532	78	68	N.D.		
44) 1,2-Dichloroethane	0.000		0	N.D.	d	
48) Trichloroethene	0.000		0	N.D.	d	
50) Dibromomethane	0.000		0	N.D.		
51) 1,2-Dichloropropane	0.000		0	N.D.		
54) Bromodichloromethane	0.000		0	N.D.		
57) 1,4-Dioxane	0.000		0	N.D.	d	
58) cis-1,3-Dichloropropene	0.000		0	N.D.		
61) Toluene	0.000		0	N.D.		
62) 4-Methyl-2-pentanone	8.166	58	91	N.D.		
63) Tetrachloroethene	0.000		0	N.D.		
65) trans-1,3-Dichloropropene	0.000		0	N.D.		
68) 1,1,2-Trichloroethane	0.000		0	N.D.		
69) Chlorodibromomethane	0.000		0	N.D.		
70) 1,3-Dichloropropane	8.674	76	66	N.D.		
71) 1,2-Dibromoethane	0.000		0	N.D.		
72) 2-Hexanone	9.398	43	84	N.D.		
73) Chlorobenzene	9.670	112	82	N.D.		
74) Ethylbenzene	9.703	91	79	N.D.		
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
76) p/m Xylene	9.892	106	77	N.D.		
77) o Xylene	0.000		0	N.D.		
78) Styrene	10.344	104	84	N.D.		
80) Bromoform	0.000		0	N.D.		
82) Isopropylbenzene	0.000		0	N.D.		
84) Bromobenzene	0.000		0	N.D.		
85) n-Propylbenzene	11.118	91	274	N.D.		
87) 1,1,2,2-Tetrachloroethane	11.110	83	89	N.D.		
88) 4-Ethyltoluene	11.406	105	115	N.D.		
89) 2-Chlorotoluene	11.480	91	83	N.D.		
90) 1,3,5-Trimethylbenzene	11.406	105	115	N.D.		
91) 1,2,3-Trichloropropane	11.258	75	276	N.D.		
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	d	
93) 4-Chlorotoluene	11.480	91	83	N.D.		
94) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A05.D
Acq On : 13 Aug 2024 9:44 am
Operator : GONZO:PID
Sample : WG1958701-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 10:11:13 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	12.023	105	287	N.D.		
98)	sec-Butylbenzene	12.023	105	287	N.D.		
99)	p-Isopropyltoluene	12.171	119	191	N.D.		
100)	1,3-Dichlorobenzene	12.253	146	133	N.D.		
101)	1,4-Dichlorobenzene	12.335	146	440	N.D.		
102)	p-Diethylbenzene	12.574	119	158	N.D.		
103)	n-Butylbenzene	12.607	91	75	N.D.		
104)	1,2-Dichlorobenzene	0.000		0	N.D.		
105)	1,2,4,5-Tetramethylben...	13.355	119	99	N.D.		
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	14.112	225	175	N.D.		
109)	1,2,4-Trichlorobenzene	14.186	180	391	N.D.		
110)	Naphthalene	14.474	128	1147	N.D.		
111)	1,2,3-Trichlorobenzene	14.630	180	234	N.D.		

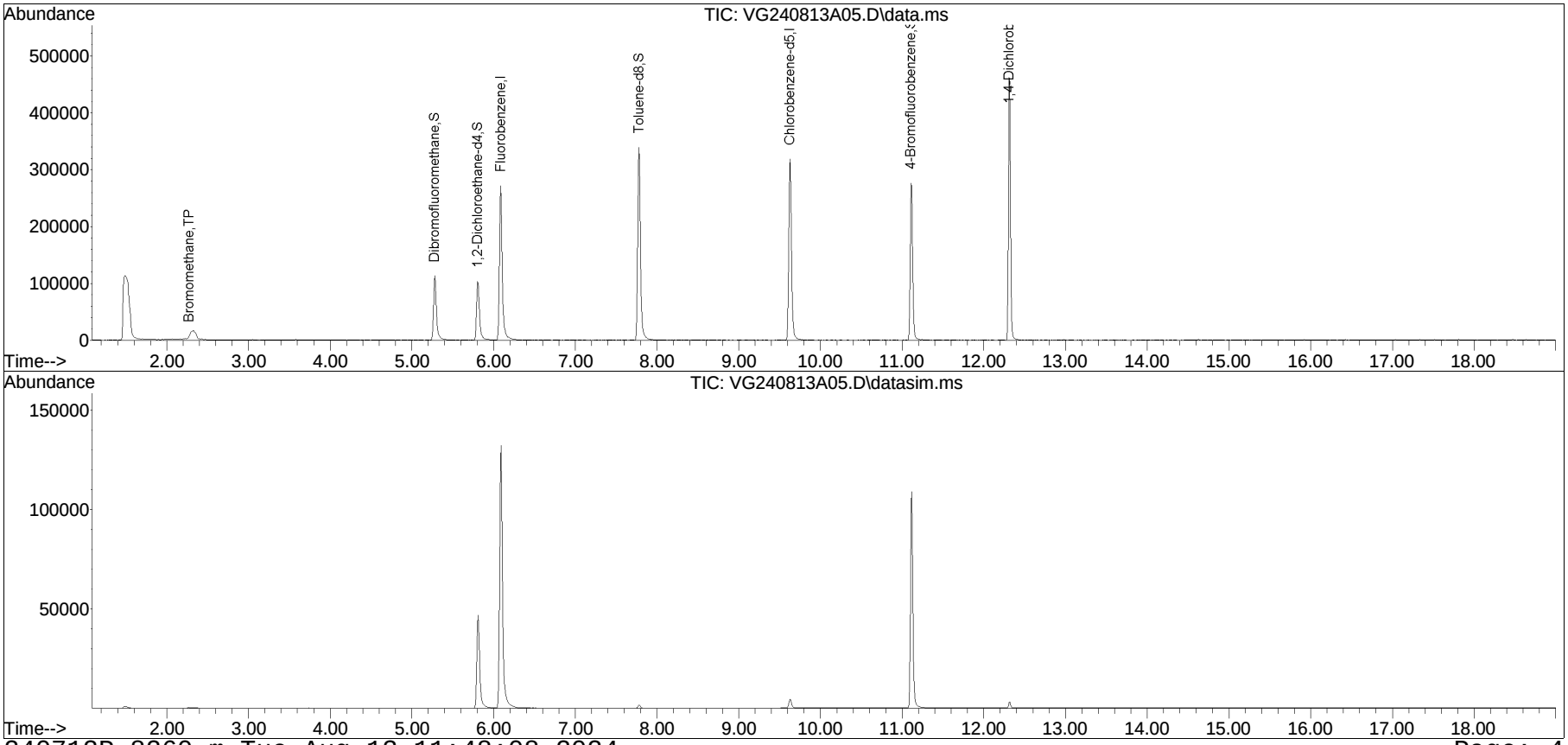
(#) = qualifier out of range (m) = manual integration (+) = signals summed

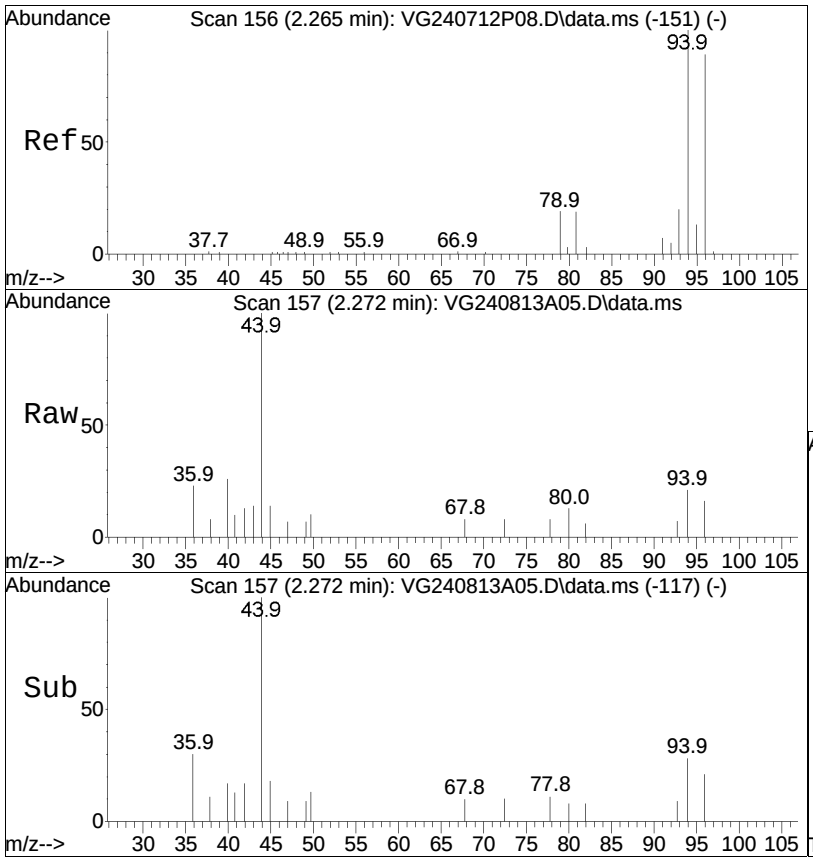
Quantitation Report (QT/LSC Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A05.D
Acq On : 13 Aug 2024 9:44 am
Operator : GONZO:PID
Sample : WG1958701-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 13 10:11:13 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

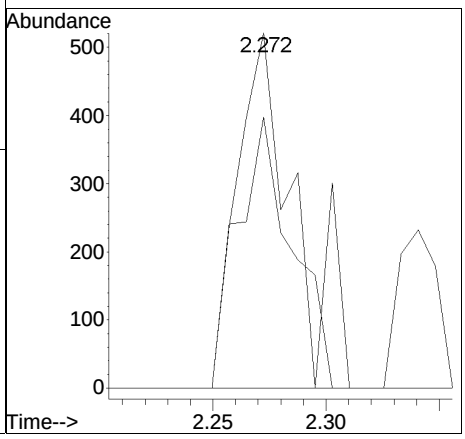




#5
Bromomethane
Concen: 0.24 ug/L
RT: 2.272 min Scan# 157
Delta R.T. 0.007 min
Lab File: VG240813A05.D
Acq: 13 Aug 2024 9:44 am

Tgt Ion: 94 Resp: 927

Ion	Ratio	Lower	Upper
94	100		
96	72.1	75.2	115.2#



Manual Integration Report

Data Path	: K:\Gonzo\2024\240813A\	QMethod	: G_240712P_8260.m
Data File	: VG240813A05.D	Operator	: GONZO:PID
Date Inj'd	: 8/13/2024 9:44 am	Instrument	: Gonzo
Sample	: WG1958701-5,31,10,10	Quant Date	: 8/13/2024 10:10 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	446456	10.000	ug/L	0.00
Standard Area 1 = 446456			Recovery = 100.00%			
62) Chlorobenzene-d5	9.519	117	376565	10.000	ug/L	0.00
Standard Area 1 = 376565			Recovery = 100.00%			
83) 1,4-Dichlorobenzene-d4	12.236	152	206350	10.000	ug/L	0.00
Standard Area 1 = 206350			Recovery = 100.00%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	164891	10.570	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.70%			
46) 1,2-Dichloroethane-d4	5.688	65	128360	9.734	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.34%			
63) Toluene-d8	7.675	98	442880	9.231	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.31%			
87) 4-Bromofluorobenzene	11.019	95	158619	8.442	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 84.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.632	85	86672	9.833	ug/L	98
3) Chloromethane	1.815	50	110420	9.392	ug/L	97
4) Vinyl chloride	1.887	62	95642	10.282	ug/L	97
5) Bromomethane	2.195	94	25215	6.748	ug/L	98
6) Chloroethane	2.307	64	55496	10.321	ug/L	96
7) Trichlorofluoromethane	2.451	101	120507	11.289	ug/L	99
8) Ethyl ether	2.746	74	28975	9.325	ug/L #	1
10) 1,1-Dichloroethene	2.936	96	68445	11.081	ug/L	85
11) Carbon disulfide	2.962	76	205203	10.113	ug/L	99
15) Methylene chloride	3.480	84	75323	9.199	ug/L #	60
17) Acetone	3.519	43	13947	9.344	ug/L	96
18) trans-1,2-Dichloroethene	3.637	96	76167	10.541	ug/L	91
21) Methyl tert-butyl ether	3.729	73	126566	9.160	ug/L #	77
25) 1,1-Dichloroethane	4.207	63	141739	9.605	ug/L	95
27) Acrylonitrile	4.247	53	19895	9.766	ug/L	96
29) Vinyl acetate	4.443	43	135399	8.726	ug/L #	89
30) cis-1,2-Dichloroethene	4.725	96	82075	10.249	ug/L	88
31) 2,2-Dichloropropane	4.830	77	97492	10.541	ug/L #	79
32) Bromochloromethane	4.915	128	45314	11.992	ug/L #	82
34) Chloroform	4.987	83	121895	9.544	ug/L #	94

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Carbon tetrachloride	5.131	117	105975	11.497	ug/L		98
39) 1,1,1-Trichloroethane	5.190	97	118742	11.025	ug/L		96
41) 2-Butanone	5.276	43	19445	9.270	ug/L	#	41
42) 1,1-Dichloropropene	5.315	75	81993	9.435	ug/L		95
44) Benzene	5.557	78	275685	9.749	ug/L	#	92
47) 1,2-Dichloroethane	5.754	62	67951	9.618	ug/L		96
51) Trichloroethene	6.154	95	56574	9.406	ug/L		93
53) Dibromomethane	6.591	93	30397	9.997	ug/L		93
54) 1,2-Dichloropropane	6.695	63	57710	9.139	ug/L		94
57) Bromodichloromethane	6.764	83	71002	9.529	ug/L		98
60) 1,4-Dioxane	6.973	88	13104	526.001	ug/L	#	61
61) cis-1,3-Dichloropropene	7.459	75	70791	9.220	ug/L	#	82
64) Toluene	7.731	92	143367	9.243	ug/L		99
65) 4-Methyl-2-pentanone	8.161	58	9866	7.948	ug/L	#	63
66) Tetrachloroethene	8.175	166	72909	11.988	ug/L		99
68) trans-1,3-Dichloropropene	8.210	75	59097	7.730	ug/L		84
71) 1,1,2-Trichloroethane	8.391	83	30992	8.509	ug/L		98
72) Chlorodibromomethane	8.607	129	54782	9.319	ug/L		99
73) 1,3-Dichloropropane	8.712	76	61643	8.632	ug/L		99
74) 1,2-Dibromoethane	8.881	107	40251	9.861	ug/L		99
76) 2-Hexanone	9.175	43	18632	8.077	ug/L	#	84
77) Chlorobenzene	9.540	112	176690	10.058	ug/L	#	84
78) Ethylbenzene	9.582	91	280152	9.566	ug/L		97
79) 1,1,1,2-Tetrachloroethane	9.624	131	57526	10.294	ug/L		97
80) p/m Xylene	9.771	106	235901	20.751	ug/L		93
81) o Xylene	10.311	106	220059	20.469	ug/L		94
82) Styrene	10.381	104	357403	20.669	ug/L		93
84) Bromoform	10.395	173	30195	9.727	ug/L		98
86) Isopropylbenzene	10.704	105	303778	9.491	ug/L		98
88) Bromobenzene	11.132	156	75637	10.049	ug/L		99
89) n-Propylbenzene	11.181	91	338416	9.099	ug/L		97
91) 1,1,2,2-Tetrachloroethane	11.258	83	41848	7.993	ug/L		99
92) 4-Ethyltoluene	11.314	105	285469	9.417	ug/L		98
93) 2-Chlorotoluene	11.342	91	189334M6	8.451	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	244417	9.515	ug/L		97
95) 1,2,3-Trichloropropane	11.398	75	31976	8.001	ug/L		95
96) trans-1,4-Dichloro-2-b...	11.454	53	15302	8.585	ug/L	#	66
97) 4-Chlorotoluene	11.531	91	198326	8.577	ug/L		92
98) tert-Butylbenzene	11.749	119	227560	10.206	ug/L		93

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	11.826	105	267778	9.330	ug/L	96
102)	sec-Butylbenzene	11.944	105	319312	9.429	ug/L	98
103)	p-Isopropyltoluene	12.097	119	278581	9.733	ug/L	98
104)	1,3-Dichlorobenzene	12.153	146	153552	10.285	ug/L	99
105)	1,4-Dichlorobenzene	12.250	146	150538	10.167	ug/L	99
106)	p-Diethylbenzene	12.473	119	157639	9.696	ug/L	97
107)	n-Butylbenzene	12.529	91	216047	9.086	ug/L	98
108)	1,2-Dichlorobenzene	12.675	146	134405	10.176	ug/L	99
109)	1,2,4,5-Tetramethylben...	13.274	119	205619	9.222	ug/L	99
110)	1,2-Dibromo-3-chloropr...	13.455	155	7304	9.316	ug/L	98
112)	Hexachlorobutadiene	14.074	225	34375	11.004	ug/L	98
113)	1,2,4-Trichlorobenzene	14.088	180	80092	10.941	ug/L	99
114)	Naphthalene	14.387	128	158758	9.408	ug/L	100
115)	1,2,3-Trichlorobenzene	14.554	180	67441	10.845	ug/L	98

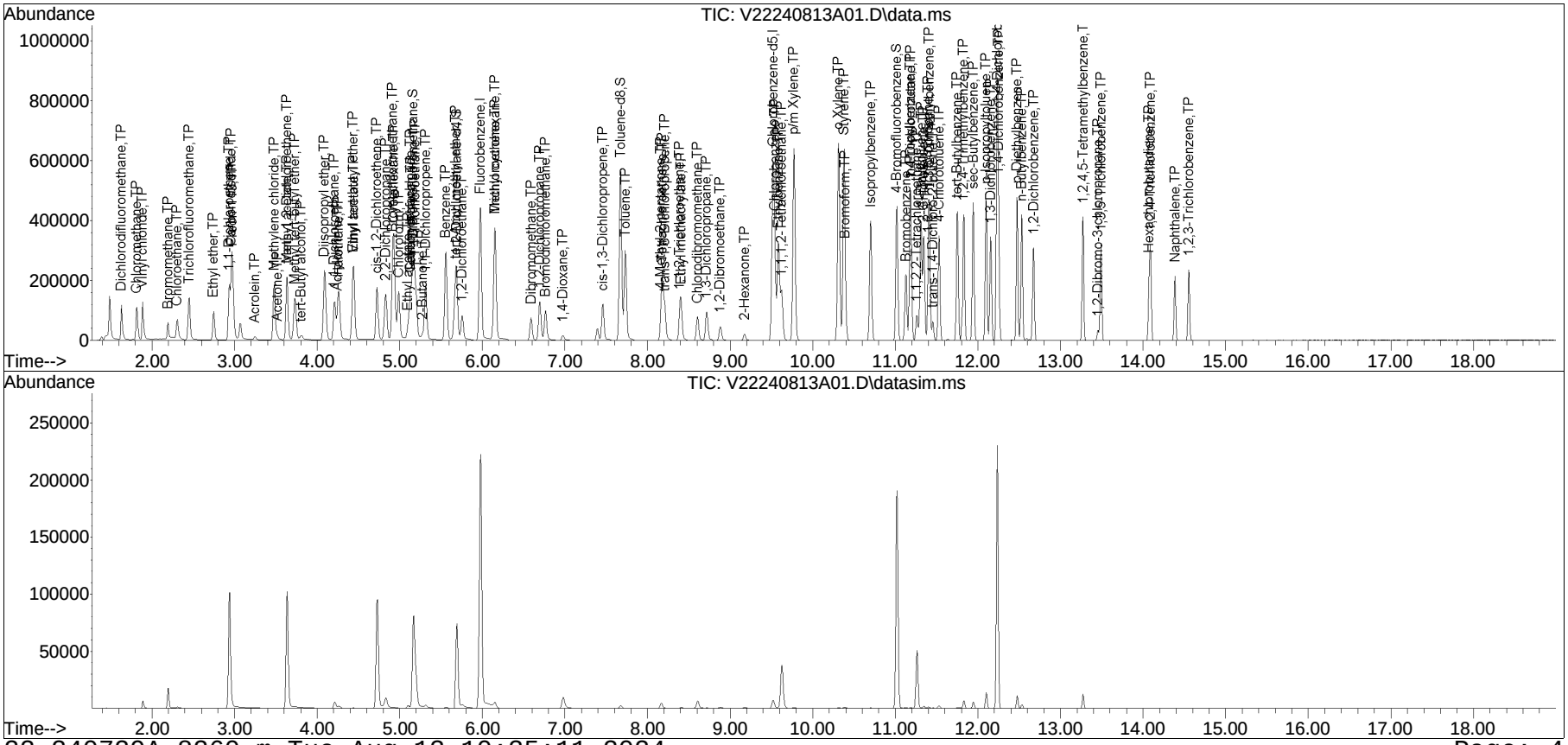
(#) = qualifier out of range (m) = manual integration (+) = signals summed

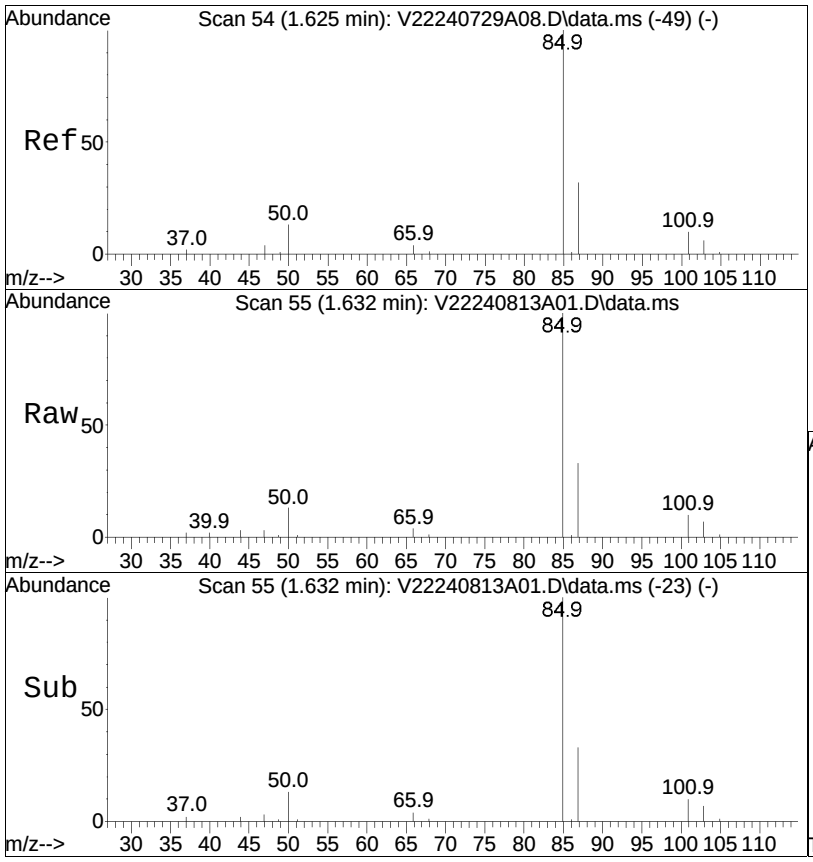
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Acq On : 13 Aug 2024 06:52 am
Operator : VOA122:PID
Sample : WG1958655-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 07:14:52 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

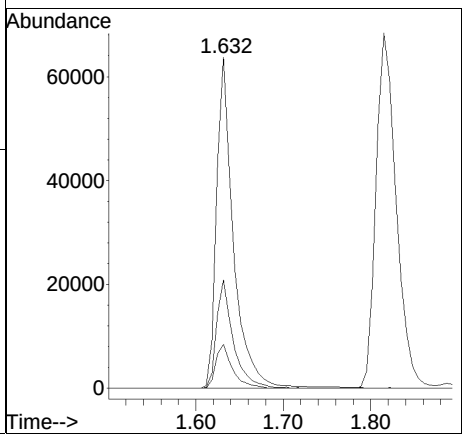


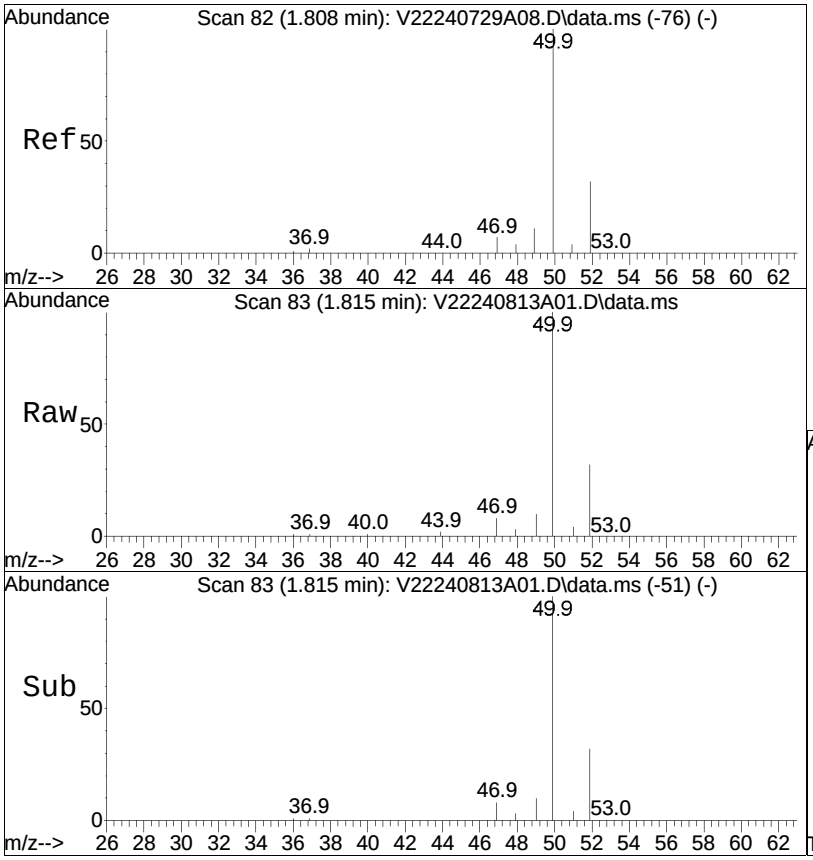


#2
Dichlorodifluoromethane
Concen: 9.83 ug/L
RT: 1.632 min Scan# 55
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 85 Resp: 86672

Ion	Ratio	Lower	Upper
85	100		
87	32.2	20.7	42.9
50	13.1	6.8	14.2

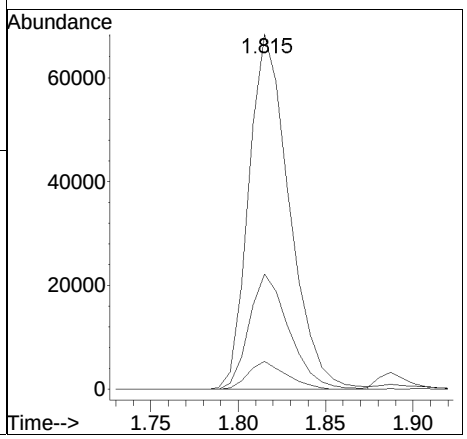


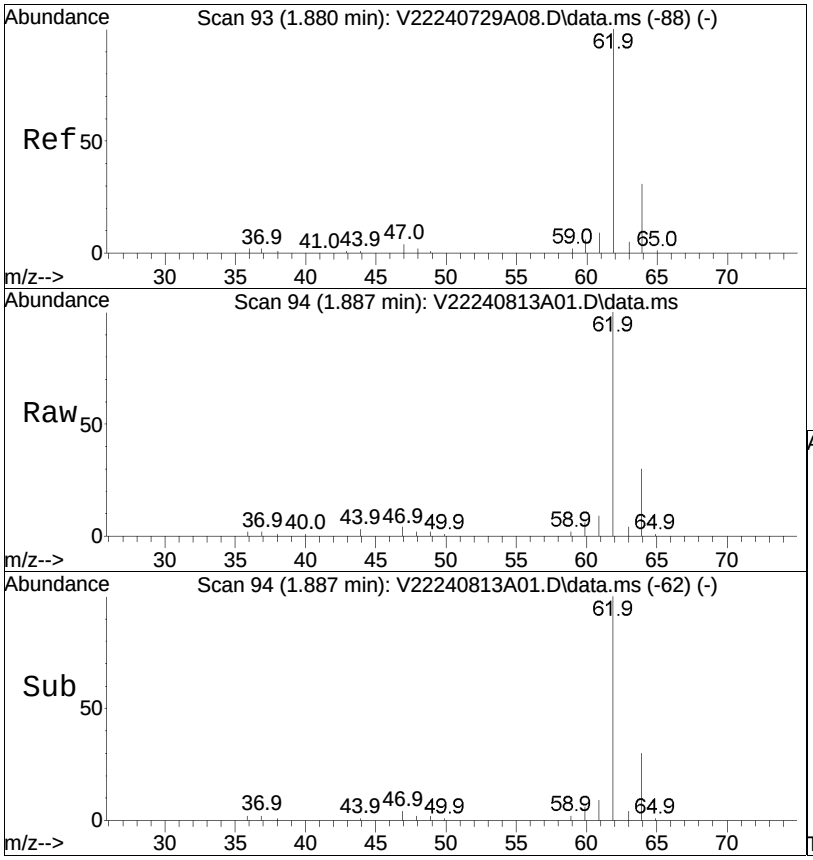


#3
Chloromethane
Concen: 9.39 ug/L
RT: 1.815 min Scan# 83
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 50 Resp: 110420

Ion	Ratio	Lower	Upper
50	100		
52	32.0	12.8	52.8
47	7.5	0.0	30.0

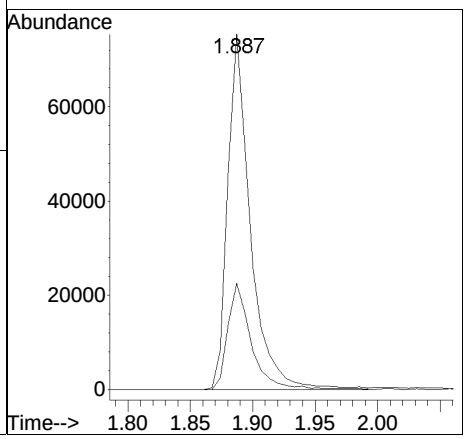


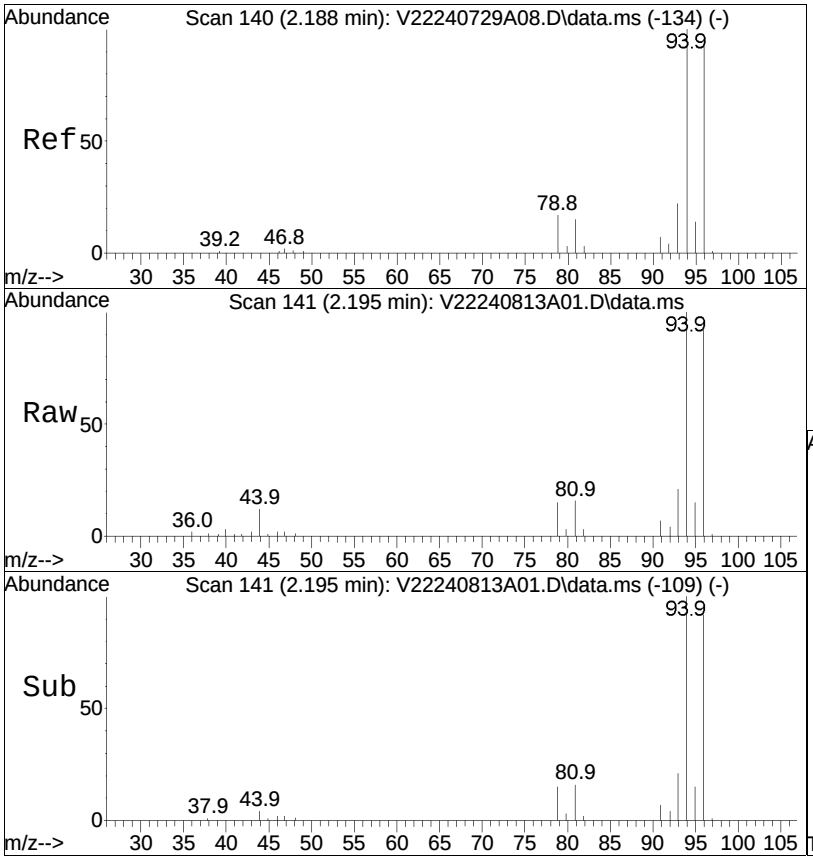


#4
Vinyl chloride
Concen: 10.28 ug/L
RT: 1.887 min Scan# 94
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 62 Resp: 95642

Ion	Ratio	Lower	Upper
62	100		
64	30.5	12.0	52.0

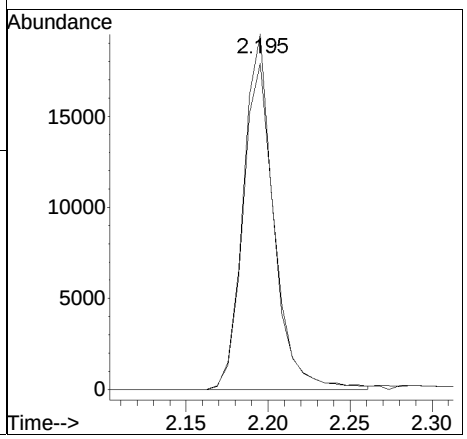


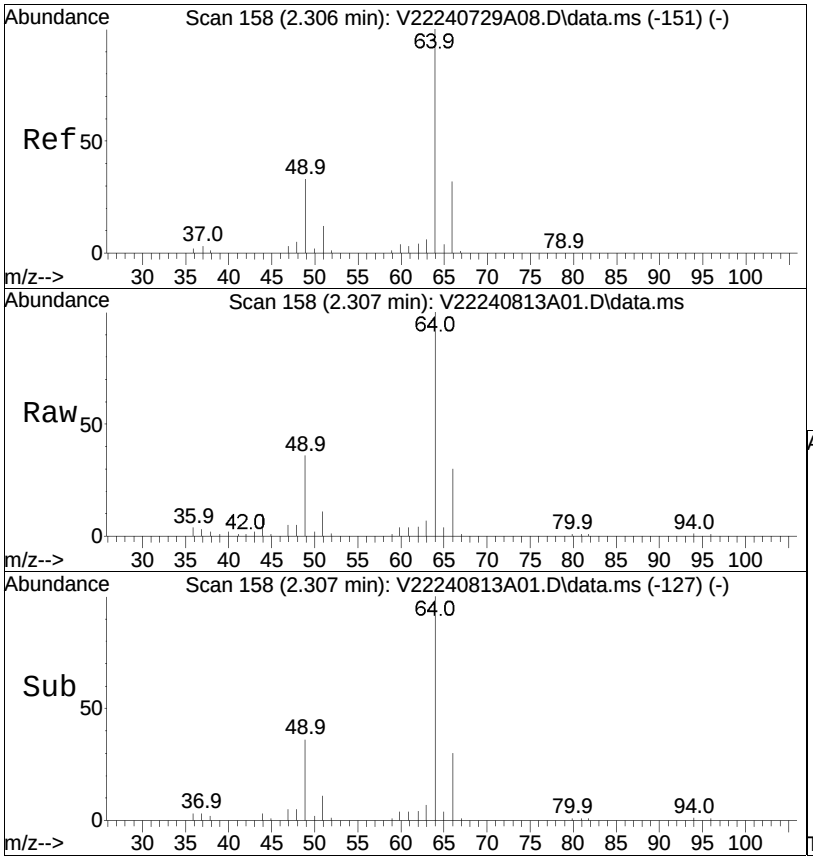


#5
Bromomethane
Concen: 6.75 ug/L
RT: 2.195 min Scan# 141
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 94 Resp: 25215

Ion	Ratio	Lower	Upper
94	100		
96	95.0	72.8	112.8

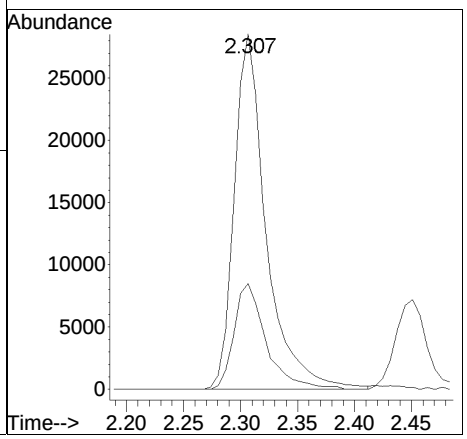


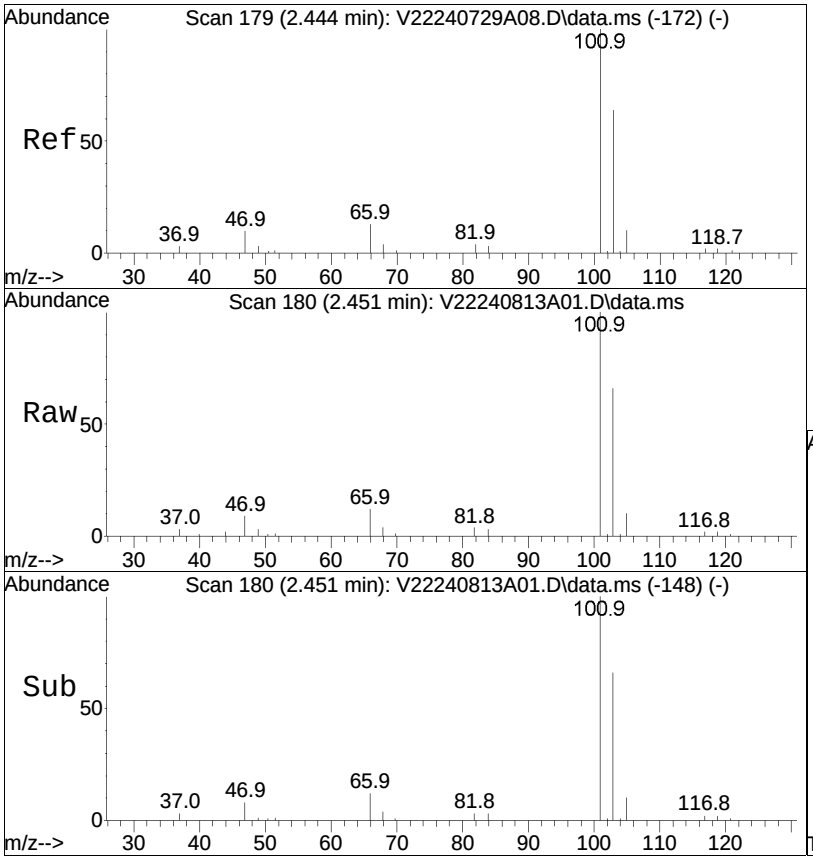


#6
Chloroethane
Concen: 10.32 ug/L
RT: 2.307 min Scan# 158
Delta R.T. 0.001 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 64 Resp: 55496

Ion	Ratio	Lower	Upper
64	100		
66	30.0	12.2	52.2

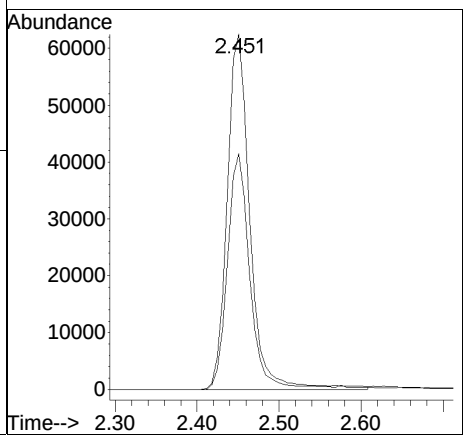


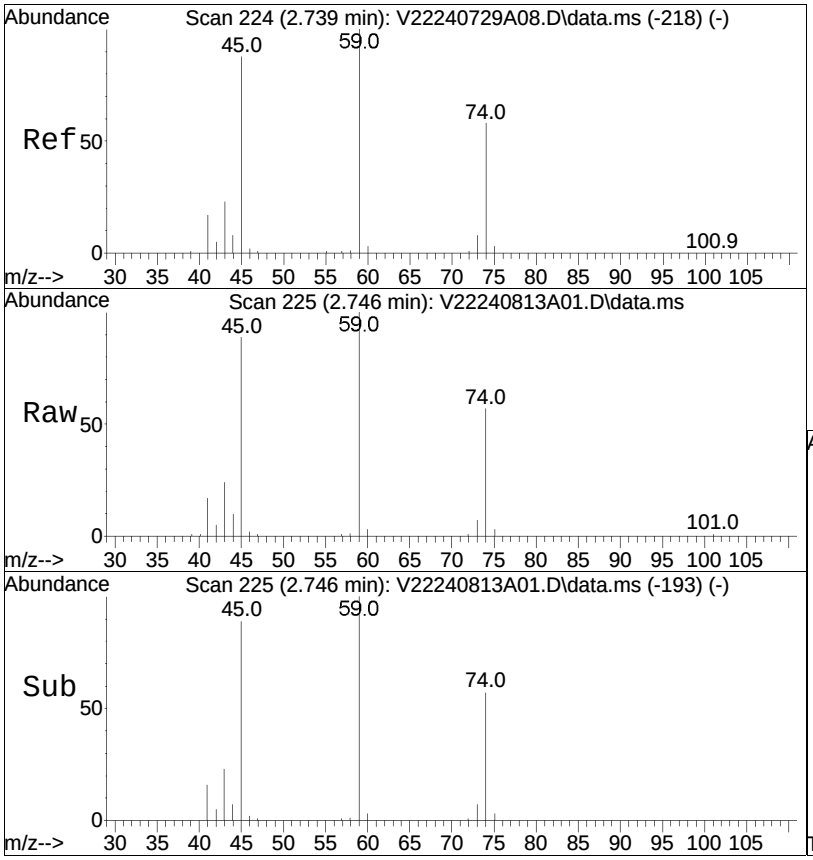


#7
Trichlorofluoromethane
Concen: 11.29 ug/L
RT: 2.451 min Scan# 180
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:101 Resp: 120507

Ion	Ratio	Lower	Upper
101	100		
103	65.3	51.6	77.4

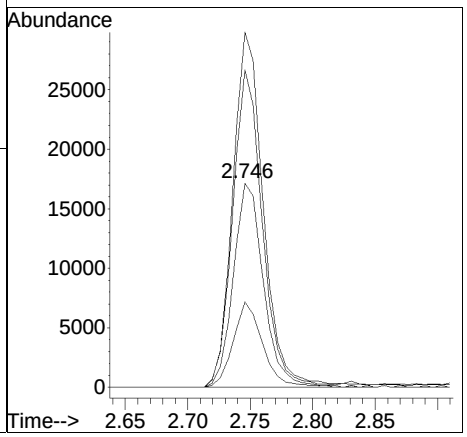


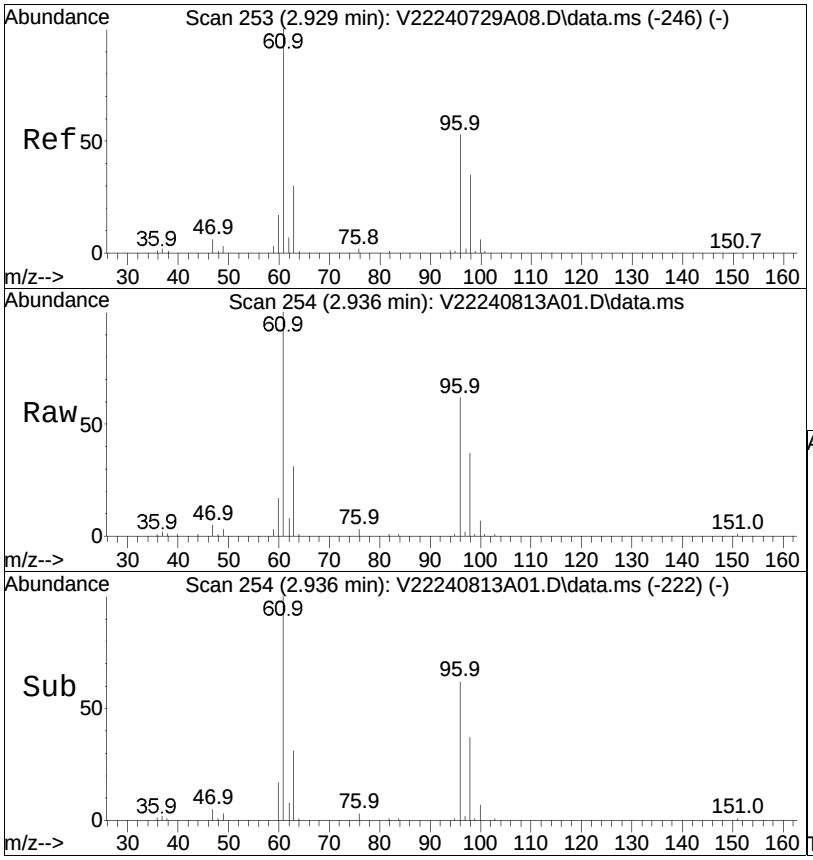


#8
Ethyl ether
Concen: 9.33 ug/L
RT: 2.746 min Scan# 225
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 74 Resp: 28975

Ion	Ratio	Lower	Upper
74	100		
59	174.8	2122.4	4408.0#
45	152.9	1435.1	2980.5#
43	41.0	407.9	847.3#

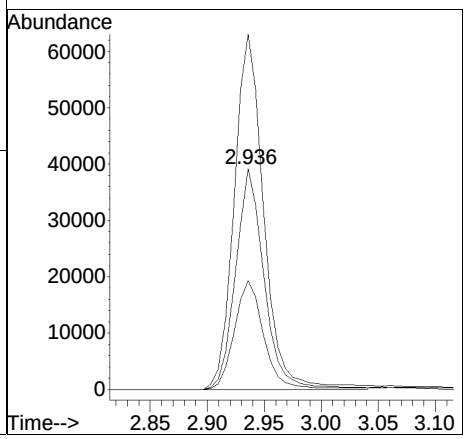


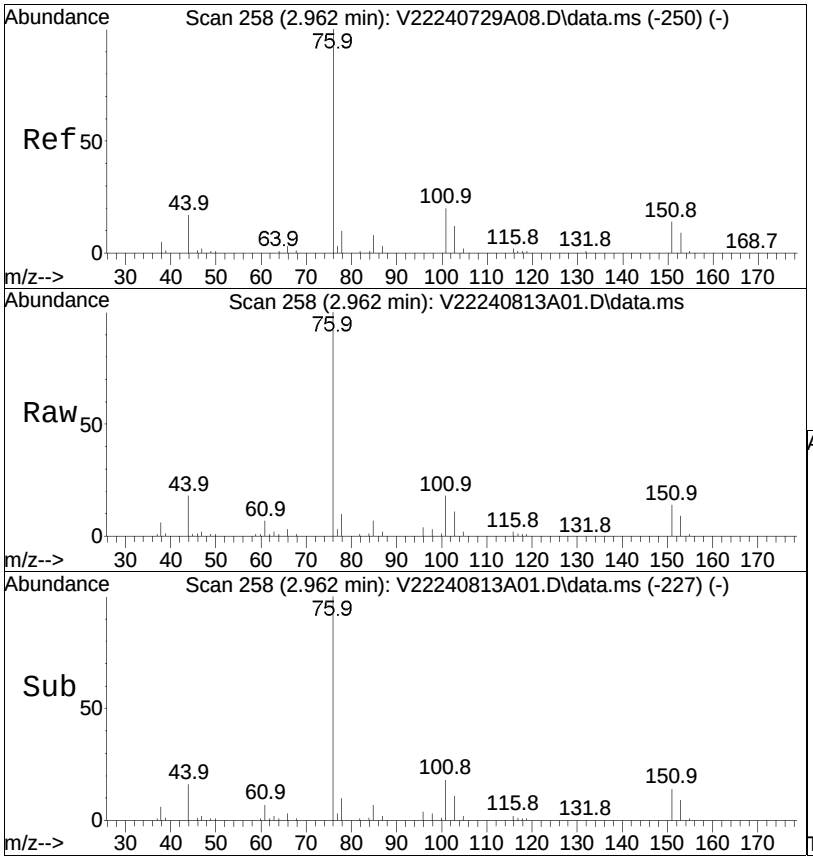


#10
1,1-Dichloroethene
Concen: 11.08 ug/L
RT: 2.936 min Scan# 254
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 96 Resp: 68445

Ion	Ratio	Lower	Upper
96	100		
61	169.3	117.0	175.4
63	50.2	37.8	56.6

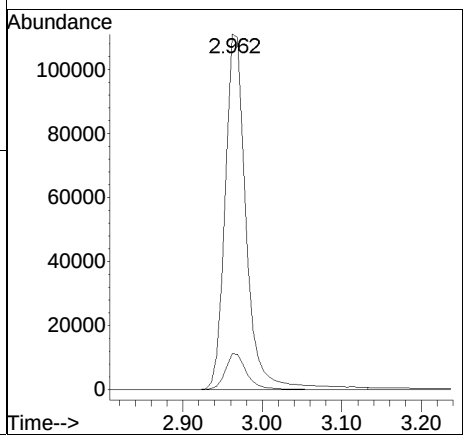


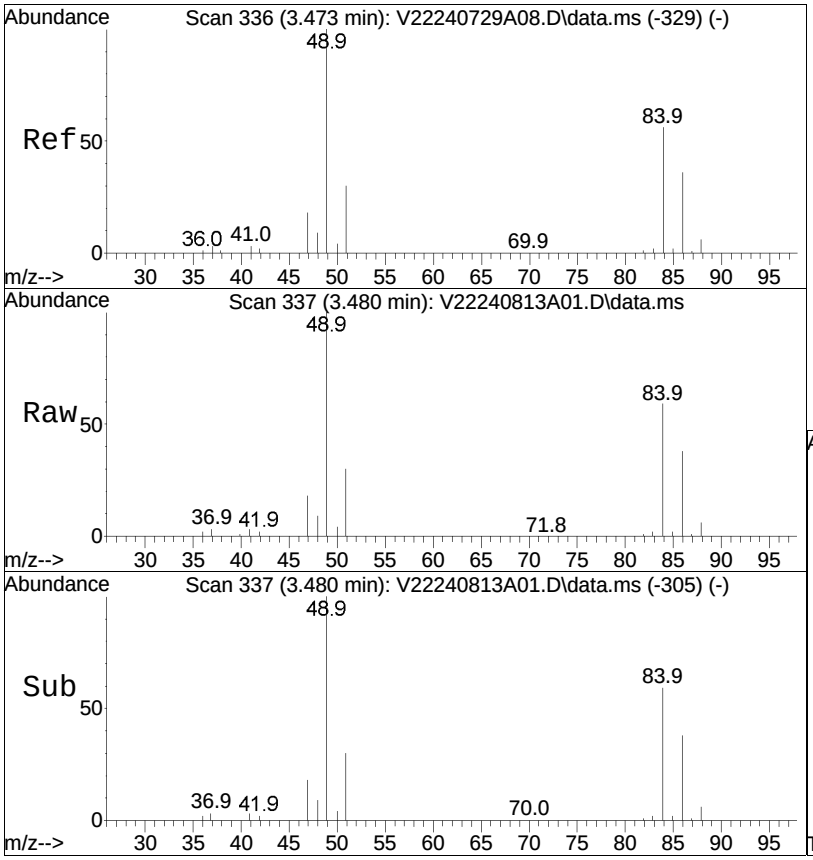


#11
Carbon disulfide
Concen: 10.11 ug/L
RT: 2.962 min Scan# 258
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 76 Resp: 205203

Ion	Ratio	Lower	Upper
76	100		
78	10.1	6.4	13.4

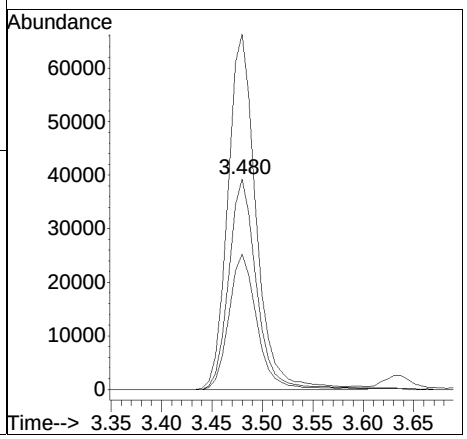


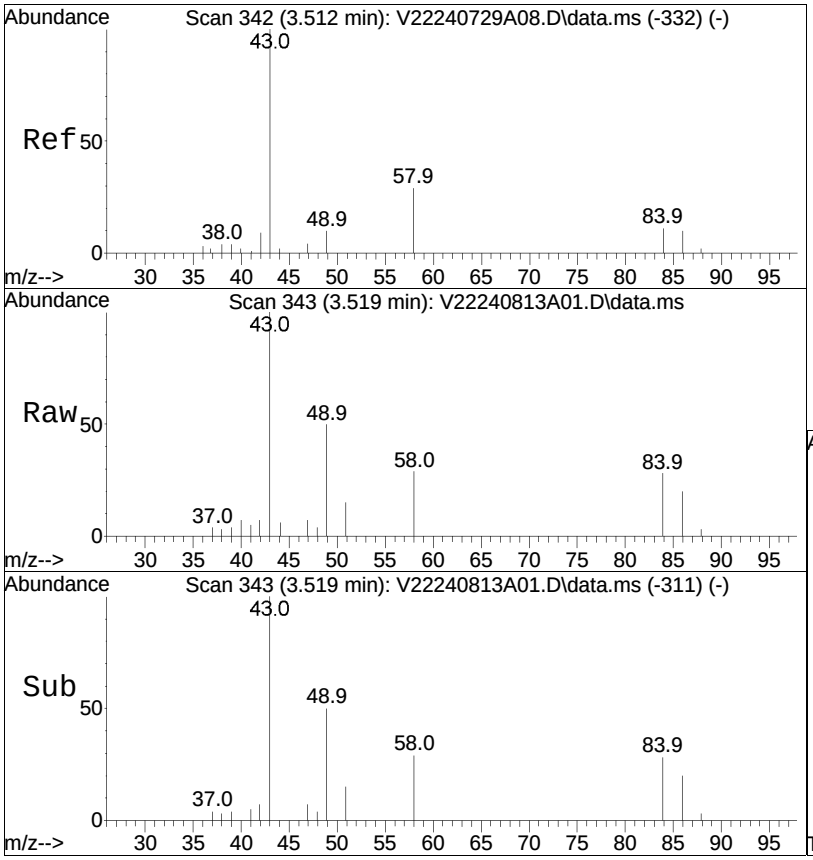


#15
Methylene chloride
Concen: 9.20 ug/L
RT: 3.480 min Scan# 337
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 84 Resp: 75323

Ion	Ratio	Lower	Upper
84	100		
86	65.4	41.5	86.3
49	171.1	68.8	143.0#

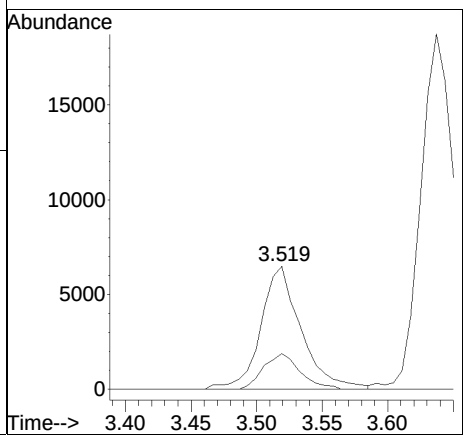


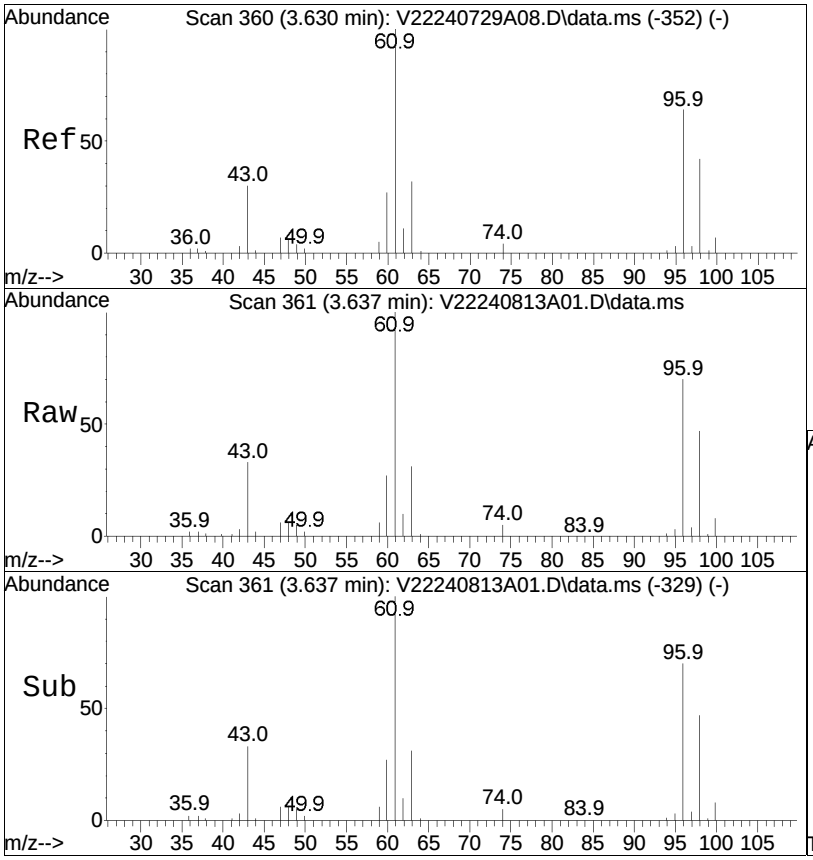


#17
Acetone
Concen: 9.34 ug/L
RT: 3.519 min Scan# 343
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 43 Resp: 13947

Ion	Ratio	Lower	Upper
43	100		
58	26.6	23.1	34.7

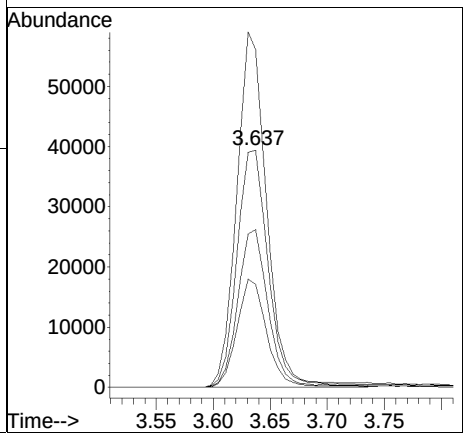


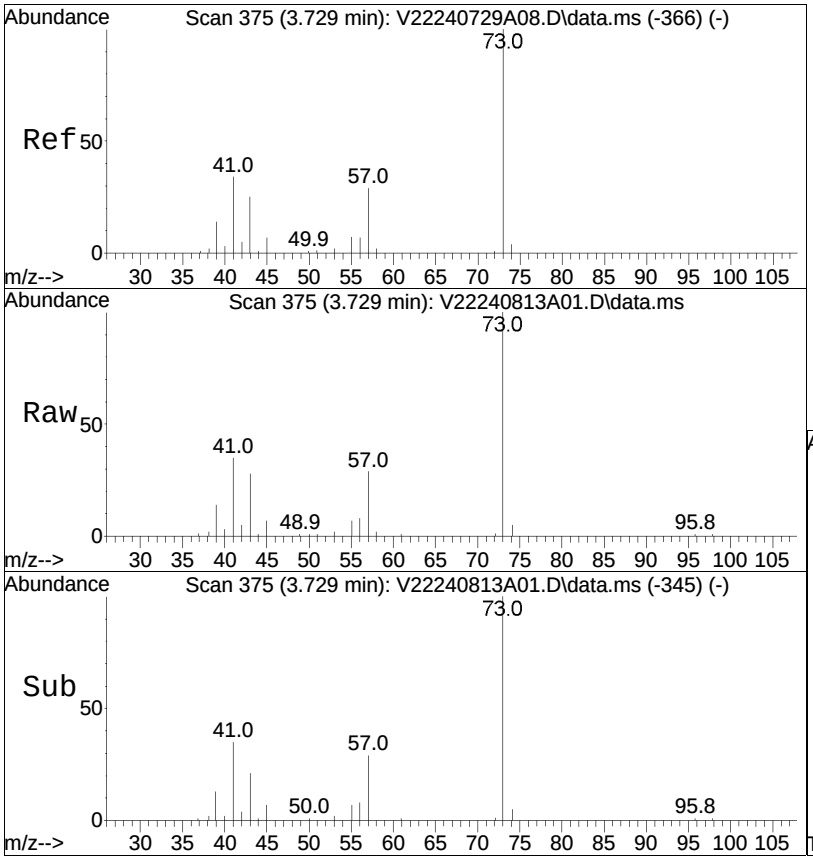


#18
trans-1,2-Dichloroethene
Concen: 10.54 ug/L
RT: 3.637 min Scan# 361
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 96 Resp: 76167

Ion	Ratio	Lower	Upper
96	100		
61	141.9	81.6	169.6
98	64.9	41.8	86.8
63	42.9	26.3	54.7

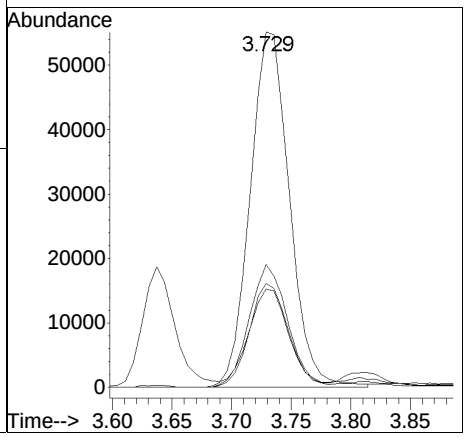


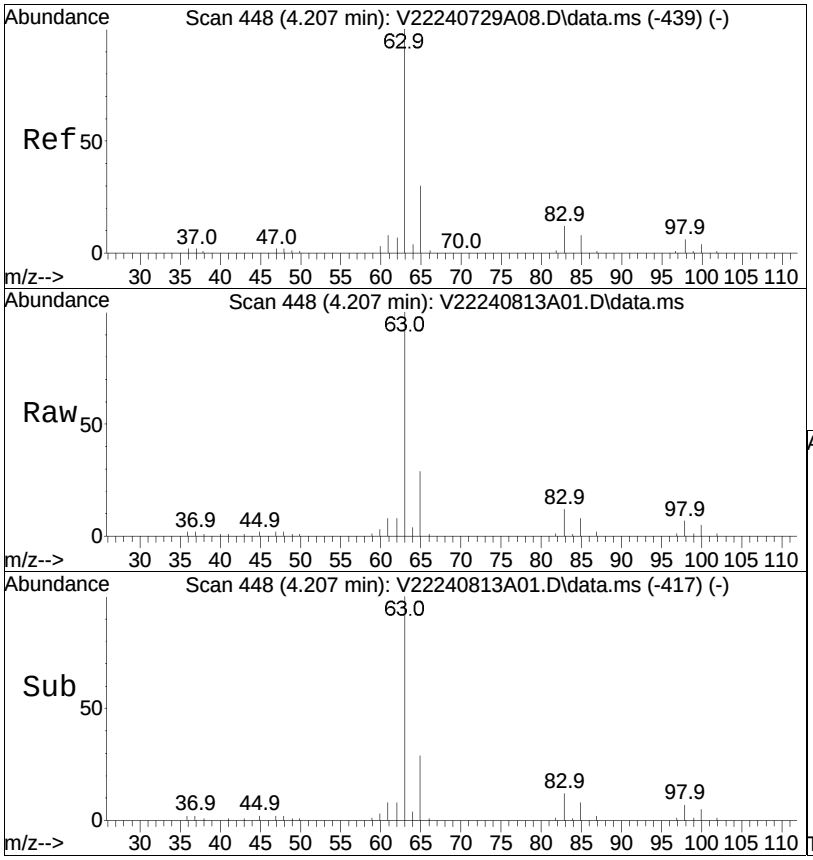


#21
Methyl tert-butyl ether
Concen: 9.16 ug/L
RT: 3.729 min Scan# 375
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 73 Resp: 126566

Ion	Ratio	Lower	Upper
73	100		
57	29.0	13.6	28.2#
43	27.4	12.7	26.5#
41	33.9	11.4	23.8#

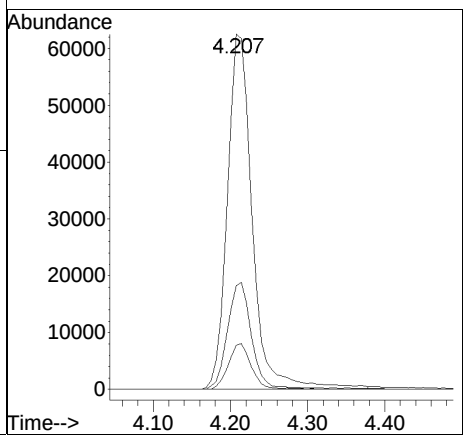


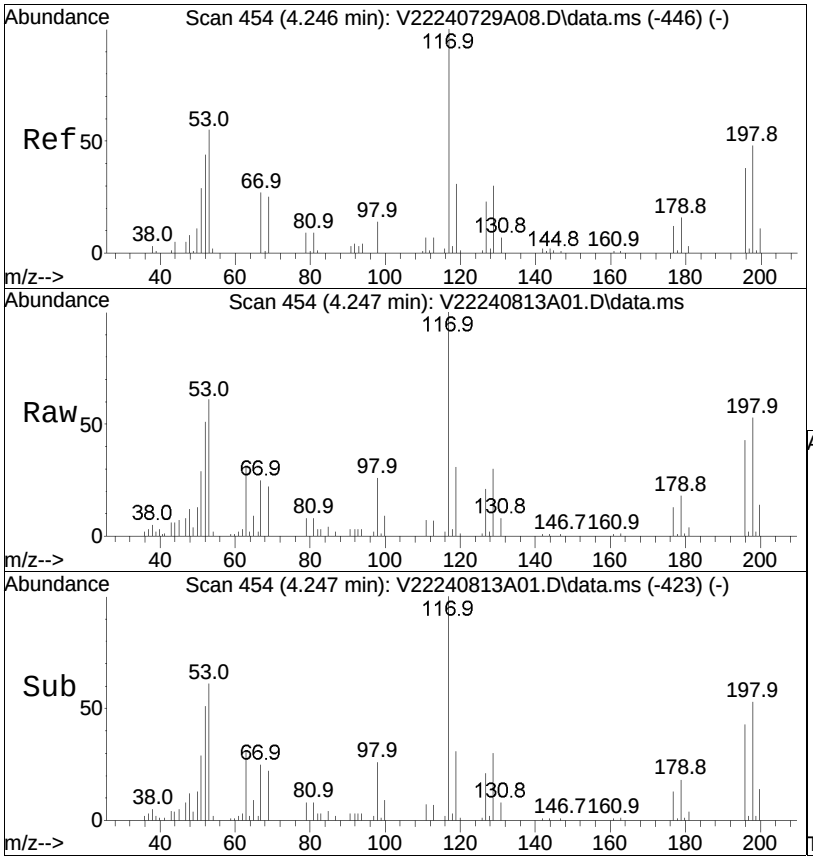


#25
1,1-Dichloroethane
Concen: 9.60 ug/L
RT: 4.207 min Scan# 448
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 63 Resp: 141739

Ion	Ratio	Lower	Upper
63	100		
65	29.0	11.9	51.9
83	11.8	0.0	34.2

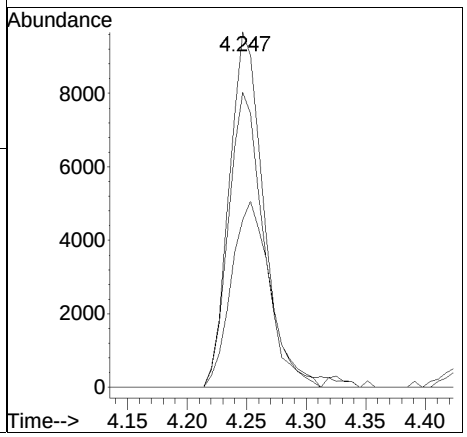


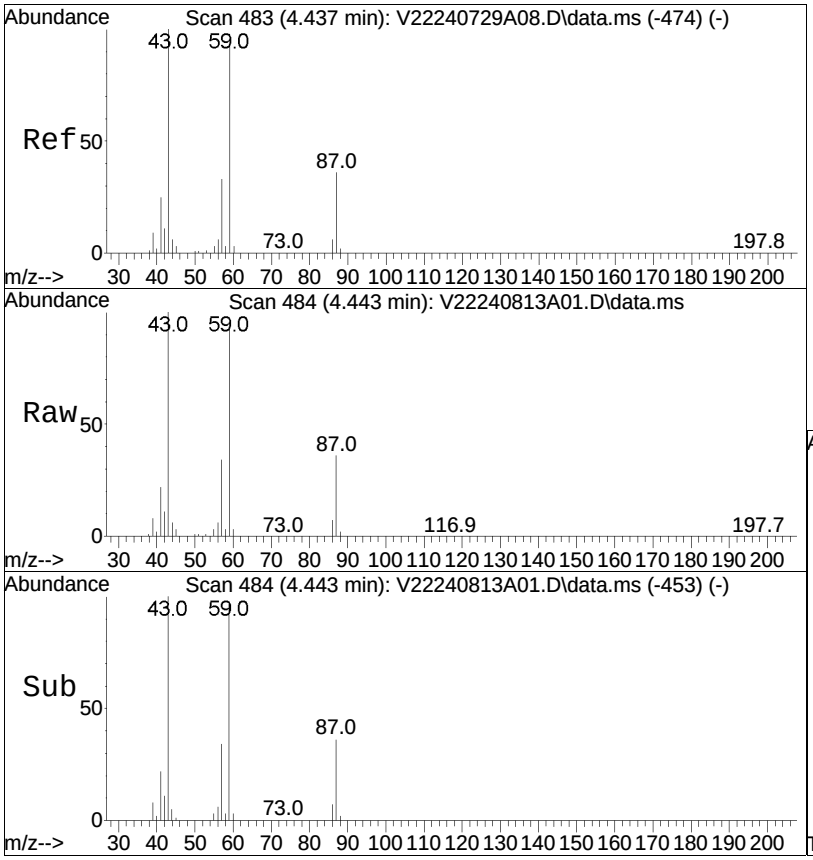


#27
Acrylonitrile
Concen: 9.77 ug/L
RT: 4.247 min Scan# 454
Delta R.T. 0.001 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 53 Resp: 19895

Ion	Ratio	Lower	Upper
53	100		
52	82.4	63.8	95.8
51	58.1	50.2	75.4

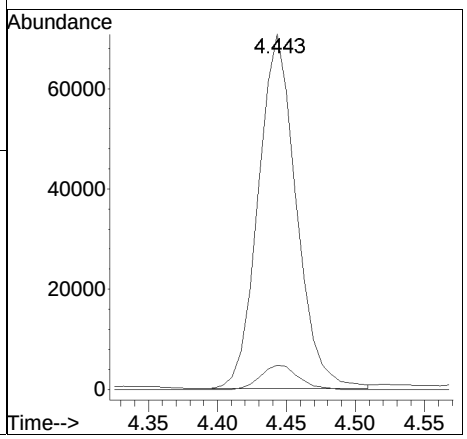


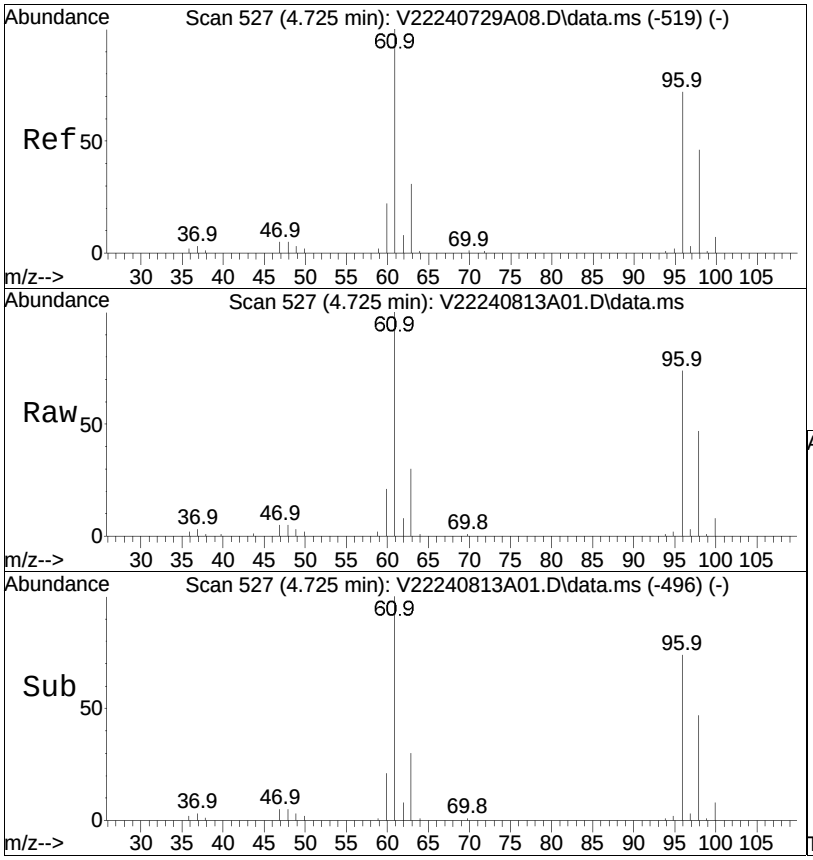


#29
Vinyl acetate
Concen: 8.73 ug/L
RT: 4.443 min Scan# 484
Delta R.T. 0.006 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 43 Resp: 135399

Ion	Ratio	Lower	Upper
43	100		
86	6.8	8.9	13.3#

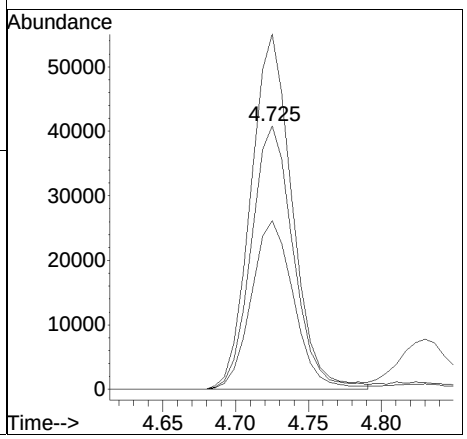


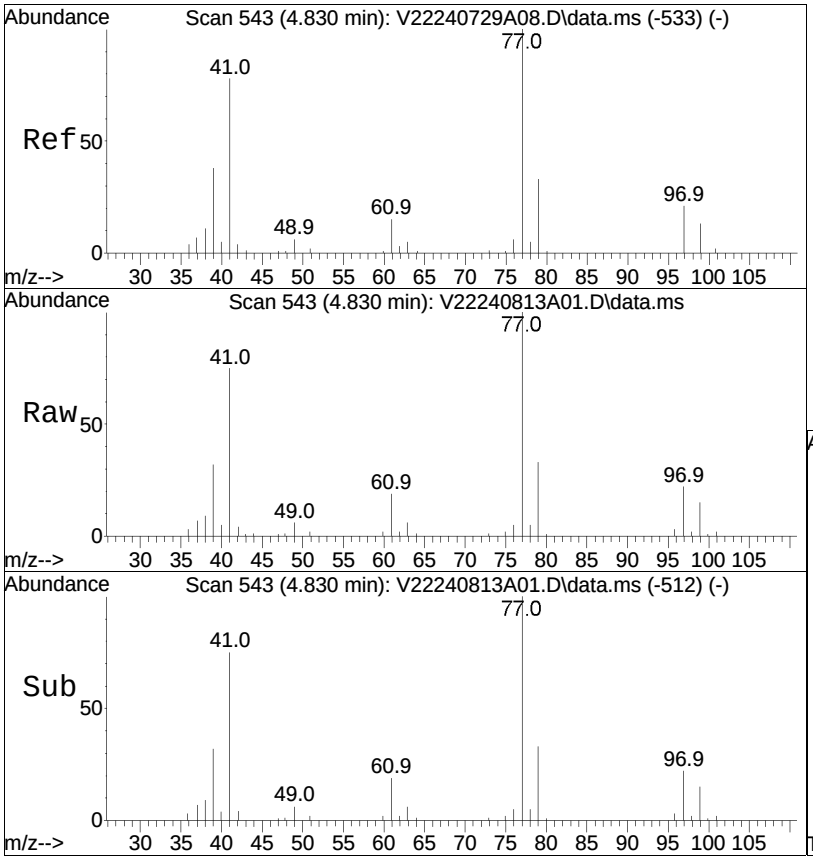


#30
cis-1,2-Dichloroethene
Concen: 10.25 ug/L
RT: 4.725 min Scan# 527
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 96 Resp: 82075

Ion	Ratio	Lower	Upper
96	100		
61	131.9	90.3	135.5
98	64.8	50.8	76.2

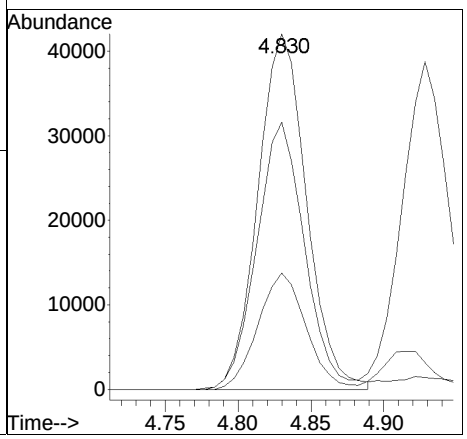


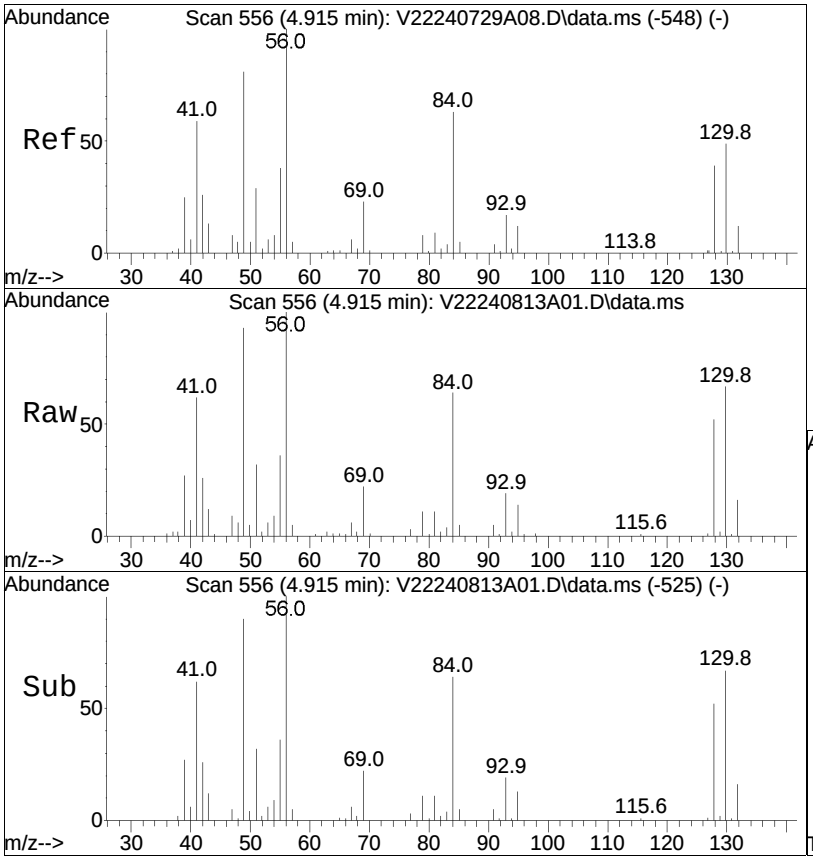


#31
2,2-Dichloropropane
Concen: 10.54 ug/L
RT: 4.830 min Scan# 543
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 77 Resp: 97492

Ion	Ratio	Lower	Upper
77	100		
41	73.9	32.3	67.1#
79	32.4	21.1	43.7

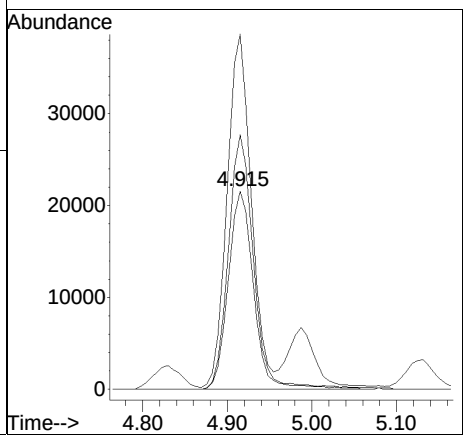


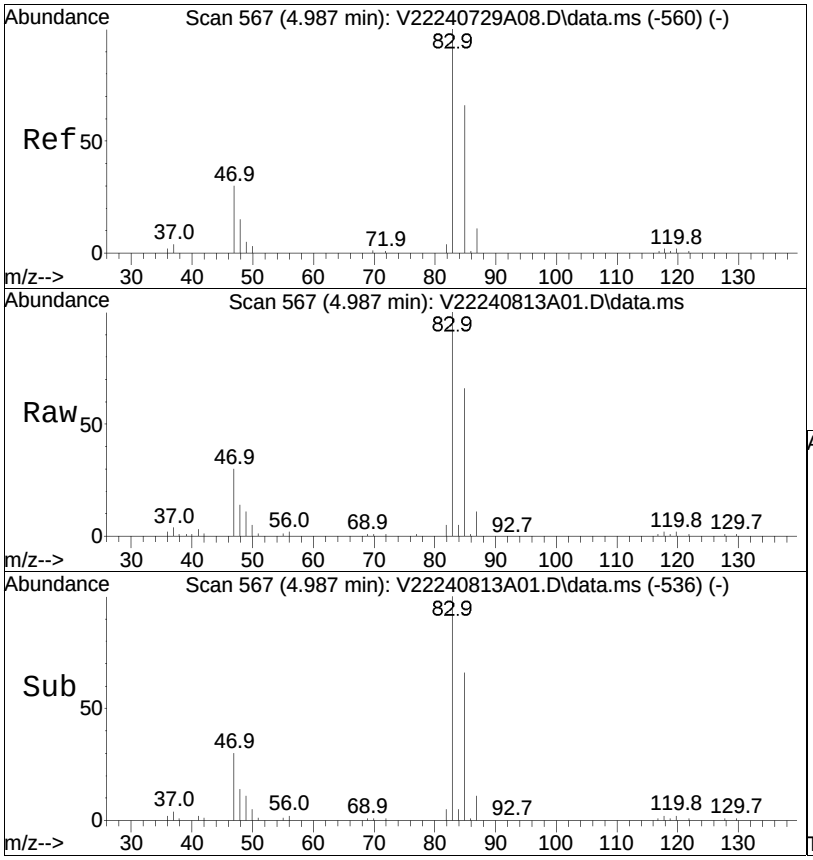


#32
Bromochloromethane
Concen: 11.99 ug/L
RT: 4.915 min Scan# 556
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:128 Resp: 45314

Ion	Ratio	Lower	Upper
128	100		
49	168.2	104.4	156.6#
130	125.1	103.9	155.9

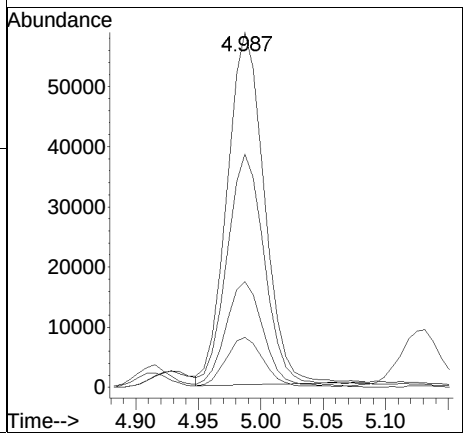


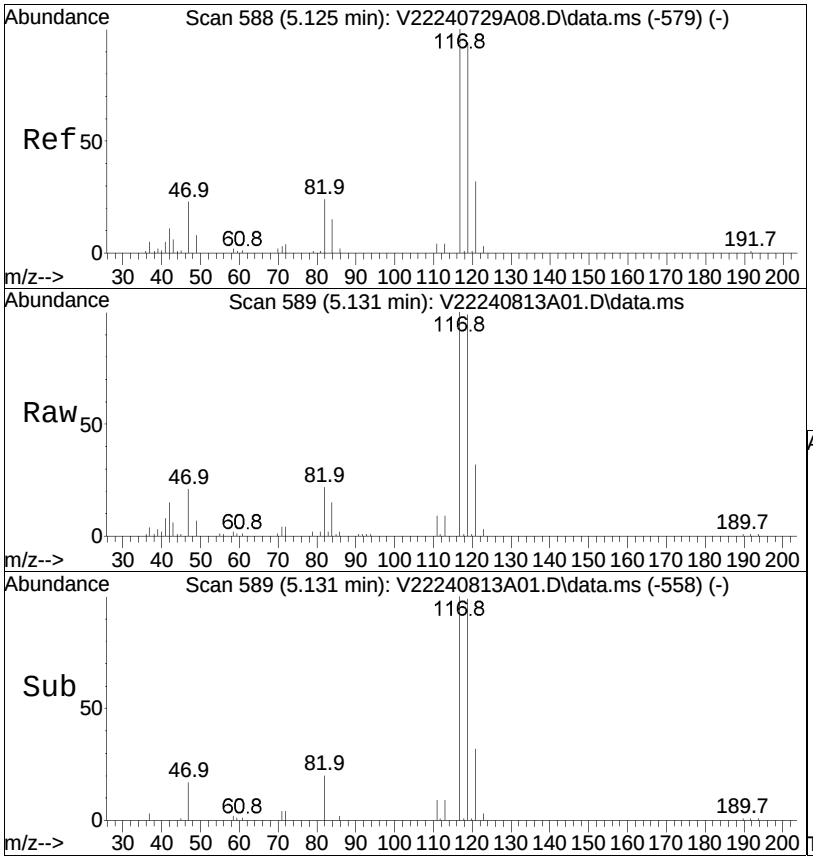


#34
Chloroform
Concen: 9.54 ug/L
RT: 4.987 min Scan# 567
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 83 Resp: 121895

Ion	Ratio	Lower	Upper
83	100		
85	66.6	42.4	88.2
47	29.2	14.0	29.0#
48	13.7	6.9	14.3

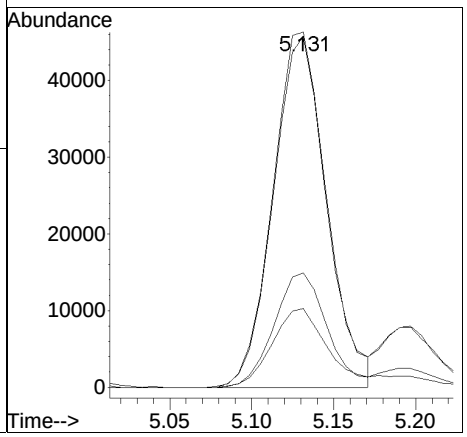


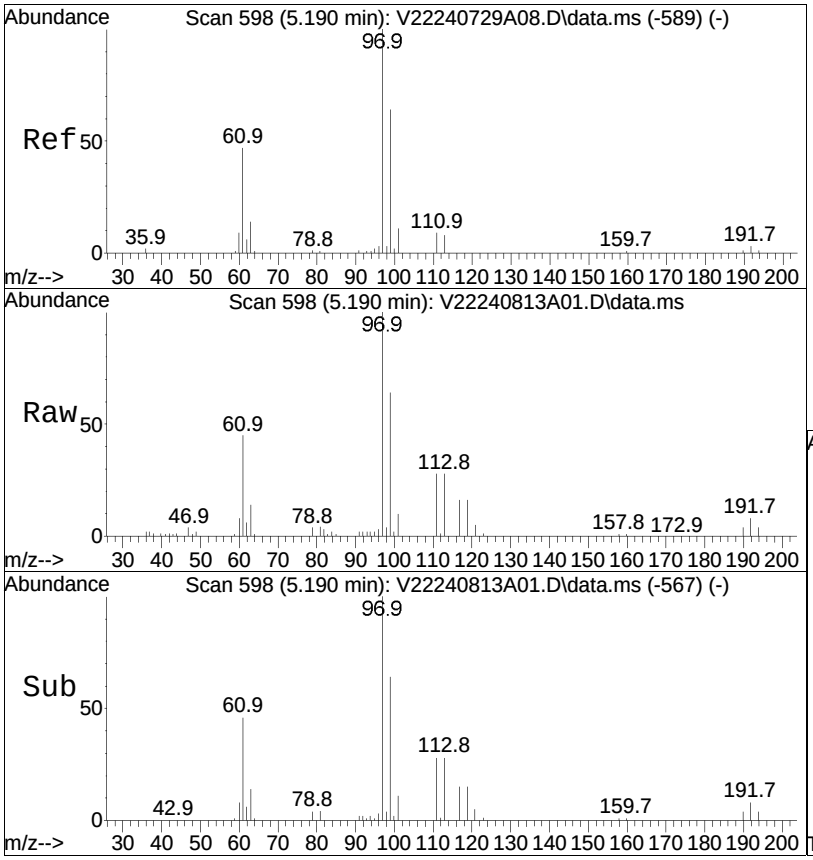


#36
Carbon tetrachloride
Concen: 11.50 ug/L
RT: 5.131 min Scan# 589
Delta R.T. 0.006 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:117 Resp: 105975

Ion	Ratio	Lower	Upper
117	100		
119	97.2	62.1	129.1
121	31.7	20.3	42.3
82	26.6	15.4	32.0

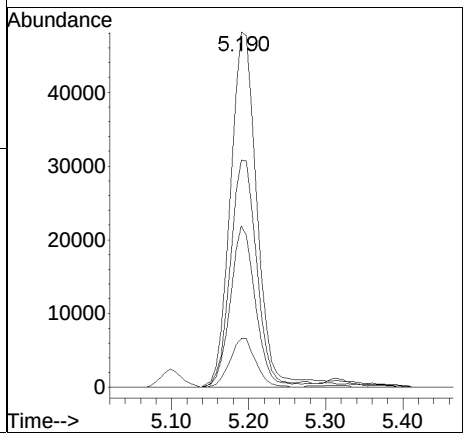


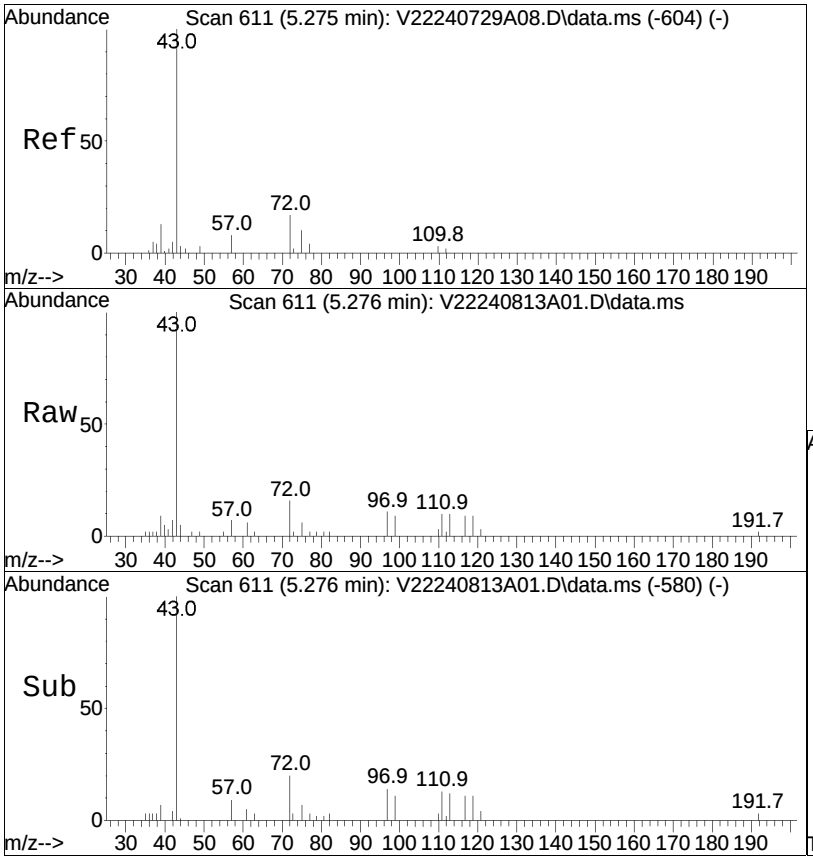


#39
1,1,1-Trichloroethane
Concen: 11.02 ug/L
RT: 5.190 min Scan# 598
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 97 Resp: 118742

Ion	Ratio	Lower	Upper
97	100		
99	61.6	42.4	88.0
61	42.3	26.0	54.0
63	13.1	8.3	17.3

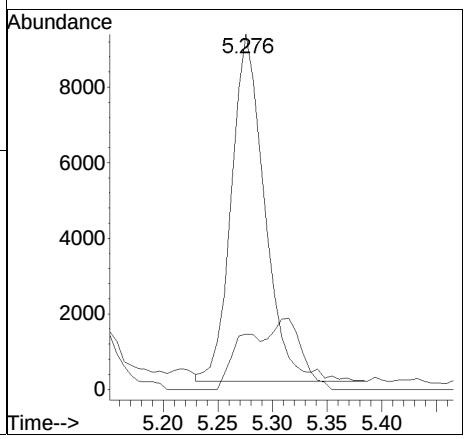


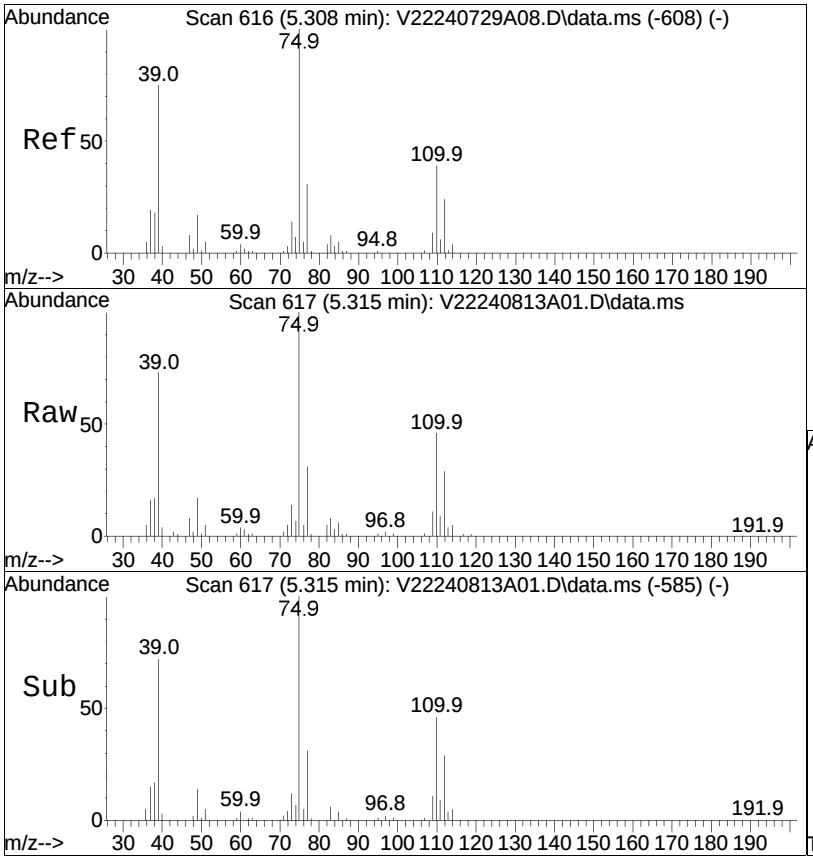


#41
2-Butanone
Concen: 9.27 ug/L
RT: 5.276 min Scan# 611
Delta R.T. 0.001 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 43 Resp: 19445

Ion	Ratio	Lower	Upper
43	100		
72	13.9	45.8	68.8#

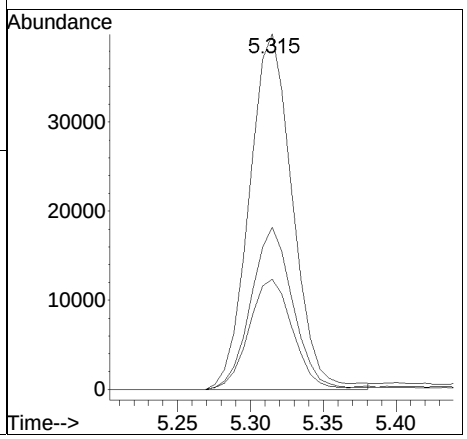


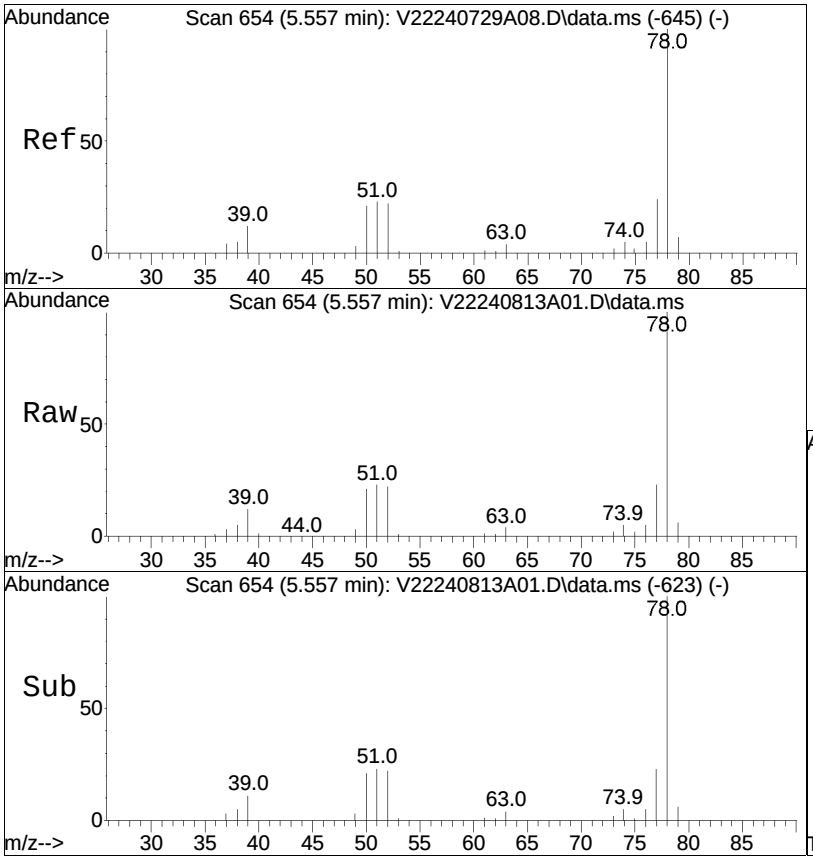


#42
1,1-Dichloropropene
Concen: 9.43 ug/L
RT: 5.315 min Scan# 617
Delta R.T. 0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 75 Resp: 81993

Ion	Ratio	Lower	Upper
75	100		
110	44.2	25.4	52.8
77	31.3	20.3	42.1

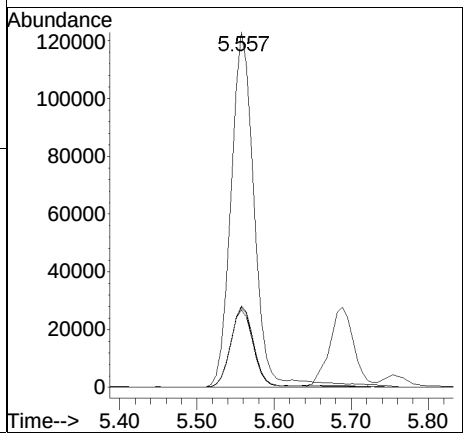


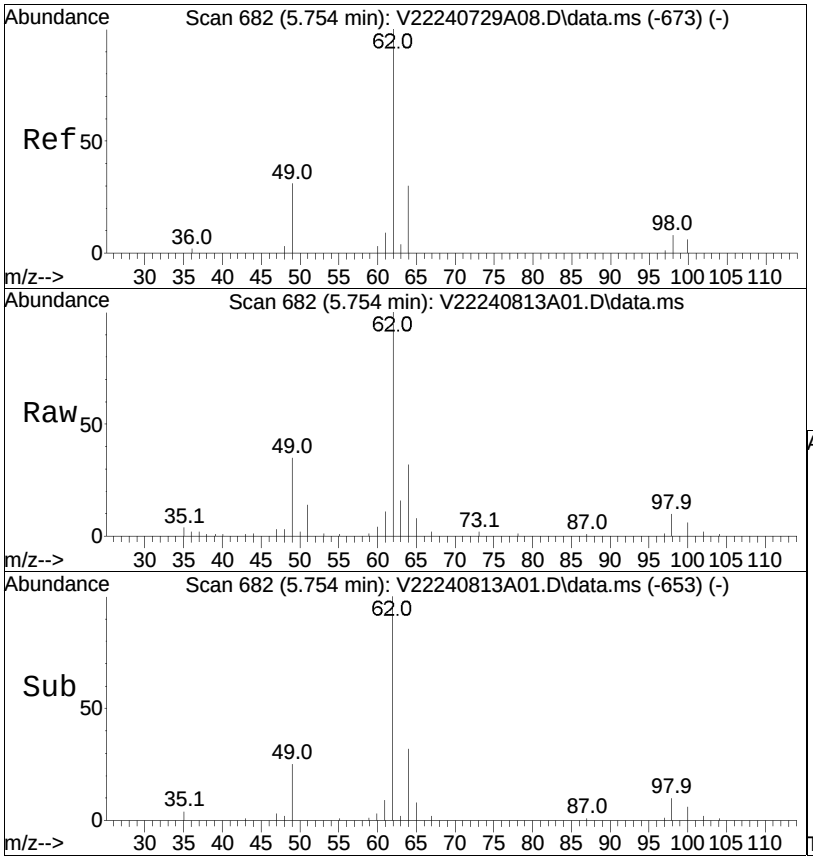


#44
Benzene
Concen: 9.75 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 78 Resp: 275685

Ion	Ratio	Lower	Upper
78	100		
77	23.2	15.4	32.0
51	20.6	9.8	20.4#
52	20.3	9.2	19.2#

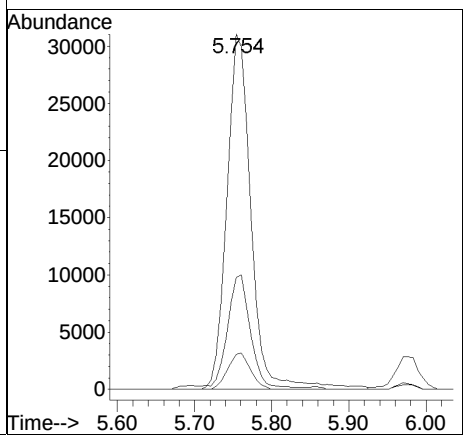


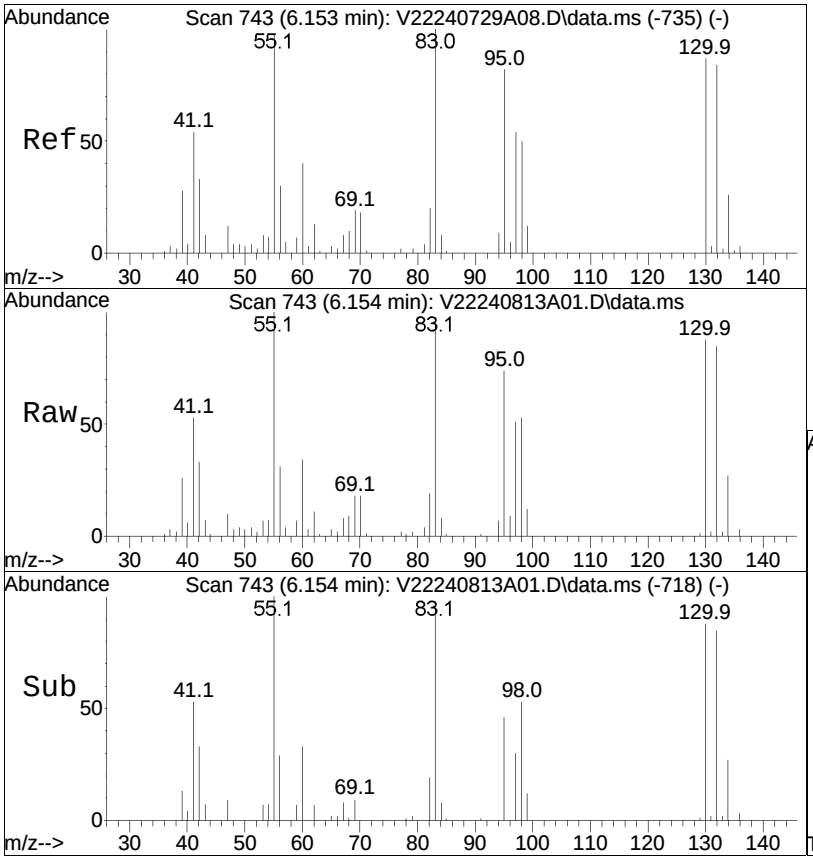


#47
1,2-Dichloroethane
Concen: 9.62 ug/L
RT: 5.754 min Scan# 682
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 62 Resp: 67951

Ion	Ratio	Lower	Upper
62	100		
64	29.7	12.3	52.3
98	9.6	0.0	30.3

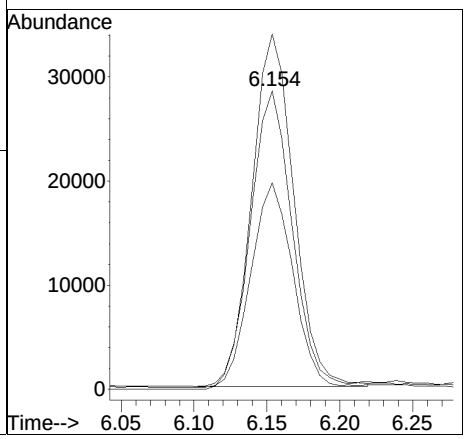


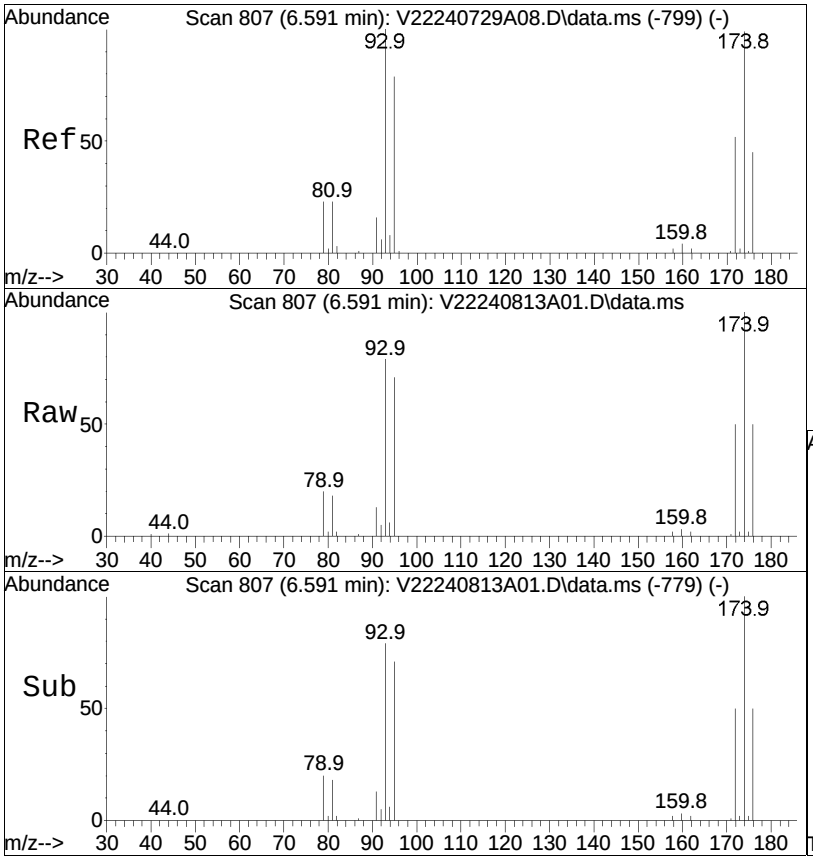


#51
Trichloroethene
Concen: 9.41 ug/L
RT: 6.154 min Scan# 743
Delta R.T. 0.001 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 95 Resp: 56574

Ion	Ratio	Lower	Upper
95	100		
97	69.7	55.0	82.4
130	122.8	89.2	133.8

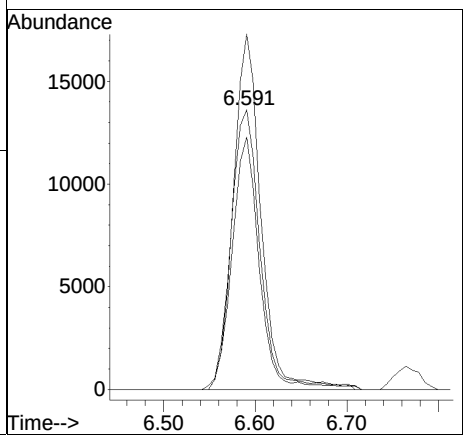


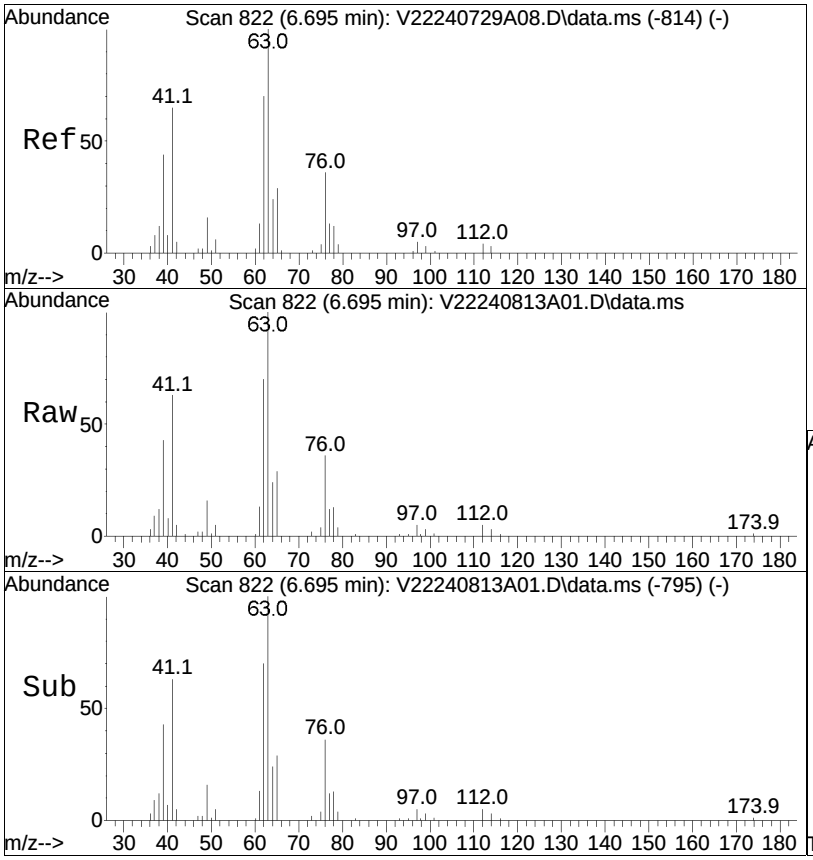


#53
Dibromomethane
Concen: 10.00 ug/L
RT: 6.591 min Scan# 807
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 93 Resp: 30397

Ion	Ratio	Lower	Upper
93	100		
95	83.3	68.0	102.0
174	119.6	106.1	159.1

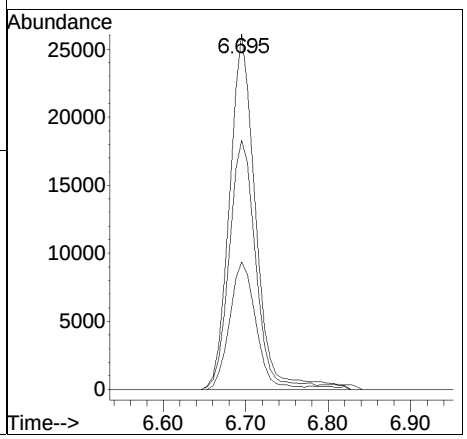


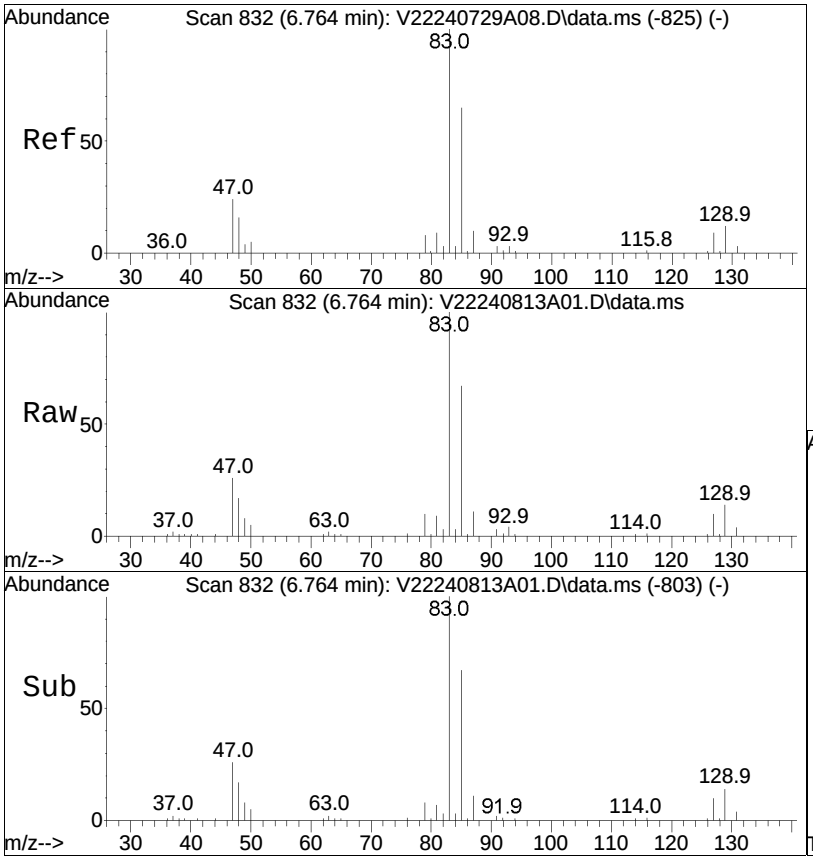


#54
1,2-Dichloropropane
Concen: 9.14 ug/L
RT: 6.695 min Scan# 822
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 63 Resp: 57710

Ion	Ratio	Lower	Upper
63	100		
62	71.5	56.9	85.3
76	35.9	35.8	53.8

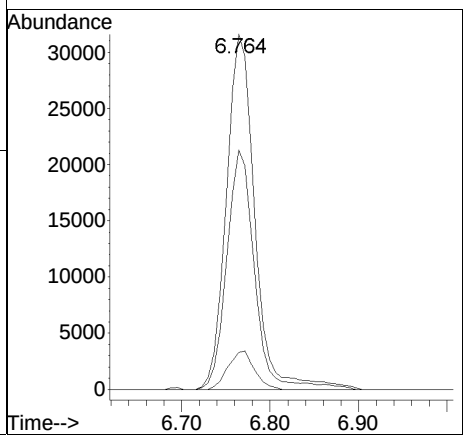


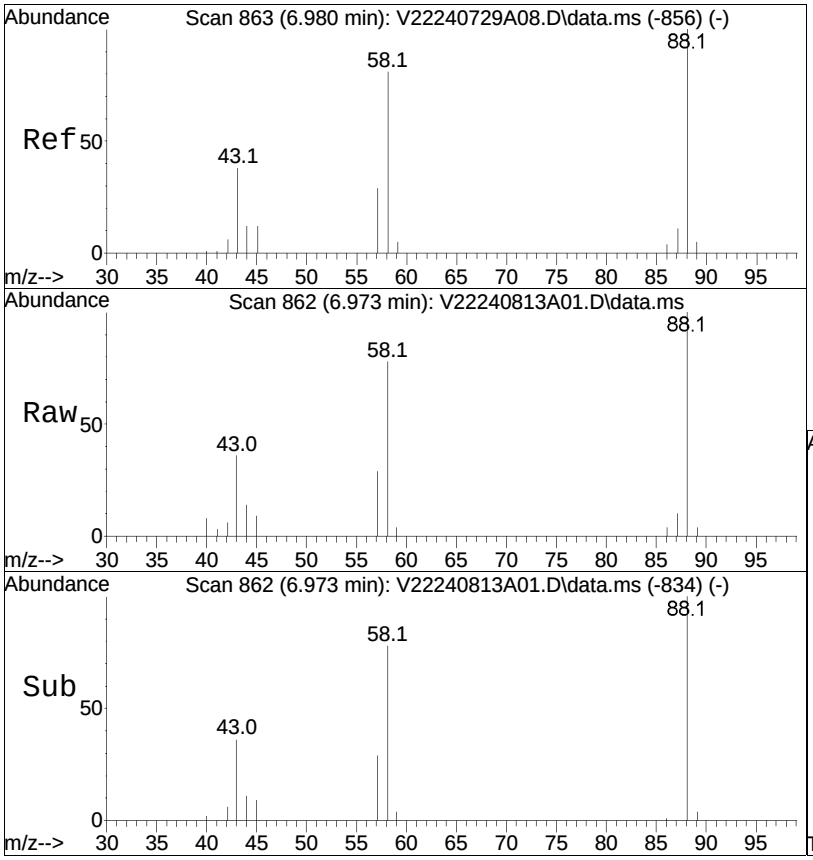


#57
Bromodichloromethane
Concen: 9.53 ug/L
RT: 6.764 min Scan# 832
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 83 Resp: 71002

Ion	Ratio	Lower	Upper
83	100		
85	65.8	51.6	77.4
127	10.0	7.4	11.0

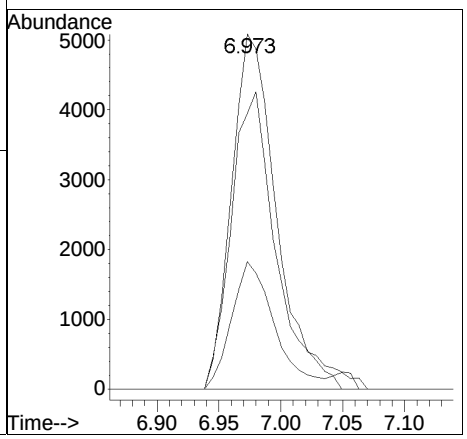


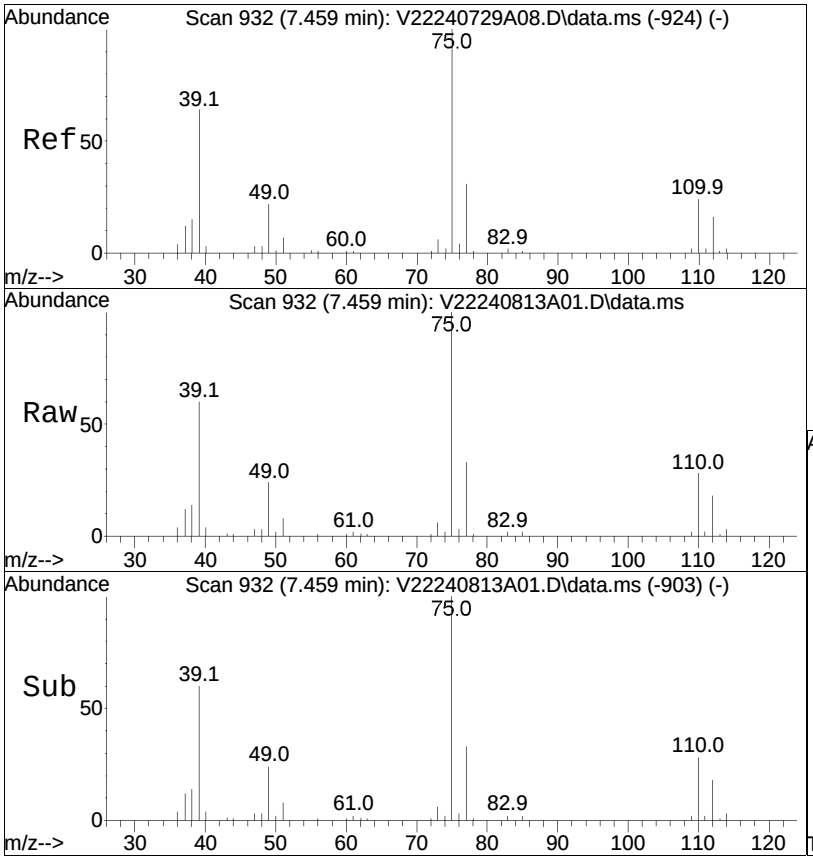


#60
1,4-Dioxane
Concen: 526.00 ug/L
RT: 6.973 min Scan# 862
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 88 Resp: 13104

Ion	Ratio	Lower	Upper
88	100		
58	83.4	43.3	64.9#
43	34.6	15.1	22.7#

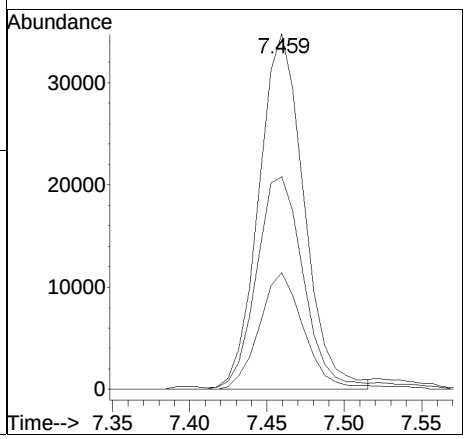


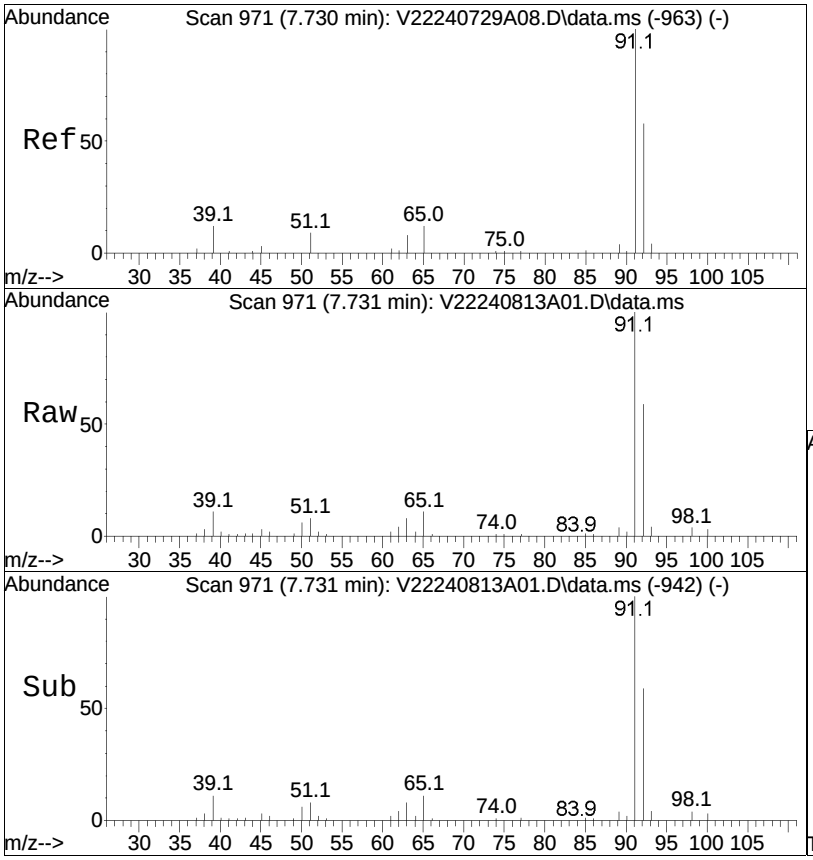


#61
cis-1,3-Dichloropropene
Concen: 9.22 ug/L
RT: 7.459 min Scan# 932
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 75 Resp: 70791

Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.6	38.4
39	64.0	35.4	53.0#

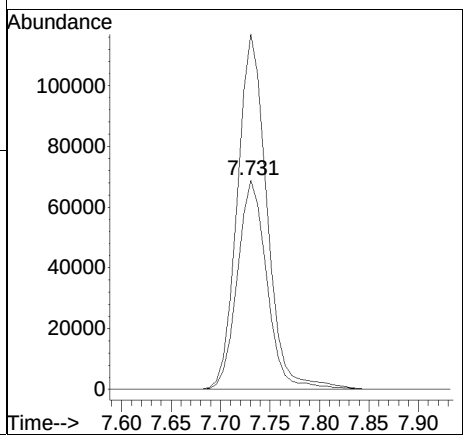


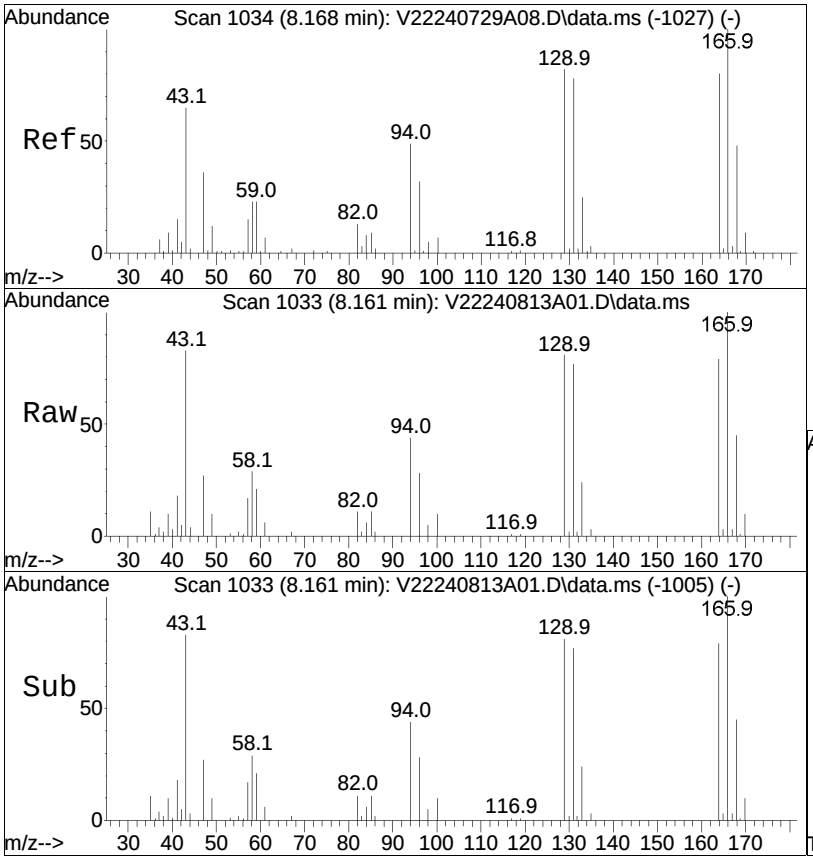


#64
Toluene
Concen: 9.24 ug/L
RT: 7.731 min Scan# 971
Delta R.T. 0.001 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 92 Resp: 143367

Ion	Ratio	Lower	Upper
92	100		
91	169.9	137.0	205.6

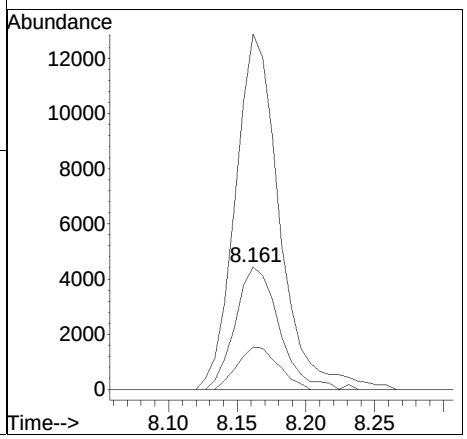


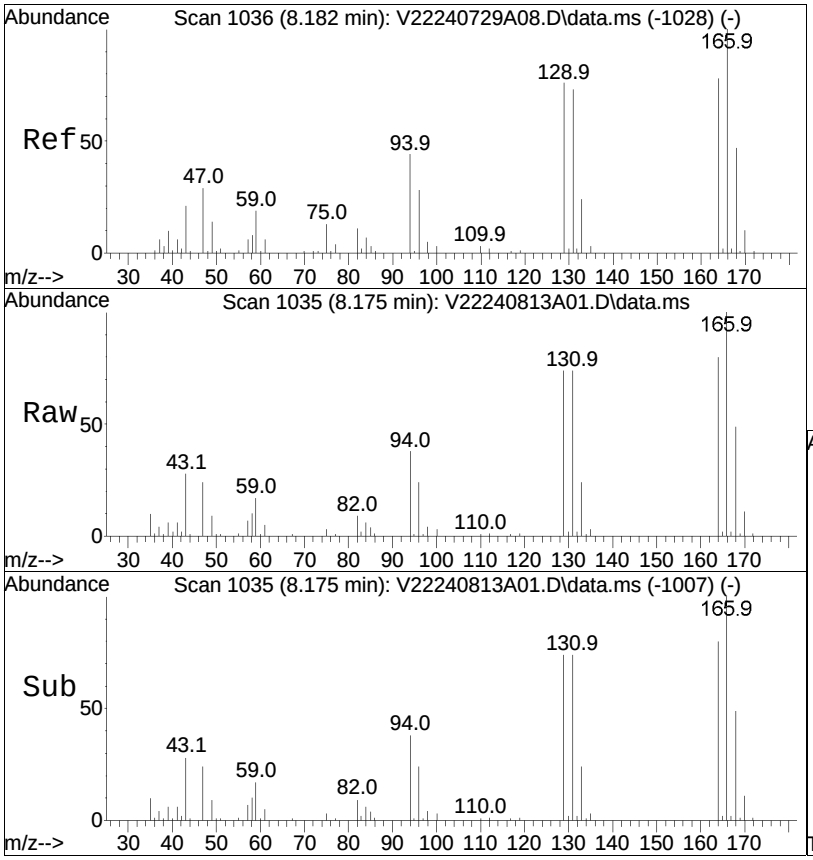


#65
4-Methyl-2-pentanone
Concen: 7.95 ug/L
RT: 8.161 min Scan# 1033
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 58 Resp: 9866

Ion	Ratio	Lower	Upper
58	100		
100	32.7	36.2	54.4#
43	293.2	181.8	272.8#

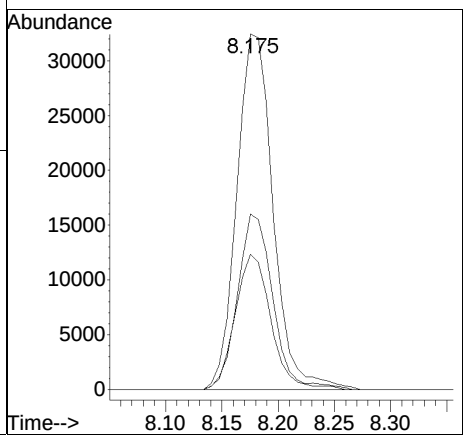


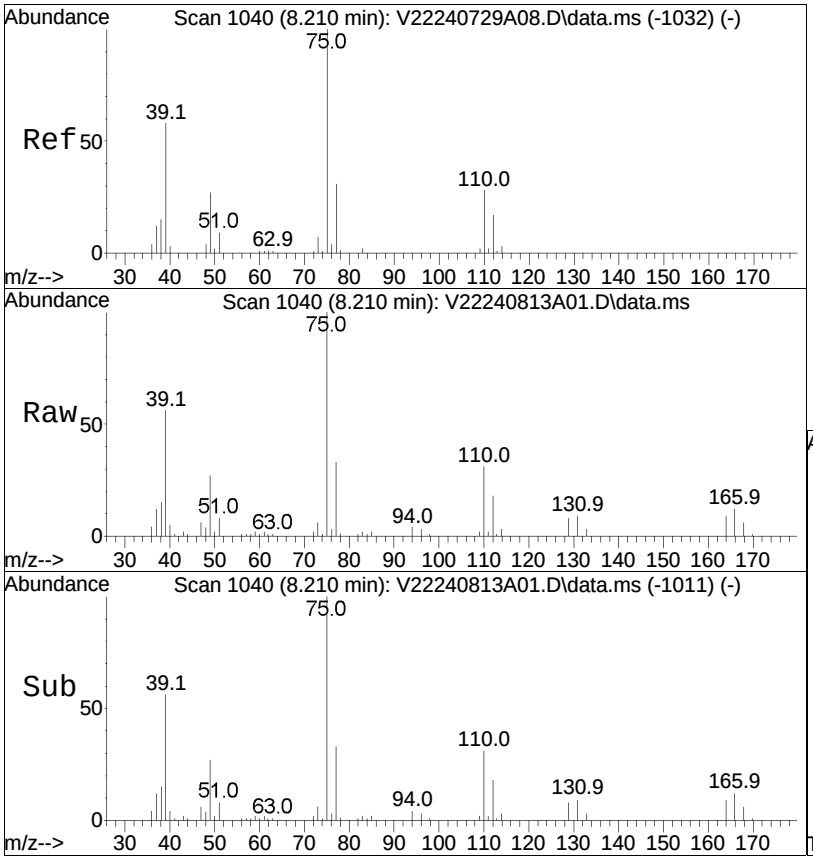


#66
Tetrachloroethene
Concen: 11.99 ug/L
RT: 8.175 min Scan# 1035
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:166 Resp: 72909

Ion	Ratio	Lower	Upper
166	100		
168	47.9	27.8	67.8
94	37.3	16.7	56.7

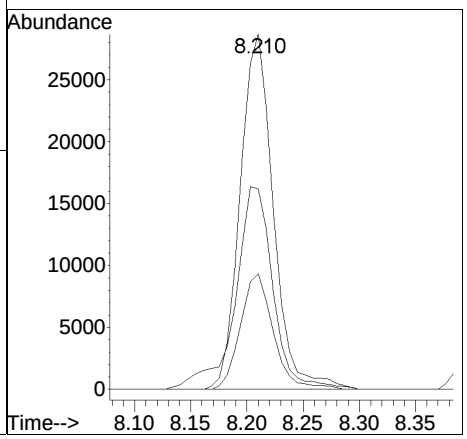


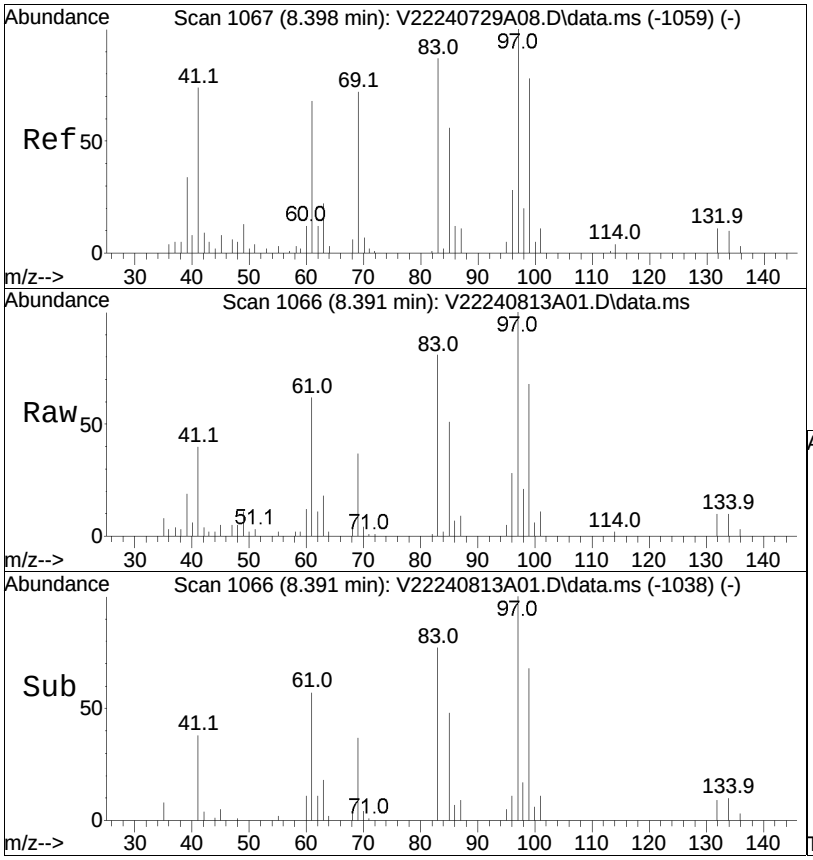


#68
trans-1,3-Dichloropropene
Concen: 7.73 ug/L
RT: 8.210 min Scan# 1040
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 75 Resp: 59097

Ion	Ratio	Lower	Upper
75	100		
77	32.2	11.9	51.9
39	64.8	27.4	67.4

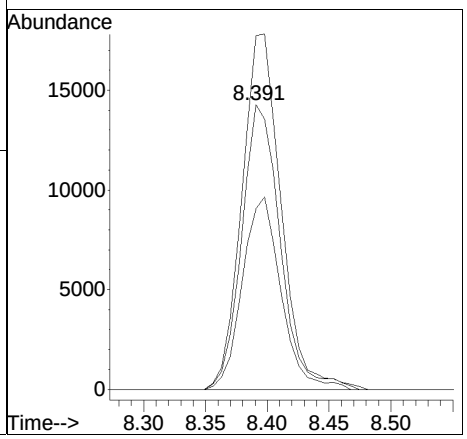


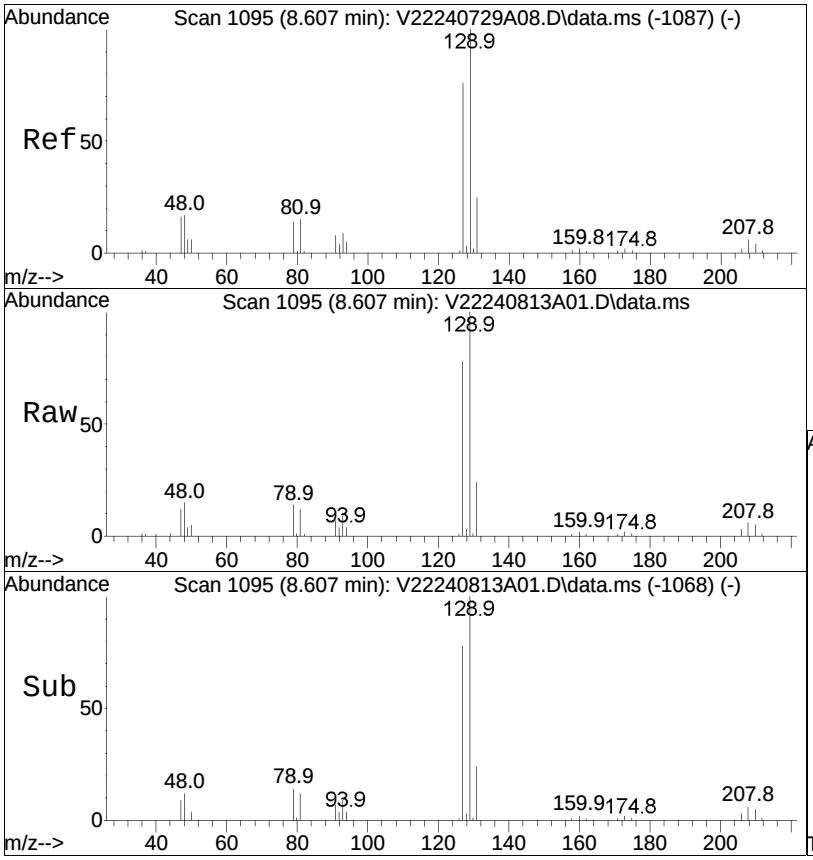


#71
1,1,2-Trichloroethane
Concen: 8.51 ug/L
RT: 8.391 min Scan# 1066
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 83 Resp: 30992

Ion	Ratio	Lower	Upper
83	100		
97	127.0	103.4	143.4
85	67.7	47.9	87.9

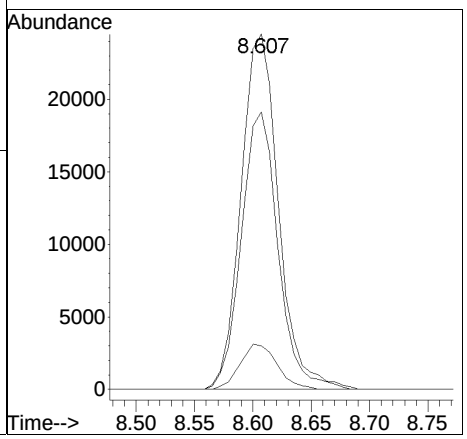


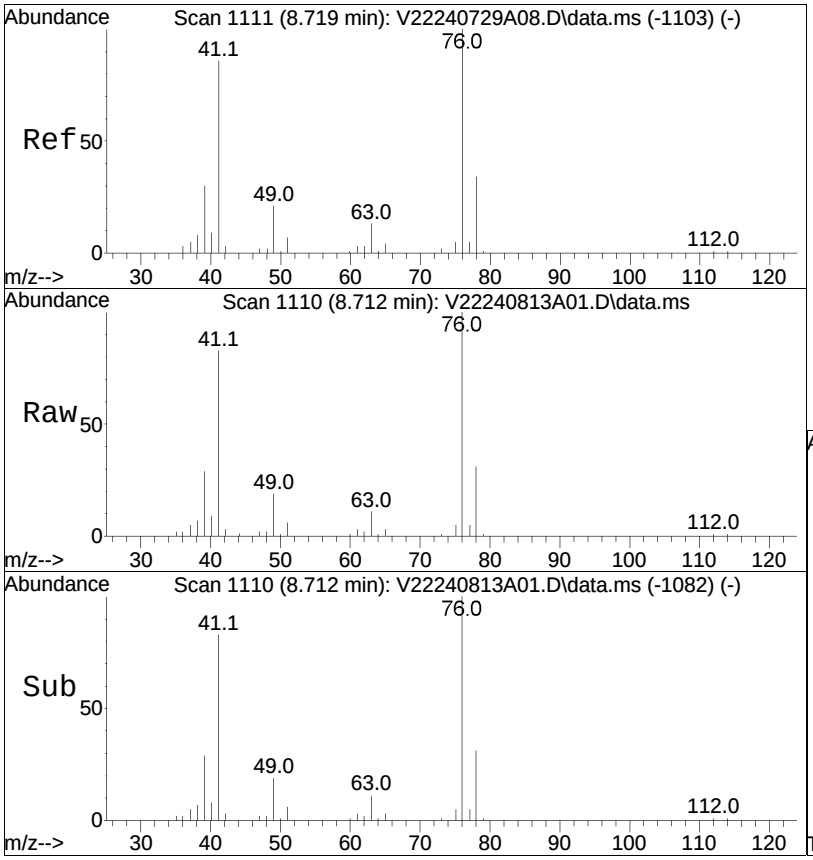


#72
Chlorodibromomethane
Concen: 9.32 ug/L
RT: 8.607 min Scan# 1095
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:129 Resp: 54782

Ion	Ratio	Lower	Upper
129	100		
81	12.7	0.0	33.8
127	76.6	57.1	97.1

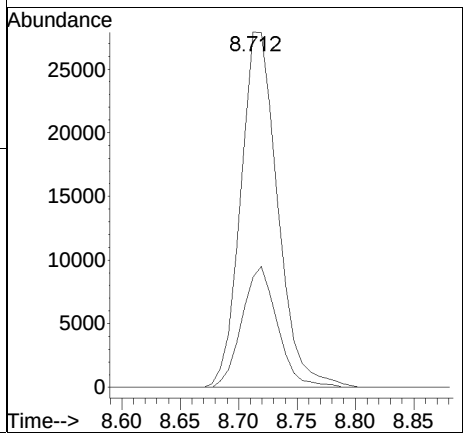


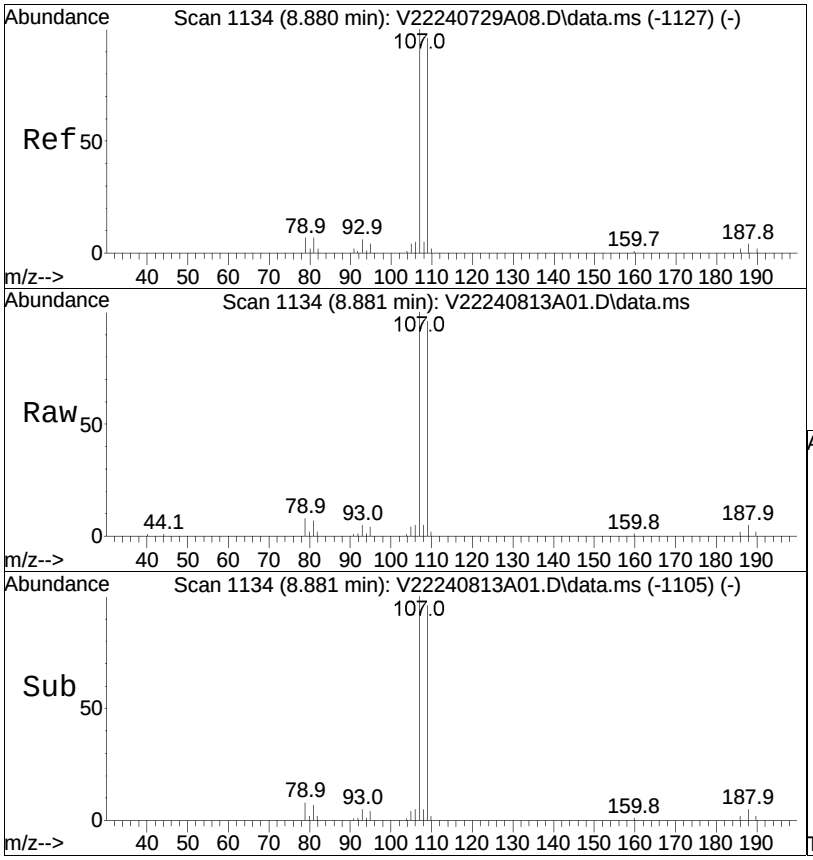


#73
1,3-Dichloropropane
Concen: 8.63 ug/L
RT: 8.712 min Scan# 1110
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 76 Resp: 61643

Ion	Ratio	Lower	Upper
76	100		
78	32.6	25.7	38.5

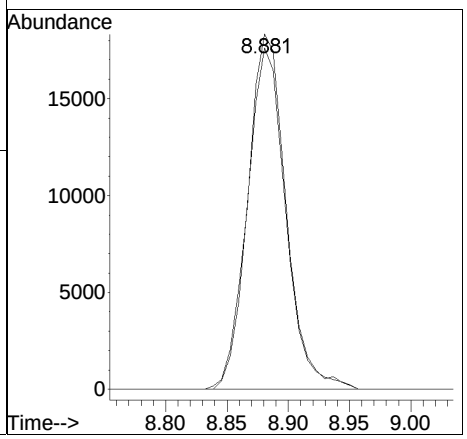


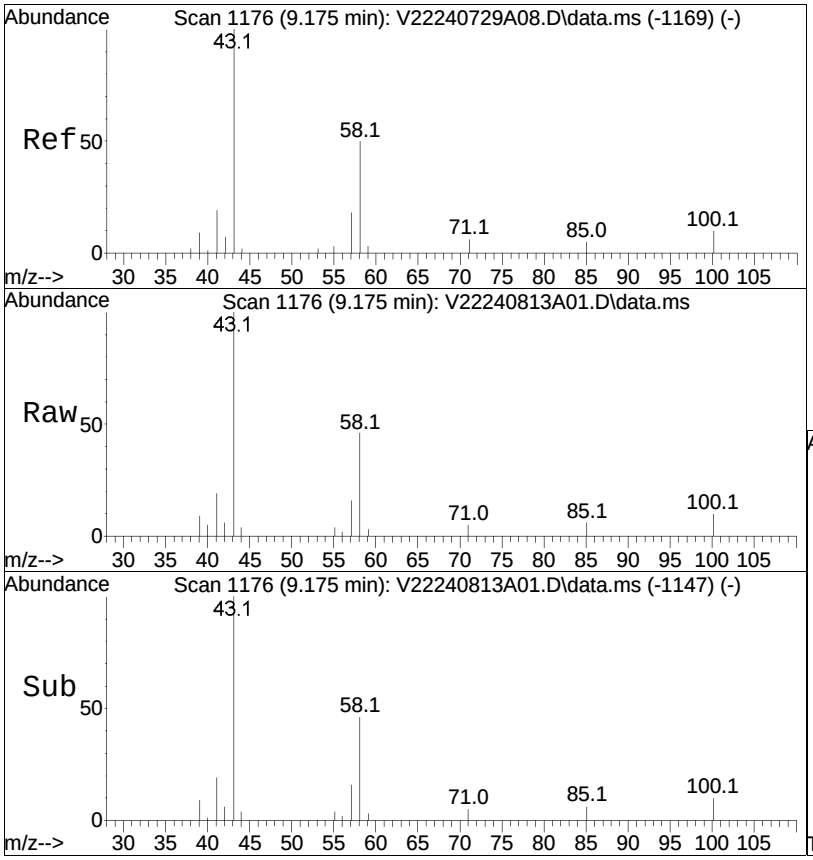


#74
1,2-Dibromoethane
Concen: 9.86 ug/L
RT: 8.881 min Scan# 1134
Delta R.T. 0.001 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:107 Resp: 40251

Ion	Ratio	Lower	Upper
107	100		
109	94.7	75.1	112.7

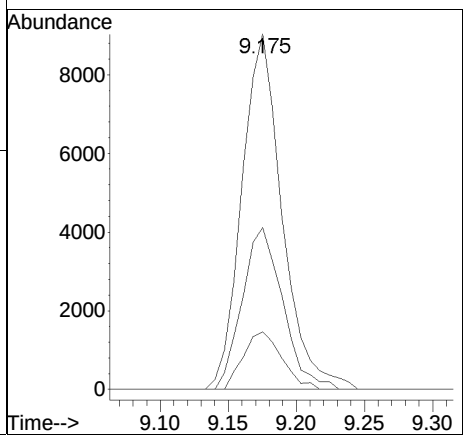


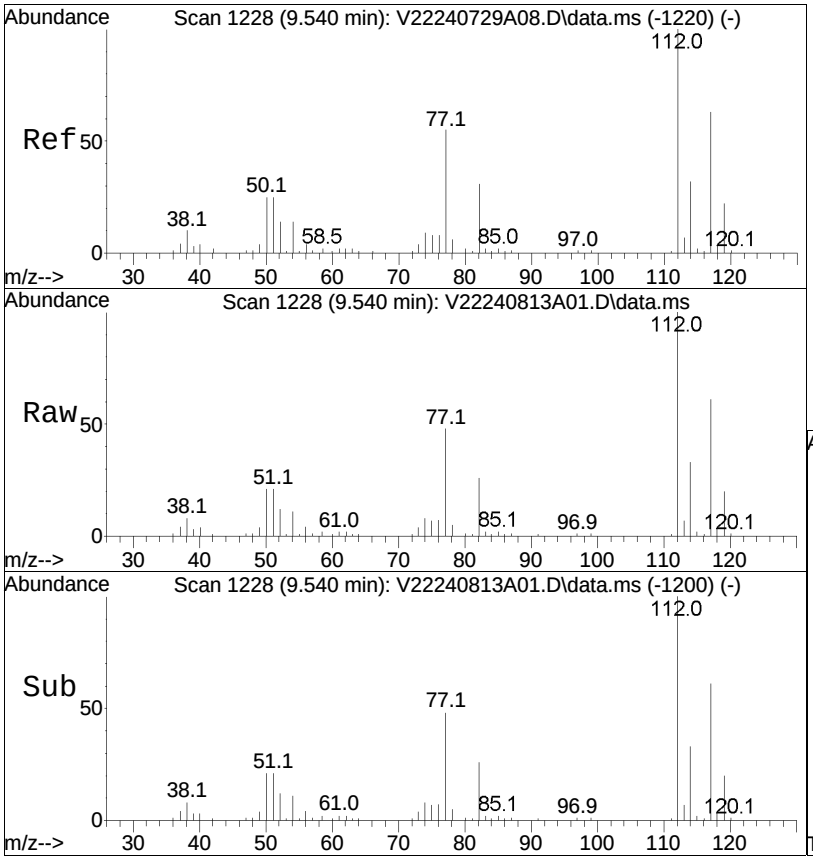


#76
2-Hexanone
Concen: 8.08 ug/L
RT: 9.175 min Scan# 1176
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 43 Resp: 18632

Ion	Ratio	Lower	Upper
43	100		
58	45.8	47.6	71.4#
57	15.6	16.6	24.8#

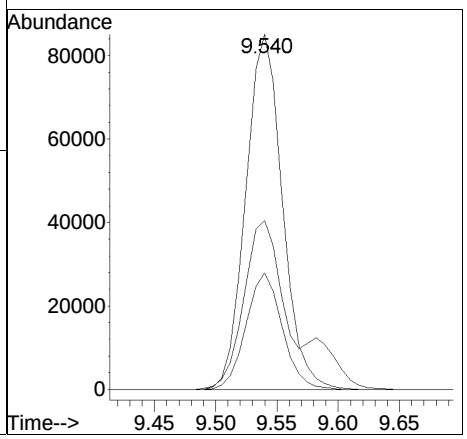


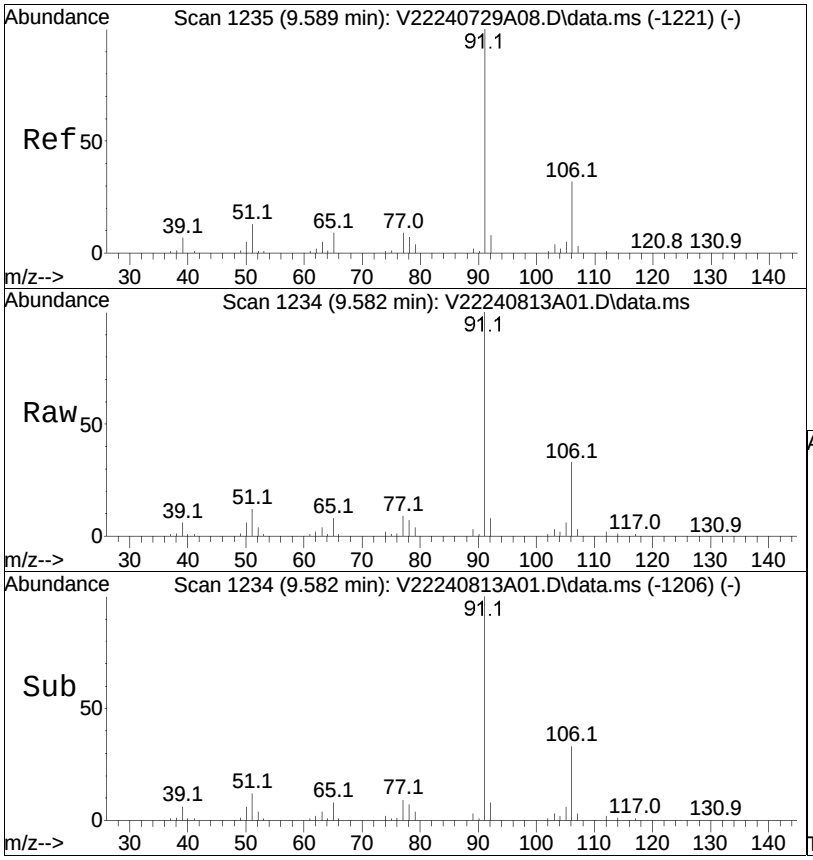


#77
Chlorobenzene
Concen: 10.06 ug/L
RT: 9.540 min Scan# 1228
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:112 Resp: 176690

Ion	Ratio	Lower	Upper
112	100		
77	50.0	55.4	83.0#
114	32.4	26.2	39.4

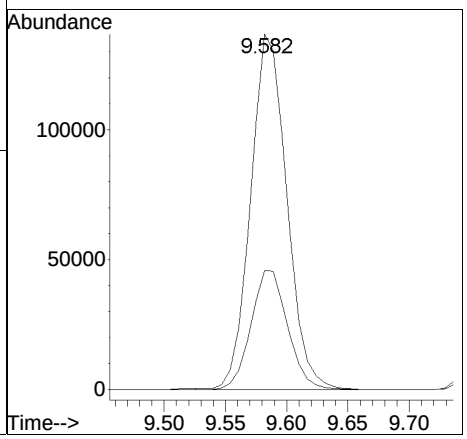


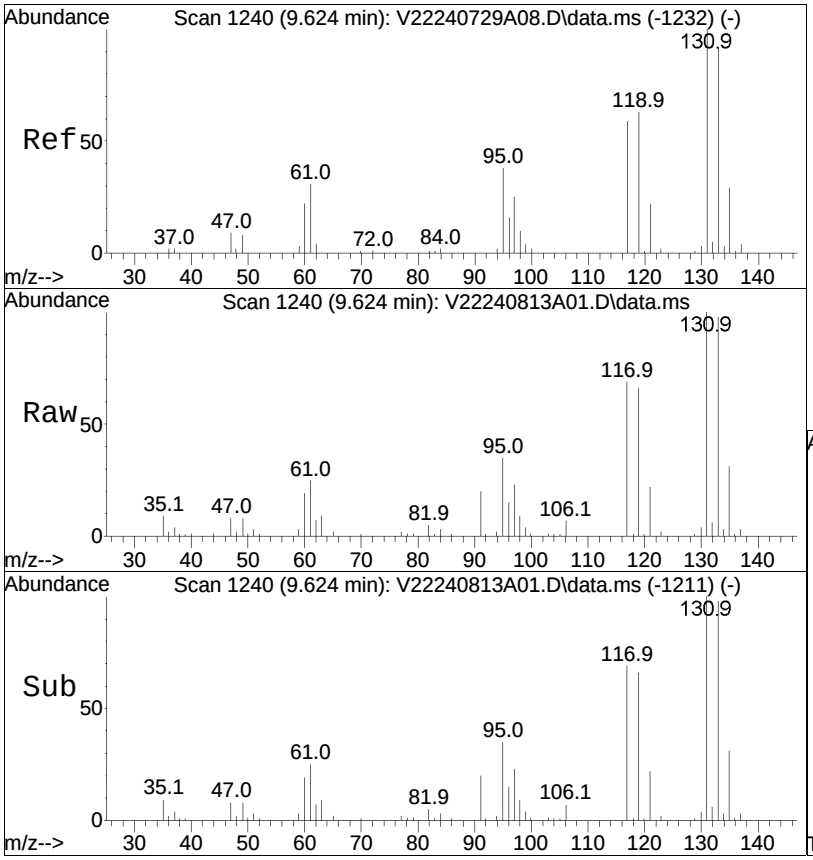


#78
Ethylbenzene
Concen: 9.57 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 91 Resp: 280152

Ion	Ratio	Lower	Upper
91	100		
106	33.8	25.8	38.6

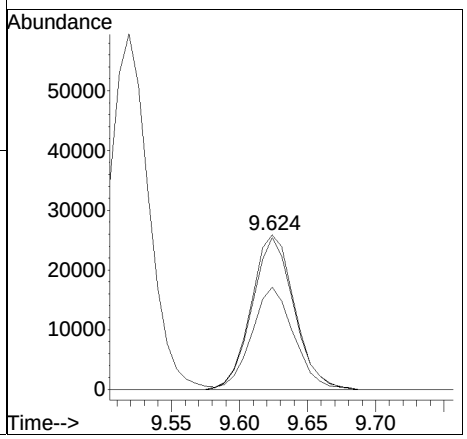


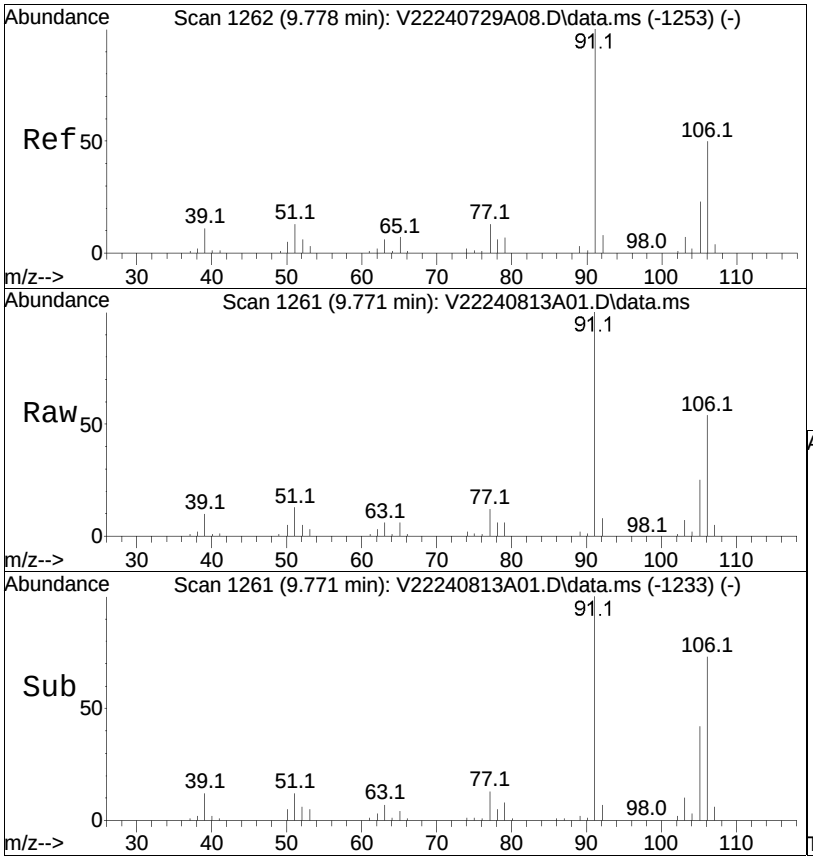


#79
1,1,1,2-Tetrachloroethane
Concen: 10.29 ug/L
RT: 9.624 min Scan# 1240
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:131 Resp: 57526

Ion	Ratio	Lower	Upper
131	100		
133	94.6	75.3	115.3
119	63.8	49.3	89.3

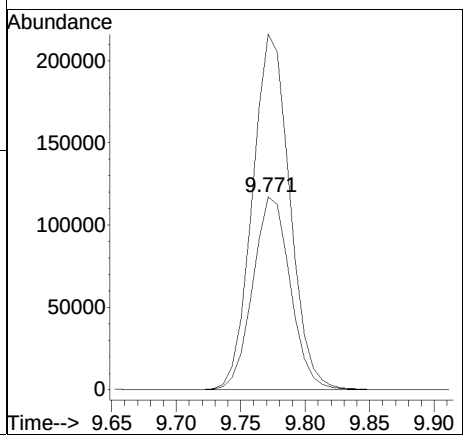


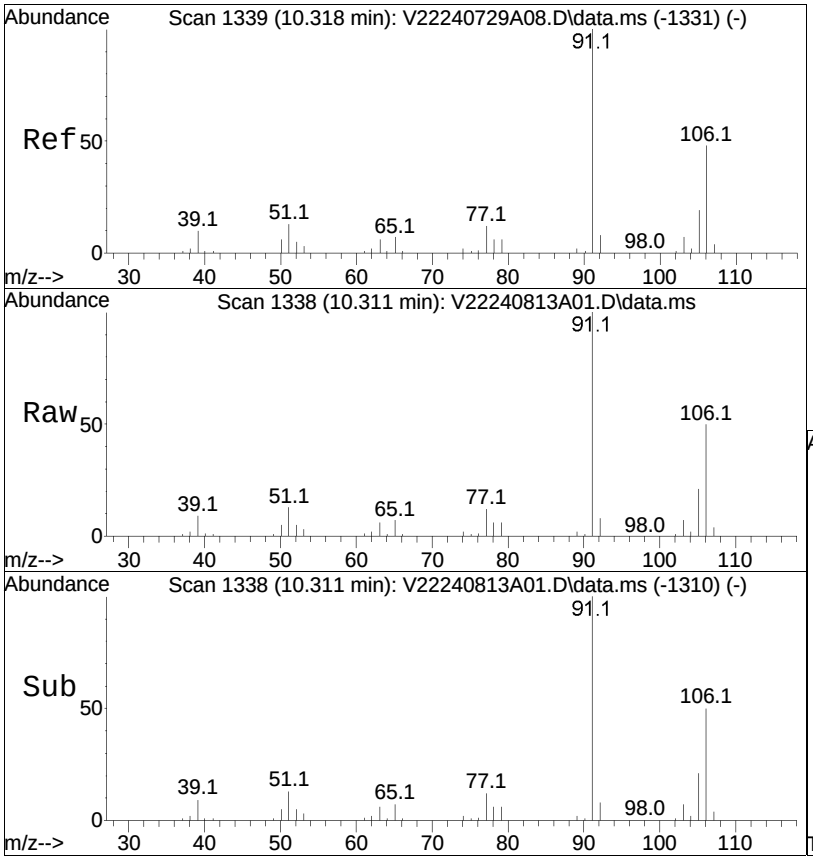


#80
p/m Xylene
Concen: 20.75 ug/L
RT: 9.771 min Scan# 1261
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:106 Resp: 235901

Ion	Ratio	Lower	Upper
106	100		
91	184.2	156.0	234.0

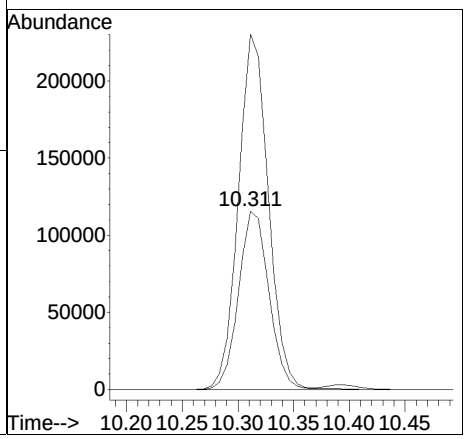


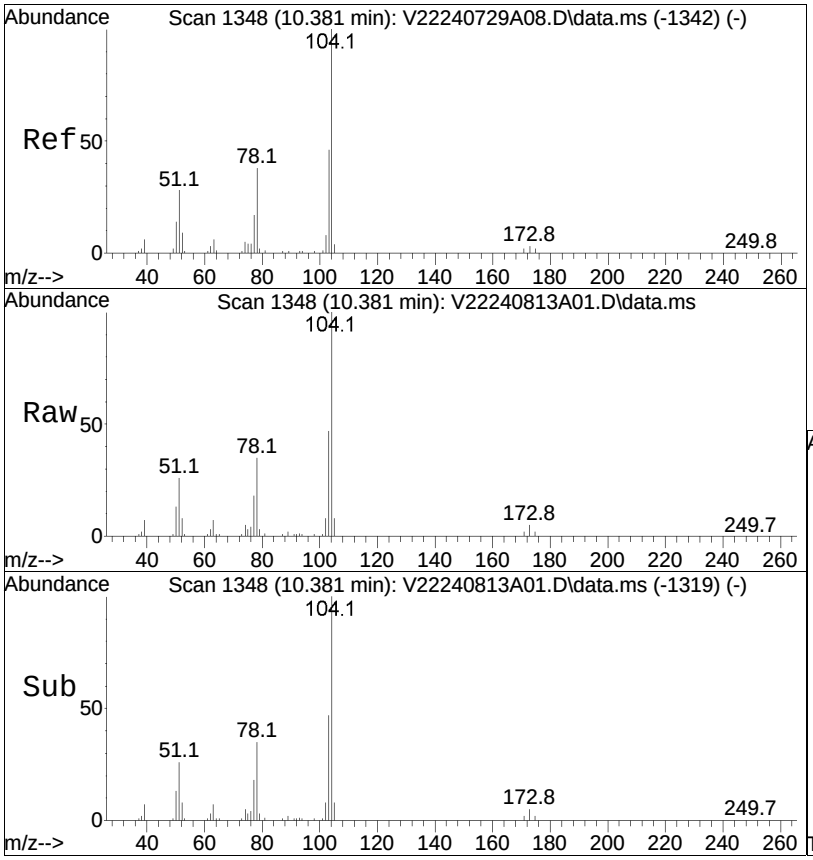


#81
o Xylene
Concen: 20.47 ug/L
RT: 10.311 min Scan# 1338
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:106 Resp: 220059

Ion	Ratio	Lower	Upper
106	100		
91	195.7	164.0	246.0

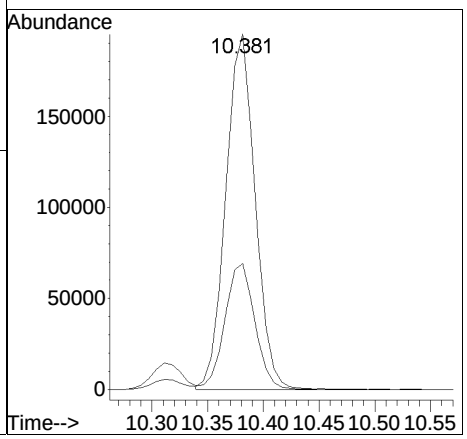


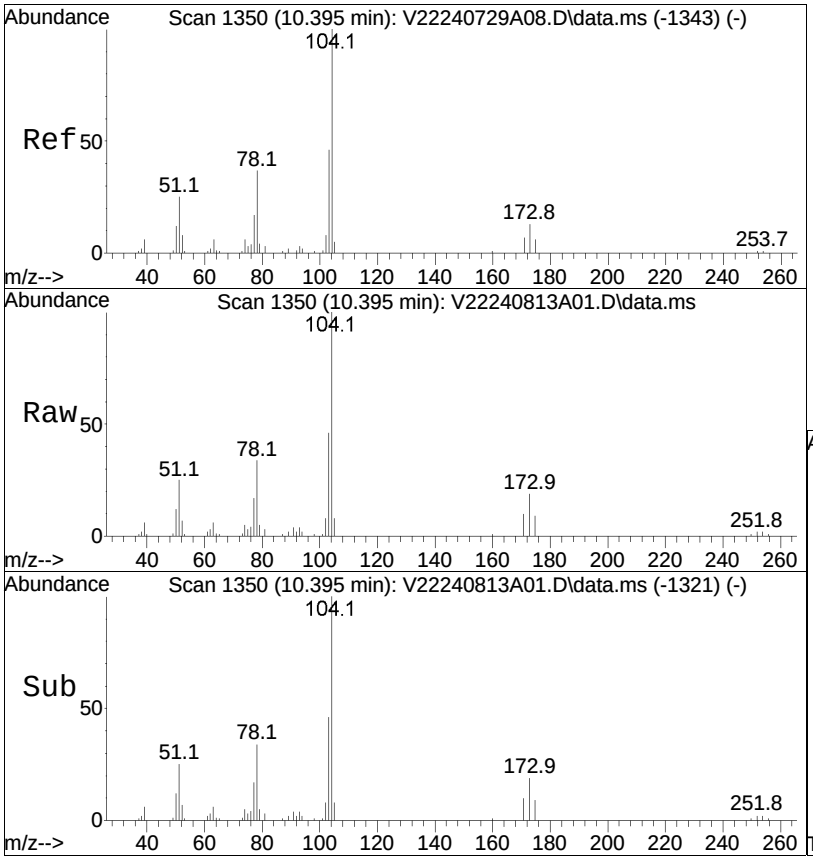


#82
Styrene
Concen: 20.67 ug/L
RT: 10.381 min Scan# 1348
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:104 Resp: 357403

Ion	Ratio	Lower	Upper
104	100		
78	36.0	32.1	48.1

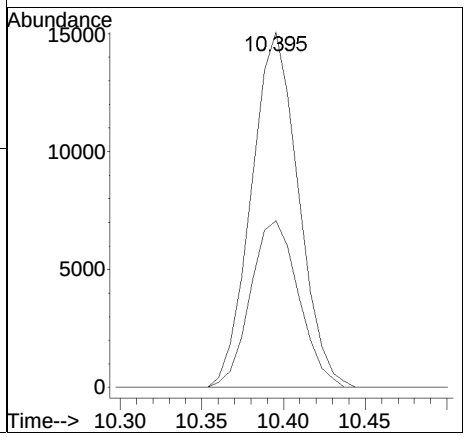


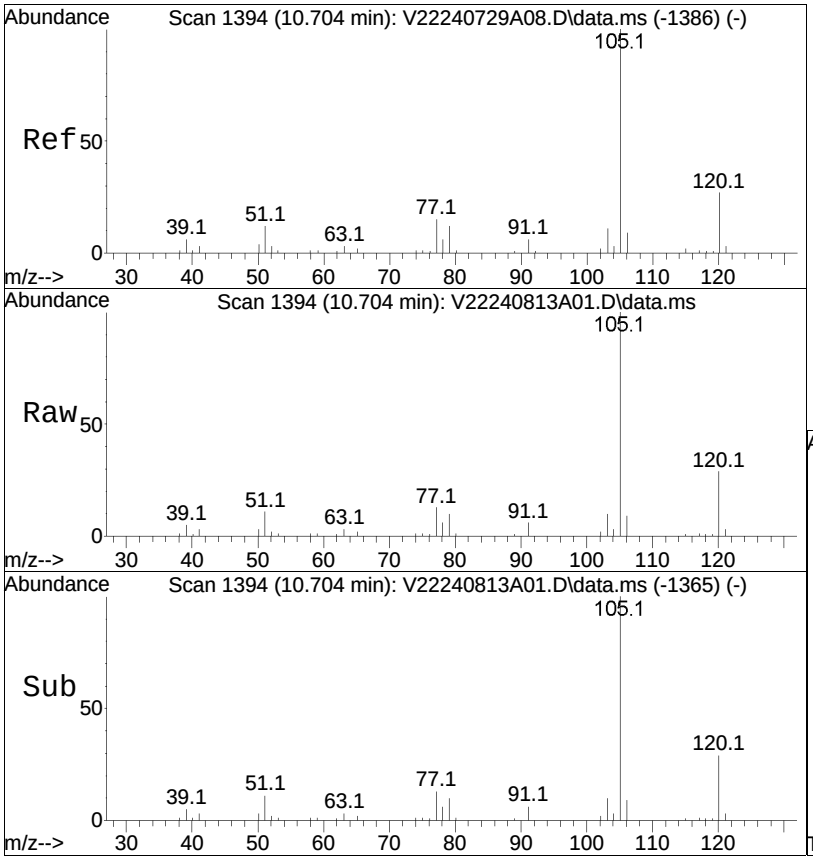


#84
Bromoform
Concen: 9.73 ug/L
RT: 10.395 min Scan# 1350
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:173 Resp: 30195

Ion	Ratio	Lower	Upper
173	100		
175	48.0	29.3	69.3

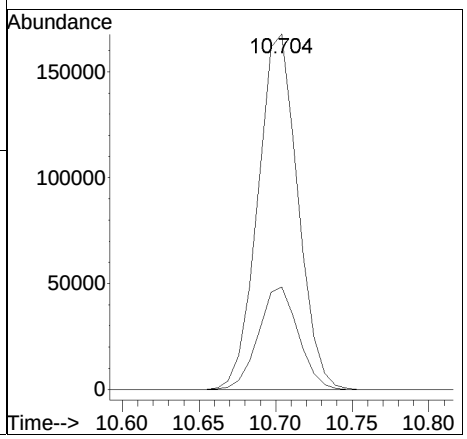


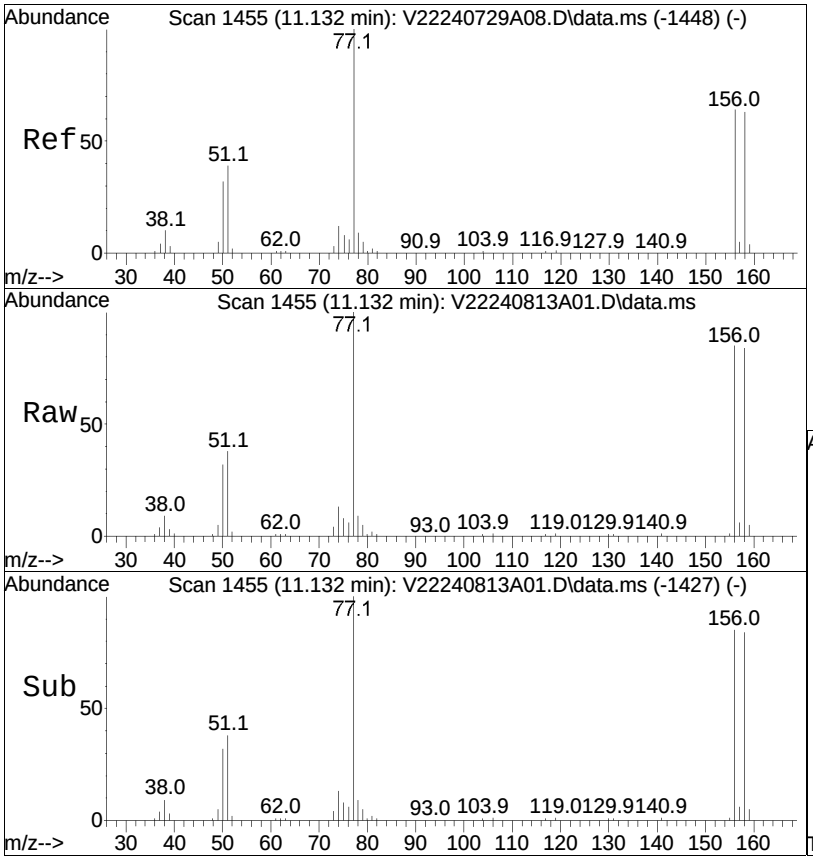


#86
Isopropylbenzene
Concen: 9.49 ug/L
RT: 10.704 min Scan# 1394
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:105 Resp: 303778

Ion	Ratio	Lower	Upper
105	100		
120	28.7	7.7	47.7

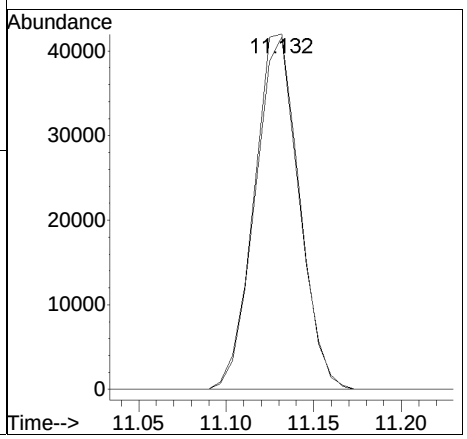


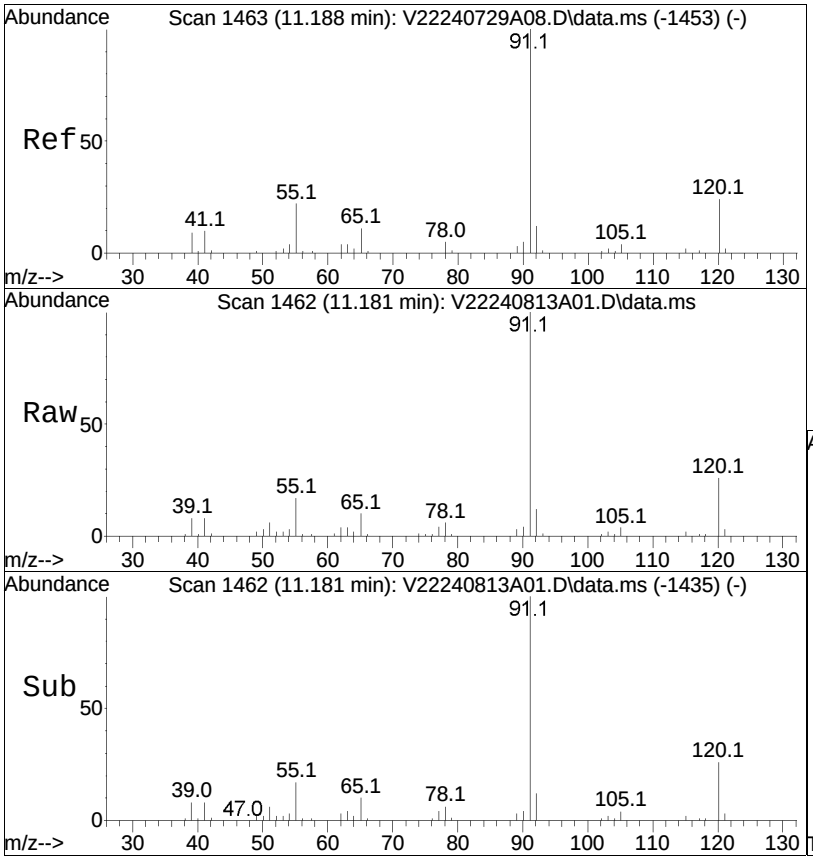


#88
Bromobenzene
Concen: 10.05 ug/L
RT: 11.132 min Scan# 1455
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:156 Resp: 75637

Ion	Ratio	Lower	Upper
156	100		
158	96.0	77.9	116.9

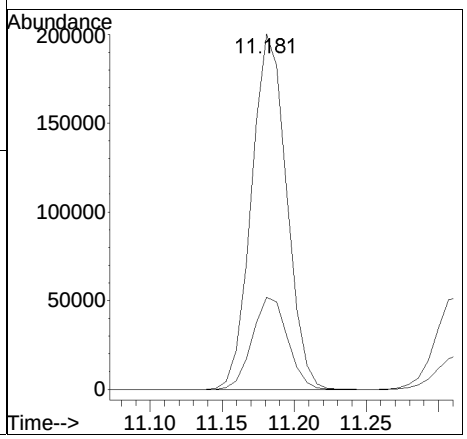


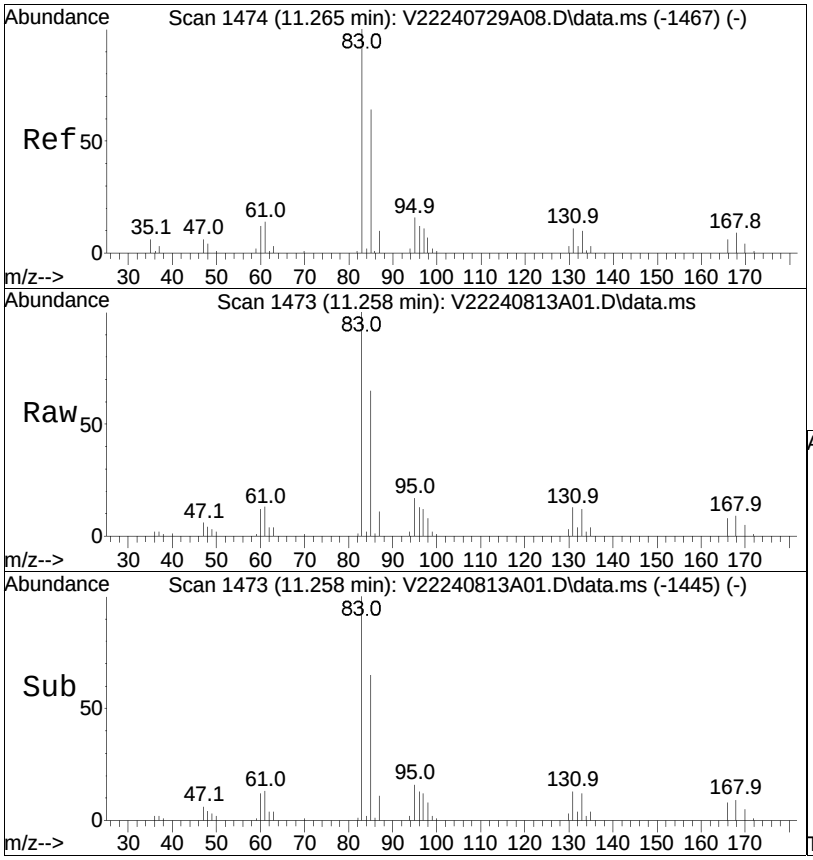


#89
n-Propylbenzene
Concen: 9.10 ug/L
RT: 11.181 min Scan# 1462
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 91 Resp: 338416

Ion	Ratio	Lower	Upper
91	100		
120	26.0	19.5	29.3

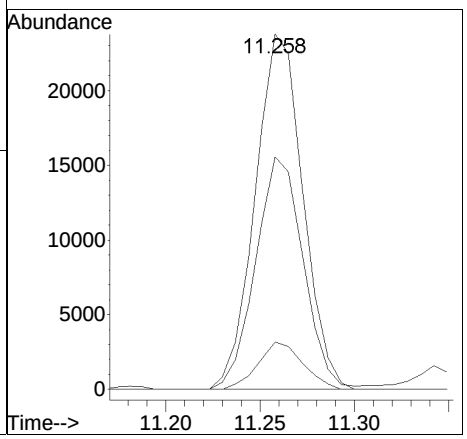


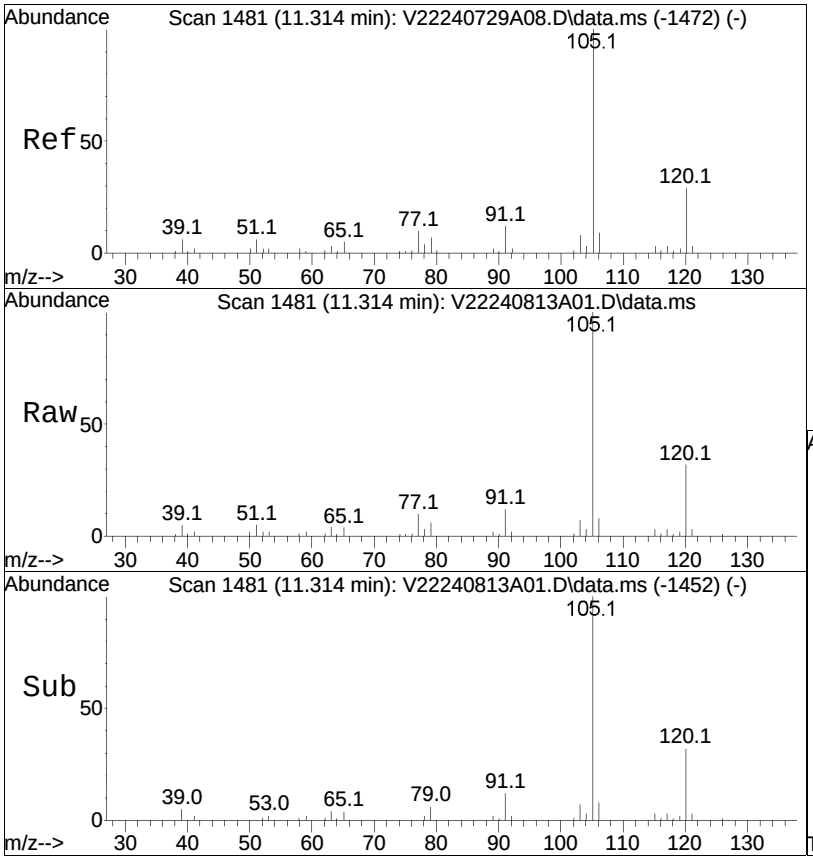


#91
1,1,2,2-Tetrachloroethane
Concen: 7.99 ug/L
RT: 11.258 min Scan# 1473
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 83 Resp: 41848

Ion	Ratio	Lower	Upper
83	100		
131	12.6	0.0	30.8
85	65.3	45.4	85.4

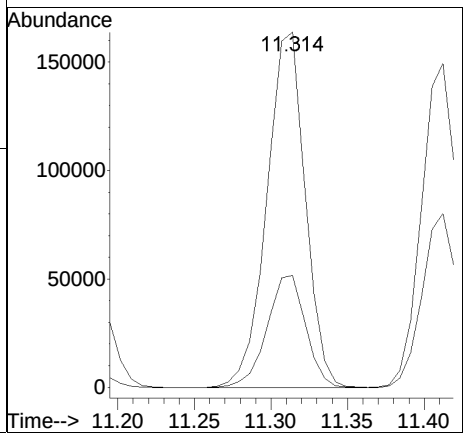


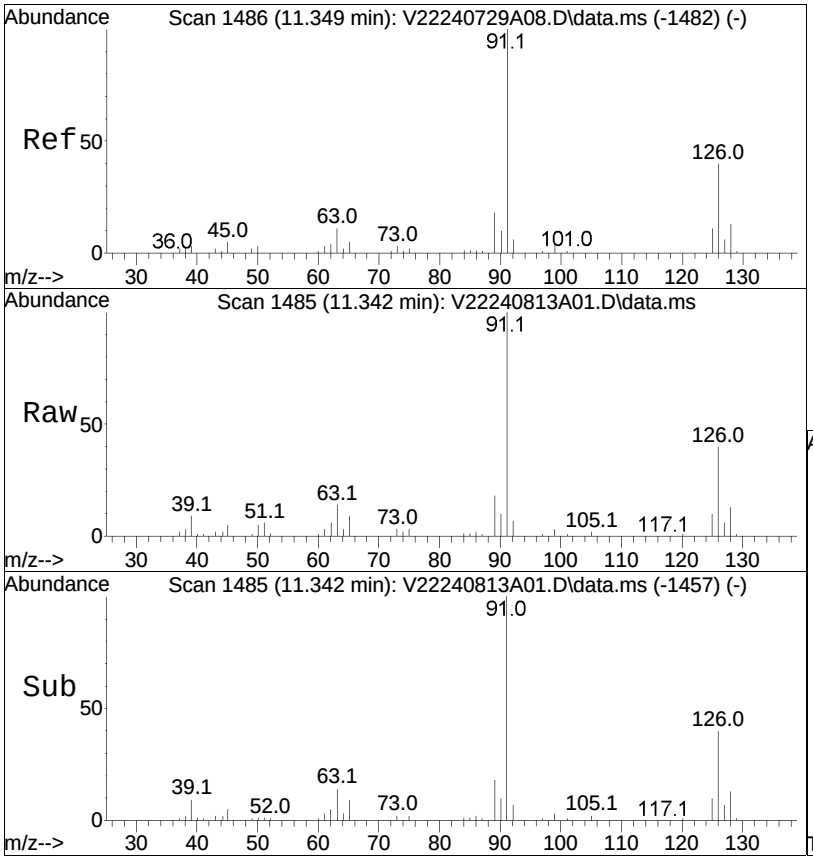


#92
4-Ethyltoluene
Concen: 9.42 ug/L
RT: 11.314 min Scan# 1481
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:105 Resp: 285469

Ion	Ratio	Lower	Upper
105	100		
120	31.7	19.8	41.0

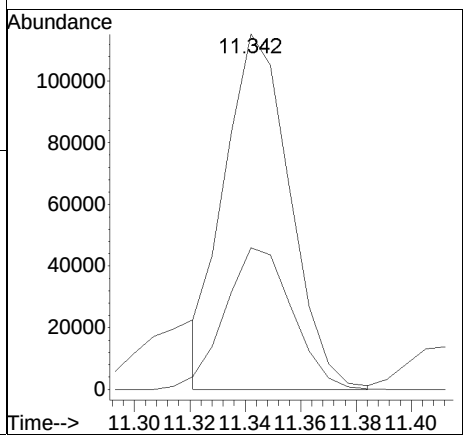


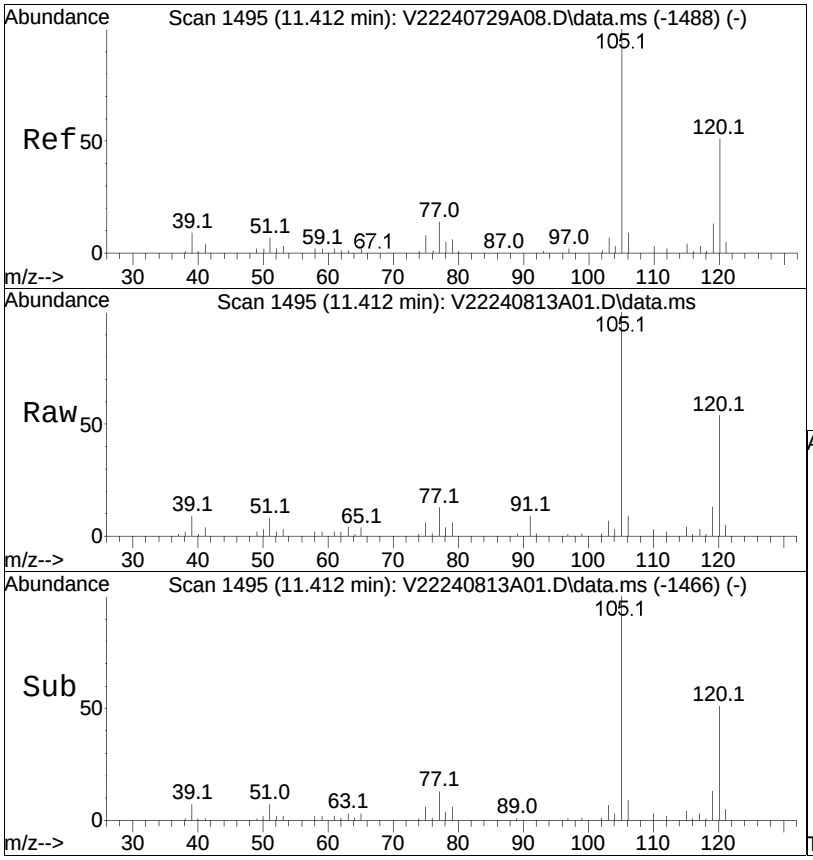


#93
2-Chlorotoluene
Concen: 8.45 ug/L M6
RT: 11.342 min Scan# 1485
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 91 Resp: 189334

Ion	Ratio	Lower	Upper
91	100		
126	41.1	24.6	37.0#

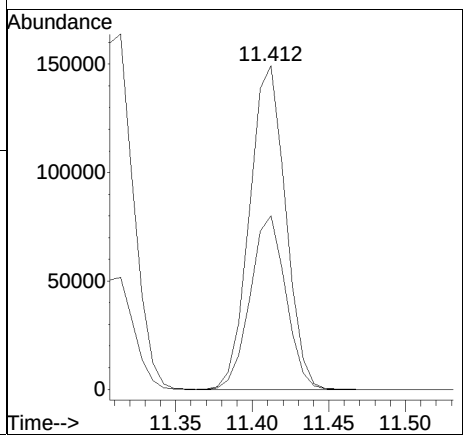


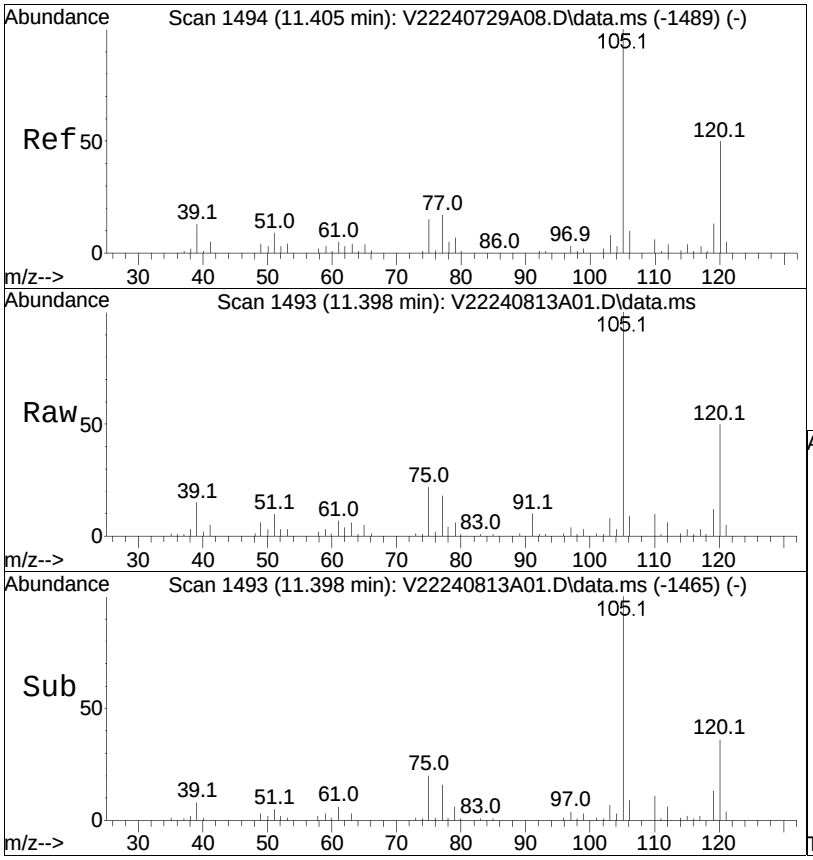


#94
1,3,5-Trimethylbenzene
Concen: 9.52 ug/L
RT: 11.412 min Scan# 1495
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:105 Resp: 244417

Ion	Ratio	Lower	Upper
105	100		
120	52.9	40.9	61.3

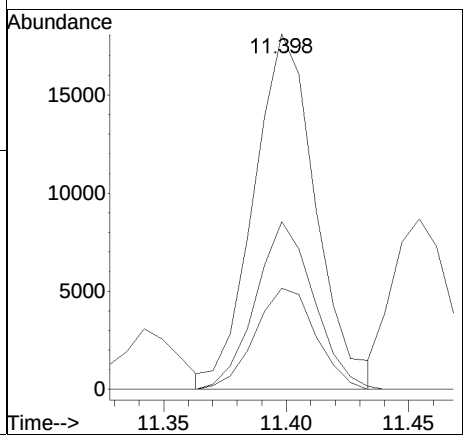


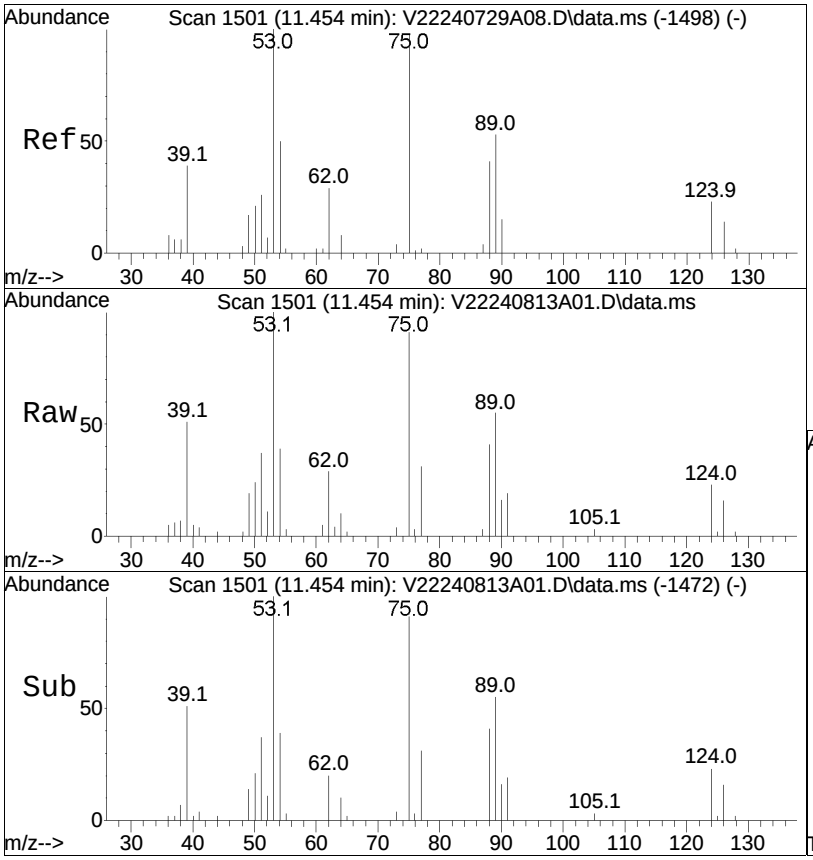


#95
1,2,3-Trichloropropane
Concen: 8.00 ug/L
RT: 11.398 min Scan# 1493
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 75 Resp: 31976

Ion	Ratio	Lower	Upper
75	100		
110	44.1	26.3	54.7
112	27.8	16.8	35.0

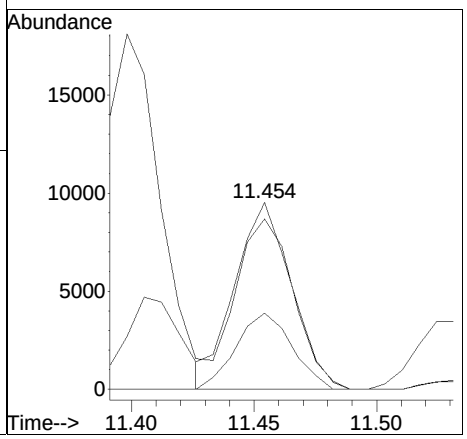


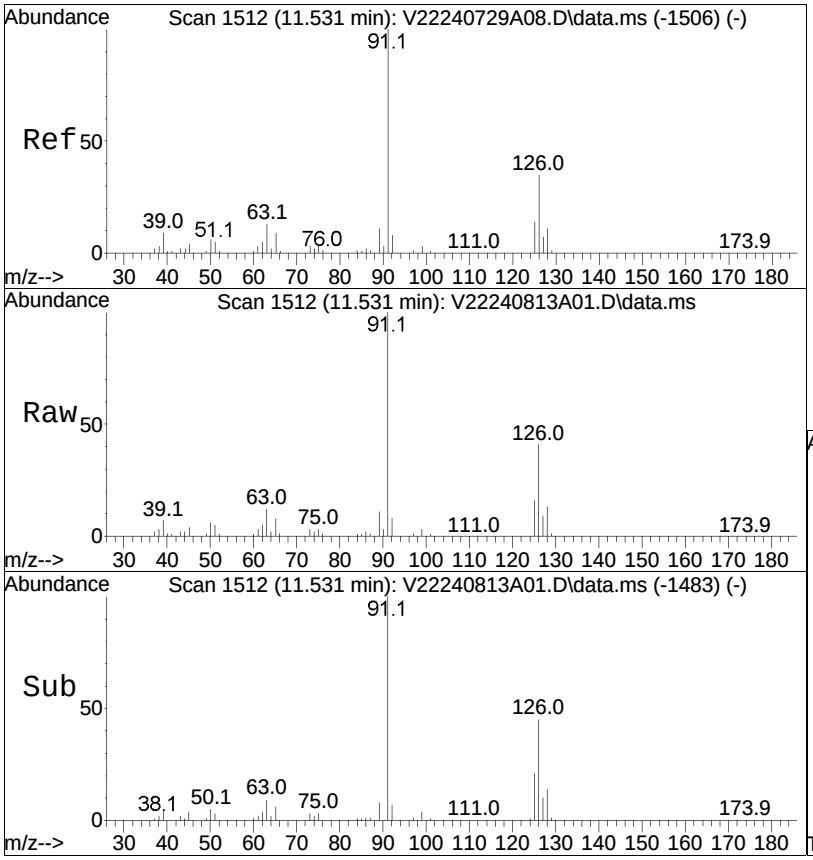


#96
trans-1,4-Dichloro-2-butene
Concen: 8.59 ug/L
RT: 11.454 min Scan# 1501
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 53 Resp: 15302

Ion	Ratio	Lower	Upper
53	100		
88	40.4	46.3	69.5#
75	91.0	109.0	163.4#

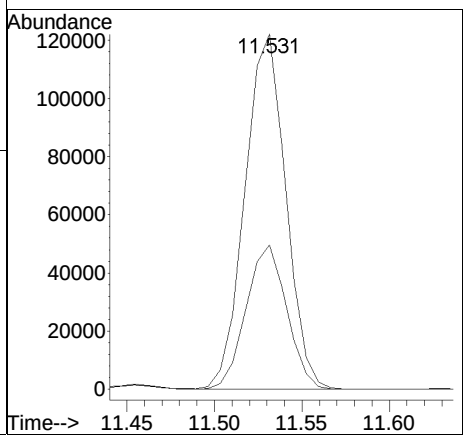


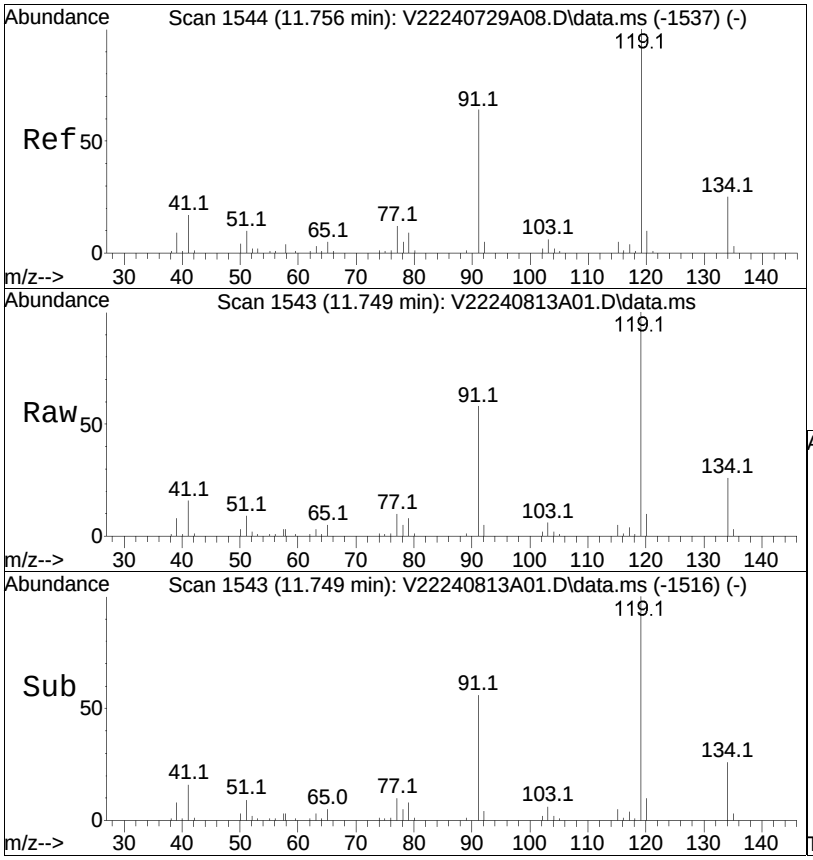


#97
4-Chlorotoluene
Concen: 8.58 ug/L
RT: 11.531 min Scan# 1512
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 91 Resp: 198326

Ion	Ratio	Lower	Upper
91	100		
126	40.4	28.5	42.7

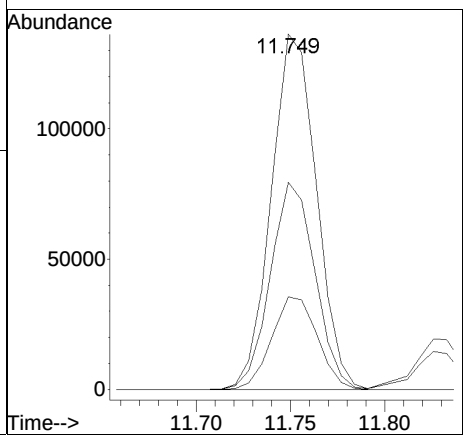


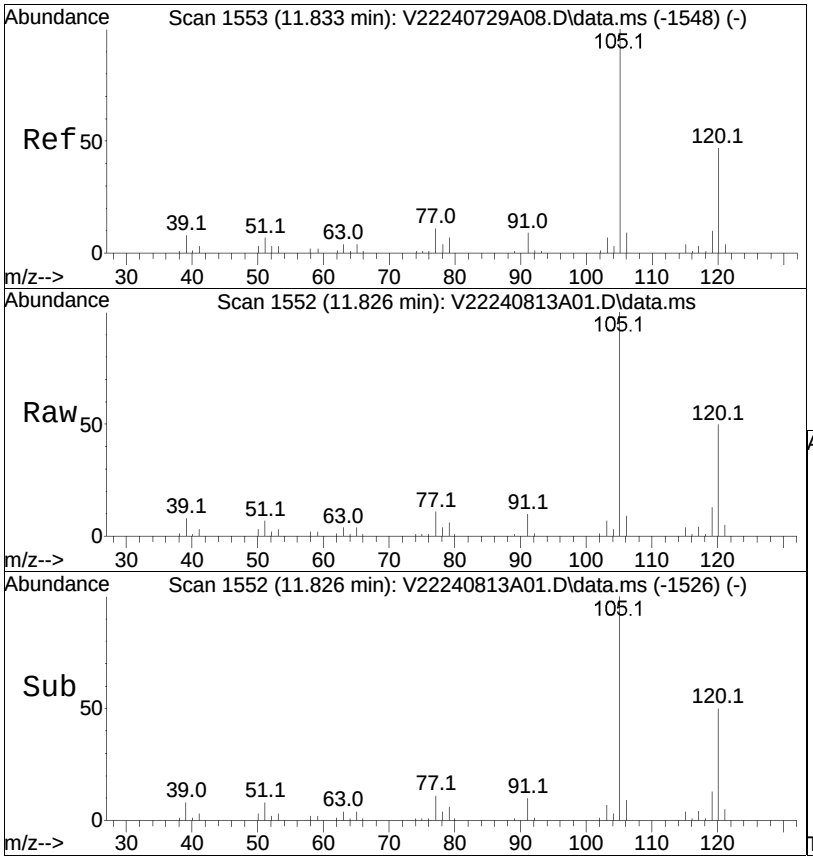


#98
tert-Butylbenzene
Concen: 10.21 ug/L
RT: 11.749 min Scan# 1543
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:119 Resp: 227560

Ion	Ratio	Lower	Upper
119	100		
91	57.6	50.2	75.4
134	30.3	20.8	31.2

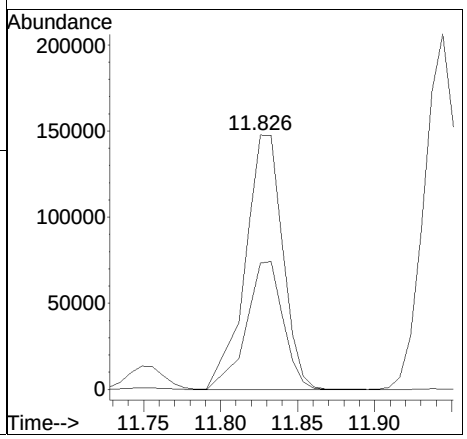


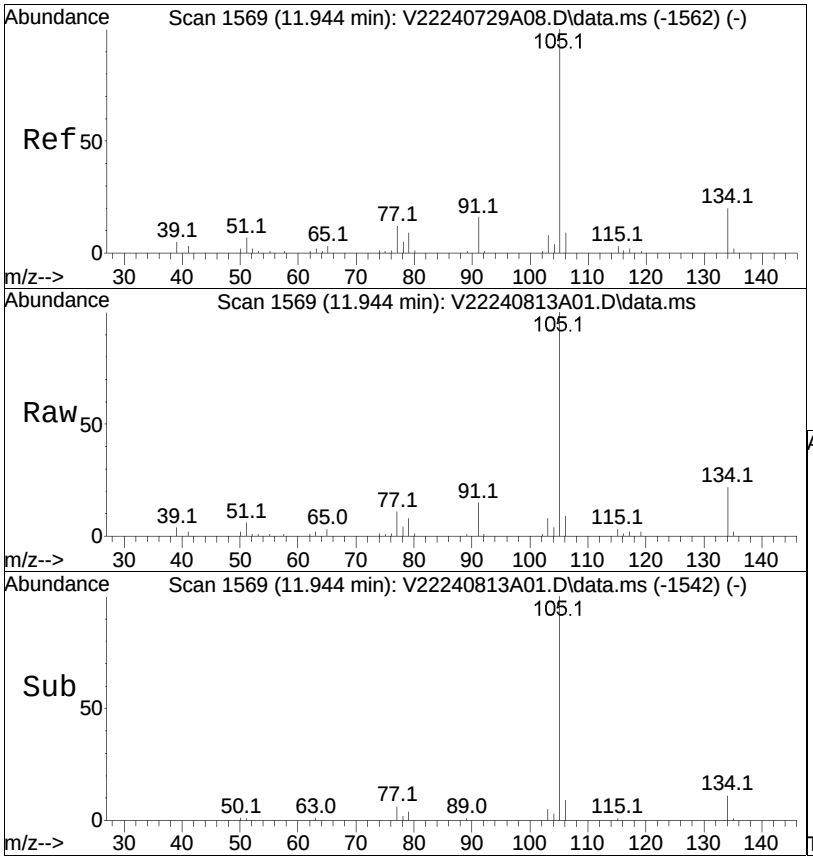


#101
1,2,4-Trimethylbenzene
Concen: 9.33 ug/L
RT: 11.826 min Scan# 1552
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:105 Resp: 267778

Ion	Ratio	Lower	Upper
105	100		
120	50.6	38.5	57.7

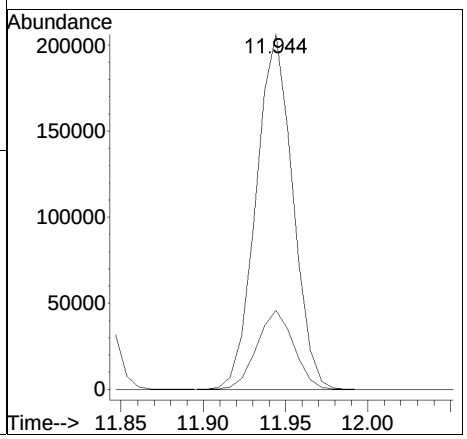


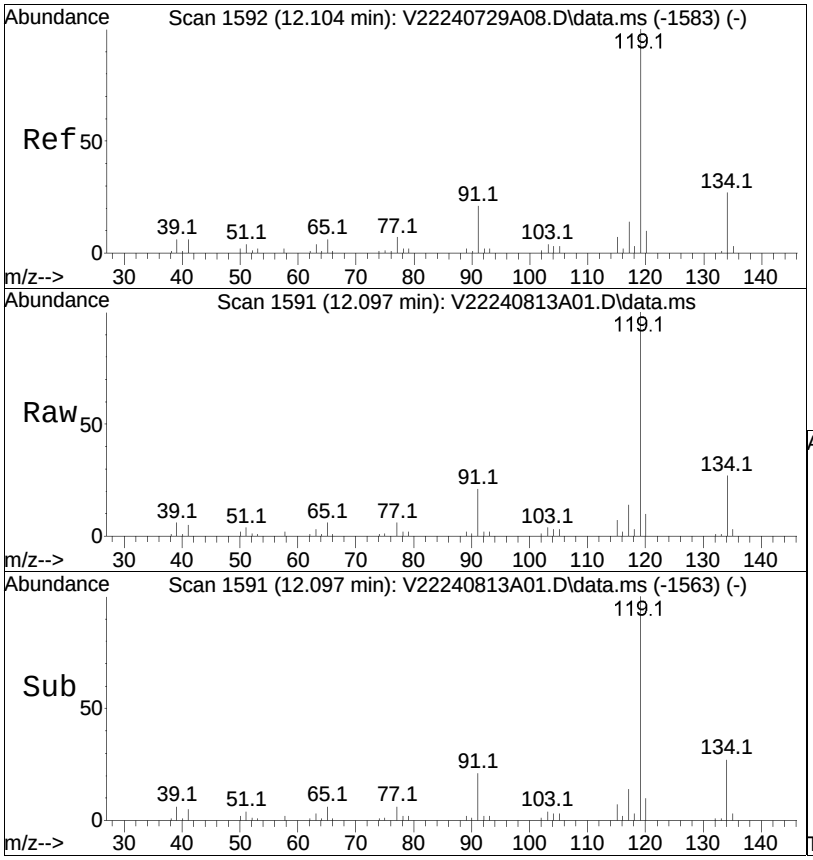


#102
sec-Butylbenzene
Concen: 9.43 ug/L
RT: 11.944 min Scan# 1569
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:105 Resp: 319312

Ion	Ratio	Lower	Upper
105	100		
134	22.3	13.9	28.9

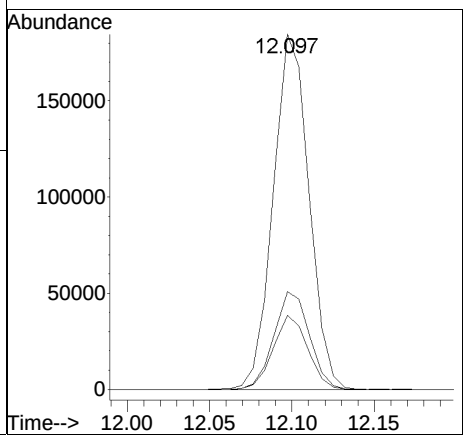


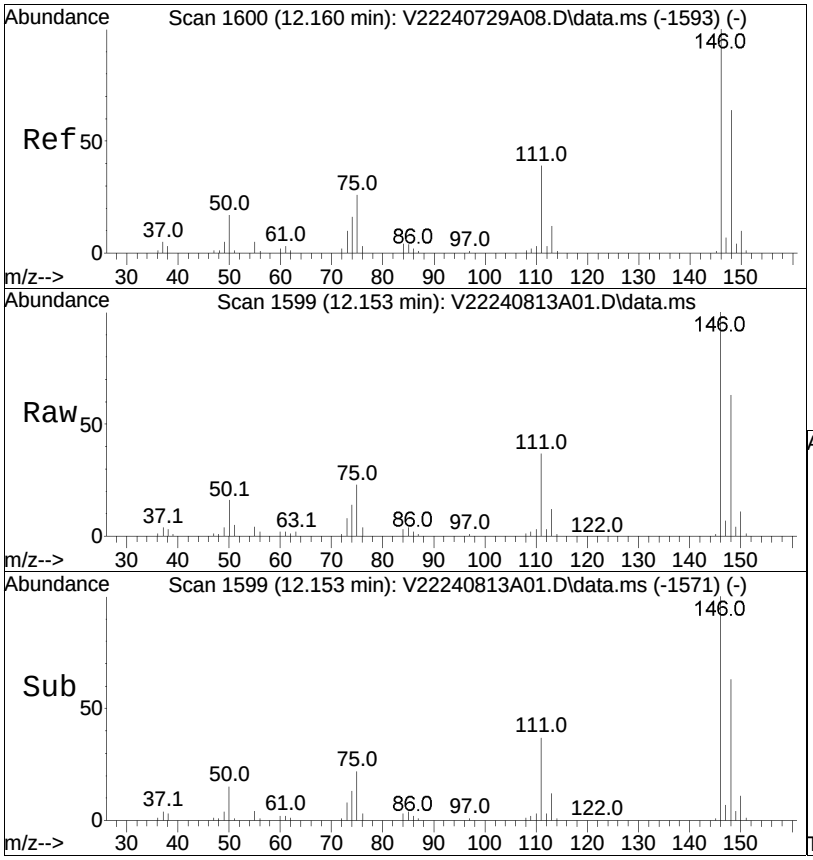


#103
p-Isopropyltoluene
Concen: 9.73 ug/L
RT: 12.097 min Scan# 1591
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:119 Resp: 278581

Ion	Ratio	Lower	Upper
119	100		
134	27.3	17.7	36.7
91	20.2	14.1	29.3

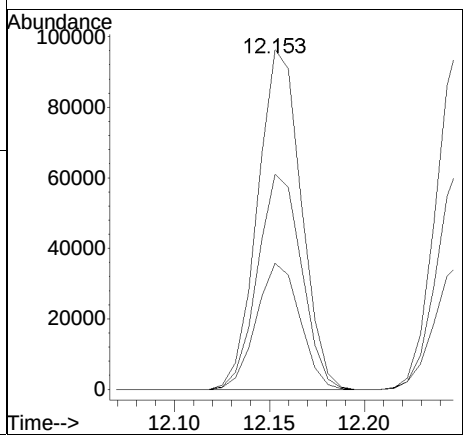


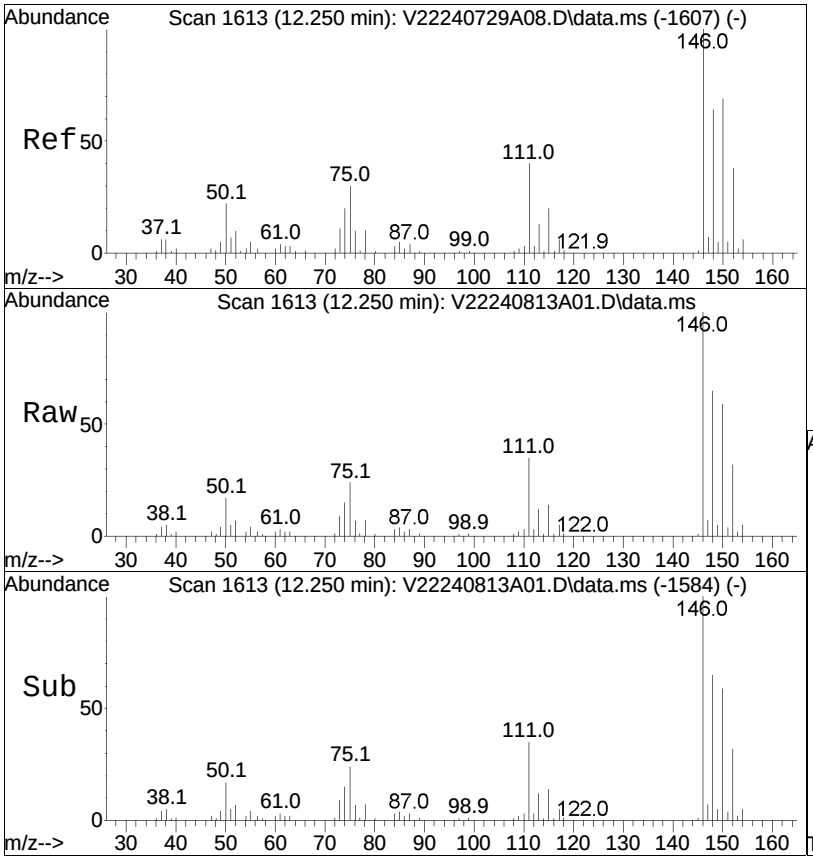


#104
1,3-Dichlorobenzene
Concen: 10.28 ug/L
RT: 12.153 min Scan# 1599
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:146 Resp: 153552

Ion	Ratio	Lower	Upper
146	100		
111	37.1	24.0	49.8
148	63.8	41.8	86.8

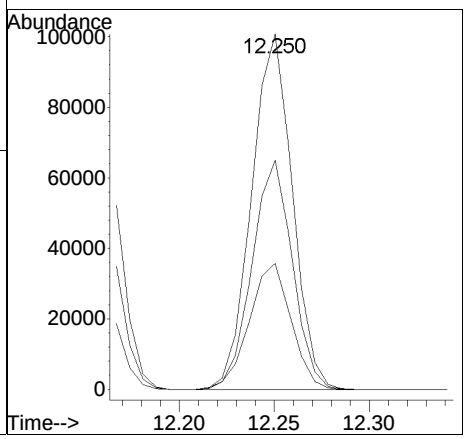


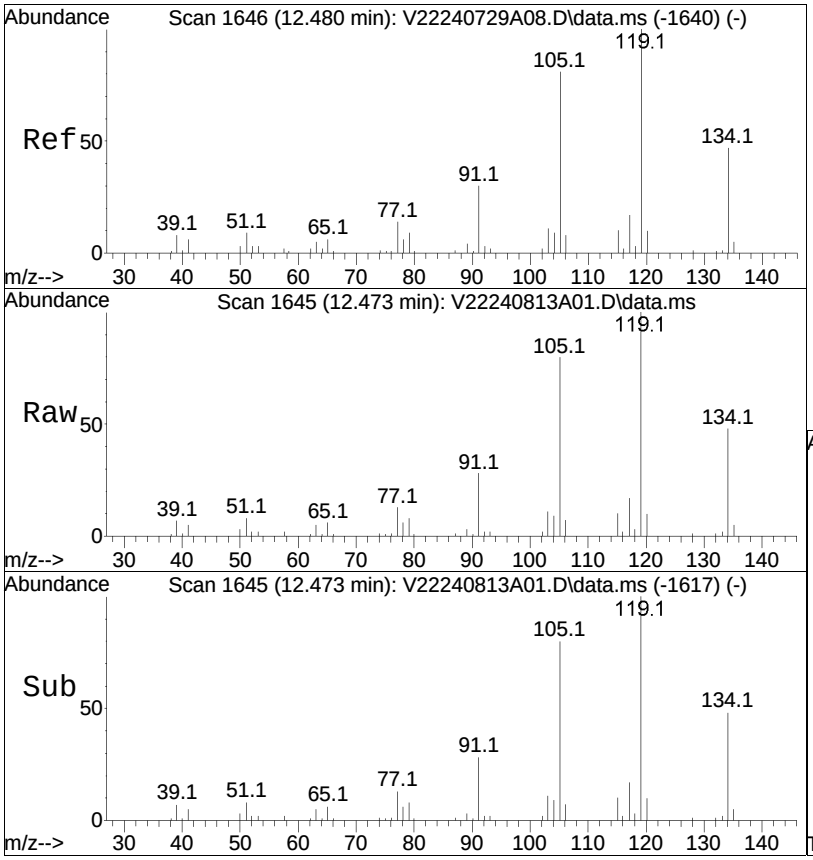


#105
1,4-Dichlorobenzene
Concen: 10.17 ug/L
RT: 12.250 min Scan# 1613
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:146 Resp: 150538

Ion	Ratio	Lower	Upper
146	100		
111	36.4	28.9	43.3
148	63.8	51.4	77.2

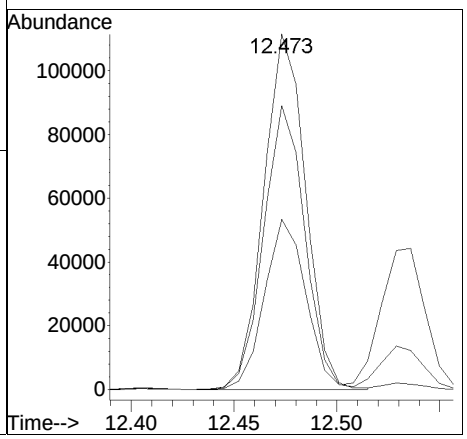


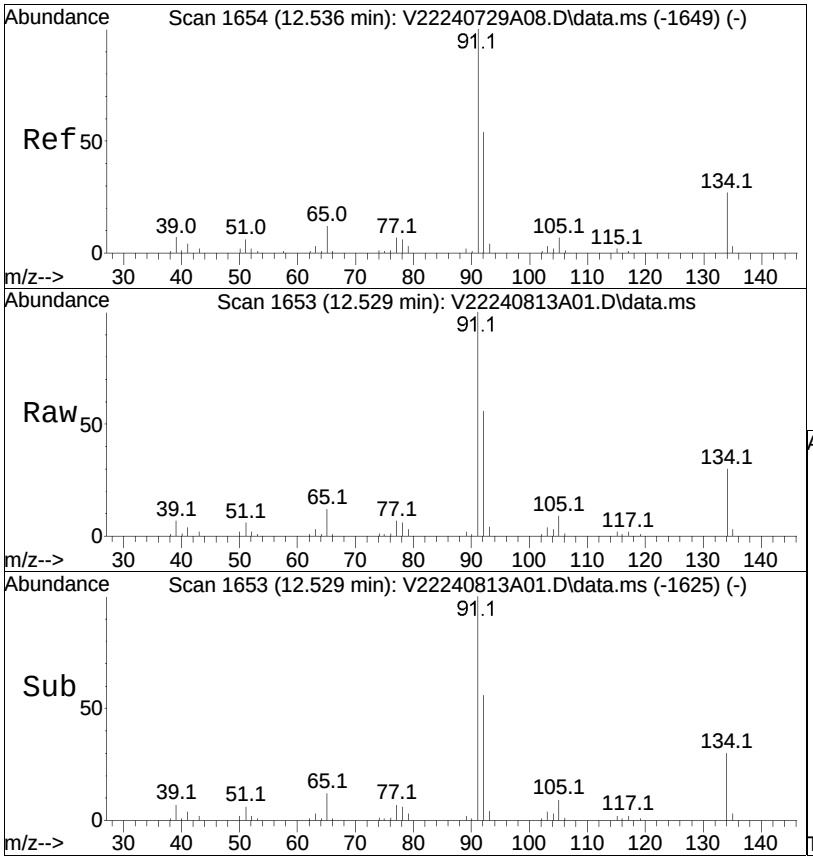


#106
p-Diethylbenzene
Concen: 9.70 ug/L
RT: 12.473 min Scan# 1645
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:119 Resp: 157639

Ion	Ratio	Lower	Upper
119	100		
105	78.6	53.4	110.8
134	47.3	30.9	64.1

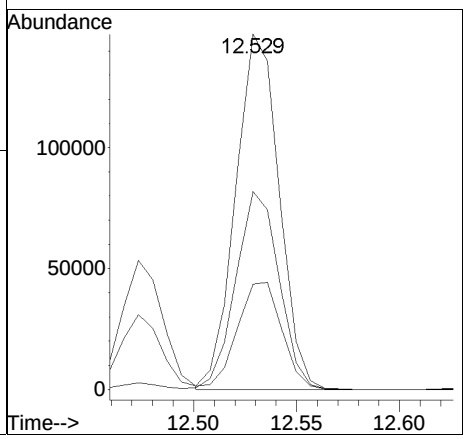


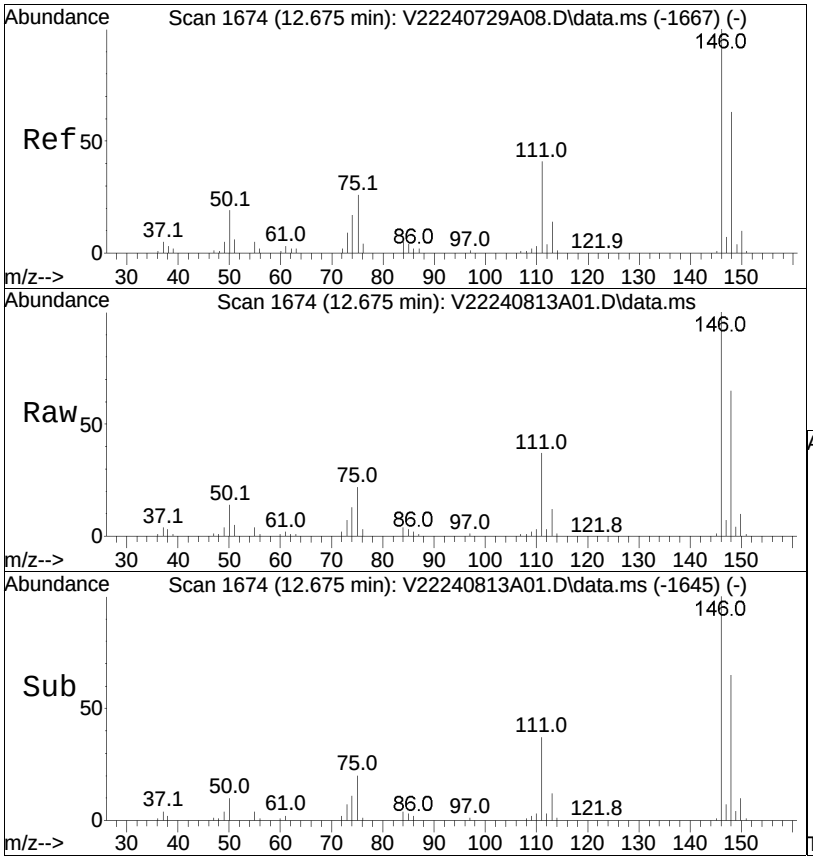


#107
n-Butylbenzene
Concen: 9.09 ug/L
RT: 12.529 min Scan# 1653
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion: 91 Resp: 216047

Ion	Ratio	Lower	Upper
91	100		
92	55.5	44.6	66.8
134	30.9	22.9	34.3

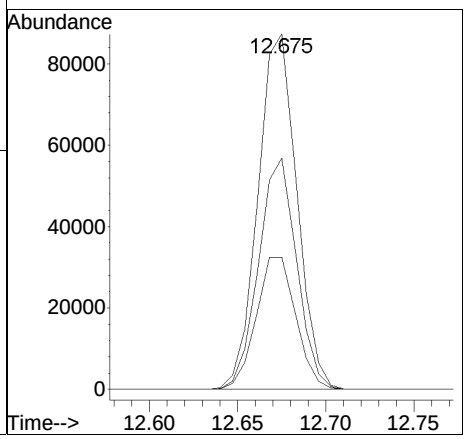


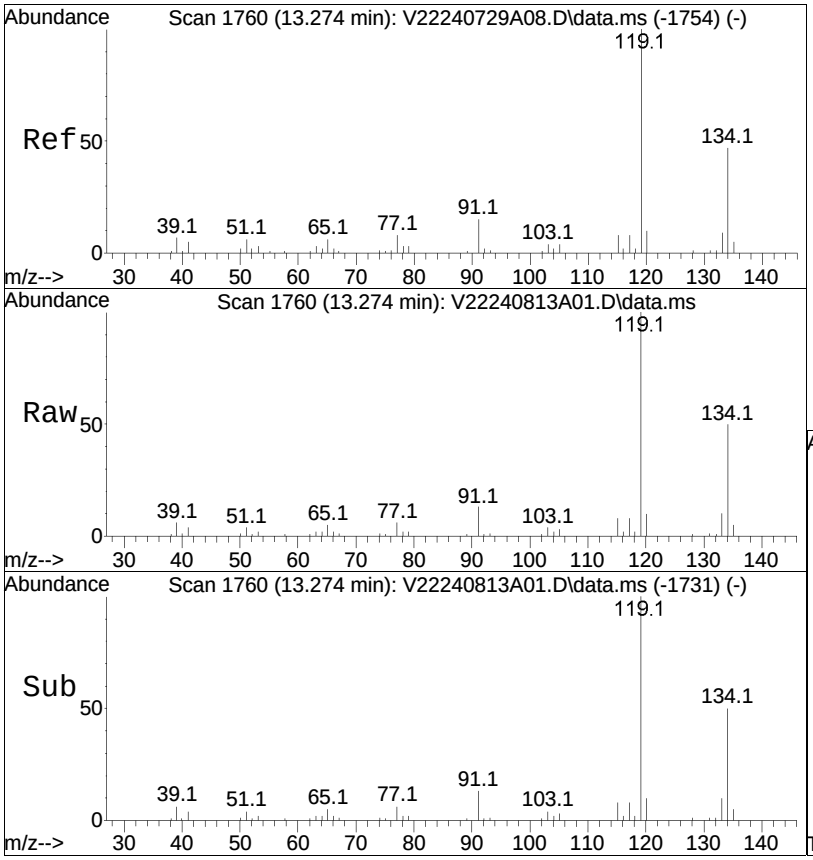


#108
1,2-Dichlorobenzene
Concen: 10.18 ug/L
RT: 12.675 min Scan# 1674
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:146 Resp: 134405

Ion	Ratio	Lower	Upper
146	100		
111	38.0	24.8	51.6
148	63.6	42.2	87.6

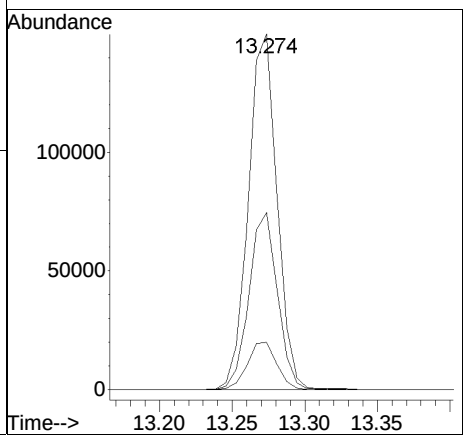


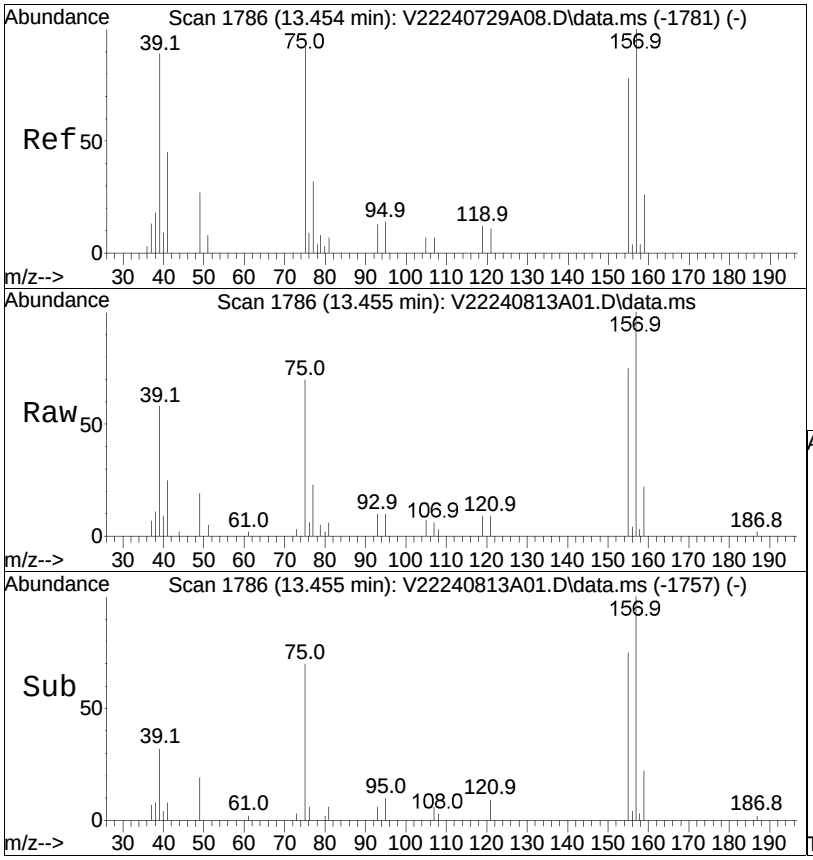


#109
1,2,4,5-Tetramethylbenzene
Concen: 9.22 ug/L
RT: 13.274 min Scan# 1760
Delta R.T. -0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:119 Resp: 205619

Ion	Ratio	Lower	Upper
119	100		
134	49.4	31.9	66.1
91	13.6	9.8	20.3

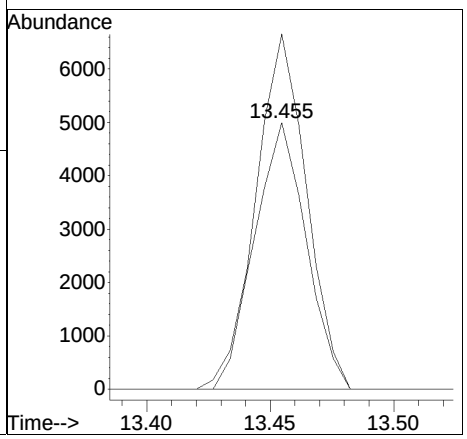


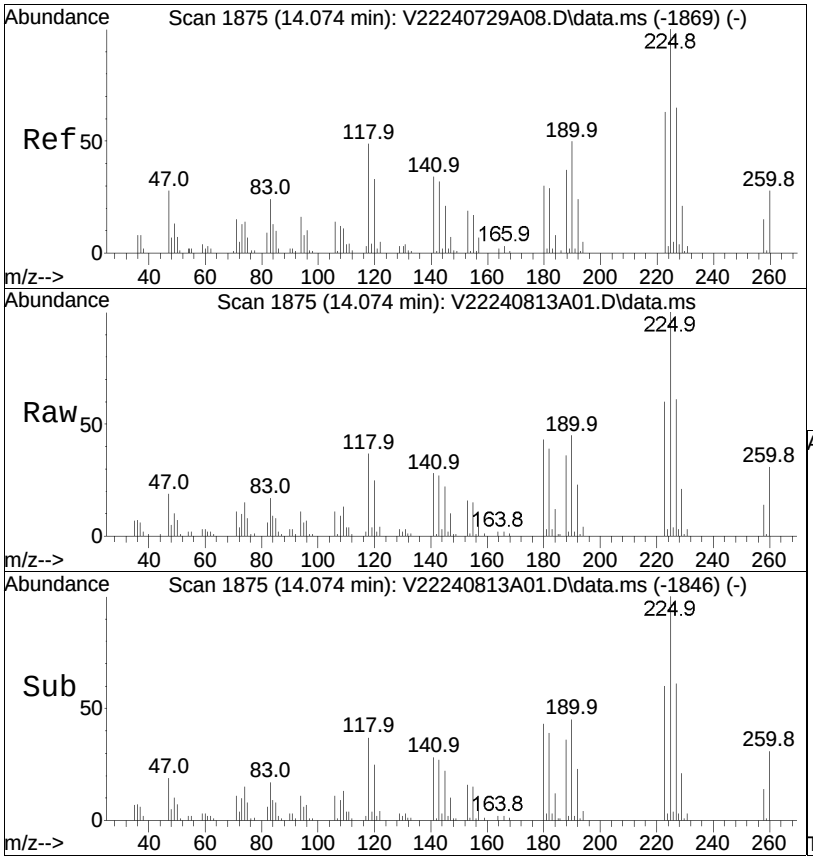


#110
1,2-Dibromo-3-chloropropane
Concen: 9.32 ug/L
RT: 13.455 min Scan# 1786
Delta R.T. 0.001 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:155 Resp: 7304

Ion	Ratio	Lower	Upper
155	100		
157	130.6	102.3	153.5

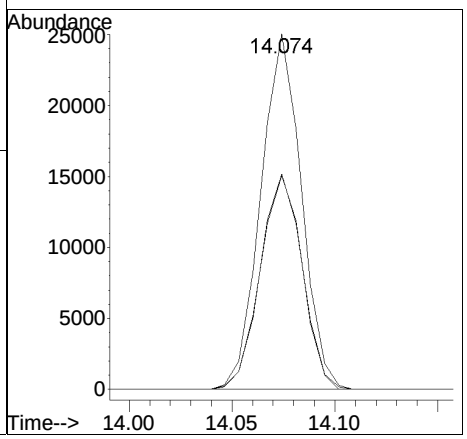


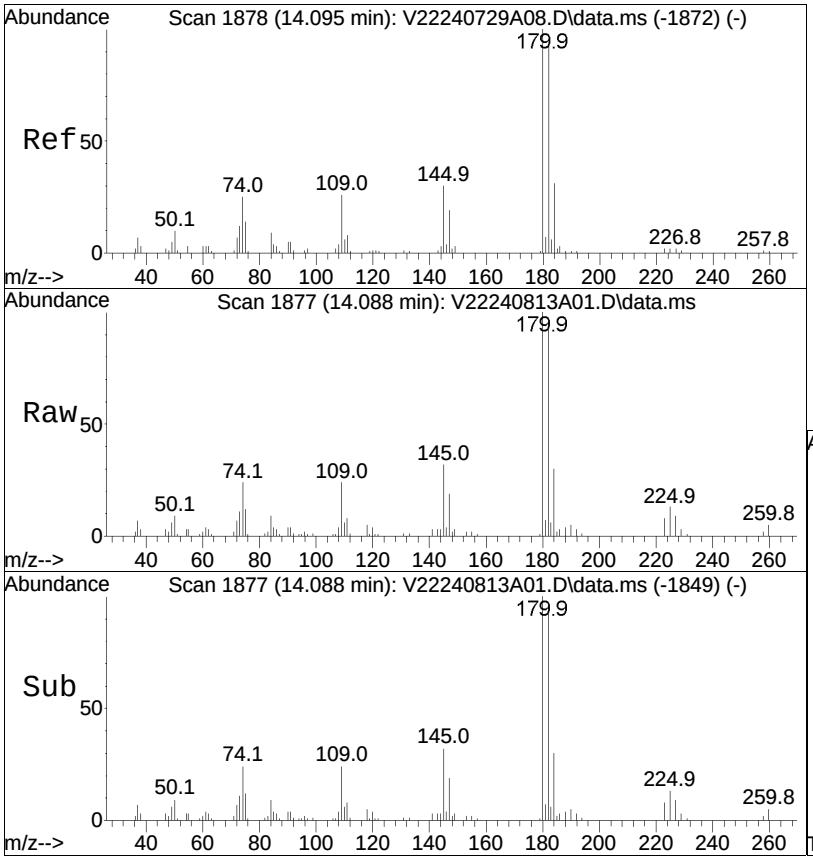


#112
Hexachlorobutadiene
Concen: 11.00 ug/L
RT: 14.074 min Scan# 1875
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:225 Resp: 34375

Ion	Ratio	Lower	Upper
225	100		
223	62.1	49.8	74.8
227	62.5	52.2	78.4

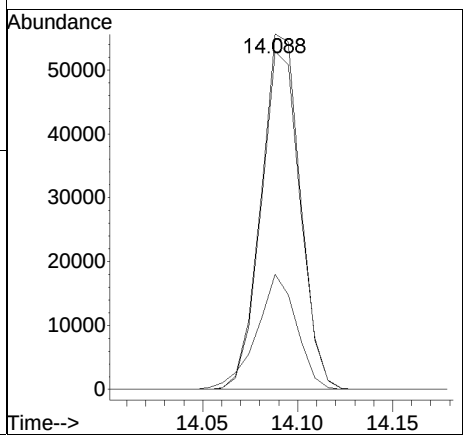


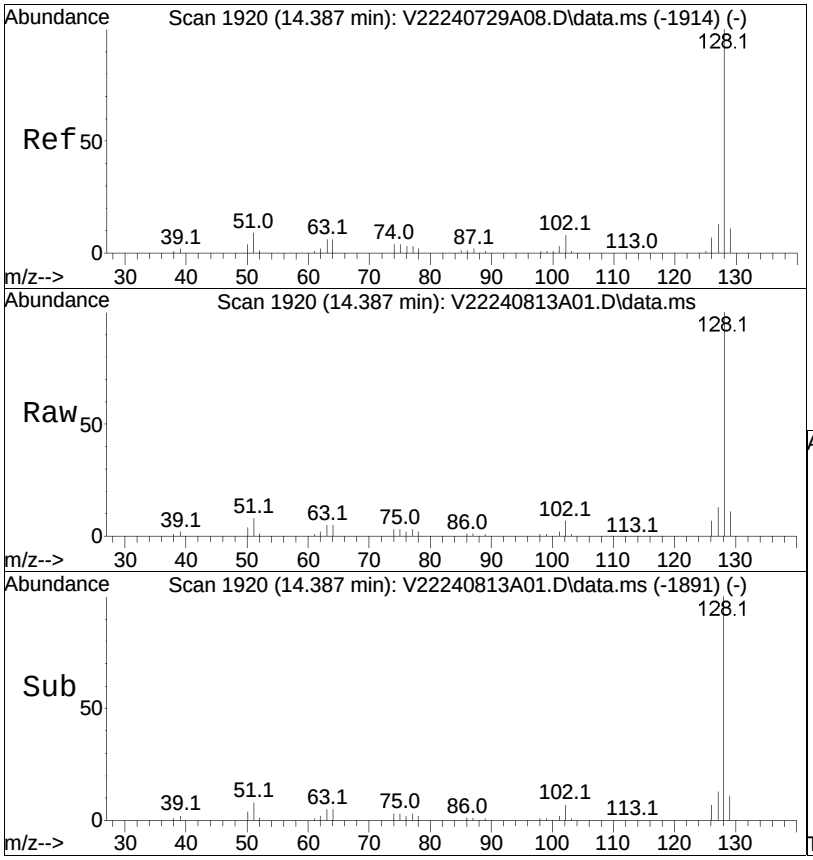


#113
1,2,4-Trichlorobenzene
Concen: 10.94 ug/L
RT: 14.088 min Scan# 1877
Delta R.T. -0.007 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:180 Resp: 80092

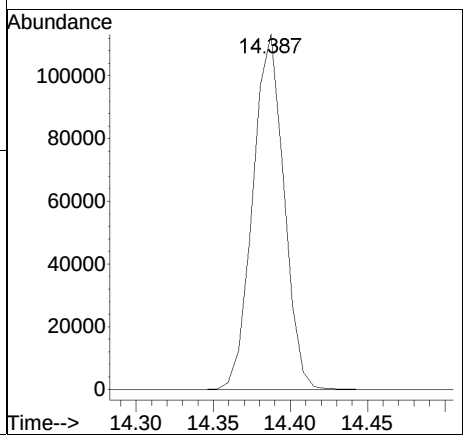
Ion	Ratio	Lower	Upper
180	100		
182	94.8	76.6	114.8
145	32.9	25.5	38.3

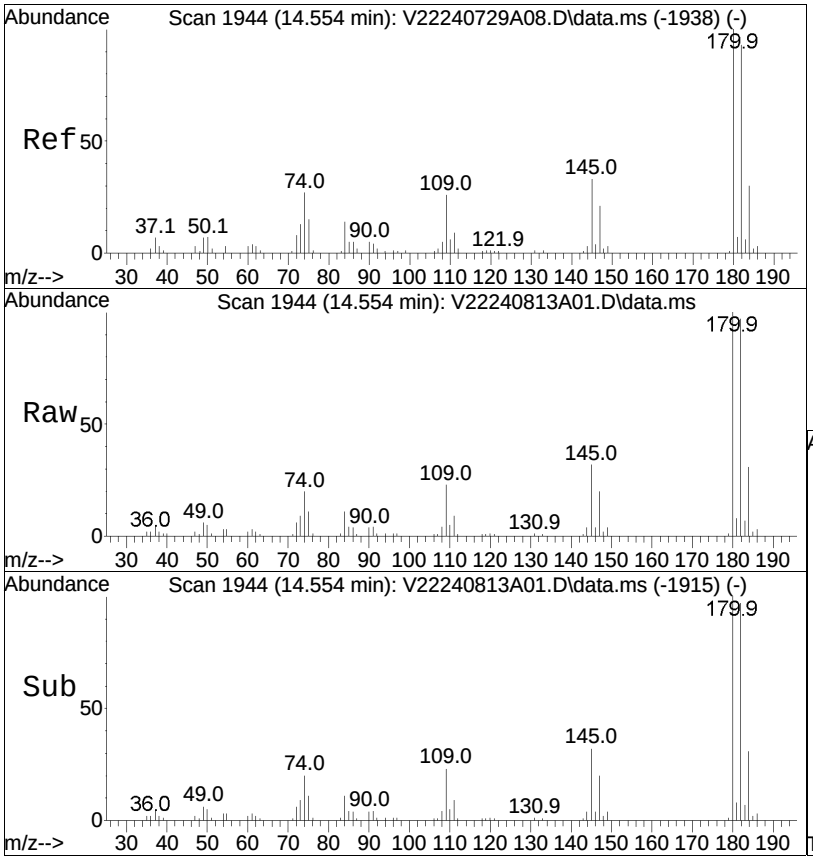




#114
Naphthalene
Concen: 9.41 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:128 Resp: 158758

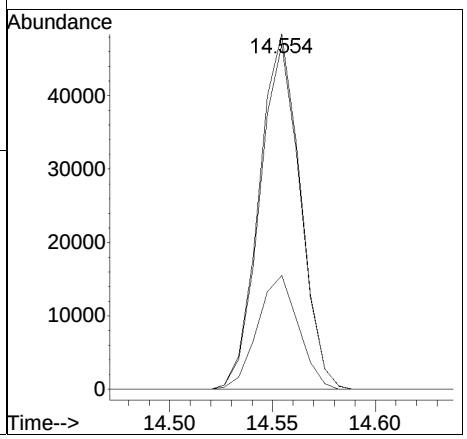




#115
1,2,3-Trichlorobenzene
Concen: 10.84 ug/L
RT: 14.554 min Scan# 1944
Delta R.T. 0.000 min
Lab File: V22240813A01.D
Acq: 13 Aug 2024 06:52 am

Tgt Ion:180 Resp: 67441

Ion	Ratio	Lower	Upper
180	100		
182	95.7	76.0	114.0
145	32.0	23.8	35.8

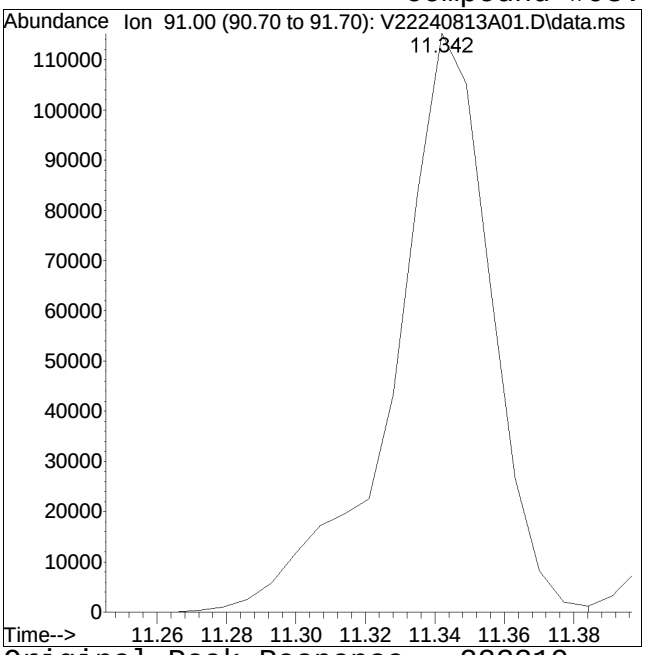


Manual Integration Report

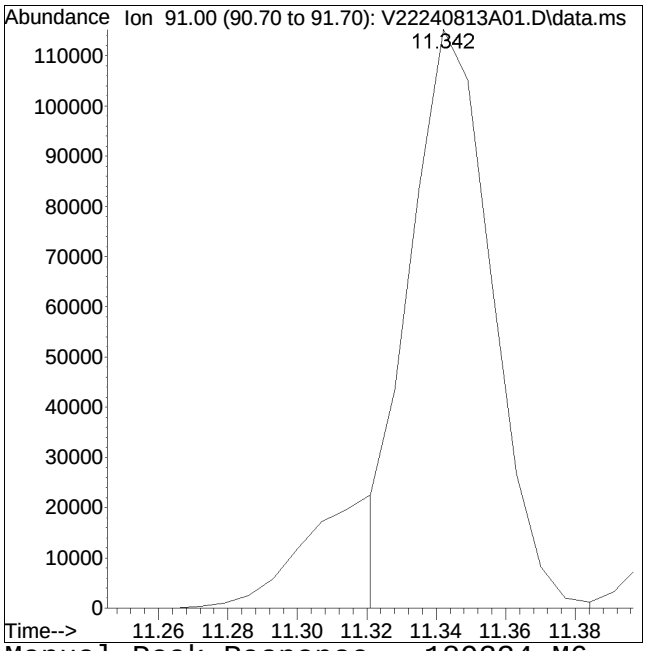
Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A01.D
Date Inj'd : 8/13/2024 6:52 am
Sample : WG1958655-3,31,10,10

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/13/2024 7:14 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 223319



Manual Peak Response = 189334 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.086	96	357071	10.000 ug/L	0.00
Standard Area 1 = 357071			Recovery = 100.00%		
59) Chlorobenzene-d5	9.621	117	287977	10.000 ug/L	0.00
Standard Area 1 = 287977			Recovery = 100.00%		
79) 1,4-Dichlorobenzene-d4	12.311	152	175101	10.000 ug/L	0.00
Standard Area 1 = 175101			Recovery = 100.00%		
System Monitoring Compounds					
36) Dibromofluoromethane	5.281	113	95676	10.259 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.59%		
43) 1,2-Dichloroethane-d4	5.805	65	111654	11.270 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.70%		
60) Toluene-d8	7.772	98	353927	9.790 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.90%		
83) 4-Bromofluorobenzene	11.110	95	130015	8.890 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 88.90%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.680	85	96613	10.191 ug/L	98
3) Chloromethane	1.893	50	81040	9.993 ug/L	99
4) Vinyl chloride	1.946	62	89140	10.611 ug/L	98
5) Bromomethane	2.265	94	28288	6.360 ug/L	99
6) Chloroethane	2.364	64	78635	12.243 ug/L	94
7) Trichlorofluoromethane	2.516	101	133708	10.855 ug/L	93
8) Ethyl ether	2.820	74	36697	8.974 ug/L #	81
10) 1,1-Dichloroethene	3.017	96	66178	9.797 ug/L	87
11) Carbon disulfide	3.048	76	215357	10.841 ug/L	97
15) Methylene chloride	3.579	84	74500	9.329 ug/L	75
17) Acetone	3.617	43	13790	7.112 ug/L	94
18) trans-1,2-Dichloroethene	3.724	96	74552	10.090 ug/L	94
20) Methyl tert-butyl ether	3.815	73	182263	8.022 ug/L #	87
23) 1,1-Dichloroethane	4.309	63	143508	10.723 ug/L	100
25) Acrylonitrile	4.370	53	21289	10.200 ug/L	98
27) Vinyl acetate	4.544	43	166331	13.412 ug/L	100
28) cis-1,2-Dichloroethene	4.833	96	86698	10.205 ug/L	98
29) 2,2-Dichloropropane	4.932	77	112568	10.088 ug/L	94
30) Bromochloromethane	5.030	128	41289	9.933 ug/L #	85
32) Chloroform	5.099	83	133565	9.749 ug/L	92

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34) Carbon tetrachloride	5.228	117	114402	10.303	ug/L		98
37) 1,1,1-Trichloroethane	5.296	97	128989	10.209	ug/L		96
39) 2-Butanone	5.395	43	23788	9.185	ug/L	#	82
40) 1,1-Dichloropropene	5.418	75	104261	10.321	ug/L		98
41) Benzene	5.661	78	314733	10.289	ug/L		96
44) 1,2-Dichloroethane	5.874	62	104124	10.680	ug/L		99
48) Trichloroethene	6.261	95	84390	9.783	ug/L		97
50) Dibromomethane	6.709	93	45915	9.516	ug/L		99
51) 1,2-Dichloropropane	6.808	63	74672	10.004	ug/L		97
54) Bromodichloromethane	6.884	83	106177	9.745	ug/L		99
57) 1,4-Dioxane	7.092	88	25139	331.110	ug/L		87
58) cis-1,3-Dichloropropene	7.572	75	111865	9.180	ug/L		93
61) Toluene	7.830	92	197269	9.856	ug/L		100
62) 4-Methyl-2-pentanone	8.274	58	15887	7.200	ug/L		82
63) Tetrachloroethene	8.281	166	89367	10.172	ug/L		98
65) trans-1,3-Dichloropropene	8.324	75	97621	8.910	ug/L		98
68) 1,1,2-Trichloroethane	8.510	83	50279	9.155	ug/L		98
69) Chlorodibromomethane	8.725	129	80479	9.268	ug/L		98
70) 1,3-Dichloropropane	8.832	76	101864	9.307	ug/L		100
71) 1,2-Dibromoethane	8.997	107	60960	8.751	ug/L		99
72) 2-Hexanone	9.284	43	29630	7.241	ug/L		91
73) Chlorobenzene	9.646	112	218488	9.796	ug/L		99
74) Ethylbenzene	9.678	91	361691	9.465	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.728	131	75400	9.083	ug/L		97
76) p/m Xylene	9.859	106	289072	19.133	ug/L		99
77) o Xylene	10.402	106	275670	18.836	ug/L		99
78) Styrene	10.468	104	472932	19.068	ug/L		99
80) Bromoform	10.501	173	49230	7.936	ug/L		95
82) Isopropylbenzene	10.781	105	353225	9.016	ug/L		99
84) Bromobenzene	11.217	156	102175	9.434	ug/L		100
85) n-Propylbenzene	11.258	91	423879	9.289	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.357	83	75281	8.647	ug/L		99
88) 4-Ethyltoluene	11.381	105	349262	9.156	ug/L		100
89) 2-Chlorotoluene	11.422	91	254840M4	9.106	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	311259	9.217	ug/L		99
91) 1,2,3-Trichloropropane	11.488	75	59966M4	8.236	ug/L		
92) trans-1,4-Dichloro-2-b...	11.546	53	18873	9.454	ug/L	#	93
93) 4-Chlorotoluene	11.612	91	261379	9.072	ug/L		96
94) tert-Butylbenzene	11.817	119	249786	9.152	ug/L		99

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) 1,2,4-Trimethylbenzene	11.900	105	297037	8.928	ug/L	100
98) sec-Butylbenzene	12.007	105	353728	9.111	ug/L	100
99) p-Isopropyltoluene	12.155	119	310072	9.201	ug/L	99
100) 1,3-Dichlorobenzene	12.237	146	193807	9.740	ug/L	98
101) 1,4-Dichlorobenzene	12.327	146	197049	9.615	ug/L	99
102) p-Diethylbenzene	12.533	119	171836	8.877	ug/L	97
103) n-Butylbenzene	12.591	91	244722	9.183	ug/L	99
104) 1,2-Dichlorobenzene	12.747	146	178107	9.384	ug/L	98
105) 1,2,4,5-Tetramethylben...	13.323	119	229428	7.917	ug/L	97
106) 1,2-Dibromo-3-chloropr...	13.528	155	11429	7.078	ug/L	93
108) Hexachlorobutadiene	14.121	225	34320	9.805	ug/L	93
109) 1,2,4-Trichlorobenzene	14.154	180	92997	8.596	ug/L	99
110) Naphthalene	14.442	128	149397	6.152	ug/L	100
111) 1,2,3-Trichlorobenzene	14.614	180	73978	8.224	ug/L	95

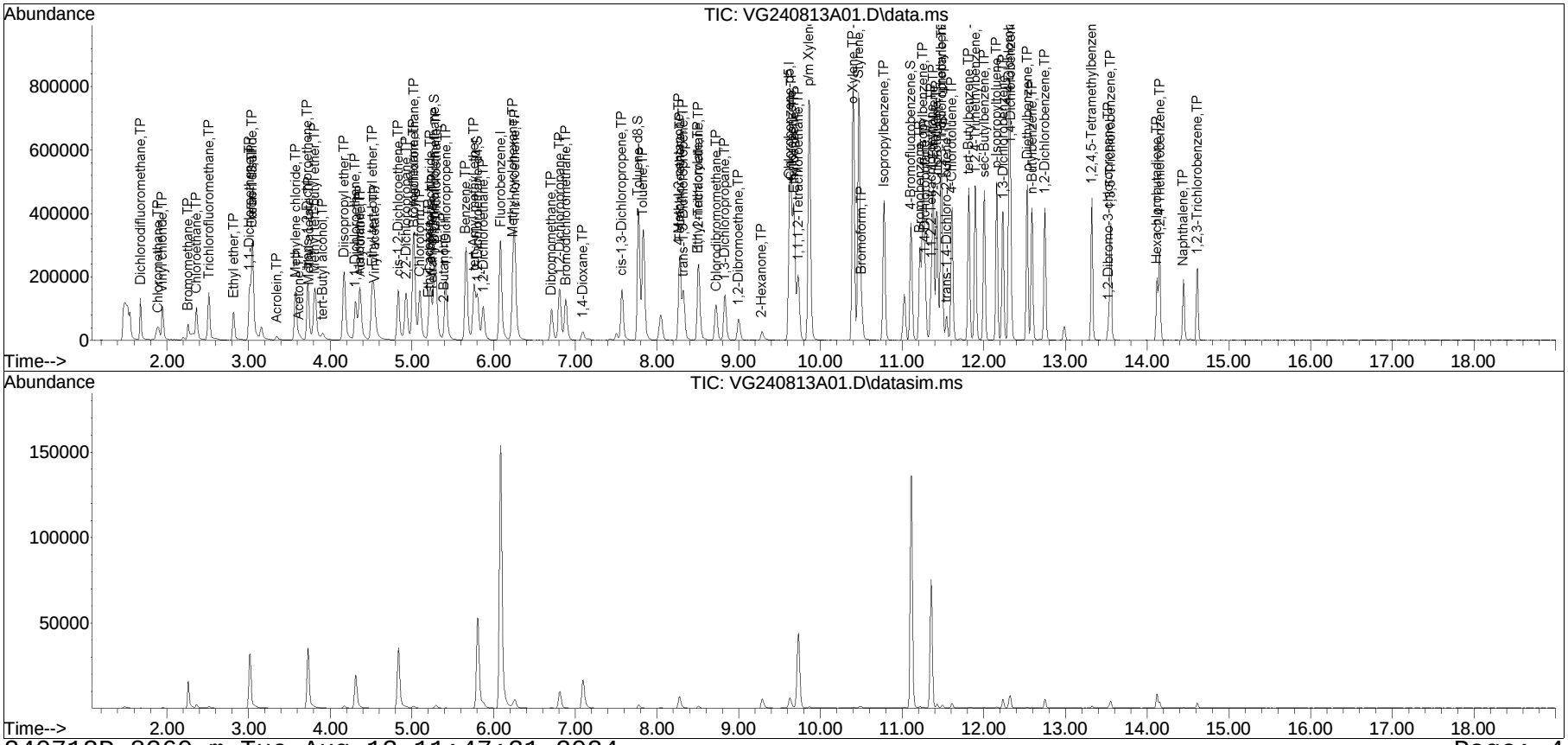
(#) = qualifier out of range (m) = manual integration (+) = signals summed

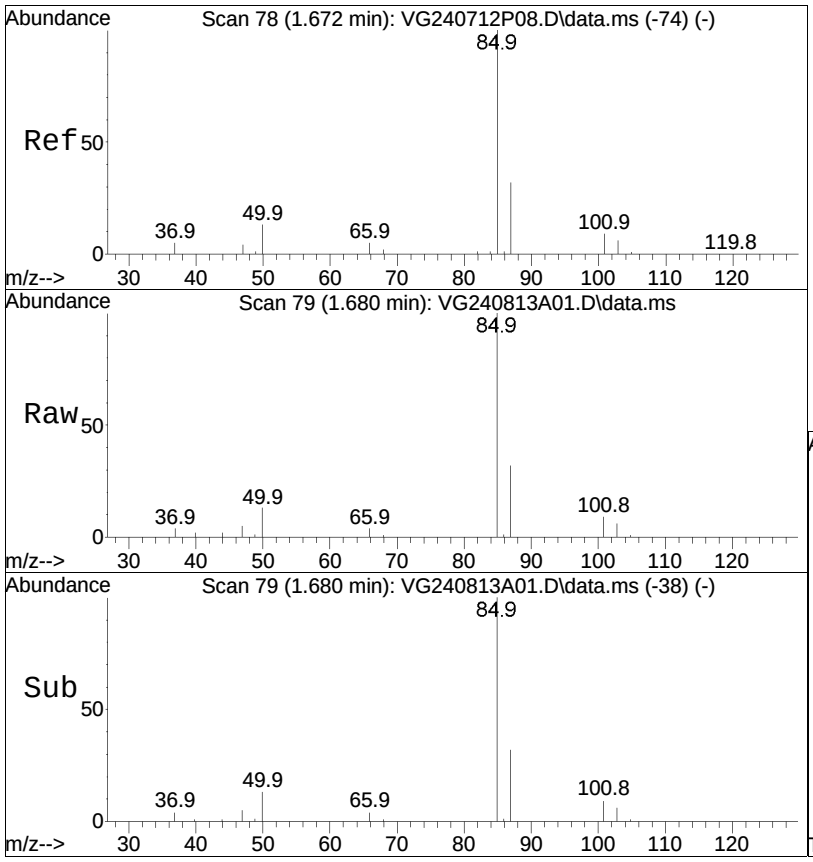
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Acq On : 13 Aug 2024 8:09 am
Operator : GONZO:PID
Sample : WG1958701-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 13 08:50:16 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

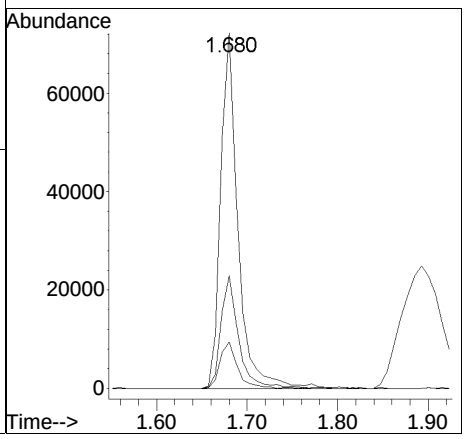


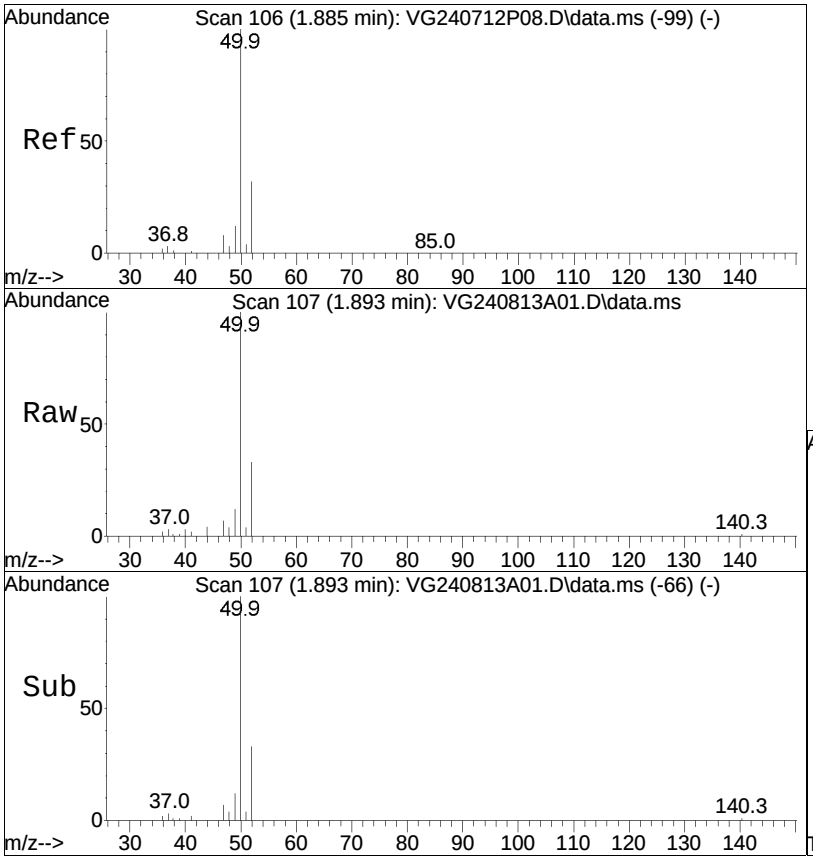


#2
Dichlorodifluoromethane
Concen: 10.19 ug/L
RT: 1.680 min Scan# 79
Delta R.T. 0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 85 Resp: 96613

Ion	Ratio	Lower	Upper
85	100		
87	32.1	20.7	42.9
50	13.2	7.5	15.5

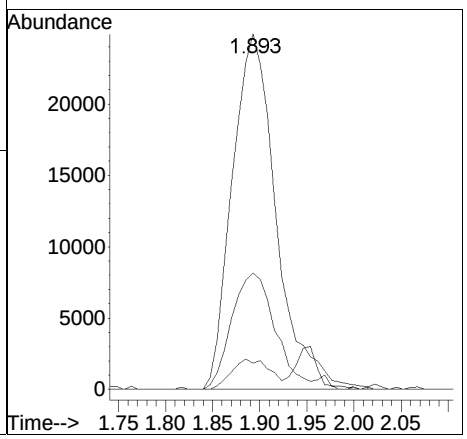


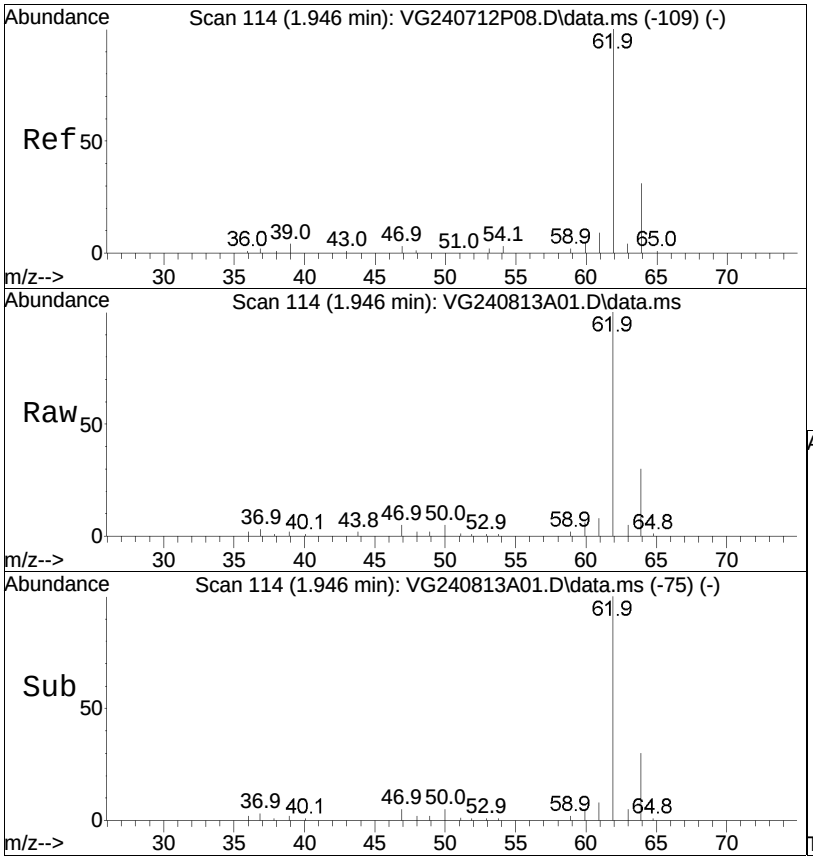


#3
Chloromethane
Concen: 9.99 ug/L
RT: 1.893 min Scan# 107
Delta R.T. 0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 50 Resp: 81040

Ion	Ratio	Lower	Upper
50	100		
52	32.3	11.7	51.7
47	7.4	0.0	28.0

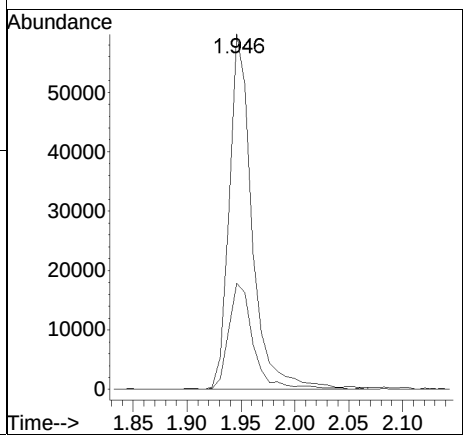


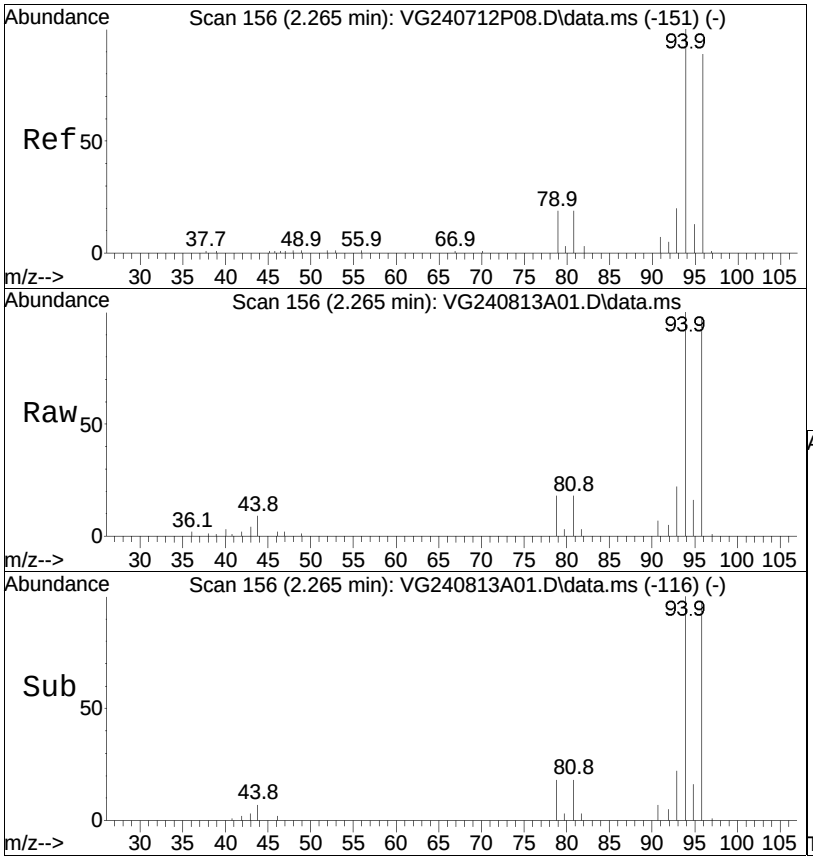


#4
Vinyl chloride
Concen: 10.61 ug/L
RT: 1.946 min Scan# 114
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 62 Resp: 89140

Ion	Ratio	Lower	Upper
62	100		
64	32.1	11.3	51.3

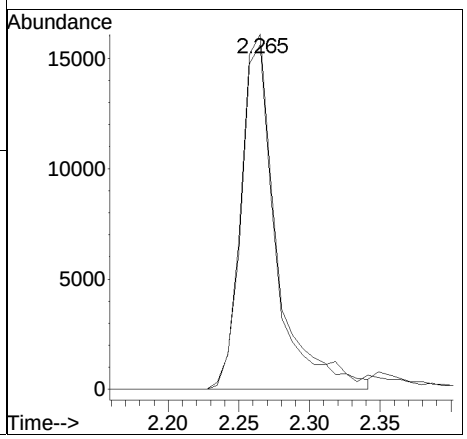


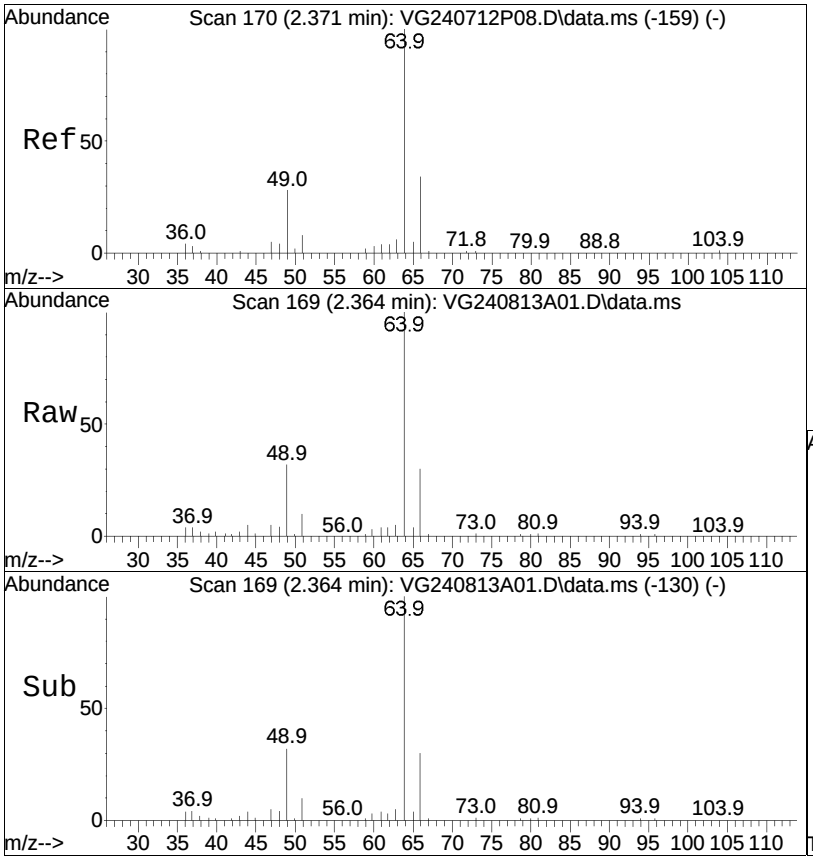


#5
Bromomethane
Concen: 6.36 ug/L
RT: 2.265 min Scan# 156
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 94 Resp: 28288

Ion	Ratio	Lower	Upper
94	100		
96	94.4	75.2	115.2

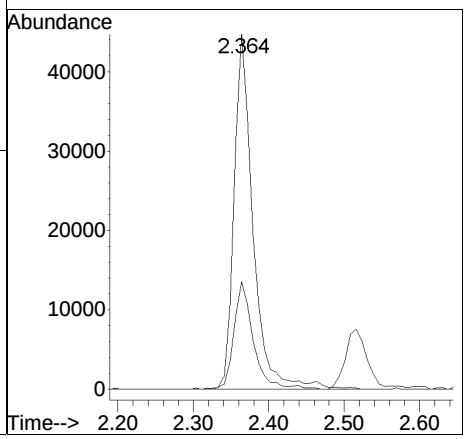


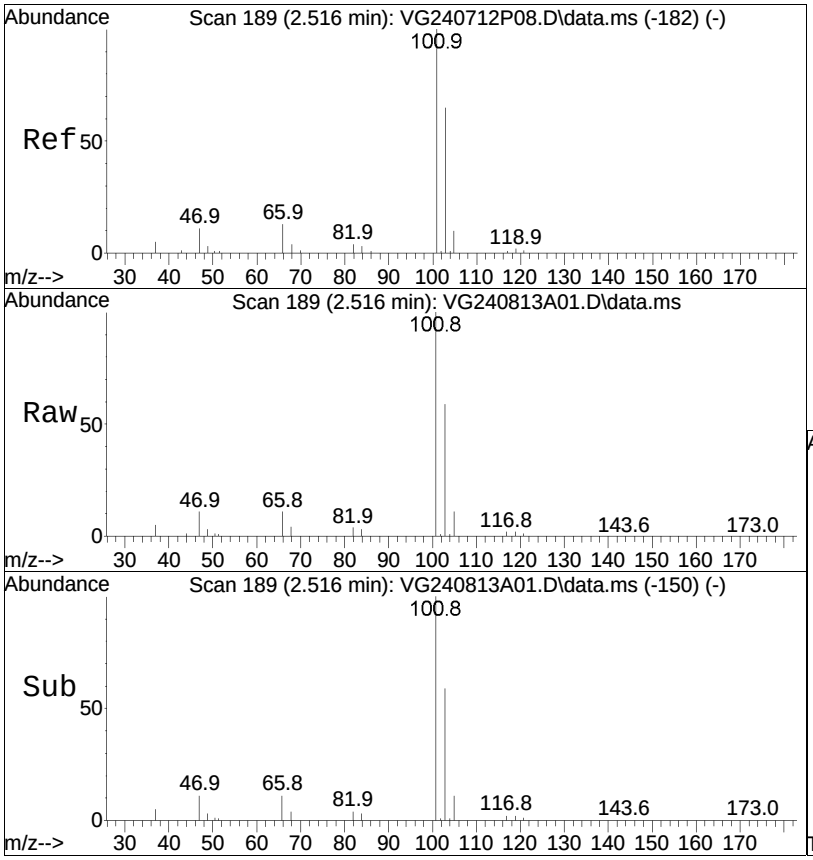


#6
Chloroethane
Concen: 12.24 ug/L
RT: 2.364 min Scan# 169
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 64 Resp: 78635

Ion	Ratio	Lower	Upper
64	100		
66	30.2	13.7	53.7

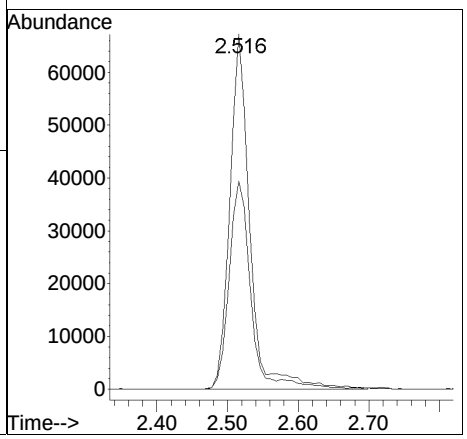


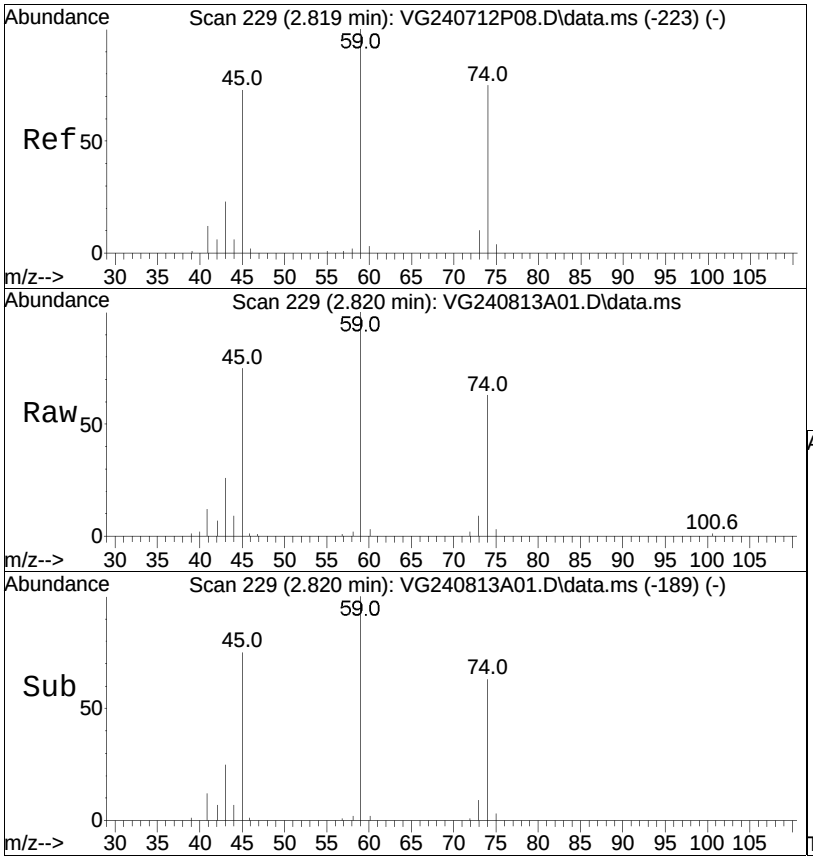


#7
Trichlorofluoromethane
Concen: 10.86 ug/L
RT: 2.516 min Scan# 189
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:101 Resp: 133708

Ion	Ratio	Lower	Upper
101	100		
103	59.4	52.2	78.2

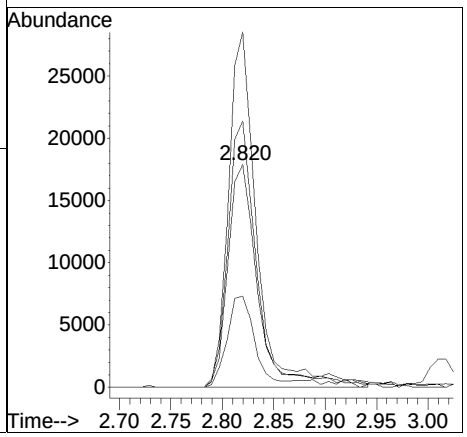


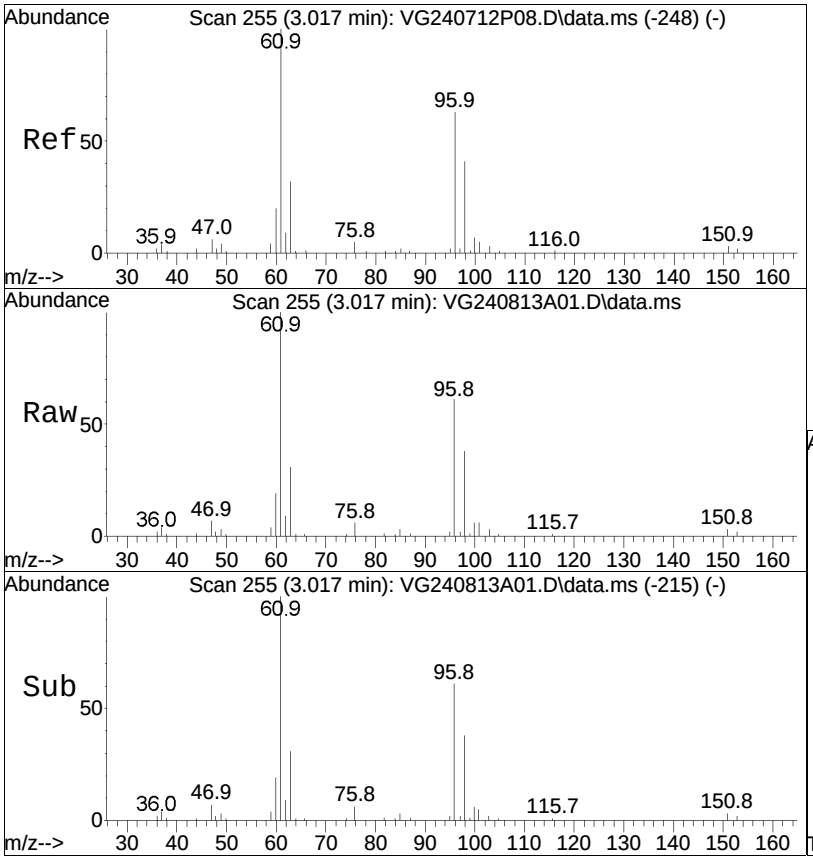


#8
Ethyl ether
Concen: 8.97 ug/L
RT: 2.820 min Scan# 229
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 74 Resp: 36697

Ion	Ratio	Lower	Upper
74	100		
59	144.3	83.5	173.3
45	116.5	59.7	123.9
43	38.1	17.6	36.6#

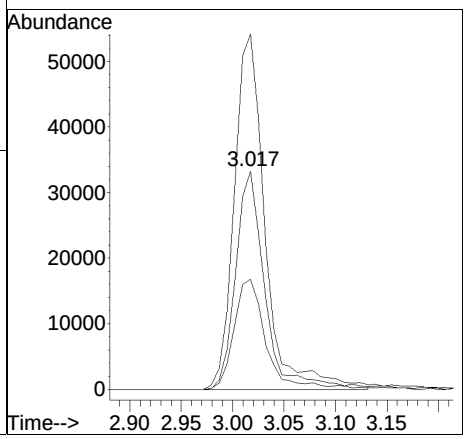


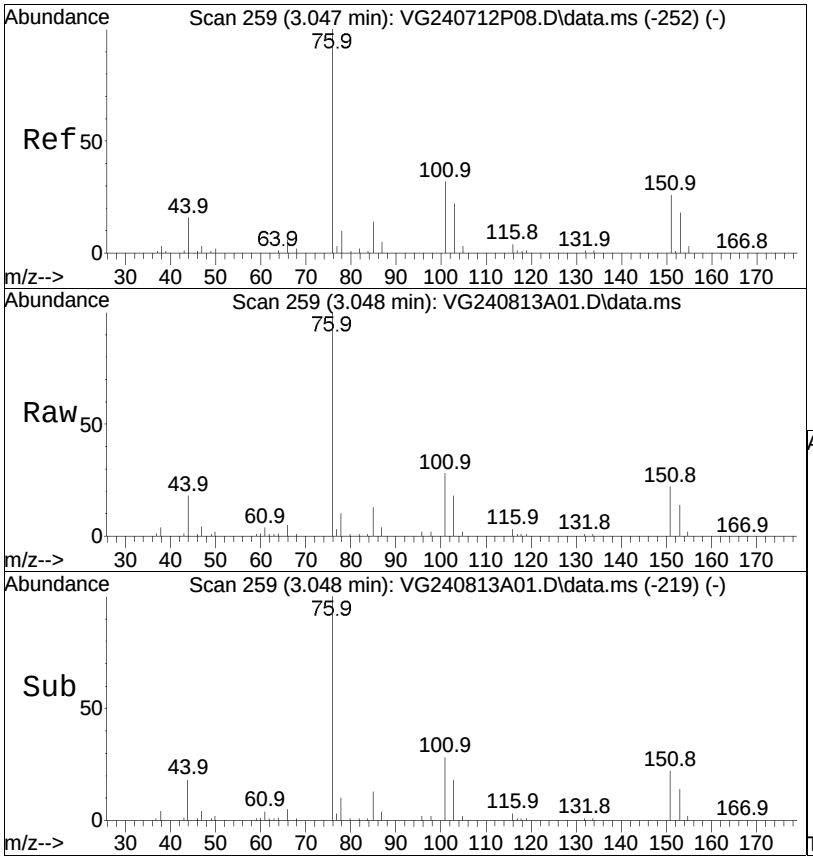


#10
1,1-Dichloroethene
Concen: 9.80 ug/L
RT: 3.017 min Scan# 255
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 96 Resp: 66178

Ion	Ratio	Lower	Upper
96	100		
61	174.9	124.2	186.4
63	55.2	40.0	60.0

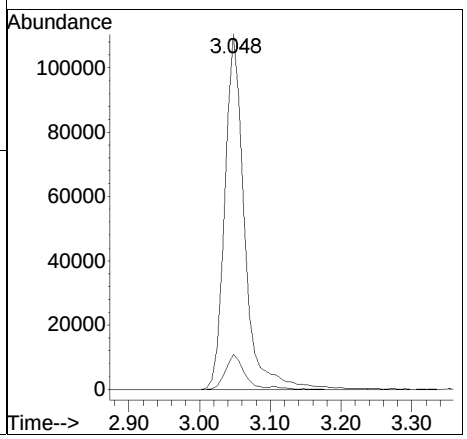


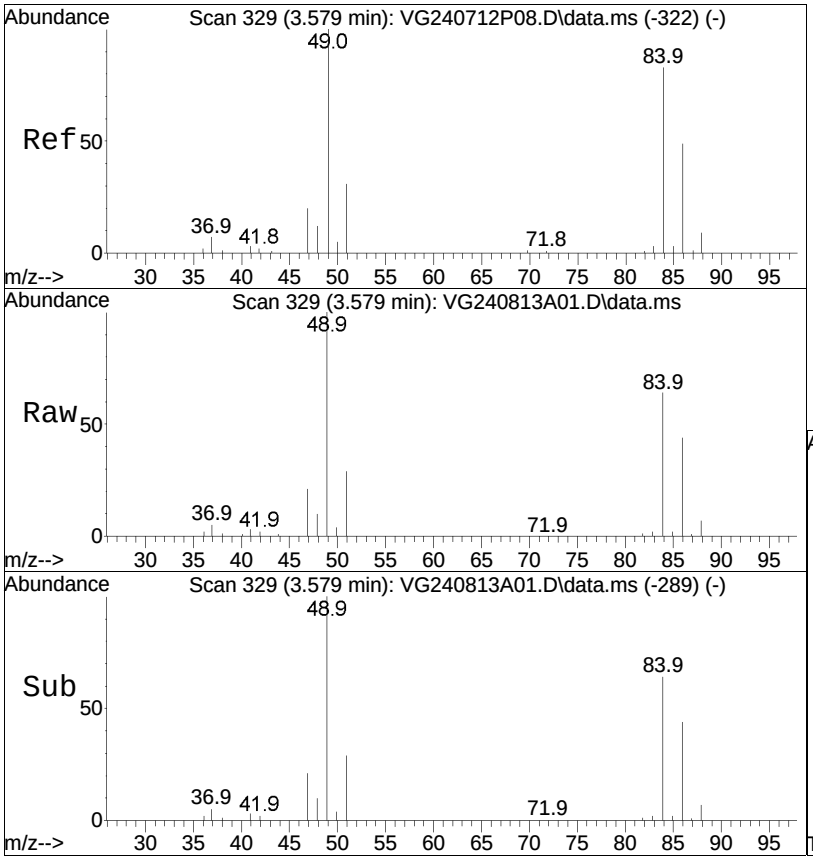


#11
Carbon disulfide
Concen: 10.84 ug/L
RT: 3.048 min Scan# 259
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 76 Resp: 215357

Ion	Ratio	Lower	Upper
76	100		
78	9.1	6.6	13.6

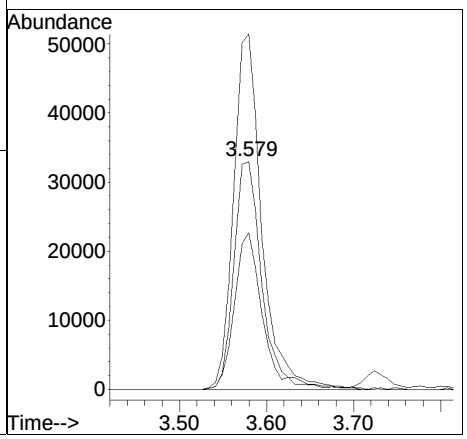


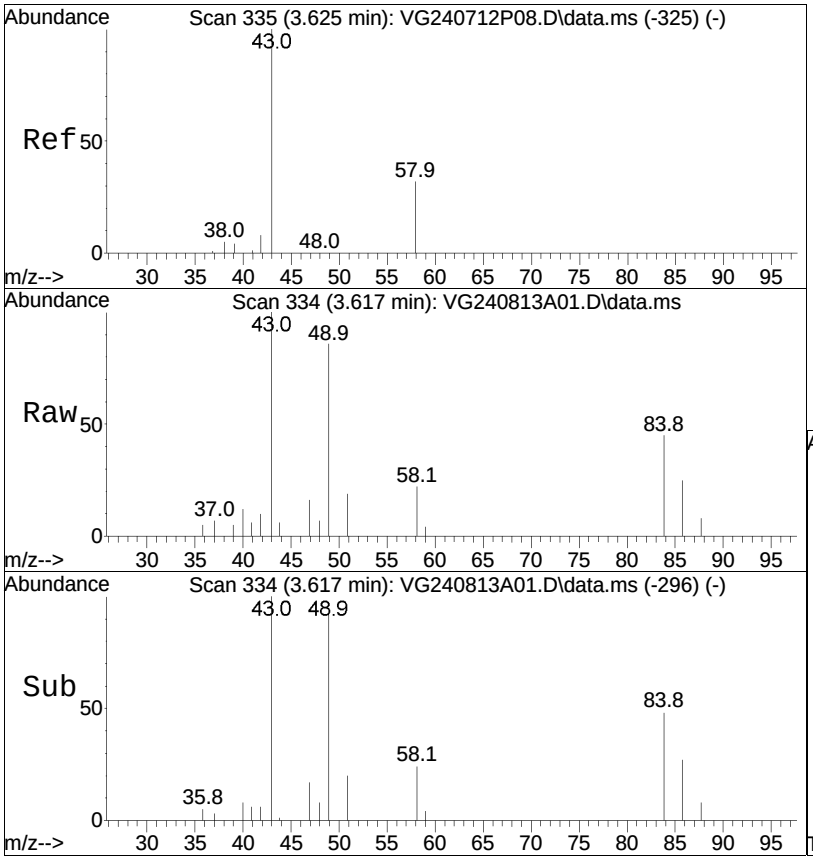


#15
Methylene chloride
Concen: 9.33 ug/L
RT: 3.579 min Scan# 329
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 84 Resp: 74500

Ion	Ratio	Lower	Upper
84	100		
86	68.4	41.1	85.5
49	155.5	76.2	158.2

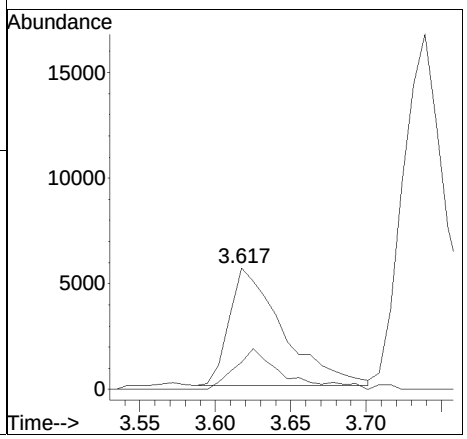


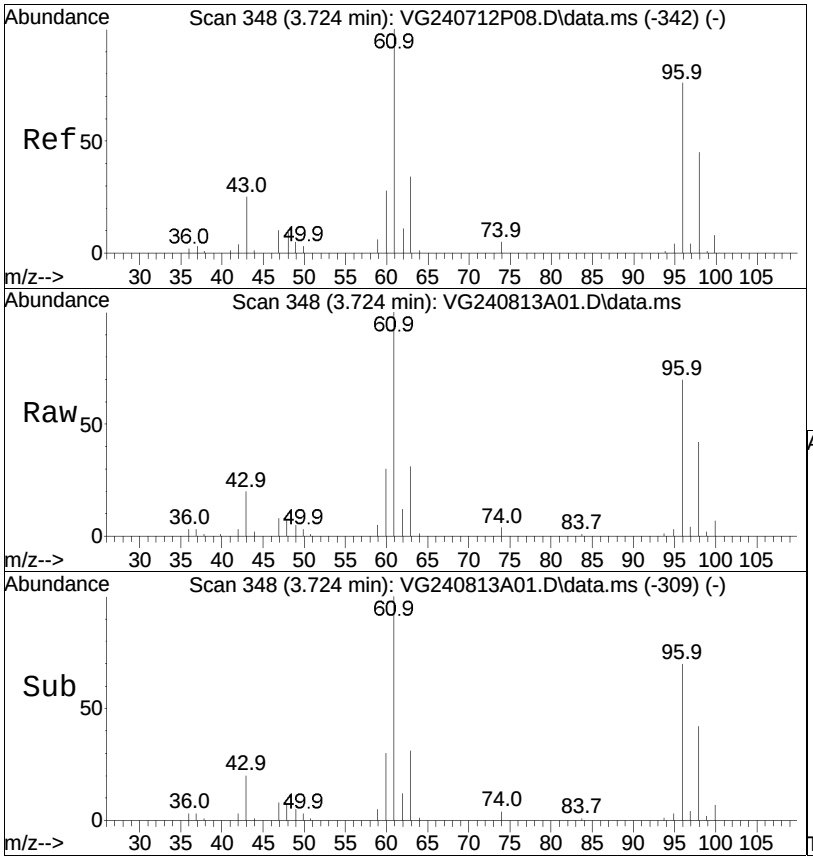


#17
Acetone
Concen: 7.11 ug/L
RT: 3.617 min Scan# 334
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 43 Resp: 13790

Ion	Ratio	Lower	Upper
43	100		
58	30.7	22.2	33.4

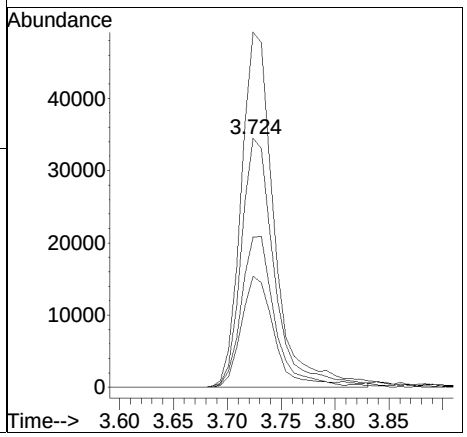


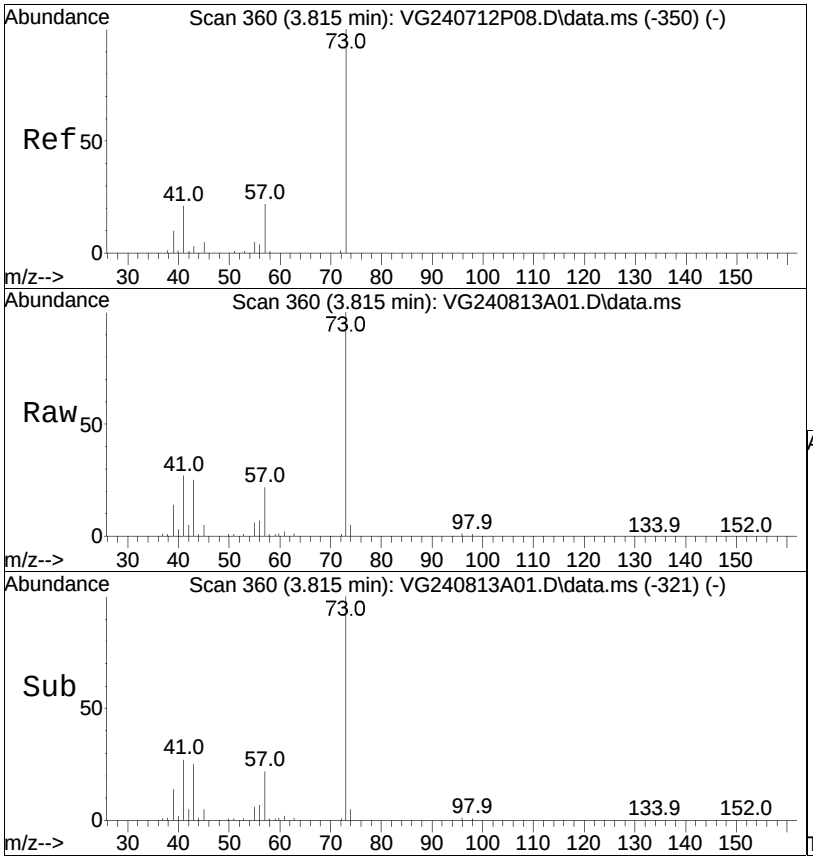


#18
trans-1,2-Dichloroethene
Concen: 10.09 ug/L
RT: 3.724 min Scan# 348
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 96 Resp: 74552

Ion	Ratio	Lower	Upper
96	100		
61	142.8	85.7	178.1
98	62.5	40.2	83.4
63	45.1	28.0	58.2

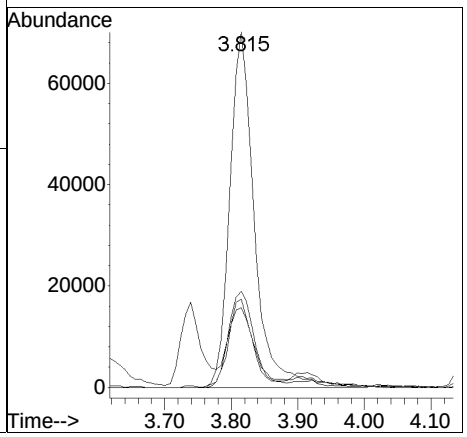


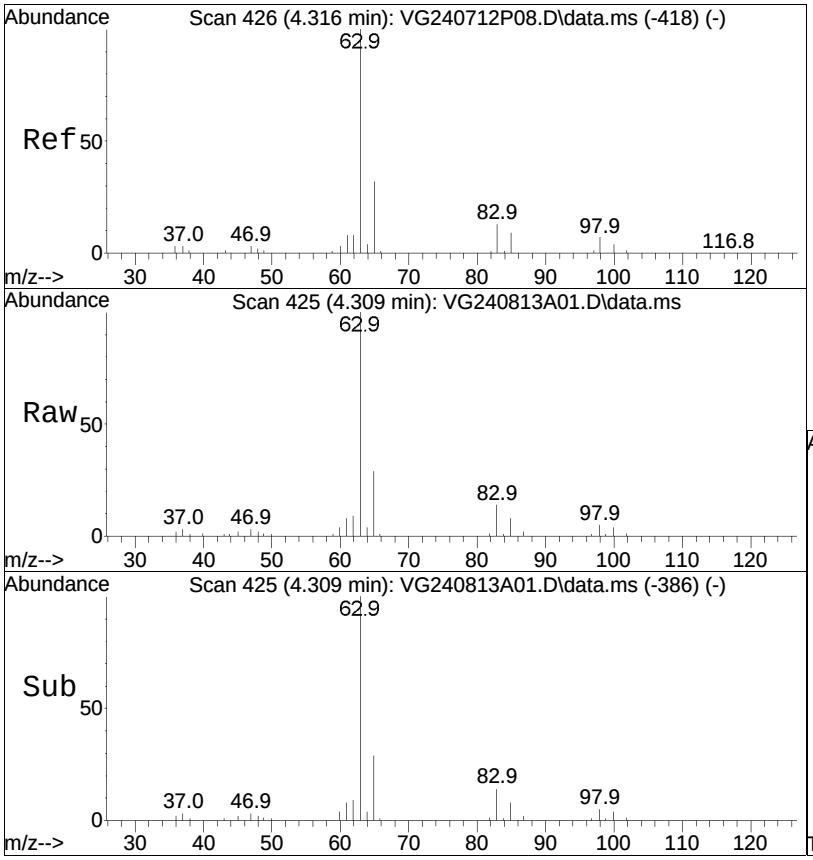


#20
Methyl tert-butyl ether
Concen: 8.02 ug/L
RT: 3.815 min Scan# 360
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 73 Resp: 182263

Ion	Ratio	Lower	Upper
73	100		
57	23.3	12.5	26.1
43	25.4	13.0	27.0
41	27.6	12.5	26.1#

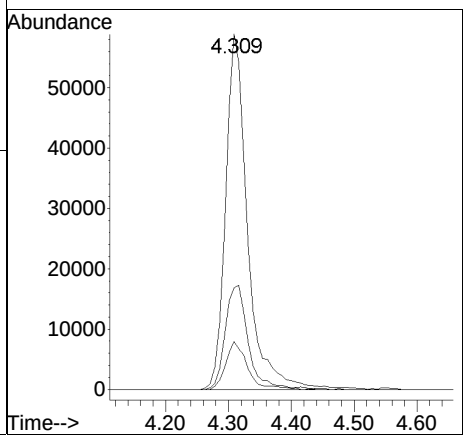


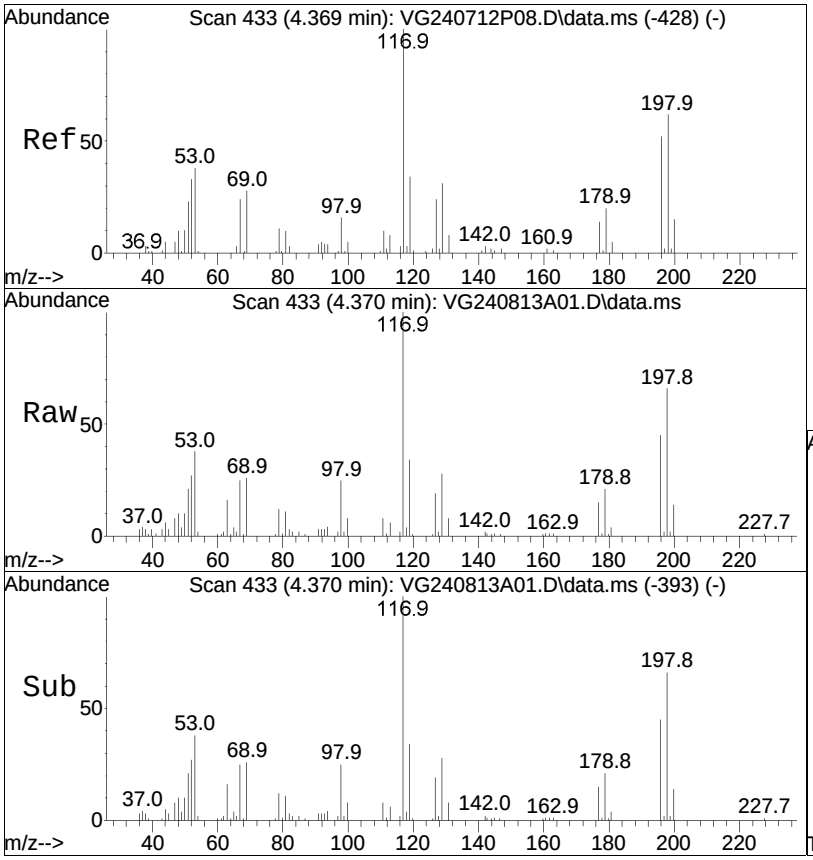


#23
1,1-Dichloroethane
Concen: 10.72 ug/L
RT: 4.309 min Scan# 425
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 63 Resp: 143508

Ion	Ratio	Lower	Upper
63	100		
65	30.5	10.4	50.4
83	13.2	0.0	33.2

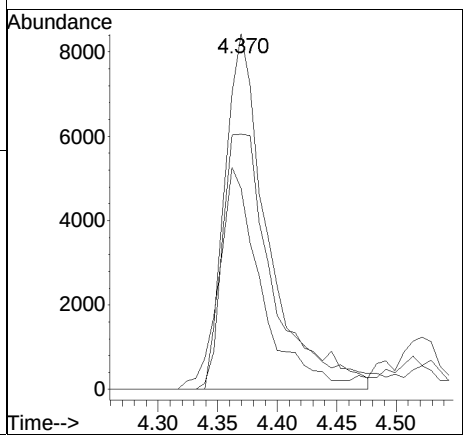


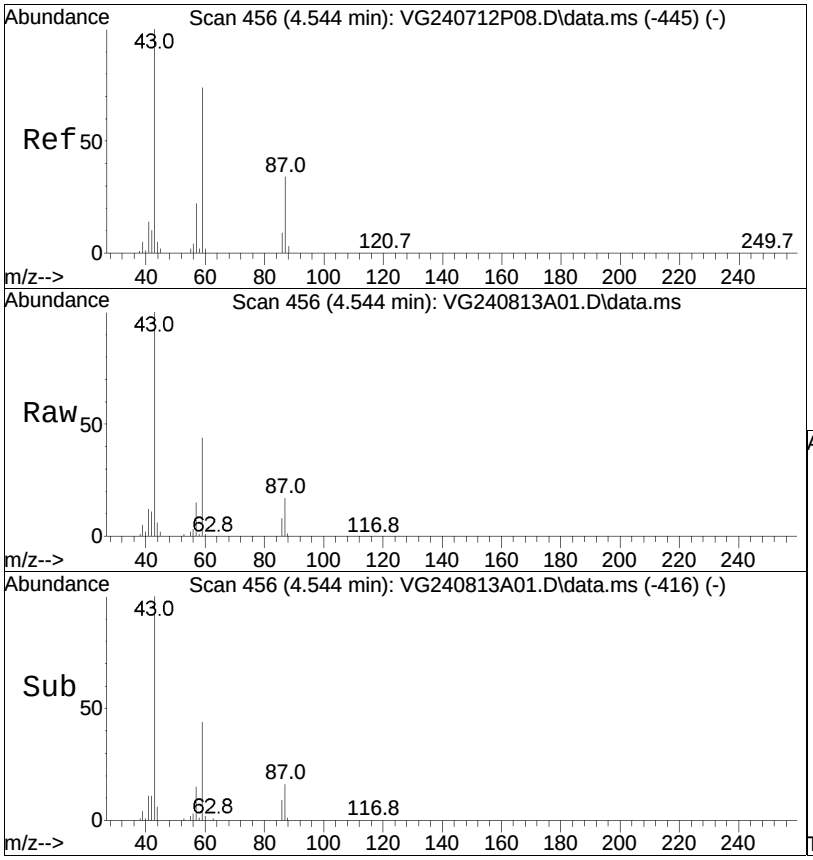


#25
Acrylonitrile
Concen: 10.20 ug/L
RT: 4.370 min Scan# 433
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 53 Resp: 21289

Ion	Ratio	Lower	Upper
53	100		
52	86.2	68.3	102.5
51	61.3	51.9	77.9

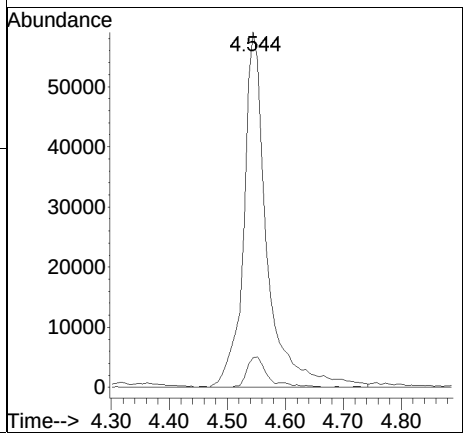


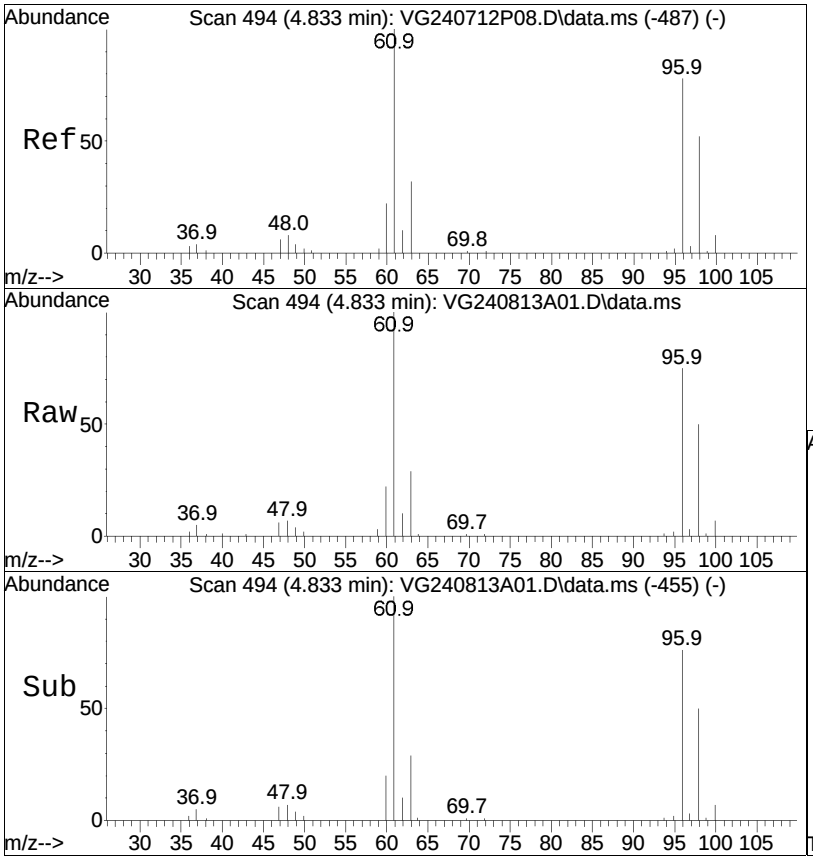


#27
Vinyl acetate
Concen: 13.41 ug/L
RT: 4.544 min Scan# 456
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 43 Resp: 166331

Ion	Ratio	Lower	Upper
43	100		
86	7.8	6.3	9.5

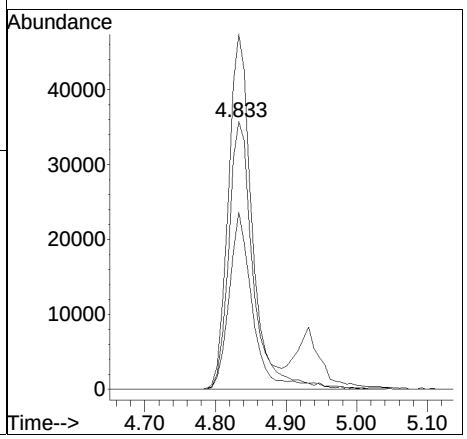


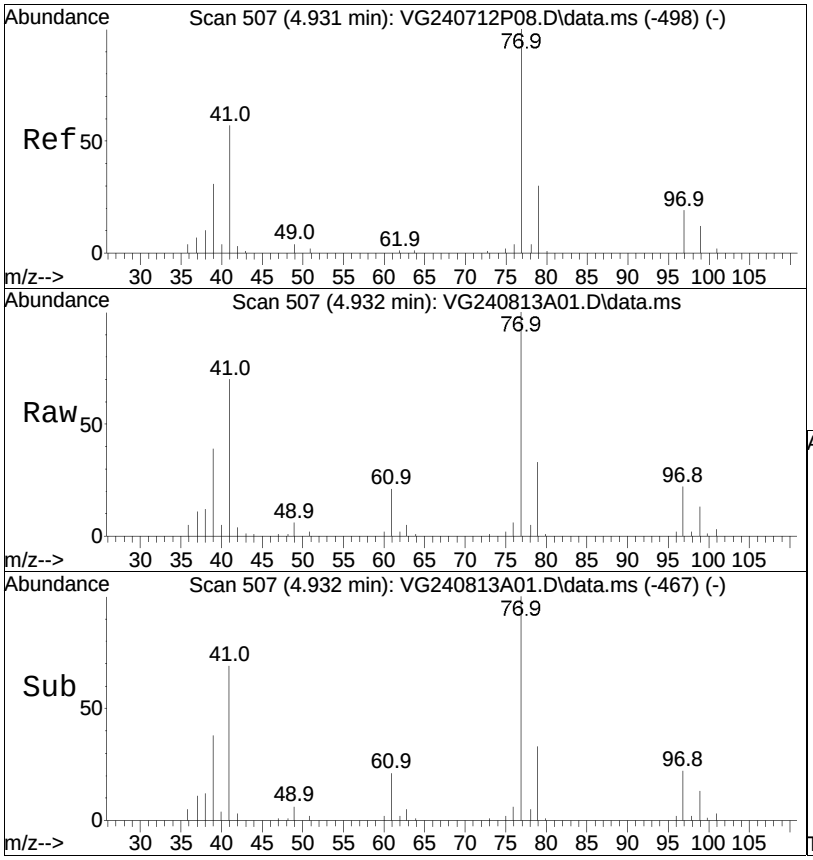


#28
cis-1,2-Dichloroethene
Concen: 10.20 ug/L
RT: 4.833 min Scan# 494
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 96 Resp: 86698

Ion	Ratio	Lower	Upper
96	100		
61	124.6	96.6	144.8
98	63.9	51.3	76.9

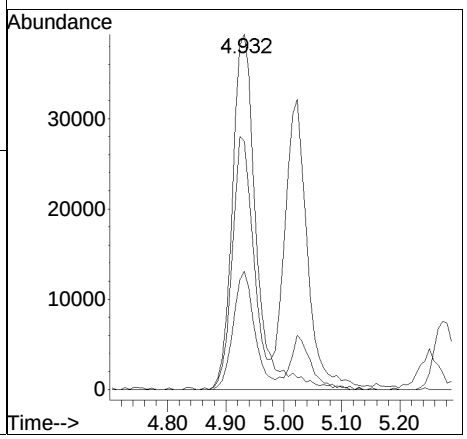


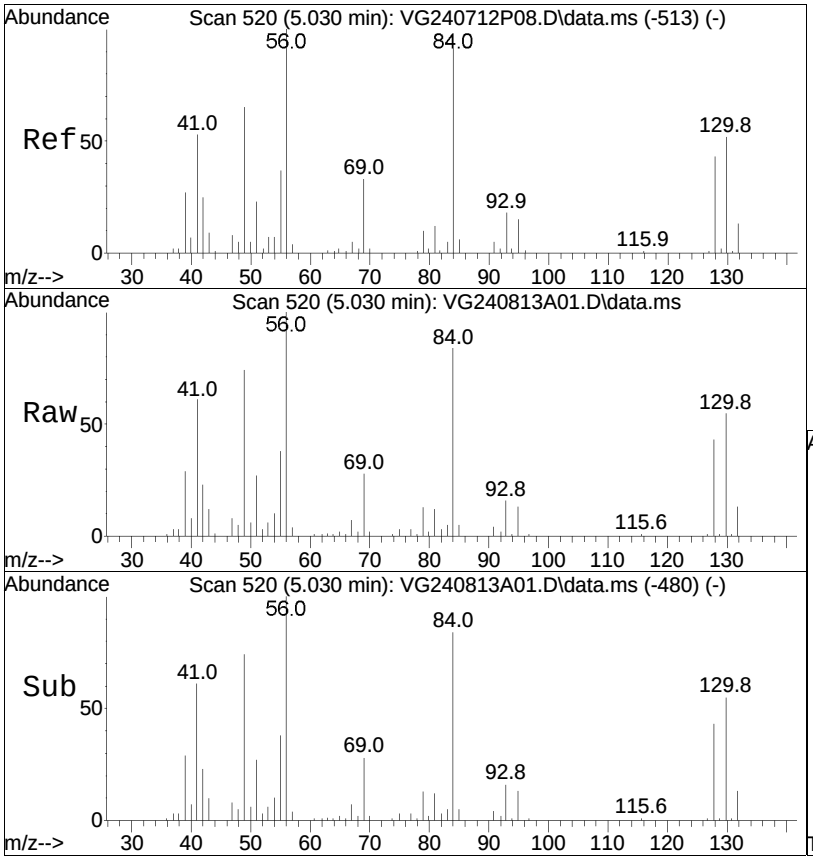


#29
2,2-Dichloropropane
Concen: 10.09 ug/L
RT: 4.932 min Scan# 507
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 77 Resp: 112568

Ion	Ratio	Lower	Upper
77	100		
41	64.1	38.1	79.1
79	30.1	20.6	42.8

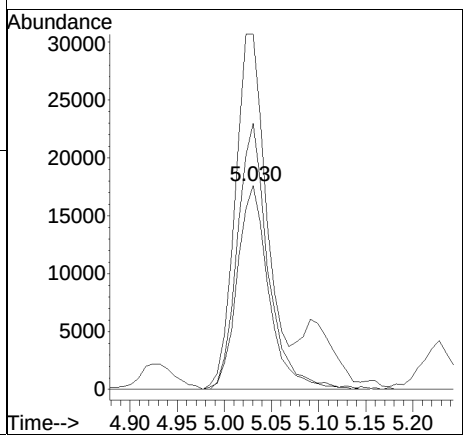


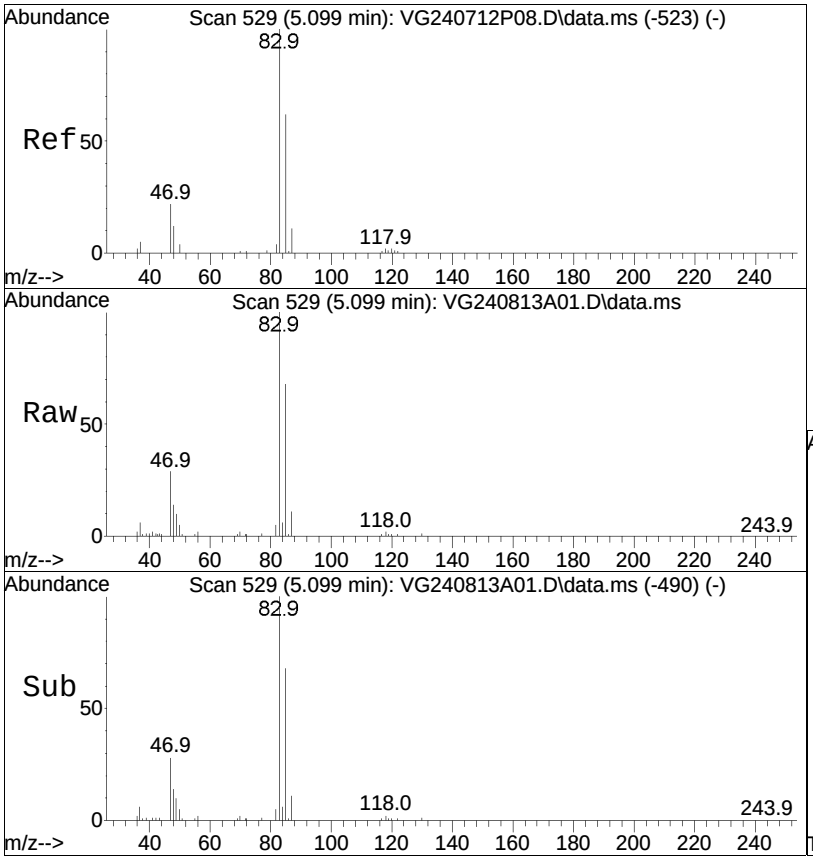


#30
Bromochloromethane
Concen: 9.93 ug/L
RT: 5.030 min Scan# 520
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:128 Resp: 41289

Ion	Ratio	Lower	Upper
128	100		
49	172.6	112.7	169.1#
130	126.4	103.3	154.9

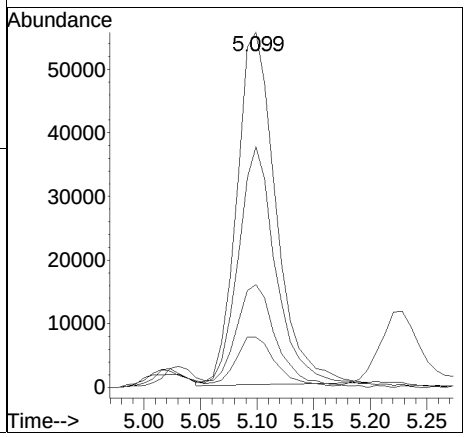


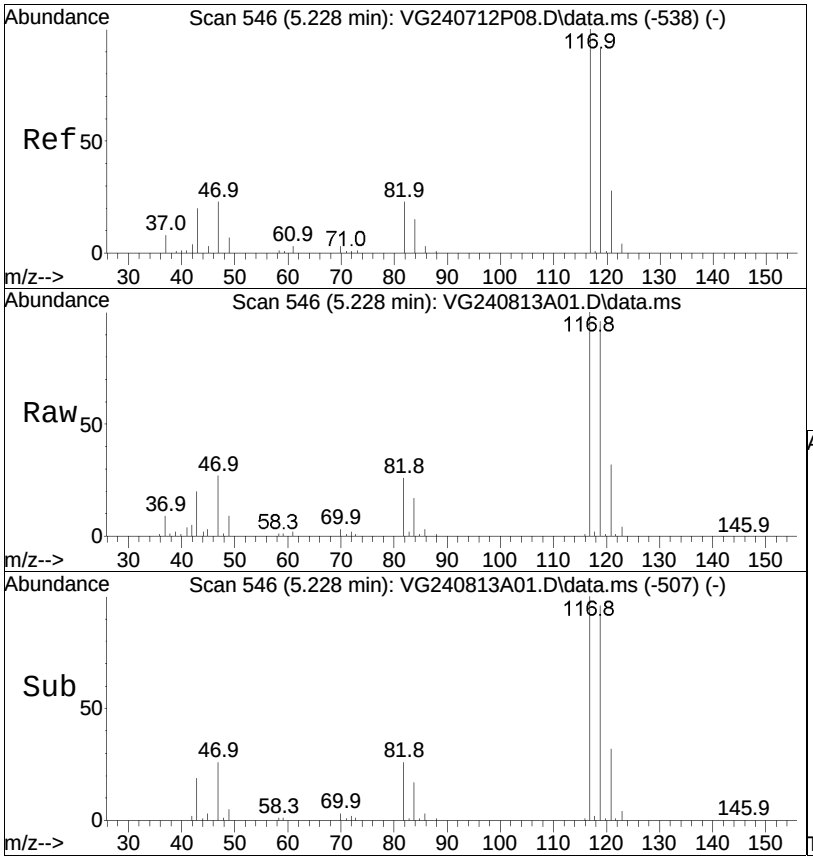


#32
Chloroform
Concen: 9.75 ug/L
RT: 5.099 min Scan# 529
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 83 Resp: 133565

Ion	Ratio	Lower	Upper
83	100		
85	68.6	41.4	86.0
47	29.8	15.1	31.3
48	15.5	7.7	16.1

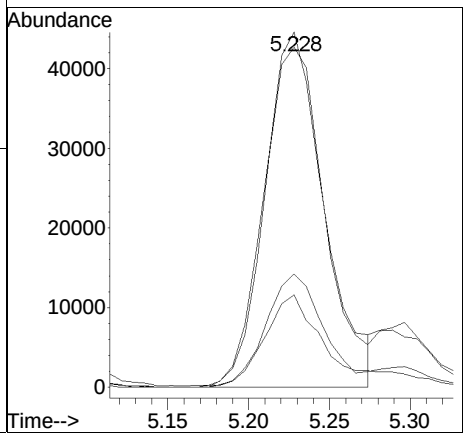


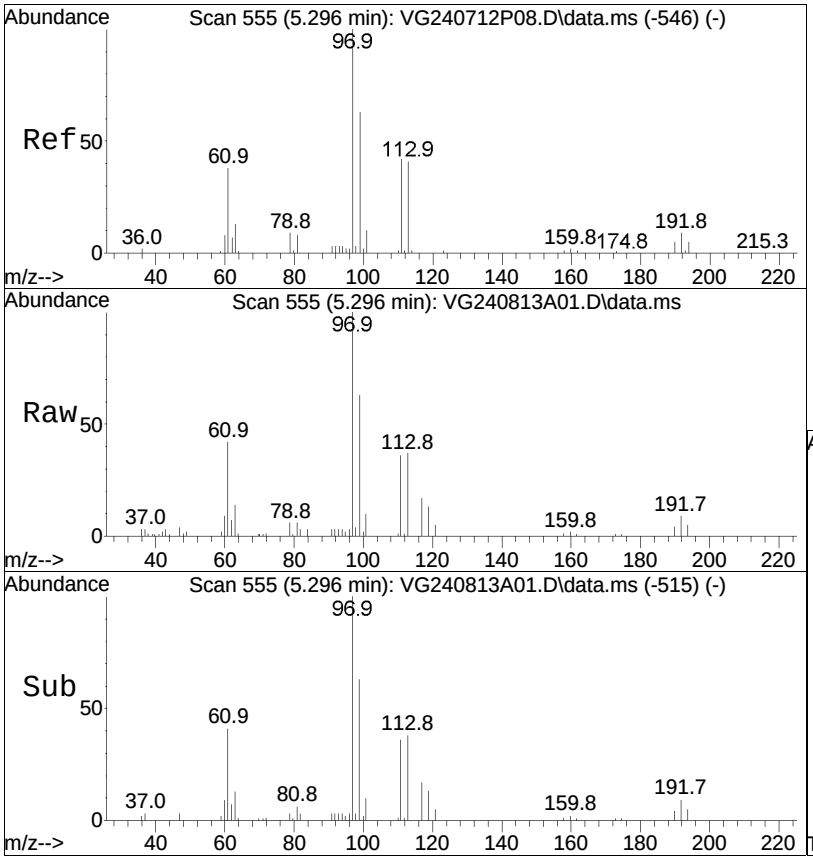


#34
Carbon tetrachloride
Concen: 10.30 ug/L
RT: 5.228 min Scan# 546
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:117 Resp: 114402

Ion	Ratio	Lower	Upper
117	100		
119	97.1	63.2	131.2
121	31.4	20.4	42.4
82	29.3	15.4	32.0

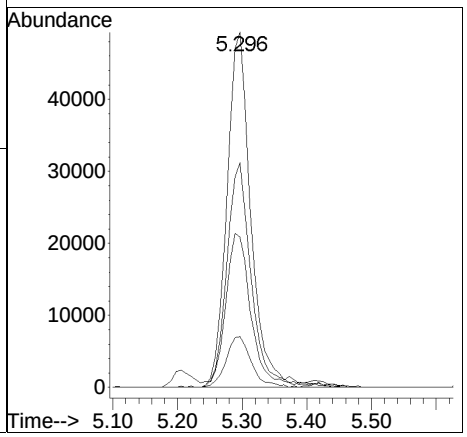


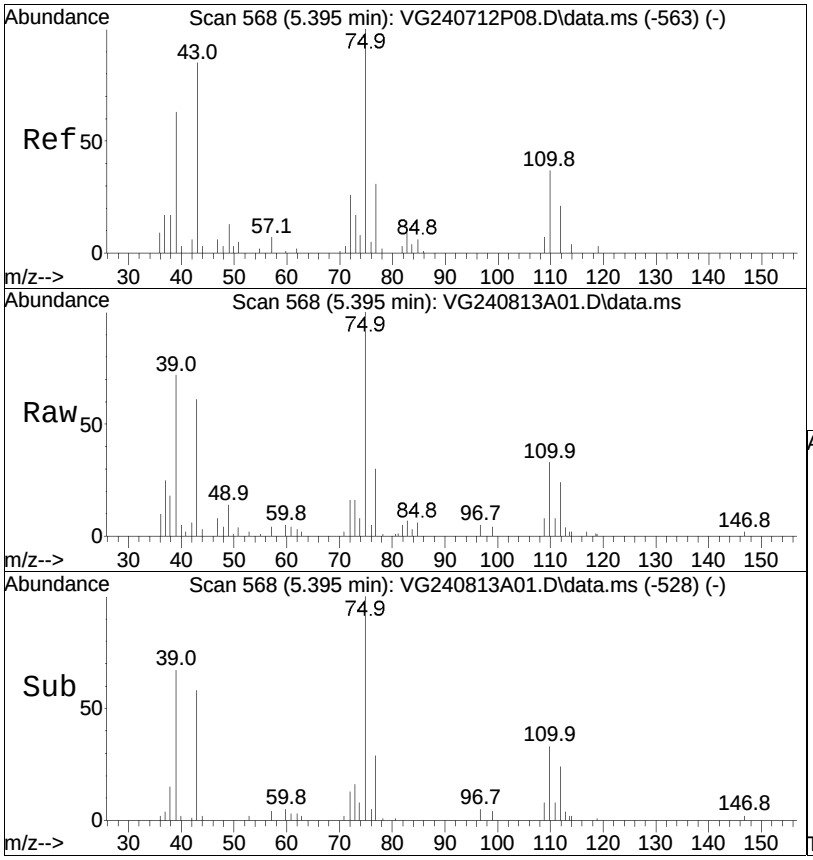


#37
1,1,1-Trichloroethane
Concen: 10.21 ug/L
RT: 5.296 min Scan# 555
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 97 Resp: 128989

Ion	Ratio	Lower	Upper
97	100		
99	64.1	41.3	85.7
61	45.2	26.0	54.0
63	15.1	8.6	18.0

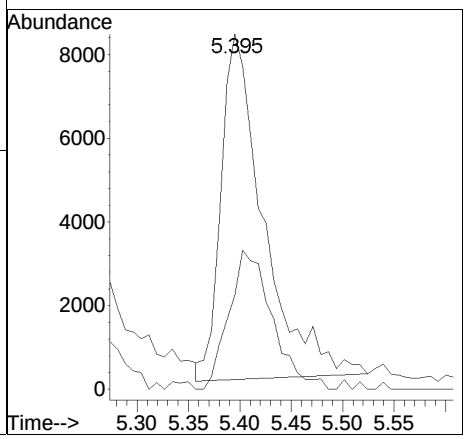


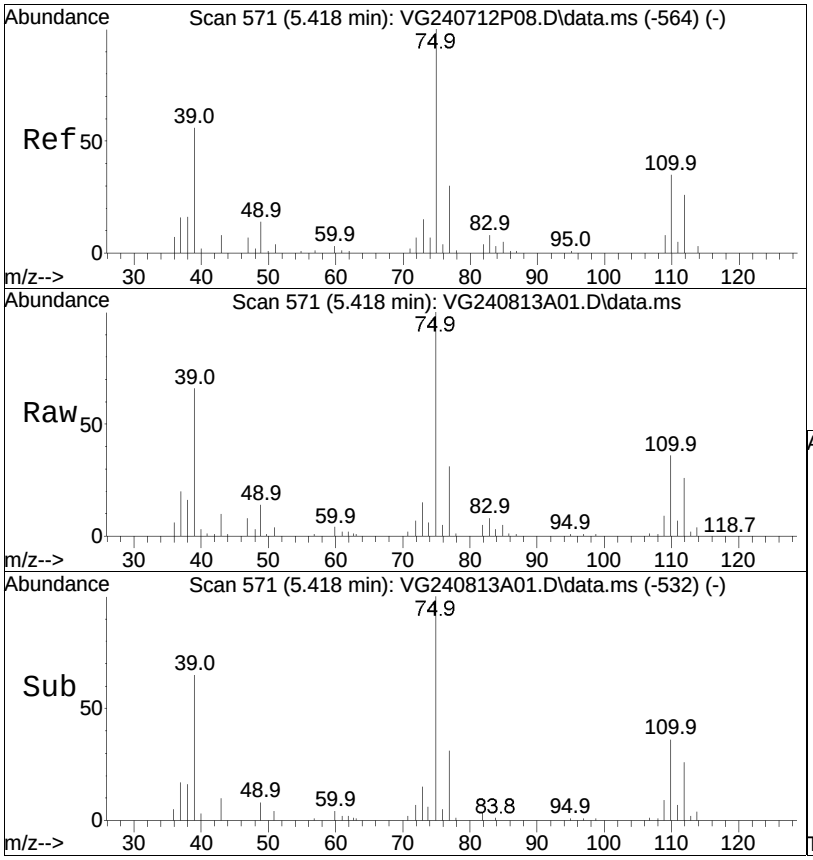


#39
2-Butanone
Concen: 9.19 ug/L
RT: 5.395 min Scan# 568
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 43 Resp: 23788

Ion	Ratio	Lower	Upper
43	100		
72	40.8	42.6	63.8#

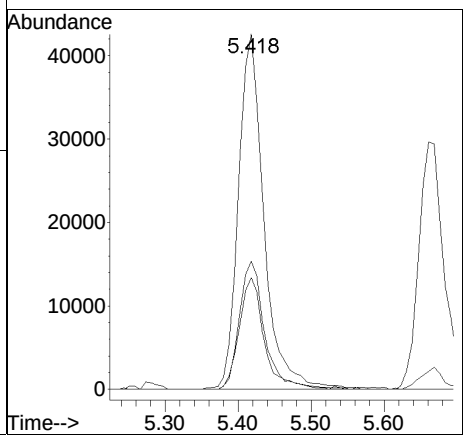


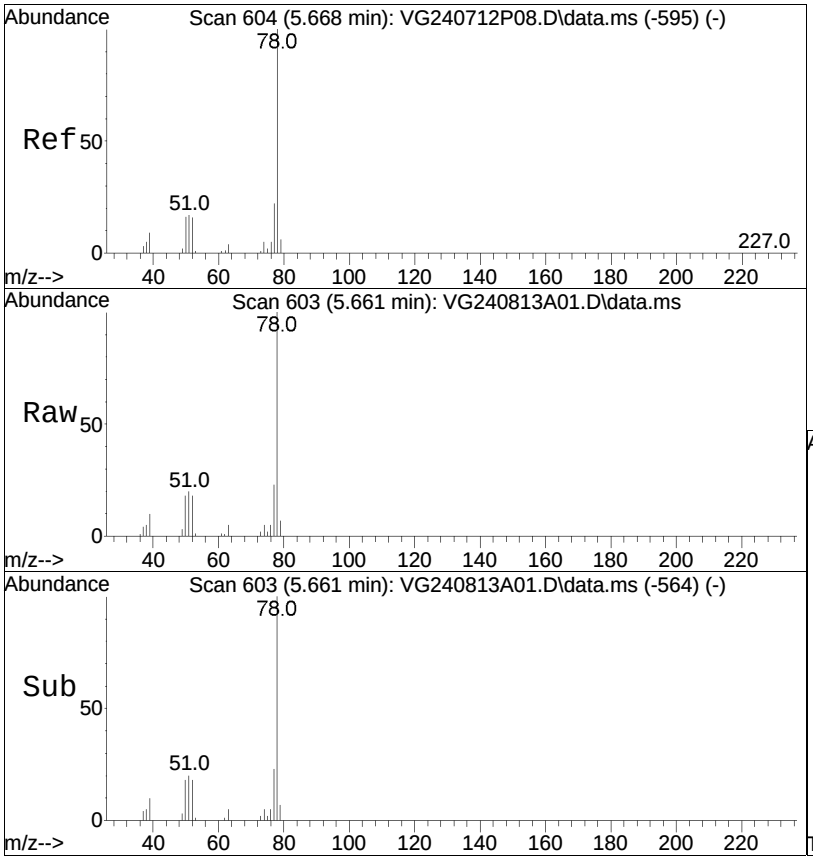


#40
1,1-Dichloropropene
Concen: 10.32 ug/L
RT: 5.418 min Scan# 571
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 75 Resp: 104261

Ion	Ratio	Lower	Upper
75	100		
110	35.5	24.1	50.1
77	30.6	19.8	41.0

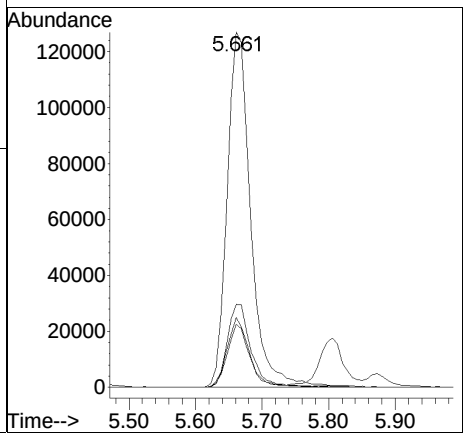


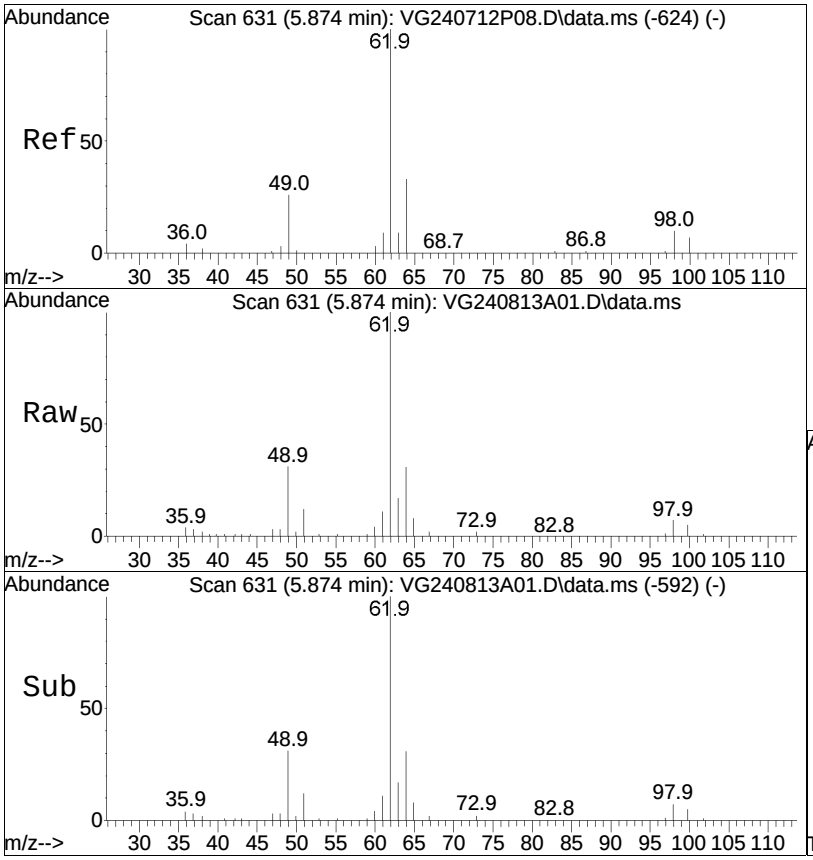


#41
Benzene
Concen: 10.29 ug/L
RT: 5.661 min Scan# 603
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 78 Resp: 314733

Ion	Ratio	Lower	Upper
78	100		
77	23.4	15.5	32.1
51	18.2	9.9	20.7
52	17.1	9.2	19.2

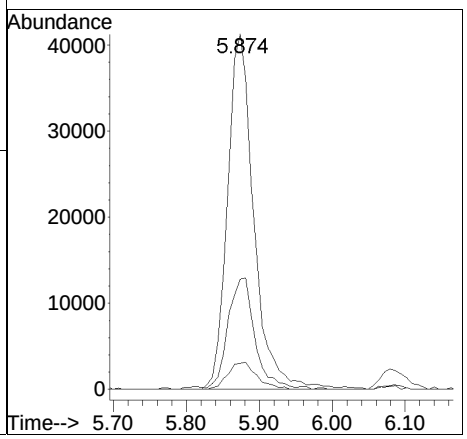


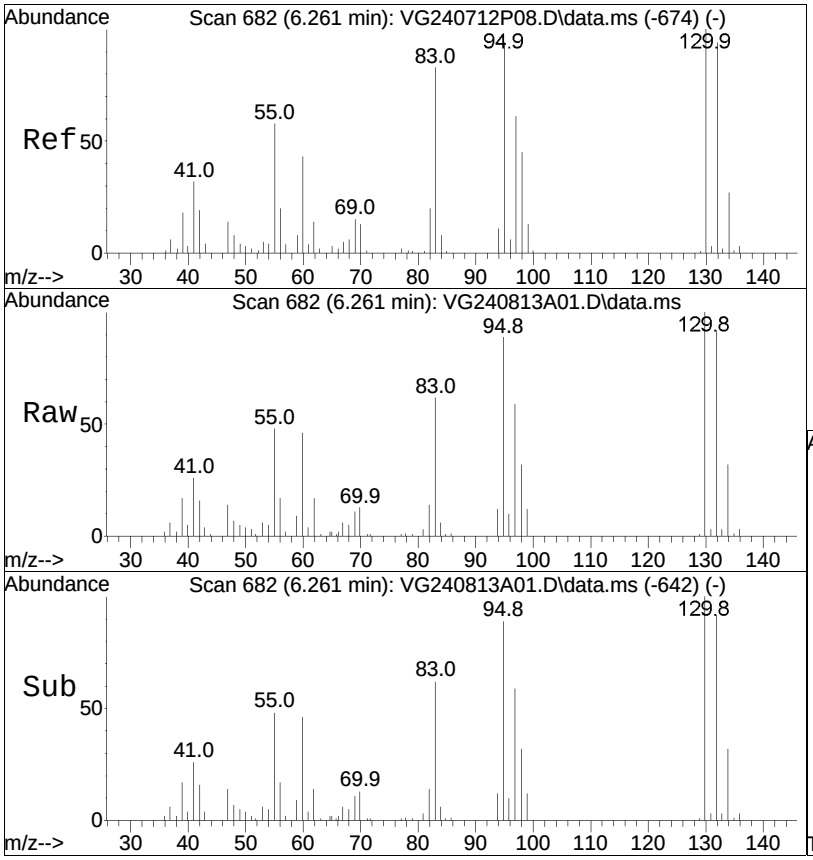


#44
1,2-Dichloroethane
Concen: 10.68 ug/L
RT: 5.874 min Scan# 631
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 62 Resp: 104124

Ion	Ratio	Lower	Upper
62	100		
64	32.2	11.9	51.9
98	8.4	0.0	29.3

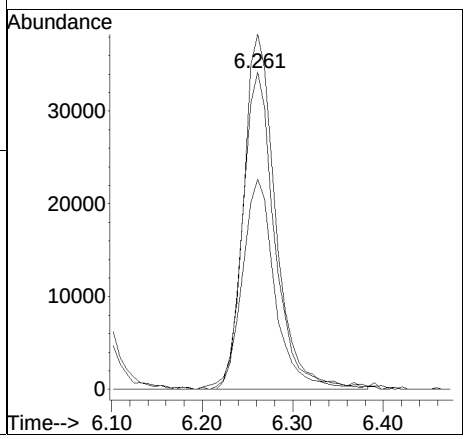


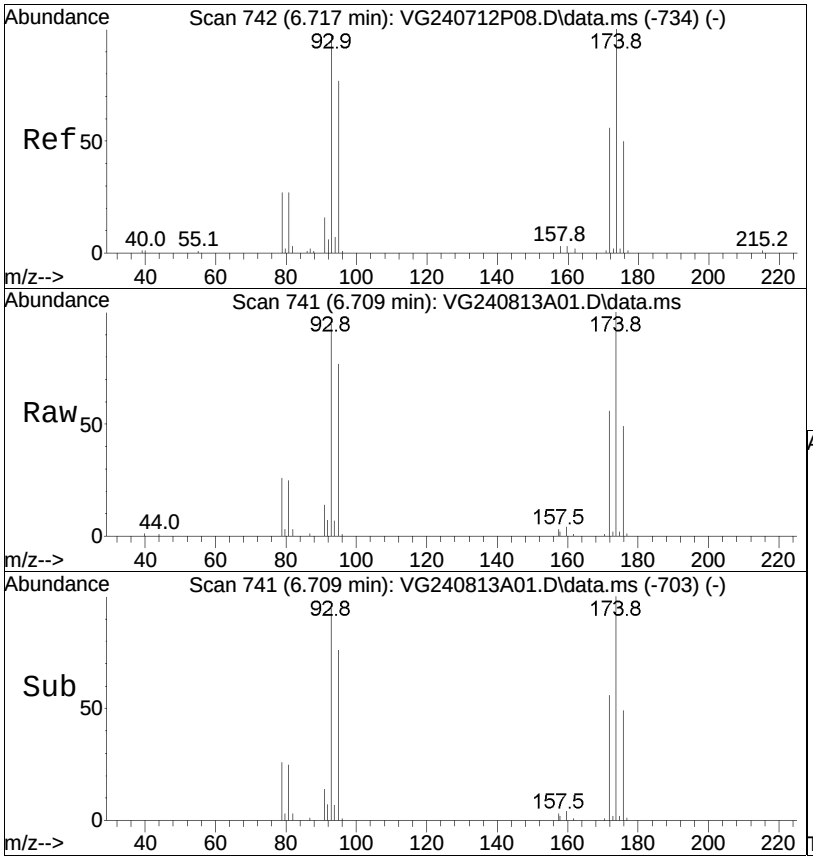


#48
Trichloroethene
Concen: 9.78 ug/L
RT: 6.261 min Scan# 682
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 95 Resp: 84390

Ion	Ratio	Lower	Upper
95	100		
97	68.7	54.0	81.0
130	111.0	85.0	127.4

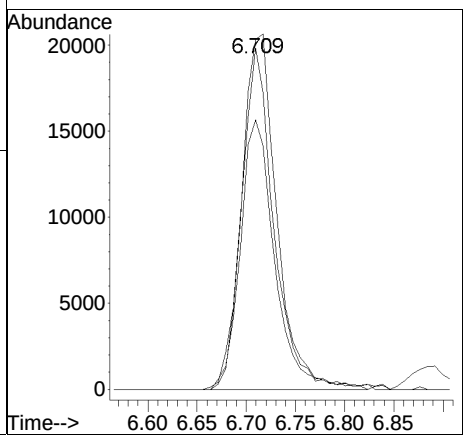


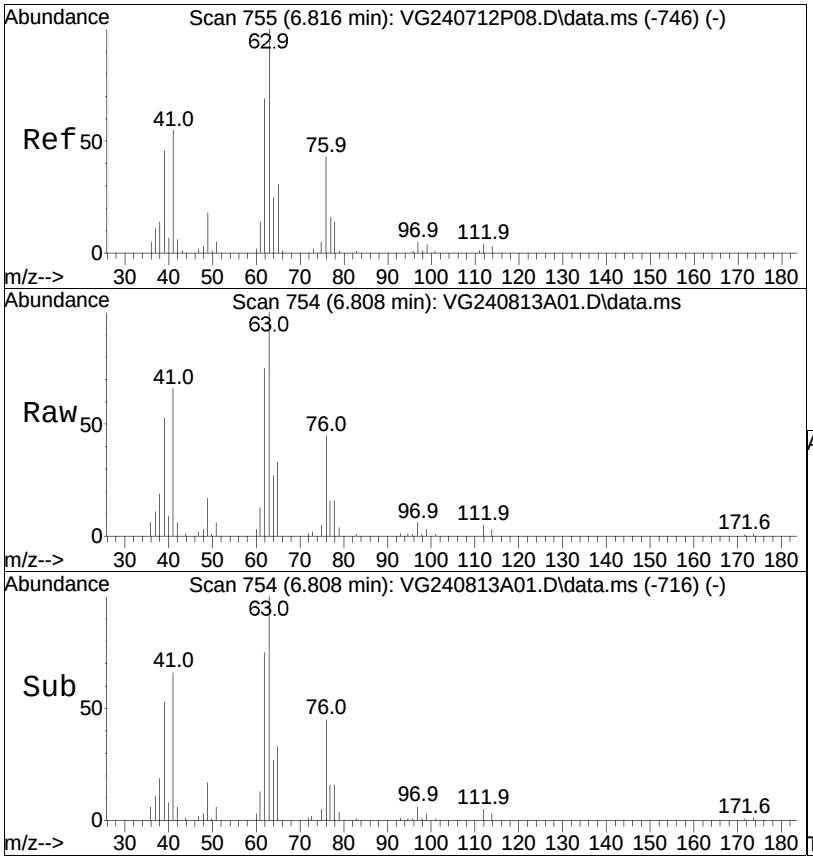


#50
Dibromomethane
Concen: 9.52 ug/L
RT: 6.709 min Scan# 741
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 93 Resp: 45915

Ion	Ratio	Lower	Upper
93	100		
95	83.1	66.6	100.0
174	111.2	90.5	135.7

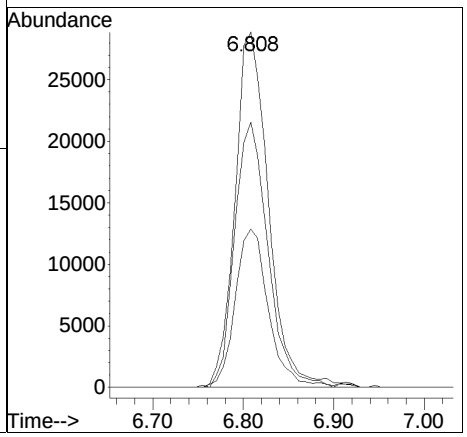


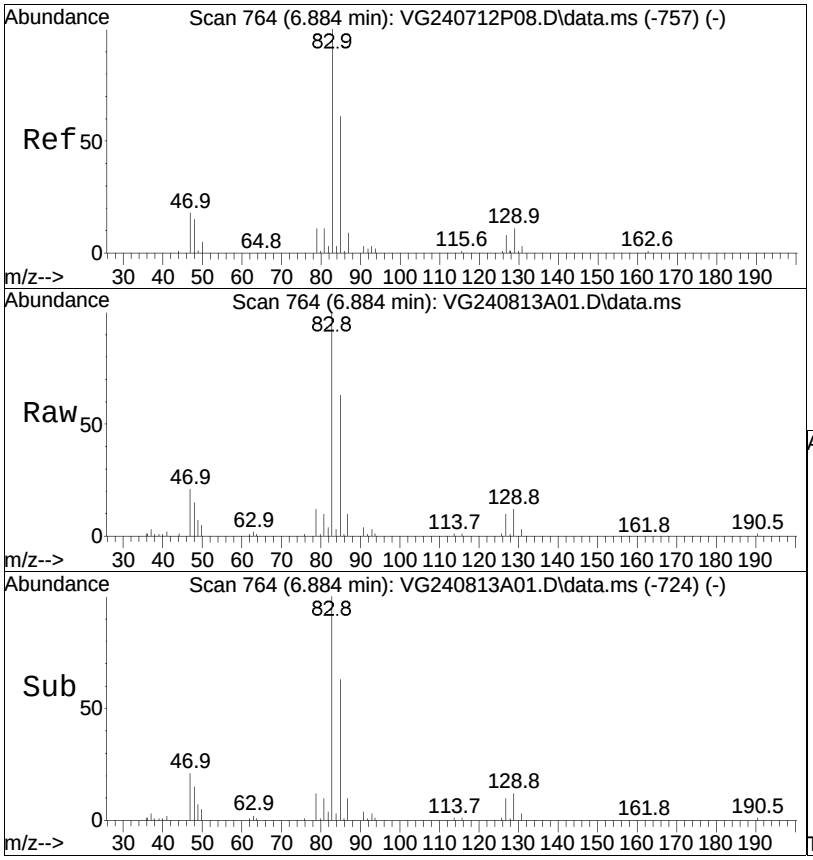


#51
1,2-Dichloropropane
Concen: 10.00 ug/L
RT: 6.808 min Scan# 754
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 63 Resp: 74672

Ion	Ratio	Lower	Upper
63	100		
62	74.4	56.5	84.7
76	44.1	34.6	52.0

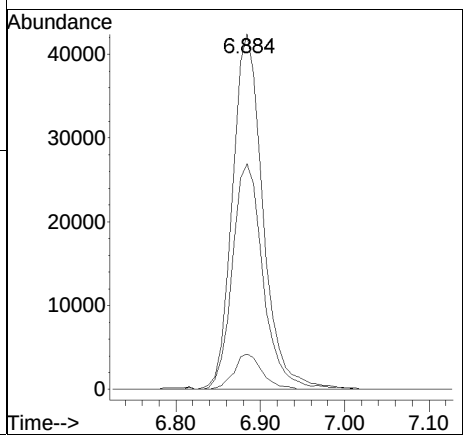


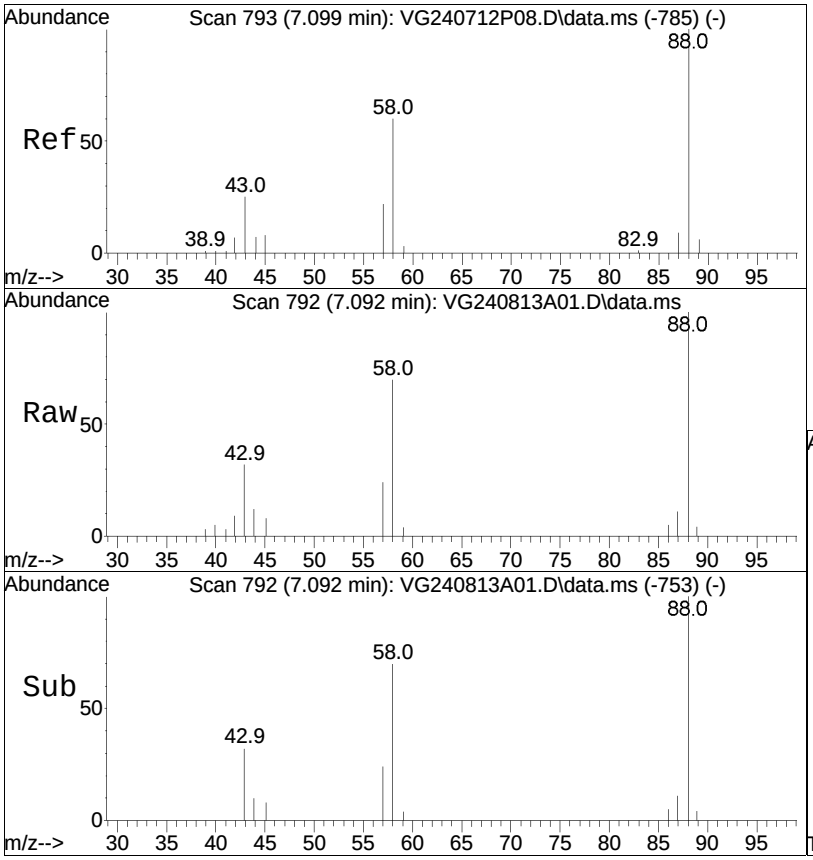


#54
Bromodichloromethane
Concen: 9.75 ug/L
RT: 6.884 min Scan# 764
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 83 Resp: 106177

Ion	Ratio	Lower	Upper
83	100		
85	64.4	50.8	76.2
127	9.3	7.4	11.2

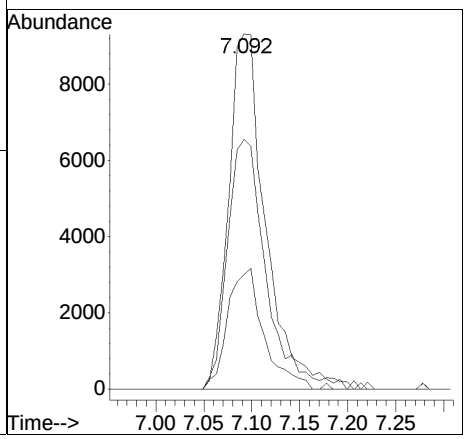


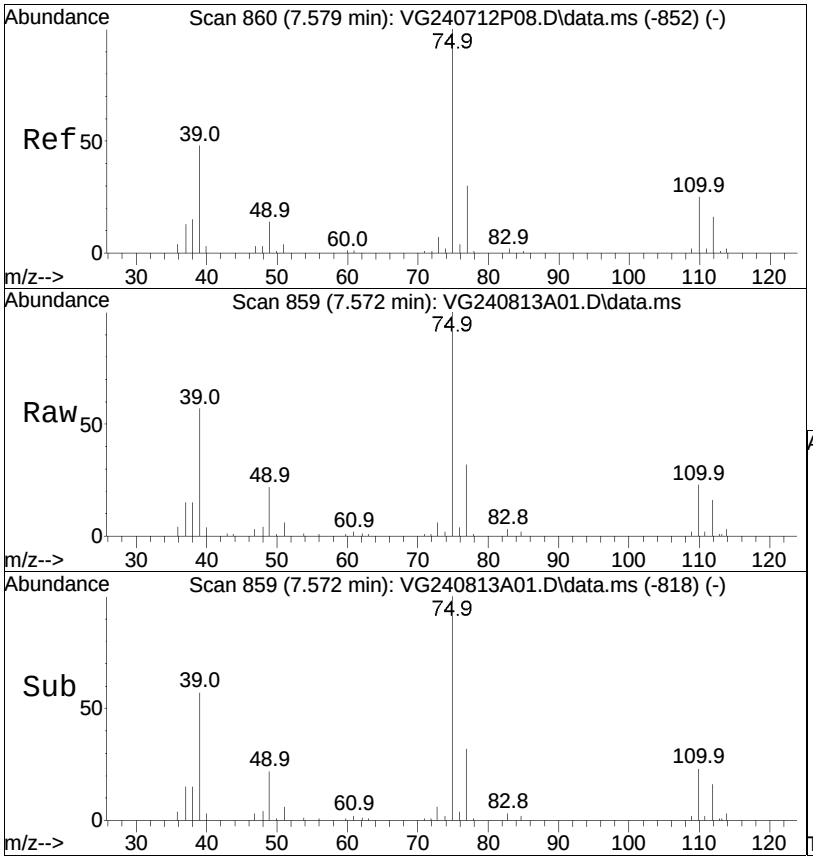


#57
1,4-Dioxane
Concen: 331.11 ug/L
RT: 7.092 min Scan# 792
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 88 Resp: 25139

Ion	Ratio	Lower	Upper
88	100		
58	71.8	48.7	73.1
43	33.1	22.4	33.6

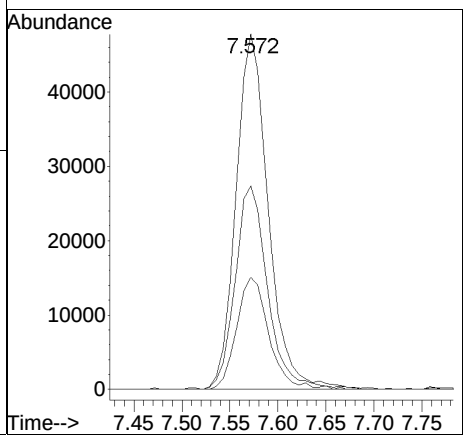


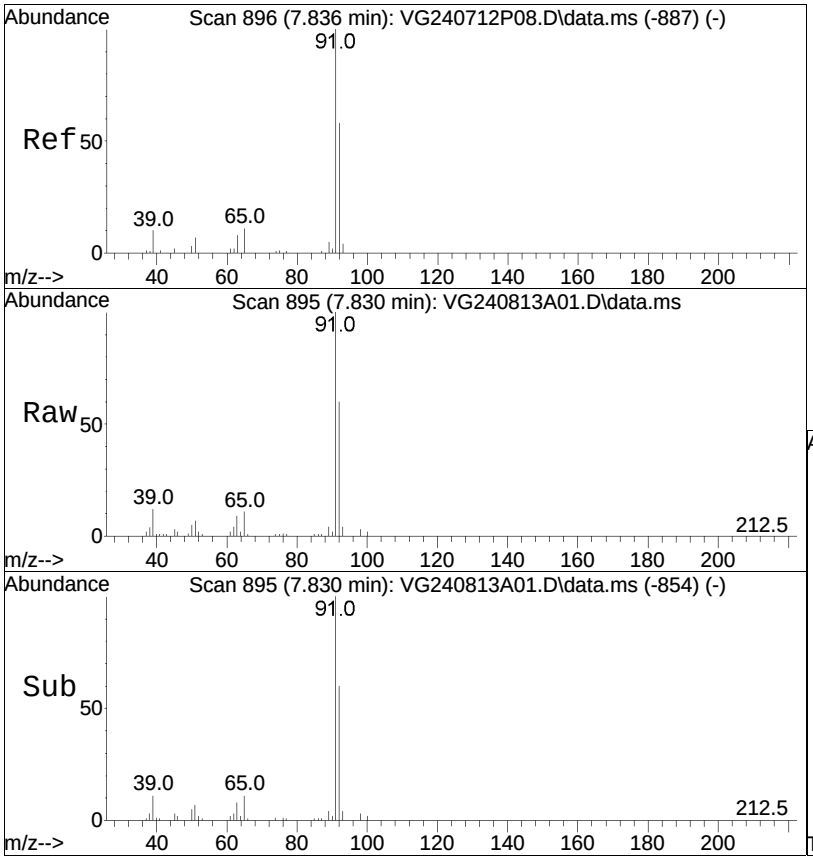


#58
cis-1,3-Dichloropropene
Concen: 9.18 ug/L
RT: 7.572 min Scan# 859
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 75 Resp: 111865

Ion	Ratio	Lower	Upper
75	100		
77	31.6	24.6	36.8
39	58.2	40.8	61.2

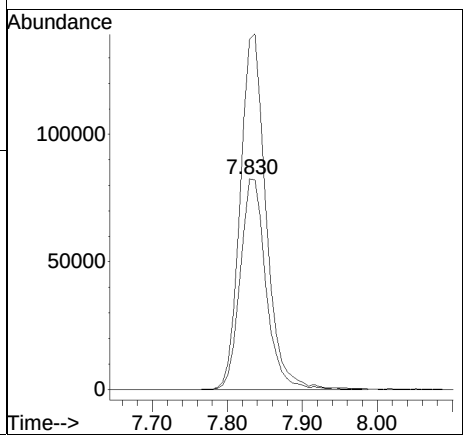


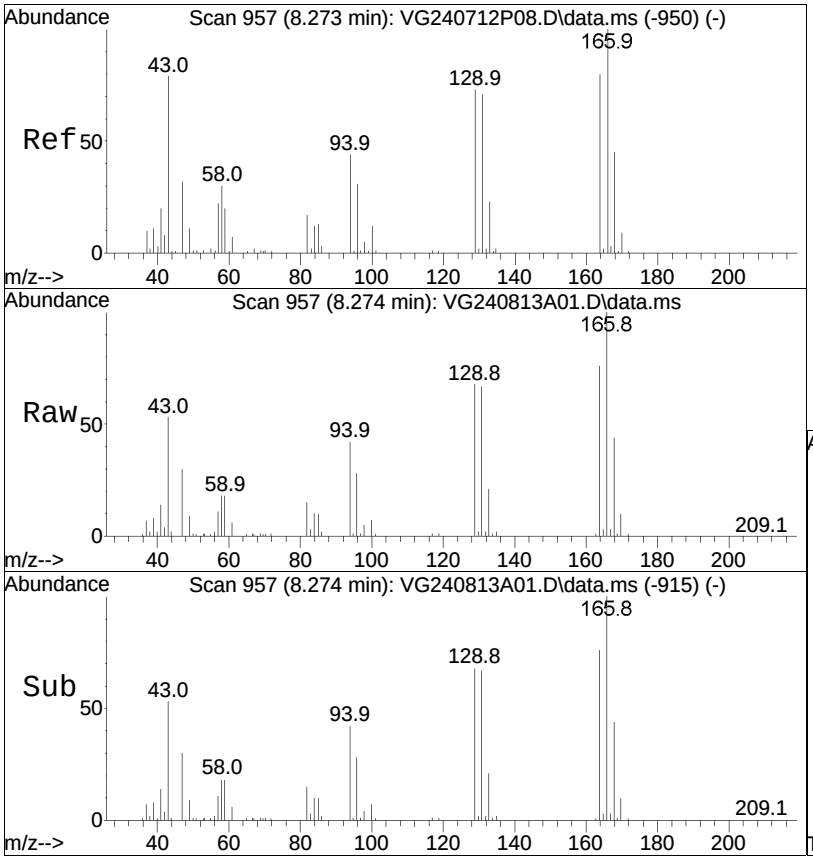


#61
Toluene
Concen: 9.86 ug/L
RT: 7.830 min Scan# 895
Delta R.T. -0.006 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 92 Resp: 197269

Ion	Ratio	Lower	Upper
92	100		
91	168.8	134.8	202.2

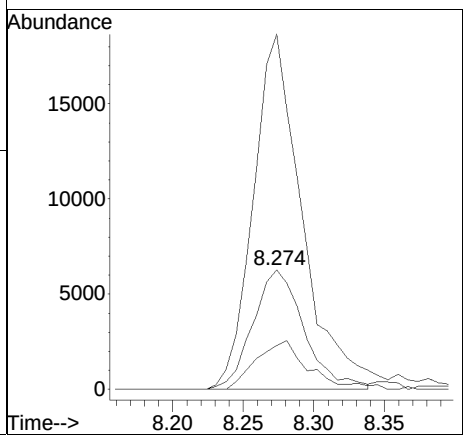


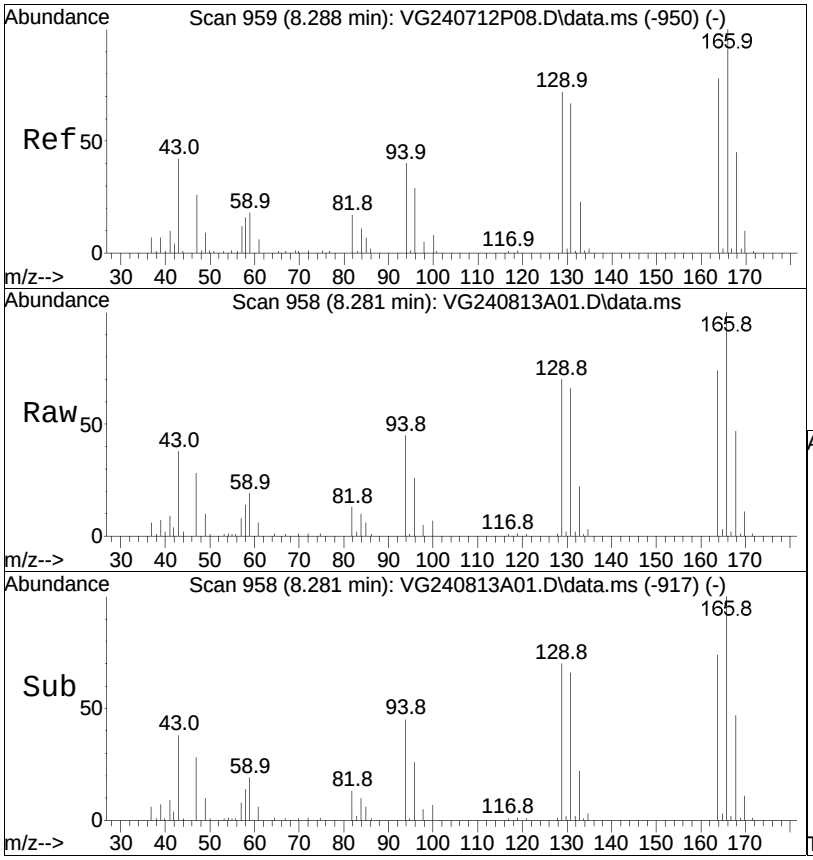


#62
4-Methyl-2-pentanone
Concen: 7.20 ug/L
RT: 8.274 min Scan# 957
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 58 Resp: 15887

Ion	Ratio	Lower	Upper
58	100		
100	41.8	33.6	50.4
43	293.3	204.3	306.5

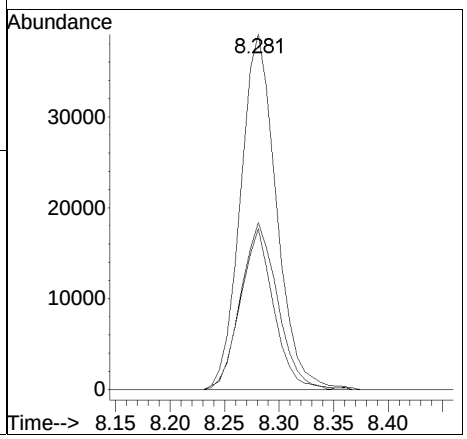


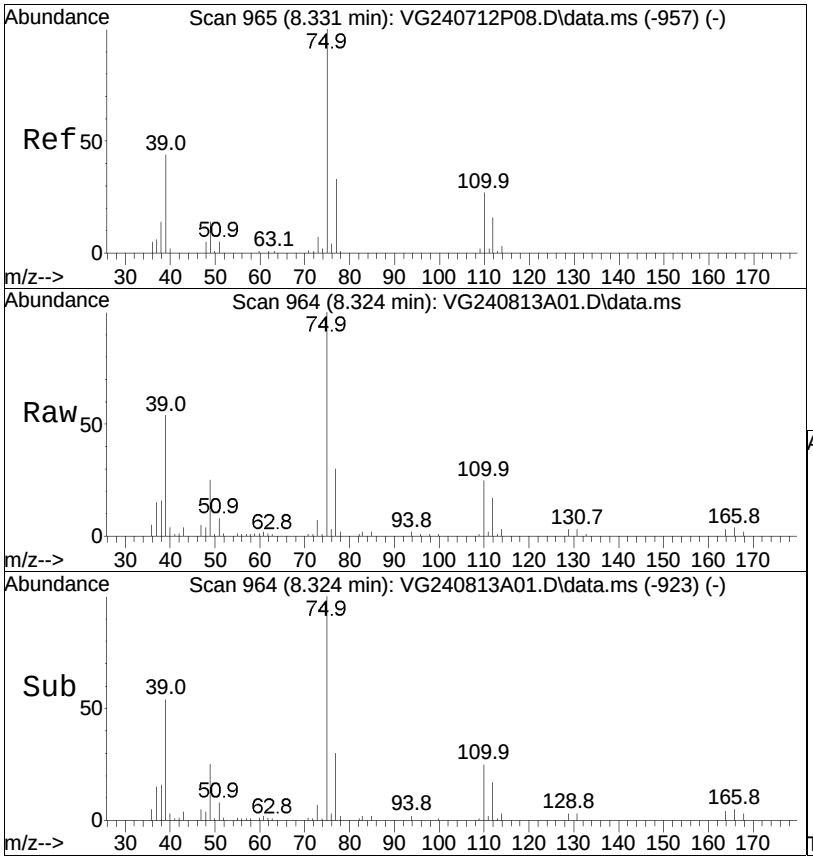


#63
Tetrachloroethene
Concen: 10.17 ug/L
RT: 8.281 min Scan# 958
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:166 Resp: 89367

Ion	Ratio	Lower	Upper
166	100		
168	48.3	27.3	67.3
94	42.2	20.5	60.5

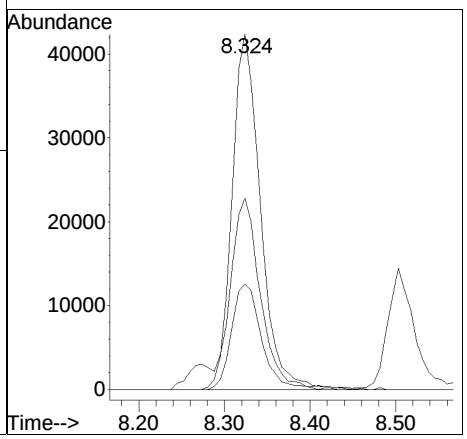


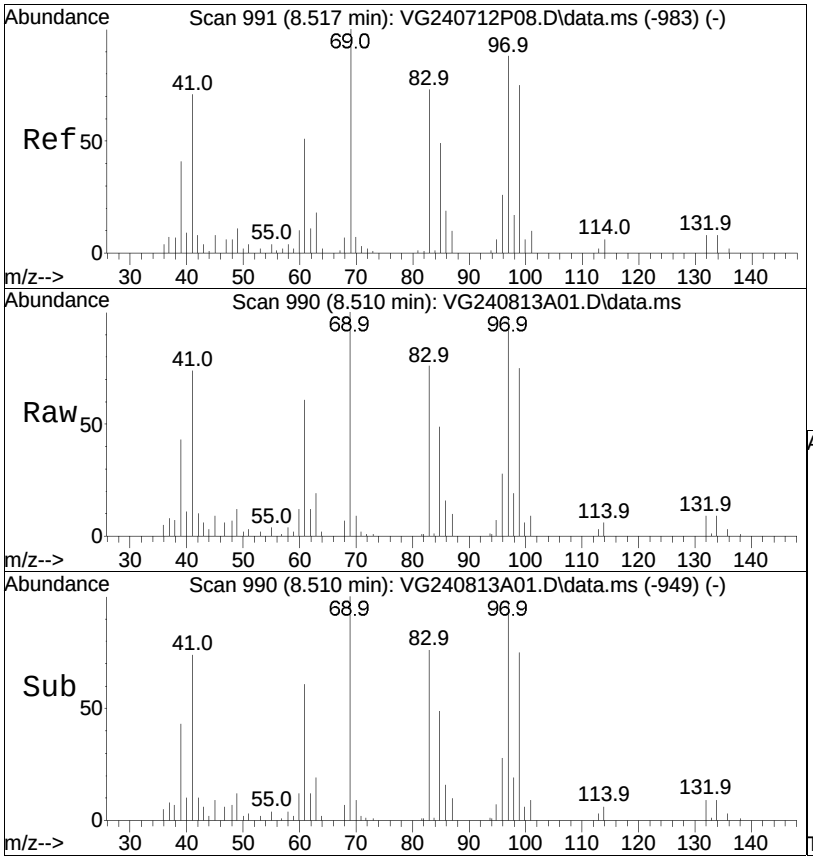


#65
trans-1,3-Dichloropropene
Concen: 8.91 ug/L
RT: 8.324 min Scan# 964
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 75 Resp: 97621

Ion	Ratio	Lower	Upper
75	100		
77	31.0	11.3	51.3
39	54.4	36.0	76.0

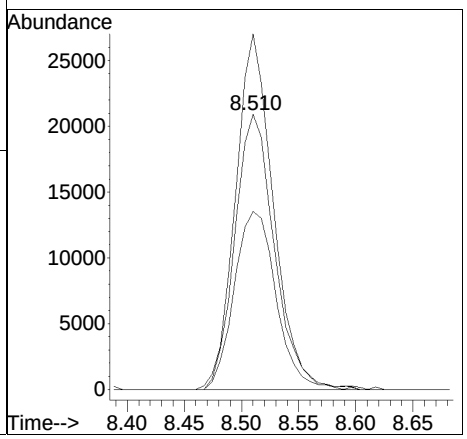


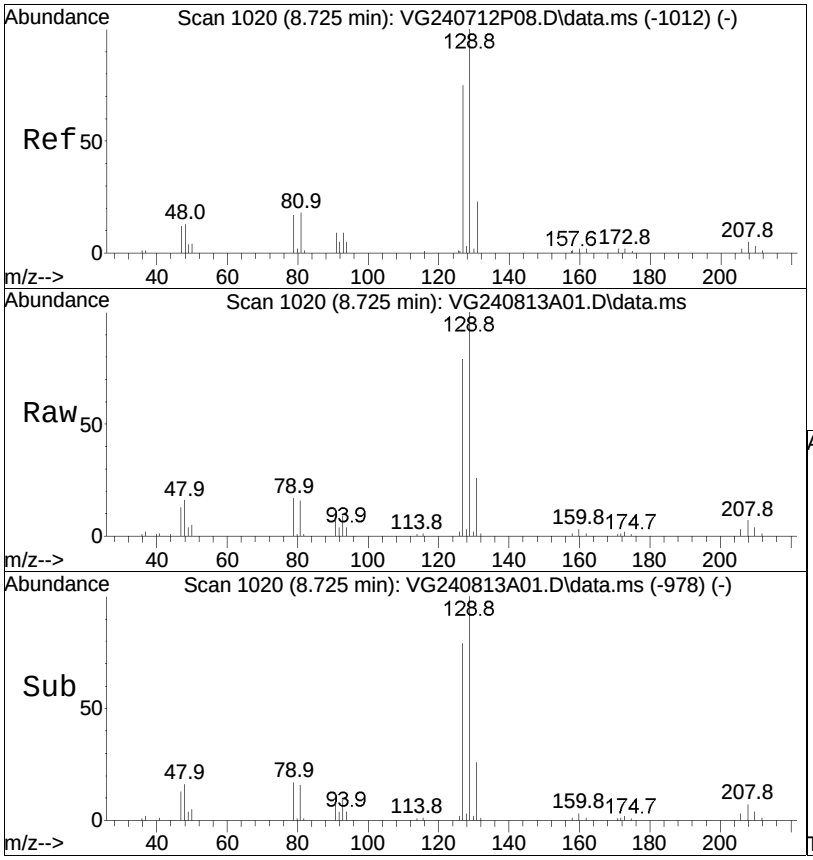


#68
1,1,2-Trichloroethane
Concen: 9.16 ug/L
RT: 8.510 min Scan# 990
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 83 Resp: 50279

Ion	Ratio	Lower	Upper
83	100		
97	123.6	101.0	141.0
85	68.5	47.9	87.9

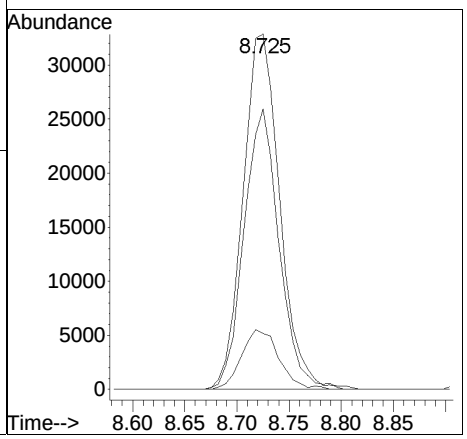


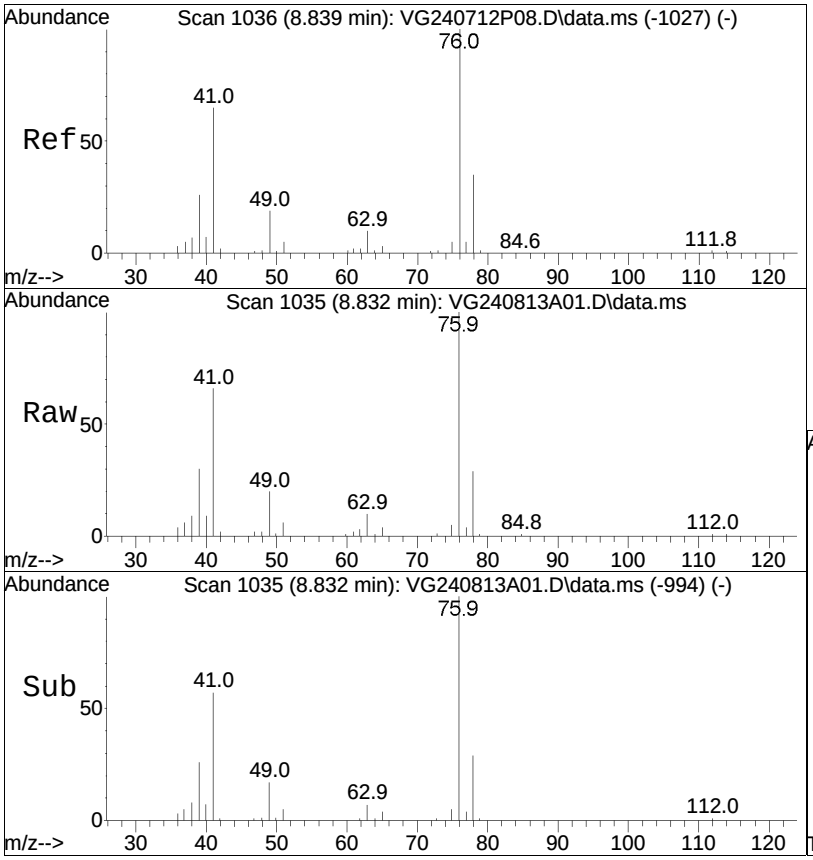


#69
Chlorodibromomethane
Concen: 9.27 ug/L
RT: 8.725 min Scan# 1020
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:129 Resp: 80479

Ion	Ratio	Lower	Upper
129	100		
81	17.2	0.0	35.0
127	75.4	57.1	97.1

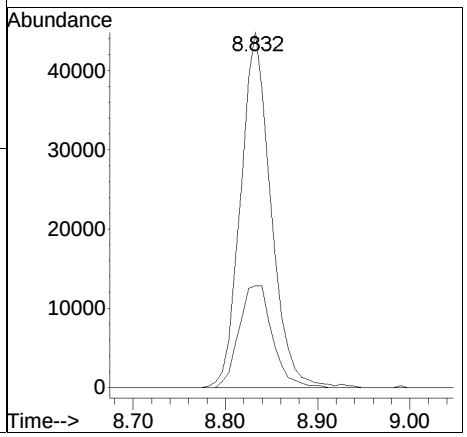


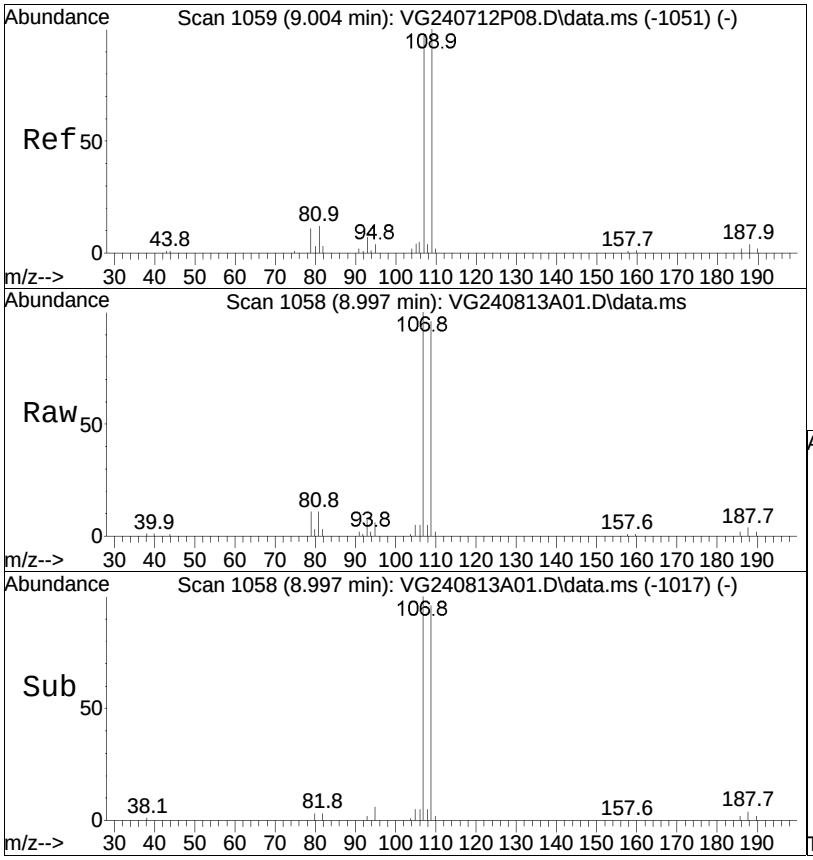


#70
1,3-Dichloropropane
Concen: 9.31 ug/L
RT: 8.832 min Scan# 1035
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 76 Resp: 101864

Ion	Ratio	Lower	Upper
76	100		
78	31.6	25.4	38.2

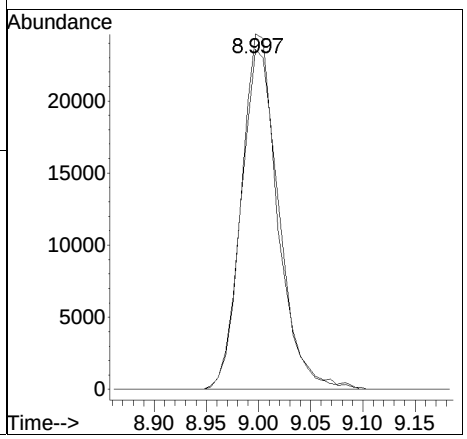


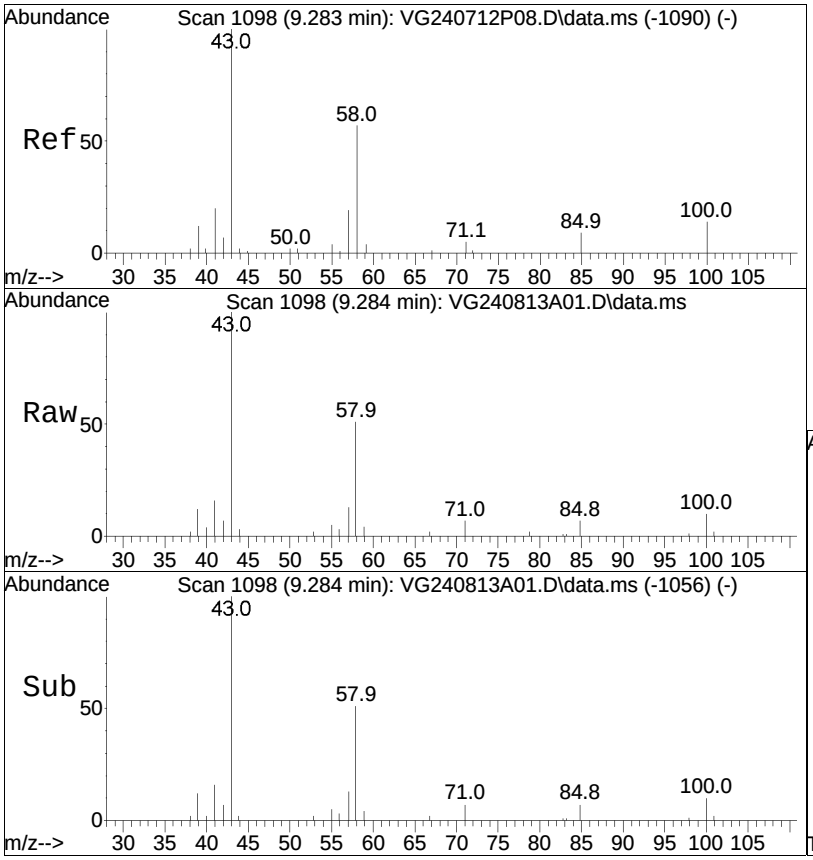


#71
1,2-Dibromoethane
Concen: 8.75 ug/L
RT: 8.997 min Scan# 1058
Delta R.T. -0.007 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:107 Resp: 60960

Ion	Ratio	Lower	Upper
107	100		
109	95.9	76.0	114.0

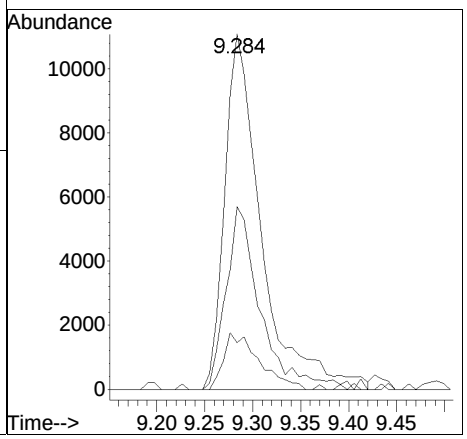


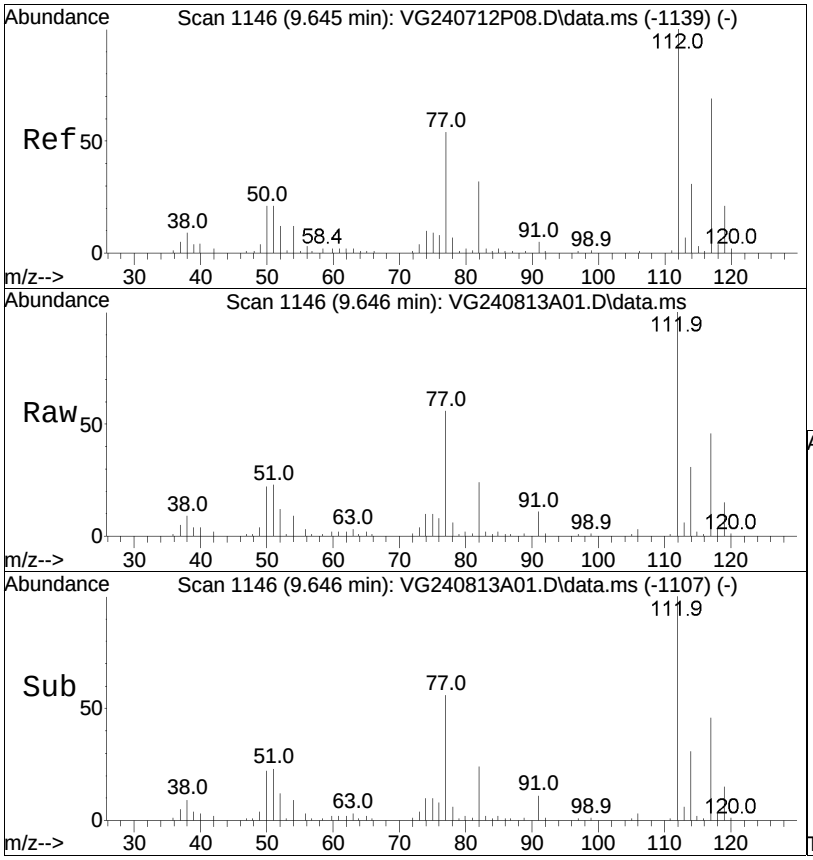


#72
2-Hexanone
Concen: 7.24 ug/L
RT: 9.284 min Scan# 1098
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 43 Resp: 29630

Ion	Ratio	Lower	Upper
43	100		
58	48.2	43.8	65.6
57	15.3	15.2	22.8

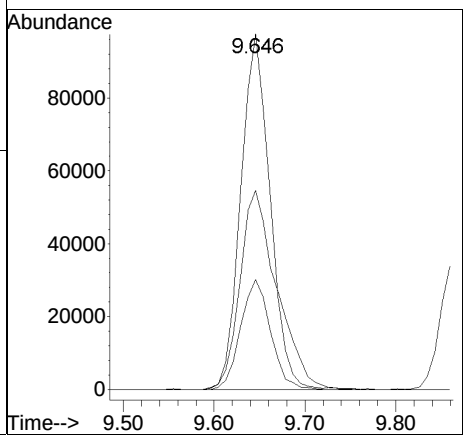


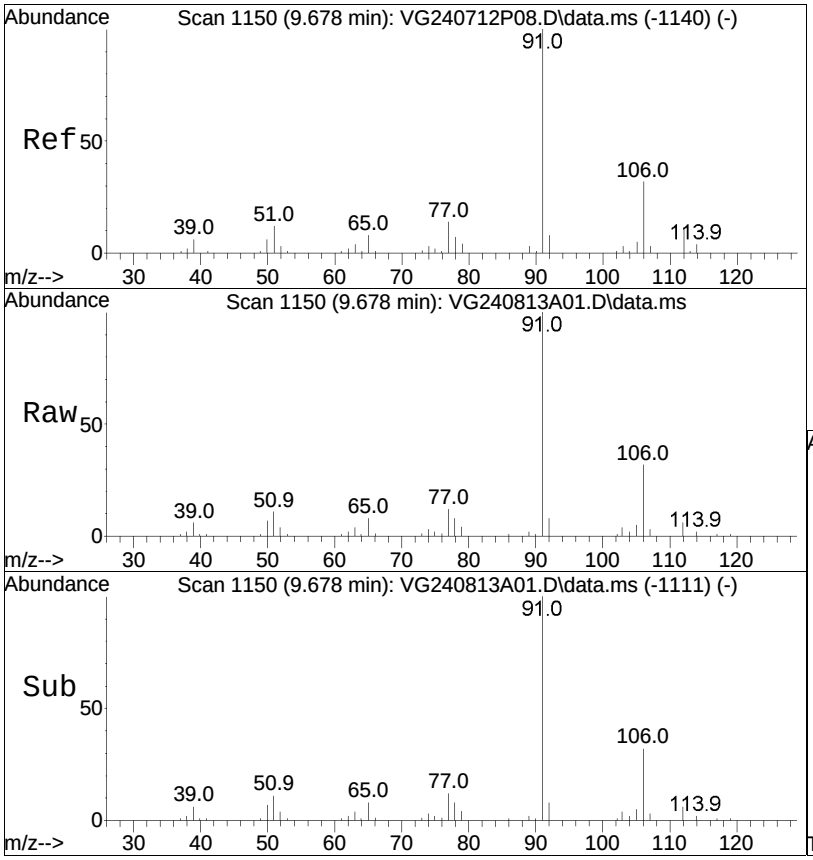


#73
Chlorobenzene
Concen: 9.80 ug/L
RT: 9.646 min Scan# 1146
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:112 Resp: 218488

Ion	Ratio	Lower	Upper
112	100		
77	70.7	55.9	83.9
114	31.5	25.4	38.0

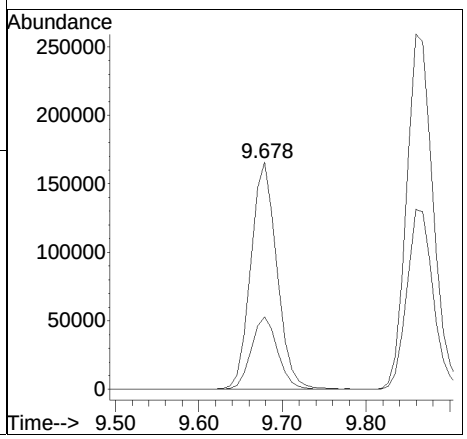


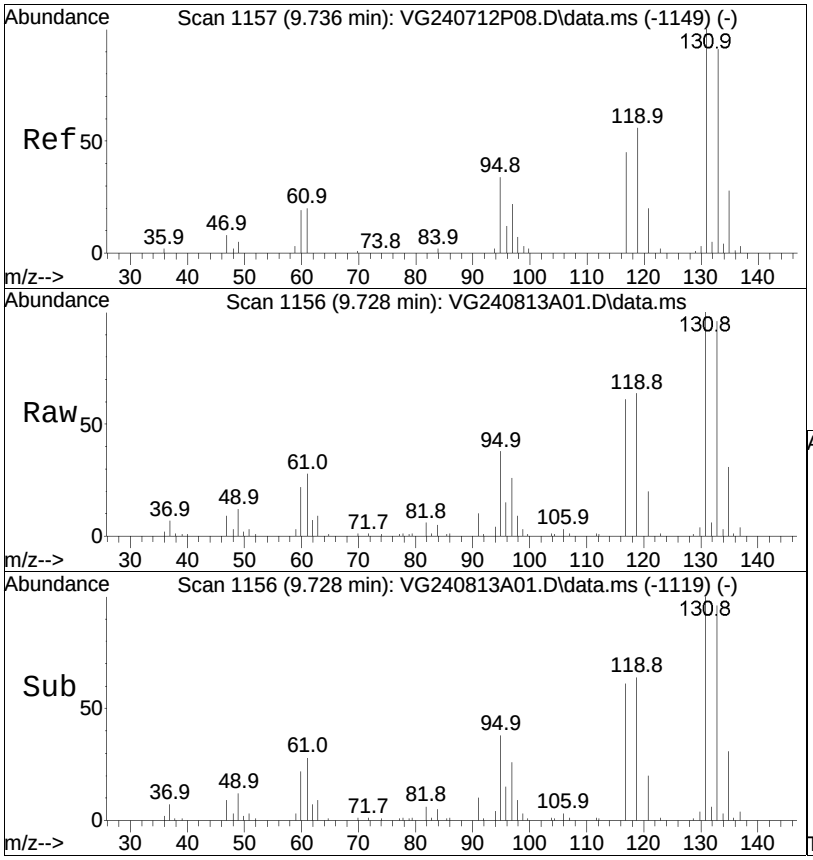


#74
Ethylbenzene
Concen: 9.47 ug/L
RT: 9.678 min Scan# 1150
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 91 Resp: 361691

Ion	Ratio	Lower	Upper
91	100		
106	32.2	25.3	37.9

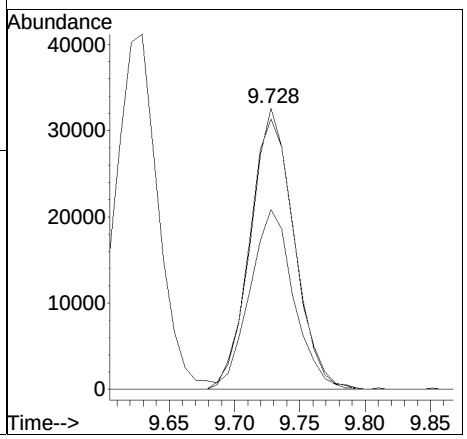


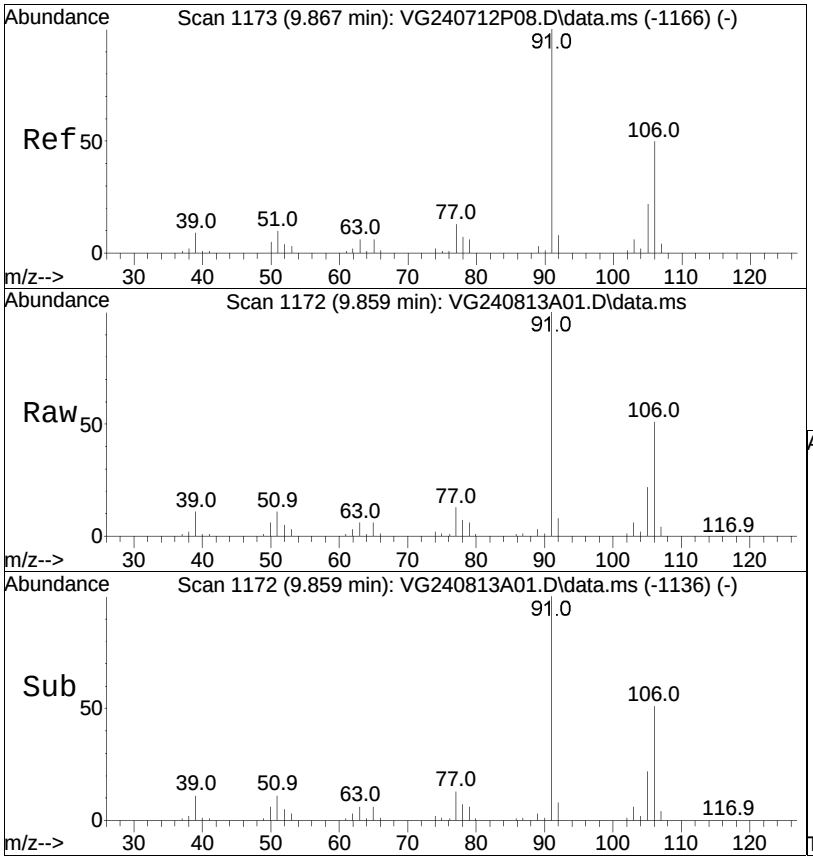


#75
1,1,1,2-Tetrachloroethane
Concen: 9.08 ug/L
RT: 9.728 min Scan# 1156
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:131 Resp: 75400

Ion	Ratio	Lower	Upper
131	100		
133	100.1	77.3	117.3
119	64.3	42.7	82.7

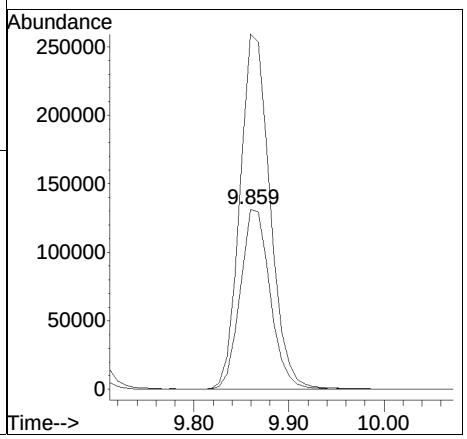


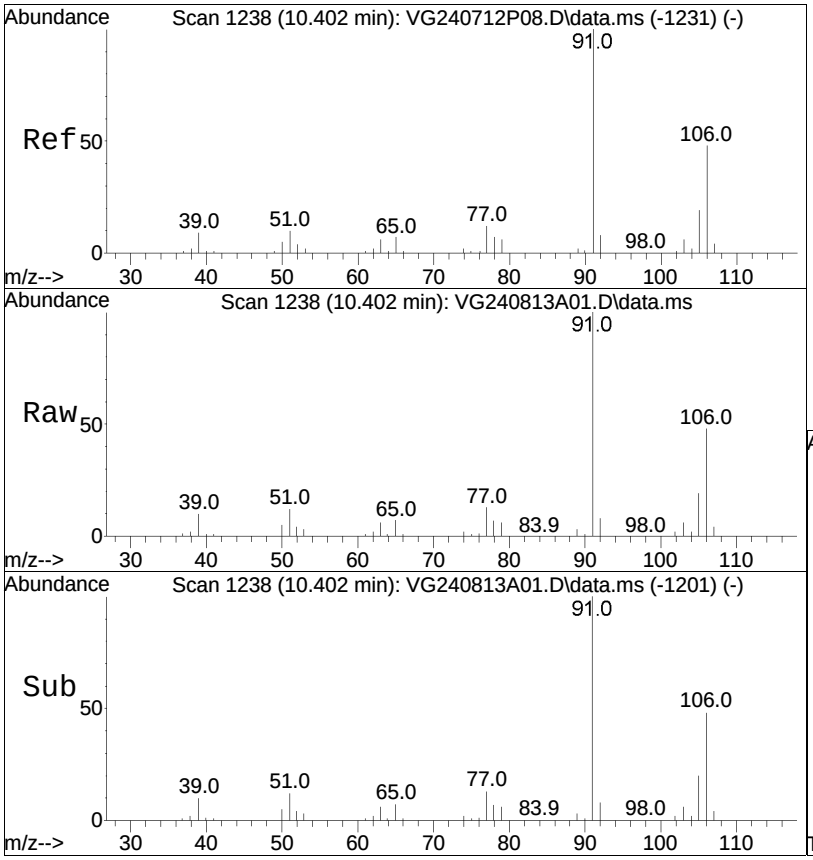


#76
p/m Xylene
Concen: 19.13 ug/L
RT: 9.859 min Scan# 1172
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:106 Resp: 289072

Ion	Ratio	Lower	Upper
106	100		
91	197.6	157.1	235.7

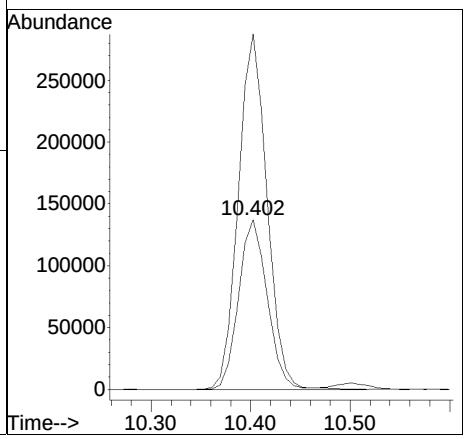


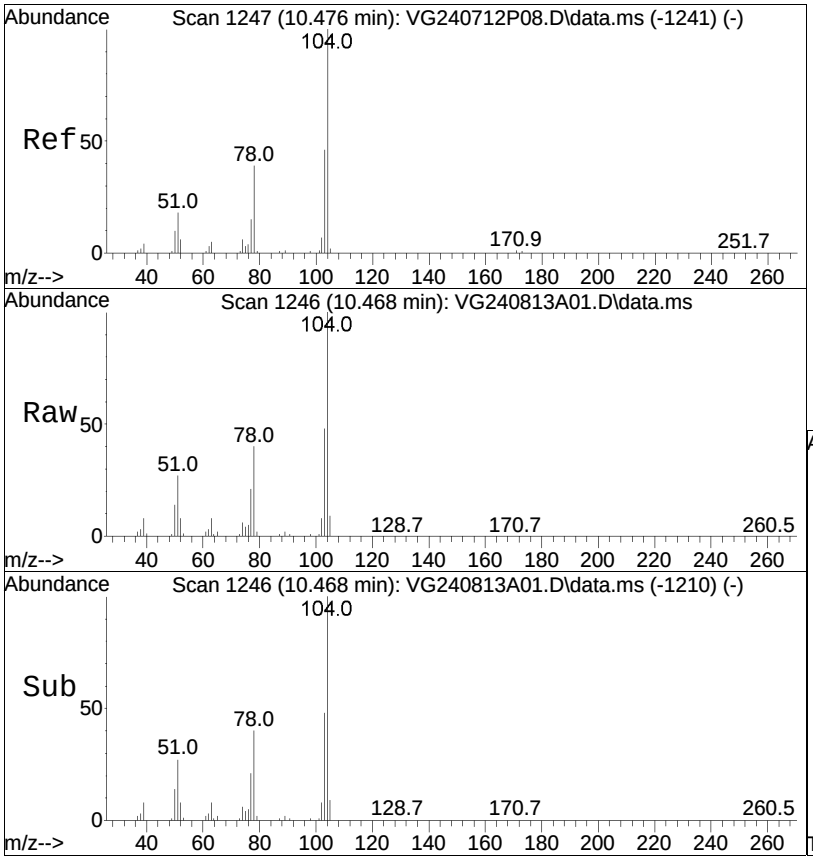


#77
o Xylene
Concen: 18.84 ug/L
RT: 10.402 min Scan# 1238
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:106 Resp: 275670

Ion	Ratio	Lower	Upper
106	100		
91	207.6	164.7	247.1

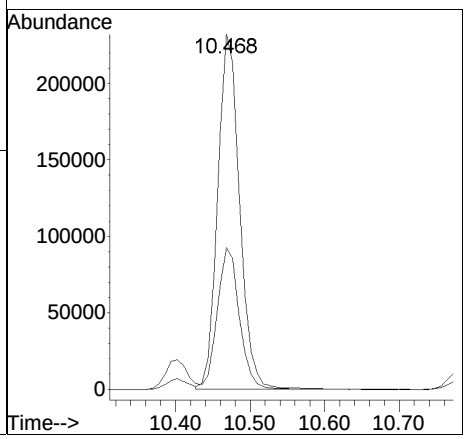


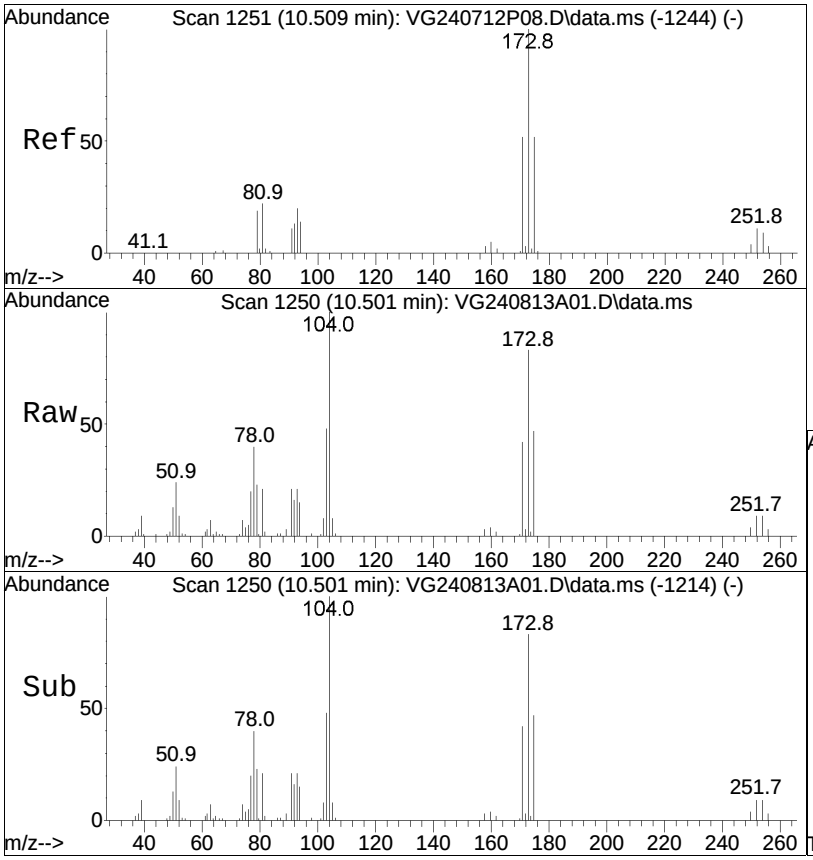


#78
Styrene
Concen: 19.07 ug/L
RT: 10.468 min Scan# 1246
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:104 Resp: 472932

Ion	Ratio	Lower	Upper
104	100		
78	39.8	32.2	48.4

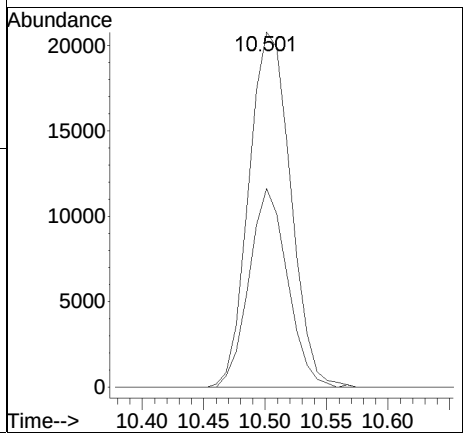


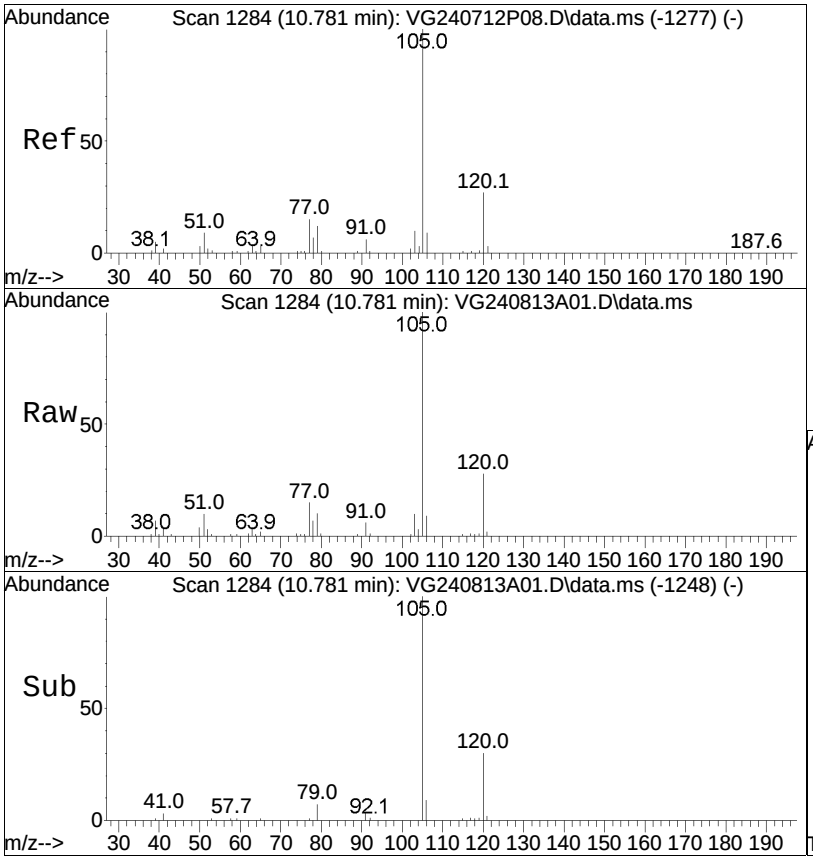


#80
Bromoform
Concen: 7.94 ug/L
RT: 10.501 min Scan# 1250
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:173 Resp: 49230

Ion	Ratio	Lower	Upper
173	100		
175	51.7	28.0	68.0

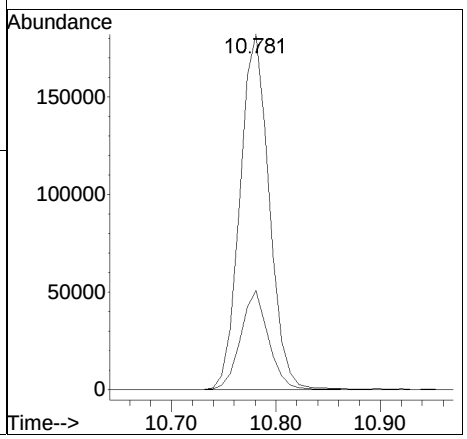


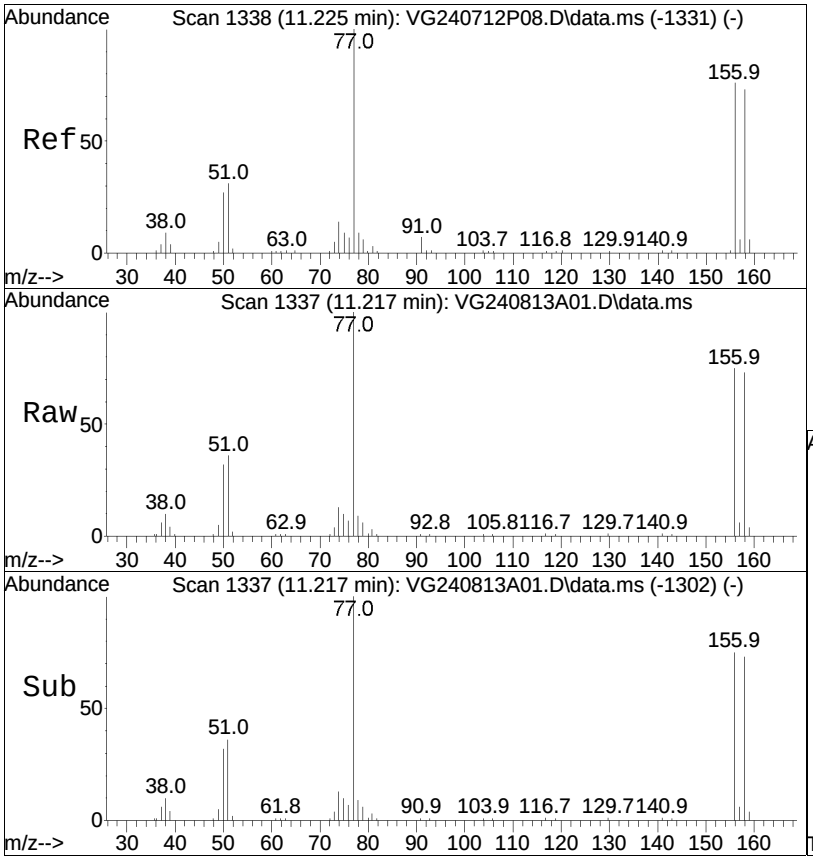


#82
Isopropylbenzene
Concen: 9.02 ug/L
RT: 10.781 min Scan# 1284
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:105 Resp: 353225

Ion	Ratio	Lower	Upper
105	100		
120	26.3	7.0	47.0

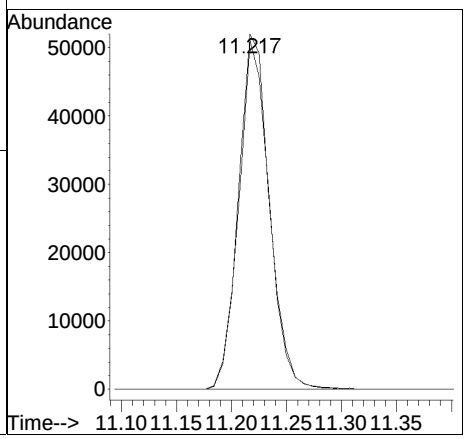


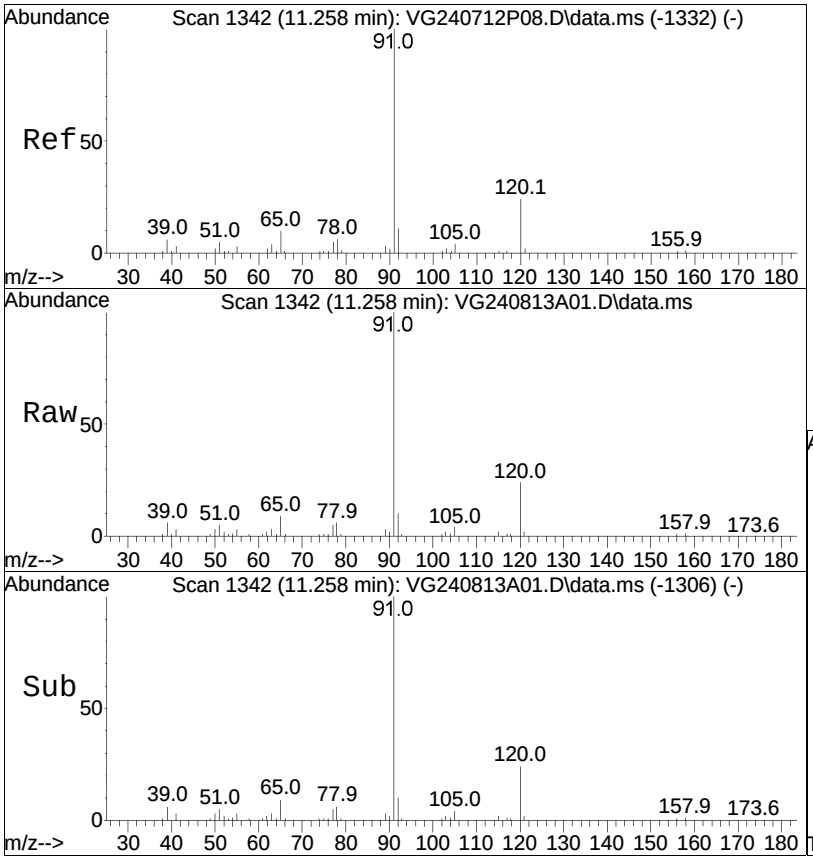


#84
Bromobenzene
Concen: 9.43 ug/L
RT: 11.217 min Scan# 1337
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:156 Resp: 102175

Ion	Ratio	Lower	Upper
156	100		
158	96.2	76.9	115.3

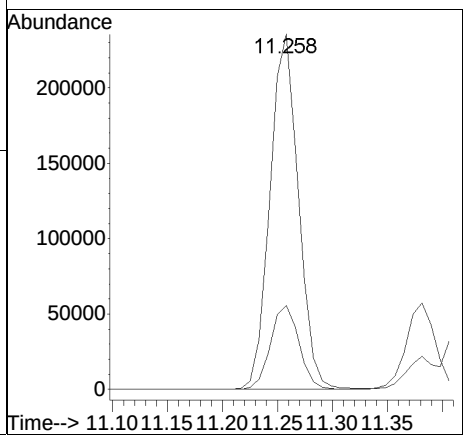


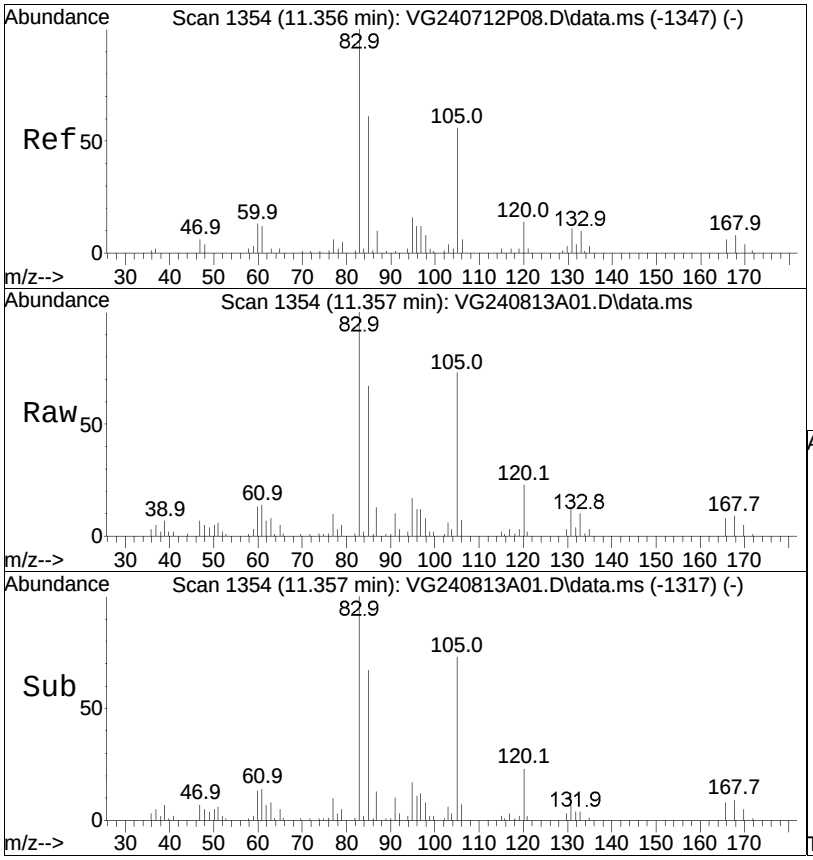


#85
n-Propylbenzene
Concen: 9.29 ug/L
RT: 11.258 min Scan# 1342
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 91 Resp: 423879

Ion	Ratio	Lower	Upper
91	100		
120	23.7	19.0	28.6

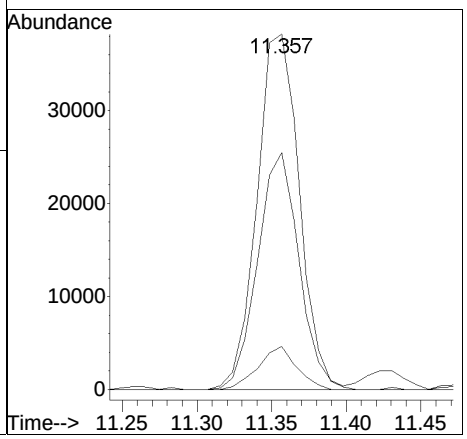


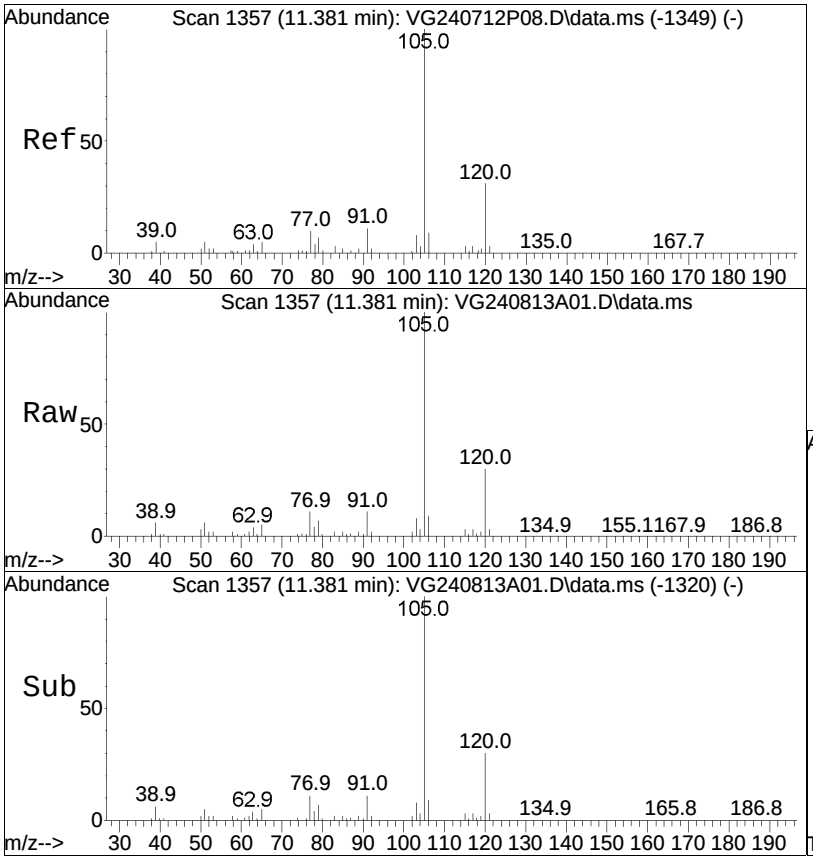


#87
1,1,2,2-Tetrachloroethane
Concen: 8.65 ug/L
RT: 11.357 min Scan# 1354
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 83 Resp: 75281

Ion	Ratio	Lower	Upper
83	100		
131	11.0	0.0	31.0
85	65.2	43.9	83.9

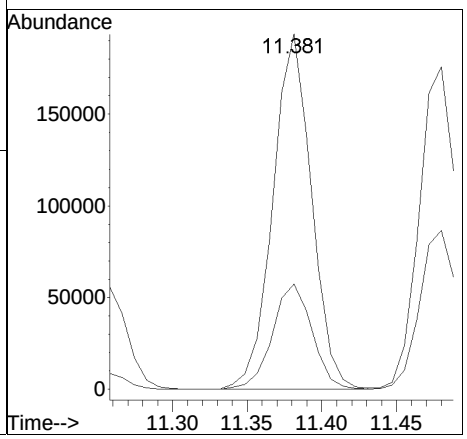


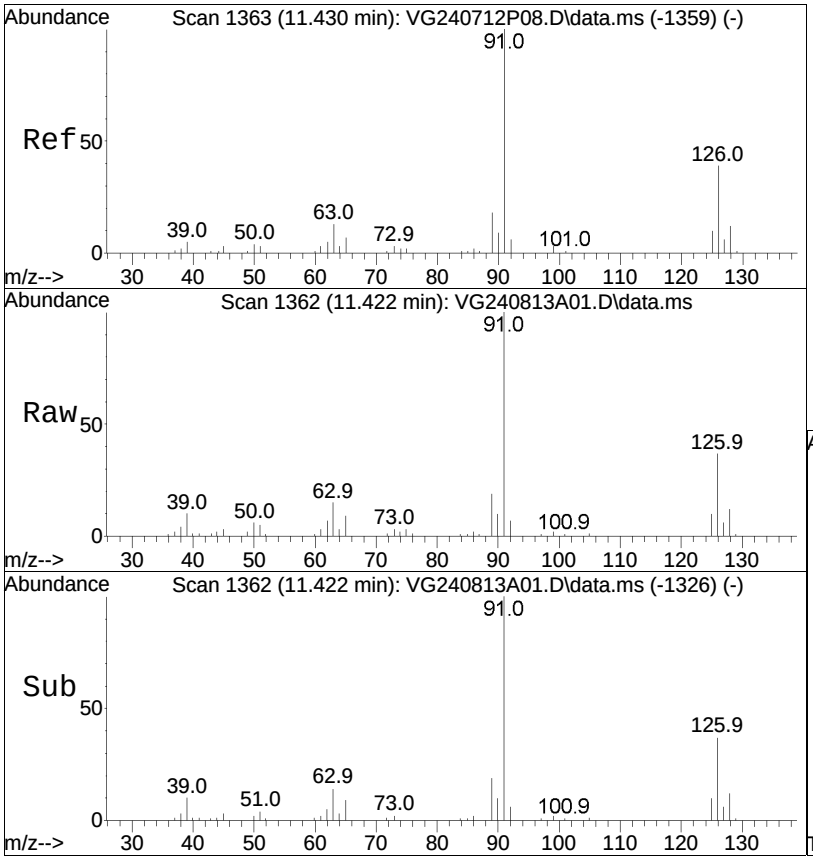


#88
4-Ethyltoluene
Concen: 9.16 ug/L
RT: 11.381 min Scan# 1357
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:105 Resp: 349262

Ion	Ratio	Lower	Upper
105	100		
120	30.4	19.9	41.3

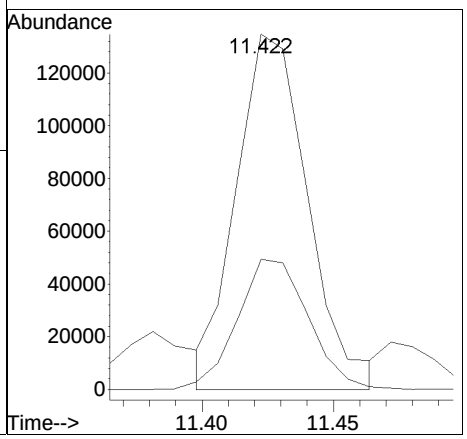


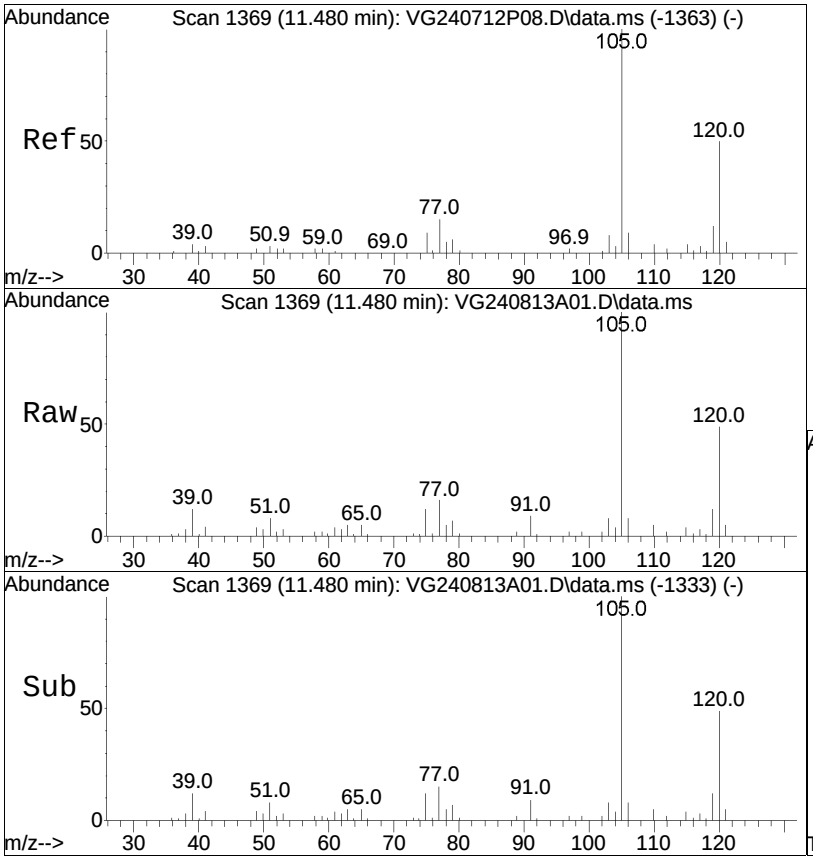


#89
2-Chlorotoluene
Concen: 9.11 ug/L M4
RT: 11.422 min Scan# 1362
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 91 Resp: 254840

Ion	Ratio	Lower	Upper
91	100		
126	36.5	27.4	41.2

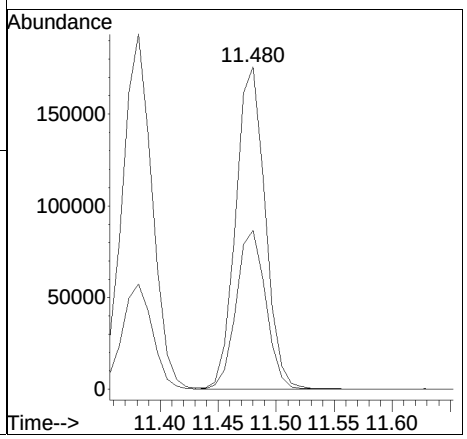


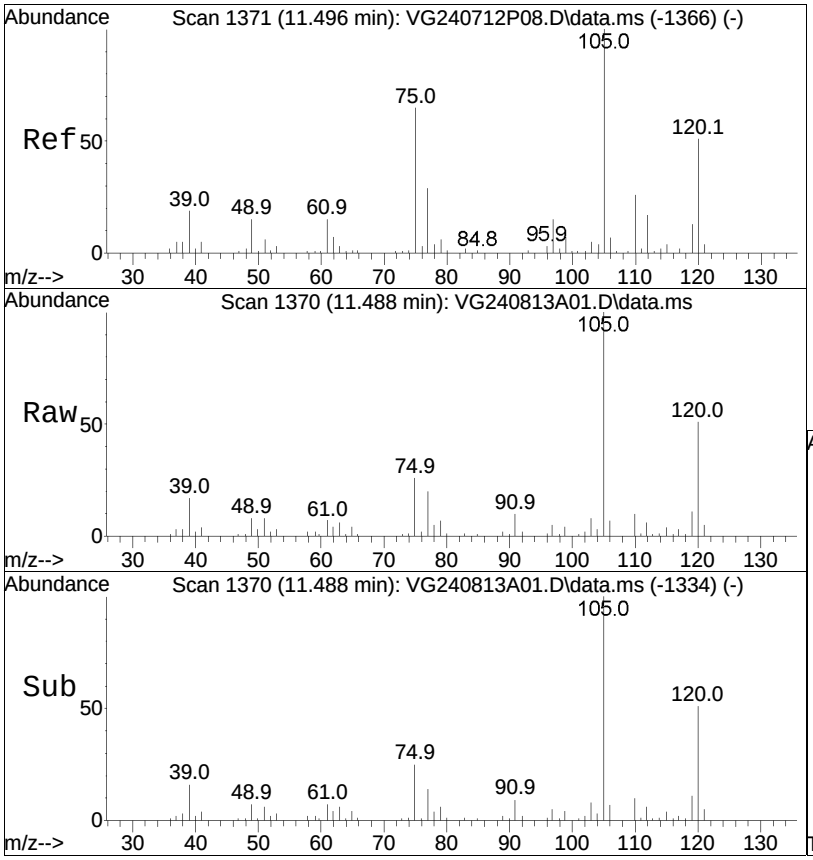


#90
1,3,5-Trimethylbenzene
Concen: 9.22 ug/L
RT: 11.480 min Scan# 1369
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:105 Resp: 311259

Ion	Ratio	Lower	Upper
105	100		
120	49.5	40.3	60.5

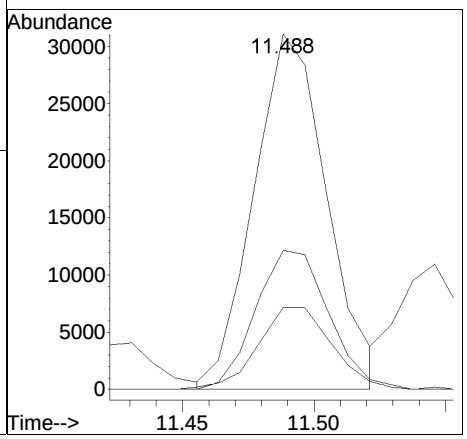


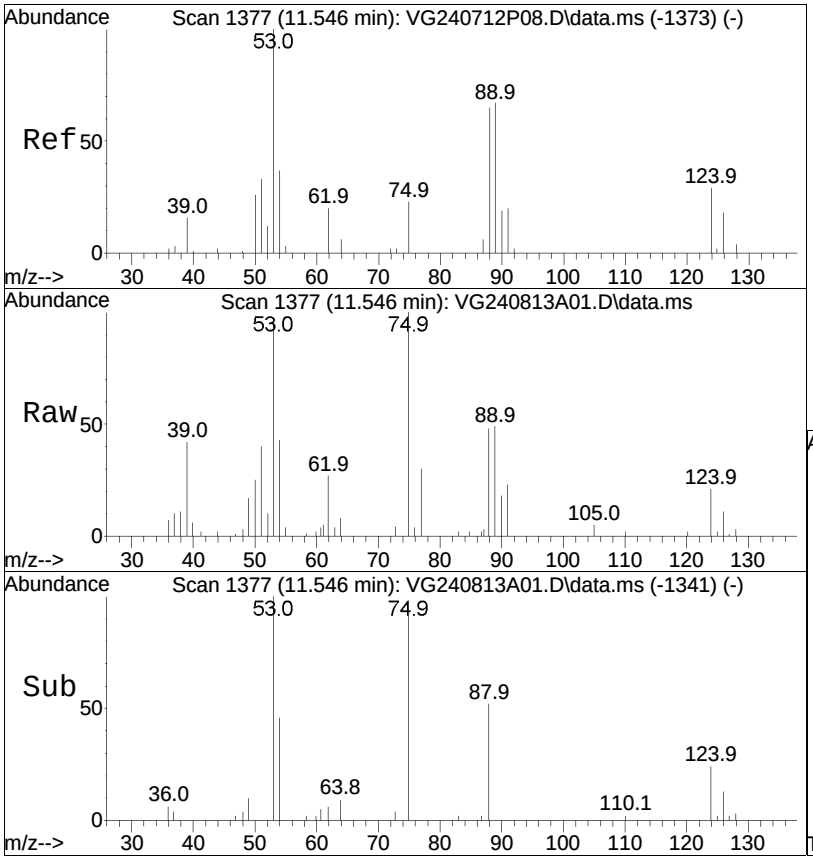


#91
1,2,3-Trichloropropane
Concen: 8.24 ug/L M4
RT: 11.488 min Scan# 1370
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 75 Resp: 59966

Ion	Ratio	Lower	Upper
75	100		
110	39.4	23.5	48.9
112	23.5	15.9	32.9

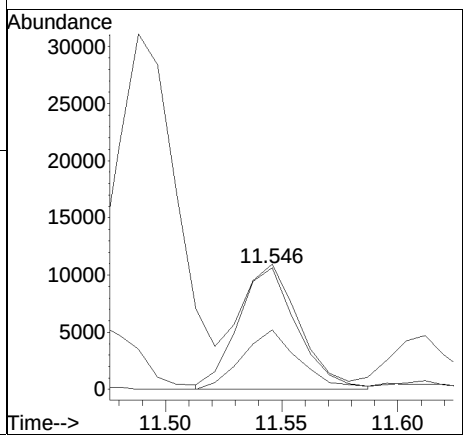


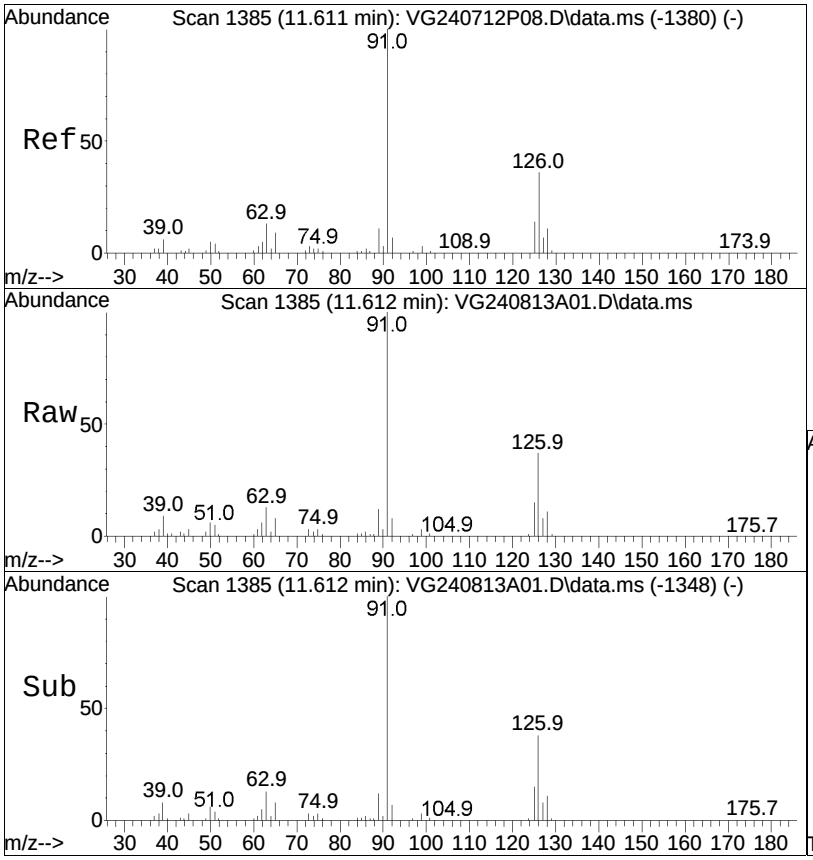


#92
trans-1,4-Dichloro-2-butene
Concen: 9.45 ug/L
RT: 11.546 min Scan# 1377
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 53 Resp: 18873

Ion	Ratio	Lower	Upper
53	100		
88	47.3	41.6	62.4
75	102.9	0.0	0.0#

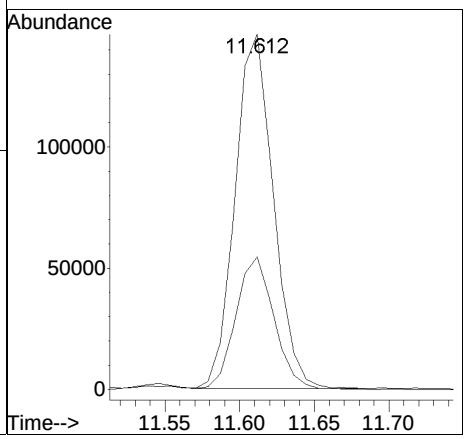


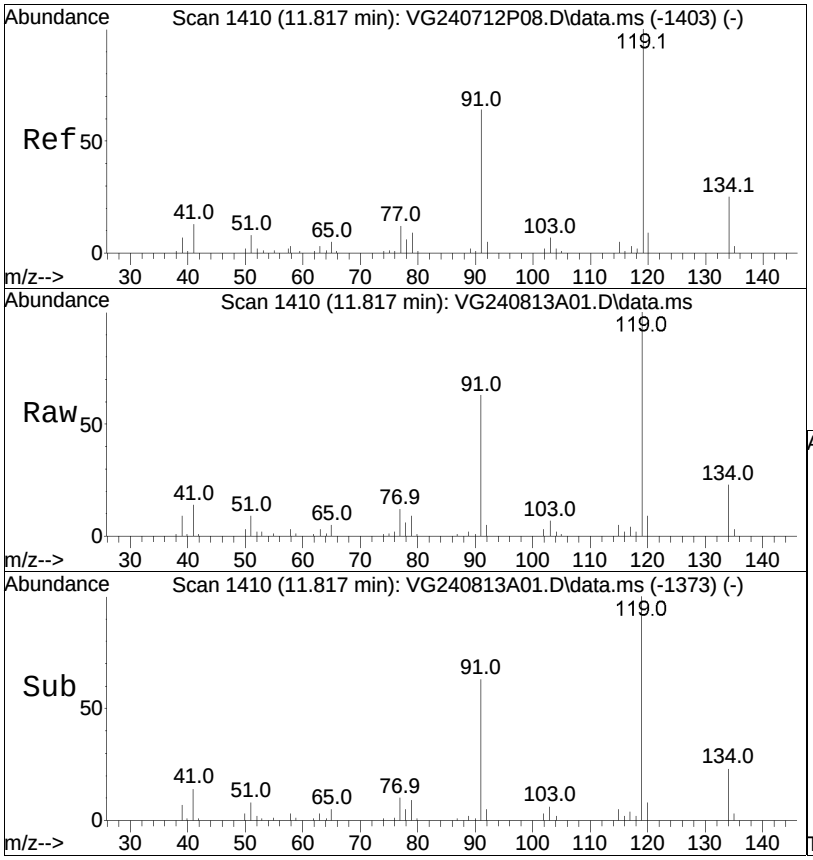


#93
4-Chlorotoluene
Concen: 9.07 ug/L
RT: 11.612 min Scan# 1385
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 91 Resp: 261379

Ion	Ratio	Lower	Upper
91	100		
126	37.3	28.2	42.4

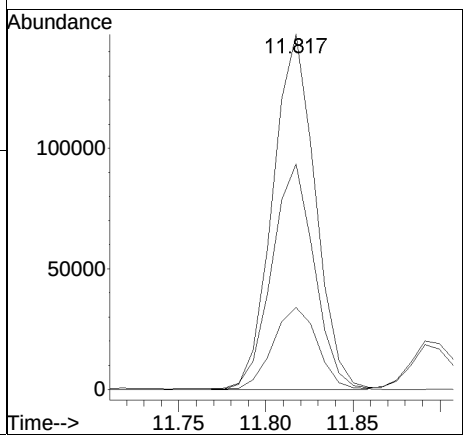


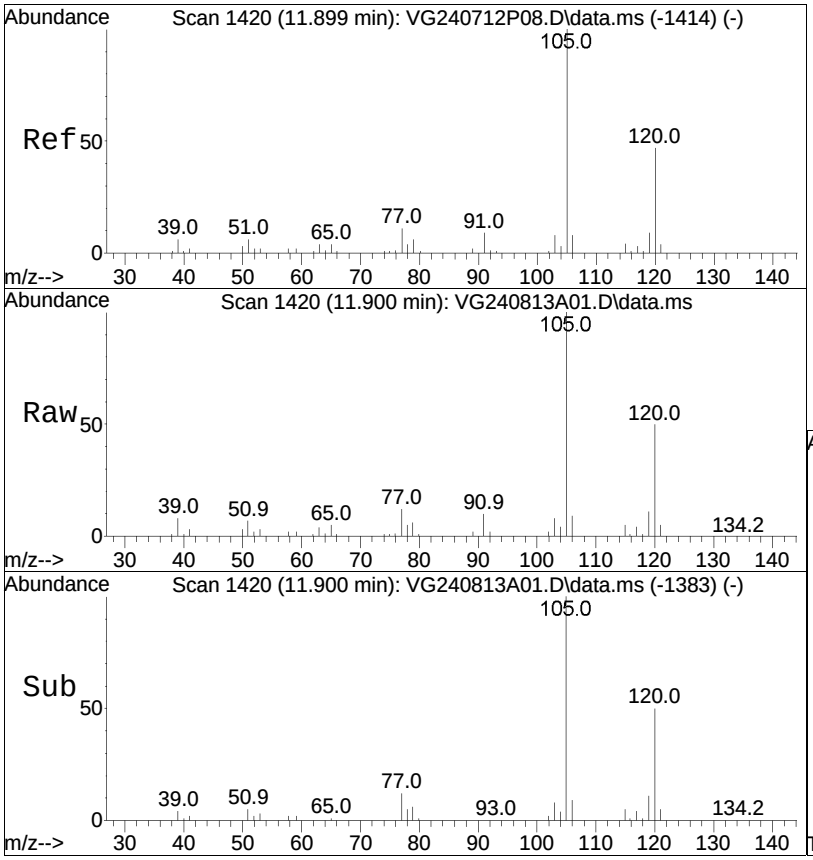


#94
tert-Butylbenzene
Concen: 9.15 ug/L
RT: 11.817 min Scan# 1410
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:119 Resp: 249786

Ion	Ratio	Lower	Upper
119	100		
91	63.2	50.8	76.2
134	24.2	20.2	30.4

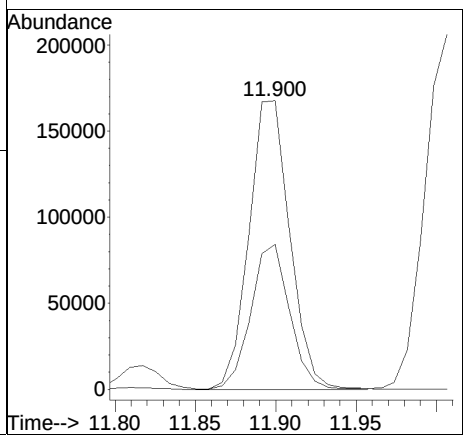


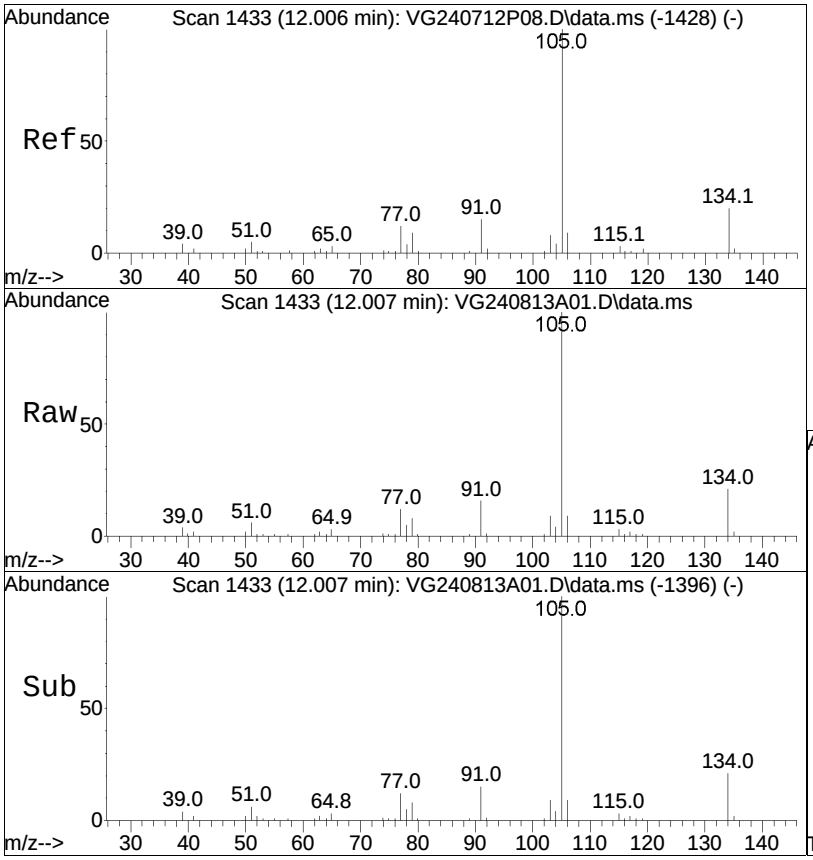


#97
1,2,4-Trimethylbenzene
Concen: 8.93 ug/L
RT: 11.900 min Scan# 1420
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:105 Resp: 297037

Ion	Ratio	Lower	Upper
105	100		
120	47.5	37.8	56.6

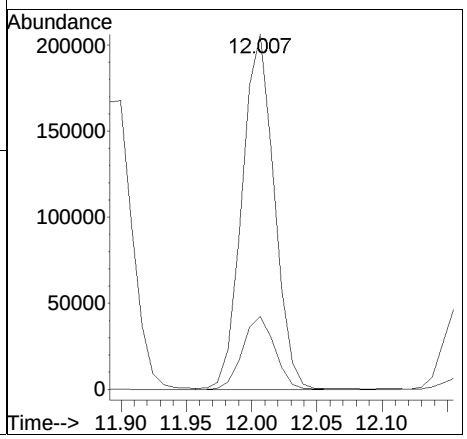


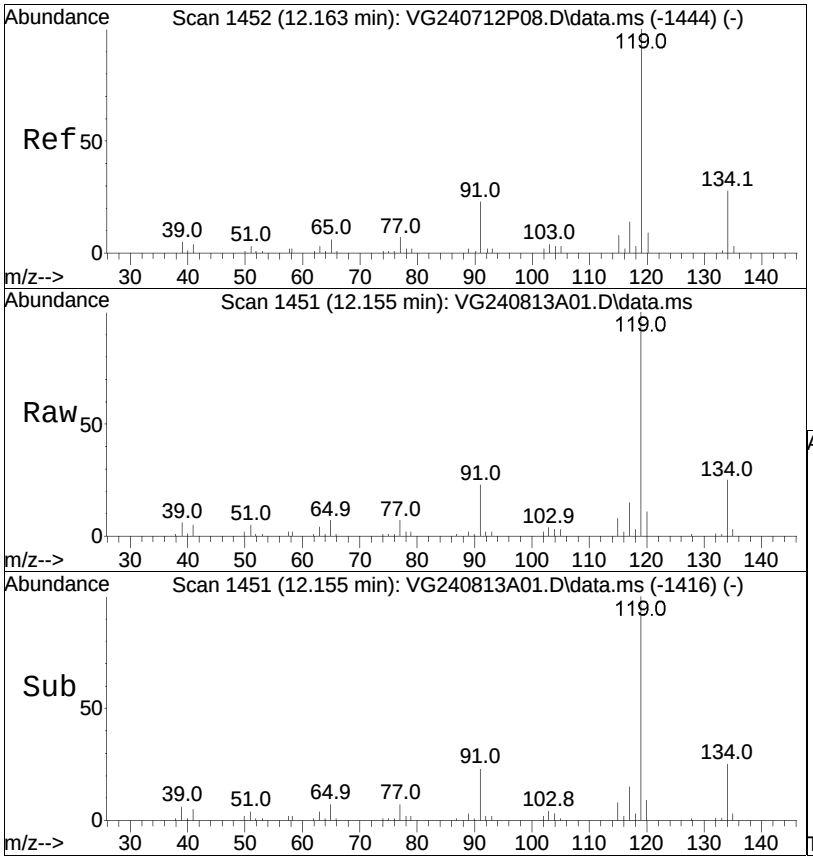


#98
sec-Butylbenzene
Concen: 9.11 ug/L
RT: 12.007 min Scan# 1433
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:105 Resp: 353728

Ion	Ratio	Lower	Upper
105	100		
134	20.5	13.3	27.7

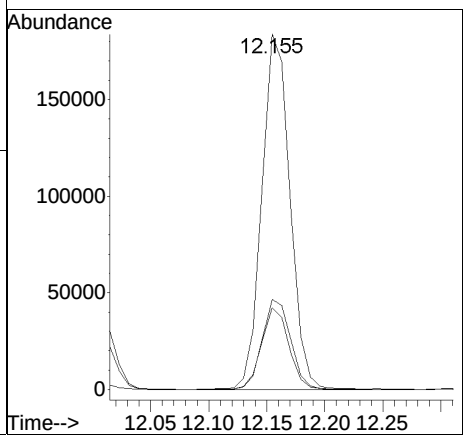


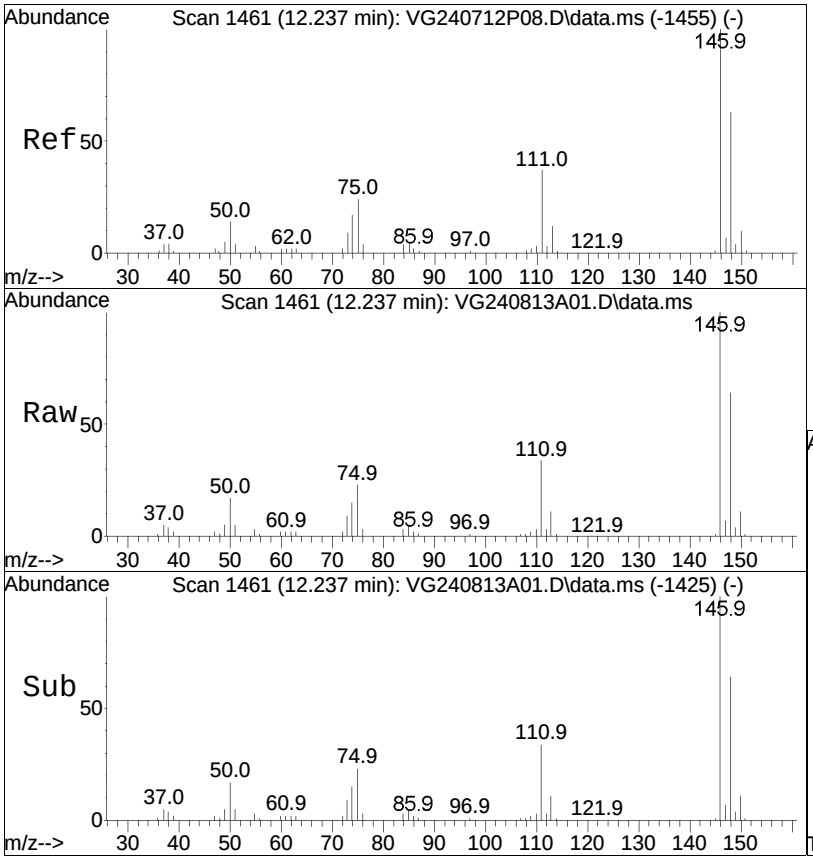


#99
p-Isopropyltoluene
Concen: 9.20 ug/L
RT: 12.155 min Scan# 1451
Delta R.T. -0.008 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:119 Resp: 310072

Ion	Ratio	Lower	Upper
119	100		
134	25.6	17.5	36.3
91	22.5	14.6	30.4

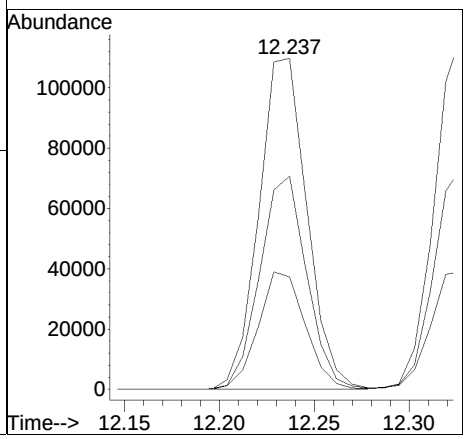


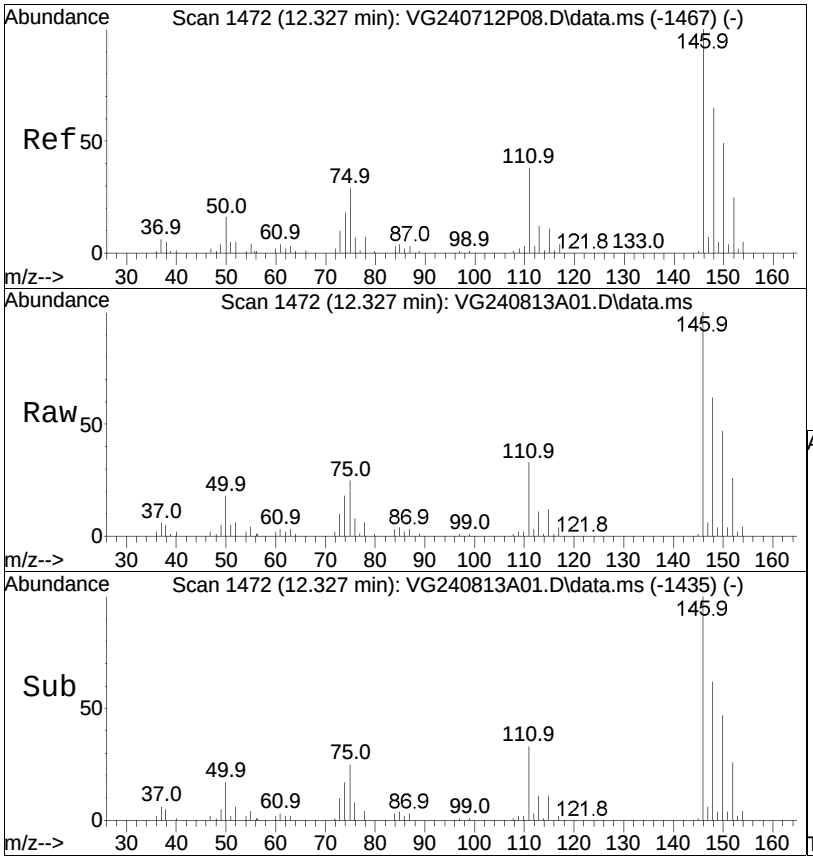


#100
1,3-Dichlorobenzene
Concen: 9.74 ug/L
RT: 12.237 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:146 Resp: 193807

Ion	Ratio	Lower	Upper
146	100		
111	34.8	24.4	50.6
148	62.9	41.0	85.2

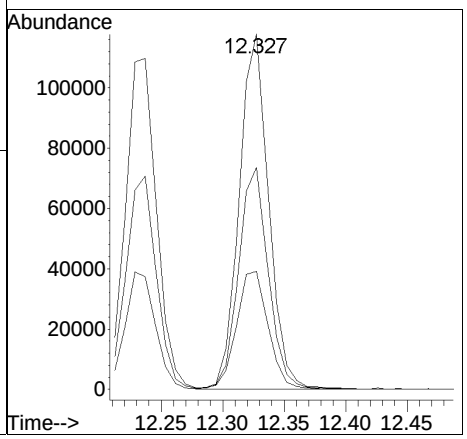


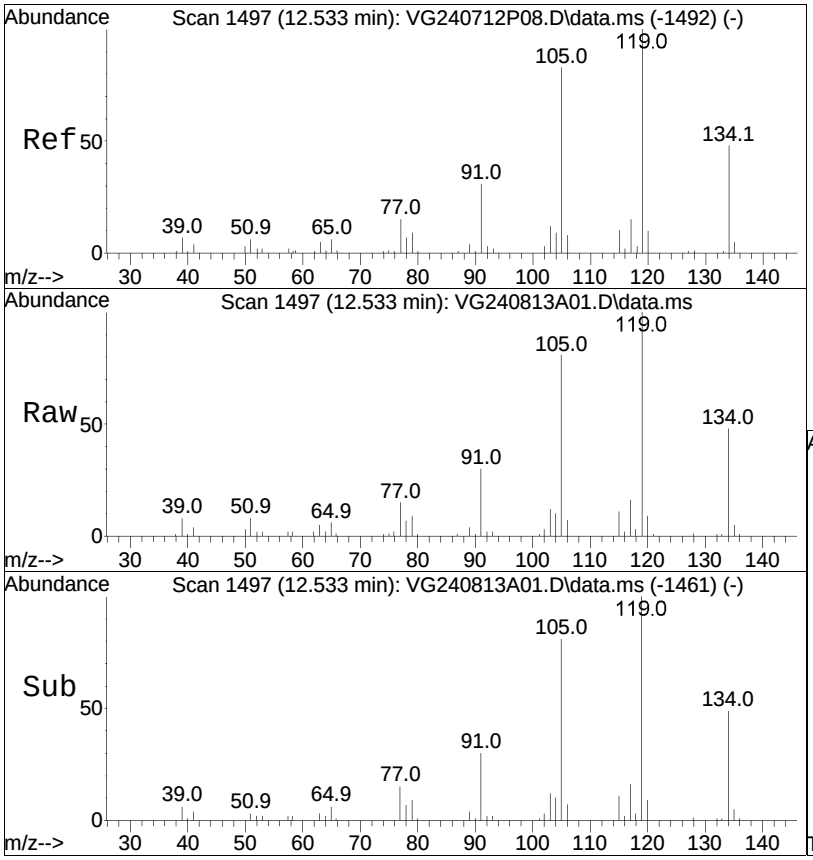


#101
1,4-Dichlorobenzene
Concen: 9.62 ug/L
RT: 12.327 min Scan# 1472
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:146 Resp: 197049

Ion	Ratio	Lower	Upper
146	100		
111	35.8	29.3	43.9
148	63.0	51.2	76.8

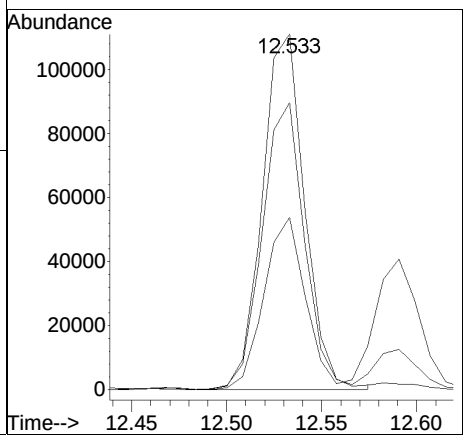


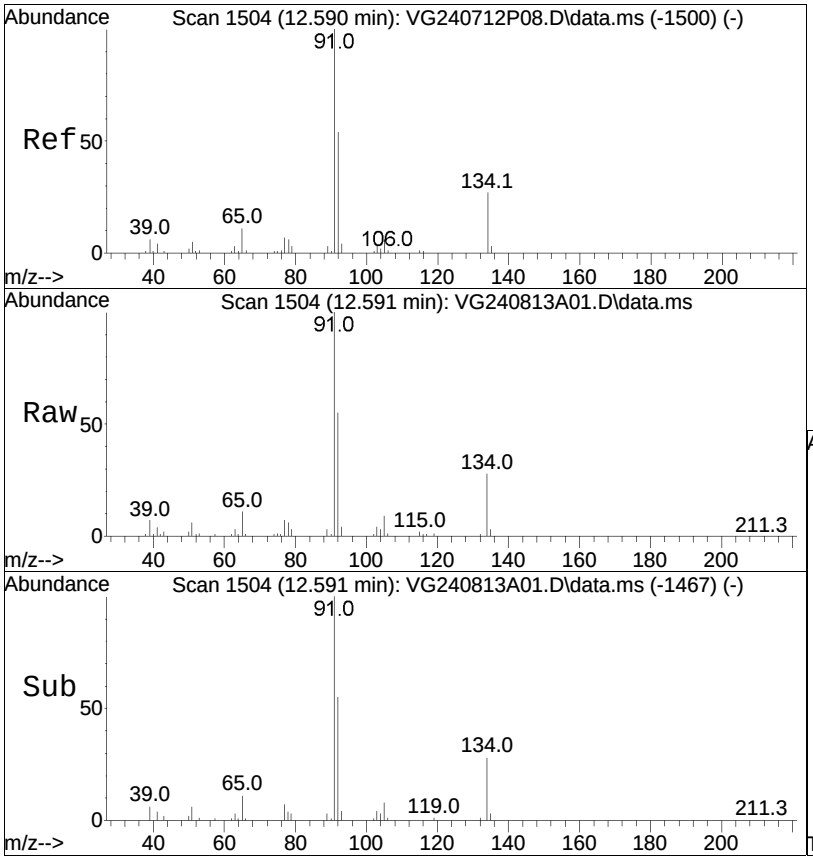


#102
p-Diethylbenzene
Concen: 8.88 ug/L
RT: 12.533 min Scan# 1497
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:119 Resp: 171836

Ion	Ratio	Lower	Upper
119	100		
105	80.8	53.9	112.1
134	47.4	32.0	66.6

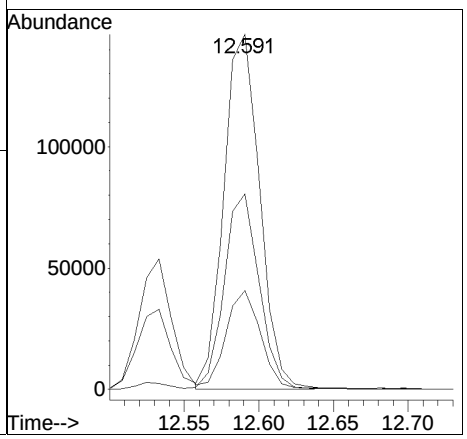


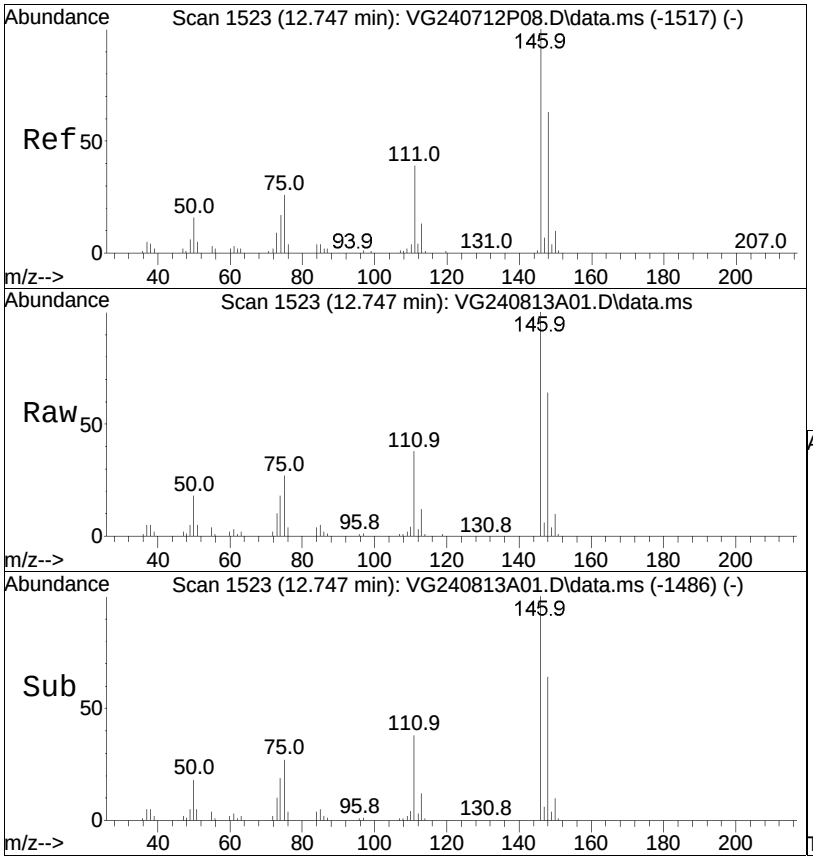


#103
n-Butylbenzene
Concen: 9.18 ug/L
RT: 12.591 min Scan# 1504
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion: 91 Resp: 244722

Ion	Ratio	Lower	Upper
91	100		
92	54.0	43.8	65.8
134	26.7	22.0	33.0

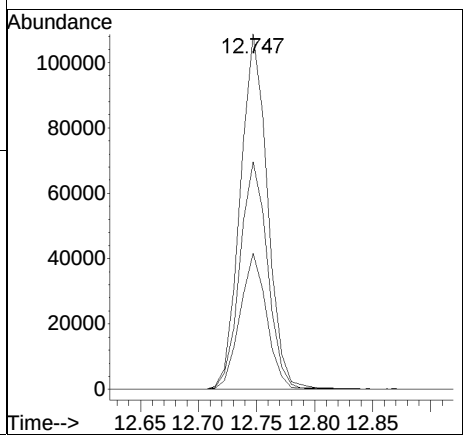


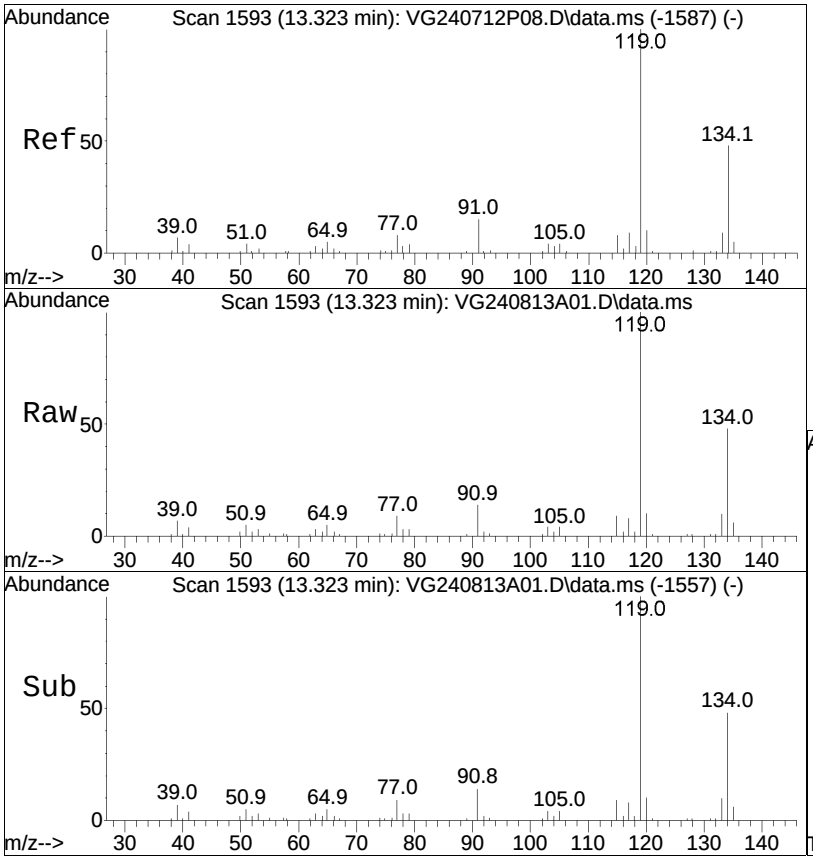


#104
1,2-Dichlorobenzene
Concen: 9.38 ug/L
RT: 12.747 min Scan# 1523
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:146 Resp: 178107

Ion	Ratio	Lower	Upper
146	100		
111	37.6	25.4	52.8
148	65.0	41.7	86.5

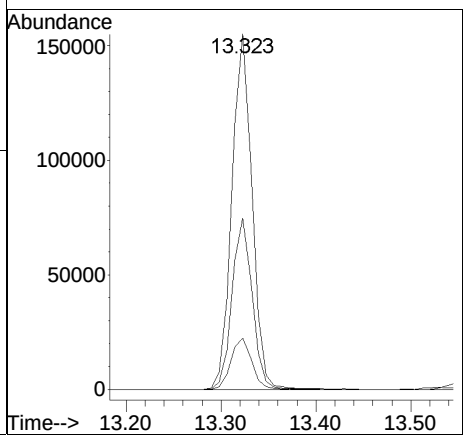


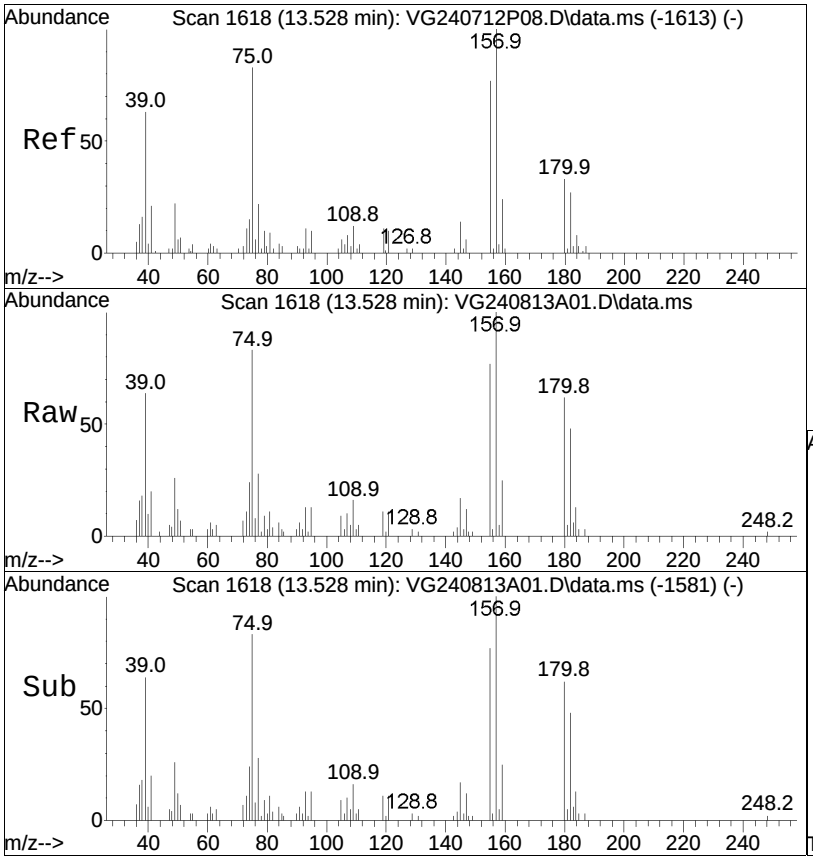


#105
1,2,4,5-Tetramethylbenzene
Concen: 7.92 ug/L
RT: 13.323 min Scan# 1593
Delta R.T. -0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:119 Resp: 229428

Ion	Ratio	Lower	Upper
119	100		
134	48.0	32.7	67.9
91	14.8	9.9	20.7

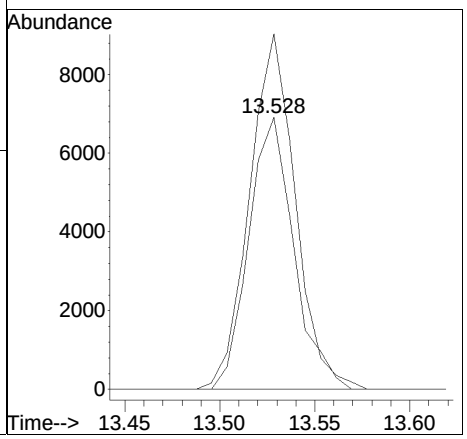


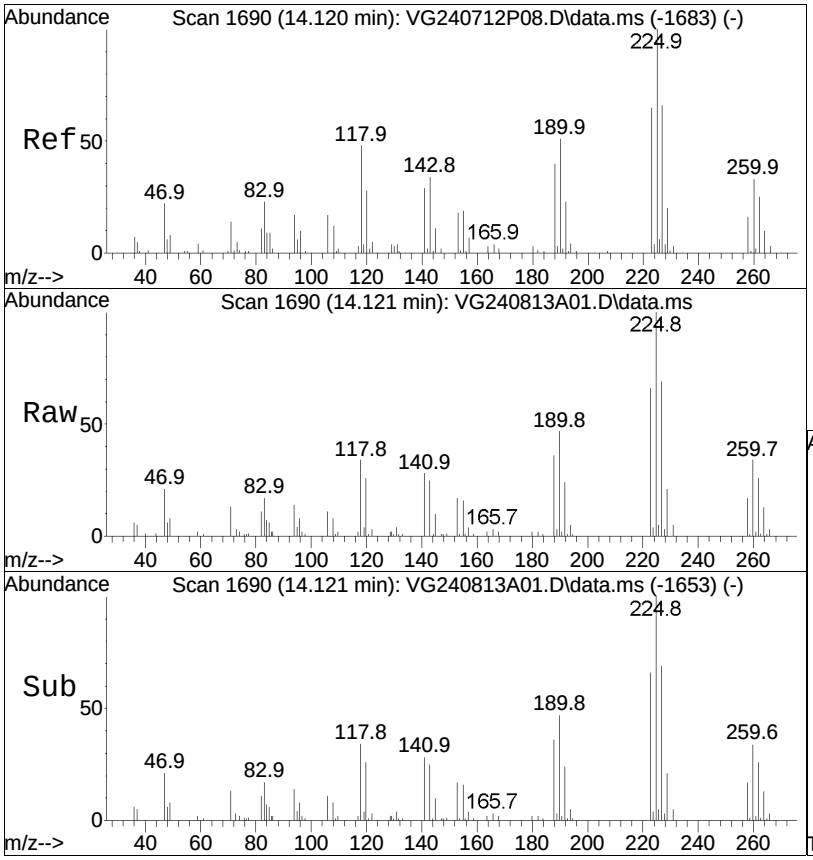


#106
1,2-Dibromo-3-chloropropane
Concen: 7.08 ug/L
RT: 13.528 min Scan# 1618
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:155 Resp: 11429

Ion	Ratio	Lower	Upper
155	100		
157	132.6	99.9	149.9

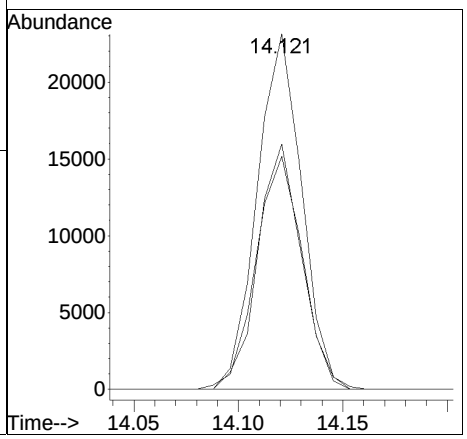


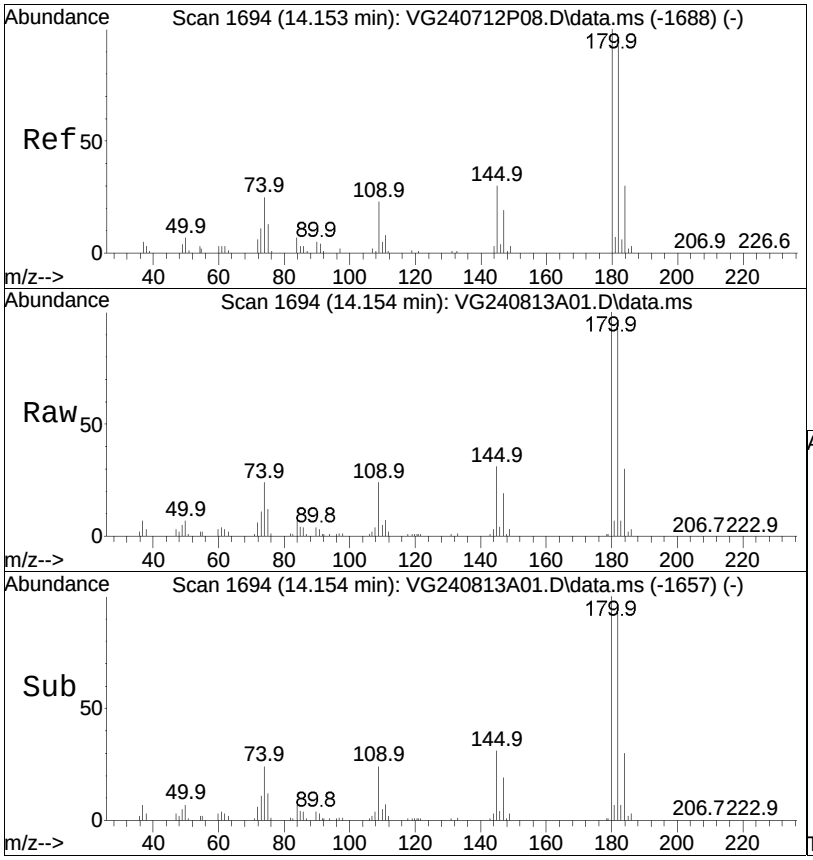


#108
Hexachlorobutadiene
Concen: 9.80 ug/L
RT: 14.121 min Scan# 1690
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:225 Resp: 34320

Ion	Ratio	Lower	Upper
225	100		
223	69.0	50.1	75.1
227	67.4	50.2	75.4

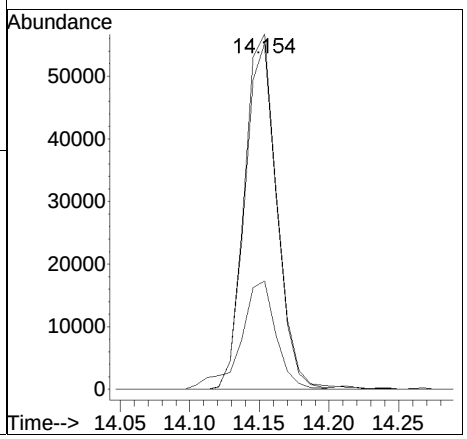


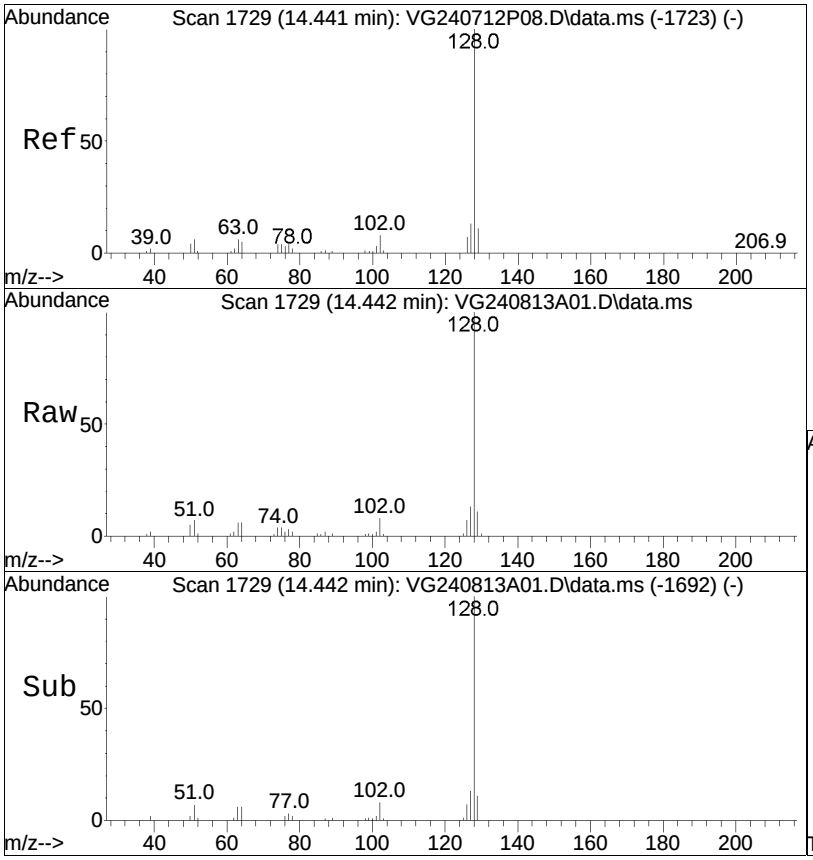


#109
1,2,4-Trichlorobenzene
Concen: 8.60 ug/L
RT: 14.154 min Scan# 1694
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:180 Resp: 92997

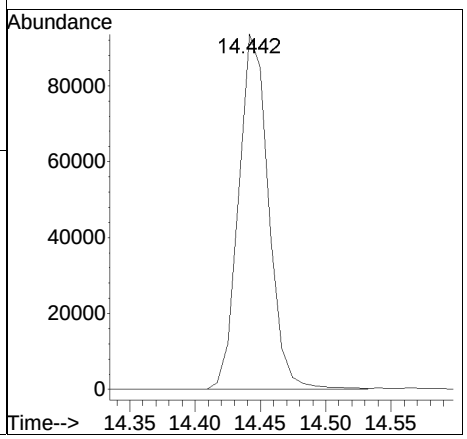
Ion	Ratio	Lower	Upper
180	100		
182	94.8	76.7	115.1
145	32.9	26.5	39.7

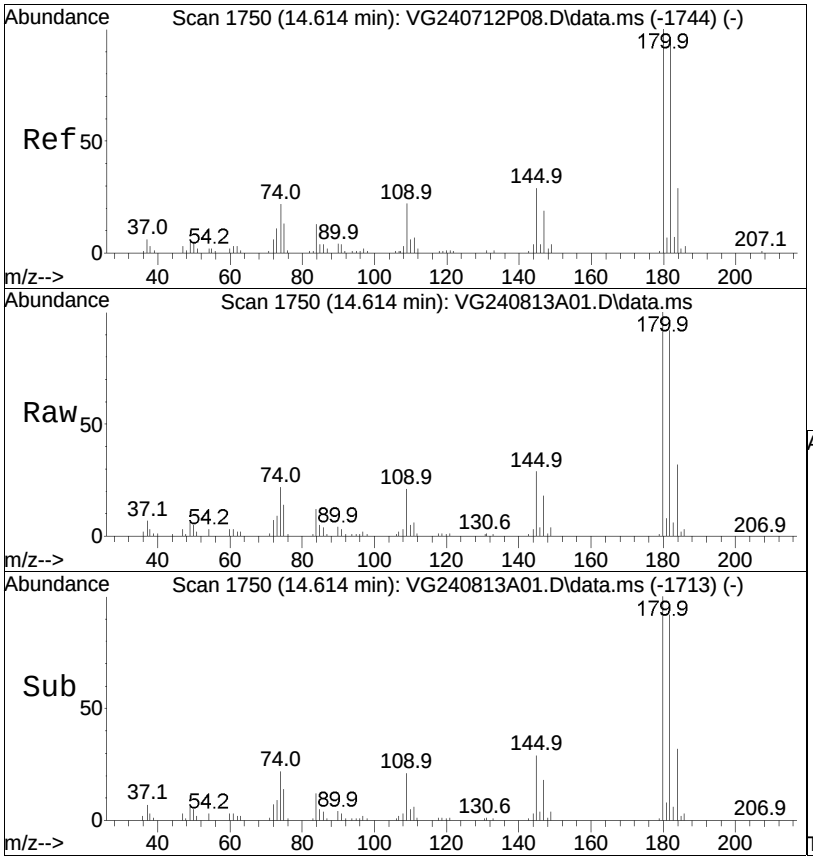




#110
Naphthalene
Concen: 6.15 ug/L
RT: 14.442 min Scan# 1729
Delta R.T. 0.001 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:128 Resp: 149397

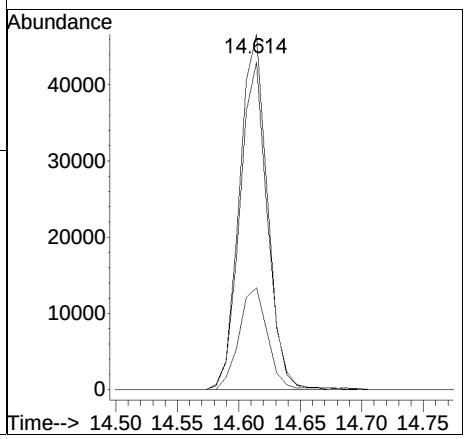




#111
1,2,3-Trichlorobenzene
Concen: 8.22 ug/L
RT: 14.614 min Scan# 1750
Delta R.T. 0.000 min
Lab File: VG240813A01.D
Acq: 13 Aug 2024 8:09 am

Tgt Ion:180 Resp: 73978

Ion	Ratio	Lower	Upper
180	100		
182	91.0	77.0	115.4
145	29.0	24.1	36.1

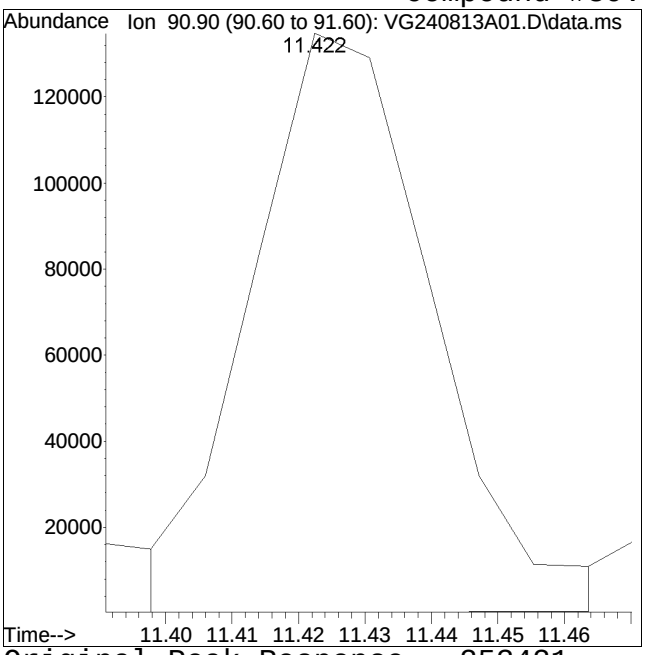


Manual Integration Report

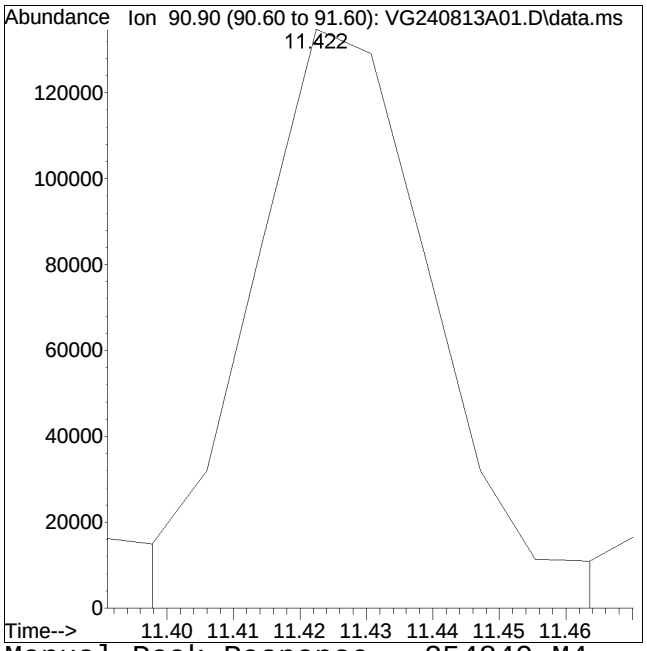
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Date Inj'd : 8/13/2024 8:09 am
Sample : WG1958701-3,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 8:48 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 253421



Manual Peak Response = 254840 M4

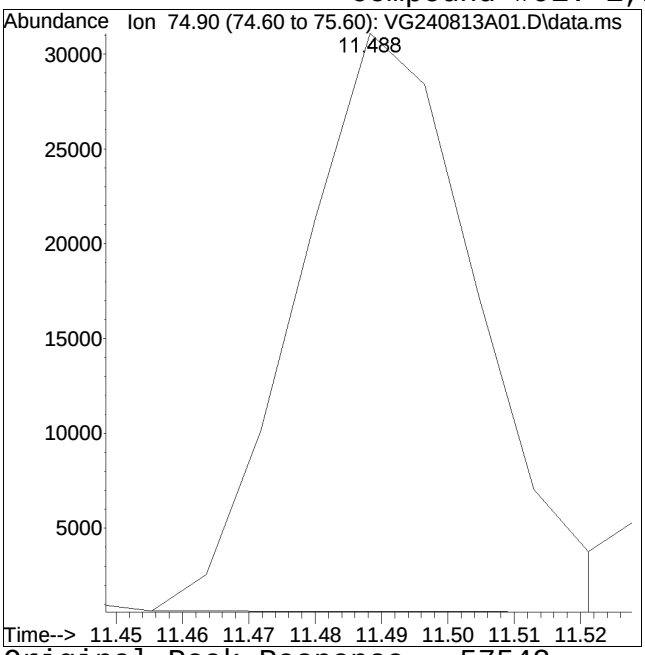
M4 = Poor automated baseline construction.

Manual Integration Report

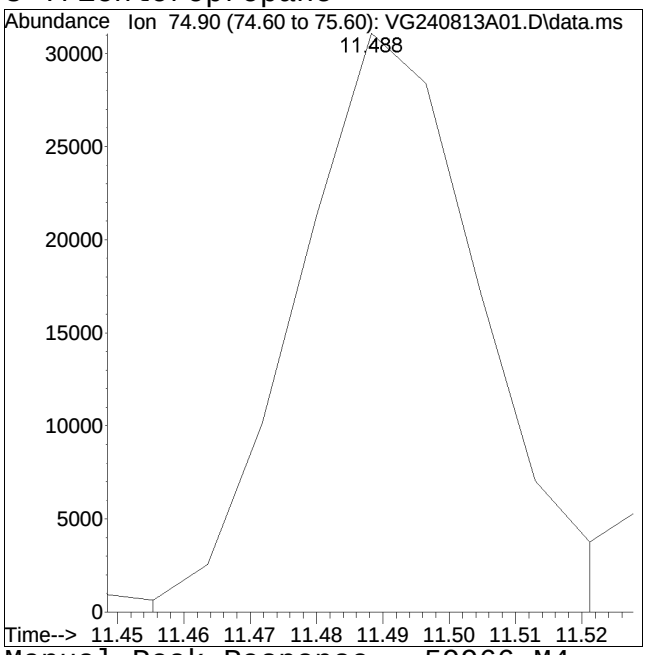
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A01.D
Date Inj'd : 8/13/2024 8:09 am
Sample : WG1958701-3,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 8:48 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 57542



Manual Peak Response = 59966 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A02.D
Acq On : 13 Aug 2024 07:16 am
Operator : VOA122:PID
Sample : WG1958655-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 07:50:57 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	460054	10.000	ug/L	0.00
Standard Area 1 = 446456			Recovery = 103.05%			
62) Chlorobenzene-d5	9.519	117	383761	10.000	ug/L	0.00
Standard Area 1 = 376565			Recovery = 101.91%			
83) 1,4-Dichlorobenzene-d4	12.229	152	205569	10.000	ug/L	0.00
Standard Area 1 = 206350			Recovery = 99.62%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	165332	10.285	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.85%			
46) 1,2-Dichloroethane-d4	5.688	65	128961	9.491	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.91%			
63) Toluene-d8	7.675	98	454006	9.285	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.85%			
87) 4-Bromofluorobenzene	11.019	95	160645	8.582	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 85.82%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	81528	8.976	ug/L	98
3) Chloromethane	1.815	50	102819	8.487	ug/L	98
4) Vinyl chloride	1.880	62	91139	9.508	ug/L	97
5) Bromomethane	2.189	94	24611	6.391	ug/L	98
6) Chloroethane	2.300	64	52460	9.468	ug/L	97
7) Trichlorofluoromethane	2.444	101	112912	10.283	ug/L	99
8) Ethyl ether	2.746	74	29257	9.138	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	65280	10.256	ug/L	86
11) Carbon disulfide	2.962	76	195817	9.365	ug/L	100
15) Methylene chloride	3.473	84	72152	8.551	ug/L #	58
17) Acetone	3.512	43	14564	9.469	ug/L	92
18) trans-1,2-Dichloroethene	3.630	96	72604	9.751	ug/L	90
21) Methyl tert-butyl ether	3.729	73	134542	9.450	ug/L #	77
25) 1,1-Dichloroethane	4.207	63	135403	8.904	ug/L	96
27) Acrylonitrile	4.247	53	20502	9.766	ug/L	95
29) Vinyl acetate	4.437	43	148026	9.258	ug/L #	88
30) cis-1,2-Dichloroethene	4.725	96	80188	9.718	ug/L	89
31) 2,2-Dichloropropane	4.830	77	94129	9.877	ug/L #	80
32) Bromochloromethane	4.915	128	44240	11.362	ug/L #	83
34) Chloroform	4.987	83	120612	9.164	ug/L	94

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A02.D
Acq On : 13 Aug 2024 07:16 am
Operator : VOA122:PID
Sample : WG1958655-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 07:50:57 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Carbon tetrachloride	5.125	117	102068	10.746	ug/L		97
39) 1,1,1-Trichloroethane	5.190	97	110276	9.936	ug/L		97
41) 2-Butanone	5.275	43	19700	9.114	ug/L	#	47
42) 1,1-Dichloropropene	5.308	75	82830	9.249	ug/L		96
44) Benzene	5.557	78	270916	9.297	ug/L	#	92
47) 1,2-Dichloroethane	5.754	62	66816	9.178	ug/L		98
51) Trichloroethene	6.153	95	58102	9.375	ug/L		95
53) Dibromomethane	6.591	93	30064	9.596	ug/L		92
54) 1,2-Dichloropropane	6.695	63	57847	8.890	ug/L		95
57) Bromodichloromethane	6.764	83	71026	9.251	ug/L		99
60) 1,4-Dioxane	6.973	88	13046	508.194	ug/L	#	65
61) cis-1,3-Dichloropropene	7.459	75	72980	9.224	ug/L	#	83
64) Toluene	7.730	92	140699	8.901	ug/L		99
65) 4-Methyl-2-pentanone	8.161	58	10830	8.561	ug/L	#	70
66) Tetrachloroethene	8.175	166	70707	11.408	ug/L		99
68) trans-1,3-Dichloropropene	8.210	75	60233	7.730	ug/L		84
71) 1,1,2-Trichloroethane	8.391	83	32370	8.720	ug/L		98
72) Chlorodibromomethane	8.607	129	55405	9.251	ug/L		99
73) 1,3-Dichloropropane	8.719	76	62598	8.601	ug/L		100
74) 1,2-Dibromoethane	8.881	107	40765	9.799	ug/L		99
76) 2-Hexanone	9.175	43	19885	8.459	ug/L	#	85
77) Chlorobenzene	9.540	112	171414	9.574	ug/L	#	84
78) Ethylbenzene	9.582	91	275123	9.218	ug/L		98
79) 1,1,1,2-Tetrachloroethane	9.624	131	58253	10.229	ug/L		96
80) p/m Xylene	9.771	106	229704	19.827	ug/L		94
81) o Xylene	10.311	106	215667	19.685	ug/L		95
82) Styrene	10.381	104	353020	20.032	ug/L		94
84) Bromoform	10.395	173	29896	9.667	ug/L		99
86) Isopropylbenzene	10.704	105	298454	9.360	ug/L		100
88) Bromobenzene	11.132	156	74563	9.944	ug/L		99
89) n-Propylbenzene	11.181	91	328146	8.856	ug/L		97
91) 1,1,2,2-Tetrachloroethane	11.258	83	42951	8.235	ug/L		99
92) 4-Ethyltoluene	11.307	105	277419	9.186	ug/L		98
93) 2-Chlorotoluene	11.342	91	185005M6	8.289	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	235659	9.209	ug/L		98
95) 1,2,3-Trichloropropane	11.398	75	32632	8.196	ug/L		95
96) trans-1,4-Dichloro-2-b...	11.454	53	15558	8.762	ug/L	#	68
97) 4-Chlorotoluene	11.531	91	195653	8.494	ug/L		93
98) tert-Butylbenzene	11.749	119	218359	9.831	ug/L		93

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A02.D
Acq On : 13 Aug 2024 07:16 am
Operator : VOA122:PID
Sample : WG1958655-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 07:50:57 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240813A\V22240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	262396	9.177	ug/L	96
102) sec-Butylbenzene	11.944	105	303193	8.999	ug/L	98
103) p-Isopropyltoluene	12.097	119	269008	9.443	ug/L	98
104) 1,3-Dichlorobenzene	12.153	146	149591	10.058	ug/L	100
105) 1,4-Dichlorobenzene	12.250	146	145671	9.876	ug/L	99
106) p-Diethylbenzene	12.473	119	151817	9.373	ug/L	98
107) n-Butylbenzene	12.529	91	206469	8.727	ug/L	98
108) 1,2-Dichlorobenzene	12.675	146	131851	10.021	ug/L	98
109) 1,2,4,5-Tetramethylben...	13.274	119	199291	8.972	ug/L	99
110) 1,2-Dibromo-3-chloropr...	13.455	155	7527	9.619	ug/L	97
112) Hexachlorobutadiene	14.074	225	32329	10.406	ug/L	98
113) 1,2,4-Trichlorobenzene	14.088	180	78365	10.745	ug/L	98
114) Naphthalene	14.387	128	160008	9.514	ug/L	100
115) 1,2,3-Trichlorobenzene	14.554	180	68001	10.976	ug/L	99

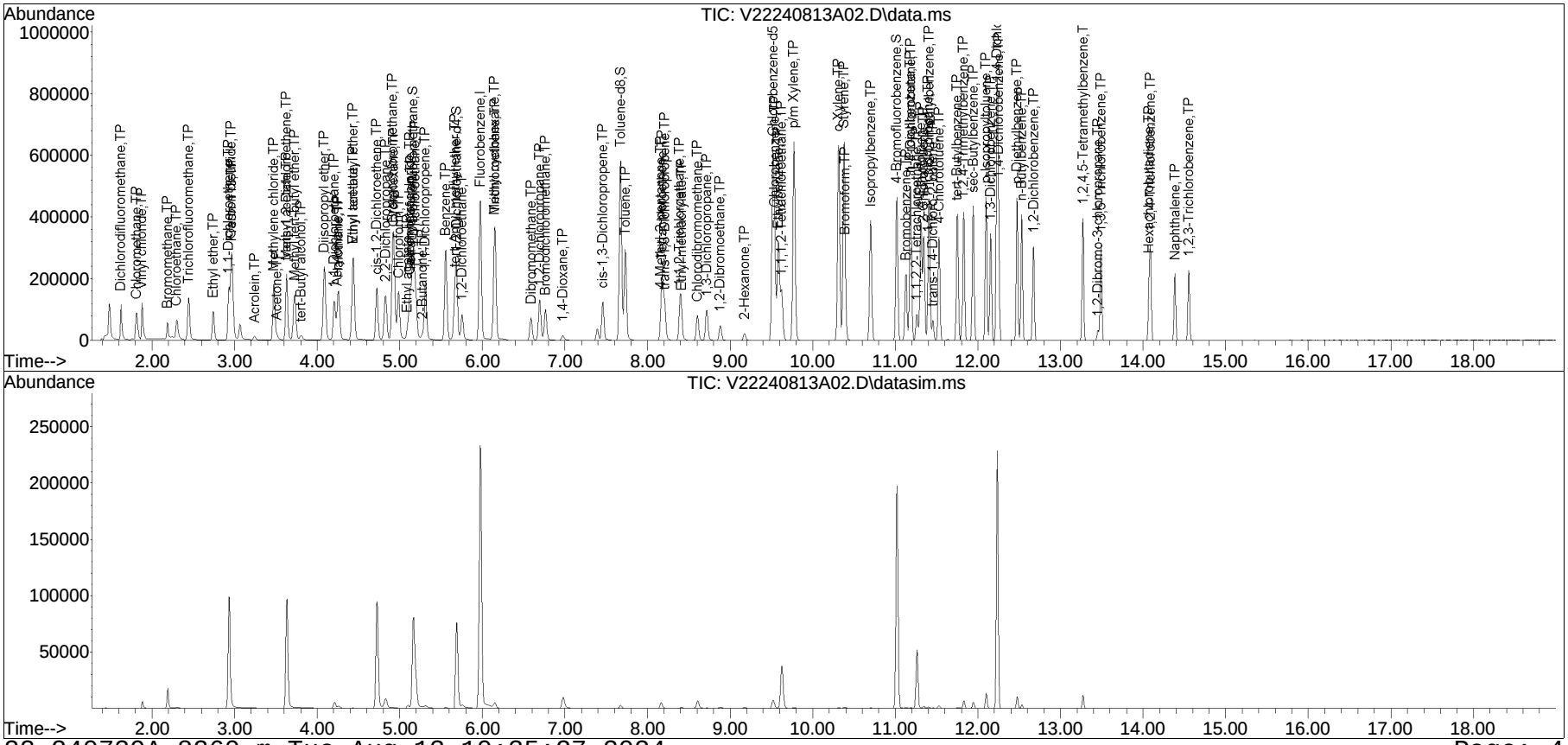
(#) = qualifier out of range (m) = manual integration (+) = signals summed

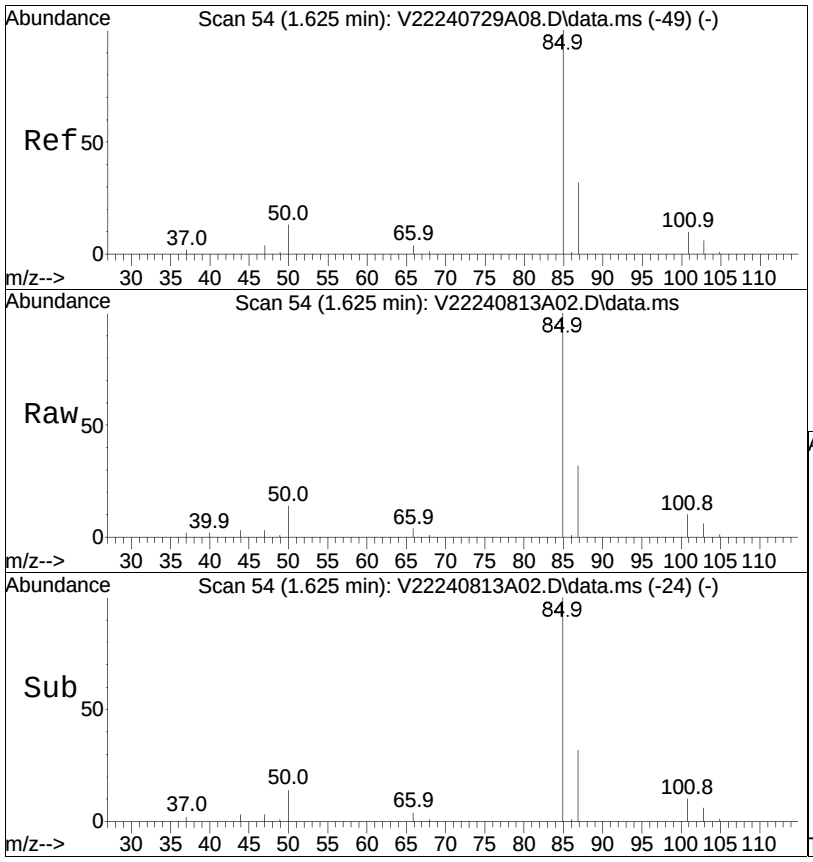
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A02.D
Acq On : 13 Aug 2024 07:16 am
Operator : VOA122:PID
Sample : WG1958655-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958655,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 07:50:57 2024
Quant Method : K:\VOA122\2024\240813A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

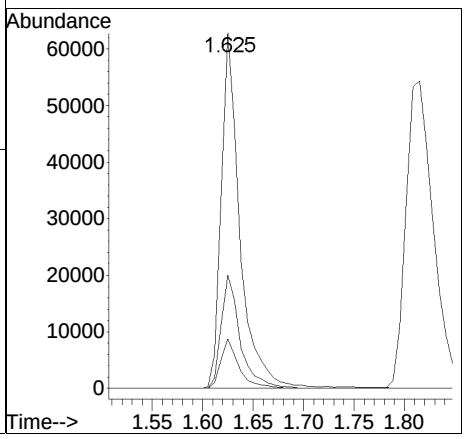


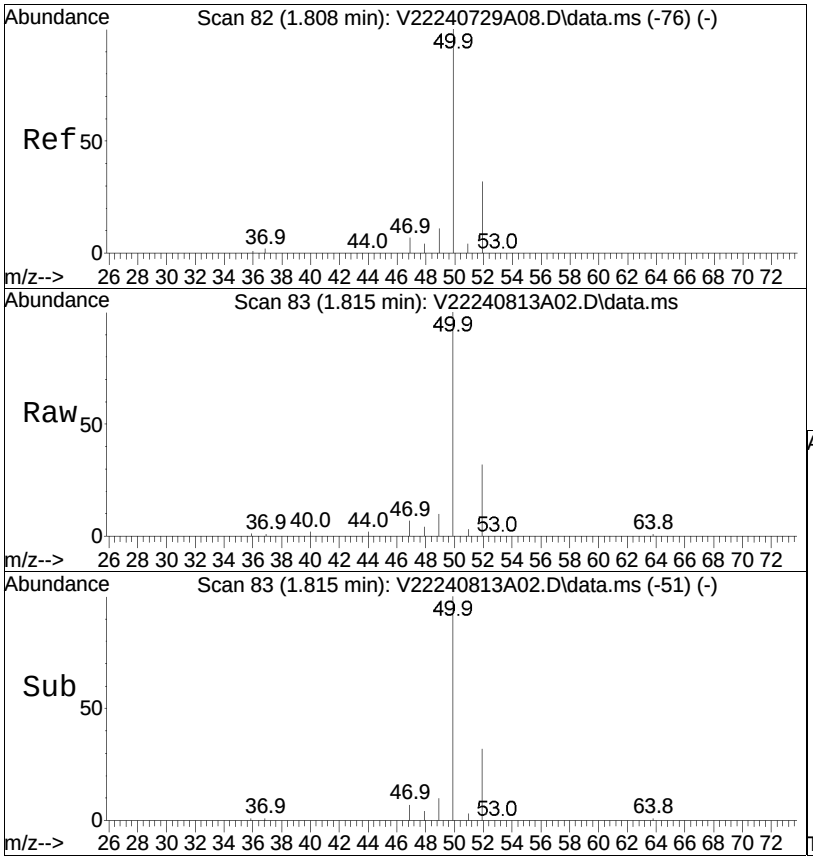


#2
Dichlorodifluoromethane
Concen: 8.98 ug/L
RT: 1.625 min Scan# 54
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 85 Resp: 81528

Ion	Ratio	Lower	Upper
85	100		
87	32.1	20.7	42.9
50	13.4	6.8	14.2

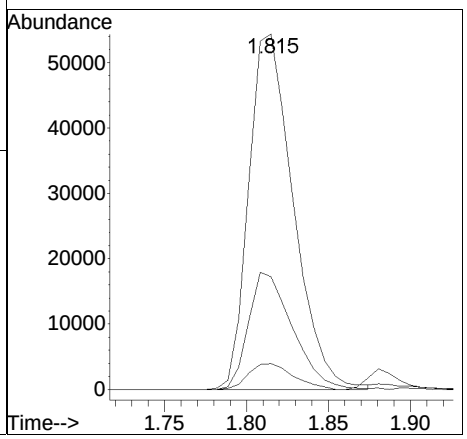


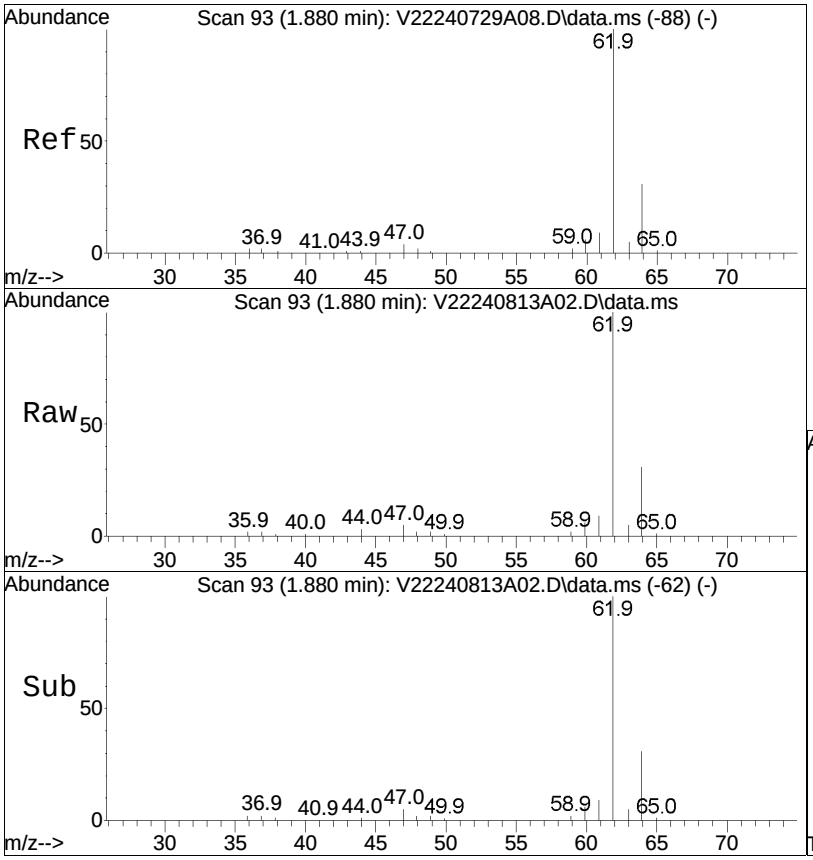


#3
Chloromethane
Concen: 8.49 ug/L
RT: 1.815 min Scan# 83
Delta R.T. 0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 50 Resp: 102819

Ion	Ratio	Lower	Upper
50	100		
52	32.5	12.8	52.8
47	7.3	0.0	30.0

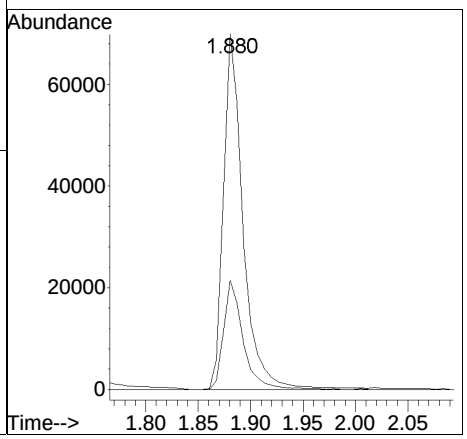


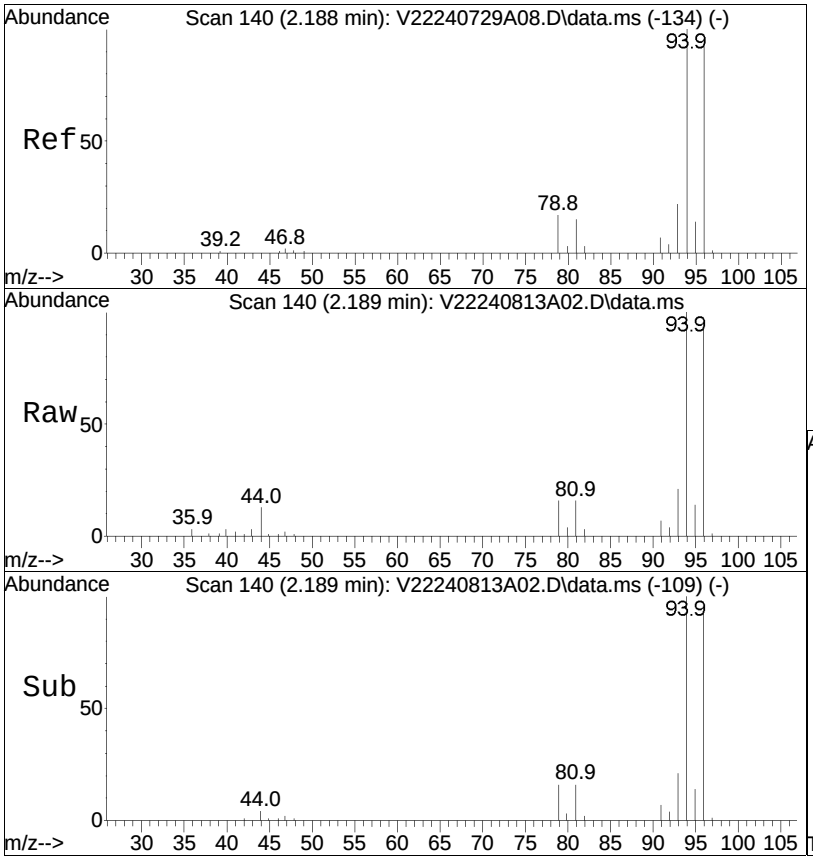


#4
Vinyl chloride
Concen: 9.51 ug/L
RT: 1.880 min Scan# 93
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 62 Resp: 91139

Ion	Ratio	Lower	Upper
62	100		
64	30.4	12.0	52.0

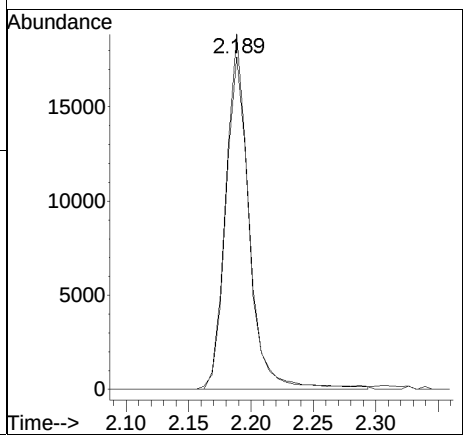


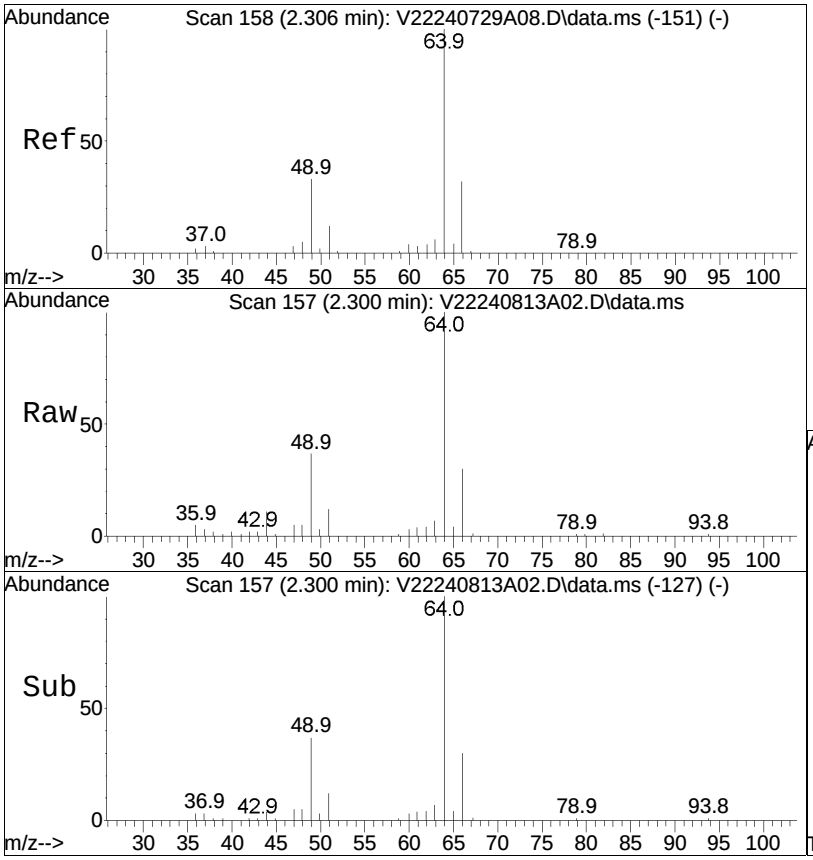


#5
Bromomethane
Concen: 6.39 ug/L
RT: 2.189 min Scan# 140
Delta R.T. 0.001 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 94 Resp: 24611

Ion	Ratio	Lower	Upper
94	100		
96	94.5	72.8	112.8

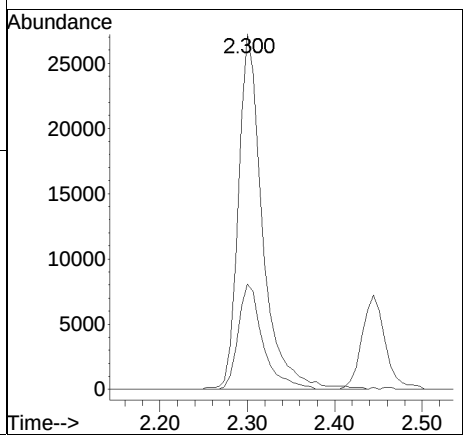


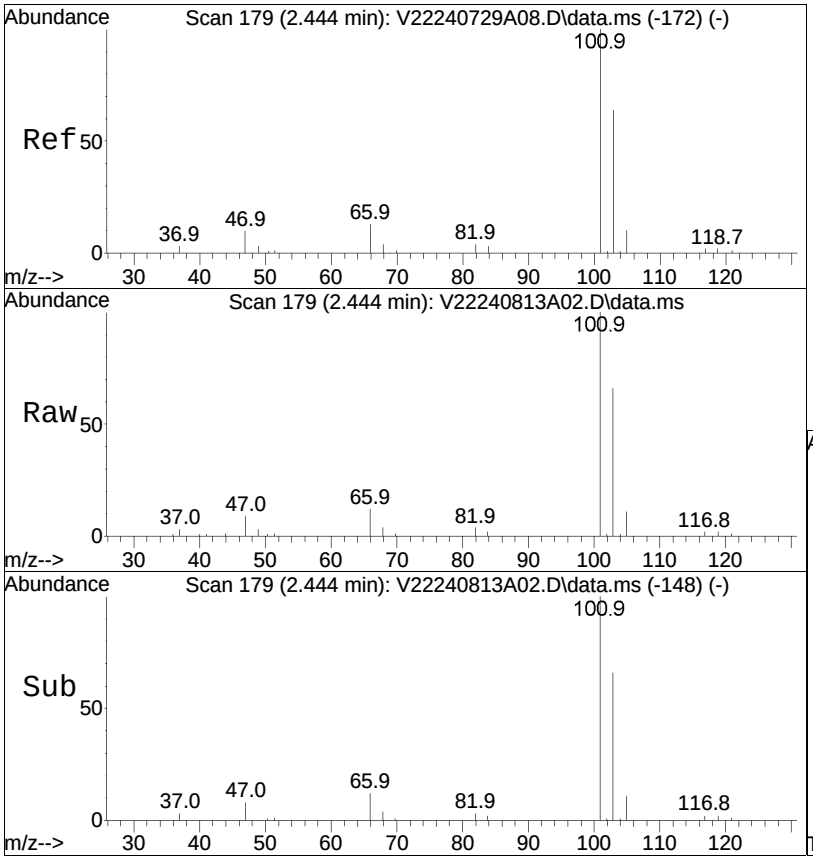


#6
Chloroethane
Concen: 9.47 ug/L
RT: 2.300 min Scan# 157
Delta R.T. -0.006 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 64 Resp: 52460

Ion	Ratio	Lower	Upper
64	100		
66	30.3	12.2	52.2

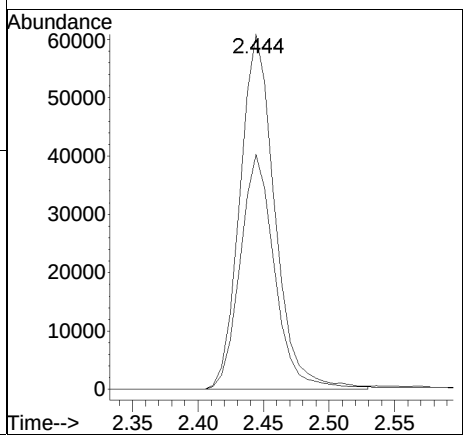


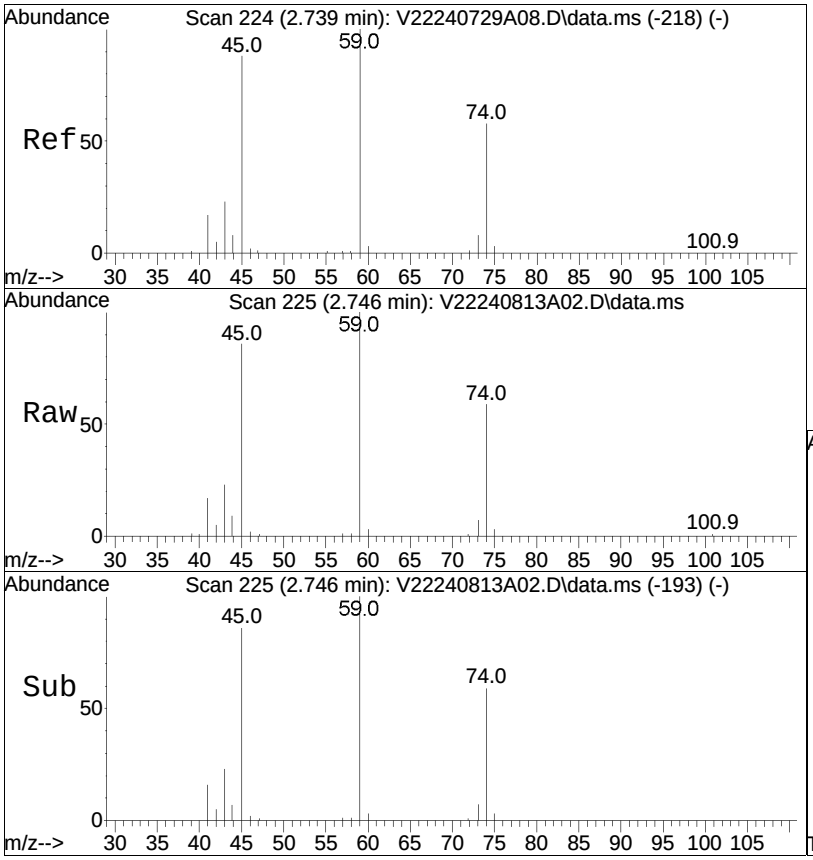


#7
Trichlorofluoromethane
Concen: 10.28 ug/L
RT: 2.444 min Scan# 179
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:101 Resp: 112912

Ion	Ratio	Lower	Upper
101	100		
103	65.7	51.6	77.4

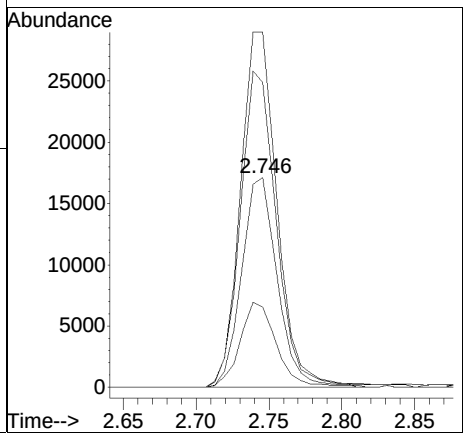


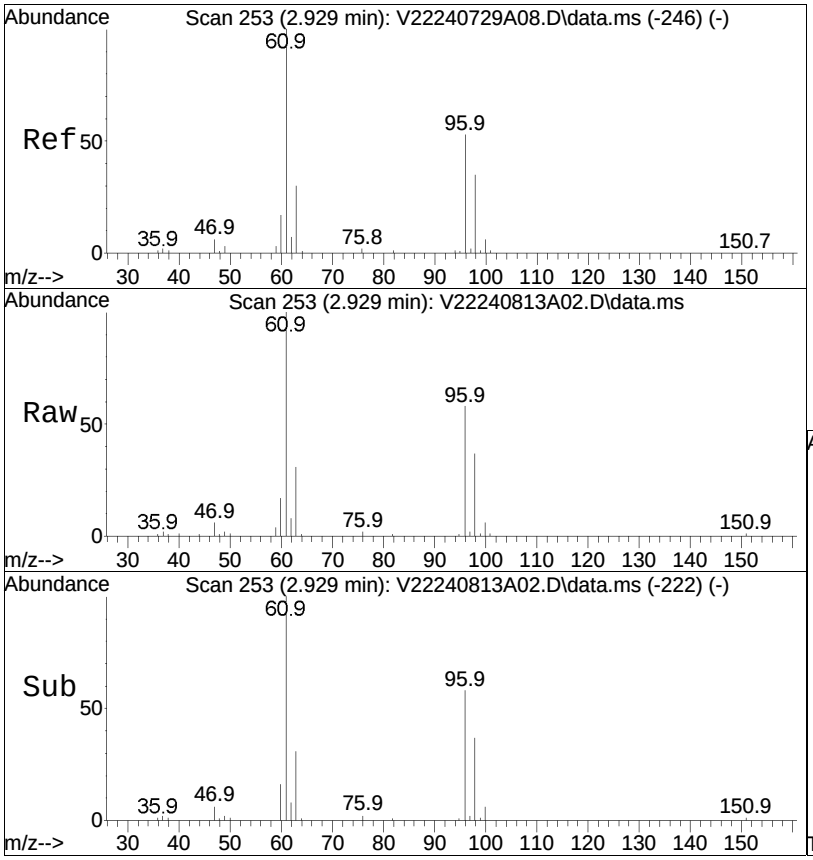


#8
Ethyl ether
Concen: 9.14 ug/L
RT: 2.746 min Scan# 225
Delta R.T. 0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 74 Resp: 29257

Ion	Ratio	Lower	Upper
74	100		
59	174.0	2122.4	4408.0#
45	153.6	1435.1	2980.5#
43	41.7	407.9	847.3#

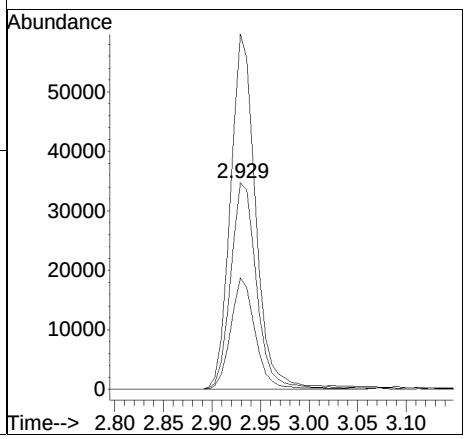


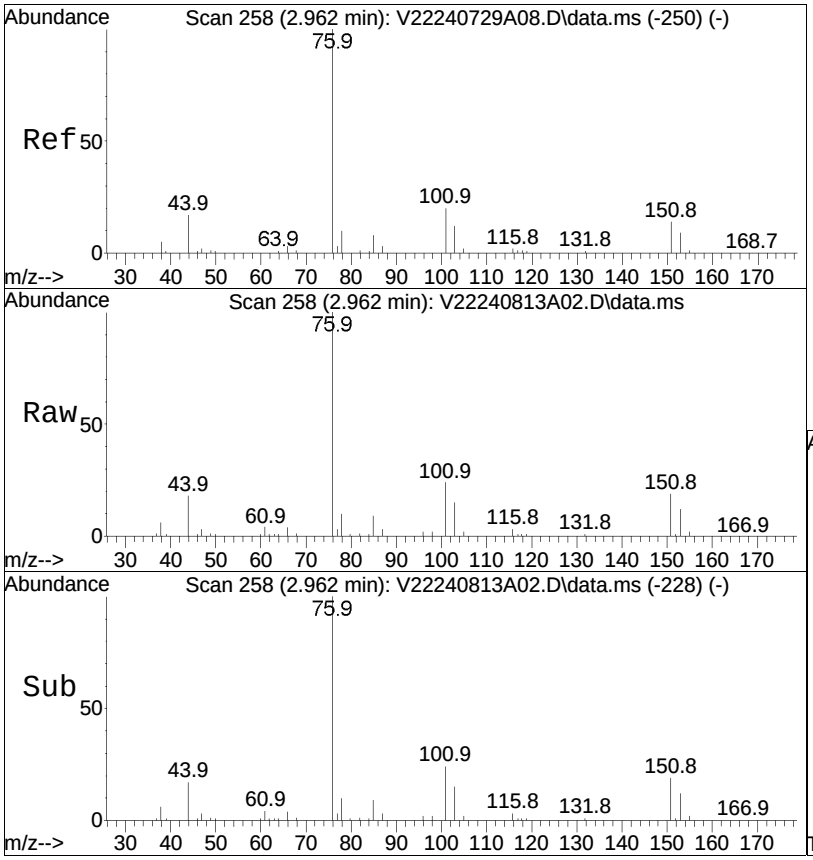


#10
1,1-Dichloroethene
Concen: 10.26 ug/L
RT: 2.929 min Scan# 253
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 96 Resp: 65280

Ion	Ratio	Lower	Upper
96	100		
61	167.6	117.0	175.4
63	51.0	37.8	56.6

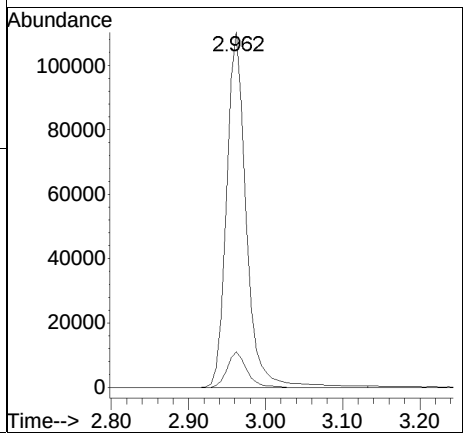


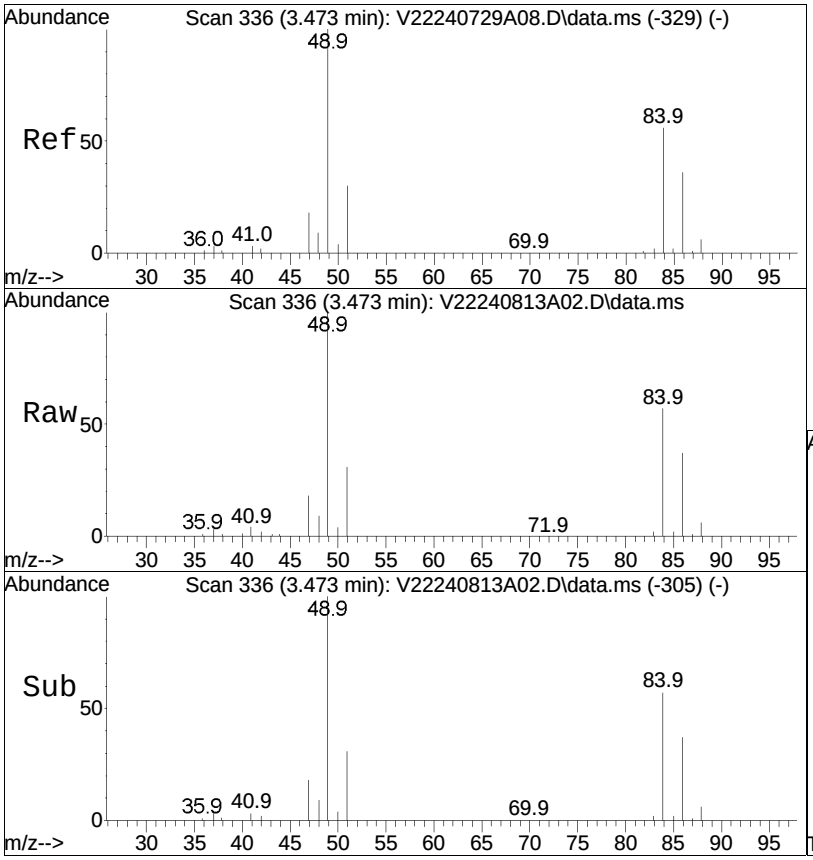


#11
Carbon disulfide
Concen: 9.37 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 76 Resp: 195817

Ion	Ratio	Lower	Upper
76	100		
78	9.9	6.4	13.4

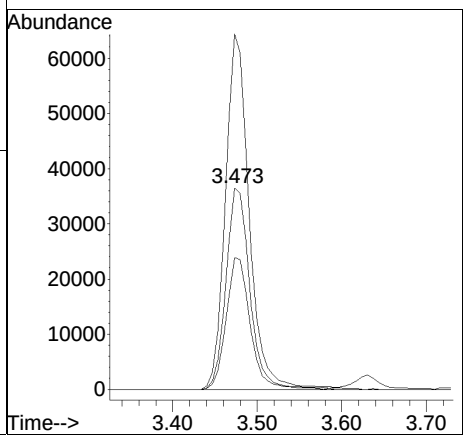


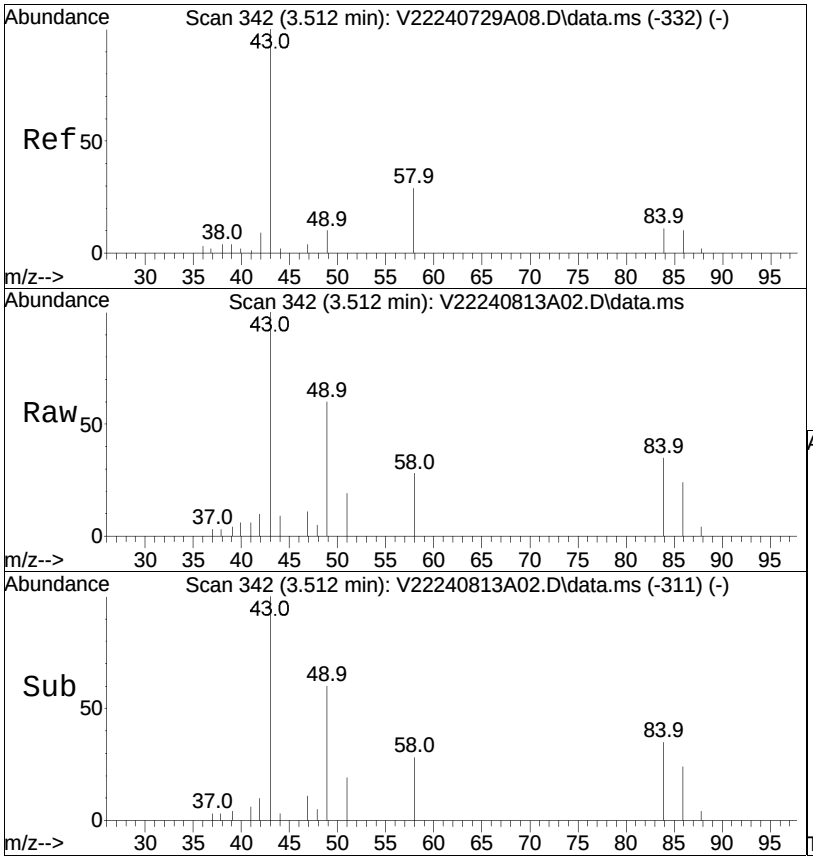


#15
Methylene chloride
Concen: 8.55 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 84 Resp: 72152

Ion	Ratio	Lower	Upper
84	100		
86	65.4	41.5	86.3
49	174.3	68.8	143.0#

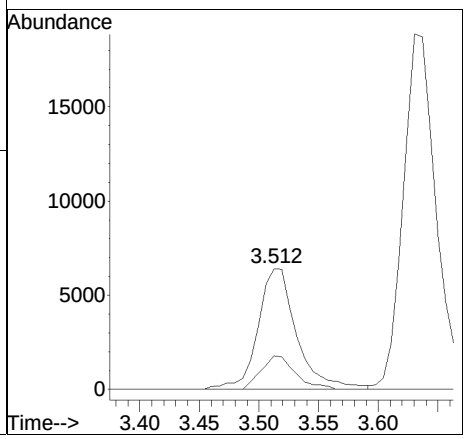


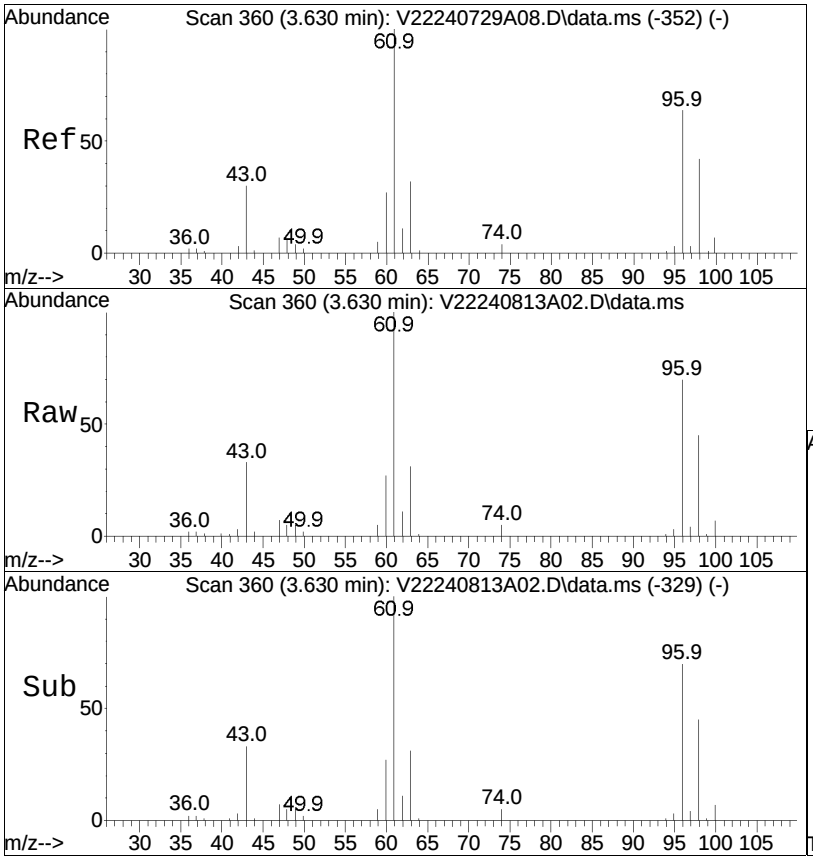


#17
Acetone
Concen: 9.47 ug/L
RT: 3.512 min Scan# 342
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 43 Resp: 14564

Ion	Ratio	Lower	Upper
43	100		
58	24.5	23.1	34.7

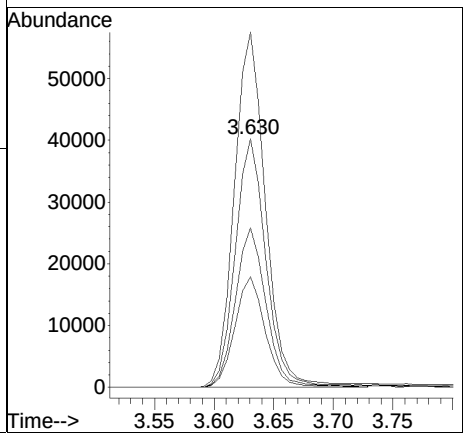


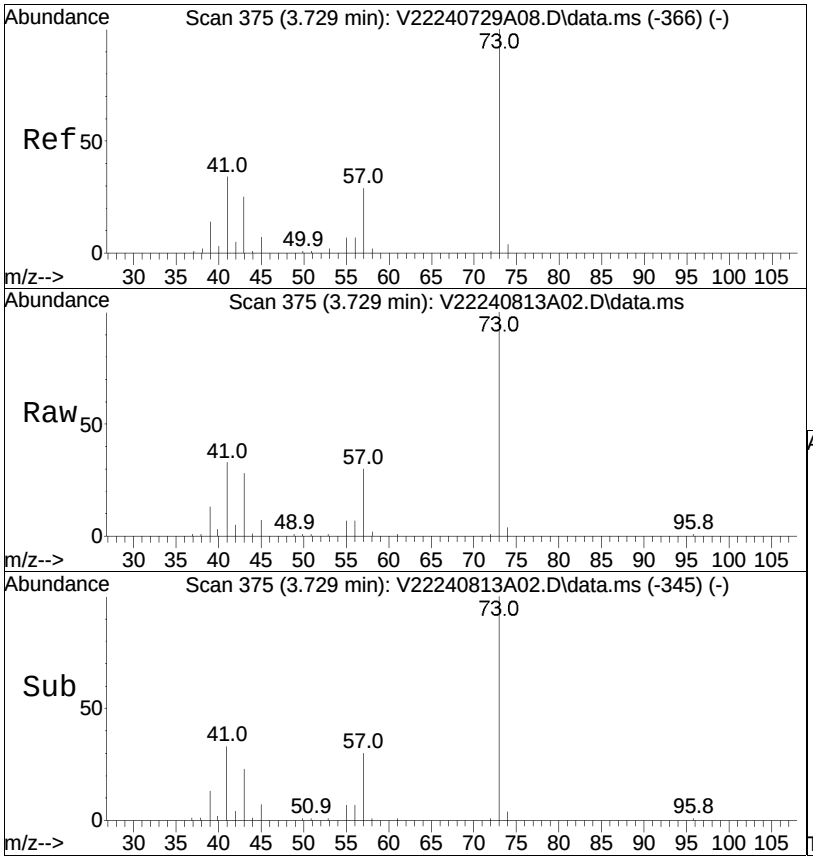


#18
trans-1,2-Dichloroethene
Concen: 9.75 ug/L
RT: 3.630 min Scan# 360
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 96 Resp: 72604

Ion	Ratio	Lower	Upper
96	100		
61	144.4	81.6	169.6
98	64.3	41.8	86.8
63	44.3	26.3	54.7

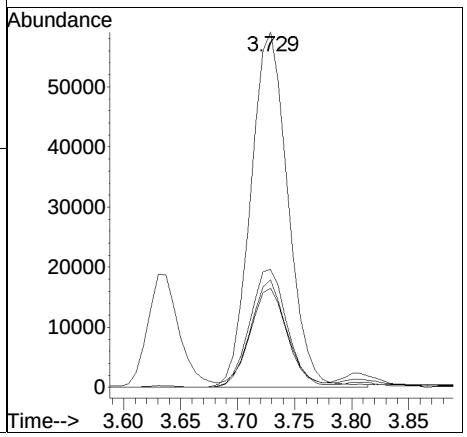


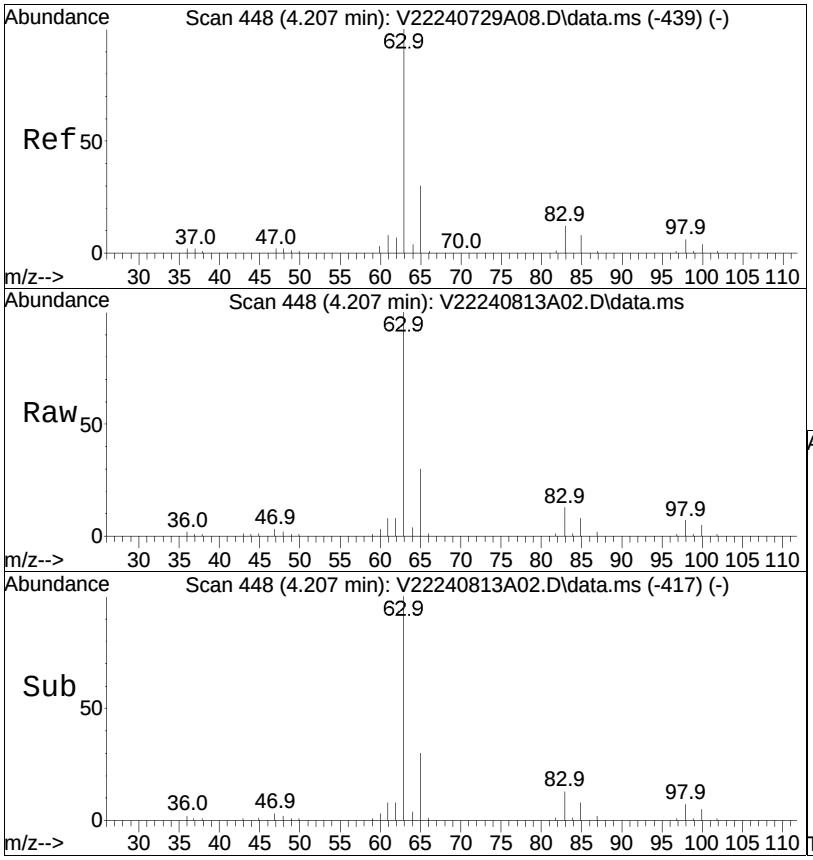


#21
Methyl tert-butyl ether
Concen: 9.45 ug/L
RT: 3.729 min Scan# 375
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 73 Resp: 134542

Ion	Ratio	Lower	Upper
73	100		
57	29.3	13.6	28.2#
43	27.3	12.7	26.5#
41	33.4	11.4	23.8#

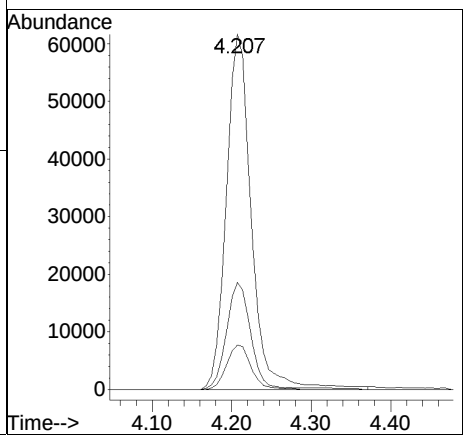


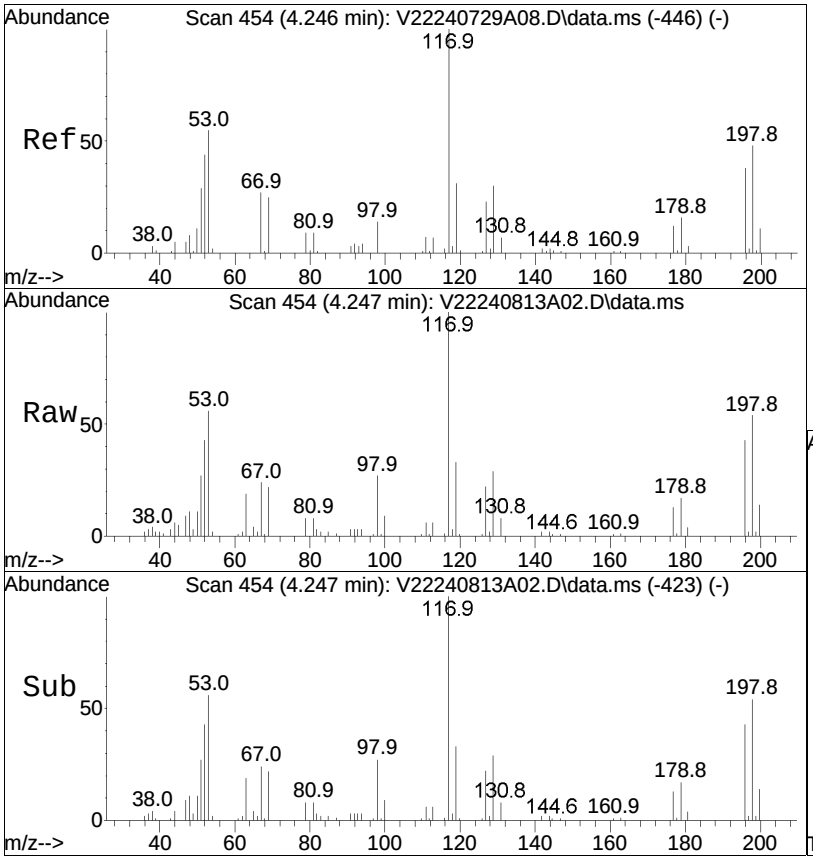


#25
1,1-Dichloroethane
Concen: 8.90 ug/L
RT: 4.207 min Scan# 448
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 63 Resp: 135403

Ion	Ratio	Lower	Upper
63	100		
65	29.6	11.9	51.9
83	12.2	0.0	34.2

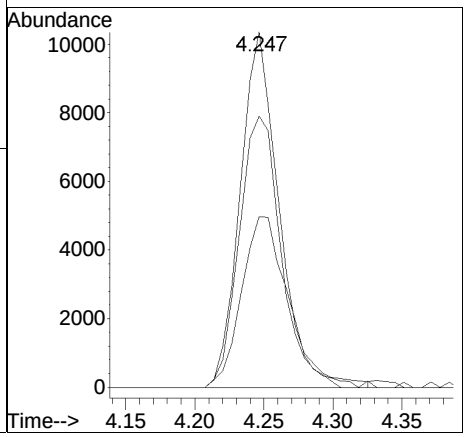


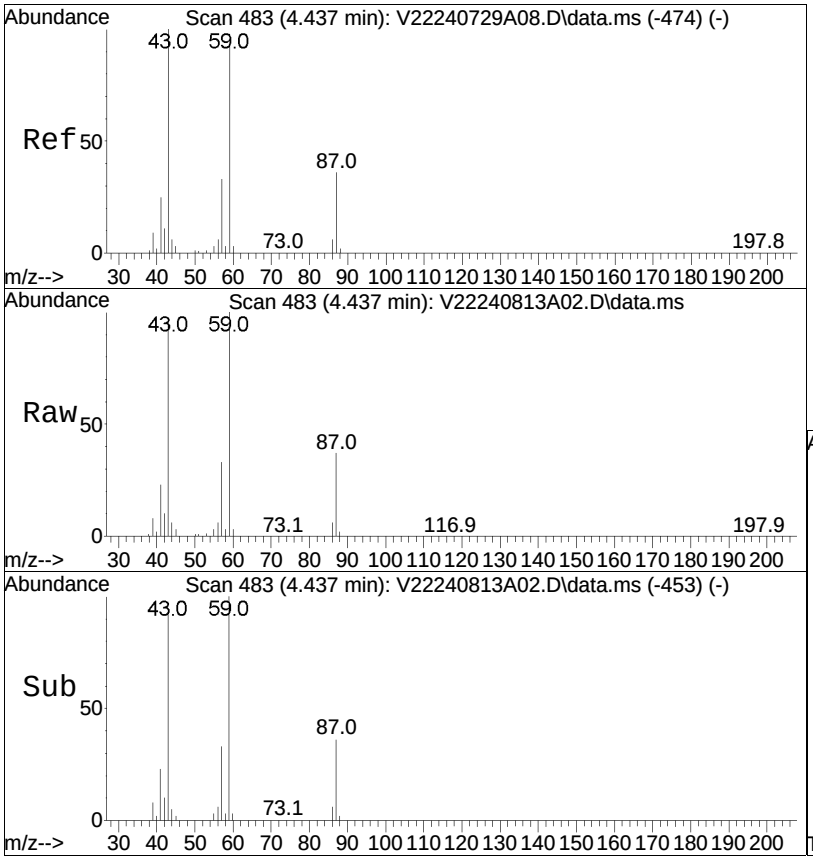


#27
Acrylonitrile
Concen: 9.77 ug/L
RT: 4.247 min Scan# 454
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 53 Resp: 20502

Ion	Ratio	Lower	Upper
53	100		
52	82.3	63.8	95.8
51	56.1	50.2	75.4

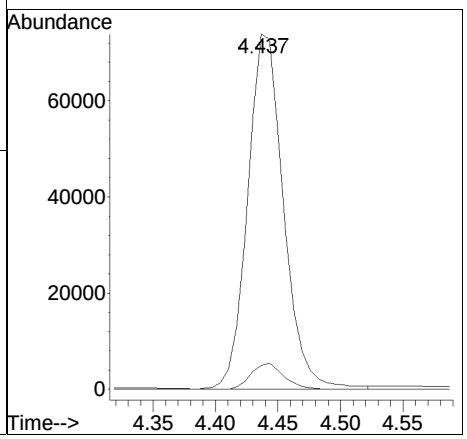


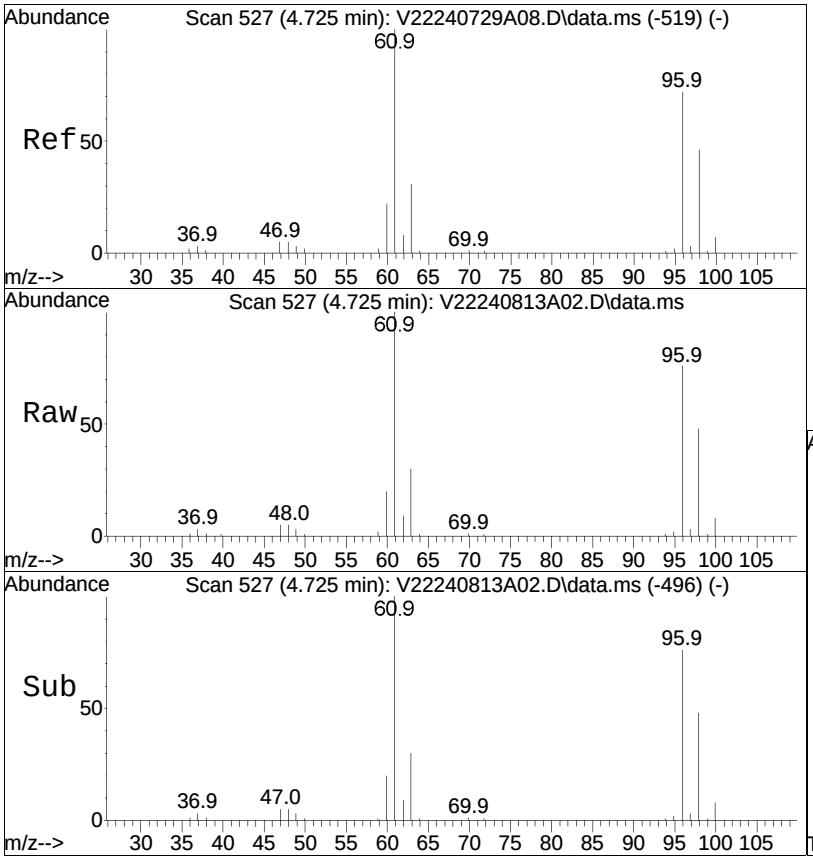


#29
Vinyl acetate
Concen: 9.26 ug/L
RT: 4.437 min Scan# 483
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 43 Resp: 148026

Ion	Ratio	Lower	Upper
43	100		
86	6.7	8.9	13.3#

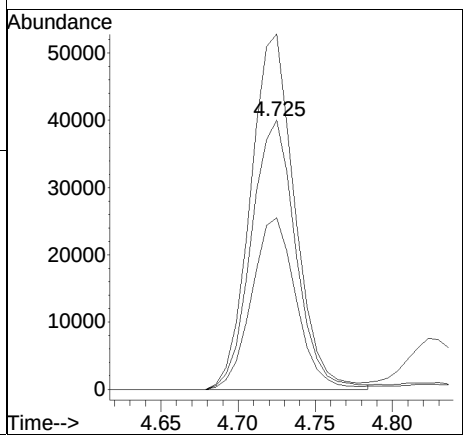


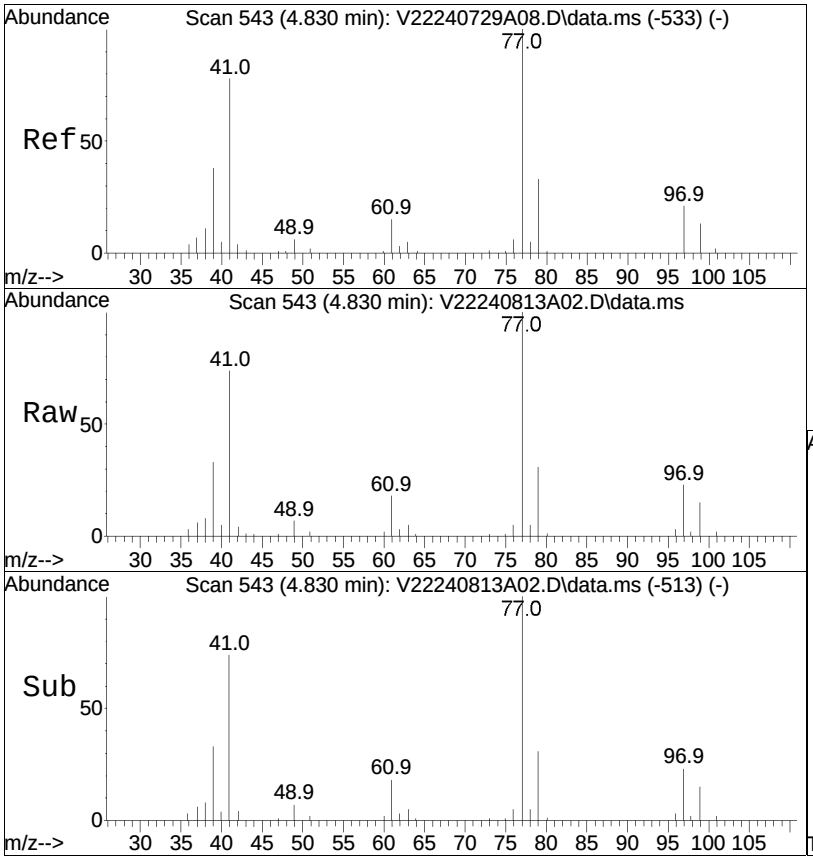


#30
cis-1,2-Dichloroethene
Concen: 9.72 ug/L
RT: 4.725 min Scan# 527
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 96 Resp: 80188

Ion	Ratio	Lower	Upper
96	100		
61	131.0	90.3	135.5
98	63.6	50.8	76.2

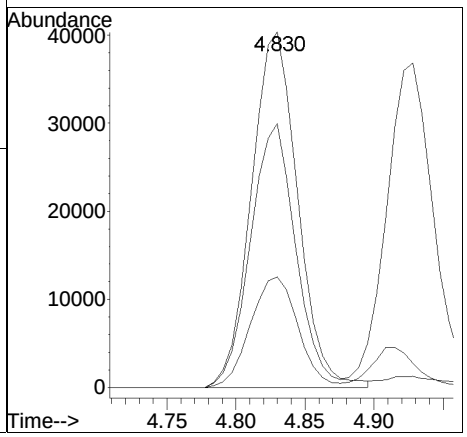


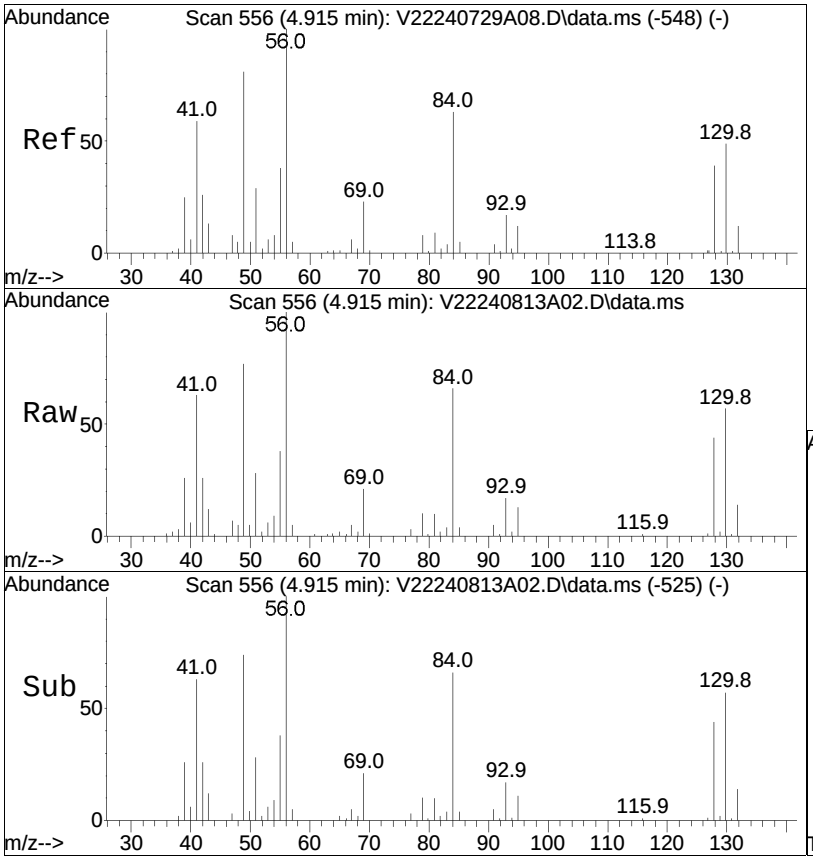


#31
2,2-Dichloropropane
Concen: 9.88 ug/L
RT: 4.830 min Scan# 543
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 77 Resp: 94129

Ion	Ratio	Lower	Upper
77	100		
41	72.3	32.3	67.1#
79	31.9	21.1	43.7

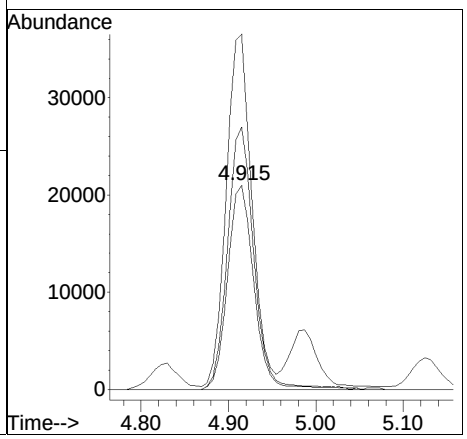


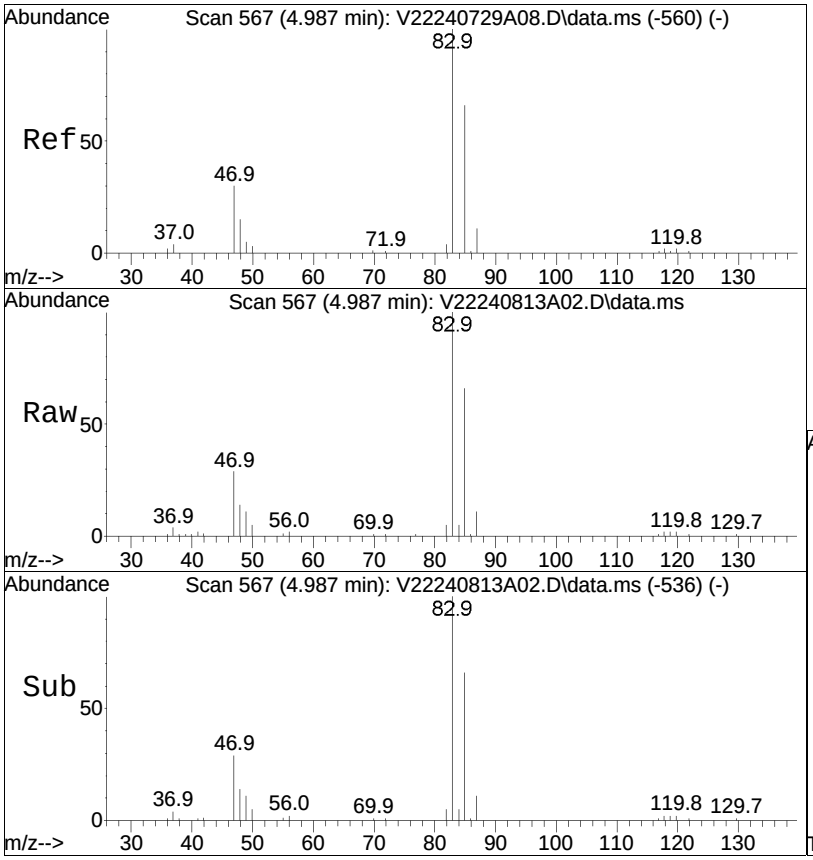


#32
Bromochloromethane
Concen: 11.36 ug/L
RT: 4.915 min Scan# 556
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:128 Resp: 44240

Ion	Ratio	Lower	Upper
128	100		
49	167.8	104.4	156.6#
130	127.8	103.9	155.9

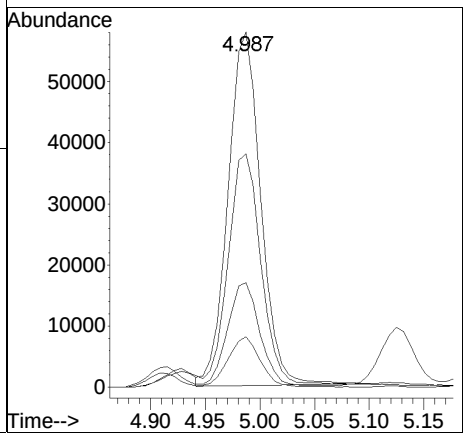


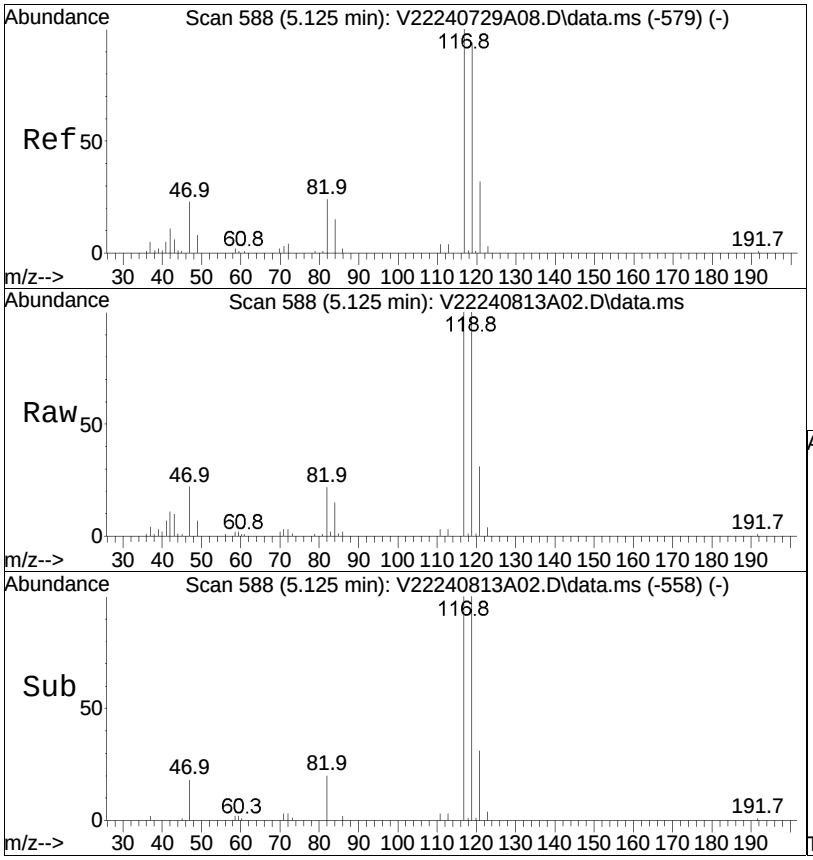


#34
Chloroform
Concen: 9.16 ug/L
RT: 4.987 min Scan# 567
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 83 Resp: 120612

Ion	Ratio	Lower	Upper
83	100		
85	67.3	42.4	88.2
47	28.2	14.0	29.0
48	13.7	6.9	14.3

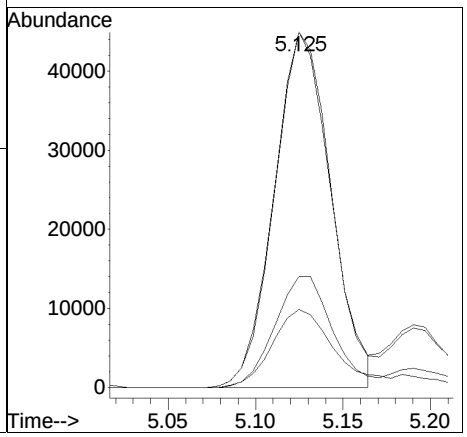


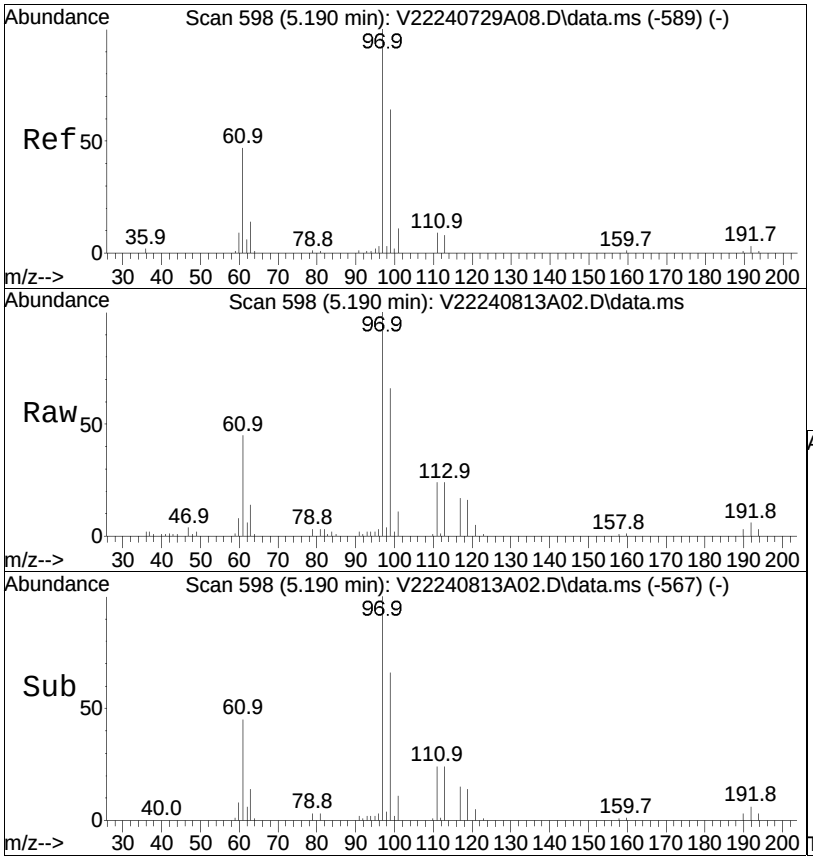


#36
Carbon tetrachloride
Concen: 10.75 ug/L
RT: 5.125 min Scan# 588
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:117 Resp: 102068

Ion	Ratio	Lower	Upper
117	100		
119	99.4	62.1	129.1
121	31.8	20.3	42.3
82	24.0	15.4	32.0

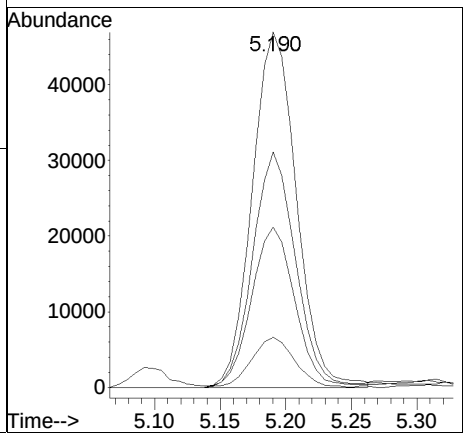


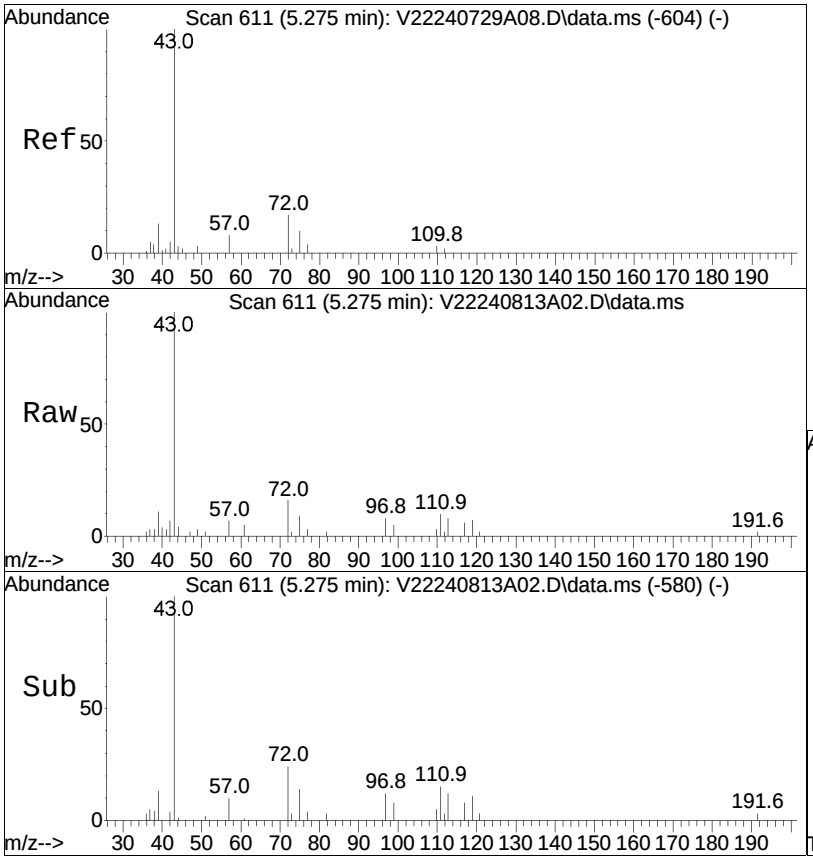


#39
1,1,1-Trichloroethane
Concen: 9.94 ug/L
RT: 5.190 min Scan# 598
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 97 Resp: 110276

Ion	Ratio	Lower	Upper
97	100		
99	64.3	42.4	88.0
61	43.9	26.0	54.0
63	13.8	8.3	17.3

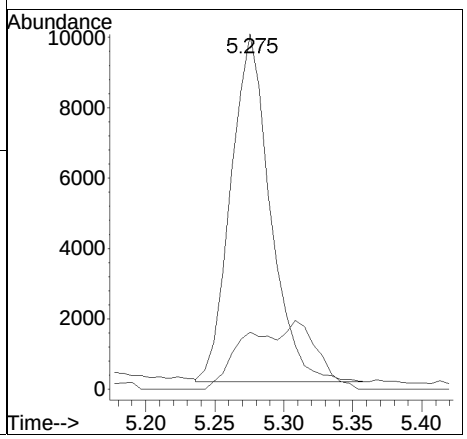


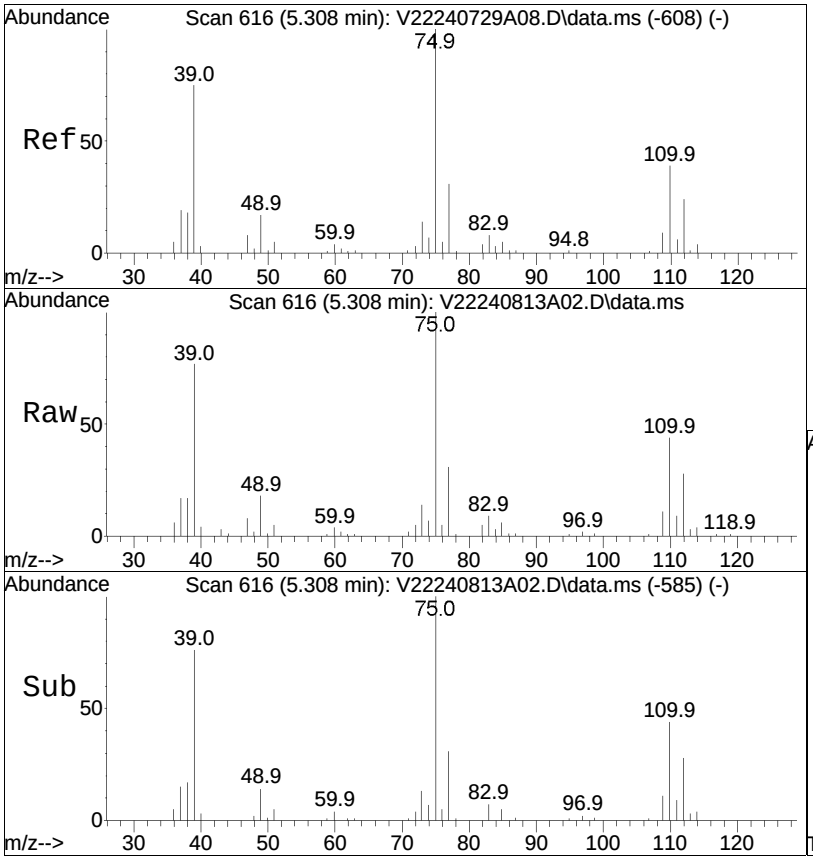


#41
2-Butanone
Concen: 9.11 ug/L
RT: 5.275 min Scan# 611
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 43 Resp: 19700

Ion	Ratio	Lower	Upper
43	100		
72	18.3	45.8	68.8#

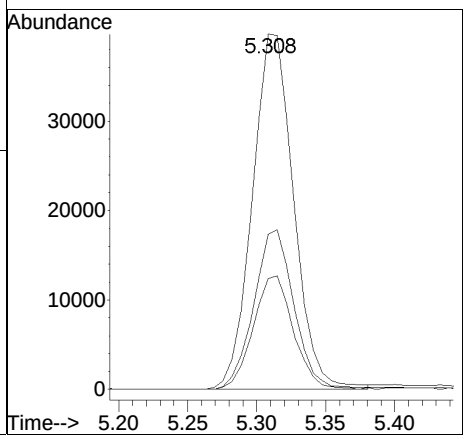


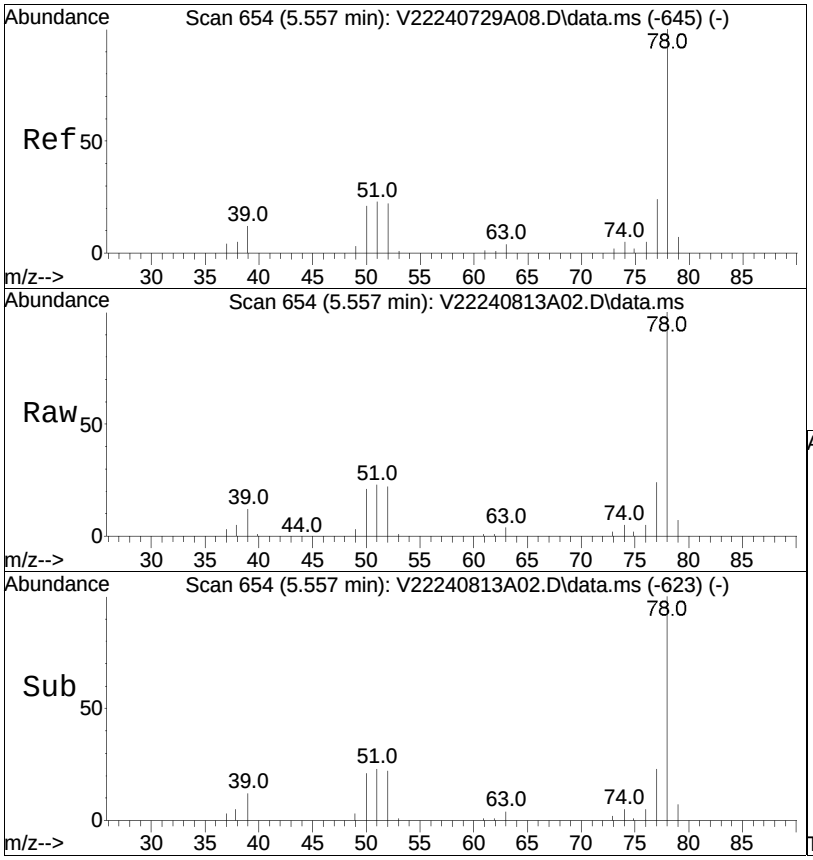


#42
1,1-Dichloropropene
Concen: 9.25 ug/L
RT: 5.308 min Scan# 616
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 75 Resp: 82830

Ion	Ratio	Lower	Upper
75	100		
110	43.7	25.4	52.8
77	31.0	20.3	42.1

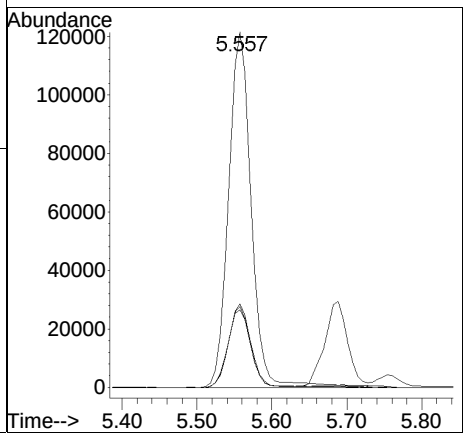


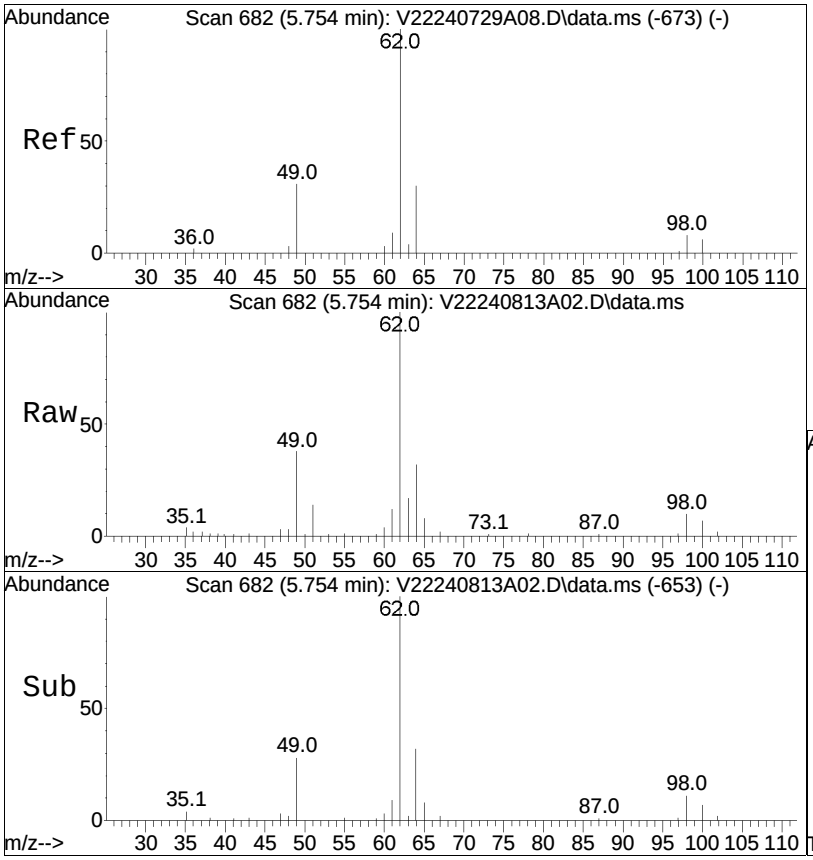


#44
Benzene
Concen: 9.30 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 78 Resp: 270916

Ion	Ratio	Lower	Upper
78	100		
77	23.7	15.4	32.0
51	20.9	9.8	20.4#
52	20.6	9.2	19.2#

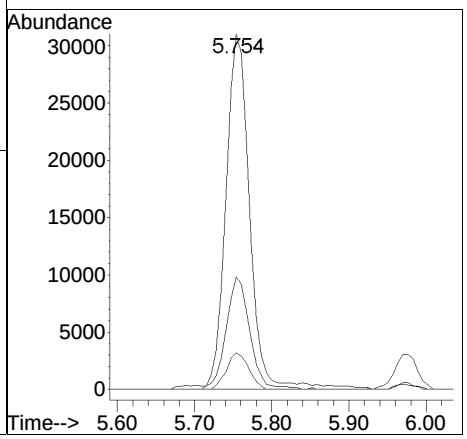


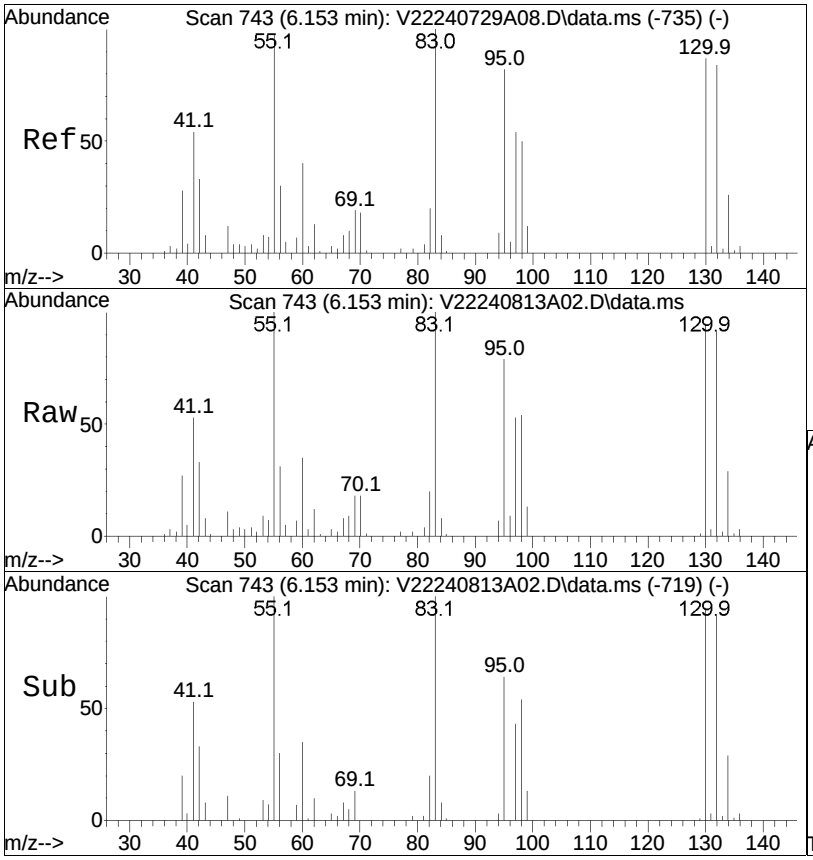


#47
1,2-Dichloroethane
Concen: 9.18 ug/L
RT: 5.754 min Scan# 682
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 62 Resp: 66816

Ion	Ratio	Lower	Upper
62	100		
64	31.1	12.3	52.3
98	9.6	0.0	30.3

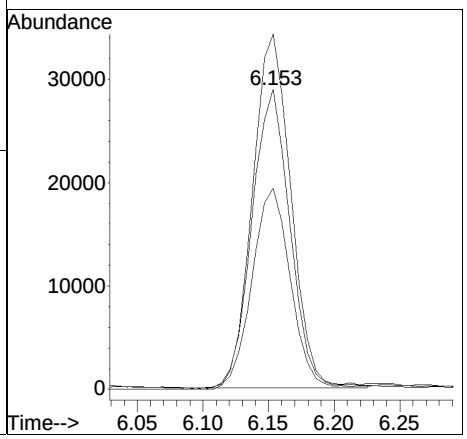


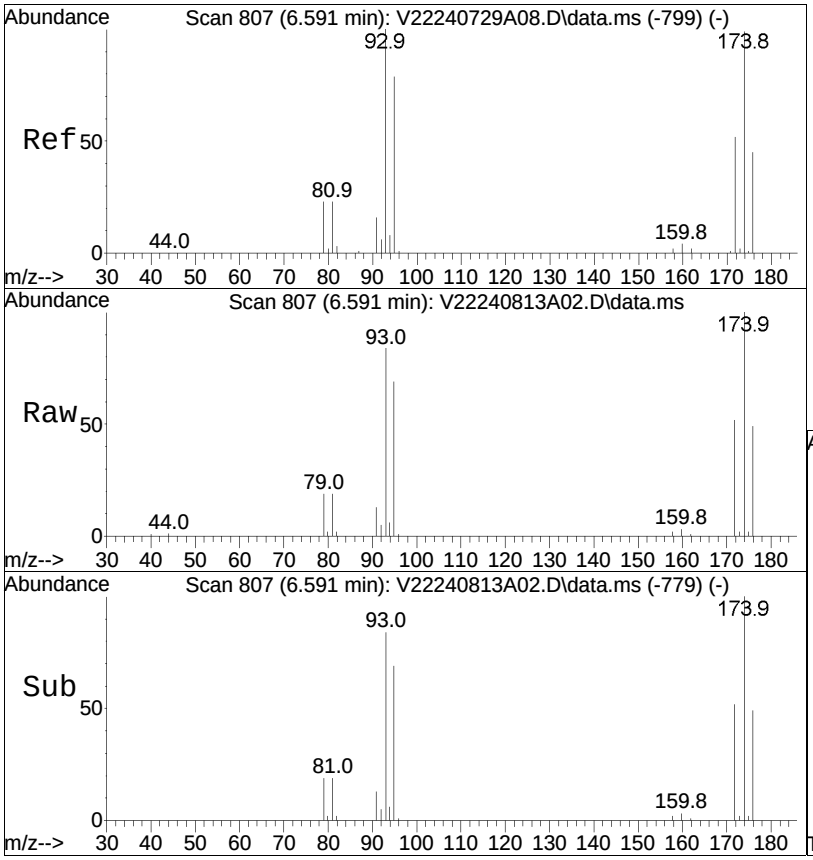


#51
Trichloroethene
Concen: 9.37 ug/L
RT: 6.153 min Scan# 743
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 95 Resp: 58102

Ion	Ratio	Lower	Upper
95	100		
97	69.0	55.0	82.4
130	120.5	89.2	133.8

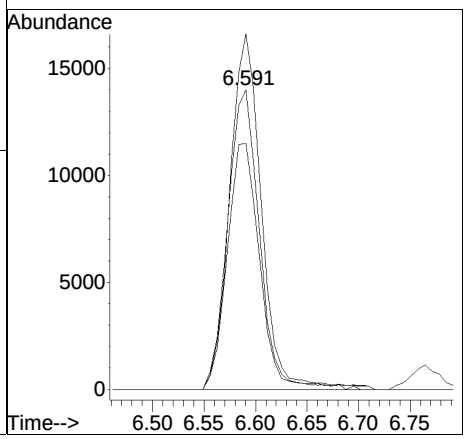


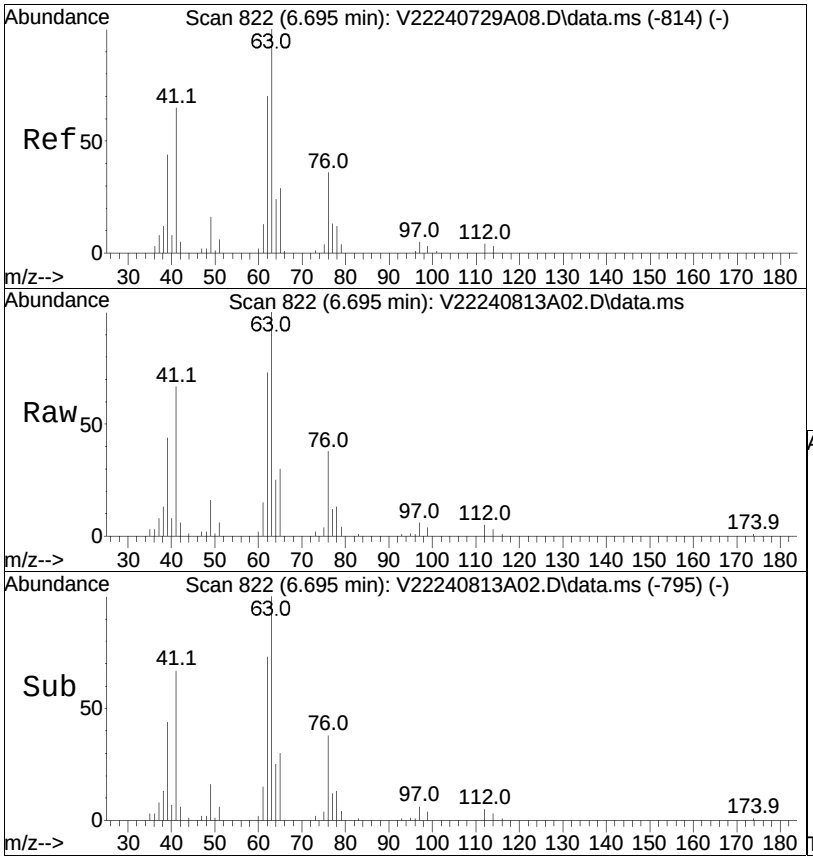


#53
Dibromomethane
Concen: 9.60 ug/L
RT: 6.591 min Scan# 807
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 93 Resp: 30064

Ion	Ratio	Lower	Upper
93	100		
95	83.5	68.0	102.0
174	118.5	106.1	159.1

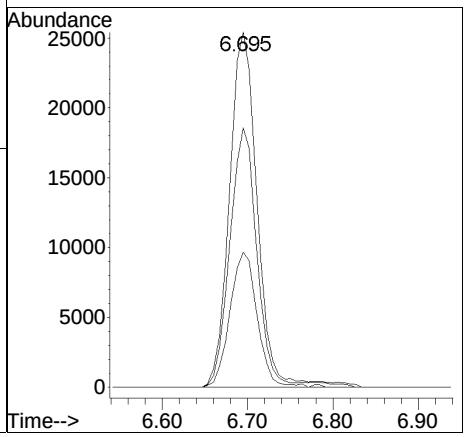


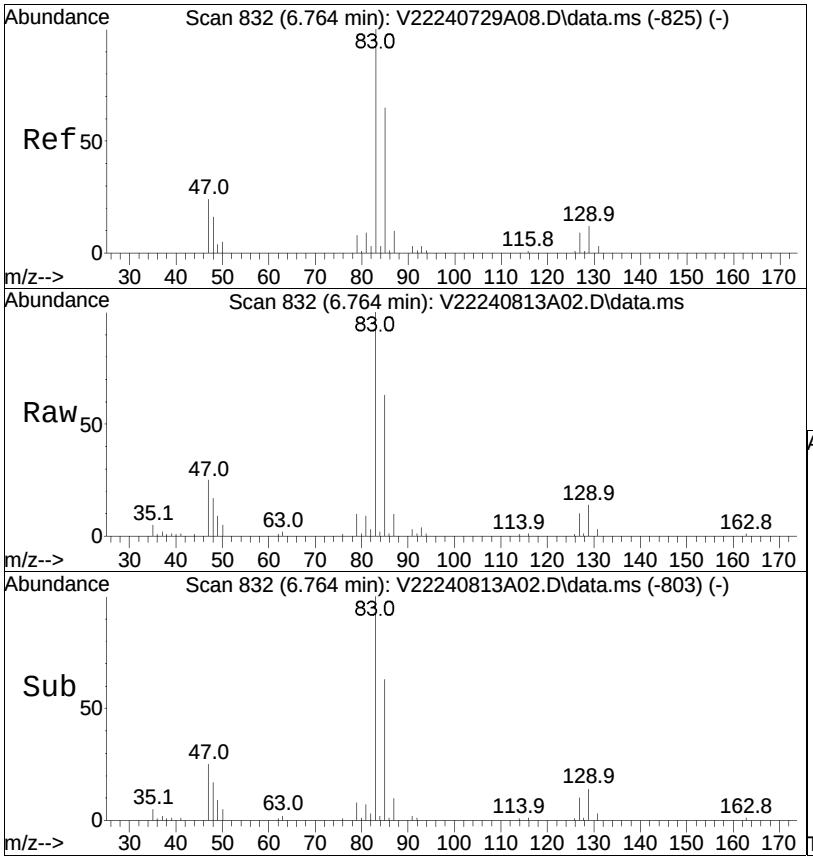


#54
1,2-Dichloropropane
Concen: 8.89 ug/L
RT: 6.695 min Scan# 822
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 63 Resp: 57847

Ion	Ratio	Lower	Upper
63	100		
62	70.3	56.9	85.3
76	37.3	35.8	53.8

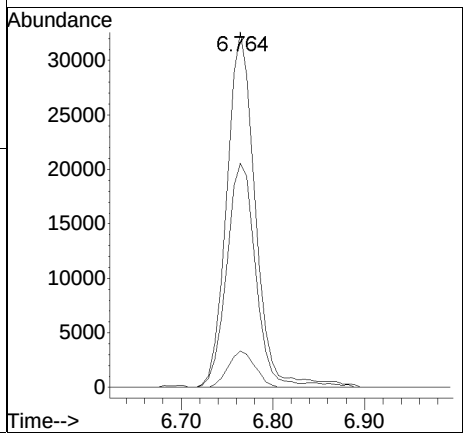


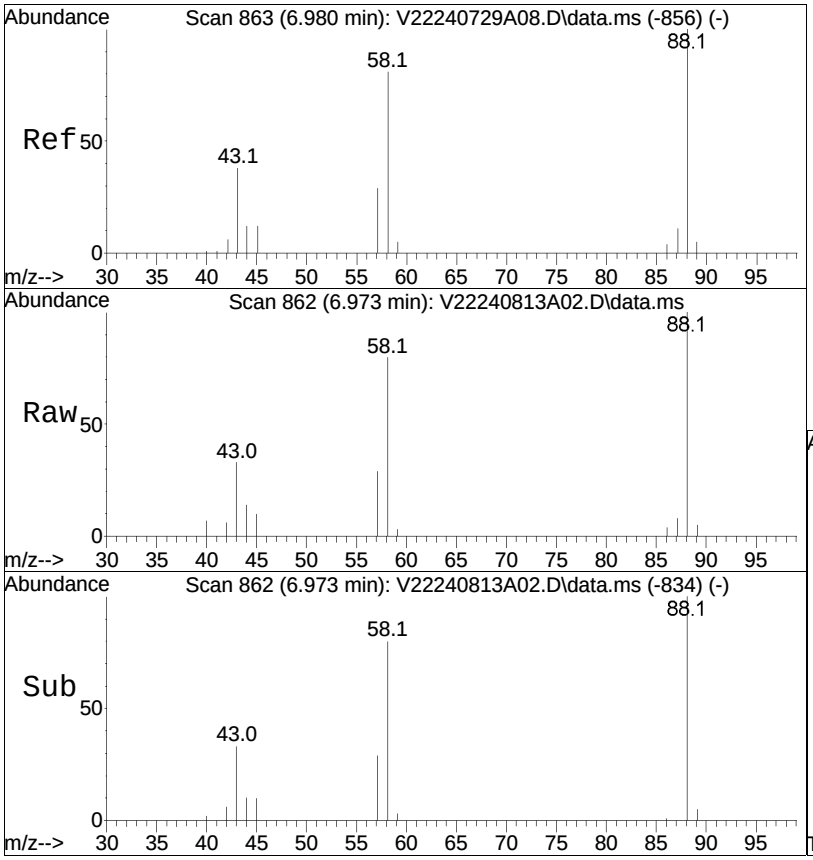


#57
Bromodichloromethane
Concen: 9.25 ug/L
RT: 6.764 min Scan# 832
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 83 Resp: 71026

Ion	Ratio	Lower	Upper
83	100		
85	63.3	51.6	77.4
127	9.6	7.4	11.0

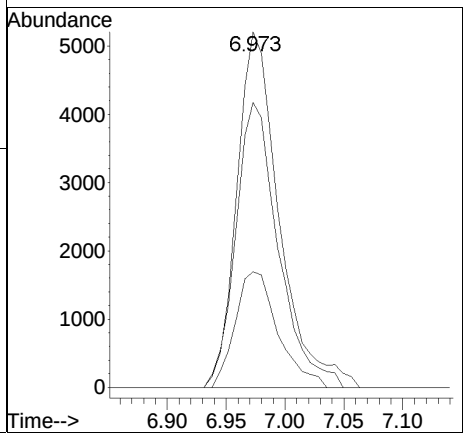


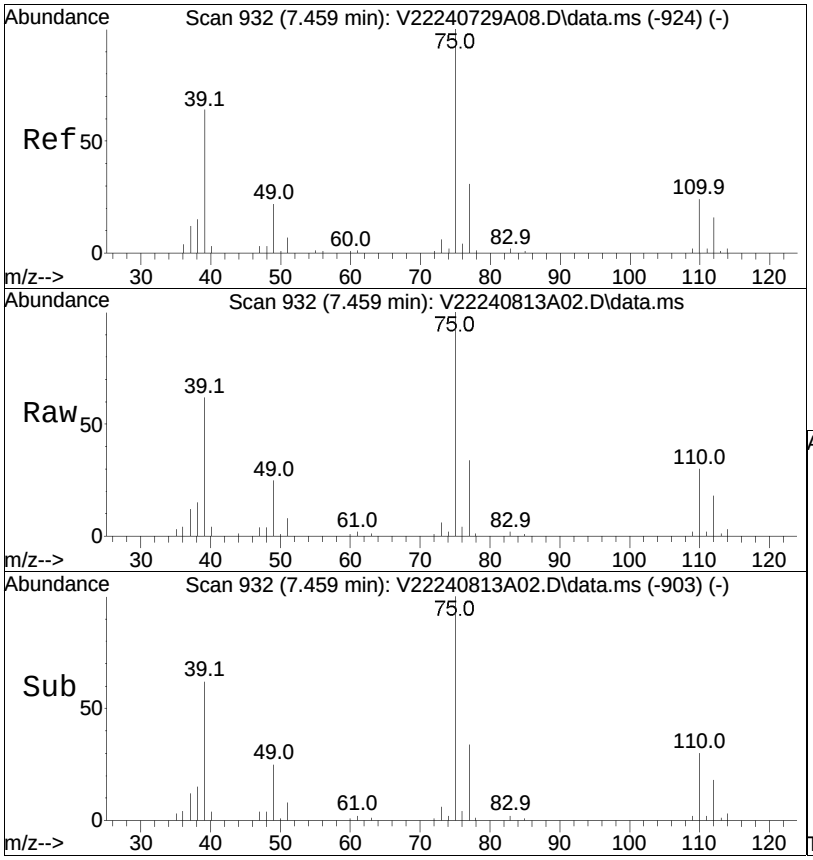


#60
1,4-Dioxane
Concen: 508.19 ug/L
RT: 6.973 min Scan# 862
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 88 Resp: 13046

Ion	Ratio	Lower	Upper
88	100		
58	80.5	43.3	64.9#
43	32.9	15.1	22.7#

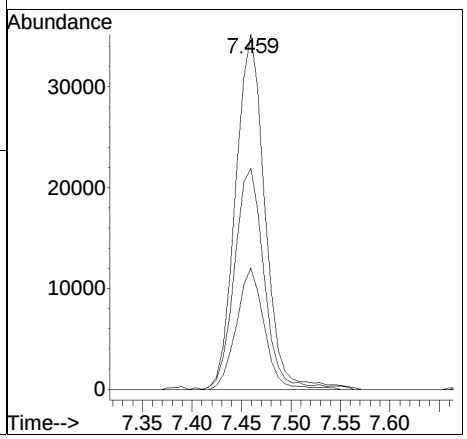


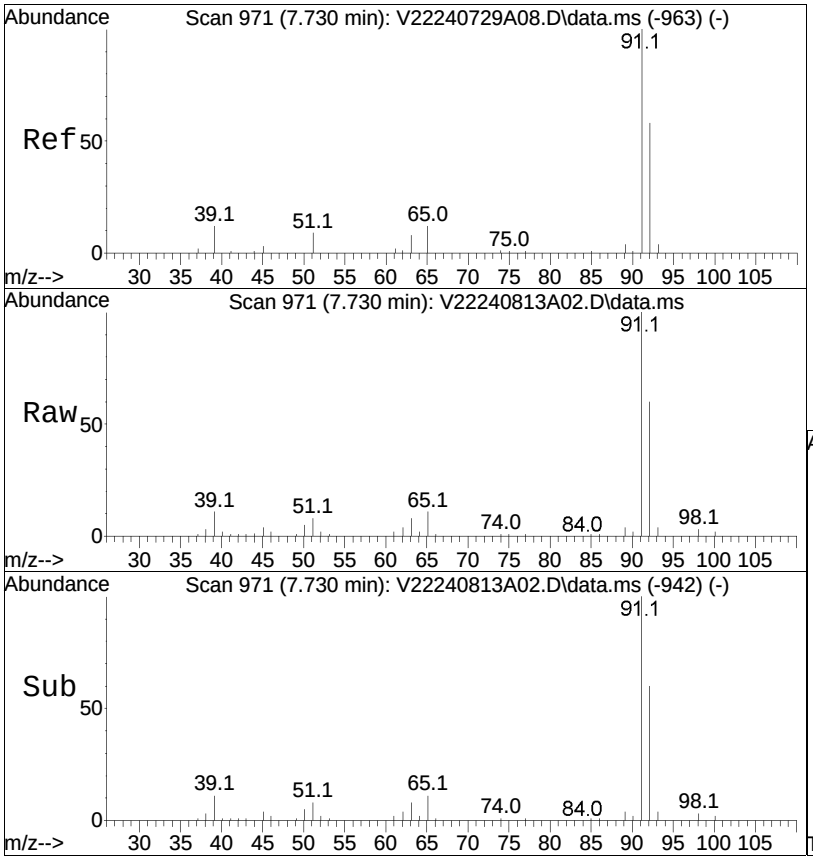


#61
cis-1,3-Dichloropropene
Concen: 9.22 ug/L
RT: 7.459 min Scan# 932
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 75 Resp: 72980

Ion	Ratio	Lower	Upper
75	100		
77	32.4	25.6	38.4
39	62.9	35.4	53.0#

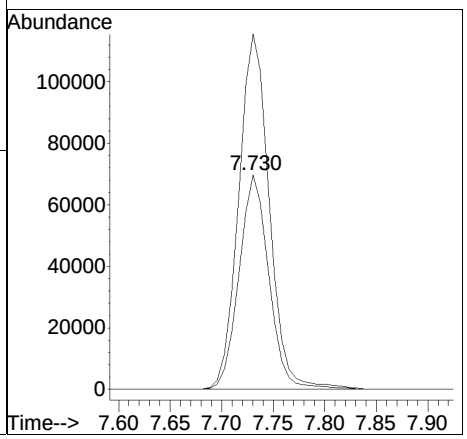


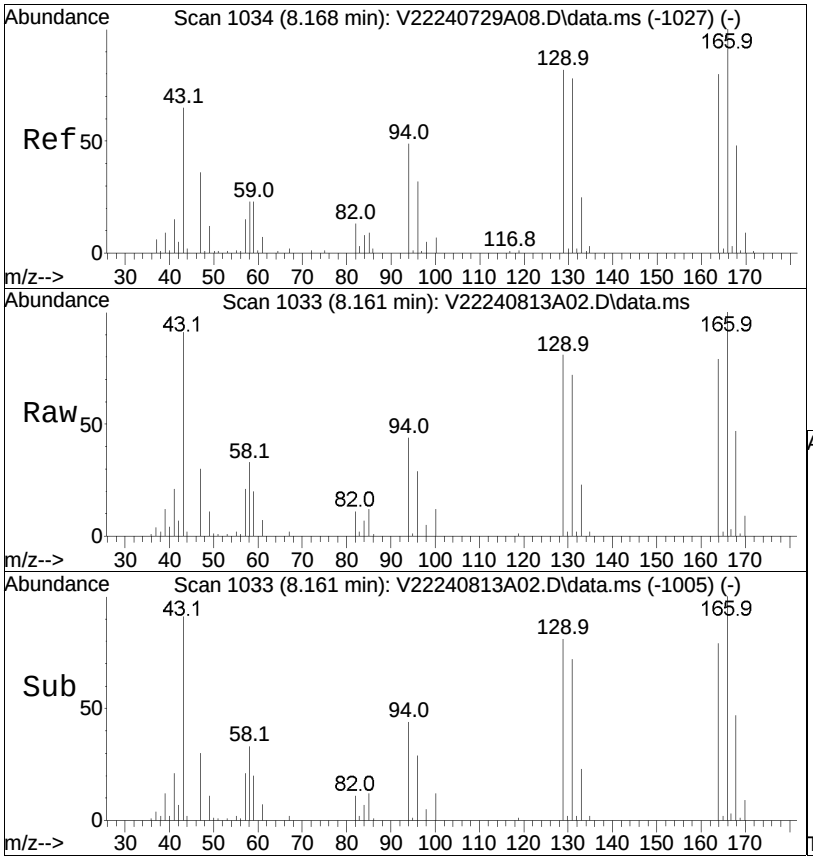


#64
Toluene
Concen: 8.90 ug/L
RT: 7.730 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 92 Resp: 140699

Ion	Ratio	Lower	Upper
92	100		
91	169.6	137.0	205.6

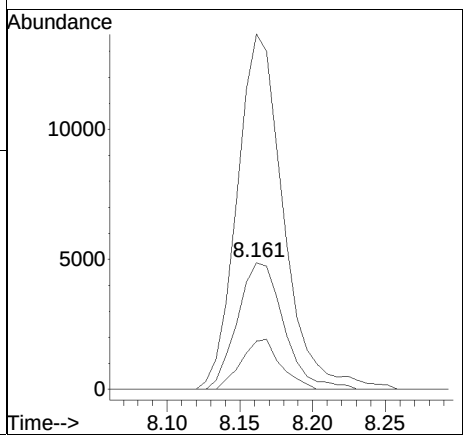


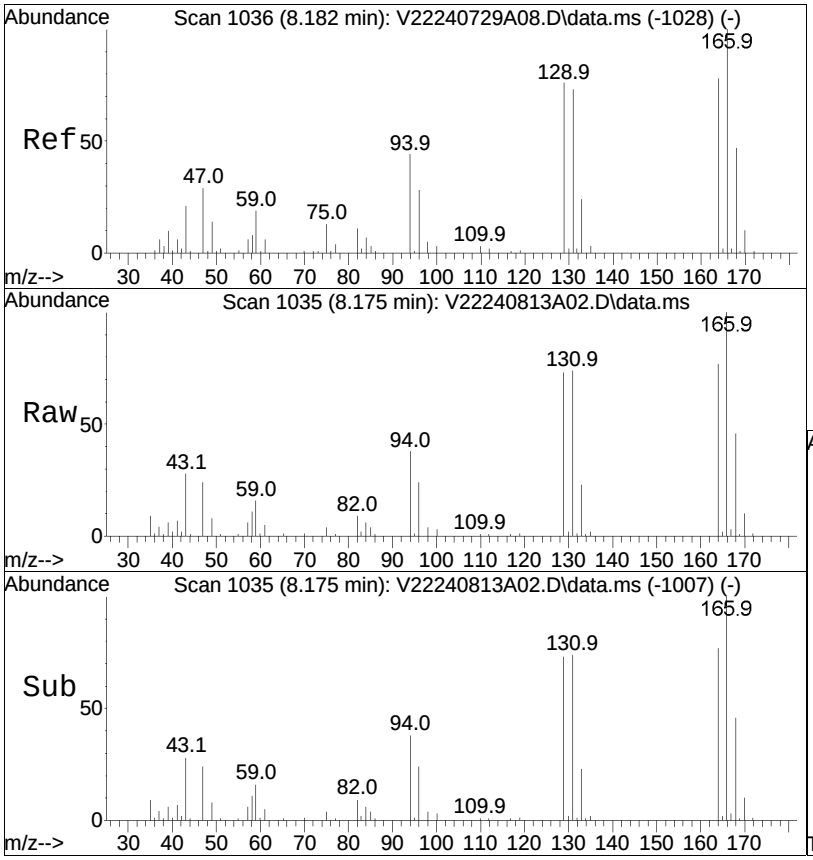


#65
4-Methyl-2-pentanone
Concen: 8.56 ug/L
RT: 8.161 min Scan# 1033
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 58 Resp: 10830

Ion	Ratio	Lower	Upper
58	100		
100	33.6	36.2	54.4#
43	280.4	181.8	272.8#

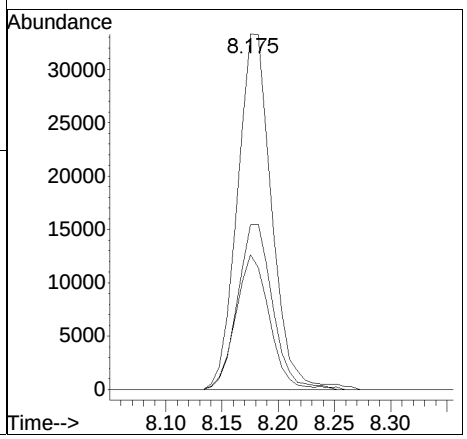


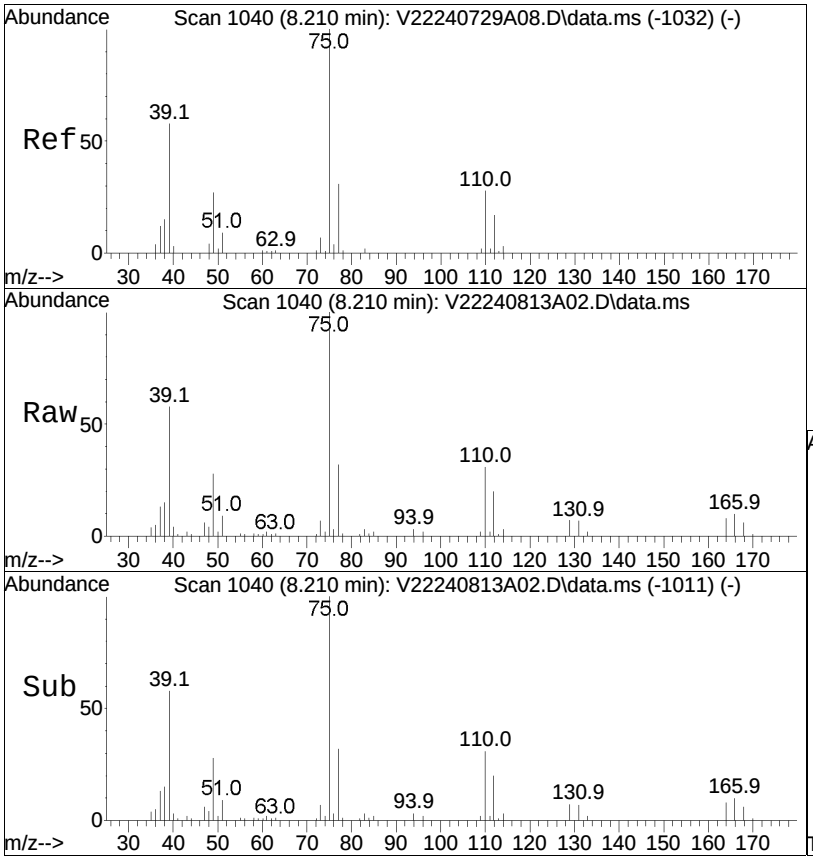


#66
Tetrachloroethene
Concen: 11.41 ug/L
RT: 8.175 min Scan# 1035
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:166 Resp: 70707

Ion	Ratio	Lower	Upper
166	100		
168	47.4	27.8	67.8
94	37.1	16.7	56.7

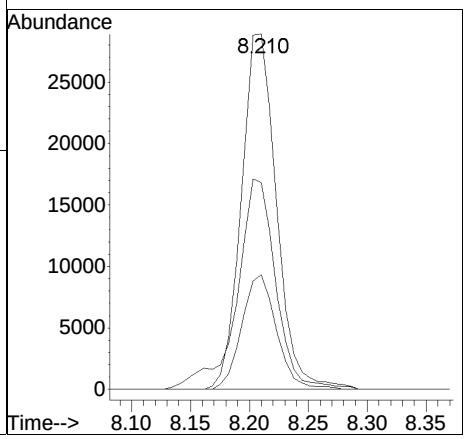


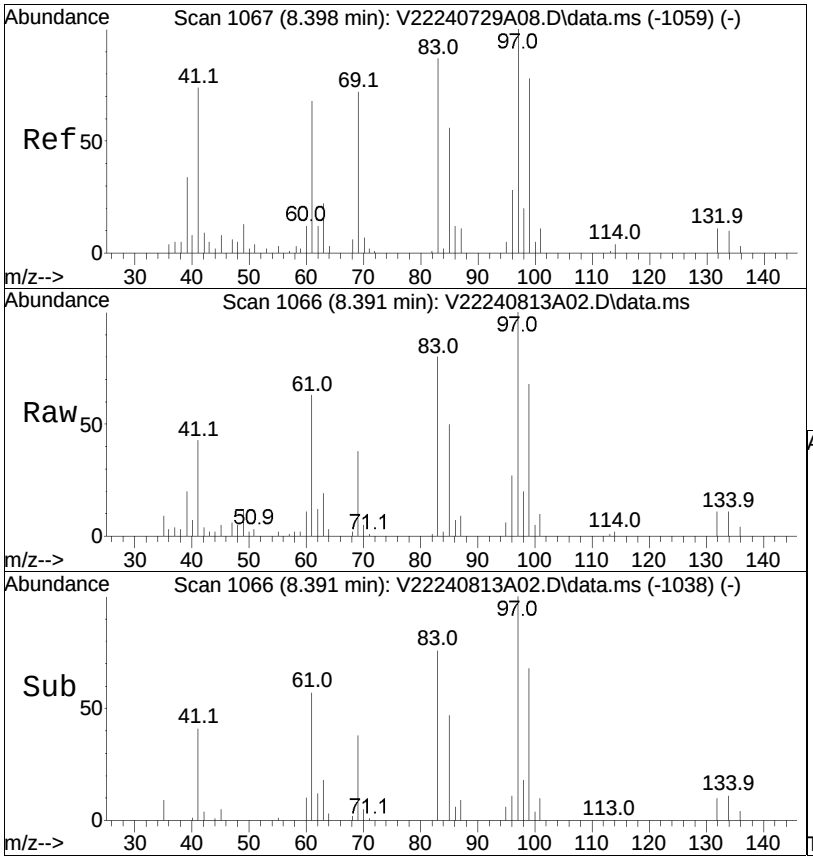


#68
trans-1,3-Dichloropropene
Concen: 7.73 ug/L
RT: 8.210 min Scan# 1040
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 75 Resp: 60233

Ion	Ratio	Lower	Upper
75	100		
77	31.9	11.9	51.9
39	65.2	27.4	67.4

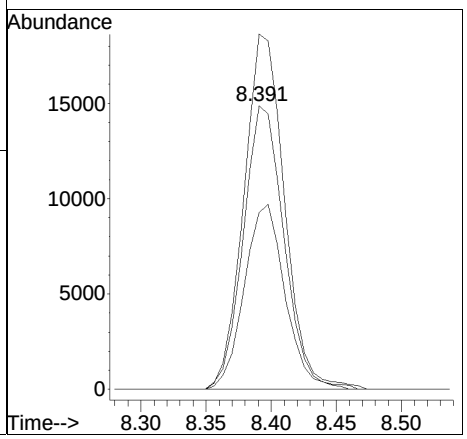


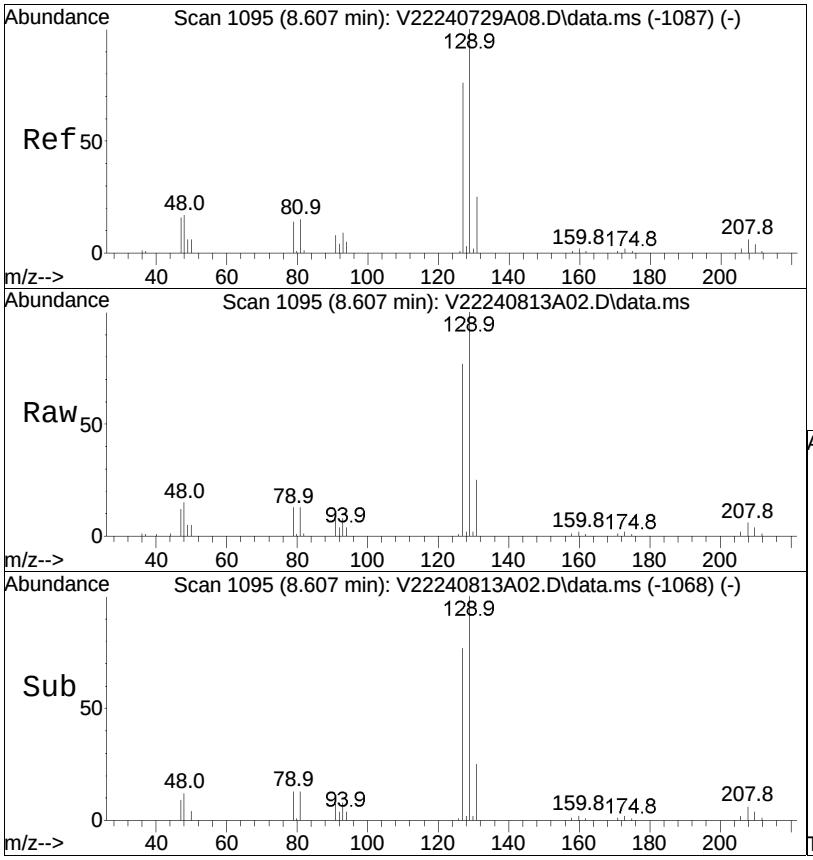


#71
1,1,2-Trichloroethane
Concen: 8.72 ug/L
RT: 8.391 min Scan# 1066
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 83 Resp: 32370

Ion	Ratio	Lower	Upper
83	100		
97	125.3	103.4	143.4
85	65.4	47.9	87.9

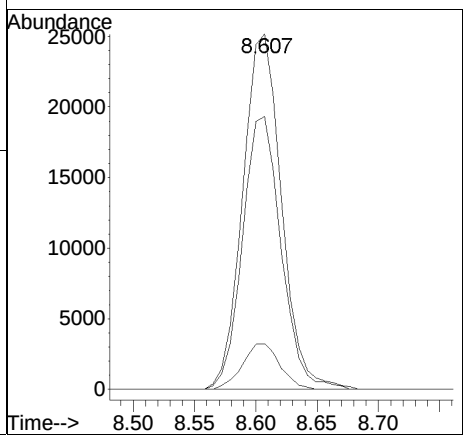


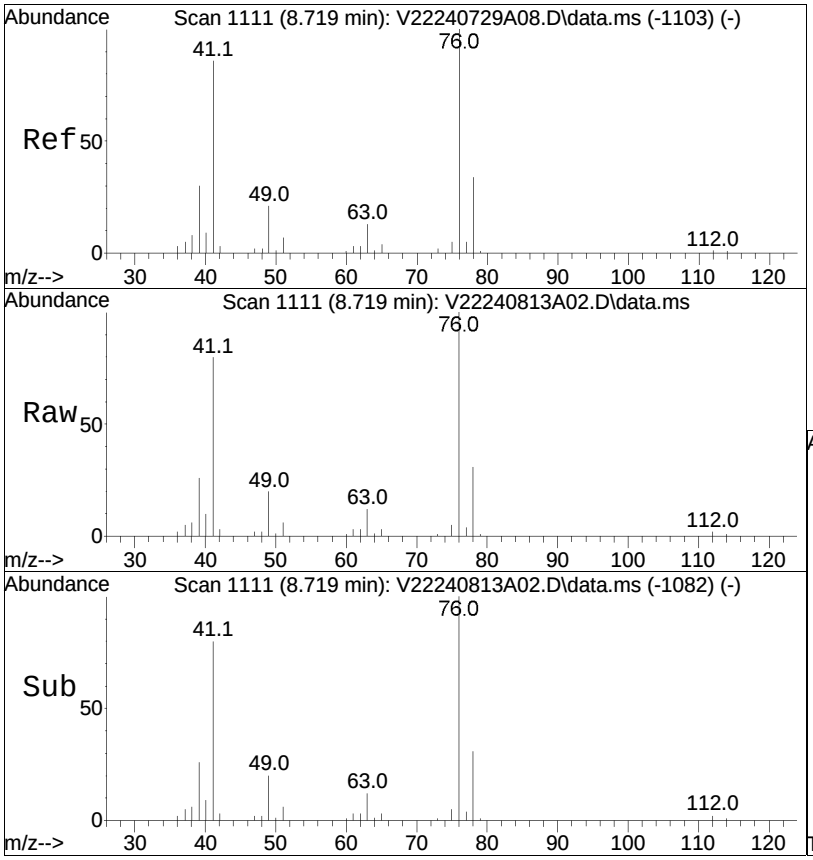


#72
Chlorodibromomethane
Concen: 9.25 ug/L
RT: 8.607 min Scan# 1095
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:129 Resp: 55405

Ion	Ratio	Lower	Upper
129	100		
81	12.5	0.0	33.8
127	76.3	57.1	97.1

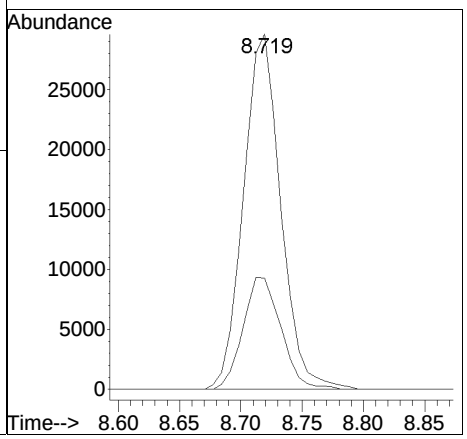


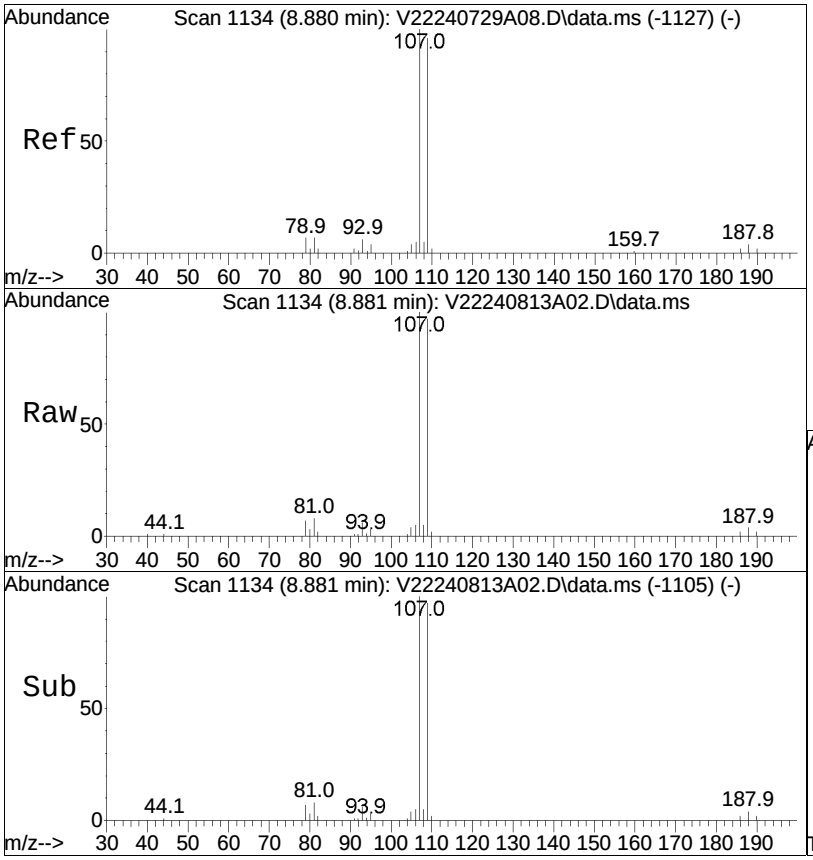


#73
1,3-Dichloropropane
Concen: 8.60 ug/L
RT: 8.719 min Scan# 1111
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 76 Resp: 62598

Ion	Ratio	Lower	Upper
76	100		
78	32.2	25.7	38.5

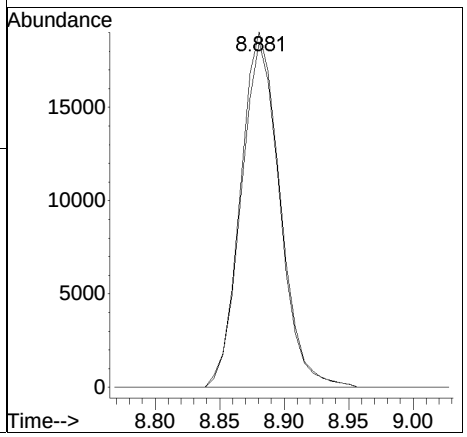


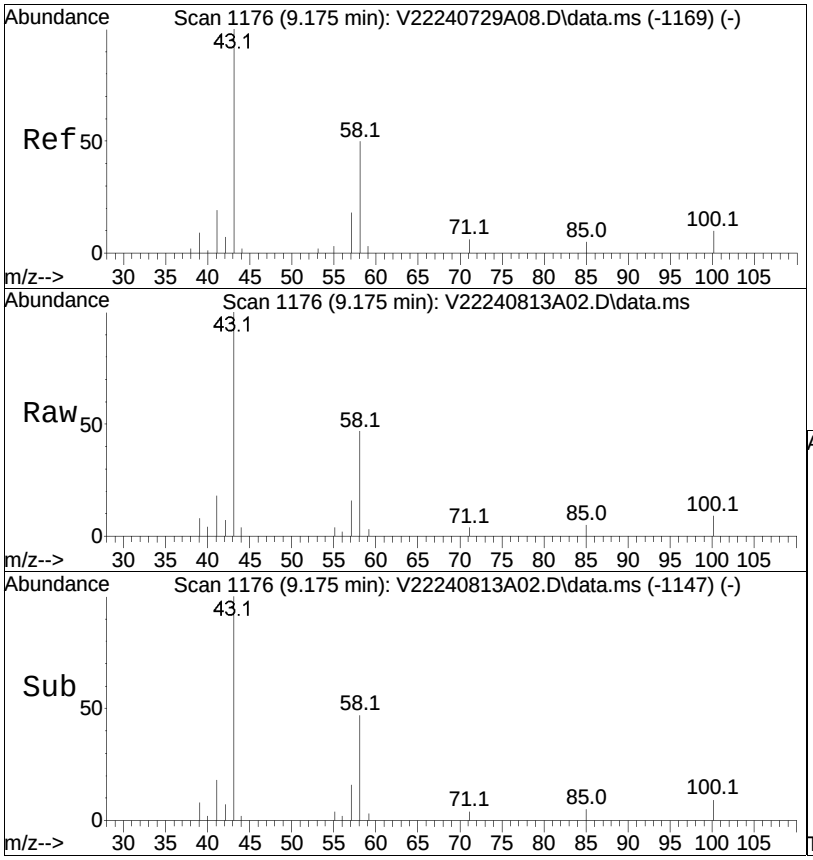


#74
1,2-Dibromoethane
Concen: 9.80 ug/L
RT: 8.881 min Scan# 1134
Delta R.T. 0.001 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:107 Resp: 40765

Ion	Ratio	Lower	Upper
107	100		
109	94.9	75.1	112.7

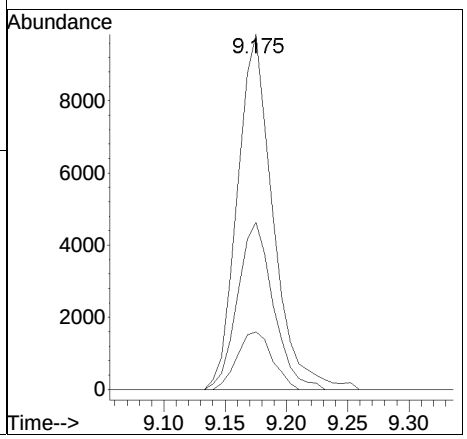


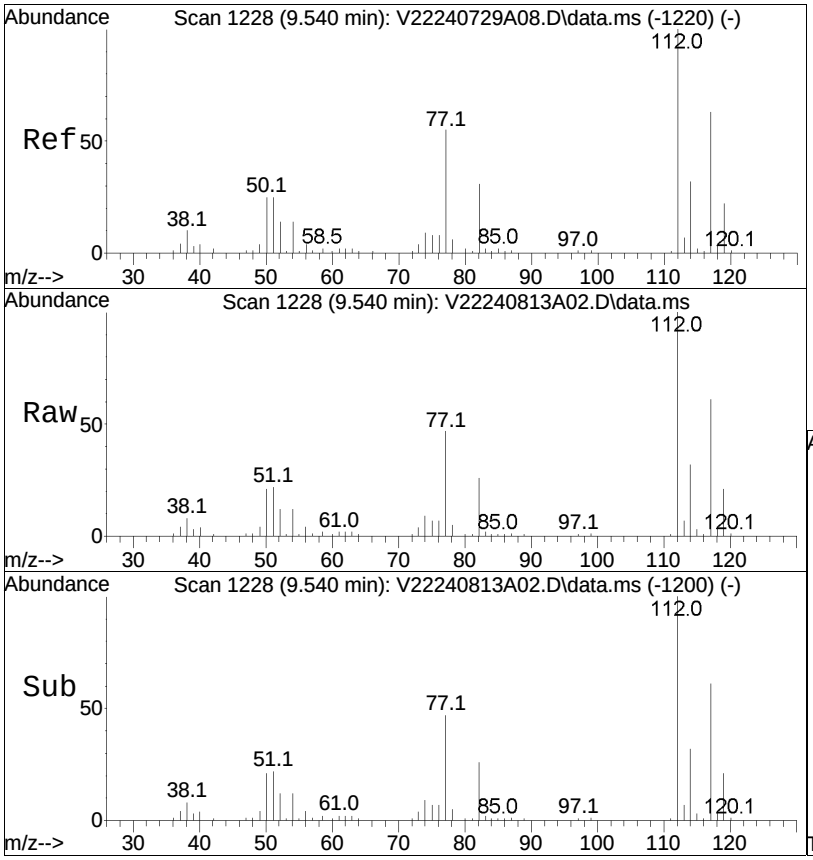


#76
2-Hexanone
Concen: 8.46 ug/L
RT: 9.175 min Scan# 1176
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 43 Resp: 19885

Ion	Ratio	Lower	Upper
43	100		
58	47.2	47.6	71.4#
57	16.0	16.6	24.8#

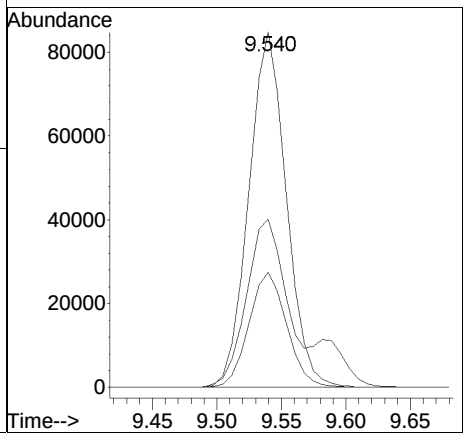


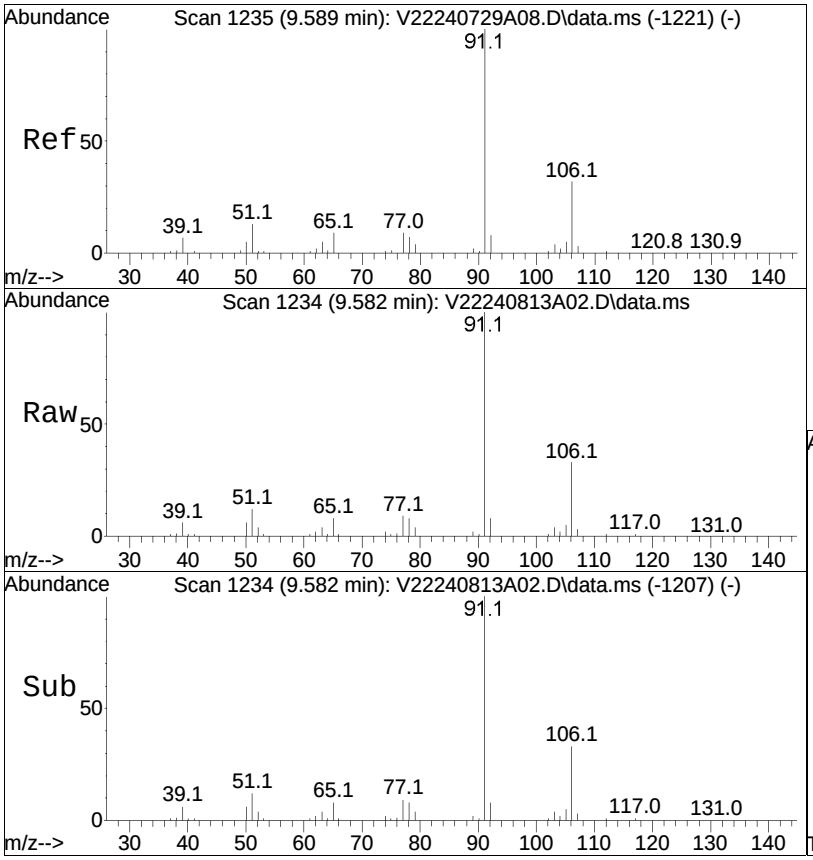


#77
Chlorobenzene
Concen: 9.57 ug/L
RT: 9.540 min Scan# 1228
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:112 Resp: 171414

Ion	Ratio	Lower	Upper
112	100		
77	50.5	55.4	83.0#
114	32.6	26.2	39.4

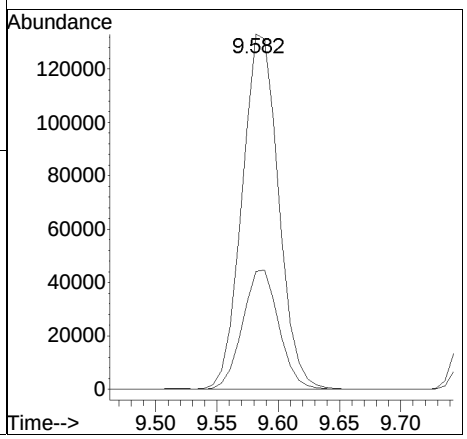


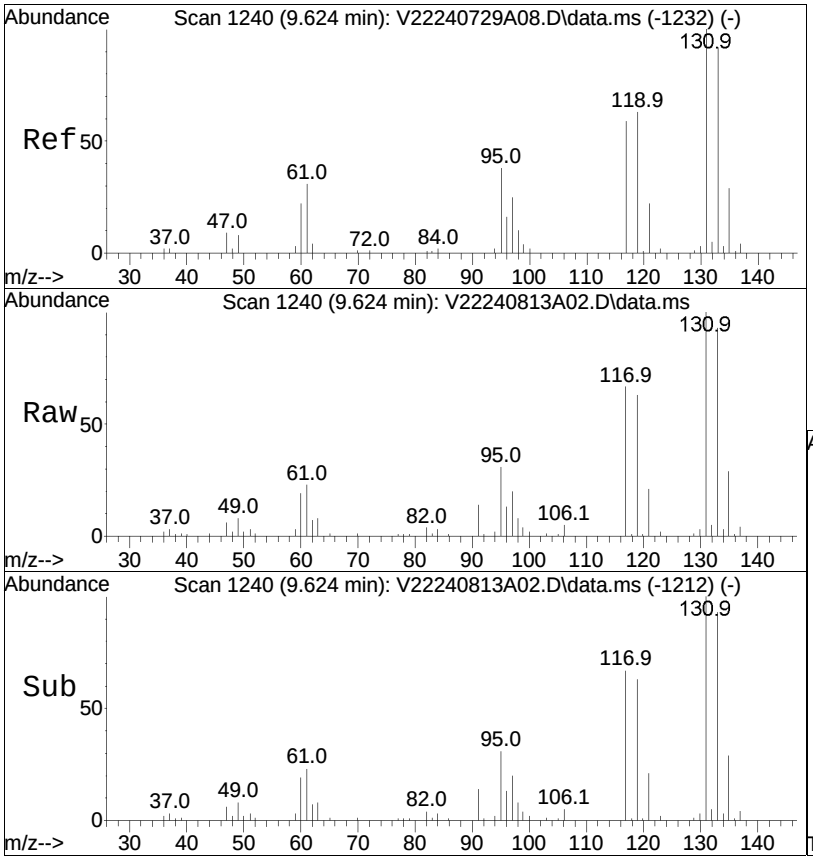


#78
Ethylbenzene
Concen: 9.22 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 91 Resp: 275123

Ion	Ratio	Lower	Upper
91	100		
106	33.4	25.8	38.6

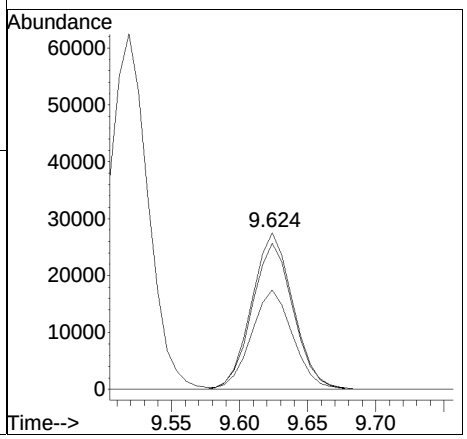


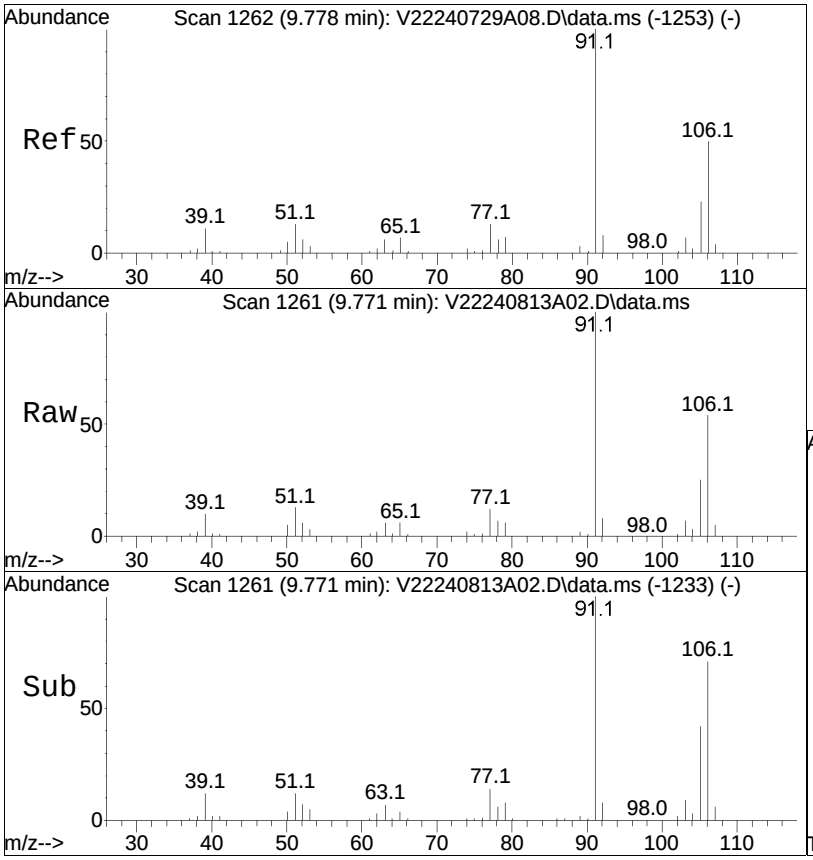


#79
1,1,1,2-Tetrachloroethane
Concen: 10.23 ug/L
RT: 9.624 min Scan# 1240
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:131 Resp: 58253

Ion	Ratio	Lower	Upper
131	100		
133	93.5	75.3	115.3
119	63.4	49.3	89.3

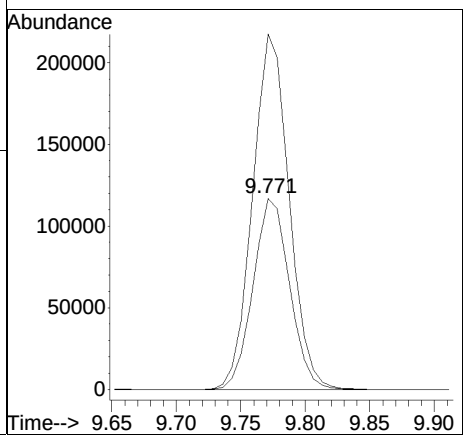


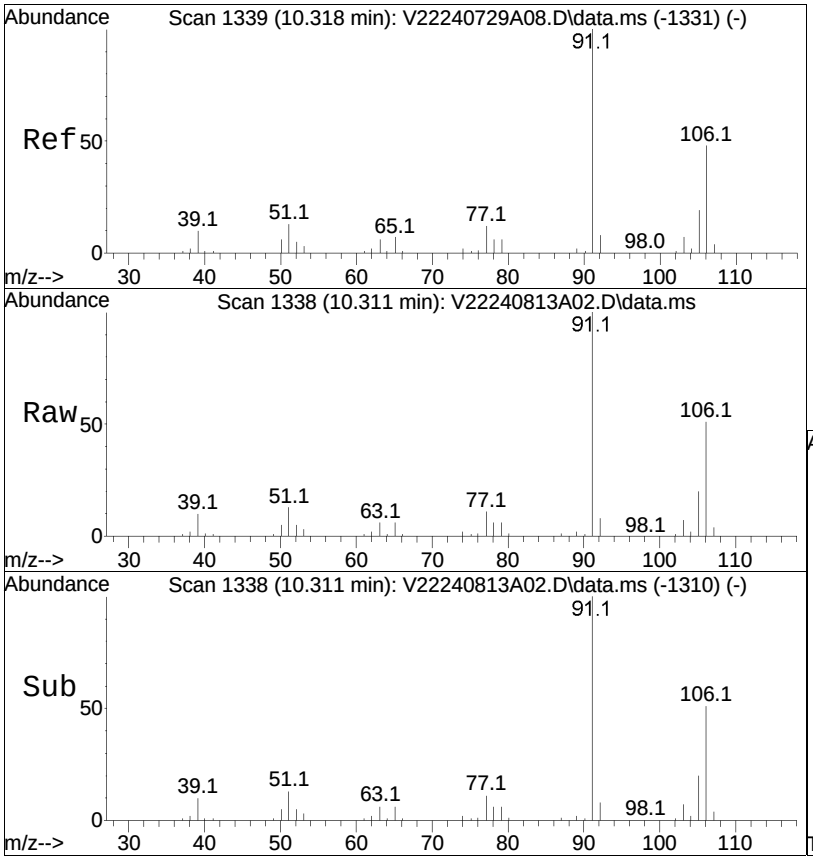


#80
p/m Xylene
Concen: 19.83 ug/L
RT: 9.771 min Scan# 1261
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:106 Resp: 229704

Ion	Ratio	Lower	Upper
106	100		
91	186.0	156.0	234.0

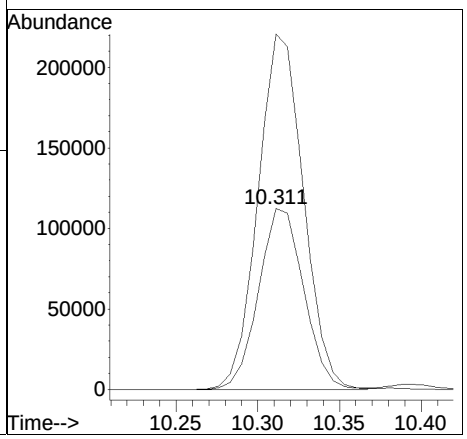


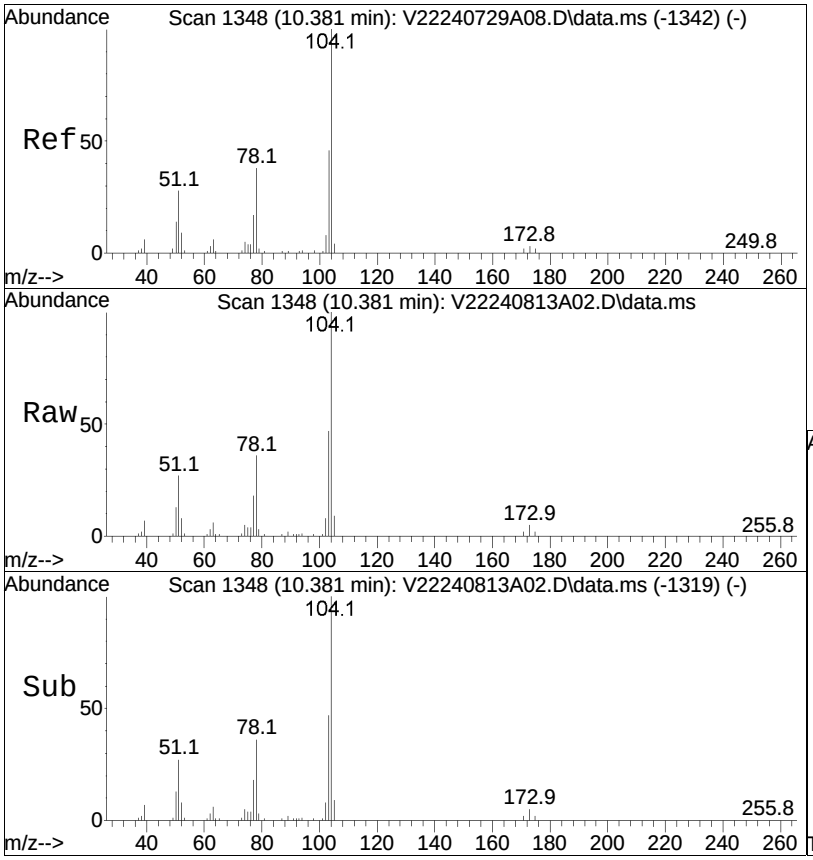


#81
o Xylene
Concen: 19.68 ug/L
RT: 10.311 min Scan# 1338
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:106 Resp: 215667

Ion	Ratio	Lower	Upper
106	100		
91	197.4	164.0	246.0

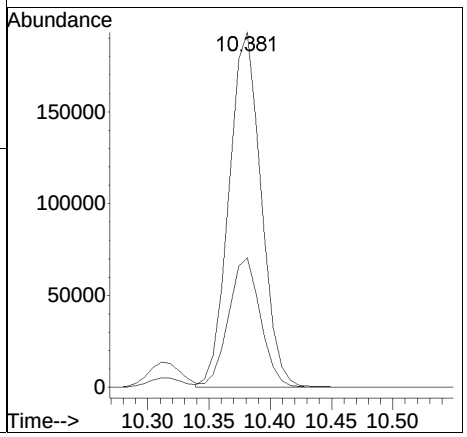


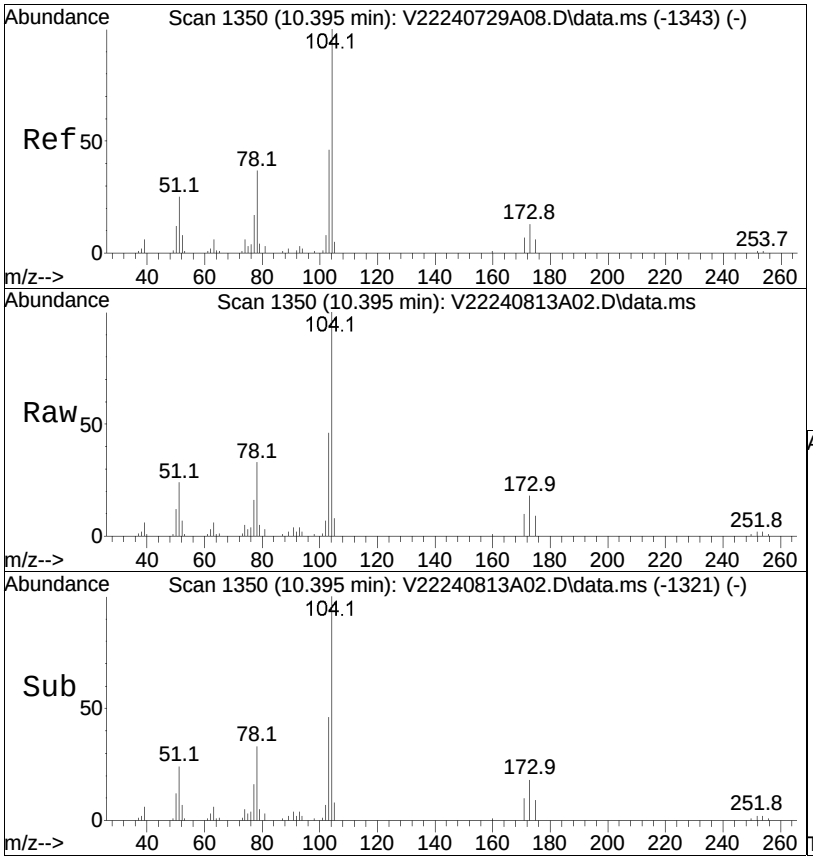


#82
Styrene
Concen: 20.03 ug/L
RT: 10.381 min Scan# 1348
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:104 Resp: 353020

Ion	Ratio	Lower	Upper
104	100		
78	36.1	32.1	48.1

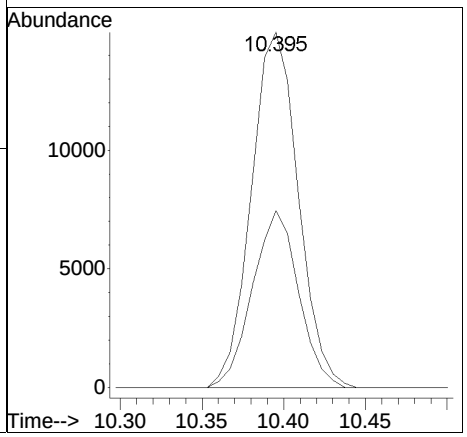


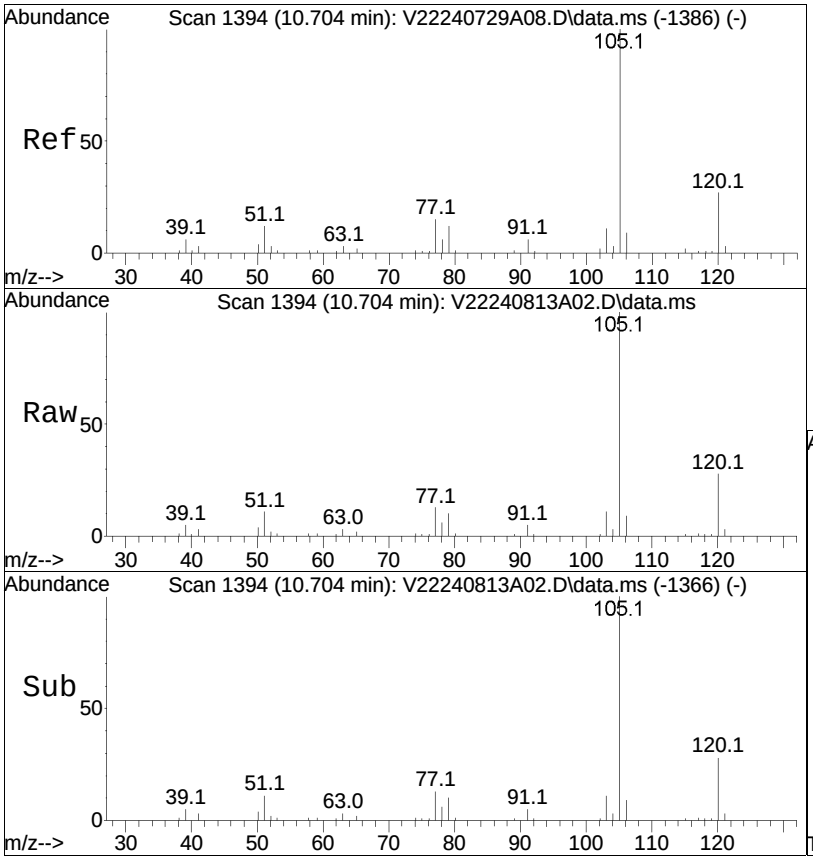


#84
Bromoform
Concen: 9.67 ug/L
RT: 10.395 min Scan# 1350
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:173 Resp: 29896

Ion	Ratio	Lower	Upper
173	100		
175	48.7	29.3	69.3

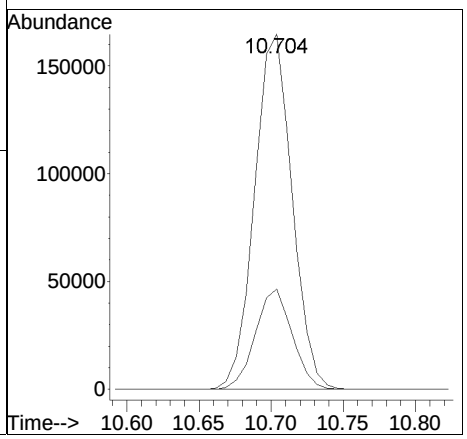


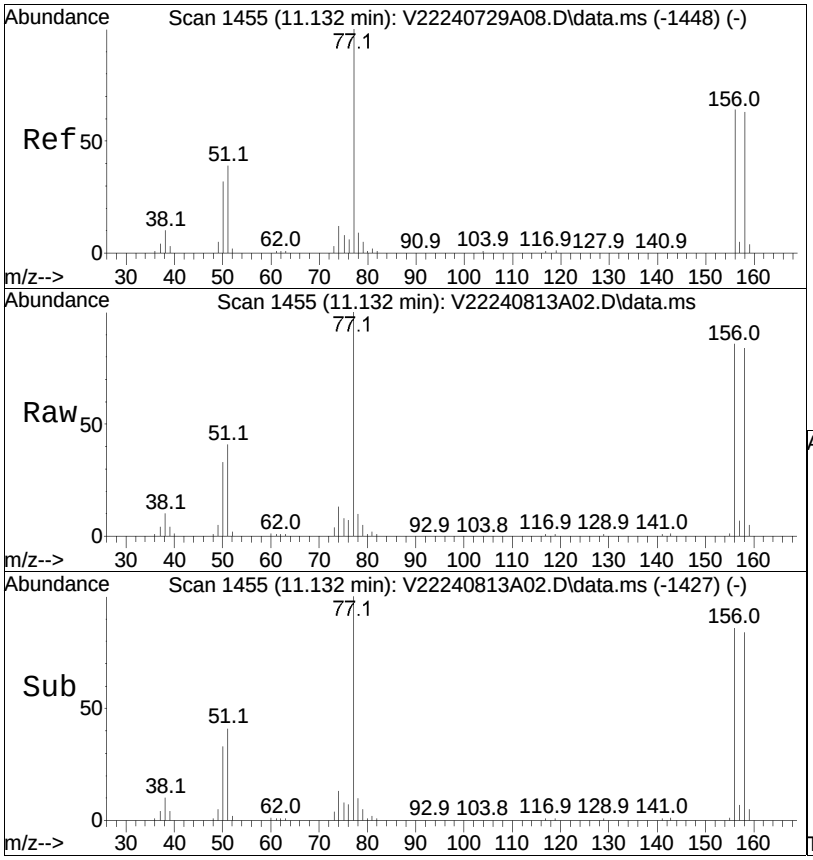


#86
Isopropylbenzene
Concen: 9.36 ug/L
RT: 10.704 min Scan# 1394
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:105 Resp: 298454

Ion	Ratio	Lower	Upper
105	100		
120	27.7	7.7	47.7

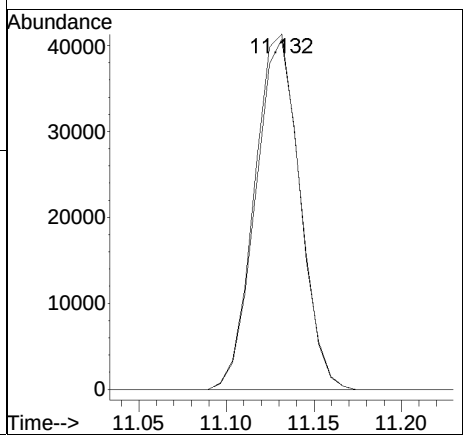


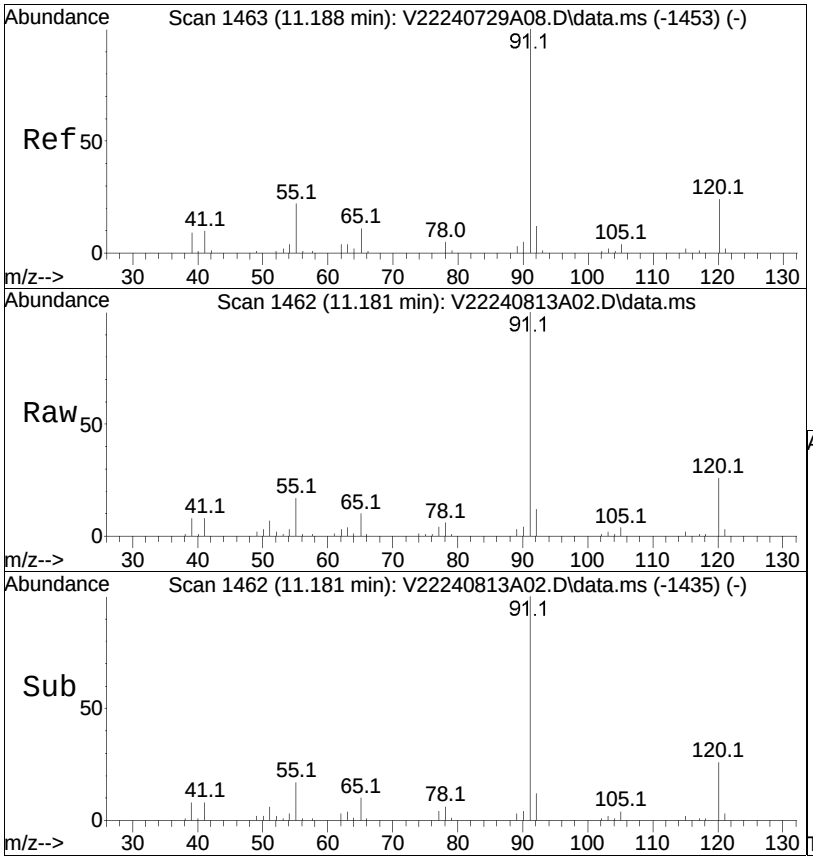


#88
Bromobenzene
Concen: 9.94 ug/L
RT: 11.132 min Scan# 1455
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:156 Resp: 74563

Ion	Ratio	Lower	Upper
156	100		
158	96.6	77.9	116.9

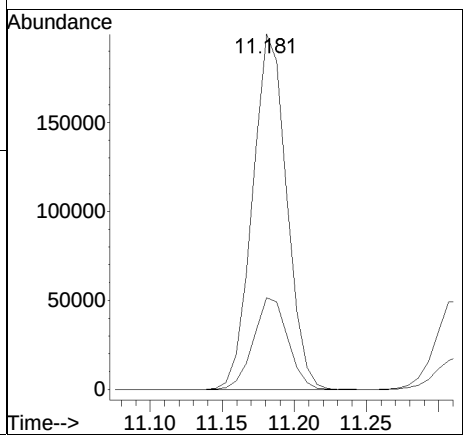


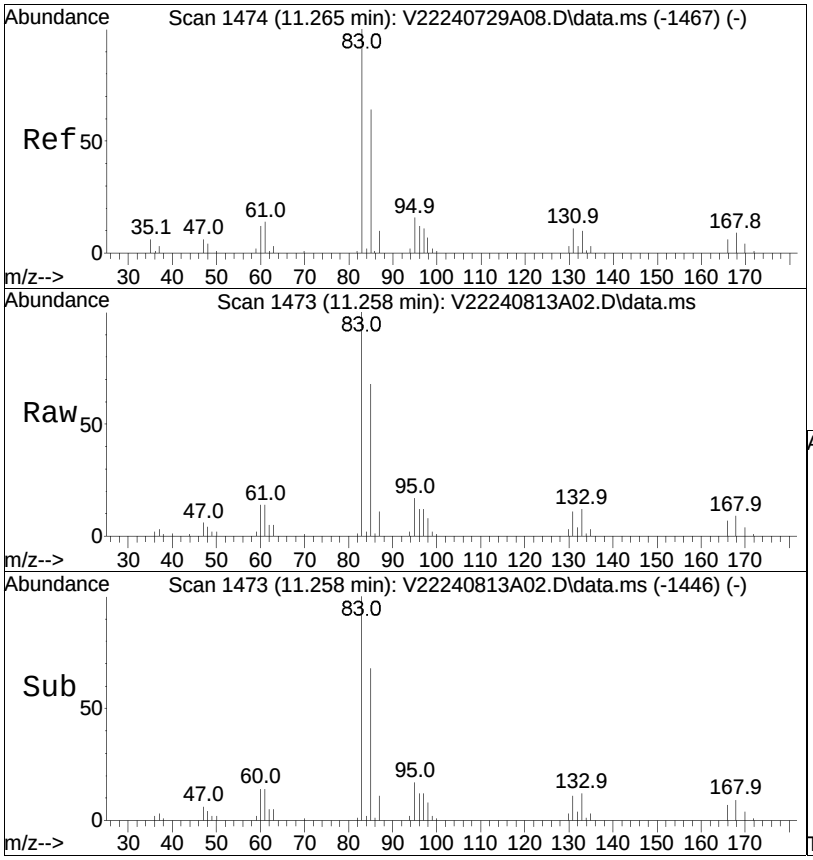


#89
n-Propylbenzene
Concen: 8.86 ug/L
RT: 11.181 min Scan# 1462
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 91 Resp: 328146

Ion	Ratio	Lower	Upper
91	100		
120	26.0	19.5	29.3

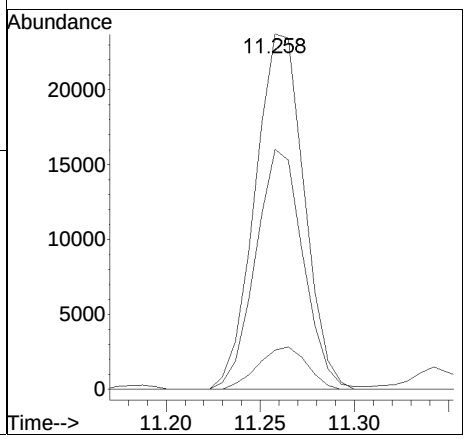


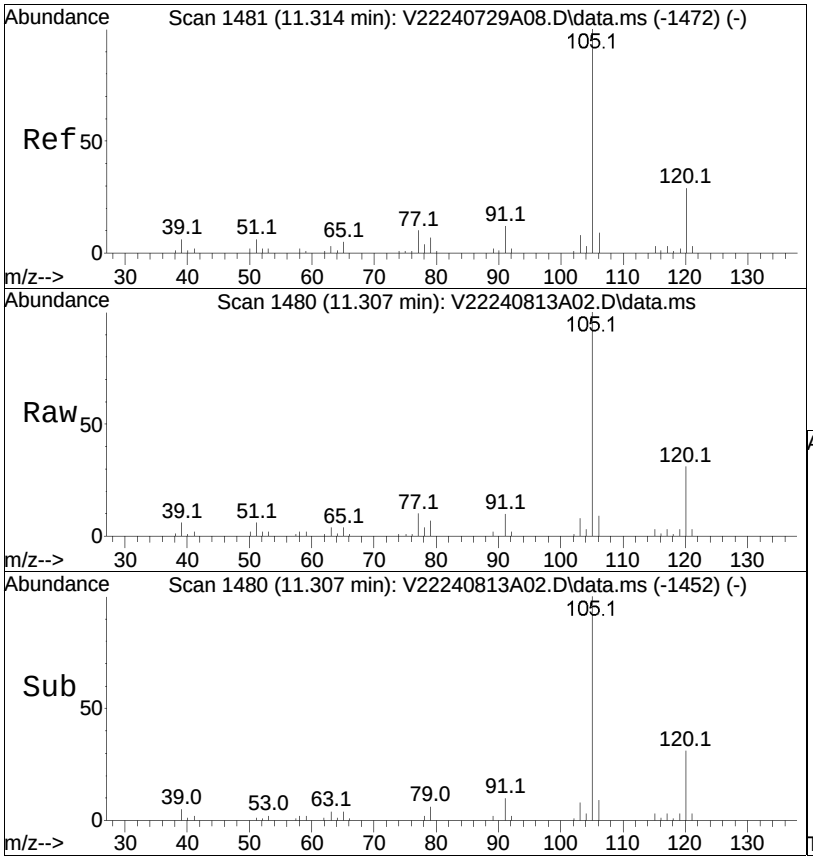


#91
1,1,2,2-Tetrachloroethane
Concen: 8.23 ug/L
RT: 11.258 min Scan# 1473
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 83 Resp: 42951

Ion	Ratio	Lower	Upper
83	100		
131	11.9	0.0	30.8
85	65.8	45.4	85.4

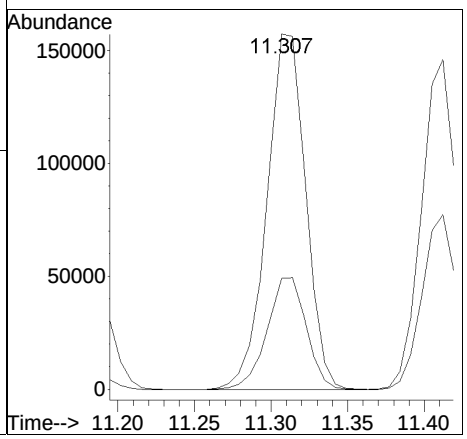


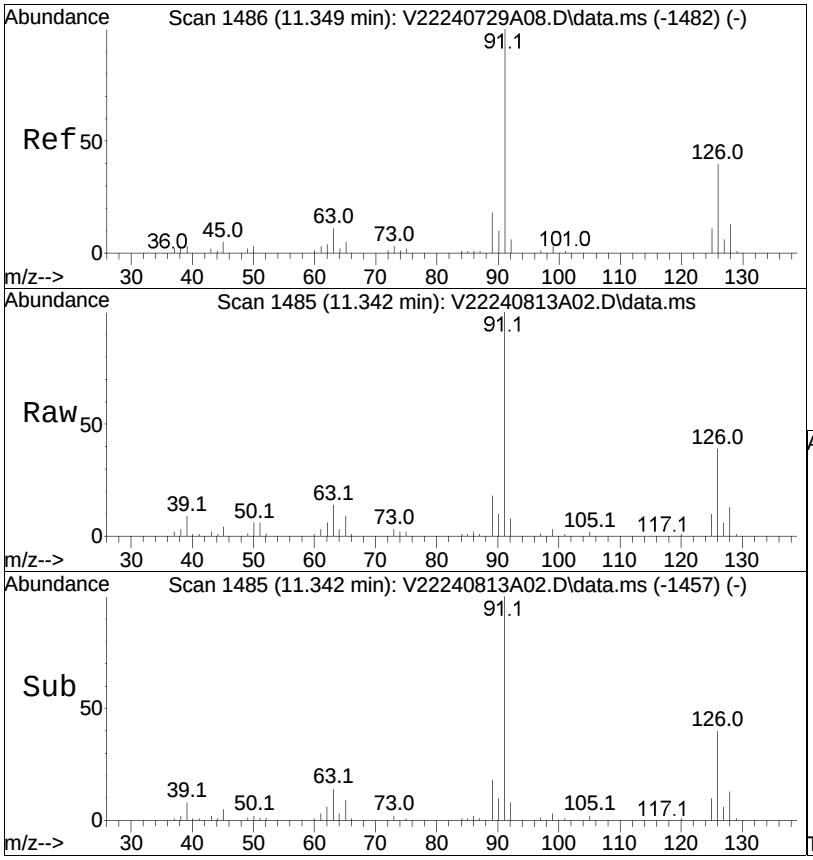


#92
4-Ethyltoluene
Concen: 9.19 ug/L
RT: 11.307 min Scan# 1480
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:105 Resp: 277419

Ion	Ratio	Lower	Upper
105	100		
120	31.8	19.8	41.0

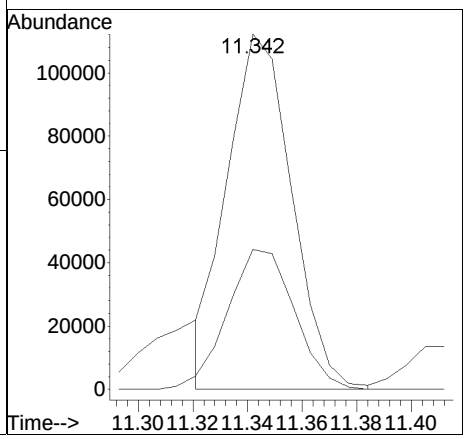


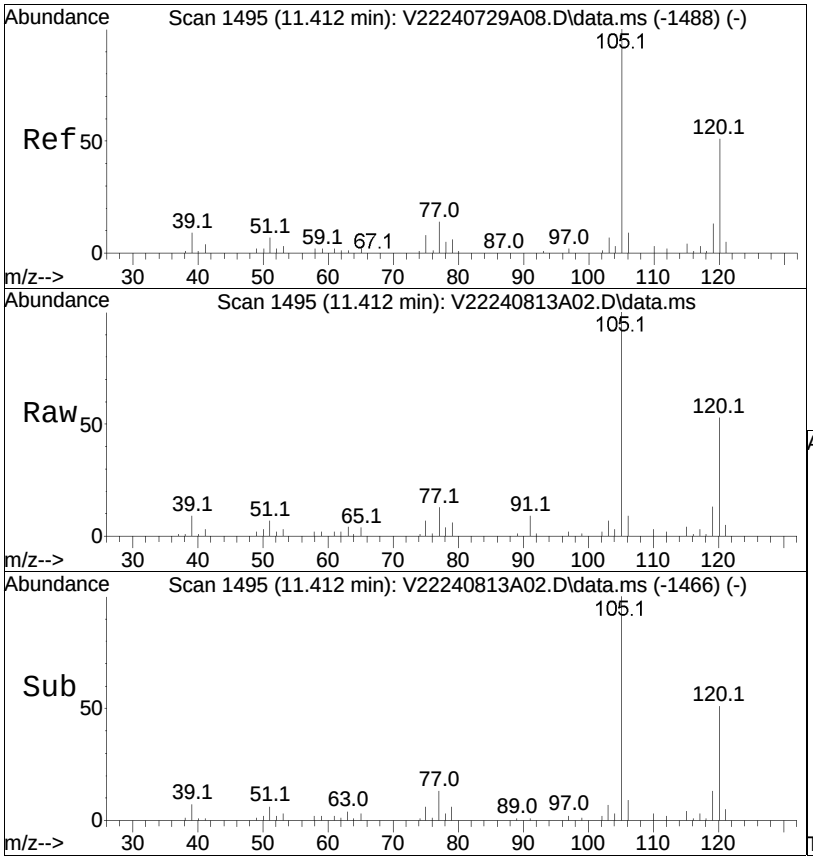


#93
2-Chlorotoluene
Concen: 8.29 ug/L M6
RT: 11.342 min Scan# 1485
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 91 Resp: 185005

Ion	Ratio	Lower	Upper
91	100		
126	40.9	24.6	37.0#

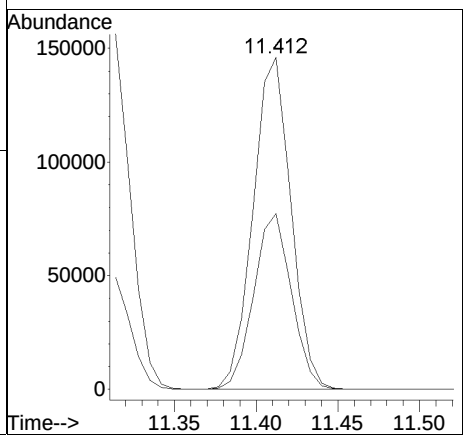


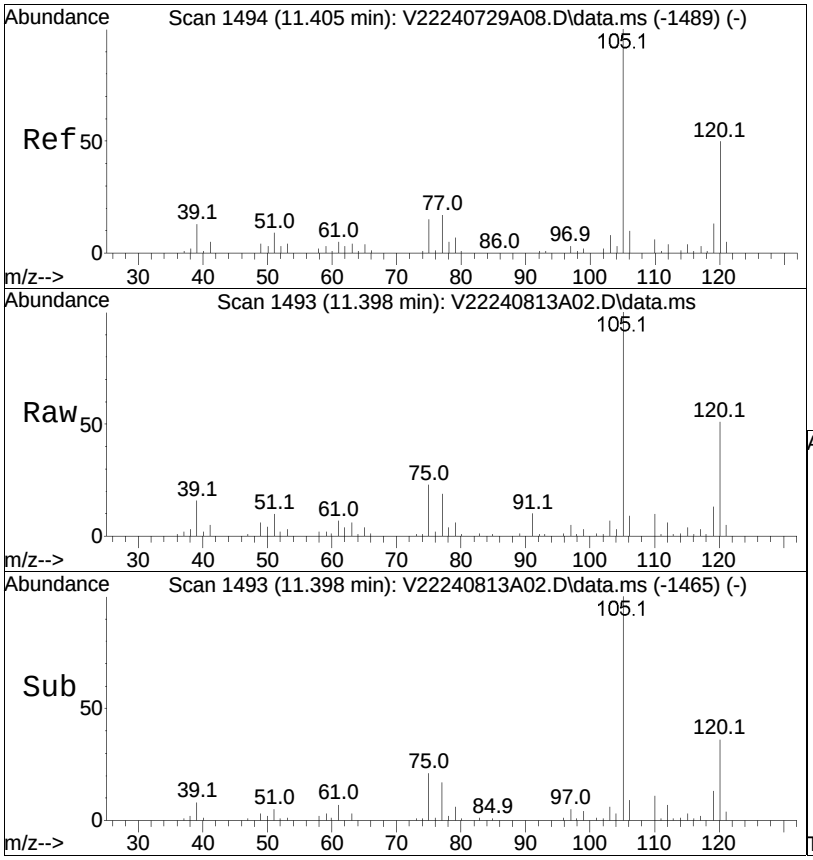


#94
1,3,5-Trimethylbenzene
Concen: 9.21 ug/L
RT: 11.412 min Scan# 1495
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:105 Resp: 235659

Ion	Ratio	Lower	Upper
105	100		
120	52.7	40.9	61.3

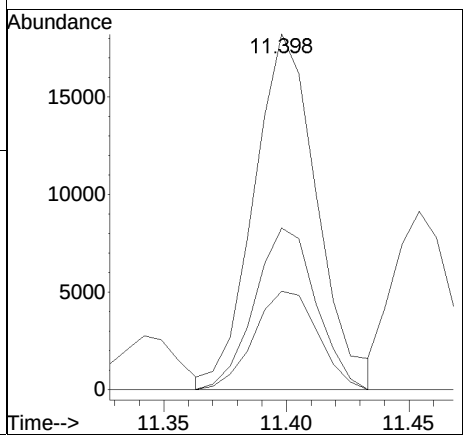


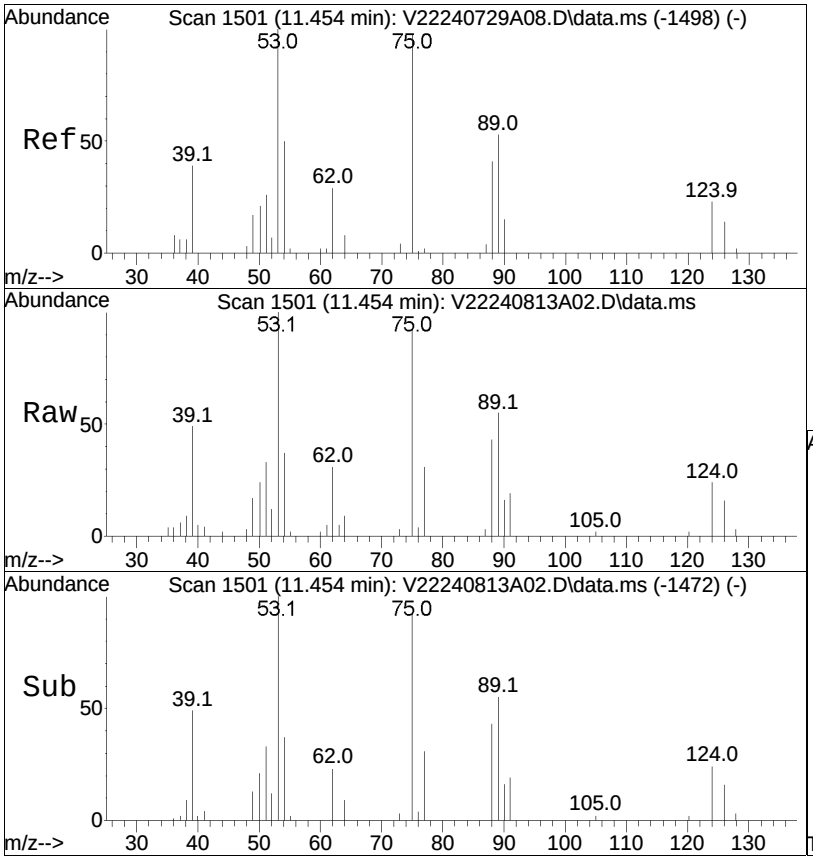


#95
1,2,3-Trichloropropane
Concen: 8.20 ug/L
RT: 11.398 min Scan# 1493
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 75 Resp: 32632

Ion	Ratio	Lower	Upper
75	100		
110	43.9	26.3	54.7
112	27.8	16.8	35.0

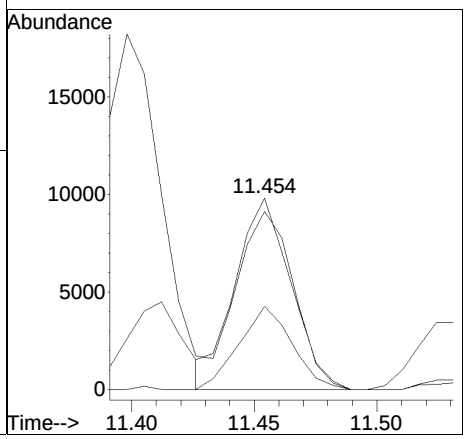


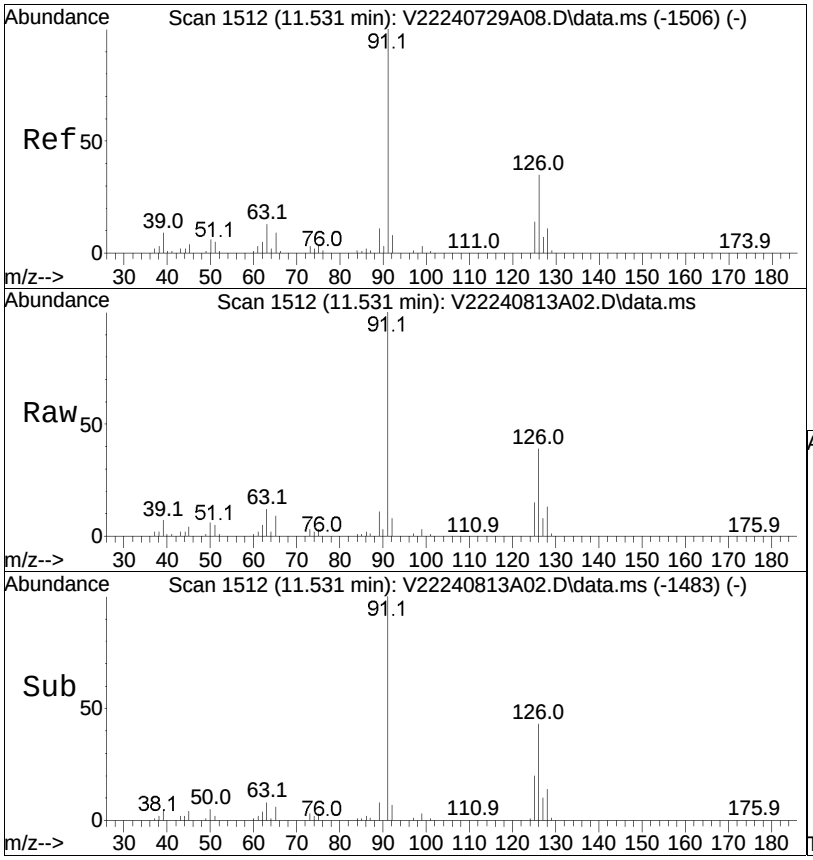


#96
trans-1,4-Dichloro-2-butene
Concen: 8.76 ug/L
RT: 11.454 min Scan# 1501
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 53 Resp: 15558

Ion	Ratio	Lower	Upper
53	100		
88	41.3	46.3	69.5#
75	93.0	109.0	163.4#

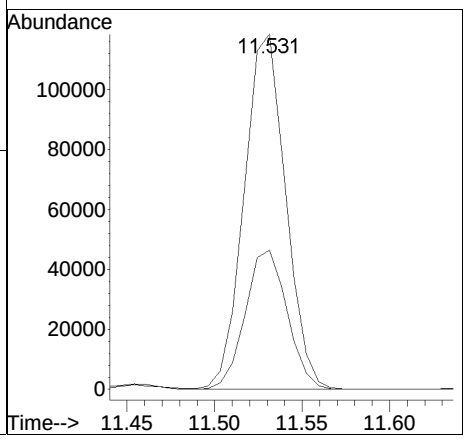


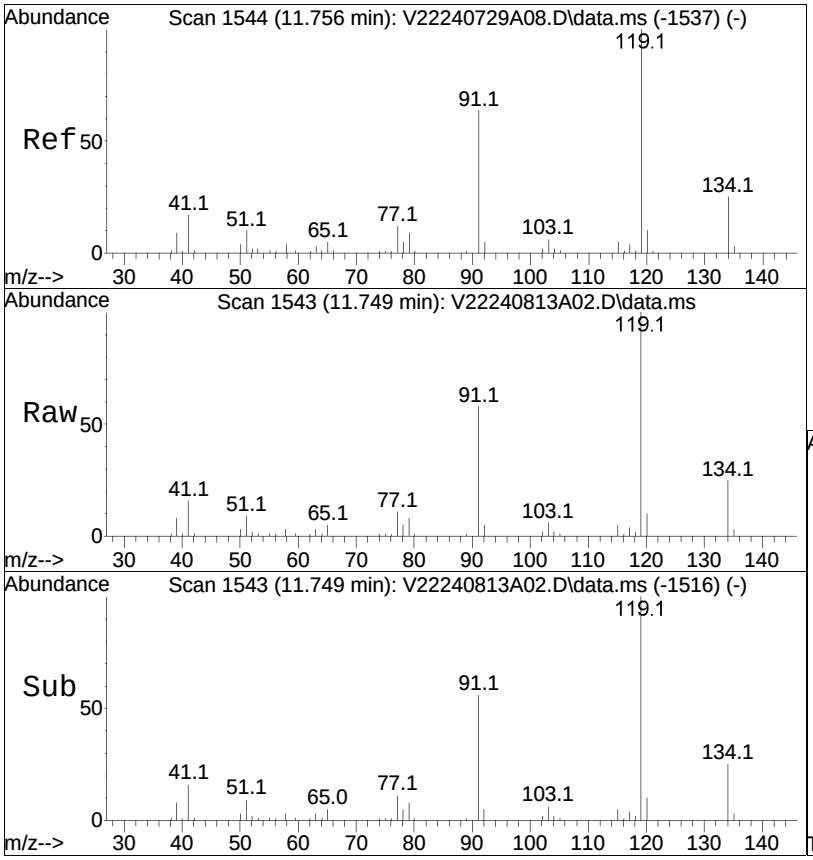


#97
4-Chlorotoluene
Concen: 8.49 ug/L
RT: 11.531 min Scan# 1512
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 91 Resp: 195653

Ion	Ratio	Lower	Upper
91	100		
126	39.5	28.5	42.7

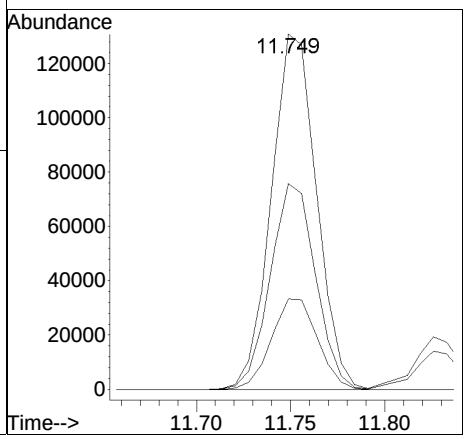


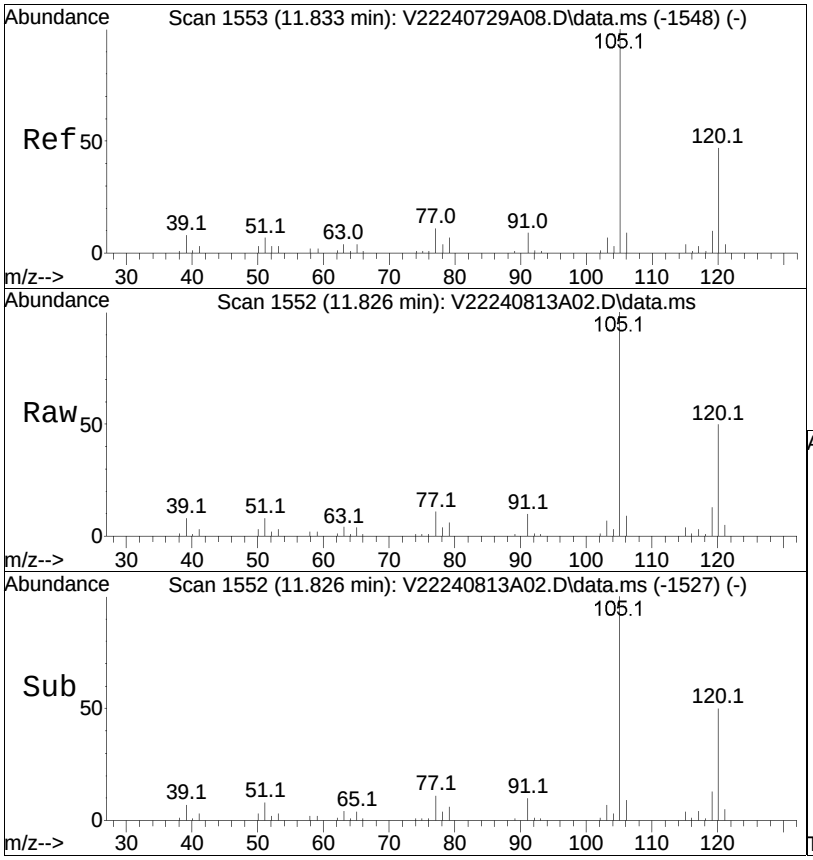


#98
tert-Butylbenzene
Concen: 9.83 ug/L
RT: 11.749 min Scan# 1543
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:119 Resp: 218359

Ion	Ratio	Lower	Upper
119	100		
91	57.9	50.2	75.4
134	30.0	20.8	31.2

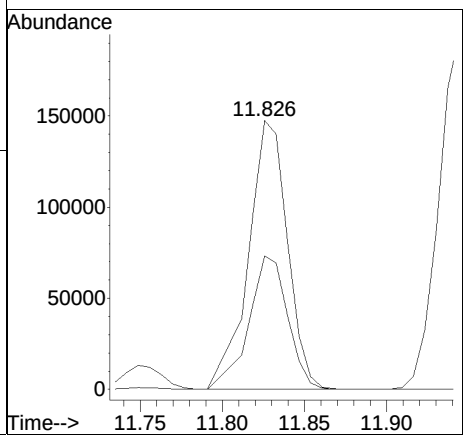


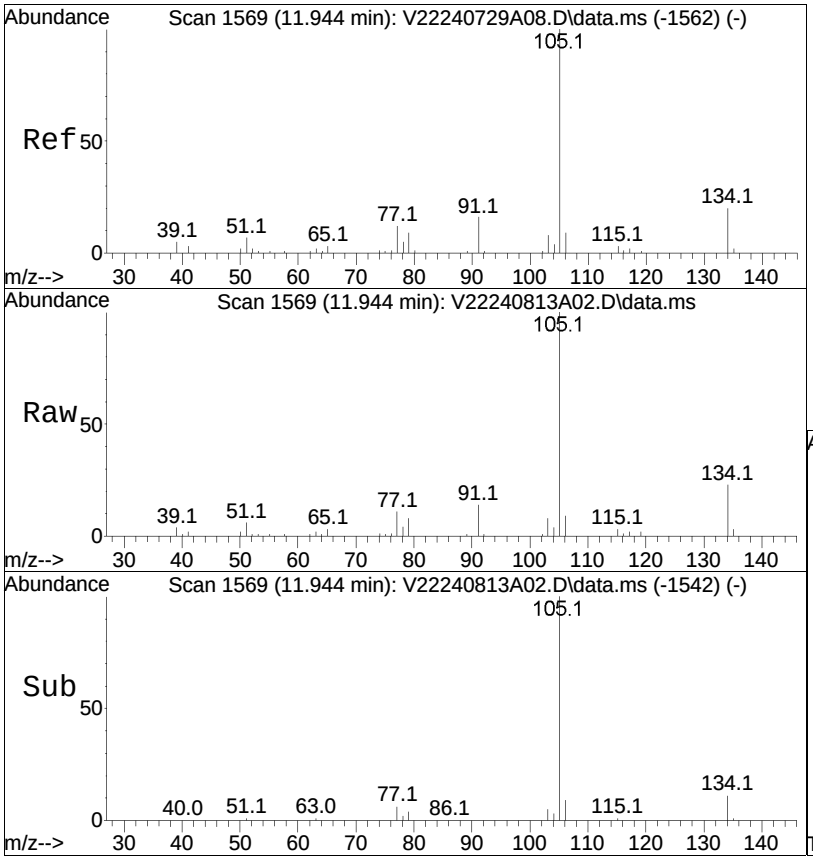


#101
1,2,4-Trimethylbenzene
Concen: 9.18 ug/L
RT: 11.826 min Scan# 1552
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:105 Resp: 262396

Ion	Ratio	Lower	Upper
105	100		
120	50.8	38.5	57.7

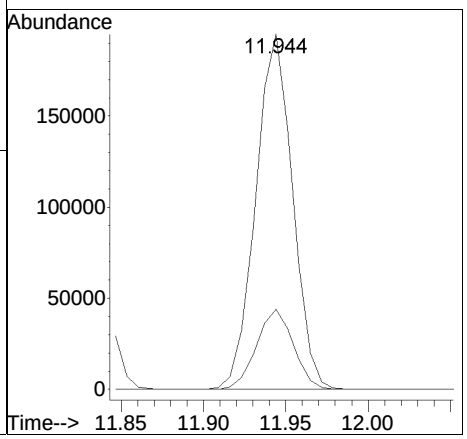


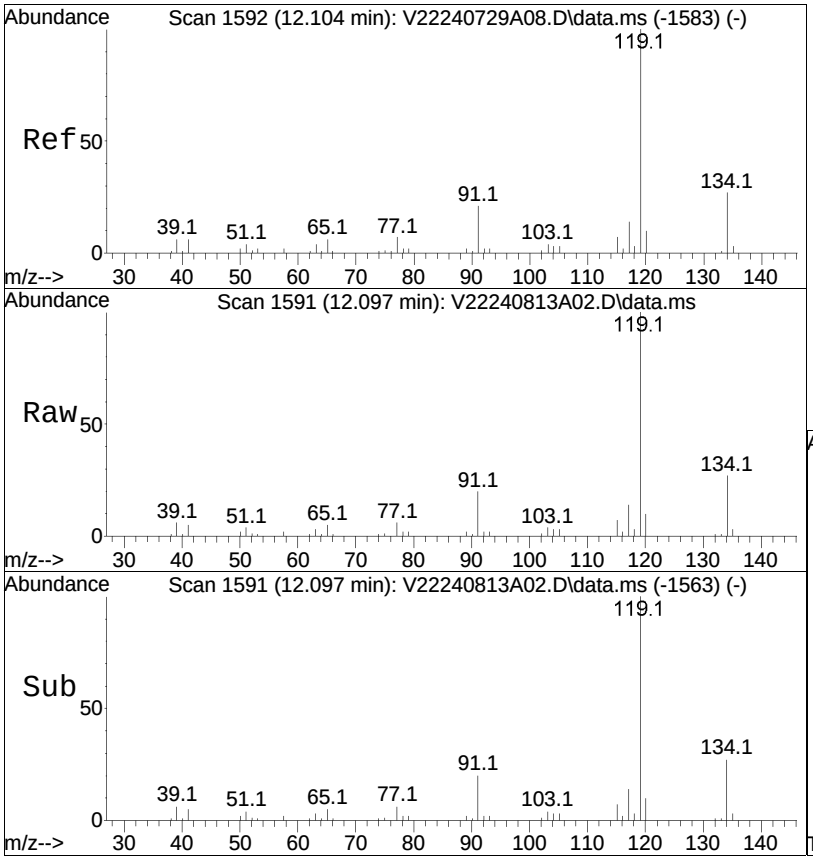


#102
sec-Butylbenzene
Concen: 9.00 ug/L
RT: 11.944 min Scan# 1569
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:105 Resp: 303193

Ion	Ratio	Lower	Upper
105	100		
134	22.5	13.9	28.9

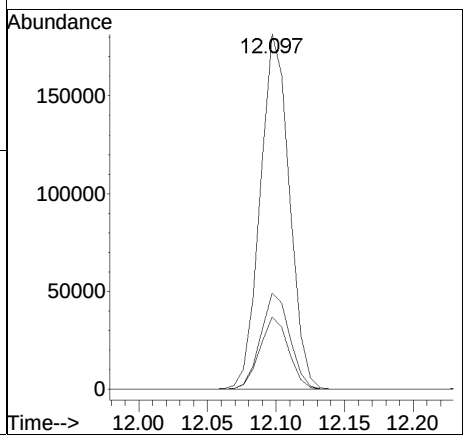


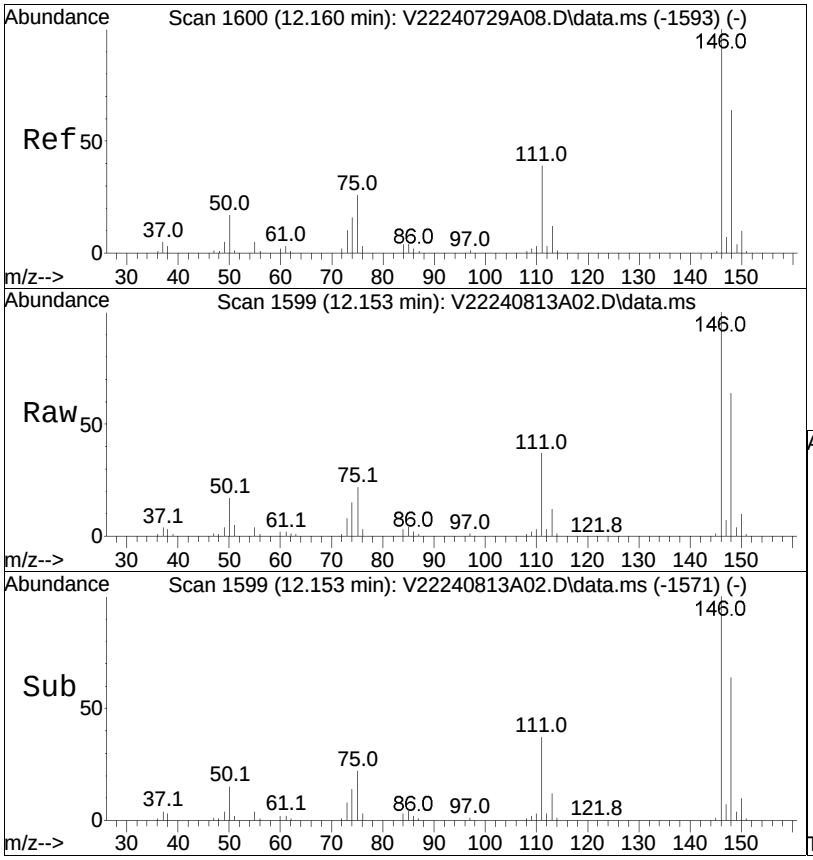


#103
p-Isopropyltoluene
Concen: 9.44 ug/L
RT: 12.097 min Scan# 1591
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:119 Resp: 269008

Ion	Ratio	Lower	Upper
119	100		
134	27.1	17.7	36.7
91	20.1	14.1	29.3

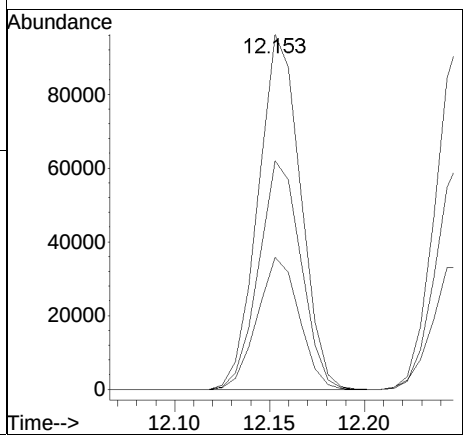


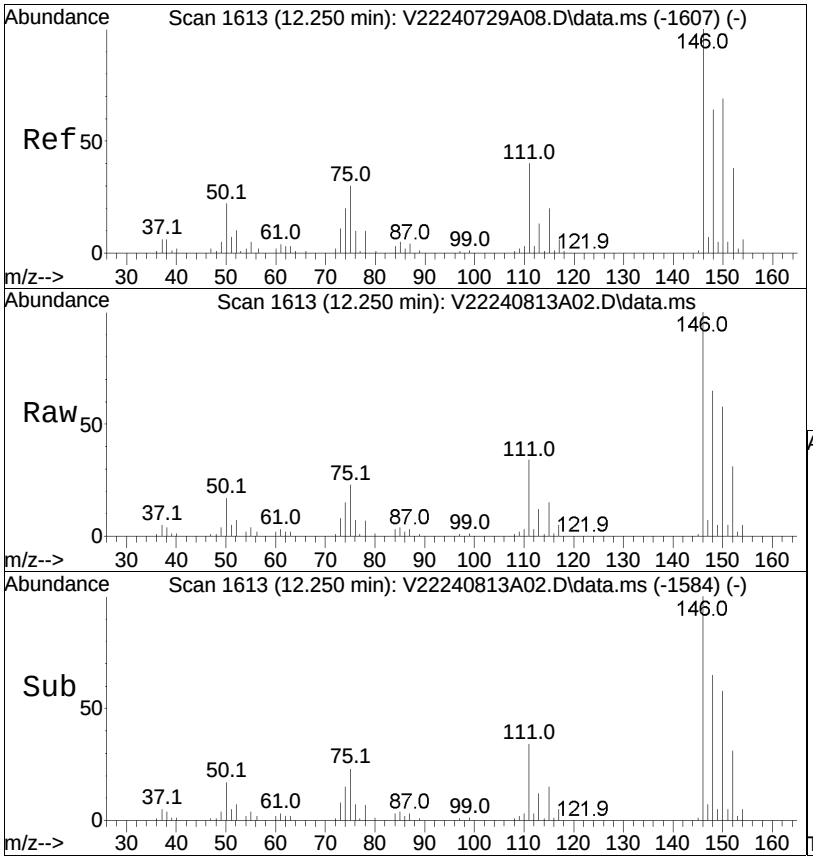


#104
1,3-Dichlorobenzene
Concen: 10.06 ug/L
RT: 12.153 min Scan# 1599
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:146 Resp: 149591

Ion	Ratio	Lower	Upper
146	100		
111	36.7	24.0	49.8
148	64.0	41.8	86.8

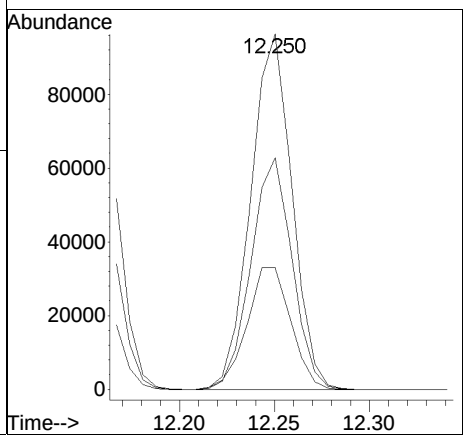


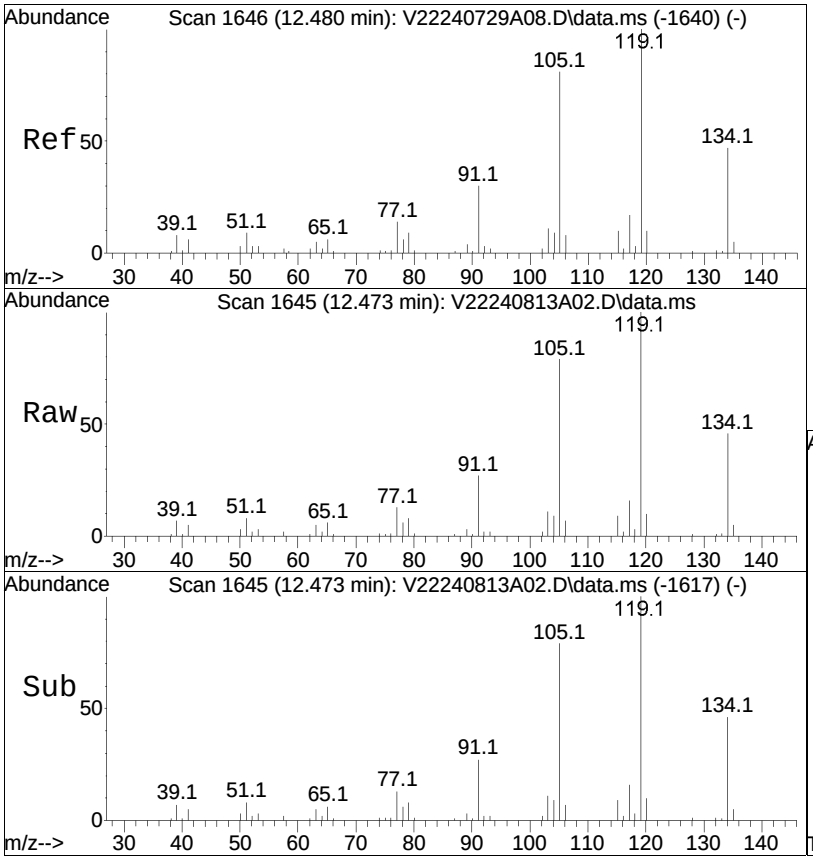


#105
1,4-Dichlorobenzene
Concen: 9.88 ug/L
RT: 12.250 min Scan# 1613
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:146 Resp: 145671

Ion	Ratio	Lower	Upper
146	100		
111	36.7	28.9	43.3
148	65.0	51.4	77.2

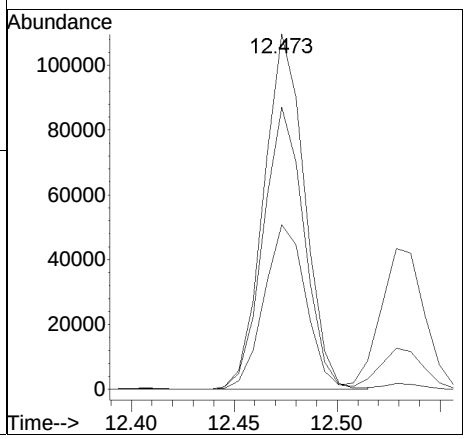


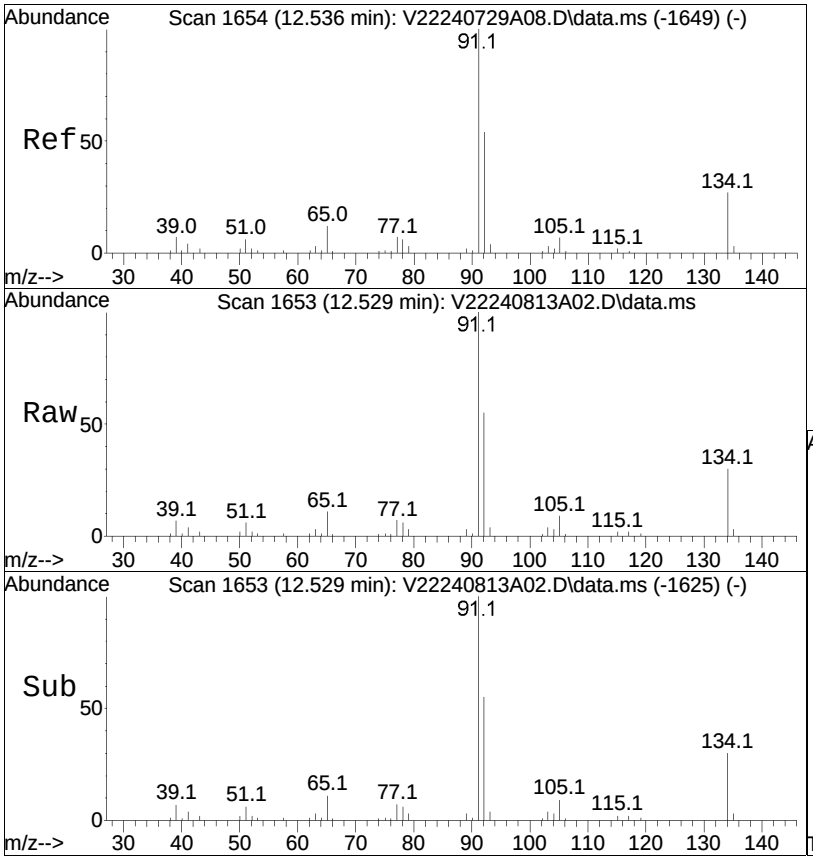


#106
p-Diethylbenzene
Concen: 9.37 ug/L
RT: 12.473 min Scan# 1645
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:119 Resp: 151817

Ion	Ratio	Lower	Upper
119	100		
105	79.4	53.4	110.8
134	47.4	30.9	64.1

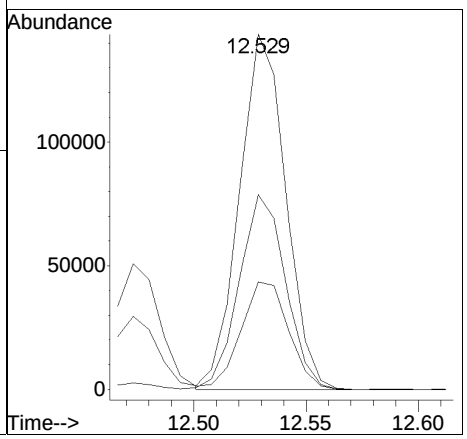


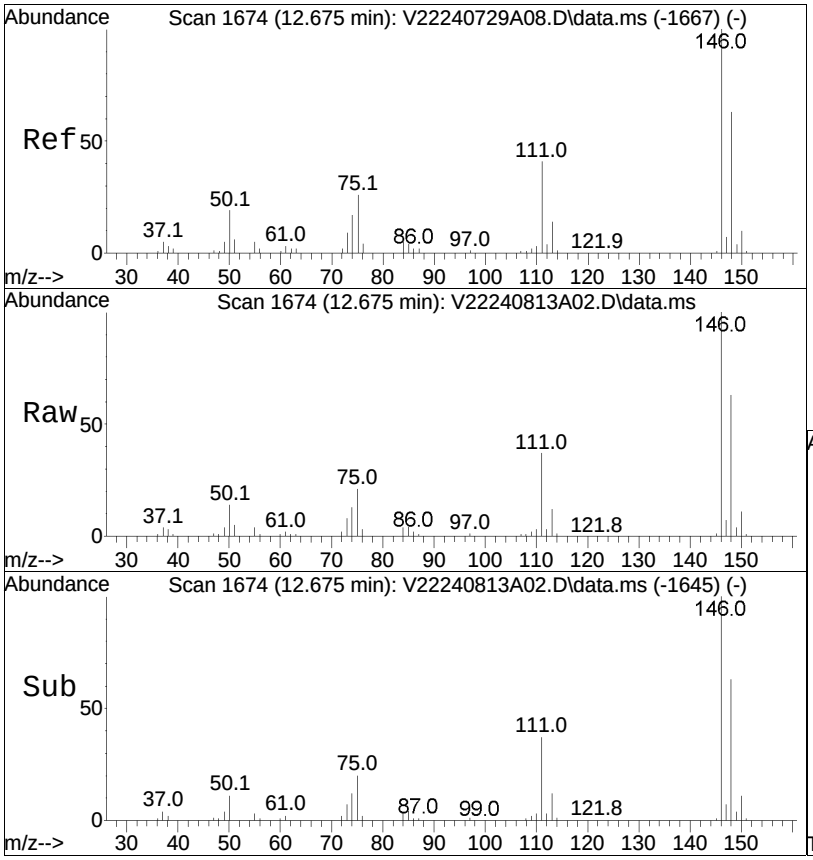


#107
n-Butylbenzene
Concen: 8.73 ug/L
RT: 12.529 min Scan# 1653
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion: 91 Resp: 206469

Ion	Ratio	Lower	Upper
91	100		
92	54.8	44.6	66.8
134	31.2	22.9	34.3

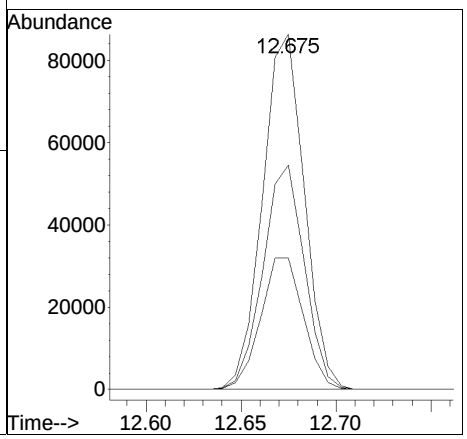


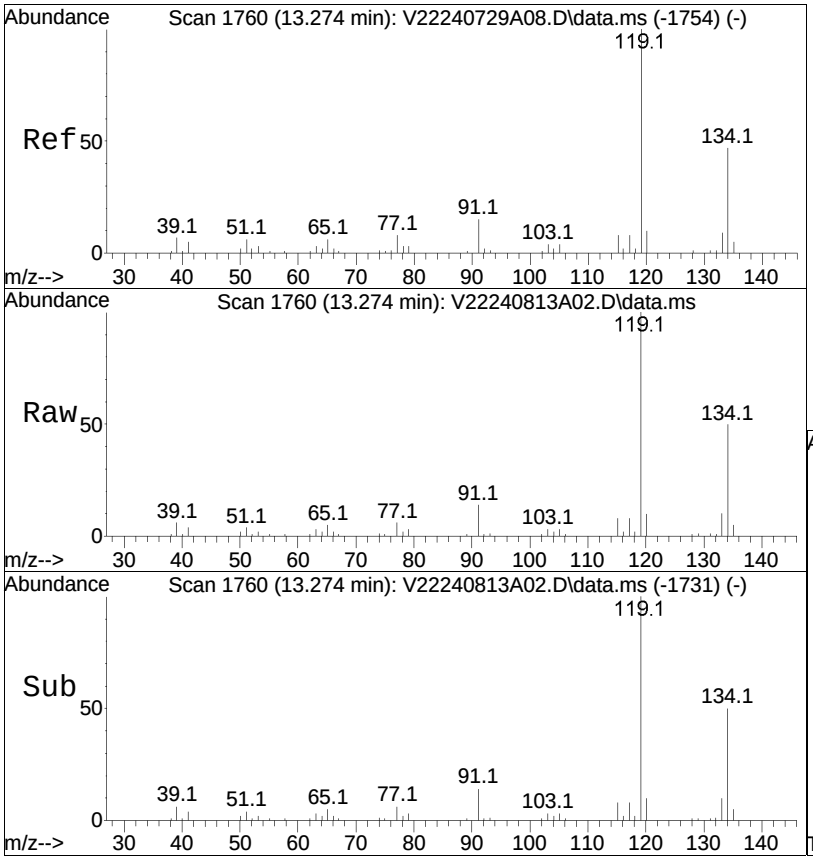


#108
1,2-Dichlorobenzene
Concen: 10.02 ug/L
RT: 12.675 min Scan# 1674
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:146 Resp: 131851

Ion	Ratio	Lower	Upper
146	100		
111	38.2	24.8	51.6
148	62.7	42.2	87.6

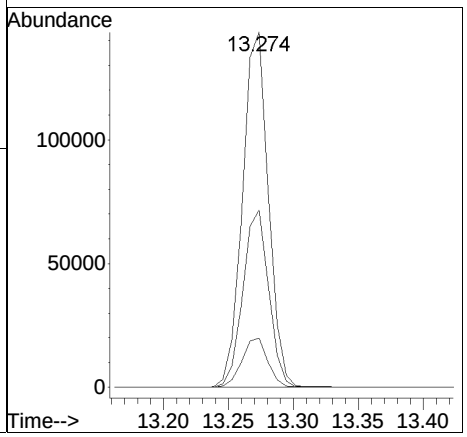


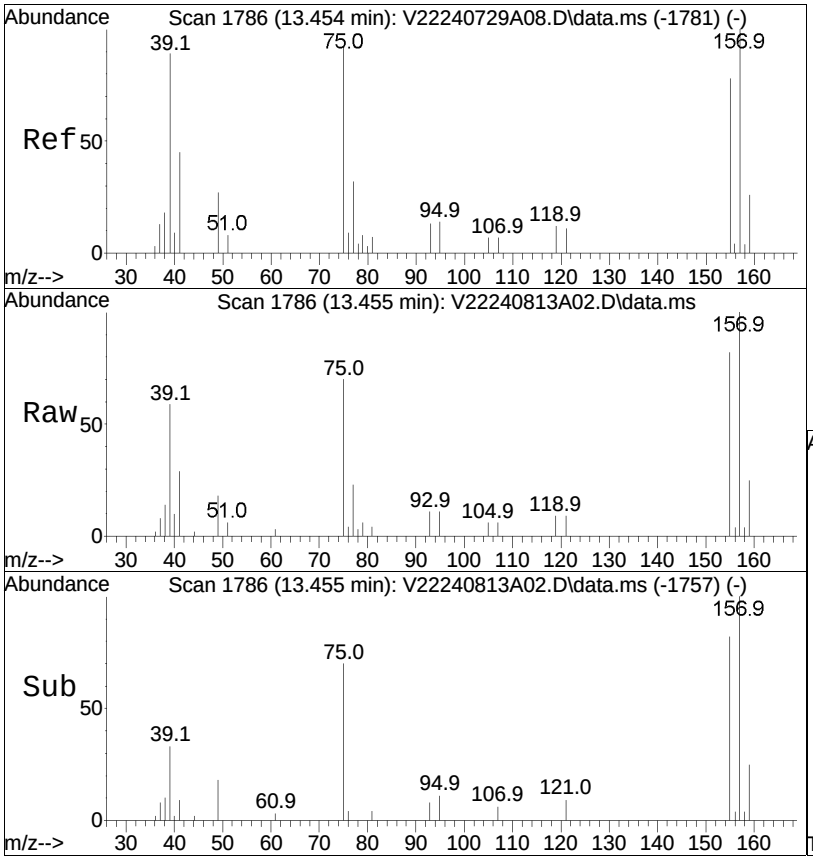


#109
1,2,4,5-Tetramethylbenzene
Concen: 8.97 ug/L
RT: 13.274 min Scan# 1760
Delta R.T. -0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:119 Resp: 199291

Ion	Ratio	Lower	Upper
119	100		
134	49.7	31.9	66.1
91	13.9	9.8	20.3

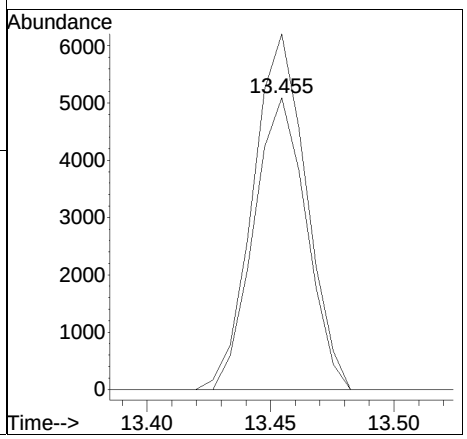


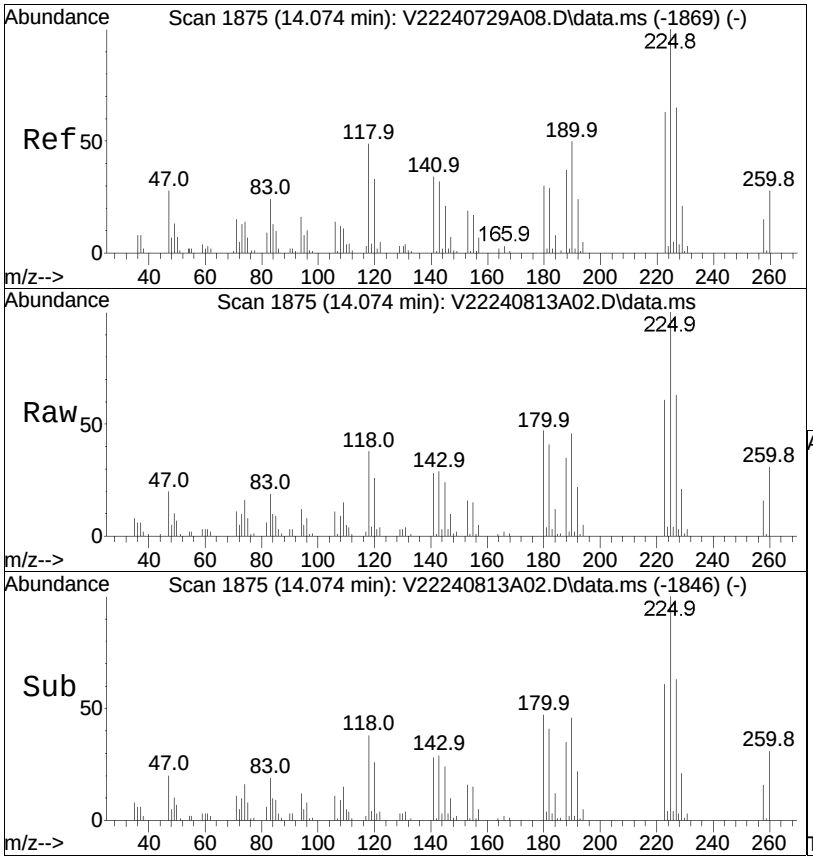


#110
1,2-Dibromo-3-chloropropane
Concen: 9.62 ug/L
RT: 13.455 min Scan# 1786
Delta R.T. 0.001 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:155 Resp: 7527

Ion	Ratio	Lower	Upper
155	100		
157	124.0	102.3	153.5

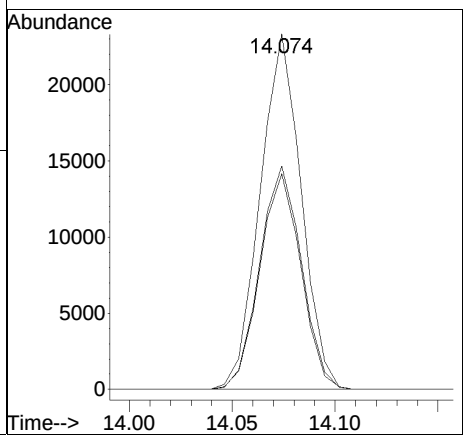


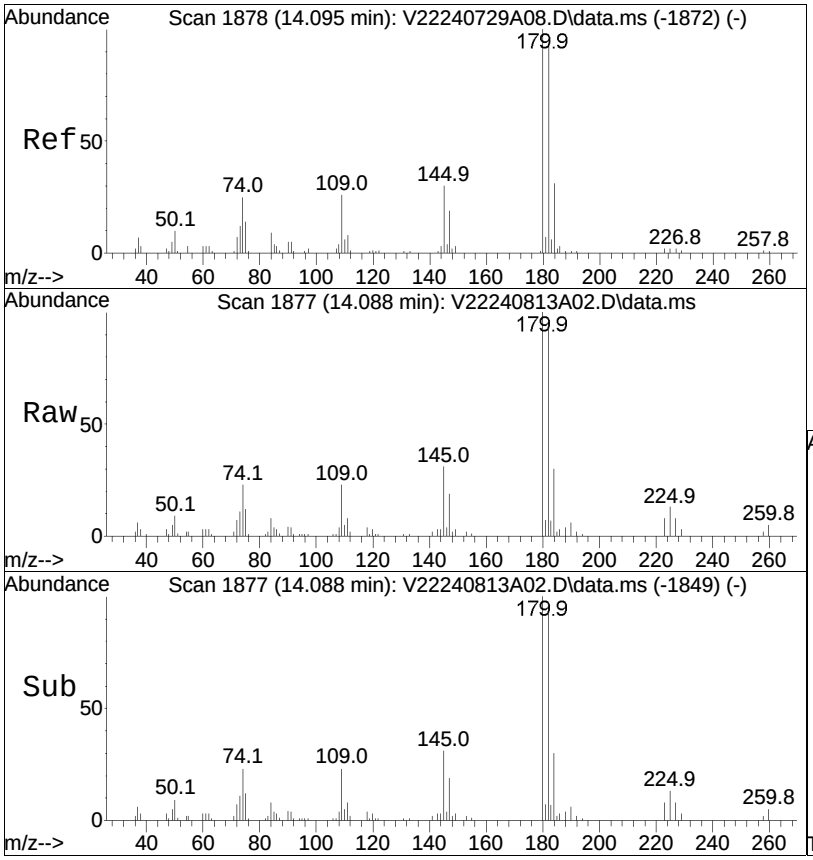


#112
Hexachlorobutadiene
Concen: 10.41 ug/L
RT: 14.074 min Scan# 1875
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:225 Resp: 32329

Ion	Ratio	Lower	Upper
225	100		
223	61.0	49.8	74.8
227	64.0	52.2	78.4

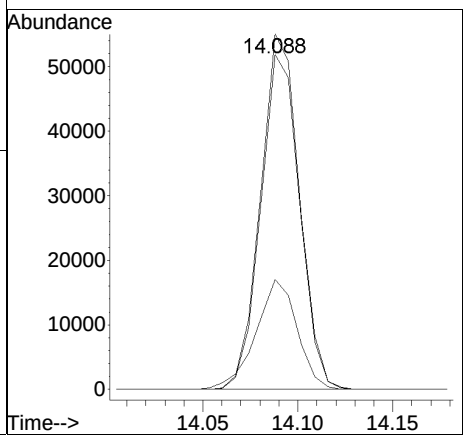


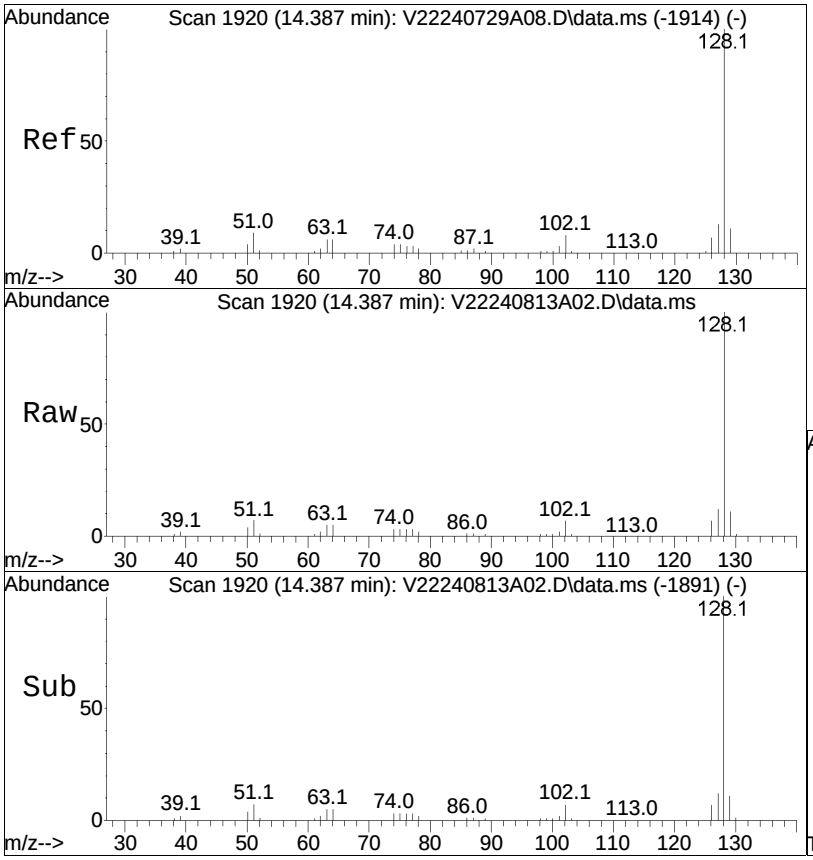


#113
1,2,4-Trichlorobenzene
Concen: 10.75 ug/L
RT: 14.088 min Scan# 1877
Delta R.T. -0.007 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:180 Resp: 78365

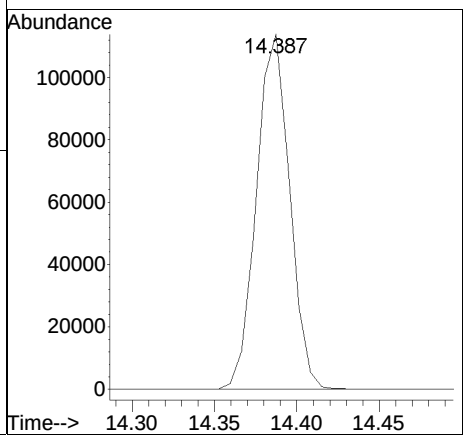
Ion	Ratio	Lower	Upper
180	100		
182	94.2	76.6	114.8
145	32.8	25.5	38.3

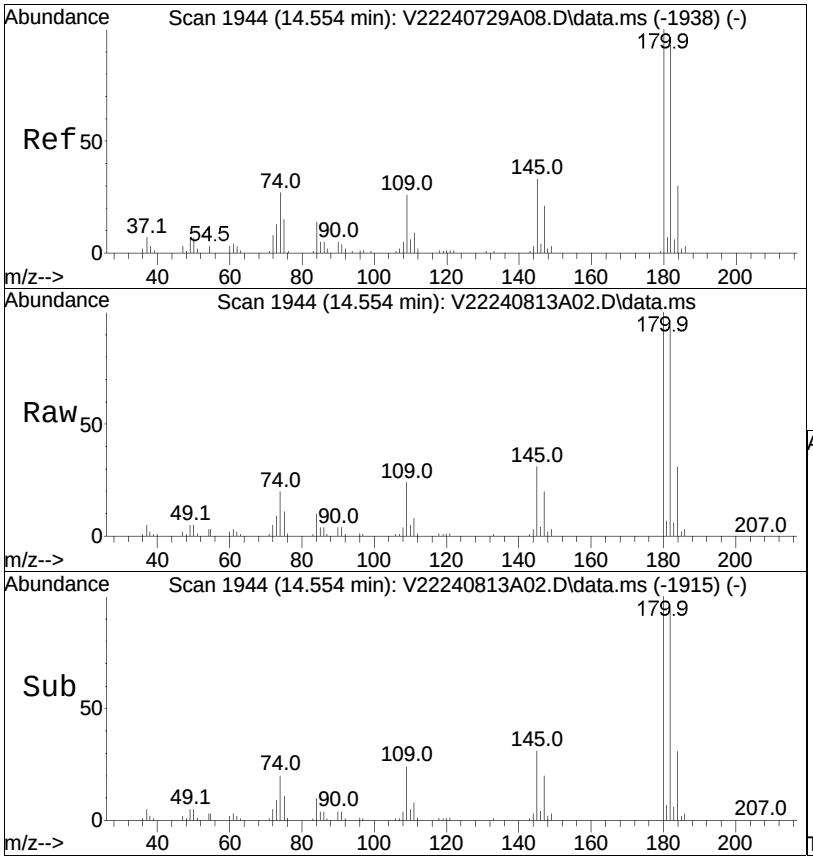




#114
Naphthalene
Concen: 9.51 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:128 Resp: 160008

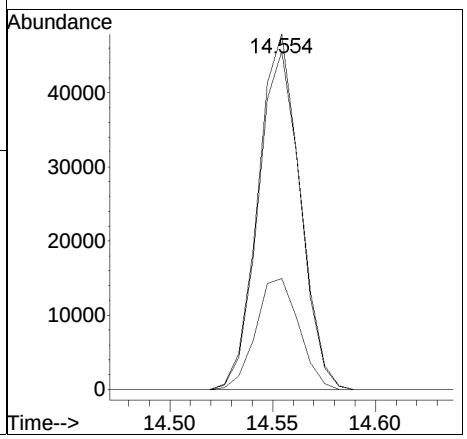




#115
1,2,3-Trichlorobenzene
Concen: 10.98 ug/L
RT: 14.554 min Scan# 1944
Delta R.T. 0.000 min
Lab File: V22240813A02.D
Acq: 13 Aug 2024 07:16 am

Tgt Ion:180 Resp: 68001

Ion	Ratio	Lower	Upper
180	100		
182	95.3	76.0	114.0
145	32.0	23.8	35.8

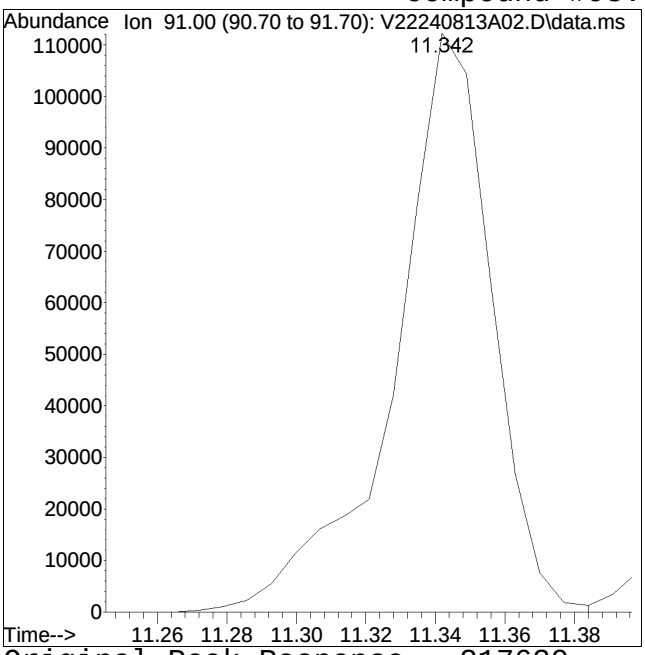


Manual Integration Report

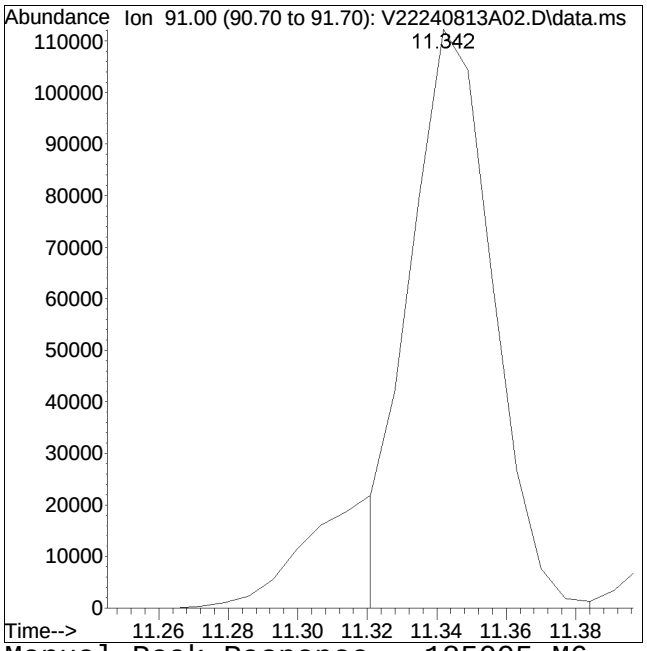
Data Path : K:\VOA122\2024\240813A\
Data File : V22240813A02.D
Date Inj'd : 8/13/2024 7:16 am
Sample : WG1958655-4,31,10,10

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/13/2024 7:50 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 217620



Manual Peak Response = 185005 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A02.D
Acq On : 13 Aug 2024 8:33 am
Operator : GONZO:PID
Sample : WG1958701-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 09:11:08 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	325808	10.000	ug/L	0.00
Standard Area 1 = 357071			Recovery = 91.24%			
59) Chlorobenzene-d5	9.629	117	263280	10.000	ug/L	0.00
Standard Area 1 = 287977			Recovery = 91.42%			
79) 1,4-Dichlorobenzene-d4	12.310	152	158272	10.000	ug/L	0.00
Standard Area 1 = 175101			Recovery = 90.39%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.273	113	86324	10.144	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.44%			
43) 1,2-Dichloroethane-d4	5.805	65	103062	11.401	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 114.01%			
60) Toluene-d8	7.779	98	327162	9.898	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.98%			
83) 4-Bromofluorobenzene	11.109	95	120460	9.113	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.13%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.680	85	80453	9.301	ug/L	98
3) Chloromethane	1.892	50	77555	10.481	ug/L	99
4) Vinyl chloride	1.946	62	80496	10.501	ug/L	99
5) Bromomethane	2.257	94	32443	7.994	ug/L	95
6) Chloroethane	2.363	64	77516	13.227	ug/L	97
7) Trichlorofluoromethane	2.515	101	106702	9.494	ug/L	94
8) Ethyl ether	2.819	74	37653	10.091	ug/L #	79
10) 1,1-Dichloroethene	3.017	96	61654	10.004	ug/L	90
11) Carbon disulfide	3.047	76	199378	11.000	ug/L	99
15) Methylene chloride	3.579	84	75208	10.321	ug/L	82
17) Acetone	3.617	43	17303	10.105	ug/L	94
18) trans-1,2-Dichloroethene	3.723	96	70259	10.422	ug/L	93
20) Methyl tert-butyl ether	3.815	73	196391	9.474	ug/L #	90
23) 1,1-Dichloroethane	4.308	63	134703	11.030	ug/L	98
25) Acrylonitrile	4.369	53	23012	12.084	ug/L	94
27) Vinyl acetate	4.544	43	175897	15.544	ug/L	96
28) cis-1,2-Dichloroethene	4.833	96	81450	10.507	ug/L	98
29) 2,2-Dichloropropane	4.931	77	102621	10.079	ug/L	96
30) Bromochloromethane	5.030	128	40791	10.755	ug/L	89
32) Chloroform	5.098	83	134235	10.738	ug/L	96

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A02.D
Acq On : 13 Aug 2024 8:33 am
Operator : GONZO:PID
Sample : WG1958701-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 09:11:08 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34) Carbon tetrachloride	5.228	117	104326	10.297	ug/L		96
37) 1,1,1-Trichloroethane	5.296	97	118345	10.265	ug/L		96
39) 2-Butanone	5.395	43	25916	10.967	ug/L	#	79
40) 1,1-Dichloropropene	5.418	75	95988	10.414	ug/L		99
41) Benzene	5.661	78	300458	10.765	ug/L		95
44) 1,2-Dichloroethane	5.873	62	102464	11.518	ug/L		99
48) Trichloroethene	6.261	95	75867	9.639	ug/L		96
50) Dibromomethane	6.709	93	44733	10.160	ug/L		96
51) 1,2-Dichloropropane	6.808	63	75879	11.142	ug/L		98
54) Bromodichloromethane	6.884	83	104519	10.514	ug/L		97
57) 1,4-Dioxane	7.091	88	31142	449.536	ug/L		90
58) cis-1,3-Dichloropropene	7.571	75	113228	10.184	ug/L		96
61) Toluene	7.829	92	188515	10.303	ug/L		99
62) 4-Methyl-2-pentanone	8.273	58	19343	9.588	ug/L		91
63) Tetrachloroethene	8.280	166	84647	10.539	ug/L		100
65) trans-1,3-Dichloropropene	8.323	75	98677	9.851	ug/L		93
68) 1,1,2-Trichloroethane	8.510	83	54429	10.841	ug/L		98
69) Chlorodibromomethane	8.725	129	82335	10.372	ug/L		98
70) 1,3-Dichloropropane	8.832	76	107348	10.728	ug/L		100
71) 1,2-Dibromoethane	9.004	107	63805	10.018	ug/L		97
72) 2-Hexanone	9.283	43	35372	9.454	ug/L		91
73) Chlorobenzene	9.645	112	208070	10.204	ug/L		98
74) Ethylbenzene	9.678	91	346255	9.911	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.727	131	78065	10.287	ug/L		98
76) p/m Xylene	9.867	106	281715	20.395	ug/L		97
77) o Xylene	10.402	106	267057	19.959	ug/L		99
78) Styrene	10.476	104	454522	20.045	ug/L		99
80) Bromoform	10.501	173	52975	9.448	ug/L		97
82) Isopropylbenzene	10.780	105	331557	9.363	ug/L		99
84) Bromobenzene	11.225	156	97285	9.938	ug/L		99
85) n-Propylbenzene	11.258	91	390445	9.466	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	80923	10.283	ug/L		98
88) 4-Ethyltoluene	11.381	105	329190	9.547	ug/L		98
89) 2-Chlorotoluene	11.430	91	240810M4	9.520	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	289722	9.492	ug/L		99
91) 1,2,3-Trichloropropane	11.496	75	63572M4	9.659	ug/L		
92) trans-1,4-Dichloro-2-b...	11.545	53	21062M4	11.673	ug/L		
93) 4-Chlorotoluene	11.611	91	250842	9.632	ug/L		98
94) tert-Butylbenzene	11.817	119	232612	9.429	ug/L		99

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A02.D
Acq On : 13 Aug 2024 8:33 am
Operator : GONZO:PID
Sample : WG1958701-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 09:11:08 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240813A\VG240813A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) 1,2,4-Trimethylbenzene	11.899	105	284057	9.446	ug/L	98
98) sec-Butylbenzene	12.006	105	327255	9.326	ug/L	100
99) p-Isopropyltoluene	12.154	119	287525	9.439	ug/L	99
100) 1,3-Dichlorobenzene	12.236	146	182530	10.149	ug/L	98
101) 1,4-Dichlorobenzene	12.327	146	190078	10.261	ug/L	99
102) p-Diethylbenzene	12.533	119	163319	9.334	ug/L	98
103) n-Butylbenzene	12.590	91	233935	9.712	ug/L	97
104) 1,2-Dichlorobenzene	12.746	146	174163	10.152	ug/L	98
105) 1,2,4,5-Tetramethylben...	13.322	119	218474	8.341	ug/L	97
106) 1,2-Dibromo-3-chloropr...	13.528	155	12646	8.664	ug/L	94
108) Hexachlorobutadiene	14.120	225	34469	10.895	ug/L	99
109) 1,2,4-Trichlorobenzene	14.153	180	93263	9.538	ug/L	97
110) Naphthalene	14.441	128	176246	8.029	ug/L	100
111) 1,2,3-Trichlorobenzene	14.614	180	79521	9.780	ug/L	97

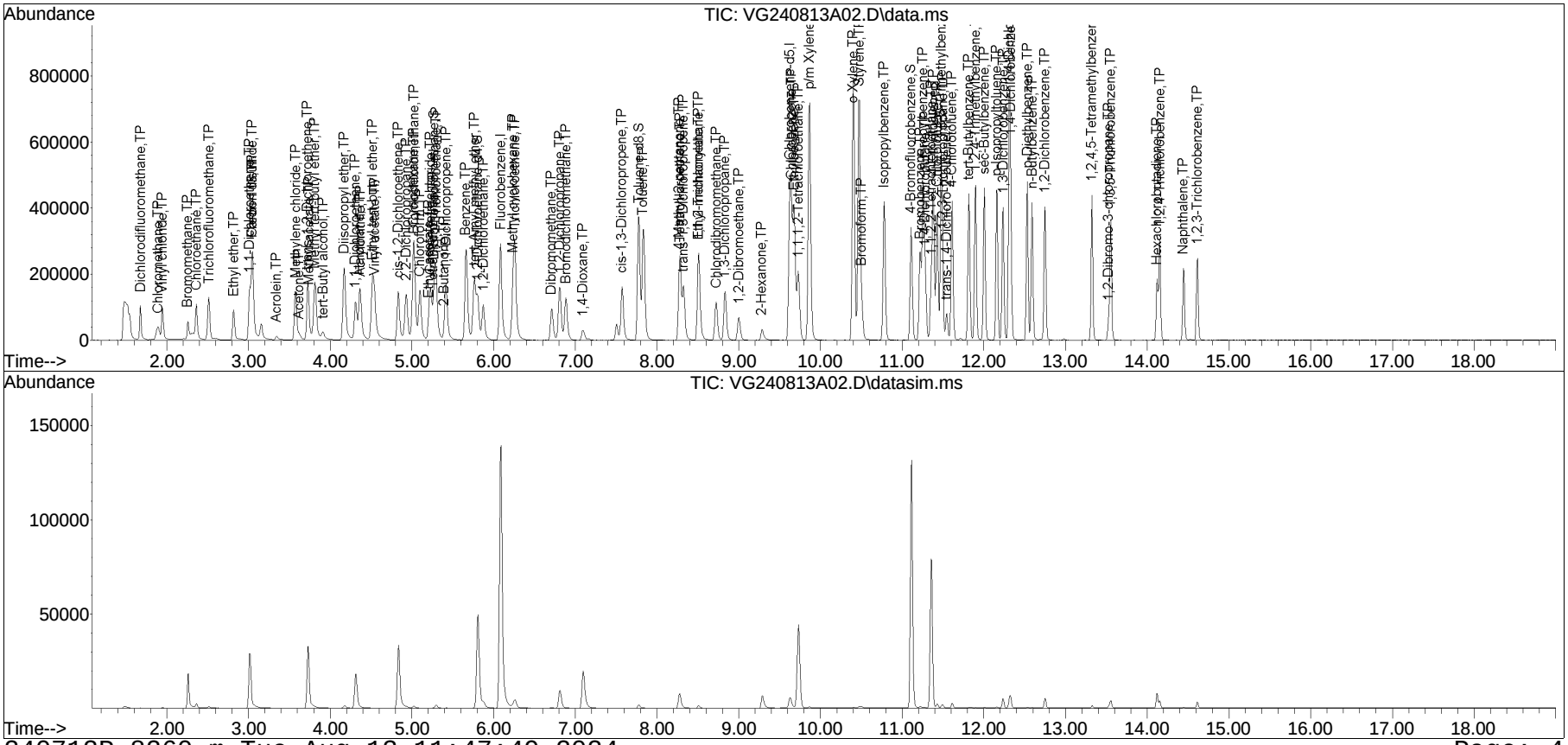
(#) = qualifier out of range (m) = manual integration (+) = signals summed

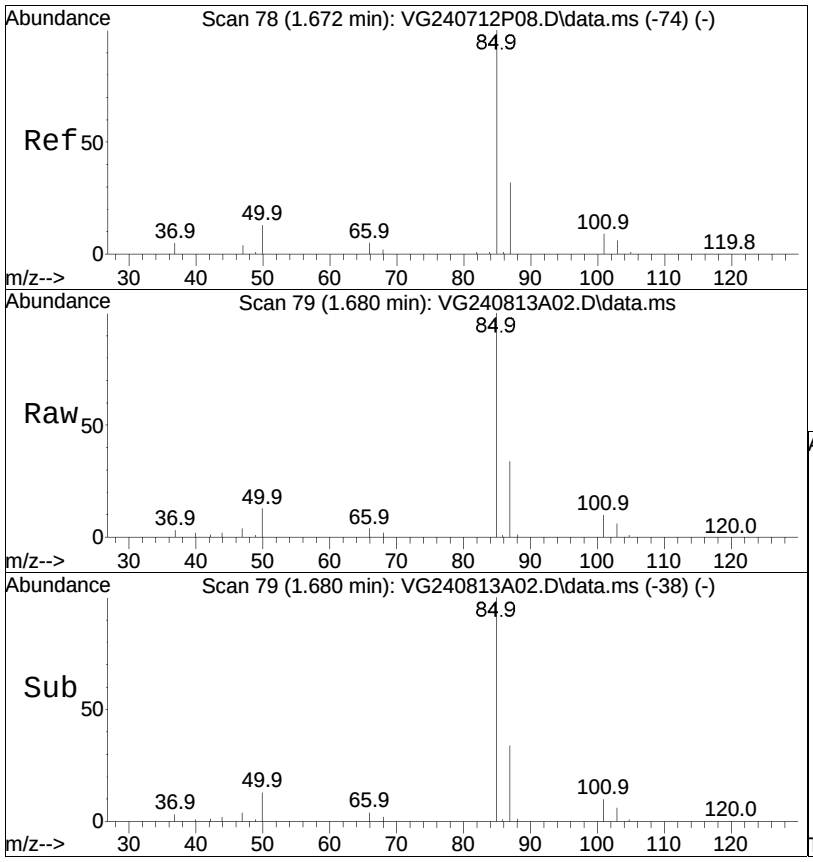
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A02.D
Acq On : 13 Aug 2024 8:33 am
Operator : GONZO:PID
Sample : WG1958701-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1958701,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 13 09:11:08 2024
Quant Method : K:\Gonzo\2024\240813A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

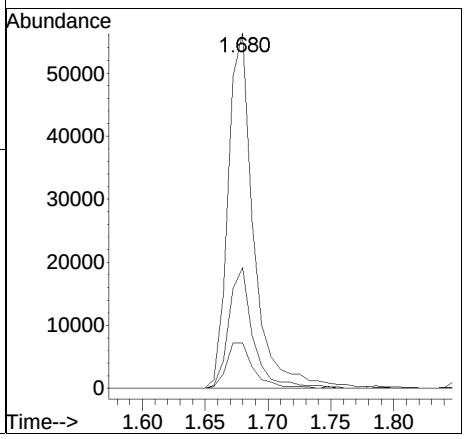


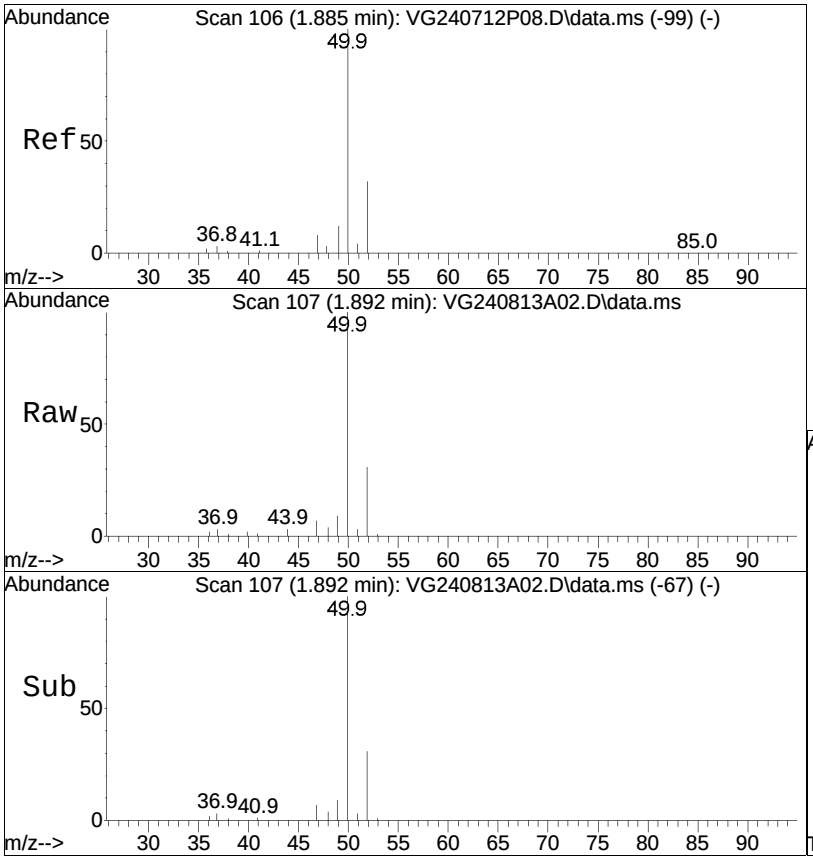


#2
Dichlorodifluoromethane
Concen: 9.30 ug/L
RT: 1.680 min Scan# 79
Delta R.T. 0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 85 Resp: 80453

Ion	Ratio	Lower	Upper
85	100		
87	32.4	20.7	42.9
50	13.7	7.5	15.5

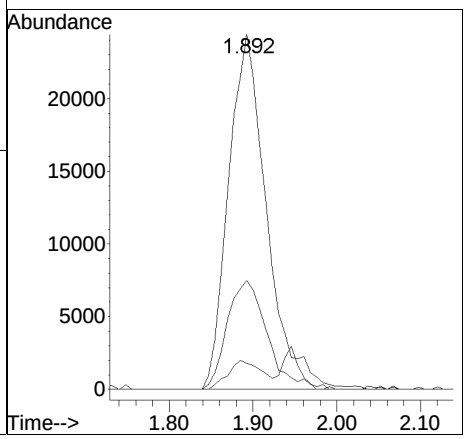


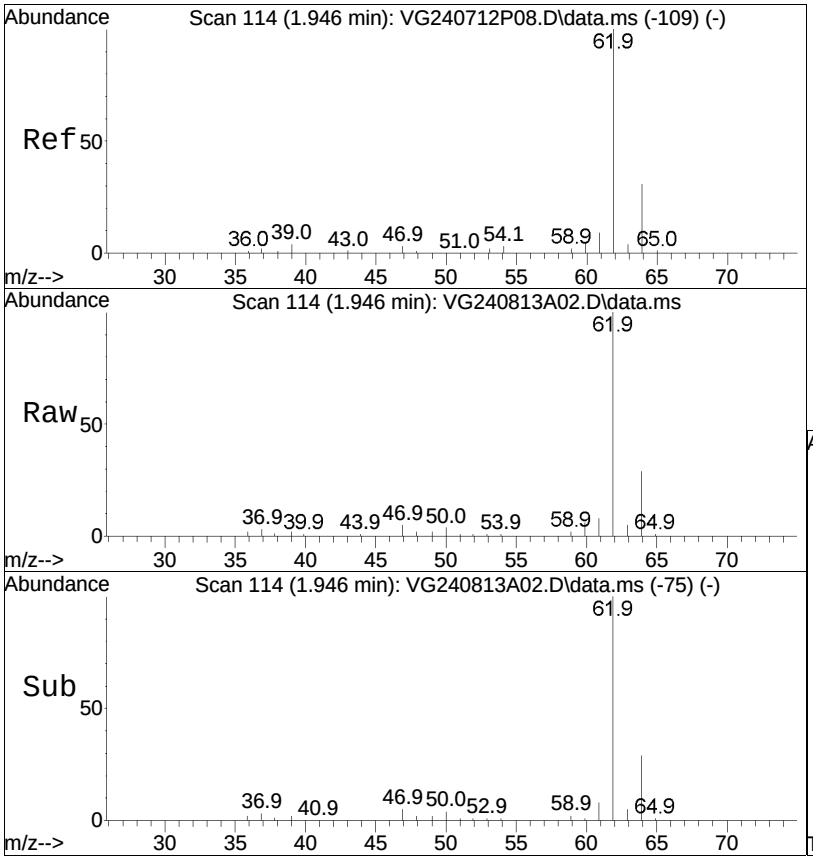


#3
Chloromethane
Concen: 10.48 ug/L
RT: 1.892 min Scan# 107
Delta R.T. 0.007 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 50 Resp: 77555

Ion	Ratio	Lower	Upper
50	100		
52	32.0	11.7	51.7
47	7.2	0.0	28.0

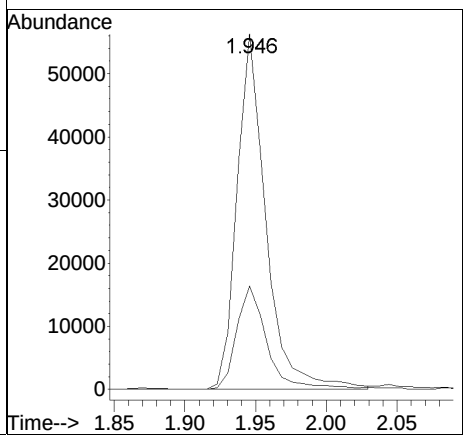


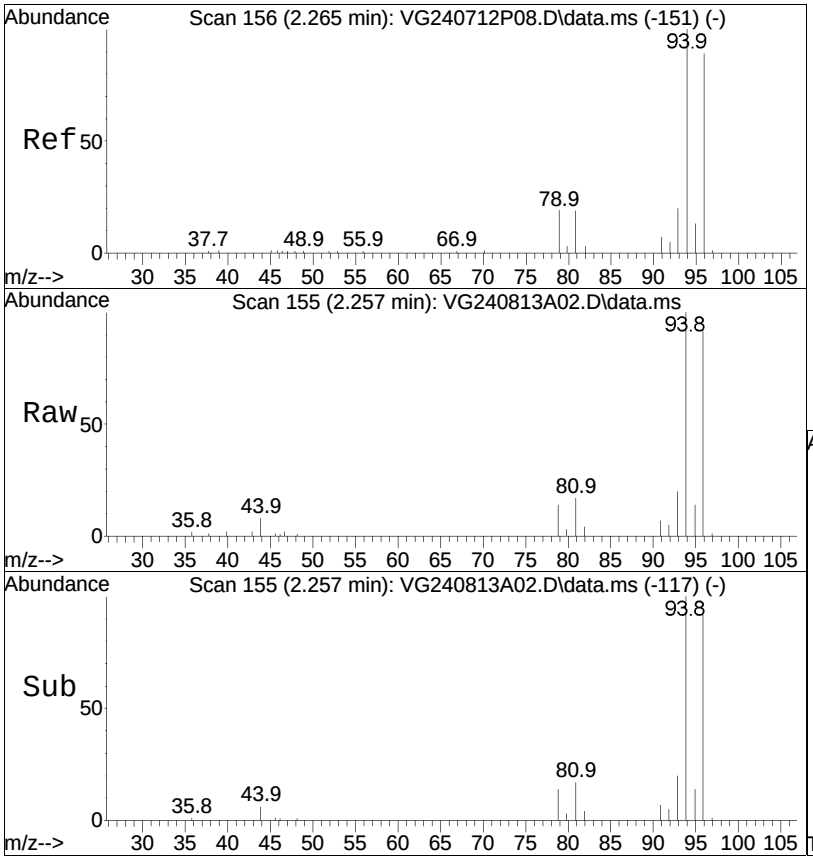


#4
Vinyl chloride
Concen: 10.50 ug/L
RT: 1.946 min Scan# 114
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 62 Resp: 80496

Ion	Ratio	Lower	Upper
62	100		
64	30.9	11.3	51.3

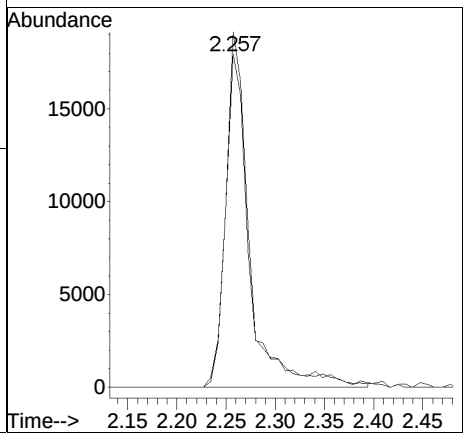


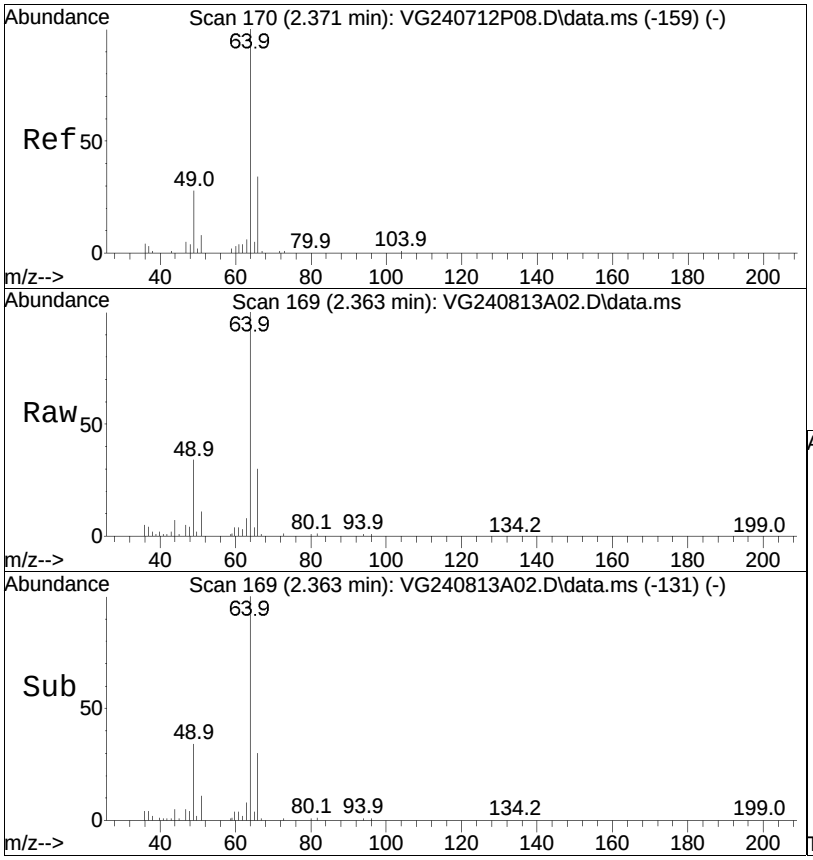


#5
Bromomethane
Concen: 7.99 ug/L
RT: 2.257 min Scan# 155
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 94 Resp: 32443

Ion	Ratio	Lower	Upper
94	100		
96	90.5	75.2	115.2

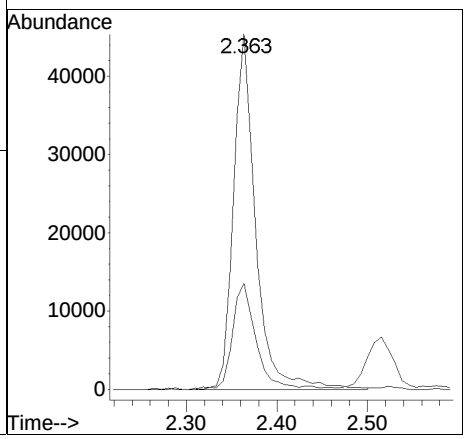


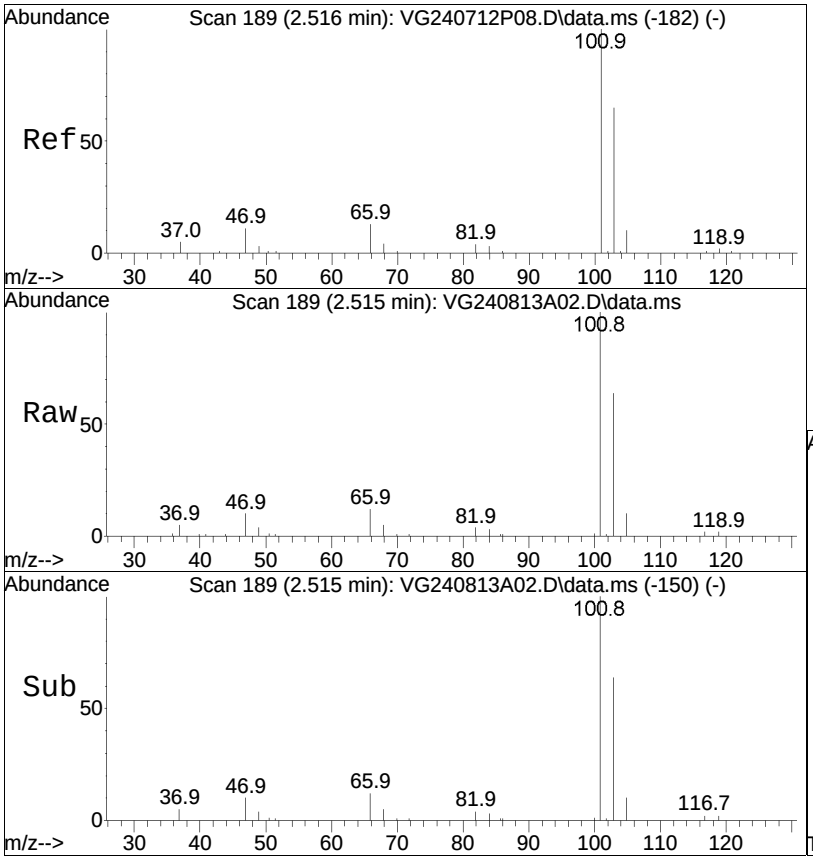


#6
Chloroethane
Concen: 13.23 ug/L
RT: 2.363 min Scan# 169
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 64 Resp: 77516

Ion	Ratio	Lower	Upper
64	100		
66	31.9	13.7	53.7

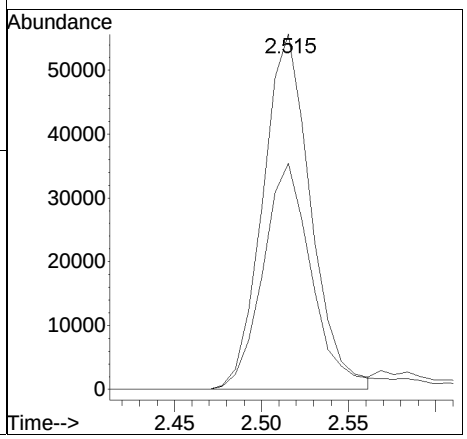


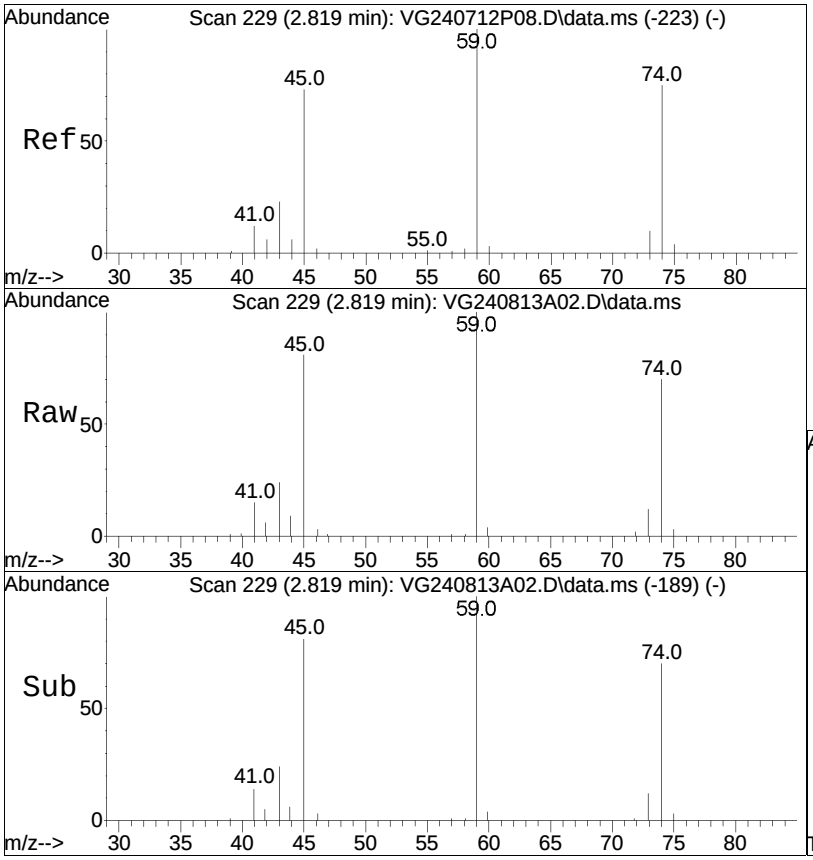


#7
Trichlorofluoromethane
Concen: 9.49 ug/L
RT: 2.515 min Scan# 189
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:101 Resp: 106702

Ion	Ratio	Lower	Upper
101	100		
103	70.2	52.2	78.2

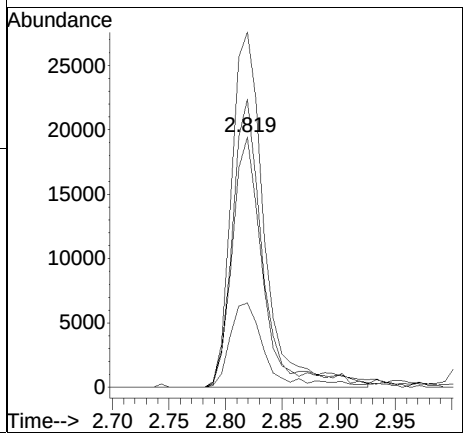


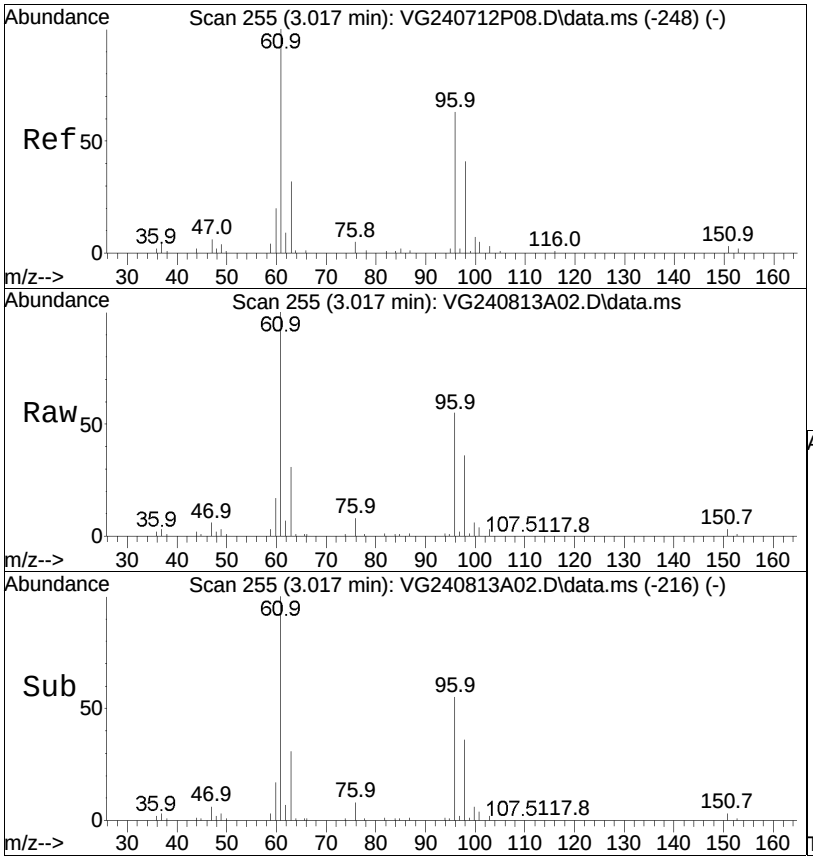


#8
Ethyl ether
Concen: 10.09 ug/L
RT: 2.819 min Scan# 229
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 74 Resp: 37653

Ion	Ratio	Lower	Upper
74	100		
59	151.0	83.5	173.3
45	113.4	59.7	123.9
43	38.0	17.6	36.6#

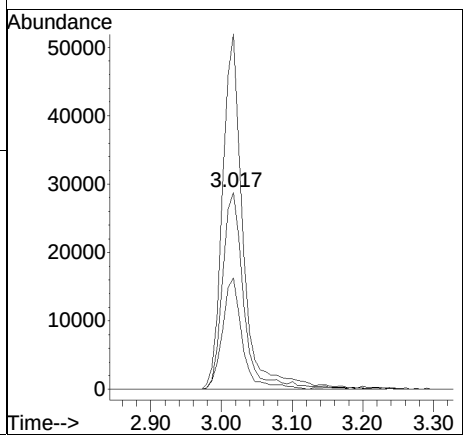


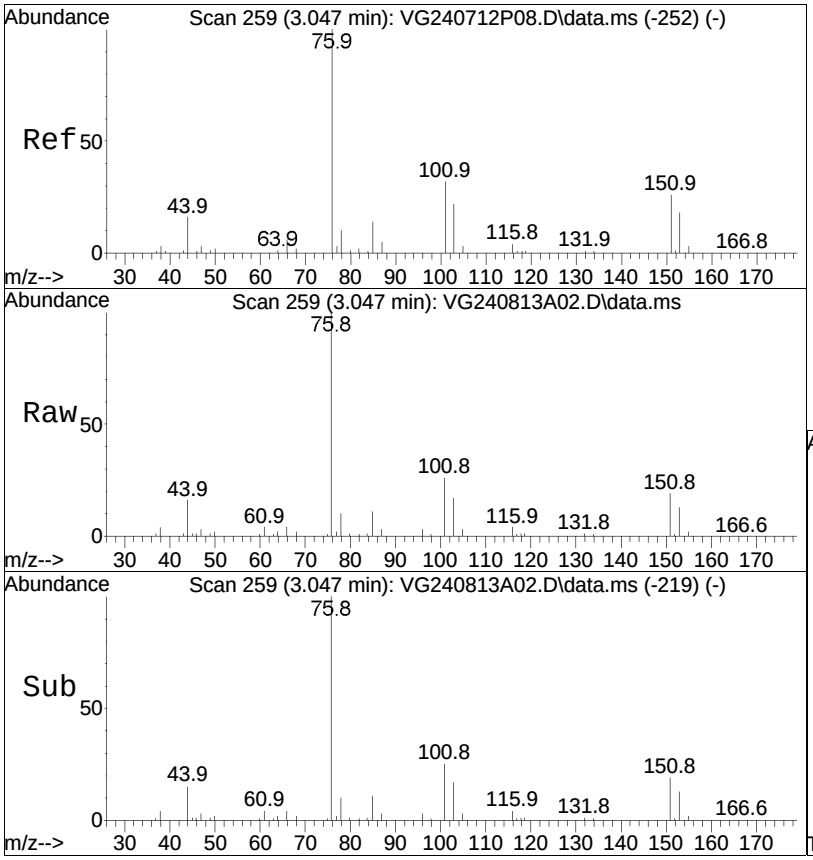


#10
1,1-Dichloroethene
Concen: 10.00 ug/L
RT: 3.017 min Scan# 255
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 96 Resp: 61654

Ion	Ratio	Lower	Upper
96	100		
61	171.5	124.2	186.4
63	52.2	40.0	60.0

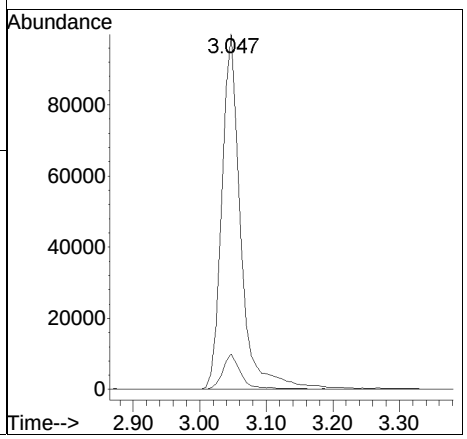


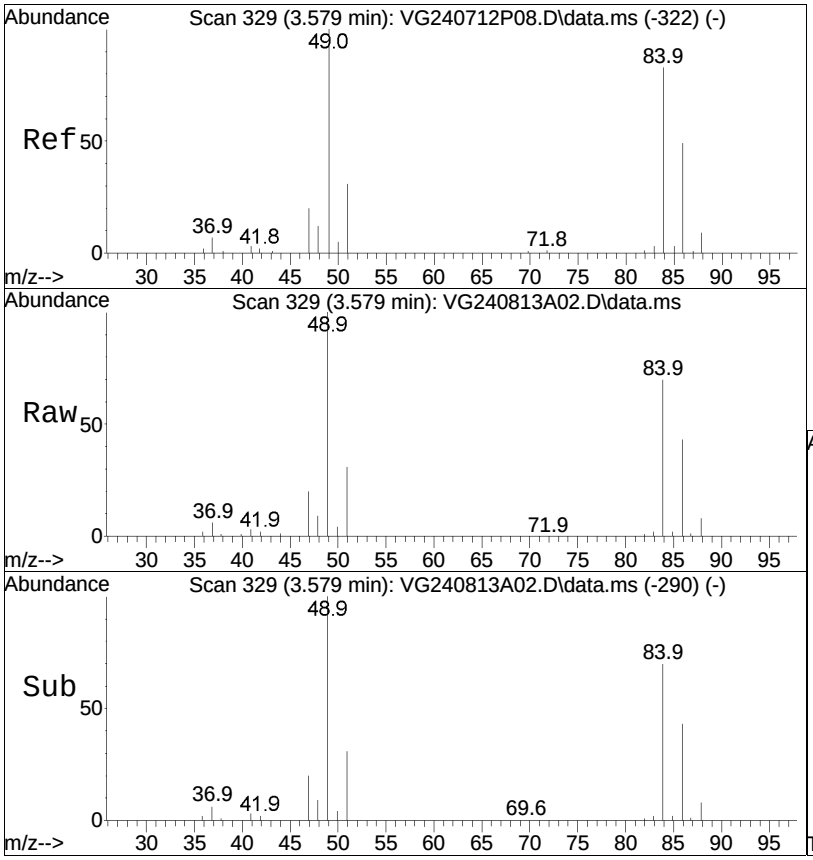


#11
Carbon disulfide
Concen: 11.00 ug/L
RT: 3.047 min Scan# 259
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 76 Resp: 199378

Ion	Ratio	Lower	Upper
76	100		
78	9.7	6.6	13.6

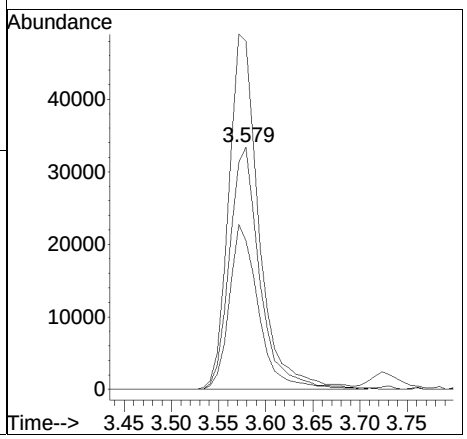


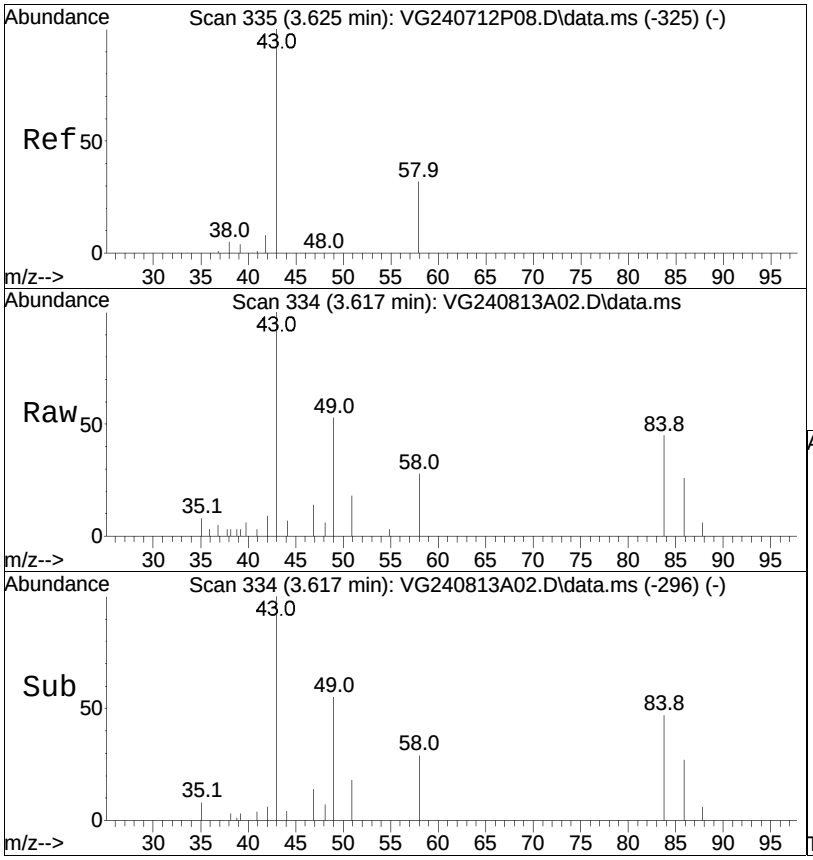


#15
Methylene chloride
Concen: 10.32 ug/L
RT: 3.579 min Scan# 329
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 84 Resp: 75208

Ion	Ratio	Lower	Upper
84	100		
86	65.5	41.1	85.5
49	145.8	76.2	158.2

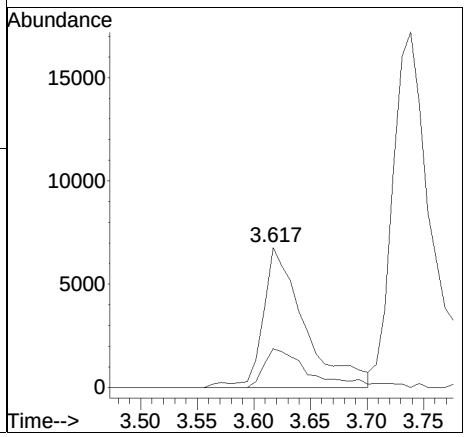


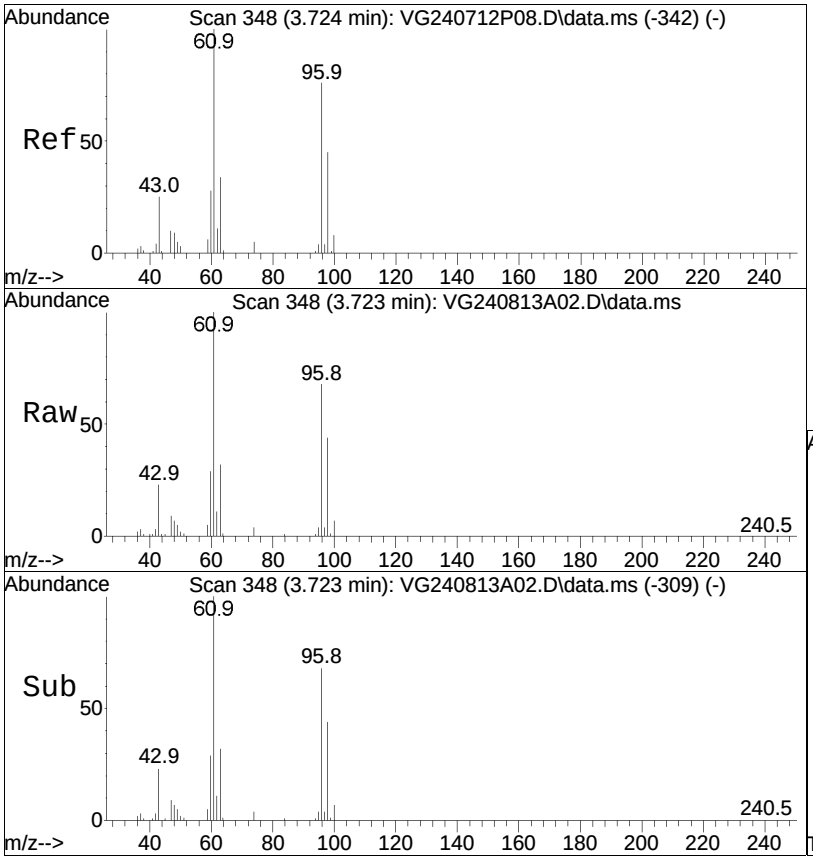


#17
Acetone
Concen: 10.10 ug/L
RT: 3.617 min Scan# 334
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 43 Resp: 17303

Ion	Ratio	Lower	Upper
43	100		
58	30.9	22.2	33.4

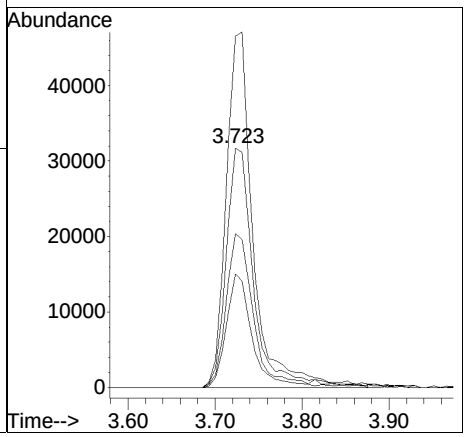


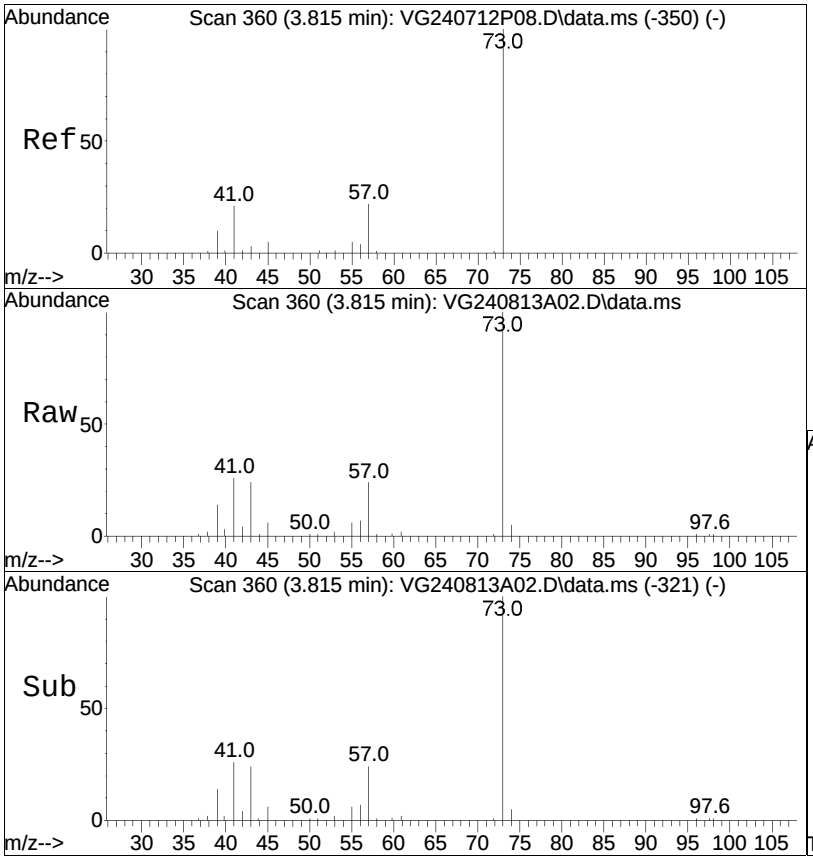


#18
trans-1,2-Dichloroethene
Concen: 10.42 ug/L
RT: 3.723 min Scan# 348
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 96 Resp: 70259

Ion	Ratio	Lower	Upper
96	100		
61	145.9	85.7	178.1
98	62.6	40.2	83.4
63	44.0	28.0	58.2

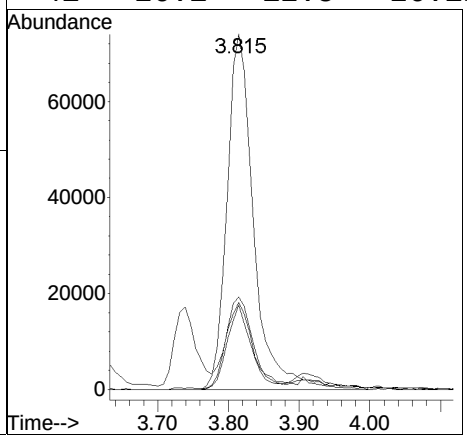


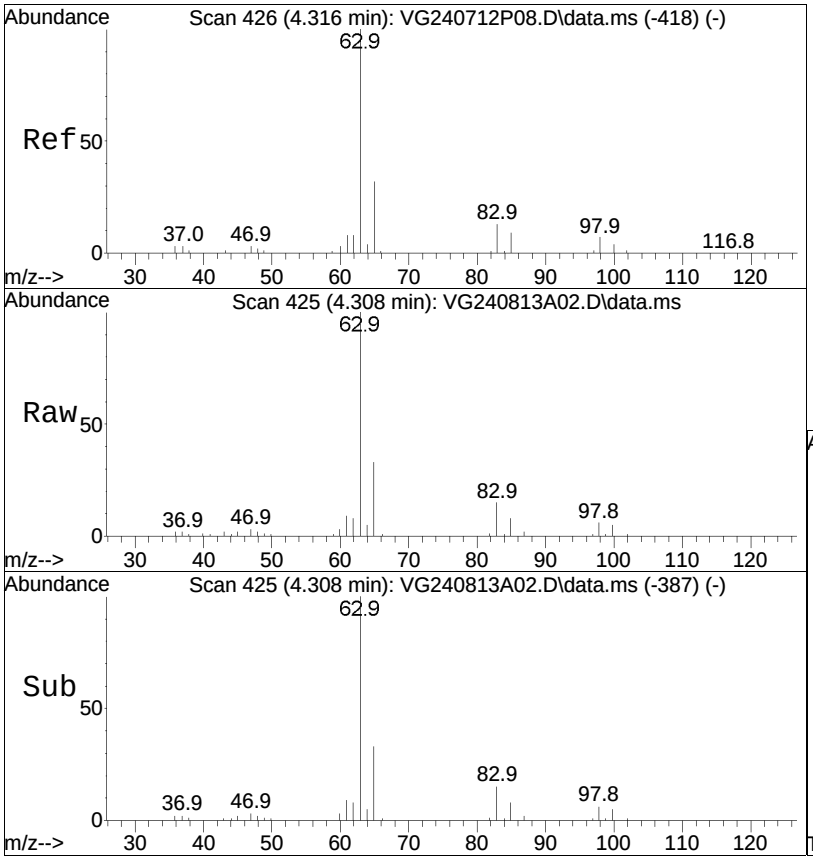


#20
Methyl tert-butyl ether
Concen: 9.47 ug/L
RT: 3.815 min Scan# 360
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 73 Resp: 196391

Ion	Ratio	Lower	Upper
73	100		
57	21.6	12.5	26.1
43	24.5	13.0	27.0
41	26.1	12.5	26.1#

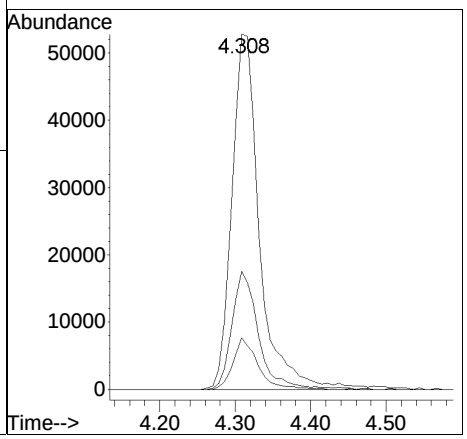


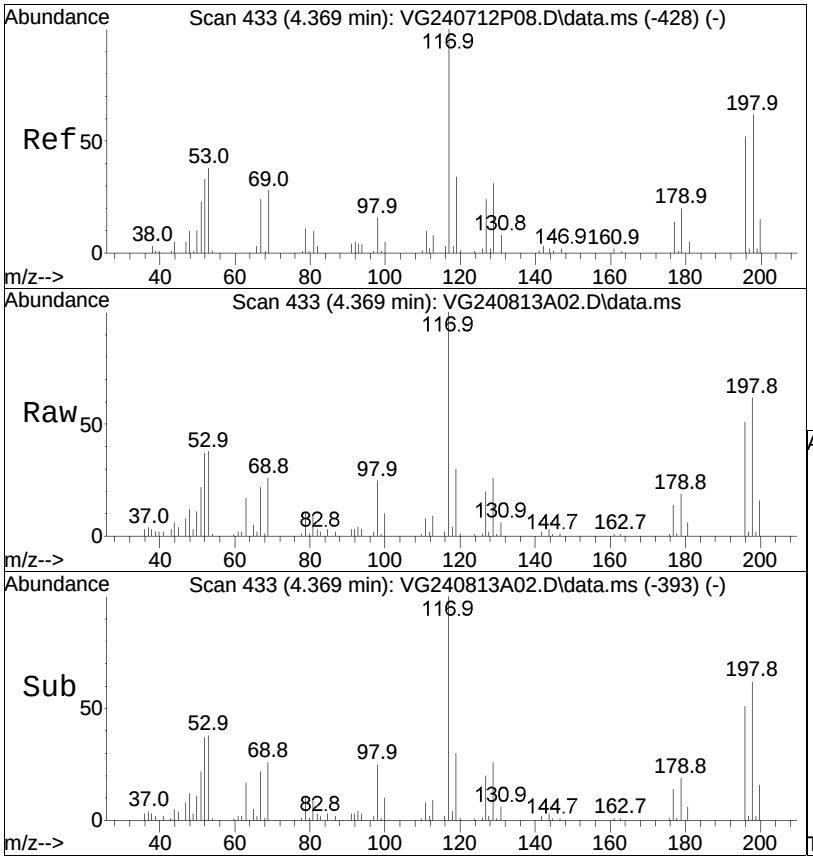


#23
1,1-Dichloroethane
Concen: 11.03 ug/L
RT: 4.308 min Scan# 425
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 63 Resp: 134703

Ion	Ratio	Lower	Upper
63	100		
65	32.1	10.4	50.4
83	13.1	0.0	33.2

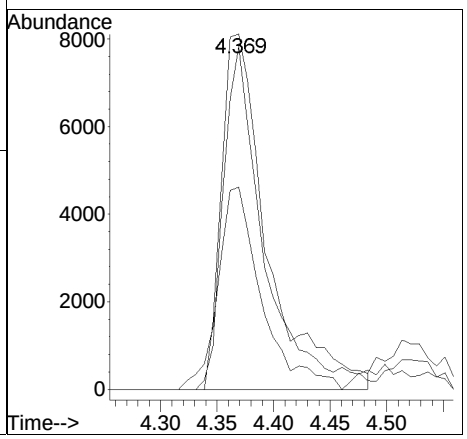


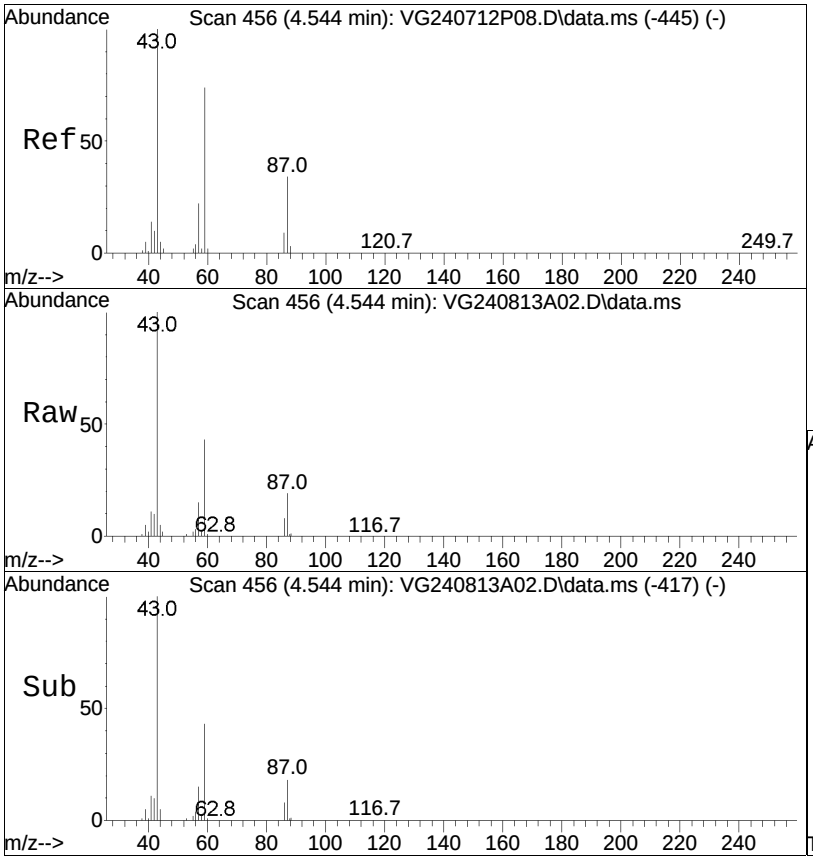


#25
Acrylonitrile
Concen: 12.08 ug/L
RT: 4.369 min Scan# 433
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 53 Resp: 23012

Ion	Ratio	Lower	Upper
53	100		
52	84.8	68.3	102.5
51	53.9	51.9	77.9

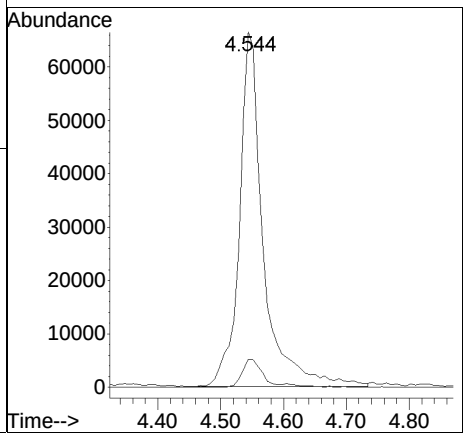


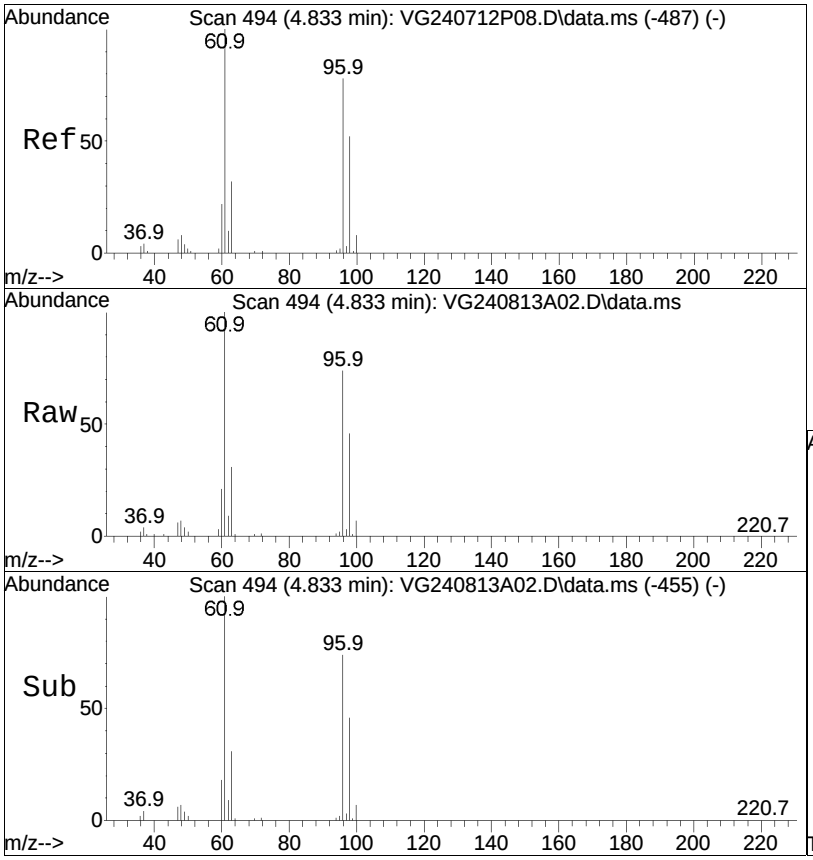


#27
Vinyl acetate
Concen: 15.54 ug/L
RT: 4.544 min Scan# 456
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 43 Resp: 175897

Ion	Ratio	Lower	Upper
43	100		
86	6.7	6.3	9.5

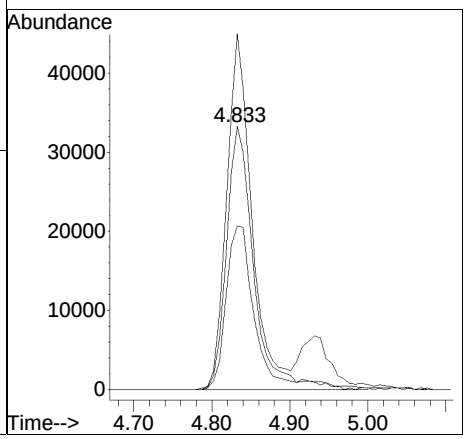


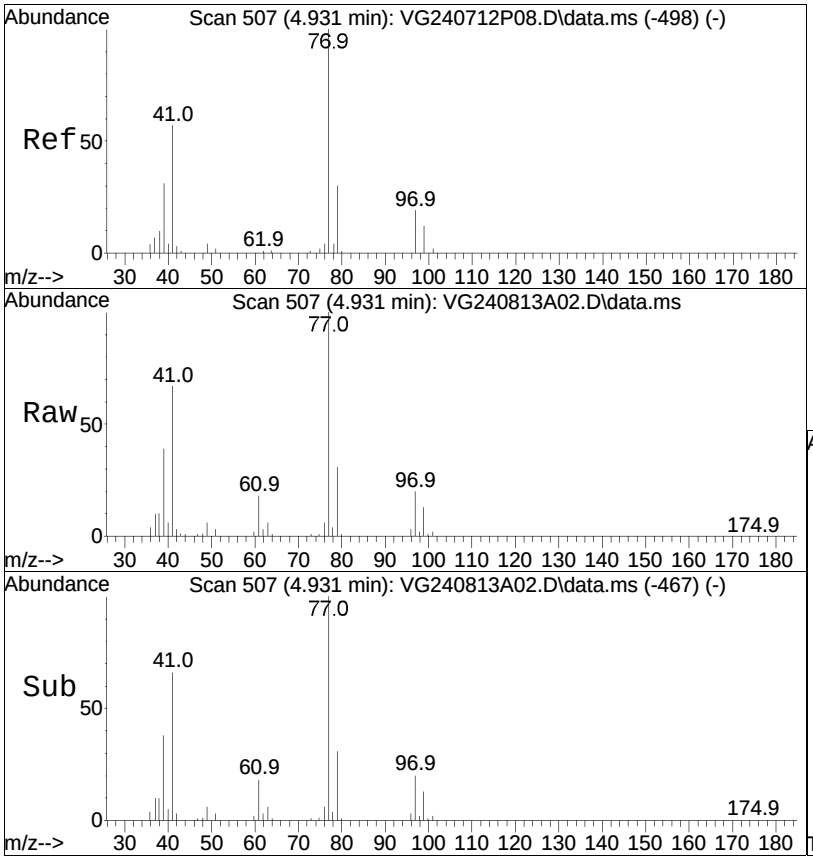


#28
cis-1,2-Dichloroethene
Concen: 10.51 ug/L
RT: 4.833 min Scan# 494
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 96 Resp: 81450

Ion	Ratio	Lower	Upper
96	100		
61	123.2	96.6	144.8
98	62.4	51.3	76.9

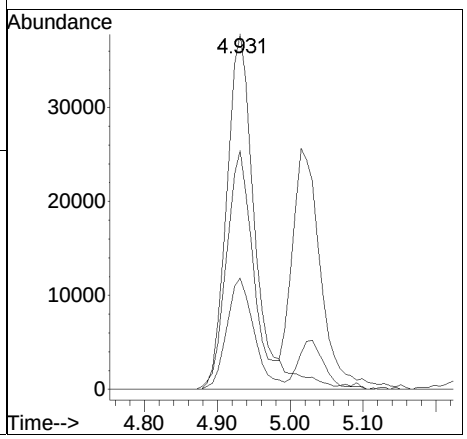


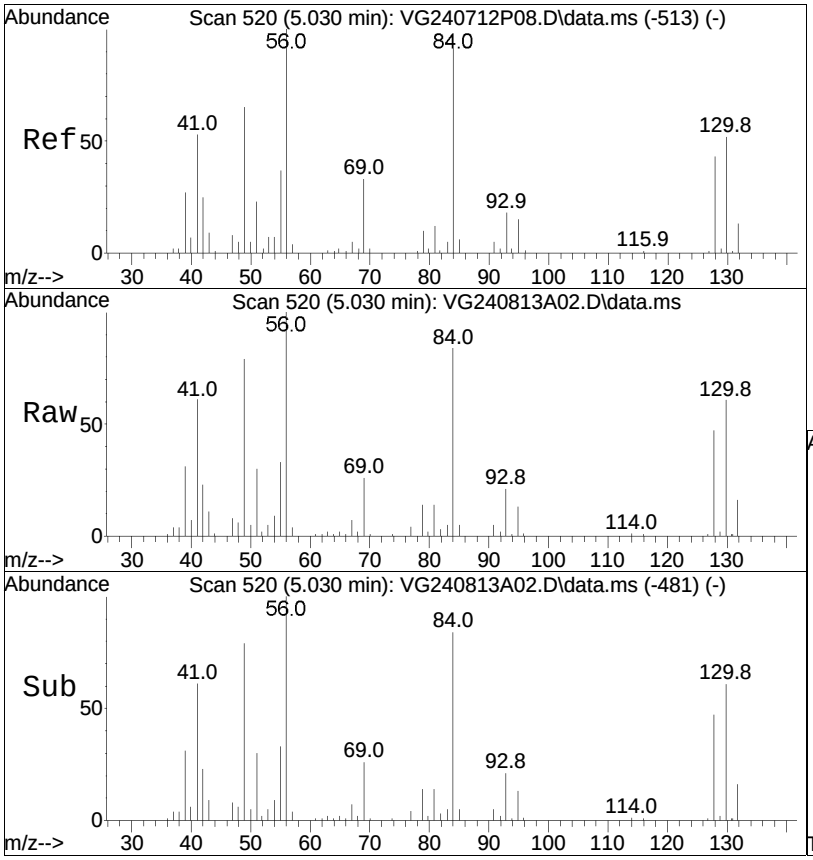


#29
2,2-Dichloropropane
Concen: 10.08 ug/L
RT: 4.931 min Scan# 507
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 77 Resp: 102621

Ion	Ratio	Lower	Upper
77	100		
41	62.7	38.1	79.1
79	30.3	20.6	42.8

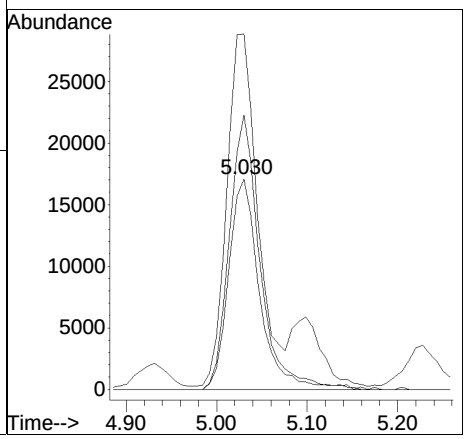


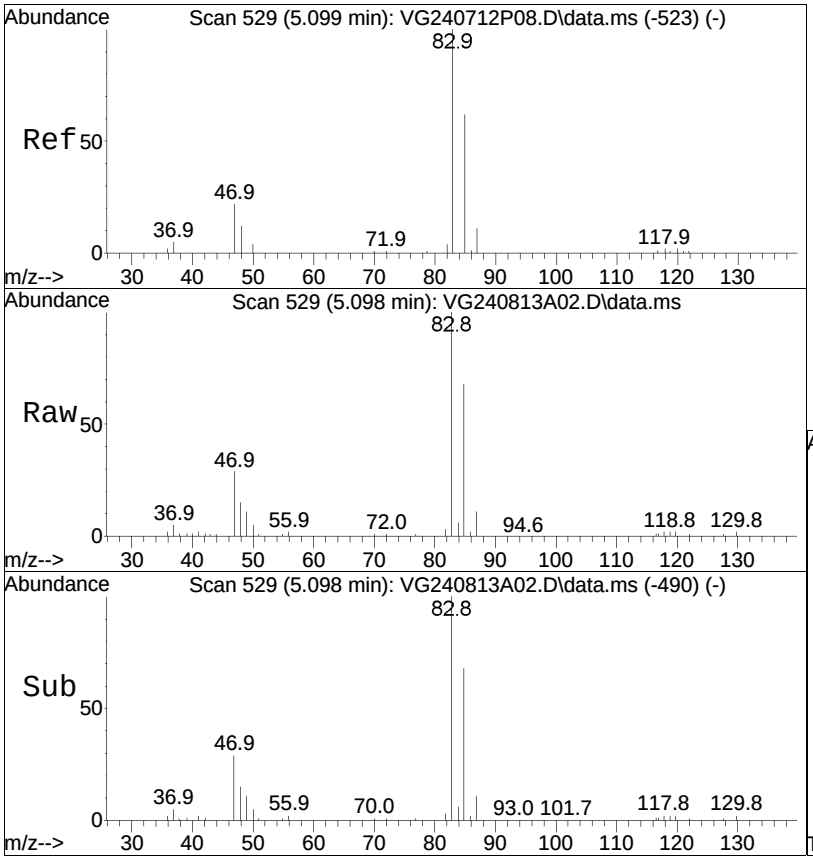


#30
Bromochloromethane
Concen: 10.76 ug/L
RT: 5.030 min Scan# 520
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:128 Resp: 40791

Ion	Ratio	Lower	Upper
128	100		
49	166.3	112.7	169.1
130	128.7	103.3	154.9

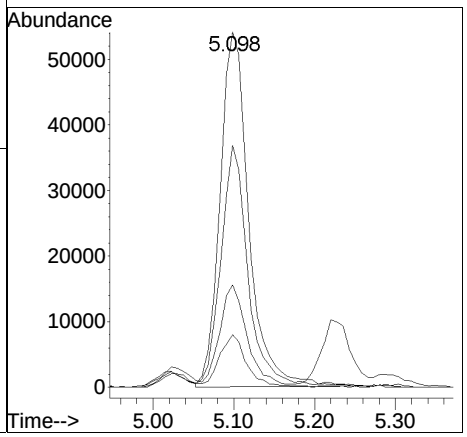


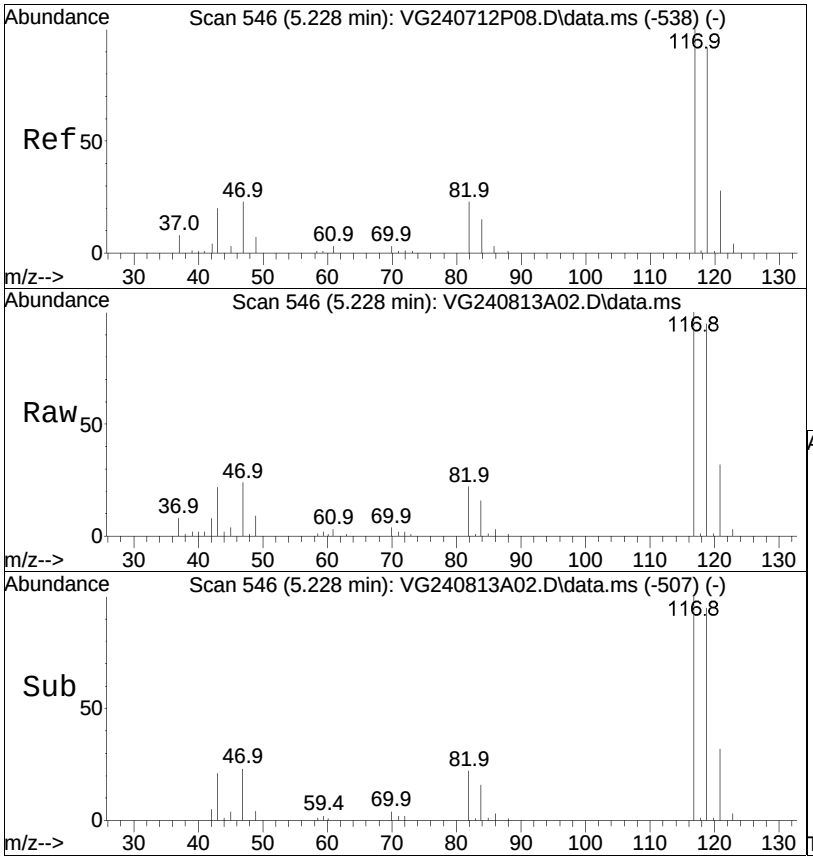


#32
Chloroform
Concen: 10.74 ug/L
RT: 5.098 min Scan# 529
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 83 Resp: 134235

Ion	Ratio	Lower	Upper
83	100		
85	62.5	41.4	86.0
47	27.4	15.1	31.3
48	14.1	7.7	16.1

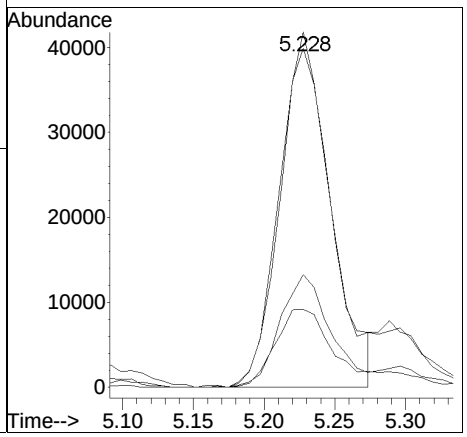


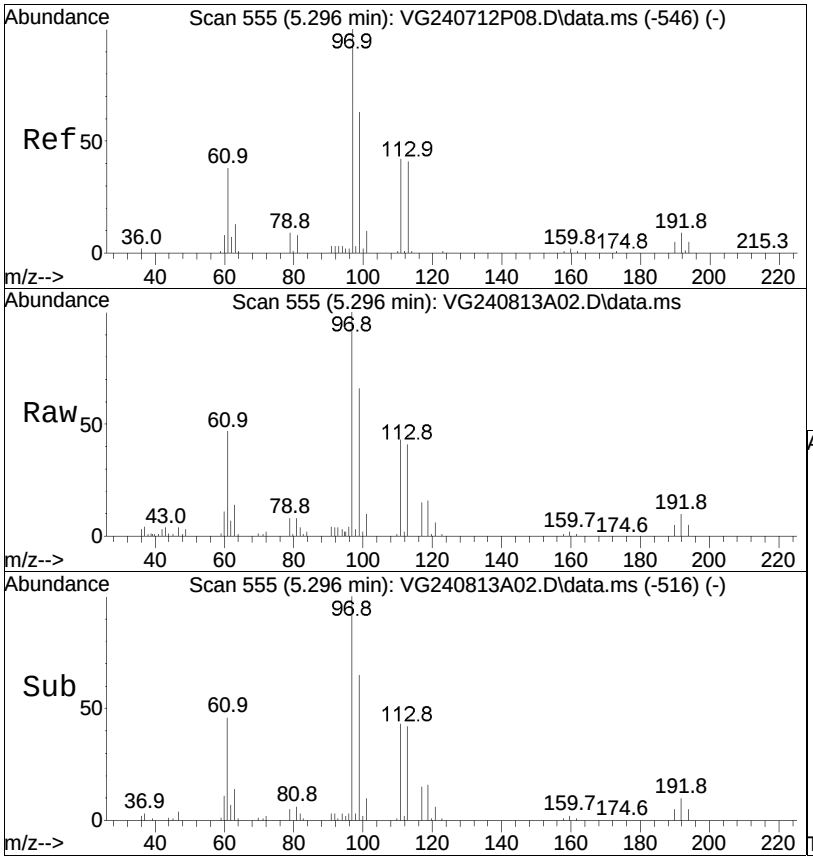


#34
Carbon tetrachloride
Concen: 10.30 ug/L
RT: 5.228 min Scan# 546
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:117 Resp: 104326

Ion	Ratio	Lower	Upper
117	100		
119	100.3	63.2	131.2
121	31.9	20.4	42.4
82	29.0	15.4	32.0

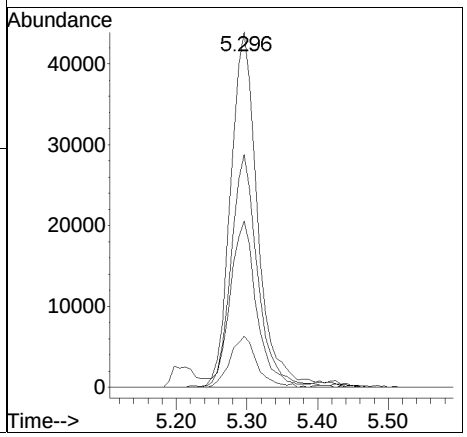


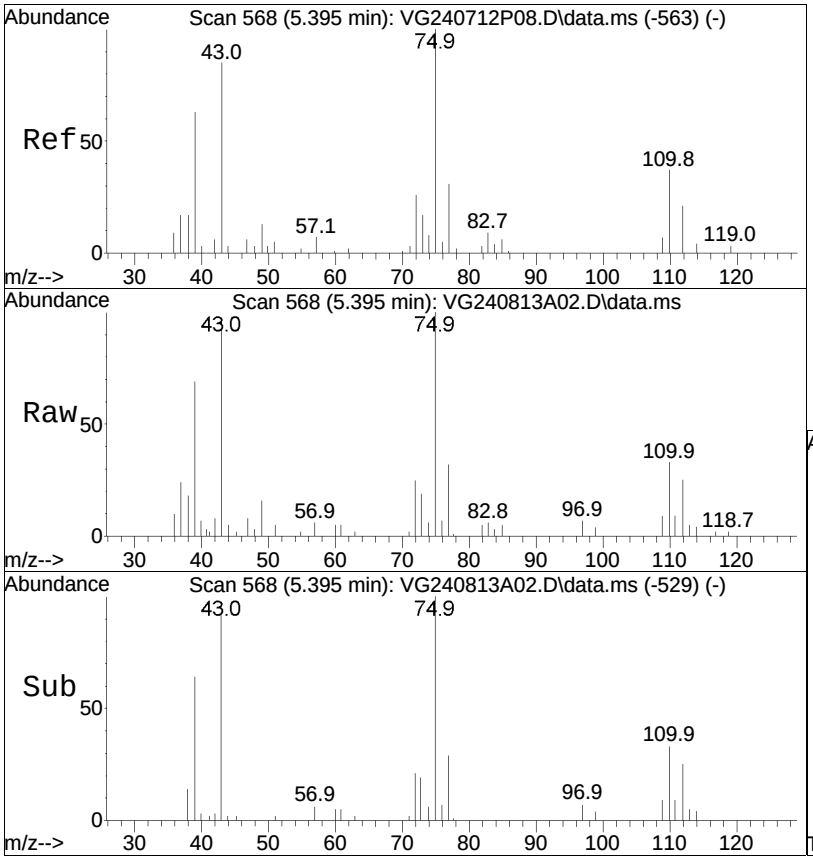


#37
1,1,1-Trichloroethane
Concen: 10.26 ug/L
RT: 5.296 min Scan# 555
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 97 Resp: 118345

Ion	Ratio	Lower	Upper
97	100		
99	63.9	41.3	85.7
61	45.9	26.0	54.0
63	14.3	8.6	18.0

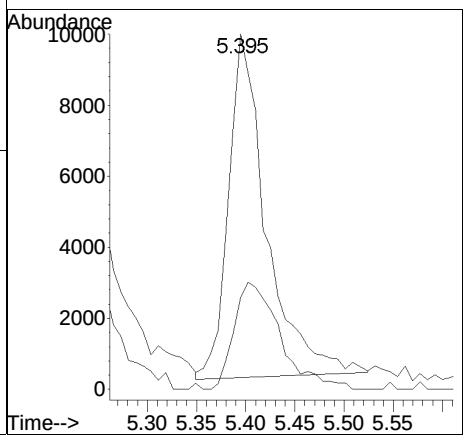


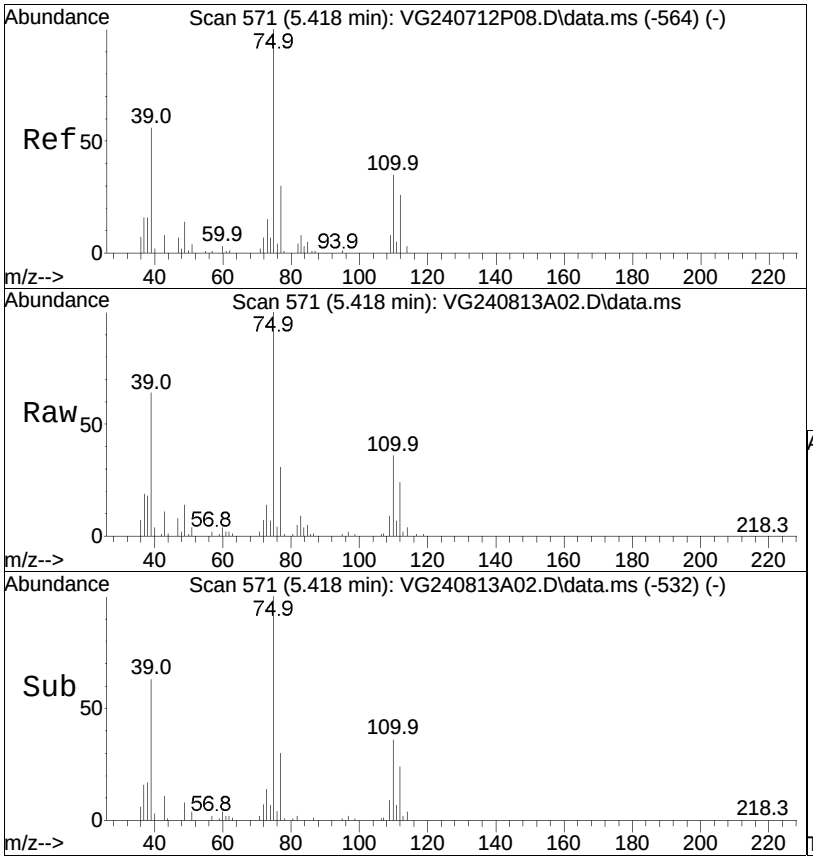


#39
2-Butanone
Concen: 10.97 ug/L
RT: 5.395 min Scan# 568
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 43 Resp: 25916

Ion	Ratio	Lower	Upper
43	100		
72	38.0	42.6	63.8#

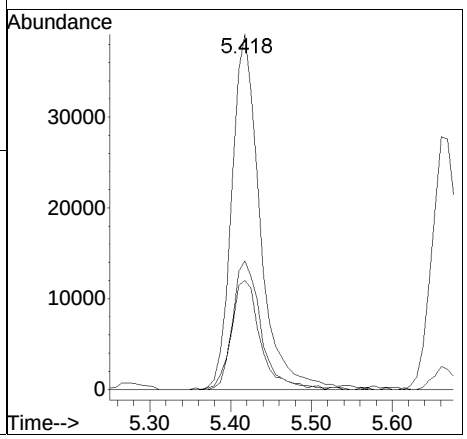


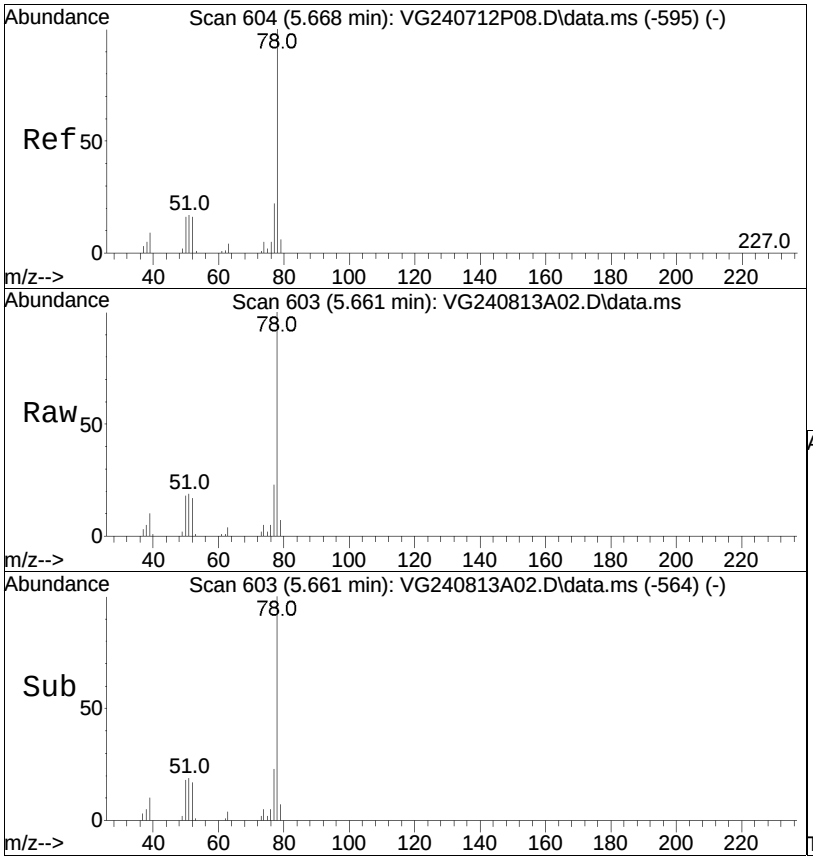


#40
1,1-Dichloropropene
Concen: 10.41 ug/L
RT: 5.418 min Scan# 571
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 75 Resp: 95988

Ion	Ratio	Lower	Upper
75	100		
110	36.3	24.1	50.1
77	31.0	19.8	41.0

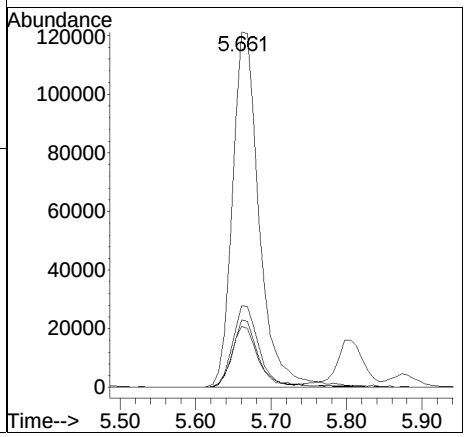


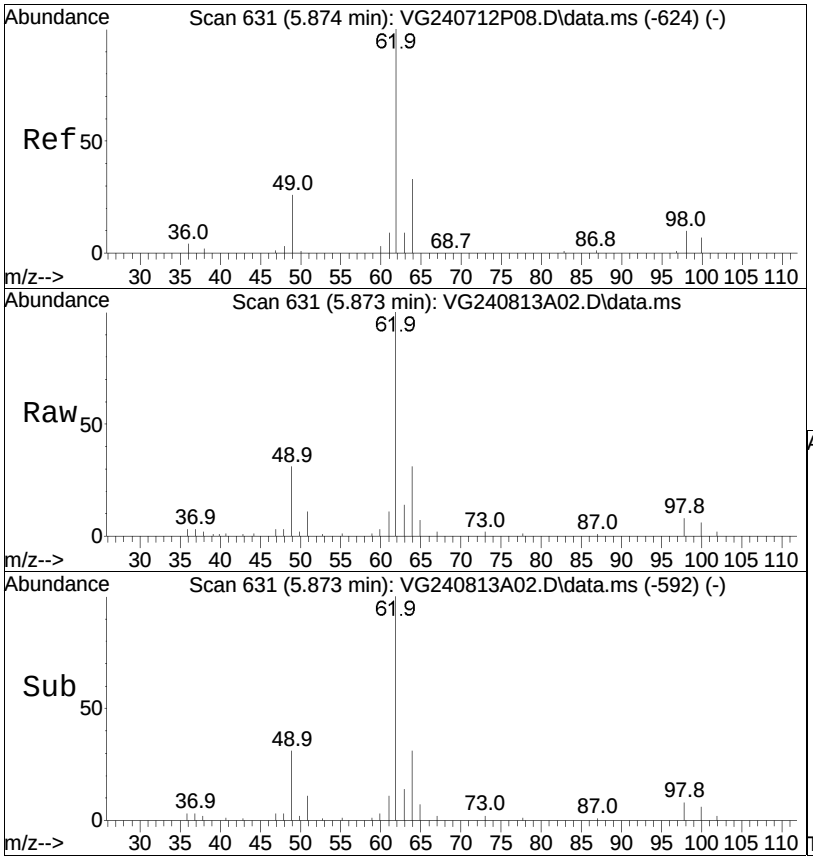


#41
Benzene
Concen: 10.76 ug/L
RT: 5.661 min Scan# 603
Delta R.T. -0.007 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 78 Resp: 300458

Ion	Ratio	Lower	Upper
78	100		
77	22.9	15.5	32.1
51	17.9	9.9	20.7
52	17.2	9.2	19.2

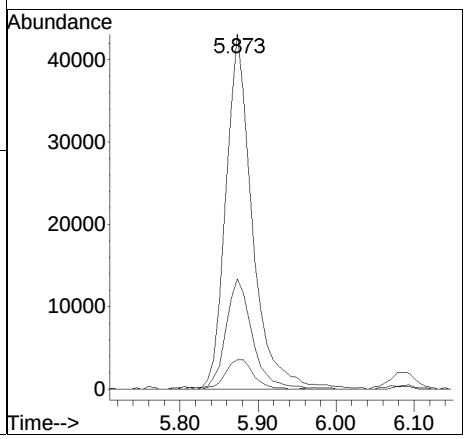


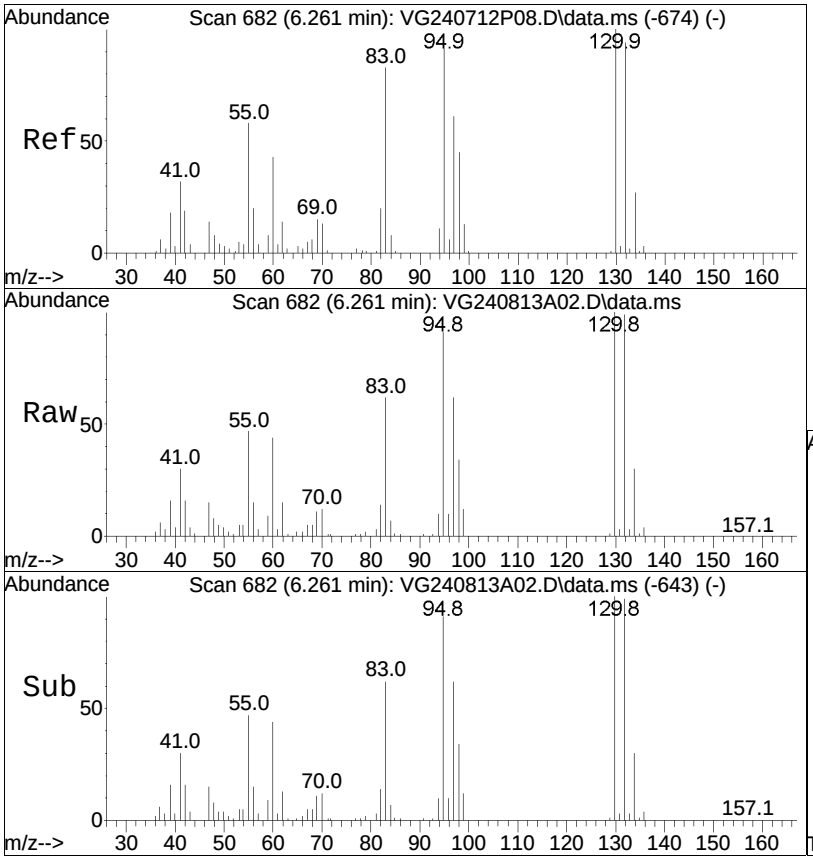


#44
1,2-Dichloroethane
Concen: 11.52 ug/L
RT: 5.873 min Scan# 631
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 62 Resp: 102464

Ion	Ratio	Lower	Upper
62	100		
64	31.3	11.9	51.9
98	8.9	0.0	29.3

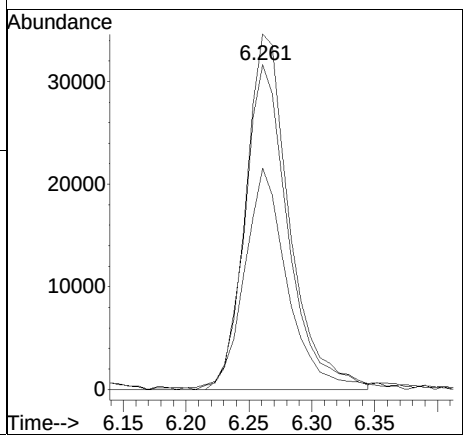


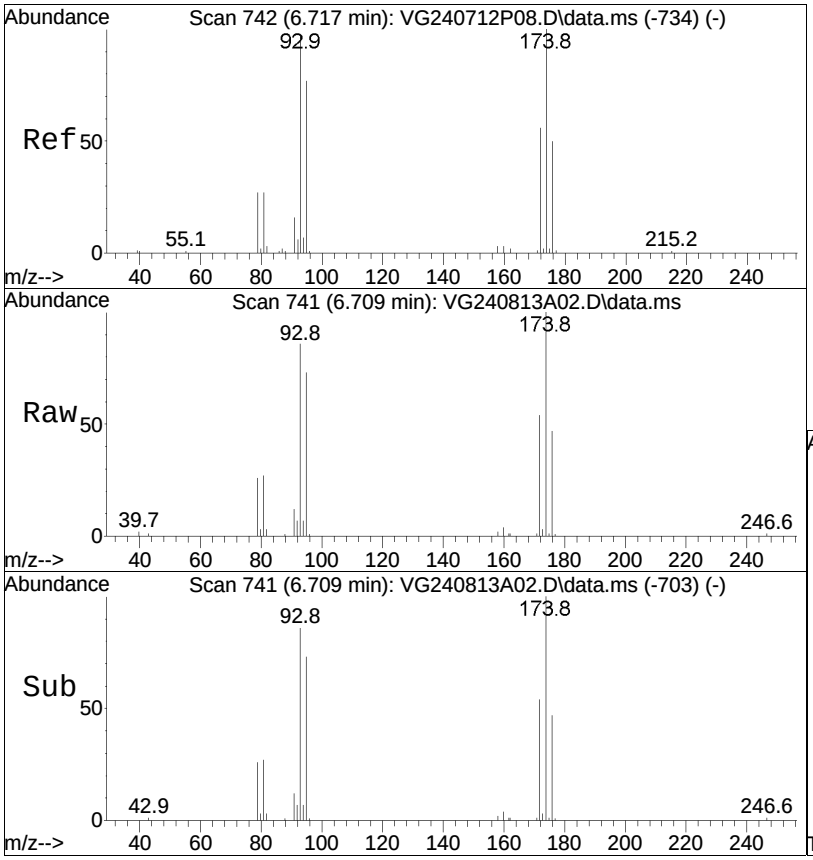


#48
Trichloroethene
Concen: 9.64 ug/L
RT: 6.261 min Scan# 682
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 95 Resp: 75867

Ion	Ratio	Lower	Upper
95	100		
97	68.3	54.0	81.0
130	112.1	85.0	127.4

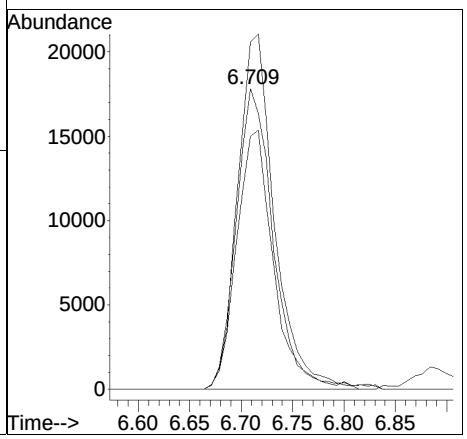


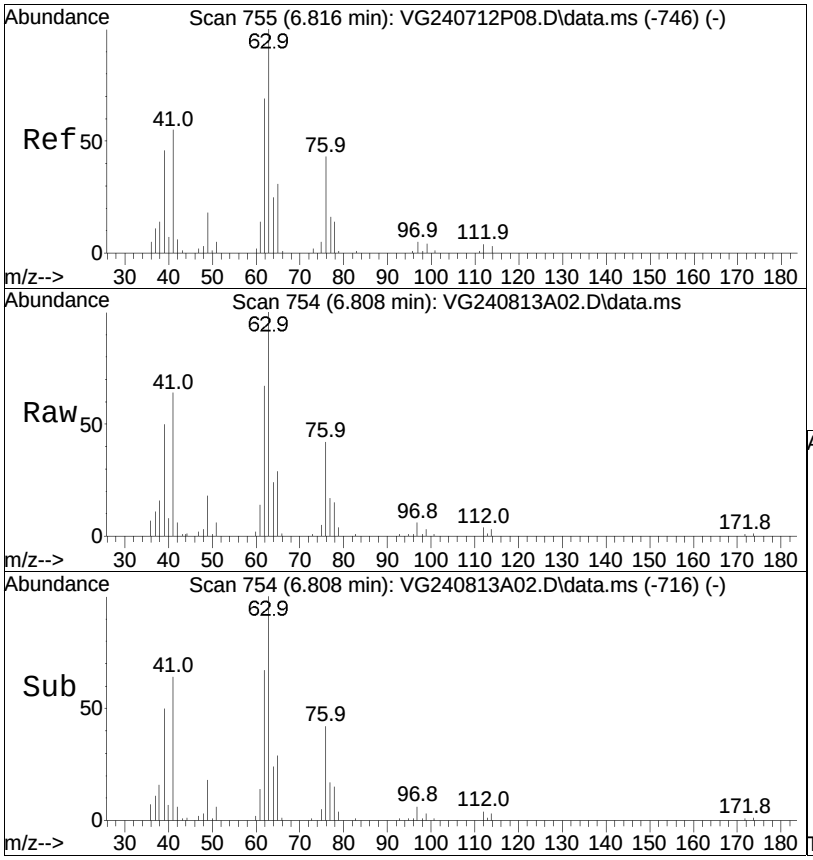


#50
Dibromomethane
Concen: 10.16 ug/L
RT: 6.709 min Scan# 741
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 93 Resp: 44733

Ion	Ratio	Lower	Upper
93	100		
95	86.9	66.6	100.0
174	117.5	90.5	135.7

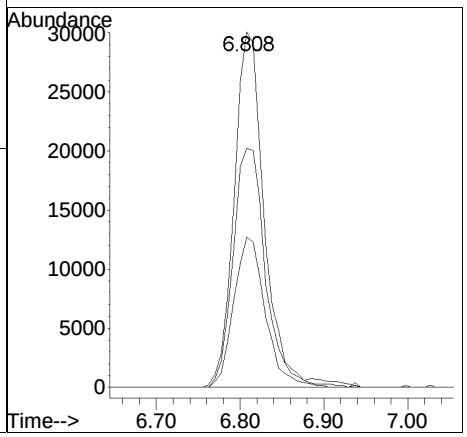


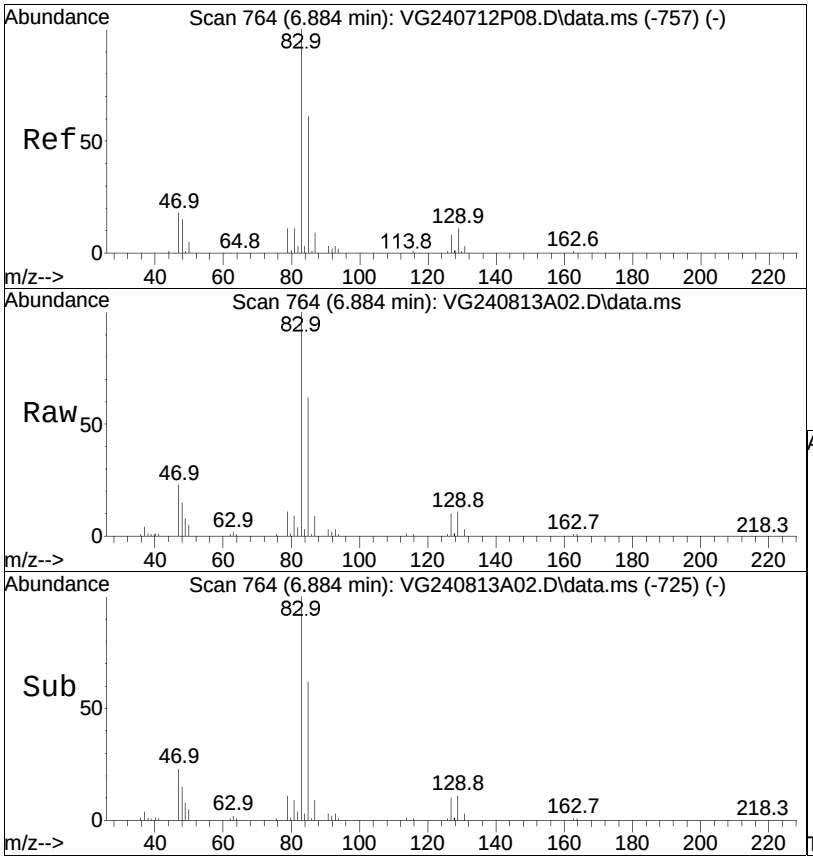


#51
1,2-Dichloropropane
Concen: 11.14 ug/L
RT: 6.808 min Scan# 754
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 63 Resp: 75879

Ion	Ratio	Lower	Upper
63	100		
62	72.2	56.5	84.7
76	44.1	34.6	52.0

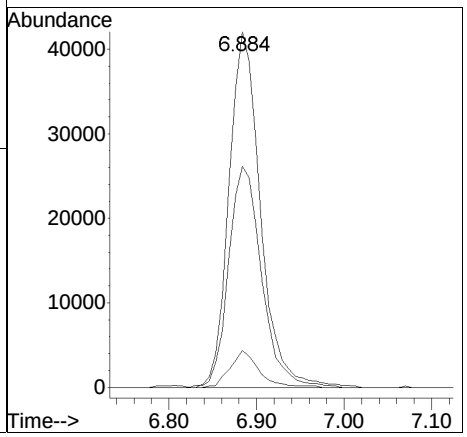


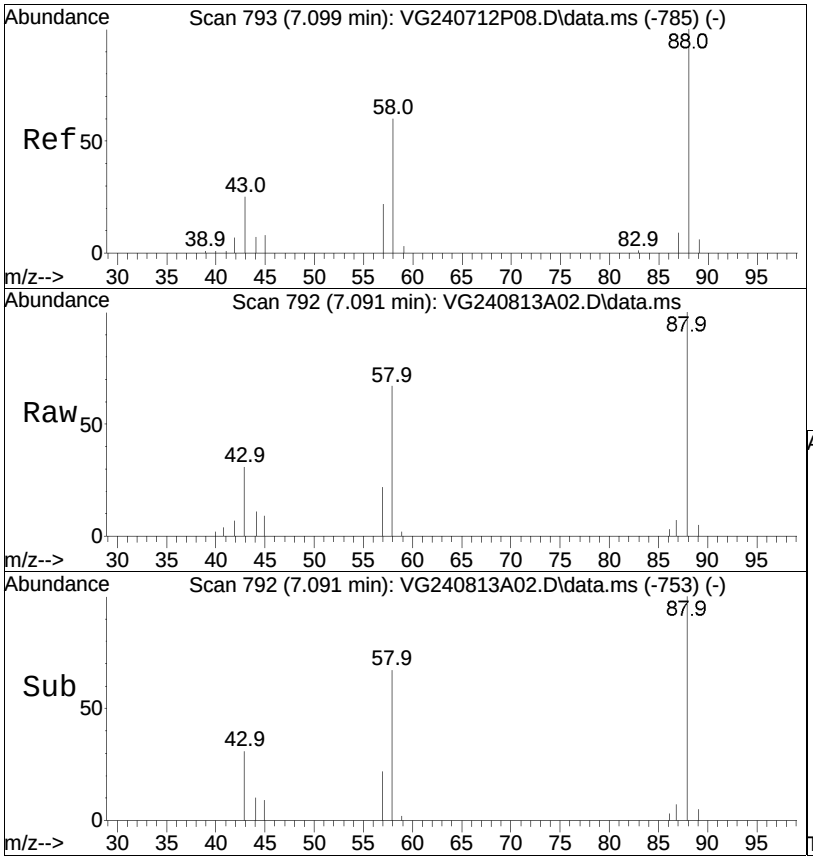


#54
Bromodichloromethane
Concen: 10.51 ug/L
RT: 6.884 min Scan# 764
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 83 Resp: 104519

Ion	Ratio	Lower	Upper
83	100		
85	65.6	50.8	76.2
127	9.6	7.4	11.2

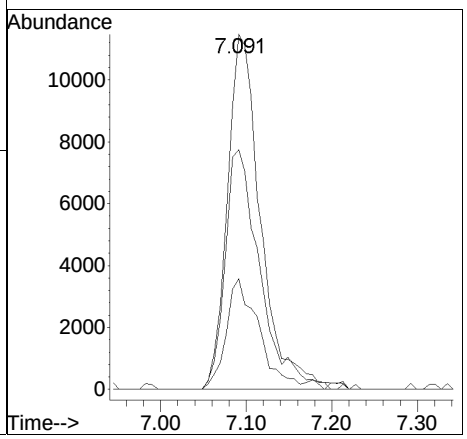


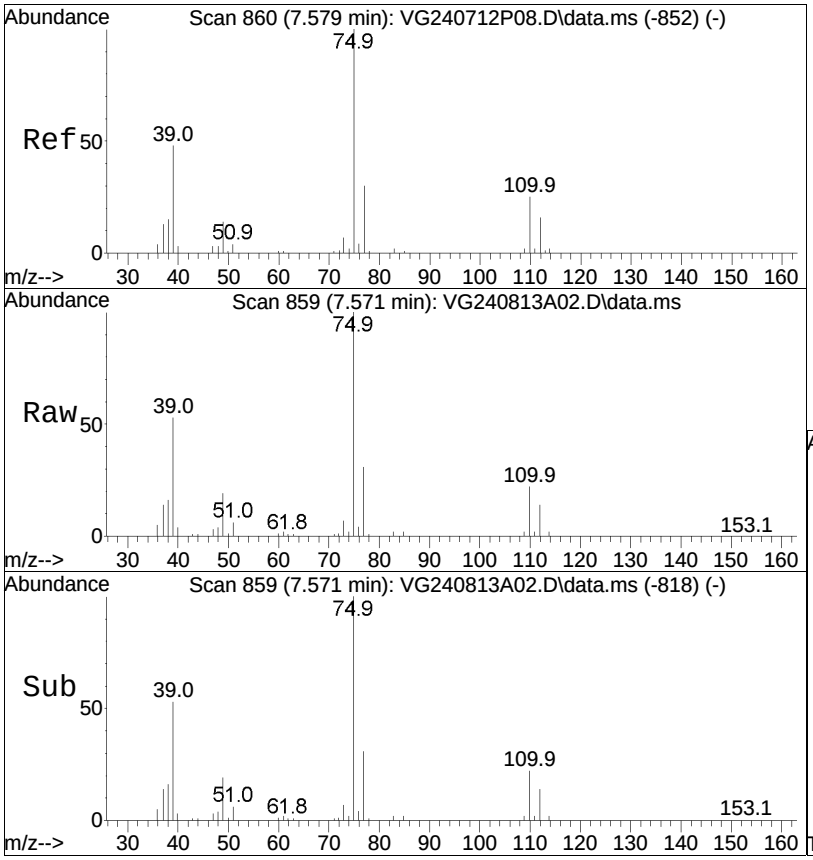


#57
1,4-Dioxane
Concen: 449.54 ug/L
RT: 7.091 min Scan# 792
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 88 Resp: 31142

Ion	Ratio	Lower	Upper
88	100		
58	70.0	48.7	73.1
43	30.5	22.4	33.6

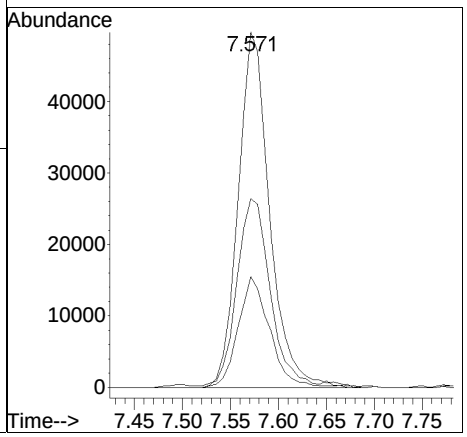


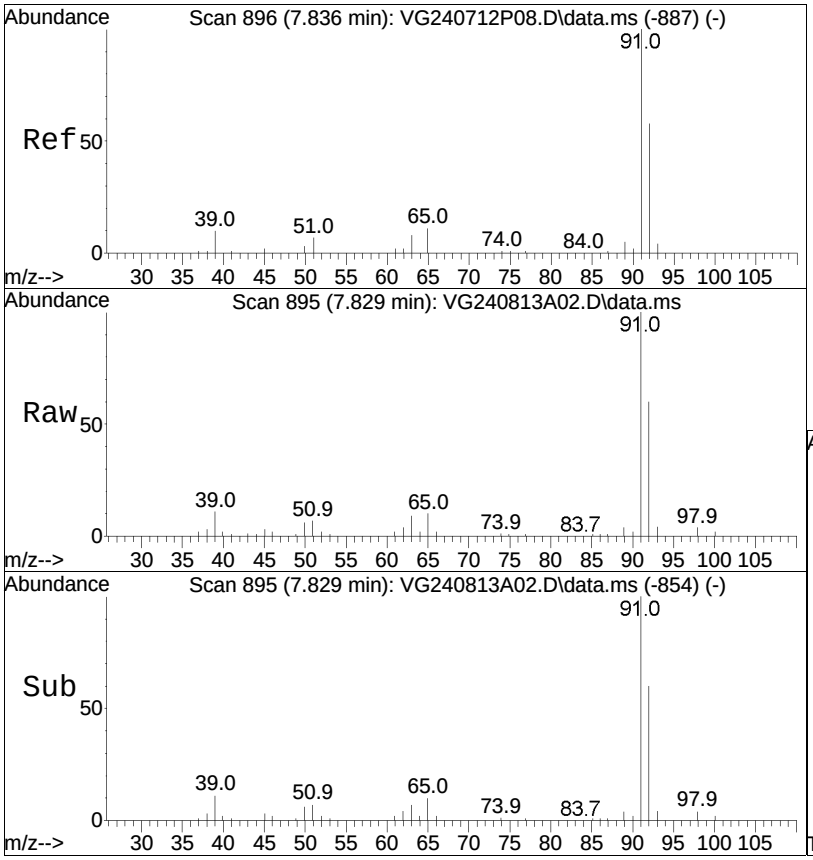


#58
cis-1,3-Dichloropropene
Concen: 10.18 ug/L
RT: 7.571 min Scan# 859
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 75 Resp: 113228

Ion	Ratio	Lower	Upper
75	100		
77	31.3	24.6	36.8
39	55.0	40.8	61.2

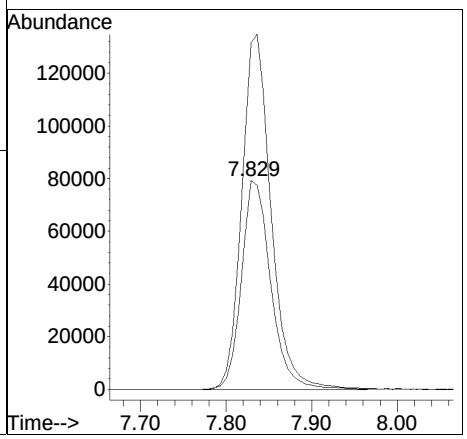


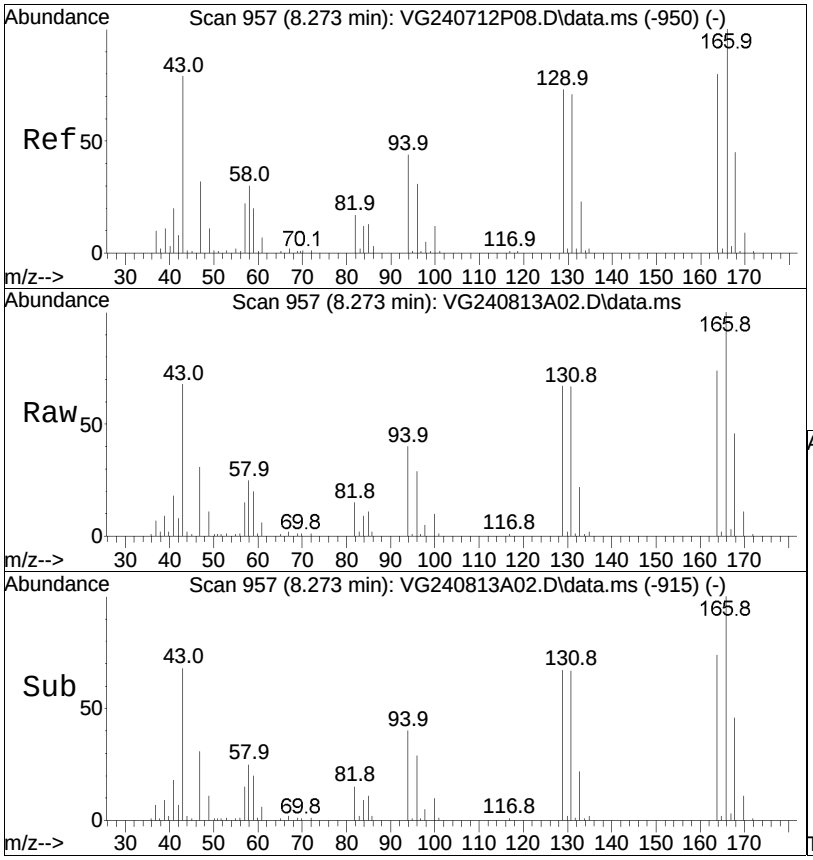


#61
Toluene
Concen: 10.30 ug/L
RT: 7.829 min Scan# 895
Delta R.T. -0.007 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 92 Resp: 188515

Ion	Ratio	Lower	Upper
92	100		
91	169.8	134.8	202.2

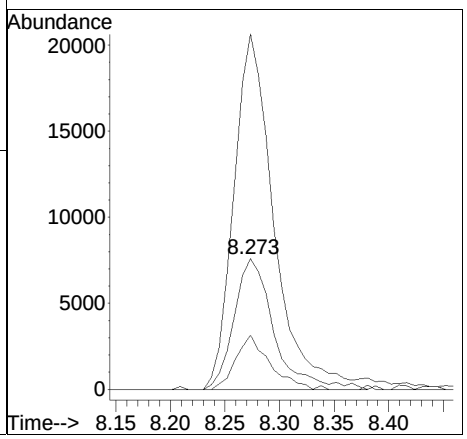


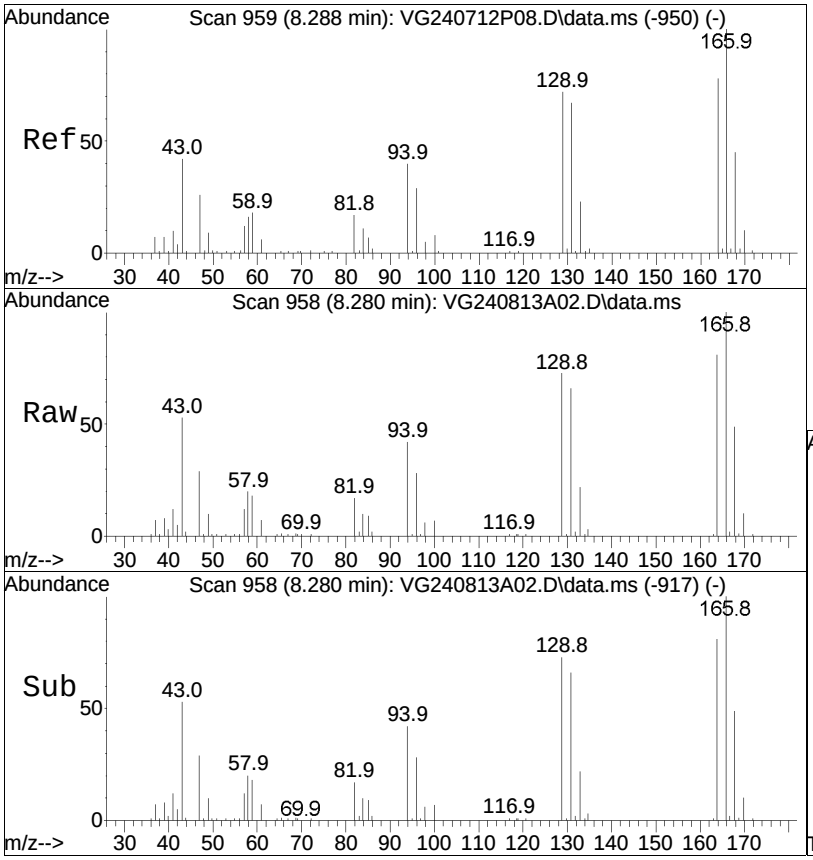


#62
4-Methyl-2-pentanone
Concen: 9.59 ug/L
RT: 8.273 min Scan# 957
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 58 Resp: 19343

Ion	Ratio	Lower	Upper
58	100		
100	35.6	33.6	50.4
43	271.7	204.3	306.5

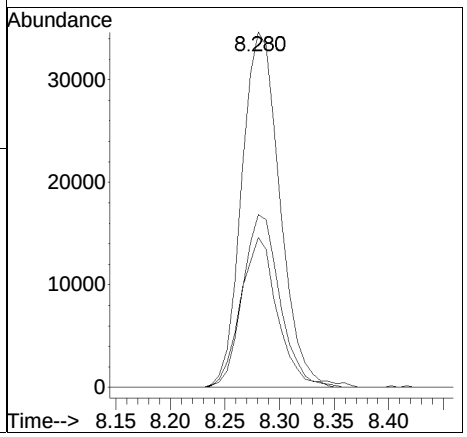


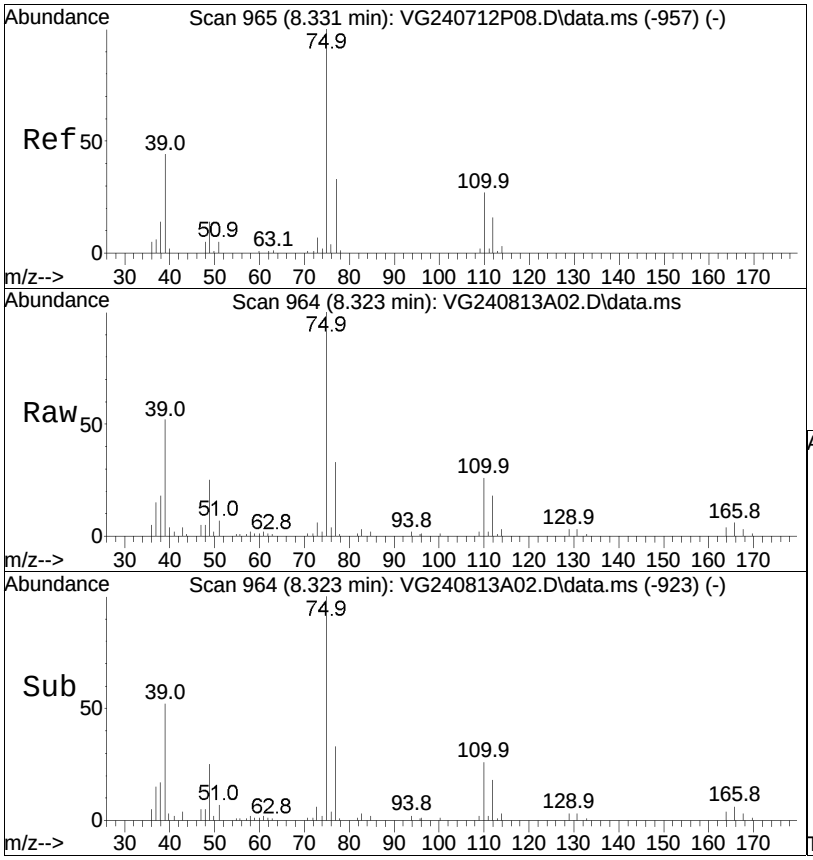


#63
Tetrachloroethene
Concen: 10.54 ug/L
RT: 8.280 min Scan# 958
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:166 Resp: 84647

Ion	Ratio	Lower	Upper
166	100		
168	47.2	27.3	67.3
94	40.7	20.5	60.5

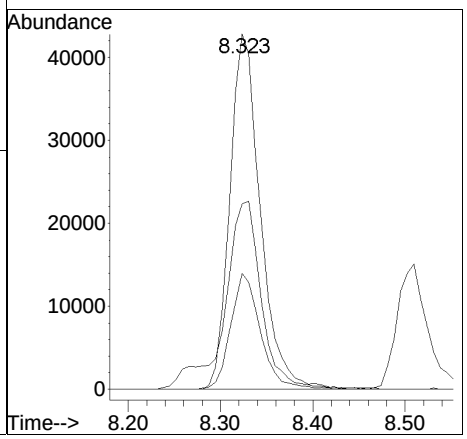


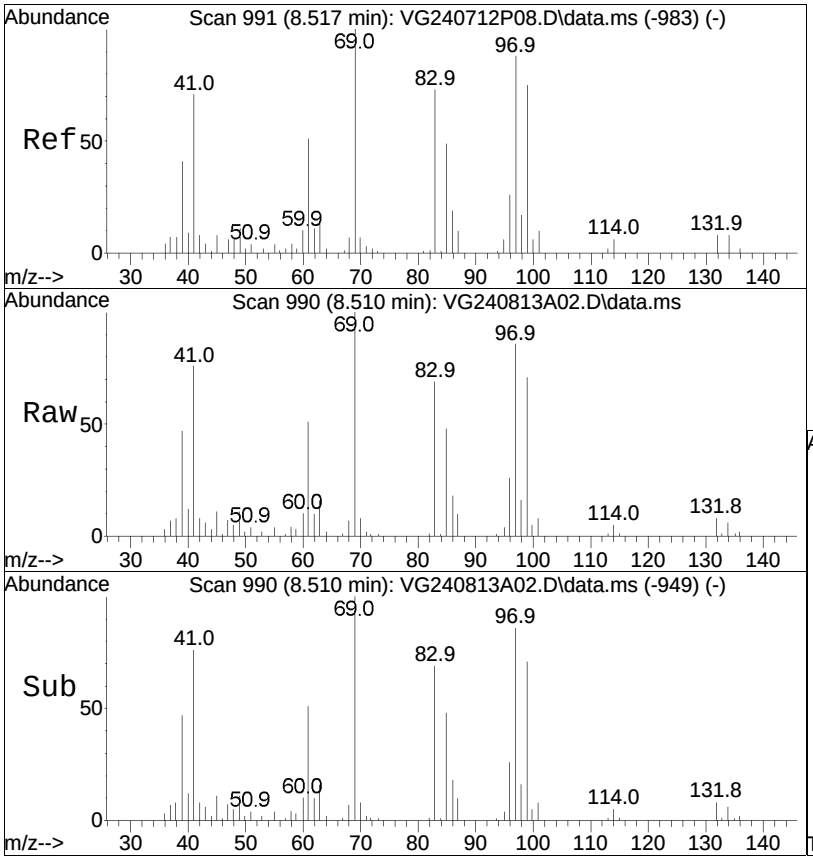


#65
trans-1,3-Dichloropropene
Concen: 9.85 ug/L
RT: 8.323 min Scan# 964
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 75 Resp: 98677

Ion	Ratio	Lower	Upper
75	100		
77	31.9	11.3	51.3
39	63.8	36.0	76.0

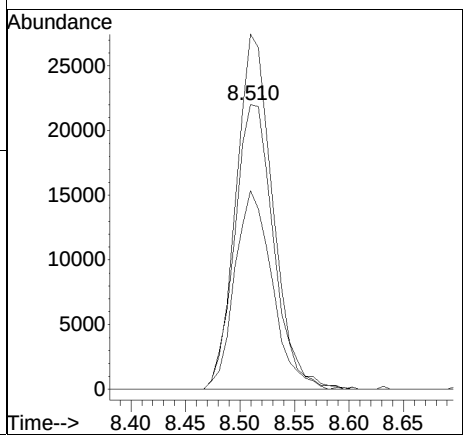


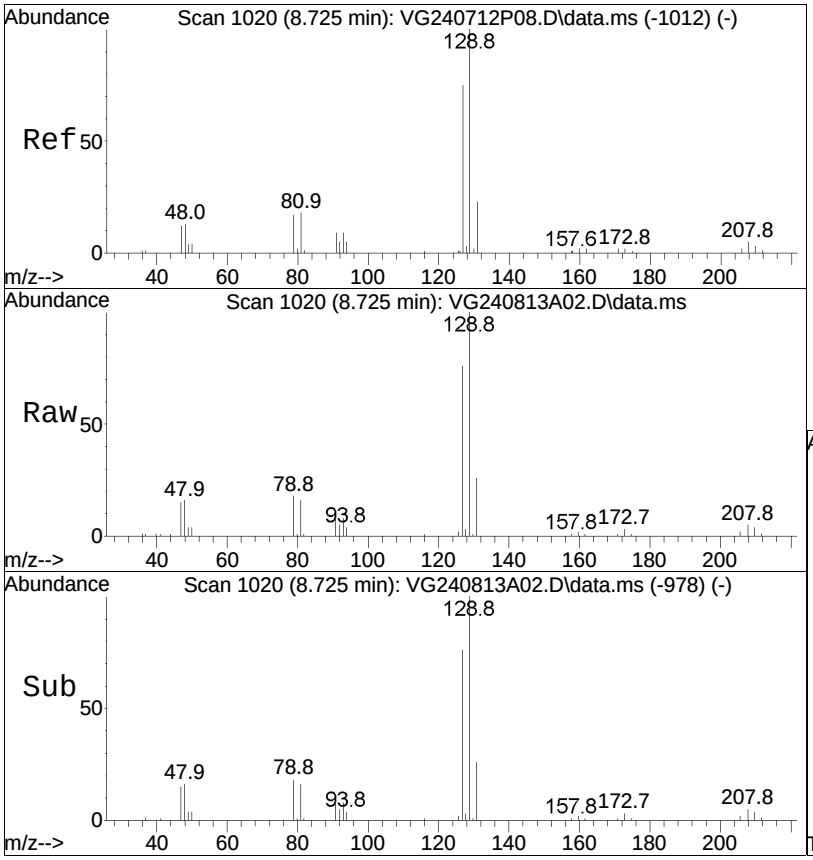


#68
1,1,2-Trichloroethane
Concen: 10.84 ug/L
RT: 8.510 min Scan# 990
Delta R.T. -0.007 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 83 Resp: 54429

Ion	Ratio	Lower	Upper
83	100		
97	118.3	101.0	141.0
85	67.5	47.9	87.9

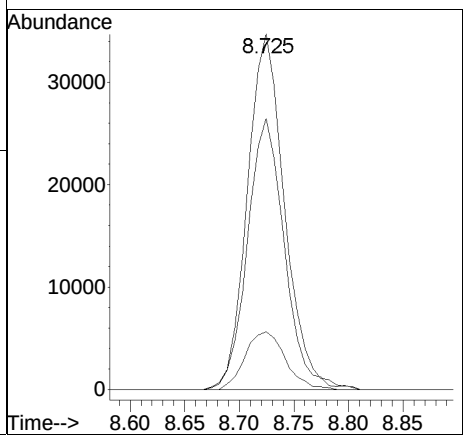


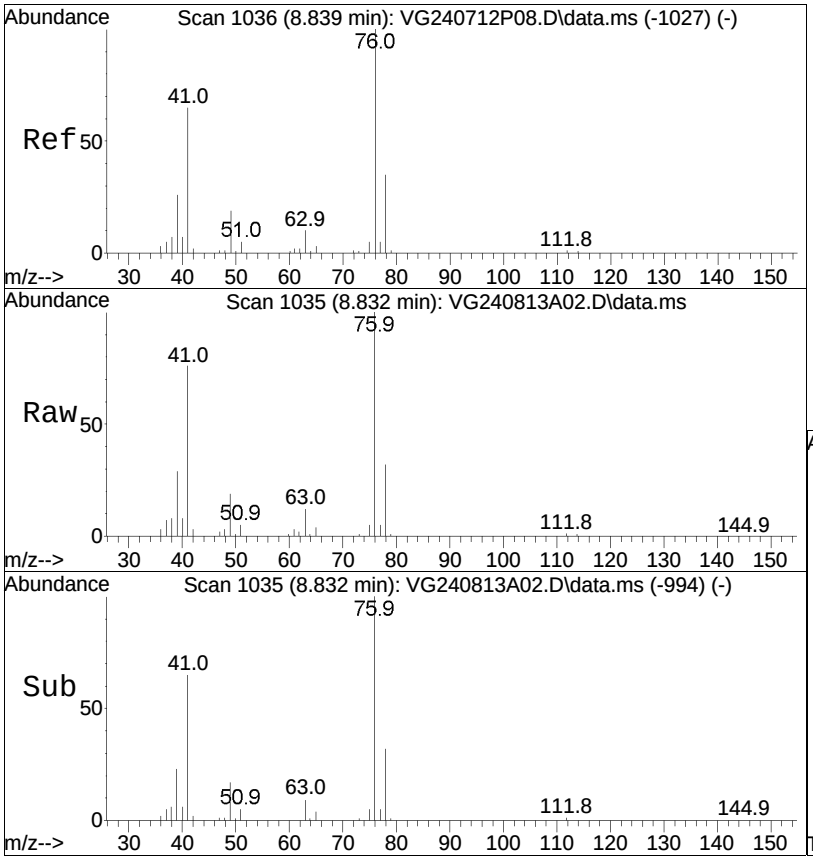


#69
Chlorodibromomethane
Concen: 10.37 ug/L
RT: 8.725 min Scan# 1020
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:129 Resp: 82335

Ion	Ratio	Lower	Upper
129	100		
81	17.5	0.0	35.0
127	75.6	57.1	97.1

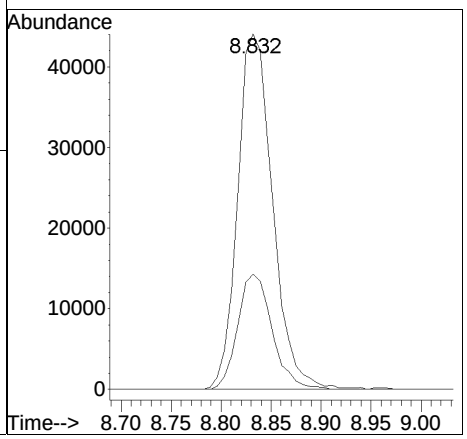


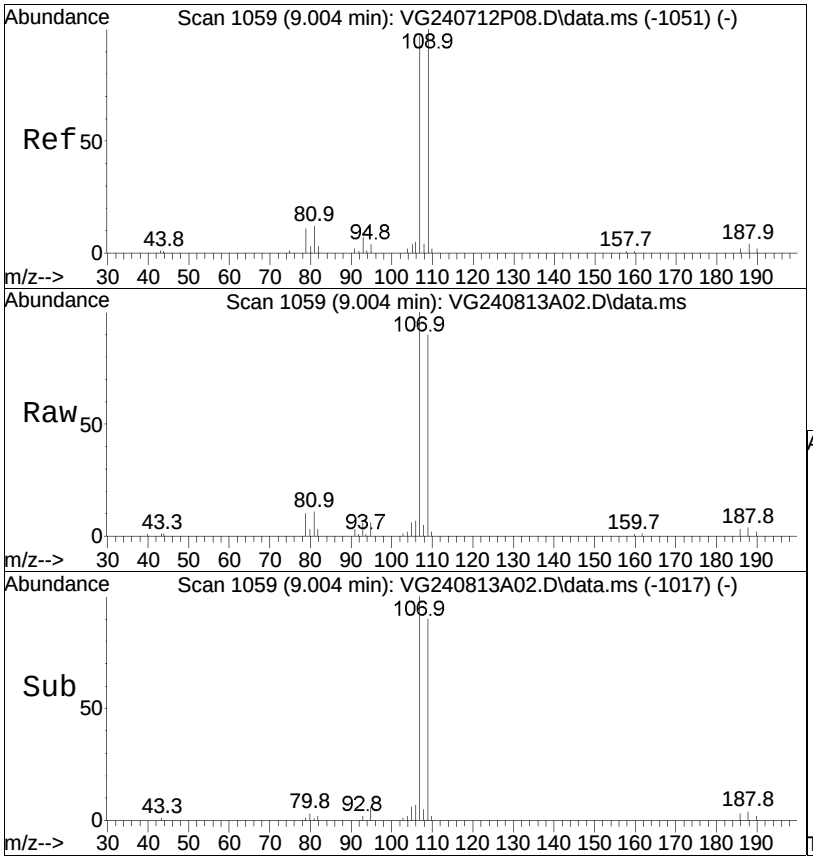


#70
1,3-Dichloropropane
Concen: 10.73 ug/L
RT: 8.832 min Scan# 1035
Delta R.T. -0.007 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 76 Resp: 107348

Ion	Ratio	Lower	Upper
76	100		
78	31.9	25.4	38.2

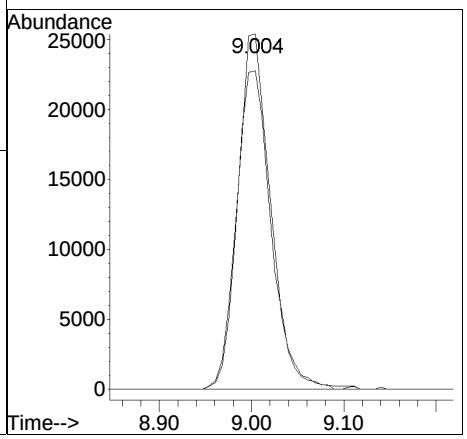


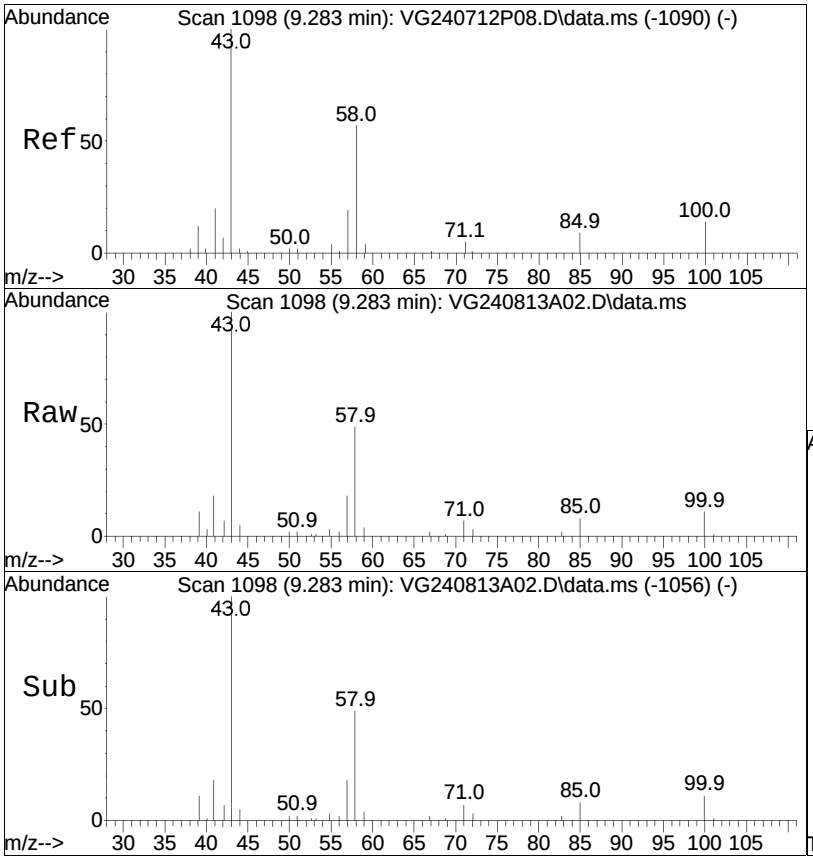


#71
1,2-Dibromoethane
Concen: 10.02 ug/L
RT: 9.004 min Scan# 1059
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:107 Resp: 63805

Ion	Ratio	Lower	Upper
107	100		
109	92.2	76.0	114.0

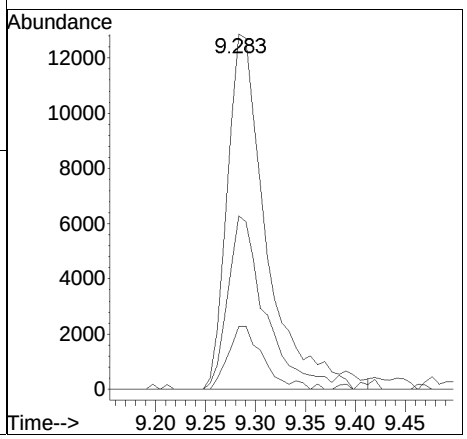


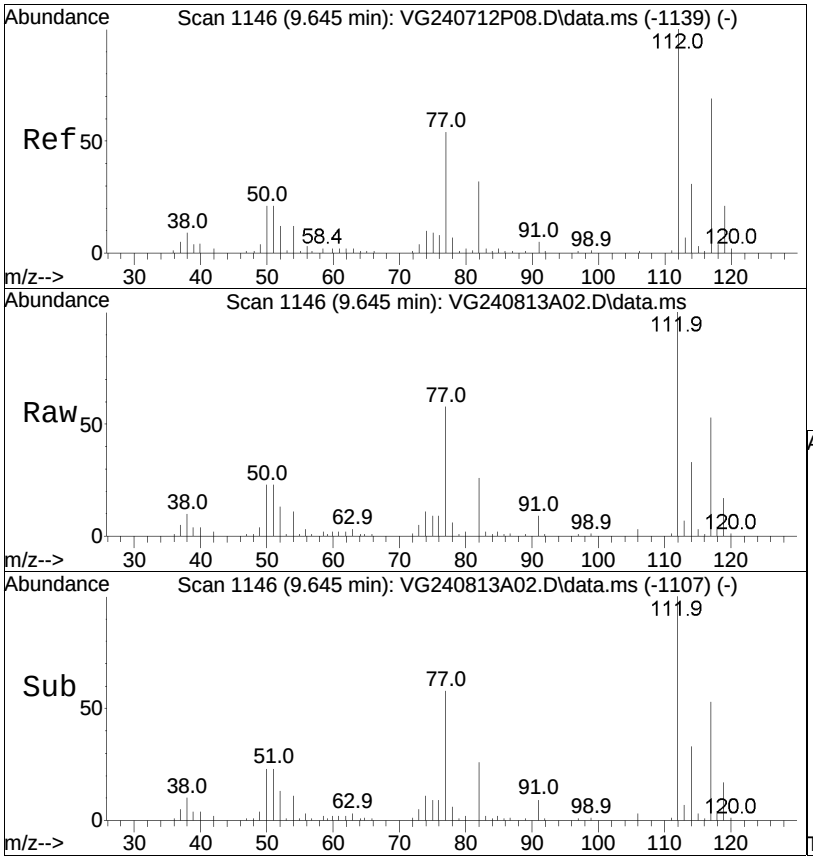


#72
2-Hexanone
Concen: 9.45 ug/L
RT: 9.283 min Scan# 1098
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 43 Resp: 35372

Ion	Ratio	Lower	Upper
43	100		
58	47.3	43.8	65.6
57	16.0	15.2	22.8

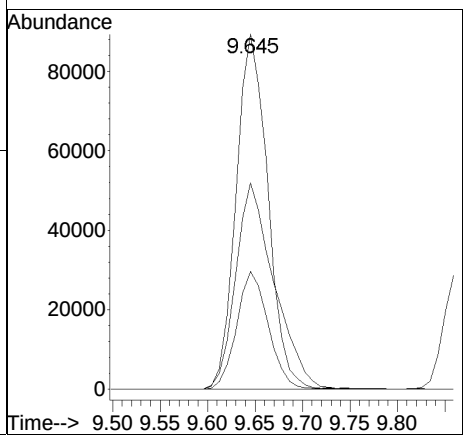


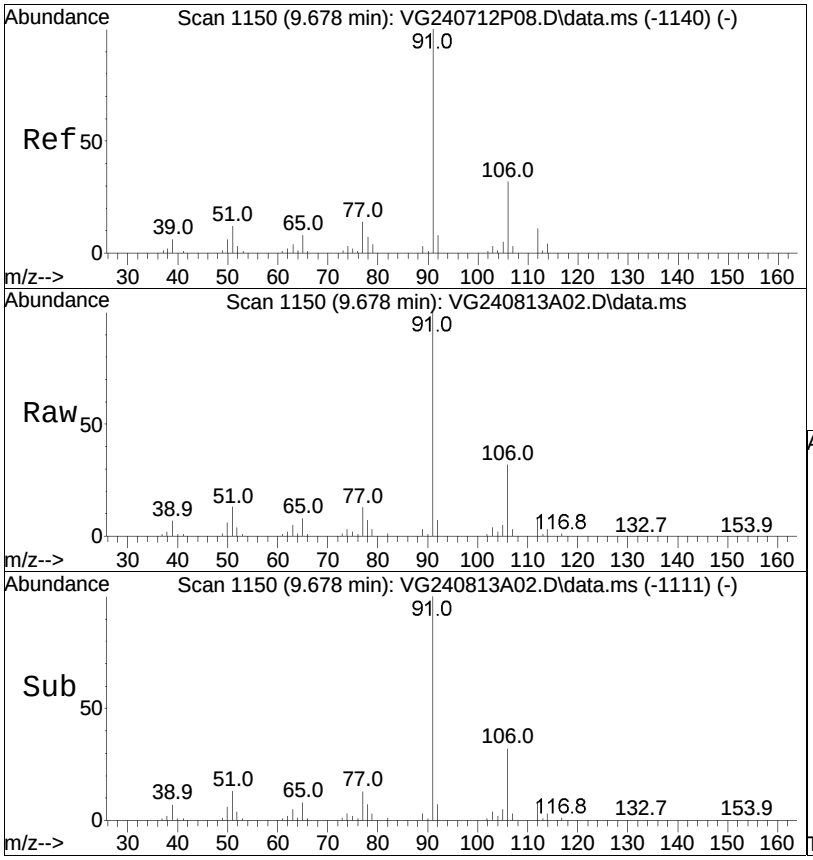


#73
Chlorobenzene
Concen: 10.20 ug/L
RT: 9.645 min Scan# 1146
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:112 Resp: 208070

Ion	Ratio	Lower	Upper
112	100		
77	70.7	55.9	83.9
114	33.3	25.4	38.0

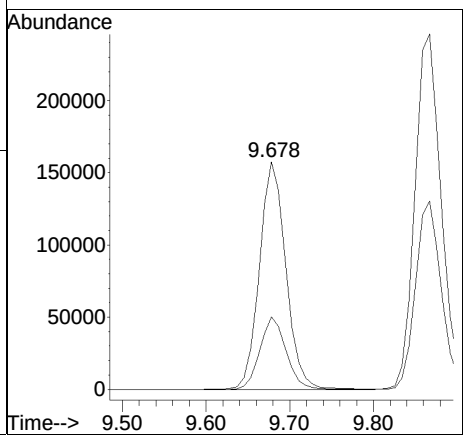


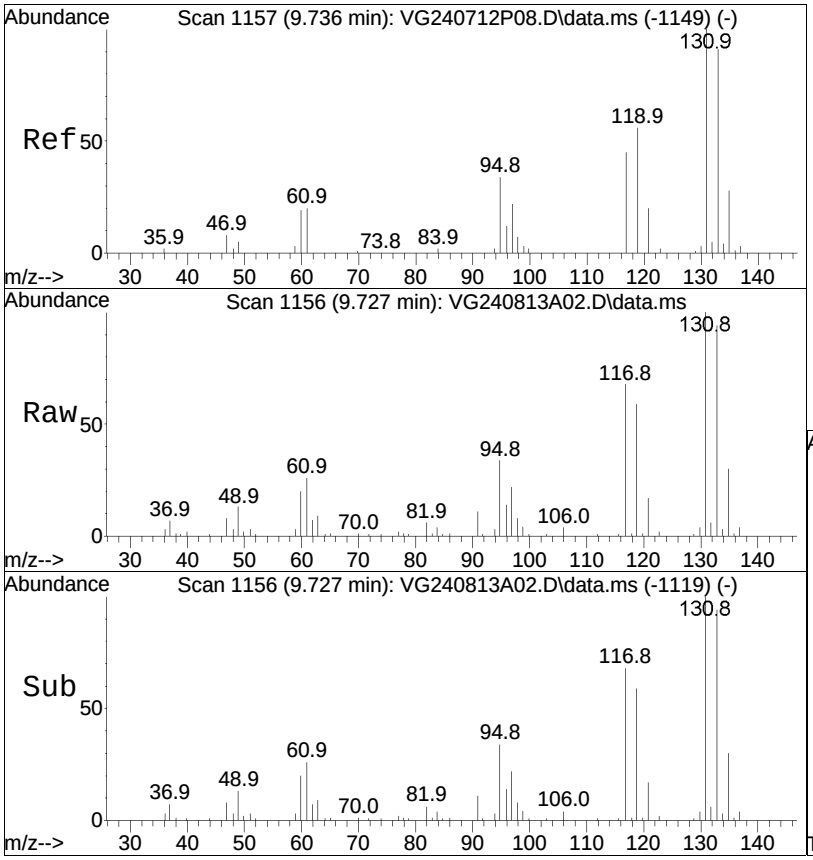


#74
Ethylbenzene
Concen: 9.91 ug/L
RT: 9.678 min Scan# 1150
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 91 Resp: 346255

Ion	Ratio	Lower	Upper
91	100		
106	31.5	25.3	37.9

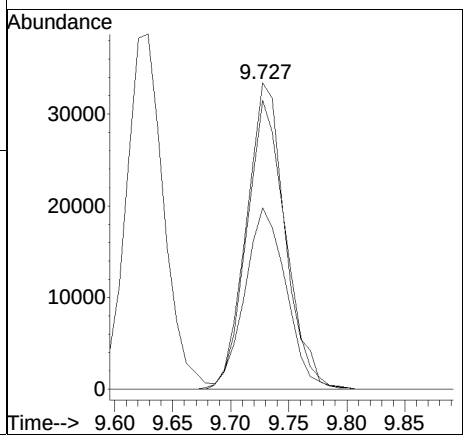


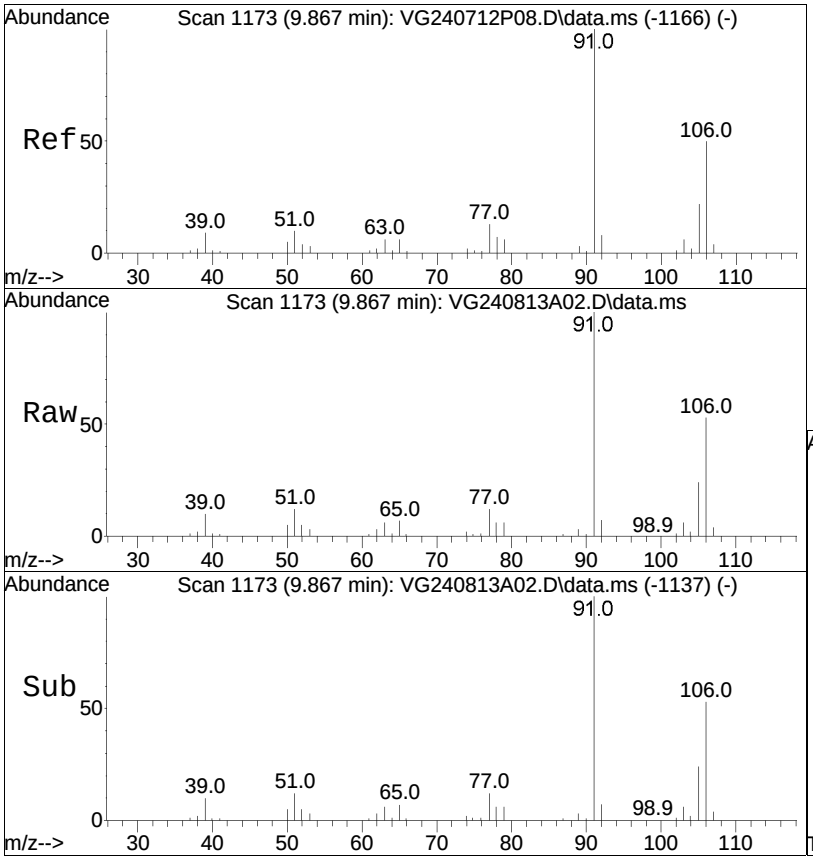


#75
1,1,1,2-Tetrachloroethane
Concen: 10.29 ug/L
RT: 9.727 min Scan# 1156
Delta R.T. -0.009 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:131 Resp: 78065

Ion	Ratio	Lower	Upper
131	100		
133	94.2	77.3	117.3
119	62.6	42.7	82.7

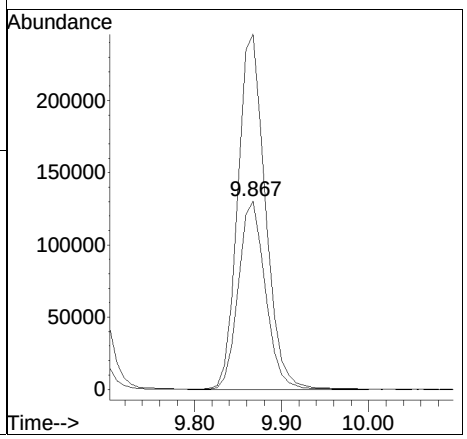


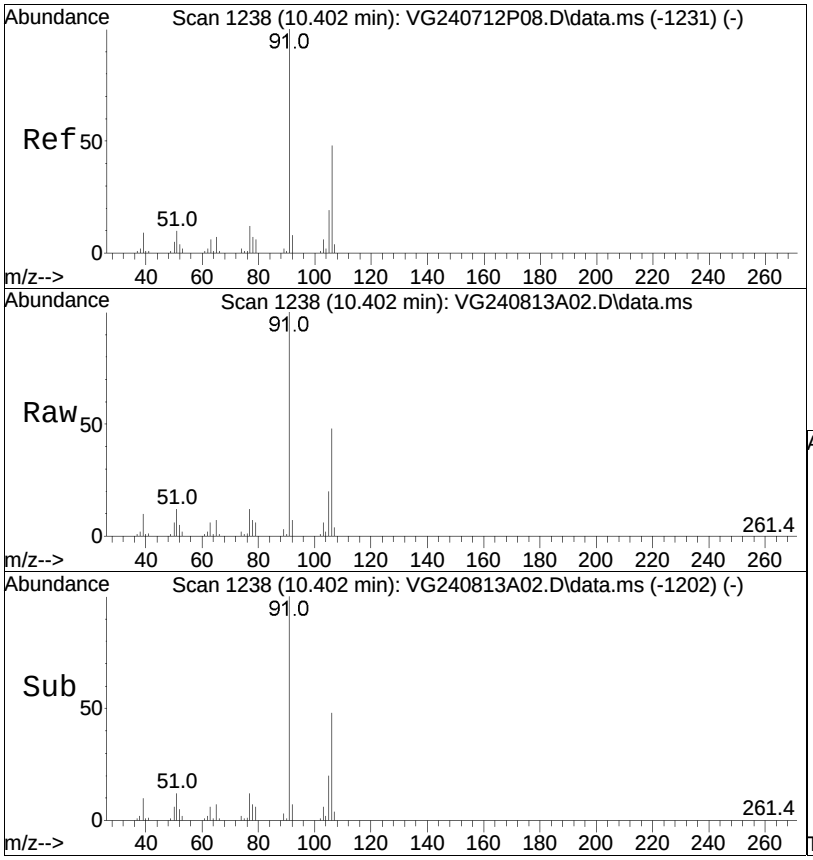


#76
p/m Xylene
Concen: 20.40 ug/L
RT: 9.867 min Scan# 1173
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:106 Resp: 281715

Ion	Ratio	Lower	Upper
106	100		
91	191.6	157.1	235.7

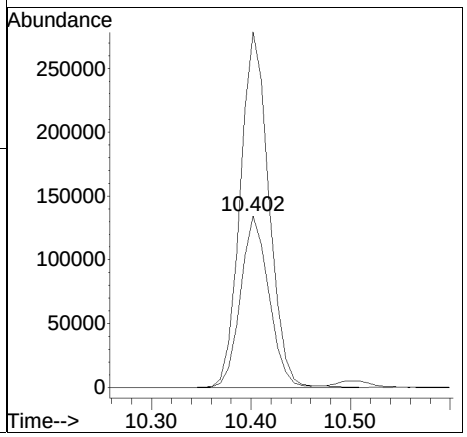


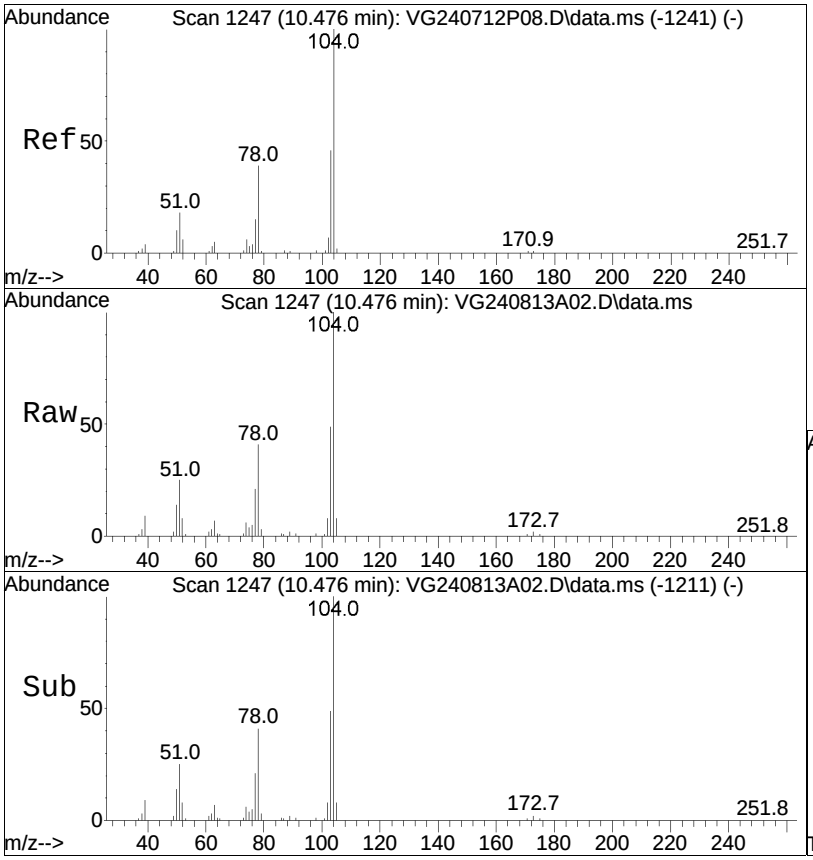


#77
o Xylene
Concen: 19.96 ug/L
RT: 10.402 min Scan# 1238
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:106 Resp: 267057

Ion	Ratio	Lower	Upper
106	100		
91	207.9	164.7	247.1

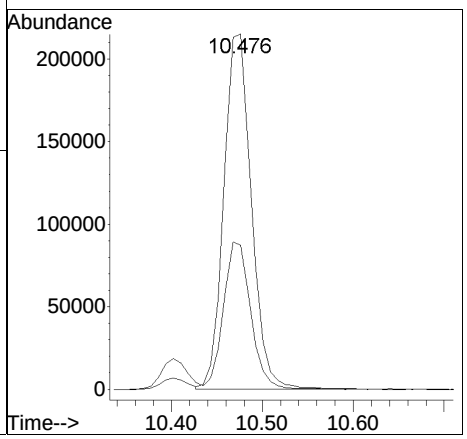


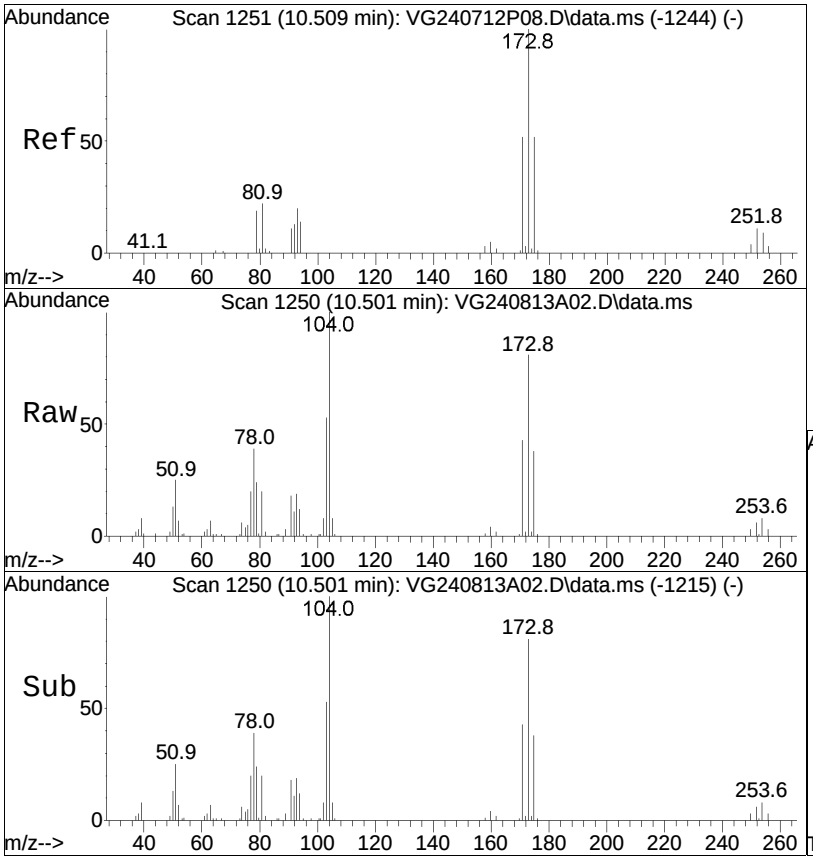


#78
Styrene
Concen: 20.05 ug/L
RT: 10.476 min Scan# 1247
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:104 Resp: 454522

Ion	Ratio	Lower	Upper
104	100		
78	41.0	32.2	48.4

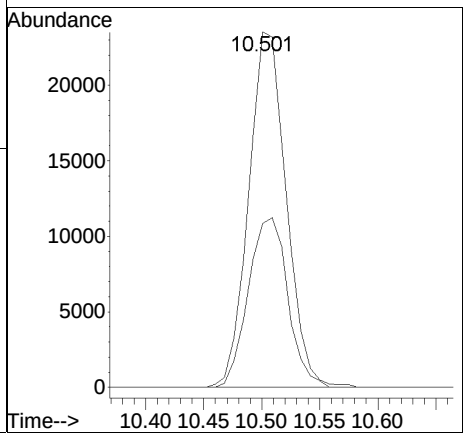


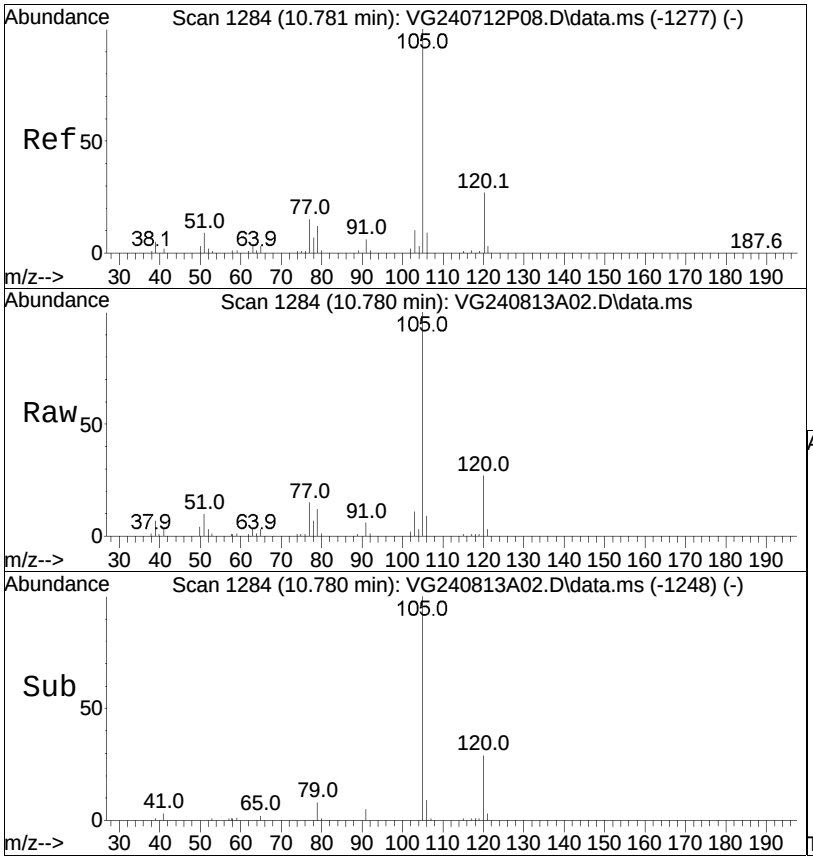


#80
Bromoform
Concen: 9.45 ug/L
RT: 10.501 min Scan# 1250
Delta R.T. -0.008 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:173 Resp: 52975

Ion	Ratio	Lower	Upper
173	100		
175	50.1	28.0	68.0

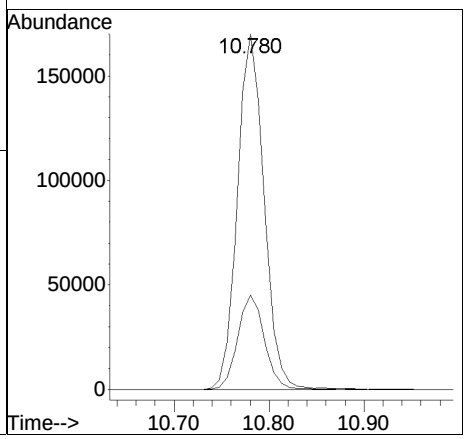


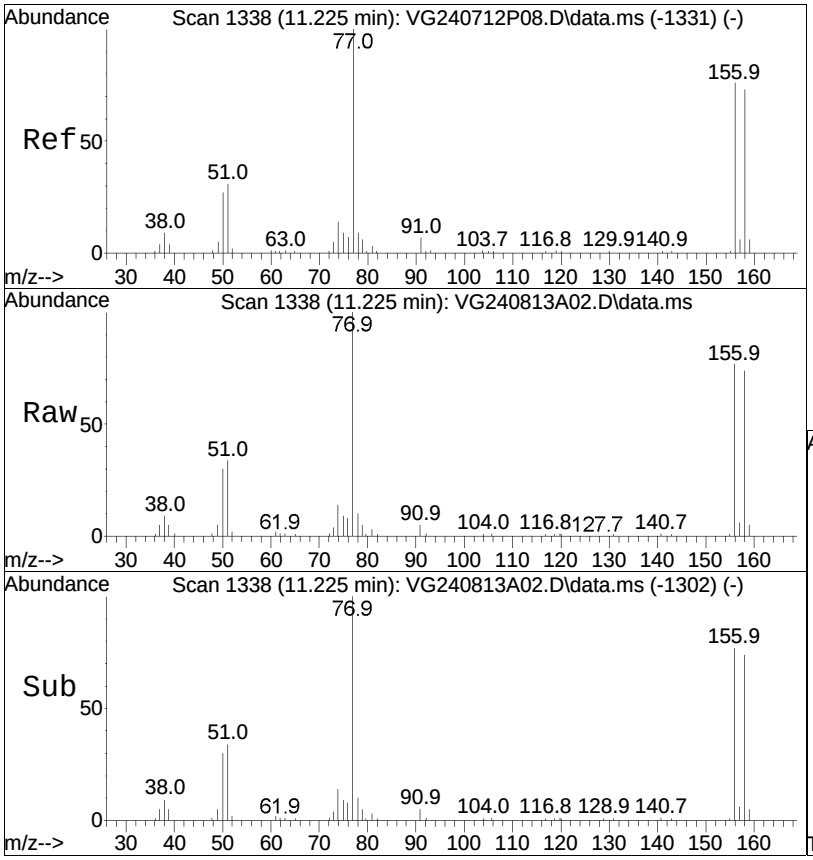


#82
Isopropylbenzene
Concen: 9.36 ug/L
RT: 10.780 min Scan# 1284
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:105 Resp: 331557

Ion	Ratio	Lower	Upper
105	100		
120	26.6	7.0	47.0

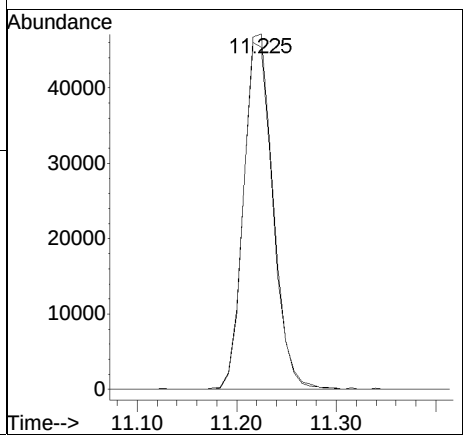


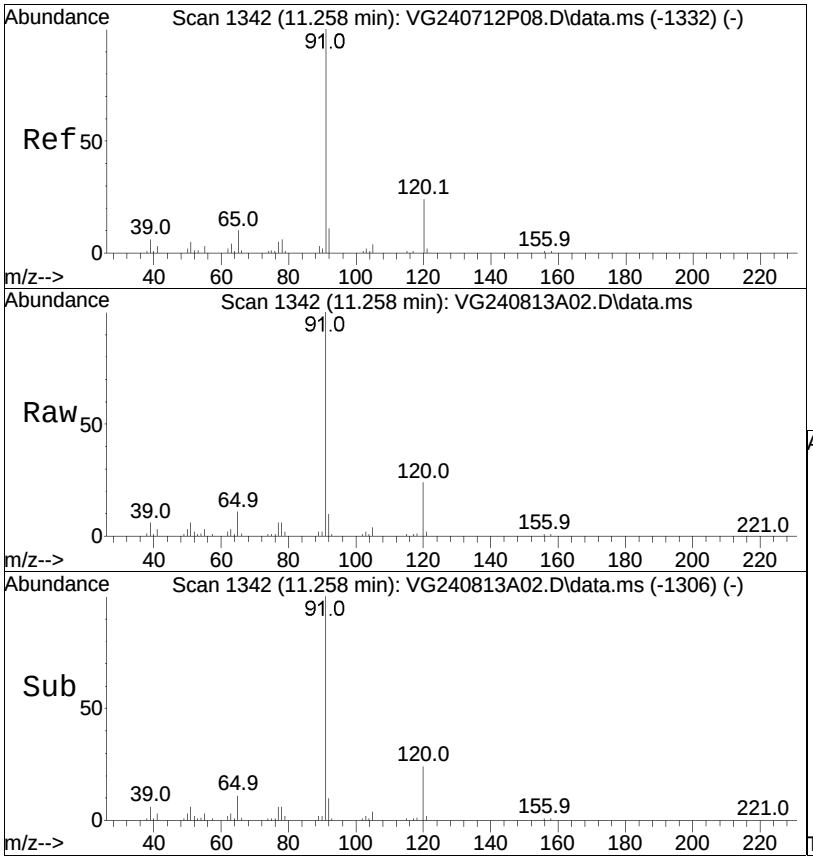


#84
Bromobenzene
Concen: 9.94 ug/L
RT: 11.225 min Scan# 1338
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:156 Resp: 97285

Ion	Ratio	Lower	Upper
156	100		
158	96.6	76.9	115.3

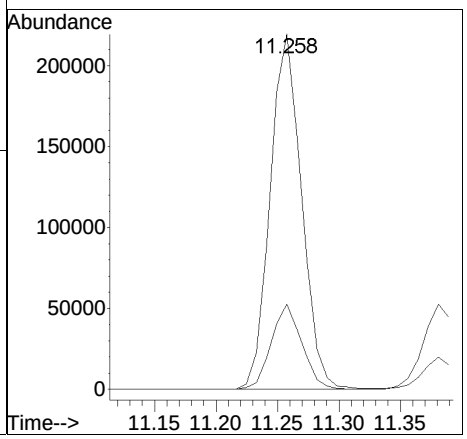


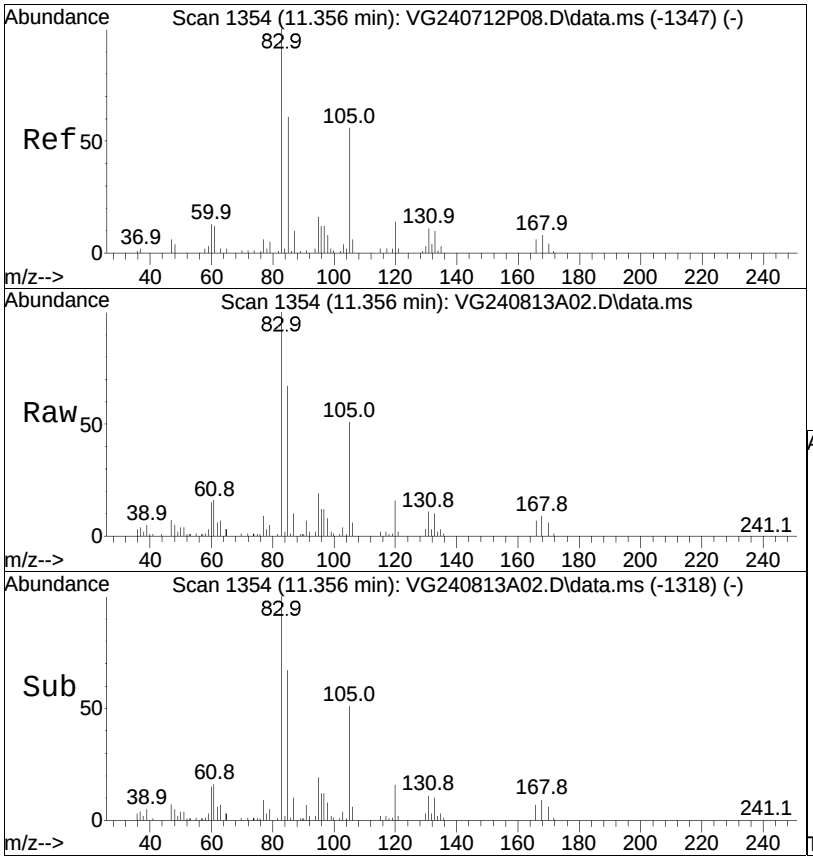


#85
n-Propylbenzene
Concen: 9.47 ug/L
RT: 11.258 min Scan# 1342
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 91 Resp: 390445

Ion	Ratio	Lower	Upper
91	100		
120	23.3	19.0	28.6

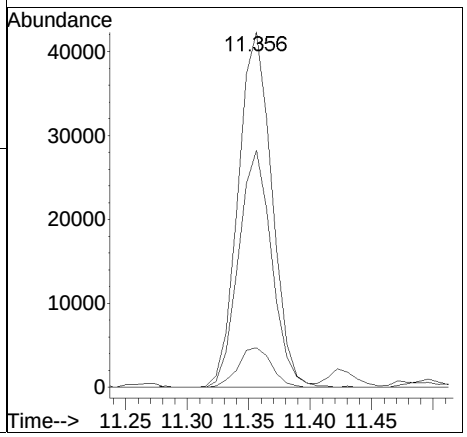


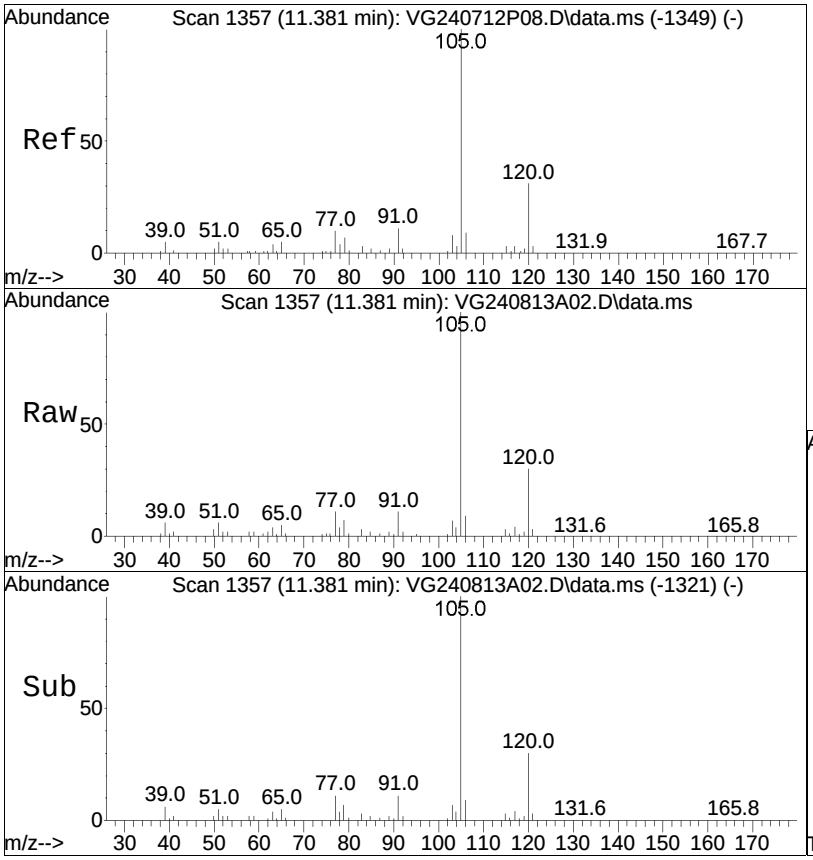


#87
1,1,2,2-Tetrachloroethane
Concen: 10.28 ug/L
RT: 11.356 min Scan# 1354
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 83 Resp: 80923

Ion	Ratio	Lower	Upper
83	100		
131	11.2	0.0	31.0
85	66.0	43.9	83.9

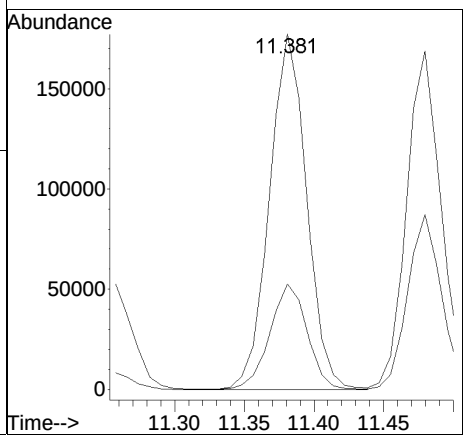


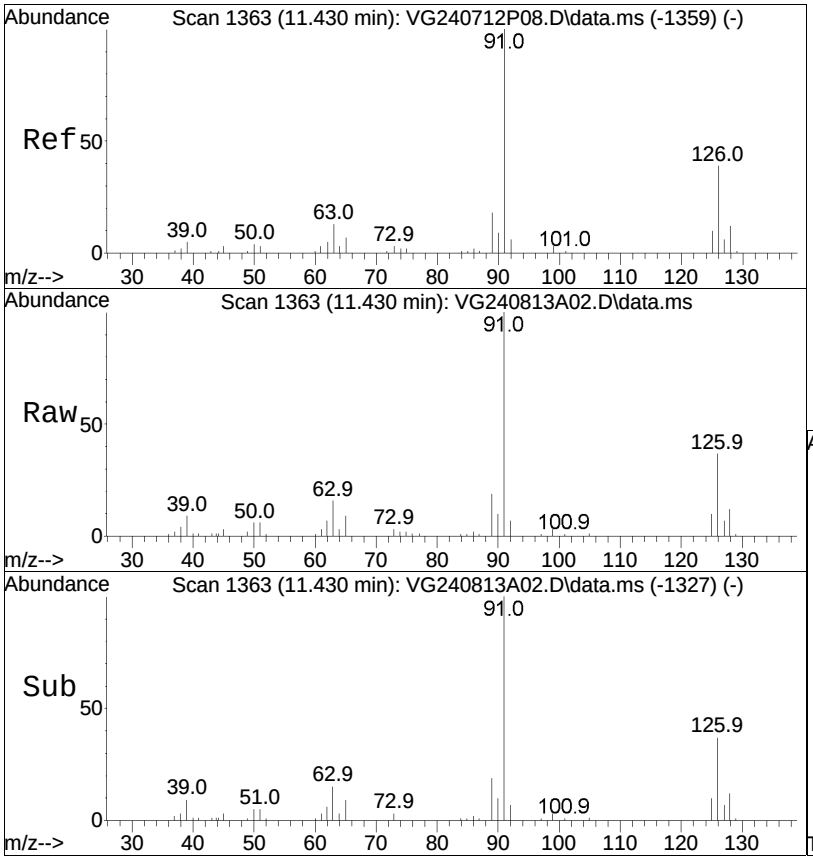


#88
4-Ethyltoluene
Concen: 9.55 ug/L
RT: 11.381 min Scan# 1357
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:105 Resp: 329190

Ion	Ratio	Lower	Upper
105	100		
120	29.8	19.9	41.3

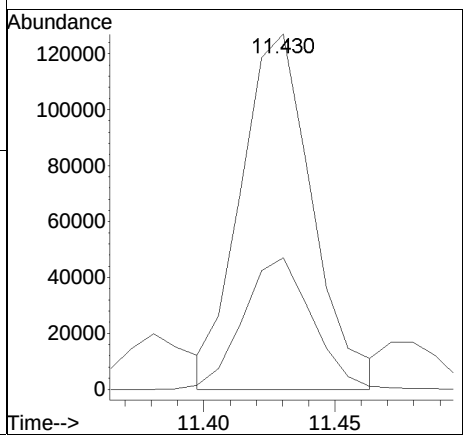


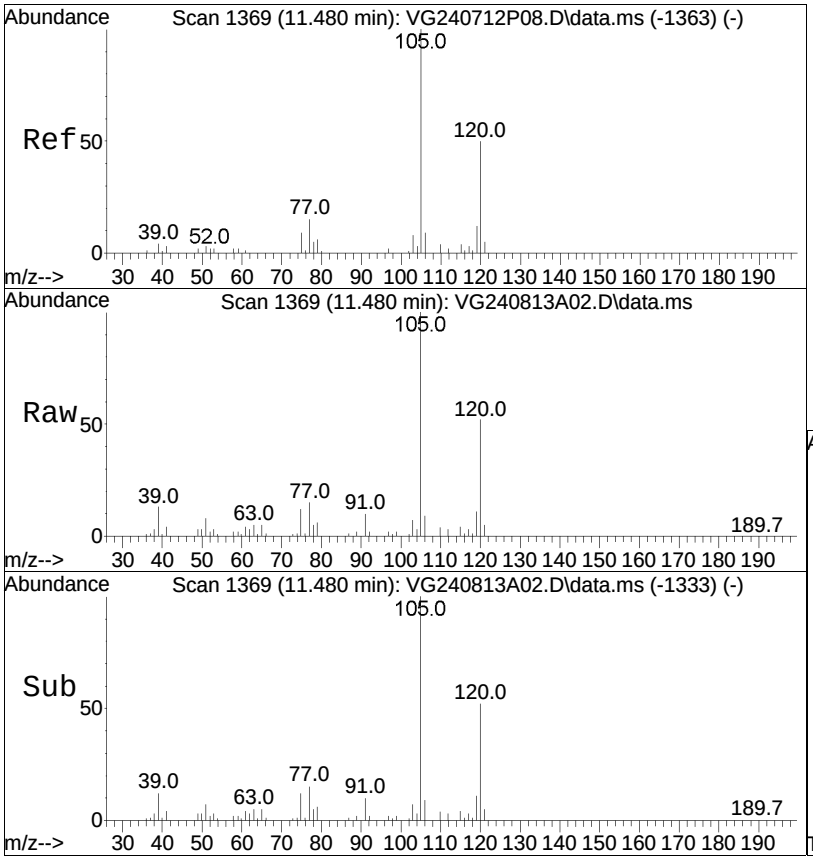


#89
2-Chlorotoluene
Concen: 9.52 ug/L M4
RT: 11.430 min Scan# 1363
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 91 Resp: 240810

Ion	Ratio	Lower	Upper
91	100		
126	35.9	27.4	41.2

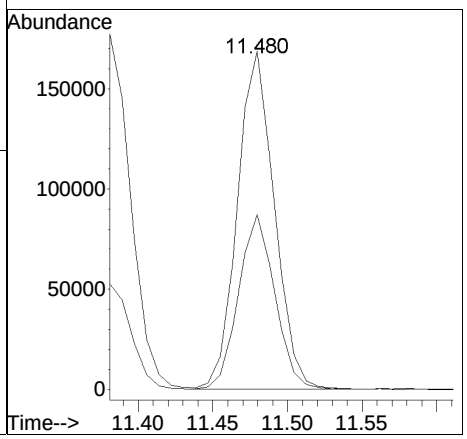


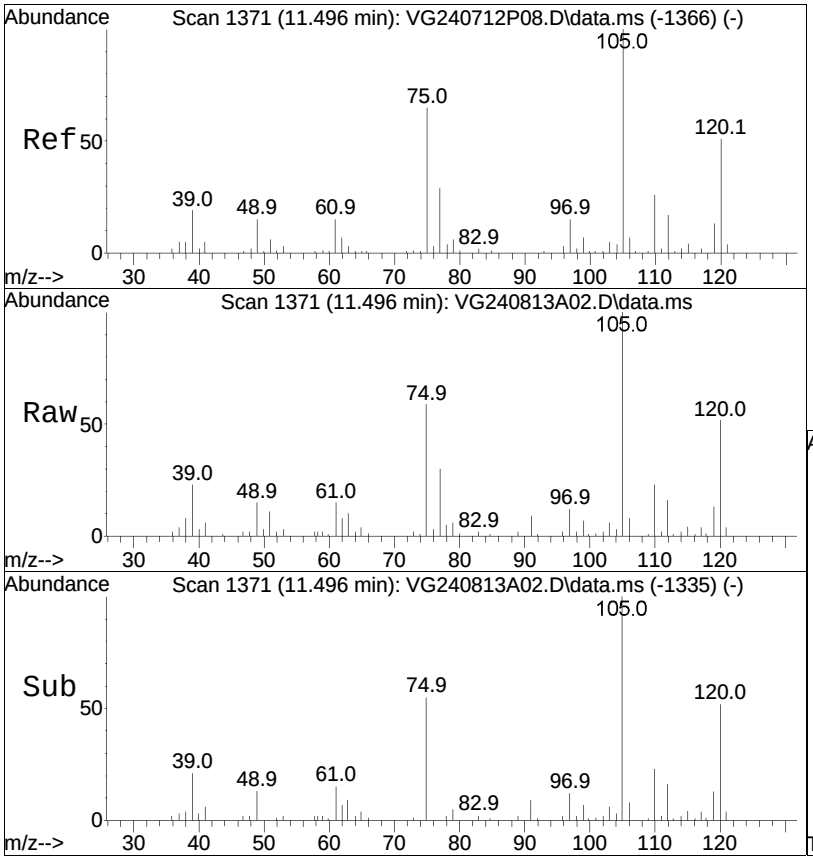


#90
1,3,5-Trimethylbenzene
Concen: 9.49 ug/L
RT: 11.480 min Scan# 1369
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:105 Resp: 289722

Ion	Ratio	Lower	Upper
105	100		
120	51.1	40.3	60.5

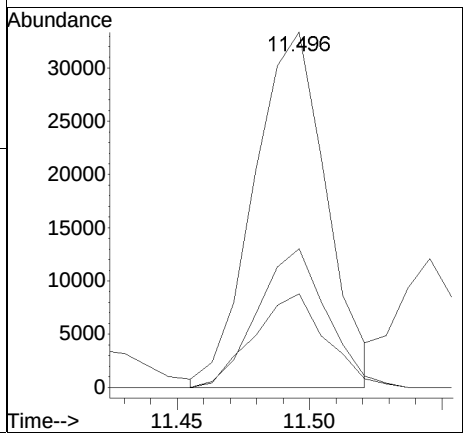


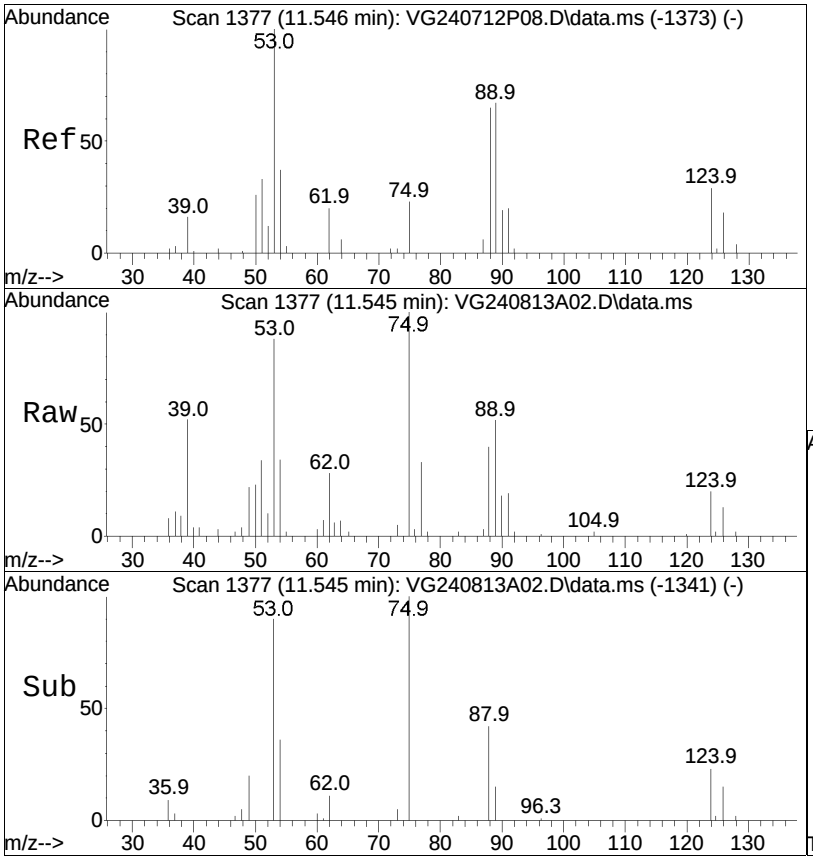


#91
1,2,3-Trichloropropane
Concen: 9.66 ug/L M4
RT: 11.496 min Scan# 1371
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 75 Resp: 63572

Ion	Ratio	Lower	Upper
75	100		
110	37.3	23.5	48.9
112	26.3	15.9	32.9

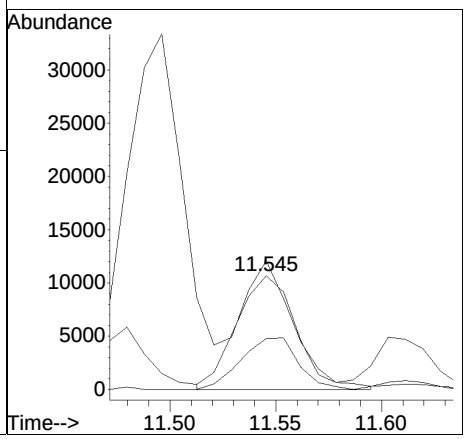


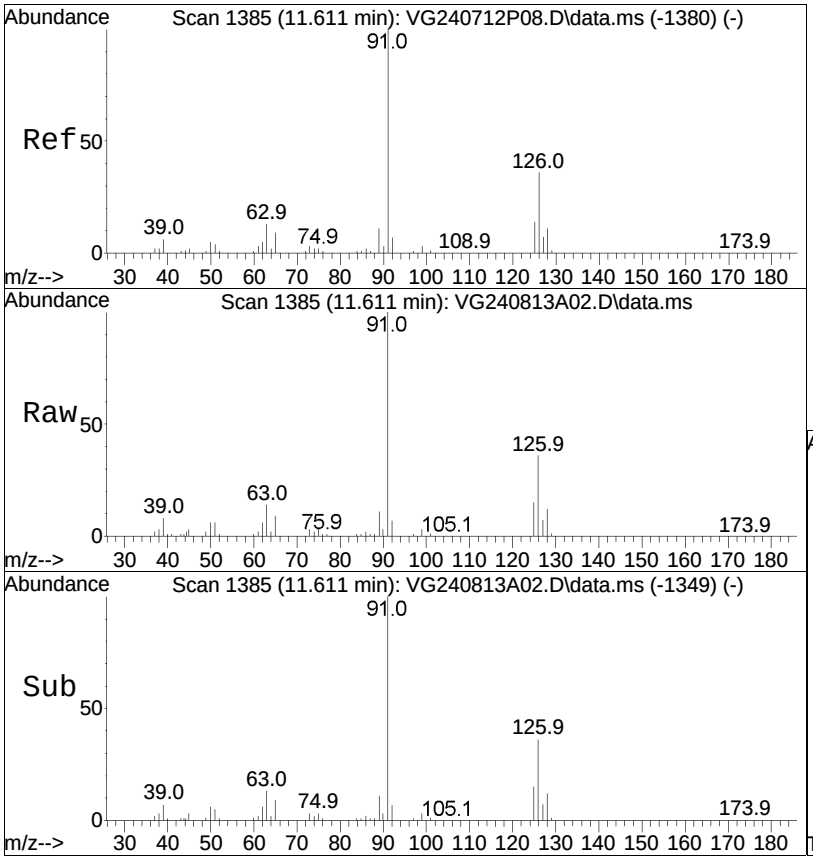


#92
trans-1,4-Dichloro-2-butene
Concen: 11.67 ug/L M4
RT: 11.545 min Scan# 1377
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 53 Resp: 21062

Ion	Ratio	Lower	Upper
53	100		
88	43.3	41.6	62.4
75	98.0	0.0	0.0#

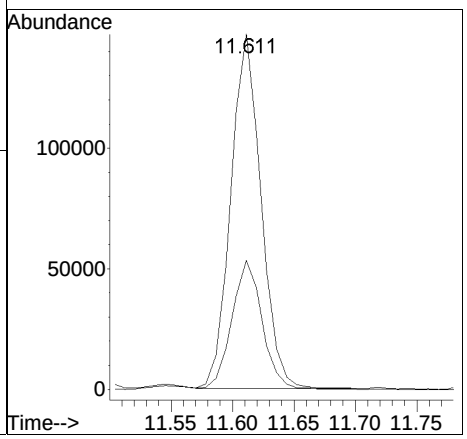


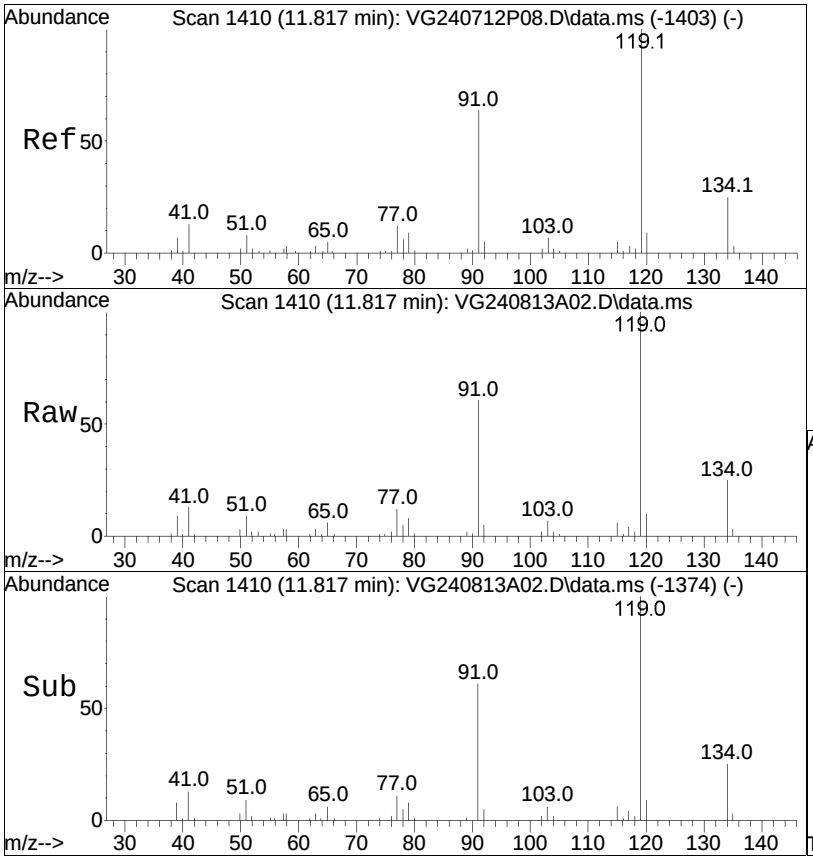


#93
4-Chlorotoluene
Concen: 9.63 ug/L
RT: 11.611 min Scan# 1385
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 91 Resp: 250842

Ion	Ratio	Lower	Upper
91	100		
126	36.6	28.2	42.4

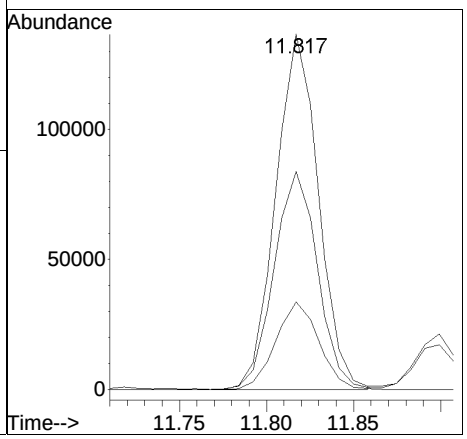


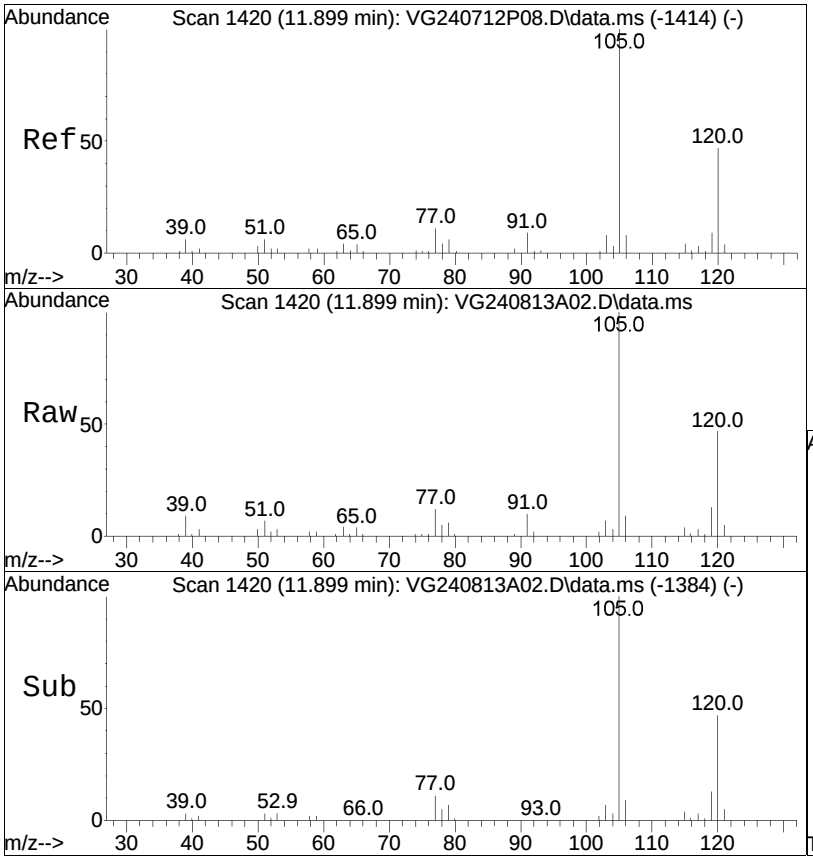


#94
tert-Butylbenzene
Concen: 9.43 ug/L
RT: 11.817 min Scan# 1410
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:119 Resp: 232612

Ion	Ratio	Lower	Upper
119	100		
91	62.6	50.8	76.2
134	24.9	20.2	30.4

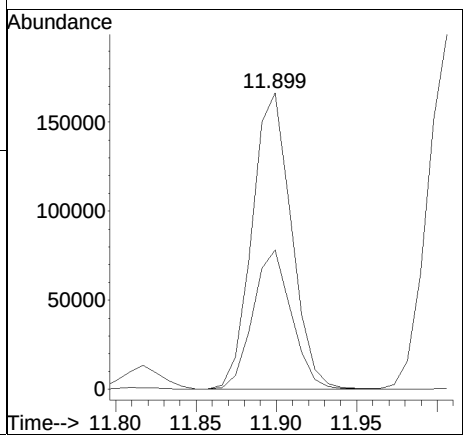


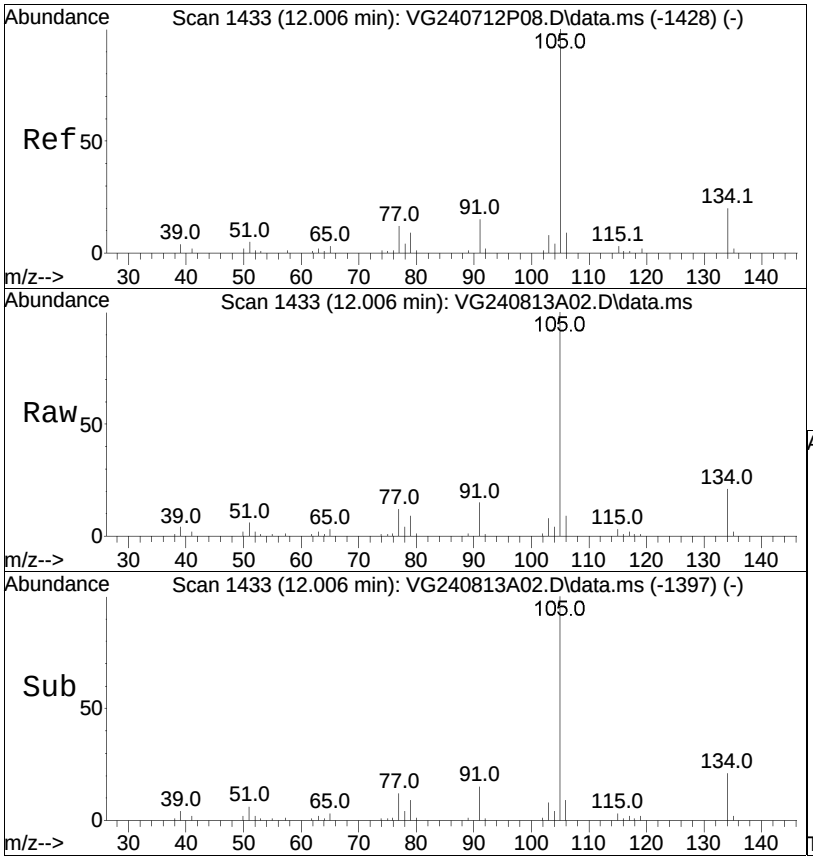


#97
1,2,4-Trimethylbenzene
Concen: 9.45 ug/L
RT: 11.899 min Scan# 1420
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:105 Resp: 284057

Ion	Ratio	Lower	Upper
105	100		
120	45.9	37.8	56.6

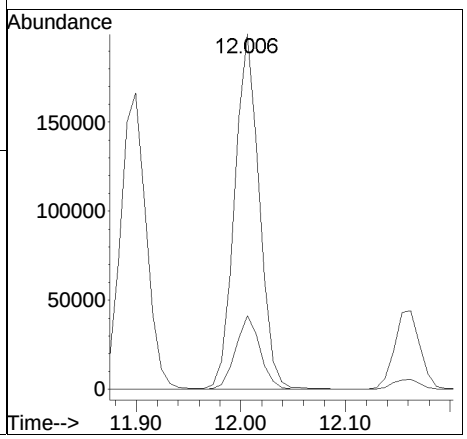


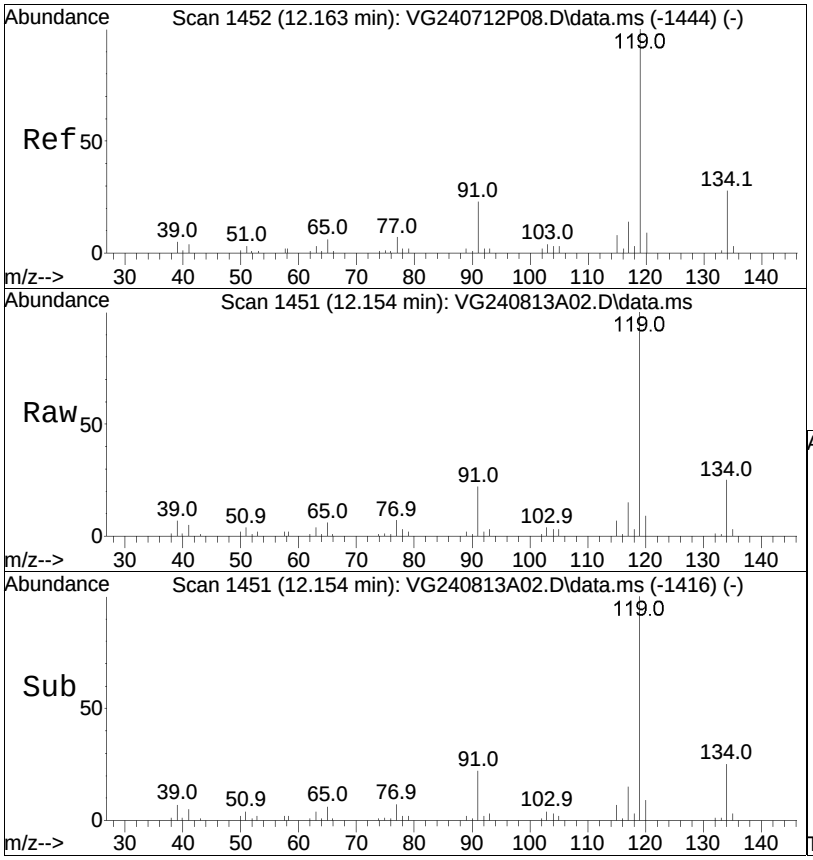


#98
sec-Butylbenzene
Concen: 9.33 ug/L
RT: 12.006 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:105 Resp: 327255

Ion	Ratio	Lower	Upper
105	100		
134	20.6	13.3	27.7

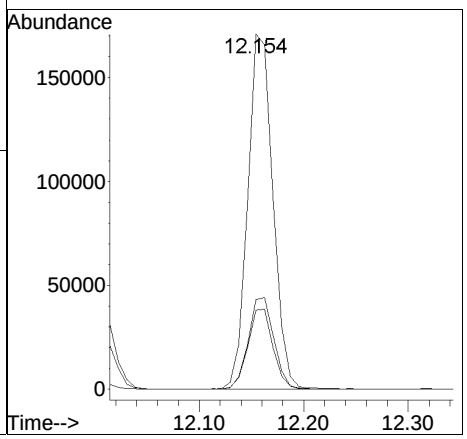


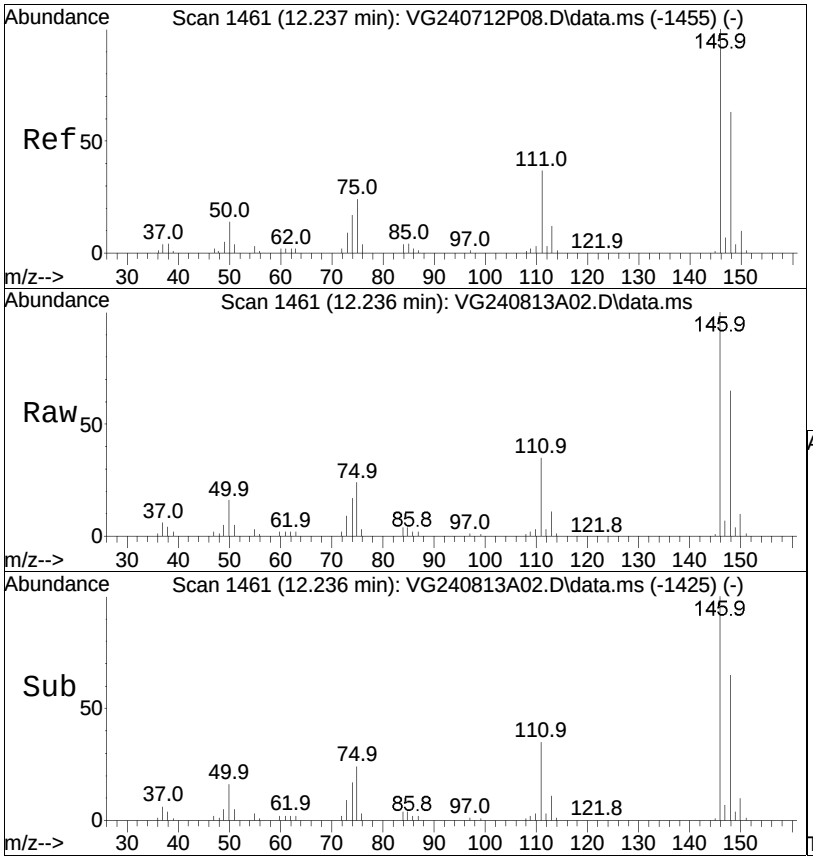


#99
p-Isopropyltoluene
Concen: 9.44 ug/L
RT: 12.154 min Scan# 1451
Delta R.T. -0.009 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:119 Resp: 287525

Ion	Ratio	Lower	Upper
119	100		
134	26.3	17.5	36.3
91	22.8	14.6	30.4

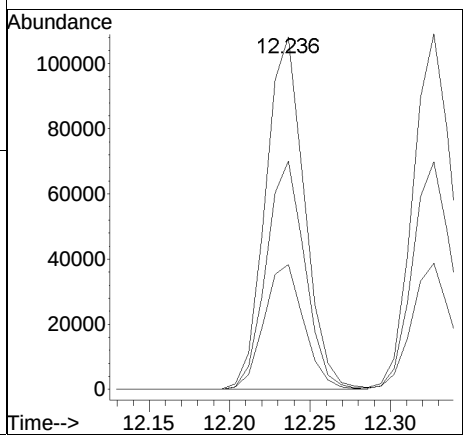


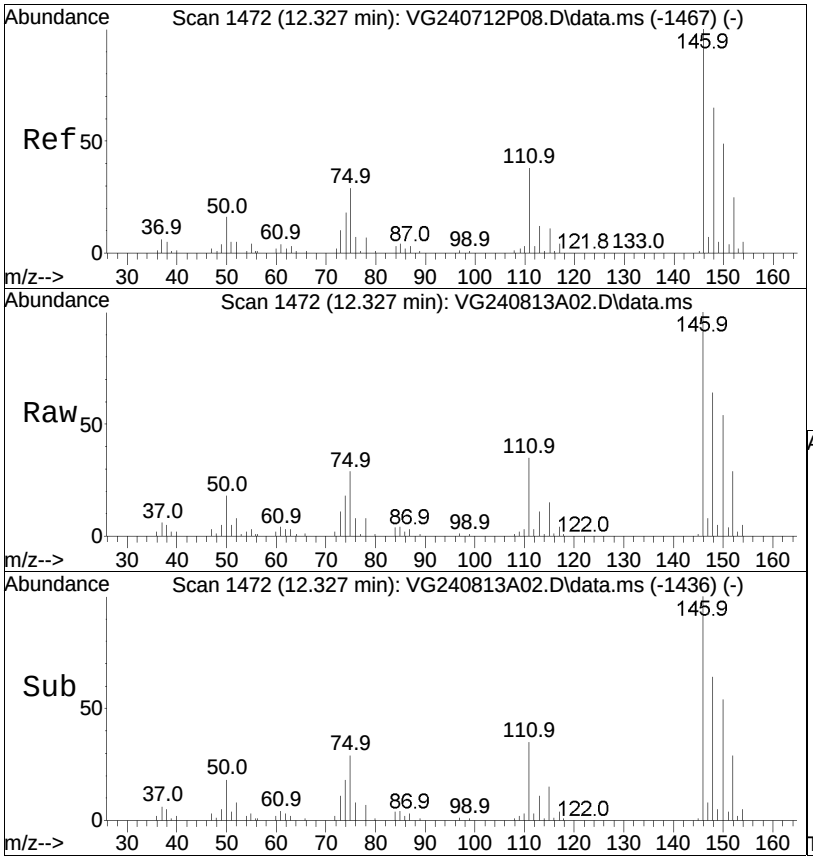


#100
1,3-Dichlorobenzene
Concen: 10.15 ug/L
RT: 12.236 min Scan# 1461
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:146 Resp: 182530

Ion	Ratio	Lower	Upper
146	100		
111	36.3	24.4	50.6
148	64.3	41.0	85.2

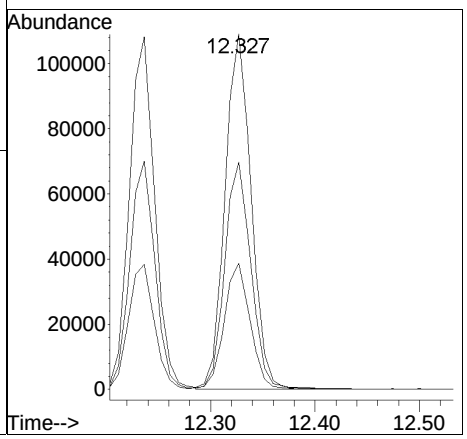


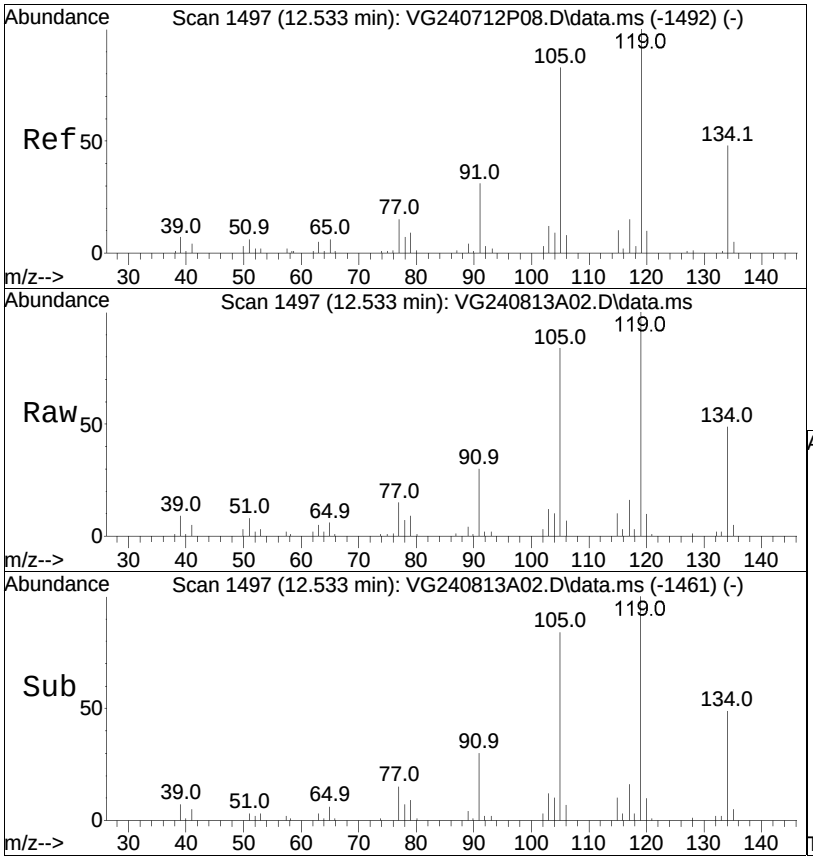


#101
1,4-Dichlorobenzene
Concen: 10.26 ug/L
RT: 12.327 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:146 Resp: 190078

Ion	Ratio	Lower	Upper
146	100		
111	35.4	29.3	43.9
148	64.0	51.2	76.8

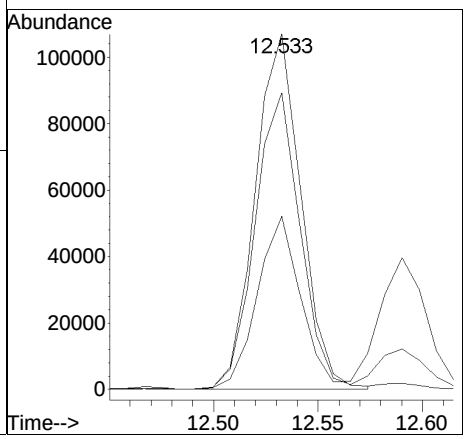


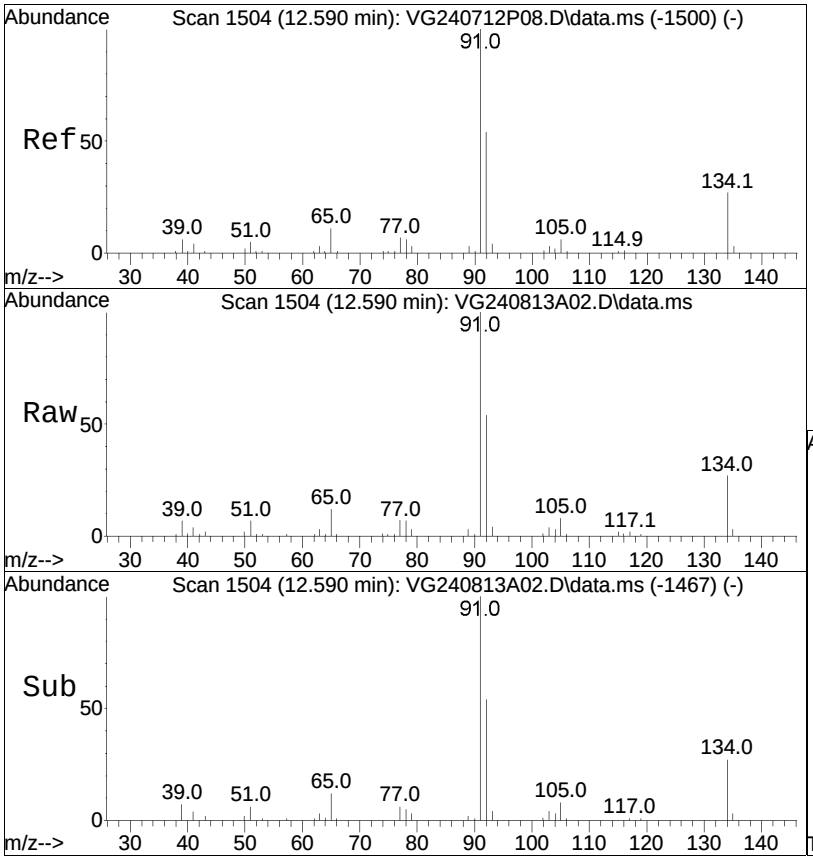


#102
p-Diethylbenzene
Concen: 9.33 ug/L
RT: 12.533 min Scan# 1497
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:119 Resp: 163319

Ion	Ratio	Lower	Upper
119	100		
105	82.6	53.9	112.1
134	46.1	32.0	66.6

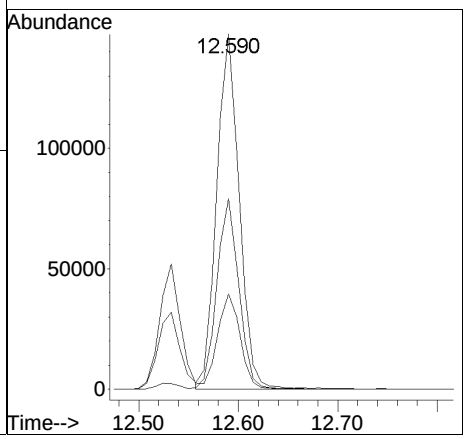


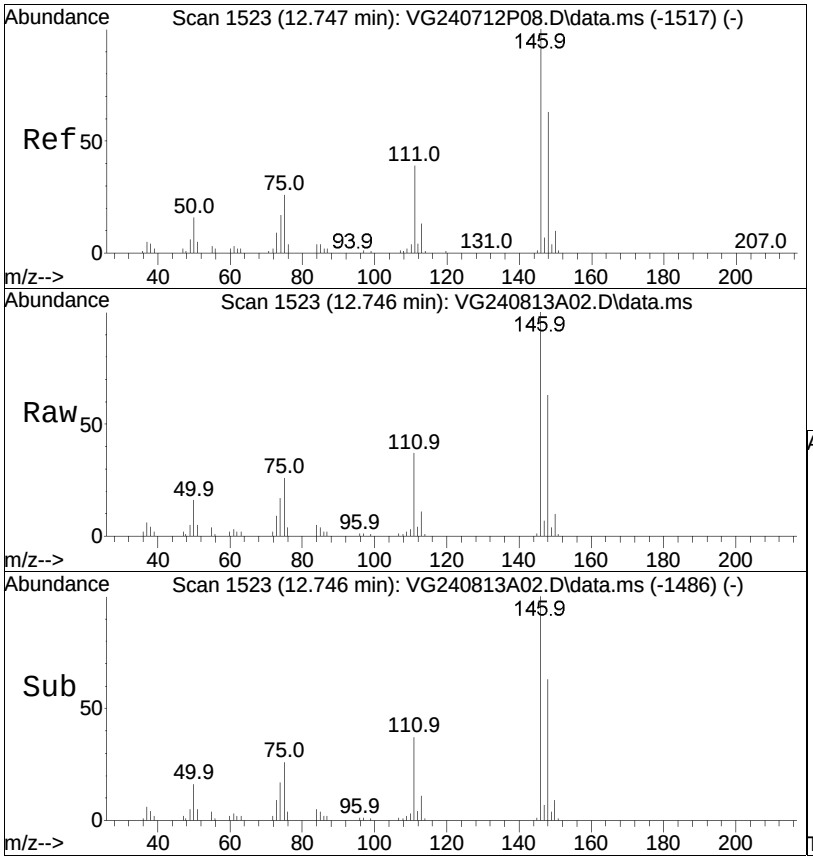


#103
n-Butylbenzene
Concen: 9.71 ug/L
RT: 12.590 min Scan# 1504
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion: 91 Resp: 233935

Ion	Ratio	Lower	Upper
91	100		
92	52.1	43.8	65.8
134	27.1	22.0	33.0

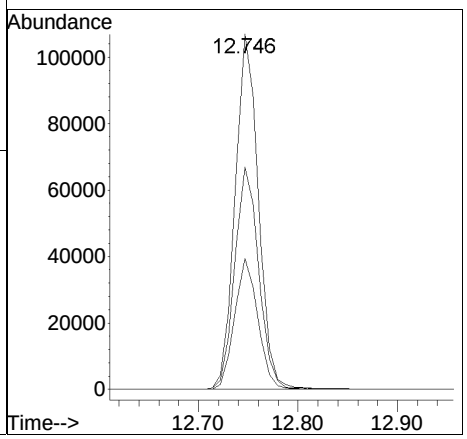


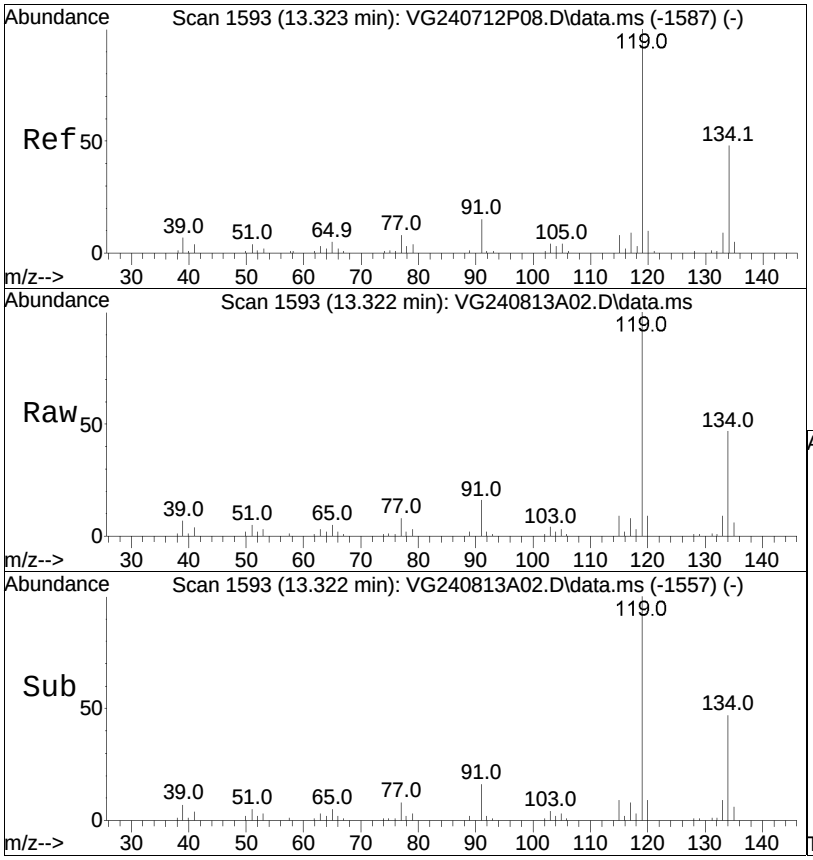


#104
1,2-Dichlorobenzene
Concen: 10.15 ug/L
RT: 12.746 min Scan# 1523
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:146 Resp: 174163

Ion	Ratio	Lower	Upper
146	100		
111	36.9	25.4	52.8
148	64.6	41.7	86.5

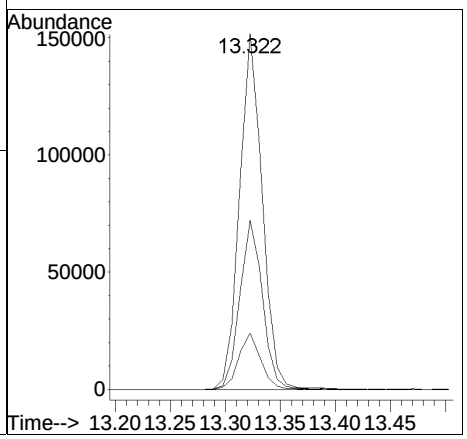


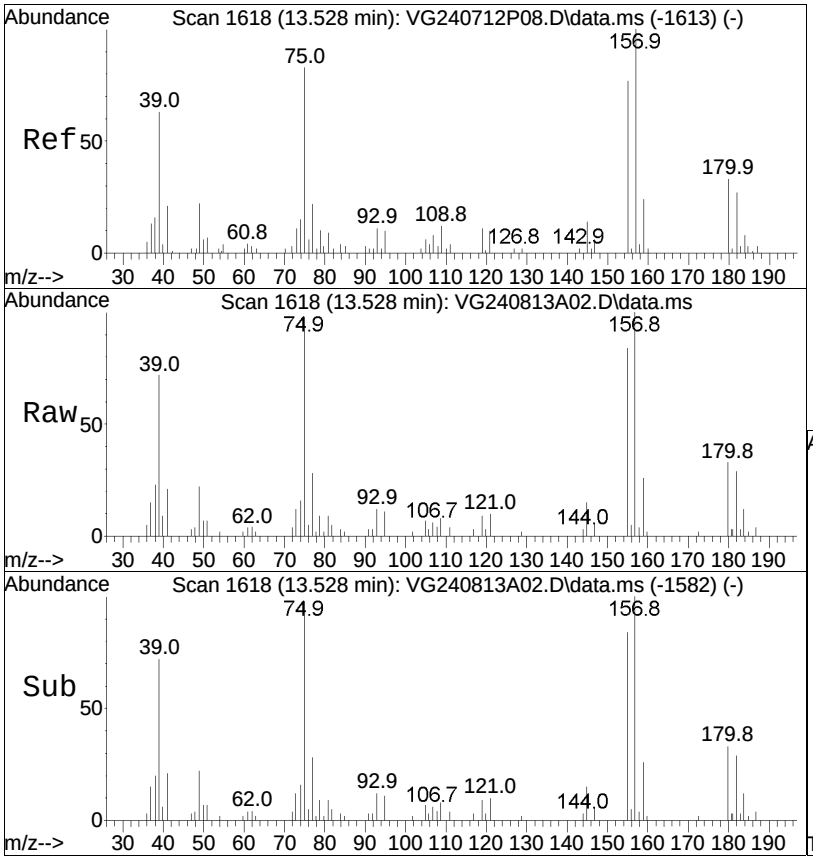


#105
1,2,4,5-Tetramethylbenzene
Concen: 8.34 ug/L
RT: 13.322 min Scan# 1593
Delta R.T. -0.001 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:119 Resp: 218474

Ion	Ratio	Lower	Upper
119	100		
134	47.2	32.7	67.9
91	15.4	9.9	20.7

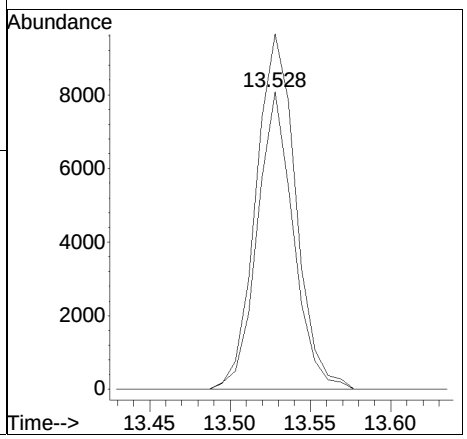


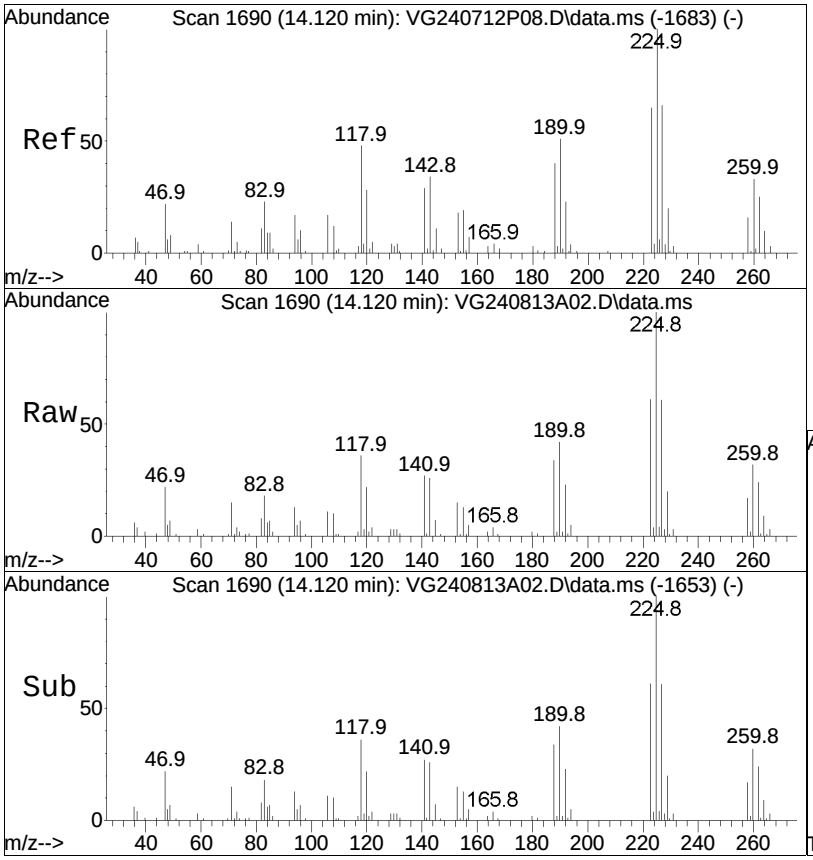


#106
1,2-Dibromo-3-chloropropane
Concen: 8.66 ug/L
RT: 13.528 min Scan# 1618
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:155 Resp: 12646

Ion	Ratio	Lower	Upper
155	100		
157	131.9	99.9	149.9

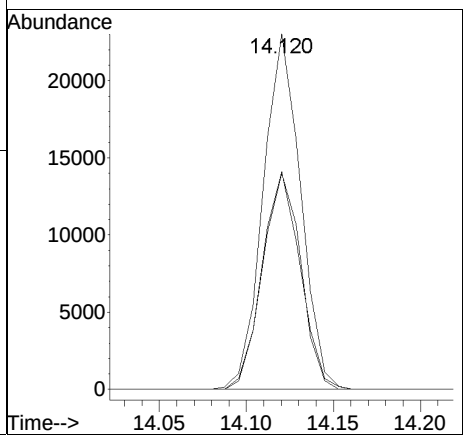


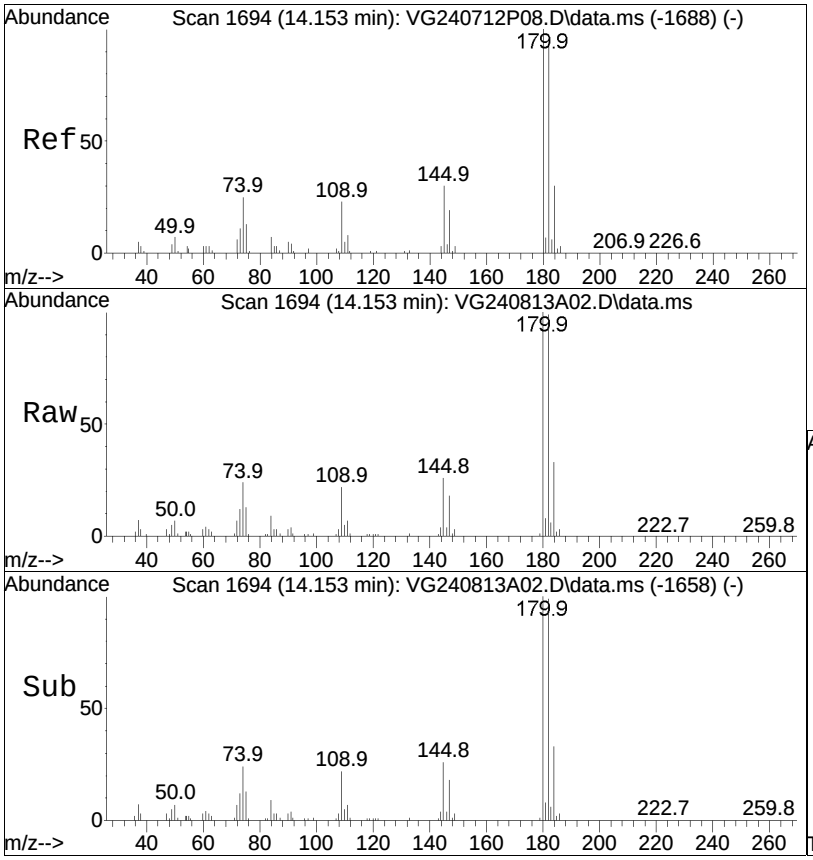


#108
Hexachlorobutadiene
Concen: 10.89 ug/L
RT: 14.120 min Scan# 1690
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:225 Resp: 34469

Ion	Ratio	Lower	Upper
225	100		
223	62.4	50.1	75.1
227	61.9	50.2	75.4

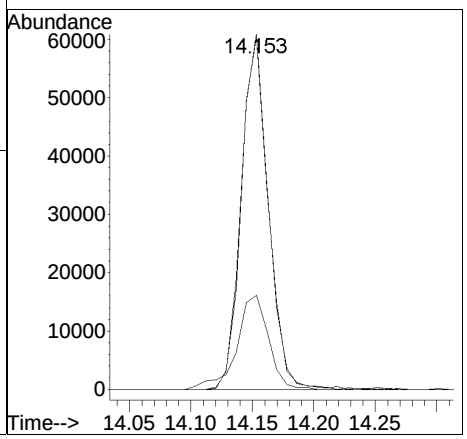


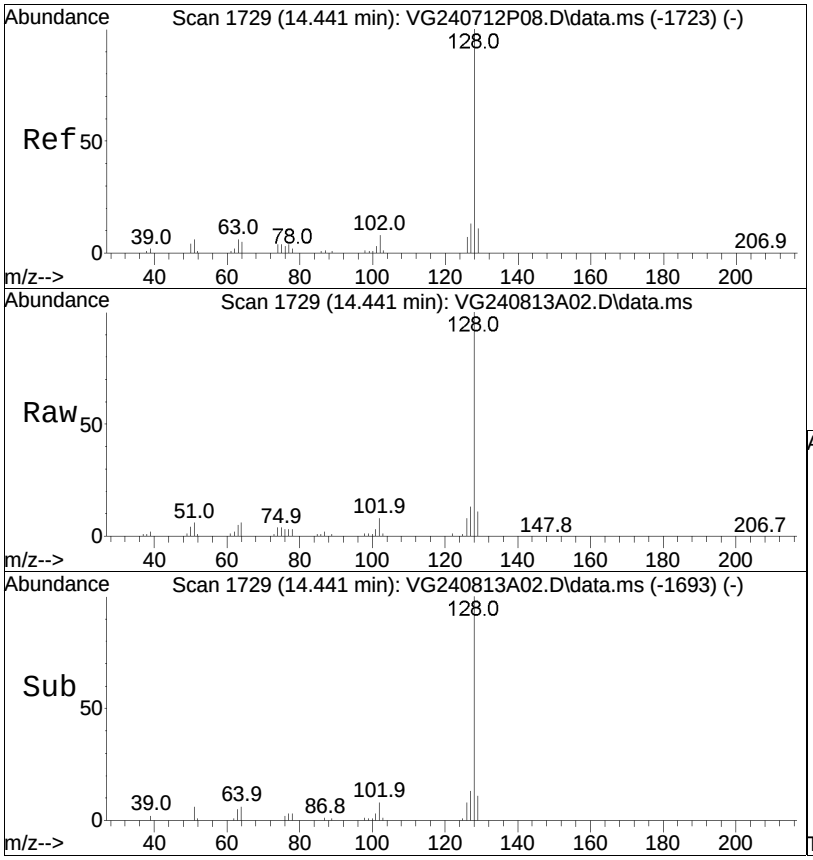


#109
1,2,4-Trichlorobenzene
Concen: 9.54 ug/L
RT: 14.153 min Scan# 1694
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:180 Resp: 93263

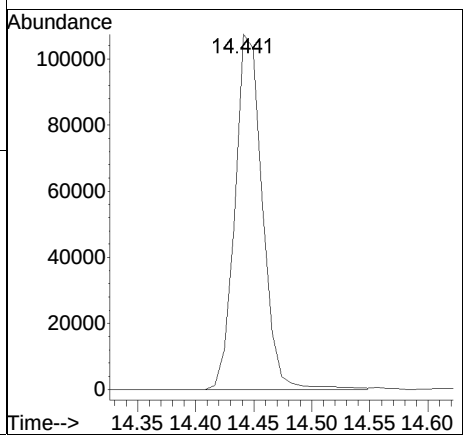
Ion	Ratio	Lower	Upper
180	100		
182	98.5	76.7	115.1
145	31.1	26.5	39.7

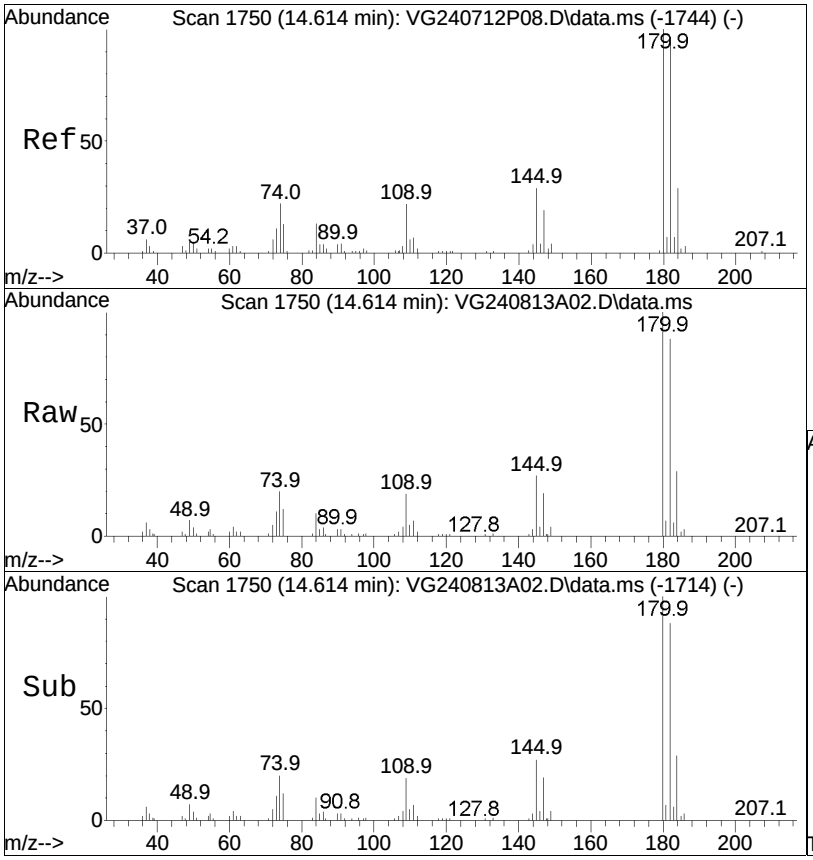




#110
Naphthalene
Concen: 8.03 ug/L
RT: 14.441 min Scan# 1729
Delta R.T. 0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:128 Resp: 176246

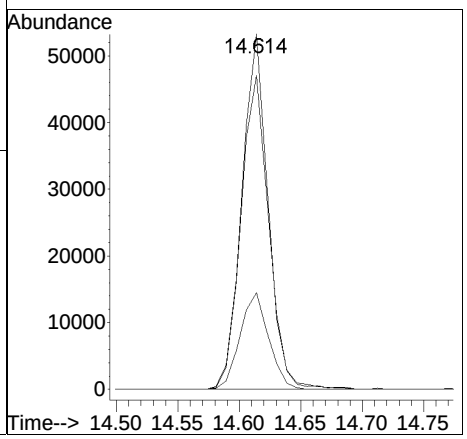




#111
1,2,3-Trichlorobenzene
Concen: 9.78 ug/L
RT: 14.614 min Scan# 1750
Delta R.T. -0.000 min
Lab File: VG240813A02.D
Acq: 13 Aug 2024 8:33 am

Tgt Ion:180 Resp: 79521

Ion	Ratio	Lower	Upper
180	100		
182	93.3	77.0	115.4
145	29.5	24.1	36.1

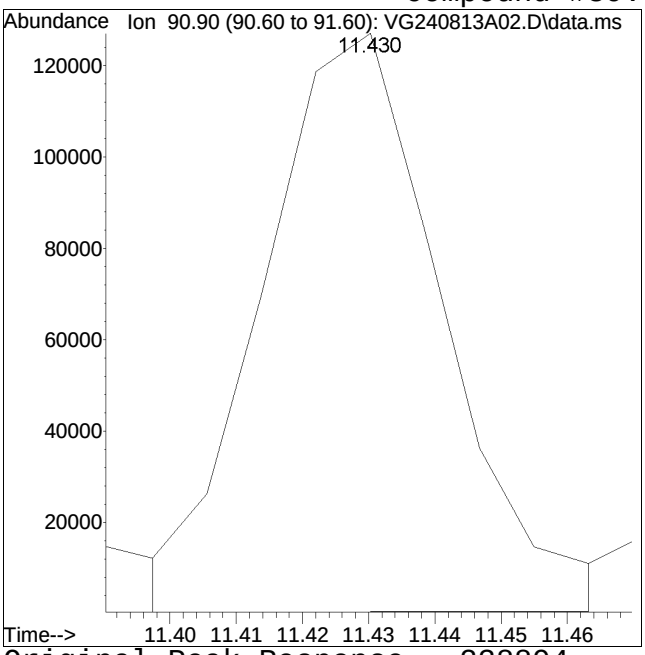


Manual Integration Report

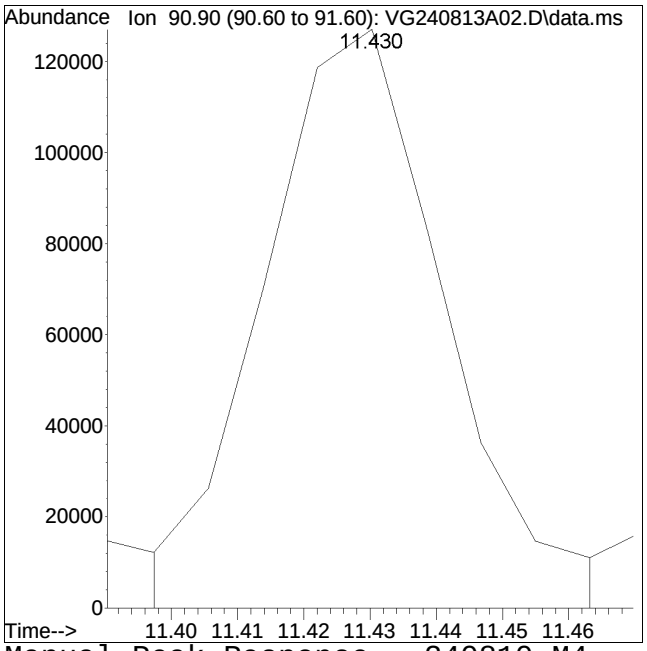
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A02.D
Date Inj'd : 8/13/2024 8:33 am
Sample : WG1958701-4,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 9:09 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 238894



Manual Peak Response = 240810 M4

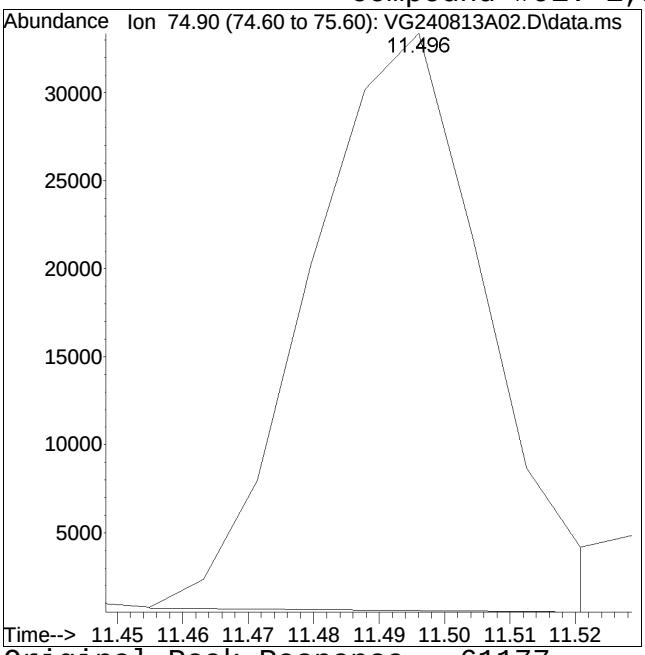
M4 = Poor automated baseline construction.

Manual Integration Report

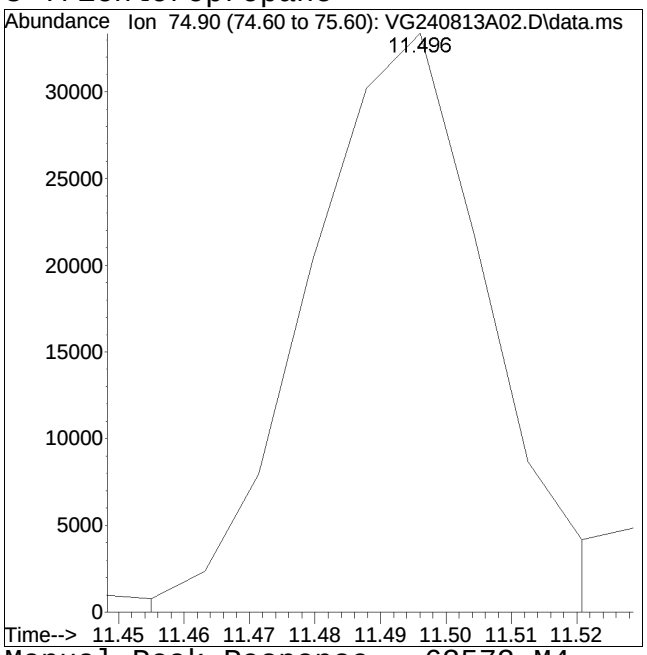
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A02.D
Date Inj'd : 8/13/2024 8:33 am
Sample : WG1958701-4,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 9:09 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 61177



Manual Peak Response = 63572 M4

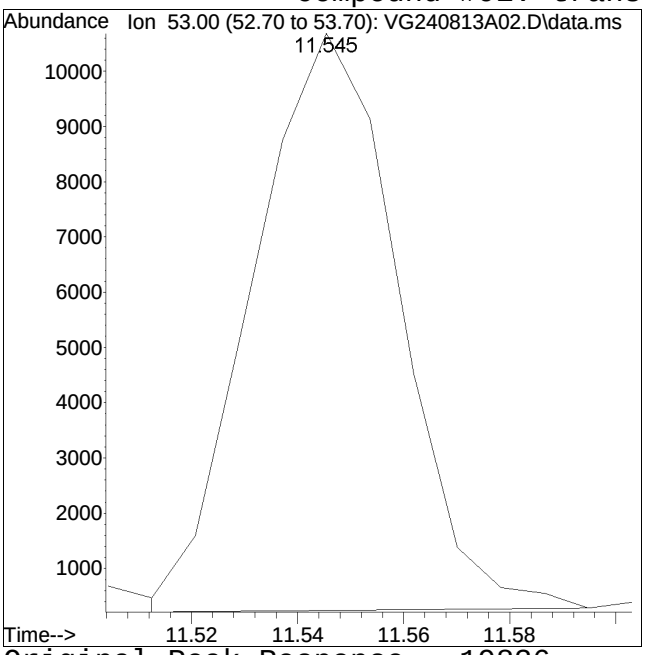
M4 = Poor automated baseline construction.

Manual Integration Report

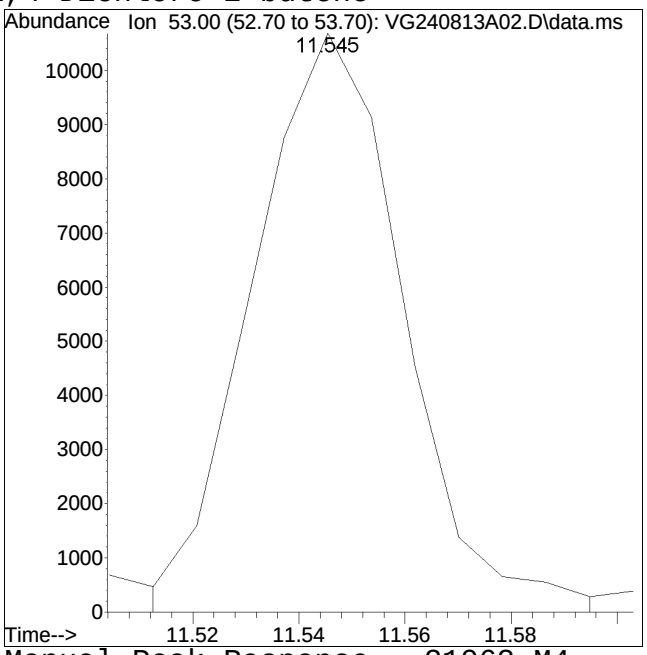
Data Path : K:\Gonzo\2024\240813A\
Data File : VG240813A02.D
Date Inj'd : 8/13/2024 8:33 am
Sample : WG1958701-4,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/13/2024 9:09 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 19836



Manual Peak Response = 21062 M4

M4 = Poor automated baseline construction.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 13 2024, 12:13 pm

Work Group: WG1958655 for Department: 31 GC/MS - Volatiles

Created: 13-AUG-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2445487-02	LMW8RS_18.75	S	NYTCL-8260	WATER	DONE	U	0826	0813	1A	Vial-B
L2445487-03	TRIPBLANK_08122024	S	NYTCL-8260	WATER	DONE	U	0826	0813	1A	Vial-B
WG1958655-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1958655-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1958655-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1958655-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1958655-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG1958655-4 WG1958655-3

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 13 2024, 12:13 pm

Work Group: WG1958701 for Department: 31 GC/MS - Volatiles

Created: 13-AUG-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2445487-01	LMW7RS_6.75	S	NYTCL-8260	WATER	DONE	U		0826 0813	1A	Vial-B
WG1958701-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1958701-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1958701-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1958701-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1958701-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG1958701-4 WG1958701-3

Inst: Gonzo
Initials: RAW/LAC
Date: **07/12/24**
Run: **N**

BFB: V10509
IS/SS: V10528
ICAL: V10538,V10544A
ICV: V10539,V10500,V10501,V10527,V10541,V10540

Method
GC 8260_RTX_VMS
Autosampler: 8260water
Concentrator: 8260

QC: ____ Seq:

Vial	DATA FILE	SAMPLE	pH<2
1	VG240712PBF1	BFB TUNE	
1	VG240712PBF2	BFB TUNE	
2	VG240712PBF3	BFB TUNE	
3	VG240712P01	BLK	
4	VG240712P02	BLK	
5	VG240712P03	I8260STD0.19PPB	
6	VG240712P04	I8260STD0.19PPB	
7	VG240712P05	I8260STD0.5PPB	
8	VG240712P06	I8260STD0.5PPB	
9	VG240712P07	I8260STD2PPB	
10	VG240712P08	I8260STD10PPB	
11	VG240712P09	I8260STD30PPB	
12	VG240712P10	I8260STD80PPB	
13	VG240712P11	I8260STD120PPB	
14	VG240712P12	I8260STD200PPB	
15	VG240712P13	BLK	
16	VG240712P14	BLK	
17	VG240712P15	BLK	
18	VG240712P16	BLK	
19	VG240712P17	C8260STD10PPB	
20	VG240712P18	C8260STD10PPB	
21	VG240712P19	BLK	
22	VG240712P20	BLK	
23	VG240712P21	MDL 0.5PPB	
24	VG240712P22	MDL 0.5PPB	
25	VG240712P23	MDL 2PPB	
26	VG240712P24	MDL 2PPB	
27	VG240712P25	BLK	

Inst: VOA122 BFB: V10571 Method GC: 8260
Initials: PID IS/SS: V10570 Autosampler: 8260water
Date: **07/29/24** ICAL: V10572,V10561C Concentrator: 8260 v122
Run **A** ICV: V10539,V10563,V10564,V10527,V10541,V10540 QC:_____ Seq:_____

Vial	Data File	Sample	pH<2
1	V22240729ABF1	BFB TUNE 12:26	
1	V22240729A01	BLK	
2	V22240729A02	BLK	
3	V22240729A03	I8260STD0.19PPB	
4	V22240729A04	I8260STD0.5PPB	
5	V22240729A05	I8260STD0.5PPB	
6	V22240729A06	I8260STD2PPB	
7	V22240729A07	I8260STD2PPB	
8	V22240729A08	I8260STD10PPB	
9	V22240729A09	I8260STD30PPB	
10	V22240729A10	I8260STD80PPB	
11	V22240729A11	I8260STD120PPB	
12	V22240729A12	I8260STD200PPB	
13	V22240729A13	BLK	
14	V22240729A14	BLK	
15	V22240729A15	BLK	
16	V22240729A16	BLK	
17	V22240729A17	C8260STD10PPB	
18	V22240729A18	C8260STD10PPB	
19	V22240729A19	BLK	
20	V22240729A20	BLK	
21	V22240729A21	MDL METHOD BLK	
22	V22240729A22	MDL L1	
23	V22240729A23	MDL L1	
24	V22240729A24	MDL L2	
25	V22240729A25	MDL L2	
26	V22240729A26	BLK	

Inst: VOA122 BFB: V10571 Method GC: 8260
Initials: MJV IS/SS: V10600 Autosampler: 8260water
Date: **08/13/24** ICAL: V10594A,V10595 Concentrator: 8260 v122
Run **A** QC:_____ Seq:_____

Vial	Data File	Sample			pH<2
1	V22240813ABF1	BFB TUNE	06:38		
1	V22240813A01	8260 CCAL	LCS		
2	V22240813A02	8260 CCAL	LCSD		
3	V22240813A03	8260 CCAL			
4	V22240813A04	BLK			
5	V22240813A05	METHOD BLK			
6	V22240813A06	L2445487-03,31,10,10,,A,R1A	NYTCL	TB	pH<2
7	V22240813A07	L2445487-02,31,10,10,,A,R1A	NYTCL		pH<2
8	V22240813A08	L2445487-01D,31,0.25,10,,A,R1A	NYTCL		pH>2
9	V22240813A09	d STD BENZ			
10	V22240813A10	L2444607-01,31,10,10,,A,R3F	NYTCL+FREON		
11	V22240813A11	L2444607-03,31,10,10,,A,R3F	NYTCL+FREON		
12	V22240813A12	L2444607-04,31,10,10,,A,R3F	NYTCL+FREON	TB	
13	V22240813A13	L2444607-02D,31,4.0,10,,A,R3F	NYTCL+FREON		pH<2
14	V22240813A14	L2444992-05D,31,4.0,10,,A,R3F	NYTCL+FREON		pH<2
15	V22240813A15	L2444992-04,31,10,10,,A,R3F	NYTCL+FREON		
16	V22240813A16	L2444992-03,31,10,10,,A,R3F	NYTCL+FREON		
17	V22240813A17	L2444992-06,31,10,10,,A,R3F	NYTCL+FREON	TB	
18	V22240813A18	L2445219-04,31,10,10,,B,R3F	NYTCL+FREON	TB	
19	V22240813A19	L2445219-03D,31,2.0,10,,A,R3F	NYTCL+FREON		pH<2
20	V22240813A20	L2445425-01,31,10,10,,C,R3B	NYTCL+FREON		
21	V22240813A21	L2445425-02,31,10,10,,A,R3B	NYTCL+FREON	TB	
22	V22240813A22	L2444902-01,31,10,10,,A,R4E	8260CURVE/FN		
23	V22240813A23	L2444902-02,31,10,10,,A,R4E	8260CURVE/FN	TB	
24	V22240813A24	L2445069-01,31,10,10,,A	NY/PCEBRK		
25	V22240813A25	L2445069-02D,31,4.0,10,,A	NY/PCEBRK		pH<2
26	V22240813A26	L2445069-03D,31,4.0,10,,A	NY/PCEBRK		pH<2
27	V22240813A27	L2444992-03MS,31,10,10,,A2,R3F	NYTCL+FREON		
28	V22240813A28	L2444992-03MSD,31,10,10,,A1,R3	NYTCL+FREON		
29	V22240813A29	H STD			
30	V22240813A30	BLK			
31	V22240813A31	BLK			

Inst: Gonzo BFB: V10571 Method GC 8260_RTX_VMS

Initials: PID IS/SS: V10605 Autosampler: 8260water

Date: **08/13/24** ICAL: V10594A,V10595 Concentrator: 8260

Run: **A** QC: ____ Seq:

Vial	DATA FILE	SAMPLE			pH<2
1	VG240813ABF1	BFB TUNE 07:56			
1	VG240813A01	8260 CCAL LCS			
2	VG240813A02	8260 CCAL LCSD			
3	VG240813A03	8260 CCAL			
4	VG240813A04	BLK			
5	VG240813A05	METHOD BLK			
6	VG240813A06	I2444997-02,31,10,10,,a	NJ/PCEBREAK		pH<2
7	VG240813A07	I2444997-04,31,10,10,,a	NJ/PCEBREAK		pH<2
8	VG240813A08	I2445487-01d,31,0.4,10,,c,r1a	NYTCL		pH>2
9	VG240813A09	DSTD			
10	VG240813A10	I2444525-01,31,10,10,,a	NJ/15/124TMB		
11	VG240813A11	I2445069-04,31,10,10,,a	NY/PCEBREAK	TB	
12	VG240813A12	I2445098-21,31,10,10,,a	NY/R2		
13	VG240813A13	I2445098-22,31,10,10,,a	NY/R2		
14	VG240813A14	I2445098-25,31,10,10,,a	NY/R2	TB	
15	VG240813A15	I2445045-12,31,10,10,,a	NJ/NOTICS	FB	
16	VG240813A16	I2445045-13,31,10,10,,a	NJ/NOTICS	TB	
17	VG240813A17	I2445195-01,31,10,10,,a	NYTCL		
18	VG240813A18	I2445195-02,31,10,10,,a	NYTCL		
19	VG240813A19	I2445195-03,31,10,10,,a	NYTCL		
20	VG240813A20	I2445195-04,31,10,10,,a	NYTCL		
21	VG240813A21	I2445195-05,31,10,10,,a	NYTCL		
22	VG240813A22	I2445335-01,31,10,10,,a	NY/R2		
23	VG240813A23	I2445335-02,31,10,10,,a	NY/R2		
24	VG240813A24	I2445335-03,31,10,10,,a	NY/R2		
25	VG240813A25	L2444516-06d,31,2.0,10,,C	NY/R2/10	CLOUDY,FOAM	pH<2
26	VG240813A26	L2444516-06DUP,31,2.0,10,,C	NJQC	CLOUDY,FOAM	pH<2
27	VG240813A27	L2444516-06MS,31,2.0,10,,C	NJQC	CLOUDY,FOAM	pH<2
28	VG240813A28	HSTD			
29	VG240813A29	BLK			
30	VG240813A30	BLK			

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Alpha Analytical

Laboratory Code: 11148

SDG Number: L2445770

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Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2445770
Report Date: 08/14/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2445770-01	LMW-6RD_32.75	WATER	1487 FIRST AVE	08/12/24 16:00	08/13/24
L2445770-02	LMW-7RS_16.75	WATER	1487 FIRST AVE	08/13/24 11:00	08/13/24
L2445770-03	LMW-8RD_27.75	WATER	1487 FIRST AVE	08/13/24 14:41	08/13/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2445770-02D: The pH was greater than two; however, the sample was analyzed within the method required holding time.

L2445770-02D: The sample has elevated detection limits due to the dilution required by the sample matrix (white, thick, very cloudy).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Report Date: 08/14/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2445770

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVE

Received : 13-AUG-2024
Reviewer : Mohammed Wahed

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	2.8	

Condition Information

1) All samples on COC received?	**YES**
2) Extra samples received?	**NO**
3) Are there any sample container discrepancies?	**NO**
4) Are there any discrepancies between COC & sample labels?	**NO**
5) Are samples in appropriate containers for requested analysis?	**YES**
6) Are samples properly preserved for requested analysis?	**YES**
7) Are samples within holding time for requested analysis?	**YES**
8) All sampling equipment returned?	**NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	**NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 14 2024, 02:16 pm

Login Number: L2445770
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 13AUG24 Due Date: 14AUG24

Sample #	Client ID	Mat	PR	Collected
L2445770-01	LMW-6RD_32.75		1	1A 12AUG24 16:00

Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 08/14/24

ASP-B,NYTCL-8260

L2445770-02	LMW-7RS_16.75		1	1A 13AUG24 11:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/14/24

NYTCL-8260

L2445770-03	LMW-8RD_27.75		1	1A 13AUG24 14:41

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/14/24

NYTCL-8260

Logged By: Ben Rao

L2445770 14AUG24
LANGAN – NJ

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab 8/14/24

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Project Information
Project Name: 1487 First Ave
Project Location: 1487 First Ave
Project # 100963701
(Use Project name as Project #) ☐
Project Manager: Jess Friscia
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date: 8/14
Rush (only if pre approved) ☒ # of Days: 1

Client Information
Client: LANGAN
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfriscia@langan.com

Deliverables
☐ ASP-A ☒ ASP-B ☒ Same as Client Info
☐ EQuIS (1 File) ☐ EQuIS (4 File) PO #
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS
VOCs

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments	Total Bottle
A5770-01	LMW-6RD-32.75	8/12	1600	AQ	RB	3 VOA Vials	3
-02	LMW-7RS-16.75	8/13	1100	AQ	RB		3
03	LMW-8RD-27.75	8/13	1441	AQ	RB		3

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	
Preservative	

Relinquished By:	Date/Time	Received By:	Date/Time
	8/13/24 1530	WIFI (Pace)	8/13/24 1532
WIFI (Pace)	8/13/24 1910	MSMA(AN)	8/13 1900
MSMA(AN)	8/14 140	Tyler Tyler	8/13 2300
		Tyler	8/14 01:40

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

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Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVE

Lab Number: L2445770
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
LMW-6RD_32.75 (L2445770-01)	96	90	79	113	0
LMW-7RS_16.75 (L2445770-02D)	96	90	82	113	0
LMW-8RD_27.75 (L2445770-03)	92	89	80	108	0
WG1959185-3LCS	94	91	81	109	0
WG1959185-4LCSD	94	91	82	104	0
WG1959185-5BLANK	93	91	81	111	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959185-3 **Analysis Date** : 08/14/24 06:26	**File ID**	: V22240814A01
LCSD Sample ID	: WG1959185-4 **Analysis Date** : 08/14/24 06:51	**File ID**	: V22240814A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.1	91	10	8.8	88	3	70-130	20
1,1-Dichloroethane	10	9.0	90	10	8.9	89	1	70-130	20
Chloroform	10	9.3	93	10	9.2	92	1	70-130	20
Carbon tetrachloride	10	12	120	10	12	120	0	63-132	20
1,2-Dichloropropane	10	8.3	83	10	8.8	88	6	70-130	20
Dibromochloromethane	10	8.9	89	10	9.3	93	4	63-130	20
1,1,2-Trichloroethane	10	7.9	79	10	8.4	84	6	70-130	20
Tetrachloroethene	10	12	120	10	12	120	0	70-130	20
Chlorobenzene	10	9.7	97	10	9.8	98	1	75-130	20
Trichlorofluoromethane	10	12	120	10	11	110	9	62-150	20
1,2-Dichloroethane	10	9.3	93	10	9.2	92	1	70-130	20
1,1,1-Trichloroethane	10	10	100	10	10	100	0	67-130	20
Bromodichloromethane	10	9.2	92	10	9.3	93	1	67-130	20
trans-1,3-Dichloropropene	10	7.1	71	10	7.4	74	4	70-130	20
cis-1,3-Dichloropropene	10	8.7	87	10	9.2	92	6	70-130	20
1,1-Dichloropropene	10	9.1	91	10	9.6	96	5	70-130	20
Bromoform	10	9.1	91	10	9.3	93	2	54-136	20
1,1,2,2-Tetrachloroethane	10	7.4	74	10	7.8	78	5	67-130	20
Benzene	10	9.2	92	10	8.7	87	6	70-130	20
Toluene	10	8.9	89	10	9.1	91	2	70-130	20
Ethylbenzene	10	9.1	91	10	9.3	93	2	70-130	20
Chloromethane	10	8.9	89	10	8.3	83	7	64-130	20
Bromomethane	10	4.4	44	10	4.1	41	7	39-139	20
Vinyl chloride	10	10	100	10	9.7	97	3	55-140	20
Chloroethane	10	10	100	10	10	100	0	55-138	20
1,1-Dichloroethene	10	11	110	10	11	110	0	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959185-3 **Analysis Date** : 08/14/24 06:26	**File ID**	: V22240814A01
LCSD Sample ID	: WG1959185-4 **Analysis Date** : 08/14/24 06:51	**File ID**	: V22240814A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	10	100	10	9.9	99	1	70-130	20
Trichloroethene	10	9.4	94	10	10	100	6	70-130	20
1,2-Dichlorobenzene	10	9.8	98	10	9.8	98	0	70-130	20
1,3-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,4-Dichlorobenzene	10	9.9	99	10	9.8	98	1	70-130	20
Methyl tert butyl ether	10	8.2	82	10	9.1	91	10	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	19	95	20	20	100	5	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	9.8	98	2	70-130	20
Dibromomethane	10	9.6	96	10	9.5	95	1	70-130	20
1,2,3-Trichloropropane	10	7.2	72	10	7.7	77	7	64-130	20
Acrylonitrile	10	9.4	94	10	9.5	95	1	70-130	20
Styrene	20	20	100	20	20	100	0	70-130	20
Dichlorodifluoromethane	10	9.9	99	10	9.8	98	1	36-147	20
Acetone	10	8.7	87	10	9.1	91	4	58-148	20
Carbon disulfide	10	10	100	10	9.8	98	2	51-130	20
2-Butanone	10	8.2	82	10	9.8	98	18	63-138	20
Vinyl acetate	10	8.2	82	10	9.0	90	9	70-130	20
4-Methyl-2-pentanone	10	6.9	69	10	7.4	74	7	59-130	20
2-Hexanone	10	6.9	69	10	7.7	77	11	57-130	20
Bromochloromethane	10	12	120	10	12	120	0	70-130	20
2,2-Dichloropropane	10	10	100	10	10	100	0	63-133	20
1,2-Dibromoethane	10	9.4	94	10	9.7	97	3	70-130	20
1,3-Dichloropropane	10	7.9	79	10	8.4	84	6	70-130	20
1,1,1,2-Tetrachloroethane	10	10	100	10	10	100	0	64-130	20
Bromobenzene	10	9.8	98	10	9.9	99	1	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959185-3 **Analysis Date** : 08/14/24 06:26	**File ID**	: V22240814A01
LCSD Sample ID	: WG1959185-4 **Analysis Date** : 08/14/24 06:51	**File ID**	: V22240814A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	8.8	88	10	8.8	88	0	53-136	20
sec-Butylbenzene	10	9.1	91	10	9.2	92	1	70-130	20
tert-Butylbenzene	10	9.7	97	10	9.9	99	2	70-130	20
o-Chlorotoluene	10	8.4	84	10	8.2	82	2	70-130	20
p-Chlorotoluene	10	8.0	80	10	8.2	82	2	70-130	20
1,2-Dibromo-3-chloropropane	10	8.8	88	10	9.0	90	2	41-144	20
Hexachlorobutadiene	10	11	110	10	11	110	0	63-130	20
Isopropylbenzene	10	9.1	91	10	9.3	93	2	70-130	20
p-Isopropyltoluene	10	9.4	94	10	9.5	95	1	70-130	20
Naphthalene	10	8.7	87	10	8.9	89	2	70-130	20
n-Propylbenzene	10	8.6	86	10	8.8	88	2	69-130	20
1,2,3-Trichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,2,4-Trichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,3,5-Trimethylbenzene	10	9.0	90	10	9.1	91	1	64-130	20
1,2,4-Trimethylbenzene	10	9.0	90	10	9.0	90	0	70-130	20
1,4-Dioxane	500	400	80	500	410	82	2	56-162	20
p-Diethylbenzene	10	9.3	93	10	9.4	94	1	70-130	20
p-Ethyltoluene	10	9.0	90	10	9.1	91	1	70-130	20
1,2,4,5-Tetramethylbenzene	10	8.4	84	10	8.6	86	2	70-130	20
Ethyl ether	10	8.4	84	10	8.8	88	5	59-134	20
trans-1,4-Dichloro-2-butene	10	7.9	79	10	8.1	81	3	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1959185-5	**Lab File ID**	: V22240814A05
Instrument ID	: VOA122		
Matrix	: WATER	**Analysis Date**	: 08/14/24 08:06

Client Sample No.	Lab Sample ID	Analysis Date
WG1959185-3LCS	WG1959185-3	08/14/24 06:26
WG1959185-4LCSD	WG1959185-4	08/14/24 06:51
LMW-8RD_27.75	L2445770-03	08/14/24 08:31
LMW-6RD_32.75	L2445770-01	08/14/24 08:56
LMW-7RS_16.75	L2445770-02D	08/14/24 09:20

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 07/29/24 12:26
Tune Standard	: WG1953132-1	**Tune File ID**	: V22240729ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	23.9
75	30.0 - 80.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (.7)1
174	Greater than 50.0% of mass 95	78.4
175	5.0 - 9.0% of mass 174	6.1 (7.7)1
176	Greater than 95.0% but less than 101% of mass	76.6 (97.7)1
177	5.0 - 9.0% of mass 176	5.2 (6.8)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1858437-1	V22240729A03	07/29/24 13:23
STD0.5PPB	R1858437-2	V22240729A04	07/29/24 13:47
STD2PPB	R1858437-3	V22240729A06	07/29/24 14:36
STD10PPB	R1858437-4	V22240729A08	07/29/24 15:25
STD30PPB	R1858437-5	V22240729A09	07/29/24 15:50
STD80PPB	R1858437-6	V22240729A10	07/29/24 16:15
STD120PPB	R1858437-7	V22240729A11	07/29/24 16:40
STD200PPB	R1858437-8	V22240729A12	07/29/24 17:04
Correlation Data Summary	R1858437-9	V22240729A17	07/29/24 19:08
ICV Quant Report	R1858437-9	V22240729A17	07/29/24 19:08

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 08/14/24 06:13
Tune Standard	: WG1959185-1	**Tune File ID**	: V22240814ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 80.0% of mass 95	46
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.4 (.4)1
174	Greater than 50.0% of mass 95	97.9
175	5.0 - 9.0% of mass 174	7.6 (7.8)1
176	Greater than 95.0% but less than 101% of mass	94.2 (96.2)1
177	5.0 - 9.0% of mass 176	6.3 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1959185-2CCAL	WG1959185-2	V22240814A01	08/14/24 06:26
WG1959185-3LCS	WG1959185-3	V22240814A01	08/14/24 06:26
WG1959185-4LCSD	WG1959185-4	V22240814A02	08/14/24 06:51
WG1959185-5BLANK	WG1959185-5	V22240814A05	08/14/24 08:06
LMW-8RD_27.75	L2445770-03	V22240814A06	08/14/24 08:31
LMW-6RD_32.75	L2445770-01	V22240814A07	08/14/24 08:56
LMW-7RS_16.75	L2445770-02D	V22240814A08	08/14/24 09:20

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 08/14/24 06:26:00
Sample No	: WG1959185-2	**Lab File ID**	: V22240814A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1959185-2	410026	5.98	350491	9.52	194738	12.23
Upper Limit	820052	6.48	700982	10.02	389476	12.73
Lower Limit	205013	5.48	175246	9.02	97369	11.73
Sample ID						
WG1959185-3 LCS	410026	5.98	350491	9.52	194738	12.23
WG1959185-4 LCSD	422419	5.98	357300	9.52	196004	12.23
WG1959185-5 BLANK	399553	5.98	352108	9.52	181128	12.23
LMW-8RD_27.75	344986	5.97	312499	9.52	156195	12.23
LMW-6RD_32.75	390179	5.98	349989	9.52	181357	12.23
LMW-7RS_16.75	362261	5.97	322615	9.52	156616	12.23

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Date Created: 03/15/23
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Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-01	**Date Collected**	: 08/12/24 16:00
Client ID	: LMW-6RD_32.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.17	0.50	0.16	J
108-88-3	Toluene	3.4	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.36	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-01	**Date Collected**	: 08/12/24 16:00
Client ID	: LMW-6RD_32.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	6.5	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	3.2	5.0	1.9	J
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	1.0	5.0	1.0	J
591-78-6	2-Hexanone	2.3	5.0	1.0	J
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-01	**Date Collected**	: 08/12/24 16:00
Client ID	: LMW-6RD_32.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-01	**Date Collected**	: 08/12/24 16:00
Client ID	: LMW-6RD_32.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A07	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-02D	**Date Collected**	: 08/13/24 11:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 2000
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A08	**Instrument ID**	: VOA122
Sample Amount	: 0.005 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	5000	1400	U
75-34-3	1,1-Dichloroethane	ND	5000	1400	U
67-66-3	Chloroform	ND	5000	1400	U
56-23-5	Carbon tetrachloride	ND	1000	270	U
78-87-5	1,2-Dichloropropane	ND	2000	270	U
124-48-1	Dibromochloromethane	ND	1000	300	U
79-00-5	1,1,2-Trichloroethane	ND	3000	1000	U
127-18-4	Tetrachloroethene	ND	1000	360	U
108-90-7	Chlorobenzene	ND	5000	1400	U
75-69-4	Trichlorofluoromethane	ND	5000	1400	U
107-06-2	1,2-Dichloroethane	ND	1000	260	U
71-55-6	1,1,1-Trichloroethane	ND	5000	1400	U
75-27-4	Bromodichloromethane	ND	1000	380	U
10061-02-6	trans-1,3-Dichloropropene	ND	1000	330	U
10061-01-5	cis-1,3-Dichloropropene	ND	1000	290	U
542-75-6	1,3-Dichloropropene, Total	ND	1000	290	U
563-58-6	1,1-Dichloropropene	ND	5000	1400	U
75-25-2	Bromoform	ND	4000	1300	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1000	330	U
71-43-2	Benzene	ND	1000	320	U
108-88-3	Toluene	ND	5000	1400	U
100-41-4	Ethylbenzene	ND	5000	1400	U
74-87-3	Chloromethane	ND	5000	1400	U
74-83-9	Bromomethane	ND	5000	1400	U
75-01-4	Vinyl chloride	ND	2000	140	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-02D	**Date Collected**	: 08/13/24 11:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 2000
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A08	**Instrument ID**	: VOA122
Sample Amount	: 0.005 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	5000	1400	U
75-35-4	1,1-Dichloroethene	ND	1000	340	U
156-60-5	trans-1,2-Dichloroethene	ND	5000	1400	U
79-01-6	Trichloroethene	ND	1000	350	U
95-50-1	1,2-Dichlorobenzene	ND	5000	1400	U
541-73-1	1,3-Dichlorobenzene	ND	5000	1400	U
106-46-7	1,4-Dichlorobenzene	ND	5000	1400	U
1634-04-4	Methyl tert butyl ether	ND	5000	330	U
179601-23-1	p/m-Xylene	ND	5000	1400	U
95-47-6	o-Xylene	ND	5000	1400	U
1330-20-7	Xylenes, Total	ND	5000	1400	U
156-59-2	cis-1,2-Dichloroethene	ND	5000	1400	U
540-59-0	1,2-Dichloroethene, Total	ND	5000	1400	U
74-95-3	Dibromomethane	ND	10000	2000	U
96-18-4	1,2,3-Trichloropropane	ND	5000	1400	U
107-13-1	Acrylonitrile	ND	10000	3000	U
100-42-5	Styrene	ND	5000	1400	U
75-71-8	Dichlorodifluoromethane	ND	10000	2000	U
67-64-1	Acetone	ND	10000	2900	U
75-15-0	Carbon disulfide	ND	10000	2000	U
78-93-3	2-Butanone	ND	10000	3900	U
108-05-4	Vinyl acetate	ND	10000	2000	U
108-10-1	4-Methyl-2-pentanone	ND	10000	2000	U
591-78-6	2-Hexanone	ND	10000	2000	U
74-97-5	Bromochloromethane	ND	5000	1400	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-02D	**Date Collected**	: 08/13/24 11:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 2000
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A08	**Instrument ID**	: VOA122
Sample Amount	: 0.005 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	5000	1400	U
106-93-4	1,2-Dibromoethane	ND	4000	1300	U
142-28-9	1,3-Dichloropropane	ND	5000	1400	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	5000	1400	U
108-86-1	Bromobenzene	ND	5000	1400	U
104-51-8	n-Butylbenzene	ND	5000	1400	U
135-98-8	sec-Butylbenzene	ND	5000	1400	U
98-06-6	tert-Butylbenzene	ND	5000	1400	U
95-49-8	o-Chlorotoluene	ND	5000	1400	U
106-43-4	p-Chlorotoluene	ND	5000	1400	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	5000	1400	U
87-68-3	Hexachlorobutadiene	ND	5000	1400	U
98-82-8	Isopropylbenzene	ND	5000	1400	U
99-87-6	p-Isopropyltoluene	ND	5000	1400	U
91-20-3	Naphthalene	ND	5000	1400	U
103-65-1	n-Propylbenzene	ND	5000	1400	U
87-61-6	1,2,3-Trichlorobenzene	ND	5000	1400	U
120-82-1	1,2,4-Trichlorobenzene	ND	5000	1400	U
108-67-8	1,3,5-Trimethylbenzene	ND	5000	1400	U
95-63-6	1,2,4-Trimethylbenzene	ND	5000	1400	U
123-91-1	1,4-Dioxane	ND	500000	120000	U
105-05-5	p-Diethylbenzene	ND	4000	1400	U
622-96-8	p-Ethyltoluene	ND	4000	1400	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	4000	1100	U
60-29-7	Ethyl ether	ND	5000	1400	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-02D	**Date Collected**	: 08/13/24 11:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 2000
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A08	**Instrument ID**	: VOA122
Sample Amount	: 0.005 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	5000	1400	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-03	**Date Collected**	: 08/13/24 14:41
Client ID	: LMW-8RD_27.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.95	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.18	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-03	**Date Collected**	: 08/13/24 14:41
Client ID	: LMW-8RD_27.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.2	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.2	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	1.6	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	1.7	5.0	1.0	J
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-03	**Date Collected**	: 08/13/24 14:41
Client ID	: LMW-8RD_27.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2445770-03	**Date Collected**	: 08/13/24 14:41
Client ID	: LMW-8RD_27.75	**Date Received**	: 08/13/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/14/24 08:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A06	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959185-5	**Date Collected**	: NA
Client ID	: WG1959185-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/14/24 08:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959185-5	**Date Collected**	: NA
Client ID	: WG1959185-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/14/24 08:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959185-5	**Date Collected**	: NA
Client ID	: WG1959185-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/14/24 08:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959185-5	**Date Collected**	: NA
Client ID	: WG1959185-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/14/24 08:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240814A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A06.D
Acq On : 14 Aug 2024 08:31 am
Operator : VOA122:PID
Sample : L2445770-03,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 14 09:14:47 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.970	96	344986	10.000 ug/L	0.00
Standard Area 1 = 410026			Recovery =	84.14%	
62) Chlorobenzene-d5	9.519	117	312499	10.000 ug/L	0.00
Standard Area 1 = 350491			Recovery =	89.16%	
83) 1,4-Dichlorobenzene-d4	12.229	152	156195	10.000 ug/L	0.00
Standard Area 1 = 194738			Recovery =	80.21%	
System Monitoring Compounds					
38) Dibromofluoromethane	5.157	113	129924	10.778 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.78%	
46) 1,2-Dichloroethane-d4	5.682	65	93887	9.214 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	92.14%	
63) Toluene-d8	7.675	98	355496	8.928 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.28%	
87) 4-Bromofluorobenzene	11.019	95	114200	8.029 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	80.29%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	1.828	50	130	N.D.	
4) Vinyl chloride	1.880	62	1299	0.181 ug/L	86
5) Bromomethane	2.188	94	66	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.962	76	7102	0.453 ug/L	93
15) Methylene chloride	3.473	84	414	N.D.	
17) Acetone	3.512	43	1853	1.607 ug/L #	81
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	3.722	73	608	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D. d	
29) Vinyl acetate	0.000		0	N.D. d	
30) cis-1,2-Dichloroethene	4.718	96	7148	1.155 ug/L	89
31) 2,2-Dichloropropane	0.000		0	N.D.	
32) Bromochloromethane	0.000		0	N.D.	
34) Chloroform	0.000		0	N.D.	

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A06.D
Acq On : 14 Aug 2024 08:31 am
Operator : VOA122:PID
Sample : L2445770-03,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 14 09:14:47 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.	
39) 1,1,1-Trichloroethane	0.000		0	N.D.	
41) 2-Butanone	5.269	43	1759M2	1.085 ug/L	
42) 1,1-Dichloropropene	0.000		0	N.D.	
44) Benzene	5.557	78	20774	0.951 ug/L #	88
47) 1,2-Dichloroethane	0.000		0	N.D.	
51) Trichloroethene	0.000		0	N.D.	
53) Dibromomethane	0.000		0	N.D.	
54) 1,2-Dichloropropane	0.000		0	N.D.	
57) Bromodichloromethane	0.000		0	N.D.	
60) 1,4-Dioxane	0.000		0	N.D.	
61) cis-1,3-Dichloropropene	0.000		0	N.D.	
64) Toluene	7.730	92	6401	0.497 ug/L	94
65) 4-Methyl-2-pentanone	8.161	58	1798	1.745 ug/L #	50
66) Tetrachloroethene	0.000		0	N.D.	
68) trans-1,3-Dichloropropene	0.000		0	N.D.	
71) 1,1,2-Trichloroethane	0.000		0	N.D.	
72) Chlorodibromomethane	0.000		0	N.D.	
73) 1,3-Dichloropropane	0.000		0	N.D.	
74) 1,2-Dibromoethane	0.000		0	N.D.	
76) 2-Hexanone	0.000		0	N.D. d	
77) Chlorobenzene	0.000		0	N.D.	
78) Ethylbenzene	9.589	91	1674	N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
80) p/m Xylene	9.771	106	1103	0.117 ug/L	91
81) o Xylene	10.311	106	461	N.D.	
82) Styrene	10.374	104	757	N.D.	
84) Bromoform	0.000		0	N.D.	
86) Isopropylbenzene	0.000		0	N.D.	
88) Bromobenzene	0.000		0	N.D.	
89) n-Propylbenzene	11.019	91	348	N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
92) 4-Ethyltoluene	11.300	105	483	N.D.	
93) 2-Chlorotoluene	0.000		0	N.D.	
94) 1,3,5-Trimethylbenzene	11.405	105	72	N.D.	
95) 1,2,3-Trichloropropane	0.000		0	N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d	
97) 4-Chlorotoluene	0.000		0	N.D.	
98) tert-Butylbenzene	0.000		0	N.D.	

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A06.D
Acq On : 14 Aug 2024 08:31 am
Operator : VOA122:PID
Sample : L2445770-03,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 14 09:14:47 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	702	N.D.		
102) sec-Butylbenzene	0.000		0	N.D.	d	
103) p-Isopropyltoluene	0.000		0	N.D.	d	
104) 1,3-Dichlorobenzene	0.000		0	N.D.		
105) 1,4-Dichlorobenzene	0.000		0	N.D.		
106) p-Diethylbenzene	0.000		0	N.D.		
107) n-Butylbenzene	0.000		0	N.D.		
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	14.088	180	64	N.D.		
114) Naphthalene	14.387	128	1604	0.405	ug/L	100
115) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

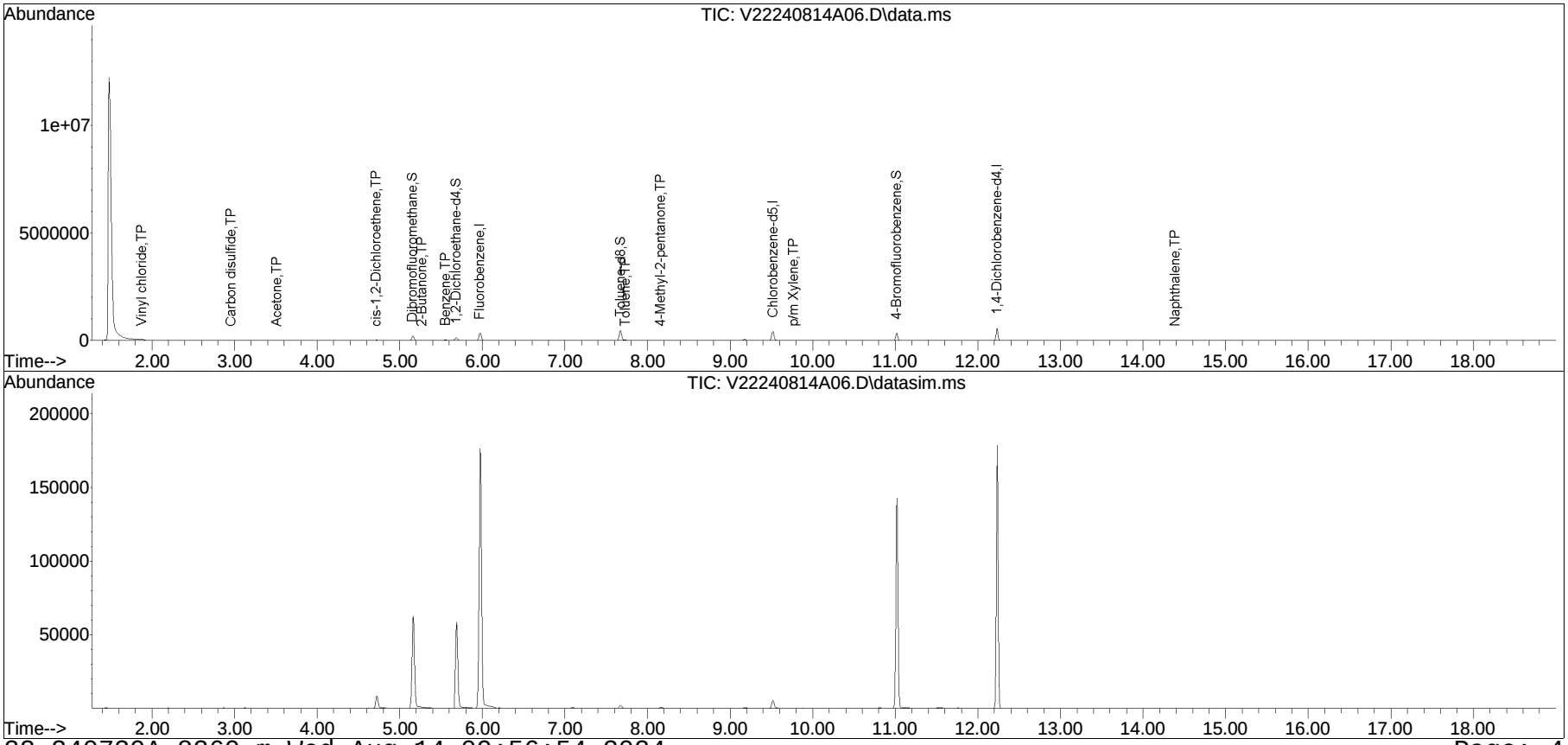
(#) = qualifier out of range (m) = manual integration (+) = signals summed

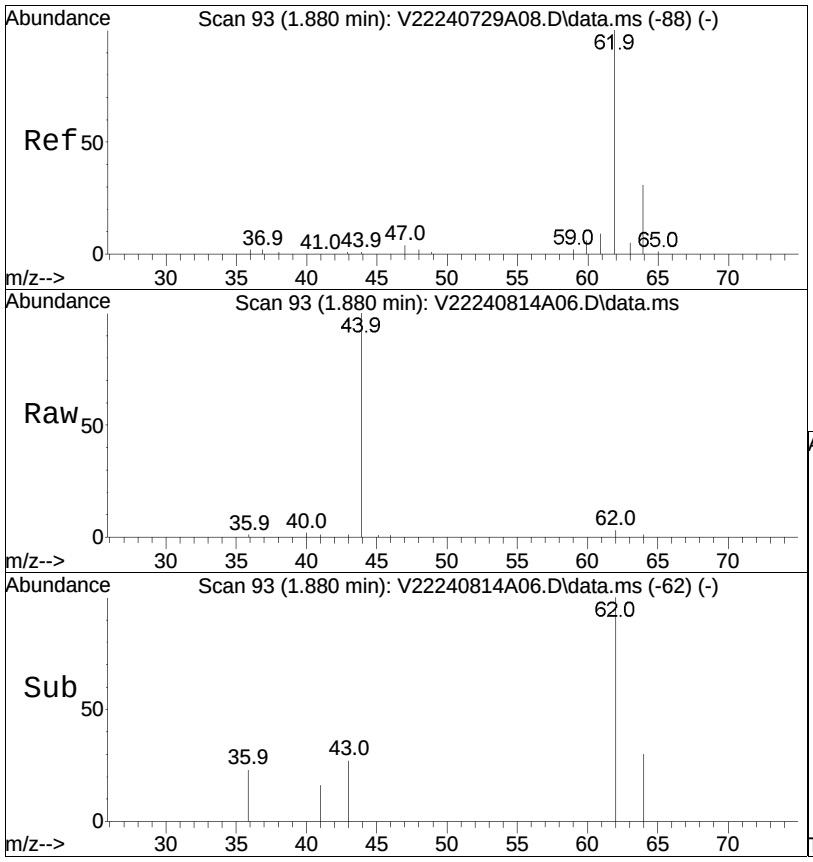
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A06.D
Acq On : 14 Aug 2024 08:31 am
Operator : VOA122:PID
Sample : L2445770-03,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 14 09:14:47 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240814A01.D•

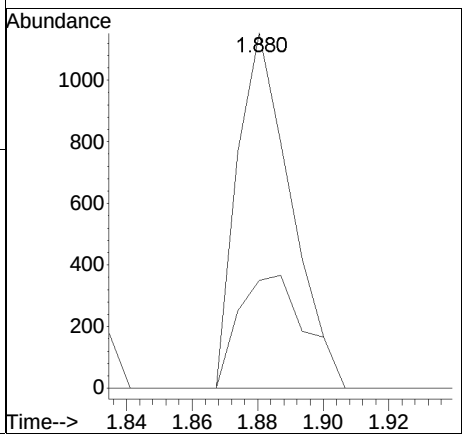


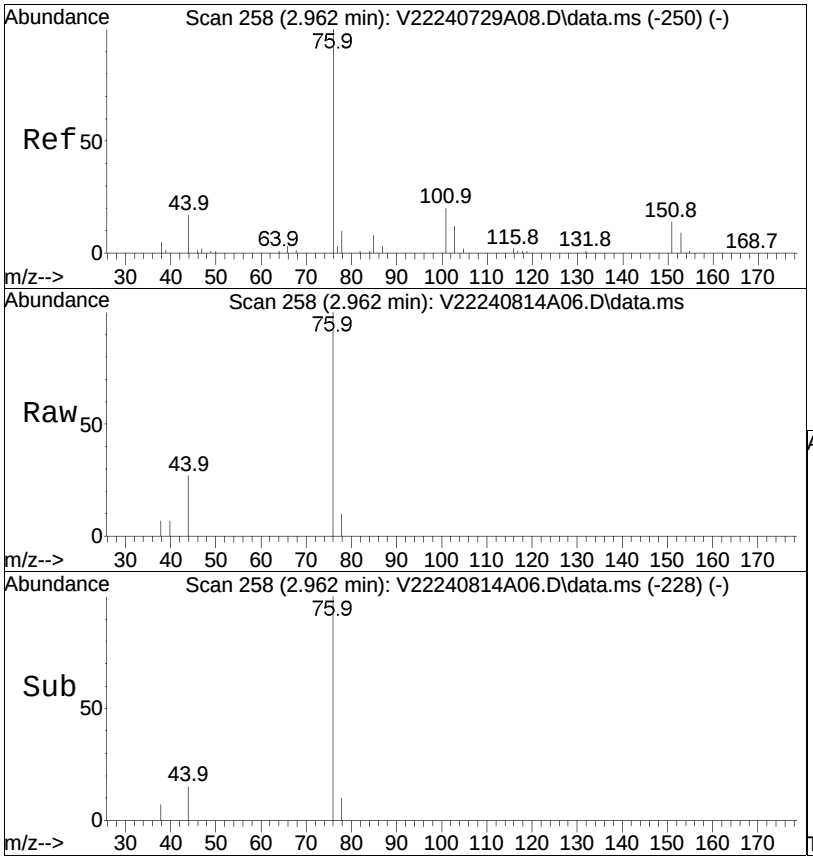


#4
Vinyl chloride
Concen: 0.18 ug/L
RT: 1.880 min Scan# 93
Delta R.T. 0.000 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 62 Resp: 1299

Ion	Ratio	Lower	Upper
62	100		
64	40.0	12.0	52.0

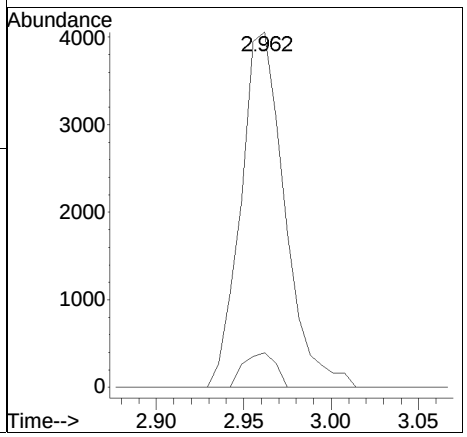


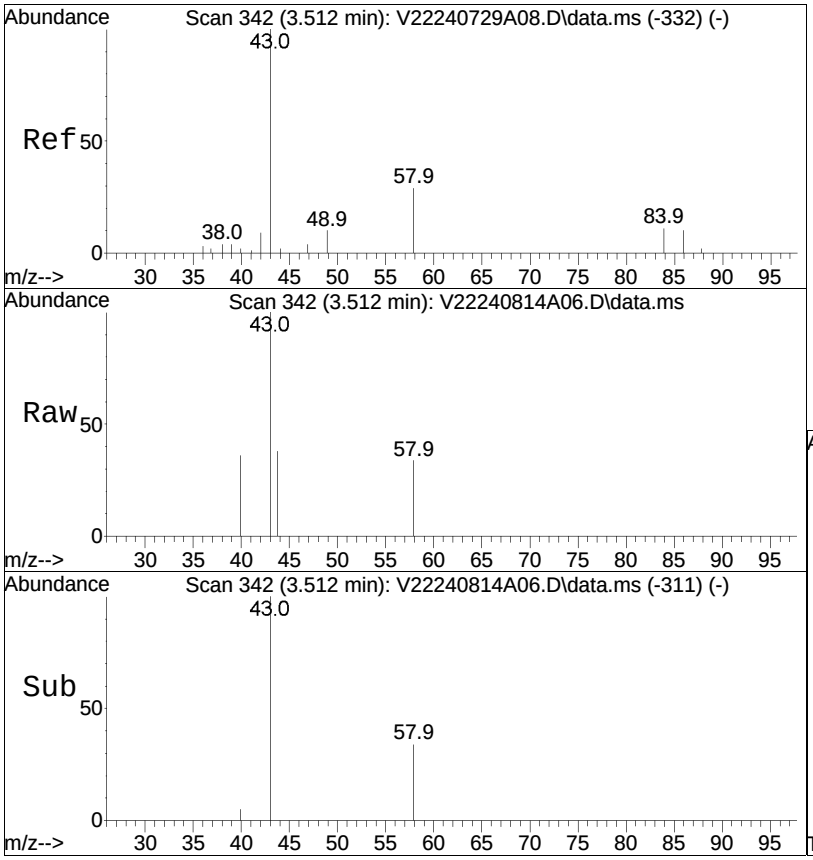


#11
Carbon disulfide
Concen: 0.45 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 76 Resp: 7102

Ion	Ratio	Lower	Upper
76	100		
78	7.2	6.4	13.4

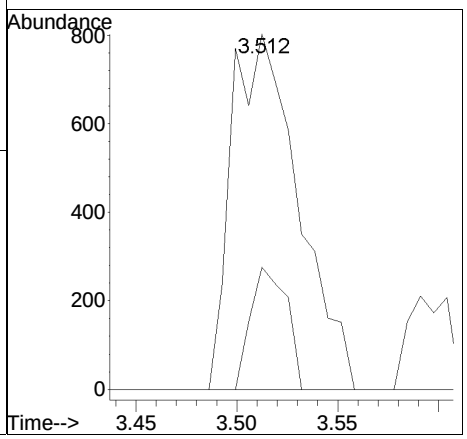


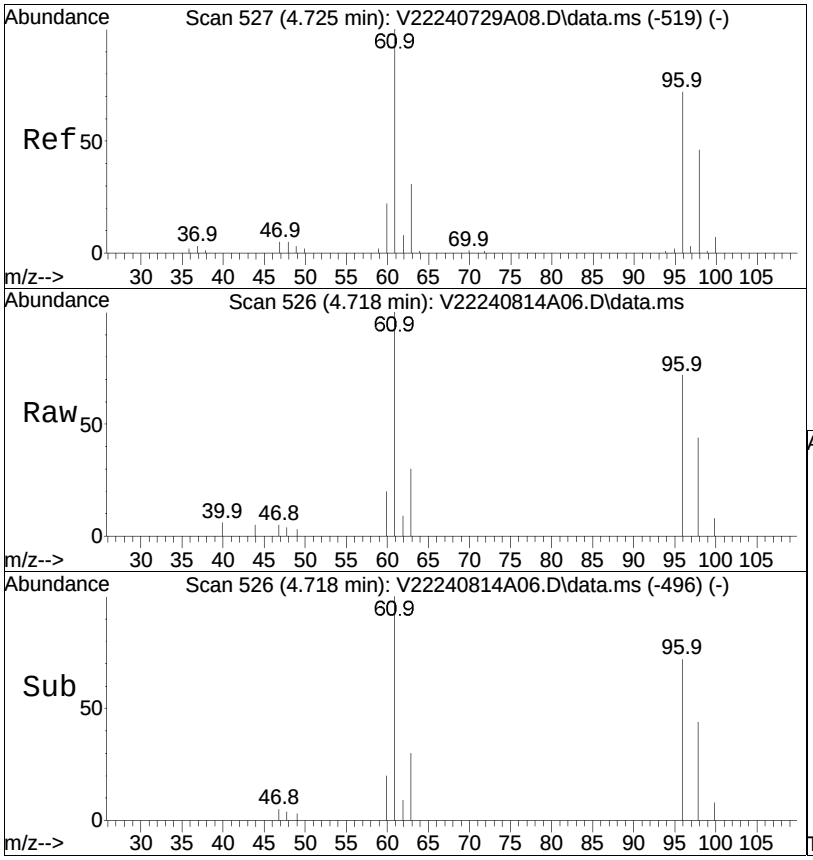


#17
Acetone
Concen: 1.61 ug/L
RT: 3.512 min Scan# 342
Delta R.T. 0.000 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 43 Resp: 1853

Ion	Ratio	Lower	Upper
43	100		
58	18.6	23.1	34.7#

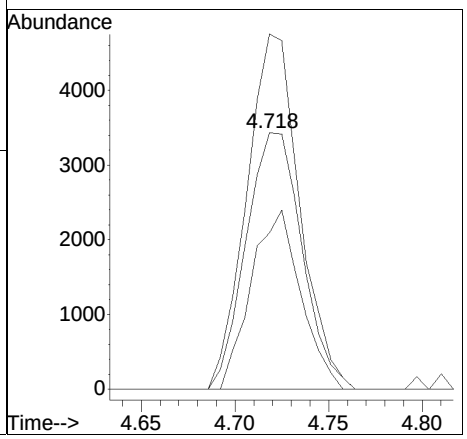


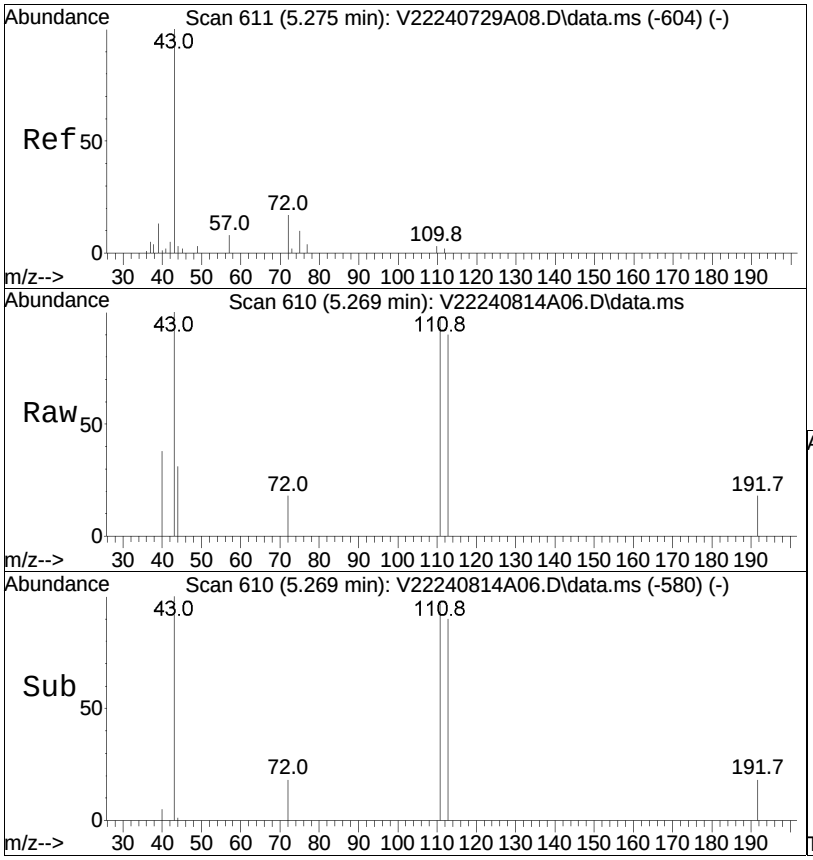


#30
cis-1,2-Dichloroethene
Concen: 1.16 ug/L
RT: 4.718 min Scan# 526
Delta R.T. -0.007 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 96 Resp: 7148

Ion	Ratio	Lower	Upper
96	100		
61	130.9	90.3	135.5
98	62.0	50.8	76.2

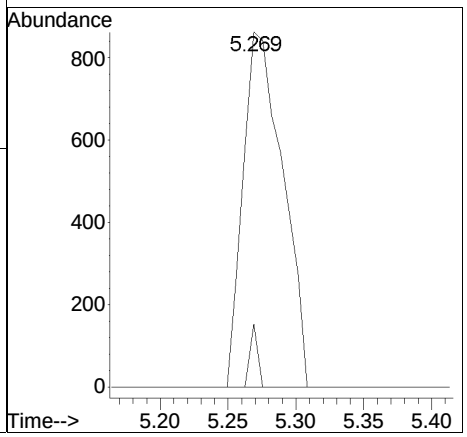


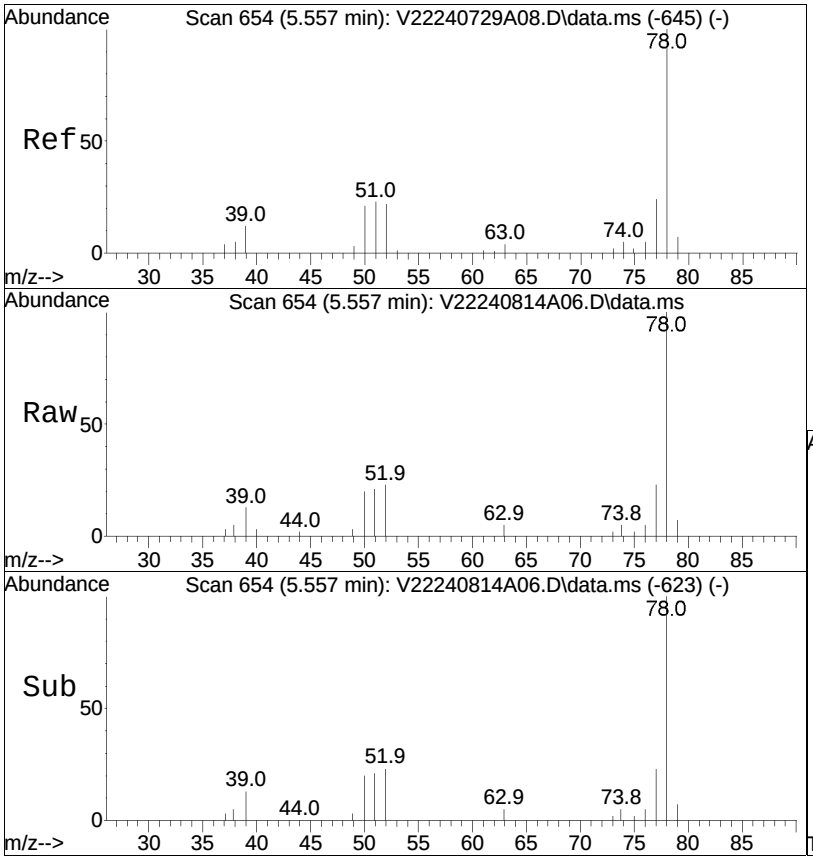


#41
2-Butanone
Concen: 1.09 ug/L M2
RT: 5.269 min Scan# 610
Delta R.T. -0.006 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 43 Resp: 1759

Ion	Ratio	Lower	Upper
43	100		
72	0.0	45.8	68.8#

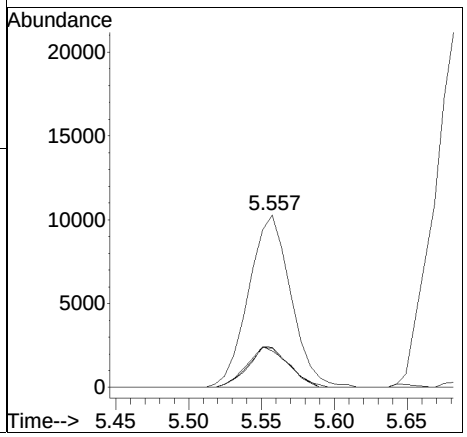


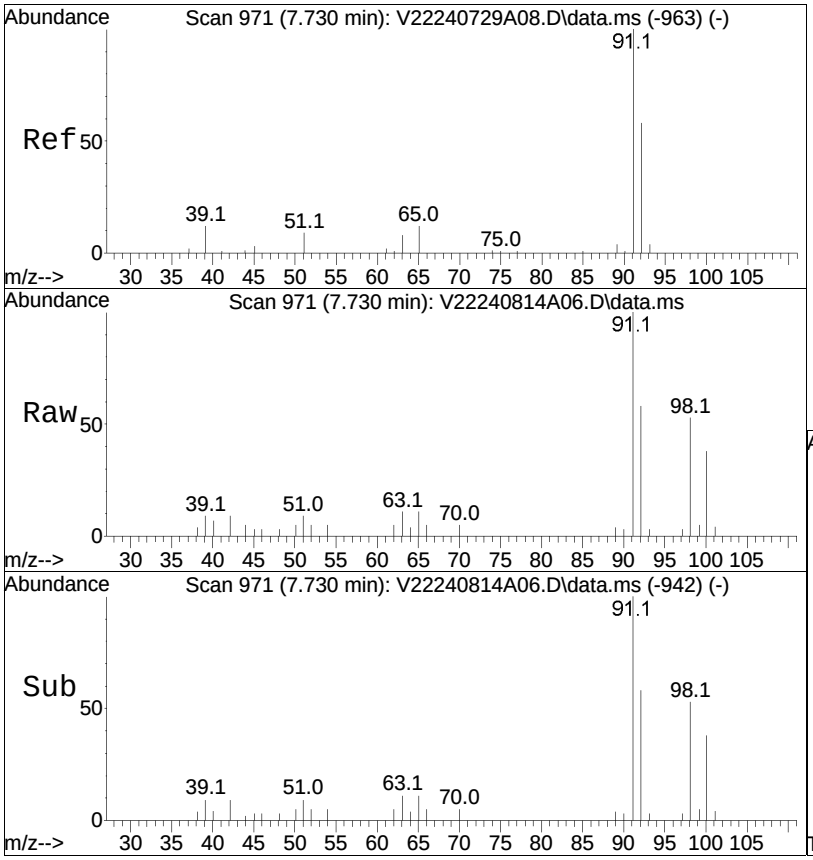


#44
Benzene
Concen: 0.95 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 78 Resp: 20774

Ion	Ratio	Lower	Upper
78	100		
77	22.7	15.4	32.0
51	23.4	9.8	20.4#
52	22.7	9.2	19.2#

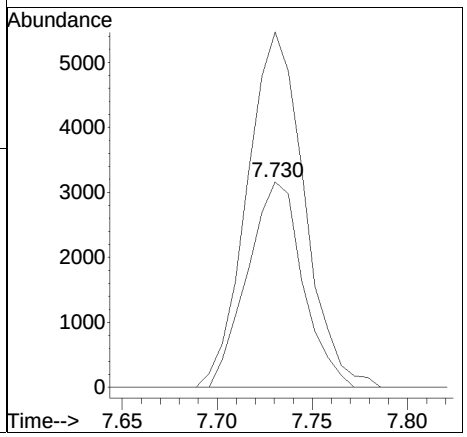


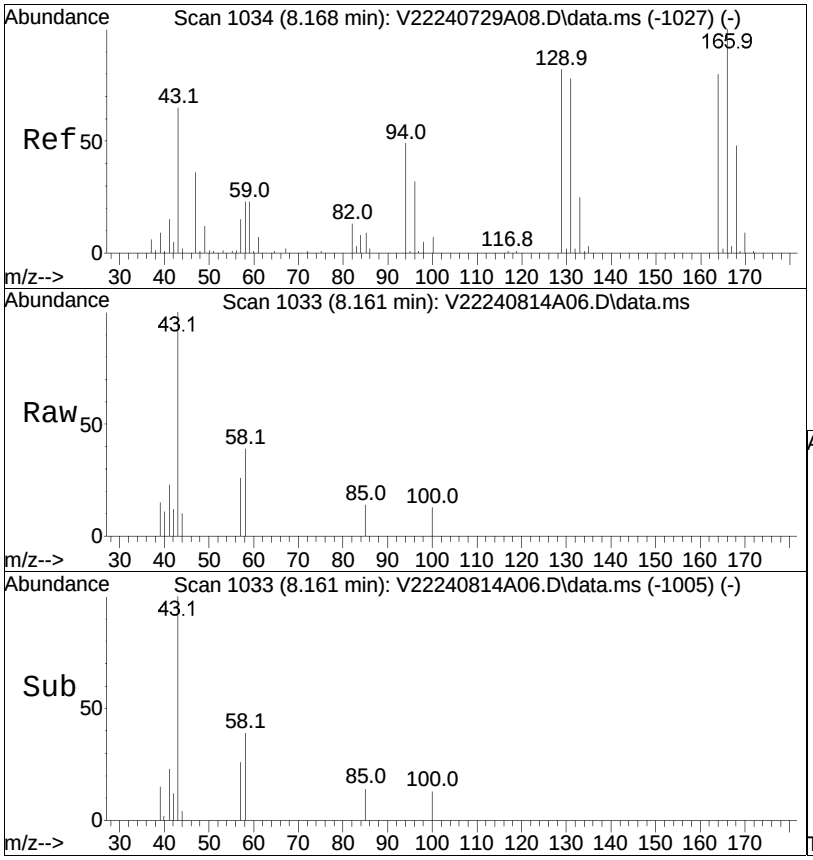


#64
Toluene
Concen: 0.50 ug/L
RT: 7.730 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 92 Resp: 6401

Ion	Ratio	Lower	Upper
92	100		
91	179.0	137.0	205.6

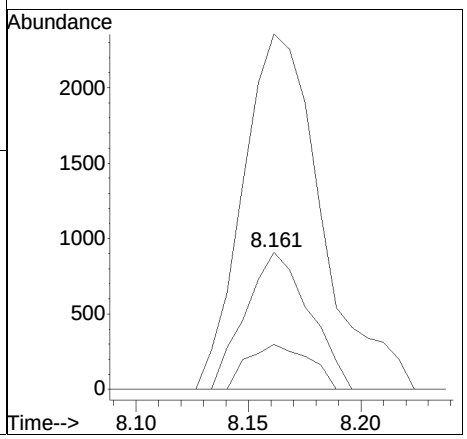


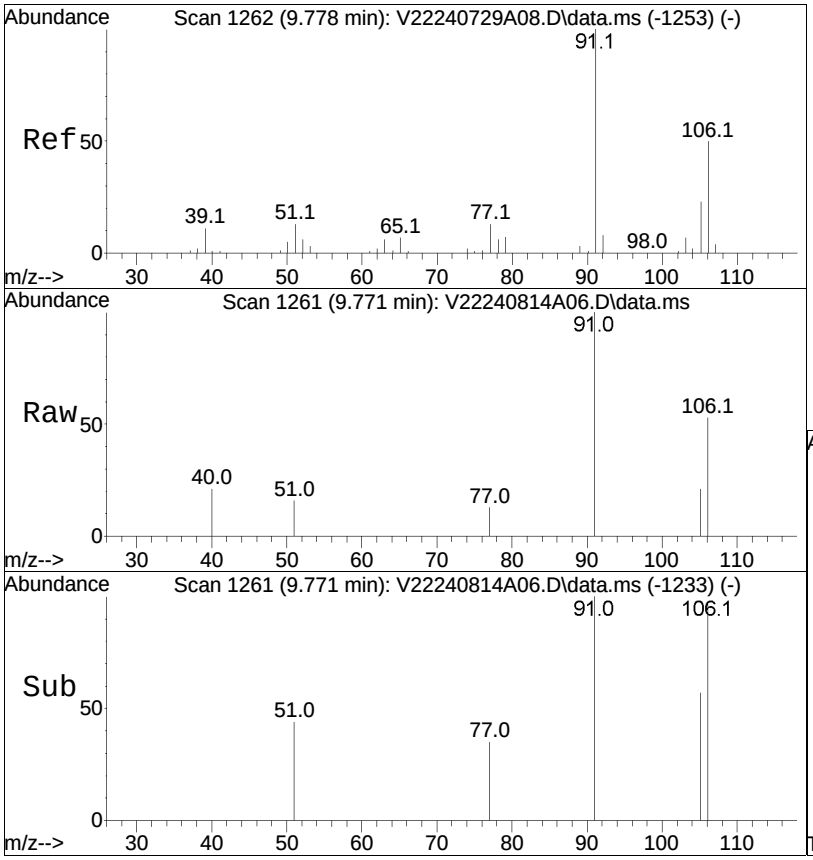


#65
4-Methyl-2-pentanone
Concen: 1.75 ug/L
RT: 8.161 min Scan# 1033
Delta R.T. -0.007 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion: 58 Resp: 1798

Ion	Ratio	Lower	Upper
58	100		
100	31.7	36.2	54.4#
43	319.4	181.8	272.8#

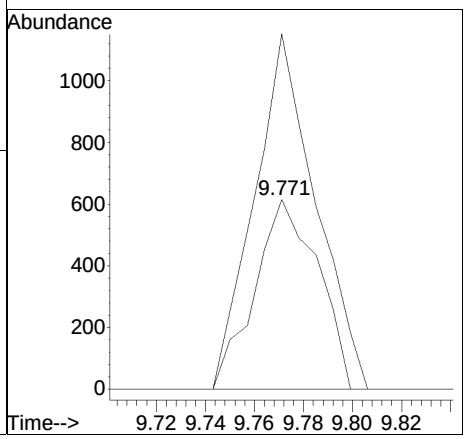


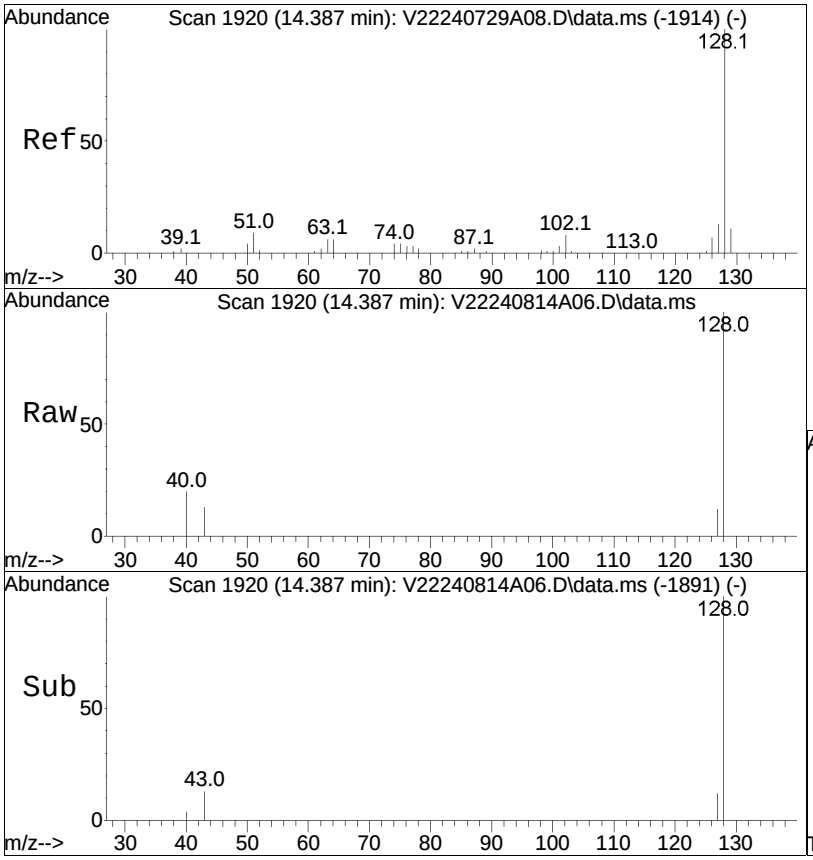


#80
p/m Xylene
Concen: 0.12 ug/L
RT: 9.771 min Scan# 1261
Delta R.T. -0.007 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

Tgt Ion:106 Resp: 1103

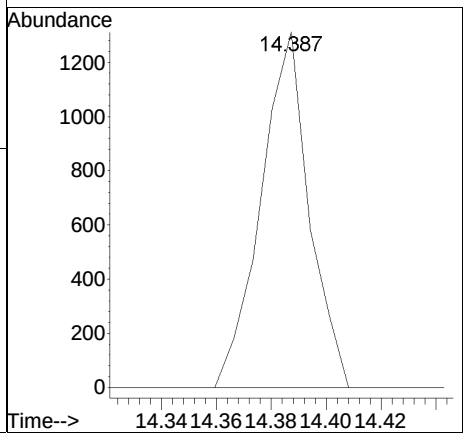
Ion	Ratio	Lower	Upper
106	100		
91	181.4	156.0	234.0





#114
Naphthalene
Concen: 0.41 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240814A06.D
Acq: 14 Aug 2024 08:31 am

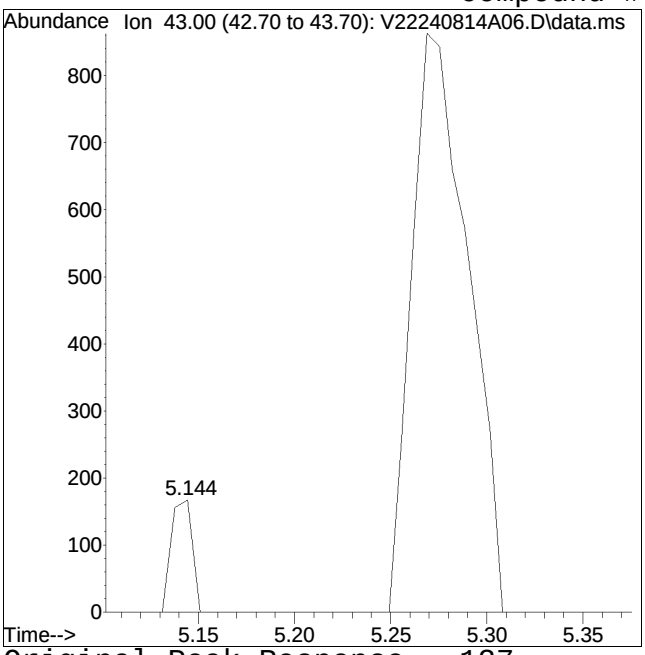
Tgt Ion:128 Resp: 1604



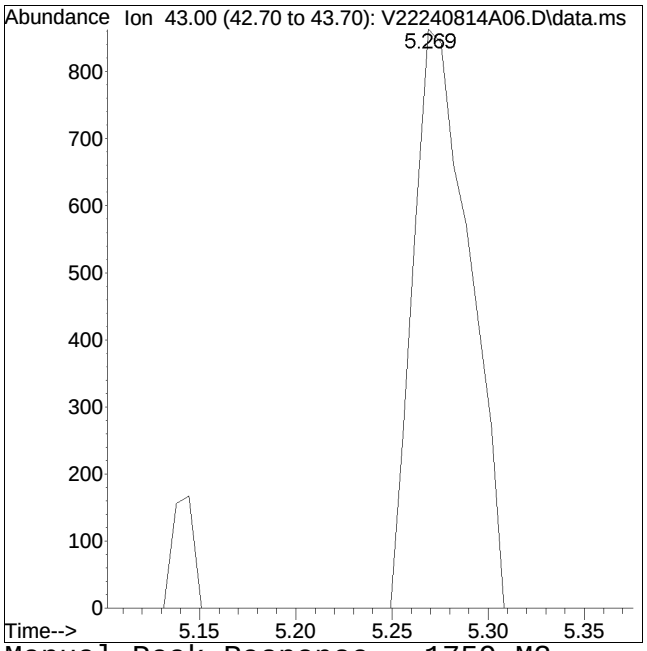
Manual Integration Report

Data Path : K:\VOA122\2024\240814A\ QMethod : V122_240729A_8260.m
Data File : V22240814A06.D Operator : VOA122:PID
Date Inj'd : 8/14/2024 8:31 am Instrument : VOA 122
Sample : L2445770-03,31,10,10,,A,R1 Quant Date : 8/14/2024 9:14 am

Compound #41: 2-Butanone



Original Peak Response = 127



Manual Peak Response = 1759 M2

M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A07.D
Acq On : 14 Aug 2024 08:56 am
Operator : VOA122:PID
Sample : L2445770-01,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 14 09:32:15 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.977	96	390179	10.000 ug/L	0.00
Standard Area 1 = 410026			Recovery =	95.16%	
62) Chlorobenzene-d5	9.519	117	349989	10.000 ug/L	0.00
Standard Area 1 = 350491			Recovery =	99.86%	
83) 1,4-Dichlorobenzene-d4	12.229	152	181357	10.000 ug/L	0.00
Standard Area 1 = 194738			Recovery =	93.13%	
System Monitoring Compounds					
38) Dibromofluoromethane	5.158	113	153877	11.287 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	112.87%	
46) 1,2-Dichloroethane-d4	5.682	65	110371	9.577 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.77%	
63) Toluene-d8	7.675	98	400003	8.970 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.70%	
87) 4-Bromofluorobenzene	11.019	95	130421	7.897 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	78.97%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl chloride	1.881	62	2908	0.358 ug/L	94
5) Bromomethane	2.195	94	63	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.962	76	17087	0.964 ug/L	99
15) Methylene chloride	3.473	84	155	N.D.	
17) Acetone	3.513	43	8471	6.494 ug/L	95
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	4.253	53	69	N.D.	
29) Vinyl acetate	4.469	43	451	N.D.	
30) cis-1,2-Dichloroethene	4.725	96	3411	0.487 ug/L	88
31) 2,2-Dichloropropane	0.000		0	N.D.	
32) Bromochloromethane	0.000		0	N.D.	
34) Chloroform	0.000		0	N.D.	

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A07.D
Acq On : 14 Aug 2024 08:56 am
Operator : VOA122:PID
Sample : L2445770-01,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 14 09:32:15 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.			
39) 1,1,1-Trichloroethane	0.000		0	N.D.			
41) 2-Butanone	5.276	43	5854	3.193	ug/L	#	43
42) 1,1-Dichloropropene	0.000		0	N.D.			
44) Benzene	5.557	78	4209	0.170	ug/L	#	85
47) 1,2-Dichloroethane	0.000		0	N.D.			
51) Trichloroethene	0.000		0	N.D.			
53) Dibromomethane	0.000		0	N.D.			
54) 1,2-Dichloropropane	0.000		0	N.D.			
57) Bromodichloromethane	0.000		0	N.D.			
60) 1,4-Dioxane	0.000		0	N.D.			
61) cis-1,3-Dichloropropene	0.000		0	N.D.			
64) Toluene	7.731	92	49613	3.441	ug/L		98
65) 4-Methyl-2-pentanone	8.168	58	1177	1.020	ug/L	#	38
66) Tetrachloroethene	0.000		0	N.D.			
68) trans-1,3-Dichloropropene	0.000		0	N.D.			
71) 1,1,2-Trichloroethane	0.000		0	N.D.			
72) Chlorodibromomethane	0.000		0	N.D.			
73) 1,3-Dichloropropane	0.000		0	N.D.			
74) 1,2-Dibromoethane	0.000		0	N.D.			
76) 2-Hexanone	9.175	43	4911	2.291	ug/L	#	78
77) Chlorobenzene	0.000		0	N.D.			
78) Ethylbenzene	9.582	91	1429	N.D.			
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
80) p/m Xylene	9.771	106	376	N.D.			
81) o Xylene	10.311	106	146	N.D.			
82) Styrene	10.374	104	691	N.D.			
84) Bromoform	0.000		0	N.D.			
86) Isopropylbenzene	10.697	105	66	N.D.			
88) Bromobenzene	0.000		0	N.D.			
89) n-Propylbenzene	11.019	91	343	N.D.			
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
92) 4-Ethyltoluene	11.293	105	1058	N.D.			
93) 2-Chlorotoluene	0.000		0	N.D.			
94) 1,3,5-Trimethylbenzene	11.405	105	663	N.D.			
95) 1,2,3-Trichloropropane	0.000		0	N.D.			
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D.			
97) 4-Chlorotoluene	0.000		0	N.D.			
98) tert-Butylbenzene	11.833	119	222	N.D.			

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A07.D
Acq On : 14 Aug 2024 08:56 am
Operator : VOA122:PID
Sample : L2445770-01,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 14 09:32:15 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	3178	0.126	ug/L	99
102) sec-Butylbenzene	0.000		0	N.D.	d	
103) p-Isopropyltoluene	0.000		0	N.D.	d	
104) 1,3-Dichlorobenzene	12.243	146	666	N.D.		
105) 1,4-Dichlorobenzene	12.243	146	666	N.D.		
106) p-Diethylbenzene	12.501	119	1717	0.120	ug/L #	68
107) n-Butylbenzene	0.000		0	N.D.	d	
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	13.267	119	1709	0.087	ug/L	97
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	14.095	180	245	N.D.		
114) Naphthalene	14.380	128	1393	0.374	ug/L	100
115) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

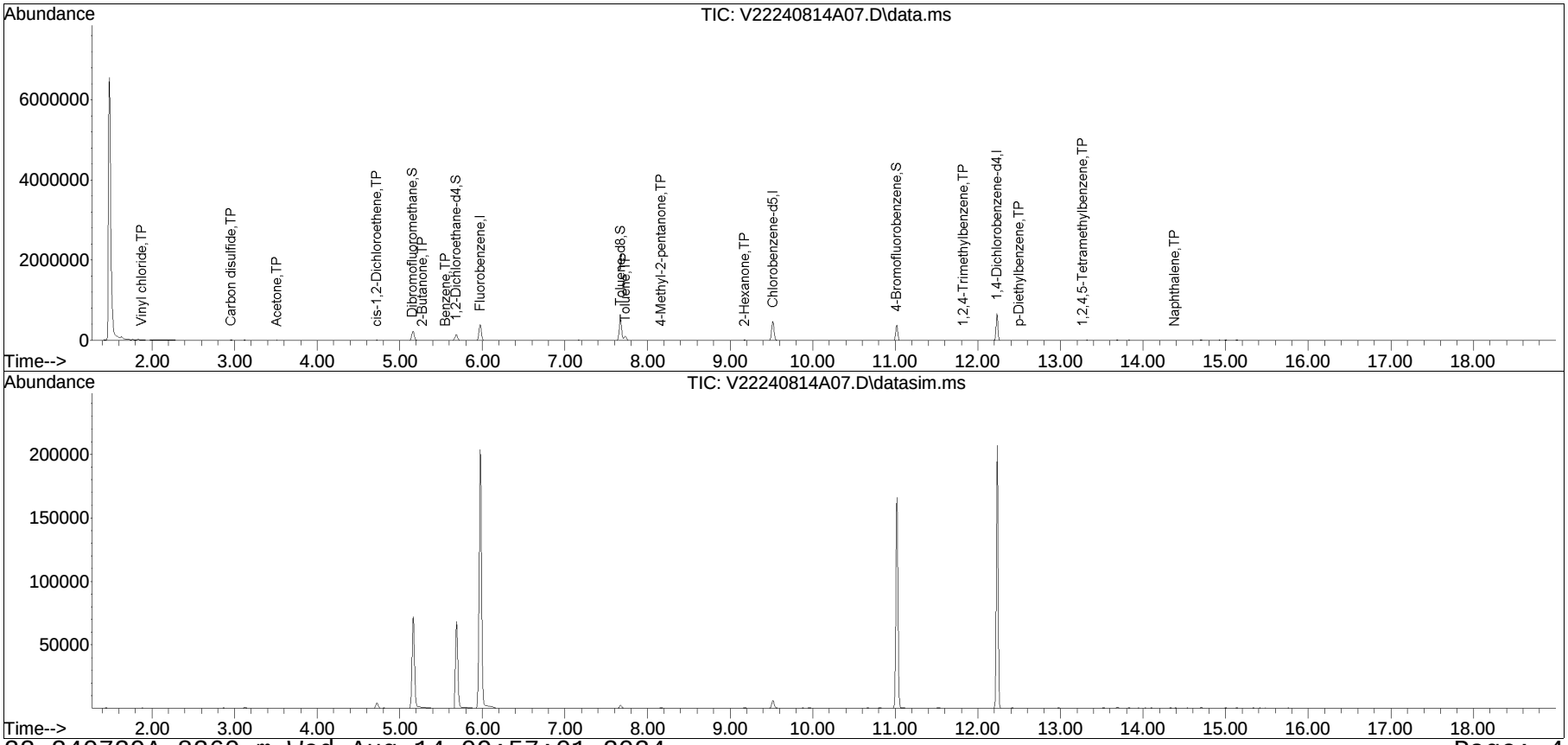
(#) = qualifier out of range (m) = manual integration (+) = signals summed

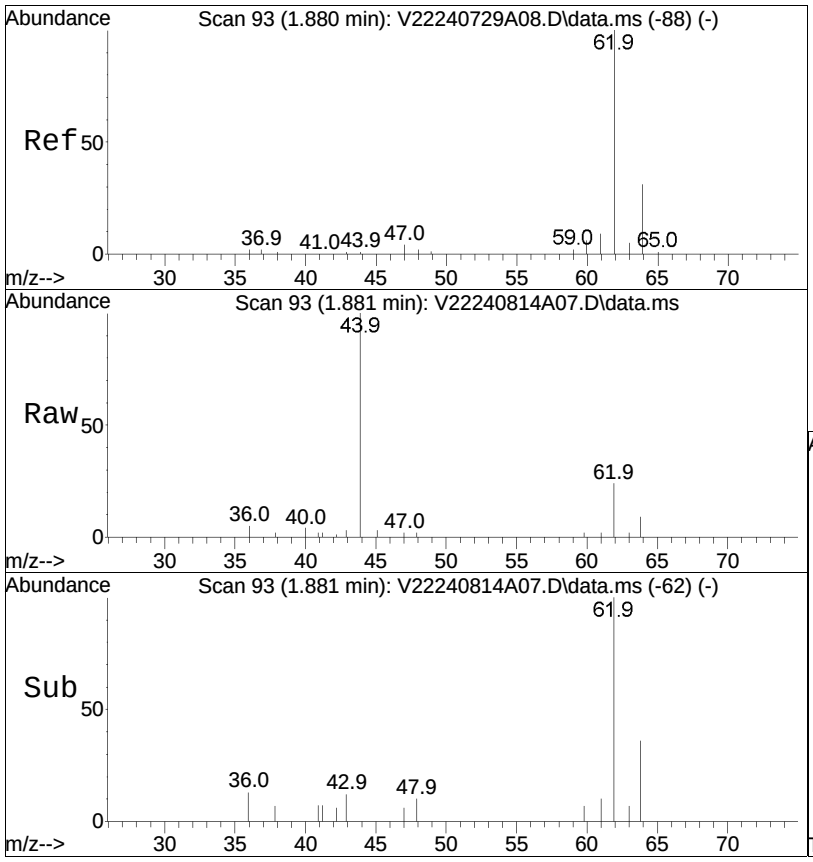
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A07.D
Acq On : 14 Aug 2024 08:56 am
Operator : VOA122:PID
Sample : L2445770-01,31,10,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 14 09:32:15 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240814A01.D•

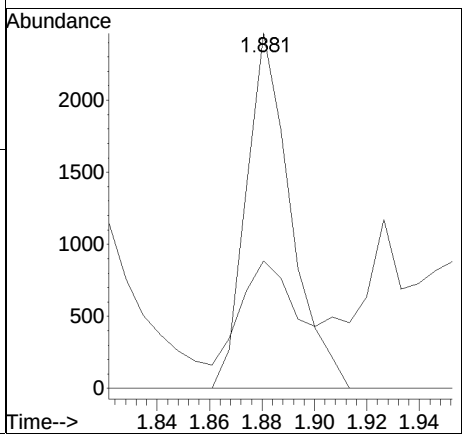


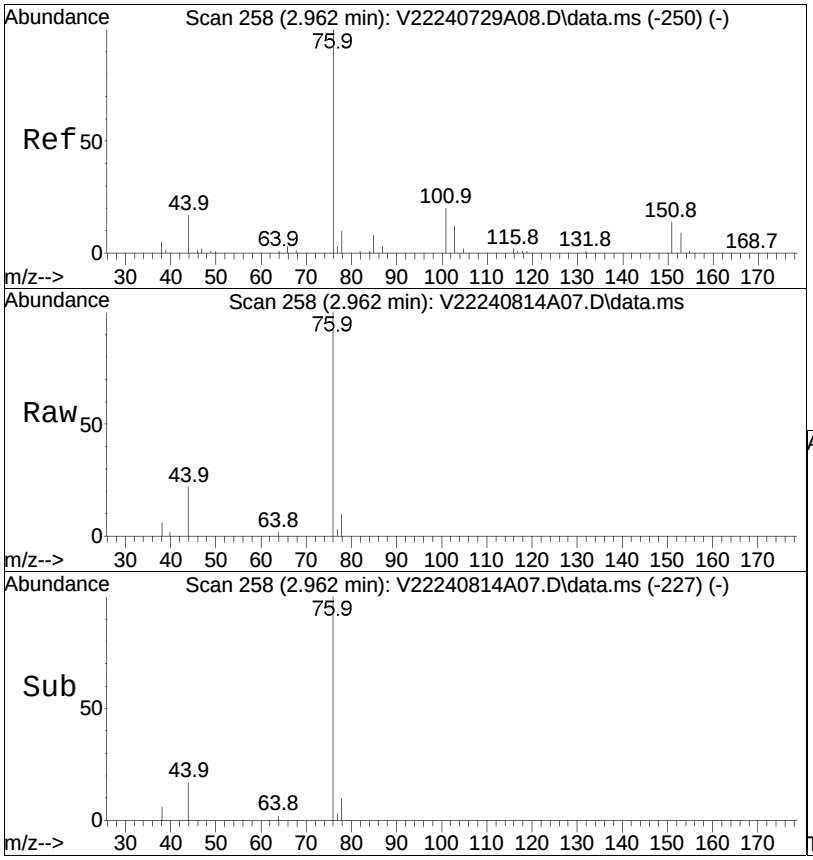


#4
Vinyl chloride
Concen: 0.36 ug/L
RT: 1.881 min Scan# 93
Delta R.T. 0.001 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 62 Resp: 2908

Ion	Ratio	Lower	Upper
62	100		
64	35.4	12.0	52.0

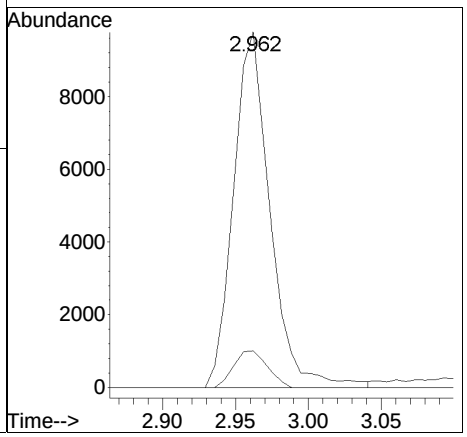


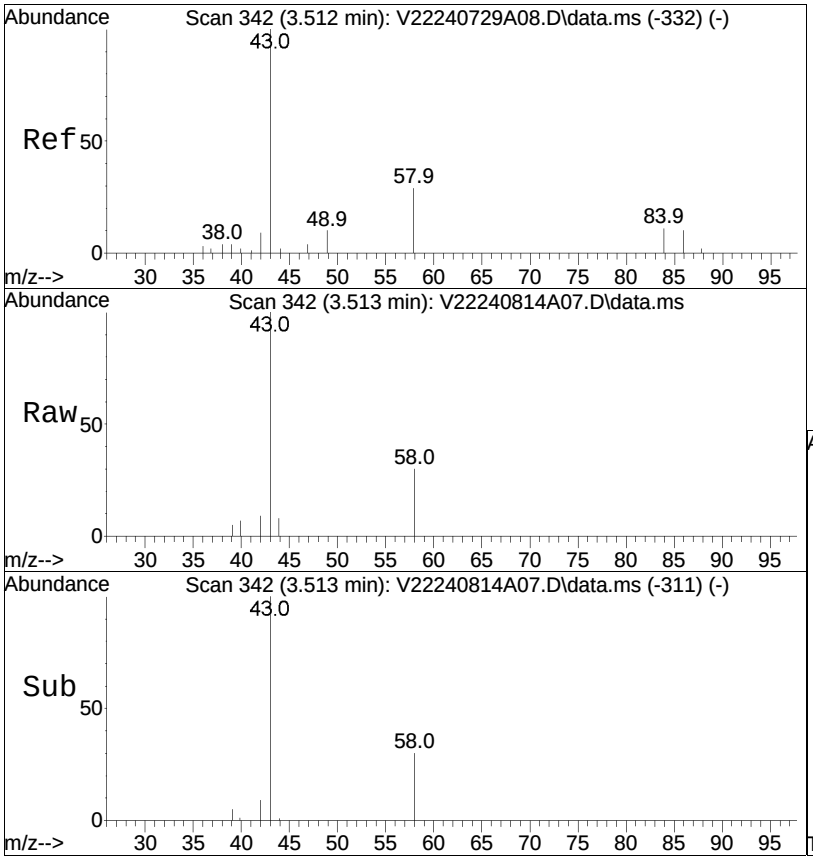


#11
Carbon disulfide
Concen: 0.96 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 76 Resp: 17087

Ion	Ratio	Lower	Upper
76	100		
78	9.5	6.4	13.4

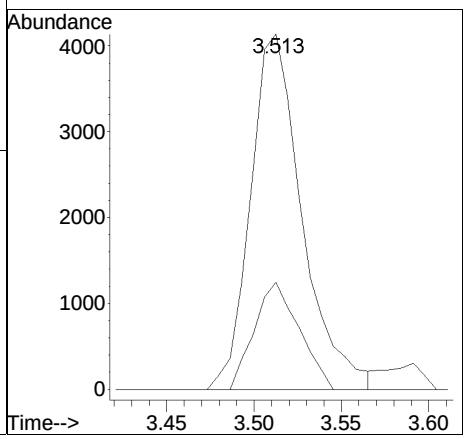


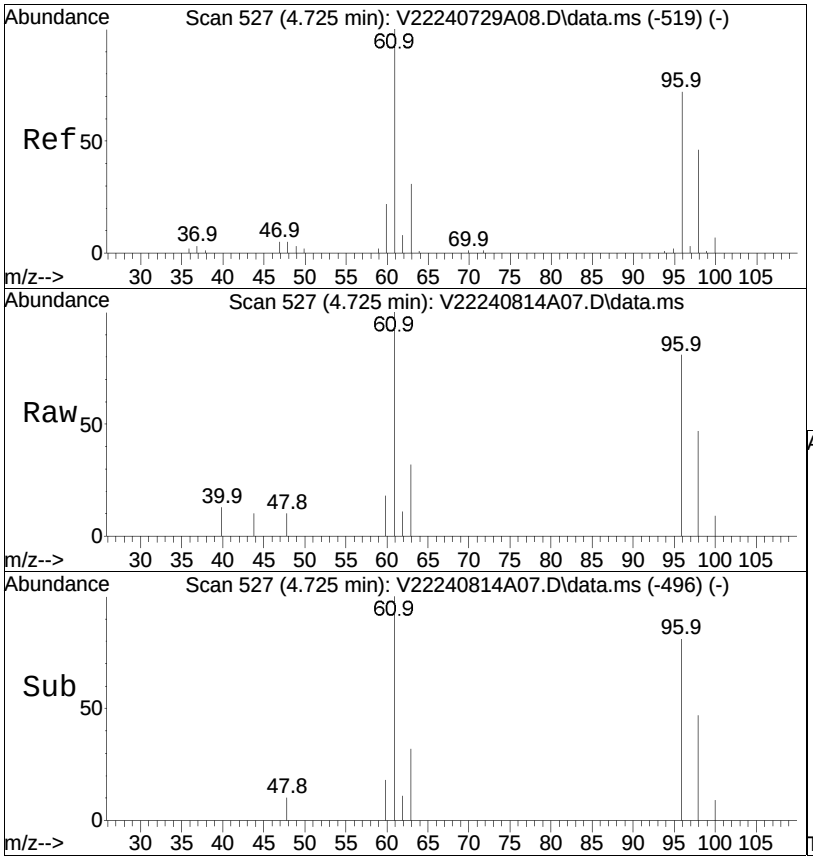


#17
Acetone
Concen: 6.49 ug/L
RT: 3.513 min Scan# 342
Delta R.T. 0.001 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 43 Resp: 8471

Ion	Ratio	Lower	Upper
43	100		
58	26.3	23.1	34.7

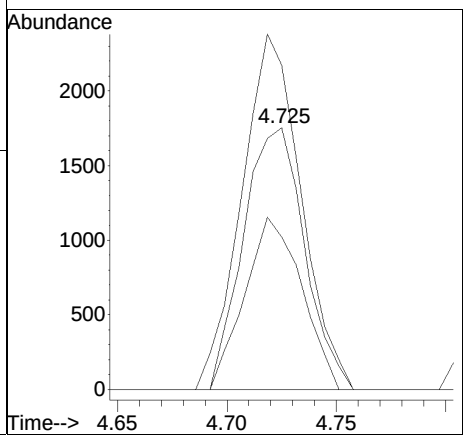


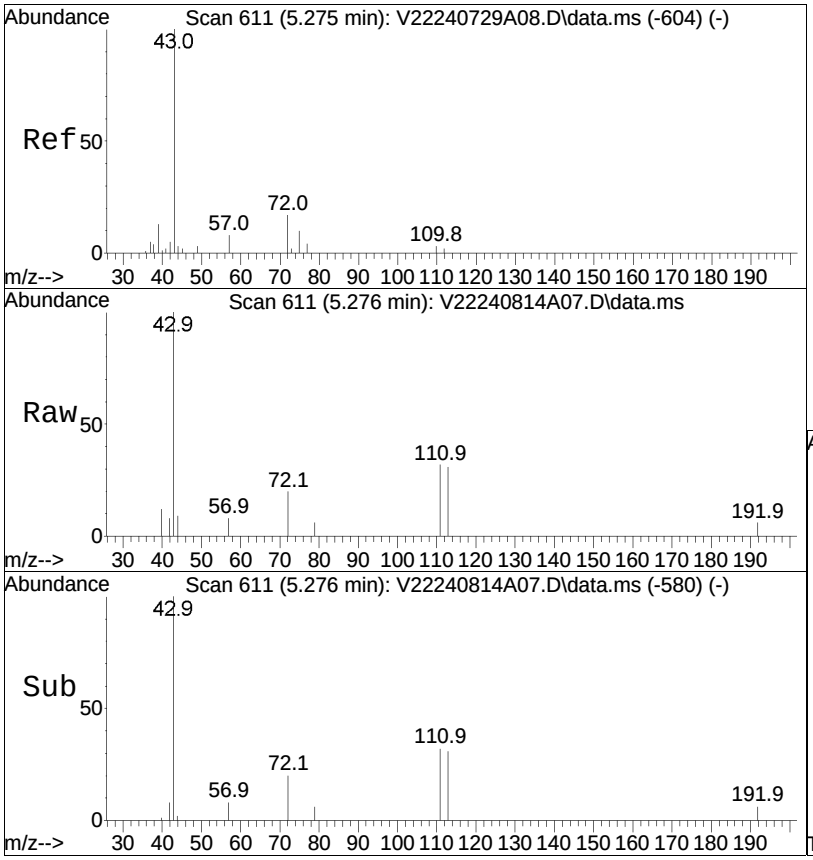


#30
cis-1,2-Dichloroethene
Concen: 0.49 ug/L
RT: 4.725 min Scan# 527
Delta R.T. 0.000 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 96 Resp: 3411

Ion	Ratio	Lower	Upper
96	100		
61	131.9	90.3	135.5
98	61.3	50.8	76.2

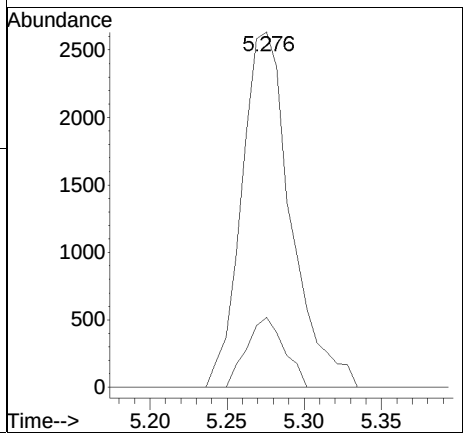


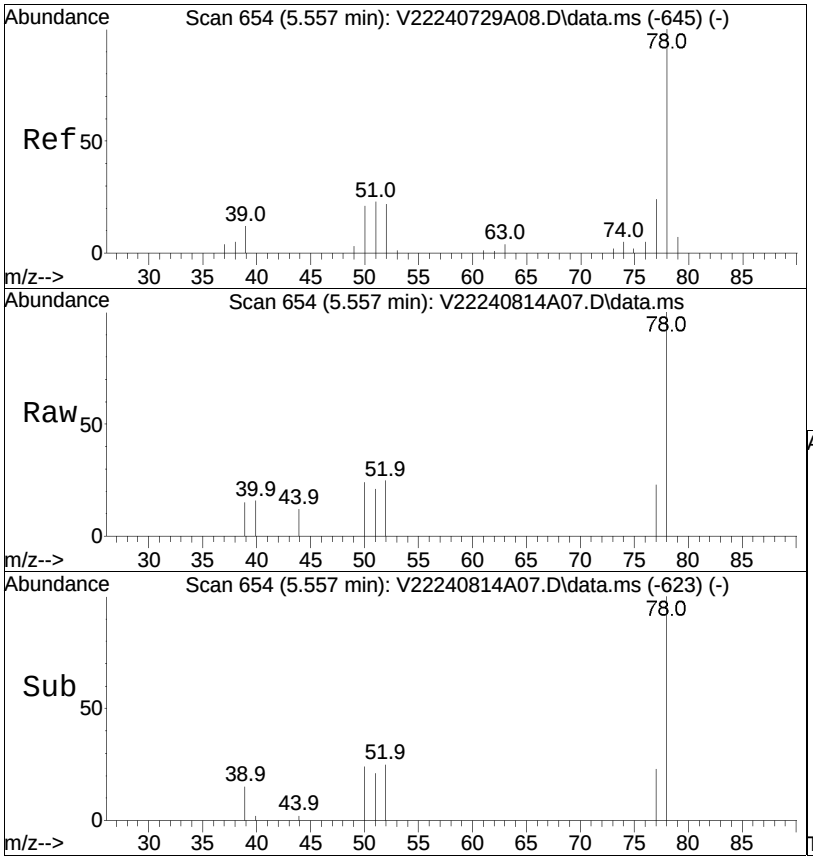


#41
2-Butanone
Concen: 3.19 ug/L
RT: 5.276 min Scan# 611
Delta R.T. 0.001 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 43 Resp: 5854

Ion	Ratio	Lower	Upper
43	100		
72	15.1	45.8	68.8#

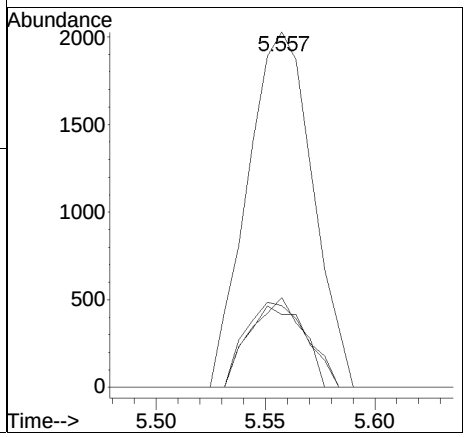


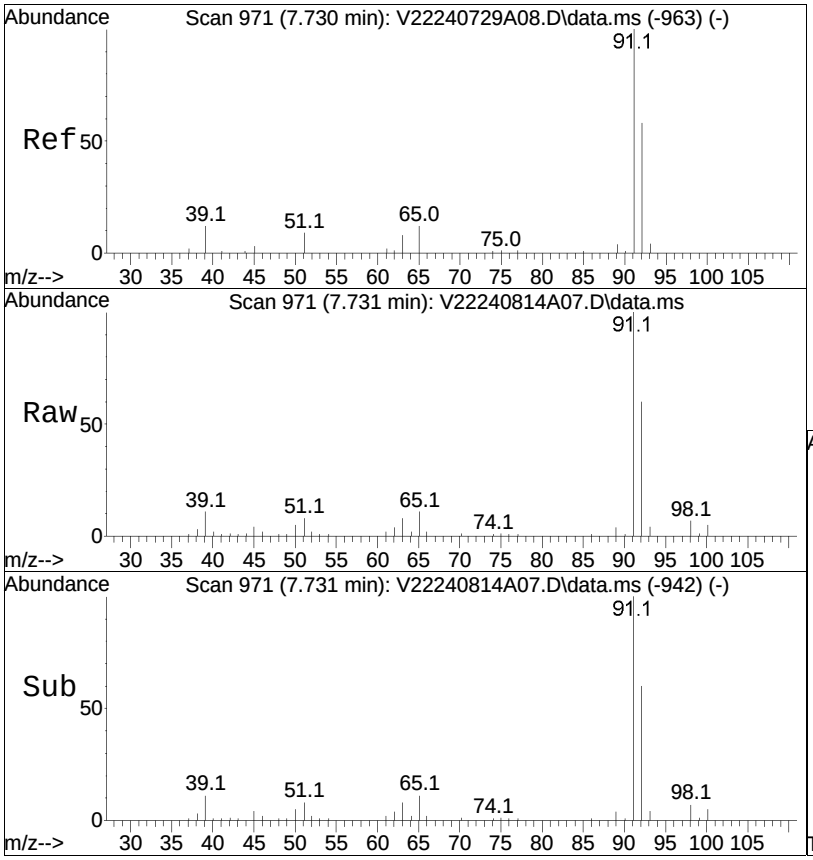


#44
Benzene
Concen: 0.17 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 78 Resp: 4209

Ion	Ratio	Lower	Upper
78	100		
77	22.7	15.4	32.0
51	0.0	9.8	20.4#
52	20.2	9.2	19.2#

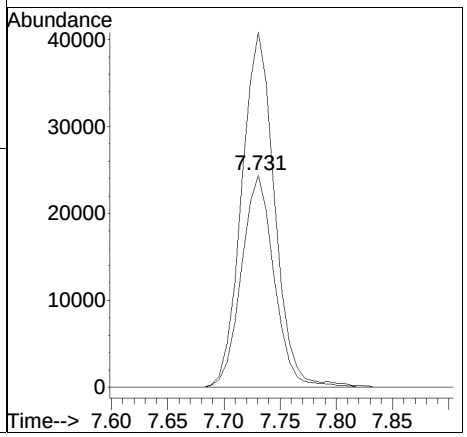


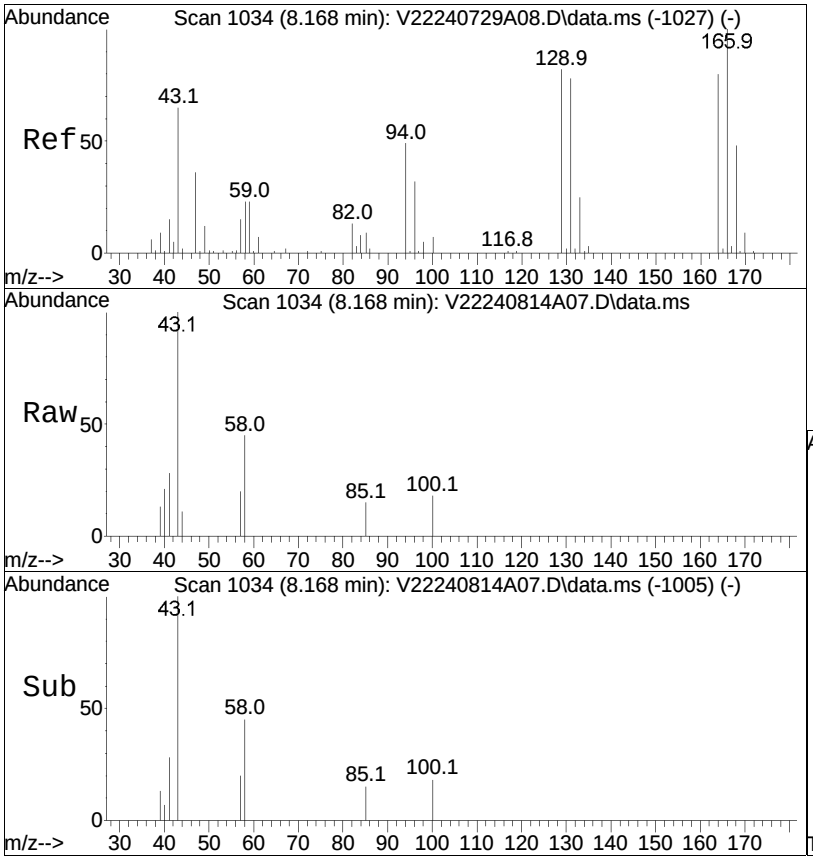


#64
Toluene
Concen: 3.44 ug/L
RT: 7.731 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 92 Resp: 49613

Ion	Ratio	Lower	Upper
92	100		
91	168.3	137.0	205.6

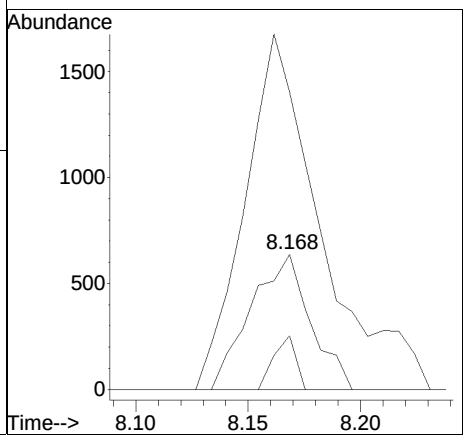


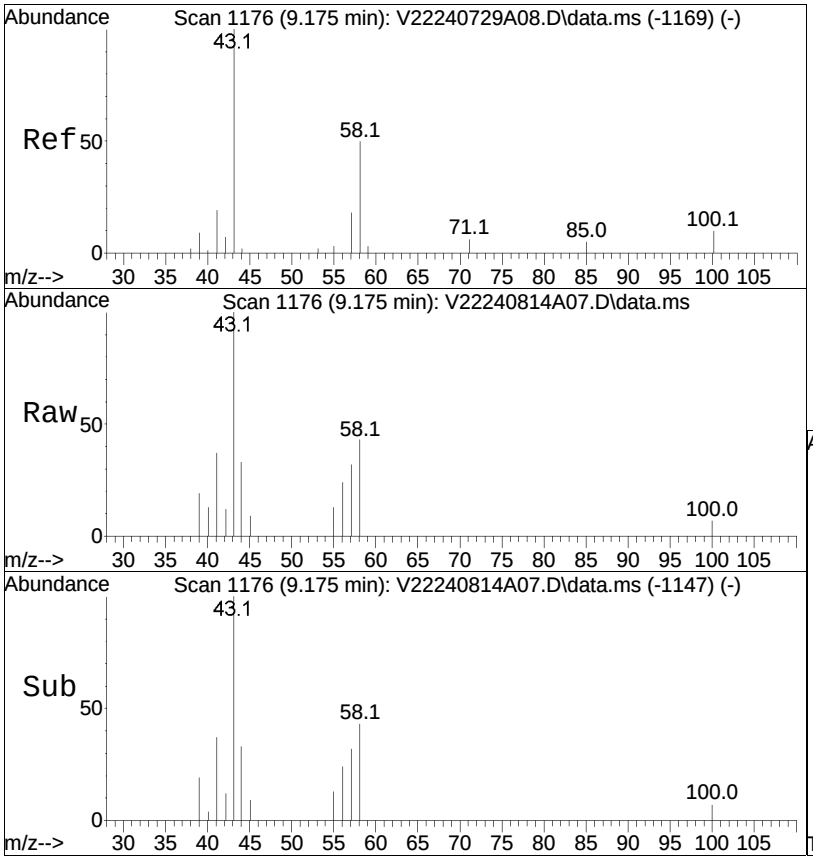


#65
4-Methyl-2-pentanone
Concen: 1.02 ug/L
RT: 8.168 min Scan# 1034
Delta R.T. 0.000 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 58 Resp: 1177

Ion	Ratio	Lower	Upper
58	100		
100	14.7	36.2	54.4#
43	333.6	181.8	272.8#

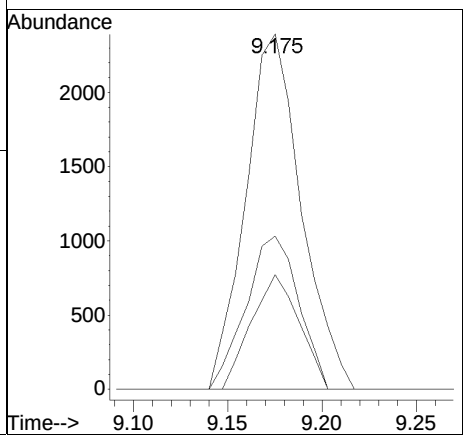


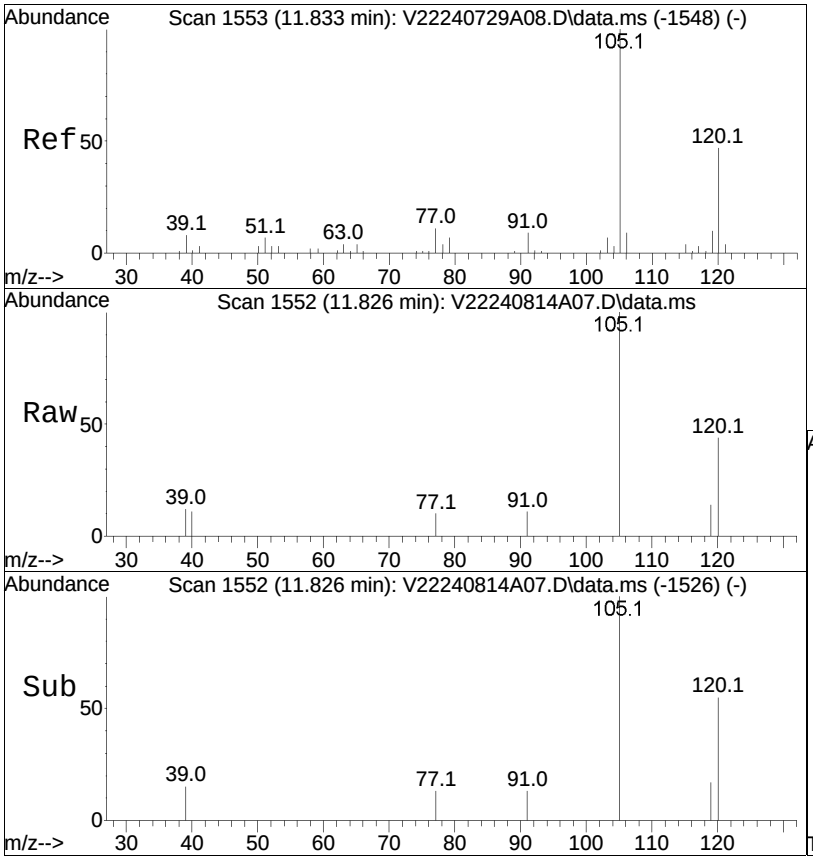


#76
2-Hexanone
Concen: 2.29 ug/L
RT: 9.175 min Scan# 1176
Delta R.T. 0.000 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion: 43 Resp: 4911

Ion	Ratio	Lower	Upper
43	100		
58	40.9	47.6	71.4#
57	27.9	16.6	24.8#

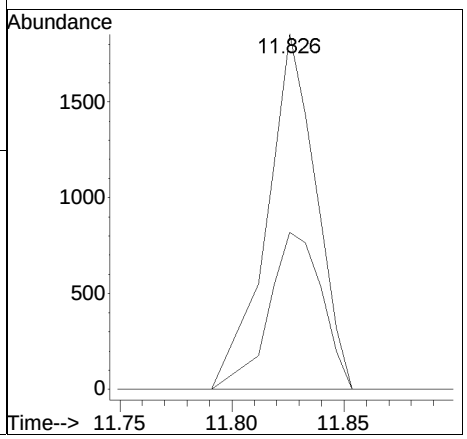


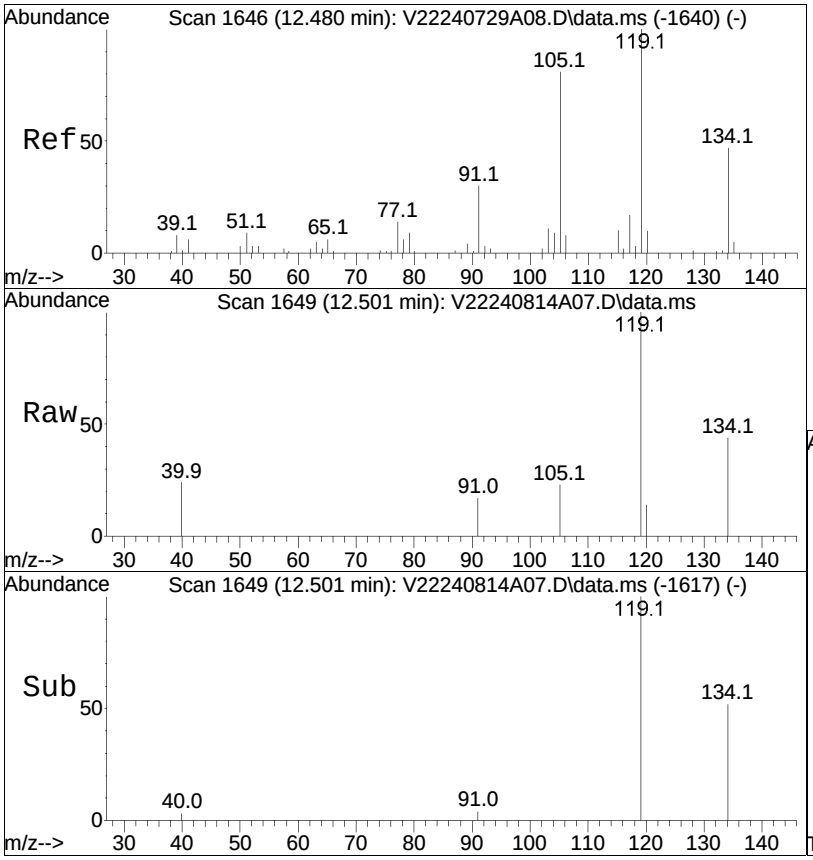


#101
1,2,4-Trimethylbenzene
Concen: 0.13 ug/L
RT: 11.826 min Scan# 1552
Delta R.T. -0.007 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion:105 Resp: 3178

Ion	Ratio	Lower	Upper
105	100		
120	48.9	38.5	57.7

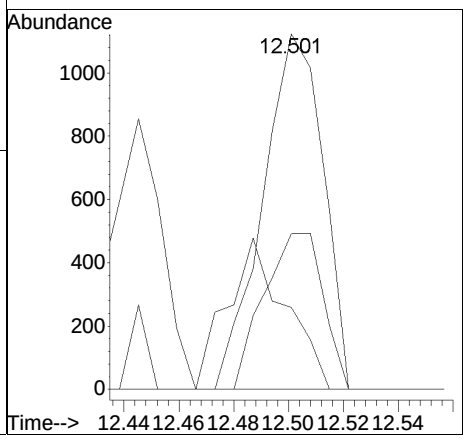


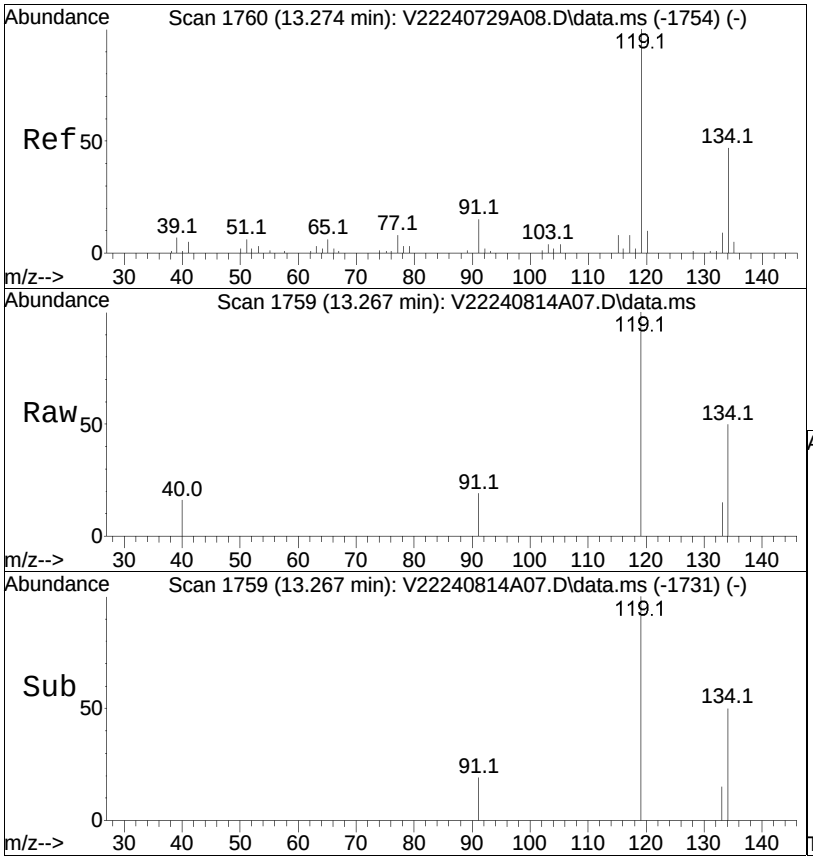


#106
p-Diethylbenzene
Concen: 0.12 ug/L
RT: 12.501 min Scan# 1649
Delta R.T. 0.021 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion:119 Resp: 1717

Ion	Ratio	Lower	Upper
119	100		
105	40.9	53.4	110.8#
134	43.1	30.9	64.1

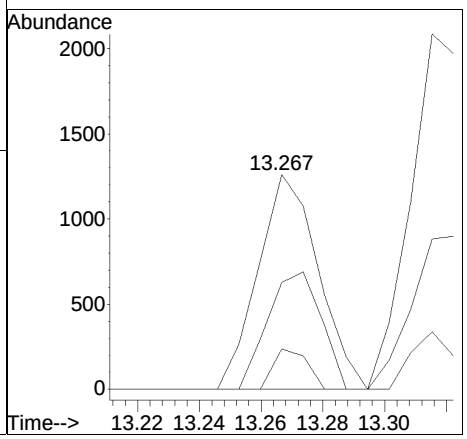


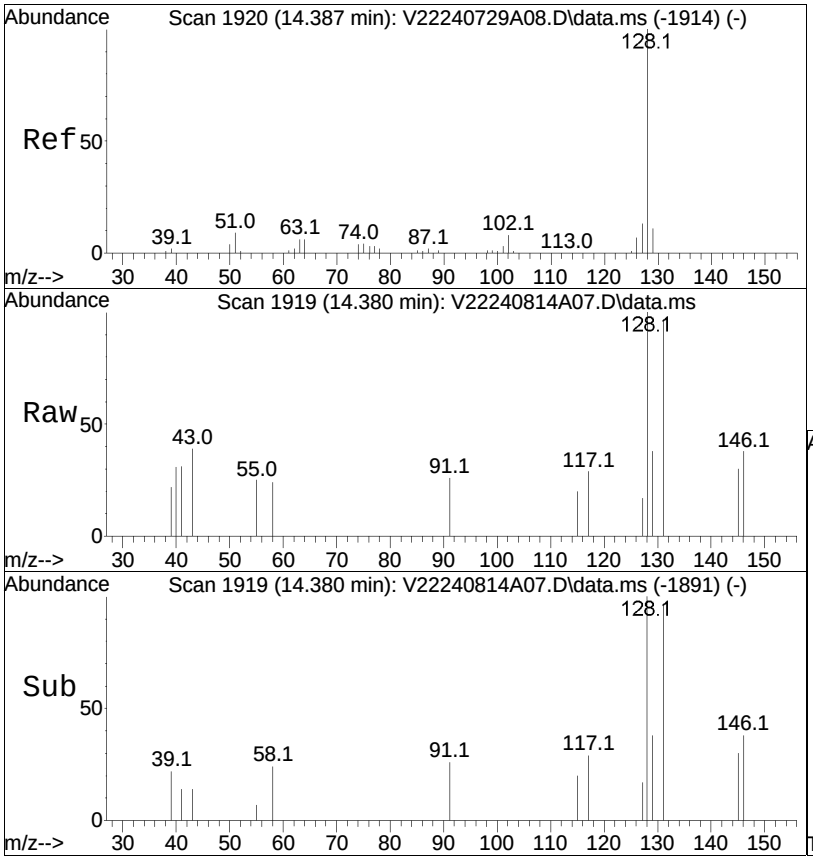


#109
1,2,4,5-Tetramethylbenzene
Concen: 0.09 ug/L
RT: 13.267 min Scan# 1759
Delta R.T. -0.007 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion:119 Resp: 1709

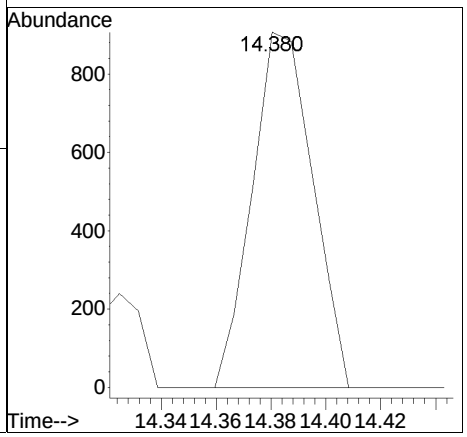
Ion	Ratio	Lower	Upper
119	100		
134	48.5	31.9	66.1
91	10.6	9.8	20.3





#114
Naphthalene
Concen: 0.37 ug/L
RT: 14.380 min Scan# 1919
Delta R.T. -0.007 min
Lab File: V22240814A07.D
Acq: 14 Aug 2024 08:56 am

Tgt Ion:128 Resp: 1393



Manual Integration Report

Data Path	: K:\VOA122\2024\240814A\	QMethod	: V122_240729A_8260.m
Data File	: V22240814A07.D	Operator	: VOA122:PID
Date Inj'd	: 8/14/2024 8:56 am	Instrument	: VOA 122
Sample	: L2445770-01,31,10,10,,A,R1	Quant Date	: 8/14/2024 9:31 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A08.D
Acq On : 14 Aug 2024 09:20 am
Operator : VOA122:PID
Sample : L2445770-02D,31,0.005,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 09:53:33 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.970	96	362261	10.000 ug/L	0.00
Standard Area 1 = 410026			Recovery = 88.35%		
62) Chlorobenzene-d5	9.519	117	322615	10.000 ug/L	0.00
Standard Area 1 = 350491			Recovery = 92.05%		
83) 1,4-Dichlorobenzene-d4	12.230	152	156616	10.000 ug/L	0.00
Standard Area 1 = 194738			Recovery = 80.42%		
System Monitoring Compounds					
38) Dibromofluoromethane	5.164	113	142718	11.275 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.75%		
46) 1,2-Dichloroethane-d4	5.682	65	102443	9.575 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.75%		
63) Toluene-d8	7.668	98	370276	9.008 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.08%		
87) 4-Bromofluorobenzene	11.012	95	116904	8.197 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 81.97%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	1.795	50	62	N.D.	
4) Vinyl chloride	1.881	62	459	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	2.339	64	60	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.962	76	917	N.D.	
15) Methylene chloride	3.473	84	1050	0.158 ug/L #	47
17) Acetone	0.000		0	N.D. d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	0.000		0	N.D.	
30) cis-1,2-Dichloroethene	4.725	96	151	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
32) Bromochloromethane	0.000		0	N.D.	
34) Chloroform	0.000		0	N.D.	

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A08.D
Acq On : 14 Aug 2024 09:20 am
Operator : VOA122:PID
Sample : L2445770-02D,31,0.005,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 09:53:33 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.		
39) 1,1,1-Trichloroethane	0.000		0	N.D.		
41) 2-Butanone	0.000		0	N.D.	d	
42) 1,1-Dichloropropene	0.000		0	N.D.		
44) Benzene	0.000		0	N.D.		
47) 1,2-Dichloroethane	0.000		0	N.D.		
51) Trichloroethene	0.000		0	N.D.		
53) Dibromomethane	0.000		0	N.D.		
54) 1,2-Dichloropropane	0.000		0	N.D.		
57) Bromodichloromethane	0.000		0	N.D.		
60) 1,4-Dioxane	0.000		0	N.D.		
61) cis-1,3-Dichloropropene	0.000		0	N.D.		
64) Toluene	7.731	92	87	N.D.		
65) 4-Methyl-2-pentanone	0.000		0	N.D.		
66) Tetrachloroethene	0.000		0	N.D.		
68) trans-1,3-Dichloropropene	0.000		0	N.D.		
71) 1,1,2-Trichloroethane	0.000		0	N.D.		
72) Chlorodibromomethane	0.000		0	N.D.		
73) 1,3-Dichloropropane	0.000		0	N.D.		
74) 1,2-Dibromoethane	0.000		0	N.D.		
76) 2-Hexanone	0.000		0	N.D.	d	
77) Chlorobenzene	0.000		0	N.D.		
78) Ethylbenzene	9.519	91	388	N.D.		
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
80) p/m Xylene	0.000		0	N.D.		
81) o Xylene	0.000		0	N.D.		
82) Styrene	0.000		0	N.D.		
84) Bromoform	0.000		0	N.D.		
86) Isopropylbenzene	0.000		0	N.D.		
88) Bromobenzene	0.000		0	N.D.		
89) n-Propylbenzene	11.020	91	252	N.D.		
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
92) 4-Ethyltoluene	0.000		0	N.D.		
93) 2-Chlorotoluene	0.000		0	N.D.		
94) 1,3,5-Trimethylbenzene	0.000		0	N.D.		
95) 1,2,3-Trichloropropane	0.000		0	N.D.		
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
97) 4-Chlorotoluene	0.000		0	N.D.		
98) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A08.D
Acq On : 14 Aug 2024 09:20 am
Operator : VOA122:PID
Sample : L2445770-02D,31,0.005,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 09:53:33 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	0.000		0		N.D.	
102) sec-Butylbenzene	0.000		0		N.D.	
103) p-Isopropyltoluene	0.000		0		N.D.	
104) 1,3-Dichlorobenzene	0.000		0		N.D.	
105) 1,4-Dichlorobenzene	0.000		0		N.D.	
106) p-Diethylbenzene	0.000		0		N.D.	
107) n-Butylbenzene	0.000		0		N.D.	
108) 1,2-Dichlorobenzene	0.000		0		N.D.	
109) 1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112) Hexachlorobutadiene	0.000		0		N.D.	
113) 1,2,4-Trichlorobenzene	0.000		0		N.D.	
114) Naphthalene	0.000		0		N.D.	
115) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

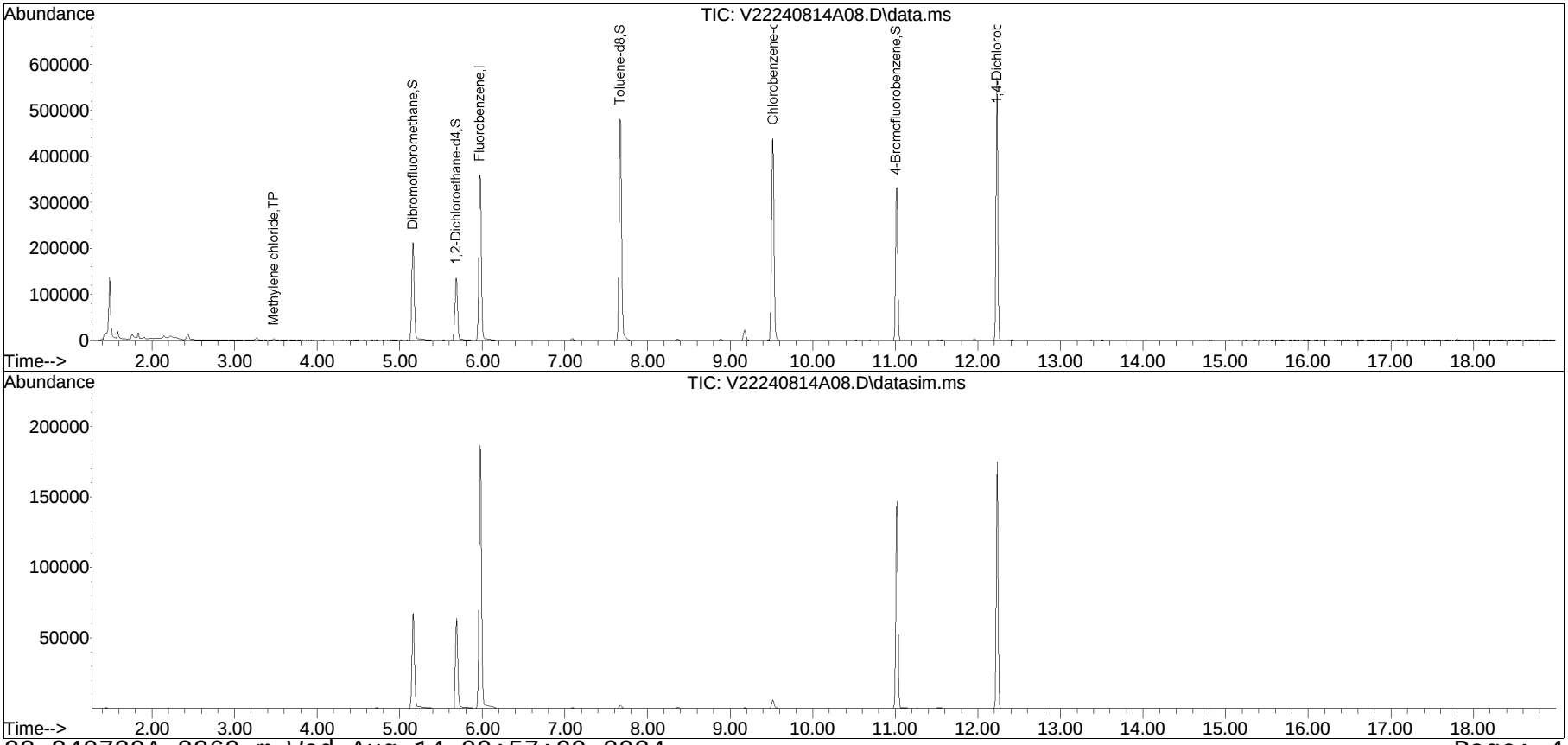
(#) = qualifier out of range (m) = manual integration (+) = signals summed

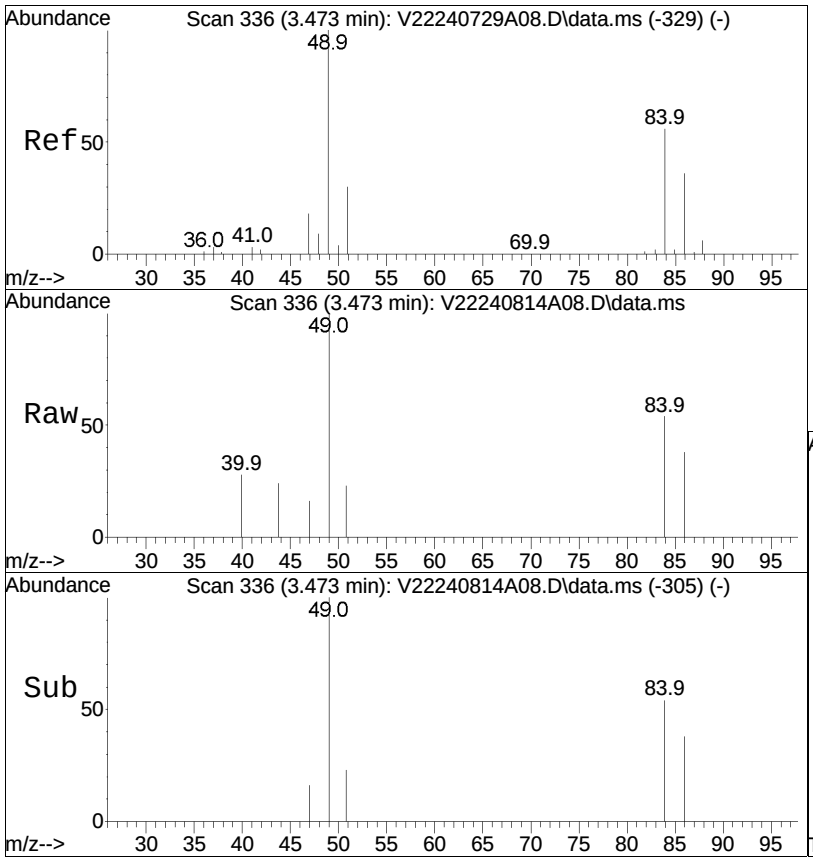
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A08.D
Acq On : 14 Aug 2024 09:20 am
Operator : VOA122:PID
Sample : L2445770-02D,31,0.005,10,,A,R1A
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 09:53:33 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240814A01.D•

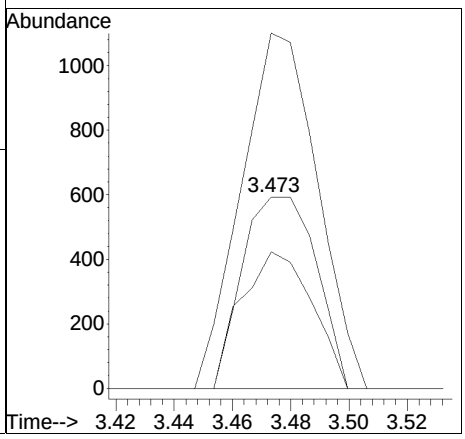




#15
Methylene chloride
Concen: 0.16 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240814A08.D
Acq: 14 Aug 2024 09:20 am

Tgt Ion: 84 Resp: 1050

Ion	Ratio	Lower	Upper
84	100		
86	68.2	41.5	86.3
49	190.1	68.8	143.0#



Manual Integration Report

Data Path	: K:\VOA122\2024\240814A\	QMethod	: V122_240729A_8260.m
Data File	: V22240814A08.D	Operator	: VOA122:PID
Date Inj'd	: 8/14/2024 9:20 am	Instrument	: VOA 122
Sample	: L2445770-02D,31,0.005,10,,	Quant Date	: 8/14/2024 9:53 am

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445770**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D

L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo			0.147	0.215	0.223	0.209	0.195	0.195	0.197	13.62
3)	TP	Chloromethane		0.252	0.295	0.303	0.277	0.253	0.239	0.225	0.263	10.94
4)	TP	Vinyl chloride	0.202	0.176	0.199	0.232	0.231	0.217	0.206	0.203	0.208	8.84
5)	TP	Bromomethane		0.070	0.076	0.075	0.079	0.088	0.095	0.102	0.084	14.11
6)	TP	Chloroethane		0.118	0.132	0.133	0.126	0.117	0.110	0.108	0.120	8.39
7)	TP	Trichlorofluor		0.144	0.179	0.257	0.263	0.252	0.238	0.239	*L	0.9987
8)	TP	Ethyl ether		0.067	0.069	0.073	0.070	0.071	0.070	0.068	0.070	2.76
10)	TP	1,1-Dichloroet		0.110	0.126	0.152	0.154	0.146	0.139	0.139	0.138	11.23
11)	TP	Carbon disulfide		0.404	0.455	0.510	0.491	0.451	0.438	0.433	0.454	7.85
12)	TP	Freon-113			0.097	0.154	0.159	0.150	0.147	0.151	0.143	16.09
13)	TP	Iodomethane			0.122	0.172	0.190	0.199	0.203	0.204	0.182	17.53
14)	TP	Acrolein		0.018	0.024	0.025	0.025	0.025	0.025	0.024	0.024	11.30
15)	TP	Methylene chlo		0.237	0.204	0.191	0.173	0.164	0.159	0.156	0.183	16.00
17)	TP	Acetone			0.040	0.035	0.033	0.032	0.031	0.030	0.033	10.98
18)	TP	trans-1,2-Dich		0.148	0.169	0.177	0.166	0.160	0.157	0.155	0.162	5.98
19)	TP	Methyl acetate		0.103	0.089	0.085	0.084	0.083	0.081	0.077	0.086	9.89
21)	TP	Methyl tert butyl ether		0.254	0.268	0.317	0.328	0.328	0.339	0.333	0.309	11.02
22)	TP	tert-Butyl alc		0.004	0.006	0.007	0.007	0.007	0.007	0.007	0.006#	15.62
24)	TP	Diisopropyl ether		0.493	0.543	0.594	0.622	0.617	0.616	0.586	0.581	8.17
25)	TP	1,1-Dichloroet		0.311	0.358	0.365	0.340	0.319	0.315	0.306	0.331	7.23
26)	TP	Halothane		0.096	0.110	0.132	0.127	0.127	0.126	0.126	0.121	10.56
27)	TP	Acrylonitrile		0.045	0.044	0.049	0.048	0.046	0.045	0.043	0.046	4.17
28)	TP	Ethyl tert-but		0.324	0.354	0.413	0.457	0.456	0.468	0.453	0.418	13.74
29)	TP	Vinyl acetate		0.273	0.289	0.353	0.379	0.386	0.385	0.367	0.348	13.51
30)	TP	cis-1,2-Dichlo		0.168	0.196	0.197	0.183	0.172	0.172	0.168	0.179#	6.96
31)	TP	2,2-Dichloropr		0.174	0.196	0.224	0.220	0.211	0.211	0.212	0.207	8.20
32)	TP	Bromochloromet		0.084	0.092	0.093	0.084	0.081	0.080	0.078	0.085#	6.73
33)	TP	Cyclohexane			0.183	0.351	0.378	0.354	0.352	0.353	*L	0.9993
34)	TP	Chloroform		0.283	0.310	0.303	0.286	0.274	0.278	0.268	0.286#	5.37
35)	TP	Ethyl acetate			0.096	0.111	0.116	0.118	0.118	0.114	0.112	7.47
36)	TP	Carbon tetrachloride	0.179	0.145	0.171	0.233	0.236	0.228	0.228	0.231	0.206	17.40
37)	TP	Tetrahydrofuran			0.035	0.038	0.038	0.037	0.037	0.036	0.037	3.72
38)	S	Dibromofluoromethane	0.356	0.382	0.381	0.359	0.339	0.326	0.329	0.324	0.349	6.78
39)	TP	1,1,1-Trichlor		0.184	0.221	0.263	0.260	0.255	0.254	0.252	0.241	11.85
41)	TP	2-Butanone			0.042	0.044	0.049	0.050	0.049	0.047	0.047	6.75

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445770**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D

L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
42) TP	1,1-Dichloropr		0.128	0.160	0.214	0.222	0.214	0.213	0.213	0.195	18.52
44) TP	Benzene	0.577	0.517	0.672	0.656	0.692	0.662	0.658	0.633	0.633	9.17
45) TP	Tertiary-Amyl Methyl Ether		0.172	0.171	0.190	0.208	0.218	0.230	0.228	0.202	12.43
46) S	1,2-Dichloroethane-d4	0.286	0.306	0.301	0.305	0.293	0.289	0.294	0.289	0.295	2.57
47) T	1,2-Dichloroet		0.154	0.165	0.170	0.162	0.154	0.154	0.149	0.158	4.65
50) TP	Methyl cyclohe			0.094	0.200	0.226	0.224	0.233	0.238	*L	0.9996
51) TP	Trichloroethene	0.133	0.113	0.124	0.143	0.143	0.140	0.141	0.141	0.135#	8.23
53) TP	Dibromomethane		0.065	0.068	0.071	0.070	0.068	0.069	0.067	0.068	2.99
54) TP	1,2-Dichloropr		0.115	0.131	0.154	0.152	0.147	0.147	0.143	0.141#	9.64
56) TP	2-Chloroethyl		0.039	0.041	0.053	0.059	0.063	0.063	0.061	0.054	18.80
57) TP	Bromodichlorom		0.138	0.157	0.175	0.176	0.174	0.176	0.173	0.167#	8.74
60) TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.34
61) TP	cis-1,3-Dichloropropene	0.121	0.126	0.149	0.186	0.197	0.199	0.201	0.197	0.172#	19.89
62) I	Chlorobenzene-d5	----------ISTD----------									
63) S	Toluene-d8	1.265	1.258	1.267	1.262	1.281	1.288	1.295	1.276	1.274	1.03
64) TP	Toluene		0.347	0.400	0.427	0.437	0.427	0.429	0.416	0.412	7.55
65) TP	4-Methyl-2-pen			0.023	0.028	0.034	0.037	0.038	0.037	0.033	18.50
66) TP	Tetrachloroethene		0.107	0.132	0.169	0.181	0.179	0.181	0.181	0.162	18.41
68) TP	trans-1,3-Dichloropropene		0.112	0.139	0.175	0.208	0.214	0.217	0.212	*L	0.9992
70) TP	Ethyl methacry			0.090	0.124	0.141	0.147	0.149	0.144	0.133	17.01
71) TP	1,1,2-Trichlor		0.072	0.079	0.094	0.102	0.111	0.111	0.108	0.097#	16.46
72) TP	Chlorodibromom		0.089	0.117	0.139	0.157	0.162	0.164	0.161	*L	0.9995
73) TP	1,3-Dichloropr		0.151	0.163	0.188	0.207	0.208	0.208	0.200	0.190	12.35
74) TP	1,2-Dibromoethane		0.077	0.089	0.107	0.119	0.123	0.123	0.120	0.108#	16.86
76) TP	2-Hexanone			0.045	0.055	0.064	0.069	0.069	0.066	0.061	15.23
77) TP	Chlorobenzene		0.417	0.478	0.486	0.486	0.471	0.470	0.458	0.467	5.15
78) TP	Ethylbenzene		0.611	0.710	0.850	0.854	0.821	0.817	0.780	0.778	11.36
79) TP	1,1,1,2-Tetrac		0.107	0.127	0.144	0.161	0.166	0.168	0.166	0.148	15.82
80) TP	p/m Xylene		0.220	0.271	0.332	0.334	0.323	0.322	0.310	0.302	13.84
81) TP	o Xylene		0.200	0.259	0.313	0.315	0.308	0.308	0.296	0.285	14.79
82) TP	Styrene		0.304	0.416	0.503	0.521	0.507	0.499	0.464	0.459	16.79
83) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
84) TP	Bromoform		0.110	0.118	0.137	0.162	0.172	0.176	0.179	0.150	19.06
86) TP	Isopropylbenzene		1.046	1.323	1.726	1.771	1.679	1.676	1.637	1.551	17.18
87) S	4-Bromofluorobenzene	0.911	0.911	0.900	0.932	0.924	0.900	0.900	0.908	0.911	1.31
88) TP	Bromobenzene		0.335	0.355	0.374	0.380	0.370	0.371	0.370	0.365	4.18

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2445770**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
89) TP	n-Propylbenzene		1.282	1.530	1.993	2.048	1.948	1.952	1.864	1.802	15.83
90) TP	1,4-Dichlorobu		0.423	0.442	0.474	0.497	0.492	0.489	0.483	0.472	5.94
91) TP	1,1,2,2-Tetrac		0.237	0.231	0.246	0.267	0.266	0.266	0.263	0.254	6.06
92) TP	4-Ethyltoluene		1.049	1.261	1.602	1.644	1.579	1.593	1.555	1.469	15.29
93) TP	2-Chlorotoluene		0.883	1.048	1.156	1.157	1.108	1.131	1.117	1.086	8.88
94) TP	1,3,5-Trimethy		0.876	1.095	1.350	1.365	1.327	1.358	1.343	1.245	15.14
95) TP	1,2,3-Trichlor		0.162	0.186	0.191	0.205	0.202	0.204	0.205	0.194	8.07
96) TP	trans-1,4-Dich		0.063	0.078	0.083	0.094	0.095	0.096	0.095	0.086	14.50
97) TP	4-Chlorotoluene		0.906	1.071	1.192	1.204	1.158	1.166	1.146	1.121	9.26
98) TP	tert-Butylbenzene		0.714	0.853	1.187	1.236	1.189	1.202	1.183	1.081	19.23
101) TP	1,2,4-Trimethy		0.970	1.245	1.527	1.538	1.479	1.505	1.471	1.391	15.13
102) TP	sec-Butylbenzene		0.953	1.168	1.721	1.779	1.693	1.711	1.646	*L	0.9992
103) TP	p-Isopropyltol		0.760	0.980	1.439	1.476	1.423	1.444	1.406	*L	0.9995
104) TP	1,3-Dichlorobe		0.643	0.722	0.760	0.757	0.734	0.732	0.718	0.724	5.42
105) TP	1,4-Dichlorobe		0.681	0.712	0.743	0.738	0.714	0.722	0.712	0.718	2.86
106) TP	p-Diethylbenzene			0.566	0.809	0.846	0.825	0.842	0.840	0.788	13.93
107) TP	n-Butylbenzene		0.629	0.830	1.214	1.226	1.171	1.197	1.177	*L	0.9996
108) TP	1,2-Dichlorobe		0.568	0.628	0.667	0.670	0.653	0.655	0.639	0.640	5.50
109) TP	1,2,4,5-Tetram			0.737	1.085	1.193	1.167	1.175	1.128	1.081	16.00
110) TP	1,2-Dibromo-3-		0.007	0.027	0.033	0.037	0.040	0.040	0.040	*L	0.9993
111) TP	1,3,5-Trichlor		0.347	0.382	0.443	0.449	0.433	0.439	0.427	0.417	9.11
112) TP	Hexachlorobuta		0.091	0.104	0.150	0.152	0.147	0.155	0.160	*L	0.9989
113) TP	1,2,4-Trichlor		0.285	0.311	0.368	0.385	0.380	0.381	0.374	0.355#	11.26
114) TP	Naphthalene		0.486	0.583	0.770	0.883	0.870	0.861	0.815	*L	0.9987
115) TP	1,2,3-Trichlor		0.237	0.280	0.315	0.328	0.320	0.320	0.310	0.301#	10.69

Response Factor Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo...		0.147	0.215	0.223	0.209	0.195	0.195	0.197		13.62
3)	TP	Chloromethane	0.252	0.295	0.303	0.277	0.253	0.239	0.225	0.263		10.94
4)	TP	Vinyl chloride	0.202	0.176	0.199	0.232	0.231	0.217	0.206	0.203	0.208	8.84
5)	TP	Bromomethane	0.070	0.076	0.075	0.079	0.088	0.095	0.102	0.084		14.11
6)	TP	Chloroethane	0.118	0.132	0.133	0.126	0.117	0.110	0.108	0.120		8.39
7)	TP	Trichlorofluor...	0.144	0.179	0.257	0.263	0.252	0.238	0.239	*L		0.9987
8)	TP	Ethyl ether	0.067	0.069	0.073	0.070	0.071	0.070	0.068	0.070		2.76
10)	TP	1,1-Dichloroet...	0.110	0.126	0.152	0.154	0.146	0.139	0.139	0.138		11.23
11)	TP	Carbon disulfide	0.404	0.455	0.510	0.491	0.451	0.438	0.433	0.454		7.85
12)	TP	Freon-113		0.097	0.154	0.159	0.150	0.147	0.151	0.143		16.09
13)	TP	Iodomethane		0.122	0.172	0.190	0.199	0.203	0.204	0.182		17.53
14)	TP	Acrolein	0.018	0.024	0.025	0.025	0.025	0.025	0.024	0.024		11.30
15)	TP	Methylene chlo...	0.237	0.204	0.191	0.173	0.164	0.159	0.156	0.183		16.00
17)	TP	Acetone		0.040	0.035	0.033	0.032	0.031	0.030	0.033		10.98
18)	TP	trans-1,2-Dich...	0.148	0.169	0.177	0.166	0.160	0.157	0.155	0.162		5.98
19)	TP	Methyl acetate	0.103	0.089	0.085	0.084	0.083	0.081	0.077	0.086		9.89
21)	TP	Methyl tert-bu...	0.254	0.268	0.317	0.328	0.328	0.339	0.333	0.309		11.02
22)	TP	tert-Butyl alc...	0.004	0.006	0.007	0.007	0.007	0.007	0.007	0.006#		15.62
24)	TP	Diisopropyl ether	0.493	0.543	0.594	0.622	0.617	0.616	0.586	0.581		8.17
25)	TP	1,1-Dichloroet...	0.311	0.358	0.365	0.340	0.319	0.315	0.306	0.331		7.23
26)	TP	Halothane	0.096	0.110	0.132	0.127	0.127	0.126	0.126	0.121		10.56
27)	TP	Acrylonitrile	0.045	0.044	0.049	0.048	0.046	0.045	0.043	0.046		4.17
28)	TP	Ethyl tert-but...	0.324	0.354	0.413	0.457	0.456	0.468	0.453	0.418		13.74
29)	TP	Vinyl acetate	0.273	0.289	0.353	0.379	0.386	0.385	0.367	0.348		13.51
30)	TP	cis-1,2-Dichlo...	0.168	0.196	0.197	0.183	0.172	0.172	0.168	0.179#		6.96
31)	TP	2,2-Dichloropr...	0.174	0.196	0.224	0.220	0.211	0.211	0.212	0.207		8.20
32)	TP	Bromochloromet...	0.084	0.092	0.093	0.084	0.081	0.080	0.078	0.085#		6.73
33)	TP	Cyclohexane		0.183	0.351	0.378	0.354	0.352	0.353	*L		0.9993
34)	TP	Chloroform	0.283	0.310	0.303	0.286	0.274	0.278	0.268	0.286#		5.37
35)	TP	Ethyl acetate		0.096	0.111	0.116	0.118	0.118	0.114	0.112		7.47

Response Factor Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
36)	TP	Carbon tetrach...	0.179	0.145	0.171	0.233	0.236	0.228	0.228	0.231	0.206	17.40
37)	TP	Tetrahydrofuran			0.035	0.038	0.038	0.037	0.037	0.036	0.037	3.72
38)	S	Dibromofluorom...	0.356	0.382	0.381	0.359	0.339	0.326	0.329	0.324	0.349	6.78
39)	TP	1,1,1-Trichlor...		0.184	0.221	0.263	0.260	0.255	0.254	0.252	0.241	11.85
41)	TP	2-Butanone			0.042	0.044	0.049	0.050	0.049	0.047	0.047	6.75
42)	TP	1,1-Dichloropr...		0.128	0.160	0.214	0.222	0.214	0.213	0.213	0.195	18.52
44)	TP	Benzene	0.577	0.517	0.672	0.656	0.692	0.662	0.658	0.633	0.633	9.17
45)	TP	tert-Amyl meth...		0.172	0.171	0.190	0.208	0.218	0.230	0.228	0.202	12.43
46)	S	1,2-Dichloroet...	0.286	0.306	0.301	0.305	0.293	0.289	0.294	0.289	0.295	2.57
47)	T	1,2-Dichloroet...		0.154	0.165	0.170	0.162	0.154	0.154	0.149	0.158	4.65
50)	TP	Methyl cyclohe...			0.094	0.200	0.226	0.224	0.233	0.238	*L	0.9996
51)	TP	Trichloroethene	0.133	0.113	0.124	0.143	0.143	0.140	0.141	0.141	0.135#	8.23
53)	TP	Dibromomethane		0.065	0.068	0.071	0.070	0.068	0.069	0.067	0.068	2.99
54)	TP	1,2-Dichloropr...		0.115	0.131	0.154	0.152	0.147	0.147	0.143	0.141#	9.64
56)	TP	2-Chloroethyl ...		0.039	0.041	0.053	0.059	0.063	0.063	0.061	0.054	18.80
57)	TP	Bromodichlorom...		0.138	0.157	0.175	0.176	0.174	0.176	0.173	0.167#	8.74
60)	TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.34
61)	TP	cis-1,3-Dichlo...	0.121	0.126	0.149	0.186	0.197	0.199	0.201	0.197	0.172#	19.89
62)	I	Chlorobenzene-d5	----------ISTD----------									
63)	S	Toluene-d8	1.265	1.258	1.267	1.262	1.281	1.288	1.295	1.276	1.274	1.03
64)	TP	Toluene		0.347	0.400	0.427	0.437	0.427	0.429	0.416	0.412	7.55
65)	TP	4-Methyl-2-pen...			0.023	0.028	0.034	0.037	0.038	0.037	0.033	18.50
66)	TP	Tetrachloroethene		0.107	0.132	0.169	0.181	0.179	0.181	0.181	0.162	18.41
68)	TP	trans-1,3-Dich...		0.112	0.139	0.175	0.208	0.214	0.217	0.212	*L	0.9992
70)	TP	Ethyl methacry...			0.090	0.124	0.141	0.147	0.149	0.144	0.133	17.01
71)	TP	1,1,2-Trichlor...		0.072	0.079	0.094	0.102	0.111	0.111	0.108	0.097#	16.46
72)	TP	Chlorodibromom...		0.089	0.117	0.139	0.157	0.162	0.164	0.161	*L	0.9995
73)	TP	1,3-Dichloropr...		0.151	0.163	0.188	0.207	0.208	0.208	0.200	0.190	12.35
74)	TP	1,2-Dibromoethane		0.077	0.089	0.107	0.119	0.123	0.123	0.120	0.108#	16.86
76)	TP	2-Hexanone			0.045	0.055	0.064	0.069	0.069	0.066	0.061	15.23
77)	TP	Chlorobenzene		0.417	0.478	0.486	0.486	0.471	0.470	0.458	0.467	5.15

Response Factor Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
78)	TP	Ethylbenzene		0.611	0.710	0.850	0.854	0.821	0.817	0.780	0.778	11.36
79)	TP	1,1,1,2-Tetrac...		0.107	0.127	0.144	0.161	0.166	0.168	0.166	0.148	15.82
80)	TP	p/m Xylene		0.220	0.271	0.332	0.334	0.323	0.322	0.310	0.302	13.84
81)	TP	o Xylene		0.200	0.259	0.313	0.315	0.308	0.308	0.296	0.285	14.79
82)	TP	Styrene		0.304	0.416	0.503	0.521	0.507	0.499	0.464	0.459	16.79
83)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
84)	TP	Bromoform		0.110	0.118	0.137	0.162	0.172	0.176	0.179	0.150	19.06
86)	TP	Isopropylbenzene		1.046	1.323	1.726	1.771	1.679	1.676	1.637	1.551	17.18
87)	S	4-Bromofluorob...	0.911	0.911	0.900	0.932	0.924	0.900	0.900	0.908	0.911	1.31
88)	TP	Bromobenzene		0.335	0.355	0.374	0.380	0.370	0.371	0.370	0.365	4.18
89)	TP	n-Propylbenzene		1.282	1.530	1.993	2.048	1.948	1.952	1.864	1.802	15.83
90)	TP	1,4-Dichlorobu...		0.423	0.442	0.474	0.497	0.492	0.489	0.483	0.472	5.94
91)	TP	1,1,2,2-Tetrac...		0.237	0.231	0.246	0.267	0.266	0.266	0.263	0.254	6.06
92)	TP	4-Ethyltoluene		1.049	1.261	1.602	1.644	1.579	1.593	1.555	1.469	15.29
93)	TP	2-Chlorotoluene		0.883	1.048	1.156	1.157	1.108	1.131	1.117	1.086	8.88
94)	TP	1,3,5-Trimethy...		0.876	1.095	1.350	1.365	1.327	1.358	1.343	1.245	15.14
95)	TP	1,2,3-Trichlor...		0.162	0.186	0.191	0.205	0.202	0.204	0.205	0.194	8.07
96)	TP	trans-1,4-Dich...		0.063	0.078	0.083	0.094	0.095	0.096	0.095	0.086	14.50
97)	TP	4-Chlorotoluene		0.906	1.071	1.192	1.204	1.158	1.166	1.146	1.121	9.26
98)	TP	tert-Butylbenzene		0.714	0.853	1.187	1.236	1.189	1.202	1.183	1.081	19.23
101)	TP	1,2,4-Trimethy...		0.970	1.245	1.527	1.538	1.479	1.505	1.471	1.391	15.13
102)	TP	sec-Butylbenzene		0.953	1.168	1.721	1.779	1.693	1.711	1.646	*L	0.9992
103)	TP	p-Isopropyltol...		0.760	0.980	1.439	1.476	1.423	1.444	1.406	*L	0.9995
104)	TP	1,3-Dichlorobe...		0.643	0.722	0.760	0.757	0.734	0.732	0.718	0.724	5.42
105)	TP	1,4-Dichlorobe...		0.681	0.712	0.743	0.738	0.714	0.722	0.712	0.718	2.86
106)	TP	p-Diethylbenzene			0.566	0.809	0.846	0.825	0.842	0.840	0.788	13.93
107)	TP	n-Butylbenzene		0.629	0.830	1.214	1.226	1.171	1.197	1.177	*L	0.9996
108)	TP	1,2-Dichlorobe...		0.568	0.628	0.667	0.670	0.653	0.655	0.639	0.640	5.50
109)	TP	1,2,4,5-Tetram...			0.737	1.085	1.193	1.167	1.175	1.128	1.081	16.00
110)	TP	1,2-Dibromo-3-...		0.007	0.027	0.033	0.037	0.040	0.040	0.040	*L	0.9993
111)	TP	1,3,5-Trichlor...		0.347	0.382	0.443	0.449	0.433	0.439	0.427	0.417	9.11

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

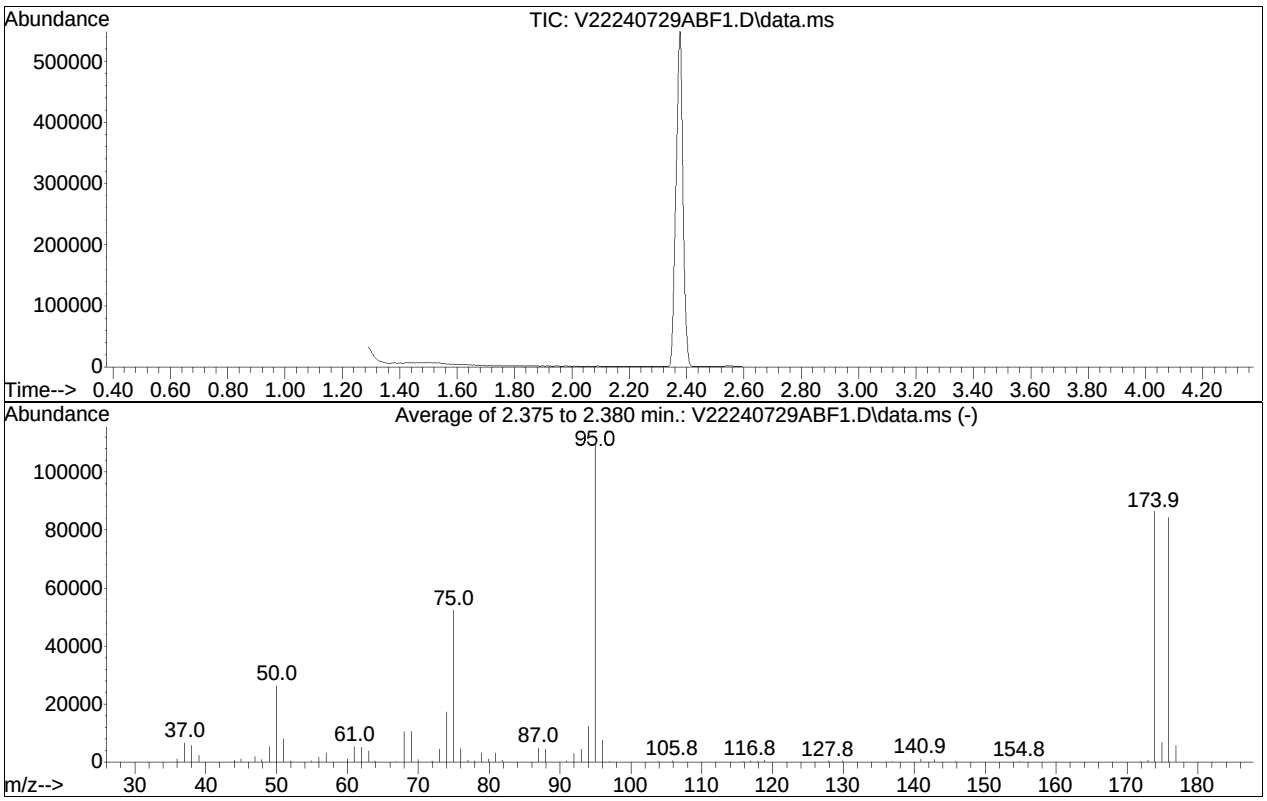
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
112) TP	Hexachlorobuta...	0.091	0.104	0.150	0.152	0.147	0.155	0.160	*L	0.9989	
113) TP	1,2,4-Trichlor...	0.285	0.311	0.368	0.385	0.380	0.381	0.374	0.355#	11.26	
114) TP	Naphthalene	0.486	0.583	0.770	0.883	0.870	0.861	0.815	*L	0.9987	
115) TP	1,2,3-Trichlor...	0.237	0.280	0.315	0.328	0.320	0.320	0.310	0.301#	10.69	

(#) = Out of Range

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729ABF1.D
Acq On : 29 Jul 2024 12:26 pm
Operator : VOA122:PID
Sample : WG1953132-1
Misc : WG1953132
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 374

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.9	26280	PASS
75	95	30	60	47.7	52499	PASS
95	95	100	100	100.0	110096	PASS
96	95	5	9	6.9	7556	PASS
173	174	0.00	2	0.7	585	PASS
174	95	50	100	78.4	86301	PASS
175	174	5	9	7.7	6687	PASS
176	174	95	101	97.7	84309	PASS
177	176	5	9	6.8	5766	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A03.D
Acq On : 29 Jul 2024 01:23 pm
Operator : VOA122:PID
Sample : I8260STD0.19PPB
Misc : WG1953132,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 06:56:43 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.977	96	488909	10.000 ug/L	0.00
Standard Area 1 = 507125			Recovery =	96.41%	
62) Chlorobenzene-d5	9.519	117	403292	10.000 ug/L	0.00
Standard Area 1 = 414608			Recovery =	97.27%	
83) 1,4-Dichlorobenzene-d4	12.236	152	193032	10.000 ug/L	0.00
Standard Area 1 = 204327			Recovery =	94.47%	
System Monitoring Compounds					
38) Dibromofluoromethane	5.158	113	173978	10.184 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.84%	
46) 1,2-Dichloroethane-d4	5.688	65	140055	9.699 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.99%	
63) Toluene-d8	7.675	98	510117	9.927 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.27%	
87) 4-Bromofluorobenzene	11.019	95	175827	10.003 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.03%	
Target Compounds					Qvalue
4) Vinyl chloride	1.881	62	1880	0.185 ug/L	92
36) Carbon tetrachloride	5.118	117	1663	0.165 ug/L #	87
44) Benzene	5.557	78	5360	0.173 ug/L #	85
51) Trichloroethene	6.147	95	1239	0.188 ug/L #	80
61) cis-1,3-Dichloropropene	7.459	75	1125	0.134 ug/L #	82
68) trans-1,3-Dichloropropene	8.210	75	841	0.120 ug/L #	62

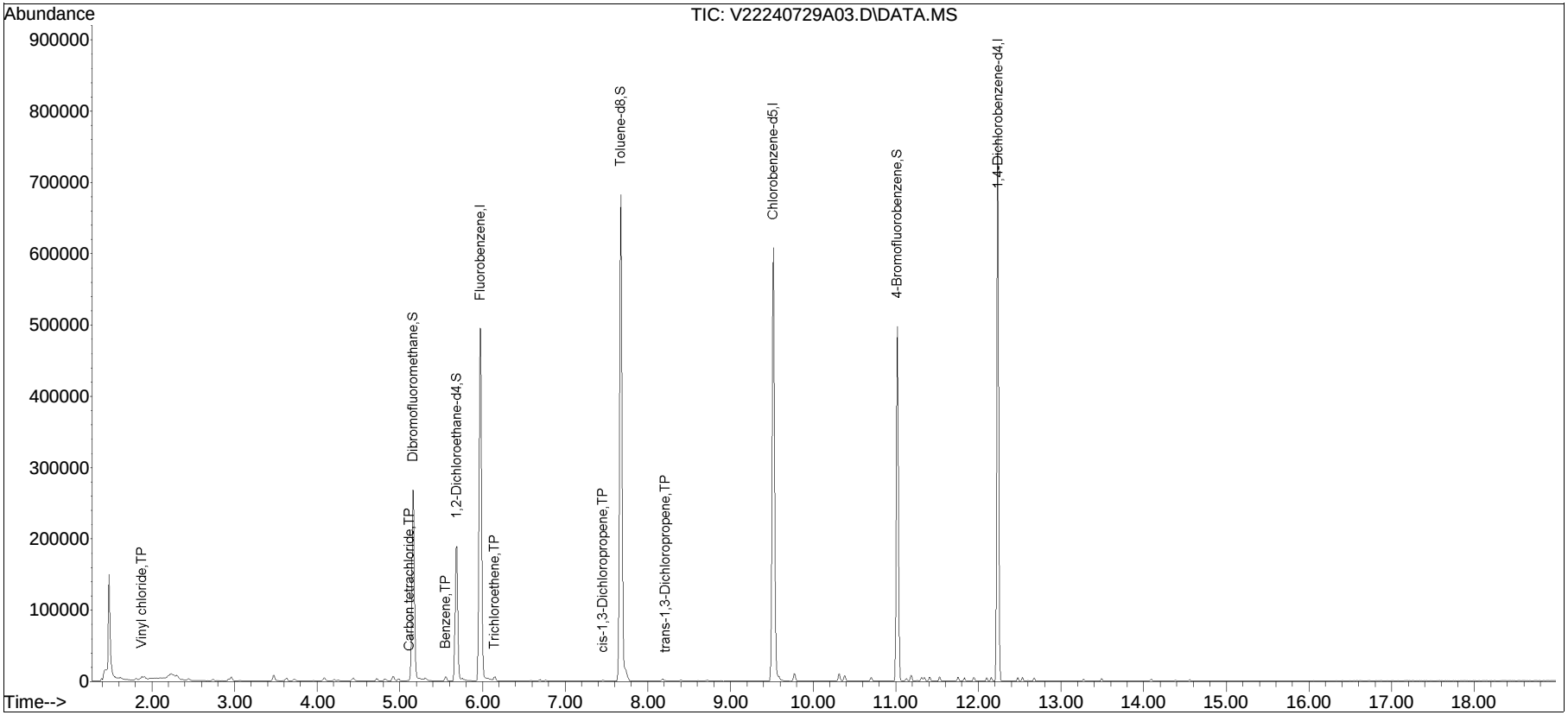
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A03.D
Acq On : 29 Jul 2024 01:23 pm
Operator : VOA122:PID
Sample : I8260STD0.19PPB
Misc : WG1953132,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 06:56:43 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-L11_MCP - L11 MCP729AICAL\V22240729A08.D•



Manual Integration Report

Data Path	: K:\VOA122\2024\240729AICALQ	Method	: V122_240729A_8260.m
Data File	: V22240729A03.D	Operator	: VOA122:PID
Date Inj'd	: 7/29/2024 1:23 pm	Instrument	: VOA 122
Sample	: I8260STD0.19PPB	Quant Date	: 7/30/2024 6:56 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	466096	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery =	91.91%		
62) Chlorobenzene-d5	9.519	117	404492	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery =	97.56%		
83) 1,4-Dichlorobenzene-d4	12.236	152	191762	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery =	93.85%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	178166	10.940	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.40%		
46) 1,2-Dichloroethane-d4	5.688	65	142623	10.360	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.60%		
63) Toluene-d8	7.675	98	509018	9.877	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.77%		
87) 4-Bromofluorobenzene	11.019	95	174668	10.003	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.03%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	2766	0.319	ug/L	94
3) Chloromethane	1.808	50	5873	0.478	ug/L	97
4) Vinyl chloride	1.880	62	4099	0.422	ug/L	96
5) Bromomethane	2.188	94	1633	0.419	ug/L	99
6) Chloroethane	2.306	64	2753	0.490	ug/L	92
7) Trichlorofluoromethane	2.444	101	3353	0.320	ug/L	94
8) Ethyl ether	2.739	74	1553	0.479	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	2572	0.399	ug/L	82
11) Carbon disulfide	2.962	76	9420	0.445	ug/L	100
12) Freon-113	2.968	101	1784	0.287	ug/L	88
13) Iodomethane	3.067	142	1778	0.229	ug/L #	89
14) Acrolein	3.250	56	413	0.373	ug/L	90
15) Methylene chloride	3.480	84	5525	0.646	ug/L #	57
17) Acetone	3.512	43	1541	0.868	ug/L #	77
18) trans-1,2-Dichloroethene	3.630	96	3455	0.458	ug/L	83
19) Methyl acetate	3.637	43	2412	0.602	ug/L #	63
21) Methyl tert-butyl ether	3.729	73	5913	0.410	ug/L #	68
22) tert-Butyl alcohol	3.814	59	517	1.712	ug/L #	70
24) Diisopropyl ether	4.089	45	11490	0.424	ug/L #	88
25) 1,1-Dichloroethane	4.207	63	7248	0.470	ug/L	93
26) Halothane	4.260	117	2244	0.399	ug/L	91

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	1040	0.489	ug/L		90
28) Ethyl tert-butyl ether	4.437	59	7540	0.387	ug/L	#	79
29) Vinyl acetate	4.443	43	6371	0.393	ug/L	#	87
30) cis-1,2-Dichloroethene	4.718	96	3923	0.469	ug/L	#	79
31) 2,2-Dichloropropane	4.823	77	4065	0.421	ug/L	#	60
32) Bromochloromethane	4.915	128	1950	0.494	ug/L	#	61
33) Cyclohexane	4.928	56	3547	0.251	ug/L	#	61
34) Chloroform	4.981	83	6604	0.495	ug/L	#	93
35) Ethyl acetate	0.000		0	N.D.	d		
36) Carbon tetrachloride	5.125	117	3370	0.350	ug/L	#	89
37) Tetrahydrofuran	0.000		0	N.D.	d		
39) 1,1,1-Trichloroethane	5.190	97	4298	0.382	ug/L		94
41) 2-Butanone	0.000		0	N.D.	d		
42) 1,1-Dichloropropene	5.315	75	2981	0.329	ug/L		93
44) Benzene	5.557	78	12050	0.408	ug/L	#	89
45) tert-Amyl methyl ether	5.669	73	4001	0.424	ug/L	#	77
47) 1,2-Dichloroethane	5.754	62	3598	0.488	ug/L		96
50) Methyl cyclohexane	6.153	83	1780	0.207	ug/L	#	58
51) Trichloroethene	6.153	95	2622	0.418	ug/L		88
53) Dibromomethane	6.591	93	1506	0.474	ug/L	#	81
54) 1,2-Dichloropropane	6.702	63	2689	0.408	ug/L	#	92
56) 2-Chloroethyl vinyl ether	7.390	63	908	0.360	ug/L	#	63
57) Bromodichloromethane	6.764	83	3207	0.412	ug/L	#	96
60) 1,4-Dioxane	6.980	88	2443	93.931	ug/L	#	60
61) cis-1,3-Dichloropropene	7.459	75	2939	0.367	ug/L	#	79
64) Toluene	7.730	92	7012	0.421	ug/L		93
65) 4-Methyl-2-pentanone	0.000		0	N.D.	d		
66) Tetrachloroethene	8.182	166	2168	0.332	ug/L		97
68) trans-1,3-Dichloropropene	8.210	75	2272	0.324	ug/L	#	74
70) Ethyl methacrylate	8.405	69	1492	0.297	ug/L	#	83
71) 1,1,2-Trichloroethane	8.398	83	1448	0.370	ug/L		90
72) Chlorodibromomethane	8.600	129	1794	0.314	ug/L		96
73) 1,3-Dichloropropane	8.719	76	3059	0.399	ug/L		95
74) 1,2-Dibromoethane	8.880	107	1564	0.357	ug/L		100
76) 2-Hexanone	9.175	43	718	0.308	ug/L	#	62
77) Chlorobenzene	9.540	112	8428	0.447	ug/L	#	78
78) Ethylbenzene	9.589	91	12355	0.393	ug/L		96
79) 1,1,1,2-Tetrachloroethane	9.631	131	2169	0.361	ug/L	#	62
80) p/m Xylene	9.771	106	8908	0.729	ug/L		99
81) o Xylene	10.318	106	8107	0.702	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	12295	0.662	ug/L		98
84) Bromoform	10.395	173	1056	0.366	ug/L		94
86) Isopropylbenzene	10.704	105	10025	0.337	ug/L		95
88) Bromobenzene	11.132	156	3209	0.459	ug/L		97
89) n-Propylbenzene	11.188	91	12295	0.356	ug/L		97
90) 1,4-Dichlorobutane	11.188	55	4059	0.449	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	2271	0.467	ug/L	#	94
92) 4-Ethyltoluene	11.314	105	10057	0.357	ug/L		94
93) 2-Chlorotoluene	11.349	91	8470M6	0.407	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	8399	0.352	ug/L		96
95) 1,2,3-Trichloropropane	11.398	75	1558	0.419	ug/L		89
96) trans-1,4-Dichloro-2-b...	11.454	53	602	0.363	ug/L	#	50
97) 4-Chlorotoluene	11.531	91	8687	0.404	ug/L		97
98) tert-Butylbenzene	11.756	119	6844	0.330	ug/L		95
101) 1,2,4-Trimethylbenzene	11.833	105	9303	0.349	ug/L		99
102) sec-Butylbenzene	11.944	105	9142	0.313	ug/L		92
103) p-Isopropyltoluene	12.104	119	7286	0.298	ug/L		98
104) 1,3-Dichlorobenzene	12.160	146	6161	0.444	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	6529M3	0.474	ug/L		
106) p-Diethylbenzene	12.473	119	4233	0.299	ug/L		98
107) n-Butylbenzene	12.536	91	6027	0.296	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	5443	0.443	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	5385	0.279	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.461	155	71	0.115	ug/L	#	1
111) 1,3,5-Trichlorobenzene	13.496	180	3325	0.416	ug/L		97
112) Hexachlorobutadiene	14.074	225	875	0.333	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	2734	0.402	ug/L		95
114) Naphthalene	14.387	128	4657	0.323	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	2275	0.394	ug/L		98

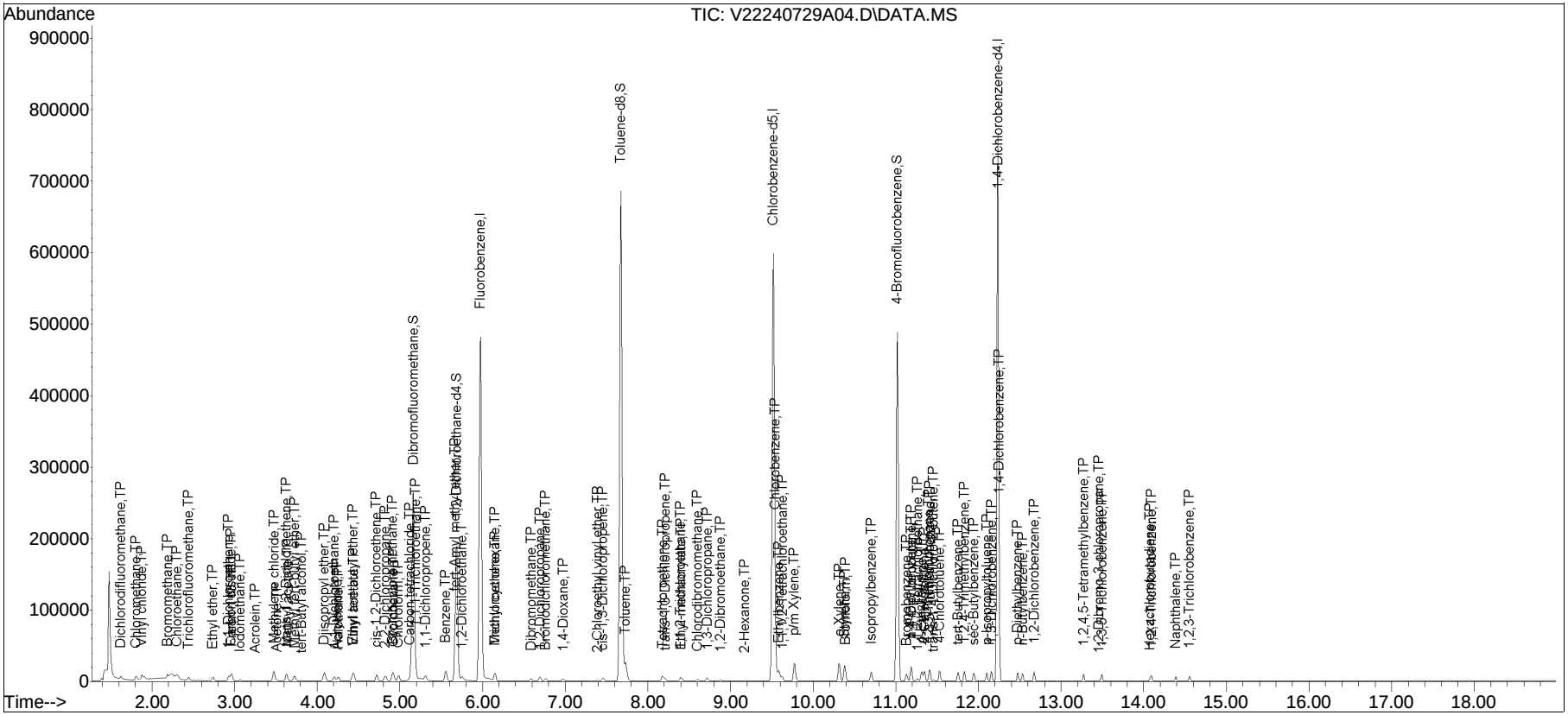
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

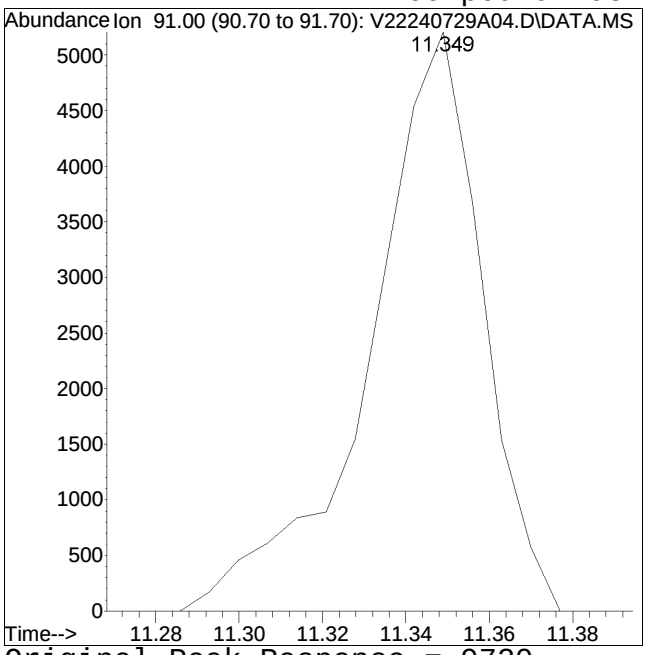
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



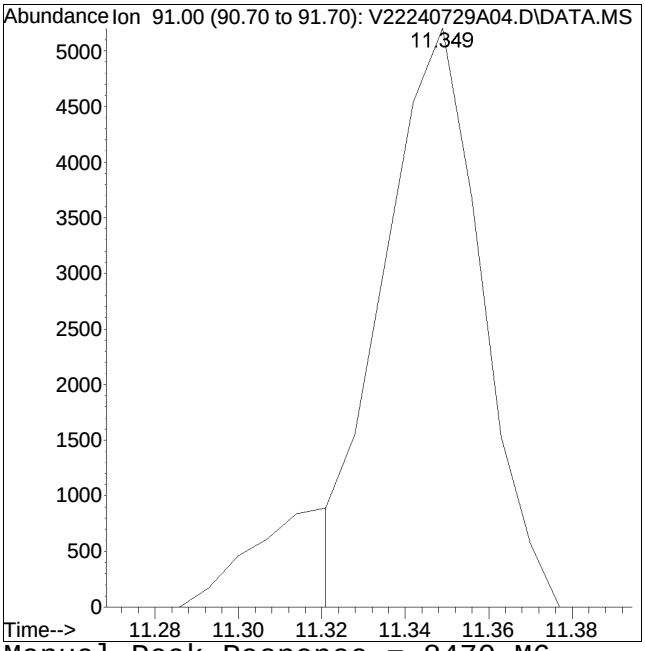
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A04.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 1:47 pm Instrument : VOA 122
Sample : I8260STD0.5PPB Quant Date : 7/30/2024 6:56 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 9720



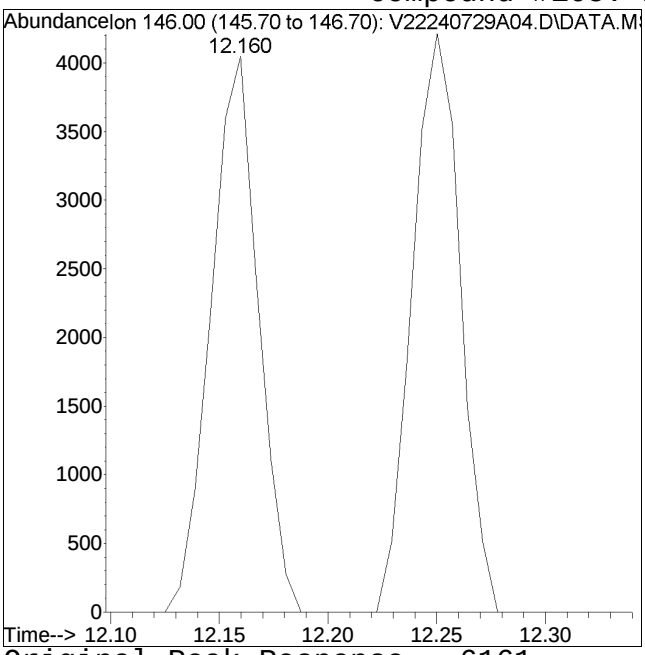
Manual Peak Response = 8470 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

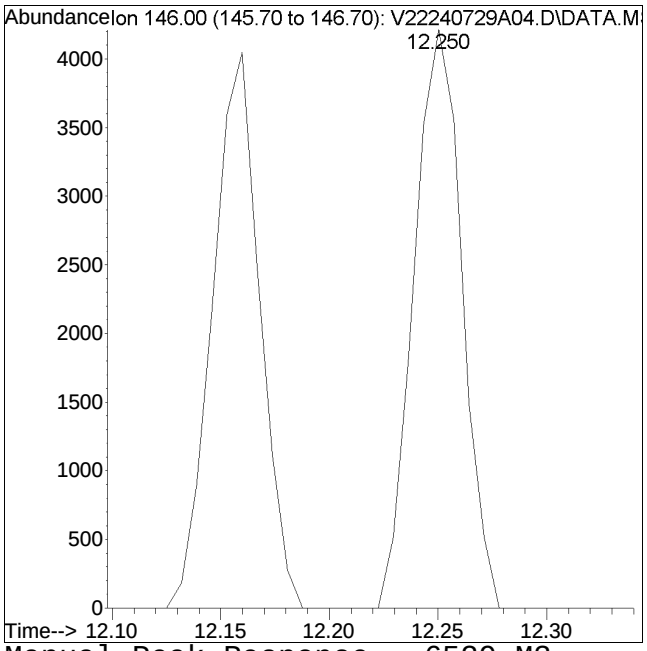
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A04.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 1:47 pm Instrument : VOA 122
Sample : I8260STD0.5PPB Quant Date : 7/30/2024 6:56 am

Compound #105: 1,4-Dichlorobenzene



Original Peak Response = 6161



Manual Peak Response = 6529 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	487751	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 96.18%			
62) Chlorobenzene-d5	9.519	117	406918	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 98.15%			
83) 1,4-Dichlorobenzene-d4	12.236	152	199758	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 97.76%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	185775	10.901	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.01%			
46) 1,2-Dichloroethane-d4	5.688	65	146804	10.191	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.91%			
63) Toluene-d8	7.675	98	515453	9.942	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.42%			
87) 4-Bromofluorobenzene	11.019	95	179700	9.879	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	14374	1.583	ug/L #	97
3) Chloromethane	1.808	50	28731	2.237	ug/L	98
4) Vinyl chloride	1.880	62	19430	1.912	ug/L	97
5) Bromomethane	2.188	94	7454	1.826	ug/L	99
6) Chloroethane	2.306	64	12862	2.189	ug/L	95
7) Trichlorofluoromethane	2.444	101	17429	1.592	ug/L	97
8) Ethyl ether	2.739	74	6753	1.989	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	12332	1.828	ug/L #	77
11) Carbon disulfide	2.962	76	44351	2.001	ug/L	98
12) Freon-113	2.975	101	9445	1.450	ug/L	93
13) Iodomethane	3.067	142	11855	1.459	ug/L	96
14) Acrolein	3.237	56	2376	2.049	ug/L	95
15) Methylene chloride	3.473	84	19892	2.224	ug/L #	57
17) Acetone	3.512	43	3914	2.106	ug/L #	84
18) trans-1,2-Dichloroethene	3.630	96	16471	2.087	ug/L	81
19) Methyl acetate	3.637	43	8697	2.073	ug/L #	77
21) Methyl tert-butyl ether	3.729	73	26147	1.732	ug/L #	70
22) tert-Butyl alcohol	3.807	59	2896	9.162	ug/L #	65
24) Diisopropyl ether	4.089	45	52947	1.867	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	34894	2.164	ug/L	95
26) Halothane	4.253	117	10748	1.827	ug/L	98

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	4335	1.948	ug/L		93
28) Ethyl tert-butyl ether	4.436	59	34490	1.693	ug/L		82
29) Vinyl acetate	4.443	43	28178	1.662	ug/L	#	86
30) cis-1,2-Dichloroethene	4.725	96	19099	2.183	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	19123	1.893	ug/L	#	68
32) Bromochloromethane	4.915	128	8964	2.171	ug/L	#	63
33) Cyclohexane	4.928	56	17826	1.205	ug/L		66
34) Chloroform	4.987	83	30215	2.165	ug/L	#	93
35) Ethyl acetate	5.098	43	9383	1.713	ug/L	#	88
36) Carbon tetrachloride	5.125	117	16650	1.653	ug/L	#	92
37) Tetrahydrofuran	5.144	42	3376M6	1.880	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	21558	1.832	ug/L		94
41) 2-Butanone	5.275	43	4092	1.786	ug/L	#	46
42) 1,1-Dichloropropene	5.315	75	15587	1.642	ug/L		99
44) Benzene	5.557	78	65545	2.122	ug/L	#	90
45) tert-Amyl methyl ether	5.675	73	16639	1.686	ug/L	#	75
47) 1,2-Dichloroethane	5.754	62	16066	2.081	ug/L		96
50) Methyl cyclohexane	6.153	83	9145	1.017	ug/L	#	55
51) Trichloroethene	6.153	95	12084	1.839	ug/L		95
53) Dibromomethane	6.591	93	6620	1.993	ug/L	#	80
54) 1,2-Dichloropropane	6.695	63	12801	1.856	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	4048	1.532	ug/L	#	72
57) Bromodichloromethane	6.764	83	15295	1.879	ug/L		100
60) 1,4-Dioxane	6.973	88	11033	405.375	ug/L	#	57
61) cis-1,3-Dichloropropene	7.459	75	14552	1.735	ug/L	#	80
64) Toluene	7.730	92	32572	1.943	ug/L		99
65) 4-Methyl-2-pentanone	8.161	58	1861	1.387	ug/L	#	51
66) Tetrachloroethene	8.175	166	10779	1.640	ug/L		91
68) trans-1,3-Dichloropropene	8.210	75	11279	1.599	ug/L	#	79
70) Ethyl methacrylate	8.411	69	7358	1.454	ug/L		91
71) 1,1,2-Trichloroethane	8.398	83	6445	1.637	ug/L		98
72) Chlorodibromomethane	8.607	129	9532	1.658	ug/L		99
73) 1,3-Dichloropropane	8.719	76	13298	1.723	ug/L		99
74) 1,2-Dibromoethane	8.880	107	7274	1.649	ug/L		100
76) 2-Hexanone	9.175	43	3695	1.577	ug/L	#	79
77) Chlorobenzene	9.540	112	38909	2.050	ug/L		95
78) Ethylbenzene	9.589	91	57821	1.827	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	10358	1.715	ug/L		98
80) p/m Xylene	9.778	106	44163	3.595	ug/L		99
81) o Xylene	10.318	106	42079	3.622	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	67724	3.624	ug/L		99
84) Bromoform	10.395	173	4704	1.565	ug/L		99
86) Isopropylbenzene	10.704	105	52842	1.705	ug/L		97
88) Bromobenzene	11.132	156	14174	1.945	ug/L		99
89) n-Propylbenzene	11.188	91	61128	1.698	ug/L		98
90) 1,4-Dichlorobutane	11.188	55	17672	1.876	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	9230	1.821	ug/L		99
92) 4-Ethyltoluene	11.314	105	50390	1.717	ug/L		100
93) 2-Chlorotoluene	11.349	91	41875M6	1.931	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	43761	1.760	ug/L		97
95) 1,2,3-Trichloropropane	11.398	75	7434	1.921	ug/L		94
96) trans-1,4-Dichloro-2-b...	11.454	53	3119	1.808	ug/L	#	56
97) 4-Chlorotoluene	11.531	91	42805	1.912	ug/L		99
98) tert-Butylbenzene	11.756	119	34068	1.578	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	49753	1.791	ug/L		100
102) sec-Butylbenzene	11.944	105	46682	1.533	ug/L		98
103) p-Isopropyltoluene	12.104	119	39172	1.537	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	28831	1.995	ug/L		98
105) 1,4-Dichlorobenzene	12.250	146	28455M3	1.985	ug/L		
106) p-Diethylbenzene	12.473	119	22597	1.532	ug/L		97
107) n-Butylbenzene	12.536	91	33165	1.561	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	25083	1.962	ug/L		97
109) 1,2,4,5-Tetramethylben...	13.273	119	29425	1.464	ug/L		97
110) 1,2-Dibromo-3-chloropr...	13.461	155	1071	1.661	ug/L		98
111) 1,3,5-Trichlorobenzene	13.496	180	15256	1.832	ug/L		96
112) Hexachlorobutadiene	14.074	225	4160	1.520	ug/L		97
113) 1,2,4-Trichlorobenzene	14.095	180	12408	1.751	ug/L		99
114) Naphthalene	14.387	128	23297	1.550	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	11179	1.857	ug/L		97

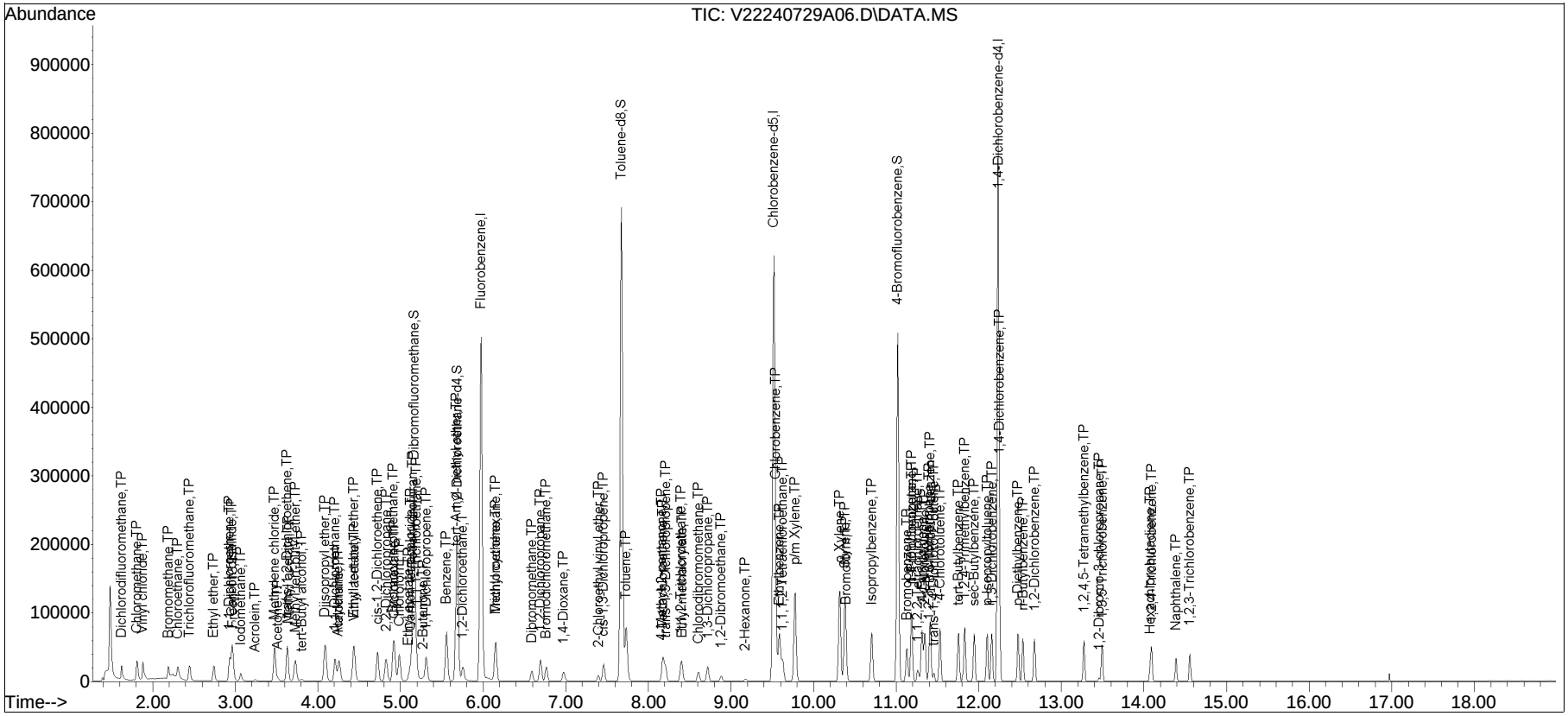
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

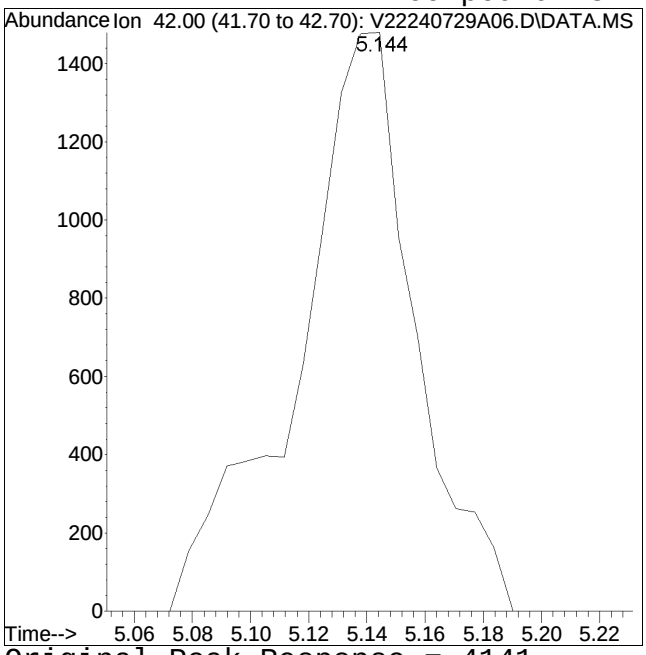


Manual Integration Report

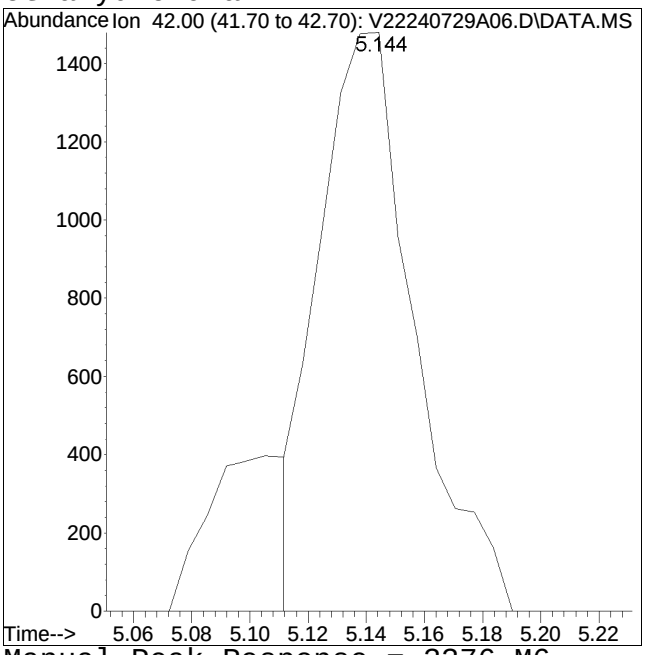
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A06.D
Date Inj'd : 7/29/2024 2:36 pm
Sample : I8260STD2PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:56 am

Compound #37: Tetrahydrofuran



Original Peak Response = 4141



Manual Peak Response = 3376 M6

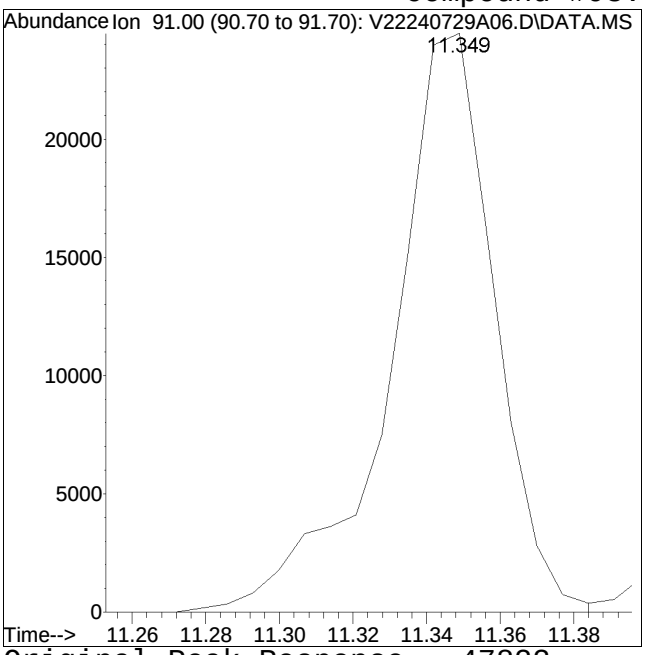
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

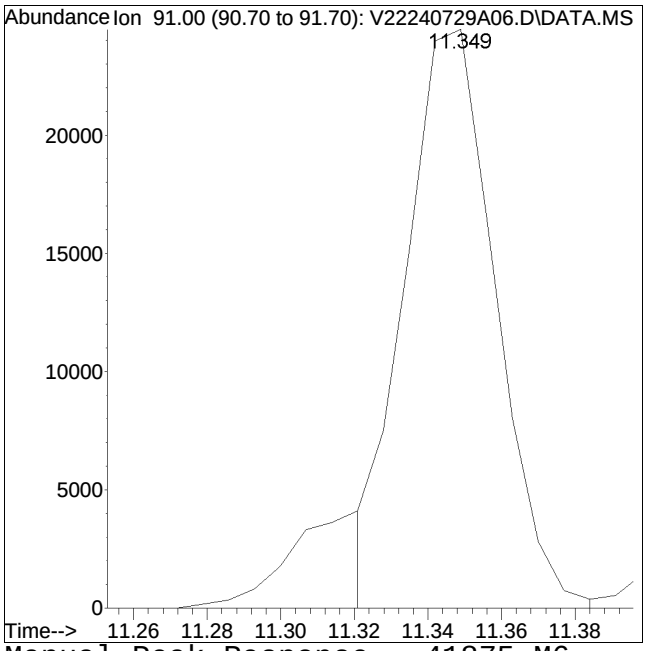
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A06.D
Date Inj'd : 7/29/2024 2:36 pm
Sample : I8260STD2PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:56 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 47822



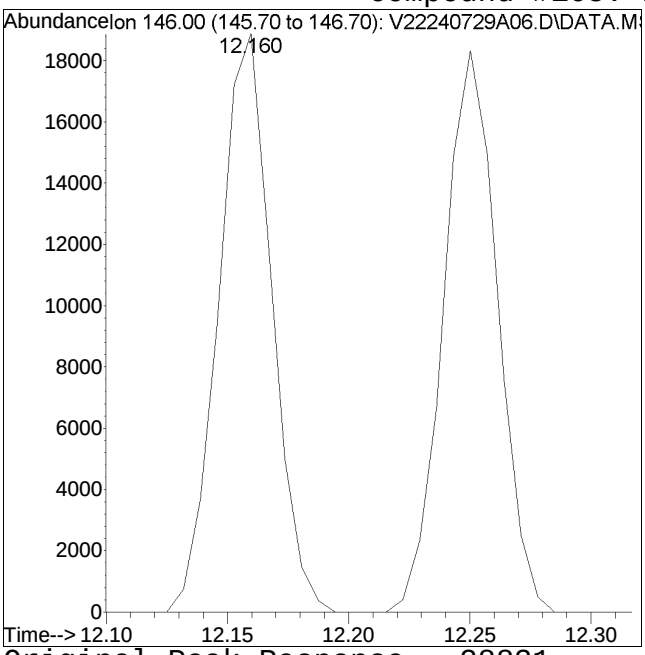
Manual Peak Response = 41875 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

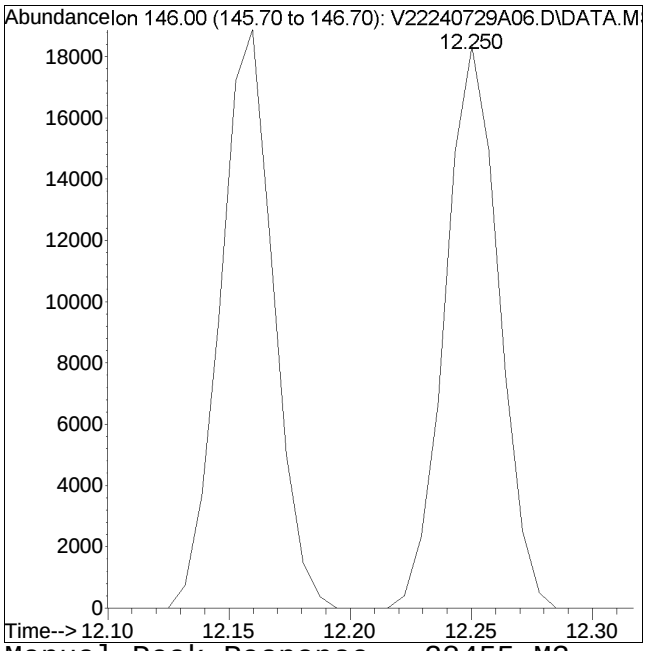
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A06.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 2:36 pm Instrument : VOA 122
Sample : I8260STD2PPB Quant Date : 7/30/2024 6:56 am

Compound #105: 1,4-Dichlorobenzene



Original Peak Response = 28831



Manual Peak Response = 28455 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	507125	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 100.00%			
62) Chlorobenzene-d5	9.519	117	414608	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 100.00%			
83) 1,4-Dichlorobenzene-d4	12.236	152	204327	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 100.00%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	181826	10.262	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.62%			
46) 1,2-Dichloroethane-d4	5.688	65	154528	10.317	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.17%			
63) Toluene-d8	7.675	98	523398	9.908	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.08%			
87) 4-Bromofluorobenzene	11.019	95	190463	10.237	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.37%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	108996	11.544	ug/L	97
3) Chloromethane	1.808	50	153481	11.492	ug/L	98
4) Vinyl chloride	1.880	62	117707	11.140	ug/L	98
5) Bromomethane	2.188	94	38034	8.960	ug/L	97
6) Chloroethane	2.306	64	67600	11.068	ug/L	98
7) Trichlorofluoromethane	2.444	101	130266	11.442	ug/L	100
8) Ethyl ether	2.739	74	36785	10.423	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	77321	11.021	ug/L #	74
11) Carbon disulfide	2.962	76	258420	11.212	ug/L	100
12) Freon-113	2.968	101	78230	11.549	ug/L	93
13) Iodomethane	3.067	142	86985	10.298	ug/L	94
14) Acrolein	3.237	56	12611	10.460	ug/L	99
15) Methylene chloride	3.473	84	96763	10.403	ug/L #	59
17) Acetone	3.512	43	17562	9.089	ug/L	94
18) trans-1,2-Dichloroethene	3.630	96	89864	10.949	ug/L	83
19) Methyl acetate	3.630	43	43051	9.868	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	160594	10.233	ug/L #	76
22) tert-Butyl alcohol	3.801	59	16964	51.618	ug/L #	83
24) Diisopropyl ether	4.089	45	301148	10.213	ug/L #	92
25) 1,1-Dichloroethane	4.207	63	185342	11.057	ug/L	95
26) Halothane	4.260	117	67082	10.965	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	24656	10.655	ug/L		99
28) Ethyl tert-butyl ether	4.437	59	209281	9.882	ug/L	#	80
29) Vinyl acetate	4.437	43	179190	10.167	ug/L	#	87
30) cis-1,2-Dichloroethene	4.725	96	99687	10.960	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	113817	10.834	ug/L	#	72
32) Bromochloromethane	4.915	128	47106	10.975	ug/L	#	66
33) Cyclohexane	4.928	56	177898	11.568	ug/L		66
34) Chloroform	4.987	83	153810	10.602	ug/L	#	94
35) Ethyl acetate	5.092	43	56116	9.852	ug/L	#	93
36) Carbon tetrachloride	5.125	117	118186	11.288	ug/L		98
37) Tetrahydrofuran	5.138	42	19281M6	10.330	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	133168	10.885	ug/L		95
41) 2-Butanone	5.275	43	22509	9.447	ug/L	#	41
42) 1,1-Dichloropropene	5.308	75	108351	10.976	ug/L		99
44) Benzene	5.557	78	332787	10.361	ug/L	#	90
45) tert-Amyl methyl ether	5.669	73	96339	9.388	ug/L	#	81
47) 1,2-Dichloroethane	5.754	62	86117	10.731	ug/L		97
50) Methyl cyclohexane	6.153	83	101349	10.837	ug/L	#	63
51) Trichloroethene	6.153	95	72595	10.626	ug/L		95
53) Dibromomethane	6.591	93	35862	10.384	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	78055	10.882	ug/L	#	94
56) 2-Chloroethyl vinyl ether	7.397	63	26732	9.728	ug/L	#	76
57) Bromodichloromethane	6.764	83	88515	10.459	ug/L		99
60) 1,4-Dioxane	6.980	88	15178	536.365	ug/L	#	52
61) cis-1,3-Dichloropropene	7.459	75	94563	10.843	ug/L	#	83
64) Toluene	7.730	92	177081	10.369	ug/L		100
65) 4-Methyl-2-pentanone	8.168	58	11706	8.565	ug/L	#	62
66) Tetrachloroethene	8.182	166	69874	10.434	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	72626	10.102	ug/L	#	82
70) Ethyl methacrylate	8.412	69	51468	9.985	ug/L		98
71) 1,1,2-Trichloroethane	8.398	83	38889	9.697	ug/L		96
72) Chlorodibromomethane	8.607	129	57490	9.816	ug/L		100
73) 1,3-Dichloropropane	8.719	76	78139	9.937	ug/L		99
74) 1,2-Dibromoethane	8.880	107	44345	9.867	ug/L		99
76) 2-Hexanone	9.175	43	22658	9.491	ug/L	#	84
77) Chlorobenzene	9.540	112	201339	10.409	ug/L		91
78) Ethylbenzene	9.589	91	352544	10.933	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.624	131	59593	9.686	ug/L		97
80) p/m Xylene	9.778	106	275639	22.022	ug/L		99
81) o Xylene	10.318	106	259398	21.915	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	417260	21.916	ug/L		100
84) Bromoform	10.395	173	27898	9.076	ug/L		98
86) Isopropylbenzene	10.704	105	352704	11.128	ug/L		98
88) Bromobenzene	11.132	156	76366	10.247	ug/L		100
89) n-Propylbenzene	11.188	91	407322	11.060	ug/L		98
90) 1,4-Dichlorobutane	11.188	55	96756	10.043	ug/L		93
91) 1,1,2,2-Tetrachloroethane	11.265	83	50331	9.708	ug/L		99
92) 4-Ethyltoluene	11.314	105	327354	10.906	ug/L		99
93) 2-Chlorotoluene	11.349	91	236113M6	10.643	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	275826	10.844	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	39105	9.881	ug/L		97
96) trans-1,4-Dichloro-2-b...	11.454	53	17036	9.653	ug/L	#	67
97) 4-Chlorotoluene	11.531	91	243559	10.638	ug/L		99
98) tert-Butylbenzene	11.756	119	242602	10.988	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	312105	10.982	ug/L		99
102) sec-Butylbenzene	11.944	105	351706	11.291	ug/L		98
103) p-Isopropyltoluene	12.104	119	294081	11.285	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	155327	10.507	ug/L		98
105) 1,4-Dichlorobenzene	12.250	146	151816	10.355	ug/L		96
106) p-Diethylbenzene	12.480	119	165253	10.953	ug/L		99
107) n-Butylbenzene	12.536	91	248066	11.416	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	136372	10.427	ug/L		97
109) 1,2,4,5-Tetramethylben...	13.274	119	221635	10.778	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.454	155	6822	10.341	ug/L		96
111) 1,3,5-Trichlorobenzene	13.489	180	90492	10.622	ug/L		96
112) Hexachlorobutadiene	14.074	225	30687	10.961	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	75100	10.360	ug/L		98
114) Naphthalene	14.387	128	157343	10.234	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	64316	10.445	ug/L		98

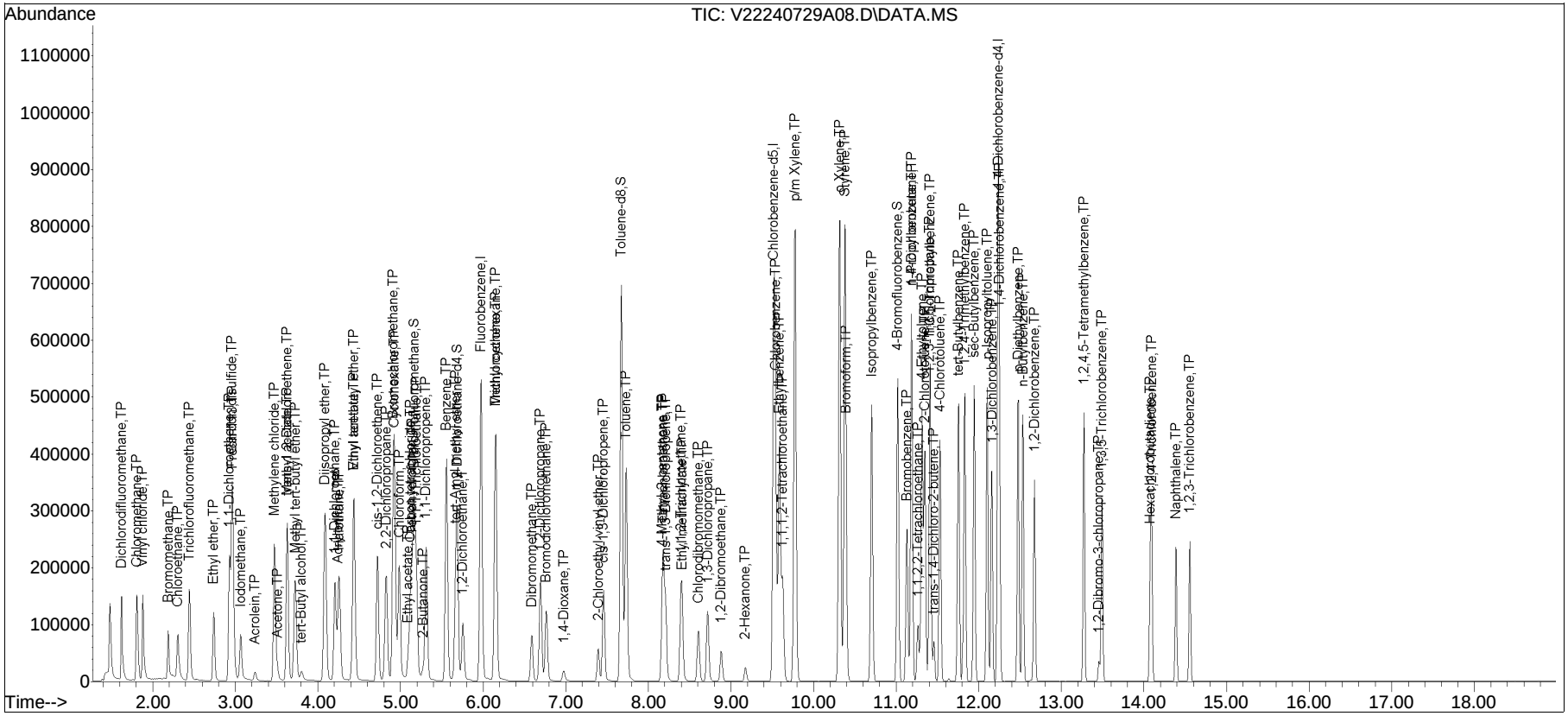
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

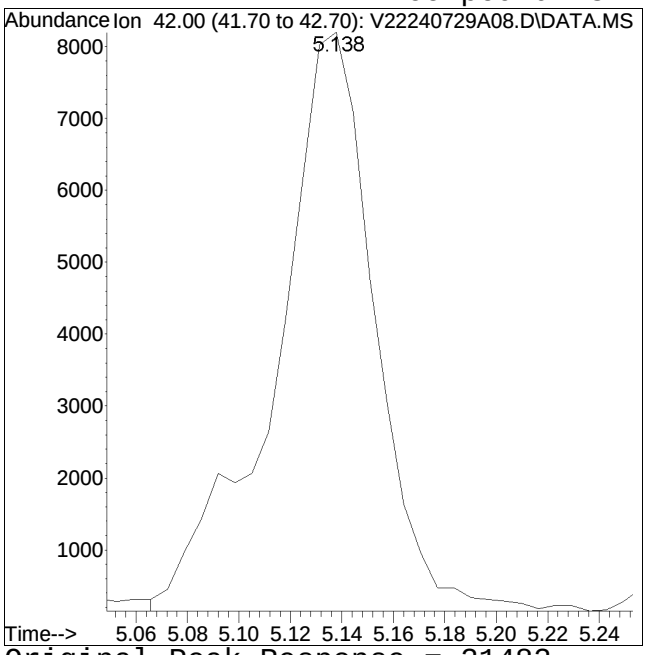


Manual Integration Report

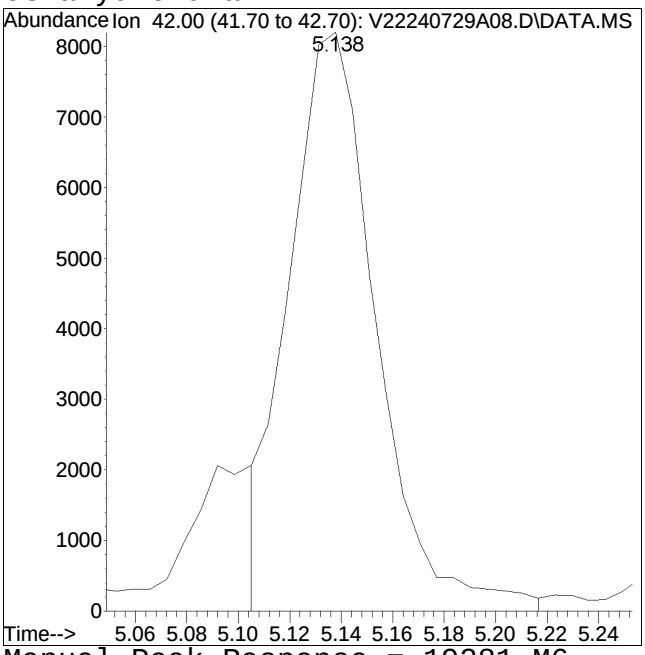
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A08.D
Date Inj'd : 7/29/2024 3:25 pm
Sample : I8260STD10PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 21482



Manual Peak Response = 19281 M6

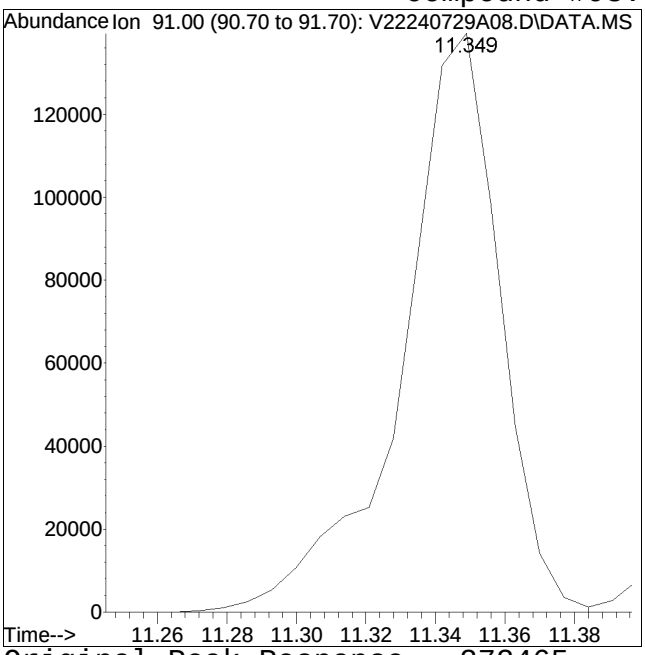
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

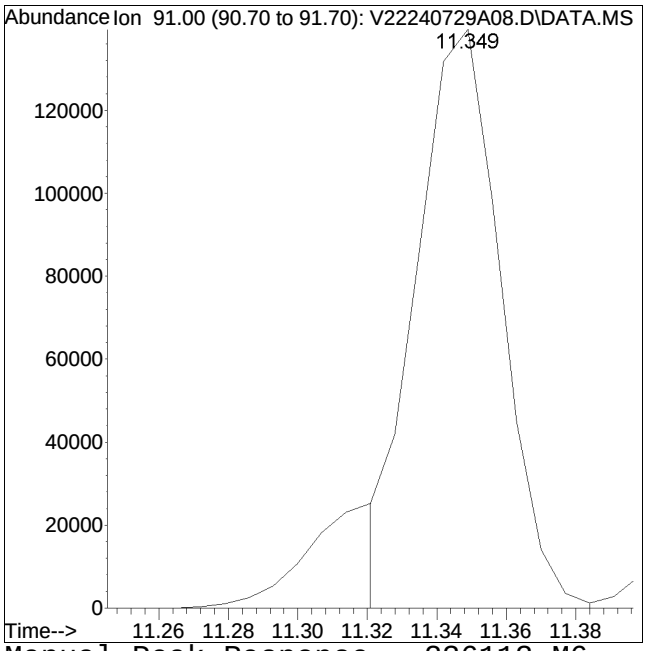
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A08.D
Date Inj'd : 7/29/2024 3:25 pm
Sample : I8260STD10PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 272465



Manual Peak Response = 236113 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	565935	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 111.60%			
62) Chlorobenzene-d5	9.519	117	434743	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 104.86%			
83) 1,4-Dichlorobenzene-d4	12.236	152	212864	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 104.18%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	191820	9.701	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.01%			
46) 1,2-Dichloroethane-d4	5.688	65	165884	9.924	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%			
63) Toluene-d8	7.675	98	557077	10.057	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.57%			
87) 4-Bromofluorobenzene	11.019	95	196659	10.146	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.46%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	378740	35.946	ug/L #	96
3) Chloromethane	1.808	50	470305	31.556	ug/L	98
4) Vinyl chloride	1.880	62	392548	33.292	ug/L	97
5) Bromomethane	2.188	94	133556	28.195	ug/L	98
6) Chloroethane	2.306	64	213118	31.267	ug/L	96
7) Trichlorofluoromethane	2.444	101	446957	35.178	ug/L	98
8) Ethyl ether	2.739	74	118047	29.972	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	262276	33.498	ug/L #	75
11) Carbon disulfide	2.962	76	833671	32.412	ug/L	100
12) Freon-113	2.975	101	270274	35.754	ug/L	93
13) Iodomethane	3.067	142	322209	34.183	ug/L	94
14) Acrolein	3.237	56	42198	31.364	ug/L	97
15) Methylene chloride	3.473	84	292914	28.219	ug/L #	60
17) Acetone	3.512	43	56239	26.080	ug/L	95
18) trans-1,2-Dichloroethene	3.630	96	282376	30.830	ug/L	81
19) Methyl acetate	3.630	43	142046	29.175	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	556748	31.788	ug/L #	78
22) tert-Butyl alcohol	3.801	59	57232	156.049	ug/L #	85
24) Diisopropyl ether	4.089	45	1055329	32.070	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	577354	30.863	ug/L	96
26) Halothane	4.260	117	216034	31.641	ug/L	98

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	80853	31.309	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	775535	32.814	ug/L		81
29) Vinyl acetate	4.437	43	644173	32.750	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	310342	30.573	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	374216	31.919	ug/L	#	76
32) Bromochloromethane	4.915	128	143259	29.908	ug/L	#	65
33) Cyclohexane	4.928	56	641466	37.378	ug/L		68
34) Chloroform	4.987	83	486176	30.028	ug/L	#	95
35) Ethyl acetate	5.099	43	197775	31.115	ug/L	#	92
36) Carbon tetrachloride	5.131	117	400986	34.319	ug/L		99
37) Tetrahydrofuran	5.138	42	64462M6	30.946	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	441094	32.307	ug/L		95
41) 2-Butanone	5.275	43	83376	31.356	ug/L	#	48
42) 1,1-Dichloropropene	5.315	75	376784	34.203	ug/L		100
44) Benzene	5.557	78	1175448	32.792	ug/L	#	91
45) tert-Amyl methyl ether	5.669	73	353712	30.887	ug/L	#	85
47) 1,2-Dichloroethane	5.754	62	274844	30.689	ug/L		97
50) Methyl cyclohexane	6.153	83	384184	36.812	ug/L	#	64
51) Trichloroethene	6.153	95	243495	31.937	ug/L		98
53) Dibromomethane	6.591	93	118845	30.835	ug/L	#	81
54) 1,2-Dichloropropane	6.695	63	257294	32.144	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	100117	32.647	ug/L	#	78
57) Bromodichloromethane	6.764	83	299476	31.708	ug/L		100
60) 1,4-Dioxane	6.980	88	20073	635.634	ug/L	#	60
61) cis-1,3-Dichloropropene	7.459	75	334440	34.362	ug/L	#	83
64) Toluene	7.730	92	570532	31.860	ug/L		99
65) 4-Methyl-2-pentanone	8.168	58	44980	31.387	ug/L	#	66
66) Tetrachloroethene	8.182	166	236210	33.640	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	270746	35.916	ug/L		84
70) Ethyl methacrylate	8.412	69	184206	34.083	ug/L		93
71) 1,1,2-Trichloroethane	8.398	83	133185	31.672	ug/L		97
72) Chlorodibromomethane	8.607	129	204242	33.258	ug/L		100
73) 1,3-Dichloropropane	8.719	76	270530	32.812	ug/L		99
74) 1,2-Dibromoethane	8.880	107	155746	33.049	ug/L		99
76) 2-Hexanone	9.175	43	83715	33.444	ug/L	#	86
77) Chlorobenzene	9.540	112	633572	31.239	ug/L		90
78) Ethylbenzene	9.589	91	1113856	32.943	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	209804	32.521	ug/L		98
80) p/m Xylene	9.778	106	870043	66.291	ug/L		100
81) o Xylene	10.318	106	821986	66.227	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	1360113	68.130	ug/L		100
84) Bromoform	10.395	173	103387	32.285	ug/L		99
86) Isopropylbenzene	10.704	105	1131099	34.257	ug/L		99
88) Bromobenzene	11.132	156	242548	31.239	ug/L		99
89) n-Propylbenzene	11.188	91	1307573	34.081	ug/L		99
90) 1,4-Dichlorobutane	11.195	55	317576	31.642	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	170195	31.511	ug/L		99
92) 4-Ethyltoluene	11.314	105	1049570	33.564	ug/L		100
93) 2-Chlorotoluene	11.349	91	738915M6	31.972	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	871493	32.889	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	130817	31.730	ug/L		97
96) trans-1,4-Dichloro-2-b...	11.454	53	60092	32.684	ug/L	#	73
97) 4-Chlorotoluene	11.531	91	769042	32.242	ug/L		99
98) tert-Butylbenzene	11.756	119	789435	34.322	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	982161	33.172	ug/L		99
102) sec-Butylbenzene	11.944	105	1135952	35.007	ug/L		98
103) p-Isopropyltoluene	12.104	119	942343	34.710	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	483221	31.376	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	471520	30.871	ug/L		97
106) p-Diethylbenzene	12.473	119	540120	34.363	ug/L		98
107) n-Butylbenzene	12.536	91	782912	34.586	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	428145	31.424	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	761613	35.551	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.454	155	23868	34.730	ug/L		98
111) 1,3,5-Trichlorobenzene	13.489	180	286550	32.287	ug/L		97
112) Hexachlorobutadiene	14.074	225	96947	33.240	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	246099	32.588	ug/L		98
114) Naphthalene	14.387	128	563728	35.196	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	209547	32.665	ug/L		98

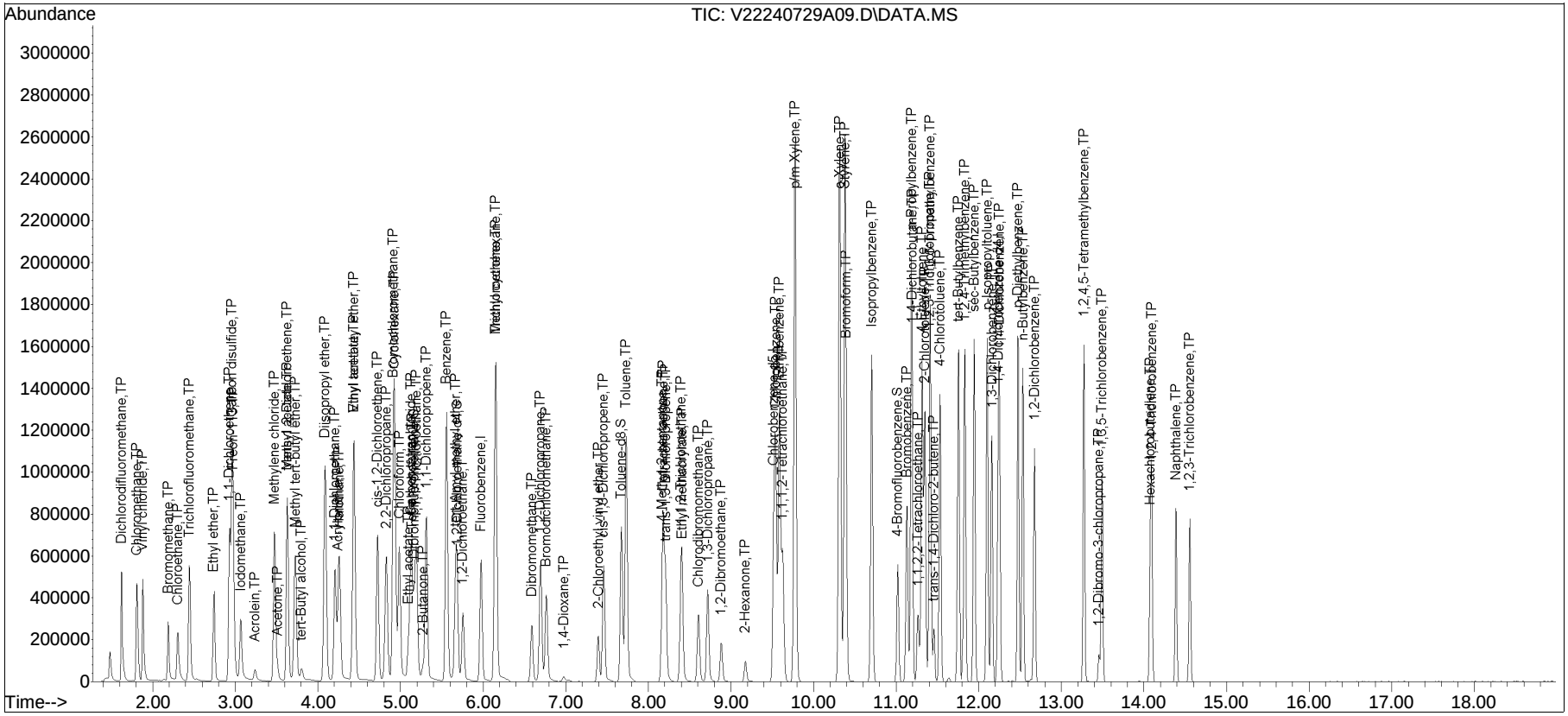
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

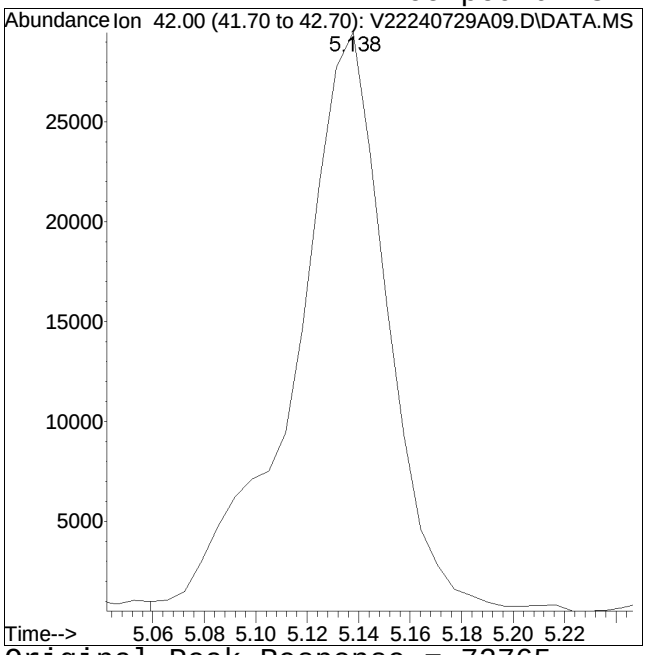
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



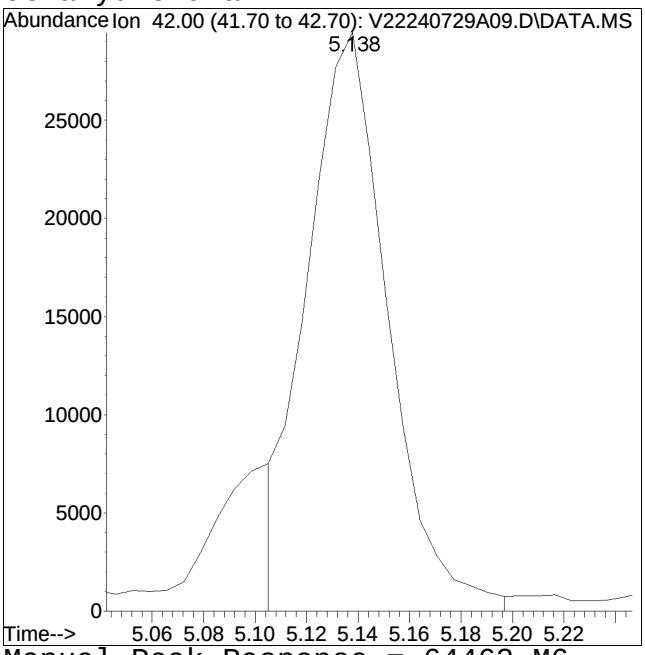
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A09.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 3:50 pm Instrument : VOA 122
Sample : I8260STD30PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 72765



Manual Peak Response = 64462 M6

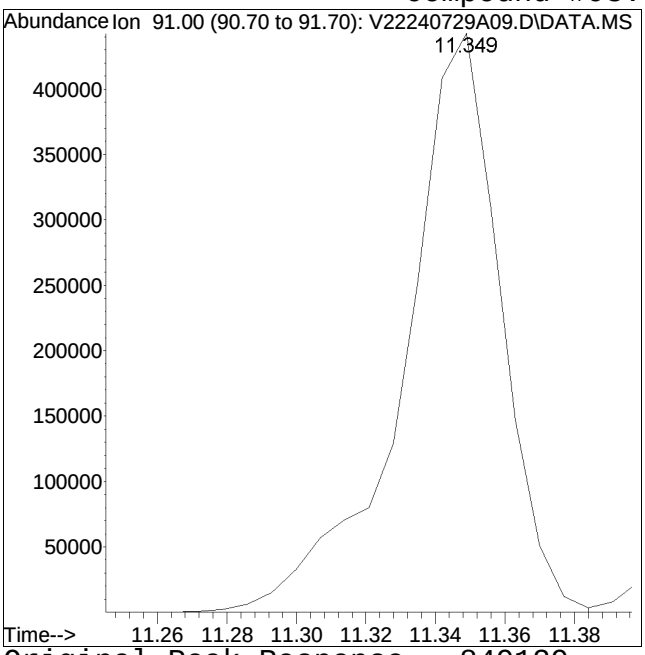
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

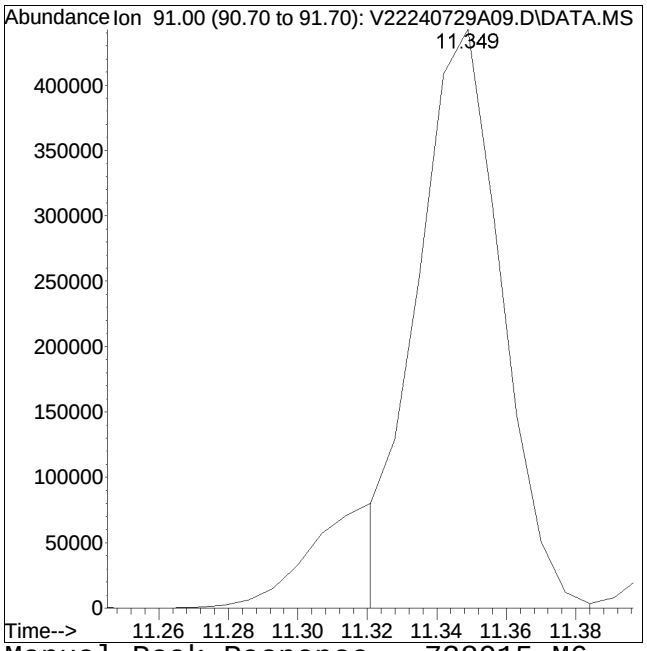
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A09.D
Date Inj'd : 7/29/2024 3:50 pm
Sample : I8260STD30PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 849129



Manual Peak Response = 738915 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	604048	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 119.11%			
62) Chlorobenzene-d5	9.519	117	456299	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 110.06%			
83) 1,4-Dichlorobenzene-d4	12.237	152	226202	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 110.71%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	196896	9.329	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.29%			
46) 1,2-Dichloroethane-d4	5.689	65	174684	9.791	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
63) Toluene-d8	7.675	98	587934	10.113	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.13%			
87) 4-Bromofluorobenzene	11.020	95	203677	9.888	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	1009587	89.774	ug/L	96
3) Chloromethane	1.809	50	1222744	76.866	ug/L	98
4) Vinyl chloride	1.881	62	1050049	83.434	ug/L	97
5) Bromomethane	2.189	94	426766	84.410	ug/L	98
6) Chloroethane	2.300	64	563492	77.455	ug/L	97
7) Trichlorofluoromethane	2.444	101	1217222	89.757	ug/L	99
8) Ethyl ether	2.746	74	341896	81.329	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	706380	84.526	ug/L #	78
11) Carbon disulfide	2.962	76	2177308	79.309	ug/L	99
12) Freon-113	2.975	101	724978	89.856	ug/L	93
13) Iodomethane	3.067	142	963932	95.809	ug/L	93
14) Acrolein	3.237	56	121266	84.445	ug/L	98
15) Methylene chloride	3.473	84	790851	71.383	ug/L #	62
17) Acetone	3.513	43	153155	66.542	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	773909	79.164	ug/L	83
19) Methyl acetate	3.631	43	400524	77.073	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	1586398	84.861	ug/L #	80
22) tert-Butyl alcohol	3.801	59	168322	429.989	ug/L #	79
24) Diisopropyl ether	4.090	45	2981253	84.879	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	1541876	77.223	ug/L	96
26) Halothane	4.260	117	611759	83.948	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	221081	80.210	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	2201604	87.275	ug/L	#	81
29) Vinyl acetate	4.443	43	1863003	88.740	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	833067	76.891	ug/L	#	83
31) 2,2-Dichloropropane	4.830	77	1021587	81.639	ug/L	#	79
32) Bromochloromethane	4.915	128	392233	76.720	ug/L	#	69
33) Cyclohexane	4.928	56	1709623	93.334	ug/L		69
34) Chloroform	4.987	83	1323780	76.604	ug/L	#	94
35) Ethyl acetate	5.099	43	569659	83.967	ug/L	#	92
36) Carbon tetrachloride	5.132	117	1103046	88.449	ug/L		99
37) Tetrahydrofuran	5.132	42	180135M6	81.020	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	1232348	84.566	ug/L		96
41) 2-Butanone	5.276	43	240159	84.621	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	1031814	87.753	ug/L		100
44) Benzene	5.558	78	3201040	83.667	ug/L	#	91
45) tert-Amyl methyl ether	5.669	73	1054687	86.288	ug/L	#	88
47) 1,2-Dichloroethane	5.754	62	742873	77.716	ug/L		98
50) Methyl cyclohexane	6.154	83	1081945	97.129	ug/L	#	64
51) Trichloroethene	6.154	95	674311	82.863	ug/L		97
53) Dibromomethane	6.591	93	329723	80.152	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	712653	83.414	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	302915	92.545	ug/L	#	79
57) Bromodichloromethane	6.765	83	842655	83.590	ug/L		100
60) 1,4-Dioxane	6.973	88	26263	779.173	ug/L	#	56
61) cis-1,3-Dichloropropene	7.460	75	959633	92.377	ug/L	#	84
64) Toluene	7.731	92	1559743	82.986	ug/L		98
65) 4-Methyl-2-pentanone	8.162	58	135905	90.355	ug/L	#	67
66) Tetrachloroethene	8.182	166	653514	88.674	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	782486	98.897	ug/L		85
70) Ethyl methacrylate	8.412	69	536517	94.579	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	404802	91.716	ug/L		98
72) Chlorodibromomethane	8.607	129	592883	91.983	ug/L		100
73) 1,3-Dichloropropane	8.720	76	760068	87.831	ug/L		99
74) 1,2-Dibromoethane	8.881	107	447228	90.418	ug/L		100
76) 2-Hexanone	9.175	43	250363	95.295	ug/L		88
77) Chlorobenzene	9.540	112	1720439	80.820	ug/L		90
78) Ethylbenzene	9.589	91	2998362	84.490	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	607602	89.732	ug/L		99
80) p/m Xylene	9.778	106	2360025	171.323	ug/L		98
81) o Xylene	10.318	106	2248914	172.634	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.382	104	3701149	176.638	ug/L		99
84) Bromoform	10.396	173	311735	91.606	ug/L		99
86) Isopropylbenzene	10.704	105	3038692	86.604	ug/L		100
88) Bromobenzene	11.132	156	669659	81.163	ug/L		99
89) n-Propylbenzene	11.188	91	3524612	86.450	ug/L		100
90) 1,4-Dichlorobutane	11.195	55	890525	83.496	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	481761	83.938	ug/L		99
92) 4-Ethyltoluene	11.314	105	2856846	85.971	ug/L		100
93) 2-Chlorotoluene	11.349	91	2005453M6	81.657	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	2400965	85.266	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	364924M1	83.294	ug/L		
96) trans-1,4-Dichloro-2-b...	11.454	53	171854	87.959	ug/L	#	78
97) 4-Chlorotoluene	11.532	91	2095062	82.655	ug/L		100
98) tert-Butylbenzene	11.756	119	2152120	88.051	ug/L		97
101) 1,2,4-Trimethylbenzene	11.833	105	2676166	85.056	ug/L		99
102) sec-Butylbenzene	11.944	105	3063225	88.833	ug/L		99
103) p-Isopropyltoluene	12.104	119	2574669	89.241	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	1327463	81.110	ug/L		97
105) 1,4-Dichlorobenzene	12.251	146	1292372	79.623	ug/L		97
106) p-Diethylbenzene	12.480	119	1493217	89.397	ug/L		98
107) n-Butylbenzene	12.536	91	2119410	88.106	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	1181566	81.607	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	2111496	92.750	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	72691	99.534	ug/L		99
111) 1,3,5-Trichlorobenzene	13.490	180	783599	83.086	ug/L		97
112) Hexachlorobutadiene	14.074	225	265905	85.793	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	687445	85.663	ug/L		98
114) Naphthalene	14.388	128	1573928	92.472	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	579519	85.011	ug/L		98

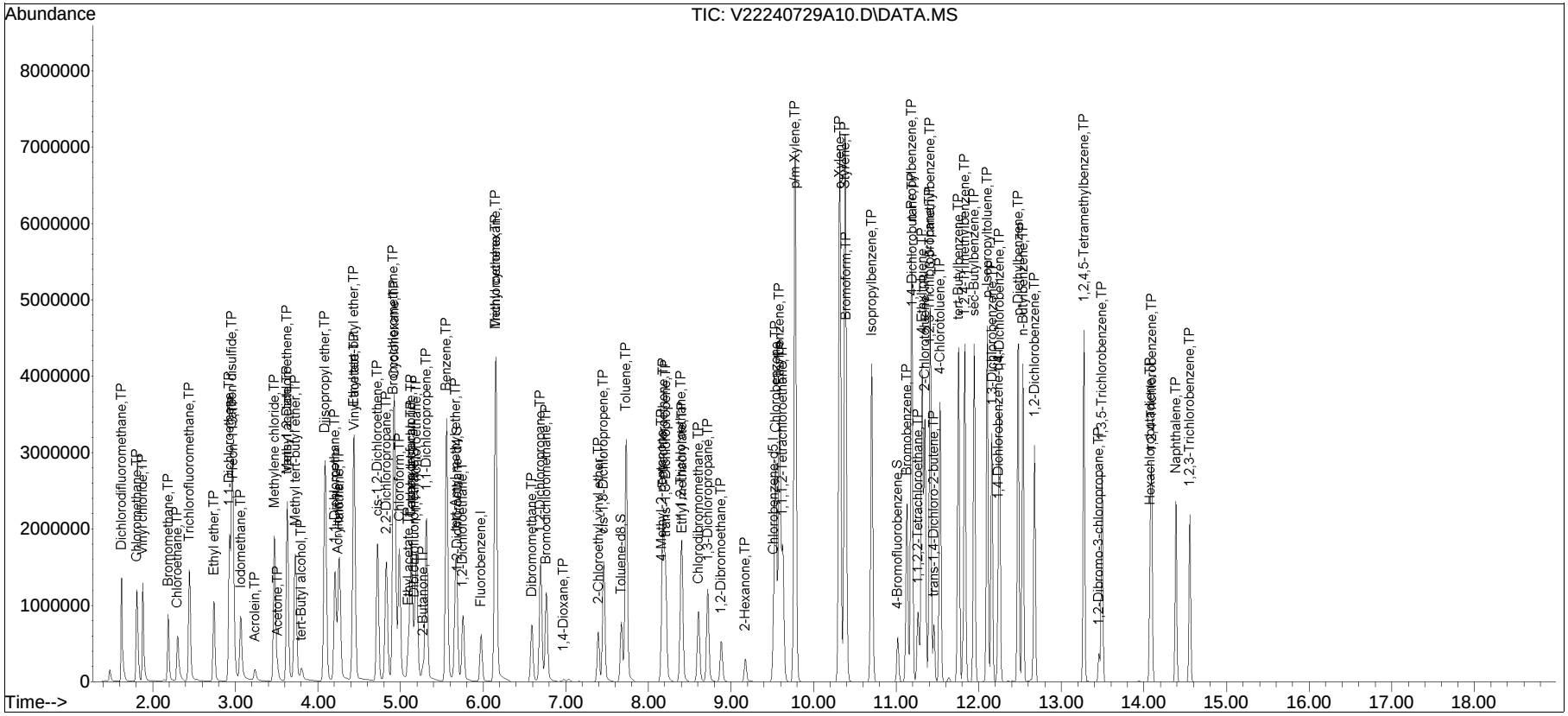
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

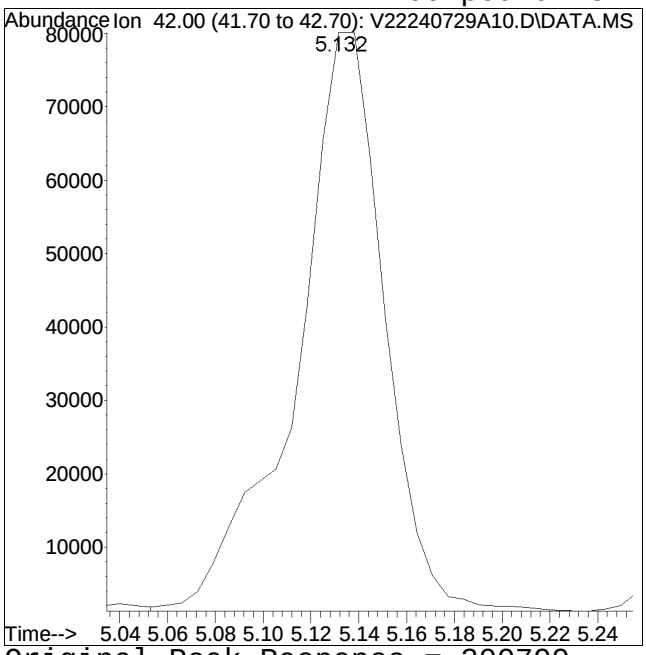
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



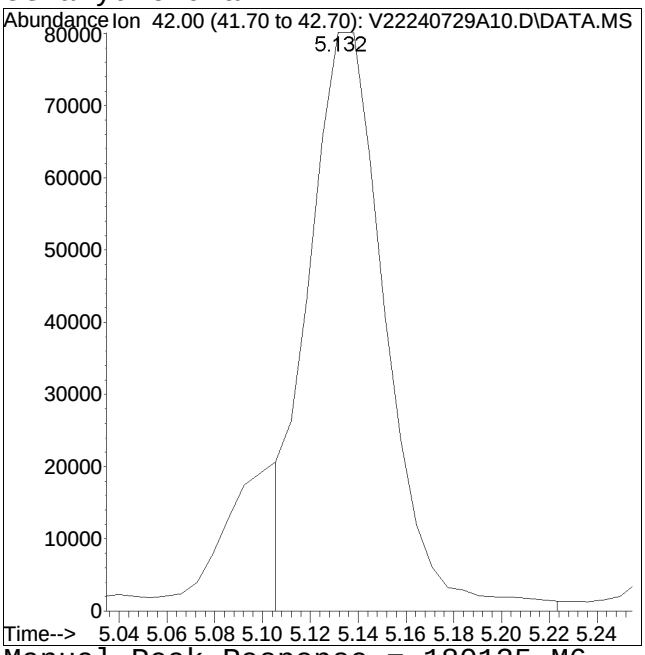
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A10.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:15 pm Instrument : VOA 122
Sample : I8260STD80PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 200799



Manual Peak Response = 180135 M6

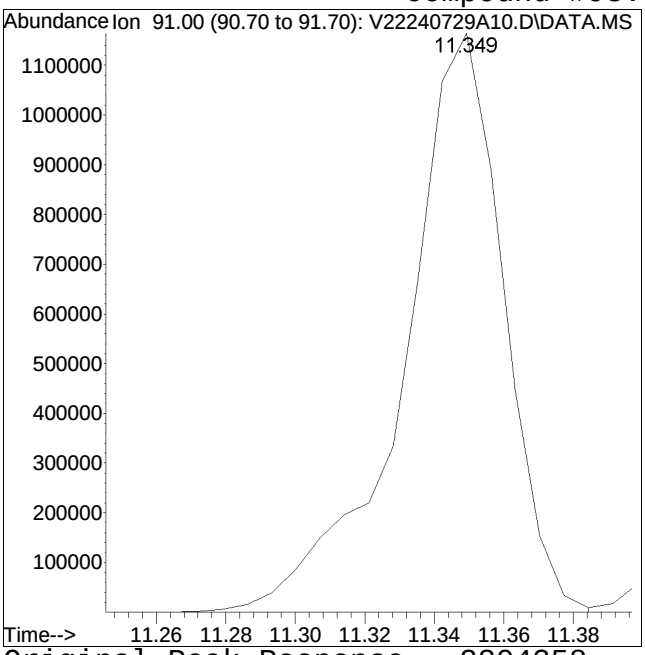
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

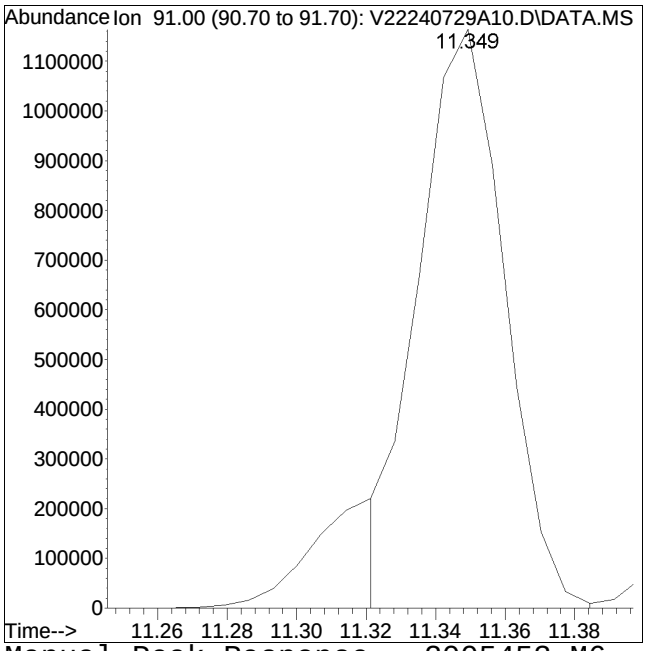
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A10.D
Date Inj'd : 7/29/2024 4:15 pm
Sample : I8260STD80PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 2304358



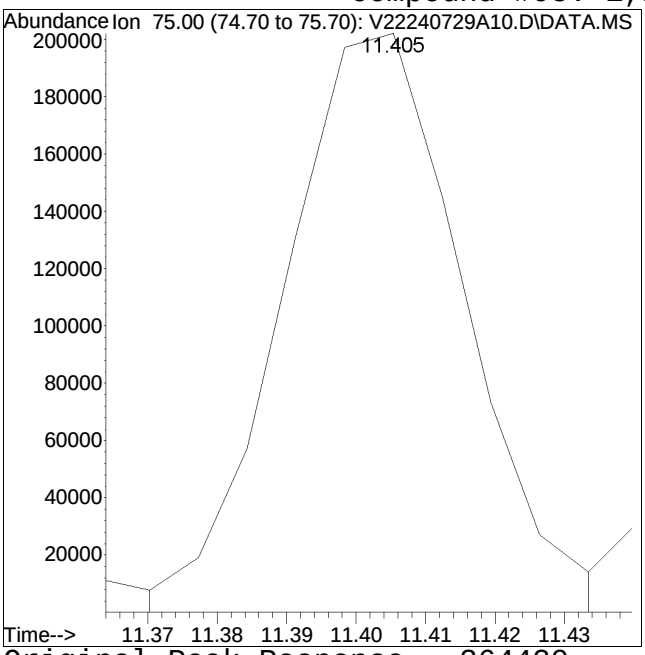
Manual Peak Response = 2005453 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

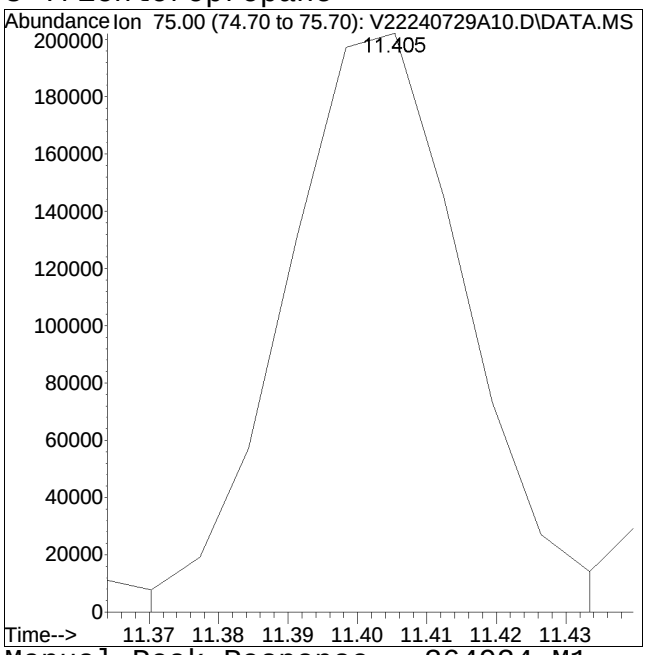
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A10.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:15 pm Instrument : VOA 122
Sample : I8260STD80PPB Quant Date : 7/30/2024 6:57 am

Compound #95: 1,2,3-Trichloropropane



Original Peak Response = 364420



Manual Peak Response = 364924 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	636656	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 125.54%			
62) Chlorobenzene-d5	9.519	117	481172	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 116.05%			
83) 1,4-Dichlorobenzene-d4	12.237	152	237970	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 116.47%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	209609	9.423	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.23%			
46) 1,2-Dichloroethane-d4	5.689	65	187007	9.945	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.45%			
63) Toluene-d8	7.675	98	622956	10.161	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.61%			
87) 4-Bromofluorobenzene	11.020	95	214064	9.879	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	1490231	125.726	ug/L	96
3) Chloromethane	1.809	50	1825294	108.868	ug/L	98
4) Vinyl chloride	1.881	62	1571853	118.499	ug/L	98
5) Bromomethane	2.189	94	727783	136.575	ug/L	98
6) Chloroethane	2.300	64	839174	109.441	ug/L	97
7) Trichlorofluoromethane	2.444	101	1816739	127.104	ug/L	99
8) Ethyl ether	2.746	74	538297	121.490	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	1065210	120.936	ug/L #	78
11) Carbon disulfide	2.962	76	3349244	115.749	ug/L	99
12) Freon-113	2.975	101	1124795	132.270	ug/L	93
13) Iodomethane	3.067	142	1554676	146.612	ug/L	95
14) Acrolein	3.237	56	192119	126.932	ug/L	97
15) Methylene chloride	3.473	84	1218040	104.310	ug/L #	64
17) Acetone	3.513	43	238764	98.424	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	1199643	116.428	ug/L	84
19) Methyl acetate	3.631	43	616839	112.619	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	2589702	131.436	ug/L #	82
22) tert-Butyl alcohol	3.808	59	280164	679.040	ug/L #	86
24) Diisopropyl ether	4.089	45	4705000	127.095	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	2404388	114.253	ug/L	97
26) Halothane	4.260	117	959668	124.944	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	345403	118.896	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	3574338	134.435	ug/L		82
29) Vinyl acetate	4.443	43	2940318	132.883	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	1310832	114.792	ug/L	#	83
31) 2,2-Dichloropropane	4.830	77	1612721	122.278	ug/L	#	81
32) Bromochloromethane	4.915	128	613361	113.828	ug/L	#	70
33) Cyclohexane	4.928	56	2688133	139.238	ug/L		70
34) Chloroform	4.987	83	2126576	116.757	ug/L		95
35) Ethyl acetate	5.099	43	904461	126.488	ug/L	#	92
36) Carbon tetrachloride	5.131	117	1745572	132.802	ug/L		99
37) Tetrahydrofuran	5.138	42	284868M6	121.564	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	1939297	126.262	ug/L		96
41) 2-Butanone	5.276	43	377919	126.341	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	1623956	131.039	ug/L		100
44) Benzene	5.558	78	5023994	124.588	ug/L	#	92
45) tert-Amyl methyl ether	5.675	73	1754429	136.185	ug/L	#	90
47) 1,2-Dichloroethane	5.761	62	1177151	116.840	ug/L		98
50) Methyl cyclohexane	6.154	83	1778581	151.490	ug/L	#	66
51) Trichloroethene	6.154	95	1078382	125.731	ug/L		96
53) Dibromomethane	6.591	93	524090	120.875	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	1125455	124.984	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	484192	140.352	ug/L	#	80
57) Bromodichloromethane	6.765	83	1342082	126.313	ug/L		100
60) 1,4-Dioxane	6.980	88	42731	1202.816	ug/L	#	60
61) cis-1,3-Dichloropropene	7.460	75	1533188	140.030	ug/L	#	84
64) Toluene	7.731	92	2475033	124.876	ug/L		97
65) 4-Methyl-2-pentanone	8.168	58	218495	137.755	ug/L	#	71
66) Tetrachloroethene	8.182	166	1047153	134.741	ug/L		95
68) trans-1,3-Dichloropropene	8.210	75	1253964	150.294	ug/L		85
70) Ethyl methacrylate	8.412	69	861890	144.083	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	642415	138.028	ug/L		95
72) Chlorodibromomethane	8.607	129	947780	139.442	ug/L		99
73) 1,3-Dichloropropane	8.719	76	1202975	131.826	ug/L		99
74) 1,2-Dibromoethane	8.888	107	712084	136.523	ug/L		99
76) 2-Hexanone	9.175	43	396357	143.066	ug/L		89
77) Chlorobenzene	9.540	112	2715525	120.972	ug/L		90
78) Ethylbenzene	9.589	91	4715031	125.995	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.631	131	967804	135.540	ug/L		98
80) p/m Xylene	9.778	106	3723497	256.330	ug/L		97
81) o Xylene	10.318	106	3556703	258.912	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.388	104	5764621	260.895	ug/L		98
84) Bromoform	10.402	173	502384	140.330	ug/L		99
86) Isopropylbenzene	10.704	105	4785956	129.656	ug/L		100
88) Bromobenzene	11.132	156	1058436	121.940	ug/L		99
89) n-Propylbenzene	11.188	91	5573770	129.950	ug/L		99
90) 1,4-Dichlorobutane	11.195	55	1395871	124.405	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	760794	126.000	ug/L		99
92) 4-Ethyltoluene	11.314	105	4550357	130.163	ug/L		99
93) 2-Chlorotoluene	11.349	91	3229129M6	124.980	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	3878994	130.943	ug/L		100
95) 1,2,3-Trichloropropane	11.405	75	583428M4	126.582	ug/L		
96) trans-1,4-Dichloro-2-b...	11.461	53	274309	133.455	ug/L	#	81
97) 4-Chlorotoluene	11.531	91	3329483	124.860	ug/L		100
98) tert-Butylbenzene	11.756	119	3431836	133.465	ug/L		96
101) 1,2,4-Trimethylbenzene	11.833	105	4298979	129.877	ug/L		99
102) sec-Butylbenzene	11.944	105	4884700	134.651	ug/L		100
103) p-Isopropyltoluene	12.104	119	4123679	135.864	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	2090877	121.439	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	2063151	120.825	ug/L		98
106) p-Diethylbenzene	12.480	119	2404432	136.832	ug/L		98
107) n-Butylbenzene	12.536	91	3418449	135.081	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	1870262	122.786	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	3355659	140.112	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	115498	150.329	ug/L		100
111) 1,3,5-Trichlorobenzene	13.496	180	1252542	126.241	ug/L		96
112) Hexachlorobutadiene	14.074	225	442150	135.603	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	1087707	128.838	ug/L		98
114) Naphthalene	14.387	128	2458485	137.300	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	913013	127.308	ug/L		98

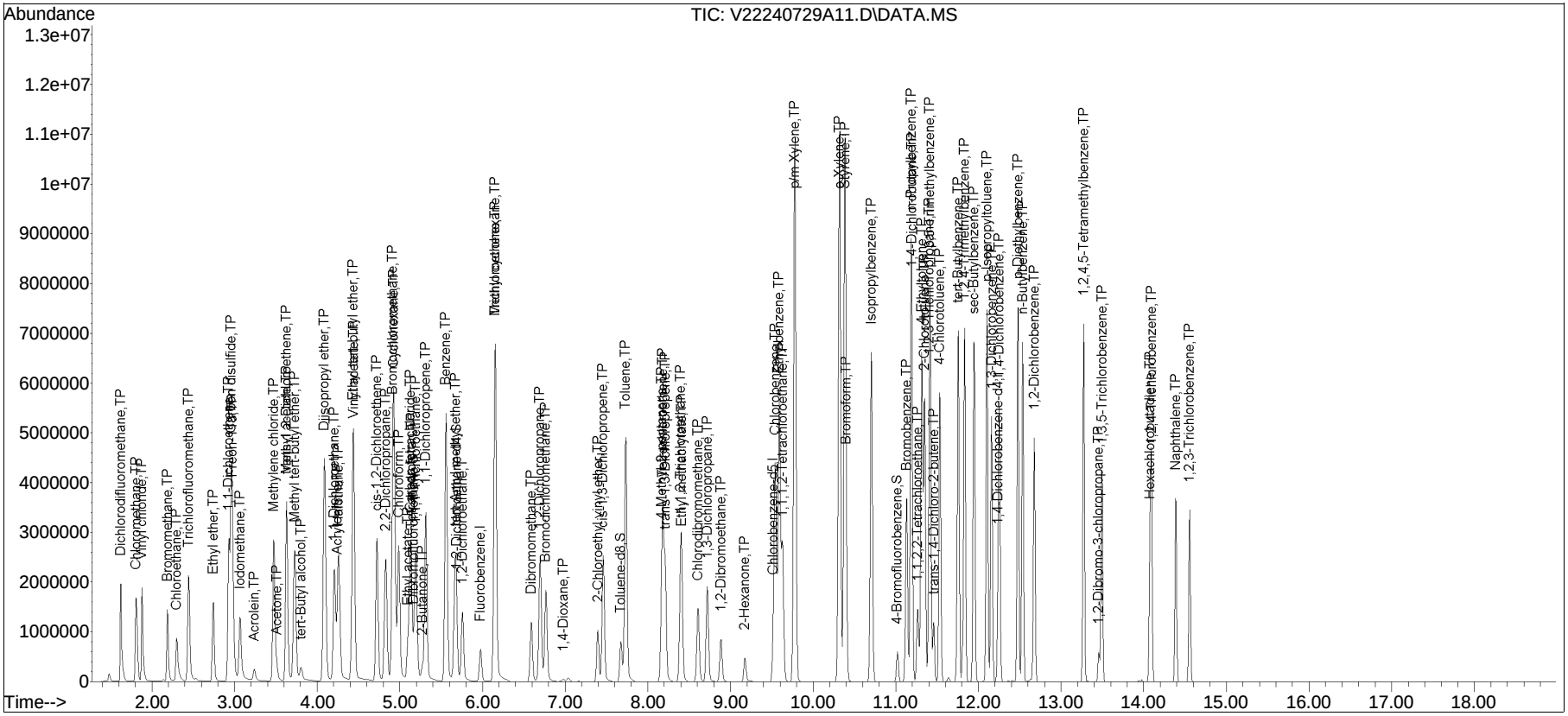
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

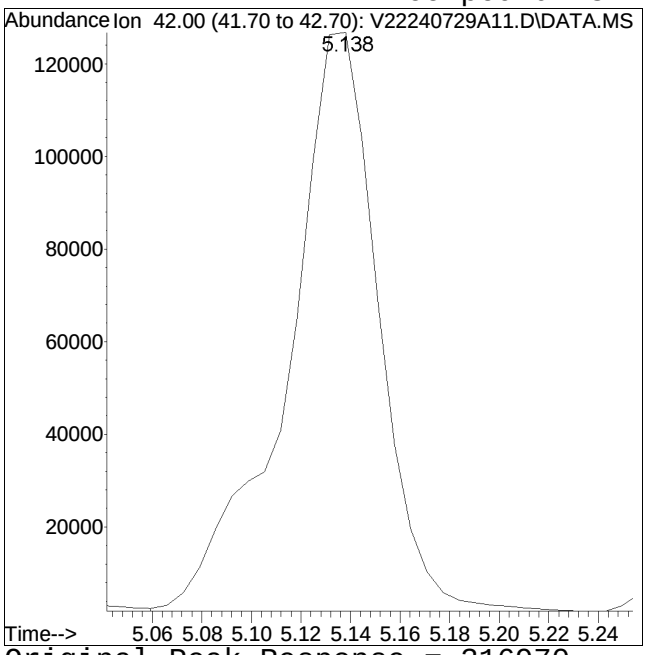
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



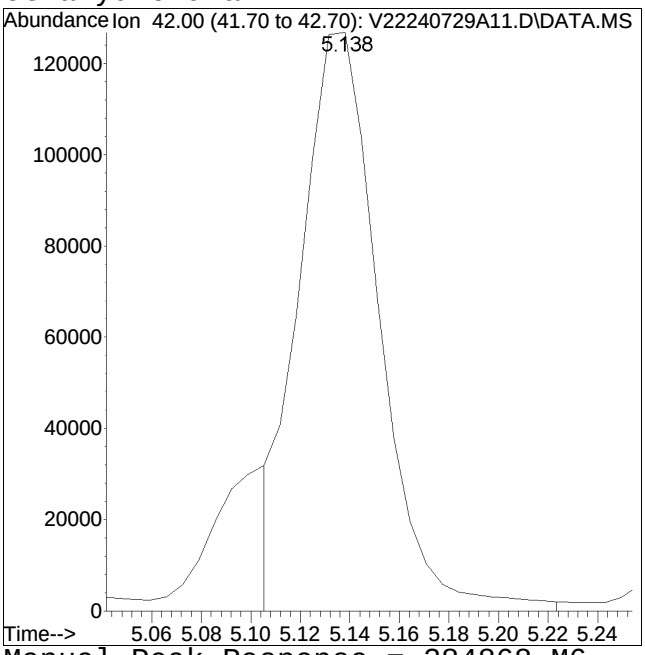
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A11.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:40 pm Instrument : VOA 122
Sample : I8260STD120PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 316970



Manual Peak Response = 284868 M6

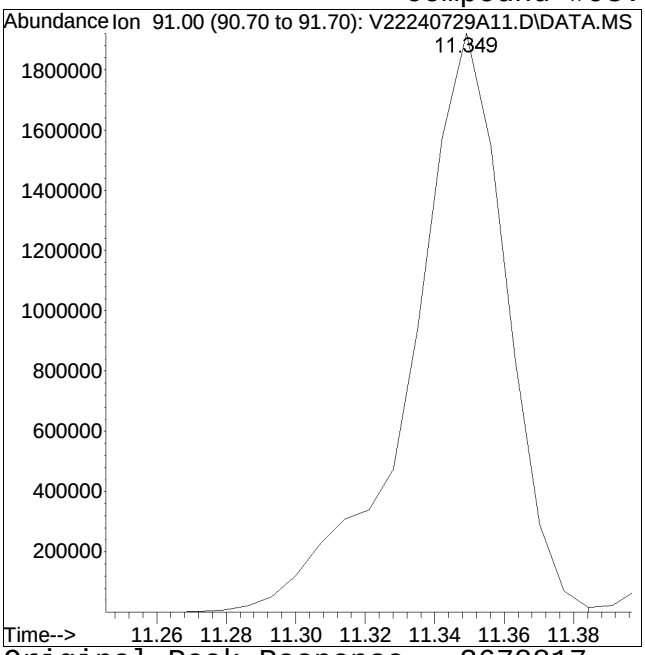
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

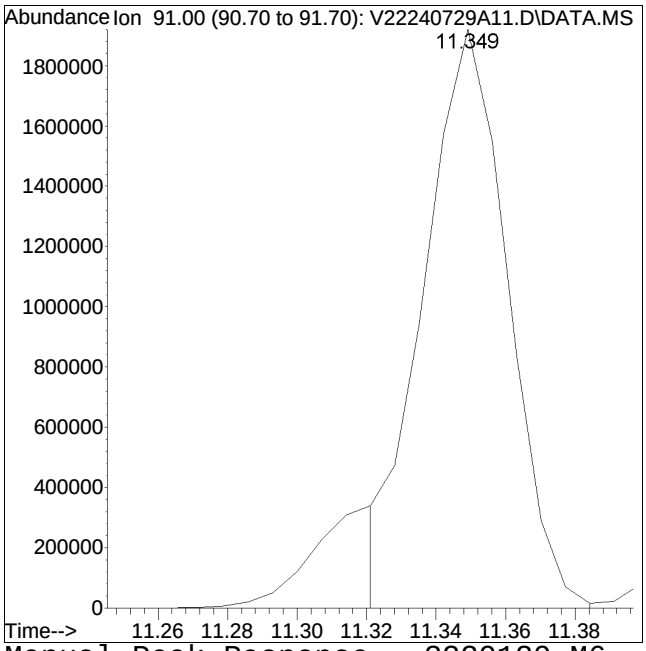
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A11.D
Date Inj'd : 7/29/2024 4:40 pm
Sample : I8260STD120PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 3678817



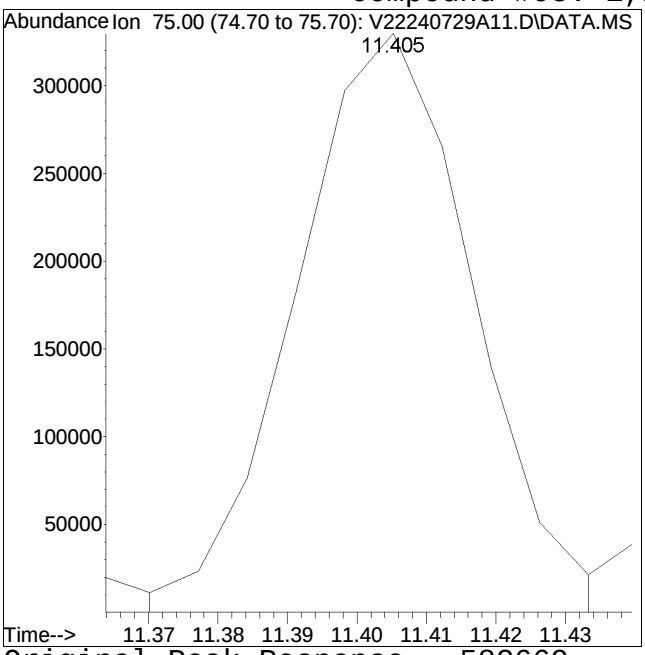
Manual Peak Response = 3229129 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

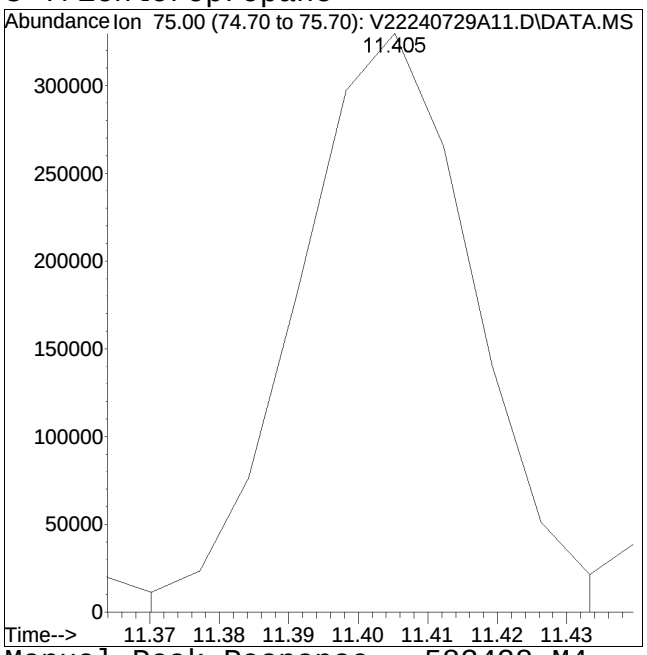
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A11.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:40 pm Instrument : VOA 122
Sample : I8260STD120PPB Quant Date : 7/30/2024 6:57 am

Compound #95: 1,2,3-Trichloropropane



Original Peak Response = 582669



Manual Peak Response = 583428 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	671267	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 132.37%			
62) Chlorobenzene-d5	9.519	117	507270	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 122.35%			
83) 1,4-Dichlorobenzene-d4	12.237	152	245235	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 120.02%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	217210	9.261	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.61%			
46) 1,2-Dichloroethane-d4	5.689	65	193758	9.773	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.73%			
63) Toluene-d8	7.675	98	647303	10.015	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.15%			
87) 4-Bromofluorobenzene	11.020	95	222560	9.966	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	2620678	209.699	ug/L	96
3) Chloromethane	1.809	50	3024576	171.097	ug/L	98
4) Vinyl chloride	1.881	62	2725266	194.859	ug/L	98
5) Bromomethane	2.189	94	1371795	244.156	ug/L	98
6) Chloroethane	2.300	64	1447475	179.040	ug/L	97
7) Trichlorofluoromethane	2.444	101	3211175	213.079	ug/L	99
8) Ethyl ether	2.746	74	913253	195.487	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	1867542	201.095	ug/L	80
11) Carbon disulfide	2.962	76	5813289	190.547	ug/L	99
12) Freon-113	2.975	101	2026043	225.967	ug/L	93
13) Iodomethane	3.067	142	2736295	244.738	ug/L	95
14) Acrolein	3.237	56	327212	205.041	ug/L	98
15) Methylene chloride	3.473	84	2100777	170.630	ug/L #	66
17) Acetone	3.513	43	399764	156.295	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	2082235	191.665	ug/L	85
19) Methyl acetate	3.631	43	1038900	179.897	ug/L #	83
21) Methyl tert-butyl ether	3.729	73	4467075	215.029	ug/L #	83
22) tert-Butyl alcohol	3.808	59	487122	1119.774	ug/L #	82
24) Diisopropyl ether	4.089	45	7871258	201.661	ug/L #	91
25) 1,1-Dichloroethane	4.207	63	4105423	185.024	ug/L	97
26) Halothane	4.260	117	1695601	209.376	ug/L	99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	579249	189.111	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	6085697	217.089	ug/L		83
29) Vinyl acetate	4.443	43	4933617	211.470	ug/L	#	89
30) cis-1,2-Dichloroethene	4.725	96	2256530	187.420	ug/L	#	84
31) 2,2-Dichloropropane	4.830	77	2850431	204.979	ug/L	#	82
32) Bromochloromethane	4.915	128	1049579	184.738	ug/L	#	71
33) Cyclohexane	4.928	56	4745720	233.141	ug/L		71
34) Chloroform	4.987	83	3591714	187.030	ug/L	#	94
35) Ethyl acetate	5.099	43	1534300	203.508	ug/L	#	92
36) Carbon tetrachloride	5.132	117	3106185	224.132	ug/L		99
37) Tetrahydrofuran	5.138	42	479075M6	193.898	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	3384148	208.972	ug/L		96
41) 2-Butanone	5.276	43	634993	201.337	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	2862641	219.081	ug/L		100
44) Benzene	5.558	78	8491811	199.727	ug/L	#	90
45) tert-Amyl methyl ether	5.675	73	3060918	225.348	ug/L	#	91
47) 1,2-Dichloroethane	5.761	62	2002259	188.491	ug/L		98
50) Methyl cyclohexane	6.154	83	3194114	258.030	ug/L	#	68
51) Trichloroethene	6.154	95	1889273	208.916	ug/L		96
53) Dibromomethane	6.591	93	895312	195.846	ug/L	#	83
54) 1,2-Dichloropropane	6.702	63	1922728	202.513	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	820387	225.543	ug/L	#	81
57) Bromodichloromethane	6.765	83	2320380	207.128	ug/L		100
60) 1,4-Dioxane	6.980	88	70331	1877.641	ug/L	#	61
61) cis-1,3-Dichloropropene	7.460	75	2640789	228.754	ug/L	#	85
64) Toluene	7.738	92	4219933	201.960	ug/L		96
65) 4-Methyl-2-pentanone	8.168	58	376605	225.224	ug/L	#	73
66) Tetrachloroethene	8.182	166	1835616	224.044	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	2152927	244.764	ug/L		86
70) Ethyl methacrylate	8.412	69	1465362	232.363	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	1098091	223.795	ug/L		98
72) Chlorodibromomethane	8.607	129	1634986	228.172	ug/L		99
73) 1,3-Dichloropropane	8.719	76	2033705	211.395	ug/L		99
74) 1,2-Dibromoethane	8.888	107	1216125	221.164	ug/L		99
76) 2-Hexanone	9.175	43	670301	229.499	ug/L		89
77) Chlorobenzene	9.547	112	4644841	196.274	ug/L		90
78) Ethylbenzene	9.589	91	7918098	200.702	ug/L		98
79) 1,1,1,2-Tetrachloroethane	9.631	131	1679969	223.173	ug/L		99
80) p/m Xylene	9.778	106	6291057	410.802	ug/L		93
81) o Xylene	10.318	106	5996592	414.066	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.388	104	9407196	403.847	ug/L		94
84) Bromoform	10.402	173	875851	237.402	ug/L		99
86) Isopropylbenzene	10.704	105	8030356	211.105	ug/L		98
88) Bromobenzene	11.132	156	1812458	202.623	ug/L		99
89) n-Propylbenzene	11.188	91	9141124	206.808	ug/L		97
90) 1,4-Dichlorobutane	11.195	55	2369414	204.915	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	1288747	207.114	ug/L		99
92) 4-Ethyltoluene	11.314	105	7628386	211.745	ug/L		97
93) 2-Chlorotoluene	11.349	91	5478052M6	205.742	ug/L		
94) 1,3,5-Trimethylbenzene	11.419	105	6585839	215.732	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	1005558	211.705	ug/L		98
96) trans-1,4-Dichloro-2-b...	11.461	53	467214	220.572	ug/L	#	82
97) 4-Chlorotoluene	11.539	91	5623105	204.626	ug/L		99
98) tert-Butylbenzene	11.756	119	5800367	218.895	ug/L		95
101) 1,2,4-Trimethylbenzene	11.833	105	7215932	211.544	ug/L		100
102) sec-Butylbenzene	11.951	105	8071276	215.900	ug/L		98
103) p-Isopropyltoluene	12.104	119	6895602	220.461	ug/L		97
104) 1,3-Dichlorobenzene	12.160	146	3520453	198.411	ug/L		97
105) 1,4-Dichlorobenzene	12.257	146	3490349	198.351	ug/L		97
106) p-Diethylbenzene	12.480	119	4120448	227.542	ug/L		98
107) n-Butylbenzene	12.536	91	5772758	221.355	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	3135480	199.751	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	5530218	224.068	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	198195	250.322	ug/L		100
111) 1,3,5-Trichlorobenzene	13.496	180	2092624	204.664	ug/L		96
112) Hexachlorobutadiene	14.074	225	784582	233.496	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	1834176	210.820	ug/L		98
114) Naphthalene	14.387	128	3996300	216.571	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	1518580	205.474	ug/L		98

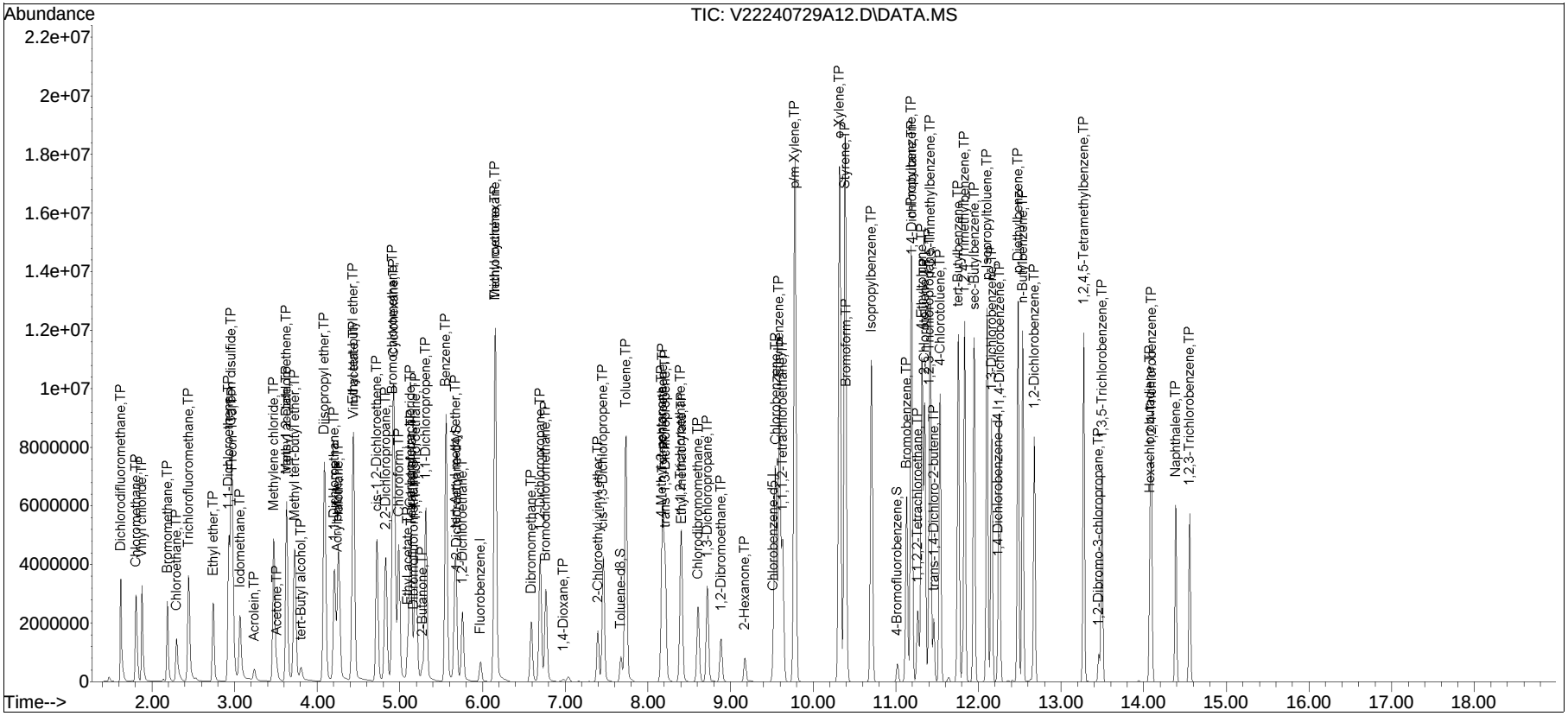
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

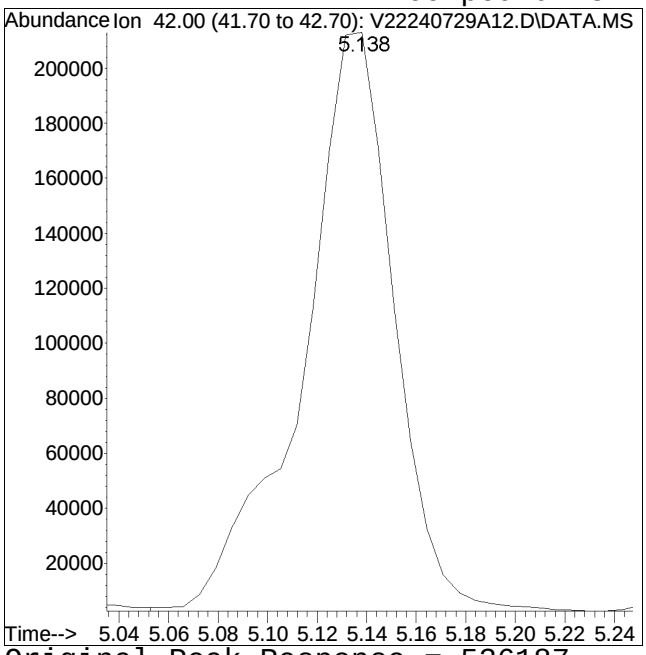
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



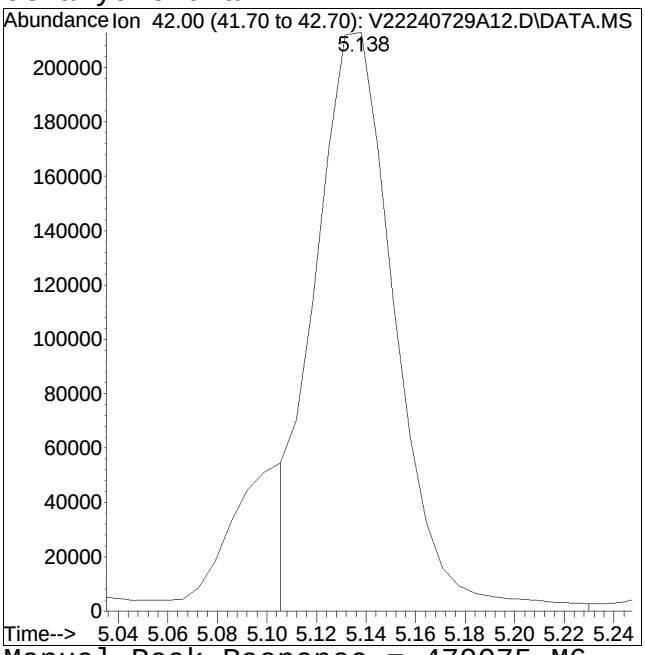
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A12.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 5:04 pm Instrument : VOA 122
Sample : I8260STD200PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 536187



Manual Peak Response = 479075 M6

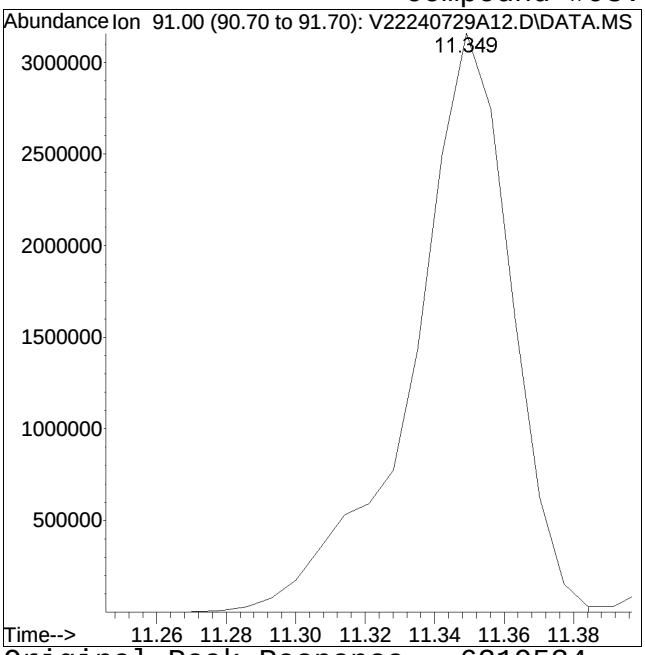
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

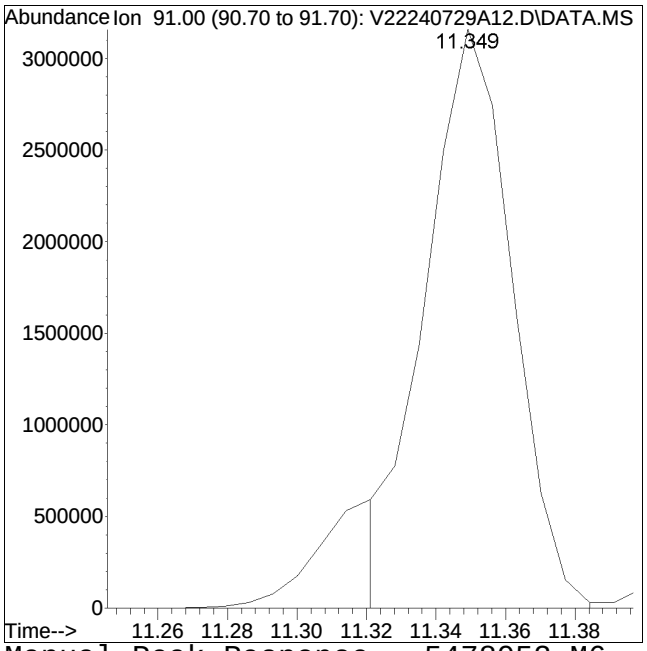
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A12.D
Date Inj'd : 7/29/2024 5:04 pm
Sample : I8260STD200PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 6219534



Manual Peak Response = 5478052 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	115	0.00
2	TP	Dichlorodifluoromethane	0.197	0.162	17.8	87	0.00
3	TP	Chloromethane	0.263	0.280	-6.5	107	0.00
4	TP	Vinyl chloride	0.208	0.209	-0.5	104	0.00
5	TP	Bromomethane	0.084	0.074	11.9	114	0.00
6	TP	Chloroethane	0.120	0.124	-3.3	107	0.00
7	TP	Trichlorofluoromethane	* 10.000	10.782	-7.8	115	0.00
8	TP	Ethyl ether	0.070	0.073	-4.3	116	0.00
10	TP	1,1-Dichloroethene	0.138	0.143	-3.6	108	0.00
11	TP	Carbon disulfide	0.454	0.435	4.2	98	0.00
12	TP	Freon-113	0.143	0.170	-18.9	127	0.00
13	TP	Iodomethane	0.182	0.085	53.3#	57	0.00
14	TP	Acrolein	0.024	0.017	29.2#	78	0.00
15	TP	Methylene chloride	0.183	0.173	5.5	104	0.00
17	TP	Acetone	0.033	0.033	0.0	111	0.00
18	TP	trans-1,2-Dichloroethene	0.162	0.165	-1.9	107	0.00
19	TP	Methyl acetate	0.086	0.082	4.7	112	0.00
21	TP	Methyl tert-butyl ether	0.309	0.278	10.0	101	0.00
22	TP	tert-Butyl alcohol	0.00648	0.00709#	-9.4	122	0.00
24	TP	Diisopropyl ether	0.581	0.562	3.3	109	0.00
25	TP	1,1-Dichloroethane	0.331	0.339	-2.4	107	0.00
26	TP	Halothane	0.121	0.135	-11.6	117	0.00
27	TP	Acrylonitrile	0.046	0.044	4.3	104	0.00
28	TP	Ethyl tert-butyl ether	0.418	0.405	3.1	113	0.00
29	TP	Vinyl acetate	0.348	0.305	12.4	99	0.00
30	TP	cis-1,2-Dichloroethene	0.179	0.183#	-2.2	107	0.00
31	TP	2,2-Dichloropropane	0.207	0.191	7.7	98	0.00
32	TP	Bromochloromethane	0.085	0.081#	4.7	100	0.00
33	TP	Cyclohexane	* 10.000	10.905	-9.0	119	0.00
34	TP	Chloroform	0.286	0.286#	0.0	109	0.00
35	TP	Ethyl acetate	0.112	0.110	1.8	114	0.00
36	TP	Carbon tetrachloride	0.206	0.220	-6.8	109	0.00
37	TP	Tetrahydrofuran	0.037	0.036	2.7	110	0.00
38	S	Dibromofluoromethane	0.349	0.346	0.9	111	0.00
39	TP	1,1,1-Trichloroethane	0.241	0.249	-3.3	109	0.00
41	TP	2-Butanone	0.047	0.045	4.3	116	0.00
42	TP	1,1-Dichloropropene	0.195	0.208	-6.7	112	0.00
44	TP	Benzene	0.633	0.643	-1.6	113	0.00
45	TP	tert-Amyl methyl ether	0.202	0.185	8.4	112	0.00

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	S	1,2-Dichloroethane-d4	0.295	0.300	-1.7	113	0.00
47	T	1,2-Dichloroethane	0.158	0.160	-1.3	108	0.00
50	TP	Methyl cyclohexane	* 10.000	10.681	-6.8	128	0.00
51	TP	Trichloroethene	0.135	0.133#	1.5	107	0.00
53	TP	Dibromomethane	0.068	0.068	0.0	111	0.00
54	TP	1,2-Dichloropropane	0.141	0.143#	-1.4	107	0.00
56	TP	2-Chloroethyl vinyl ether	0.054	0.046	14.8	101	0.00
57	TP	Bromodichloromethane	0.167	0.161#	3.6	106	0.00
60	TP	1,4-Dioxane	0.00056	0.00064#	-14.3	122	0.00
61	TP	cis-1,3-Dichloropropene	0.172	0.178#	-3.5	110	0.00
62	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00
63	S	Toluene-d8	1.274	1.269	0.4	111	0.00
64	TP	Toluene	0.412	0.409	0.7	106	0.00
65	TP	4-Methyl-2-pentanone	0.033	0.030#	9.1	116	0.00
66	TP	Tetrachloroethene	0.162	0.169	-4.3	111	0.00
68	TP	trans-1,3-Dichloropropene	* 10.000	8.883	11.2	115	0.00
70	TP	Ethyl methacrylate	0.133	0.125	6.0	112	0.00
71	TP	1,1,2-Trichloroethane	0.097	0.092#	5.2	108	0.00
72	TP	Chlorodibromomethane	* 10.000	8.735	12.7	108	0.00
73	TP	1,3-Dichloropropane	0.190	0.193	-1.6	113	0.00
74	TP	1,2-Dibromoethane	0.108	0.108#	0.0	112	0.00
76	TP	2-Hexanone	0.061	0.055	9.8	112	0.00
77	TP	Chlorobenzene	0.467	0.474	-1.5	108	0.00
78	TP	Ethylbenzene	0.778	0.808	-3.9	105	0.00
79	TP	1,1,1,2-Tetrachloroethane	0.148	0.143	3.4	110	0.00
80	TP	p/m Xylene	0.302	0.316	-4.6	105	0.00
81	TP	o Xylene	0.285	0.299	-4.9	106	0.00
82	TP	Styrene	0.459	0.486	-5.9	107	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00
84	TP	Bromoform	0.150	0.143	4.7	115	0.00
86	TP	Isopropylbenzene	1.551	1.679	-8.3	106	0.00
87	S	4-Bromofluorobenzene	0.911	0.938	-3.0	110	0.00
88	TP	Bromobenzene	0.365	0.367	-0.5	107	0.00
89	TP	n-Propylbenzene	1.802	1.934	-7.3	106	0.00
90	TP	1,4-Dichlorobutane	0.472	0.463	1.9	107	0.00
91	TP	1,1,2,2-Tetrachloroethane	0.254	0.246	3.1	109	0.00
92	TP	4-Ethyltoluene	1.469	1.668	-13.5	114	0.00

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
93 TP	2-Chlorotoluene		1.086	1.126	-3.7	106	0.00
94 TP	1,3,5-Trimethylbenzene		1.245	1.282	-3.0	104	0.00
95 TP	1,2,3-Trichloropropane		0.194	0.192	1.0	110	0.00
96 TP	trans-1,4-Dichloro-2-butene		0.086	0.079	8.1	103	0.00
97 TP	4-Chlorotoluene		1.121	1.158	-3.3	106	0.00
98 TP	tert-Butylbenzene		1.081	1.152	-6.6	106	0.00
101 TP	1,2,4-Trimethylbenzene		1.391	1.492	-7.3	107	0.00
102 TP	sec-Butylbenzene	*	10.000	10.208	-2.1	107	0.00
103 TP	p-Isopropyltoluene	*	10.000	10.063	-0.6	106	0.00
104 TP	1,3-Dichlorobenzene		0.724	0.738	-1.9	106	0.00
105 TP	1,4-Dichlorobenzene		0.718	0.720	-0.3	106	0.00
106 TP	p-Diethylbenzene		0.788	0.793	-0.6	107	0.00
107 TP	n-Butylbenzene	*	10.000	10.574	-5.7	110	0.00
108 TP	1,2-Dichlorobenzene		0.640	0.646	-0.9	106	0.00
109 TP	1,2,4,5-Tetramethylbenzene		1.081	1.082	-0.1	109	0.00
110 TP	1,2-Dibromo-3-chloropropane	*	10.000	9.267	7.3	115	0.00
111 TP	1,3,5-Trichlorobenzene		0.417	0.443	-6.2	109	0.00
112 TP	Hexachlorobutadiene	*	10.000	9.570	4.3	105	0.00
113 TP	1,2,4-Trichlorobenzene		0.355	0.361#	-1.7	107	0.00
114 TP	Naphthalene	*	10.000	9.621	3.8	112	0.00
115 TP	1,2,3-Trichlorobenzene		0.301	0.310#	-3.0	108	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 14 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	584007	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 115.16%			
62) Chlorobenzene-d5	9.519	117	458173	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 110.51%			
83) 1,4-Dichlorobenzene-d4	12.237	152	223186	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 109.23%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	202204	9.909	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.09%			
46) 1,2-Dichloroethane-d4	5.689	65	175085	10.150	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.50%			
63) Toluene-d8	7.675	98	581628	9.963	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.63%			
87) 4-Bromofluorobenzene	11.020	95	209243	10.296	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.96%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	94372	8.185	ug/L	96
3) Chloromethane	1.809	50	163643	10.640	ug/L	98
4) Vinyl chloride	1.881	62	122120	10.036	ug/L	97
5) Bromomethane	2.189	94	43319	8.862	ug/L	99
6) Chloroethane	2.300	64	72184	10.263	ug/L	97
7) Trichlorofluoromethane	2.444	101	150424	10.782	ug/L	99
8) Ethyl ether	2.739	74	42825	10.537	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	83581	10.345	ug/L #	76
11) Carbon disulfide	2.962	76	253815	9.563	ug/L	99
12) Freon-113	2.969	101	99012	11.850	ug/L	93
13) Iodomethane	3.067	142	49697	4.686	ug/L	98
14) Acrolein	3.237	56	9847	7.092	ug/L	95
15) Methylene chloride	3.473	84	100942	9.424	ug/L #	61
17) Acetone	3.513	43	19531	10.003	ug/L	96
18) trans-1,2-Dichloroethene	3.631	96	96422	10.202	ug/L	83
19) Methyl acetate	3.631	43	48058	9.565	ug/L #	83
21) Methyl tert-butyl ether	3.729	73	162342	8.982	ug/L #	78
22) tert-Butyl alcohol	3.801	59	20700	54.694	ug/L #	85
24) Diisopropyl ether	4.090	45	327927	9.657	ug/L #	91
25) 1,1-Dichloroethane	4.207	63	197951	10.254	ug/L	95
26) Halothane	4.260	117	78666	11.165	ug/L	99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	25607	9.609	ug/L		98
28) Ethyl tert-butyl ether	4.430	59	236254	9.687	ug/L		86
29) Vinyl acetate	4.437	43	178159	8.777	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	106770	10.193	ug/L	#	84
31) 2,2-Dichloropropane	4.830	77	111687	9.232	ug/L	#	74
32) Bromochloromethane	4.915	128	47316	9.573	ug/L	#	68
33) Cyclohexane	4.928	56	212214	10.905	ug/L		71
34) Chloroform	4.987	83	166972	9.994	ug/L	#	95
35) Ethyl acetate	5.092	43	64050	9.765	ug/L	#	93
36) Carbon tetrachloride	5.125	117	128483	10.656	ug/L		99
37) Tetrahydrofuran	5.138	42	21217M6	9.870	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	145522	10.329	ug/L		95
41) 2-Butanone	5.276	43	26172	9.538	ug/L	#	49
42) 1,1-Dichloropropene	5.315	75	121434	10.682	ug/L		99
44) Benzene	5.558	78	375381	10.148	ug/L	#	90
45) tert-Amyl methyl ether	5.669	73	107964	9.136	ug/L	#	83
47) 1,2-Dichloroethane	5.754	62	93169	10.081	ug/L		96
50) Methyl cyclohexane	6.154	83	129337	10.681	ug/L	#	66
51) Trichloroethene	6.154	95	77622	9.866	ug/L		96
53) Dibromomethane	6.591	93	39829	10.014	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	83335	10.089	ug/L		94
56) 2-Chloroethyl vinyl ether	7.390	63	26989	8.529	ug/L	#	79
57) Bromodichloromethane	6.765	83	94265	9.672	ug/L		99
60) 1,4-Dioxane	6.973	88	18562	569.597	ug/L	#	62
61) cis-1,3-Dichloropropene	7.460	75	103964	10.351	ug/L	#	83
64) Toluene	7.731	92	187194	9.919	ug/L		100
65) 4-Methyl-2-pentanone	8.169	58	13593	9.000	ug/L	#	69
66) Tetrachloroethene	8.182	166	77381	10.457	ug/L		93
68) trans-1,3-Dichloropropene	8.210	75	83193	8.883	ug/L		82
70) Ethyl methacrylate	8.412	69	57396	9.437	ug/L		97
71) 1,1,2-Trichloroethane	8.398	83	42135	9.507	ug/L		97
72) Chlorodibromomethane	8.607	129	62322	8.735	ug/L		99
73) 1,3-Dichloropropane	8.720	76	88647	10.202	ug/L		100
74) 1,2-Dibromoethane	8.881	107	49511	9.969	ug/L		100
76) 2-Hexanone	9.175	43	25391	9.047	ug/L	#	85
77) Chlorobenzene	9.540	112	217224	10.163	ug/L		91
78) Ethylbenzene	9.589	91	370010	10.384	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.624	131	65595	9.648	ug/L		98
80) p/m Xylene	9.778	106	289785	20.951	ug/L		100
81) o Xylene	10.318	106	274261	20.967	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.382	104	445592	21.179	ug/L		100
84) Bromoform	10.396	173	31976	9.523	ug/L		99
86) Isopropylbenzene	10.704	105	374649	10.822	ug/L		99
88) Bromobenzene	11.132	156	81872	10.057	ug/L		99
89) n-Propylbenzene	11.188	91	431536	10.728	ug/L		98
90) 1,4-Dichlorobutane	11.195	55	103370	9.823	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	54939	9.701	ug/L		98
92) 4-Ethyltoluene	11.314	105	372364	11.357	ug/L		99
93) 2-Chlorotoluene	11.349	91	251254M6	10.369	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	286082	10.297	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	42822	9.906	ug/L		98
96) trans-1,4-Dichloro-2-b...	11.454	53	17614	9.137	ug/L	#	67
97) 4-Chlorotoluene	11.532	91	258494	10.336	ug/L		99
98) tert-Butylbenzene	11.756	119	257016	10.658	ug/L		97
101) 1,2,4-Trimethylbenzene	11.833	105	332931	10.725	ug/L		99
102) sec-Butylbenzene	11.944	105	374658	10.208	ug/L		98
103) p-Isopropyltoluene	12.104	119	311843	10.063	ug/L		98
104) 1,3-Dichlorobenzene	12.160	146	164608	10.194	ug/L		97
105) 1,4-Dichlorobenzene	12.251	146	160763	10.038	ug/L		96
106) p-Diethylbenzene	12.480	119	176923	10.061	ug/L		98
107) n-Butylbenzene	12.536	91	273141	10.574	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	144252	10.098	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	241429	10.011	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.455	155	7856	9.267	ug/L		99
111) 1,3,5-Trichlorobenzene	13.490	180	98813	10.619	ug/L		96
112) Hexachlorobutadiene	14.074	225	32190	9.570	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	80638	10.184	ug/L		98
114) Naphthalene	14.388	128	175725	9.621	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	69157	10.282	ug/L		97

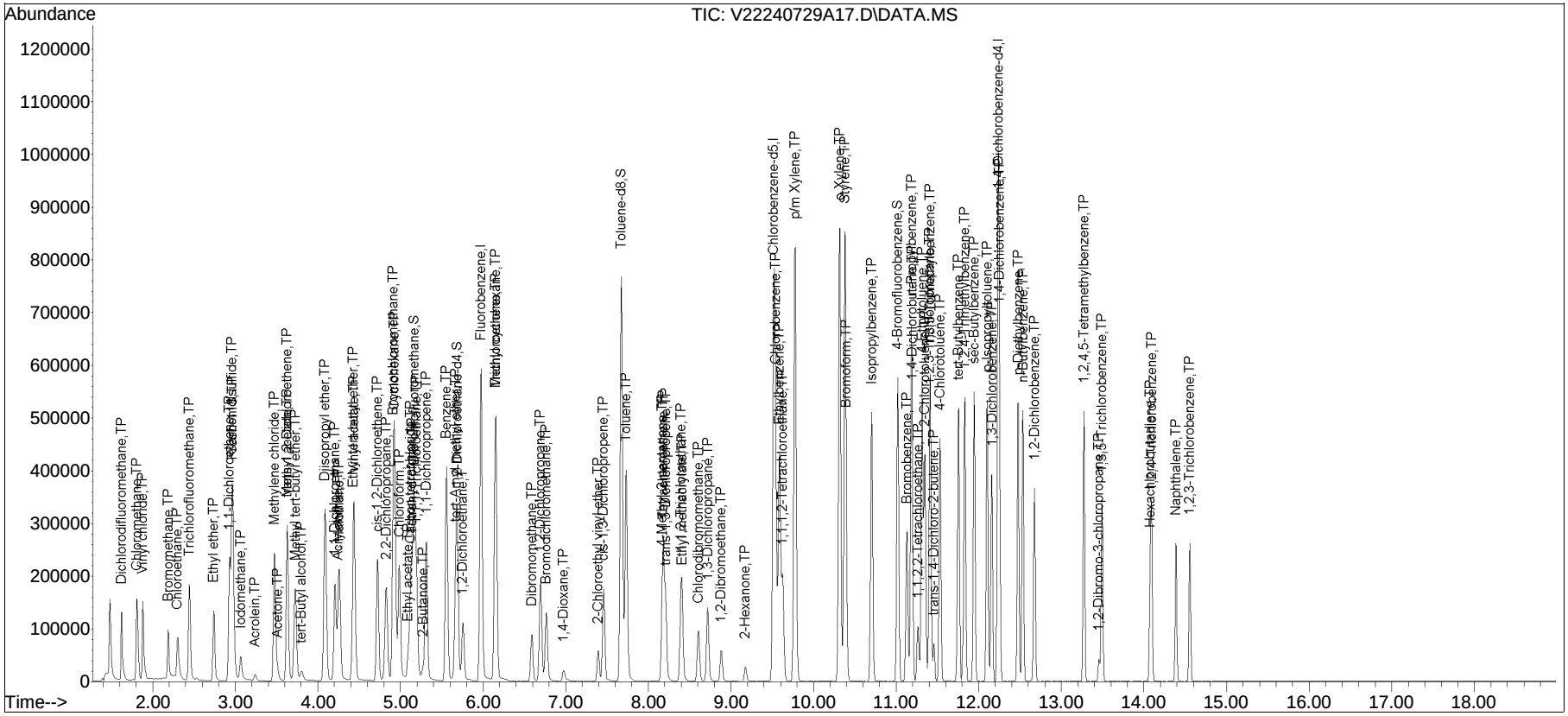
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

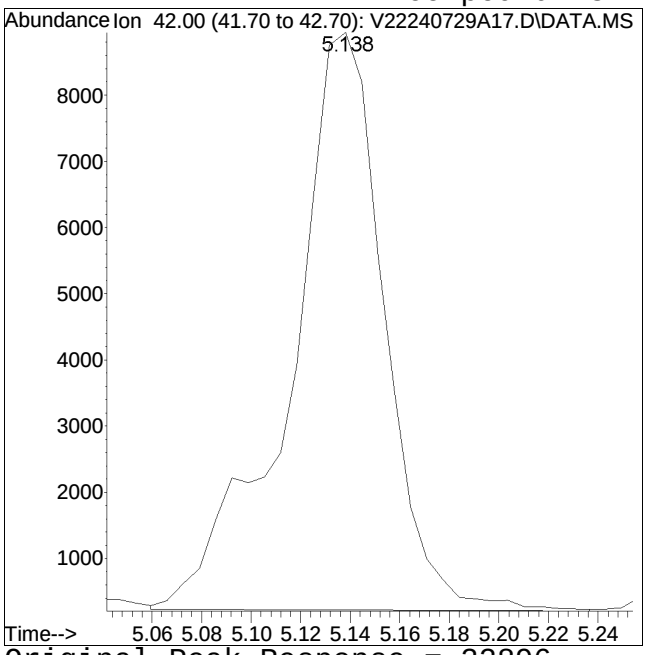
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



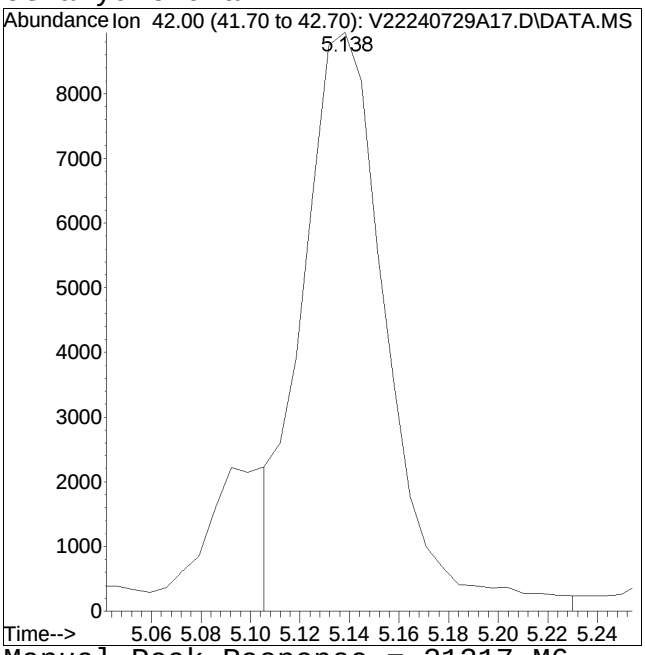
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A17.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 7:08 pm Instrument : VOA 122
Sample : C8260STD10PPB Quant Date : 7/30/2024 7:08 am

Compound #37: Tetrahydrofuran



Original Peak Response = 22896



Manual Peak Response = 21217 M6

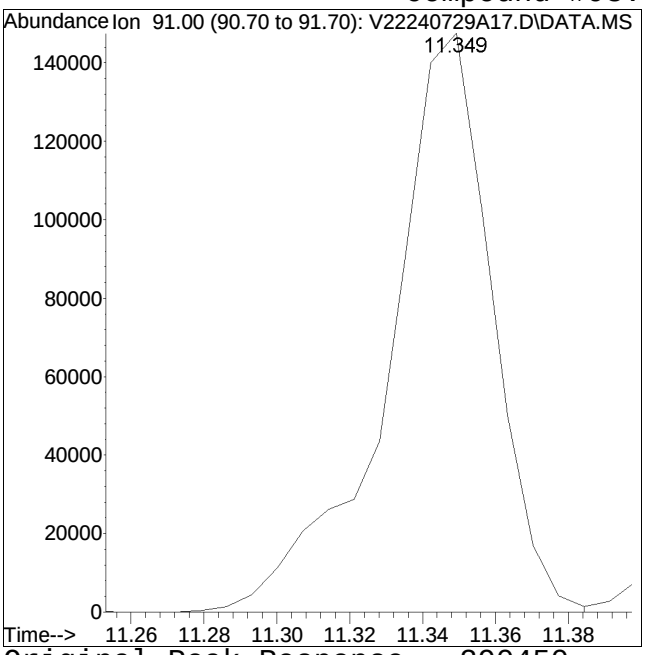
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

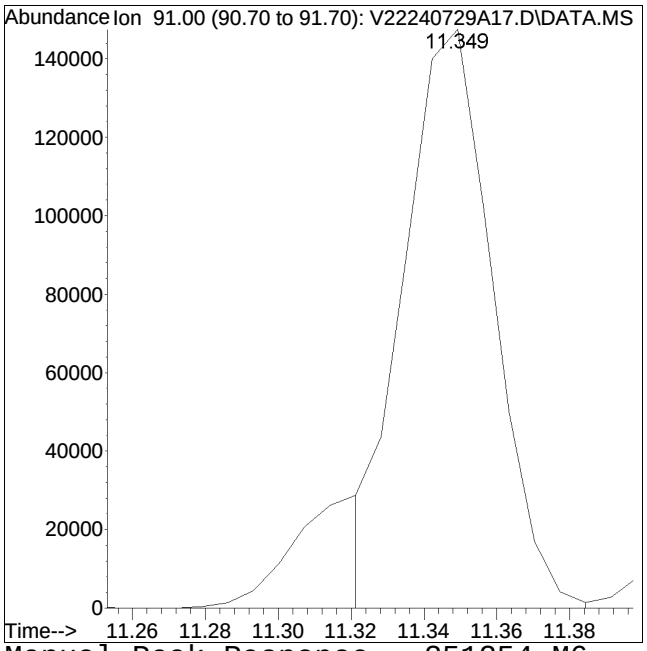
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A17.D
Date Inj'd : 7/29/2024 7:08 pm
Sample : C8260STD10PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 7:08 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 290450



Manual Peak Response = 251254 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Relative Error Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
7	TP Trichlorofluoromethane	L	ug/L	10.0	10.753	7.5	0.50	0.501	0.2
33	TP Cyclohexane	L	ug/L	10.0	10.553	5.5	2.00	1.763	-11.9
50	TP Methyl cyclohexane	L	ug/L	10.0	9.764	-2.4	2.00	2.084	4.2
68	TP trans-1,3-Dichloropropene	L	ug/L	10.0	8.583	-14.2	0.50	0.647	29.4
72	TP Chlorodibromomethane	L	ug/L	10.0	8.898	-11.0	0.50	0.610	22.0
102	TP sec-Butylbenzene	L	ug/L	10.0	10.460	4.6	0.50	0.535	7.0
103	TP p-Isopropyltoluene	L	ug/L	10.0	10.357	3.6	0.50	0.548	9.6
107	TP n-Butylbenzene	L	ug/L	10.0	10.492	4.9	0.50	0.542	8.4
110	TP 1,2-Dibromo-3-chloropropane	L	ug/L	10.0	8.817	-11.8	0.50	0.613	22.6
112	TP Hexachlorobutadiene	L	ug/L	10.0	9.952	-0.5	0.50	0.612	22.4
114	TP Naphthalene	L	ug/L	10.0	9.416	-5.8	0.50	0.571	14.2

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
7	TP Trichlorofluoromethane	Linear	0.998671	0.000000	0.24355	-0.00501306
33	TP Cyclohexane	Linear	0.999276	0.000000	0.357513	-0.0264869
50	TP Methyl cyclohexane	Linear	0.999608	0.000000	0.235814	-0.0304005
68	TP trans-1,3-Dichloropropene	Linear	0.999155	0.000000	0.213644	-0.00820122
72	TP Chlorodibromomethane	Linear	0.999477	0.000000	0.161958	-0.00544907
102	TP sec-Butylbenzene	Linear	0.999175	0.000000	1.68629	-0.0426095
103	TP p-Isopropyltoluene	Linear	0.999544	0.000000	1.42851	-0.0402949
107	TP n-Butylbenzene	Linear	0.999611	0.000000	1.18857	-0.0329415
110	TP 1,2-Dibromo-3-chloropropane	Linear	0.999329	0.000000	0.040244	-0.00209494
112	TP Hexachlorobutadiene	Linear	0.998879	0.000000	0.155902	-0.00497102
114	TP Naphthalene	Linear	0.998664	0.000000	0.843196	-0.0238888

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: VOA122	**Calibration Date**	: 08/14/24 06:26	
Lab File ID	: V22240814A01	**Init. Calib. Date(s)**	: 07/29/24	07/29/24
Sample No	: WG1959185-2	**Init. Calib. Times**	: 13:23	17:04
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	81	0
Dichlorodifluoromethane	0.197	0.196	-	0.5	20	74	0
Chloromethane	0.263	0.234	-	11	20	62	0
Vinyl chloride	0.208	0.208	-	0	20	72	0
Bromomethane	0.084	0.037	-	56*	20	40	0
Chloroethane	0.12	0.124	-	-3.3	20	75	0
Trichlorofluoromethane	10	11.567	-	-15.7	20	87	0
Ethyl ether	0.07	0.058	-	17.1	20	65	0
1,1-Dichloroethene	0.138	0.151	-	-9.4	20	80	0
Carbon disulfide	0.454	0.462	-	-1.8	20	73	0
Freon-113	0.143	0.173	-	-21*	20	91	0
Acrolein	0.024	0.02	-	16.7	20	65	0
Methylene chloride	0.183	0.167	-	8.7	20	71	0
Acetone	0.033	0.029	-	12.1	20	68	0
trans-1,2-Dichloroethene	0.162	0.164	-	-1.2	20	75	0
Methyl acetate	0.086	0.072	-	16.3	20	69	0
Methyl tert-butyl ether	0.309	0.254	-	17.8	20	65	0
tert-Butyl alcohol	0.00648	0.00611*	-	5.7	20	74	0
Diisopropyl ether	0.581	0.466	-	19.8	20	63	0
1,1-Dichloroethane	0.331	0.297*	-	10.3	20	66	0
Halothane	0.121	0.138	-	-14	20	84	0
Acrylonitrile	0.046	0.043	-	6.5	20	71	0
Ethyl tert-butyl ether	0.418	0.339	-	18.9	20	66	0
Vinyl acetate	0.348	0.284	-	18.4	20	65	0
cis-1,2-Dichloroethene	0.179	0.179*	-	0	20	74	0
2,2-Dichloropropane	0.207	0.216	-	-4.3	20	78	0
Bromochloromethane	0.085	0.102	-	-20	20	89	0
Cyclohexane	10	9.963	-	0.4	20	76	0
Chloroform	0.286	0.267*	-	6.6	20	71	0
Ethyl acetate	0.112	0.093	-	17	20	68	0
Carbon tetrachloride	0.206	0.244	-	-18.4	20	85	0
Tetrahydrofuran	0.037	0.032	-	13.5	20	68	0
Dibromofluoromethane	0.349	0.381	-	-9.2	20	86	0
1,1,1-Trichloroethane	0.241	0.255	-	-5.8	20	79	0
2-Butanone	0.047	0.039	-	17	20	70	0
1,1-Dichloropropene	0.195	0.177	-	9.2	20	67	0
Benzene	0.633	0.586	-	7.4	20	72	0
tert-Amyl methyl ether	0.202	0.155	-	23.3*	20	66	0
1,2-Dichloroethane-d4	0.295	0.279	-	5.4	20	74	0
1,2-Dichloroethane	0.158	0.148	-	6.3	20	70	0
Methyl cyclohexane	10	9.568	-	4.3	20	79	0
Trichloroethene	0.135	0.126*	-	6.7	20	71	0
Dibromomethane	0.068	0.066	-	2.9	20	75	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: VOA122	**Calibration Date**	: 08/14/24 06:26		
Lab File ID	: V22240814A01	**Init. Calib. Date(s)**	: 07/29/24	07/29/24	
Sample No	: WG1959185-2	**Init. Calib. Times**	: 13:23	17:04	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.141	0.117*	-	17	20	61	0
Bromodichloromethane	0.167	0.153*	-	8.4	20	71	0
1,4-Dioxane	0.00056	0.00044*	-	21.4*	20	60	0
cis-1,3-Dichloropropene	0.172	0.15*	-	12.8	20	65	0
Chlorobenzene-d5	1	1	-	0	20	85	0
Toluene-d8	1.274	1.159	-	9	20	78	0
Toluene	0.412	0.366	-	11.2	20	73	0
4-Methyl-2-pentanone	0.033	0.023*	-	30.3*	20	68	0
Tetrachloroethene	0.162	0.196	-	-21*	20	98	0
trans-1,3-Dichloropropene	10	7.101	-	29*	20	69	0
Ethyl methacrylate	0.133	0.081	-	39.1*	20	55	0
1,1,2-Trichloroethane	0.097	0.077*	-	20.6*	20	69	0
Chlorodibromomethane	10	8.926	-	10.7	20	85	0
1,3-Dichloropropane	0.19	0.15	-	21.1*	20	67	0
1,2-Dibromoethane	0.108	0.101*	-	6.5	20	80	0
2-Hexanone	0.061	0.042	-	31.1*	20	65	0
Chlorobenzene	0.467	0.452	-	3.2	20	79	0
Ethylbenzene	0.778	0.71	-	8.7	20	71	0
1,1,1,2-Tetrachloroethane	0.148	0.148	-	0	20	87	0
p/m Xylene	0.302	0.304	-	-0.7	20	77	0
o Xylene	0.285	0.278	-	2.5	20	75	0
Styrene	0.459	0.453	-	1.3	20	76	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	95	0
Bromoform	0.15	0.137	-	8.7	20	96	0
Isopropylbenzene	1.551	1.409	-	9.2	20	78	0
4-Bromofluorobenzene	0.911	0.733	-	19.5	20	75	0
Bromobenzene	0.365	0.359	-	1.6	20	91	0
n-Propylbenzene	1.802	1.554	-	13.8	20	74	0
1,4-Dichlorobutane	0.472	0.348	-	26.3*	20	70	0
1,1,2,2-Tetrachloroethane	0.254	0.187*	-	26.4*	20	73	0
4-Ethyltoluene	1.469	1.32	-	10.1	20	79	0
2-Chlorotoluene	1.086	0.909	-	16.3	20	75	0
1,3,5-Trimethylbenzene	1.245	1.114	-	10.5	20	79	0
1,2,3-Trichloropropane	0.194	0.14	-	27.8*	20	70	0
trans-1,4-Dichloro-2-buten	0.086	0.068	-	20.9*	20	78	0
4-Chlorotoluene	1.121	0.902	-	19.5	20	72	0
tert-Butylbenzene	1.081	1.051	-	2.8	20	84	0
1,2,4-Trimethylbenzene	1.391	1.256	-	9.7	20	78	0
sec-Butylbenzene	10	9.146	-	8.5	20	83	0
p-Isopropyltoluene	10	9.385	-	6.2	20	86	0
1,3-Dichlorobenzene	0.724	0.723	-	0.1	20	91	0
1,4-Dichlorobenzene	0.718	0.709	-	1.3	20	91	0
p-Diethylbenzene	0.788	0.733	-	7	20	86	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2445770	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: VOA122	**Calibration Date**	: 08/14/24 06:26	
Lab File ID	: V22240814A01	**Init. Calib. Date(s)**	: 07/29/24	07/29/24
Sample No	: WG1959185-2	**Init. Calib. Times**	: 13:23	17:04
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	10	8.756	-	12.4	20	79	0
1,2-Dichlorobenzene	0.64	0.628	-	1.9	20	90	0
1,2,4,5-Tetramethylbenzene	1.081	0.909	-	15.9	20	80	0
1,2-Dibromo-3-chloropropan	10	8.792	-	12.1	20	95	0
1,3,5-Trichlorobenzene	0.417	0.449	-	-7.7	20	97	0
Hexachlorobutadiene	10	10.936	-	-9.4	20	105	0
1,2,4-Trichlorobenzene	0.355	0.366*	-	-3.1	20	95	0
Naphthalene	10	8.677	-	13.2	20	88	0
1,2,3-Trichlorobenzene	0.301	0.315*	-	-4.7	20	95	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	81	0.00
2	TP	Dichlorodifluoromethane	0.197	0.196	0.5	74	0.00
3	TP	Chloromethane	0.263	0.234	11.0	62	0.00
4	TP	Vinyl chloride	0.208	0.208	0.0	72	0.00
5	TP	Bromomethane	0.084	0.037	56.0#	40#	0.00
6	TP	Chloroethane	0.120	0.124	-3.3	75	0.00
7	TP	Trichlorofluoromethane	* 10.000	11.567	-15.7	87	0.00
8	TP	Ethyl ether	0.070	0.058	17.1	65	0.00
10	TP	1,1-Dichloroethene	0.138	0.151	-9.4	80	0.00
11	TP	Carbon disulfide	0.454	0.462	-1.8	73	0.00
12	TP	Freon-113	0.143	0.173	-21.0#	91	0.00
14	TP	Acrolein	0.024	0.020	16.7	65	0.00
15	TP	Methylene chloride	0.183	0.167	8.7	71	0.00
17	TP	Acetone	0.033	0.029	12.1	68	0.00
18	TP	trans-1,2-Dichloroethene	0.162	0.164	-1.2	75	0.00
19	TP	Methyl acetate	0.086	0.072	16.3	69	0.00
21	TP	Methyl tert-butyl ether	0.309	0.254	17.8	65	0.00
22	TP	tert-Butyl alcohol	0.00648	0.00611#	5.7	74	0.00
24	TP	Diisopropyl ether	0.581	0.466	19.8	63	0.00
25	TP	1,1-Dichloroethane	0.331	0.297#	10.3	66	0.00
26	TP	Halothane	0.121	0.138	-14.0	84	0.00
27	TP	Acrylonitrile	0.046	0.043	6.5	71	0.00
28	TP	Ethyl tert-butyl ether	0.418	0.339	18.9	66	0.00
29	TP	Vinyl acetate	0.348	0.284	18.4	65	0.00
30	TP	cis-1,2-Dichloroethene	0.179	0.179#	0.0	74	0.00
31	TP	2,2-Dichloropropane	0.207	0.216	-4.3	78	0.00
32	TP	Bromochloromethane	0.085	0.102	-20.0	89	0.00
33	TP	Cyclohexane	* 10.000	9.963	0.4	76	0.00
34	TP	Chloroform	0.286	0.267#	6.6	71	0.00
35	TP	Ethyl acetate	0.112	0.093	17.0	68	0.00
36	TP	Carbon tetrachloride	0.206	0.244	-18.4	85	0.00
37	TP	Tetrahydrofuran	0.037	0.032	13.5	68	0.00
38	S	Dibromofluoromethane	0.349	0.381	-9.2	86	0.00
39	TP	1,1,1-Trichloroethane	0.241	0.255	-5.8	79	0.00
41	TP	2-Butanone	0.047	0.039	17.0	70	0.00
42	TP	1,1-Dichloropropene	0.195	0.177	9.2	67	0.00
44	TP	Benzene	0.633	0.586	7.4	72	0.00
45	TP	tert-Amyl methyl ether	0.202	0.155	23.3#	66	0.00
46	S	1,2-Dichloroethane-d4	0.295	0.279	5.4	74	0.00

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	T	1,2-Dichloroethane	0.158	0.148	6.3	70	0.00
50	TP	Methyl cyclohexane	* 10.000	9.568	4.3	79	0.00
51	TP	Trichloroethene	0.135	0.126#	6.7	71	0.00
53	TP	Dibromomethane	0.068	0.066	2.9	75	0.00
54	TP	1,2-Dichloropropane	0.141	0.117#	17.0	61	0.00
57	TP	Bromodichloromethane	0.167	0.153#	8.4	71	0.00
60	TP	1,4-Dioxane	0.00056	0.00044#	21.4#	60	0.00
61	TP	cis-1,3-Dichloropropene	0.172	0.150#	12.8	65	0.00
62	I	Chlorobenzene-d5	1.000	1.000	0.0	85	0.00
63	S	Toluene-d8	1.274	1.159	9.0	78	0.00
64	TP	Toluene	0.412	0.366	11.2	73	0.00
65	TP	4-Methyl-2-pentanone	0.033	0.023#	30.3#	68	0.00
66	TP	Tetrachloroethene	0.162	0.196	-21.0#	98	0.00
68	TP	trans-1,3-Dichloropropene	* 10.000	7.101	29.0#	69	0.00
70	TP	Ethyl methacrylate	0.133	0.081	39.1#	55	0.00
71	TP	1,1,2-Trichloroethane	0.097	0.077#	20.6#	69	0.00
72	TP	Chlorodibromomethane	* 10.000	8.926	10.7	85	0.00
73	TP	1,3-Dichloropropane	0.190	0.150	21.1#	67	0.00
74	TP	1,2-Dibromoethane	0.108	0.101#	6.5	80	0.00
76	TP	2-Hexanone	0.061	0.042	31.1#	65	0.00
77	TP	Chlorobenzene	0.467	0.452	3.2	79	0.00
78	TP	Ethylbenzene	0.778	0.710	8.7	71	0.00
79	TP	1,1,1,2-Tetrachloroethane	0.148	0.148	0.0	87	0.00
80	TP	p/m Xylene	0.302	0.304	-0.7	77	0.00
81	TP	o Xylene	0.285	0.278	2.5	75	0.00
82	TP	Styrene	0.459	0.453	1.3	76	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00
84	TP	Bromoform	0.150	0.137	8.7	96	0.00
86	TP	Isopropylbenzene	1.551	1.409	9.2	78	0.00
87	S	4-Bromofluorobenzene	0.911	0.733	19.5	75	0.00
88	TP	Bromobenzene	0.365	0.359	1.6	91	0.00
89	TP	n-Propylbenzene	1.802	1.554	13.8	74	0.00
90	TP	1,4-Dichlorobutane	0.472	0.348	26.3#	70	0.00
91	TP	1,1,2,2-Tetrachloroethane	0.254	0.187#	26.4#	73	0.00
92	TP	4-Ethyltoluene	1.469	1.320	10.1	79	0.00
93	TP	2-Chlorotoluene	1.086	0.909	16.3	75	0.00
94	TP	1,3,5-Trimethylbenzene	1.245	1.114	10.5	79	0.00

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
95 TP	1,2,3-Trichloropropane		0.194	0.140	27.8#	70	0.00
96 TP	trans-1,4-Dichloro-2-butene		0.086	0.068	20.9#	78	0.00
97 TP	4-Chlorotoluene		1.121	0.902	19.5	72	0.00
98 TP	tert-Butylbenzene		1.081	1.051	2.8	84	0.00
101 TP	1,2,4-Trimethylbenzene		1.391	1.256	9.7	78	0.00
102 TP	sec-Butylbenzene	*	10.000	9.146	8.5	83	0.00
103 TP	p-Isopropyltoluene	*	10.000	9.385	6.2	86	0.00
104 TP	1,3-Dichlorobenzene		0.724	0.723	0.1	91	0.00
105 TP	1,4-Dichlorobenzene		0.718	0.709	1.3	91	0.00
106 TP	p-Diethylbenzene		0.788	0.733	7.0	86	0.00
107 TP	n-Butylbenzene	*	10.000	8.756	12.4	79	0.00
108 TP	1,2-Dichlorobenzene		0.640	0.628	1.9	90	0.00
109 TP	1,2,4,5-Tetramethylbenzene		1.081	0.909	15.9	80	0.00
110 TP	1,2-Dibromo-3-chloropropane	*	10.000	8.792	12.1	95	0.00
111 TP	1,3,5-Trichlorobenzene		0.417	0.449	-7.7	97	0.00
112 TP	Hexachlorobutadiene	*	10.000	10.936	-9.4	105	0.00
113 TP	1,2,4-Trichlorobenzene		0.355	0.366#	-3.1	95	0.00
114 TP	Naphthalene	*	10.000	8.677	13.2	88	0.00
115 TP	1,2,3-Trichlorobenzene		0.301	0.315#	-4.7	95	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 15 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	410026	10.000	ug/L	0.00
62) Chlorobenzene-d5	9.519	117	350491	10.000	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	12.230	152	194738	10.000	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.165	113	156124	10.898	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.98%			
46) 1,2-Dichloroethane-d4	5.689	65	114224	9.432	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.32%			
63) Toluene-d8	7.675	98	406165	9.095	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.95%			
87) 4-Bromofluorobenzene	11.020	95	142788	8.052	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.52%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.632	85	80440	9.937	ug/L	97
3) Chloromethane	1.815	50	95775	8.870	ug/L	97
4) Vinyl chloride	1.887	62	85270	9.981	ug/L	98
5) Bromomethane	2.196	94	15097	4.399	ug/L	98
6) Chloroethane	2.307	64	50764	10.280	ug/L	97
7) Trichlorofluoromethane	2.451	101	113452	11.567	ug/L	100
8) Ethyl ether	2.746	74	23945	8.391	ug/L #	1
10) 1,1-Dichloroethene	2.936	96	62049	10.938	ug/L	88
11) Carbon disulfide	2.962	76	189547	10.171	ug/L	100
12) Freon-113	2.975	101	70892	12.084	ug/L	95
14) Acrolein	3.244	56	8194	8.406	ug/L	97
15) Methylene chloride	3.480	84	68645	9.128	ug/L #	61
17) Acetone	3.513	43	11906	8.685	ug/L	94
18) trans-1,2-Dichloroethene	3.631	96	67230	10.131	ug/L	91
19) Methyl acetate	3.637	43	29707	8.422	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	103953	8.192	ug/L #	74
22) tert-Butyl alcohol	3.808	59	12520	47.117	ug/L #	88
24) Diisopropyl ether	4.090	45	190884	8.006	ug/L #	92
25) 1,1-Dichloroethane	4.208	63	121784	8.986	ug/L	95
26) Halothane	4.260	117	56556	11.433	ug/L	99
27) Acrylonitrile	4.247	53	17539	9.374	ug/L	97
28) Ethyl tert-butyl ether	4.437	59	138973	8.116	ug/L #	81
29) Vinyl acetate	4.444	43	116459	8.172	ug/L #	88
30) cis-1,2-Dichloroethene	4.725	96	73333	9.971	ug/L	91
31) 2,2-Dichloropropane	4.830	77	88385	10.405	ug/L #	80

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Bromochloromethane	4.915	128	41926	12.081	ug/L	#	85
33) Cyclohexane	4.929	56	135187	9.963	ug/L		70
34) Chloroform	4.988	83	109328	9.320	ug/L	#	94
35) Ethyl acetate	5.099	43	38202	8.295	ug/L	#	92
36) Carbon tetrachloride	5.132	117	100020	11.815	ug/L		98
37) Tetrahydrofuran	5.138	42	13163M6	8.722	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	104738	10.588	ug/L		96
41) 2-Butanone	5.276	43	15828	8.216	ug/L	#	42
42) 1,1-Dichloropropene	5.315	75	72680	9.106	ug/L		93
44) Benzene	5.558	78	240327	9.254	ug/L	#	89
45) tert-Amyl methyl ether	5.669	73	63737	7.682	ug/L	#	77
47) 1,2-Dichloroethane	5.754	62	60579	9.336	ug/L		96
50) Methyl cyclohexane	6.154	83	80051	9.568	ug/L	#	62
51) Trichloroethene	6.154	95	51685	9.357	ug/L		90
53) Dibromomethane	6.584	93	26892	9.630	ug/L		95
54) 1,2-Dichloropropane	6.695	63	47905	8.260	ug/L		95
57) Bromodichloromethane	6.765	83	62678	9.160	ug/L		99
60) 1,4-Dioxane	6.973	88	9047	395.416	ug/L	#	59
61) cis-1,3-Dichloropropene	7.460	75	61573	8.732	ug/L	#	84
64) Toluene	7.731	92	128433	8.896	ug/L		98
65) 4-Methyl-2-pentanone	8.162	58	7998	6.923	ug/L	#	64
66) Tetrachloroethene	8.176	166	68699	12.136	ug/L		100
68) trans-1,3-Dichloropropene	8.210	75	50296	7.101	ug/L		84
70) Ethyl methacrylate	8.405	69	28309	6.085	ug/L	#	71
71) 1,1,2-Trichloroethane	8.391	83	26929	7.943	ug/L		97
72) Chlorodibromomethane	8.607	129	48760	8.926	ug/L		99
73) 1,3-Dichloropropane	8.720	76	52715	7.931	ug/L		99
74) 1,2-Dibromoethane	8.881	107	35524	9.350	ug/L		99
76) 2-Hexanone	9.175	43	14787	6.887	ug/L	#	84
77) Chlorobenzene	9.540	112	158317	9.682	ug/L	#	82
78) Ethylbenzene	9.582	91	248724	9.125	ug/L		97
79) 1,1,1,2-Tetrachloroethane	9.624	131	51879	9.975	ug/L		96
80) p/m Xylene	9.772	106	212786	20.110	ug/L		91
81) o Xylene	10.312	106	195082	19.496	ug/L		93
82) Styrene	10.382	104	317884	19.751	ug/L		93
84) Bromoform	10.396	173	26751	9.131	ug/L		99
86) Isopropylbenzene	10.704	105	274470	9.086	ug/L		98
88) Bromobenzene	11.125	156	69818	9.829	ug/L		98
89) n-Propylbenzene	11.181	91	302587	8.621	ug/L		95
90) 1,4-Dichlorobutane	11.188	55	67707	7.374	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	36491	7.385	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92) 4-Ethyltoluene	11.307	105	257037	8.985	ug/L		97
93) 2-Chlorotoluene	11.342	91	176987M6	8.371	ug/L		
94) 1,3,5-Trimethylbenzene	11.413	105	216962	8.950	ug/L		95
95) 1,2,3-Trichloropropane	11.398	75	27345	7.250	ug/L		95
96) trans-1,4-Dichloro-2-b...	11.455	53	13281	7.896	ug/L	#	64
97) 4-Chlorotoluene	11.532	91	175635	8.049	ug/L		90
98) tert-Butylbenzene	11.749	119	204758	9.731	ug/L	#	92
101) 1,2,4-Trimethylbenzene	11.826	105	244655	9.032	ug/L		97
102) sec-Butylbenzene	11.944	105	292044	9.146	ug/L		97
103) p-Isopropyltoluene	12.098	119	253233	9.385	ug/L		98
104) 1,3-Dichlorobenzene	12.153	146	140840	9.996	ug/L		99
105) 1,4-Dichlorobenzene	12.251	146	138154	9.887	ug/L		99
106) p-Diethylbenzene	12.473	119	142779	9.306	ug/L		97
107) n-Butylbenzene	12.529	91	196257	8.756	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	122343	9.815	ug/L		98
109) 1,2,4,5-Tetramethylben...	13.274	119	177073	8.415	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.455	155	6482	8.792	ug/L		100
111) 1,3,5-Trichlorobenzene	13.490	180	87531	10.781	ug/L		97
112) Hexachlorobutadiene	14.074	225	32235	10.936	ug/L		99
113) 1,2,4-Trichlorobenzene	14.088	180	71241	10.312	ug/L		98
114) Naphthalene	14.388	128	137834	8.677	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	61343	10.452	ug/L		99

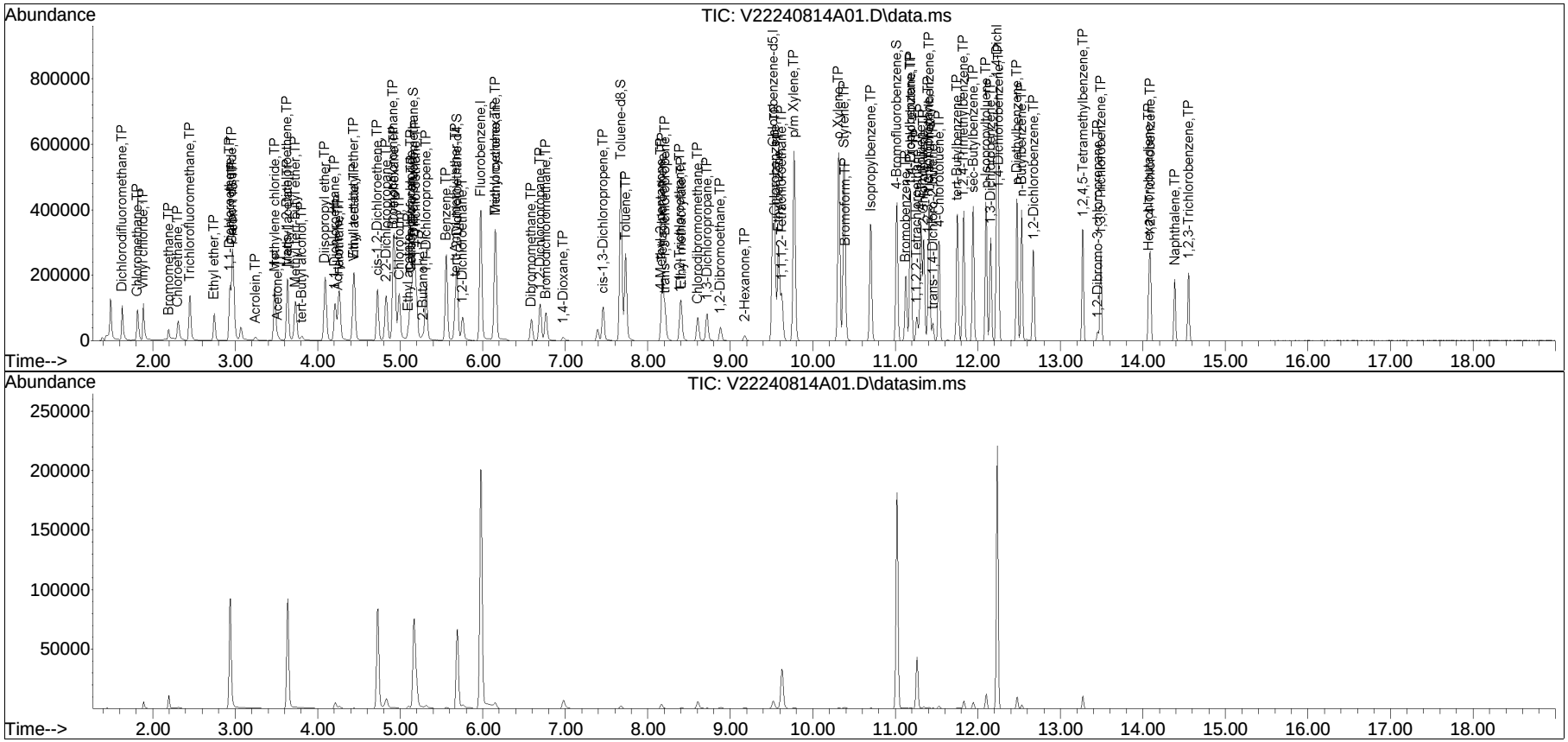
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

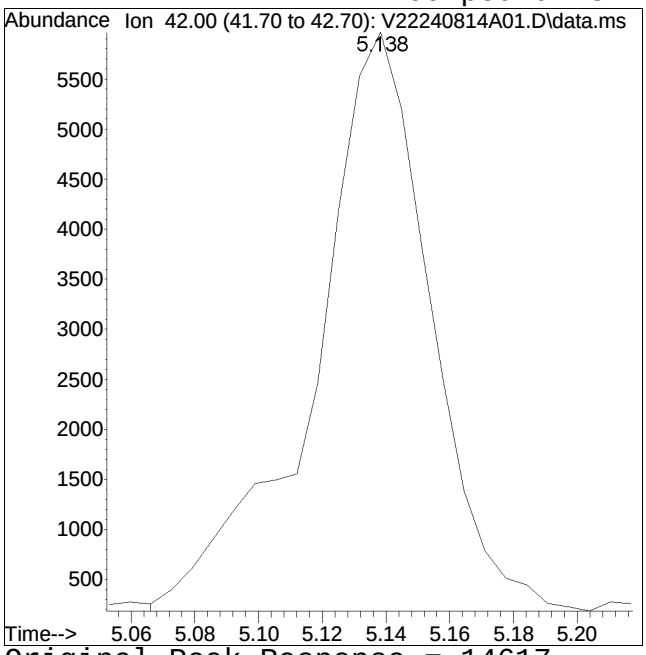
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



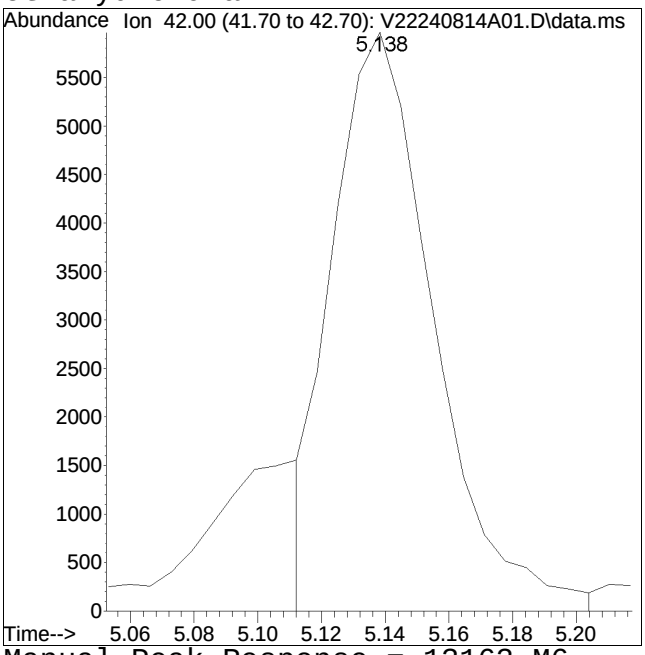
Manual Integration Report

Data Path	: K:\VOA122\2024\240814A\	QMethod	: V122_240729A_8260.m
Data File	: V22240814A01.D	Operator	: VOA122:PID
Date Inj'd	: 8/14/2024 6:26 am	Instrument	: VOA 122
Sample	: WG1959185-2	Quant Date	: 8/14/2024 6:54 am

Compound #37: Tetrahydrofuran



Original Peak Response = 14617



Manual Peak Response = 13163 M6

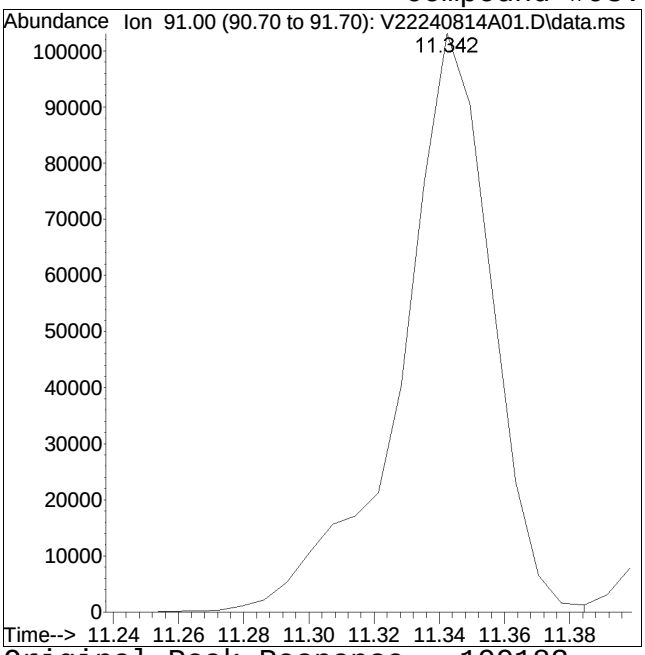
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

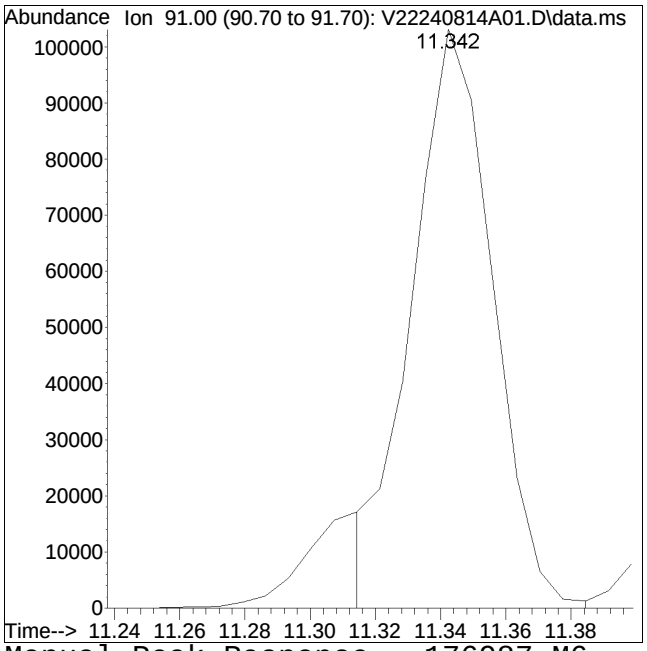
Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Date Inj'd : 8/14/2024 6:26 am
Sample : WG1959185-2

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/14/2024 6:54 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 199183



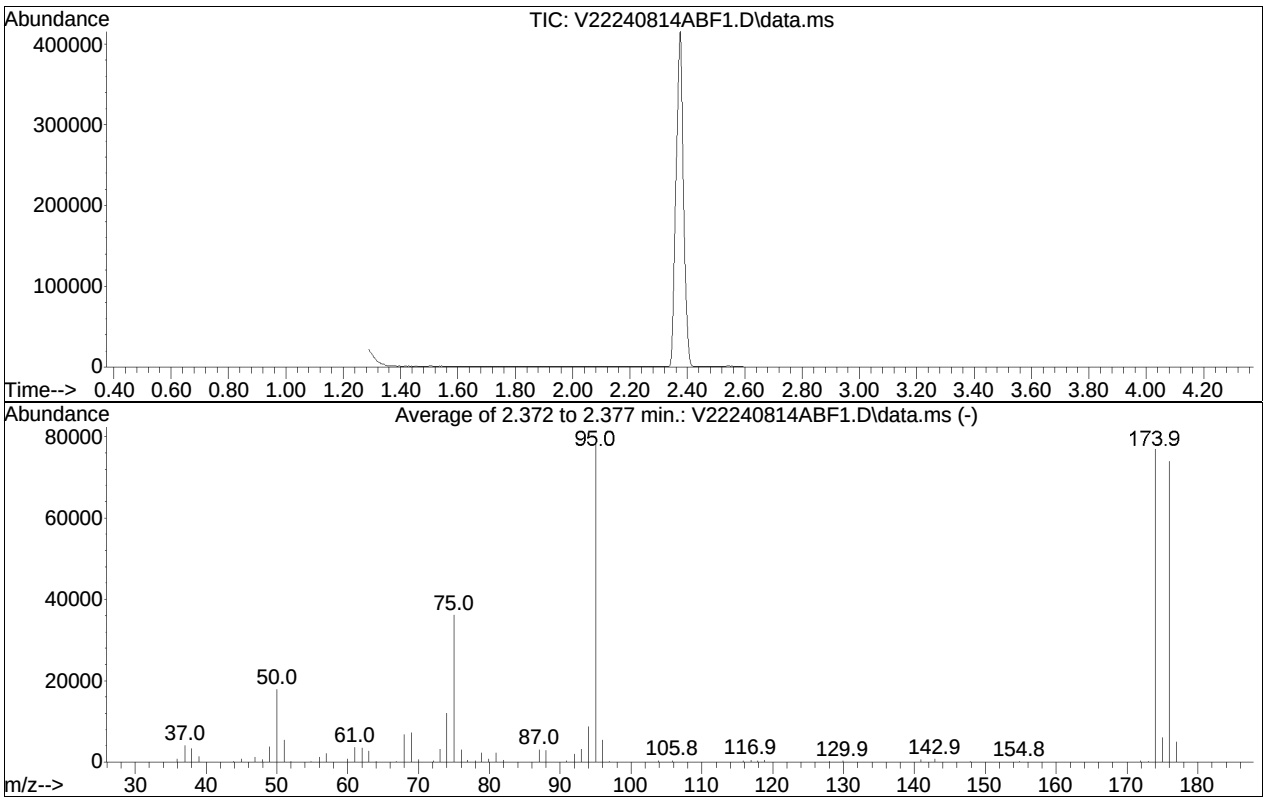
Manual Peak Response = 176987 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814ABF1.D
Acq On : 14 Aug 2024 06:13 am
Operator : VOA122:PID
Sample : WG1959185-1
Misc : WG1959185
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024



AutoFind: Scans 389, 390, 391; Background Corrected with Scan 373

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.8	17904	PASS
75	95	30	60	46.0	36096	PASS
95	95	100	100	100.0	78528	PASS
96	95	5	9	7.0	5462	PASS
173	174	0.00	2	0.4	280	PASS
174	95	50	100	97.9	76901	PASS
175	174	5	9	7.8	6004	PASS
176	174	95	101	96.2	73941	PASS
177	176	5	9	6.7	4971	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A05.D
Acq On : 14 Aug 2024 08:06 am
Operator : VOA122:PID
Sample : WG1959185-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 14 09:13:36 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.976	96	399553	10.000 ug/L	0.00
Standard Area 1 = 410026			Recovery = 97.45%		
62) Chlorobenzene-d5	9.519	117	352108	10.000 ug/L	0.00
Standard Area 1 = 350491			Recovery = 100.46%		
83) 1,4-Dichlorobenzene-d4	12.229	152	181128	10.000 ug/L	0.00
Standard Area 1 = 194738			Recovery = 93.01%		
System Monitoring Compounds					
38) Dibromofluoromethane	5.157	113	155614	11.147 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.47%		
46) 1,2-Dichloroethane-d4	5.688	65	110183	9.337 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.37%		
63) Toluene-d8	7.675	98	406078	9.052 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.52%		
87) 4-Bromofluorobenzene	11.019	95	133065	8.068 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.68%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.188	94	121	N.D.	
6) Chloroethane	2.254	64	59	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.962	76	528	N.D.	
15) Methylene chloride	3.473	84	747	0.102 ug/L #	53
17) Acetone	3.525	43	67	N.D.	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	0.000		0	N.D.	
30) cis-1,2-Dichloroethene	4.810	96	62	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
32) Bromochloromethane	0.000		0	N.D.	
34) Chloroform	0.000		0	N.D.	

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A05.D
Acq On : 14 Aug 2024 08:06 am
Operator : VOA122:PID
Sample : WG1959185-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 14 09:13:36 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	0.000		0		N.D.	
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	0.000		0		N.D.	
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	9.512	91	521		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	11.019	91	403		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A05.D
Acq On : 14 Aug 2024 08:06 am
Operator : VOA122:PID
Sample : WG1959185-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 14 09:13:36 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	0.000		0		N.D.	
102) sec-Butylbenzene	0.000		0		N.D.	
103) p-Isopropyltoluene	0.000		0		N.D.	
104) 1,3-Dichlorobenzene	12.243	146	76		N.D.	
105) 1,4-Dichlorobenzene	12.243	146	76		N.D.	
106) p-Diethylbenzene	0.000		0		N.D.	
107) n-Butylbenzene	0.000		0		N.D.	
108) 1,2-Dichlorobenzene	0.000		0		N.D.	
109) 1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112) Hexachlorobutadiene	0.000		0		N.D.	d
113) 1,2,4-Trichlorobenzene	0.000		0		N.D.	
114) Naphthalene	0.000		0		N.D.	
115) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

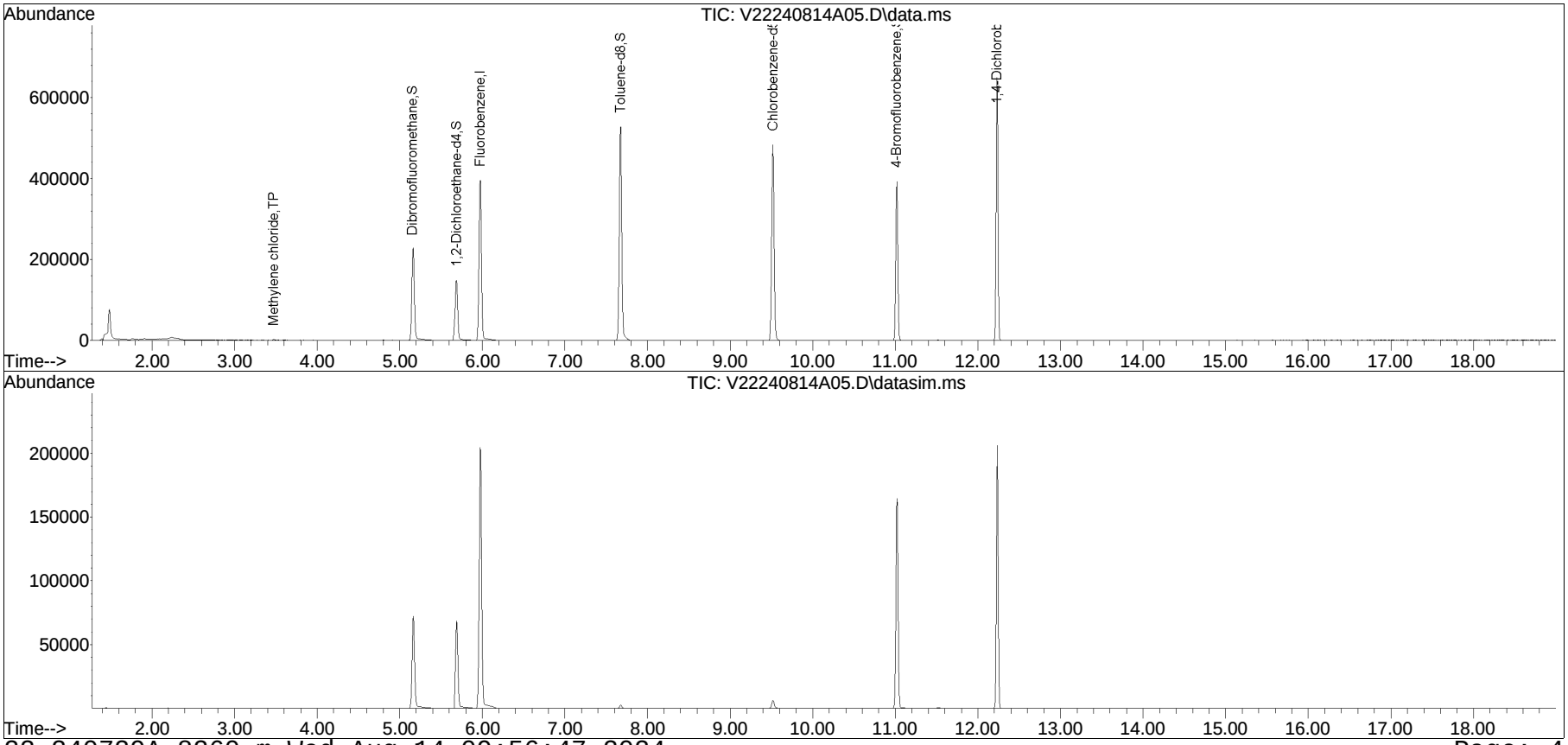
(#) = qualifier out of range (m) = manual integration (+) = signals summed

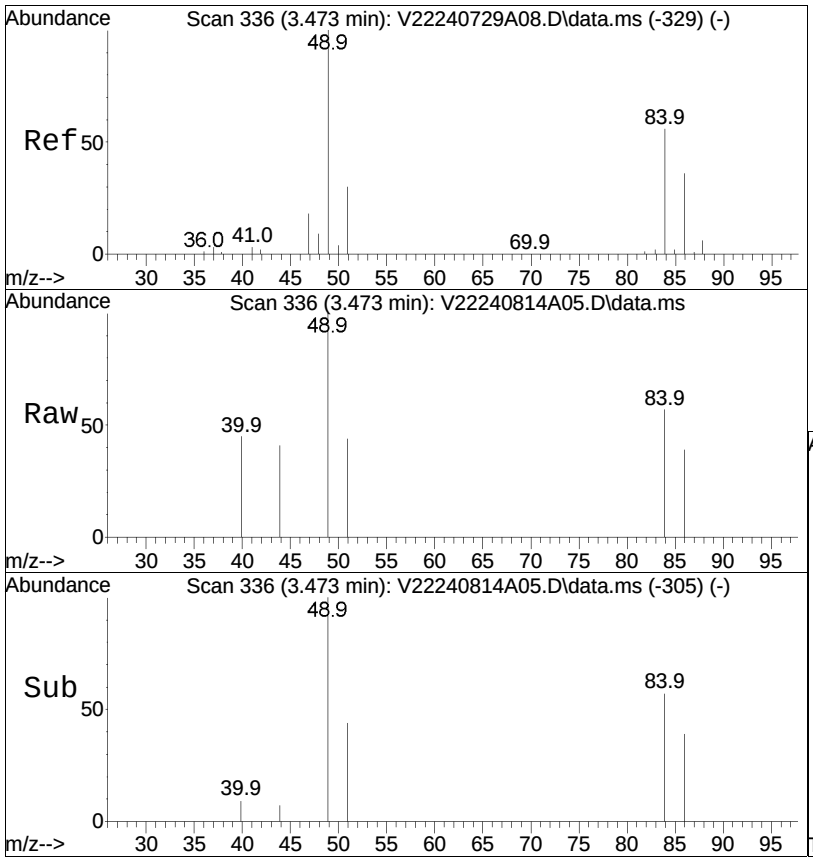
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A05.D
Acq On : 14 Aug 2024 08:06 am
Operator : VOA122:PID
Sample : WG1959185-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 14 09:13:36 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

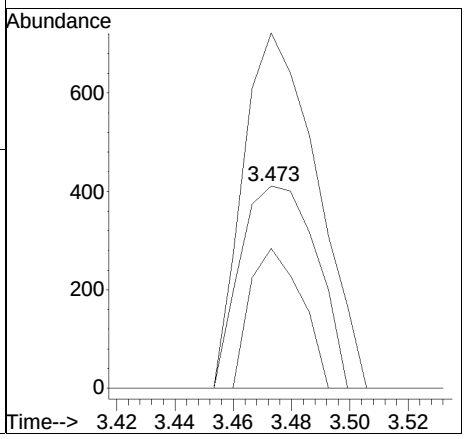




#15
Methylene chloride
Concen: 0.10 ug/L
RT: 3.473 min Scan# 336
Delta R.T. -0.000 min
Lab File: V22240814A05.D
Acq: 14 Aug 2024 08:06 am

Tgt Ion: 84 Resp: 747

Ion	Ratio	Lower	Upper
84	100		
86	47.0	41.5	86.3
49	170.1	68.8	143.0#



Manual Integration Report

Data Path	: K:\VOA122\2024\240814A\	QMethod	: V122_240729A_8260.m
Data File	: V22240814A05.D	Operator	: VOA122:PID
Date Inj'd	: 8/14/2024 8:06 am	Instrument	: VOA 122
Sample	: WG1959185-5,31,10,10	Quant Date	: 8/14/2024 9:13 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	410026	10.000	ug/L	0.00
62) Chlorobenzene-d5	9.519	117	350491	10.000	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	12.230	152	194738	10.000	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.165	113	156124	10.898	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.98%			
46) 1,2-Dichloroethane-d4	5.689	65	114224	9.432	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.32%			
63) Toluene-d8	7.675	98	406165	9.095	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.95%			
87) 4-Bromofluorobenzene	11.020	95	142788	8.052	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.52%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.632	85	80440	9.937	ug/L	97
3) Chloromethane	1.815	50	95775	8.870	ug/L	97
4) Vinyl chloride	1.887	62	85270	9.981	ug/L	98
5) Bromomethane	2.196	94	15097	4.399	ug/L	98
6) Chloroethane	2.307	64	50764	10.280	ug/L	97
7) Trichlorofluoromethane	2.451	101	113452	11.567	ug/L	100
8) Ethyl ether	2.746	74	23945	8.391	ug/L #	1
10) 1,1-Dichloroethene	2.936	96	62049	10.938	ug/L	88
11) Carbon disulfide	2.962	76	189547	10.171	ug/L	100
15) Methylene chloride	3.480	84	68645	9.128	ug/L #	61
17) Acetone	3.513	43	11906	8.685	ug/L	94
18) trans-1,2-Dichloroethene	3.631	96	67230	10.131	ug/L	91
21) Methyl tert-butyl ether	3.729	73	103953	8.192	ug/L #	74
25) 1,1-Dichloroethane	4.208	63	121784	8.986	ug/L	95
27) Acrylonitrile	4.247	53	17539	9.374	ug/L	97
29) Vinyl acetate	4.444	43	116459	8.172	ug/L #	88
30) cis-1,2-Dichloroethene	4.725	96	73333	9.971	ug/L	91
31) 2,2-Dichloropropane	4.830	77	88385	10.405	ug/L #	80
32) Bromochloromethane	4.915	128	41926	12.081	ug/L #	85
34) Chloroform	4.988	83	109328	9.320	ug/L #	94
36) Carbon tetrachloride	5.132	117	100020	11.815	ug/L	98
39) 1,1,1-Trichloroethane	5.191	97	104738	10.588	ug/L	96
41) 2-Butanone	5.276	43	15828	8.216	ug/L #	42
42) 1,1-Dichloropropene	5.315	75	72680	9.106	ug/L	93

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Benzene	5.558	78	240327	9.254	ug/L	#	89
47) 1,2-Dichloroethane	5.754	62	60579	9.336	ug/L		96
51) Trichloroethene	6.154	95	51685	9.357	ug/L		90
53) Dibromomethane	6.584	93	26892	9.630	ug/L		95
54) 1,2-Dichloropropane	6.695	63	47905	8.260	ug/L		95
57) Bromodichloromethane	6.765	83	62678	9.160	ug/L		99
60) 1,4-Dioxane	6.973	88	9047	395.416	ug/L	#	59
61) cis-1,3-Dichloropropene	7.460	75	61573	8.732	ug/L	#	84
64) Toluene	7.731	92	128433	8.896	ug/L		98
65) 4-Methyl-2-pentanone	8.162	58	7998	6.923	ug/L	#	64
66) Tetrachloroethene	8.176	166	68699	12.136	ug/L		100
68) trans-1,3-Dichloropropene	8.210	75	50296	7.101	ug/L		84
71) 1,1,2-Trichloroethane	8.391	83	26929	7.943	ug/L		97
72) Chlorodibromomethane	8.607	129	48760	8.926	ug/L		99
73) 1,3-Dichloropropane	8.720	76	52715	7.931	ug/L		99
74) 1,2-Dibromoethane	8.881	107	35524	9.350	ug/L		99
76) 2-Hexanone	9.175	43	14787	6.887	ug/L	#	84
77) Chlorobenzene	9.540	112	158317	9.682	ug/L	#	82
78) Ethylbenzene	9.582	91	248724	9.125	ug/L		97
79) 1,1,1,2-Tetrachloroethane	9.624	131	51879	9.975	ug/L		96
80) p/m Xylene	9.772	106	212786	20.110	ug/L		91
81) o Xylene	10.312	106	195082	19.496	ug/L		93
82) Styrene	10.382	104	317884	19.751	ug/L		93
84) Bromoform	10.396	173	26751	9.131	ug/L		99
86) Isopropylbenzene	10.704	105	274470	9.086	ug/L		98
88) Bromobenzene	11.125	156	69818	9.829	ug/L		98
89) n-Propylbenzene	11.181	91	302587	8.621	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	36491	7.385	ug/L		99
92) 4-Ethyltoluene	11.307	105	257037	8.985	ug/L		97
93) 2-Chlorotoluene	11.342	91	176987M6	8.371	ug/L		
94) 1,3,5-Trimethylbenzene	11.413	105	216962	8.950	ug/L		95
95) 1,2,3-Trichloropropane	11.398	75	27345	7.250	ug/L		95
96) trans-1,4-Dichloro-2-b...	11.455	53	13281	7.896	ug/L	#	64
97) 4-Chlorotoluene	11.532	91	175635	8.049	ug/L		90
98) tert-Butylbenzene	11.749	119	204758	9.731	ug/L	#	92
101) 1,2,4-Trimethylbenzene	11.826	105	244655	9.032	ug/L		97
102) sec-Butylbenzene	11.944	105	292044	9.146	ug/L		97
103) p-Isopropyltoluene	12.098	119	253233	9.385	ug/L		98
104) 1,3-Dichlorobenzene	12.153	146	140840	9.996	ug/L		99
105) 1,4-Dichlorobenzene	12.251	146	138154	9.887	ug/L		99

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106)	p-Diethylbenzene	12.473	119	142779	9.306	ug/L	97
107)	n-Butylbenzene	12.529	91	196257	8.756	ug/L	97
108)	1,2-Dichlorobenzene	12.675	146	122343	9.815	ug/L	98
109)	1,2,4,5-Tetramethylben...	13.274	119	177073	8.415	ug/L	98
110)	1,2-Dibromo-3-chloropr...	13.455	155	6482	8.792	ug/L	100
112)	Hexachlorobutadiene	14.074	225	32235	10.936	ug/L	99
113)	1,2,4-Trichlorobenzene	14.088	180	71241	10.312	ug/L	98
114)	Naphthalene	14.388	128	137834	8.677	ug/L	100
115)	1,2,3-Trichlorobenzene	14.555	180	61343	10.452	ug/L	99

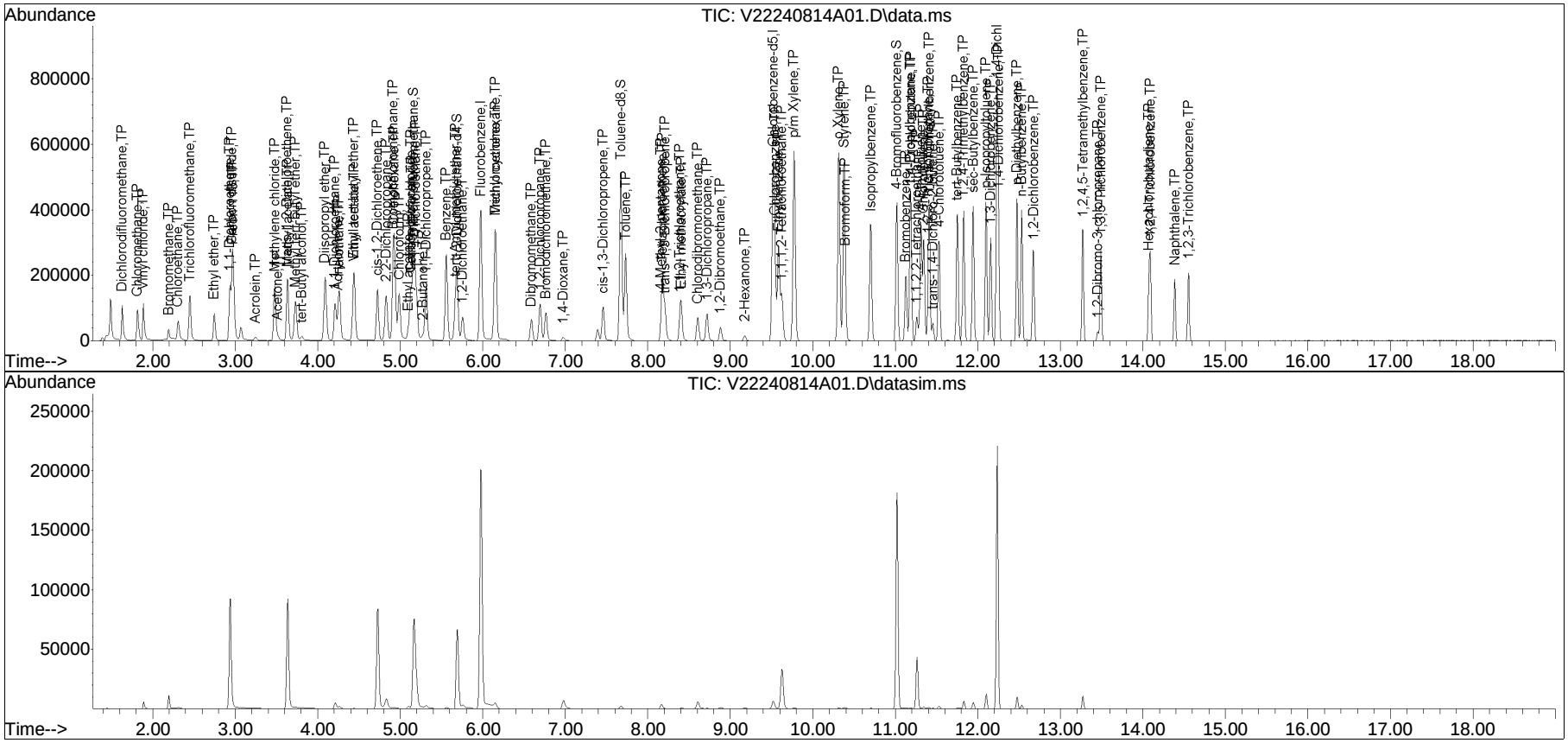
(#) = qualifier out of range (m) = manual integration (+) = signals summed

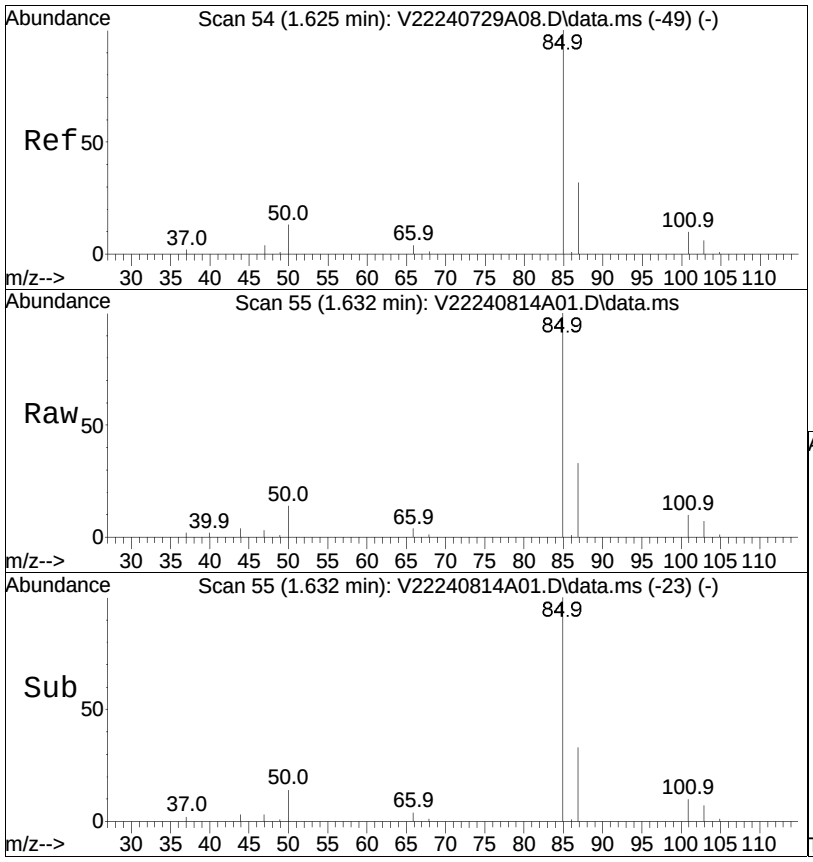
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Acq On : 14 Aug 2024 06:26 am
Operator : VOA122:PID
Sample : WG1959185-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 06:56:37 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

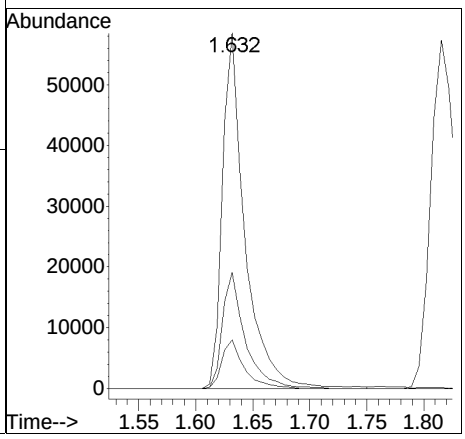


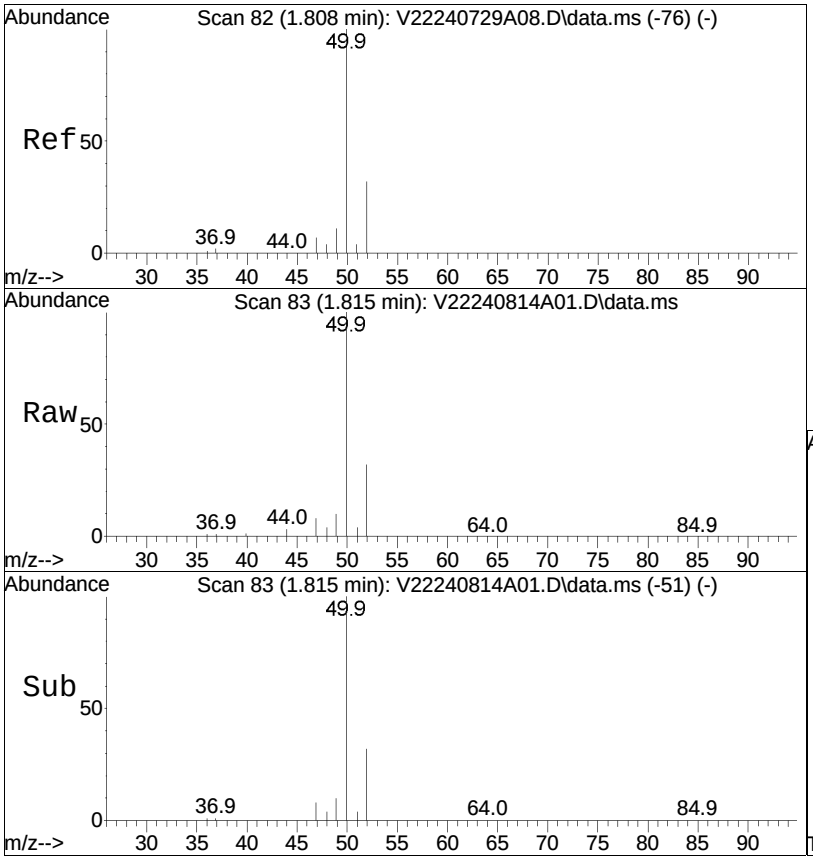


#2
Dichlorodifluoromethane
Concen: 9.94 ug/L
RT: 1.632 min Scan# 55
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 85 Resp: 80440

Ion	Ratio	Lower	Upper
85	100		
87	32.6	20.7	42.9
50	13.5	6.8	14.2

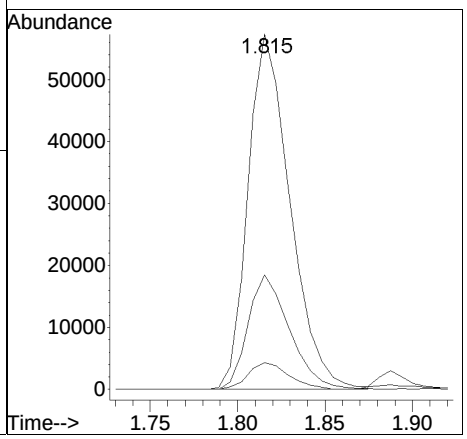


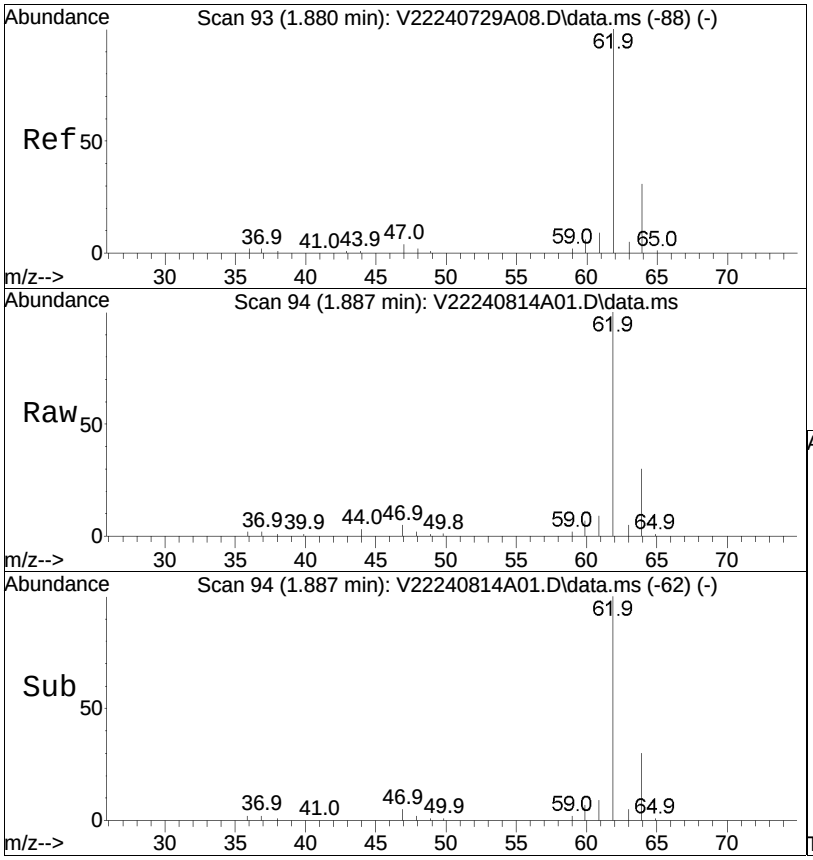


#3
Chloromethane
Concen: 8.87 ug/L
RT: 1.815 min Scan# 83
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 50 Resp: 95775

Ion	Ratio	Lower	Upper
50	100		
52	31.9	12.8	52.8
47	7.4	0.0	30.0

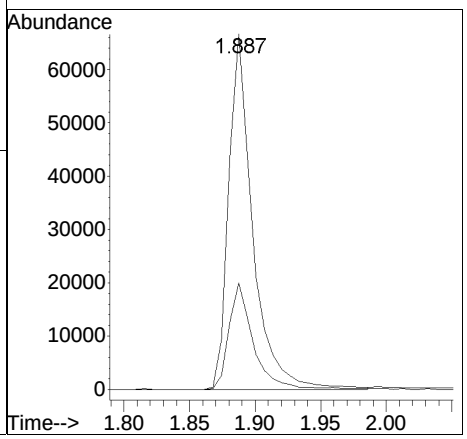


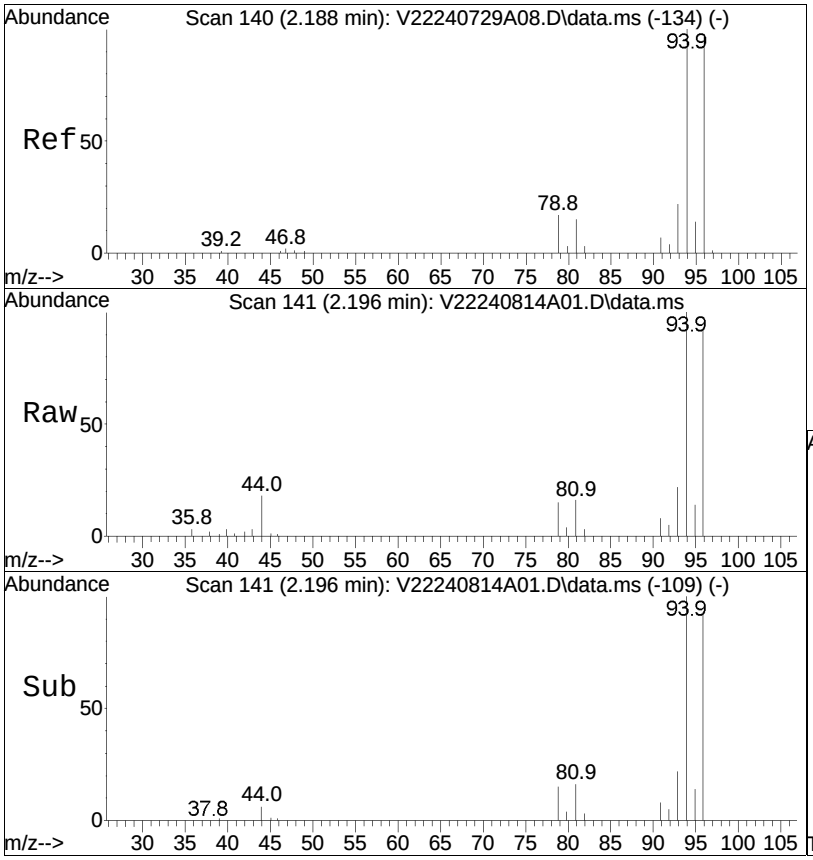


#4
Vinyl chloride
Concen: 9.98 ug/L
RT: 1.887 min Scan# 94
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 62 Resp: 85270

Ion	Ratio	Lower	Upper
62	100		
64	30.7	12.0	52.0

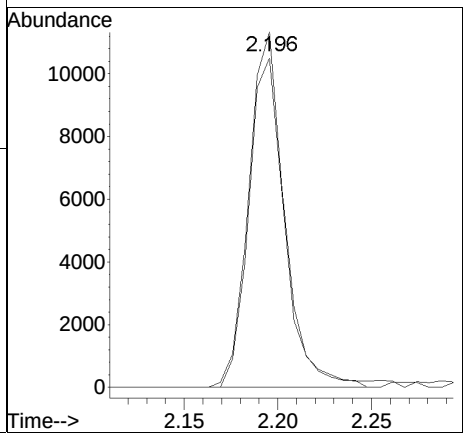


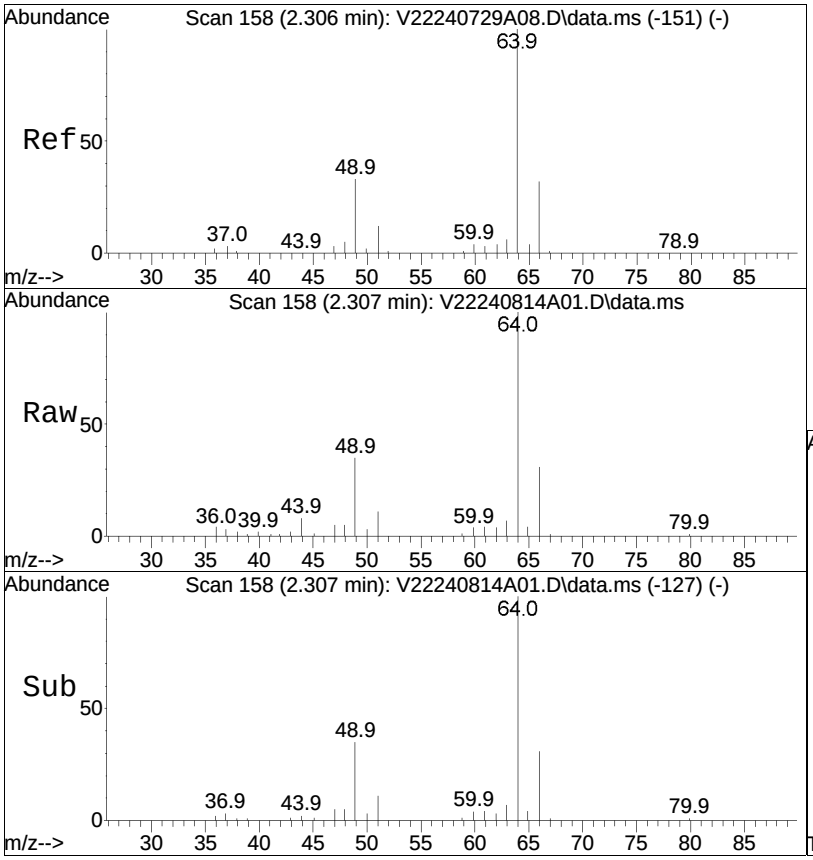


#5
Bromomethane
Concen: 4.40 ug/L
RT: 2.196 min Scan# 141
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 94 Resp: 15097

Ion	Ratio	Lower	Upper
94	100		
96	94.5	72.8	112.8

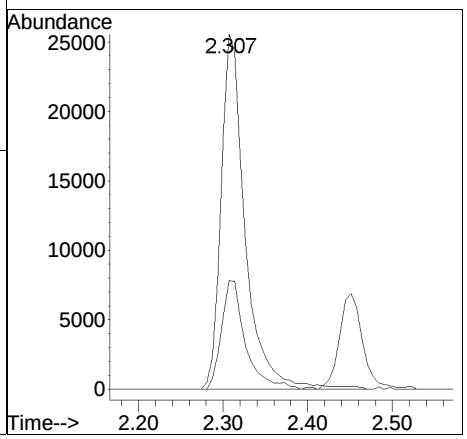


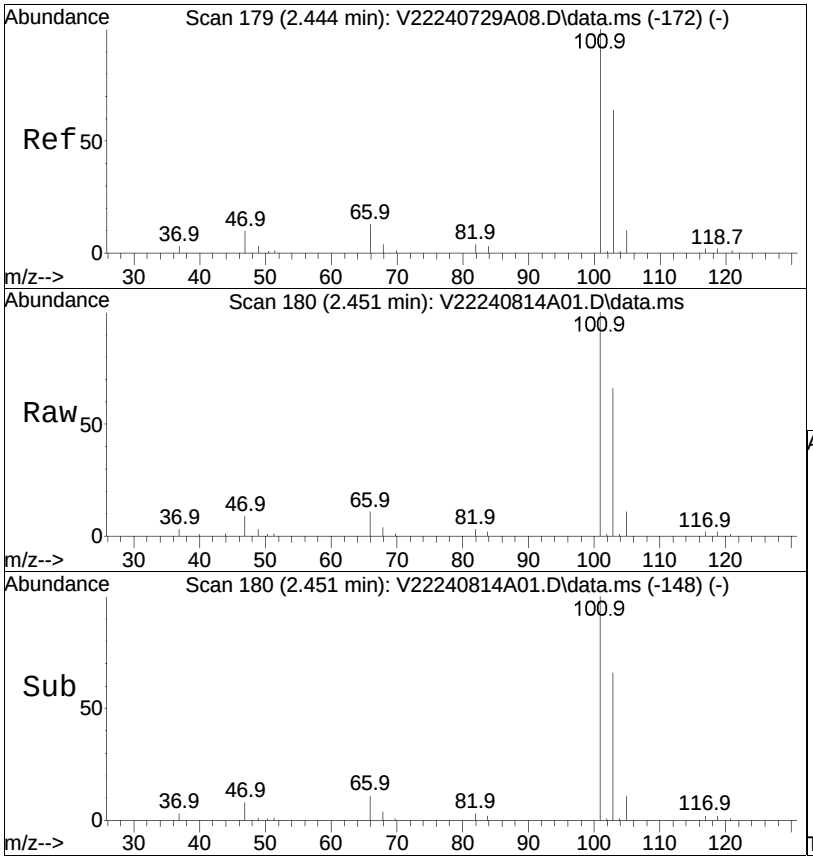


#6
Chloroethane
Concen: 10.28 ug/L
RT: 2.307 min Scan# 158
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 64 Resp: 50764

Ion	Ratio	Lower	Upper
64	100		
66	30.5	12.2	52.2

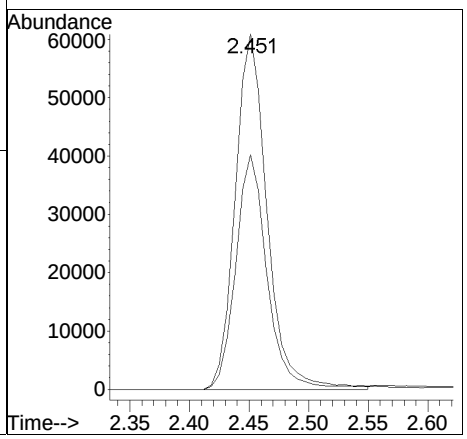


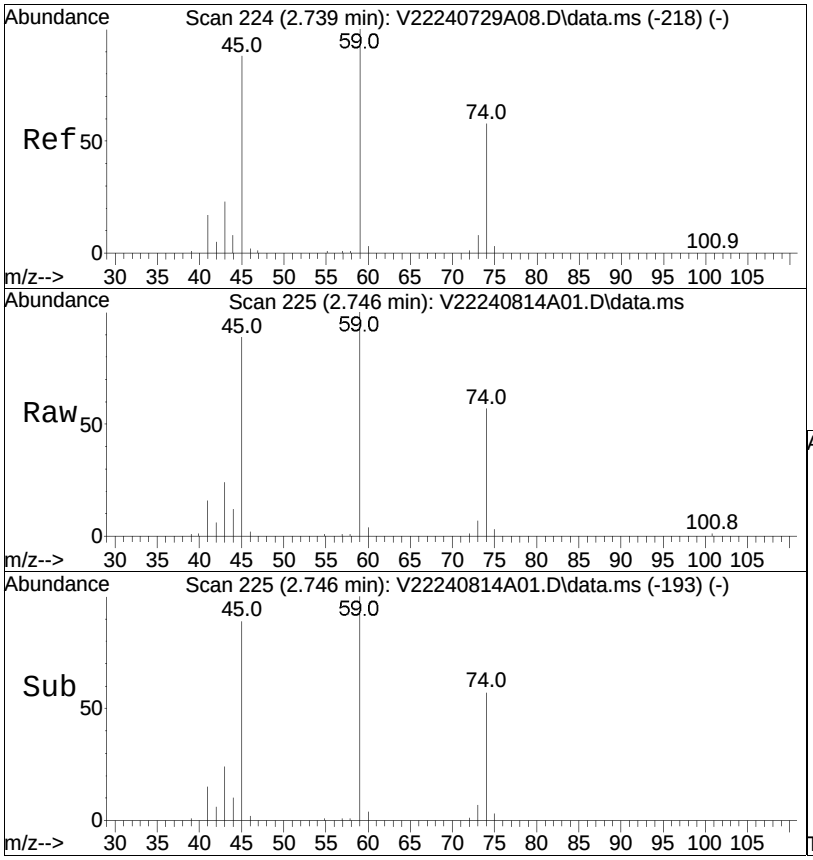


#7
Trichlorofluoromethane
Concen: 11.57 ug/L
RT: 2.451 min Scan# 180
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:101 Resp: 113452

Ion	Ratio	Lower	Upper
101	100		
103	64.8	51.6	77.4

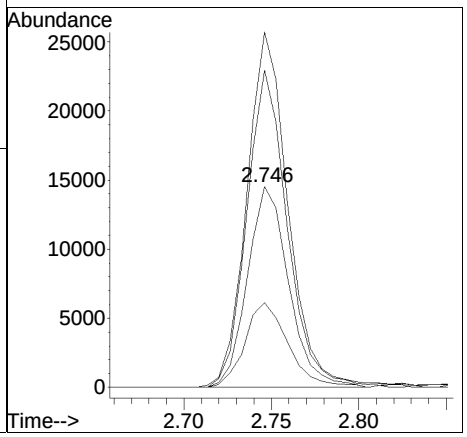


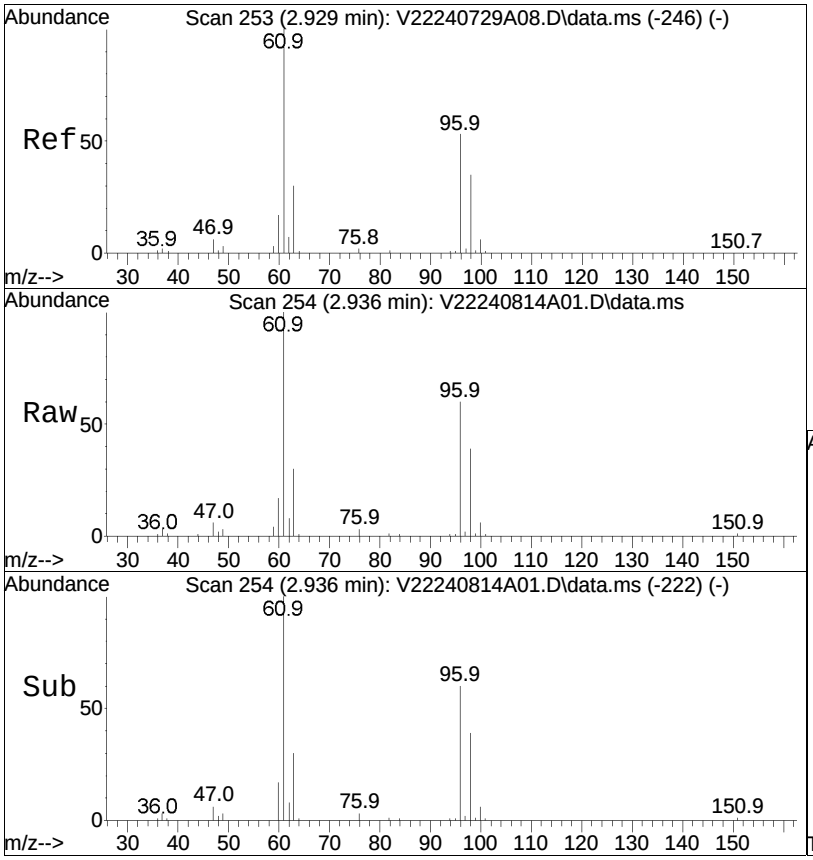


#8
Ethyl ether
Concen: 8.39 ug/L
RT: 2.746 min Scan# 225
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 74 Resp: 23945

Ion	Ratio	Lower	Upper
74	100		
59	178.8	2122.4	4408.0#
45	154.2	1435.1	2980.5#
43	44.5	407.9	847.3#

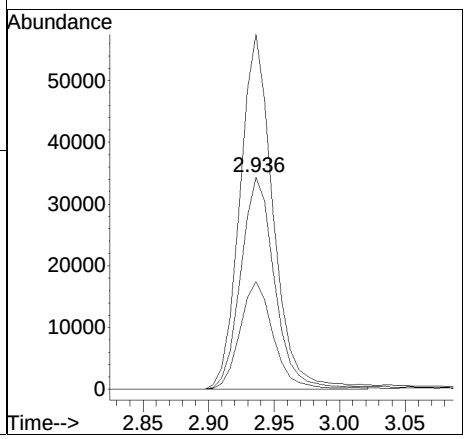


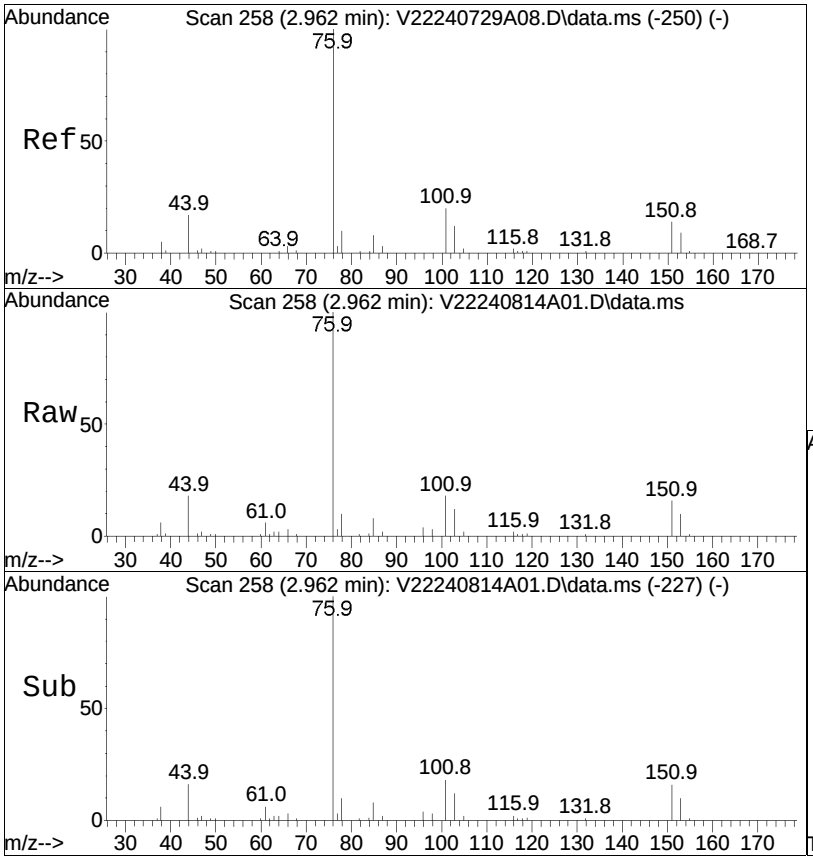


#10
1,1-Dichloroethene
Concen: 10.94 ug/L
RT: 2.936 min Scan# 254
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 96 Resp: 62049

Ion	Ratio	Lower	Upper
96	100		
61	164.1	117.0	175.4
63	49.7	37.8	56.6

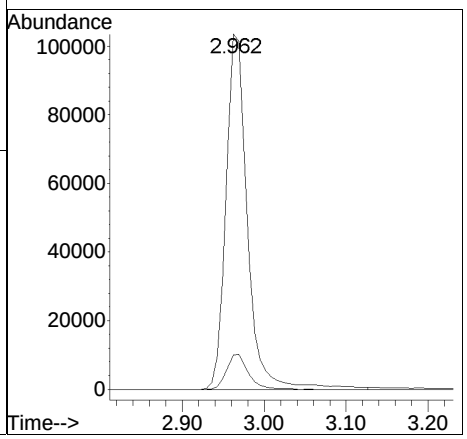


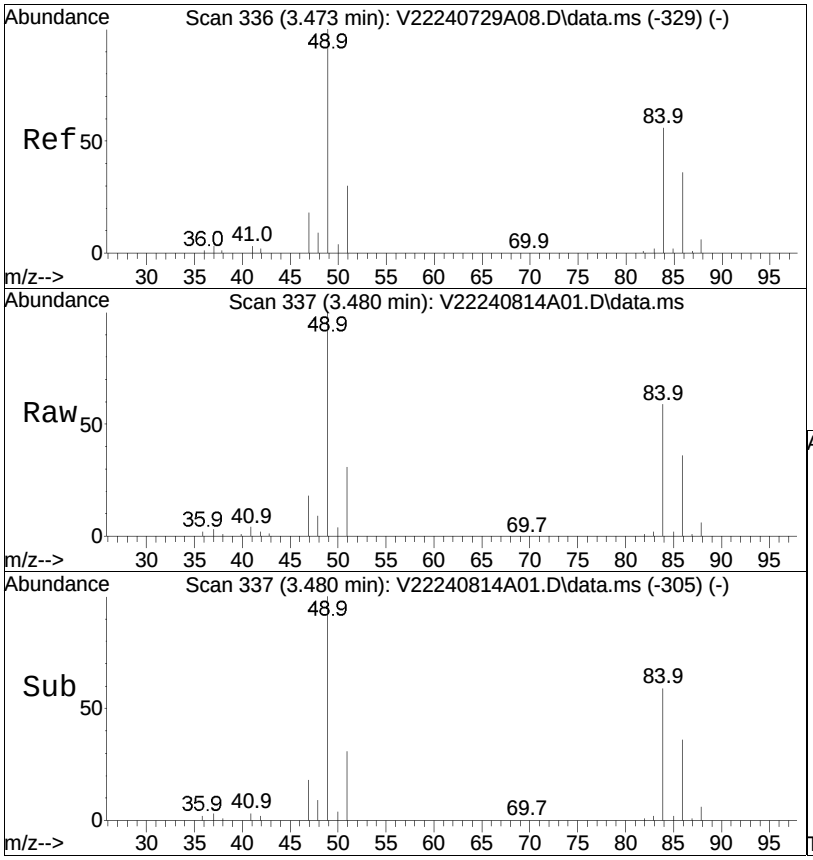


#11
Carbon disulfide
Concen: 10.17 ug/L
RT: 2.962 min Scan# 258
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 76 Resp: 189547

Ion	Ratio	Lower	Upper
76	100		
78	9.9	6.4	13.4

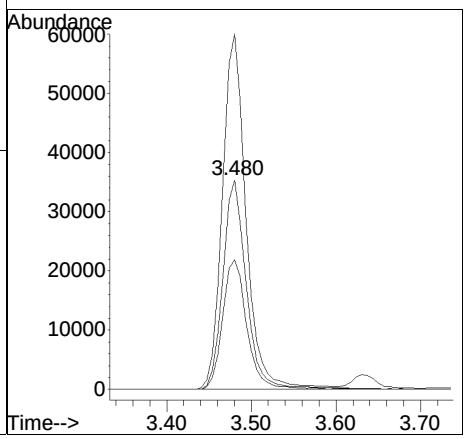


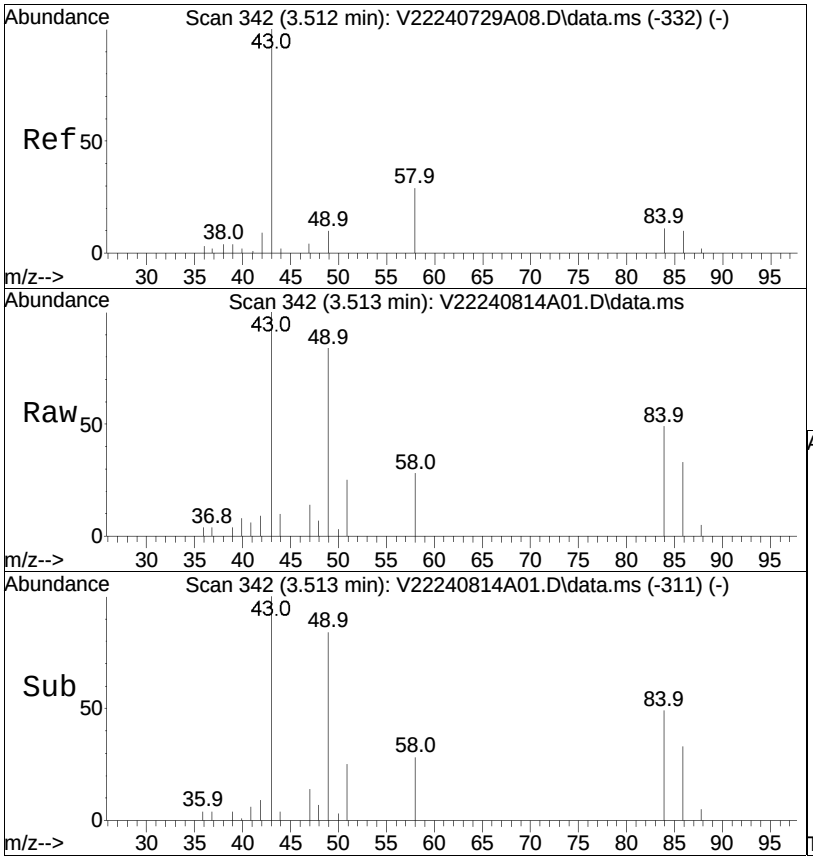


#15
Methylene chloride
Concen: 9.13 ug/L
RT: 3.480 min Scan# 337
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 84 Resp: 68645

Ion	Ratio	Lower	Upper
84	100		
86	63.8	41.5	86.3
49	169.9	68.8	143.0#

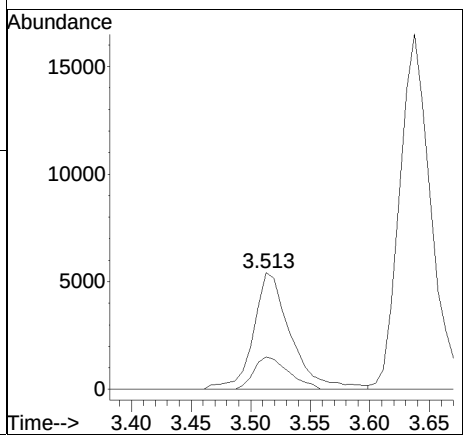


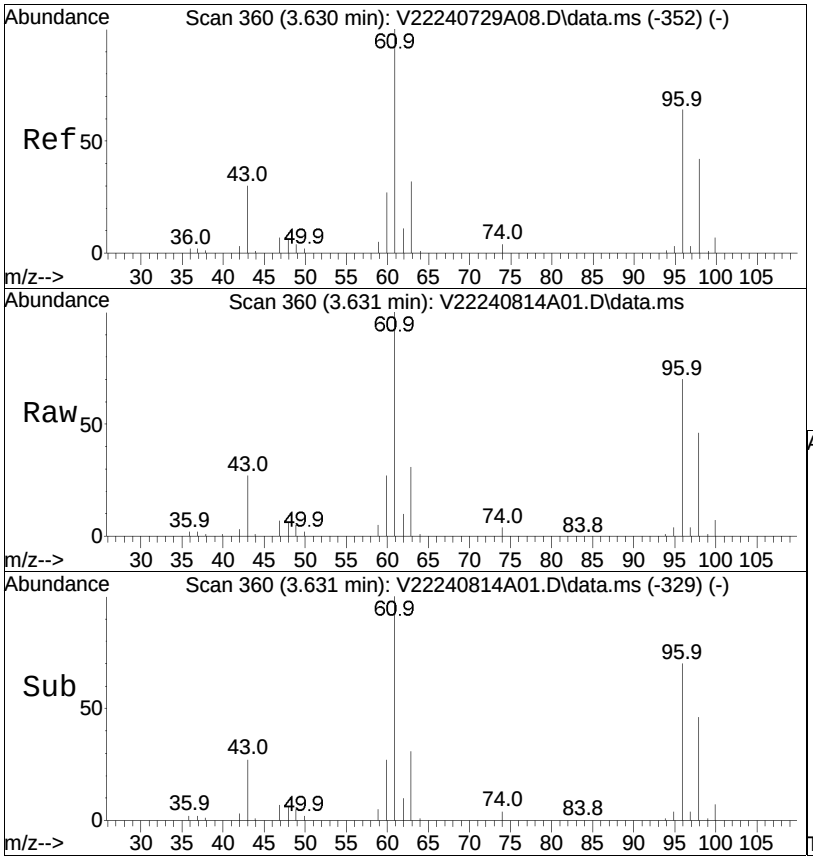


#17
Acetone
Concen: 8.69 ug/L
RT: 3.513 min Scan# 342
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 43 Resp: 11906

Ion	Ratio	Lower	Upper
43	100		
58	25.9	23.1	34.7

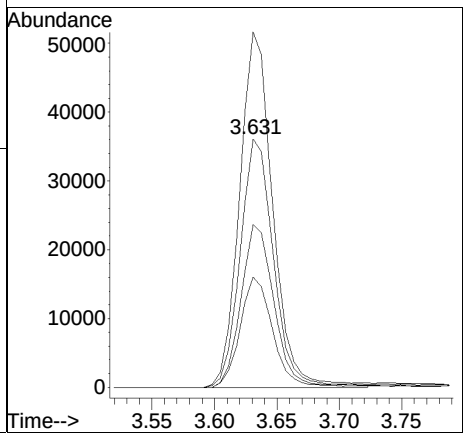


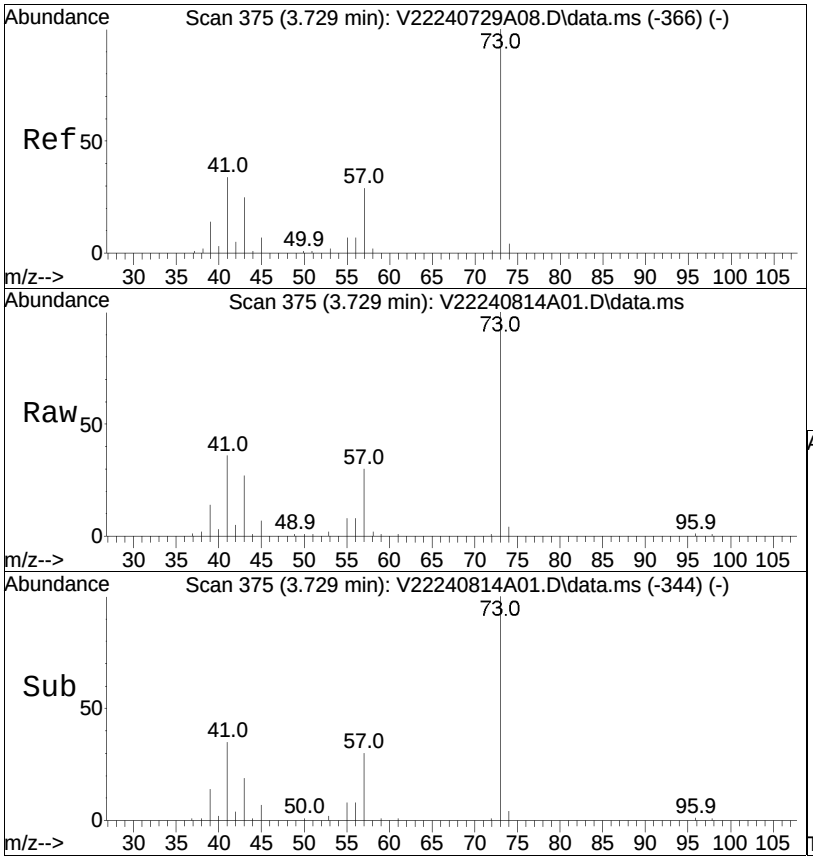


#18
trans-1,2-Dichloroethene
Concen: 10.13 ug/L
RT: 3.631 min Scan# 360
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 96 Resp: 67230

Ion	Ratio	Lower	Upper
96	100		
61	142.7	81.6	169.6
98	64.3	41.8	86.8
63	43.2	26.3	54.7

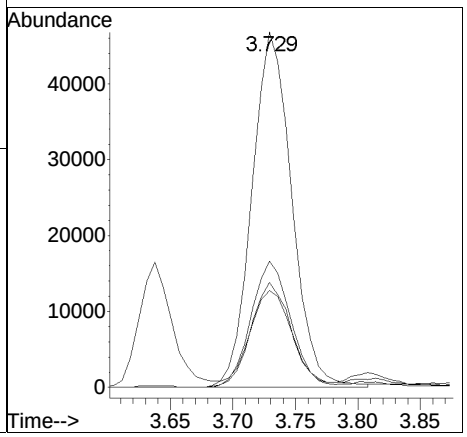


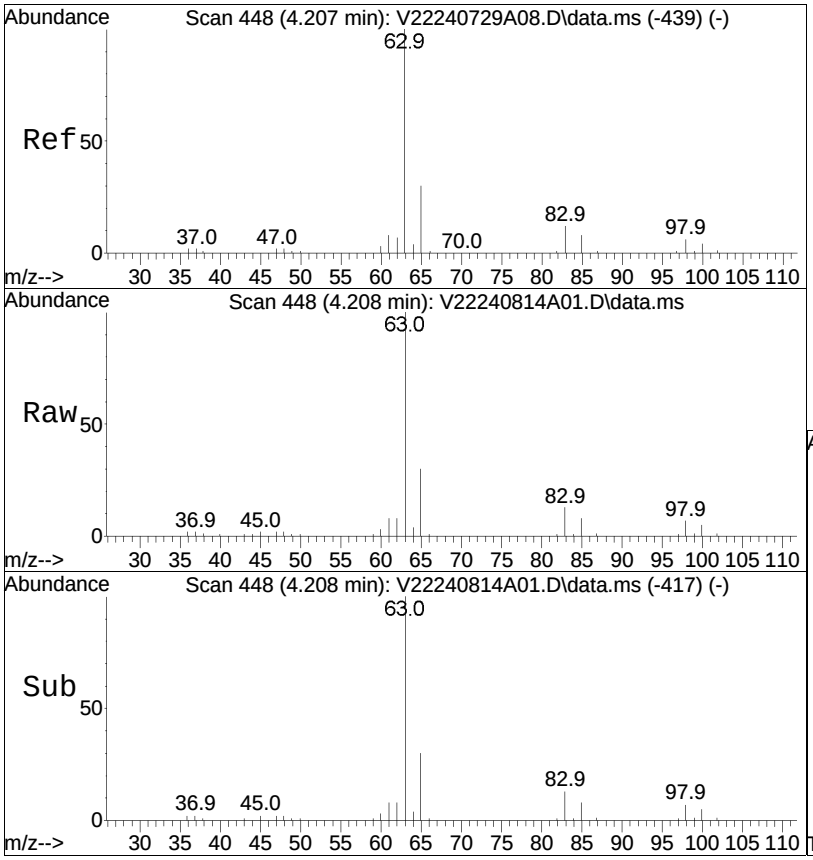


#21
Methyl tert-butyl ether
Concen: 8.19 ug/L
RT: 3.729 min Scan# 375
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 73 Resp: 103953

Ion	Ratio	Lower	Upper
73	100		
57	29.8	13.6	28.2#
43	28.3	12.7	26.5#
41	35.7	11.4	23.8#

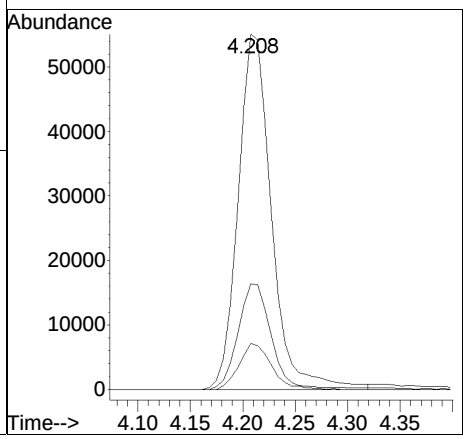


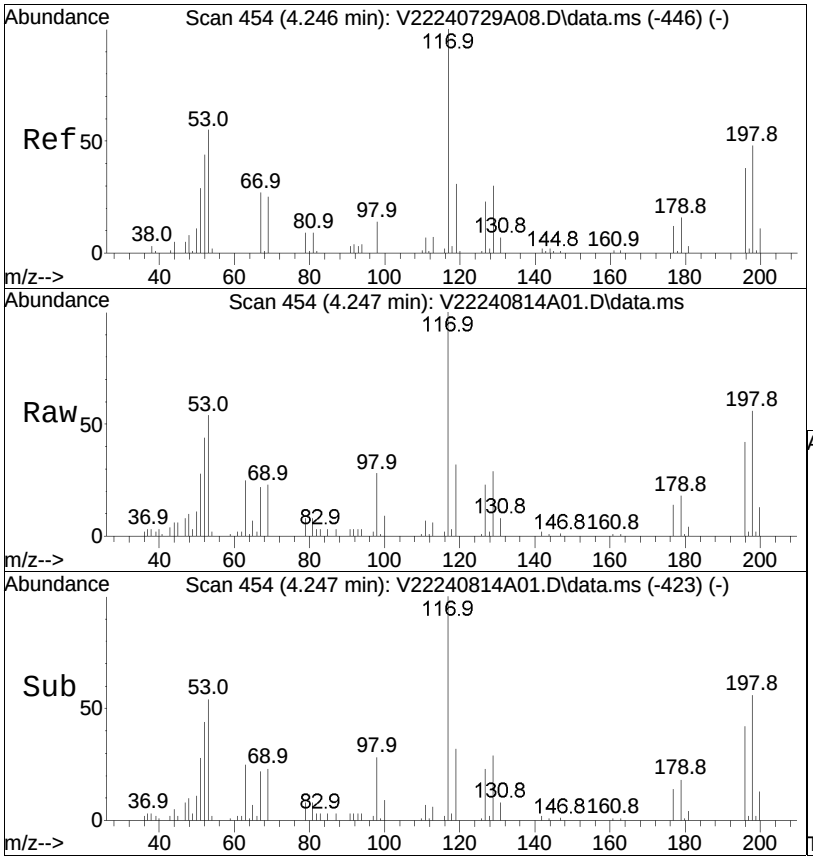


#25
1,1-Dichloroethane
Concen: 8.99 ug/L
RT: 4.208 min Scan# 448
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 63 Resp: 121784

Ion	Ratio	Lower	Upper
63	100		
65	29.1	11.9	51.9
83	12.5	0.0	34.2

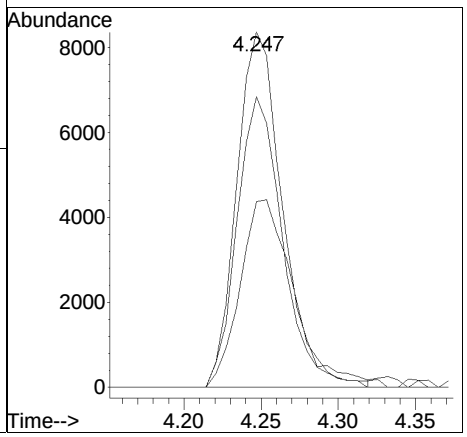


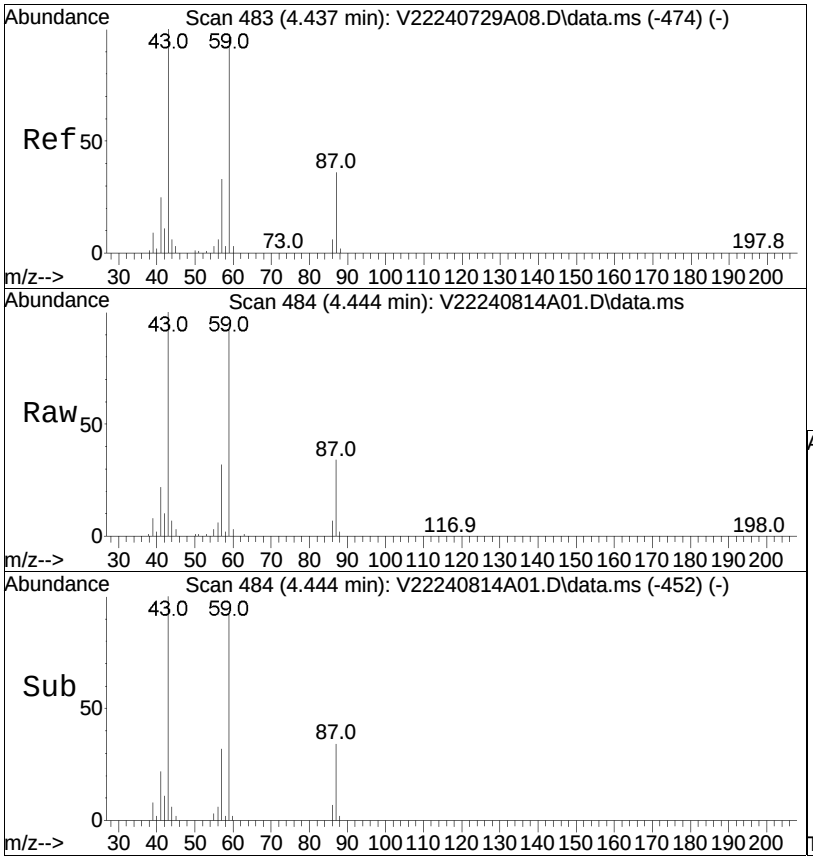


#27
Acrylonitrile
Concen: 9.37 ug/L
RT: 4.247 min Scan# 454
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 53 Resp: 17539

Ion	Ratio	Lower	Upper
53	100		
52	81.0	63.8	95.8
51	59.4	50.2	75.4

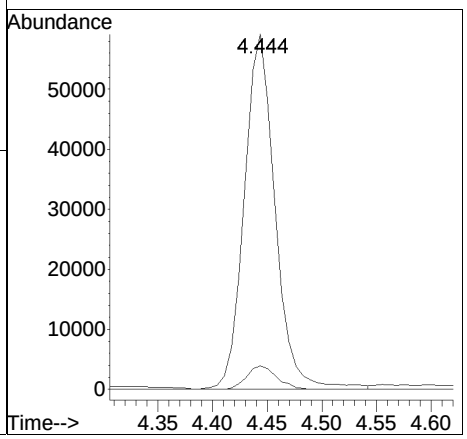


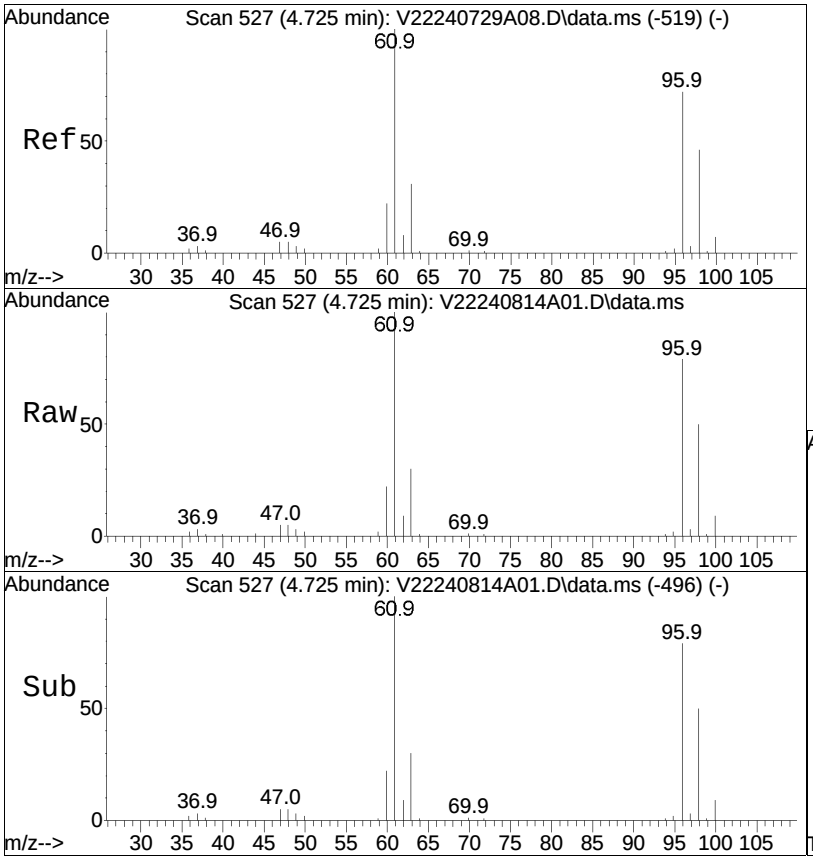


#29
Vinyl acetate
Concen: 8.17 ug/L
RT: 4.444 min Scan# 484
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 43 Resp: 116459

Ion	Ratio	Lower	Upper
43	100		
86	6.5	8.9	13.3#

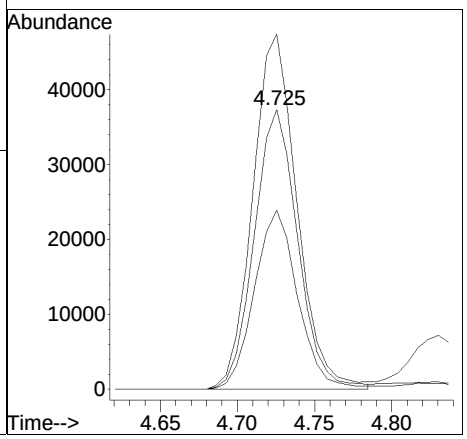


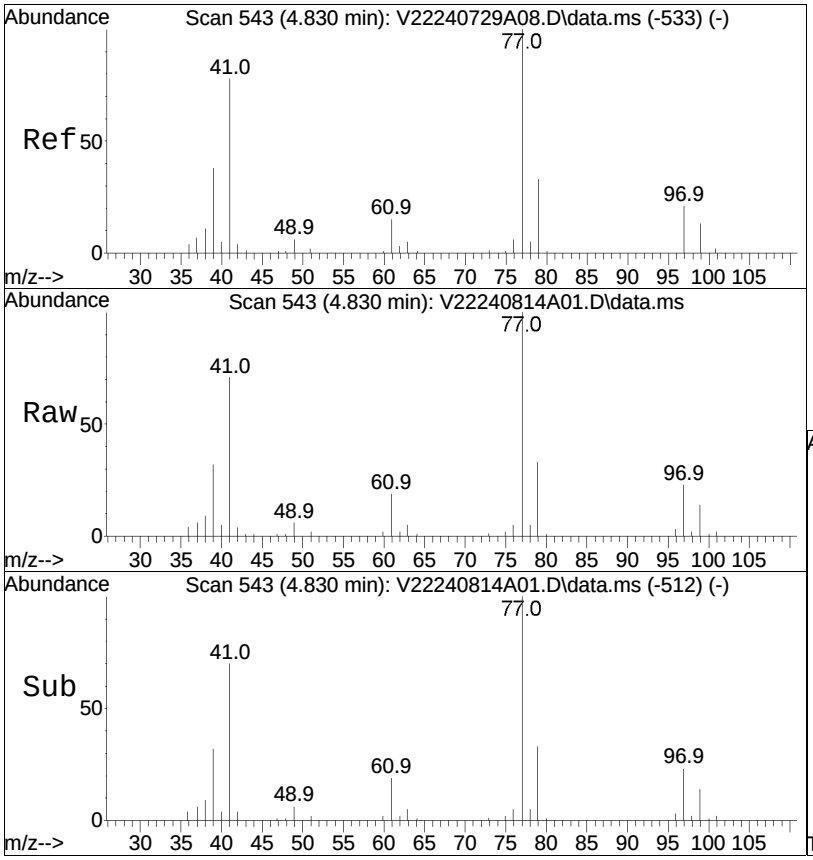


#30
cis-1,2-Dichloroethene
Concen: 9.97 ug/L
RT: 4.725 min Scan# 527
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 96 Resp: 73333

Ion	Ratio	Lower	Upper
96	100		
61	128.4	90.3	135.5
98	63.9	50.8	76.2

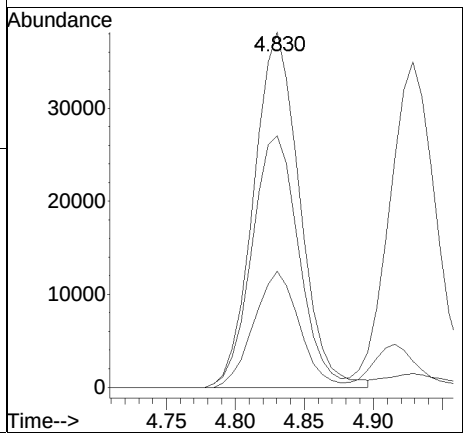


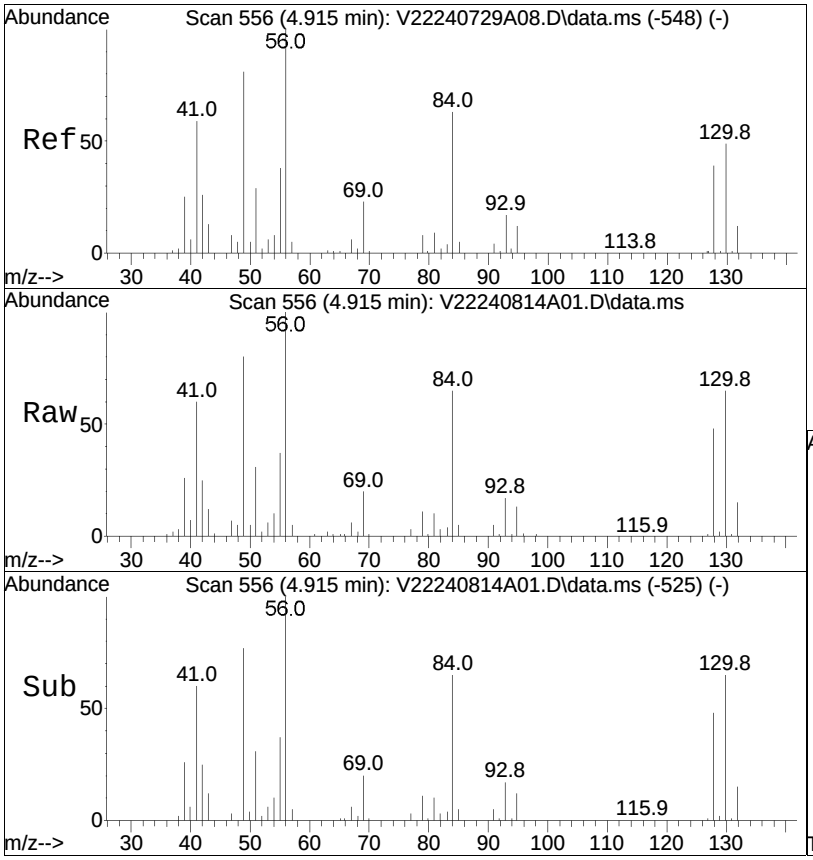


#31
2,2-Dichloropropane
Concen: 10.41 ug/L
RT: 4.830 min Scan# 543
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 77 Resp: 88385

Ion	Ratio	Lower	Upper
77	100		
41	72.3	32.3	67.1#
79	32.2	21.1	43.7

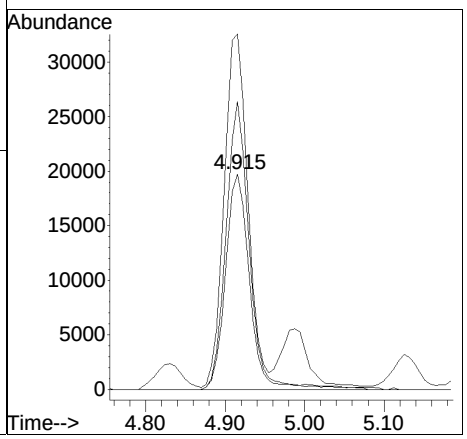


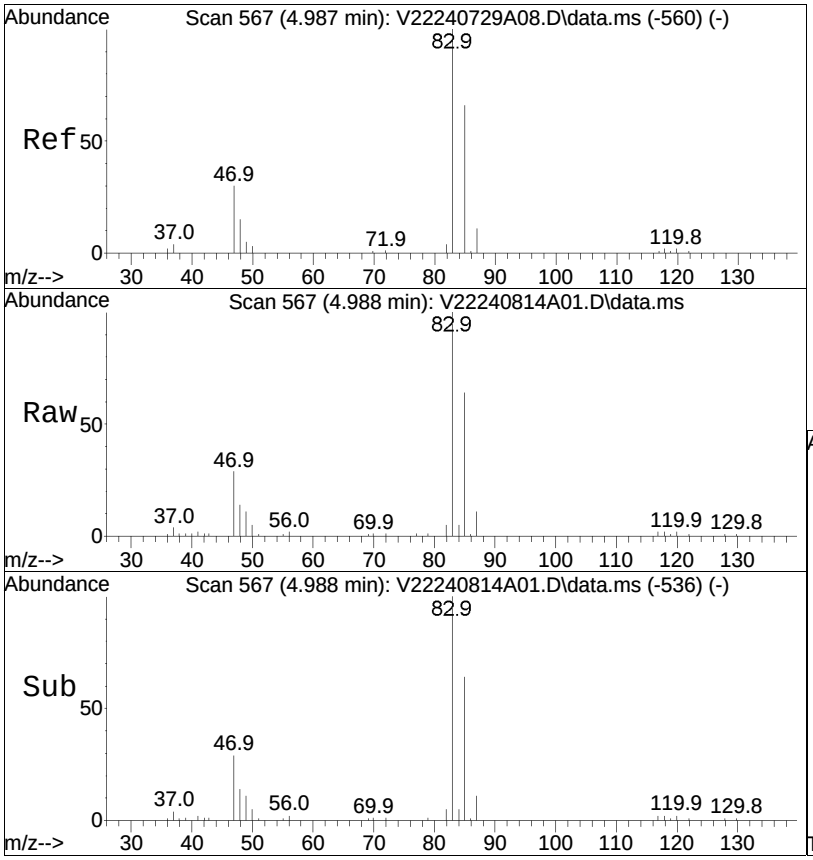


#32
Bromochloromethane
Concen: 12.08 ug/L
RT: 4.915 min Scan# 556
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:128 Resp: 41926

Ion	Ratio	Lower	Upper
128	100		
49	160.2	104.4	156.6#
130	125.6	103.9	155.9

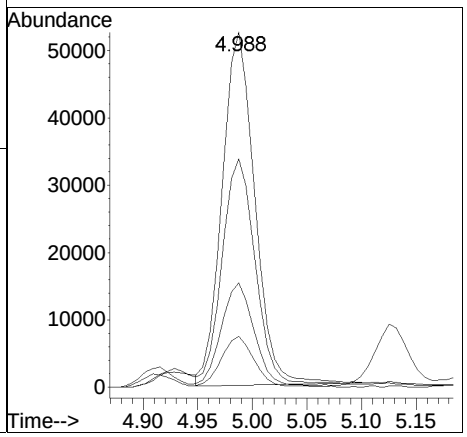


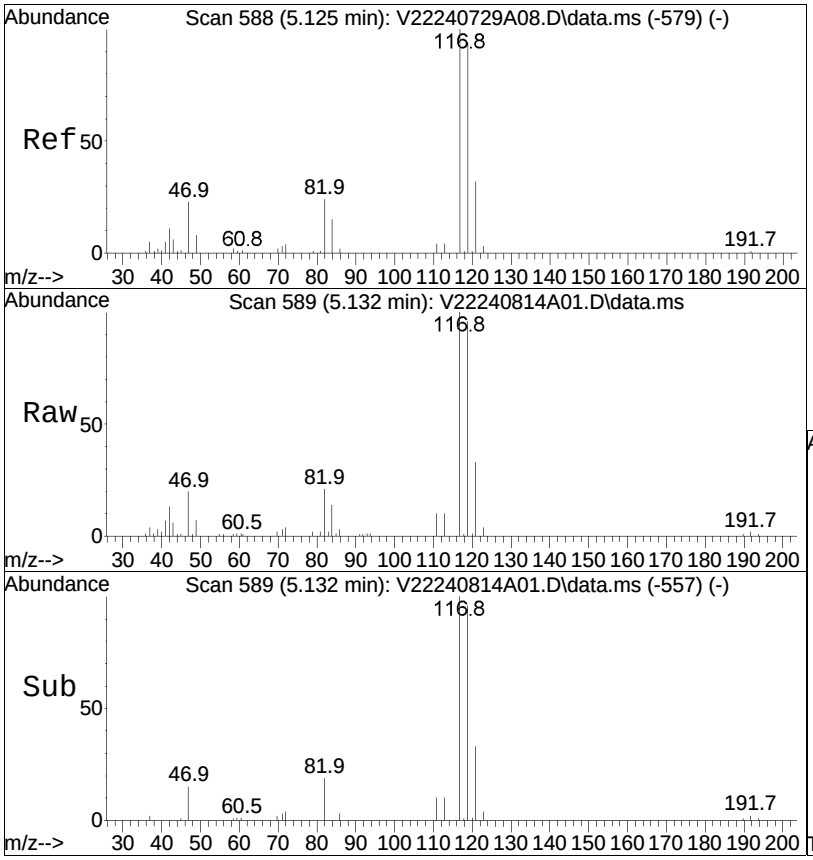


#34
Chloroform
Concen: 9.32 ug/L
RT: 4.988 min Scan# 567
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 83 Resp: 109328

Ion	Ratio	Lower	Upper
83	100		
85	63.8	42.4	88.2
47	28.5	14.0	29.0
48	15.0	6.9	14.3#

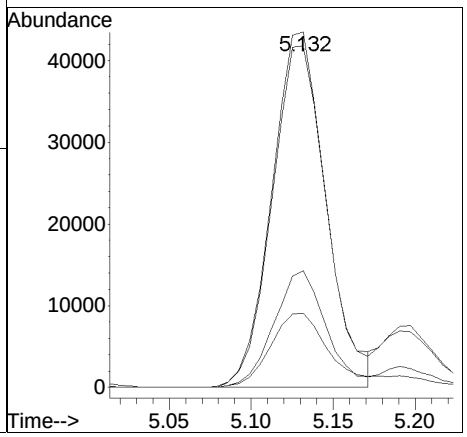


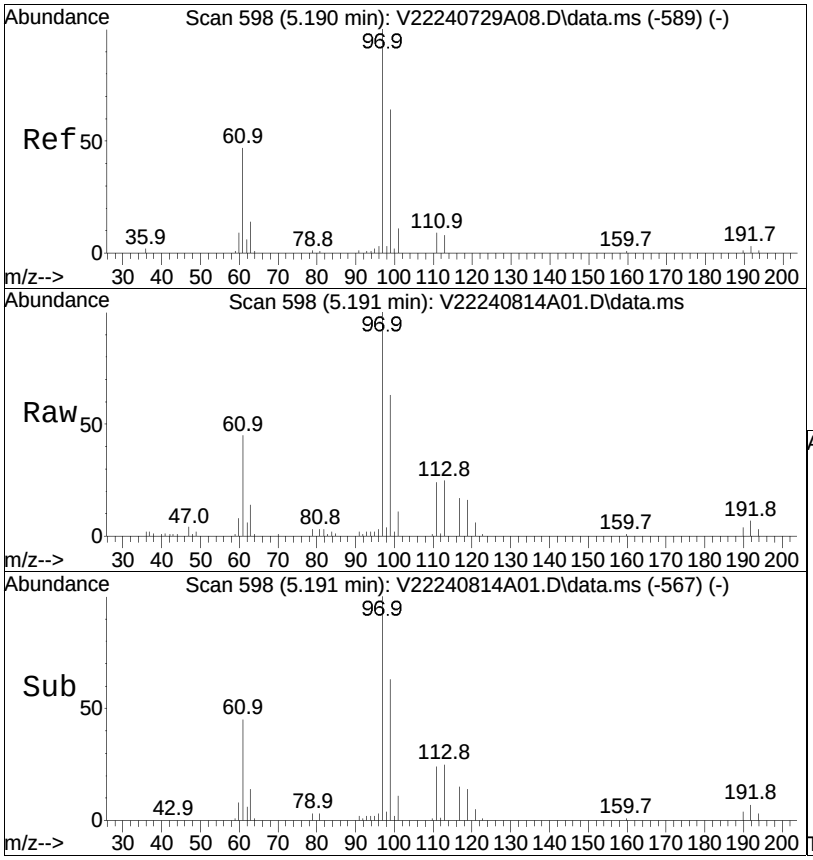


#36
Carbon tetrachloride
Concen: 11.82 ug/L
RT: 5.132 min Scan# 589
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:117 Resp: 100020

Ion	Ratio	Lower	Upper
117	100		
119	96.7	62.1	129.1
121	31.7	20.3	42.3
82	26.0	15.4	32.0

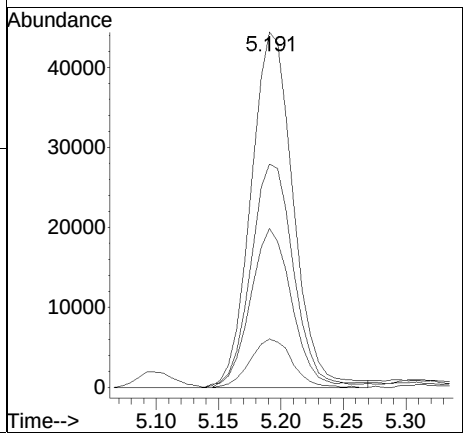


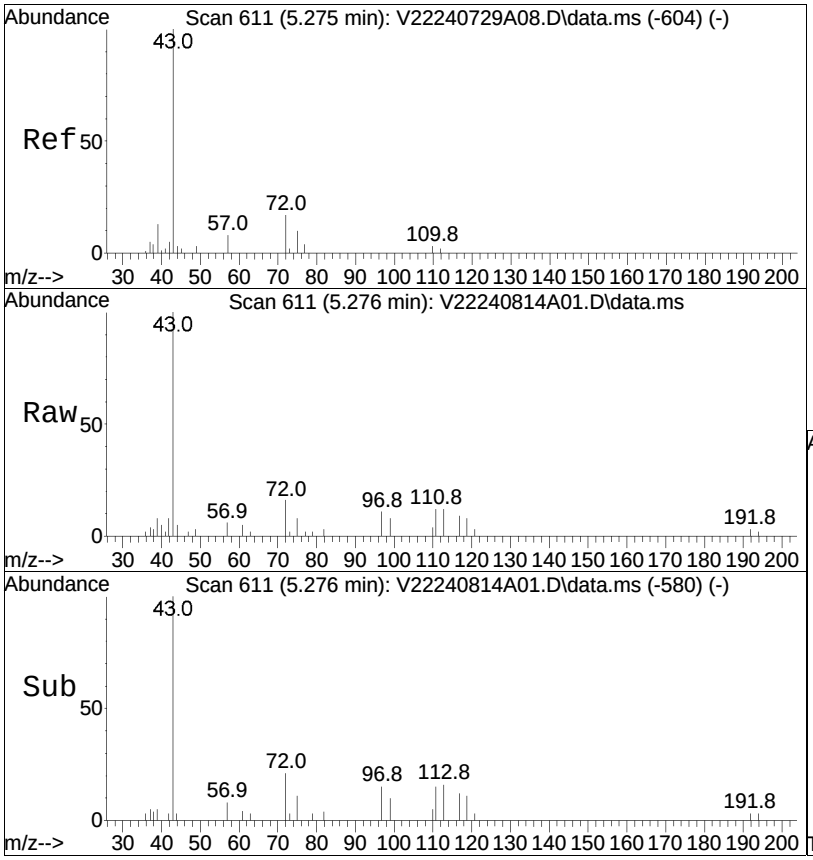


#39
1,1,1-Trichloroethane
Concen: 10.59 ug/L
RT: 5.191 min Scan# 598
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 97 Resp: 104738

Ion	Ratio	Lower	Upper
97	100		
99	63.3	42.4	88.0
61	44.3	26.0	54.0
63	13.5	8.3	17.3

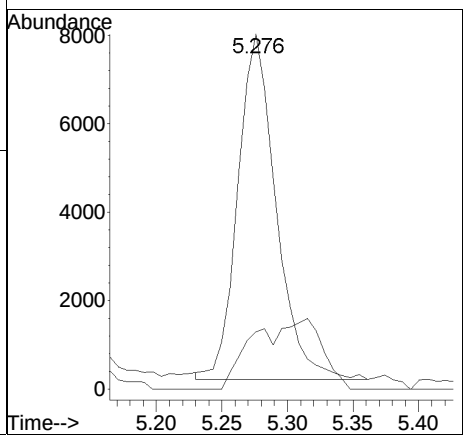


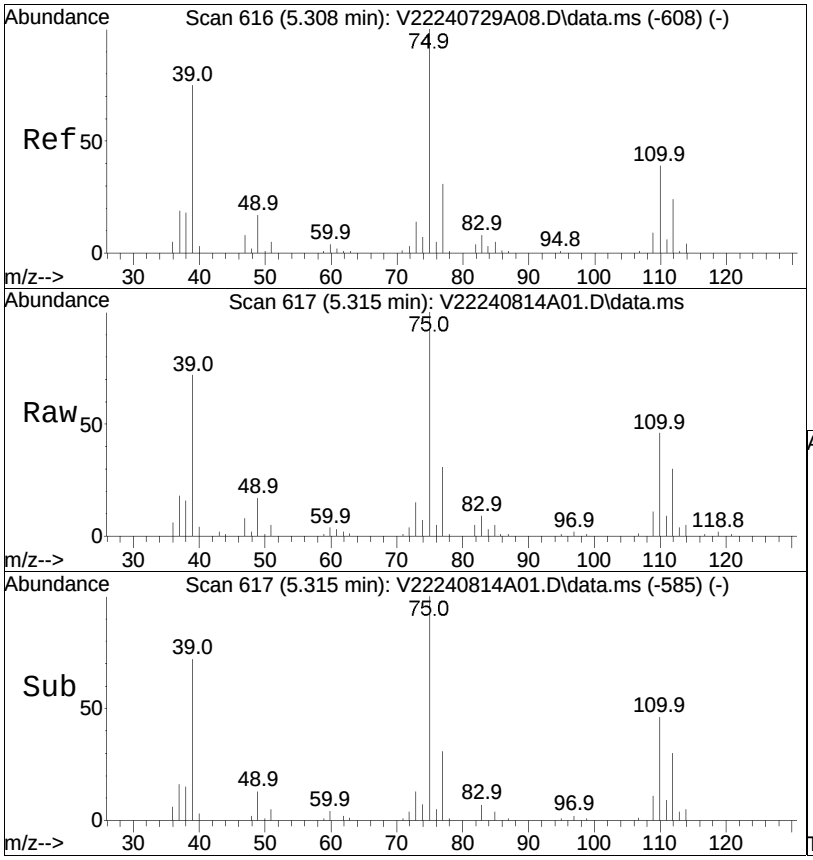


#41
2-Butanone
Concen: 8.22 ug/L
RT: 5.276 min Scan# 611
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 43 Resp: 15828

Ion	Ratio	Lower	Upper
43	100		
72	14.7	45.8	68.8#

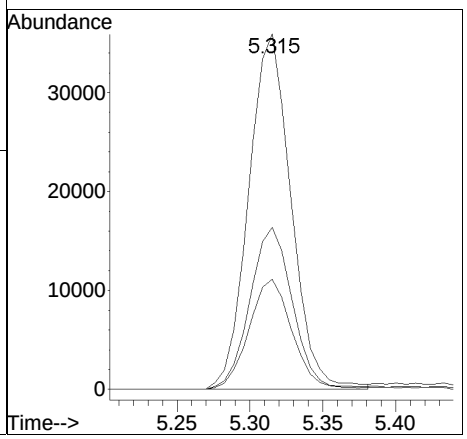


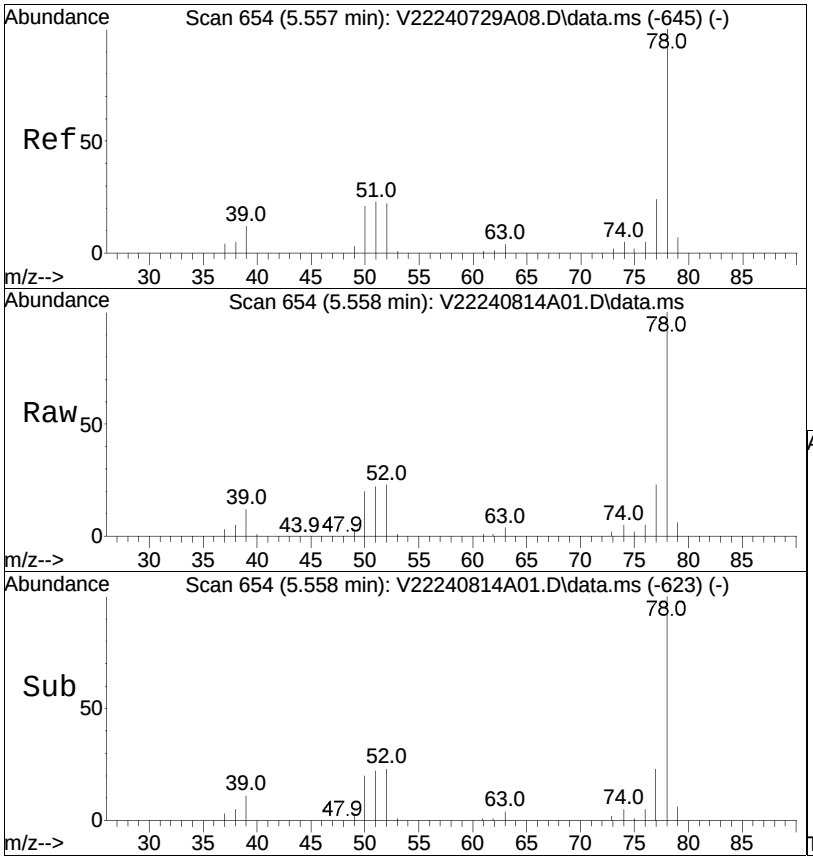


#42
1,1-Dichloropropene
Concen: 9.11 ug/L
RT: 5.315 min Scan# 617
Delta R.T. 0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 75 Resp: 72680

Ion	Ratio	Lower	Upper
75	100		
110	46.2	25.4	52.8
77	31.5	20.3	42.1

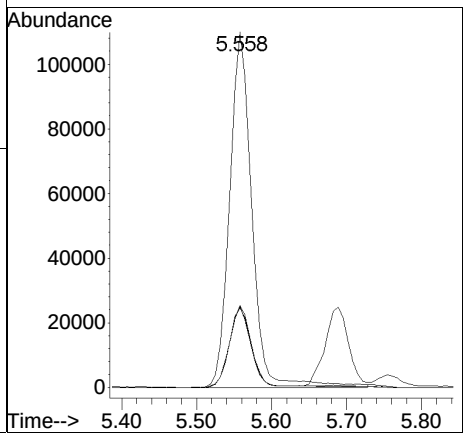


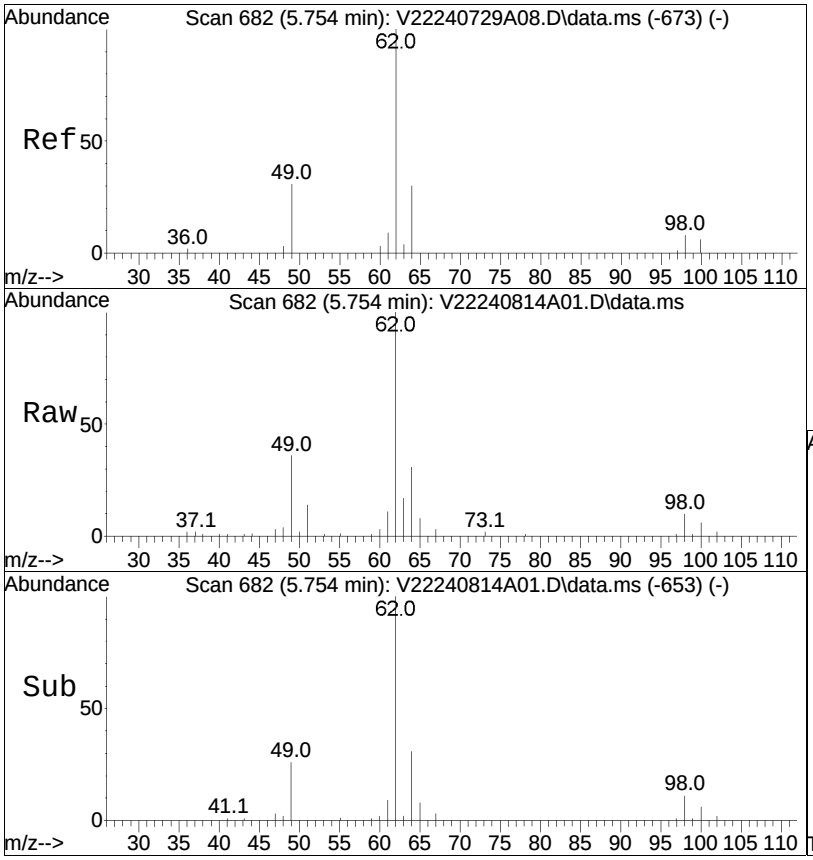


#44
Benzene
Concen: 9.25 ug/L
RT: 5.558 min Scan# 654
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 78 Resp: 240327

Ion	Ratio	Lower	Upper
78	100		
77	21.2	15.4	32.0
51	21.1	9.8	20.4#
52	20.6	9.2	19.2#

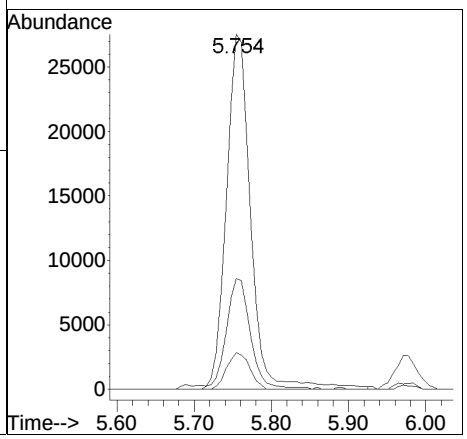


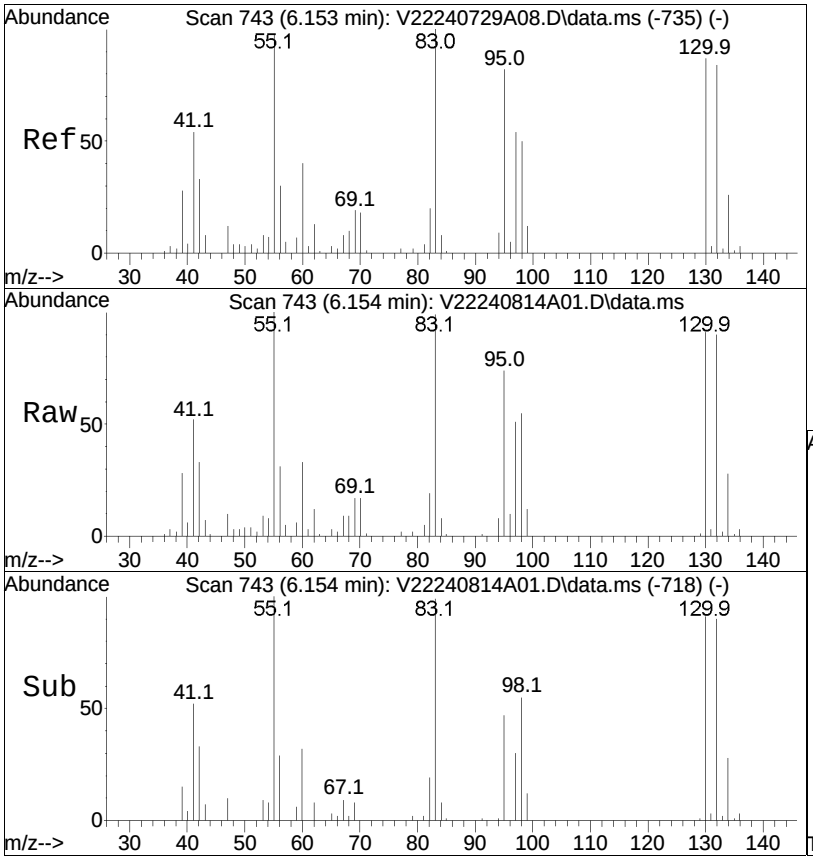


#47
1,2-Dichloroethane
Concen: 9.34 ug/L
RT: 5.754 min Scan# 682
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 62 Resp: 60579

Ion	Ratio	Lower	Upper
62	100		
64	29.2	12.3	52.3
98	9.8	0.0	30.3

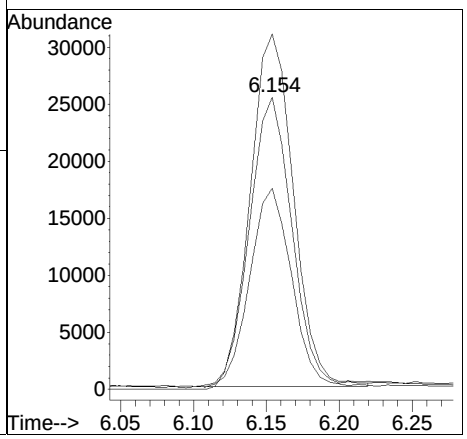


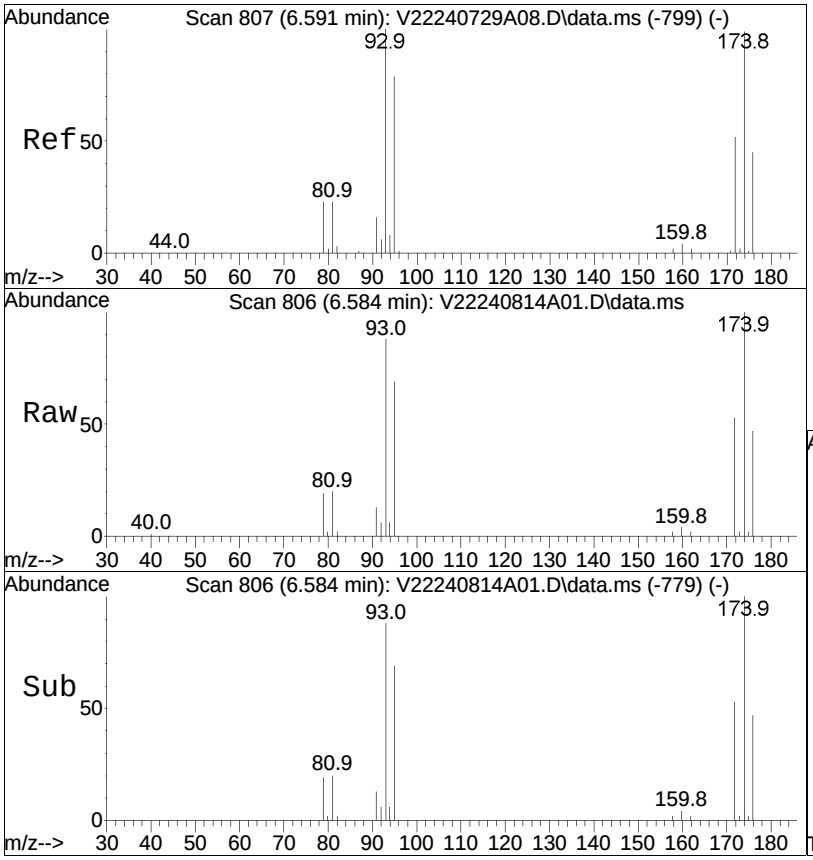


#51
Trichloroethene
Concen: 9.36 ug/L
RT: 6.154 min Scan# 743
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 95 Resp: 51685

Ion	Ratio	Lower	Upper
95	100		
97	68.5	55.0	82.4
130	128.7	89.2	133.8

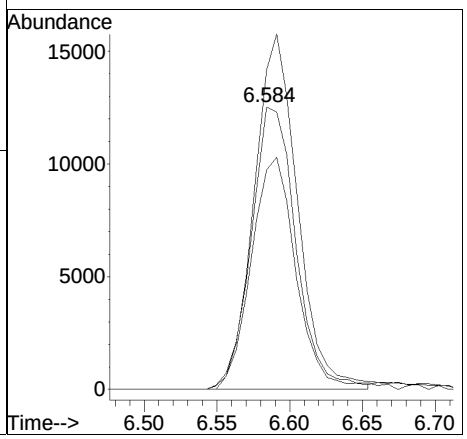


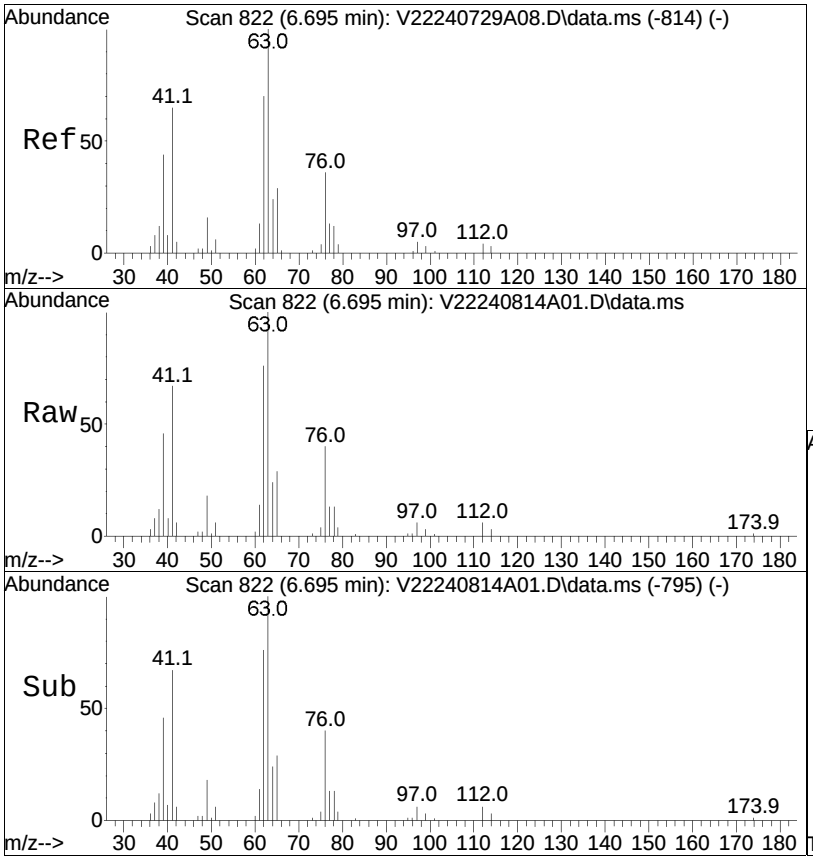


#53
Dibromomethane
Concen: 9.63 ug/L
RT: 6.584 min Scan# 806
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 93 Resp: 26892

Ion	Ratio	Lower	Upper
93	100		
95	82.6	68.0	102.0
174	125.0	106.1	159.1

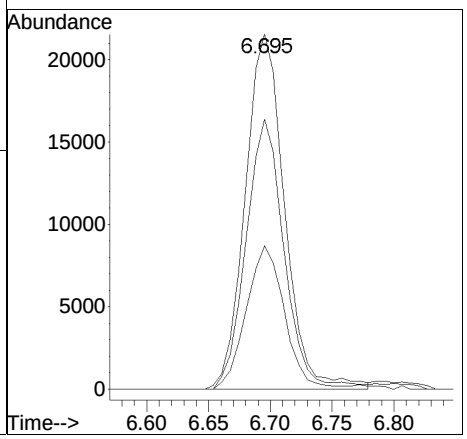


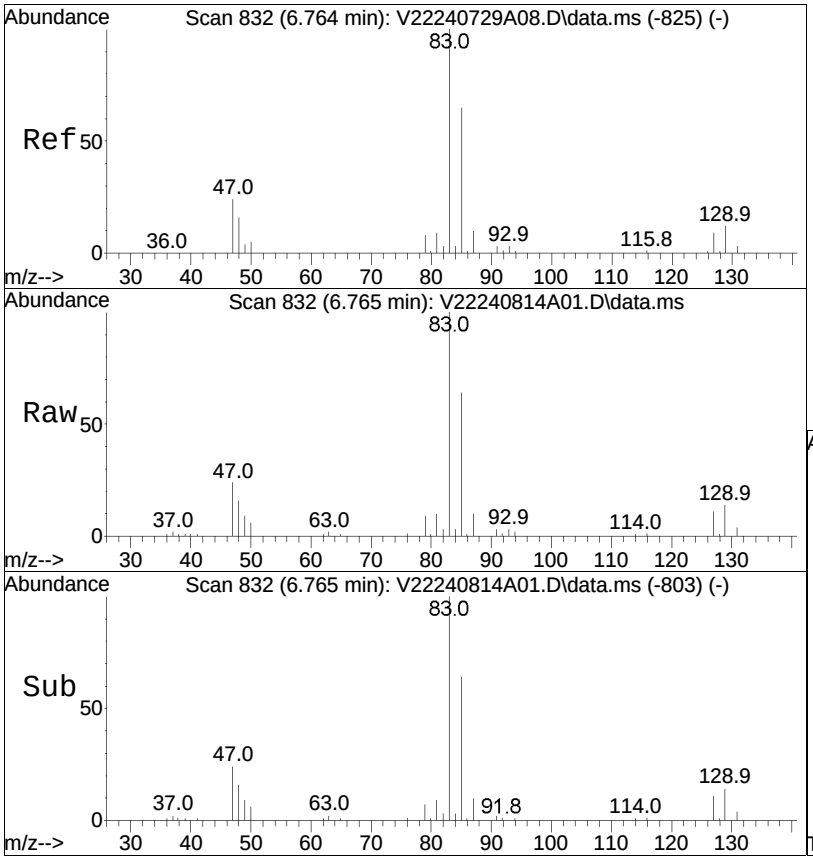


#54
1,2-Dichloropropane
Concen: 8.26 ug/L
RT: 6.695 min Scan# 822
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 63 Resp: 47905

Ion	Ratio	Lower	Upper
63	100		
62	73.8	56.9	85.3
76	39.3	35.8	53.8

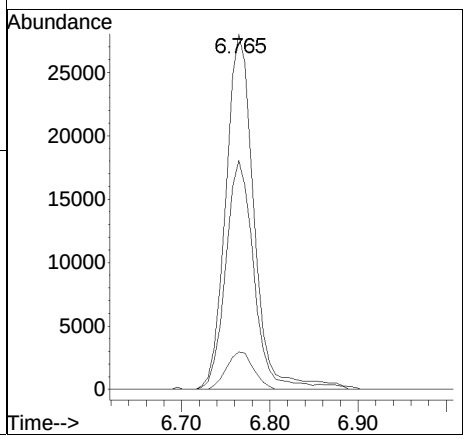


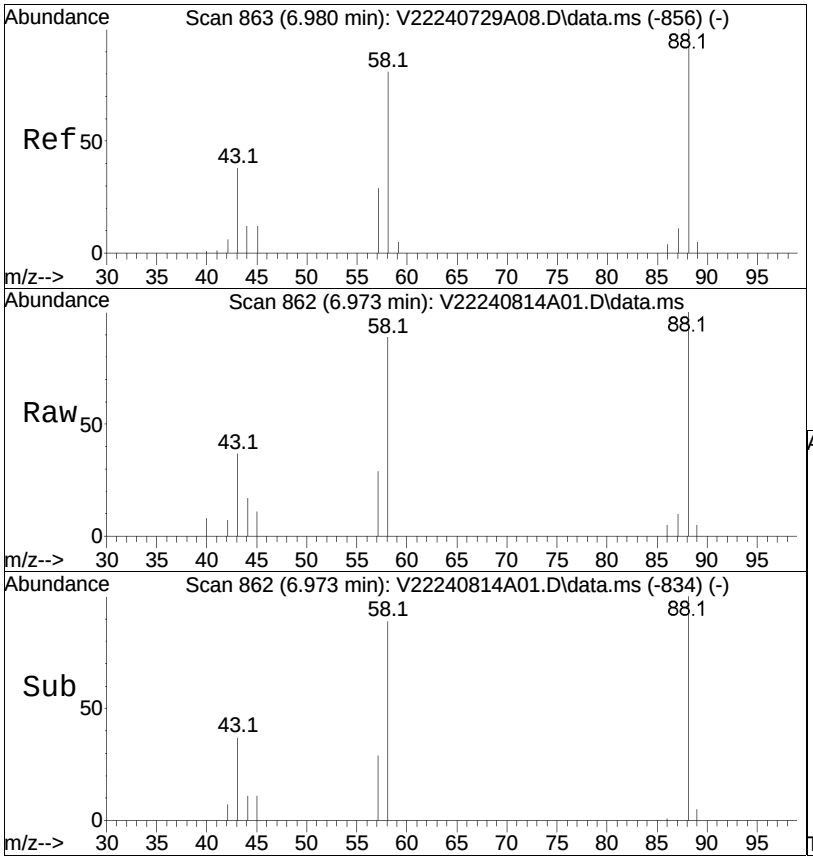


#57
Bromodichloromethane
Concen: 9.16 ug/L
RT: 6.765 min Scan# 832
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 83 Resp: 62678

Ion	Ratio	Lower	Upper
83	100		
85	63.8	51.6	77.4
127	10.1	7.4	11.0

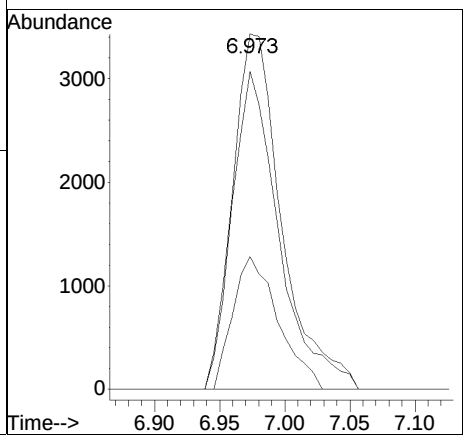


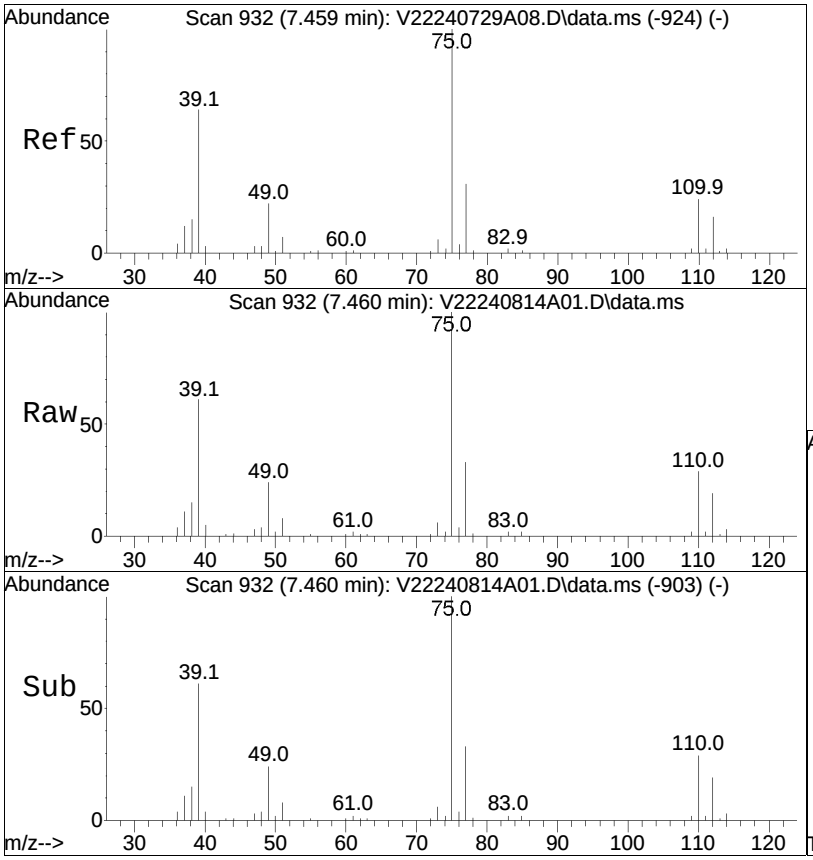


#60
1,4-Dioxane
Concen: 395.42 ug/L
RT: 6.973 min Scan# 862
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 88 Resp: 9047

Ion	Ratio	Lower	Upper
88	100		
58	85.2	43.3	64.9#
43	34.5	15.1	22.7#

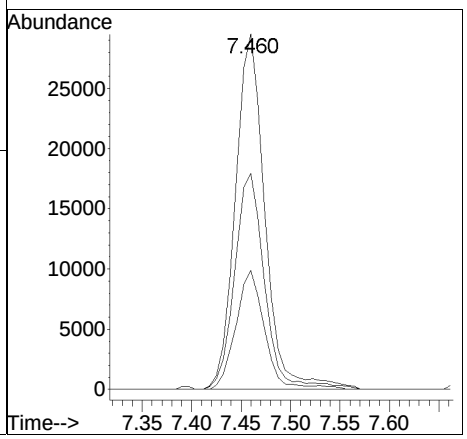


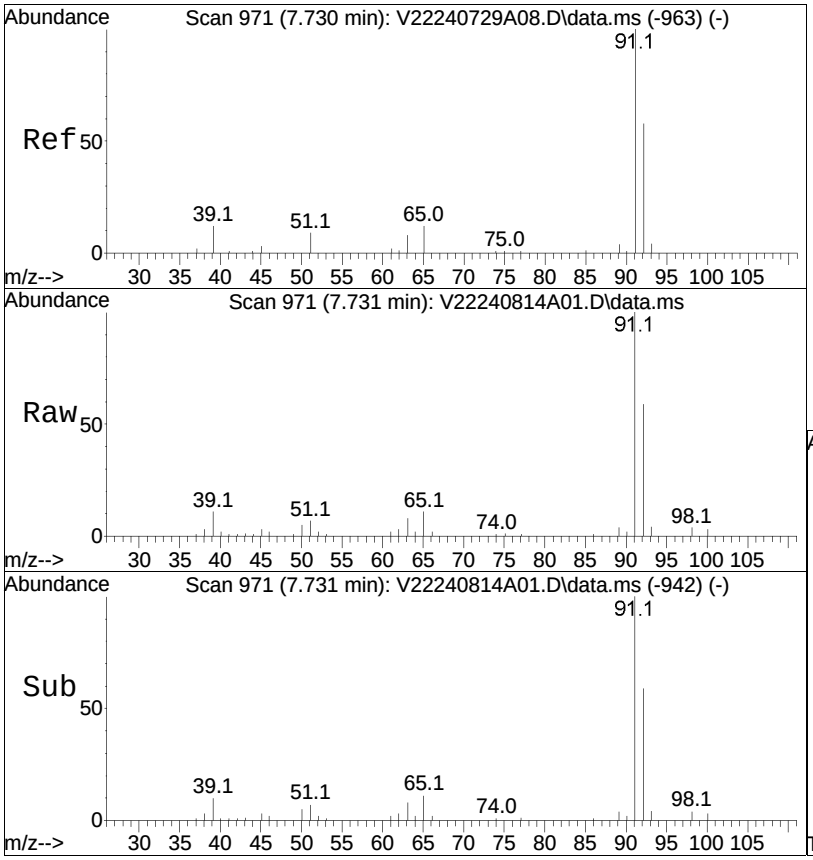


#61
cis-1,3-Dichloropropene
Concen: 8.73 ug/L
RT: 7.460 min Scan# 932
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 75 Resp: 61573

Ion	Ratio	Lower	Upper
75	100		
77	32.7	25.6	38.4
39	61.7	35.4	53.0#

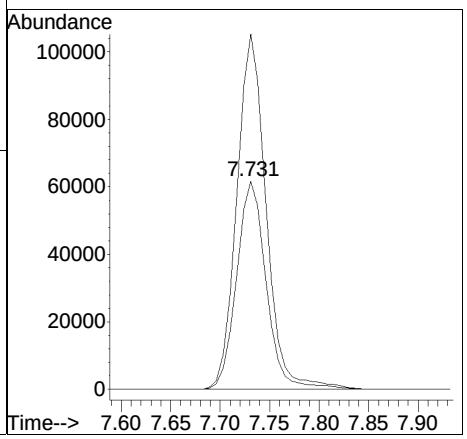


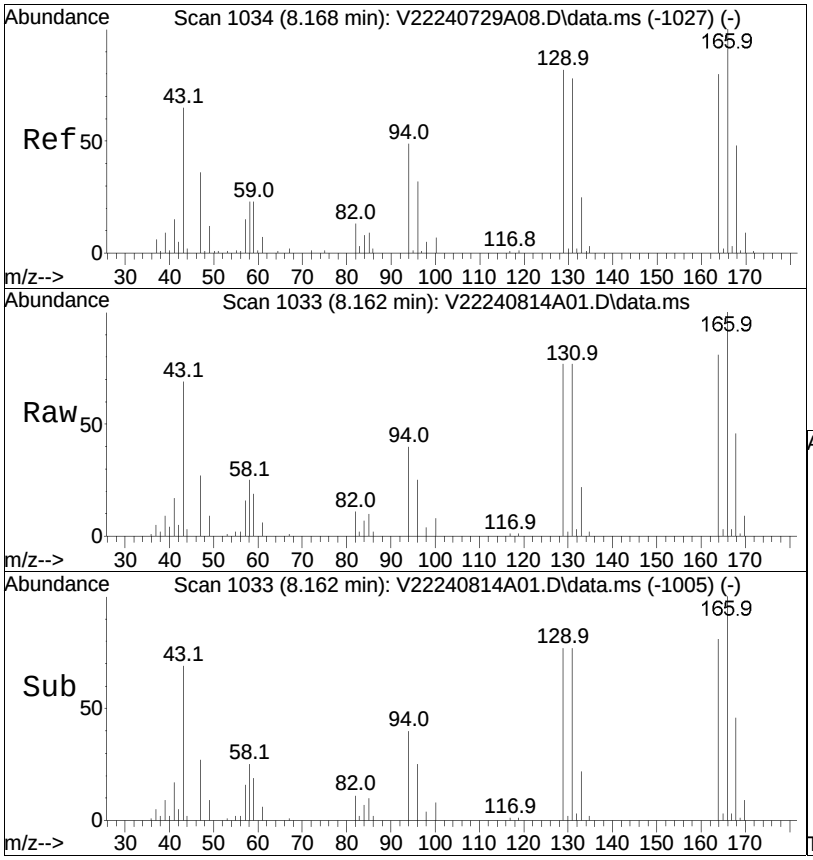


#64
Toluene
Concen: 8.90 ug/L
RT: 7.731 min Scan# 971
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 92 Resp: 128433

Ion	Ratio	Lower	Upper
92	100		
91	168.8	137.0	205.6

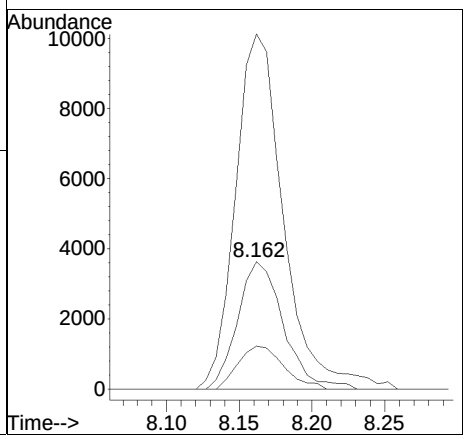


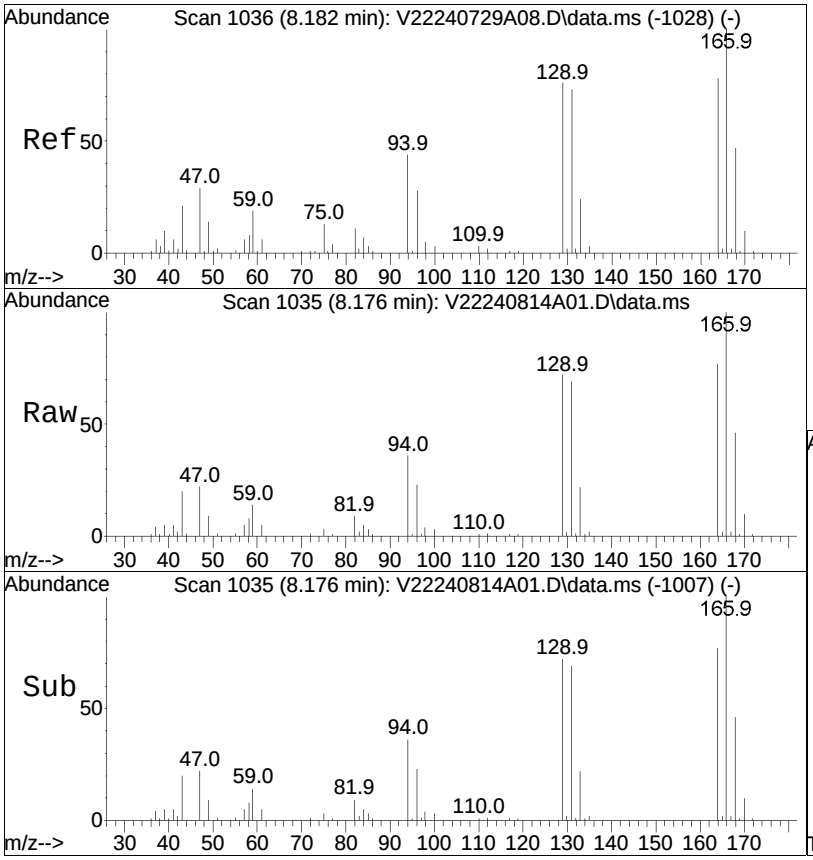


#65
4-Methyl-2-pentanone
Concen: 6.92 ug/L
RT: 8.162 min Scan# 1033
Delta R.T. -0.006 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 58 Resp: 7998

Ion	Ratio	Lower	Upper
58	100		
100	34.0	36.2	54.4#
43	291.8	181.8	272.8#

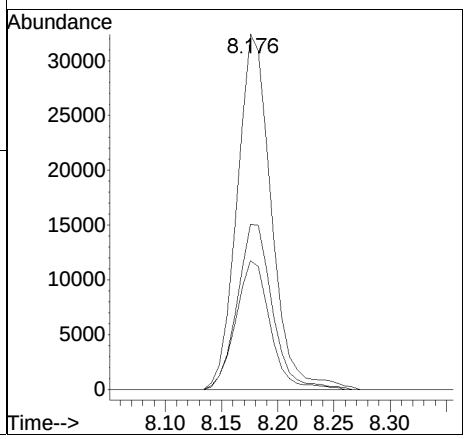


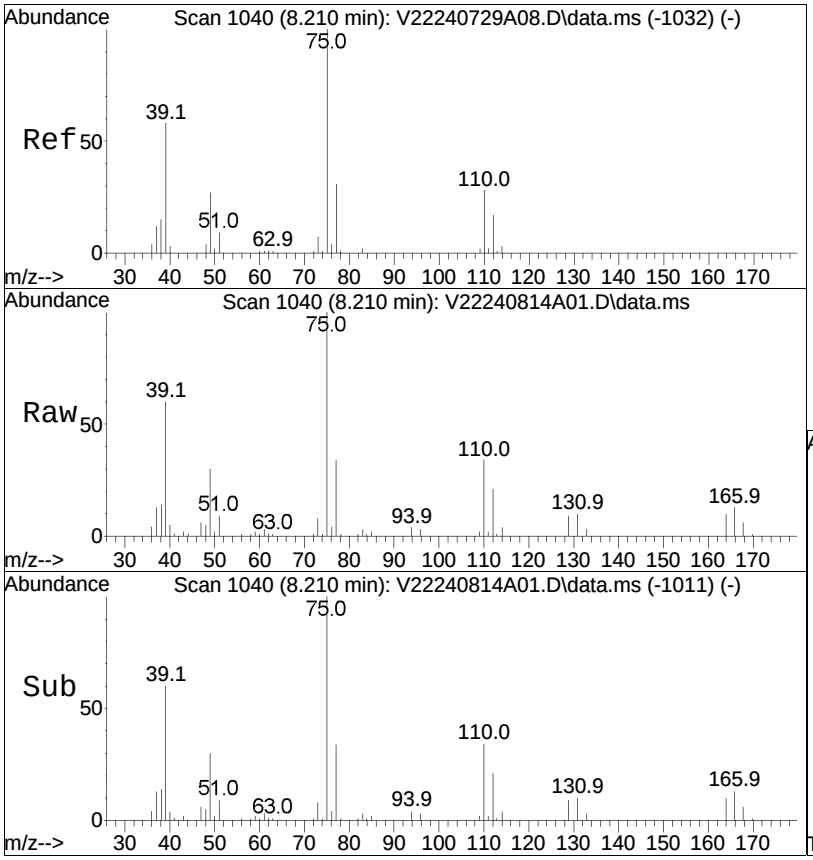


#66
Tetrachloroethene
Concen: 12.14 ug/L
RT: 8.176 min Scan# 1035
Delta R.T. -0.006 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:166 Resp: 68699

Ion	Ratio	Lower	Upper
166	100		
168	47.6	27.8	67.8
94	36.4	16.7	56.7

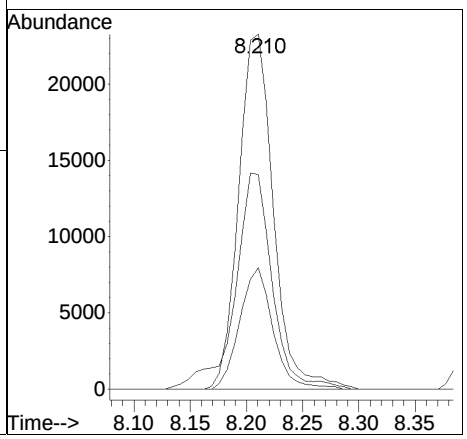


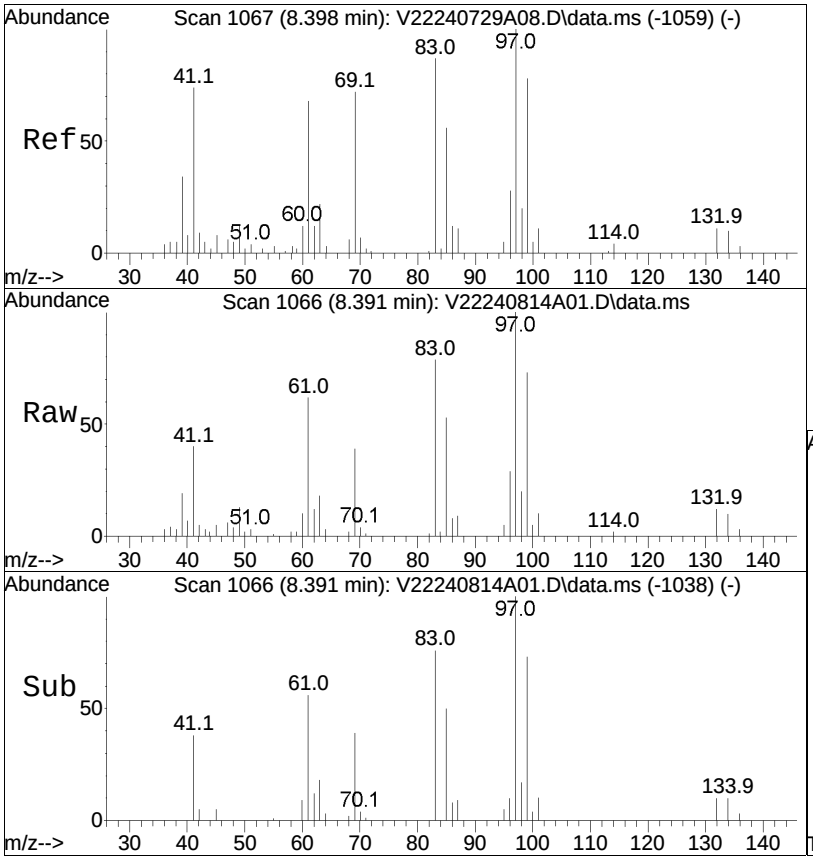


#68
trans-1,3-Dichloropropene
Concen: 7.10 ug/L
RT: 8.210 min Scan# 1040
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 75 Resp: 50296

Ion	Ratio	Lower	Upper
75	100		
77	32.9	11.9	51.9
39	65.1	27.4	67.4

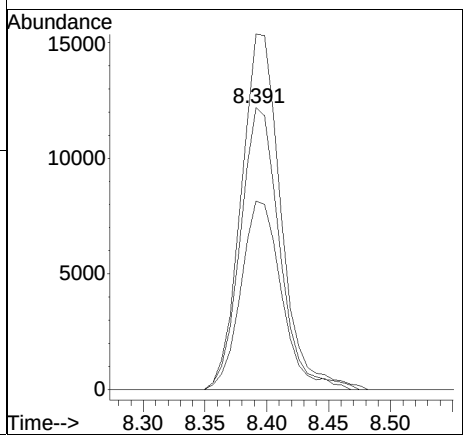


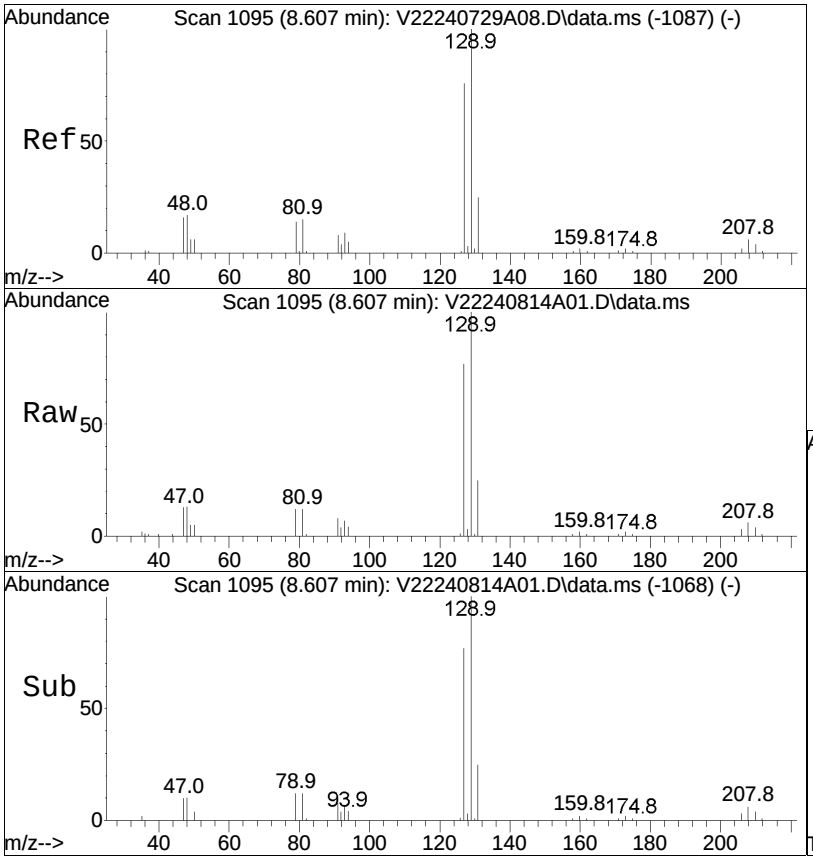


#71
1,1,2-Trichloroethane
Concen: 7.94 ug/L
RT: 8.391 min Scan# 1066
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 83 Resp: 26929

Ion	Ratio	Lower	Upper
83	100		
97	127.8	103.4	143.4
85	69.2	47.9	87.9

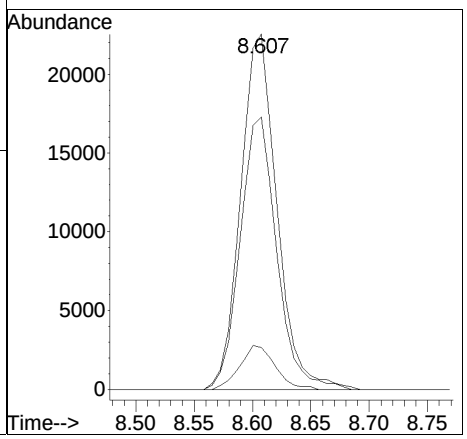


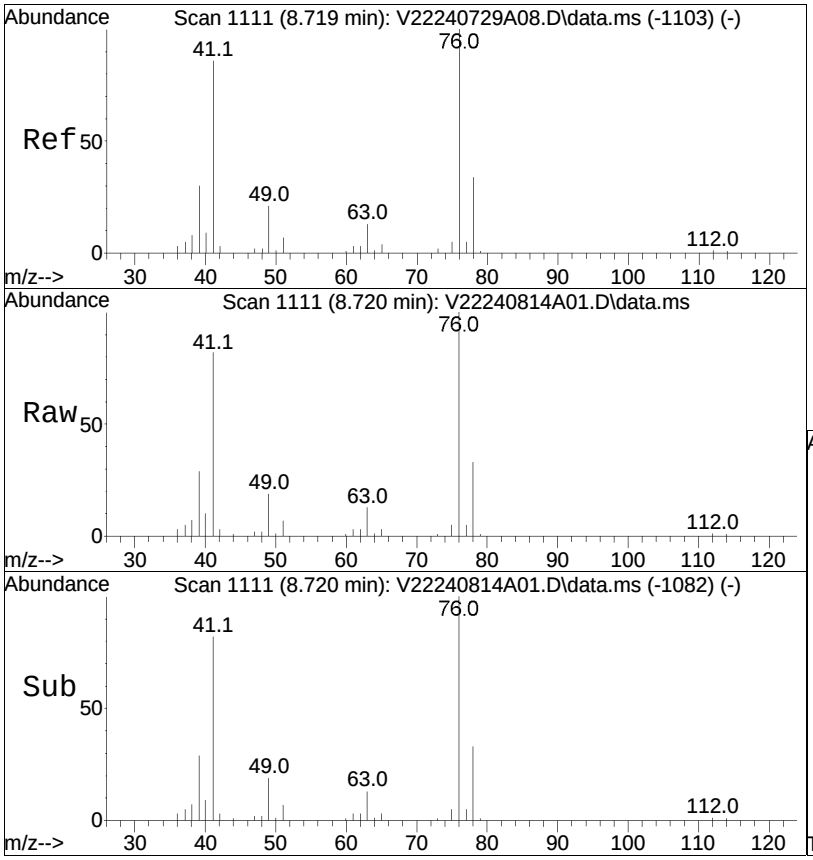


#72
Chlorodibromomethane
Concen: 8.93 ug/L
RT: 8.607 min Scan# 1095
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:129 Resp: 48760

Ion	Ratio	Lower	Upper
129	100		
81	12.0	0.0	33.8
127	77.1	57.1	97.1

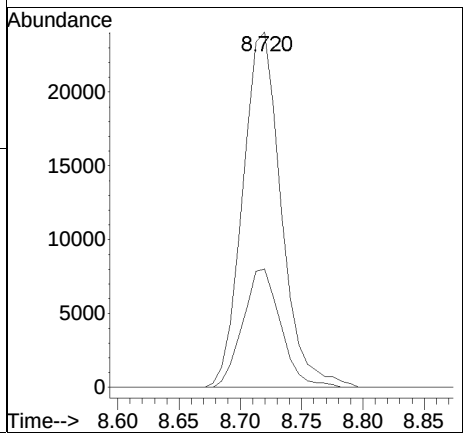


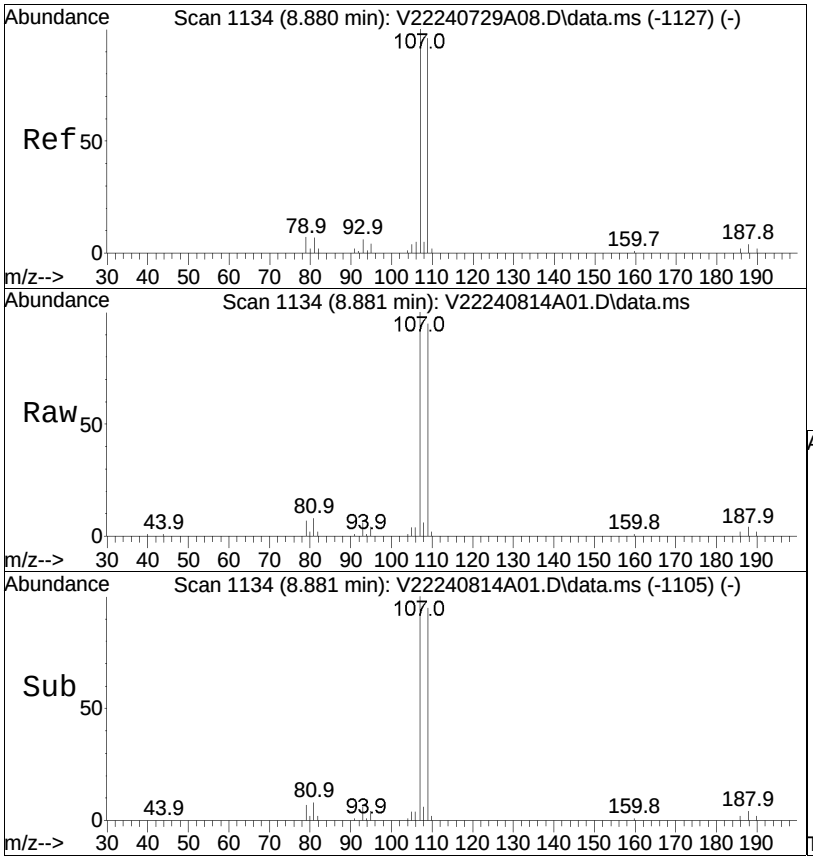


#73
1,3-Dichloropropane
Concen: 7.93 ug/L
RT: 8.720 min Scan# 1111
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 76 Resp: 52715

Ion	Ratio	Lower	Upper
76	100		
78	32.8	25.7	38.5

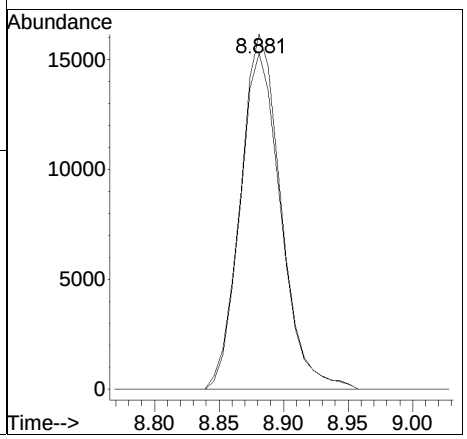


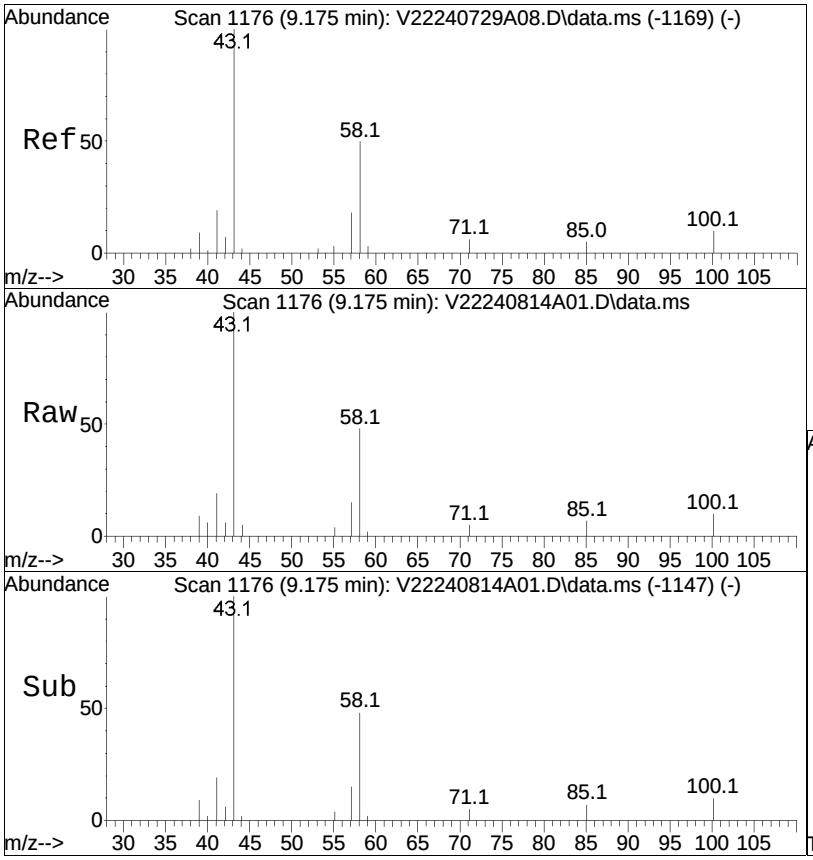


#74
1,2-Dibromoethane
Concen: 9.35 ug/L
RT: 8.881 min Scan# 1134
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:107 Resp: 35524

Ion	Ratio	Lower	Upper
107	100		
109	94.7	75.1	112.7

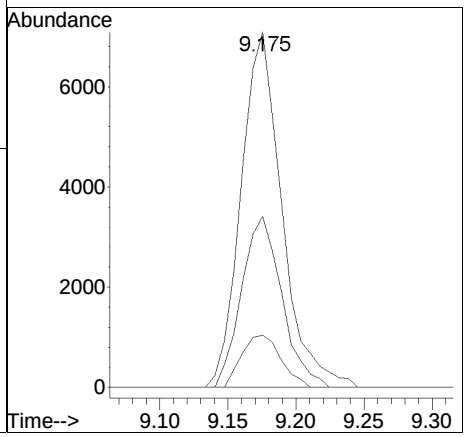


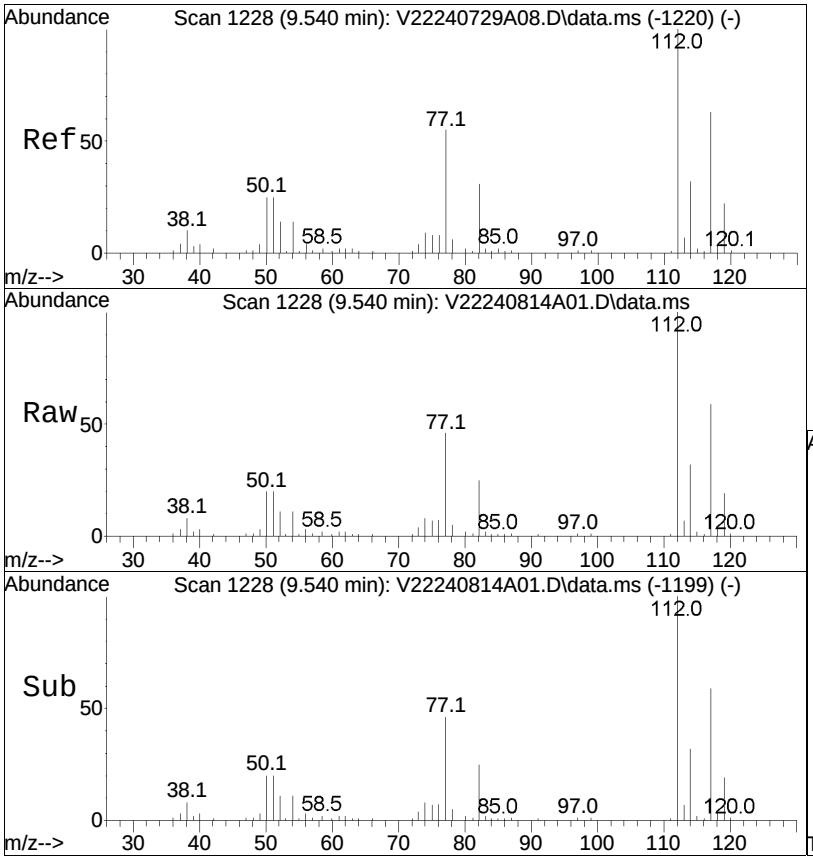


#76
2-Hexanone
Concen: 6.89 ug/L
RT: 9.175 min Scan# 1176
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 43 Resp: 14787

Ion	Ratio	Lower	Upper
43	100		
58	47.4	47.6	71.4#
57	14.2	16.6	24.8#

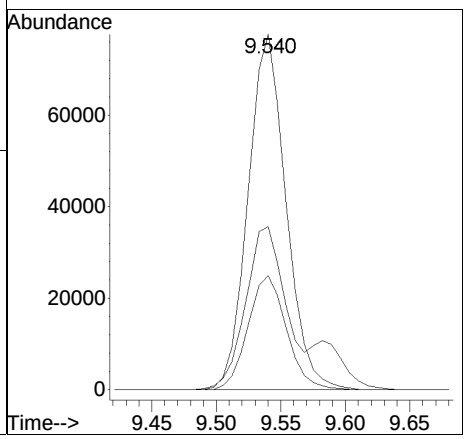


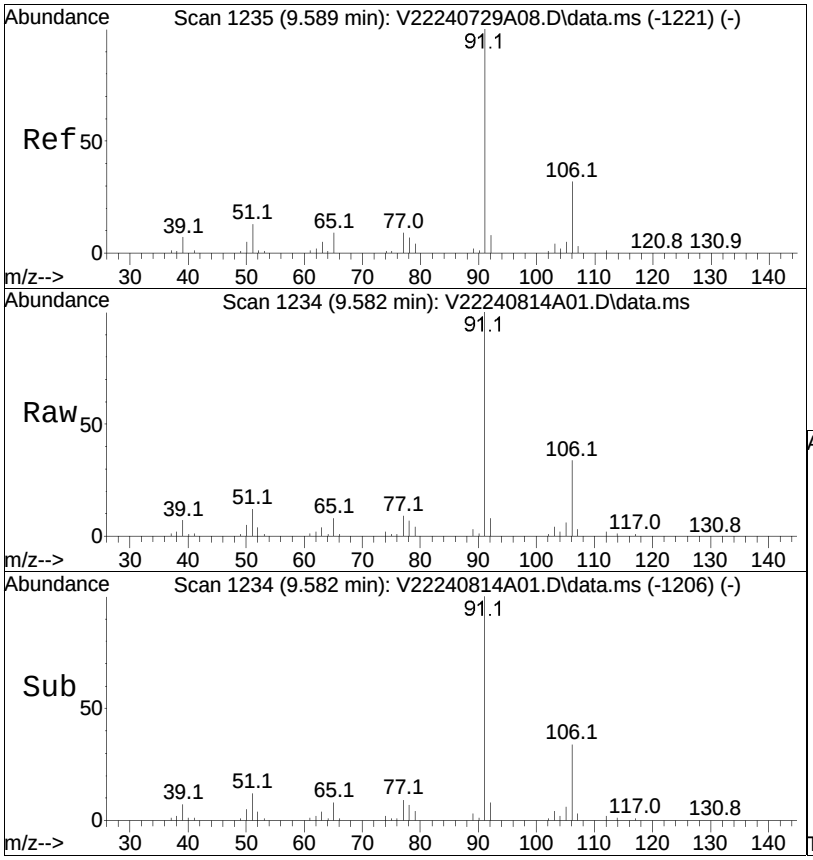


#77
Chlorobenzene
Concen: 9.68 ug/L
RT: 9.540 min Scan# 1228
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:112 Resp: 158317

Ion	Ratio	Lower	Upper
112	100		
77	48.4	55.4	83.0#
114	32.4	26.2	39.4

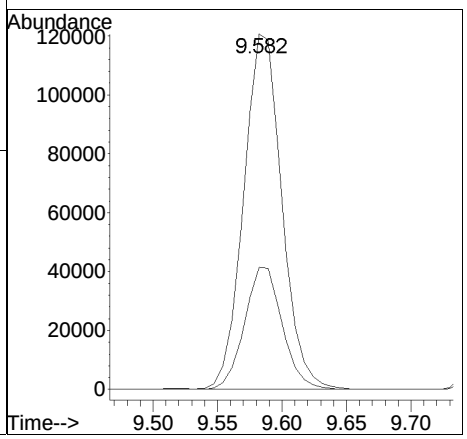


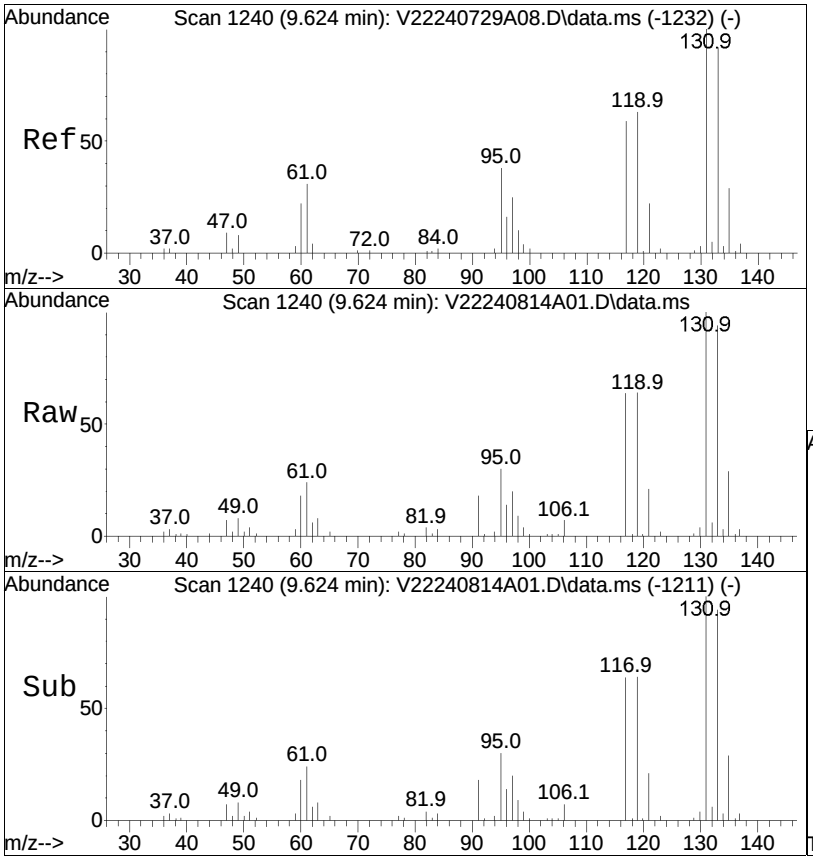


#78
Ethylbenzene
Concen: 9.12 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 91 Resp: 248724

Ion	Ratio	Lower	Upper
91	100		
106	33.9	25.8	38.6

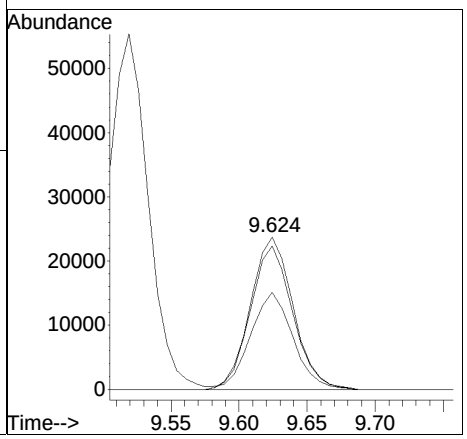


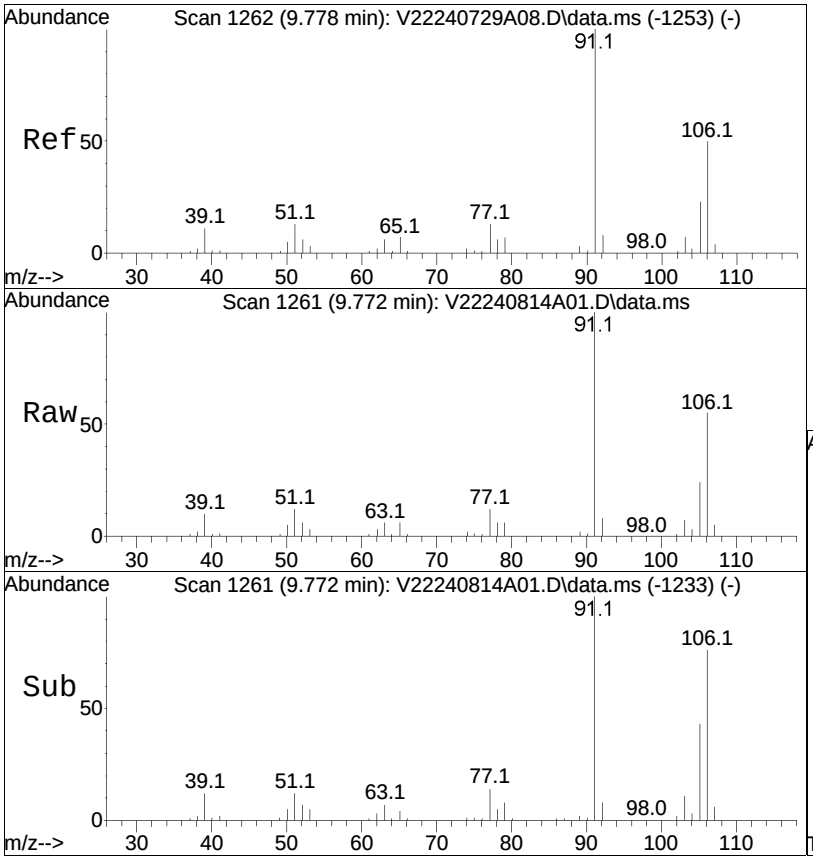


#79
1,1,1,2-Tetrachloroethane
Concen: 9.97 ug/L
RT: 9.624 min Scan# 1240
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:131 Resp: 51879

Ion	Ratio	Lower	Upper
131	100		
133	93.3	75.3	115.3
119	63.2	49.3	89.3

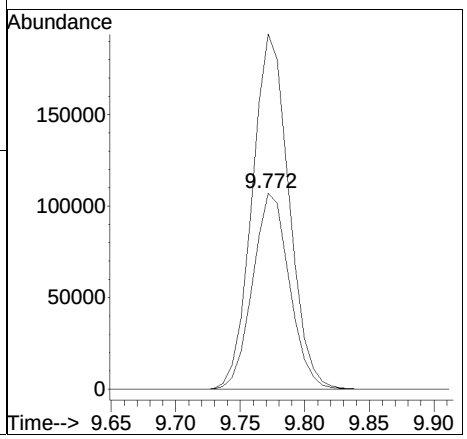


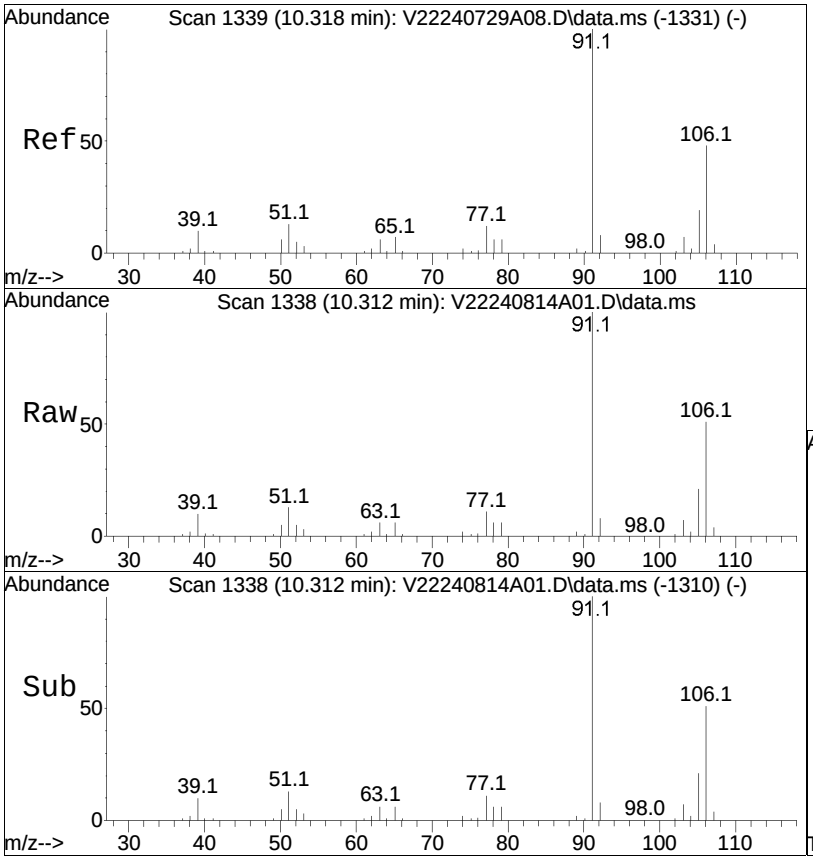


#80
p/m Xylene
Concen: 20.11 ug/L
RT: 9.772 min Scan# 1261
Delta R.T. -0.006 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:106 Resp: 212786

Ion	Ratio	Lower	Upper
106	100		
91	180.9	156.0	234.0

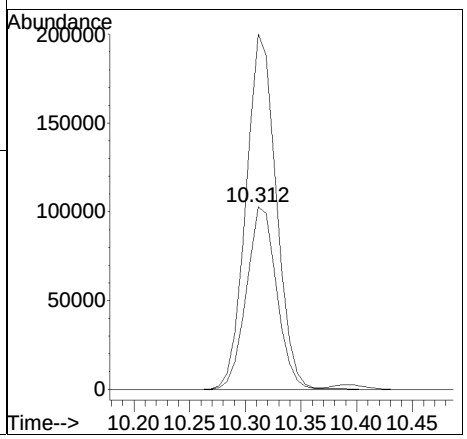


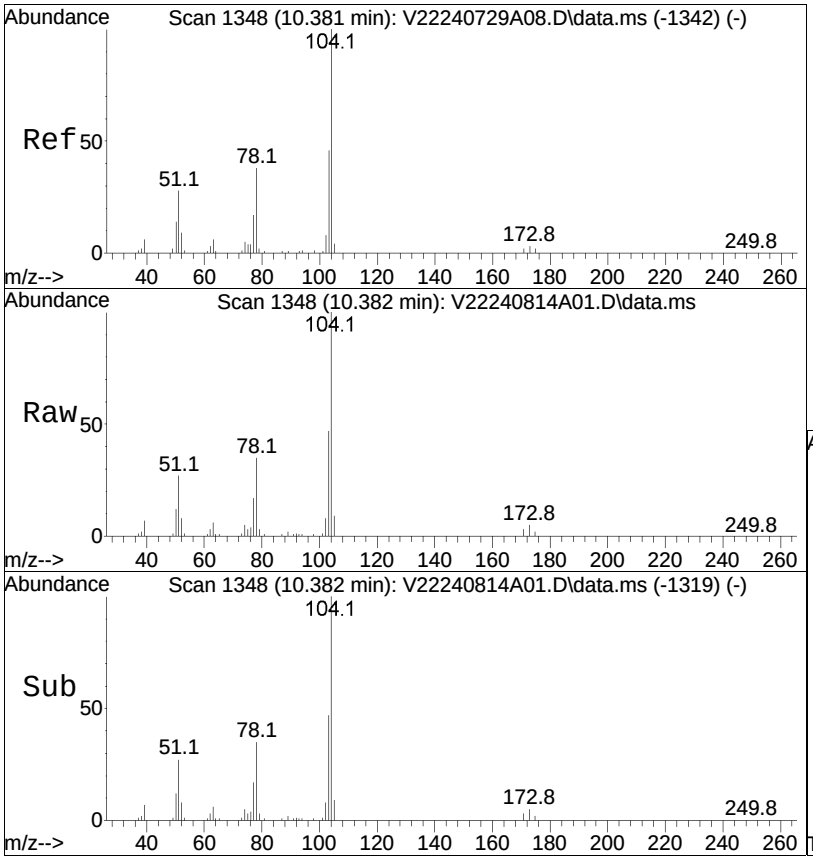


#81
o Xylene
Concen: 19.50 ug/L
RT: 10.312 min Scan# 1338
Delta R.T. -0.006 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:106 Resp: 195082

Ion	Ratio	Lower	Upper
106	100		
91	193.5	164.0	246.0

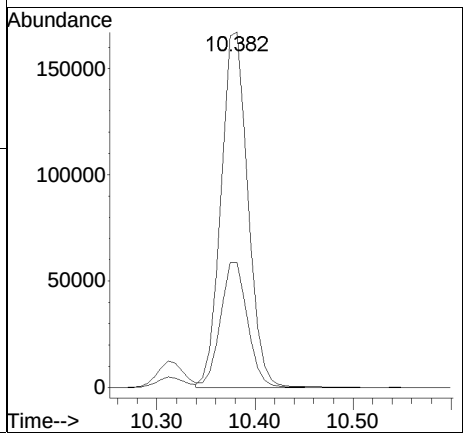


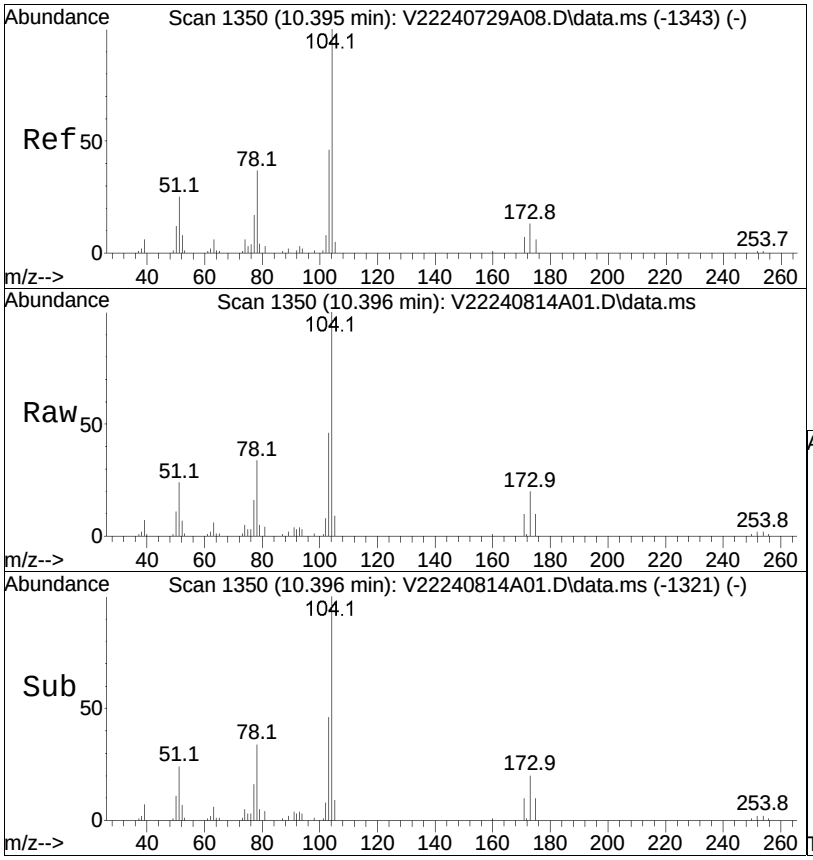


#82
Styrene
Concen: 19.75 ug/L
RT: 10.382 min Scan# 1348
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:104 Resp: 317884

Ion	Ratio	Lower	Upper
104	100		
78	35.5	32.1	48.1

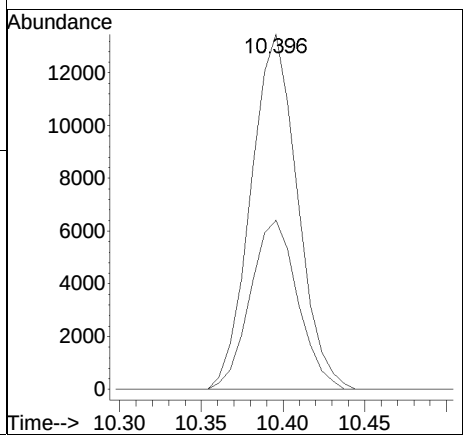


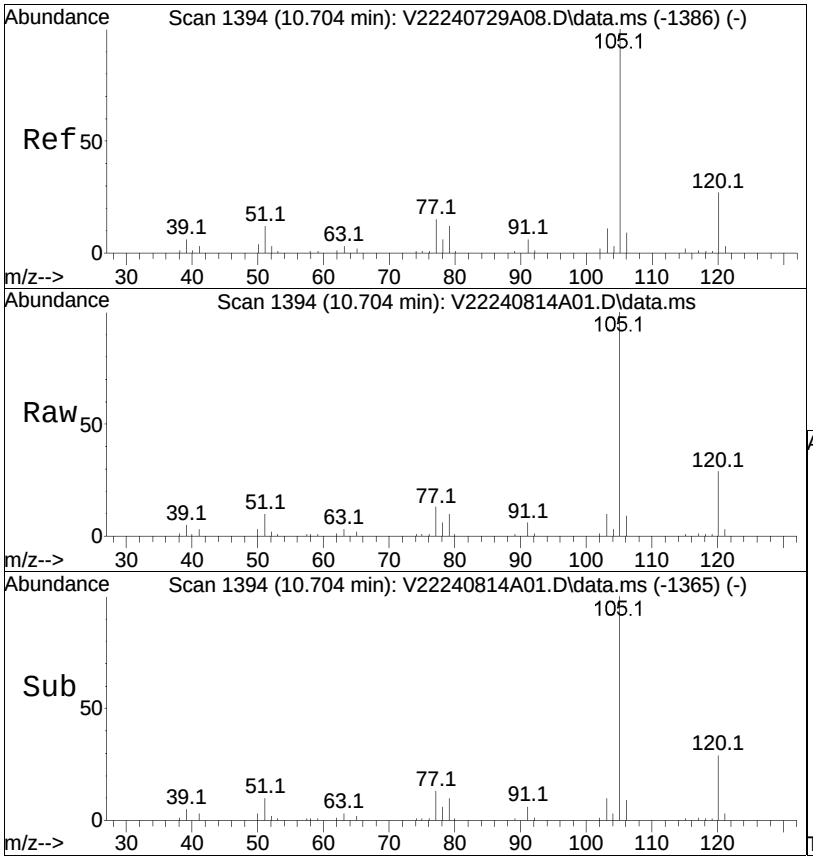


#84
Bromoform
Concen: 9.13 ug/L
RT: 10.396 min Scan# 1350
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:173 Resp: 26751

Ion	Ratio	Lower	Upper
173	100		
175	48.3	29.3	69.3

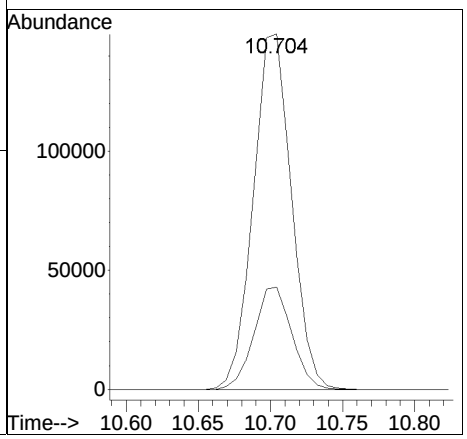


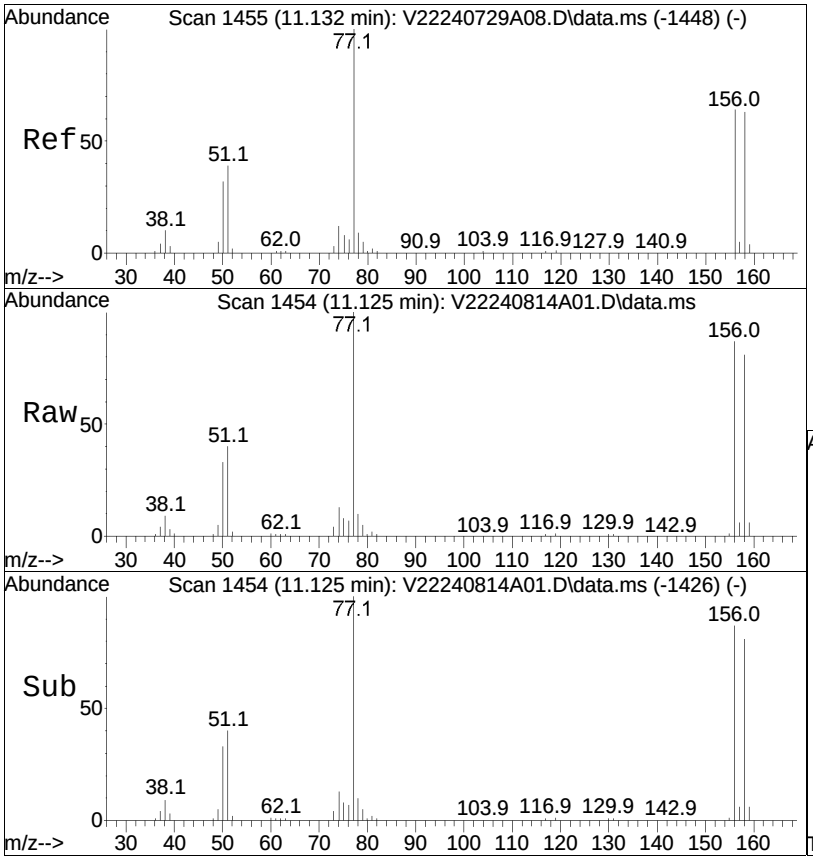


#86
Isopropylbenzene
Concen: 9.09 ug/L
RT: 10.704 min Scan# 1394
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:105 Resp: 274470

Ion	Ratio	Lower	Upper
105	100		
120	28.6	7.7	47.7

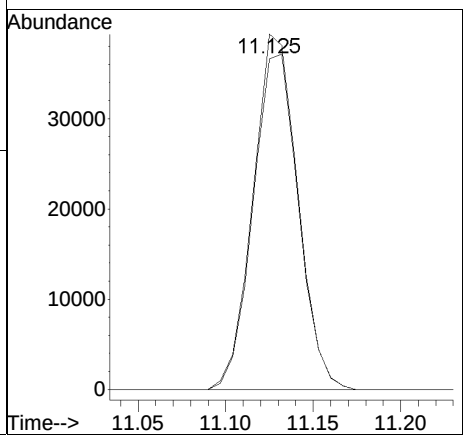


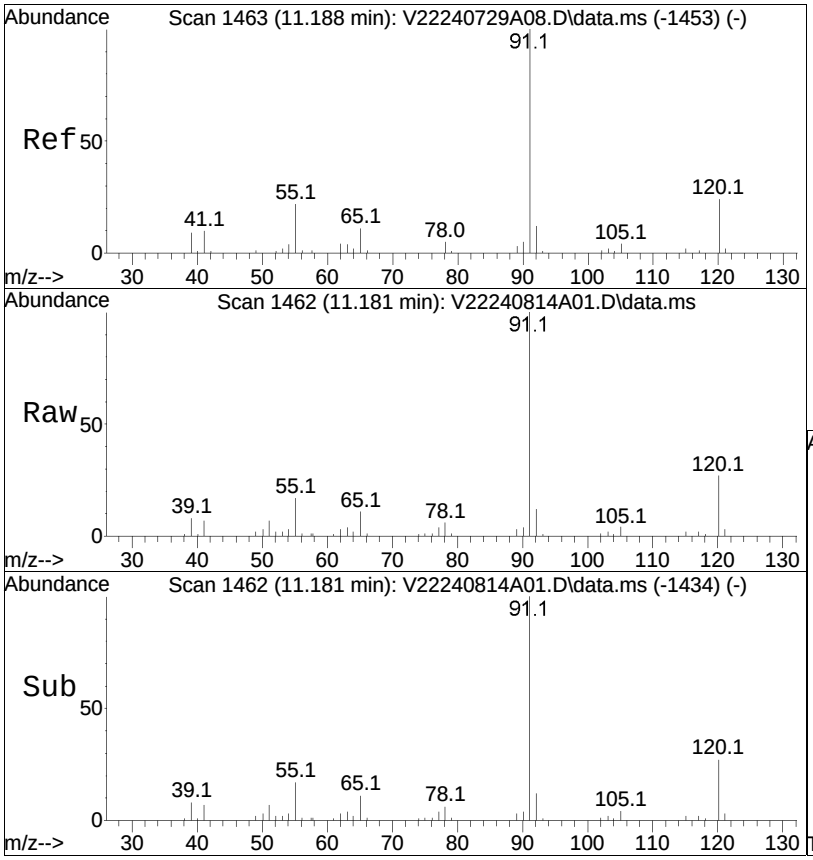


#88
Bromobenzene
Concen: 9.83 ug/L
RT: 11.125 min Scan# 1454
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:156 Resp: 69818

Ion	Ratio	Lower	Upper
156	100		
158	95.7	77.9	116.9

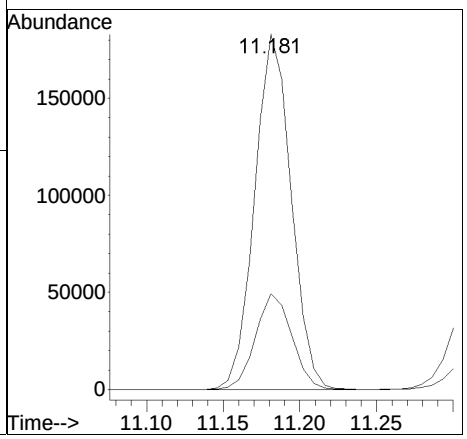


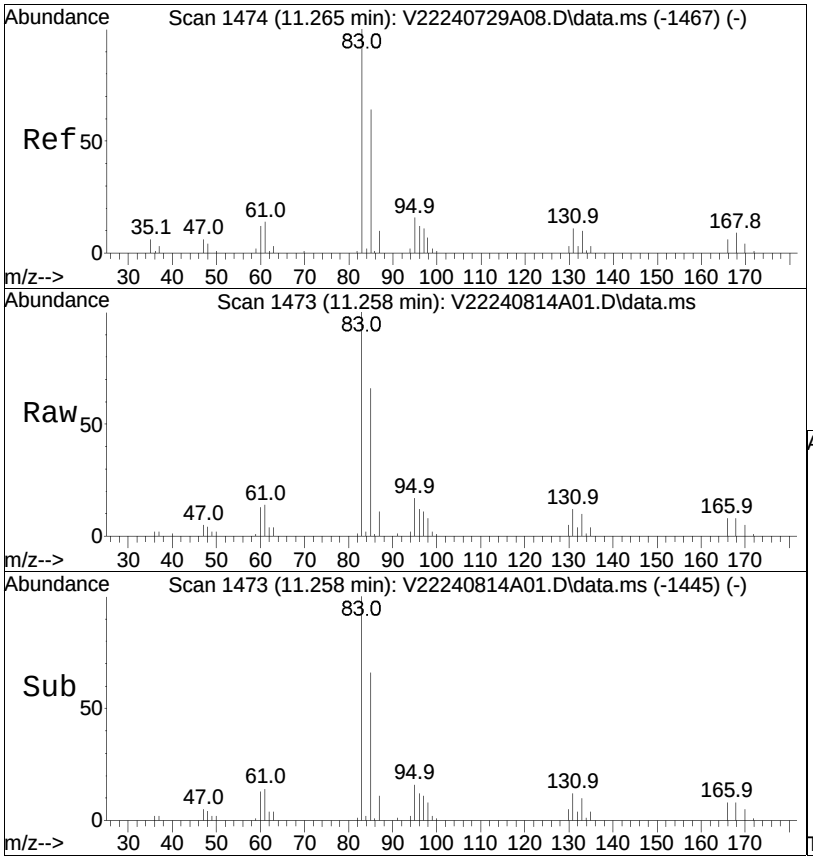


#89
n-Propylbenzene
Concen: 8.62 ug/L
RT: 11.181 min Scan# 1462
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 91 Resp: 302587

Ion	Ratio	Lower	Upper
91	100		
120	26.9	19.5	29.3

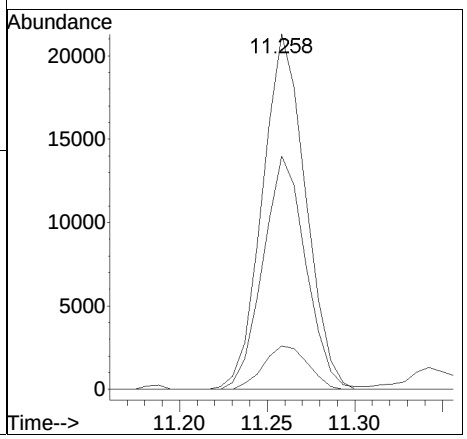


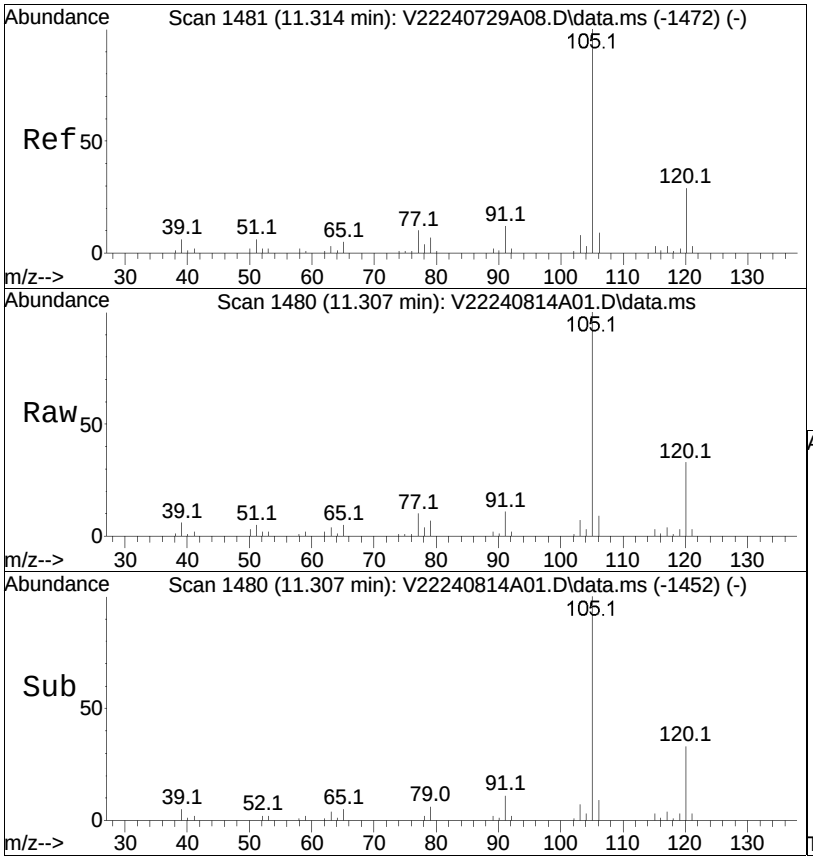


#91
1,1,2,2-Tetrachloroethane
Concen: 7.39 ug/L
RT: 11.258 min Scan# 1473
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 83 Resp: 36491

Ion	Ratio	Lower	Upper
83	100		
131	12.6	0.0	30.8
85	65.4	45.4	85.4

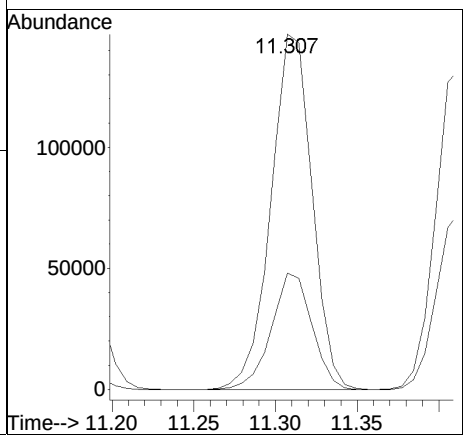


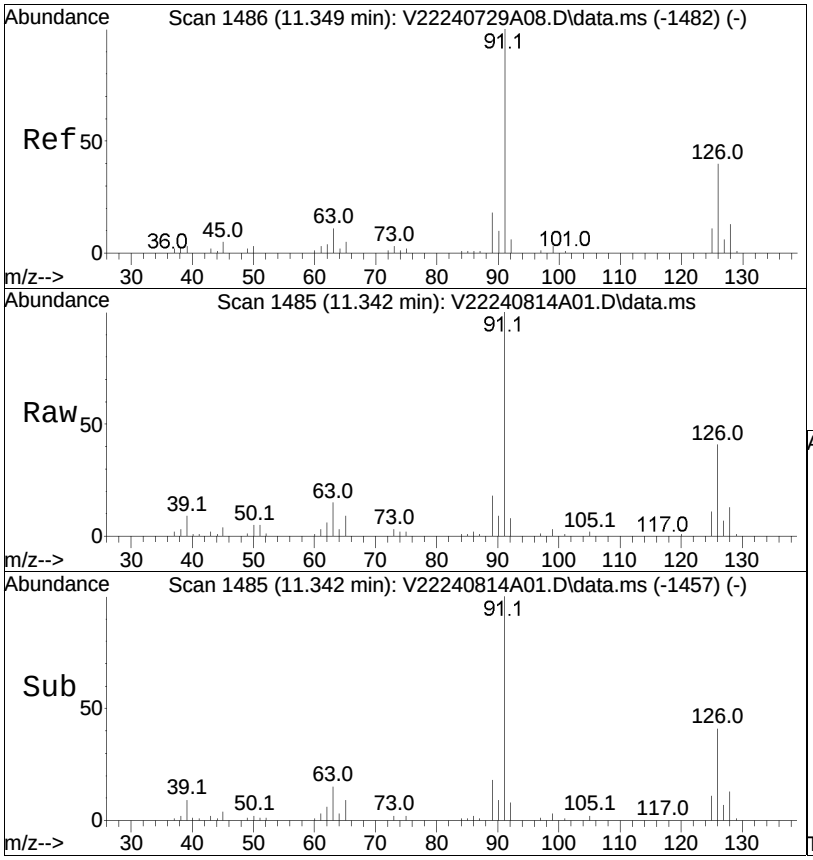


#92
4-Ethyltoluene
Concen: 8.98 ug/L
RT: 11.307 min Scan# 1480
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:105 Resp: 257037

Ion	Ratio	Lower	Upper
105	100		
120	32.3	19.8	41.0

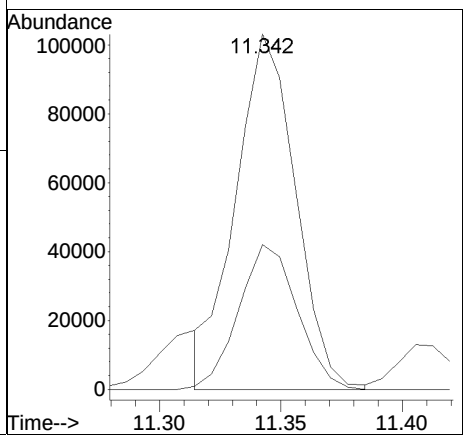


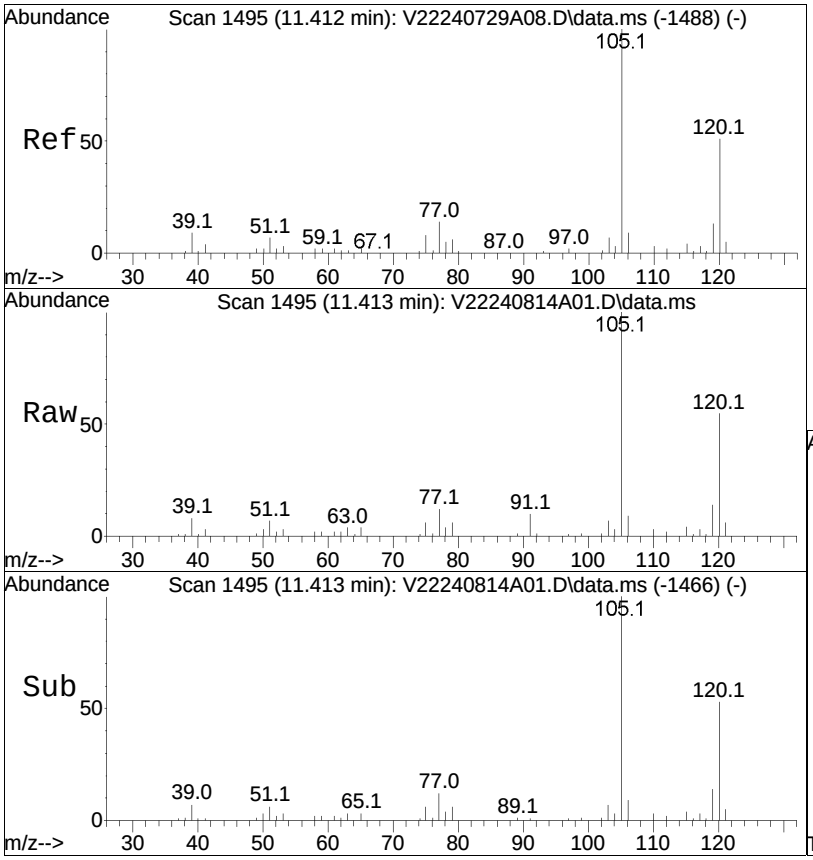


#93
2-Chlorotoluene
Concen: 8.37 ug/L M6
RT: 11.342 min Scan# 1485
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 91 Resp: 176987

Ion	Ratio	Lower	Upper
91	100		
126	39.9	24.6	37.0#

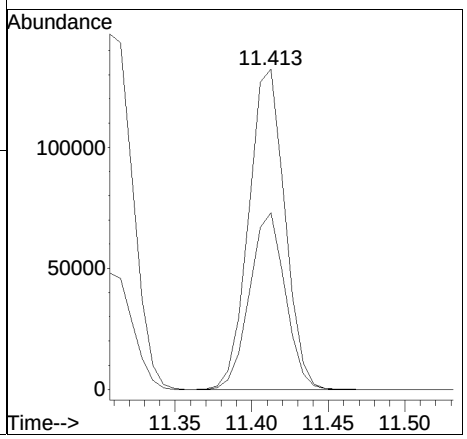


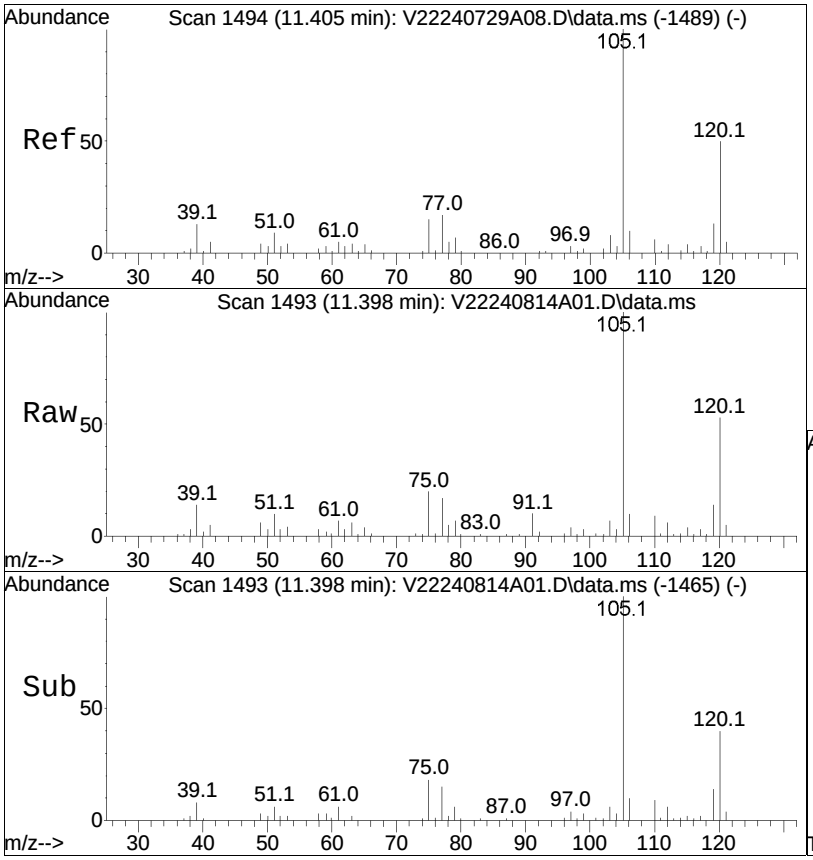


#94
1,3,5-Trimethylbenzene
Concen: 8.95 ug/L
RT: 11.413 min Scan# 1495
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:105 Resp: 216962

Ion	Ratio	Lower	Upper
105	100		
120	54.4	40.9	61.3

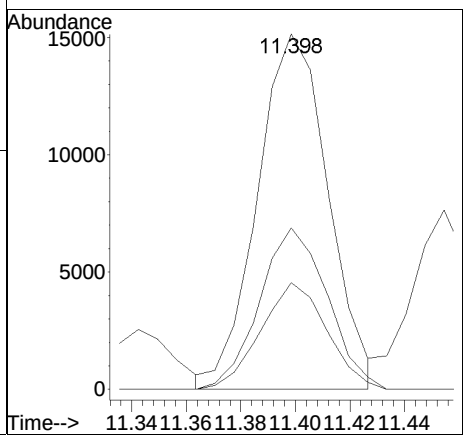


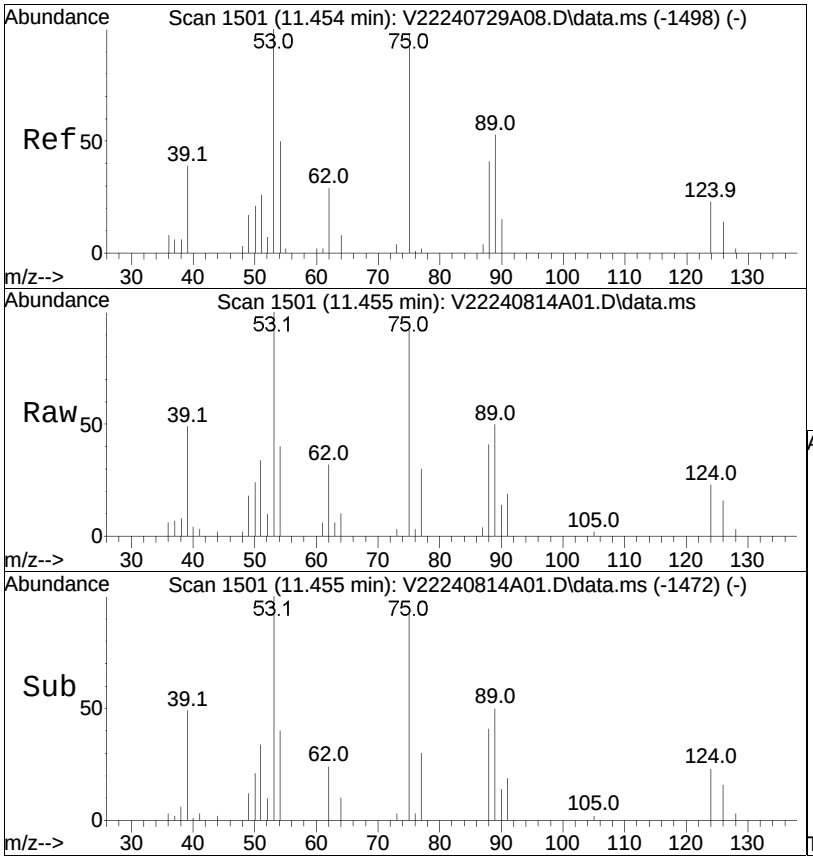


#95
1,2,3-Trichloropropane
Concen: 7.25 ug/L
RT: 11.398 min Scan# 1493
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 75 Resp: 27345

Ion	Ratio	Lower	Upper
75	100		
110	43.5	26.3	54.7
112	28.1	16.8	35.0

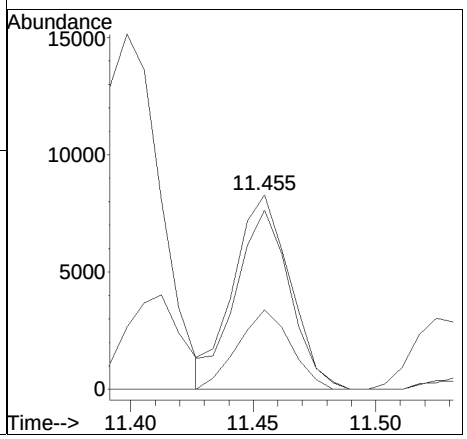


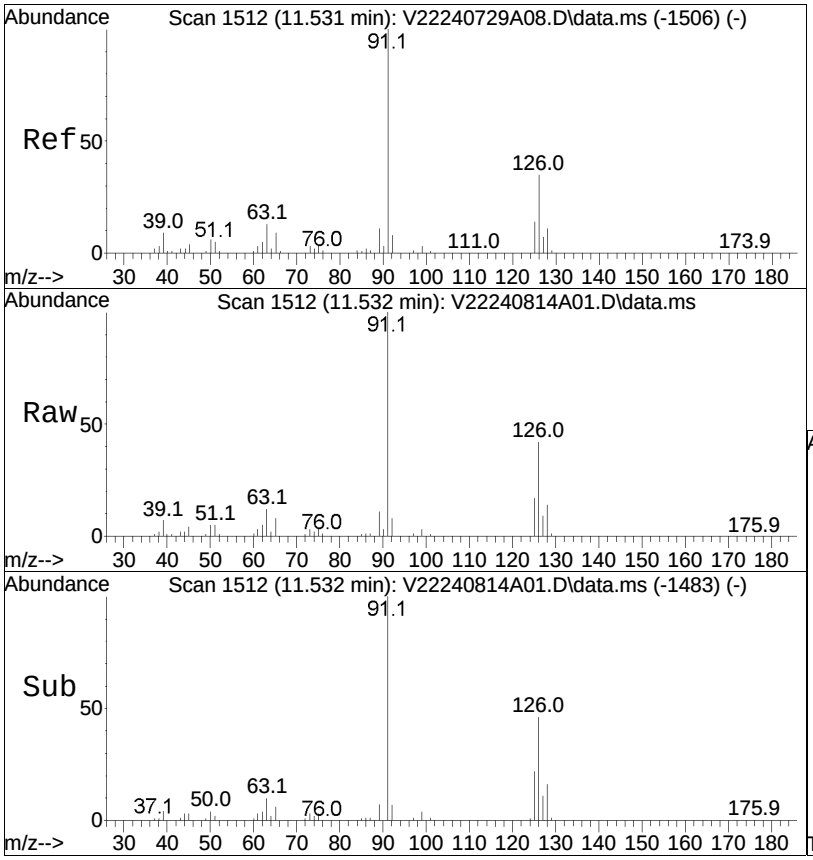


#96
trans-1,4-Dichloro-2-butene
Concen: 7.90 ug/L
RT: 11.455 min Scan# 1501
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 53 Resp: 13281

Ion	Ratio	Lower	Upper
53	100		
88	38.4	46.3	69.5#
75	88.9	109.0	163.4#

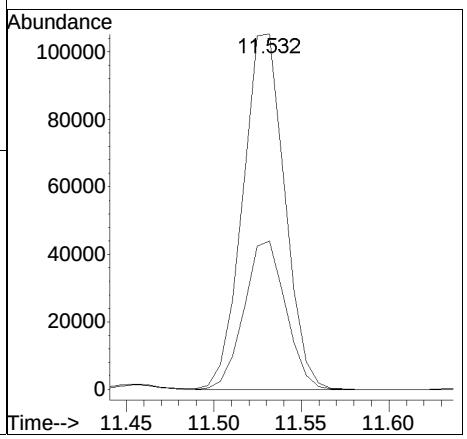


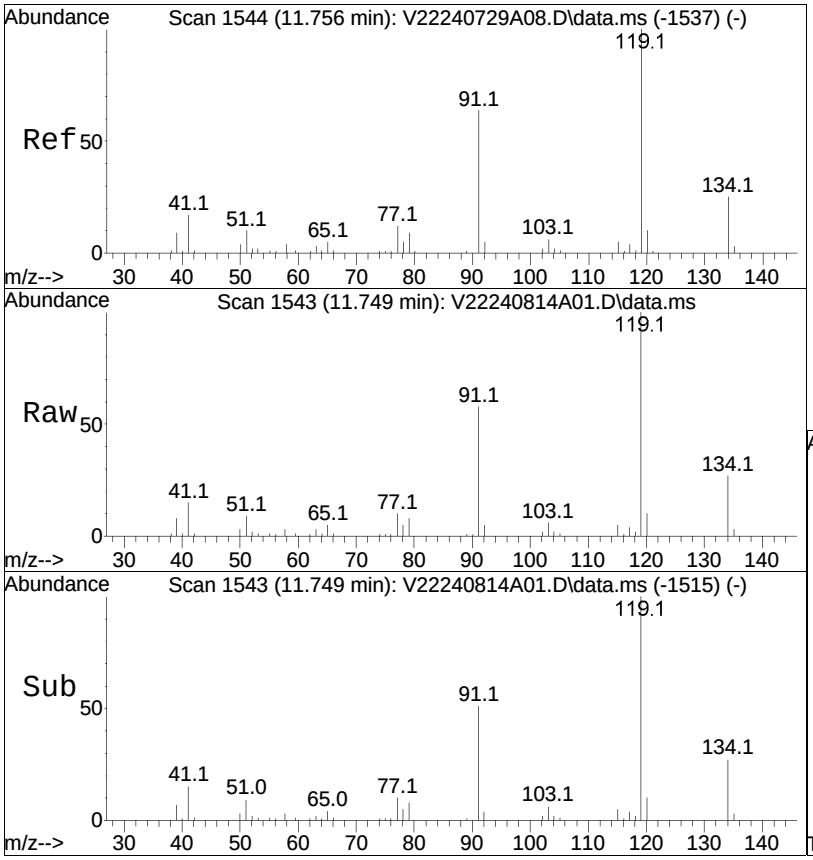


#97
4-Chlorotoluene
Concen: 8.05 ug/L
RT: 11.532 min Scan# 1512
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 91 Resp: 175635

Ion	Ratio	Lower	Upper
91	100		
126	41.3	28.5	42.7

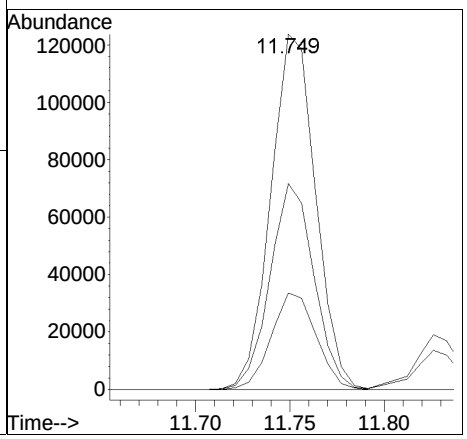


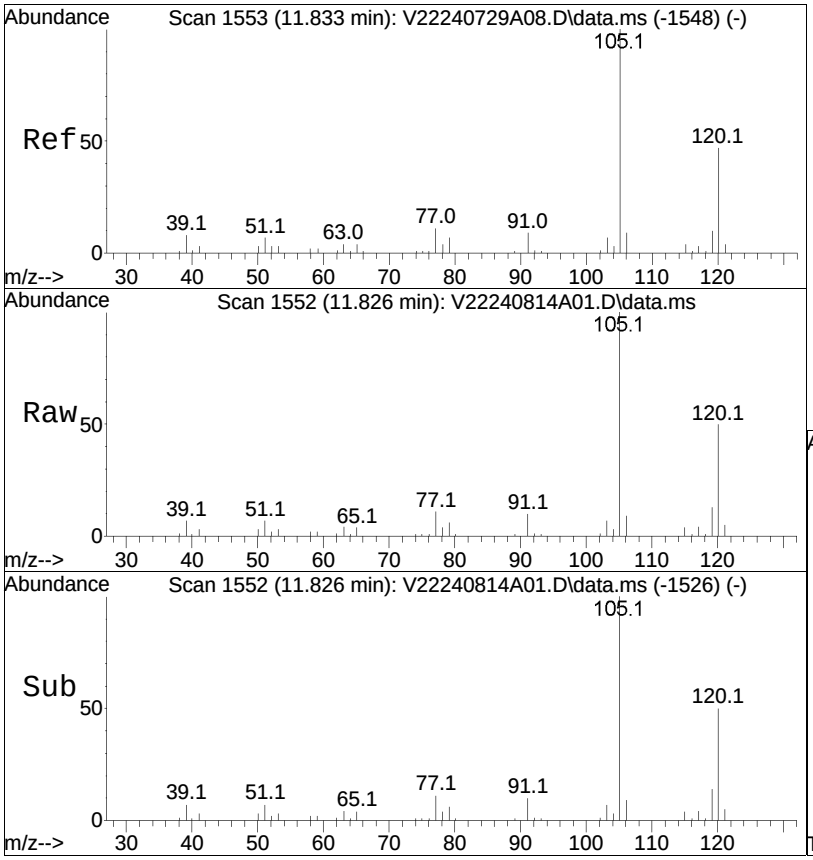


#98
tert-Butylbenzene
Concen: 9.73 ug/L
RT: 11.749 min Scan# 1543
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:119 Resp: 204758

Ion	Ratio	Lower	Upper
119	100		
91	56.9	50.2	75.4
134	31.2	20.8	31.2#

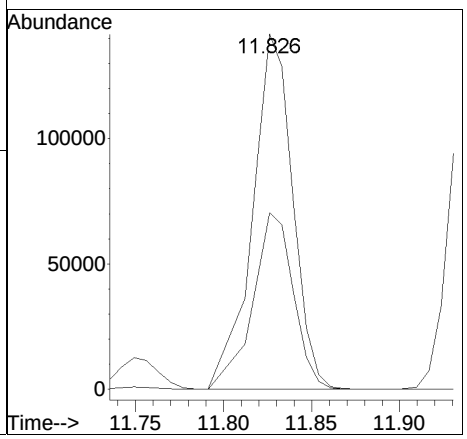


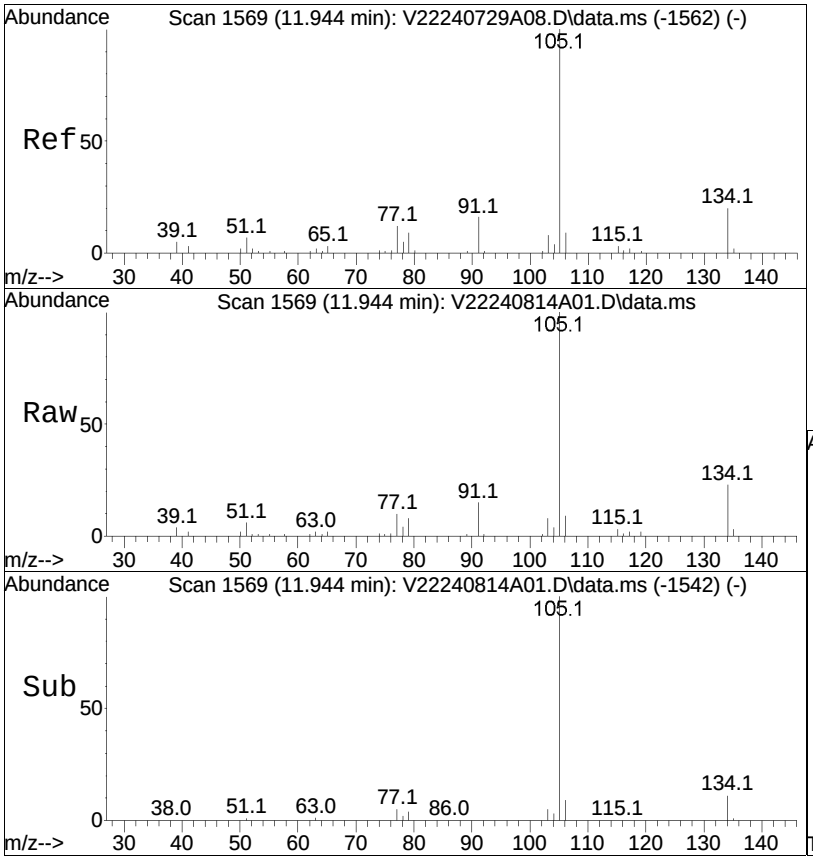


#101
1,2,4-Trimethylbenzene
Concen: 9.03 ug/L
RT: 11.826 min Scan# 1552
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:105 Resp: 244655

Ion	Ratio	Lower	Upper
105	100		
120	50.3	38.5	57.7

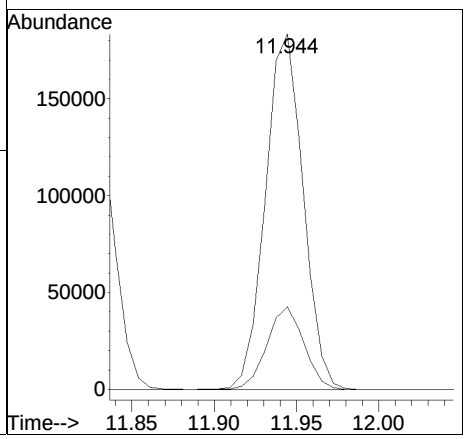


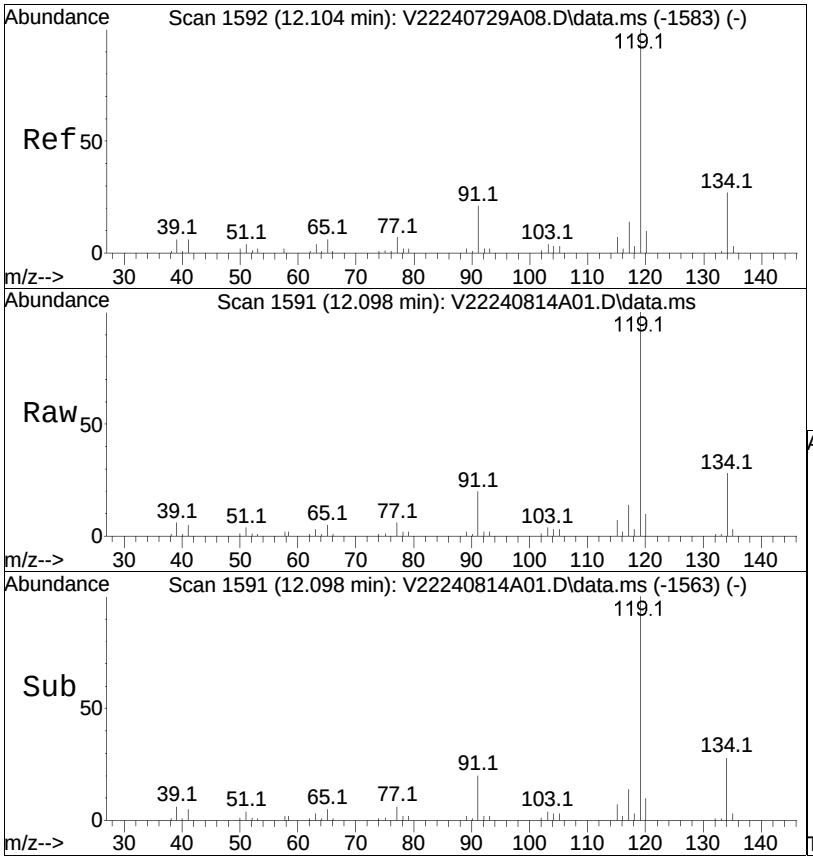


#102
sec-Butylbenzene
Concen: 9.15 ug/L
RT: 11.944 min Scan# 1569
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:105 Resp: 292044

Ion	Ratio	Lower	Upper
105	100		
134	22.7	13.9	28.9

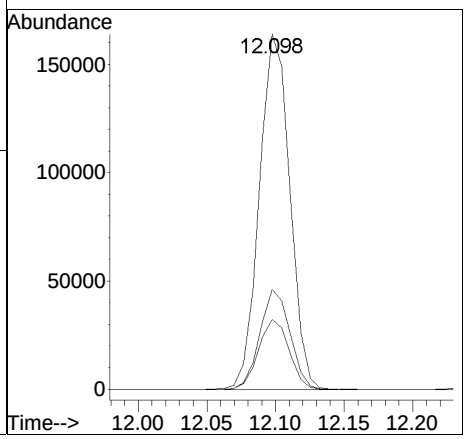


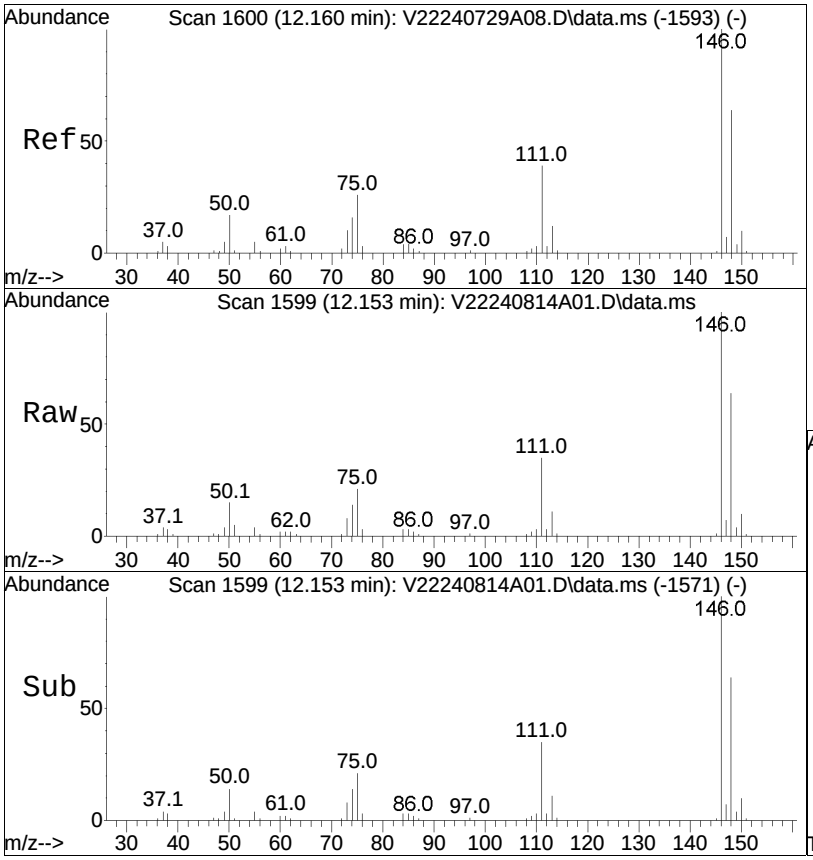


#103
p-Isopropyltoluene
Concen: 9.39 ug/L
RT: 12.098 min Scan# 1591
Delta R.T. -0.006 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:119 Resp: 253233

Ion	Ratio	Lower	Upper
119	100		
134	27.7	17.7	36.7
91	19.7	14.1	29.3

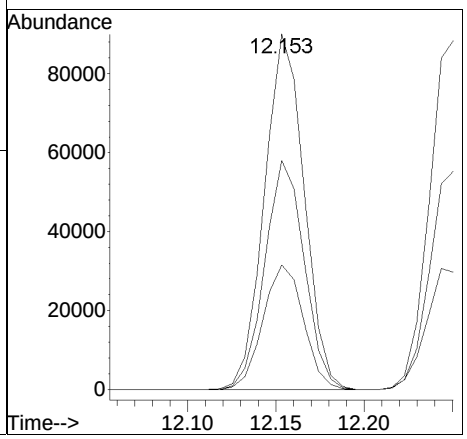


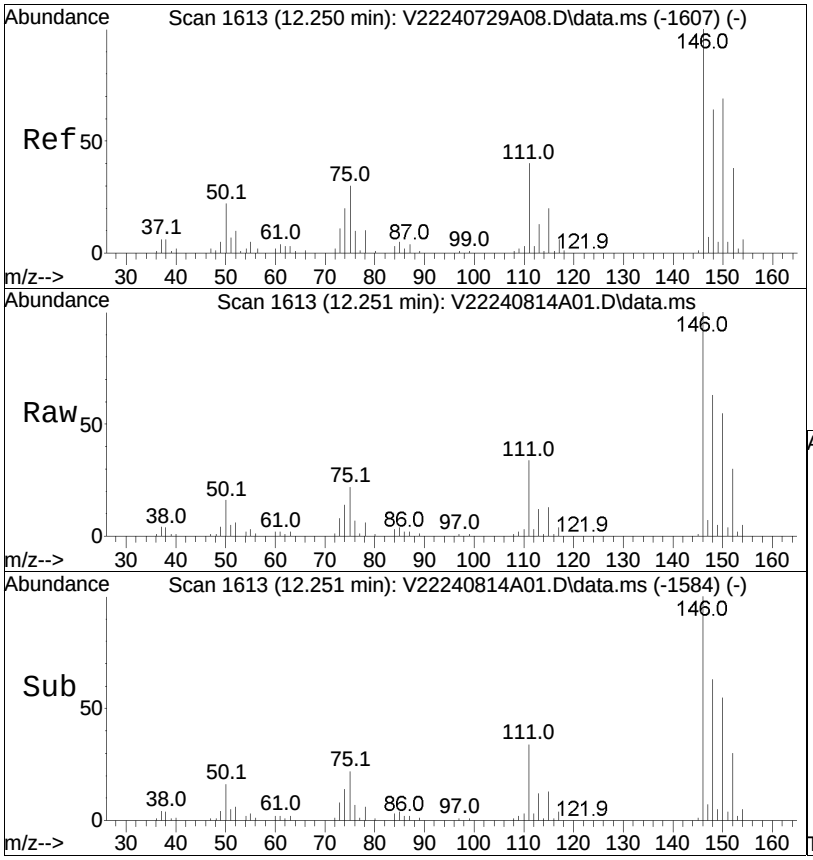


#104
1,3-Dichlorobenzene
Concen: 10.00 ug/L
RT: 12.153 min Scan# 1599
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:146 Resp: 140840

Ion	Ratio	Lower	Upper
146	100		
111	35.7	24.0	49.8
148	64.1	41.8	86.8

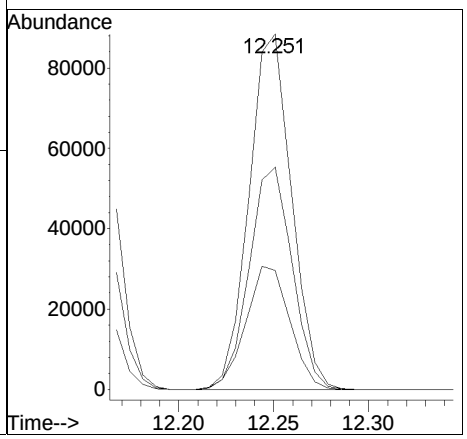


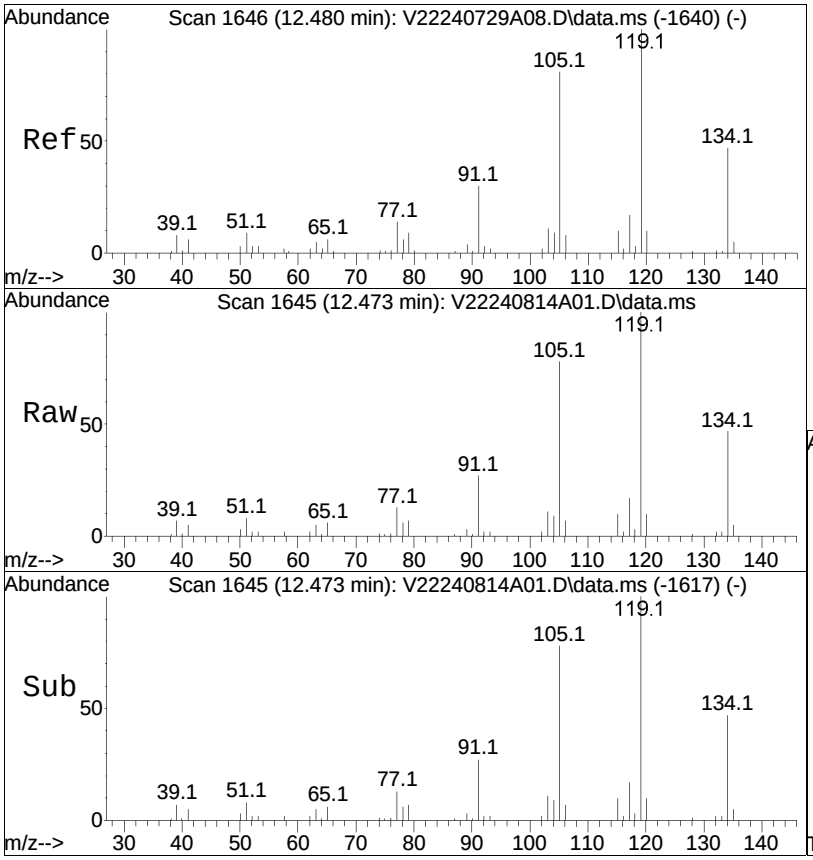


#105
1,4-Dichlorobenzene
Concen: 9.89 ug/L
RT: 12.251 min Scan# 1613
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:146 Resp: 138154

Ion	Ratio	Lower	Upper
146	100		
111	36.0	28.9	43.3
148	63.2	51.4	77.2

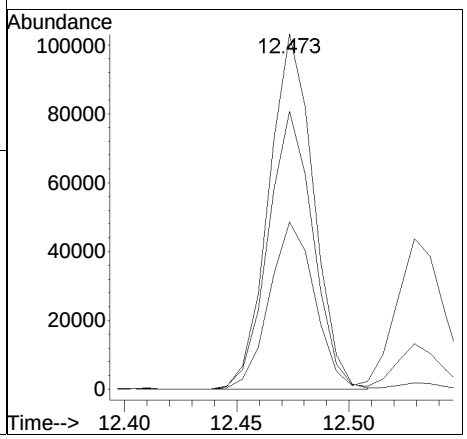


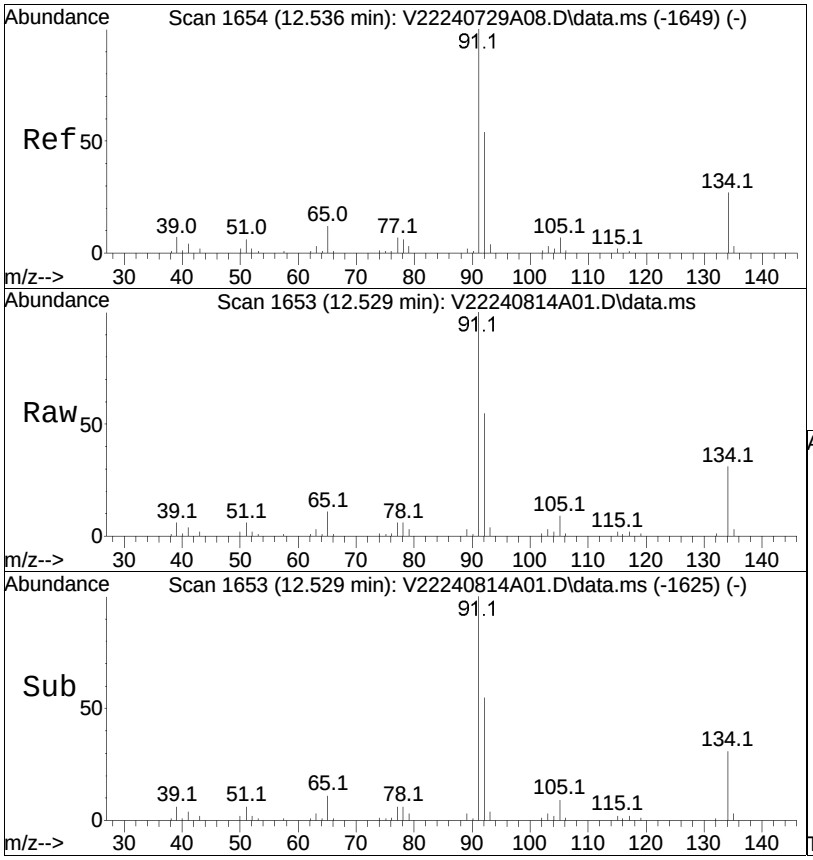


#106
p-Diethylbenzene
Concen: 9.31 ug/L
RT: 12.473 min Scan# 1645
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:119 Resp: 142779

Ion	Ratio	Lower	Upper
119	100		
105	78.8	53.4	110.8
134	47.8	30.9	64.1

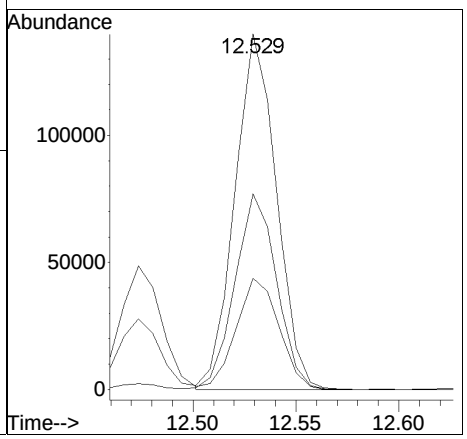


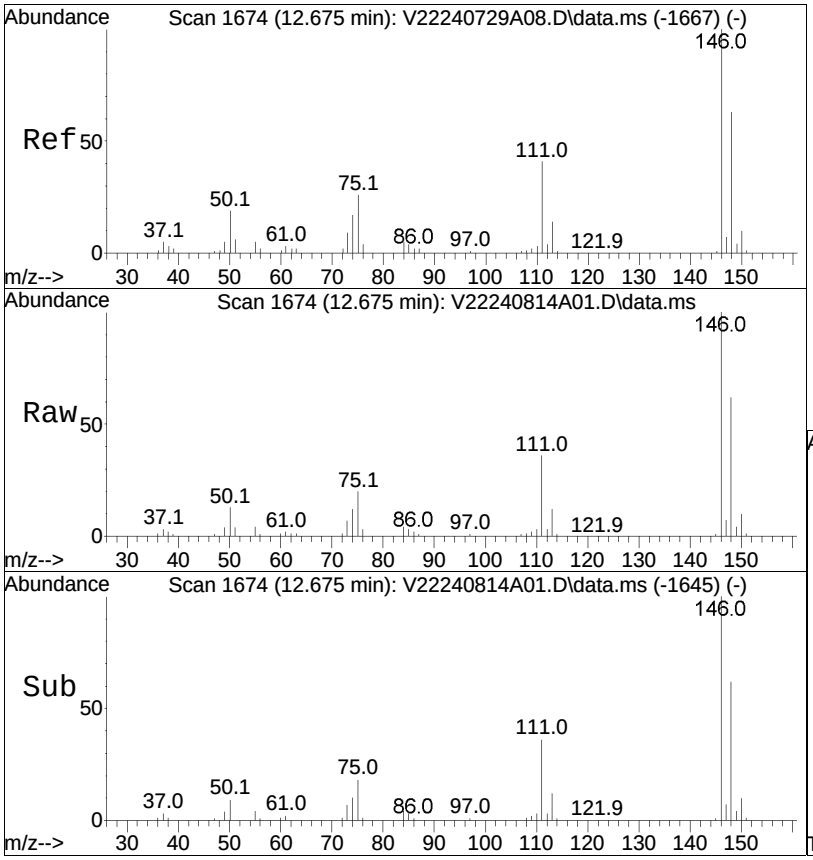


#107
n-Butylbenzene
Concen: 8.76 ug/L
RT: 12.529 min Scan# 1653
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion: 91 Resp: 196257

Ion	Ratio	Lower	Upper
91	100		
92	55.2	44.6	66.8
134	32.3	22.9	34.3

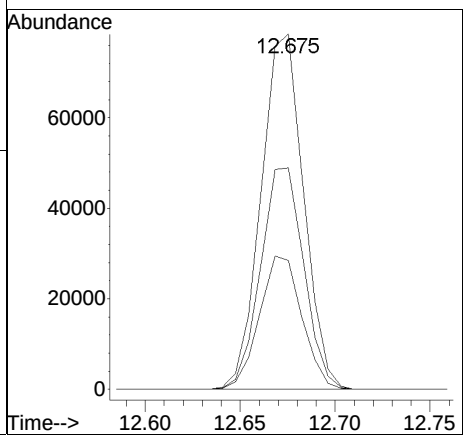


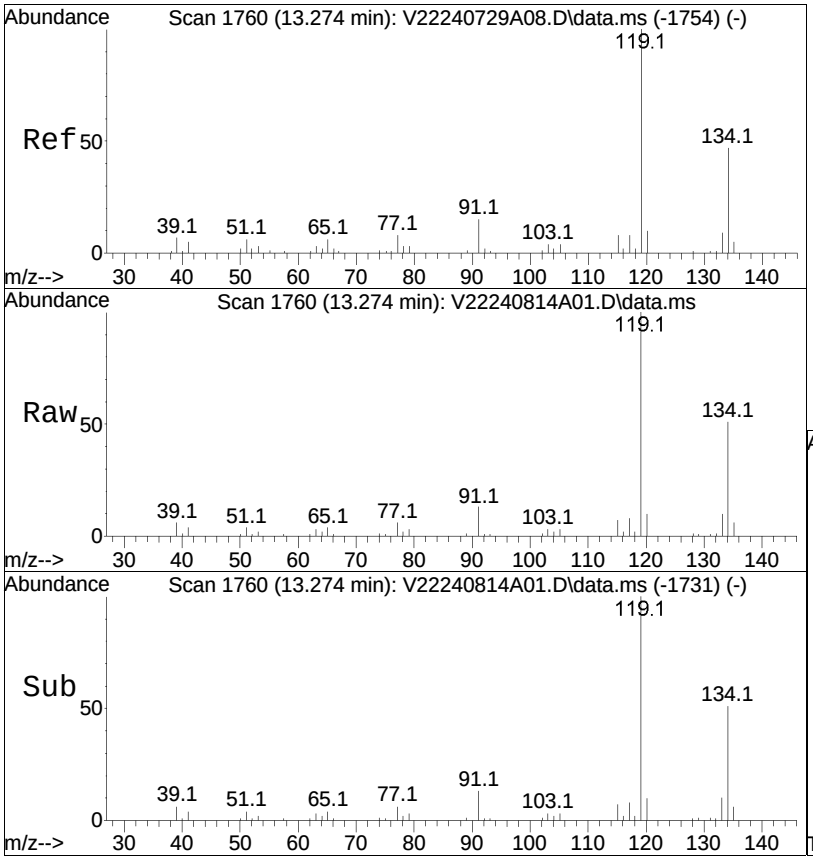


#108
1,2-Dichlorobenzene
Concen: 9.82 ug/L
RT: 12.675 min Scan# 1674
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:146 Resp: 122343

Ion	Ratio	Lower	Upper
146	100		
111	37.5	24.8	51.6
148	63.3	42.2	87.6

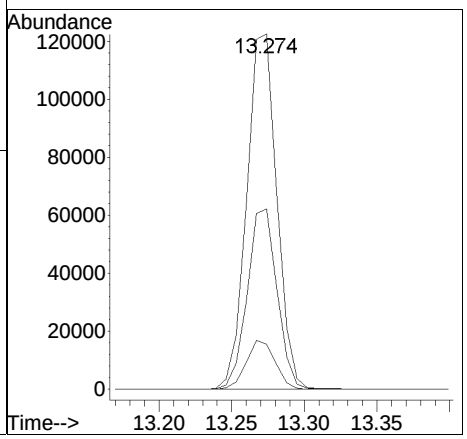


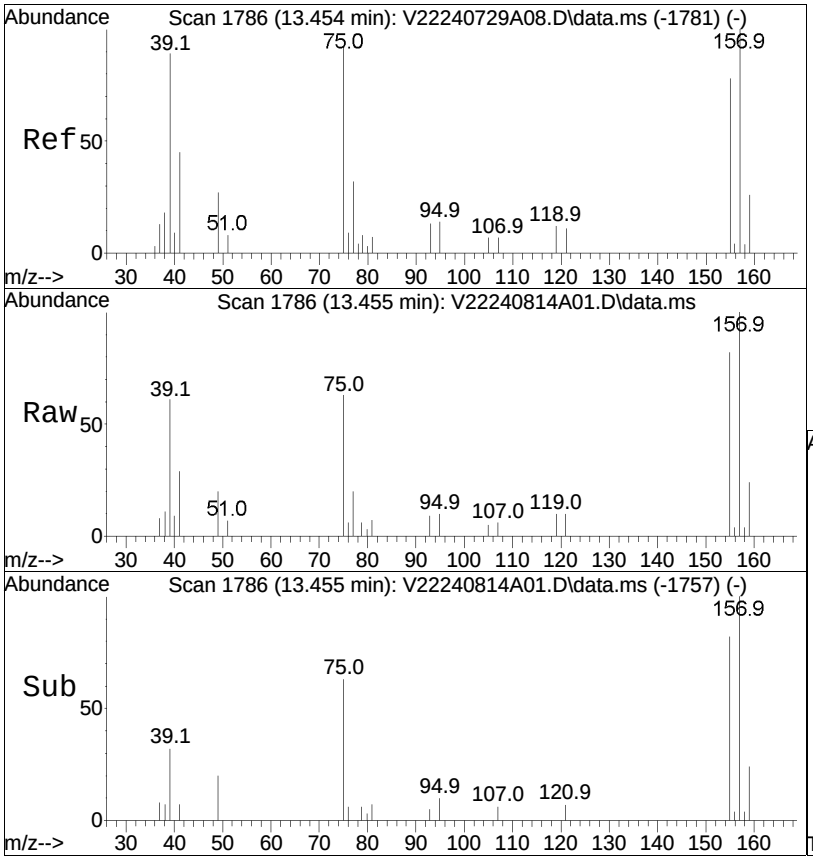


#109
1,2,4,5-Tetramethylbenzene
Concen: 8.42 ug/L
RT: 13.274 min Scan# 1760
Delta R.T. -0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:119 Resp: 177073

Ion	Ratio	Lower	Upper
119	100		
134	50.2	31.9	66.1
91	13.3	9.8	20.3

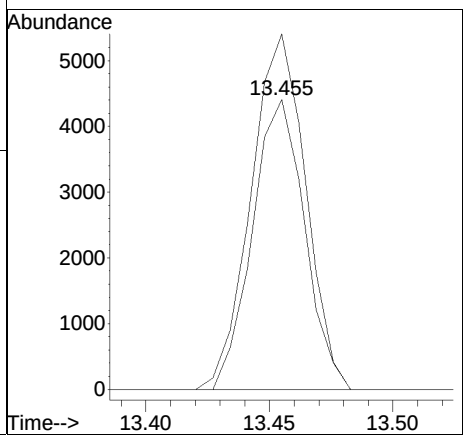


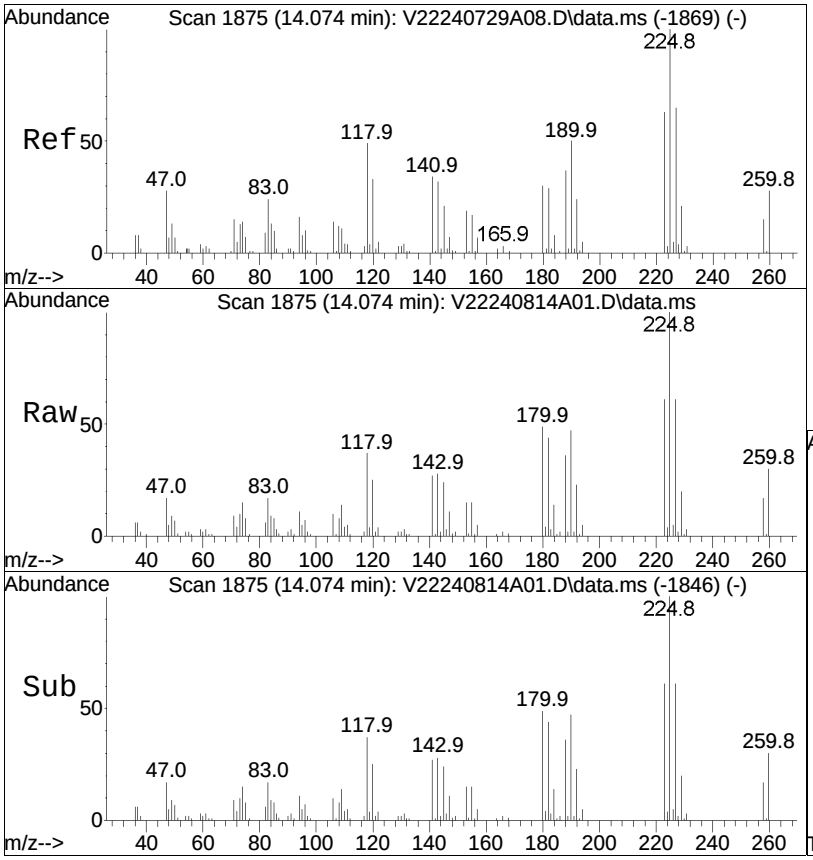


#110
1,2-Dibromo-3-chloropropane
Concen: 8.79 ug/L
RT: 13.455 min Scan# 1786
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:155 Resp: 6482

Ion	Ratio	Lower	Upper
155	100		
157	128.2	102.3	153.5

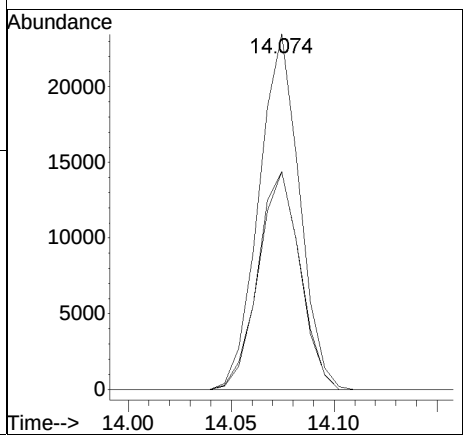


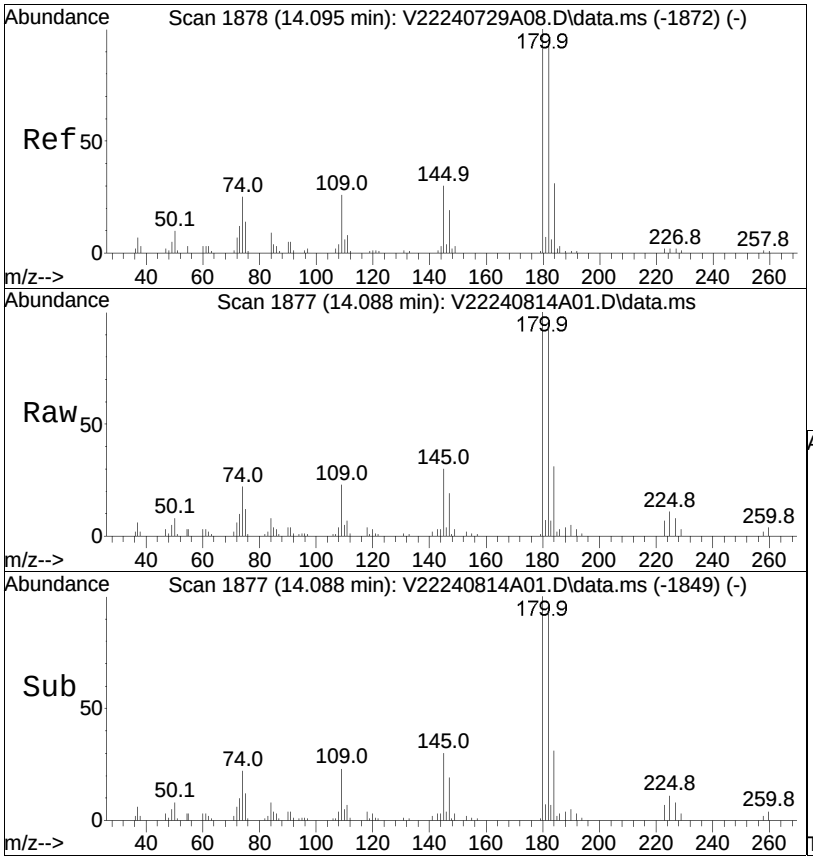


#112
Hexachlorobutadiene
Concen: 10.94 ug/L
RT: 14.074 min Scan# 1875
Delta R.T. 0.000 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:225 Resp: 32235

Ion	Ratio	Lower	Upper
225	100		
223	62.7	49.8	74.8
227	63.5	52.2	78.4

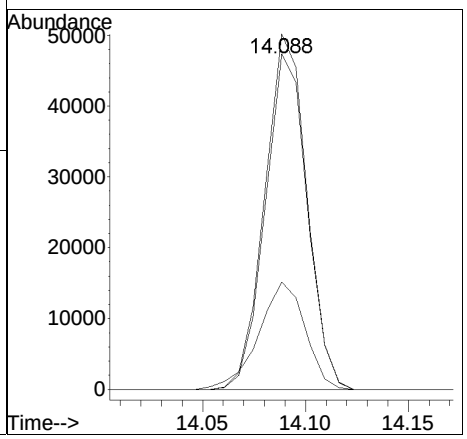


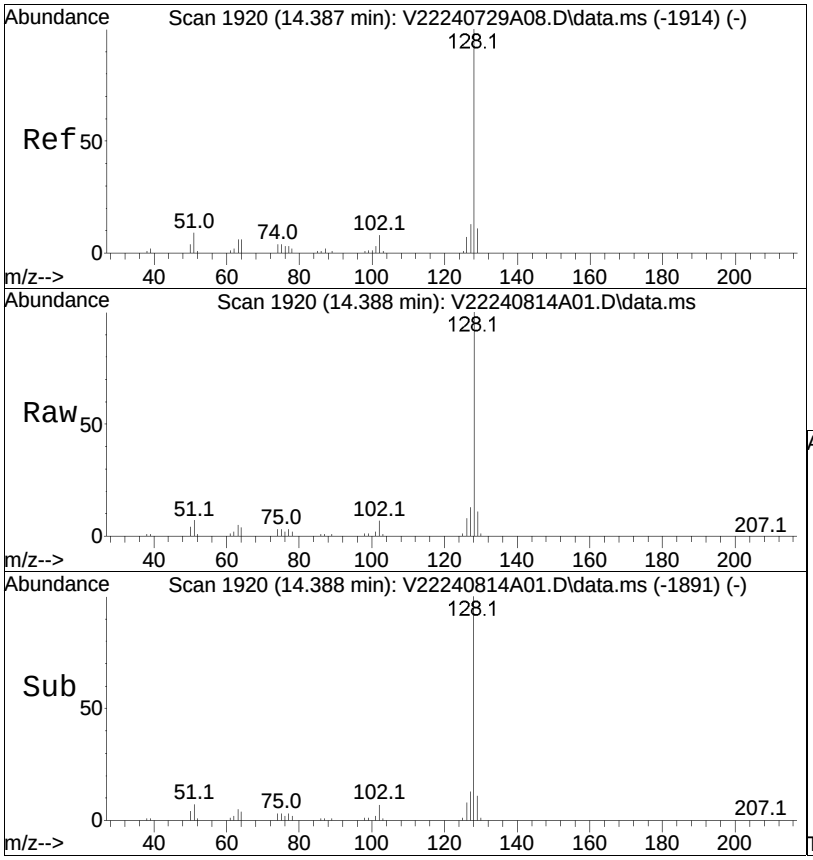


#113
1,2,4-Trichlorobenzene
Concen: 10.31 ug/L
RT: 14.088 min Scan# 1877
Delta R.T. -0.007 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:180 Resp: 71241

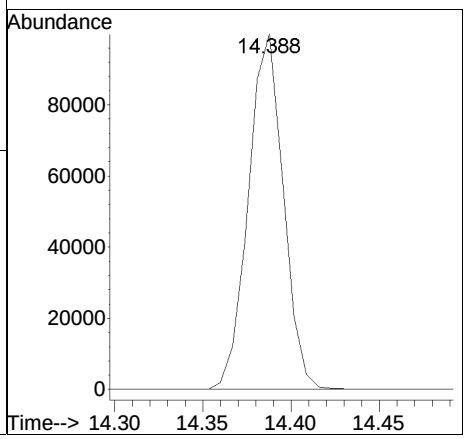
Ion	Ratio	Lower	Upper
180	100		
182	94.1	76.6	114.8
145	33.3	25.5	38.3

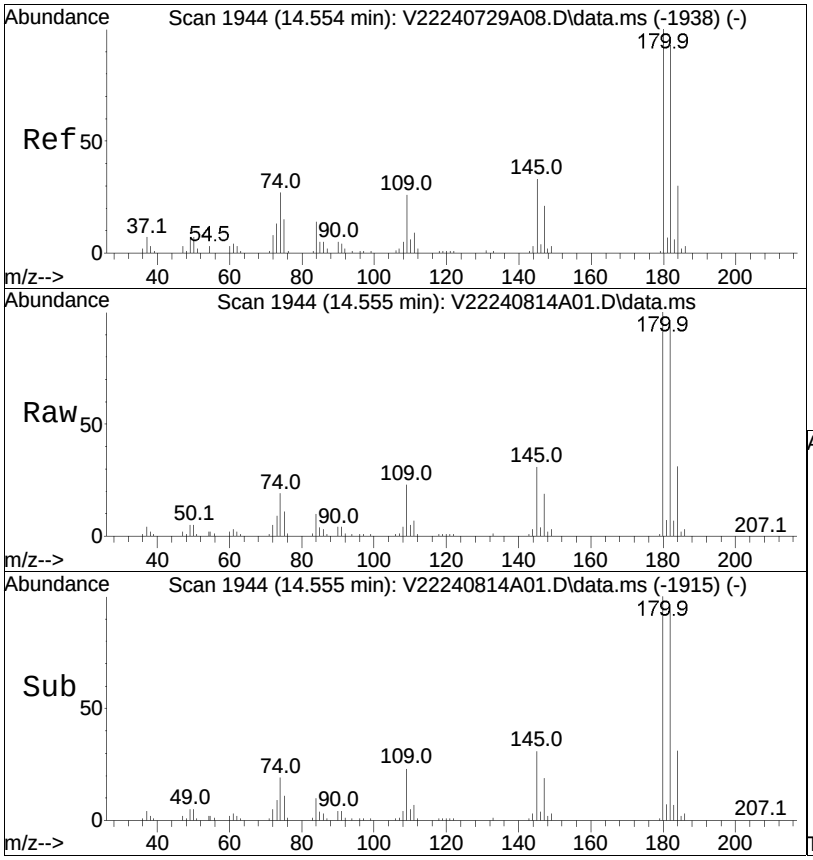




#114
Naphthalene
Concen: 8.68 ug/L
RT: 14.388 min Scan# 1920
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:128 Resp: 137834

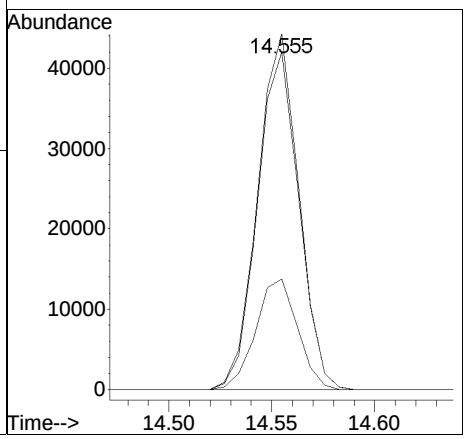




#115
1,2,3-Trichlorobenzene
Concen: 10.45 ug/L
RT: 14.555 min Scan# 1944
Delta R.T. 0.001 min
Lab File: V22240814A01.D
Acq: 14 Aug 2024 06:26 am

Tgt Ion:180 Resp: 61343

Ion	Ratio	Lower	Upper
180	100		
182	95.6	76.0	114.0
145	31.6	23.8	35.8

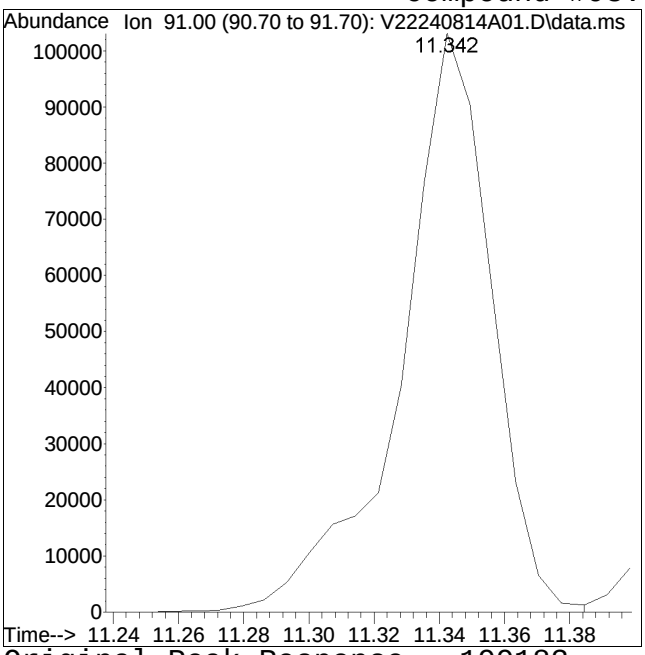


Manual Integration Report

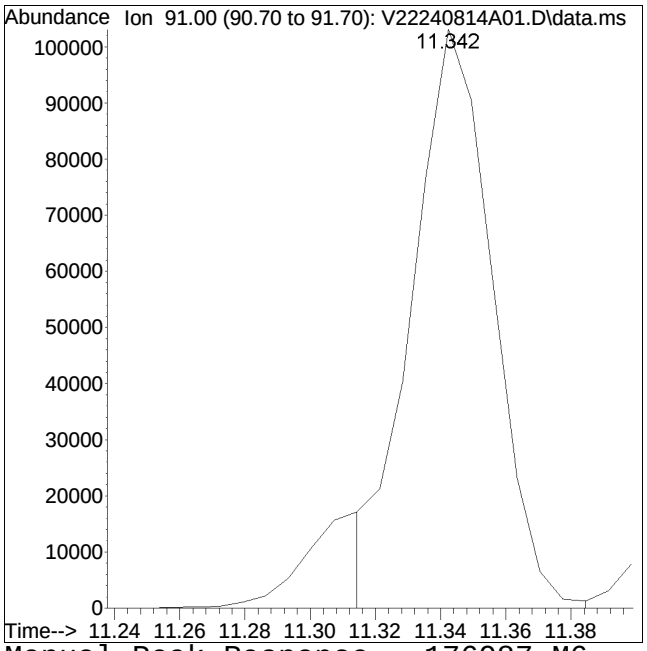
Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A01.D
Date Inj'd : 8/14/2024 6:26 am
Sample : WG1959185-3,31,10,10

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/14/2024 6:54 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 199183



Manual Peak Response = 176987 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A02.D
Acq On : 14 Aug 2024 06:51 am
Operator : VOA122:PID
Sample : WG1959185-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 07:26:52 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	422419	10.000	ug/L	0.00
Standard Area 1 = 410026			Recovery = 103.02%			
62) Chlorobenzene-d5	9.519	117	357300	10.000	ug/L	0.00
Standard Area 1 = 350491			Recovery = 101.94%			
83) 1,4-Dichlorobenzene-d4	12.229	152	196004	10.000	ug/L	0.00
Standard Area 1 = 194738			Recovery = 100.65%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	153453	10.397	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.97%			
46) 1,2-Dichloroethane-d4	5.688	65	117305	9.402	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.02%			
63) Toluene-d8	7.675	98	416360	9.146	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.46%			
87) 4-Bromofluorobenzene	11.019	95	146217	8.192	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 81.92%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	81966	9.829	ug/L	98
3) Chloromethane	1.808	50	92687	8.332	ug/L	97
4) Vinyl chloride	1.880	62	85206	9.681	ug/L	98
5) Bromomethane	2.189	94	14462	4.090	ug/L	99
6) Chloroethane	2.306	64	50673	9.960	ug/L	95
7) Trichlorofluoromethane	2.444	101	114796	11.364	ug/L	100
8) Ethyl ether	2.739	74	25795	8.774	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	62651	10.720	ug/L	87
11) Carbon disulfide	2.962	76	188820	9.835	ug/L	100
15) Methylene chloride	3.473	84	68323	8.818	ug/L #	59
17) Acetone	3.512	43	12891	9.128	ug/L	91
18) trans-1,2-Dichloroethene	3.630	96	67806	9.918	ug/L	89
21) Methyl tert-butyl ether	3.722	73	119062	9.108	ug/L #	76
25) 1,1-Dichloroethane	4.207	63	124901	8.945	ug/L	95
27) Acrylonitrile	4.247	53	18404	9.548	ug/L	95
29) Vinyl acetate	4.437	43	132184	9.004	ug/L #	89
30) cis-1,2-Dichloroethene	4.725	96	74003	9.767	ug/L	88
31) 2,2-Dichloropropane	4.830	77	90239	10.312	ug/L #	79
32) Bromochloromethane	4.915	128	41161	11.513	ug/L #	83
34) Chloroform	4.987	83	110751	9.165	ug/L #	94

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A02.D
Acq On : 14 Aug 2024 06:51 am
Operator : VOA122:PID
Sample : WG1959185-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 07:26:52 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Carbon tetrachloride	5.125	117	103967	11.921	ug/L		99
39) 1,1,1-Trichloroethane	5.190	97	107580	10.557	ug/L		97
41) 2-Butanone	5.275	43	19526	9.838	ug/L	#	41
42) 1,1-Dichloropropene	5.308	75	79385	9.654	ug/L		94
44) Benzene	5.557	78	233322	8.721	ug/L	#	89
47) 1,2-Dichloroethane	5.754	62	61773	9.241	ug/L		97
51) Trichloroethene	6.153	95	57372	10.082	ug/L		94
53) Dibromomethane	6.591	93	27360	9.511	ug/L		95
54) 1,2-Dichloropropane	6.695	63	52642	8.811	ug/L		95
57) Bromodichloromethane	6.764	83	65327	9.267	ug/L		99
60) 1,4-Dioxane	6.973	88	9731	412.834	ug/L	#	58
61) cis-1,3-Dichloropropene	7.459	75	66711	9.183	ug/L	#	84
64) Toluene	7.730	92	133816	9.092	ug/L		97
65) 4-Methyl-2-pentanone	8.161	58	8762	7.439	ug/L	#	63
66) Tetrachloroethene	8.175	166	69737	12.084	ug/L		99
68) trans-1,3-Dichloropropene	8.210	75	53865	7.440	ug/L		84
71) 1,1,2-Trichloroethane	8.391	83	29212	8.452	ug/L		96
72) Chlorodibromomethane	8.607	129	51963	9.316	ug/L		98
73) 1,3-Dichloropropane	8.719	76	56637	8.358	ug/L		99
74) 1,2-Dibromoethane	8.881	107	37650	9.721	ug/L		99
76) 2-Hexanone	9.175	43	16771	7.663	ug/L	#	85
77) Chlorobenzene	9.540	112	163160	9.788	ug/L	#	83
78) Ethylbenzene	9.582	91	257981	9.284	ug/L		97
79) 1,1,1,2-Tetrachloroethane	9.624	131	53410	10.073	ug/L		97
80) p/m Xylene	9.771	106	219015	20.304	ug/L		91
81) o Xylene	10.311	106	202955	19.896	ug/L		91
82) Styrene	10.381	104	327371	19.953	ug/L		93
84) Bromoform	10.395	173	27566	9.349	ug/L		100
86) Isopropylbenzene	10.704	105	283238	9.316	ug/L		99
88) Bromobenzene	11.132	156	70840	9.909	ug/L		100
89) n-Propylbenzene	11.181	91	309593	8.763	ug/L		96
91) 1,1,2,2-Tetrachloroethane	11.258	83	38658	7.773	ug/L		99
92) 4-Ethyltoluene	11.307	105	261707	9.089	ug/L		97
93) 2-Chlorotoluene	11.342	91	173554M6	8.155	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	223031	9.141	ug/L		96
95) 1,2,3-Trichloropropane	11.398	75	29368	7.736	ug/L		95
96) trans-1,4-Dichloro-2-b...	11.454	53	13788	8.144	ug/L	#	64
97) 4-Chlorotoluene	11.531	91	179902	8.191	ug/L		91
98) tert-Butylbenzene	11.749	119	209326	9.884	ug/L		92

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A02.D
Acq On : 14 Aug 2024 06:51 am
Operator : VOA122:PID
Sample : WG1959185-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 07:26:52 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240814A\V22240814A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	245630	9.010	ug/L	94
102) sec-Butylbenzene	11.944	105	295387	9.190	ug/L	97
103) p-Isopropyltoluene	12.097	119	258040	9.498	ug/L	98
104) 1,3-Dichlorobenzene	12.153	146	143447	10.115	ug/L	98
105) 1,4-Dichlorobenzene	12.250	146	138308	9.834	ug/L	99
106) p-Diethylbenzene	12.473	119	144572	9.362	ug/L	97
107) n-Butylbenzene	12.529	91	198066	8.779	ug/L	98
108) 1,2-Dichlorobenzene	12.675	146	123694	9.859	ug/L	98
109) 1,2,4,5-Tetramethylben...	13.274	119	182967	8.639	ug/L	98
110) 1,2-Dibromo-3-chloropr...	13.455	155	6694	9.007	ug/L	97
112) Hexachlorobutadiene	14.074	225	32187	10.852	ug/L	98
113) 1,2,4-Trichlorobenzene	14.088	180	72324	10.401	ug/L	99
114) Naphthalene	14.387	128	142343	8.896	ug/L	100
115) 1,2,3-Trichlorobenzene	14.554	180	62788	10.630	ug/L	98

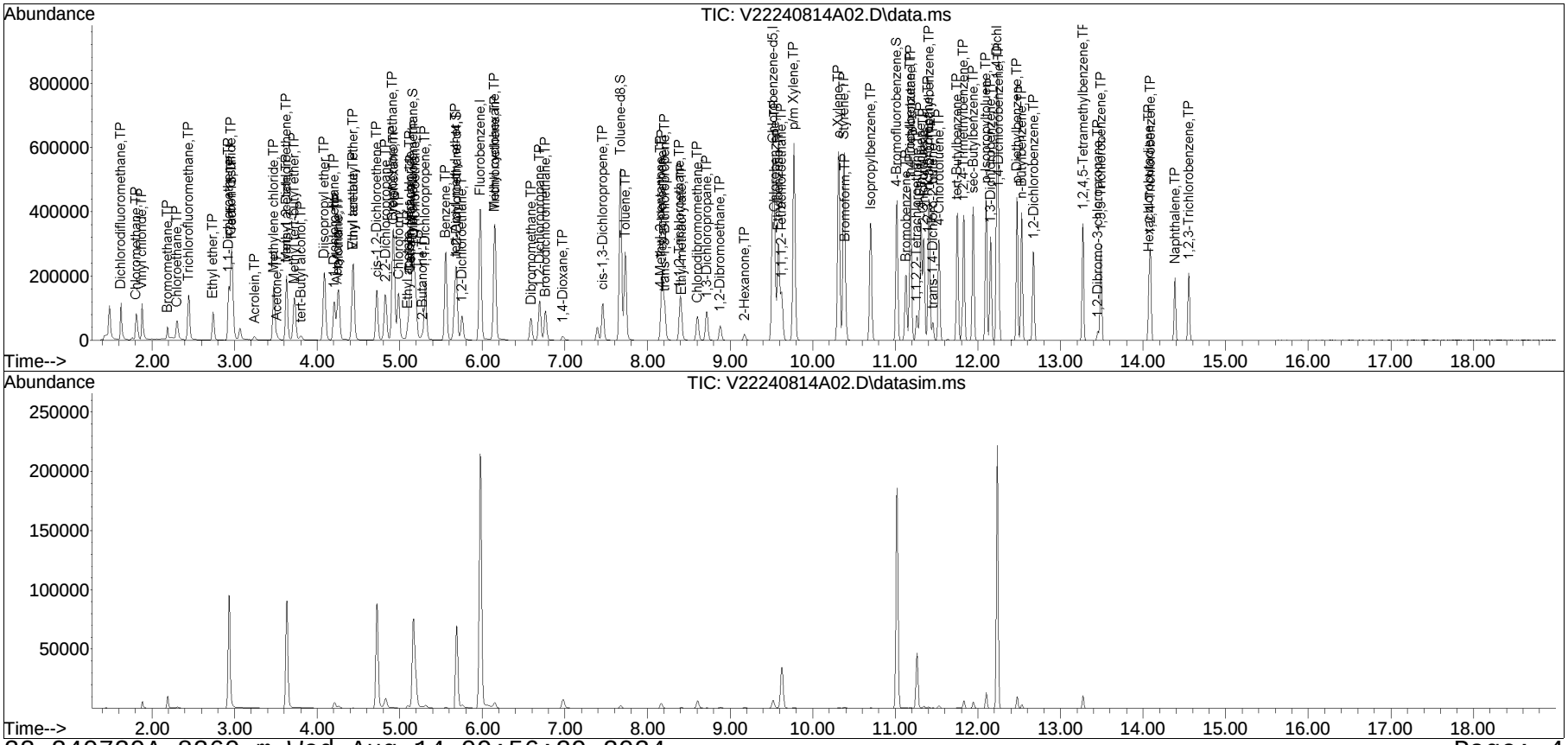
(#) = qualifier out of range (m) = manual integration (+) = signals summed

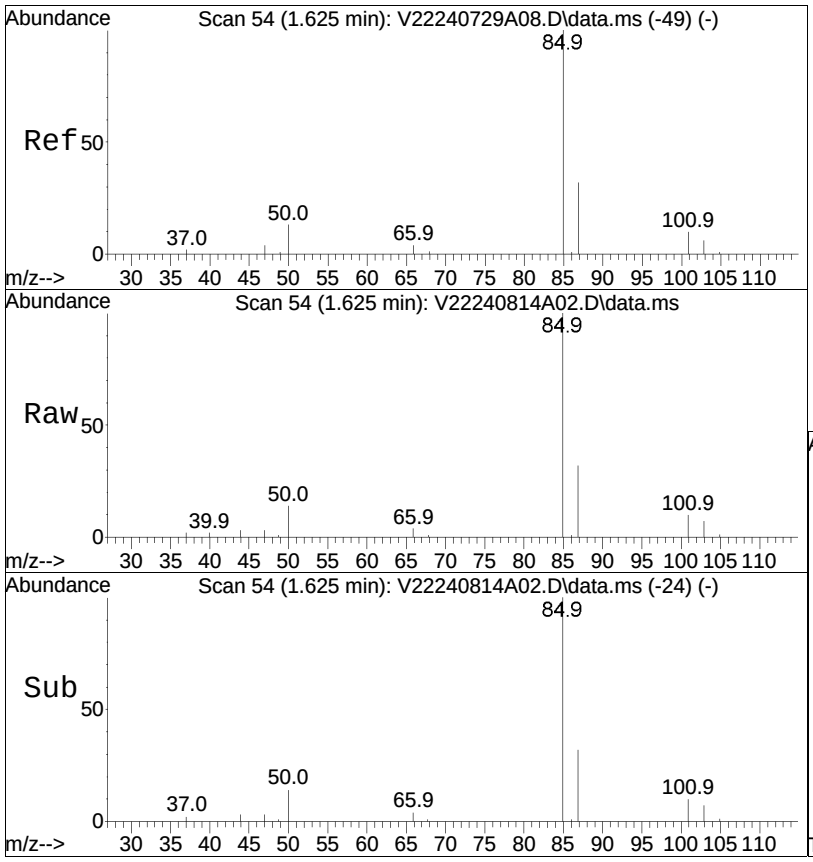
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A02.D
Acq On : 14 Aug 2024 06:51 am
Operator : VOA122:PID
Sample : WG1959185-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959185,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 07:26:52 2024
Quant Method : K:\VOA122\2024\240814A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

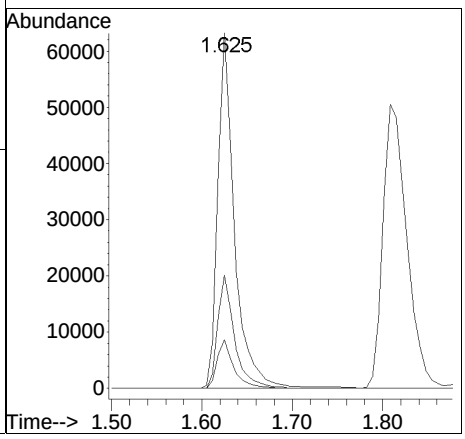


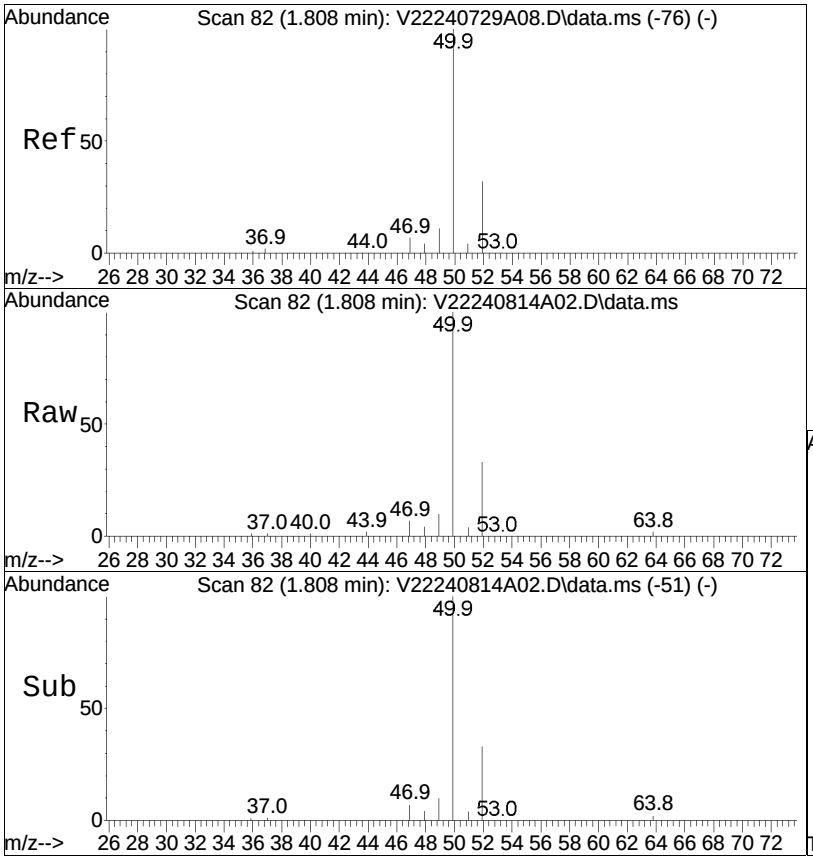


#2
Dichlorodifluoromethane
Concen: 9.83 ug/L
RT: 1.625 min Scan# 54
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 85 Resp: 81966

Ion	Ratio	Lower	Upper
85	100		
87	31.8	20.7	42.9
50	13.5	6.8	14.2

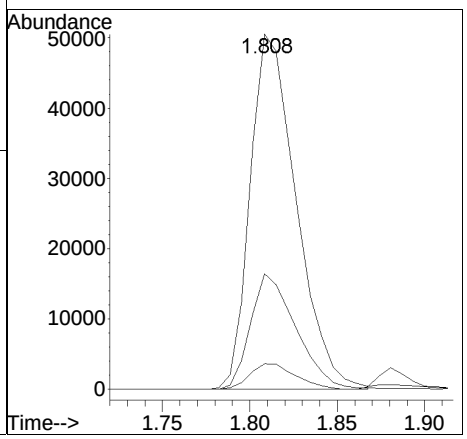


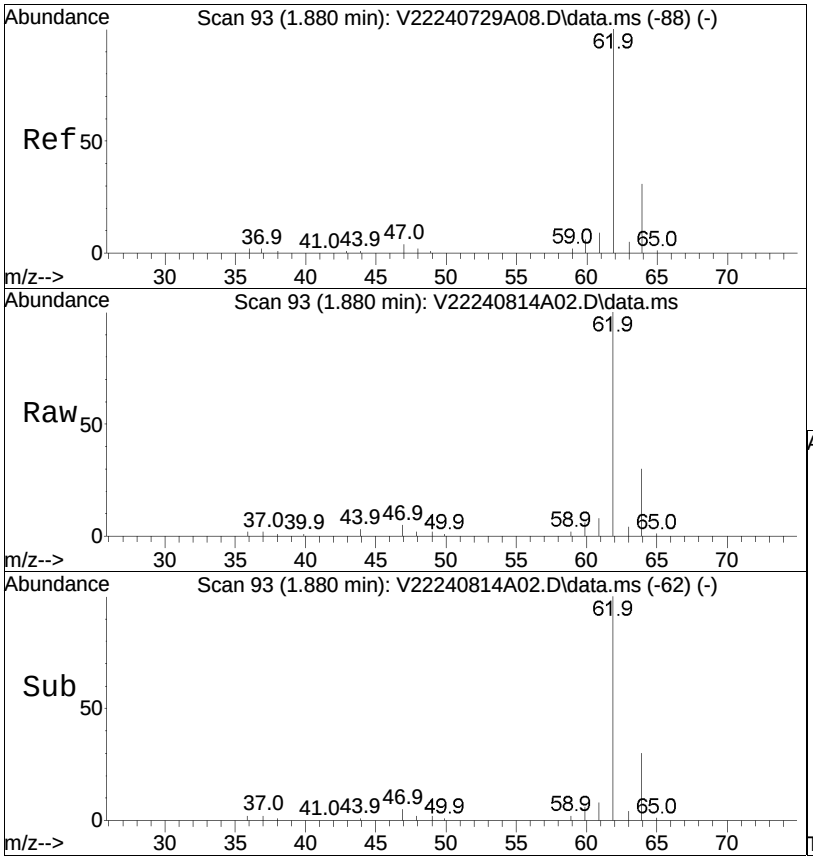


#3
Chloromethane
Concen: 8.33 ug/L
RT: 1.808 min Scan# 82
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 50 Resp: 92687

Ion	Ratio	Lower	Upper
50	100		
52	32.2	12.8	52.8
47	7.3	0.0	30.0

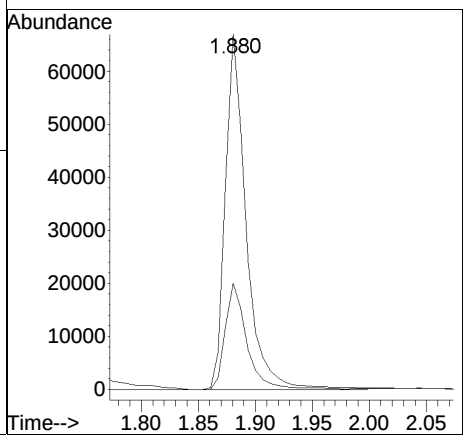


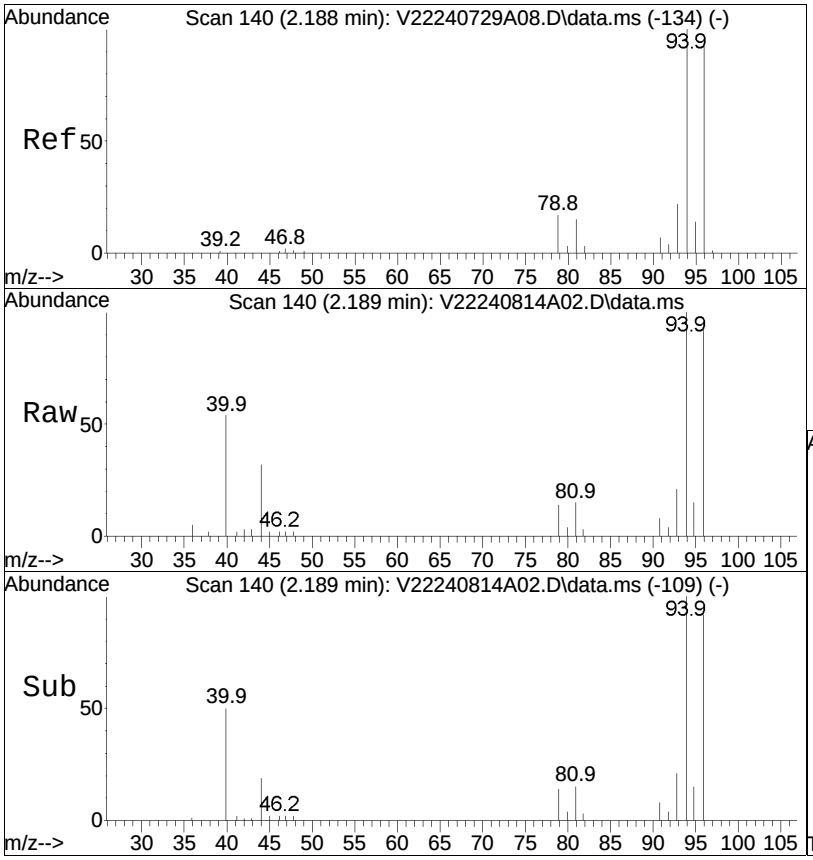


#4
Vinyl chloride
Concen: 9.68 ug/L
RT: 1.880 min Scan# 93
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 62 Resp: 85206

Ion	Ratio	Lower	Upper
62	100		
64	30.8	12.0	52.0

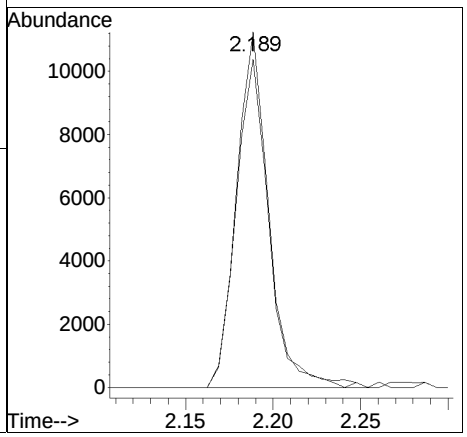


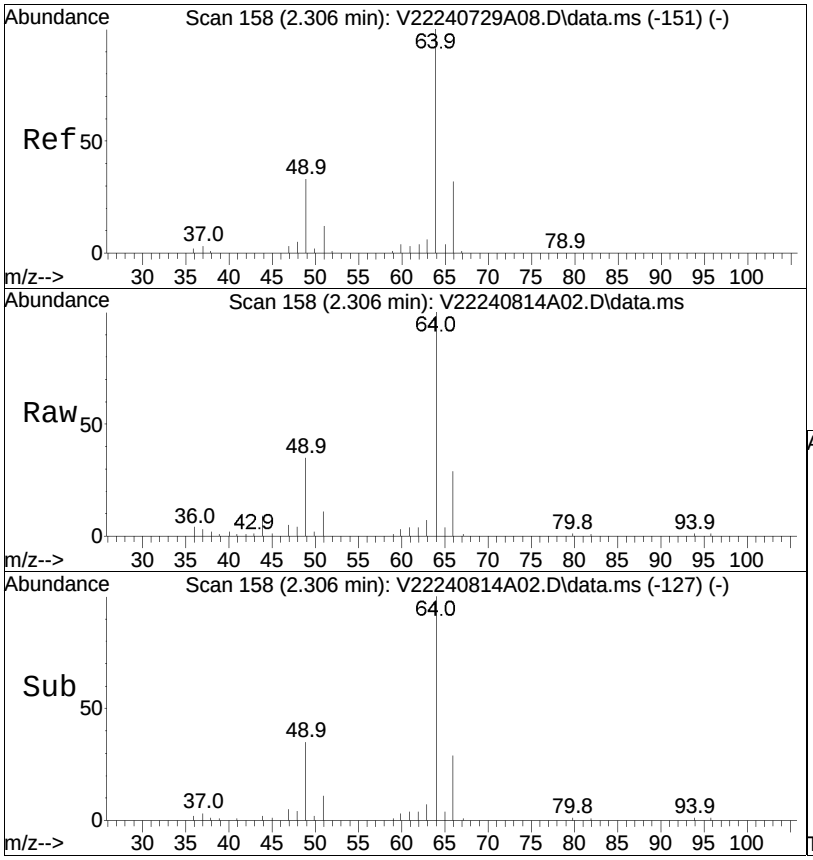


#5
Bromomethane
Concen: 4.09 ug/L
RT: 2.189 min Scan# 140
Delta R.T. 0.001 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 94 Resp: 14462

Ion	Ratio	Lower	Upper
94	100		
96	93.4	72.8	112.8

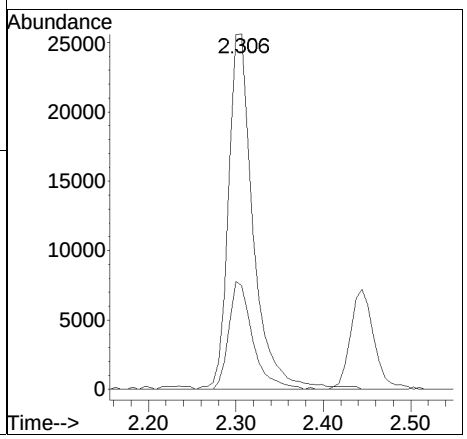


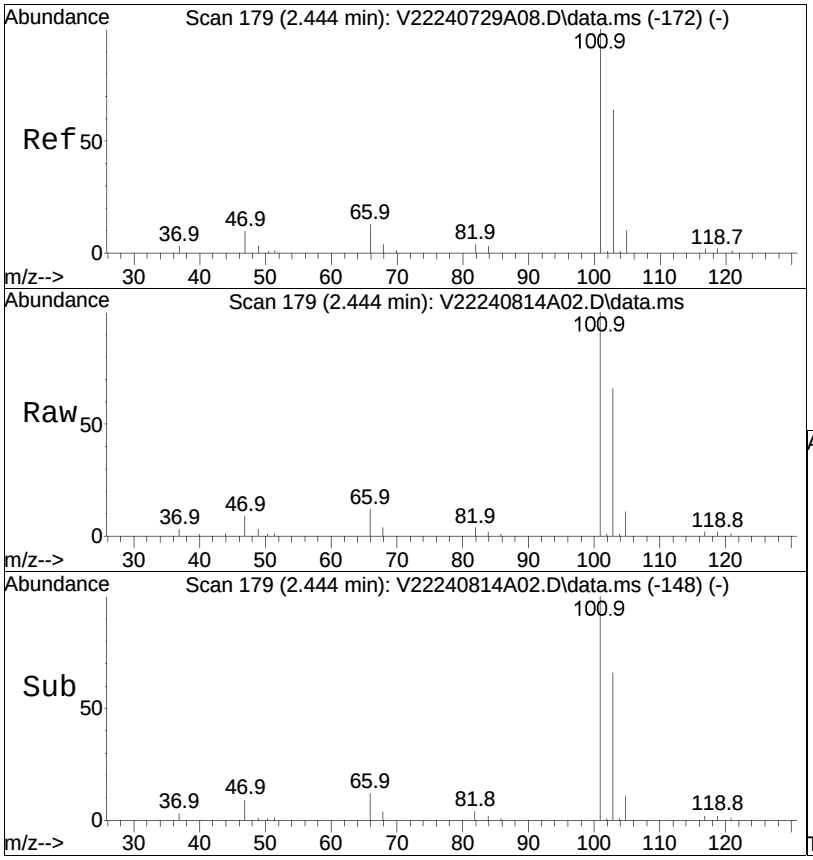


#6
Chloroethane
Concen: 9.96 ug/L
RT: 2.306 min Scan# 158
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 64 Resp: 50673

Ion	Ratio	Lower	Upper
64	100		
66	29.4	12.2	52.2

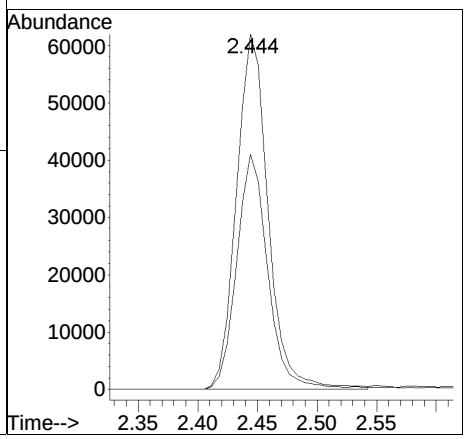


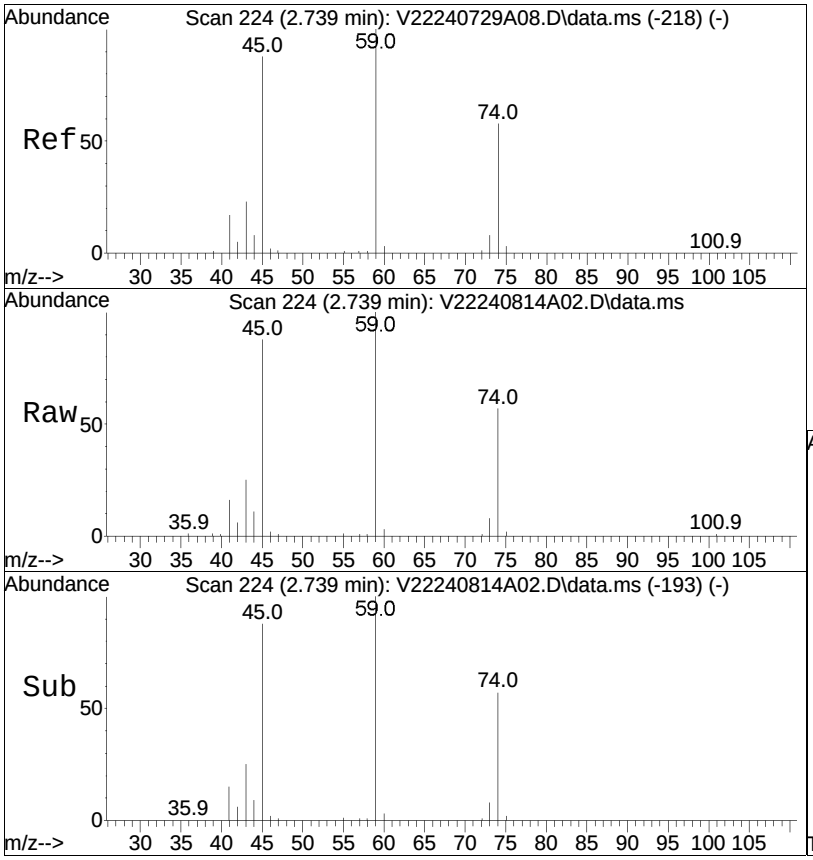


#7
Trichlorofluoromethane
Concen: 11.36 ug/L
RT: 2.444 min Scan# 179
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:101 Resp: 114796

Ion	Ratio	Lower	Upper
101	100		
103	64.7	51.6	77.4

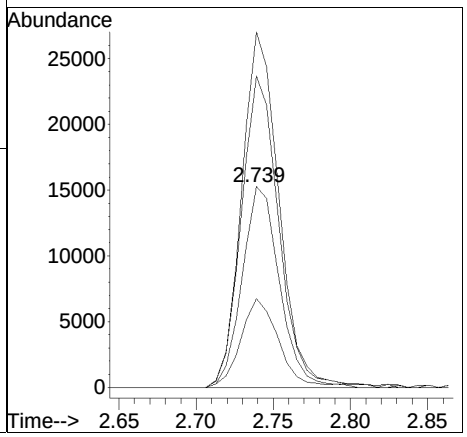


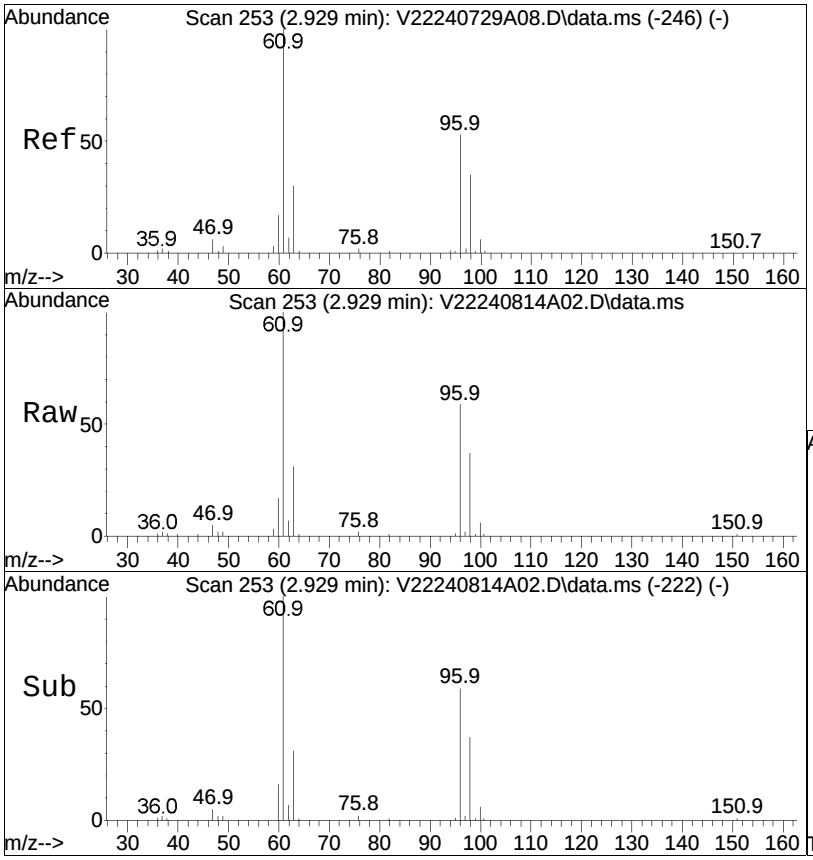


#8
Ethyl ether
Concen: 8.77 ug/L
RT: 2.739 min Scan# 224
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 74 Resp: 25795

Ion	Ratio	Lower	Upper
74	100		
59	177.2	2122.4	4408.0#
45	155.4	1435.1	2980.5#
43	44.8	407.9	847.3#

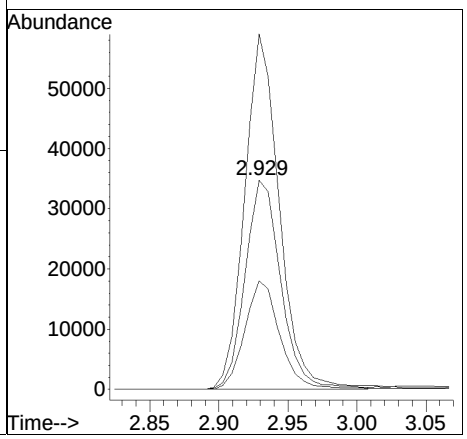


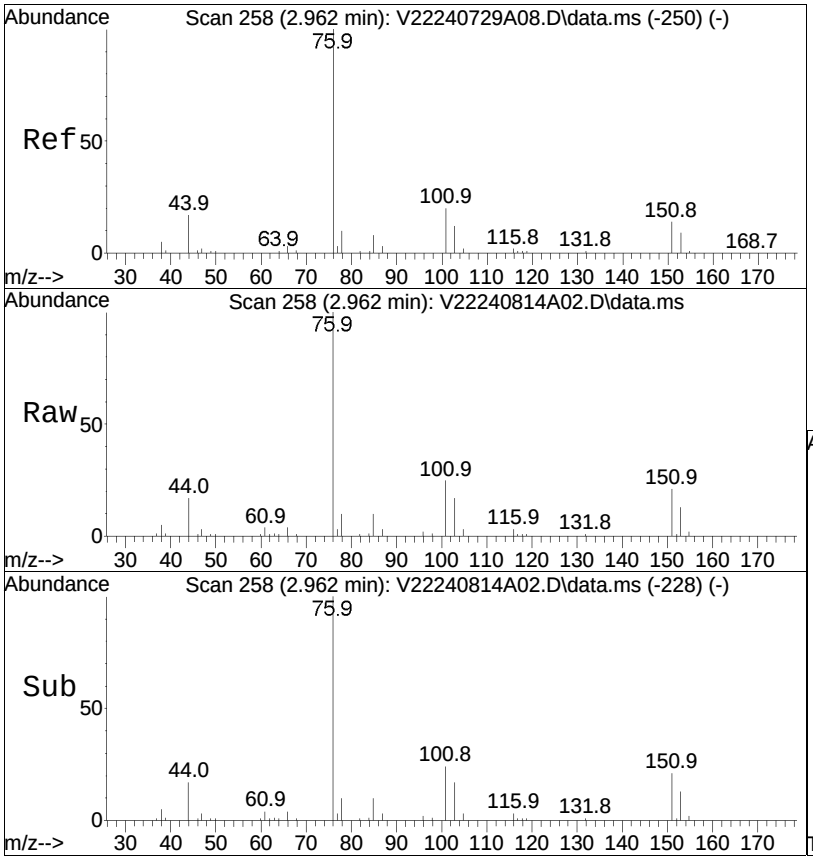


#10
1,1-Dichloroethene
Concen: 10.72 ug/L
RT: 2.929 min Scan# 253
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 96 Resp: 62651

Ion	Ratio	Lower	Upper
96	100		
61	165.5	117.0	175.4
63	51.2	37.8	56.6

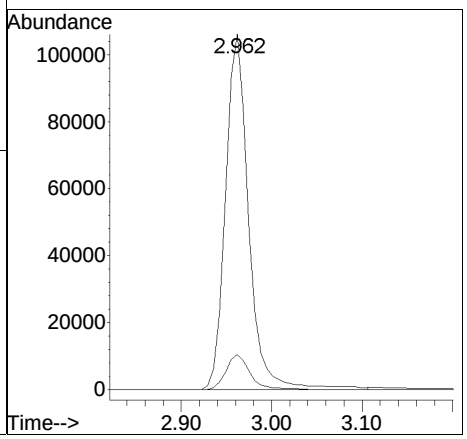


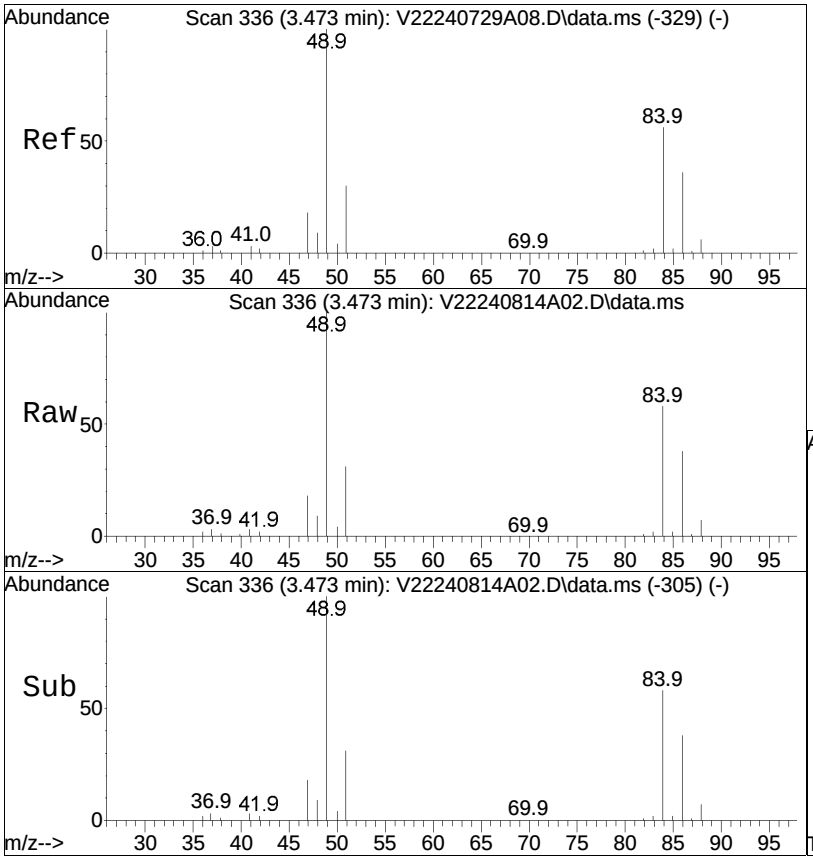


#11
Carbon disulfide
Concen: 9.84 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 76 Resp: 188820

Ion	Ratio	Lower	Upper
76	100		
78	10.0	6.4	13.4

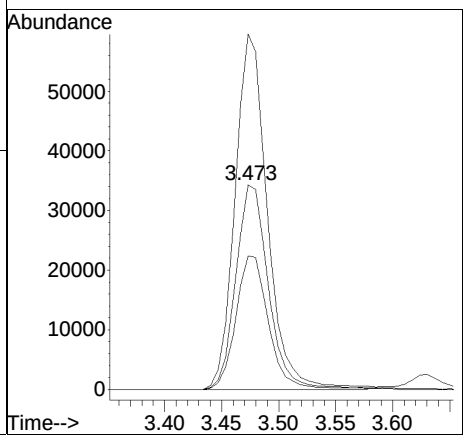


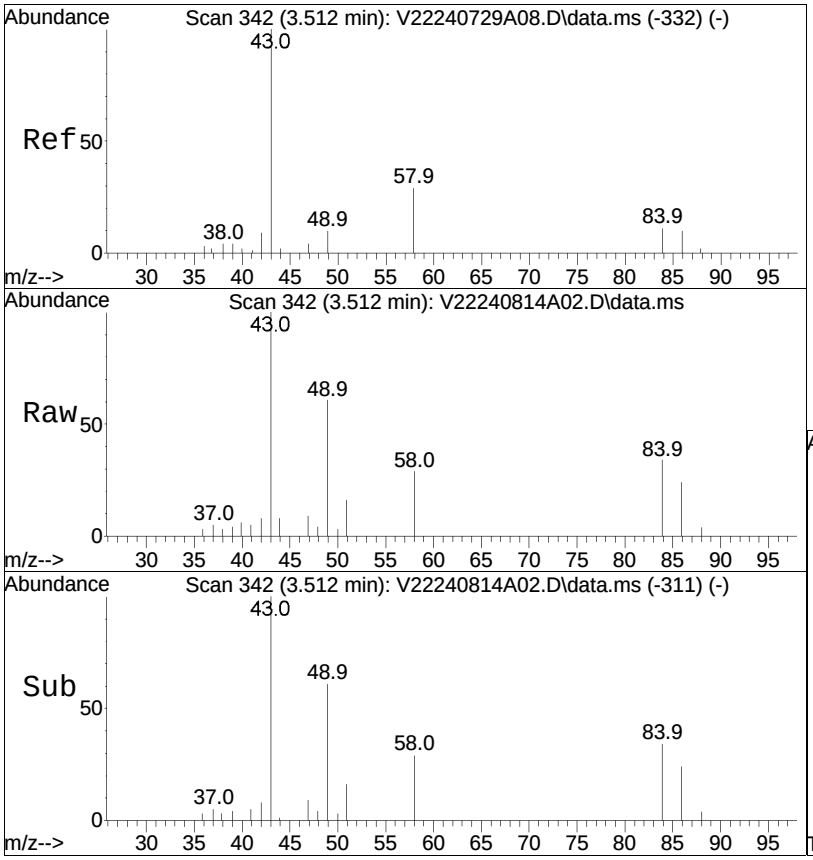


#15
Methylene chloride
Concen: 8.82 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 84 Resp: 68323

Ion	Ratio	Lower	Upper
84	100		
86	65.7	41.5	86.3
49	172.2	68.8	143.0#

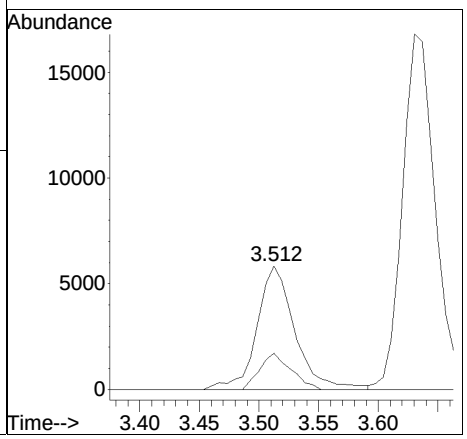


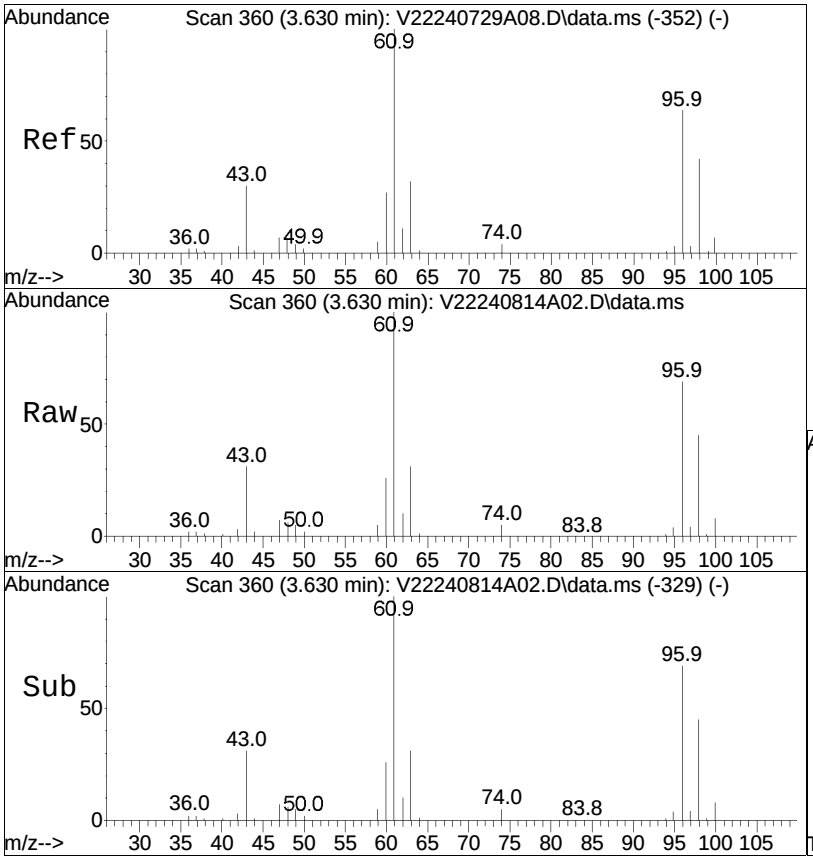


#17
Acetone
Concen: 9.13 ug/L
RT: 3.512 min Scan# 342
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 43 Resp: 12891

Ion	Ratio	Lower	Upper
43	100		
58	24.2	23.1	34.7

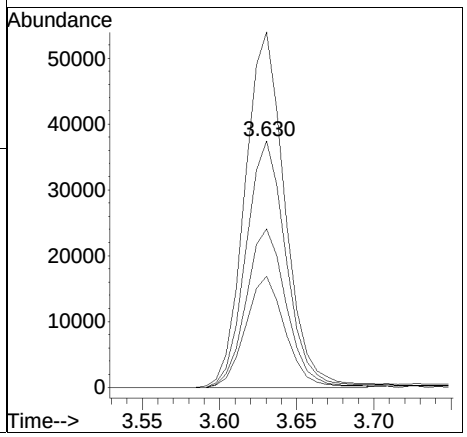


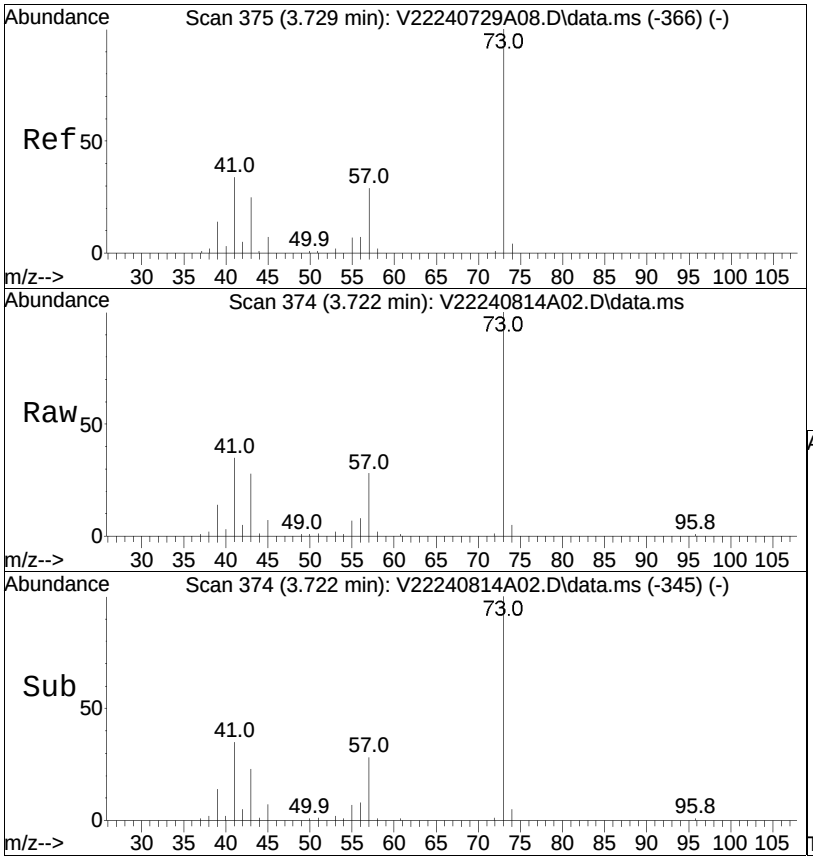


#18
trans-1,2-Dichloroethene
Concen: 9.92 ug/L
RT: 3.630 min Scan# 360
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 96 Resp: 67806

Ion	Ratio	Lower	Upper
96	100		
61	144.9	81.6	169.6
98	64.7	41.8	86.8
63	44.7	26.3	54.7

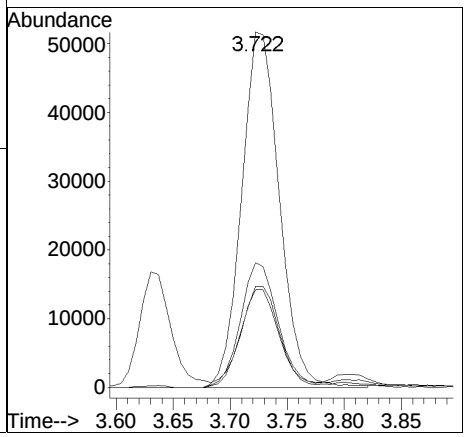


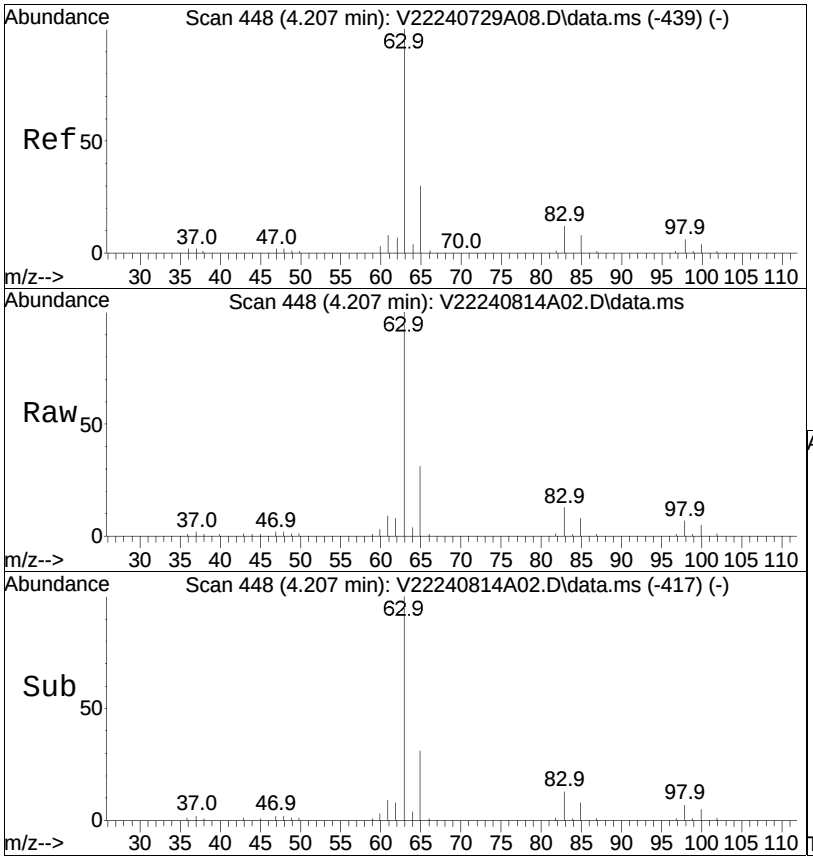


#21
Methyl tert-butyl ether
Concen: 9.11 ug/L
RT: 3.722 min Scan# 374
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 73 Resp: 119062

Ion	Ratio	Lower	Upper
73	100		
57	28.9	13.6	28.2#
43	27.5	12.7	26.5#
41	34.8	11.4	23.8#

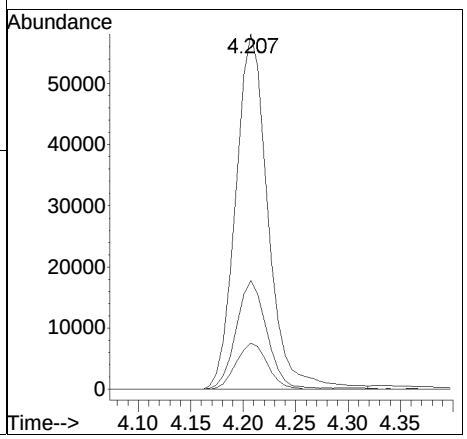


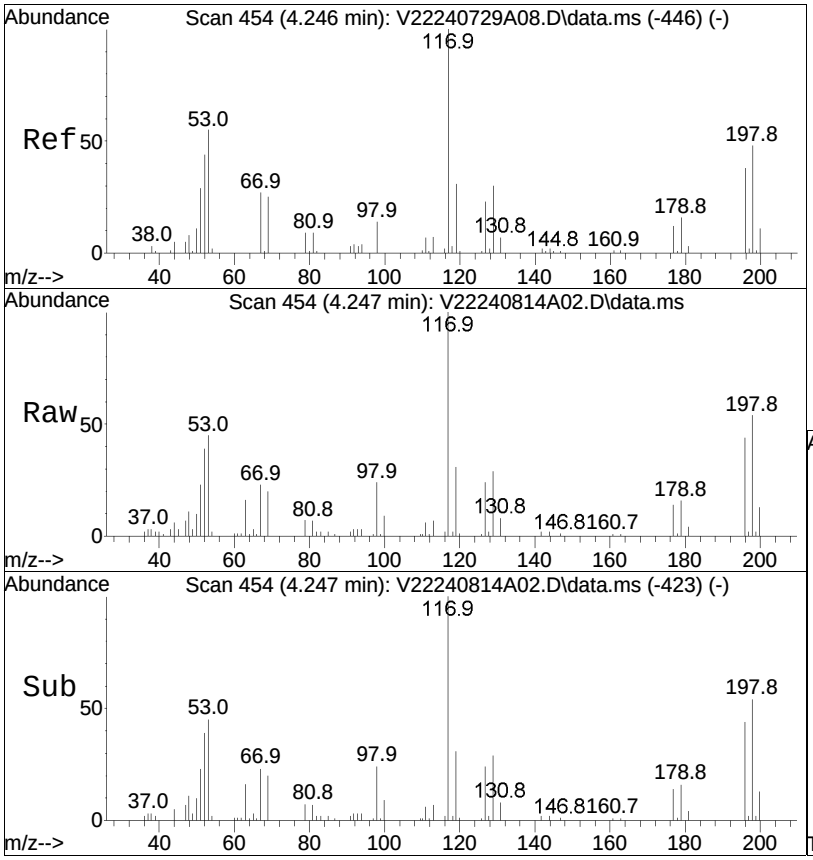


#25
1,1-Dichloroethane
Concen: 8.95 ug/L
RT: 4.207 min Scan# 448
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 63 Resp: 124901

Ion	Ratio	Lower	Upper
63	100		
65	29.2	11.9	51.9
83	12.6	0.0	34.2

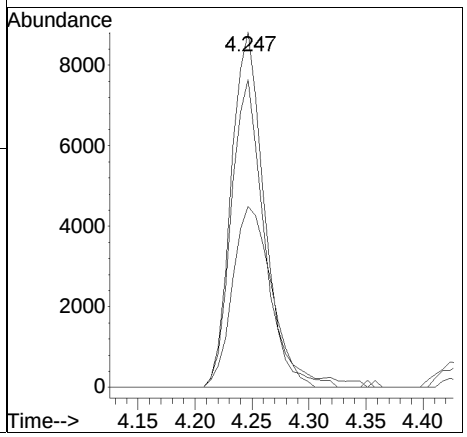


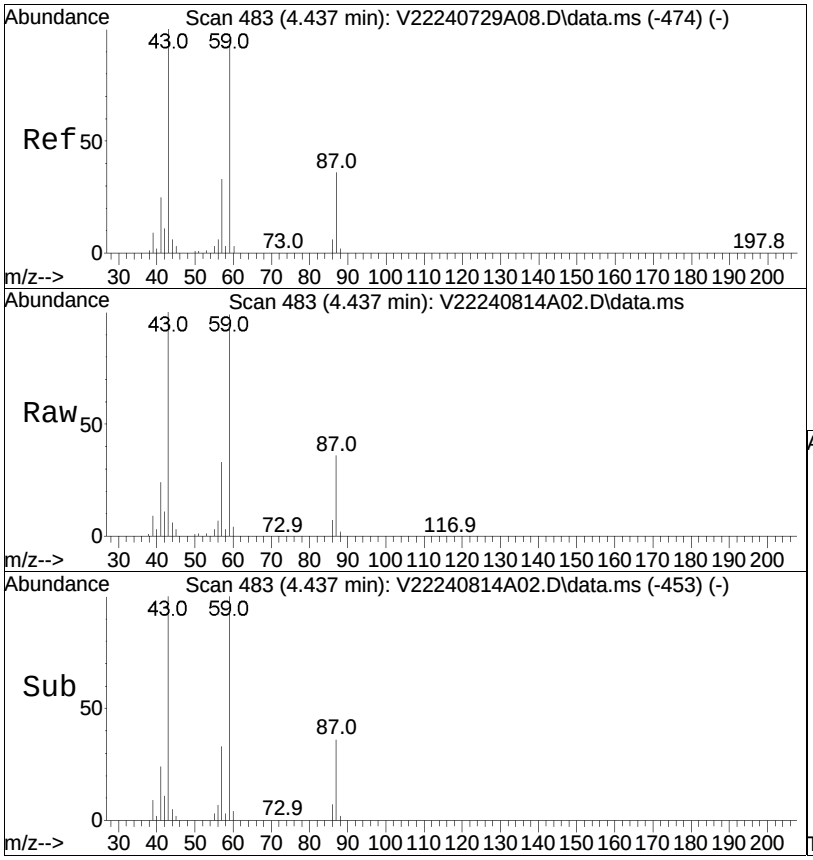


#27
Acrylonitrile
Concen: 9.55 ug/L
RT: 4.247 min Scan# 454
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 53 Resp: 18404

Ion	Ratio	Lower	Upper
53	100		
52	83.9	63.8	95.8
51	58.1	50.2	75.4

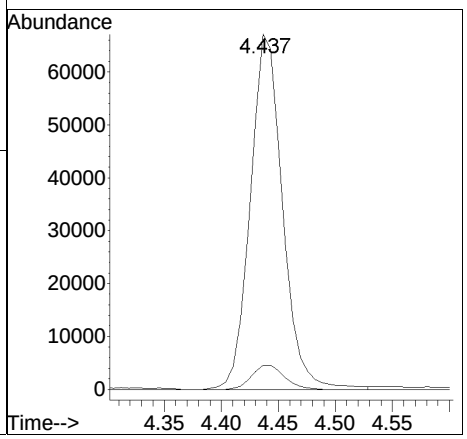


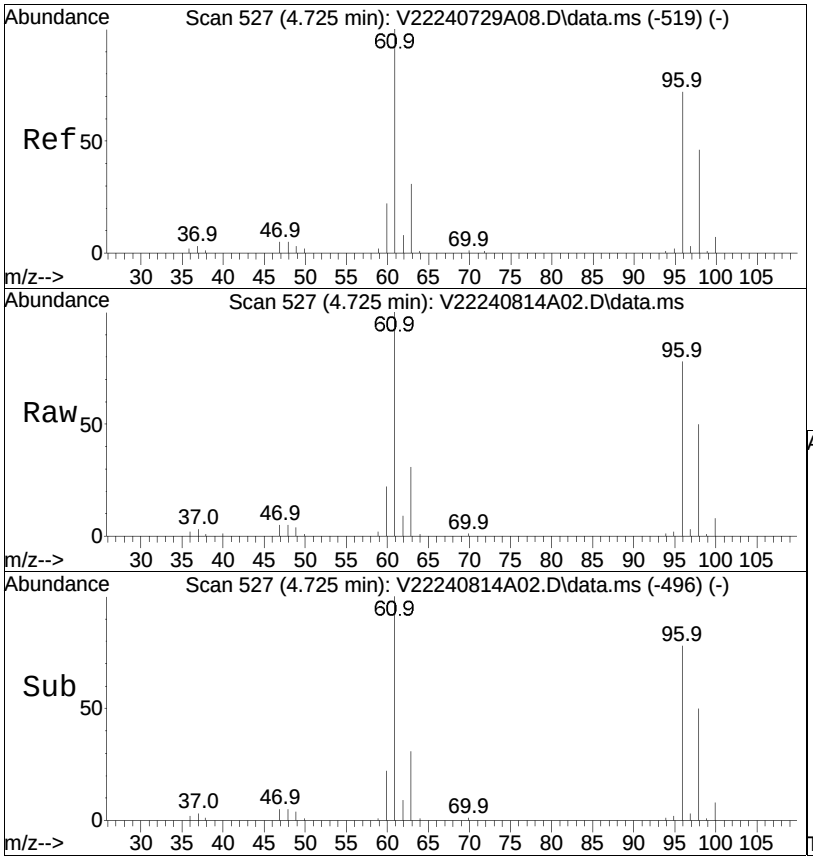


#29
Vinyl acetate
Concen: 9.00 ug/L
RT: 4.437 min Scan# 483
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 43 Resp: 132184

Ion	Ratio	Lower	Upper
43	100		
86	6.9	8.9	13.3#

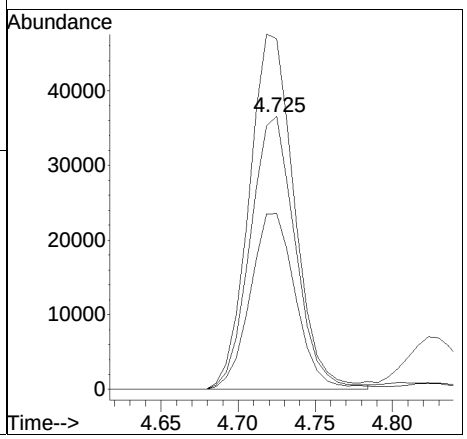


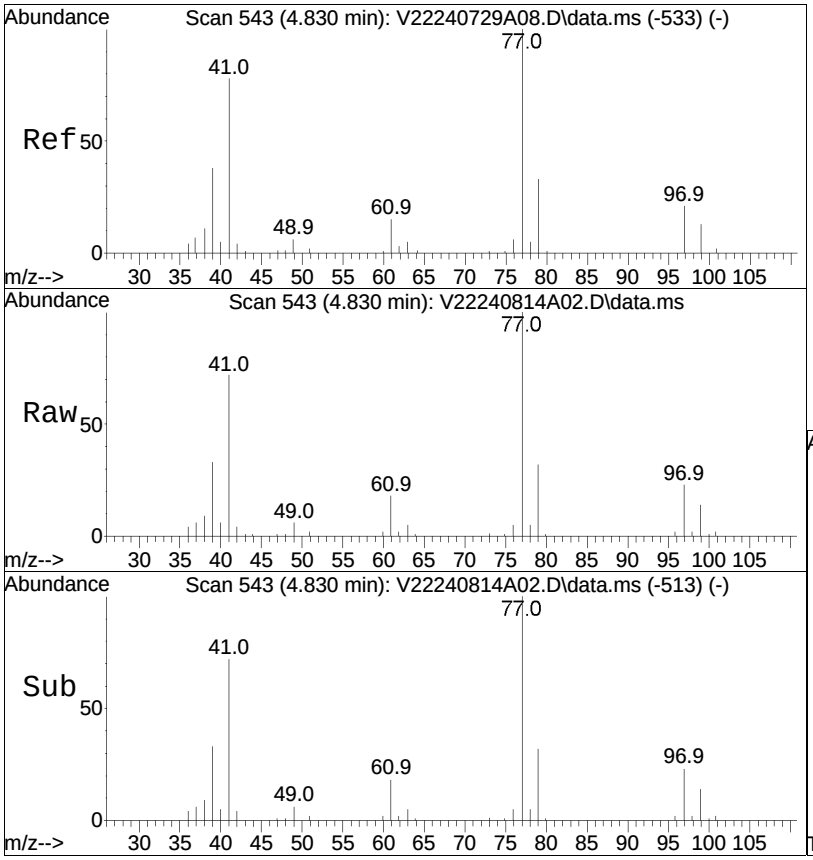


#30
cis-1,2-Dichloroethene
Concen: 9.77 ug/L
RT: 4.725 min Scan# 527
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 96 Resp: 74003

Ion	Ratio	Lower	Upper
96	100		
61	130.8	90.3	135.5
98	65.6	50.8	76.2

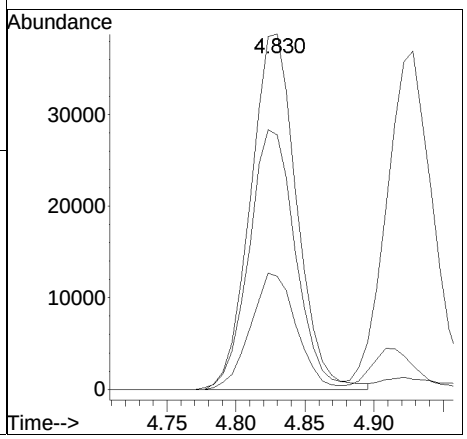


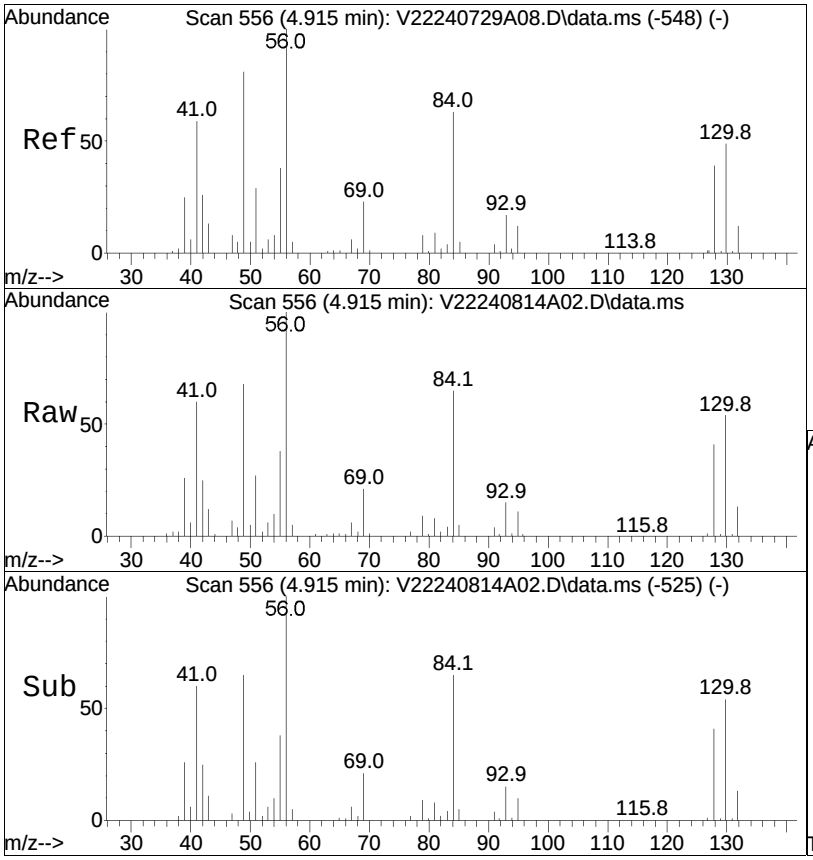


#31
2,2-Dichloropropane
Concen: 10.31 ug/L
RT: 4.830 min Scan# 543
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 77 Resp: 90239

Ion	Ratio	Lower	Upper
77	100		
41	73.3	32.3	67.1#
79	32.5	21.1	43.7

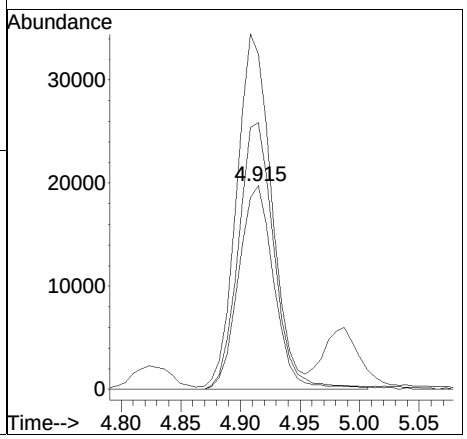


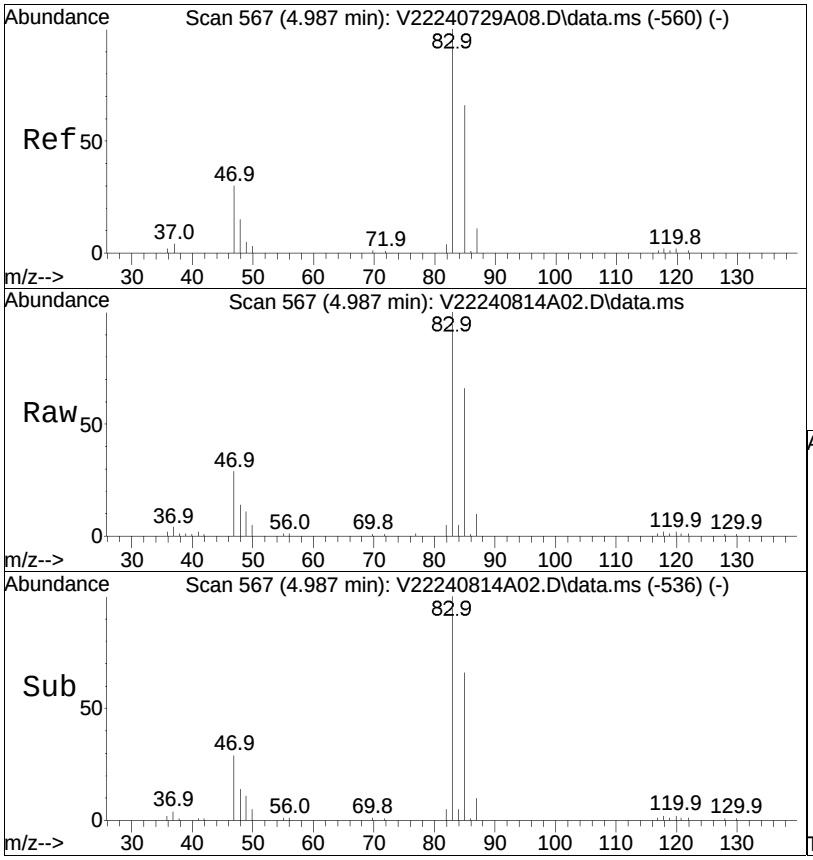


#32
Bromochloromethane
Concen: 11.51 ug/L
RT: 4.915 min Scan# 556
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:128 Resp: 41161

Ion	Ratio	Lower	Upper
128	100		
49	170.0	104.4	156.6#
130	131.1	103.9	155.9

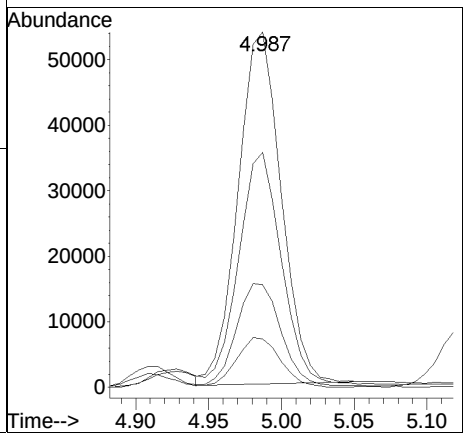


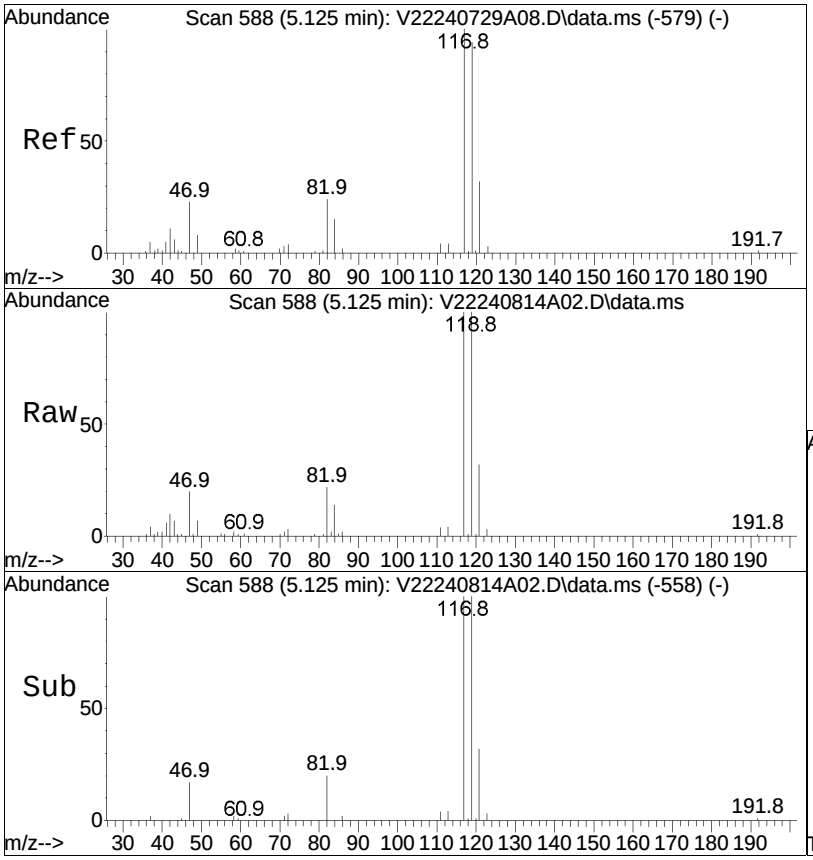


#34
Chloroform
Concen: 9.16 ug/L
RT: 4.987 min Scan# 567
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 83 Resp: 110751

Ion	Ratio	Lower	Upper
83	100		
85	66.2	42.4	88.2
47	29.7	14.0	29.0#
48	14.6	6.9	14.3#

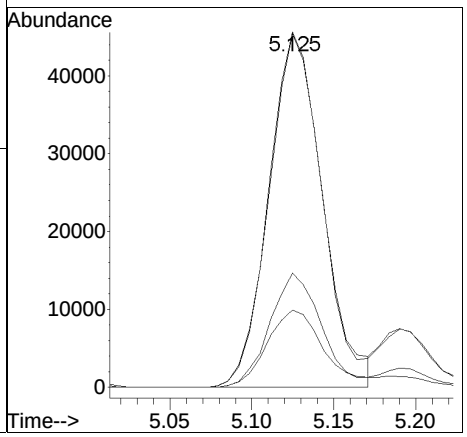


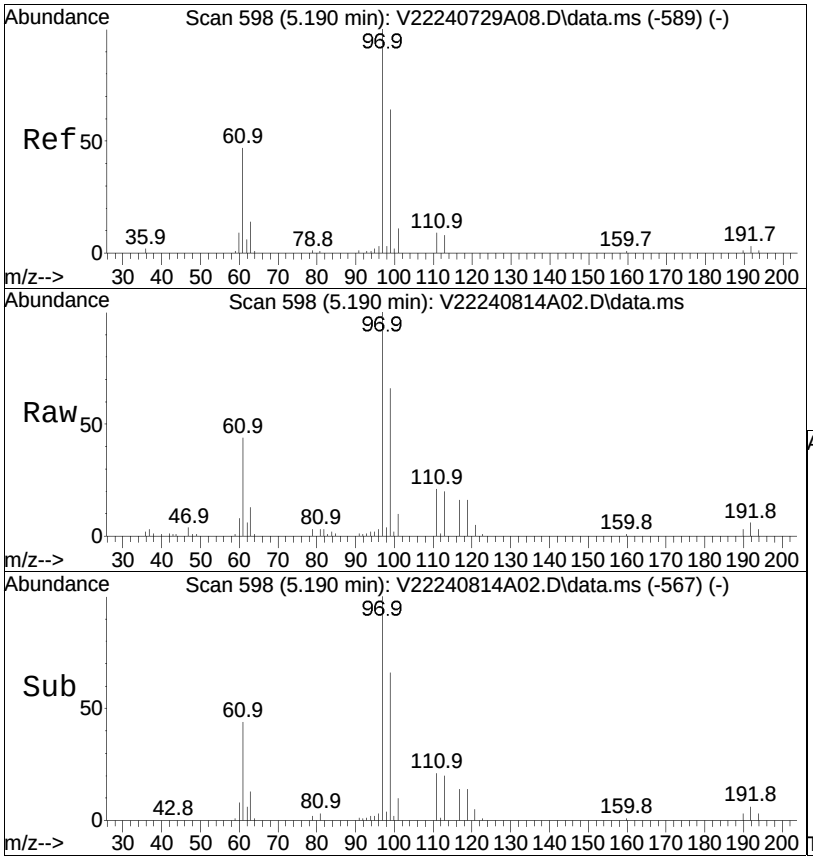


#36
Carbon tetrachloride
Concen: 11.92 ug/L
RT: 5.125 min Scan# 588
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:117 Resp: 103967

Ion	Ratio	Lower	Upper
117	100		
119	96.8	62.1	129.1
121	30.7	20.3	42.3
82	23.5	15.4	32.0

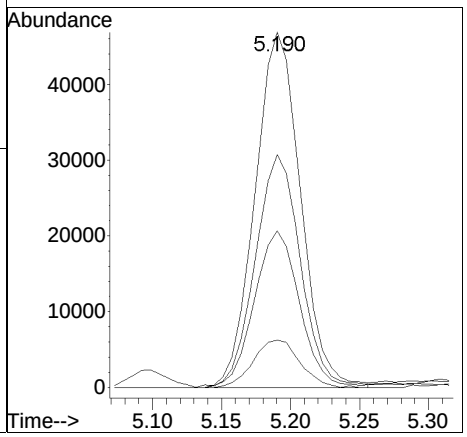


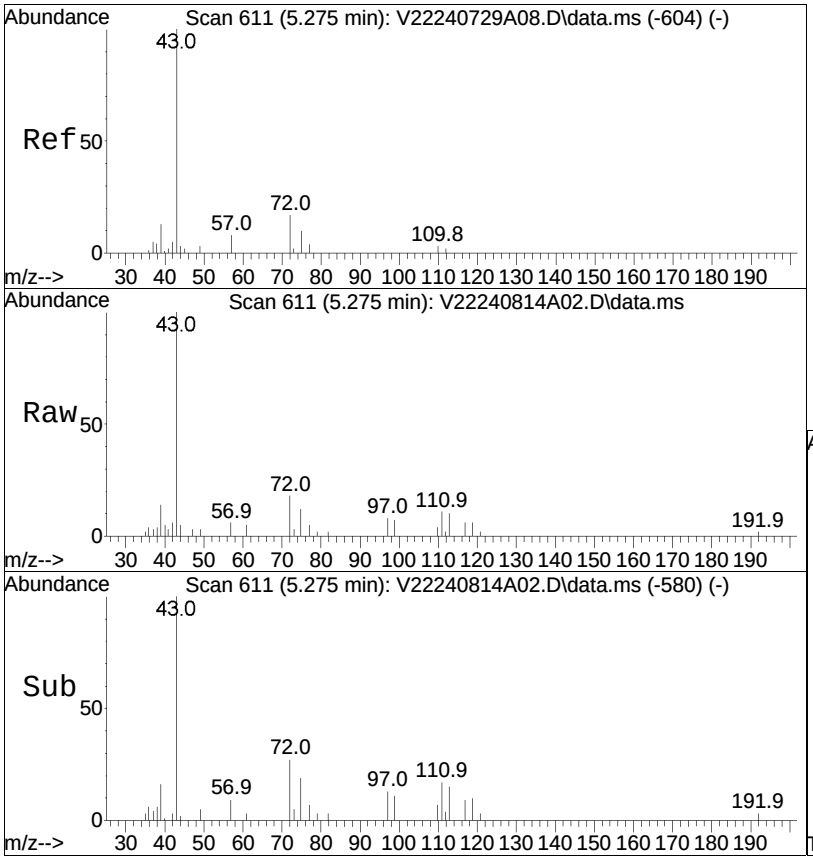


#39
1,1,1-Trichloroethane
Concen: 10.56 ug/L
RT: 5.190 min Scan# 598
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 97 Resp: 107580

Ion	Ratio	Lower	Upper
97	100		
99	65.0	42.4	88.0
61	44.1	26.0	54.0
63	13.7	8.3	17.3

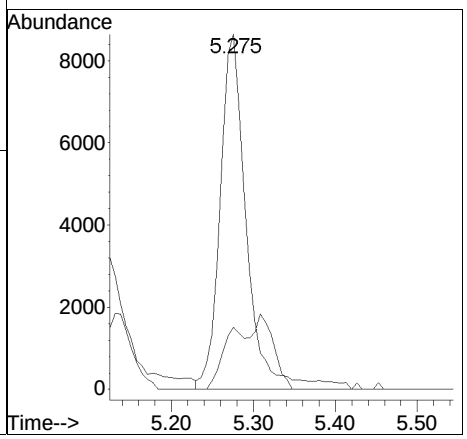


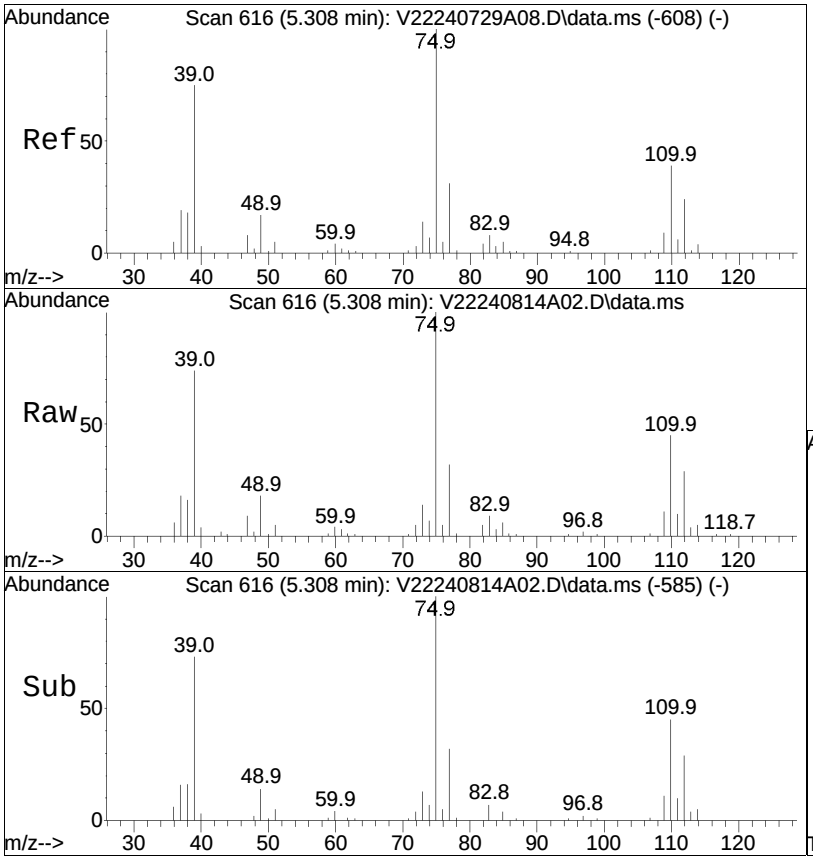


#41
2-Butanone
Concen: 9.84 ug/L
RT: 5.275 min Scan# 611
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 43 Resp: 19526

Ion	Ratio	Lower	Upper
43	100		
72	14.1	45.8	68.8#

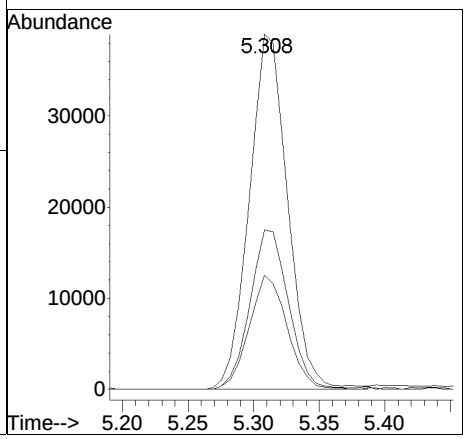


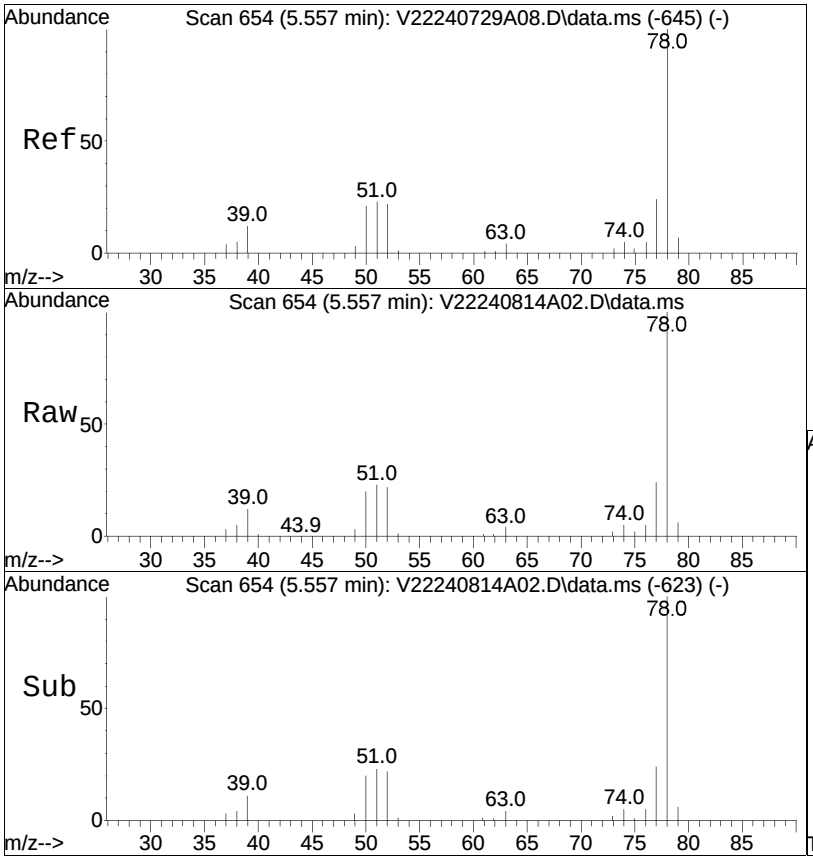


#42
1,1-Dichloropropene
Concen: 9.65 ug/L
RT: 5.308 min Scan# 616
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 75 Resp: 79385

Ion	Ratio	Lower	Upper
75	100		
110	45.1	25.4	52.8
77	31.8	20.3	42.1

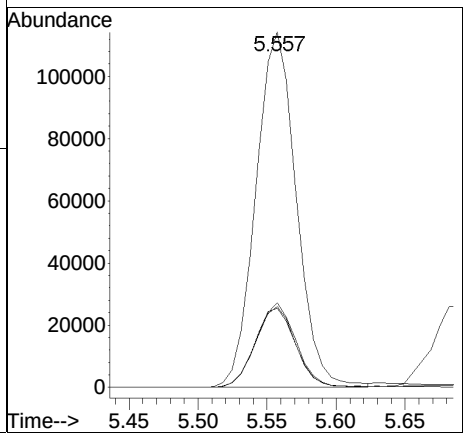


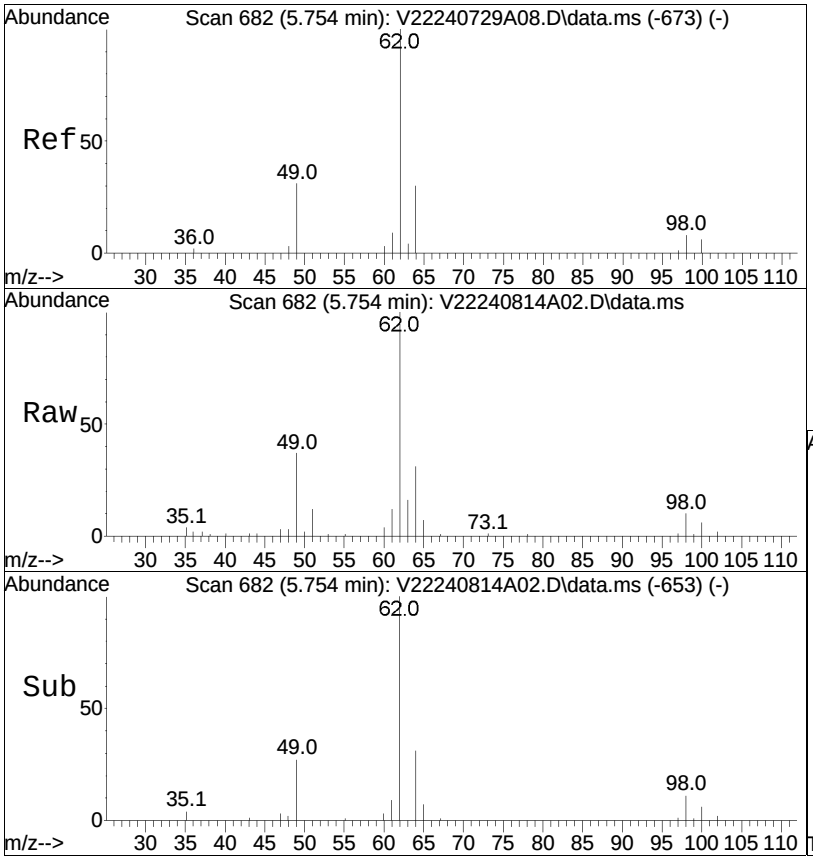


#44
Benzene
Concen: 8.72 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 78 Resp: 233322

Ion	Ratio	Lower	Upper
78	100		
77	23.4	15.4	32.0
51	22.7	9.8	20.4#
52	22.8	9.2	19.2#

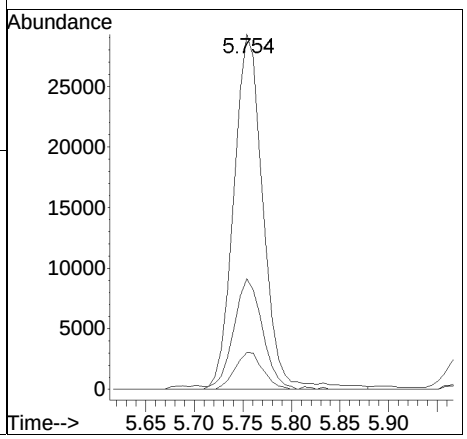


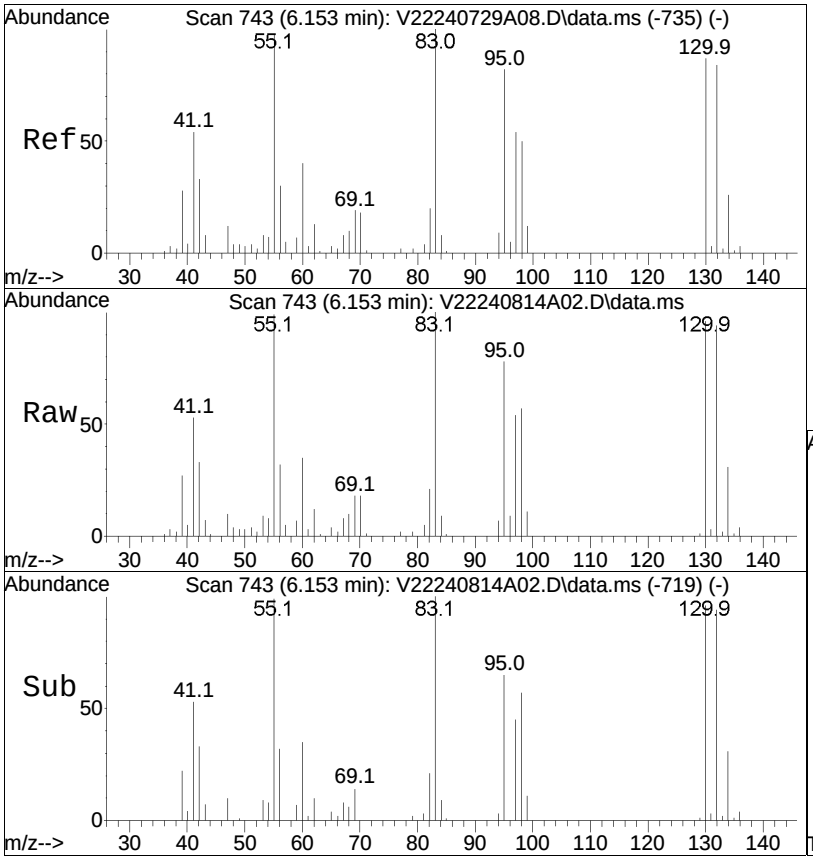


#47
1,2-Dichloroethane
Concen: 9.24 ug/L
RT: 5.754 min Scan# 682
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 62 Resp: 61773

Ion	Ratio	Lower	Upper
62	100		
64	30.4	12.3	52.3
98	9.9	0.0	30.3

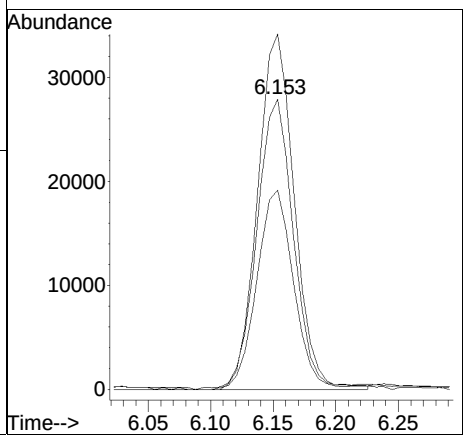


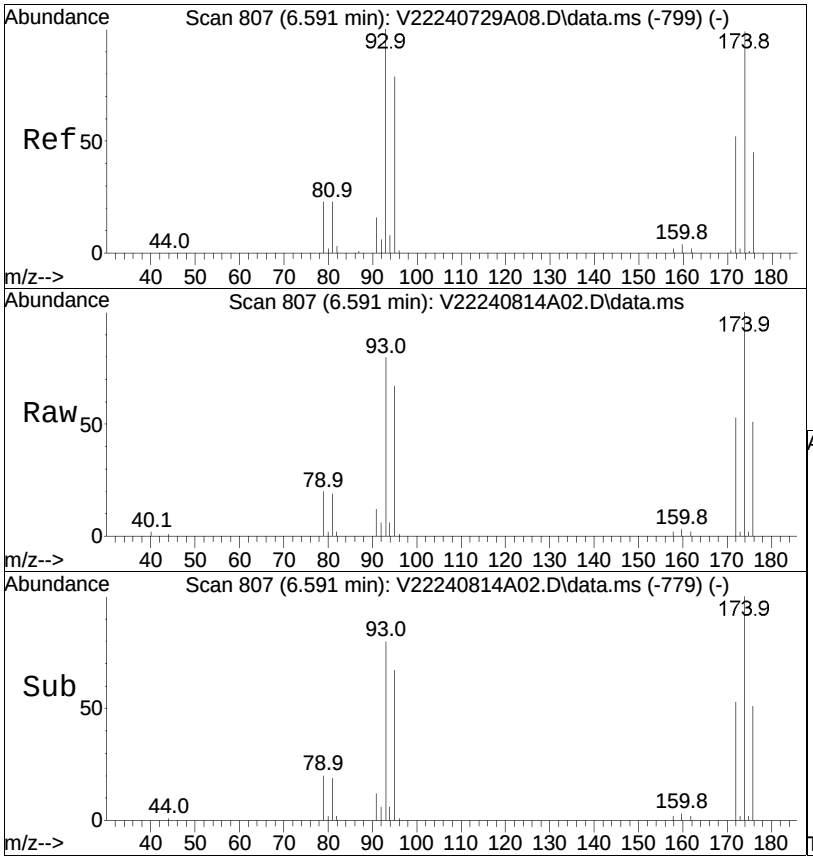


#51
Trichloroethene
Concen: 10.08 ug/L
RT: 6.153 min Scan# 743
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 95 Resp: 57372

Ion	Ratio	Lower	Upper
95	100		
97	68.3	55.0	82.4
130	121.2	89.2	133.8

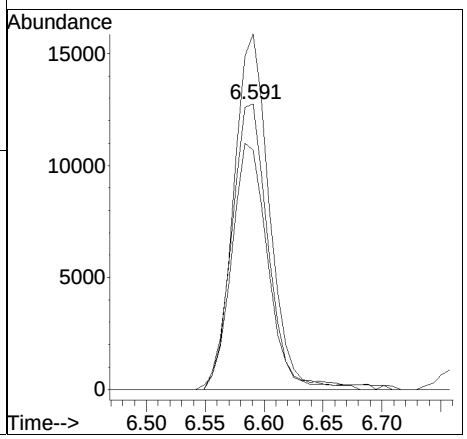


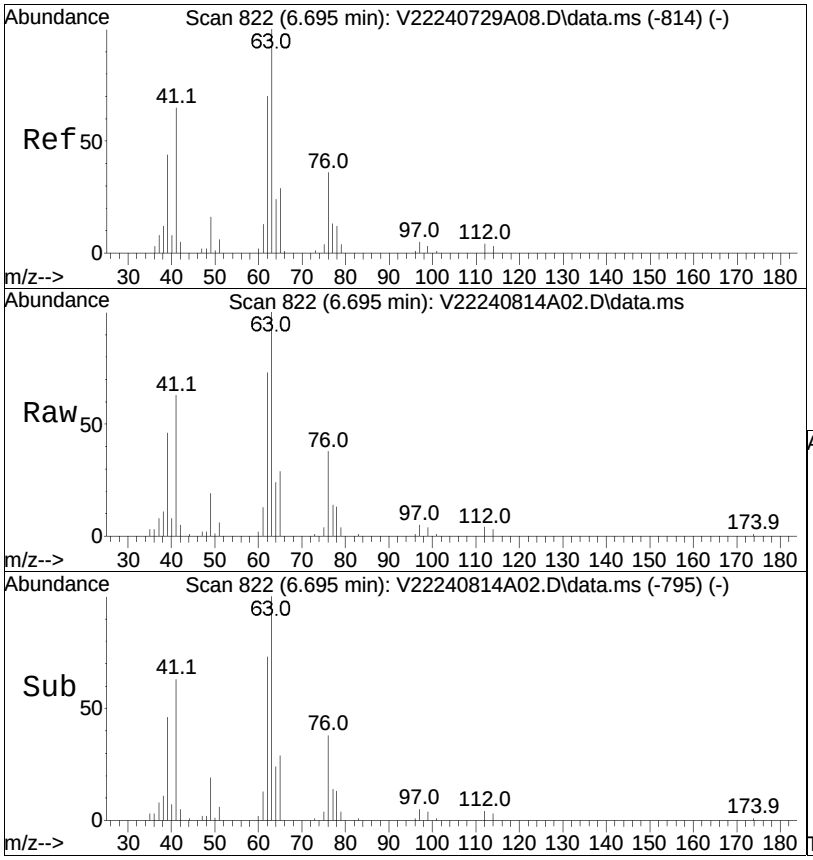


#53
Dibromomethane
Concen: 9.51 ug/L
RT: 6.591 min Scan# 807
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 93 Resp: 27360

Ion	Ratio	Lower	Upper
93	100		
95	85.6	68.0	102.0
174	124.0	106.1	159.1

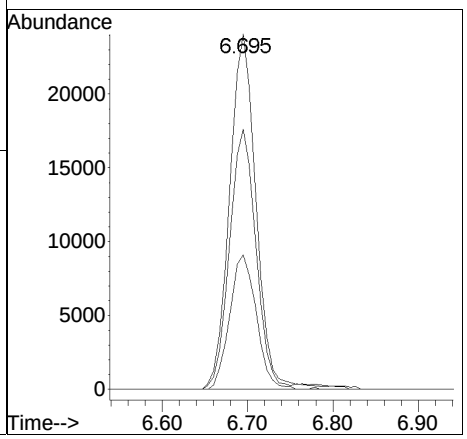


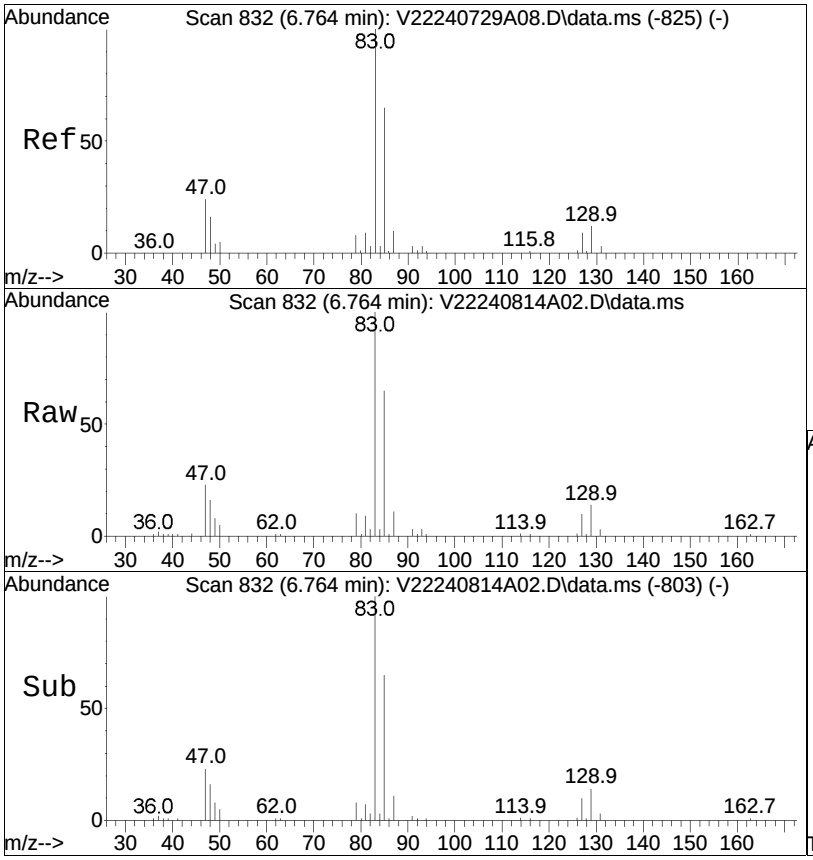


#54
1,2-Dichloropropane
Concen: 8.81 ug/L
RT: 6.695 min Scan# 822
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 63 Resp: 52642

Ion	Ratio	Lower	Upper
63	100		
62	72.2	56.9	85.3
76	37.6	35.8	53.8

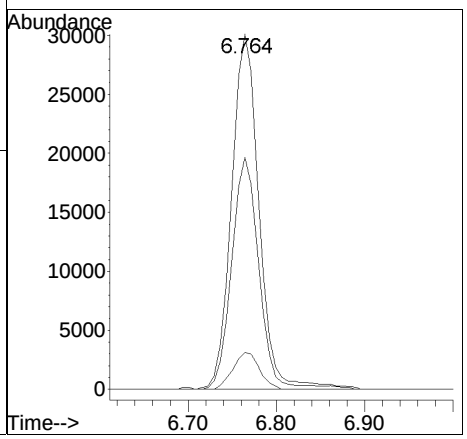


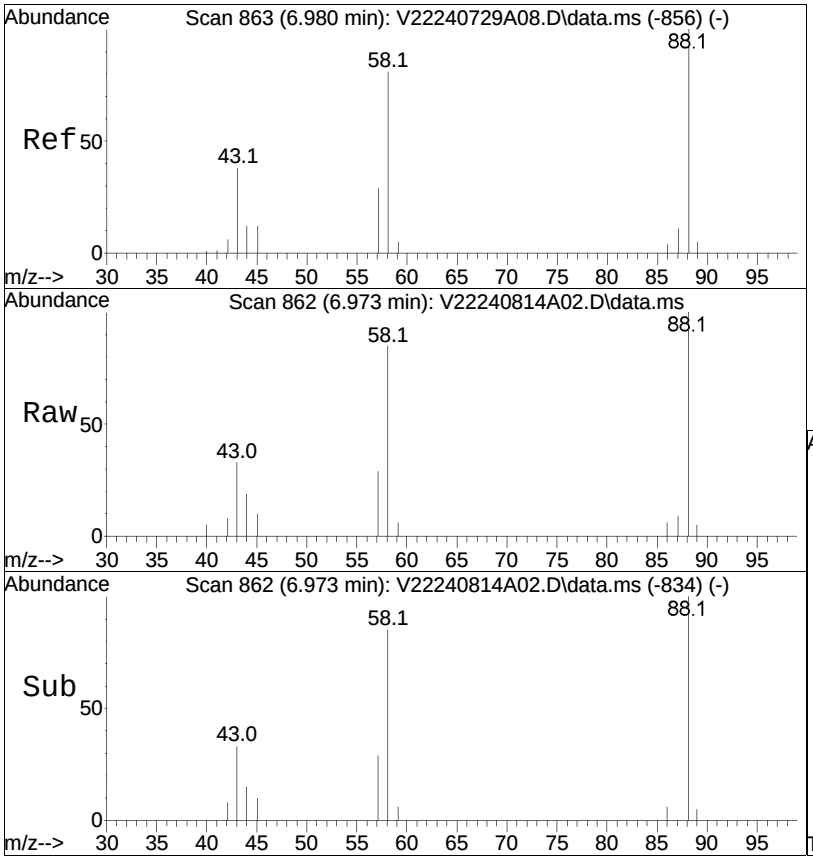


#57
Bromodichloromethane
Concen: 9.27 ug/L
RT: 6.764 min Scan# 832
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 83 Resp: 65327

Ion	Ratio	Lower	Upper
83	100		
85	64.8	51.6	77.4
127	10.1	7.4	11.0

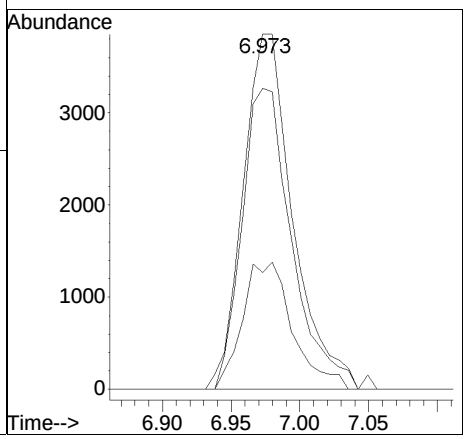


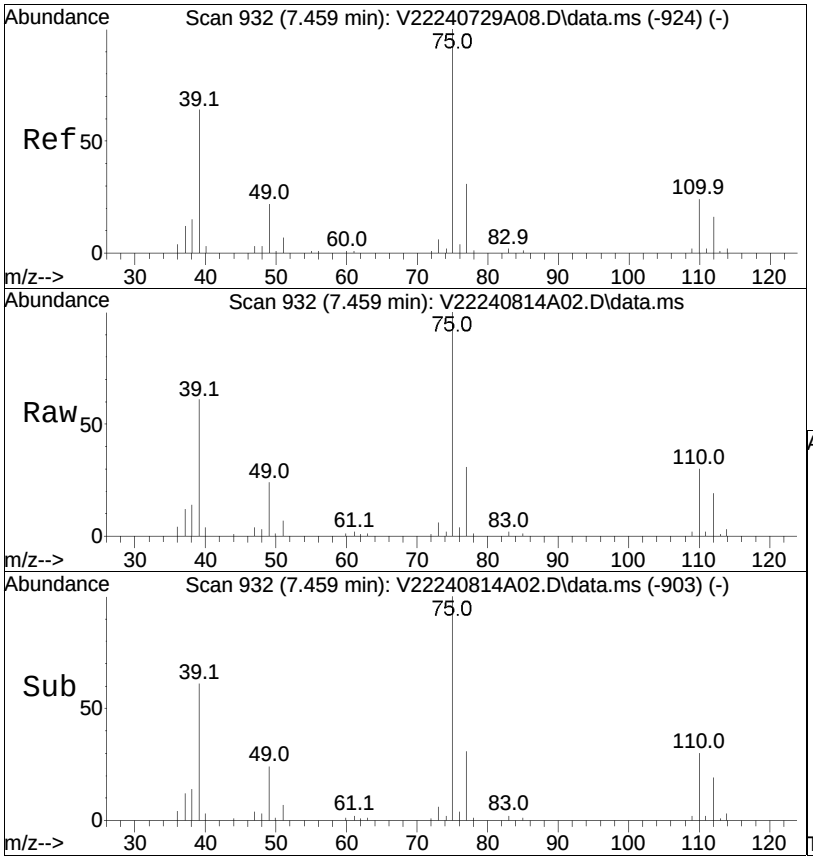


#60
1,4-Dioxane
Concen: 412.83 ug/L
RT: 6.973 min Scan# 862
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 88 Resp: 9731

Ion	Ratio	Lower	Upper
88	100		
58	85.2	43.3	64.9#
43	36.0	15.1	22.7#

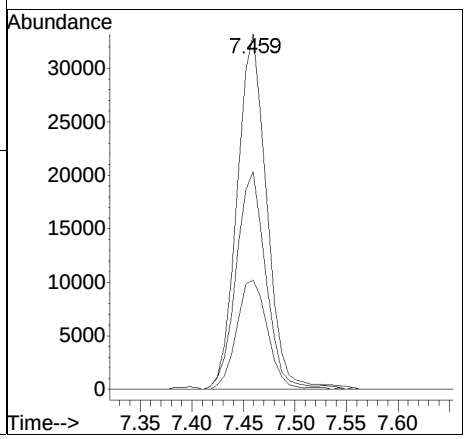


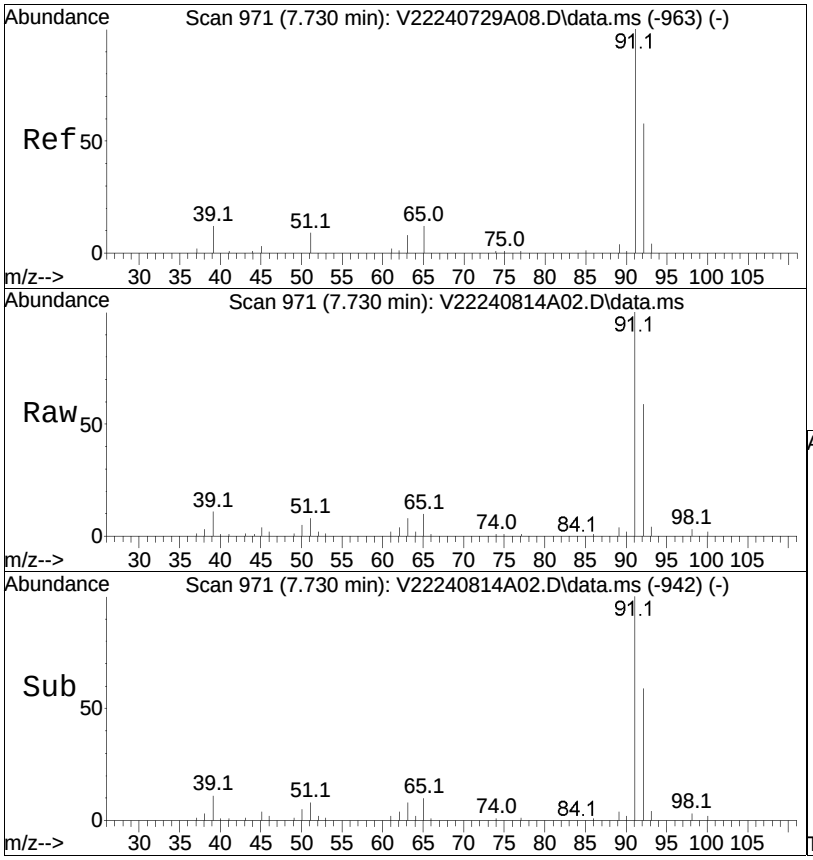


#61
cis-1,3-Dichloropropene
Concen: 9.18 ug/L
RT: 7.459 min Scan# 932
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 75 Resp: 66711

Ion	Ratio	Lower	Upper
75	100		
77	32.3	25.6	38.4
39	61.8	35.4	53.0#

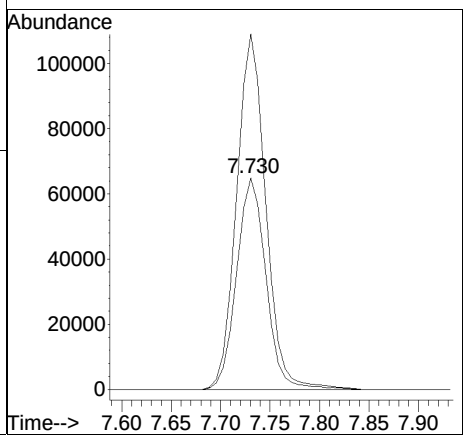


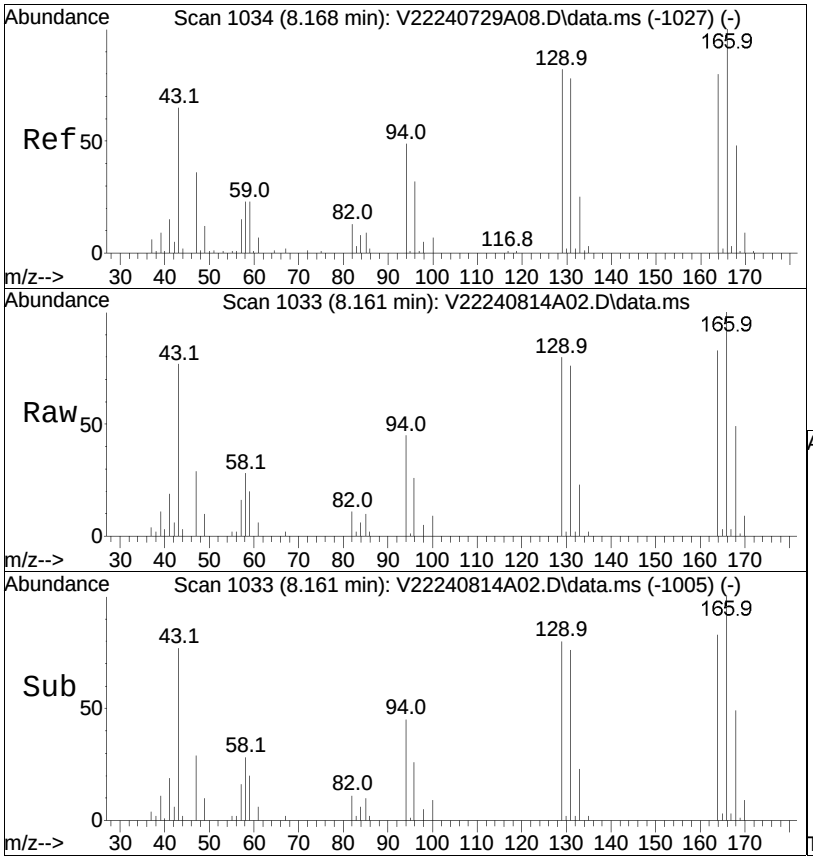


#64
Toluene
Concen: 9.09 ug/L
RT: 7.730 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 92 Resp: 133816

Ion	Ratio	Lower	Upper
92	100		
91	166.8	137.0	205.6

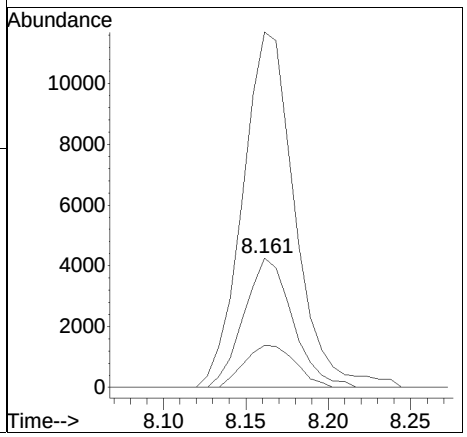


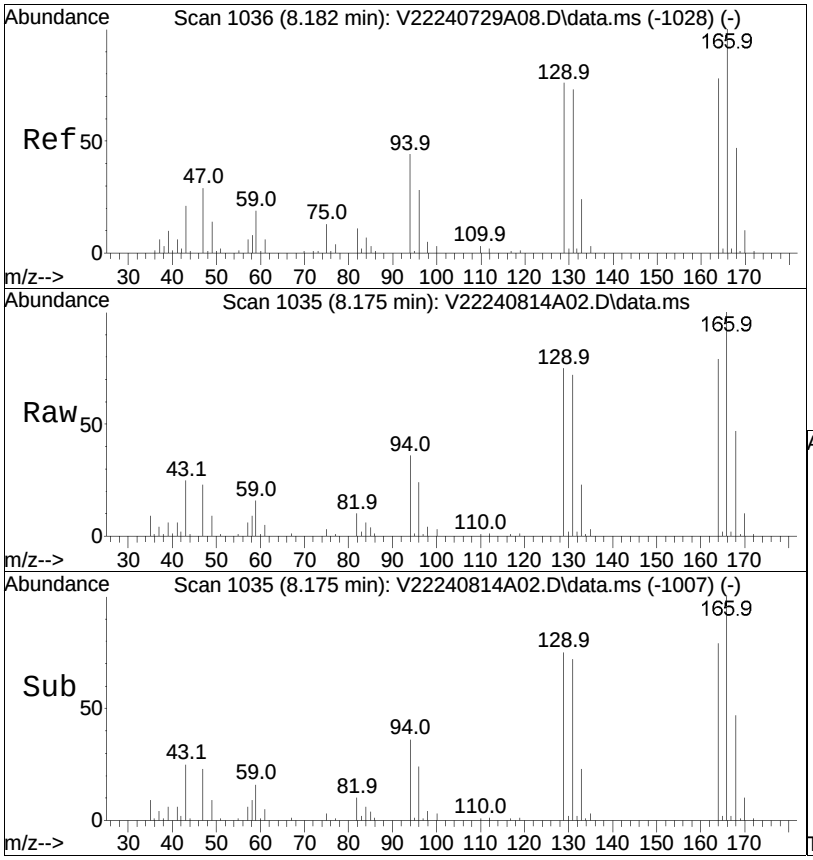


#65
4-Methyl-2-pentanone
Concen: 7.44 ug/L
RT: 8.161 min Scan# 1033
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 58 Resp: 8762

Ion	Ratio	Lower	Upper
58	100		
100	34.2	36.2	54.4#
43	295.1	181.8	272.8#

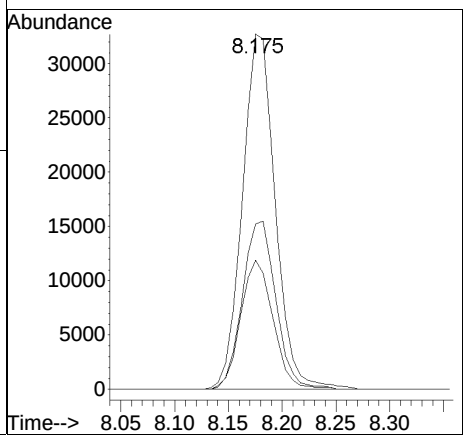


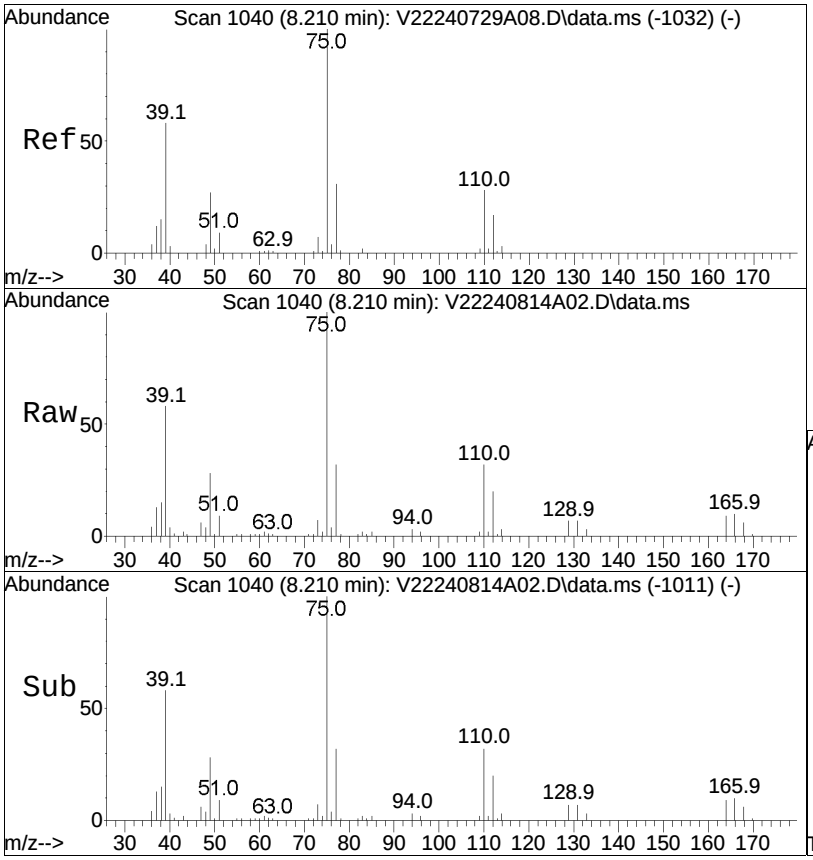


#66
Tetrachloroethene
Concen: 12.08 ug/L
RT: 8.175 min Scan# 1035
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:166 Resp: 69737

Ion	Ratio	Lower	Upper
166	100		
168	48.1	27.8	67.8
94	35.9	16.7	56.7

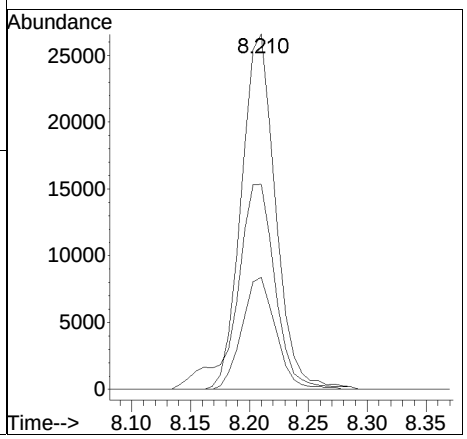


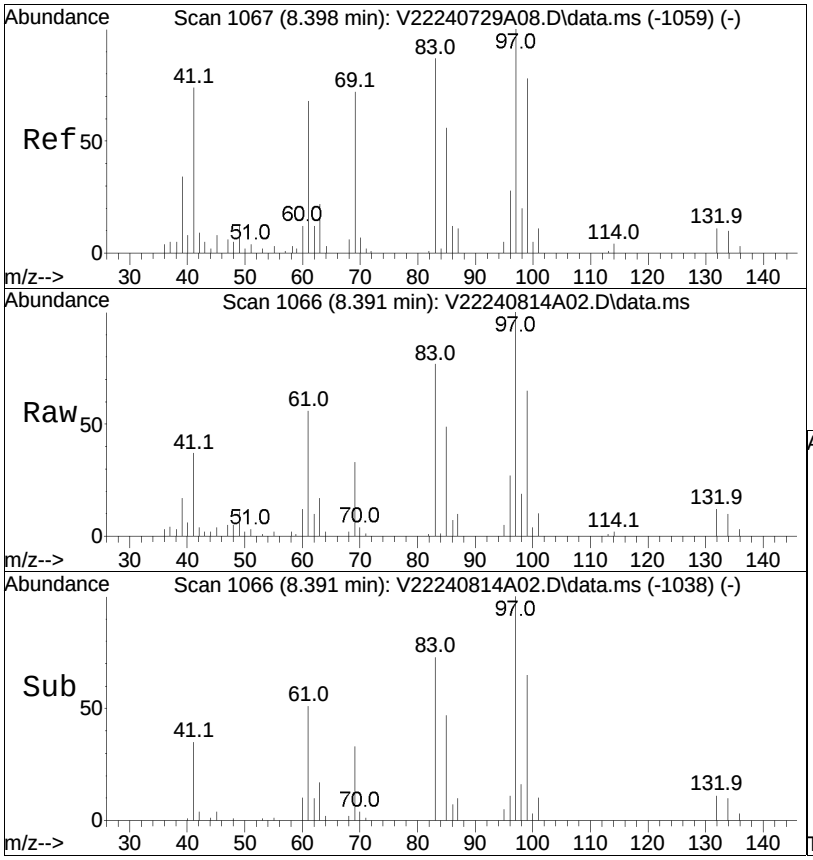


#68
trans-1,3-Dichloropropene
Concen: 7.44 ug/L
RT: 8.210 min Scan# 1040
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 75 Resp: 53865

Ion	Ratio	Lower	Upper
75	100		
77	31.2	11.9	51.9
39	65.2	27.4	67.4

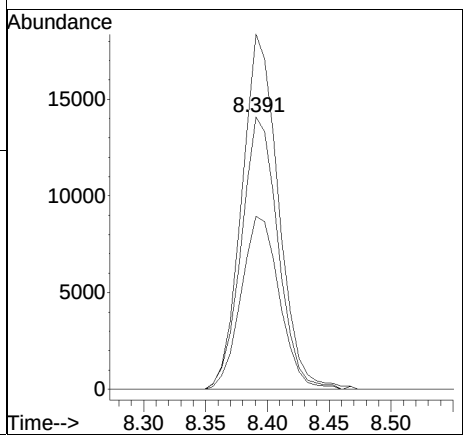


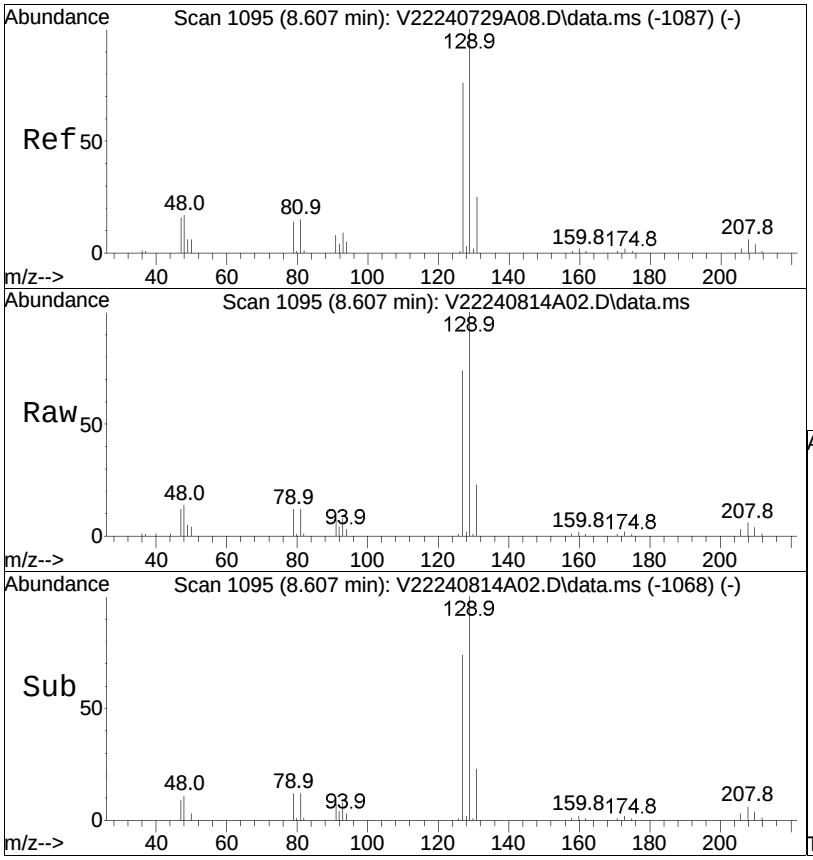


#71
1,1,2-Trichloroethane
Concen: 8.45 ug/L
RT: 8.391 min Scan# 1066
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 83 Resp: 29212

Ion	Ratio	Lower	Upper
83	100		
97	130.0	103.4	143.4
85	66.3	47.9	87.9

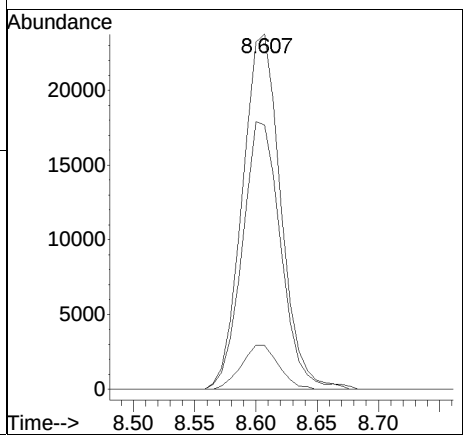


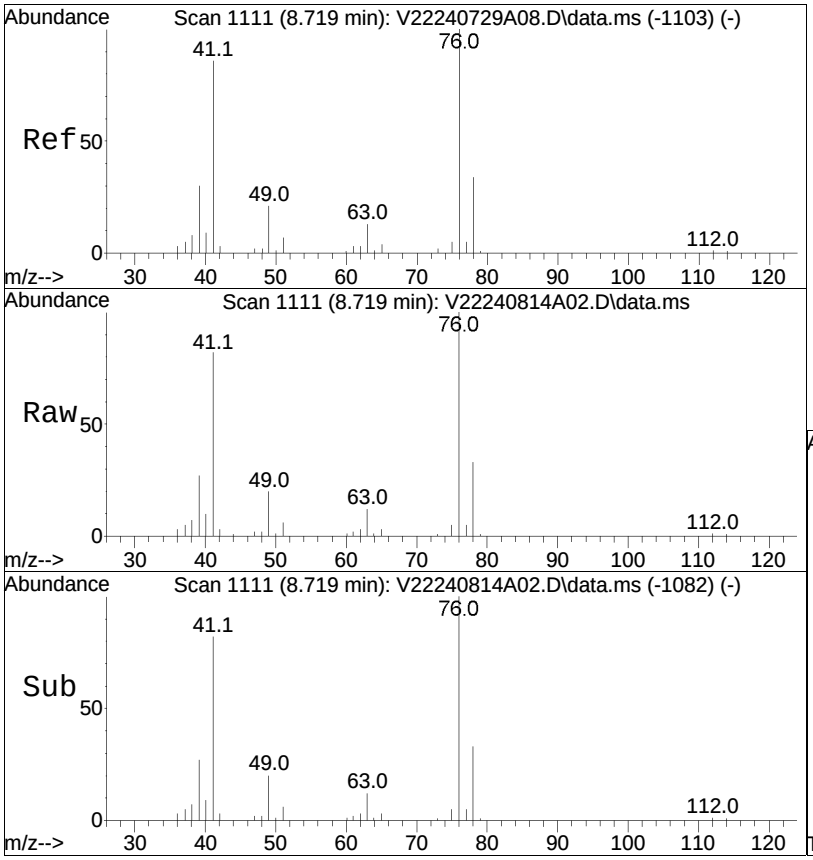


#72
Chlorodibromomethane
Concen: 9.32 ug/L
RT: 8.607 min Scan# 1095
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:129 Resp: 51963

Ion	Ratio	Lower	Upper
129	100		
81	12.1	0.0	33.8
127	75.3	57.1	97.1

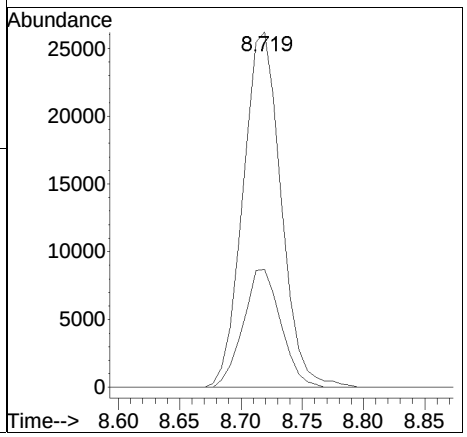


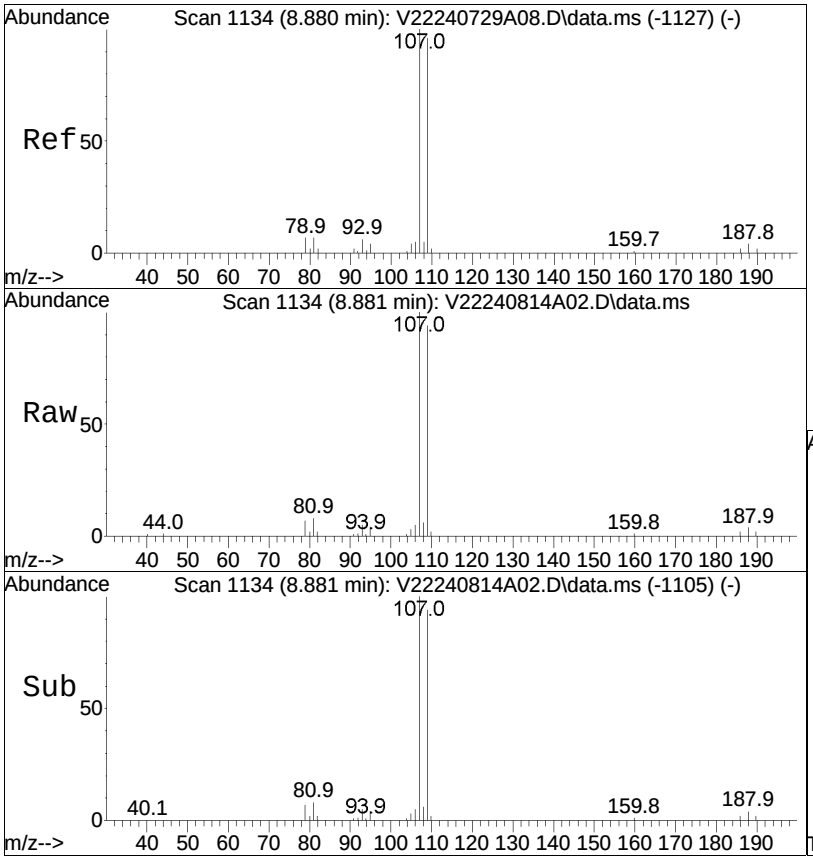


#73
1,3-Dichloropropane
Concen: 8.36 ug/L
RT: 8.719 min Scan# 1111
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 76 Resp: 56637

Ion	Ratio	Lower	Upper
76	100		
78	32.9	25.7	38.5

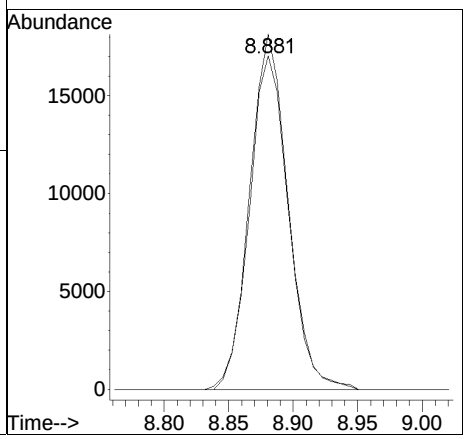


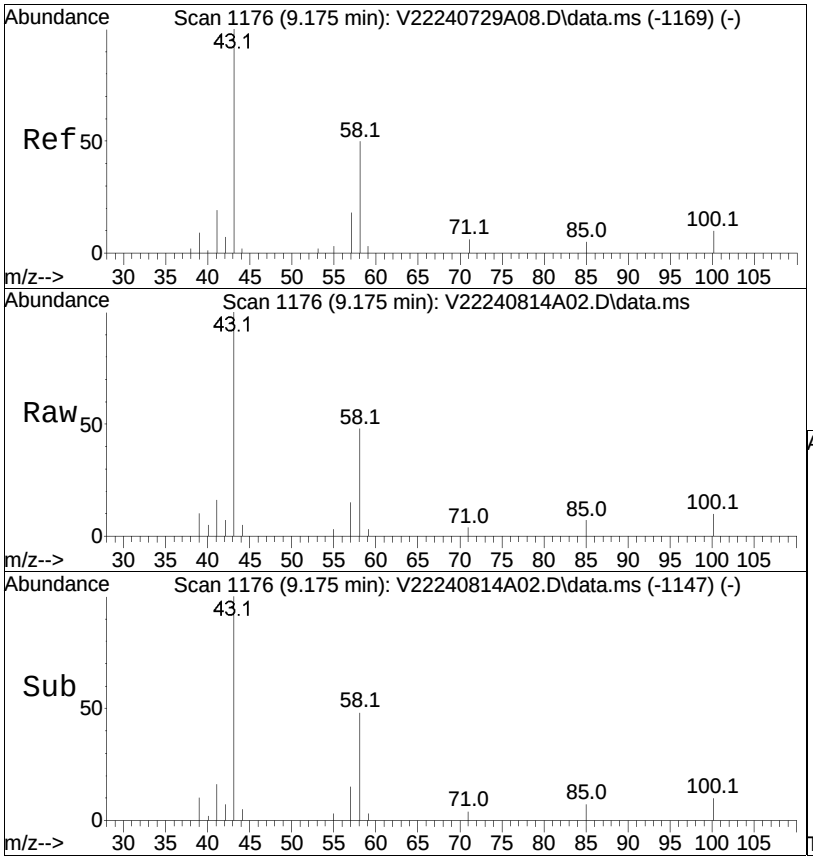


#74
1,2-Dibromoethane
Concen: 9.72 ug/L
RT: 8.881 min Scan# 1134
Delta R.T. 0.001 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:107 Resp: 37650

Ion	Ratio	Lower	Upper
107	100		
109	95.1	75.1	112.7

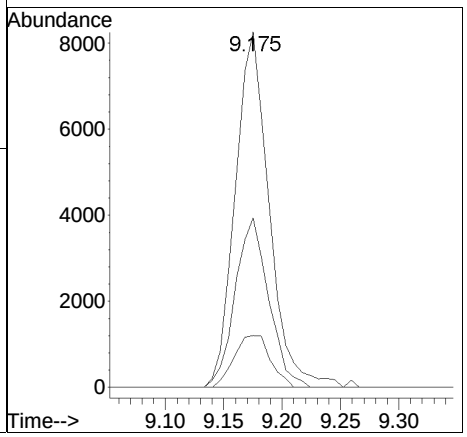


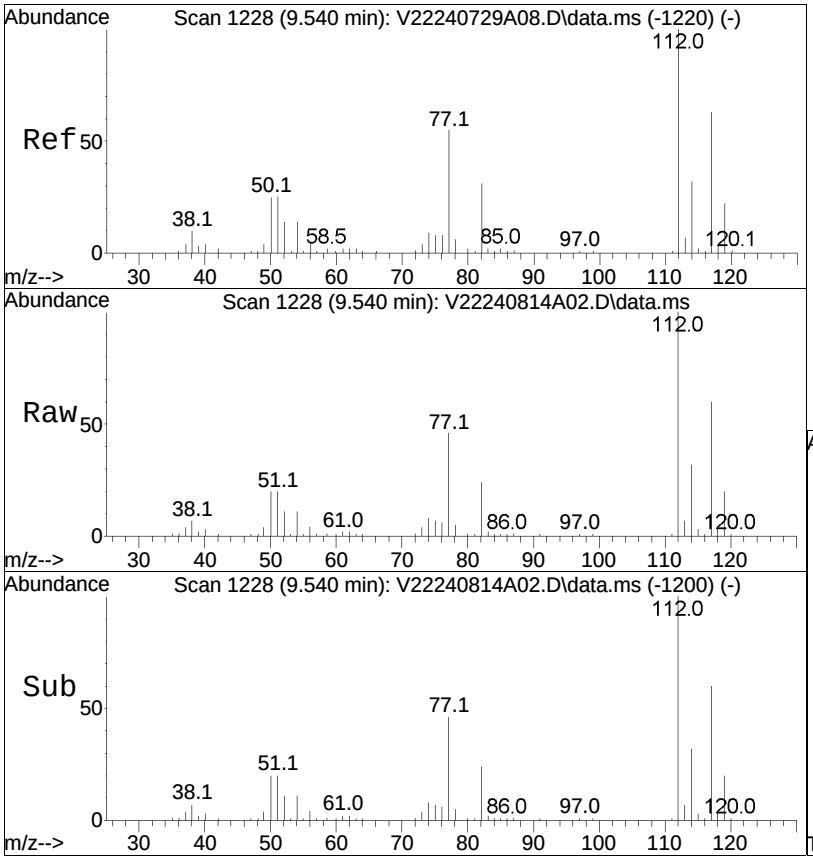


#76
2-Hexanone
Concen: 7.66 ug/L
RT: 9.175 min Scan# 1176
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 43 Resp: 16771

Ion	Ratio	Lower	Upper
43	100		
58	46.9	47.6	71.4#
57	15.6	16.6	24.8#

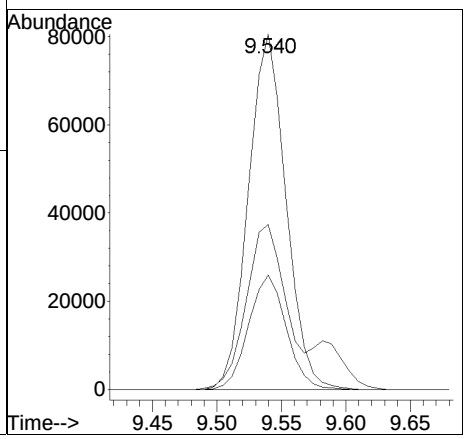


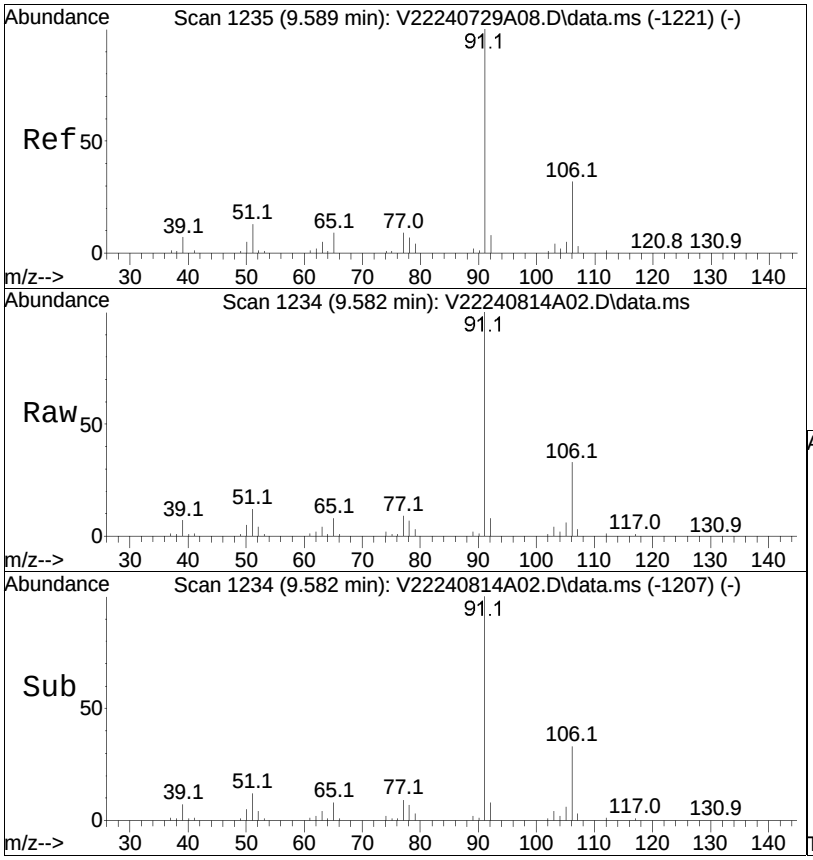


#77
Chlorobenzene
Concen: 9.79 ug/L
RT: 9.540 min Scan# 1228
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:112 Resp: 163160

Ion	Ratio	Lower	Upper
112	100		
77	48.9	55.4	83.0#
114	32.2	26.2	39.4

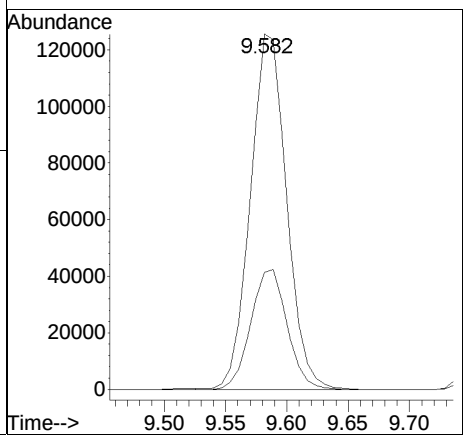


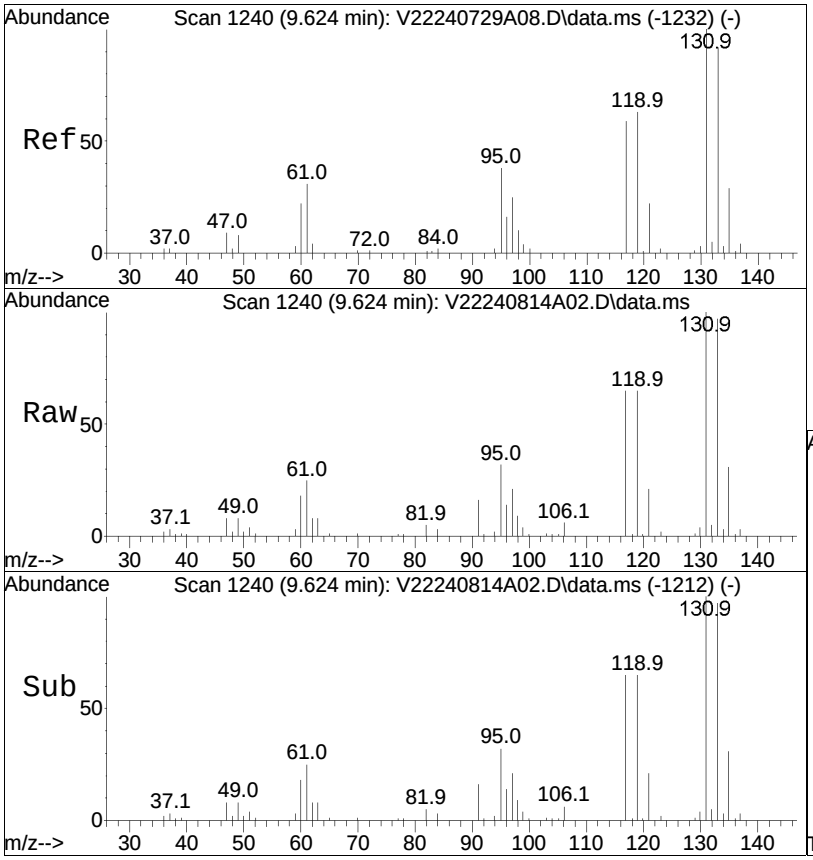


#78
Ethylbenzene
Concen: 9.28 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 91 Resp: 257981

Ion	Ratio	Lower	Upper
91	100		
106	33.8	25.8	38.6

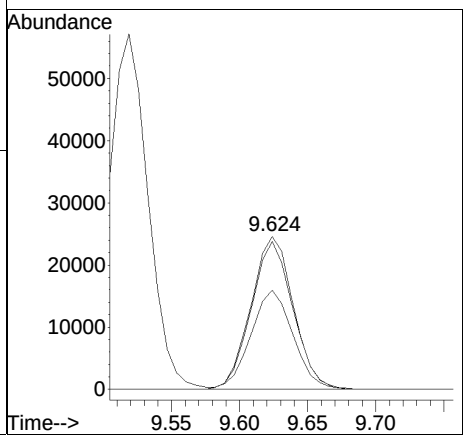


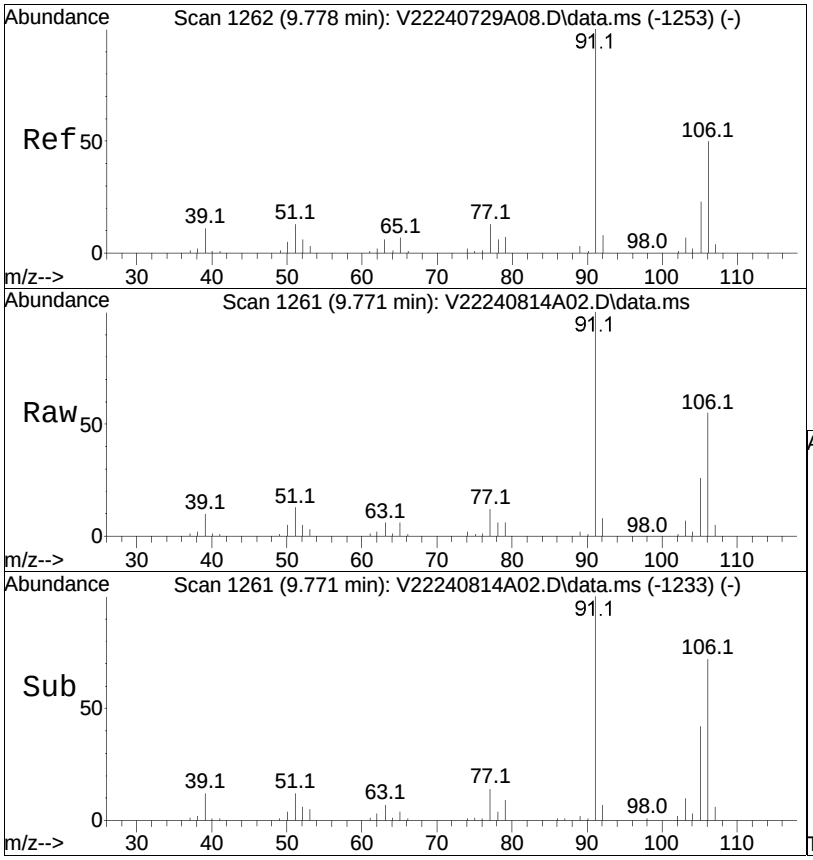


#79
1,1,1,2-Tetrachloroethane
Concen: 10.07 ug/L
RT: 9.624 min Scan# 1240
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:131 Resp: 53410

Ion	Ratio	Lower	Upper
131	100		
133	94.9	75.3	115.3
119	64.2	49.3	89.3

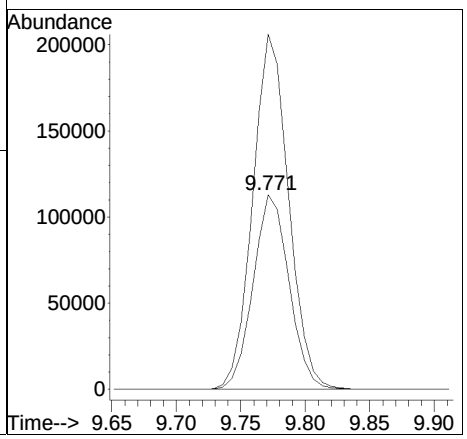


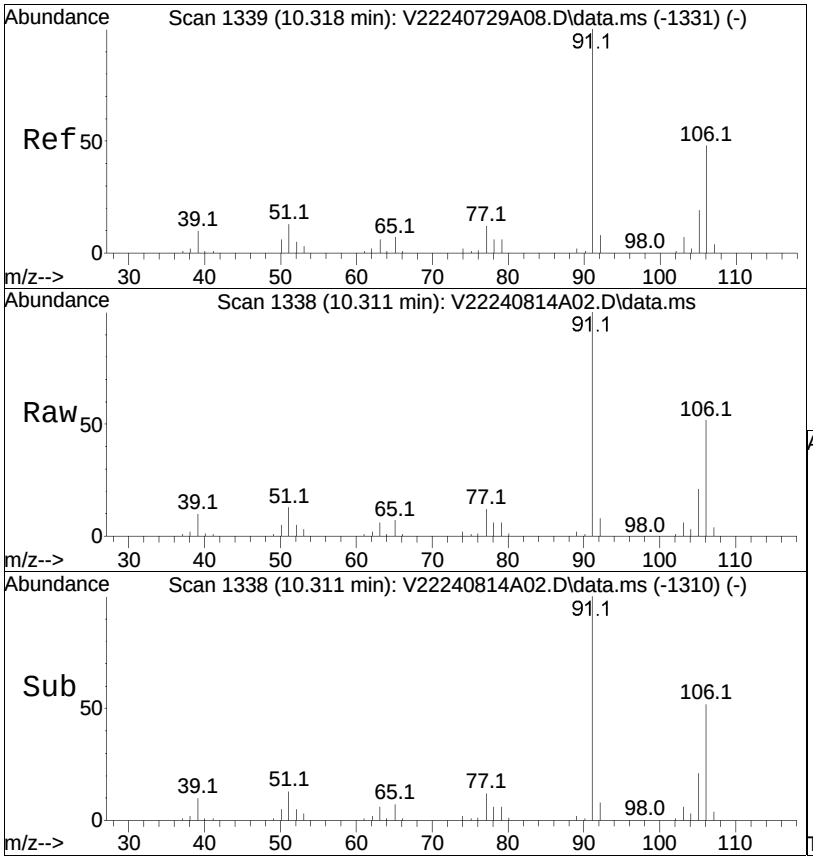


#80
p/m Xylene
Concen: 20.30 ug/L
RT: 9.771 min Scan# 1261
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:106 Resp: 219015

Ion	Ratio	Lower	Upper
106	100		
91	181.8	156.0	234.0

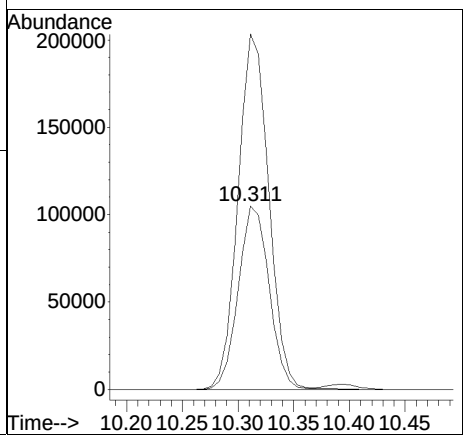


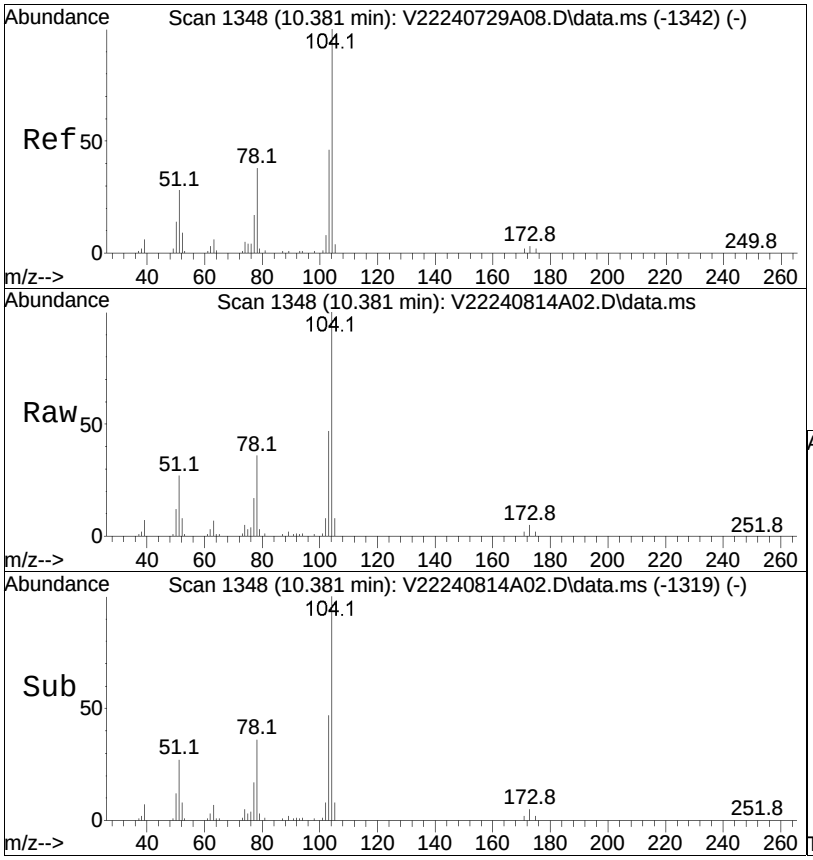


#81
o Xylene
Concen: 19.90 ug/L
RT: 10.311 min Scan# 1338
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:106 Resp: 202955

Ion	Ratio	Lower	Upper
106	100		
91	191.8	164.0	246.0

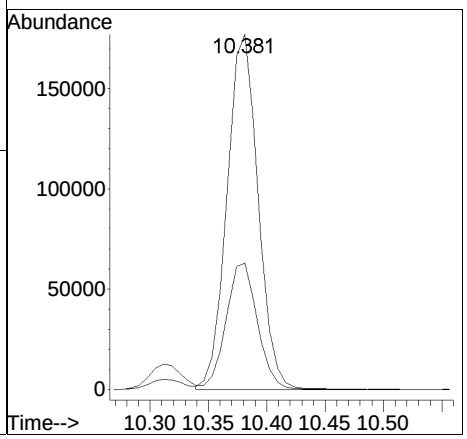


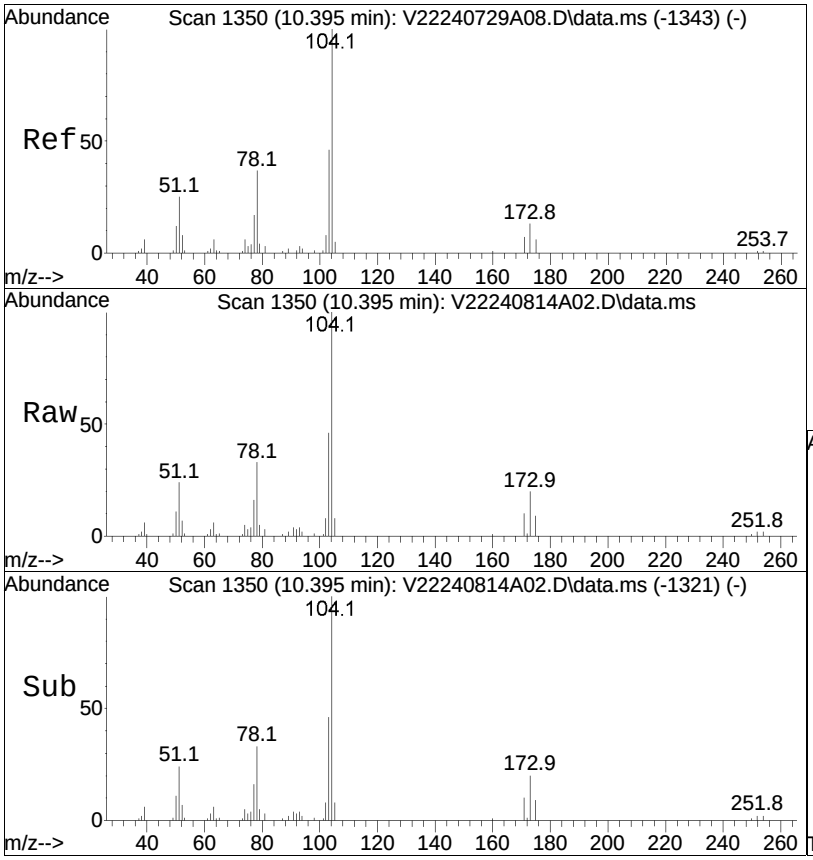


#82
Styrene
Concen: 19.95 ug/L
RT: 10.381 min Scan# 1348
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:104 Resp: 327371

Ion	Ratio	Lower	Upper
104	100		
78	35.9	32.1	48.1

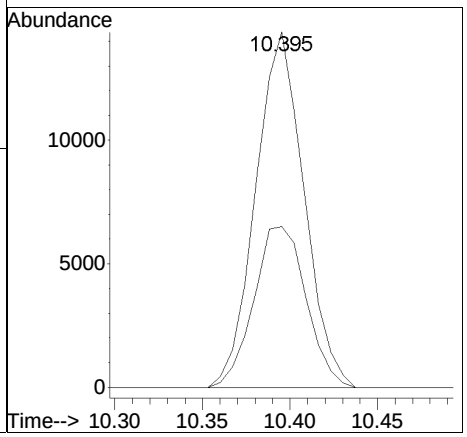


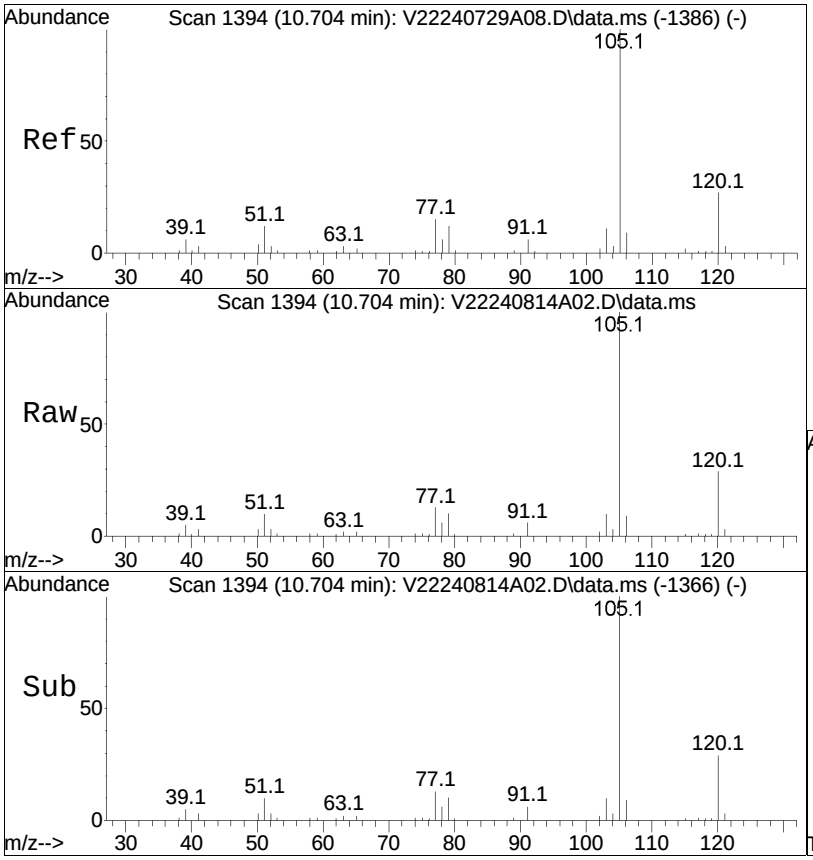


#84
Bromoform
Concen: 9.35 ug/L
RT: 10.395 min Scan# 1350
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:173 Resp: 27566

Ion	Ratio	Lower	Upper
173	100		
175	49.0	29.3	69.3

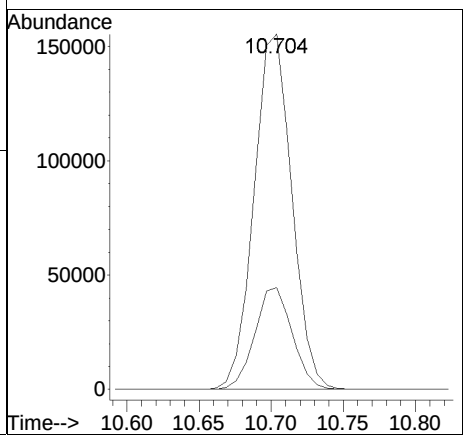


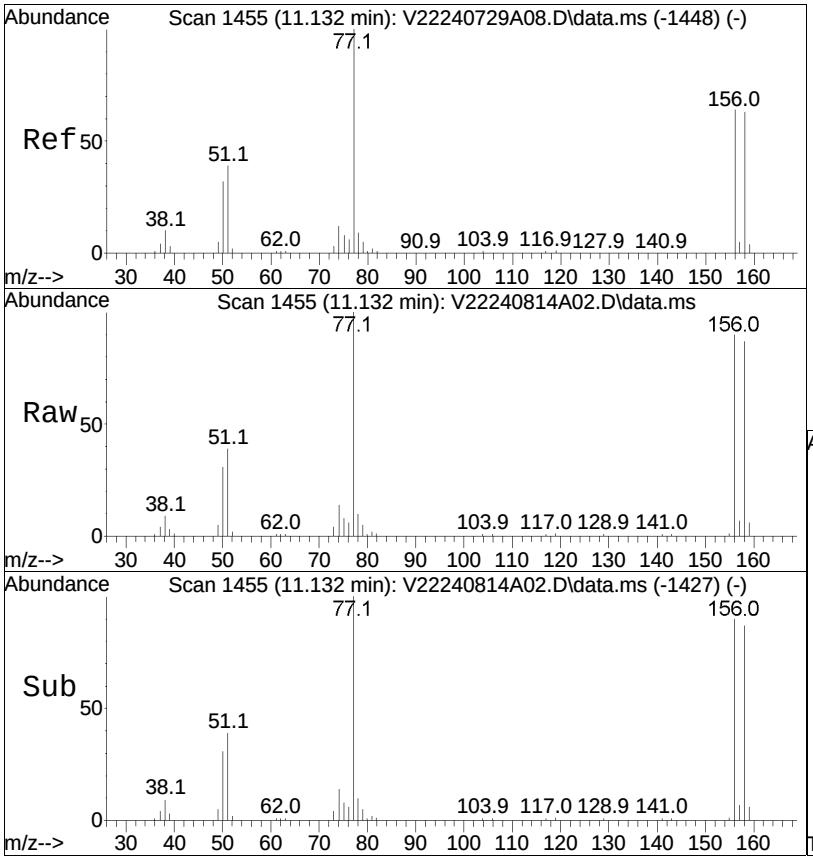


#86
Isopropylbenzene
Concen: 9.32 ug/L
RT: 10.704 min Scan# 1394
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:105 Resp: 283238

Ion	Ratio	Lower	Upper
105	100		
120	28.4	7.7	47.7

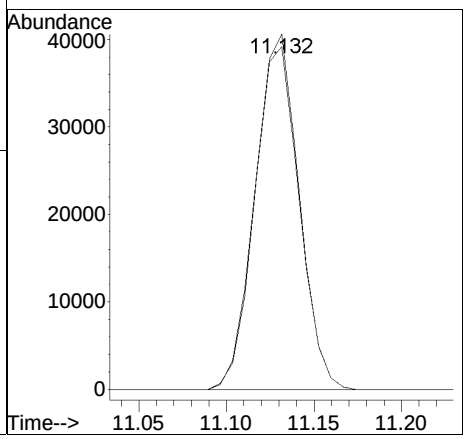


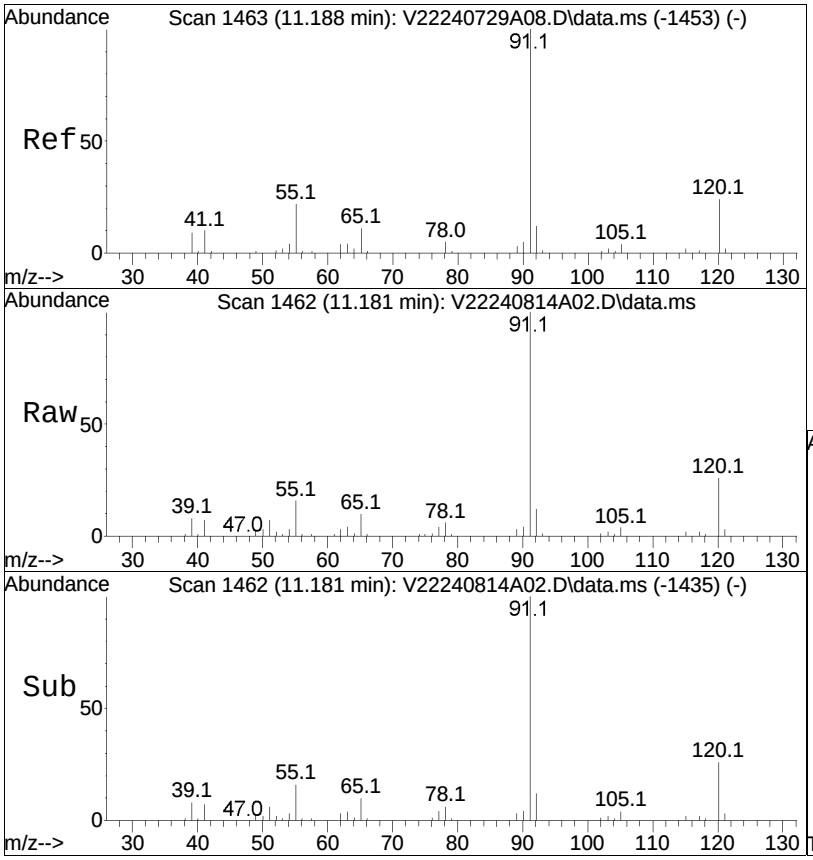


#88
Bromobenzene
Concen: 9.91 ug/L
RT: 11.132 min Scan# 1455
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:156 Resp: 70840

Ion	Ratio	Lower	Upper
156	100		
158	97.5	77.9	116.9

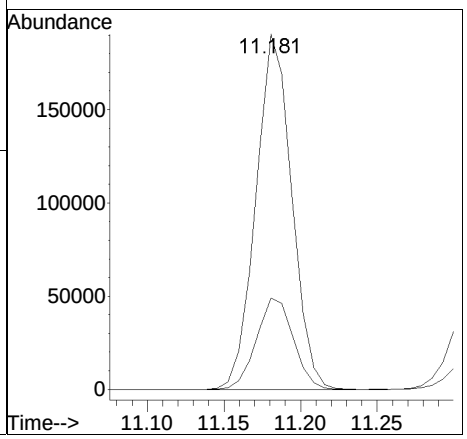


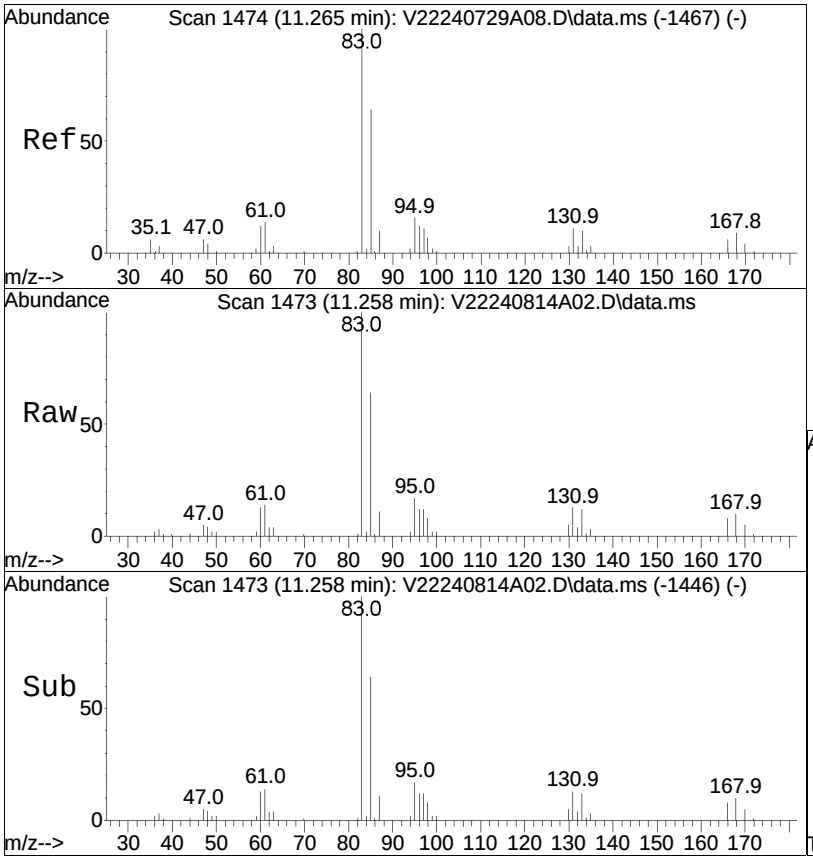


#89
n-Propylbenzene
Concen: 8.76 ug/L
RT: 11.181 min Scan# 1462
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 91 Resp: 309593

Ion	Ratio	Lower	Upper
91	100		
120	26.5	19.5	29.3

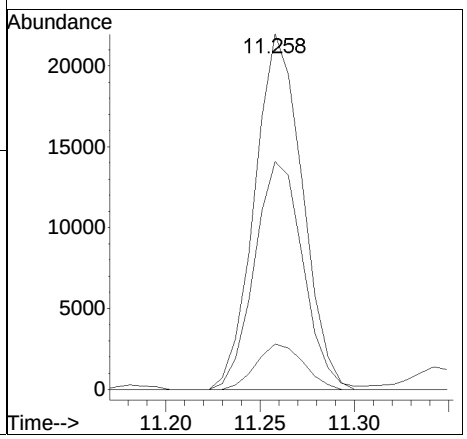


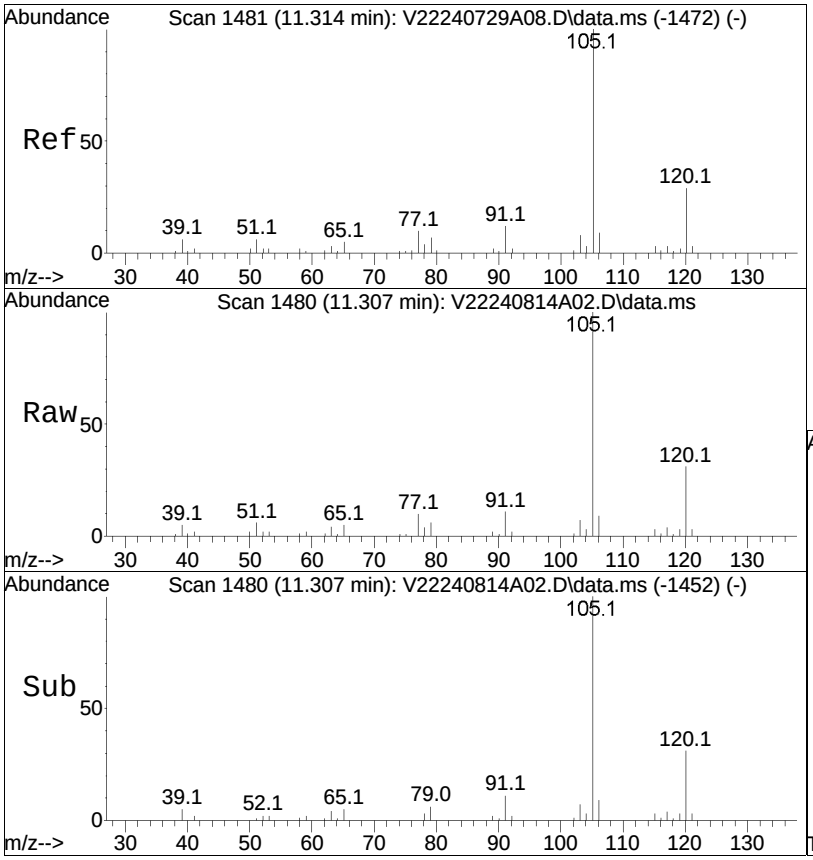


#91
1,1,2,2-Tetrachloroethane
Concen: 7.77 ug/L
RT: 11.258 min Scan# 1473
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 83 Resp: 38658

Ion	Ratio	Lower	Upper
83	100		
131	12.6	0.0	30.8
85	65.5	45.4	85.4

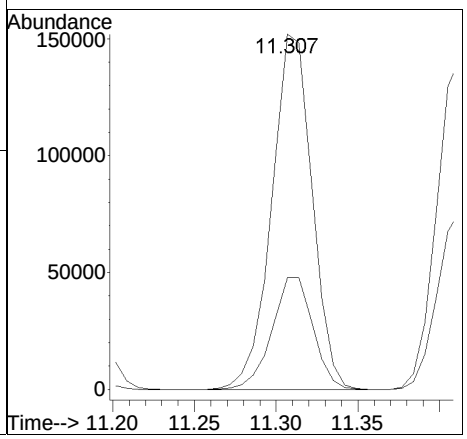


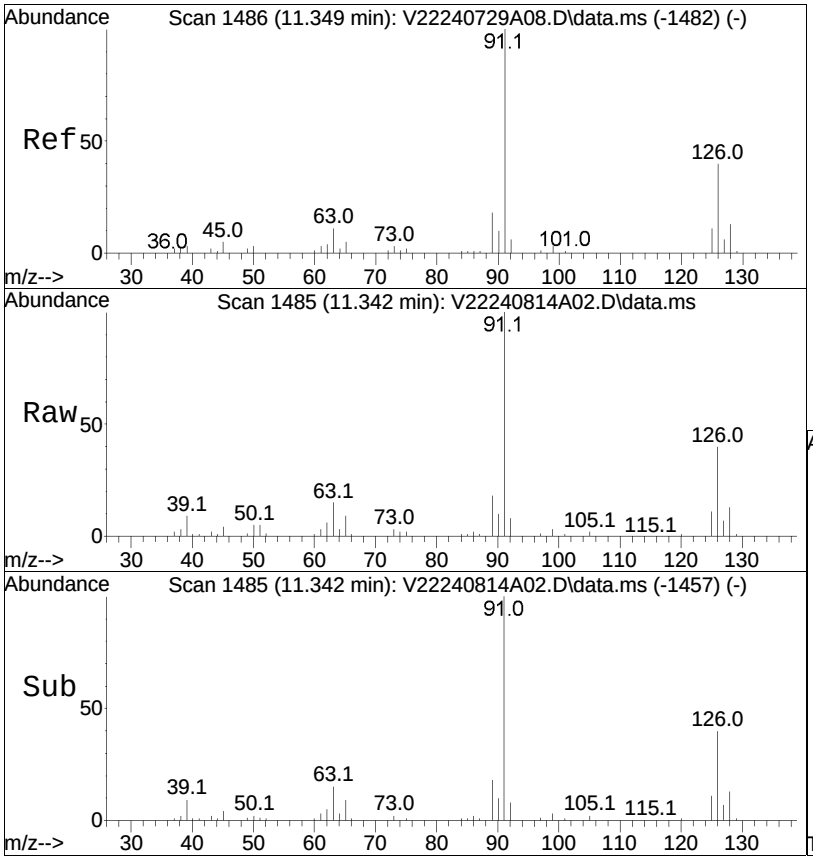


#92
4-Ethyltoluene
Concen: 9.09 ug/L
RT: 11.307 min Scan# 1480
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:105 Resp: 261707

Ion	Ratio	Lower	Upper
105	100		
120	32.0	19.8	41.0

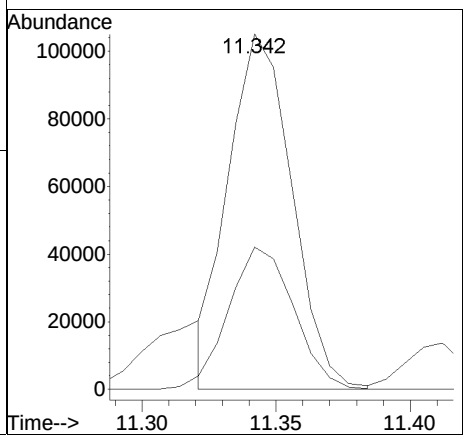


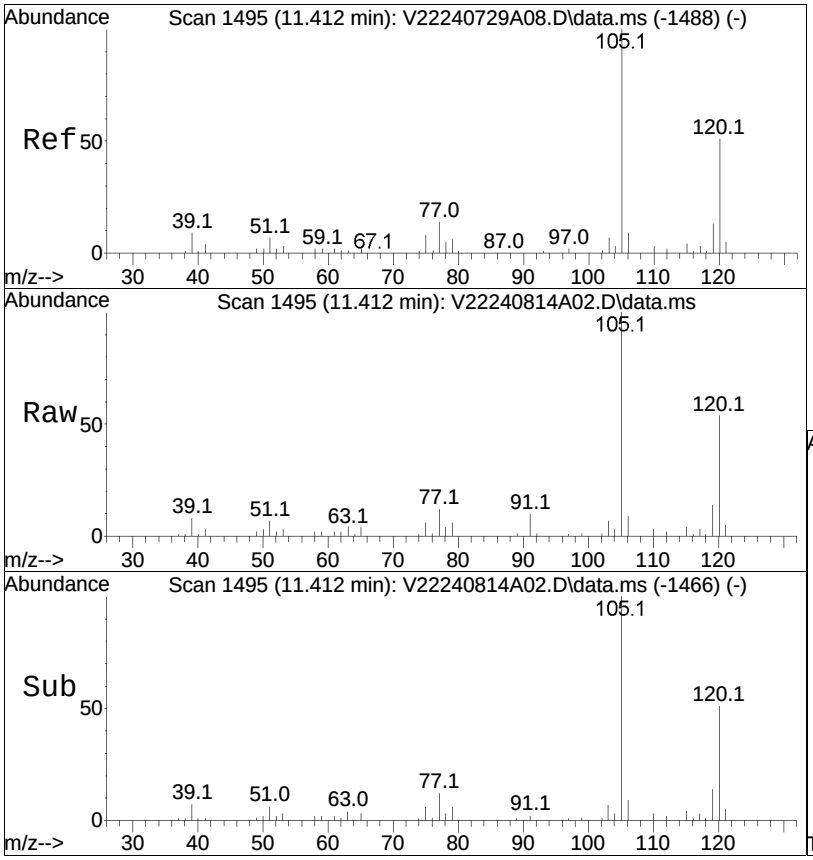


#93
2-Chlorotoluene
Concen: 8.16 ug/L M6
RT: 11.342 min Scan# 1485
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 91 Resp: 173554

Ion	Ratio	Lower	Upper
91	100		
126	41.2	24.6	37.0#

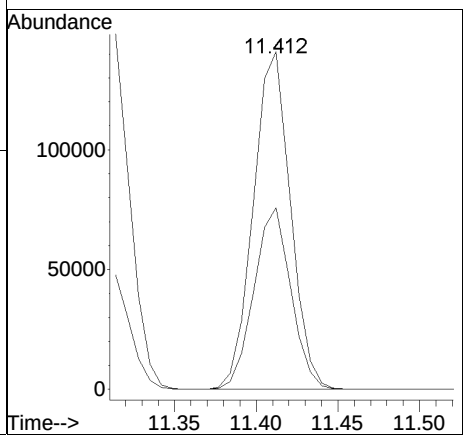


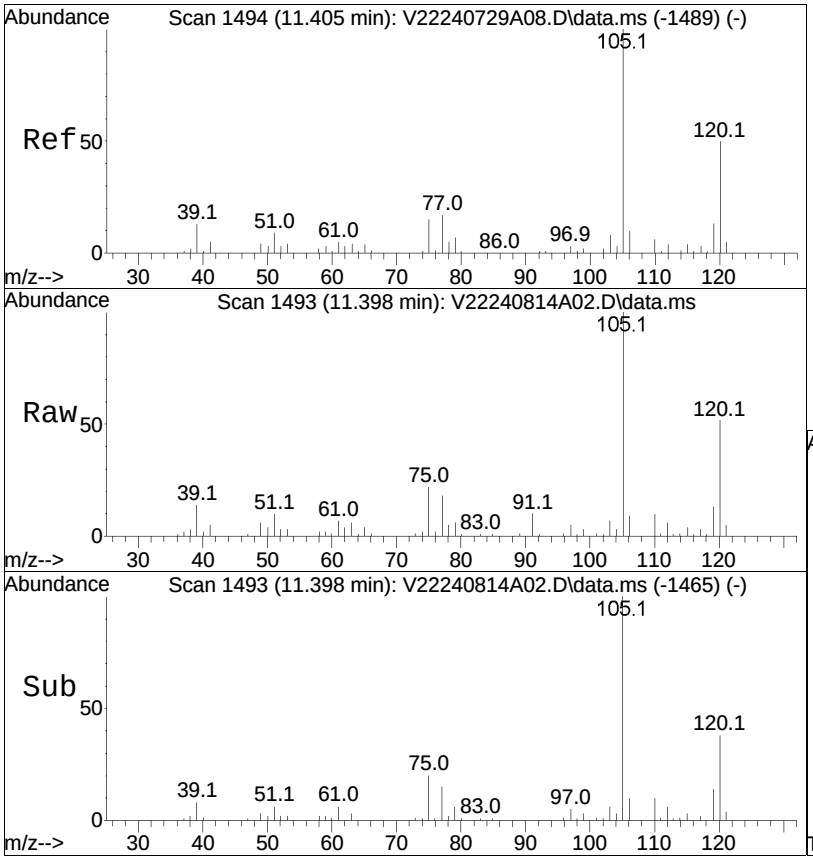


#94
1,3,5-Trimethylbenzene
Concen: 9.14 ug/L
RT: 11.412 min Scan# 1495
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:105 Resp: 223031

Ion	Ratio	Lower	Upper
105	100		
120	53.5	40.9	61.3

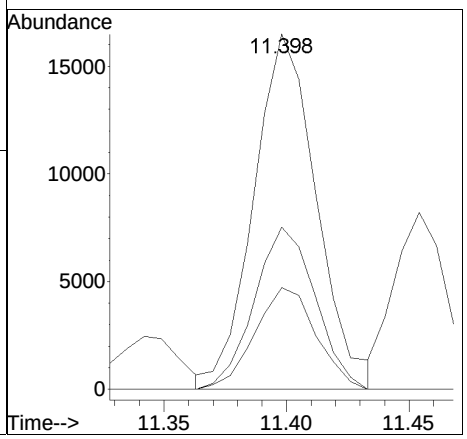


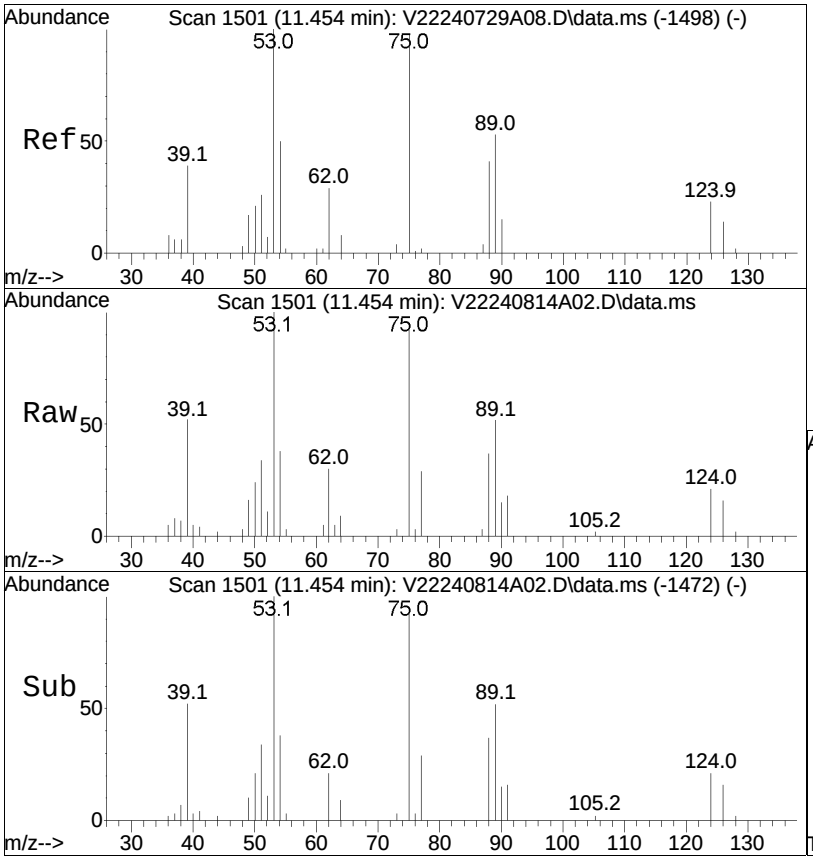


#95
1,2,3-Trichloropropane
Concen: 7.74 ug/L
RT: 11.398 min Scan# 1493
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 75 Resp: 29368

Ion	Ratio	Lower	Upper
75	100		
110	44.3	26.3	54.7
112	27.9	16.8	35.0

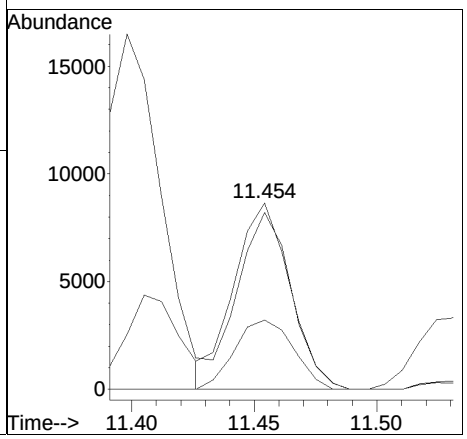


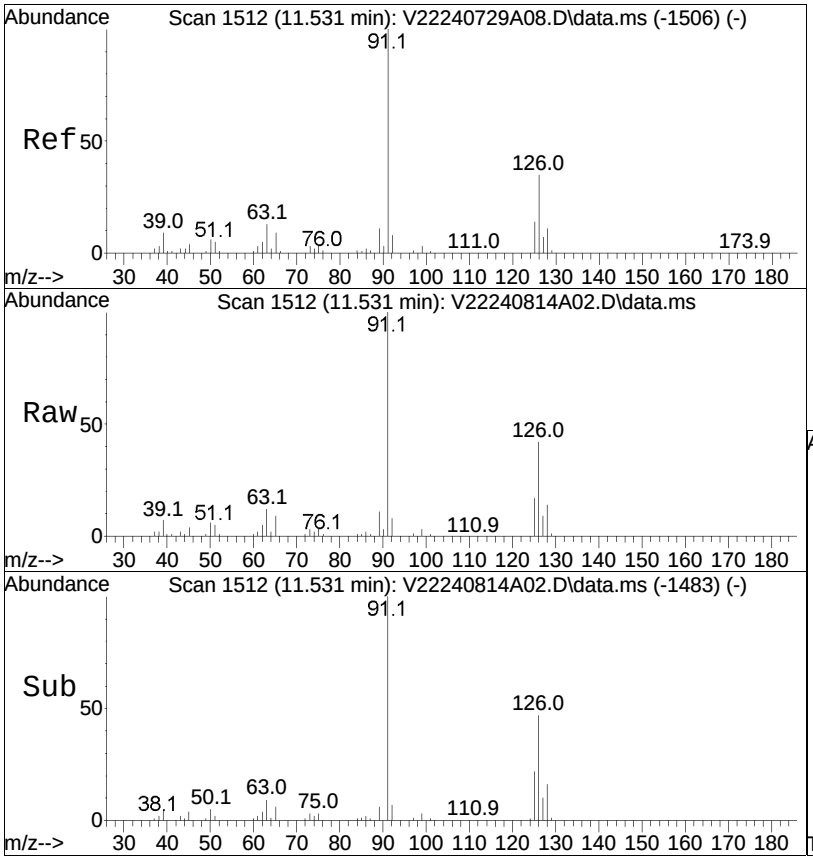


#96
trans-1,4-Dichloro-2-butene
Concen: 8.14 ug/L
RT: 11.454 min Scan# 1501
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 53 Resp: 13788

Ion	Ratio	Lower	Upper
53	100		
88	38.9	46.3	69.5#
75	88.6	109.0	163.4#

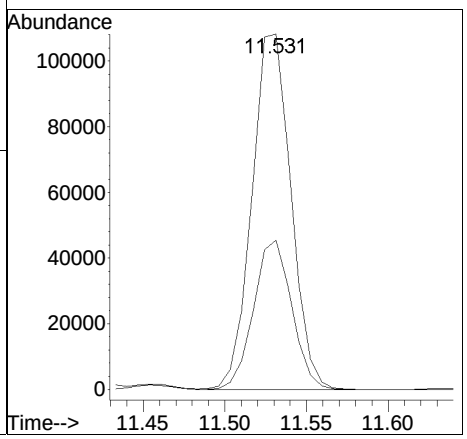


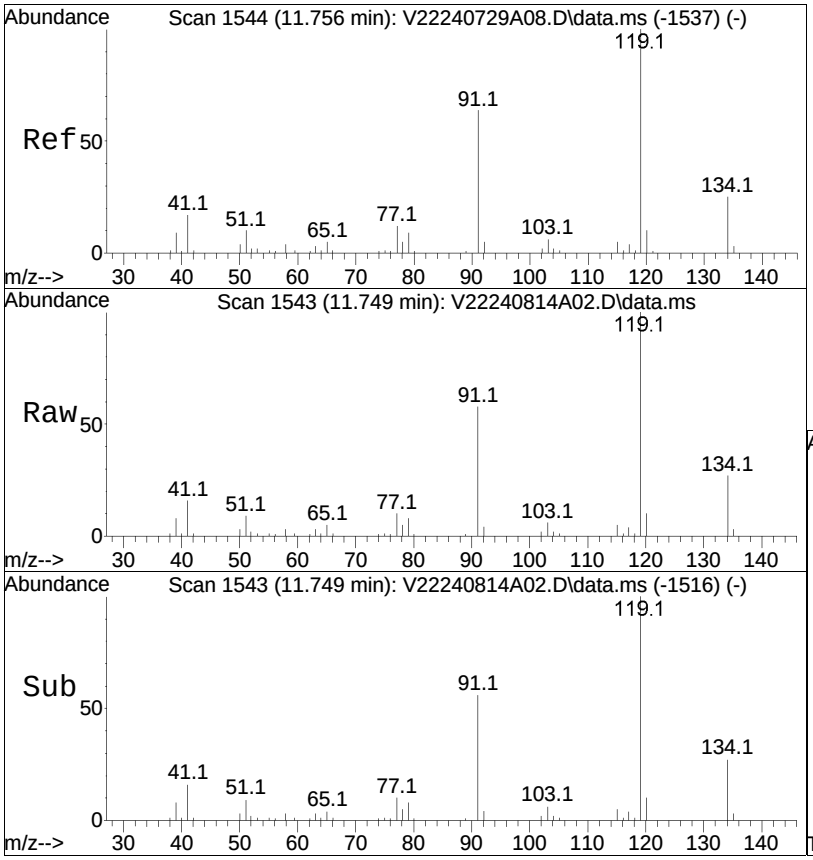


#97
4-Chlorotoluene
Concen: 8.19 ug/L
RT: 11.531 min Scan# 1512
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 91 Resp: 179902

Ion	Ratio	Lower	Upper
91	100		
126	41.0	28.5	42.7

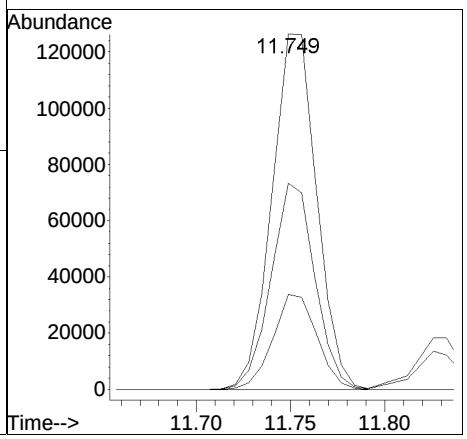


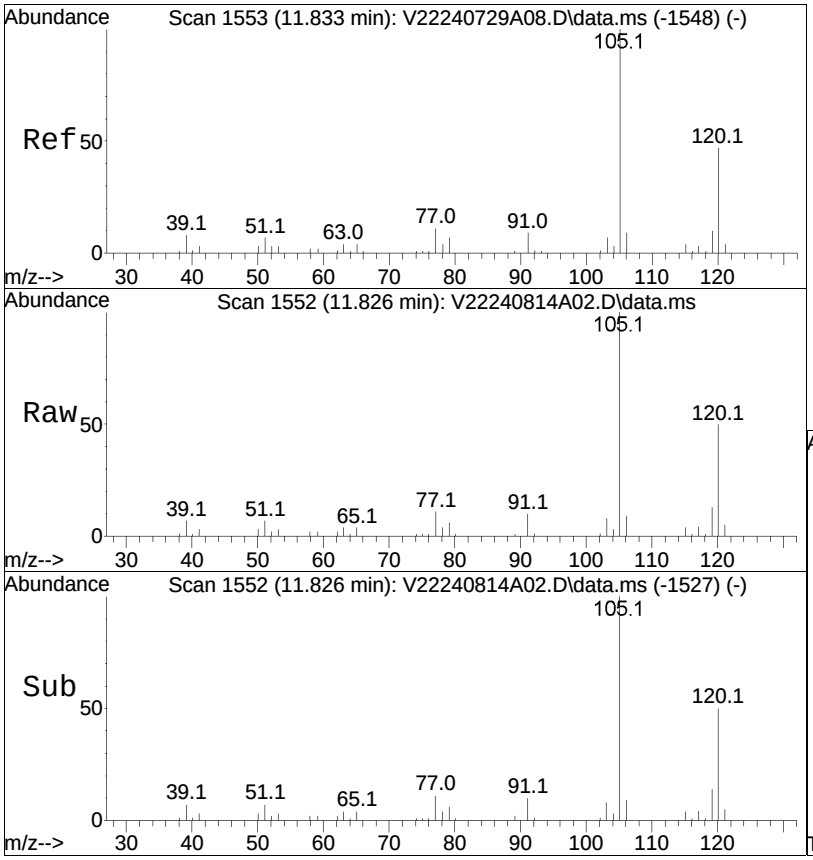


#98
tert-Butylbenzene
Concen: 9.88 ug/L
RT: 11.749 min Scan# 1543
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:119 Resp: 209326

Ion	Ratio	Lower	Upper
119	100		
91	56.8	50.2	75.4
134	30.3	20.8	31.2

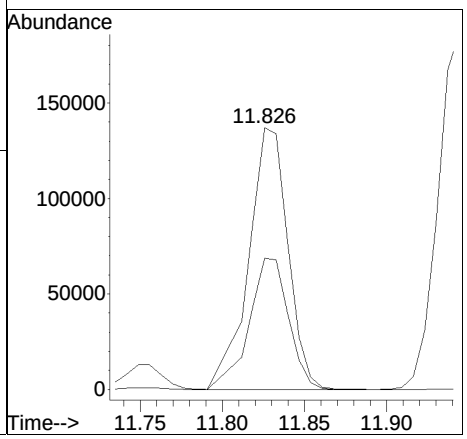


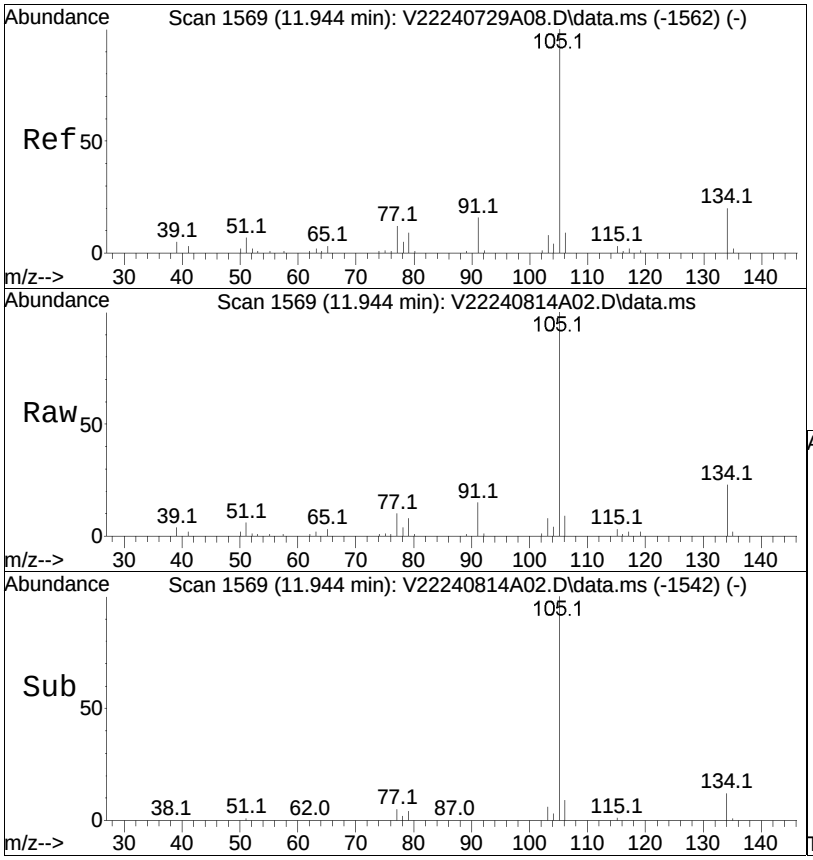


#101
1,2,4-Trimethylbenzene
Concen: 9.01 ug/L
RT: 11.826 min Scan# 1552
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:105 Resp: 245630

Ion	Ratio	Lower	Upper
105	100		
120	51.8	38.5	57.7

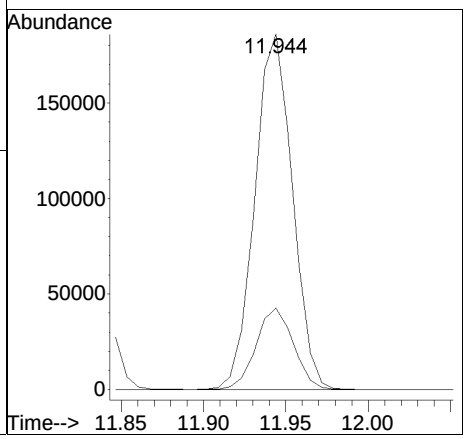


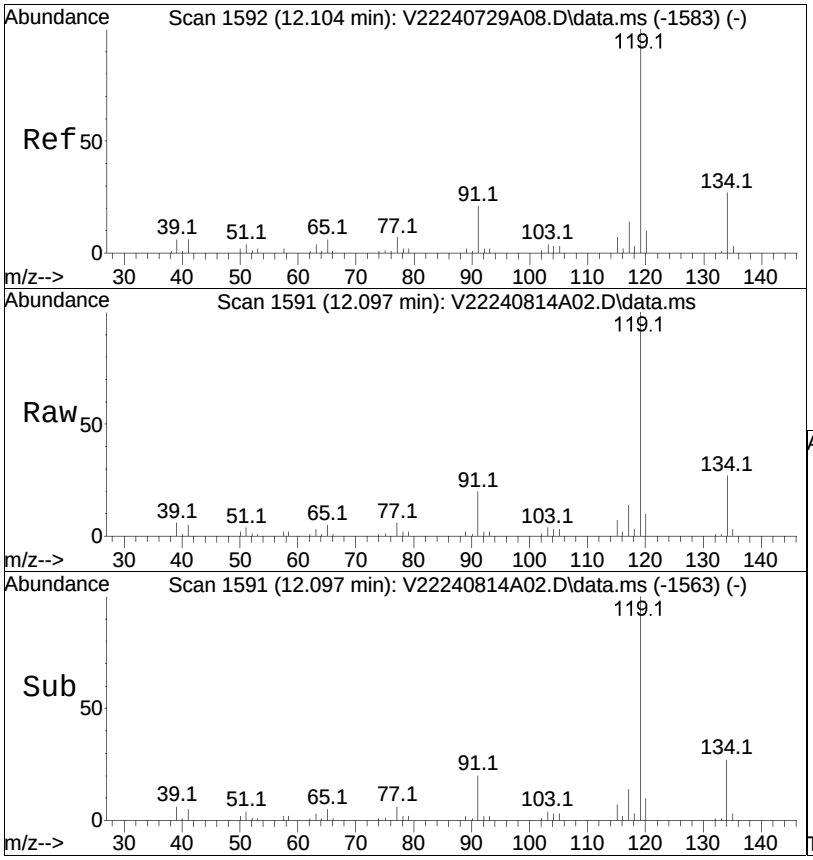


#102
sec-Butylbenzene
Concen: 9.19 ug/L
RT: 11.944 min Scan# 1569
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:105 Resp: 295387

Ion	Ratio	Lower	Upper
105	100		
134	22.6	13.9	28.9

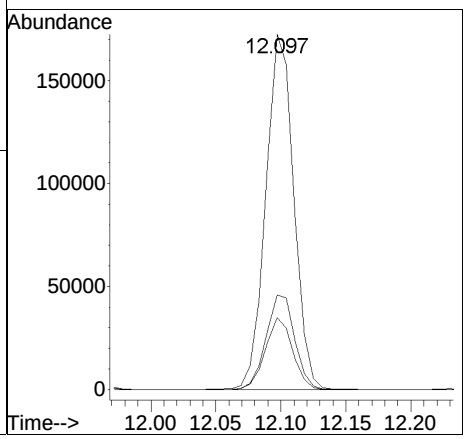


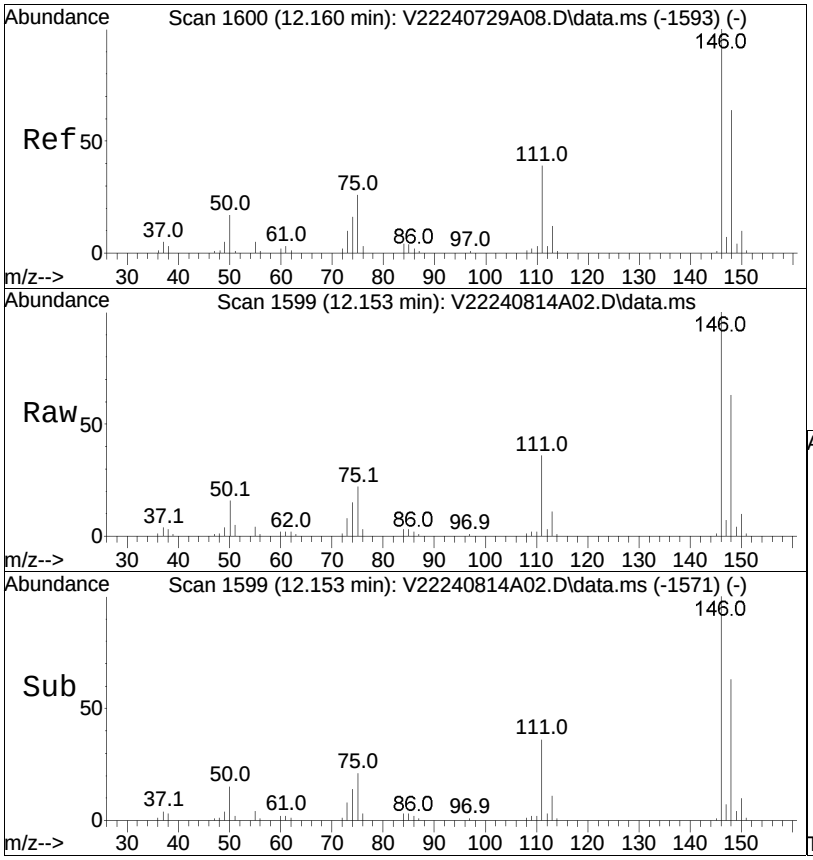


#103
p-Isopropyltoluene
Concen: 9.50 ug/L
RT: 12.097 min Scan# 1591
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:119 Resp: 258040

Ion	Ratio	Lower	Upper
119	100		
134	27.2	17.7	36.7
91	19.6	14.1	29.3

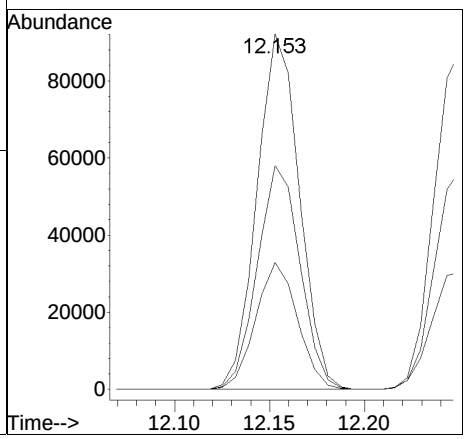


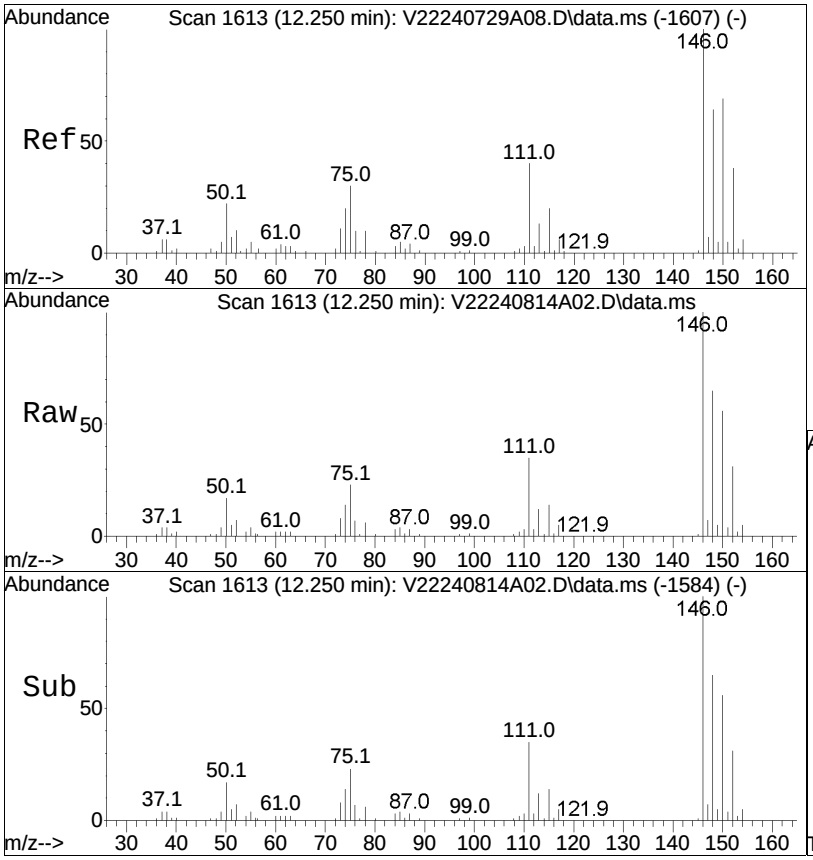


#104
1,3-Dichlorobenzene
Concen: 10.12 ug/L
RT: 12.153 min Scan# 1599
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:146 Resp: 143447

Ion	Ratio	Lower	Upper
146	100		
111	35.2	24.0	49.8
148	63.4	41.8	86.8

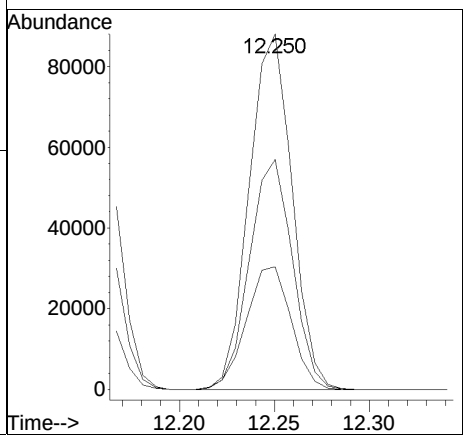


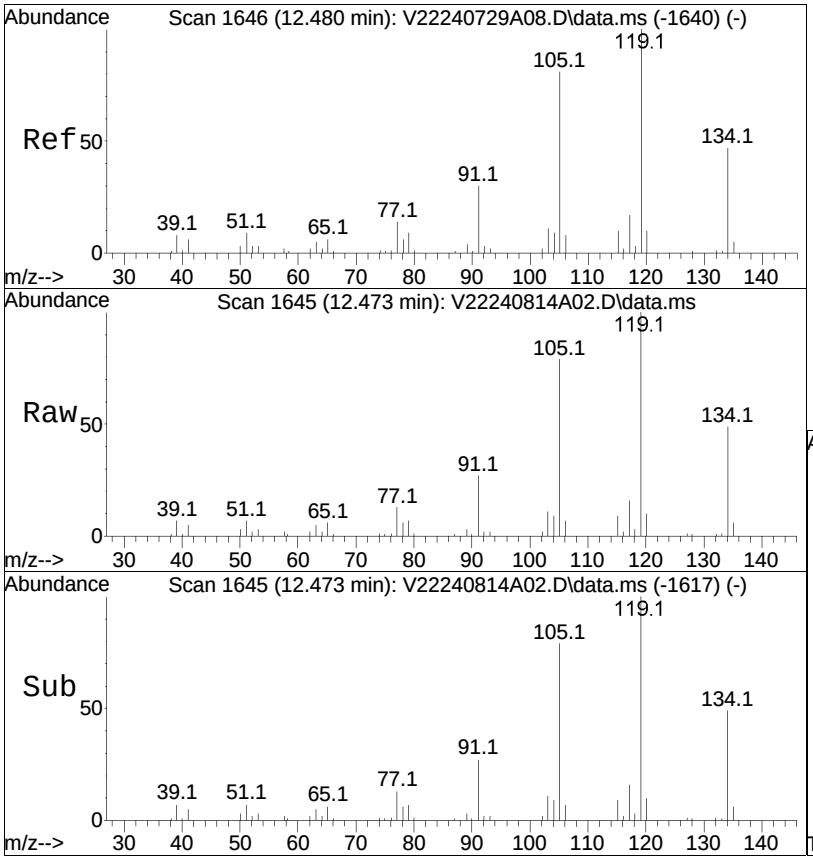


#105
1,4-Dichlorobenzene
Concen: 9.83 ug/L
RT: 12.250 min Scan# 1613
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:146 Resp: 138308

Ion	Ratio	Lower	Upper
146	100		
111	36.2	28.9	43.3
148	64.9	51.4	77.2

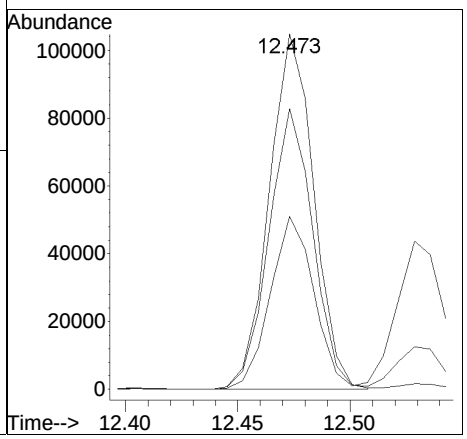


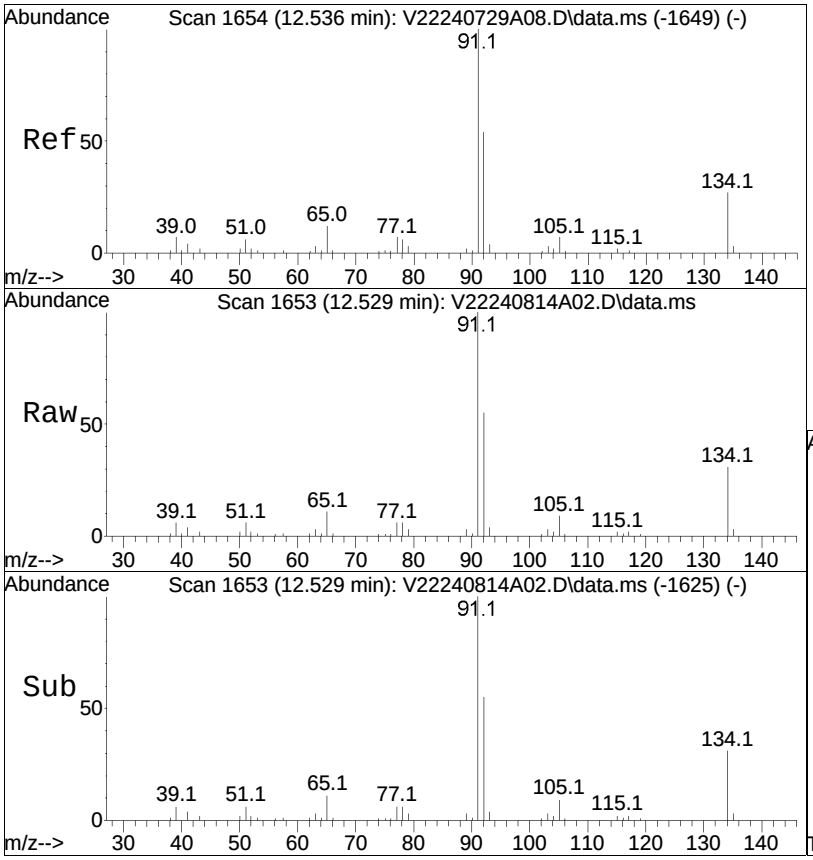


#106
p-Diethylbenzene
Concen: 9.36 ug/L
RT: 12.473 min Scan# 1645
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:119 Resp: 144572

Ion	Ratio	Lower	Upper
119	100		
105	78.3	53.4	110.8
134	47.9	30.9	64.1

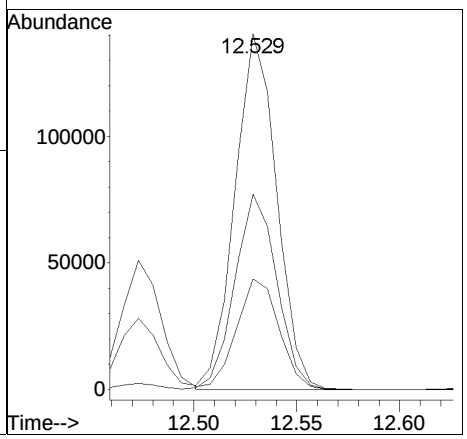


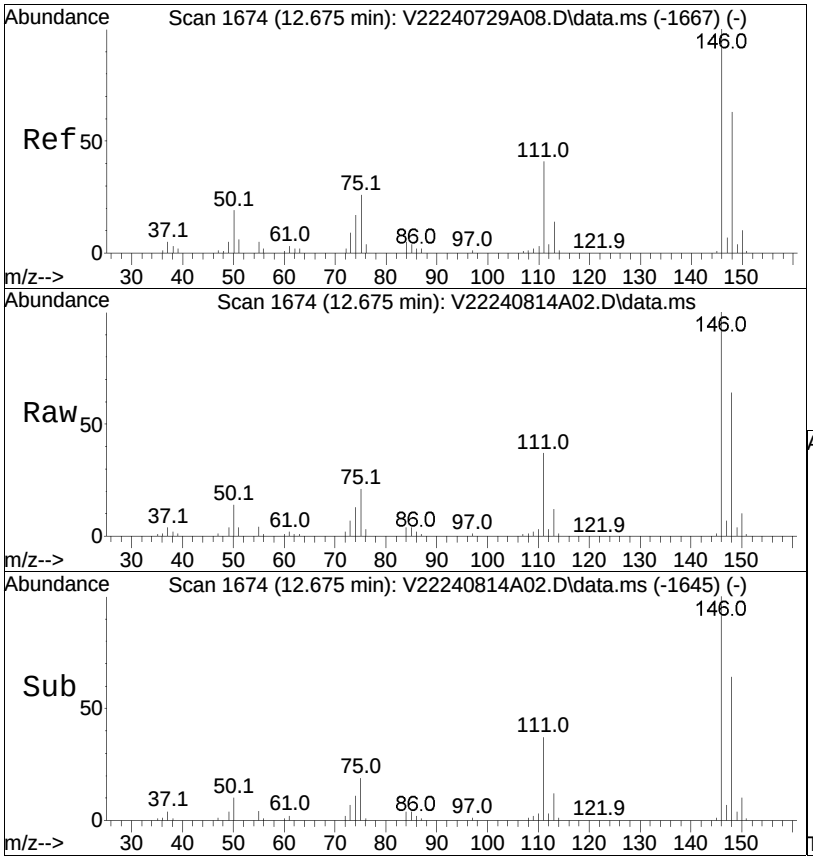


#107
n-Butylbenzene
Concen: 8.78 ug/L
RT: 12.529 min Scan# 1653
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion: 91 Resp: 198066

Ion	Ratio	Lower	Upper
91	100		
92	55.3	44.6	66.8
134	31.8	22.9	34.3

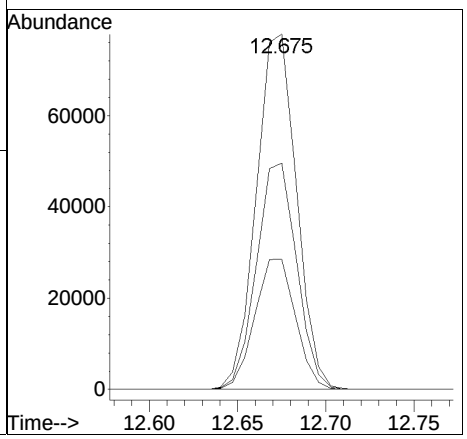


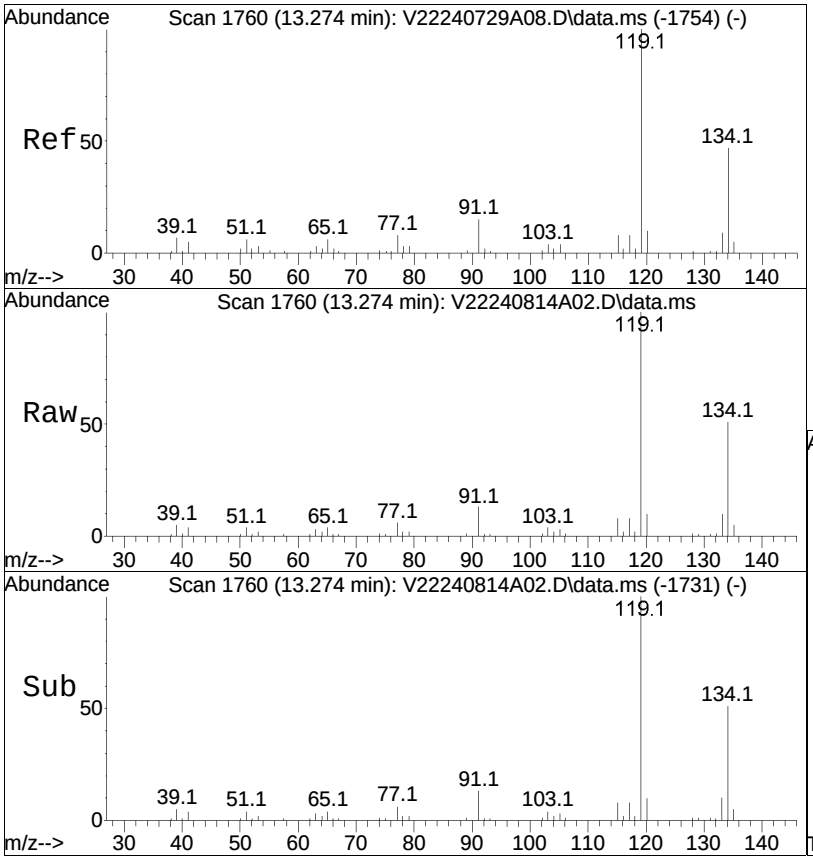


#108
1,2-Dichlorobenzene
Concen: 9.86 ug/L
RT: 12.675 min Scan# 1674
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:146 Resp: 123694

Ion	Ratio	Lower	Upper
146	100		
111	37.2	24.8	51.6
148	63.7	42.2	87.6

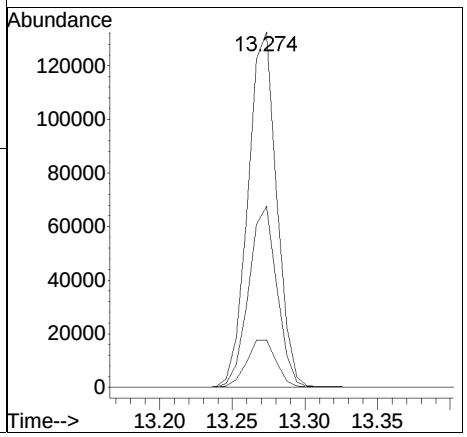


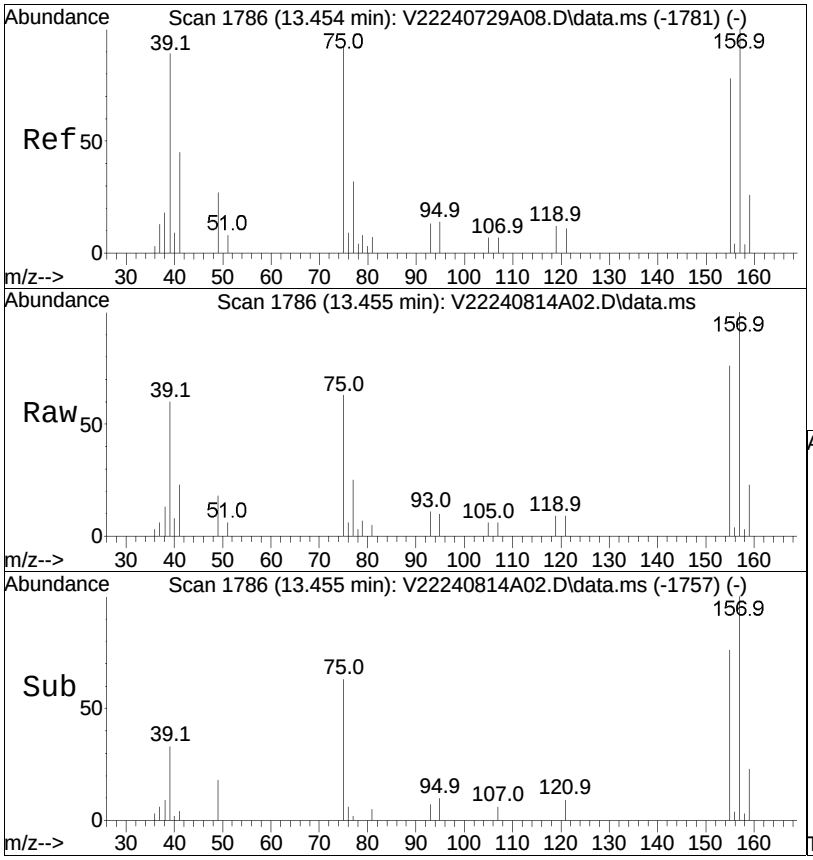


#109
1,2,4,5-Tetramethylbenzene
Concen: 8.64 ug/L
RT: 13.274 min Scan# 1760
Delta R.T. -0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:119 Resp: 182967

Ion	Ratio	Lower	Upper
119	100		
134	50.4	31.9	66.1
91	13.8	9.8	20.3

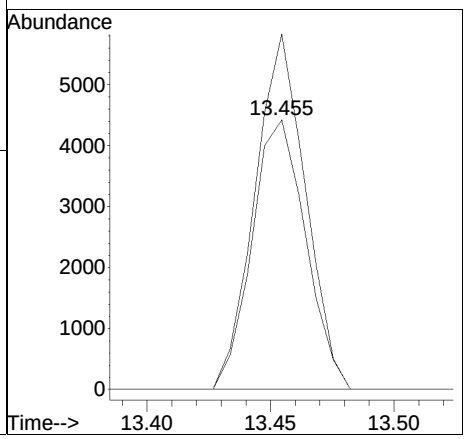


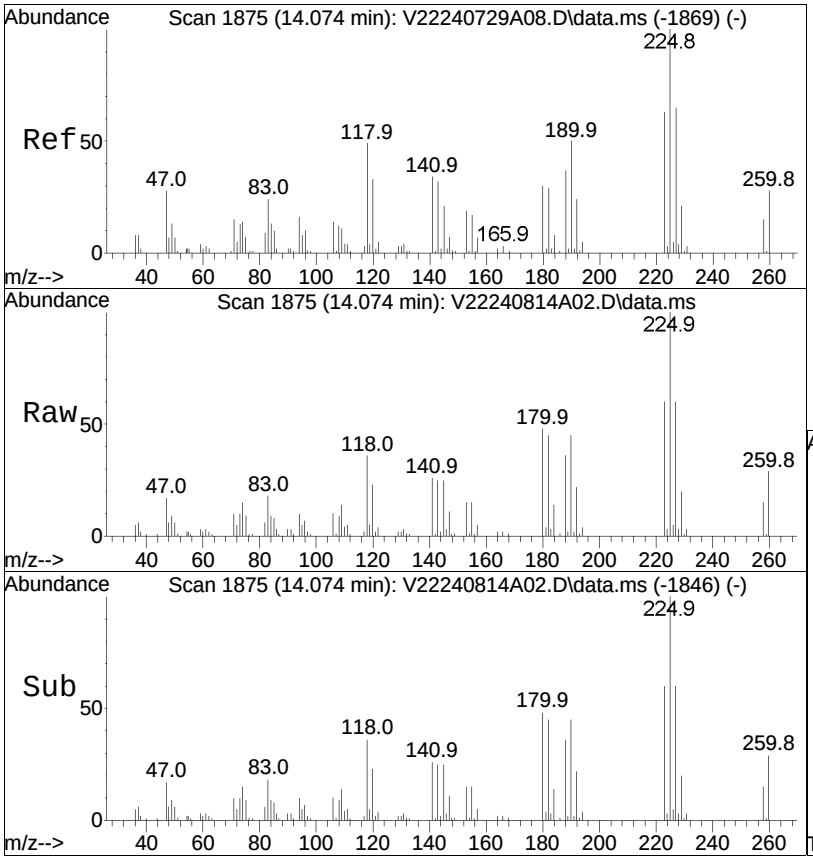


#110
1,2-Dibromo-3-chloropropane
Concen: 9.01 ug/L
RT: 13.455 min Scan# 1786
Delta R.T. 0.001 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:155 Resp: 6694

Ion	Ratio	Lower	Upper
155	100		
157	124.1	102.3	153.5

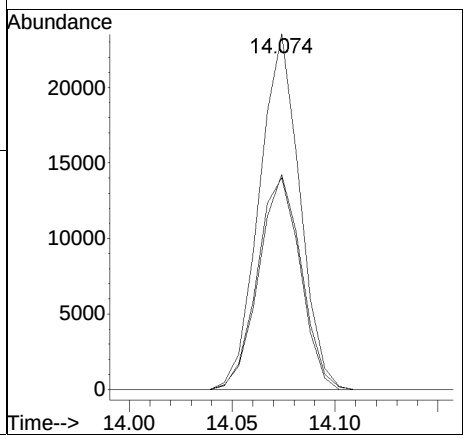


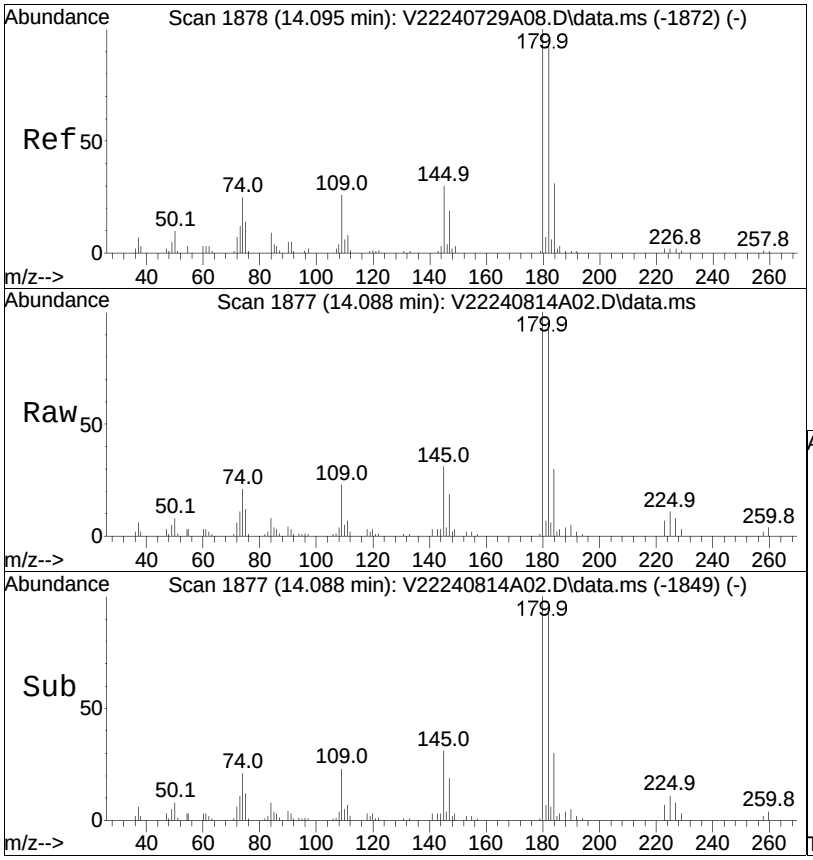


#112
Hexachlorobutadiene
Concen: 10.85 ug/L
RT: 14.074 min Scan# 1875
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:225 Resp: 32187

Ion	Ratio	Lower	Upper
225	100		
223	63.1	49.8	74.8
227	63.4	52.2	78.4

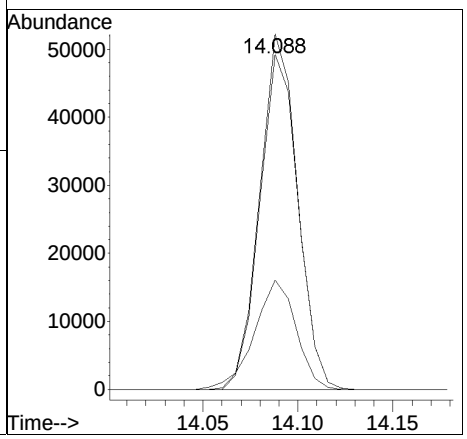


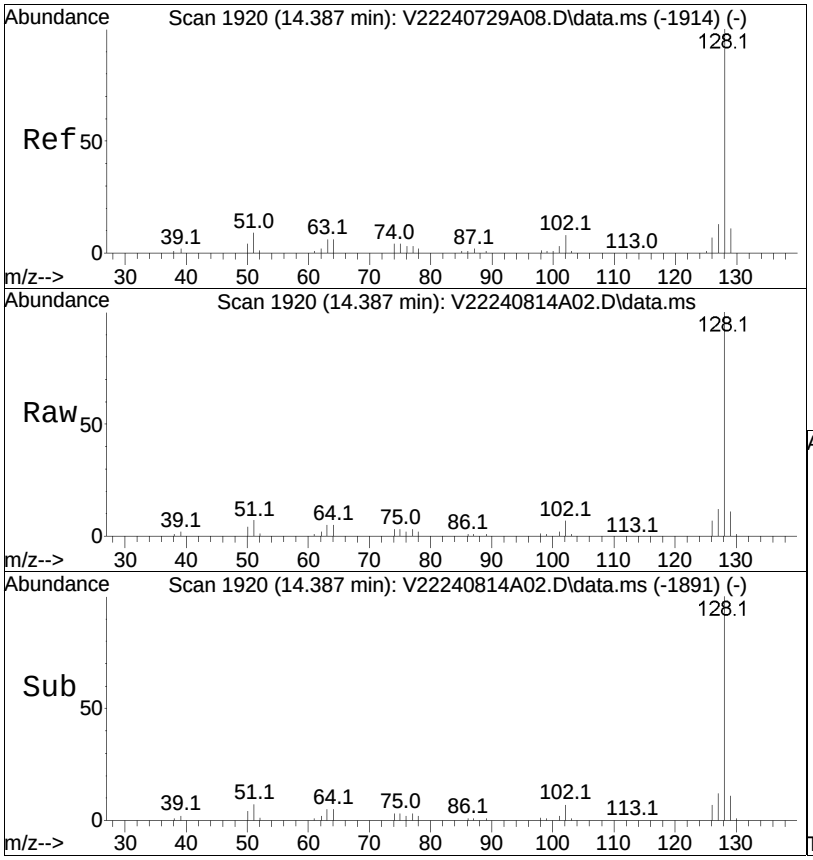


#113
1,2,4-Trichlorobenzene
Concen: 10.40 ug/L
RT: 14.088 min Scan# 1877
Delta R.T. -0.007 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:180 Resp: 72324

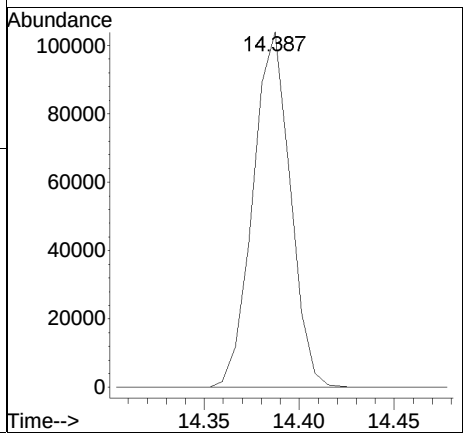
Ion	Ratio	Lower	Upper
180	100		
182	95.8	76.6	114.8
145	33.8	25.5	38.3

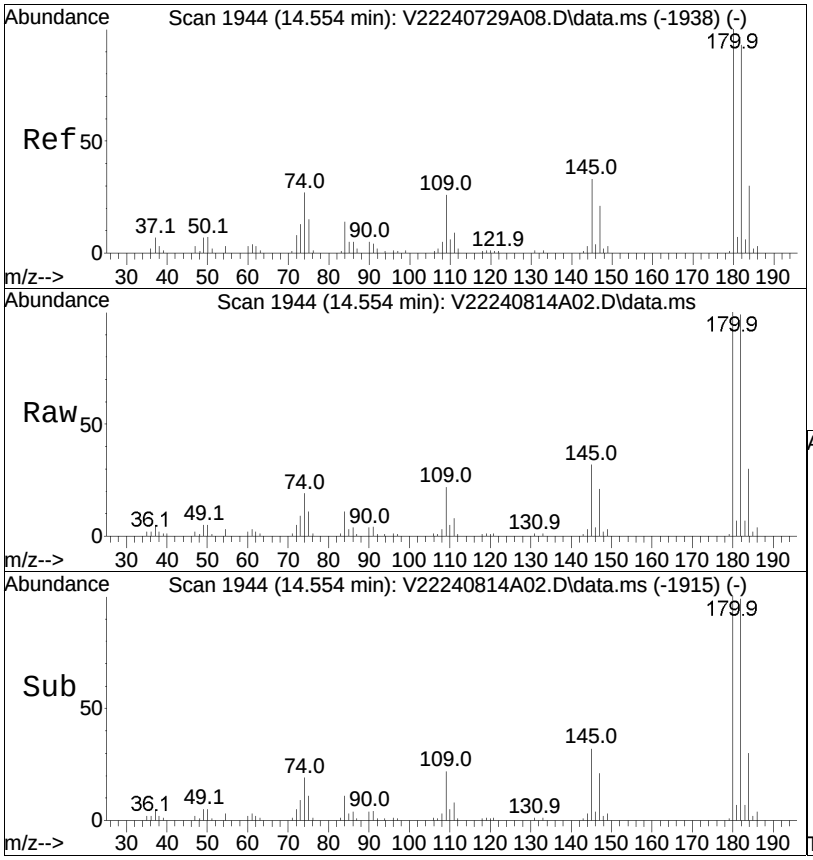




#114
Naphthalene
Concen: 8.90 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:128 Resp: 142343

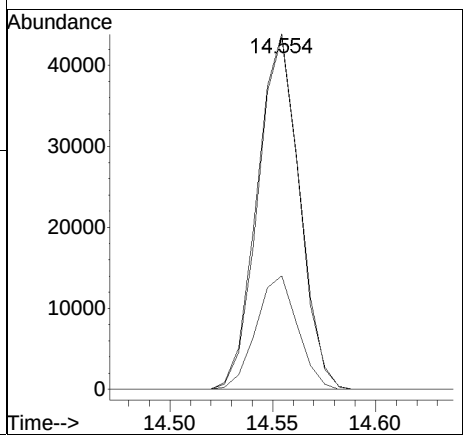




#115
1,2,3-Trichlorobenzene
Concen: 10.63 ug/L
RT: 14.554 min Scan# 1944
Delta R.T. 0.000 min
Lab File: V22240814A02.D
Acq: 14 Aug 2024 06:51 am

Tgt Ion:180 Resp: 62788

Ion	Ratio	Lower	Upper
180	100		
182	96.8	76.0	114.0
145	31.3	23.8	35.8

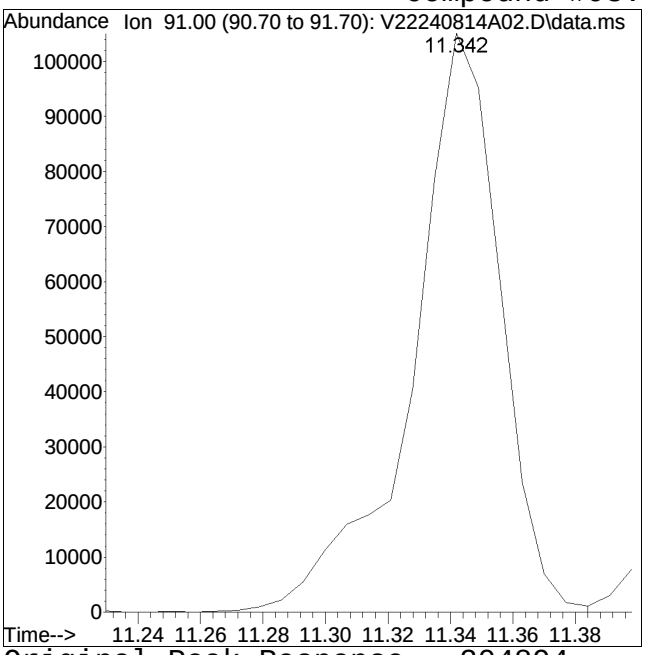


Manual Integration Report

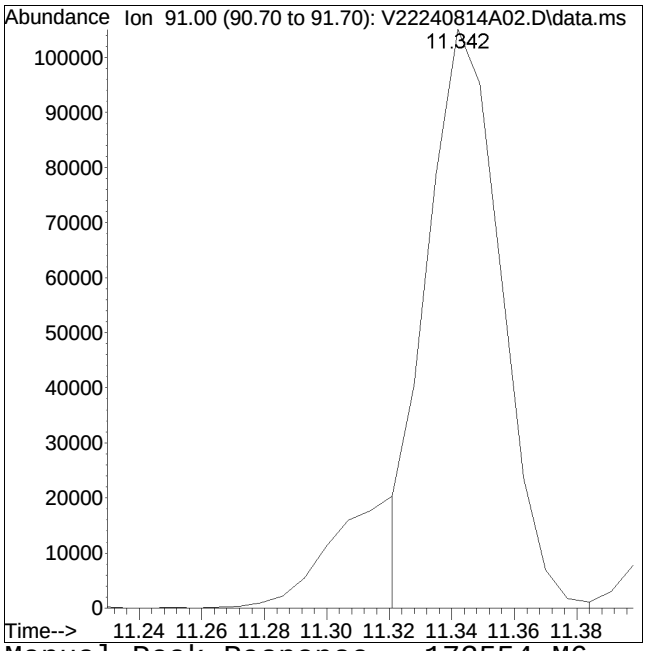
Data Path : K:\VOA122\2024\240814A\
Data File : V22240814A02.D
Date Inj'd : 8/14/2024 6:51 am
Sample : WG1959185-4,31,10,10

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/14/2024 7:26 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 204894



Manual Peak Response = 173554 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 14 2024, 10:22 am

Work Group: WG1959185 for Department: 31 GC/MS - Volatiles

Created: 14-AUG-24 Due: Operator: PID

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2445770-01	LMW-6RD_32.75	S	NYTCL-8260	WATER	DONE	U	0826	0814	1A	Vial-B
L2445770-02	LMW-7RS_16.75	S	NYTCL-8260	WATER	DONE	U	0827	0814	1A	Vial-B
L2445770-03	LMW-8RD_27.75	S	NYTCL-8260	WATER	DONE	U	0827	0814	1A	Vial-B
WG1959185-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1959185-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1959185-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1959185-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1959185-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG1959185-4 WG1959185-3

Method

Inst: VOA122 BFB: V10571 GC: 8260

Initials: PID IS/SS: V10570 Autosampler: 8260water

Date: **07/29/24** ICAL: V10572,V10561C Concentrator: 8260 v122

Run **A** ICV: V10539,V10563,V10564,V10527,V10541,V10540 QC:_____ Seq:_____

Vial	Data File	Sample	pH<2
1	V22240729ABF1	BFB TUNE 12:26	
1	V22240729A01	BLK	
2	V22240729A02	BLK	
3	V22240729A03	I8260STD0.19PPB	
4	V22240729A04	I8260STD0.5PPB	
5	V22240729A05	I8260STD0.5PPB	
6	V22240729A06	I8260STD2PPB	
7	V22240729A07	I8260STD2PPB	
8	V22240729A08	I8260STD10PPB	
9	V22240729A09	I8260STD30PPB	
10	V22240729A10	I8260STD80PPB	
11	V22240729A11	I8260STD120PPB	
12	V22240729A12	I8260STD200PPB	
13	V22240729A13	BLK	
14	V22240729A14	BLK	
15	V22240729A15	BLK	
16	V22240729A16	BLK	
17	V22240729A17	C8260STD10PPB	
18	V22240729A18	C8260STD10PPB	
19	V22240729A19	BLK	
20	V22240729A20	BLK	
21	V22240729A21	MDL METHOD BLK	
22	V22240729A22	MDL L1	
23	V22240729A23	MDL L1	
24	V22240729A24	MDL L2	
25	V22240729A25	MDL L2	
26	V22240729A26	BLK	

Inst: VOA122 BFB: V10571 Method GC: 8260
Initials: PID IS/SS: V10600 Autosampler: 8260water
Date: **08/14/24** ICAL: V10594A,V10595 Concentrator: 8260 v122
Run **A** QC:_____ Seq:_____

Vial	Data File	Sample			pH<2
1	V22240814ABF1	BFB TUNE 06:13			
1	V22240814A01	8260 CCAL LCS			
2	V22240814A02	8260 CCAL LCSD			
3	V22240814A03	8260 CCAL			
4	V22240814A04	BLK			
5	V22240814A05	METHOD BLK			
6	V22240814A06	L2445770-03,31,10,10,,A,R1A	NYTCL		pH<2
7	V22240814A07	L2445770-01,31,10,10,,A,R1A	NYTCL		pH<2
8	V22240814A08	L2445770-02D,31,0.005,10,,A,R1A	NYTCL	WHITE,THICK,VERY CLOUDY	pH>2
9	V22240814A09	DSTD			
10	V22240814A10	L2444790-01,31,10,10,,A	ME/12DCA		
11	V22240814A11	L2444790-02,31,10,10,,A	ME/12DCA		
12	V22240814A12	L2444790-03,31,10,10,,A	ME/12DCA		
13	V22240814A13	L2445462-04D,31,4.0,10,,A	NJ/BENZ,CB		pH<2
14	V22240814A14	L2445462-05,31,10,10,,A	NJ/BENZ,CB		
15	V22240814A15	L2445462-06,31,10,10,,A	NJ/CB		
16	V22240814A16	L2445462-07,31,10,10,,A	NJ/BENZ,CB		
17	V22240814A17	L2445462-08,31,10,10,,A	NJ/BENZ,CB		
18	V22240814A18	L2445462-09,31,10,10,,A	NJ/BENZ		
19	V22240814A19	L2445462-11,31,10,10,,A	NJ/BENZ,CB		
20	V22240814A20	L2445462-12,31,10,10,,A	NJ/BENZ		
21	V22240814A21	L2445462-13,31,10,10,,A	NJ/BENZ,CB		
22	V22240814A22	L2445483-12,31,10,10,,A	8260/10		
23	V22240814A23	L2445483-13,31,10,10,,A	8260/10		
24	V22240814A24	L2445483-14,31,10,10,,A	8260/10		
25	V22240814A25	L2445483-15,31,10,10,,A	8260/10		
26	V22240814A26	L2445483-16,31,10,10,,A	8260/10		
27	V22240814A27	L2445770-02DUP,31,0.005,10,,A,R1A	NJQC	WHITE,THICK,VERY CLOUDY	pH>2
28	V22240814A28	L2445770-02MS,31,0.005,10,,A,R1A	NJQC	WHITE,THICK,VERY CLOUDY	pH>2
29	V22240814A29	HSTD			
30	V22240814A30	BLK			
31	V22240814A31	BLK			

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Alpha Analytical

Laboratory Code: 11148

SDG Number: L2446104

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Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2446104
Report Date: 08/15/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2446104-01	LMW-7RD_23.75	WATER	1487 FIRST AVE NY NY	08/13/24 12:00	08/14/24
L2446104-02	LMW-8RD_59.75	WATER	1487 FIRST AVE NY NY	08/13/24 13:00	08/14/24
L2446104-03	LMW-6RS_18.75	WATER	1487 FIRST AVE NY NY	08/13/24 16:40	08/14/24
L2446104-04	LMW-10RD_40.75	WATER	1487 FIRST AVE NY NY	08/14/24 12:00	08/14/24
L2446104-05	LMW-10RD_30.75	WATER	1487 FIRST AVE NY NY	08/14/24 11:00	08/14/24
L2446104-06	LMW-10RS_24.75	WATER	1487 FIRST AVE NY NY	08/14/24 10:10	08/14/24
L2446104-07	TRIP BLANK	WATER	1487 FIRST AVE NY NY	08/13/24 00:00	08/14/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2446104-01D, -01D2, -02D, -03D: The pH was greater than two; however, the sample was analyzed within the method required holding time.

L2446104-06D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich Report Date: 08/15/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2446104

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVE

Received : 14-AUG-2024
Reviewer : Majid Abdul

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.1	

Condition Information

1) All samples on COC received? **YES**

2) Extra samples received? **NO**

3) Are there any sample container discrepancies? **NO**

4) Are there any discrepancies between COC & sample labels? **NO**

5) Are samples in appropriate containers for requested analysis? **YES**

6) Are samples properly preserved for requested analysis? **NO**
Following containers were received with headspace: -03B, -03C, -04B

7) Are samples within holding time for requested analysis? **YES**

8) All sampling equipment returned? **NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client? **NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 15 2024, 02:54 pm

Login Number: L2446104
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 14AUG24 Due Date: 15AUG24

Sample #	Client ID	Mat	PR	Collected
L2446104-01	LMW-7RD_23.75		1	1A 13AUG24 12:00
Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 08/15/24				
ASP-B,NYTCL-8260				
L2446104-02	LMW-8RD_59.75		1	1A 13AUG24 13:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/15/24				
NYTCL-8260				
L2446104-03	LMW-6RS_18.75		1	1A 13AUG24 16:40
Batch Separately, Run On Same Instrument When Possible headspace -03BC Package Due Date: 08/15/24				
NYTCL-8260				
L2446104-04	LMW-10RD_40.75		1	1A 14AUG24 12:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/15/24				
NYTCL-8260				
L2446104-05	LMW-10RD_30.75		1	1A 14AUG24 11:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/15/24				
NYTCL-8260				
L2446104-06	LMW-10RS_24.75		1	1A 14AUG24 10:10
Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/15/24				
NYTCL-8260				
L2446104-07	TRIP BLANK		1	1A 13AUG24 00:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/15/24				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 15 2024, 02:54 pm

Login Number: L2446104

Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701

Received: 14AUG24 Due Date: 15AUG24

Sample #	Client ID	Mat	PR Collected

NYTCL-8260

Logged By: Ben Rao

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/16/24

ALPHA Job # L2446104

Client Information

Client: LANGAN
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: 973-560-4906
Fax:
Email: jfrisch@langan.com

Project Information

Project Name: 1487 First Ave
Project Location: 1487 First Ave NY NY
Project #: 100963701
(Use Project name as Project #) ☐
Project Manager: Jessica Frisch
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables

☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☒ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☒ NY
☐ Other:

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments	Total Bottle
L6104-01	LMW-7RD_23.75	8/13	1200	AQ	RB	3 vials	3
-02	LMW-8RD-59.75	8/13	1300	AQ	RB		3
-03	LMW-6RS-18.75	8/13	1640	AQ	RB		3
-04	LMW-10RD-40.75	8/14	1200	AQ	RB		3
-05	LMW-10RD-30.75	↓	1100	AQ	RB		3
-06	LMW-10RS-24.75	↓	1010	AQ	RB		3
-07	Trip Blank			AQ			2
	RB						

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
Rob Banda	8/14/24 15:10	[illegible]	8/14/24 15:10
[illegible]	8/14/24 18:30	Anthony Green	AUG 14 2024 21:05
Anthony Green		[illegible]	8/16/24 03:30
[illegible]	8/16/24 03:30	[illegible]	8/16/24

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTITUTIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVE

Lab Number: L2446104
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
LMW-7RD_23.75 (L2446104-01D2)	94	91	77	114	0
LMW-7RD_23.75 (L2446104-01D)	91	91	80	112	0
LMW-8RD_59.75 (L2446104-02D)	94	92	79	110	0
LMW-6RS_18.75 (L2446104-03D)	92	90	80	110	0
LMW-10RD_40.75 (L2446104-04)	98	100	92	106	0
LMW-10RD_30.75 (L2446104-05)	102	99	91	110	0
LMW-10RS_24.75 (L2446104-06D)	102	100	90	106	0
TRIP BLANK (L2446104-07)	101	101	93	108	0
WG1959746-3LCS	96	101	91	101	0
WG1959746-4LCSD	100	99	89	107	0
WG1959746-5BLANK	104	99	93	111	0
WG1959760-3LCS	92	91	83	106	0
WG1959760-4LCSD	92	91	82	104	0
WG1959760-5BLANK	92	90	79	112	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959746-3 **Analysis Date** : 08/15/24 06:39	**File ID**	: VE240815A01
LCSD Sample ID	: WG1959746-4 **Analysis Date** : 08/15/24 07:03	**File ID**	: VE240815A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	10	100	10	9.8	98	2	70-130	20
1,1-Dichloroethane	10	11	110	10	10	100	10	70-130	20
Chloroform	10	11	110	10	10	100	10	70-130	20
Carbon tetrachloride	10	11	110	10	11	110	0	63-132	20
1,2-Dichloropropane	10	10	100	10	10	100	0	70-130	20
Dibromochloromethane	10	10	100	10	10	100	0	63-130	20
1,1,2-Trichloroethane	10	9.7	97	10	9.9	99	2	70-130	20
Tetrachloroethene	10	11	110	10	11	110	0	70-130	20
Chlorobenzene	10	11	110	10	11	110	0	75-130	20
Trichlorofluoromethane	10	11	110	10	11	110	0	62-150	20
1,2-Dichloroethane	10	10	100	10	10	100	0	70-130	20
1,1,1-Trichloroethane	10	10	100	10	10	100	0	67-130	20
Bromodichloromethane	10	10	100	10	10	100	0	67-130	20
trans-1,3-Dichloropropene	10	10	100	10	10	100	0	70-130	20
cis-1,3-Dichloropropene	10	11	110	10	11	110	0	70-130	20
1,1-Dichloropropene	10	11	110	10	10	100	10	70-130	20
Bromoform	10	9.5	95	10	9.4	94	1	54-136	20
1,1,2,2-Tetrachloroethane	10	9.2	92	10	9.2	92	0	67-130	20
Benzene	10	11	110	10	11	110	0	70-130	20
Toluene	10	11	110	10	10	100	10	70-130	20
Ethylbenzene	10	11	110	10	11	110	0	70-130	20
Chloromethane	10	10	100	10	9.9	99	1	64-130	20
Bromomethane	10	13	130	10	14	140 Q	7	39-139	20
Vinyl chloride	10	11	110	10	10	100	10	55-140	20
Chloroethane	10	12	120	10	12	120	0	55-138	20
1,1-Dichloroethene	10	9.0	90	10	9.8	98	9	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959746-3 **Analysis Date** : 08/15/24 06:39	**File ID**	: VE240815A01
LCSD Sample ID	: WG1959746-4 **Analysis Date** : 08/15/24 07:03	**File ID**	: VE240815A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	11	110	10	10	100	10	70-130	20
Trichloroethene	10	10	100	10	10	100	0	70-130	20
1,2-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,3-Dichlorobenzene	10	11	110	10	10	100	10	70-130	20
1,4-Dichlorobenzene	10	11	110	10	10	100	10	70-130	20
Methyl tert butyl ether	10	9.0	90	10	9.2	92	2	63-130	20
p/m-Xylene	20	22	110	20	22	110	0	70-130	20
o-Xylene	20	22	110	20	21	105	5	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Dibromomethane	10	9.9	99	10	10	100	1	70-130	20
1,2,3-Trichloropropane	10	9.1	91	10	9.1	91	0	64-130	20
Acrylonitrile	10	8.0	80	10	8.2	82	2	70-130	20
Styrene	20	22	110	20	22	110	0	70-130	20
Dichlorodifluoromethane	10	9.4	94	10	9.6	96	2	36-147	20
Acetone	10	6.6	66	10	7.3	73	10	58-148	20
Carbon disulfide	10	11	110	10	10	100	10	51-130	20
2-Butanone	10	6.6	66	10	7.3	73	10	63-138	20
Vinyl acetate	10	9.8	98	10	10	100	2	70-130	20
4-Methyl-2-pentanone	10	7.5	75	10	8.1	81	8	59-130	20
2-Hexanone	10	6.8	68	10	7.4	74	8	57-130	20
Bromochloromethane	10	10	100	10	10	100	0	70-130	20
2,2-Dichloropropane	10	11	110	10	11	110	0	63-133	20
1,2-Dibromoethane	10	9.4	94	10	9.5	95	1	70-130	20
1,3-Dichloropropane	10	9.9	99	10	10	100	1	70-130	20
1,1,1,2-Tetrachloroethane	10	11	110	10	11	110	0	64-130	20
Bromobenzene	10	10	100	10	10	100	0	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959746-3 **Analysis Date** : 08/15/24 06:39	**File ID**	: VE240815A01
LCSD Sample ID	: WG1959746-4 **Analysis Date** : 08/15/24 07:03	**File ID**	: VE240815A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	10	100	10	10	100	0	53-136	20
sec-Butylbenzene	10	10	100	10	9.8	98	2	70-130	20
tert-Butylbenzene	10	11	110	10	9.9	99	11	70-130	20
o-Chlorotoluene	10	11	110	10	10	100	10	70-130	20
p-Chlorotoluene	10	10	100	10	9.9	99	1	70-130	20
1,2-Dibromo-3-chloropropane	10	7.6	76	10	8.2	82	8	41-144	20
Hexachlorobutadiene	10	10	100	10	9.8	98	2	63-130	20
Isopropylbenzene	10	11	110	10	10	100	10	70-130	20
p-Isopropyltoluene	10	10	100	10	10	100	0	70-130	20
Naphthalene	10	8.1	81	10	8.2	82	1	70-130	20
n-Propylbenzene	10	11	110	10	10	100	10	69-130	20
1,2,3-Trichlorobenzene	10	8.9	89	10	8.9	89	0	70-130	20
1,2,4-Trichlorobenzene	10	9.8	98	10	9.3	93	5	70-130	20
1,3,5-Trimethylbenzene	10	11	110	10	10	100	10	64-130	20
1,2,4-Trimethylbenzene	10	11	110	10	9.9	99	11	70-130	20
1,4-Dioxane	500	390	78	500	440	88	12	56-162	20
p-Diethylbenzene	10	10	100	10	9.8	98	2	70-130	20
p-Ethyltoluene	10	11	110	10	10	100	10	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.8	98	10	9.4	94	4	70-130	20
Ethyl ether	10	9.7	97	10	10	100	3	59-134	20
trans-1,4-Dichloro-2-butene	10	8.7	87	10	8.8	88	1	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959760-3 **Analysis Date** : 08/15/24 07:01	**File ID**	: V22240815A02
LCSD Sample ID	: WG1959760-4 **Analysis Date** : 08/15/24 07:26	**File ID**	: V22240815A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	8.8	88	10	8.6	86	2	70-130	20
1,1-Dichloroethane	10	9.0	90	10	9.0	90	0	70-130	20
Chloroform	10	9.2	92	10	9.2	92	0	70-130	20
Carbon tetrachloride	10	12	120	10	12	120	0	63-132	20
1,2-Dichloropropane	10	8.6	86	10	8.8	88	2	70-130	20
Dibromochloromethane	10	8.9	89	10	9.4	94	5	63-130	20
1,1,2-Trichloroethane	10	8.1	81	10	8.5	85	5	70-130	20
Tetrachloroethene	10	12	120	10	12	120	0	70-130	20
Chlorobenzene	10	9.8	98	10	9.8	98	0	75-130	20
Trichlorofluoromethane	10	11	110	10	11	110	0	62-150	20
1,2-Dichloroethane	10	9.0	90	10	8.9	89	1	70-130	20
1,1,1-Trichloroethane	10	10	100	10	10	100	0	67-130	20
Bromodichloromethane	10	9.3	93	10	9.3	93	0	67-130	20
trans-1,3-Dichloropropene	10	7.2	72	10	7.6	76	5	70-130	20
cis-1,3-Dichloropropene	10	9.0	90	10	9.0	90	0	70-130	20
1,1-Dichloropropene	10	9.6	96	10	9.6	96	0	70-130	20
Bromoform	10	9.4	94	10	9.7	97	3	54-136	20
1,1,2,2-Tetrachloroethane	10	7.7	77	10	7.9	79	3	67-130	20
Benzene	10	9.4	94	10	9.4	94	0	70-130	20
Toluene	10	9.0	90	10	9.1	91	1	70-130	20
Ethylbenzene	10	9.2	92	10	9.4	94	2	70-130	20
Chloromethane	10	8.0	80	10	7.9	79	1	64-130	20
Bromomethane	10	4.9	49	10	5.2	52	6	39-139	20
Vinyl chloride	10	9.6	96	10	9.8	98	2	55-140	20
Chloroethane	10	9.7	97	10	9.6	96	1	55-138	20
1,1-Dichloroethene	10	11	110	10	11	110	0	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959760-3 **Analysis Date** : 08/15/24 07:01	**File ID**	: V22240815A02
LCSD Sample ID	: WG1959760-4 **Analysis Date** : 08/15/24 07:26	**File ID**	: V22240815A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Trichloroethene	10	10	100	10	9.9	99	1	70-130	20
1,2-Dichlorobenzene	10	9.9	99	10	10	100	1	70-130	20
1,3-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,4-Dichlorobenzene	10	9.8	98	10	10	100	2	70-130	20
Methyl tert butyl ether	10	8.8	88	10	9.1	91	3	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	10	9.8	98	10	9.9	99	1	70-130	20
Dibromomethane	10	9.4	94	10	9.5	95	1	70-130	20
1,2,3-Trichloropropane	10	7.5	75	10	7.6	76	1	64-130	20
Acrylonitrile	10	9.0	90	10	9.4	94	4	70-130	20
Styrene	20	20	100	20	20	100	0	70-130	20
Dichlorodifluoromethane	10	9.2	92	10	9.2	92	0	36-147	20
Acetone	10	8.7	87	10	9.0	90	3	58-148	20
Carbon disulfide	10	9.7	97	10	9.6	96	1	51-130	20
2-Butanone	10	8.3	83	10	8.7	87	5	63-138	20
Vinyl acetate	10	8.6	86	10	8.9	89	3	70-130	20
4-Methyl-2-pentanone	10	7.2	72	10	8.0	80	11	59-130	20
2-Hexanone	10	7.4	74	10	7.6	76	3	57-130	20
Bromochloromethane	10	11	110	10	11	110	0	70-130	20
2,2-Dichloropropane	10	10	100	10	10	100	0	63-133	20
1,2-Dibromoethane	10	9.2	92	10	9.6	96	4	70-130	20
1,3-Dichloropropane	10	8.1	81	10	8.4	84	4	70-130	20
1,1,1,2-Tetrachloroethane	10	10	100	10	10	100	0	64-130	20
Bromobenzene	10	9.9	99	10	10	100	1	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1959760-3 **Analysis Date** : 08/15/24 07:01	**File ID**	: V22240815A02
LCSD Sample ID	: WG1959760-4 **Analysis Date** : 08/15/24 07:26	**File ID**	: V22240815A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	8.7	87	10	8.8	88	1	53-136	20
sec-Butylbenzene	10	9.2	92	10	9.3	93	1	70-130	20
tert-Butylbenzene	10	9.9	99	10	10	100	1	70-130	20
o-Chlorotoluene	10	8.5	85	10	8.7	87	2	70-130	20
p-Chlorotoluene	10	8.2	82	10	8.4	84	2	70-130	20
1,2-Dibromo-3-chloropropane	10	8.7	87	10	9.3	93	7	41-144	20
Hexachlorobutadiene	10	11	110	10	11	110	0	63-130	20
Isopropylbenzene	10	9.3	93	10	9.5	95	2	70-130	20
p-Isopropyltoluene	10	9.5	95	10	9.6	96	1	70-130	20
Naphthalene	10	8.7	87	10	9.0	90	3	70-130	20
n-Propylbenzene	10	8.8	88	10	8.9	89	1	69-130	20
1,2,3-Trichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,2,4-Trichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,3,5-Trimethylbenzene	10	9.2	92	10	9.3	93	1	64-130	20
1,2,4-Trimethylbenzene	10	8.4	84	10	9.2	92	9	70-130	20
1,4-Dioxane	500	540	108	500	560	112	4	56-162	20
p-Diethylbenzene	10	9.4	94	10	9.5	95	1	70-130	20
p-Ethyltoluene	10	9.2	92	10	9.3	93	1	70-130	20
1,2,4,5-Tetramethylbenzene	10	8.7	87	10	8.6	86	1	70-130	20
Ethyl ether	10	8.6	86	10	8.6	86	0	59-134	20
trans-1,4-Dichloro-2-butene	10	8.0	80	10	8.0	80	0	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1959760-5	**Lab File ID**	: V22240815A05
Instrument ID	: VOA122		
Matrix	: WATER	**Analysis Date**	: 08/15/24 08:15

Client Sample No.	Lab Sample ID	Analysis Date
WG1959760-3LCS	WG1959760-3	08/15/24 07:01
WG1959760-4LCSD	WG1959760-4	08/15/24 07:26
LMW-7RD_23.75	L2446104-01D	08/15/24 08:40
LMW-6RS_18.75	L2446104-03D	08/15/24 09:05
LMW-8RD_59.75	L2446104-02D	08/15/24 09:30
LMW-7RD_23.75	L2446104-01D2	08/15/24 11:08

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1959746-5	**Lab File ID**	: VE240815A05
Instrument ID	: ELAINE		
Matrix	: WATER	**Analysis Date**	: 08/15/24 08:16

Client Sample No.	Lab Sample ID	Analysis Date
WG1959746-3LCS	WG1959746-3	08/15/24 06:39
WG1959746-4LCSD	WG1959746-4	08/15/24 07:03
LMW-10RD_40.75	L2446104-04	08/15/24 08:41
LMW-10RD_30.75	L2446104-05	08/15/24 09:05
TRIP BLANK	L2446104-07	08/15/24 09:30
LMW-10RS_24.75	L2446104-06D	08/15/24 09:54

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 07/29/24 12:26
Tune Standard	: WG1953132-1	**Tune File ID**	: V22240729ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	23.9
75	30.0 - 80.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (.7)1
174	Greater than 50.0% of mass 95	78.4
175	5.0 - 9.0% of mass 174	6.1 (7.7)1
176	Greater than 95.0% but less than 101% of mass	76.6 (97.7)1
177	5.0 - 9.0% of mass 176	5.2 (6.8)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1858437-1	V22240729A03	07/29/24 13:23
STD0.5PPB	R1858437-2	V22240729A04	07/29/24 13:47
STD2PPB	R1858437-3	V22240729A06	07/29/24 14:36
STD10PPB	R1858437-4	V22240729A08	07/29/24 15:25
STD30PPB	R1858437-5	V22240729A09	07/29/24 15:50
STD80PPB	R1858437-6	V22240729A10	07/29/24 16:15
STD120PPB	R1858437-7	V22240729A11	07/29/24 16:40
STD200PPB	R1858437-8	V22240729A12	07/29/24 17:04
Correlation Data Summary	R1858437-9	V22240729A17	07/29/24 19:08
ICV Quant Report	R1858437-9	V22240729A17	07/29/24 19:08

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 08/15/24 06:23
Tune Standard	: WG1959760-1	**Tune File ID**	: V22240815ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 80.0% of mass 95	44.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.9 (1)1
174	Greater than 50.0% of mass 95	96.7
175	5.0 - 9.0% of mass 174	7.2 (7.5)1
176	Greater than 95.0% but less than 101% of mass	92.4 (95.6)1
177	5.0 - 9.0% of mass 176	6.1 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1959760-2CCAL	WG1959760-2	V22240815A02	08/15/24 07:01
WG1959760-3LCS	WG1959760-3	V22240815A02	08/15/24 07:01
WG1959760-4LCSD	WG1959760-4	V22240815A03	08/15/24 07:26
WG1959760-5BLANK	WG1959760-5	V22240815A05	08/15/24 08:15
LMW-7RD_23.75	L2446104-01D	V22240815A06	08/15/24 08:40
LMW-6RS_18.75	L2446104-03D	V22240815A07	08/15/24 09:05
LMW-8RD_59.75	L2446104-02D	V22240815A08	08/15/24 09:30
LMW-7RD_23.75	L2446104-01D2	V22240815A12	08/15/24 11:08

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 07/31/24 17:25
Tune Standard	: WG1954249-1	**Tune File ID**	: VE240731NBF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 80.0% of mass 95	47.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5 (.6)1
174	Greater than 50.0% of mass 95	83.7
175	5.0 - 9.0% of mass 174	6 (7.1)1
176	Greater than 95.0% but less than 101% of mass	80.5 (96.2)1
177	5.0 - 9.0% of mass 176	5.2 (6.5)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1859523-1	VE240731N03	07/31/24 18:35
STD0.5PPB	R1859523-2	VE240731N05	07/31/24 19:26
STD2PPB	R1859523-4	VE240731N07	07/31/24 20:16
STD10PPB	R1859523-3	VE240731N08	07/31/24 20:42
STD30PPB	R1859523-5	VE240731N09	07/31/24 21:07
STD80PPB	R1859523-6	VE240731N10	07/31/24 21:32
STD120PPB	R1859523-7	VE240731N11	07/31/24 21:57
STD200PPB	R1859523-8	VE240731N12	07/31/24 22:22
ICV Quant Report	R1859523-9	VE240731N17	08/01/24 00:28

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 08/15/24 06:25
Tune Standard	: WG1959746-1	**Tune File ID**	: VE240815ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	27.4
75	30.0 - 80.0% of mass 95	53.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.8 (.9)1
174	Greater than 50.0% of mass 95	88.8
175	5.0 - 9.0% of mass 174	6.6 (7.4)1
176	Greater than 95.0% but less than 101% of mass	86.5 (97.4)1
177	5.0 - 9.0% of mass 176	5.4 (6.3)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1959746-2CCAL	WG1959746-2	VE240815A01	08/15/24 06:39
WG1959746-3LCS	WG1959746-3	VE240815A01	08/15/24 06:39
WG1959746-4LCSD	WG1959746-4	VE240815A02	08/15/24 07:03
WG1959746-5BLANK	WG1959746-5	VE240815A05	08/15/24 08:16
LMW-10RD_40.75	L2446104-04	VE240815A06	08/15/24 08:41
LMW-10RD_30.75	L2446104-05	VE240815A07	08/15/24 09:05
TRIP BLANK	L2446104-07	VE240815A08	08/15/24 09:30
LMW-10RS_24.75	L2446104-06D	VE240815A09	08/15/24 09:54

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 08/15/24 06:39:00
Sample No	: WG1959746-2	**Lab File ID**	: VE240815A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1959746-2	187483	5.96	137068	9.49	79601	12.20
Upper Limit	374966	6.46	274136	9.99	159202	12.70
Lower Limit	93742	5.46	68534	8.99	39801	11.70
Sample ID						
WG1959746-3 LCS	187483	5.96	137068	9.49	79601	12.20
WG1959746-4 LCSD	184224	5.96	136609	9.49	82394	12.20
WG1959746-5 BLANK	168904	5.96	130444	9.50	75680	12.20
LMW-10RD_40.75	171482	5.96	130706	9.49	74905	12.20
LMW-10RD_30.75	166884	5.96	130280	9.49	75660	12.21
TRIP BLANK	168877	5.96	127259	9.49	73320	12.20
LMW-10RS_24.75	168208	5.96	128537	9.49	76580	12.20

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA122	**Analysis Date**	: 08/15/24 07:01:00
Sample No	: WG1959760-2	**Lab File ID**	: V22240815A02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1959760-2	421161	5.98	360997	9.52	194587	12.23
Upper Limit	842322	6.48	721994	10.02	389174	12.73
Lower Limit	210581	5.48	180499	9.02	97294	11.73
Sample ID						
WG1959760-3 LCS	421161	5.98	360997	9.52	194587	12.23
WG1959760-4 LCSD	425136	5.98	359808	9.52	194443	12.23
WG1959760-5 BLANK	391500	5.97	350351	9.52	183860	12.23
LMW-7RD_23.75	379579	5.98	330408	9.52	167182	12.23
LMW-6RS_18.75	365945	5.97	324798	9.52	163985	12.23
LMW-8RD_59.75	342791	5.97	305113	9.52	159133	12.23
LMW-7RD_23.75	356240	5.97	316121	9.52	164738	12.23

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14094-1
Page: 1

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14095-1
Page: 1

VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-01D	**Date Collected**	: 08/13/24 12:00
Client ID	: LMW-7RD_23.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:40
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A06	**Instrument ID**	: VOA122
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	25	7.0	U
75-34-3	1,1-Dichloroethane	ND	25	7.0	U
67-66-3	Chloroform	ND	25	7.0	U
56-23-5	Carbon tetrachloride	ND	5.0	1.3	U
78-87-5	1,2-Dichloropropane	ND	10	1.4	U
124-48-1	Dibromochloromethane	ND	5.0	1.5	U
79-00-5	1,1,2-Trichloroethane	ND	15	5.0	U
127-18-4	Tetrachloroethene	ND	5.0	1.8	U
108-90-7	Chlorobenzene	ND	25	7.0	U
75-69-4	Trichlorofluoromethane	ND	25	7.0	U
107-06-2	1,2-Dichloroethane	ND	5.0	1.3	U
71-55-6	1,1,1-Trichloroethane	ND	25	7.0	U
75-27-4	Bromodichloromethane	ND	5.0	1.9	U
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.6	U
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.4	U
542-75-6	1,3-Dichloropropene, Total	ND	5.0	1.4	U
563-58-6	1,1-Dichloropropene	ND	25	7.0	U
75-25-2	Bromoform	ND	20	6.5	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.7	U
71-43-2	Benzene	ND	5.0	1.6	U
108-88-3	Toluene	ND	25	7.0	U
100-41-4	Ethylbenzene	ND	25	7.0	U
74-87-3	Chloromethane	ND	25	7.0	U
74-83-9	Bromomethane	ND	25	7.0	U
75-01-4	Vinyl chloride	ND	10	0.71	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-01D	**Date Collected**	: 08/13/24 12:00
Client ID	: LMW-7RD_23.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:40
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A06	**Instrument ID**	: VOA122
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	25	7.0	U
75-35-4	1,1-Dichloroethene	ND	5.0	1.7	U
156-60-5	trans-1,2-Dichloroethene	ND	25	7.0	U
79-01-6	Trichloroethene	ND	5.0	1.8	U
95-50-1	1,2-Dichlorobenzene	ND	25	7.0	U
541-73-1	1,3-Dichlorobenzene	ND	25	7.0	U
106-46-7	1,4-Dichlorobenzene	ND	25	7.0	U
1634-04-4	Methyl tert butyl ether	ND	25	1.7	U
179601-23-1	p/m-Xylene	ND	25	7.0	U
95-47-6	o-Xylene	ND	25	7.0	U
1330-20-7	Xylenes, Total	ND	25	7.0	U
156-59-2	cis-1,2-Dichloroethene	ND	25	7.0	U
540-59-0	1,2-Dichloroethene, Total	ND	25	7.0	U
74-95-3	Dibromomethane	ND	50	10.	U
96-18-4	1,2,3-Trichloropropane	ND	25	7.0	U
107-13-1	Acrylonitrile	ND	50	15.	U
100-42-5	Styrene	ND	25	7.0	U
75-71-8	Dichlorodifluoromethane	ND	50	10.	U
67-64-1	Acetone	140	50	15.	
75-15-0	Carbon disulfide	ND	50	10.	U
78-93-3	2-Butanone	4200	50	19.	E
108-05-4	Vinyl acetate	ND	50	10.	U
108-10-1	4-Methyl-2-pentanone	ND	50	10.	U
591-78-6	2-Hexanone	ND	50	10.	U
74-97-5	Bromochloromethane	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-01D	**Date Collected**	: 08/13/24 12:00
Client ID	: LMW-7RD_23.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:40
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A06	**Instrument ID**	: VOA122
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	25	7.0	U
106-93-4	1,2-Dibromoethane	ND	20	6.5	U
142-28-9	1,3-Dichloropropane	ND	25	7.0	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	7.0	U
108-86-1	Bromobenzene	ND	25	7.0	U
104-51-8	n-Butylbenzene	ND	25	7.0	U
135-98-8	sec-Butylbenzene	ND	25	7.0	U
98-06-6	tert-Butylbenzene	ND	25	7.0	U
95-49-8	o-Chlorotoluene	ND	25	7.0	U
106-43-4	p-Chlorotoluene	ND	25	7.0	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	7.0	U
87-68-3	Hexachlorobutadiene	ND	25	7.0	U
98-82-8	Isopropylbenzene	ND	25	7.0	U
99-87-6	p-Isopropyltoluene	ND	25	7.0	U
91-20-3	Naphthalene	ND	25	7.0	U
103-65-1	n-Propylbenzene	ND	25	7.0	U
87-61-6	1,2,3-Trichlorobenzene	ND	25	7.0	U
120-82-1	1,2,4-Trichlorobenzene	ND	25	7.0	U
108-67-8	1,3,5-Trimethylbenzene	ND	25	7.0	U
95-63-6	1,2,4-Trimethylbenzene	ND	25	7.0	U
123-91-1	1,4-Dioxane	ND	2500	610	U
105-05-5	p-Diethylbenzene	ND	20	7.0	U
622-96-8	p-Ethyltoluene	ND	20	7.0	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	20	5.4	U
60-29-7	Ethyl ether	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-01D	**Date Collected**	: 08/13/24 12:00
Client ID	: LMW-7RD_23.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:40
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A06	**Instrument ID**	: VOA122
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-01D2	**Date Collected**	: 08/13/24 12:00
Client ID	: LMW-7RD_23.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 11:08
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A12	**Instrument ID**	: VOA122
Sample Amount	: 0.2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
78-93-3	2-Butanone	4000	250	97.	

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-02D	**Date Collected**	: 08/13/24 13:00
Client ID	: LMW-8RD_59.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A08	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	3.0	10	2.8	J
75-34-3	1,1-Dichloroethane	ND	10	2.8	U
67-66-3	Chloroform	ND	10	2.8	U
56-23-5	Carbon tetrachloride	ND	2.0	0.54	U
78-87-5	1,2-Dichloropropane	ND	4.0	0.55	U
124-48-1	Dibromochloromethane	ND	2.0	0.60	U
79-00-5	1,1,2-Trichloroethane	ND	6.0	2.0	U
127-18-4	Tetrachloroethene	ND	2.0	0.72	U
108-90-7	Chlorobenzene	ND	10	2.8	U
75-69-4	Trichlorofluoromethane	ND	10	2.8	U
107-06-2	1,2-Dichloroethane	ND	2.0	0.53	U
71-55-6	1,1,1-Trichloroethane	ND	10	2.8	U
75-27-4	Bromodichloromethane	ND	2.0	0.77	U
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.66	U
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	U
542-75-6	1,3-Dichloropropene, Total	ND	2.0	0.58	U
563-58-6	1,1-Dichloropropene	ND	10	2.8	U
75-25-2	Bromoform	ND	8.0	2.6	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.67	U
71-43-2	Benzene	0.80	2.0	0.64	J
108-88-3	Toluene	ND	10	2.8	U
100-41-4	Ethylbenzene	ND	10	2.8	U
74-87-3	Chloromethane	ND	10	2.8	U
74-83-9	Bromomethane	ND	10	2.8	U
75-01-4	Vinyl chloride	ND	4.0	0.28	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-02D	**Date Collected**	: 08/13/24 13:00
Client ID	: LMW-8RD_59.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A08	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	10	2.8	U
75-35-4	1,1-Dichloroethene	ND	2.0	0.68	U
156-60-5	trans-1,2-Dichloroethene	ND	10	2.8	U
79-01-6	Trichloroethene	ND	2.0	0.70	U
95-50-1	1,2-Dichlorobenzene	ND	10	2.8	U
541-73-1	1,3-Dichlorobenzene	ND	10	2.8	U
106-46-7	1,4-Dichlorobenzene	ND	10	2.8	U
1634-04-4	Methyl tert butyl ether	ND	10	0.66	U
179601-23-1	p/m-Xylene	ND	10	2.8	U
95-47-6	o-Xylene	ND	10	2.8	U
1330-20-7	Xylenes, Total	ND	10	2.8	U
156-59-2	cis-1,2-Dichloroethene	ND	10	2.8	U
540-59-0	1,2-Dichloroethene, Total	ND	10	2.8	U
74-95-3	Dibromomethane	ND	20	4.0	U
96-18-4	1,2,3-Trichloropropane	ND	10	2.8	U
107-13-1	Acrylonitrile	ND	20	6.0	U
100-42-5	Styrene	ND	10	2.8	U
75-71-8	Dichlorodifluoromethane	ND	20	4.0	U
67-64-1	Acetone	300	20	5.8	
75-15-0	Carbon disulfide	ND	20	4.0	U
78-93-3	2-Butanone	470	20	7.8	
108-05-4	Vinyl acetate	ND	20	4.0	U
108-10-1	4-Methyl-2-pentanone	ND	20	4.0	U
591-78-6	2-Hexanone	7.4	20	4.0	J
74-97-5	Bromochloromethane	ND	10	2.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-02D	**Date Collected**	: 08/13/24 13:00
Client ID	: LMW-8RD_59.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A08	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	10	2.8	U
106-93-4	1,2-Dibromoethane	ND	8.0	2.6	U
142-28-9	1,3-Dichloropropane	ND	10	2.8	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.8	U
108-86-1	Bromobenzene	ND	10	2.8	U
104-51-8	n-Butylbenzene	ND	10	2.8	U
135-98-8	sec-Butylbenzene	ND	10	2.8	U
98-06-6	tert-Butylbenzene	ND	10	2.8	U
95-49-8	o-Chlorotoluene	ND	10	2.8	U
106-43-4	p-Chlorotoluene	ND	10	2.8	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	2.8	U
87-68-3	Hexachlorobutadiene	ND	10	2.8	U
98-82-8	Isopropylbenzene	ND	10	2.8	U
99-87-6	p-Isopropyltoluene	ND	10	2.8	U
91-20-3	Naphthalene	ND	10	2.8	U
103-65-1	n-Propylbenzene	ND	10	2.8	U
87-61-6	1,2,3-Trichlorobenzene	ND	10	2.8	U
120-82-1	1,2,4-Trichlorobenzene	ND	10	2.8	U
108-67-8	1,3,5-Trimethylbenzene	ND	10	2.8	U
95-63-6	1,2,4-Trimethylbenzene	ND	10	2.8	U
123-91-1	1,4-Dioxane	ND	1000	240	U
105-05-5	p-Diethylbenzene	ND	8.0	2.8	U
622-96-8	p-Ethyltoluene	ND	8.0	2.8	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	8.0	2.2	U
60-29-7	Ethyl ether	ND	10	2.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-02D	**Date Collected**	: 08/13/24 13:00
Client ID	: LMW-8RD_59.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A08	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	10	2.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-03D	**Date Collected**	: 08/13/24 16:40
Client ID	: LMW-6RS_18.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A07	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	10	2.8	U
75-34-3	1,1-Dichloroethane	ND	10	2.8	U
67-66-3	Chloroform	ND	10	2.8	U
56-23-5	Carbon tetrachloride	ND	2.0	0.54	U
78-87-5	1,2-Dichloropropane	ND	4.0	0.55	U
124-48-1	Dibromochloromethane	ND	2.0	0.60	U
79-00-5	1,1,2-Trichloroethane	ND	6.0	2.0	U
127-18-4	Tetrachloroethene	ND	2.0	0.72	U
108-90-7	Chlorobenzene	ND	10	2.8	U
75-69-4	Trichlorofluoromethane	ND	10	2.8	U
107-06-2	1,2-Dichloroethane	ND	2.0	0.53	U
71-55-6	1,1,1-Trichloroethane	ND	10	2.8	U
75-27-4	Bromodichloromethane	ND	2.0	0.77	U
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.66	U
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	U
542-75-6	1,3-Dichloropropene, Total	ND	2.0	0.58	U
563-58-6	1,1-Dichloropropene	ND	10	2.8	U
75-25-2	Bromoform	ND	8.0	2.6	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.67	U
71-43-2	Benzene	ND	2.0	0.64	U
108-88-3	Toluene	3.4	10	2.8	J
100-41-4	Ethylbenzene	ND	10	2.8	U
74-87-3	Chloromethane	ND	10	2.8	U
74-83-9	Bromomethane	ND	10	2.8	U
75-01-4	Vinyl chloride	ND	4.0	0.28	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-03D	**Date Collected**	: 08/13/24 16:40
Client ID	: LMW-6RS_18.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A07	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	10	2.8	U
75-35-4	1,1-Dichloroethene	ND	2.0	0.68	U
156-60-5	trans-1,2-Dichloroethene	ND	10	2.8	U
79-01-6	Trichloroethene	ND	2.0	0.70	U
95-50-1	1,2-Dichlorobenzene	ND	10	2.8	U
541-73-1	1,3-Dichlorobenzene	ND	10	2.8	U
106-46-7	1,4-Dichlorobenzene	ND	10	2.8	U
1634-04-4	Methyl tert butyl ether	ND	10	0.66	U
179601-23-1	p/m-Xylene	ND	10	2.8	U
95-47-6	o-Xylene	ND	10	2.8	U
1330-20-7	Xylenes, Total	ND	10	2.8	U
156-59-2	cis-1,2-Dichloroethene	ND	10	2.8	U
540-59-0	1,2-Dichloroethene, Total	ND	10	2.8	U
74-95-3	Dibromomethane	ND	20	4.0	U
96-18-4	1,2,3-Trichloropropane	ND	10	2.8	U
107-13-1	Acrylonitrile	ND	20	6.0	U
100-42-5	Styrene	ND	10	2.8	U
75-71-8	Dichlorodifluoromethane	ND	20	4.0	U
67-64-1	Acetone	390	20	5.8	
75-15-0	Carbon disulfide	ND	20	4.0	U
78-93-3	2-Butanone	420	20	7.8	
108-05-4	Vinyl acetate	ND	20	4.0	U
108-10-1	4-Methyl-2-pentanone	ND	20	4.0	U
591-78-6	2-Hexanone	ND	20	4.0	U
74-97-5	Bromochloromethane	ND	10	2.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-03D	**Date Collected**	: 08/13/24 16:40
Client ID	: LMW-6RS_18.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A07	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	10	2.8	U
106-93-4	1,2-Dibromoethane	ND	8.0	2.6	U
142-28-9	1,3-Dichloropropane	ND	10	2.8	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.8	U
108-86-1	Bromobenzene	ND	10	2.8	U
104-51-8	n-Butylbenzene	ND	10	2.8	U
135-98-8	sec-Butylbenzene	ND	10	2.8	U
98-06-6	tert-Butylbenzene	ND	10	2.8	U
95-49-8	o-Chlorotoluene	ND	10	2.8	U
106-43-4	p-Chlorotoluene	ND	10	2.8	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	2.8	U
87-68-3	Hexachlorobutadiene	ND	10	2.8	U
98-82-8	Isopropylbenzene	ND	10	2.8	U
99-87-6	p-Isopropyltoluene	ND	10	2.8	U
91-20-3	Naphthalene	ND	10	2.8	U
103-65-1	n-Propylbenzene	ND	10	2.8	U
87-61-6	1,2,3-Trichlorobenzene	ND	10	2.8	U
120-82-1	1,2,4-Trichlorobenzene	ND	10	2.8	U
108-67-8	1,3,5-Trimethylbenzene	ND	10	2.8	U
95-63-6	1,2,4-Trimethylbenzene	ND	10	2.8	U
123-91-1	1,4-Dioxane	ND	1000	240	U
105-05-5	p-Diethylbenzene	ND	8.0	2.8	U
622-96-8	p-Ethyltoluene	ND	8.0	2.8	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	8.0	2.2	U
60-29-7	Ethyl ether	ND	10	2.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-03D	**Date Collected**	: 08/13/24 16:40
Client ID	: LMW-6RS_18.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 4
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A07	**Instrument ID**	: VOA122
Sample Amount	: 2.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	10	2.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-04	**Date Collected**	: 08/14/24 12:00
Client ID	: LMW-10RD_40.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:41
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.53	0.50	0.16	
108-88-3	Toluene	3.4	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.18	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-04	**Date Collected**	: 08/14/24 12:00
Client ID	: LMW-10RD_40.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:41
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	7.8	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	19	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-04	**Date Collected**	: 08/14/24 12:00
Client ID	: LMW-10RD_40.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:41
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-04	**Date Collected**	: 08/14/24 12:00
Client ID	: LMW-10RD_40.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 08:41
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-05	**Date Collected**	: 08/14/24 11:00
Client ID	: LMW-10RD_30.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.55	0.50	0.16	
108-88-3	Toluene	1.4	2.5	0.70	J
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-05	**Date Collected**	: 08/14/24 11:00
Client ID	: LMW-10RD_30.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	7.6	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	27	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-05	**Date Collected**	: 08/14/24 11:00
Client ID	: LMW-10RD_30.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-05	**Date Collected**	: 08/14/24 11:00
Client ID	: LMW-10RD_30.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-06D	**Date Collected**	: 08/14/24 10:10
Client ID	: LMW-10RS_24.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:54
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A09	**Instrument ID**	: ELAINE
Sample Amount	: 5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	5.0	1.4	U
75-34-3	1,1-Dichloroethane	ND	5.0	1.4	U
67-66-3	Chloroform	ND	5.0	1.4	U
56-23-5	Carbon tetrachloride	ND	1.0	0.27	U
78-87-5	1,2-Dichloropropane	ND	2.0	0.27	U
124-48-1	Dibromochloromethane	ND	1.0	0.30	U
79-00-5	1,1,2-Trichloroethane	ND	3.0	1.0	U
127-18-4	Tetrachloroethene	ND	1.0	0.36	U
108-90-7	Chlorobenzene	ND	5.0	1.4	U
75-69-4	Trichlorofluoromethane	ND	5.0	1.4	U
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	U
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.4	U
75-27-4	Bromodichloromethane	ND	1.0	0.38	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.33	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	U
542-75-6	1,3-Dichloropropene, Total	ND	1.0	0.29	U
563-58-6	1,1-Dichloropropene	ND	5.0	1.4	U
75-25-2	Bromoform	ND	4.0	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	U
71-43-2	Benzene	ND	1.0	0.32	U
108-88-3	Toluene	4.2	5.0	1.4	J
100-41-4	Ethylbenzene	ND	5.0	1.4	U
74-87-3	Chloromethane	ND	5.0	1.4	U
74-83-9	Bromomethane	ND	5.0	1.4	U
75-01-4	Vinyl chloride	ND	2.0	0.14	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-06D	**Date Collected**	: 08/14/24 10:10
Client ID	: LMW-10RS_24.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:54
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A09	**Instrument ID**	: ELAINE
Sample Amount	: 5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	5.0	1.4	U
75-35-4	1,1-Dichloroethene	ND	1.0	0.34	U
156-60-5	trans-1,2-Dichloroethene	ND	5.0	1.4	U
79-01-6	Trichloroethene	ND	1.0	0.35	U
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.4	U
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.4	U
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.4	U
1634-04-4	Methyl tert butyl ether	ND	5.0	0.33	U
179601-23-1	p/m-Xylene	ND	5.0	1.4	U
95-47-6	o-Xylene	ND	5.0	1.4	U
1330-20-7	Xylenes, Total	ND	5.0	1.4	U
156-59-2	cis-1,2-Dichloroethene	ND	5.0	1.4	U
540-59-0	1,2-Dichloroethene, Total	ND	5.0	1.4	U
74-95-3	Dibromomethane	ND	10	2.0	U
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.4	U
107-13-1	Acrylonitrile	ND	10	3.0	U
100-42-5	Styrene	ND	5.0	1.4	U
75-71-8	Dichlorodifluoromethane	ND	10	2.0	U
67-64-1	Acetone	160	10	2.9	
75-15-0	Carbon disulfide	ND	10	2.0	U
78-93-3	2-Butanone	100	10	3.9	
108-05-4	Vinyl acetate	ND	10	2.0	U
108-10-1	4-Methyl-2-pentanone	2.4	10	2.0	J
591-78-6	2-Hexanone	ND	10	2.0	U
74-97-5	Bromochloromethane	ND	5.0	1.4	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-06D	**Date Collected**	: 08/14/24 10:10
Client ID	: LMW-10RS_24.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:54
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A09	**Instrument ID**	: ELAINE
Sample Amount	: 5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	5.0	1.4	U
106-93-4	1,2-Dibromoethane	ND	4.0	1.3	U
142-28-9	1,3-Dichloropropane	ND	5.0	1.4	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.4	U
108-86-1	Bromobenzene	ND	5.0	1.4	U
104-51-8	n-Butylbenzene	ND	5.0	1.4	U
135-98-8	sec-Butylbenzene	ND	5.0	1.4	U
98-06-6	tert-Butylbenzene	ND	5.0	1.4	U
95-49-8	o-Chlorotoluene	ND	5.0	1.4	U
106-43-4	p-Chlorotoluene	ND	5.0	1.4	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	U
87-68-3	Hexachlorobutadiene	ND	5.0	1.4	U
98-82-8	Isopropylbenzene	ND	5.0	1.4	U
99-87-6	p-Isopropyltoluene	ND	5.0	1.4	U
91-20-3	Naphthalene	ND	5.0	1.4	U
103-65-1	n-Propylbenzene	ND	5.0	1.4	U
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.4	U
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.4	U
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.4	U
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.4	U
123-91-1	1,4-Dioxane	ND	500	120	U
105-05-5	p-Diethylbenzene	ND	4.0	1.4	U
622-96-8	p-Ethyltoluene	ND	4.0	1.4	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	4.0	1.1	U
60-29-7	Ethyl ether	ND	5.0	1.4	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-06D	**Date Collected**	: 08/14/24 10:10
Client ID	: LMW-10RS_24.75	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:54
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A09	**Instrument ID**	: ELAINE
Sample Amount	: 5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	1.4	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-07	**Date Collected**	: 08/13/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-07	**Date Collected**	: 08/13/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-07	**Date Collected**	: 08/13/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446104-07	**Date Collected**	: 08/13/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/14/24
Sample Location	: 1487 FIRST AVE NY NY	**Date Analyzed**	: 08/15/24 09:30
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959746-5	**Date Collected**	: NA
Client ID	: WG1959746-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959746-5	**Date Collected**	: NA
Client ID	: WG1959746-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959746-5	**Date Collected**	: NA
Client ID	: WG1959746-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959746-5	**Date Collected**	: NA
Client ID	: WG1959746-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240815A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959760-5	**Date Collected**	: NA
Client ID	: WG1959760-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959760-5	**Date Collected**	: NA
Client ID	: WG1959760-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959760-5	**Date Collected**	: NA
Client ID	: WG1959760-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1959760-5	**Date Collected**	: NA
Client ID	: WG1959760-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/15/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V22240815A05	**Instrument ID**	: VOA122
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A06.D
Acq On : 15 Aug 2024 8:41 am
Operator : ELAINE:PID
Sample : L2446104-04,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:48:43 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.959	96	171482	10.000 ug/L	0.00
Standard Area 1 = 187483			Recovery = 91.47%		
63) Chlorobenzene-d5	9.492	117	130706	10.000 ug/L	0.00
Standard Area 1 = 137068			Recovery = 95.36%		
84) 1,4-Dichlorobenzene-d4	12.202	152	74905	10.000 ug/L	0.00
Standard Area 1 = 79601			Recovery = 94.10%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.150	113	42657	10.626 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.26%		
47) 1,2-Dichloroethane-d4	5.677	65	52236	9.752 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.52%		
64) Toluene-d8	7.651	98	171375	9.954 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.54%		
88) 4-Bromofluorobenzene	10.992	95	63574	9.188 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.410	85	52	N.D.	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl chloride	1.851	62	710	0.178 ug/L	93
5) Bromomethane	0.000		0	N.D. d	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.991	76	246	N.D.	
15) Methylene chloride	3.452	84	77	N.D.	
17) Acetone	3.493	43	9817	7.803 ug/L	95
18) trans-1,2-Dichloroethene	3.597	96	37	N.D.	
21) Methyl tert-butyl ether	3.703	73	82	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	4.235	53	30	N.D.	
29) Vinyl acetate	4.453	43	33	N.D.	
30) cis-1,2-Dichloroethene	4.701	96	205	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A06.D
Acq On : 15 Aug 2024 8:41 am
Operator : ELAINE:PID
Sample : L2446104-04,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:48:43 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.			
40) 1,1,1-Trichloroethane	0.000		0	N.D.			
42) 2-Butanone	5.267	43	34527	19.206	ug/L	#	74
43) 1,1-Dichloropropene	5.278	75	26	N.D.			
45) Benzene	5.540	78	7155	0.527	ug/L	#	70
48) 1,2-Dichloroethane	5.716	62	52	N.D.			
52) Trichloroethene	0.000		0	N.D.			
54) Dibromomethane	0.000		0	N.D.			
55) 1,2-Dichloropropane	0.000		0	N.D.			
58) Bromodichloromethane	0.000		0	N.D.			
61) 1,4-Dioxane	0.000		0	N.D.			
62) cis-1,3-Dichloropropene	0.000		0	N.D.			
65) Toluene	7.704	92	31099	3.455	ug/L		93
66) 4-Methyl-2-pentanone	8.167	58	29	N.D.			
67) Tetrachloroethene	0.000		0	N.D.			
69) trans-1,3-Dichloropropene	0.000		0	N.D.			
72) 1,1,2-Trichloroethane	0.000		0	N.D.			
73) Chlorodibromomethane	0.000		0	N.D.			
74) 1,3-Dichloropropane	0.000		0	N.D.			
75) 1,2-Dibromoethane	0.000		0	N.D.			
77) 2-Hexanone	0.000		0	N.D.	d		
78) Chlorobenzene	0.000		0	N.D.			
79) Ethylbenzene	0.000		0	N.D.	d		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
81) p/m Xylene	9.746	106	180	N.D.			
82) o Xylene	10.284	106	56	N.D.			
83) Styrene	10.348	104	1277	0.120	ug/L	#	51
85) Bromoform	0.000		0	N.D.			
87) Isopropylbenzene	10.666	105	104	N.D.			
89) Bromobenzene	0.000		0	N.D.			
90) n-Propylbenzene	11.151	91	148	N.D.			
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
93) 4-Ethyltoluene	11.279	105	67	N.D.			
94) 2-Chlorotoluene	11.316	91	34	N.D.			
95) 1,3,5-Trimethylbenzene	11.279	105	67	N.D.			
96) 1,2,3-Trichloropropane	0.000		0	N.D.			
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	d		
98) 4-Chlorotoluene	11.488	91	36	N.D.			
99) tert-Butylbenzene	11.709	119	37	N.D.			

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A06.D
Acq On : 15 Aug 2024 8:41 am
Operator : ELAINE:PID
Sample : L2446104-04,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:48:43 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.787	105	26	N.D.		
103)	sec-Butylbenzene	11.898	105	27	N.D.		
104)	p-Isopropyltoluene	12.057	119	74	N.D.		
105)	1,3-Dichlorobenzene	0.000		0	N.D.	d	
106)	1,4-Dichlorobenzene	12.216	146	1070	0.128	ug/L #	58
107)	p-Diethylbenzene	12.439	119	35	N.D.		
108)	n-Butylbenzene	12.490	91	221	N.D.		
109)	1,2-Dichlorobenzene	0.000		0	N.D.		
110)	1,2,4,5-Tetramethylben...	13.220	119	81	N.D.		
111)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113)	Hexachlorobutadiene	14.021	225	32	N.D.		
114)	1,2,4-Trichlorobenzene	14.054	180	127	N.D.		
115)	Naphthalene	14.336	128	188	N.D.		
116)	1,2,3-Trichlorobenzene	14.511	180	59	N.D.		

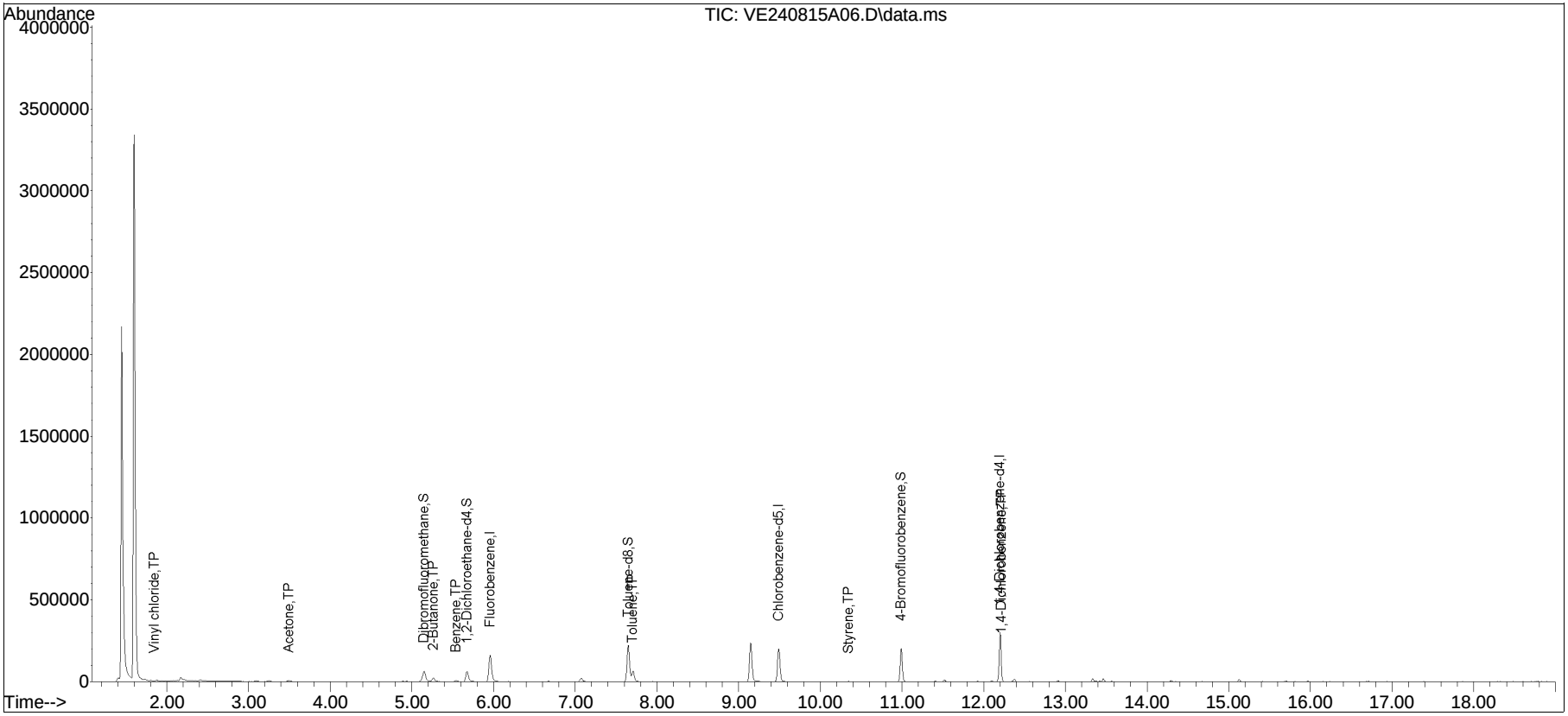
(#) = qualifier out of range (m) = manual integration (+) = signals summed

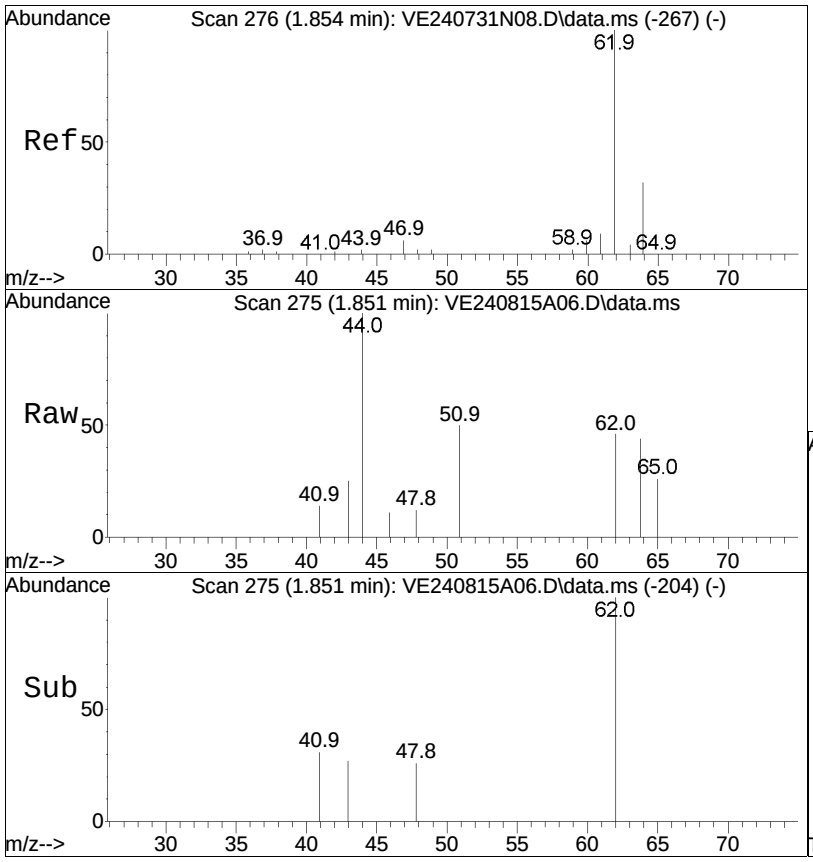
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A06.D
Acq On : 15 Aug 2024 8:41 am
Operator : ELAINE:PID
Sample : L2446104-04,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:48:43 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40815A01.D•

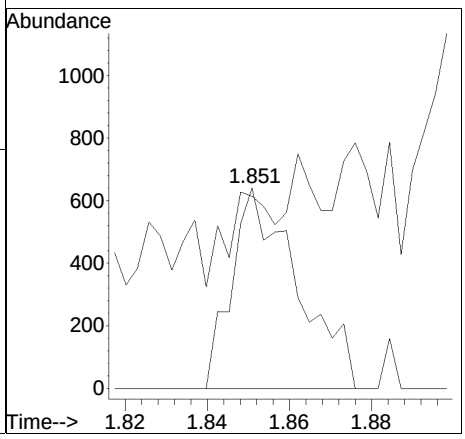


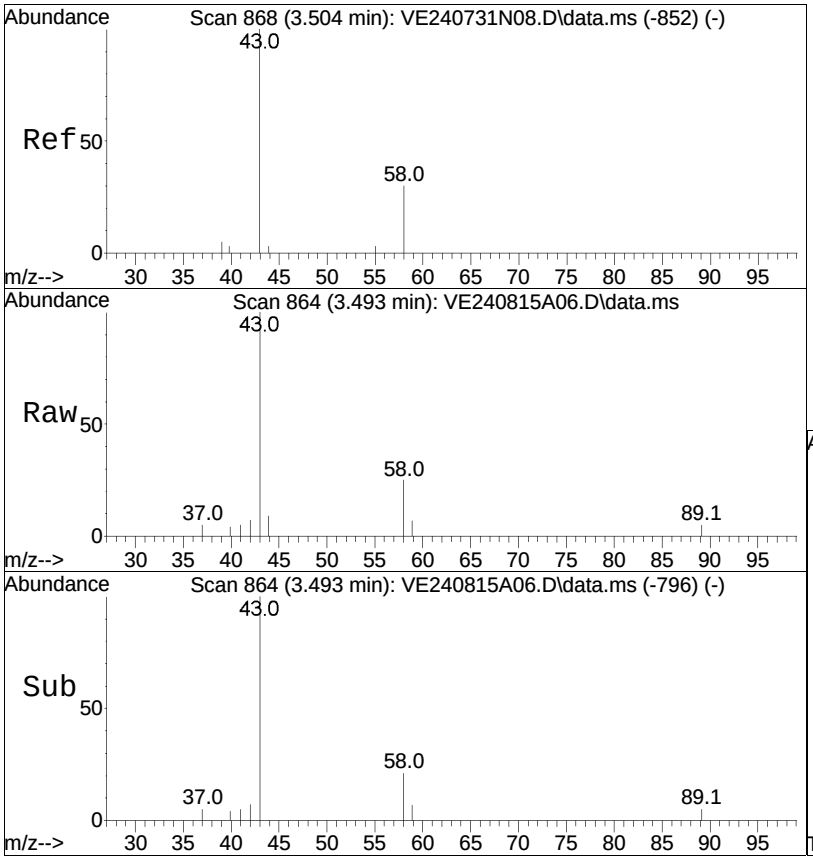


#4
Vinyl chloride
Concen: 0.18 ug/L
RT: 1.851 min Scan# 275
Delta R.T. -0.003 min
Lab File: VE240815A06.D
Acq: 15 Aug 2024 8:41 am

Tgt Ion: 62 Resp: 710

Ion	Ratio	Lower	Upper
62	100		
64	31.7	8.1	48.1

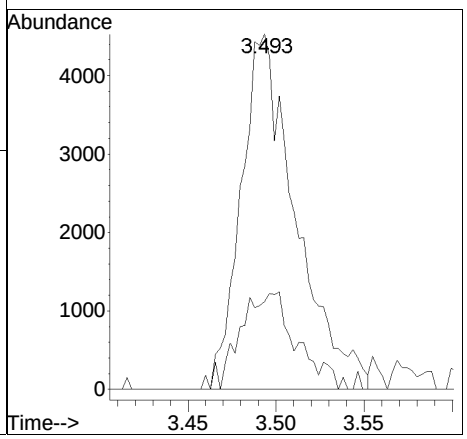


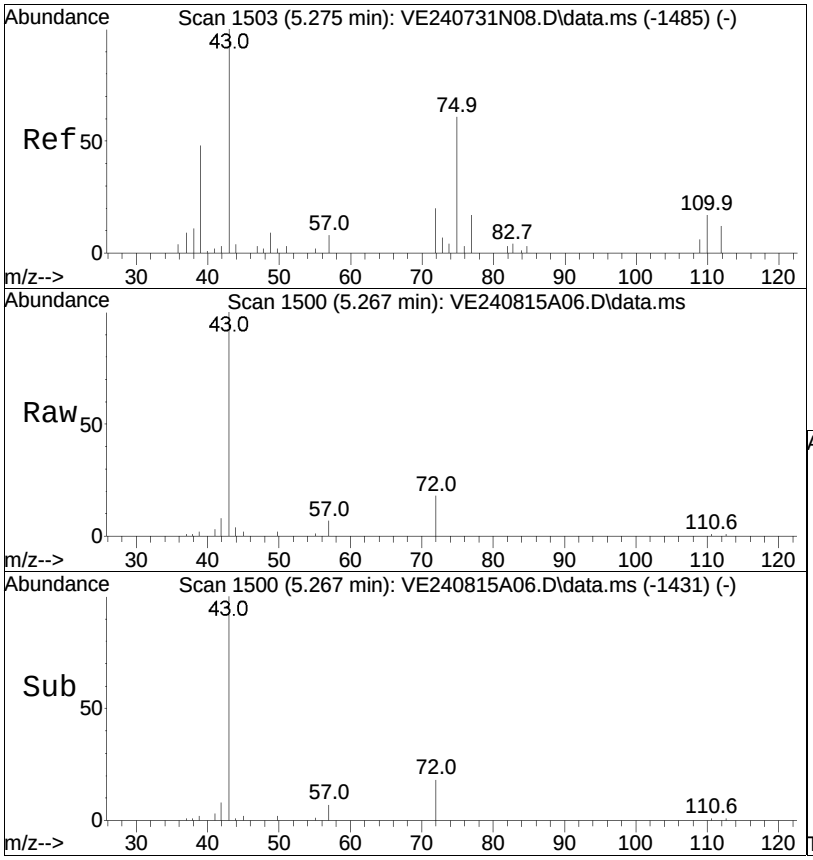


#17
Acetone
Concen: 7.80 ug/L
RT: 3.493 min Scan# 864
Delta R.T. -0.011 min
Lab File: VE240815A06.D
Acq: 15 Aug 2024 8:41 am

Tgt Ion: 43 Resp: 9817

Ion	Ratio	Lower	Upper
43	100		
58	26.5	23.4	35.0

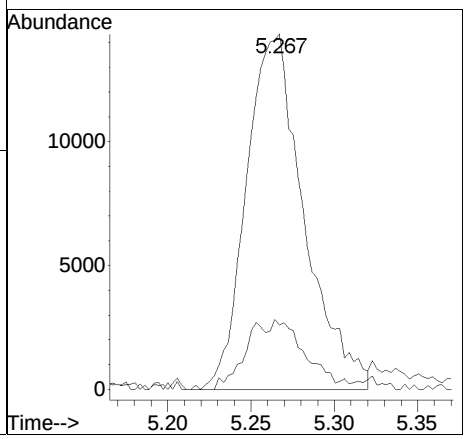


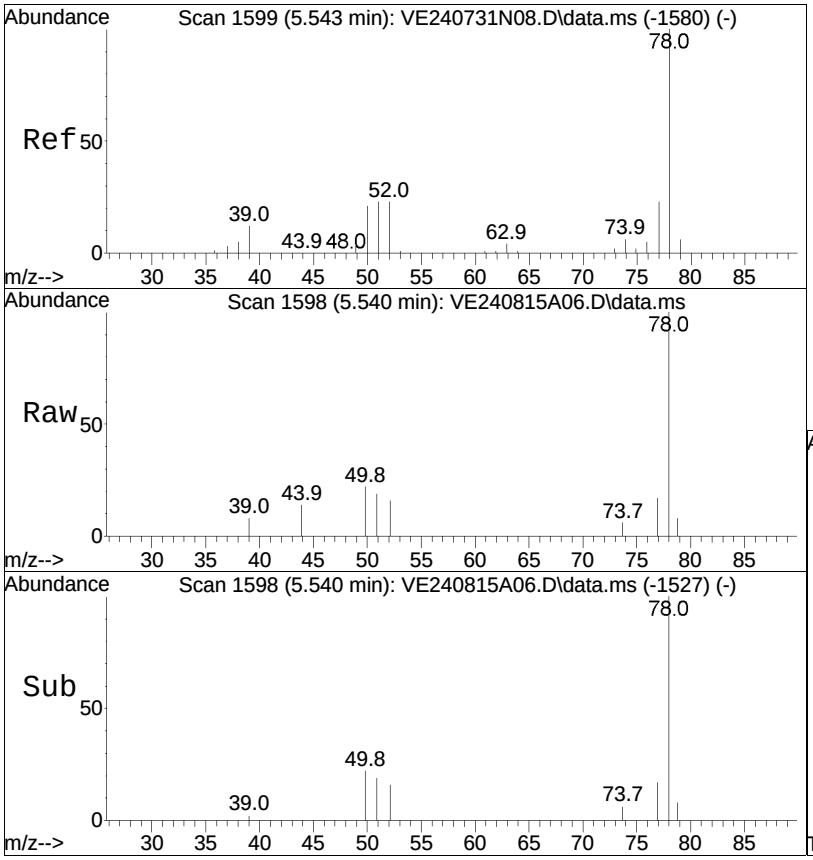


#42
2-Butanone
Concen: 19.21 ug/L
RT: 5.267 min Scan# 1500
Delta R.T. -0.008 min
Lab File: VE240815A06.D
Acq: 15 Aug 2024 8:41 am

Tgt Ion: 43 Resp: 34527

Ion	Ratio	Lower	Upper
43	100		
72	7.5	15.7	23.5#

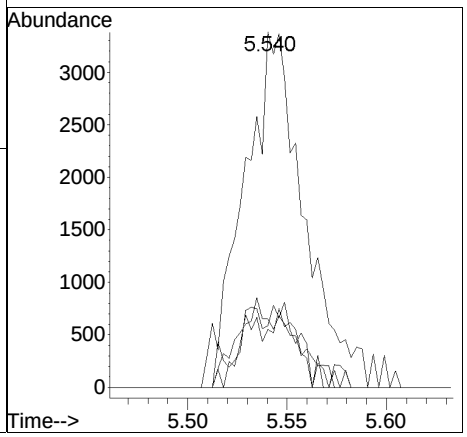


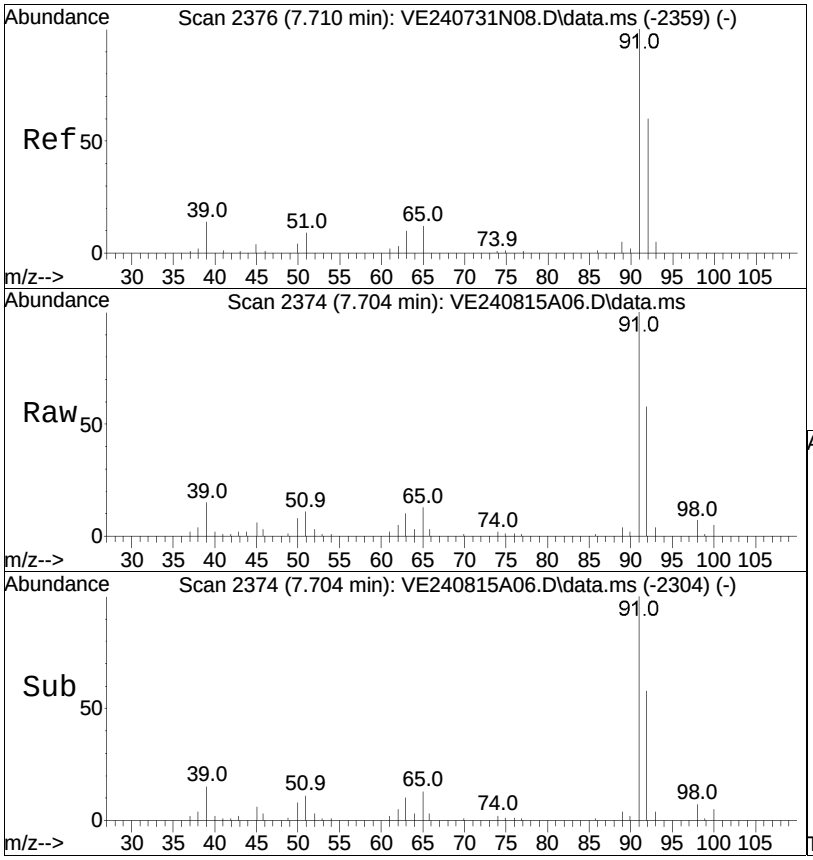


#45
Benzene
Concen: 0.53 ug/L
RT: 5.540 min Scan# 1598
Delta R.T. -0.003 min
Lab File: VE240815A06.D
Acq: 15 Aug 2024 8:41 am

Tgt Ion: 78 Resp: 7155

Ion	Ratio	Lower	Upper
78	100		
77	10.7	12.8	26.6#
51	0.0	13.5	27.9#
52	8.0	12.0	25.0#

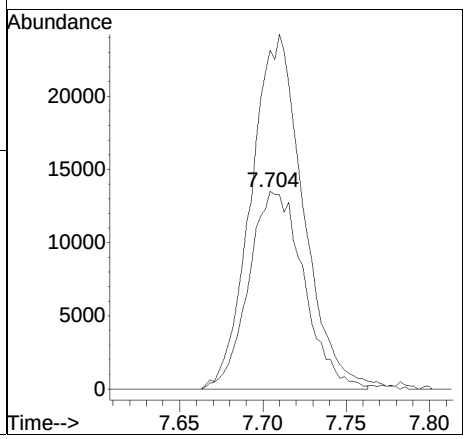


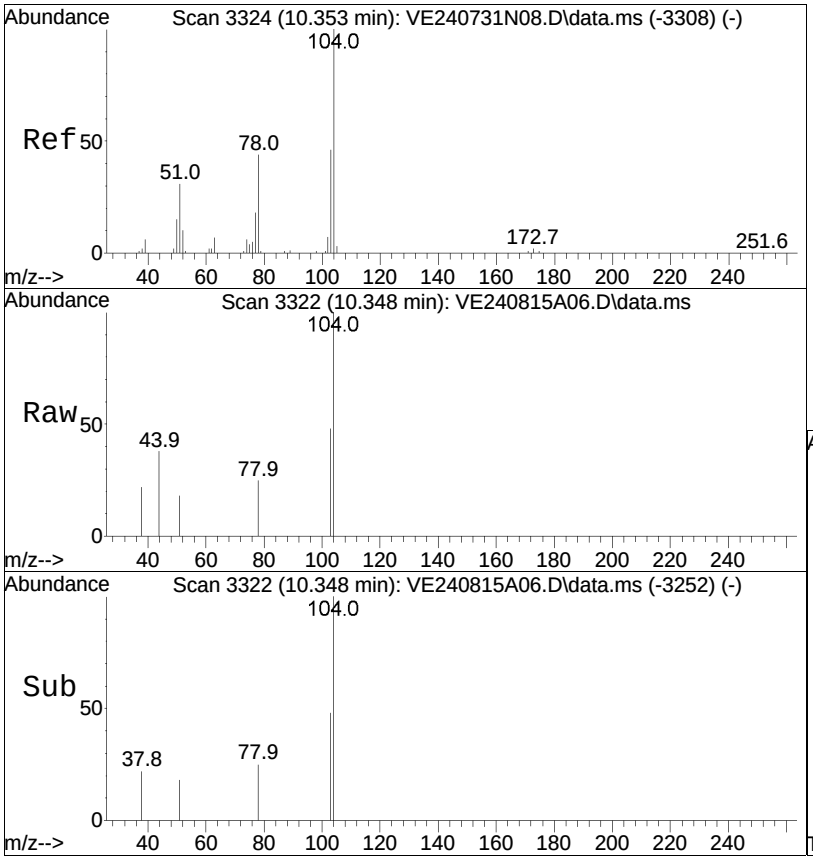


#65
Toluene
Concen: 3.46 ug/L
RT: 7.704 min Scan# 2374
Delta R.T. -0.006 min
Lab File: VE240815A06.D
Acq: 15 Aug 2024 8:41 am

Tgt Ion: 92 Resp: 31099

Ion	Ratio	Lower	Upper
92	100		
91	170.9	129.1	193.7

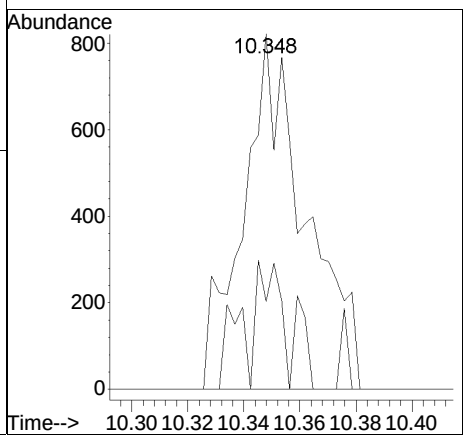


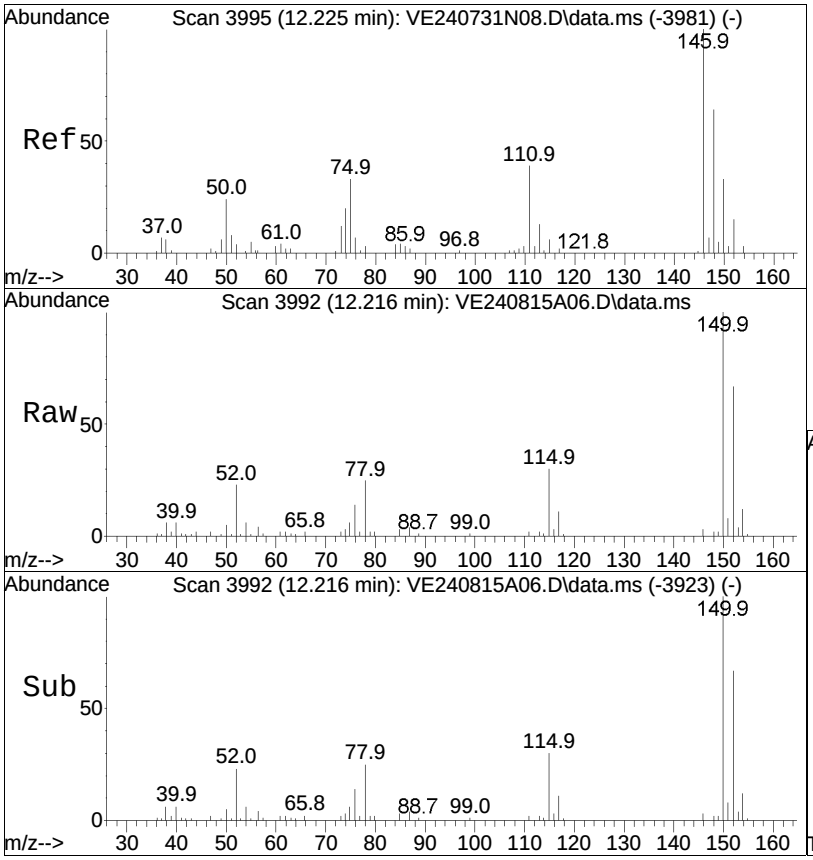


#83
Styrene
Concen: 0.12 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.005 min
Lab File: VE240815A06.D
Acq: 15 Aug 2024 8:41 am

Tgt Ion:104 Resp: 1277

Ion	Ratio	Lower	Upper
104	100		
78	13.1	35.9	53.9#

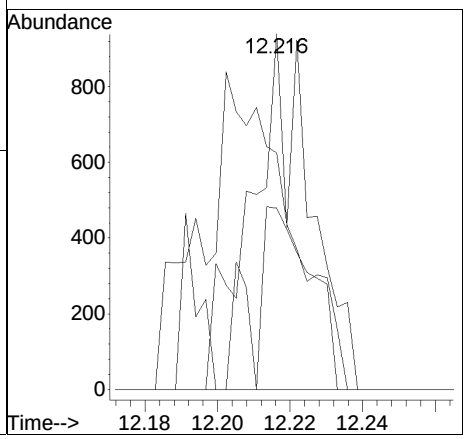




#106
1,4-Dichlorobenzene
Concen: 0.13 ug/L
RT: 12.216 min Scan# 3992
Delta R.T. -0.009 min
Lab File: VE240815A06.D
Acq: 15 Aug 2024 8:41 am

Tgt Ion:146 Resp: 1070

Ion	Ratio	Lower	Upper
146	100		
111	0.0	31.4	47.0#
148	41.1	49.8	74.8#



Manual Integration Report

Data Path	: K:\Elaine\2024\240815A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240815A06.D	Operator	: ELAINE:PID
Date Inj'd	: 8/15/2024 8:41 am	Instrument	: Elaine
Sample	: L2446104-04,31,10,10,,A,R1	Quant Date	: 8/15/2024 9:48 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A07.D
Acq On : 15 Aug 2024 9:05 am
Operator : ELAINE:PID
Sample : L2446104-05,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:49:29 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.959	96	166884	10.000	ug/L	0.00
Standard Area 1 = 187483			Recovery = 89.01%			
63) Chlorobenzene-d5	9.492	117	130280	10.000	ug/L	0.00
Standard Area 1 = 137068			Recovery = 95.05%			
84) 1,4-Dichlorobenzene-d4	12.205	152	75660	10.000	ug/L	0.00
Standard Area 1 = 79601			Recovery = 95.05%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.153	113	42783	10.951	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.51%			
47) 1,2-Dichloroethane-d4	5.674	65	53037	10.174	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.74%			
64) Toluene-d8	7.649	98	170565	9.939	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.39%			
88) 4-Bromofluorobenzene	10.992	95	63937	9.148	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.48%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.424	85	52	N.D.		
3) Chloromethane	0.000		0	N.D.	d	
4) Vinyl chloride	1.870	62	149	N.D.		
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.925	76	435	N.D.		
15) Methylene chloride	3.460	84	28	N.D.		
17) Acetone	3.493	43	9319	7.611	ug/L	96
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	3.697	73	27	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	4.350	53	26	N.D.		
29) Vinyl acetate	4.408	43	35	N.D.		
30) cis-1,2-Dichloroethene	4.709	96	122	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A07.D
Acq On : 15 Aug 2024 9:05 am
Operator : ELAINE:PID
Sample : L2446104-05,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:49:29 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.			
40) 1,1,1-Trichloroethane	0.000		0	N.D.			
42) 2-Butanone	5.261	43	46873	26.792	ug/L		99
43) 1,1-Dichloropropene	0.000		0	N.D.			
45) Benzene	5.535	78	7300	0.552	ug/L	#	91
48) 1,2-Dichloroethane	5.744	62	29	N.D.			
52) Trichloroethene	0.000		0	N.D.			
54) Dibromomethane	0.000		0	N.D.			
55) 1,2-Dichloropropane	0.000		0	N.D.			
58) Bromodichloromethane	0.000		0	N.D.			
61) 1,4-Dioxane	0.000		0	N.D.			
62) cis-1,3-Dichloropropene	0.000		0	N.D.			
65) Toluene	7.707	92	12189	1.359	ug/L	#	39
66) 4-Methyl-2-pentanone	8.142	58	33	N.D.			
67) Tetrachloroethene	0.000		0	N.D.			
69) trans-1,3-Dichloropropene	0.000		0	N.D.			
72) 1,1,2-Trichloroethane	0.000		0	N.D.			
73) Chlorodibromomethane	0.000		0	N.D.			
74) 1,3-Dichloropropane	0.000		0	N.D.			
75) 1,2-Dibromoethane	0.000		0	N.D.			
77) 2-Hexanone	0.000		0	N.D.	d		
78) Chlorobenzene	0.000		0	N.D.			
79) Ethylbenzene	9.548	91	1486M1	0.085	ug/L		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
81) p/m Xylene	9.743	106	737	0.111	ug/L	#	66
82) o Xylene	10.278	106	963M1	0.149	ug/L		
83) Styrene	10.351	104	72	N.D.			
85) Bromoform	0.000		0	N.D.			
87) Isopropylbenzene	10.660	105	211	N.D.			
89) Bromobenzene	0.000		0	N.D.			
90) n-Propylbenzene	11.154	91	132	N.D.			
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
93) 4-Ethyltoluene	11.274	105	114	N.D.			
94) 2-Chlorotoluene	11.154	91	132	N.D.			
95) 1,3,5-Trimethylbenzene	11.274	105	114	N.D.			
96) 1,2,3-Trichloropropane	0.000		0	N.D.			
97) trans-1,4-Dichloro-2-b...	11.427	53	27	N.D.			
98) 4-Chlorotoluene	11.508	91	82	N.D.			
99) tert-Butylbenzene	11.717	119	100	N.D.			

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A07.D
Acq On : 15 Aug 2024 9:05 am
Operator : ELAINE:PID
Sample : L2446104-05,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:49:29 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.790	105	333	N.D.		
103) sec-Butylbenzene	11.901	105	210	N.D.		
104) p-Isopropyltoluene	12.060	119	476	N.D.		
105) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
106) 1,4-Dichlorobenzene	12.247	146	33	N.D.		
107) p-Diethylbenzene	12.434	119	67	N.D.		
108) n-Butylbenzene	12.492	91	46	N.D.		
109) 1,2-Dichlorobenzene	12.649	146	117	N.D.		
110) 1,2,4,5-Tetramethylben...	13.223	119	171	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.068	180	52	N.D.		
115) Naphthalene	14.344	128	575	N.D.		
116) 1,2,3-Trichlorobenzene	14.511	180	38	N.D.		

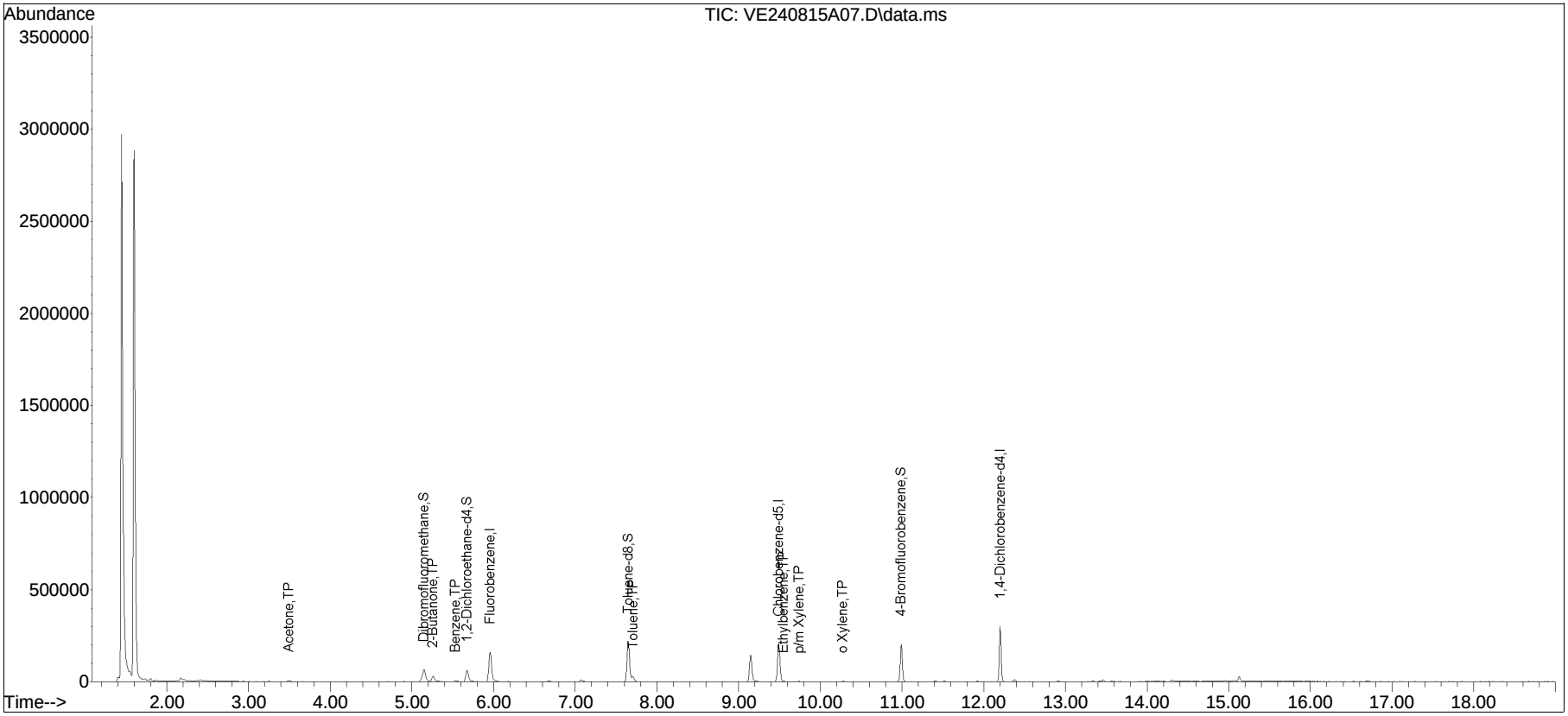
(#) = qualifier out of range (m) = manual integration (+) = signals summed

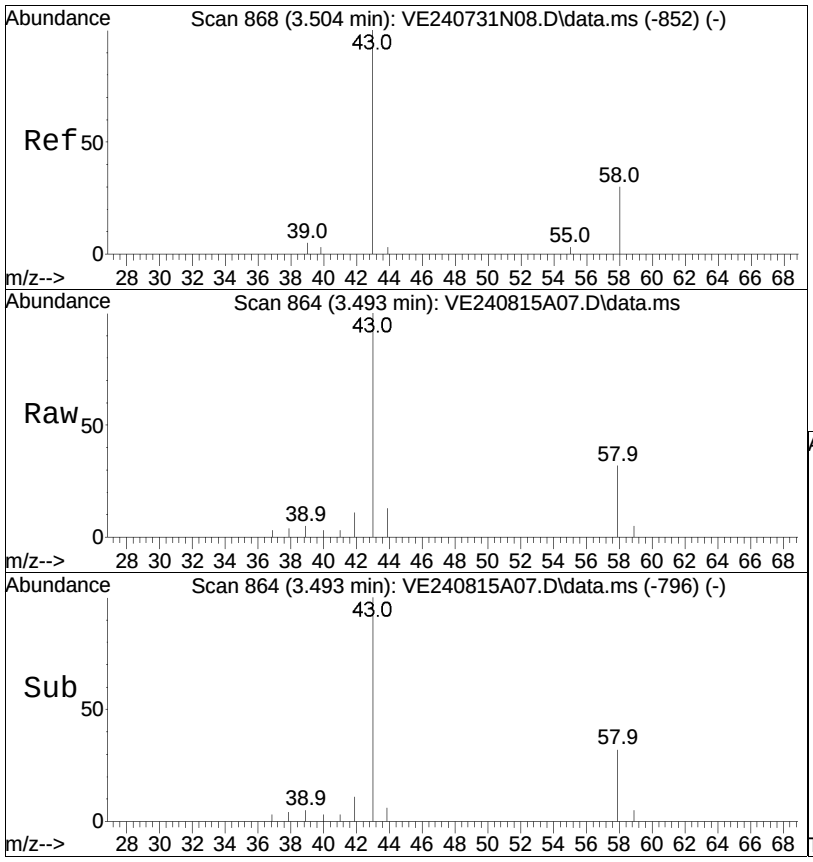
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A07.D
Acq On : 15 Aug 2024 9:05 am
Operator : ELAINE:PID
Sample : L2446104-05,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:49:29 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40815A01.D•

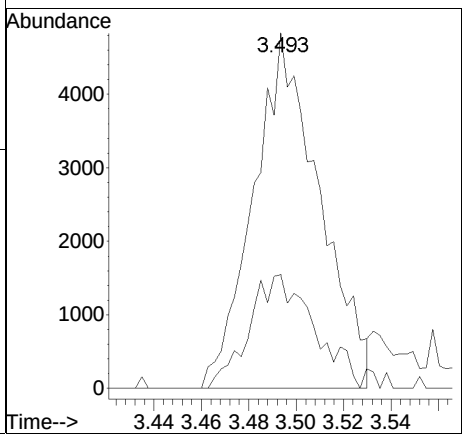


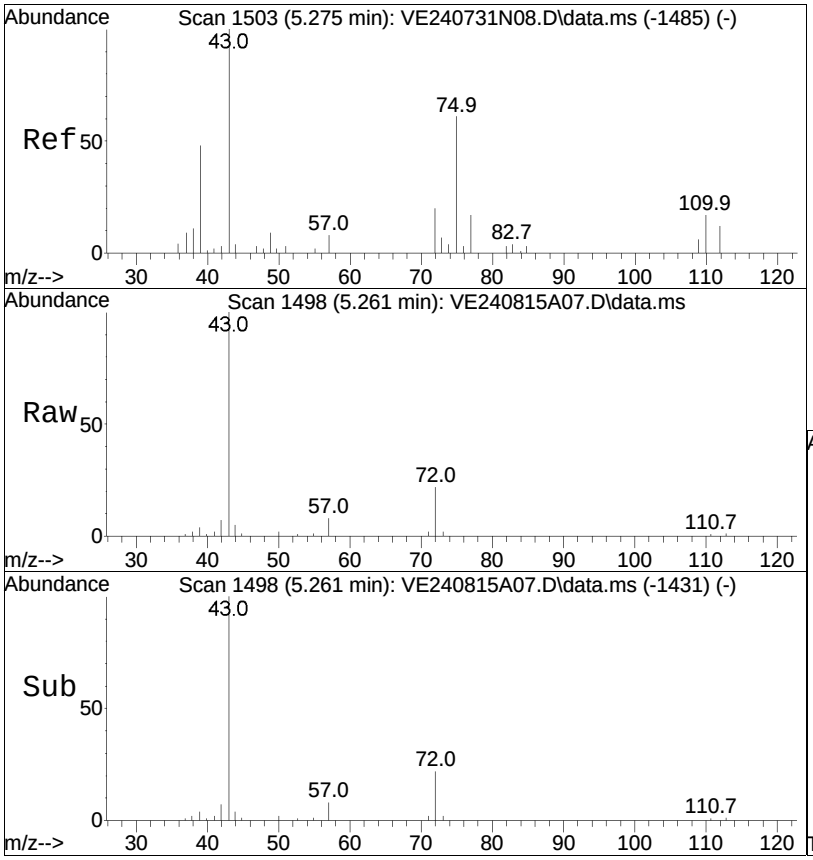


#17
Acetone
Concen: 7.61 ug/L
RT: 3.493 min Scan# 864
Delta R.T. -0.011 min
Lab File: VE240815A07.D
Acq: 15 Aug 2024 9:05 am

Tgt Ion: 43 Resp: 9319

Ion	Ratio	Lower	Upper
43	100		
58	31.5	23.4	35.0

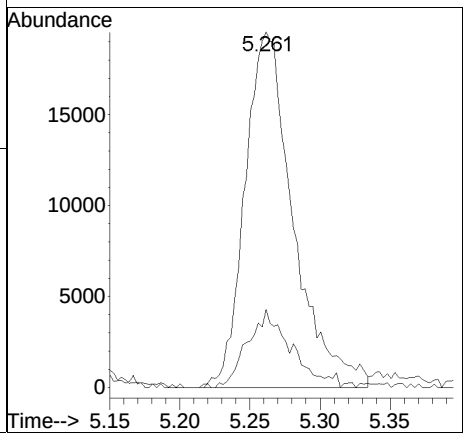


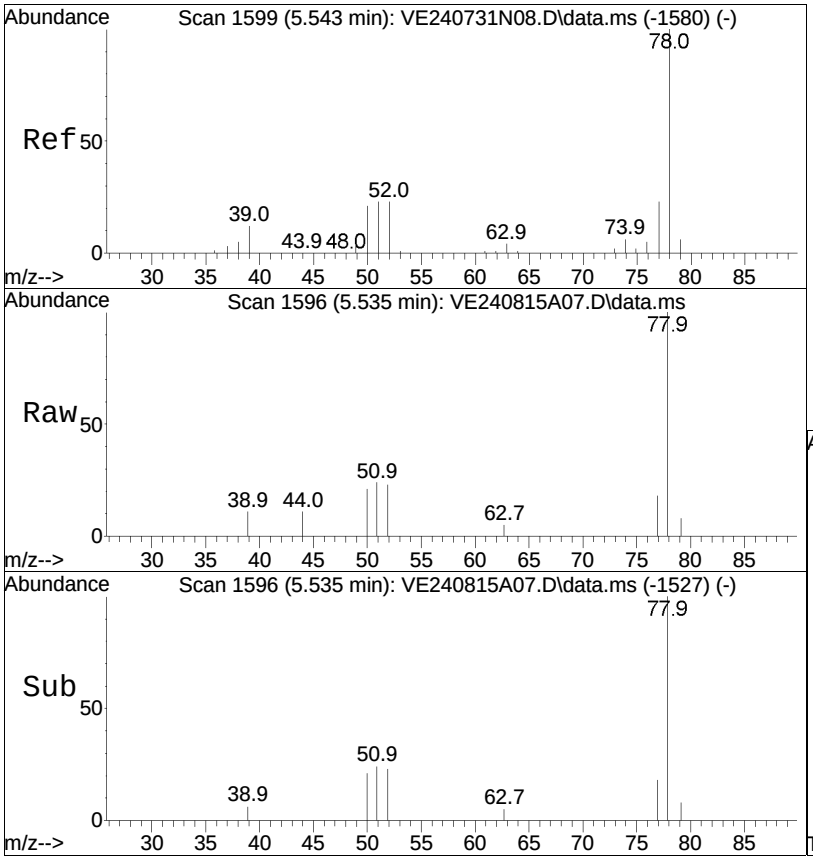


#42
2-Butanone
Concen: 26.79 ug/L
RT: 5.261 min Scan# 1498
Delta R.T. -0.014 min
Lab File: VE240815A07.D
Acq: 15 Aug 2024 9:05 am

Tgt Ion: 43 Resp: 46873

Ion	Ratio	Lower	Upper
43	100		
72	19.0	15.7	23.5

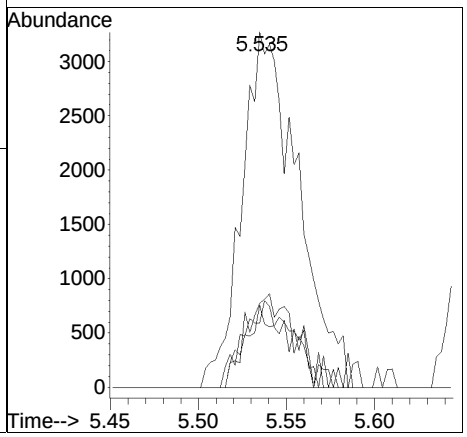


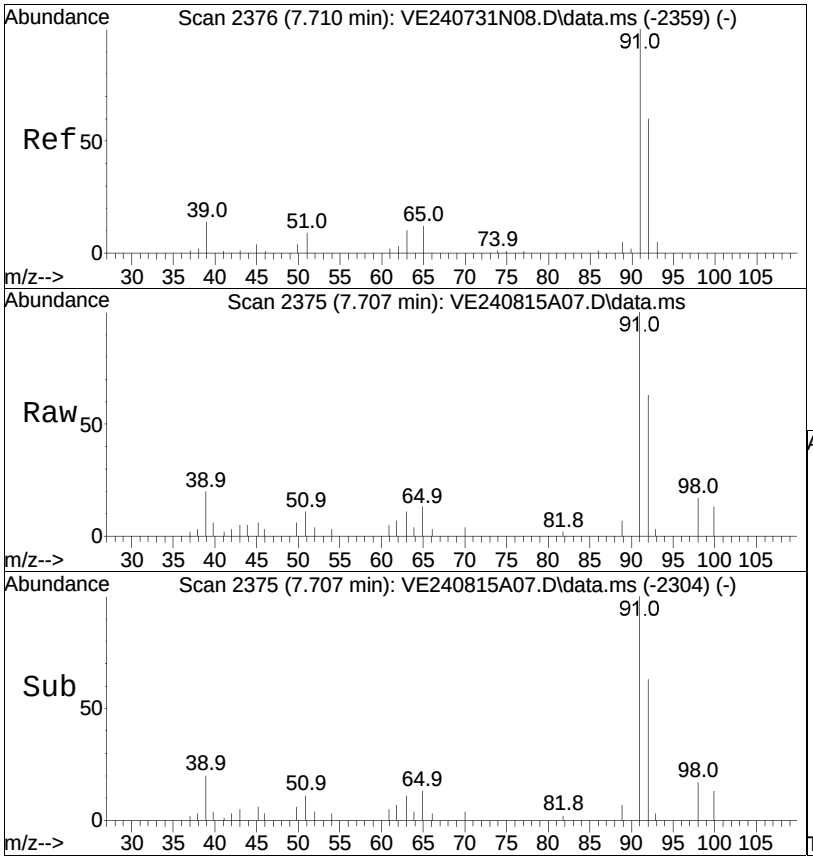


#45
Benzene
Concen: 0.55 ug/L
RT: 5.535 min Scan# 1596
Delta R.T. -0.008 min
Lab File: VE240815A07.D
Acq: 15 Aug 2024 9:05 am

Tgt Ion: 78 Resp: 7300

Ion	Ratio	Lower	Upper
78	100		
77	16.1	12.8	26.6
51	21.1	13.5	27.9
52	9.7	12.0	25.0#

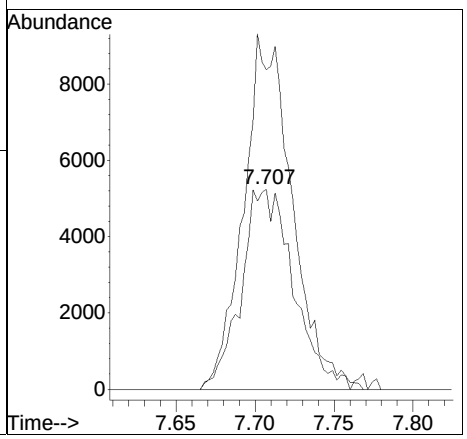


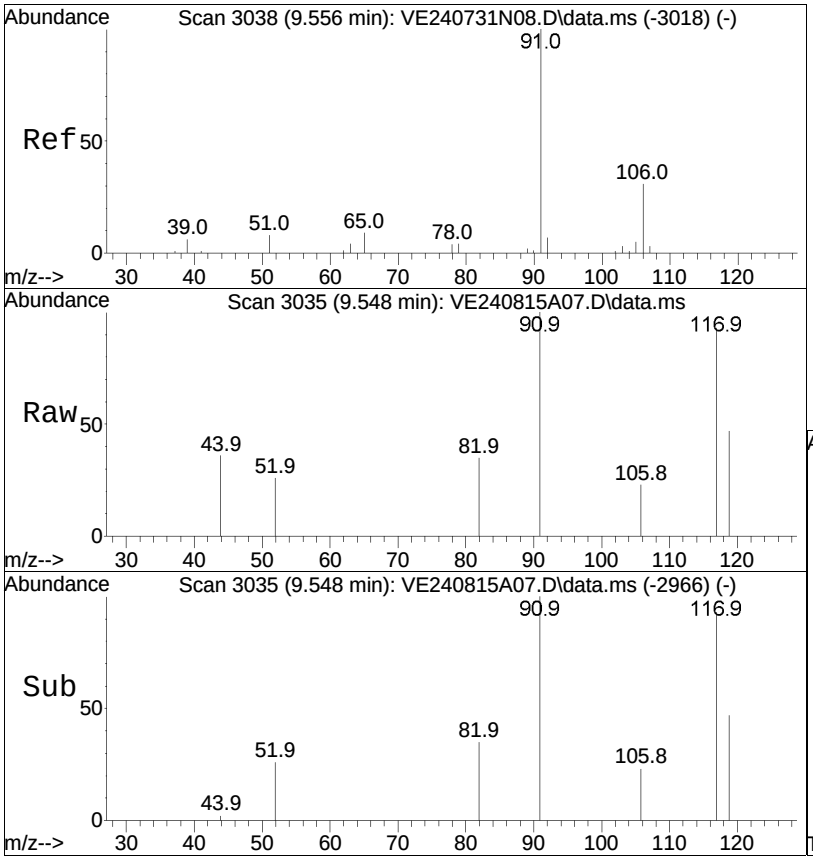


#65
Toluene
Concen: 1.36 ug/L
RT: 7.707 min Scan# 2375
Delta R.T. -0.003 min
Lab File: VE240815A07.D
Acq: 15 Aug 2024 9:05 am

Tgt Ion: 92 Resp: 12189

Ion	Ratio	Lower	Upper
92	100		
91	80.2	129.1	193.7#

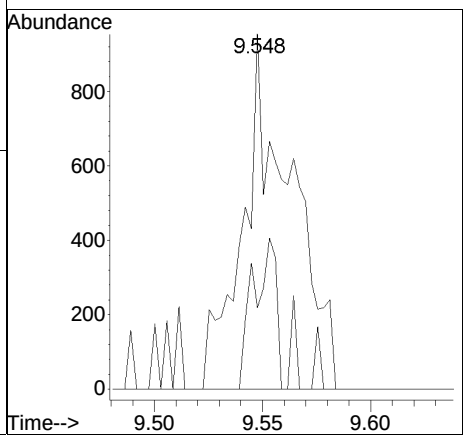


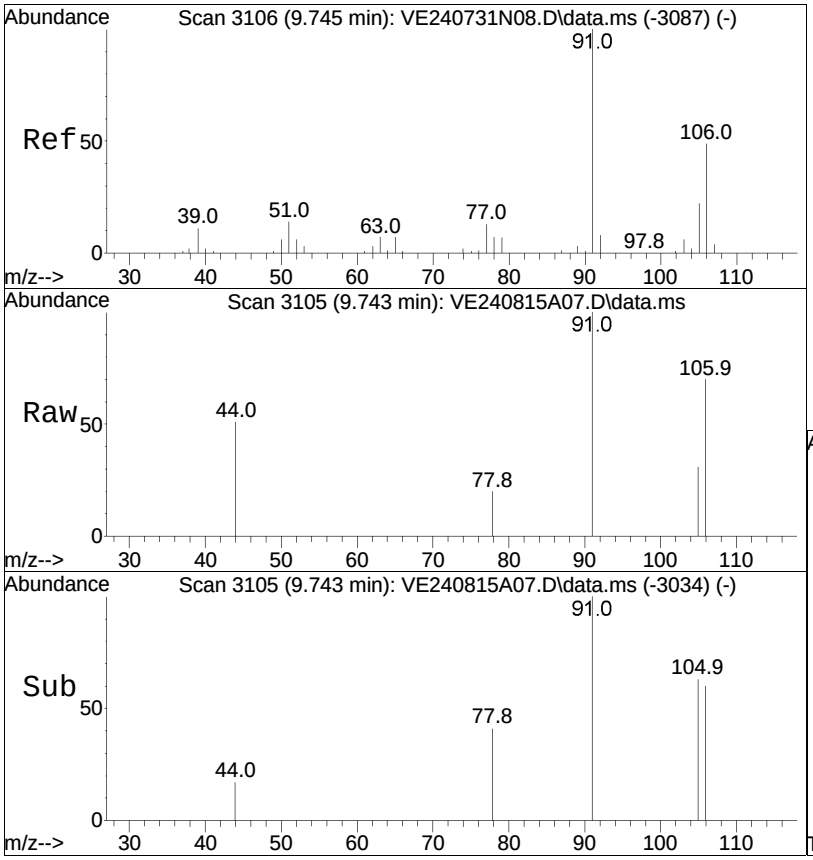


#79
Ethylbenzene
Concen: 0.09 ug/L M1
RT: 9.548 min Scan# 3035
Delta R.T. -0.008 min
Lab File: VE240815A07.D
Acq: 15 Aug 2024 9:05 am

Tgt Ion: 91 Resp: 1486

Ion	Ratio	Lower	Upper
91	100		
106	20.0	25.3	37.9#

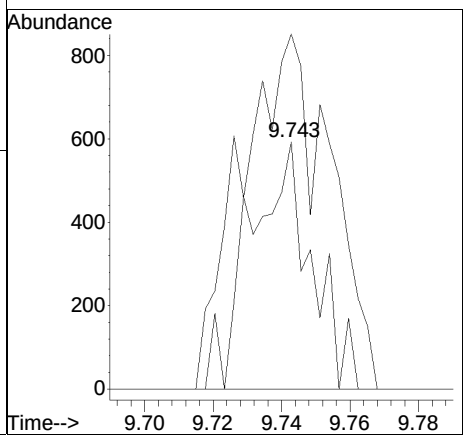


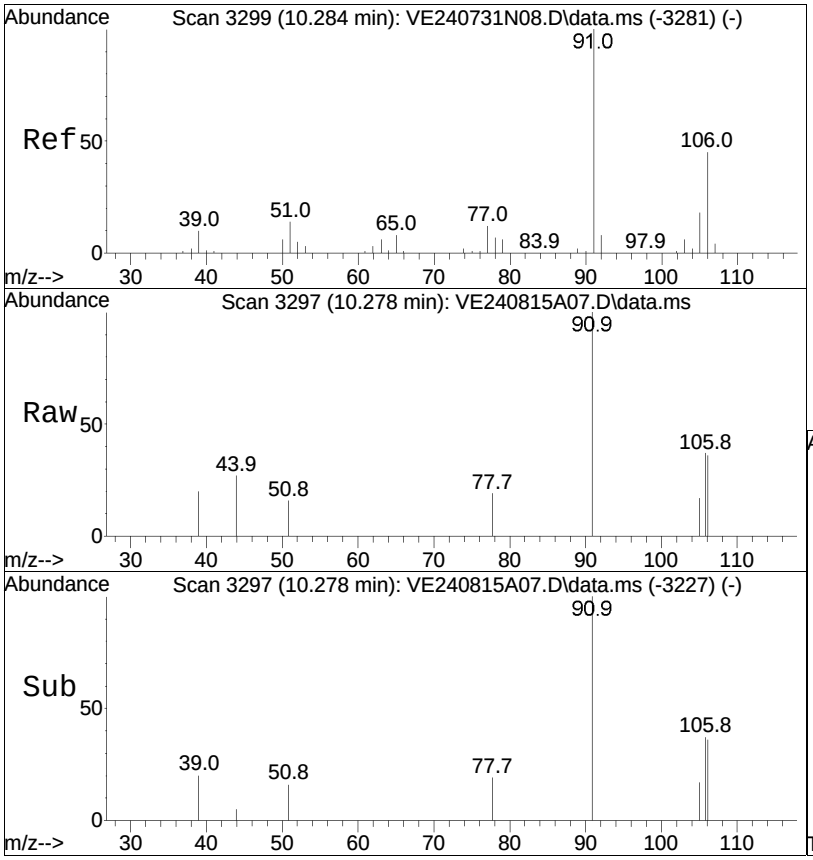


#81
p/m Xylene
Concen: 0.11 ug/L
RT: 9.743 min Scan# 3105
Delta R.T. -0.002 min
Lab File: VE240815A07.D
Acq: 15 Aug 2024 9:05 am

Tgt Ion:106 Resp: 737

Ion	Ratio	Lower	Upper
106	100		
91	151.7	163.3	244.9#

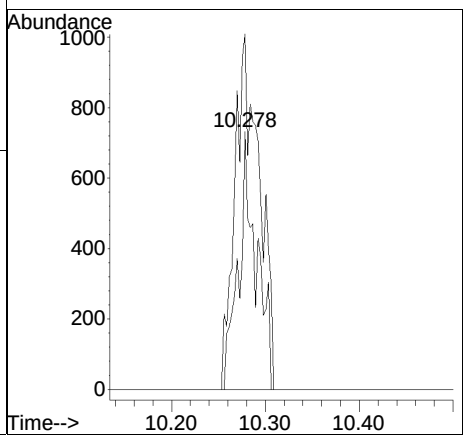




#82
o Xylene
Concen: 0.15 ug/L M1
RT: 10.278 min Scan# 3297
Delta R.T. -0.006 min
Lab File: VE240815A07.D
Acq: 15 Aug 2024 9:05 am

Tgt Ion:106 Resp: 963

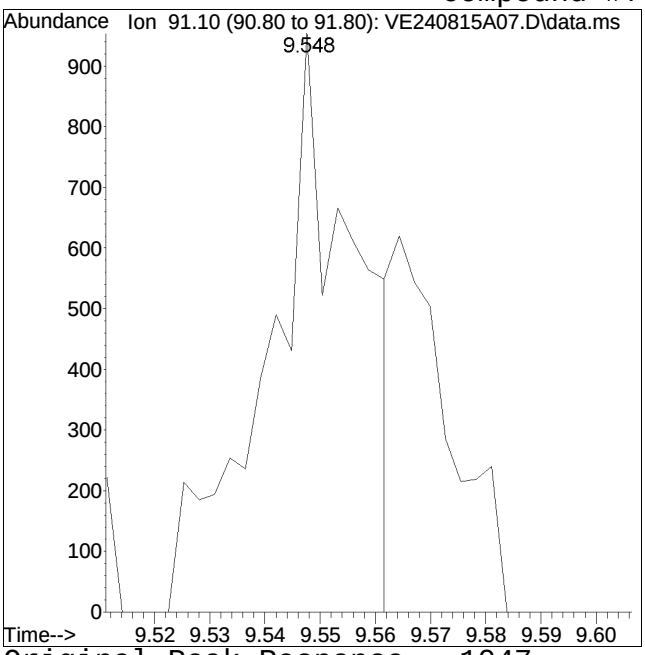
Ion	Ratio	Lower	Upper
106	100		
91	189.5	181.0	271.6



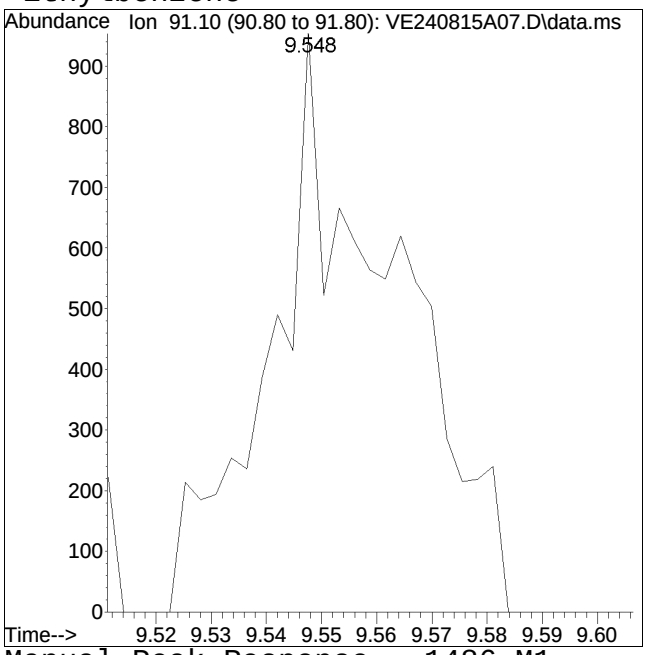
Manual Integration Report

Data Path : K:\Elaine\2024\240815A\ QMethod : Elaine_240731N_8260.m
Data File : VE240815A07.D Operator : ELAINE:PID
Date Inj'd : 8/15/2024 9:05 am Instrument : Elaine
Sample : L2446104-05,31,10,10,,A,R1 Quant Date : 8/15/2024 9:48 am

Compound #79: Ethylbenzene



Original Peak Response = 1047



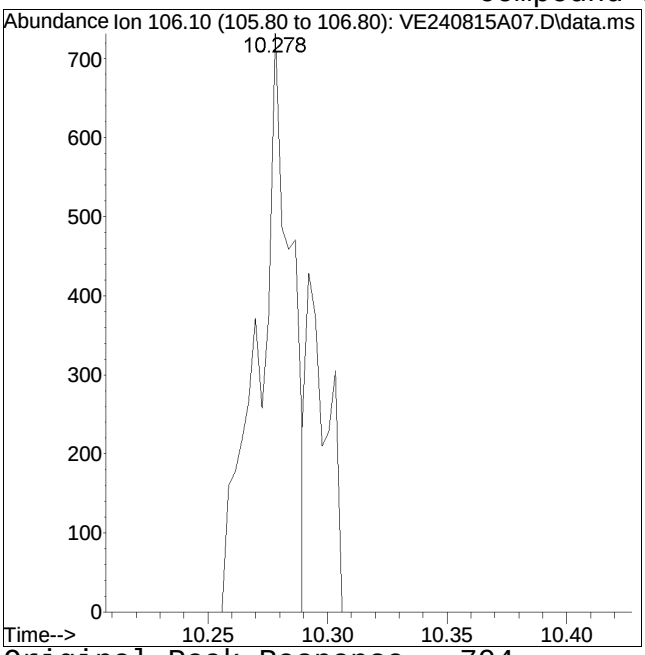
Manual Peak Response = 1486 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

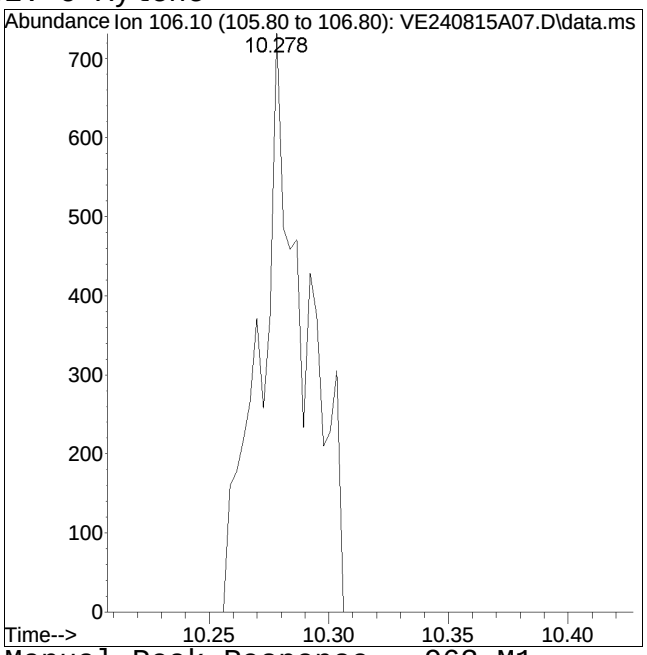
Manual Integration Report

Data Path : K:\Elaine\2024\240815A\ QMethod : Elaine_240731N_8260.m
Data File : VE240815A07.D Operator : ELAINE:PID
Date Inj'd : 8/15/2024 9:05 am Instrument : Elaine
Sample : L2446104-05,31,10,10,,A,R1 Quant Date : 8/15/2024 9:48 am

Compound #82: o Xylene



Original Peak Response = 704



Manual Peak Response = 963 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A08.D
Acq On : 15 Aug 2024 9:30 am
Operator : ELAINE:PID
Sample : L2446104-07,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:49:55 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.959	96	168877	10.000	ug/L	0.00
Standard Area 1 = 187483			Recovery = 90.08%			
63) Chlorobenzene-d5	9.489	117	127259	10.000	ug/L	0.00
Standard Area 1 = 137068			Recovery = 92.84%			
84) 1,4-Dichlorobenzene-d4	12.202	152	73320	10.000	ug/L	0.00
Standard Area 1 = 79601			Recovery = 92.11%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	42539	10.760	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.60%			
47) 1,2-Dichloroethane-d4	5.677	65	53222	10.089	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.89%			
64) Toluene-d8	7.649	98	168505	10.052	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.52%			
88) 4-Bromofluorobenzene	10.989	95	63051	9.309	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.09%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.422	85	73	N.D.		
3) Chloromethane	1.787	50	37	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	2.269	64	37	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.927	76	76	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	4.430	43	28	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A08.D
Acq On : 15 Aug 2024 9:30 am
Operator : ELAINE:PID
Sample : L2446104-07,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:49:55 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	5.264	43	29		N.D.	
43) 1,1-Dichloropropene	0.000		0		N.D.	
45) Benzene	5.538	78	119		N.D.	
48) 1,2-Dichloroethane	0.000		0		N.D.	
52) Trichloroethene	0.000		0		N.D.	
54) Dibromomethane	0.000		0		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	7.707	92	333		N.D.	
66) 4-Methyl-2-pentanone	0.000		0		N.D.	
67) Tetrachloroethene	0.000		0		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	0.000		0		N.D.	
77) 2-Hexanone	9.104	43	35		N.D.	
78) Chlorobenzene	0.000		0		N.D.	
79) Ethylbenzene	9.548	91	26		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	9.740	106	31		N.D.	
82) o Xylene	0.000		0		N.D.	
83) Styrene	0.000		0		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	0.000		0		N.D.	
89) Bromobenzene	0.000		0		N.D.	
90) n-Propylbenzene	11.148	91	35		N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
93) 4-Ethyltoluene	11.279	105	27		N.D.	
94) 2-Chlorotoluene	11.148	91	35		N.D.	
95) 1,3,5-Trimethylbenzene	11.369	105	26		N.D.	
96) 1,2,3-Trichloropropane	11.494	75	37		N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
98) 4-Chlorotoluene	0.000		0		N.D.	
99) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A08.D
Acq On : 15 Aug 2024 9:30 am
Operator : ELAINE:PID
Sample : L2446104-07,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:49:55 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.806	105	30	N.D.		
103)	sec-Butylbenzene	11.907	105	58	N.D.		
104)	p-Isopropyltoluene	12.057	119	68	N.D.		
105)	1,3-Dichlorobenzene	12.227	146	33	N.D.		
106)	1,4-Dichlorobenzene	12.227	146	33	N.D.		
107)	p-Diethylbenzene	0.000		0	N.D.		
108)	n-Butylbenzene	12.490	91	62	N.D.		
109)	1,2-Dichlorobenzene	0.000		0	N.D.		
110)	1,2,4,5-Tetramethylben...	13.229	119	58	N.D.		
111)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113)	Hexachlorobutadiene	0.000		0	N.D.		
114)	1,2,4-Trichlorobenzene	14.046	180	32	N.D.		
115)	Naphthalene	14.338	128	40	N.D.		
116)	1,2,3-Trichlorobenzene	14.514	180	27	N.D.		

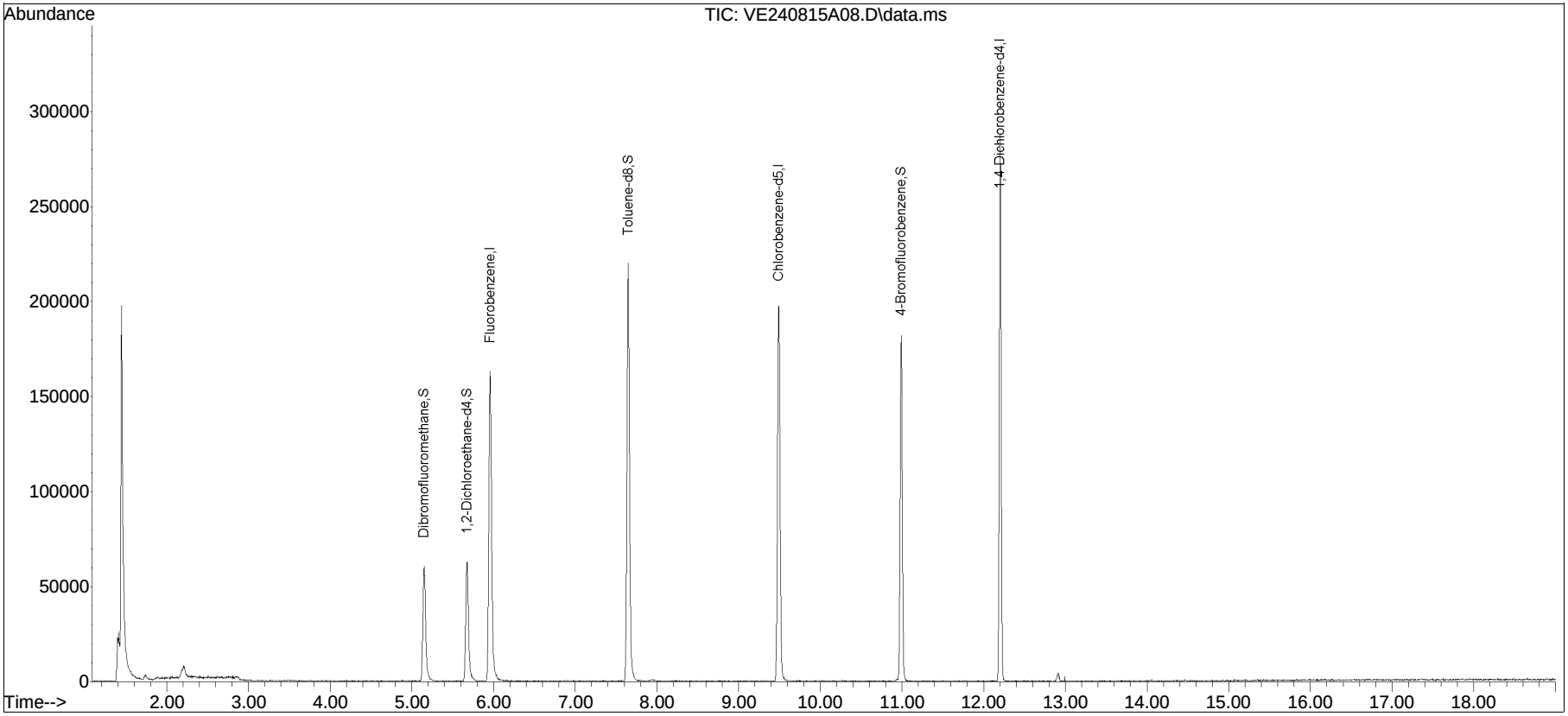
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A08.D
Acq On : 15 Aug 2024 9:30 am
Operator : ELAINE:PID
Sample : L2446104-07,31,10,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:49:55 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40815A01.D•



Manual Integration Report

Data Path	: K:\Elaine\2024\240815A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240815A08.D	Operator	: ELAINE:PID
Date Inj'd	: 8/15/2024 9:30 am	Instrument	: Elaine
Sample	: L2446104-07,31,10,10,,A,R1	Quant Date	: 8/15/2024 9:49 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A09.D
Acq On : 15 Aug 2024 9:54 am
Operator : ELAINE:PID
Sample : L2446104-06D,31,5.0,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 15 10:24:50 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.959	96	168208	10.000 ug/L	0.00
Standard Area 1 = 187483			Recovery = 89.72%		
63) Chlorobenzene-d5	9.489	117	128537	10.000 ug/L	0.00
Standard Area 1 = 137068			Recovery = 93.78%		
84) 1,4-Dichlorobenzene-d4	12.202	152	76580	10.000 ug/L	0.00
Standard Area 1 = 79601			Recovery = 96.20%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.153	113	41651	10.577 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.77%		
47) 1,2-Dichloroethane-d4	5.674	65	53452	10.173 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.73%		
64) Toluene-d8	7.646	98	169030	9.983 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.83%		
88) 4-Bromofluorobenzene	10.989	95	63849	9.026 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.26%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.413	85	66	N.D.	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl chloride	1.854	62	36	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	0.000		0	N.D. d	
15) Methylene chloride	3.446	84	660M1	0.194 ug/L	
17) Acetone	3.493	43	96358	78.077 ug/L	99
18) trans-1,2-Dichloroethene	3.658	96	29	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	4.361	53	58	N.D.	
29) Vinyl acetate	4.447	43	28	N.D.	
30) cis-1,2-Dichloroethene	4.704	96	1065M1	0.307 ug/L	
31) 2,2-Dichloropropane	4.882	77	29	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A09.D
Acq On : 15 Aug 2024 9:54 am
Operator : ELAINE:PID
Sample : L2446104-06D,31,5.0,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 15 10:24:50 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.		
42) 2-Butanone	5.259	43	88524	50.200	ug/L #	75
43) 1,1-Dichloropropene	5.256	75	26	N.D.		
45) Benzene	5.554	78	1080M3	0.081	ug/L	
48) 1,2-Dichloroethane	0.000		0	N.D.		
52) Trichloroethene	6.026	95	181	N.D.		
54) Dibromomethane	6.661	93	26	N.D.		
55) 1,2-Dichloropropane	0.000		0	N.D.		
58) Bromodichloromethane	0.000		0	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	7.707	92	18713	2.114	ug/L	91
66) 4-Methyl-2-pentanone	8.139	58	1778M1	1.178	ug/L	
67) Tetrachloroethene	8.153	166	191	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	0.000		0	N.D.		
75) 1,2-Dibromoethane	0.000		0	N.D.		
77) 2-Hexanone	0.000		0	N.D. d		
78) Chlorobenzene	0.000		0	N.D.		
79) Ethylbenzene	9.556	91	4175	0.243	ug/L #	65
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.732	106	2252M1	0.344	ug/L	
82) o Xylene	10.281	106	1655	0.259	ug/L	91
83) Styrene	10.354	104	346	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.671	105	64	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.145	91	58	N.D.		
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
93) 4-Ethyltoluene	11.371	105	214	N.D.		
94) 2-Chlorotoluene	11.162	91	93	N.D.		
95) 1,3,5-Trimethylbenzene	11.371	105	214	N.D.		
96) 1,2,3-Trichloropropane	11.394	75	31	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d		
98) 4-Chlorotoluene	11.522	91	32	N.D.		
99) tert-Butylbenzene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A09.D
Acq On : 15 Aug 2024 9:54 am
Operator : ELAINE:PID
Sample : L2446104-06D,31,5.0,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 15 10:24:50 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.597	105	71	N.D.		
103) sec-Butylbenzene	11.918	105	32	N.D.		
104) p-Isopropyltoluene	12.063	119	2566	0.157	ug/L	91
105) 1,3-Dichlorobenzene	12.211	146	28	N.D.		
106) 1,4-Dichlorobenzene	12.225	146	55	N.D.		
107) p-Diethylbenzene	12.437	119	31	N.D.		
108) n-Butylbenzene	12.492	91	109	N.D.		
109) 1,2-Dichlorobenzene	12.646	146	28	N.D.		
110) 1,2,4,5-Tetramethylben...	13.229	119	156	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.048	180	41	N.D.		
115) Naphthalene	14.344	128	1263	0.097	ug/L	100
116) 1,2,3-Trichlorobenzene	14.511	180	79	N.D.		

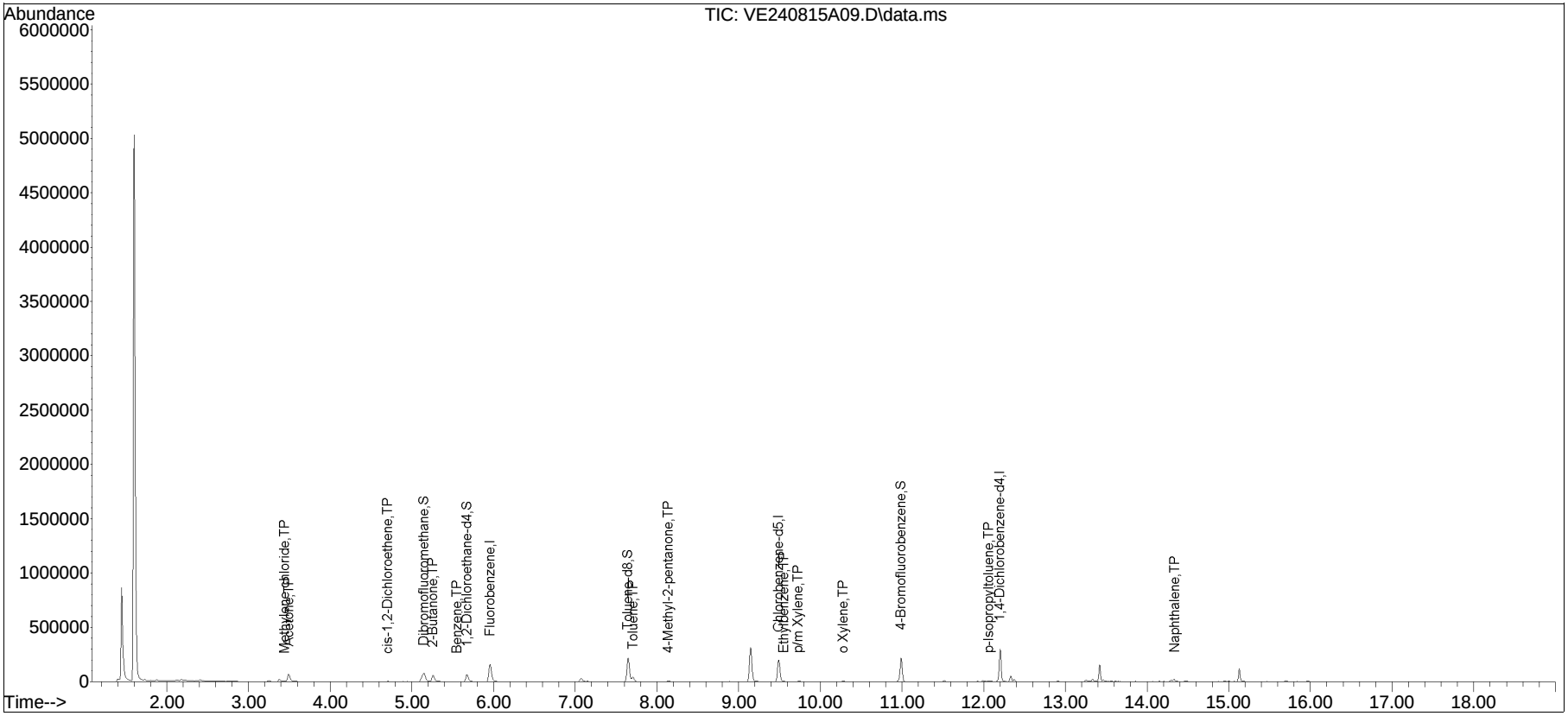
(#) = qualifier out of range (m) = manual integration (+) = signals summed

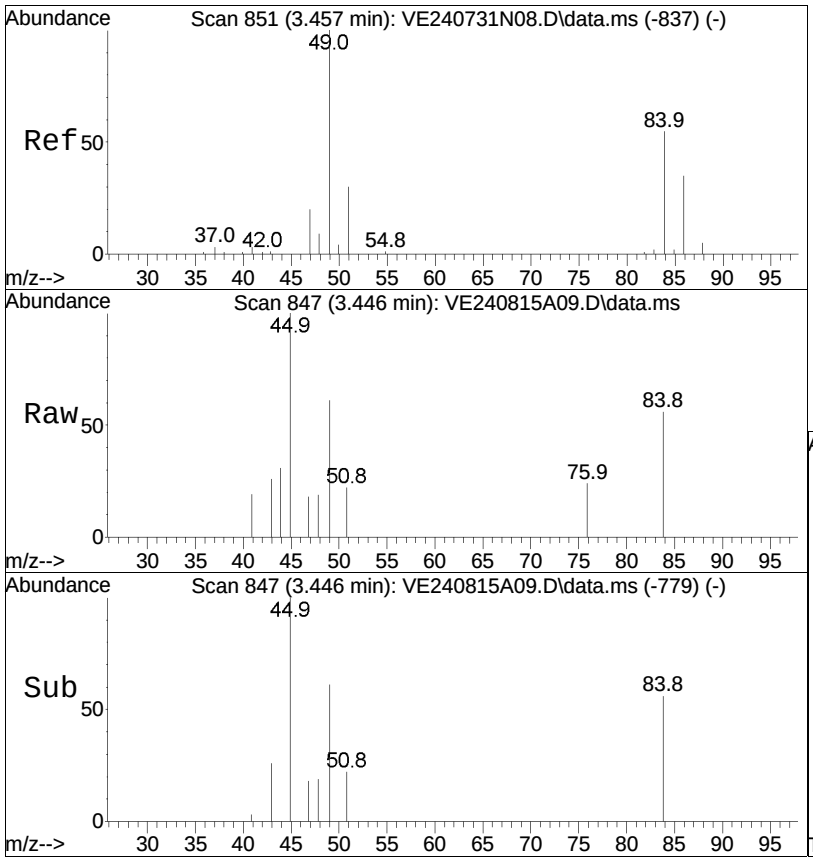
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A09.D
Acq On : 15 Aug 2024 9:54 am
Operator : ELAINE:PID
Sample : L2446104-06D,31,5.0,10,,A,R1A
Misc : WG1959746,ICAL21358
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 15 10:24:50 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40815A01.D•

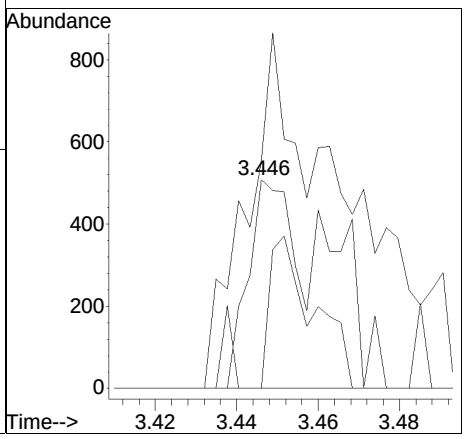


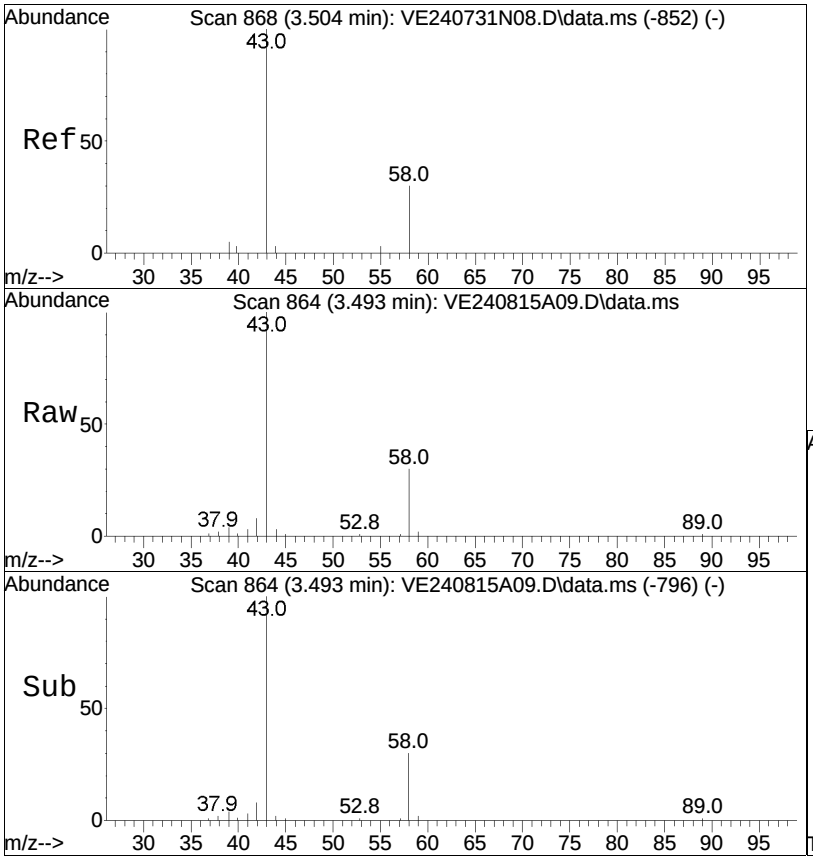


#15
Methylene chloride
Concen: 0.19 ug/L M1
RT: 3.446 min Scan# 847
Delta R.T. -0.011 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 84 Resp: 660

Ion	Ratio	Lower	Upper
84	100		
86	41.8	40.2	83.6
49	112.6	103.2	214.4

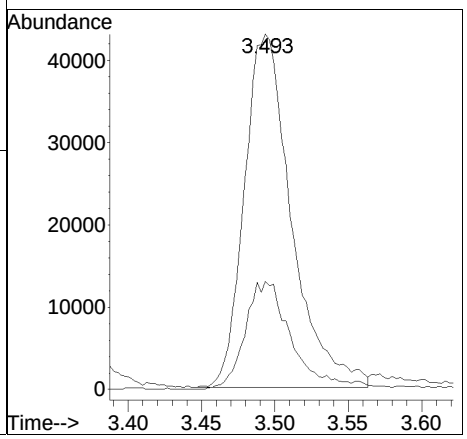


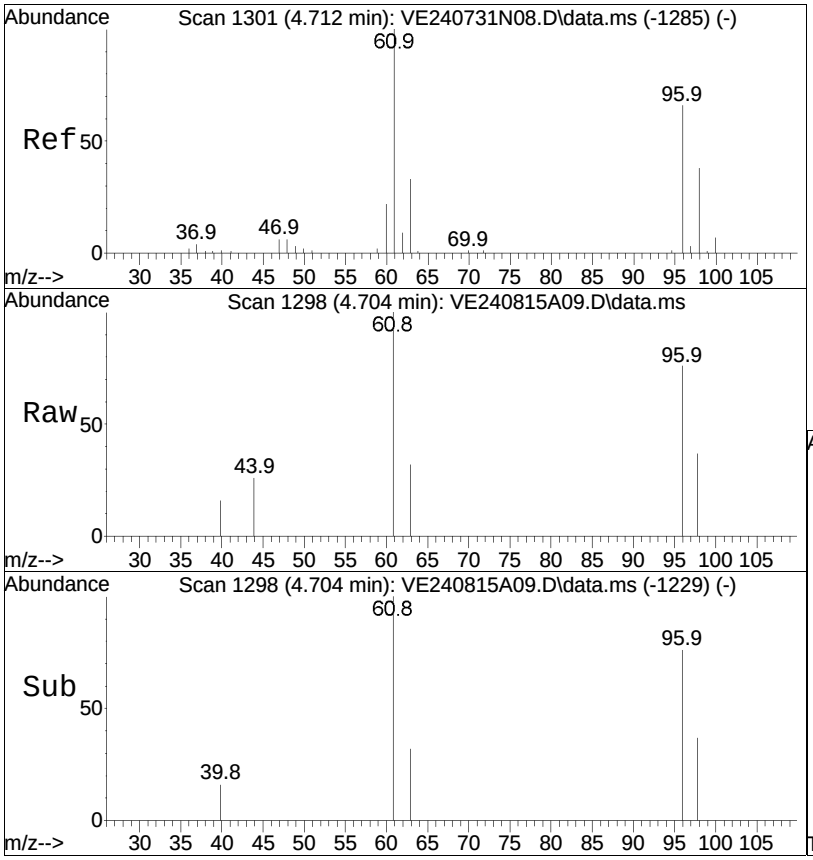


#17
Acetone
Concen: 78.08 ug/L
RT: 3.493 min Scan# 864
Delta R.T. -0.011 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 43 Resp: 96358

Ion	Ratio	Lower	Upper
43	100		
58	29.6	23.4	35.0

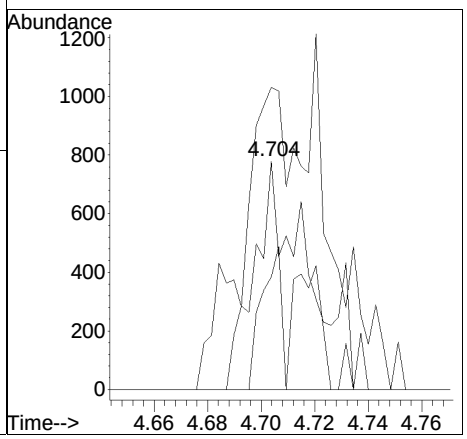


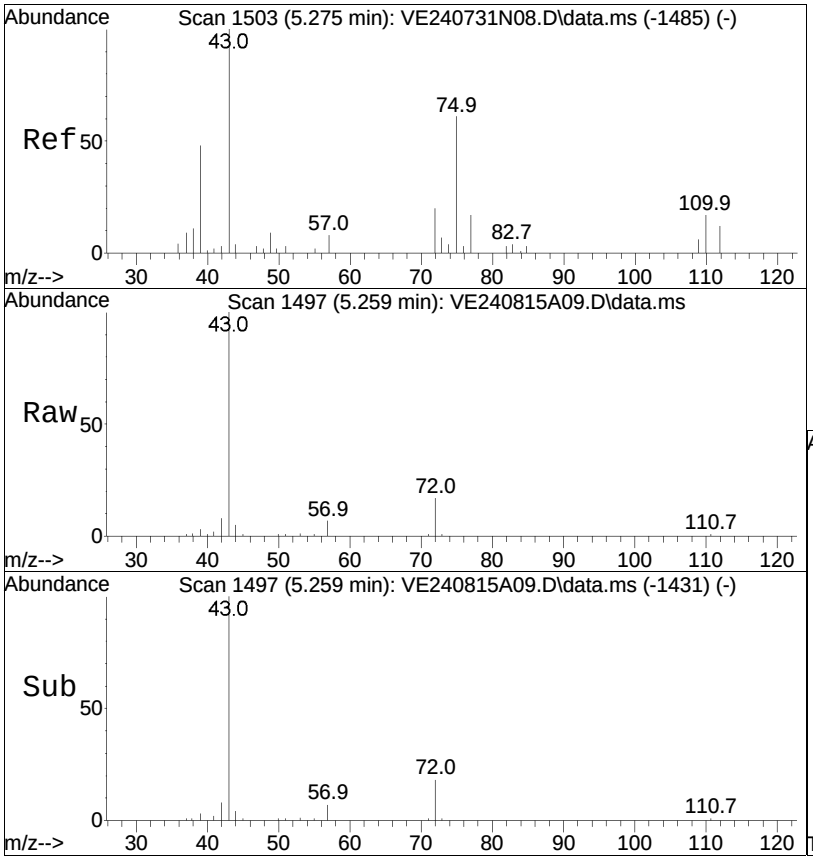


#30
cis-1,2-Dichloroethene
Concen: 0.31 ug/L M1
RT: 4.704 min Scan# 1298
Delta R.T. -0.008 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 96 Resp: 1065

Ion	Ratio	Lower	Upper
96	100		
61	135.6	120.3	180.5
98	23.2	50.2	75.4#

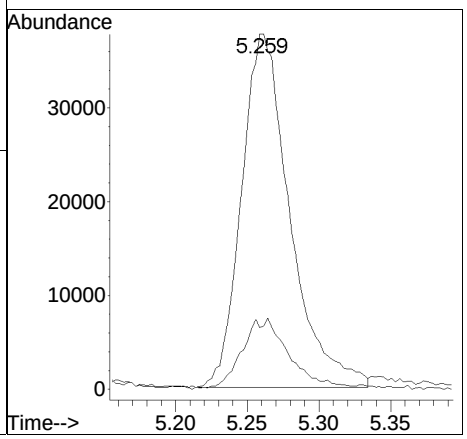


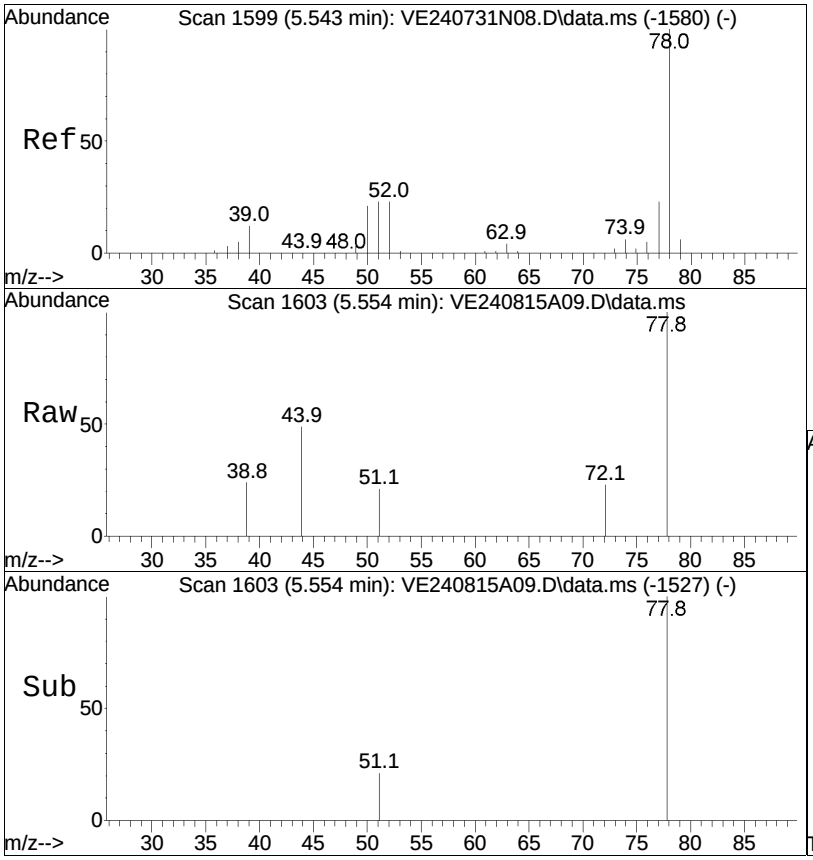


#42
2-Butanone
Concen: 50.20 ug/L
RT: 5.259 min Scan# 1497
Delta R.T. -0.016 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 43 Resp: 88524

Ion	Ratio	Lower	Upper
43	100		
72	8.3	15.7	23.5#

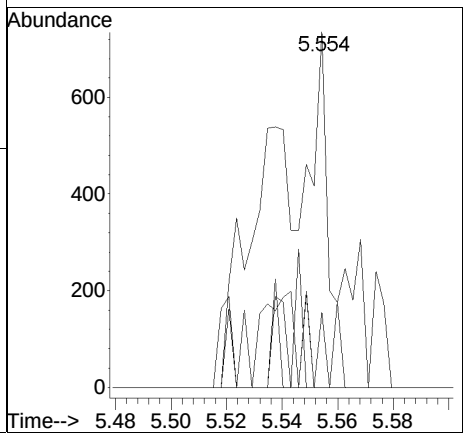


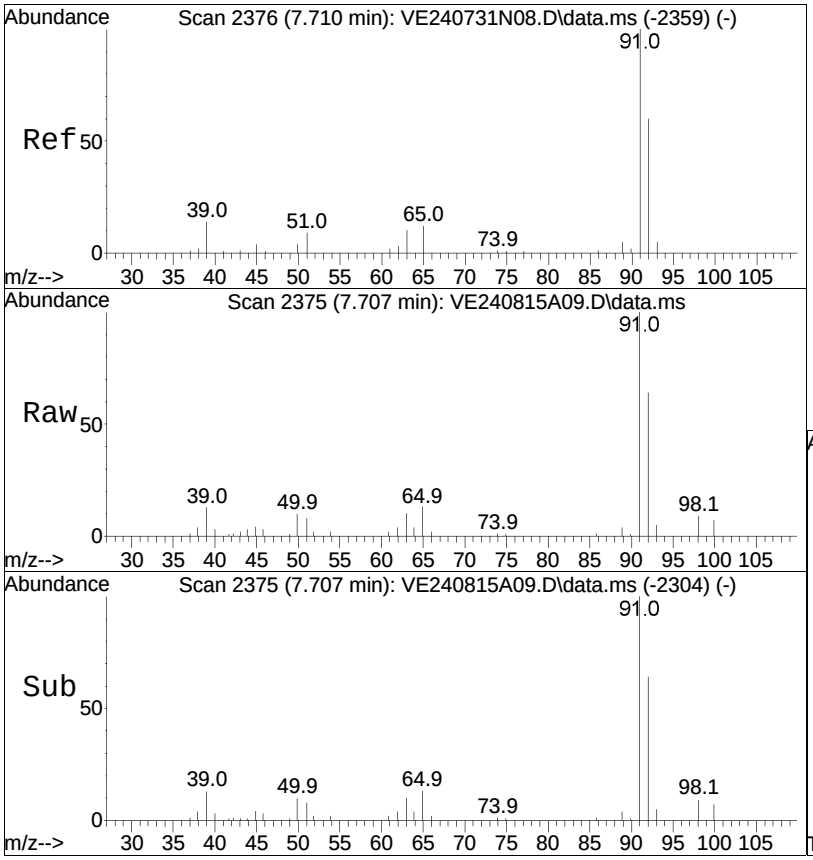


#45
Benzene
Concen: 0.08 ug/L M3
RT: 5.554 min Scan# 1603
Delta R.T. 0.011 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 78 Resp: 1080

Ion	Ratio	Lower	Upper
78	100		
77	0.0	12.8	26.6#
51	0.0	13.5	27.9#
52	3.5	12.0	25.0#

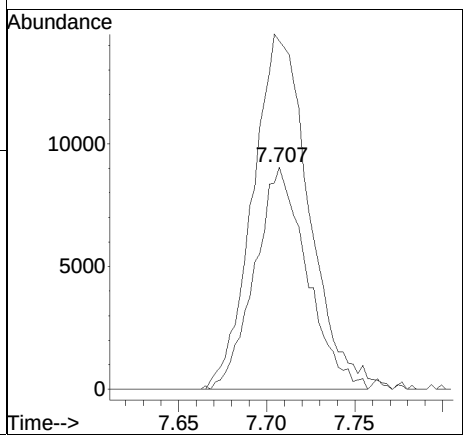


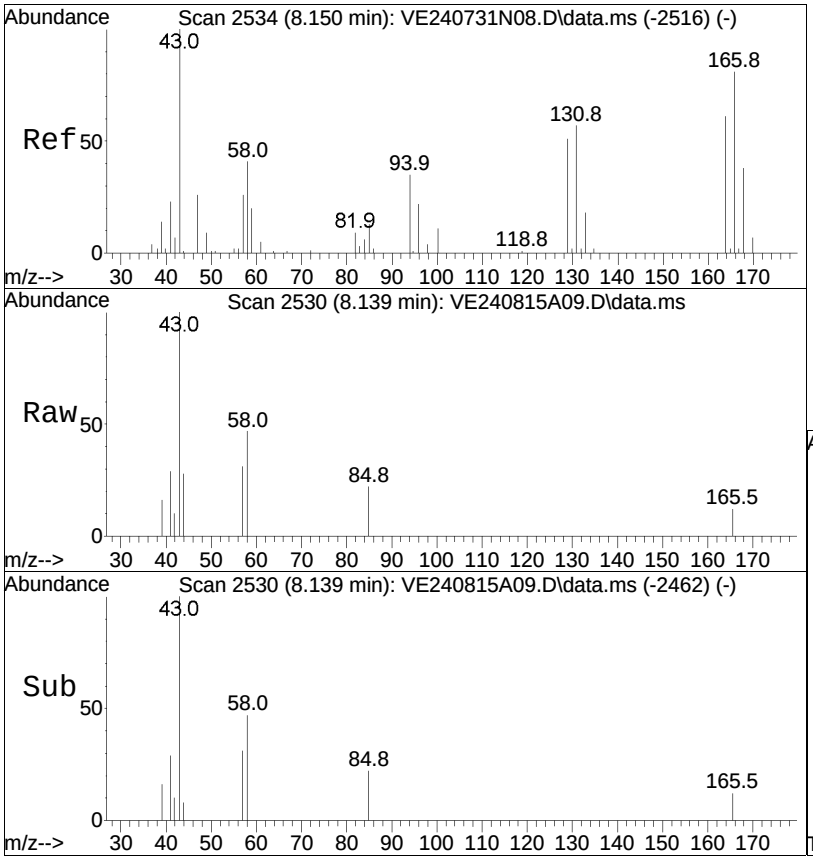


#65
Toluene
Concen: 2.11 ug/L
RT: 7.707 min Scan# 2375
Delta R.T. -0.003 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 92 Resp: 18713

Ion	Ratio	Lower	Upper
92	100		
91	172.9	129.1	193.7

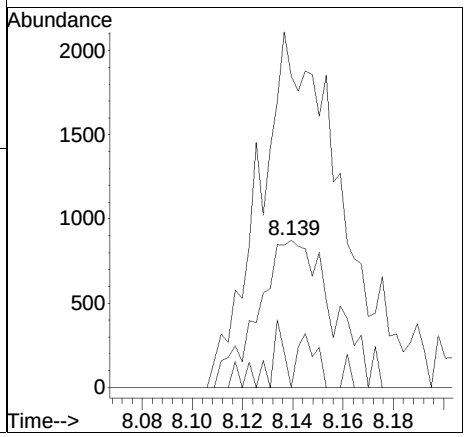


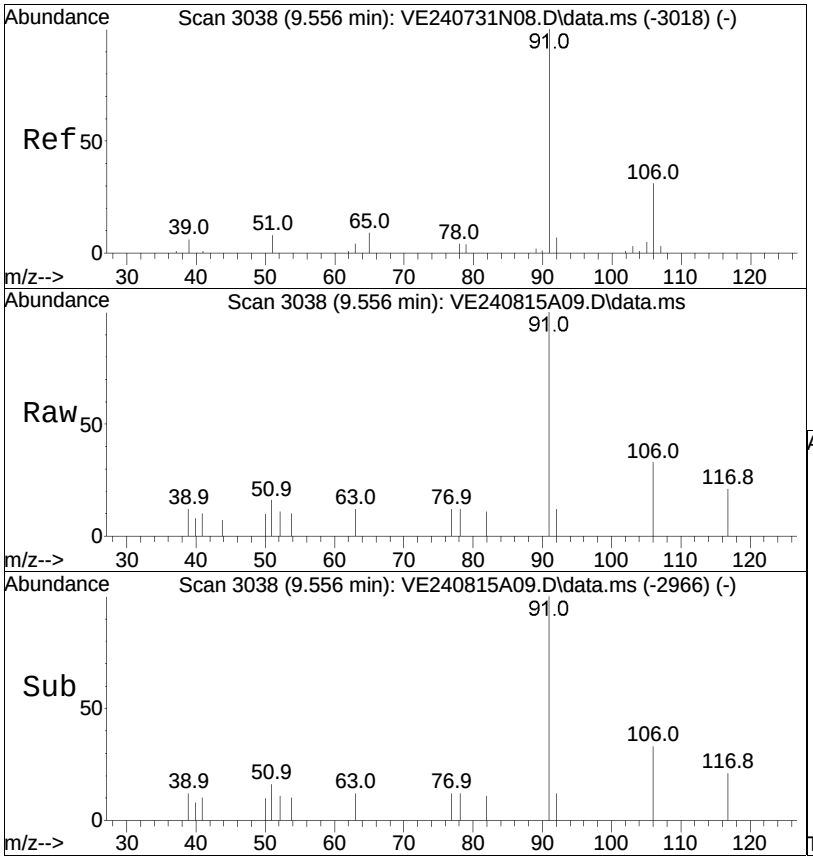


#66
4-Methyl-2-pentanone
Concen: 1.18 ug/L M1
RT: 8.139 min Scan# 2530
Delta R.T. -0.011 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 58 Resp: 1778

Ion	Ratio	Lower	Upper
58	100		
100	9.2	27.9	41.9#
43	0.0	225.7	338.5#

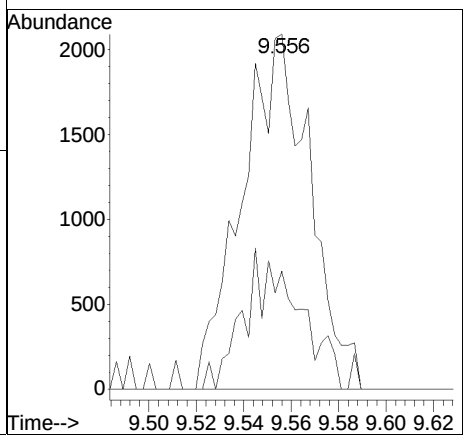


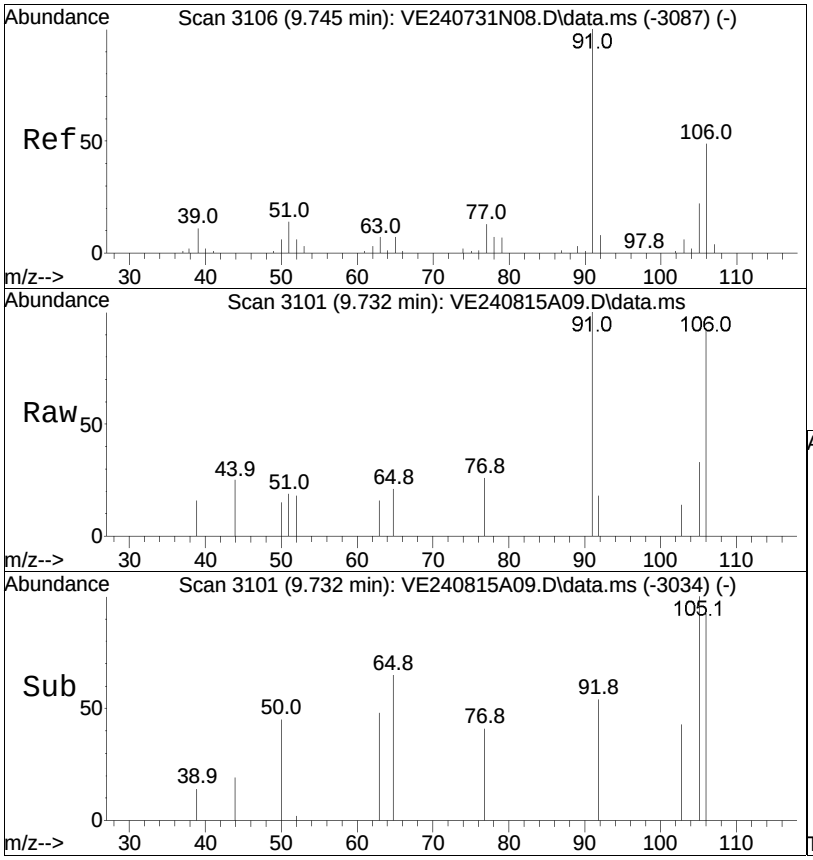


#79
Ethylbenzene
Concen: 0.24 ug/L
RT: 9.556 min Scan# 3038
Delta R.T. -0.000 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion: 91 Resp: 4175

Ion	Ratio	Lower	Upper
91	100		
106	12.0	25.3	37.9#

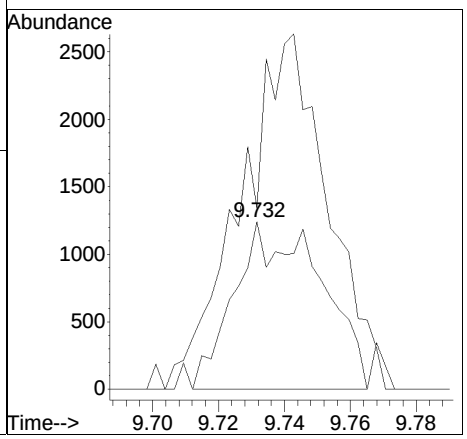


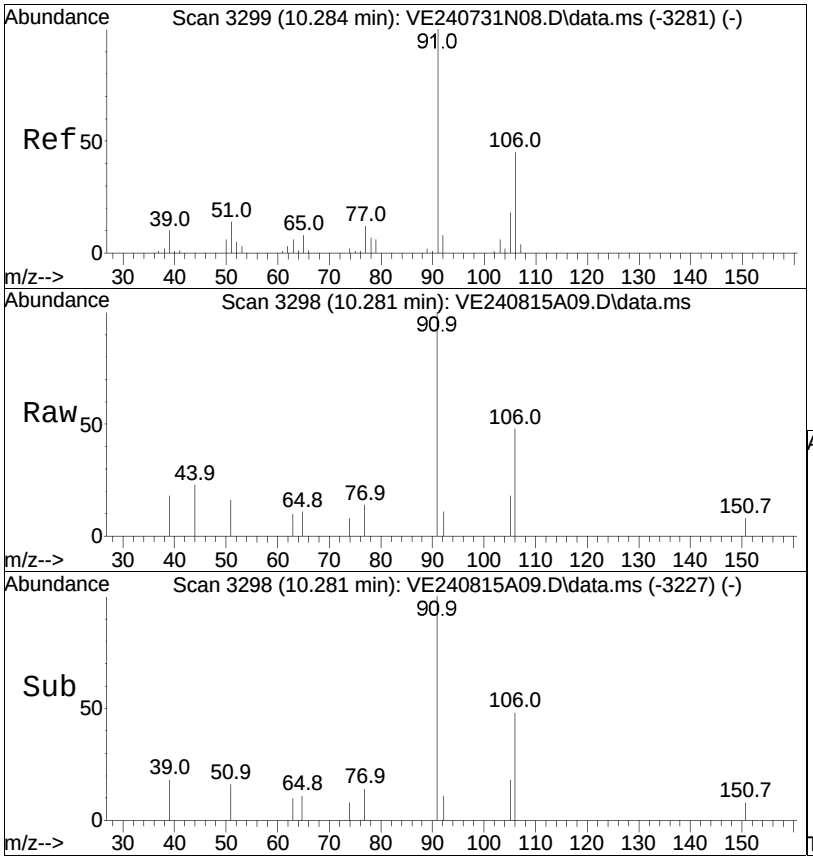


#81
p/m Xylene
Concen: 0.34 ug/L M1
RT: 9.732 min Scan# 3101
Delta R.T. -0.013 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion:106 Resp: 2252

Ion	Ratio	Lower	Upper
106	100		
91	215.5	163.3	244.9

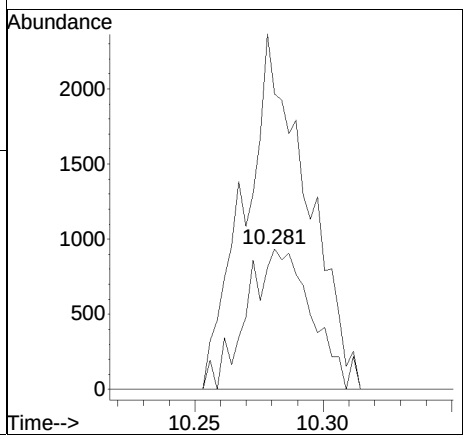


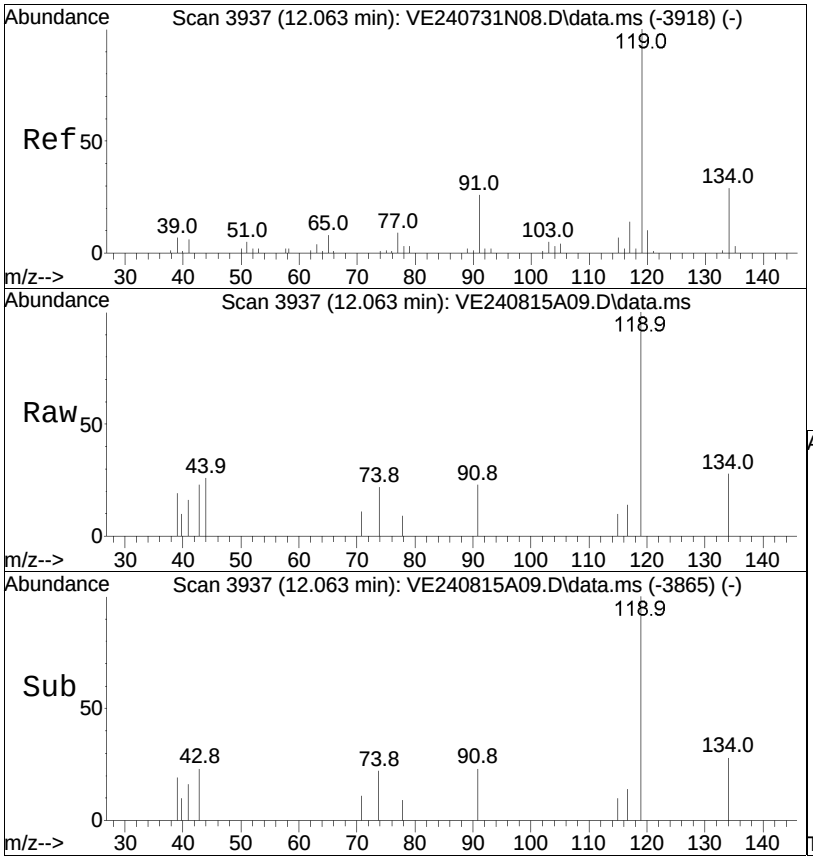


#82
o Xylene
Concen: 0.26 ug/L
RT: 10.281 min Scan# 3298
Delta R.T. -0.003 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion:106 Resp: 1655

Ion	Ratio	Lower	Upper
106	100		
91	241.4	181.0	271.6

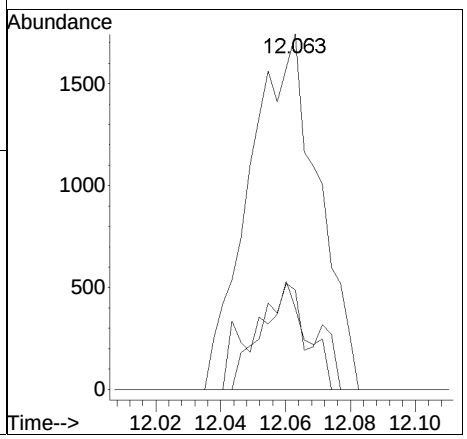


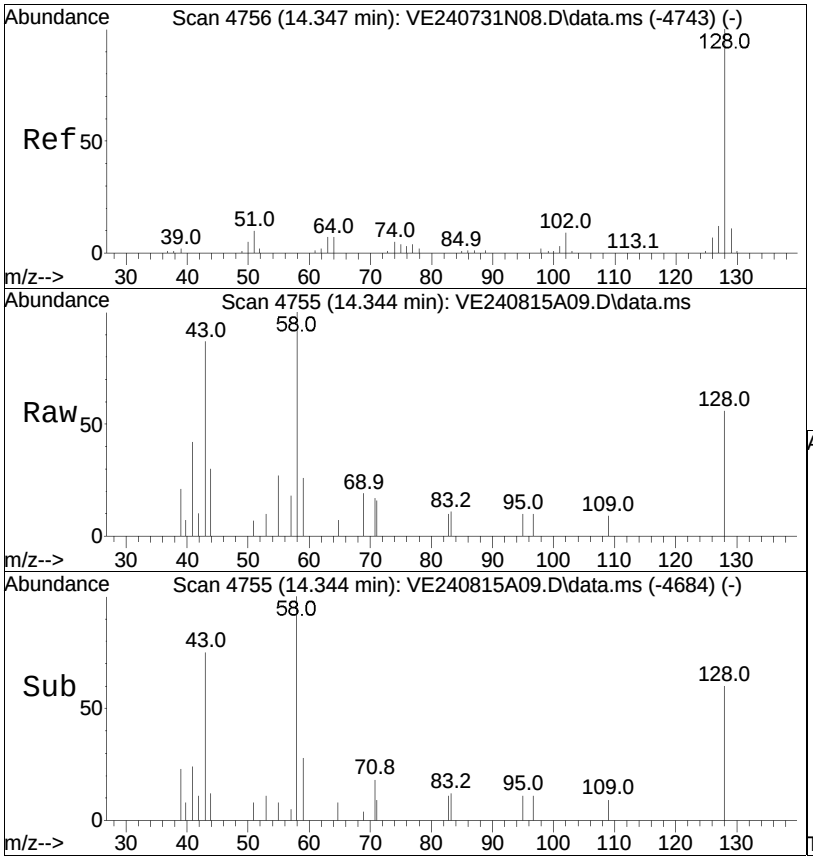


#104
p-Isopropyltoluene
Concen: 0.16 ug/L
RT: 12.063 min Scan# 3937
Delta R.T. -0.000 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

Tgt Ion:119 Resp: 2566

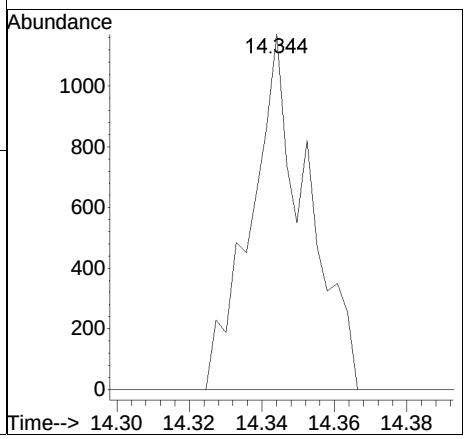
Ion	Ratio	Lower	Upper
119	100		
134	18.6	15.8	32.8
91	22.4	16.6	34.4





#115
Naphthalene
Concen: 0.10 ug/L
RT: 14.344 min Scan# 4755
Delta R.T. -0.003 min
Lab File: VE240815A09.D
Acq: 15 Aug 2024 9:54 am

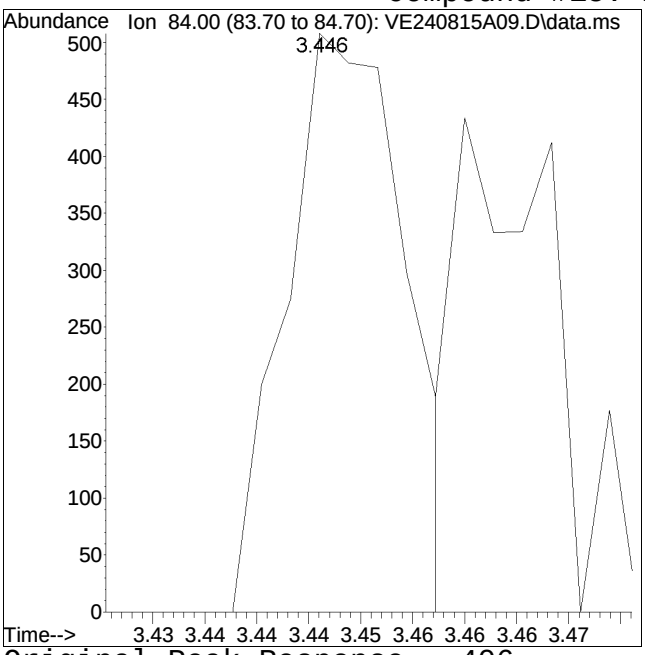
Tgt Ion:128 Resp: 1263



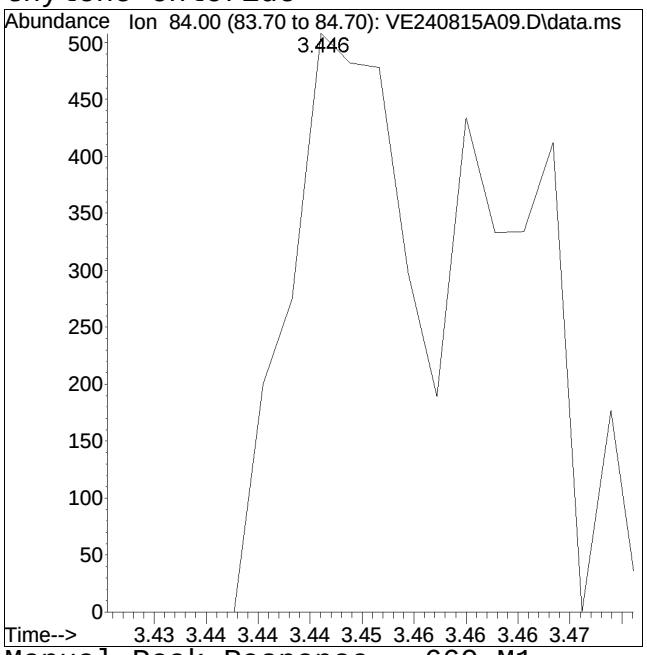
Manual Integration Report

Data Path : K:\Elaine\2024\240815A\ QMethod : Elaine_240731N_8260.m
Data File : VE240815A09.D Operator : ELAINE:PID
Date Inj'd : 8/15/2024 9:54 am Instrument : Elaine
Sample : L2446104-06D,31,5.0,10,,A, Quant Date : 8/15/2024 10:23 am

Compound #15: Methylene chloride



Original Peak Response = 406



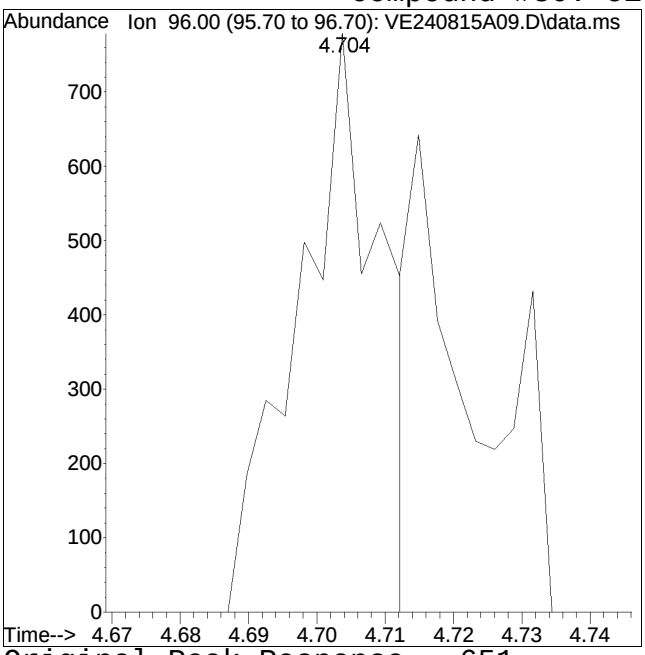
Manual Peak Response = 660 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

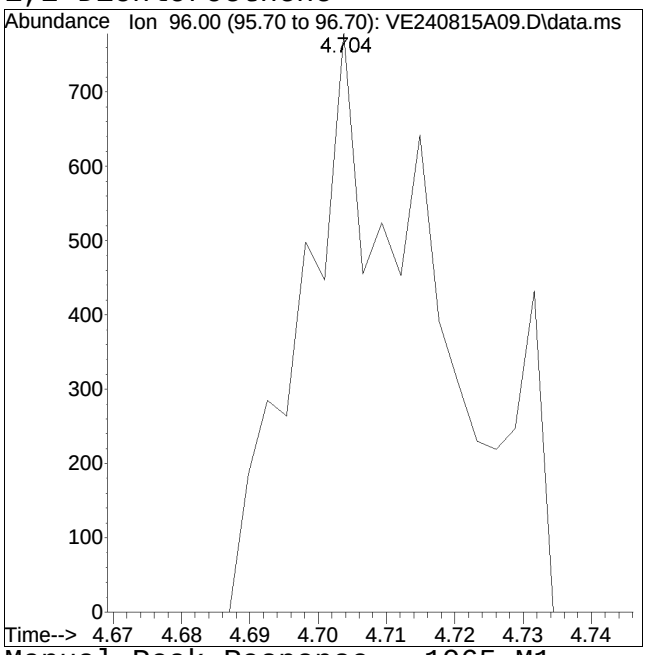
Manual Integration Report

Data Path : K:\Elaine\2024\240815A\ QMethod : Elaine_240731N_8260.m
Data File : VE240815A09.D Operator : ELAINE:PID
Date Inj'd : 8/15/2024 9:54 am Instrument : Elaine
Sample : L2446104-06D,31,5.0,10,,A, Quant Date : 8/15/2024 10:23 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 651



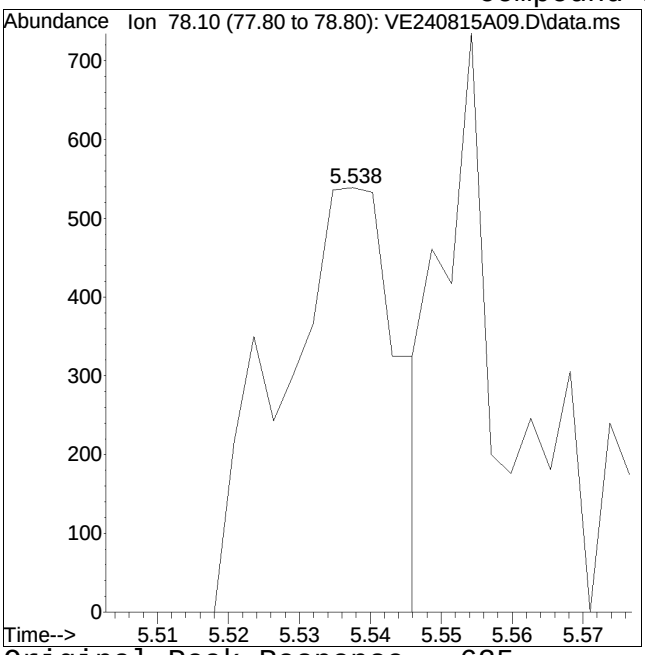
Manual Peak Response = 1065 M1

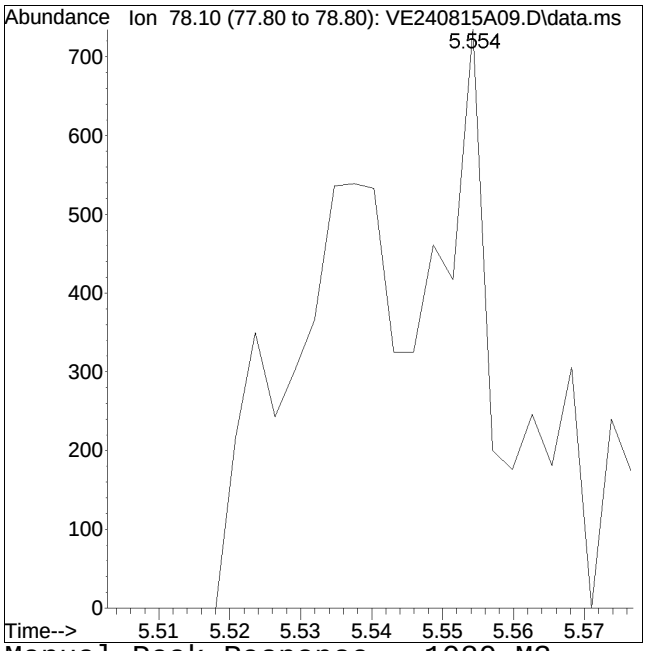
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240815A\ QMethod : Elaine_240731N_8260.m
Data File : VE240815A09.D Operator : ELAINE:PID
Date Inj'd : 8/15/2024 9:54 am Instrument : Elaine
Sample : L2446104-06D,31,5.0,10,,A, Quant Date : 8/15/2024 10:23 am

Compound #45: Benzene





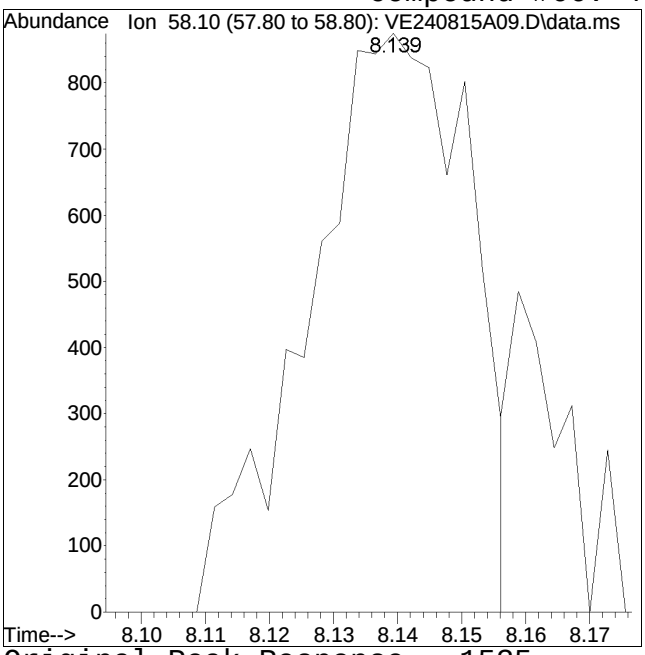
Original Peak Response = 625 Manual Peak Response = 1080 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

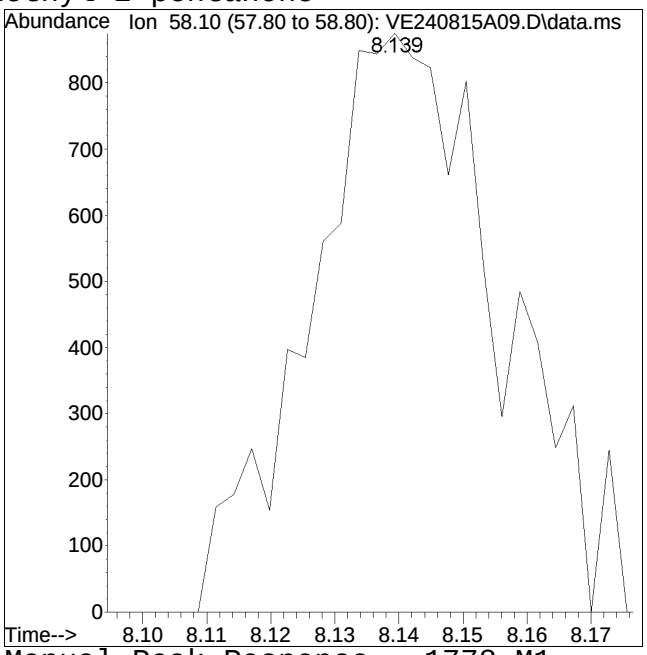
Manual Integration Report

Data Path : K:\Elaine\2024\240815A\ QMethod : Elaine_240731N_8260.m
Data File : VE240815A09.D Operator : ELAINE:PID
Date Inj'd : 8/15/2024 9:54 am Instrument : Elaine
Sample : L2446104-06D,31,5.0,10,,A, Quant Date : 8/15/2024 10:23 am

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 1535



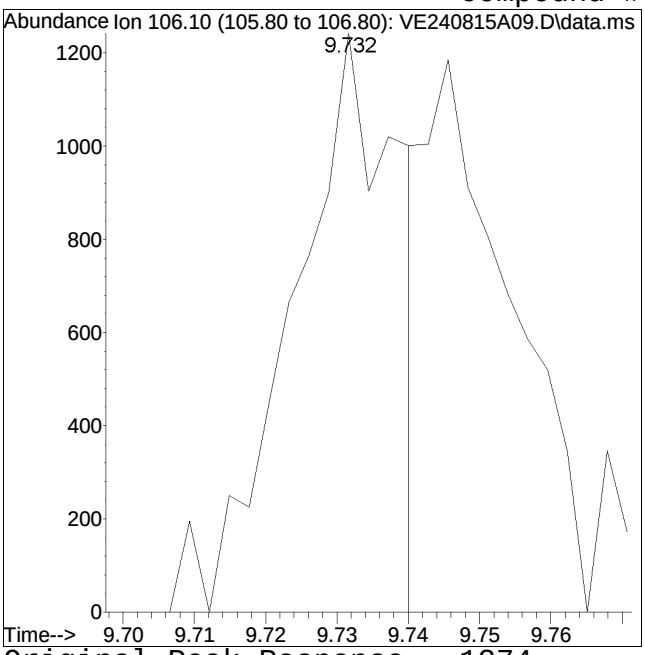
Manual Peak Response = 1778 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

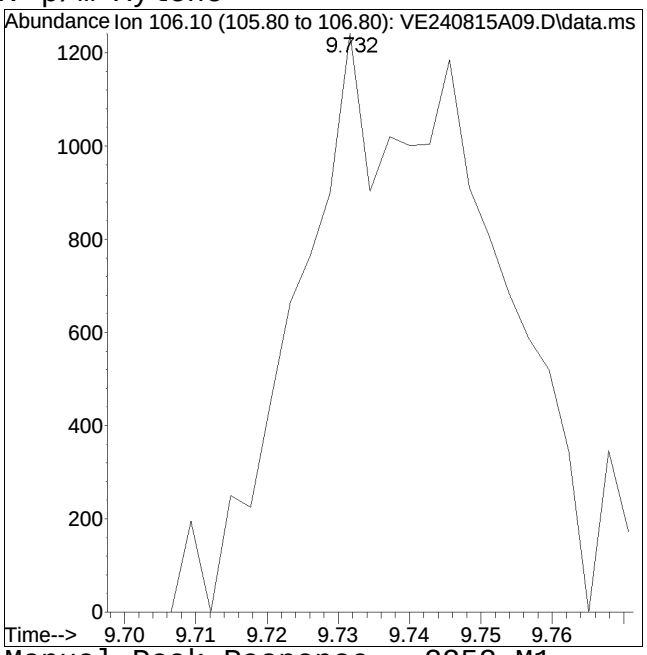
Manual Integration Report

Data Path : K:\Elaine\2024\240815A\ QMethod : Elaine_240731N_8260.m
Data File : VE240815A09.D Operator : ELAINE:PID
Date Inj'd : 8/15/2024 9:54 am Instrument : Elaine
Sample : L2446104-06D,31,5.0,10,,A, Quant Date : 8/15/2024 10:23 am

Compound #81: p/m Xylene



Original Peak Response = 1274



Manual Peak Response = 2252 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A06.D
Acq On : 15 Aug 2024 08:40 am
Operator : VOA122:PID
Sample : L2446104-01D,31,1.0,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:46:20 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.977	96	379579	10.000 ug/L	0.00
Standard Area 1 = 421161			Recovery = 90.13%		
62) Chlorobenzene-d5	9.519	117	330408	10.000 ug/L	0.00
Standard Area 1 = 360997			Recovery = 91.53%		
83) 1,4-Dichlorobenzene-d4	12.229	152	167182	10.000 ug/L	0.00
Standard Area 1 = 194587			Recovery = 85.92%		
System Monitoring Compounds					
38) Dibromofluoromethane	5.164	113	148487	11.196 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.96%		
46) 1,2-Dichloroethane-d4	5.688	65	102024	9.100 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.00%		
63) Toluene-d8	7.675	98	383643	9.113 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.13%		
87) 4-Bromofluorobenzene	11.012	95	122489	8.046 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.46%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	1.835	50	677	N.D.	
4) Vinyl chloride	1.881	62	409	N.D.	
5) Bromomethane	2.189	94	73	N.D.	
6) Chloroethane	2.228	64	278	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.962	76	1610	0.093 ug/L #	73
15) Methylene chloride	3.480	84	1631	0.234 ug/L #	51
17) Acetone	3.512	43	17849	14.065 ug/L	98
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	0.000		0	N.D. d	
30) cis-1,2-Dichloroethene	4.725	96	1107	0.163 ug/L #	79
31) 2,2-Dichloropropane	0.000		0	N.D.	
32) Bromochloromethane	0.000		0	N.D.	
34) Chloroform	0.000		0	N.D.	

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A06.D
Acq On : 15 Aug 2024 08:40 am
Operator : VOA122:PID
Sample : L2446104-01D,31,1.0,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:46:20 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.		
39) 1,1,1-Trichloroethane	0.000		0	N.D.		
41) 2-Butanone	5.269	43	741238	415.629	ug/L #	45
42) 1,1-Dichloropropene	0.000		0	N.D.		
44) Benzene	5.557	78	375	N.D.		
47) 1,2-Dichloroethane	0.000		0	N.D.		
51) Trichloroethene	0.000		0	N.D.		
53) Dibromomethane	0.000		0	N.D.		
54) 1,2-Dichloropropane	0.000		0	N.D.		
57) Bromodichloromethane	0.000		0	N.D.		
60) 1,4-Dioxane	0.000		0	N.D.		
61) cis-1,3-Dichloropropene	0.000		0	N.D.		
64) Toluene	7.724	92	1832	0.135	ug/L	100
65) 4-Methyl-2-pentanone	0.000		0	N.D.		
66) Tetrachloroethene	0.000		0	N.D.		
68) trans-1,3-Dichloropropene	0.000		0	N.D.		
71) 1,1,2-Trichloroethane	0.000		0	N.D.		
72) Chlorodibromomethane	0.000		0	N.D.		
73) 1,3-Dichloropropane	0.000		0	N.D.		
74) 1,2-Dibromoethane	0.000		0	N.D.		
76) 2-Hexanone	0.000		0	N.D.	d	
77) Chlorobenzene	0.000		0	N.D.		
78) Ethylbenzene	9.519	91	511	N.D.		
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
80) p/m Xylene	0.000		0	N.D.		
81) o Xylene	0.000		0	N.D.		
82) Styrene	0.000		0	N.D.		
84) Bromoform	0.000		0	N.D.		
86) Isopropylbenzene	0.000		0	N.D.		
88) Bromobenzene	0.000		0	N.D.		
89) n-Propylbenzene	11.012	91	334	N.D.		
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
92) 4-Ethyltoluene	0.000		0	N.D.		
93) 2-Chlorotoluene	0.000		0	N.D.		
94) 1,3,5-Trimethylbenzene	0.000		0	N.D.		
95) 1,2,3-Trichloropropane	0.000		0	N.D.		
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
97) 4-Chlorotoluene	0.000		0	N.D.		
98) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A06.D
Acq On : 15 Aug 2024 08:40 am
Operator : VOA122:PID
Sample : L2446104-01D,31,1.0,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:46:20 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	0.000		0	N.D.		
102) sec-Butylbenzene	0.000		0	N.D.		
103) p-Isopropyltoluene	0.000		0	N.D.		
104) 1,3-Dichlorobenzene	0.000		0	N.D.		
105) 1,4-Dichlorobenzene	0.000		0	N.D.		
106) p-Diethylbenzene	0.000		0	N.D.		
107) n-Butylbenzene	0.000		0	N.D.		
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
114) Naphthalene	14.387	128	76	0.289	ug/L	100
115) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

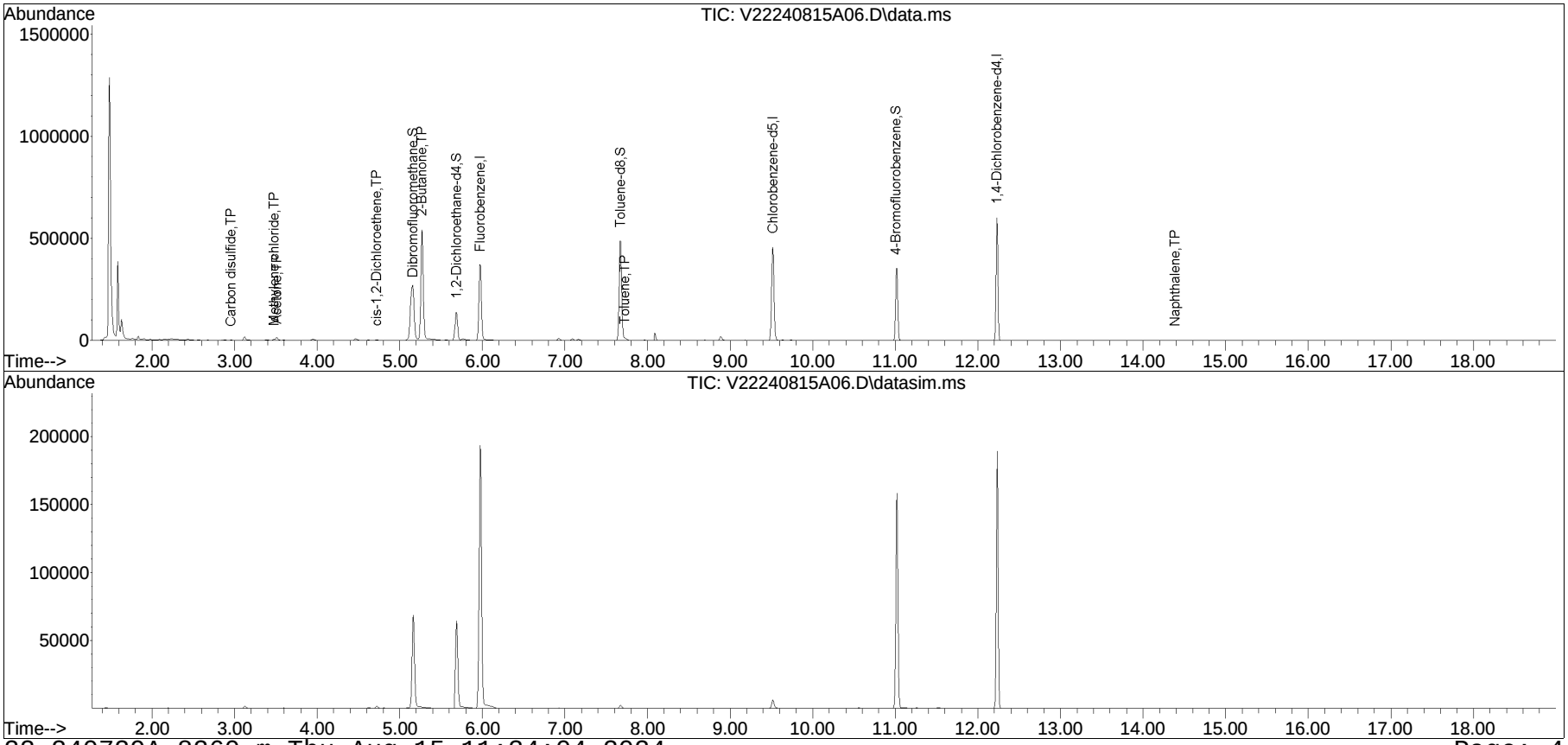
(#) = qualifier out of range (m) = manual integration (+) = signals summed

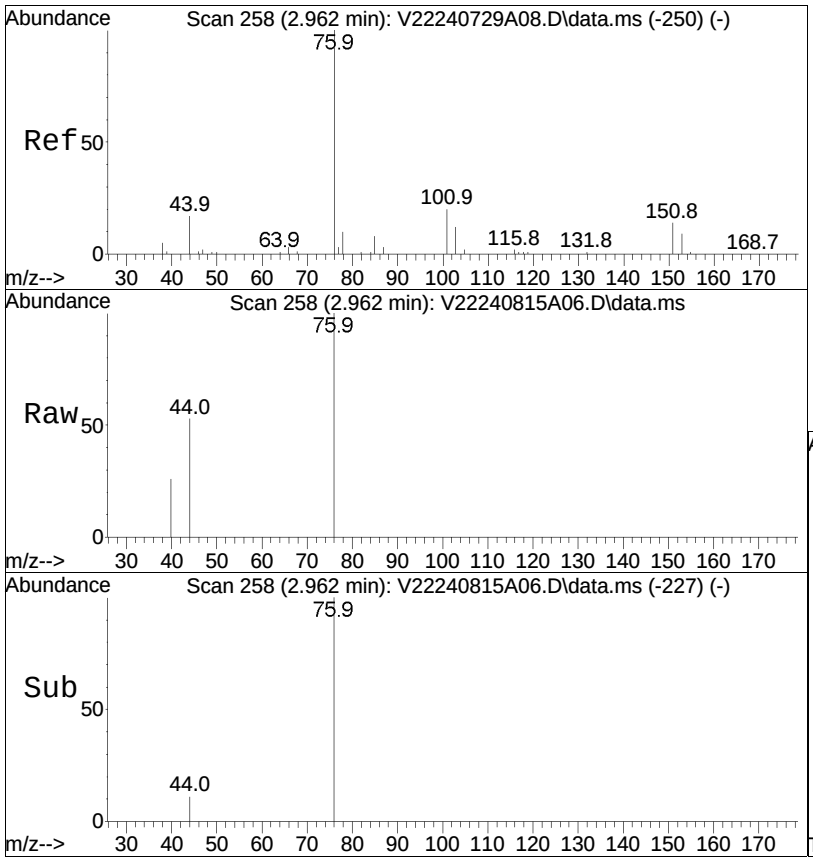
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A06.D
Acq On : 15 Aug 2024 08:40 am
Operator : VOA122:PID
Sample : L2446104-01D,31,1.0,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 15 09:46:20 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240815A02.D•

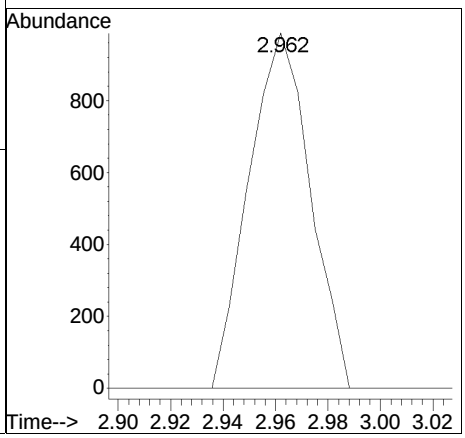


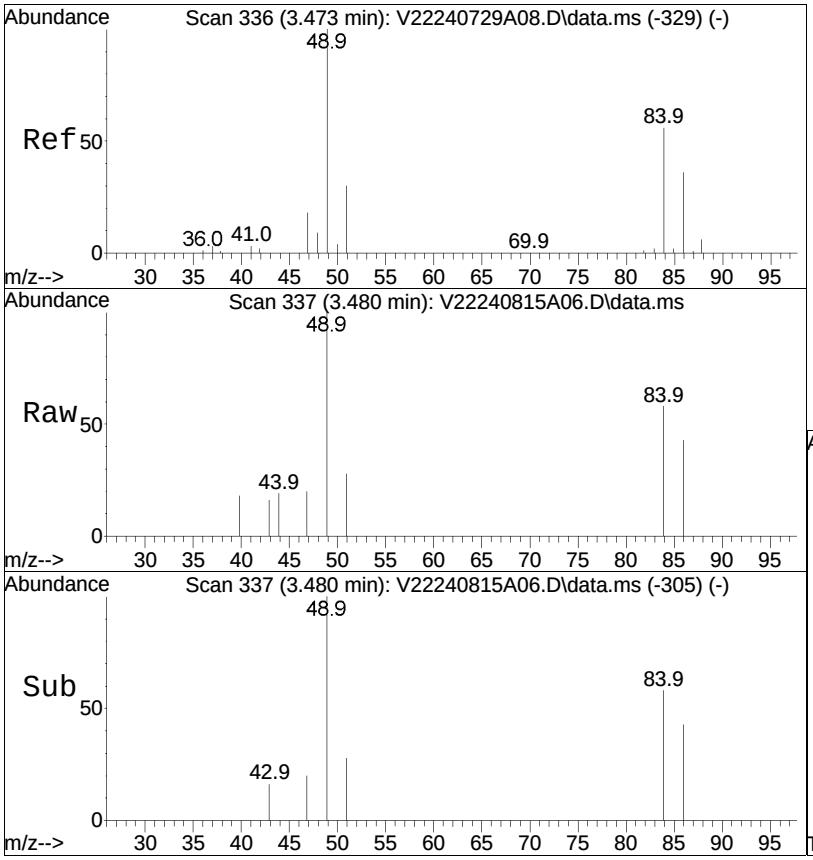


#11
Carbon disulfide
Concen: 0.09 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240815A06.D
Acq: 15 Aug 2024 08:40 am

Tgt Ion: 76 Resp: 1610

Ion	Ratio	Lower	Upper
76	100		
78	0.0	6.4	13.4#

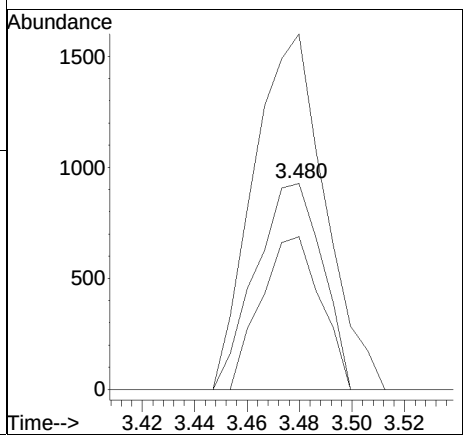


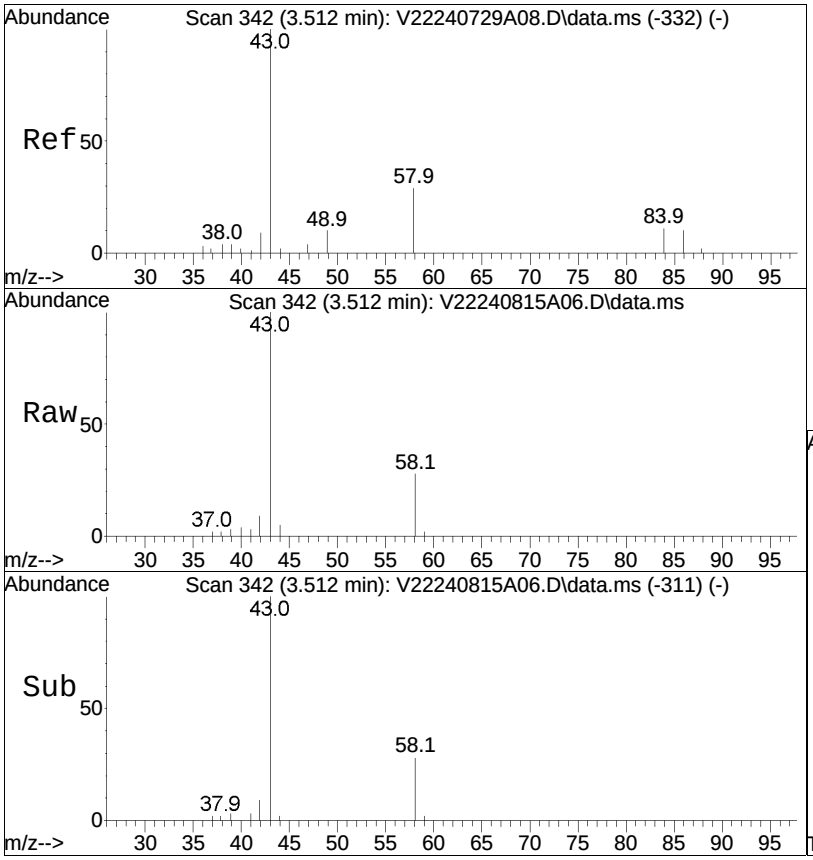


#15
Methylene chloride
Concen: 0.23 ug/L
RT: 3.480 min Scan# 337
Delta R.T. 0.007 min
Lab File: V22240815A06.D
Acq: 15 Aug 2024 08:40 am

Tgt Ion: 84 Resp: 1631

Ion	Ratio	Lower	Upper
84	100		
86	66.9	41.5	86.3
49	185.5	68.8	143.0#

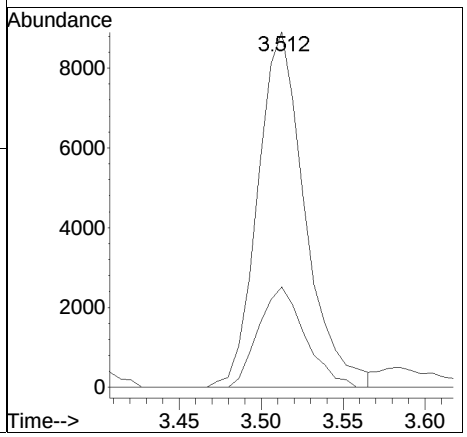


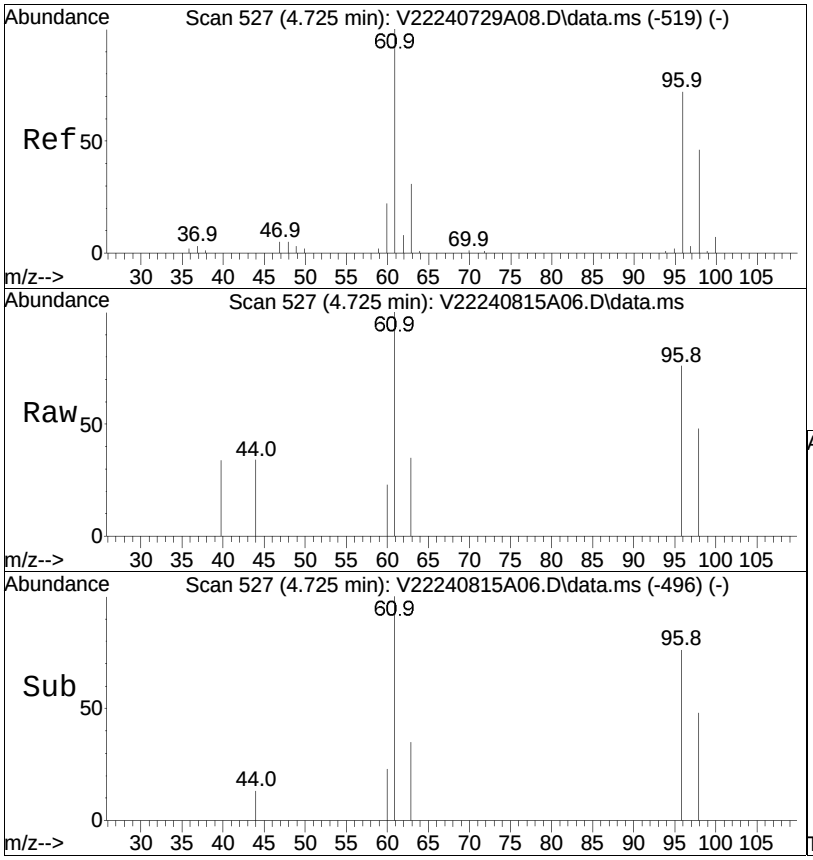


#17
Acetone
Concen: 14.06 ug/L
RT: 3.512 min Scan# 342
Delta R.T. 0.000 min
Lab File: V22240815A06.D
Acq: 15 Aug 2024 08:40 am

Tgt Ion: 43 Resp: 17849

Ion	Ratio	Lower	Upper
43	100		
58	27.9	23.1	34.7

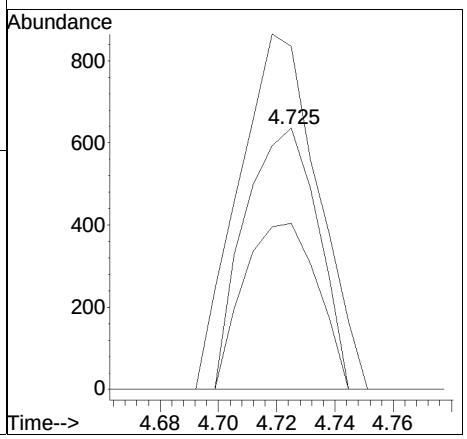


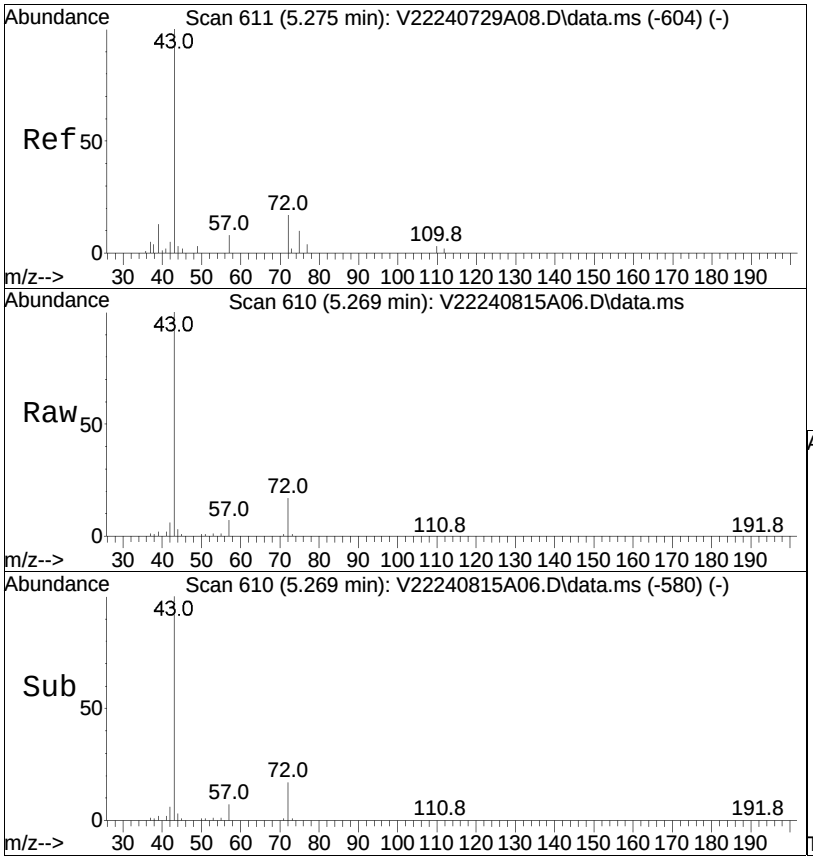


#30
cis-1,2-Dichloroethene
Concen: 0.16 ug/L
RT: 4.725 min Scan# 527
Delta R.T. -0.000 min
Lab File: V22240815A06.D
Acq: 15 Aug 2024 08:40 am

Tgt Ion: 96 Resp: 1107

Ion	Ratio	Lower	Upper
96	100		
61	147.6	90.3	135.5#
98	64.3	50.8	76.2

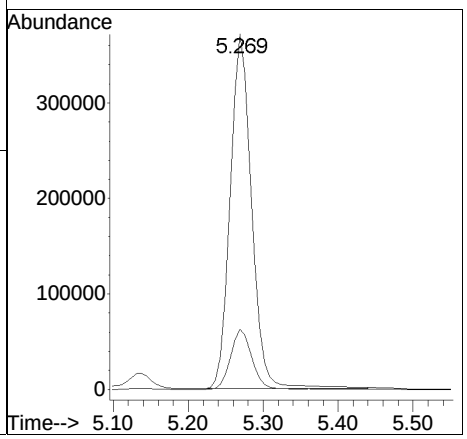


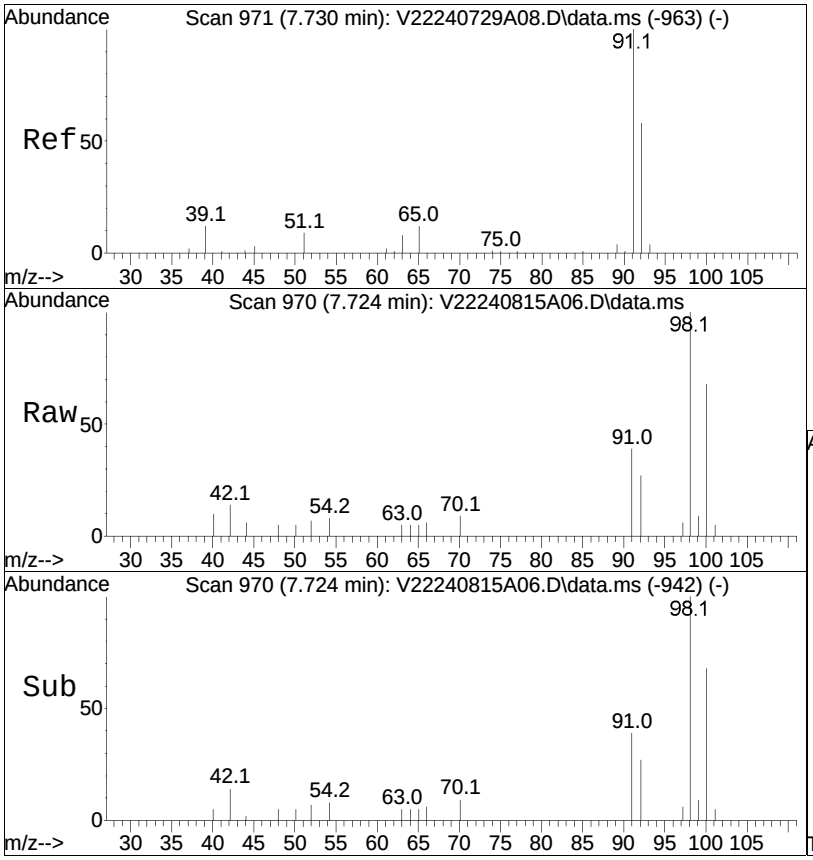


#41
2-Butanone
Concen: 415.63 ug/L
RT: 5.269 min Scan# 610
Delta R.T. -0.006 min
Lab File: V22240815A06.D
Acq: 15 Aug 2024 08:40 am

Tgt Ion: 43 Resp: 741238

Ion	Ratio	Lower	Upper
43	100		
72	16.8	45.8	68.8#

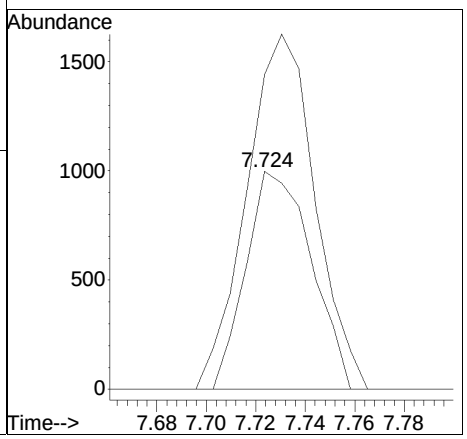


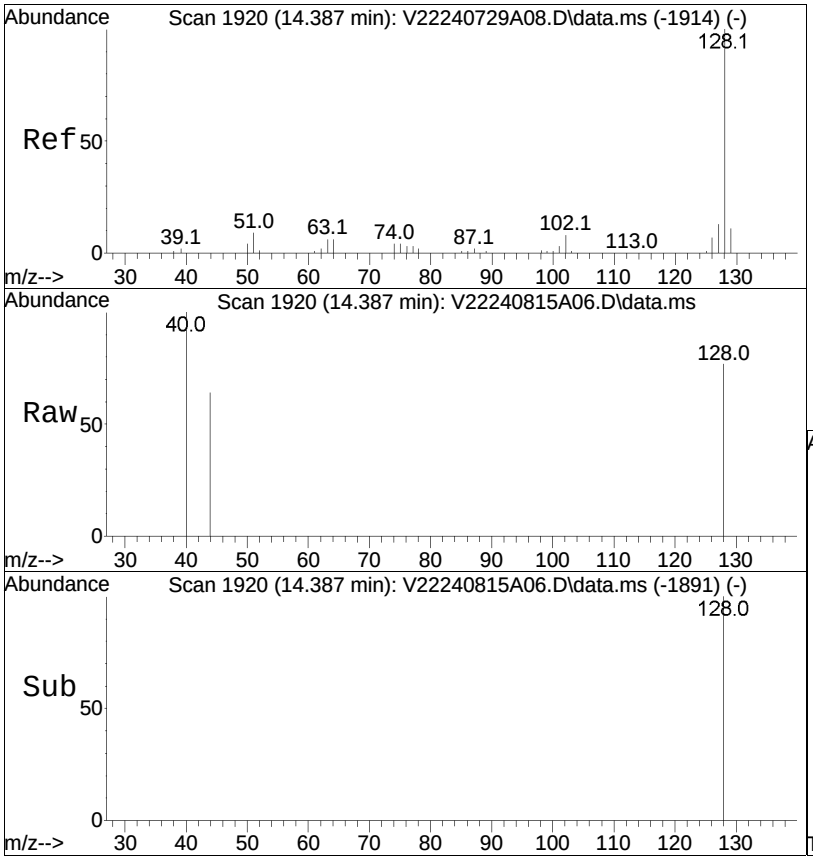


#64
Toluene
Concen: 0.13 ug/L
RT: 7.724 min Scan# 970
Delta R.T. -0.006 min
Lab File: V22240815A06.D
Acq: 15 Aug 2024 08:40 am

Tgt Ion: 92 Resp: 1832

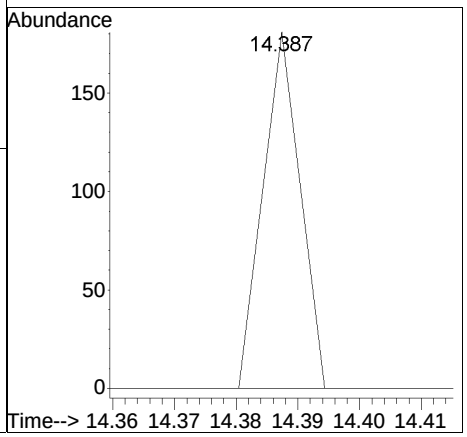
Ion	Ratio	Lower	Upper
92	100		
91	170.7	137.0	205.6





#114
Naphthalene
Concen: 0.29 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240815A06.D
Acq: 15 Aug 2024 08:40 am

Tgt Ion:128 Resp: 76



Manual Integration Report

Data Path	: K:\VOA122\2024\240815A\	QMethod	: V122_240729A_8260.m
Data File	: V22240815A06.D	Operator	: VOA122:PID
Date Inj'd	: 8/15/2024 8:40 am	Instrument	: VOA 122
Sample	: L2446104-01D,31,1.0,10,,A,	Quant Date	: 8/15/2024 9:46 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A07.D
Acq On : 15 Aug 2024 09:05 am
Operator : VOA122:PID
Sample : L2446104-03D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:47:16 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.970	96	365945	10.000	ug/L	0.00
Standard Area 1 = 421161			Recovery = 86.89%			
62) Chlorobenzene-d5	9.519	117	324798	10.000	ug/L	0.00
Standard Area 1 = 360997			Recovery = 89.97%			
83) 1,4-Dichlorobenzene-d4	12.229	152	163985	10.000	ug/L	0.00
Standard Area 1 = 194587			Recovery = 84.27%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.157	113	141110	11.036	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.36%			
46) 1,2-Dichloroethane-d4	5.682	65	99604	9.215	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.15%			
63) Toluene-d8	7.668	98	374433	9.048	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.48%			
87) 4-Bromofluorobenzene	11.012	95	119835	8.025	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.25%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.	d	
4) Vinyl chloride	1.887	62	124	N.D.		
5) Bromomethane	2.182	94	61	N.D.		
6) Chloroethane	2.195	64	147	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.955	76	3410	0.205	ug/L #	85
15) Methylene chloride	3.480	84	626	0.093	ug/L #	48
17) Acetone	3.506	43	118222	96.628	ug/L	99
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.	d	
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A07.D
Acq On : 15 Aug 2024 09:05 am
Operator : VOA122:PID
Sample : L2446104-03D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:47:16 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.		
39) 1,1,1-Trichloroethane	0.000		0	N.D.		
41) 2-Butanone	5.269	43	181590	105.615	ug/L #	45
42) 1,1-Dichloropropene	0.000		0	N.D.		
44) Benzene	5.551	78	2036	0.088	ug/L #	63
47) 1,2-Dichloroethane	0.000		0	N.D.		
51) Trichloroethene	0.000		0	N.D.		
53) Dibromomethane	0.000		0	N.D.		
54) 1,2-Dichloropropane	0.000		0	N.D.		
57) Bromodichloromethane	0.000		0	N.D.		
60) 1,4-Dioxane	0.000		0	N.D.		
61) cis-1,3-Dichloropropene	0.000		0	N.D.		
64) Toluene	7.730	92	11212	0.838	ug/L	97
65) 4-Methyl-2-pentanone	8.168	58	363	0.339	ug/L #	1
66) Tetrachloroethene	0.000		0	N.D.		
68) trans-1,3-Dichloropropene	0.000		0	N.D.		
71) 1,1,2-Trichloroethane	0.000		0	N.D.		
72) Chlorodibromomethane	0.000		0	N.D.		
73) 1,3-Dichloropropane	0.000		0	N.D.		
74) 1,2-Dibromoethane	0.000		0	N.D.		
76) 2-Hexanone	0.000		0	N.D. d		
77) Chlorobenzene	9.701	112	711	N.D.		
78) Ethylbenzene	9.582	91	3225	0.128	ug/L	97
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
80) p/m Xylene	9.771	106	733	0.075	ug/L	95
81) o Xylene	10.304	106	435	N.D.		
82) Styrene	10.374	104	144	N.D.		
84) Bromoform	0.000		0	N.D.		
86) Isopropylbenzene	0.000		0	N.D.		
88) Bromobenzene	0.000		0	N.D.		
89) n-Propylbenzene	11.188	91	70	N.D.		
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
92) 4-Ethyltoluene	11.293	105	297	N.D.		
93) 2-Chlorotoluene	11.188	91	70	N.D.		
94) 1,3,5-Trimethylbenzene	11.293	105	297	N.D.		
95) 1,2,3-Trichloropropane	0.000		0	N.D.		
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d		
97) 4-Chlorotoluene	0.000		0	N.D.		
98) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A07.D
Acq On : 15 Aug 2024 09:05 am
Operator : VOA122:PID
Sample : L2446104-03D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:47:16 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	291	N.D.		
102) sec-Butylbenzene	0.000		0	N.D. d		
103) p-Isopropyltoluene	0.000		0	N.D.		
104) 1,3-Dichlorobenzene	12.243	146	69	N.D.		
105) 1,4-Dichlorobenzene	12.243	146	69	N.D.		
106) p-Diethylbenzene	0.000		0	N.D.		
107) n-Butylbenzene	0.000		0	N.D.		
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
114) Naphthalene	14.387	128	401	0.312	ug/L	100
115) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

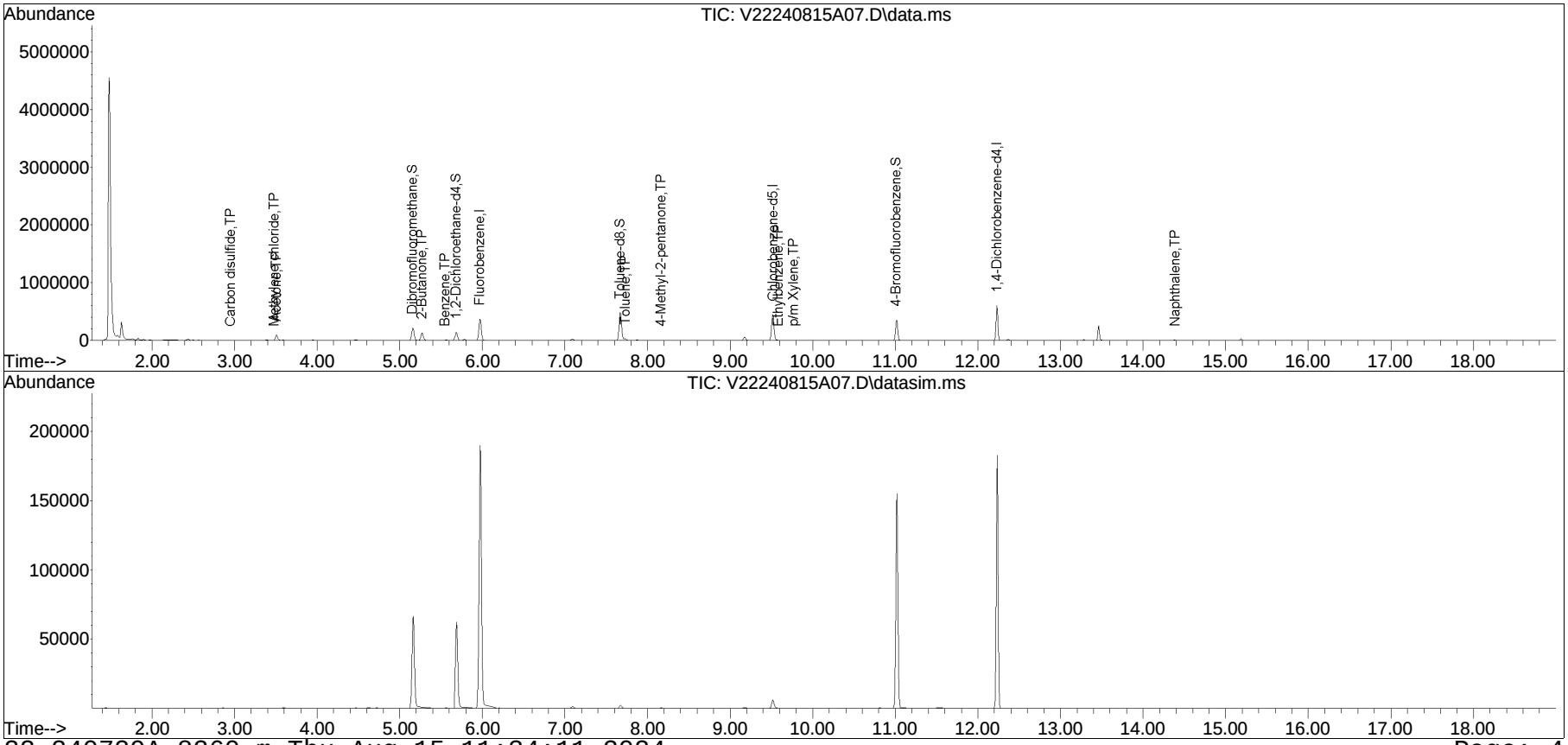
(#) = qualifier out of range (m) = manual integration (+) = signals summed

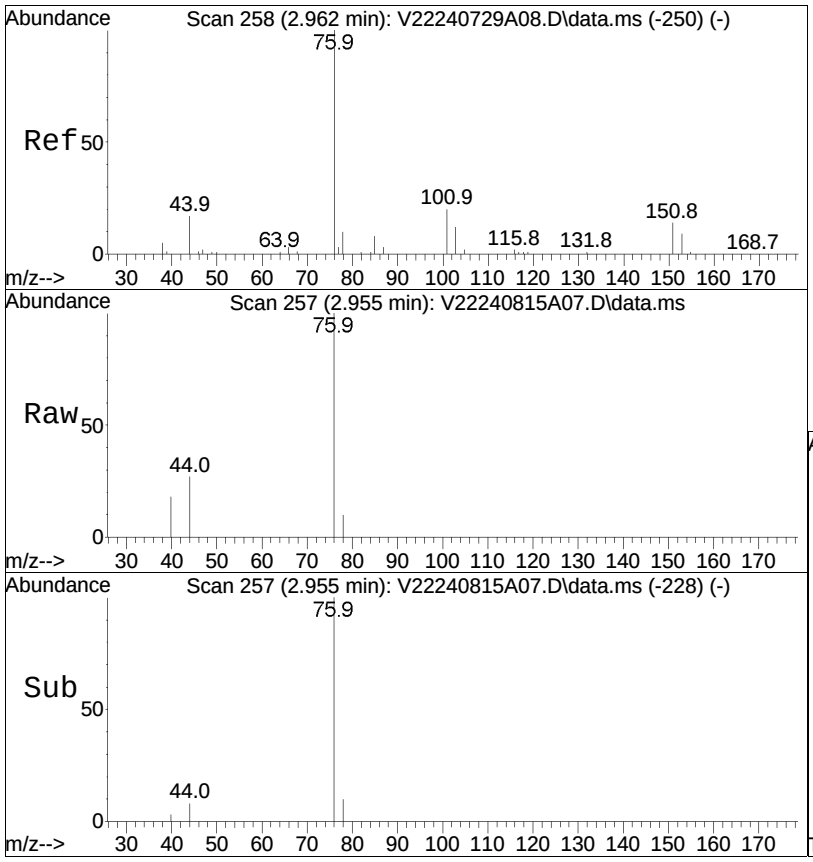
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A07.D
Acq On : 15 Aug 2024 09:05 am
Operator : VOA122:PID
Sample : L2446104-03D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 15 09:47:16 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240815A02.D•

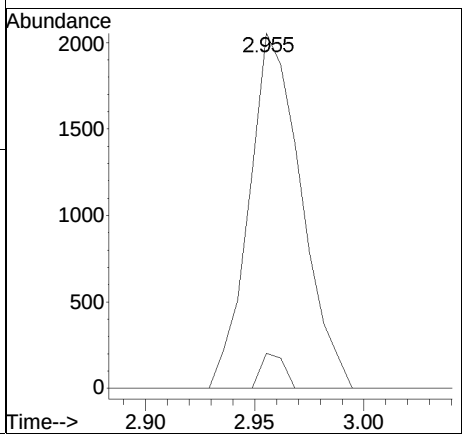


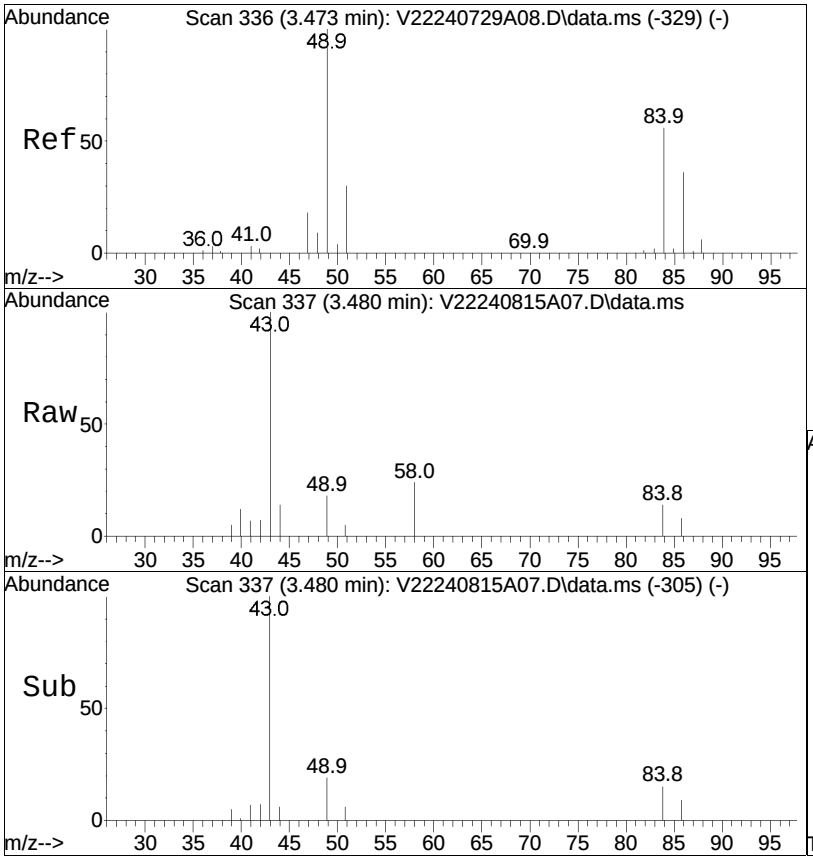


#11
Carbon disulfide
Concen: 0.21 ug/L
RT: 2.955 min Scan# 257
Delta R.T. -0.007 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 76 Resp: 3410

Ion	Ratio	Lower	Upper
76	100		
78	4.4	6.4	13.4#

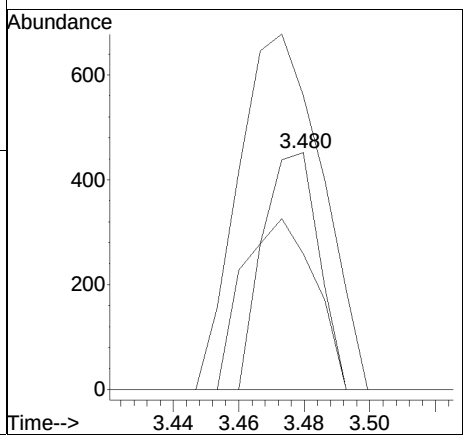


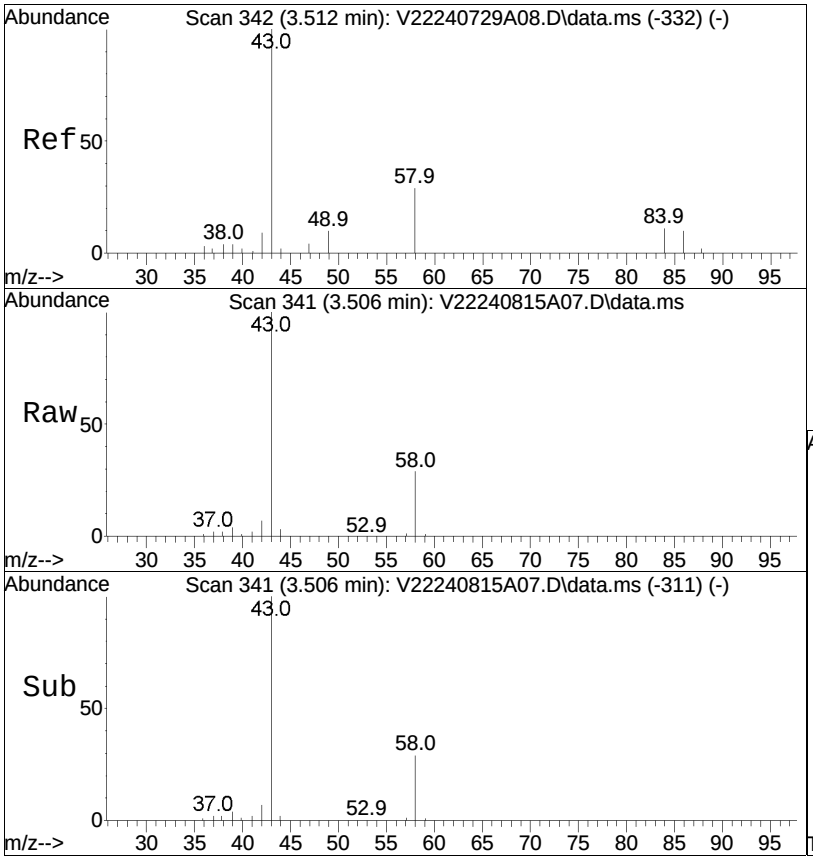


#15
Methylene chloride
Concen: 0.09 ug/L
RT: 3.480 min Scan# 337
Delta R.T. 0.007 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 84 Resp: 626

Ion	Ratio	Lower	Upper
84	100		
86	65.0	41.5	86.3
49	191.5	68.8	143.0#

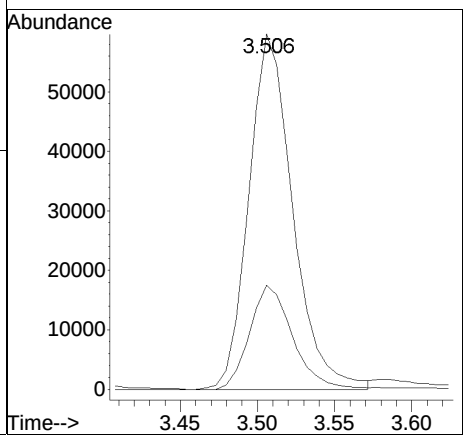


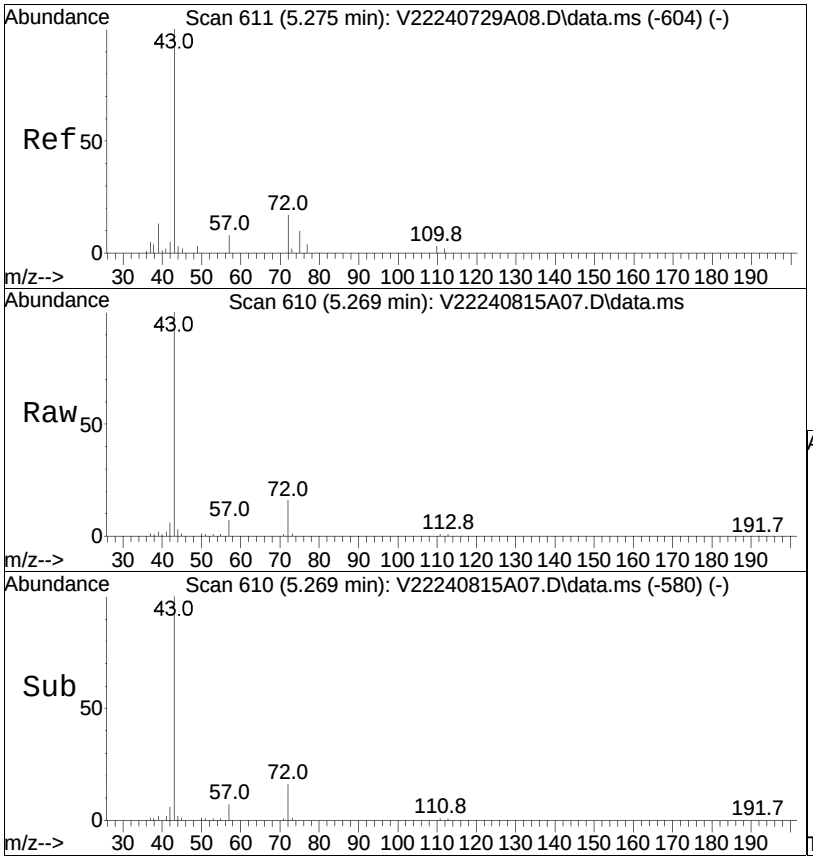


#17
Acetone
Concen: 96.63 ug/L
RT: 3.506 min Scan# 341
Delta R.T. -0.006 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 43 Resp: 118222

Ion	Ratio	Lower	Upper
43	100		
58	29.4	23.1	34.7

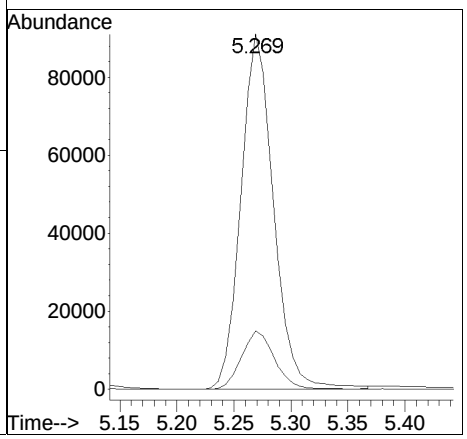


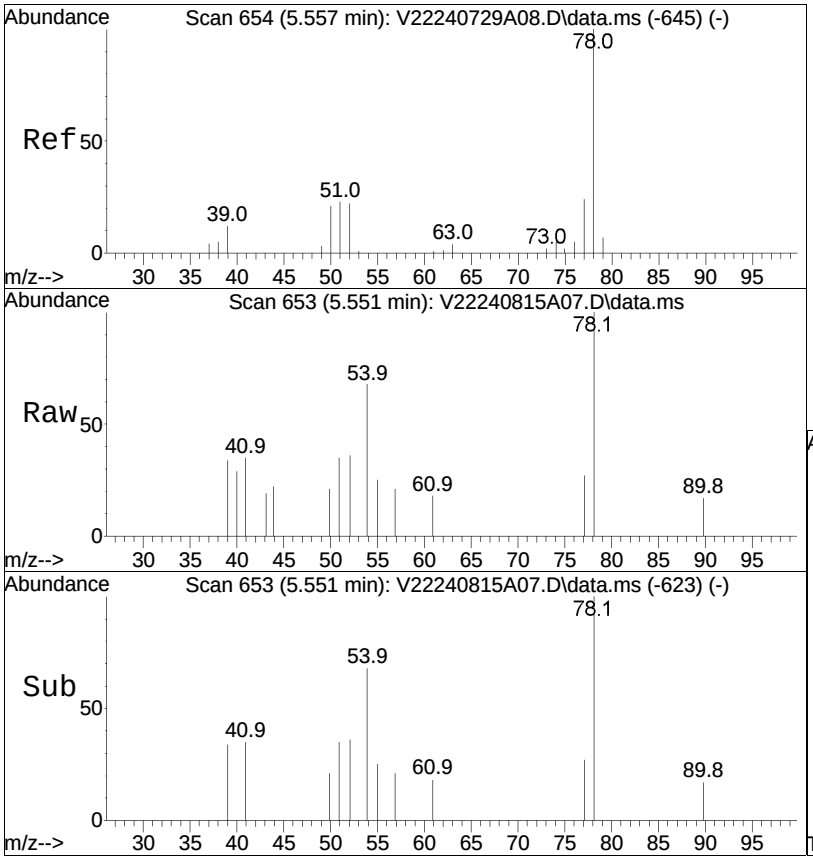


#41
2-Butanone
Concen: 105.62 ug/L
RT: 5.269 min Scan# 610
Delta R.T. -0.006 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 43 Resp: 181590

Ion	Ratio	Lower	Upper
43	100		
72	16.7	45.8	68.8#

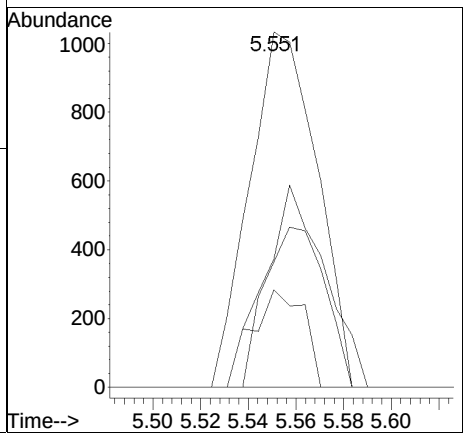


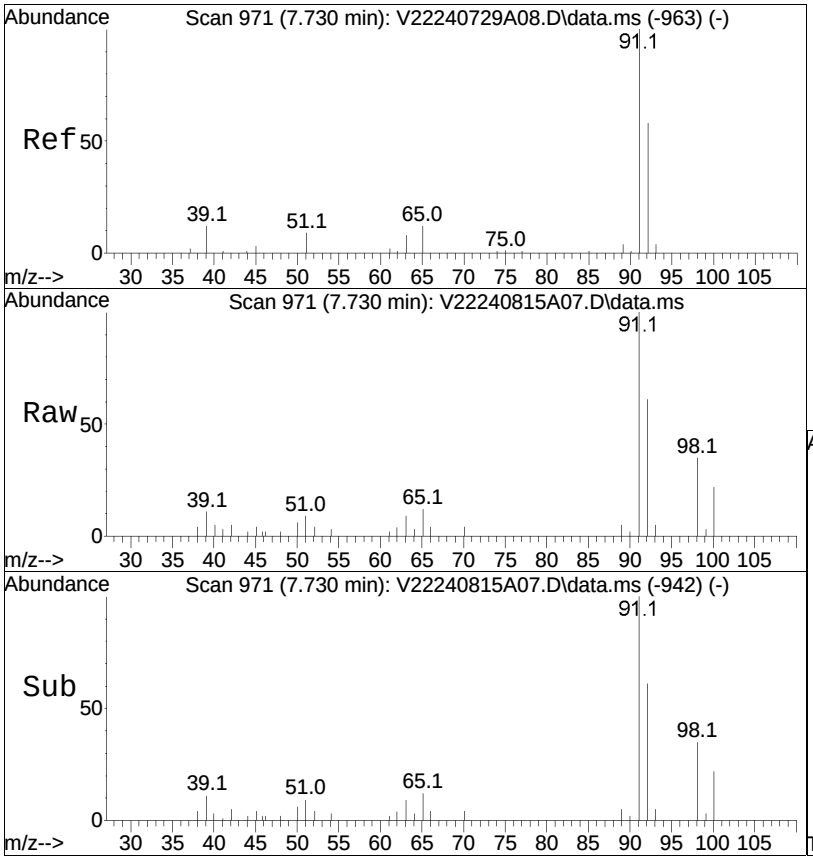


#44
Benzene
Concen: 0.09 ug/L
RT: 5.551 min Scan# 653
Delta R.T. -0.006 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 78 Resp: 2036

Ion	Ratio	Lower	Upper
78	100		
77	21.1	15.4	32.0
51	0.0	9.8	20.4#
52	50.9	9.2	19.2#

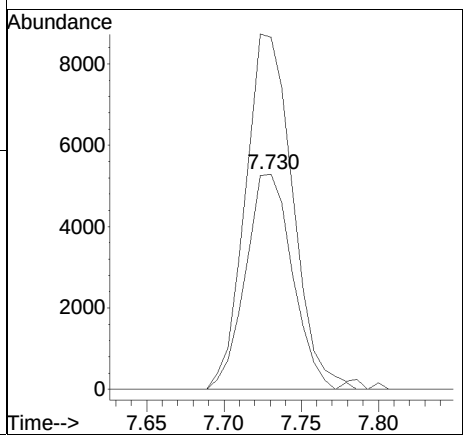


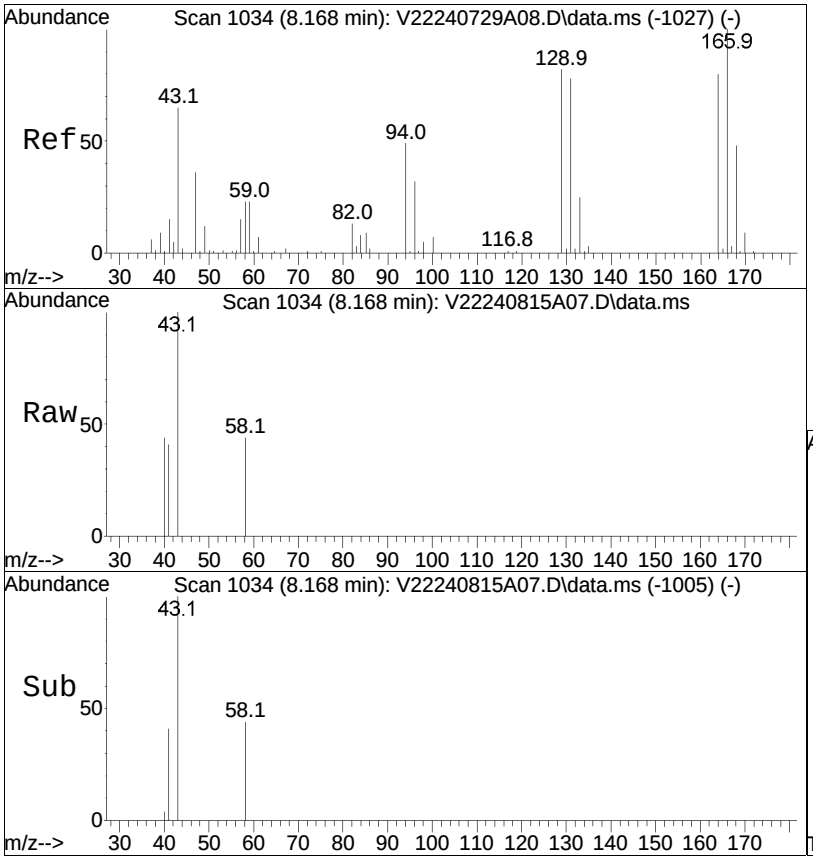


#64
Toluene
Concen: 0.84 ug/L
RT: 7.730 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 92 Resp: 11212

Ion	Ratio	Lower	Upper
92	100		
91	167.2	137.0	205.6

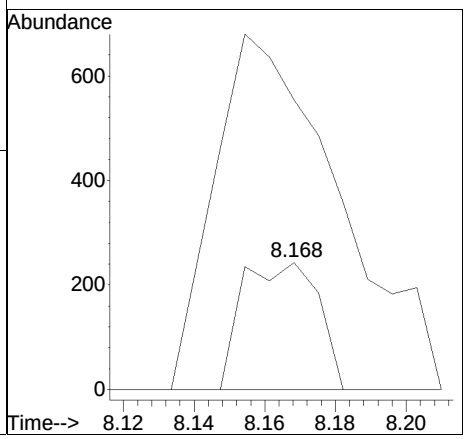


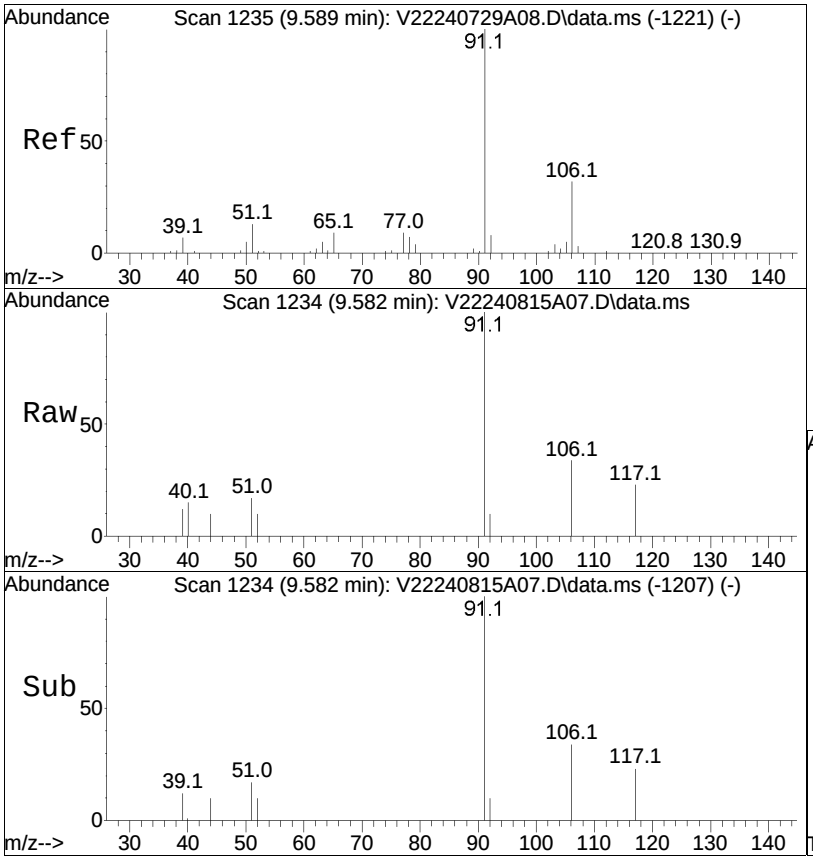


#65
4-Methyl-2-pentanone
Concen: 0.34 ug/L
RT: 8.168 min Scan# 1034
Delta R.T. 0.000 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 58 Resp: 363

Ion	Ratio	Lower	Upper
58	100		
100	0.0	36.2	54.4#
43	459.0	181.8	272.8#

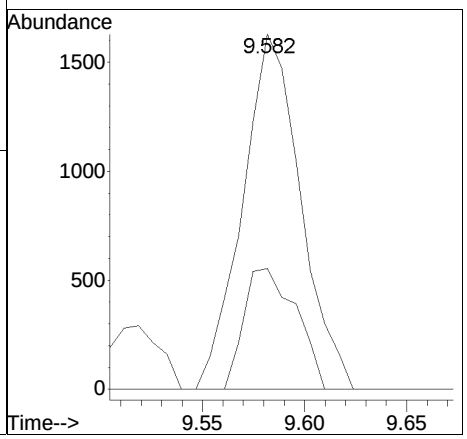


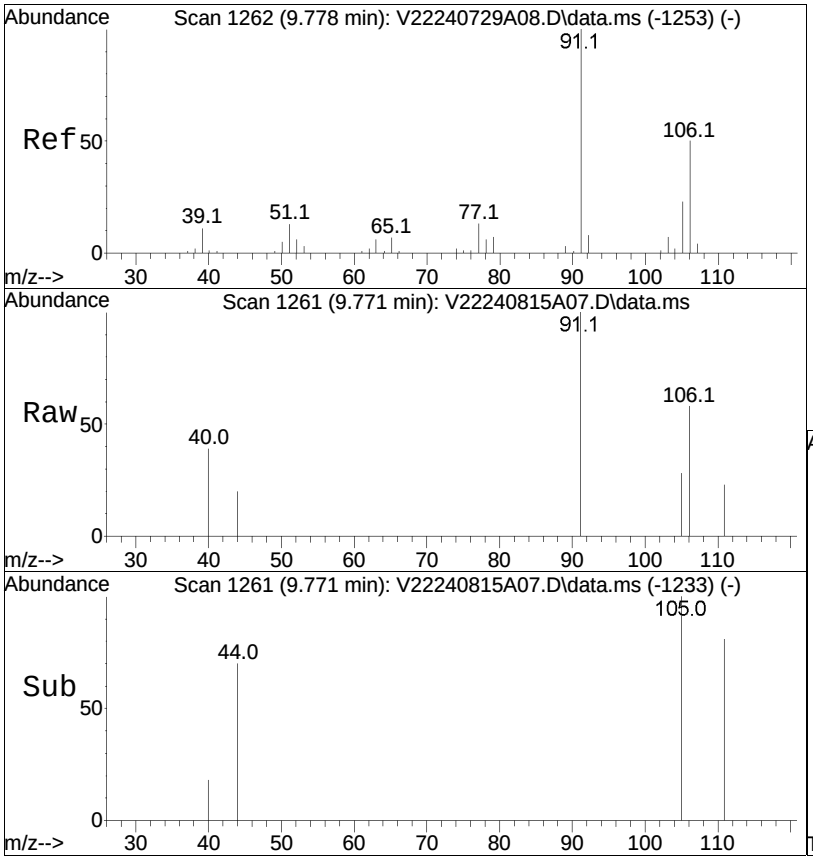


#78
Ethylbenzene
Concen: 0.13 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion: 91 Resp: 3225

Ion	Ratio	Lower	Upper
91	100		
106	30.6	25.8	38.6

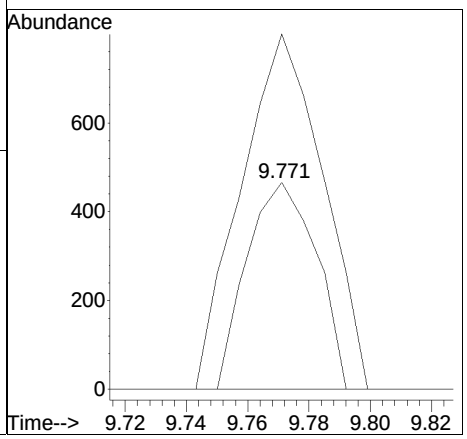


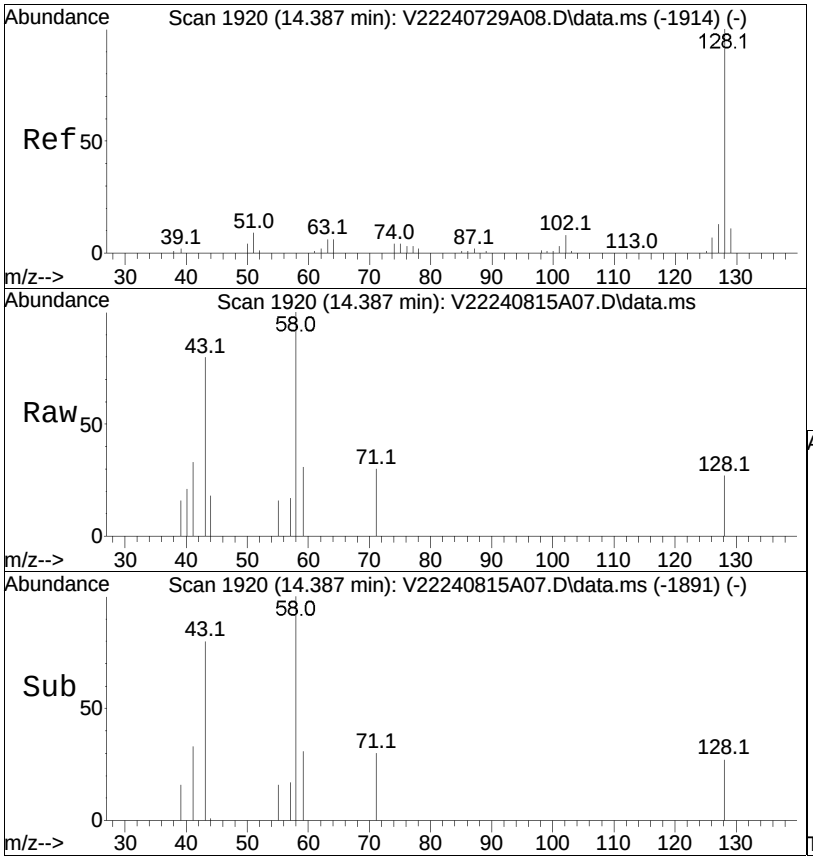


#80
p/m Xylene
Concen: 0.07 ug/L
RT: 9.771 min Scan# 1261
Delta R.T. -0.007 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion:106 Resp: 733

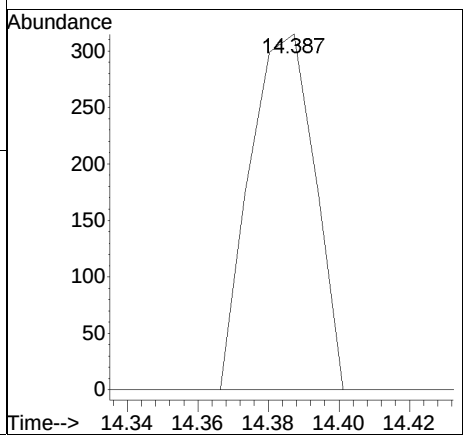
Ion	Ratio	Lower	Upper
106	100		
91	202.7	156.0	234.0





#114
Naphthalene
Concen: 0.31 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240815A07.D
Acq: 15 Aug 2024 09:05 am

Tgt Ion:128 Resp: 401



Manual Integration Report

Data Path	: K:\VOA122\2024\240815A\	QMethod	: V122_240729A_8260.m
Data File	: V22240815A07.D	Operator	: VOA122:PID
Date Inj'd	: 8/15/2024 9:05 am	Instrument	: VOA 122
Sample	: L2446104-03D,31,2.5,10,,A,	Quant Date	: 8/15/2024 9:46 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A08.D
Acq On : 15 Aug 2024 09:30 am
Operator : VOA122:PID
Sample : L2446104-02D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:50:39 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.970	96	342791	10.000	ug/L	0.00
Standard Area 1 = 421161			Recovery = 81.39%			
62) Chlorobenzene-d5	9.519	117	305113	10.000	ug/L	0.00
Standard Area 1 = 360997			Recovery = 84.52%			
83) 1,4-Dichlorobenzene-d4	12.230	152	159133	10.000	ug/L	0.00
Standard Area 1 = 194587			Recovery = 81.78%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.158	113	131358	10.967	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.67%			
46) 1,2-Dichloroethane-d4	5.682	65	95065	9.390	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.90%			
63) Toluene-d8	7.668	98	358207	9.214	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.14%			
87) 4-Bromofluorobenzene	11.013	95	114930	7.931	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 79.31%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	1.802	50	1520	0.168	ug/L #	94
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.195	94	123	N.D.		
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.962	76	3972	0.255	ug/L	92
15) Methylene chloride	3.473	84	4792	0.762	ug/L #	60
17) Acetone	3.506	43	87522	76.367	ug/L	100
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	4.476	43	294	N.D.		
30) cis-1,2-Dichloroethene	4.712	96	284	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A08.D
Acq On : 15 Aug 2024 09:30 am
Operator : VOA122:PID
Sample : L2446104-02D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:50:39 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.			
39) 1,1,1-Trichloroethane	0.000		0	N.D.			
41) 2-Butanone	5.269	43	188375	116.962	ug/L	#	45
42) 1,1-Dichloropropene	0.000		0	N.D.			
44) Benzene	5.558	78	4367	0.201	ug/L	#	82
47) 1,2-Dichloroethane	0.000		0	N.D.			
51) Trichloroethene	0.000		0	N.D.			
53) Dibromomethane	0.000		0	N.D.			
54) 1,2-Dichloropropane	0.000		0	N.D.			
57) Bromodichloromethane	0.000		0	N.D.			
60) 1,4-Dioxane	0.000		0	N.D.			
61) cis-1,3-Dichloropropene	0.000		0	N.D.			
64) Toluene	7.724	92	1462	0.116	ug/L		97
65) 4-Methyl-2-pentanone	8.162	58	949	0.944	ug/L	#	53
66) Tetrachloroethene	0.000		0	N.D.			
68) trans-1,3-Dichloropropene	0.000		0	N.D.			
71) 1,1,2-Trichloroethane	0.000		0	N.D.			
72) Chlorodibromomethane	0.000		0	N.D.			
73) 1,3-Dichloropropane	0.000		0	N.D.			
74) 1,2-Dibromoethane	0.000		0	N.D.			
76) 2-Hexanone	9.168	43	3482	1.863	ug/L	#	74
77) Chlorobenzene	0.000		0	N.D.			
78) Ethylbenzene	9.512	91	467	N.D.			
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
80) p/m Xylene	0.000		0	N.D.			
81) o Xylene	0.000		0	N.D.			
82) Styrene	0.000		0	N.D.			
84) Bromoform	0.000		0	N.D.			
86) Isopropylbenzene	0.000		0	N.D.			
88) Bromobenzene	0.000		0	N.D.			
89) n-Propylbenzene	11.020	91	278	N.D.			
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
92) 4-Ethyltoluene	0.000		0	N.D.			
93) 2-Chlorotoluene	0.000		0	N.D.			
94) 1,3,5-Trimethylbenzene	0.000		0	N.D.			
95) 1,2,3-Trichloropropane	0.000		0	N.D.			
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D.			
97) 4-Chlorotoluene	0.000		0	N.D.			
98) tert-Butylbenzene	0.000		0	N.D.			

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A08.D
Acq On : 15 Aug 2024 09:30 am
Operator : VOA122:PID
Sample : L2446104-02D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:50:39 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	0.000		0		N.D.	
102) sec-Butylbenzene	0.000		0		N.D.	
103) p-Isopropyltoluene	0.000		0		N.D.	
104) 1,3-Dichlorobenzene	0.000		0		N.D.	
105) 1,4-Dichlorobenzene	0.000		0		N.D.	
106) p-Diethylbenzene	0.000		0		N.D.	
107) n-Butylbenzene	0.000		0		N.D.	
108) 1,2-Dichlorobenzene	0.000		0		N.D.	
109) 1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112) Hexachlorobutadiene	0.000		0		N.D.	
113) 1,2,4-Trichlorobenzene	0.000		0		N.D.	
114) Naphthalene	0.000		0		N.D.	
115) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

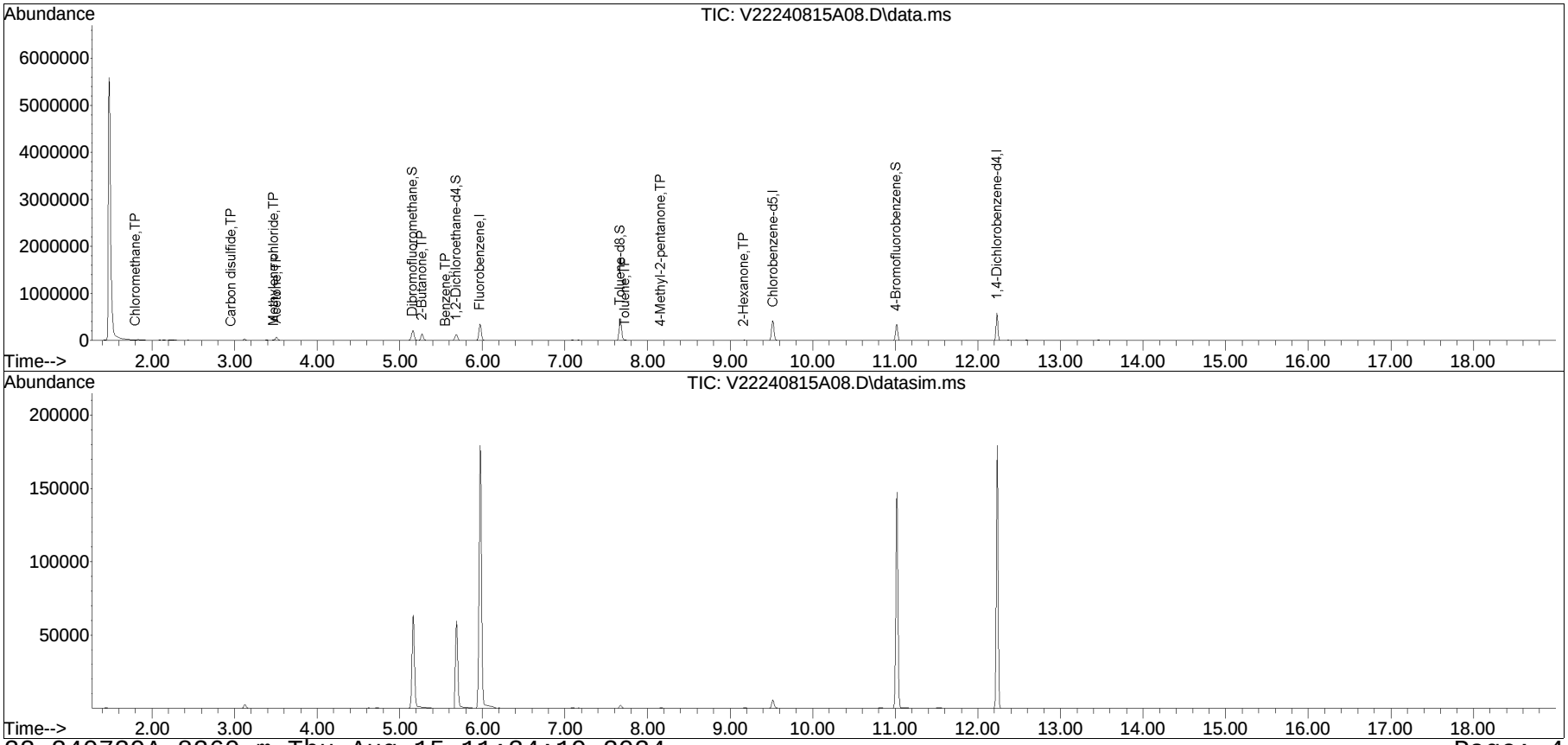
(#) = qualifier out of range (m) = manual integration (+) = signals summed

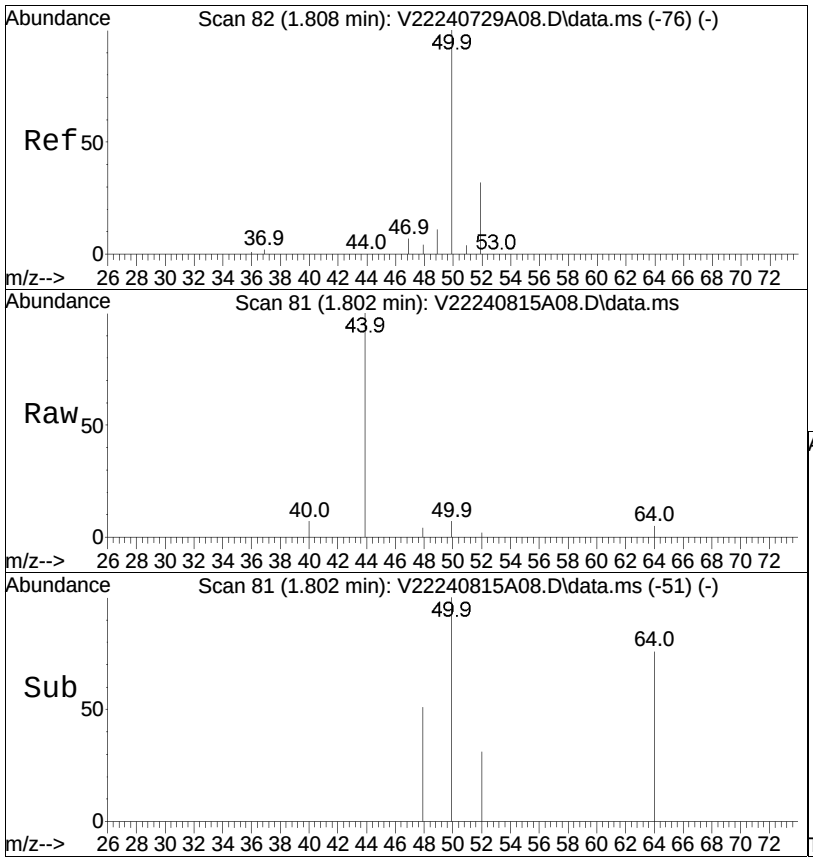
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A08.D
Acq On : 15 Aug 2024 09:30 am
Operator : VOA122:PID
Sample : L2446104-02D,31,2.5,10,,A,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 15 09:50:39 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox240815A02.D•

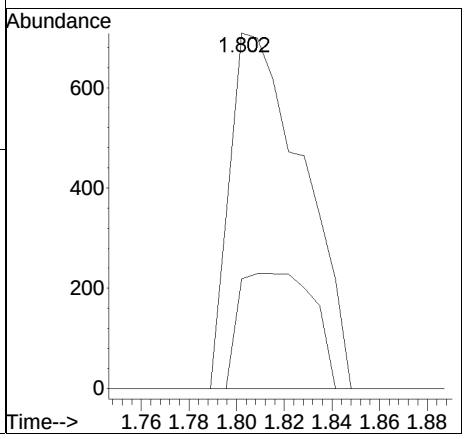


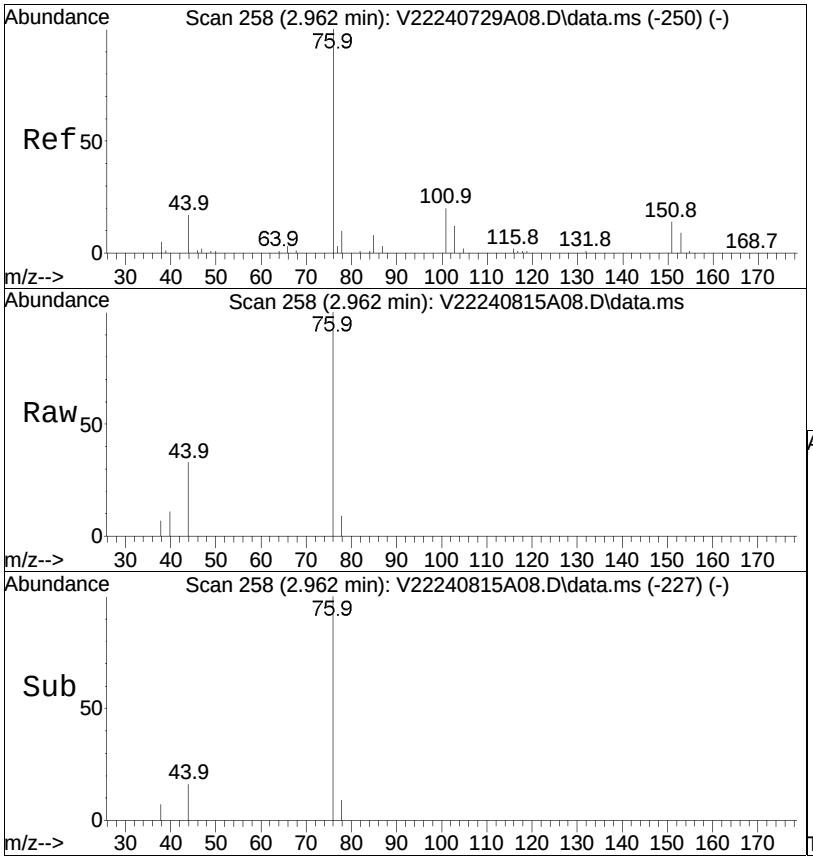


#3
Chloromethane
Concen: 0.17 ug/L
RT: 1.802 min Scan# 81
Delta R.T. -0.006 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 50 Resp: 1520

Ion	Ratio	Lower	Upper
50	100		
52	32.9	12.8	52.8
47	0.0	0.0	30.0

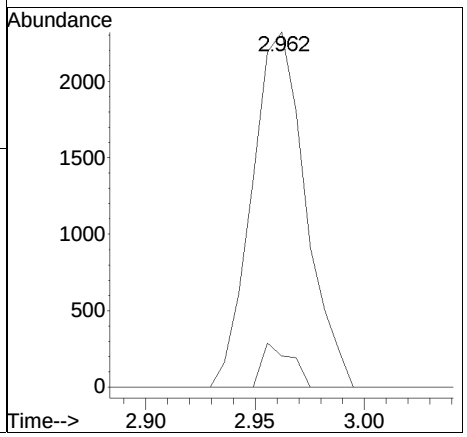


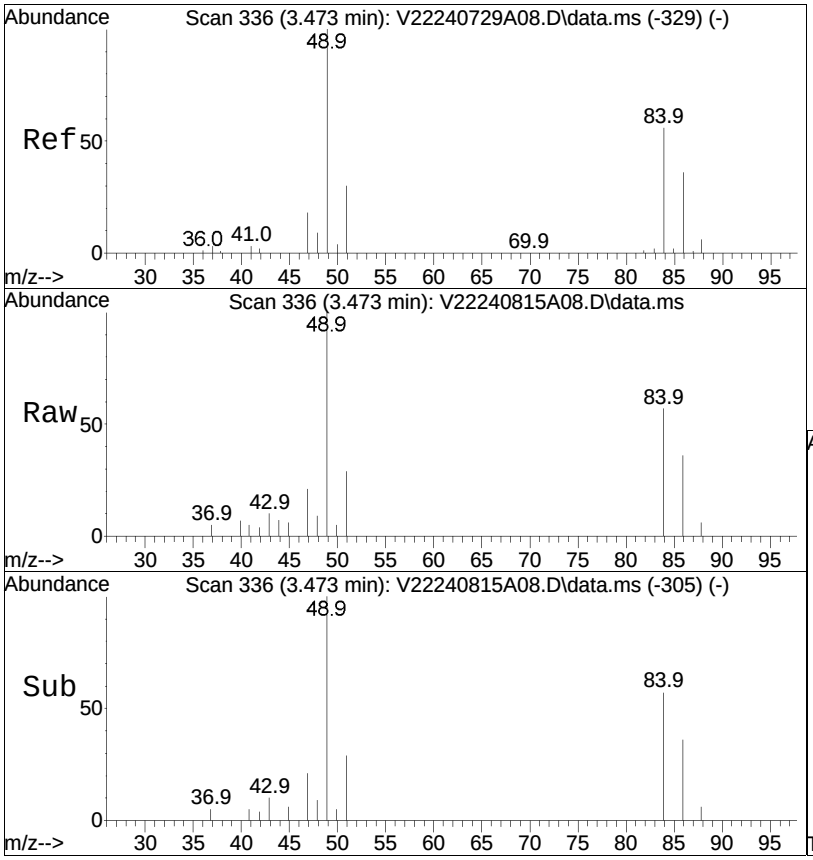


#11
Carbon disulfide
Concen: 0.25 ug/L
RT: 2.962 min Scan# 258
Delta R.T. 0.000 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 76 Resp: 3972

Ion	Ratio	Lower	Upper
76	100		
78	6.8	6.4	13.4

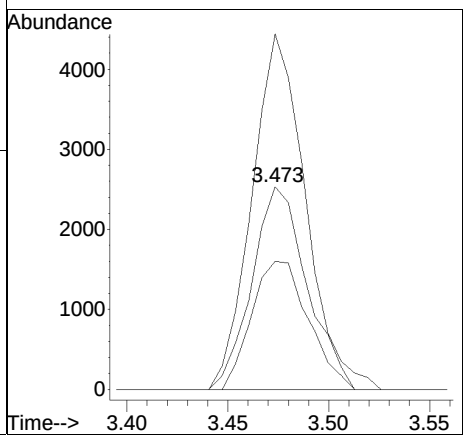


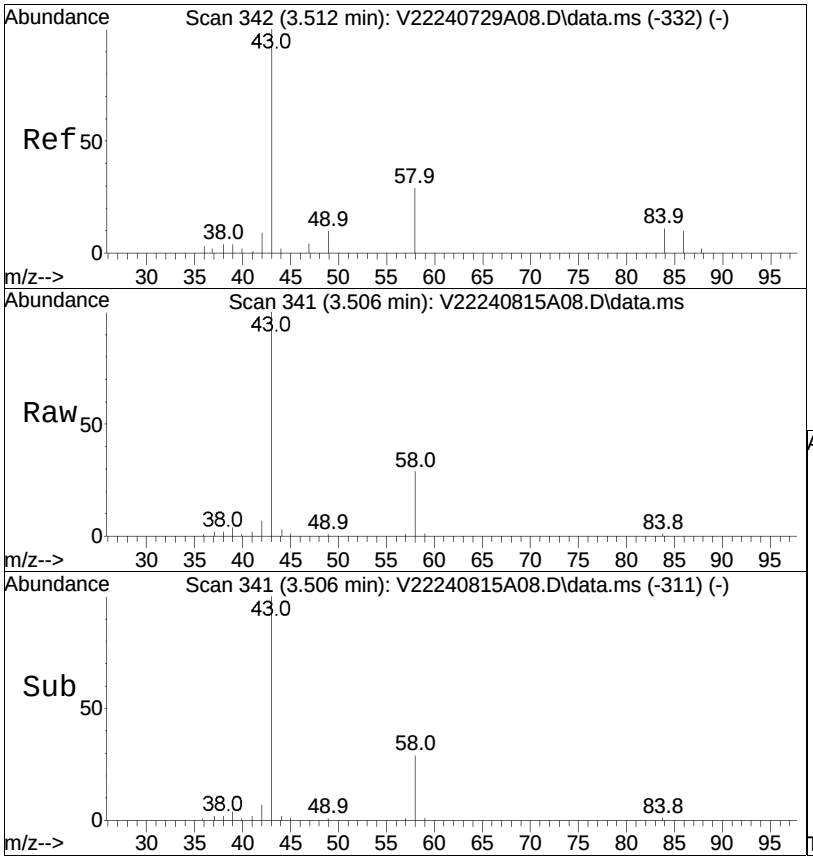


#15
Methylene chloride
Concen: 0.76 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 84 Resp: 4792

Ion	Ratio	Lower	Upper
84	100		
86	65.4	41.5	86.3
49	171.3	68.8	143.0#

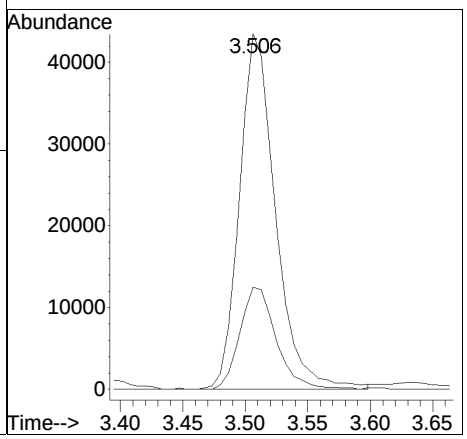


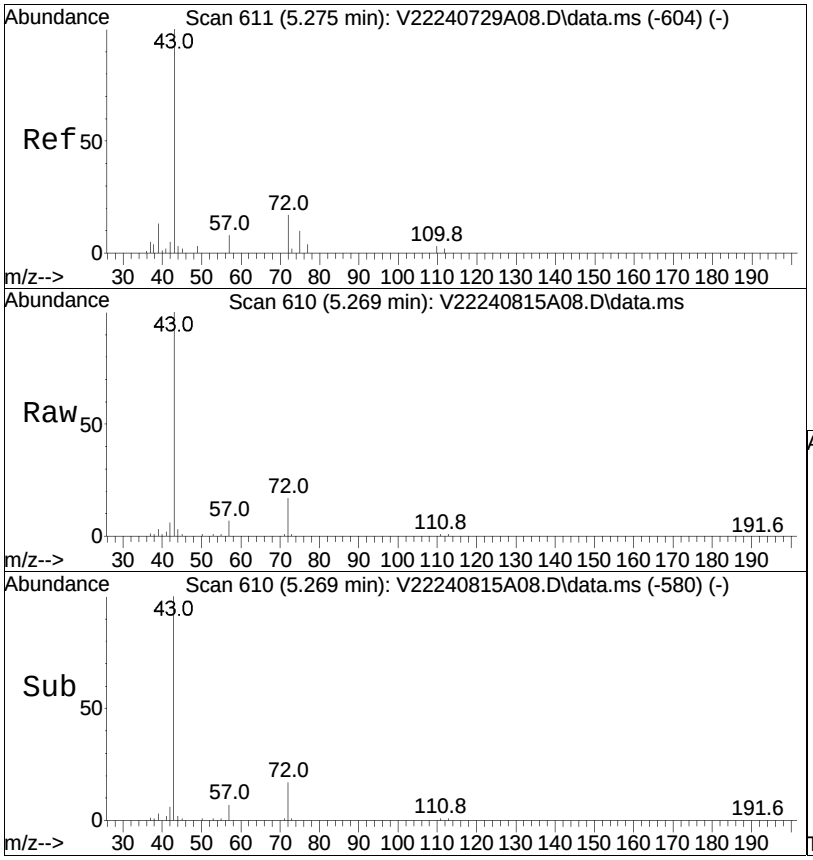


#17
Acetone
Concen: 76.37 ug/L
RT: 3.506 min Scan# 341
Delta R.T. -0.006 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 43 Resp: 87522

Ion	Ratio	Lower	Upper
43	100		
58	29.0	23.1	34.7

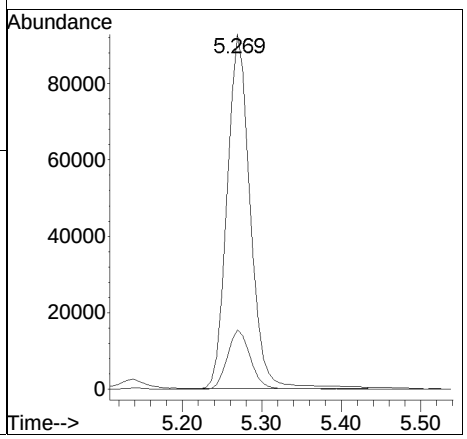


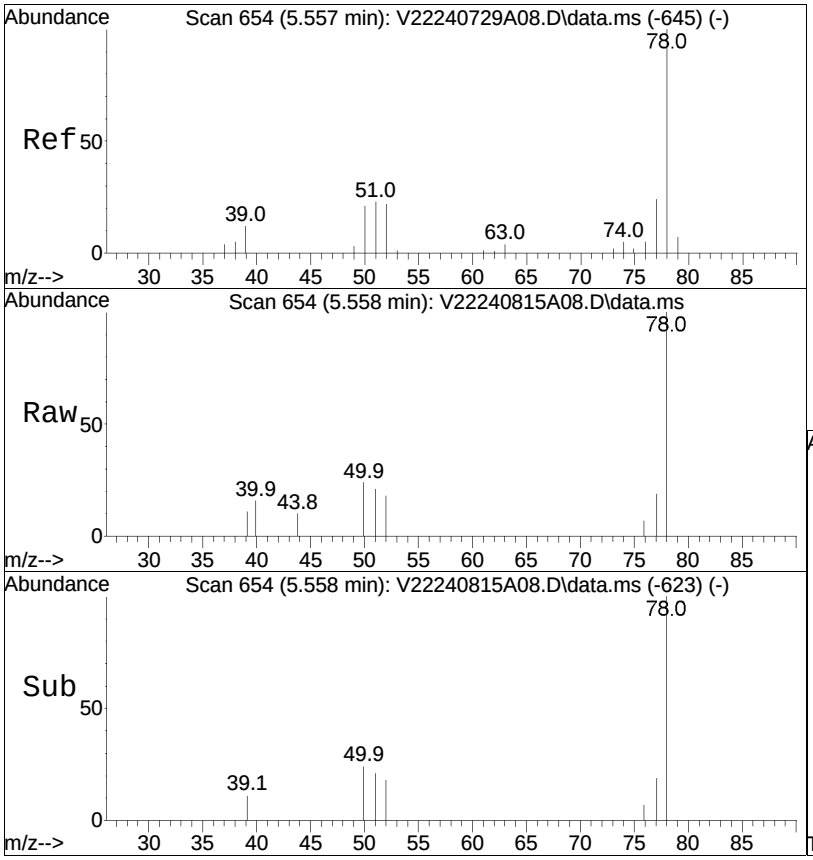


#41
2-Butanone
Concen: 116.96 ug/L
RT: 5.269 min Scan# 610
Delta R.T. -0.006 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 43 Resp: 188375

Ion	Ratio	Lower	Upper
43	100		
72	16.6	45.8	68.8#

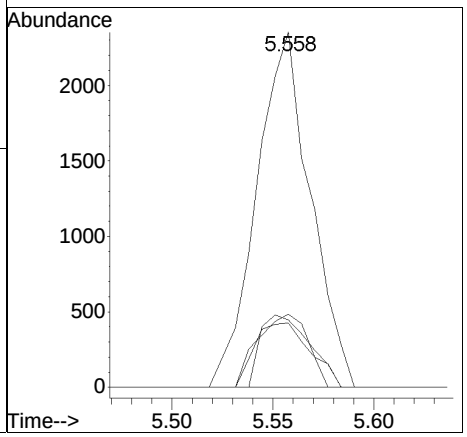


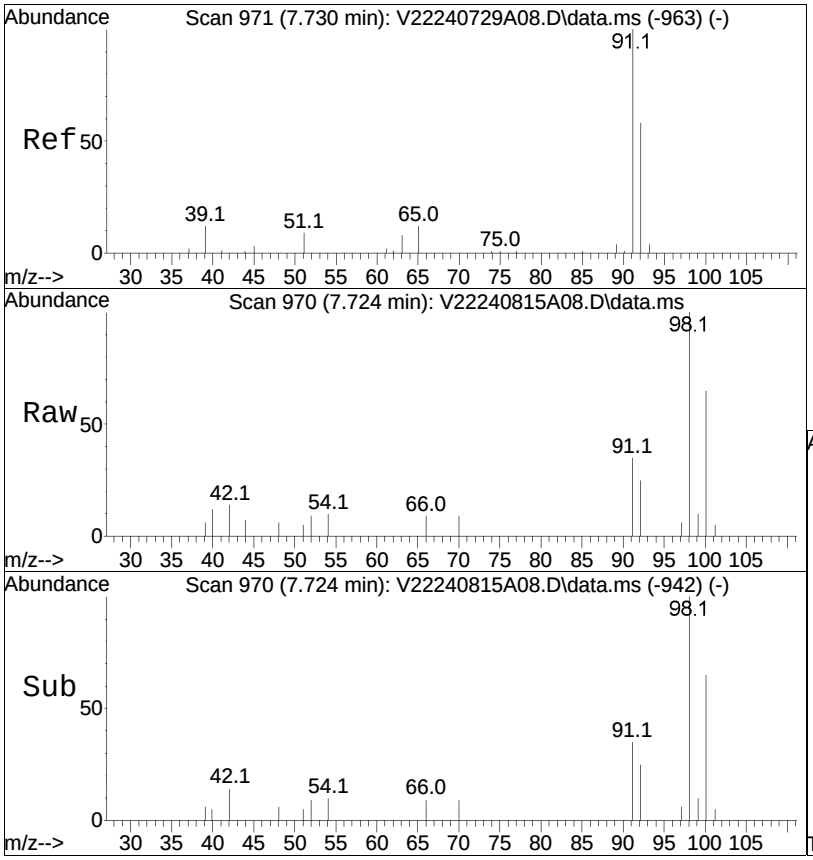


#44
Benzene
Concen: 0.20 ug/L
RT: 5.558 min Scan# 654
Delta R.T. 0.001 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 78 Resp: 4367

Ion	Ratio	Lower	Upper
78	100		
77	18.8	15.4	32.0
51	0.0	9.8	20.4#
52	18.7	9.2	19.2

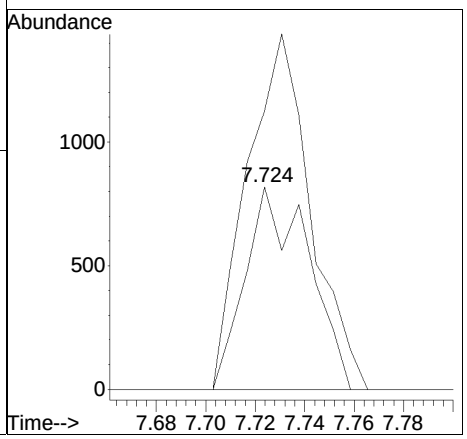


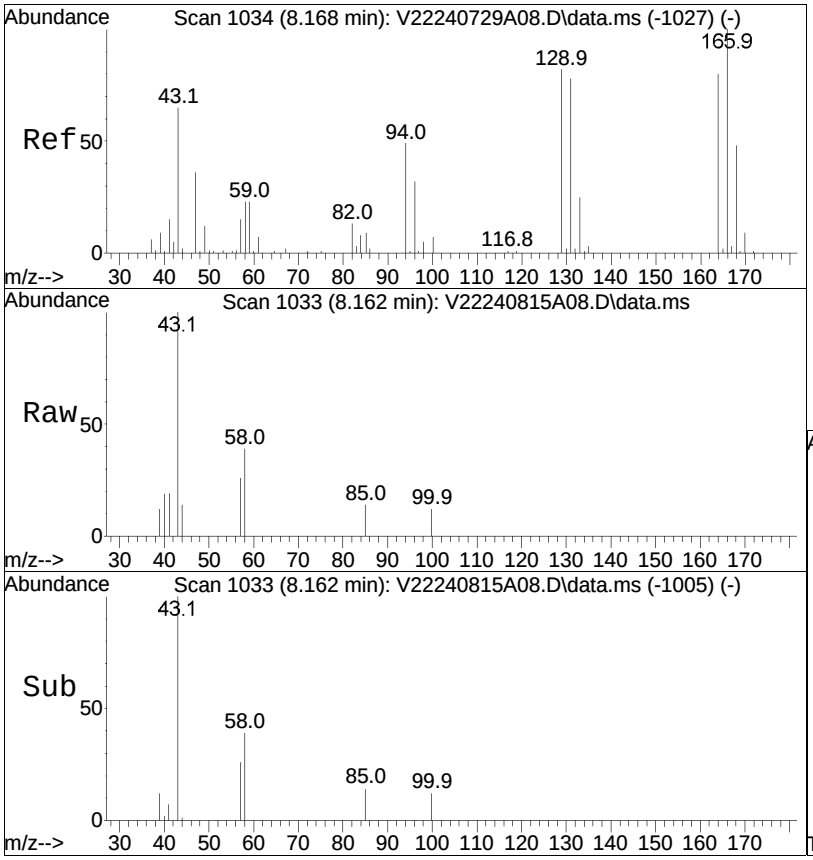


#64
Toluene
Concen: 0.12 ug/L
RT: 7.724 min Scan# 970
Delta R.T. -0.006 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 92 Resp: 1462

Ion	Ratio	Lower	Upper
92	100		
91	175.2	137.0	205.6

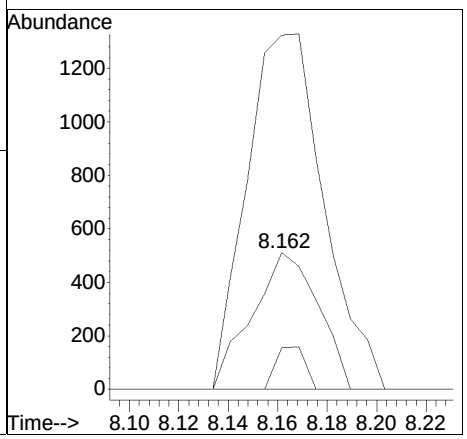


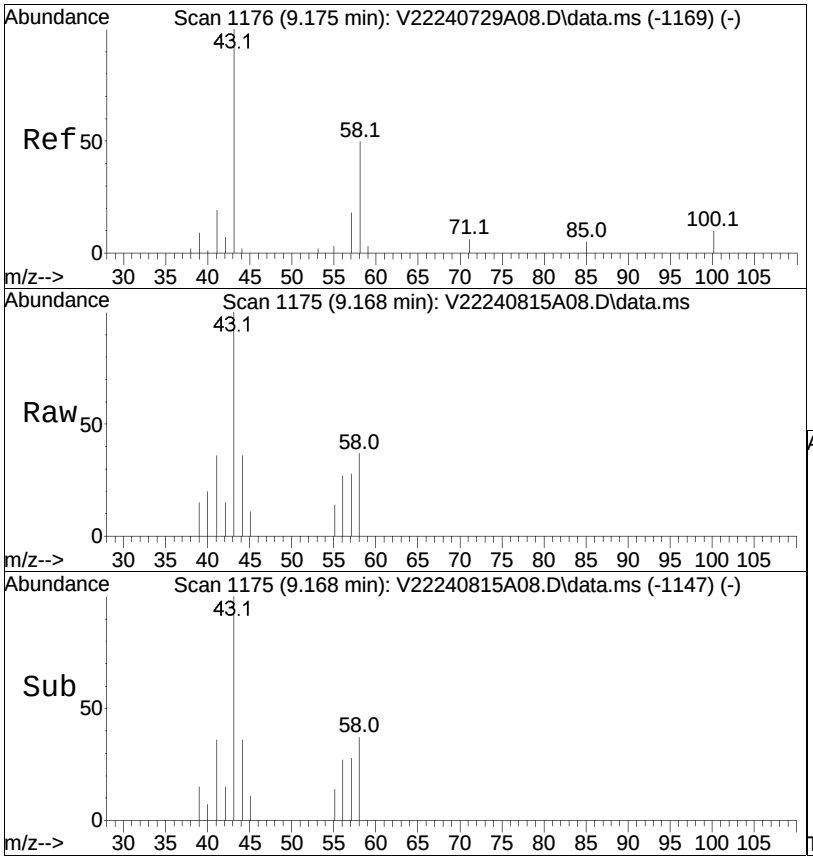


#65
4-Methyl-2-pentanone
Concen: 0.94 ug/L
RT: 8.162 min Scan# 1033
Delta R.T. -0.006 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 58 Resp: 949

Ion	Ratio	Lower	Upper
58	100		
100	13.8	36.2	54.4#
43	303.7	181.8	272.8#

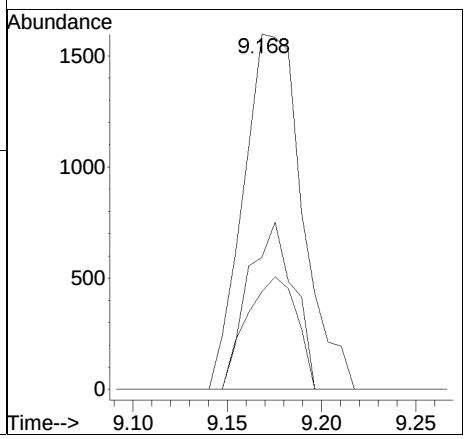




#76
2-Hexanone
Concen: 1.86 ug/L
RT: 9.168 min Scan# 1175
Delta R.T. -0.007 min
Lab File: V22240815A08.D
Acq: 15 Aug 2024 09:30 am

Tgt Ion: 43 Resp: 3482

Ion	Ratio	Lower	Upper
43	100		
58	36.3	47.6	71.4#
57	27.1	16.6	24.8#



Manual Integration Report

Data Path	: K:\VOA122\2024\240815A\	QMethod	: V122_240729A_8260.m
Data File	: V22240815A08.D	Operator	: VOA122:PID
Date Inj'd	: 8/15/2024 9:30 am	Instrument	: VOA 122
Sample	: L2446104-02D,31,2.5,10,,A,	Quant Date	: 8/15/2024 9:50 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A12.D
Acq On : 15 Aug 2024 11:08 am
Operator : VOA122:PID
Sample : L2446104-01D2,31,0.2,10,,C,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 15 11:29:16 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Ace+2-But - Acetone only

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.970	96	356240	10.000	ug/L	0.00
Standard Area 1 = 421161			Recovery = 84.59%			
62) Chlorobenzene-d5	9.519	117	316121	10.000	ug/L	0.00
Standard Area 1 = 360997			Recovery = 87.57%			
83) 1,4-Dichlorobenzene-d4	12.230	152	164738	10.000	ug/L	0.00
Standard Area 1 = 194587			Recovery = 84.66%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.158	113	141822	11.394	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 113.94%			
46) 1,2-Dichloroethane-d4	5.682	65	98413	9.353	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.53%			
63) Toluene-d8	7.668	98	365886	9.084	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.84%			
87) 4-Bromofluorobenzene	11.013	95	116229	7.748	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 77.48%			
Target Compounds						Qvalue
17) Acetone	3.506	43	3894	3.269	ug/L	94
41) 2-Butanone	5.269	43	133343	79.667	ug/L #	45

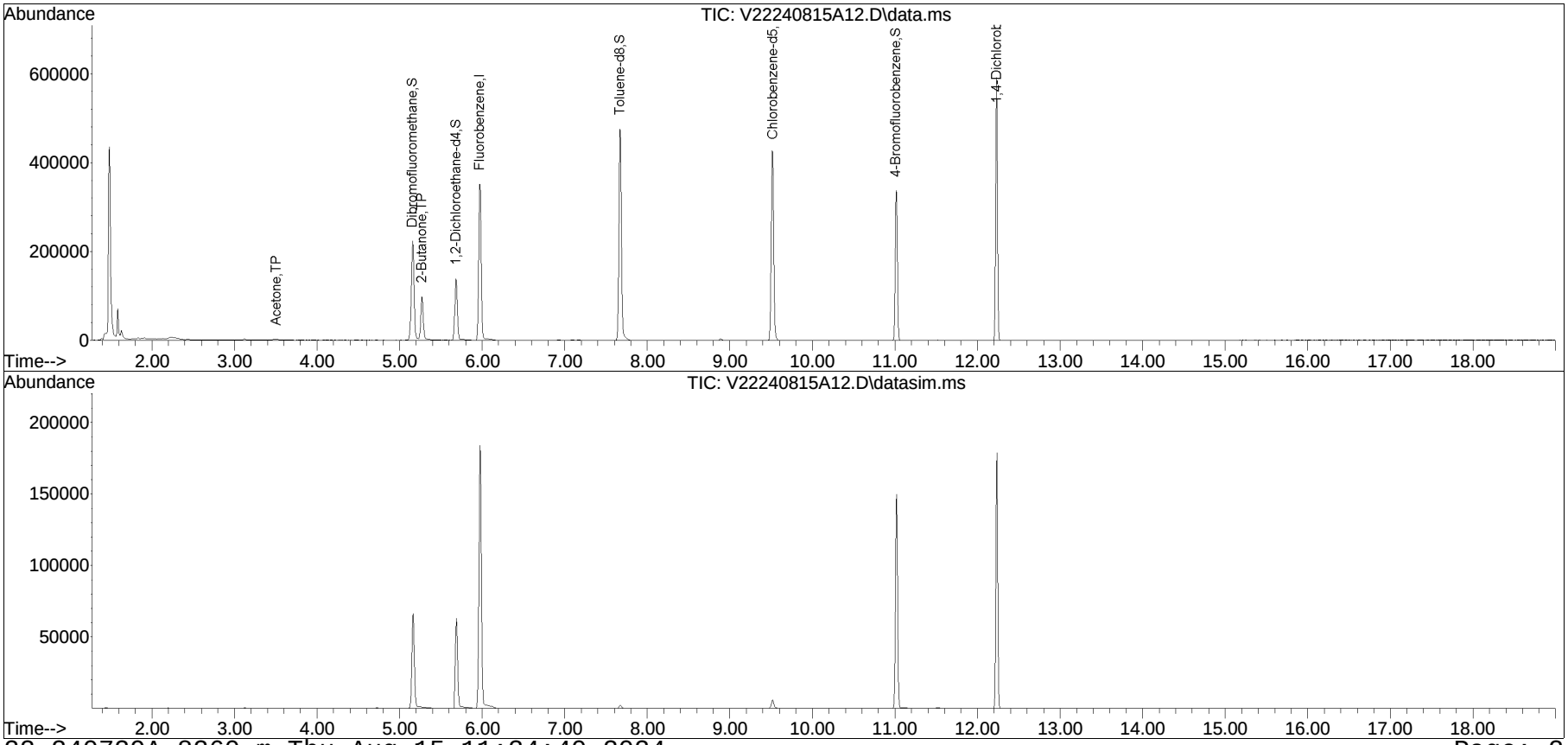
(#) = qualifier out of range (m) = manual integration (+) = signals summed

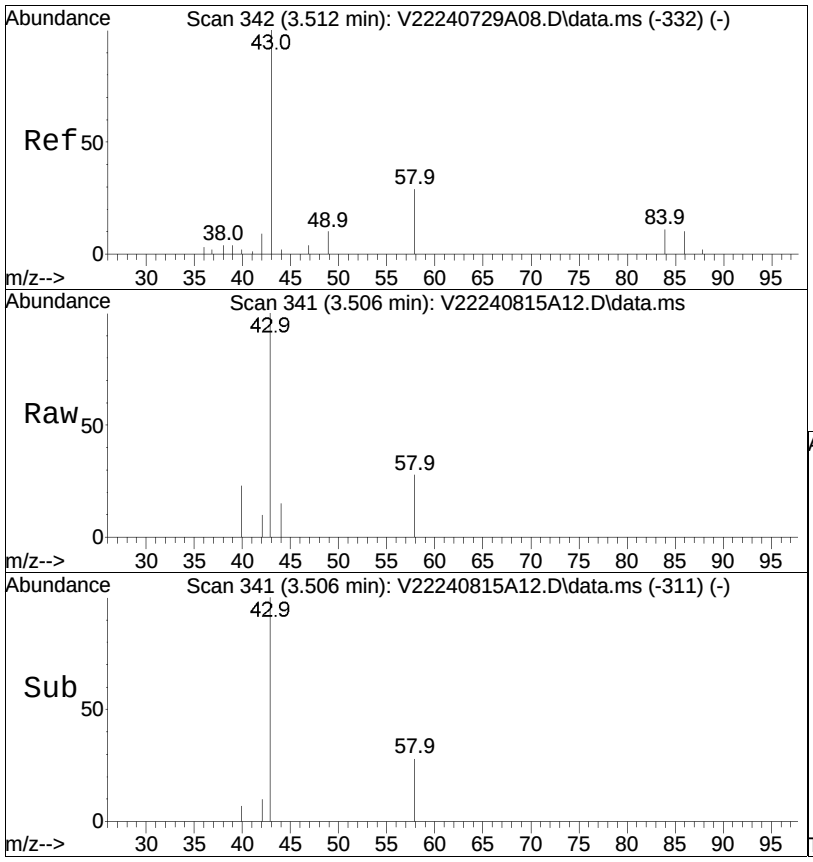
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A12.D
Acq On : 15 Aug 2024 11:08 am
Operator : VOA122:PID
Sample : L2446104-01D2,31,0.2,10,,C,R1A
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 15 11:29:16 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Ace+2-But - Acetone only2240815A02.D•

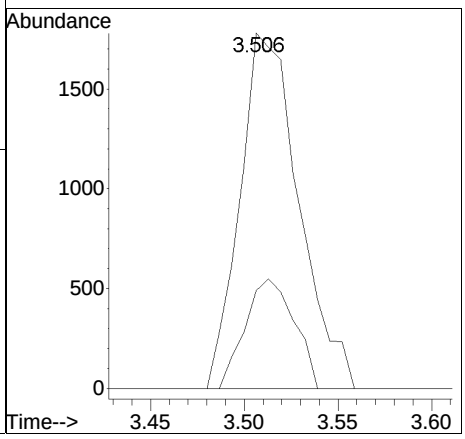


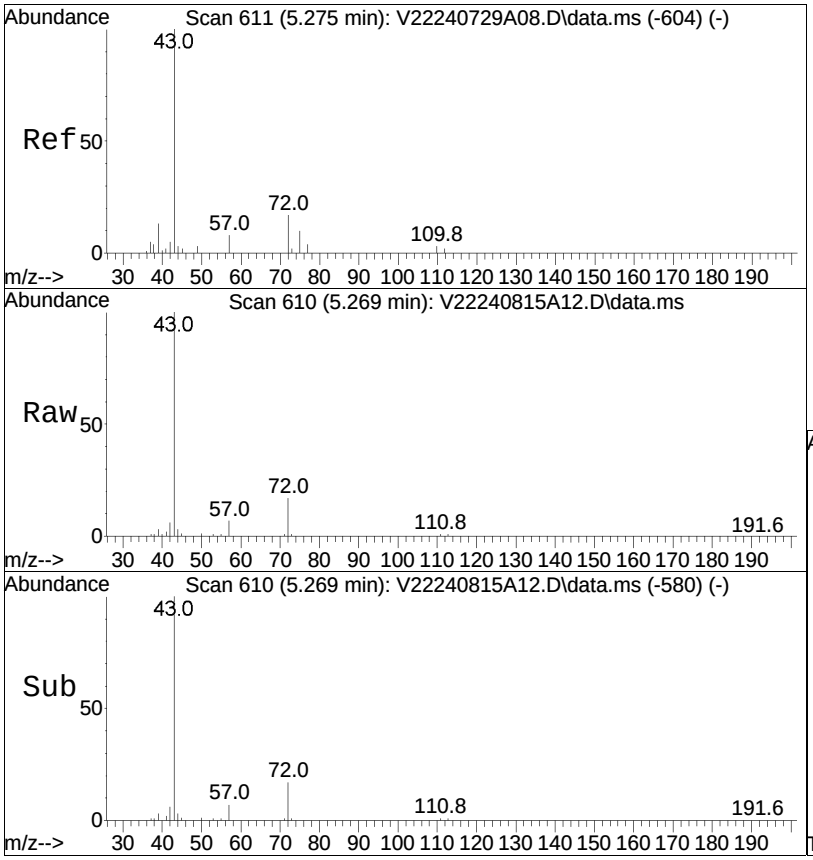


#17
Acetone
Concen: 3.27 ug/L
RT: 3.506 min Scan# 341
Delta R.T. -0.006 min
Lab File: V22240815A12.D
Acq: 15 Aug 2024 11:08 am

Tgt Ion: 43 Resp: 3894

Ion	Ratio	Lower	Upper
43	100		
58	25.7	23.1	34.7

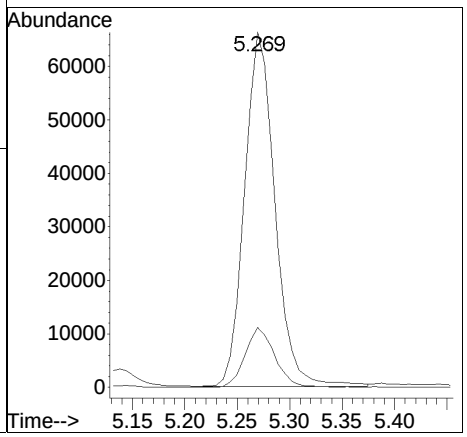




#41
2-Butanone
Concen: 79.67 ug/L
RT: 5.269 min Scan# 610
Delta R.T. -0.006 min
Lab File: V22240815A12.D
Acq: 15 Aug 2024 11:08 am

Tgt Ion: 43 Resp: 133343

Ion	Ratio	Lower	Upper
43	100		
72	16.5	45.8	68.8#



Manual Integration Report

Data Path	: K:\VOA122\2024\240815A\	QMethod	: V122_240729A_8260.m
Data File	: V22240815A12.D	Operator	: VOA122:PID
Date Inj'd	: 8/15/2024 11:08 am	Instrument	: VOA 122
Sample	: L2446104-01D2,31,0.2,10,,C	Quant Date	: 8/15/2024 11:29 am

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446104**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D

L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo			0.147	0.215	0.223	0.209	0.195	0.195	0.197	13.62
3)	TP	Chloromethane		0.252	0.295	0.303	0.277	0.253	0.239	0.225	0.263	10.94
4)	TP	Vinyl chloride	0.202	0.176	0.199	0.232	0.231	0.217	0.206	0.203	0.208	8.84
5)	TP	Bromomethane		0.070	0.076	0.075	0.079	0.088	0.095	0.102	0.084	14.11
6)	TP	Chloroethane		0.118	0.132	0.133	0.126	0.117	0.110	0.108	0.120	8.39
7)	TP	Trichlorofluor		0.144	0.179	0.257	0.263	0.252	0.238	0.239	*L	0.9987
8)	TP	Ethyl ether		0.067	0.069	0.073	0.070	0.071	0.070	0.068	0.070	2.76
10)	TP	1,1-Dichloroet		0.110	0.126	0.152	0.154	0.146	0.139	0.139	0.138	11.23
11)	TP	Carbon disulfide		0.404	0.455	0.510	0.491	0.451	0.438	0.433	0.454	7.85
12)	TP	Freon-113			0.097	0.154	0.159	0.150	0.147	0.151	0.143	16.09
13)	TP	Iodomethane			0.122	0.172	0.190	0.199	0.203	0.204	0.182	17.53
14)	TP	Acrolein		0.018	0.024	0.025	0.025	0.025	0.025	0.024	0.024	11.30
15)	TP	Methylene chlo		0.237	0.204	0.191	0.173	0.164	0.159	0.156	0.183	16.00
17)	TP	Acetone			0.040	0.035	0.033	0.032	0.031	0.030	0.033	10.98
18)	TP	trans-1,2-Dich		0.148	0.169	0.177	0.166	0.160	0.157	0.155	0.162	5.98
19)	TP	Methyl acetate		0.103	0.089	0.085	0.084	0.083	0.081	0.077	0.086	9.89
21)	TP	Methyl tert butyl ether		0.254	0.268	0.317	0.328	0.328	0.339	0.333	0.309	11.02
22)	TP	tert-Butyl alc		0.004	0.006	0.007	0.007	0.007	0.007	0.007	0.006#	15.62
24)	TP	Diisopropyl ether		0.493	0.543	0.594	0.622	0.617	0.616	0.586	0.581	8.17
25)	TP	1,1-Dichloroet		0.311	0.358	0.365	0.340	0.319	0.315	0.306	0.331	7.23
26)	TP	Halothane		0.096	0.110	0.132	0.127	0.127	0.126	0.126	0.121	10.56
27)	TP	Acrylonitrile		0.045	0.044	0.049	0.048	0.046	0.045	0.043	0.046	4.17
28)	TP	Ethyl tert-but		0.324	0.354	0.413	0.457	0.456	0.468	0.453	0.418	13.74
29)	TP	Vinyl acetate		0.273	0.289	0.353	0.379	0.386	0.385	0.367	0.348	13.51
30)	TP	cis-1,2-Dichlo		0.168	0.196	0.197	0.183	0.172	0.172	0.168	0.179#	6.96
31)	TP	2,2-Dichloropr		0.174	0.196	0.224	0.220	0.211	0.211	0.212	0.207	8.20
32)	TP	Bromochloromet		0.084	0.092	0.093	0.084	0.081	0.080	0.078	0.085#	6.73
33)	TP	Cyclohexane			0.183	0.351	0.378	0.354	0.352	0.353	*L	0.9993
34)	TP	Chloroform		0.283	0.310	0.303	0.286	0.274	0.278	0.268	0.286#	5.37
35)	TP	Ethyl acetate			0.096	0.111	0.116	0.118	0.118	0.114	0.112	7.47
36)	TP	Carbon tetrachloride	0.179	0.145	0.171	0.233	0.236	0.228	0.228	0.231	0.206	17.40
37)	TP	Tetrahydrofuran			0.035	0.038	0.038	0.037	0.037	0.036	0.037	3.72
38)	S	Dibromofluoromethane	0.356	0.382	0.381	0.359	0.339	0.326	0.329	0.324	0.349	6.78
39)	TP	1,1,1-Trichlor		0.184	0.221	0.263	0.260	0.255	0.254	0.252	0.241	11.85
41)	TP	2-Butanone			0.042	0.044	0.049	0.050	0.049	0.047	0.047	6.75

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446104**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D

L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
42) TP	1,1-Dichloropr		0.128	0.160	0.214	0.222	0.214	0.213	0.213	0.195	18.52
44) TP	Benzene	0.577	0.517	0.672	0.656	0.692	0.662	0.658	0.633	0.633	9.17
45) TP	Tertiary-Amyl Methyl Ether		0.172	0.171	0.190	0.208	0.218	0.230	0.228	0.202	12.43
46) S	1,2-Dichloroethane-d4	0.286	0.306	0.301	0.305	0.293	0.289	0.294	0.289	0.295	2.57
47) T	1,2-Dichloroethane-d4		0.154	0.165	0.170	0.162	0.154	0.154	0.149	0.158	4.65
50) TP	Methyl cyclohe			0.094	0.200	0.226	0.224	0.233	0.238	*L	0.9996
51) TP	Trichloroethene	0.133	0.113	0.124	0.143	0.143	0.140	0.141	0.141	0.135#	8.23
53) TP	Dibromomethane		0.065	0.068	0.071	0.070	0.068	0.069	0.067	0.068	2.99
54) TP	1,2-Dichloropr		0.115	0.131	0.154	0.152	0.147	0.147	0.143	0.141#	9.64
56) TP	2-Chloroethyl		0.039	0.041	0.053	0.059	0.063	0.063	0.061	0.054	18.80
57) TP	Bromodichlorom		0.138	0.157	0.175	0.176	0.174	0.176	0.173	0.167#	8.74
60) TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.34
61) TP	cis-1,3-Dichloropropene	0.121	0.126	0.149	0.186	0.197	0.199	0.201	0.197	0.172#	19.89
62) I	Chlorobenzene-d5	----------ISTD----------									
63) S	Toluene-d8	1.265	1.258	1.267	1.262	1.281	1.288	1.295	1.276	1.274	1.03
64) TP	Toluene		0.347	0.400	0.427	0.437	0.427	0.429	0.416	0.412	7.55
65) TP	4-Methyl-2-pen			0.023	0.028	0.034	0.037	0.038	0.037	0.033	18.50
66) TP	Tetrachloroethene		0.107	0.132	0.169	0.181	0.179	0.181	0.181	0.162	18.41
68) TP	trans-1,3-Dichloropropene		0.112	0.139	0.175	0.208	0.214	0.217	0.212	*L	0.9992
70) TP	Ethyl methacry			0.090	0.124	0.141	0.147	0.149	0.144	0.133	17.01
71) TP	1,1,2-Trichlor		0.072	0.079	0.094	0.102	0.111	0.111	0.108	0.097#	16.46
72) TP	Chlorodibromom		0.089	0.117	0.139	0.157	0.162	0.164	0.161	*L	0.9995
73) TP	1,3-Dichloropr		0.151	0.163	0.188	0.207	0.208	0.208	0.200	0.190	12.35
74) TP	1,2-Dibromoethane		0.077	0.089	0.107	0.119	0.123	0.123	0.120	0.108#	16.86
76) TP	2-Hexanone			0.045	0.055	0.064	0.069	0.069	0.066	0.061	15.23
77) TP	Chlorobenzene		0.417	0.478	0.486	0.486	0.471	0.470	0.458	0.467	5.15
78) TP	Ethylbenzene		0.611	0.710	0.850	0.854	0.821	0.817	0.780	0.778	11.36
79) TP	1,1,1,2-Tetrac		0.107	0.127	0.144	0.161	0.166	0.168	0.166	0.148	15.82
80) TP	p/m Xylene		0.220	0.271	0.332	0.334	0.323	0.322	0.310	0.302	13.84
81) TP	o Xylene		0.200	0.259	0.313	0.315	0.308	0.308	0.296	0.285	14.79
82) TP	Styrene		0.304	0.416	0.503	0.521	0.507	0.499	0.464	0.459	16.79
83) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
84) TP	Bromoform		0.110	0.118	0.137	0.162	0.172	0.176	0.179	0.150	19.06
86) TP	Isopropylbenzene		1.046	1.323	1.726	1.771	1.679	1.676	1.637	1.551	17.18
87) S	4-Bromofluorobenzene	0.911	0.911	0.900	0.932	0.924	0.900	0.900	0.908	0.911	1.31
88) TP	Bromobenzene		0.335	0.355	0.374	0.380	0.370	0.371	0.370	0.365	4.18

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446104**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA122**	**Ical Ref**	**: ICAL21346**
Calibration dates	**: 07/29/24 13:23 07/29/24 17:04**		

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
89) TP	n-Propylbenzene		1.282	1.530	1.993	2.048	1.948	1.952	1.864	1.802	15.83
90) TP	1,4-Dichlorobu		0.423	0.442	0.474	0.497	0.492	0.489	0.483	0.472	5.94
91) TP	1,1,2,2-Tetrac		0.237	0.231	0.246	0.267	0.266	0.266	0.263	0.254	6.06
92) TP	4-Ethyltoluene		1.049	1.261	1.602	1.644	1.579	1.593	1.555	1.469	15.29
93) TP	2-Chlorotoluene		0.883	1.048	1.156	1.157	1.108	1.131	1.117	1.086	8.88
94) TP	1,3,5-Trimethy		0.876	1.095	1.350	1.365	1.327	1.358	1.343	1.245	15.14
95) TP	1,2,3-Trichlor		0.162	0.186	0.191	0.205	0.202	0.204	0.205	0.194	8.07
96) TP	trans-1,4-Dich		0.063	0.078	0.083	0.094	0.095	0.096	0.095	0.086	14.50
97) TP	4-Chlorotoluene		0.906	1.071	1.192	1.204	1.158	1.166	1.146	1.121	9.26
98) TP	tert-Butylbenzene		0.714	0.853	1.187	1.236	1.189	1.202	1.183	1.081	19.23
101) TP	1,2,4-Trimethy		0.970	1.245	1.527	1.538	1.479	1.505	1.471	1.391	15.13
102) TP	sec-Butylbenzene		0.953	1.168	1.721	1.779	1.693	1.711	1.646	*L	0.9992
103) TP	p-Isopropyltol		0.760	0.980	1.439	1.476	1.423	1.444	1.406	*L	0.9995
104) TP	1,3-Dichlorobe		0.643	0.722	0.760	0.757	0.734	0.732	0.718	0.724	5.42
105) TP	1,4-Dichlorobe		0.681	0.712	0.743	0.738	0.714	0.722	0.712	0.718	2.86
106) TP	p-Diethylbenzene			0.566	0.809	0.846	0.825	0.842	0.840	0.788	13.93
107) TP	n-Butylbenzene		0.629	0.830	1.214	1.226	1.171	1.197	1.177	*L	0.9996
108) TP	1,2-Dichlorobe		0.568	0.628	0.667	0.670	0.653	0.655	0.639	0.640	5.50
109) TP	1,2,4,5-Tetram			0.737	1.085	1.193	1.167	1.175	1.128	1.081	16.00
110) TP	1,2-Dibromo-3-		0.007	0.027	0.033	0.037	0.040	0.040	0.040	*L	0.9993
111) TP	1,3,5-Trichlor		0.347	0.382	0.443	0.449	0.433	0.439	0.427	0.417	9.11
112) TP	Hexachlorobuta		0.091	0.104	0.150	0.152	0.147	0.155	0.160	*L	0.9989
113) TP	1,2,4-Trichlor		0.285	0.311	0.368	0.385	0.380	0.381	0.374	0.355#	11.26
114) TP	Naphthalene		0.486	0.583	0.770	0.883	0.870	0.861	0.815	*L	0.9987
115) TP	1,2,3-Trichlor		0.237	0.280	0.315	0.328	0.320	0.320	0.310	0.301#	10.69

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446104**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D

L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.138	0.246	0.220	0.243	0.243	0.244	0.235	0.224	17.36
3)	TP	Chloromethane		0.199	0.251	0.263	0.261	0.259	0.260	0.256	0.250	9.09
4)	TP	Vinyl chloride	0.163	0.159	0.248	0.243	0.263	0.260	0.265	0.260	0.233	19.30
5)	TP	Bromomethane		0.043	0.054	0.058	0.067	0.084	0.095	0.102	*Q	0.9983
6)	TP	Chloroethane		0.109	0.166	0.154	0.151	0.153	0.144	0.107	0.140	16.43
7)	TP	Trichlorofluor		0.189	0.262	0.254	0.291	0.294	0.295	0.287	0.267	14.21
8)	TP	Ethyl ether		0.098	0.094	0.106	0.111	0.111	0.108	0.108	0.105	6.41
10)	TP	1,1-Dichloroet		0.128	0.165	0.154	0.168	0.170	0.170	0.165	0.160	9.41
11)	TP	Carbon disulfide		0.423	0.489	0.504	0.523	0.517	0.512	0.493	0.494	6.86
12)	TP	Freon-113		0.120	0.172	0.163	0.178	0.178	0.183	0.175	0.167	13.06
13)	TP	Iodomethane			0.056	0.087	0.130	0.163	0.172	0.180	*Q	0.9978
14)	TP	Acrolein		0.042	0.047	0.044	0.045	0.045	0.046	0.048	0.045	4.40
15)	TP	Methylene chlo		0.219	0.207	0.204	0.201	0.197	0.195	0.191	0.202	4.65
17)	TP	Acetone			0.094	0.071	0.077	0.071	0.065	0.063	0.073	15.12
18)	TP	trans-1,2-Dich		0.134	0.173	0.177	0.180	0.183	0.181	0.176	0.172	9.89
19)	TP	Methyl acetate		0.231	0.183	0.165	0.161	0.156	0.153	0.149	0.171	16.75
21)	TP	Methyl tert butyl ether		0.595	0.630	0.676	0.661	0.657	0.646	0.629	0.642	4.16
22)	TP	tert-Butyl alc		0.021	0.023	0.024	0.024	0.023	0.023	0.023	0.023	4.09
24)	TP	Diisopropyl ether		0.797	0.878	0.965	0.985	0.960	0.936	0.916	0.920	7.03
25)	TP	1,1-Dichloroet		0.339	0.407	0.424	0.424	0.420	0.409	0.405	0.404	7.39
26)	TP	Halothane		0.117	0.137	0.142	0.147	0.145	0.143	0.141	0.139	7.40
27)	TP	Acrylonitrile		0.076	0.081	0.088	0.089	0.087	0.086	0.084	0.084	5.26
28)	TP	Ethyl tert-but		0.694	0.779	0.838	0.837	0.826	0.811	0.800	0.798	6.32
29)	TP	Vinyl acetate		0.679	0.649	0.556	0.550	0.513	0.670	0.667	0.612	11.34
30)	TP	cis-1,2-Dichlo		0.183	0.211	0.211	0.208	0.214	0.211	0.205	0.206	5.19
31)	TP	2,2-Dichloropr		0.240	0.279	0.270	0.284	0.278	0.279	0.263	0.270	5.58
33)	TP	Bromochloromet		0.089	0.091	0.096	0.096	0.091	0.086	0.085	0.091#	4.89
34)	TP	Cyclohexane		0.384	0.496	0.452	0.498	0.498	0.499	0.484	0.473	8.98
35)	TP	Chloroform		0.303	0.352	0.346	0.336	0.339	0.333	0.335	0.335	4.66
36)	TP	Ethyl acetate		0.314	0.226	0.262	0.255	0.249	0.243	0.242	0.256	11.00
37)	TP	Carbon tetrachloride	0.229	0.188	0.270	0.260	0.275	0.275	0.279	0.271	0.256	12.38
38)	TP	Tetrahydrofuran		0.087	0.083	0.081	0.080	0.078	0.074	0.073	0.079	5.85
39)	S	Dibromofluoromethane	0.242	0.242	0.240	0.238	0.232	0.231	0.224	0.223	0.234	3.26
40)	TP	1,1,1-Trichlor		0.265	0.301	0.310	0.316	0.315	0.315	0.308	0.304	5.96
42)	TP	2-Butanone			0.118	0.104	0.105	0.104	0.100	0.099	0.105	6.40

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446104**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D

L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
43) TP	1,1-Dichloropr		0.193	0.259	0.260	0.270	0.271	0.271	0.268	0.256	11.09
45) TP	Benzene	0.719	0.654	0.814	0.838	0.839	0.835	0.825	0.813	0.792	8.59
46) TP	Tertiary-Amyl Methyl Ether		0.549	0.579	0.619	0.622	0.611	0.607	0.598	0.598	4.33
47) S	1,2-Dichloroethane-d4	0.326	0.322	0.322	0.316	0.305	0.309	0.298	0.302	0.312	3.33
48) T	1,2-Dichloroet		0.295	0.300	0.320	0.314	0.310	0.303	0.299	0.306	2.93
51) TP	Methyl cyclohe		0.281	0.360	0.333	0.364	0.386	0.390	0.377	0.356	10.67
52) TP	Trichloroethene	0.193	0.161	0.200	0.210	0.217	0.216	0.201	0.195	0.199#	8.96
54) TP	Dibromomethane		0.096	0.116	0.120	0.119	0.118	0.116	0.117	0.115	7.18
55) TP	1,2-Dichloropr		0.215	0.233	0.249	0.248	0.246	0.242	0.239	0.239	5.05
57) TP	2-Chloroethyl		0.127	0.145	0.157	0.163	0.167	0.160	0.158	0.154	8.95
58) TP	Bromodichlorom		0.250	0.293	0.294	0.289	0.290	0.286	0.282	0.283#	5.40
61) TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	1.58
62) TP	cis-1,3-Dichloropropene	0.241	0.293	0.316	0.341	0.345	0.345	0.339	0.334	0.319	11.31
63) I	Chlorobenzene-d5	----------ISTD----------									
64) S	Toluene-d8	1.316	1.311	1.306	1.323	1.314	1.308	1.321	1.339	1.317	0.79
65) TP	Toluene		0.596	0.701	0.712	0.711	0.697	0.702	0.700	0.689	5.96
66) TP	4-Methyl-2-pen		0.096	0.114	0.124	0.124	0.122	0.121	0.120	0.117	8.43
67) TP	Tetrachloroethene		0.219	0.288	0.302	0.312	0.308	0.313	0.307	0.293	11.47
69) TP	trans-1,3-Dichloropropene	0.319	0.359	0.375	0.414	0.420	0.408	0.405	0.402	0.388	8.92
71) TP	Ethyl methacry		0.356	0.363	0.387	0.378	0.367	0.368	0.365	0.369	2.79
72) TP	1,1,2-Trichlor		0.183	0.190	0.204	0.201	0.193	0.192	0.190	0.193#	3.69
73) TP	Chlorodibromom		0.230	0.258	0.281	0.283	0.277	0.281	0.281	0.270	7.23
74) TP	1,3-Dichloropr		0.369	0.398	0.430	0.429	0.412	0.410	0.409	0.408	5.11
75) TP	1,2-Dibromoethane		0.216	0.223	0.237	0.236	0.229	0.228	0.230	0.228	3.24
77) TP	2-Hexanone		0.238	0.227	0.234	0.233	0.225	0.221	0.222	0.229	2.91
78) TP	Chlorobenzene		0.673	0.728	0.767	0.755	0.737	0.742	0.734	0.734	4.10
79) TP	Ethylbenzene		1.142	1.358	1.408	1.393	1.353	1.359	1.329	1.335	6.66
80) TP	1,1,1,2-Tetrac		0.215	0.270	0.287	0.286	0.276	0.276	0.273	0.269	9.12
81) TP	p/m Xylene		0.447	0.521	0.548	0.535	0.510	0.508	0.492	0.509	6.43
82) TP	o Xylene		0.454	0.508	0.533	0.516	0.497	0.495	0.479	0.497	5.16
83) TP	Styrene		0.718	0.838	0.886	0.858	0.817	0.812	0.779	0.816	6.74
84) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85) TP	Bromoform		0.284	0.320	0.331	0.334	0.334	0.338	0.337	0.325	5.92
87) TP	Isopropylbenzene		1.911	2.394	2.445	2.472	2.475	2.556	2.509	2.395	9.15
88) S	4-Bromofluorobenzene	0.912	0.926	0.900	0.927	0.899	0.923	0.942	0.959	0.924	2.20
89) TP	Bromobenzene		0.539	0.594	0.625	0.612	0.613	0.627	0.622	0.605	5.15

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446104**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D

L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP	n-Propylbenzene		2.463	2.827	2.941	2.951	2.948	3.011	2.888	2.861	6.45
91) TP	1,4-Dichlorobu		1.076	1.063	1.068	1.046	1.022	1.031	1.015	1.046	2.29
92) TP	1,1,2,2-Tetrac		0.512	0.521	0.493	0.487	0.485	0.530	0.529	0.508	3.87
93) TP	4-Ethyltoluene		1.935	2.296	2.424	2.400	2.399	2.443	2.350	2.321	7.63
94) TP	2-Chlorotoluene		1.451	1.722	1.764	1.719	1.699	1.724	1.705	1.683	6.21
95) TP	1,3,5-Trimethy		1.733	2.008	2.145	2.110	2.089	2.133	2.036	2.036	7.01
96) TP	1,2,3-Trichlor		0.395	0.420	0.431	0.422	0.414	0.414	0.407	0.415	2.78
97) TP	trans-1,4-Dich		0.185	0.197	0.203	0.201	0.207	0.213	0.219	0.204	5.51
98) TP	4-Chlorotoluene		1.530	1.763	1.829	1.796	1.785	1.839	1.801	1.763	6.02
99) TP	tert-Butylbenzene		1.412	1.689	1.769	1.762	1.779	1.824	1.747	1.712	8.07
102) TP	1,2,4-Trimethy		1.747	1.954	2.131	2.103	2.101	2.135	2.057	2.033	6.91
103) TP	sec-Butylbenzene		2.141	2.500	2.584	2.607	2.644	2.708	2.584	2.538	7.33
104) TP	p-Isopropyltol		1.701	2.077	2.196	2.232	2.258	2.294	2.214	2.139	9.58
105) TP	1,3-Dichlorobe		1.015	1.081	1.169	1.146	1.135	1.148	1.122	1.117	4.72
106) TP	1,4-Dichlorobe		1.009	1.087	1.157	1.145	1.138	1.145	1.131	1.116	4.67
107) TP	p-Diethylbenzene		1.028	1.180	1.302	1.316	1.335	1.335	1.333	1.261	9.25
108) TP	n-Butylbenzene		1.501	1.792	1.868	1.891	1.948	1.955	1.939	1.842	8.74
109) TP	1,2-Dichlorobe		0.978	1.026	1.115	1.108	1.094	1.098	1.099	1.074	4.80
110) TP	1,2,4,5-Tetram		1.737	1.892	2.127	2.116	2.105	2.156	2.192	2.046	8.17
111) TP	1,2-Dibromo-3-		0.049	0.087	0.092	0.094	0.094	0.097	0.102	*L	0.9989
112) TP	1,3,5-Trichlor		0.709	0.775	0.890	0.883	0.879	0.919	0.916	0.853	9.33
113) TP	Hexachlorobuta		0.225	0.275	0.285	0.293	0.293	0.305	0.303	0.283	9.74
114) TP	1,2,4-Trichlor		0.666	0.683	0.789	0.797	0.806	0.839	0.809	0.770	8.71
115) TP	Naphthalene		1.419	1.532	1.695	1.747	1.797	1.858	1.833	1.697	9.67
116) TP	1,2,3-Trichlor		0.578	0.647	0.721	0.728	0.750	0.771	0.757	0.707	9.89

Response Factor Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------	ISTD	----------							
2)	TP	Dichlorodifluo...		0.147	0.215	0.223	0.209	0.195	0.195	0.197		13.62
3)	TP	Chloromethane	0.252	0.295	0.303	0.277	0.253	0.239	0.225	0.263		10.94
4)	TP	Vinyl chloride	0.202	0.176	0.199	0.232	0.231	0.217	0.206	0.203	0.208	8.84
5)	TP	Bromomethane		0.070	0.076	0.075	0.079	0.088	0.095	0.102	0.084	14.11
6)	TP	Chloroethane		0.118	0.132	0.133	0.126	0.117	0.110	0.108	0.120	8.39
7)	TP	Trichlorofluor...		0.144	0.179	0.257	0.263	0.252	0.238	0.239	*L	0.9987
8)	TP	Ethyl ether		0.067	0.069	0.073	0.070	0.071	0.070	0.068	0.070	2.76
10)	TP	1,1-Dichloroet...		0.110	0.126	0.152	0.154	0.146	0.139	0.139	0.138	11.23
11)	TP	Carbon disulfide		0.404	0.455	0.510	0.491	0.451	0.438	0.433	0.454	7.85
12)	TP	Freon-113			0.097	0.154	0.159	0.150	0.147	0.151	0.143	16.09
13)	TP	Iodomethane			0.122	0.172	0.190	0.199	0.203	0.204	0.182	17.53
14)	TP	Acrolein		0.018	0.024	0.025	0.025	0.025	0.025	0.024	0.024	11.30
15)	TP	Methylene chlo...		0.237	0.204	0.191	0.173	0.164	0.159	0.156	0.183	16.00
17)	TP	Acetone			0.040	0.035	0.033	0.032	0.031	0.030	0.033	10.98
18)	TP	trans-1,2-Dich...		0.148	0.169	0.177	0.166	0.160	0.157	0.155	0.162	5.98
19)	TP	Methyl acetate		0.103	0.089	0.085	0.084	0.083	0.081	0.077	0.086	9.89
21)	TP	Methyl tert-bu...		0.254	0.268	0.317	0.328	0.328	0.339	0.333	0.309	11.02
22)	TP	tert-Butyl alc...		0.004	0.006	0.007	0.007	0.007	0.007	0.007	0.006#	15.62
24)	TP	Diisopropyl ether		0.493	0.543	0.594	0.622	0.617	0.616	0.586	0.581	8.17
25)	TP	1,1-Dichloroet...		0.311	0.358	0.365	0.340	0.319	0.315	0.306	0.331	7.23
26)	TP	Halothane		0.096	0.110	0.132	0.127	0.127	0.126	0.126	0.121	10.56
27)	TP	Acrylonitrile		0.045	0.044	0.049	0.048	0.046	0.045	0.043	0.046	4.17
28)	TP	Ethyl tert-but...		0.324	0.354	0.413	0.457	0.456	0.468	0.453	0.418	13.74
29)	TP	Vinyl acetate		0.273	0.289	0.353	0.379	0.386	0.385	0.367	0.348	13.51
30)	TP	cis-1,2-Dichlo...		0.168	0.196	0.197	0.183	0.172	0.172	0.168	0.179#	6.96
31)	TP	2,2-Dichloropr...		0.174	0.196	0.224	0.220	0.211	0.211	0.212	0.207	8.20
32)	TP	Bromochloromet...		0.084	0.092	0.093	0.084	0.081	0.080	0.078	0.085#	6.73
33)	TP	Cyclohexane			0.183	0.351	0.378	0.354	0.352	0.353	*L	0.9993
34)	TP	Chloroform		0.283	0.310	0.303	0.286	0.274	0.278	0.268	0.286#	5.37
35)	TP	Ethyl acetate			0.096	0.111	0.116	0.118	0.118	0.114	0.112	7.47

Response Factor Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
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L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
36)	TP	Carbon tetrach...	0.179	0.145	0.171	0.233	0.236	0.228	0.228	0.231	0.206	17.40
37)	TP	Tetrahydrofuran			0.035	0.038	0.038	0.037	0.037	0.036	0.037	3.72
38)	S	Dibromofluorom...	0.356	0.382	0.381	0.359	0.339	0.326	0.329	0.324	0.349	6.78
39)	TP	1,1,1-Trichlor...		0.184	0.221	0.263	0.260	0.255	0.254	0.252	0.241	11.85
41)	TP	2-Butanone			0.042	0.044	0.049	0.050	0.049	0.047	0.047	6.75
42)	TP	1,1-Dichloropr...		0.128	0.160	0.214	0.222	0.214	0.213	0.213	0.195	18.52
44)	TP	Benzene	0.577	0.517	0.672	0.656	0.692	0.662	0.658	0.633	0.633	9.17
45)	TP	tert-Amyl meth...		0.172	0.171	0.190	0.208	0.218	0.230	0.228	0.202	12.43
46)	S	1,2-Dichloroet...	0.286	0.306	0.301	0.305	0.293	0.289	0.294	0.289	0.295	2.57
47)	T	1,2-Dichloroet...		0.154	0.165	0.170	0.162	0.154	0.154	0.149	0.158	4.65
50)	TP	Methyl cyclohe...			0.094	0.200	0.226	0.224	0.233	0.238	*L	0.9996
51)	TP	Trichloroethene	0.133	0.113	0.124	0.143	0.143	0.140	0.141	0.141	0.135#	8.23
53)	TP	Dibromomethane		0.065	0.068	0.071	0.070	0.068	0.069	0.067	0.068	2.99
54)	TP	1,2-Dichloropr...		0.115	0.131	0.154	0.152	0.147	0.147	0.143	0.141#	9.64
56)	TP	2-Chloroethyl ...		0.039	0.041	0.053	0.059	0.063	0.063	0.061	0.054	18.80
57)	TP	Bromodichlorom...		0.138	0.157	0.175	0.176	0.174	0.176	0.173	0.167#	8.74
60)	TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.34
61)	TP	cis-1,3-Dichlo...	0.121	0.126	0.149	0.186	0.197	0.199	0.201	0.197	0.172#	19.89
62)	I	Chlorobenzene-d5	----------ISTD----------									
63)	S	Toluene-d8	1.265	1.258	1.267	1.262	1.281	1.288	1.295	1.276	1.274	1.03
64)	TP	Toluene		0.347	0.400	0.427	0.437	0.427	0.429	0.416	0.412	7.55
65)	TP	4-Methyl-2-pen...			0.023	0.028	0.034	0.037	0.038	0.037	0.033	18.50
66)	TP	Tetrachloroethene		0.107	0.132	0.169	0.181	0.179	0.181	0.181	0.162	18.41
68)	TP	trans-1,3-Dich...		0.112	0.139	0.175	0.208	0.214	0.217	0.212	*L	0.9992
70)	TP	Ethyl methacry...			0.090	0.124	0.141	0.147	0.149	0.144	0.133	17.01
71)	TP	1,1,2-Trichlor...		0.072	0.079	0.094	0.102	0.111	0.111	0.108	0.097#	16.46
72)	TP	Chlorodibromom...		0.089	0.117	0.139	0.157	0.162	0.164	0.161	*L	0.9995
73)	TP	1,3-Dichloropr...		0.151	0.163	0.188	0.207	0.208	0.208	0.200	0.190	12.35
74)	TP	1,2-Dibromoethane		0.077	0.089	0.107	0.119	0.123	0.123	0.120	0.108#	16.86
76)	TP	2-Hexanone			0.045	0.055	0.064	0.069	0.069	0.066	0.061	15.23
77)	TP	Chlorobenzene		0.417	0.478	0.486	0.486	0.471	0.470	0.458	0.467	5.15

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

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L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
78)	TP	Ethylbenzene		0.611	0.710	0.850	0.854	0.821	0.817	0.780	0.778	11.36
79)	TP	1,1,1,2-Tetrac...		0.107	0.127	0.144	0.161	0.166	0.168	0.166	0.148	15.82
80)	TP	p/m Xylene		0.220	0.271	0.332	0.334	0.323	0.322	0.310	0.302	13.84
81)	TP	o Xylene		0.200	0.259	0.313	0.315	0.308	0.308	0.296	0.285	14.79
82)	TP	Styrene		0.304	0.416	0.503	0.521	0.507	0.499	0.464	0.459	16.79
83)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
84)	TP	Bromoform		0.110	0.118	0.137	0.162	0.172	0.176	0.179	0.150	19.06
86)	TP	Isopropylbenzene		1.046	1.323	1.726	1.771	1.679	1.676	1.637	1.551	17.18
87)	S	4-Bromofluorob...	0.911	0.911	0.900	0.932	0.924	0.900	0.900	0.908	0.911	1.31
88)	TP	Bromobenzene		0.335	0.355	0.374	0.380	0.370	0.371	0.370	0.365	4.18
89)	TP	n-Propylbenzene		1.282	1.530	1.993	2.048	1.948	1.952	1.864	1.802	15.83
90)	TP	1,4-Dichlorobu...		0.423	0.442	0.474	0.497	0.492	0.489	0.483	0.472	5.94
91)	TP	1,1,2,2-Tetrac...		0.237	0.231	0.246	0.267	0.266	0.266	0.263	0.254	6.06
92)	TP	4-Ethyltoluene		1.049	1.261	1.602	1.644	1.579	1.593	1.555	1.469	15.29
93)	TP	2-Chlorotoluene		0.883	1.048	1.156	1.157	1.108	1.131	1.117	1.086	8.88
94)	TP	1,3,5-Trimethy...		0.876	1.095	1.350	1.365	1.327	1.358	1.343	1.245	15.14
95)	TP	1,2,3-Trichlor...		0.162	0.186	0.191	0.205	0.202	0.204	0.205	0.194	8.07
96)	TP	trans-1,4-Dich...		0.063	0.078	0.083	0.094	0.095	0.096	0.095	0.086	14.50
97)	TP	4-Chlorotoluene		0.906	1.071	1.192	1.204	1.158	1.166	1.146	1.121	9.26
98)	TP	tert-Butylbenzene		0.714	0.853	1.187	1.236	1.189	1.202	1.183	1.081	19.23
101)	TP	1,2,4-Trimethy...		0.970	1.245	1.527	1.538	1.479	1.505	1.471	1.391	15.13
102)	TP	sec-Butylbenzene		0.953	1.168	1.721	1.779	1.693	1.711	1.646	*L	0.9992
103)	TP	p-Isopropyltol...		0.760	0.980	1.439	1.476	1.423	1.444	1.406	*L	0.9995
104)	TP	1,3-Dichlorobe...		0.643	0.722	0.760	0.757	0.734	0.732	0.718	0.724	5.42
105)	TP	1,4-Dichlorobe...		0.681	0.712	0.743	0.738	0.714	0.722	0.712	0.718	2.86
106)	TP	p-Diethylbenzene			0.566	0.809	0.846	0.825	0.842	0.840	0.788	13.93
107)	TP	n-Butylbenzene		0.629	0.830	1.214	1.226	1.171	1.197	1.177	*L	0.9996
108)	TP	1,2-Dichlorobe...		0.568	0.628	0.667	0.670	0.653	0.655	0.639	0.640	5.50
109)	TP	1,2,4,5-Tetram...			0.737	1.085	1.193	1.167	1.175	1.128	1.081	16.00
110)	TP	1,2-Dibromo-3-...		0.007	0.027	0.033	0.037	0.040	0.040	0.040	*L	0.9993
111)	TP	1,3,5-Trichlor...		0.347	0.382	0.443	0.449	0.433	0.439	0.427	0.417	9.11

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024
Response Via : Initial Calibration

Calibration Files
L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

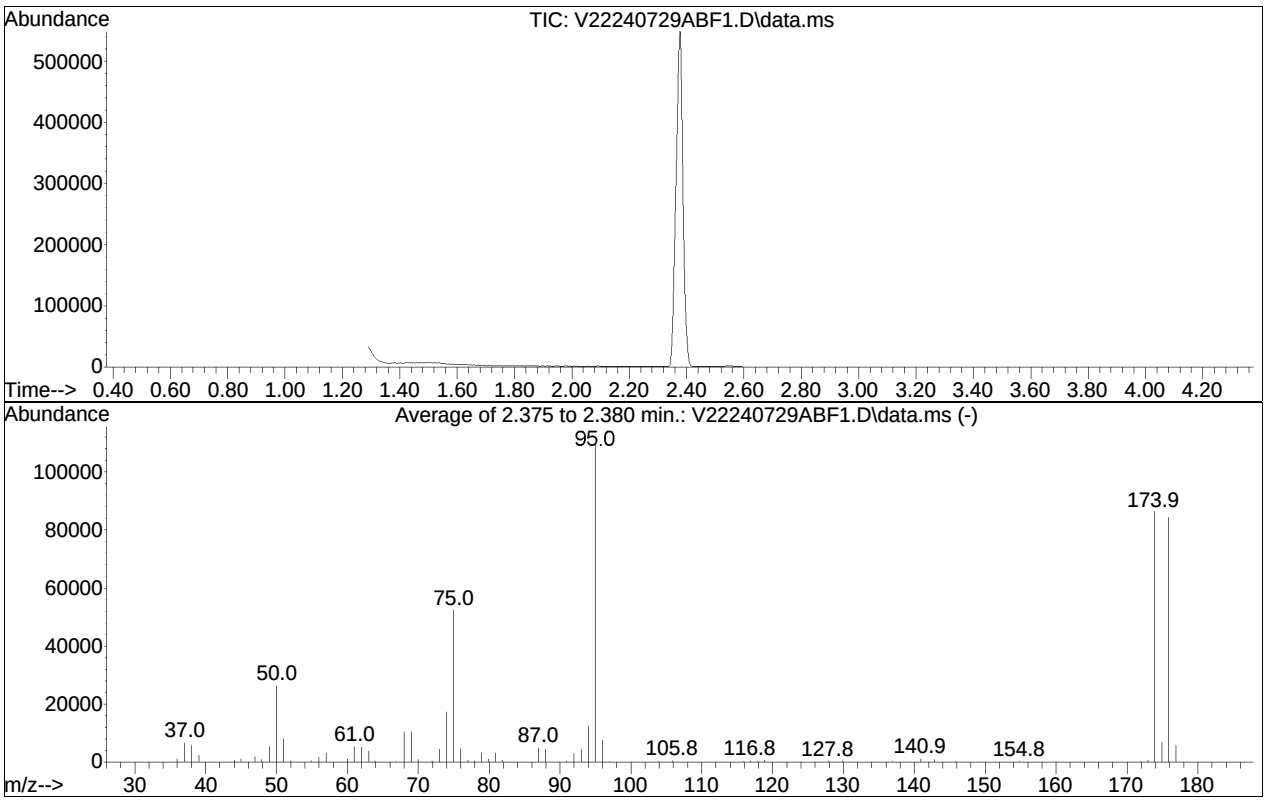
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
112)	TP Hexachlorobuta...	0.091	0.104	0.150	0.152	0.147	0.155	0.160	*L	0.9989	
113)	TP 1,2,4-Trichlor...	0.285	0.311	0.368	0.385	0.380	0.381	0.374	0.355#	11.26	
114)	TP Naphthalene	0.486	0.583	0.770	0.883	0.870	0.861	0.815	*L	0.9987	
115)	TP 1,2,3-Trichlor...	0.237	0.280	0.315	0.328	0.320	0.320	0.310	0.301#	10.69	

(#) = Out of Range

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729ABF1.D
Acq On : 29 Jul 2024 12:26 pm
Operator : VOA122:PID
Sample : WG1953132-1
Misc : WG1953132
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 374

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.9	26280	PASS
75	95	30	60	47.7	52499	PASS
95	95	100	100	100.0	110096	PASS
96	95	5	9	6.9	7556	PASS
173	174	0.00	2	0.7	585	PASS
174	95	50	100	78.4	86301	PASS
175	174	5	9	7.7	6687	PASS
176	174	95	101	97.7	84309	PASS
177	176	5	9	6.8	5766	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A03.D
Acq On : 29 Jul 2024 01:23 pm
Operator : VOA122:PID
Sample : I8260STD0.19PPB
Misc : WG1953132,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 06:56:43 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.977	96	488909	10.000 ug/L	0.00
Standard Area 1 = 507125			Recovery =	96.41%	
62) Chlorobenzene-d5	9.519	117	403292	10.000 ug/L	0.00
Standard Area 1 = 414608			Recovery =	97.27%	
83) 1,4-Dichlorobenzene-d4	12.236	152	193032	10.000 ug/L	0.00
Standard Area 1 = 204327			Recovery =	94.47%	
System Monitoring Compounds					
38) Dibromofluoromethane	5.158	113	173978	10.184 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.84%	
46) 1,2-Dichloroethane-d4	5.688	65	140055	9.699 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.99%	
63) Toluene-d8	7.675	98	510117	9.927 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.27%	
87) 4-Bromofluorobenzene	11.019	95	175827	10.003 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.03%	
Target Compounds					Qvalue
4) Vinyl chloride	1.881	62	1880	0.185 ug/L	92
36) Carbon tetrachloride	5.118	117	1663	0.165 ug/L #	87
44) Benzene	5.557	78	5360	0.173 ug/L #	85
51) Trichloroethene	6.147	95	1239	0.188 ug/L #	80
61) cis-1,3-Dichloropropene	7.459	75	1125	0.134 ug/L #	82
68) trans-1,3-Dichloropropene	8.210	75	841	0.120 ug/L #	62

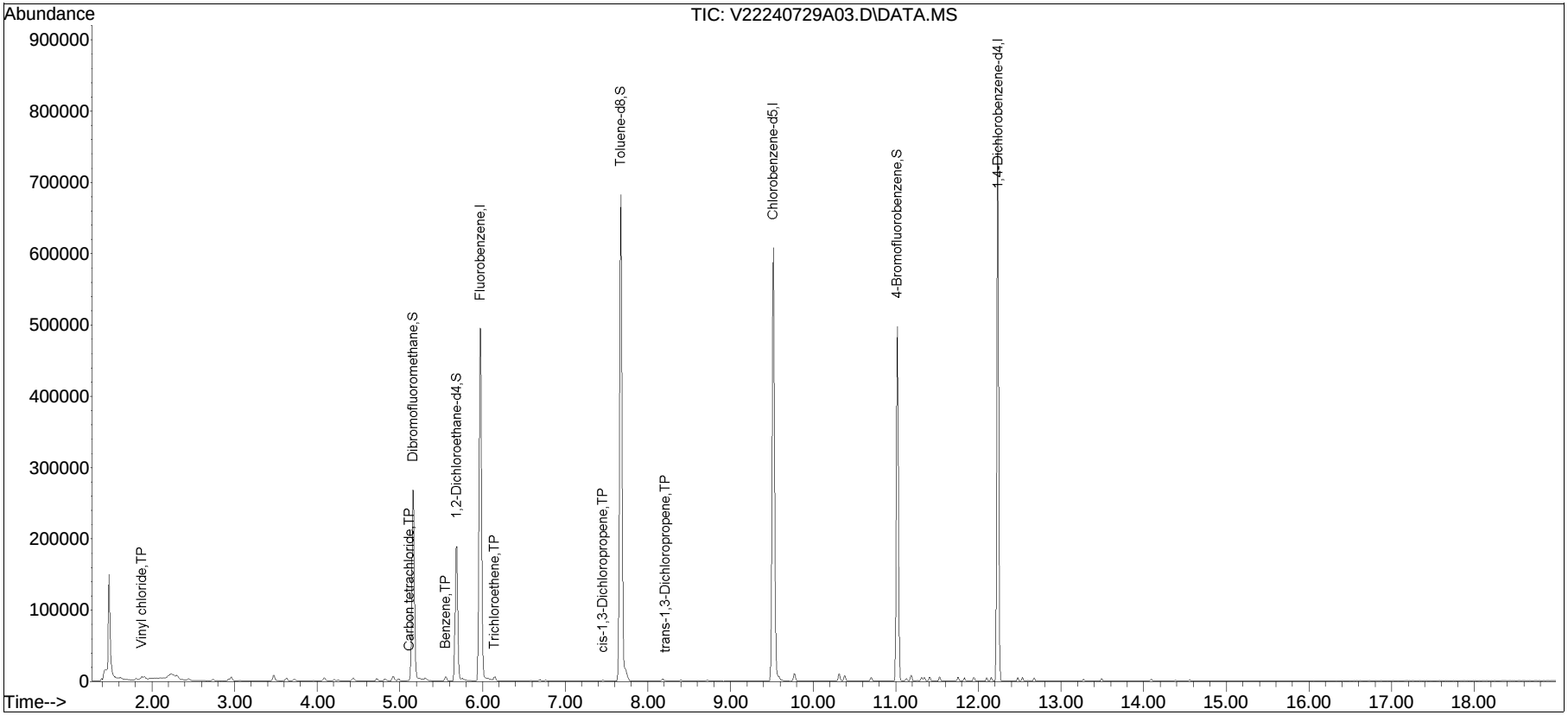
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A03.D
Acq On : 29 Jul 2024 01:23 pm
Operator : VOA122:PID
Sample : I8260STD0.19PPB
Misc : WG1953132,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 06:56:43 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-L11_MCP - L11 MCP729AICAL\V22240729A08.D•



Manual Integration Report

Data Path	: K:\VOA122\2024\240729AICALQ	Method	: V122_240729A_8260.m
Data File	: V22240729A03.D	Operator	: VOA122:PID
Date Inj'd	: 7/29/2024 1:23 pm	Instrument	: VOA 122
Sample	: I8260STD0.19PPB	Quant Date	: 7/30/2024 6:56 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	466096	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery =	91.91%		
62) Chlorobenzene-d5	9.519	117	404492	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery =	97.56%		
83) 1,4-Dichlorobenzene-d4	12.236	152	191762	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery =	93.85%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	178166	10.940	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.40%		
46) 1,2-Dichloroethane-d4	5.688	65	142623	10.360	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.60%		
63) Toluene-d8	7.675	98	509018	9.877	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.77%		
87) 4-Bromofluorobenzene	11.019	95	174668	10.003	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.03%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	2766	0.319	ug/L	94
3) Chloromethane	1.808	50	5873	0.478	ug/L	97
4) Vinyl chloride	1.880	62	4099	0.422	ug/L	96
5) Bromomethane	2.188	94	1633	0.419	ug/L	99
6) Chloroethane	2.306	64	2753	0.490	ug/L	92
7) Trichlorofluoromethane	2.444	101	3353	0.320	ug/L	94
8) Ethyl ether	2.739	74	1553	0.479	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	2572	0.399	ug/L	82
11) Carbon disulfide	2.962	76	9420	0.445	ug/L	100
12) Freon-113	2.968	101	1784	0.287	ug/L	88
13) Iodomethane	3.067	142	1778	0.229	ug/L #	89
14) Acrolein	3.250	56	413	0.373	ug/L	90
15) Methylene chloride	3.480	84	5525	0.646	ug/L #	57
17) Acetone	3.512	43	1541	0.868	ug/L #	77
18) trans-1,2-Dichloroethene	3.630	96	3455	0.458	ug/L	83
19) Methyl acetate	3.637	43	2412	0.602	ug/L #	63
21) Methyl tert-butyl ether	3.729	73	5913	0.410	ug/L #	68
22) tert-Butyl alcohol	3.814	59	517	1.712	ug/L #	70
24) Diisopropyl ether	4.089	45	11490	0.424	ug/L #	88
25) 1,1-Dichloroethane	4.207	63	7248	0.470	ug/L	93
26) Halothane	4.260	117	2244	0.399	ug/L	91

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	1040	0.489	ug/L		90
28) Ethyl tert-butyl ether	4.437	59	7540	0.387	ug/L	#	79
29) Vinyl acetate	4.443	43	6371	0.393	ug/L	#	87
30) cis-1,2-Dichloroethene	4.718	96	3923	0.469	ug/L	#	79
31) 2,2-Dichloropropane	4.823	77	4065	0.421	ug/L	#	60
32) Bromochloromethane	4.915	128	1950	0.494	ug/L	#	61
33) Cyclohexane	4.928	56	3547	0.251	ug/L	#	61
34) Chloroform	4.981	83	6604	0.495	ug/L	#	93
35) Ethyl acetate	0.000		0	N.D.	d		
36) Carbon tetrachloride	5.125	117	3370	0.350	ug/L	#	89
37) Tetrahydrofuran	0.000		0	N.D.	d		
39) 1,1,1-Trichloroethane	5.190	97	4298	0.382	ug/L		94
41) 2-Butanone	0.000		0	N.D.	d		
42) 1,1-Dichloropropene	5.315	75	2981	0.329	ug/L		93
44) Benzene	5.557	78	12050	0.408	ug/L	#	89
45) tert-Amyl methyl ether	5.669	73	4001	0.424	ug/L	#	77
47) 1,2-Dichloroethane	5.754	62	3598	0.488	ug/L		96
50) Methyl cyclohexane	6.153	83	1780	0.207	ug/L	#	58
51) Trichloroethene	6.153	95	2622	0.418	ug/L		88
53) Dibromomethane	6.591	93	1506	0.474	ug/L	#	81
54) 1,2-Dichloropropane	6.702	63	2689	0.408	ug/L	#	92
56) 2-Chloroethyl vinyl ether	7.390	63	908	0.360	ug/L	#	63
57) Bromodichloromethane	6.764	83	3207	0.412	ug/L	#	96
60) 1,4-Dioxane	6.980	88	2443	93.931	ug/L	#	60
61) cis-1,3-Dichloropropene	7.459	75	2939	0.367	ug/L	#	79
64) Toluene	7.730	92	7012	0.421	ug/L		93
65) 4-Methyl-2-pentanone	0.000		0	N.D.	d		
66) Tetrachloroethene	8.182	166	2168	0.332	ug/L		97
68) trans-1,3-Dichloropropene	8.210	75	2272	0.324	ug/L	#	74
70) Ethyl methacrylate	8.405	69	1492	0.297	ug/L	#	83
71) 1,1,2-Trichloroethane	8.398	83	1448	0.370	ug/L		90
72) Chlorodibromomethane	8.600	129	1794	0.314	ug/L		96
73) 1,3-Dichloropropane	8.719	76	3059	0.399	ug/L		95
74) 1,2-Dibromoethane	8.880	107	1564	0.357	ug/L		100
76) 2-Hexanone	9.175	43	718	0.308	ug/L	#	62
77) Chlorobenzene	9.540	112	8428	0.447	ug/L	#	78
78) Ethylbenzene	9.589	91	12355	0.393	ug/L		96
79) 1,1,1,2-Tetrachloroethane	9.631	131	2169	0.361	ug/L	#	62
80) p/m Xylene	9.771	106	8908	0.729	ug/L		99
81) o Xylene	10.318	106	8107	0.702	ug/L		94

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	12295	0.662	ug/L		98
84) Bromoform	10.395	173	1056	0.366	ug/L		94
86) Isopropylbenzene	10.704	105	10025	0.337	ug/L		95
88) Bromobenzene	11.132	156	3209	0.459	ug/L		97
89) n-Propylbenzene	11.188	91	12295	0.356	ug/L		97
90) 1,4-Dichlorobutane	11.188	55	4059	0.449	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	2271	0.467	ug/L	#	94
92) 4-Ethyltoluene	11.314	105	10057	0.357	ug/L		94
93) 2-Chlorotoluene	11.349	91	8470M6	0.407	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	8399	0.352	ug/L		96
95) 1,2,3-Trichloropropane	11.398	75	1558	0.419	ug/L		89
96) trans-1,4-Dichloro-2-b...	11.454	53	602	0.363	ug/L	#	50
97) 4-Chlorotoluene	11.531	91	8687	0.404	ug/L		97
98) tert-Butylbenzene	11.756	119	6844	0.330	ug/L		95
101) 1,2,4-Trimethylbenzene	11.833	105	9303	0.349	ug/L		99
102) sec-Butylbenzene	11.944	105	9142	0.313	ug/L		92
103) p-Isopropyltoluene	12.104	119	7286	0.298	ug/L		98
104) 1,3-Dichlorobenzene	12.160	146	6161	0.444	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	6529M3	0.474	ug/L		
106) p-Diethylbenzene	12.473	119	4233	0.299	ug/L		98
107) n-Butylbenzene	12.536	91	6027	0.296	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	5443	0.443	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	5385	0.279	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.461	155	71	0.115	ug/L	#	1
111) 1,3,5-Trichlorobenzene	13.496	180	3325	0.416	ug/L		97
112) Hexachlorobutadiene	14.074	225	875	0.333	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	2734	0.402	ug/L		95
114) Naphthalene	14.387	128	4657	0.323	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	2275	0.394	ug/L		98

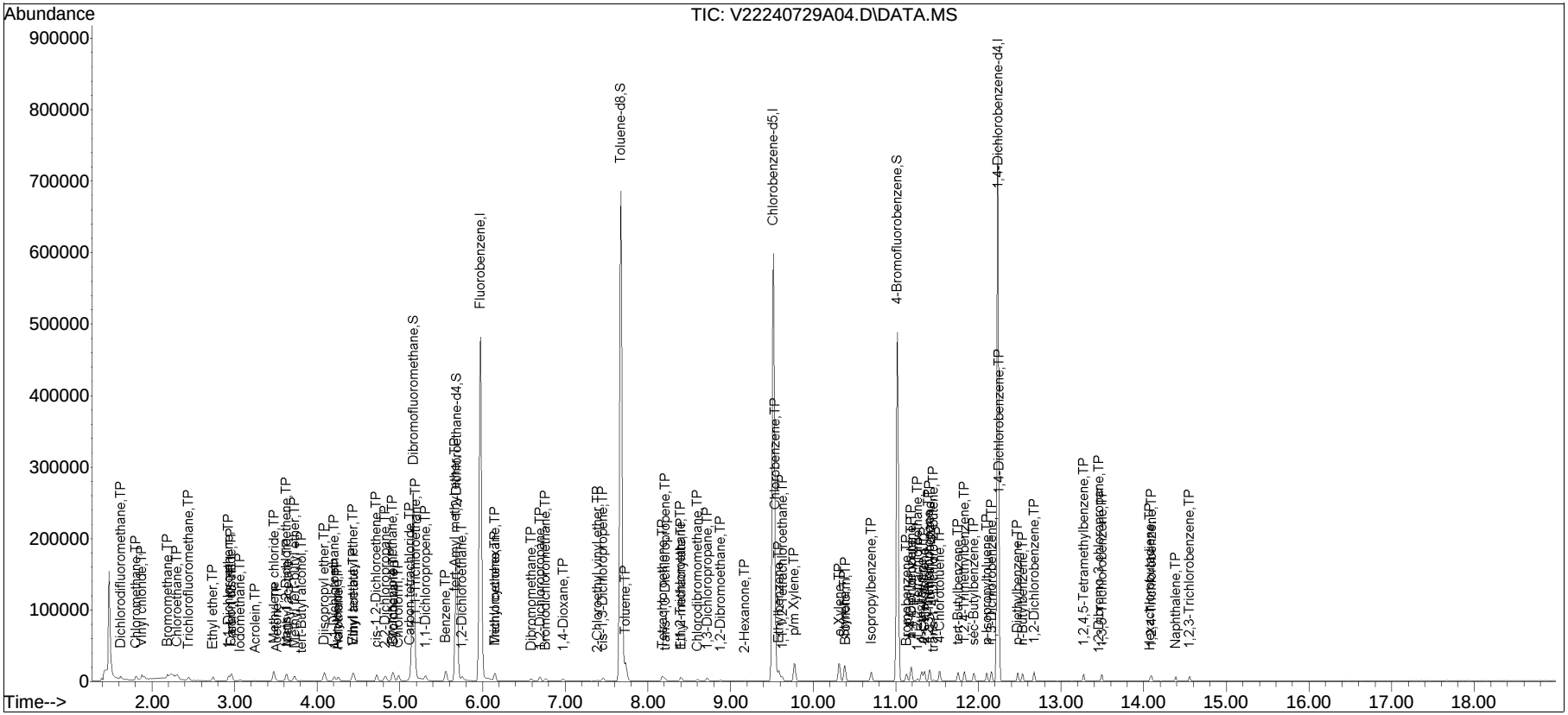
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A04.D
Acq On : 29 Jul 2024 01:47 pm
Operator : VOA122:PID
Sample : I8260STD0.5PPB
Misc : WG1953132,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 06:56:50 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

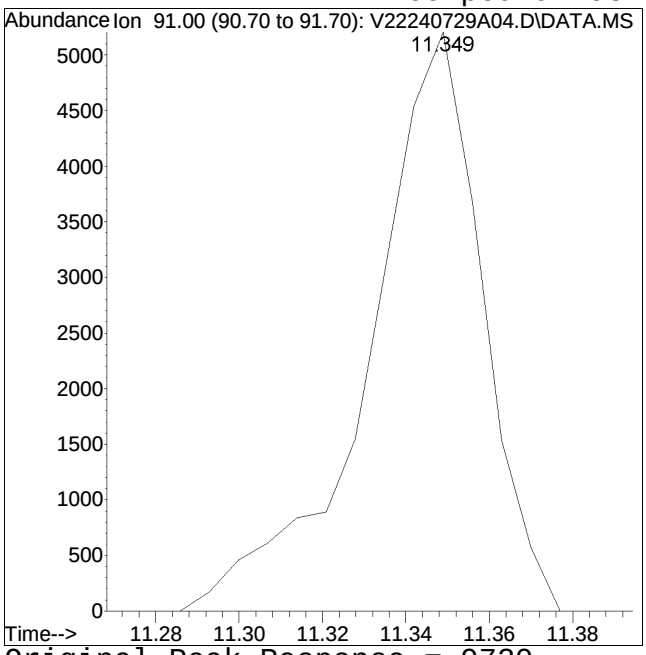
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



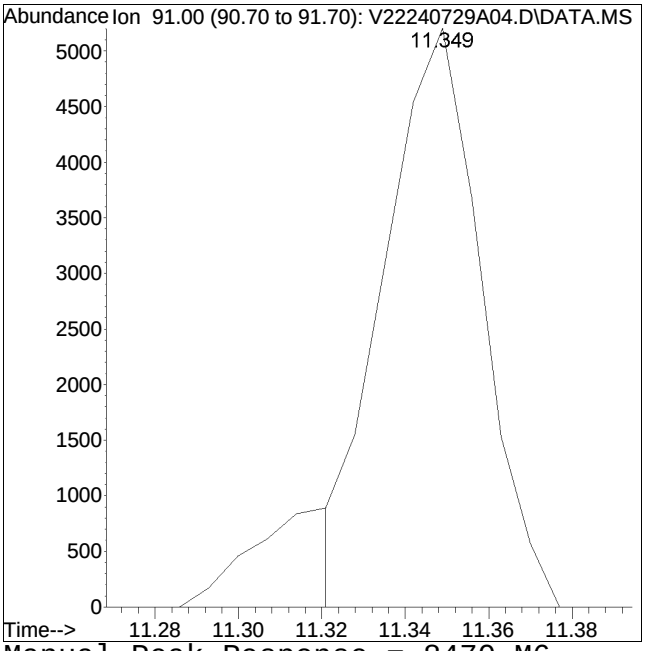
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A04.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 1:47 pm Instrument : VOA 122
Sample : I8260STD0.5PPB Quant Date : 7/30/2024 6:56 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 9720



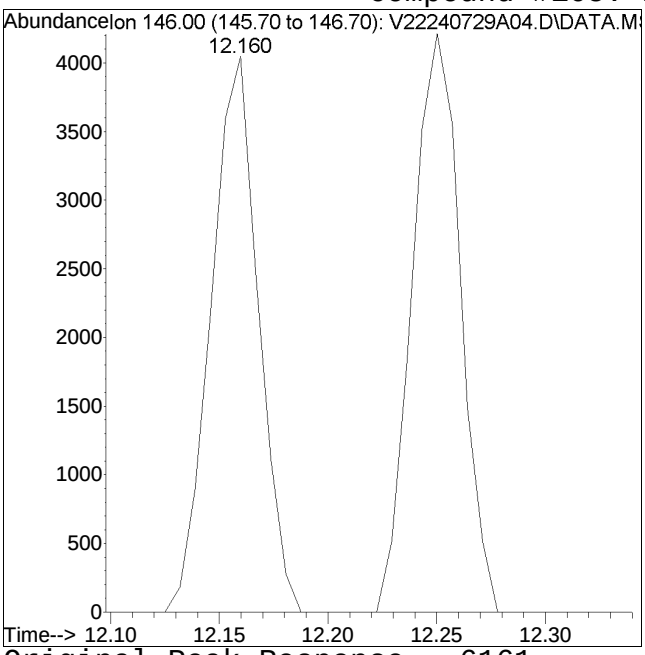
Manual Peak Response = 8470 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

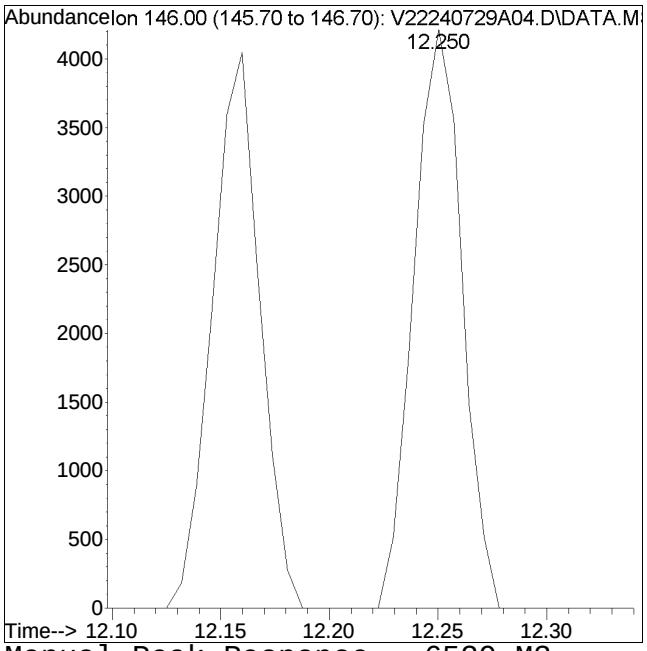
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A04.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 1:47 pm Instrument : VOA 122
Sample : I8260STD0.5PPB Quant Date : 7/30/2024 6:56 am

Compound #105: 1,4-Dichlorobenzene



Original Peak Response = 6161



Manual Peak Response = 6529 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	487751	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 96.18%			
62) Chlorobenzene-d5	9.519	117	406918	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 98.15%			
83) 1,4-Dichlorobenzene-d4	12.236	152	199758	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 97.76%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	185775	10.901	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.01%			
46) 1,2-Dichloroethane-d4	5.688	65	146804	10.191	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.91%			
63) Toluene-d8	7.675	98	515453	9.942	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.42%			
87) 4-Bromofluorobenzene	11.019	95	179700	9.879	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	14374	1.583	ug/L #	97
3) Chloromethane	1.808	50	28731	2.237	ug/L	98
4) Vinyl chloride	1.880	62	19430	1.912	ug/L	97
5) Bromomethane	2.188	94	7454	1.826	ug/L	99
6) Chloroethane	2.306	64	12862	2.189	ug/L	95
7) Trichlorofluoromethane	2.444	101	17429	1.592	ug/L	97
8) Ethyl ether	2.739	74	6753	1.989	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	12332	1.828	ug/L #	77
11) Carbon disulfide	2.962	76	44351	2.001	ug/L	98
12) Freon-113	2.975	101	9445	1.450	ug/L	93
13) Iodomethane	3.067	142	11855	1.459	ug/L	96
14) Acrolein	3.237	56	2376	2.049	ug/L	95
15) Methylene chloride	3.473	84	19892	2.224	ug/L #	57
17) Acetone	3.512	43	3914	2.106	ug/L #	84
18) trans-1,2-Dichloroethene	3.630	96	16471	2.087	ug/L	81
19) Methyl acetate	3.637	43	8697	2.073	ug/L #	77
21) Methyl tert-butyl ether	3.729	73	26147	1.732	ug/L #	70
22) tert-Butyl alcohol	3.807	59	2896	9.162	ug/L #	65
24) Diisopropyl ether	4.089	45	52947	1.867	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	34894	2.164	ug/L	95
26) Halothane	4.253	117	10748	1.827	ug/L	98

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	4335	1.948	ug/L		93
28) Ethyl tert-butyl ether	4.436	59	34490	1.693	ug/L		82
29) Vinyl acetate	4.443	43	28178	1.662	ug/L	#	86
30) cis-1,2-Dichloroethene	4.725	96	19099	2.183	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	19123	1.893	ug/L	#	68
32) Bromochloromethane	4.915	128	8964	2.171	ug/L	#	63
33) Cyclohexane	4.928	56	17826	1.205	ug/L		66
34) Chloroform	4.987	83	30215	2.165	ug/L	#	93
35) Ethyl acetate	5.098	43	9383	1.713	ug/L	#	88
36) Carbon tetrachloride	5.125	117	16650	1.653	ug/L	#	92
37) Tetrahydrofuran	5.144	42	3376M6	1.880	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	21558	1.832	ug/L		94
41) 2-Butanone	5.275	43	4092	1.786	ug/L	#	46
42) 1,1-Dichloropropene	5.315	75	15587	1.642	ug/L		99
44) Benzene	5.557	78	65545	2.122	ug/L	#	90
45) tert-Amyl methyl ether	5.675	73	16639	1.686	ug/L	#	75
47) 1,2-Dichloroethane	5.754	62	16066	2.081	ug/L		96
50) Methyl cyclohexane	6.153	83	9145	1.017	ug/L	#	55
51) Trichloroethene	6.153	95	12084	1.839	ug/L		95
53) Dibromomethane	6.591	93	6620	1.993	ug/L	#	80
54) 1,2-Dichloropropane	6.695	63	12801	1.856	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	4048	1.532	ug/L	#	72
57) Bromodichloromethane	6.764	83	15295	1.879	ug/L		100
60) 1,4-Dioxane	6.973	88	11033	405.375	ug/L	#	57
61) cis-1,3-Dichloropropene	7.459	75	14552	1.735	ug/L	#	80
64) Toluene	7.730	92	32572	1.943	ug/L		99
65) 4-Methyl-2-pentanone	8.161	58	1861	1.387	ug/L	#	51
66) Tetrachloroethene	8.175	166	10779	1.640	ug/L		91
68) trans-1,3-Dichloropropene	8.210	75	11279	1.599	ug/L	#	79
70) Ethyl methacrylate	8.411	69	7358	1.454	ug/L		91
71) 1,1,2-Trichloroethane	8.398	83	6445	1.637	ug/L		98
72) Chlorodibromomethane	8.607	129	9532	1.658	ug/L		99
73) 1,3-Dichloropropane	8.719	76	13298	1.723	ug/L		99
74) 1,2-Dibromoethane	8.880	107	7274	1.649	ug/L		100
76) 2-Hexanone	9.175	43	3695	1.577	ug/L	#	79
77) Chlorobenzene	9.540	112	38909	2.050	ug/L		95
78) Ethylbenzene	9.589	91	57821	1.827	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	10358	1.715	ug/L		98
80) p/m Xylene	9.778	106	44163	3.595	ug/L		99
81) o Xylene	10.318	106	42079	3.622	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	67724	3.624	ug/L		99
84) Bromoform	10.395	173	4704	1.565	ug/L		99
86) Isopropylbenzene	10.704	105	52842	1.705	ug/L		97
88) Bromobenzene	11.132	156	14174	1.945	ug/L		99
89) n-Propylbenzene	11.188	91	61128	1.698	ug/L		98
90) 1,4-Dichlorobutane	11.188	55	17672	1.876	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	9230	1.821	ug/L		99
92) 4-Ethyltoluene	11.314	105	50390	1.717	ug/L		100
93) 2-Chlorotoluene	11.349	91	41875M6	1.931	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	43761	1.760	ug/L		97
95) 1,2,3-Trichloropropane	11.398	75	7434	1.921	ug/L		94
96) trans-1,4-Dichloro-2-b...	11.454	53	3119	1.808	ug/L	#	56
97) 4-Chlorotoluene	11.531	91	42805	1.912	ug/L		99
98) tert-Butylbenzene	11.756	119	34068	1.578	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	49753	1.791	ug/L		100
102) sec-Butylbenzene	11.944	105	46682	1.533	ug/L		98
103) p-Isopropyltoluene	12.104	119	39172	1.537	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	28831	1.995	ug/L		98
105) 1,4-Dichlorobenzene	12.250	146	28455M3	1.985	ug/L		
106) p-Diethylbenzene	12.473	119	22597	1.532	ug/L		97
107) n-Butylbenzene	12.536	91	33165	1.561	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	25083	1.962	ug/L		97
109) 1,2,4,5-Tetramethylben...	13.273	119	29425	1.464	ug/L		97
110) 1,2-Dibromo-3-chloropr...	13.461	155	1071	1.661	ug/L		98
111) 1,3,5-Trichlorobenzene	13.496	180	15256	1.832	ug/L		96
112) Hexachlorobutadiene	14.074	225	4160	1.520	ug/L		97
113) 1,2,4-Trichlorobenzene	14.095	180	12408	1.751	ug/L		99
114) Naphthalene	14.387	128	23297	1.550	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	11179	1.857	ug/L		97

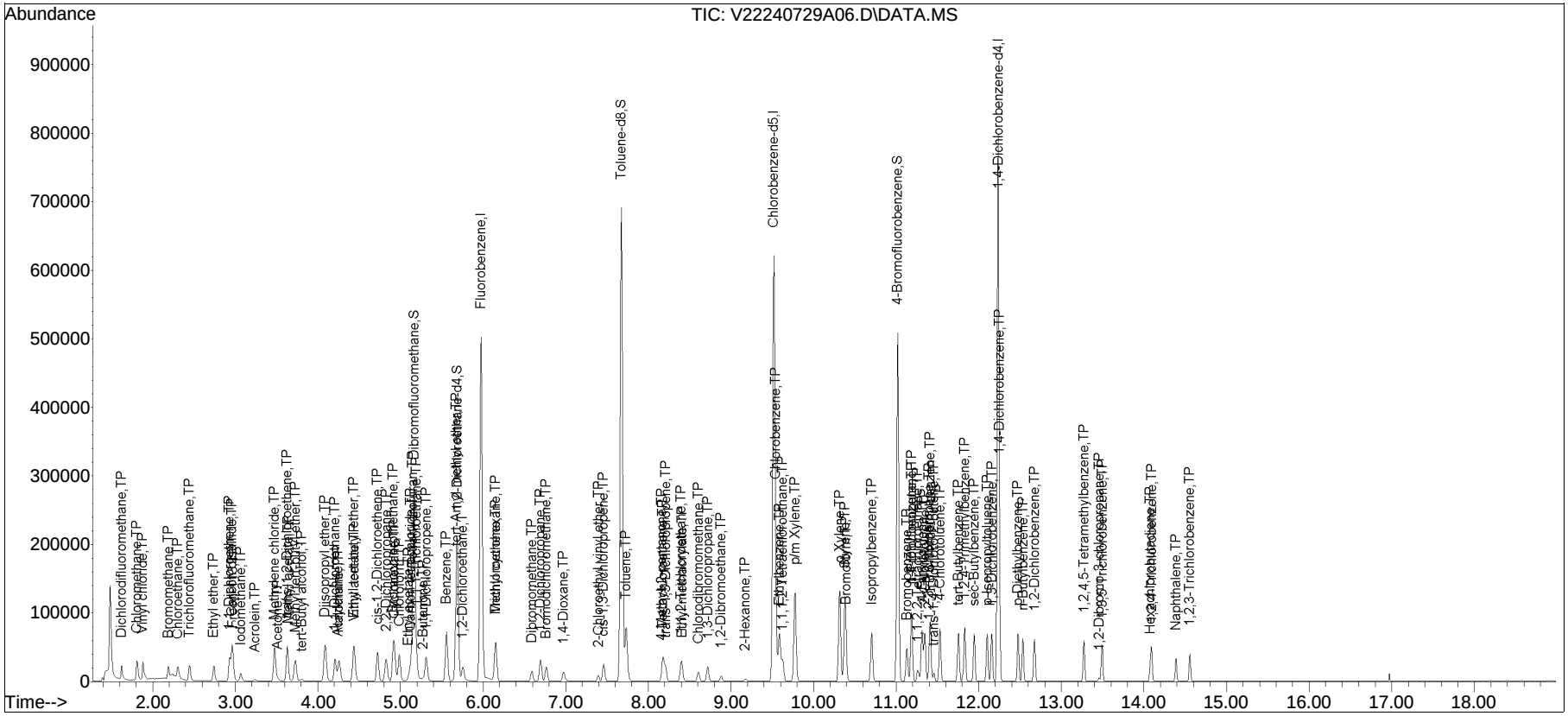
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A06.D
Acq On : 29 Jul 2024 02:36 pm
Operator : VOA122:PID
Sample : I8260STD2PPB
Misc : WG1953132,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 06:56:57 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

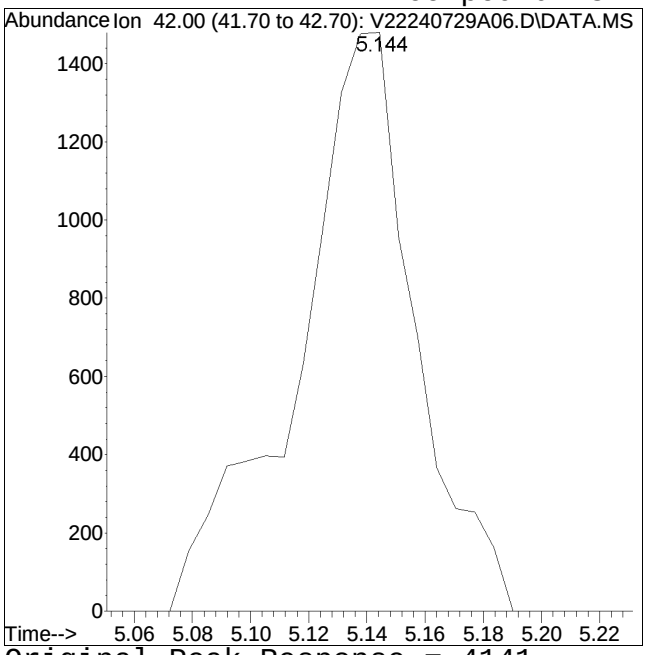


Manual Integration Report

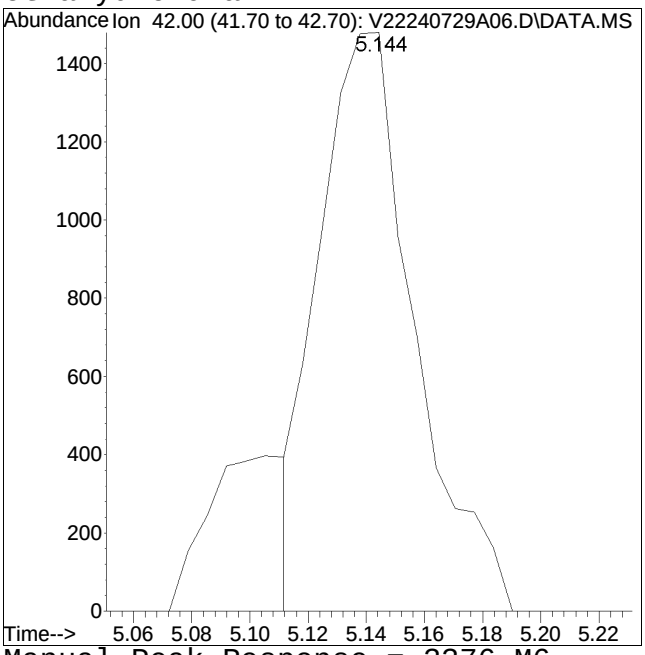
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A06.D
Date Inj'd : 7/29/2024 2:36 pm
Sample : I8260STD2PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:56 am

Compound #37: Tetrahydrofuran



Original Peak Response = 4141



Manual Peak Response = 3376 M6

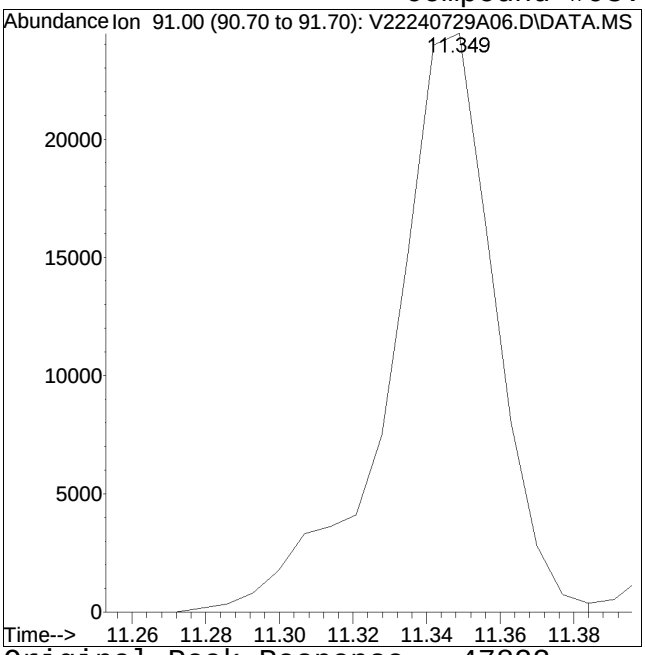
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

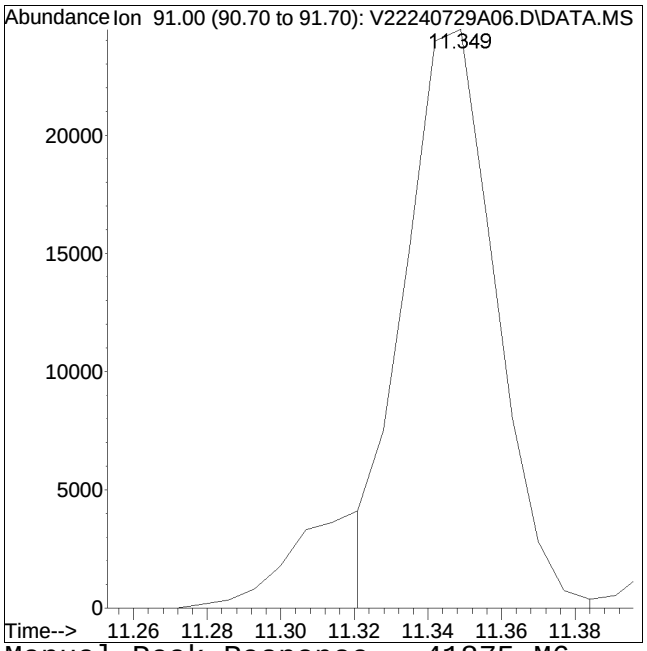
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A06.D
Date Inj'd : 7/29/2024 2:36 pm
Sample : I8260STD2PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:56 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 47822



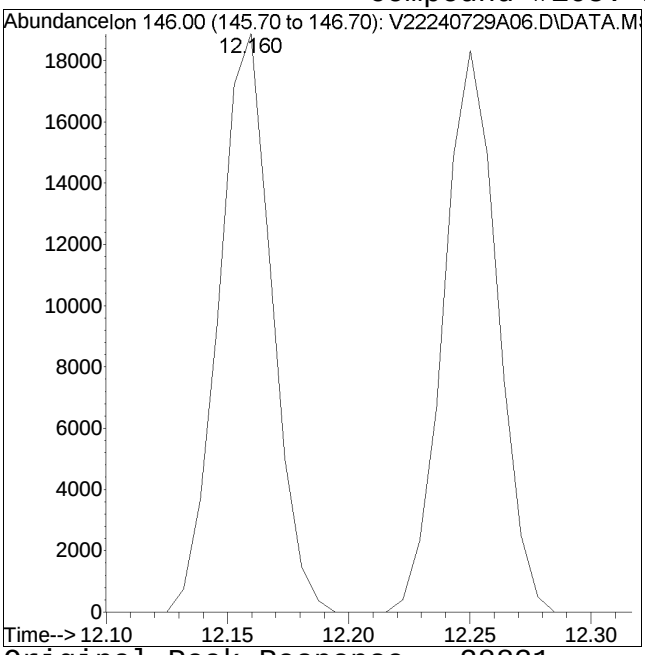
Manual Peak Response = 41875 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

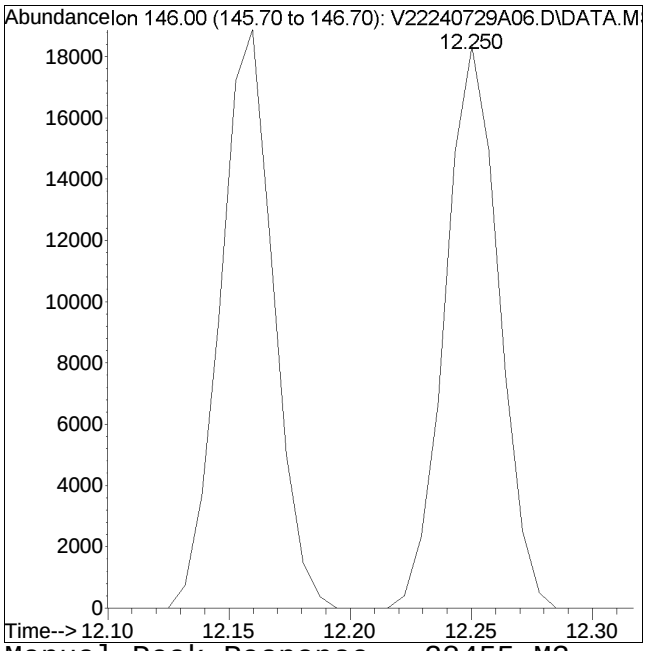
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A06.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 2:36 pm Instrument : VOA 122
Sample : I8260STD2PPB Quant Date : 7/30/2024 6:56 am

Compound #105: 1,4-Dichlorobenzene



Original Peak Response = 28831



Manual Peak Response = 28455 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	507125	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 100.00%			
62) Chlorobenzene-d5	9.519	117	414608	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 100.00%			
83) 1,4-Dichlorobenzene-d4	12.236	152	204327	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 100.00%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	181826	10.262	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.62%			
46) 1,2-Dichloroethane-d4	5.688	65	154528	10.317	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.17%			
63) Toluene-d8	7.675	98	523398	9.908	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.08%			
87) 4-Bromofluorobenzene	11.019	95	190463	10.237	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.37%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	108996	11.544	ug/L	97
3) Chloromethane	1.808	50	153481	11.492	ug/L	98
4) Vinyl chloride	1.880	62	117707	11.140	ug/L	98
5) Bromomethane	2.188	94	38034	8.960	ug/L	97
6) Chloroethane	2.306	64	67600	11.068	ug/L	98
7) Trichlorofluoromethane	2.444	101	130266	11.442	ug/L	100
8) Ethyl ether	2.739	74	36785	10.423	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	77321	11.021	ug/L #	74
11) Carbon disulfide	2.962	76	258420	11.212	ug/L	100
12) Freon-113	2.968	101	78230	11.549	ug/L	93
13) Iodomethane	3.067	142	86985	10.298	ug/L	94
14) Acrolein	3.237	56	12611	10.460	ug/L	99
15) Methylene chloride	3.473	84	96763	10.403	ug/L #	59
17) Acetone	3.512	43	17562	9.089	ug/L	94
18) trans-1,2-Dichloroethene	3.630	96	89864	10.949	ug/L	83
19) Methyl acetate	3.630	43	43051	9.868	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	160594	10.233	ug/L #	76
22) tert-Butyl alcohol	3.801	59	16964	51.618	ug/L #	83
24) Diisopropyl ether	4.089	45	301148	10.213	ug/L #	92
25) 1,1-Dichloroethane	4.207	63	185342	11.057	ug/L	95
26) Halothane	4.260	117	67082	10.965	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	24656	10.655	ug/L		99
28) Ethyl tert-butyl ether	4.437	59	209281	9.882	ug/L	#	80
29) Vinyl acetate	4.437	43	179190	10.167	ug/L	#	87
30) cis-1,2-Dichloroethene	4.725	96	99687	10.960	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	113817	10.834	ug/L	#	72
32) Bromochloromethane	4.915	128	47106	10.975	ug/L	#	66
33) Cyclohexane	4.928	56	177898	11.568	ug/L		66
34) Chloroform	4.987	83	153810	10.602	ug/L	#	94
35) Ethyl acetate	5.092	43	56116	9.852	ug/L	#	93
36) Carbon tetrachloride	5.125	117	118186	11.288	ug/L		98
37) Tetrahydrofuran	5.138	42	19281M6	10.330	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	133168	10.885	ug/L		95
41) 2-Butanone	5.275	43	22509	9.447	ug/L	#	41
42) 1,1-Dichloropropene	5.308	75	108351	10.976	ug/L		99
44) Benzene	5.557	78	332787	10.361	ug/L	#	90
45) tert-Amyl methyl ether	5.669	73	96339	9.388	ug/L	#	81
47) 1,2-Dichloroethane	5.754	62	86117	10.731	ug/L		97
50) Methyl cyclohexane	6.153	83	101349	10.837	ug/L	#	63
51) Trichloroethene	6.153	95	72595	10.626	ug/L		95
53) Dibromomethane	6.591	93	35862	10.384	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	78055	10.882	ug/L	#	94
56) 2-Chloroethyl vinyl ether	7.397	63	26732	9.728	ug/L	#	76
57) Bromodichloromethane	6.764	83	88515	10.459	ug/L		99
60) 1,4-Dioxane	6.980	88	15178	536.365	ug/L	#	52
61) cis-1,3-Dichloropropene	7.459	75	94563	10.843	ug/L	#	83
64) Toluene	7.730	92	177081	10.369	ug/L		100
65) 4-Methyl-2-pentanone	8.168	58	11706	8.565	ug/L	#	62
66) Tetrachloroethene	8.182	166	69874	10.434	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	72626	10.102	ug/L	#	82
70) Ethyl methacrylate	8.412	69	51468	9.985	ug/L		98
71) 1,1,2-Trichloroethane	8.398	83	38889	9.697	ug/L		96
72) Chlorodibromomethane	8.607	129	57490	9.816	ug/L		100
73) 1,3-Dichloropropane	8.719	76	78139	9.937	ug/L		99
74) 1,2-Dibromoethane	8.880	107	44345	9.867	ug/L		99
76) 2-Hexanone	9.175	43	22658	9.491	ug/L	#	84
77) Chlorobenzene	9.540	112	201339	10.409	ug/L		91
78) Ethylbenzene	9.589	91	352544	10.933	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.624	131	59593	9.686	ug/L		97
80) p/m Xylene	9.778	106	275639	22.022	ug/L		99
81) o Xylene	10.318	106	259398	21.915	ug/L		99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	417260	21.916	ug/L		100
84) Bromoform	10.395	173	27898	9.076	ug/L		98
86) Isopropylbenzene	10.704	105	352704	11.128	ug/L		98
88) Bromobenzene	11.132	156	76366	10.247	ug/L		100
89) n-Propylbenzene	11.188	91	407322	11.060	ug/L		98
90) 1,4-Dichlorobutane	11.188	55	96756	10.043	ug/L		93
91) 1,1,2,2-Tetrachloroethane	11.265	83	50331	9.708	ug/L		99
92) 4-Ethyltoluene	11.314	105	327354	10.906	ug/L		99
93) 2-Chlorotoluene	11.349	91	236113M6	10.643	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	275826	10.844	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	39105	9.881	ug/L		97
96) trans-1,4-Dichloro-2-b...	11.454	53	17036	9.653	ug/L	#	67
97) 4-Chlorotoluene	11.531	91	243559	10.638	ug/L		99
98) tert-Butylbenzene	11.756	119	242602	10.988	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	312105	10.982	ug/L		99
102) sec-Butylbenzene	11.944	105	351706	11.291	ug/L		98
103) p-Isopropyltoluene	12.104	119	294081	11.285	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	155327	10.507	ug/L		98
105) 1,4-Dichlorobenzene	12.250	146	151816	10.355	ug/L		96
106) p-Diethylbenzene	12.480	119	165253	10.953	ug/L		99
107) n-Butylbenzene	12.536	91	248066	11.416	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	136372	10.427	ug/L		97
109) 1,2,4,5-Tetramethylben...	13.274	119	221635	10.778	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.454	155	6822	10.341	ug/L		96
111) 1,3,5-Trichlorobenzene	13.489	180	90492	10.622	ug/L		96
112) Hexachlorobutadiene	14.074	225	30687	10.961	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	75100	10.360	ug/L		98
114) Naphthalene	14.387	128	157343	10.234	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	64316	10.445	ug/L		98

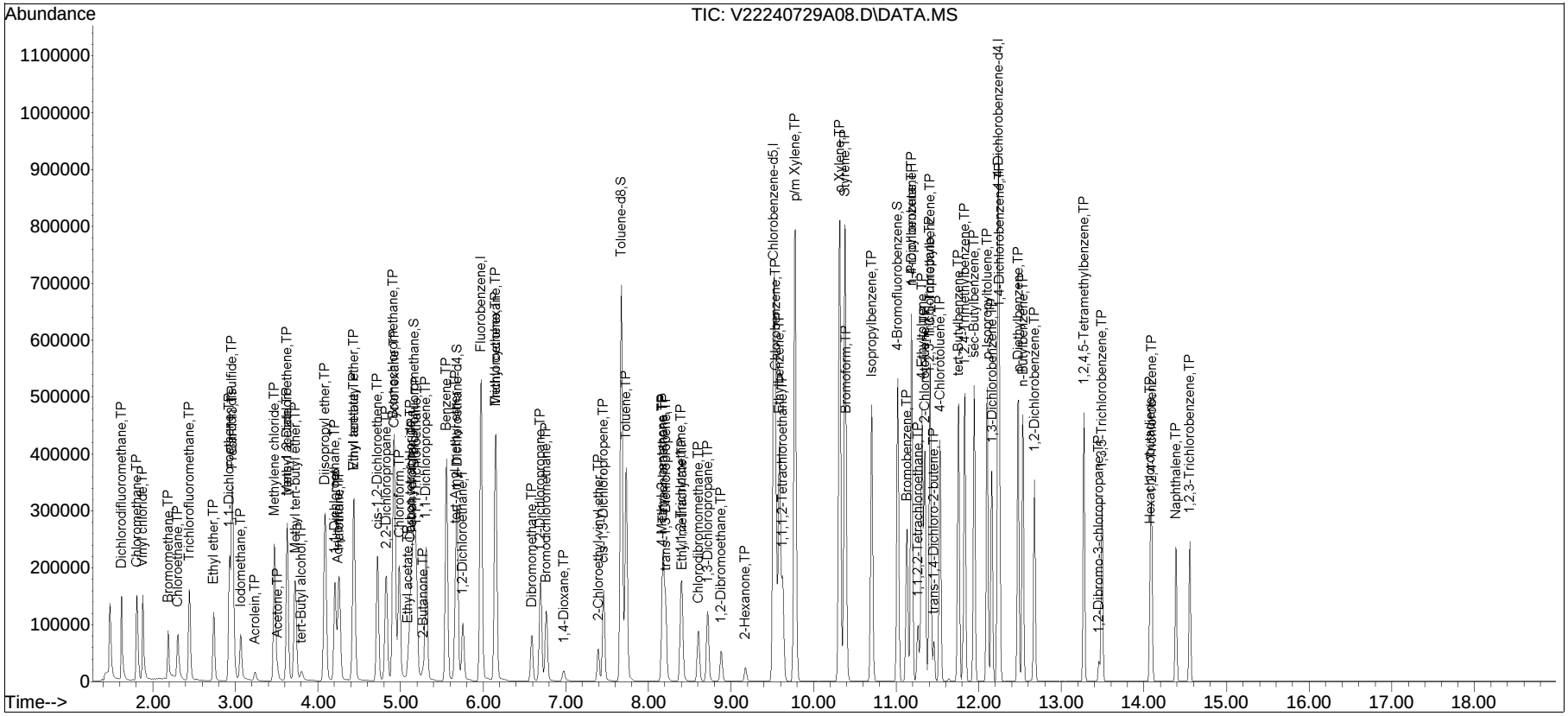
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A08.D
Acq On : 29 Jul 2024 03:25 pm
Operator : VOA122:PID
Sample : I8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 06:57:04 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

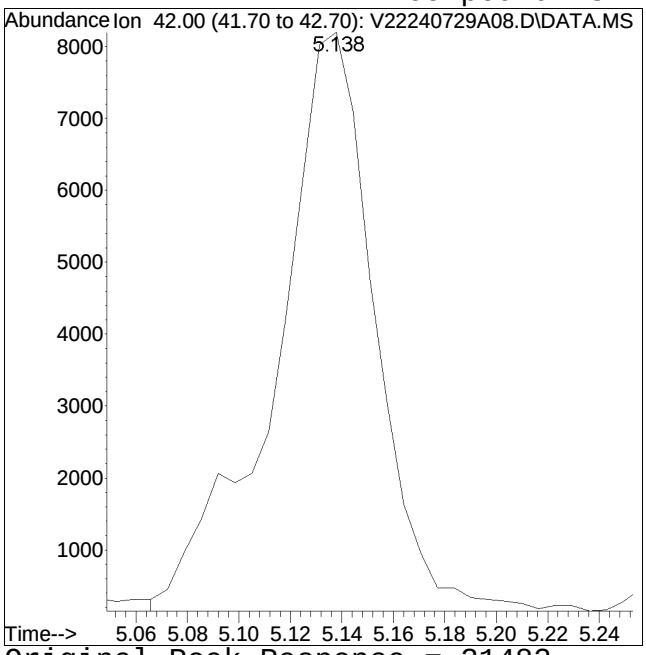


Manual Integration Report

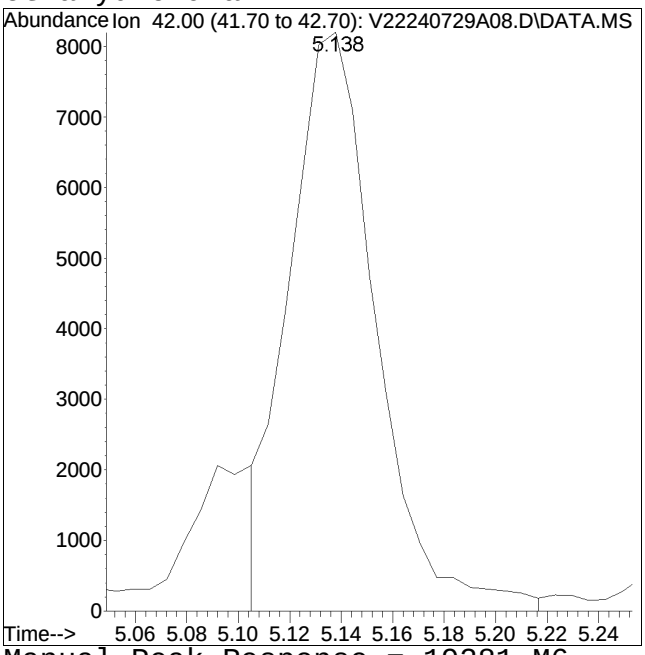
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A08.D
Date Inj'd : 7/29/2024 3:25 pm
Sample : I8260STD10PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 21482



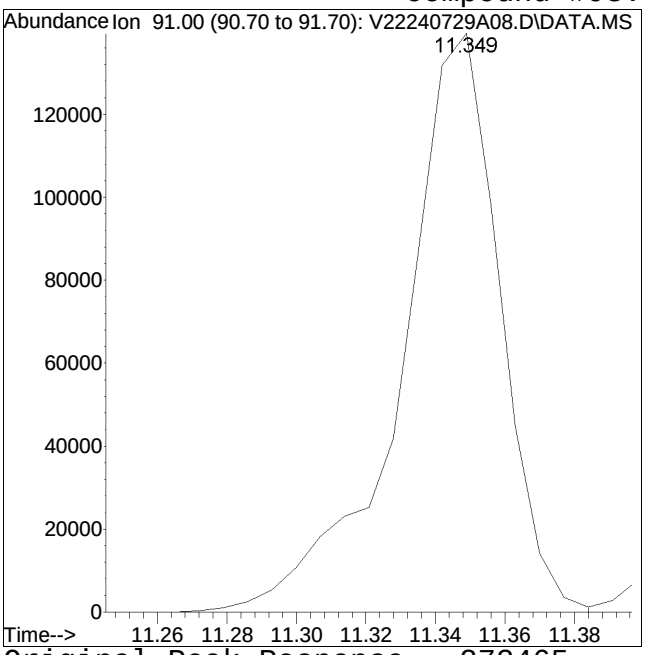
Manual Peak Response = 19281 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

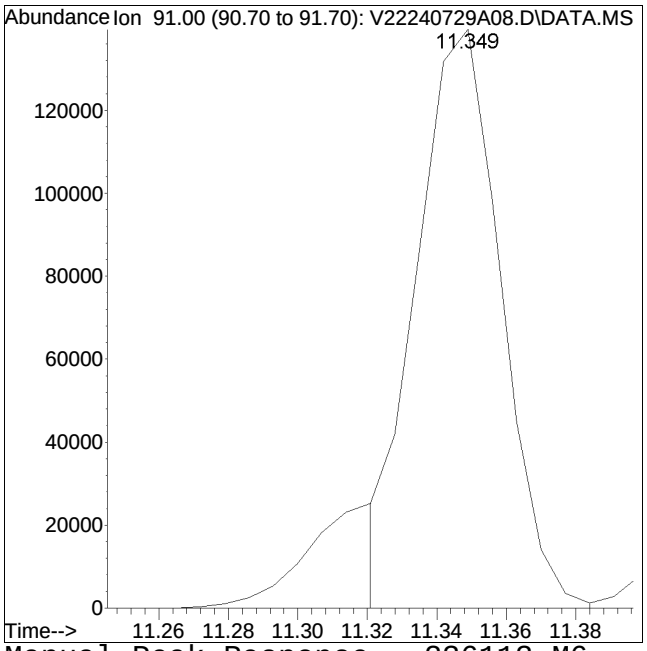
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A08.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 3:25 pm Instrument : VOA 122
Sample : I8260STD10PPB Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 272465



Manual Peak Response = 236113 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	565935	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 111.60%			
62) Chlorobenzene-d5	9.519	117	434743	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 104.86%			
83) 1,4-Dichlorobenzene-d4	12.236	152	212864	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 104.18%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	191820	9.701	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.01%			
46) 1,2-Dichloroethane-d4	5.688	65	165884	9.924	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.24%			
63) Toluene-d8	7.675	98	557077	10.057	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.57%			
87) 4-Bromofluorobenzene	11.019	95	196659	10.146	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.46%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	378740	35.946	ug/L #	96
3) Chloromethane	1.808	50	470305	31.556	ug/L	98
4) Vinyl chloride	1.880	62	392548	33.292	ug/L	97
5) Bromomethane	2.188	94	133556	28.195	ug/L	98
6) Chloroethane	2.306	64	213118	31.267	ug/L	96
7) Trichlorofluoromethane	2.444	101	446957	35.178	ug/L	98
8) Ethyl ether	2.739	74	118047	29.972	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	262276	33.498	ug/L #	75
11) Carbon disulfide	2.962	76	833671	32.412	ug/L	100
12) Freon-113	2.975	101	270274	35.754	ug/L	93
13) Iodomethane	3.067	142	322209	34.183	ug/L	94
14) Acrolein	3.237	56	42198	31.364	ug/L	97
15) Methylene chloride	3.473	84	292914	28.219	ug/L #	60
17) Acetone	3.512	43	56239	26.080	ug/L	95
18) trans-1,2-Dichloroethene	3.630	96	282376	30.830	ug/L	81
19) Methyl acetate	3.630	43	142046	29.175	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	556748	31.788	ug/L #	78
22) tert-Butyl alcohol	3.801	59	57232	156.049	ug/L #	85
24) Diisopropyl ether	4.089	45	1055329	32.070	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	577354	30.863	ug/L	96
26) Halothane	4.260	117	216034	31.641	ug/L	98

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.246	53	80853	31.309	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	775535	32.814	ug/L		81
29) Vinyl acetate	4.437	43	644173	32.750	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	310342	30.573	ug/L	#	82
31) 2,2-Dichloropropane	4.830	77	374216	31.919	ug/L	#	76
32) Bromochloromethane	4.915	128	143259	29.908	ug/L	#	65
33) Cyclohexane	4.928	56	641466	37.378	ug/L		68
34) Chloroform	4.987	83	486176	30.028	ug/L	#	95
35) Ethyl acetate	5.099	43	197775	31.115	ug/L	#	92
36) Carbon tetrachloride	5.131	117	400986	34.319	ug/L		99
37) Tetrahydrofuran	5.138	42	64462M6	30.946	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	441094	32.307	ug/L		95
41) 2-Butanone	5.275	43	83376	31.356	ug/L	#	48
42) 1,1-Dichloropropene	5.315	75	376784	34.203	ug/L		100
44) Benzene	5.557	78	1175448	32.792	ug/L	#	91
45) tert-Amyl methyl ether	5.669	73	353712	30.887	ug/L	#	85
47) 1,2-Dichloroethane	5.754	62	274844	30.689	ug/L		97
50) Methyl cyclohexane	6.153	83	384184	36.812	ug/L	#	64
51) Trichloroethene	6.153	95	243495	31.937	ug/L		98
53) Dibromomethane	6.591	93	118845	30.835	ug/L	#	81
54) 1,2-Dichloropropane	6.695	63	257294	32.144	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	100117	32.647	ug/L	#	78
57) Bromodichloromethane	6.764	83	299476	31.708	ug/L		100
60) 1,4-Dioxane	6.980	88	20073	635.634	ug/L	#	60
61) cis-1,3-Dichloropropene	7.459	75	334440	34.362	ug/L	#	83
64) Toluene	7.730	92	570532	31.860	ug/L		99
65) 4-Methyl-2-pentanone	8.168	58	44980	31.387	ug/L	#	66
66) Tetrachloroethene	8.182	166	236210	33.640	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	270746	35.916	ug/L		84
70) Ethyl methacrylate	8.412	69	184206	34.083	ug/L		93
71) 1,1,2-Trichloroethane	8.398	83	133185	31.672	ug/L		97
72) Chlorodibromomethane	8.607	129	204242	33.258	ug/L		100
73) 1,3-Dichloropropane	8.719	76	270530	32.812	ug/L		99
74) 1,2-Dibromoethane	8.880	107	155746	33.049	ug/L		99
76) 2-Hexanone	9.175	43	83715	33.444	ug/L	#	86
77) Chlorobenzene	9.540	112	633572	31.239	ug/L		90
78) Ethylbenzene	9.589	91	1113856	32.943	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	209804	32.521	ug/L		98
80) p/m Xylene	9.778	106	870043	66.291	ug/L		100
81) o Xylene	10.318	106	821986	66.227	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.381	104	1360113	68.130	ug/L		100
84) Bromoform	10.395	173	103387	32.285	ug/L		99
86) Isopropylbenzene	10.704	105	1131099	34.257	ug/L		99
88) Bromobenzene	11.132	156	242548	31.239	ug/L		99
89) n-Propylbenzene	11.188	91	1307573	34.081	ug/L		99
90) 1,4-Dichlorobutane	11.195	55	317576	31.642	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	170195	31.511	ug/L		99
92) 4-Ethyltoluene	11.314	105	1049570	33.564	ug/L		100
93) 2-Chlorotoluene	11.349	91	738915M6	31.972	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	871493	32.889	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	130817	31.730	ug/L		97
96) trans-1,4-Dichloro-2-b...	11.454	53	60092	32.684	ug/L	#	73
97) 4-Chlorotoluene	11.531	91	769042	32.242	ug/L		99
98) tert-Butylbenzene	11.756	119	789435	34.322	ug/L		98
101) 1,2,4-Trimethylbenzene	11.833	105	982161	33.172	ug/L		99
102) sec-Butylbenzene	11.944	105	1135952	35.007	ug/L		98
103) p-Isopropyltoluene	12.104	119	942343	34.710	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	483221	31.376	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	471520	30.871	ug/L		97
106) p-Diethylbenzene	12.473	119	540120	34.363	ug/L		98
107) n-Butylbenzene	12.536	91	782912	34.586	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	428145	31.424	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	761613	35.551	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.454	155	23868	34.730	ug/L		98
111) 1,3,5-Trichlorobenzene	13.489	180	286550	32.287	ug/L		97
112) Hexachlorobutadiene	14.074	225	96947	33.240	ug/L		98
113) 1,2,4-Trichlorobenzene	14.095	180	246099	32.588	ug/L		98
114) Naphthalene	14.387	128	563728	35.196	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	209547	32.665	ug/L		98

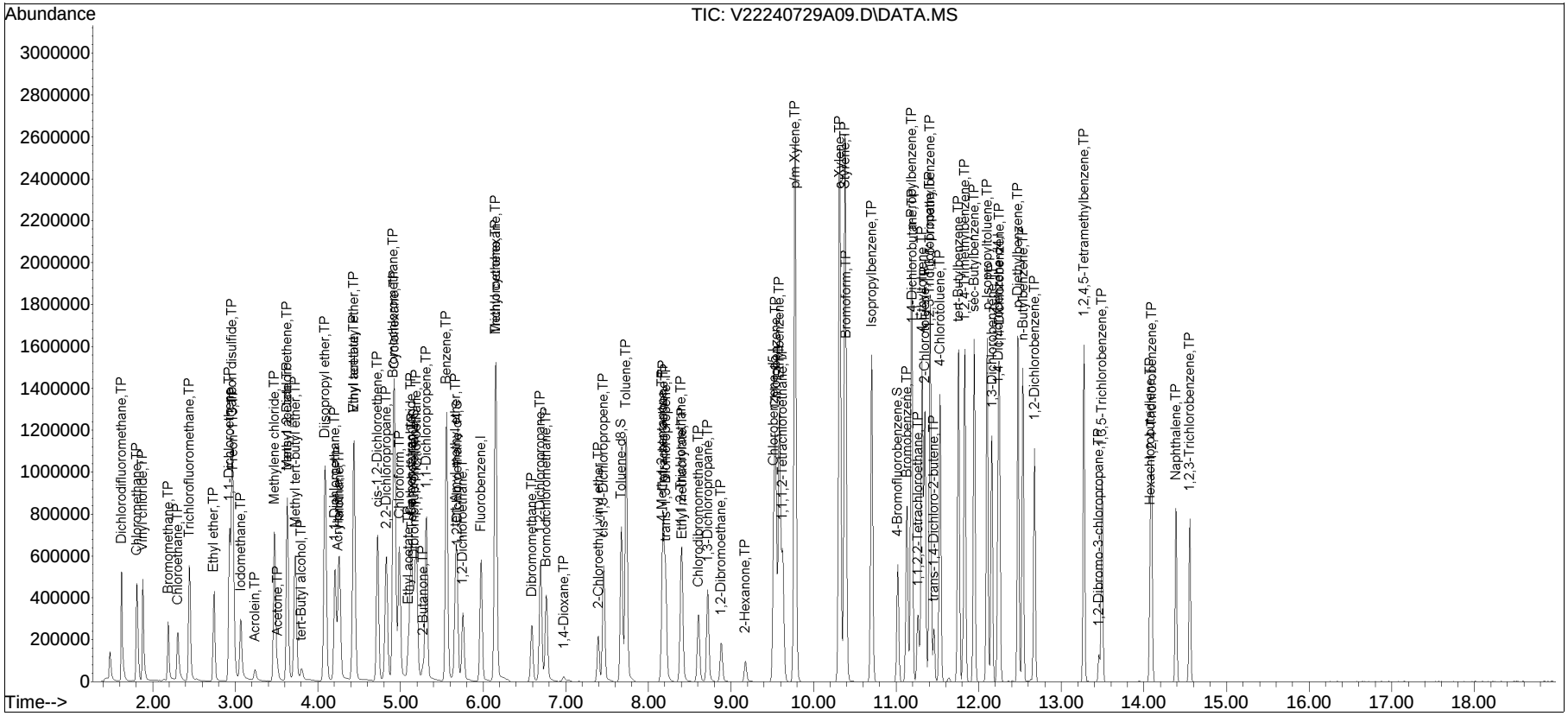
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A09.D
Acq On : 29 Jul 2024 03:50 pm
Operator : VOA122:PID
Sample : I8260STD30PPB
Misc : WG1953132,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 06:57:11 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•

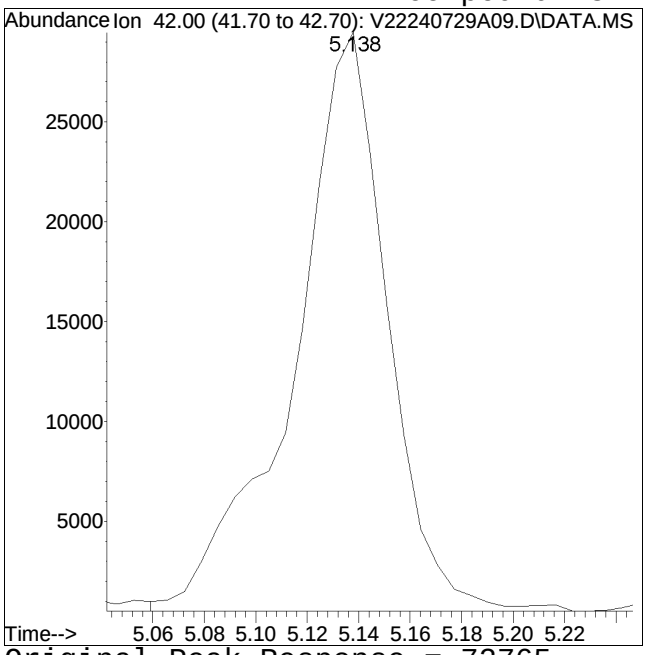


Manual Integration Report

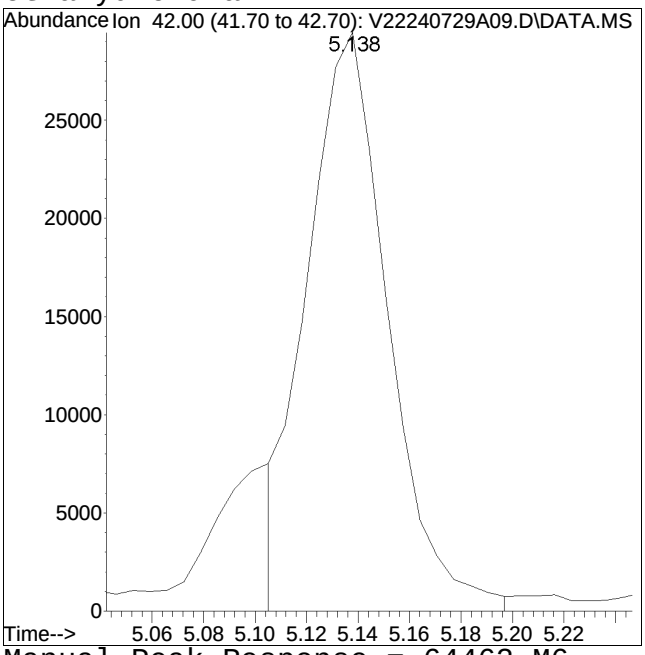
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A09.D
Date Inj'd : 7/29/2024 3:50 pm
Sample : I8260STD30PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 72765



Manual Peak Response = 64462 M6

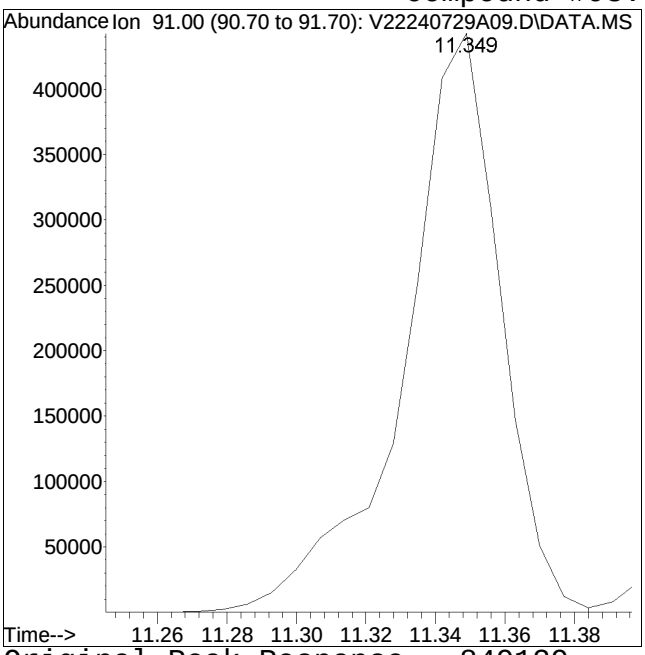
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

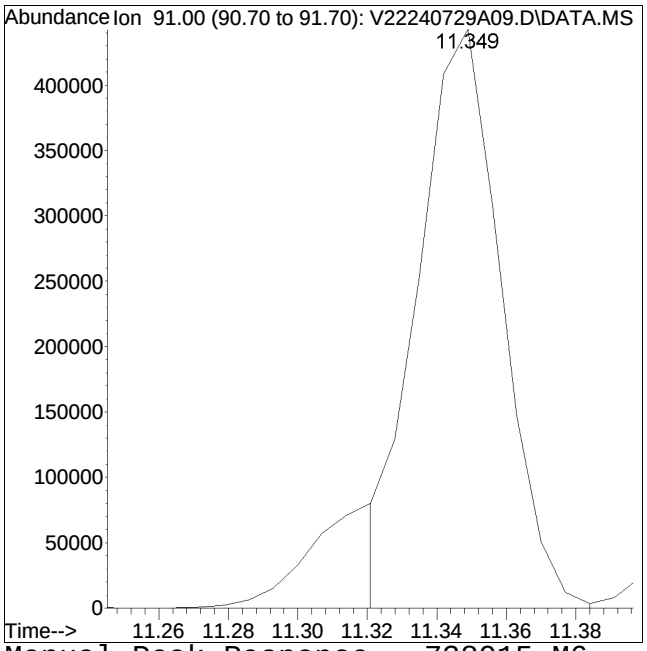
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A09.D
Date Inj'd : 7/29/2024 3:50 pm
Sample : I8260STD30PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 849129



Manual Peak Response = 738915 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	604048	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 119.11%			
62) Chlorobenzene-d5	9.519	117	456299	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 110.06%			
83) 1,4-Dichlorobenzene-d4	12.237	152	226202	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 110.71%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	196896	9.329	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.29%			
46) 1,2-Dichloroethane-d4	5.689	65	174684	9.791	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.91%			
63) Toluene-d8	7.675	98	587934	10.113	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.13%			
87) 4-Bromofluorobenzene	11.020	95	203677	9.888	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	1009587	89.774	ug/L	96
3) Chloromethane	1.809	50	1222744	76.866	ug/L	98
4) Vinyl chloride	1.881	62	1050049	83.434	ug/L	97
5) Bromomethane	2.189	94	426766	84.410	ug/L	98
6) Chloroethane	2.300	64	563492	77.455	ug/L	97
7) Trichlorofluoromethane	2.444	101	1217222	89.757	ug/L	99
8) Ethyl ether	2.746	74	341896	81.329	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	706380	84.526	ug/L #	78
11) Carbon disulfide	2.962	76	2177308	79.309	ug/L	99
12) Freon-113	2.975	101	724978	89.856	ug/L	93
13) Iodomethane	3.067	142	963932	95.809	ug/L	93
14) Acrolein	3.237	56	121266	84.445	ug/L	98
15) Methylene chloride	3.473	84	790851	71.383	ug/L #	62
17) Acetone	3.513	43	153155	66.542	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	773909	79.164	ug/L	83
19) Methyl acetate	3.631	43	400524	77.073	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	1586398	84.861	ug/L #	80
22) tert-Butyl alcohol	3.801	59	168322	429.989	ug/L #	79
24) Diisopropyl ether	4.090	45	2981253	84.879	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	1541876	77.223	ug/L	96
26) Halothane	4.260	117	611759	83.948	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	221081	80.210	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	2201604	87.275	ug/L	#	81
29) Vinyl acetate	4.443	43	1863003	88.740	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	833067	76.891	ug/L	#	83
31) 2,2-Dichloropropane	4.830	77	1021587	81.639	ug/L	#	79
32) Bromochloromethane	4.915	128	392233	76.720	ug/L	#	69
33) Cyclohexane	4.928	56	1709623	93.334	ug/L		69
34) Chloroform	4.987	83	1323780	76.604	ug/L	#	94
35) Ethyl acetate	5.099	43	569659	83.967	ug/L	#	92
36) Carbon tetrachloride	5.132	117	1103046	88.449	ug/L		99
37) Tetrahydrofuran	5.132	42	180135M6	81.020	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	1232348	84.566	ug/L		96
41) 2-Butanone	5.276	43	240159	84.621	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	1031814	87.753	ug/L		100
44) Benzene	5.558	78	3201040	83.667	ug/L	#	91
45) tert-Amyl methyl ether	5.669	73	1054687	86.288	ug/L	#	88
47) 1,2-Dichloroethane	5.754	62	742873	77.716	ug/L		98
50) Methyl cyclohexane	6.154	83	1081945	97.129	ug/L	#	64
51) Trichloroethene	6.154	95	674311	82.863	ug/L		97
53) Dibromomethane	6.591	93	329723	80.152	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	712653	83.414	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	302915	92.545	ug/L	#	79
57) Bromodichloromethane	6.765	83	842655	83.590	ug/L		100
60) 1,4-Dioxane	6.973	88	26263	779.173	ug/L	#	56
61) cis-1,3-Dichloropropene	7.460	75	959633	92.377	ug/L	#	84
64) Toluene	7.731	92	1559743	82.986	ug/L		98
65) 4-Methyl-2-pentanone	8.162	58	135905	90.355	ug/L	#	67
66) Tetrachloroethene	8.182	166	653514	88.674	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	782486	98.897	ug/L		85
70) Ethyl methacrylate	8.412	69	536517	94.579	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	404802	91.716	ug/L		98
72) Chlorodibromomethane	8.607	129	592883	91.983	ug/L		100
73) 1,3-Dichloropropane	8.720	76	760068	87.831	ug/L		99
74) 1,2-Dibromoethane	8.881	107	447228	90.418	ug/L		100
76) 2-Hexanone	9.175	43	250363	95.295	ug/L		88
77) Chlorobenzene	9.540	112	1720439	80.820	ug/L		90
78) Ethylbenzene	9.589	91	2998362	84.490	ug/L		100
79) 1,1,1,2-Tetrachloroethane	9.624	131	607602	89.732	ug/L		99
80) p/m Xylene	9.778	106	2360025	171.323	ug/L		98
81) o Xylene	10.318	106	2248914	172.634	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.382	104	3701149	176.638	ug/L		99
84) Bromoform	10.396	173	311735	91.606	ug/L		99
86) Isopropylbenzene	10.704	105	3038692	86.604	ug/L		100
88) Bromobenzene	11.132	156	669659	81.163	ug/L		99
89) n-Propylbenzene	11.188	91	3524612	86.450	ug/L		100
90) 1,4-Dichlorobutane	11.195	55	890525	83.496	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	481761	83.938	ug/L		99
92) 4-Ethyltoluene	11.314	105	2856846	85.971	ug/L		100
93) 2-Chlorotoluene	11.349	91	2005453M6	81.657	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	2400965	85.266	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	364924M1	83.294	ug/L		
96) trans-1,4-Dichloro-2-b...	11.454	53	171854	87.959	ug/L	#	78
97) 4-Chlorotoluene	11.532	91	2095062	82.655	ug/L		100
98) tert-Butylbenzene	11.756	119	2152120	88.051	ug/L		97
101) 1,2,4-Trimethylbenzene	11.833	105	2676166	85.056	ug/L		99
102) sec-Butylbenzene	11.944	105	3063225	88.833	ug/L		99
103) p-Isopropyltoluene	12.104	119	2574669	89.241	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	1327463	81.110	ug/L		97
105) 1,4-Dichlorobenzene	12.251	146	1292372	79.623	ug/L		97
106) p-Diethylbenzene	12.480	119	1493217	89.397	ug/L		98
107) n-Butylbenzene	12.536	91	2119410	88.106	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	1181566	81.607	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	2111496	92.750	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	72691	99.534	ug/L		99
111) 1,3,5-Trichlorobenzene	13.490	180	783599	83.086	ug/L		97
112) Hexachlorobutadiene	14.074	225	265905	85.793	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	687445	85.663	ug/L		98
114) Naphthalene	14.388	128	1573928	92.472	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	579519	85.011	ug/L		98

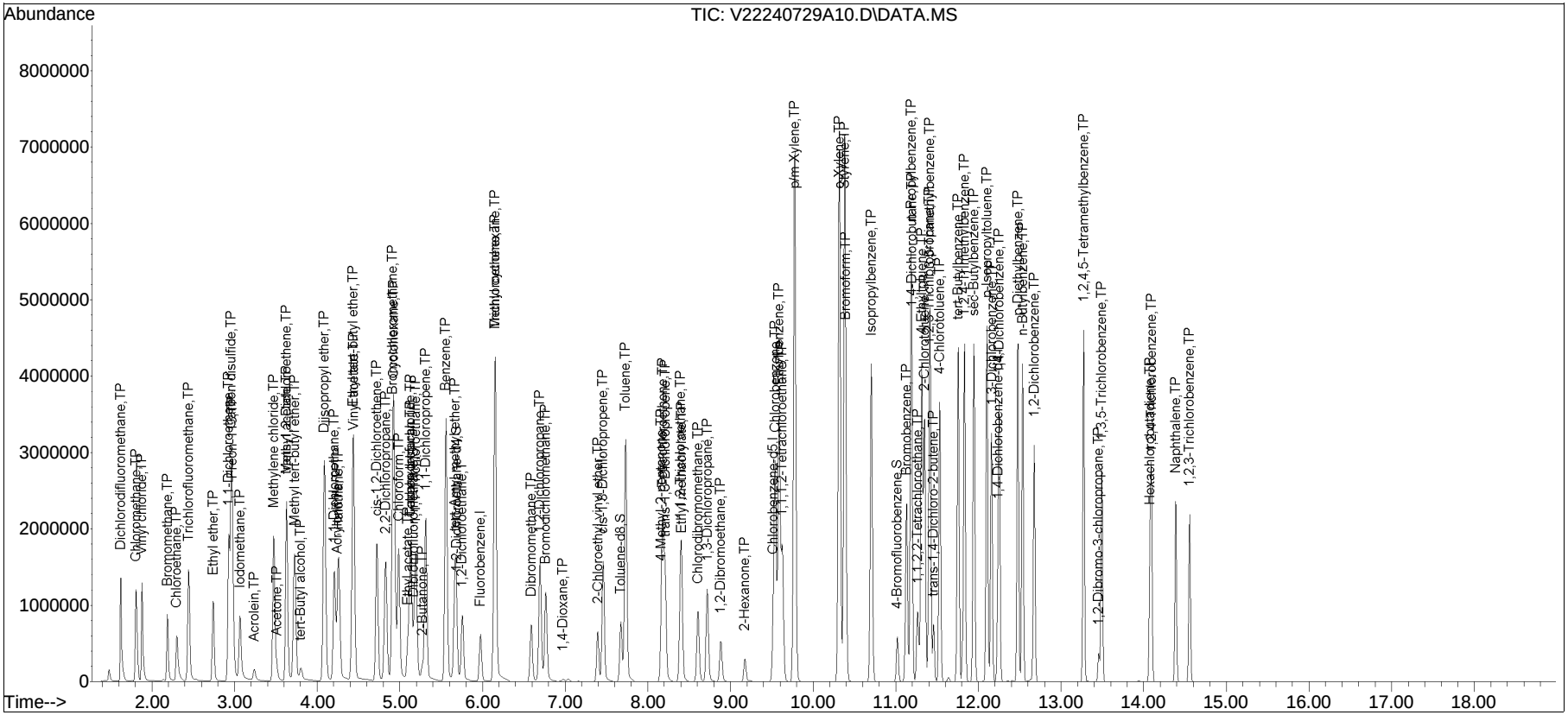
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A10.D
Acq On : 29 Jul 2024 04:15 pm
Operator : VOA122:PID
Sample : I8260STD80PPB
Misc : WG1953132,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 06:57:18 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

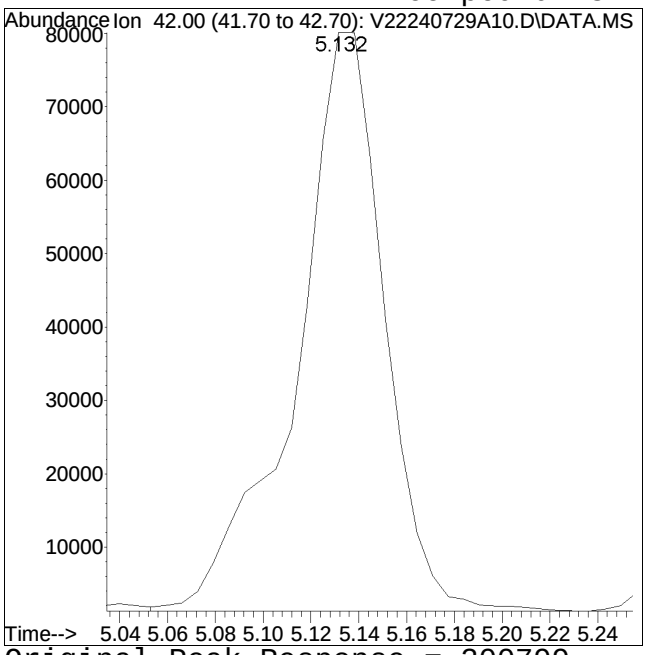
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



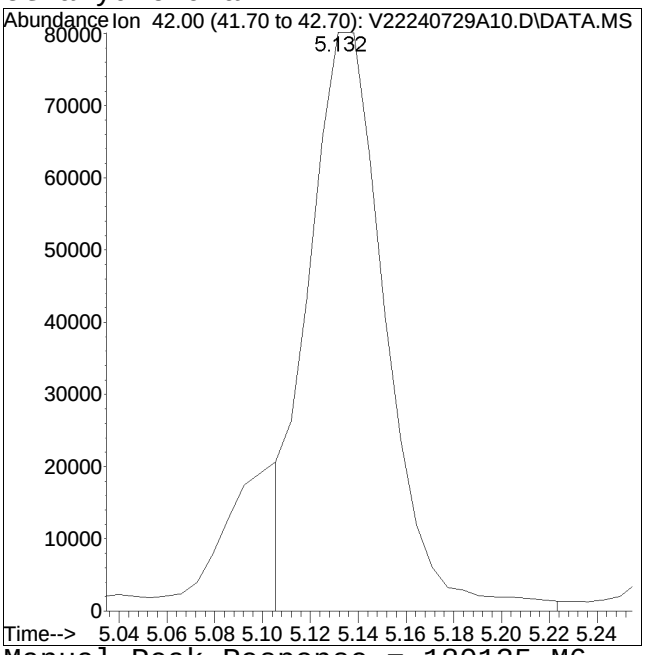
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A10.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:15 pm Instrument : VOA 122
Sample : I8260STD80PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 200799



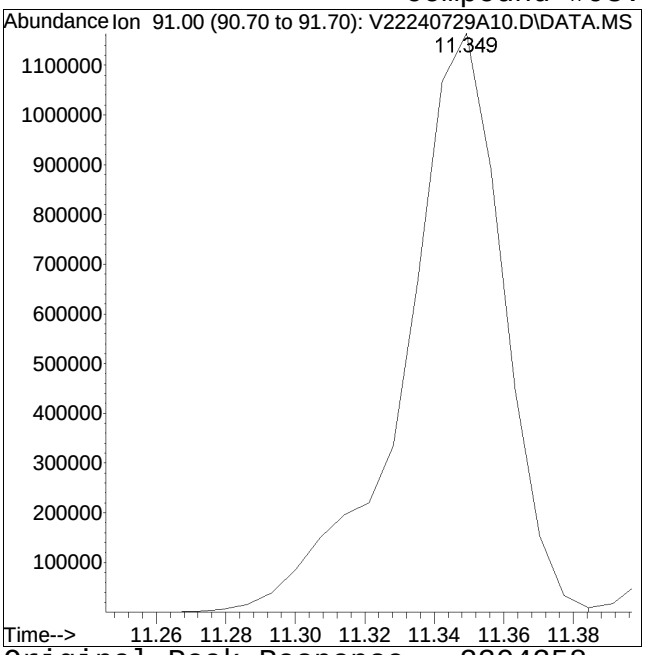
Manual Peak Response = 180135 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

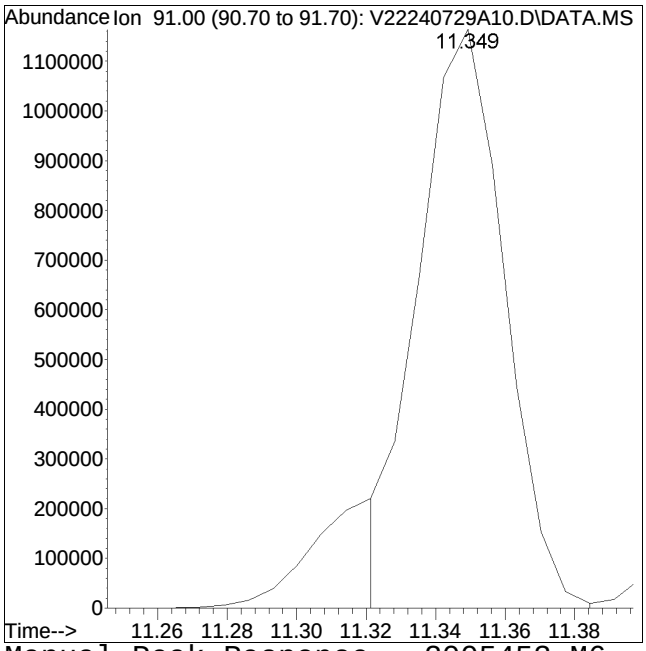
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A10.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:15 pm Instrument : VOA 122
Sample : I8260STD80PPB Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 2304358



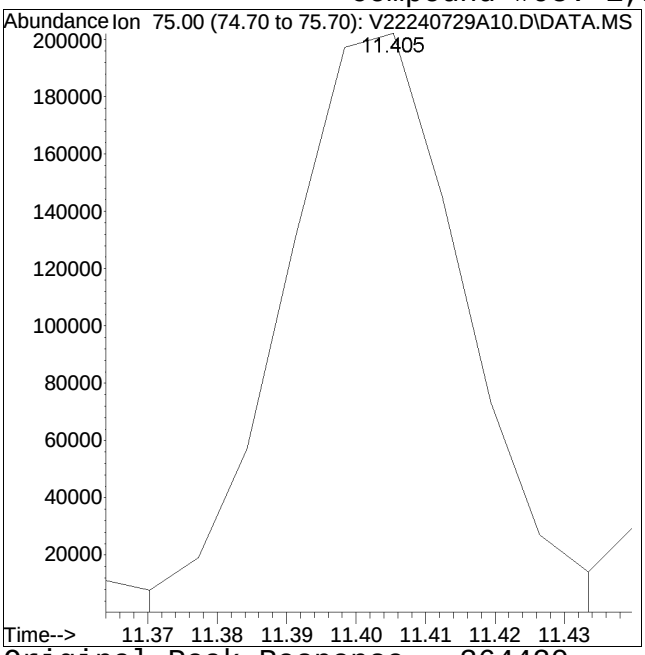
Manual Peak Response = 2005453 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

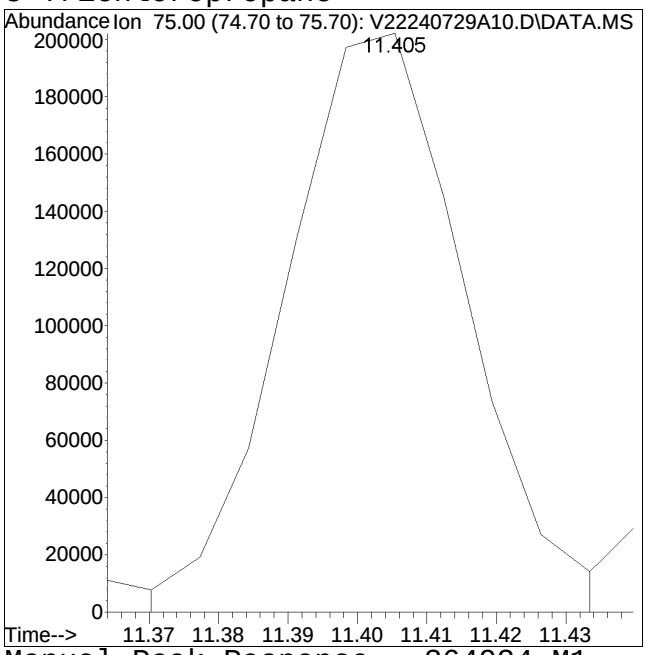
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A10.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:15 pm Instrument : VOA 122
Sample : I8260STD80PPB Quant Date : 7/30/2024 6:57 am

Compound #95: 1,2,3-Trichloropropane



Original Peak Response = 364420



Manual Peak Response = 364924 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	636656	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 125.54%			
62) Chlorobenzene-d5	9.519	117	481172	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 116.05%			
83) 1,4-Dichlorobenzene-d4	12.237	152	237970	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 116.47%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	209609	9.423	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.23%			
46) 1,2-Dichloroethane-d4	5.689	65	187007	9.945	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.45%			
63) Toluene-d8	7.675	98	622956	10.161	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.61%			
87) 4-Bromofluorobenzene	11.020	95	214064	9.879	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	1490231	125.726	ug/L	96
3) Chloromethane	1.809	50	1825294	108.868	ug/L	98
4) Vinyl chloride	1.881	62	1571853	118.499	ug/L	98
5) Bromomethane	2.189	94	727783	136.575	ug/L	98
6) Chloroethane	2.300	64	839174	109.441	ug/L	97
7) Trichlorofluoromethane	2.444	101	1816739	127.104	ug/L	99
8) Ethyl ether	2.746	74	538297	121.490	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	1065210	120.936	ug/L #	78
11) Carbon disulfide	2.962	76	3349244	115.749	ug/L	99
12) Freon-113	2.975	101	1124795	132.270	ug/L	93
13) Iodomethane	3.067	142	1554676	146.612	ug/L	95
14) Acrolein	3.237	56	192119	126.932	ug/L	97
15) Methylene chloride	3.473	84	1218040	104.310	ug/L #	64
17) Acetone	3.513	43	238764	98.424	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	1199643	116.428	ug/L	84
19) Methyl acetate	3.631	43	616839	112.619	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	2589702	131.436	ug/L #	82
22) tert-Butyl alcohol	3.808	59	280164	679.040	ug/L #	86
24) Diisopropyl ether	4.089	45	4705000	127.095	ug/L #	90
25) 1,1-Dichloroethane	4.207	63	2404388	114.253	ug/L	97
26) Halothane	4.260	117	959668	124.944	ug/L	100

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	345403	118.896	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	3574338	134.435	ug/L		82
29) Vinyl acetate	4.443	43	2940318	132.883	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	1310832	114.792	ug/L	#	83
31) 2,2-Dichloropropane	4.830	77	1612721	122.278	ug/L	#	81
32) Bromochloromethane	4.915	128	613361	113.828	ug/L	#	70
33) Cyclohexane	4.928	56	2688133	139.238	ug/L		70
34) Chloroform	4.987	83	2126576	116.757	ug/L		95
35) Ethyl acetate	5.099	43	904461	126.488	ug/L	#	92
36) Carbon tetrachloride	5.131	117	1745572	132.802	ug/L		99
37) Tetrahydrofuran	5.138	42	284868M6	121.564	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	1939297	126.262	ug/L		96
41) 2-Butanone	5.276	43	377919	126.341	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	1623956	131.039	ug/L		100
44) Benzene	5.558	78	5023994	124.588	ug/L	#	92
45) tert-Amyl methyl ether	5.675	73	1754429	136.185	ug/L	#	90
47) 1,2-Dichloroethane	5.761	62	1177151	116.840	ug/L		98
50) Methyl cyclohexane	6.154	83	1778581	151.490	ug/L	#	66
51) Trichloroethene	6.154	95	1078382	125.731	ug/L		96
53) Dibromomethane	6.591	93	524090	120.875	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	1125455	124.984	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	484192	140.352	ug/L	#	80
57) Bromodichloromethane	6.765	83	1342082	126.313	ug/L		100
60) 1,4-Dioxane	6.980	88	42731	1202.816	ug/L	#	60
61) cis-1,3-Dichloropropene	7.460	75	1533188	140.030	ug/L	#	84
64) Toluene	7.731	92	2475033	124.876	ug/L		97
65) 4-Methyl-2-pentanone	8.168	58	218495	137.755	ug/L	#	71
66) Tetrachloroethene	8.182	166	1047153	134.741	ug/L		95
68) trans-1,3-Dichloropropene	8.210	75	1253964	150.294	ug/L		85
70) Ethyl methacrylate	8.412	69	861890	144.083	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	642415	138.028	ug/L		95
72) Chlorodibromomethane	8.607	129	947780	139.442	ug/L		99
73) 1,3-Dichloropropane	8.719	76	1202975	131.826	ug/L		99
74) 1,2-Dibromoethane	8.888	107	712084	136.523	ug/L		99
76) 2-Hexanone	9.175	43	396357	143.066	ug/L		89
77) Chlorobenzene	9.540	112	2715525	120.972	ug/L		90
78) Ethylbenzene	9.589	91	4715031	125.995	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.631	131	967804	135.540	ug/L		98
80) p/m Xylene	9.778	106	3723497	256.330	ug/L		97
81) o Xylene	10.318	106	3556703	258.912	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.388	104	5764621	260.895	ug/L		98
84) Bromoform	10.402	173	502384	140.330	ug/L		99
86) Isopropylbenzene	10.704	105	4785956	129.656	ug/L		100
88) Bromobenzene	11.132	156	1058436	121.940	ug/L		99
89) n-Propylbenzene	11.188	91	5573770	129.950	ug/L		99
90) 1,4-Dichlorobutane	11.195	55	1395871	124.405	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	760794	126.000	ug/L		99
92) 4-Ethyltoluene	11.314	105	4550357	130.163	ug/L		99
93) 2-Chlorotoluene	11.349	91	3229129M6	124.980	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	3878994	130.943	ug/L		100
95) 1,2,3-Trichloropropane	11.405	75	583428M4	126.582	ug/L		
96) trans-1,4-Dichloro-2-b...	11.461	53	274309	133.455	ug/L	#	81
97) 4-Chlorotoluene	11.531	91	3329483	124.860	ug/L		100
98) tert-Butylbenzene	11.756	119	3431836	133.465	ug/L		96
101) 1,2,4-Trimethylbenzene	11.833	105	4298979	129.877	ug/L		99
102) sec-Butylbenzene	11.944	105	4884700	134.651	ug/L		100
103) p-Isopropyltoluene	12.104	119	4123679	135.864	ug/L		99
104) 1,3-Dichlorobenzene	12.160	146	2090877	121.439	ug/L		97
105) 1,4-Dichlorobenzene	12.250	146	2063151	120.825	ug/L		98
106) p-Diethylbenzene	12.480	119	2404432	136.832	ug/L		98
107) n-Butylbenzene	12.536	91	3418449	135.081	ug/L		99
108) 1,2-Dichlorobenzene	12.675	146	1870262	122.786	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	3355659	140.112	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	115498	150.329	ug/L		100
111) 1,3,5-Trichlorobenzene	13.496	180	1252542	126.241	ug/L		96
112) Hexachlorobutadiene	14.074	225	442150	135.603	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	1087707	128.838	ug/L		98
114) Naphthalene	14.387	128	2458485	137.300	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	913013	127.308	ug/L		98

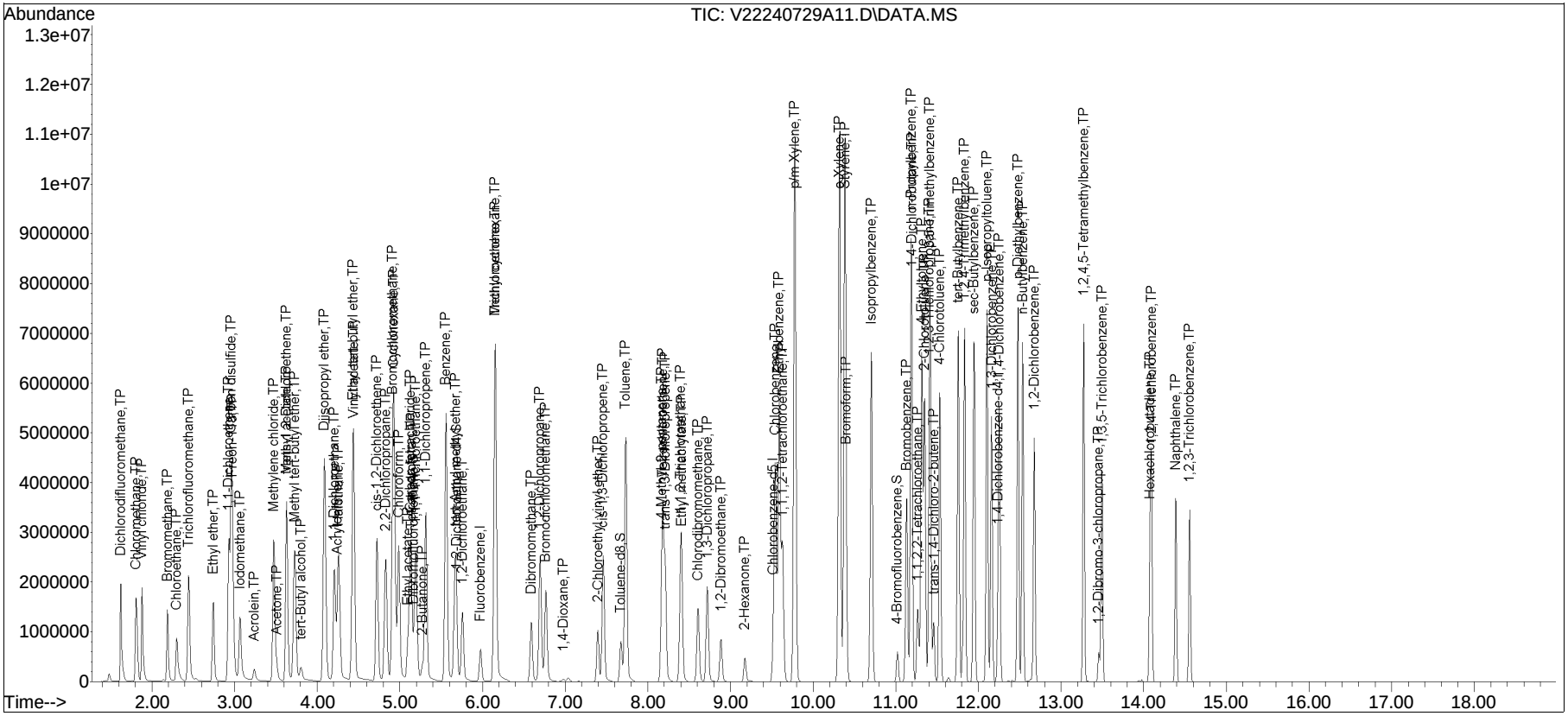
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A11.D
Acq On : 29 Jul 2024 04:40 pm
Operator : VOA122:PID
Sample : I8260STD120PPB
Misc : WG1953132,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 06:57:25 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

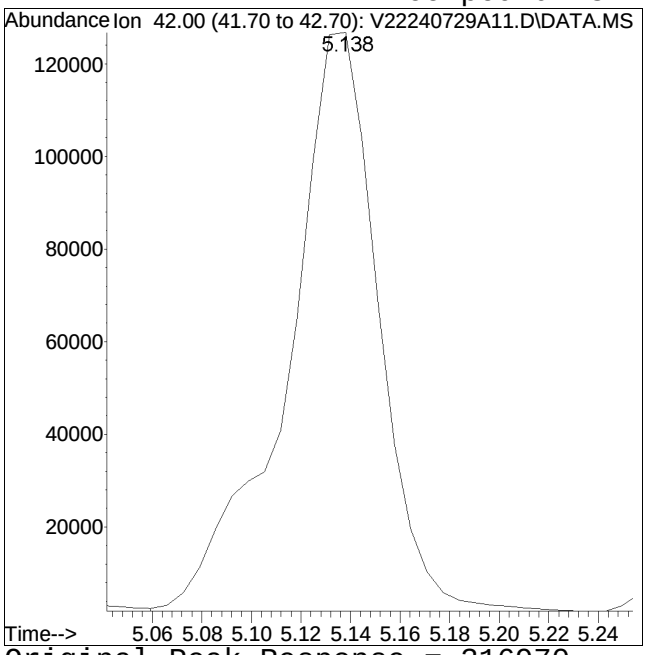
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



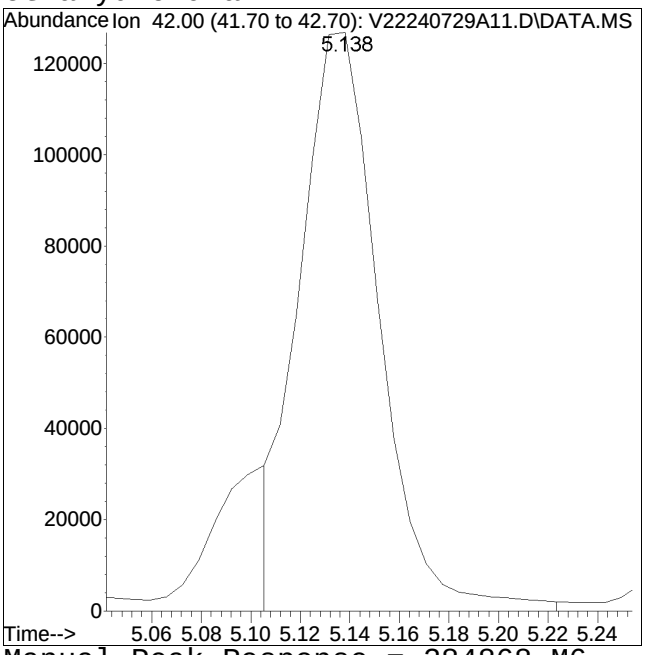
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A11.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:40 pm Instrument : VOA 122
Sample : I8260STD120PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 316970



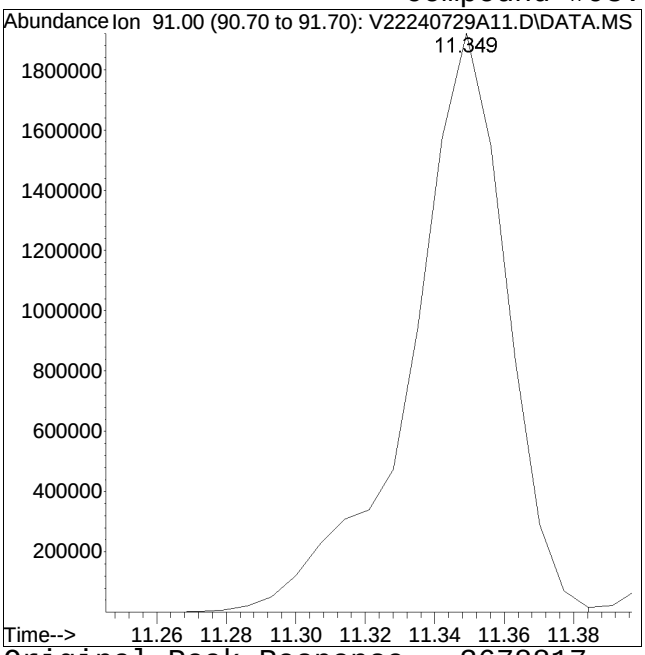
Manual Peak Response = 284868 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

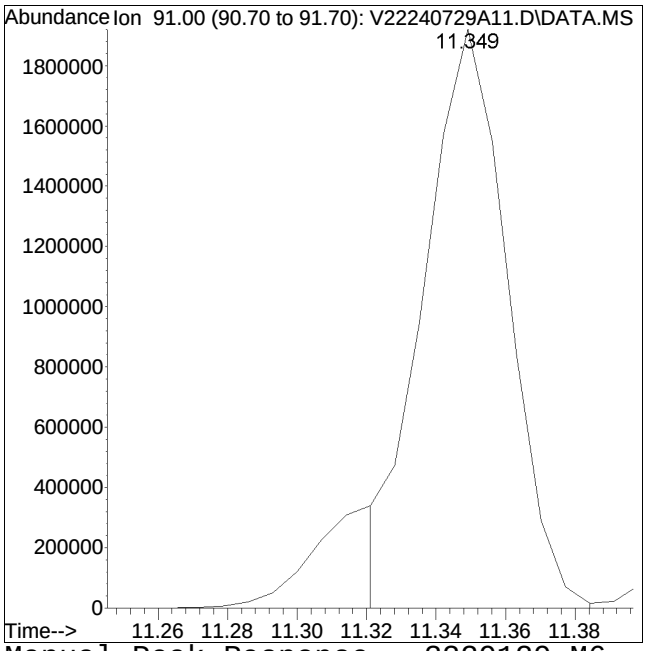
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A11.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:40 pm Instrument : VOA 122
Sample : I8260STD120PPB Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 3678817



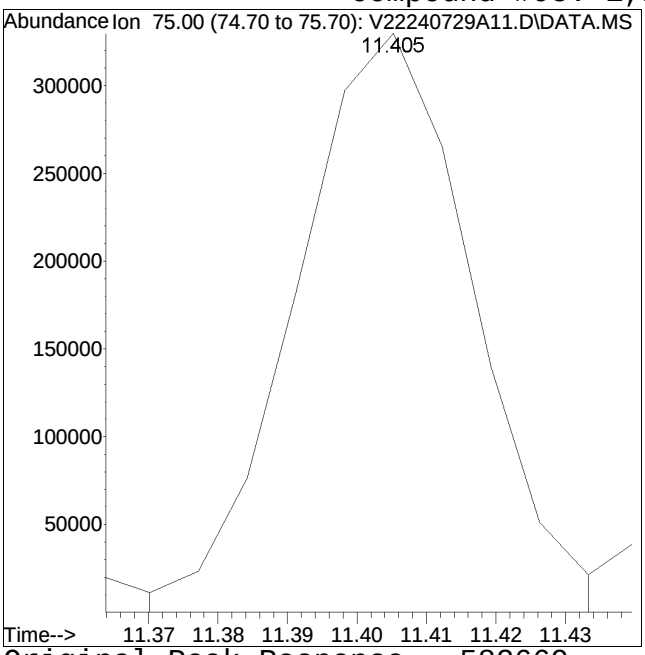
Manual Peak Response = 3229129 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

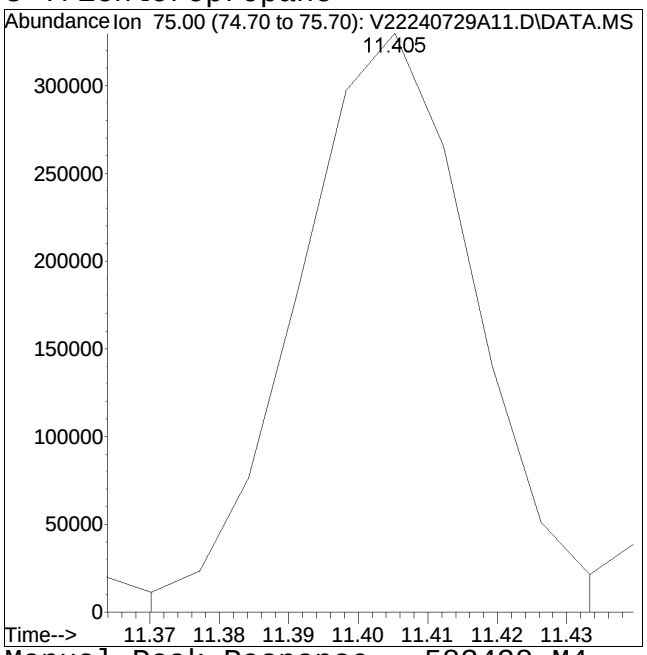
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A11.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 4:40 pm Instrument : VOA 122
Sample : I8260STD120PPB Quant Date : 7/30/2024 6:57 am

Compound #95: 1,2,3-Trichloropropane



Original Peak Response = 582669



Manual Peak Response = 583428 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	671267	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 132.37%			
62) Chlorobenzene-d5	9.519	117	507270	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 122.35%			
83) 1,4-Dichlorobenzene-d4	12.237	152	245235	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 120.02%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	217210	9.261	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.61%			
46) 1,2-Dichloroethane-d4	5.689	65	193758	9.773	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.73%			
63) Toluene-d8	7.675	98	647303	10.015	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.15%			
87) 4-Bromofluorobenzene	11.020	95	222560	9.966	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	2620678	209.699	ug/L	96
3) Chloromethane	1.809	50	3024576	171.097	ug/L	98
4) Vinyl chloride	1.881	62	2725266	194.859	ug/L	98
5) Bromomethane	2.189	94	1371795	244.156	ug/L	98
6) Chloroethane	2.300	64	1447475	179.040	ug/L	97
7) Trichlorofluoromethane	2.444	101	3211175	213.079	ug/L	99
8) Ethyl ether	2.746	74	913253	195.487	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	1867542	201.095	ug/L	80
11) Carbon disulfide	2.962	76	5813289	190.547	ug/L	99
12) Freon-113	2.975	101	2026043	225.967	ug/L	93
13) Iodomethane	3.067	142	2736295	244.738	ug/L	95
14) Acrolein	3.237	56	327212	205.041	ug/L	98
15) Methylene chloride	3.473	84	2100777	170.630	ug/L #	66
17) Acetone	3.513	43	399764	156.295	ug/L	98
18) trans-1,2-Dichloroethene	3.631	96	2082235	191.665	ug/L	85
19) Methyl acetate	3.631	43	1038900	179.897	ug/L #	83
21) Methyl tert-butyl ether	3.729	73	4467075	215.029	ug/L #	83
22) tert-Butyl alcohol	3.808	59	487122	1119.774	ug/L #	82
24) Diisopropyl ether	4.089	45	7871258	201.661	ug/L #	91
25) 1,1-Dichloroethane	4.207	63	4105423	185.024	ug/L	97
26) Halothane	4.260	117	1695601	209.376	ug/L	99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	579249	189.111	ug/L		96
28) Ethyl tert-butyl ether	4.437	59	6085697	217.089	ug/L		83
29) Vinyl acetate	4.443	43	4933617	211.470	ug/L	#	89
30) cis-1,2-Dichloroethene	4.725	96	2256530	187.420	ug/L	#	84
31) 2,2-Dichloropropane	4.830	77	2850431	204.979	ug/L	#	82
32) Bromochloromethane	4.915	128	1049579	184.738	ug/L	#	71
33) Cyclohexane	4.928	56	4745720	233.141	ug/L		71
34) Chloroform	4.987	83	3591714	187.030	ug/L	#	94
35) Ethyl acetate	5.099	43	1534300	203.508	ug/L	#	92
36) Carbon tetrachloride	5.132	117	3106185	224.132	ug/L		99
37) Tetrahydrofuran	5.138	42	479075M6	193.898	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	3384148	208.972	ug/L		96
41) 2-Butanone	5.276	43	634993	201.337	ug/L	#	47
42) 1,1-Dichloropropene	5.315	75	2862641	219.081	ug/L		100
44) Benzene	5.558	78	8491811	199.727	ug/L	#	90
45) tert-Amyl methyl ether	5.675	73	3060918	225.348	ug/L	#	91
47) 1,2-Dichloroethane	5.761	62	2002259	188.491	ug/L		98
50) Methyl cyclohexane	6.154	83	3194114	258.030	ug/L	#	68
51) Trichloroethene	6.154	95	1889273	208.916	ug/L		96
53) Dibromomethane	6.591	93	895312	195.846	ug/L	#	83
54) 1,2-Dichloropropane	6.702	63	1922728	202.513	ug/L		94
56) 2-Chloroethyl vinyl ether	7.397	63	820387	225.543	ug/L	#	81
57) Bromodichloromethane	6.765	83	2320380	207.128	ug/L		100
60) 1,4-Dioxane	6.980	88	70331	1877.641	ug/L	#	61
61) cis-1,3-Dichloropropene	7.460	75	2640789	228.754	ug/L	#	85
64) Toluene	7.738	92	4219933	201.960	ug/L		96
65) 4-Methyl-2-pentanone	8.168	58	376605	225.224	ug/L	#	73
66) Tetrachloroethene	8.182	166	1835616	224.044	ug/L		94
68) trans-1,3-Dichloropropene	8.210	75	2152927	244.764	ug/L		86
70) Ethyl methacrylate	8.412	69	1465362	232.363	ug/L		95
71) 1,1,2-Trichloroethane	8.398	83	1098091	223.795	ug/L		98
72) Chlorodibromomethane	8.607	129	1634986	228.172	ug/L		99
73) 1,3-Dichloropropane	8.719	76	2033705	211.395	ug/L		99
74) 1,2-Dibromoethane	8.888	107	1216125	221.164	ug/L		99
76) 2-Hexanone	9.175	43	670301	229.499	ug/L		89
77) Chlorobenzene	9.547	112	4644841	196.274	ug/L		90
78) Ethylbenzene	9.589	91	7918098	200.702	ug/L		98
79) 1,1,1,2-Tetrachloroethane	9.631	131	1679969	223.173	ug/L		99
80) p/m Xylene	9.778	106	6291057	410.802	ug/L		93
81) o Xylene	10.318	106	5996592	414.066	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.388	104	9407196	403.847	ug/L		94
84) Bromoform	10.402	173	875851	237.402	ug/L		99
86) Isopropylbenzene	10.704	105	8030356	211.105	ug/L		98
88) Bromobenzene	11.132	156	1812458	202.623	ug/L		99
89) n-Propylbenzene	11.188	91	9141124	206.808	ug/L		97
90) 1,4-Dichlorobutane	11.195	55	2369414	204.915	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	1288747	207.114	ug/L		99
92) 4-Ethyltoluene	11.314	105	7628386	211.745	ug/L		97
93) 2-Chlorotoluene	11.349	91	5478052M6	205.742	ug/L		
94) 1,3,5-Trimethylbenzene	11.419	105	6585839	215.732	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	1005558	211.705	ug/L		98
96) trans-1,4-Dichloro-2-b...	11.461	53	467214	220.572	ug/L	#	82
97) 4-Chlorotoluene	11.539	91	5623105	204.626	ug/L		99
98) tert-Butylbenzene	11.756	119	5800367	218.895	ug/L		95
101) 1,2,4-Trimethylbenzene	11.833	105	7215932	211.544	ug/L		100
102) sec-Butylbenzene	11.951	105	8071276	215.900	ug/L		98
103) p-Isopropyltoluene	12.104	119	6895602	220.461	ug/L		97
104) 1,3-Dichlorobenzene	12.160	146	3520453	198.411	ug/L		97
105) 1,4-Dichlorobenzene	12.257	146	3490349	198.351	ug/L		97
106) p-Diethylbenzene	12.480	119	4120448	227.542	ug/L		98
107) n-Butylbenzene	12.536	91	5772758	221.355	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	3135480	199.751	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	5530218	224.068	ug/L		99
110) 1,2-Dibromo-3-chloropr...	13.455	155	198195	250.322	ug/L		100
111) 1,3,5-Trichlorobenzene	13.496	180	2092624	204.664	ug/L		96
112) Hexachlorobutadiene	14.074	225	784582	233.496	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	1834176	210.820	ug/L		98
114) Naphthalene	14.387	128	3996300	216.571	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	1518580	205.474	ug/L		98

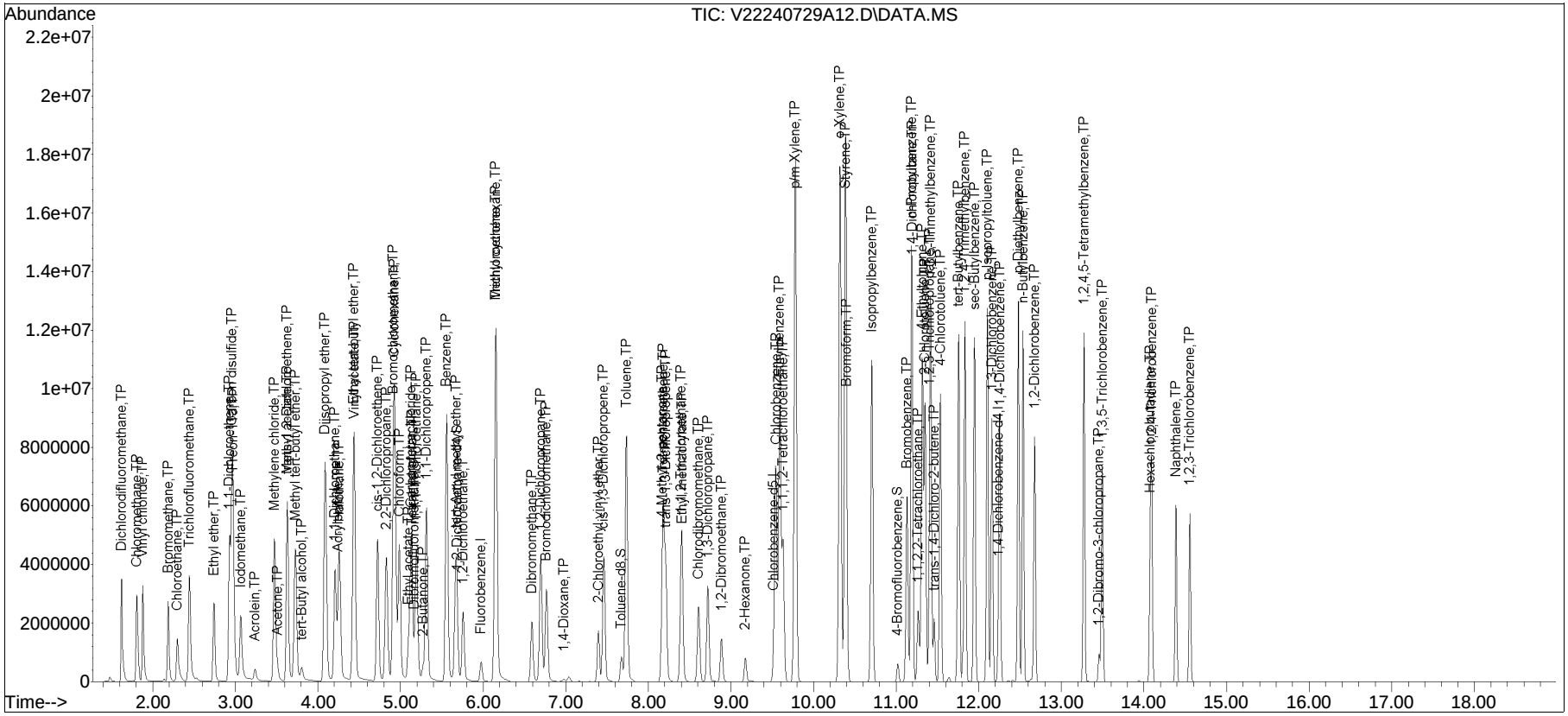
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A12.D
Acq On : 29 Jul 2024 05:04 pm
Operator : VOA122:PID
Sample : I8260STD200PPB
Misc : WG1953132,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 06:58:06 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 06:56:21 2024
Response via : Initial Calibration

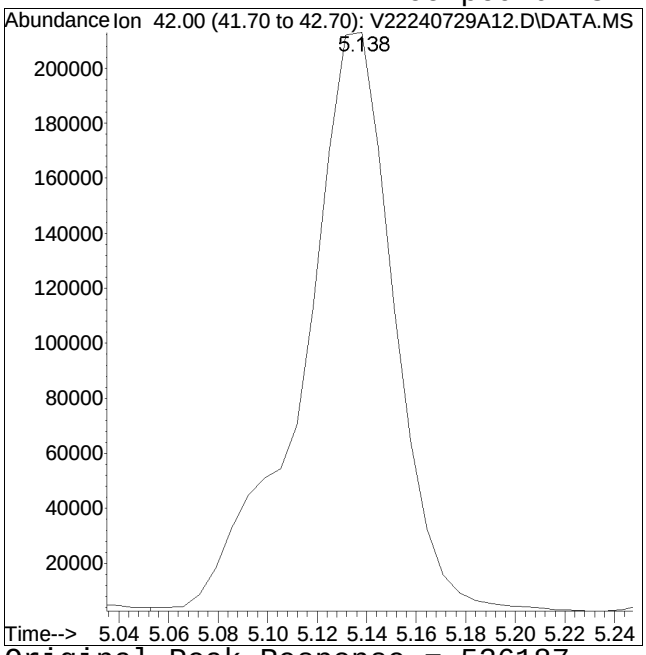
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



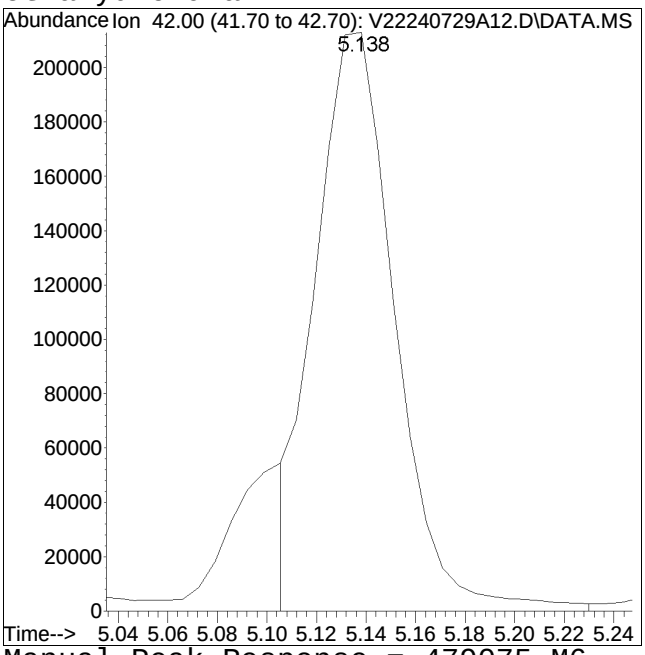
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A12.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 5:04 pm Instrument : VOA 122
Sample : I8260STD200PPB Quant Date : 7/30/2024 6:57 am

Compound #37: Tetrahydrofuran



Original Peak Response = 536187



Manual Peak Response = 479075 M6

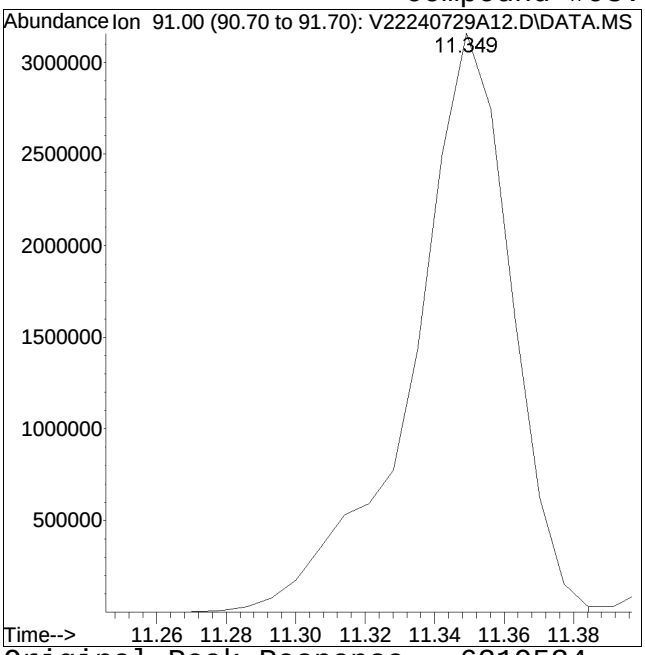
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

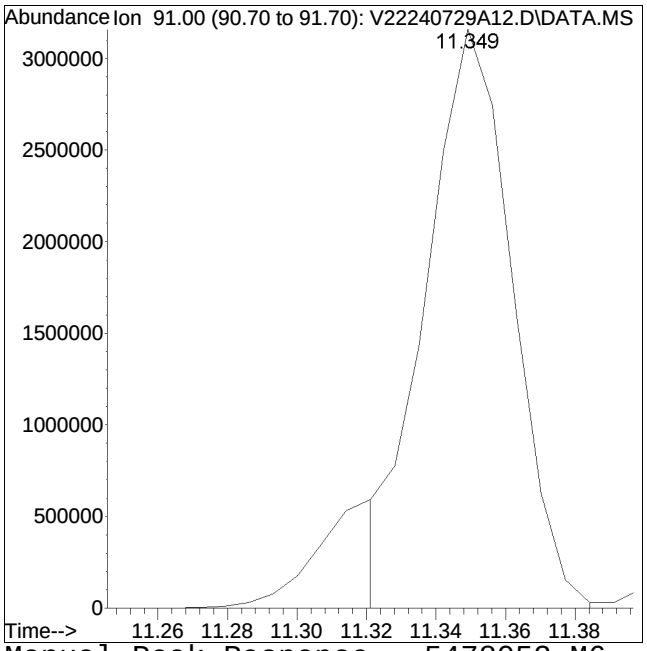
Data Path : K:\VOA122\2024\240729AICALQ
Data File : V22240729A12.D
Date Inj'd : 7/29/2024 5:04 pm
Sample : I8260STD200PPB

Method : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 7/30/2024 6:57 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 6219534



Manual Peak Response = 5478052 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	115	0.00
2	TP	Dichlorodifluoromethane	0.197	0.162	17.8	87	0.00
3	TP	Chloromethane	0.263	0.280	-6.5	107	0.00
4	TP	Vinyl chloride	0.208	0.209	-0.5	104	0.00
5	TP	Bromomethane	0.084	0.074	11.9	114	0.00
6	TP	Chloroethane	0.120	0.124	-3.3	107	0.00
7	TP	Trichlorofluoromethane	* 10.000	10.782	-7.8	115	0.00
8	TP	Ethyl ether	0.070	0.073	-4.3	116	0.00
10	TP	1,1-Dichloroethene	0.138	0.143	-3.6	108	0.00
11	TP	Carbon disulfide	0.454	0.435	4.2	98	0.00
12	TP	Freon-113	0.143	0.170	-18.9	127	0.00
13	TP	Iodomethane	0.182	0.085	53.3#	57	0.00
14	TP	Acrolein	0.024	0.017	29.2#	78	0.00
15	TP	Methylene chloride	0.183	0.173	5.5	104	0.00
17	TP	Acetone	0.033	0.033	0.0	111	0.00
18	TP	trans-1,2-Dichloroethene	0.162	0.165	-1.9	107	0.00
19	TP	Methyl acetate	0.086	0.082	4.7	112	0.00
21	TP	Methyl tert-butyl ether	0.309	0.278	10.0	101	0.00
22	TP	tert-Butyl alcohol	0.00648	0.00709#	-9.4	122	0.00
24	TP	Diisopropyl ether	0.581	0.562	3.3	109	0.00
25	TP	1,1-Dichloroethane	0.331	0.339	-2.4	107	0.00
26	TP	Halothane	0.121	0.135	-11.6	117	0.00
27	TP	Acrylonitrile	0.046	0.044	4.3	104	0.00
28	TP	Ethyl tert-butyl ether	0.418	0.405	3.1	113	0.00
29	TP	Vinyl acetate	0.348	0.305	12.4	99	0.00
30	TP	cis-1,2-Dichloroethene	0.179	0.183#	-2.2	107	0.00
31	TP	2,2-Dichloropropane	0.207	0.191	7.7	98	0.00
32	TP	Bromochloromethane	0.085	0.081#	4.7	100	0.00
33	TP	Cyclohexane	* 10.000	10.905	-9.0	119	0.00
34	TP	Chloroform	0.286	0.286#	0.0	109	0.00
35	TP	Ethyl acetate	0.112	0.110	1.8	114	0.00
36	TP	Carbon tetrachloride	0.206	0.220	-6.8	109	0.00
37	TP	Tetrahydrofuran	0.037	0.036	2.7	110	0.00
38	S	Dibromofluoromethane	0.349	0.346	0.9	111	0.00
39	TP	1,1,1-Trichloroethane	0.241	0.249	-3.3	109	0.00
41	TP	2-Butanone	0.047	0.045	4.3	116	0.00
42	TP	1,1-Dichloropropene	0.195	0.208	-6.7	112	0.00
44	TP	Benzene	0.633	0.643	-1.6	113	0.00
45	TP	tert-Amyl methyl ether	0.202	0.185	8.4	112	0.00

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	S	1,2-Dichloroethane-d4	0.295	0.300	-1.7	113	0.00
47	T	1,2-Dichloroethane	0.158	0.160	-1.3	108	0.00
50	TP	Methyl cyclohexane	* 10.000	10.681	-6.8	128	0.00
51	TP	Trichloroethene	0.135	0.133#	1.5	107	0.00
53	TP	Dibromomethane	0.068	0.068	0.0	111	0.00
54	TP	1,2-Dichloropropane	0.141	0.143#	-1.4	107	0.00
56	TP	2-Chloroethyl vinyl ether	0.054	0.046	14.8	101	0.00
57	TP	Bromodichloromethane	0.167	0.161#	3.6	106	0.00
60	TP	1,4-Dioxane	0.00056	0.00064#	-14.3	122	0.00
61	TP	cis-1,3-Dichloropropene	0.172	0.178#	-3.5	110	0.00
62	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00
63	S	Toluene-d8	1.274	1.269	0.4	111	0.00
64	TP	Toluene	0.412	0.409	0.7	106	0.00
65	TP	4-Methyl-2-pentanone	0.033	0.030#	9.1	116	0.00
66	TP	Tetrachloroethene	0.162	0.169	-4.3	111	0.00
68	TP	trans-1,3-Dichloropropene	* 10.000	8.883	11.2	115	0.00
70	TP	Ethyl methacrylate	0.133	0.125	6.0	112	0.00
71	TP	1,1,2-Trichloroethane	0.097	0.092#	5.2	108	0.00
72	TP	Chlorodibromomethane	* 10.000	8.735	12.7	108	0.00
73	TP	1,3-Dichloropropane	0.190	0.193	-1.6	113	0.00
74	TP	1,2-Dibromoethane	0.108	0.108#	0.0	112	0.00
76	TP	2-Hexanone	0.061	0.055	9.8	112	0.00
77	TP	Chlorobenzene	0.467	0.474	-1.5	108	0.00
78	TP	Ethylbenzene	0.778	0.808	-3.9	105	0.00
79	TP	1,1,1,2-Tetrachloroethane	0.148	0.143	3.4	110	0.00
80	TP	p/m Xylene	0.302	0.316	-4.6	105	0.00
81	TP	o Xylene	0.285	0.299	-4.9	106	0.00
82	TP	Styrene	0.459	0.486	-5.9	107	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00
84	TP	Bromoform	0.150	0.143	4.7	115	0.00
86	TP	Isopropylbenzene	1.551	1.679	-8.3	106	0.00
87	S	4-Bromofluorobenzene	0.911	0.938	-3.0	110	0.00
88	TP	Bromobenzene	0.365	0.367	-0.5	107	0.00
89	TP	n-Propylbenzene	1.802	1.934	-7.3	106	0.00
90	TP	1,4-Dichlorobutane	0.472	0.463	1.9	107	0.00
91	TP	1,1,2,2-Tetrachloroethane	0.254	0.246	3.1	109	0.00
92	TP	4-Ethyltoluene	1.469	1.668	-13.5	114	0.00

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
93 TP	2-Chlorotoluene		1.086	1.126	-3.7	106	0.00
94 TP	1,3,5-Trimethylbenzene		1.245	1.282	-3.0	104	0.00
95 TP	1,2,3-Trichloropropane		0.194	0.192	1.0	110	0.00
96 TP	trans-1,4-Dichloro-2-butene		0.086	0.079	8.1	103	0.00
97 TP	4-Chlorotoluene		1.121	1.158	-3.3	106	0.00
98 TP	tert-Butylbenzene		1.081	1.152	-6.6	106	0.00
101 TP	1,2,4-Trimethylbenzene		1.391	1.492	-7.3	107	0.00
102 TP	sec-Butylbenzene	*	10.000	10.208	-2.1	107	0.00
103 TP	p-Isopropyltoluene	*	10.000	10.063	-0.6	106	0.00
104 TP	1,3-Dichlorobenzene		0.724	0.738	-1.9	106	0.00
105 TP	1,4-Dichlorobenzene		0.718	0.720	-0.3	106	0.00
106 TP	p-Diethylbenzene		0.788	0.793	-0.6	107	0.00
107 TP	n-Butylbenzene	*	10.000	10.574	-5.7	110	0.00
108 TP	1,2-Dichlorobenzene		0.640	0.646	-0.9	106	0.00
109 TP	1,2,4,5-Tetramethylbenzene		1.081	1.082	-0.1	109	0.00
110 TP	1,2-Dibromo-3-chloropropane	*	10.000	9.267	7.3	115	0.00
111 TP	1,3,5-Trichlorobenzene		0.417	0.443	-6.2	109	0.00
112 TP	Hexachlorobutadiene	*	10.000	9.570	4.3	105	0.00
113 TP	1,2,4-Trichlorobenzene		0.355	0.361#	-1.7	107	0.00
114 TP	Naphthalene	*	10.000	9.621	3.8	112	0.00
115 TP	1,2,3-Trichlorobenzene		0.301	0.310#	-3.0	108	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 14 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	584007	10.000	ug/L	0.00
Standard Area 1 = 507125			Recovery = 115.16%			
62) Chlorobenzene-d5	9.519	117	458173	10.000	ug/L	0.00
Standard Area 1 = 414608			Recovery = 110.51%			
83) 1,4-Dichlorobenzene-d4	12.237	152	223186	10.000	ug/L	0.00
Standard Area 1 = 204327			Recovery = 109.23%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	202204	9.909	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.09%			
46) 1,2-Dichloroethane-d4	5.689	65	175085	10.150	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.50%			
63) Toluene-d8	7.675	98	581628	9.963	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.63%			
87) 4-Bromofluorobenzene	11.020	95	209243	10.296	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.96%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	94372	8.185	ug/L	96
3) Chloromethane	1.809	50	163643	10.640	ug/L	98
4) Vinyl chloride	1.881	62	122120	10.036	ug/L	97
5) Bromomethane	2.189	94	43319	8.862	ug/L	99
6) Chloroethane	2.300	64	72184	10.263	ug/L	97
7) Trichlorofluoromethane	2.444	101	150424	10.782	ug/L	99
8) Ethyl ether	2.739	74	42825	10.537	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	83581	10.345	ug/L #	76
11) Carbon disulfide	2.962	76	253815	9.563	ug/L	99
12) Freon-113	2.969	101	99012	11.850	ug/L	93
13) Iodomethane	3.067	142	49697	4.686	ug/L	98
14) Acrolein	3.237	56	9847	7.092	ug/L	95
15) Methylene chloride	3.473	84	100942	9.424	ug/L #	61
17) Acetone	3.513	43	19531	10.003	ug/L	96
18) trans-1,2-Dichloroethene	3.631	96	96422	10.202	ug/L	83
19) Methyl acetate	3.631	43	48058	9.565	ug/L #	83
21) Methyl tert-butyl ether	3.729	73	162342	8.982	ug/L #	78
22) tert-Butyl alcohol	3.801	59	20700	54.694	ug/L #	85
24) Diisopropyl ether	4.090	45	327927	9.657	ug/L #	91
25) 1,1-Dichloroethane	4.207	63	197951	10.254	ug/L	95
26) Halothane	4.260	117	78666	11.165	ug/L	99

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.247	53	25607	9.609	ug/L		98
28) Ethyl tert-butyl ether	4.430	59	236254	9.687	ug/L		86
29) Vinyl acetate	4.437	43	178159	8.777	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	106770	10.193	ug/L	#	84
31) 2,2-Dichloropropane	4.830	77	111687	9.232	ug/L	#	74
32) Bromochloromethane	4.915	128	47316	9.573	ug/L	#	68
33) Cyclohexane	4.928	56	212214	10.905	ug/L		71
34) Chloroform	4.987	83	166972	9.994	ug/L	#	95
35) Ethyl acetate	5.092	43	64050	9.765	ug/L	#	93
36) Carbon tetrachloride	5.125	117	128483	10.656	ug/L		99
37) Tetrahydrofuran	5.138	42	21217M6	9.870	ug/L		
39) 1,1,1-Trichloroethane	5.191	97	145522	10.329	ug/L		95
41) 2-Butanone	5.276	43	26172	9.538	ug/L	#	49
42) 1,1-Dichloropropene	5.315	75	121434	10.682	ug/L		99
44) Benzene	5.558	78	375381	10.148	ug/L	#	90
45) tert-Amyl methyl ether	5.669	73	107964	9.136	ug/L	#	83
47) 1,2-Dichloroethane	5.754	62	93169	10.081	ug/L		96
50) Methyl cyclohexane	6.154	83	129337	10.681	ug/L	#	66
51) Trichloroethene	6.154	95	77622	9.866	ug/L		96
53) Dibromomethane	6.591	93	39829	10.014	ug/L	#	82
54) 1,2-Dichloropropane	6.695	63	83335	10.089	ug/L		94
56) 2-Chloroethyl vinyl ether	7.390	63	26989	8.529	ug/L	#	79
57) Bromodichloromethane	6.765	83	94265	9.672	ug/L		99
60) 1,4-Dioxane	6.973	88	18562	569.597	ug/L	#	62
61) cis-1,3-Dichloropropene	7.460	75	103964	10.351	ug/L	#	83
64) Toluene	7.731	92	187194	9.919	ug/L		100
65) 4-Methyl-2-pentanone	8.169	58	13593	9.000	ug/L	#	69
66) Tetrachloroethene	8.182	166	77381	10.457	ug/L		93
68) trans-1,3-Dichloropropene	8.210	75	83193	8.883	ug/L		82
70) Ethyl methacrylate	8.412	69	57396	9.437	ug/L		97
71) 1,1,2-Trichloroethane	8.398	83	42135	9.507	ug/L		97
72) Chlorodibromomethane	8.607	129	62322	8.735	ug/L		99
73) 1,3-Dichloropropane	8.720	76	88647	10.202	ug/L		100
74) 1,2-Dibromoethane	8.881	107	49511	9.969	ug/L		100
76) 2-Hexanone	9.175	43	25391	9.047	ug/L	#	85
77) Chlorobenzene	9.540	112	217224	10.163	ug/L		91
78) Ethylbenzene	9.589	91	370010	10.384	ug/L		99
79) 1,1,1,2-Tetrachloroethane	9.624	131	65595	9.648	ug/L		98
80) p/m Xylene	9.778	106	289785	20.951	ug/L		100
81) o Xylene	10.318	106	274261	20.967	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240729AICAL\V22240729A08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Styrene	10.382	104	445592	21.179	ug/L		100
84) Bromoform	10.396	173	31976	9.523	ug/L		99
86) Isopropylbenzene	10.704	105	374649	10.822	ug/L		99
88) Bromobenzene	11.132	156	81872	10.057	ug/L		99
89) n-Propylbenzene	11.188	91	431536	10.728	ug/L		98
90) 1,4-Dichlorobutane	11.195	55	103370	9.823	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.265	83	54939	9.701	ug/L		98
92) 4-Ethyltoluene	11.314	105	372364	11.357	ug/L		99
93) 2-Chlorotoluene	11.349	91	251254M6	10.369	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	286082	10.297	ug/L		99
95) 1,2,3-Trichloropropane	11.405	75	42822	9.906	ug/L		98
96) trans-1,4-Dichloro-2-b...	11.454	53	17614	9.137	ug/L	#	67
97) 4-Chlorotoluene	11.532	91	258494	10.336	ug/L		99
98) tert-Butylbenzene	11.756	119	257016	10.658	ug/L		97
101) 1,2,4-Trimethylbenzene	11.833	105	332931	10.725	ug/L		99
102) sec-Butylbenzene	11.944	105	374658	10.208	ug/L		98
103) p-Isopropyltoluene	12.104	119	311843	10.063	ug/L		98
104) 1,3-Dichlorobenzene	12.160	146	164608	10.194	ug/L		97
105) 1,4-Dichlorobenzene	12.251	146	160763	10.038	ug/L		96
106) p-Diethylbenzene	12.480	119	176923	10.061	ug/L		98
107) n-Butylbenzene	12.536	91	273141	10.574	ug/L		98
108) 1,2-Dichlorobenzene	12.675	146	144252	10.098	ug/L		96
109) 1,2,4,5-Tetramethylben...	13.274	119	241429	10.011	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.455	155	7856	9.267	ug/L		99
111) 1,3,5-Trichlorobenzene	13.490	180	98813	10.619	ug/L		96
112) Hexachlorobutadiene	14.074	225	32190	9.570	ug/L		99
113) 1,2,4-Trichlorobenzene	14.095	180	80638	10.184	ug/L		98
114) Naphthalene	14.388	128	175725	9.621	ug/L		100
115) 1,2,3-Trichlorobenzene	14.555	180	69157	10.282	ug/L		97

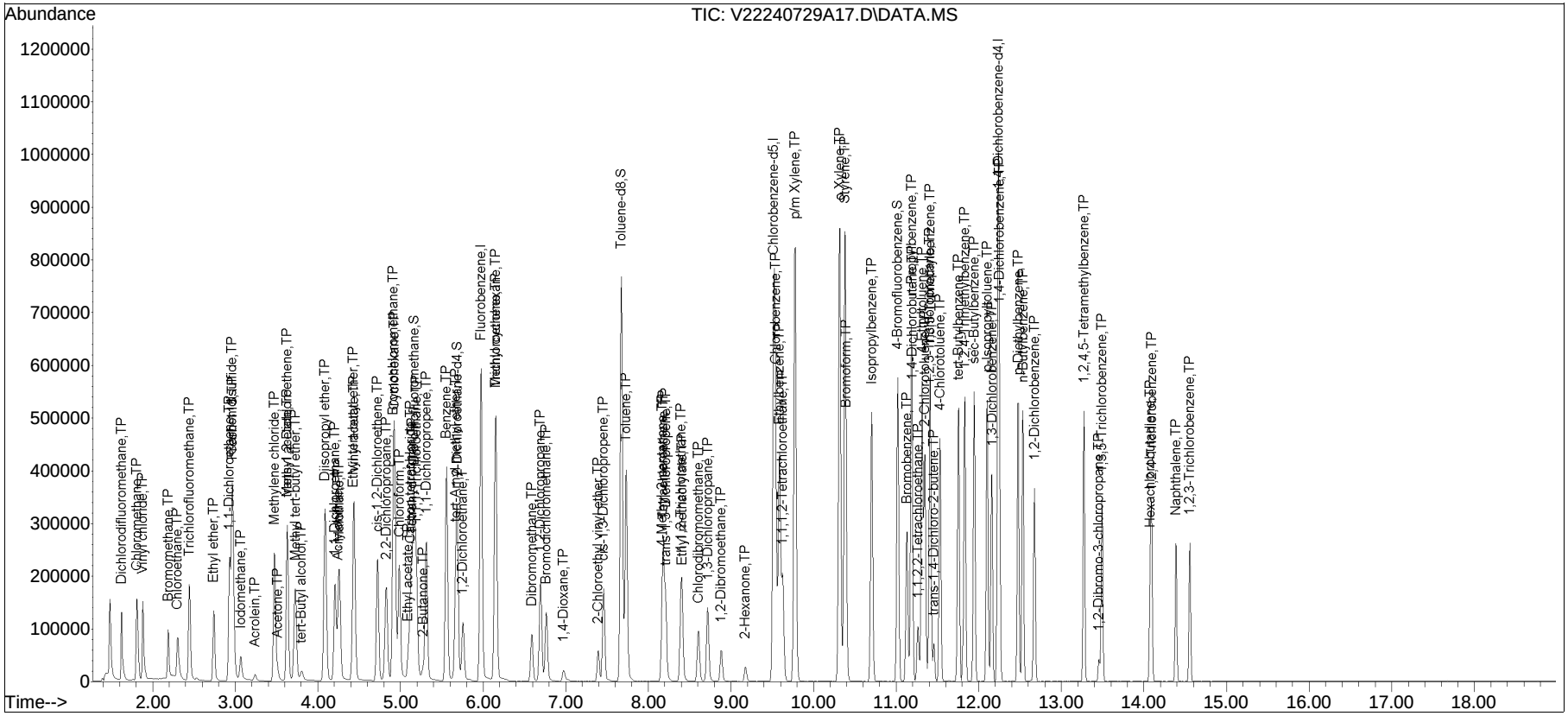
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240729AICAL\
Data File : V22240729A17.D
Acq On : 29 Jul 2024 07:08 pm
Operator : VOA122:PID
Sample : C8260STD10PPB
Misc : WG1953132,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 30 07:09:42 2024
Quant Method : K:\VOA122\2024\240729AICAL\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

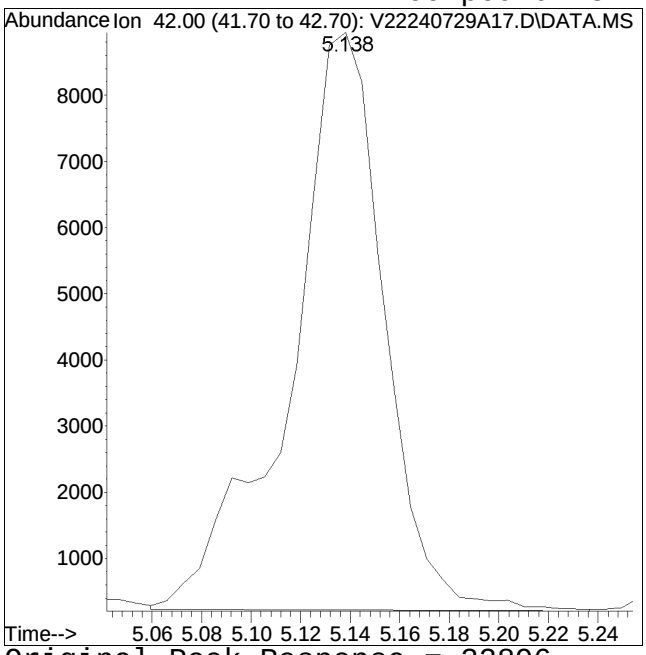
Sub List : 8260-Curve - Megamix plus Diox\V22240729A08.D•



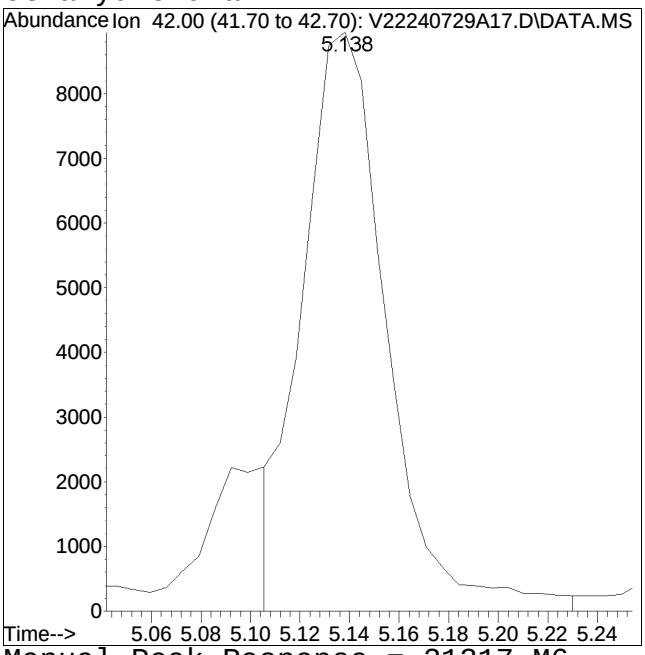
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A17.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 7:08 pm Instrument : VOA 122
Sample : C8260STD10PPB Quant Date : 7/30/2024 7:08 am

Compound #37: Tetrahydrofuran



Original Peak Response = 22896



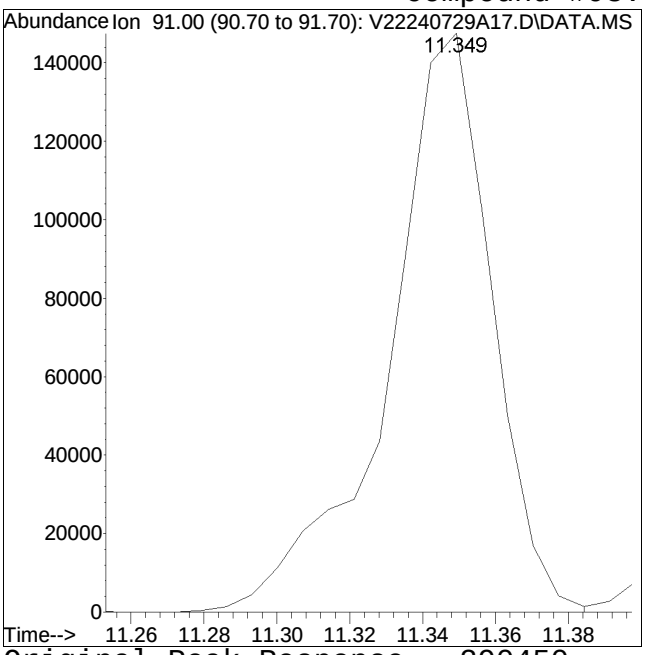
Manual Peak Response = 21217 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

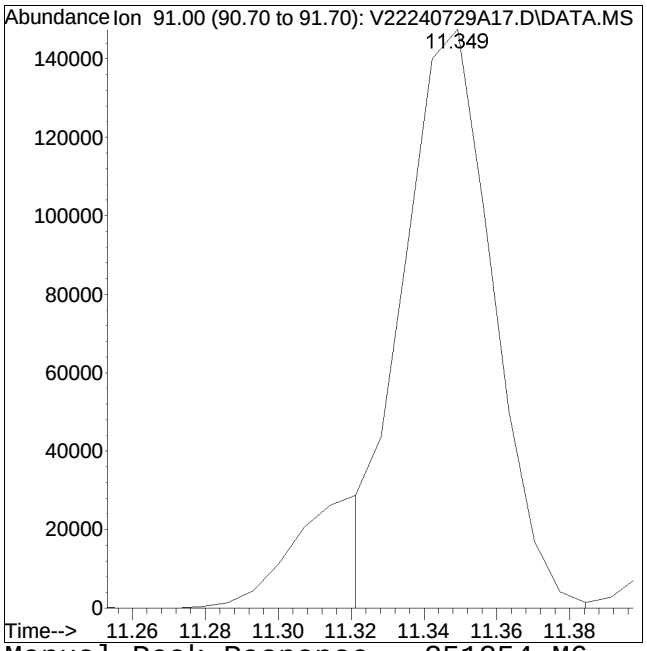
Manual Integration Report

Data Path : K:\VOA122\2024\240729AICALQMethod : V122_240729A_8260.m
Data File : V22240729A17.D Operator : VOA122:PID
Date Inj'd : 7/29/2024 7:08 pm Instrument : VOA 122
Sample : C8260STD10PPB Quant Date : 7/30/2024 7:08 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 290450



Manual Peak Response = 251254 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Relative Error Report VOA 122

Method Path : K:\VOA122\2024\240729AICAL\
Method File : V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
7	TP Trichlorofluoromethane	L	ug/L	10.0	10.753	7.5	0.50	0.501	0.2
33	TP Cyclohexane	L	ug/L	10.0	10.553	5.5	2.00	1.763	-11.9
50	TP Methyl cyclohexane	L	ug/L	10.0	9.764	-2.4	2.00	2.084	4.2
68	TP trans-1,3-Dichloropropene	L	ug/L	10.0	8.583	-14.2	0.50	0.647	29.4
72	TP Chlorodibromomethane	L	ug/L	10.0	8.898	-11.0	0.50	0.610	22.0
102	TP sec-Butylbenzene	L	ug/L	10.0	10.460	4.6	0.50	0.535	7.0
103	TP p-Isopropyltoluene	L	ug/L	10.0	10.357	3.6	0.50	0.548	9.6
107	TP n-Butylbenzene	L	ug/L	10.0	10.492	4.9	0.50	0.542	8.4
110	TP 1,2-Dibromo-3-chloropropane	L	ug/L	10.0	8.817	-11.8	0.50	0.613	22.6
112	TP Hexachlorobutadiene	L	ug/L	10.0	9.952	-0.5	0.50	0.612	22.4
114	TP Naphthalene	L	ug/L	10.0	9.416	-5.8	0.50	0.571	14.2

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
7	TP Trichlorofluoromethane	Linear	0.998671	0.000000	0.24355	-0.00501306
33	TP Cyclohexane	Linear	0.999276	0.000000	0.357513	-0.0264869
50	TP Methyl cyclohexane	Linear	0.999608	0.000000	0.235814	-0.0304005
68	TP trans-1,3-Dichloropropene	Linear	0.999155	0.000000	0.213644	-0.00820122
72	TP Chlorodibromomethane	Linear	0.999477	0.000000	0.161958	-0.00544907
102	TP sec-Butylbenzene	Linear	0.999175	0.000000	1.68629	-0.0426095
103	TP p-Isopropyltoluene	Linear	0.999544	0.000000	1.42851	-0.0402949
107	TP n-Butylbenzene	Linear	0.999611	0.000000	1.18857	-0.0329415
110	TP 1,2-Dibromo-3-chloropropane	Linear	0.999329	0.000000	0.040244	-0.00209494
112	TP Hexachlorobutadiene	Linear	0.998879	0.000000	0.155902	-0.00497102
114	TP Naphthalene	Linear	0.998664	0.000000	0.843196	-0.0238888

Response Factor Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo...		0.138	0.246	0.220	0.243	0.243	0.244	0.235	0.224	17.36
3)	TP	Chloromethane		0.199	0.251	0.263	0.261	0.259	0.260	0.256	0.250	9.09
4)	TP	Vinyl chloride	0.163	0.159	0.248	0.243	0.263	0.260	0.265	0.260	0.233	19.30
5)	TP	Bromomethane		0.043	0.054	0.058	0.067	0.084	0.095	0.102	*Q	0.9983
6)	TP	Chloroethane		0.109	0.166	0.154	0.151	0.153	0.144	0.107	0.140	16.43
7)	TP	Trichlorofluor...		0.189	0.262	0.254	0.291	0.294	0.295	0.287	0.267	14.21
8)	TP	Ethyl ether		0.098	0.094	0.106	0.111	0.111	0.108	0.108	0.105	6.41
10)	TP	1,1-Dichloroet...		0.128	0.165	0.154	0.168	0.170	0.170	0.165	0.160	9.41
11)	TP	Carbon disulfide		0.423	0.489	0.504	0.523	0.517	0.512	0.493	0.494	6.86
12)	TP	Freon-113		0.120	0.172	0.163	0.178	0.178	0.183	0.175	0.167	13.06
13)	TP	Iodomethane			0.056	0.087	0.130	0.163	0.172	0.180	*Q	0.9978
14)	TP	Acrolein		0.042	0.047	0.044	0.045	0.045	0.046	0.048	0.045	4.40
15)	TP	Methylene chlo...		0.219	0.207	0.204	0.201	0.197	0.195	0.191	0.202	4.65
17)	TP	Acetone			0.094	0.071	0.077	0.071	0.065	0.063	0.073	15.12
18)	TP	trans-1,2-Dich...		0.134	0.173	0.177	0.180	0.183	0.181	0.176	0.172	9.89
19)	TP	Methyl acetate		0.231	0.183	0.165	0.161	0.156	0.153	0.149	0.171	16.75
21)	TP	Methyl tert-bu...		0.595	0.630	0.676	0.661	0.657	0.646	0.629	0.642	4.16
22)	TP	tert-Butyl alc...		0.021	0.023	0.024	0.024	0.023	0.023	0.023	0.023	4.09
24)	TP	Diisopropyl ether		0.797	0.878	0.965	0.985	0.960	0.936	0.916	0.920	7.03
25)	TP	1,1-Dichloroet...		0.339	0.407	0.424	0.424	0.420	0.409	0.405	0.404	7.39
26)	TP	Halothane		0.117	0.137	0.142	0.147	0.145	0.143	0.141	0.139	7.40
27)	TP	Acrylonitrile		0.076	0.081	0.088	0.089	0.087	0.086	0.084	0.084	5.26
28)	TP	Ethyl tert-but...		0.694	0.779	0.838	0.837	0.826	0.811	0.800	0.798	6.32
29)	TP	Vinyl acetate		0.679	0.649	0.556	0.550	0.513	0.670	0.667	0.612	11.34
30)	TP	cis-1,2-Dichlo...		0.183	0.211	0.211	0.208	0.214	0.211	0.205	0.206	5.19
31)	TP	2,2-Dichloropr...		0.240	0.279	0.270	0.284	0.278	0.279	0.263	0.270	5.58
33)	TP	Bromochloromet...		0.089	0.091	0.096	0.096	0.091	0.086	0.085	0.091#	4.89
34)	TP	Cyclohexane		0.384	0.496	0.452	0.498	0.498	0.499	0.484	0.473	8.98
35)	TP	Chloroform		0.303	0.352	0.346	0.336	0.339	0.333	0.335	0.335	4.66
36)	TP	Ethyl acetate		0.314	0.226	0.262	0.255	0.249	0.243	0.242	0.256	11.00

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
37)	TP	Carbon tetrach...	0.229	0.188	0.270	0.260	0.275	0.275	0.279	0.271	0.256	12.38
38)	TP	Tetrahydrofuran		0.087	0.083	0.081	0.080	0.078	0.074	0.073	0.079	5.85
39)	S	Dibromofluorom...	0.242	0.242	0.240	0.238	0.232	0.231	0.224	0.223	0.234	3.26
40)	TP	1,1,1-Trichlor...		0.265	0.301	0.310	0.316	0.315	0.315	0.308	0.304	5.96
42)	TP	2-Butanone			0.118	0.104	0.105	0.104	0.100	0.099	0.105	6.40
43)	TP	1,1-Dichloropr...		0.193	0.259	0.260	0.270	0.271	0.271	0.268	0.256	11.09
45)	TP	Benzene	0.719	0.654	0.814	0.838	0.839	0.835	0.825	0.813	0.792	8.59
46)	TP	tert-Amyl meth...		0.549	0.579	0.619	0.622	0.611	0.607	0.598	0.598	4.33
47)	S	1,2-Dichloroet...	0.326	0.322	0.322	0.316	0.305	0.309	0.298	0.302	0.312	3.33
48)	T	1,2-Dichloroet...		0.295	0.300	0.320	0.314	0.310	0.303	0.299	0.306	2.93
51)	TP	Methyl cyclohe...		0.281	0.360	0.333	0.364	0.386	0.390	0.377	0.356	10.67
52)	TP	Trichloroethene	0.193	0.161	0.200	0.210	0.217	0.216	0.201	0.195	0.199#	8.96
54)	TP	Dibromomethane		0.096	0.116	0.120	0.119	0.118	0.116	0.117	0.115	7.18
55)	TP	1,2-Dichloropr...		0.215	0.233	0.249	0.248	0.246	0.242	0.239	0.239	5.05
57)	TP	2-Chloroethyl ...		0.127	0.145	0.157	0.163	0.167	0.160	0.158	0.154	8.95
58)	TP	Bromodichlorom...		0.250	0.293	0.294	0.289	0.290	0.286	0.282	0.283#	5.40
61)	TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	1.58
62)	TP	cis-1,3-Dichlo...	0.241	0.293	0.316	0.341	0.345	0.345	0.339	0.334	0.319	11.31
63)	I	Chlorobenzene-d5	----------ISTD----------									
64)	S	Toluene-d8	1.316	1.311	1.306	1.323	1.314	1.308	1.321	1.339	1.317	0.79
65)	TP	Toluene		0.596	0.701	0.712	0.711	0.697	0.702	0.700	0.689	5.96
66)	TP	4-Methyl-2-pen...		0.096	0.114	0.124	0.124	0.122	0.121	0.120	0.117	8.43
67)	TP	Tetrachloroethene		0.219	0.288	0.302	0.312	0.308	0.313	0.307	0.293	11.47
69)	TP	trans-1,3-Dich...	0.319	0.359	0.375	0.414	0.420	0.408	0.405	0.402	0.388	8.92
71)	TP	Ethyl methacry...		0.356	0.363	0.387	0.378	0.367	0.368	0.365	0.369	2.79
72)	TP	1,1,2-Trichlor...		0.183	0.190	0.204	0.201	0.193	0.192	0.190	0.193#	3.69
73)	TP	Chlorodibromom...		0.230	0.258	0.281	0.283	0.277	0.281	0.281	0.270	7.23
74)	TP	1,3-Dichloropr...		0.369	0.398	0.430	0.429	0.412	0.410	0.409	0.408	5.11
75)	TP	1,2-Dibromoethane		0.216	0.223	0.237	0.236	0.229	0.228	0.230	0.228	3.24
77)	TP	2-Hexanone		0.238	0.227	0.234	0.233	0.225	0.221	0.222	0.229	2.91
78)	TP	Chlorobenzene		0.673	0.728	0.767	0.755	0.737	0.742	0.734	0.734	4.10

Response Factor Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79)	TP	Ethylbenzene		1.142	1.358	1.408	1.393	1.353	1.359	1.329	1.335	6.66
80)	TP	1,1,1,2-Tetrac...		0.215	0.270	0.287	0.286	0.276	0.276	0.273	0.269	9.12
81)	TP	p/m Xylene		0.447	0.521	0.548	0.535	0.510	0.508	0.492	0.509	6.43
82)	TP	o Xylene		0.454	0.508	0.533	0.516	0.497	0.495	0.479	0.497	5.16
83)	TP	Styrene		0.718	0.838	0.886	0.858	0.817	0.812	0.779	0.816	6.74
84)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85)	TP	Bromoform		0.284	0.320	0.331	0.334	0.334	0.338	0.337	0.325	5.92
87)	TP	Isopropylbenzene		1.911	2.394	2.445	2.472	2.475	2.556	2.509	2.395	9.15
88)	S	4-Bromofluorob...	0.912	0.926	0.900	0.927	0.899	0.923	0.942	0.959	0.924	2.20
89)	TP	Bromobenzene		0.539	0.594	0.625	0.612	0.613	0.627	0.622	0.605	5.15
90)	TP	n-Propylbenzene		2.463	2.827	2.941	2.951	2.948	3.011	2.888	2.861	6.45
91)	TP	1,4-Dichlorobu...		1.076	1.063	1.068	1.046	1.022	1.031	1.015	1.046	2.29
92)	TP	1,1,2,2-Tetrac...		0.512	0.521	0.493	0.487	0.485	0.530	0.529	0.508	3.87
93)	TP	4-Ethyltoluene		1.935	2.296	2.424	2.400	2.399	2.443	2.350	2.321	7.63
94)	TP	2-Chlorotoluene		1.451	1.722	1.764	1.719	1.699	1.724	1.705	1.683	6.21
95)	TP	1,3,5-Trimethy...		1.733	2.008	2.145	2.110	2.089	2.133	2.036	2.036	7.01
96)	TP	1,2,3-Trichlor...		0.395	0.420	0.431	0.422	0.414	0.414	0.407	0.415	2.78
97)	TP	trans-1,4-Dich...		0.185	0.197	0.203	0.201	0.207	0.213	0.219	0.204	5.51
98)	TP	4-Chlorotoluene		1.530	1.763	1.829	1.796	1.785	1.839	1.801	1.763	6.02
99)	TP	tert-Butylbenzene		1.412	1.689	1.769	1.762	1.779	1.824	1.747	1.712	8.07
102)	TP	1,2,4-Trimethy...		1.747	1.954	2.131	2.103	2.101	2.135	2.057	2.033	6.91
103)	TP	sec-Butylbenzene		2.141	2.500	2.584	2.607	2.644	2.708	2.584	2.538	7.33
104)	TP	p-Isopropyltol...		1.701	2.077	2.196	2.232	2.258	2.294	2.214	2.139	9.58
105)	TP	1,3-Dichlorobe...		1.015	1.081	1.169	1.146	1.135	1.148	1.122	1.117	4.72
106)	TP	1,4-Dichlorobe...		1.009	1.087	1.157	1.145	1.138	1.145	1.131	1.116	4.67
107)	TP	p-Diethylbenzene		1.028	1.180	1.302	1.316	1.335	1.335	1.333	1.261	9.25
108)	TP	n-Butylbenzene		1.501	1.792	1.868	1.891	1.948	1.955	1.939	1.842	8.74
109)	TP	1,2-Dichlorobe...		0.978	1.026	1.115	1.108	1.094	1.098	1.099	1.074	4.80
110)	TP	1,2,4,5-Tetram...		1.737	1.892	2.127	2.116	2.105	2.156	2.192	2.046	8.17
111)	TP	1,2-Dibromo-3-...		0.049	0.087	0.092	0.094	0.094	0.097	0.102	*L	0.9989
112)	TP	1,3,5-Trichlor...		0.709	0.775	0.890	0.883	0.879	0.919	0.916	0.853	9.33

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

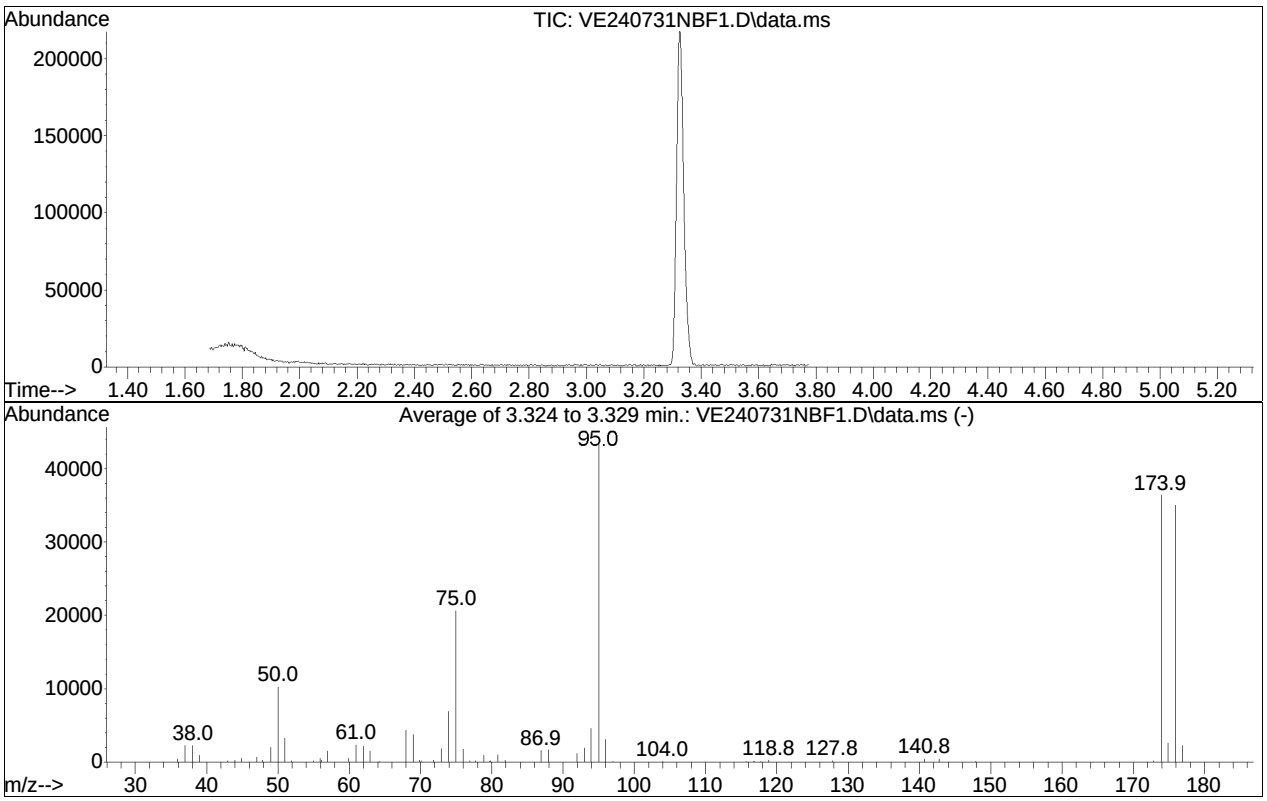
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
113)	TP Hexachlorobuta...	0.225	0.275	0.285	0.293	0.293	0.305	0.303	0.283		9.74
114)	TP 1,2,4-Trichlor...	0.666	0.683	0.789	0.797	0.806	0.839	0.809	0.770		8.71
115)	TP Naphthalene	1.419	1.532	1.695	1.747	1.797	1.858	1.833	1.697		9.67
116)	TP 1,2,3-Trichlor...	0.578	0.647	0.721	0.728	0.750	0.771	0.757	0.707		9.89

(#) = Out of Range

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731NBF1.D
Acq On : 31 Jul 2024 5:25 pm
Operator : ELAINE:MAG
Sample : WG1954249-1
Misc : WG1954249
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024



AutoFind: Scans 588, 589, 590; Background Corrected with Scan 574

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.6	10291	PASS
75	95	30	60	47.5	20672	PASS
95	95	100	100	100.0	43531	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.6	217	PASS
174	95	50	100	83.7	36424	PASS
175	174	5	9	7.1	2596	PASS
176	174	95	101	96.2	35043	PASS
177	176	5	9	6.5	2267	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N03.D
Acq On : 31 Jul 2024 6:35 pm
Operator : ELAINE:MKS
Sample : I8260STD0.19PPB
Misc : WG1954249
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 01 11:59:43 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.967	96	205517	10.000 ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.46%		
63) Chlorobenzene-d5	9.497	117	152868	10.000 ug/L	0.00
Standard Area 1 = 147756			Recovery = 103.46%		
84) 1,4-Dichlorobenzene-d4	12.208	152	86858	10.000 ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.78%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.158	113	49774	10.178 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.78%		
47) 1,2-Dichloroethane-d4	5.680	65	66950	10.310 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.10%		
64) Toluene-d8	7.657	98	201231	9.951 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.51%		
88) 4-Bromofluorobenzene	10.995	95	79257	9.840 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.40%		
Target Compounds					Qvalue
4) Vinyl chloride	1.854	62	637	0.127 ug/L #	12
37) Carbon tetrachloride	5.122	117	895M1	0.167 ug/L	
45) Benzene	5.549	78	2809	0.163 ug/L #	76
52) Trichloroethene	6.156	95	755M1	0.175 ug/L	
62) cis-1,3-Dichloropropene	7.453	75	943	0.135 ug/L #	55
69) trans-1,3-Dichloropropene	8.203	75	927M1	0.146 ug/L	

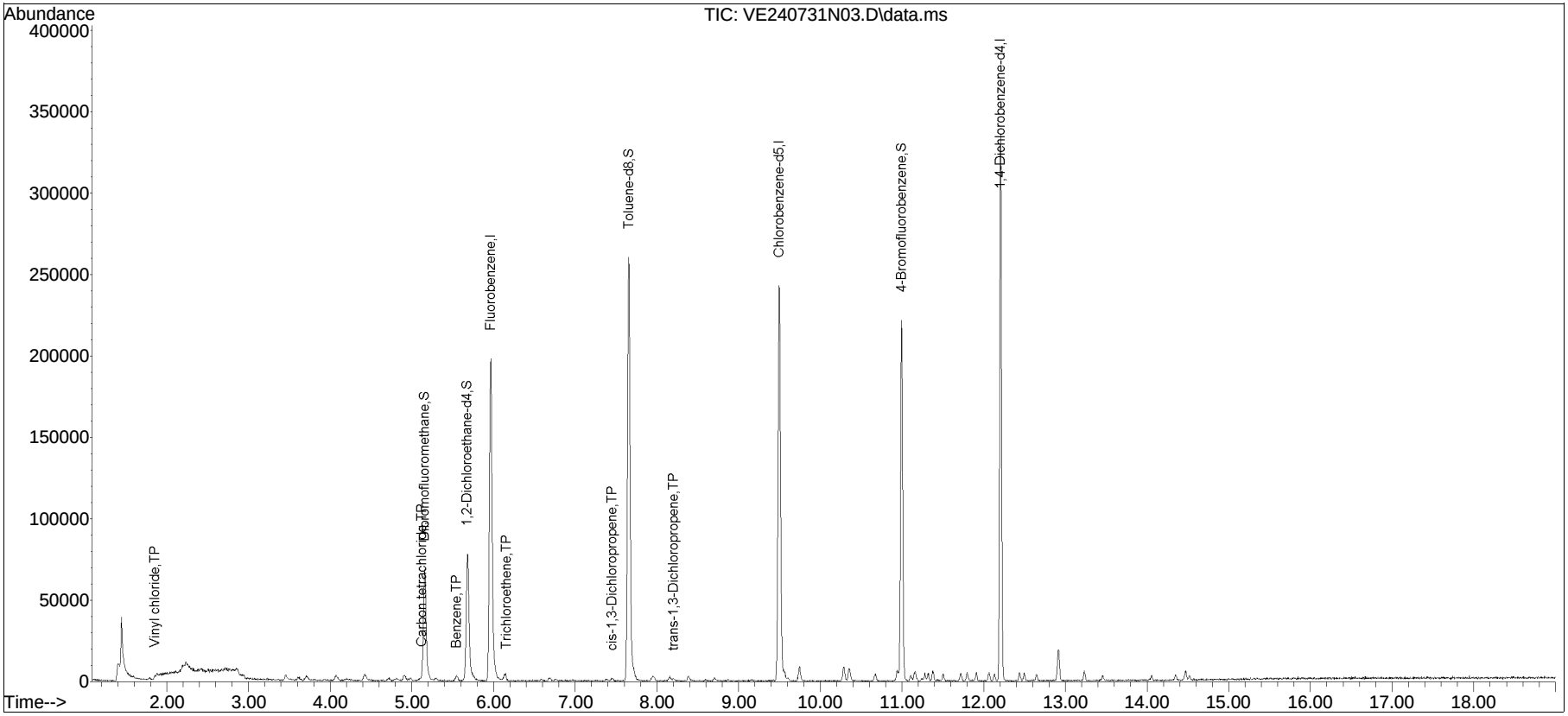
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N03.D
Acq On : 31 Jul 2024 6:35 pm
Operator : ELAINE:MKS
Sample : I8260STD0.19PPB
Misc : WG1954249
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 01 11:59:43 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-L11_MCP - L11 MCP731N-ICAL\VE240731N08.D•

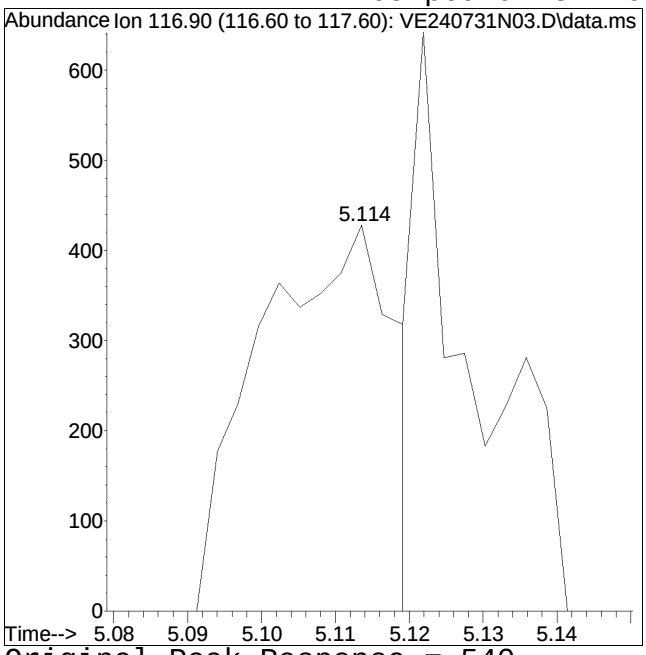


Manual Integration Report

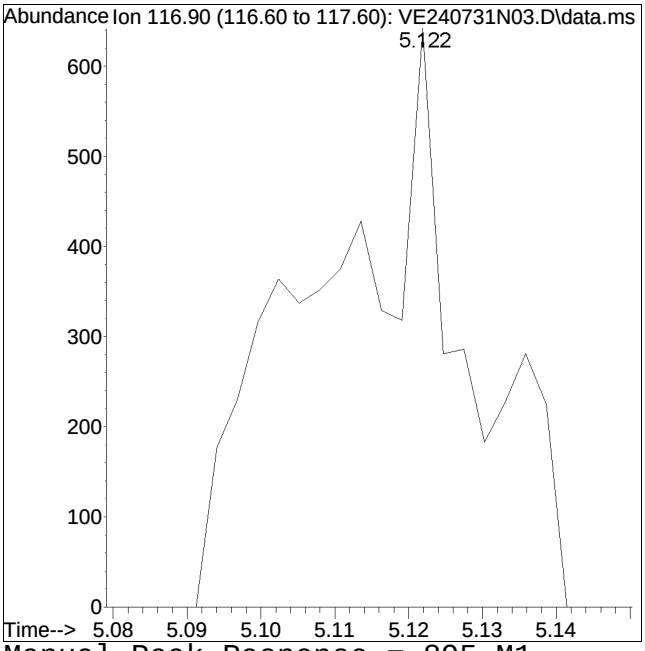
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N03.D
Date Inj'd : 7/31/2024 6:35 pm
Sample : I8260STD0.19PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #37: Carbon tetrachloride



Original Peak Response = 540



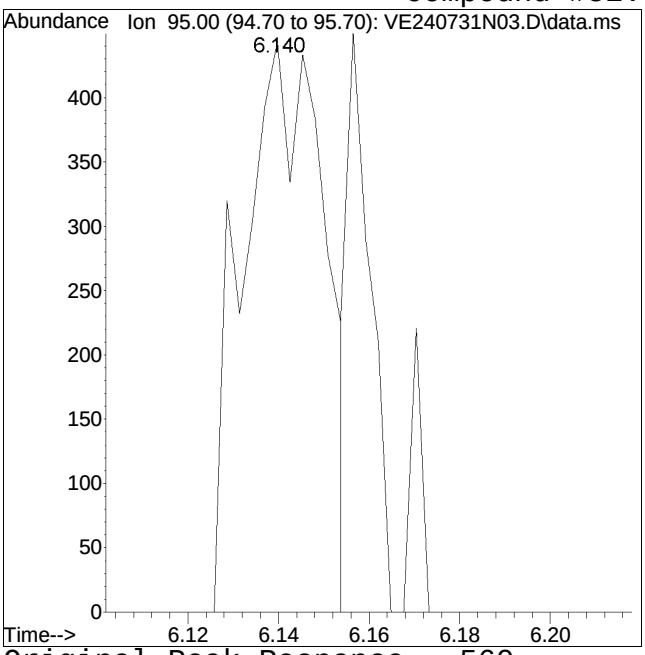
Manual Peak Response = 895 M1

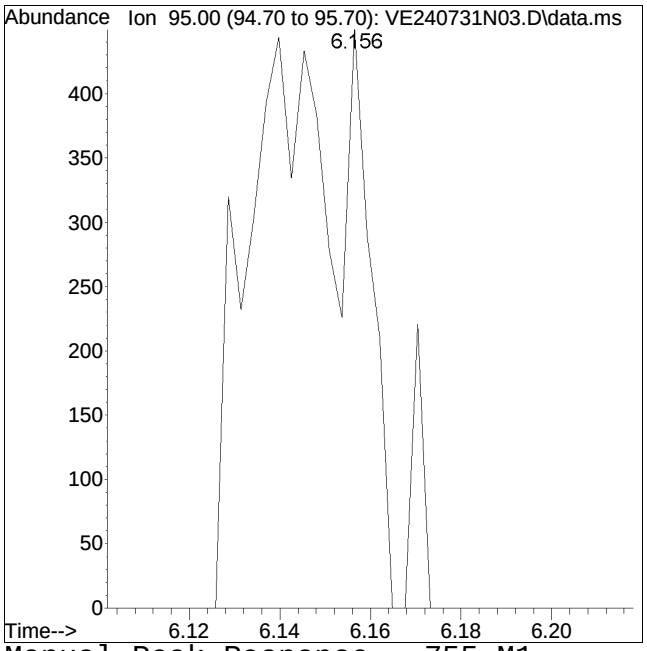
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N03.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 6:35 pm Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 8/1/2024 11:57 am

Compound #52: Trichloroethene



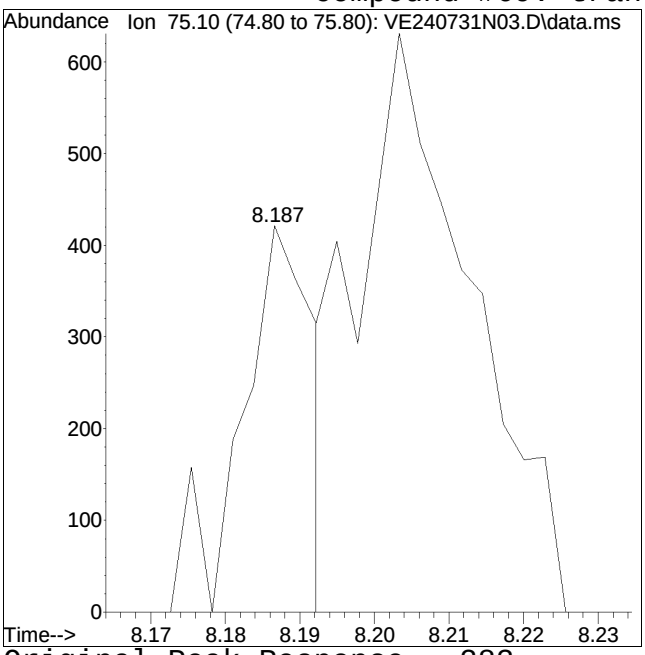


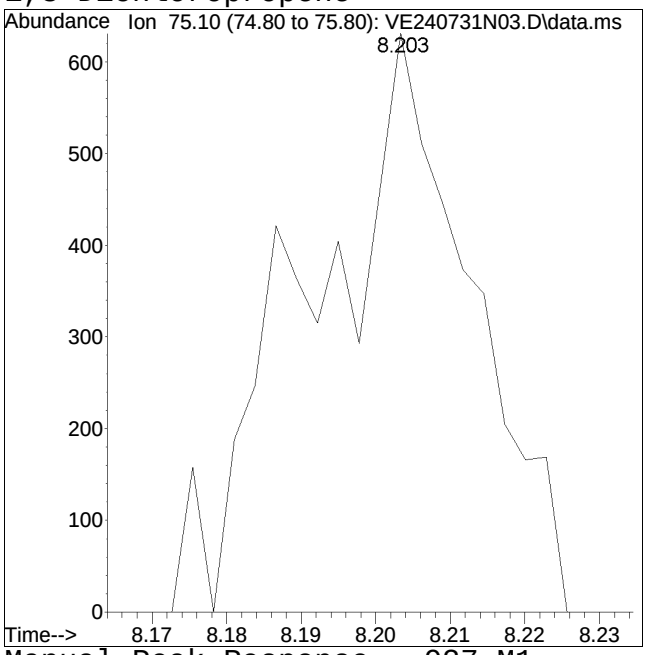
Original Peak Response = 560 Manual Peak Response = 755 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N03.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 6:35 pm Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 8/1/2024 11:57 am

Compound #69: trans-1,3-Dichloropropene





Original Peak Response = 283 Manual Peak Response = 927 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.964	96	205652	10.000 ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.52%		
63) Chlorobenzene-d5	9.497	117	152599	10.000 ug/L	0.00
Standard Area 1 = 147756			Recovery = 103.28%		
84) 1,4-Dichlorobenzene-d4	12.205	152	86607	10.000 ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.49%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.158	113	49722	10.161 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.61%		
47) 1,2-Dichloroethane-d4	5.680	65	66192	10.187 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.87%		
64) Toluene-d8	7.651	98	200132	9.914 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%		
88) 4-Bromofluorobenzene	10.995	95	80217	9.988 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.592	85	1422	0.314 ug/L	88
3) Chloromethane	1.790	50	2046	0.379 ug/L	89
4) Vinyl chloride	1.857	62	1632	0.326 ug/L	73
5) Bromomethane	2.161	94	446	0.371 ug/L	81
6) Chloroethane	2.272	64	1120M4	0.355 ug/L	
7) Trichlorofluoromethane	2.420	101	1947	0.372 ug/L #	69
8) Ethyl ether	2.716	74	1005M1	0.461 ug/L	
10) 1,1-Dichloroethene	2.900	96	1318	0.415 ug/L #	79
11) Carbon disulfide	2.933	76	4345	0.420 ug/L #	83
12) Freon-113	2.939	101	1230M1	0.367 ug/L	
13) Iodomethane	0.000		0	N.D. d	
14) Acrolein	3.229	56	430M1	0.473 ug/L	
15) Methylene chloride	3.463	84	2255	0.538 ug/L	95
17) Acetone	3.499	43	1696M1	1.168 ug/L	
18) trans-1,2-Dichloroethene	3.611	96	1381	0.380 ug/L	78
19) Methyl acetate	3.622	43	2374M1	0.700 ug/L	
21) Methyl tert-butyl ether	3.714	73	6120M1	0.440 ug/L	
22) tert-Butyl alcohol	3.792	59	1084M1	2.240 ug/L	
24) Diisopropyl ether	4.079	45	8193	0.413 ug/L #	75
25) 1,1-Dichloroethane	4.196	63	3485	0.399 ug/L	82
26) Halothane	4.258	117	1199M1	0.411 ug/L	

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.230	53	782M1	0.433	ug/L		
28) Ethyl tert-butyl ether	4.422	59	7137	0.414	ug/L	#	76
29) Vinyl acetate	4.431	43	6978M1	0.610	ug/L		
30) cis-1,2-Dichloroethene	4.709	96	1882M1	0.433	ug/L		
31) 2,2-Dichloropropane	4.818	77	2468	0.444	ug/L	#	31
33) Bromochloromethane	4.907	128	912M1	0.463	ug/L		
34) Cyclohexane	4.913	56	3953	0.426	ug/L	#	23
35) Chloroform	4.980	83	3115	0.438	ug/L	#	88
36) Ethyl acetate	5.097	43	3232M1	0.601	ug/L		
37) Carbon tetrachloride	5.117	117	1932	0.361	ug/L	#	25
38) Tetrahydrofuran	5.144	42	890M1	0.535	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	2722M1	0.427	ug/L		
42) 2-Butanone	0.000		0	N.D.	d		
43) 1,1-Dichloropropene	5.301	75	1981	0.370	ug/L	#	73
45) Benzene	5.552	78	6728	0.390	ug/L	#	79
46) tert-Amyl methyl ether	5.663	73	5646M1	0.444	ug/L		
48) 1,2-Dichloroethane	5.752	62	3030	0.461	ug/L	#	59
51) Methyl cyclohexane	6.134	83	2892	0.422	ug/L	#	61
52) Trichloroethene	6.148	95	1655M1	0.383	ug/L		
54) Dibromomethane	6.583	93	990M1	0.402	ug/L		
55) 1,2-Dichloropropane	6.684	63	2209M1	0.431	ug/L		
57) 2-Chloroethyl vinyl ether	7.381	63	1303M1	0.404	ug/L		
58) Bromodichloromethane	6.756	83	2570	0.424	ug/L	#	77
61) 1,4-Dioxane	6.971	88	3965M1	99.134	ug/L		
62) cis-1,3-Dichloropropene	7.448	75	3009	0.430	ug/L	#	84
65) Toluene	7.718	92	4550	0.419	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	735M1	0.388	ug/L		
67) Tetrachloroethene	8.151	166	1670	0.362	ug/L	#	47
69) trans-1,3-Dichloropropene	8.201	75	2736	0.433	ug/L	#	86
71) Ethyl methacrylate	8.382	69	2714	0.460	ug/L	#	32
72) 1,1,2-Trichloroethane	8.382	83	1399M1	0.449	ug/L		
73) Chlorodibromomethane	8.594	129	1758M1	0.409	ug/L		
74) 1,3-Dichloropropane	8.705	76	2813	0.428	ug/L		95
75) 1,2-Dibromoethane	8.864	107	1649	0.455	ug/L	#	59
77) 2-Hexanone	9.157	43	1819	0.509	ug/L	#	40
78) Chlorobenzene	9.517	112	5132	0.438	ug/L	#	61
79) Ethylbenzene	9.559	91	8713	0.405	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.609	131	1642	0.375	ug/L	#	44
81) p/m Xylene	9.746	106	6826	0.817	ug/L		100
82) o Xylene	10.289	106	6928M1	0.852	ug/L		

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	10959	0.810	ug/L		96
85) Bromoform	10.381	173	1229M1	0.429	ug/L		
87) Isopropylbenzene	10.669	105	8275	0.391	ug/L		94
89) Bromobenzene	11.104	156	2333	0.431	ug/L		96
90) n-Propylbenzene	11.154	91	10667	0.419	ug/L		99
91) 1,4-Dichlorobutane	11.168	55	4660	0.504	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.238	83	2216M1	0.519	ug/L		
93) 4-Ethyltoluene	11.282	105	8381	0.399	ug/L		99
94) 2-Chlorotoluene	11.324	91	6283	0.411	ug/L		100
95) 1,3,5-Trimethylbenzene	11.377	105	7504	0.404	ug/L		100
96) 1,2,3-Trichloropropane	11.377	75	1709	0.458	ug/L		98
97) trans-1,4-Dichloro-2-b...	11.430	53	800M1	0.454	ug/L		
98) 4-Chlorotoluene	11.505	91	6625	0.418	ug/L		99
99) tert-Butylbenzene	11.717	119	6113	0.399	ug/L		94
102) 1,2,4-Trimethylbenzene	11.798	105	7563	0.410	ug/L		99
103) sec-Butylbenzene	11.910	105	9273	0.414	ug/L		100
104) p-Isopropyltoluene	12.066	119	7364	0.387	ug/L		96
105) 1,3-Dichlorobenzene	12.127	146	4394	0.434	ug/L		93
106) 1,4-Dichlorobenzene	12.222	146	4371M3	0.436	ug/L		
107) p-Diethylbenzene	12.437	119	4450	0.395	ug/L		96
108) n-Butylbenzene	12.492	91	6499	0.402	ug/L	#	40
109) 1,2-Dichlorobenzene	12.643	146	4236	0.439	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	7522	0.408	ug/L		98
111) 1,2-Dibromo-3-chloropr...	13.424	155	212M1	0.267	ug/L		
112) 1,3,5-Trichlorobenzene	13.457	180	3071	0.398	ug/L		92
113) Hexachlorobutadiene	14.029	225	974	0.395	ug/L		90
114) 1,2,4-Trichlorobenzene	14.057	180	2885	0.422	ug/L		90
115) Naphthalene	14.350	128	6143	0.418	ug/L		100
116) 1,2,3-Trichlorobenzene	14.514	180	2501	0.400	ug/L	#	83

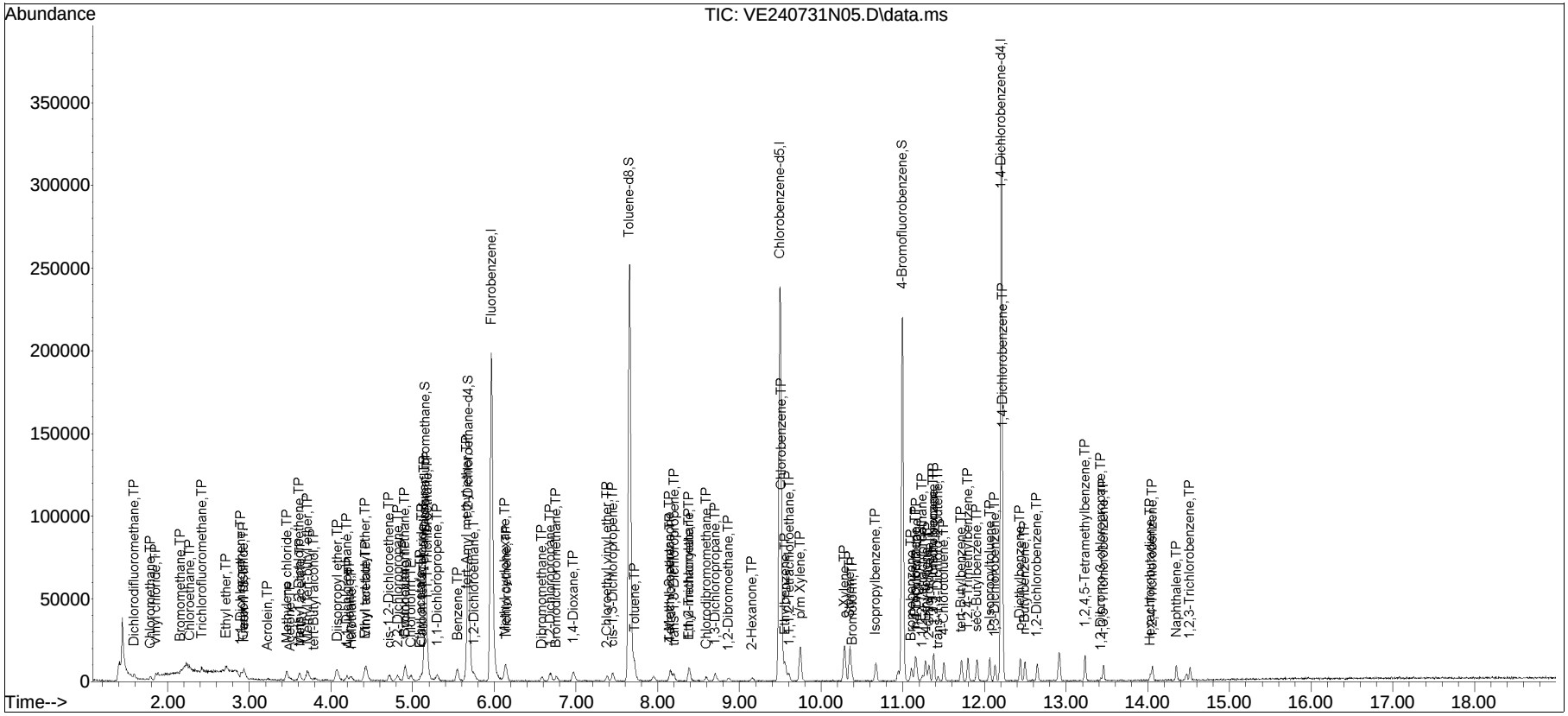
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

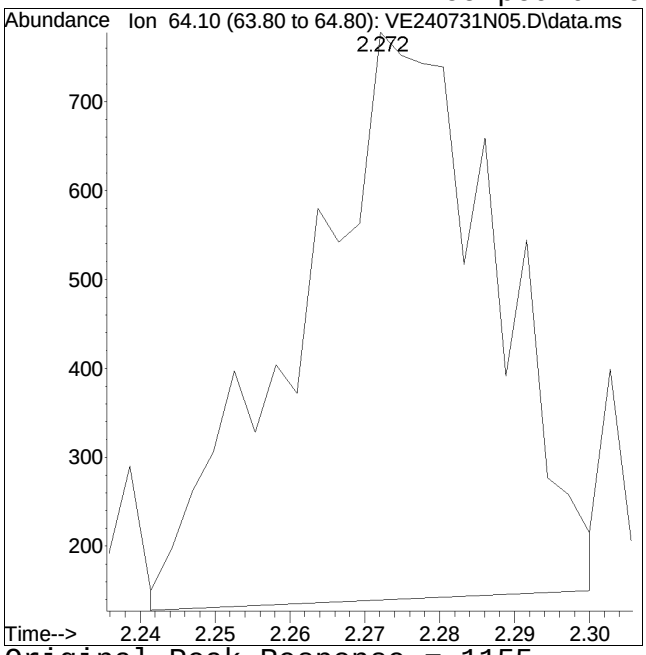


Manual Integration Report

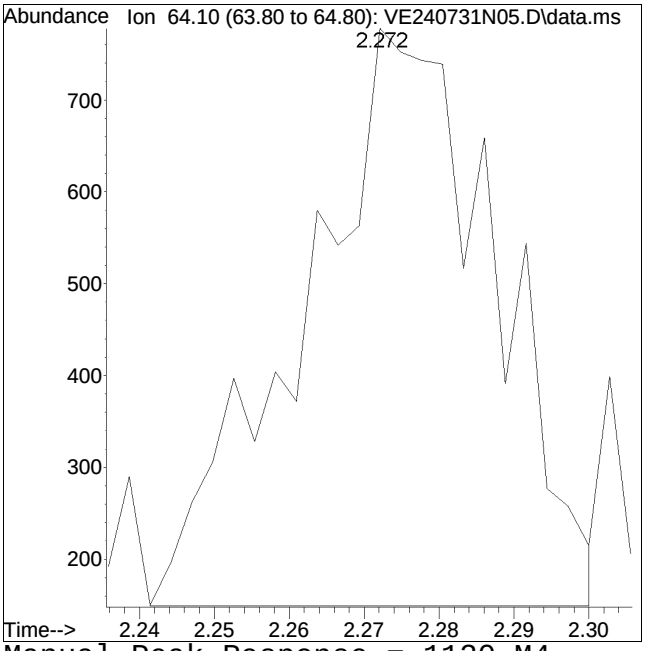
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



Original Peak Response = 1155



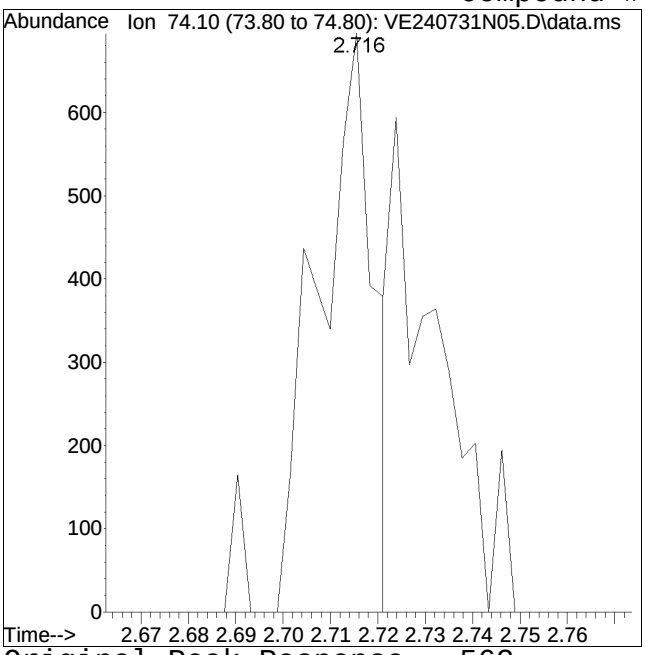
Manual Peak Response = 1120 M4

M4 = Poor automated baseline construction.

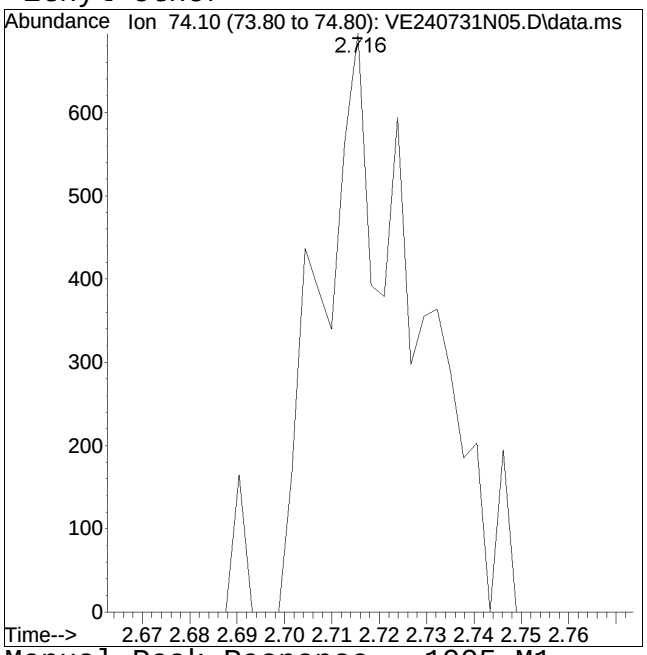
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #8: Ethyl ether



Original Peak Response = 562



Manual Peak Response = 1005 M1

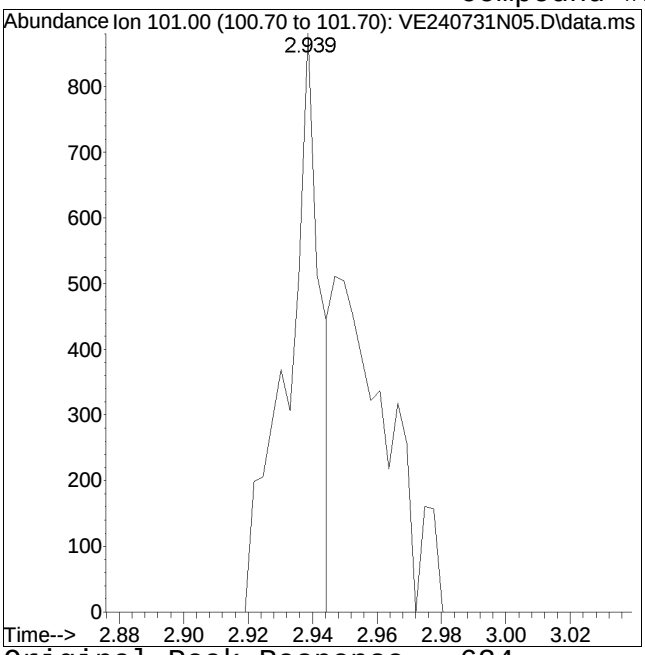
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

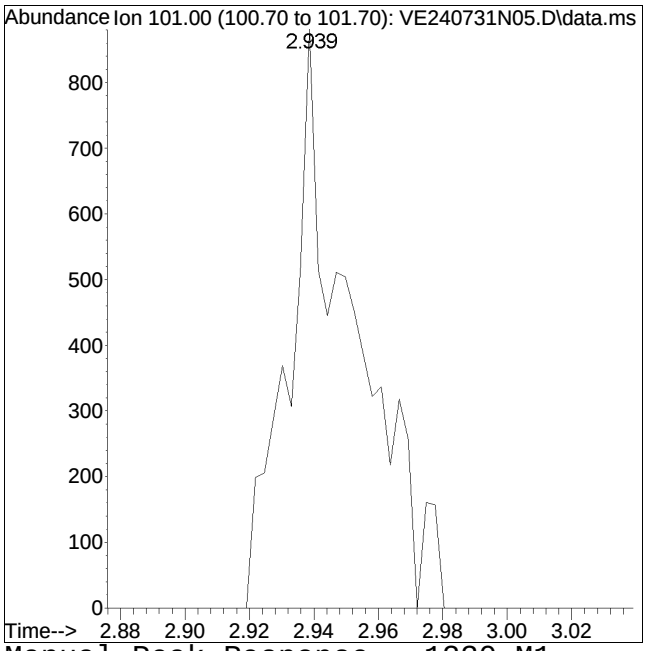
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #12: Freon-113



Original Peak Response = 624



Manual Peak Response = 1230 M1

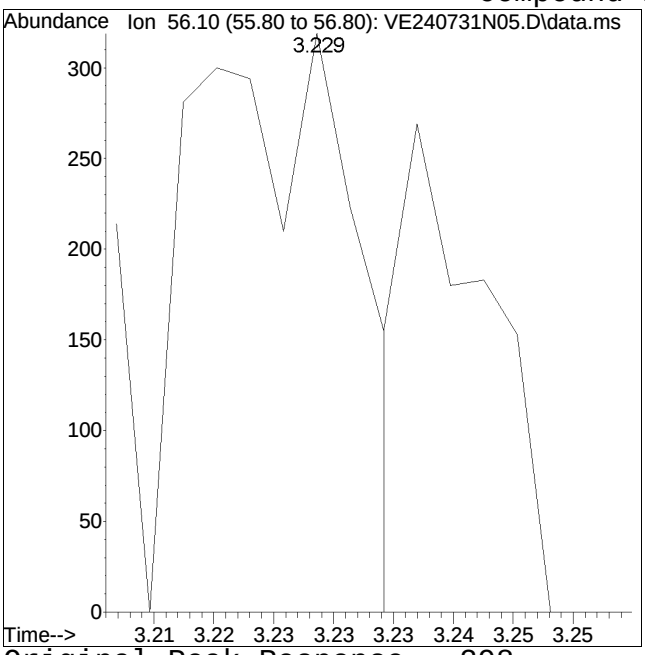
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

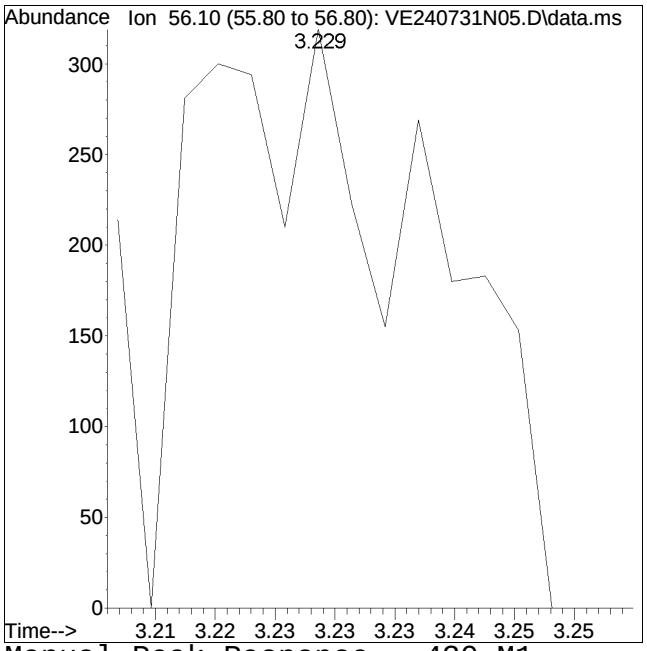
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #14: Acrolein



Original Peak Response = 298



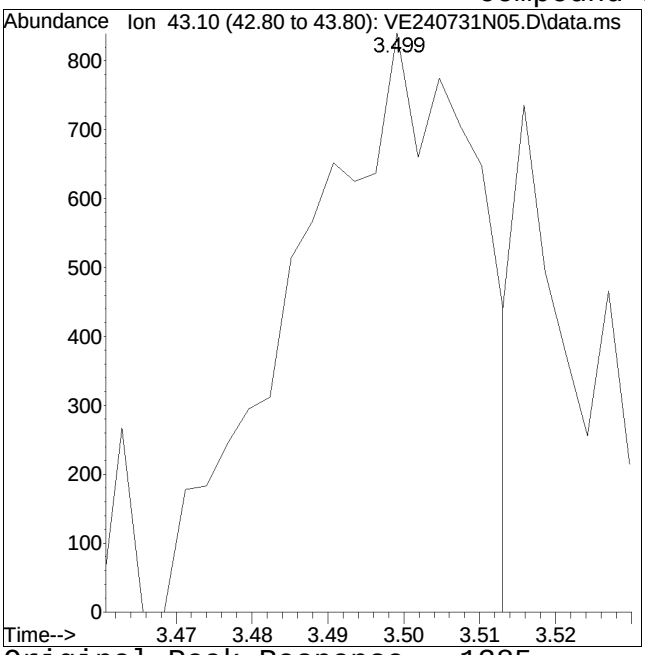
Manual Peak Response = 430 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

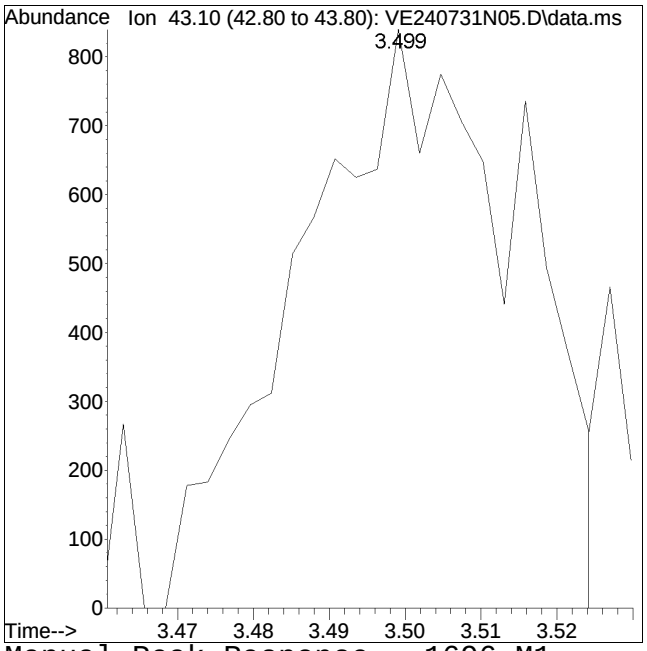
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #17: Acetone



Original Peak Response = 1385



Manual Peak Response = 1696 M1

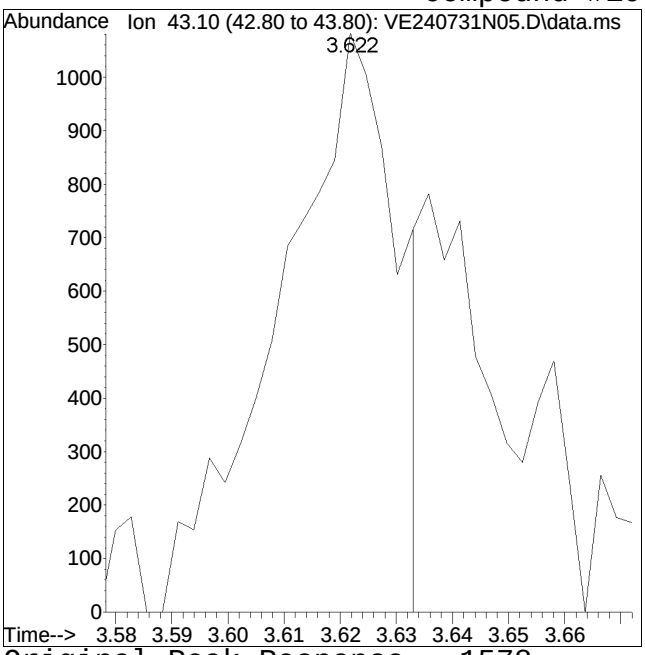
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

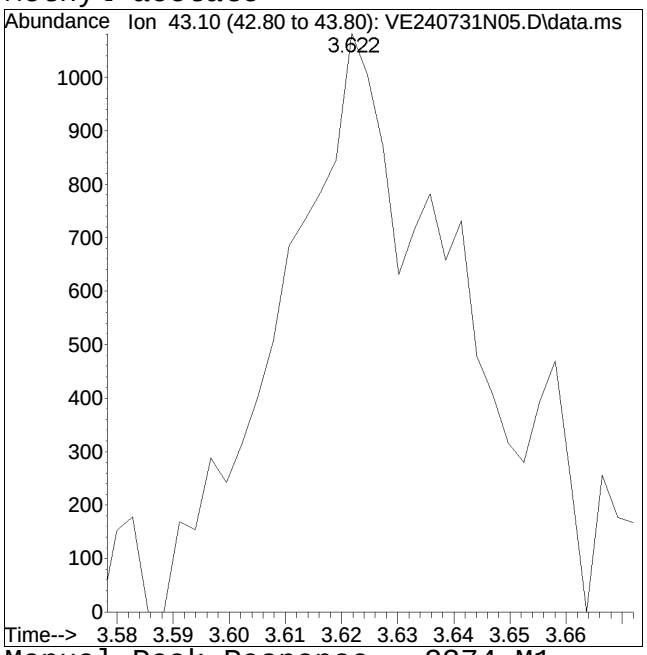
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #19: Methyl acetate



Original Peak Response = 1578



Manual Peak Response = 2374 M1

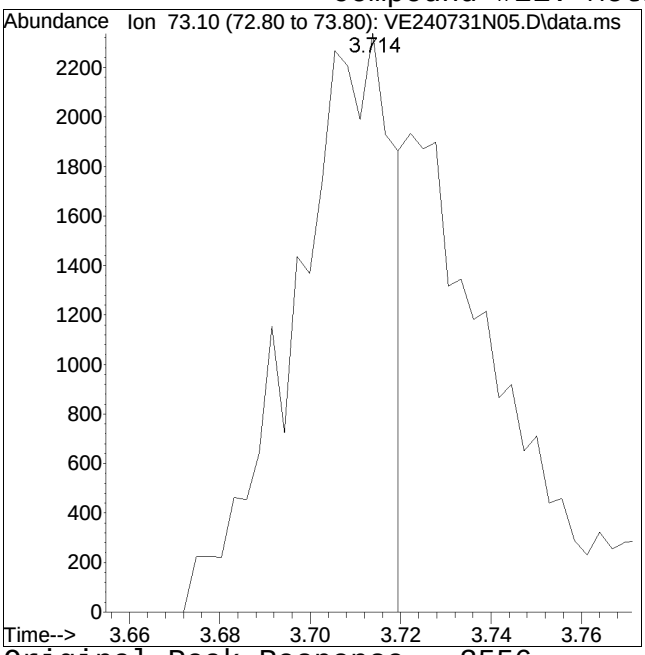
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

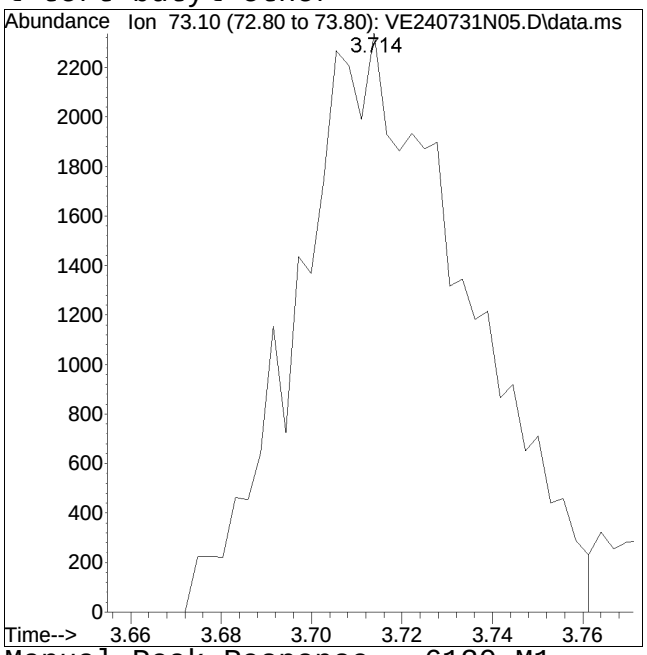
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 3556



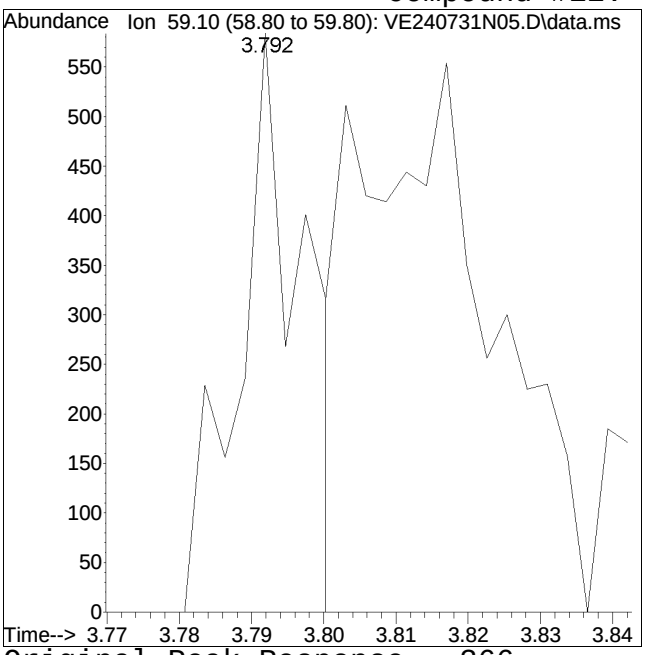
Manual Peak Response = 6120 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

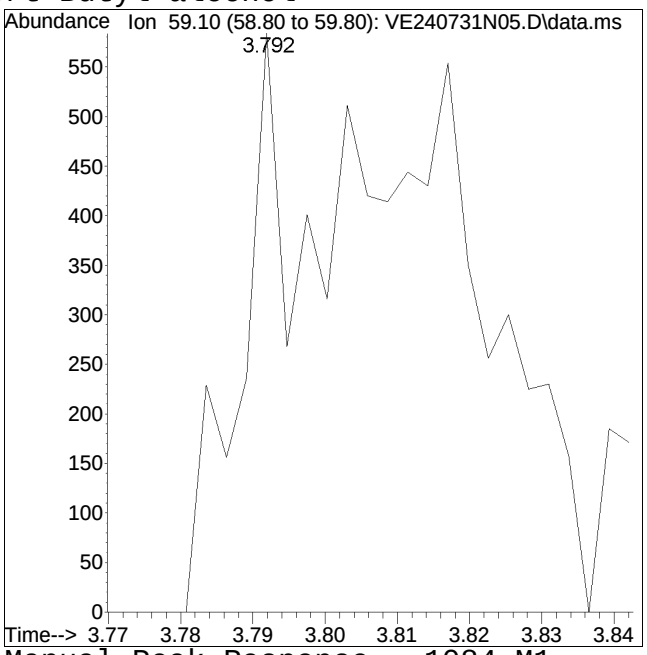
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #22: tert-Butyl alcohol



Original Peak Response = 366



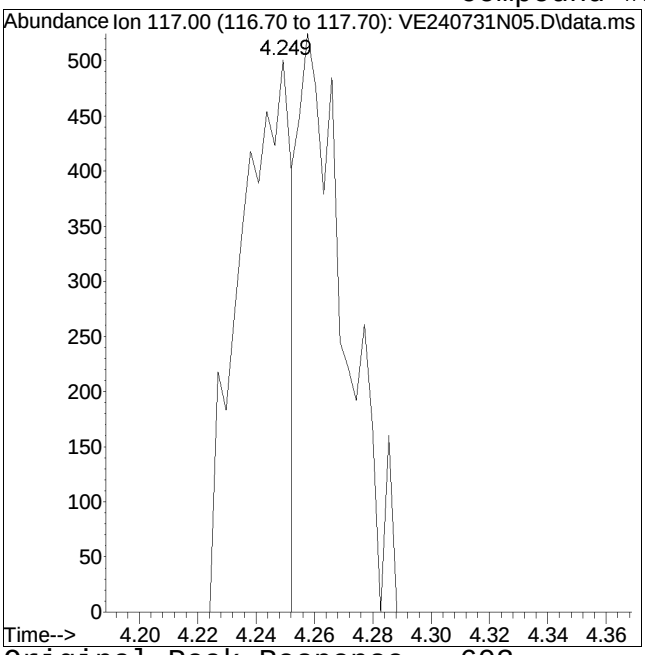
Manual Peak Response = 1084 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

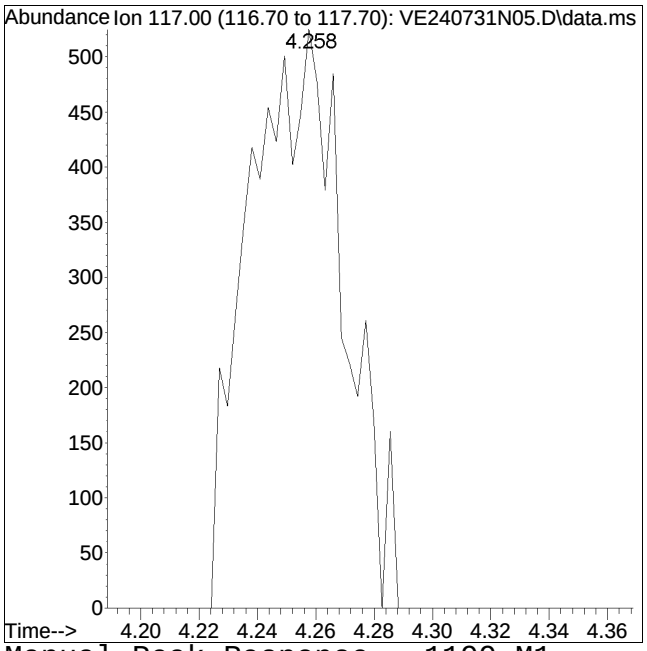
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #26: Halothane



Original Peak Response = 603



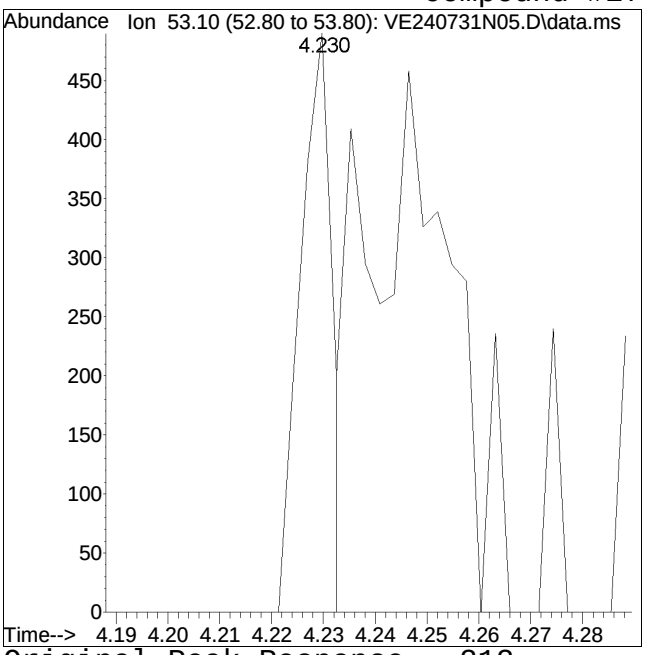
Manual Peak Response = 1199 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

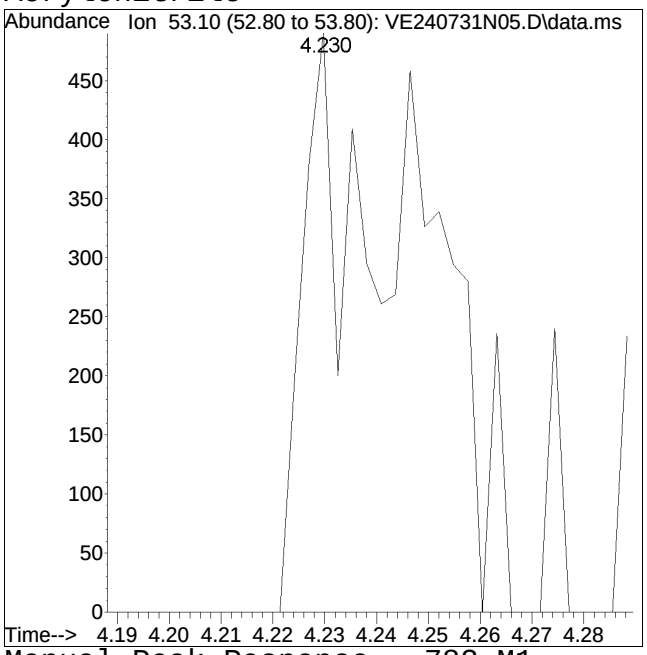
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #27: Acrylonitrile



Original Peak Response = 212



Manual Peak Response = 782 M1

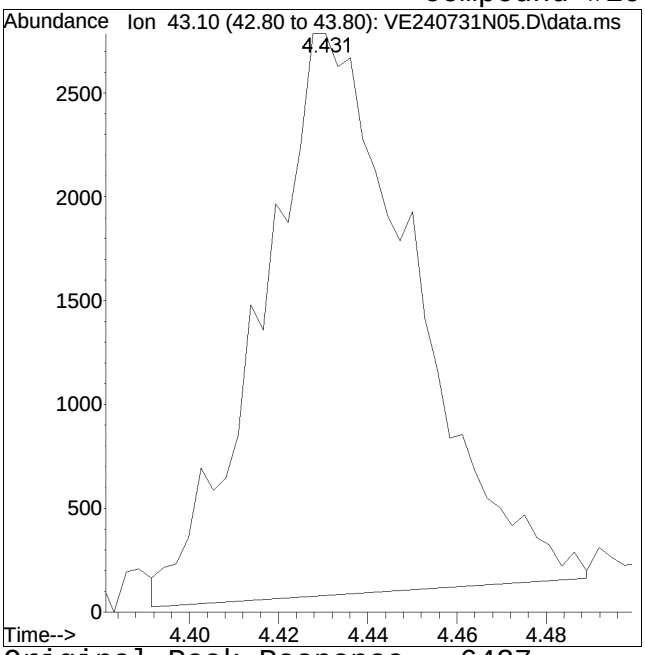
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

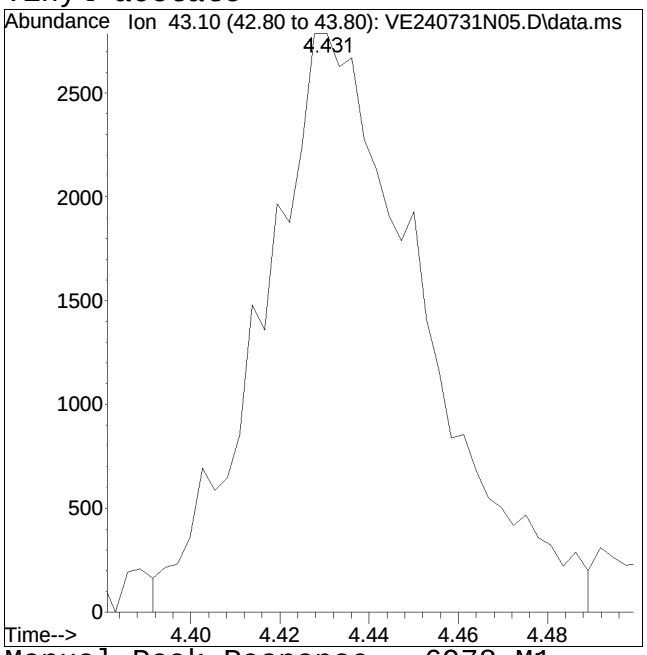
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #29: Vinyl acetate



Original Peak Response = 6427



Manual Peak Response = 6978 M1

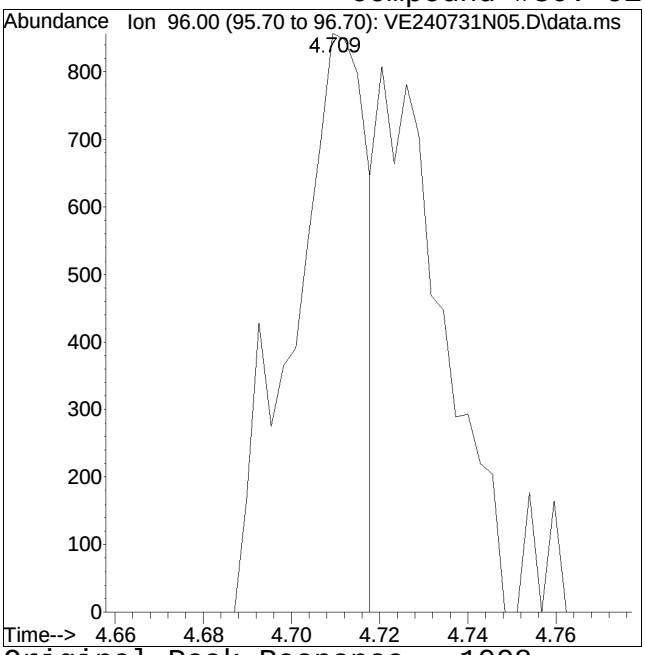
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

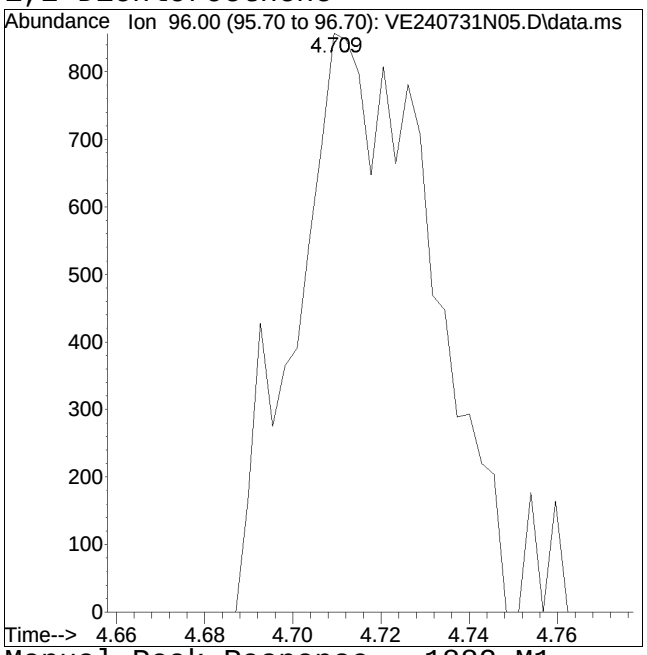
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 1008



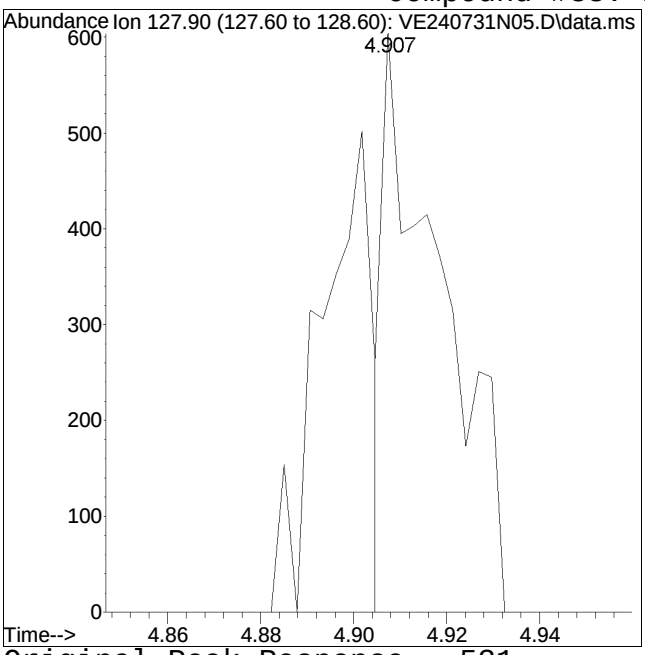
Manual Peak Response = 1882 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

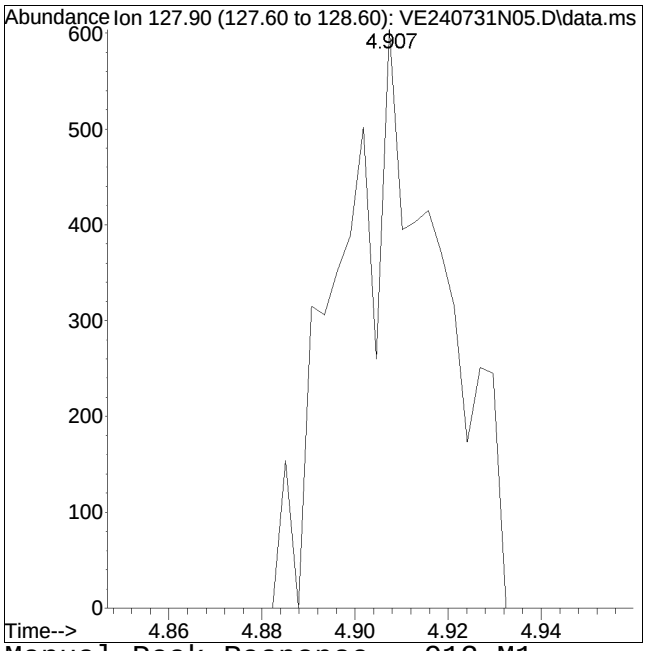
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #33: Bromochloromethane



Original Peak Response = 531



Manual Peak Response = 912 M1

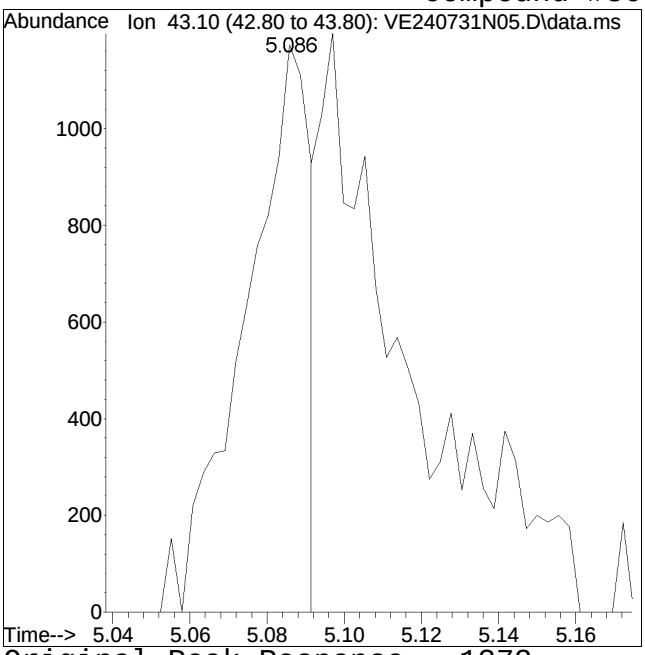
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

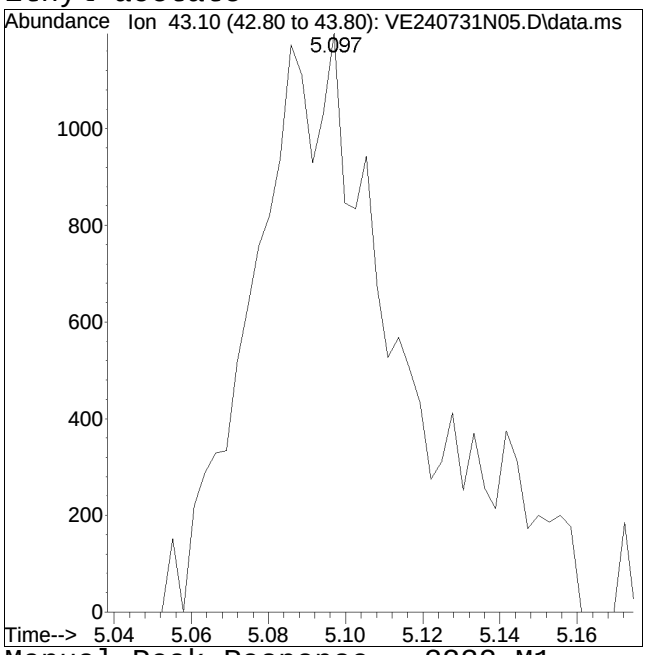
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #36: Ethyl acetate



Original Peak Response = 1372



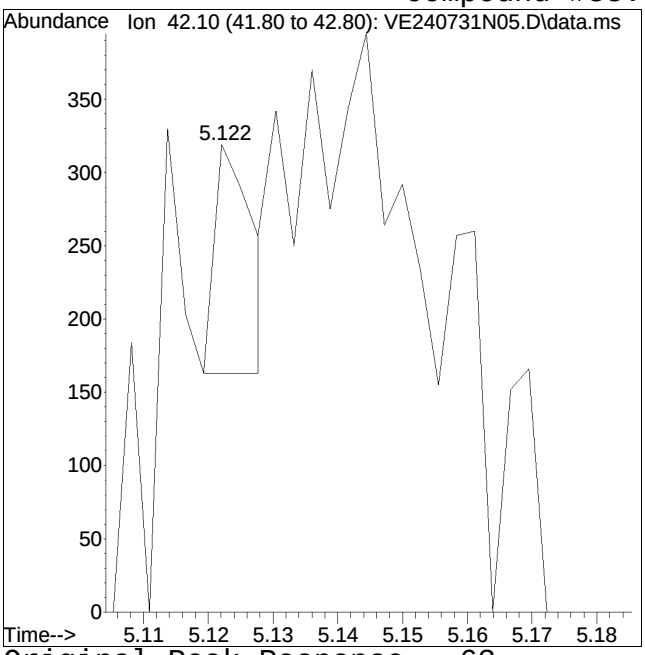
Manual Peak Response = 3232 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

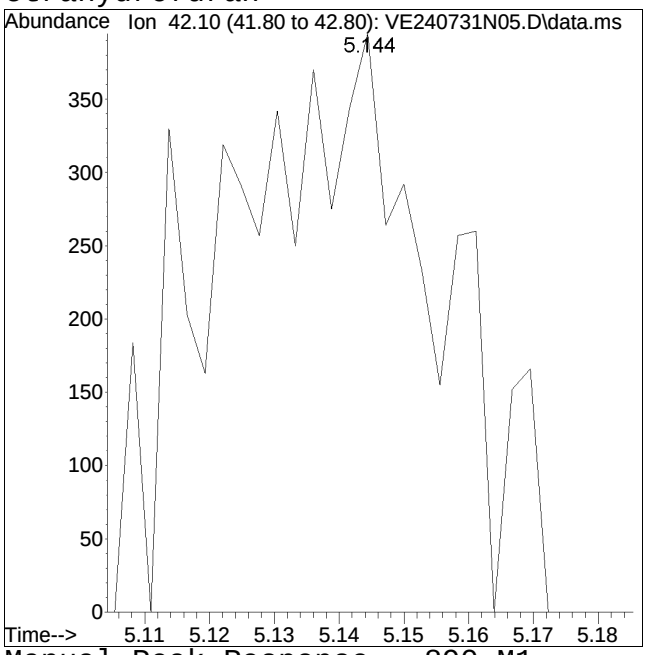
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran



Original Peak Response = 63



Manual Peak Response = 890 M1

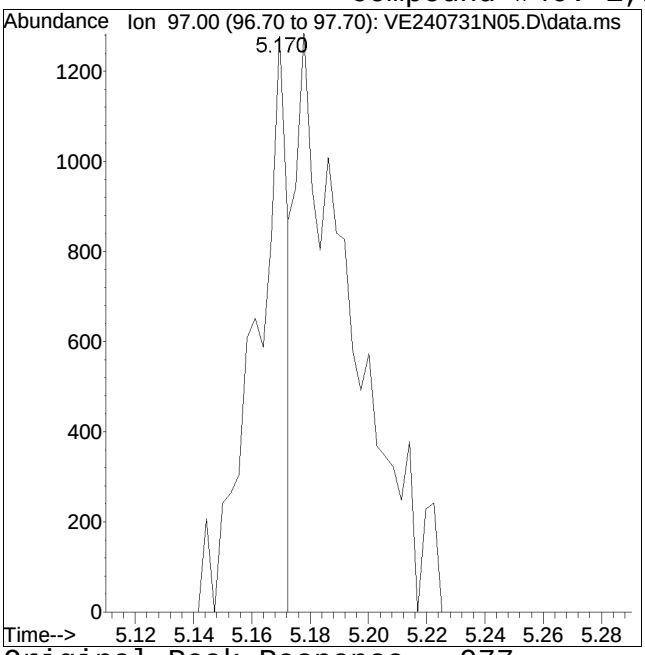
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

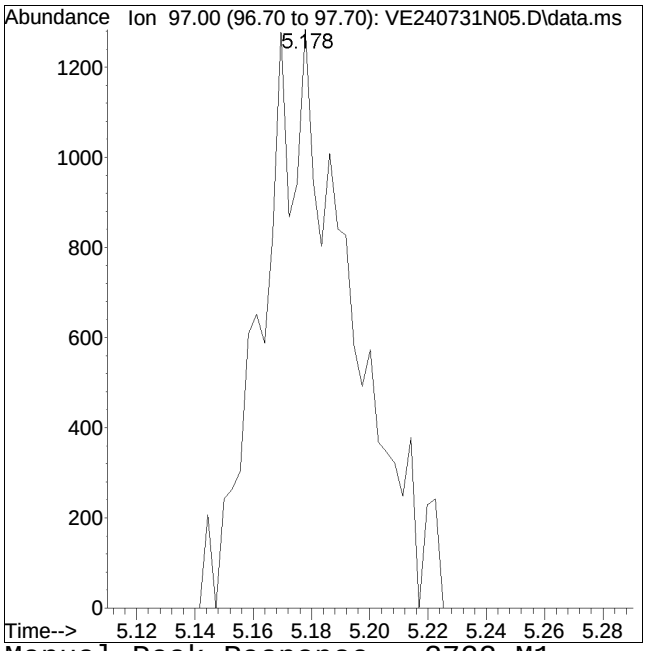
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 977



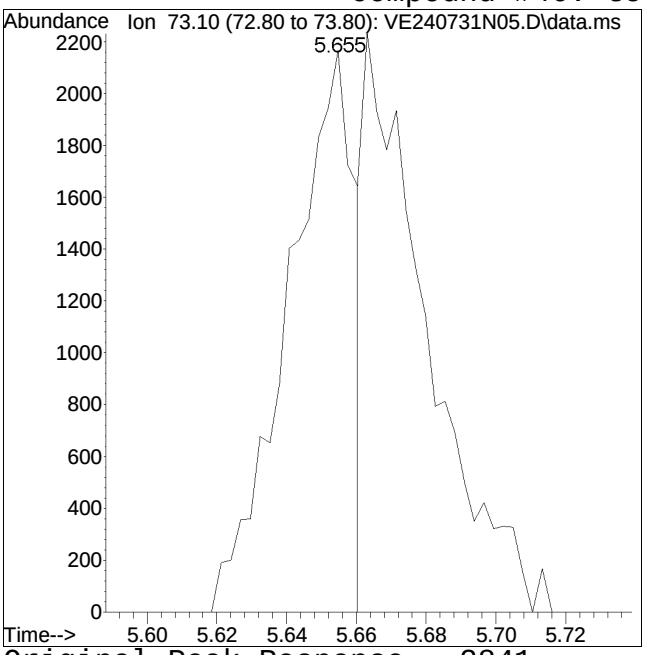
Manual Peak Response = 2722 M1

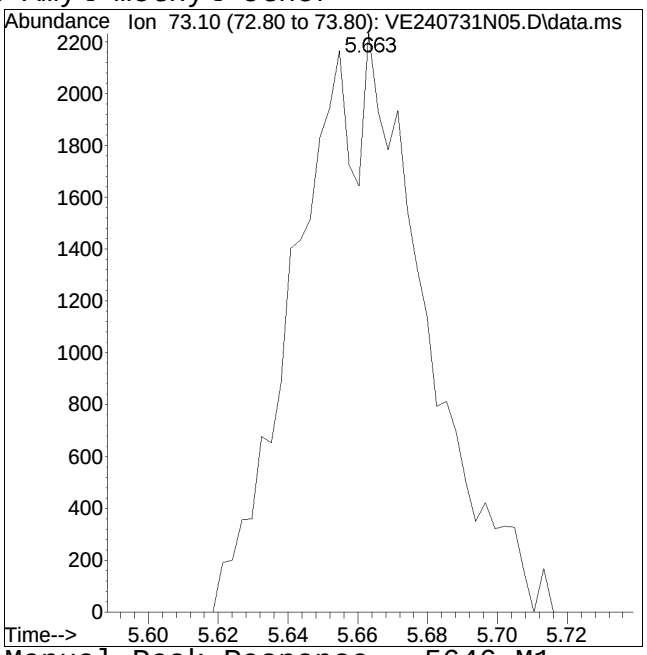
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #46: tert-Amyl methyl ether





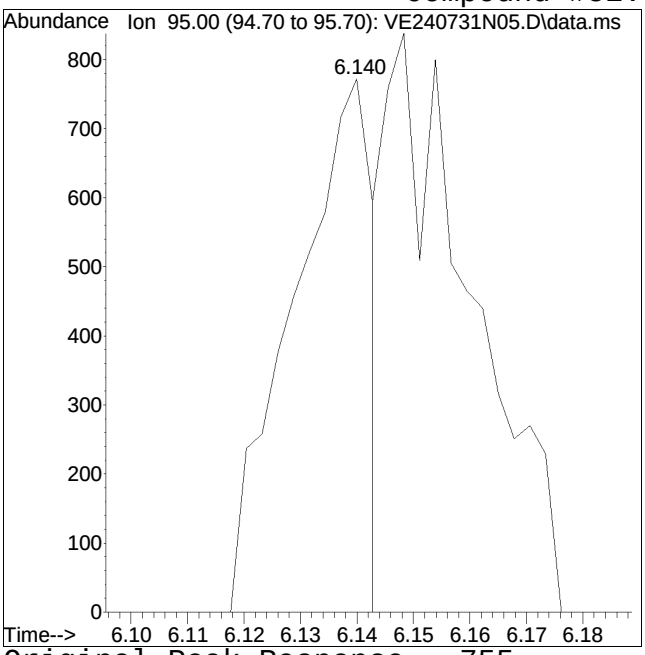
Original Peak Response = 2841 Manual Peak Response = 5646 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

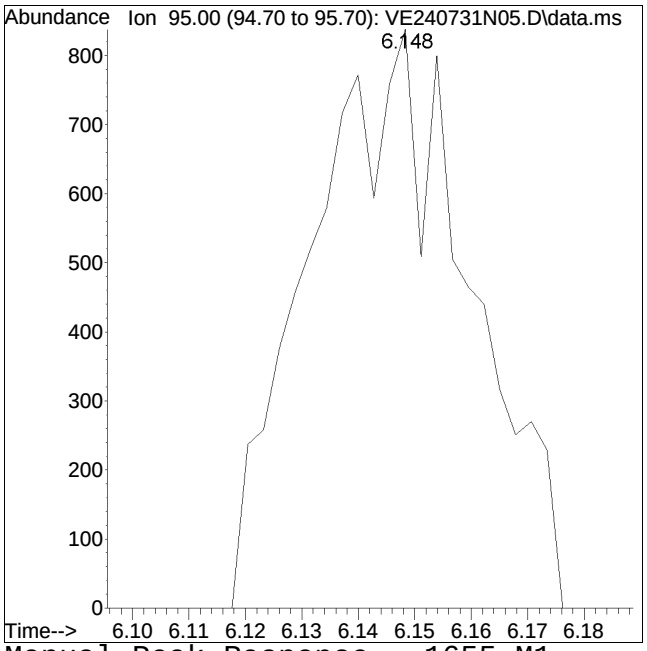
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #52: Trichloroethene



Original Peak Response = 755



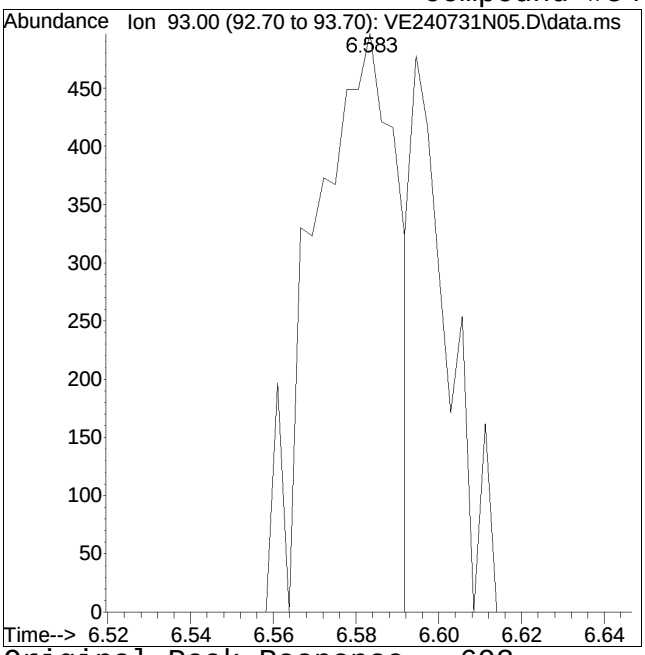
Manual Peak Response = 1655 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

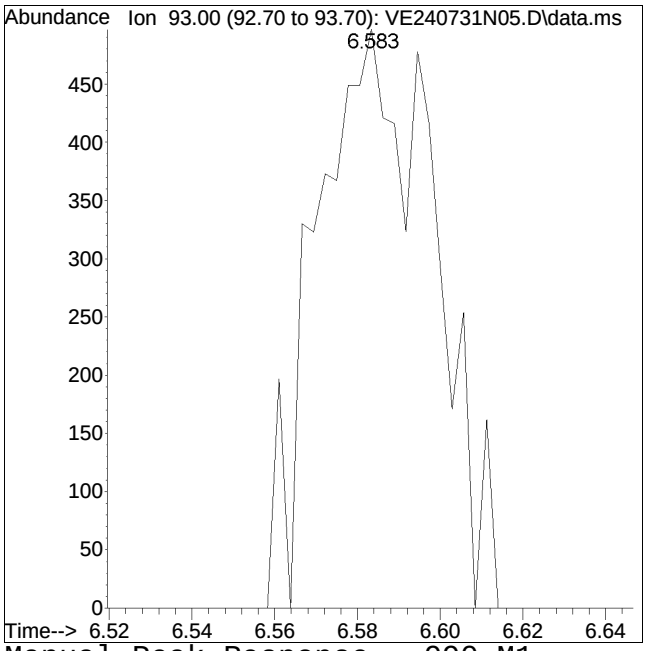
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #54: Dibromomethane



Original Peak Response = 693



Manual Peak Response = 990 M1

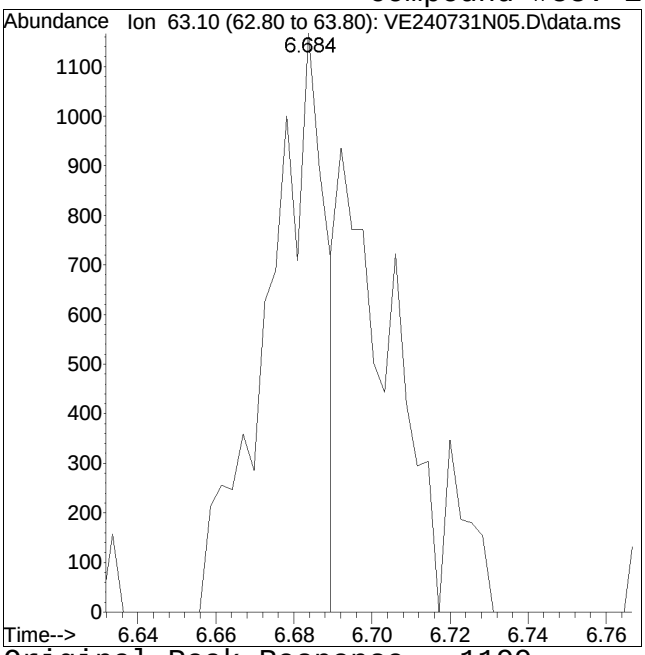
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

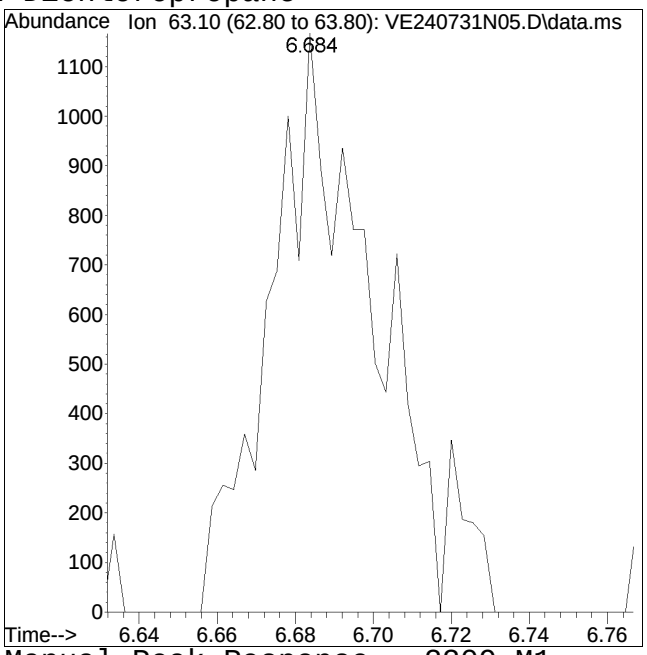
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #55: 1,2-Dichloropropane



Original Peak Response = 1199



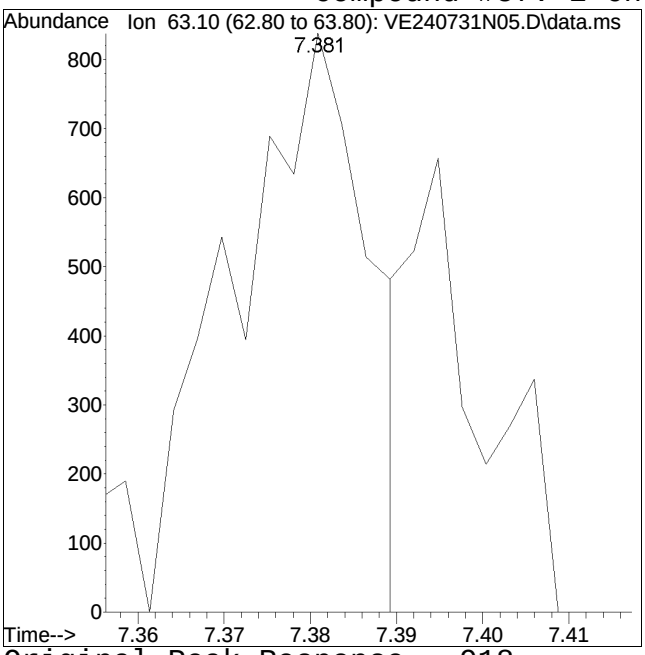
Manual Peak Response = 2209 M1

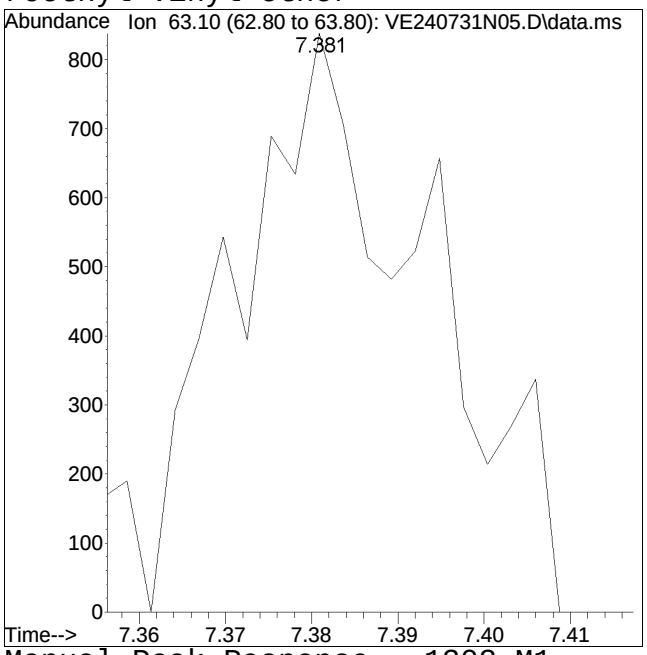
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #57: 2-Chloroethyl vinyl ether





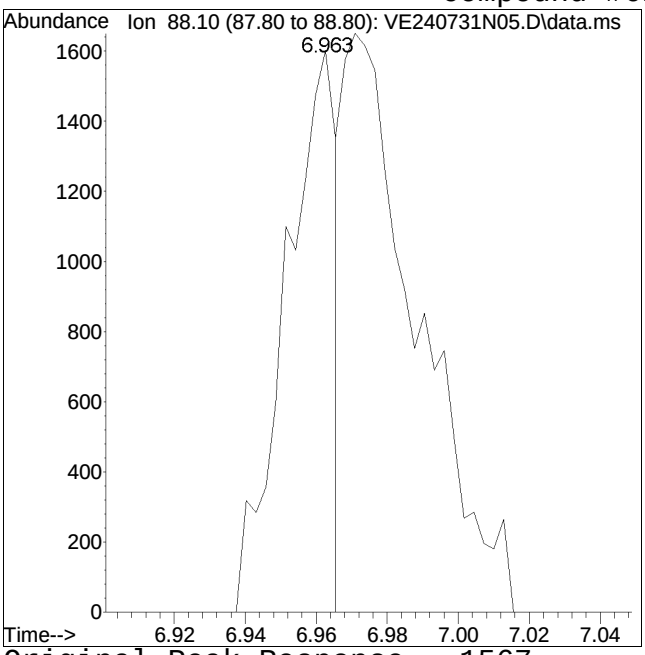
Original Peak Response = 918 Manual Peak Response = 1303 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

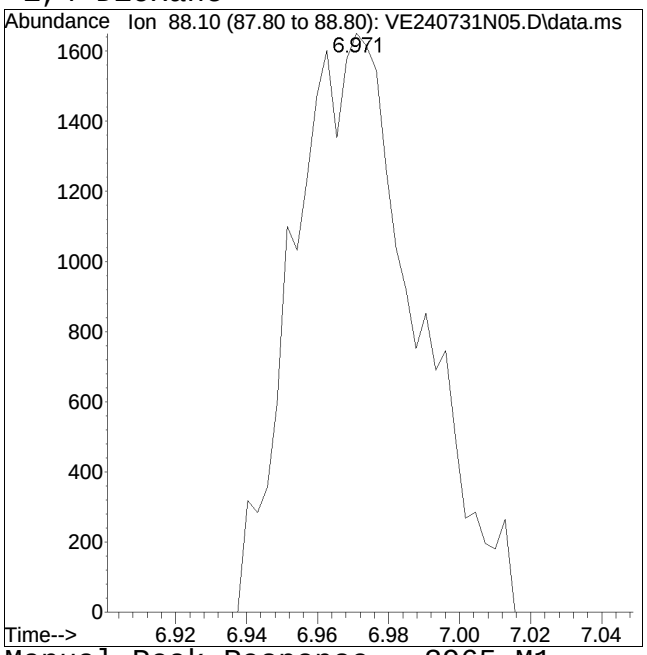
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #61: 1,4-Dioxane



Original Peak Response = 1567



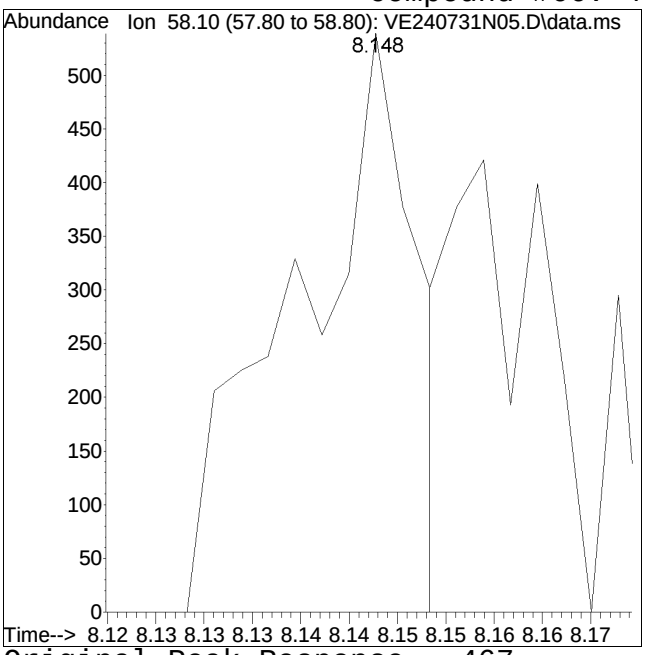
Manual Peak Response = 3965 M1

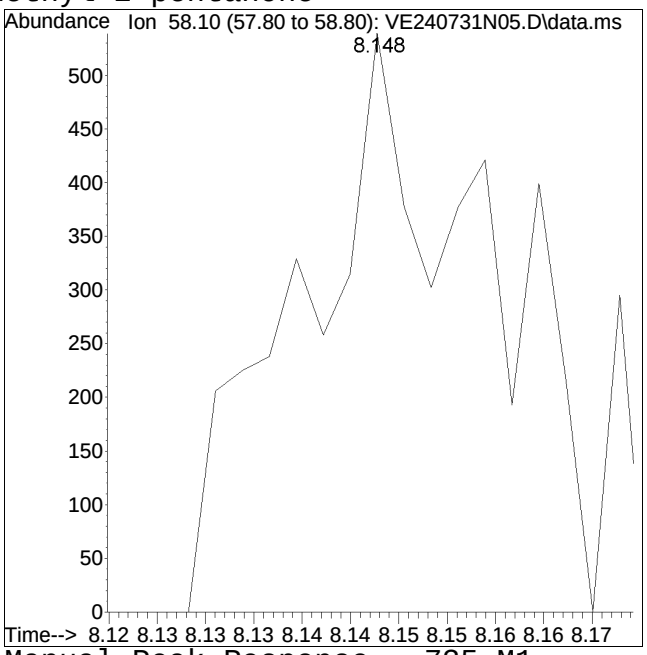
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #66: 4-Methyl-2-pentanone





Original Peak Response = 467 Manual Peak Response = 735 M1

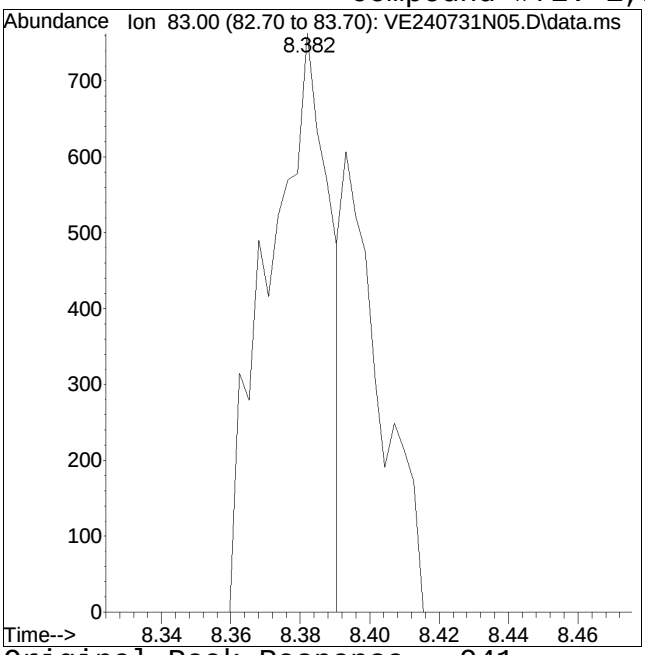
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

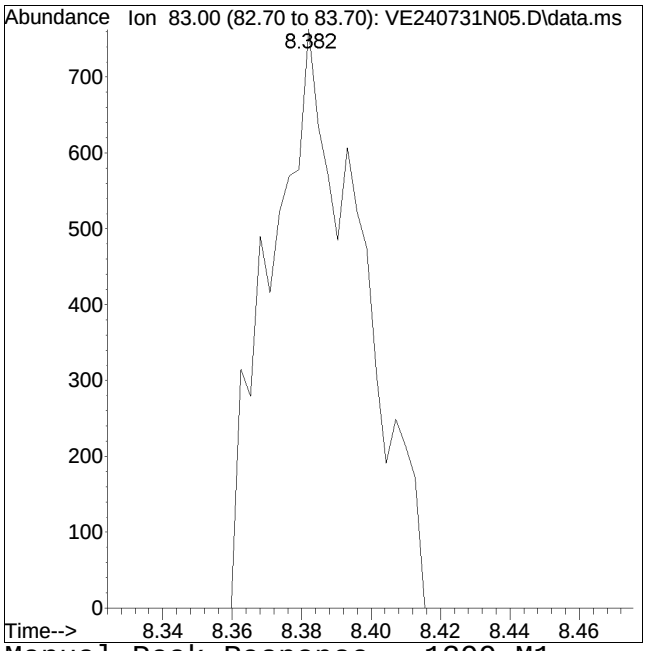
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #72: 1,1,2-Trichloroethane



Original Peak Response = 941



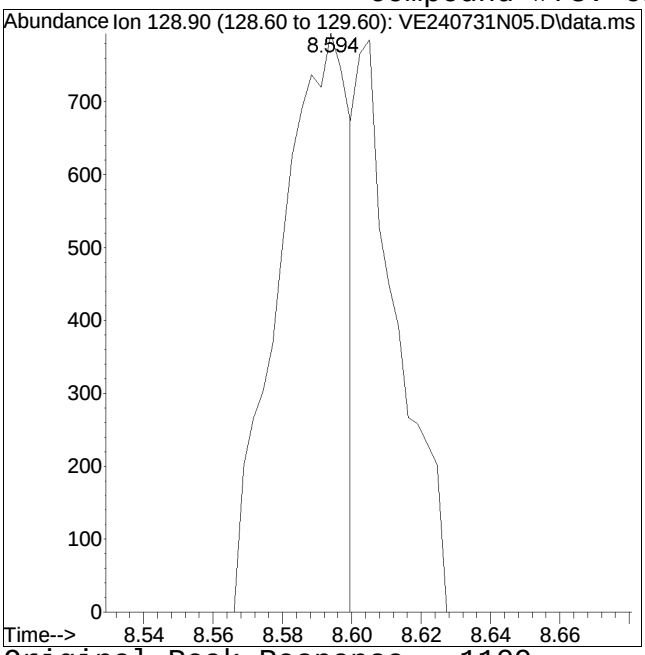
Manual Peak Response = 1399 M1

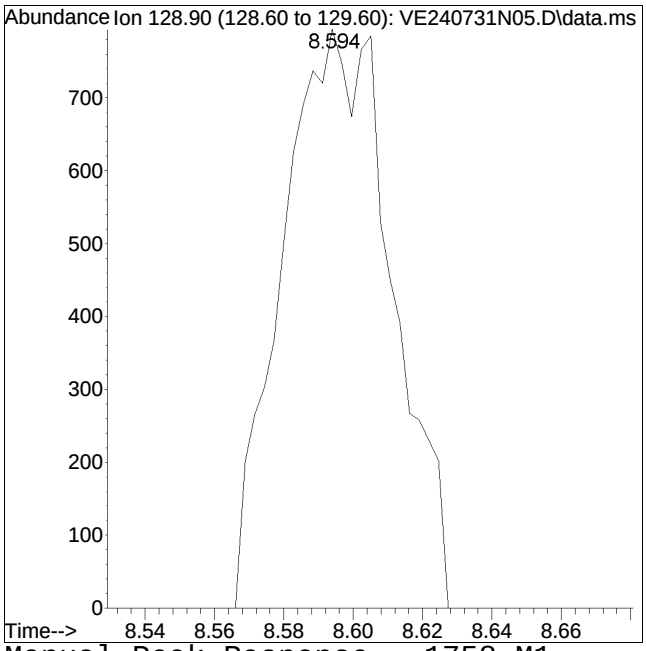
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #73: Chlorodibromomethane





Original Peak Response = 1109 Manual Peak Response = 1758 M1

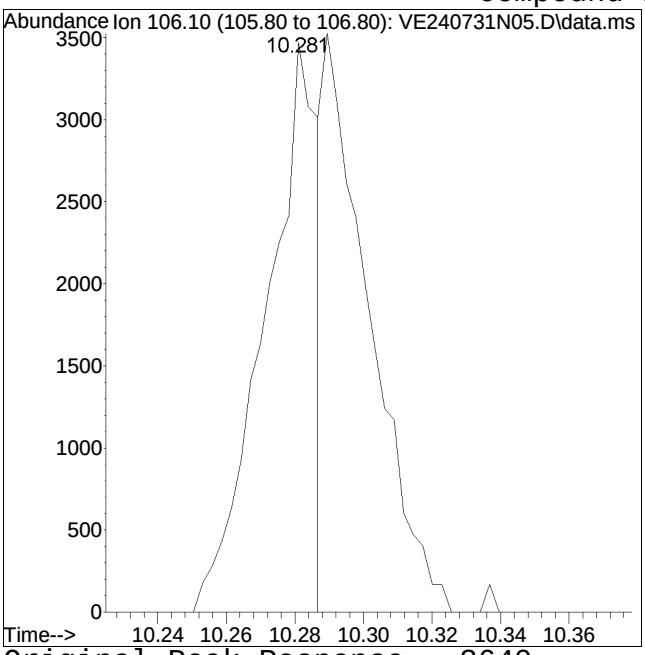
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

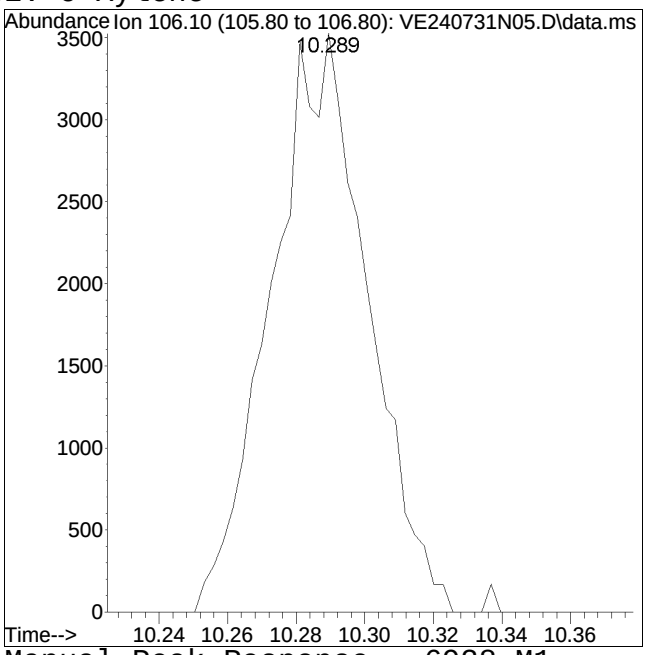
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #82: o Xylene



Original Peak Response = 3640



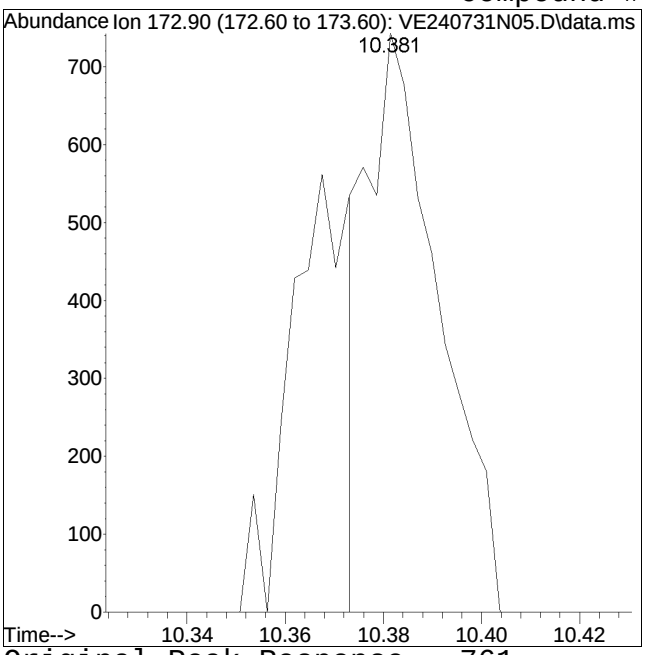
Manual Peak Response = 6928 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

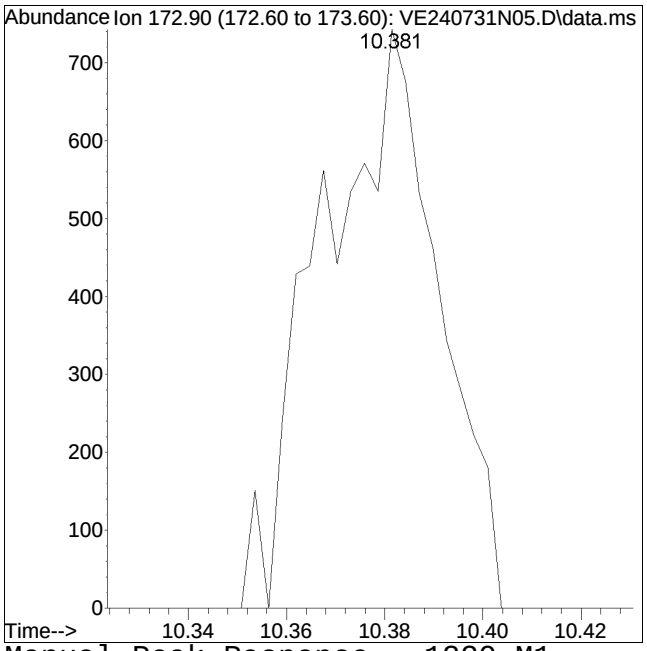
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #85: Bromoform



Original Peak Response = 761



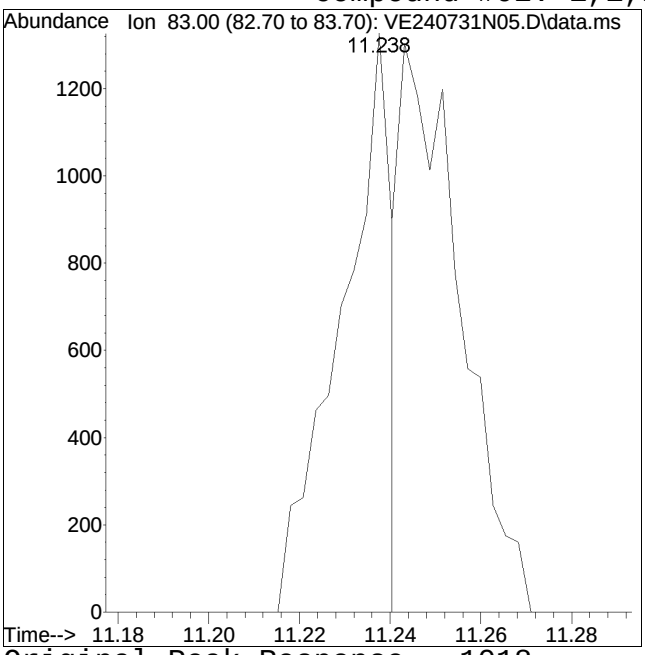
Manual Peak Response = 1229 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

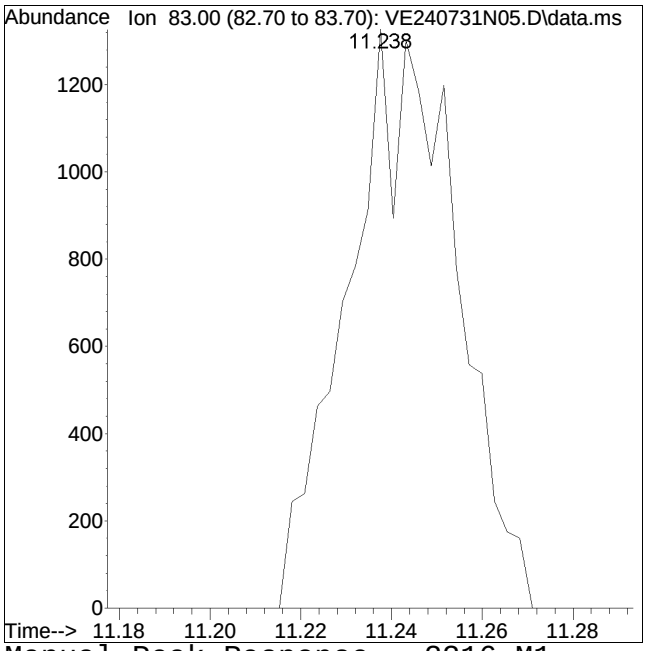
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #92: 1,1,2,2-Tetrachloroethane



Original Peak Response = 1018



Manual Peak Response = 2216 M1

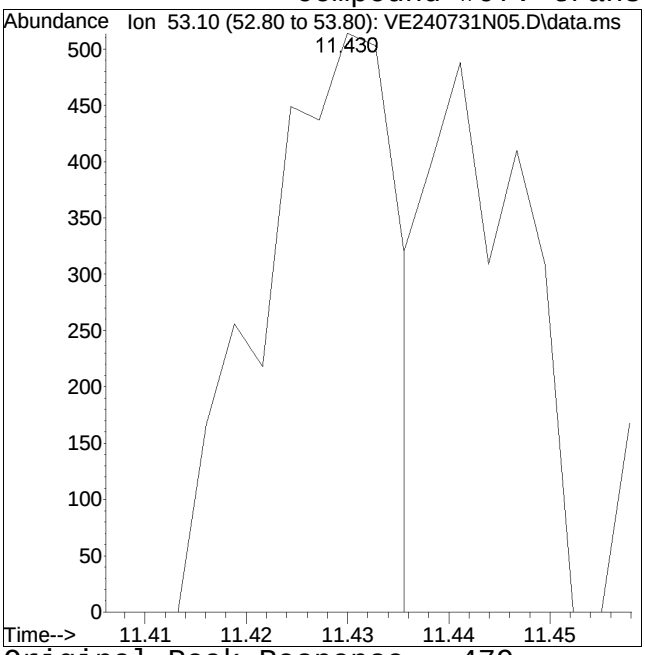
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

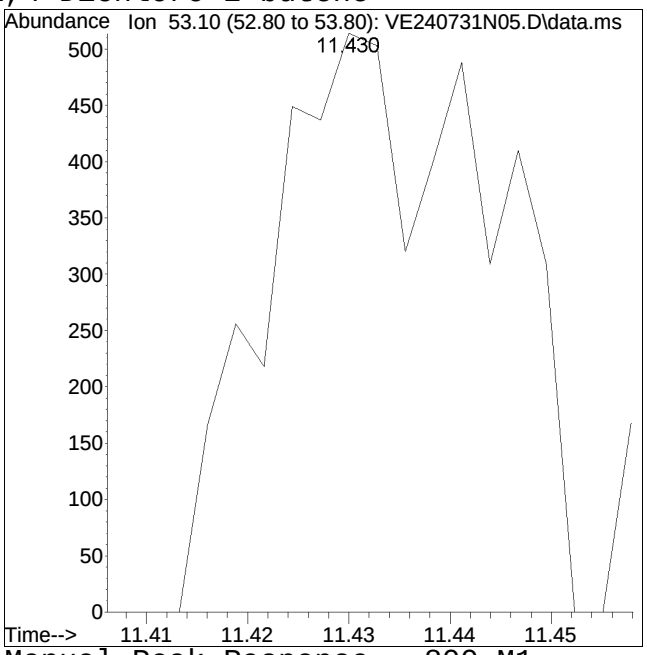
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #97: trans-1,4-Dichloro-2-butene



Original Peak Response = 479



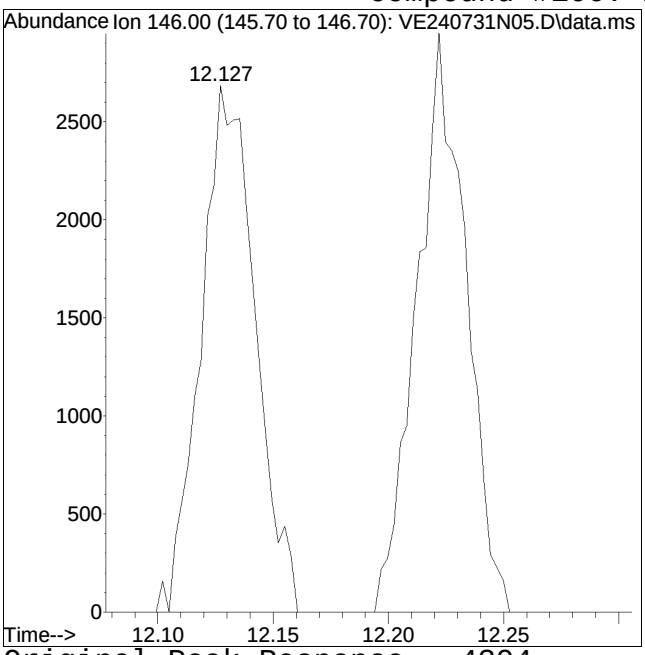
Manual Peak Response = 800 M1

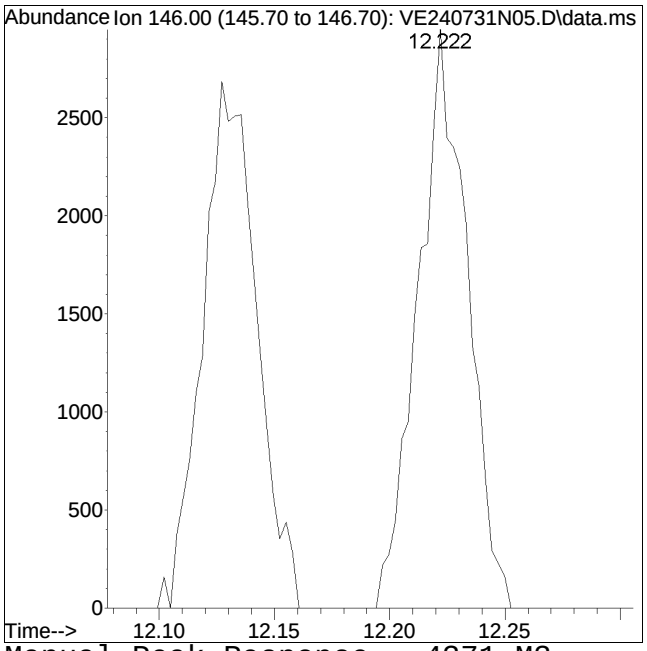
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #106: 1,4-Dichlorobenzene





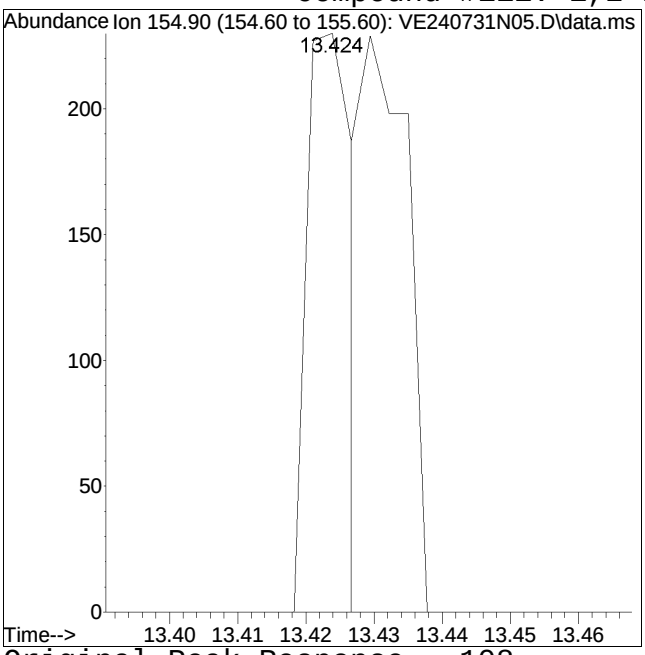
Original Peak Response = 4394 Manual Peak Response = 4371 M3

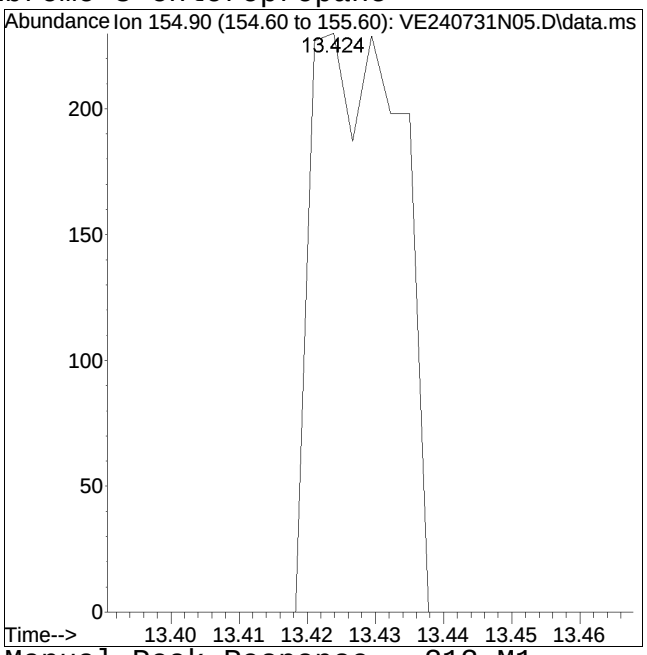
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #111: 1,2-Dibromo-3-chloropropane





Original Peak Response = 108 Manual Peak Response = 212 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	205965	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.68%			
63) Chlorobenzene-d5	9.497	117	151862	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 102.78%			
84) 1,4-Dichlorobenzene-d4	12.208	152	86373	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.21%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.153	113	49492	10.098	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.98%			
47) 1,2-Dichloroethane-d4	5.682	65	66293	10.187	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.87%			
64) Toluene-d8	7.651	98	198351	9.874	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.74%			
88) 4-Bromofluorobenzene	10.998	95	77750	9.707	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.07%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	10135	2.234	ug/L #	87
3) Chloromethane	1.787	50	10322	1.907	ug/L	98
4) Vinyl chloride	1.854	62	10227	2.041	ug/L	83
5) Bromomethane	2.160	94	2217	1.844	ug/L	99
6) Chloroethane	2.272	64	6822M1	2.156	ug/L	
7) Trichlorofluoromethane	2.420	101	10784	2.060	ug/L	87
8) Ethyl ether	2.713	74	3876	1.776	ug/L #	61
10) 1,1-Dichloroethene	2.905	96	6805	2.139	ug/L	87
11) Carbon disulfide	2.933	76	20147	1.943	ug/L	92
12) Freon-113	2.944	101	7065M1	2.106	ug/L	
13) Iodomethane	3.036	142	2297	1.282	ug/L #	84
14) Acrolein	3.228	56	1941M3	2.134	ug/L	
15) Methylene chloride	3.457	84	8519	2.029	ug/L	89
17) Acetone	3.499	43	3859M1	2.655	ug/L	
18) trans-1,2-Dichloroethene	3.613	96	7133	1.958	ug/L	78
19) Methyl acetate	3.622	43	7542	2.220	ug/L #	84
21) Methyl tert-butyl ether	3.719	73	25937	1.863	ug/L	96
22) tert-Butyl alcohol	3.803	59	4687	9.669	ug/L #	72
24) Diisopropyl ether	4.073	45	36164	1.819	ug/L #	89
25) 1,1-Dichloroethane	4.196	63	16753	1.917	ug/L	95
26) Halothane	4.246	117	5656M1	1.936	ug/L	

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	3350	1.851	ug/L	#	71
28) Ethyl tert-butyl ether	4.422	59	32105	1.861	ug/L	#	83
29) Vinyl acetate	4.436	43	26731M1	2.333	ug/L		
30) cis-1,2-Dichloroethene	4.715	96	8707	2.000	ug/L		97
31) 2,2-Dichloropropane	4.815	77	11494	2.065	ug/L	#	81
33) Bromochloromethane	4.907	128	3765	1.909	ug/L	#	76
34) Cyclohexane	4.913	56	20412M1	2.195	ug/L		
35) Chloroform	4.980	83	14505	2.035	ug/L		95
36) Ethyl acetate	5.091	43	9324	1.730	ug/L	#	96
37) Carbon tetrachloride	5.114	117	11111	2.073	ug/L		96
38) Tetrahydrofuran	5.130	42	3400M3	2.040	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	12396	1.940	ug/L	#	79
42) 2-Butanone	5.273	43	4841M3	2.253	ug/L		
43) 1,1-Dichloropropene	5.303	75	10689	1.993	ug/L		92
45) Benzene	5.549	78	33518	1.941	ug/L		91
46) tert-Amyl methyl ether	5.655	73	23844	1.870	ug/L		98
48) 1,2-Dichloroethane	5.749	62	12349	1.876	ug/L		96
51) Methyl cyclohexane	6.134	83	14843	2.162	ug/L		86
52) Trichloroethene	6.145	95	8248	1.904	ug/L	#	68
54) Dibromomethane	6.580	93	4791	1.944	ug/L		87
55) 1,2-Dichloropropane	6.686	63	9613	1.871	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	5980	1.853	ug/L	#	77
58) Bromodichloromethane	6.759	83	12056	1.988	ug/L	#	93
61) 1,4-Dioxane	6.968	88	16165	403.548	ug/L		88
62) cis-1,3-Dichloropropene	7.445	75	13006	1.854	ug/L		92
65) Toluene	7.713	92	21290	1.968	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	3470	1.842	ug/L	#	96
67) Tetrachloroethene	8.159	166	8736	1.904	ug/L		96
69) trans-1,3-Dichloropropene	8.195	75	11383	1.811	ug/L		87
71) Ethyl methacrylate	8.387	69	11034	1.879	ug/L		89
72) 1,1,2-Trichloroethane	8.385	83	5762	1.858	ug/L		97
73) Chlorodibromomethane	8.594	129	7851	1.837	ug/L		98
74) 1,3-Dichloropropane	8.708	76	12084	1.849	ug/L		99
75) 1,2-Dibromoethane	8.867	107	6772	1.878	ug/L		86
77) 2-Hexanone	9.157	43	6900	1.938	ug/L	#	88
78) Chlorobenzene	9.520	112	22113	1.898	ug/L		90
79) Ethylbenzene	9.559	91	41231	1.928	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.603	131	8186	1.881	ug/L		93
81) p/m Xylene	9.745	106	31668	3.808	ug/L		98
82) o Xylene	10.289	106	30832	3.808	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.351	104	50933	3.785	ug/L		99
85) Bromoform	10.379	173	5528	1.934	ug/L		92
87) Isopropylbenzene	10.669	105	41364	1.959	ug/L		95
89) Bromobenzene	11.104	156	10259	1.901	ug/L		100
90) n-Propylbenzene	11.151	91	48832	1.922	ug/L		97
91) 1,4-Dichlorobutane	11.168	55	18365	1.991	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	9003	2.115	ug/L		97
93) 4-Ethyltoluene	11.279	105	39669	1.895	ug/L		99
94) 2-Chlorotoluene	11.321	91	29752	1.953	ug/L		99
95) 1,3,5-Trimethylbenzene	11.377	105	34688	1.872	ug/L		100
96) 1,2,3-Trichloropropane	11.377	75	7255	1.949	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.433	53	3407	1.939	ug/L	#	84
98) 4-Chlorotoluene	11.502	91	30450	1.927	ug/L		98
99) tert-Butylbenzene	11.720	119	29184	1.910	ug/L	#	97
102) 1,2,4-Trimethylbenzene	11.798	105	33754	1.834	ug/L		94
103) sec-Butylbenzene	11.909	105	43184	1.935	ug/L		98
104) p-Isopropyltoluene	12.063	119	35878	1.891	ug/L		97
105) 1,3-Dichlorobenzene	12.127	146	18671M3	1.849	ug/L		
106) 1,4-Dichlorobenzene	12.225	146	18771	1.878	ug/L		94
107) p-Diethylbenzene	12.439	119	20387	1.813	ug/L		94
108) n-Butylbenzene	12.498	91	30950	1.918	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	17729	1.841	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.229	119	32685	1.779	ug/L		94
111) 1,2-Dibromo-3-chloropr...	13.432	155	1498	1.893	ug/L		95
112) 1,3,5-Trichlorobenzene	13.457	180	13388	1.742	ug/L		93
113) Hexachlorobutadiene	14.032	225	4746	1.931	ug/L		93
114) 1,2,4-Trichlorobenzene	14.054	180	11806	1.733	ug/L		98
115) Naphthalene	14.352	128	26466	1.808	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	11185	1.795	ug/L		95

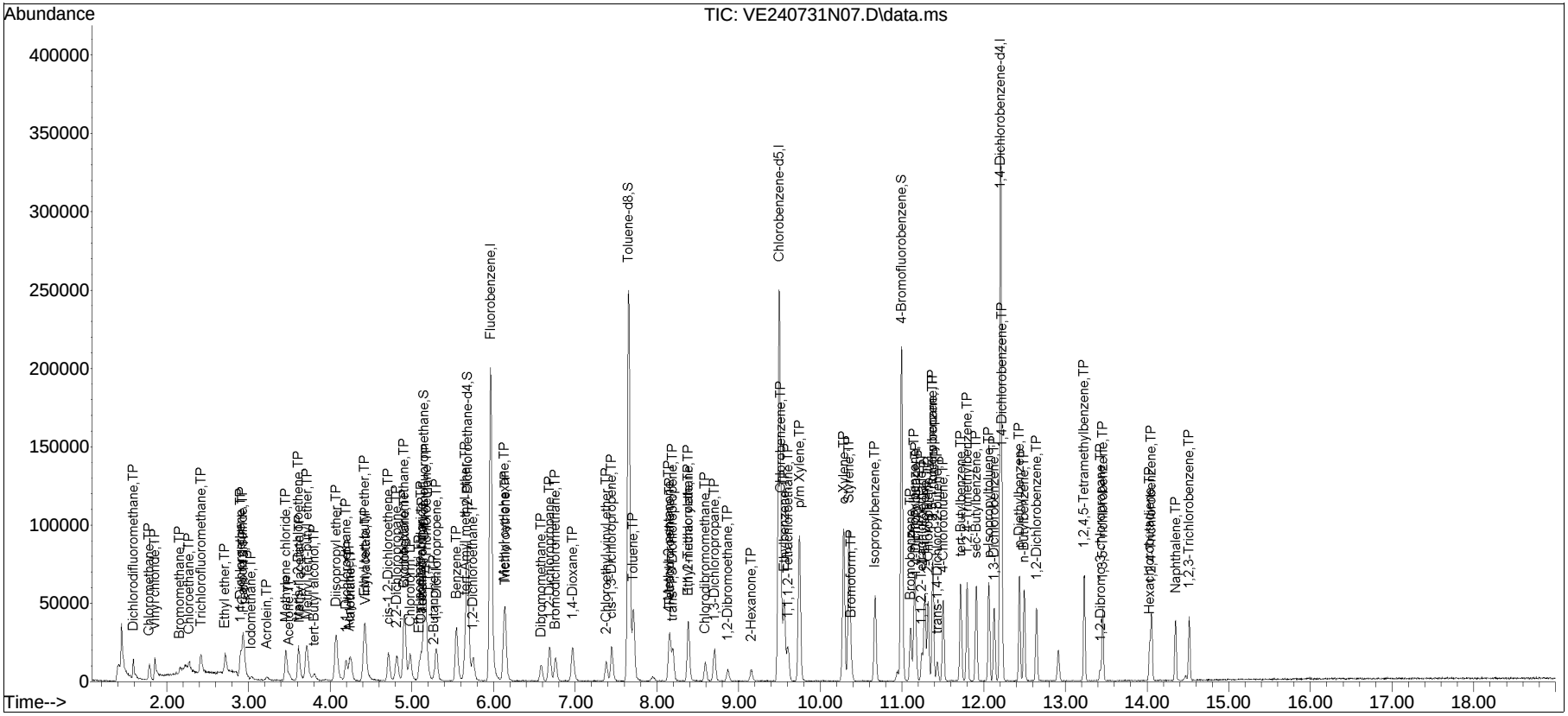
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

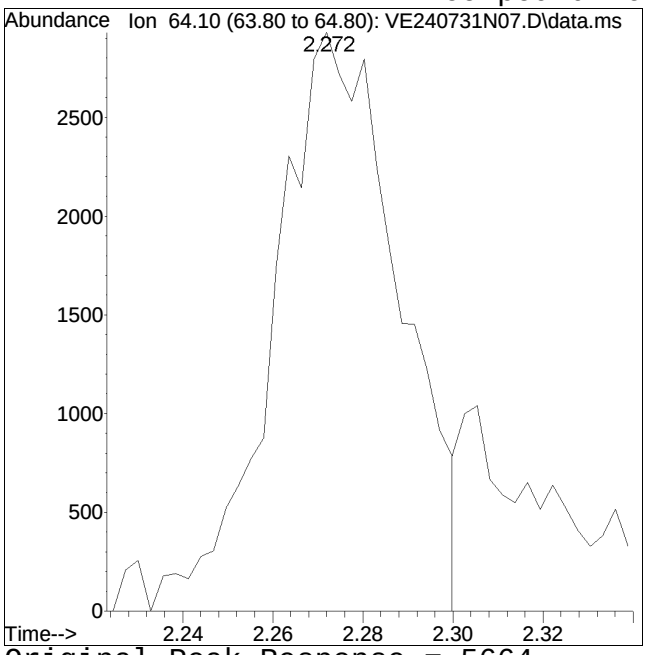
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•



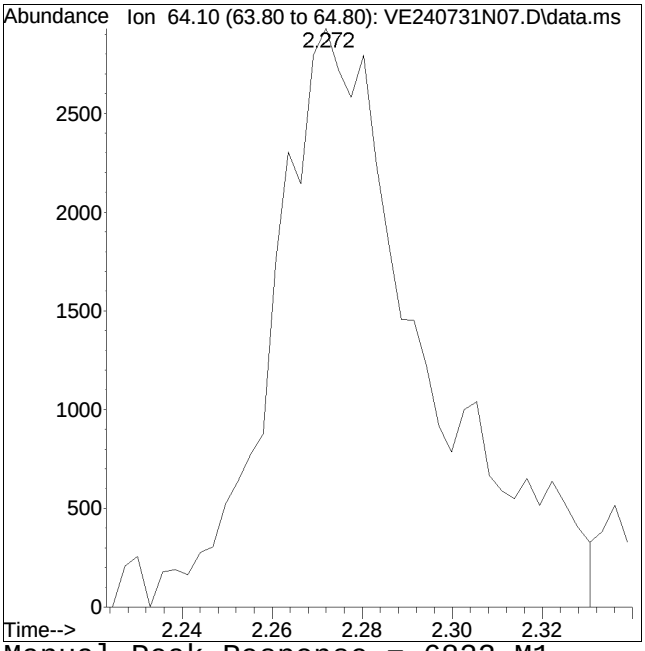
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



Original Peak Response = 5664



Manual Peak Response = 6822 M1

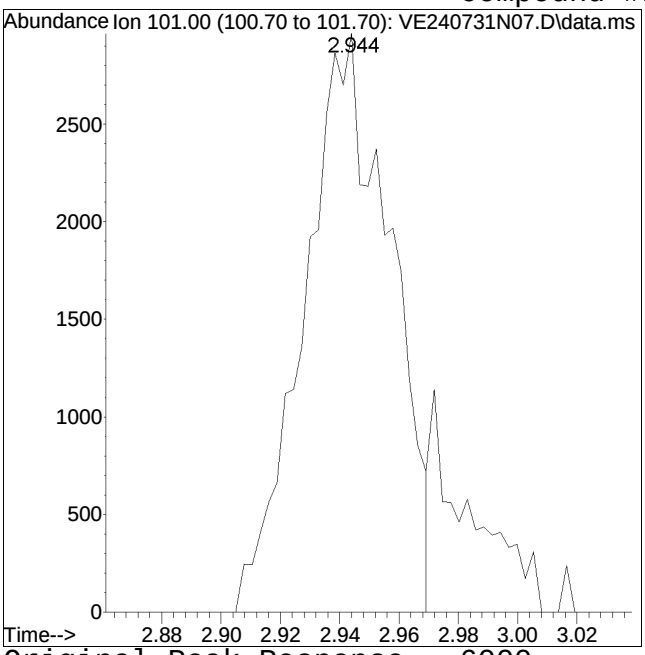
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

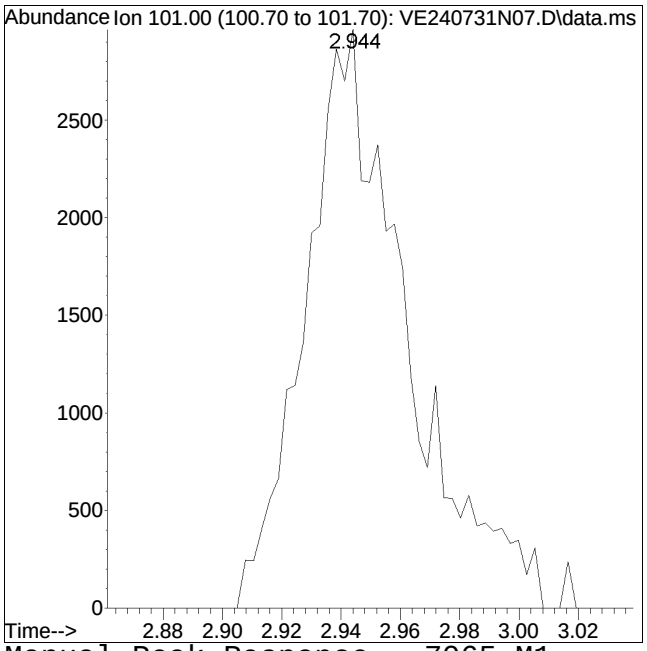
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #12: Freon-113



Original Peak Response = 6000



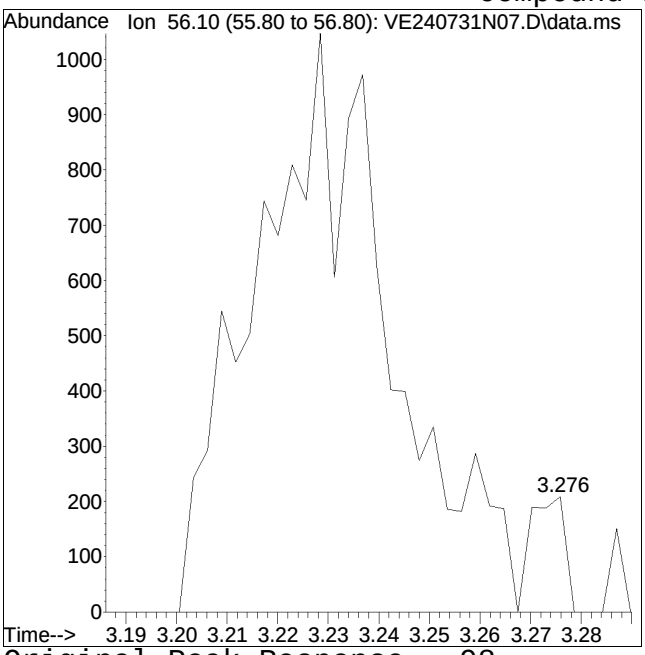
Manual Peak Response = 7065 M1

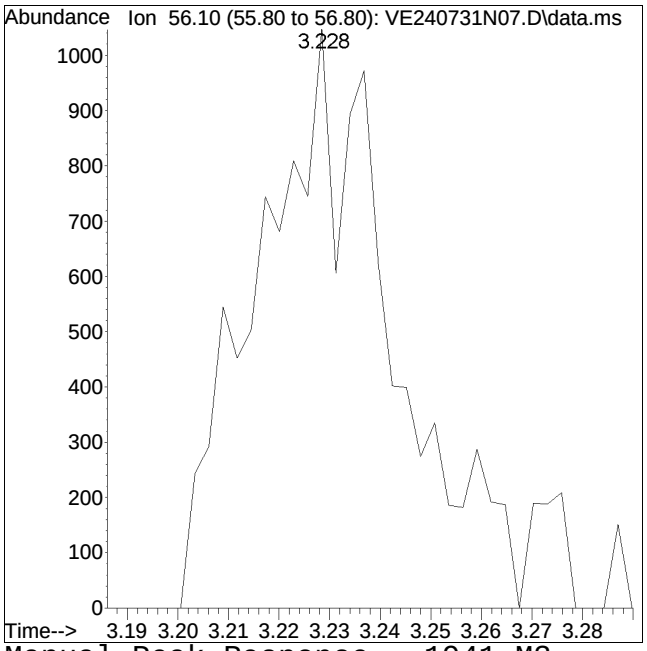
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #14: Acrolein





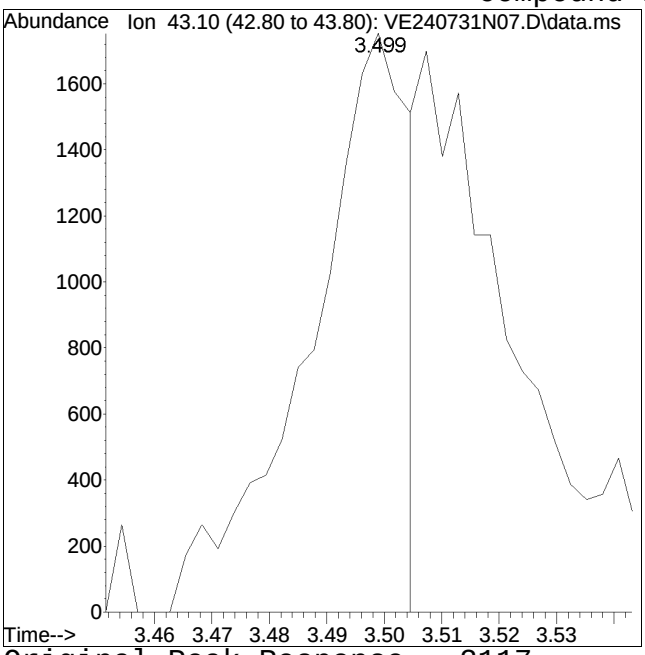
Original Peak Response = 98 Manual Peak Response = 1941 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

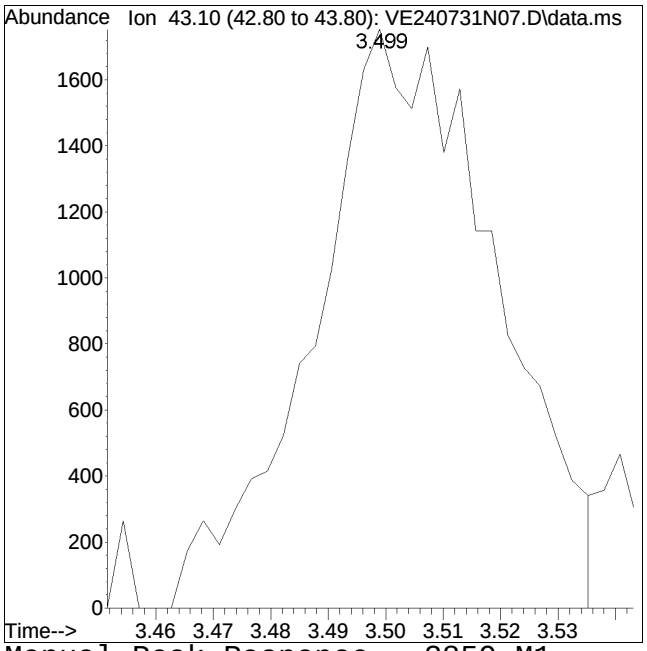
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #17: Acetone



Original Peak Response = 2117



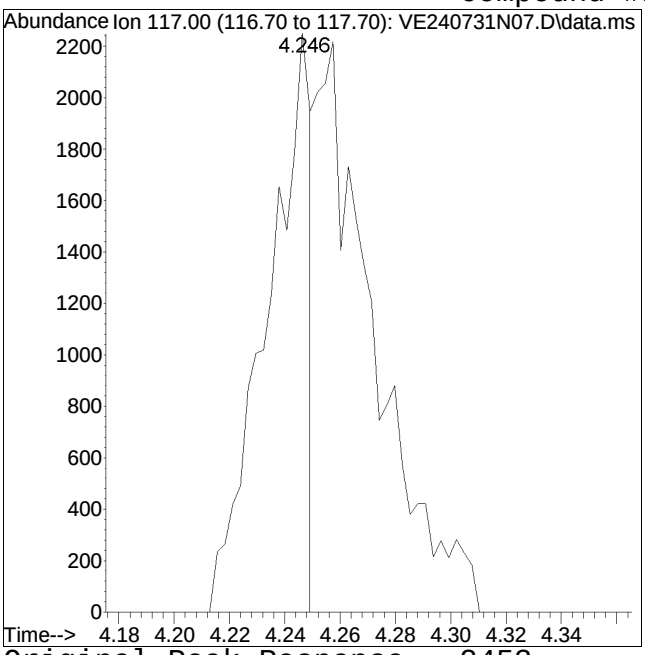
Manual Peak Response = 3859 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

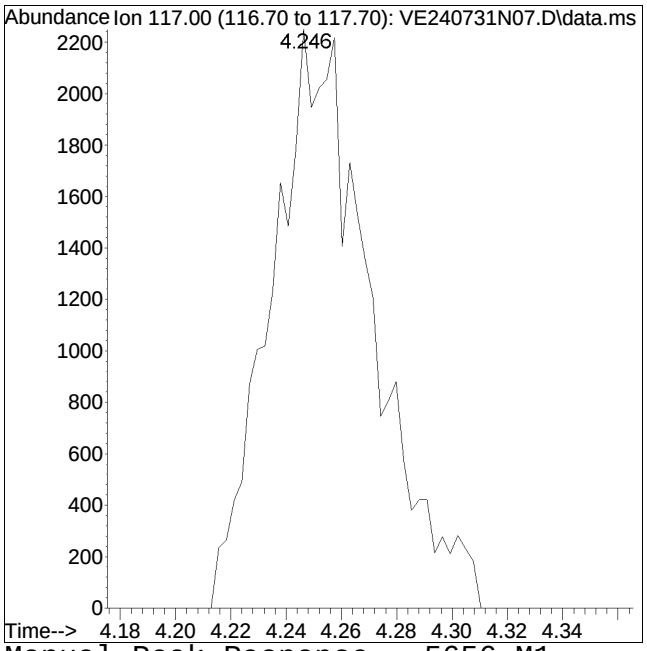
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #26: Halothane



Original Peak Response = 2453



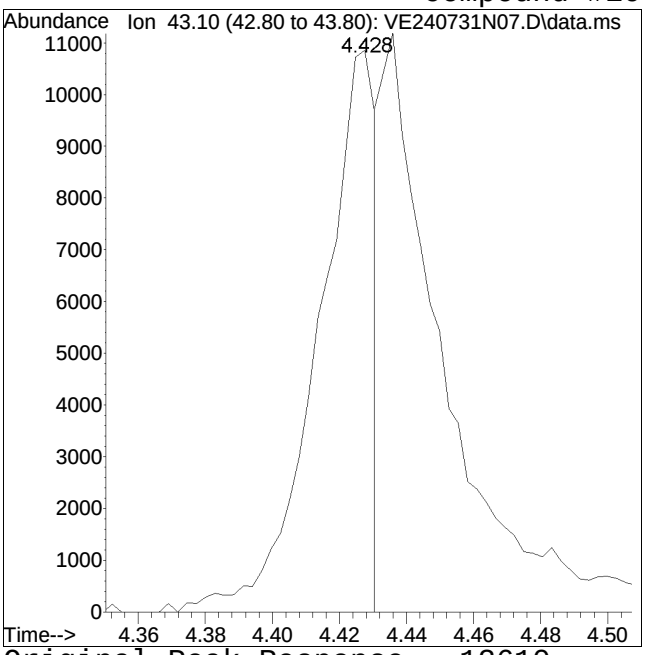
Manual Peak Response = 5656 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

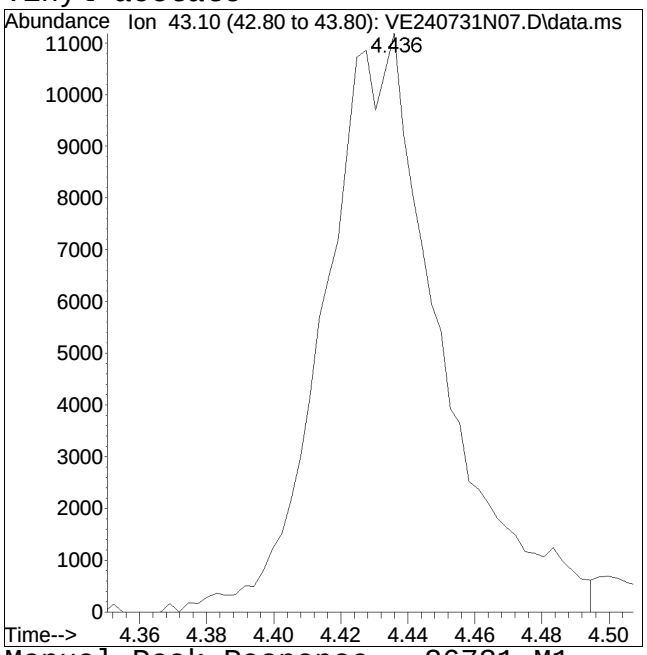
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #29: Vinyl acetate



Original Peak Response = 12610



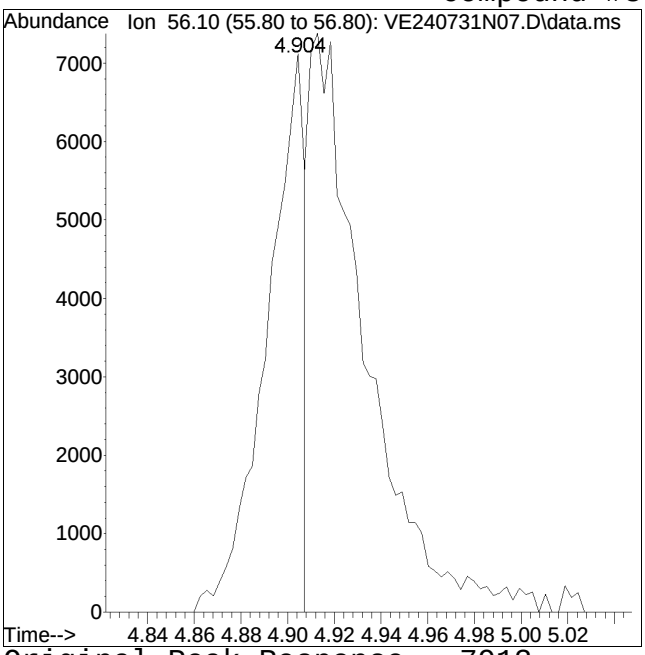
Manual Peak Response = 26731 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

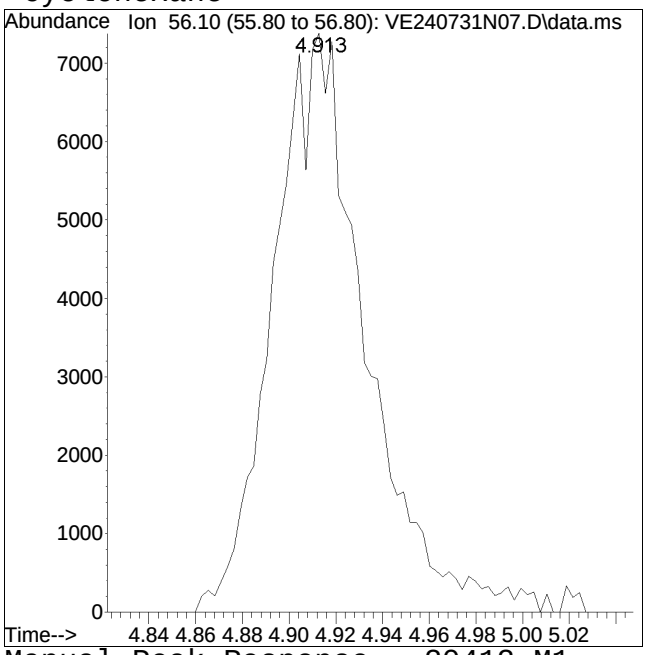
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #34: Cyclohexane



Original Peak Response = 7913



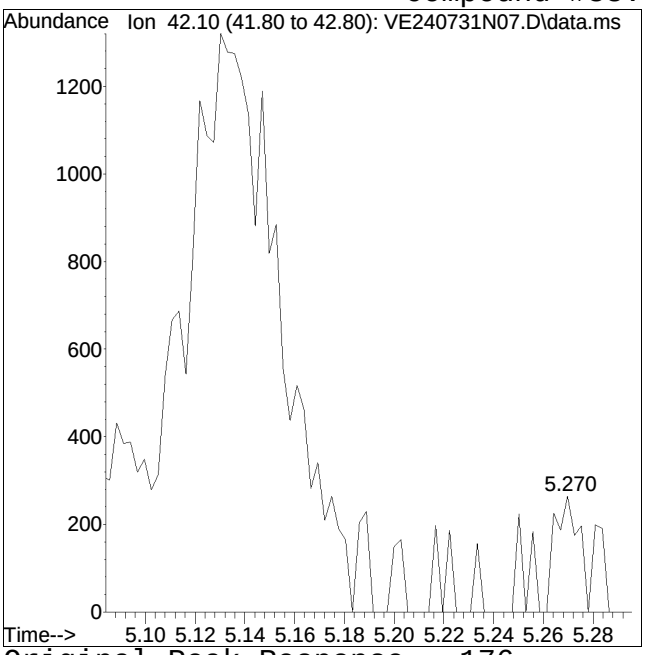
Manual Peak Response = 20412 M1

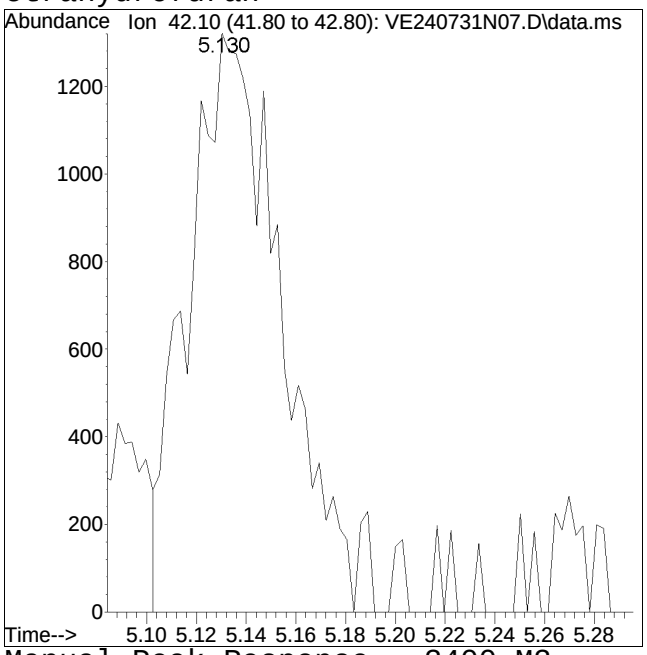
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





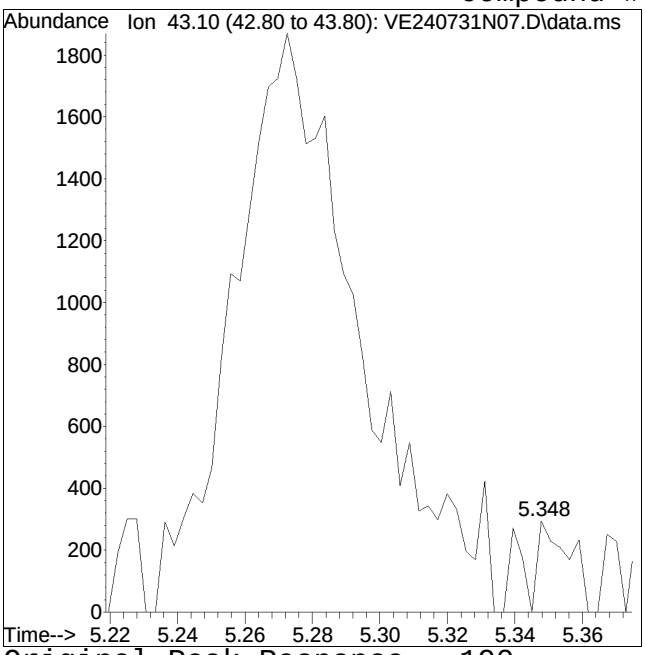
Original Peak Response = 176 Manual Peak Response = 3400 M3

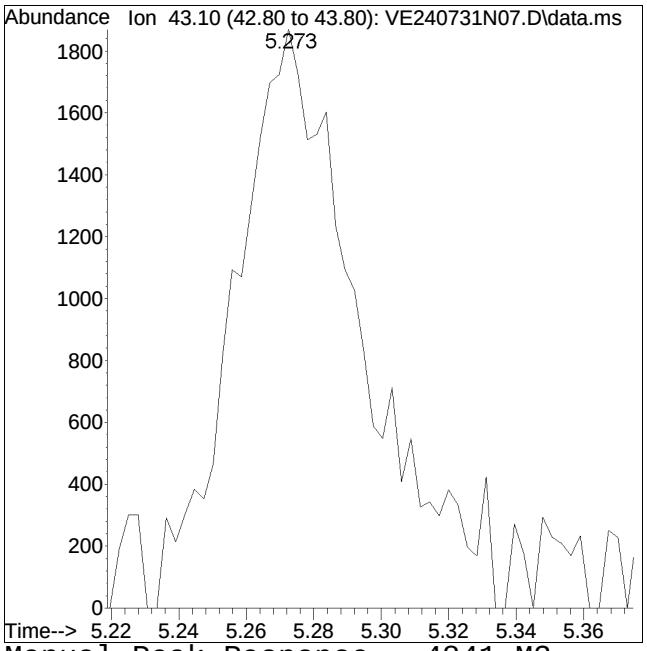
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #42: 2-Butanone





Original Peak Response = 190 Manual Peak Response = 4841 M3

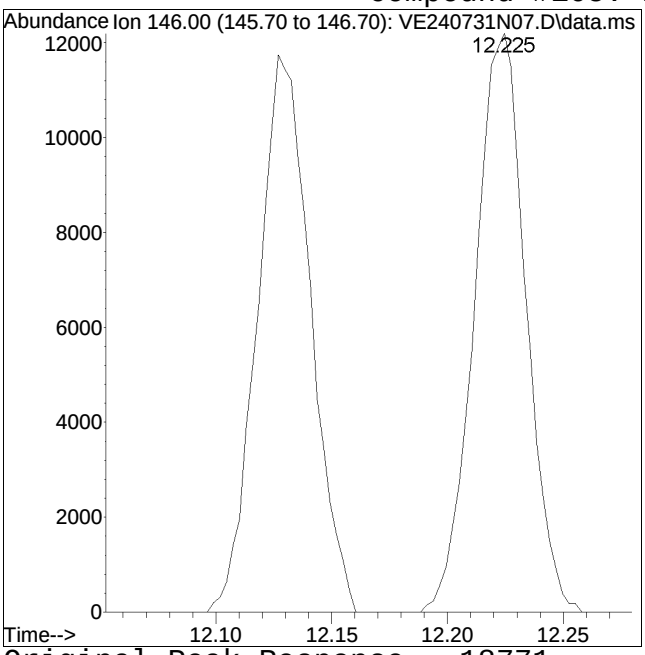
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

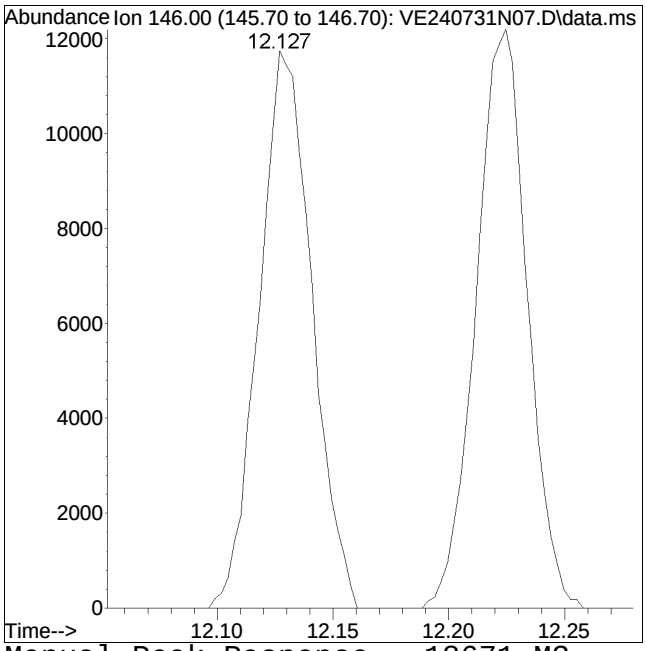
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #105: 1,3-Dichlorobenzene



Original Peak Response = 18771



Manual Peak Response = 18671 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	204581	10.000	ug/L	-0.11
Standard Area 1 = 204581			Recovery = 100.00%			
63) Chlorobenzene-d5	9.494	117	147756	10.000	ug/L	-0.12
Standard Area 1 = 147756			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84505	10.000	ug/L	-0.10
Standard Area 1 = 84505			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	48680	10.071	ug/L	-0.10
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.71%			
47) 1,2-Dichloroethane-d4	5.680	65	64640	11.293	ug/L	-0.10
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.93%			
64) Toluene-d8	7.654	98	195456	10.248	ug/L	-0.11
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.48%			
88) 4-Bromofluorobenzene	10.995	95	78367	9.155	ug/L	-0.11
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.55%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.591	85	45066	10.341	ug/L	95
3) Chloromethane	1.789	50	53760	10.543	ug/L	96
4) Vinyl chloride	1.854	62	49777	10.843	ug/L	93
5) Bromomethane	2.160	94	11943	5.484	ug/L	97
6) Chloroethane	2.275	64	31423	12.949	ug/L	99
7) Trichlorofluoromethane	2.417	101	52002	9.781	ug/L	94
8) Ethyl ether	2.721	74	21677	12.265	ug/L	70
10) 1,1-Dichloroethene	2.905	96	31598	9.087	ug/L #	73
11) Carbon disulfide	2.933	76	103009	9.770	ug/L	96
12) Freon-113	2.938	101	33321M1	8.975	ug/L	
13) Iodomethane	3.042	142	17802	6.094	ug/L	90
14) Acrolein	3.226	56	9036	12.767	ug/L #	70
15) Methylene chloride	3.457	84	41711	9.623	ug/L	85
17) Acetone	3.504	43	14439	12.752	ug/L	95
18) trans-1,2-Dichloroethene	3.610	96	36183	9.609	ug/L	78
19) Methyl acetate	3.622	43	33745	13.642	ug/L	97
21) Methyl tert-butyl ether	3.711	73	138295	12.360	ug/L	95
22) tert-Butyl alcohol	3.806	59	24074	69.596	ug/L #	81
24) Diisopropyl ether	4.071	45	197488	12.583	ug/L	92
25) 1,1-Dichloroethane	4.193	63	86782	11.170	ug/L	96
26) Halothane	4.249	117	29017	9.517	ug/L	95

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	17977	15.263	ug/L		92
28) Ethyl tert-butyl ether	4.419	59	171389	11.890	ug/L		97
29) Vinyl acetate	4.430	43	113807	21.432	ug/L	#	94
30) cis-1,2-Dichloroethene	4.712	96	43236	9.861	ug/L		93
31) 2,2-Dichloropropane	4.812	77	55274	9.397	ug/L		96
33) Bromochloromethane	4.907	128	19592	10.285	ug/L		84
34) Cyclohexane	4.907	56	92383	10.659	ug/L		92
35) Chloroform	4.980	83	70787	9.942	ug/L		98
36) Ethyl acetate	5.088	43	53536	13.935	ug/L		97
37) Carbon tetrachloride	5.114	117	53227	9.425	ug/L		95
38) Tetrahydrofuran	5.127	42	16553M1	15.540	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	63467	9.719	ug/L		95
42) 2-Butanone	5.275	43	21339	12.529	ug/L	#	90
43) 1,1-Dichloropropene	5.300	75	53283	9.911	ug/L		96
45) Benzene	5.543	78	171532	10.324	ug/L		92
46) tert-Amyl methyl ether	5.663	73	126640	10.776	ug/L		98
48) 1,2-Dichloroethane	5.752	62	65371	11.273	ug/L		95
51) Methyl cyclohexane	6.131	83	68206	9.257	ug/L		85
52) Trichloroethene	6.143	95	43027	9.068	ug/L		97
54) Dibromomethane	6.580	93	24484	10.201	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	51035	11.347	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	32060	12.970	ug/L		89
58) Bromodichloromethane	6.759	83	60227	10.235	ug/L		95
61) 1,4-Dioxane	6.971	88	19894	537.767	ug/L		87
62) cis-1,3-Dichloropropene	7.448	75	69674	10.183	ug/L		95
65) Toluene	7.710	92	105232	10.216	ug/L		93
66) 4-Methyl-2-pentanone	8.150	58	18333	13.376	ug/L		92
67) Tetrachloroethene	8.161	166	44641	10.701	ug/L		95
69) trans-1,3-Dichloropropene	8.195	75	61164	10.422	ug/L		99
71) Ethyl methacrylate	8.382	69	57150	12.437	ug/L		90
72) 1,1,2-Trichloroethane	8.385	83	30175	10.730	ug/L		99
73) Chlorodibromomethane	8.591	129	41583	10.106	ug/L		97
74) 1,3-Dichloropropane	8.705	76	63598	10.633	ug/L		97
75) 1,2-Dibromoethane	8.870	107	35086	10.324	ug/L		88
77) 2-Hexanone	9.151	43	34633	13.757	ug/L		96
78) Chlorobenzene	9.520	112	113340	10.114	ug/L	#	80
79) Ethylbenzene	9.556	91	208074	10.388	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	42343	10.608	ug/L		97
81) p/m Xylene	9.745	106	161846	21.186	ug/L		99
82) o Xylene	10.284	106	157536	21.096	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83)	Styrene	10.353	104	261864	21.427	ug/L	99
85)	Bromoform	10.378	173	27962	10.670	ug/L	94
87)	Isopropylbenzene	10.671	105	206589	8.866	ug/L	97
89)	Bromobenzene	11.106	156	52794	9.847	ug/L	99
90)	n-Propylbenzene	11.151	91	248567	9.173	ug/L	96
91)	1,4-Dichlorobutane	11.168	55	90223	12.511	ug/L	99
92)	1,1,2,2-Tetrachloroethane	11.243	83	41654	10.363	ug/L	97
93)	4-Ethyltoluene	11.279	105	204854	9.166	ug/L	100
94)	2-Chlorotoluene	11.321	91	149060	9.239	ug/L	97
95)	1,3,5-Trimethylbenzene	11.377	105	181257	9.354	ug/L	97
96)	1,2,3-Trichloropropane	11.382	75	36413	9.806	ug/L	95
97)	trans-1,4-Dichloro-2-b...	11.430	53	17188	11.349	ug/L	88
98)	4-Chlorotoluene	11.502	91	154593	9.170	ug/L	99
99)	tert-Butylbenzene	11.717	119	149482	9.048	ug/L	98
102)	1,2,4-Trimethylbenzene	11.795	105	180087	9.233	ug/L	95
103)	sec-Butylbenzene	11.909	105	218386	9.091	ug/L	99
104)	p-Isopropyltoluene	12.063	119	185594	9.031	ug/L	96
105)	1,3-Dichlorobenzene	12.130	146	98794	9.599	ug/L	96
106)	1,4-Dichlorobenzene	12.225	146	97784	9.413	ug/L	99
107)	p-Diethylbenzene	12.439	119	110030	9.210	ug/L	98
108)	n-Butylbenzene	12.498	91	157868	9.276	ug/L	97
109)	1,2-Dichlorobenzene	12.646	146	94225	9.408	ug/L	98
110)	1,2,4,5-Tetramethylben...	13.231	119	179730	9.214	ug/L	95
111)	1,2-Dibromo-3-chloropr...	13.429	155	7741	10.135	ug/L	92
112)	1,3,5-Trichlorobenzene	13.457	180	75211	10.551	ug/L	93
113)	Hexachlorobutadiene	14.034	225	24042	11.211	ug/L	90
114)	1,2,4-Trichlorobenzene	14.057	180	66652	10.420	ug/L	99
115)	Naphthalene	14.347	128	143235	9.075	ug/L	100
116)	1,2,3-Trichlorobenzene	14.517	180	60948	10.602	ug/L	96

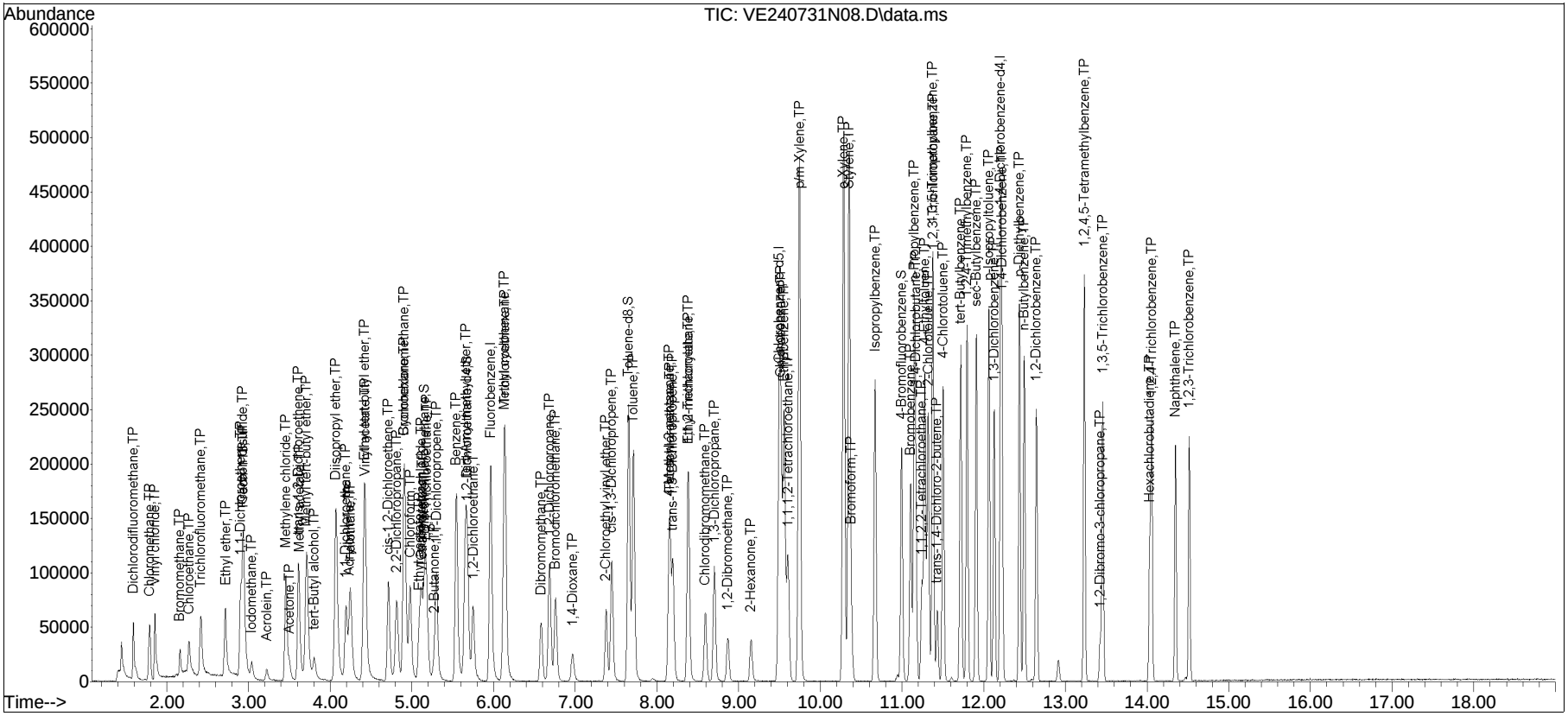
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

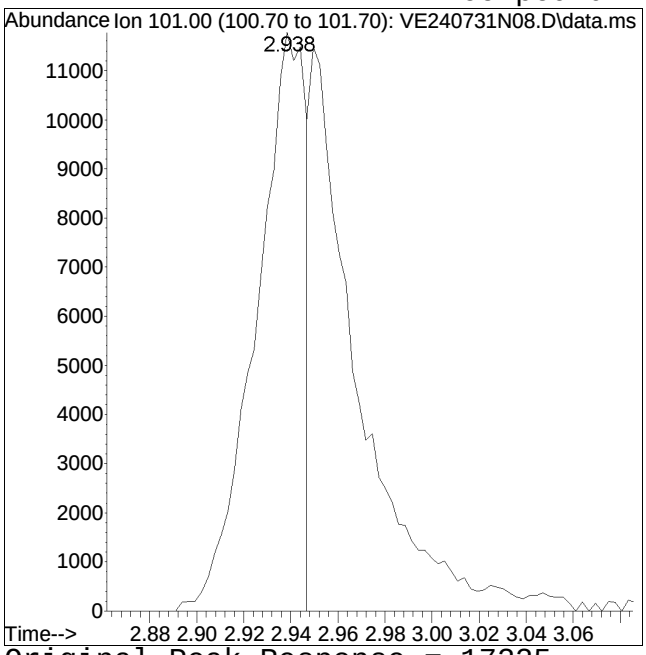
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

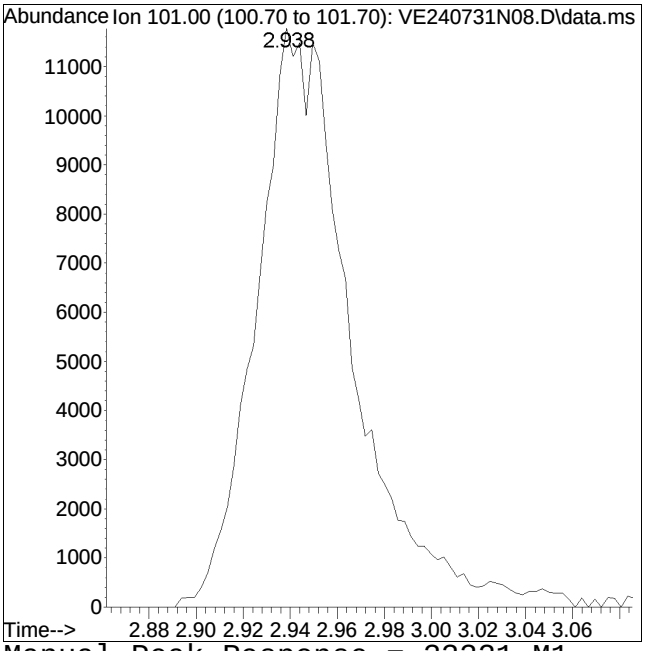


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N08.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:42 pm Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 8/1/2024 11:54 am

Compound #12: Freon-113



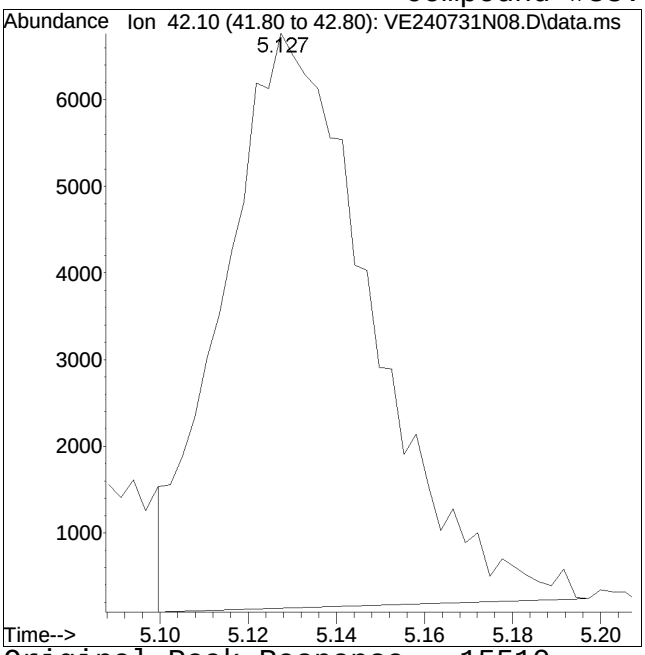


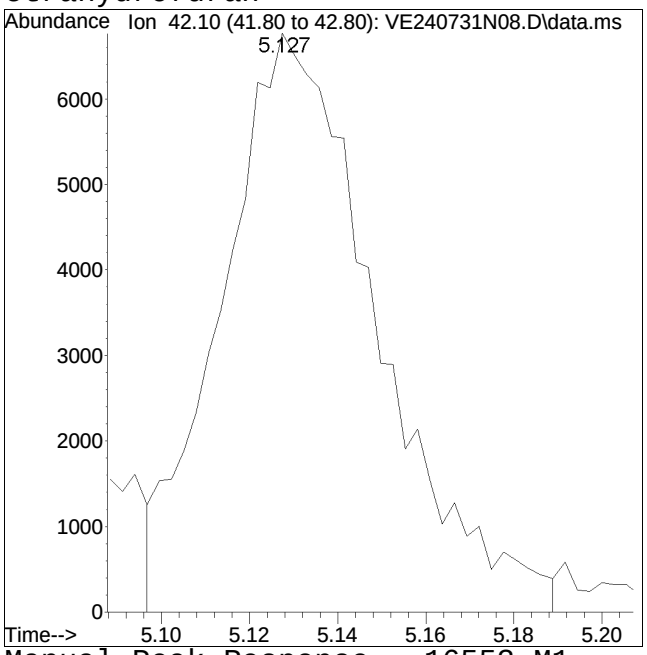
Original Peak Response = 17225 Manual Peak Response = 33321 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N08.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:42 pm Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 8/1/2024 11:54 am

Compound #38: Tetrahydrofuran





Original Peak Response = 15510 Manual Peak Response = 16553 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	204403	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 99.91%			
63) Chlorobenzene-d5	9.500	117	149625	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 101.26%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84874	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.44%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.156	113	47450	9.756	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.56%			
47) 1,2-Dichloroethane-d4	5.685	65	62257	9.640	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.40%			
64) Toluene-d8	7.657	98	196570	9.931	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.31%			
88) 4-Bromofluorobenzene	10.998	95	76337	9.699	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.99%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	149245	33.146	ug/L	96
3) Chloromethane	1.787	50	160207	29.826	ug/L	97
4) Vinyl chloride	1.854	62	161006	32.374	ug/L	96
5) Bromomethane	2.163	94	41058	34.408	ug/L	95
6) Chloroethane	2.272	64	92566	29.484	ug/L	100
7) Trichlorofluoromethane	2.417	101	178263	34.310	ug/L	97
8) Ethyl ether	2.718	74	68340	31.554	ug/L	75
10) 1,1-Dichloroethene	2.905	96	102934	32.604	ug/L	79
11) Carbon disulfide	2.933	76	320678	31.158	ug/L	96
12) Freon-113	2.941	101	108914	32.715	ug/L	86
13) Iodomethane	3.042	142	79903	44.923	ug/L	90
14) Acrolein	3.223	56	27320	30.261	ug/L #	65
15) Methylene chloride	3.460	84	123480	29.629	ug/L	87
17) Acetone	3.502	43	47292	32.781	ug/L	96
18) trans-1,2-Dichloroethene	3.611	96	110330	30.519	ug/L	78
19) Methyl acetate	3.619	43	98711	29.278	ug/L	96
21) Methyl tert-butyl ether	3.711	73	405204	29.325	ug/L	95
22) tert-Butyl alcohol	3.806	59	73709	153.222	ug/L	91
24) Diisopropyl ether	4.071	45	603714	30.596	ug/L	91
25) 1,1-Dichloroethane	4.196	63	260295	30.020	ug/L	92
26) Halothane	4.255	117	90214	31.117	ug/L	94

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	54373	30.272	ug/L		90
28) Ethyl tert-butyl ether	4.419	59	513557	29.991	ug/L		97
29) Vinyl acetate	4.430	43	337157	29.651	ug/L	#	94
30) cis-1,2-Dichloroethene	4.712	96	127517	29.519	ug/L		93
31) 2,2-Dichloropropane	4.813	77	173960	31.500	ug/L		97
33) Bromochloromethane	4.907	128	58968	30.124	ug/L		88
34) Cyclohexane	4.910	56	305150	33.060	ug/L		96
35) Chloroform	4.980	83	205797	29.098	ug/L		98
36) Ethyl acetate	5.086	43	156227	29.207	ug/L		96
37) Carbon tetrachloride	5.114	117	168502	31.685	ug/L		94
38) Tetrahydrofuran	5.128	42	49298M1	29.808	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	193545	30.522	ug/L		96
42) 2-Butanone	5.267	43	64303	30.160	ug/L		96
43) 1,1-Dichloropropene	5.301	75	165534	31.094	ug/L		95
45) Benzene	5.546	78	514522	30.022	ug/L		92
46) tert-Amyl methyl ether	5.657	73	381559	30.156	ug/L		97
48) 1,2-Dichloroethane	5.752	62	192313	29.444	ug/L		98
51) Methyl cyclohexane	6.132	83	223375	32.779	ug/L		84
52) Trichloroethene	6.143	95	132908	30.916	ug/L		97
54) Dibromomethane	6.583	93	73052	29.863	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	152088	29.827	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	99727	31.133	ug/L		89
58) Bromodichloromethane	6.762	83	176926	29.402	ug/L		92
61) 1,4-Dioxane	6.971	88	23357	587.548	ug/L		86
62) cis-1,3-Dichloropropene	7.448	75	211389	30.366	ug/L		95
65) Toluene	7.713	92	319096	29.944	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	55773	30.042	ug/L		93
67) Tetrachloroethene	8.159	166	139900	30.947	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	188733	30.471	ug/L		99
71) Ethyl methacrylate	8.385	69	169809	29.342	ug/L		91
72) 1,1,2-Trichloroethane	8.382	83	90229	29.528	ug/L		100
73) Chlorodibromomethane	8.594	129	127142	30.194	ug/L		97
74) 1,3-Dichloropropane	8.705	76	192488	29.888	ug/L		97
75) 1,2-Dibromoethane	8.867	107	106125	29.869	ug/L		88
77) 2-Hexanone	9.152	43	104812	29.886	ug/L		98
78) Chlorobenzene	9.520	112	339097	29.545	ug/L	#	80
79) Ethylbenzene	9.556	91	625293	29.676	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.606	131	128406	29.946	ug/L		97
81) p/m Xylene	9.743	106	480185	58.597	ug/L		99
82) o Xylene	10.284	106	463412	58.098	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	770256	58.094	ug/L		100
85) Bromoform	10.376	173	85058	30.287	ug/L		93
87) Isopropylbenzene	10.671	105	629312	30.330	ug/L		97
89) Bromobenzene	11.106	156	155787	29.380	ug/L		98
90) n-Propylbenzene	11.151	91	751510	30.102	ug/L		96
91) 1,4-Dichlorobutane	11.168	55	266291	29.386	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.240	83	124080	29.659	ug/L		97
93) 4-Ethyltoluene	11.279	105	611178	29.705	ug/L		99
94) 2-Chlorotoluene	11.318	91	437659	29.234	ug/L		97
95) 1,3,5-Trimethylbenzene	11.377	105	537259	29.512	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	107348	29.353	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.430	53	51127	29.616	ug/L	#	84
98) 4-Chlorotoluene	11.502	91	457411	29.459	ug/L		99
99) tert-Butylbenzene	11.720	119	448526	29.875	ug/L		98
102) 1,2,4-Trimethylbenzene	11.795	105	535558	29.610	ug/L		95
103) sec-Butylbenzene	11.910	105	663673	30.258	ug/L		99
104) p-Isopropyltoluene	12.063	119	568430	30.494	ug/L		96
105) 1,3-Dichlorobenzene	12.130	146	291786	29.406	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	291447	29.676	ug/L		99
107) p-Diethylbenzene	12.439	119	335133	30.326	ug/L		97
108) n-Butylbenzene	12.495	91	481406	30.362	ug/L		97
109) 1,2-Dichlorobenzene	12.646	146	282170	29.816	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	538890	29.853	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.427	155	23835	30.657	ug/L		92
112) 1,3,5-Trichlorobenzene	13.457	180	224773	29.756	ug/L		93
113) Hexachlorobutadiene	14.032	225	74680	30.927	ug/L		92
114) 1,2,4-Trichlorobenzene	14.054	180	202950	30.317	ug/L		99
115) Naphthalene	14.347	128	444851	30.922	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	185426	30.291	ug/L		95

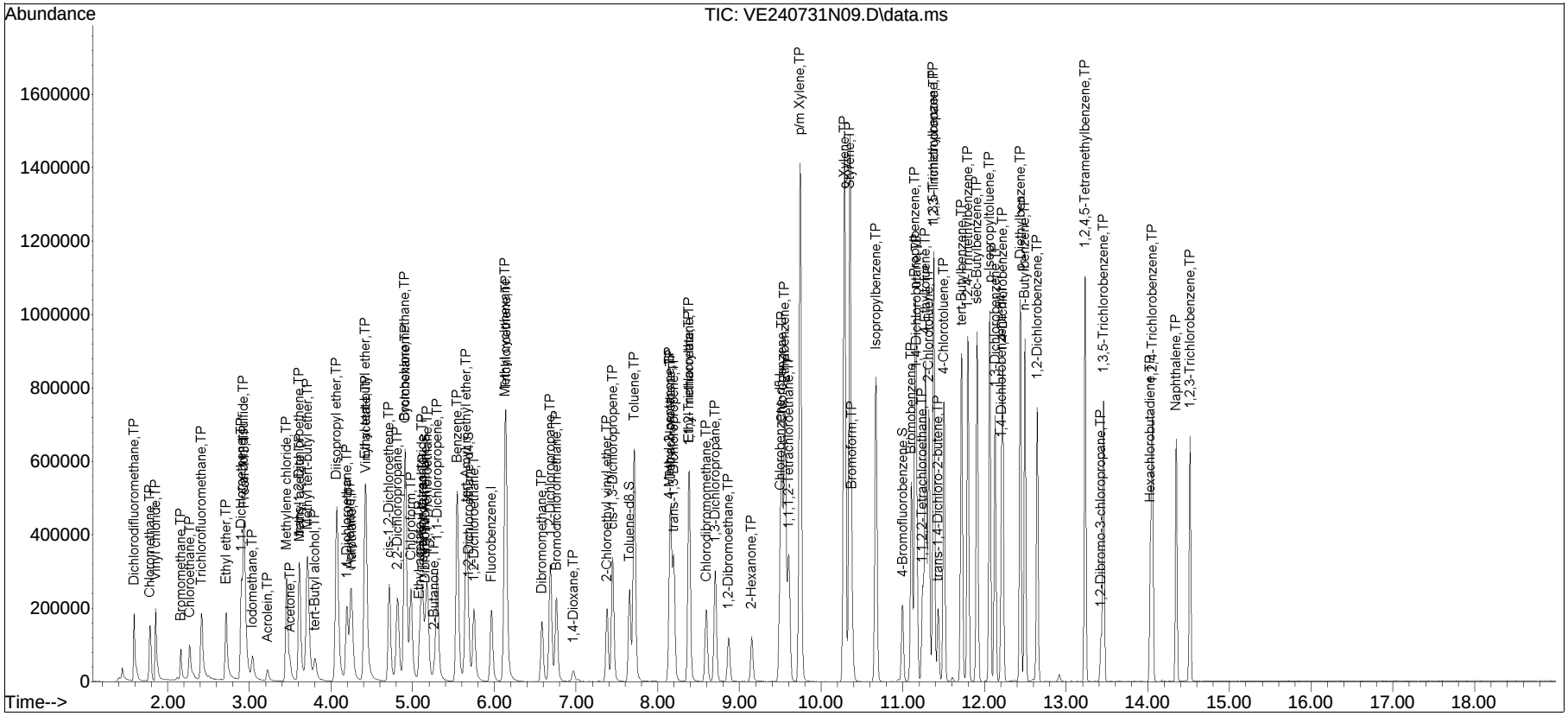
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

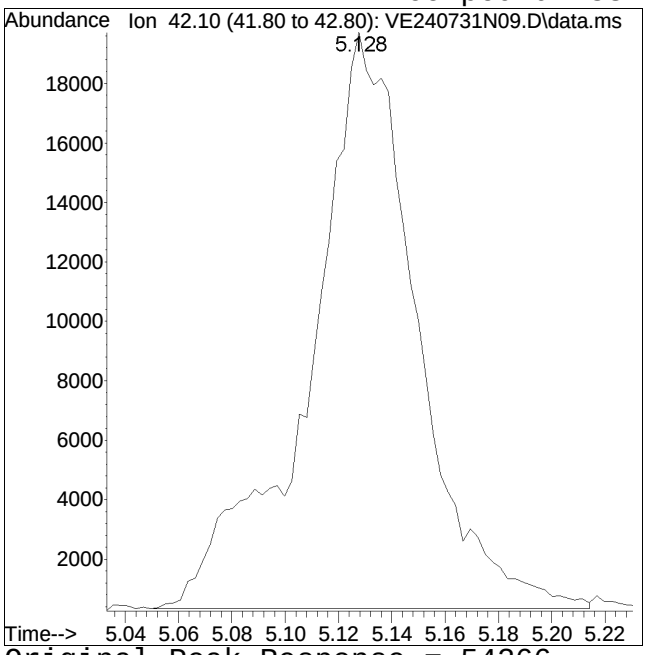


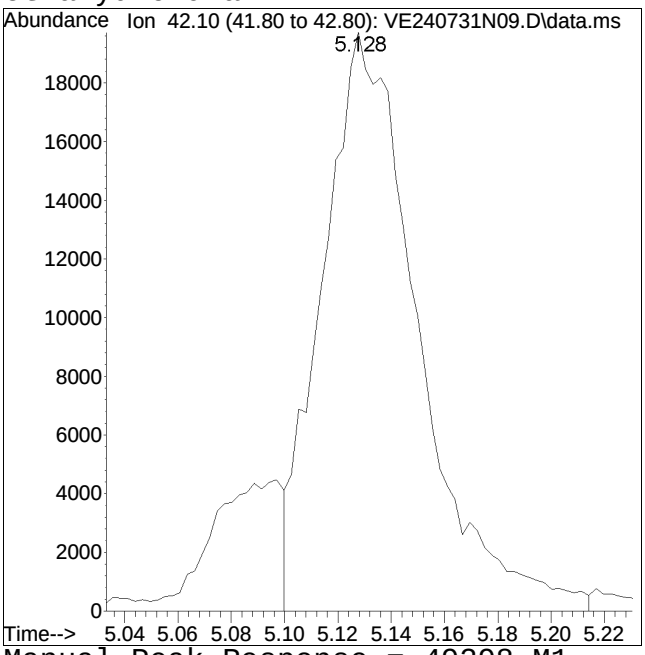
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N09.D
Date Inj'd : 7/31/2024 9:07 pm
Sample : I8260STD30PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





Original Peak Response = 54266 Manual Peak Response = 49298 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	205552	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.47%			
63) Chlorobenzene-d5	9.497	117	153791	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 104.08%			
84) 1,4-Dichlorobenzene-d4	12.211	152	85405	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 101.07%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	47510	9.714	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.14%			
47) 1,2-Dichloroethane-d4	5.680	65	63482	9.774	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.74%			
64) Toluene-d8	7.654	98	201166	9.888	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.88%			
88) 4-Bromofluorobenzene	10.995	95	78835	9.954	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	398777	88.069	ug/L	96
3) Chloromethane	1.787	50	425203	78.719	ug/L	96
4) Vinyl chloride	1.854	62	427307	85.439	ug/L	94
5) Bromomethane	2.163	94	137967	114.976	ug/L	94
6) Chloroethane	2.266	64	251474	79.651	ug/L	87
7) Trichlorofluoromethane	2.417	101	483684	92.573	ug/L	95
8) Ethyl ether	2.718	74	182990	84.018	ug/L	73
10) 1,1-Dichloroethene	2.902	96	279624	88.076	ug/L	79
11) Carbon disulfide	2.933	76	849801	82.108	ug/L	96
12) Freon-113	2.944	101	292977	87.510	ug/L	88
13) Iodomethane	3.039	142	267444	149.523	ug/L	92
14) Acrolein	3.223	56	74031	81.542	ug/L #	70
15) Methylene chloride	3.460	84	324549	77.441	ug/L	87
17) Acetone	3.502	43	116076	80.011	ug/L	99
18) trans-1,2-Dichloroethene	3.611	96	301708	82.990	ug/L	81
19) Methyl acetate	3.622	43	256155	75.550	ug/L	97
21) Methyl tert-butyl ether	3.711	73	1080950	77.793	ug/L	95
22) tert-Butyl alcohol	3.806	59	192001	396.889	ug/L	90
24) Diisopropyl ether	4.071	45	1579187	79.586	ug/L	91
25) 1,1-Dichloroethane	4.193	63	690552	79.197	ug/L	97
26) Halothane	4.249	117	237954	81.618	ug/L	93

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	143107	79.230	ug/L		91
28) Ethyl tert-butyl ether	4.419	59	1358577	78.894	ug/L		97
29) Vinyl acetate	4.428	43	844268	73.834	ug/L	#	95
30) cis-1,2-Dichloroethene	4.715	96	352546	81.155	ug/L		97
31) 2,2-Dichloropropane	4.815	77	456698	82.234	ug/L		98
33) Bromochloromethane	4.904	128	149382	75.886	ug/L		87
34) Cyclohexane	4.910	56	818733	88.205	ug/L		97
35) Chloroform	4.980	83	557889	78.440	ug/L		98
36) Ethyl acetate	5.086	43	409173	76.068	ug/L		95
37) Carbon tetrachloride	5.114	117	452565	84.624	ug/L		95
38) Tetrahydrofuran	5.128	42	127579M1	76.709	ug/L		
40) 1,1,1-Trichloroethane	5.181	97	517219	81.109	ug/L		95
42) 2-Butanone	5.267	43	170745	79.637	ug/L	#	76
43) 1,1-Dichloropropene	5.300	75	445417	83.200	ug/L		95
45) Benzene	5.546	78	1372838	79.656	ug/L		93
46) tert-Amyl methyl ether	5.657	73	1003985	78.904	ug/L		97
48) 1,2-Dichloroethane	5.749	62	510065	77.658	ug/L		97
51) Methyl cyclohexane	6.131	83	634905	92.647	ug/L		87
52) Trichloroethene	6.143	95	354708	82.049	ug/L		97
54) Dibromomethane	6.583	93	194273	78.972	ug/L	#	84
55) 1,2-Dichloropropane	6.684	63	405164	79.014	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	275108	85.405	ug/L		92
58) Bromodichloromethane	6.759	83	477315	78.878	ug/L		93
61) 1,4-Dioxane	6.968	88	30991	775.224	ug/L		88
62) cis-1,3-Dichloropropene	7.448	75	566751	80.959	ug/L		95
65) Toluene	7.715	92	857485	78.288	ug/L		94
66) 4-Methyl-2-pentanone	8.145	58	150511	78.877	ug/L		91
67) Tetrachloroethene	8.162	166	378641	81.491	ug/L		96
69) trans-1,3-Dichloropropene	8.198	75	501573	78.787	ug/L		98
71) Ethyl methacrylate	8.385	69	451462	75.896	ug/L		91
72) 1,1,2-Trichloroethane	8.382	83	237889	75.743	ug/L		99
73) Chlorodibromomethane	8.594	129	340620	78.699	ug/L		98
74) 1,3-Dichloropropane	8.703	76	507269	76.632	ug/L		97
75) 1,2-Dibromoethane	8.870	107	281759	77.154	ug/L		87
77) 2-Hexanone	9.152	43	277176	76.892	ug/L		98
78) Chlorobenzene	9.520	112	906237	76.820	ug/L	#	81
79) Ethylbenzene	9.559	91	1664160	76.841	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	340057	77.159	ug/L		97
81) p/m Xylene	9.746	106	1254976	148.997	ug/L		98
82) o Xylene	10.287	106	1224130	149.311	ug/L		96

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.353	104	2011221	147.580	ug/L		100
85) Bromoform	10.381	173	228150	80.733	ug/L		94
87) Isopropylbenzene	10.671	105	1691278	81.004	ug/L		97
89) Bromobenzene	11.106	156	418818	78.495	ug/L		98
90) n-Propylbenzene	11.154	91	2013910	80.167	ug/L		97
91) 1,4-Dichlorobutane	11.171	55	698575	76.612	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	331120	78.655	ug/L		97
93) 4-Ethyltoluene	11.279	105	1639001	79.165	ug/L		100
94) 2-Chlorotoluene	11.321	91	1160531M1	77.036	ug/L		
95) 1,3,5-Trimethylbenzene	11.380	105	1427143	77.906	ug/L		98
96) 1,2,3-Trichloropropane	11.382	75	282589	76.789	ug/L		95
97) trans-1,4-Dichloro-2-b...	11.433	53	141551	81.487	ug/L	#	81
98) 4-Chlorotoluene	11.505	91	1219919	78.080	ug/L		99
99) tert-Butylbenzene	11.720	119	1215335	80.446	ug/L		98
102) 1,2,4-Trimethylbenzene	11.798	105	1435491	78.871	ug/L		96
103) sec-Butylbenzene	11.912	105	1806280	81.839	ug/L		99
104) p-Isopropyltoluene	12.066	119	1543039	82.264	ug/L		97
105) 1,3-Dichlorobenzene	12.130	146	775535	77.673	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	777852	78.710	ug/L		99
107) p-Diethylbenzene	12.439	119	912031	82.016	ug/L		96
108) n-Butylbenzene	12.495	91	1330681	83.402	ug/L		97
109) 1,2-Dichlorobenzene	12.646	146	747610	78.507	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	1438355	79.185	ug/L		95
111) 1,2-Dibromo-3-chloropr...	13.427	155	64007	81.814	ug/L		94
112) 1,3,5-Trichlorobenzene	13.457	180	600411	78.989	ug/L		93
113) Hexachlorobutadiene	14.032	225	199869	82.257	ug/L		92
114) 1,2,4-Trichlorobenzene	14.057	180	550611	81.739	ug/L		99
115) Naphthalene	14.347	128	1227574	84.800	ug/L		100
116) 1,2,3-Trichlorobenzene	14.514	180	512444	83.193	ug/L		95

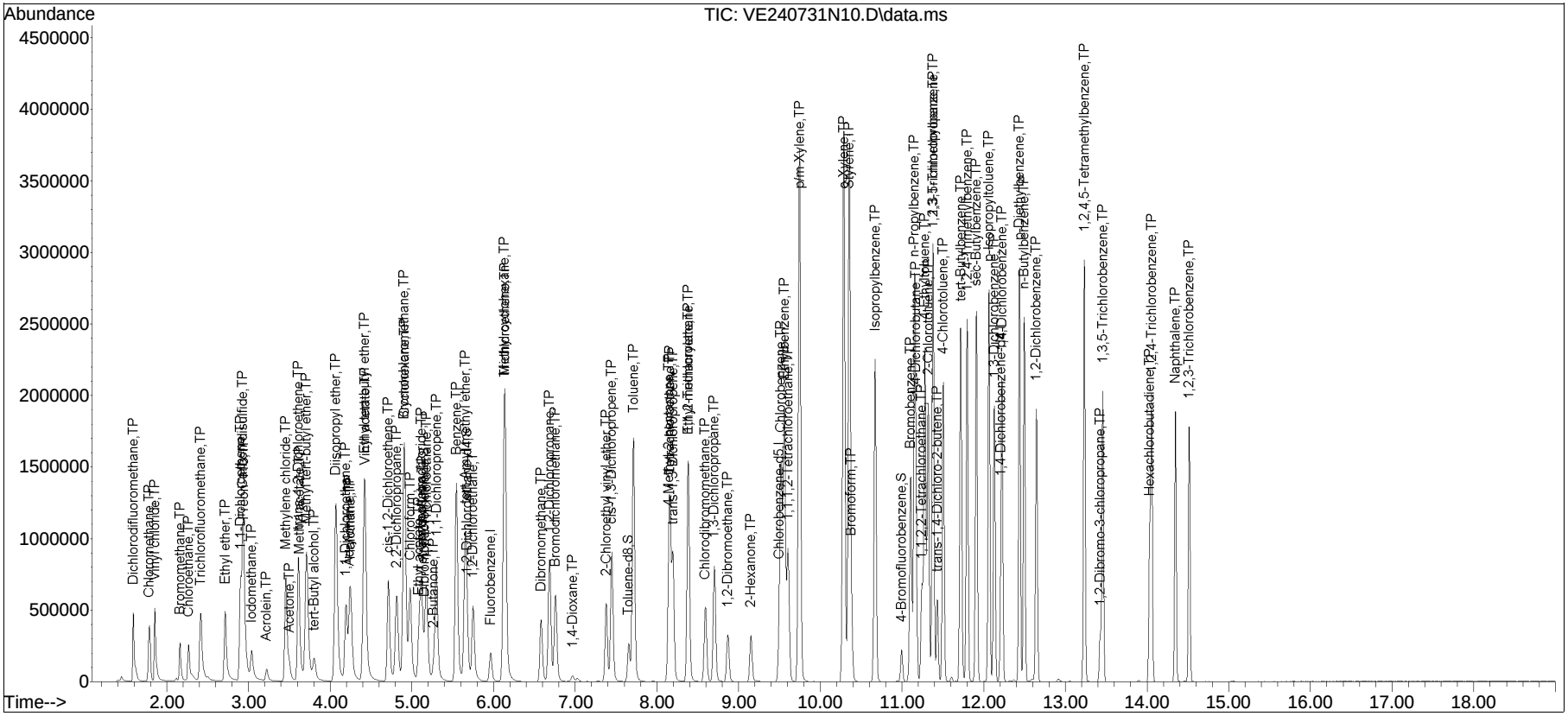
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

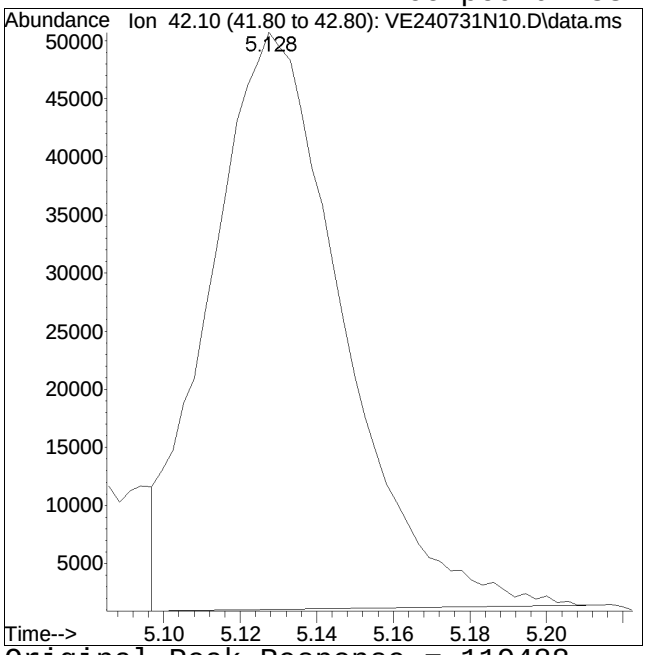
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

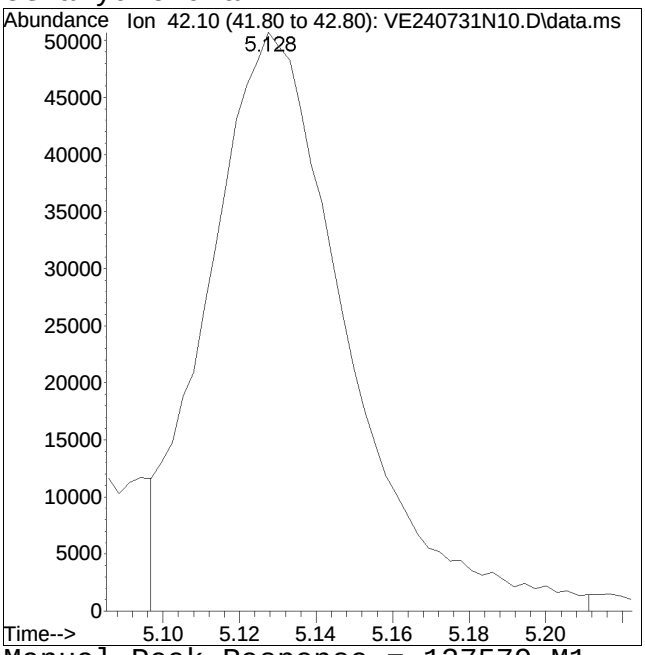


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N10.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 9:32 pm Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





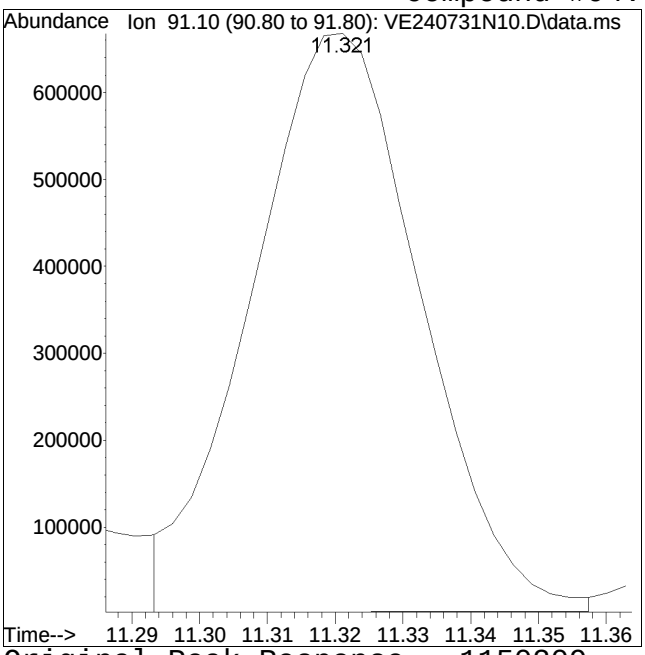
Original Peak Response = 119488 Manual Peak Response = 127579 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

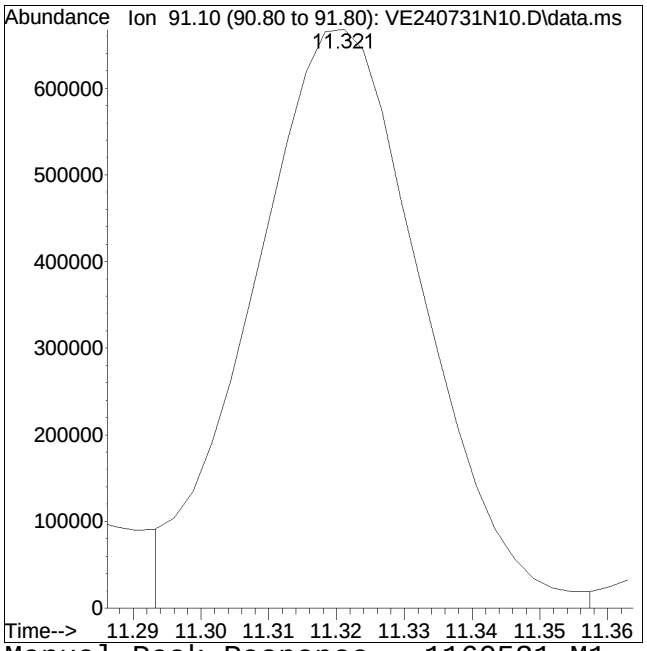
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N10.D
Date Inj'd : 7/31/2024 9:32 pm
Sample : I8260STD80PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 1150209



Manual Peak Response = 1160531 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	212189	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 103.72%			
63) Chlorobenzene-d5	9.497	117	156001	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 105.58%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84877	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.44%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.158	113	47539	9.415	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.15%			
47) 1,2-Dichloroethane-d4	5.680	65	63246	9.434	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.34%			
64) Toluene-d8	7.654	98	206007	9.983	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.83%			
88) 4-Bromofluorobenzene	10.995	95	79943	10.156	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.56%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.591	85	621695	133.006	ug/L	96
3) Chloromethane	1.787	50	661240	118.588	ug/L	96
4) Vinyl chloride	1.854	62	675555	130.850	ug/L	95
5) Bromomethane	2.163	94	241549	195.000	ug/L	96
6) Chloroethane	2.264	64	366944M1	112.589	ug/L	
7) Trichlorofluoromethane	2.414	101	749914	139.038	ug/L	95
8) Ethyl ether	2.715	74	274710	122.185	ug/L	71
10) 1,1-Dichloroethene	2.902	96	432970	132.112	ug/L #	77
11) Carbon disulfide	2.930	76	1302644	121.925	ug/L	96
12) Freon-113	2.941	101	466342	134.936	ug/L	89
13) Iodomethane	3.039	142	437611	237.007	ug/L	92
14) Acrolein	3.223	56	117858	125.755	ug/L #	71
15) Methylene chloride	3.457	84	496205	114.697	ug/L	88
17) Acetone	3.502	43	165824	110.727	ug/L	99
18) trans-1,2-Dichloroethene	3.610	96	460682	122.755	ug/L	80
19) Methyl acetate	3.619	43	388572	111.021	ug/L	98
21) Methyl tert-butyl ether	3.714	73	1643799	114.600	ug/L	95
22) tert-Butyl alcohol	3.806	59	291372	583.461	ug/L	87
24) Diisopropyl ether	4.071	45	2382897	116.334	ug/L	91
25) 1,1-Dichloroethane	4.193	63	1040719	115.624	ug/L	98
26) Halothane	4.249	117	364896	121.244	ug/L	93

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	217765	116.792	ug/L		92
28) Ethyl tert-butyl ether	4.419	59	2065717	116.206	ug/L		87
29) Vinyl acetate	4.430	43	1705877	144.518	ug/L	#	96
30) cis-1,2-Dichloroethene	4.715	96	538397	120.060	ug/L		98
31) 2,2-Dichloropropane	4.815	77	711165	124.049	ug/L		98
33) Bromochloromethane	4.904	128	219330	107.935	ug/L		84
34) Cyclohexane	4.910	56	1269361	132.475	ug/L		98
35) Chloroform	4.980	83	848229	115.532	ug/L		98
36) Ethyl acetate	5.086	43	617701	111.244	ug/L		95
37) Carbon tetrachloride	5.116	117	710348	128.671	ug/L		95
38) Tetrahydrofuran	5.130	42	189666M1	110.473	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	801432	121.748	ug/L		95
42) 2-Butanone	5.267	43	253892	114.714	ug/L	#	78
43) 1,1-Dichloropropene	5.300	75	691130	125.059	ug/L		96
45) Benzene	5.546	78	2099718	118.021	ug/L		93
46) tert-Amyl methyl ether	5.657	73	1544881	117.616	ug/L		97
48) 1,2-Dichloroethane	5.749	62	772246	113.897	ug/L		98
51) Methyl cyclohexane	6.134	83	992238	140.261	ug/L		87
52) Trichloroethene	6.143	95	512619	114.867	ug/L		97
54) Dibromomethane	6.580	93	296625	116.807	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	617455	116.649	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	408384	122.814	ug/L		92
58) Bromodichloromethane	6.759	83	727451	116.454	ug/L		92
61) 1,4-Dioxane	6.971	88	49111	1190.061	ug/L		88
62) cis-1,3-Dichloropropene	7.448	75	862920	119.410	ug/L		96
65) Toluene	7.713	92	1314787	118.338	ug/L		94
66) 4-Methyl-2-pentanone	8.145	58	225705	116.607	ug/L		91
67) Tetrachloroethene	8.159	166	585961	124.323	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	758357	117.434	ug/L		99
71) Ethyl methacrylate	8.385	69	688690	114.137	ug/L		90
72) 1,1,2-Trichloroethane	8.382	83	359465	112.831	ug/L		99
73) Chlorodibromomethane	8.594	129	526073	119.825	ug/L		97
74) 1,3-Dichloropropane	8.705	76	767624	114.320	ug/L		97
75) 1,2-Dibromoethane	8.867	107	426364	115.097	ug/L		87
77) 2-Hexanone	9.149	43	414223	113.282	ug/L		99
78) Chlorobenzene	9.520	112	1389349	116.104	ug/L	#	81
79) Ethylbenzene	9.559	91	2544867	115.842	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	516387	115.508	ug/L		97
81) p/m Xylene	9.745	106	1901677	222.578	ug/L		98
82) o Xylene	10.289	106	1853015	222.816	ug/L		96

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.356	104	3040245	219.928	ug/L		100
85) Bromoform	10.381	173	344244	122.572	ug/L		94
87) Isopropylbenzene	10.671	105	2603670	125.479	ug/L		97
89) Bromobenzene	11.106	156	638995	120.505	ug/L		98
90) n-Propylbenzene	11.154	91	3066625	122.831	ug/L		97
91) 1,4-Dichlorobutane	11.170	55	1050044	115.873	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	539535	128.960	ug/L		97
93) 4-Ethyltoluene	11.282	105	2488678	120.953	ug/L		100
94) 2-Chlorotoluene	11.321	91	1755872M1	117.280	ug/L		
95) 1,3,5-Trimethylbenzene	11.380	105	2172113	119.311	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	421191	115.164	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.433	53	217211	125.820	ug/L	#	80
98) 4-Chlorotoluene	11.508	91	1872710	120.607	ug/L		98
99) tert-Butylbenzene	11.720	119	1857545	123.721	ug/L		98
102) 1,2,4-Trimethylbenzene	11.798	105	2174551	120.221	ug/L		96
103) sec-Butylbenzene	11.912	105	2758090	125.741	ug/L		99
104) p-Isopropyltoluene	12.066	119	2336309	125.331	ug/L		96
105) 1,3-Dichlorobenzene	12.133	146	1169649	117.874	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	1165916	118.711	ug/L		99
107) p-Diethylbenzene	12.439	119	1359462	123.012	ug/L		96
108) n-Butylbenzene	12.498	91	1991135	125.574	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	1118649	118.201	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.234	119	2195611	121.626	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.426	155	98831	127.113	ug/L		93
112) 1,3,5-Trichlorobenzene	13.457	180	936160	123.926	ug/L		93
113) Hexachlorobutadiene	14.032	225	311088	128.826	ug/L		93
114) 1,2,4-Trichlorobenzene	14.057	180	854868	127.696	ug/L		99
115) Naphthalene	14.350	128	1892881	131.573	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	785081	128.247	ug/L		95

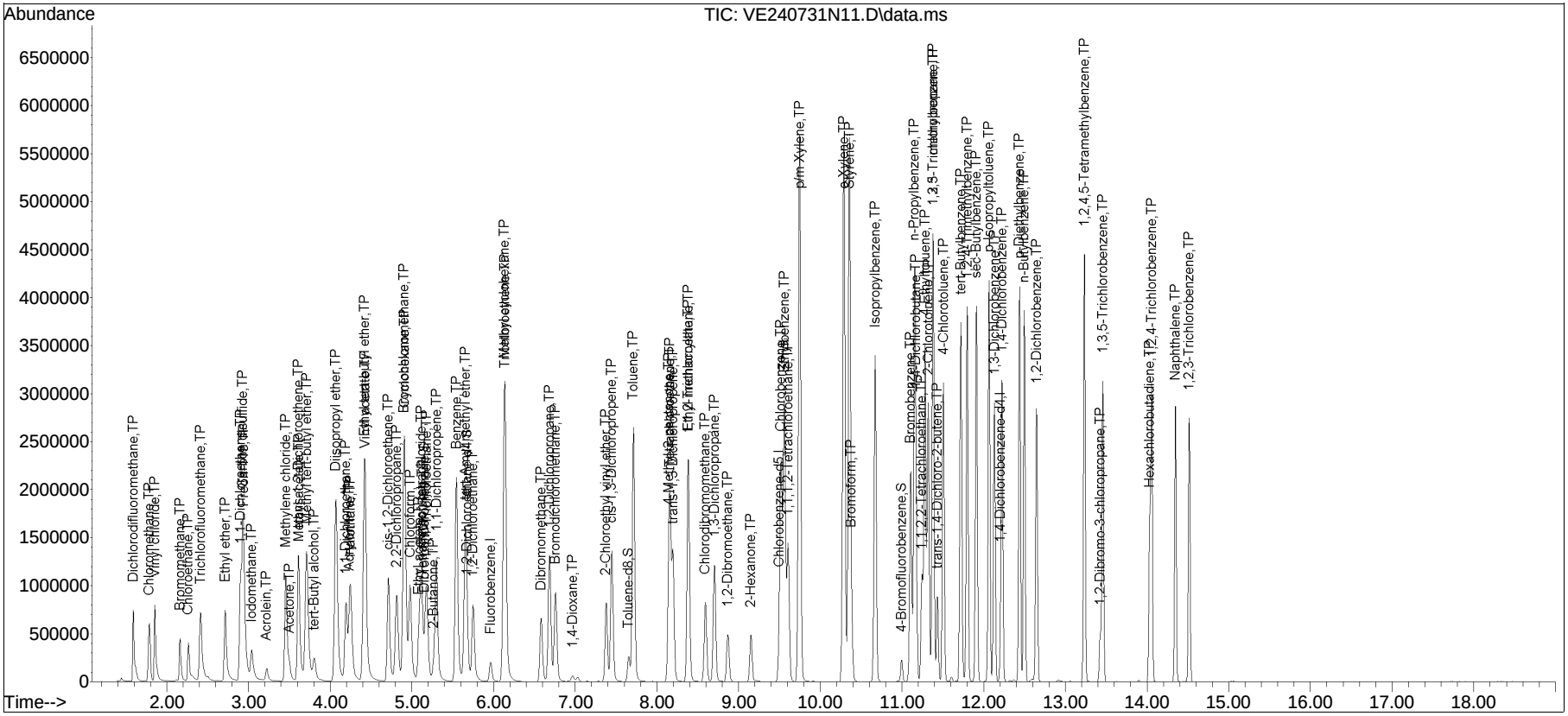
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

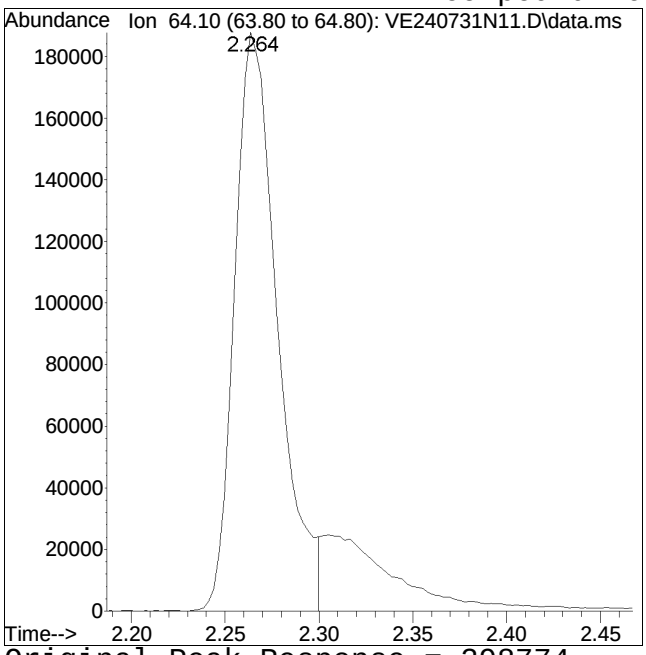
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

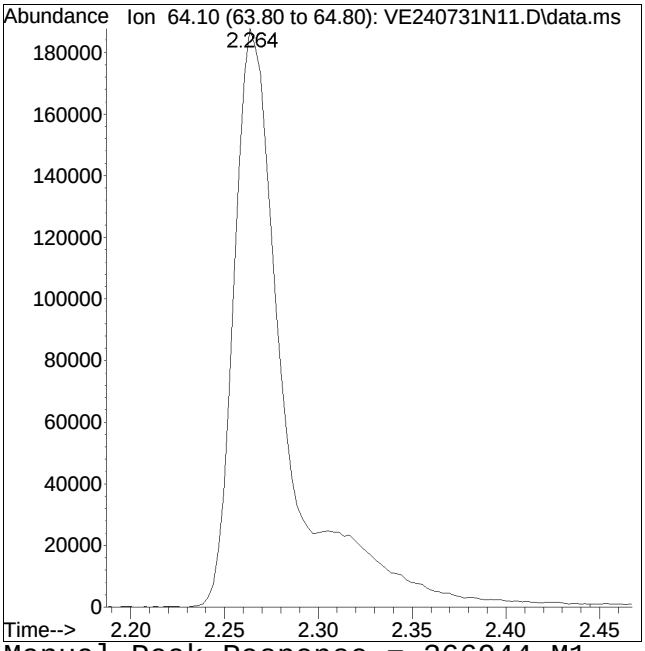


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N11.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 9:57 pm Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



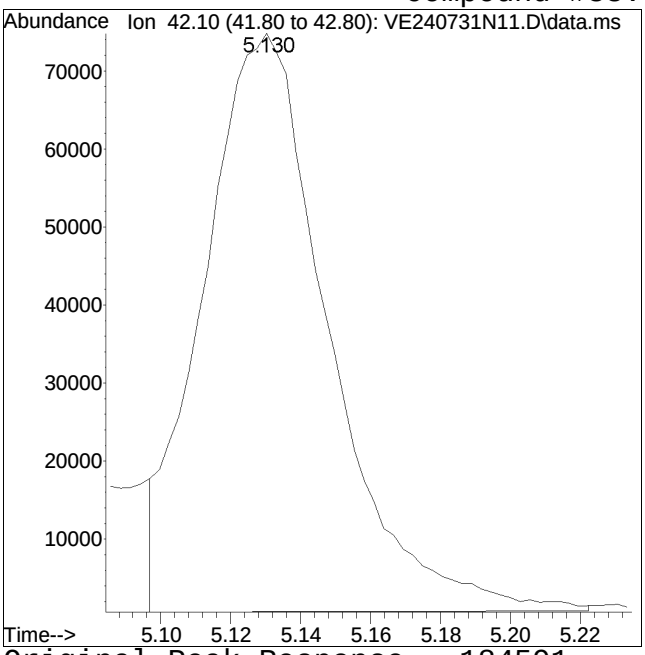


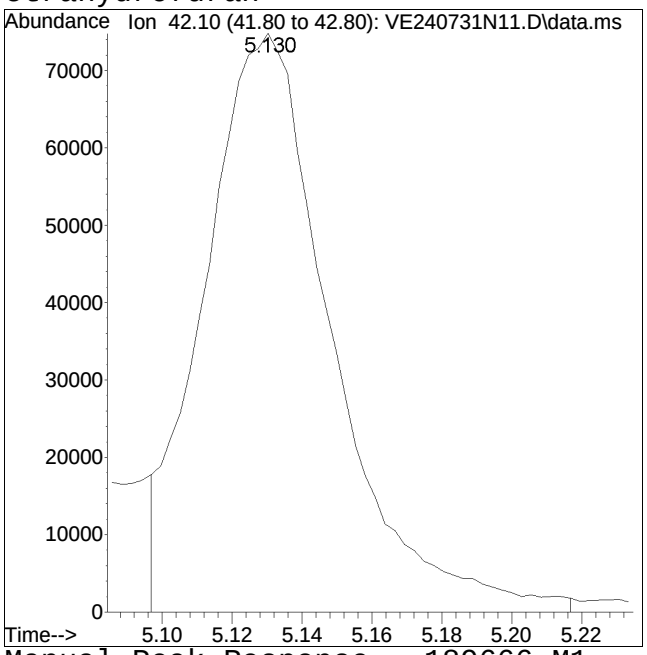
Original Peak Response = 298774 Manual Peak Response = 366944 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N11.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 9:57 pm Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





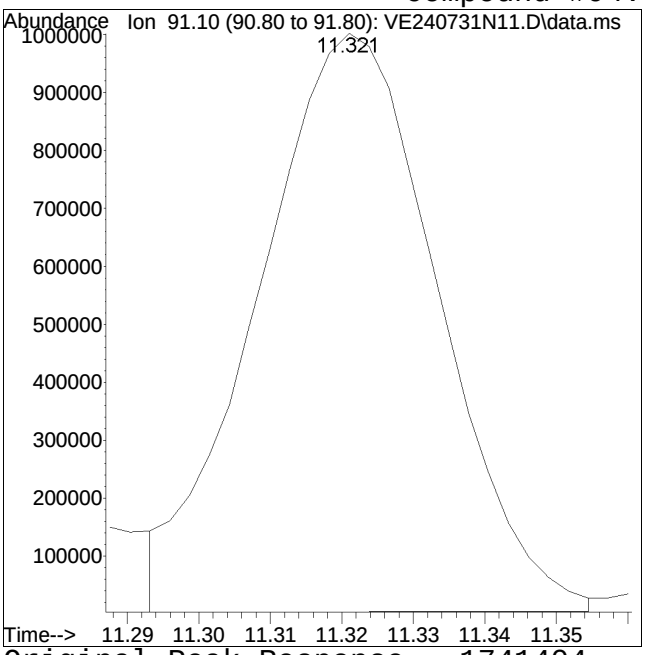
Original Peak Response = 184591 Manual Peak Response = 189666 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

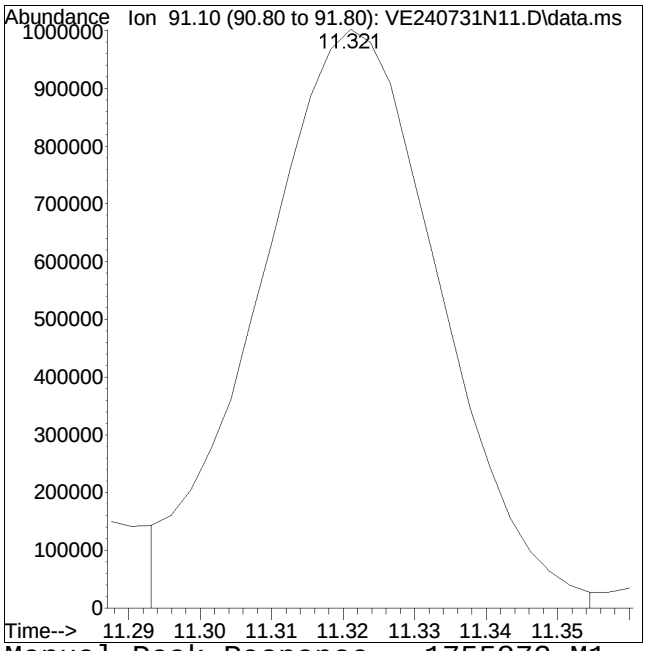
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N11.D
Date Inj'd : 7/31/2024 9:57 pm
Sample : I8260STD120PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene





Original Peak Response = 1741404 Manual Peak Response = 1755872 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	218082	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 106.60%			
63) Chlorobenzene-d5	9.497	117	158225	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 107.09%			
84) 1,4-Dichlorobenzene-d4	12.211	152	85112	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.72%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	48693	9.383	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.83%			
47) 1,2-Dichloroethane-d4	5.680	65	65855	9.557	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.57%			
64) Toluene-d8	7.654	98	211806	10.120	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.20%			
88) 4-Bromofluorobenzene	10.995	95	81664	10.346	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.46%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.589	85	1023946	213.144	ug/L	96
3) Chloromethane	1.787	50	1114665	194.505	ug/L	96
4) Vinyl chloride	1.854	62	1133872	213.688	ug/L	95
5) Bromomethane	2.160	94	443466	348.331	ug/L	95
6) Chloroethane	2.264	64	466826M1	139.365	ug/L	
7) Trichlorofluoromethane	2.409	101	1250069	225.507	ug/L	95
8) Ethyl ether	2.715	74	473080	204.730	ug/L	74
10) 1,1-Dichloroethene	2.899	96	720867	214.013	ug/L #	77
11) Carbon disulfide	2.930	76	2148112	195.626	ug/L	96
12) Freon-113	2.941	101	764970	215.363	ug/L	87
13) Iodomethane	3.039	142	787010	414.722	ug/L	90
14) Acrolein	3.223	56	207835	215.768	ug/L #	68
15) Methylene chloride	3.457	84	830961	186.885	ug/L	88
17) Acetone	3.499	43	275343	178.888	ug/L	100
18) trans-1,2-Dichloroethene	3.610	96	769562	199.519	ug/L	80
19) Methyl acetate	3.619	43	649913	180.672	ug/L	97
21) Methyl tert-butyl ether	3.711	73	2743068	186.070	ug/L	95
22) tert-Butyl alcohol	3.806	59	494549	963.555	ug/L #	74
24) Diisopropyl ether	4.071	45	3996934	189.859	ug/L	91
25) 1,1-Dichloroethane	4.193	63	1767256	191.036	ug/L	97
26) Halothane	4.249	117	614966	198.813	ug/L	95

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	364875	190.402	ug/L		91
28) Ethyl tert-butyl ether	4.419	59	3489282	190.985	ug/L		87
29) Vinyl acetate	4.427	43	2909289	239.808	ug/L		96
30) cis-1,2-Dichloroethene	4.715	96	893849	193.939	ug/L		96
31) 2,2-Dichloropropane	4.815	77	1146211	194.531	ug/L		98
33) Bromochloromethane	4.904	128	369034	176.699	ug/L		87
34) Cyclohexane	4.910	56	2111879	214.448	ug/L		97
35) Chloroform	4.980	83	1463012	193.883	ug/L		98
36) Ethyl acetate	5.086	43	1054490	184.774	ug/L		95
37) Carbon tetrachloride	5.111	117	1180255	208.012	ug/L		94
38) Tetrahydrofuran	5.127	42	319470M1	181.050	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	1345108	198.818	ug/L		94
42) 2-Butanone	5.264	43	430836	189.401	ug/L	#	77
43) 1,1-Dichloropropene	5.300	75	1167560	205.559	ug/L		95
45) Benzene	5.546	78	3545099	193.878	ug/L		93
46) tert-Amyl methyl ether	5.660	73	2608163	193.201	ug/L		97
48) 1,2-Dichloroethane	5.749	62	1303976	187.124	ug/L		98
51) Methyl cyclohexane	6.134	83	1644127	226.130	ug/L		87
52) Trichloroethene	6.143	95	848815	185.062	ug/L		97
54) Dibromomethane	6.580	93	510294	195.517	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	1043986	191.899	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	689730	201.819	ug/L		91
58) Bromodichloromethane	6.759	83	1230248	191.623	ug/L		93
61) 1,4-Dioxane	6.968	88	82040	1934.279	ug/L		87
62) cis-1,3-Dichloropropene	7.450	75	1455382	195.953	ug/L		96
65) Toluene	7.715	92	2216340	196.679	ug/L		95
66) 4-Methyl-2-pentanone	8.145	58	380672	193.904	ug/L		89
67) Tetrachloroethene	8.161	166	969941	202.900	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	1271120	194.071	ug/L		98
71) Ethyl methacrylate	8.385	69	1153549	188.491	ug/L		90
72) 1,1,2-Trichloroethane	8.385	83	600082	185.709	ug/L		99
73) Chlorodibromomethane	8.594	129	888579	199.549	ug/L		97
74) 1,3-Dichloropropane	8.705	76	1294671	190.102	ug/L		97
75) 1,2-Dibromoethane	8.870	107	726378	193.330	ug/L		88
77) 2-Hexanone	9.149	43	701973	189.278	ug/L		98
78) Chlorobenzene	9.520	112	2322389	191.347	ug/L	#	81
79) Ethylbenzene	9.561	91	4205575	188.746	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.606	131	864694	190.700	ug/L		97
81) p/m Xylene	9.748	106	3113211	359.258	ug/L		98
82) o Xylene	10.292	106	3031575	359.409	ug/L		96

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.359	104	4931534	351.727	ug/L		100
85) Bromoform	10.384	173	573519	203.644	ug/L		94
87) Isopropylbenzene	10.671	105	4270477	205.239	ug/L		97
89) Bromobenzene	11.109	156	1059408	199.237	ug/L		98
90) n-Propylbenzene	11.156	91	4915379	196.338	ug/L		97
91) 1,4-Dichlorobutane	11.173	55	1727211	190.073	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.246	83	901020	214.768	ug/L		97
93) 4-Ethyltoluene	11.282	105	4000085	193.873	ug/L		100
94) 2-Chlorotoluene	11.324	91	2902075M1	193.303	ug/L		
95) 1,3,5-Trimethylbenzene	11.382	105	3465448	189.826	ug/L		98
96) 1,2,3-Trichloropropane	11.382	75	693466	189.086	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.435	53	373208	215.584	ug/L	#	81
98) 4-Chlorotoluene	11.508	91	3065128	196.857	ug/L		99
99) tert-Butylbenzene	11.723	119	2974388	197.561	ug/L		98
102) 1,2,4-Trimethylbenzene	11.801	105	3501105	193.025	ug/L		96
103) sec-Butylbenzene	11.912	105	4398637	199.979	ug/L		99
104) p-Isopropyltoluene	12.068	119	3768238	201.589	ug/L		96
105) 1,3-Dichlorobenzene	12.133	146	1909080	191.860	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	1925869	195.547	ug/L		99
107) p-Diethylbenzene	12.442	119	2268316	204.684	ug/L		96
108) n-Butylbenzene	12.501	91	3301190	207.619	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	1871437	197.197	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.234	119	3731663	206.145	ug/L		95
111) 1,2-Dibromo-3-chloropr...	13.429	155	172945	221.821	ug/L		92
112) 1,3,5-Trichlorobenzene	13.460	180	1558415	205.728	ug/L		93
113) Hexachlorobutadiene	14.032	225	516197	213.175	ug/L		93
114) 1,2,4-Trichlorobenzene	14.057	180	1377565	205.206	ug/L		100
115) Naphthalene	14.349	128	3120105	216.278	ug/L		100
116) 1,2,3-Trichlorobenzene	14.520	180	1288109	209.838	ug/L		96

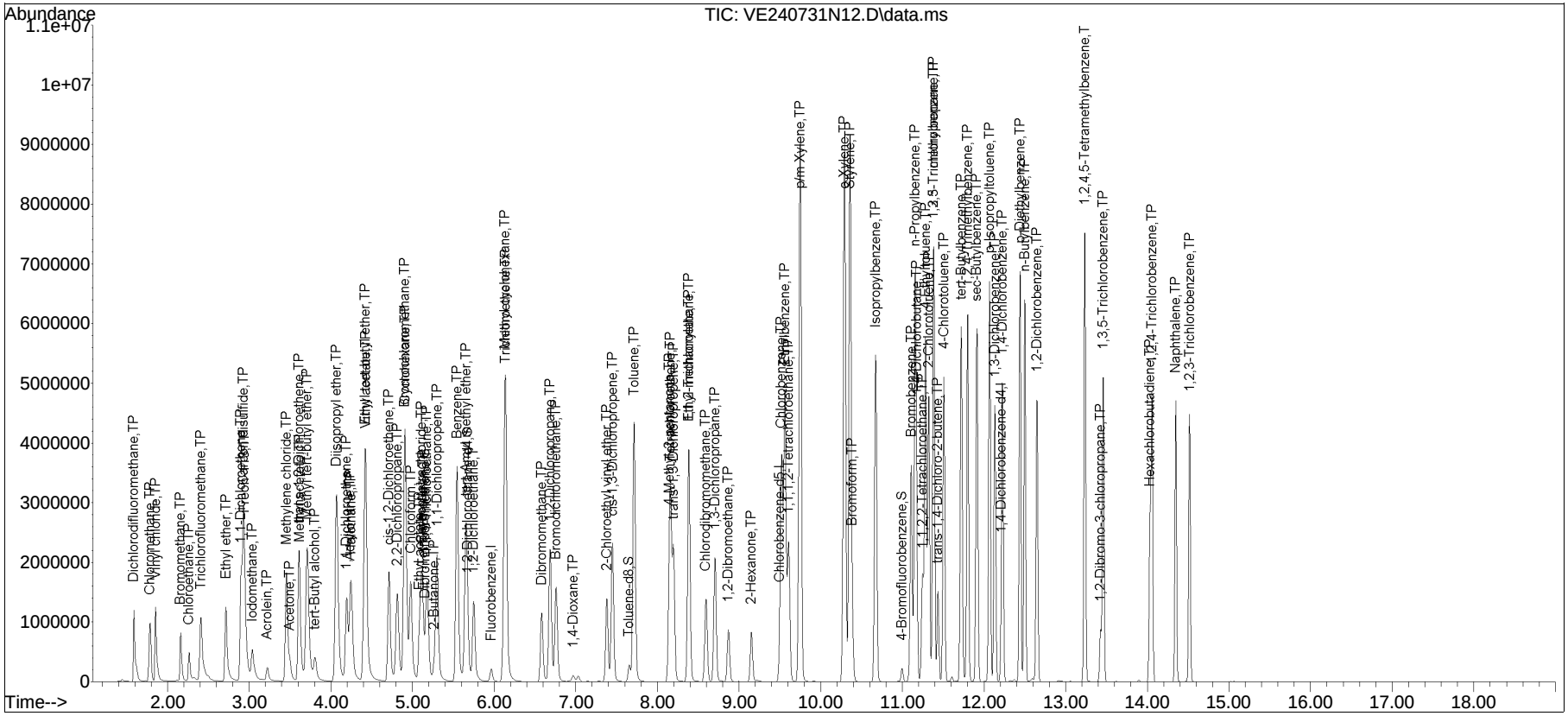
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

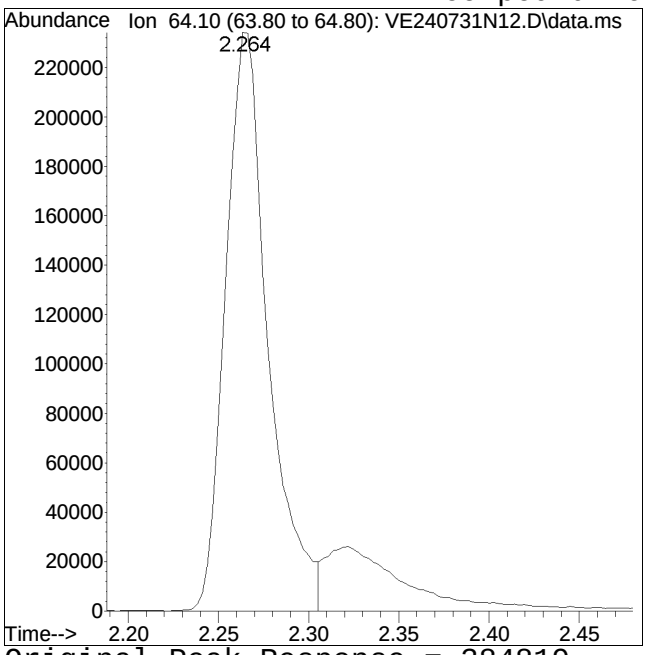
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•



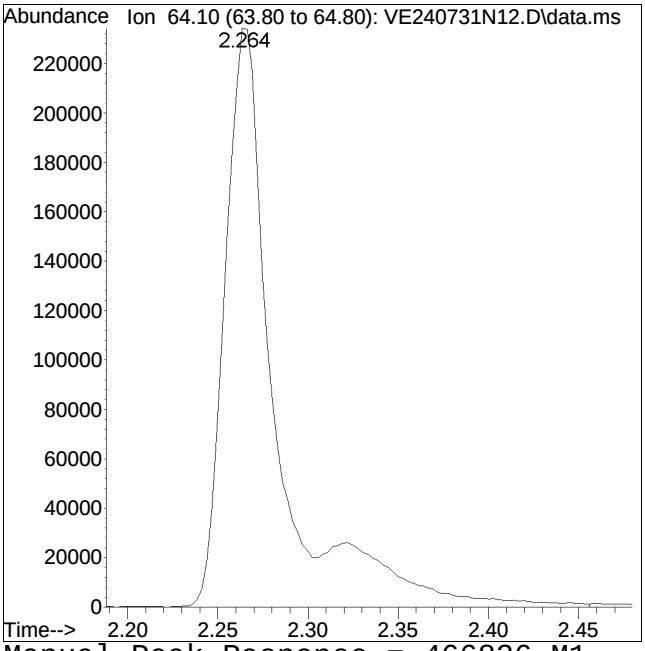
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N12.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 10:22 pm Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



Original Peak Response = 384819



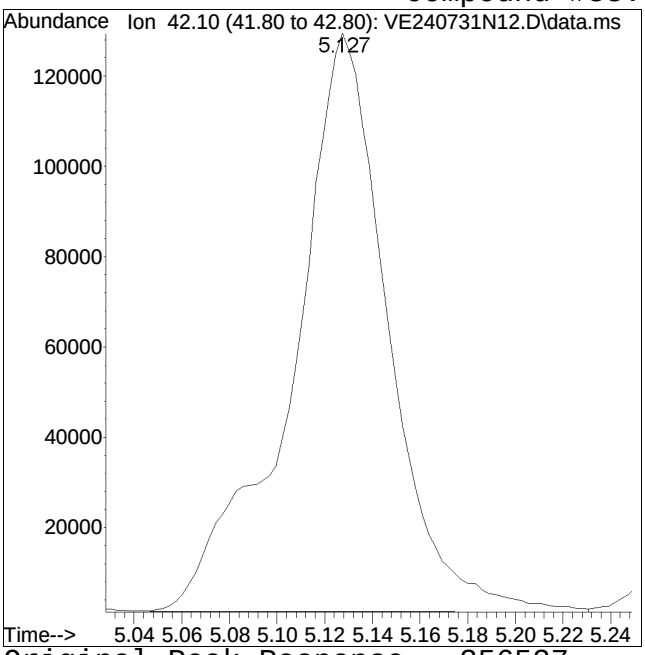
Manual Peak Response = 466826 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

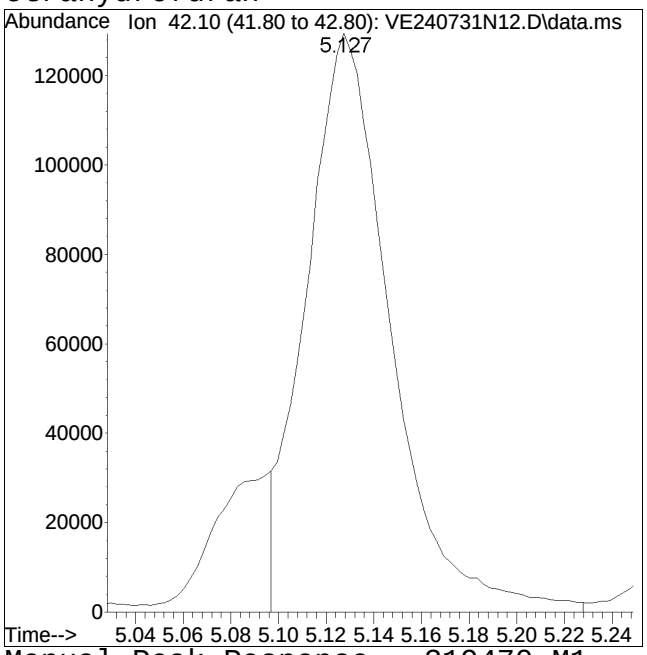
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N12.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 10:22 pm Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran



Original Peak Response = 356527



Manual Peak Response = 319470 M1

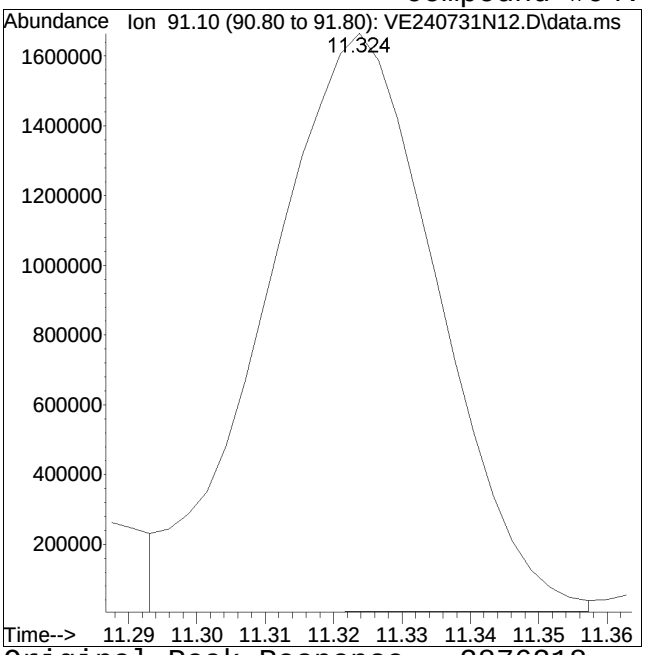
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

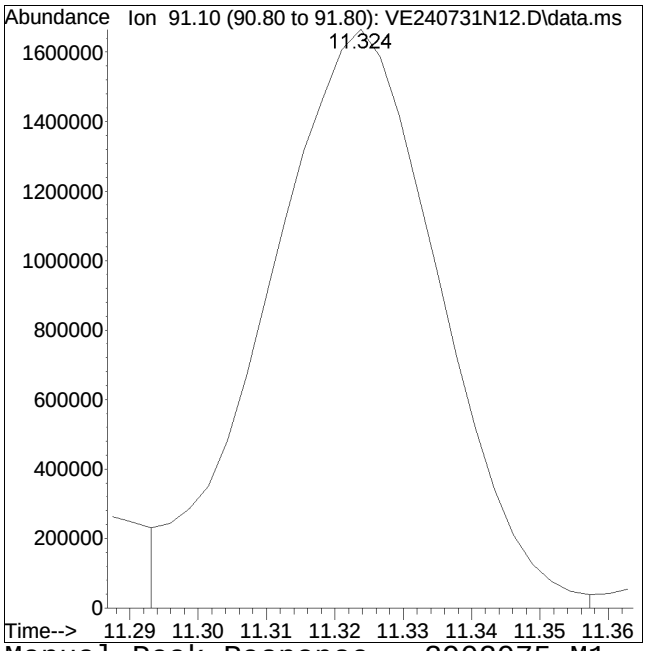
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N12.D
Date Inj'd : 7/31/2024 10:22 pm
Sample : I8260STD200PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 2876218



Manual Peak Response = 2902075 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	102	0.00
2	TP	Dichlorodifluoromethane	0.224	0.184	17.9	85	0.00
3	TP	Chloromethane	0.250	0.279	-11.6	108	0.00
4	TP	Vinyl chloride	0.233	0.239	-2.6	100	0.00
5	TP	Bromomethane	* 10.000	9.312	6.9	112	0.00
6	TP	Chloroethane	0.140	0.152	-8.6	101	0.00
7	TP	Trichlorofluoromethane	0.267	0.291	-9.0	117	0.00
8	TP	Ethyl ether	0.105	0.106	-1.0	102	0.00
10	TP	1,1-Dichloroethene	0.160	0.160	0.0	105	0.00
11	TP	Carbon disulfide	0.494	0.453	8.3	92	0.00
12	TP	Freon-113	0.167	0.181	-8.4	113	0.00
13	TP	Iodomethane	* 10.000	5.388	46.1#	62	0.00
14	TP	Acrolein	0.045	0.032	28.9#	75	0.00
15	TP	Methylene chloride	0.202	0.202	0.0	101	0.00
17	TP	Acetone	0.073	0.073	0.0	105	0.00
18	TP	trans-1,2-Dichloroethene	0.172	0.181	-5.2	104	0.00
19	TP	Methyl acetate	0.171	0.151	11.7	93	0.00
21	TP	Methyl tert-butyl ether	0.642	0.561	12.6	85	0.00
22	TP	tert-Butyl alcohol	0.023	0.022	4.3	96	0.00
24	TP	Diisopropyl ether	0.920	0.922	-0.2	97	0.00
25	TP	1,1-Dichloroethane	0.404	0.436	-7.9	105	0.00
26	TP	Halothane	0.139	0.154	-10.8	111	0.00
27	TP	Acrylonitrile	0.084	0.077	8.3	89	0.00
28	TP	Ethyl tert-butyl ether	0.798	0.794	0.5	97	0.00
29	TP	Vinyl acetate	0.612	0.506	17.3	93	0.00
30	TP	cis-1,2-Dichloroethene	0.206	0.210	-1.9	101	0.00
31	TP	2,2-Dichloropropane	0.270	0.248	8.1	93	0.00
33	TP	Bromochloromethane	0.091	0.092#	-1.1	97	0.00
34	TP	Cyclohexane	0.473	0.498	-5.3	112	0.00
35	TP	Chloroform	0.335	0.346	-3.3	102	0.00
36	TP	Ethyl acetate	0.256	0.246	3.9	96	0.00
37	TP	Carbon tetrachloride	0.256	0.287	-12.1	112	0.00
38	TP	Tetrahydrofuran	0.079	0.075	5.1	94	0.00
39	S	Dibromofluoromethane	0.234	0.239	-2.1	102	0.00
40	TP	1,1,1-Trichloroethane	0.304	0.321	-5.6	106	0.00
42	TP	2-Butanone	0.105	0.098	6.7	95	0.00
43	TP	1,1-Dichloropropene	0.256	0.286	-11.7	112	0.00
45	TP	Benzene	0.792	0.833	-5.2	101	0.00
46	TP	tert-Amyl methyl ether	0.598	0.569	4.8	94	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.312	0.314	-0.6	101	0.00
48	T	1,2-Dichloroethane	0.306	0.319	-4.2	102	0.00
51	TP	Methyl cyclohexane	0.356	0.371	-4.2	114	0.00
52	TP	Trichloroethene	0.199	0.216	-8.5	105	0.00
54	TP	Dibromomethane	0.115	0.119	-3.5	101	0.00
55	TP	1,2-Dichloropropane	0.239	0.252	-5.4	103	0.00
57	TP	2-Chloroethyl vinyl ether	0.154	0.137	11.0	89	0.00
58	TP	Bromodichloromethane	0.283	0.287#	-1.4	99	0.00
61	TP	1,4-Dioxane	0.00192	0.00183#	4.7	96	0.00
62	TP	cis-1,3-Dichloropropene	0.319	0.344	-7.8	103	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
64	S	Toluene-d8	1.317	1.314	0.2	103	0.00
65	TP	Toluene	0.689	0.694	-0.7	102	0.00
66	TP	4-Methyl-2-pentanone	0.117	0.112	4.3	94	0.00
67	TP	Tetrachloroethene	0.293	0.316	-7.8	109	0.00
69	TP	trans-1,3-Dichloropropene	0.388	0.396	-2.1	100	0.00
71	TP	Ethyl methacrylate	0.369	0.356	3.5	96	0.00
72	TP	1,1,2-Trichloroethane	0.193	0.197#	-2.1	100	0.00
73	TP	Chlorodibromomethane	0.270	0.268	0.7	99	0.00
74	TP	1,3-Dichloropropane	0.408	0.422	-3.4	102	0.00
75	TP	1,2-Dibromoethane	0.228	0.226	0.9	99	0.00
77	TP	2-Hexanone	0.229	0.212	7.4	94	0.00
78	TP	Chlorobenzene	0.734	0.773	-5.3	105	0.00
79	TP	Ethylbenzene	1.335	1.426	-6.8	105	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.269	0.286	-6.3	104	0.00
81	TP	p/m Xylene	0.509	0.545	-7.1	104	0.00
82	TP	o Xylene	0.497	0.524	-5.4	102	0.00
83	TP	Styrene	0.816	0.883	-8.2	104	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
85	TP	Bromoform	0.325	0.321	1.2	101	0.00
87	TP	Isopropylbenzene	2.395	2.542	-6.1	108	0.00
88	S	4-Bromofluorobenzene	0.924	0.917	0.8	103	0.00
89	TP	Bromobenzene	0.605	0.612	-1.2	102	0.00
90	TP	n-Propylbenzene	2.861	3.016	-5.4	106	0.00
91	TP	1,4-Dichlorobutane	1.046	0.991	5.3	96	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.508	0.472	7.1	99	0.00
93	TP	4-Ethyltoluene	2.321	2.520	-8.6	108	0.00

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94 TP	2-Chlorotoluene	1.683	1.751	-4.0	103	0.00
95 TP	1,3,5-Trimethylbenzene	2.036	2.143	-5.3	104	0.00
96 TP	1,2,3-Trichloropropane	0.415	0.417	-0.5	100	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.204	0.171	16.2	87	0.00
98 TP	4-Chlorotoluene	1.763	1.845	-4.7	105	0.00
99 TP	tert-Butylbenzene	1.712	1.823	-6.5	107	0.00
102 TP	1,2,4-Trimethylbenzene	2.033	2.161	-6.3	105	0.00
103 TP	sec-Butylbenzene	2.538	2.673	-5.3	107	0.00
104 TP	p-Isopropyltoluene	2.139	2.259	-5.6	107	0.00
105 TP	1,3-Dichlorobenzene	1.117	1.178	-5.5	105	0.00
106 TP	1,4-Dichlorobenzene	1.116	1.167	-4.6	105	0.00
107 TP	p-Diethylbenzene	1.261	1.249	1.0	100	0.00
108 TP	n-Butylbenzene	1.842	2.034	-10.4	113	0.00
109 TP	1,2-Dichlorobenzene	1.074	1.130	-5.2	105	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.046	2.063	-0.8	101	0.00
111 TP	1,2-Dibromo-3-chloropropane *	10.000	8.973	10.3	97	0.00
112 TP	1,3,5-Trichlorobenzene	0.853	0.845	0.9	99	0.00
113 TP	Hexachlorobutadiene	0.283	0.291	-2.8	106	0.00
114 TP	1,2,4-Trichlorobenzene	0.770	0.781	-1.4	103	0.00
115 TP	Naphthalene	1.697	1.637	3.5	100	0.00
116 TP	1,2,3-Trichlorobenzene	0.707	0.697	1.4	100	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 4 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	208493	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 101.91%			
63) Chlorobenzene-d5	9.497	117	153829	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 104.11%			
84) 1,4-Dichlorobenzene-d4	12.205	152	87716	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 103.80%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.158	113	49879	10.219	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 102.19%		
47) 1,2-Dichloroethane-d4	5.683	65	65490	10.056	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 100.56%		
64) Toluene-d8	7.654	98	202159	9.977	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 99.77%		
88) 4-Bromofluorobenzene	10.995	95	80452	9.929	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 99.29%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	38360	8.206	ug/L	95
3) Chloromethane	1.784	50	58239	11.190	ug/L	97
4) Vinyl chloride	1.854	62	49740	10.255	ug/L	91
5) Bromomethane	2.163	94	13377	9.312	ug/L	95
6) Chloroethane	2.269	64	31590	10.788	ug/L	91
7) Trichlorofluoromethane	2.417	101	60700	10.891	ug/L	98
8) Ethyl ether	2.713	74	22105	10.072	ug/L	74
10) 1,1-Dichloroethene	2.905	96	33298	9.972	ug/L	79
11) Carbon disulfide	2.930	76	94536	9.176	ug/L	95
12) Freon-113	2.941	101	37812	10.866	ug/L	89
13) Iodomethane	3.039	142	11076	5.388	ug/L	89
14) Acrolein	3.223	56	6767	7.176	ug/L #	62
15) Methylene chloride	3.454	84	42181	10.015	ug/L	89
17) Acetone	3.496	43	15145	9.901	ug/L	98
18) trans-1,2-Dichloroethene	3.611	96	37651	10.490	ug/L	77
19) Methyl acetate	3.619	43	31485	8.829	ug/L	96
21) Methyl tert-butyl ether	3.708	73	116912	8.735	ug/L	96
22) tert-Butyl alcohol	3.803	59	23155	48.488	ug/L #	68
24) Diisopropyl ether	4.068	45	192295	10.030	ug/L	91
25) 1,1-Dichloroethane	4.193	63	90833	10.783	ug/L	96
26) Halothane	4.252	117	32152	11.107	ug/L	97

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	15982	9.093	ug/L		86
28) Ethyl tert-butyl ether	4.417	59	165609	9.954	ug/L		98
29) Vinyl acetate	4.428	43	105450	8.264	ug/L	#	94
30) cis-1,2-Dichloroethene	4.715	96	43745	10.168	ug/L		93
31) 2,2-Dichloropropane	4.818	77	51622	9.157	ug/L		95
33) Bromochloromethane	4.905	128	19089	10.115	ug/L		83
34) Cyclohexane	4.913	56	103732	10.523	ug/L		95
35) Chloroform	4.980	83	72175	10.336	ug/L		99
36) Ethyl acetate	5.086	43	51304	9.621	ug/L	#	92
37) Carbon tetrachloride	5.111	117	59745	11.201	ug/L		97
38) Tetrahydrofuran	5.130	42	15553M1	9.397	ug/L		
40) 1,1,1-Trichloroethane	5.175	97	66968	10.560	ug/L	#	76
42) 2-Butanone	5.267	43	20338	9.305	ug/L	#	85
43) 1,1-Dichloropropene	5.295	75	59608	11.165	ug/L		96
45) Benzene	5.546	78	173673	10.516	ug/L		93
46) tert-Amyl methyl ether	5.660	73	118656	9.521	ug/L		98
48) 1,2-Dichloroethane	5.749	62	66413	10.419	ug/L		96
51) Methyl cyclohexane	6.134	83	77419	10.431	ug/L		86
52) Trichloroethene	6.140	95	45095	10.860	ug/L		97
54) Dibromomethane	6.578	93	24744	10.345	ug/L	#	84
55) 1,2-Dichloropropane	6.684	63	52520	10.534	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	28542	8.897	ug/L		91
58) Bromodichloromethane	6.762	83	59854	10.131	ug/L		94
61) 1,4-Dioxane	6.965	88	19108	477.556	ug/L		87
62) cis-1,3-Dichloropropene	7.448	75	71821	10.797	ug/L		95
65) Toluene	7.715	92	106822	10.085	ug/L		91
66) 4-Methyl-2-pentanone	8.148	58	17267	9.558	ug/L	#	91
67) Tetrachloroethene	8.162	166	48681	10.819	ug/L		96
69) trans-1,3-Dichloropropene	8.195	75	60906	10.213	ug/L		98
71) Ethyl methacrylate	8.385	69	54689	9.633	ug/L		92
72) 1,1,2-Trichloroethane	8.379	83	30235	10.167	ug/L		99
73) Chlorodibromomethane	8.591	129	41173	9.901	ug/L		97
74) 1,3-Dichloropropane	8.705	76	64959	10.345	ug/L		97
75) 1,2-Dibromoethane	8.867	107	34815	9.906	ug/L		88
77) 2-Hexanone	9.152	43	32606	9.263	ug/L		97
78) Chlorobenzene	9.520	112	118893	10.534	ug/L	#	80
79) Ethylbenzene	9.556	91	219382	10.686	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	44053	10.647	ug/L		99
81) p/m Xylene	9.746	106	167676	21.427	ug/L		98
82) o Xylene	10.287	106	161242	21.071	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	271514	21.640	ug/L		99
85) Bromoform	10.381	173	28158	9.866	ug/L		93
87) Isopropylbenzene	10.671	105	223005	10.617	ug/L		98
89) Bromobenzene	11.106	156	53699	10.126	ug/L		97
90) n-Propylbenzene	11.151	91	264513	10.539	ug/L		97
91) 1,4-Dichlorobutane	11.168	55	86888	9.472	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.243	83	41382	9.285	ug/L		99
93) 4-Ethyltoluene	11.279	105	221024	10.855	ug/L		100
94) 2-Chlorotoluene	11.318	91	153587	10.402	ug/L		97
95) 1,3,5-Trimethylbenzene	11.377	105	188009	10.527	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	36549	10.052	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.433	53	14957	8.371	ug/L	#	85
98) 4-Chlorotoluene	11.502	91	161865	10.465	ug/L		99
99) tert-Butylbenzene	11.720	119	159878	10.649	ug/L		97
102) 1,2,4-Trimethylbenzene	11.795	105	189585	10.634	ug/L		96
103) sec-Butylbenzene	11.910	105	234466	10.531	ug/L		99
104) p-Isopropyltoluene	12.066	119	198149	10.562	ug/L		96
105) 1,3-Dichlorobenzene	12.127	146	103303	10.548	ug/L		96
106) 1,4-Dichlorobenzene	12.222	146	102337	10.454	ug/L		99
107) p-Diethylbenzene	12.439	119	109518	9.900	ug/L		96
108) n-Butylbenzene	12.495	91	178383	11.041	ug/L		98
109) 1,2-Dichlorobenzene	12.646	146	99100	10.517	ug/L		97
110) 1,2,4,5-Tetramethylben...	13.231	119	180976	10.082	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.427	155	7500	8.973	ug/L		85
112) 1,3,5-Trichlorobenzene	13.457	180	74121	9.907	ug/L		92
113) Hexachlorobutadiene	14.032	225	25535	10.299	ug/L		93
114) 1,2,4-Trichlorobenzene	14.054	180	68475	10.138	ug/L		98
115) Naphthalene	14.347	128	143556	9.643	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	61106	9.847	ug/L		94

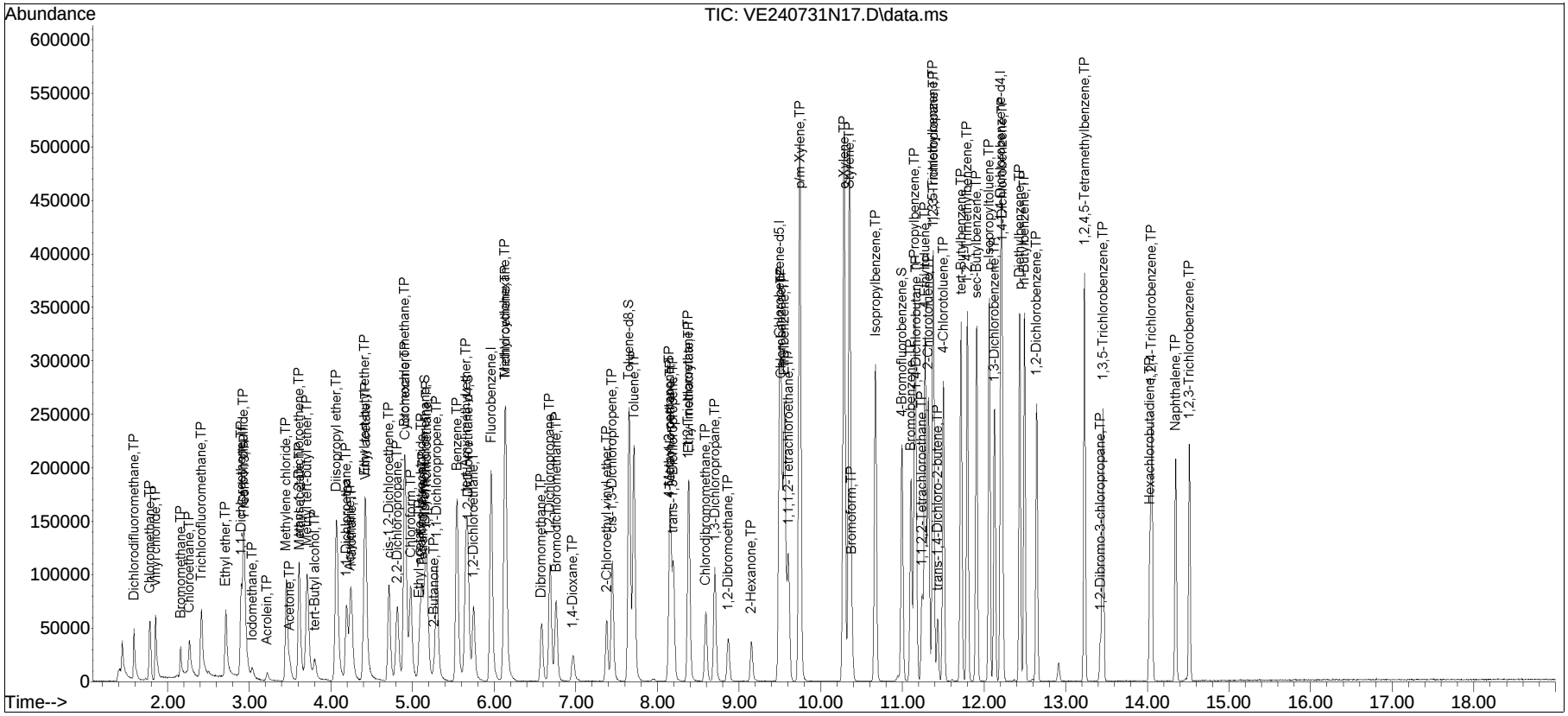
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

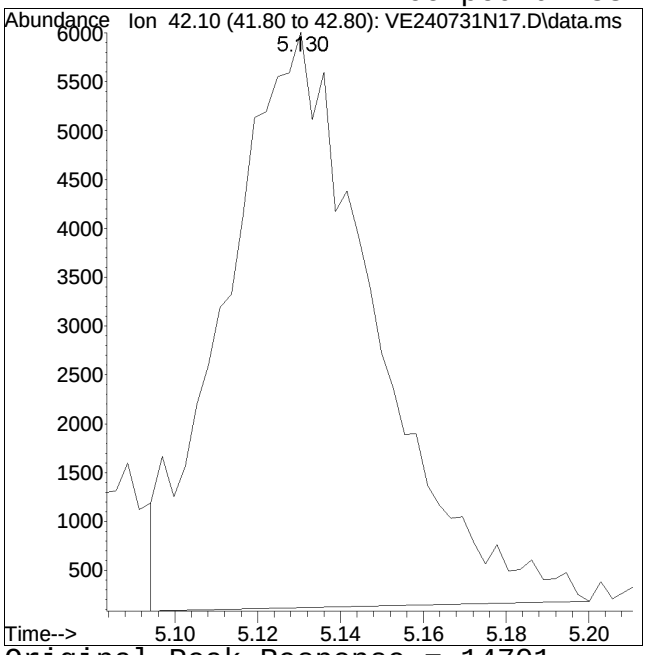
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

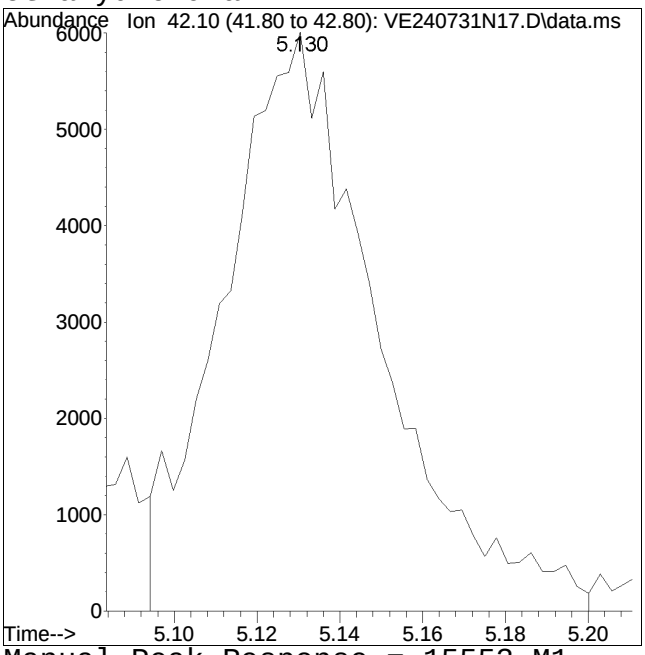


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N17.D
Date Inj'd : 8/1/2024 12:28 am
Sample : C8260STD10PPB
Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 12:13 pm

Compound #38: Tetrahydrofuran





Original Peak Response = 14701 Manual Peak Response = 15553 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Relative Error Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
5	TP Bromomethane	Q	ug/L	10.0	8.517	-14.8	0.50	0.634	26.8
13	TP Iodomethane	Q	ug/L	10.0	7.698	-23.0	2.00	2.507	25.4
111	TP 1,2-Dibromo-3-chloropropane	L	ug/L	10.0	9.592	-4.1	0.50	0.540	8.0

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
5	TP Bromomethane	Quadratic	0.998253	0.001690	0.069754	-0.00225974
13	TP Iodomethane	Quadratic	0.997800	0.002010	0.144116	-0.0251075
111	TP 1,2-Dibromo-3-chloropropane	Linear	0.998896	0.000000	0.0984884	-0.00286624

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 08/15/24 06:39	
Lab File ID	: VE240815A01	**Init. Calib. Date(s)**	: 07/31/24	07/31/24
Sample No	: WG1959746-2	**Init. Calib. Times**	: 18:35	22:22
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	92	-.01
Dichlorodifluoromethane	0.224	0.21	-	6.3	20	87	0
Chloromethane	0.25	0.253	-	-1.2	20	88	0
Vinyl chloride	0.233	0.249	-	-6.9	20	94	0
Bromomethane	10	13.3	-	-33*	20	147	0
Chloroethane	0.14	0.162	-	-15.7	20	97	0
Trichlorofluoromethane	0.267	0.293	-	-9.7	20	106	0
Ethyl ether	0.105	0.102	-	2.9	20	88	0
1,1-Dichloroethene	0.16	0.143	-	10.6	20	85	0
Carbon disulfide	0.494	0.53	-	-7.3	20	97	0
Freon-113	0.167	0.173	-	-3.6	20	97	0
Iodomethane	10	12.096	-	-21*	20	160	0
Acrolein	0.045	0.036	-	20	20	74	0
Methylene chloride	0.202	0.204	-	-1	20	92	0
Acetone	0.073	0.048	-	34.2*	20	63	-.02
trans-1,2-Dichloroethene	0.172	0.184	-	-7	20	95	0
Methyl acetate	0.171	0.122	-	28.7*	20	68	-.01
Methyl tert-butyl ether	0.642	0.575	-	10.4	20	78	0
tert-Butyl alcohol	0.023	0.015	-	34.8*	20	60	0
Diisopropyl ether	0.92	0.893	-	2.9	20	85	-.01
1,1-Dichloroethane	0.404	0.433	-	-7.2	20	94	0
Halothane	0.139	0.135	-	2.9	20	87	-.01
Acrylonitrile	0.084	0.068	-	19	20	71	0
Ethyl tert-butyl ether	0.798	0.762	-	4.5	20	83	-.01
Vinyl acetate	0.612	0.603	-	1.5	20	99	-.01
cis-1,2-Dichloroethene	0.206	0.211	-	-2.4	20	92	0
2,2-Dichloropropane	0.27	0.301	-	-11.5	20	102	0
Bromochloromethane	0.091	0.096*	-	-5.5	20	92	-.01
Cyclohexane	0.473	0.464	-	1.9	20	94	0
Chloroform	0.335	0.362	-	-8.1	20	96	-.01
Ethyl acetate	0.256	0.194	-	24.2*	20	68	-.01
Carbon tetrachloride	0.256	0.278	-	-8.6	20	98	0
Tetrahydrofuran	0.079	0.06	-	24.1*	20	68	0
Dibromofluoromethane	0.234	0.237	-	-1.3	20	91	0
1,1,1-Trichloroethane	0.304	0.317	-	-4.3	20	94	0
2-Butanone	0.105	0.069	-	34.3*	20	61	-.01
1,1-Dichloropropene	0.256	0.275	-	-7.4	20	97	0
Benzene	0.792	0.849	-	-7.2	20	93	0
tert-Amyl methyl ether	0.598	0.55	-	8	20	81	-.01
1,2-Dichloroethane-d4	0.312	0.301	-	3.5	20	87	0
1,2-Dichloroethane	0.306	0.309	-	-1	20	89	-.01
Methyl cyclohexane	0.356	0.367	-	-3.1	20	101	0
Trichloroethene	0.199	0.21	-	-5.5	20	92	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 08/15/24 06:39		
Lab File ID	: VE240815A01	**Init. Calib. Date(s)**	: 07/31/24	07/31/24	
Sample No	: WG1959746-2	**Init. Calib. Times**	: 18:35	22:22	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.115	0.114	-	0.9	20	87	0
1,2-Dichloropropane	0.239	0.25	-	-4.6	20	92	0
Bromodichloromethane	0.283	0.298*	-	-5.3	20	93	0
1,4-Dioxane	0.00192	0.0015*	-	21.9*	20	71	-.02
cis-1,3-Dichloropropene	0.319	0.338	-	-6	20	91	0
Chlorobenzene-d5	1	1	-	0	20	93	0
Toluene-d8	1.317	1.326	-	-0.7	20	93	0
Toluene	0.689	0.747	-	-8.4	20	97	0
4-Methyl-2-pentanone	0.117	0.088	-	24.8*	20	66	-.01
Tetrachloroethene	0.293	0.334	-	-14	20	103	-.01
trans-1,3-Dichloropropene	0.388	0.387	-	0.3	20	87	-.01
Ethyl methacrylate	0.369	0.311	-	15.7	20	75	0
1,1,2-Trichloroethane	0.193	0.188*	-	2.6	20	85	0
Chlorodibromomethane	0.27	0.275	-	-1.9	20	91	0
1,3-Dichloropropane	0.408	0.406	-	0.5	20	87	-.01
1,2-Dibromoethane	0.228	0.216	-	5.3	20	84	0
2-Hexanone	0.229	0.157	-	31.4*	20	62	0
Chlorobenzene	0.734	0.807	-	-9.9	20	98	-.01
Ethylbenzene	1.335	1.478	-	-10.7	20	97	0
1,1,1,2-Tetrachloroethane	0.269	0.292	-	-8.6	20	94	0
p/m Xylene	0.509	0.572	-	-12.4	20	97	0
o Xylene	0.497	0.556	-	-11.9	20	97	0
Styrene	0.816	0.916	-	-12.3	20	96	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	94	0
Bromoform	0.325	0.31	-	4.6	20	88	-.01
Isopropylbenzene	2.395	2.549	-	-6.4	20	98	0
4-Bromofluorobenzene	0.924	0.845	-	8.5	20	86	0
Bromobenzene	0.605	0.632	-	-4.5	20	95	0
n-Propylbenzene	2.861	3.098	-	-8.3	20	99	0
1,4-Dichlorobutane	1.046	0.938	-	10.3	20	83	0
1,1,2,2-Tetrachloroethane	0.508	0.468	-	7.9	20	89	0
4-Ethyltoluene	2.321	2.53	-	-9	20	98	0
2-Chlorotoluene	1.683	1.81	-	-7.5	20	97	0
1,3,5-Trimethylbenzene	2.036	2.194	-	-7.8	20	96	0
1,2,3-Trichloropropane	0.415	0.377	-	9.2	20	82	-.01
trans-1,4-Dichloro-2-buten	0.204	0.177	-	13.2	20	82	0
4-Chlorotoluene	1.763	1.856	-	-5.3	20	96	0
tert-Butylbenzene	1.712	1.819	-	-6.2	20	97	0
1,2,4-Trimethylbenzene	2.033	2.161	-	-6.3	20	96	0
sec-Butylbenzene	2.538	2.674	-	-5.4	20	97	0
p-Isopropyltoluene	2.139	2.26	-	-5.7	20	97	0
1,3-Dichlorobenzene	1.117	1.219	-	-9.1	20	98	0
1,4-Dichlorobenzene	1.116	1.206	-	-8.1	20	98	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 08/15/24 06:39	
Lab File ID	: VE240815A01	**Init. Calib. Date(s)**	: 07/31/24	07/31/24
Sample No	: WG1959746-2	**Init. Calib. Times**	: 18:35	22:22
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.261	1.305	-	-3.5	20	94	0
n-Butylbenzene	1.842	1.921	-	-4.3	20	97	0
1,2-Dichlorobenzene	1.074	1.137	-	-5.9	20	96	0
1,2,4,5-Tetramethylbenzene	2.046	2.01	-	1.8	20	89	0
1,2-Dibromo-3-chloropropan	10	7.646	-	23.5*	20	74	0
1,3,5-Trichlorobenzene	0.853	0.873	-	-2.3	20	92	0
Hexachlorobutadiene	0.283	0.29	-	-2.5	20	96	0
1,2,4-Trichlorobenzene	0.77	0.755	-	1.9	20	90	0
Naphthalene	1.697	1.377	-	18.9	20	77	0
1,2,3-Trichlorobenzene	0.707	0.628	-	11.2	20	82	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: VOA122	**Calibration Date**	: 08/15/24 07:01	
Lab File ID	: V22240815A02	**Init. Calib. Date(s)**	: 07/29/24	07/29/24
Sample No	: WG1959760-2	**Init. Calib. Times**	: 13:23	17:04
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	83	0
Dichlorodifluoromethane	0.197	0.183	-	7.1	20	71	0
Chloromethane	0.263	0.21	-	20.2*	20	58	0
Vinyl chloride	0.208	0.201	-	3.4	20	72	0
Bromomethane	0.084	0.041	-	51.2*	20	46	0
Chloroethane	0.12	0.117	-	2.5	20	73	0
Trichlorofluoromethane	10	11.27	-	-12.7	20	87	0
Ethyl ether	0.07	0.06	-	14.3	20	68	0
1,1-Dichloroethene	0.138	0.15	-	-8.7	20	81	0
Carbon disulfide	0.454	0.442	-	2.6	20	72	0
Freon-113	0.143	0.167	-	-16.8	20	90	0
Acrolein	0.024	0.02	-	16.7	20	65	0
Methylene chloride	0.183	0.162	-	11.5	20	70	0
Acetone	0.033	0.029	-	12.1	20	70	0
trans-1,2-Dichloroethene	0.162	0.161	-	0.6	20	76	0
Methyl acetate	0.086	0.072	-	16.3	20	71	0
Methyl tert-butyl ether	0.309	0.271	-	12.3	20	71	0
tert-Butyl alcohol	0.00648	0.00669*	-	-3.2	20	83	0
Diisopropyl ether	0.581	0.495	-	14.8	20	69	0
1,1-Dichloroethane	0.331	0.297*	-	10.3	20	67	0
Halothane	0.121	0.14	-	-15.7	20	88	0
Acrylonitrile	0.046	0.041	-	10.9	20	70	0
Ethyl tert-butyl ether	0.418	0.356	-	14.8	20	72	0
Vinyl acetate	0.348	0.299	-	14.1	20	70	0
cis-1,2-Dichloroethene	0.179	0.175*	-	2.2	20	74	0
2,2-Dichloropropane	0.207	0.213	-	-2.9	20	79	0
Bromochloromethane	0.085	0.094*	-	-10.6	20	84	0
Cyclohexane	10	10.054	-	-0.5	20	79	0
Chloroform	0.286	0.264*	-	7.7	20	72	0
Ethyl acetate	0.112	0.097	-	13.4	20	73	0
Carbon tetrachloride	0.206	0.243	-	-18	20	87	0
Tetrahydrofuran	0.037	0.033	-	10.8	20	72	0
Dibromofluoromethane	0.349	0.37	-	-6	20	86	0
1,1,1-Trichloroethane	0.241	0.252	-	-4.6	20	80	0
2-Butanone	0.047	0.039	-	17	20	73	0
1,1-Dichloropropene	0.195	0.186	-	4.6	20	72	0
Benzene	0.633	0.595	-	6	20	75	0
tert-Amyl methyl ether	0.202	0.162	-	19.8	20	71	0
1,2-Dichloroethane-d4	0.295	0.273	-	7.5	20	74	0
1,2-Dichloroethane	0.158	0.143	-	9.5	20	70	0
Methyl cyclohexane	10	9.757	-	2.4	20	83	0
Trichloroethene	0.135	0.135*	-	0	20	78	0
Dibromomethane	0.068	0.064	-	5.9	20	76	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: VOA122	**Calibration Date**	: 08/15/24 07:01		
Lab File ID	: V22240815A02	**Init. Calib. Date(s)**	: 07/29/24	07/29/24	
Sample No	: WG1959760-2	**Init. Calib. Times**	: 13:23	17:04	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.141	0.122*	-	13.5	20	66	0
Bromodichloromethane	0.167	0.156*	-	6.6	20	74	0
1,4-Dioxane	0.00056	0.00061*	-	-8.9	20	84	0
cis-1,3-Dichloropropene	0.172	0.154*	-	10.5	20	69	0
Chlorobenzene-d5	1	1	-	0	20	87	0
Toluene-d8	1.274	1.158	-	9.1	20	80	0
Toluene	0.412	0.369	-	10.4	20	75	0
4-Methyl-2-pentanone	0.033	0.024*	-	27.3*	20	73	0
Tetrachloroethene	0.162	0.197	-	-21.6*	20	102	0
trans-1,3-Dichloropropene	10	7.248	-	27.5*	20	73	0
Ethyl methacrylate	0.133	0.087	-	34.6*	20	61	0
1,1,2-Trichloroethane	0.097	0.079*	-	18.6	20	73	0
Chlorodibromomethane	10	8.948	-	10.5	20	88	0
1,3-Dichloropropane	0.19	0.154	-	18.9	20	71	0
1,2-Dibromoethane	0.108	0.1*	-	7.4	20	82	0
2-Hexanone	0.061	0.046	-	24.6*	20	72	0
Chlorobenzene	0.467	0.459	-	1.7	20	82	0
Ethylbenzene	0.778	0.719	-	7.6	20	74	0
1,1,1,2-Tetrachloroethane	0.148	0.149	-	-0.7	20	90	0
p/m Xylene	0.302	0.302	-	0	20	79	0
o Xylene	0.285	0.279	-	2.1	20	78	0
Styrene	0.459	0.452	-	1.5	20	78	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	95	0
Bromoform	0.15	0.141	-	6	20	98	0
Isopropylbenzene	1.551	1.447	-	6.7	20	80	0
4-Bromofluorobenzene	0.911	0.752	-	17.5	20	77	0
Bromobenzene	0.365	0.36	-	1.4	20	92	0
n-Propylbenzene	1.802	1.58	-	12.3	20	76	0
1,4-Dichlorobutane	0.472	0.361	-	23.5*	20	73	0
1,1,2,2-Tetrachloroethane	0.254	0.194*	-	23.6*	20	75	0
4-Ethyltoluene	1.469	1.354	-	7.8	20	80	0
2-Chlorotoluene	1.086	0.923	-	15	20	76	0
1,3,5-Trimethylbenzene	1.245	1.14	-	8.4	20	80	0
1,2,3-Trichloropropane	0.194	0.145	-	25.3*	20	72	0
trans-1,4-Dichloro-2-buten	0.086	0.069	-	19.8	20	79	0
4-Chlorotoluene	1.121	0.919	-	18	20	73	0
tert-Butylbenzene	1.081	1.075	-	0.6	20	86	0
1,2,4-Trimethylbenzene	1.391	1.169	-	16	20	73	0
sec-Butylbenzene	10	9.216	-	7.8	20	84	0
p-Isopropyltoluene	10	9.537	-	4.6	20	87	0
1,3-Dichlorobenzene	0.724	0.727	-	-0.4	20	91	0
1,4-Dichlorobenzene	0.718	0.706	-	1.7	20	90	0
p-Diethylbenzene	0.788	0.742	-	5.8	20	87	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446104	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: VOA122	**Calibration Date**	: 08/15/24 07:01	
Lab File ID	: V22240815A02	**Init. Calib. Date(s)**	: 07/29/24	07/29/24
Sample No	: WG1959760-2	**Init. Calib. Times**	: 13:23	17:04
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	10	8.731	-	12.7	20	79	0
1,2-Dichlorobenzene	0.64	0.632	-	1.3	20	90	0
1,2,4,5-Tetramethylbenzene	1.081	0.937	-	13.3	20	82	0
1,2-Dibromo-3-chloropropan	10	8.703	-	13	20	94	0
1,3,5-Trichlorobenzene	0.417	0.445	-	-6.7	20	96	0
Hexachlorobutadiene	10	10.731	-	-7.3	20	103	0
1,2,4-Trichlorobenzene	0.355	0.365*	-	-2.8	20	95	0
Naphthalene	10	8.742	-	12.6	20	88	0
1,2,3-Trichlorobenzene	0.301	0.314*	-	-4.3	20	95	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-2
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene		1.000	1.000	0.0	92	-0.01
2	TP	Dichlorodifluoromethane		0.224	0.210	6.3	87	0.00
3	TP	Chloromethane		0.250	0.253	-1.2	88	0.00
4	TP	Vinyl chloride		0.233	0.249	-6.9	94	0.00
5	TP	Bromomethane	*	10.000	13.300	-33.0#	147	0.00
6	TP	Chloroethane		0.140	0.162	-15.7	97	0.00
7	TP	Trichlorofluoromethane		0.267	0.293	-9.7	106	0.00
8	TP	Ethyl ether		0.105	0.102	2.9	88	0.00
10	TP	1,1-Dichloroethene		0.160	0.143	10.6	85	0.00
11	TP	Carbon disulfide		0.494	0.530	-7.3	97	0.00
12	TP	Freon-113		0.167	0.173	-3.6	97	0.00
13	TP	Iodomethane	*	10.000	12.096	-21.0#	160	0.00
14	TP	Acrolein		0.045	0.036	20.0#	74	0.00
15	TP	Methylene chloride		0.202	0.204	-1.0	92	0.00
17	TP	Acetone		0.073	0.048	34.2#	63	-0.02
18	TP	trans-1,2-Dichloroethene		0.172	0.184	-7.0	95	0.00
19	TP	Methyl acetate		0.171	0.122	28.7#	68	-0.01
21	TP	Methyl tert-butyl ether		0.642	0.575	10.4	78	0.00
22	TP	tert-Butyl alcohol		0.023	0.015	34.8#	60	0.00
24	TP	Diisopropyl ether		0.920	0.893	2.9	85	-0.01
25	TP	1,1-Dichloroethane		0.404	0.433	-7.2	94	0.00
26	TP	Halothane		0.139	0.135	2.9	87	-0.01
27	TP	Acrylonitrile		0.084	0.068	19.0	71	0.00
28	TP	Ethyl tert-butyl ether		0.798	0.762	4.5	83	-0.01
29	TP	Vinyl acetate		0.612	0.603	1.5	99	-0.01
30	TP	cis-1,2-Dichloroethene		0.206	0.211	-2.4	92	0.00
31	TP	2,2-Dichloropropane		0.270	0.301	-11.5	102	0.00
33	TP	Bromochloromethane		0.091	0.096#	-5.5	92	-0.01
34	TP	Cyclohexane		0.473	0.464	1.9	94	0.00
35	TP	Chloroform		0.335	0.362	-8.1	96	-0.01
36	TP	Ethyl acetate		0.256	0.194	24.2#	68	-0.01
37	TP	Carbon tetrachloride		0.256	0.278	-8.6	98	0.00
38	TP	Tetrahydrofuran		0.079	0.060	24.1#	68	0.00
39	S	Dibromofluoromethane		0.234	0.237	-1.3	91	0.00
40	TP	1,1,1-Trichloroethane		0.304	0.317	-4.3	94	0.00
42	TP	2-Butanone		0.105	0.069	34.3#	61	-0.01
43	TP	1,1-Dichloropropene		0.256	0.275	-7.4	97	0.00
45	TP	Benzene		0.792	0.849	-7.2	93	0.00
46	TP	tert-Amyl methyl ether		0.598	0.550	8.0	81	-0.01

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-2
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.312	0.301	3.5	87	0.00
48	T	1,2-Dichloroethane	0.306	0.309	-1.0	89	-0.01
51	TP	Methyl cyclohexane	0.356	0.367	-3.1	101	0.00
52	TP	Trichloroethene	0.199	0.210	-5.5	92	0.00
54	TP	Dibromomethane	0.115	0.114	0.9	87	0.00
55	TP	1,2-Dichloropropane	0.239	0.250	-4.6	92	0.00
58	TP	Bromodichloromethane	0.283	0.298#	-5.3	93	0.00
61	TP	1,4-Dioxane	0.00192	0.00150#	21.9#	71	-0.02
62	TP	cis-1,3-Dichloropropene	0.319	0.338	-6.0	91	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00
64	S	Toluene-d8	1.317	1.326	-0.7	93	0.00
65	TP	Toluene	0.689	0.747	-8.4	97	0.00
66	TP	4-Methyl-2-pentanone	0.117	0.088	24.8#	66	-0.01
67	TP	Tetrachloroethene	0.293	0.334	-14.0	103	-0.01
69	TP	trans-1,3-Dichloropropene	0.388	0.387	0.3	87	-0.01
71	TP	Ethyl methacrylate	0.369	0.311	15.7	75	0.00
72	TP	1,1,2-Trichloroethane	0.193	0.188#	2.6	85	0.00
73	TP	Chlorodibromomethane	0.270	0.275	-1.9	91	0.00
74	TP	1,3-Dichloropropane	0.408	0.406	0.5	87	-0.01
75	TP	1,2-Dibromoethane	0.228	0.216	5.3	84	0.00
77	TP	2-Hexanone	0.229	0.157	31.4#	62	0.00
78	TP	Chlorobenzene	0.734	0.807	-9.9	98	-0.01
79	TP	Ethylbenzene	1.335	1.478	-10.7	97	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.269	0.292	-8.6	94	0.00
81	TP	p/m Xylene	0.509	0.572	-12.4	97	0.00
82	TP	o Xylene	0.497	0.556	-11.9	97	0.00
83	TP	Styrene	0.816	0.916	-12.3	96	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00
85	TP	Bromoform	0.325	0.310	4.6	88	-0.01
87	TP	Isopropylbenzene	2.395	2.549	-6.4	98	0.00
88	S	4-Bromofluorobenzene	0.924	0.845	8.5	86	0.00
89	TP	Bromobenzene	0.605	0.632	-4.5	95	0.00
90	TP	n-Propylbenzene	2.861	3.098	-8.3	99	0.00
91	TP	1,4-Dichlorobutane	1.046	0.938	10.3	83	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.508	0.468	7.9	89	0.00
93	TP	4-Ethyltoluene	2.321	2.530	-9.0	98	0.00
94	TP	2-Chlorotoluene	1.683	1.810	-7.5	97	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-2
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
95 TP	1,3,5-Trimethylbenzene	2.036	2.194	-7.8	96	0.00
96 TP	1,2,3-Trichloropropane	0.415	0.377	9.2	82	-0.01
97 TP	trans-1,4-Dichloro-2-butene	0.204	0.177	13.2	82	0.00
98 TP	4-Chlorotoluene	1.763	1.856	-5.3	96	0.00
99 TP	tert-Butylbenzene	1.712	1.819	-6.2	97	0.00
102 TP	1,2,4-Trimethylbenzene	2.033	2.161	-6.3	96	0.00
103 TP	sec-Butylbenzene	2.538	2.674	-5.4	97	0.00
104 TP	p-Isopropyltoluene	2.139	2.260	-5.7	97	0.00
105 TP	1,3-Dichlorobenzene	1.117	1.219	-9.1	98	0.00
106 TP	1,4-Dichlorobenzene	1.116	1.206	-8.1	98	0.00
107 TP	p-Diethylbenzene	1.261	1.305	-3.5	94	0.00
108 TP	n-Butylbenzene	1.842	1.921	-4.3	97	0.00
109 TP	1,2-Dichlorobenzene	1.074	1.137	-5.9	96	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.046	2.010	1.8	89	0.00
111 TP	1,2-Dibromo-3-chloropropane *	10.000	7.646	23.5#	74	0.00
112 TP	1,3,5-Trichlorobenzene	0.853	0.873	-2.3	92	0.00
113 TP	Hexachlorobutadiene	0.283	0.290	-2.5	96	0.00
114 TP	1,2,4-Trichlorobenzene	0.770	0.755	1.9	90	0.00
115 TP	Naphthalene	1.697	1.377	18.9	77	0.00
116 TP	1,2,3-Trichlorobenzene	0.707	0.628	11.2	82	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 4 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-2
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.956	96	187483	10.000	ug/L	-0.01
63) Chlorobenzene-d5	9.492	117	137068	10.000	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	12.202	152	79601	10.000	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	44513	10.142	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.42%			
47) 1,2-Dichloroethane-d4	5.674	65	56440	9.637	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.37%			
64) Toluene-d8	7.648	98	181806	10.070	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.70%			
88) 4-Bromofluorobenzene	10.986	95	67273	9.149	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.49%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.589	85	39330	9.357	ug/L	98
3) Chloromethane	1.781	50	47487	10.146	ug/L	97
4) Vinyl chloride	1.854	62	46664	10.699	ug/L	94
5) Bromomethane	2.160	94	17530	13.300	ug/L	91
6) Chloroethane	2.272	64	30449M1	11.564	ug/L	
7) Trichlorofluoromethane	2.420	101	54924	10.959	ug/L	95
8) Ethyl ether	2.713	74	19110	9.683	ug/L	71
10) 1,1-Dichloroethene	2.897	96	26873	8.950	ug/L #	65
11) Carbon disulfide	2.927	76	99409	10.730	ug/L	100
12) Freon-113	2.938	101	32468	10.376	ug/L	90
13) Iodomethane	3.039	142	28526	12.096	ug/L #	95
14) Acrolein	3.217	56	6685M3	7.883	ug/L	
15) Methylene chloride	3.452	84	38272	10.105	ug/L	91
17) Acetone	3.488	43	9041	6.573	ug/L #	74
18) trans-1,2-Dichloroethene	3.605	96	34432	10.668	ug/L	83
19) Methyl acetate	3.610	43	22923	7.149	ug/L	97
21) Methyl tert-butyl ether	3.703	73	107843	8.961	ug/L	97
22) tert-Butyl alcohol	3.797	59	14360	33.441	ug/L #	58
24) Diisopropyl ether	4.059	45	167333	9.706	ug/L	93
25) 1,1-Dichloroethane	4.188	63	81160	10.715	ug/L	96
26) Halothane	4.238	117	25224	9.690	ug/L	85
27) Acrylonitrile	4.227	53	12726	8.052	ug/L	87
28) Ethyl tert-butyl ether	4.408	59	142862	9.549	ug/L	89
29) Vinyl acetate	4.419	43	113001	9.848	ug/L #	94
30) cis-1,2-Dichloroethene	4.704	96	39562	10.226	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-2
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) 2,2-Dichloropropane	4.807	77	56367	11.119	ug/L		90
33) Bromochloromethane	4.893	128	17952	10.579	ug/L		84
34) Cyclohexane	4.902	56	86971	9.811	ug/L		96
35) Chloroform	4.969	83	67886	10.811	ug/L		98
36) Ethyl acetate	5.077	43	36365	7.584	ug/L	#	94
37) Carbon tetrachloride	5.108	117	52071	10.857	ug/L		95
38) Tetrahydrofuran	5.119	42	11230M1	7.545	ug/L		
40) 1,1,1-Trichloroethane	5.172	97	59474	10.429	ug/L		94
42) 2-Butanone	5.264	43	12970	6.599	ug/L		97
43) 1,1-Dichloropropene	5.292	75	51478	10.722	ug/L		95
45) Benzene	5.537	78	159098	10.713	ug/L		93
46) tert-Amyl methyl ether	5.649	73	103135	9.203	ug/L		98
48) 1,2-Dichloroethane	5.741	62	57930	10.107	ug/L		98
51) Methyl cyclohexane	6.123	83	68776	10.305	ug/L		89
52) Trichloroethene	6.137	95	39463	10.569	ug/L		97
54) Dibromomethane	6.572	93	21328	9.916	ug/L	#	83
55) 1,2-Dichloropropane	6.678	63	46803	10.439	ug/L		99
58) Bromodichloromethane	6.753	83	55892	10.521	ug/L		94
61) 1,4-Dioxane	6.948	88	14049	390.466	ug/L	#	70
62) cis-1,3-Dichloropropene	7.439	75	63407	10.600	ug/L		93
65) Toluene	7.704	92	102324	10.841	ug/L		95
66) 4-Methyl-2-pentanone	8.136	58	12015	7.464	ug/L	#	93
67) Tetrachloroethene	8.148	166	45813	11.426	ug/L		95
69) trans-1,3-Dichloropropene	8.184	75	53023	9.978	ug/L		98
71) Ethyl methacrylate	8.373	69	42616	8.424	ug/L		95
72) 1,1,2-Trichloroethane	8.376	83	25780	9.729	ug/L		99
73) Chlorodibromomethane	8.588	129	37760	10.191	ug/L		97
74) 1,3-Dichloropropane	8.694	76	55583	9.935	ug/L		98
75) 1,2-Dibromoethane	8.861	107	29608	9.455	ug/L		88
77) 2-Hexanone	9.143	43	21514	6.859	ug/L		98
78) Chlorobenzene	9.508	112	110669	11.005	ug/L	#	82
79) Ethylbenzene	9.547	91	202579	11.075	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.595	131	39971	10.842	ug/L		95
81) p/m Xylene	9.737	106	156866	22.496	ug/L		99
82) o Xylene	10.278	106	152537	22.371	ug/L		94
83) Styrene	10.345	104	251088	22.460	ug/L		97
85) Bromoform	10.367	173	24666	9.524	ug/L		96
87) Isopropylbenzene	10.663	105	202902	10.645	ug/L		97
89) Bromobenzene	11.098	156	50308	10.454	ug/L		96
90) n-Propylbenzene	11.148	91	246617	10.828	ug/L		95
91) 1,4-Dichlorobutane	11.162	55	74635	8.965	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-2
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 1,1,2,2-Tetrachloroethane	11.235	83	37244	9.208	ug/L	96
93) 4-Ethyltoluene	11.271	105	201358	10.898	ug/L	98
94) 2-Chlorotoluene	11.315	91	144093M4	10.754	ug/L	
95) 1,3,5-Trimethylbenzene	11.371	105	174630	10.774	ug/L	99
96) 1,2,3-Trichloropropane	11.371	75	30037M1	9.103	ug/L	
97) trans-1,4-Dichloro-2-b...	11.427	53	14122	8.710	ug/L	98
98) 4-Chlorotoluene	11.497	91	147719	10.524	ug/L	98
99) tert-Butylbenzene	11.711	119	144809	10.628	ug/L	96
102) 1,2,4-Trimethylbenzene	11.792	105	172057	10.635	ug/L	94
103) sec-Butylbenzene	11.904	105	212815	10.533	ug/L	99
104) p-Isopropyltoluene	12.060	119	179902	10.567	ug/L	96
105) 1,3-Dichlorobenzene	12.124	146	97004	10.915	ug/L	96
106) 1,4-Dichlorobenzene	12.216	146	95979	10.804	ug/L	98
107) p-Diethylbenzene	12.431	119	103845	10.344	ug/L	97
108) n-Butylbenzene	12.492	91	152932	10.431	ug/L	98
109) 1,2-Dichlorobenzene	12.643	146	90475	10.581	ug/L	99
110) 1,2,4,5-Tetramethylben...	13.226	119	159992	9.821	ug/L	95
111) 1,2-Dibromo-3-chloropr...	13.424	155	5766	7.646	ug/L	92
112) 1,3,5-Trichlorobenzene	13.452	180	69500	10.237	ug/L	93
113) Hexachlorobutadiene	14.026	225	23106	10.269	ug/L	91
114) 1,2,4-Trichlorobenzene	14.051	180	60064	9.800	ug/L	98
115) Naphthalene	14.344	128	109639	8.115	ug/L	100
116) 1,2,3-Trichlorobenzene	14.511	180	49993	8.878	ug/L	94

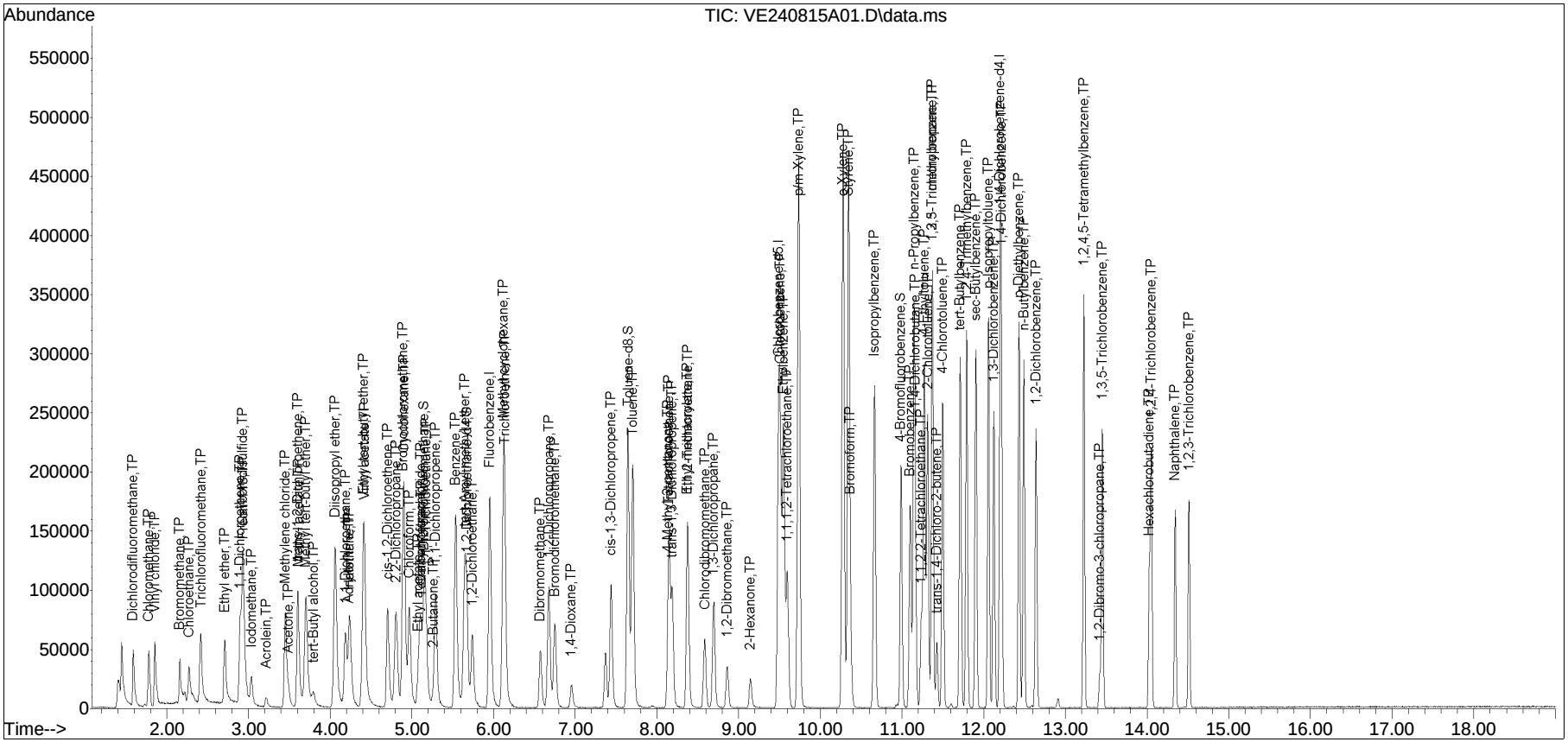
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-2
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

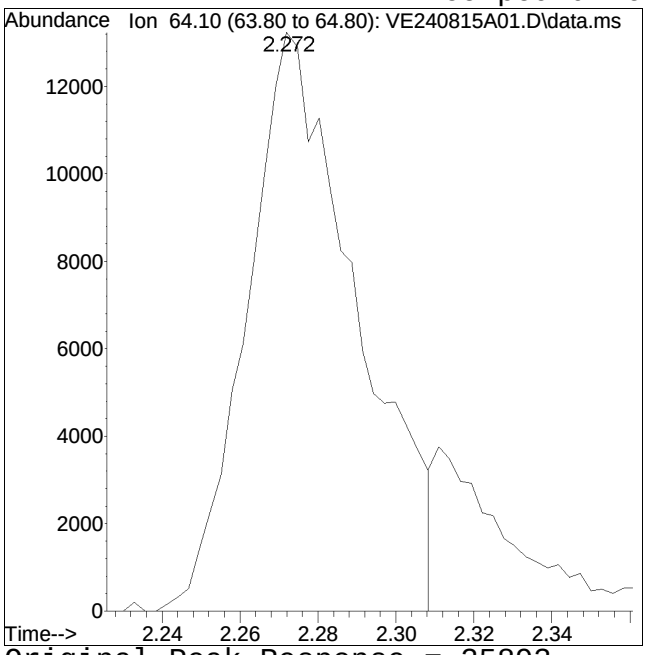
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

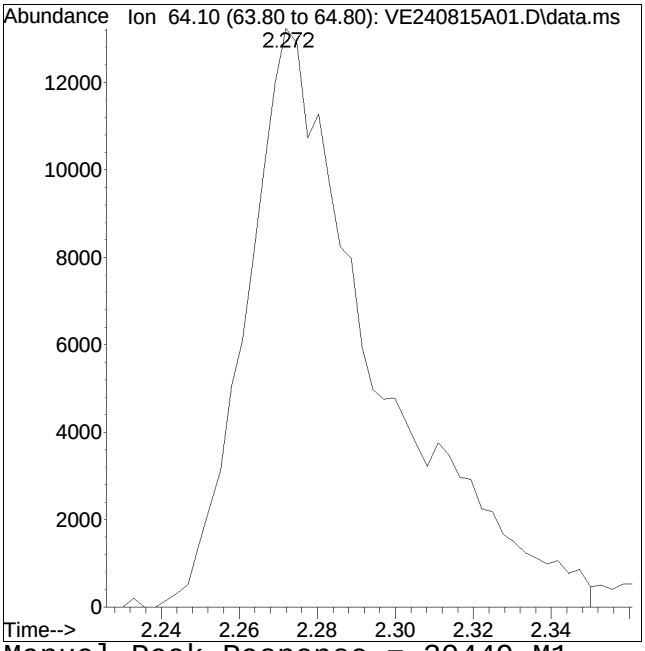


Manual Integration Report

Data Path	: K:\Elaine\2024\240815A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240815A01.D	Operator	: ELAINE:PID
Date Inj'd	: 8/15/2024 6:39 am	Instrument	: Elaine
Sample	: WG1959746-2	Quant Date	: 8/15/2024 7:05 am

Compound #6: Chloroethane





Original Peak Response = 25893 Manual Peak Response = 30449 M1

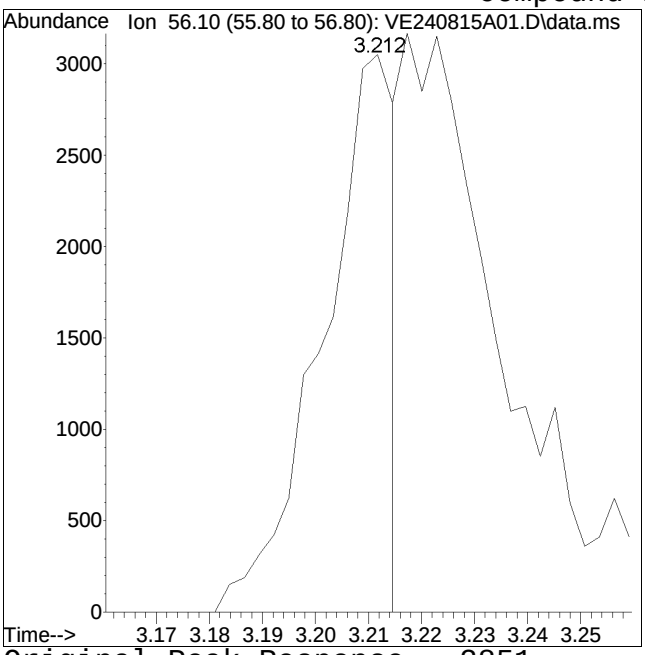
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

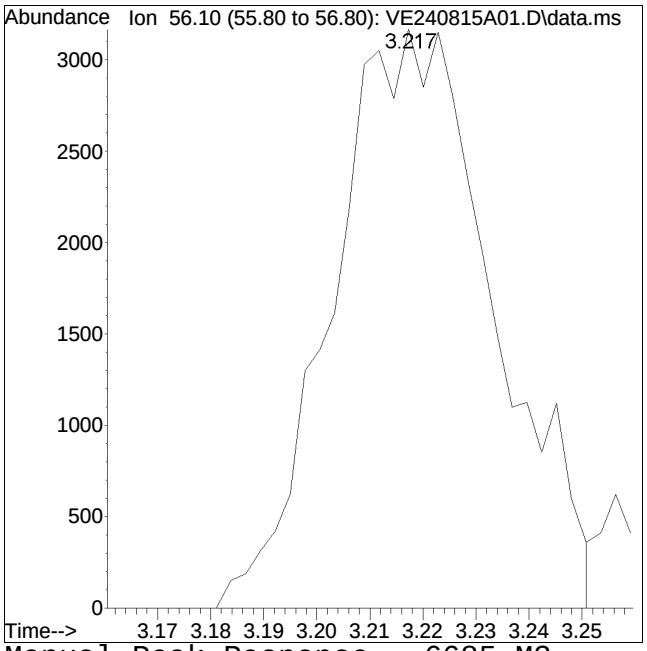
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Date Inj'd : 8/15/2024 6:39 am
Sample : WG1959746-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:05 am

Compound #14: Acrolein



Original Peak Response = 2851



Manual Peak Response = 6685 M3

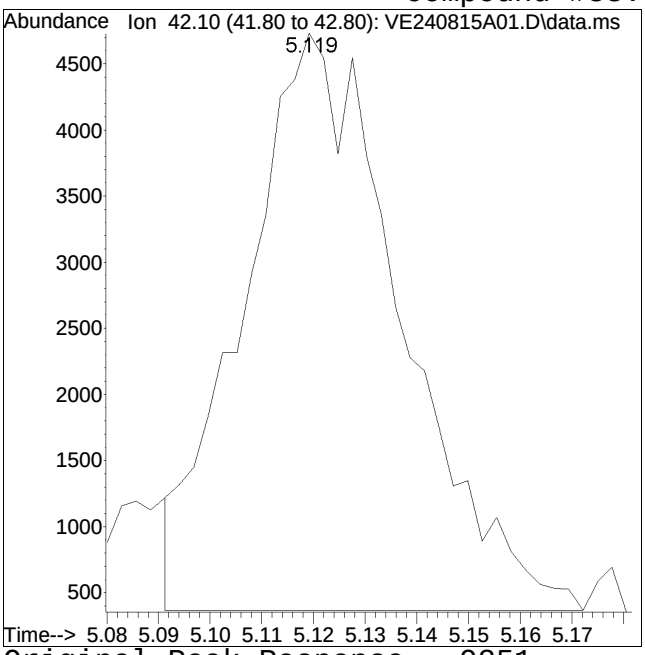
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

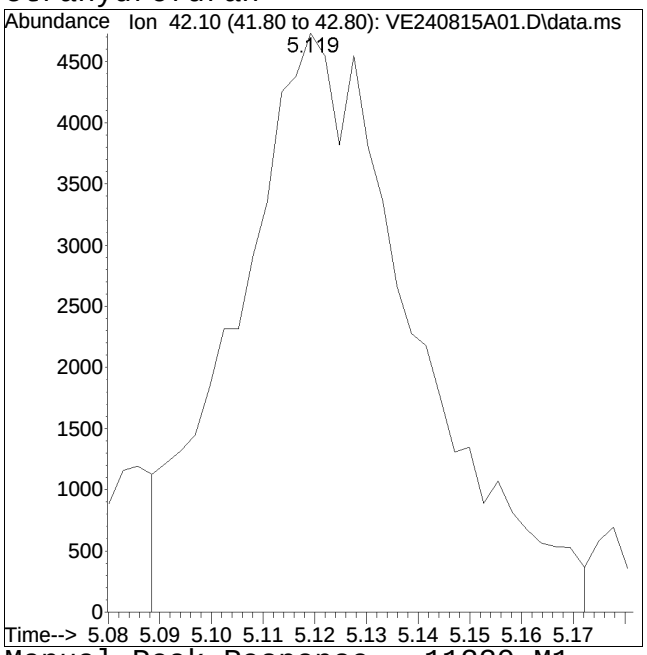
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Date Inj'd : 8/15/2024 6:39 am
Sample : WG1959746-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:05 am

Compound #38: Tetrahydrofuran



Original Peak Response = 9251



Manual Peak Response = 11230 M1

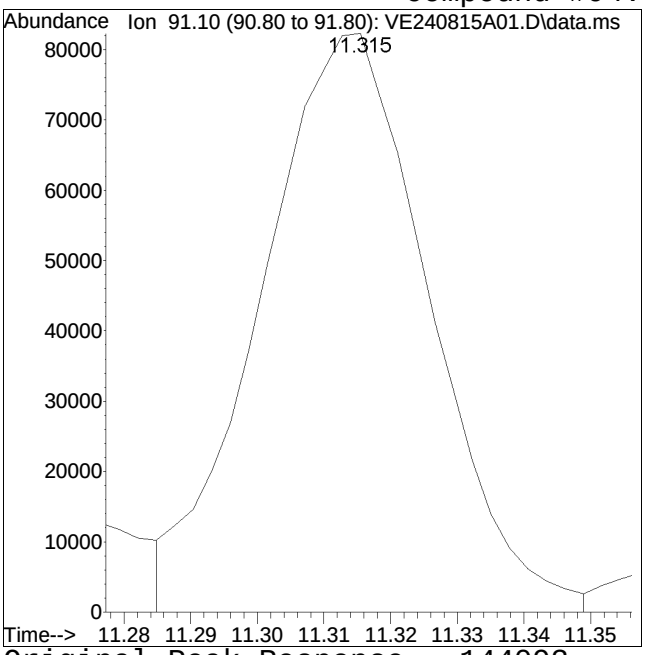
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

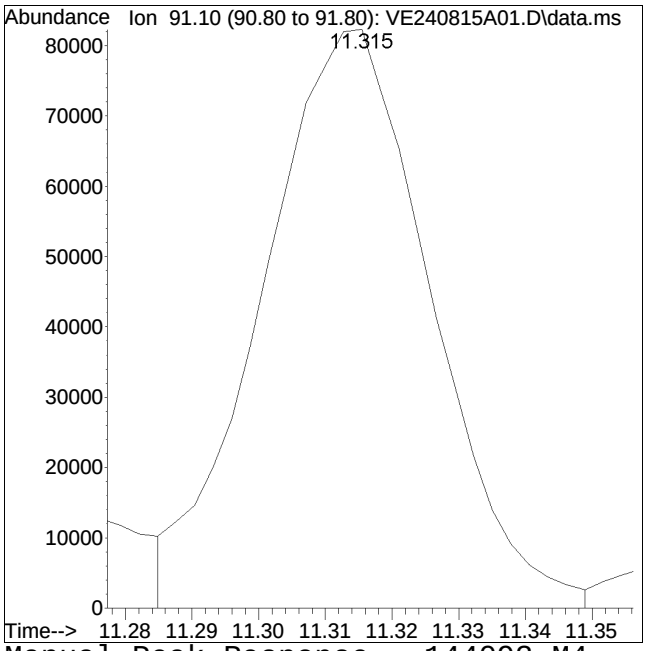
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Date Inj'd : 8/15/2024 6:39 am
Sample : WG1959746-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:05 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 144093



Manual Peak Response = 144093 M4

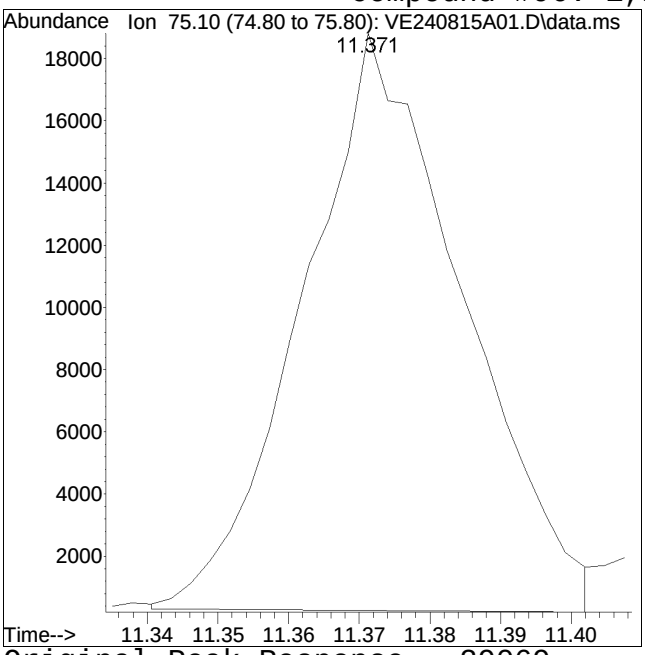
M4 = Poor automated baseline construction.

Manual Integration Report

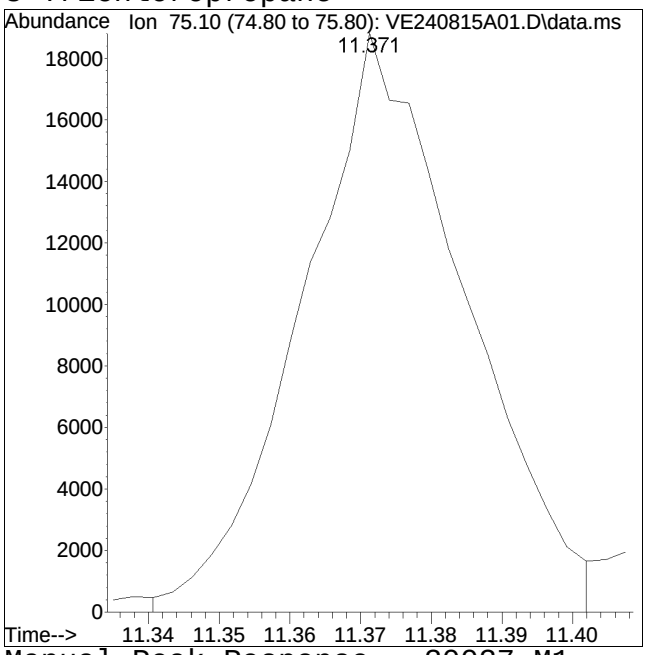
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Date Inj'd : 8/15/2024 6:39 am
Sample : WG1959746-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:05 am

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 29069



Manual Peak Response = 30037 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	83	0.00
2	TP	Dichlorodifluoromethane	0.197	0.183	7.1	71	0.00
3	TP	Chloromethane	0.263	0.210	20.2#	58	0.00
4	TP	Vinyl chloride	0.208	0.201	3.4	72	0.00
5	TP	Bromomethane	0.084	0.041	51.2#	46#	0.00
6	TP	Chloroethane	0.120	0.117	2.5	73	0.00
7	TP	Trichlorofluoromethane	* 10.000	11.270	-12.7	87	0.00
8	TP	Ethyl ether	0.070	0.060	14.3	68	0.00
10	TP	1,1-Dichloroethene	0.138	0.150	-8.7	81	0.00
11	TP	Carbon disulfide	0.454	0.442	2.6	72	0.00
12	TP	Freon-113	0.143	0.167	-16.8	90	0.00
14	TP	Acrolein	0.024	0.020	16.7	65	0.00
15	TP	Methylene chloride	0.183	0.162	11.5	70	0.00
17	TP	Acetone	0.033	0.029	12.1	70	0.00
18	TP	trans-1,2-Dichloroethene	0.162	0.161	0.6	76	0.00
19	TP	Methyl acetate	0.086	0.072	16.3	71	0.00
21	TP	Methyl tert-butyl ether	0.309	0.271	12.3	71	0.00
22	TP	tert-Butyl alcohol	0.00648	0.00669#	-3.2	83	0.00
24	TP	Diisopropyl ether	0.581	0.495	14.8	69	0.00
25	TP	1,1-Dichloroethane	0.331	0.297#	10.3	67	0.00
26	TP	Halothane	0.121	0.140	-15.7	88	0.00
27	TP	Acrylonitrile	0.046	0.041	10.9	70	0.00
28	TP	Ethyl tert-butyl ether	0.418	0.356	14.8	72	0.00
29	TP	Vinyl acetate	0.348	0.299	14.1	70	0.00
30	TP	cis-1,2-Dichloroethene	0.179	0.175#	2.2	74	0.00
31	TP	2,2-Dichloropropane	0.207	0.213	-2.9	79	0.00
32	TP	Bromochloromethane	0.085	0.094#	-10.6	84	0.00
33	TP	Cyclohexane	* 10.000	10.054	-0.5	79	0.00
34	TP	Chloroform	0.286	0.264#	7.7	72	0.00
35	TP	Ethyl acetate	0.112	0.097	13.4	73	0.00
36	TP	Carbon tetrachloride	0.206	0.243	-18.0	87	0.00
37	TP	Tetrahydrofuran	0.037	0.033	10.8	72	0.00
38	S	Dibromofluoromethane	0.349	0.370	-6.0	86	0.00
39	TP	1,1,1-Trichloroethane	0.241	0.252	-4.6	80	0.00
41	TP	2-Butanone	0.047	0.039	17.0	73	0.00
42	TP	1,1-Dichloropropene	0.195	0.186	4.6	72	0.00
44	TP	Benzene	0.633	0.595	6.0	75	0.00
45	TP	tert-Amyl methyl ether	0.202	0.162	19.8	71	0.00
46	S	1,2-Dichloroethane-d4	0.295	0.273	7.5	74	0.00

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	T	1,2-Dichloroethane	0.158	0.143	9.5	70	0.00
50	TP	Methyl cyclohexane	* 10.000	9.757	2.4	83	0.00
51	TP	Trichloroethene	0.135	0.135#	0.0	78	0.00
53	TP	Dibromomethane	0.068	0.064	5.9	76	0.00
54	TP	1,2-Dichloropropane	0.141	0.122#	13.5	66	0.00
57	TP	Bromodichloromethane	0.167	0.156#	6.6	74	0.00
60	TP	1,4-Dioxane	0.00056	0.00061#	-8.9	84	0.00
61	TP	cis-1,3-Dichloropropene	0.172	0.154#	10.5	69	0.00
62	I	Chlorobenzene-d5	1.000	1.000	0.0	87	0.00
63	S	Toluene-d8	1.274	1.158	9.1	80	0.00
64	TP	Toluene	0.412	0.369	10.4	75	0.00
65	TP	4-Methyl-2-pentanone	0.033	0.024#	27.3#	73	0.00
66	TP	Tetrachloroethene	0.162	0.197	-21.6#	102	0.00
68	TP	trans-1,3-Dichloropropene	* 10.000	7.248	27.5#	73	0.00
70	TP	Ethyl methacrylate	0.133	0.087	34.6#	61	0.00
71	TP	1,1,2-Trichloroethane	0.097	0.079#	18.6	73	0.00
72	TP	Chlorodibromomethane	* 10.000	8.948	10.5	88	0.00
73	TP	1,3-Dichloropropane	0.190	0.154	18.9	71	0.00
74	TP	1,2-Dibromoethane	0.108	0.100#	7.4	82	0.00
76	TP	2-Hexanone	0.061	0.046	24.6#	72	0.00
77	TP	Chlorobenzene	0.467	0.459	1.7	82	0.00
78	TP	Ethylbenzene	0.778	0.719	7.6	74	0.00
79	TP	1,1,1,2-Tetrachloroethane	0.148	0.149	-0.7	90	0.00
80	TP	p/m Xylene	0.302	0.302	0.0	79	0.00
81	TP	o Xylene	0.285	0.279	2.1	78	0.00
82	TP	Styrene	0.459	0.452	1.5	78	0.00
83	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00
84	TP	Bromoform	0.150	0.141	6.0	98	0.00
86	TP	Isopropylbenzene	1.551	1.447	6.7	80	0.00
87	S	4-Bromofluorobenzene	0.911	0.752	17.5	77	0.00
88	TP	Bromobenzene	0.365	0.360	1.4	92	0.00
89	TP	n-Propylbenzene	1.802	1.580	12.3	76	0.00
90	TP	1,4-Dichlorobutane	0.472	0.361	23.5#	73	0.00
91	TP	1,1,2,2-Tetrachloroethane	0.254	0.194#	23.6#	75	0.00
92	TP	4-Ethyltoluene	1.469	1.354	7.8	80	0.00
93	TP	2-Chlorotoluene	1.086	0.923	15.0	76	0.00
94	TP	1,3,5-Trimethylbenzene	1.245	1.140	8.4	80	0.00

Evaluate Continuing Calibration Report

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
95	TP	1,2,3-Trichloropropane		0.194	0.145	25.3#	72	0.00
96	TP	trans-1,4-Dichloro-2-butene		0.086	0.069	19.8	79	0.00
97	TP	4-Chlorotoluene		1.121	0.919	18.0	73	0.00
98	TP	tert-Butylbenzene		1.081	1.075	0.6	86	0.00
101	TP	1,2,4-Trimethylbenzene		1.391	1.169	16.0	73	0.00
102	TP	sec-Butylbenzene	*	10.000	9.216	7.8	84	0.00
103	TP	p-Isopropyltoluene	*	10.000	9.537	4.6	87	0.00
104	TP	1,3-Dichlorobenzene		0.724	0.727	-0.4	91	0.00
105	TP	1,4-Dichlorobenzene		0.718	0.706	1.7	90	0.00
106	TP	p-Diethylbenzene		0.788	0.742	5.8	87	0.00
107	TP	n-Butylbenzene	*	10.000	8.731	12.7	79	0.00
108	TP	1,2-Dichlorobenzene		0.640	0.632	1.3	90	0.00
109	TP	1,2,4,5-Tetramethylbenzene		1.081	0.937	13.3	82	0.00
110	TP	1,2-Dibromo-3-chloropropane	*	10.000	8.703	13.0	94	0.00
111	TP	1,3,5-Trichlorobenzene		0.417	0.445	-6.7	96	0.00
112	TP	Hexachlorobutadiene	*	10.000	10.731	-7.3	103	0.00
113	TP	1,2,4-Trichlorobenzene		0.355	0.365#	-2.8	95	0.00
114	TP	Naphthalene	*	10.000	8.742	12.6	88	0.00
115	TP	1,2,3-Trichlorobenzene		0.301	0.314#	-4.3	95	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 16 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	421161	10.000	ug/L	0.00
Standard Area 1 = 421161			Recovery = 100.00%			
62) Chlorobenzene-d5	9.519	117	360997	10.000	ug/L	0.00
Standard Area 1 = 360997			Recovery = 100.00%			
83) 1,4-Dichlorobenzene-d4	12.230	152	194587	10.000	ug/L	0.00
Standard Area 1 = 194587			Recovery = 100.00%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.158	113	155954	10.598	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.98%			
46) 1,2-Dichloroethane-d4	5.688	65	114985	9.244	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.44%			
63) Toluene-d8	7.675	98	417919	9.086	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.86%			
87) 4-Bromofluorobenzene	11.012	95	146246	8.254	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	76901	9.249	ug/L	97
3) Chloromethane	1.808	50	88576	7.986	ug/L	97
4) Vinyl chloride	1.881	62	84760	9.659	ug/L	96
5) Bromomethane	2.189	94	17398	4.935	ug/L	96
6) Chloroethane	2.300	64	49156	9.691	ug/L	97
7) Trichlorofluoromethane	2.444	101	113493	11.270	ug/L	99
8) Ethyl ether	2.739	74	25121	8.571	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	62983	10.809	ug/L	90
11) Carbon disulfide	2.962	76	185989	9.717	ug/L	100
12) Freon-113	2.969	101	70446	11.691	ug/L	96
14) Acrolein	3.244	56	8225	8.215	ug/L	96
15) Methylene chloride	3.473	84	68206	8.830	ug/L #	63
17) Acetone	3.513	43	12218	8.677	ug/L	95
18) trans-1,2-Dichloroethene	3.630	96	67926	9.965	ug/L	91
19) Methyl acetate	3.630	43	30510	8.421	ug/L #	82
21) Methyl tert-butyl ether	3.729	73	114240	8.765	ug/L #	76
22) tert-Butyl alcohol	3.807	59	14086	51.609	ug/L #	85
24) Diisopropyl ether	4.089	45	208372	8.509	ug/L #	92
25) 1,1-Dichloroethane	4.207	63	124923	8.973	ug/L	95
26) Halothane	4.260	117	59068	11.625	ug/L	100
27) Acrylonitrile	4.247	53	17338	9.022	ug/L	95

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Ethyl tert-butyl ether	4.437	59	149884	8.522	ug/L	#	82
29) Vinyl acetate	4.437	43	126095	8.614	ug/L	#	88
30) cis-1,2-Dichloroethene	4.725	96	73885	9.781	ug/L		89
31) 2,2-Dichloropropane	4.823	77	89578	10.267	ug/L	#	80
32) Bromochloromethane	4.915	128	39607	11.111	ug/L	#	82
33) Cyclohexane	4.928	56	140233	10.054	ug/L		72
34) Chloroform	4.987	83	111075	9.219	ug/L	#	95
35) Ethyl acetate	5.092	43	40807	8.627	ug/L	#	93
36) Carbon tetrachloride	5.125	117	102296	11.765	ug/L		99
37) Tetrahydrofuran	5.138	42	13877M6	8.952	ug/L		
39) 1,1,1-Trichloroethane	5.190	97	106137	10.446	ug/L		97
41) 2-Butanone	5.269	43	16503	8.340	ug/L	#	45
42) 1,1-Dichloropropene	5.308	75	78333	9.555	ug/L		94
44) Benzene	5.557	78	250476	9.390	ug/L	#	90
45) tert-Amyl methyl ether	5.669	73	68216	8.005	ug/L	#	78
47) 1,2-Dichloroethane	5.754	62	60246	9.040	ug/L		98
50) Methyl cyclohexane	6.147	83	84094	9.757	ug/L	#	60
51) Trichloroethene	6.147	95	56724	9.998	ug/L		94
53) Dibromomethane	6.584	93	27104	9.450	ug/L		94
54) 1,2-Dichloropropane	6.695	63	51489	8.644	ug/L		94
57) Bromodichloromethane	6.764	83	65525	9.323	ug/L		97
60) 1,4-Dioxane	6.973	88	12812	545.167	ug/L	#	66
61) cis-1,3-Dichloropropene	7.459	75	64886	8.958	ug/L	#	84
64) Toluene	7.731	92	133128	8.953	ug/L		98
65) 4-Methyl-2-pentanone	8.161	58	8510	7.151	ug/L	#	62
66) Tetrachloroethene	8.175	166	71256	12.221	ug/L		99
68) trans-1,3-Dichloropropene	8.210	75	52938	7.248	ug/L		85
70) Ethyl methacrylate	8.405	69	31547	6.583	ug/L	#	75
71) 1,1,2-Trichloroethane	8.398	83	28418	8.138	ug/L		97
72) Chlorodibromomethane	8.600	129	50350	8.948	ug/L		99
73) 1,3-Dichloropropane	8.719	76	55625	8.125	ug/L		99
74) 1,2-Dibromoethane	8.881	107	36154	9.239	ug/L		98
76) 2-Hexanone	9.175	43	16426	7.428	ug/L	#	86
77) Chlorobenzene	9.540	112	165534	9.829	ug/L	#	82
78) Ethylbenzene	9.582	91	259608	9.247	ug/L		96
79) 1,1,1,2-Tetrachloroethane	9.624	131	53643	10.014	ug/L		97
80) p/m Xylene	9.771	106	218237	20.025	ug/L		92
81) o Xylene	10.311	106	201177	19.520	ug/L		92
82) Styrene	10.381	104	326135	19.674	ug/L		93
84) Bromoform	10.395	173	27416	9.365	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
86) Isopropylbenzene	10.697	105	281618	9.330	ug/L		98
88) Bromobenzene	11.125	156	69994	9.862	ug/L		100
89) n-Propylbenzene	11.181	91	307530	8.768	ug/L		95
90) 1,4-Dichlorobutane	11.188	55	70256	7.657	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	37820	7.660	ug/L		99
92) 4-Ethyltoluene	11.307	105	263422	9.215	ug/L		97
93) 2-Chlorotoluene	11.342	91	179581M6	8.500	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	221754	9.155	ug/L		95
95) 1,2,3-Trichloropropane	11.398	75	28269	7.501	ug/L		94
96) trans-1,4-Dichloro-2-b...	11.454	53	13416	7.982	ug/L	#	68
97) 4-Chlorotoluene	11.524	91	178878	8.204	ug/L		92
98) tert-Butylbenzene	11.749	119	209130	9.946	ug/L		94
101) 1,2,4-Trimethylbenzene	11.826	105	227450	8.404	ug/L		95
102) sec-Butylbenzene	11.944	105	294119	9.216	ug/L		98
103) p-Isopropyltoluene	12.097	119	257255	9.537	ug/L		98
104) 1,3-Dichlorobenzene	12.153	146	141418	10.045	ug/L		99
105) 1,4-Dichlorobenzene	12.250	146	137296	9.833	ug/L		99
106) p-Diethylbenzene	12.473	119	144428	9.420	ug/L		97
107) n-Butylbenzene	12.529	91	195523	8.731	ug/L		97
108) 1,2-Dichlorobenzene	12.675	146	122893	9.867	ug/L		99
109) 1,2,4,5-Tetramethylben...	13.274	119	182250	8.668	ug/L		98
110) 1,2-Dibromo-3-chloropr...	13.455	155	6408	8.703	ug/L		98
111) 1,3,5-Trichlorobenzene	13.489	180	86599	10.674	ug/L		98
112) Hexachlorobutadiene	14.074	225	31586	10.731	ug/L		99
113) 1,2,4-Trichlorobenzene	14.088	180	70987	10.283	ug/L		99
114) Naphthalene	14.387	128	138793	8.742	ug/L		100
115) 1,2,3-Trichlorobenzene	14.554	180	61193	10.435	ug/L		99

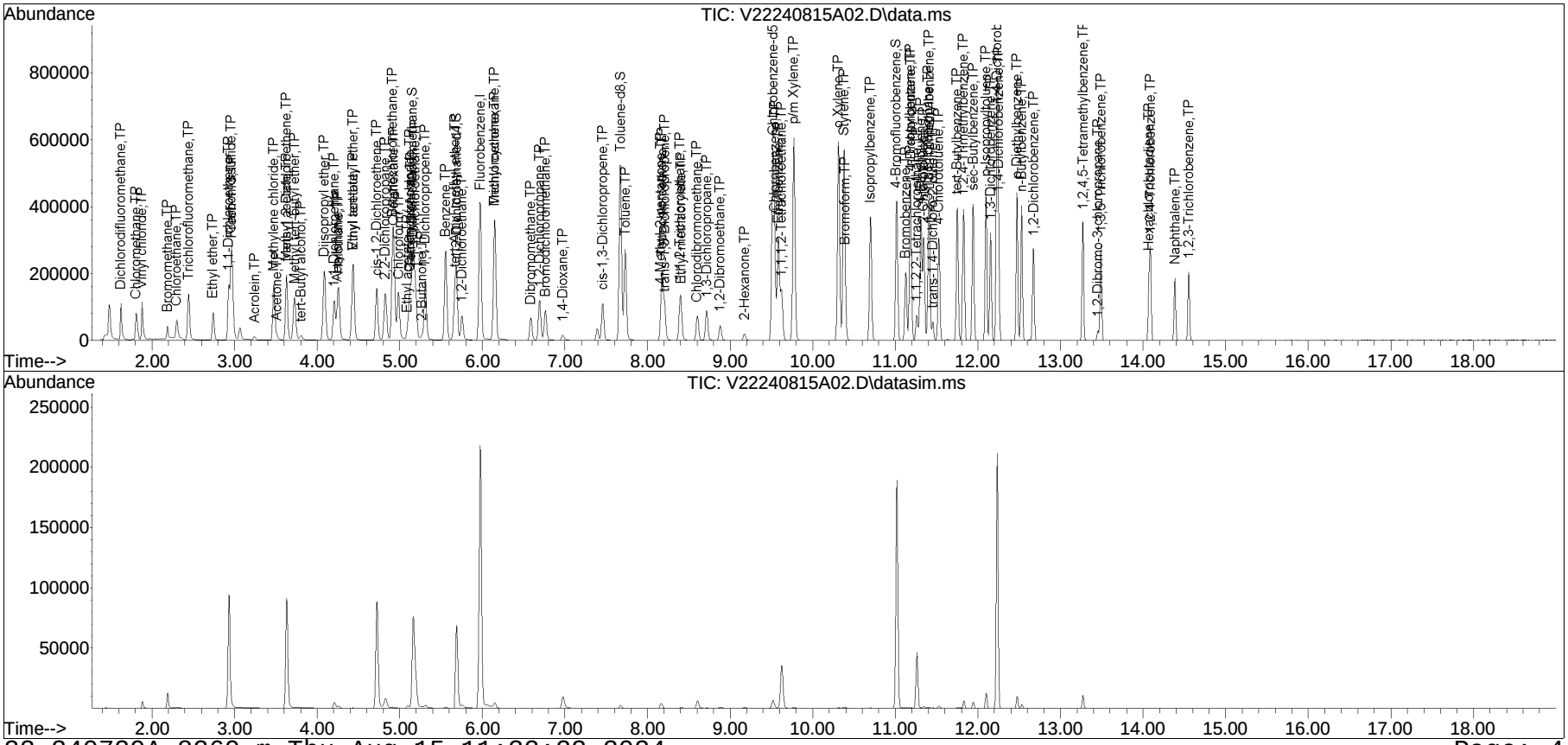
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

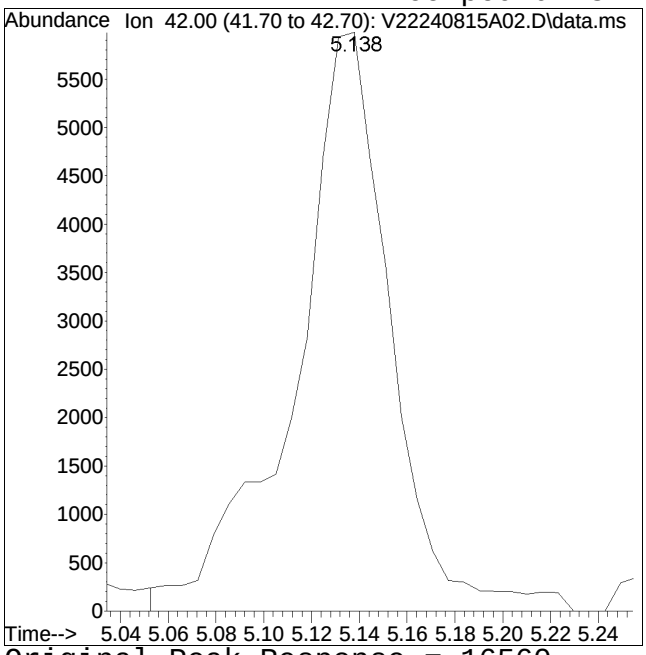
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



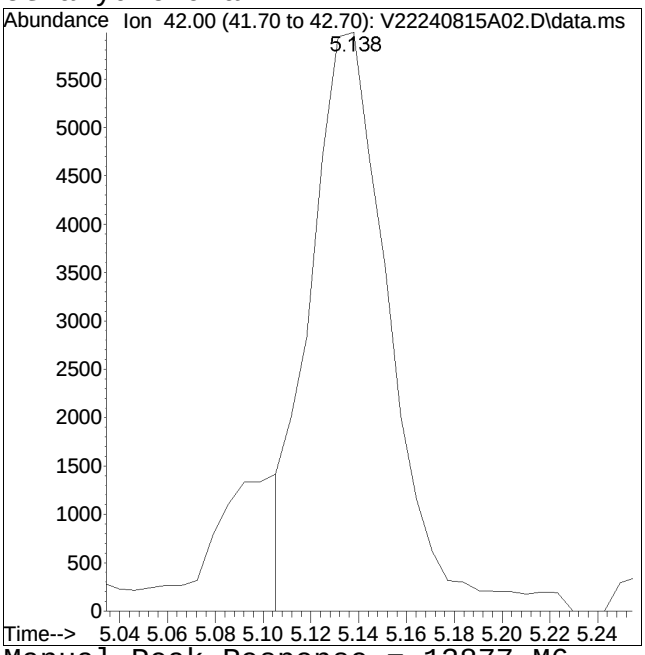
Manual Integration Report

Data Path	: K:\VOA122\2024\240815A\	QMethod	: V122_240729A_8260.m
Data File	: V22240815A02.D	Operator	: VOA122:PID
Date Inj'd	: 8/15/2024 7:01 am	Instrument	: VOA 122
Sample	: WG1959760-2	Quant Date	: 8/15/2024 7:27 am

Compound #37: Tetrahydrofuran



Original Peak Response = 16560



Manual Peak Response = 13877 M6

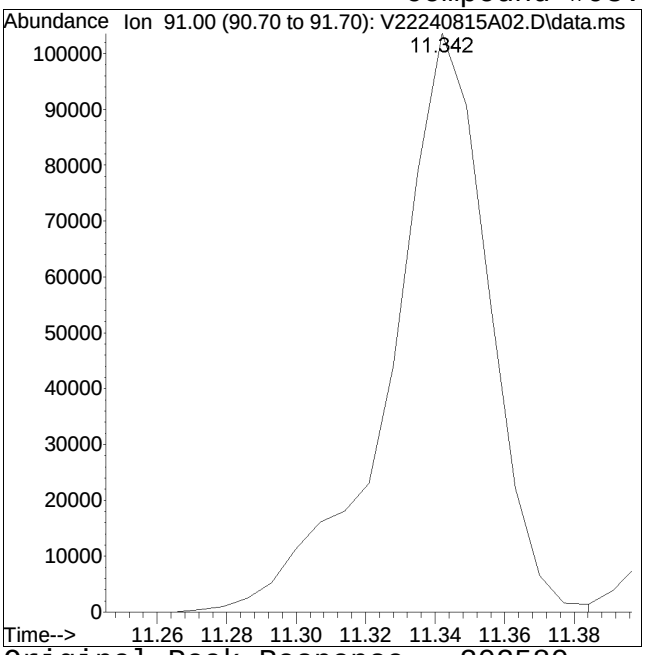
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

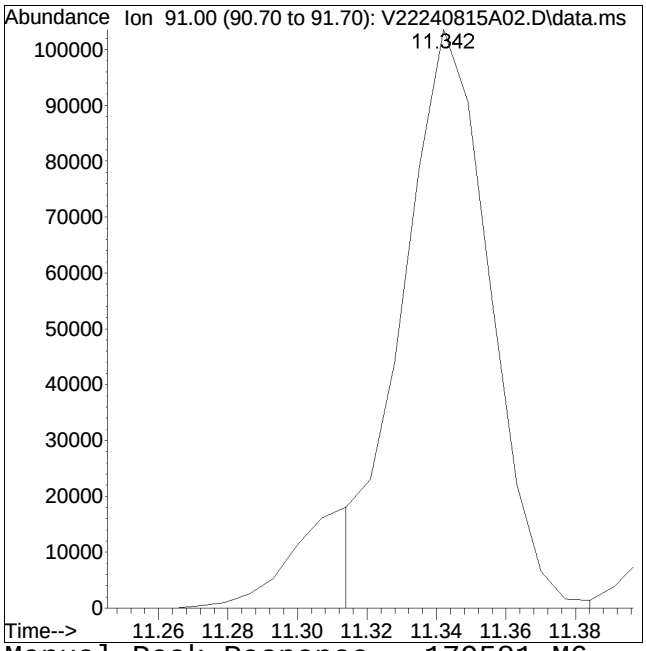
Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Date Inj'd : 8/15/2024 7:01 am
Sample : WG1959760-2

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/15/2024 7:27 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 202580



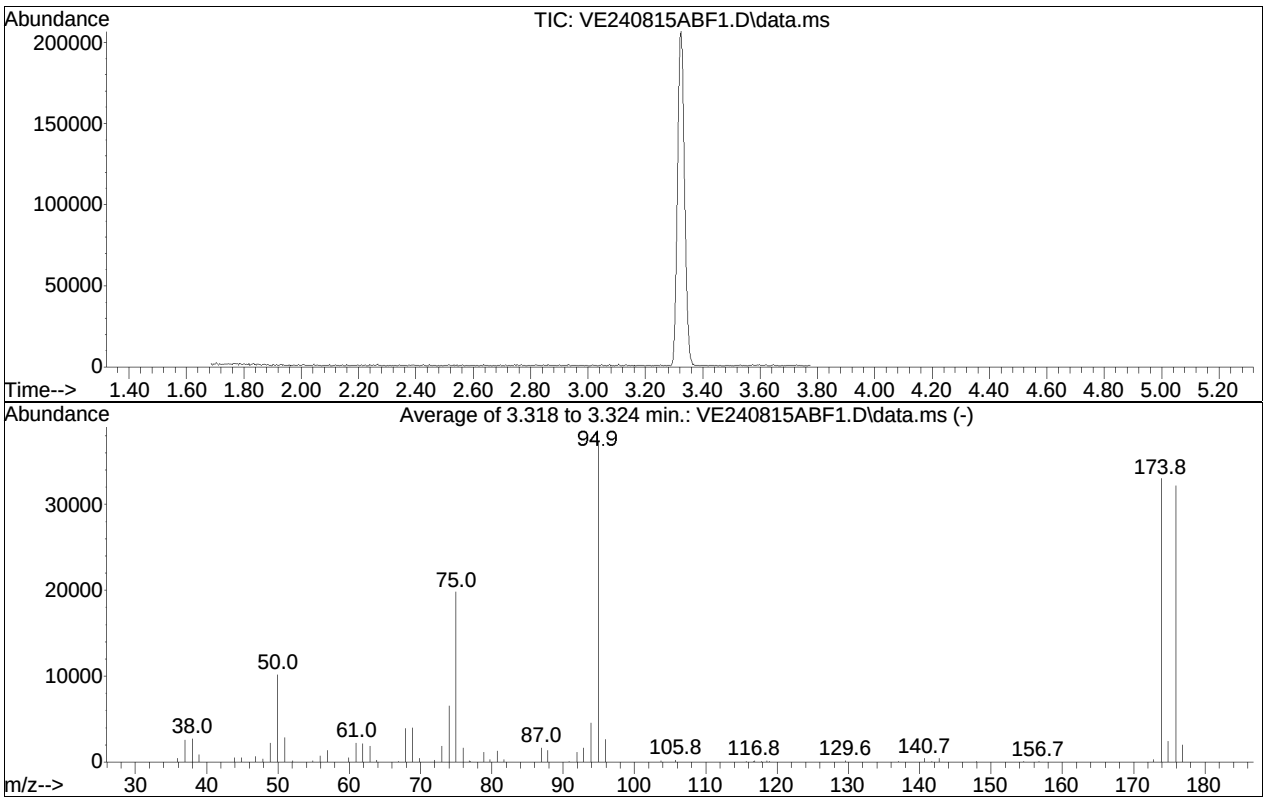
Manual Peak Response = 179581 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815ABF1.D
Acq On : 15 Aug 2024 6:25 am
Operator : ELAINE:PID
Sample : WG1959746-1
Misc : WG1959746
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024



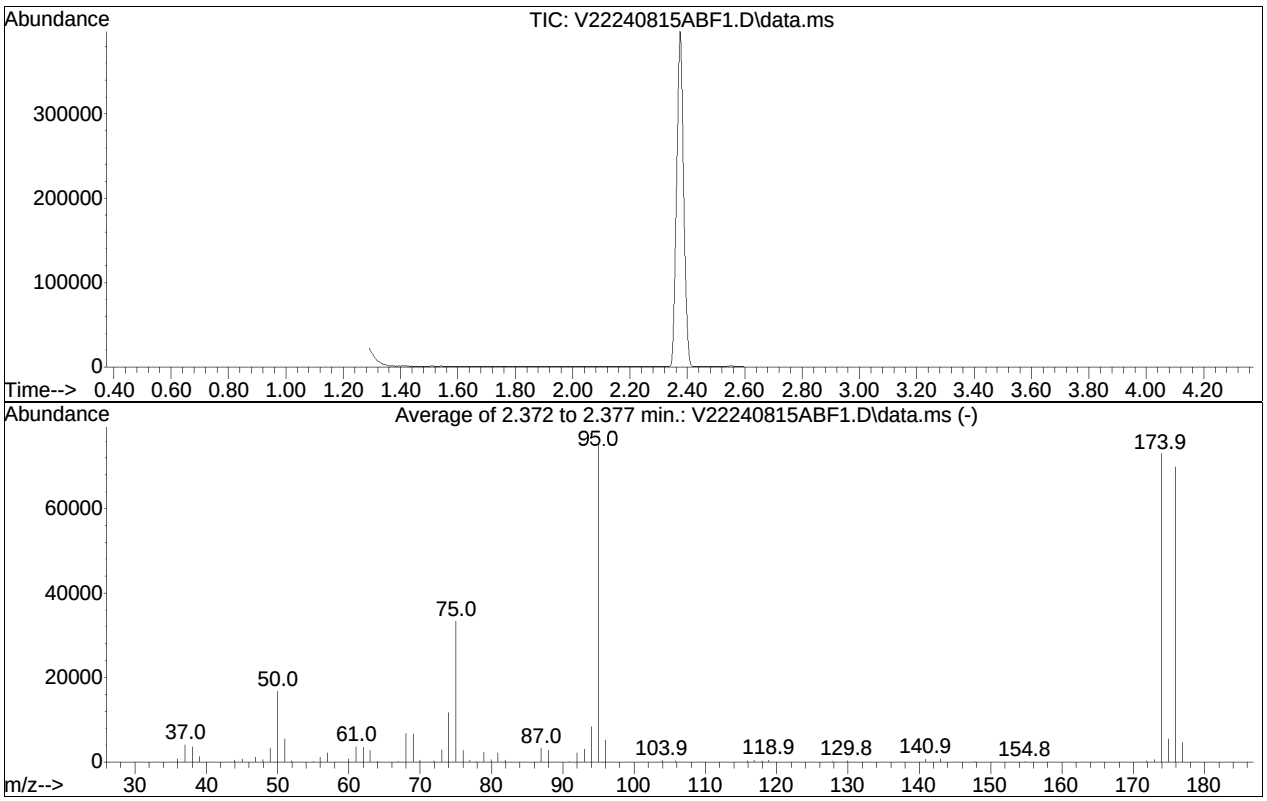
AutoFind: Scans 586, 587, 588; Background Corrected with Scan 573

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.4	10185	PASS
75	95	30	60	53.2	19784	PASS
95	95	100	100	100.0	37197	PASS
96	95	5	9	7.1	2633	PASS
173	174	0.00	2	0.9	285	PASS
174	95	50	100	88.8	33037	PASS
175	174	5	9	7.4	2447	PASS
176	174	95	101	97.4	32176	PASS
177	176	5	9	6.3	2018	PASS

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815ABF1.D
Acq On : 15 Aug 2024 06:23 am
Operator : VOA122:PID
Sample : WG1959760-1
Misc : WG1959760
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Tue Jul 30 07:07:01 2024



AutoFind: Scans 389, 390, 391; Background Corrected with Scan 375

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	16768	PASS
75	95	30	60	44.2	33432	PASS
95	95	100	100	100.0	75621	PASS
96	95	5	9	6.9	5185	PASS
173	174	0.00	2	1.0	695	PASS
174	95	50	100	96.7	73133	PASS
175	174	5	9	7.5	5477	PASS
176	174	95	101	95.6	69883	PASS
177	176	5	9	6.6	4597	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A05.D
Acq On : 15 Aug 2024 8:16 am
Operator : ELAINE:PID
Sample : WG1959746-5,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:53 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.959	96	168904	10.000 ug/L	0.00
Standard Area 1 = 187483			Recovery = 90.09%		
63) Chlorobenzene-d5	9.495	117	130444	10.000 ug/L	0.00
Standard Area 1 = 137068			Recovery = 95.17%		
84) 1,4-Dichlorobenzene-d4	12.202	152	75680	10.000 ug/L	0.00
Standard Area 1 = 79601			Recovery = 95.07%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.153	113	43732	11.060 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.60%		
47) 1,2-Dichloroethane-d4	5.674	65	55008	10.426 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.26%		
64) Toluene-d8	7.651	98	170118	9.901 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.01%		
88) 4-Bromofluorobenzene	10.992	95	64851	9.276 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.76%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.419	85	27	N.D.	
3) Chloromethane	1.787	50	33	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	2.294	64	29	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.941	76	113	N.D.	
15) Methylene chloride	3.454	84	36	N.D.	
17) Acetone	0.000		0	N.D.	d
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.322	43	28	N.D.	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A05.D
Acq On : 15 Aug 2024 8:16 am
Operator : ELAINE:PID
Sample : WG1959746-5,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:53 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	5.287	43	61		N.D.	
43) 1,1-Dichloropropene	0.000		0		N.D.	
45) Benzene	0.000		0		N.D.	
48) 1,2-Dichloroethane	5.747	62	33		N.D.	
52) Trichloroethene	0.000		0		N.D.	
54) Dibromomethane	0.000		0		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	0.000		0		N.D.	
66) 4-Methyl-2-pentanone	8.120	58	36		N.D.	
67) Tetrachloroethene	0.000		0		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	0.000		0		N.D.	
77) 2-Hexanone	9.073	43	31		N.D.	
78) Chlorobenzene	9.517	112	27		N.D.	
79) Ethylbenzene	9.562	91	26		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	0.000		0		N.D.	
82) o Xylene	10.289	106	43		N.D.	
83) Styrene	10.356	104	131		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	10.660	105	29		N.D.	
89) Bromobenzene	0.000		0		N.D.	
90) n-Propylbenzene	11.154	91	146		N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
93) 4-Ethyltoluene	11.279	105	102		N.D.	
94) 2-Chlorotoluene	11.154	91	146		N.D.	
95) 1,3,5-Trimethylbenzene	11.371	105	31		N.D.	
96) 1,2,3-Trichloropropane	0.000		0		N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
98) 4-Chlorotoluene	11.497	91	59		N.D.	
99) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A05.D
Acq On : 15 Aug 2024 8:16 am
Operator : ELAINE:PID
Sample : WG1959746-5,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:53 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.798	105	68	N.D.		
103) sec-Butylbenzene	11.898	105	65	N.D.		
104) p-Isopropyltoluene	12.060	119	162	N.D.		
105) 1,3-Dichlorobenzene	12.130	146	119	N.D.		
106) 1,4-Dichlorobenzene	12.216	146	175	N.D.		
107) p-Diethylbenzene	12.428	119	149	N.D.		
108) n-Butylbenzene	12.487	91	321	N.D.		
109) 1,2-Dichlorobenzene	12.637	146	31	N.D.		
110) 1,2,4,5-Tetramethylben...	13.226	119	376	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	14.029	225	68	N.D.		
114) 1,2,4-Trichlorobenzene	14.046	180	242	N.D.		
115) Naphthalene	14.341	128	320	N.D.		
116) 1,2,3-Trichlorobenzene	14.517	180	228	N.D.		

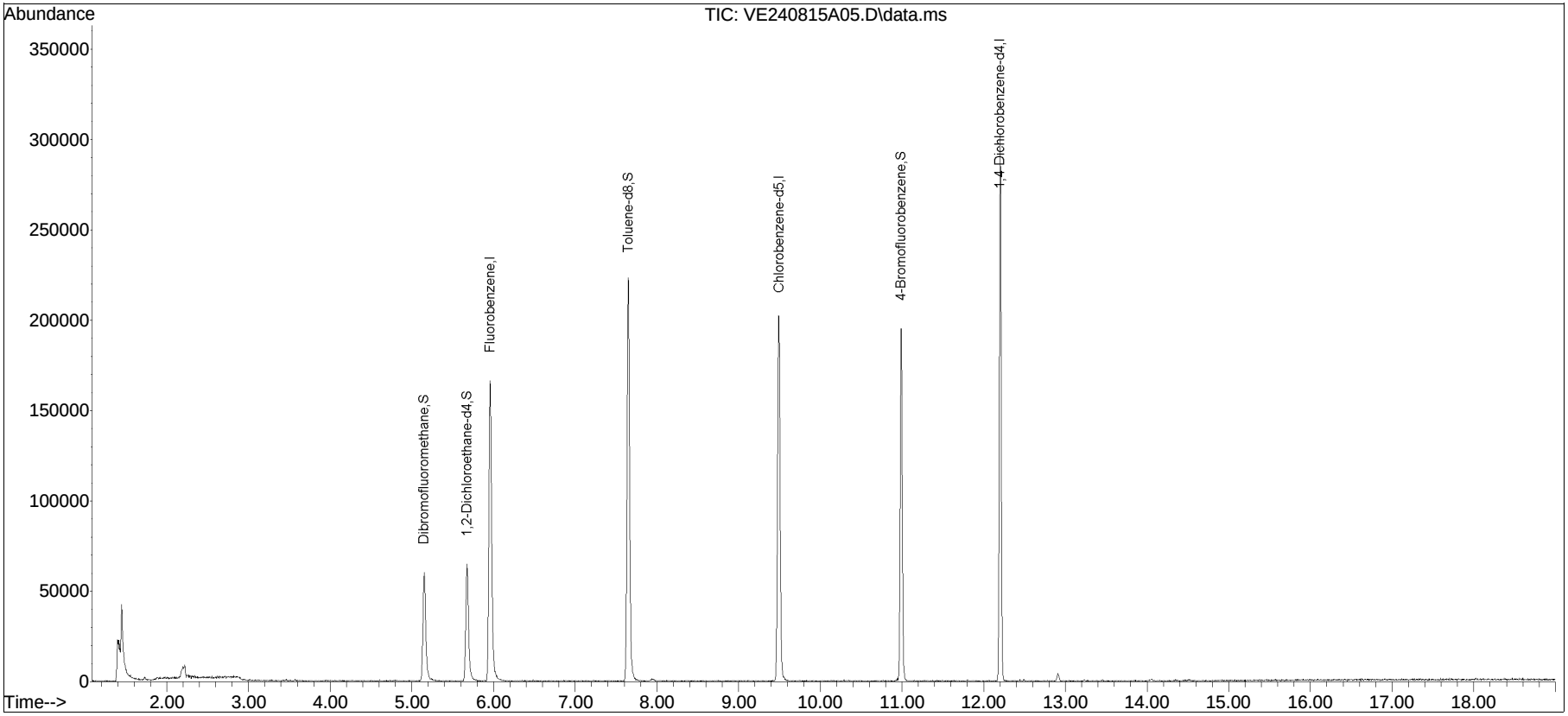
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A05.D
Acq On : 15 Aug 2024 8:16 am
Operator : ELAINE:PID
Sample : WG1959746-5,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:53 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE1.D•



Manual Integration Report

Data Path	: K:\Elaine\2024\240815A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240815A05.D	Operator	: ELAINE:PID
Date Inj'd	: 8/15/2024 8:16 am	Instrument	: Elaine
Sample	: WG1959746-5,31,10,10	Quant Date	: 8/15/2024 8:52 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A05.D
Acq On : 15 Aug 2024 08:15 am
Operator : VOA122:PID
Sample : WG1959760-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:00 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.970	96	391500	10.000	ug/L	0.00
Standard Area 1 = 421161			Recovery = 92.96%			
62) Chlorobenzene-d5	9.519	117	350351	10.000	ug/L	0.00
Standard Area 1 = 360997			Recovery = 97.05%			
83) 1,4-Dichlorobenzene-d4	12.229	152	183860	10.000	ug/L	0.00
Standard Area 1 = 194587			Recovery = 94.49%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.157	113	153381	11.213	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.13%			
46) 1,2-Dichloroethane-d4	5.682	65	106280	9.191	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.91%			
63) Toluene-d8	7.675	98	402310	9.012	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.12%			
87) 4-Bromofluorobenzene	11.019	95	132821	7.933	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 79.33%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.188	94	131	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.962	76	460	N.D.		
15) Methylene chloride	3.473	84	522	0.073	ug/L #	46
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A05.D
Acq On : 15 Aug 2024 08:15 am
Operator : VOA122:PID
Sample : WG1959760-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:00 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	0.000		0		N.D.	
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	0.000		0		N.D.	
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	9.512	91	585		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	11.012	91	376		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A05.D
Acq On : 15 Aug 2024 08:15 am
Operator : VOA122:PID
Sample : WG1959760-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:00 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	0.000		0	N.D.		
102) sec-Butylbenzene	0.000		0	N.D.		
103) p-Isopropyltoluene	0.000		0	N.D.		
104) 1,3-Dichlorobenzene	12.243	146	79	N.D.		
105) 1,4-Dichlorobenzene	12.243	146	79	N.D.		
106) p-Diethylbenzene	0.000		0	N.D.		
107) n-Butylbenzene	0.000		0	N.D.		
108) 1,2-Dichlorobenzene	0.000		0	N.D.		
109) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112) Hexachlorobutadiene	0.000		0	N.D.		
113) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
114) Naphthalene	14.387	128	252M2	0.300	ug/L	
115) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

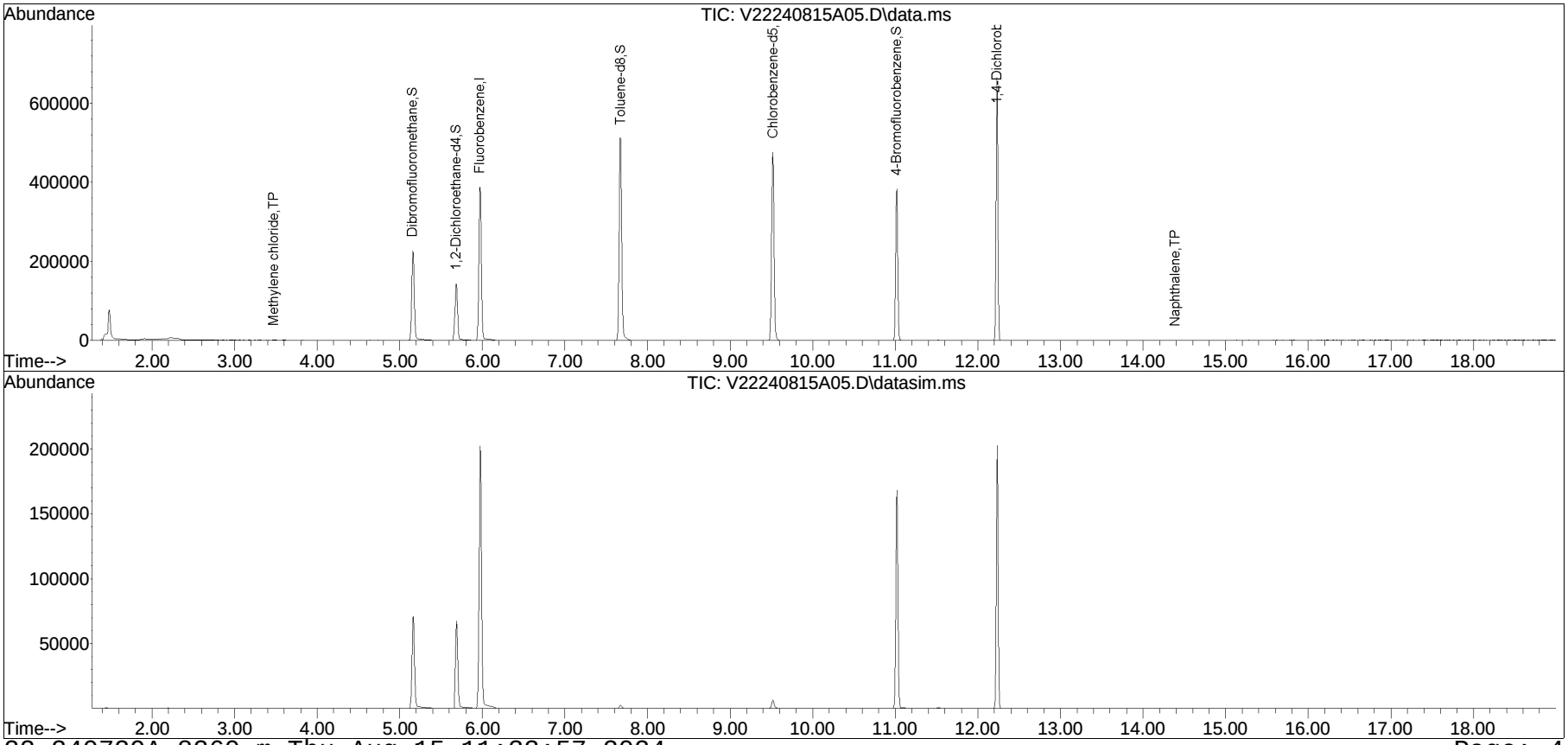
(#) = qualifier out of range (m) = manual integration (+) = signals summed

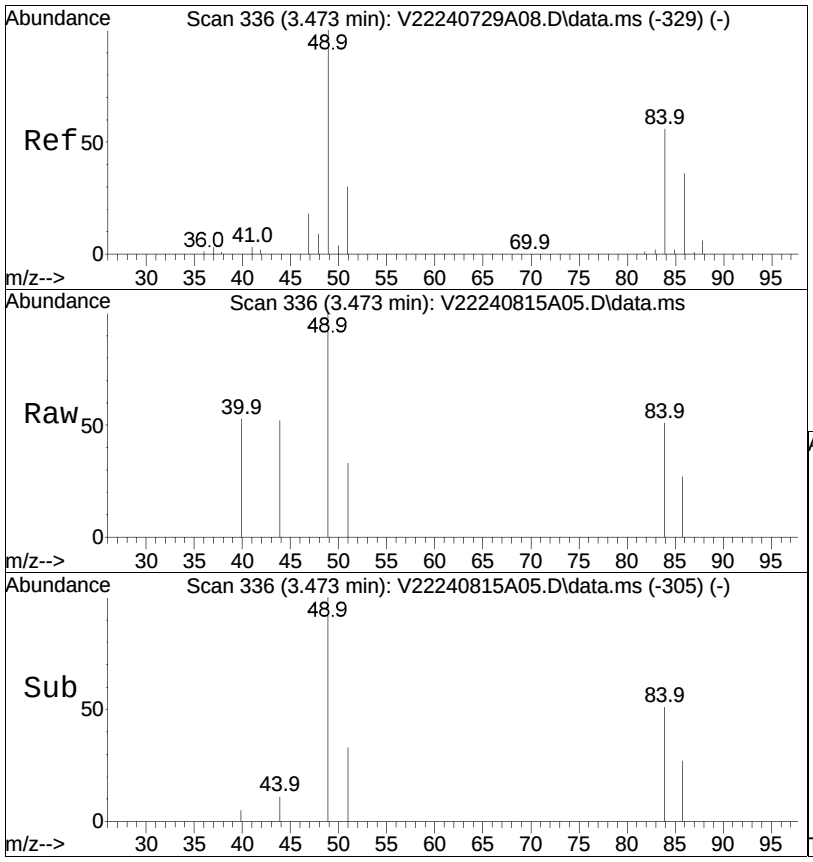
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A05.D
Acq On : 15 Aug 2024 08:15 am
Operator : VOA122:PID
Sample : WG1959760-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 15 08:52:00 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

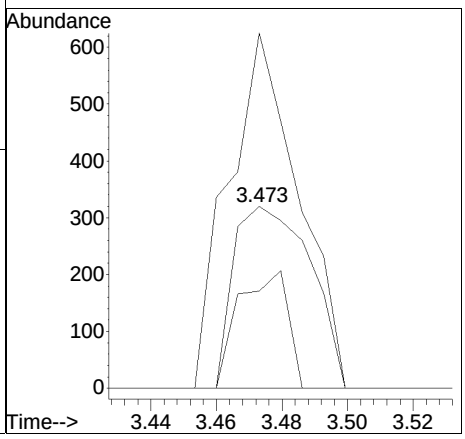


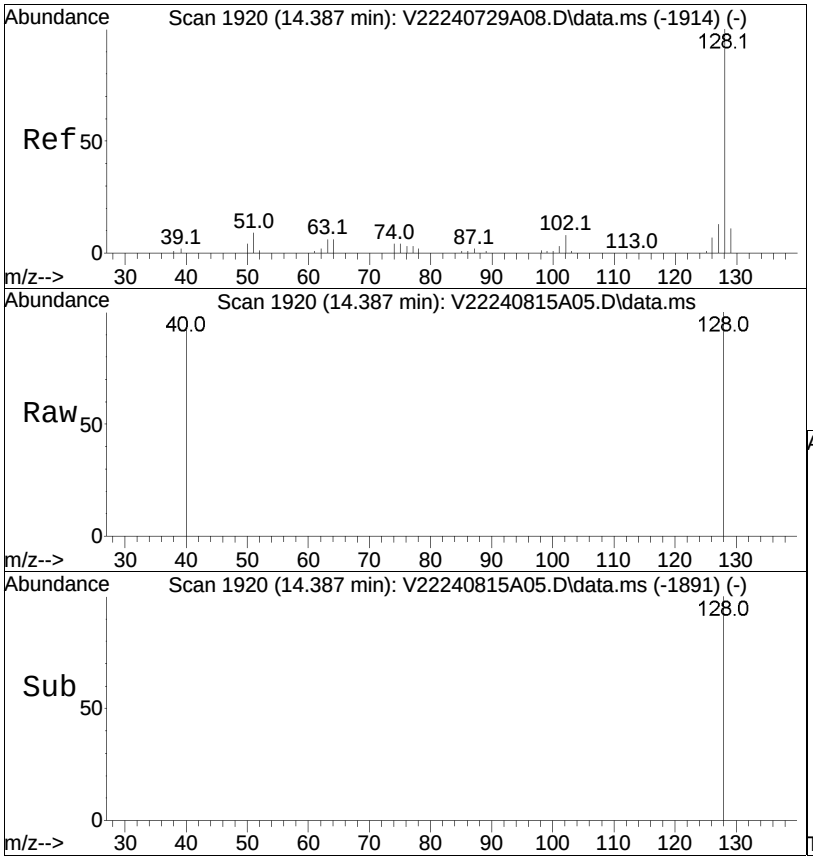


#15
Methylene chloride
Concen: 0.07 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240815A05.D
Acq: 15 Aug 2024 08:15 am

Tgt Ion: 84 Resp: 522

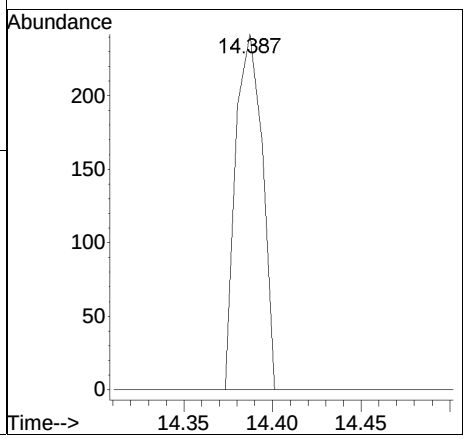
Ion	Ratio	Lower	Upper
84	100		
86	41.0	41.5	86.3#
49	177.2	68.8	143.0#





#114
Naphthalene
Concen: 0.30 ug/L M2
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240815A05.D
Acq: 15 Aug 2024 08:15 am

Tgt Ion:128 Resp: 252

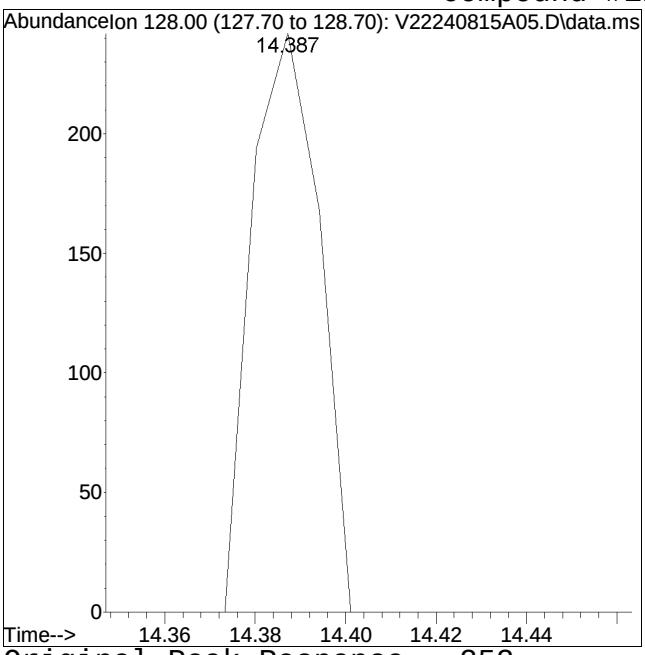


Manual Integration Report

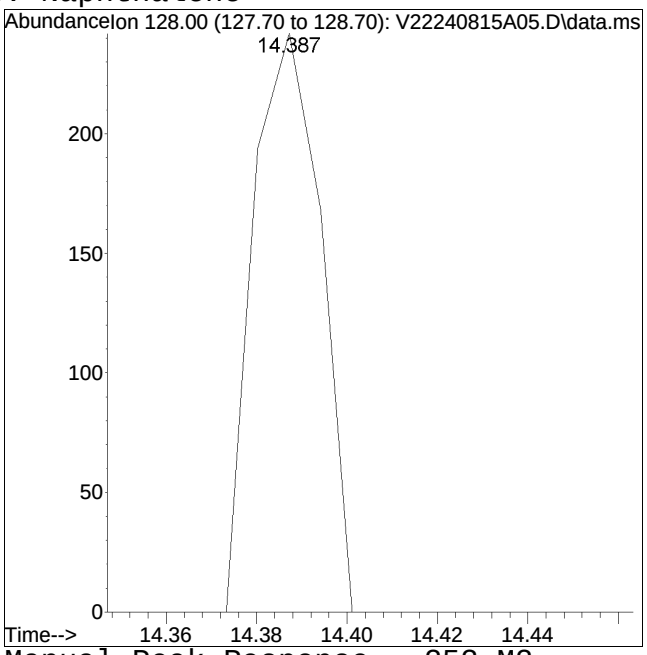
Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A05.D
Date Inj'd : 8/15/2024 8:15 am
Sample : WG1959760-5,31,10,10

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/15/2024 8:51 am

Compound #114: Naphthalene



Original Peak Response = 252



Manual Peak Response = 252 M2

M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-3,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.956	96	187483	10.000	ug/L	-0.01
63) Chlorobenzene-d5	9.492	117	137068	10.000	ug/L	0.00
84) 1,4-Dichlorobenzene-d4	12.202	152	79601	10.000	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	44513	10.142	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.42%			
47) 1,2-Dichloroethane-d4	5.674	65	56440	9.637	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.37%			
64) Toluene-d8	7.648	98	181806	10.070	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.70%			
88) 4-Bromofluorobenzene	10.986	95	67273	9.149	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.49%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.589	85	39330	9.357	ug/L	98
3) Chloromethane	1.781	50	47487	10.146	ug/L	97
4) Vinyl chloride	1.854	62	46664	10.699	ug/L	94
5) Bromomethane	2.160	94	17530	13.300	ug/L	91
6) Chloroethane	2.272	64	30449M1	11.564	ug/L	
7) Trichlorofluoromethane	2.420	101	54924	10.959	ug/L	95
8) Ethyl ether	2.713	74	19110	9.683	ug/L	71
10) 1,1-Dichloroethene	2.897	96	26873	8.950	ug/L #	65
11) Carbon disulfide	2.927	76	99409	10.730	ug/L	100
15) Methylene chloride	3.452	84	38272	10.105	ug/L	91
17) Acetone	3.488	43	9041	6.573	ug/L #	74
18) trans-1,2-Dichloroethene	3.605	96	34432	10.668	ug/L	83
21) Methyl tert-butyl ether	3.703	73	107843	8.961	ug/L	97
25) 1,1-Dichloroethane	4.188	63	81160	10.715	ug/L	96
27) Acrylonitrile	4.227	53	12726	8.052	ug/L	87
29) Vinyl acetate	4.419	43	113001	9.848	ug/L #	94
30) cis-1,2-Dichloroethene	4.704	96	39562	10.226	ug/L	92
31) 2,2-Dichloropropane	4.807	77	56367	11.119	ug/L	90
33) Bromochloromethane	4.893	128	17952	10.579	ug/L	84
35) Chloroform	4.969	83	67886	10.811	ug/L	98
37) Carbon tetrachloride	5.108	117	52071	10.857	ug/L	95
40) 1,1,1-Trichloroethane	5.172	97	59474	10.429	ug/L	94
42) 2-Butanone	5.264	43	12970	6.599	ug/L	97
43) 1,1-Dichloropropene	5.292	75	51478	10.722	ug/L	95

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-3,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) Benzene	5.537	78	159098	10.713	ug/L		93
48) 1,2-Dichloroethane	5.741	62	57930	10.107	ug/L		98
52) Trichloroethene	6.137	95	39463	10.569	ug/L		97
54) Dibromomethane	6.572	93	21328	9.916	ug/L	#	83
55) 1,2-Dichloropropane	6.678	63	46803	10.439	ug/L		99
58) Bromodichloromethane	6.753	83	55892	10.521	ug/L		94
61) 1,4-Dioxane	6.948	88	14049	390.466	ug/L	#	70
62) cis-1,3-Dichloropropene	7.439	75	63407	10.600	ug/L		93
65) Toluene	7.704	92	102324	10.841	ug/L		95
66) 4-Methyl-2-pentanone	8.136	58	12015	7.464	ug/L	#	93
67) Tetrachloroethene	8.148	166	45813	11.426	ug/L		95
69) trans-1,3-Dichloropropene	8.184	75	53023	9.978	ug/L		98
72) 1,1,2-Trichloroethane	8.376	83	25780	9.729	ug/L		99
73) Chlorodibromomethane	8.588	129	37760	10.191	ug/L		97
74) 1,3-Dichloropropane	8.694	76	55583	9.935	ug/L		98
75) 1,2-Dibromoethane	8.861	107	29608	9.455	ug/L		88
77) 2-Hexanone	9.143	43	21514	6.859	ug/L		98
78) Chlorobenzene	9.508	112	110669	11.005	ug/L	#	82
79) Ethylbenzene	9.547	91	202579	11.075	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.595	131	39971	10.842	ug/L		95
81) p/m Xylene	9.737	106	156866	22.496	ug/L		99
82) o Xylene	10.278	106	152537	22.371	ug/L		94
83) Styrene	10.345	104	251088	22.460	ug/L		97
85) Bromoform	10.367	173	24666	9.524	ug/L		96
87) Isopropylbenzene	10.663	105	202902	10.645	ug/L		97
89) Bromobenzene	11.098	156	50308	10.454	ug/L		96
90) n-Propylbenzene	11.148	91	246617	10.828	ug/L		95
92) 1,1,2,2-Tetrachloroethane	11.235	83	37244	9.208	ug/L		96
93) 4-Ethyltoluene	11.271	105	201358	10.898	ug/L		98
94) 2-Chlorotoluene	11.315	91	144093M4	10.754	ug/L		
95) 1,3,5-Trimethylbenzene	11.371	105	174630	10.774	ug/L		99
96) 1,2,3-Trichloropropane	11.371	75	30037M1	9.103	ug/L		
97) trans-1,4-Dichloro-2-b...	11.427	53	14122	8.710	ug/L		98
98) 4-Chlorotoluene	11.497	91	147719	10.524	ug/L		98
99) tert-Butylbenzene	11.711	119	144809	10.628	ug/L		96
102) 1,2,4-Trimethylbenzene	11.792	105	172057	10.635	ug/L		94
103) sec-Butylbenzene	11.904	105	212815	10.533	ug/L		99
104) p-Isopropyltoluene	12.060	119	179902	10.567	ug/L		96
105) 1,3-Dichlorobenzene	12.124	146	97004	10.915	ug/L		96
106) 1,4-Dichlorobenzene	12.216	146	95979	10.804	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-3,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107)	p-Diethylbenzene	12.431	119	103845	10.344	ug/L	97
108)	n-Butylbenzene	12.492	91	152932	10.431	ug/L	98
109)	1,2-Dichlorobenzene	12.643	146	90475	10.581	ug/L	99
110)	1,2,4,5-Tetramethylben...	13.226	119	159992	9.821	ug/L	95
111)	1,2-Dibromo-3-chloropr...	13.424	155	5766	7.646	ug/L	92
113)	Hexachlorobutadiene	14.026	225	23106	10.269	ug/L	91
114)	1,2,4-Trichlorobenzene	14.051	180	60064	9.800	ug/L	98
115)	Naphthalene	14.344	128	109639	8.115	ug/L	100
116)	1,2,3-Trichlorobenzene	14.511	180	49993	8.878	ug/L	94

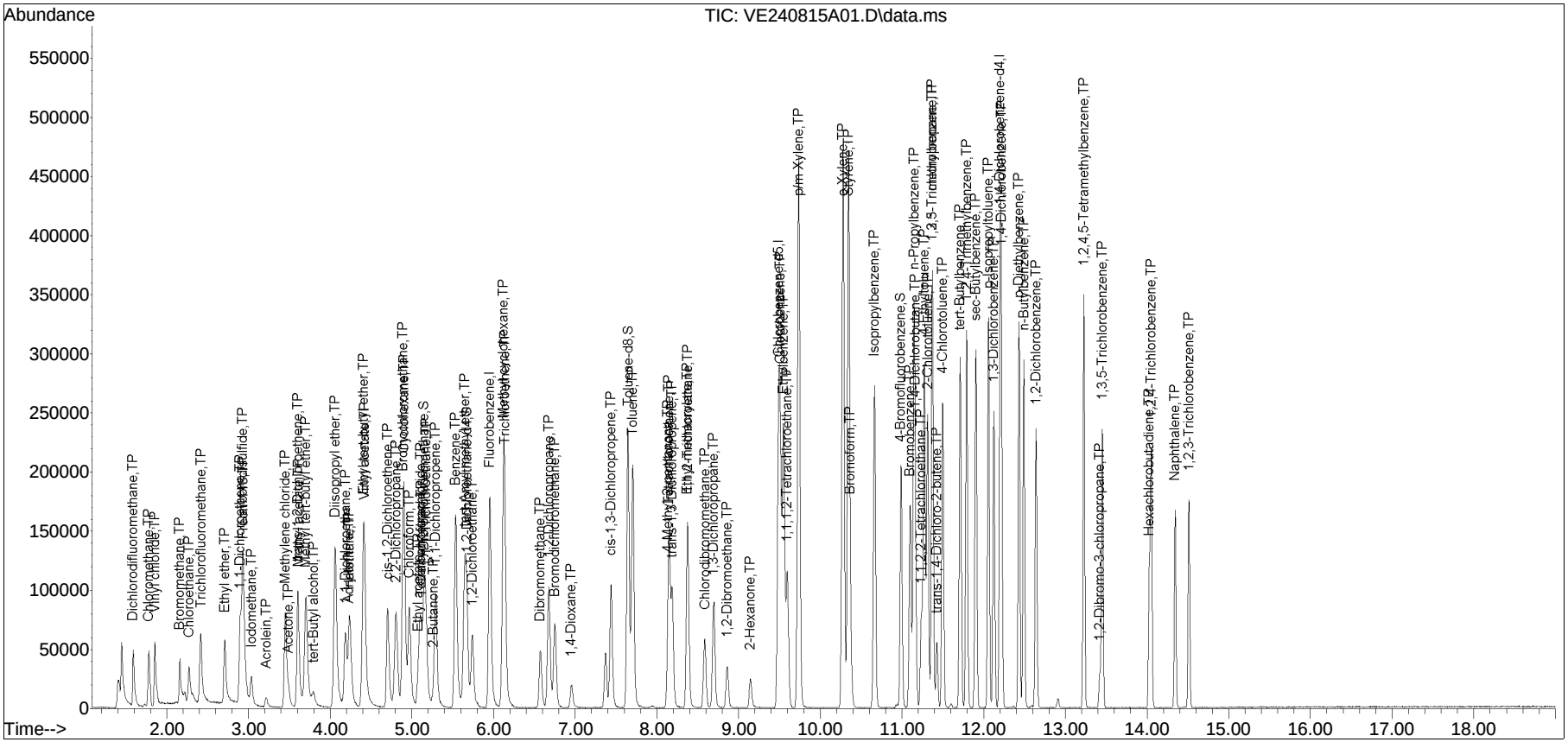
(#) = qualifier out of range (m) = manual integration (+) = signals summed

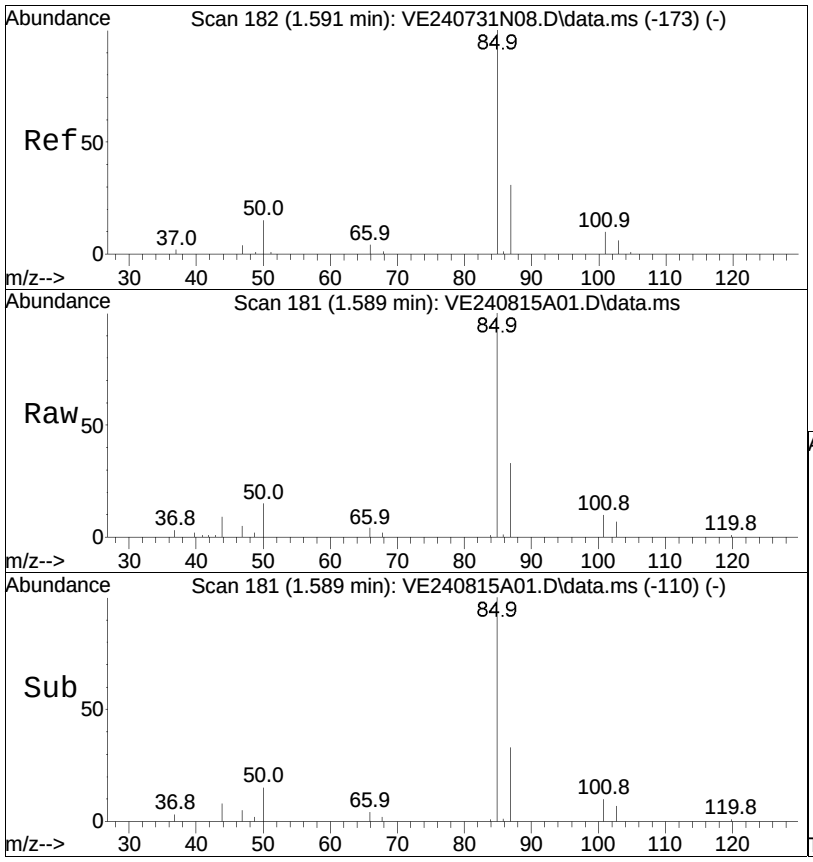
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Acq On : 15 Aug 2024 6:39 am
Operator : ELAINE:PID
Sample : WG1959746-3,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 15 07:06:04 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

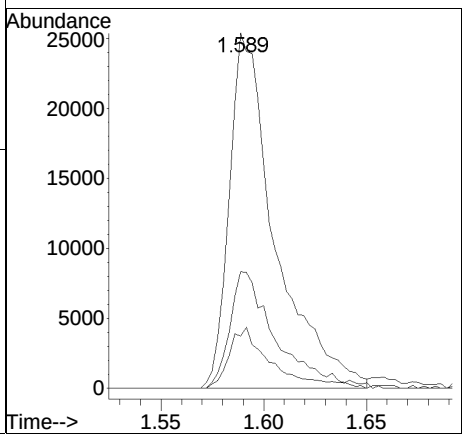


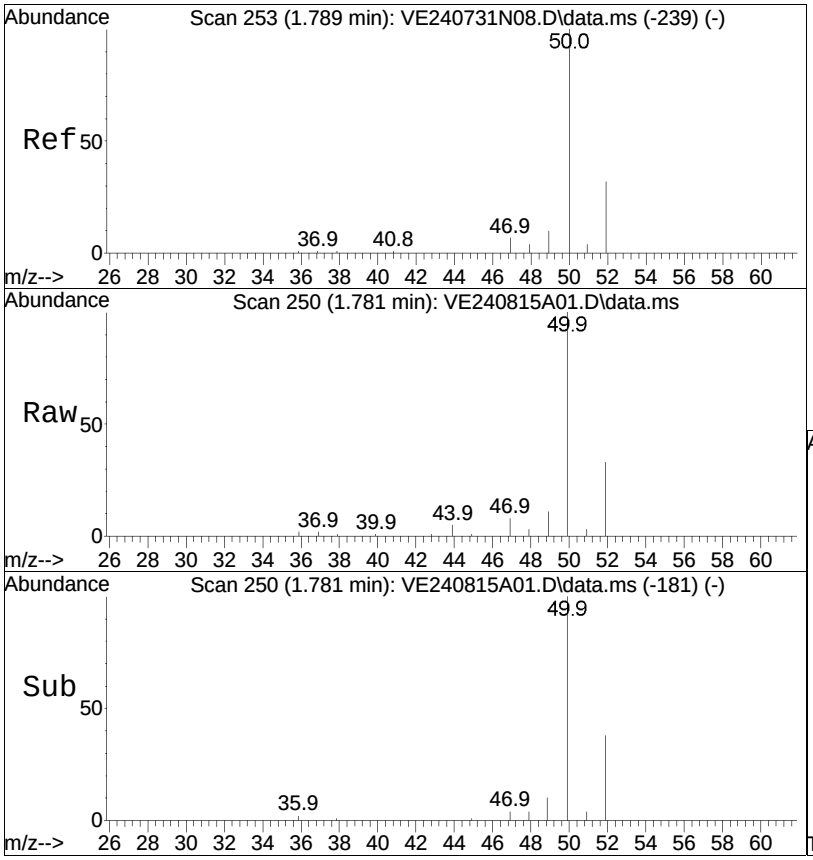


#2
Dichlorodifluoromethane
Concen: 9.36 ug/L
RT: 1.589 min Scan# 181
Delta R.T. -0.002 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 85 Resp: 39330

Ion	Ratio	Lower	Upper
85	100		
87	33.2	21.7	45.1
50	15.9	11.8	24.4

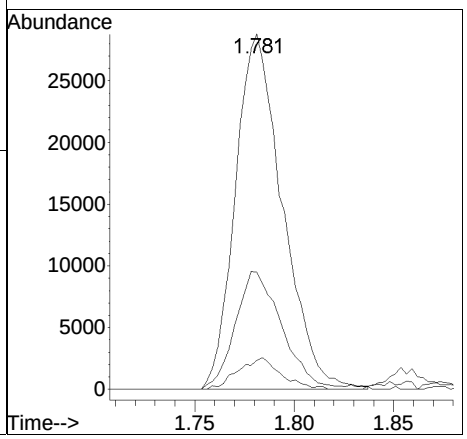


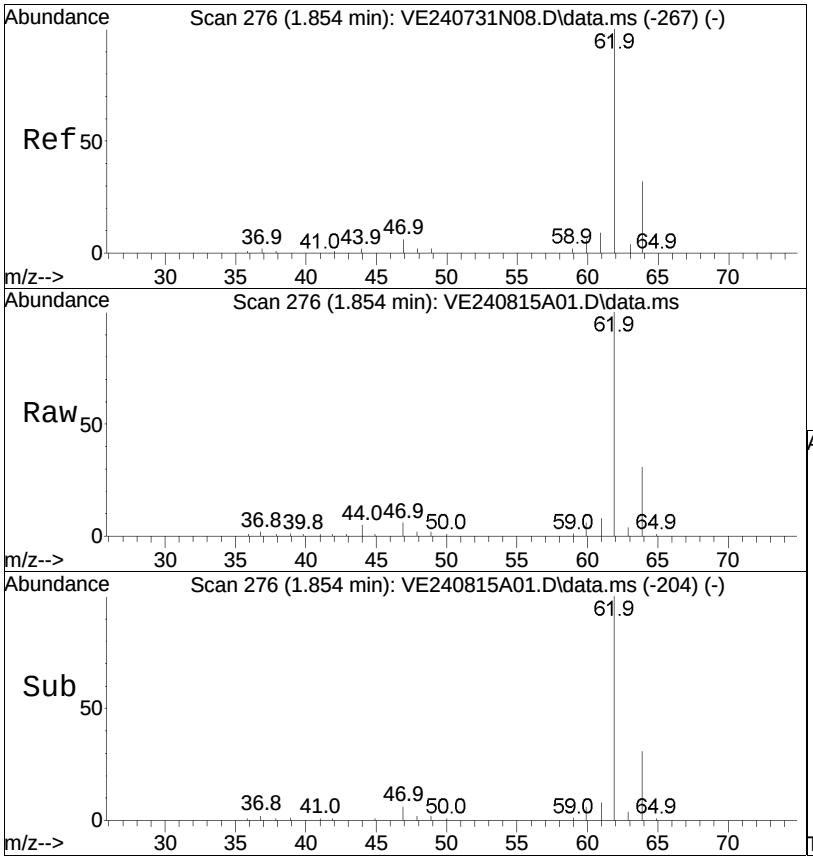


#3
Chloromethane
Concen: 10.15 ug/L
RT: 1.781 min Scan# 250
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 50 Resp: 47487

Ion	Ratio	Lower	Upper
50	100		
52	32.8	14.9	54.9
47	8.2	0.0	28.0

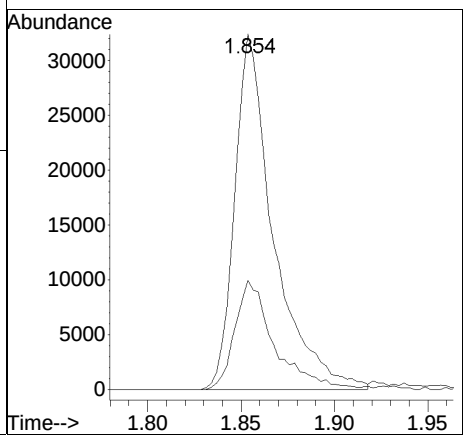


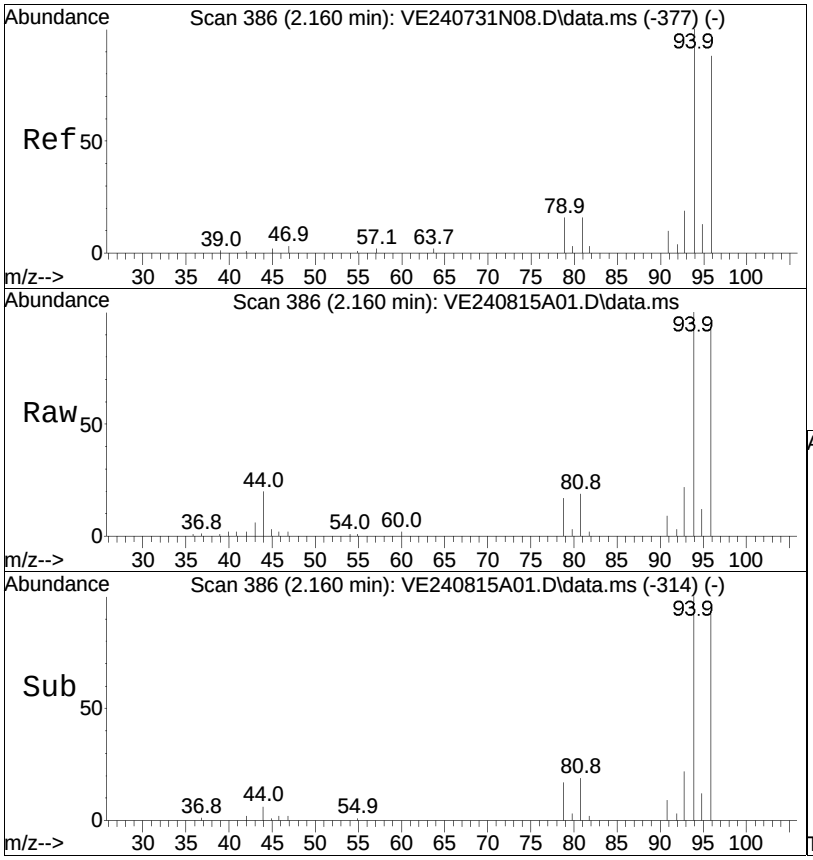


#4
Vinyl chloride
Concen: 10.70 ug/L
RT: 1.854 min Scan# 276
Delta R.T. -0.000 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 62 Resp: 46664

Ion	Ratio	Lower	Upper
62	100		
64	31.1	8.1	48.1

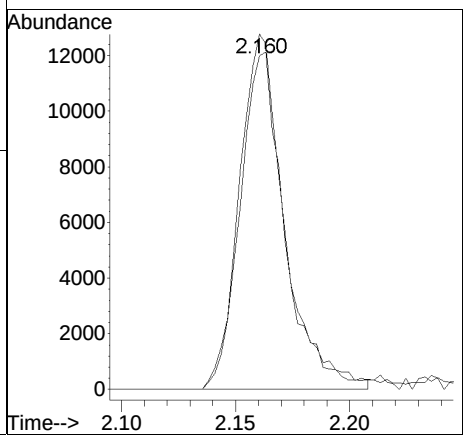


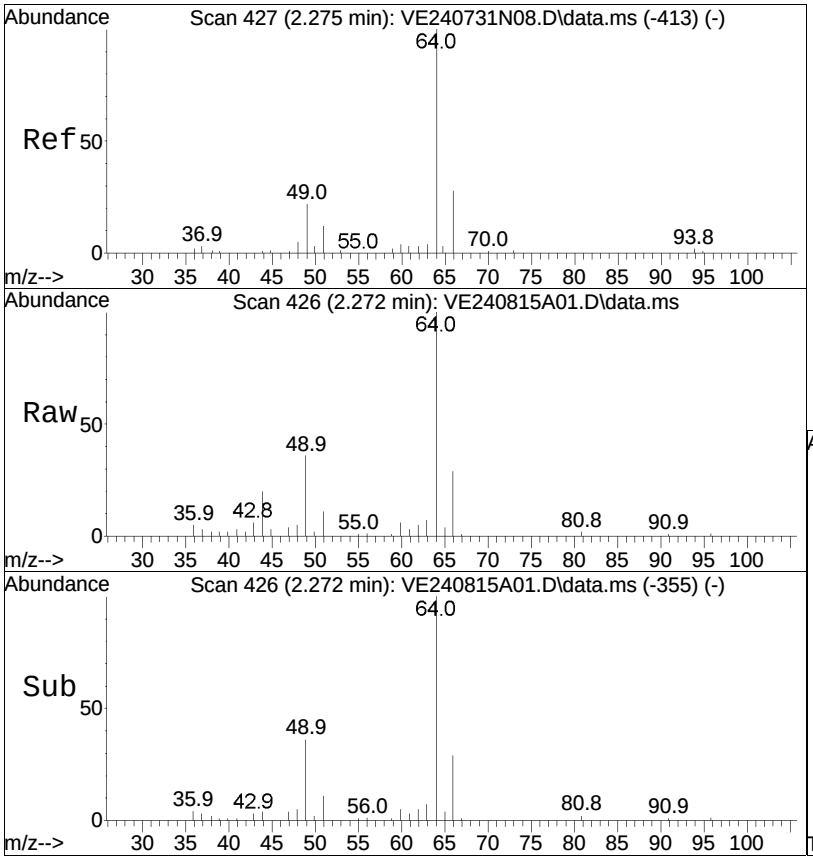


#5
Bromomethane
Concen: 13.30 ug/L
RT: 2.160 min Scan# 386
Delta R.T. 0.000 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 94 Resp: 17530

Ion	Ratio	Lower	Upper
94	100		
96	96.2	68.2	108.2

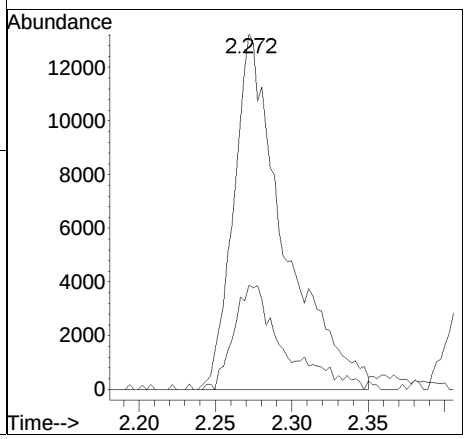


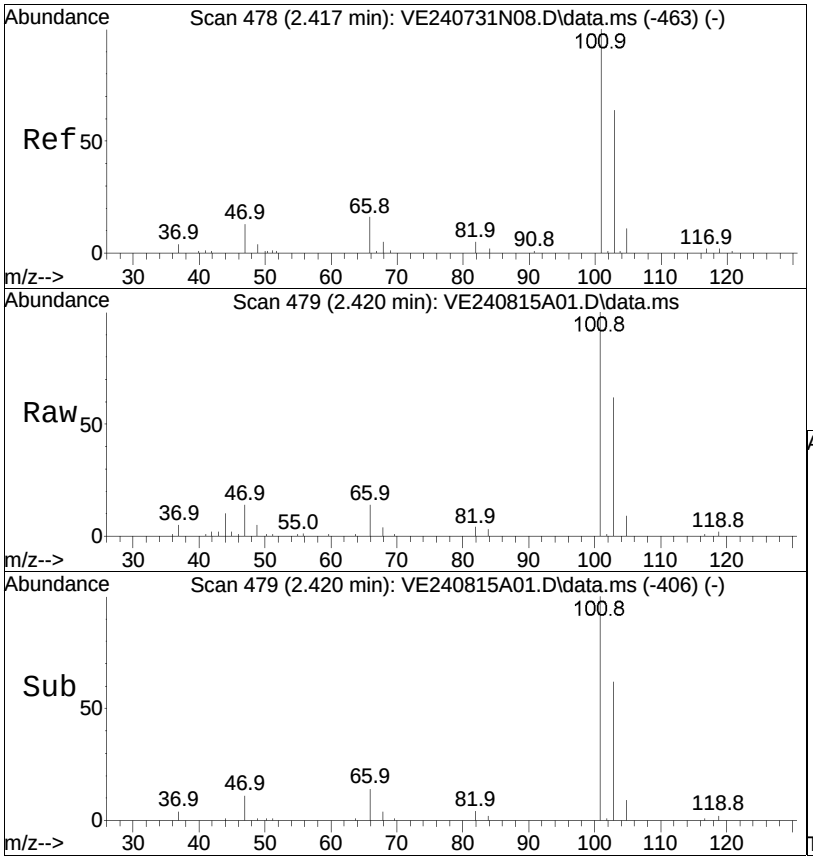


#6
Chloroethane
Concen: 11.56 ug/L M1
RT: 2.272 min Scan# 426
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 64 Resp: 30449

Ion	Ratio	Lower	Upper
64	100		
66	23.0	10.7	50.7

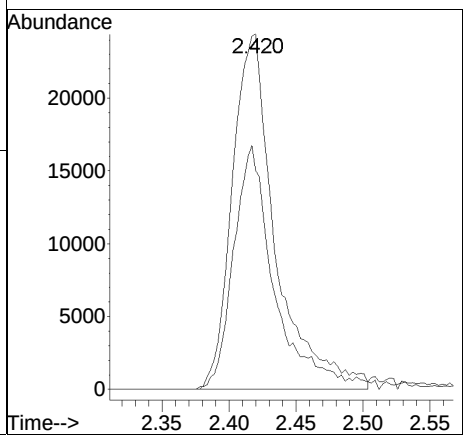


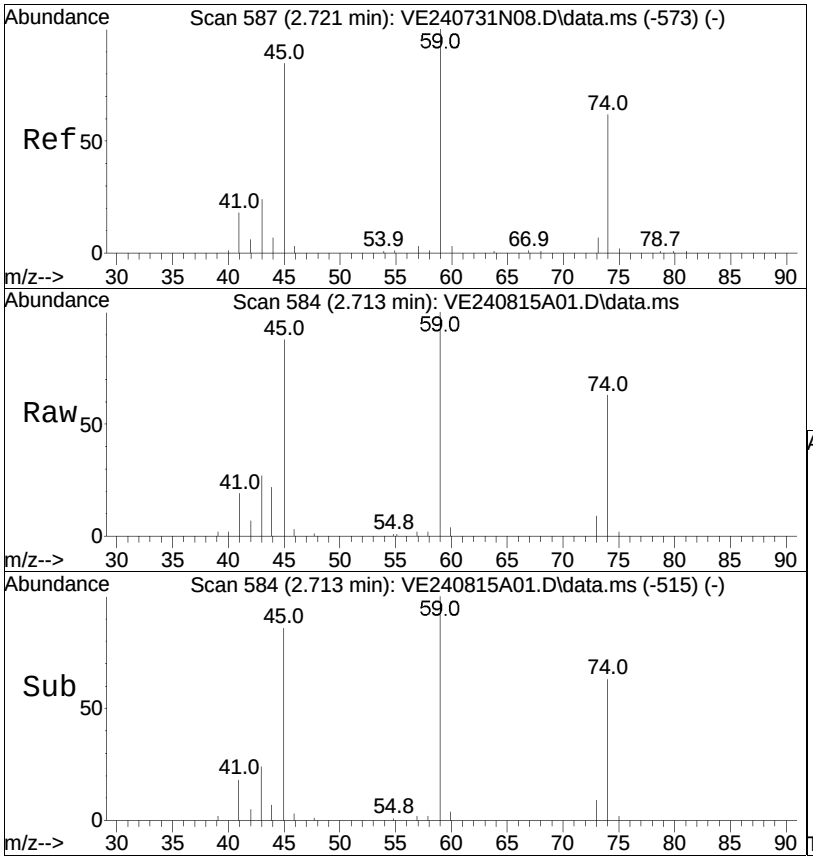


#7
Trichlorofluoromethane
Concen: 10.96 ug/L
RT: 2.420 min Scan# 479
Delta R.T. 0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:101 Resp: 54924

Ion	Ratio	Lower	Upper
101	100		
103	64.2	48.2	72.2

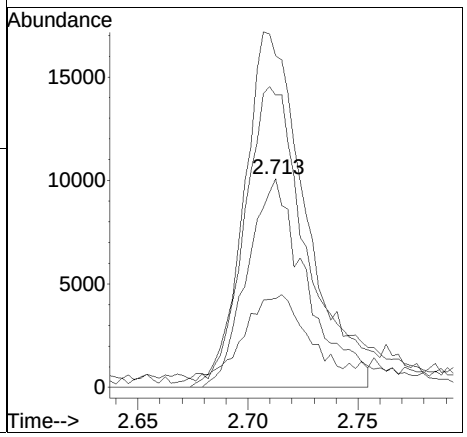


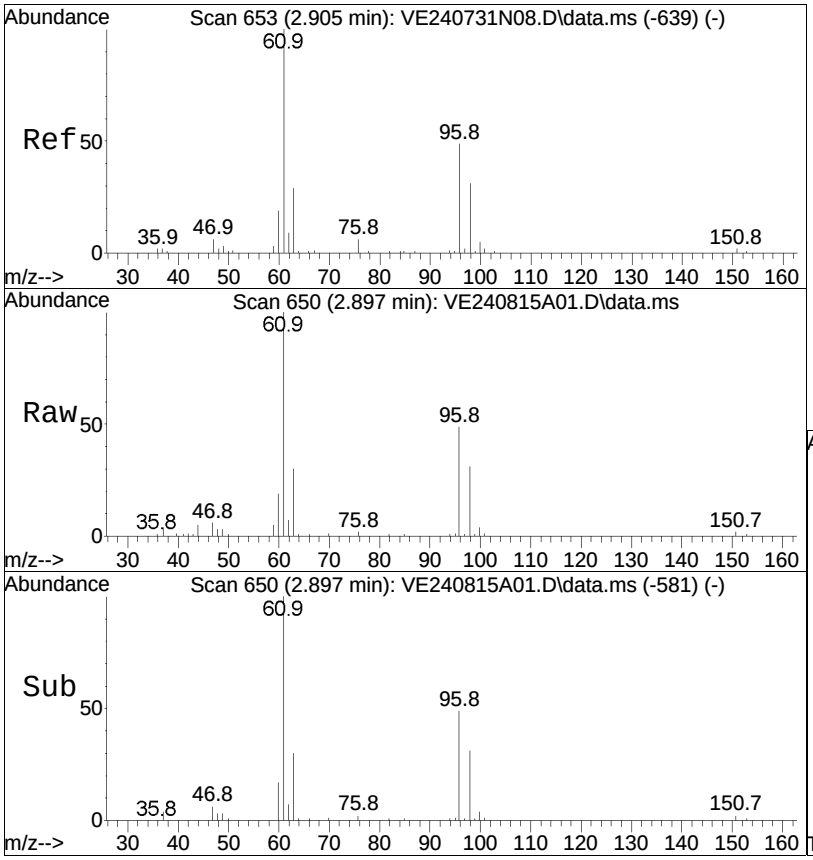


#8
Ethyl ether
Concen: 9.68 ug/L
RT: 2.713 min Scan# 584
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 74 Resp: 19110

Ion	Ratio	Lower	Upper
74	100		
59	189.7	91.7	190.5
45	146.5	77.4	160.8
43	41.6	24.6	51.2

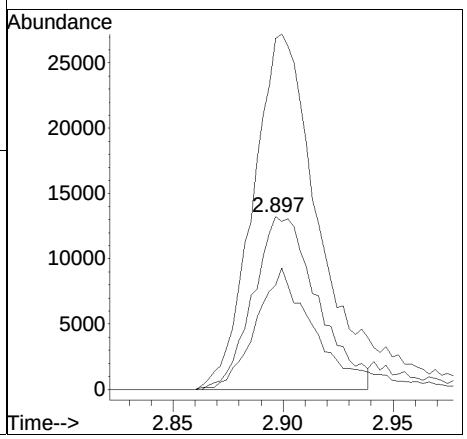


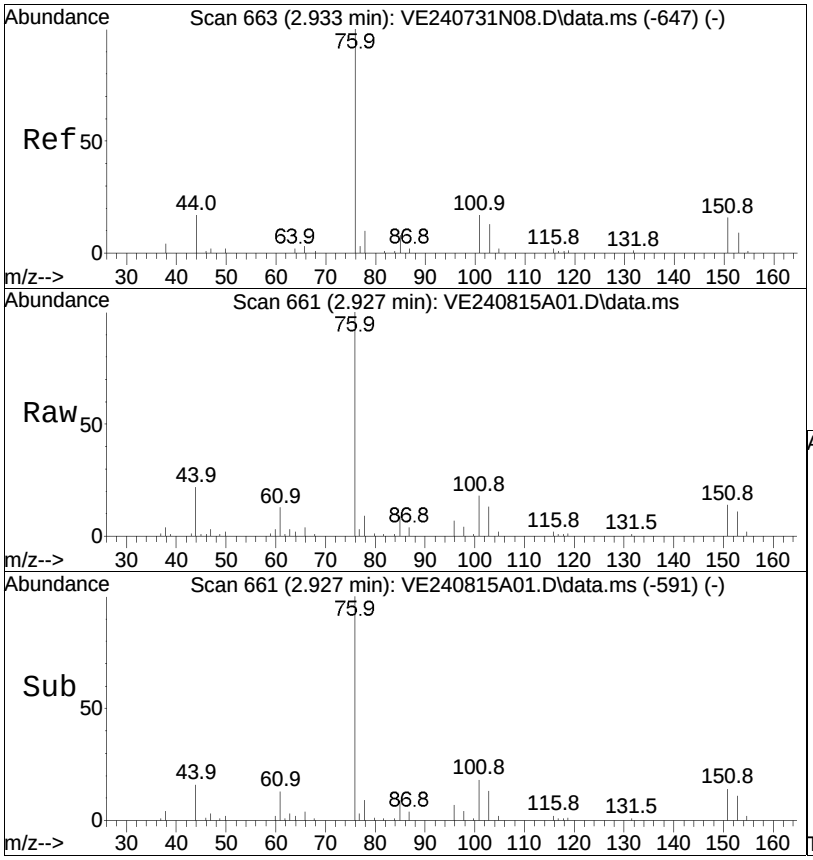


#10
1,1-Dichloroethene
Concen: 8.95 ug/L
RT: 2.897 min Scan# 650
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 96 Resp: 26873

Ion	Ratio	Lower	Upper
96	100		
61	222.5	135.4	203.0#
63	68.4	42.6	63.8#

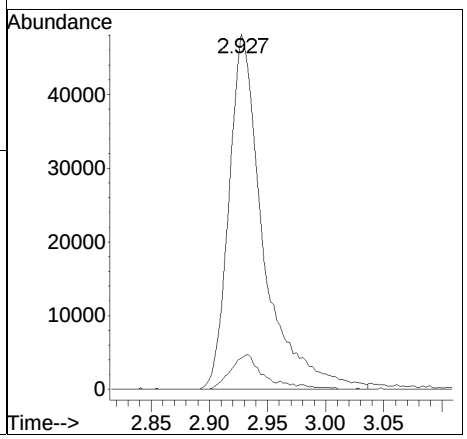


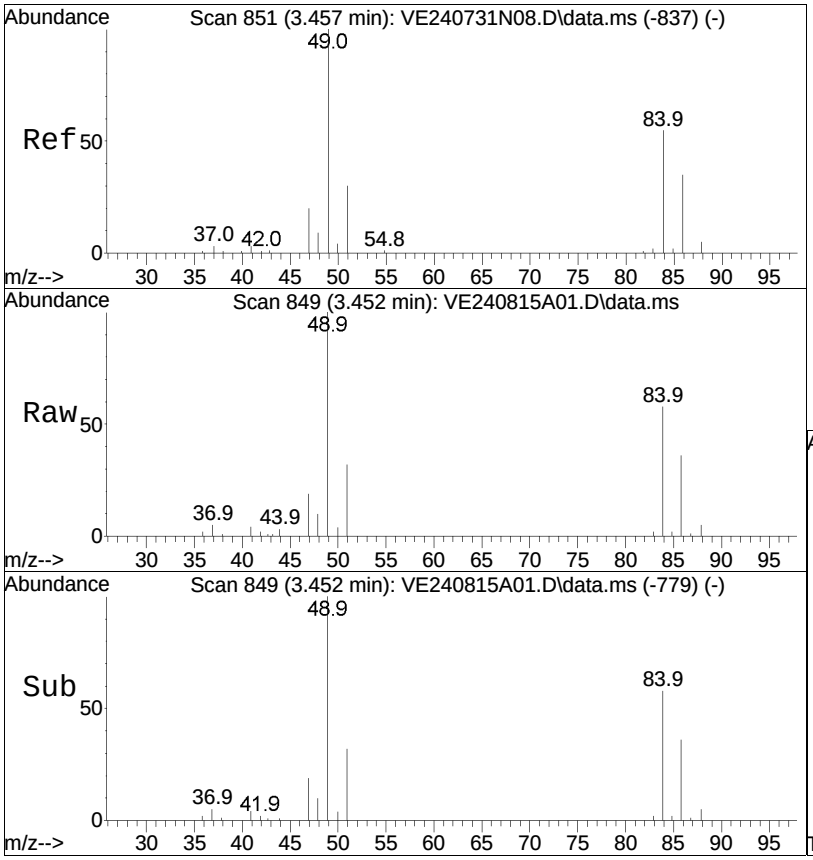


#11
Carbon disulfide
Concen: 10.73 ug/L
RT: 2.927 min Scan# 661
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 76 Resp: 99409

Ion	Ratio	Lower	Upper
76	100		
78	8.4	5.5	11.3

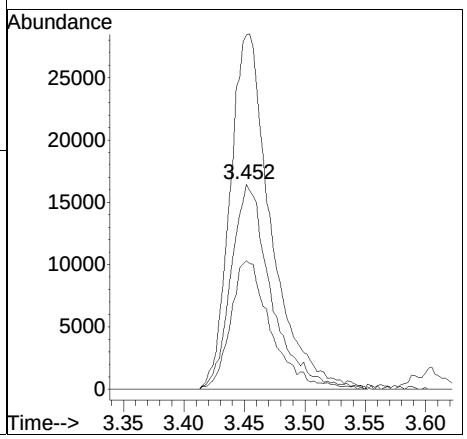


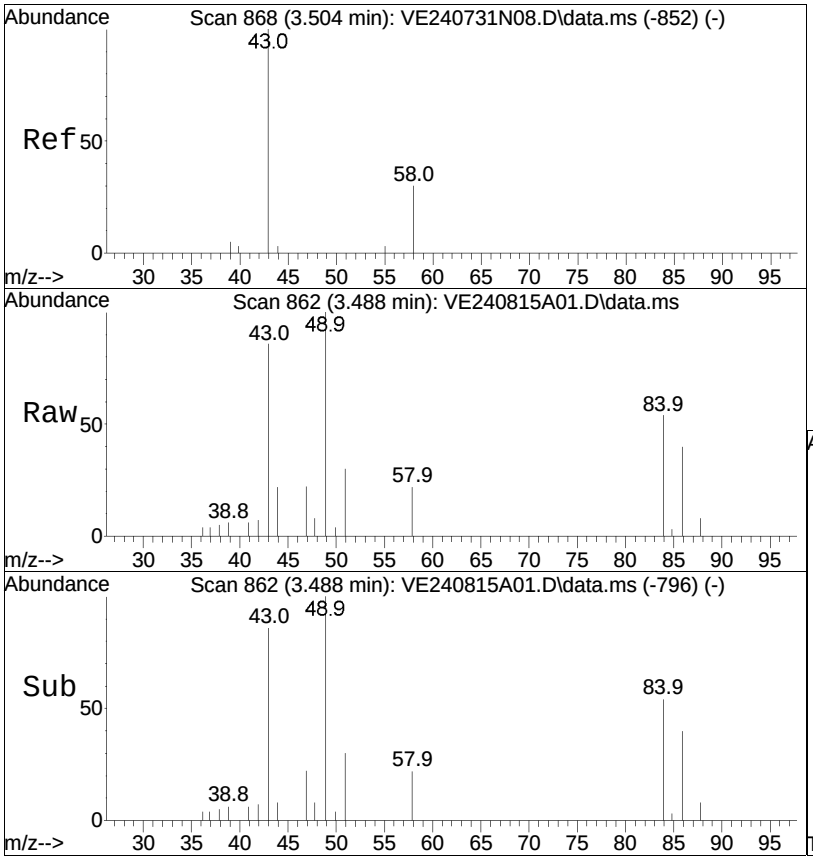


#15
Methylene chloride
Concen: 10.10 ug/L
RT: 3.452 min Scan# 849
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 84 Resp: 38272

Ion	Ratio	Lower	Upper
84	100		
86	62.9	40.2	83.6
49	174.5	103.2	214.4

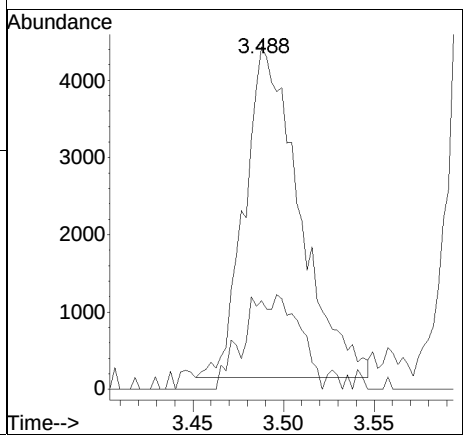


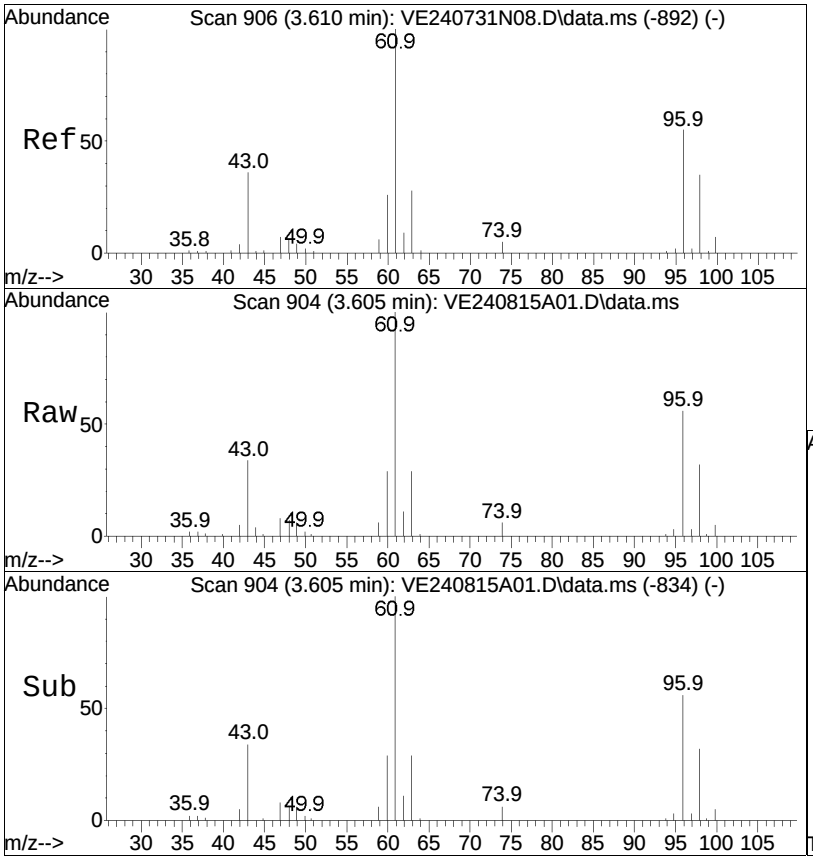


#17
Acetone
Concen: 6.57 ug/L
RT: 3.488 min Scan# 862
Delta R.T. -0.016 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 43 Resp: 9041

Ion	Ratio	Lower	Upper
43	100		
58	15.3	23.4	35.0#

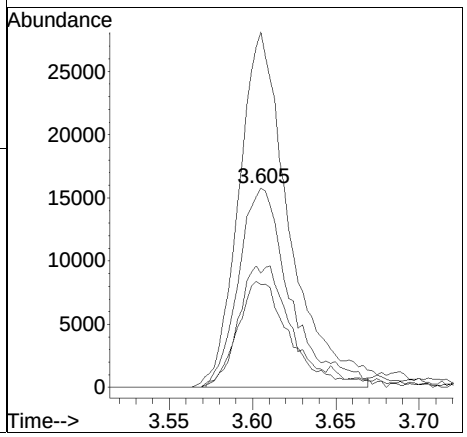


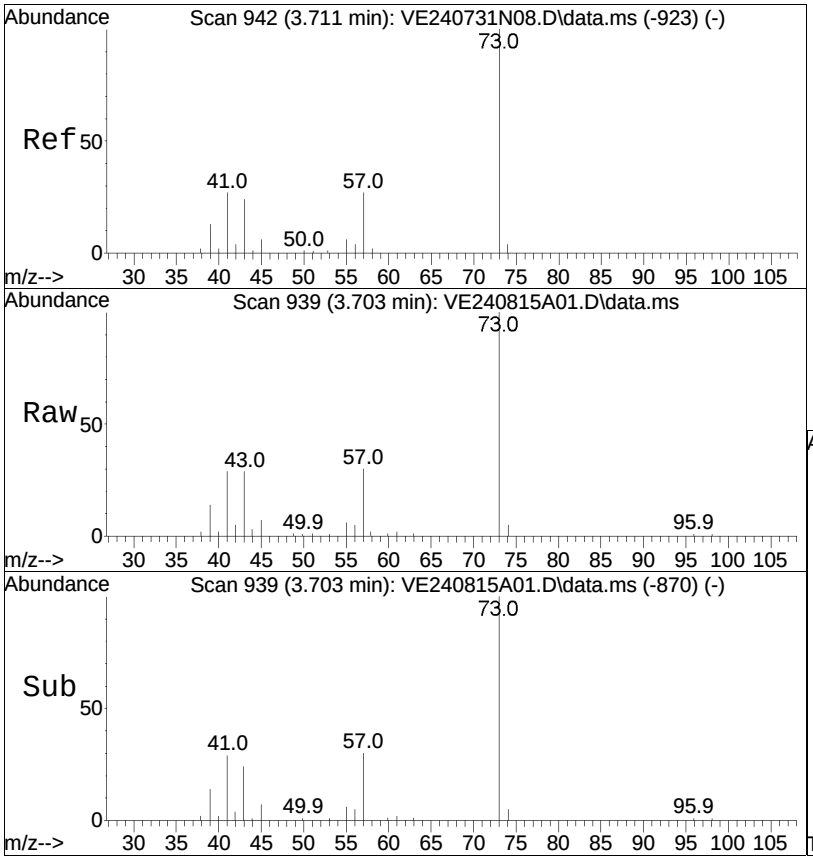


#18
trans-1,2-Dichloroethene
Concen: 10.67 ug/L
RT: 3.605 min Scan# 904
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 96 Resp: 34432

Ion	Ratio	Lower	Upper
96	100		
61	174.7	93.5	194.1
98	59.6	37.8	78.6
63	53.9	29.7	61.7

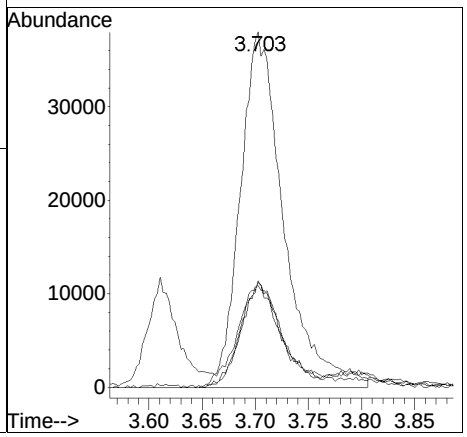


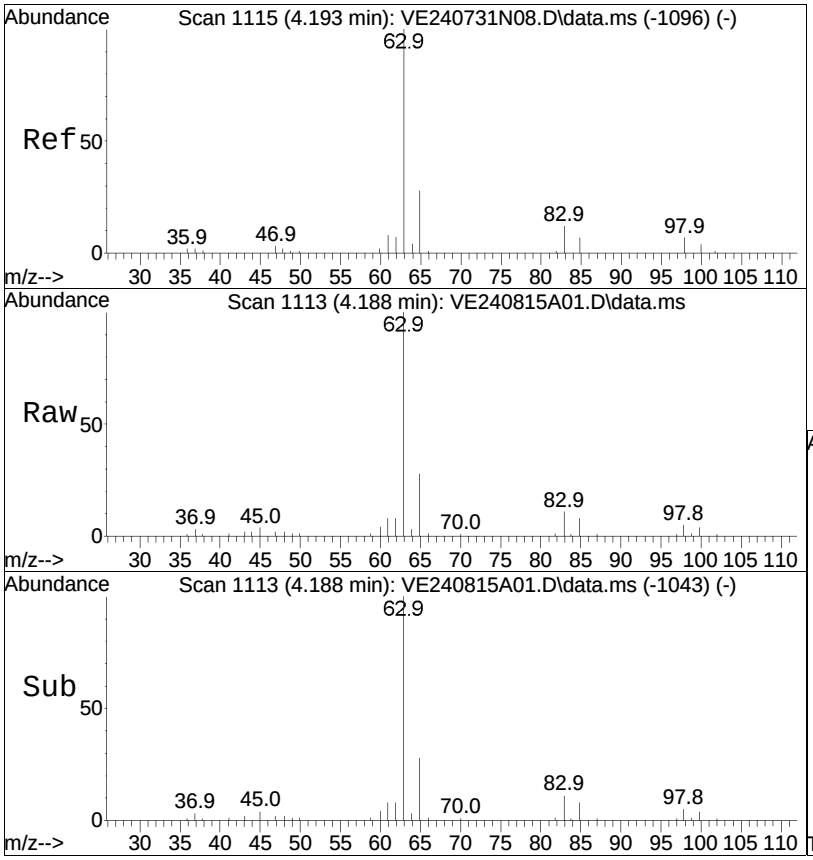


#21
Methyl tert-butyl ether
Concen: 8.96 ug/L
RT: 3.703 min Scan# 939
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 73 Resp: 107843

Ion	Ratio	Lower	Upper
73	100		
57	27.6	16.1	33.3
43	25.1	17.0	35.2
41	27.5	18.7	38.9

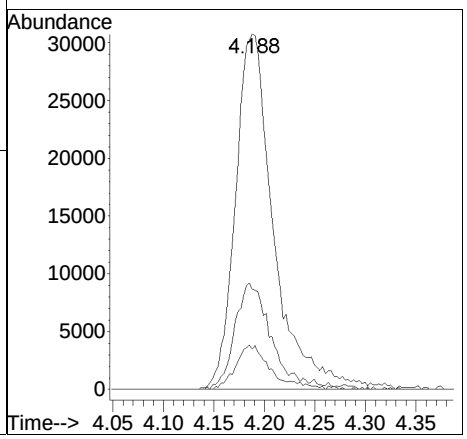


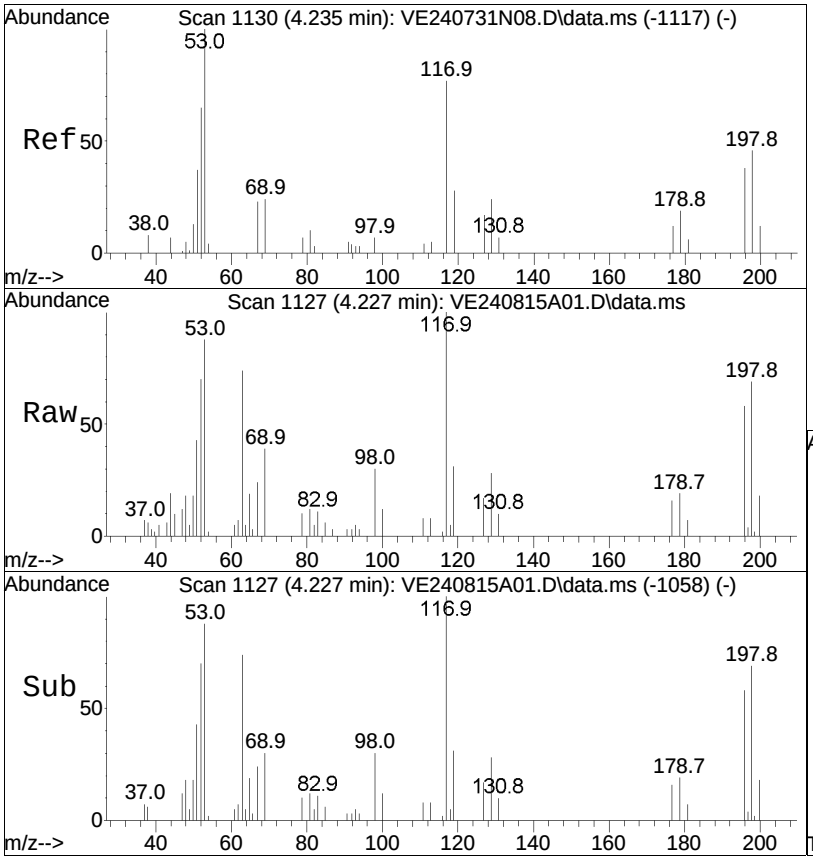


#25
1,1-Dichloroethane
Concen: 10.71 ug/L
RT: 4.188 min Scan# 1113
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 63 Resp: 81160

Ion	Ratio	Lower	Upper
63	100		
65	28.0	10.3	50.3
83	11.5	0.0	33.1

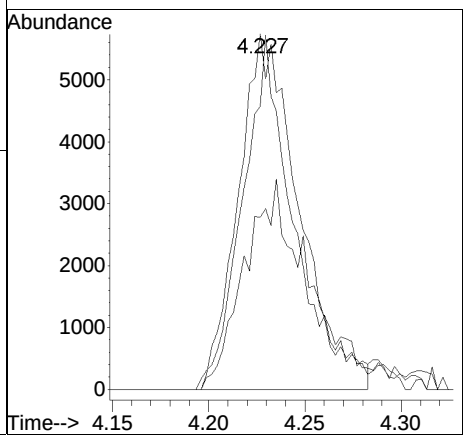


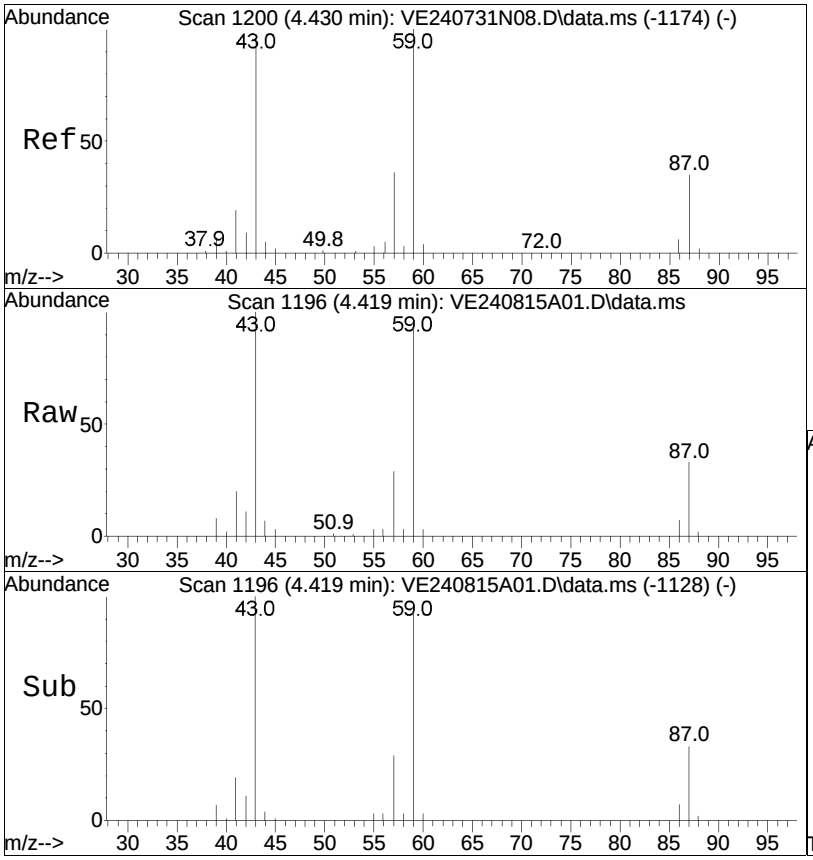


#27
Acrylonitrile
Concen: 8.05 ug/L
RT: 4.227 min Scan# 1127
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 53 Resp: 12726

Ion	Ratio	Lower	Upper
53	100		
52	83.6	58.9	88.3
51	60.0	40.2	60.2

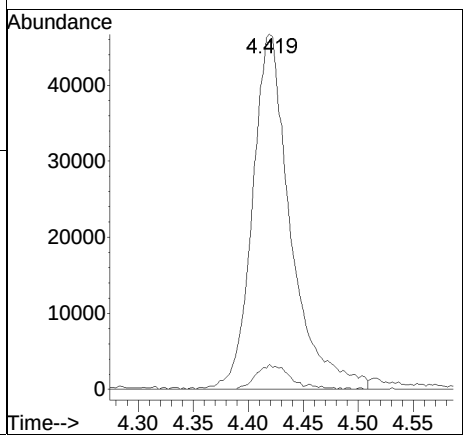


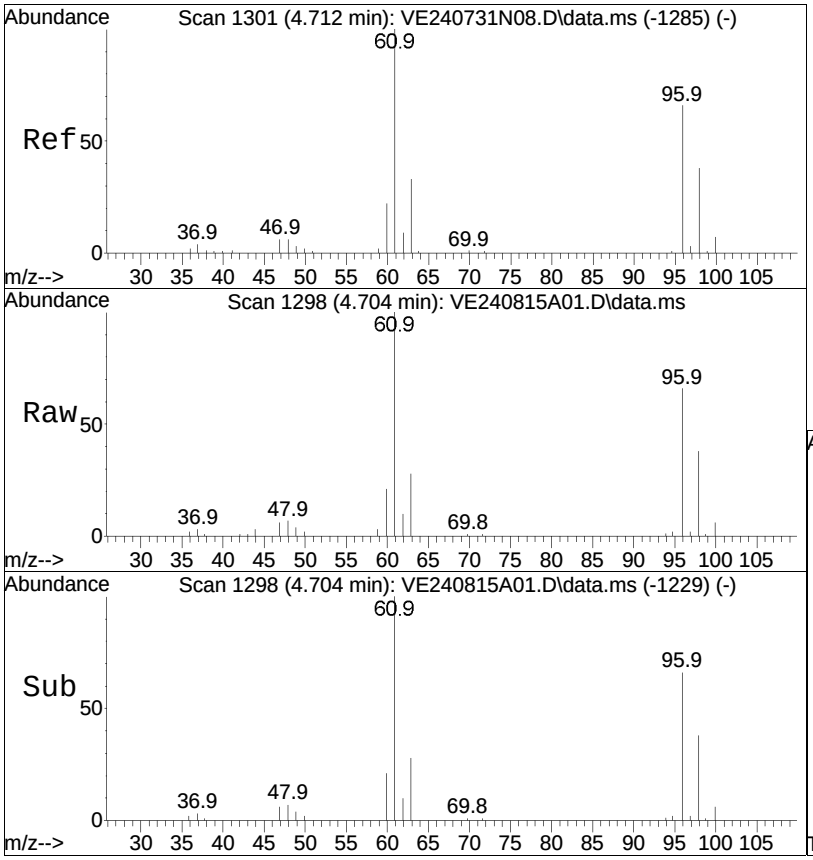


#29
Vinyl acetate
Concen: 9.85 ug/L
RT: 4.419 min Scan# 1196
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 43 Resp: 113001

Ion	Ratio	Lower	Upper
43	100		
86	5.9	6.2	9.4#

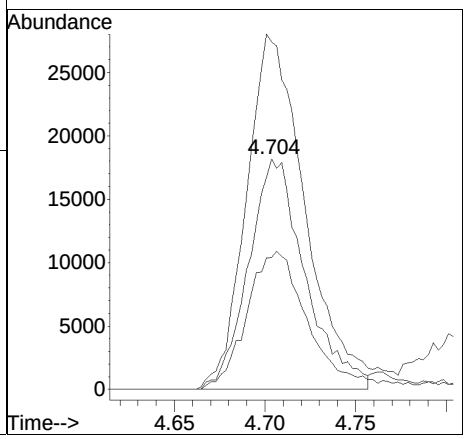


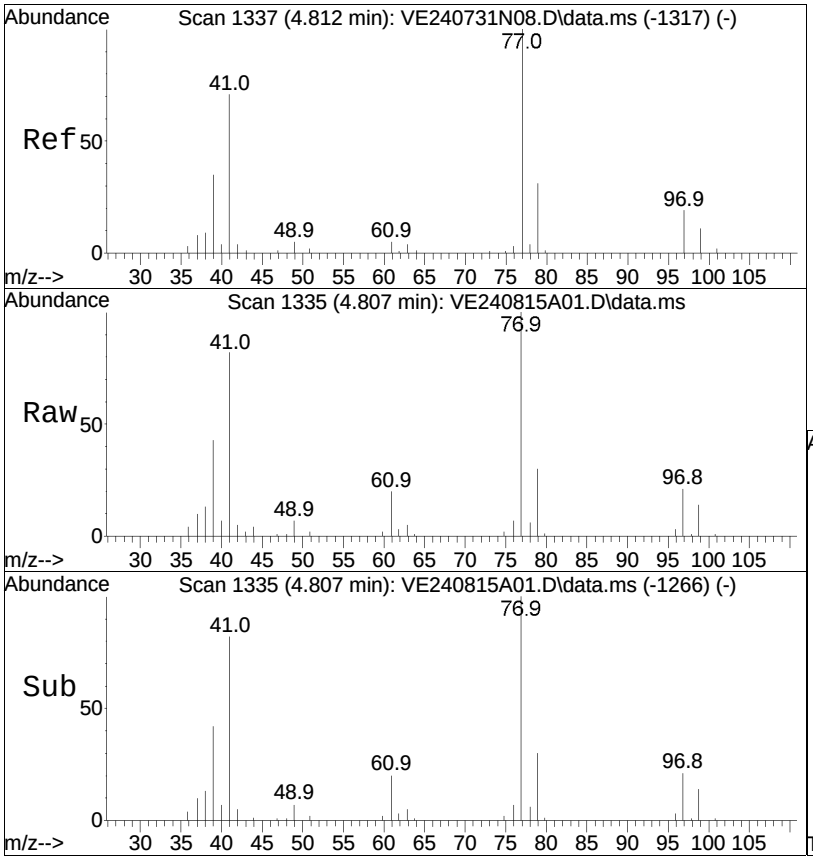


#30
cis-1,2-Dichloroethene
Concen: 10.23 ug/L
RT: 4.704 min Scan# 1298
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 96 Resp: 39562

Ion	Ratio	Lower	Upper
96	100		
61	163.0	120.3	180.5
98	64.2	50.2	75.4

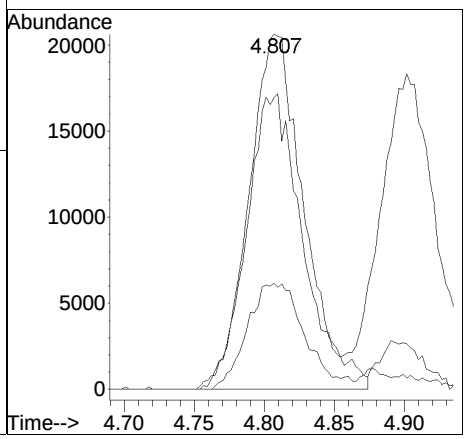


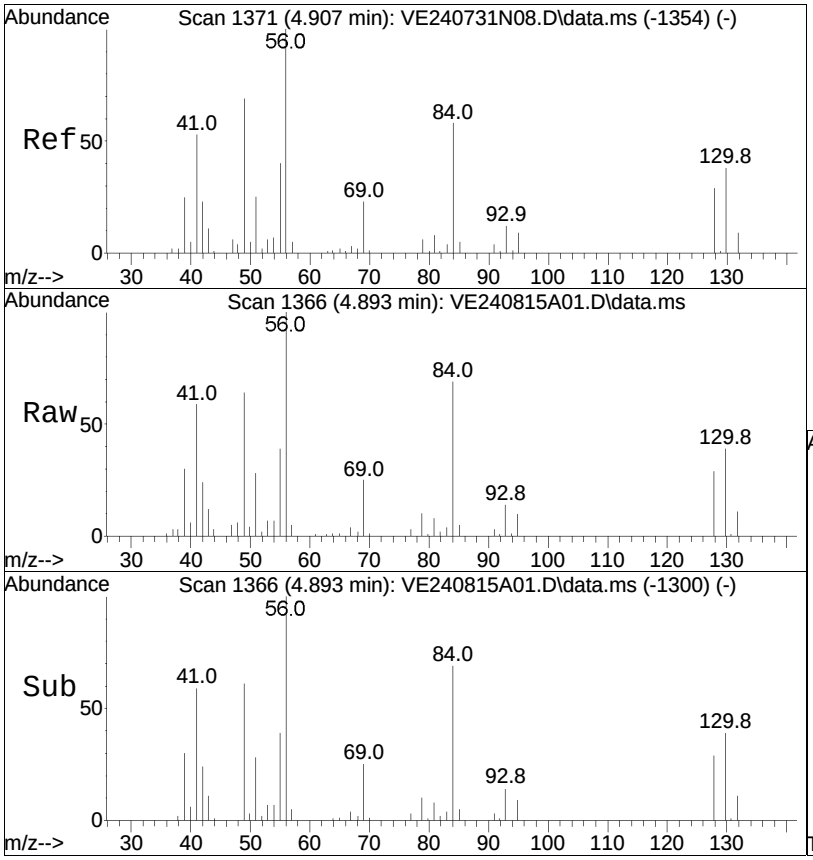


#31
2,2-Dichloropropane
Concen: 11.12 ug/L
RT: 4.807 min Scan# 1335
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 77 Resp: 56367

Ion	Ratio	Lower	Upper
77	100		
41	82.6	46.5	96.5
79	31.3	21.6	45.0

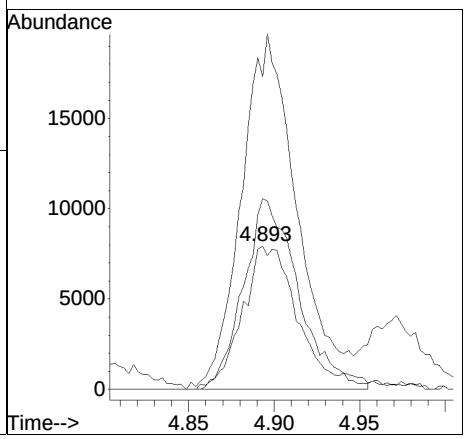


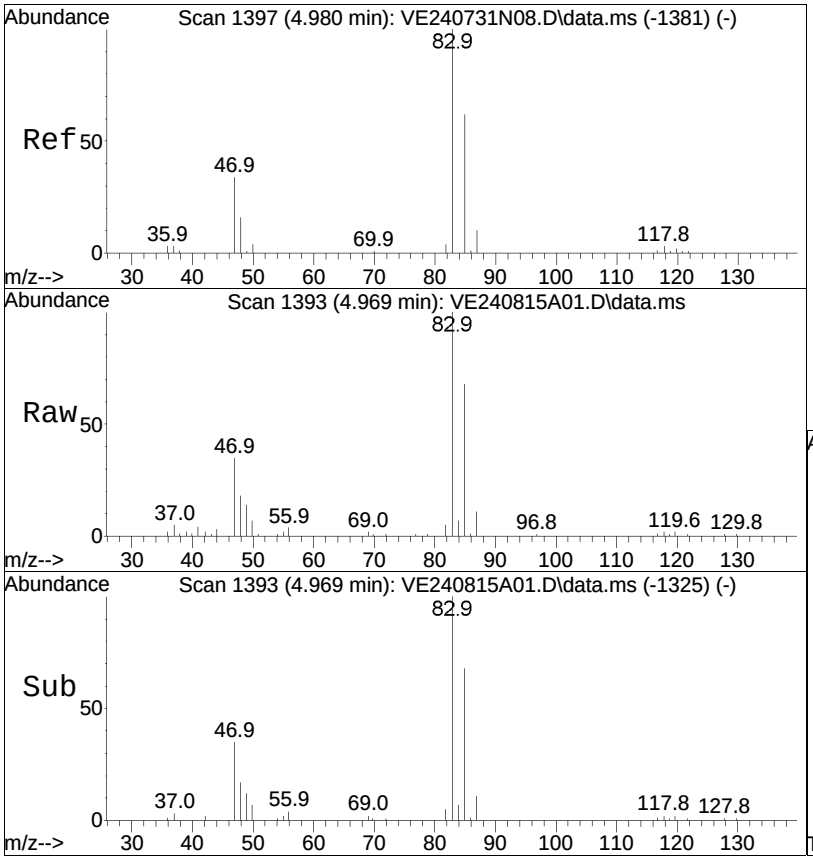


#33
Bromochloromethane
Concen: 10.58 ug/L
RT: 4.893 min Scan# 1366
Delta R.T. -0.014 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:128 Resp: 17952

Ion	Ratio	Lower	Upper
128	100		
49	248.8	170.2	255.2
130	133.5	103.7	155.5

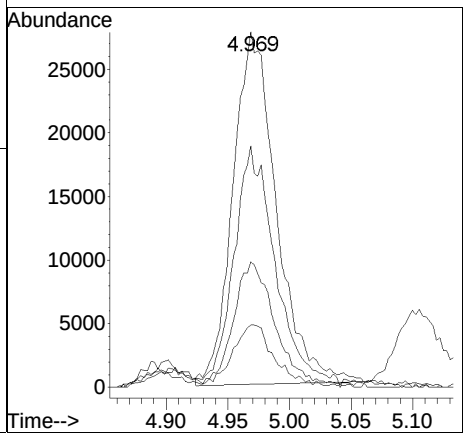


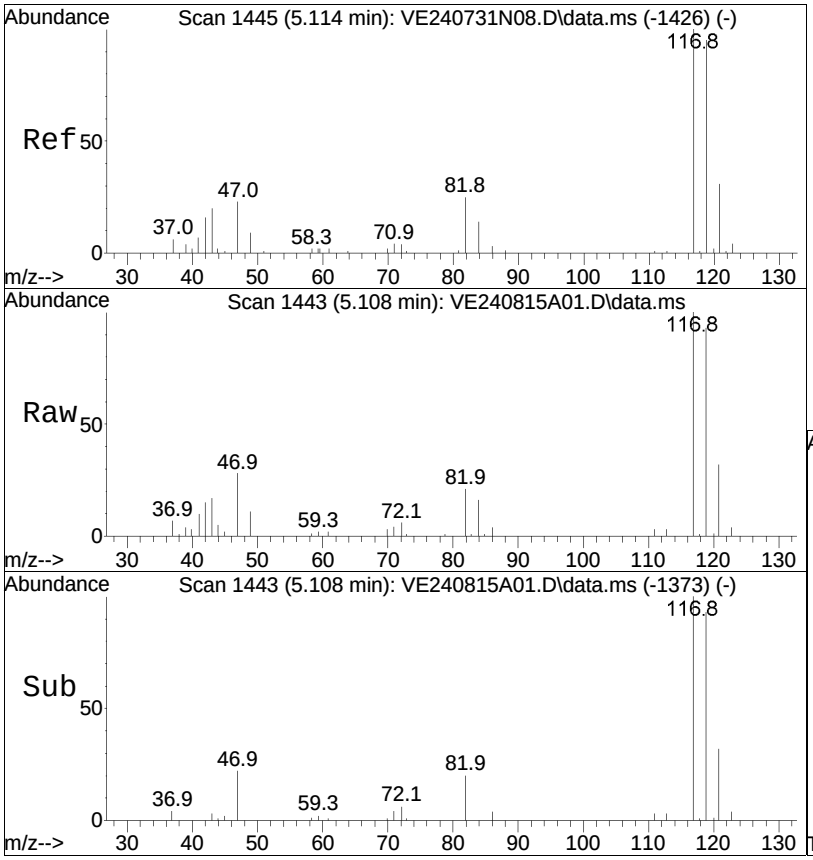


#35
Chloroform
Concen: 10.81 ug/L
RT: 4.969 min Scan# 1393
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 83 Resp: 67886

Ion	Ratio	Lower	Upper
83	100		
85	66.1	41.3	85.9
47	32.8	20.9	43.3
48	16.1	10.3	21.5

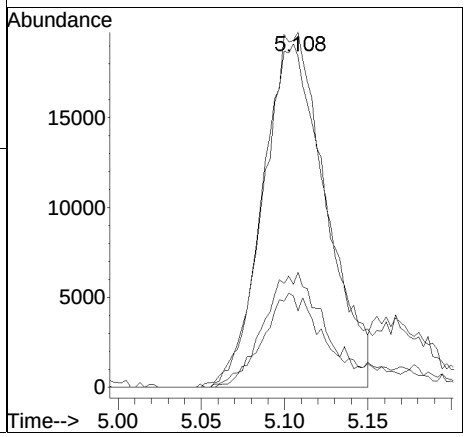


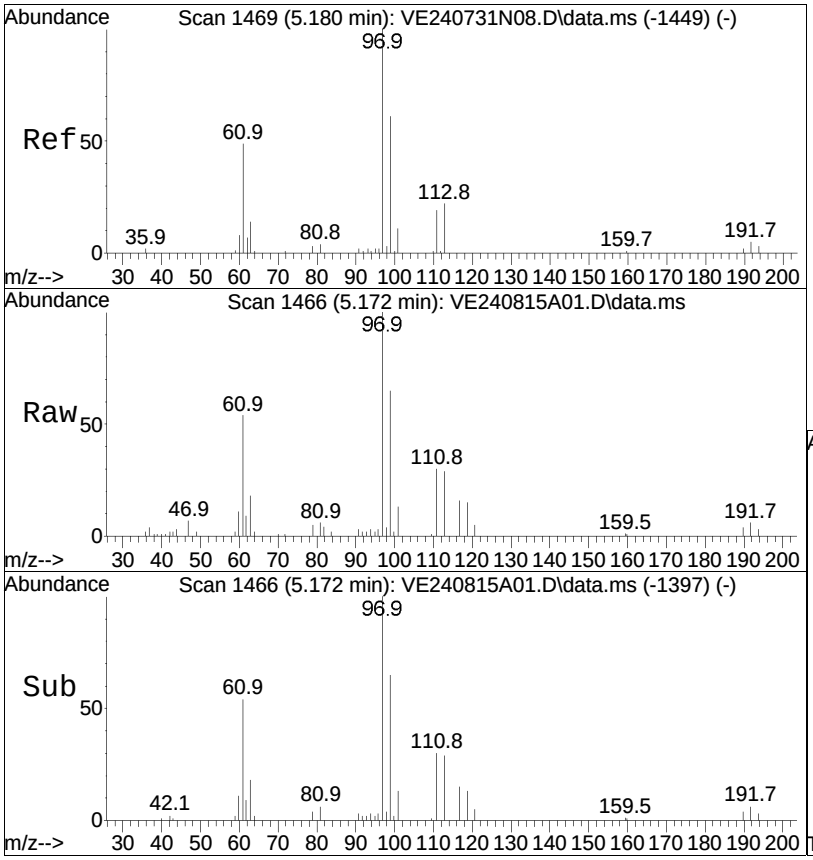


#37
Carbon tetrachloride
Concen: 10.86 ug/L
RT: 5.108 min Scan# 1443
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:117 Resp: 52071

Ion	Ratio	Lower	Upper
117	100		
119	97.5	60.6	126.0
121	30.9	18.0	37.4
82	25.9	19.8	41.0

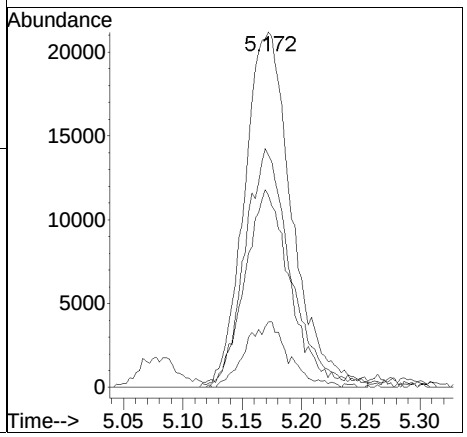


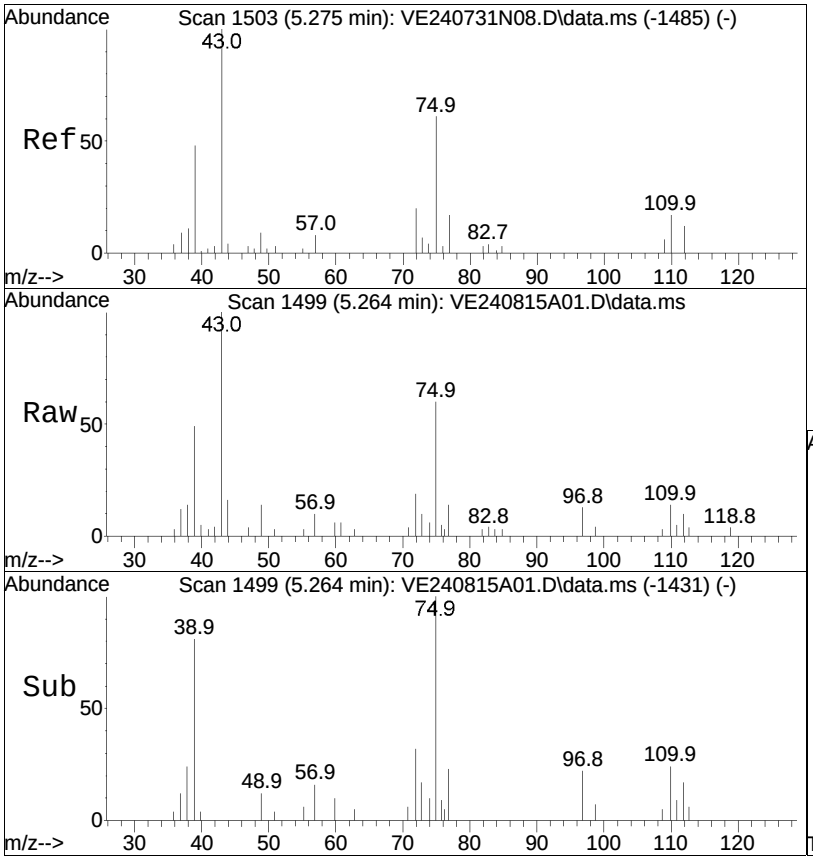


#40
1,1,1-Trichloroethane
Concen: 10.43 ug/L
RT: 5.172 min Scan# 1466
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 97 Resp: 59474

Ion	Ratio	Lower	Upper
97	100		
99	63.8	40.2	83.4
61	49.4	36.9	76.5
63	16.2	8.3	17.3

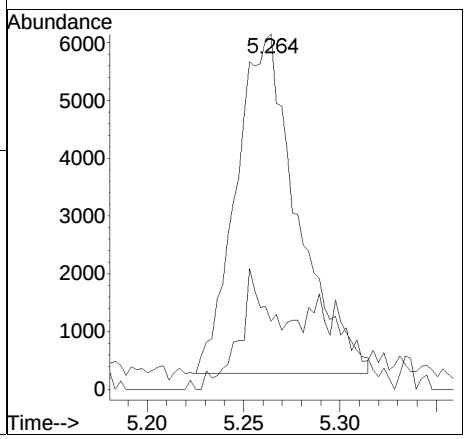


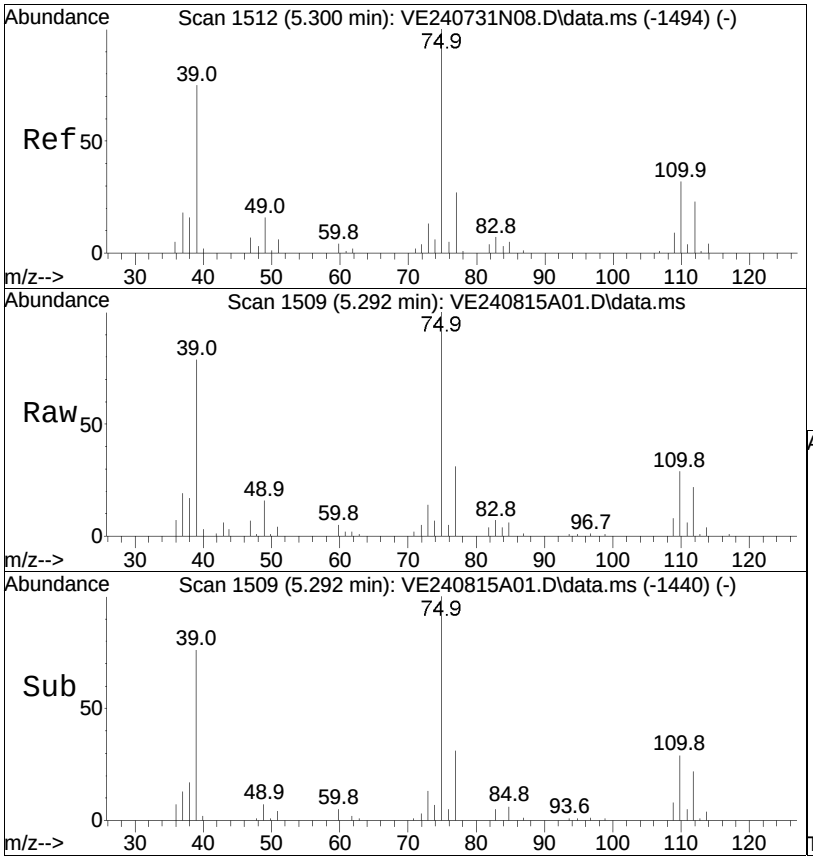


#42
2-Butanone
Concen: 6.60 ug/L
RT: 5.264 min Scan# 1499
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 43 Resp: 12970

Ion	Ratio	Lower	Upper
43	100		
72	18.3	15.7	23.5

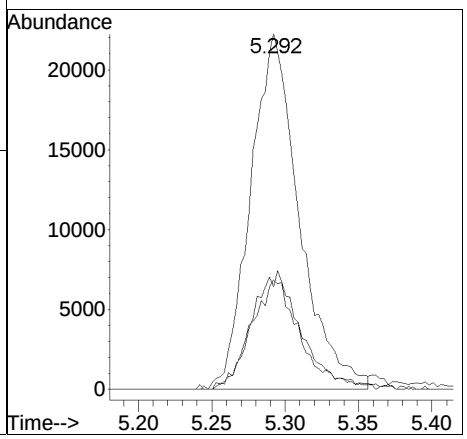


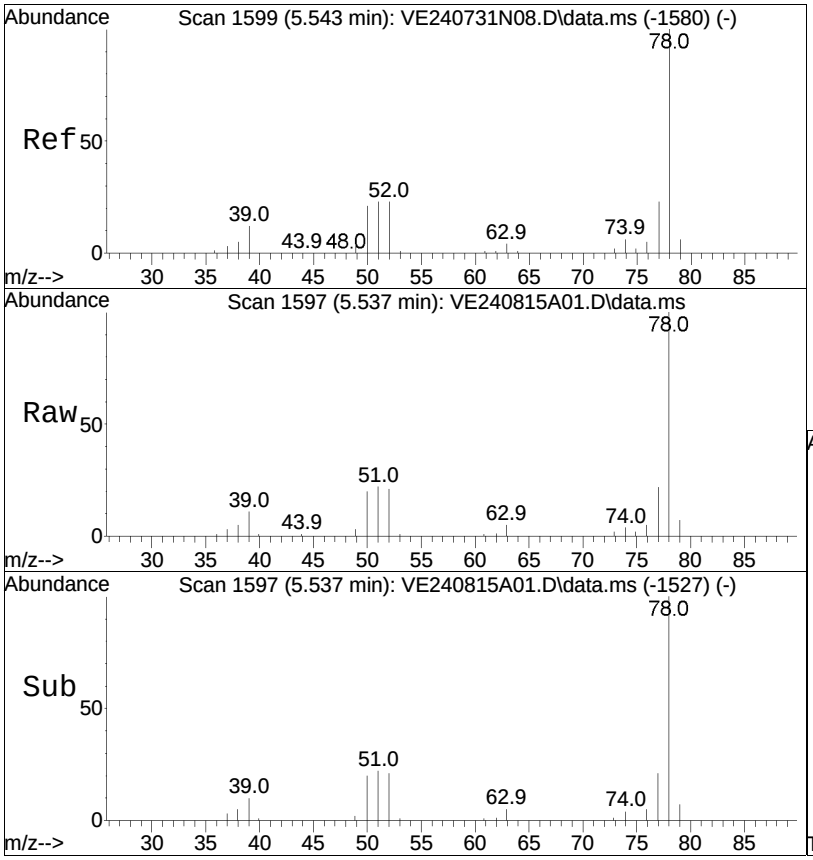


#43
1,1-Dichloropropene
Concen: 10.72 ug/L
RT: 5.292 min Scan# 1509
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 75 Resp: 51478

Ion	Ratio	Lower	Upper
75	100		
110	33.9	20.3	42.1
77	31.4	18.9	39.3

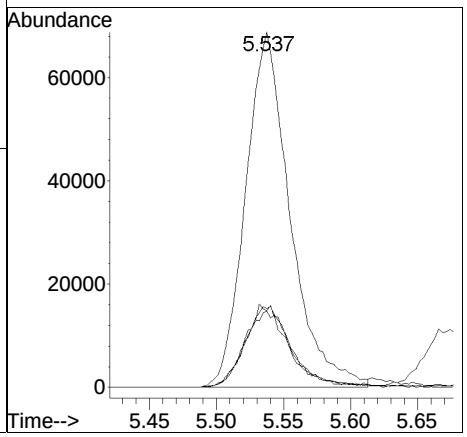


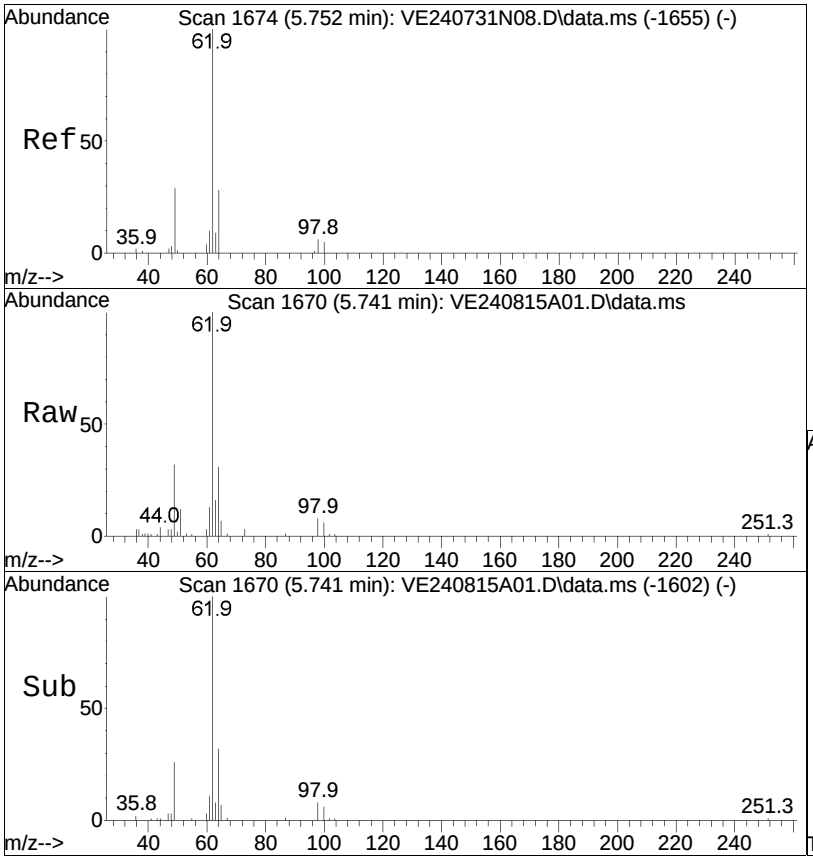


#45
Benzene
Concen: 10.71 ug/L
RT: 5.537 min Scan# 1597
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 78 Resp: 159098

Ion	Ratio	Lower	Upper
78	100		
77	23.6	12.8	26.6
51	23.6	13.5	27.9
52	21.8	12.0	25.0

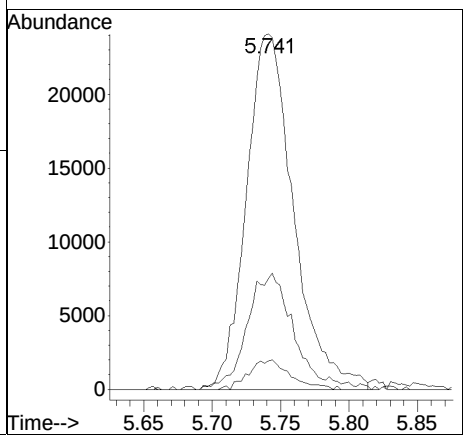


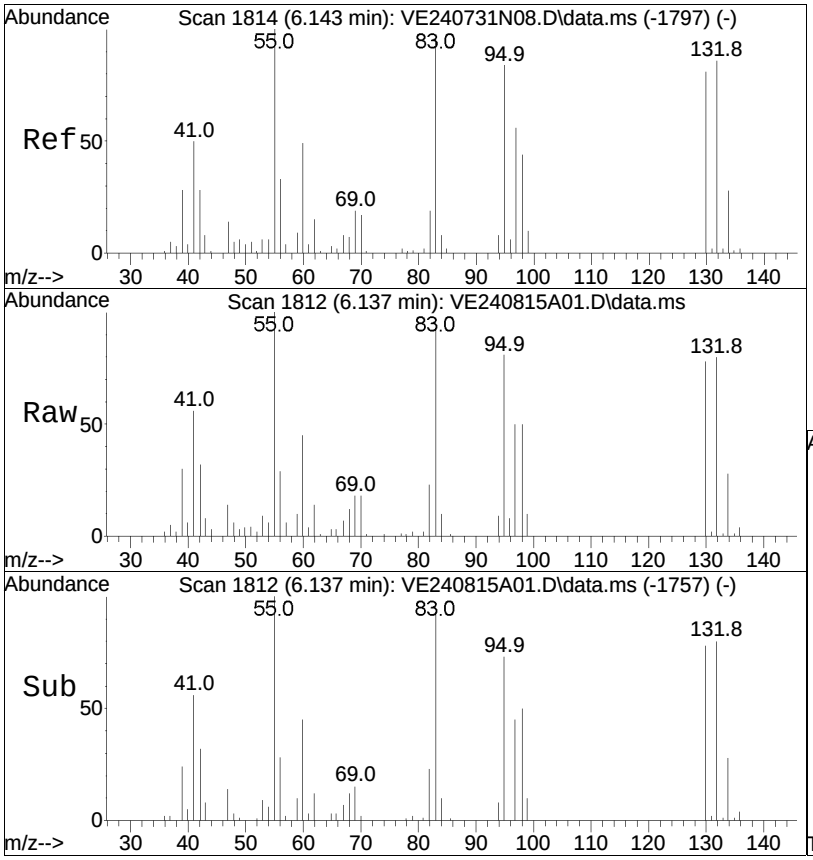


#48
1,2-Dichloroethane
Concen: 10.11 ug/L
RT: 5.741 min Scan# 1670
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 62 Resp: 57930

Ion	Ratio	Lower	Upper
62	100		
64	31.1	12.0	52.0
98	7.3	0.0	29.1

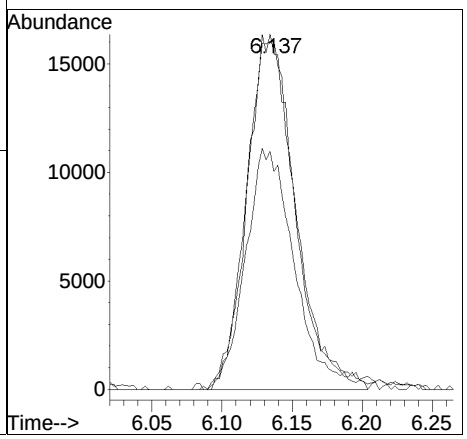


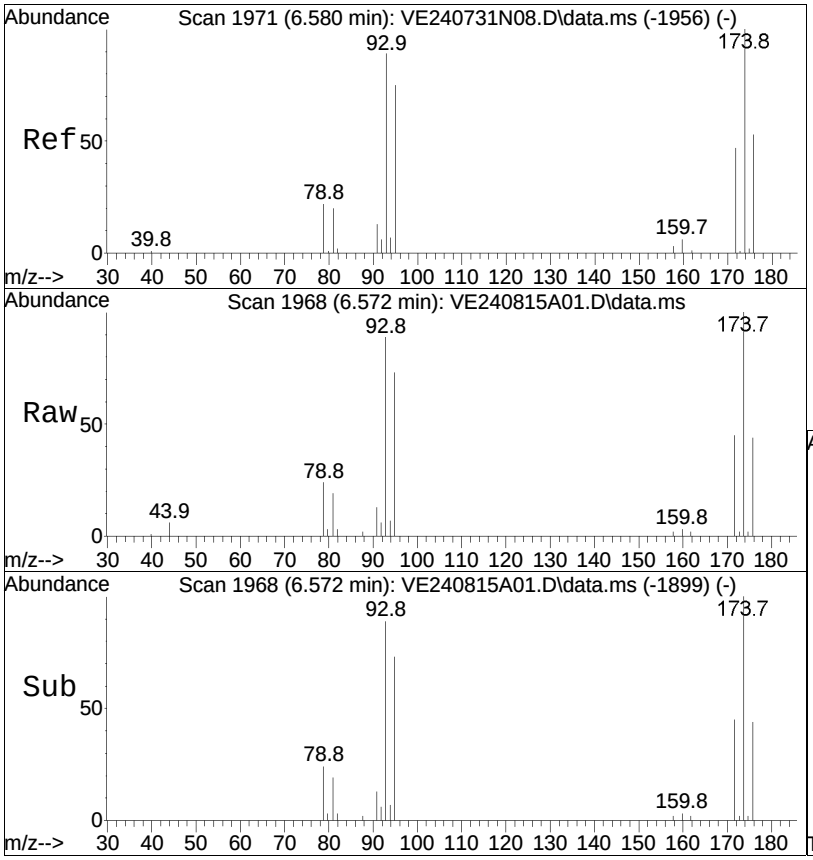


#52
Trichloroethene
Concen: 10.57 ug/L
RT: 6.137 min Scan# 1812
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 95 Resp: 39463

Ion	Ratio	Lower	Upper
95	100		
97	67.9	50.2	75.2
130	98.5	78.2	117.4

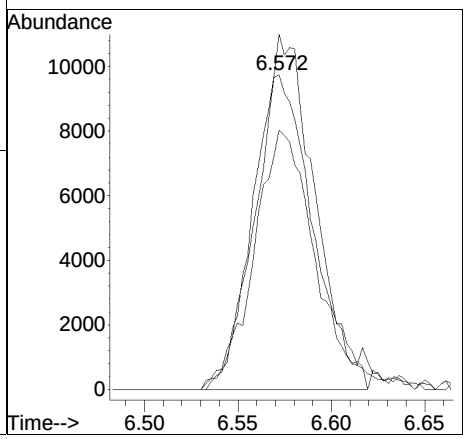


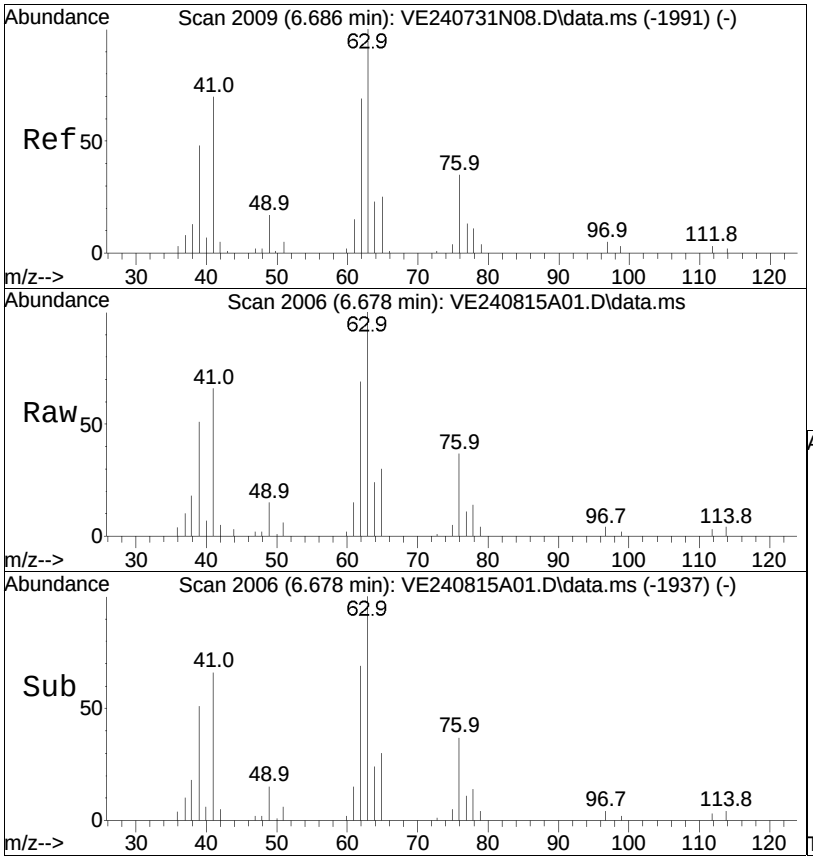


#54
Dibromomethane
Concen: 9.92 ug/L
RT: 6.572 min Scan# 1968
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 93 Resp: 21328

Ion	Ratio	Lower	Upper
93	100		
95	84.9	73.2	109.8
174	117.6	73.8	110.8#

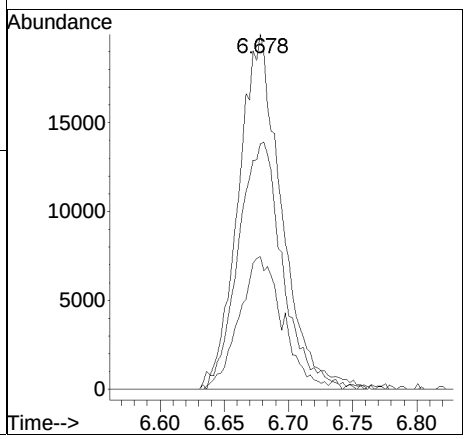


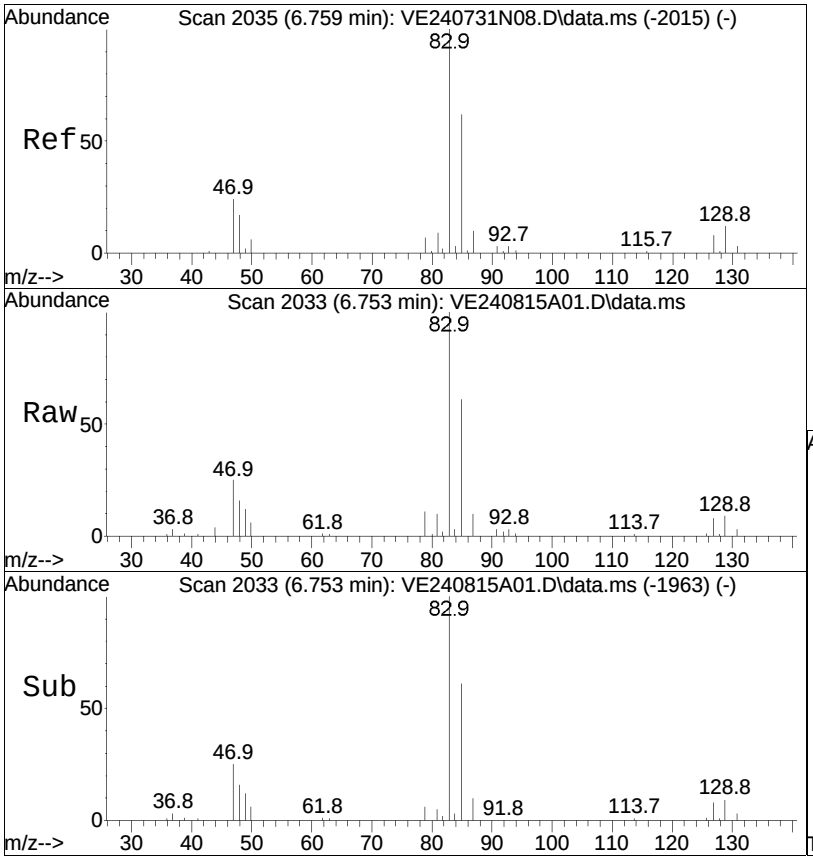


#55
1,2-Dichloropropane
Concen: 10.44 ug/L
RT: 6.678 min Scan# 2006
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 63 Resp: 46803

Ion	Ratio	Lower	Upper
63	100		
62	72.4	58.4	87.6
76	37.6	28.7	43.1

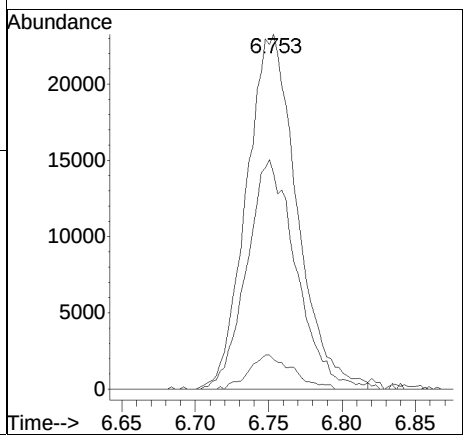


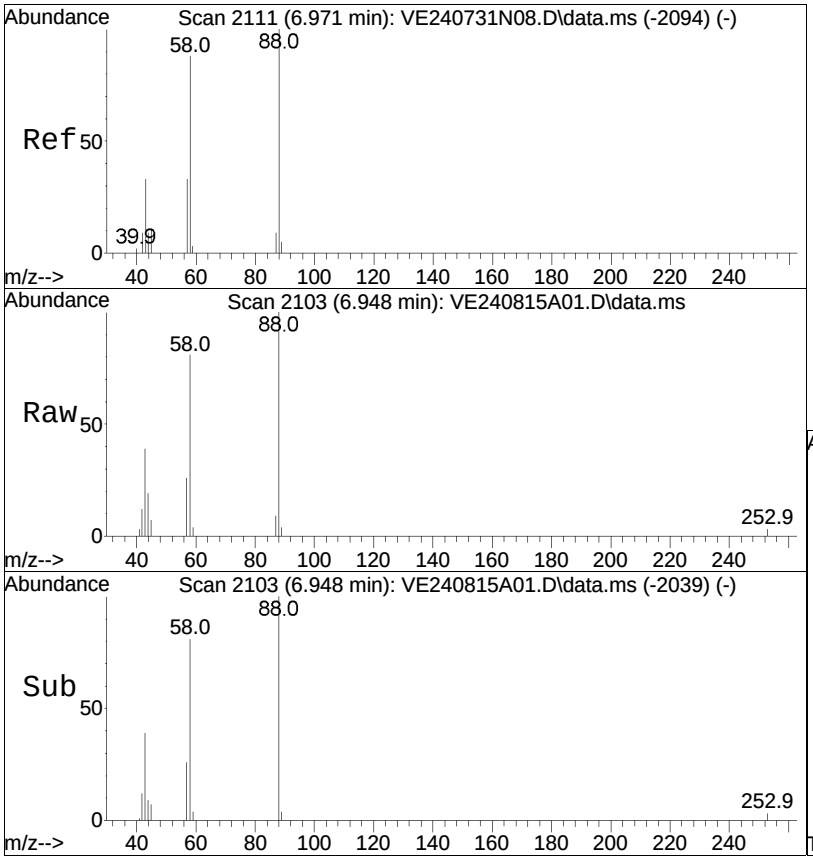


#58
Bromodichloromethane
Concen: 10.52 ug/L
RT: 6.753 min Scan# 2033
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 83 Resp: 55892

Ion	Ratio	Lower	Upper
83	100		
85	63.4	46.6	69.8
127	8.5	6.2	9.4

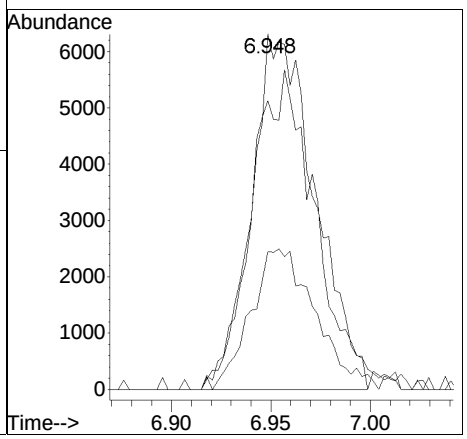


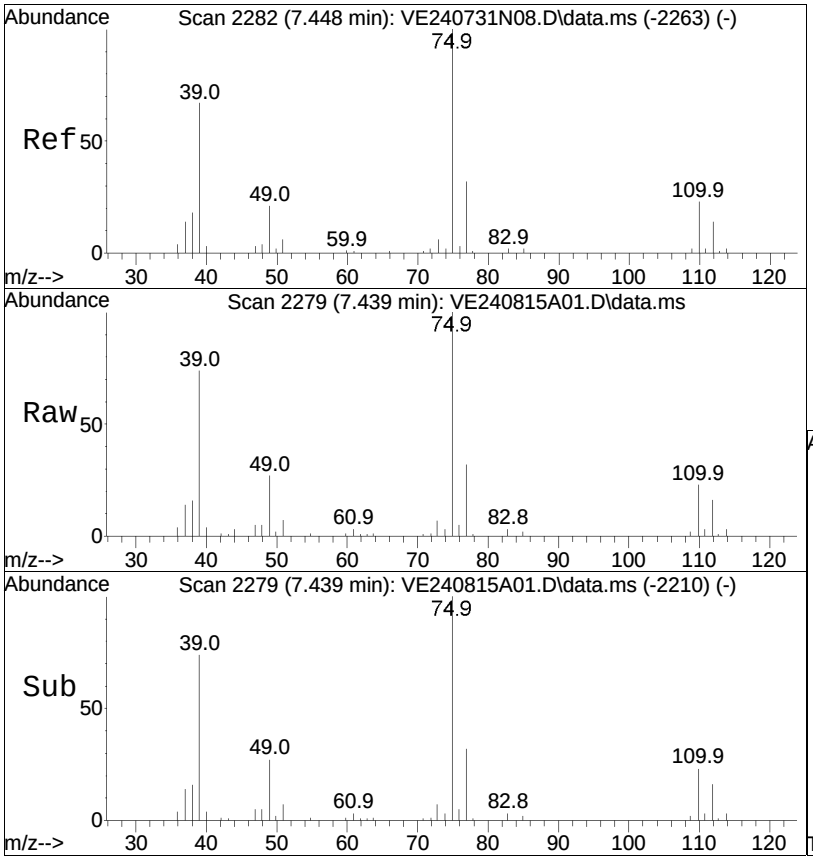


#61
1,4-Dioxane
Concen: 390.47 ug/L
RT: 6.948 min Scan# 2103
Delta R.T. -0.023 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 88 Resp: 14049

Ion	Ratio	Lower	Upper
88	100		
58	41.6	62.8	94.2#
43	40.3	36.6	55.0

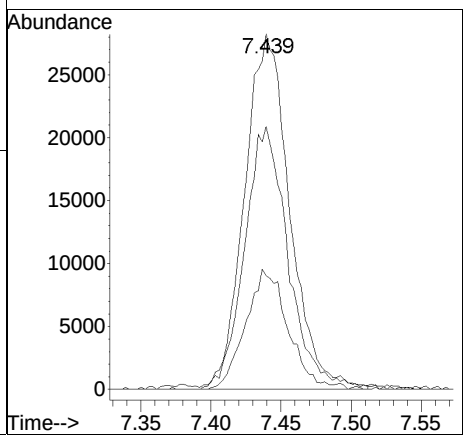


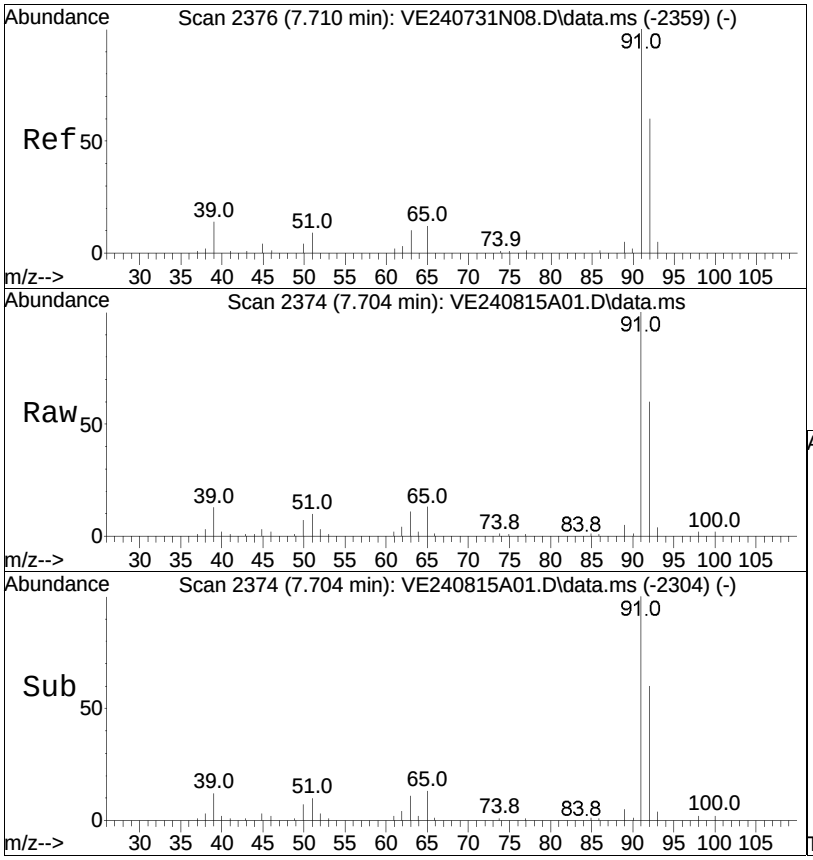


#62
cis-1,3-Dichloropropene
Concen: 10.60 ug/L
RT: 7.439 min Scan# 2279
Delta R.T. -0.009 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 75 Resp: 63407

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.1	37.7
39	71.7	50.7	76.1

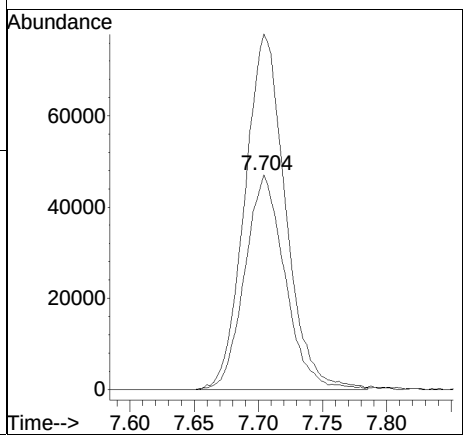


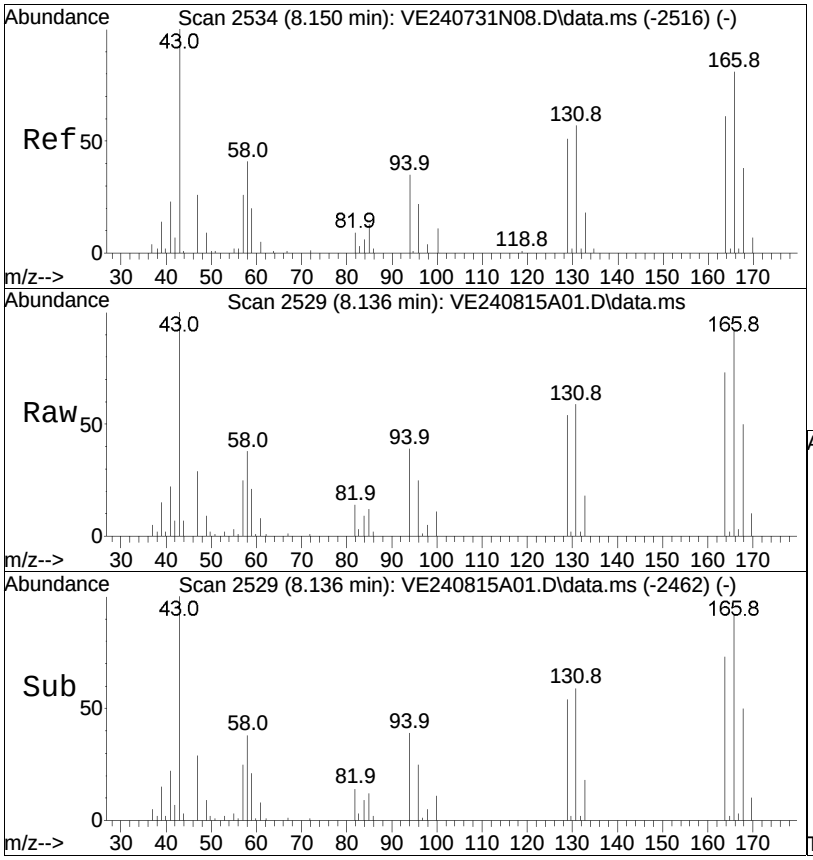


#65
Toluene
Concen: 10.84 ug/L
RT: 7.704 min Scan# 2374
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 92 Resp: 102324

Ion	Ratio	Lower	Upper
92	100		
91	168.0	129.1	193.7

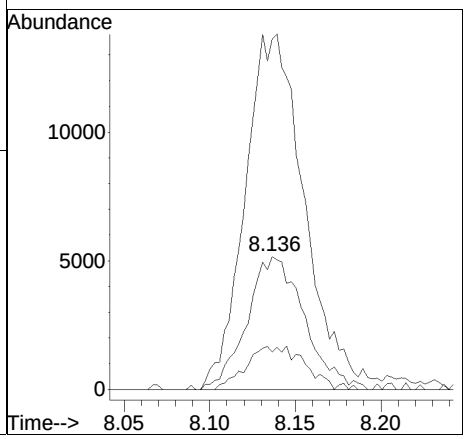


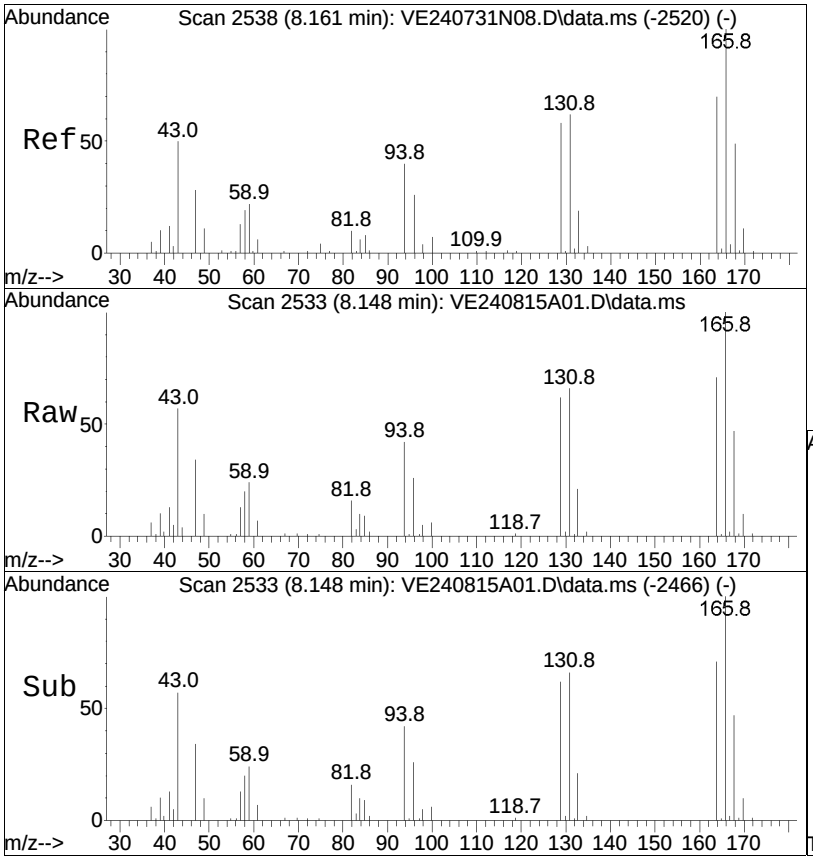


#66
4-Methyl-2-pentanone
Concen: 7.46 ug/L
RT: 8.136 min Scan# 2529
Delta R.T. -0.014 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 58 Resp: 12015

Ion	Ratio	Lower	Upper
58	100		
100	15.6	27.9	41.9#
43	274.4	225.7	338.5

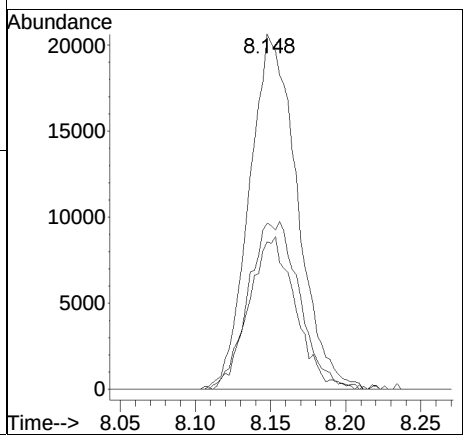


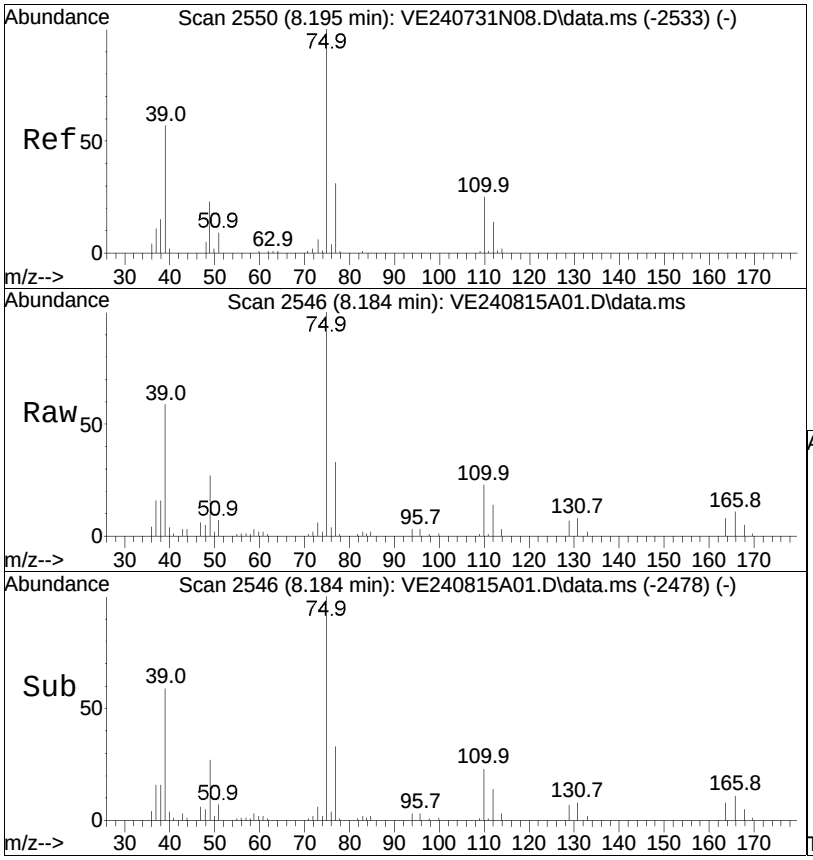


#67
Tetrachloroethene
Concen: 11.43 ug/L
RT: 8.148 min Scan# 2533
Delta R.T. -0.013 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:166 Resp: 45813

Ion	Ratio	Lower	Upper
166	100		
168	50.1	25.8	65.8
94	42.4	24.3	64.3

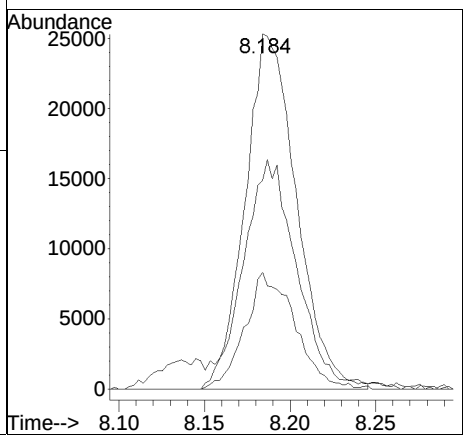


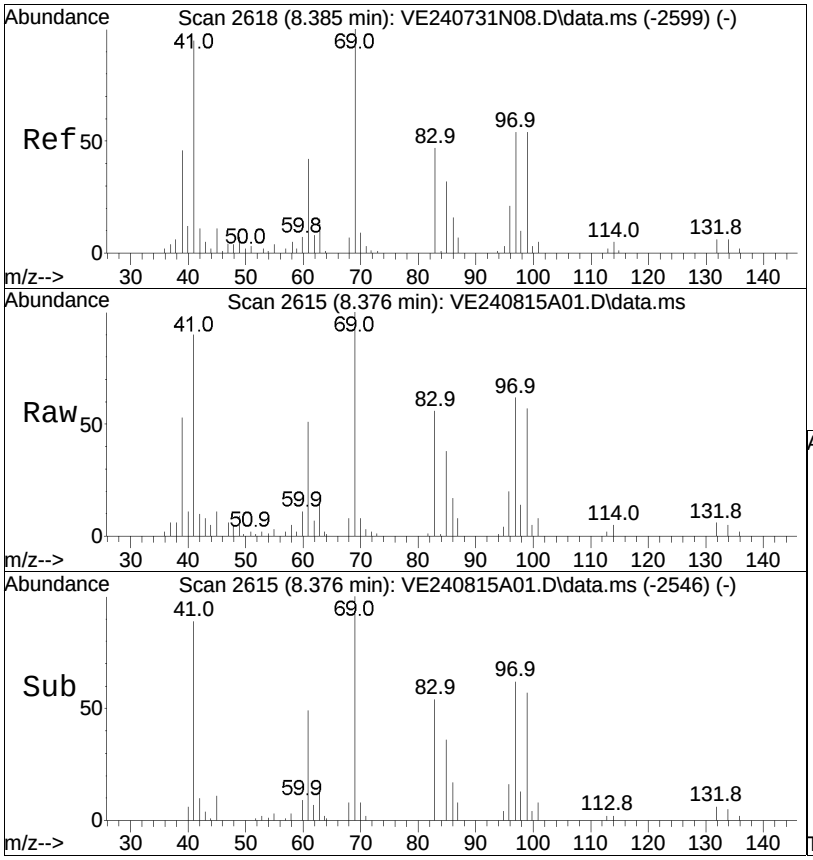


#69
trans-1,3-Dichloropropene
Concen: 9.98 ug/L
RT: 8.184 min Scan# 2546
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 75 Resp: 53023

Ion	Ratio	Lower	Upper
75	100		
77	32.0	10.2	50.2
39	65.0	45.7	85.7

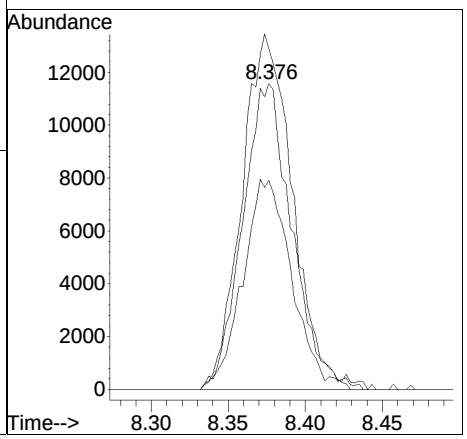


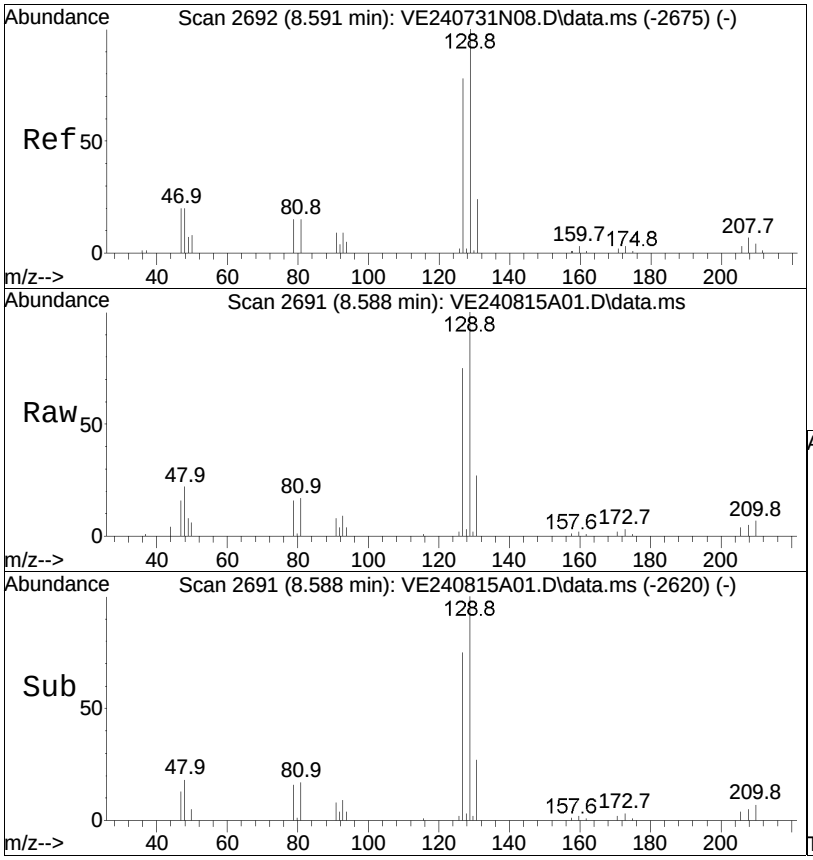


#72
1,1,2-Trichloroethane
Concen: 9.73 ug/L
RT: 8.376 min Scan# 2615
Delta R.T. -0.009 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 83 Resp: 25780

Ion	Ratio	Lower	Upper
83	100		
97	118.6	99.2	139.2
85	68.2	48.7	88.7

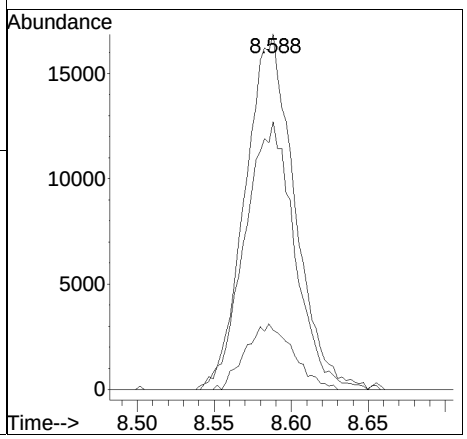


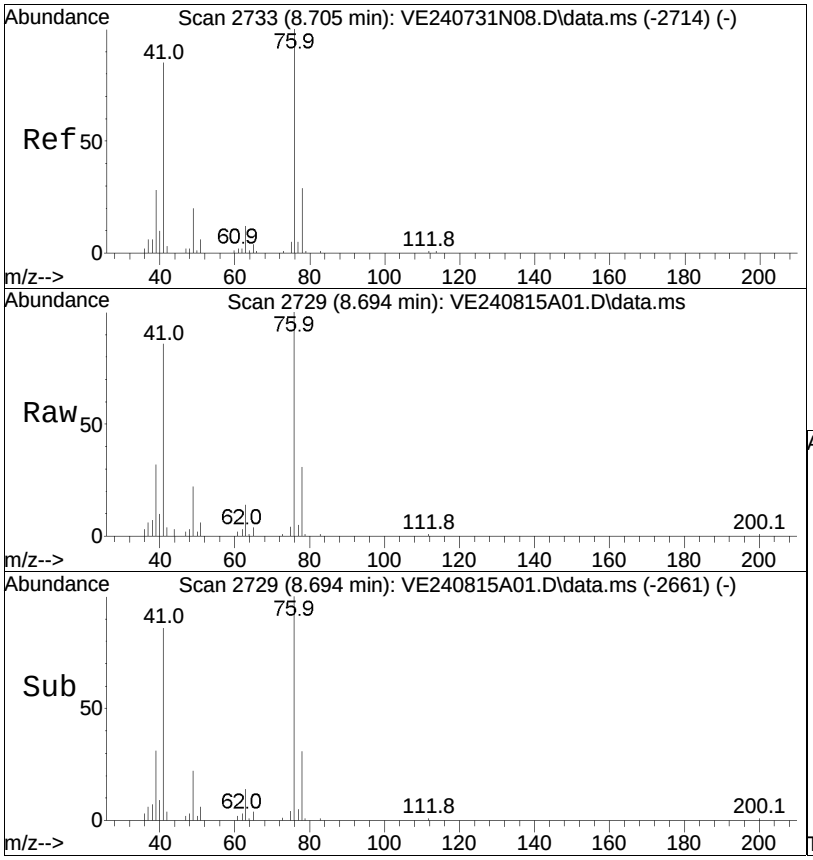


#73
Chlorodibromomethane
Concen: 10.19 ug/L
RT: 8.588 min Scan# 2691
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:129 Resp: 37760

Ion	Ratio	Lower	Upper
129	100		
81	17.8	0.0	39.5
127	76.3	58.6	98.6

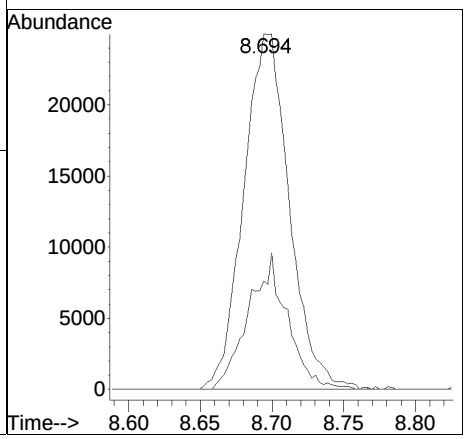


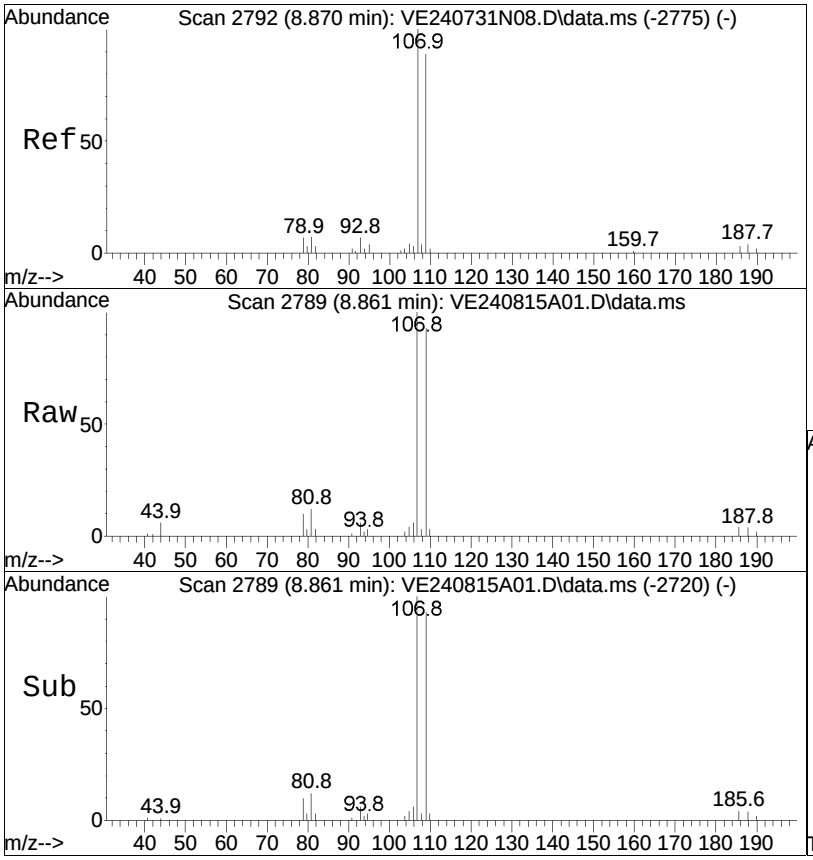


#74
1,3-Dichloropropane
Concen: 9.93 ug/L
RT: 8.694 min Scan# 2729
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 76 Resp: 55583

Ion	Ratio	Lower	Upper
76	100		
78	32.5	27.0	40.4

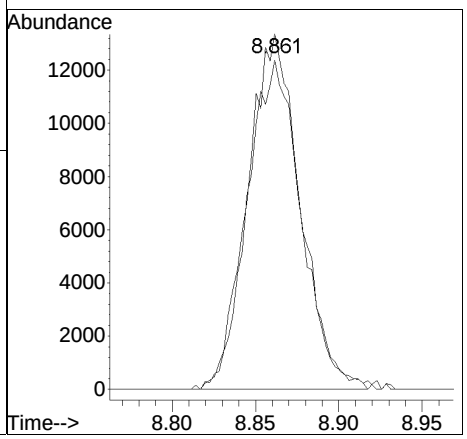


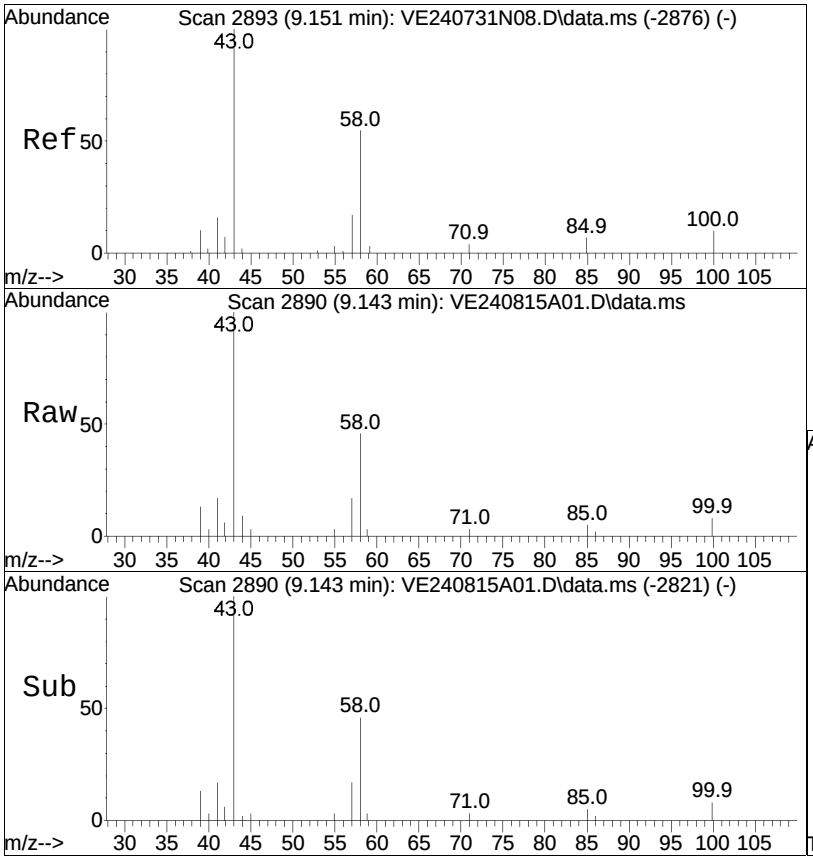


#75
1,2-Dibromoethane
Concen: 9.45 ug/L
RT: 8.861 min Scan# 2789
Delta R.T. -0.009 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:107 Resp: 29608

Ion	Ratio	Lower	Upper
107	100		
109	93.8	66.3	99.5

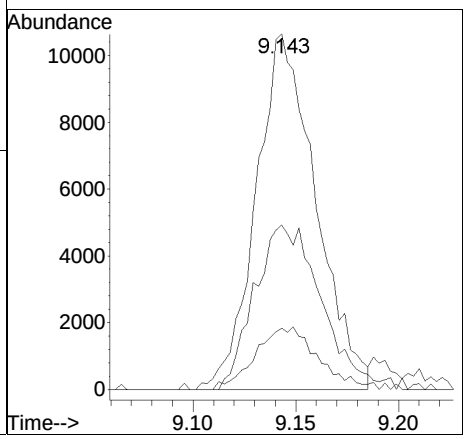


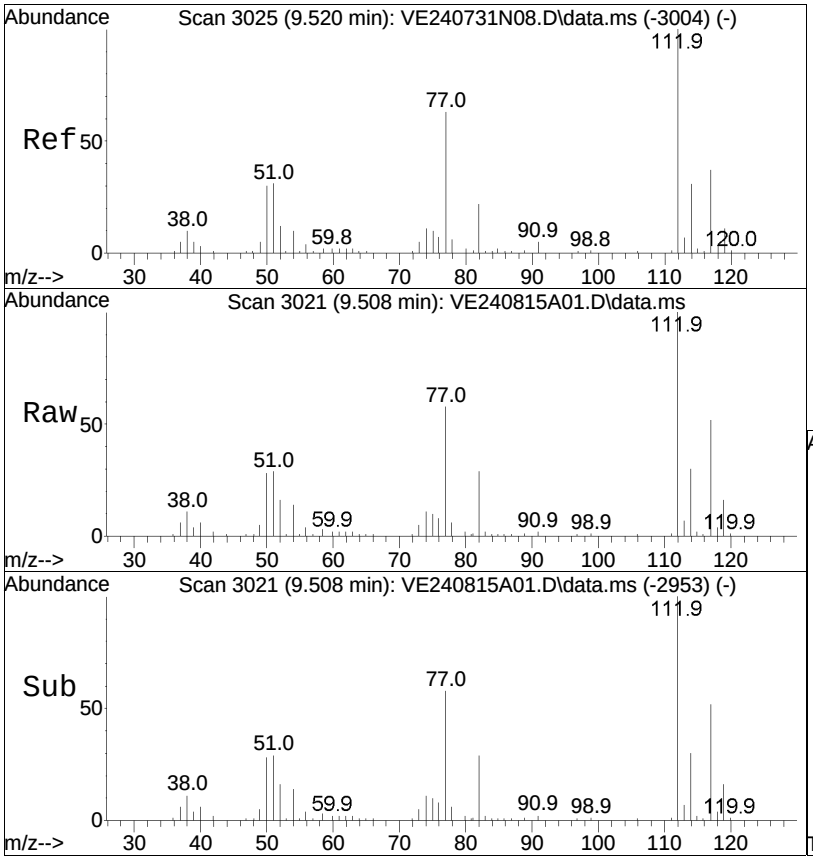


#77
2-Hexanone
Concen: 6.86 ug/L
RT: 9.143 min Scan# 2890
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 43 Resp: 21514

Ion	Ratio	Lower	Upper
43	100		
58	51.7	42.5	63.7
57	18.4	13.9	20.9

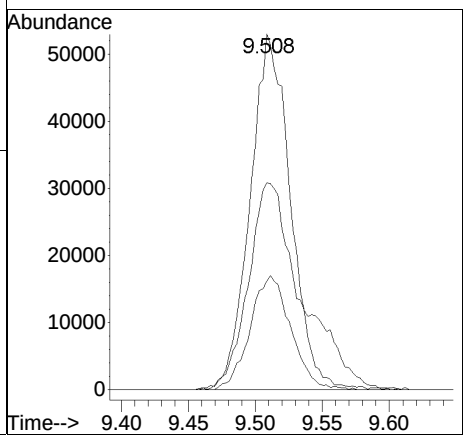


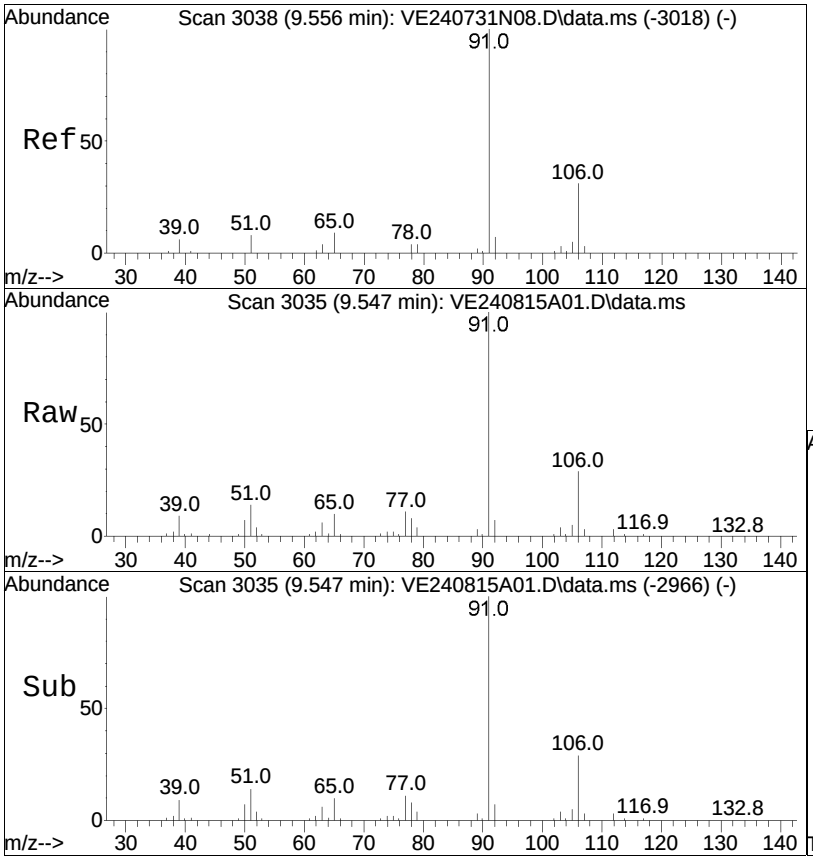


#78
Chlorobenzene
Concen: 11.00 ug/L
RT: 9.508 min Scan# 3021
Delta R.T. -0.012 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:112 Resp: 110669

Ion	Ratio	Lower	Upper
112	100		
77	76.7	46.9	70.3#
114	32.3	23.8	35.6

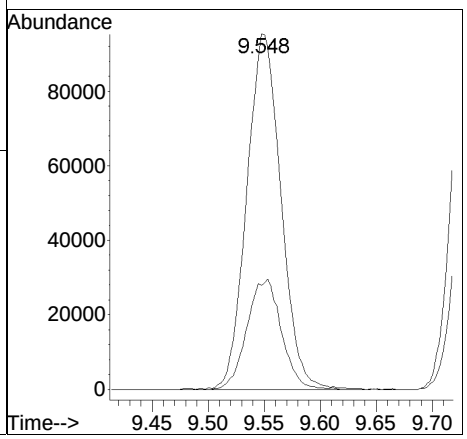


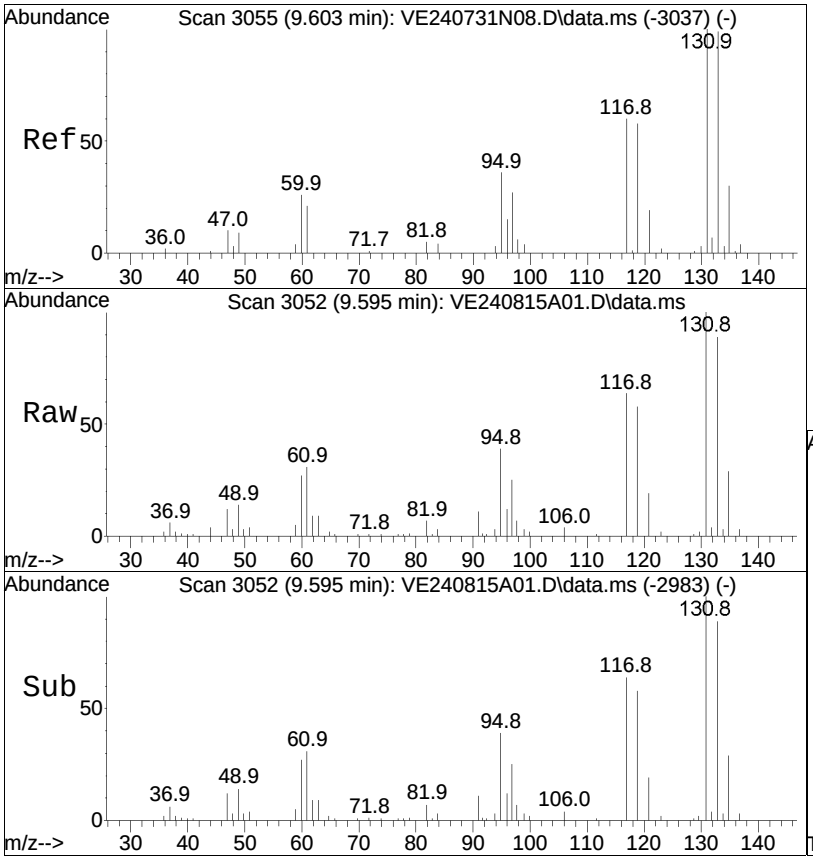


#79
Ethylbenzene
Concen: 11.07 ug/L
RT: 9.547 min Scan# 3035
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 91 Resp: 202579

Ion	Ratio	Lower	Upper
91	100		
106	31.1	25.3	37.9

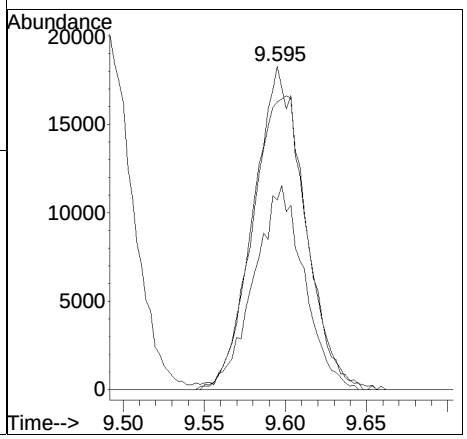


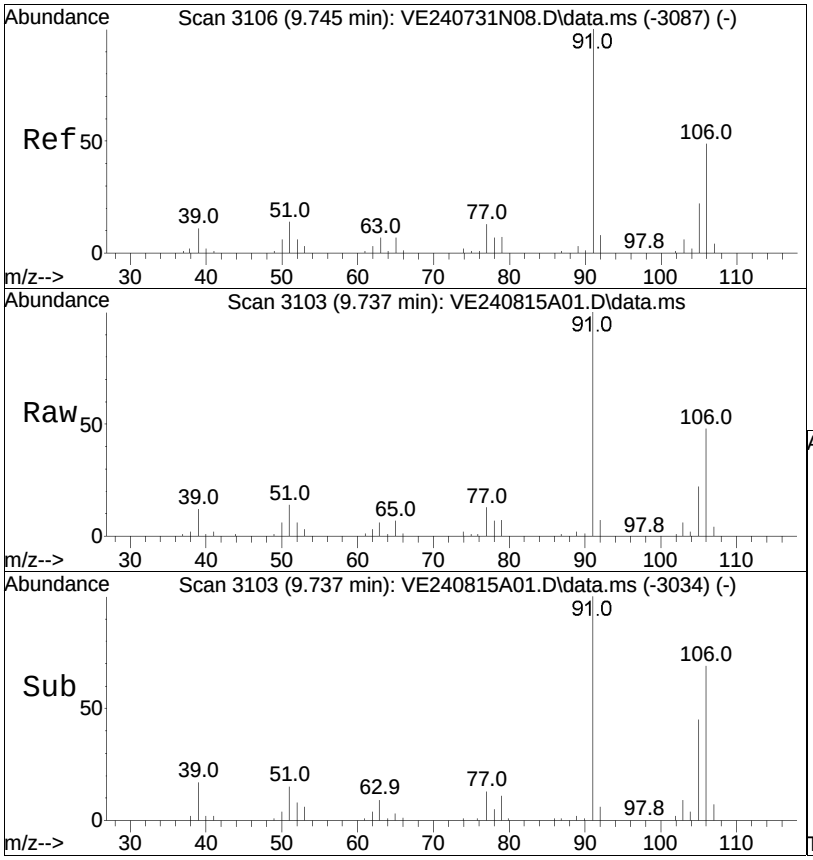


#80
1,1,1,2-Tetrachloroethane
Concen: 10.84 ug/L
RT: 9.595 min Scan# 3052
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:131 Resp: 39971

Ion	Ratio	Lower	Upper
131	100		
133	98.3	72.9	112.9
119	62.4	39.6	79.6

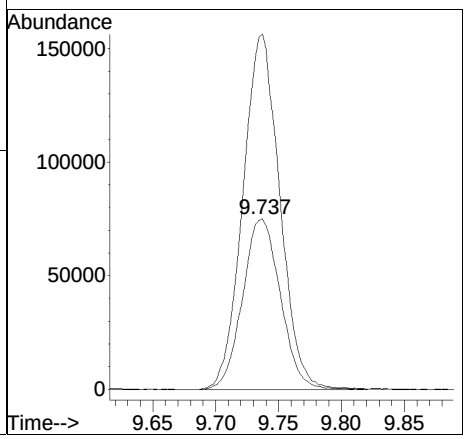


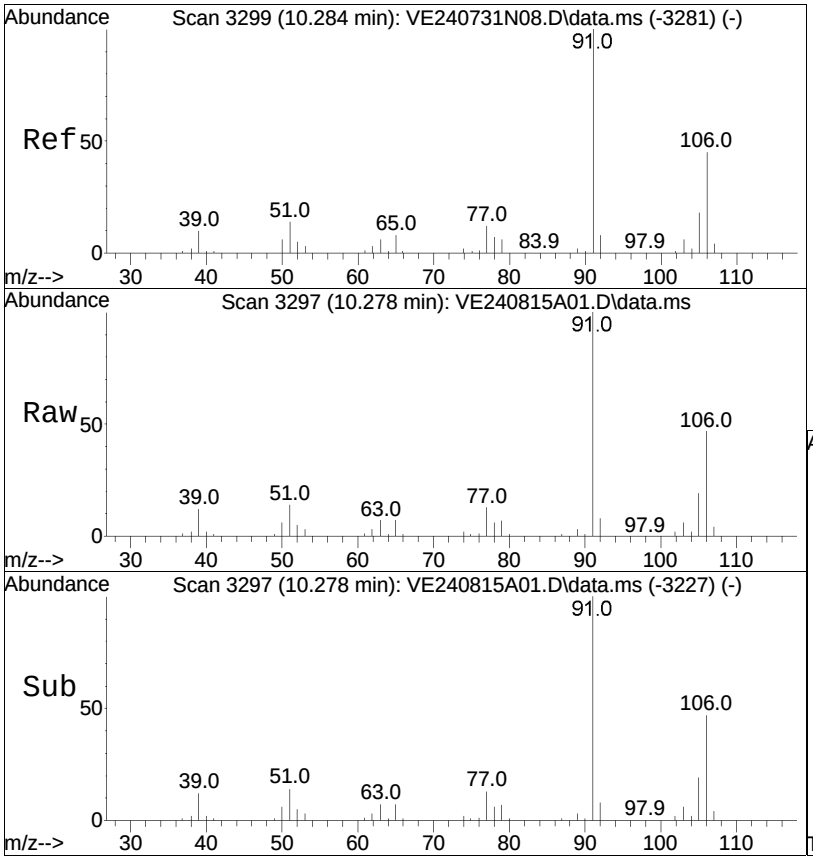


#81
p/m Xylene
Concen: 22.50 ug/L
RT: 9.737 min Scan# 3103
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:106 Resp: 156866

Ion	Ratio	Lower	Upper
106	100		
91	203.0	163.3	244.9

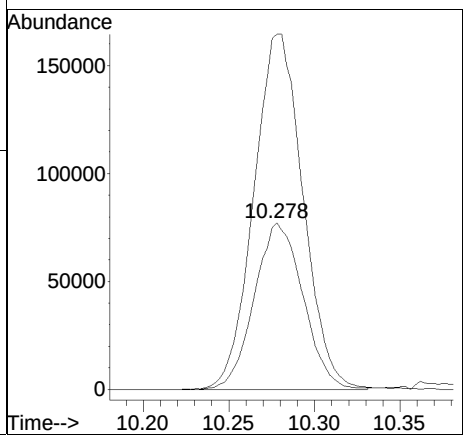


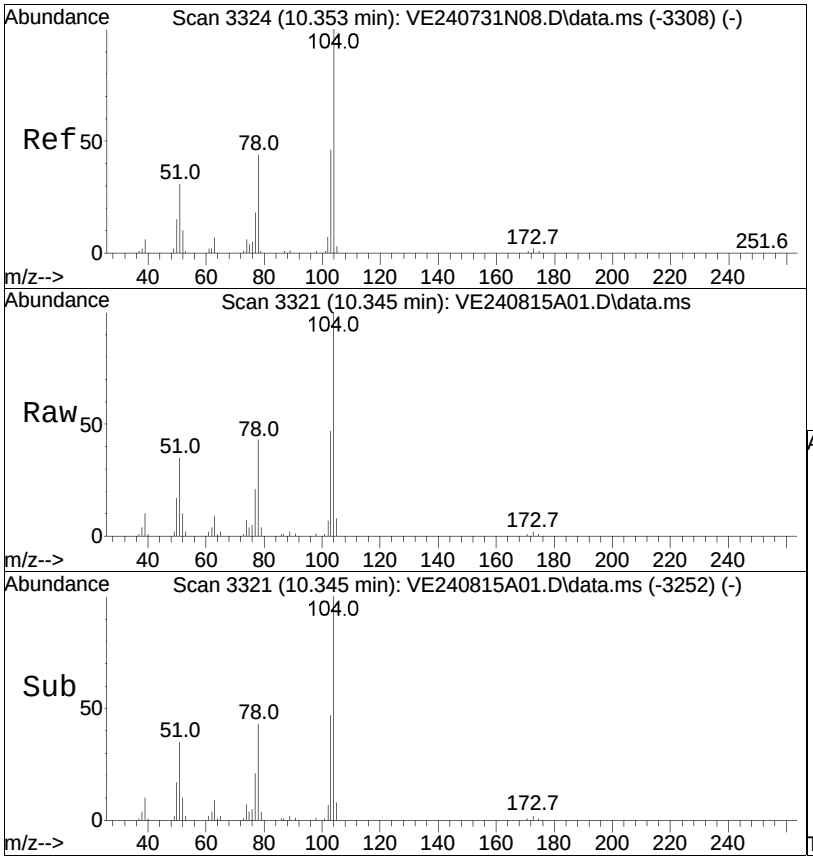


#82
o Xylene
Concen: 22.37 ug/L
RT: 10.278 min Scan# 3297
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:106 Resp: 152537

Ion	Ratio	Lower	Upper
106	100		
91	215.7	181.0	271.6

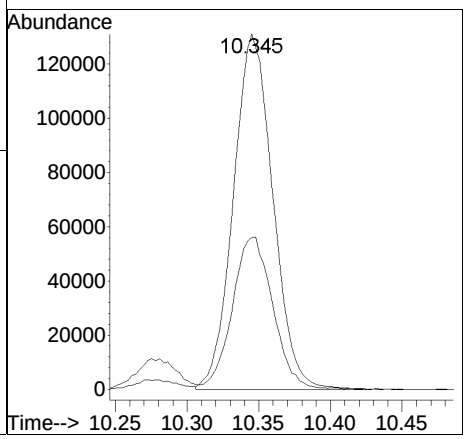


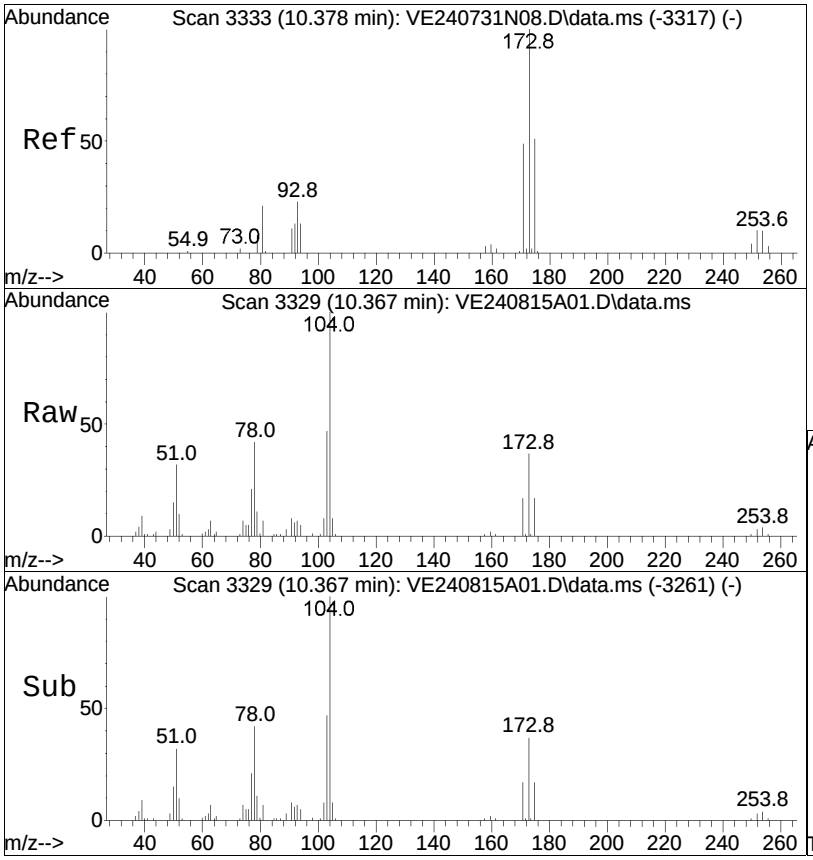


#83
Styrene
Concen: 22.46 ug/L
RT: 10.345 min Scan# 3321
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:104 Resp: 251088

Ion	Ratio	Lower	Upper
104	100		
78	43.2	35.9	53.9

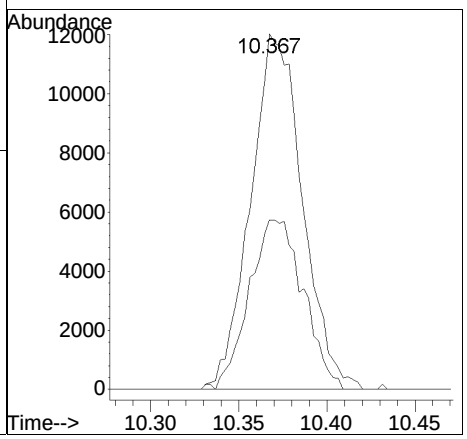


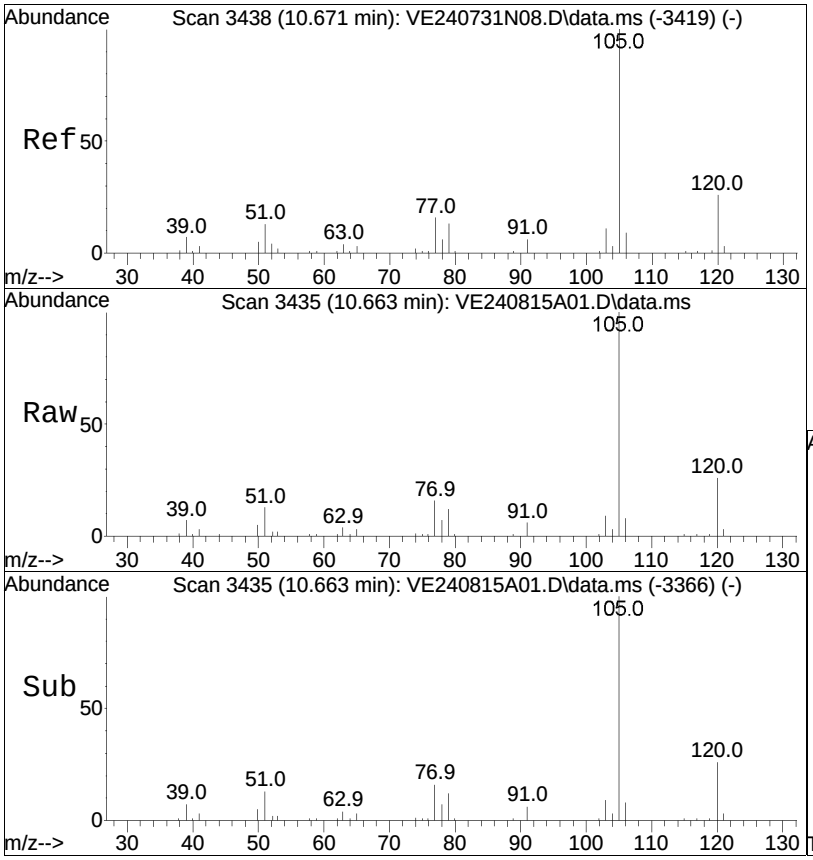


#85
Bromoform
Concen: 9.52 ug/L
RT: 10.367 min Scan# 3329
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:173 Resp: 24666

Ion	Ratio	Lower	Upper
173	100		
175	49.8	32.9	72.9

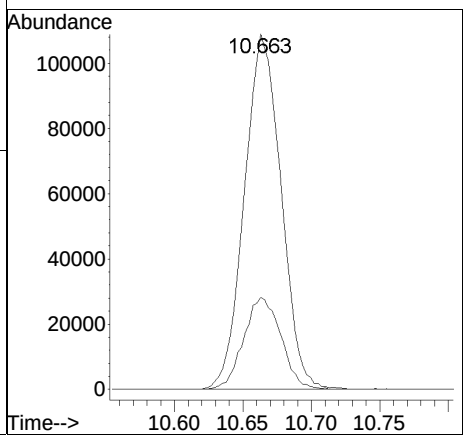


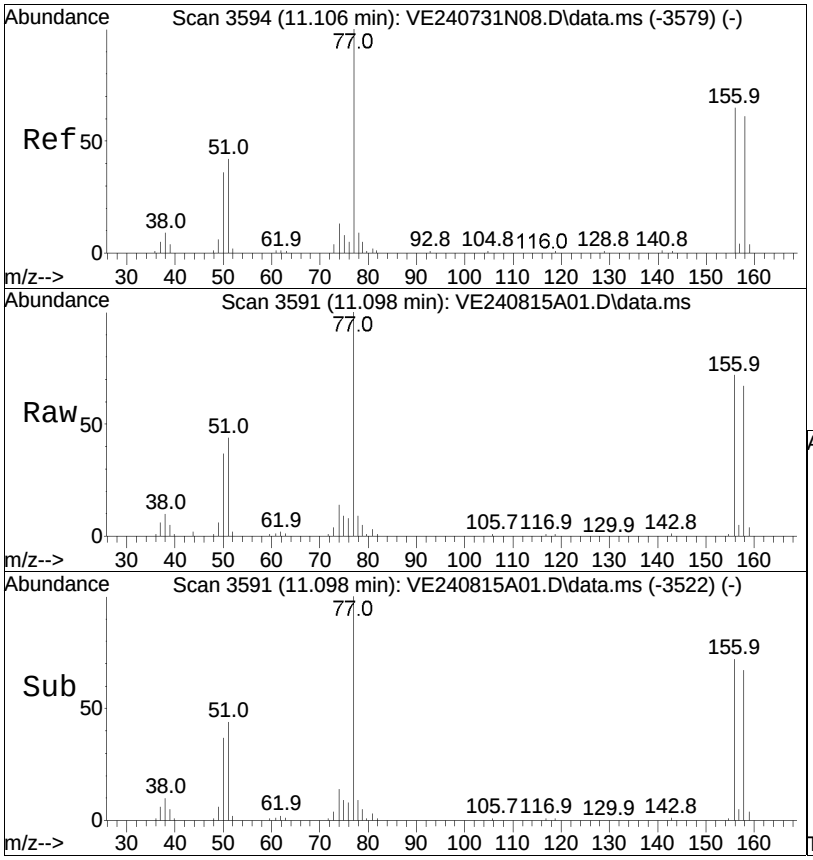


#87
Isopropylbenzene
Concen: 10.64 ug/L
RT: 10.663 min Scan# 3435
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:105 Resp: 202902

Ion	Ratio	Lower	Upper
105	100		
120	26.3	4.8	44.8

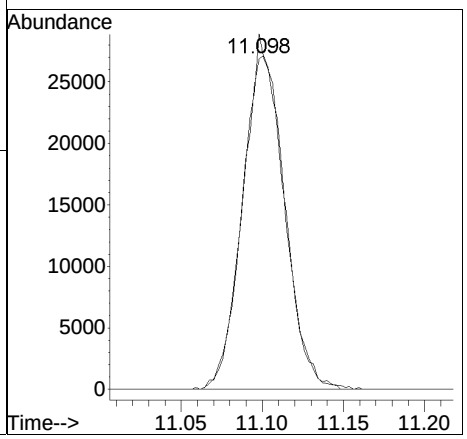


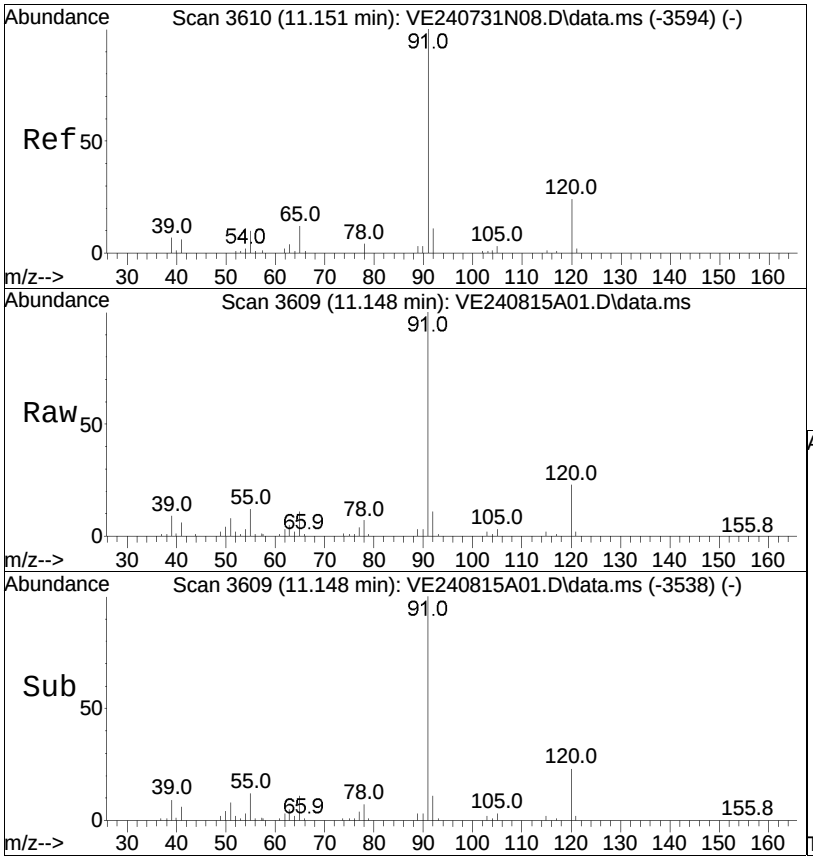


#89
Bromobenzene
Concen: 10.45 ug/L
RT: 11.098 min Scan# 3591
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:156 Resp: 50308

Ion	Ratio	Lower	Upper
156	100		
158	98.4	75.9	113.9

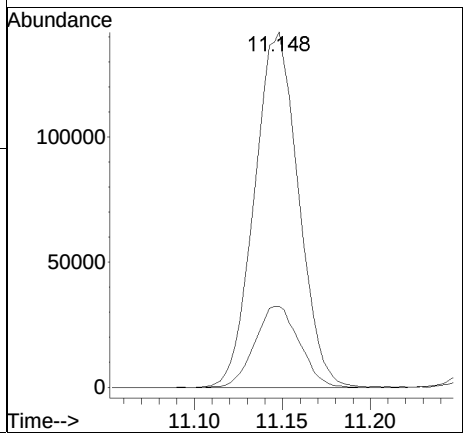


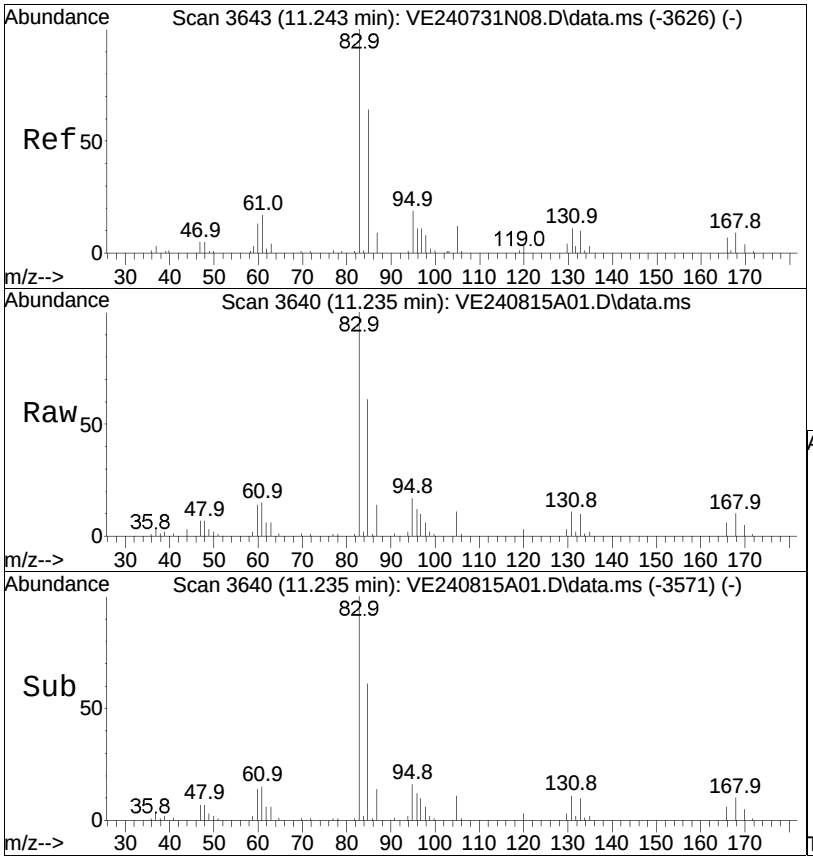


#90
n-Propylbenzene
Concen: 10.83 ug/L
RT: 11.148 min Scan# 3609
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 91 Resp: 246617

Ion	Ratio	Lower	Upper
91	100		
120	23.1	16.7	25.1

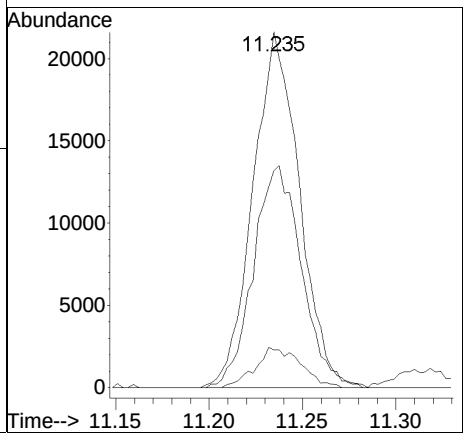


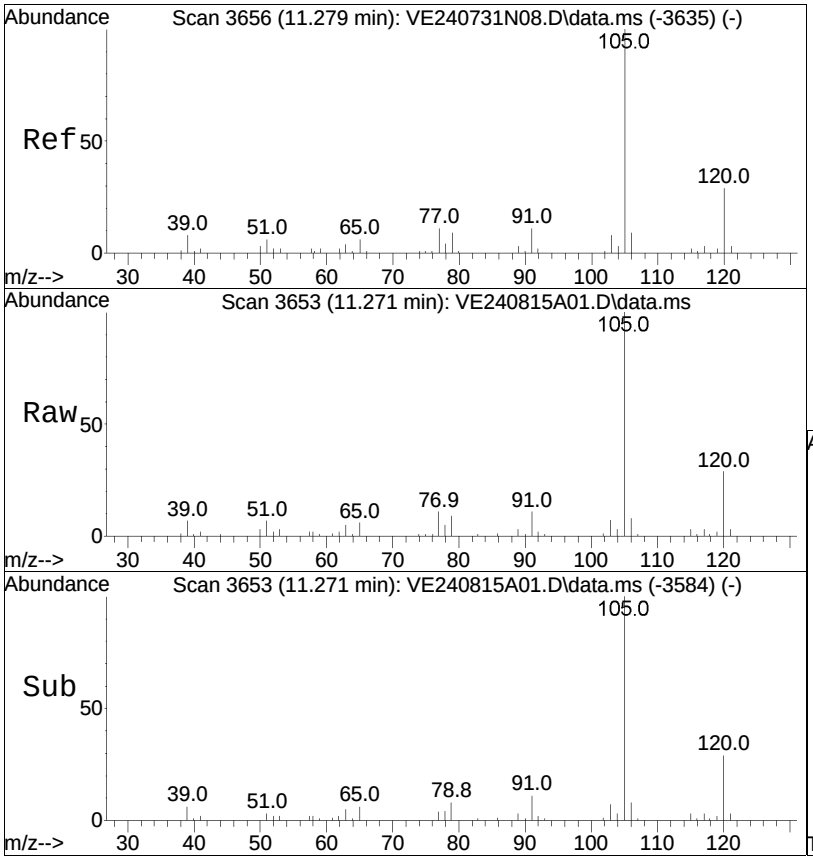


#92
1,1,2,2-Tetrachloroethane
Concen: 9.21 ug/L
RT: 11.235 min Scan# 3640
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 83 Resp: 37244

Ion	Ratio	Lower	Upper
83	100		
131	11.0	0.0	28.6
85	64.9	47.4	87.4

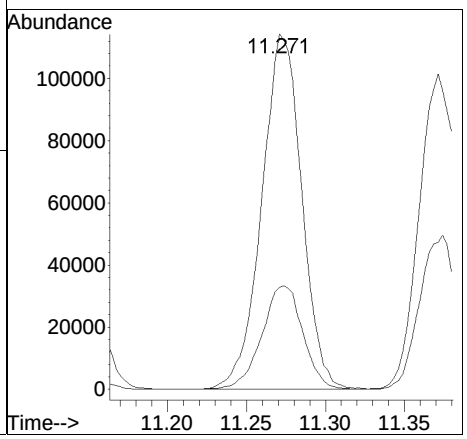


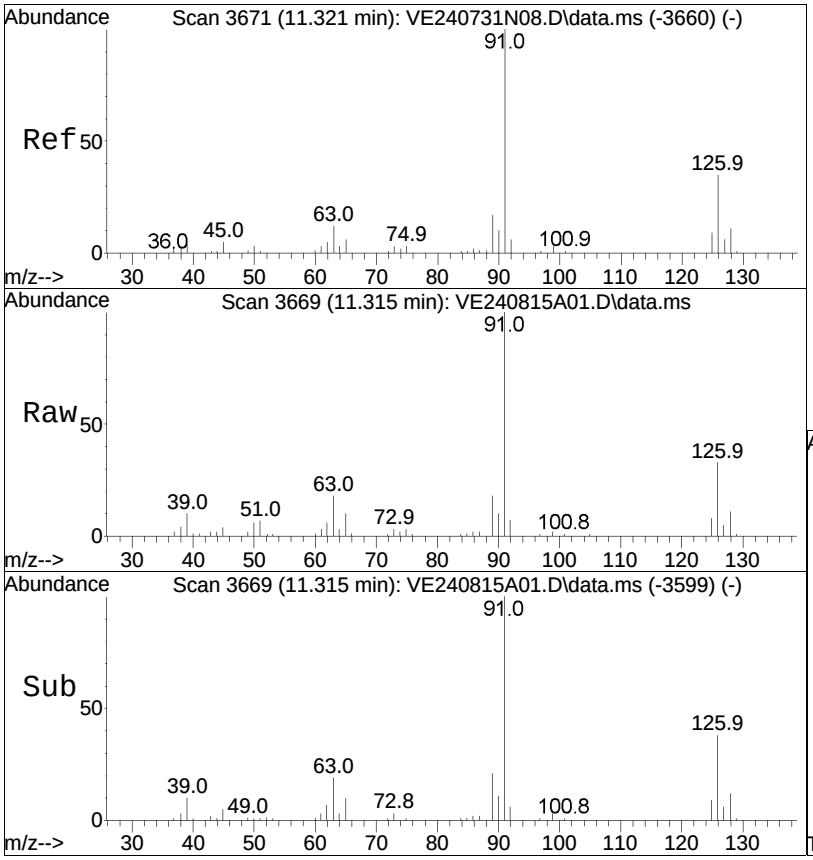


#93
4-Ethyltoluene
Concen: 10.90 ug/L
RT: 11.271 min Scan# 3653
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:105 Resp: 201358

Ion	Ratio	Lower	Upper
105	100		
120	29.9	18.9	39.3

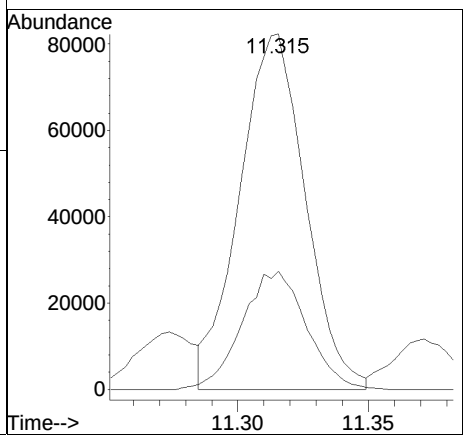


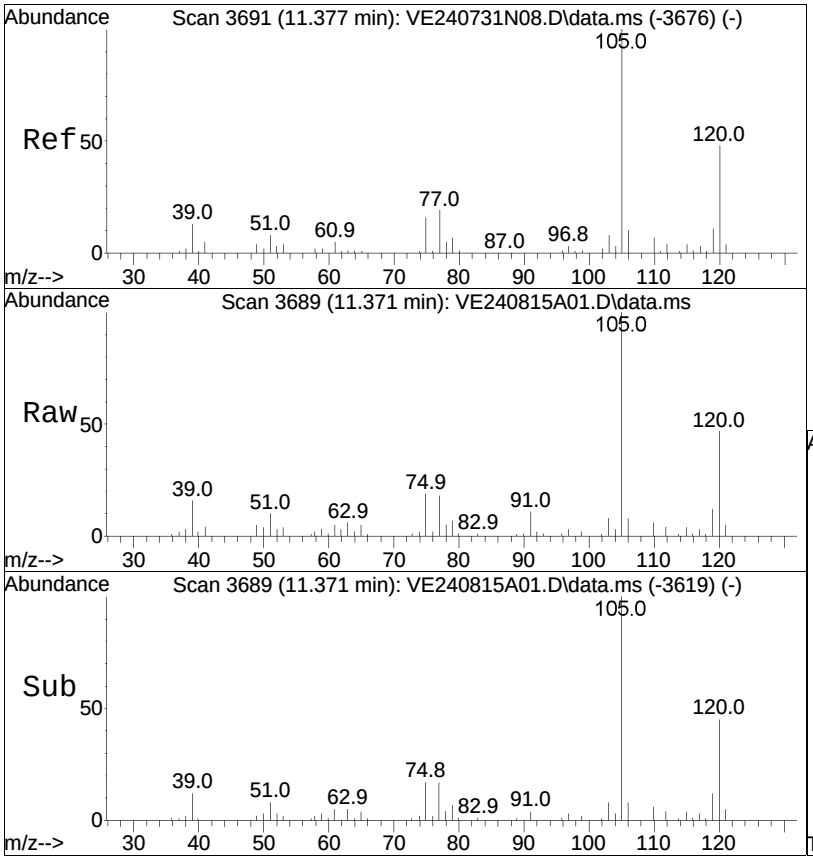


#94
2-Chlorotoluene
Concen: 10.75 ug/L M4
RT: 11.315 min Scan# 3669
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 91 Resp: 144093

Ion	Ratio	Lower	Upper
91	100		
126	32.5	24.4	36.6

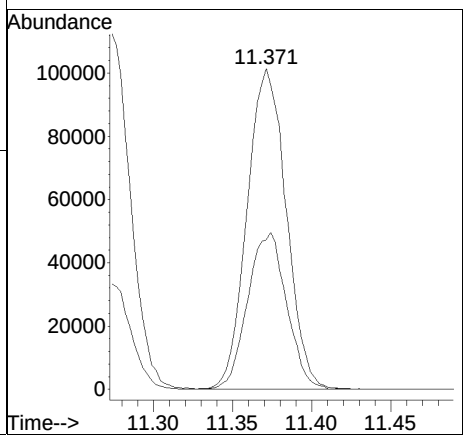


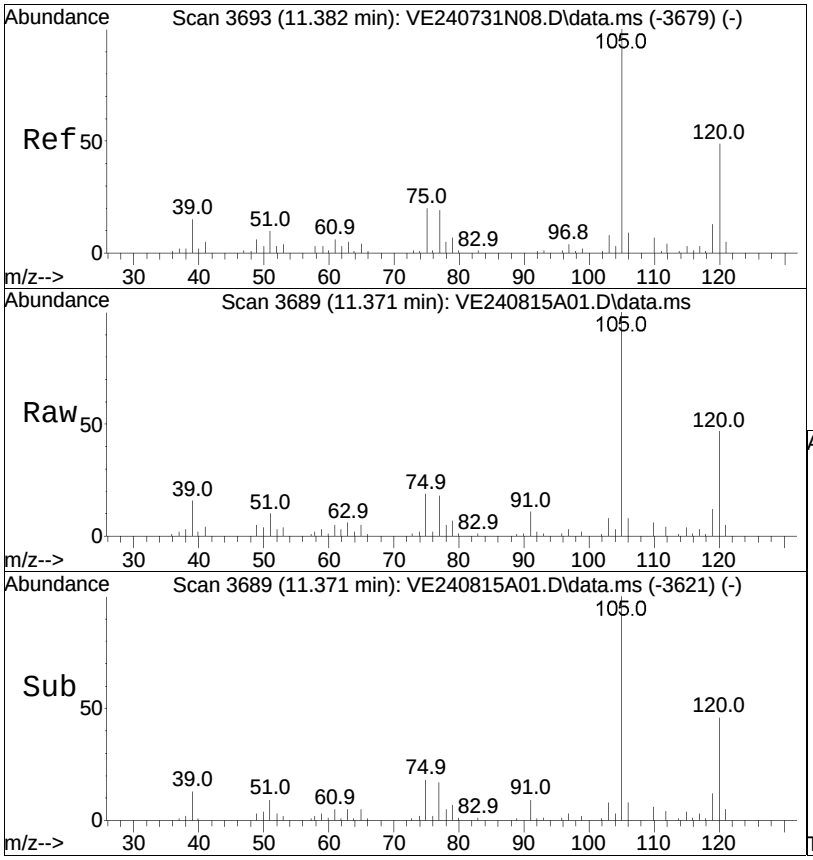


#95
1,3,5-Trimethylbenzene
Concen: 10.77 ug/L
RT: 11.371 min Scan# 3689
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:105 Resp: 174630

Ion	Ratio	Lower	Upper
105	100		
120	48.6	39.3	58.9

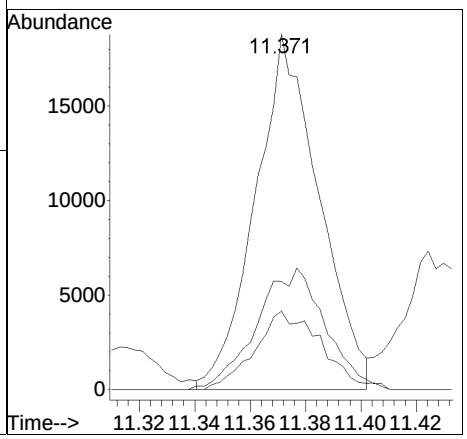


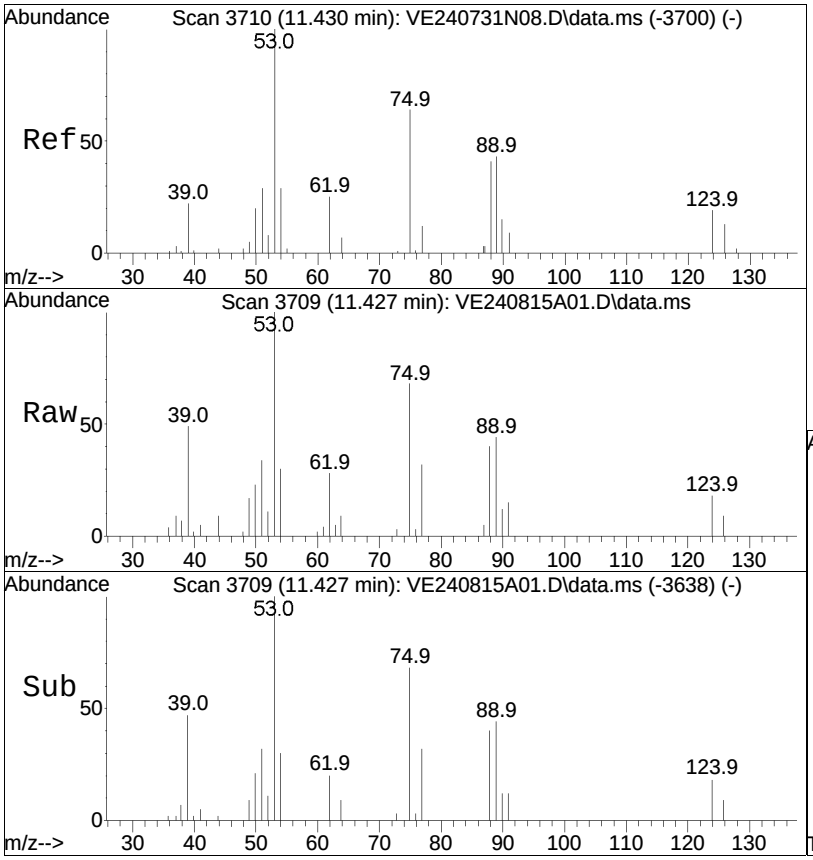


#96
1,2,3-Trichloropropane
Concen: 9.10 ug/L M1
RT: 11.371 min Scan# 3689
Delta R.T. -0.011 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 75 Resp: 30037

Ion	Ratio	Lower	Upper
75	100		
110	36.7	22.4	46.4
112	22.9	12.2	25.2

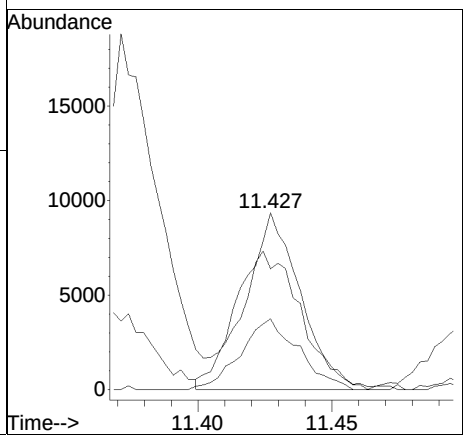


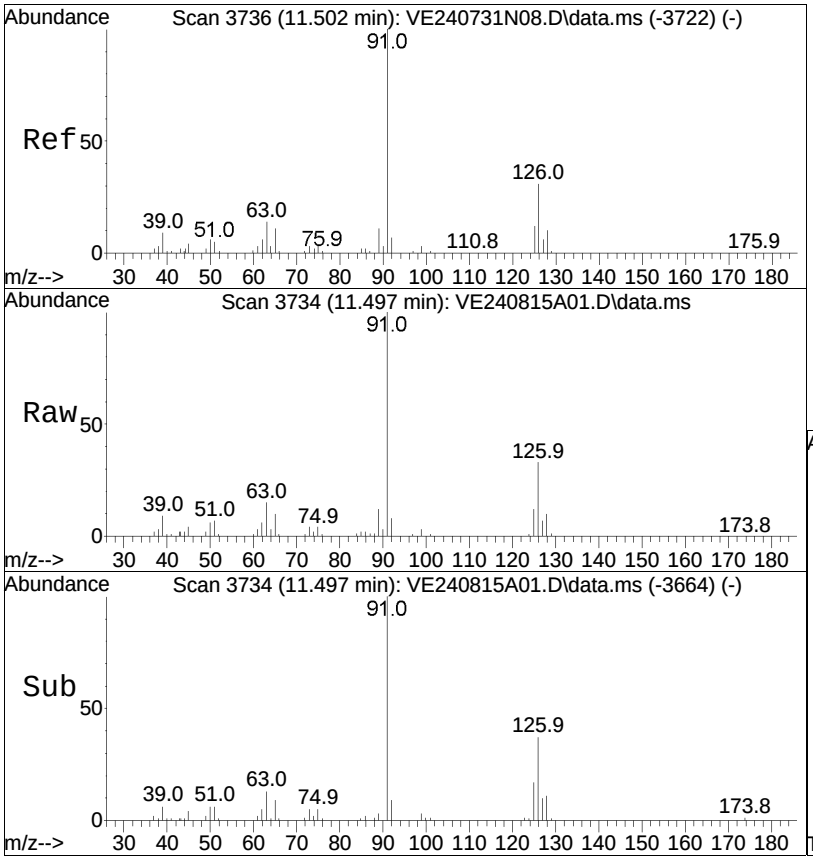


#97
trans-1,4-Dichloro-2-butene
Concen: 8.71 ug/L
RT: 11.427 min Scan# 3709
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 53 Resp: 14122

Ion	Ratio	Lower	Upper
53	100		
88	39.6	29.2	43.8
75	78.8	62.6	94.0

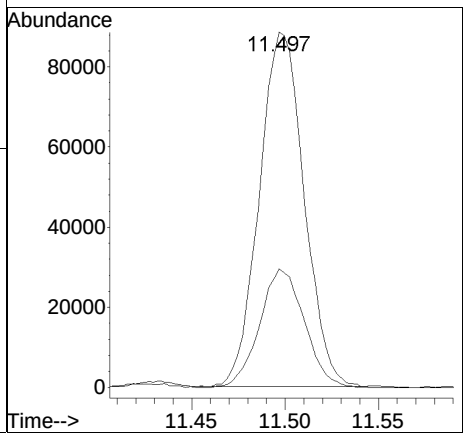


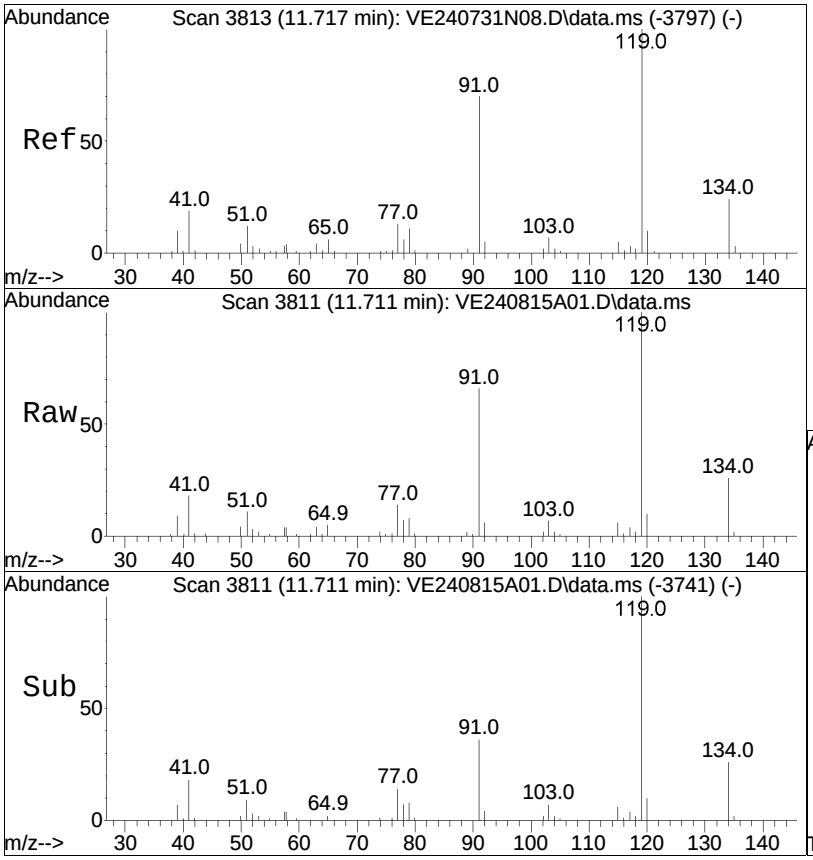


#98
4-Chlorotoluene
Concen: 10.52 ug/L
RT: 11.497 min Scan# 3734
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 91 Resp: 147719

Ion	Ratio	Lower	Upper
91	100		
126	33.2	25.8	38.8

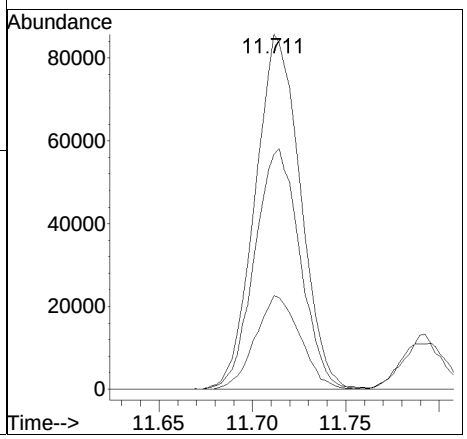


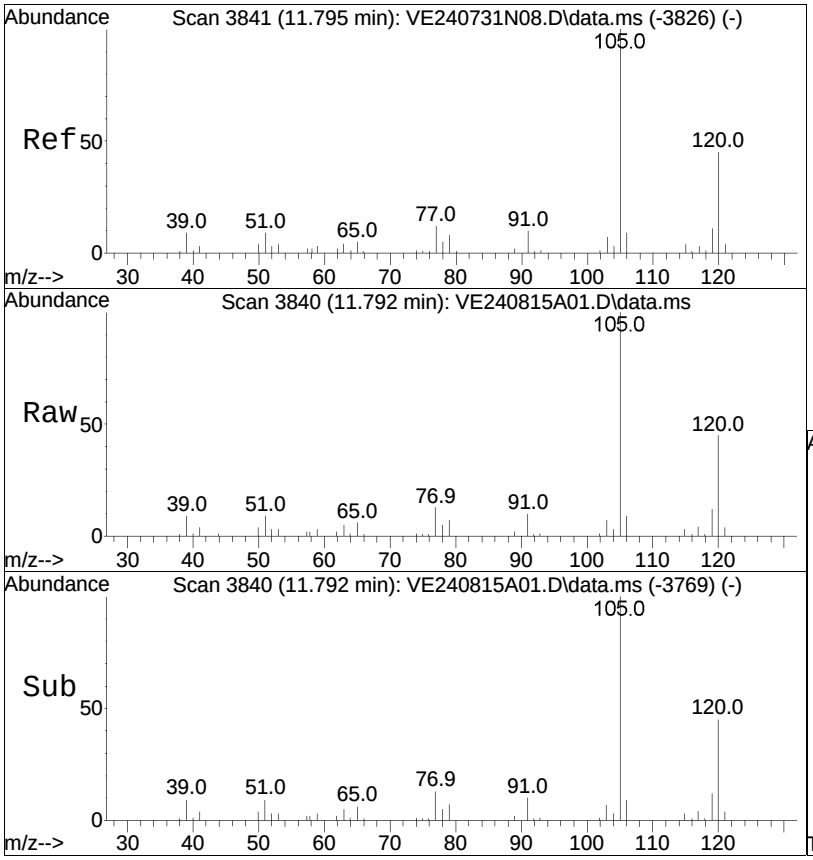


#99
tert-Butylbenzene
Concen: 10.63 ug/L
RT: 11.711 min Scan# 3811
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:119 Resp: 144809

Ion	Ratio	Lower	Upper
119	100		
91	68.1	56.6	84.8
134	26.1	17.7	26.5

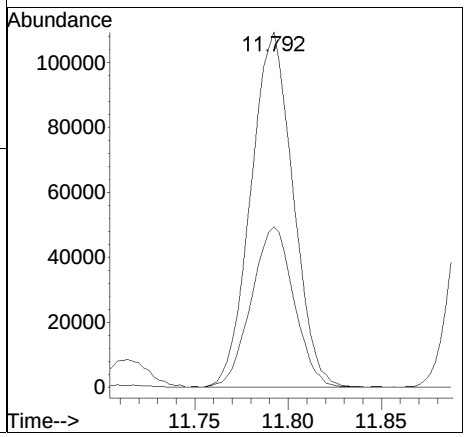


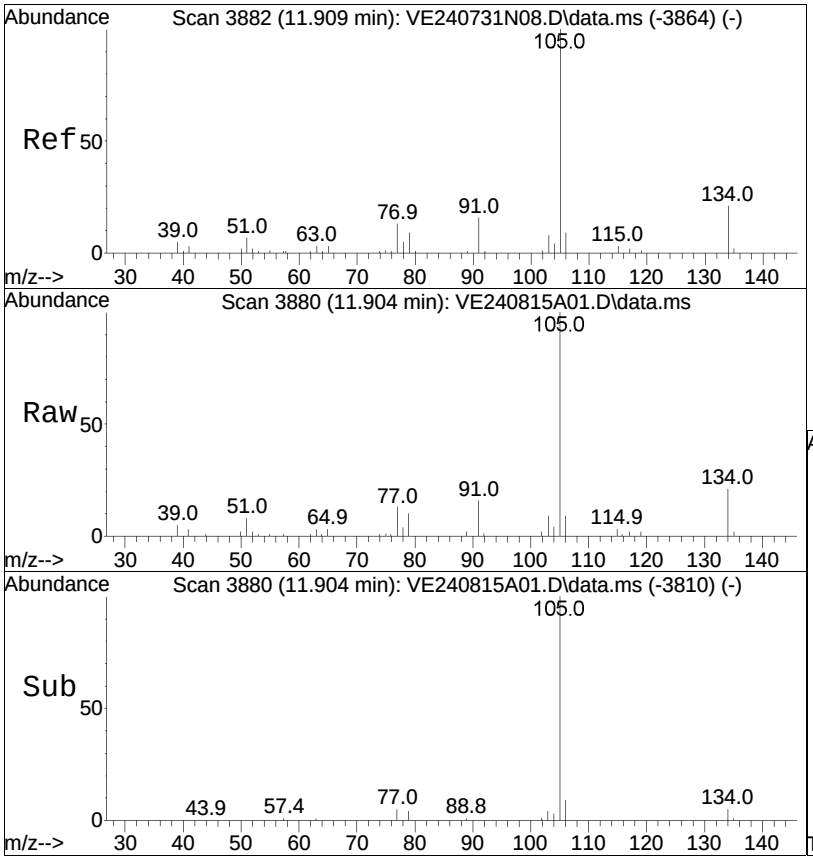


#102
1,2,4-Trimethylbenzene
Concen: 10.63 ug/L
RT: 11.792 min Scan# 3840
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:105 Resp: 172057

Ion	Ratio	Lower	Upper
105	100		
120	45.7	33.6	50.4

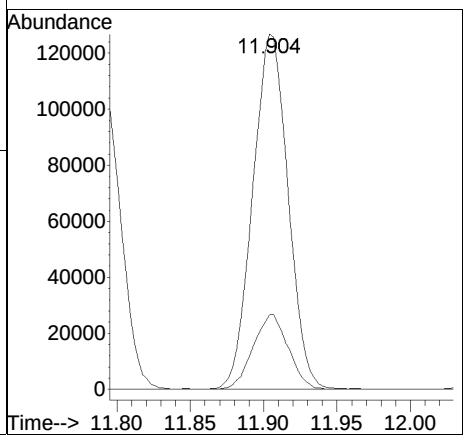


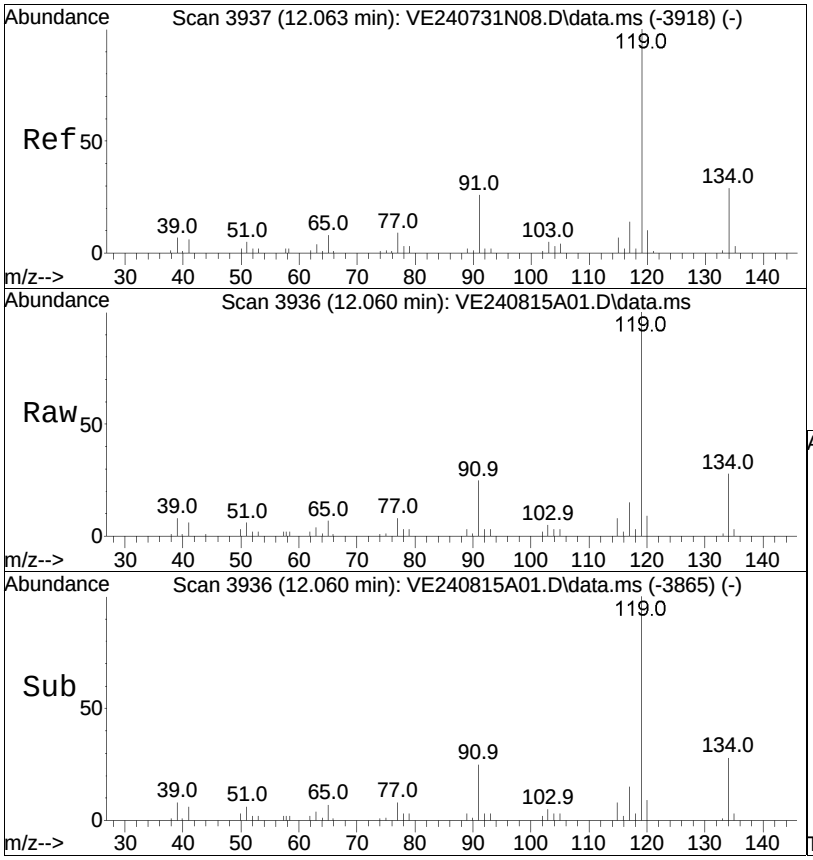


#103
sec-Butylbenzene
Concen: 10.53 ug/L
RT: 11.904 min Scan# 3880
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:105 Resp: 212815

Ion	Ratio	Lower	Upper
105	100		
134	20.9	13.3	27.5

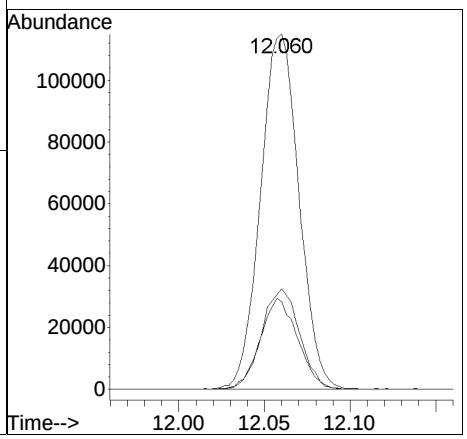


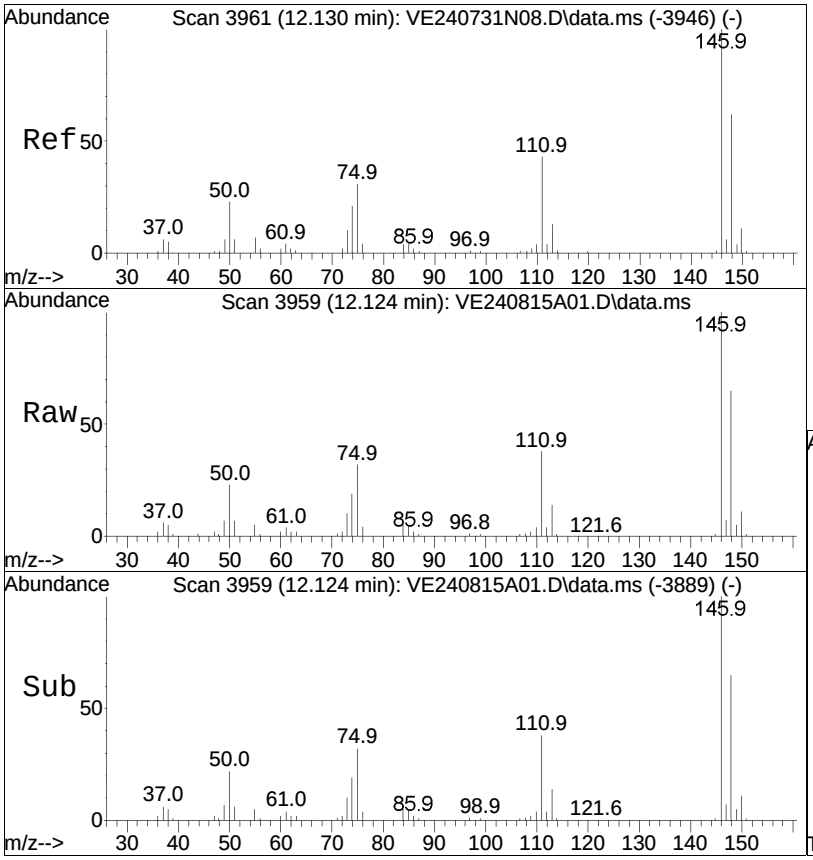


#104
p-Isopropyltoluene
Concen: 10.57 ug/L
RT: 12.060 min Scan# 3936
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:119 Resp: 179902

Ion	Ratio	Lower	Upper
119	100		
134	28.1	15.8	32.8
91	24.9	16.6	34.4

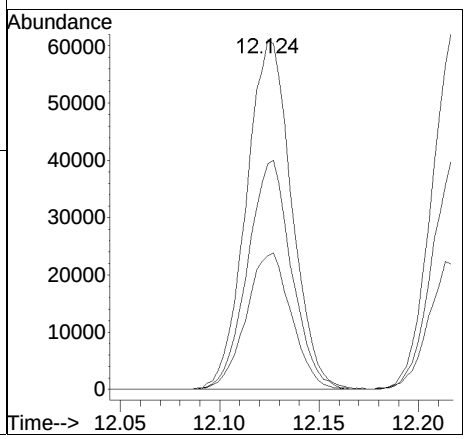


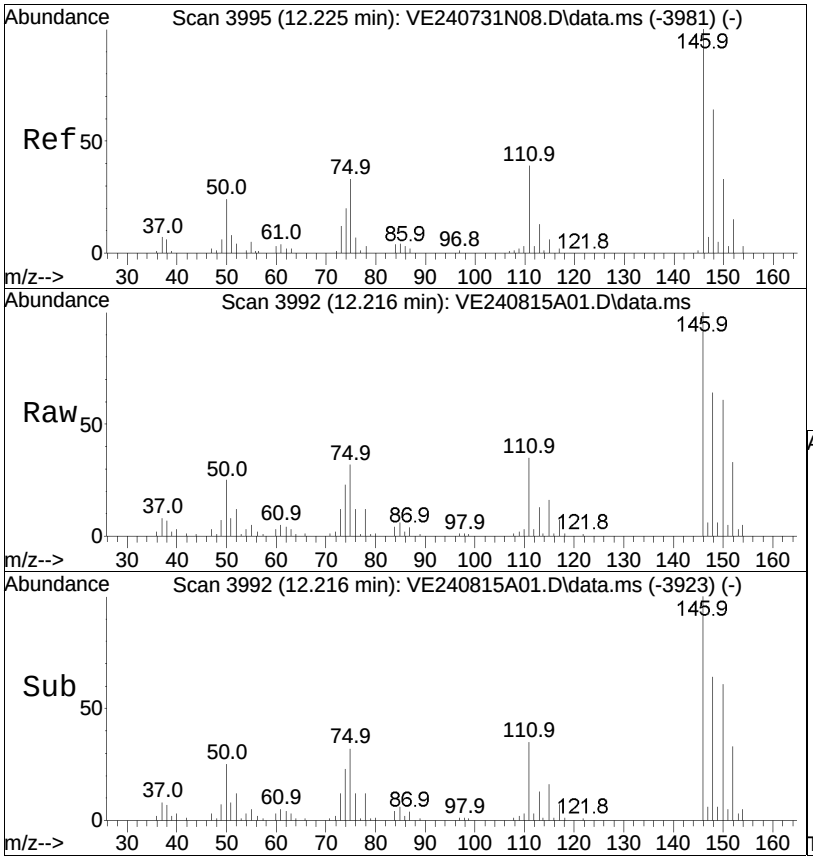


#105
1,3-Dichlorobenzene
Concen: 10.91 ug/L
RT: 12.124 min Scan# 3959
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:146 Resp: 97004

Ion	Ratio	Lower	Upper
146	100		
111	39.0	27.9	57.9
148	63.5	42.4	88.2

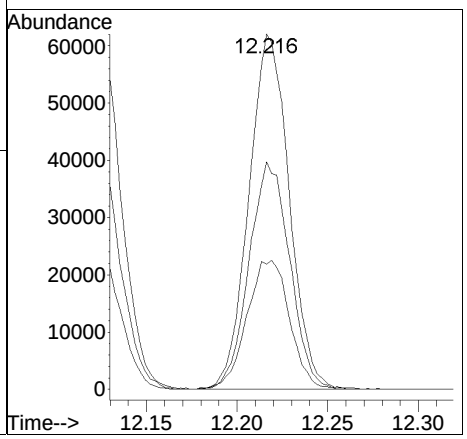


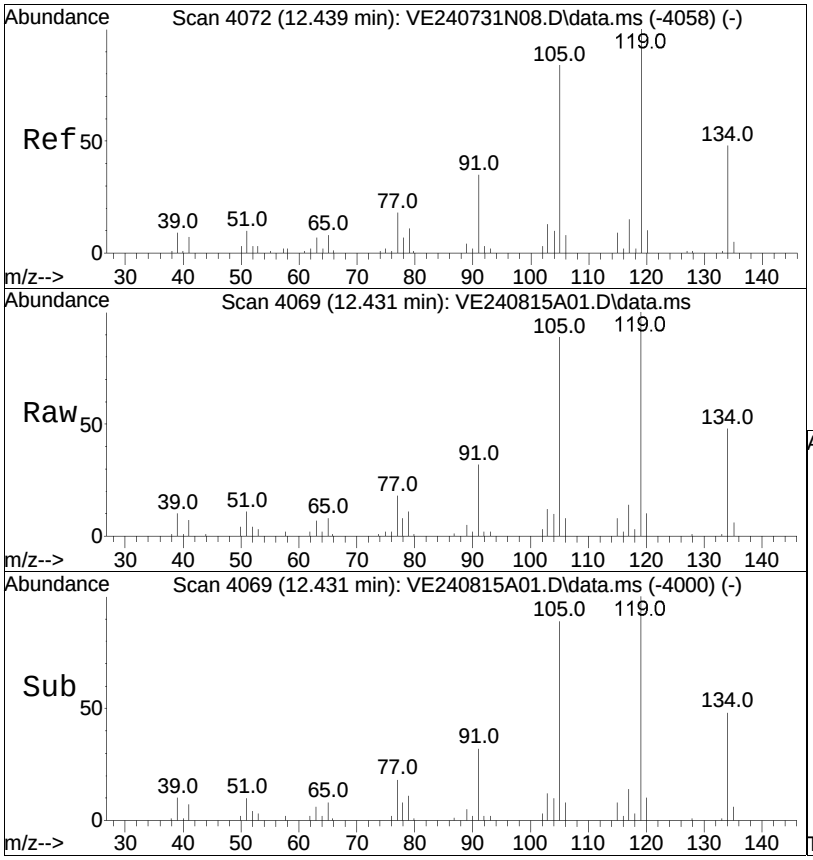


#106
1,4-Dichlorobenzene
Concen: 10.80 ug/L
RT: 12.216 min Scan# 3992
Delta R.T. -0.009 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:146 Resp: 95979

Ion	Ratio	Lower	Upper
146	100		
111	38.5	31.4	47.0
148	64.7	49.8	74.8

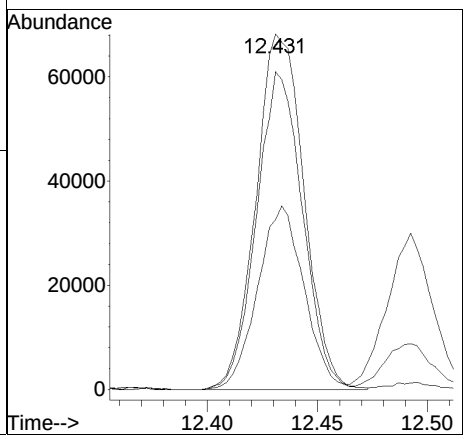


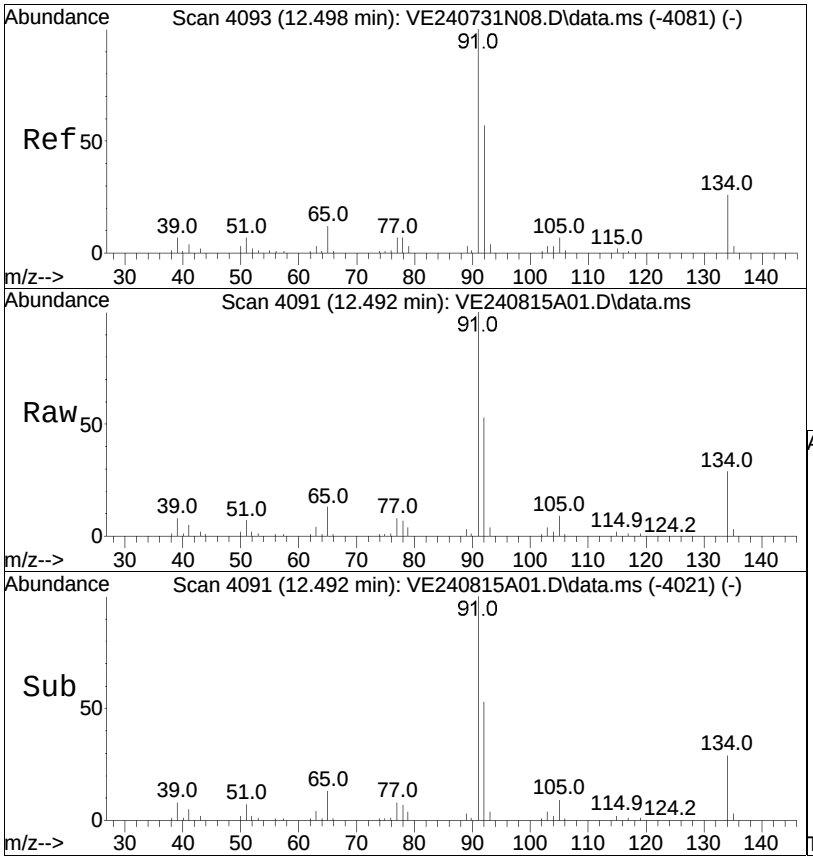


#107
p-Diethylbenzene
Concen: 10.34 ug/L
RT: 12.431 min Scan# 4069
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:119 Resp: 103845

Ion	Ratio	Lower	Upper
119	100		
105	85.3	55.4	115.2
134	49.8	28.4	59.0

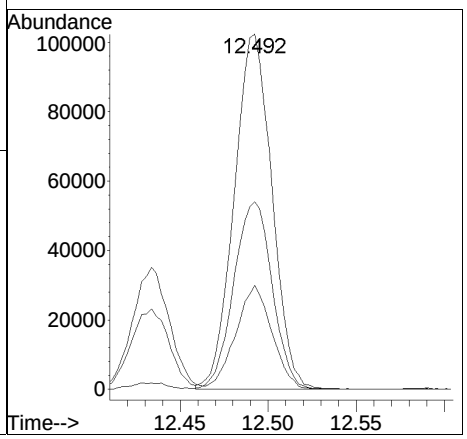


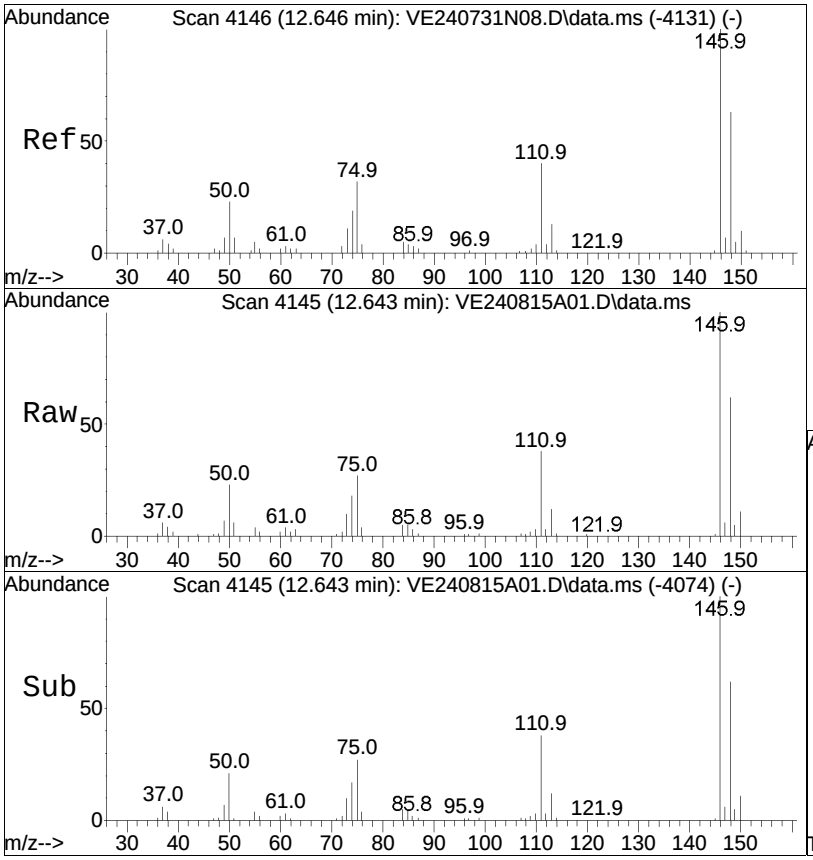


#108
n-Butylbenzene
Concen: 10.43 ug/L
RT: 12.492 min Scan# 4091
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion: 91 Resp: 152932

Ion	Ratio	Lower	Upper
91	100		
92	53.9	42.4	63.6
134	27.7	20.3	30.5

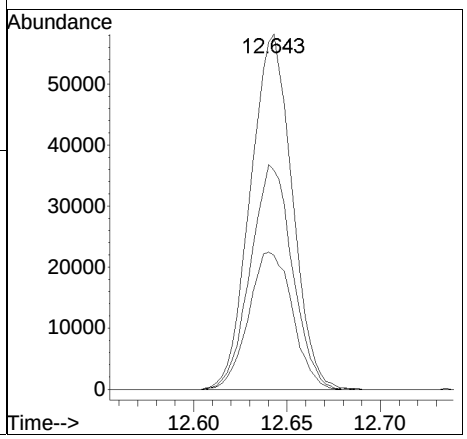


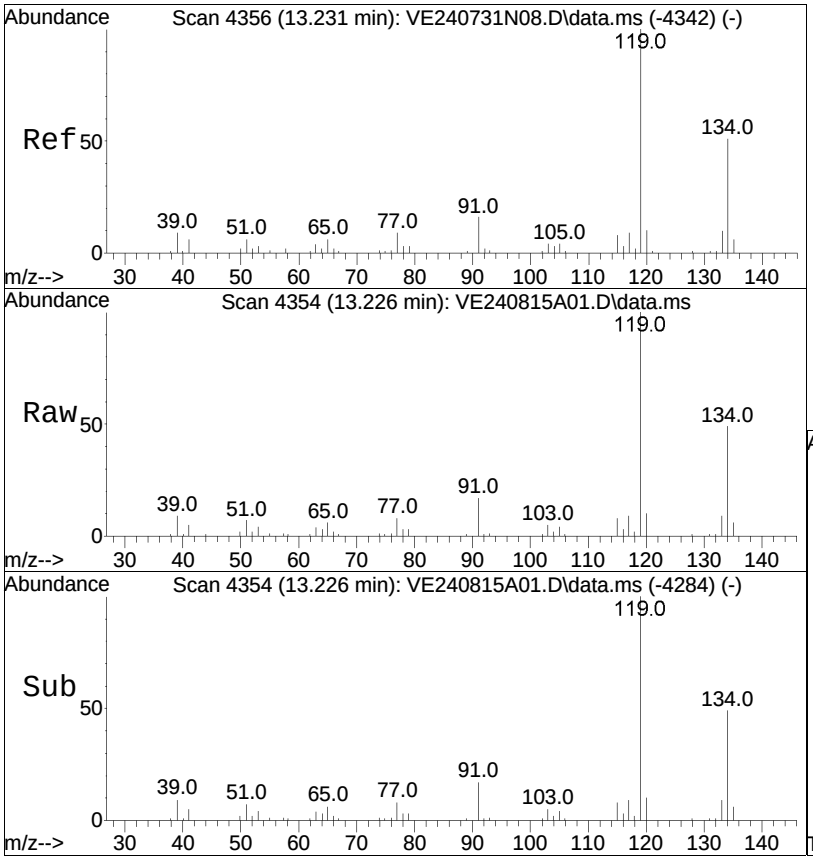


#109
1,2-Dichlorobenzene
Concen: 10.58 ug/L
RT: 12.643 min Scan# 4145
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:146 Resp: 90475

Ion	Ratio	Lower	Upper
146	100		
111	40.6	26.4	54.8
148	63.4	41.7	86.7

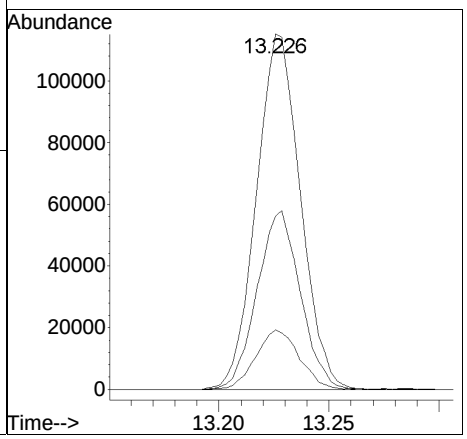


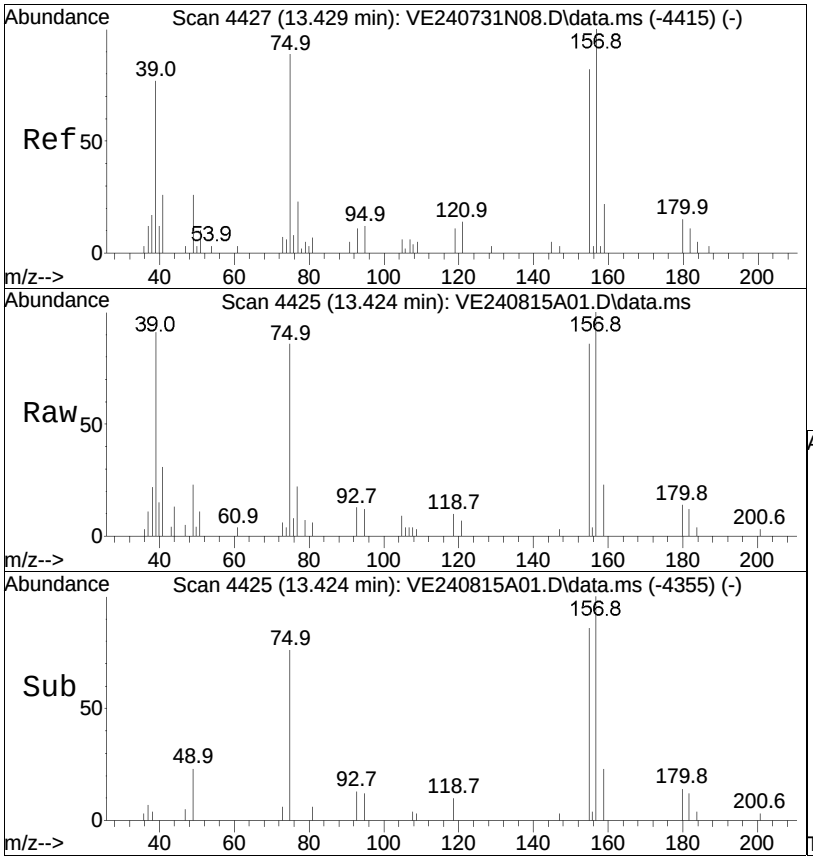


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.82 ug/L
RT: 13.226 min Scan# 4354
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:119 Resp: 159992

Ion	Ratio	Lower	Upper
119	100		
134	49.3	29.6	61.4
91	16.6	9.8	20.3

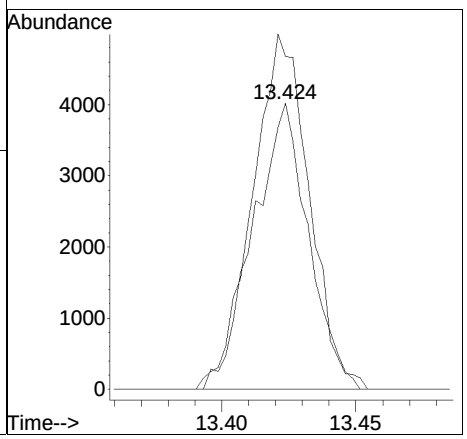


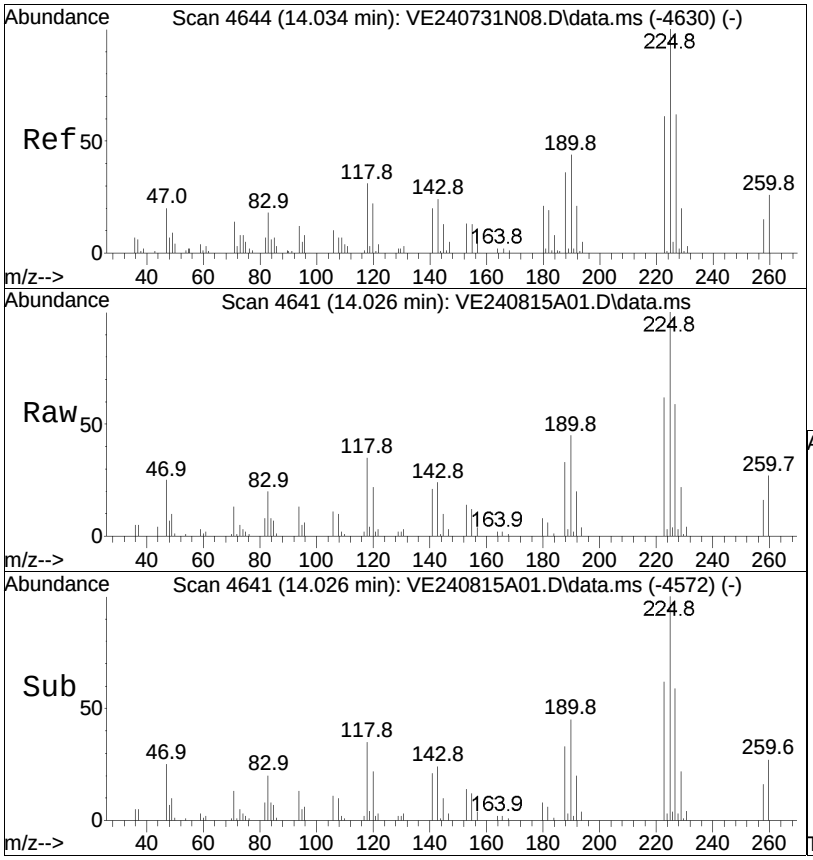


#111
1,2-Dibromo-3-chloropropane
Concen: 7.65 ug/L
RT: 13.424 min Scan# 4425
Delta R.T. -0.005 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:155 Resp: 5766

Ion	Ratio	Lower	Upper
155	100		
157	127.4	95.1	142.7

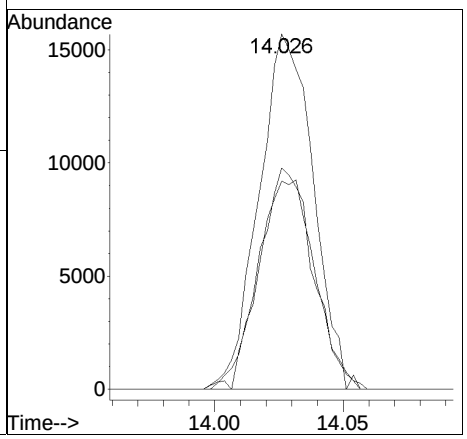


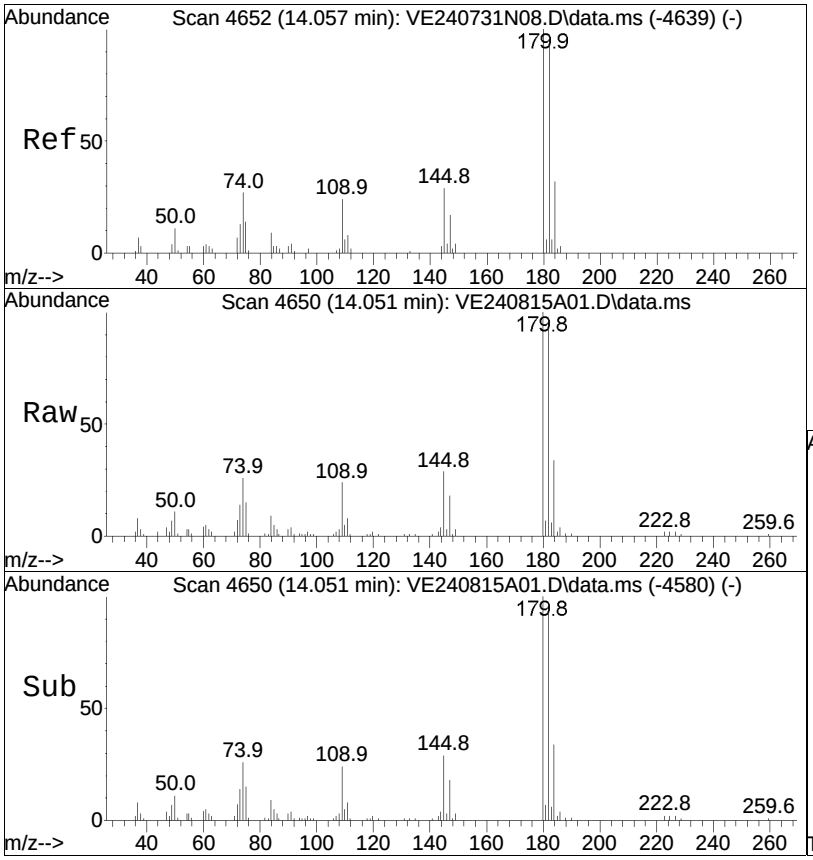


#113
Hexachlorobutadiene
Concen: 10.27 ug/L
RT: 14.026 min Scan# 4641
Delta R.T. -0.008 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:225 Resp: 23106

Ion	Ratio	Lower	Upper
225	100		
223	61.9	54.6	82.0
227	61.9	56.2	84.4

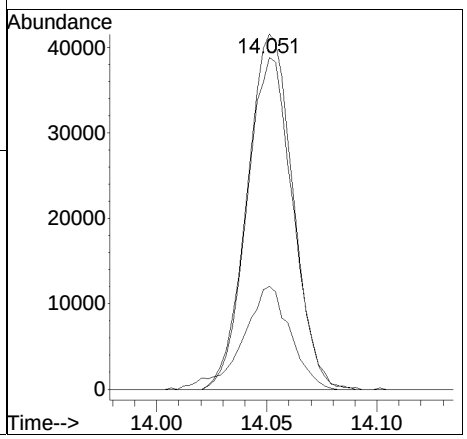


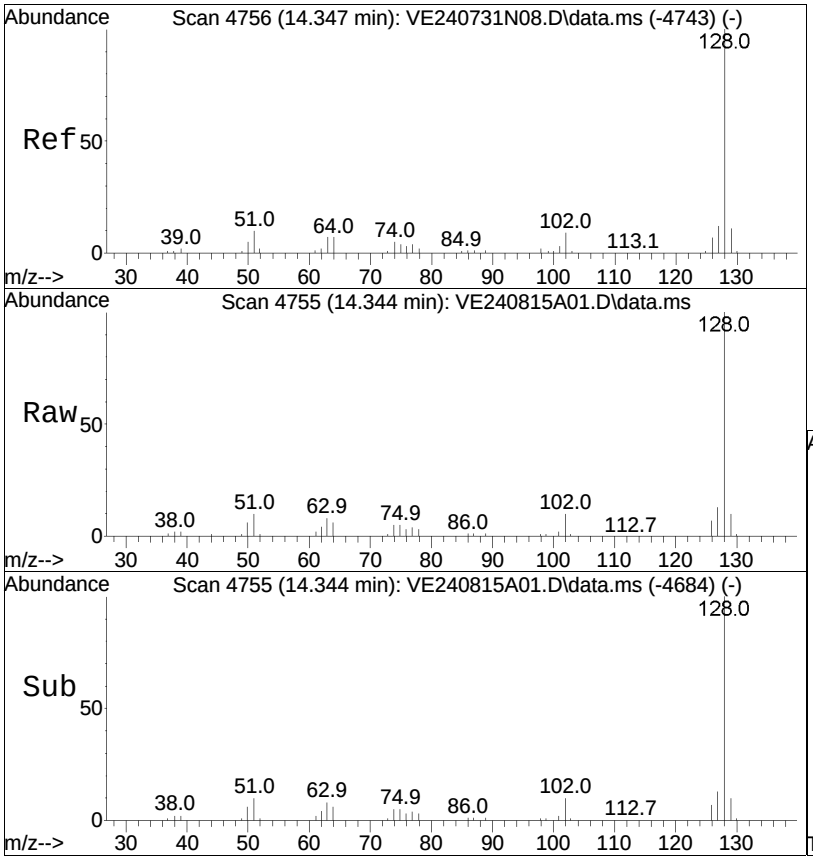


#114
1,2,4-Trichlorobenzene
Concen: 9.80 ug/L
RT: 14.051 min Scan# 4650
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:180 Resp: 60064

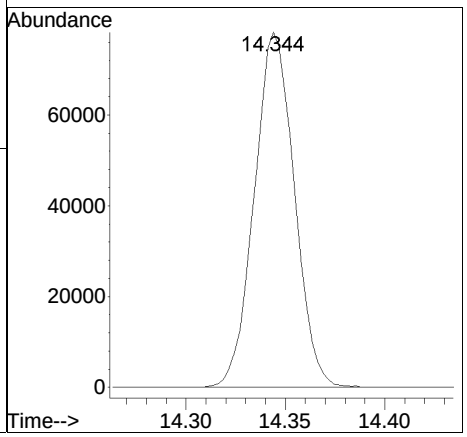
Ion	Ratio	Lower	Upper
180	100		
182	93.6	75.4	113.2
145	30.2	26.0	39.0

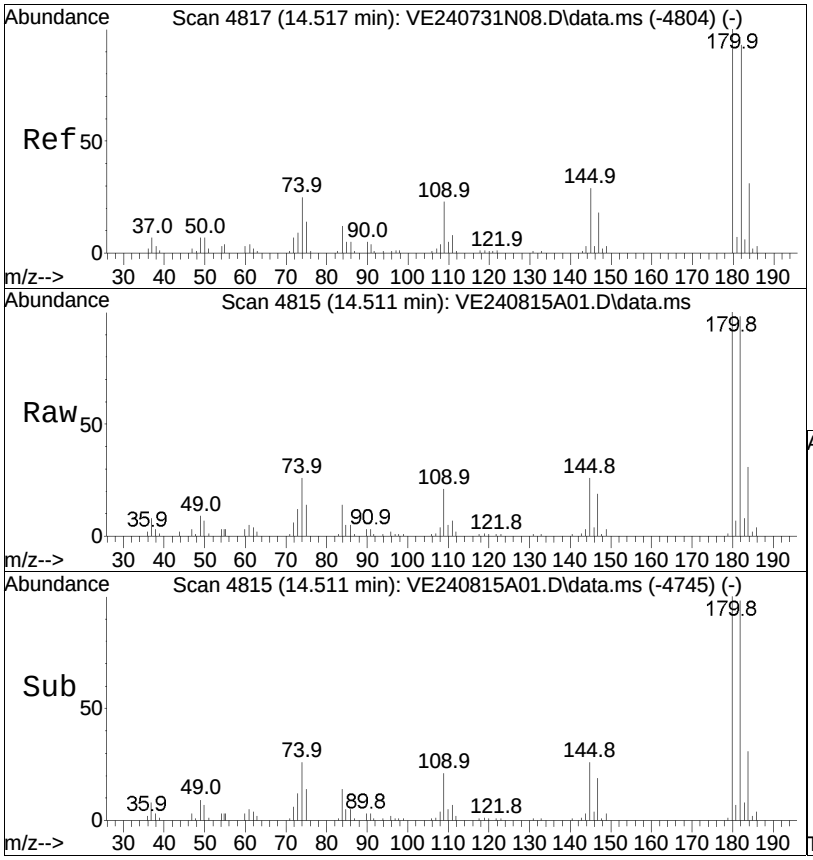




#115
Naphthalene
Concen: 8.12 ug/L
RT: 14.344 min Scan# 4755
Delta R.T. -0.003 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:128 Resp: 109639

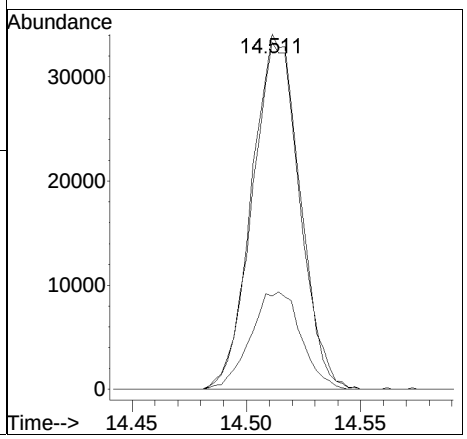




#116
1,2,3-Trichlorobenzene
Concen: 8.88 ug/L
RT: 14.511 min Scan# 4815
Delta R.T. -0.006 min
Lab File: VE240815A01.D
Acq: 15 Aug 2024 6:39 am

Tgt Ion:180 Resp: 49993

Ion	Ratio	Lower	Upper
180	100		
182	95.8	71.6	107.4
145	28.9	25.1	37.7

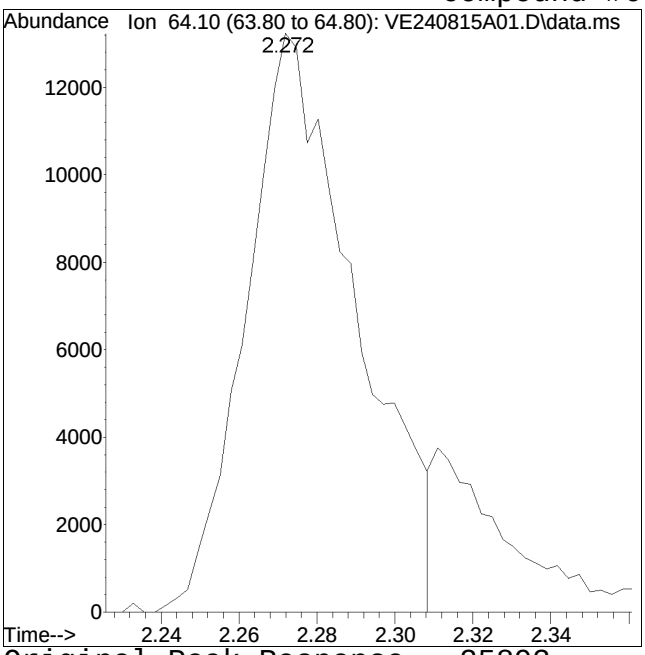


Manual Integration Report

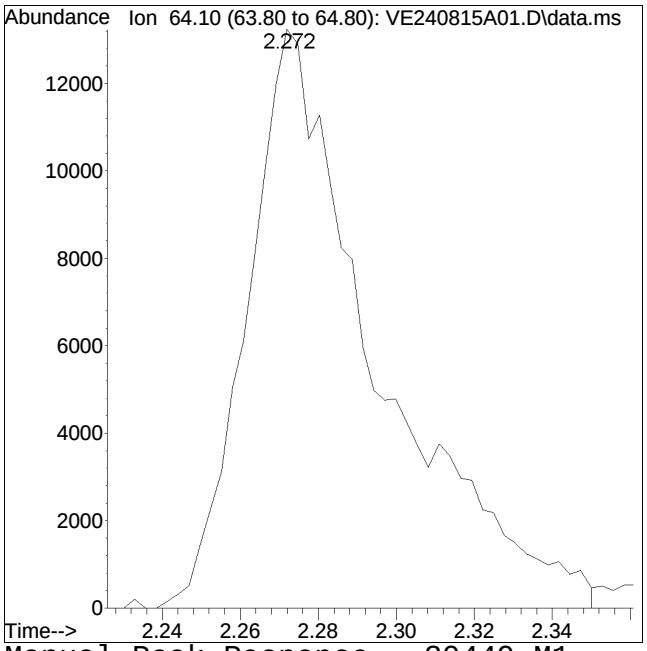
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Date Inj'd : 8/15/2024 6:39 am
Sample : WG1959746-3,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:05 am

Compound #6: Chloroethane



Original Peak Response = 25893



Manual Peak Response = 30449 M1

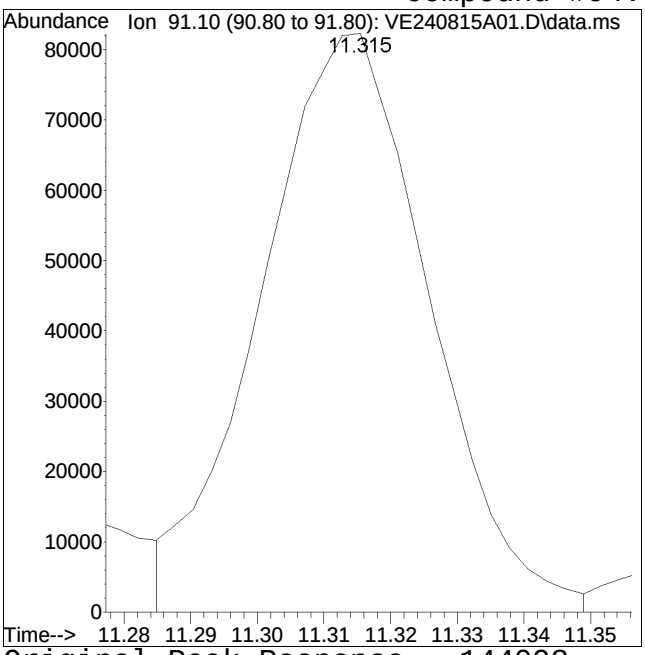
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

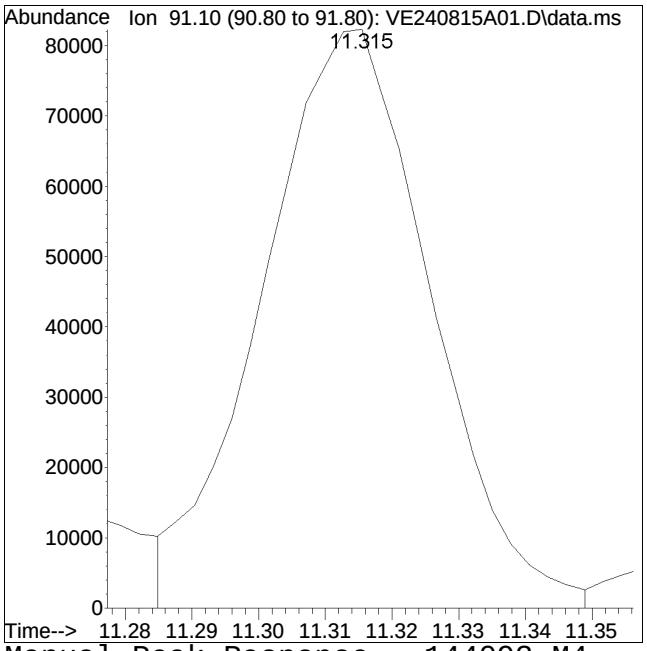
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Date Inj'd : 8/15/2024 6:39 am
Sample : WG1959746-3,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:05 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 144093



Manual Peak Response = 144093 M4

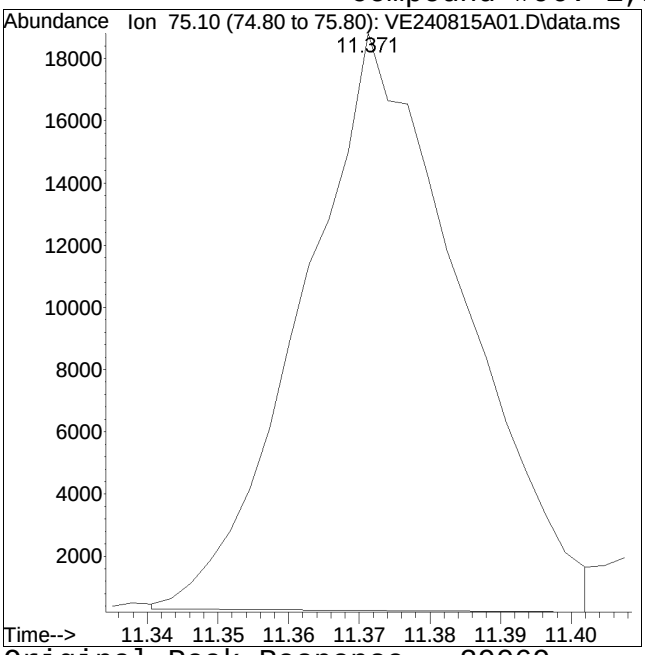
M4 = Poor automated baseline construction.

Manual Integration Report

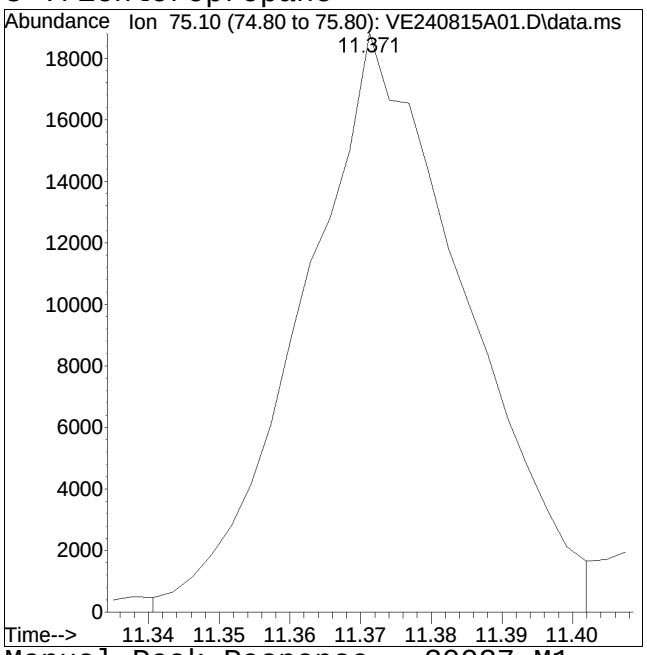
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A01.D
Date Inj'd : 8/15/2024 6:39 am
Sample : WG1959746-3,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:05 am

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 29069



Manual Peak Response = 30037 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	421161	10.000	ug/L	0.00
Standard Area 1 = 421161			Recovery = 100.00%			
62) Chlorobenzene-d5	9.519	117	360997	10.000	ug/L	0.00
Standard Area 1 = 360997			Recovery = 100.00%			
83) 1,4-Dichlorobenzene-d4	12.230	152	194587	10.000	ug/L	0.00
Standard Area 1 = 194587			Recovery = 100.00%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.158	113	155954	10.598	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.98%			
46) 1,2-Dichloroethane-d4	5.688	65	114985	9.244	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.44%			
63) Toluene-d8	7.675	98	417919	9.086	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.86%			
87) 4-Bromofluorobenzene	11.012	95	146246	8.254	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	76901	9.249	ug/L	97
3) Chloromethane	1.808	50	88576	7.986	ug/L	97
4) Vinyl chloride	1.881	62	84760	9.659	ug/L	96
5) Bromomethane	2.189	94	17398	4.935	ug/L	96
6) Chloroethane	2.300	64	49156	9.691	ug/L	97
7) Trichlorofluoromethane	2.444	101	113493	11.270	ug/L	99
8) Ethyl ether	2.739	74	25121	8.571	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	62983	10.809	ug/L	90
11) Carbon disulfide	2.962	76	185989	9.717	ug/L	100
15) Methylene chloride	3.473	84	68206	8.830	ug/L #	63
17) Acetone	3.513	43	12218	8.677	ug/L	95
18) trans-1,2-Dichloroethene	3.630	96	67926	9.965	ug/L	91
21) Methyl tert-butyl ether	3.729	73	114240	8.765	ug/L #	76
25) 1,1-Dichloroethane	4.207	63	124923	8.973	ug/L	95
27) Acrylonitrile	4.247	53	17338	9.022	ug/L	95
29) Vinyl acetate	4.437	43	126095	8.614	ug/L #	88
30) cis-1,2-Dichloroethene	4.725	96	73885	9.781	ug/L	89
31) 2,2-Dichloropropane	4.823	77	89578	10.267	ug/L #	80
32) Bromochloromethane	4.915	128	39607	11.111	ug/L #	82
34) Chloroform	4.987	83	111075	9.219	ug/L #	95

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Carbon tetrachloride	5.125	117	102296	11.765	ug/L		99
39) 1,1,1-Trichloroethane	5.190	97	106137	10.446	ug/L		97
41) 2-Butanone	5.269	43	16503	8.340	ug/L	#	45
42) 1,1-Dichloropropene	5.308	75	78333	9.555	ug/L		94
44) Benzene	5.557	78	250476	9.390	ug/L	#	90
47) 1,2-Dichloroethane	5.754	62	60246	9.040	ug/L		98
51) Trichloroethene	6.147	95	56724	9.998	ug/L		94
53) Dibromomethane	6.584	93	27104	9.450	ug/L		94
54) 1,2-Dichloropropane	6.695	63	51489	8.644	ug/L		94
57) Bromodichloromethane	6.764	83	65525	9.323	ug/L		97
60) 1,4-Dioxane	6.973	88	12812	545.167	ug/L	#	66
61) cis-1,3-Dichloropropene	7.459	75	64886	8.958	ug/L	#	84
64) Toluene	7.731	92	133128	8.953	ug/L		98
65) 4-Methyl-2-pentanone	8.161	58	8510	7.151	ug/L	#	62
66) Tetrachloroethene	8.175	166	71256	12.221	ug/L		99
68) trans-1,3-Dichloropropene	8.210	75	52938	7.248	ug/L		85
71) 1,1,2-Trichloroethane	8.398	83	28418	8.138	ug/L		97
72) Chlorodibromomethane	8.600	129	50350	8.948	ug/L		99
73) 1,3-Dichloropropane	8.719	76	55625	8.125	ug/L		99
74) 1,2-Dibromoethane	8.881	107	36154	9.239	ug/L		98
76) 2-Hexanone	9.175	43	16426	7.428	ug/L	#	86
77) Chlorobenzene	9.540	112	165534	9.829	ug/L	#	82
78) Ethylbenzene	9.582	91	259608	9.247	ug/L		96
79) 1,1,1,2-Tetrachloroethane	9.624	131	53643	10.014	ug/L		97
80) p/m Xylene	9.771	106	218237	20.025	ug/L		92
81) o Xylene	10.311	106	201177	19.520	ug/L		92
82) Styrene	10.381	104	326135	19.674	ug/L		93
84) Bromoform	10.395	173	27416	9.365	ug/L		98
86) Isopropylbenzene	10.697	105	281618	9.330	ug/L		98
88) Bromobenzene	11.125	156	69994	9.862	ug/L		100
89) n-Propylbenzene	11.181	91	307530	8.768	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	37820	7.660	ug/L		99
92) 4-Ethyltoluene	11.307	105	263422	9.215	ug/L		97
93) 2-Chlorotoluene	11.342	91	179581M6	8.500	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	221754	9.155	ug/L		95
95) 1,2,3-Trichloropropane	11.398	75	28269	7.501	ug/L		94
96) trans-1,4-Dichloro-2-b...	11.454	53	13416	7.982	ug/L	#	68
97) 4-Chlorotoluene	11.524	91	178878	8.204	ug/L		92
98) tert-Butylbenzene	11.749	119	209130	9.946	ug/L		94

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	227450	8.404	ug/L	95
102) sec-Butylbenzene	11.944	105	294119	9.216	ug/L	98
103) p-Isopropyltoluene	12.097	119	257255	9.537	ug/L	98
104) 1,3-Dichlorobenzene	12.153	146	141418	10.045	ug/L	99
105) 1,4-Dichlorobenzene	12.250	146	137296	9.833	ug/L	99
106) p-Diethylbenzene	12.473	119	144428	9.420	ug/L	97
107) n-Butylbenzene	12.529	91	195523	8.731	ug/L	97
108) 1,2-Dichlorobenzene	12.675	146	122893	9.867	ug/L	99
109) 1,2,4,5-Tetramethylben...	13.274	119	182250	8.668	ug/L	98
110) 1,2-Dibromo-3-chloropr...	13.455	155	6408	8.703	ug/L	98
112) Hexachlorobutadiene	14.074	225	31586	10.731	ug/L	99
113) 1,2,4-Trichlorobenzene	14.088	180	70987	10.283	ug/L	99
114) Naphthalene	14.387	128	138793	8.742	ug/L	100
115) 1,2,3-Trichlorobenzene	14.554	180	61193	10.435	ug/L	99

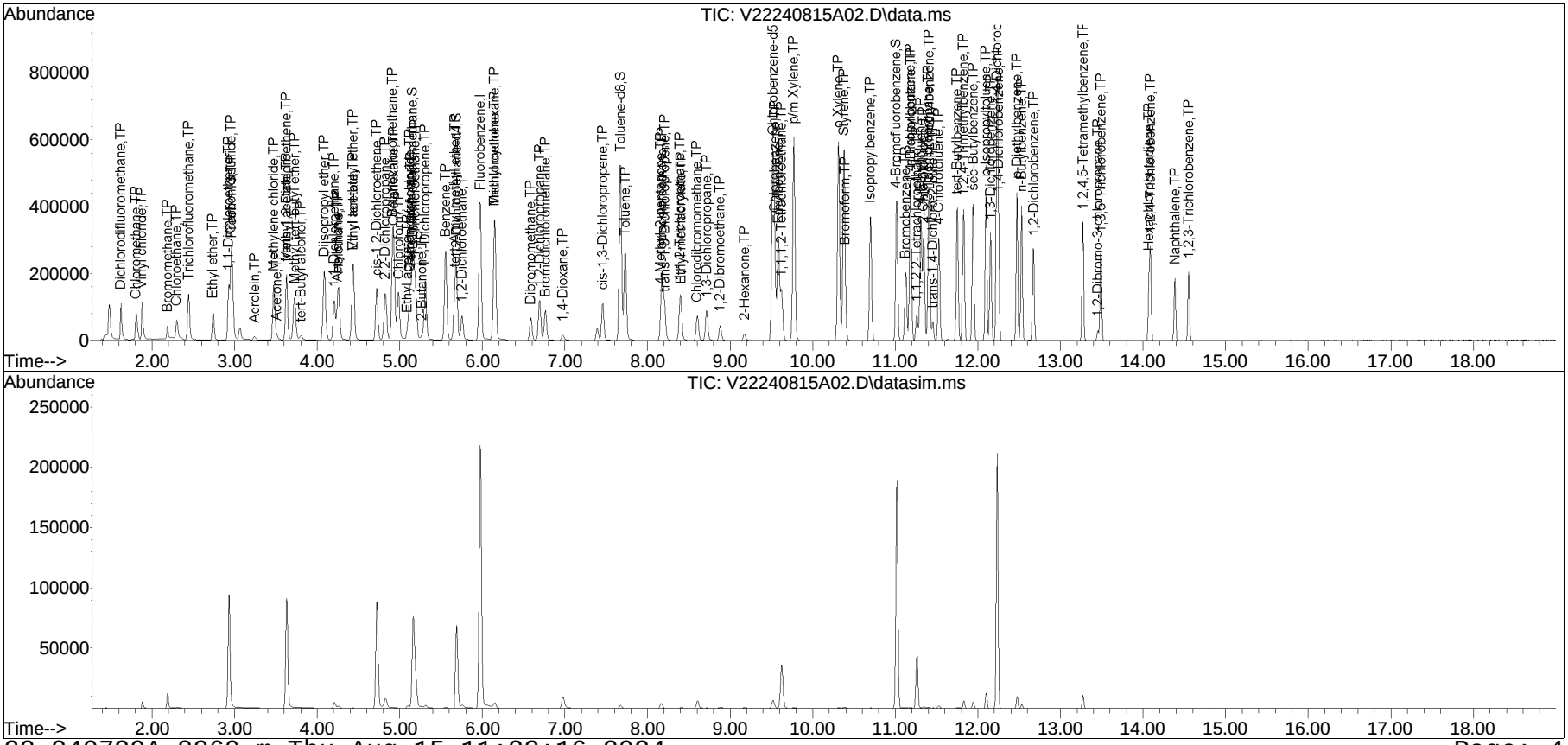
(#) = qualifier out of range (m) = manual integration (+) = signals summed

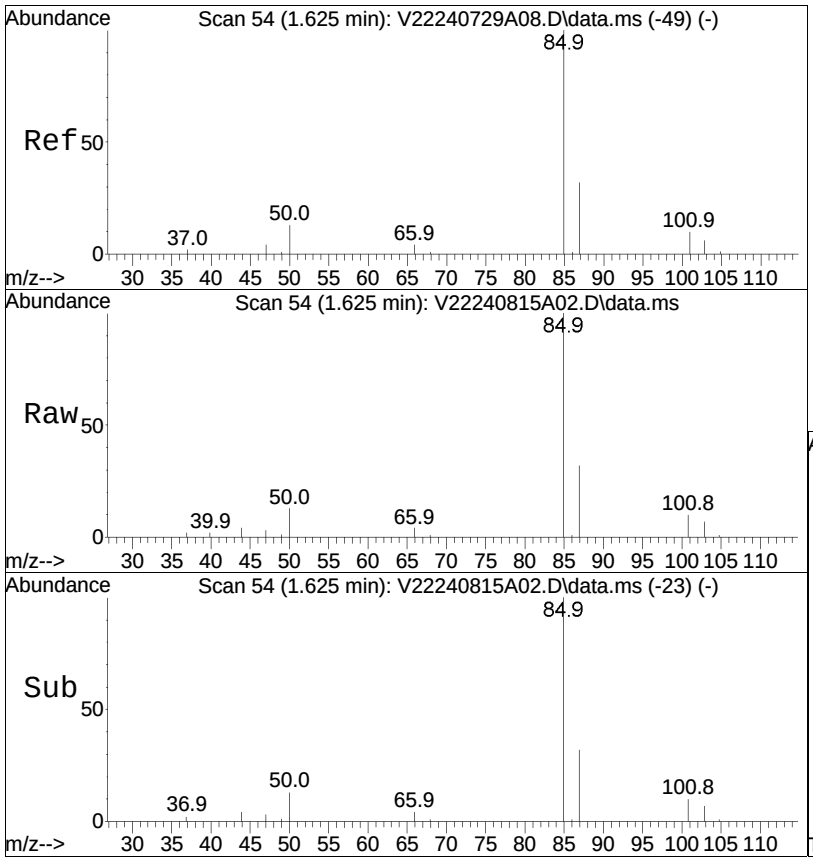
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Acq On : 15 Aug 2024 07:01 am
Operator : VOA122:PID
Sample : WG1959760-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:28:12 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

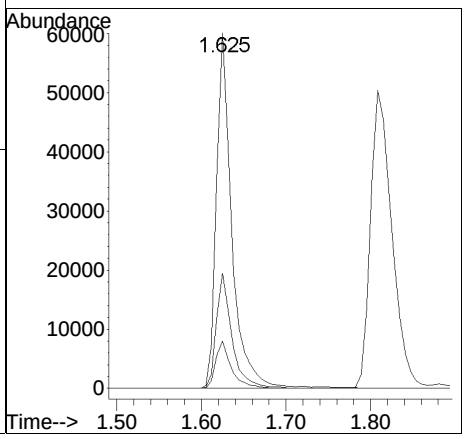


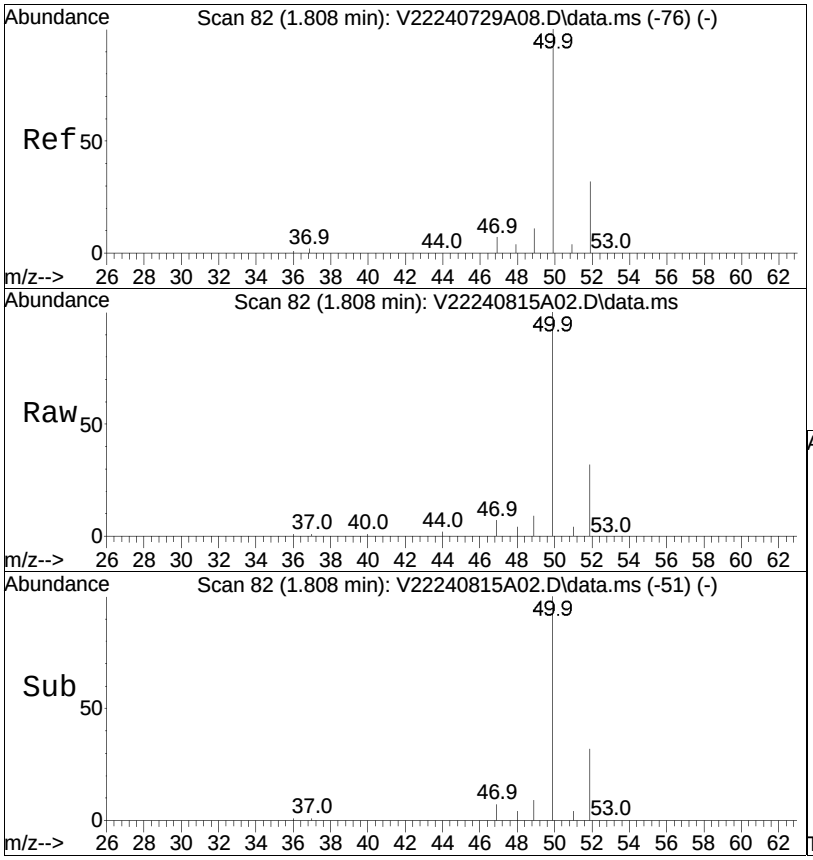


#2
Dichlorodifluoromethane
Concen: 9.25 ug/L
RT: 1.625 min Scan# 54
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 85 Resp: 76901

Ion	Ratio	Lower	Upper
85	100		
87	32.4	20.7	42.9
50	13.4	6.8	14.2

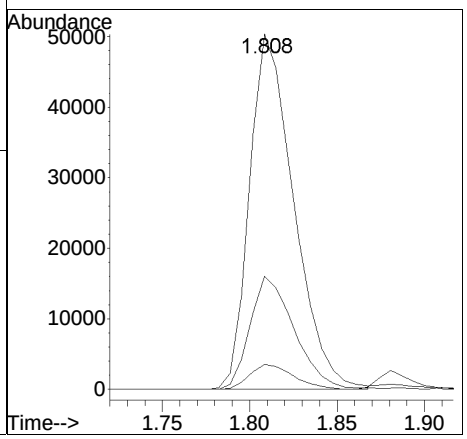


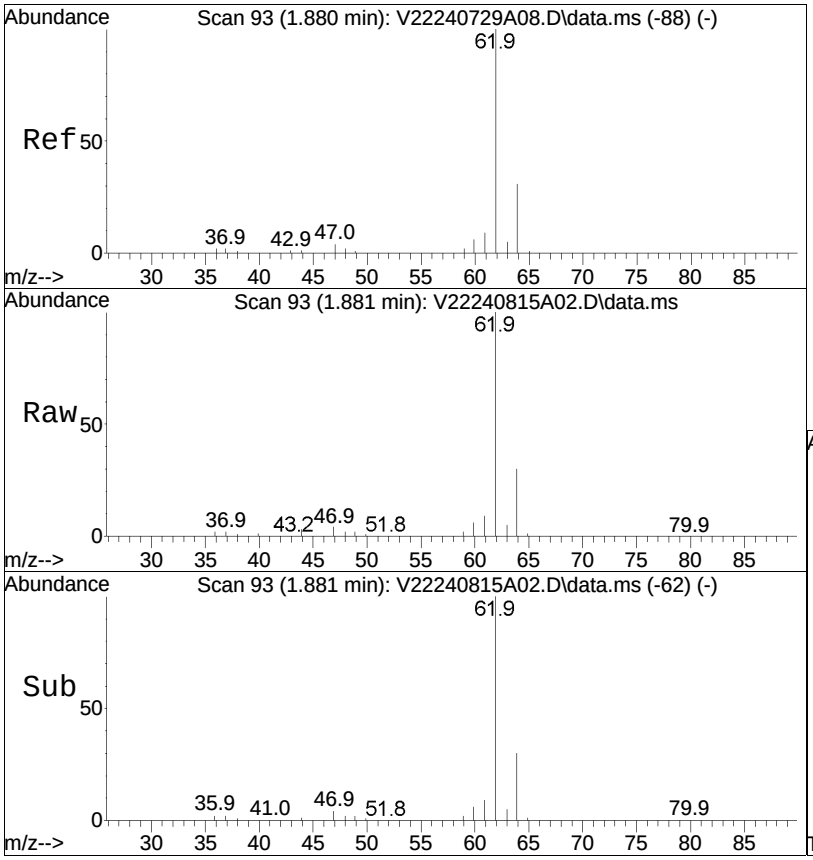


#3
Chloromethane
Concen: 7.99 ug/L
RT: 1.808 min Scan# 82
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 50 Resp: 88576

Ion	Ratio	Lower	Upper
50	100		
52	32.1	12.8	52.8
47	7.0	0.0	30.0

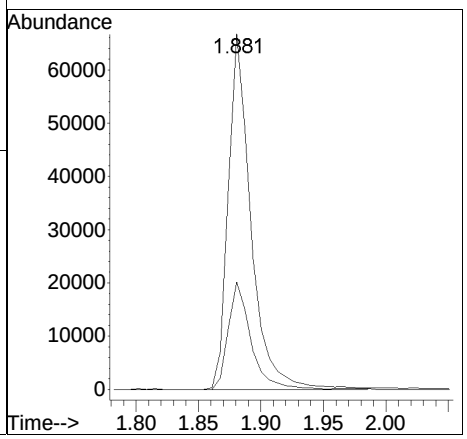


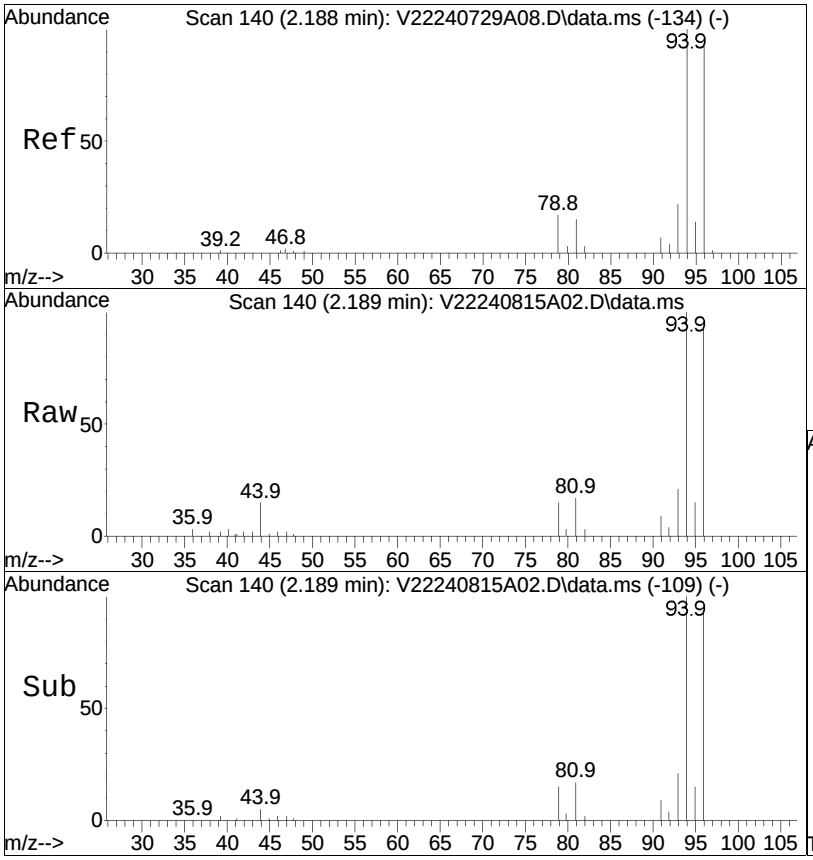


#4
Vinyl chloride
Concen: 9.66 ug/L
RT: 1.881 min Scan# 93
Delta R.T. 0.001 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 62 Resp: 84760

Ion	Ratio	Lower	Upper
62	100		
64	29.9	12.0	52.0

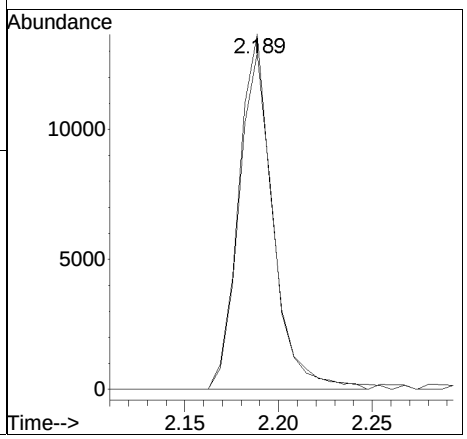


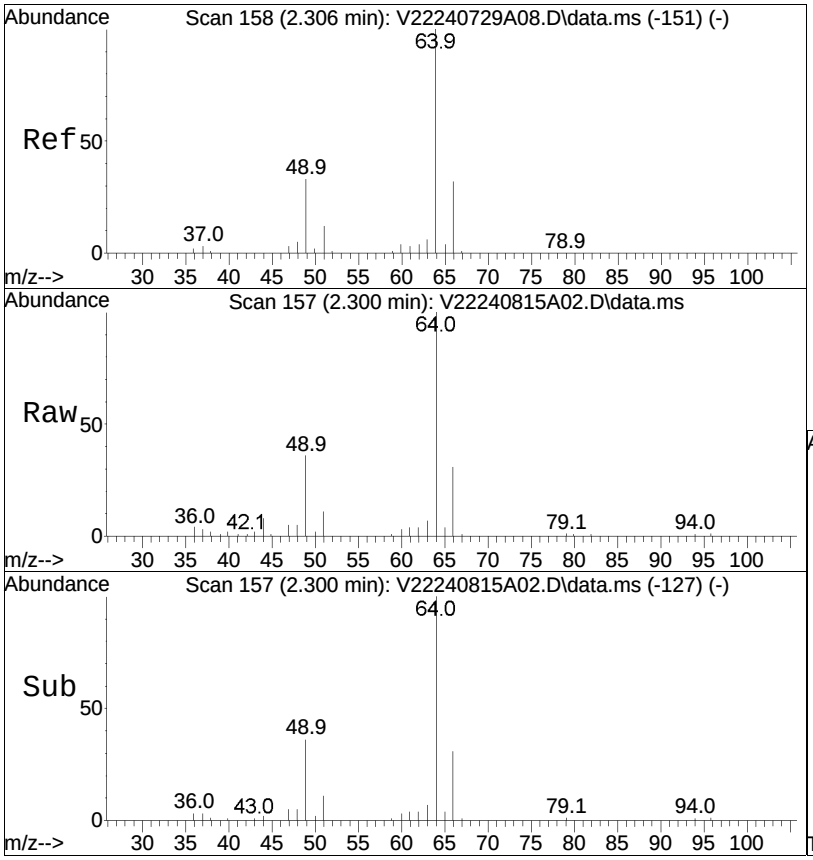


#5
Bromomethane
Concen: 4.94 ug/L
RT: 2.189 min Scan# 140
Delta R.T. 0.001 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 94 Resp: 17398

Ion	Ratio	Lower	Upper
94	100		
96	96.8	72.8	112.8

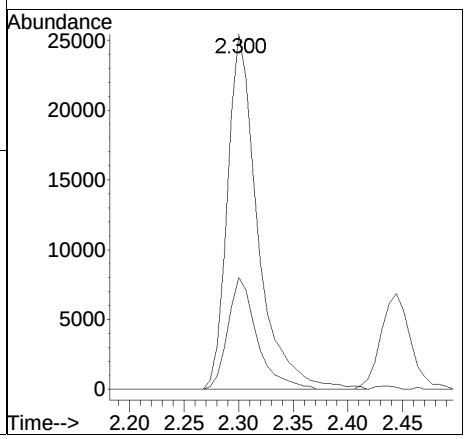


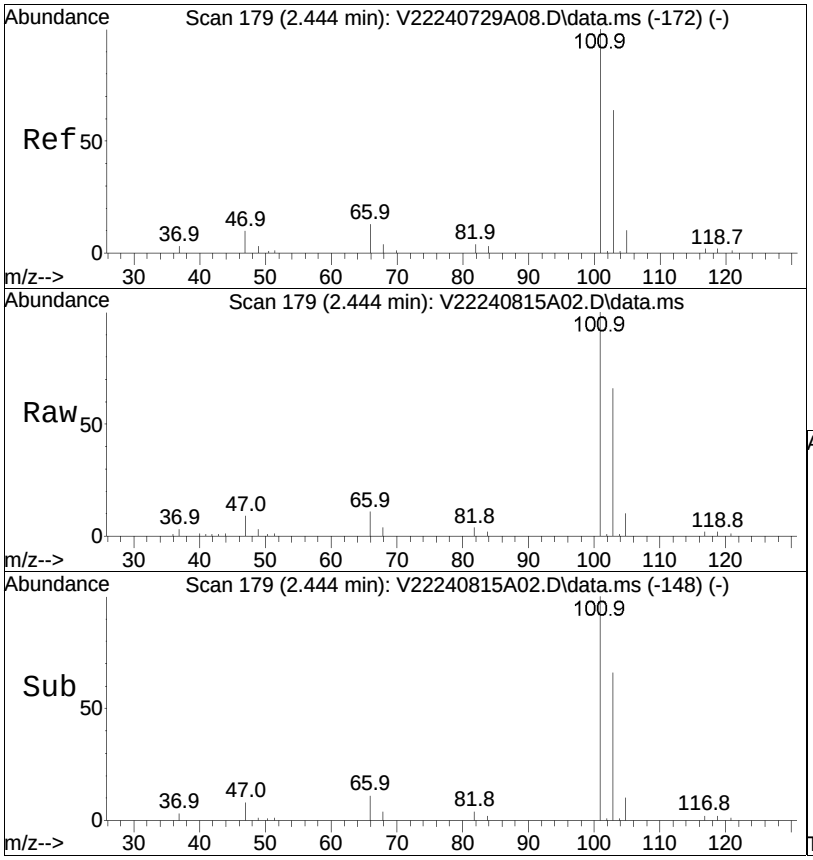


#6
Chloroethane
Concen: 9.69 ug/L
RT: 2.300 min Scan# 157
Delta R.T. -0.006 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 64 Resp: 49156

Ion	Ratio	Lower	Upper
64	100		
66	30.3	12.2	52.2

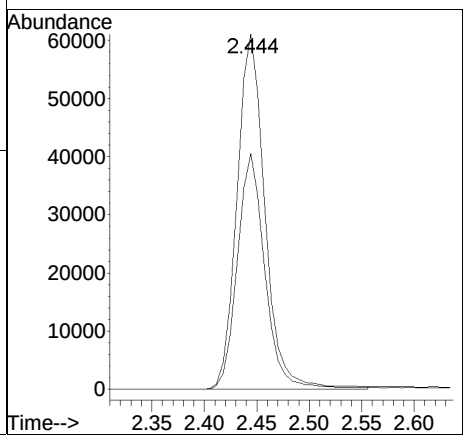


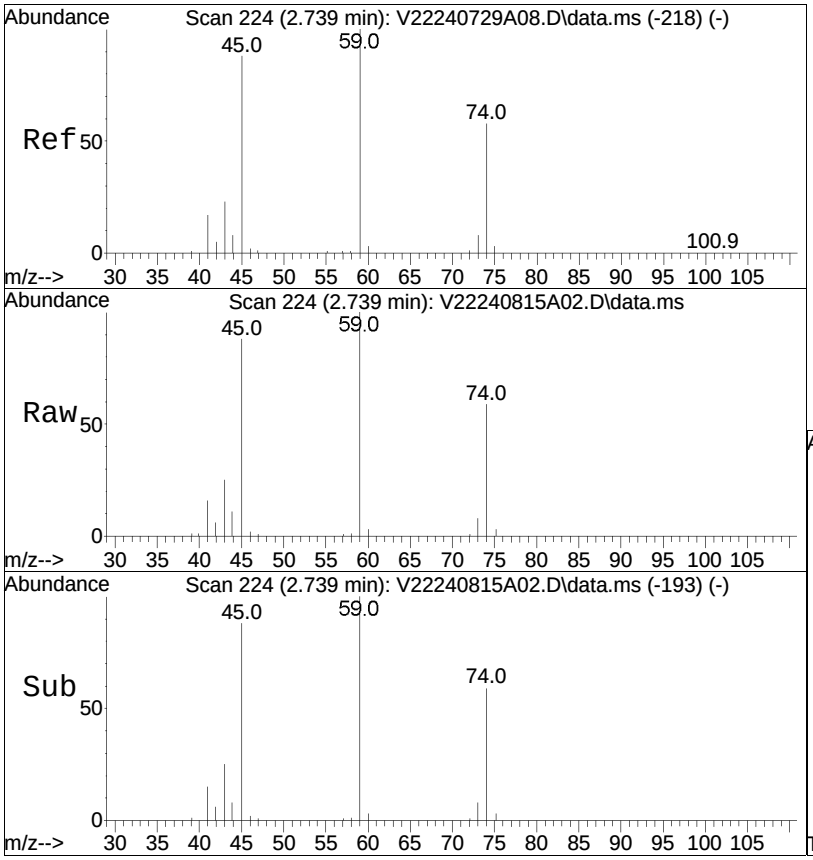


#7
Trichlorofluoromethane
Concen: 11.27 ug/L
RT: 2.444 min Scan# 179
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:101 Resp: 113493

Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.6	77.4

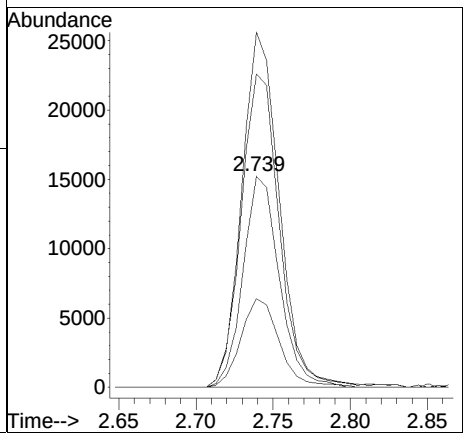


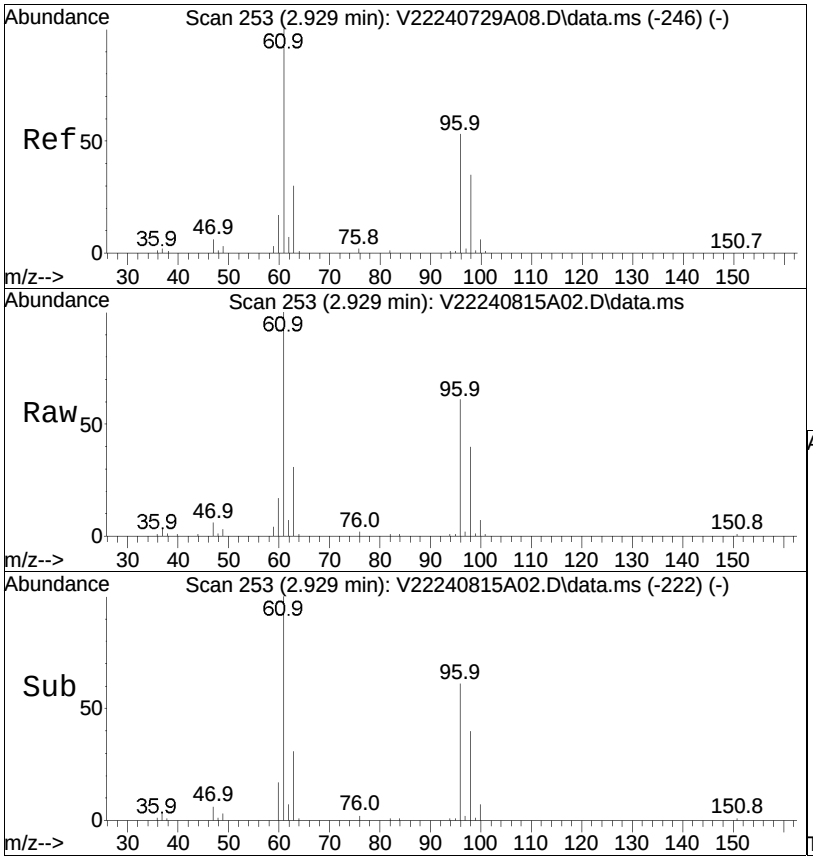


#8
Ethyl ether
Concen: 8.57 ug/L
RT: 2.739 min Scan# 224
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 74 Resp: 25121

Ion	Ratio	Lower	Upper
74	100		
59	174.1	2122.4	4408.0#
45	155.0	1435.1	2980.5#
43	44.4	407.9	847.3#

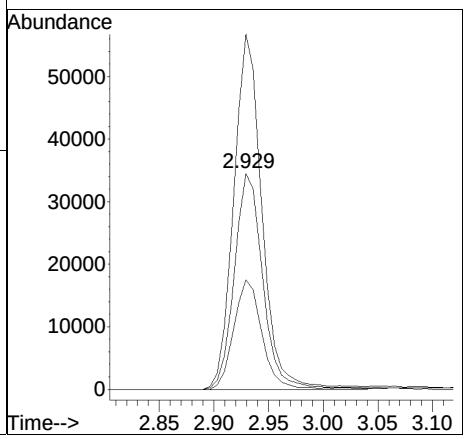


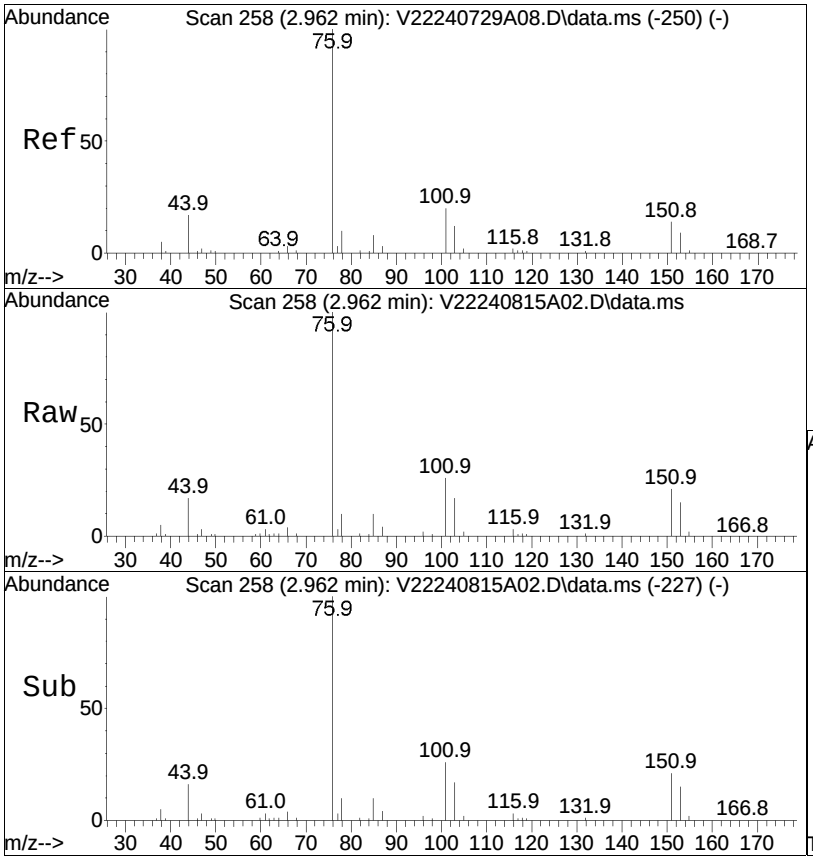


#10
1,1-Dichloroethene
Concen: 10.81 ug/L
RT: 2.929 min Scan# 253
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 96 Resp: 62983

Ion	Ratio	Lower	Upper
96	100		
61	160.9	117.0	175.4
63	49.9	37.8	56.6

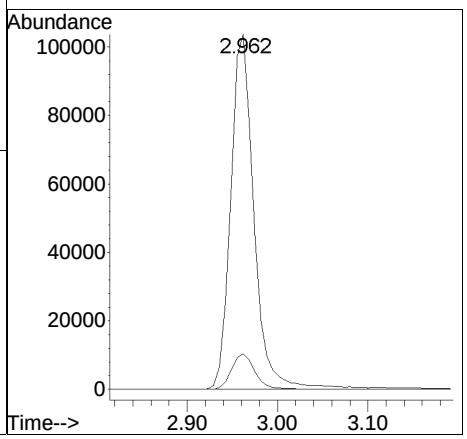


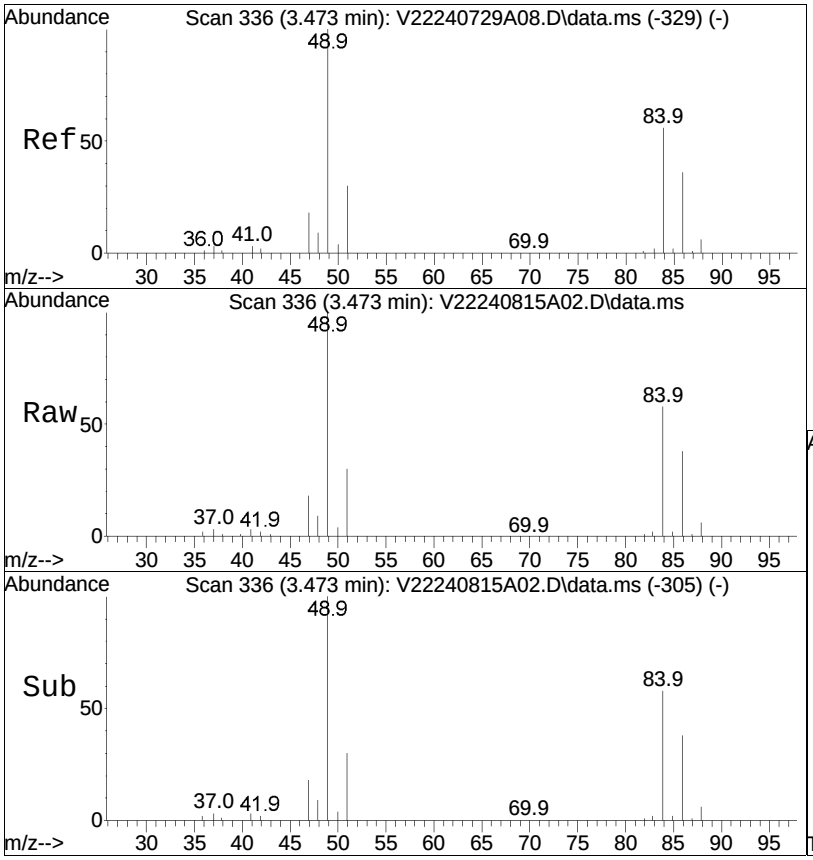


#11
Carbon disulfide
Concen: 9.72 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 76 Resp: 185989

Ion	Ratio	Lower	Upper
76	100		
78	10.0	6.4	13.4

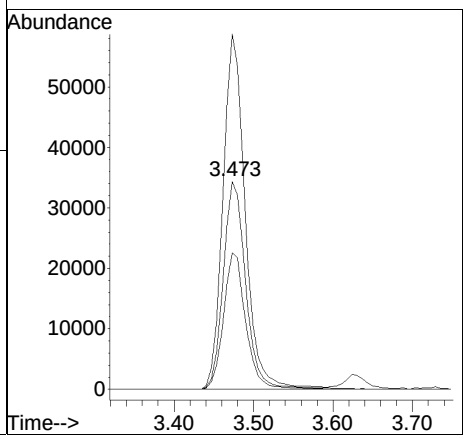


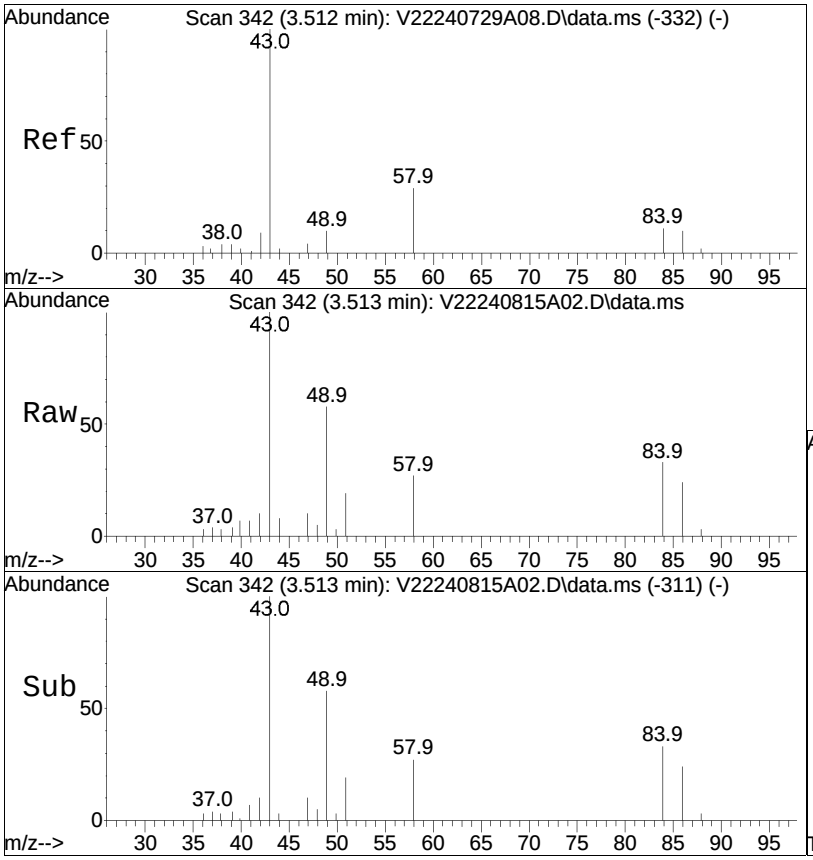


#15
Methylene chloride
Concen: 8.83 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 84 Resp: 68206

Ion	Ratio	Lower	Upper
84	100		
86	64.6	41.5	86.3
49	167.5	68.8	143.0#

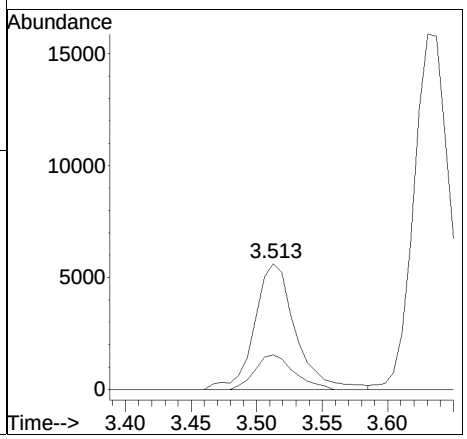


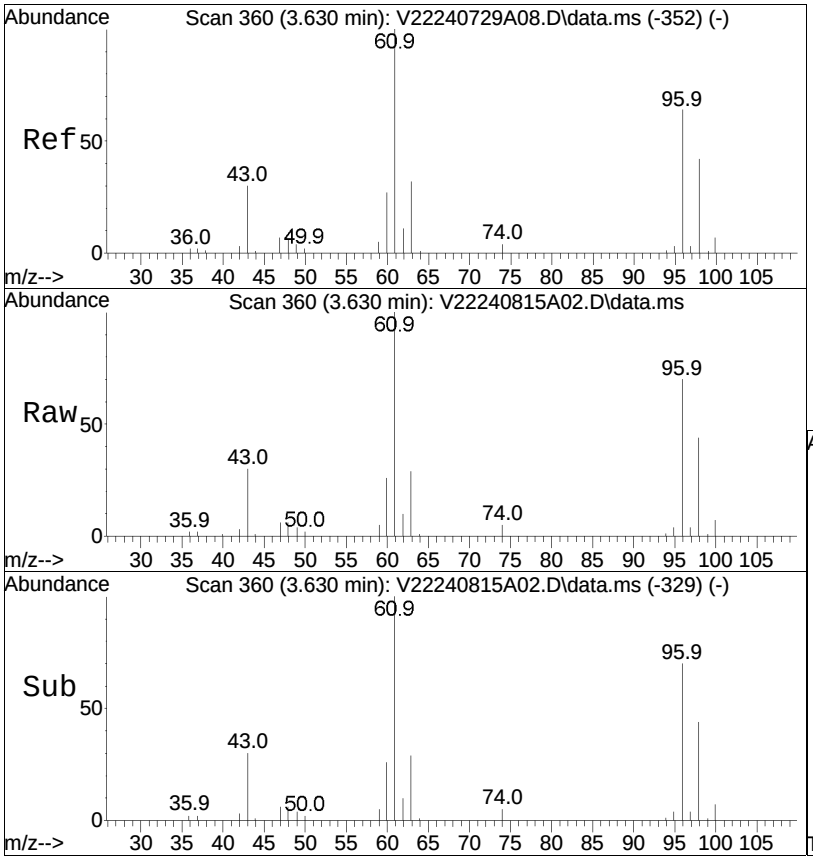


#17
Acetone
Concen: 8.68 ug/L
RT: 3.513 min Scan# 342
Delta R.T. 0.001 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 43 Resp: 12218

Ion	Ratio	Lower	Upper
43	100		
58	26.3	23.1	34.7

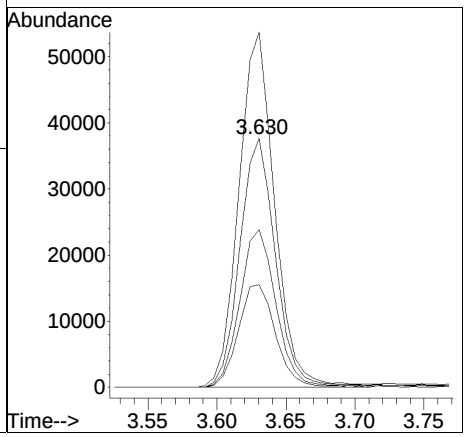


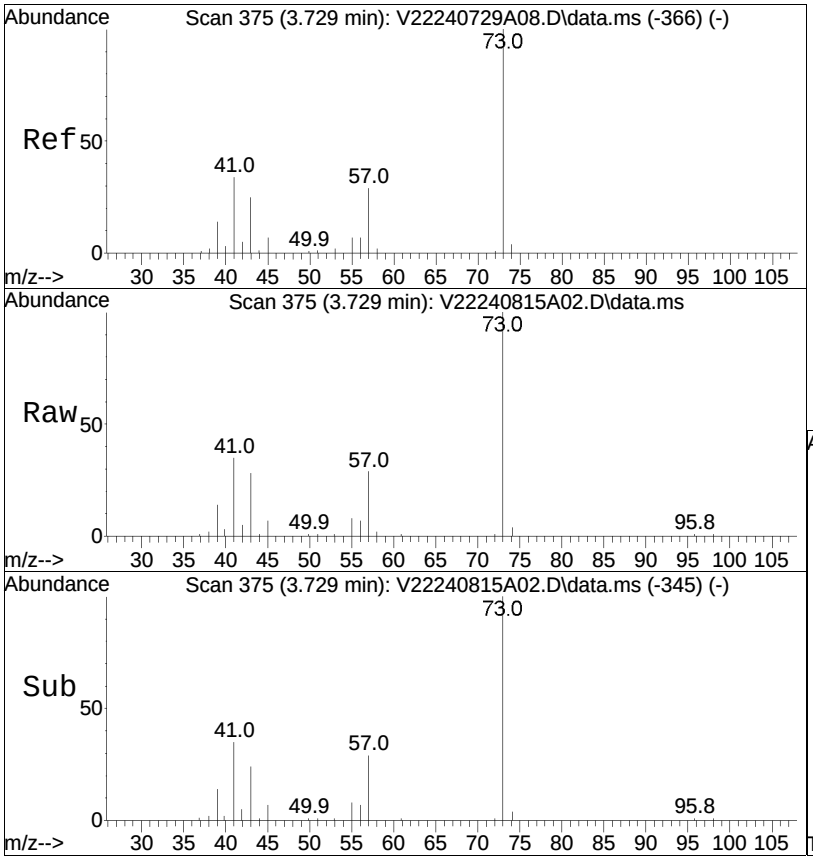


#18
trans-1,2-Dichloroethene
Concen: 9.97 ug/L
RT: 3.630 min Scan# 360
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 96 Resp: 67926

Ion	Ratio	Lower	Upper
96	100		
61	142.7	81.6	169.6
98	64.0	41.8	86.8
63	42.9	26.3	54.7

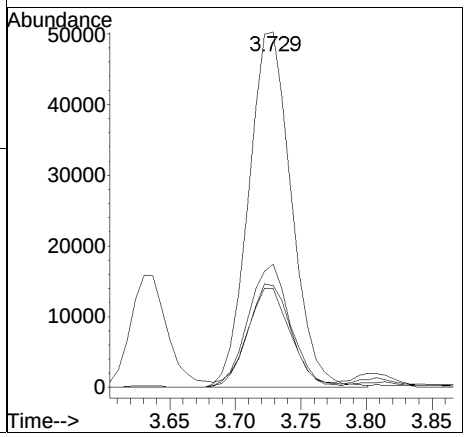


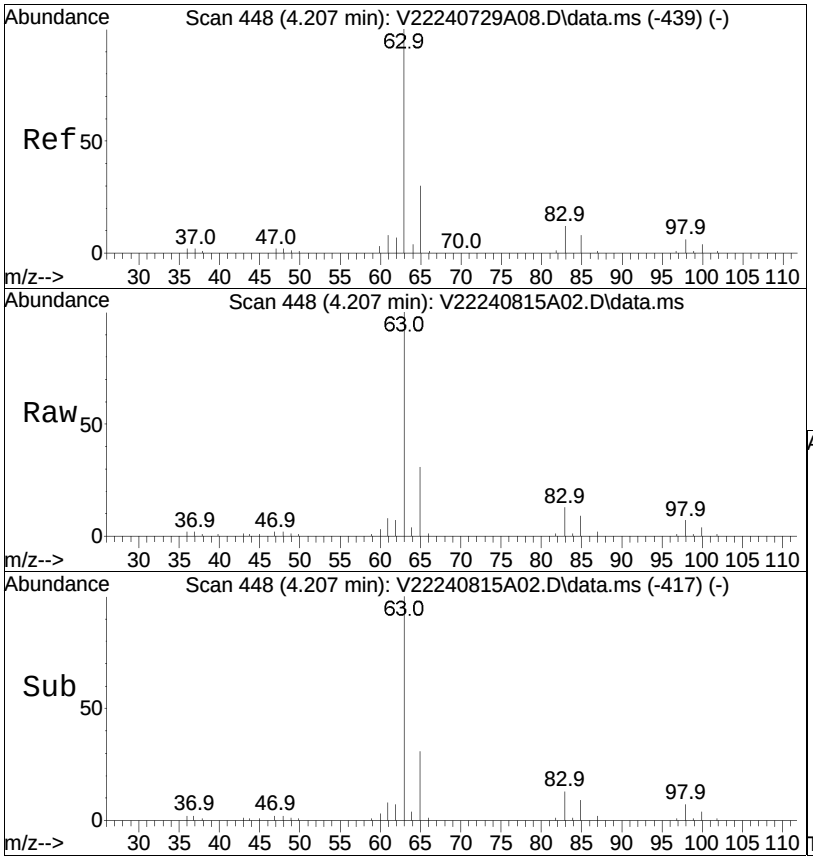


#21
Methyl tert-butyl ether
Concen: 8.76 ug/L
RT: 3.729 min Scan# 375
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 73 Resp: 114240

Ion	Ratio	Lower	Upper
73	100		
57	29.4	13.6	28.2#
43	27.6	12.7	26.5#
41	34.4	11.4	23.8#

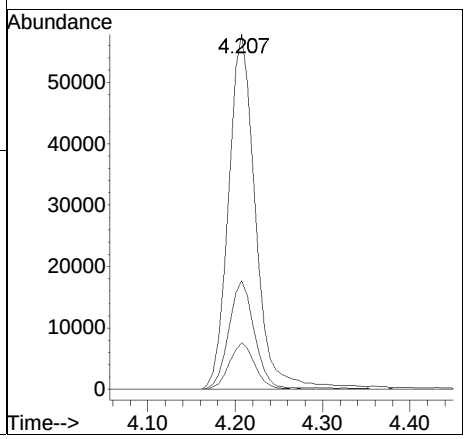


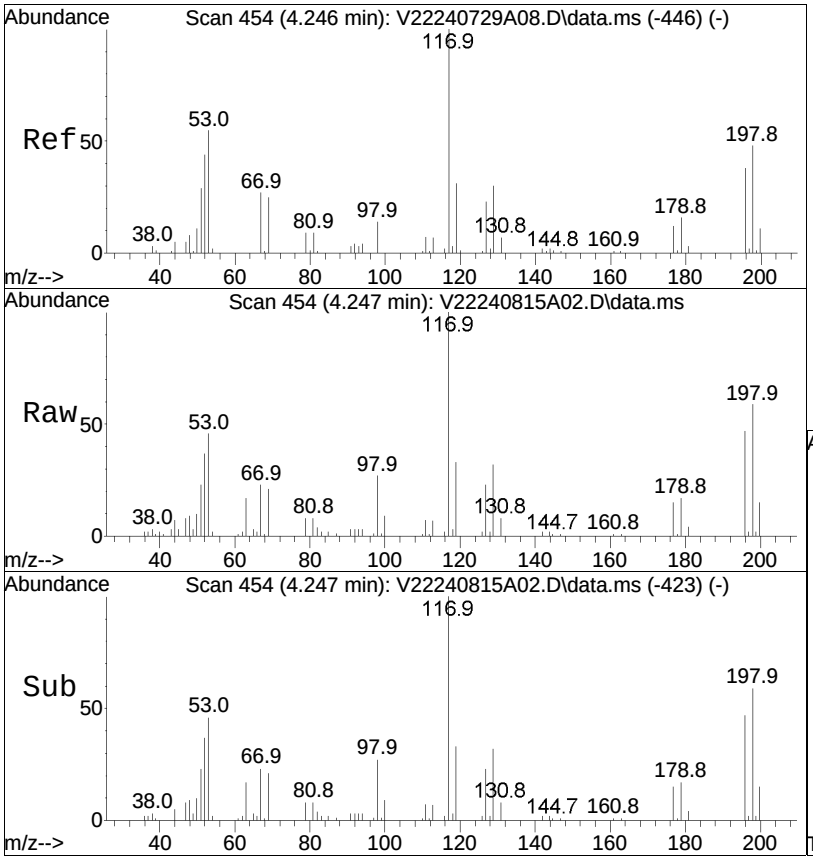


#25
1,1-Dichloroethane
Concen: 8.97 ug/L
RT: 4.207 min Scan# 448
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 63 Resp: 124923

Ion	Ratio	Lower	Upper
63	100		
65	29.0	11.9	51.9
83	12.4	0.0	34.2

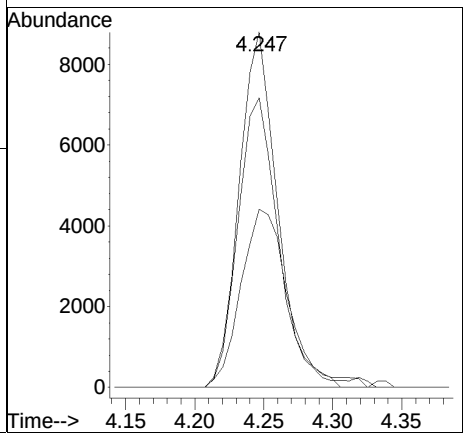


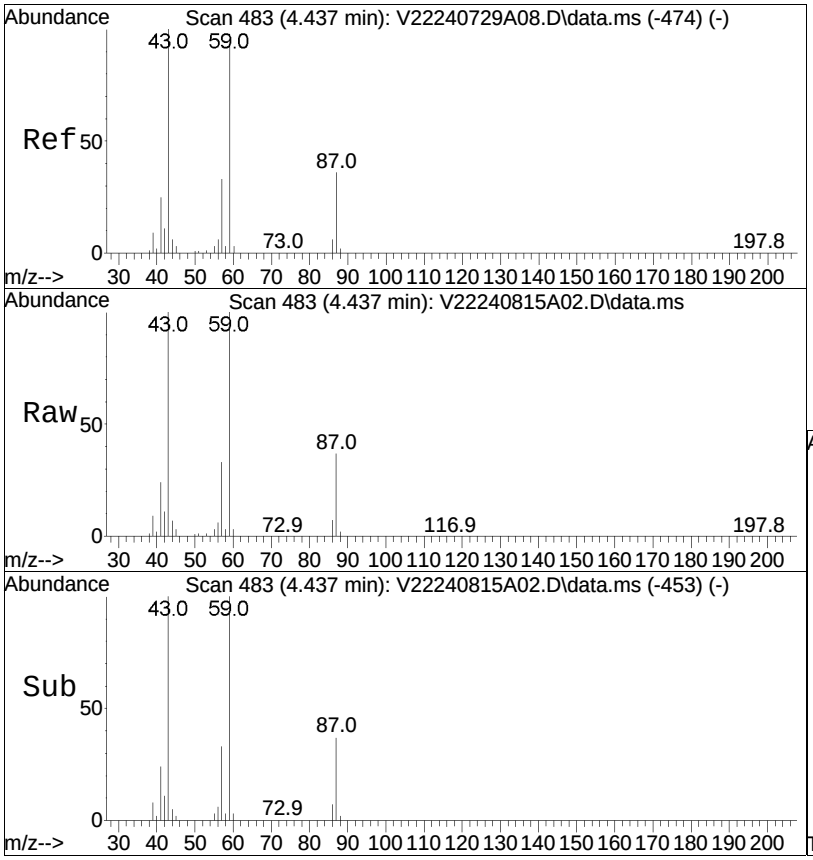


#27
Acrylonitrile
Concen: 9.02 ug/L
RT: 4.247 min Scan# 454
Delta R.T. 0.001 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 53 Resp: 17338

Ion	Ratio	Lower	Upper
53	100		
52	85.1	63.8	95.8
51	59.7	50.2	75.4

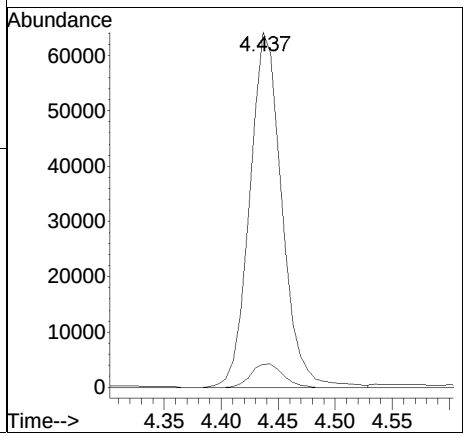


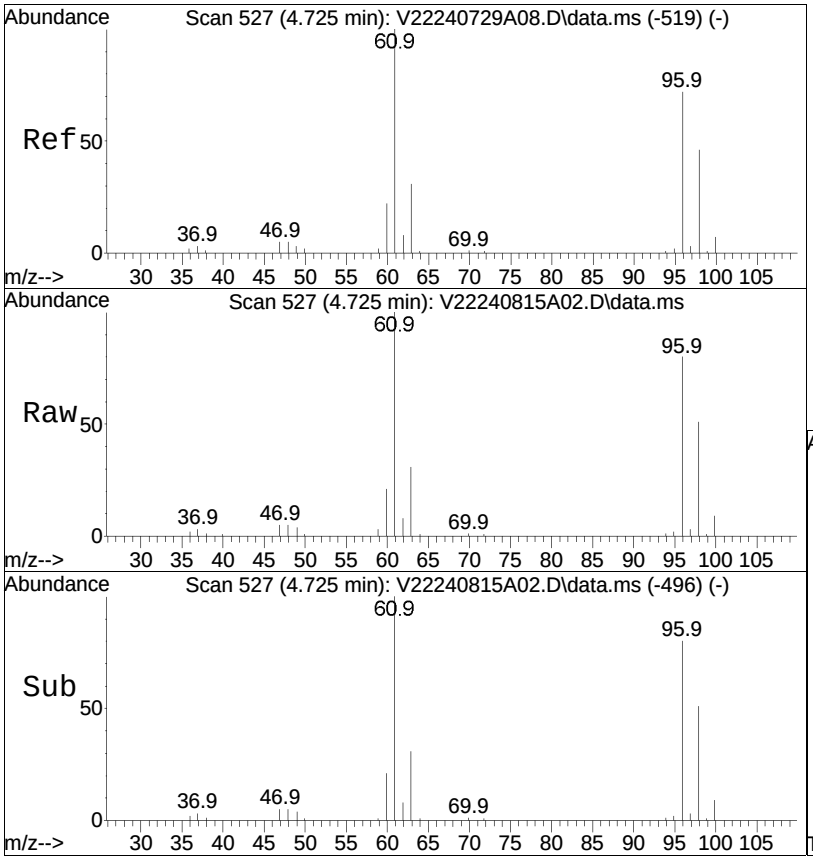


#29
Vinyl acetate
Concen: 8.61 ug/L
RT: 4.437 min Scan# 483
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 43 Resp: 126095

Ion	Ratio	Lower	Upper
43	100		
86	6.6	8.9	13.3#

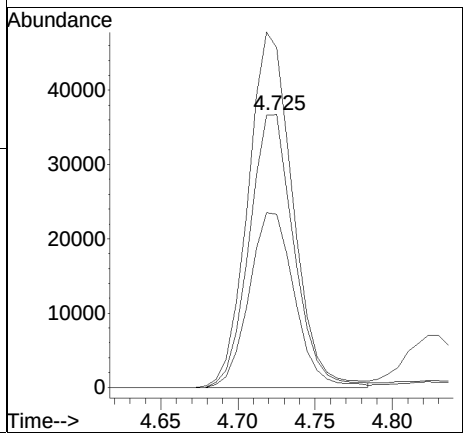


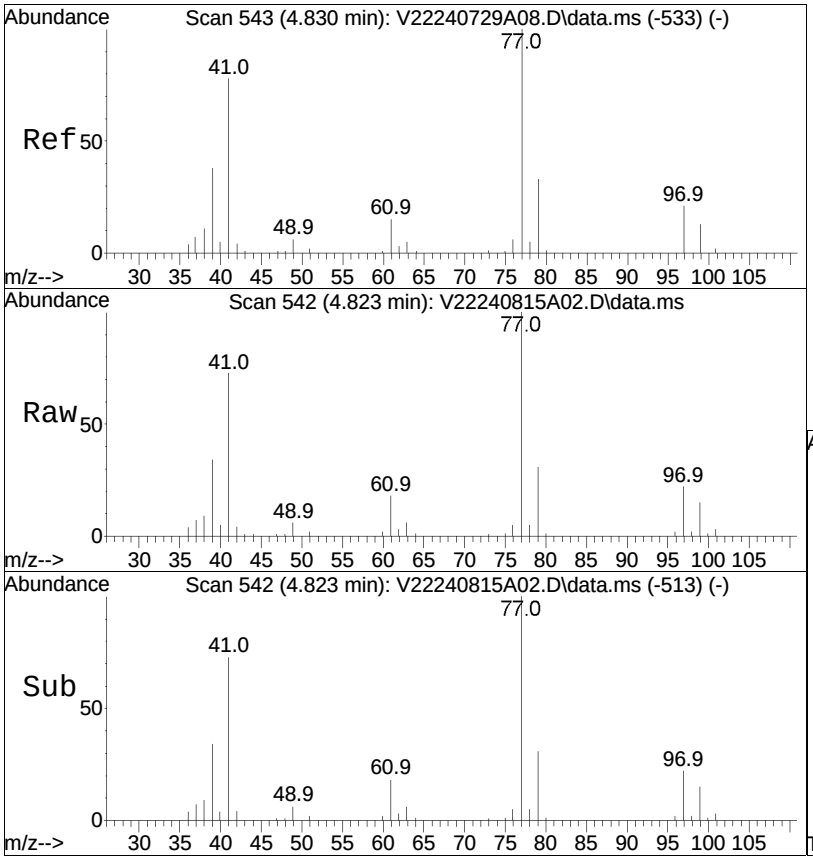


#30
cis-1,2-Dichloroethene
Concen: 9.78 ug/L
RT: 4.725 min Scan# 527
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 96 Resp: 73885

Ion	Ratio	Lower	Upper
96	100		
61	130.5	90.3	135.5
98	64.9	50.8	76.2

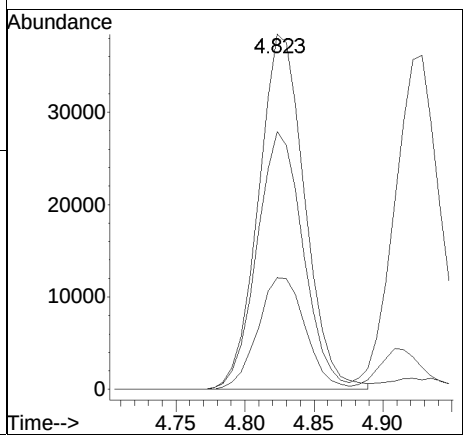


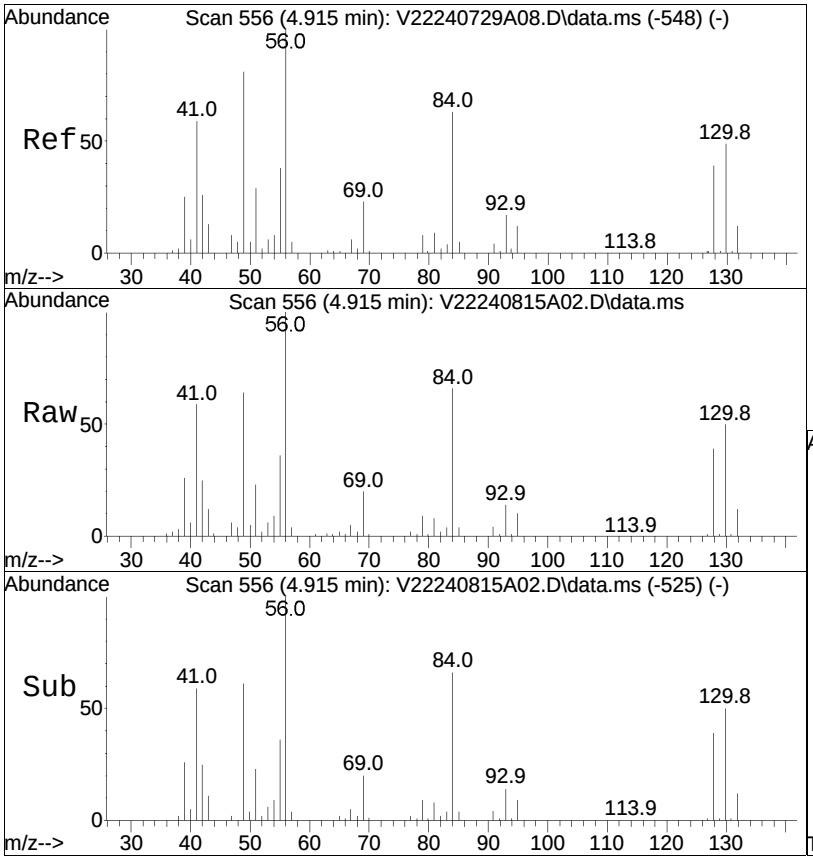


#31
2,2-Dichloropropane
Concen: 10.27 ug/L
RT: 4.823 min Scan# 542
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 77 Resp: 89578

Ion	Ratio	Lower	Upper
77	100		
41	72.7	32.3	67.1#
79	32.5	21.1	43.7

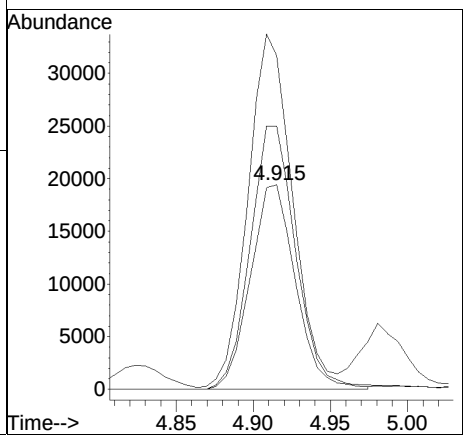


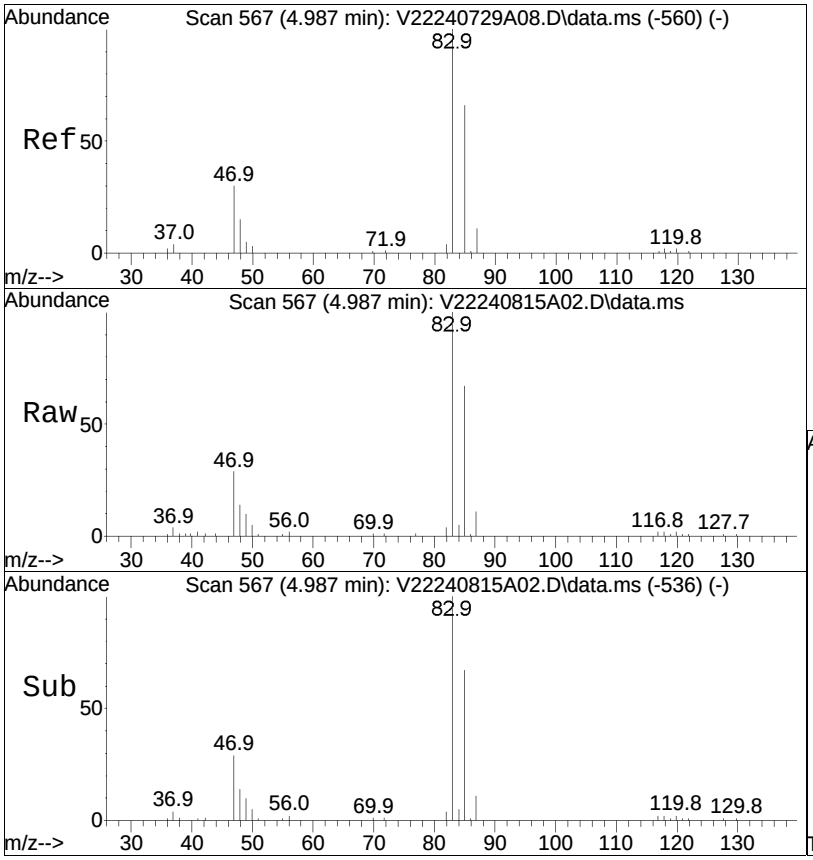


#32
Bromochloromethane
Concen: 11.11 ug/L
RT: 4.915 min Scan# 556
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:128 Resp: 39607

Ion	Ratio	Lower	Upper
128	100		
49	170.7	104.4	156.6#
130	132.6	103.9	155.9

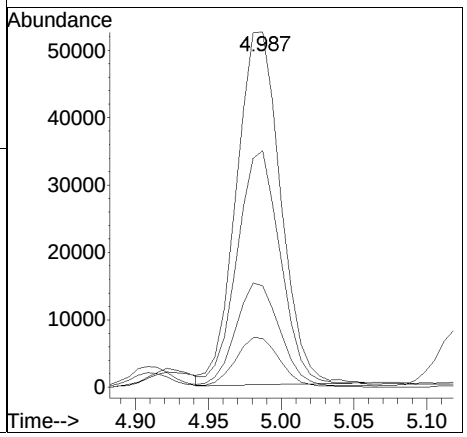


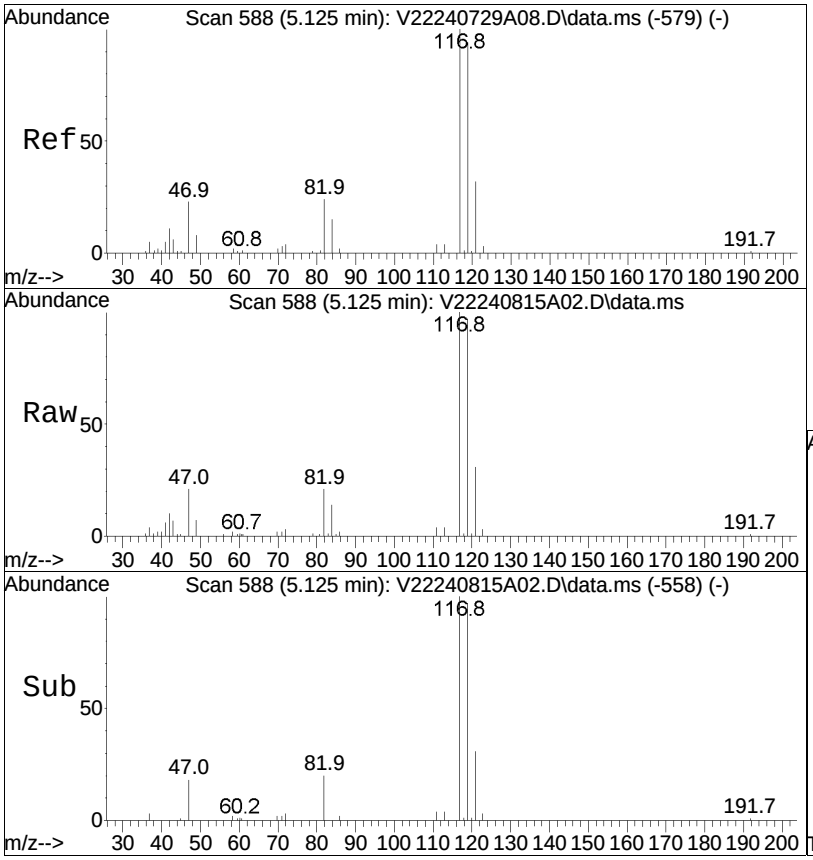


#34
Chloroform
Concen: 9.22 ug/L
RT: 4.987 min Scan# 567
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 83 Resp: 111075

Ion	Ratio	Lower	Upper
83	100		
85	64.8	42.4	88.2
47	28.3	14.0	29.0
48	14.5	6.9	14.3#

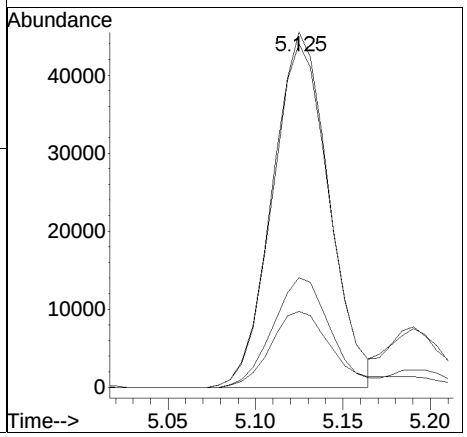


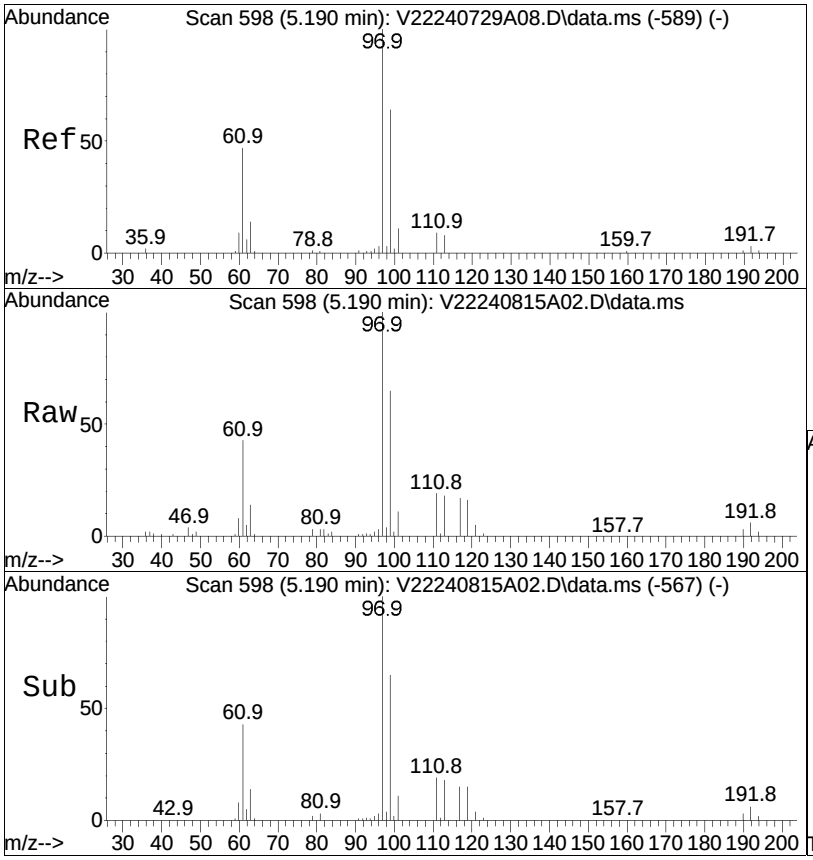


#36
Carbon tetrachloride
Concen: 11.76 ug/L
RT: 5.125 min Scan# 588
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:117 Resp: 102296

Ion	Ratio	Lower	Upper
117	100		
119	97.4	62.1	129.1
121	31.6	20.3	42.3
82	23.3	15.4	32.0

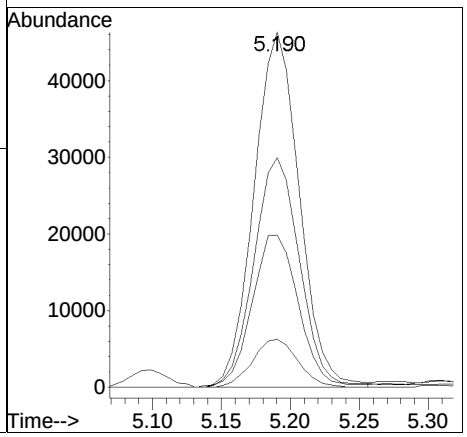


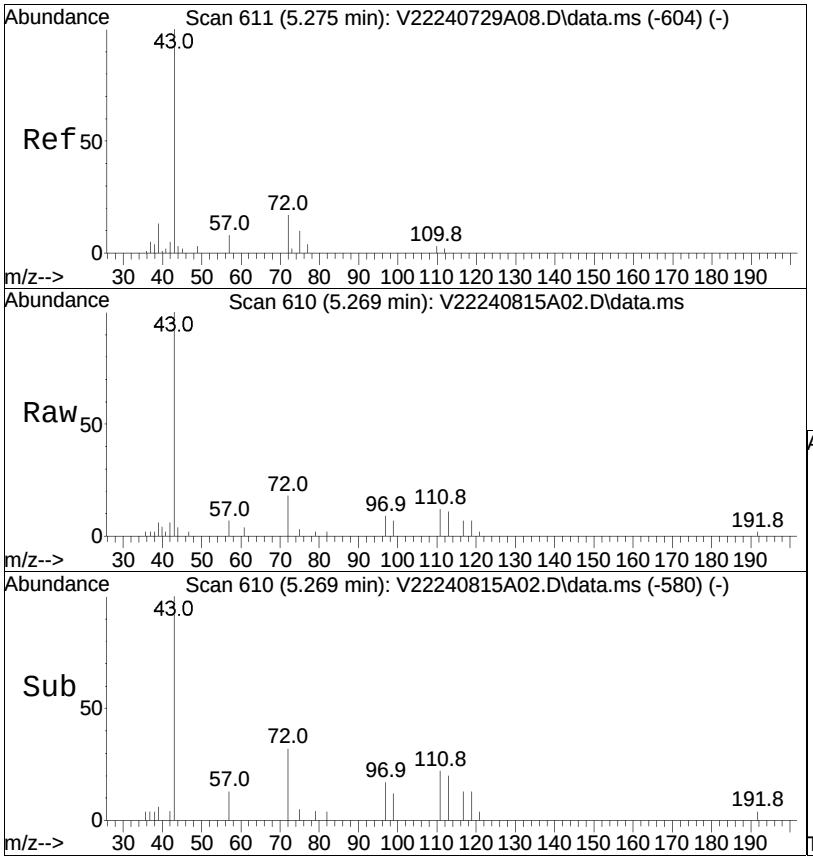


#39
1,1,1-Trichloroethane
Concen: 10.45 ug/L
RT: 5.190 min Scan# 598
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 97 Resp: 106137

Ion	Ratio	Lower	Upper
97	100		
99	66.2	42.4	88.0
61	44.0	26.0	54.0
63	13.6	8.3	17.3

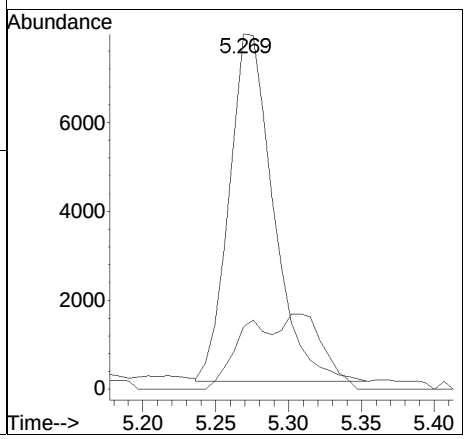


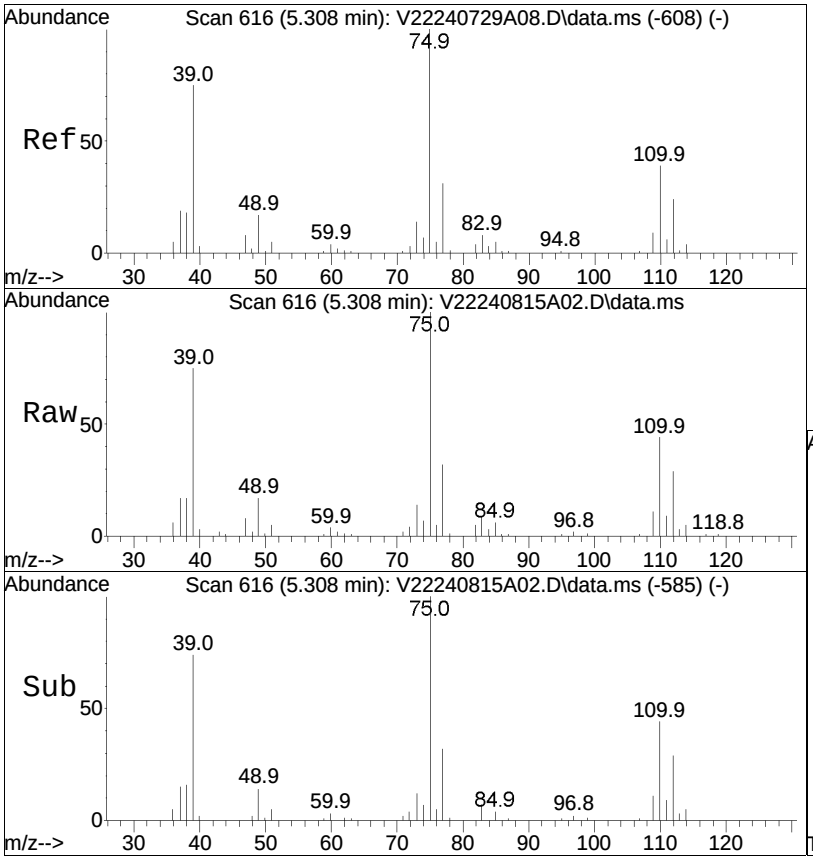


#41
2-Butanone
Concen: 8.34 ug/L
RT: 5.269 min Scan# 610
Delta R.T. -0.006 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 43 Resp: 16503

Ion	Ratio	Lower	Upper
43	100		
72	16.8	45.8	68.8#

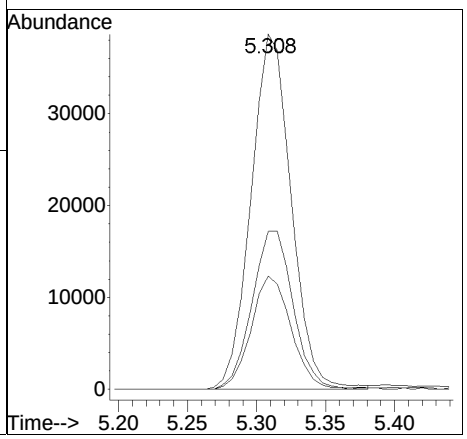


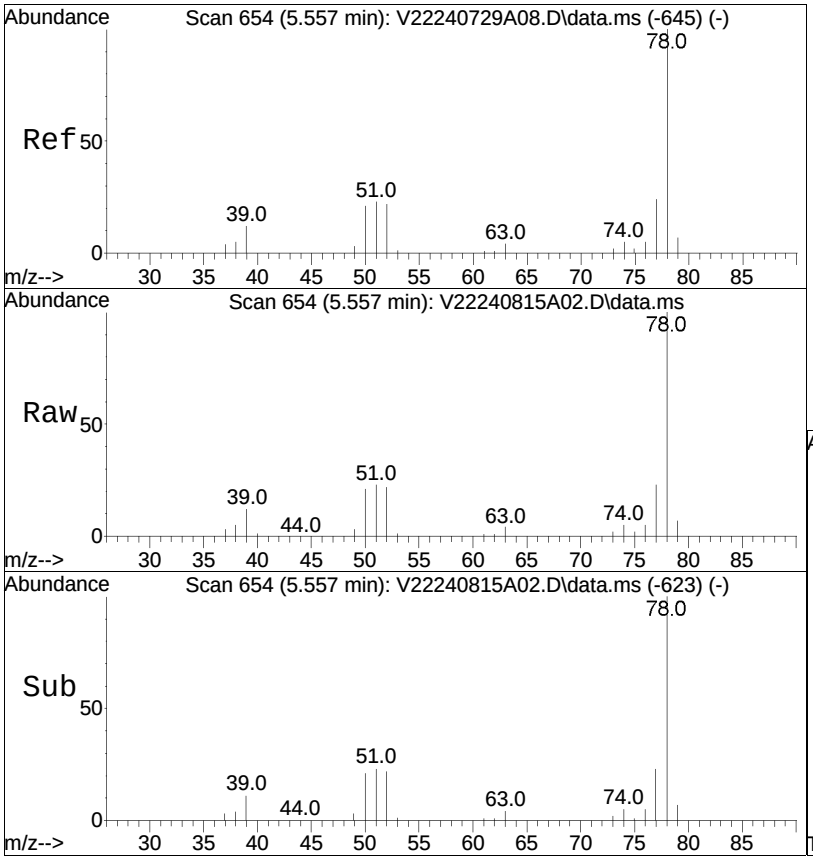


#42
1,1-Dichloropropene
Concen: 9.55 ug/L
RT: 5.308 min Scan# 616
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 75 Resp: 78333

Ion	Ratio	Lower	Upper
75	100		
110	45.5	25.4	52.8
77	31.7	20.3	42.1

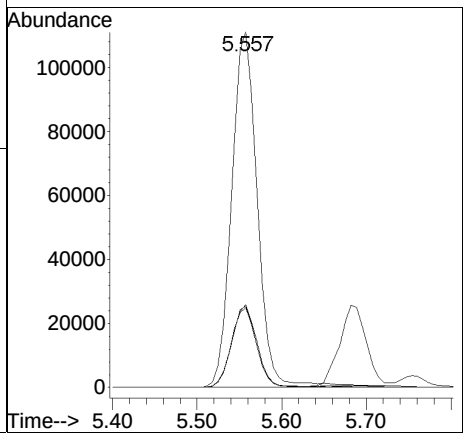


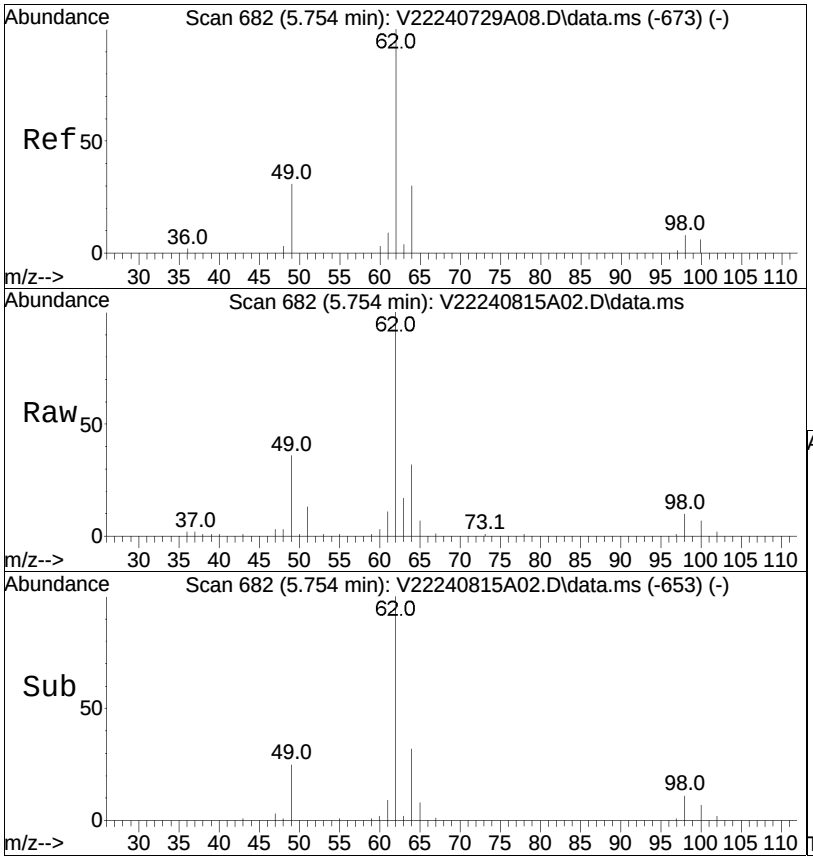


#44
Benzene
Concen: 9.39 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 78 Resp: 250476

Ion	Ratio	Lower	Upper
78	100		
77	21.4	15.4	32.0
51	20.7	9.8	20.4#
52	20.6	9.2	19.2#

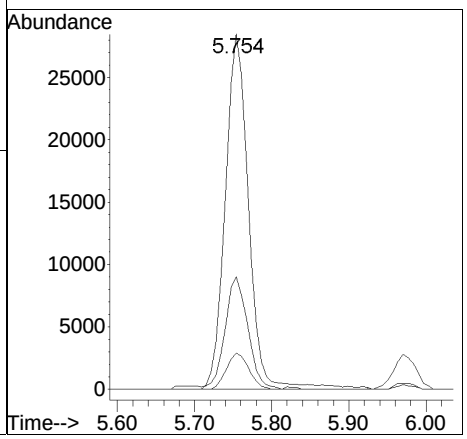


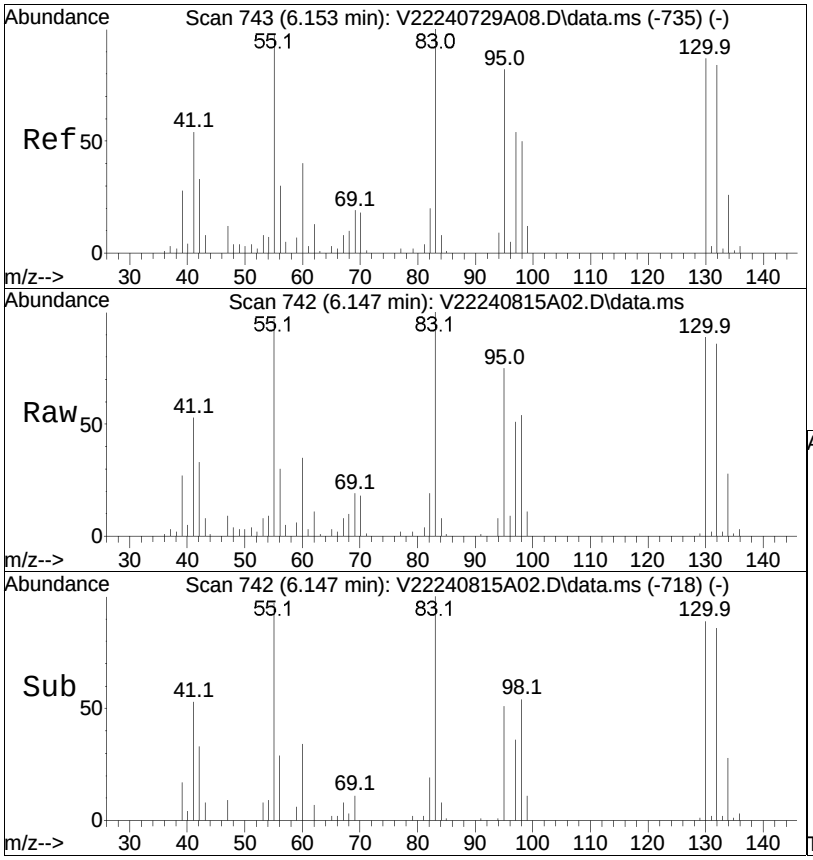


#47
1,2-Dichloroethane
Concen: 9.04 ug/L
RT: 5.754 min Scan# 682
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 62 Resp: 60246

Ion	Ratio	Lower	Upper
62	100		
64	30.8	12.3	52.3
98	9.8	0.0	30.3

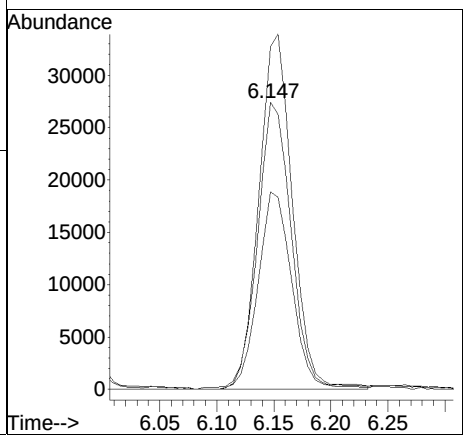


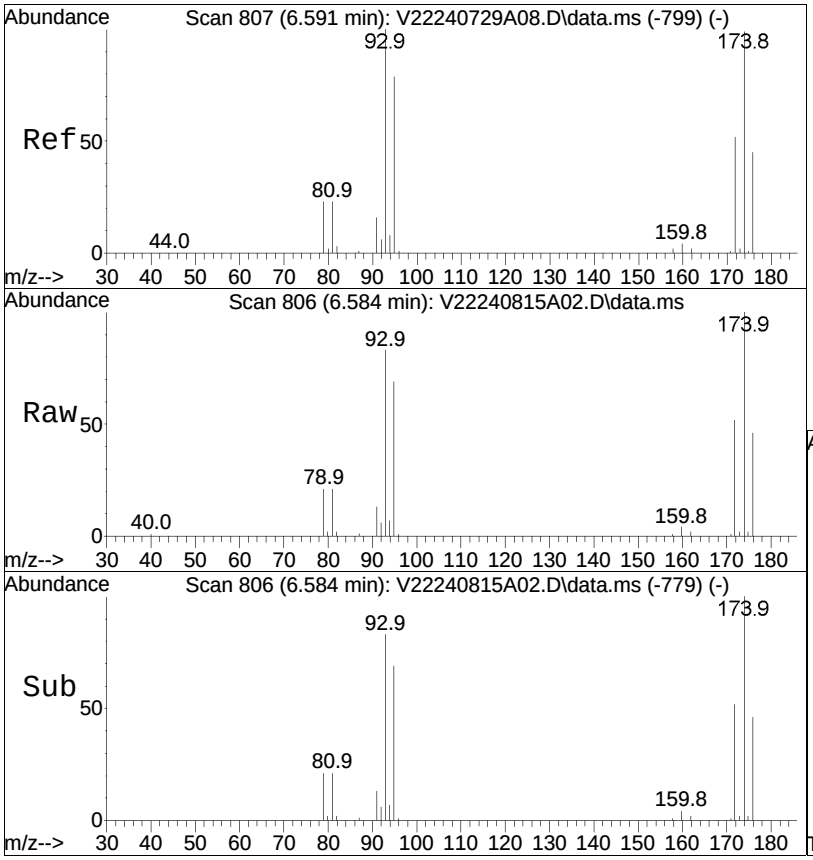


#51
Trichloroethene
Concen: 10.00 ug/L
RT: 6.147 min Scan# 742
Delta R.T. -0.006 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 95 Resp: 56724

Ion	Ratio	Lower	Upper
95	100		
97	68.9	55.0	82.4
130	122.5	89.2	133.8

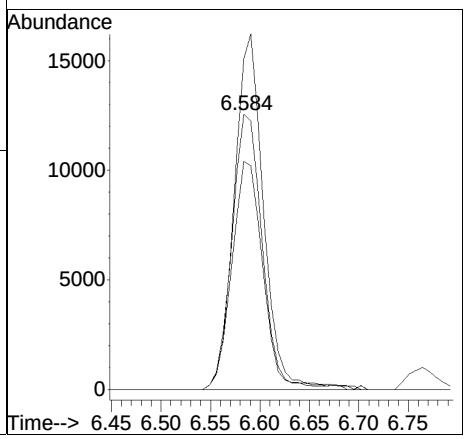


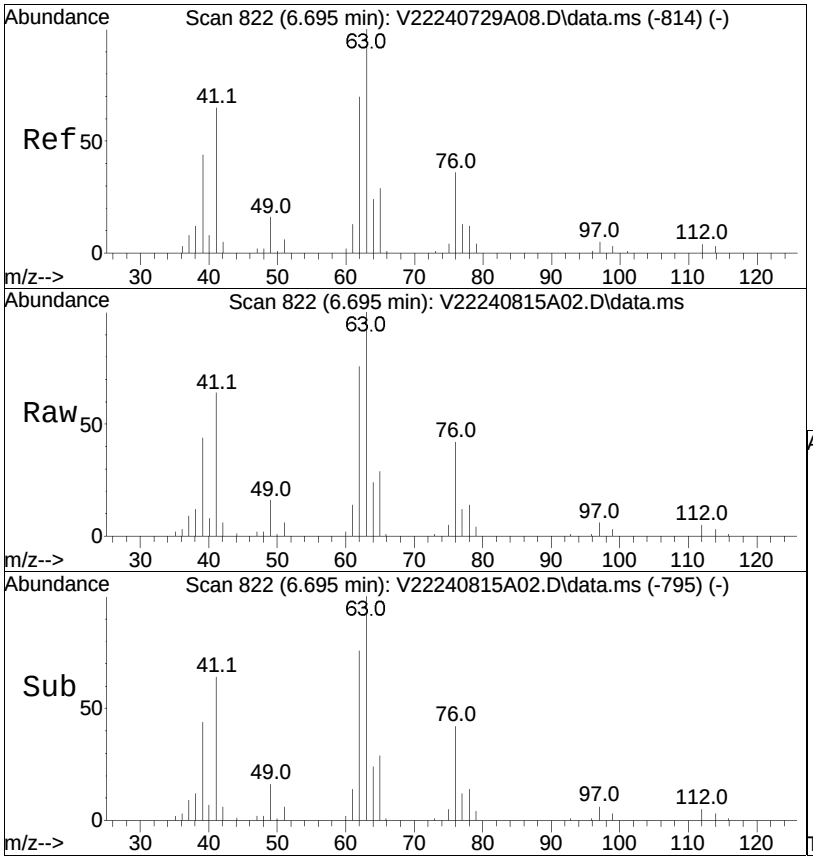


#53
Dibromomethane
Concen: 9.45 ug/L
RT: 6.584 min Scan# 806
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 93 Resp: 27104

Ion	Ratio	Lower	Upper
93	100		
95	83.2	68.0	102.0
174	122.9	106.1	159.1

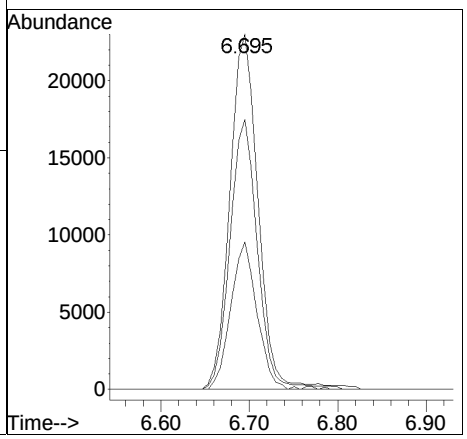


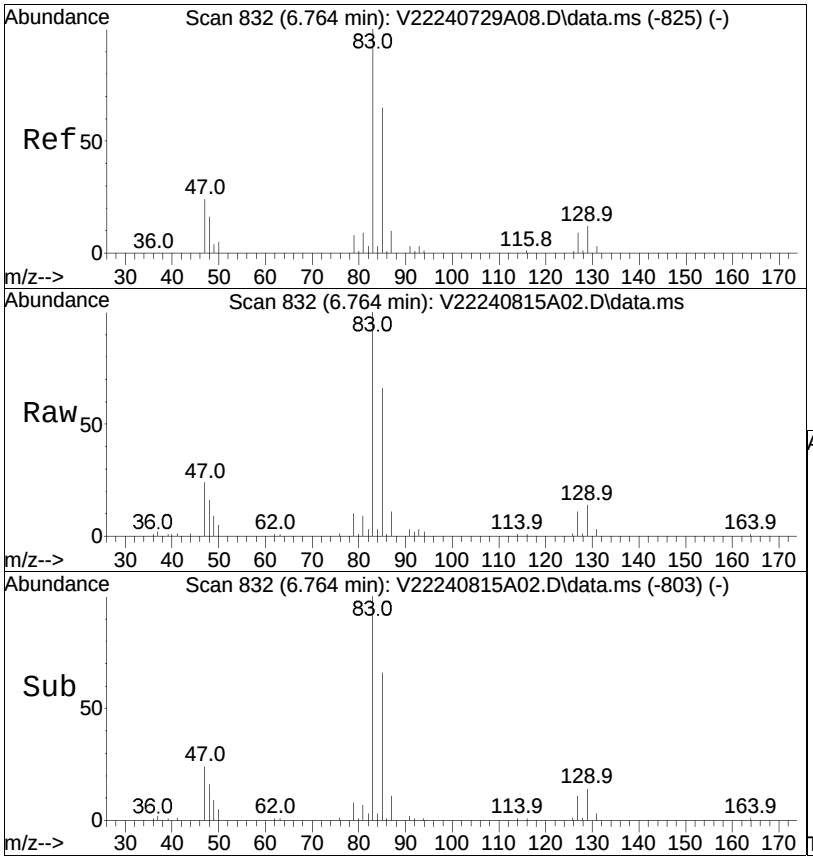


#54
1,2-Dichloropropane
Concen: 8.64 ug/L
RT: 6.695 min Scan# 822
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 63 Resp: 51489

Ion	Ratio	Lower	Upper
63	100		
62	73.6	56.9	85.3
76	38.3	35.8	53.8

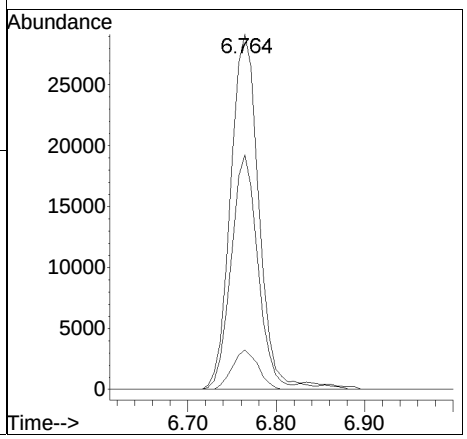


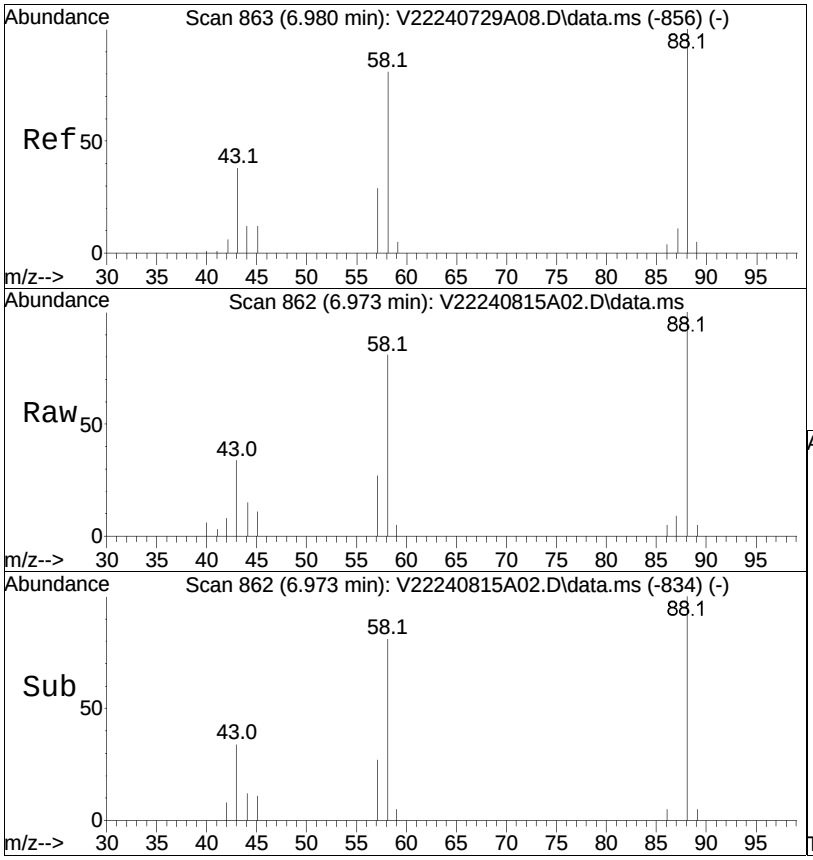


#57
Bromodichloromethane
Concen: 9.32 ug/L
RT: 6.764 min Scan# 832
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 83 Resp: 65525

Ion	Ratio	Lower	Upper
83	100		
85	62.0	51.6	77.4
127	10.1	7.4	11.0

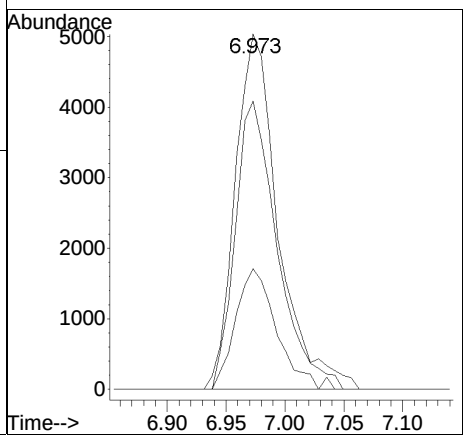


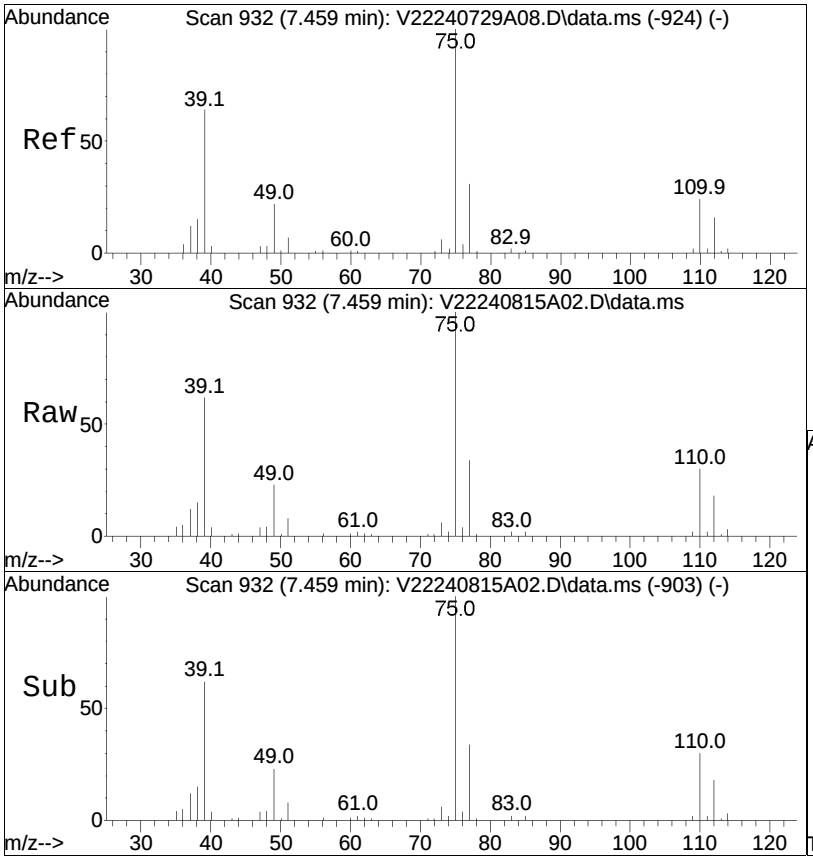


#60
1,4-Dioxane
Concen: 545.17 ug/L
RT: 6.973 min Scan# 862
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 88 Resp: 12812

Ion	Ratio	Lower	Upper
88	100		
58	79.2	43.3	64.9#
43	32.5	15.1	22.7#

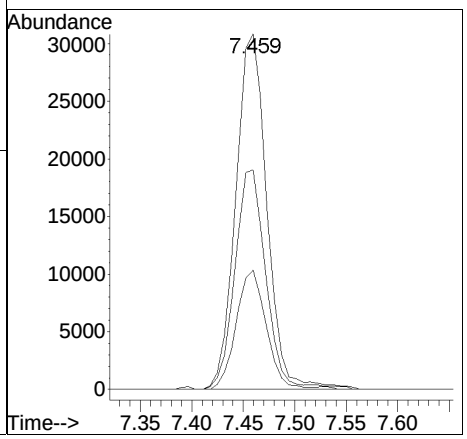


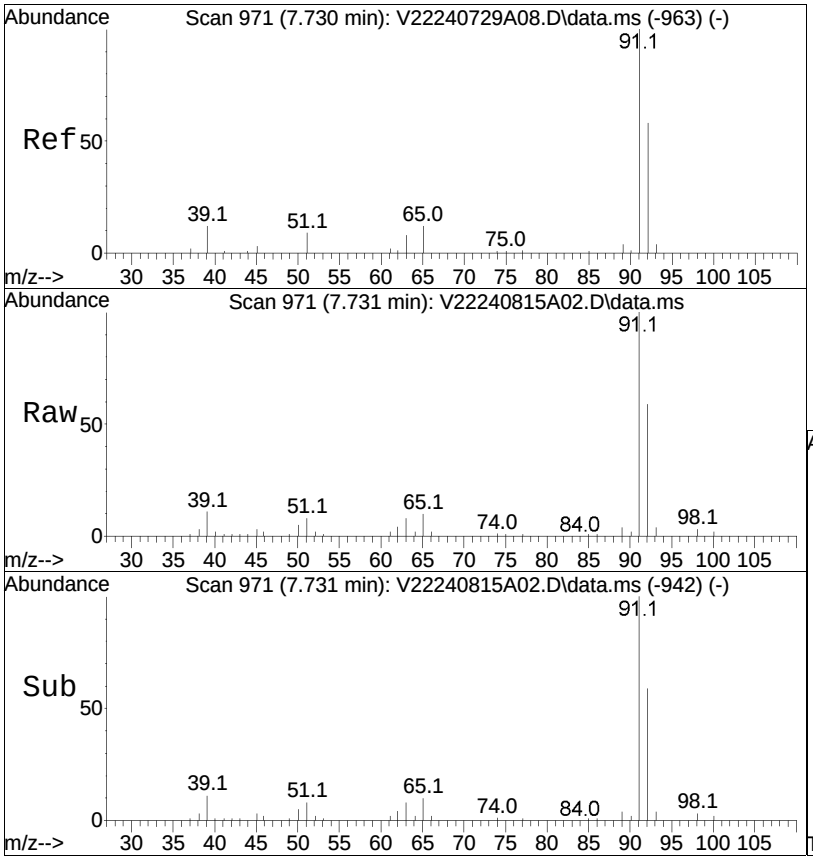


#61
cis-1,3-Dichloropropene
Concen: 8.96 ug/L
RT: 7.459 min Scan# 932
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 75 Resp: 64886

Ion	Ratio	Lower	Upper
75	100		
77	32.3	25.6	38.4
39	61.6	35.4	53.0#

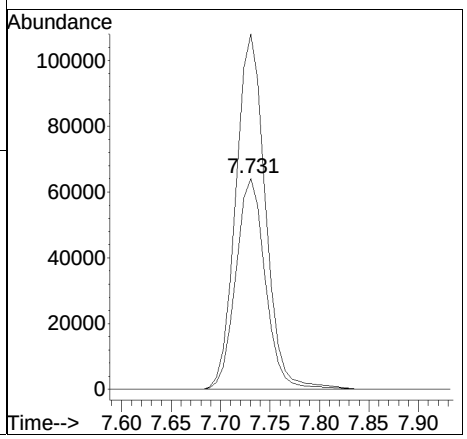


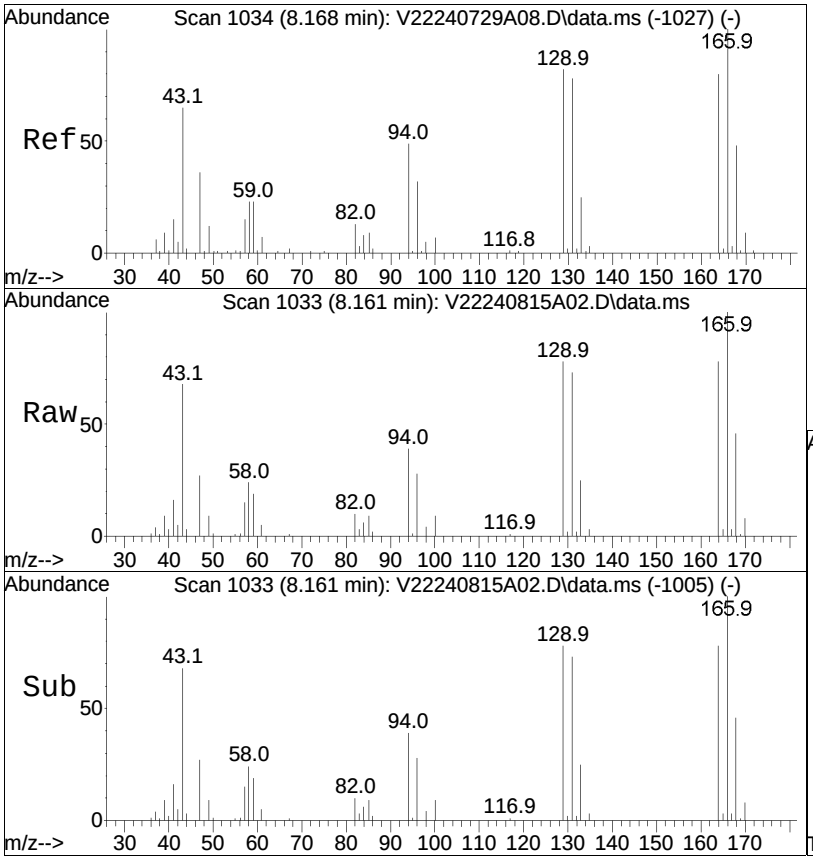


#64
Toluene
Concen: 8.95 ug/L
RT: 7.731 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 92 Resp: 133128

Ion	Ratio	Lower	Upper
92	100		
91	169.0	137.0	205.6

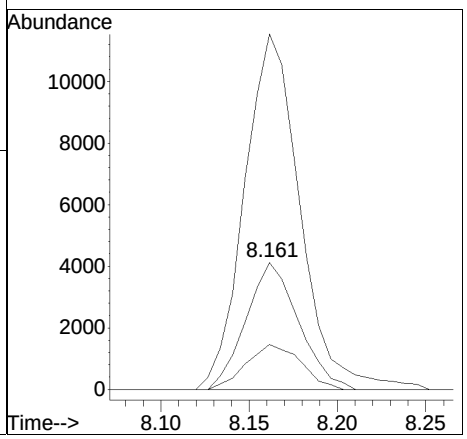


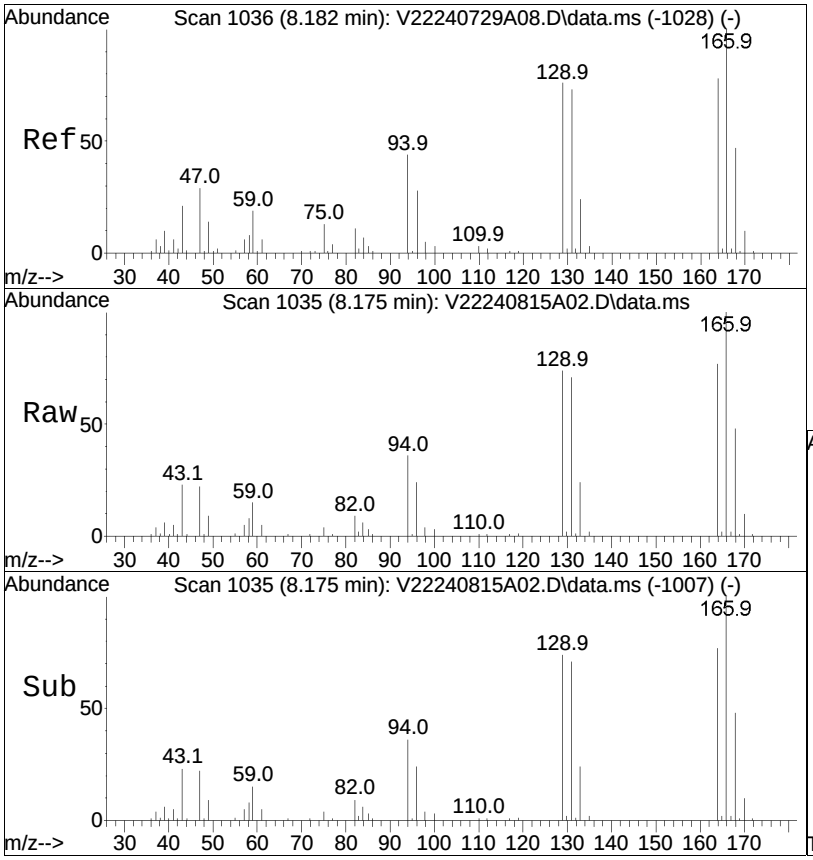


#65
4-Methyl-2-pentanone
Concen: 7.15 ug/L
RT: 8.161 min Scan# 1033
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 58 Resp: 8510

Ion	Ratio	Lower	Upper
58	100		
100	37.0	36.2	54.4
43	297.9	181.8	272.8#

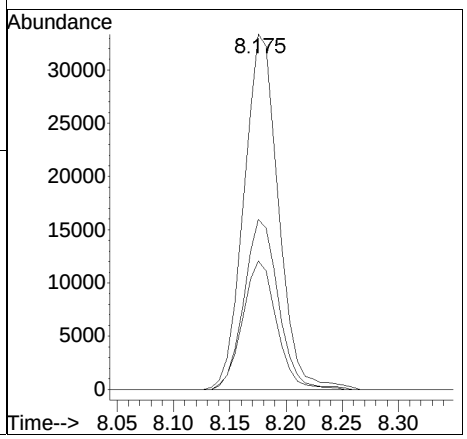


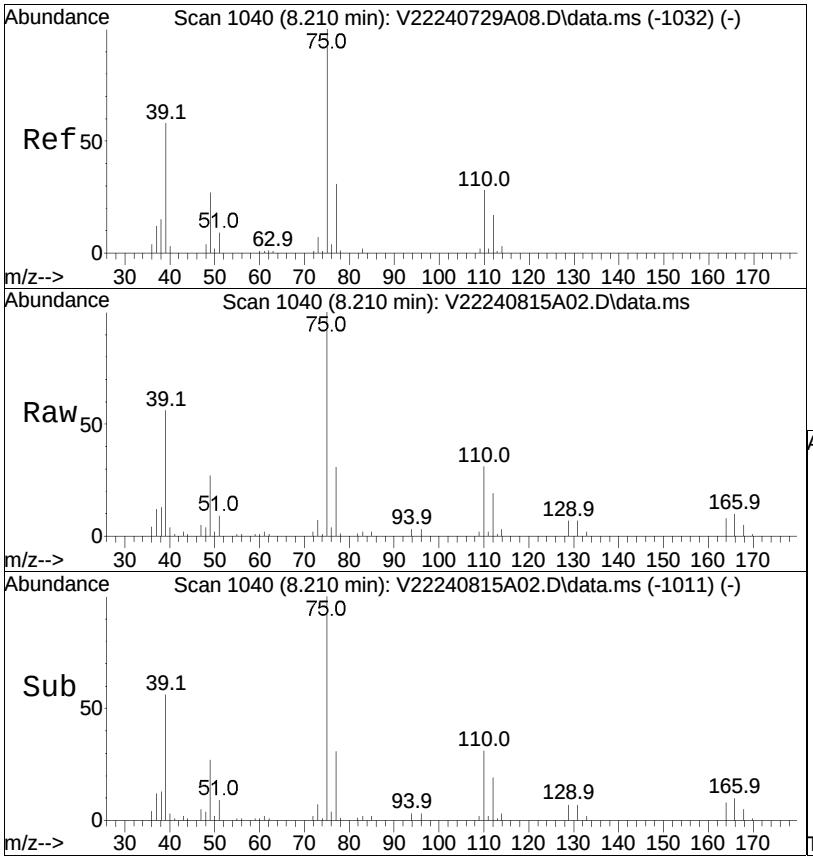


#66
Tetrachloroethene
Concen: 12.22 ug/L
RT: 8.175 min Scan# 1035
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:166 Resp: 71256

Ion	Ratio	Lower	Upper
166	100		
168	47.6	27.8	67.8
94	35.6	16.7	56.7

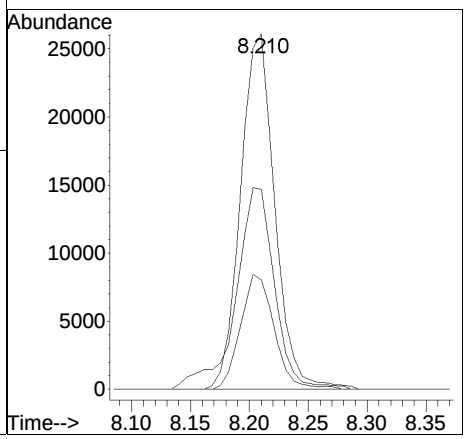


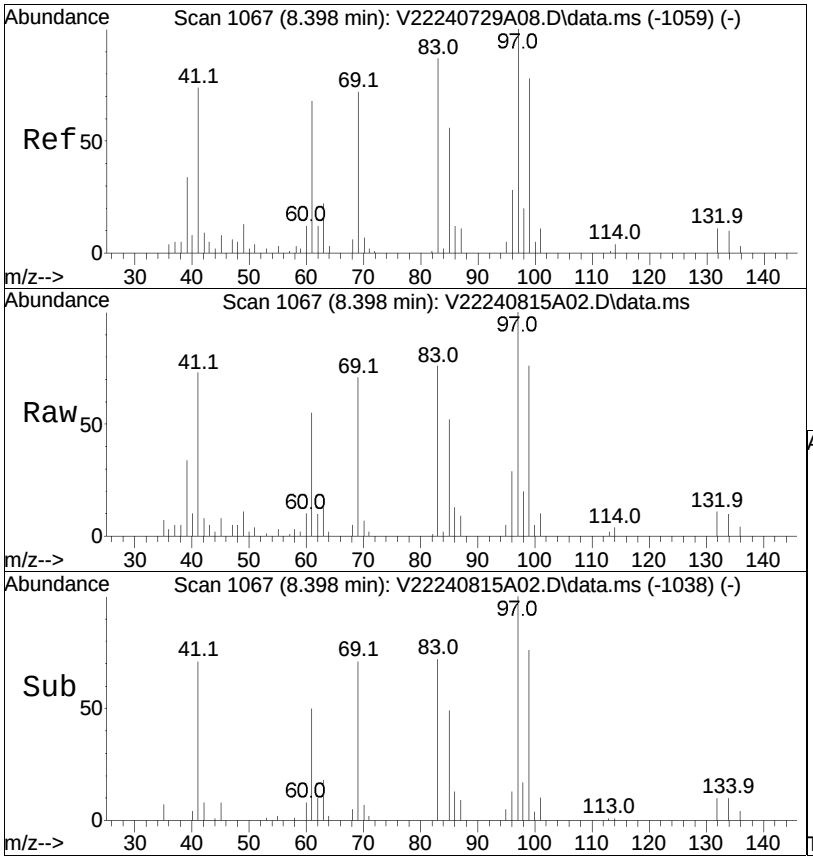


#68
trans-1,3-Dichloropropene
Concen: 7.25 ug/L
RT: 8.210 min Scan# 1040
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 75 Resp: 52938

Ion	Ratio	Lower	Upper
75	100		
77	31.8	11.9	51.9
39	64.0	27.4	67.4

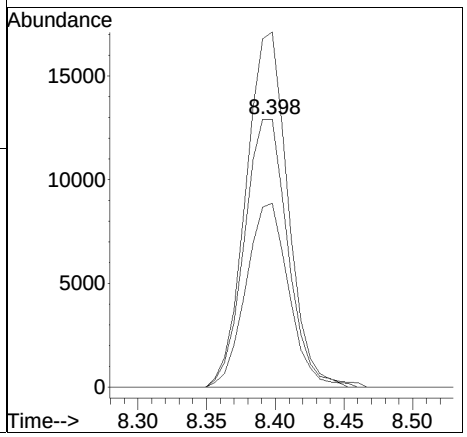


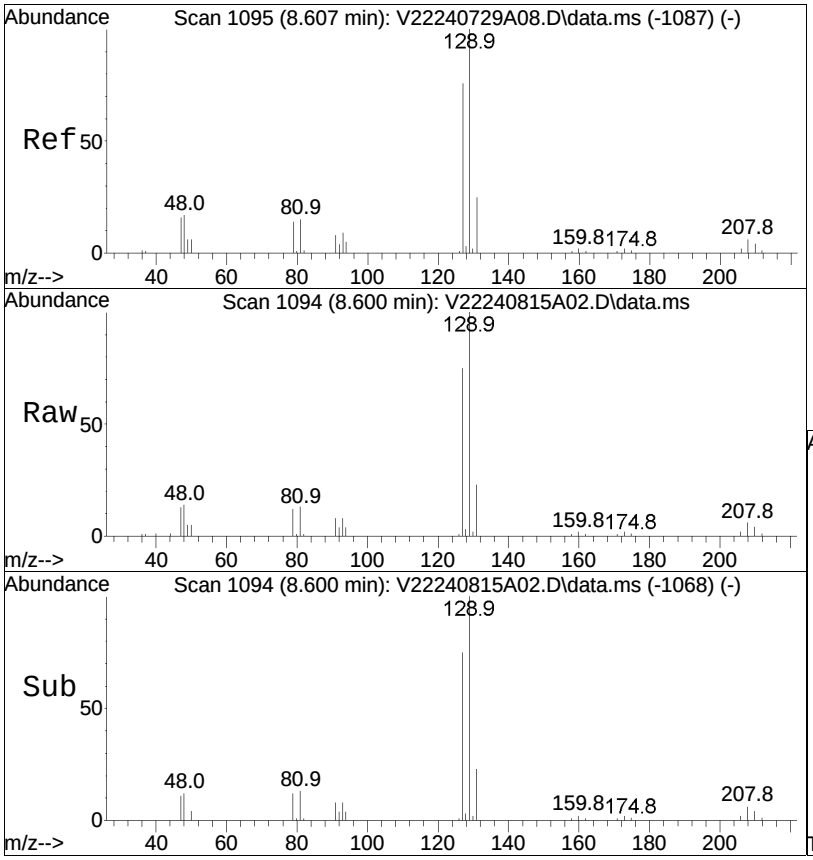


#71
1,1,2-Trichloroethane
Concen: 8.14 ug/L
RT: 8.398 min Scan# 1067
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 83 Resp: 28418

Ion	Ratio	Lower	Upper
83	100		
97	128.8	103.4	143.4
85	67.6	47.9	87.9

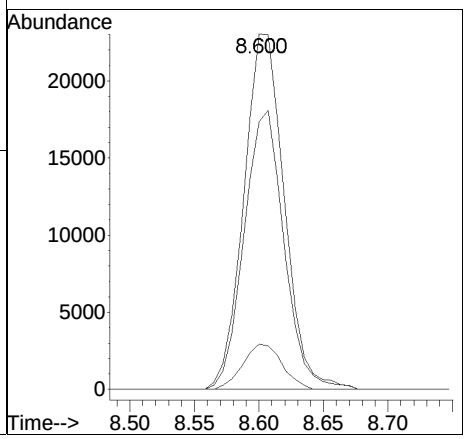


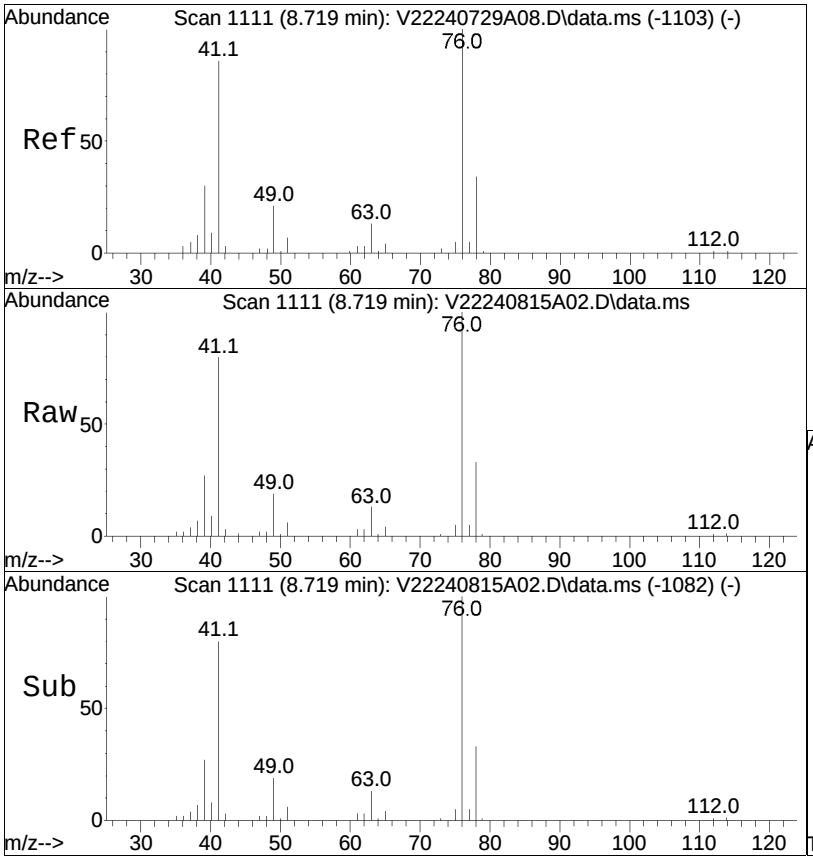


#72
Chlorodibromomethane
Concen: 8.95 ug/L
RT: 8.600 min Scan# 1094
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:129 Resp: 50350

Ion	Ratio	Lower	Upper
129	100		
81	12.4	0.0	33.8
127	77.5	57.1	97.1

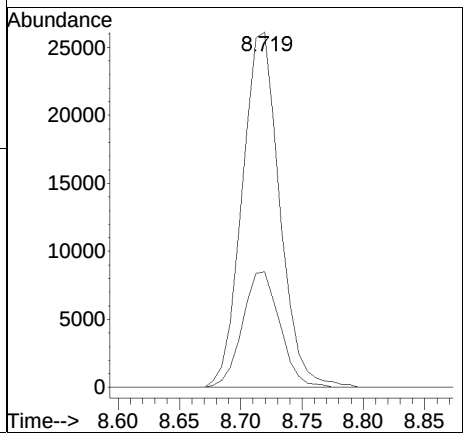


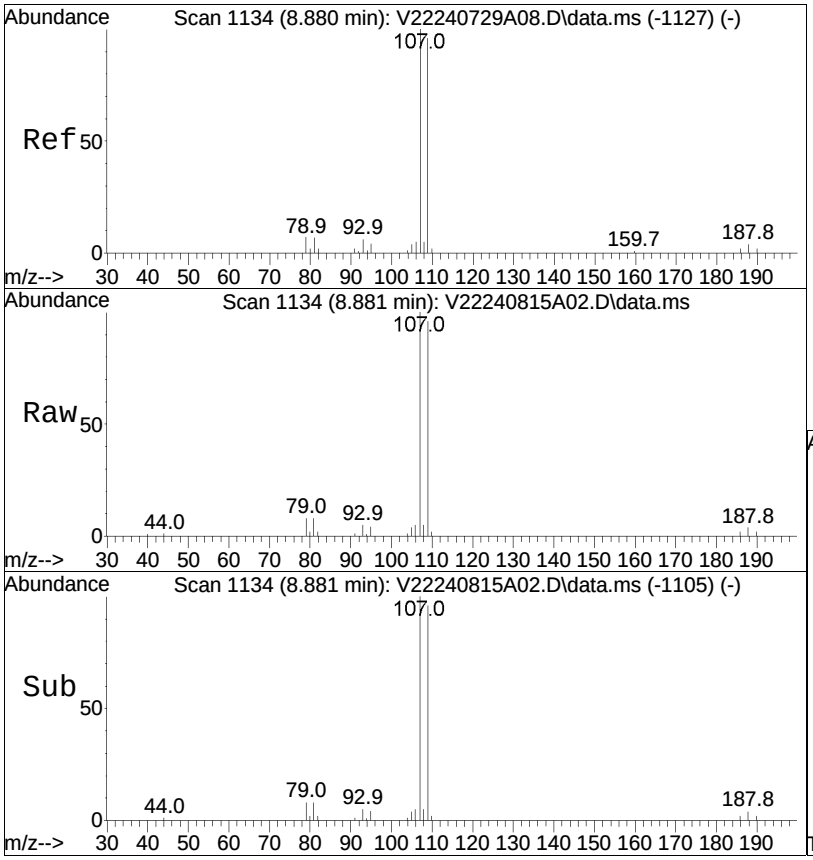


#73
1,3-Dichloropropane
Concen: 8.12 ug/L
RT: 8.719 min Scan# 1111
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 76 Resp: 55625

Ion	Ratio	Lower	Upper
76	100		
78	32.5	25.7	38.5

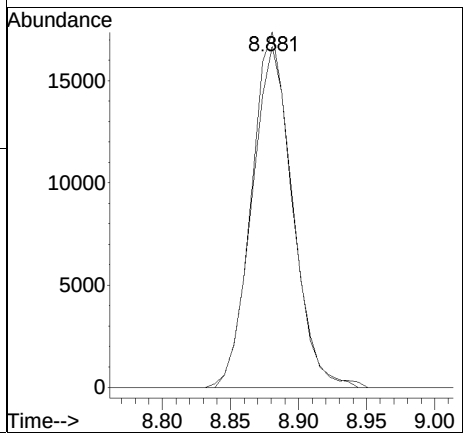


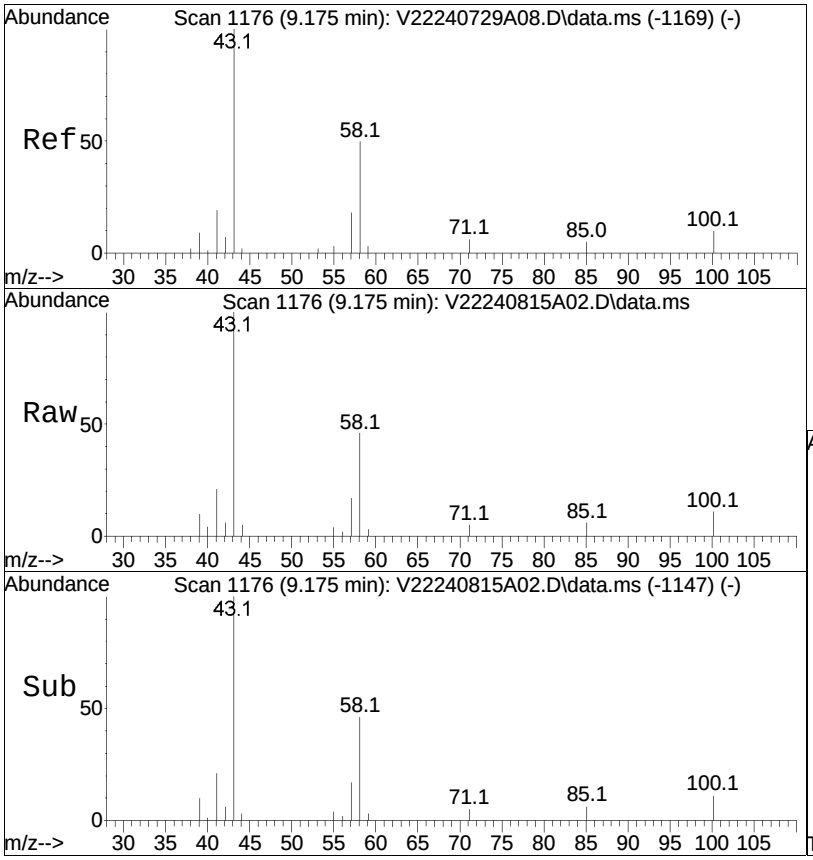


#74
1,2-Dibromoethane
Concen: 9.24 ug/L
RT: 8.881 min Scan# 1134
Delta R.T. 0.001 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:107 Resp: 36154

Ion	Ratio	Lower	Upper
107	100		
109	96.2	75.1	112.7

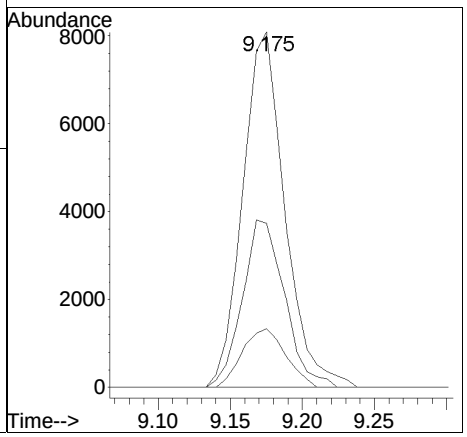


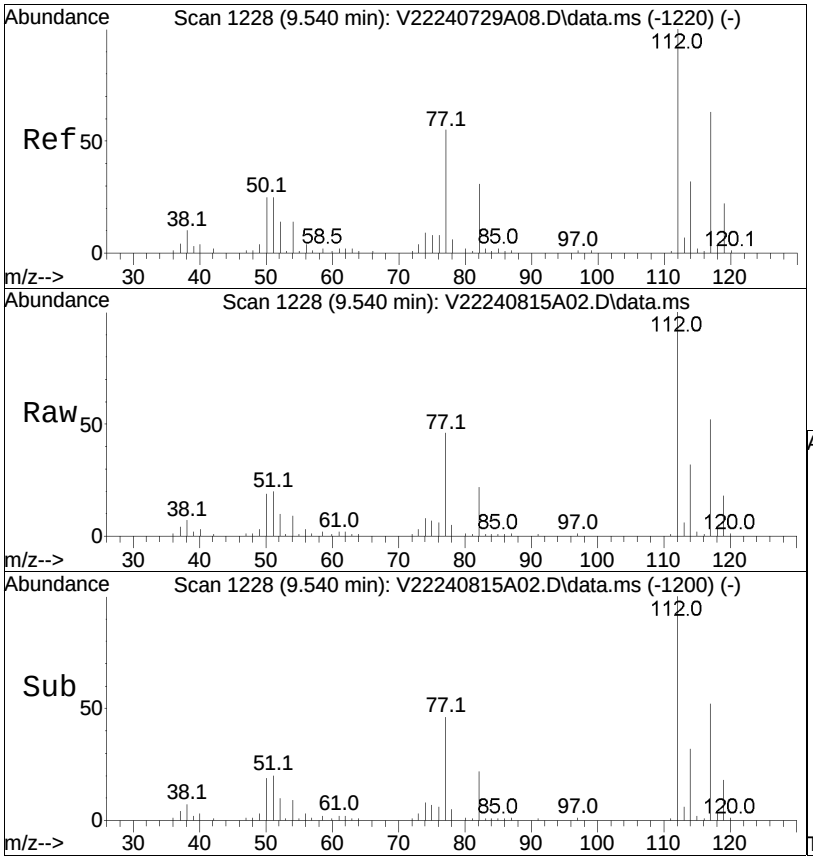


#76
2-Hexanone
Concen: 7.43 ug/L
RT: 9.175 min Scan# 1176
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 43 Resp: 16426

Ion	Ratio	Lower	Upper
43	100		
58	47.2	47.6	71.4#
57	17.1	16.6	24.8

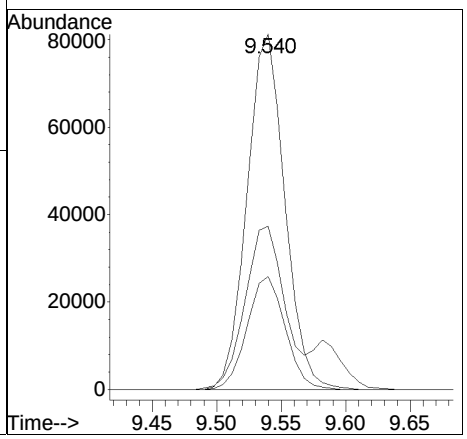


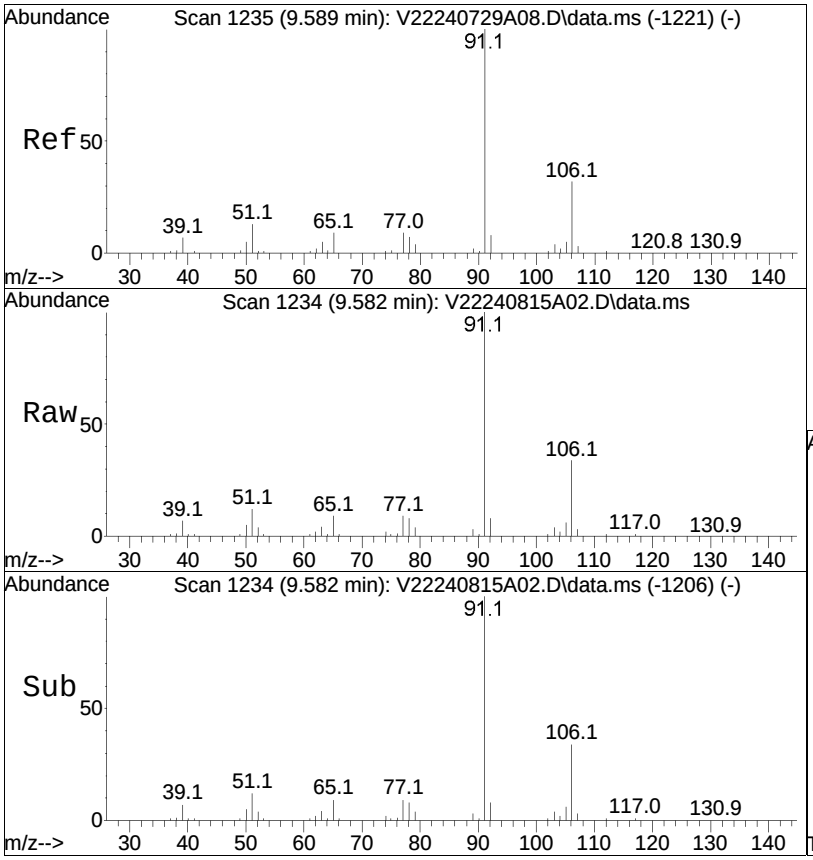


#77
Chlorobenzene
Concen: 9.83 ug/L
RT: 9.540 min Scan# 1228
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:112 Resp: 165534

Ion	Ratio	Lower	Upper
112	100		
77	48.5	55.4	83.0#
114	32.1	26.2	39.4

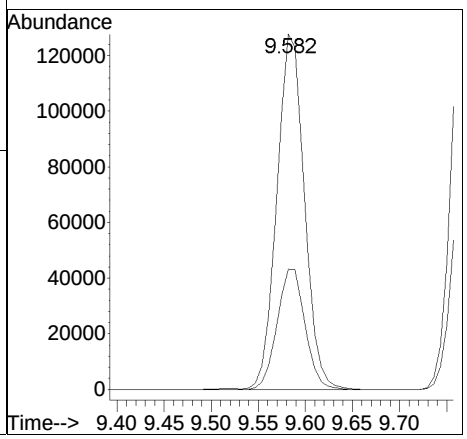


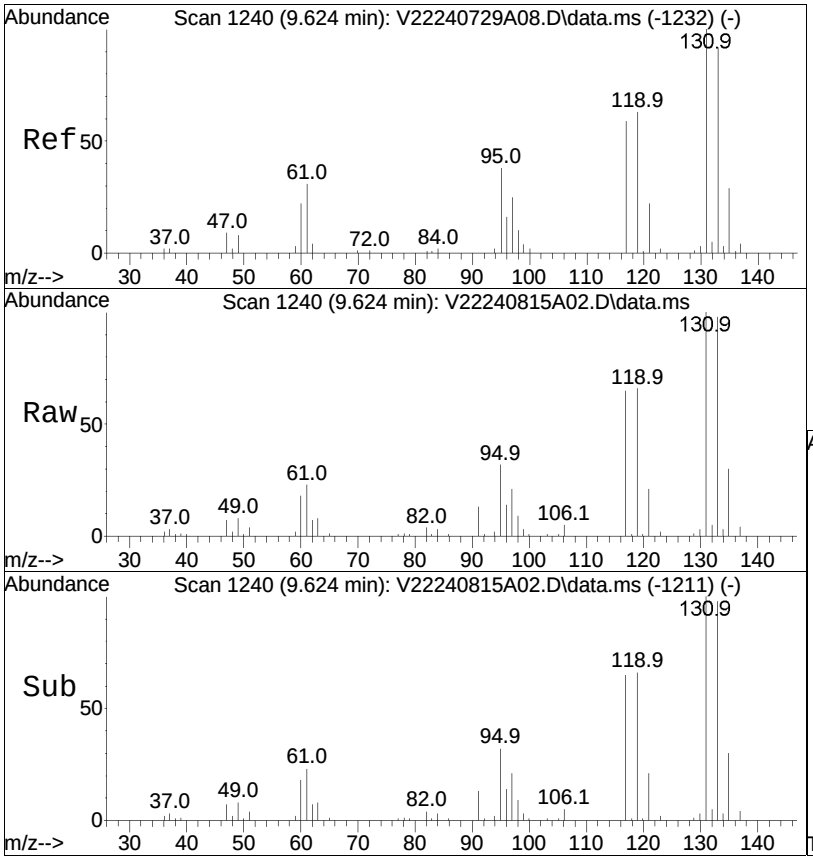


#78
Ethylbenzene
Concen: 9.25 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 91 Resp: 259608

Ion	Ratio	Lower	Upper
91	100		
106	34.3	25.8	38.6

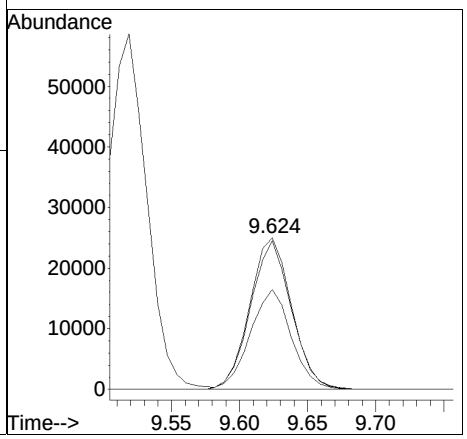


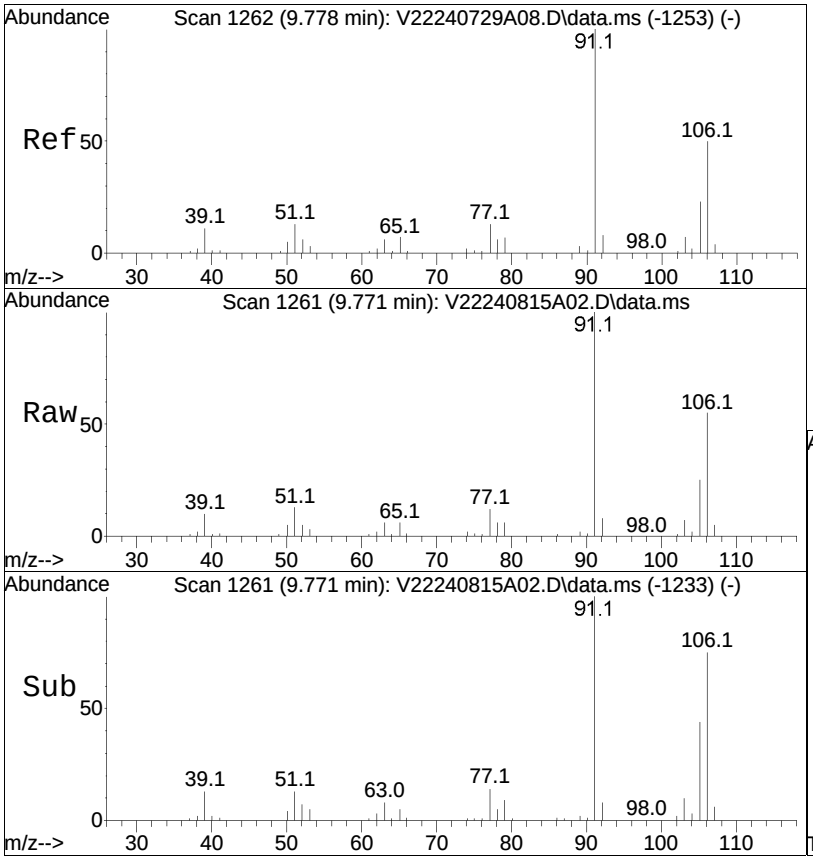


#79
1,1,1,2-Tetrachloroethane
Concen: 10.01 ug/L
RT: 9.624 min Scan# 1240
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:131 Resp: 53643

Ion	Ratio	Lower	Upper
131	100		
133	95.4	75.3	115.3
119	64.3	49.3	89.3

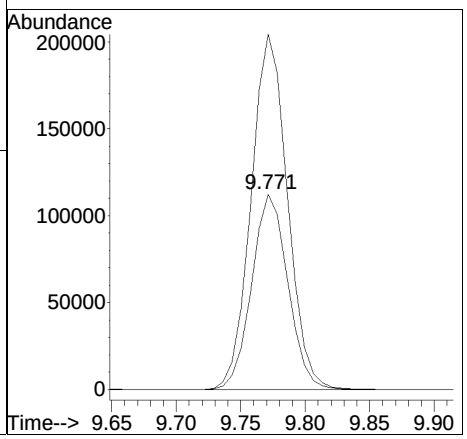


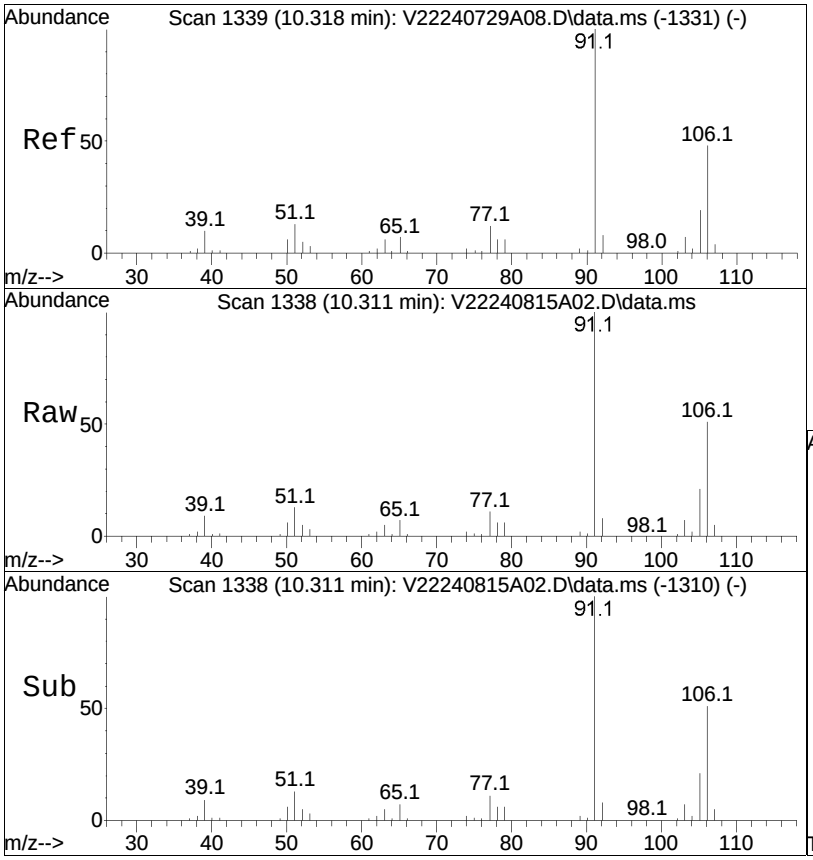


#80
p/m Xylene
Concen: 20.03 ug/L
RT: 9.771 min Scan# 1261
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:106 Resp: 218237

Ion	Ratio	Lower	Upper
106	100		
91	182.8	156.0	234.0

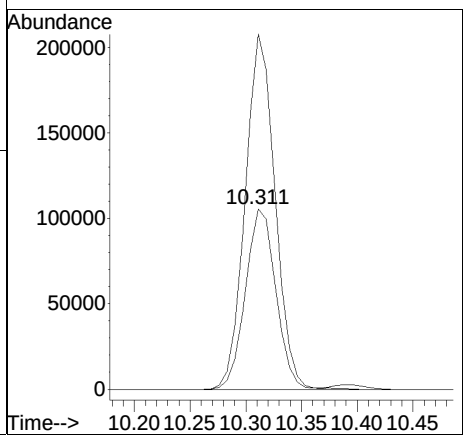


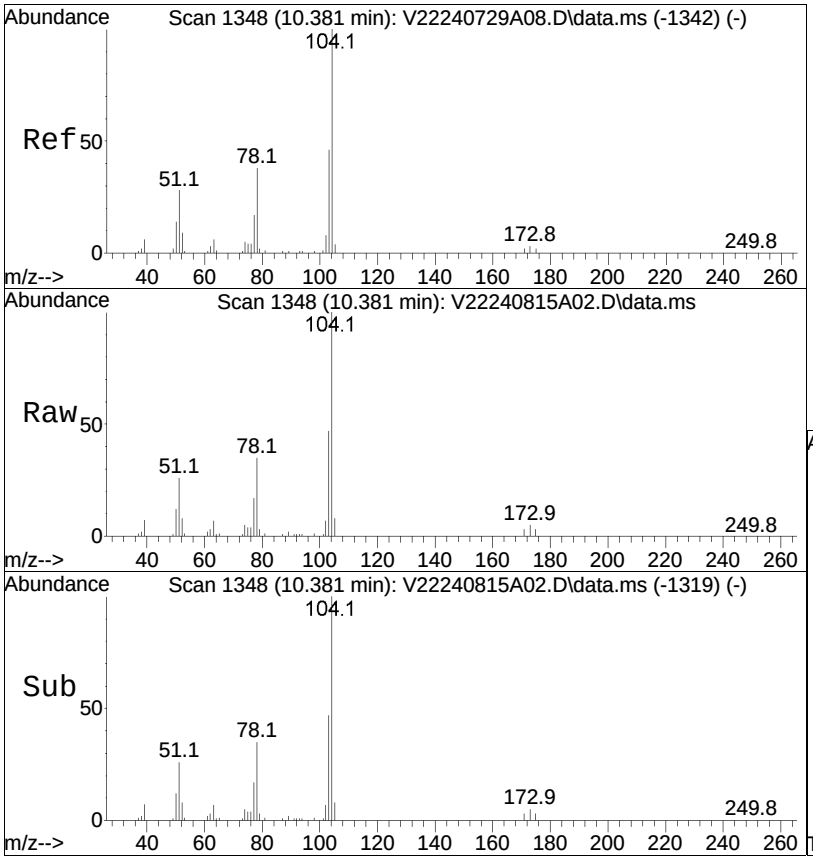


#81
o Xylene
Concen: 19.52 ug/L
RT: 10.311 min Scan# 1338
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:106 Resp: 201177

Ion	Ratio	Lower	Upper
106	100		
91	192.0	164.0	246.0

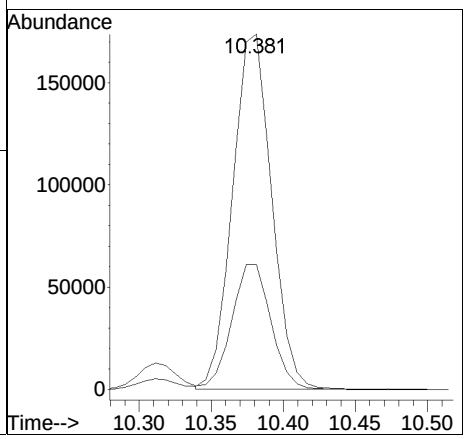


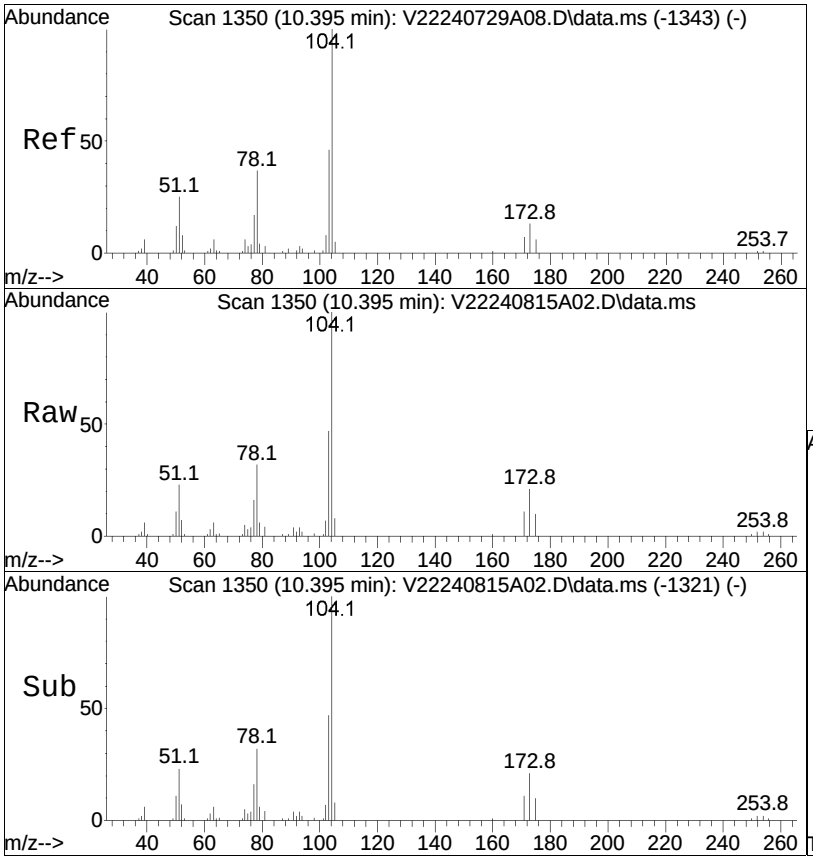


#82
Styrene
Concen: 19.67 ug/L
RT: 10.381 min Scan# 1348
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:104 Resp: 326135

Ion	Ratio	Lower	Upper
104	100		
78	35.5	32.1	48.1

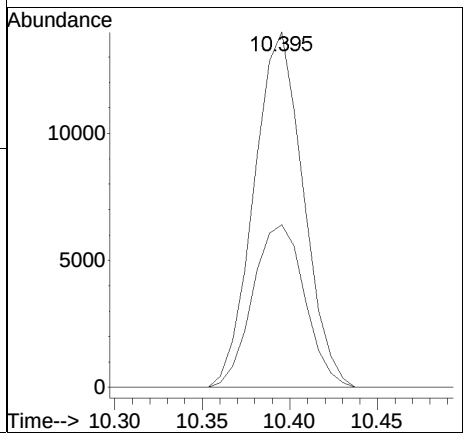


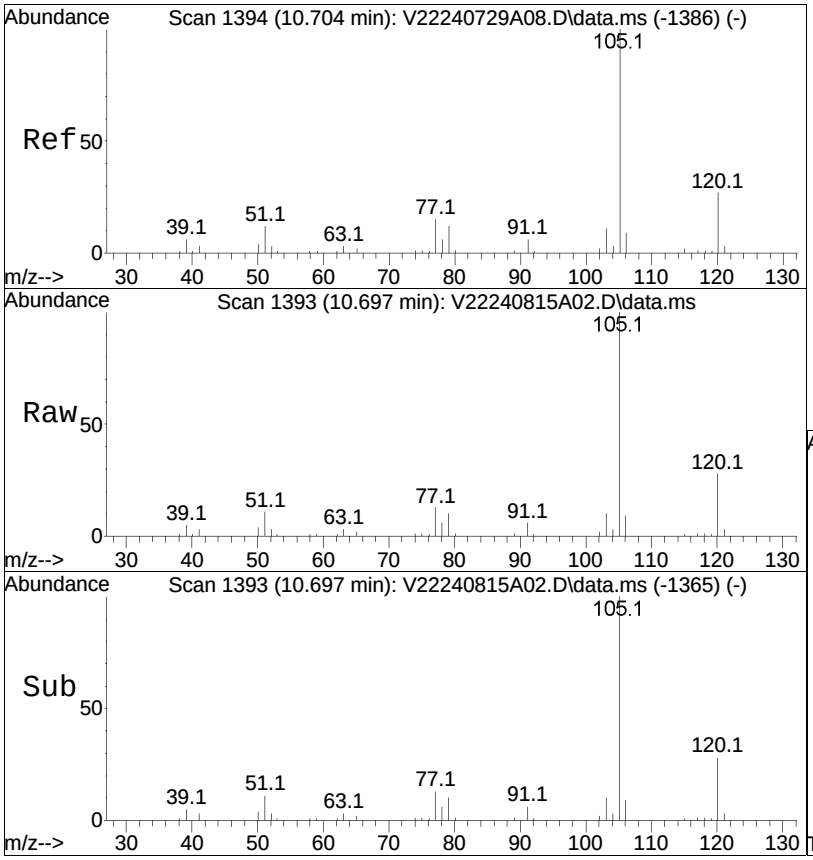


#84
Bromoform
Concen: 9.37 ug/L
RT: 10.395 min Scan# 1350
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:173 Resp: 27416

Ion	Ratio	Lower	Upper
173	100		
175	48.2	29.3	69.3

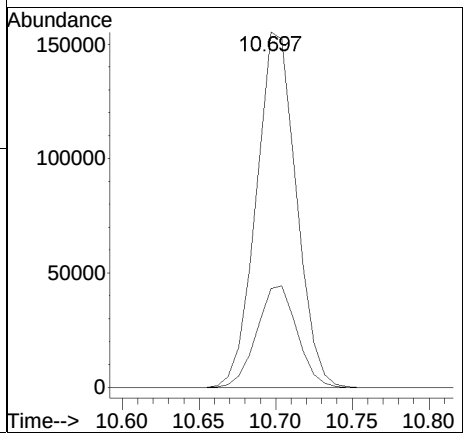


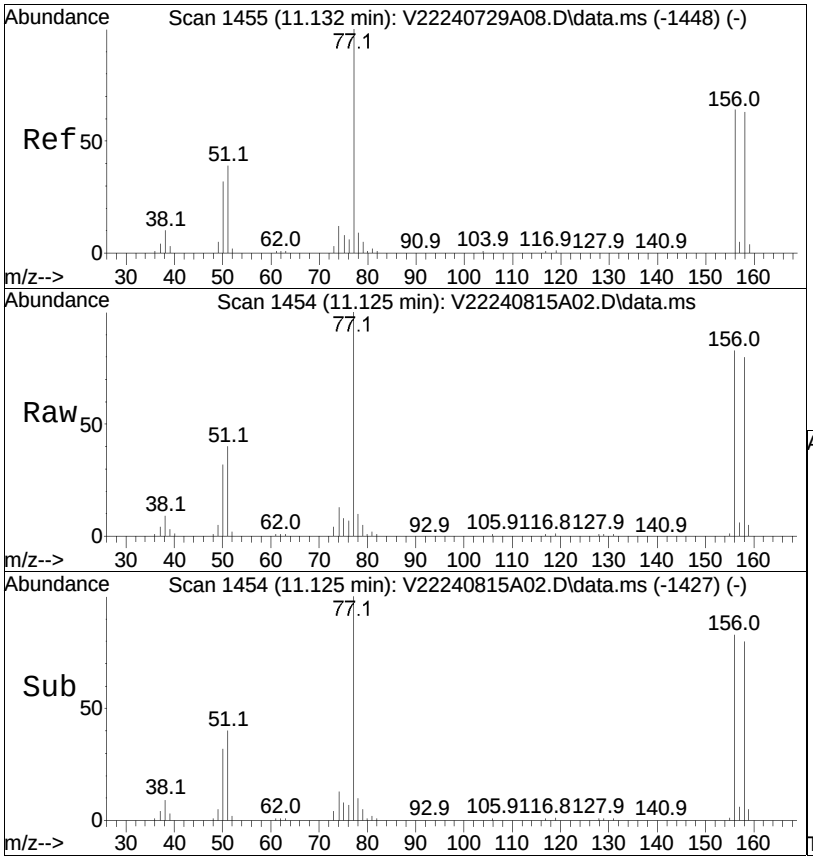


#86
Isopropylbenzene
Concen: 9.33 ug/L
RT: 10.697 min Scan# 1393
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:105 Resp: 281618

Ion	Ratio	Lower	Upper
105	100		
120	28.8	7.7	47.7

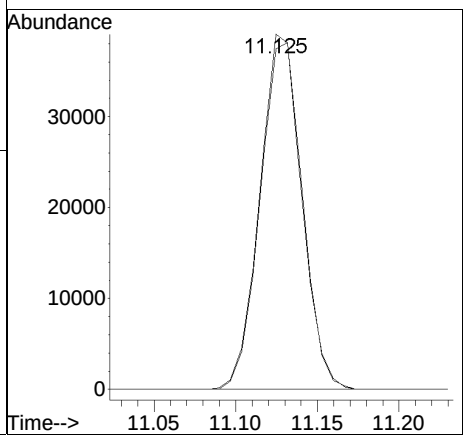


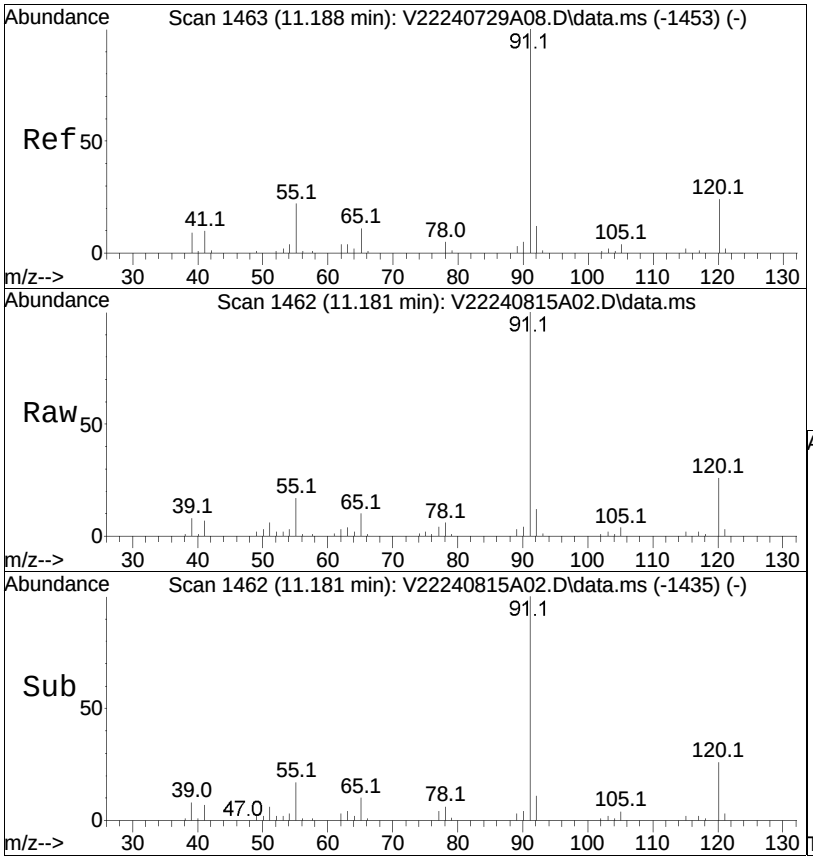


#88
Bromobenzene
Concen: 9.86 ug/L
RT: 11.125 min Scan# 1454
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:156 Resp: 69994

Ion	Ratio	Lower	Upper
156	100		
158	97.0	77.9	116.9

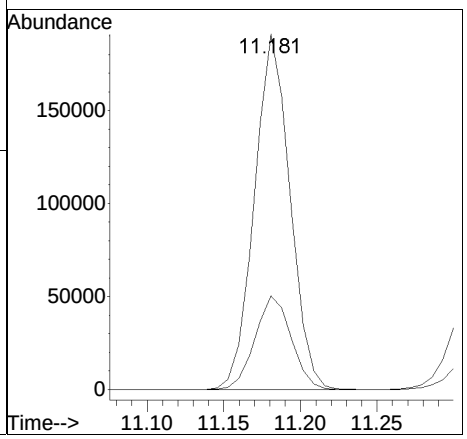


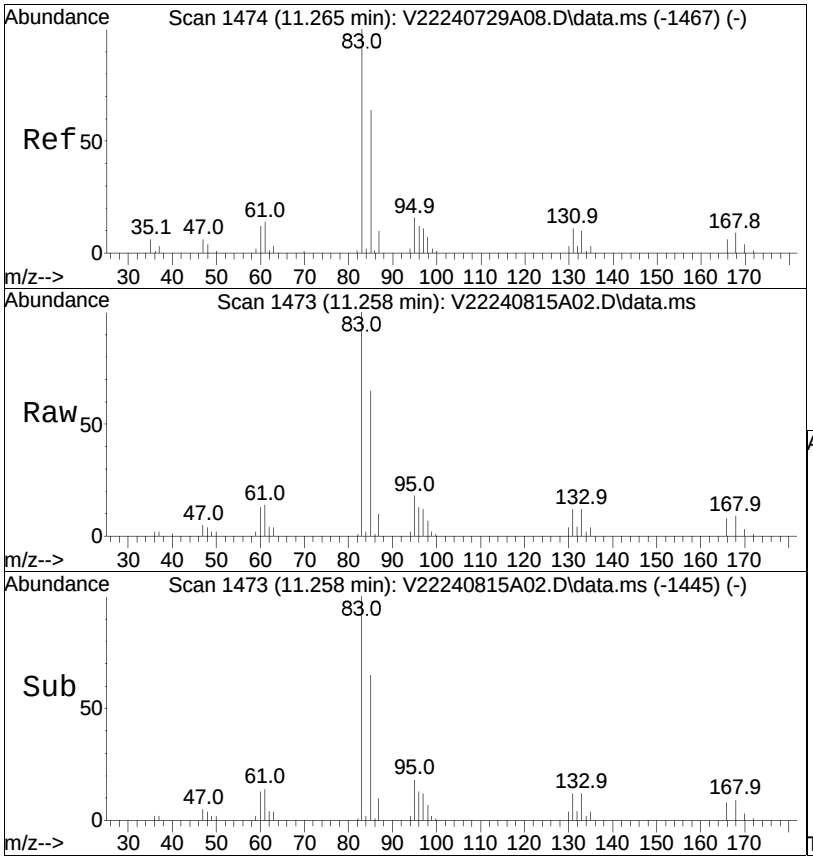


#89
n-Propylbenzene
Concen: 8.77 ug/L
RT: 11.181 min Scan# 1462
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 91 Resp: 307530

Ion	Ratio	Lower	Upper
91	100		
120	26.8	19.5	29.3

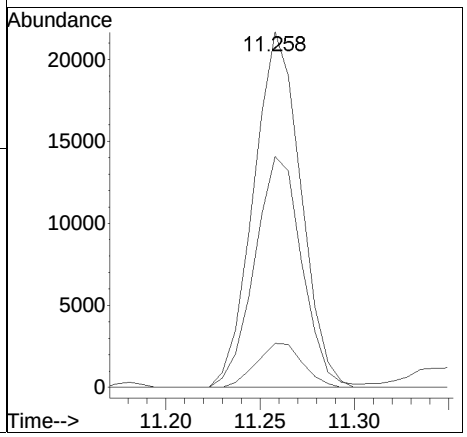


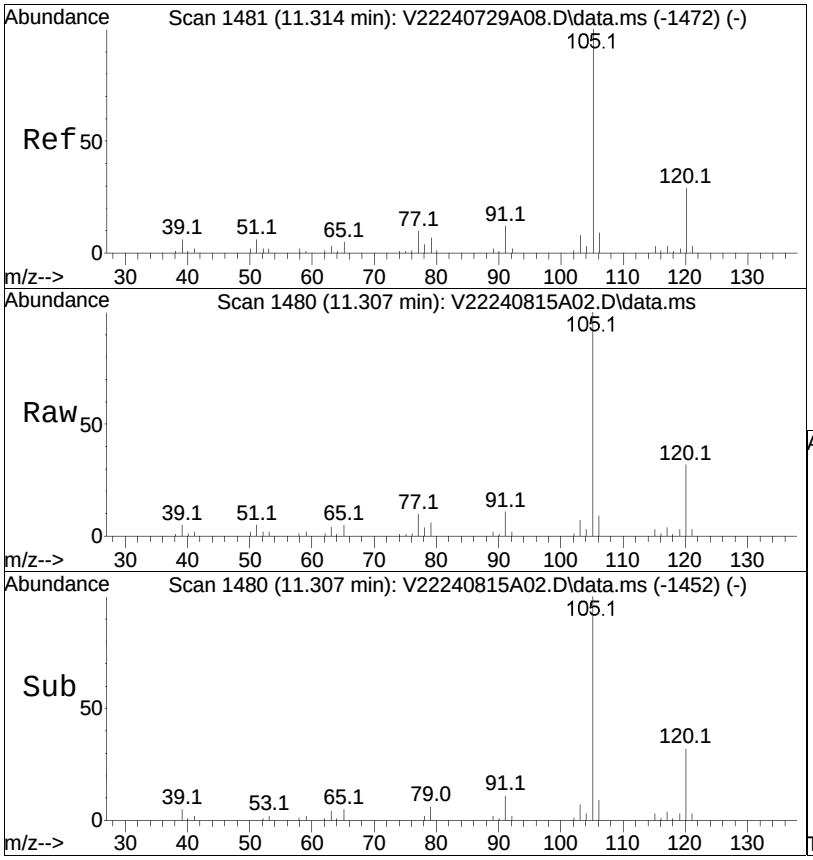


#91
1,1,2,2-Tetrachloroethane
Concen: 7.66 ug/L
RT: 11.258 min Scan# 1473
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 83 Resp: 37820

Ion	Ratio	Lower	Upper
83	100		
131	12.2	0.0	30.8
85	65.0	45.4	85.4

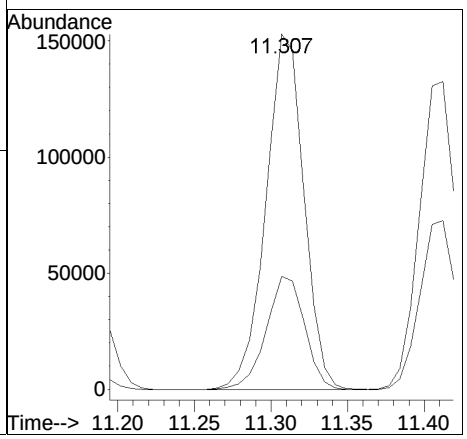


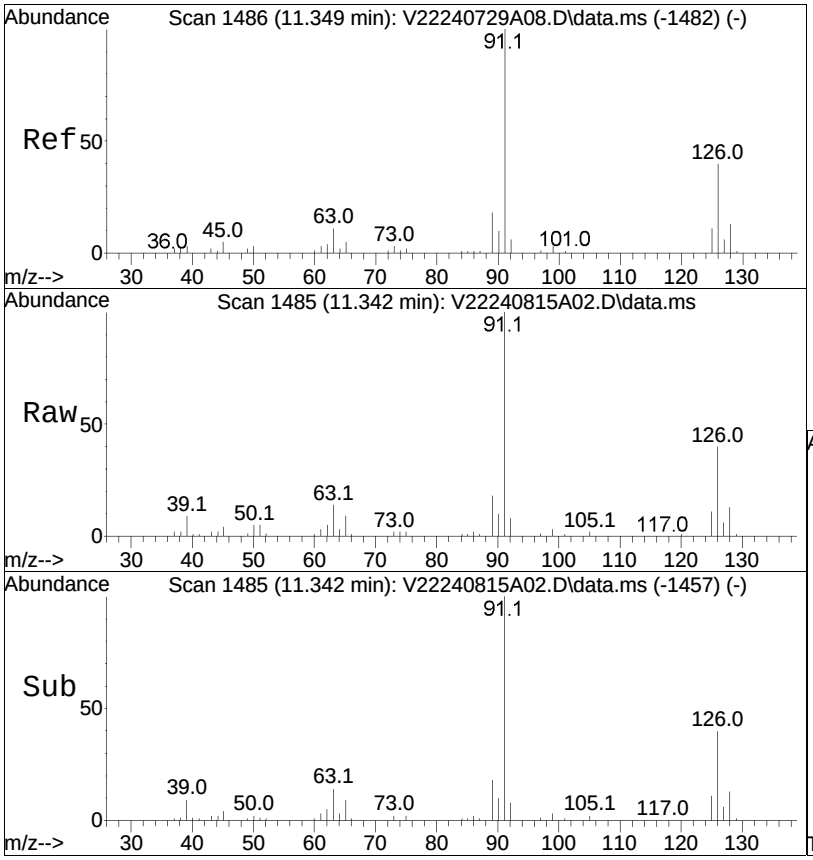


#92
4-Ethyltoluene
Concen: 9.22 ug/L
RT: 11.307 min Scan# 1480
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:105 Resp: 263422

Ion	Ratio	Lower	Upper
105	100		
120	32.1	19.8	41.0

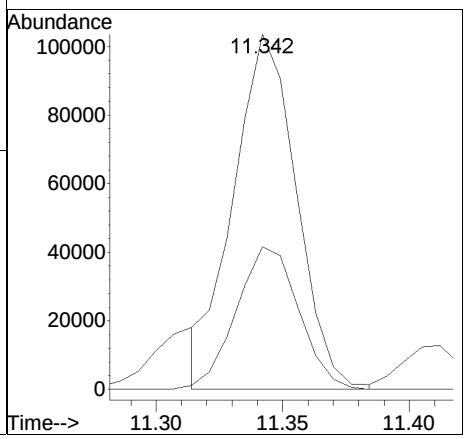


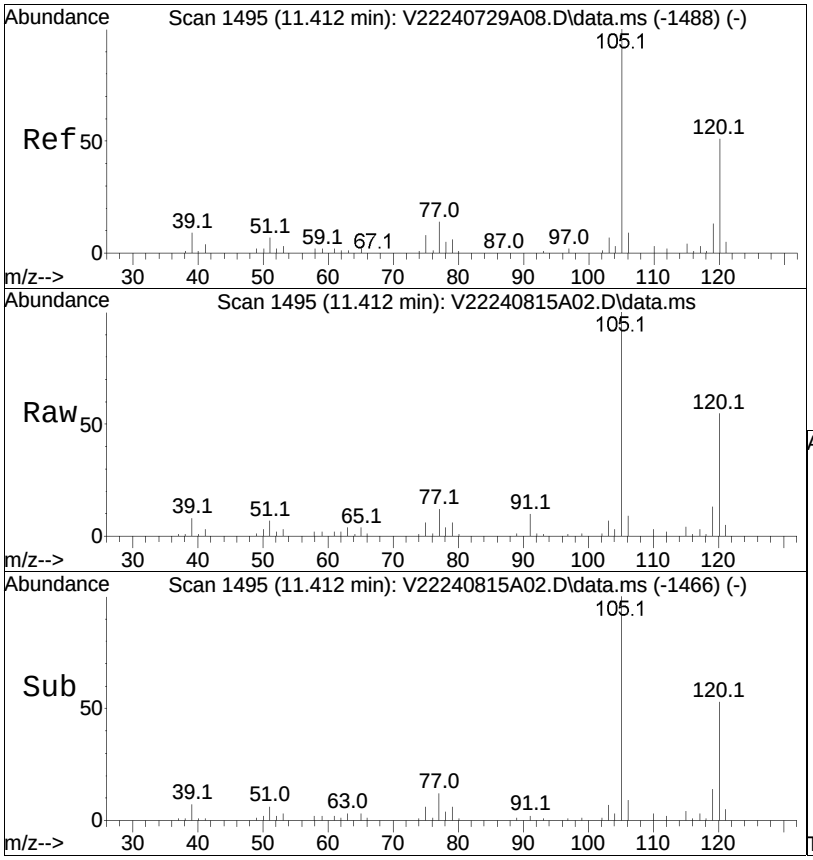


#93
2-Chlorotoluene
Concen: 8.50 ug/L M6
RT: 11.342 min Scan# 1485
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 91 Resp: 179581

Ion	Ratio	Lower	Upper
91	100		
126	39.8	24.6	37.0#

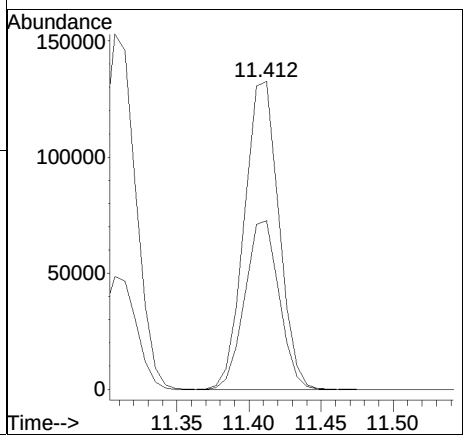


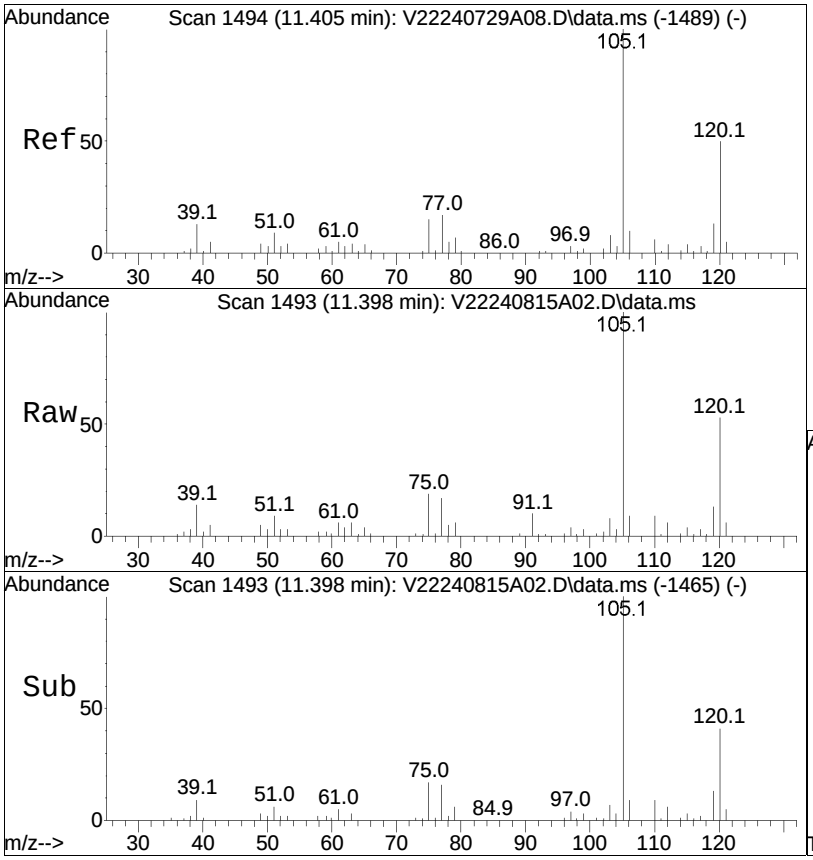


#94
1,3,5-Trimethylbenzene
Concen: 9.15 ug/L
RT: 11.412 min Scan# 1495
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:105 Resp: 221754

Ion	Ratio	Lower	Upper
105	100		
120	54.4	40.9	61.3

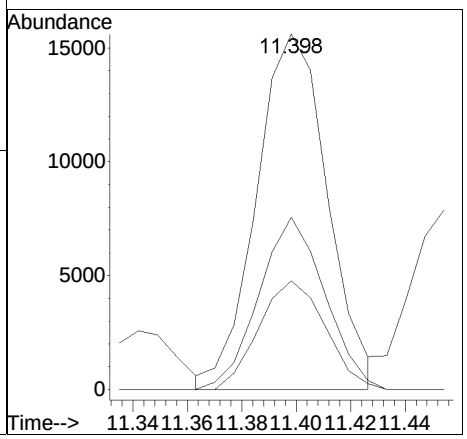


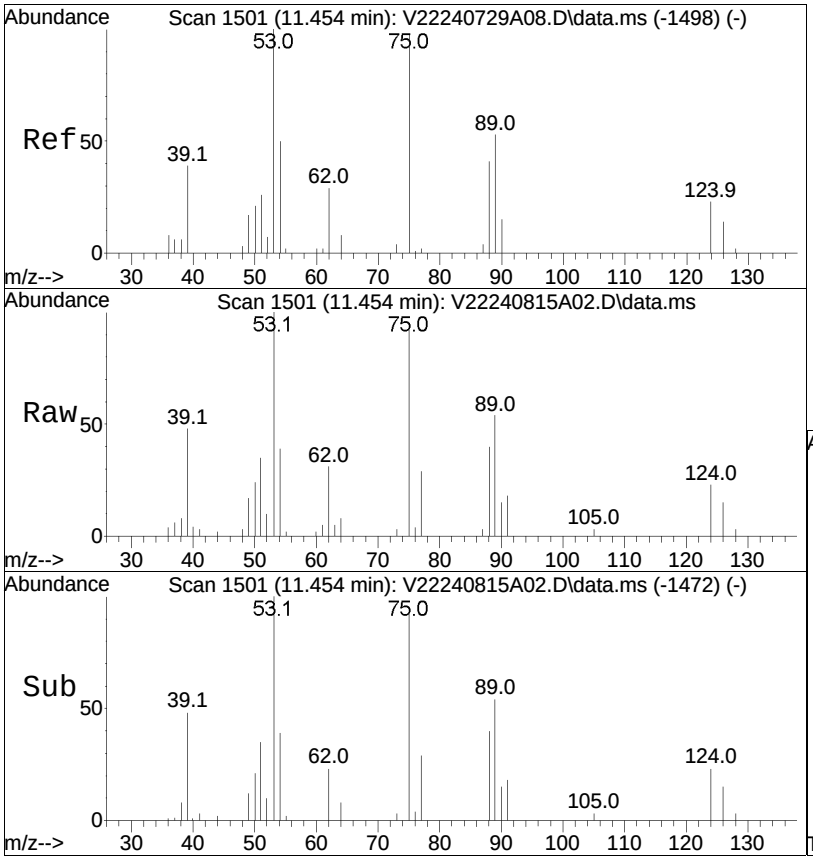


#95
1,2,3-Trichloropropane
Concen: 7.50 ug/L
RT: 11.398 min Scan# 1493
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 75 Resp: 28269

Ion	Ratio	Lower	Upper
75	100		
110	44.8	26.3	54.7
112	28.5	16.8	35.0

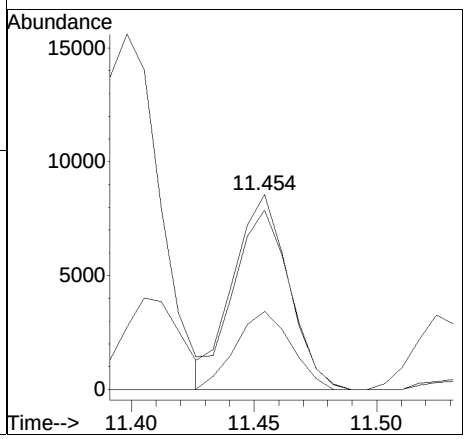


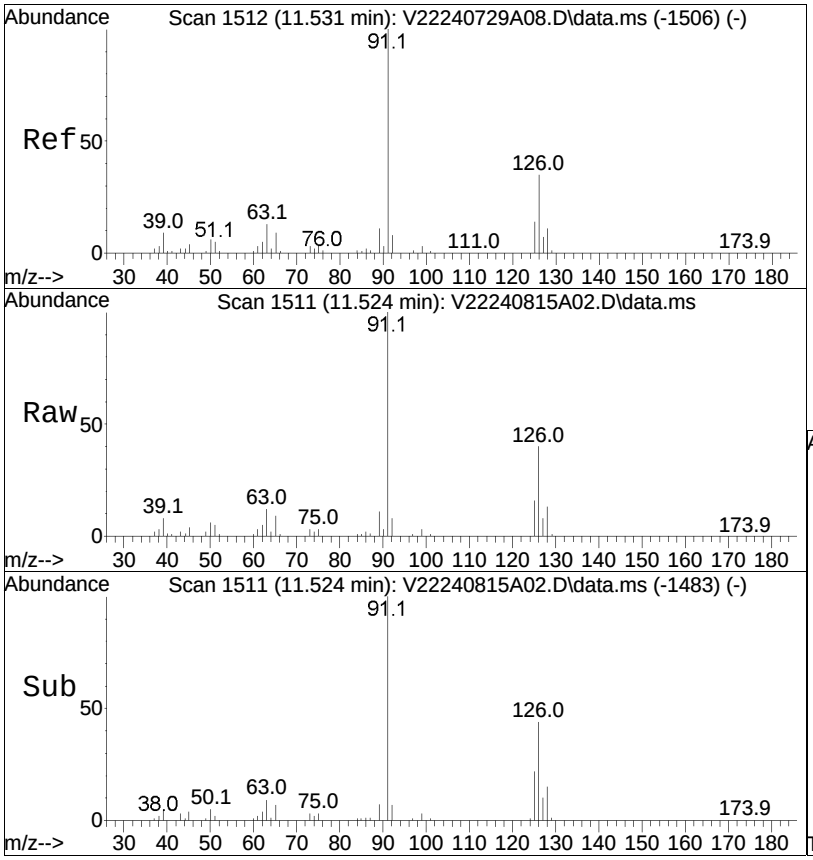


#96
trans-1,4-Dichloro-2-butene
Concen: 7.98 ug/L
RT: 11.454 min Scan# 1501
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 53 Resp: 13416

Ion	Ratio	Lower	Upper
53	100		
88	40.3	46.3	69.5#
75	94.2	109.0	163.4#

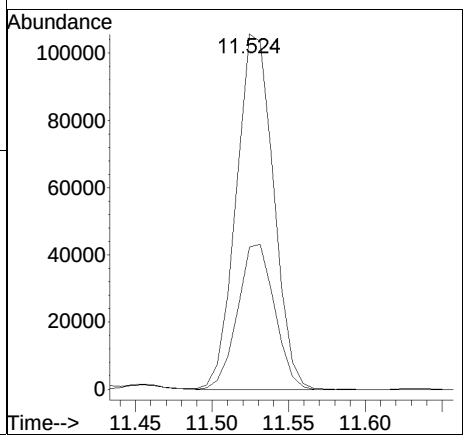


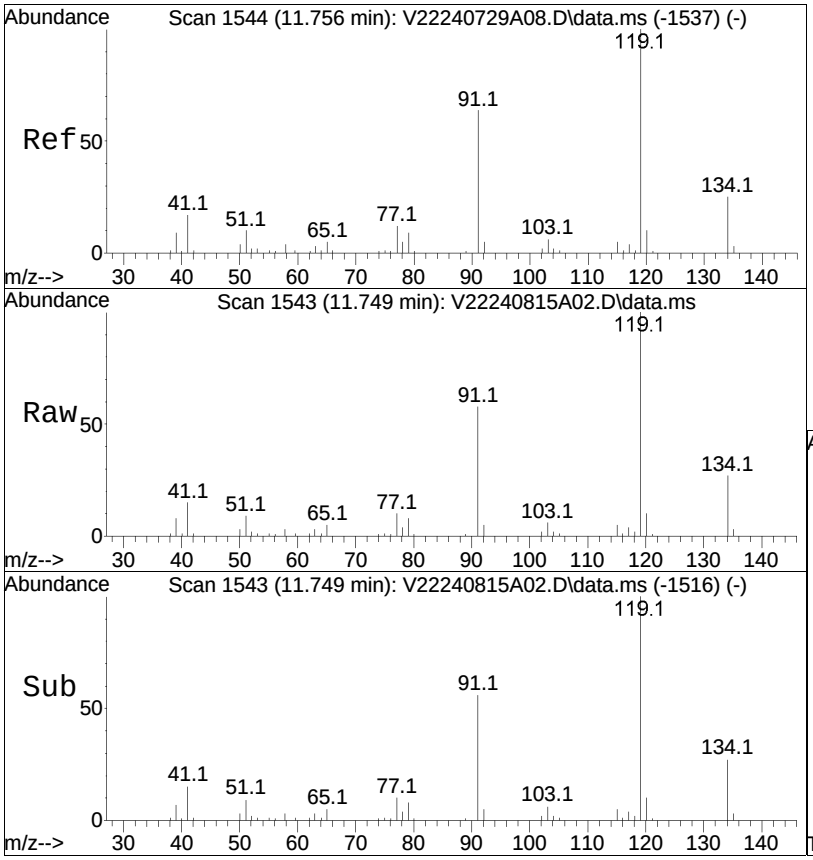


#97
4-Chlorotoluene
Concen: 8.20 ug/L
RT: 11.524 min Scan# 1511
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 91 Resp: 178878

Ion	Ratio	Lower	Upper
91	100		
126	40.4	28.5	42.7

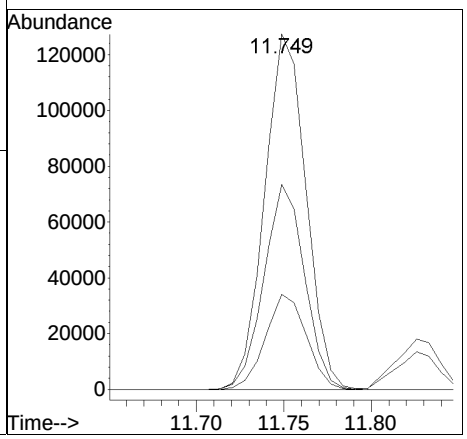


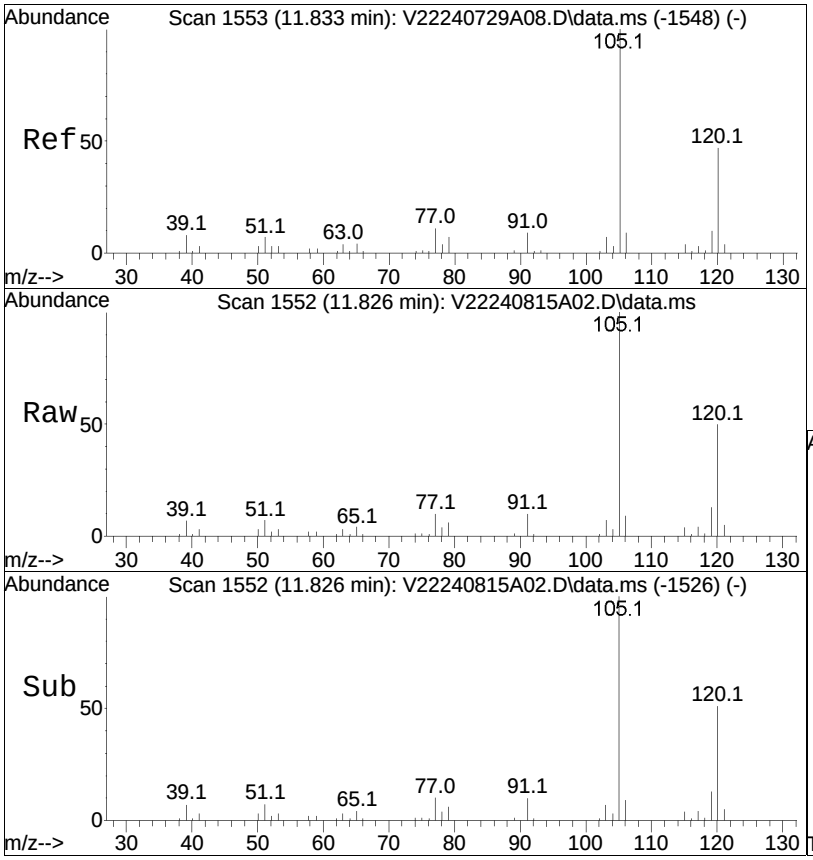


#98
tert-Butylbenzene
Concen: 9.95 ug/L
RT: 11.749 min Scan# 1543
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:119 Resp: 209130

Ion	Ratio	Lower	Upper
119	100		
91	56.7	50.2	75.4
134	26.4	20.8	31.2

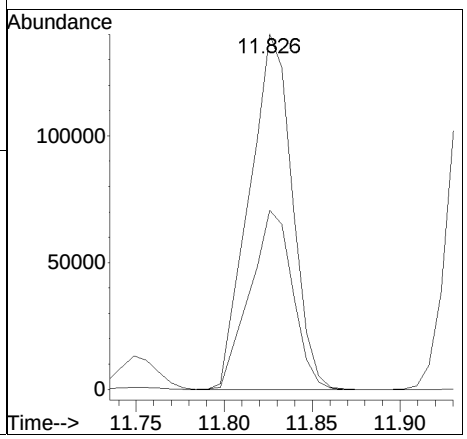


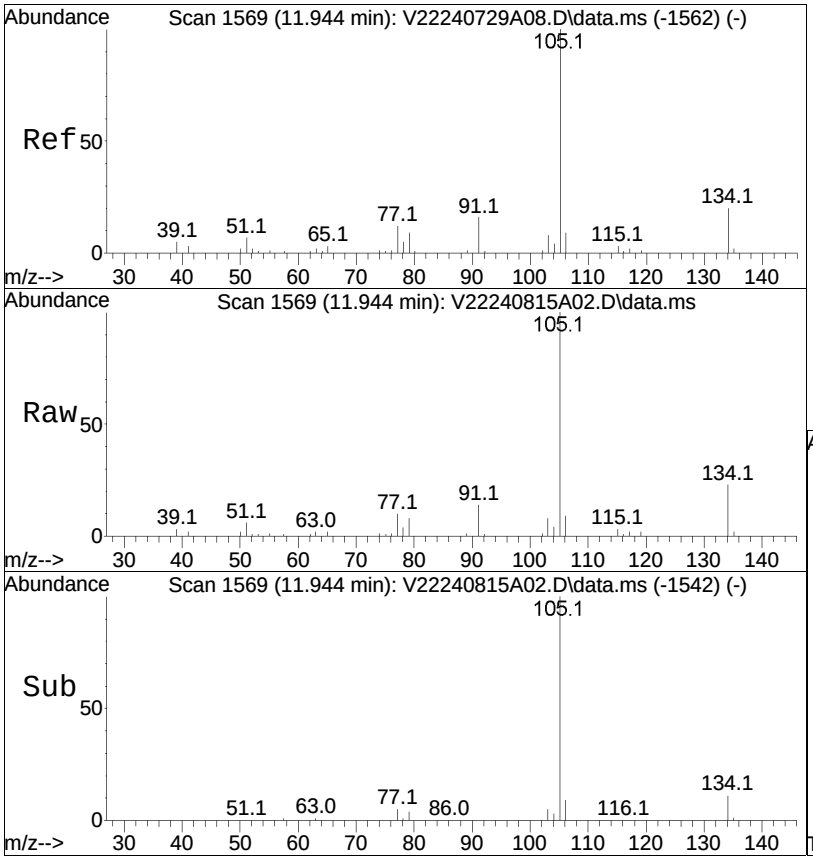


#101
1,2,4-Trimethylbenzene
Concen: 8.40 ug/L
RT: 11.826 min Scan# 1552
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:105 Resp: 227450

Ion	Ratio	Lower	Upper
105	100		
120	51.5	38.5	57.7

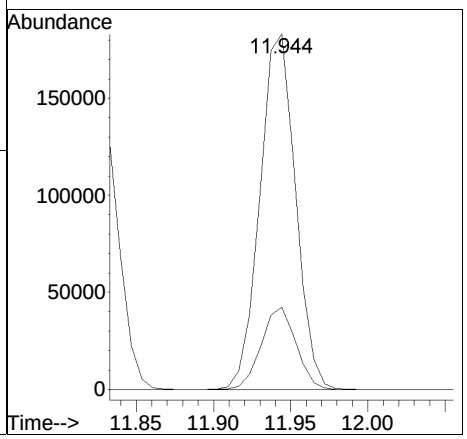


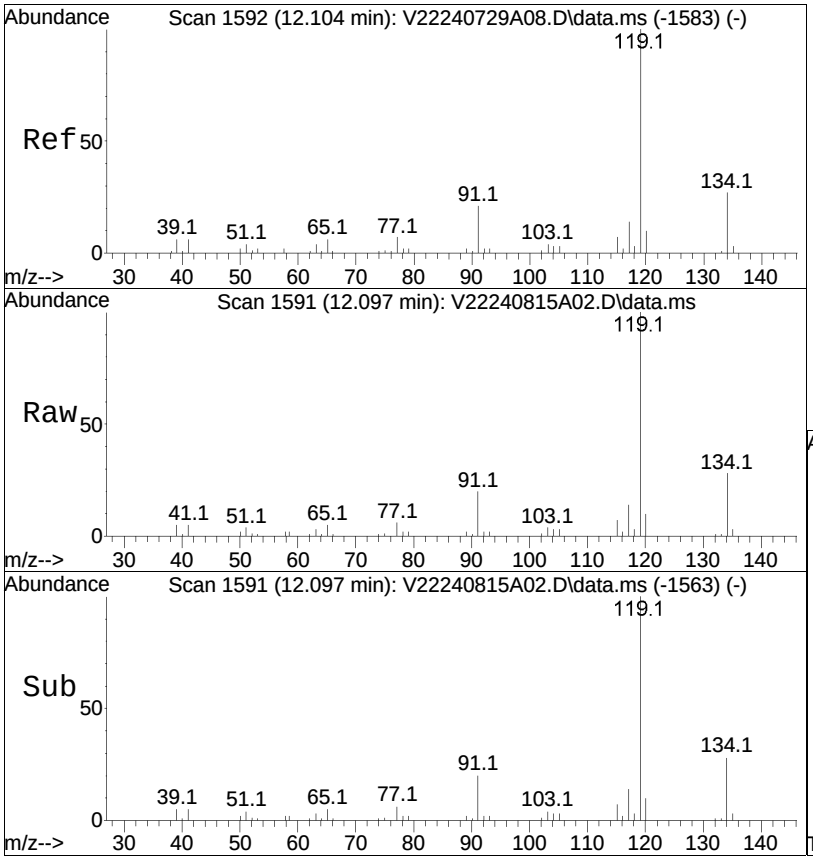


#102
sec-Butylbenzene
Concen: 9.22 ug/L
RT: 11.944 min Scan# 1569
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:105 Resp: 294119

Ion	Ratio	Lower	Upper
105	100		
134	22.5	13.9	28.9

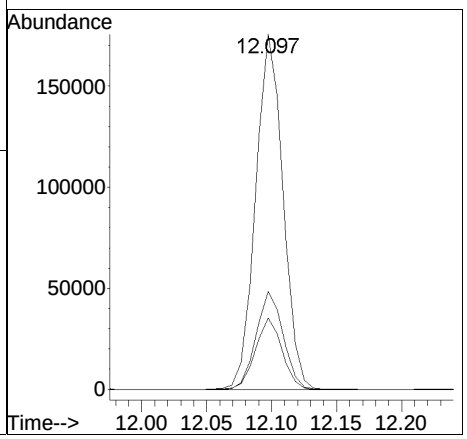


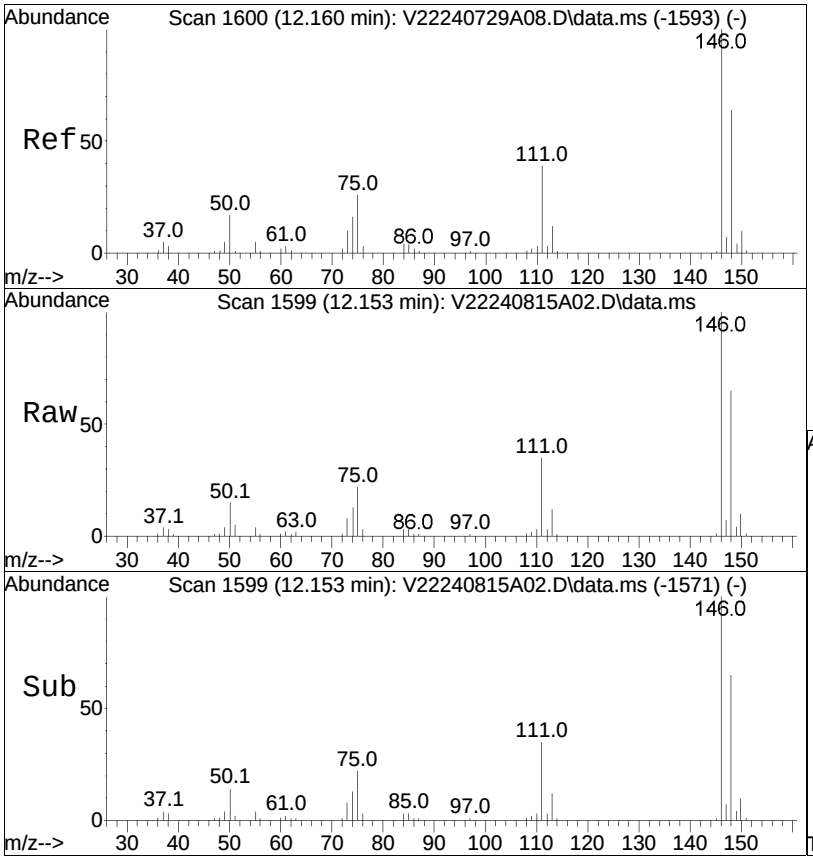


#103
p-Isopropyltoluene
Concen: 9.54 ug/L
RT: 12.097 min Scan# 1591
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:119 Resp: 257255

Ion	Ratio	Lower	Upper
119	100		
134	27.3	17.7	36.7
91	19.6	14.1	29.3

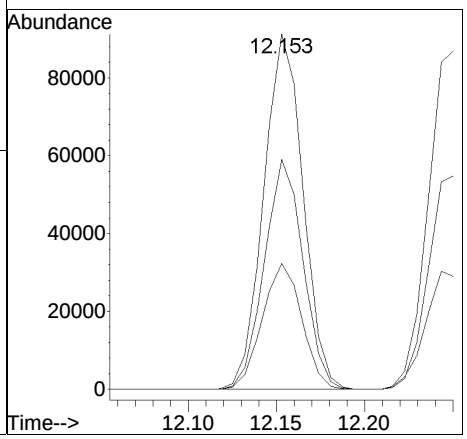


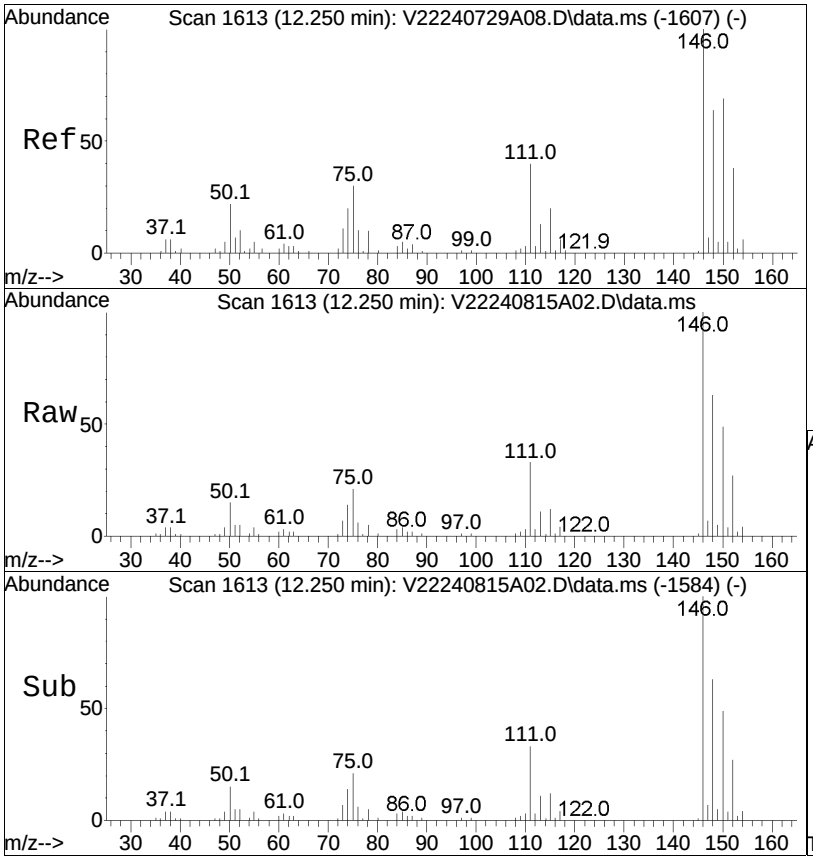


#104
1,3-Dichlorobenzene
Concen: 10.04 ug/L
RT: 12.153 min Scan# 1599
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:146 Resp: 141418

Ion	Ratio	Lower	Upper
146	100		
111	35.6	24.0	49.8
148	63.8	41.8	86.8

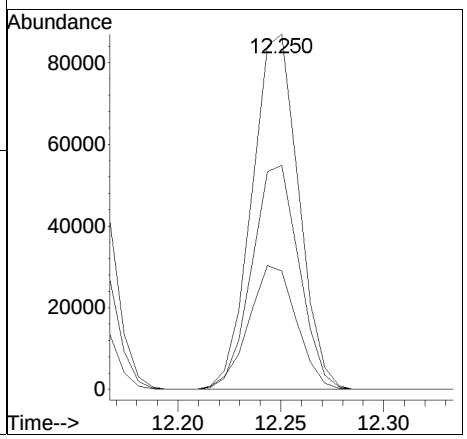


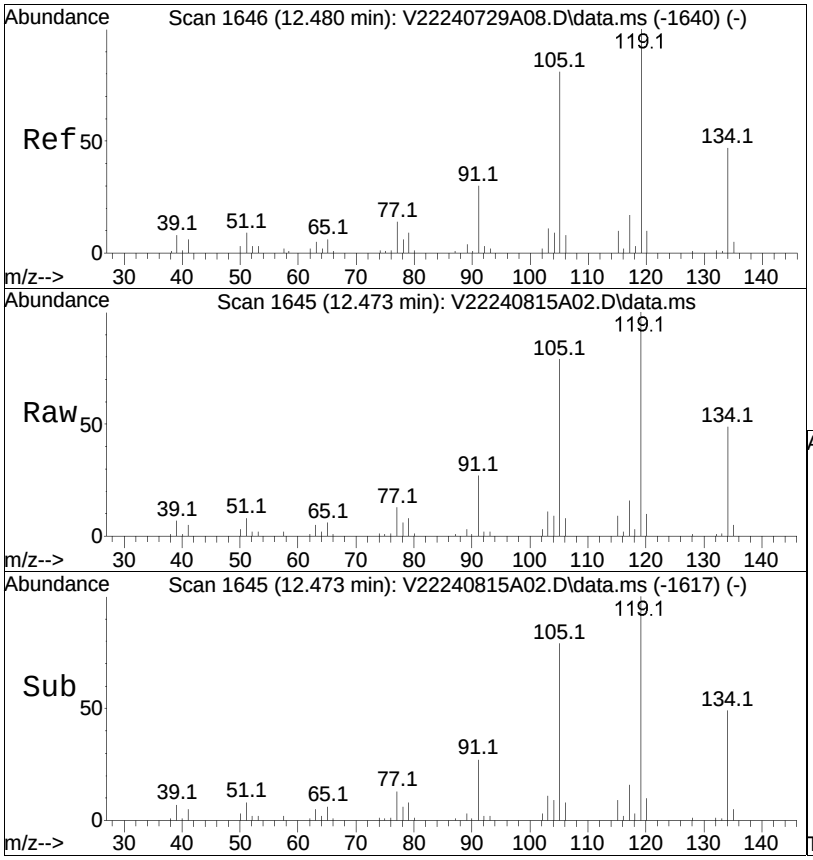


#105
1,4-Dichlorobenzene
Concen: 9.83 ug/L
RT: 12.250 min Scan# 1613
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:146 Resp: 137296

Ion	Ratio	Lower	Upper
146	100		
111	35.8	28.9	43.3
148	63.7	51.4	77.2

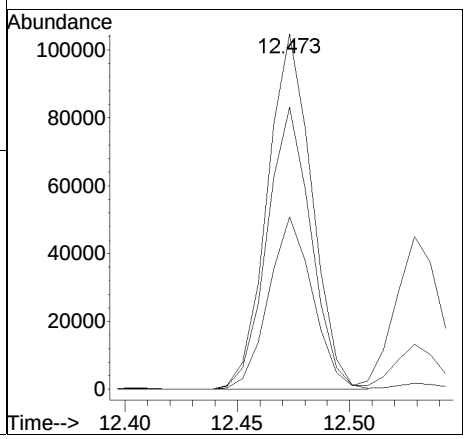


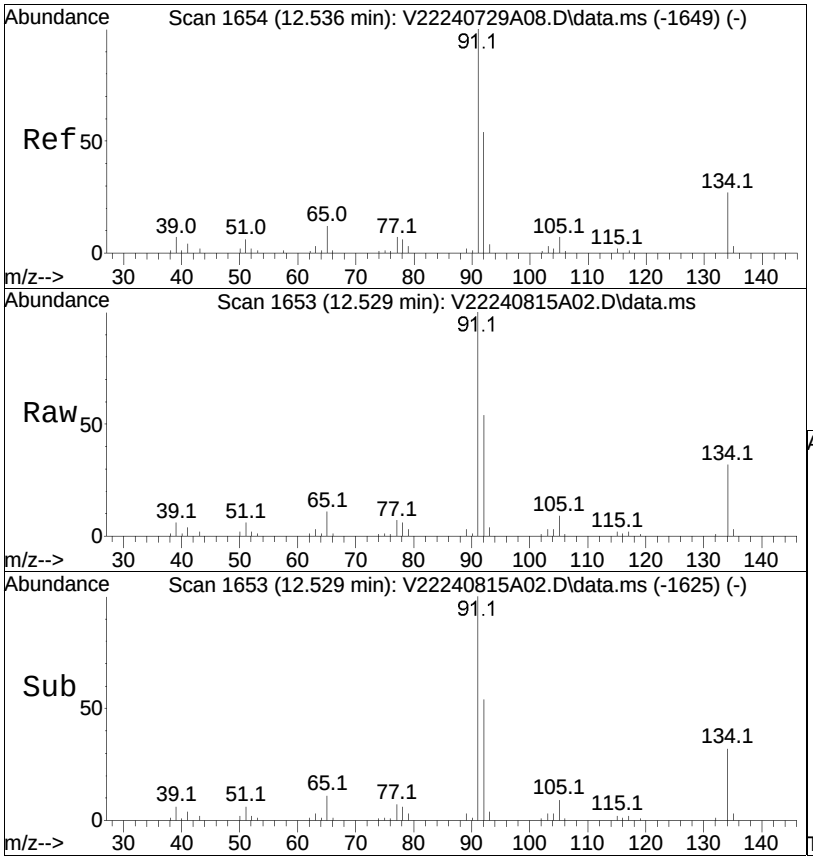


#106
p-Diethylbenzene
Concen: 9.42 ug/L
RT: 12.473 min Scan# 1645
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:119 Resp: 144428

Ion	Ratio	Lower	Upper
119	100		
105	78.6	53.4	110.8
134	47.9	30.9	64.1

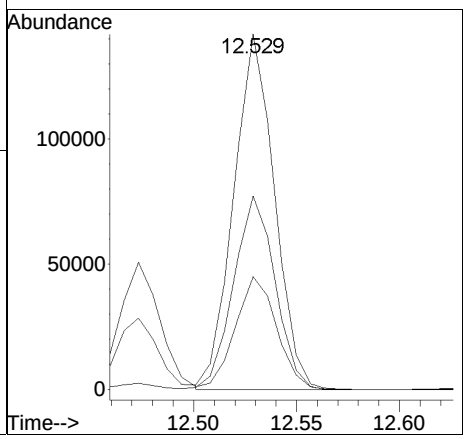


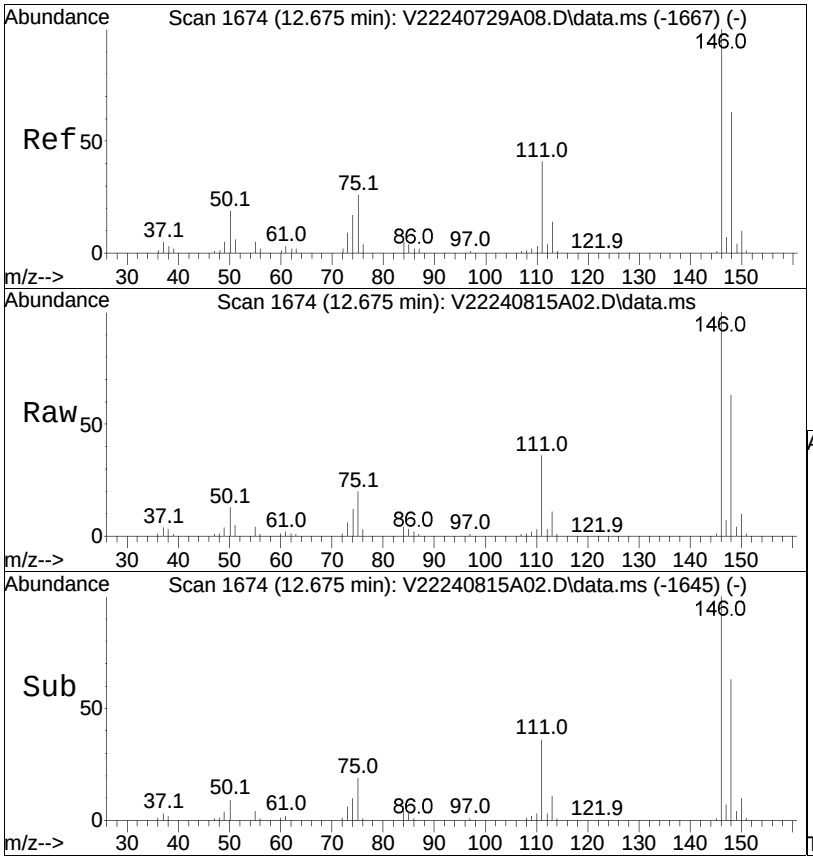


#107
n-Butylbenzene
Concen: 8.73 ug/L
RT: 12.529 min Scan# 1653
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion: 91 Resp: 195523

Ion	Ratio	Lower	Upper
91	100		
92	55.4	44.6	66.8
134	32.2	22.9	34.3

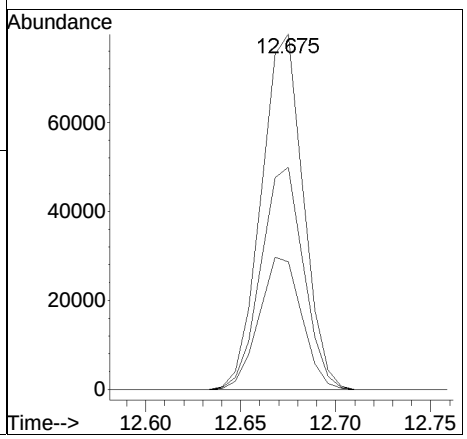


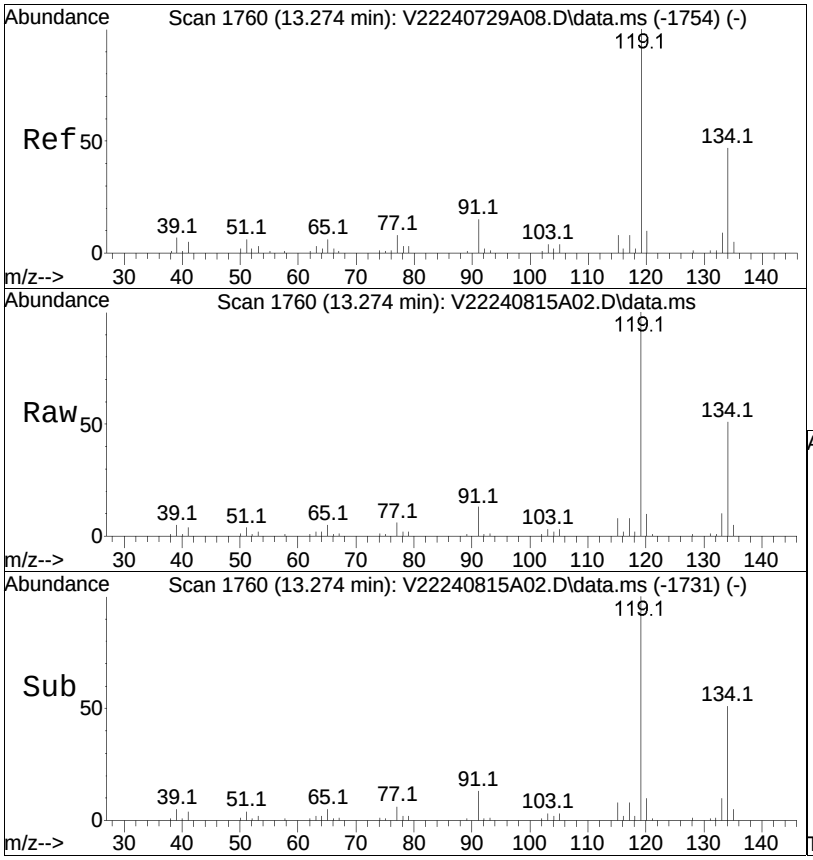


#108
1,2-Dichlorobenzene
Concen: 9.87 ug/L
RT: 12.675 min Scan# 1674
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:146 Resp: 122893

Ion	Ratio	Lower	Upper
146	100		
111	37.9	24.8	51.6
148	63.4	42.2	87.6

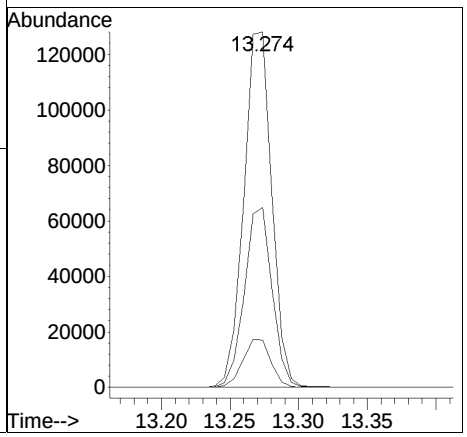


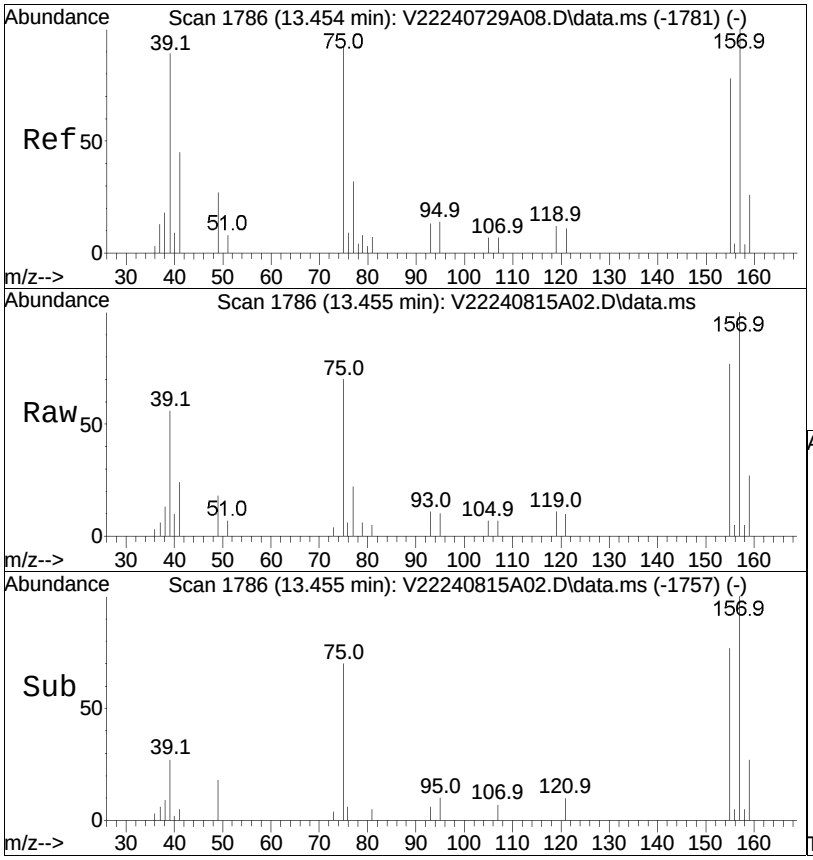


#109
1,2,4,5-Tetramethylbenzene
Concen: 8.67 ug/L
RT: 13.274 min Scan# 1760
Delta R.T. -0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:119 Resp: 182250

Ion	Ratio	Lower	Upper
119	100		
134	50.1	31.9	66.1
91	13.5	9.8	20.3

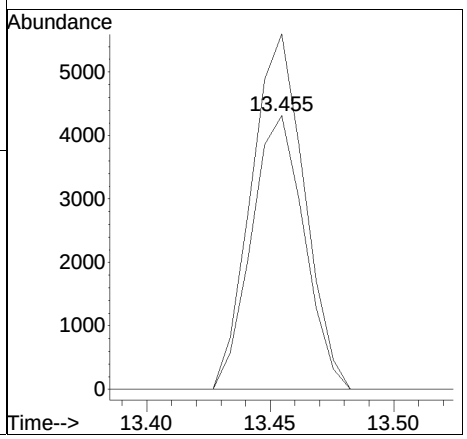


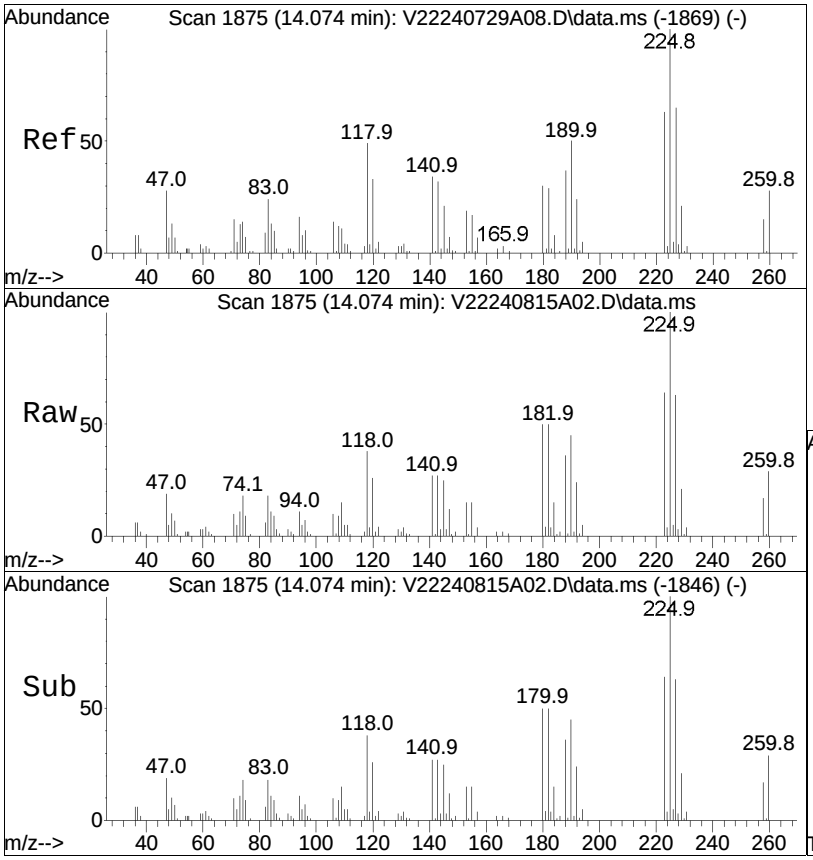


#110
1,2-Dibromo-3-chloropropane
Concen: 8.70 ug/L
RT: 13.455 min Scan# 1786
Delta R.T. 0.001 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:155 Resp: 6408

Ion	Ratio	Lower	Upper
155	100		
157	130.6	102.3	153.5

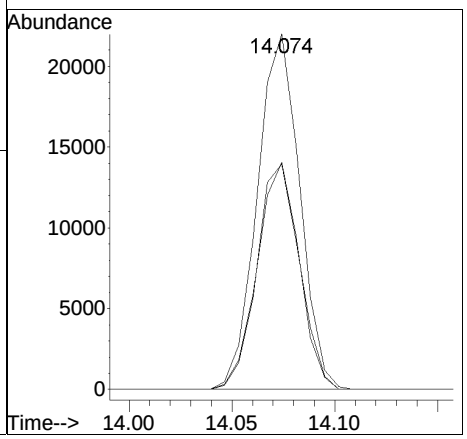


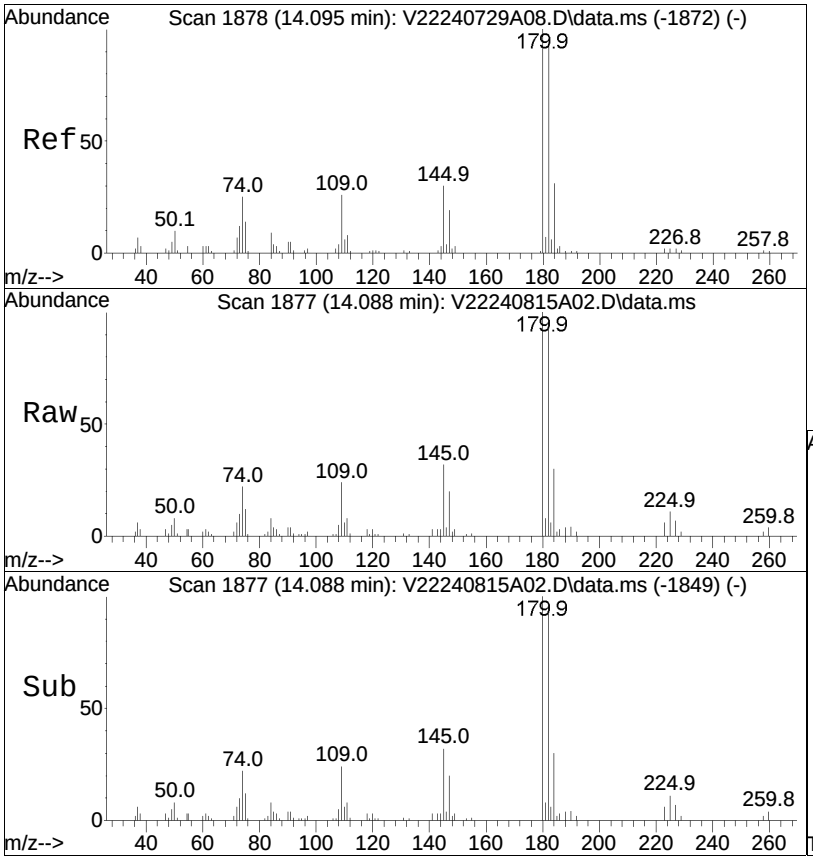


#112
Hexachlorobutadiene
Concen: 10.73 ug/L
RT: 14.074 min Scan# 1875
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:225 Resp: 31586

Ion	Ratio	Lower	Upper
225	100		
223	62.9	49.8	74.8
227	63.7	52.2	78.4

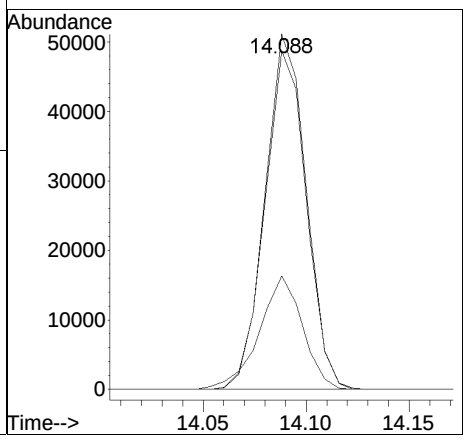


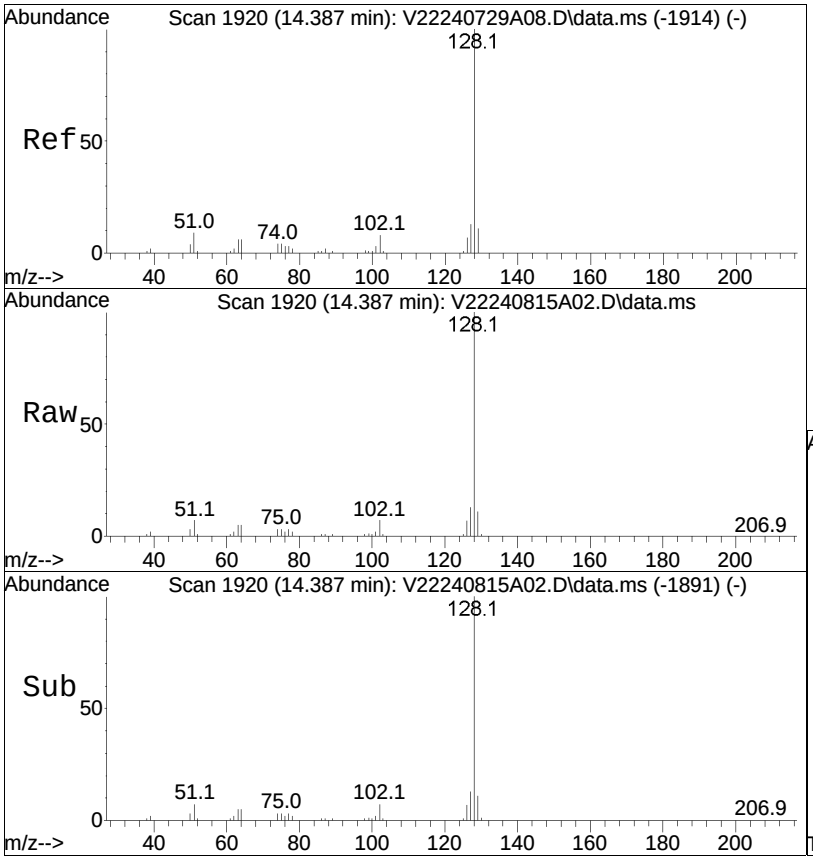


#113
1,2,4-Trichlorobenzene
Concen: 10.28 ug/L
RT: 14.088 min Scan# 1877
Delta R.T. -0.007 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:180 Resp: 70987

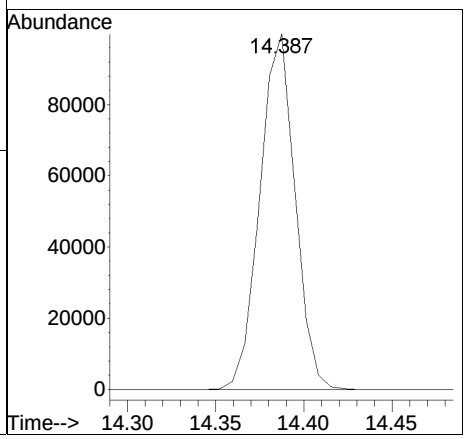
Ion	Ratio	Lower	Upper
180	100		
182	96.1	76.6	114.8
145	33.7	25.5	38.3

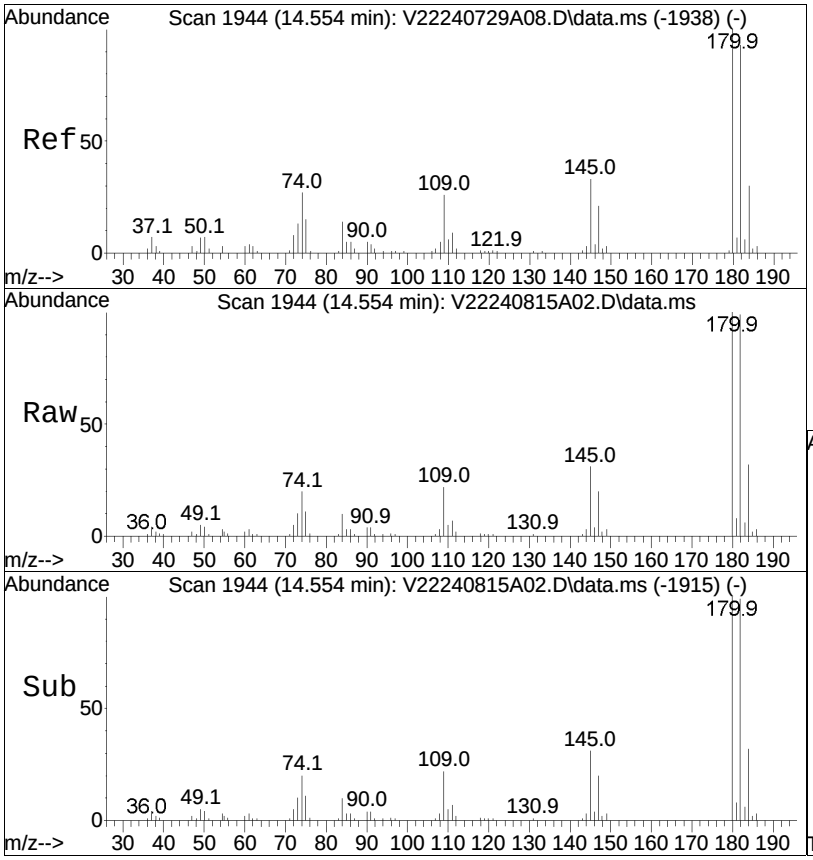




#114
Naphthalene
Concen: 8.74 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:128 Resp: 138793

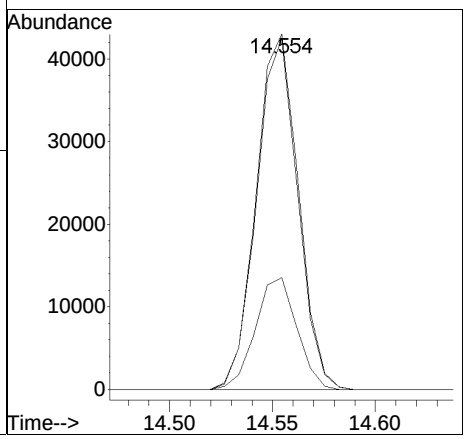




#115
1,2,3-Trichlorobenzene
Concen: 10.43 ug/L
RT: 14.554 min Scan# 1944
Delta R.T. 0.000 min
Lab File: V22240815A02.D
Acq: 15 Aug 2024 07:01 am

Tgt Ion:180 Resp: 61193

Ion	Ratio	Lower	Upper
180	100		
182	96.0	76.0	114.0
145	31.0	23.8	35.8

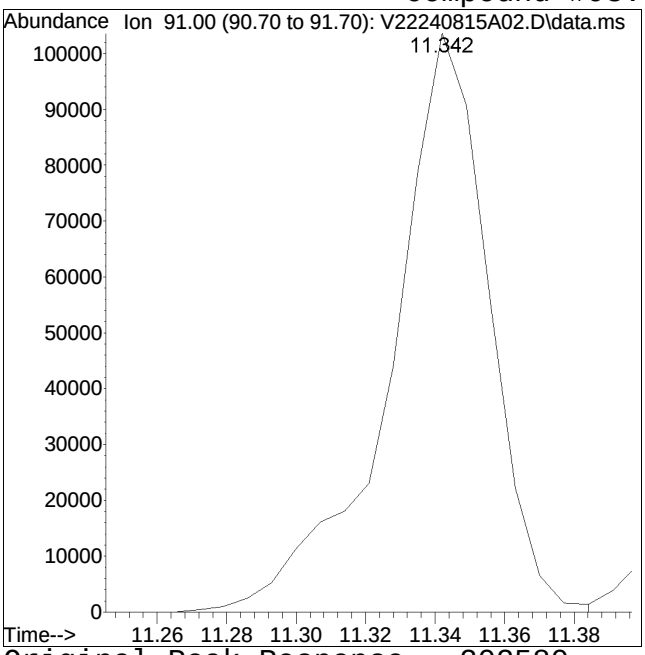


Manual Integration Report

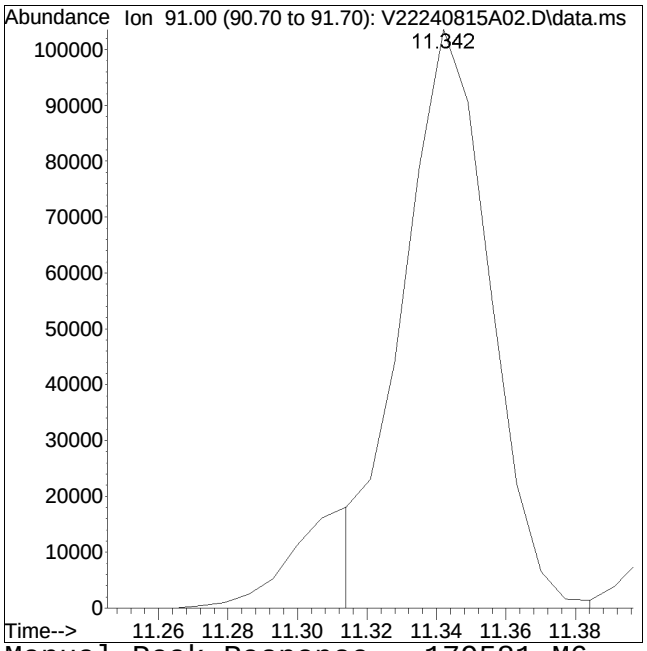
Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A02.D
Date Inj'd : 8/15/2024 7:01 am
Sample : WG1959760-3,31,10,10

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/15/2024 7:27 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 202580



Manual Peak Response = 179581 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A02.D
Acq On : 15 Aug 2024 7:03 am
Operator : ELAINE:PID
Sample : WG1959746-4,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:27:00 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.959	96	184224	10.000	ug/L	0.00
Standard Area 1 = 187483			Recovery = 98.26%			
63) Chlorobenzene-d5	9.492	117	136609	10.000	ug/L	0.00
Standard Area 1 = 137068			Recovery = 99.67%			
84) 1,4-Dichlorobenzene-d4	12.202	152	82394	10.000	ug/L	0.00
Standard Area 1 = 79601			Recovery = 103.51%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	46263	10.727	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.27%			
47) 1,2-Dichloroethane-d4	5.677	65	57727	10.032	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.32%			
64) Toluene-d8	7.646	98	179032	9.949	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.49%			
88) 4-Bromofluorobenzene	10.989	95	68066	8.943	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.43%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.589	85	39476	9.558	ug/L	95
3) Chloromethane	1.778	50	45611	9.918	ug/L	95
4) Vinyl chloride	1.854	62	44372	10.353	ug/L	96
5) Bromomethane	2.160	94	17608	13.580	ug/L	96
6) Chloroethane	2.275	64	30247	11.690	ug/L	90
7) Trichlorofluoromethane	2.417	101	54933	11.154	ug/L	99
8) Ethyl ether	2.713	74	20418	10.529	ug/L	82
10) 1,1-Dichloroethene	2.902	96	28832	9.772	ug/L #	77
11) Carbon disulfide	2.933	76	92446	10.155	ug/L	96
15) Methylene chloride	3.454	84	36484	9.803	ug/L	86
17) Acetone	3.496	43	9871	7.303	ug/L #	76
18) trans-1,2-Dichloroethene	3.608	96	32287	10.180	ug/L	76
21) Methyl tert-butyl ether	3.708	73	109204	9.234	ug/L #	86
25) 1,1-Dichloroethane	4.188	63	78336	10.525	ug/L	92
27) Acrylonitrile	4.230	53	12764	8.219	ug/L	85
29) Vinyl acetate	4.422	43	113618	10.077	ug/L	96
30) cis-1,2-Dichloroethene	4.712	96	39122	10.291	ug/L	96
31) 2,2-Dichloropropane	4.810	77	53985	10.838	ug/L	89
33) Bromochloromethane	4.902	128	17643	10.580	ug/L	87
35) Chloroform	4.977	83	64637	10.476	ug/L	96

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A02.D
Acq On : 15 Aug 2024 7:03 am
Operator : ELAINE:PID
Sample : WG1959746-4,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:27:00 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.108	117	50055	10.621	ug/L		92
40) 1,1,1-Trichloroethane	5.169	97	56102	10.012	ug/L	#	95
42) 2-Butanone	5.267	43	14031	7.265	ug/L	#	79
43) 1,1-Dichloropropene	5.295	75	48801	10.345	ug/L		93
45) Benzene	5.540	78	156319	10.712	ug/L		94
48) 1,2-Dichloroethane	5.741	62	58249	10.342	ug/L		97
52) Trichloroethene	6.137	95	38002	10.358	ug/L		97
54) Dibromomethane	6.575	93	21727	10.281	ug/L	#	84
55) 1,2-Dichloropropane	6.684	63	44514	10.105	ug/L		98
58) Bromodichloromethane	6.756	83	53672	10.282	ug/L	#	91
61) 1,4-Dioxane	6.960	88	15445	436.860	ug/L		93
62) cis-1,3-Dichloropropene	7.442	75	62615	10.653	ug/L		94
65) Toluene	7.707	92	98265	10.446	ug/L		95
66) 4-Methyl-2-pentanone	8.137	58	13029	8.121	ug/L	#	87
67) Tetrachloroethene	8.156	166	44052	11.024	ug/L		96
69) trans-1,3-Dichloropropene	8.190	75	52986	10.005	ug/L		99
72) 1,1,2-Trichloroethane	8.379	83	26046	9.862	ug/L		99
73) Chlorodibromomethane	8.585	129	36892	9.990	ug/L		95
74) 1,3-Dichloropropane	8.697	76	55871	10.020	ug/L		97
75) 1,2-Dibromoethane	8.862	107	29704	9.517	ug/L		86
77) 2-Hexanone	9.146	43	23304	7.455	ug/L	#	90
78) Chlorobenzene	9.511	112	106363	10.612	ug/L	#	83
79) Ethylbenzene	9.550	91	194376	10.662	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.598	131	39292	10.693	ug/L		97
81) p/m Xylene	9.740	106	150669	21.680	ug/L		100
82) o Xylene	10.281	106	145569	21.420	ug/L		95
83) Styrene	10.348	104	245273	22.013	ug/L		96
85) Bromoform	10.376	173	25161	9.385	ug/L		93
87) Isopropylbenzene	10.666	105	196479	9.958	ug/L		98
89) Bromobenzene	11.101	156	49742	9.986	ug/L		99
90) n-Propylbenzene	11.148	91	235278	9.980	ug/L		96
92) 1,1,2,2-Tetrachloroethane	11.237	83	38730	9.251	ug/L		95
93) 4-Ethyltoluene	11.274	105	191022	9.988	ug/L		98
94) 2-Chlorotoluene	11.316	91	139131M1	10.031	ug/L		
95) 1,3,5-Trimethylbenzene	11.374	105	170031	10.135	ug/L		99
96) 1,2,3-Trichloropropane	11.374	75	31139M1	9.117	ug/L		
97) trans-1,4-Dichloro-2-b...	11.424	53	14747	8.787	ug/L		95
98) 4-Chlorotoluene	11.497	91	144160	9.922	ug/L		99
99) tert-Butylbenzene	11.714	119	139598	9.899	ug/L		96

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A02.D
Acq On : 15 Aug 2024 7:03 am
Operator : ELAINE:PID
Sample : WG1959746-4,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:27:00 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240815A\VE240815A01.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.790	105	166240	9.927	ug/L	94
103)	sec-Butylbenzene	11.907	105	204304	9.769	ug/L	98
104)	p-Isopropyltoluene	12.060	119	177738	10.086	ug/L	96
105)	1,3-Dichlorobenzene	12.124	146	94607	10.284	ug/L	95
106)	1,4-Dichlorobenzene	12.216	146	93934	10.215	ug/L	97
107)	p-Diethylbenzene	12.434	119	101545	9.772	ug/L	96
108)	n-Butylbenzene	12.492	91	153447	10.111	ug/L	98
109)	1,2-Dichlorobenzene	12.643	146	88393	9.987	ug/L	99
110)	1,2,4,5-Tetramethylben...	13.229	119	158269	9.386	ug/L	95
111)	1,2-Dibromo-3-chloropr...	13.424	155	6400	8.178	ug/L	97
113)	Hexachlorobutadiene	14.029	225	22890	9.828	ug/L	92
114)	1,2,4-Trichlorobenzene	14.051	180	59100	9.316	ug/L	98
115)	Naphthalene	14.344	128	114881	8.215	ug/L	100
116)	1,2,3-Trichlorobenzene	14.514	180	52159	8.948	ug/L	95

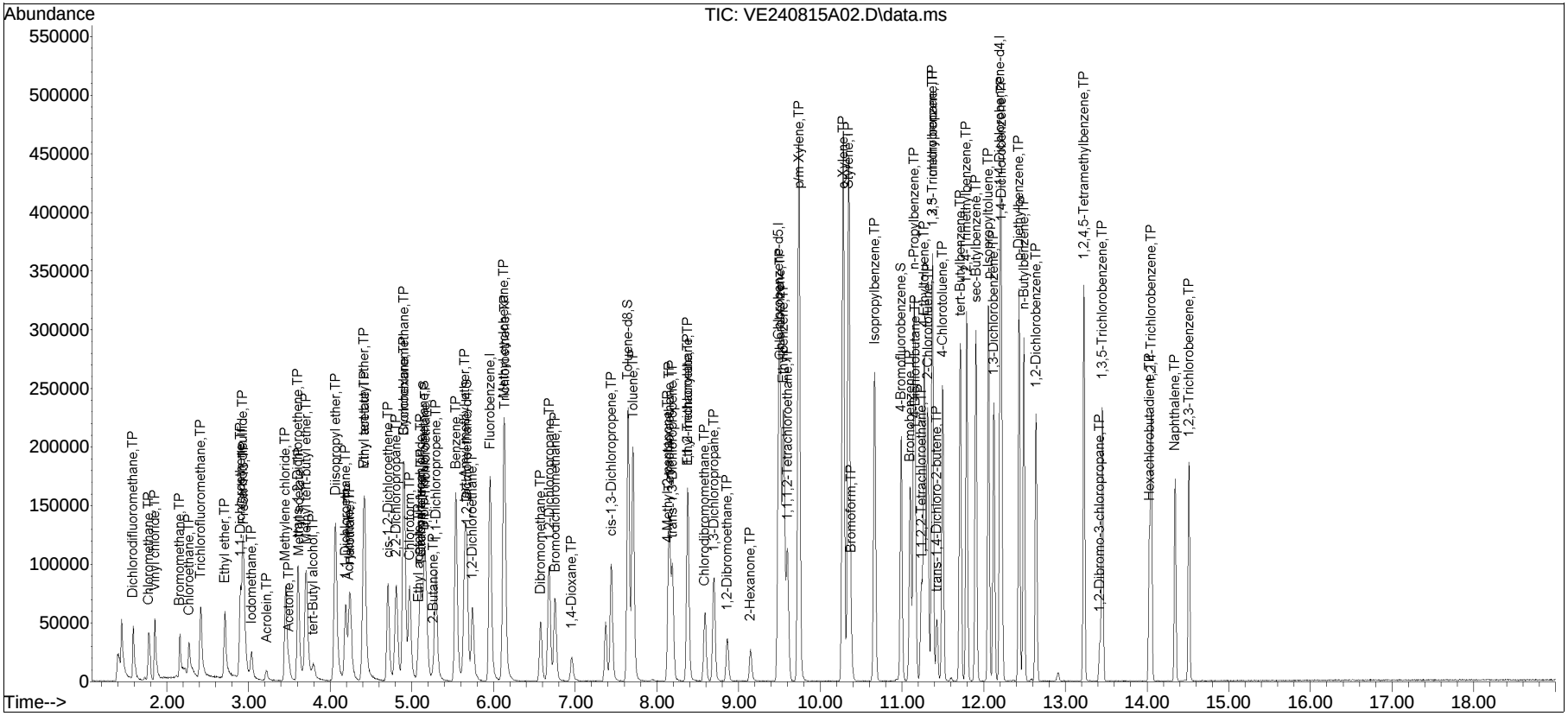
(#) = qualifier out of range (m) = manual integration (+) = signals summed

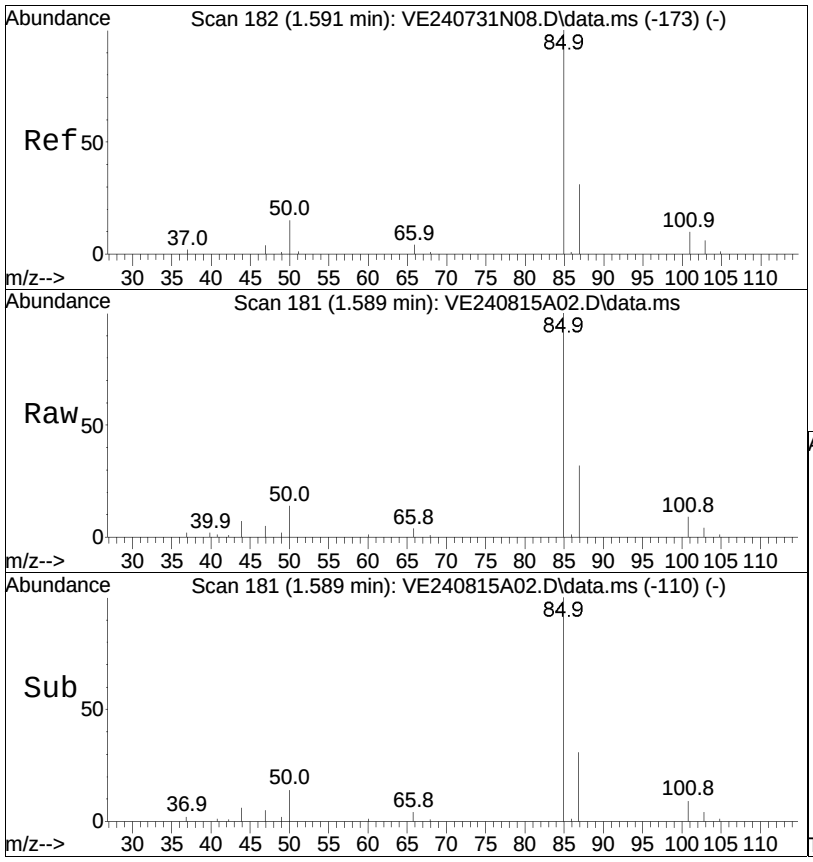
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A02.D
Acq On : 15 Aug 2024 7:03 am
Operator : ELAINE:PID
Sample : WG1959746-4,31,10,10
Misc : WG1959746,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 15 07:27:00 2024
Quant Method : K:\Elaine\2024\240815A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE1.D•

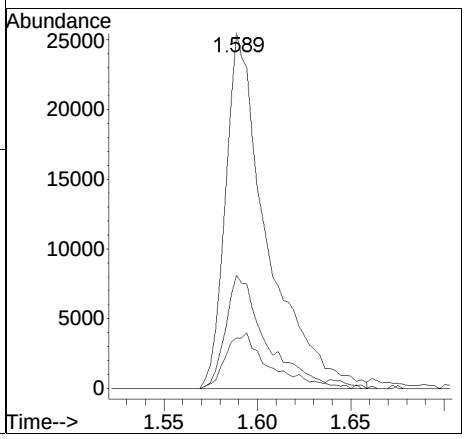


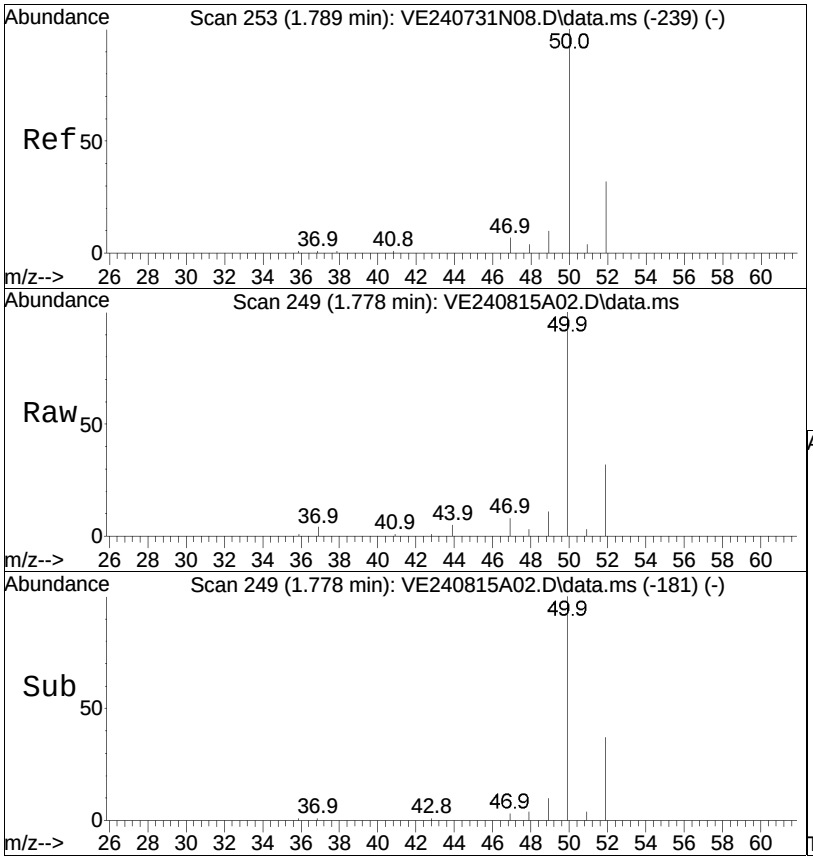


#2
Dichlorodifluoromethane
Concen: 9.56 ug/L
RT: 1.589 min Scan# 181
Delta R.T. -0.002 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 85 Resp: 39476

Ion	Ratio	Lower	Upper
85	100		
87	30.5	21.7	45.1
50	16.3	11.8	24.4

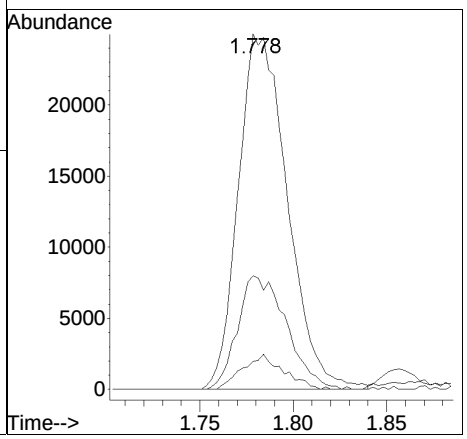


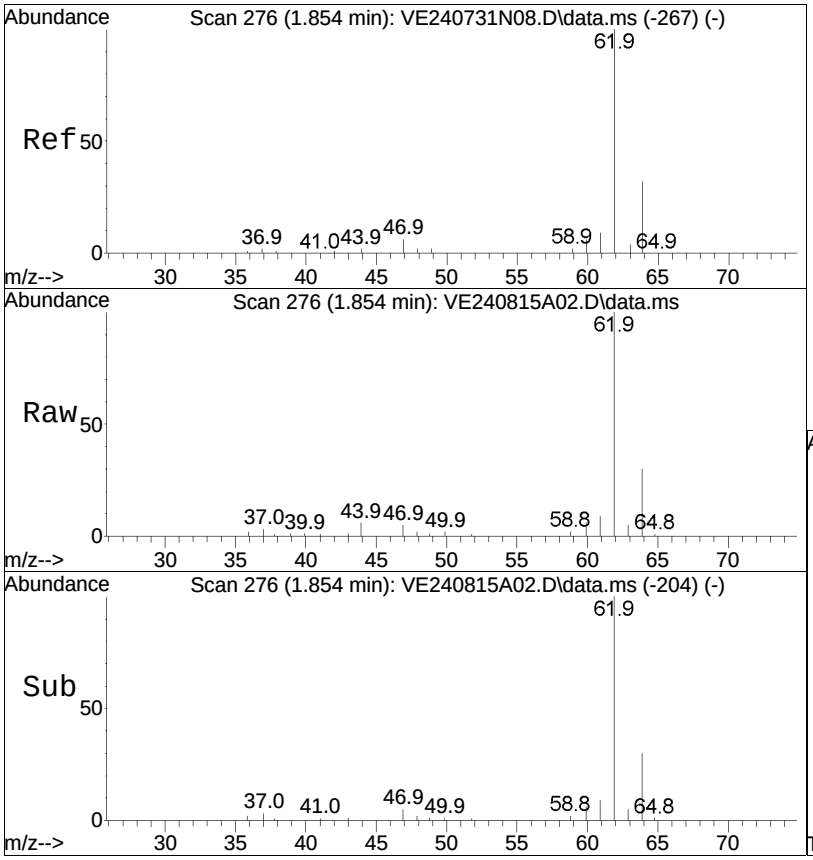


#3
Chloromethane
Concen: 9.92 ug/L
RT: 1.778 min Scan# 249
Delta R.T. -0.011 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 50 Resp: 45611

Ion	Ratio	Lower	Upper
50	100		
52	31.8	14.9	54.9
47	8.3	0.0	28.0

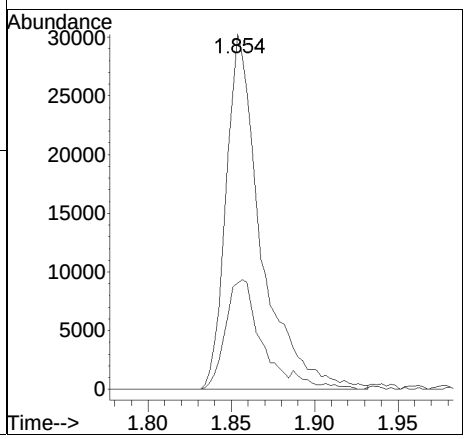


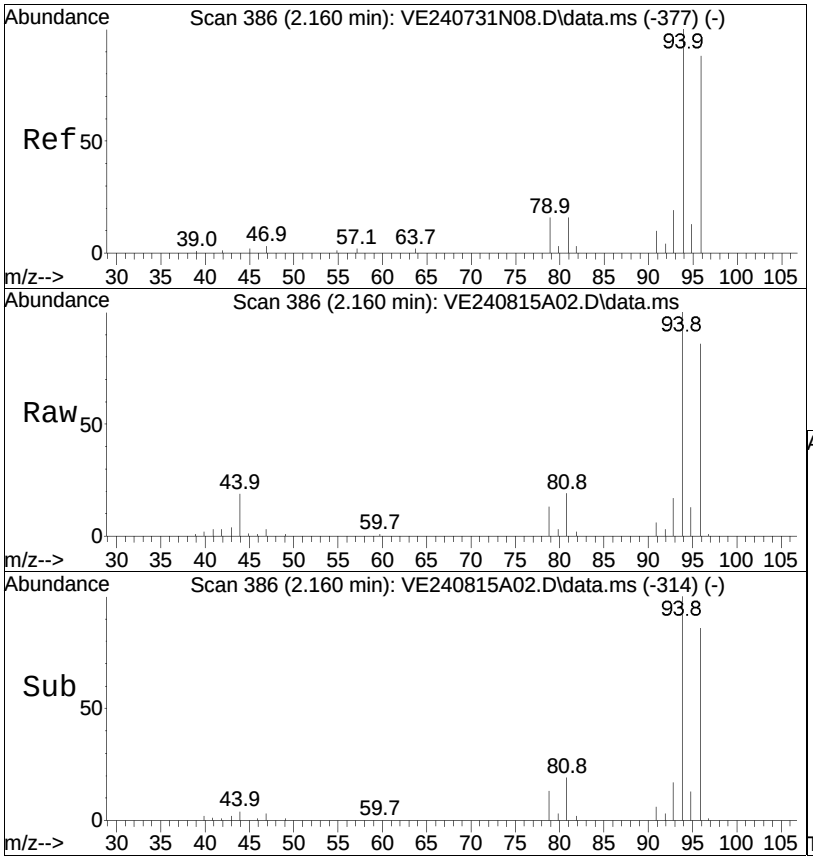


#4
Vinyl chloride
Concen: 10.35 ug/L
RT: 1.854 min Scan# 276
Delta R.T. -0.000 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 62 Resp: 44372

Ion	Ratio	Lower	Upper
62	100		
64	30.1	8.1	48.1

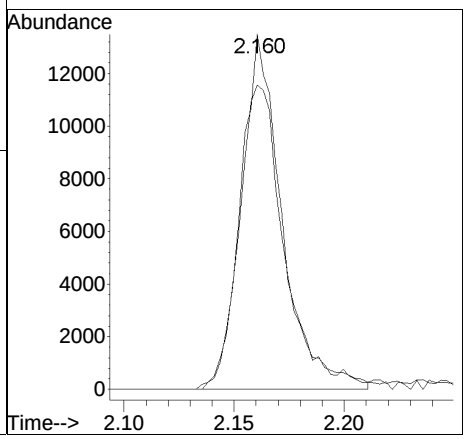


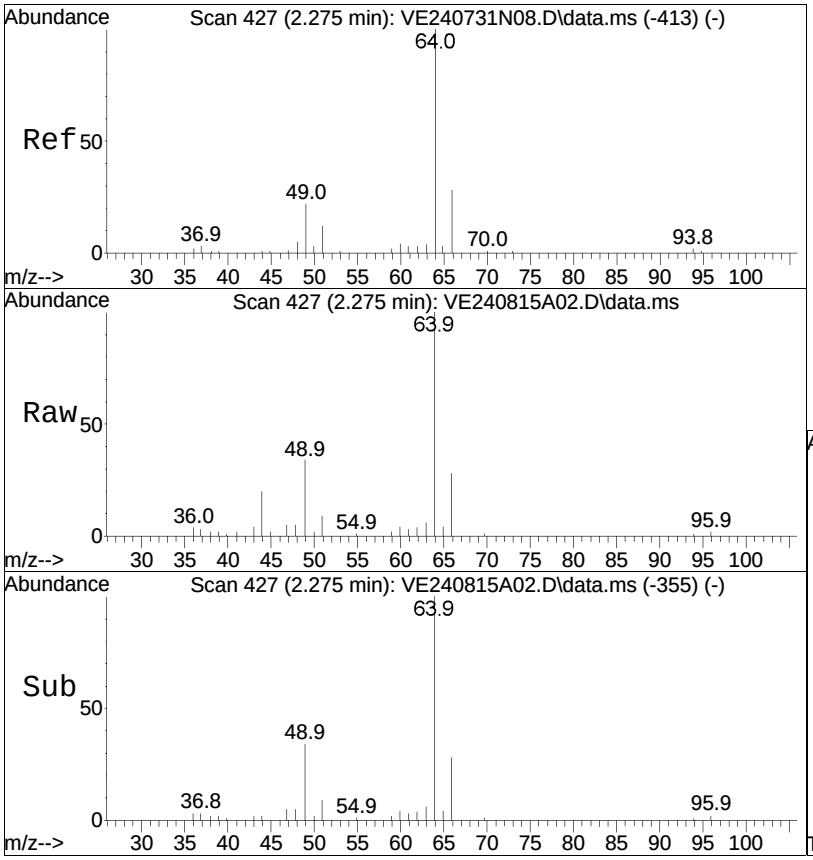


#5
Bromomethane
Concen: 13.58 ug/L
RT: 2.160 min Scan# 386
Delta R.T. 0.000 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 94 Resp: 17608

Ion	Ratio	Lower	Upper
94	100		
96	92.1	68.2	108.2

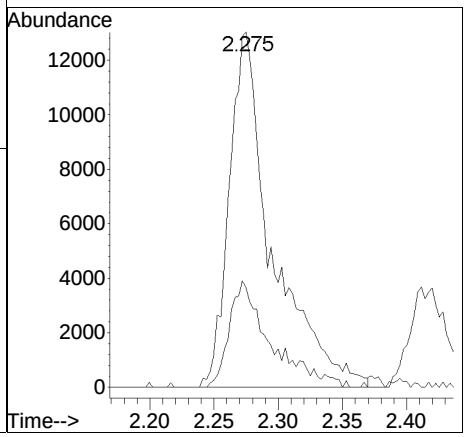


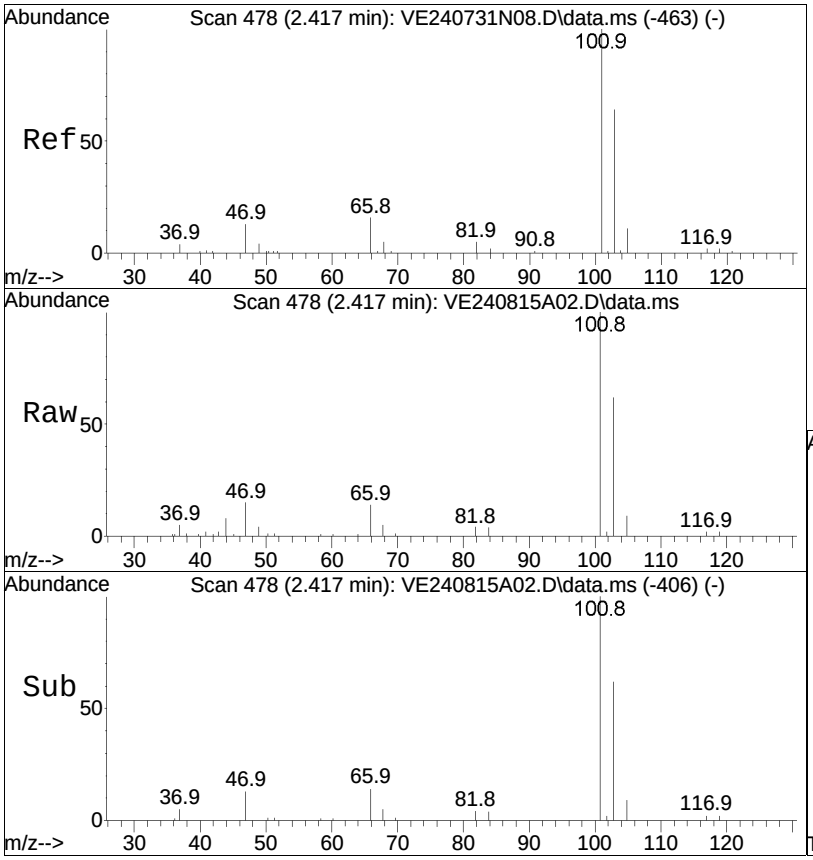


#6
Chloroethane
Concen: 11.69 ug/L
RT: 2.275 min Scan# 427
Delta R.T. -0.000 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 64 Resp: 30247

Ion	Ratio	Lower	Upper
64	100		
66	25.3	10.7	50.7

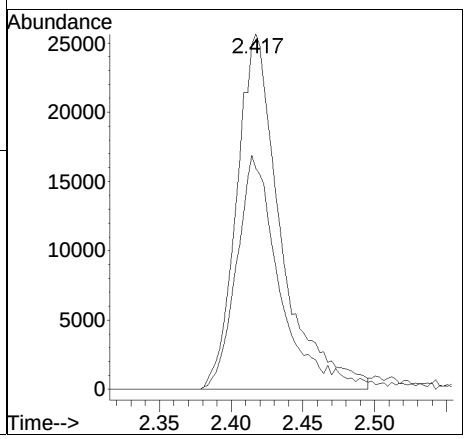


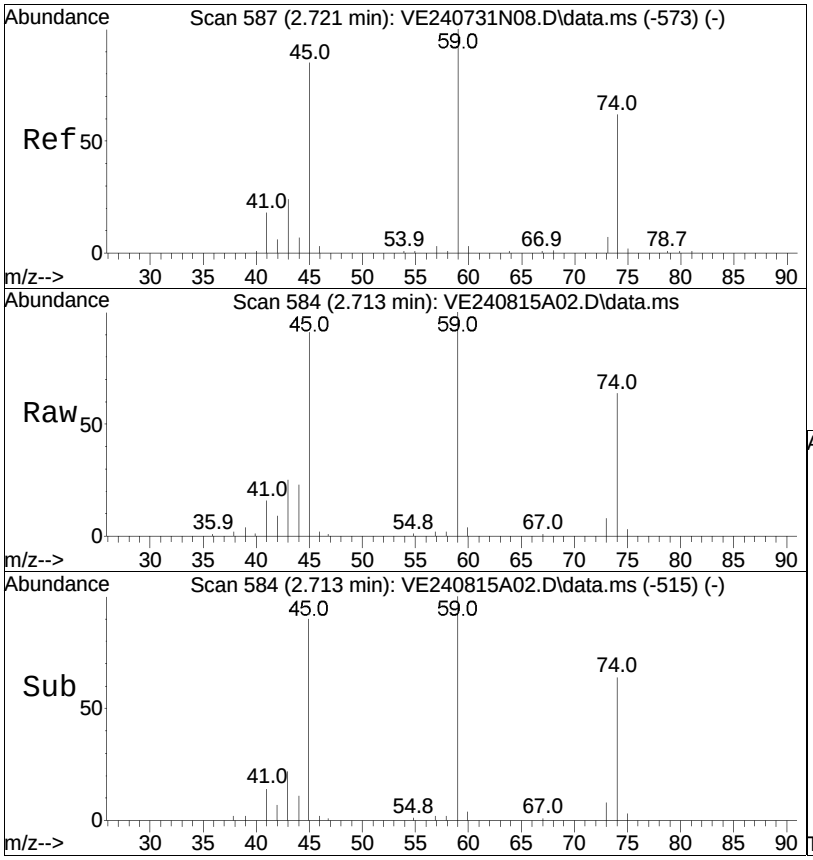


#7
Trichlorofluoromethane
Concen: 11.15 ug/L
RT: 2.417 min Scan# 478
Delta R.T. 0.000 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:101 Resp: 54933

Ion	Ratio	Lower	Upper
101	100		
103	61.2	48.2	72.2

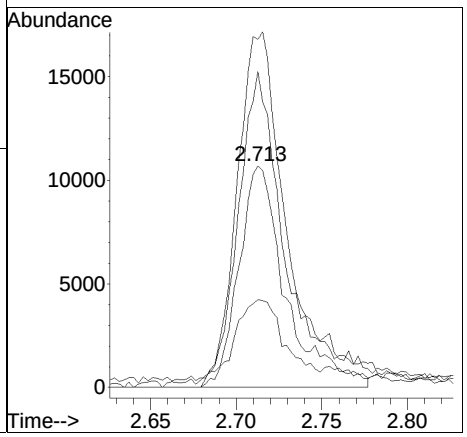


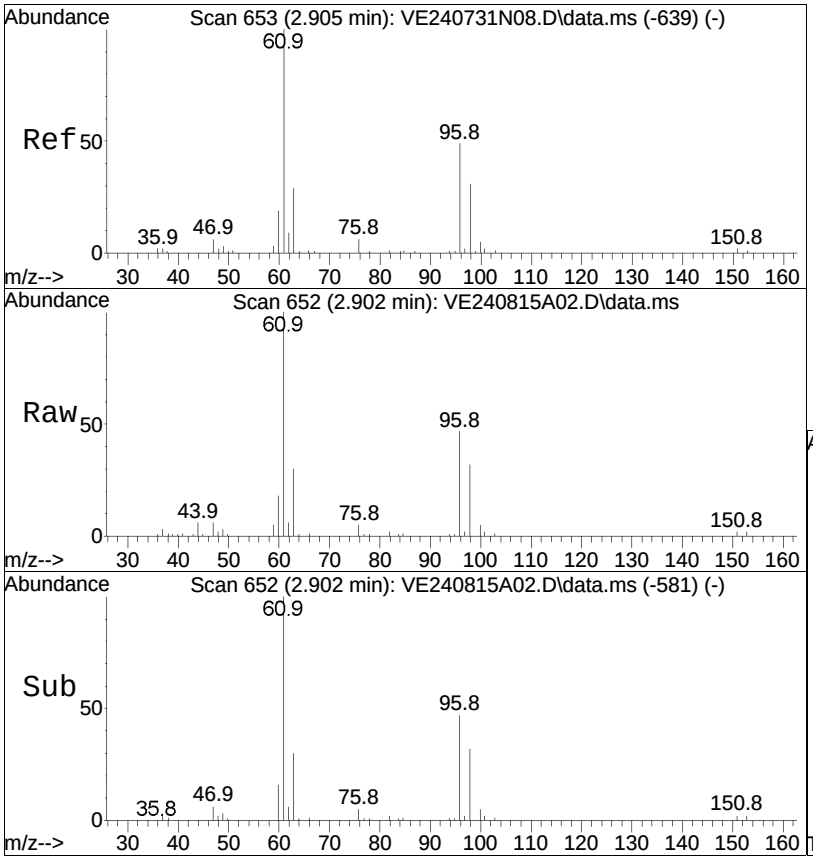


#8
Ethyl ether
Concen: 10.53 ug/L
RT: 2.713 min Scan# 584
Delta R.T. -0.008 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 74 Resp: 20418

Ion	Ratio	Lower	Upper
74	100		
59	166.9	91.7	190.5
45	140.6	77.4	160.8
43	38.0	24.6	51.2

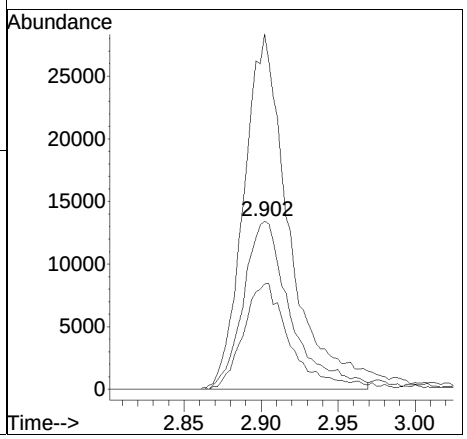


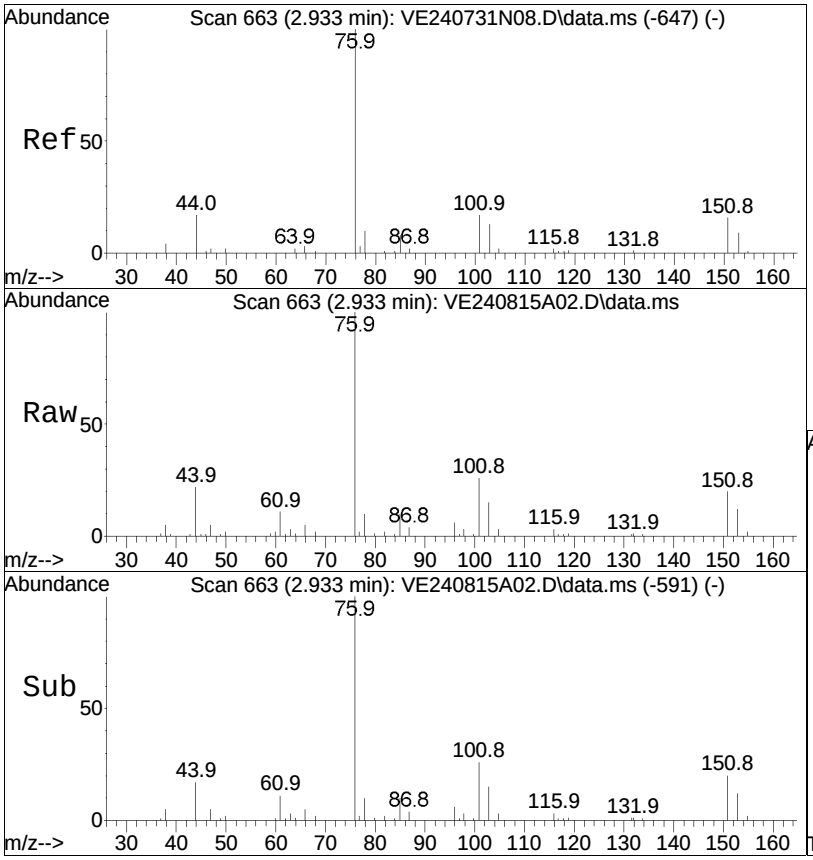


#10
1,1-Dichloroethene
Concen: 9.77 ug/L
RT: 2.902 min Scan# 652
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 96 Resp: 28832

Ion	Ratio	Lower	Upper
96	100		
61	204.9	135.4	203.0#
63	61.2	42.6	63.8

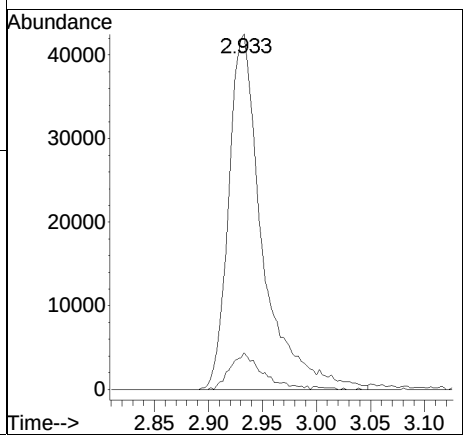


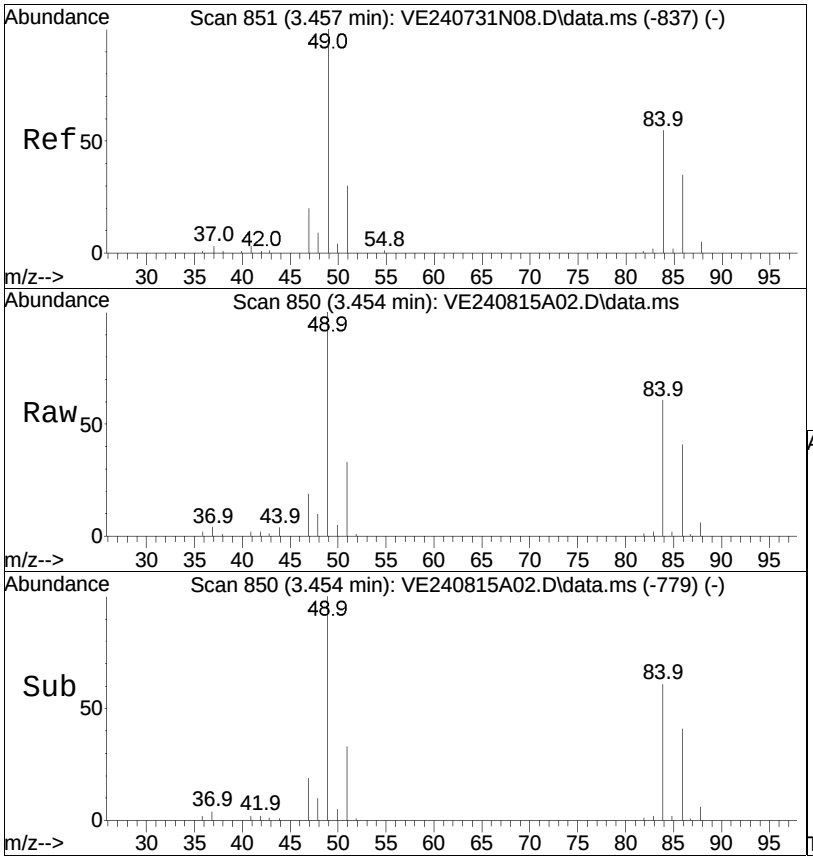


#11
Carbon disulfide
Concen: 10.16 ug/L
RT: 2.933 min Scan# 663
Delta R.T. -0.000 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 76 Resp: 92446

Ion	Ratio	Lower	Upper
76	100		
78	9.9	5.5	11.3

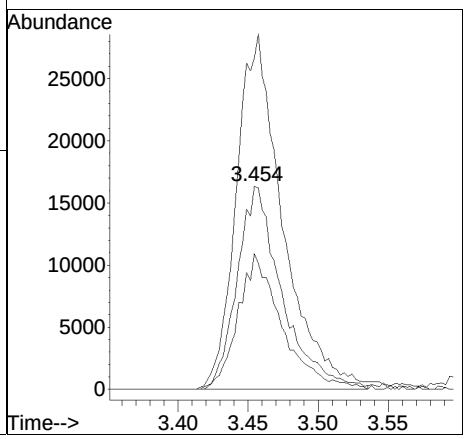


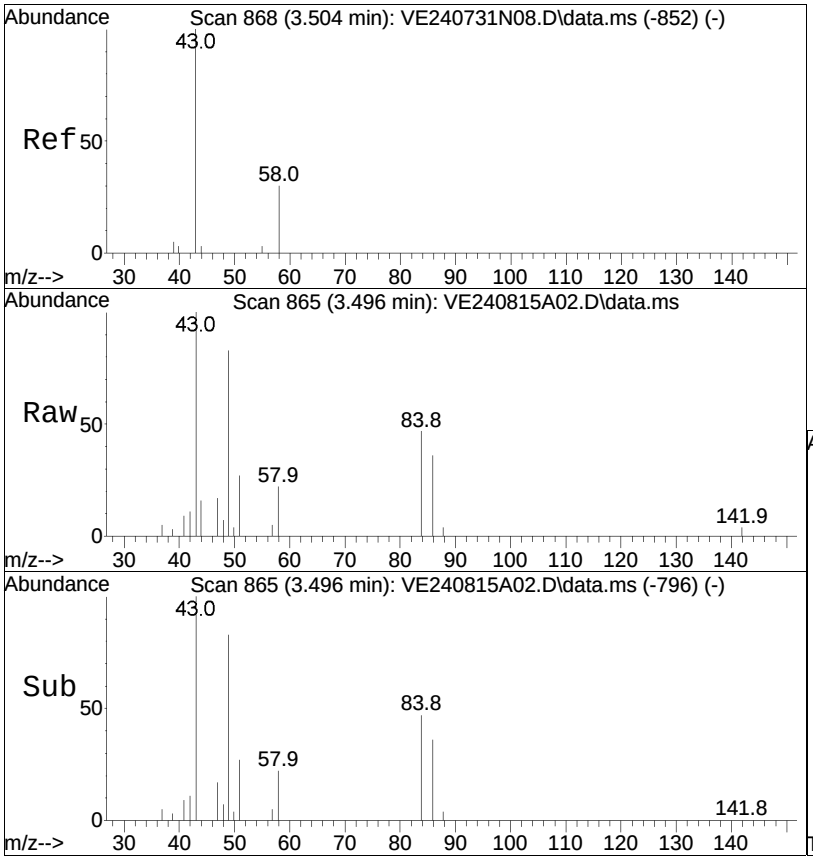


#15
Methylene chloride
Concen: 9.80 ug/L
RT: 3.454 min Scan# 850
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 84 Resp: 36484

Ion	Ratio	Lower	Upper
84	100		
86	65.4	40.2	83.6
49	182.0	103.2	214.4

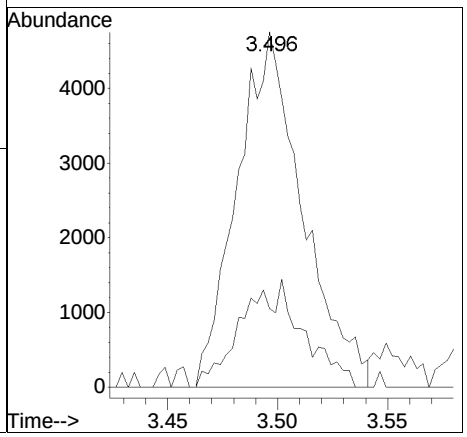


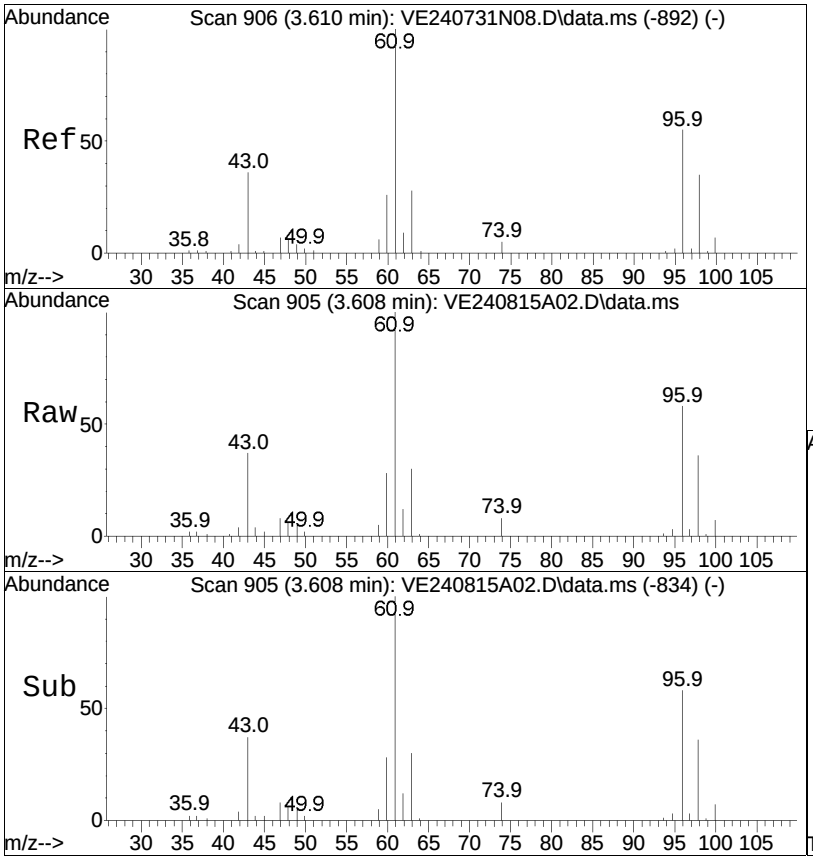


#17
Acetone
Concen: 7.30 ug/L
RT: 3.496 min Scan# 865
Delta R.T. -0.008 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 43 Resp: 9871

Ion	Ratio	Lower	Upper
43	100		
58	16.2	23.4	35.0#

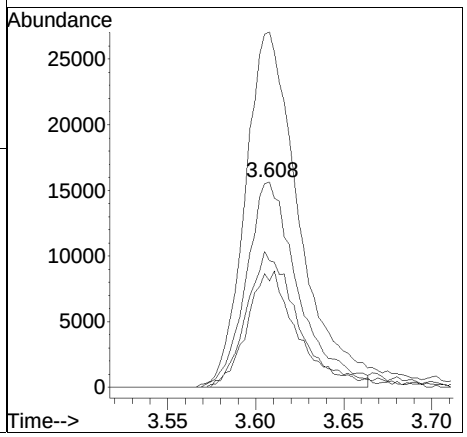


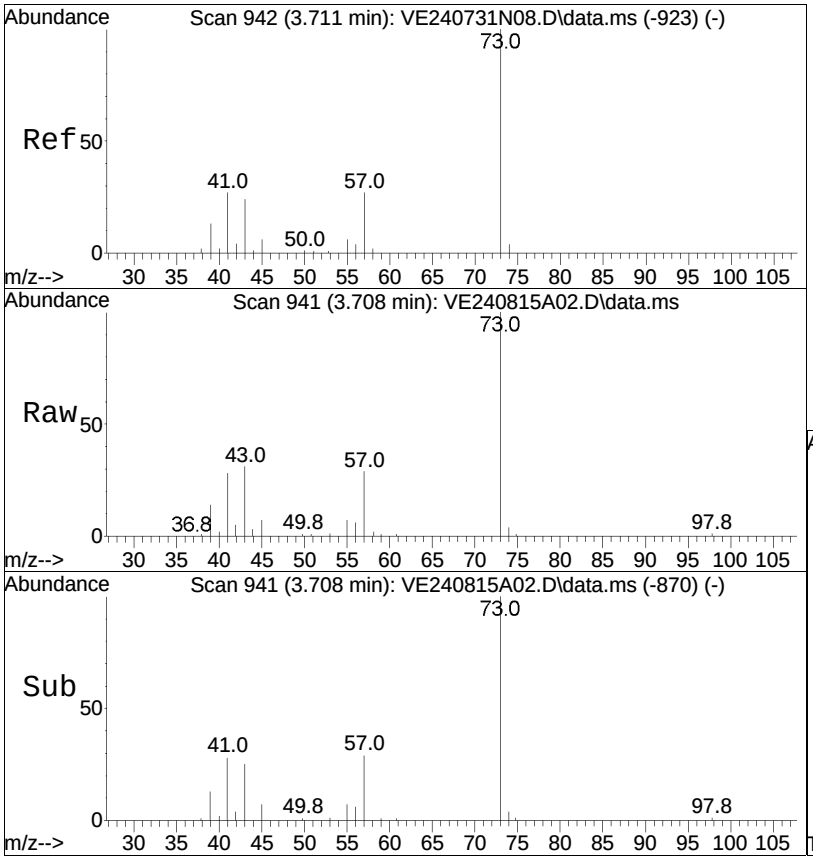


#18
trans-1,2-Dichloroethene
Concen: 10.18 ug/L
RT: 3.608 min Scan# 905
Delta R.T. -0.002 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 96 Resp: 32287

Ion	Ratio	Lower	Upper
96	100		
61	183.4	93.5	194.1
98	65.7	37.8	78.6
63	55.4	29.7	61.7

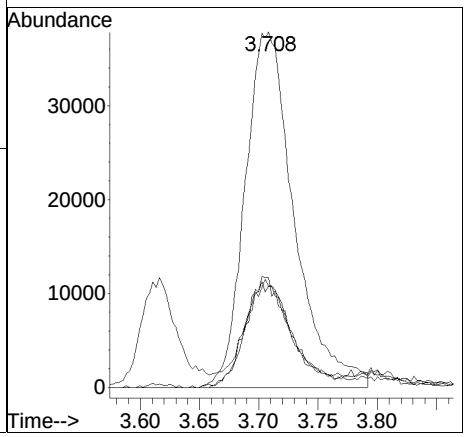


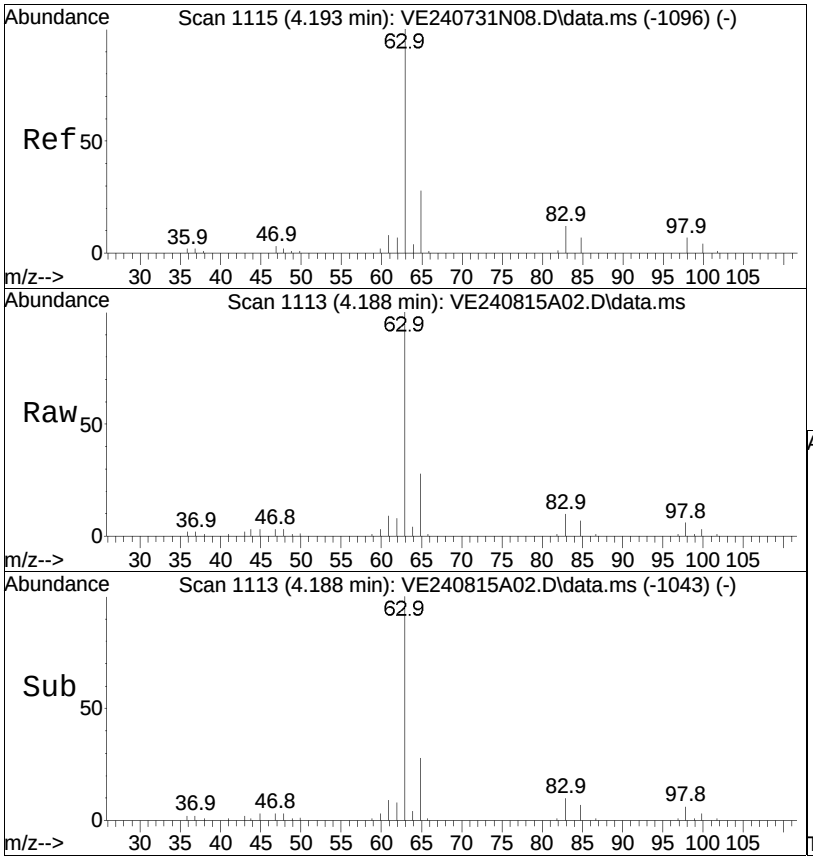


#21
Methyl tert-butyl ether
Concen: 9.23 ug/L
RT: 3.708 min Scan# 941
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 73 Resp: 109204

Ion	Ratio	Lower	Upper
73	100		
57	28.2	16.1	33.3
43	24.4	17.0	35.2
41	13.0	18.7	38.9#

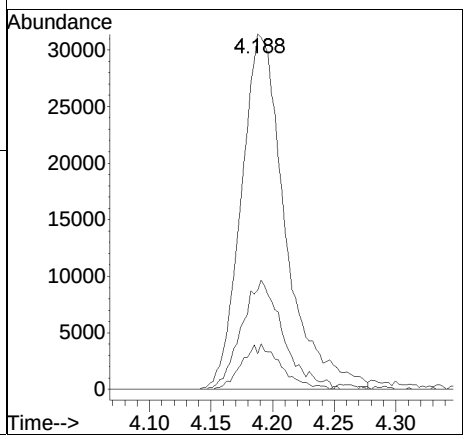


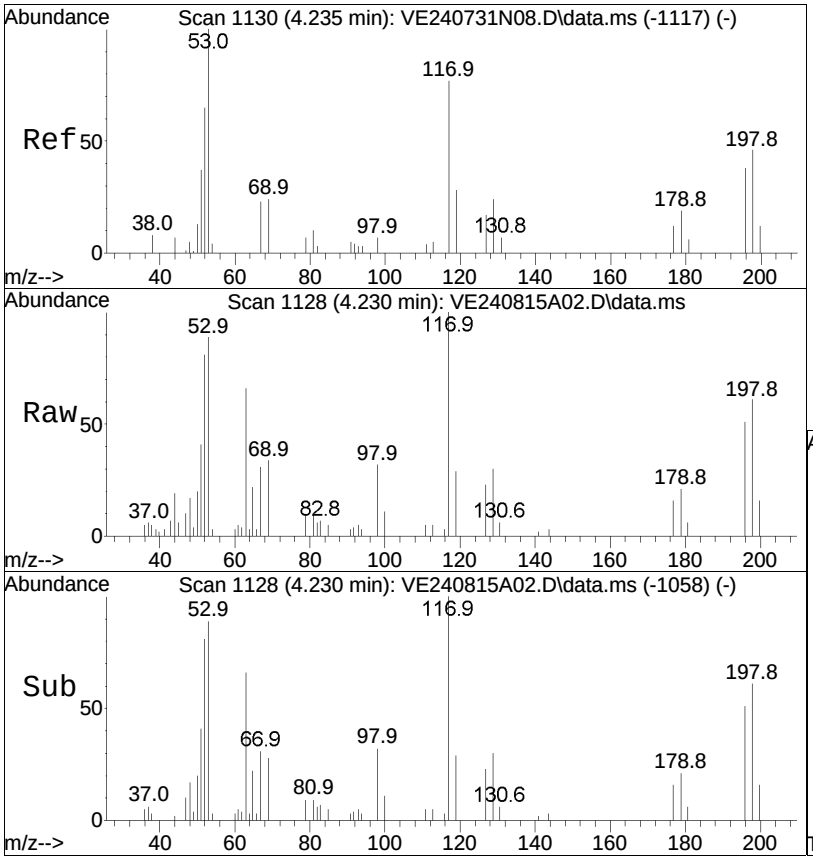


#25
1,1-Dichloroethane
Concen: 10.52 ug/L
RT: 4.188 min Scan# 1113
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 63 Resp: 78336

Ion	Ratio	Lower	Upper
63	100		
65	28.7	10.3	50.3
83	5.0	0.0	33.1

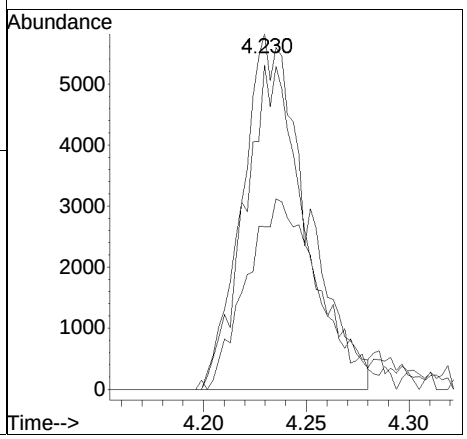


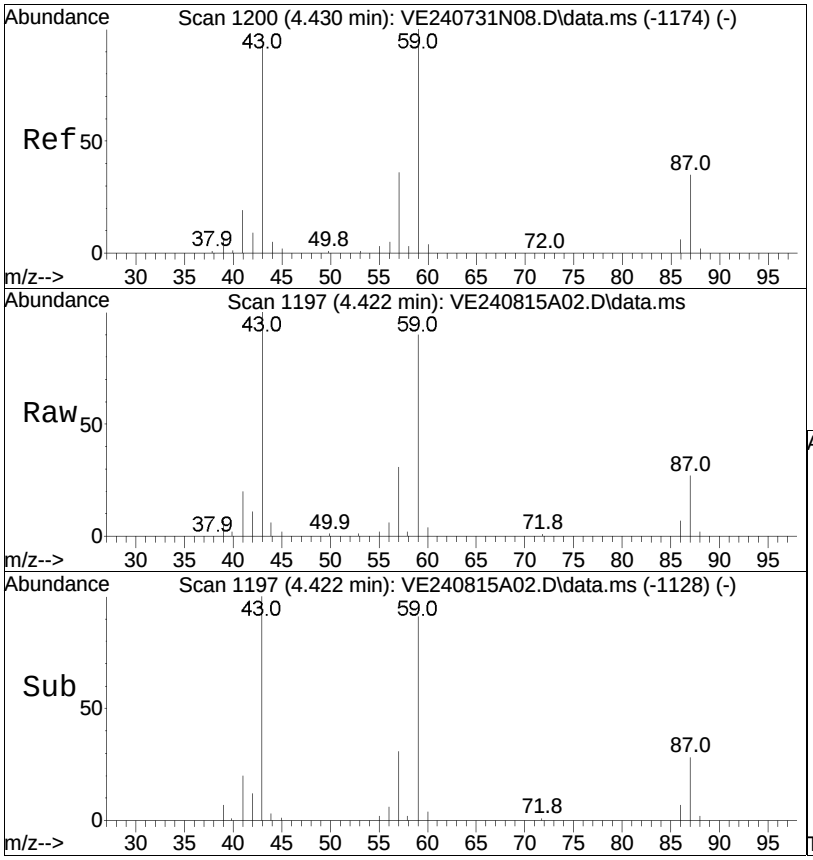


#27
Acrylonitrile
Concen: 8.22 ug/L
RT: 4.230 min Scan# 1128
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 53 Resp: 12764

Ion	Ratio	Lower	Upper
53	100		
52	86.2	58.9	88.3
51	60.0	40.2	60.2

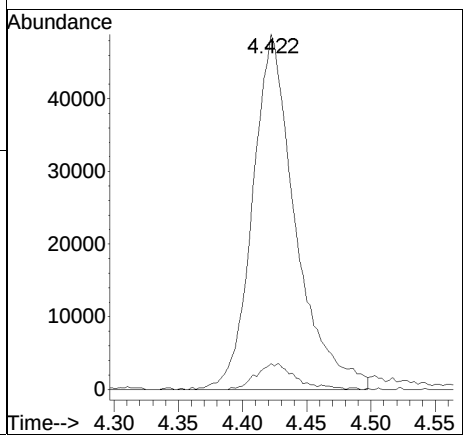


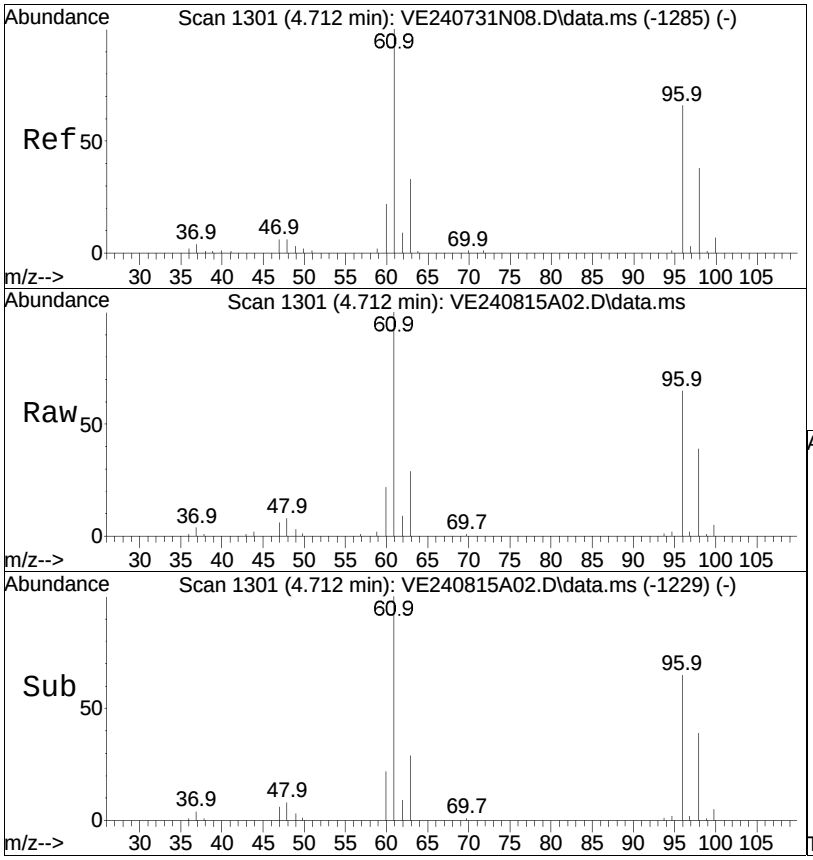


#29
Vinyl acetate
Concen: 10.08 ug/L
RT: 4.422 min Scan# 1197
Delta R.T. -0.008 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 43 Resp: 113618

Ion	Ratio	Lower	Upper
43	100		
86	6.3	6.2	9.4

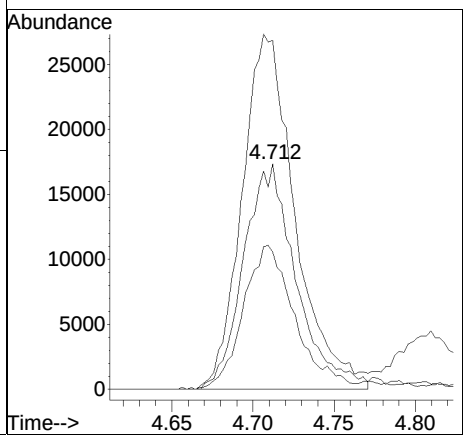


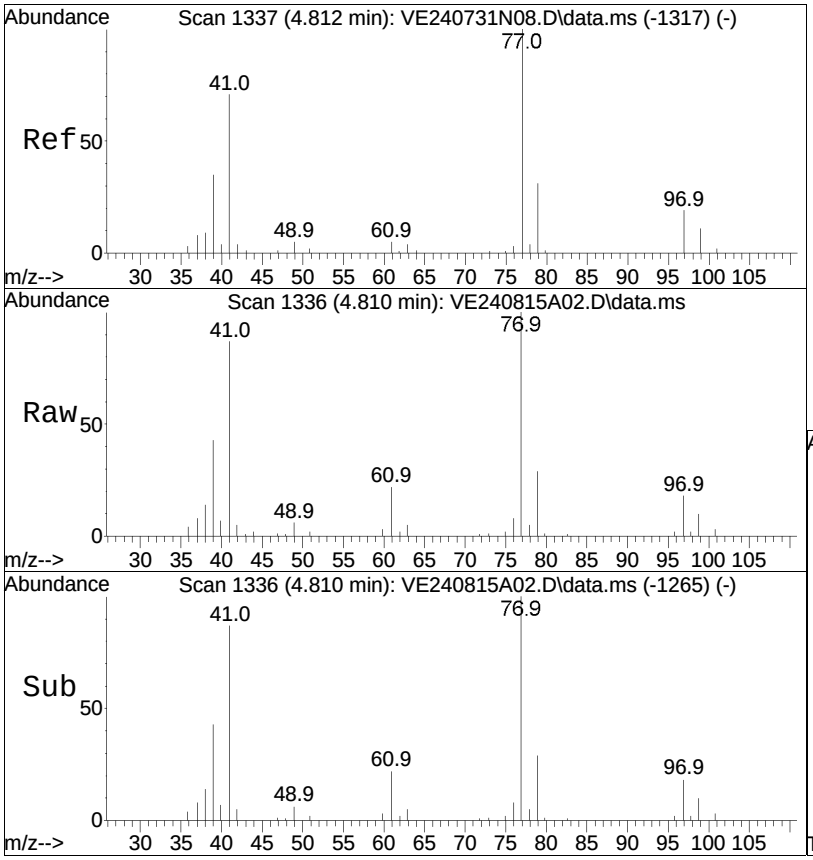


#30
cis-1,2-Dichloroethene
Concen: 10.29 ug/L
RT: 4.712 min Scan# 1301
Delta R.T. 0.000 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 96 Resp: 39122

Ion	Ratio	Lower	Upper
96	100		
61	158.2	120.3	180.5
98	62.6	50.2	75.4

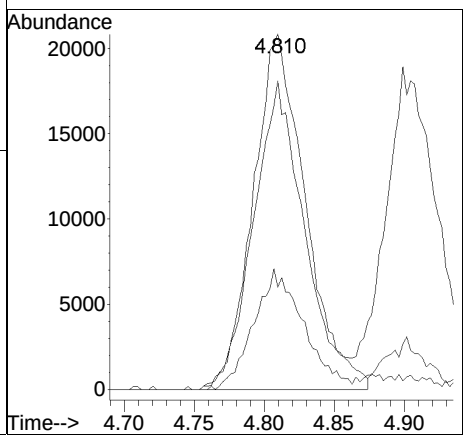


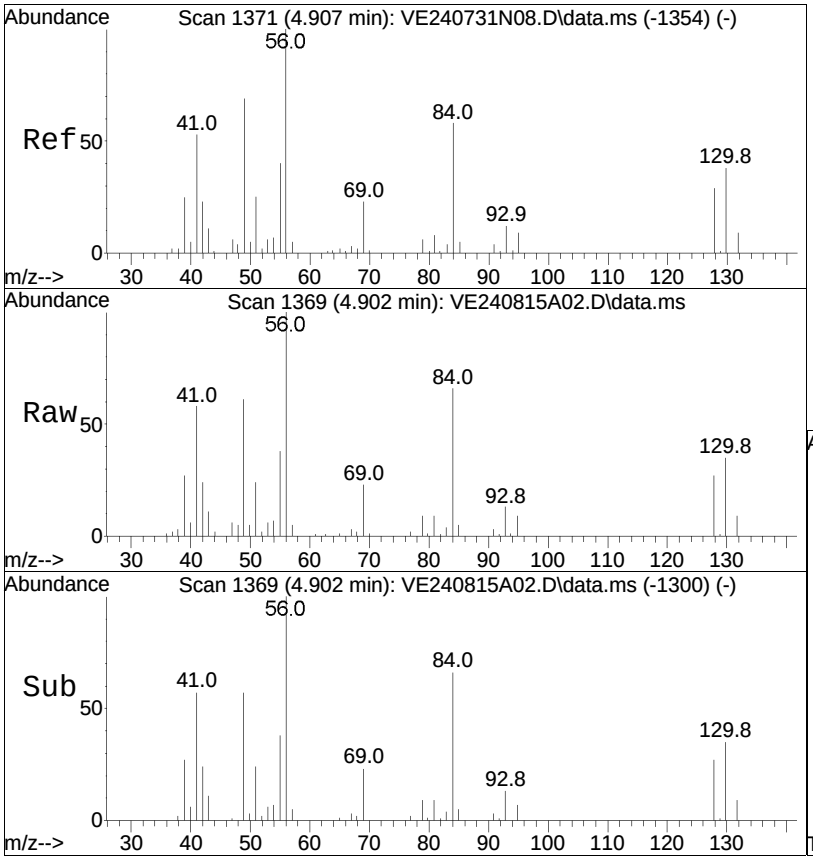


#31
2,2-Dichloropropane
Concen: 10.84 ug/L
RT: 4.810 min Scan# 1336
Delta R.T. -0.002 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 77 Resp: 53985

Ion	Ratio	Lower	Upper
77	100		
41	84.6	46.5	96.5
79	32.3	21.6	45.0

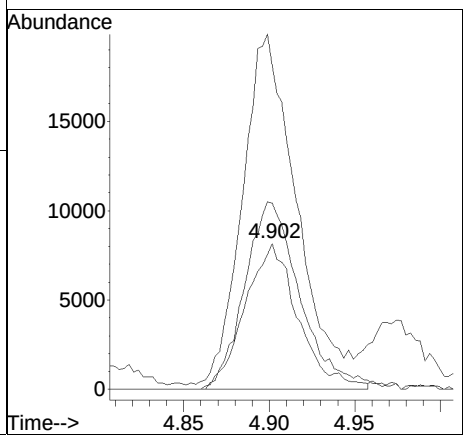


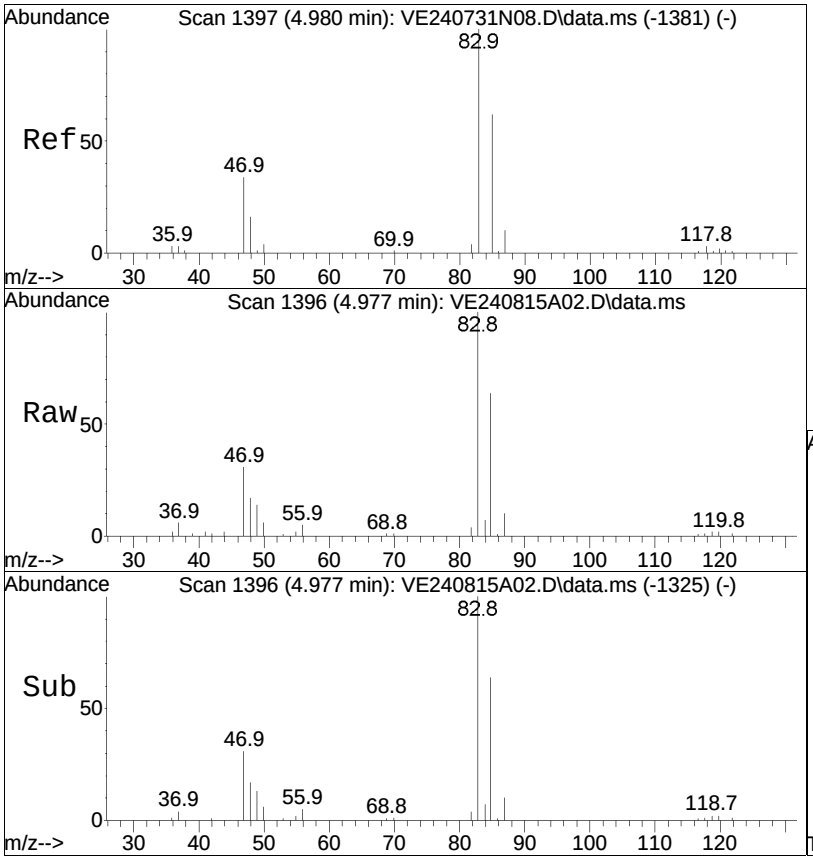


#33
Bromochloromethane
Concen: 10.58 ug/L
RT: 4.902 min Scan# 1369
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:128 Resp: 17643

Ion	Ratio	Lower	Upper
128	100		
49	242.9	170.2	255.2
130	134.3	103.7	155.5

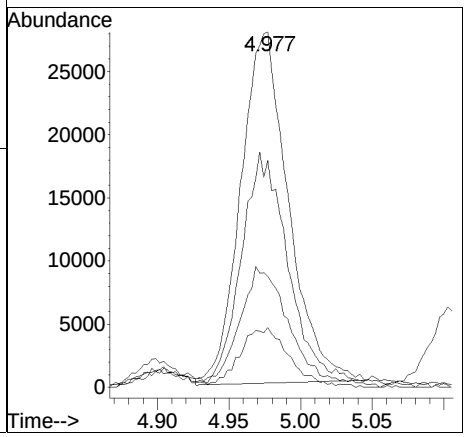


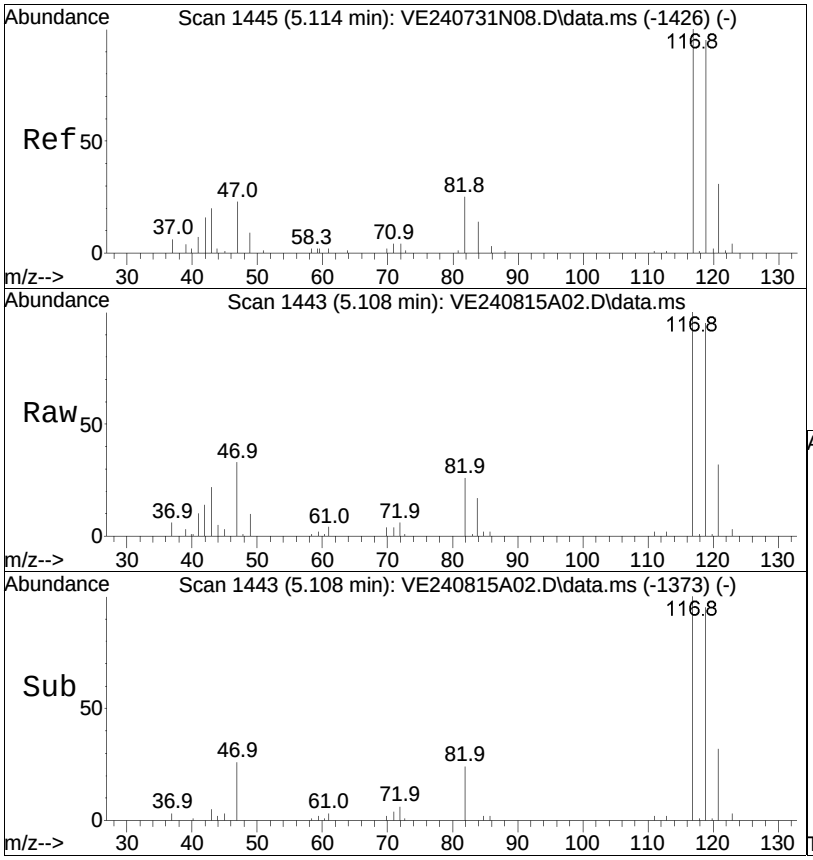


#35
Chloroform
Concen: 10.48 ug/L
RT: 4.977 min Scan# 1396
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 83 Resp: 64637

Ion	Ratio	Lower	Upper
83	100		
85	61.3	41.3	85.9
47	36.3	20.9	43.3
48	16.3	10.3	21.5

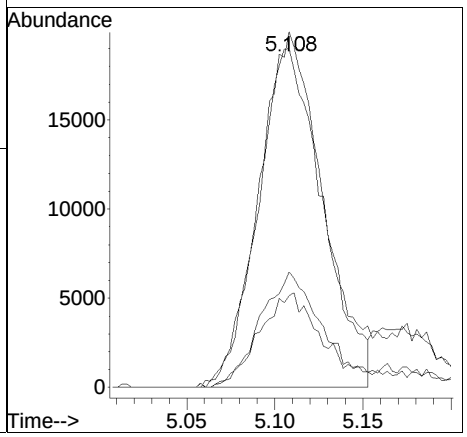


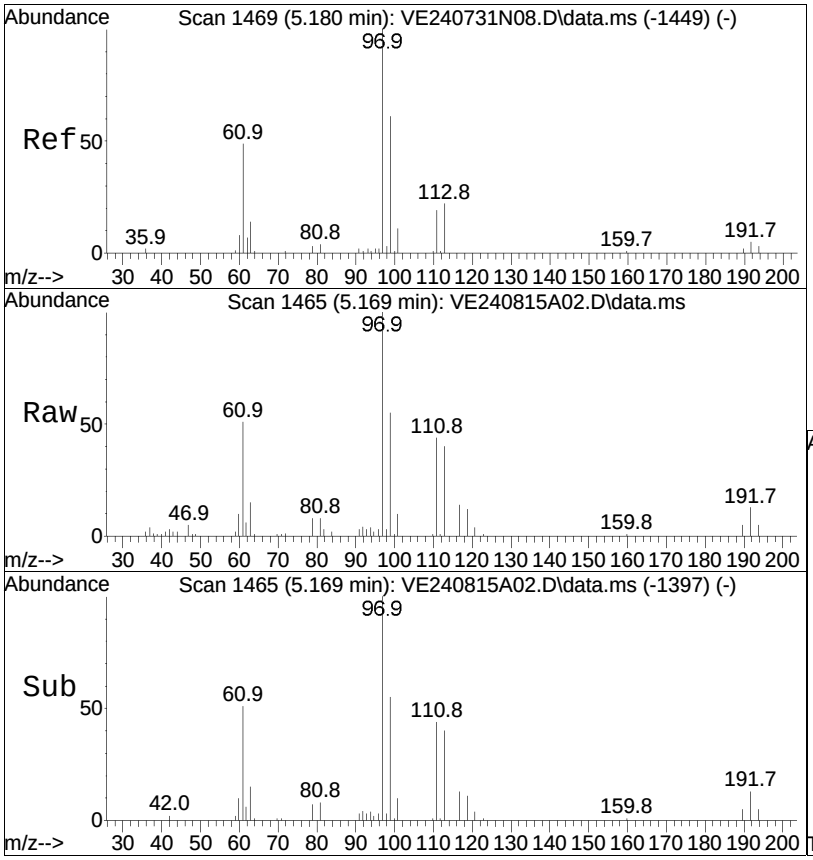


#37
Carbon tetrachloride
Concen: 10.62 ug/L
RT: 5.108 min Scan# 1443
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:117 Resp: 50055

Ion	Ratio	Lower	Upper
117	100		
119	101.7	60.6	126.0
121	32.1	18.0	37.4
82	26.8	19.8	41.0

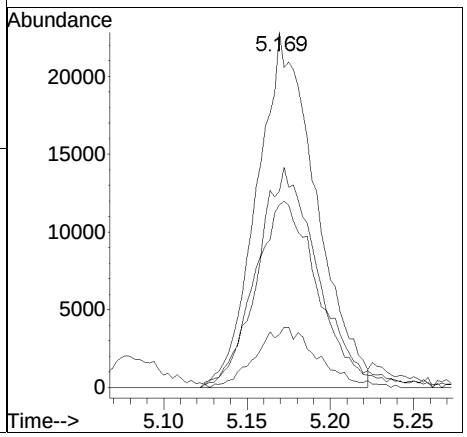


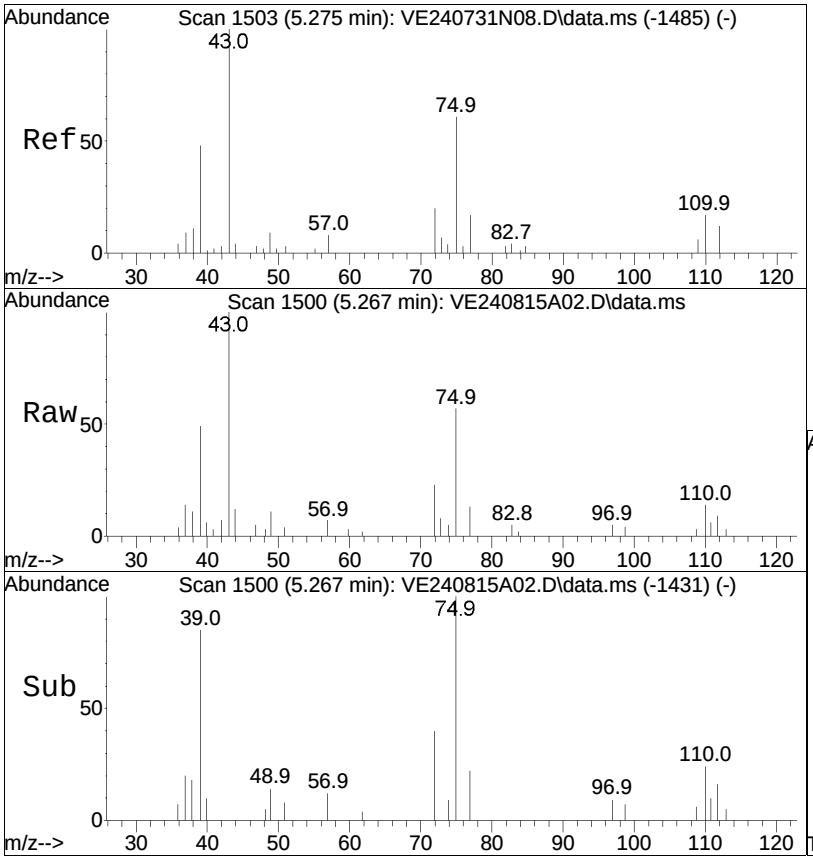


#40
1,1,1-Trichloroethane
Concen: 10.01 ug/L
RT: 5.169 min Scan# 1465
Delta R.T. -0.011 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 97 Resp: 56102

Ion	Ratio	Lower	Upper
97	100		
99	65.2	40.2	83.4
61	54.6	36.9	76.5
63	17.7	8.3	17.3#

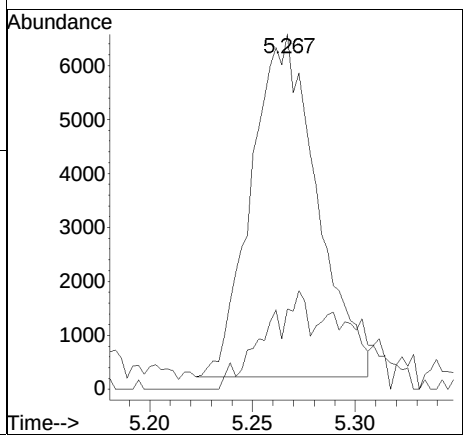


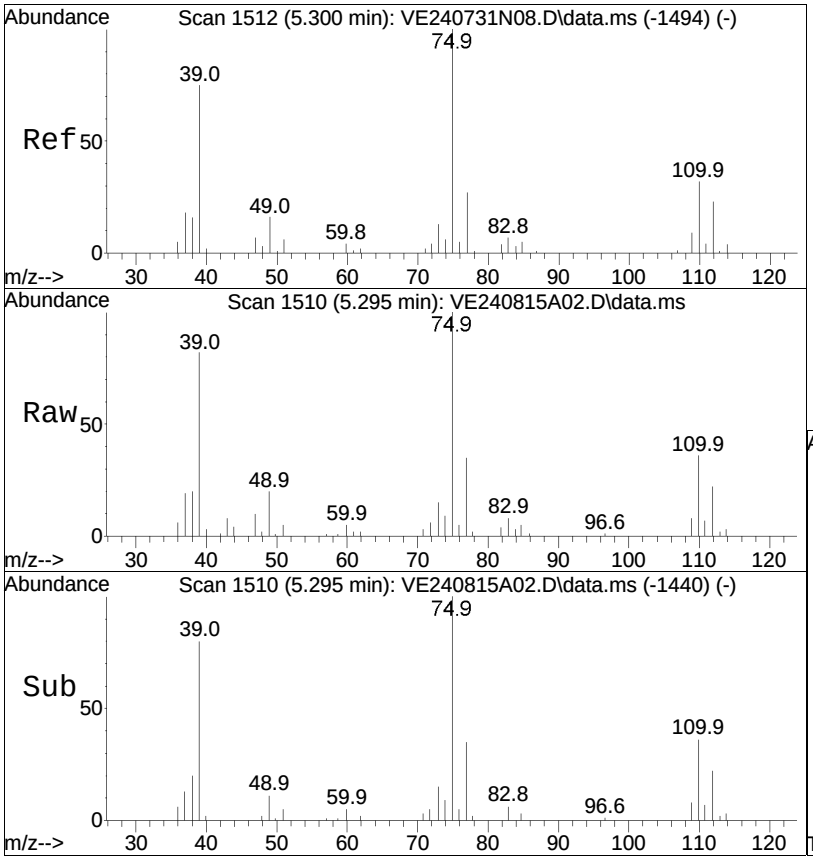


#42
2-Butanone
Concen: 7.26 ug/L
RT: 5.267 min Scan# 1500
Delta R.T. -0.008 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 43 Resp: 14031

Ion	Ratio	Lower	Upper
43	100		
72	9.9	15.7	23.5#

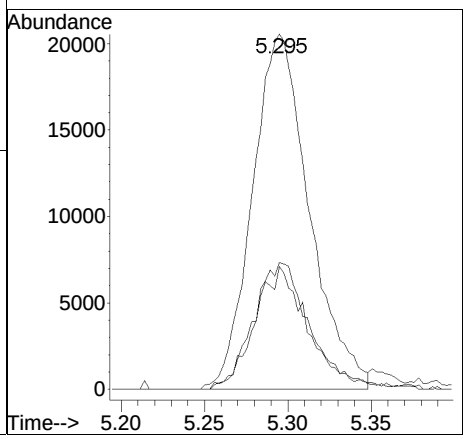


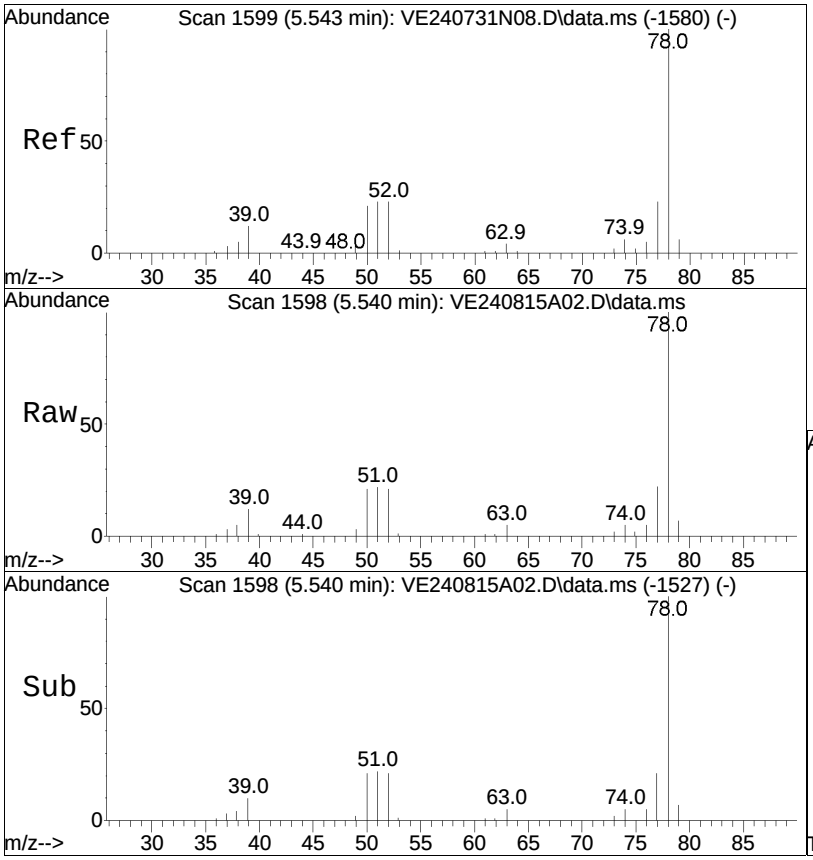


#43
1,1-Dichloropropene
Concen: 10.34 ug/L
RT: 5.295 min Scan# 1510
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 75 Resp: 48801

Ion	Ratio	Lower	Upper
75	100		
110	35.5	20.3	42.1
77	32.8	18.9	39.3

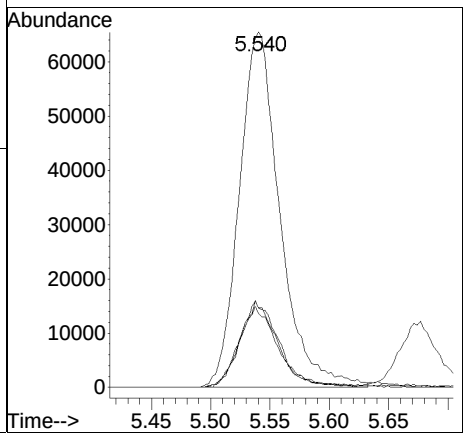


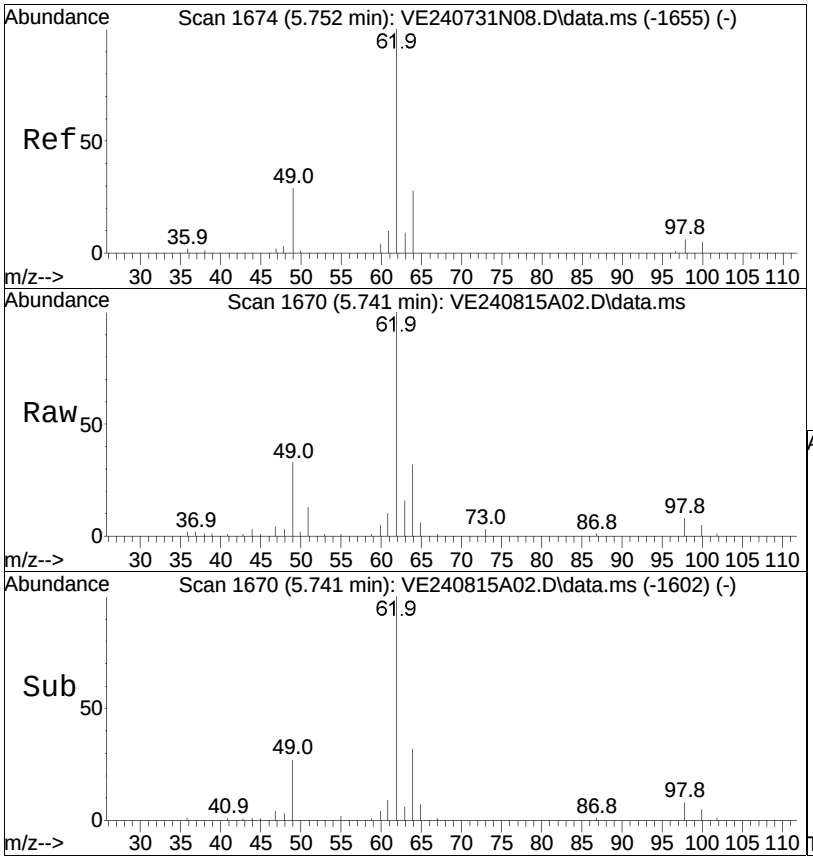


#45
Benzene
Concen: 10.71 ug/L
RT: 5.540 min Scan# 1598
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 78 Resp: 156319

Ion	Ratio	Lower	Upper
78	100		
77	23.2	12.8	26.6
51	23.0	13.5	27.9
52	21.4	12.0	25.0

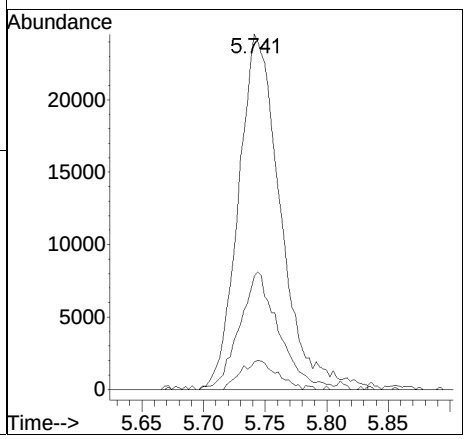


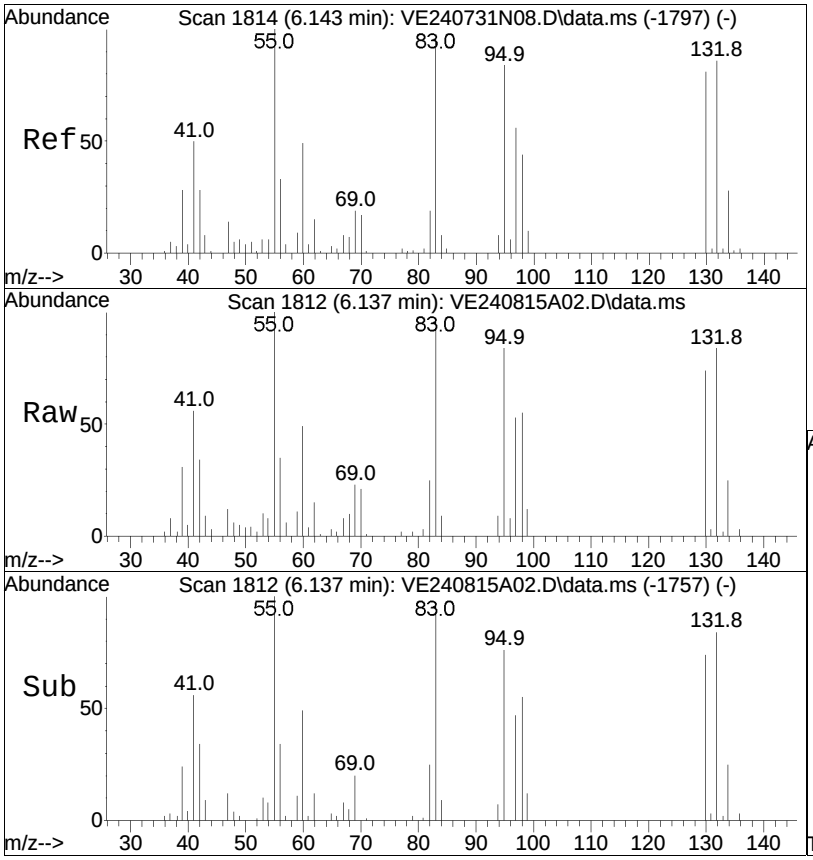


#48
1,2-Dichloroethane
Concen: 10.34 ug/L
RT: 5.741 min Scan# 1670
Delta R.T. -0.011 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 62 Resp: 58249

Ion	Ratio	Lower	Upper
62	100		
64	31.1	12.0	52.0
98	6.9	0.0	29.1

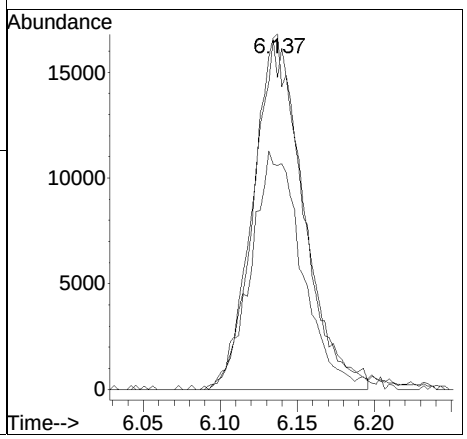


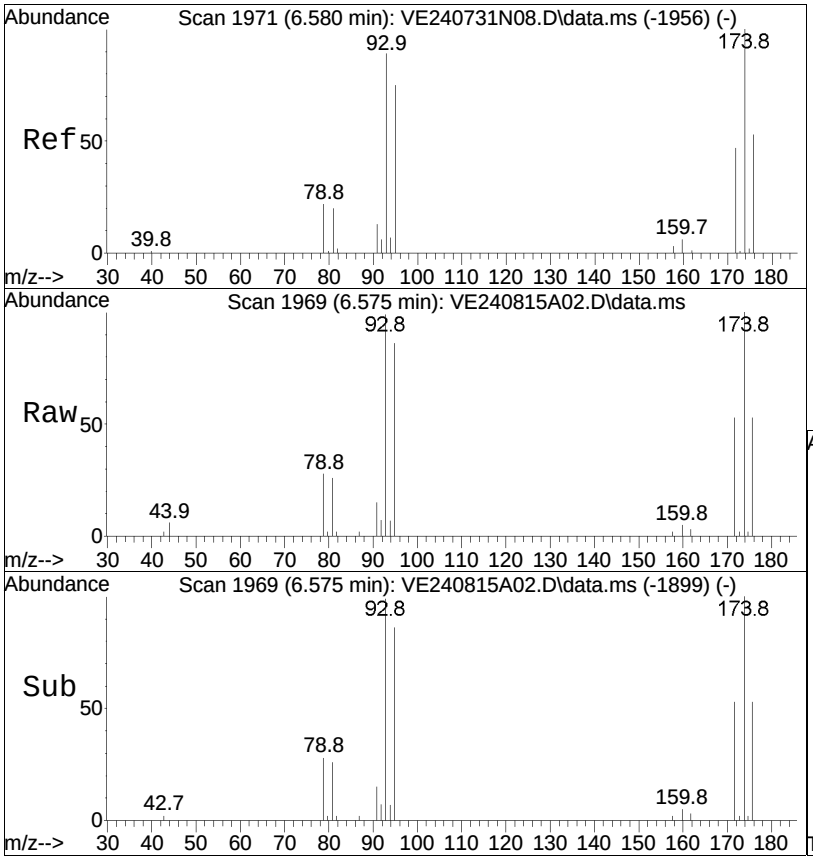


#52
Trichloroethene
Concen: 10.36 ug/L
RT: 6.137 min Scan# 1812
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 95 Resp: 38002

Ion	Ratio	Lower	Upper
95	100		
97	67.9	50.2	75.2
130	99.1	78.2	117.4

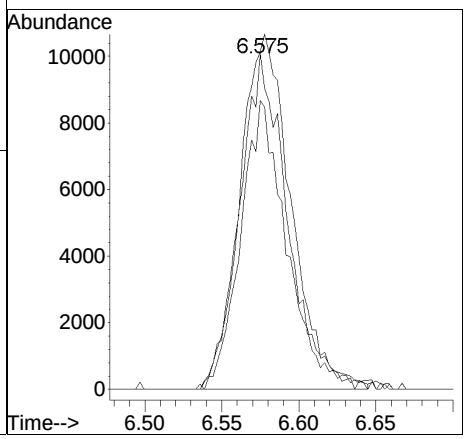


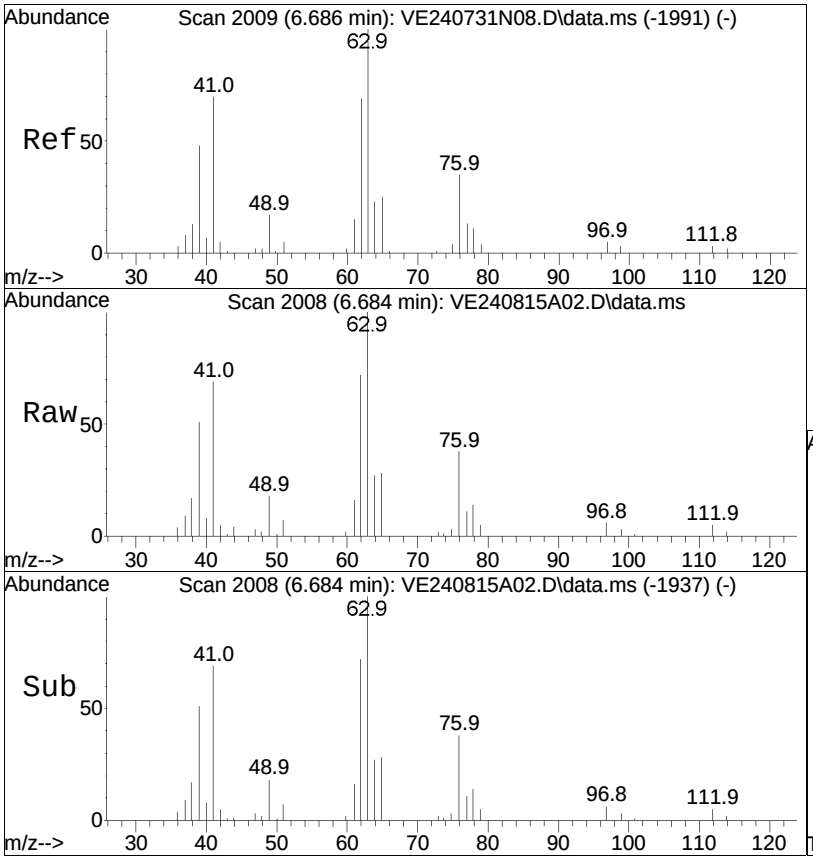


#54
Dibromomethane
Concen: 10.28 ug/L
RT: 6.575 min Scan# 1969
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 93 Resp: 21727

Ion	Ratio	Lower	Upper
93	100		
95	83.1	73.2	109.8
174	113.8	73.8	110.8#

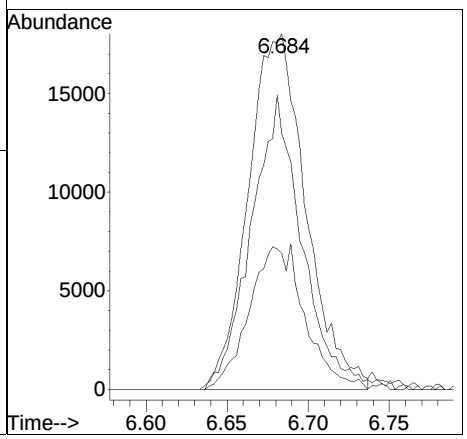


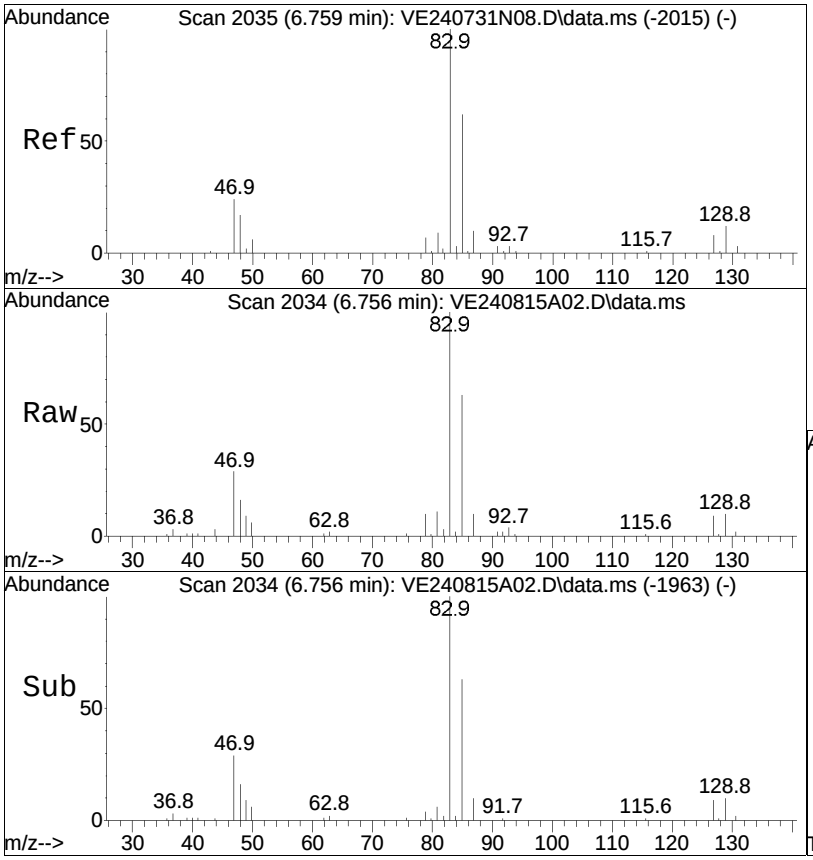


#55
1,2-Dichloropropane
Concen: 10.10 ug/L
RT: 6.684 min Scan# 2008
Delta R.T. -0.002 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 63 Resp: 44514

Ion	Ratio	Lower	Upper
63	100		
62	73.4	58.4	87.6
76	39.0	28.7	43.1

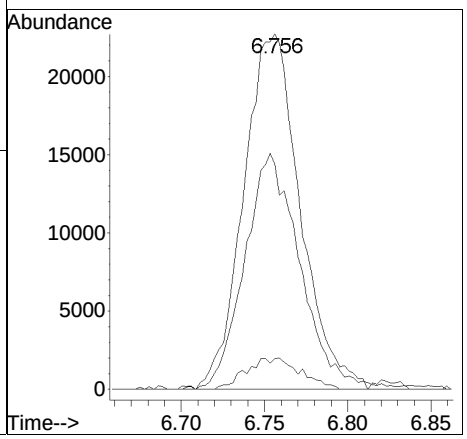


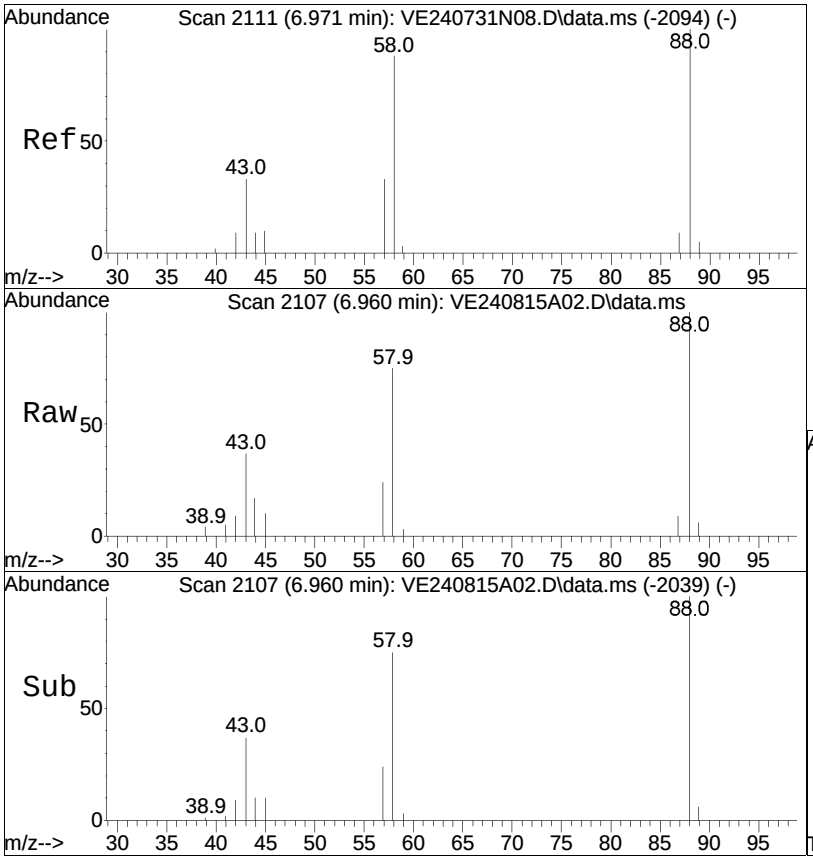


#58
Bromodichloromethane
Concen: 10.28 ug/L
RT: 6.756 min Scan# 2034
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 83 Resp: 53672

Ion	Ratio	Lower	Upper
83	100		
85	64.8	46.6	69.8
127	4.0	6.2	9.4#

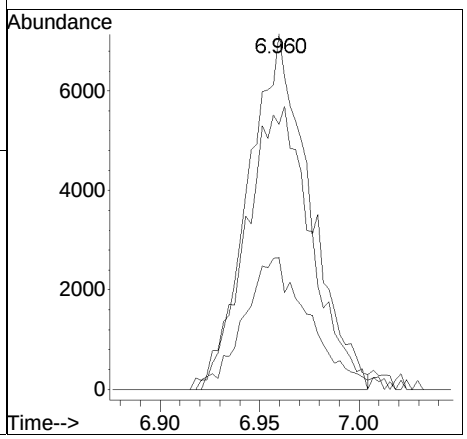


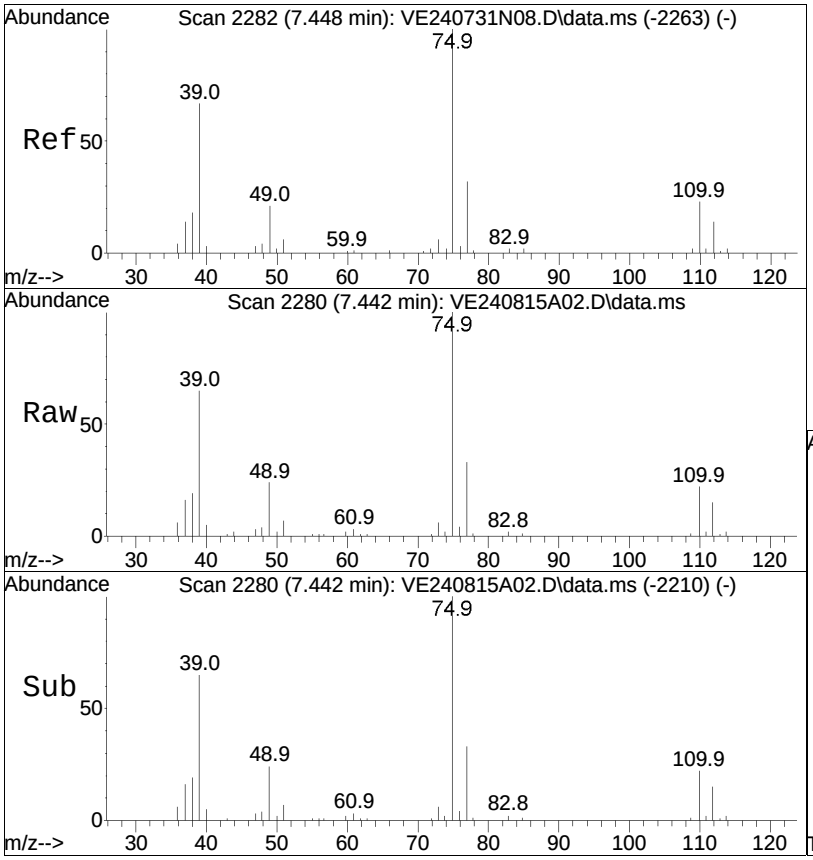


#61
1,4-Dioxane
Concen: 436.86 ug/L
RT: 6.960 min Scan# 2107
Delta R.T. -0.011 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 88 Resp: 15445

Ion	Ratio	Lower	Upper
88	100		
58	83.6	62.8	94.2
43	39.7	36.6	55.0

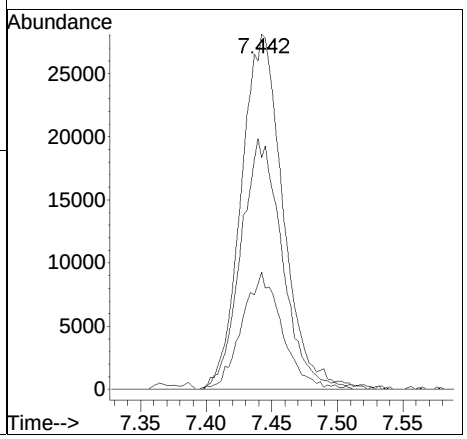


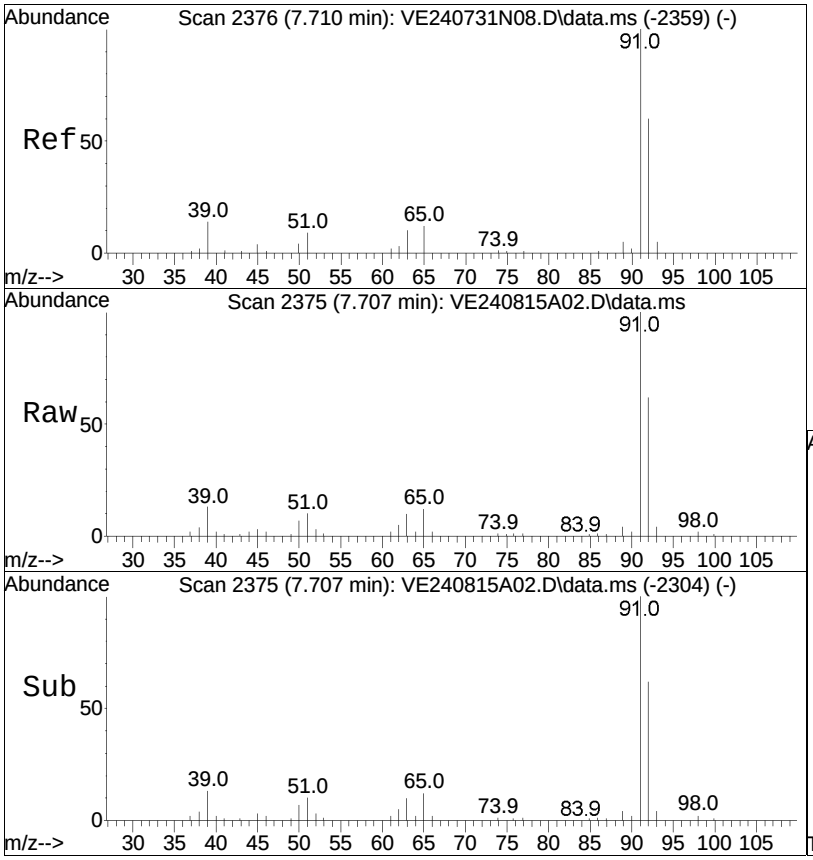


#62
cis-1,3-Dichloropropene
Concen: 10.65 ug/L
RT: 7.442 min Scan# 2280
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 75 Resp: 62615

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7
39	69.8	50.7	76.1

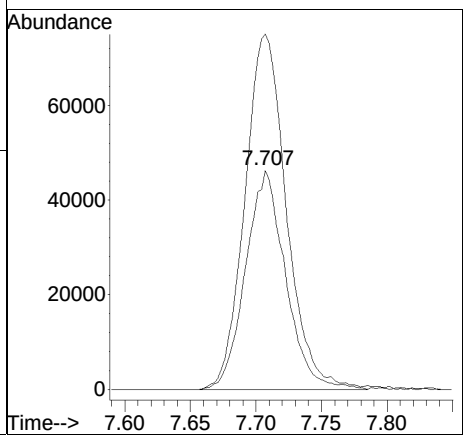


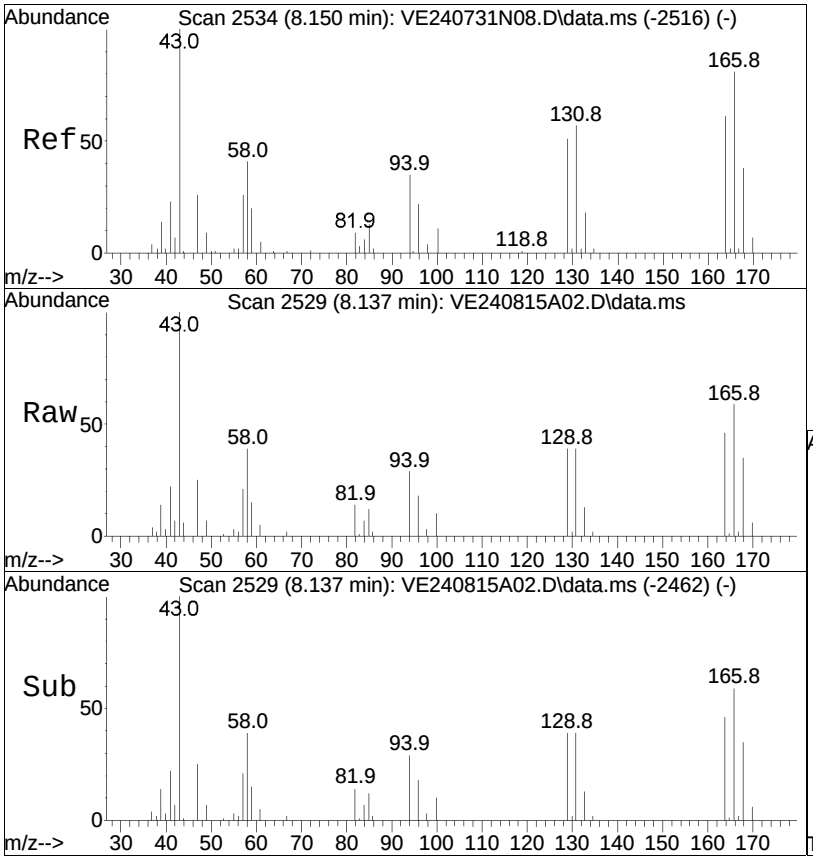


#65
Toluene
Concen: 10.45 ug/L
RT: 7.707 min Scan# 2375
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 92 Resp: 98265

Ion	Ratio	Lower	Upper
92	100		
91	168.2	129.1	193.7

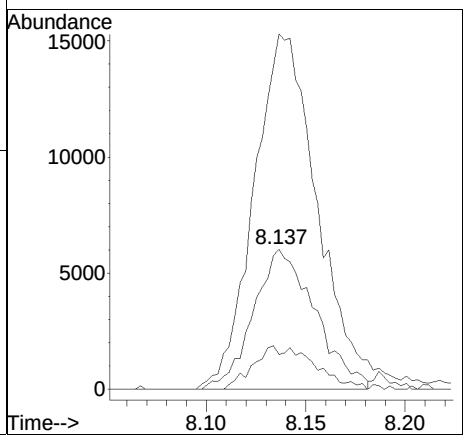


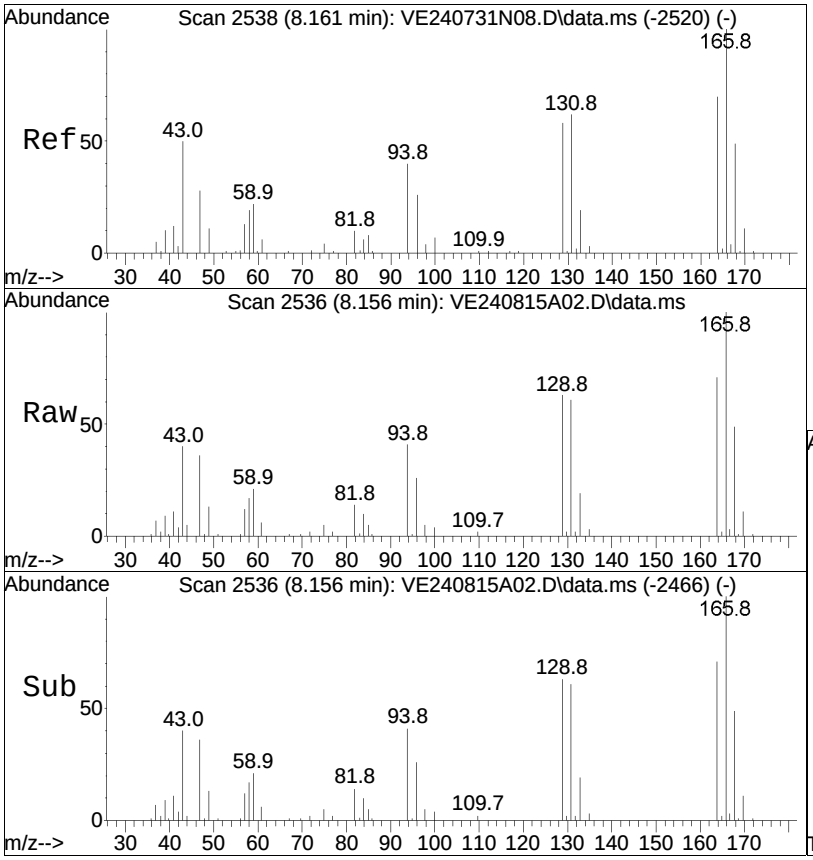


#66
4-Methyl-2-pentanone
Concen: 8.12 ug/L
RT: 8.137 min Scan# 2529
Delta R.T. -0.013 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 58 Resp: 13029

Ion	Ratio	Lower	Upper
58	100		
100	15.5	27.9	41.9#
43	263.0	225.7	338.5

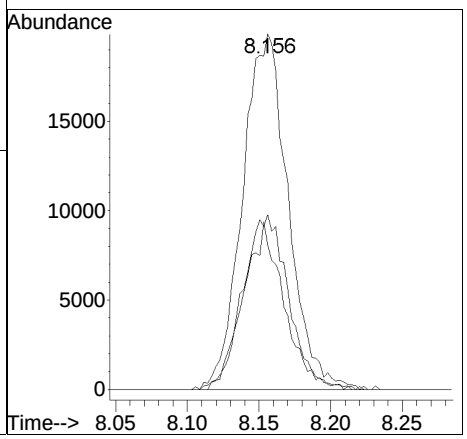


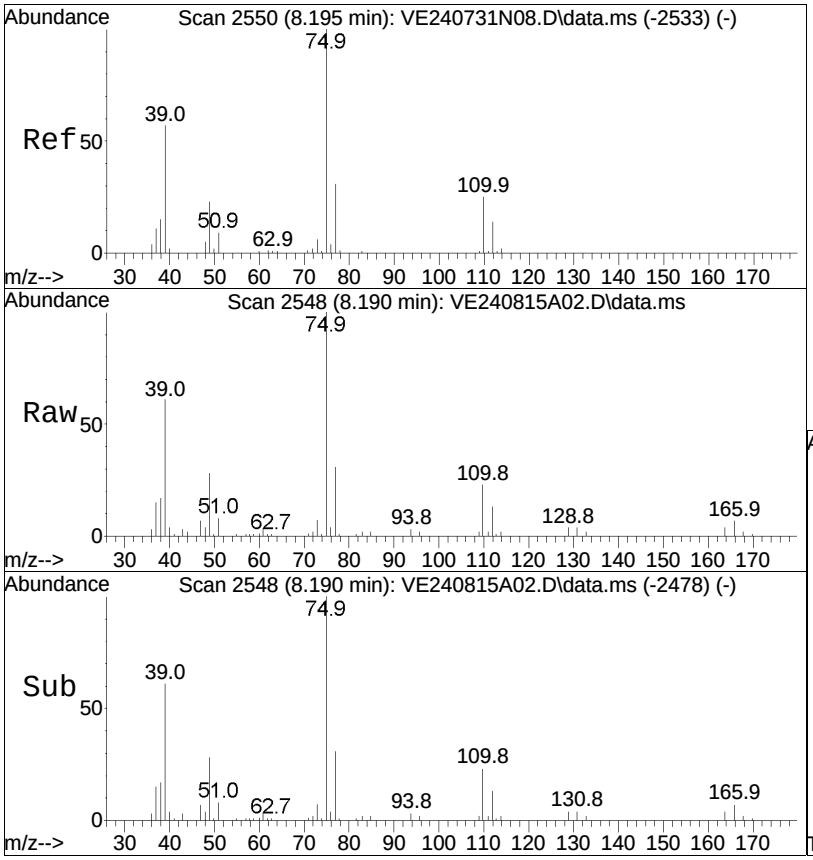


#67
Tetrachloroethene
Concen: 11.02 ug/L
RT: 8.156 min Scan# 2536
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:166 Resp: 44052

Ion	Ratio	Lower	Upper
166	100		
168	49.0	25.8	65.8
94	42.0	24.3	64.3

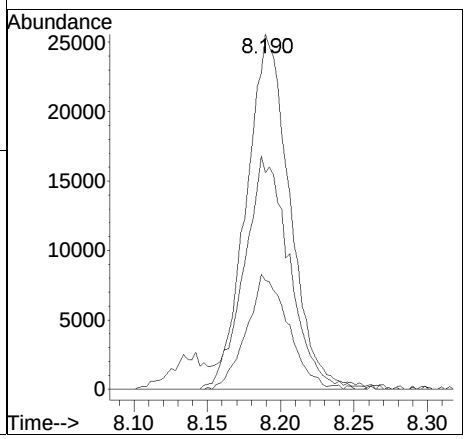


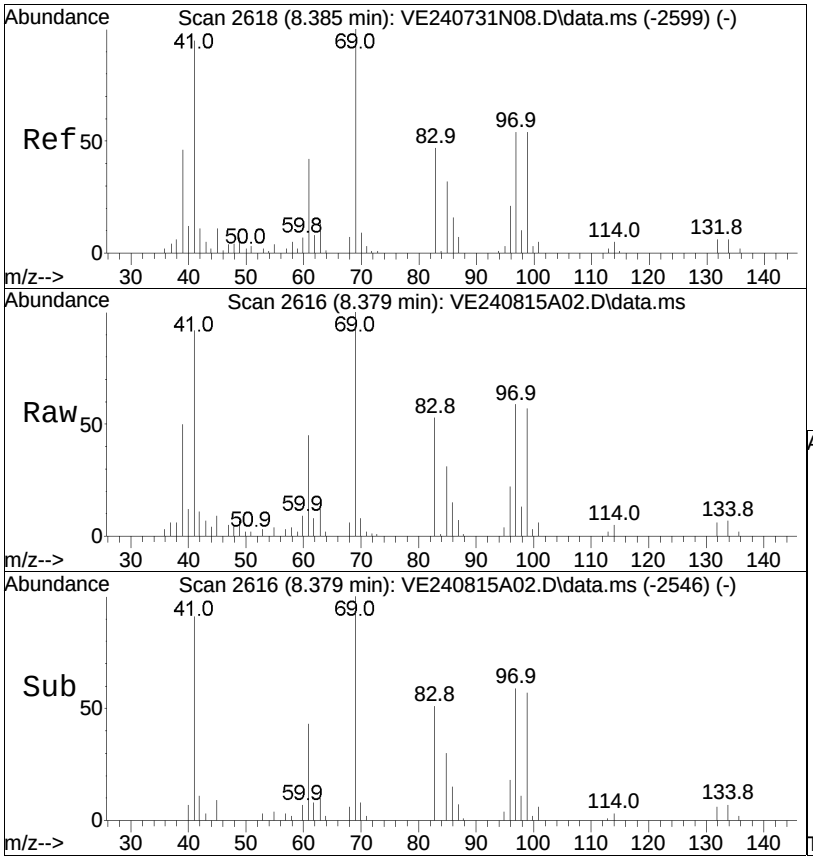


#69
trans-1,3-Dichloropropene
Concen: 10.00 ug/L
RT: 8.190 min Scan# 2548
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 75 Resp: 52986

Ion	Ratio	Lower	Upper
75	100		
77	30.8	10.2	50.2
39	66.1	45.7	85.7

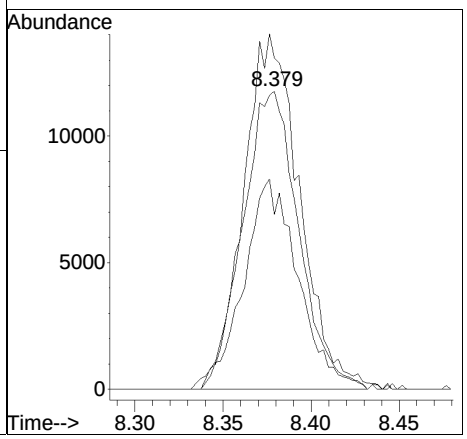


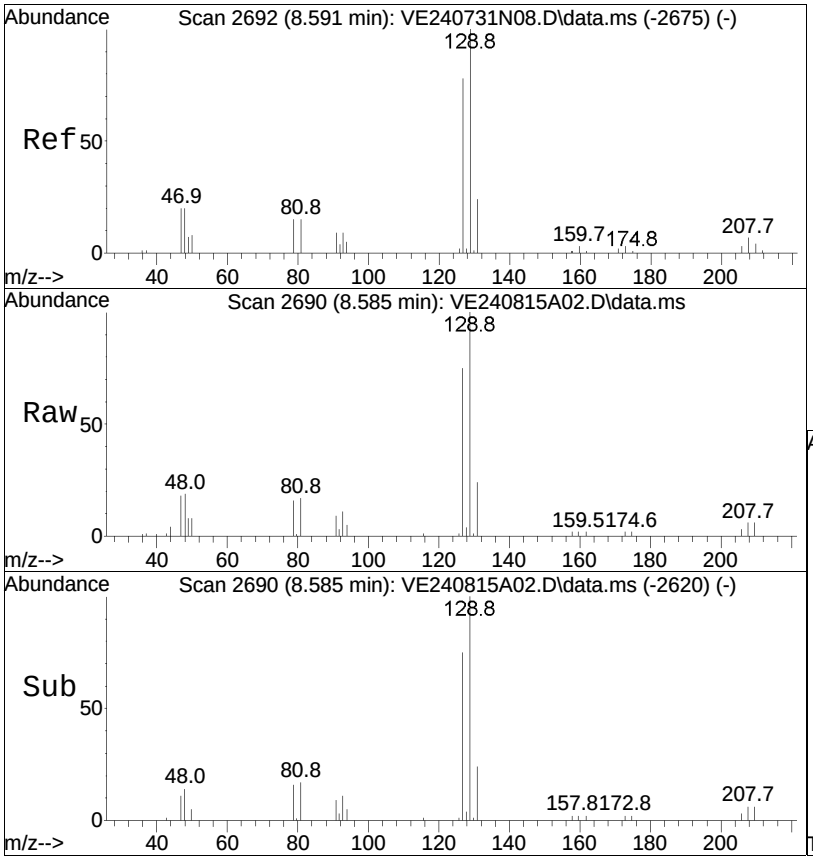


#72
1,1,2-Trichloroethane
Concen: 9.86 ug/L
RT: 8.379 min Scan# 2616
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 83 Resp: 26046

Ion	Ratio	Lower	Upper
83	100		
97	120.3	99.2	139.2
85	68.2	48.7	88.7

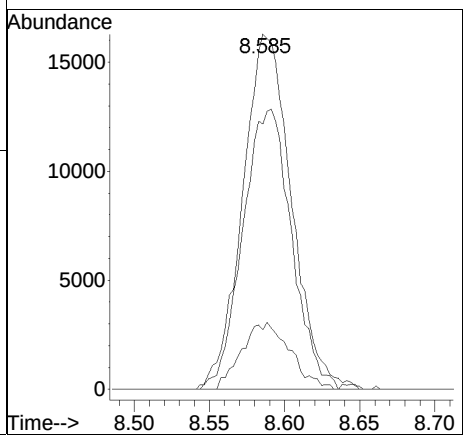


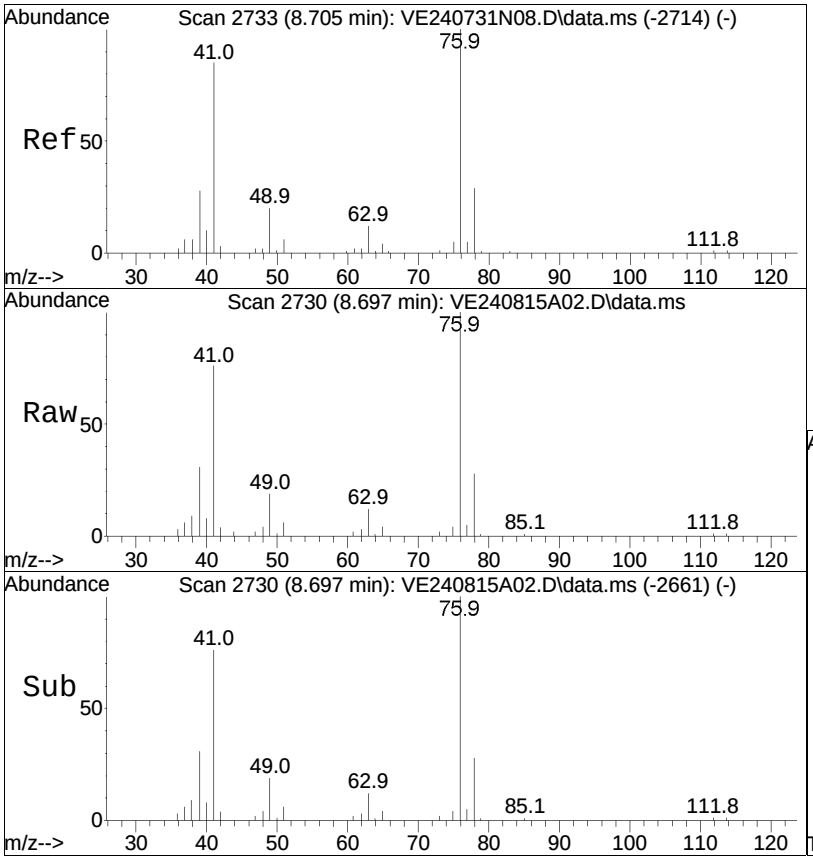


#73
Chlorodibromomethane
Concen: 9.99 ug/L
RT: 8.585 min Scan# 2690
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:129 Resp: 36892

Ion	Ratio	Lower	Upper
129	100		
81	8.8	0.0	39.5
127	78.9	58.6	98.6

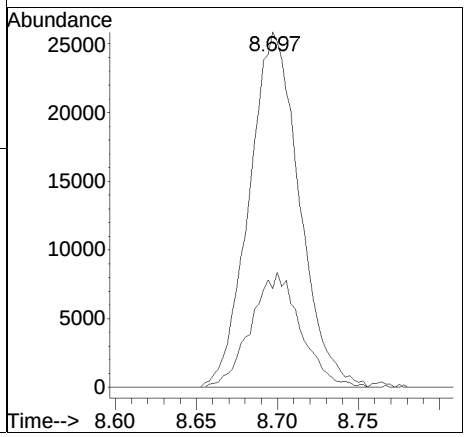


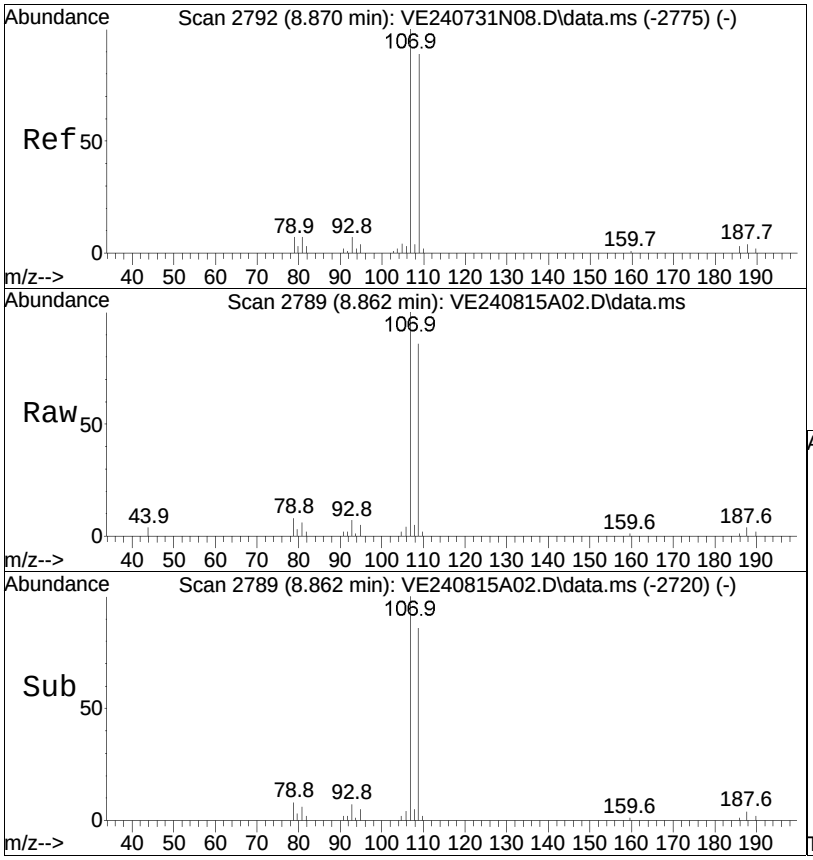


#74
1,3-Dichloropropane
Concen: 10.02 ug/L
RT: 8.697 min Scan# 2730
Delta R.T. -0.008 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 76 Resp: 55871

Ion	Ratio	Lower	Upper
76	100		
78	31.9	27.0	40.4

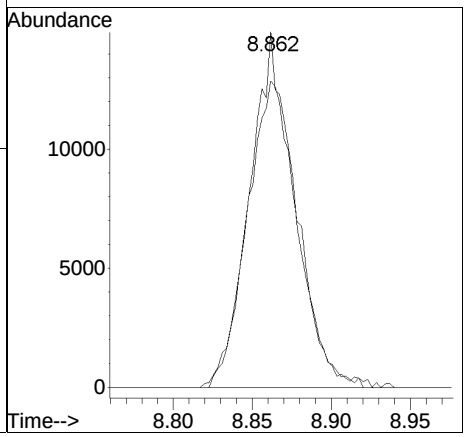


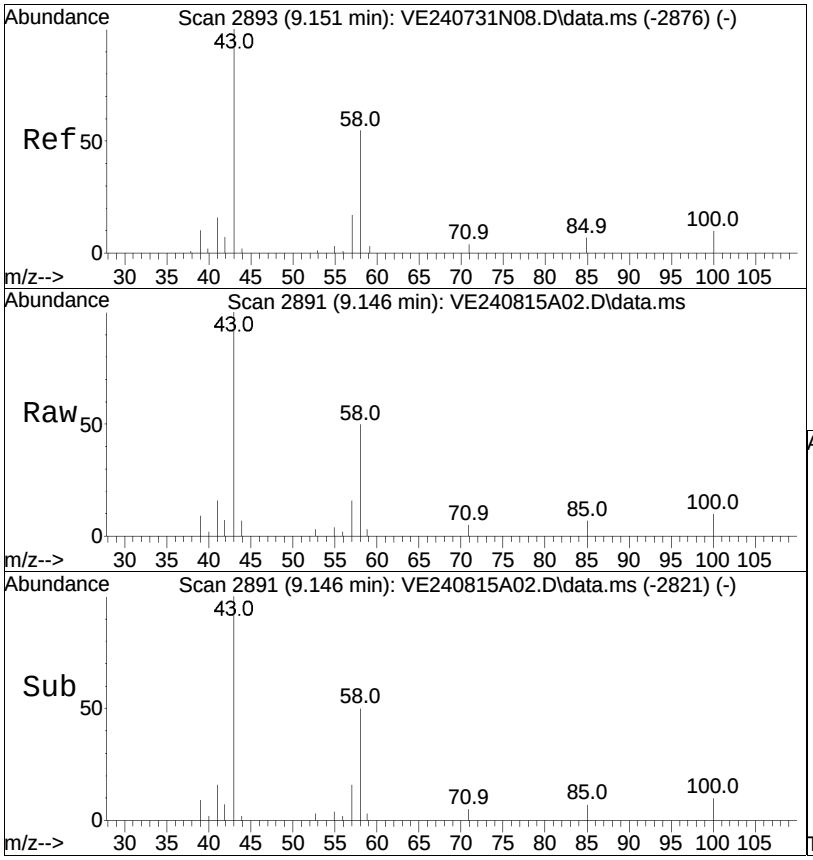


#75
1,2-Dibromoethane
Concen: 9.52 ug/L
RT: 8.862 min Scan# 2789
Delta R.T. -0.008 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:107 Resp: 29704

Ion	Ratio	Lower	Upper
107	100		
109	95.5	66.3	99.5

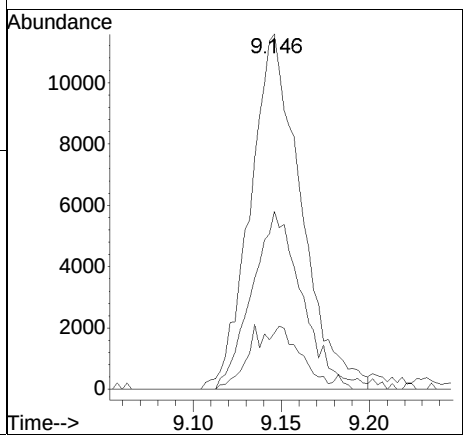


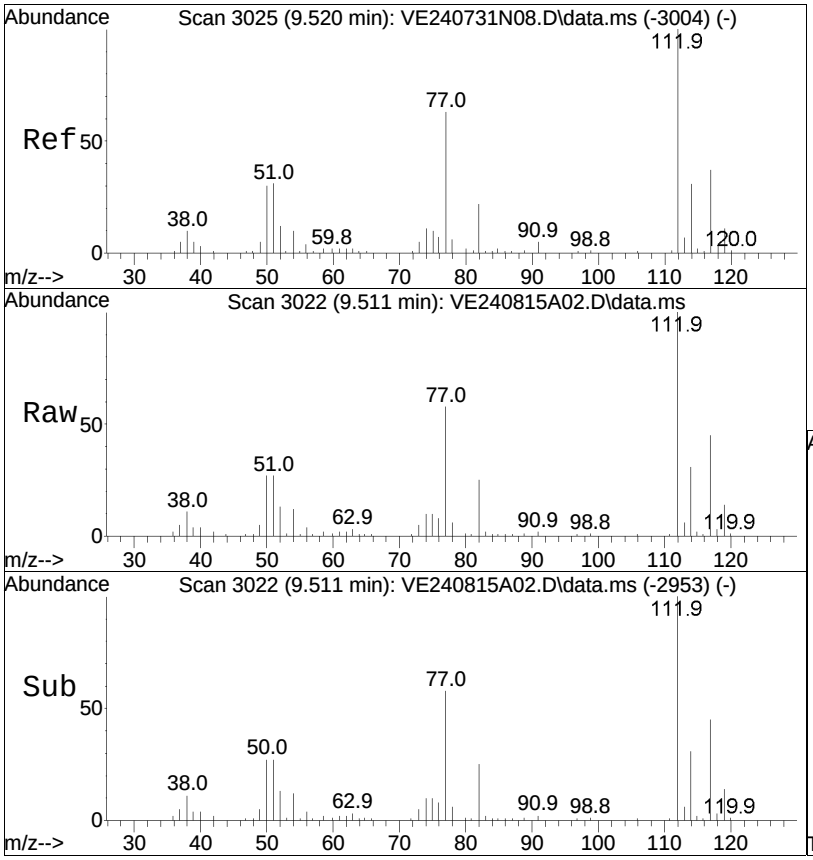


#77
2-Hexanone
Concen: 7.45 ug/L
RT: 9.146 min Scan# 2891
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 43 Resp: 23304

Ion	Ratio	Lower	Upper
43	100		
58	49.8	42.5	63.7
57	5.2	13.9	20.9#

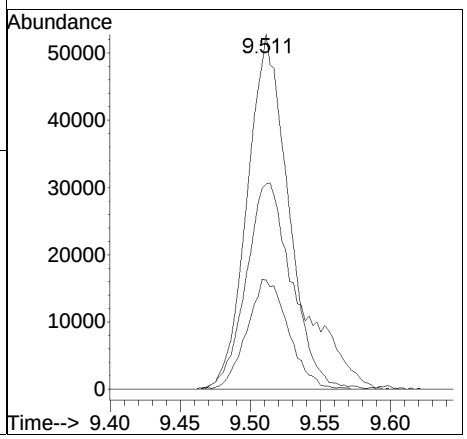


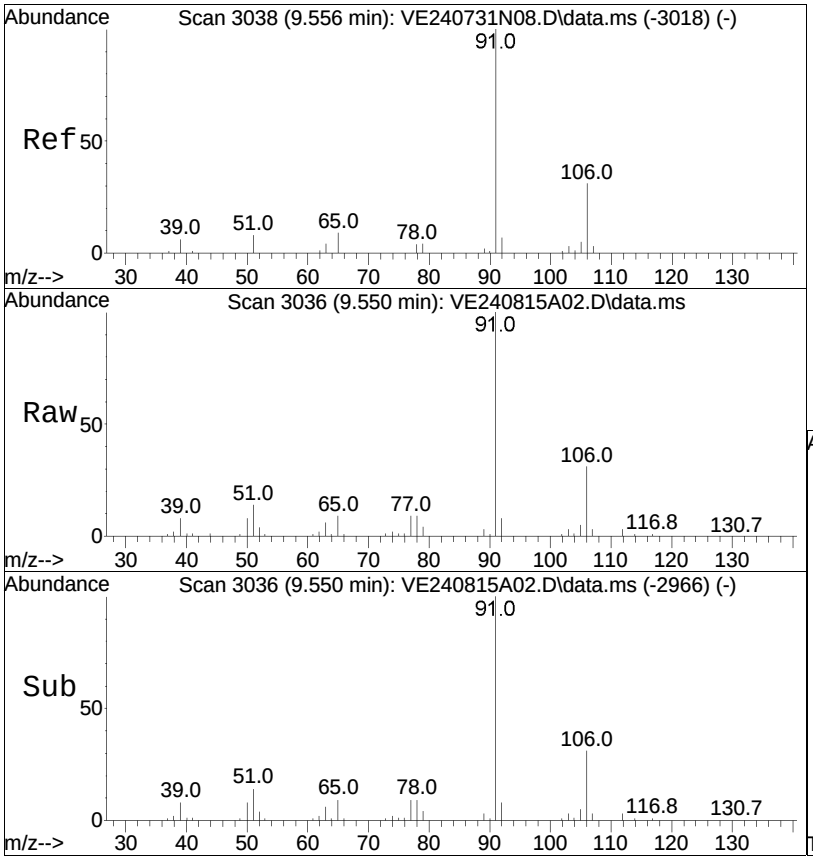


#78
Chlorobenzene
Concen: 10.61 ug/L
RT: 9.511 min Scan# 3022
Delta R.T. -0.009 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:112 Resp: 106363

Ion	Ratio	Lower	Upper
112	100		
77	76.7	46.9	70.3#
114	31.8	23.8	35.6

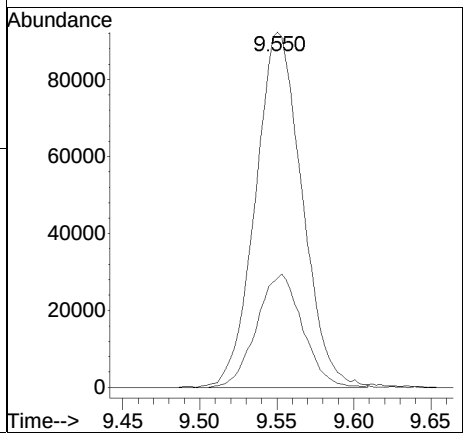


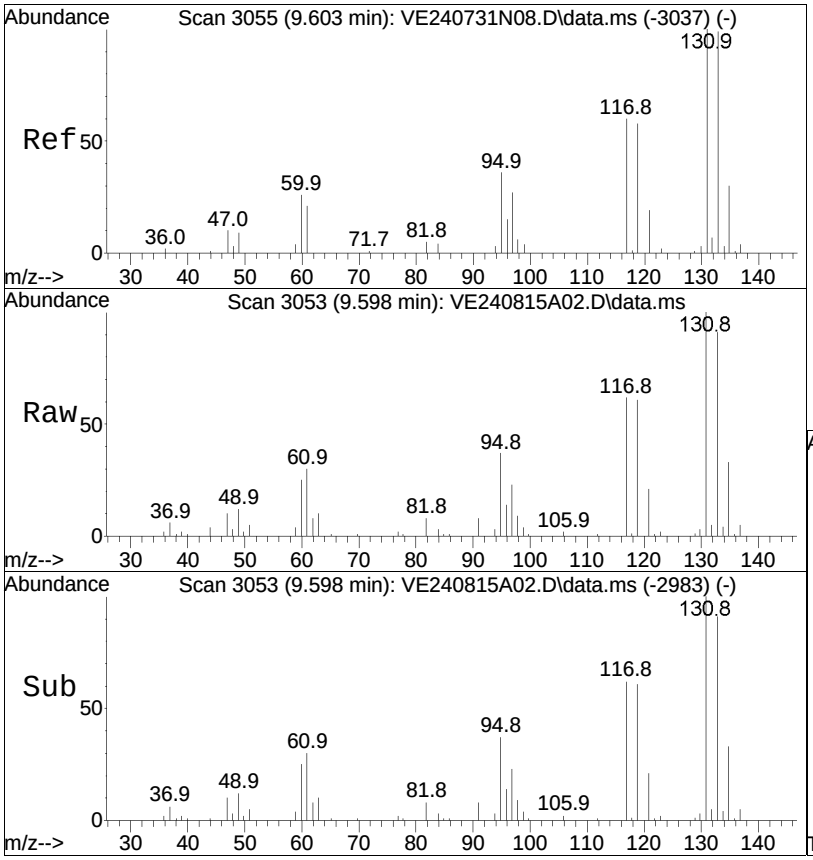


#79
Ethylbenzene
Concen: 10.66 ug/L
RT: 9.550 min Scan# 3036
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 91 Resp: 194376

Ion	Ratio	Lower	Upper
91	100		
106	31.3	25.3	37.9

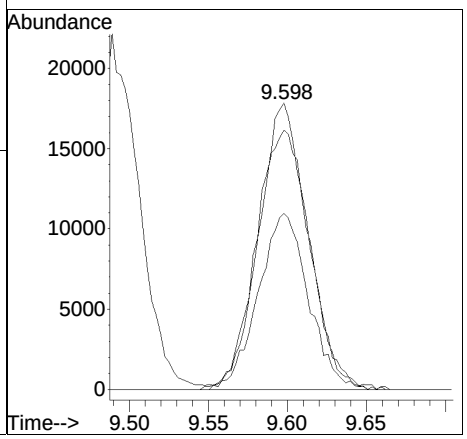


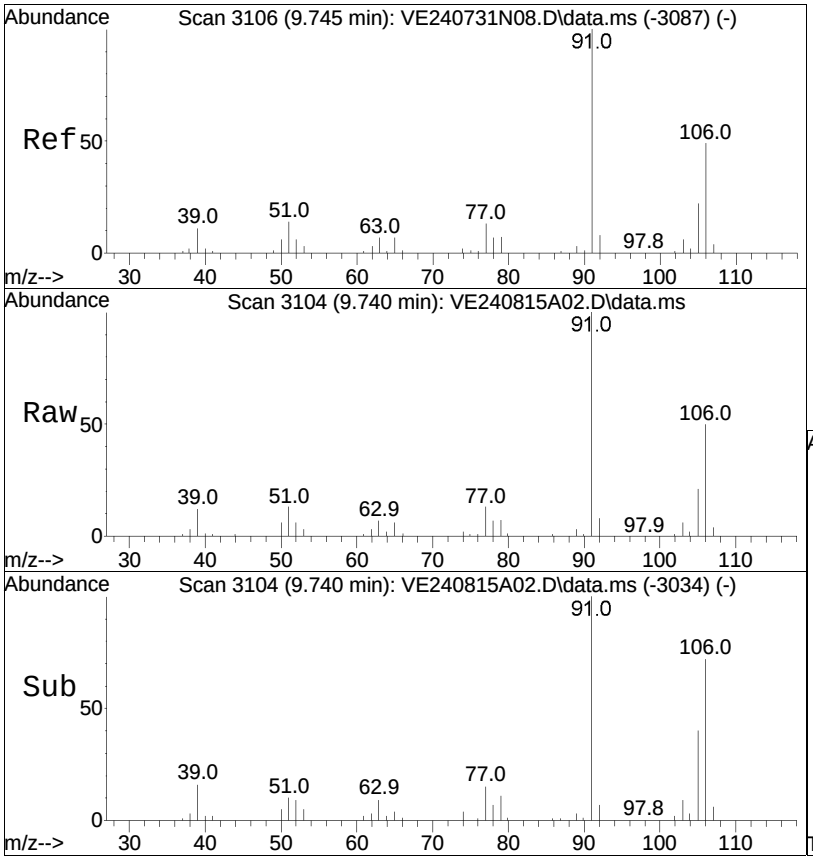


#80
1,1,1,2-Tetrachloroethane
Concen: 10.69 ug/L
RT: 9.598 min Scan# 3053
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:131 Resp: 39292

Ion	Ratio	Lower	Upper
131	100		
133	96.0	72.9	112.9
119	61.4	39.6	79.6

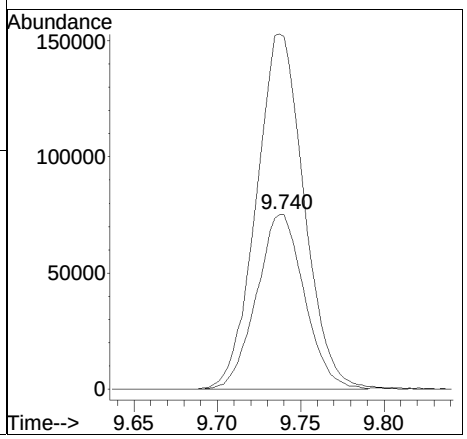


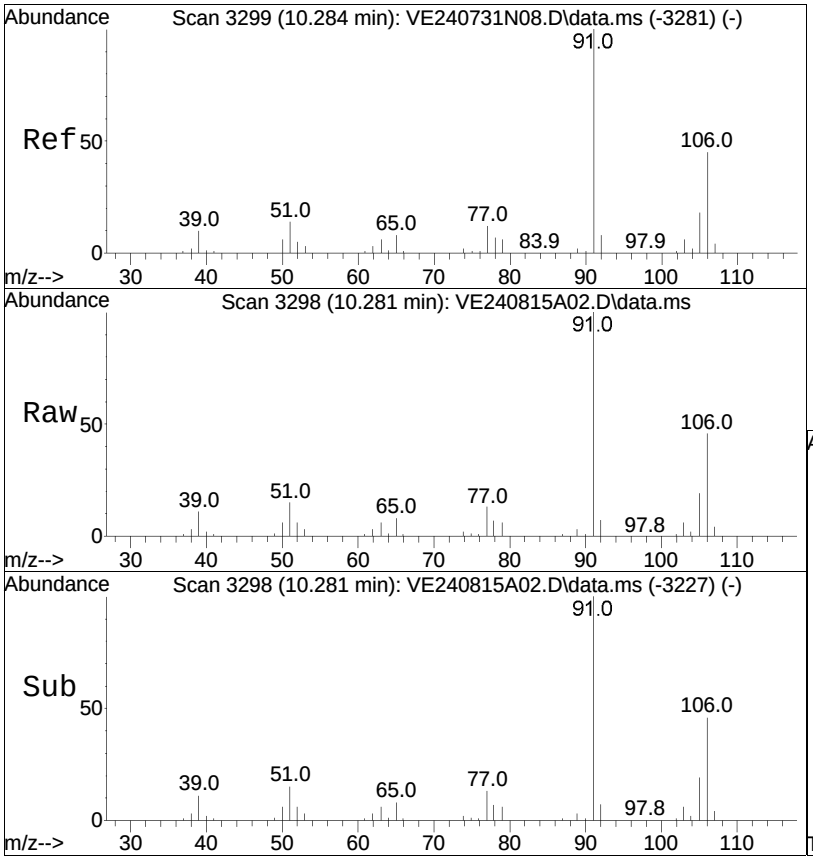


#81
p/m Xylene
Concen: 21.68 ug/L
RT: 9.740 min Scan# 3104
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:106 Resp: 150669

Ion	Ratio	Lower	Upper
106	100		
91	203.6	163.3	244.9

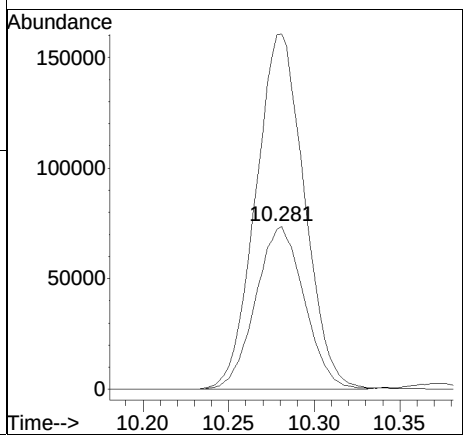


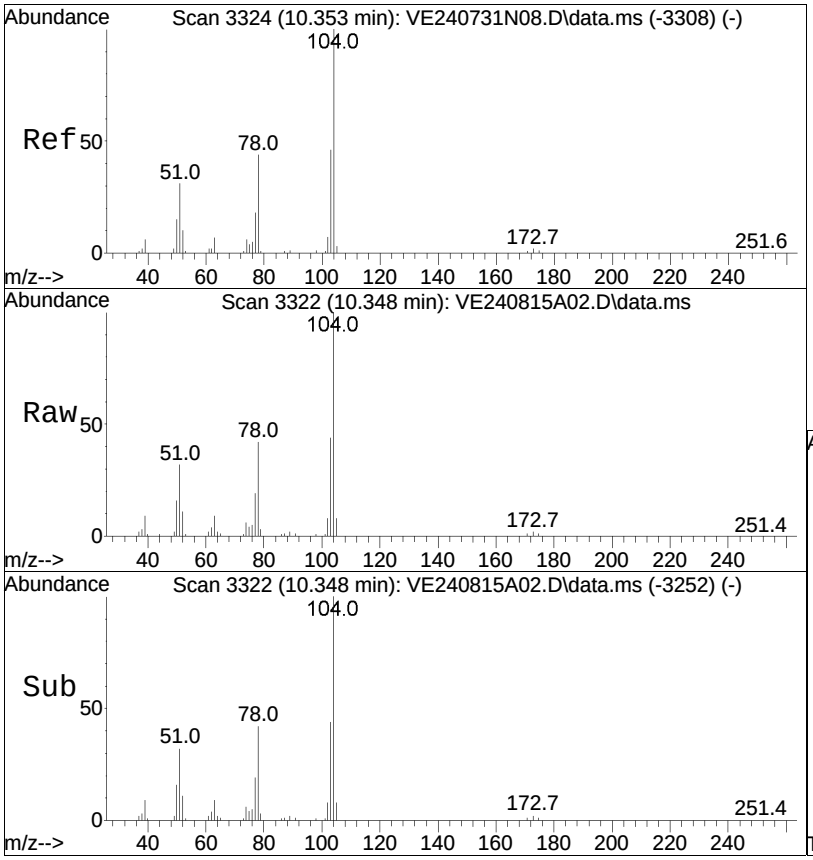


#82
o Xylene
Concen: 21.42 ug/L
RT: 10.281 min Scan# 3298
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:106 Resp: 145569

Ion	Ratio	Lower	Upper
106	100		
91	217.8	181.0	271.6

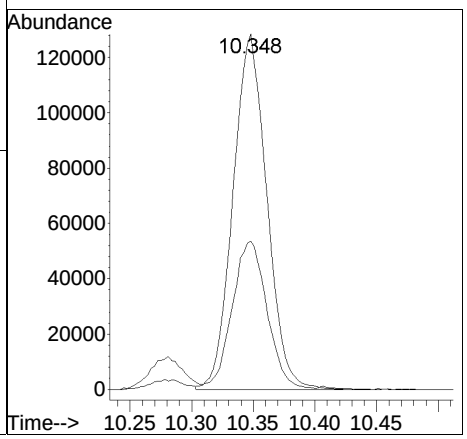


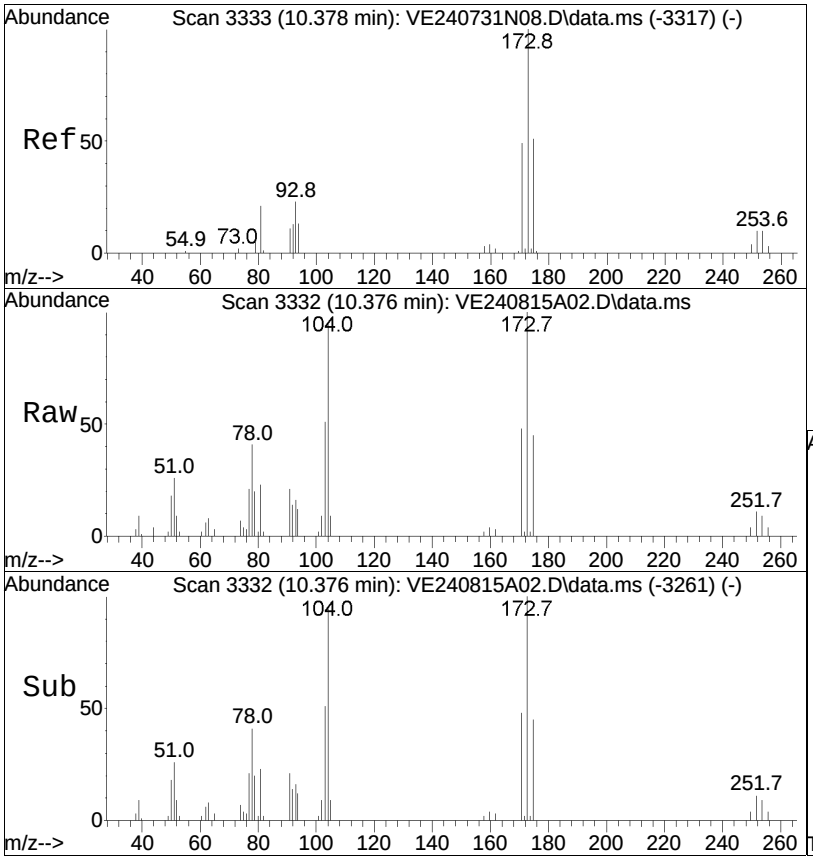


#83
Styrene
Concen: 22.01 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:104 Resp: 245273

Ion	Ratio	Lower	Upper
104	100		
78	42.4	35.9	53.9

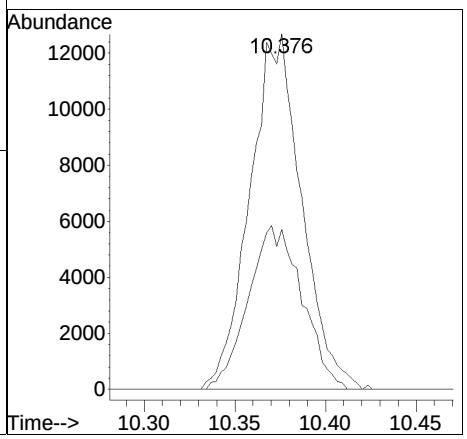


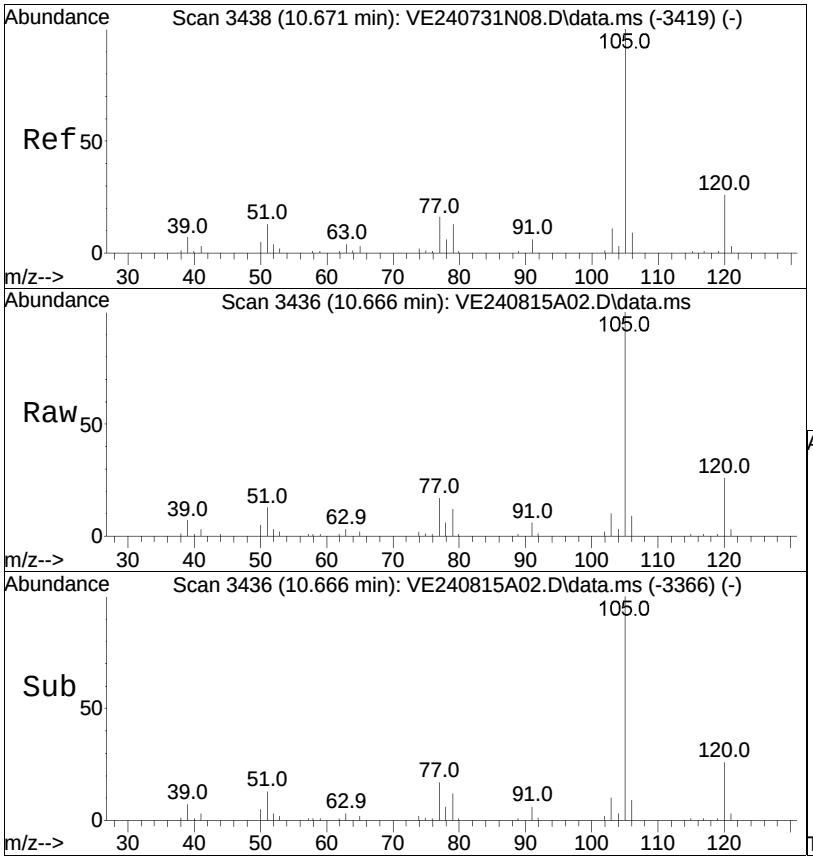


#85
Bromoform
Concen: 9.39 ug/L
RT: 10.376 min Scan# 3332
Delta R.T. -0.002 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:173 Resp: 25161

Ion	Ratio	Lower	Upper
173	100		
175	48.0	32.9	72.9

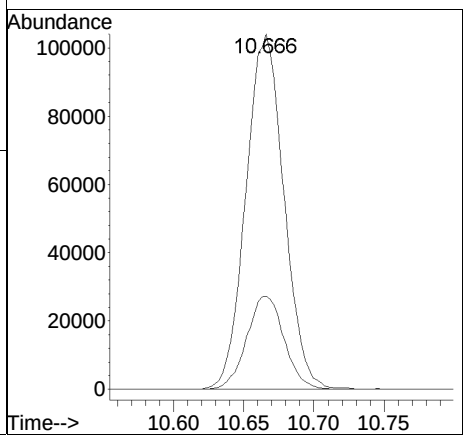


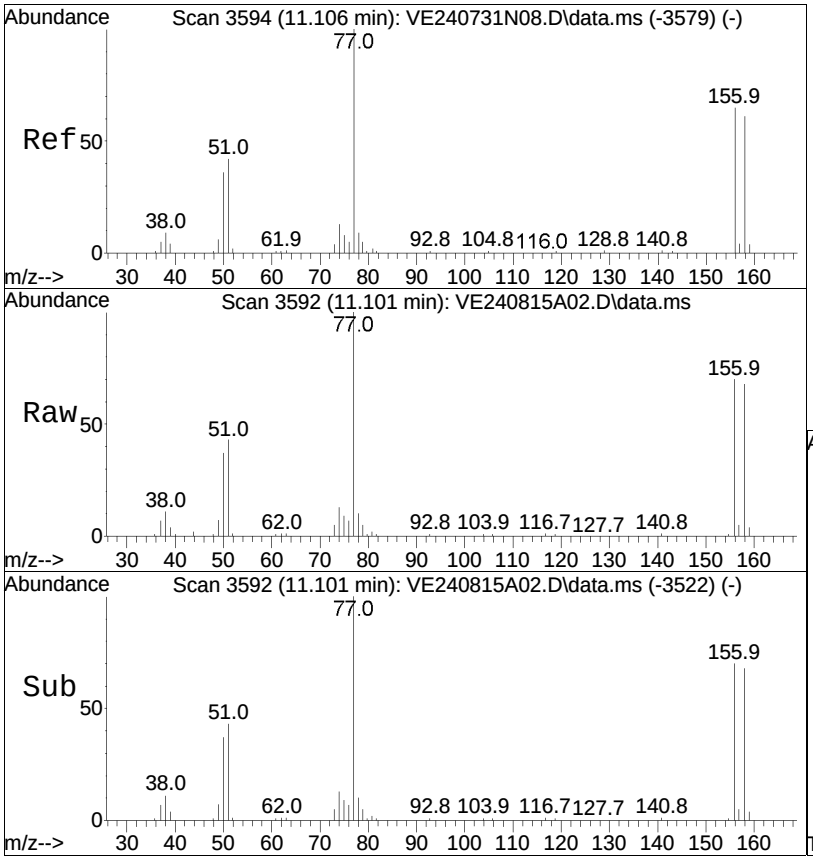


#87
Isopropylbenzene
Concen: 9.96 ug/L
RT: 10.666 min Scan# 3436
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:105 Resp: 196479

Ion	Ratio	Lower	Upper
105	100		
120	25.8	4.8	44.8

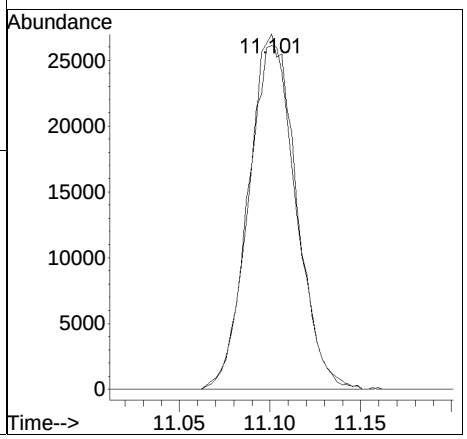


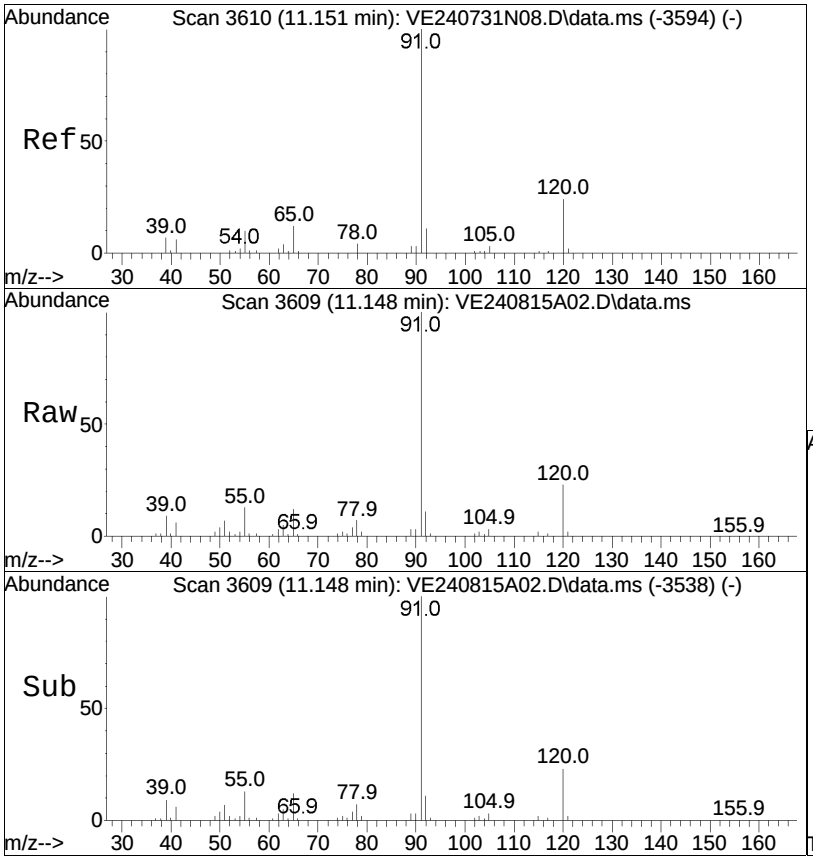


#89
Bromobenzene
Concen: 9.99 ug/L
RT: 11.101 min Scan# 3592
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:156 Resp: 49742

Ion	Ratio	Lower	Upper
156	100		
158	96.3	75.9	113.9

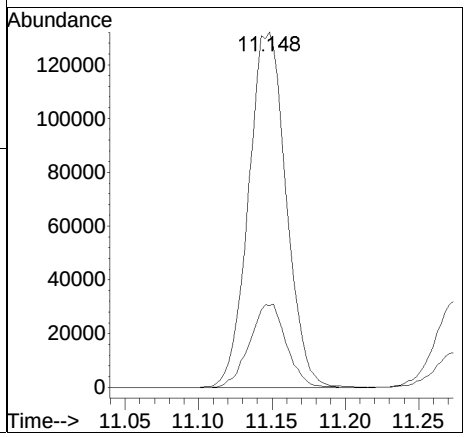


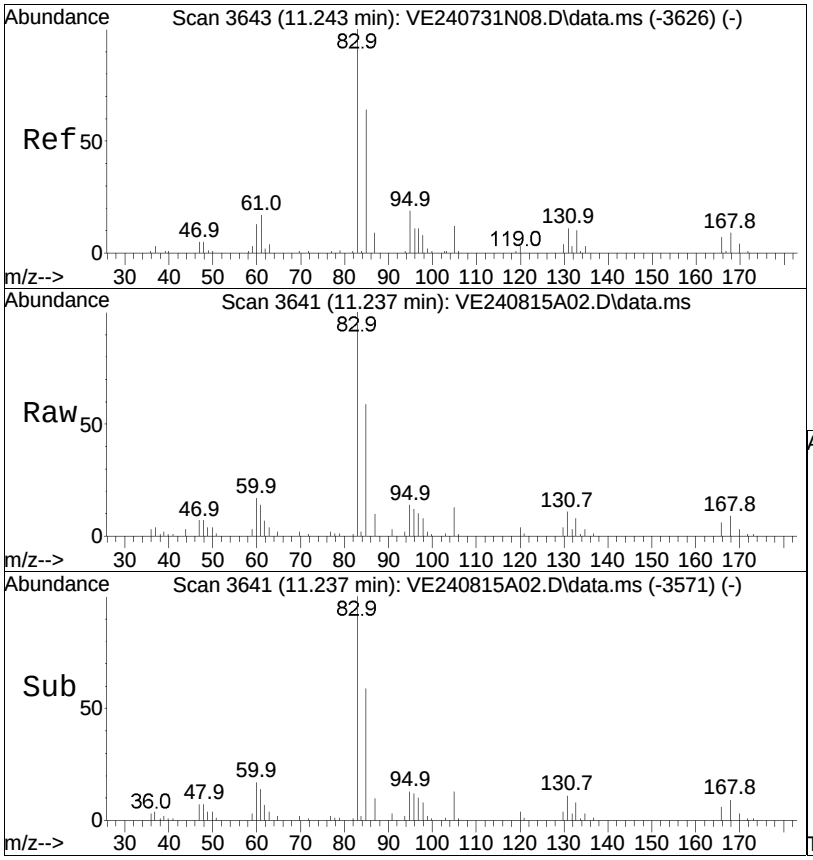


#90
n-Propylbenzene
Concen: 9.98 ug/L
RT: 11.148 min Scan# 3609
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 91 Resp: 235278

Ion	Ratio	Lower	Upper
91	100		
120	22.8	16.7	25.1

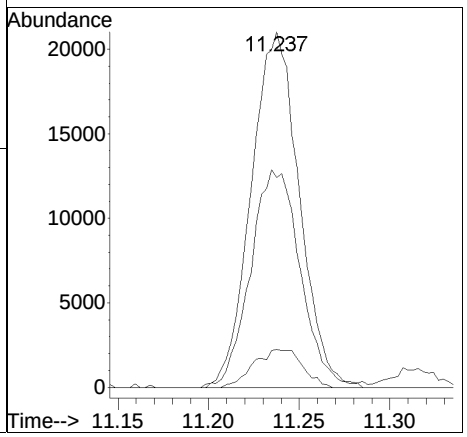


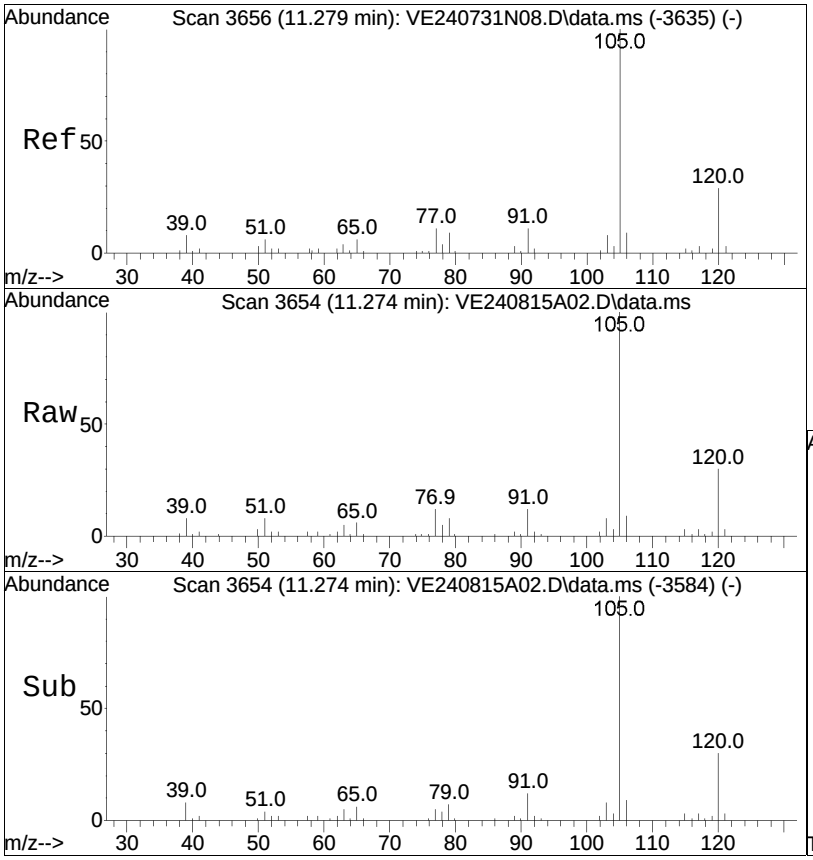


#92
1,1,2,2-Tetrachloroethane
Concen: 9.25 ug/L
RT: 11.237 min Scan# 3641
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 83 Resp: 38730

Ion	Ratio	Lower	Upper
83	100		
131	10.8	0.0	28.6
85	63.6	47.4	87.4

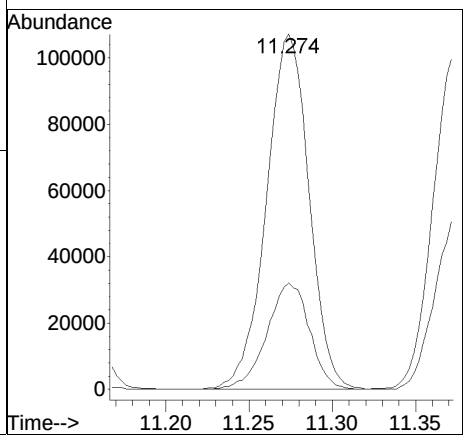


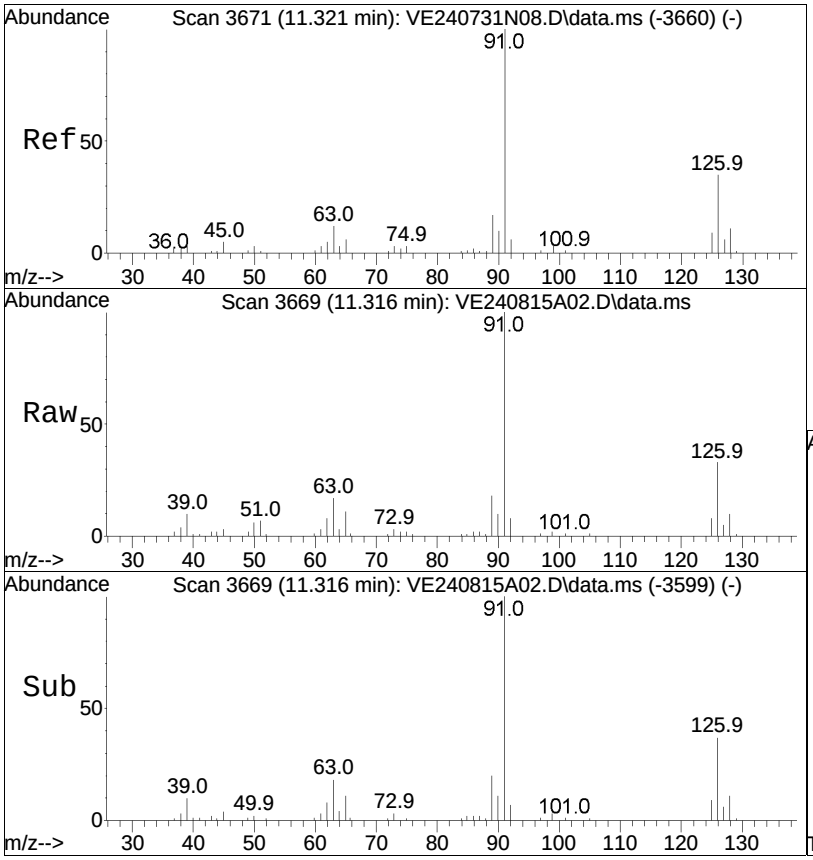


#93
4-Ethyltoluene
Concen: 9.99 ug/L
RT: 11.274 min Scan# 3654
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:105 Resp: 191022

Ion	Ratio	Lower	Upper
105	100		
120	30.0	18.9	39.3

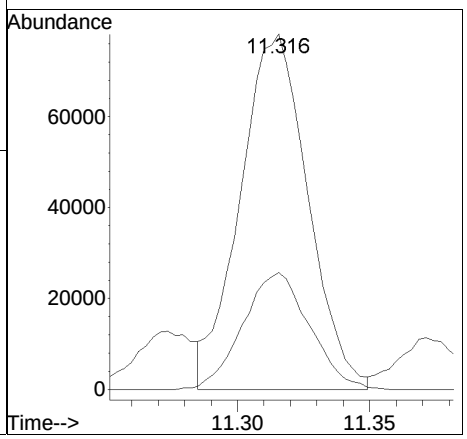


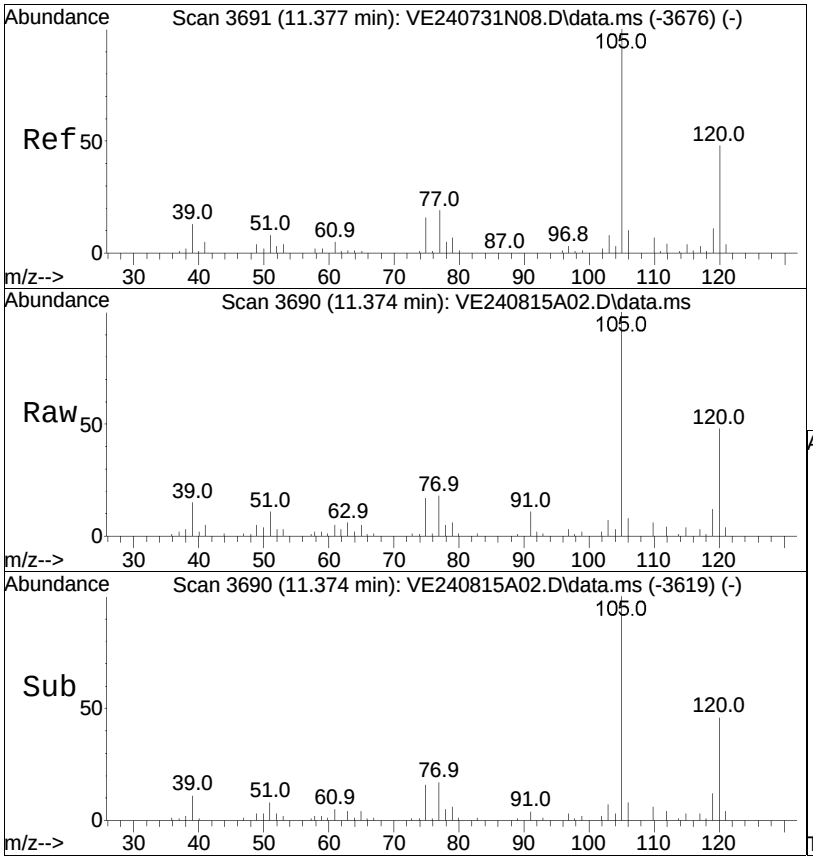


#94
2-Chlorotoluene
Concen: 10.03 ug/L M1
RT: 11.316 min Scan# 3669
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 91 Resp: 139131

Ion	Ratio	Lower	Upper
91	100		
126	32.3	24.4	36.6

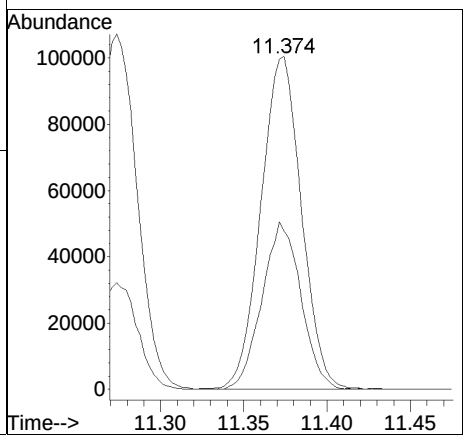


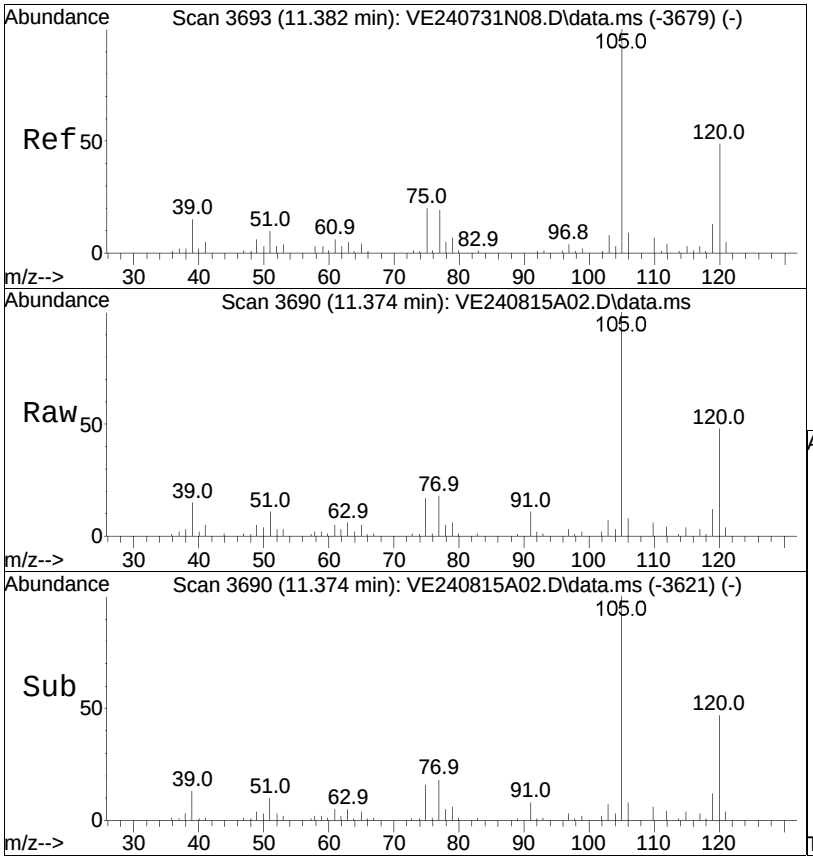


#95
1,3,5-Trimethylbenzene
Concen: 10.13 ug/L
RT: 11.374 min Scan# 3690
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:105 Resp: 170031

Ion	Ratio	Lower	Upper
105	100		
120	48.3	39.3	58.9

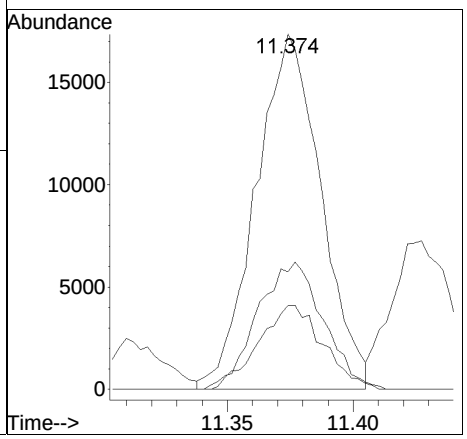


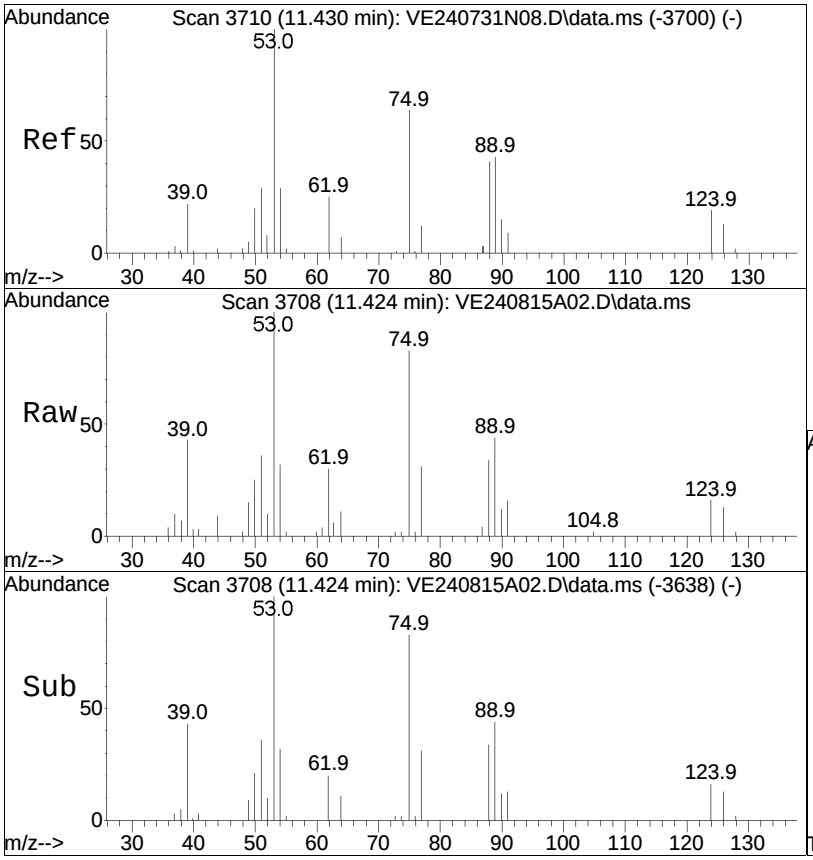


#96
1,2,3-Trichloropropane
Concen: 9.12 ug/L M1
RT: 11.374 min Scan# 3690
Delta R.T. -0.008 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 75 Resp: 31139

Ion	Ratio	Lower	Upper
75	100		
110	36.3	22.4	46.4
112	23.4	12.2	25.2

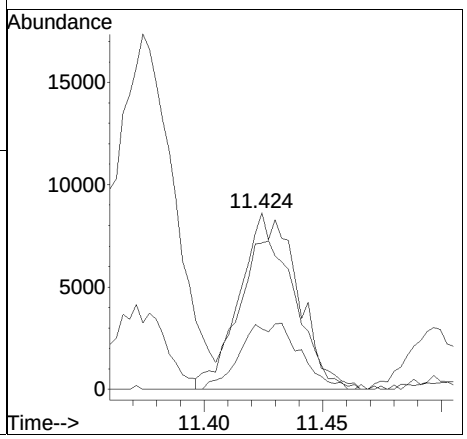


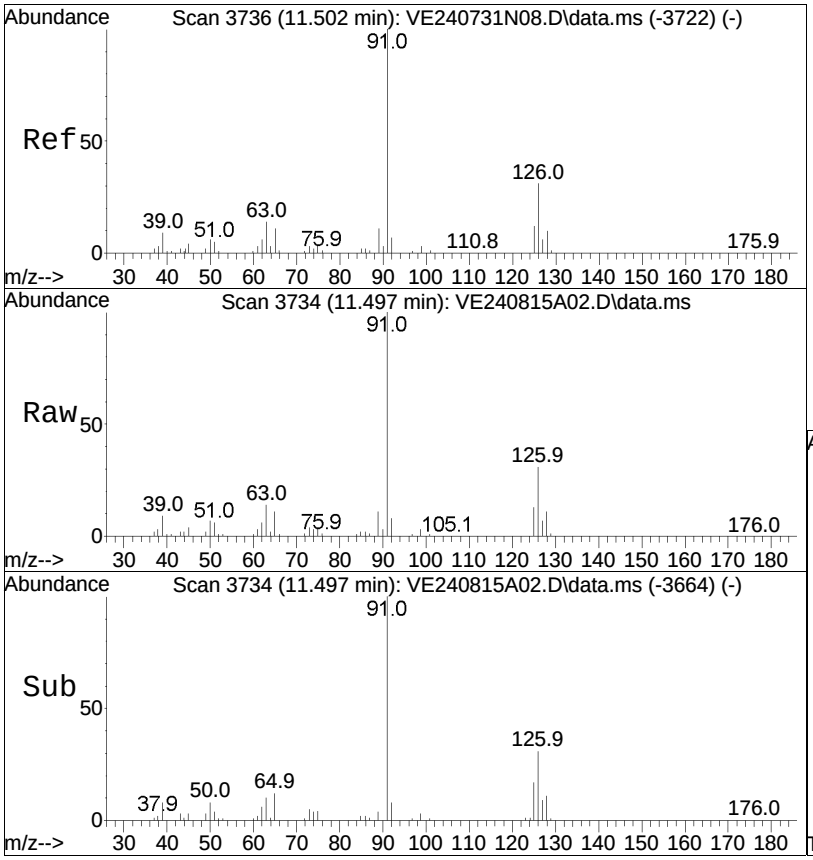


#97
trans-1,4-Dichloro-2-butene
Concen: 8.79 ug/L
RT: 11.424 min Scan# 3708
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 53 Resp: 14747

Ion	Ratio	Lower	Upper
53	100		
88	38.3	29.2	43.8
75	83.7	62.6	94.0

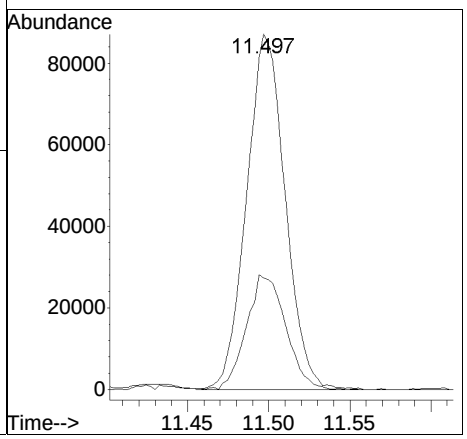


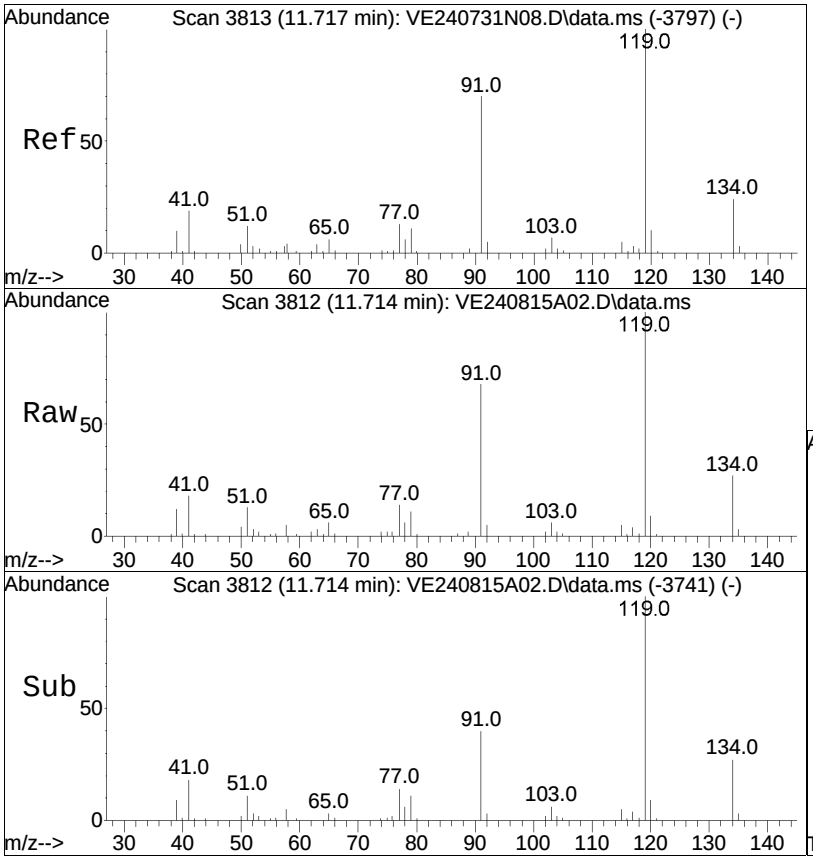


#98
4-Chlorotoluene
Concen: 9.92 ug/L
RT: 11.497 min Scan# 3734
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 91 Resp: 144160

Ion	Ratio	Lower	Upper
91	100		
126	32.6	25.8	38.8

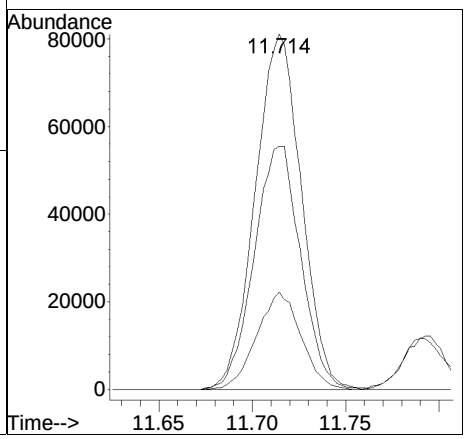


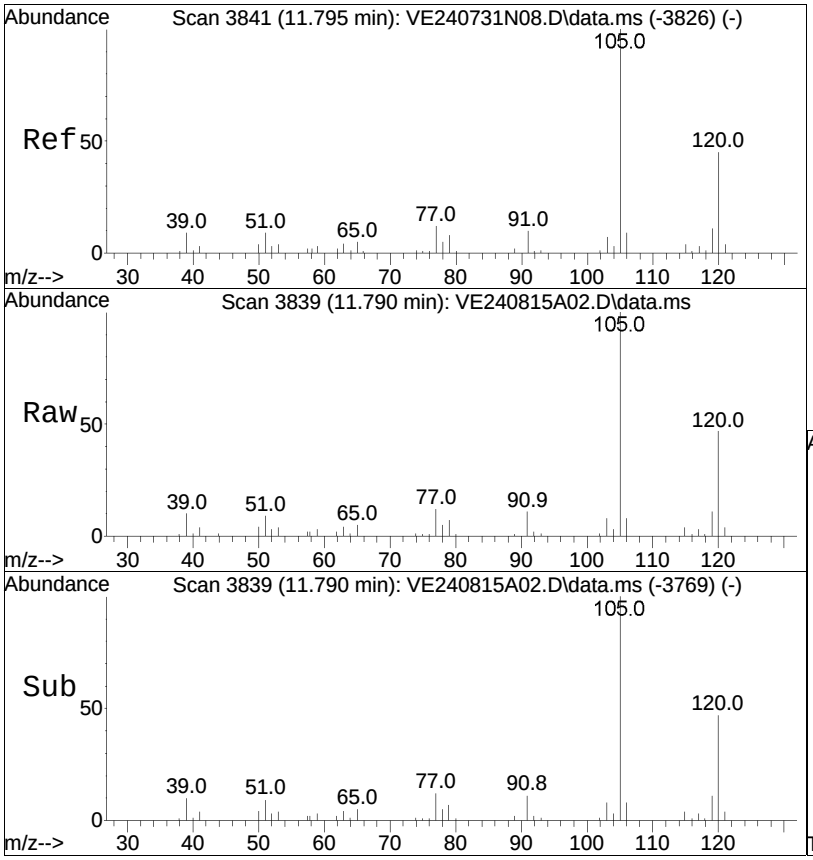


#99
tert-Butylbenzene
Concen: 9.90 ug/L
RT: 11.714 min Scan# 3812
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:119 Resp: 139598

Ion	Ratio	Lower	Upper
119	100		
91	68.9	56.6	84.8
134	26.2	17.7	26.5

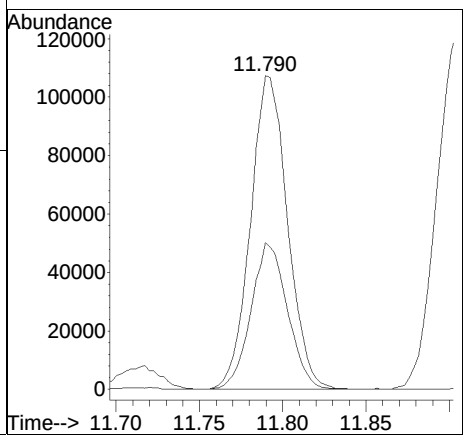


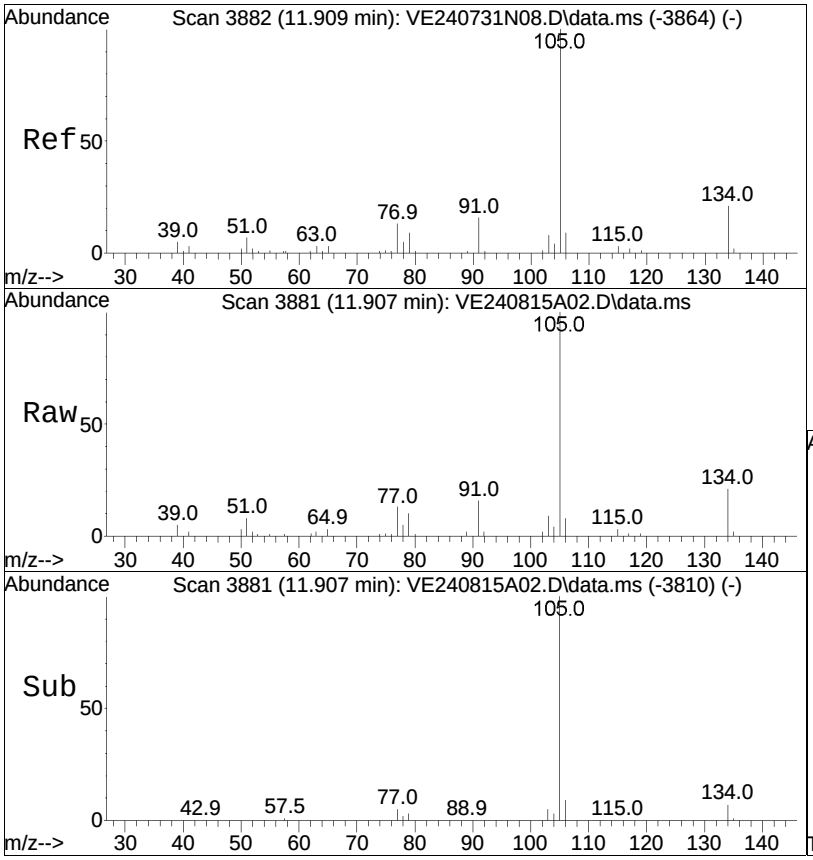


#102
1,2,4-Trimethylbenzene
Concen: 9.93 ug/L
RT: 11.790 min Scan# 3839
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:105 Resp: 166240

Ion	Ratio	Lower	Upper
105	100		
120	45.9	33.6	50.4

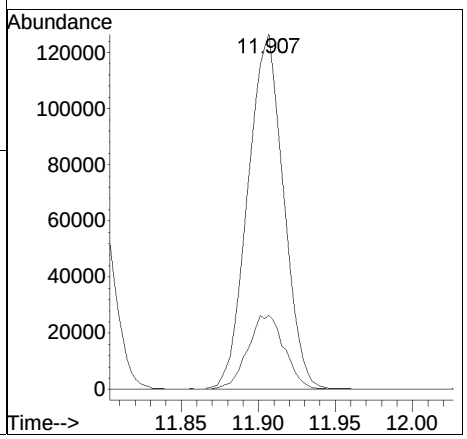


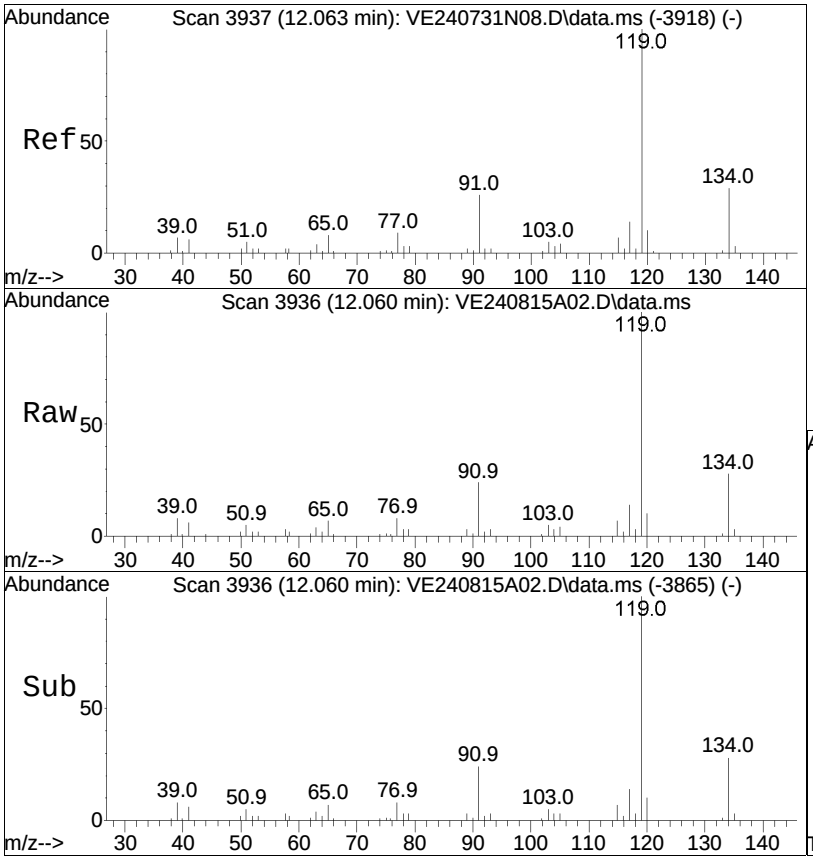


#103
sec-Butylbenzene
Concen: 9.77 ug/L
RT: 11.907 min Scan# 3881
Delta R.T. -0.002 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:105 Resp: 204304

Ion	Ratio	Lower	Upper
105	100		
134	21.5	13.3	27.5

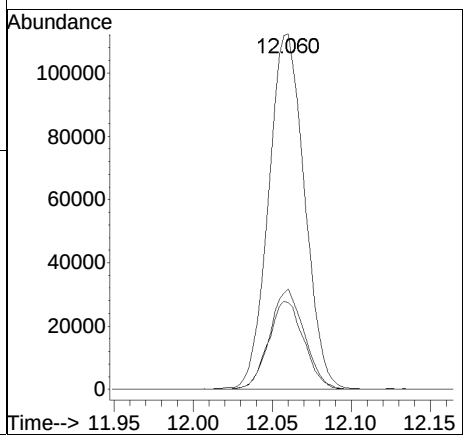


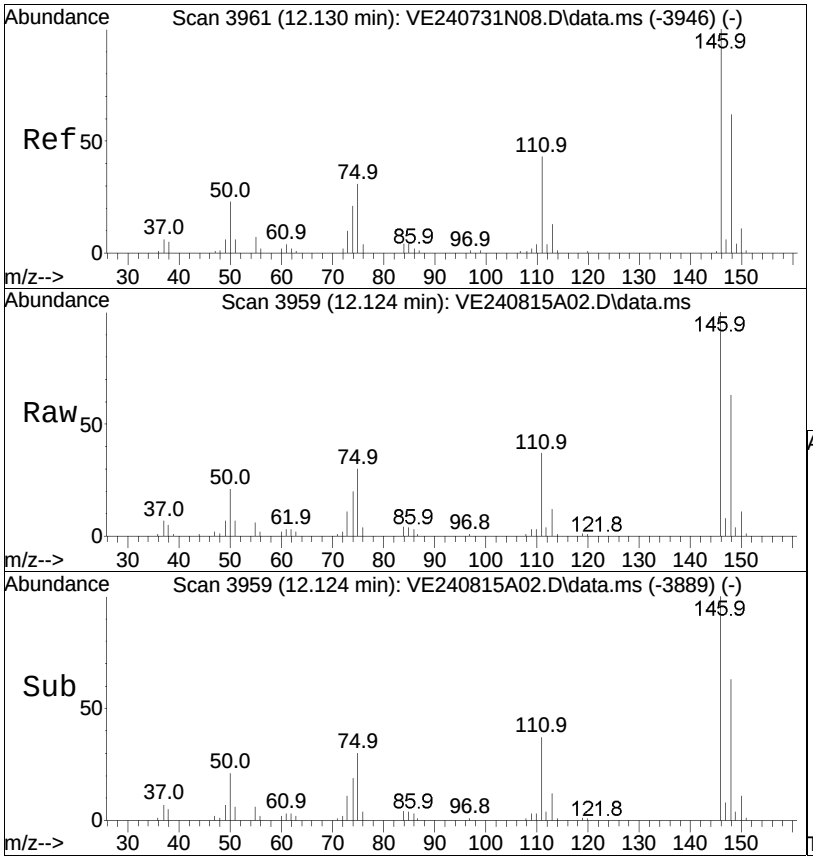


#104
p-Isopropyltoluene
Concen: 10.09 ug/L
RT: 12.060 min Scan# 3936
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:119 Resp: 177738

Ion	Ratio	Lower	Upper
119	100		
134	27.1	15.8	32.8
91	24.6	16.6	34.4

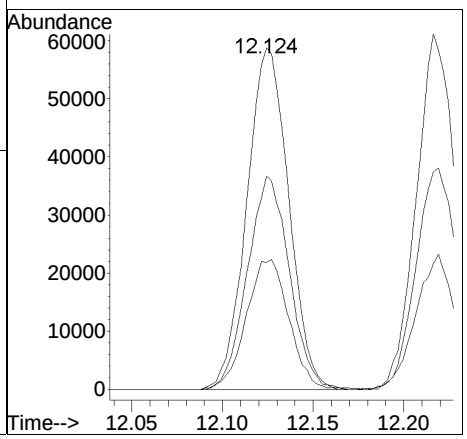


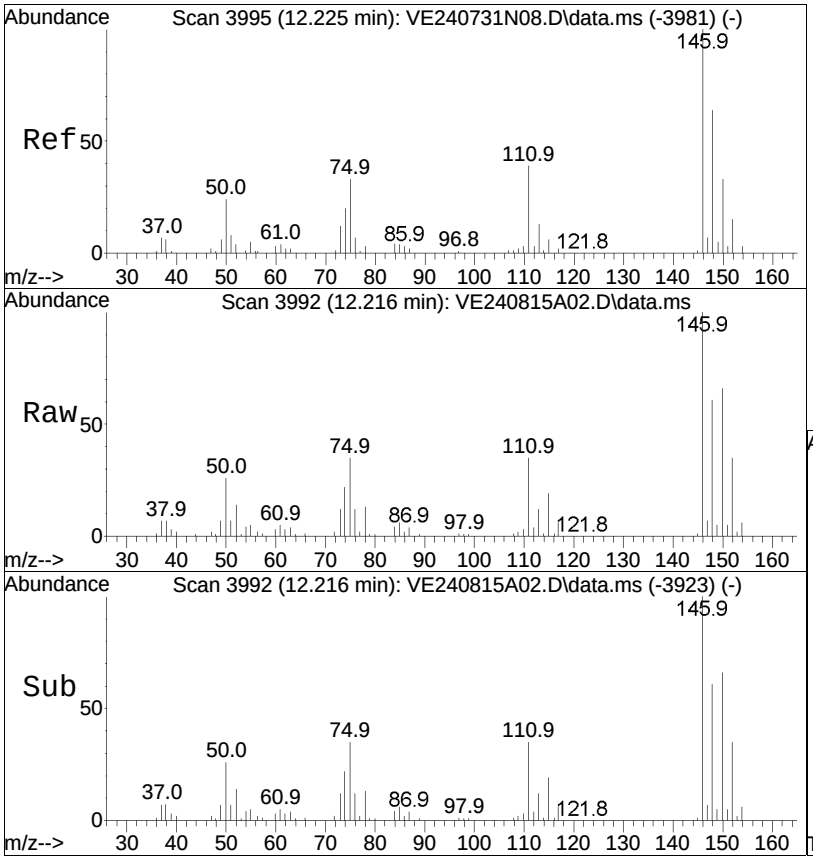


#105
1,3-Dichlorobenzene
Concen: 10.28 ug/L
RT: 12.124 min Scan# 3959
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:146 Resp: 94607

Ion	Ratio	Lower	Upper
146	100		
111	38.5	27.9	57.9
148	62.2	42.4	88.2

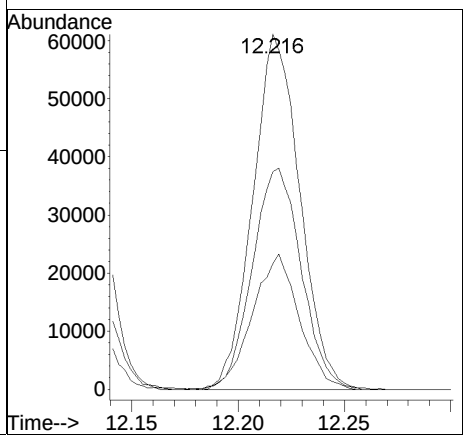


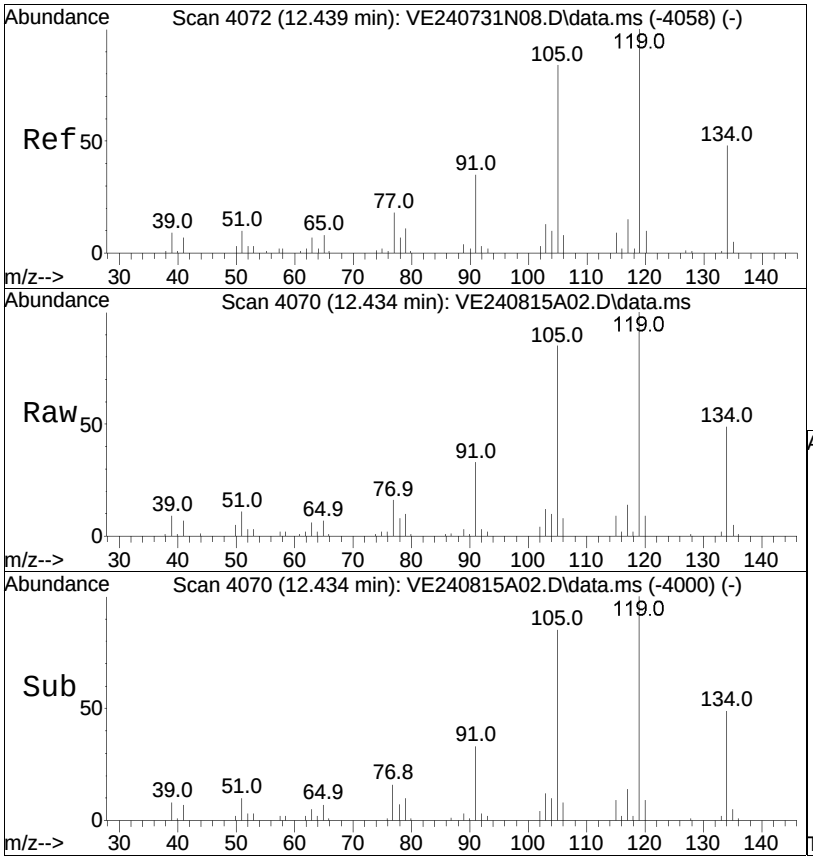


#106
1,4-Dichlorobenzene
Concen: 10.22 ug/L
RT: 12.216 min Scan# 3992
Delta R.T. -0.009 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:146 Resp: 93934

Ion	Ratio	Lower	Upper
146	100		
111	38.2	31.4	47.0
148	65.0	49.8	74.8

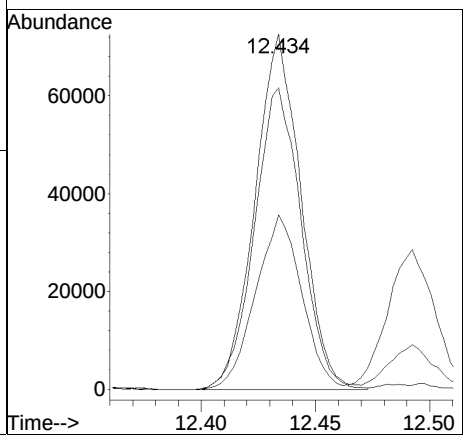


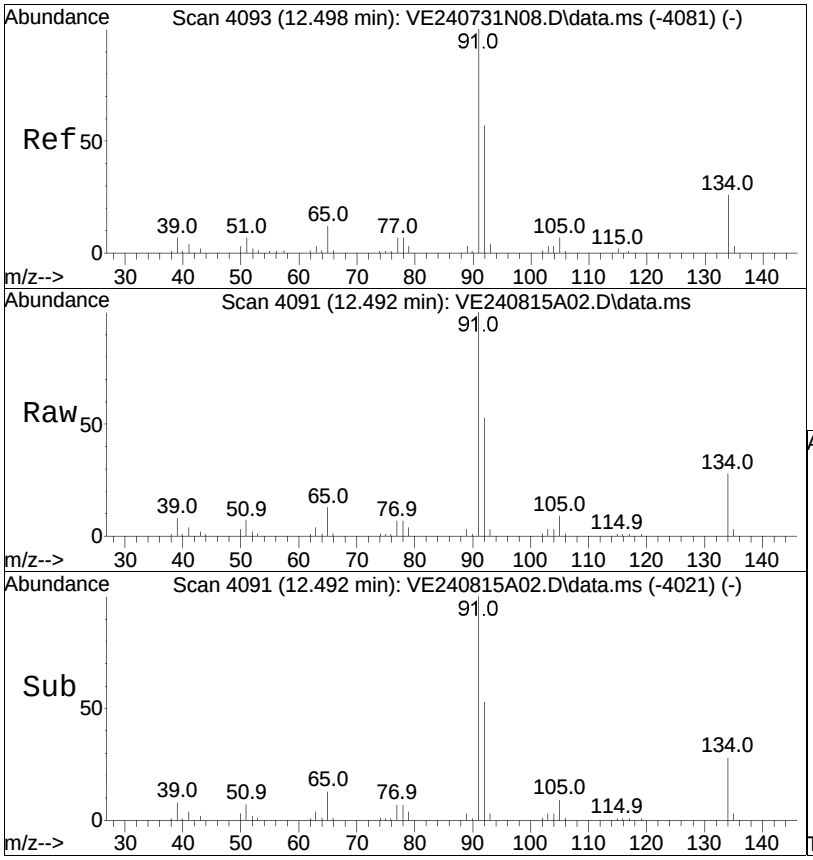


#107
p-Diethylbenzene
Concen: 9.77 ug/L
RT: 12.434 min Scan# 4070
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:119 Resp: 101545

Ion	Ratio	Lower	Upper
119	100		
105	86.7	55.4	115.2
134	49.4	28.4	59.0

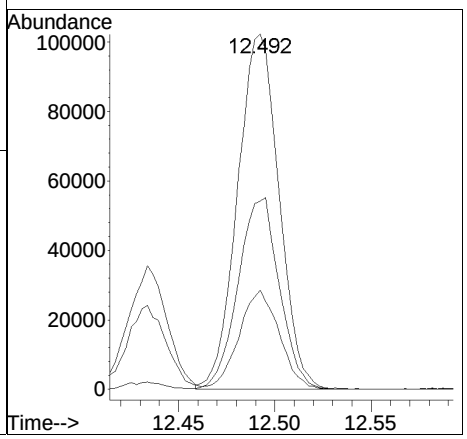


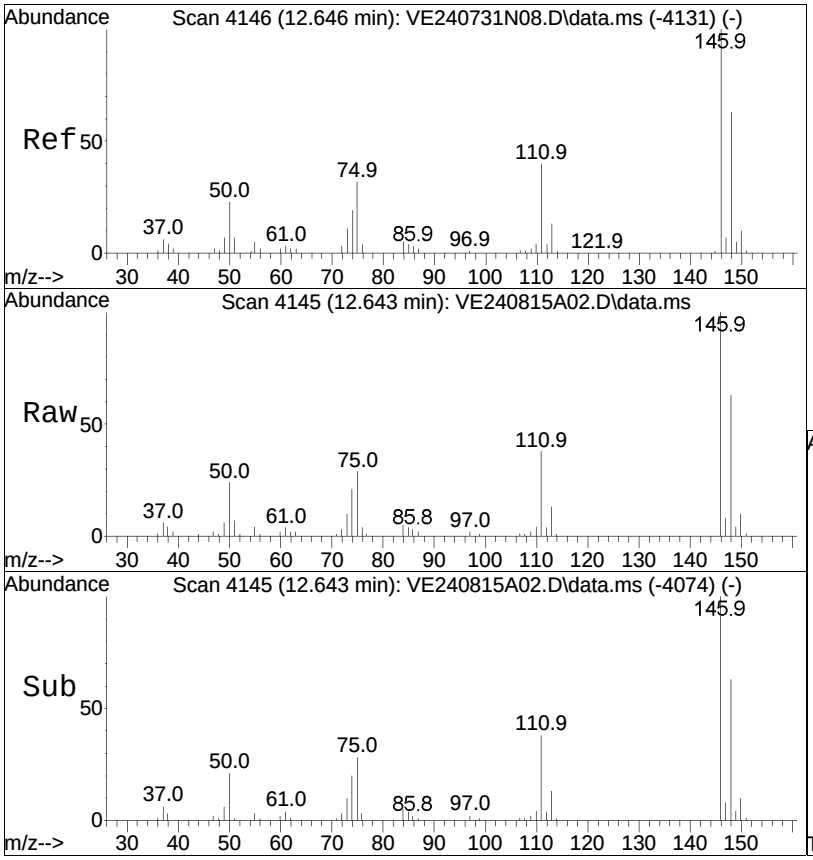


#108
n-Butylbenzene
Concen: 10.11 ug/L
RT: 12.492 min Scan# 4091
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion: 91 Resp: 153447

Ion	Ratio	Lower	Upper
91	100		
92	53.6	42.4	63.6
134	27.1	20.3	30.5

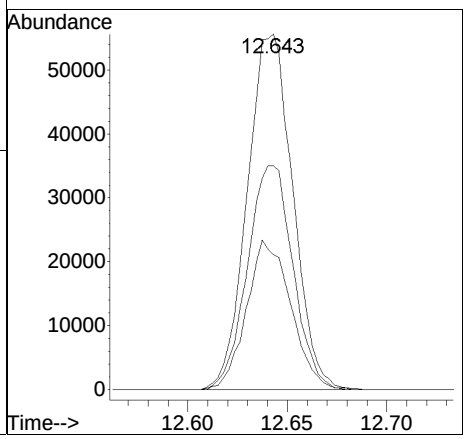


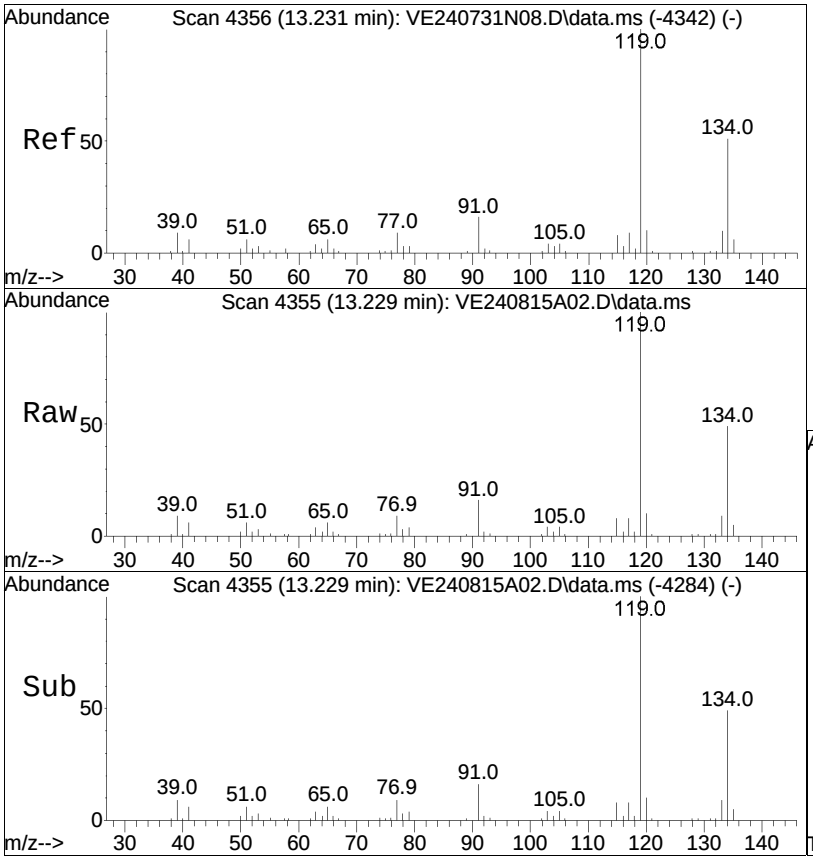


#109
1,2-Dichlorobenzene
Concen: 9.99 ug/L
RT: 12.643 min Scan# 4145
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:146 Resp: 88393

Ion	Ratio	Lower	Upper
146	100		
111	40.7	26.4	54.8
148	63.1	41.7	86.7

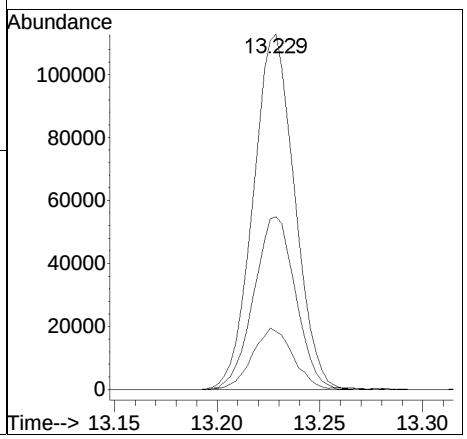


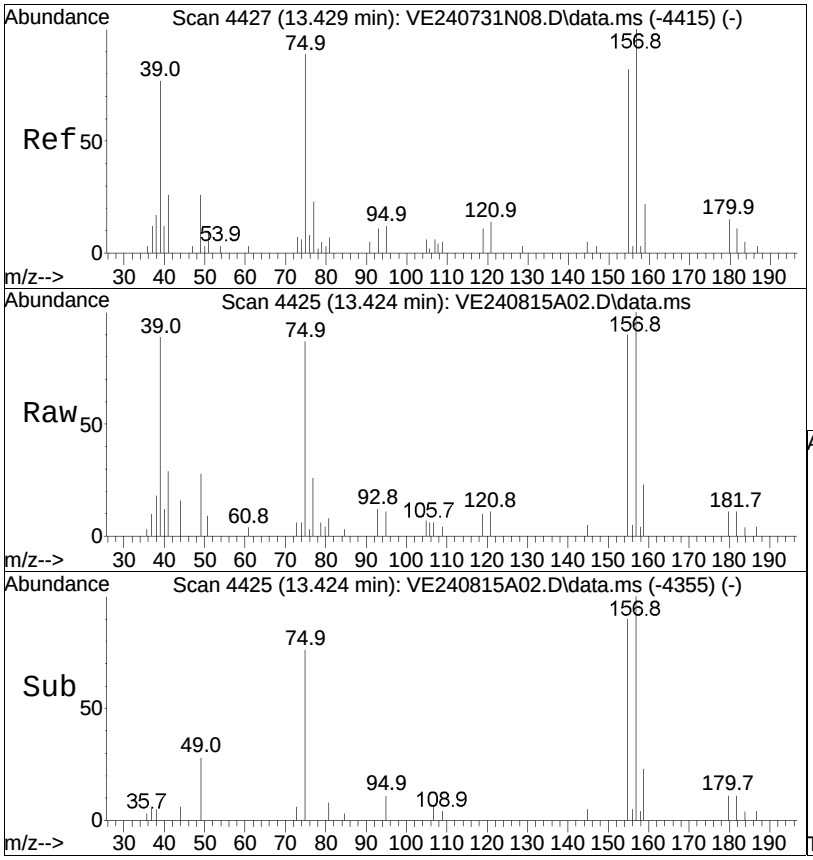


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.39 ug/L
RT: 13.229 min Scan# 4355
Delta R.T. -0.002 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:119 Resp: 158269

Ion	Ratio	Lower	Upper
119	100		
134	49.1	29.6	61.4
91	16.9	9.8	20.3

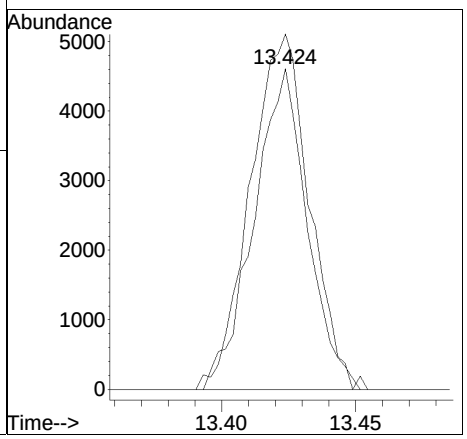


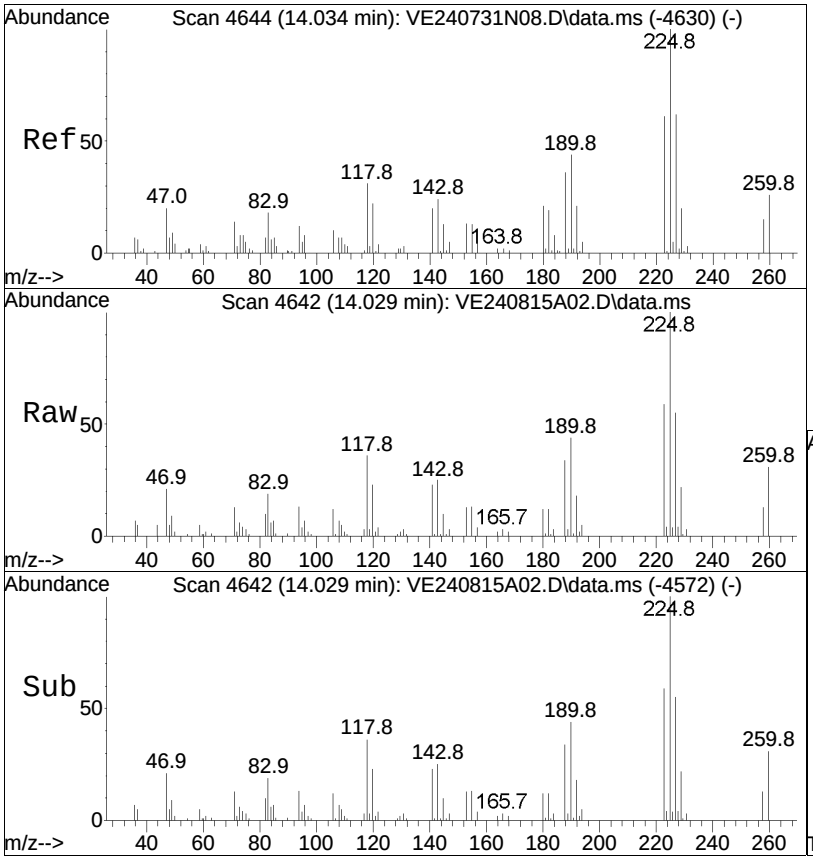


#111
1,2-Dibromo-3-chloropropane
Concen: 8.18 ug/L
RT: 13.424 min Scan# 4425
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:155 Resp: 6400

Ion	Ratio	Lower	Upper
155	100		
157	122.3	95.1	142.7

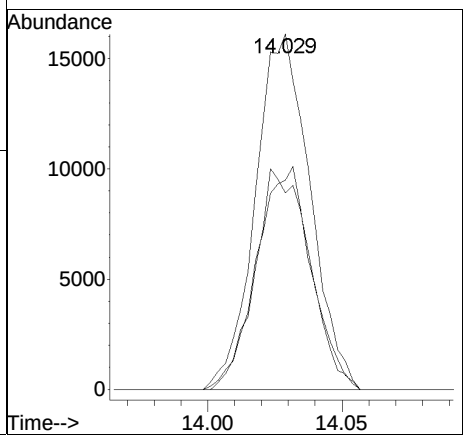


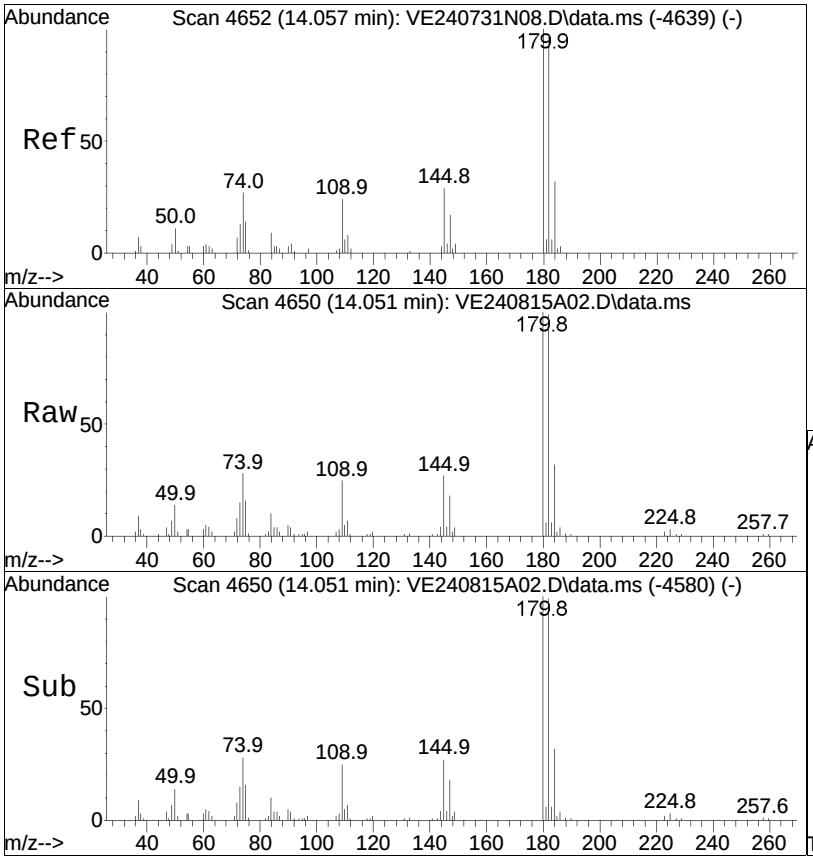


#113
Hexachlorobutadiene
Concen: 9.83 ug/L
RT: 14.029 min Scan# 4642
Delta R.T. -0.005 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:225 Resp: 22890

Ion	Ratio	Lower	Upper
225	100		
223	62.2	54.6	82.0
227	62.7	56.2	84.4

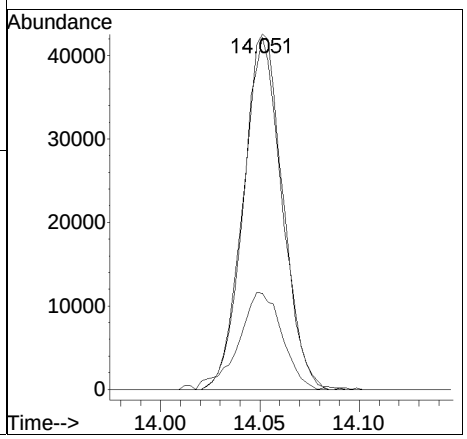


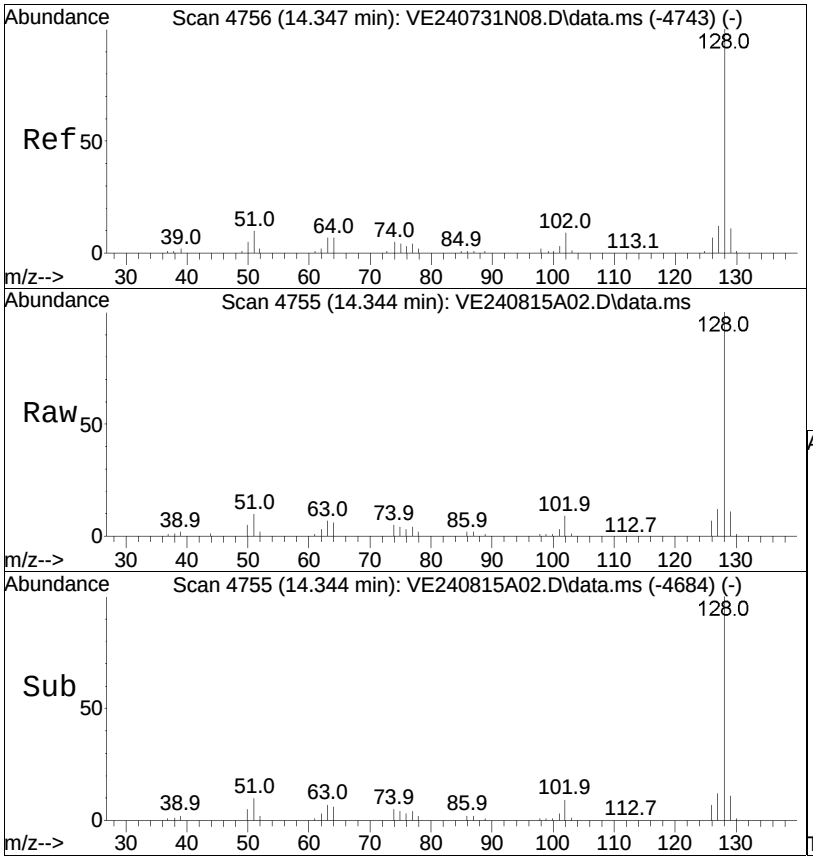


#114
1,2,4-Trichlorobenzene
Concen: 9.32 ug/L
RT: 14.051 min Scan# 4650
Delta R.T. -0.006 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:180 Resp: 59100

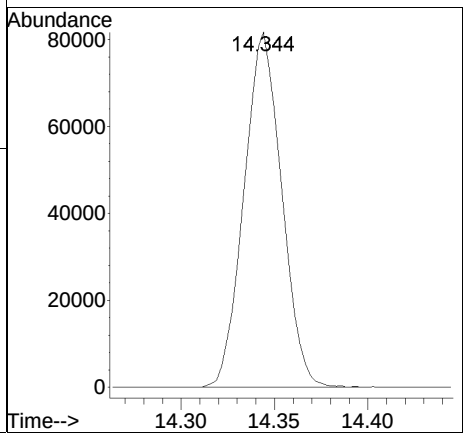
Ion	Ratio	Lower	Upper
180	100		
182	95.7	75.4	113.2
145	30.2	26.0	39.0

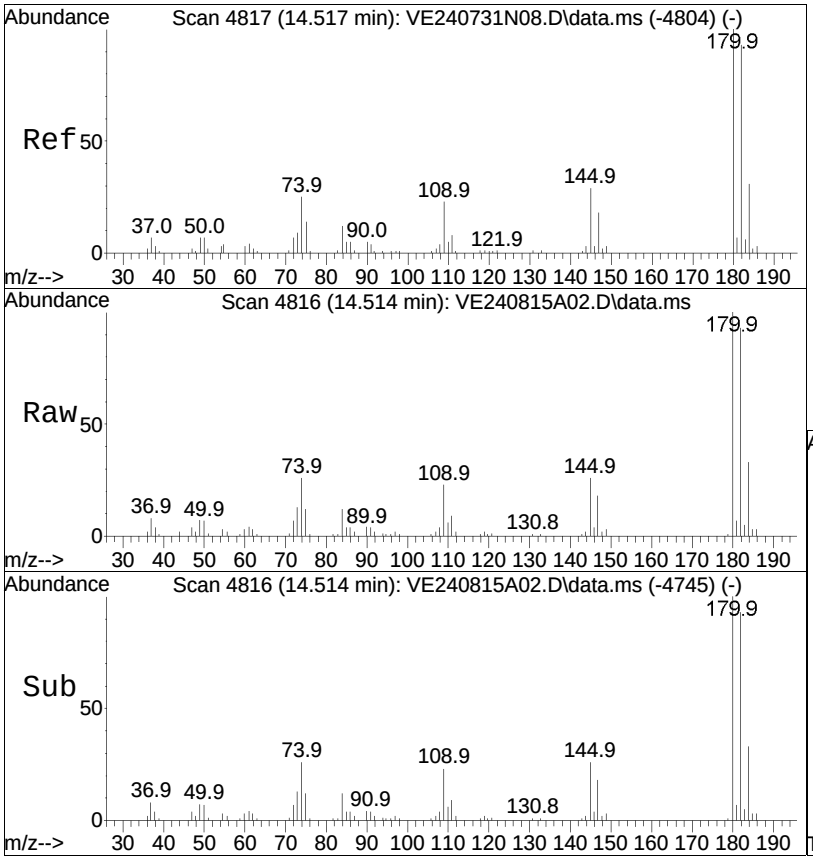




#115
Naphthalene
Concen: 8.21 ug/L
RT: 14.344 min Scan# 4755
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:128 Resp: 114881

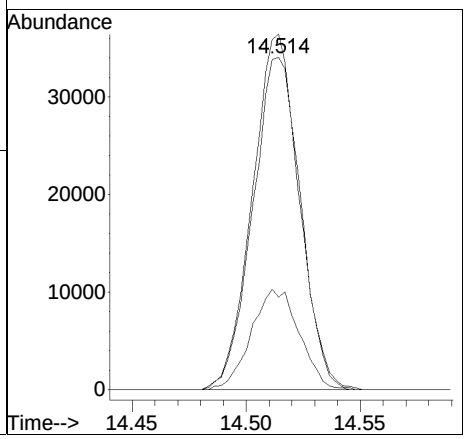




#116
1,2,3-Trichlorobenzene
Concen: 8.95 ug/L
RT: 14.514 min Scan# 4816
Delta R.T. -0.003 min
Lab File: VE240815A02.D
Acq: 15 Aug 2024 7:03 am

Tgt Ion:180 Resp: 52159

Ion	Ratio	Lower	Upper
180	100		
182	94.1	71.6	107.4
145	28.7	25.1	37.7

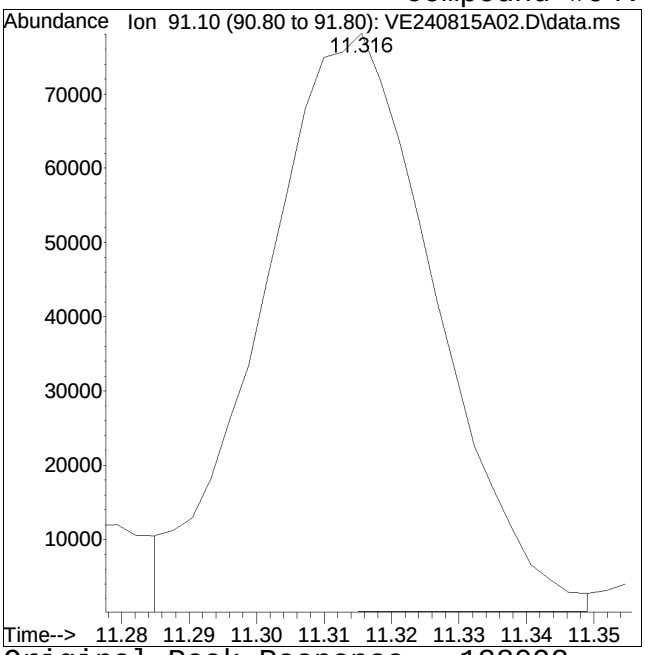


Manual Integration Report

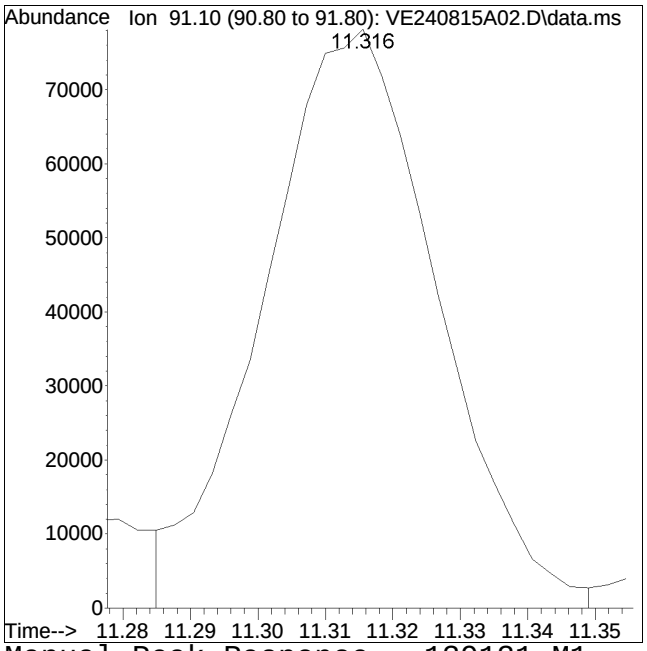
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A02.D
Date Inj'd : 8/15/2024 7:03 am
Sample : WG1959746-4,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:26 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 138092



Manual Peak Response = 139131 M1

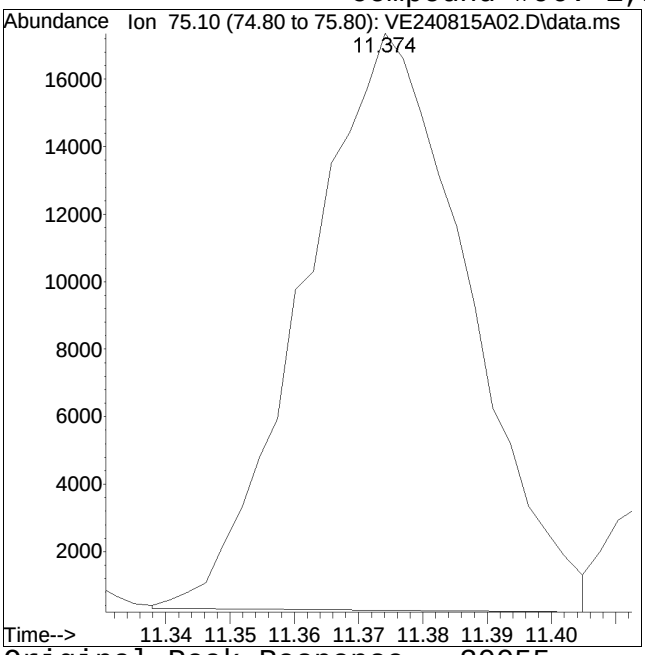
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

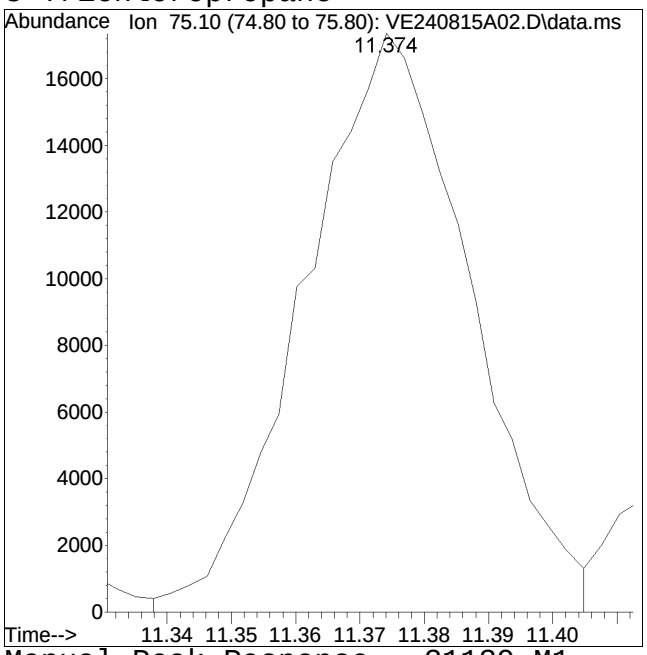
Data Path : K:\Elaine\2024\240815A\
Data File : VE240815A02.D
Date Inj'd : 8/15/2024 7:03 am
Sample : WG1959746-4,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/15/2024 7:26 am

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 30055



Manual Peak Response = 31139 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A03.D
Acq On : 15 Aug 2024 07:26 am
Operator : VOA122:PID
Sample : WG1959760-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 15 09:45:34 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.977	96	425136	10.000	ug/L	0.00
Standard Area 1 = 421161			Recovery = 100.94%			
62) Chlorobenzene-d5	9.519	117	359808	10.000	ug/L	0.00
Standard Area 1 = 360997			Recovery = 99.67%			
83) 1,4-Dichlorobenzene-d4	12.229	152	194443	10.000	ug/L	0.00
Standard Area 1 = 194587			Recovery = 99.93%			
System Monitoring Compounds						
38) Dibromofluoromethane	5.164	113	154625	10.409	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.09%			
46) 1,2-Dichloroethane-d4	5.682	65	115344	9.186	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.86%			
63) Toluene-d8	7.675	98	419180	9.144	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.44%			
87) 4-Bromofluorobenzene	11.012	95	145018	8.190	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 81.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.625	85	76943	9.167	ug/L	98
3) Chloromethane	1.808	50	88614	7.915	ug/L	97
4) Vinyl chloride	1.880	62	86628	9.780	ug/L	95
5) Bromomethane	2.189	94	18470	5.191	ug/L	94
6) Chloroethane	2.300	64	49163	9.602	ug/L	96
7) Trichlorofluoromethane	2.444	101	115456	11.356	ug/L	99
8) Ethyl ether	2.739	74	25574	8.644	ug/L #	1
10) 1,1-Dichloroethene	2.929	96	62854	10.686	ug/L	88
11) Carbon disulfide	2.962	76	186202	9.637	ug/L	100
15) Methylene chloride	3.473	84	67103	8.606	ug/L #	59
17) Acetone	3.512	43	12768	8.983	ug/L	93
18) trans-1,2-Dichloroethene	3.630	96	69480	10.098	ug/L	92
21) Methyl tert-butyl ether	3.729	73	119287	9.066	ug/L #	77
25) 1,1-Dichloroethane	4.207	63	126419	8.996	ug/L	95
27) Acrylonitrile	4.247	53	18233	9.399	ug/L	96
29) Vinyl acetate	4.437	43	131264	8.884	ug/L #	88
30) cis-1,2-Dichloroethene	4.718	96	75264	9.870	ug/L	89
31) 2,2-Dichloropropane	4.823	77	89322	10.142	ug/L #	80
32) Bromochloromethane	4.915	128	41032	11.403	ug/L #	84
34) Chloroform	4.987	83	111710	9.185	ug/L	95

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A03.D
Acq On : 15 Aug 2024 07:26 am
Operator : VOA122:PID
Sample : WG1959760-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 15 09:45:34 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Carbon tetrachloride	5.125	117	102994	11.734	ug/L		97
39) 1,1,1-Trichloroethane	5.190	97	107205	10.453	ug/L		98
41) 2-Butanone	5.275	43	17405	8.714	ug/L	#	49
42) 1,1-Dichloropropene	5.308	75	79807	9.644	ug/L		94
44) Benzene	5.557	78	254001	9.433	ug/L	#	90
47) 1,2-Dichloroethane	5.754	62	59956	8.912	ug/L		99
51) Trichloroethene	6.153	95	56911	9.937	ug/L		93
53) Dibromomethane	6.591	93	27467	9.487	ug/L		95
54) 1,2-Dichloropropane	6.695	63	52996	8.813	ug/L		95
57) Bromodichloromethane	6.764	83	66174	9.327	ug/L		98
60) 1,4-Dioxane	6.973	88	13259	558.913	ug/L	#	63
61) cis-1,3-Dichloropropene	7.459	75	65965	9.022	ug/L	#	84
64) Toluene	7.730	92	134430	9.070	ug/L		99
65) 4-Methyl-2-pentanone	8.161	58	9535	8.039	ug/L	#	63
66) Tetrachloroethene	8.175	166	71747	12.346	ug/L		99
68) trans-1,3-Dichloropropene	8.210	75	55607	7.618	ug/L		86
71) 1,1,2-Trichloroethane	8.391	83	29522	8.483	ug/L		98
72) Chlorodibromomethane	8.600	129	52653	9.372	ug/L		99
73) 1,3-Dichloropropane	8.712	76	57227	8.386	ug/L		99
74) 1,2-Dibromoethane	8.881	107	37418	9.594	ug/L		99
76) 2-Hexanone	9.175	43	16728	7.590	ug/L		86
77) Chlorobenzene	9.540	112	165300	9.848	ug/L	#	84
78) Ethylbenzene	9.582	91	263505	9.416	ug/L		97
79) 1,1,1,2-Tetrachloroethane	9.624	131	54544	10.215	ug/L		97
80) p/m Xylene	9.771	106	219714	20.227	ug/L		93
81) o Xylene	10.311	106	204806	19.938	ug/L		93
82) Styrene	10.381	104	332724	20.138	ug/L		93
84) Bromoform	10.395	173	28442	9.723	ug/L		100
86) Isopropylbenzene	10.697	105	286211	9.489	ug/L		99
88) Bromobenzene	11.125	156	70681	9.966	ug/L		100
89) n-Propylbenzene	11.181	91	312255	8.910	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.258	83	39068	7.919	ug/L		99
92) 4-Ethyltoluene	11.307	105	265456	9.293	ug/L		97
93) 2-Chlorotoluene	11.342	91	183784M6	8.706	ug/L		
94) 1,3,5-Trimethylbenzene	11.412	105	224581	9.278	ug/L		96
95) 1,2,3-Trichloropropane	11.398	75	28758	7.636	ug/L		94
96) trans-1,4-Dichloro-2-b...	11.454	53	13398	7.977	ug/L	#	71
97) 4-Chlorotoluene	11.524	91	182982	8.398	ug/L		91
98) tert-Butylbenzene	11.749	119	212641	10.121	ug/L		92

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A03.D
Acq On : 15 Aug 2024 07:26 am
Operator : VOA122:PID
Sample : WG1959760-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 15 09:45:34 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA122\2024\240815A\V22240815A02.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,2,4-Trimethylbenzene	11.826	105	248740	9.197	ug/L	95
102) sec-Butylbenzene	11.944	105	296268	9.288	ug/L	98
103) p-Isopropyltoluene	12.097	119	258242	9.579	ug/L	98
104) 1,3-Dichlorobenzene	12.153	146	142612	10.137	ug/L	99
105) 1,4-Dichlorobenzene	12.250	146	138857	9.952	ug/L	99
106) p-Diethylbenzene	12.473	119	145649	9.507	ug/L	97
107) n-Butylbenzene	12.529	91	196830	8.794	ug/L	97
108) 1,2-Dichlorobenzene	12.668	146	124278	9.985	ug/L	98
109) 1,2,4,5-Tetramethylben...	13.267	119	181570	8.642	ug/L	97
110) 1,2-Dibromo-3-chloropr...	13.455	155	6854	9.279	ug/L	98
112) Hexachlorobutadiene	14.074	225	31432	10.688	ug/L	97
113) 1,2,4-Trichlorobenzene	14.088	180	71920	10.426	ug/L	100
114) Naphthalene	14.387	128	142550	8.978	ug/L	100
115) 1,2,3-Trichlorobenzene	14.554	180	62211	10.616	ug/L	99

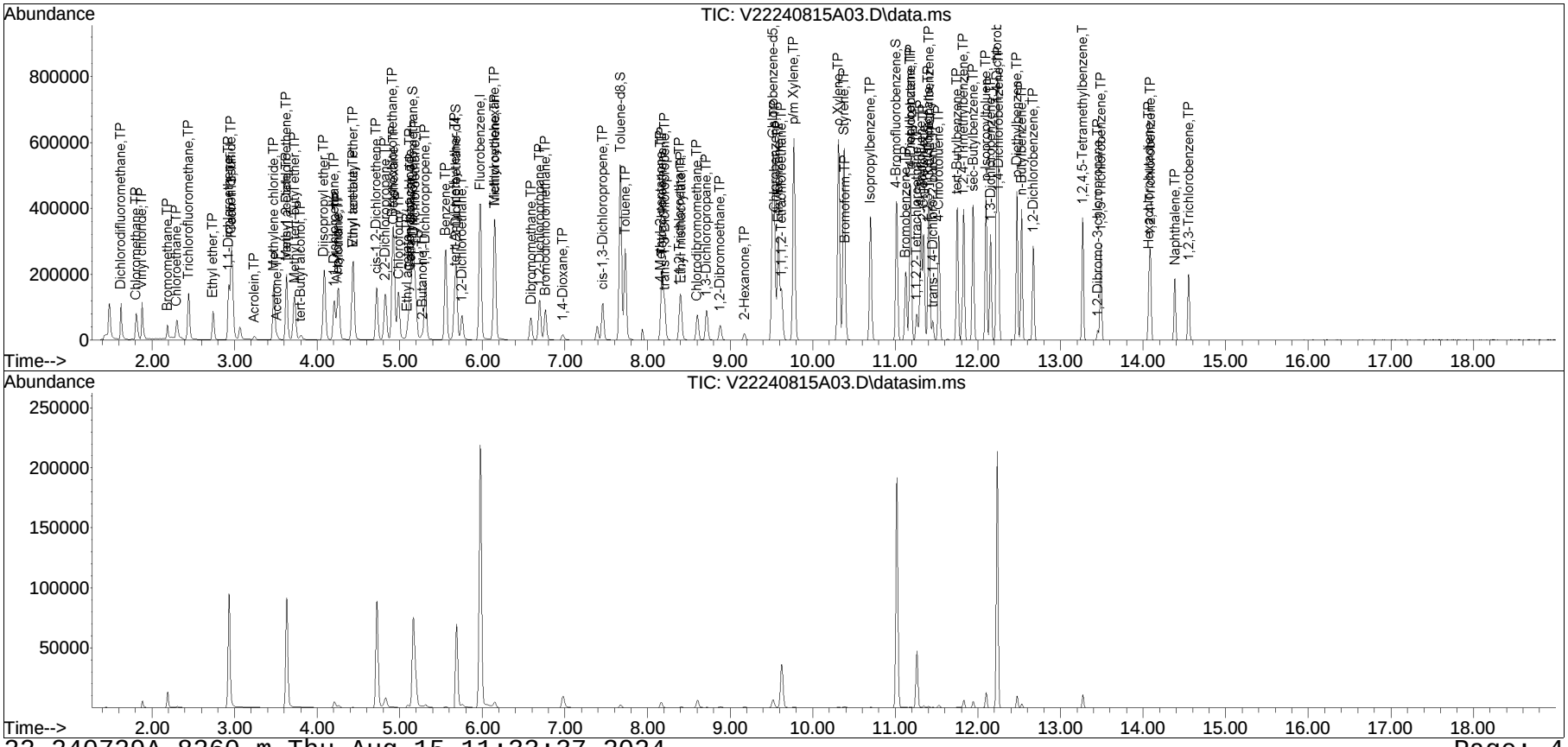
(#) = qualifier out of range (m) = manual integration (+) = signals summed

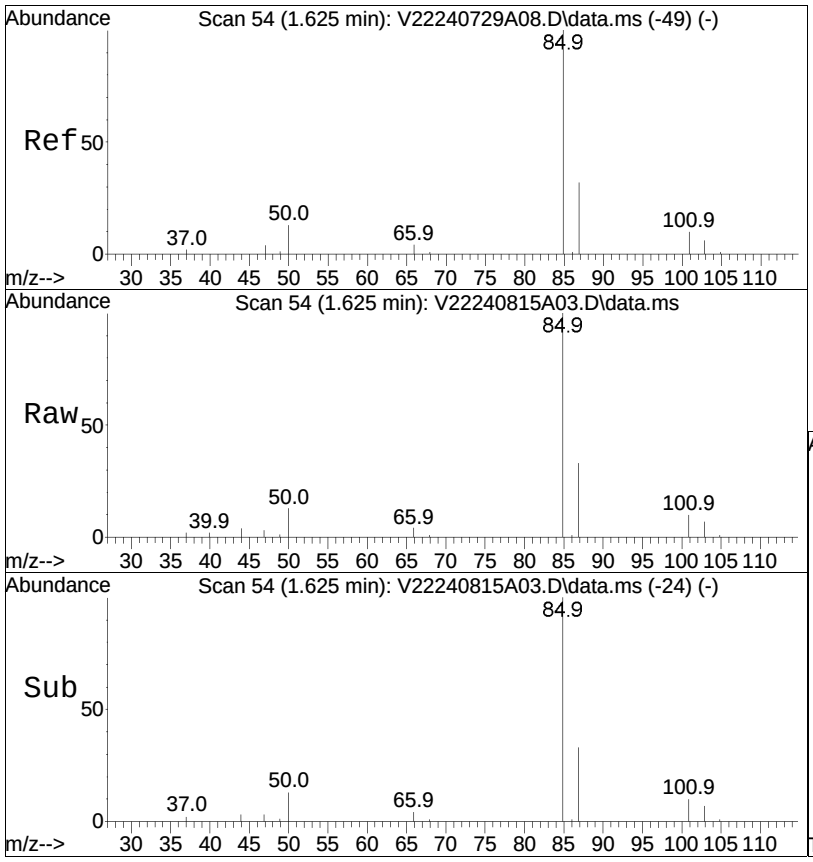
Quantitation Report (QT Reviewed)

Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A03.D
Acq On : 15 Aug 2024 07:26 am
Operator : VOA122:PID
Sample : WG1959760-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1959760,ICAL21346 (Sig #1); WG,ICAL21346 (Sig #2)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 15 09:45:34 2024
Quant Method : K:\VOA122\2024\240815A\V122_240729A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jul 30 07:07:01 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

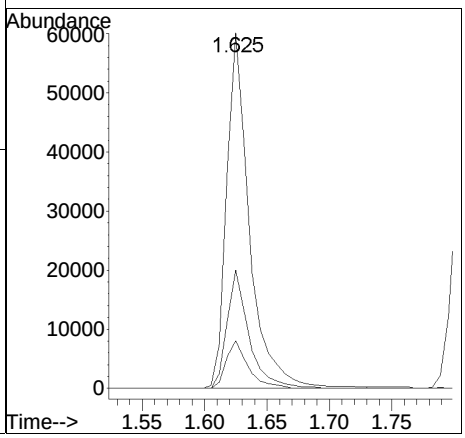


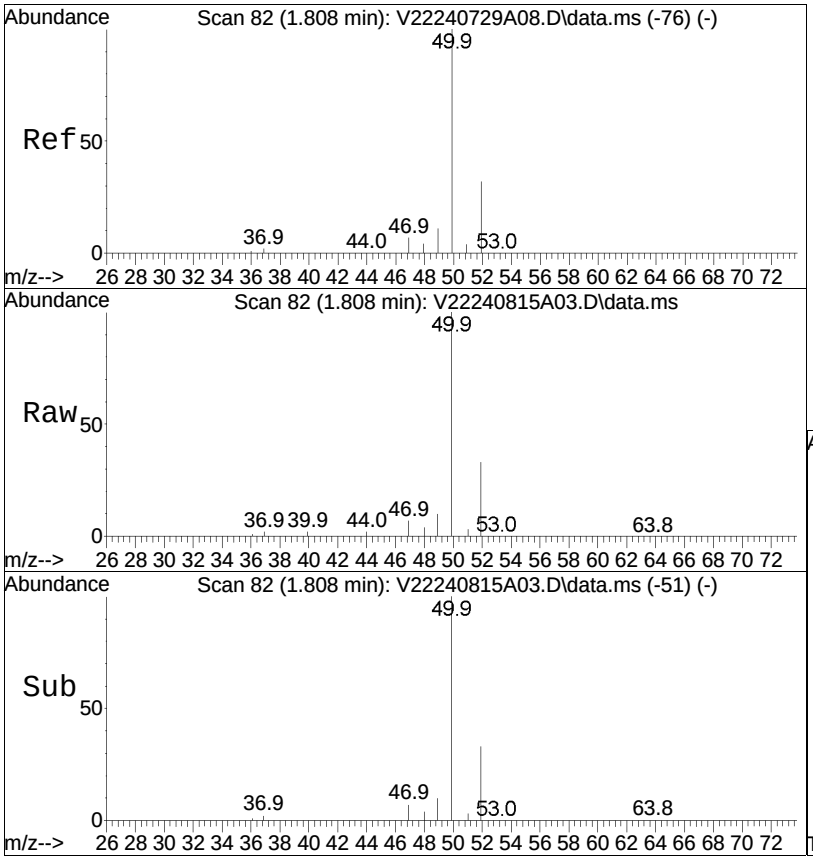


#2
Dichlorodifluoromethane
Concen: 9.17 ug/L
RT: 1.625 min Scan# 54
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 85 Resp: 76943

Ion	Ratio	Lower	Upper
85	100		
87	31.9	20.7	42.9
50	12.9	6.8	14.2

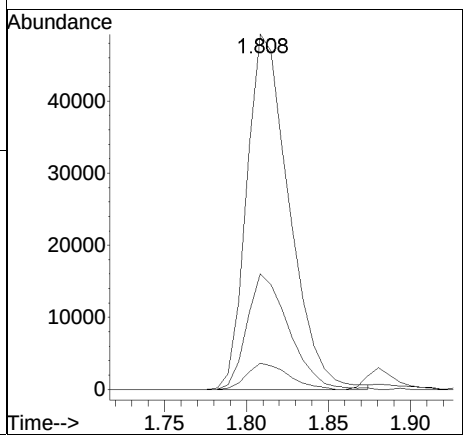


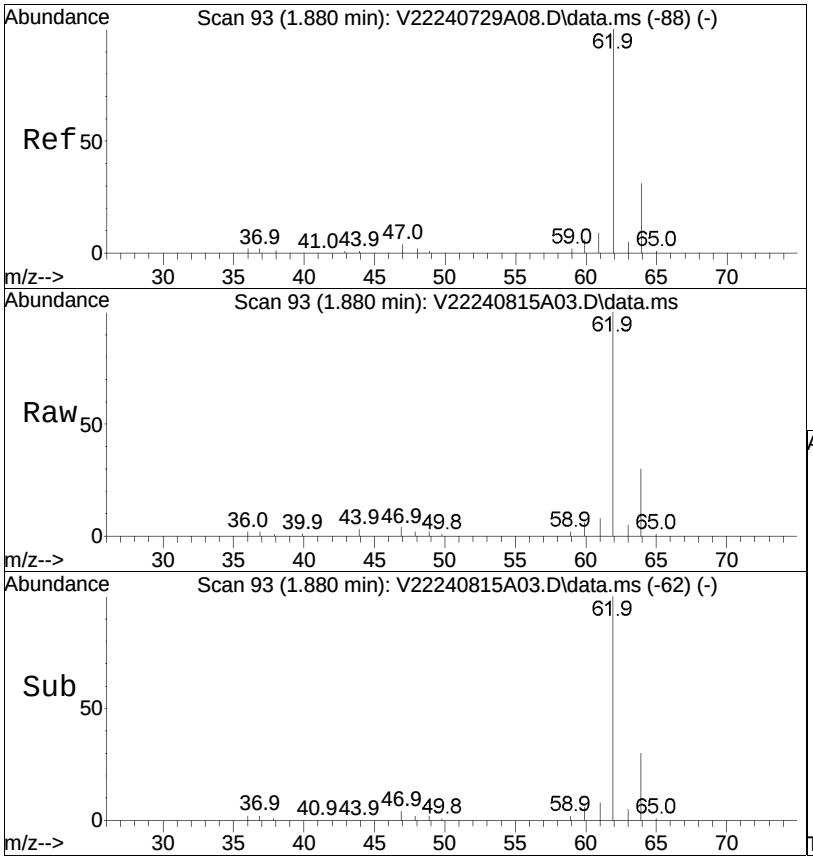


#3
Chloromethane
Concen: 7.91 ug/L
RT: 1.808 min Scan# 82
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 50 Resp: 88614

Ion	Ratio	Lower	Upper
50	100		
52	32.1	12.8	52.8
47	7.3	0.0	30.0

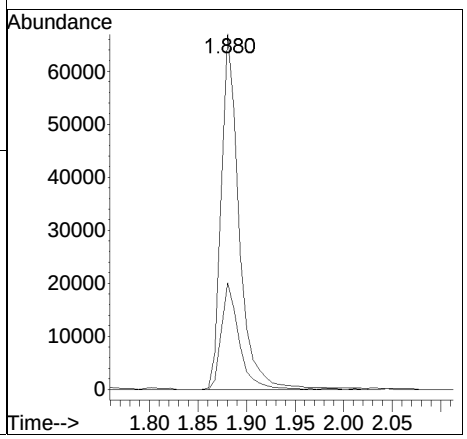


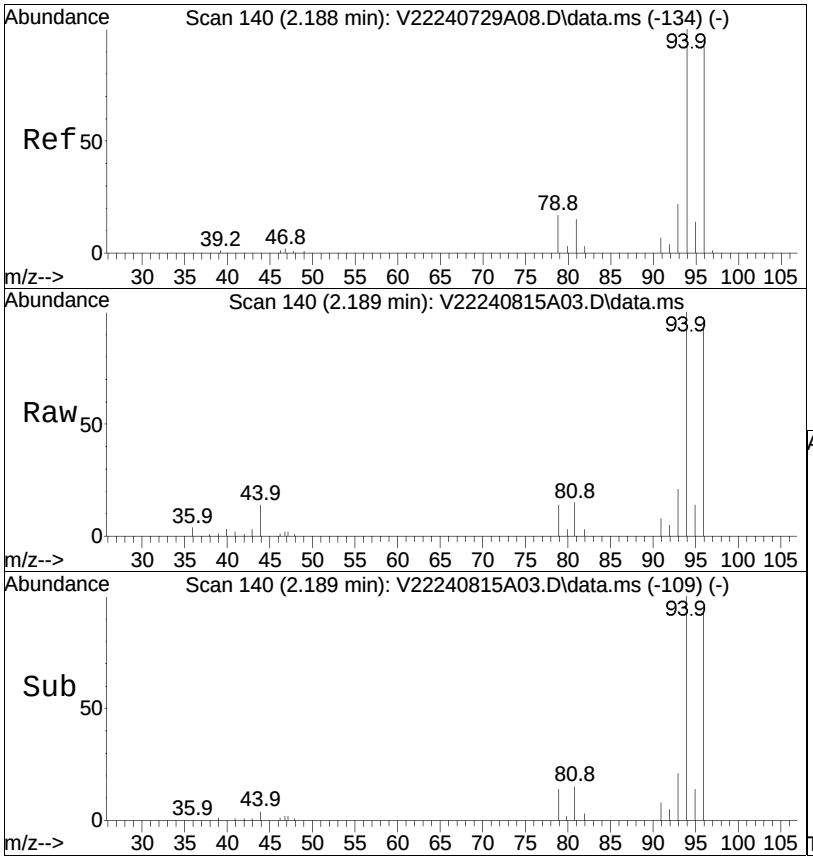


#4
Vinyl chloride
Concen: 9.78 ug/L
RT: 1.880 min Scan# 93
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 62 Resp: 86628

Ion	Ratio	Lower	Upper
62	100		
64	29.4	12.0	52.0

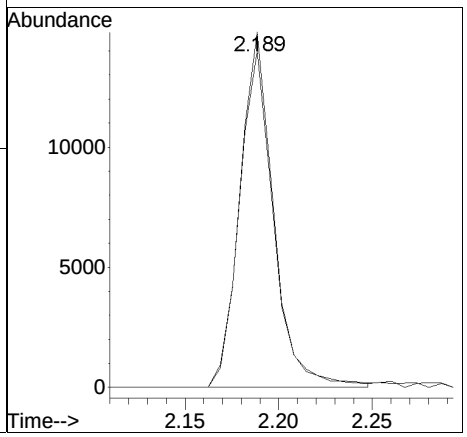


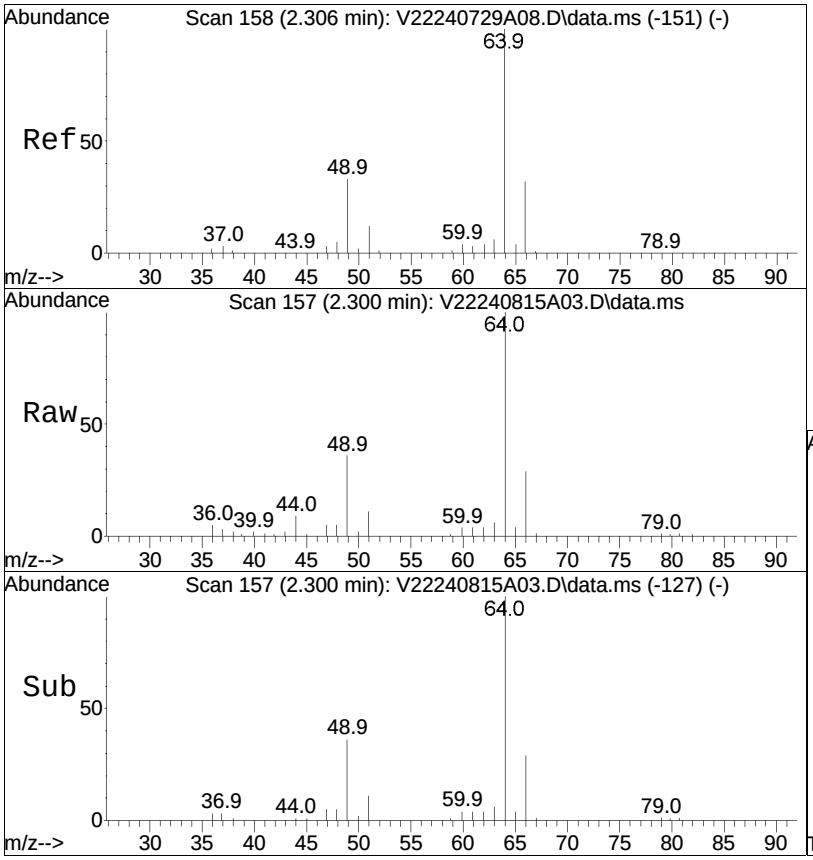


#5
Bromomethane
Concen: 5.19 ug/L
RT: 2.189 min Scan# 140
Delta R.T. 0.001 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 94 Resp: 18470

Ion	Ratio	Lower	Upper
94	100		
96	98.9	72.8	112.8

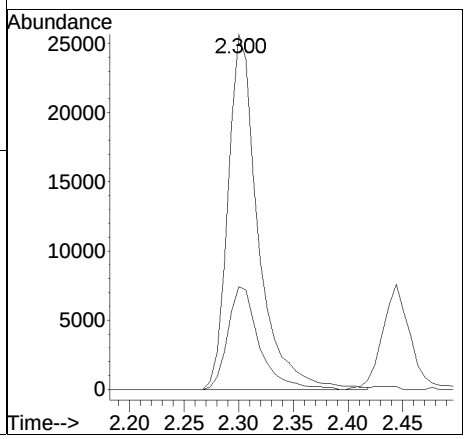


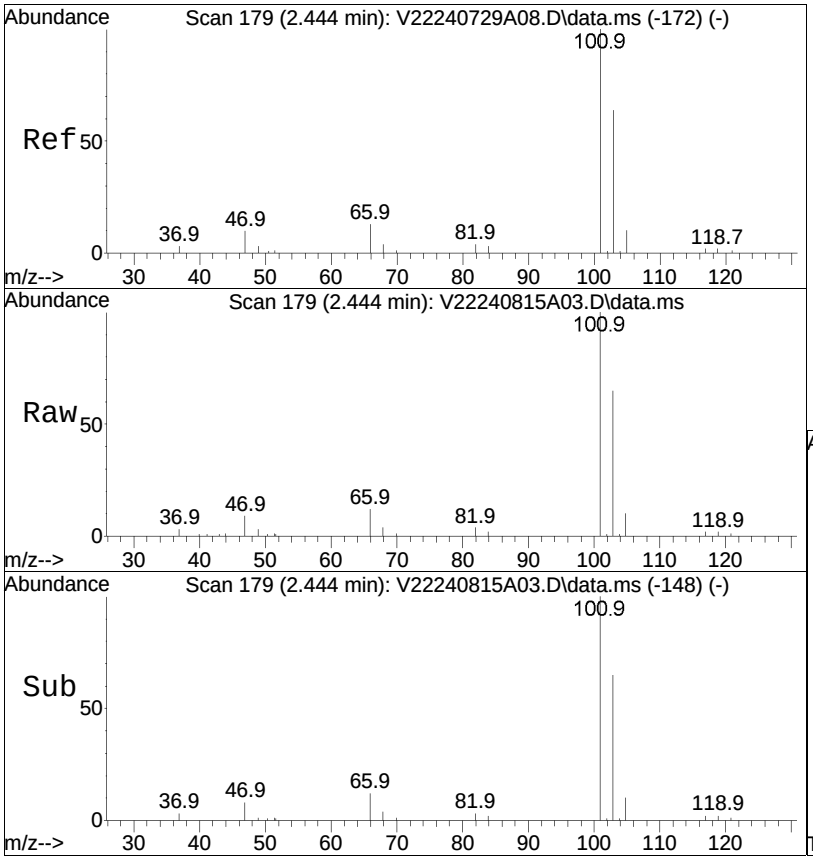


#6
Chloroethane
Concen: 9.60 ug/L
RT: 2.300 min Scan# 157
Delta R.T. -0.006 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 64 Resp: 49163

Ion	Ratio	Lower	Upper
64	100		
66	30.2	12.2	52.2

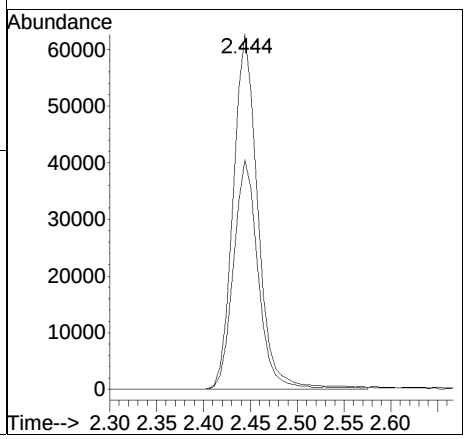


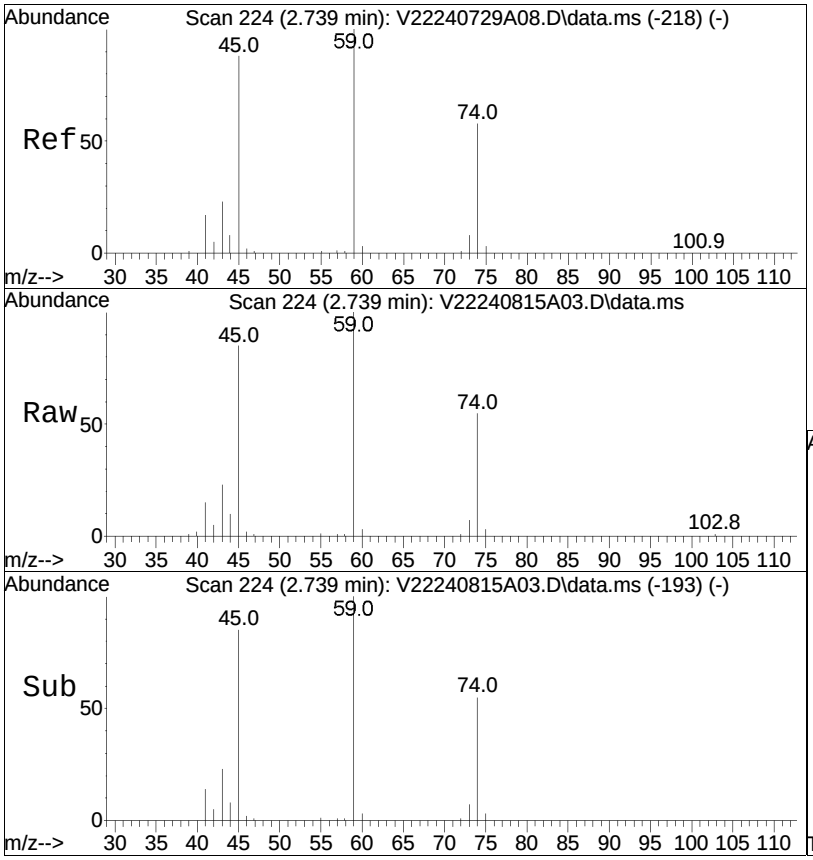


#7
Trichlorofluoromethane
Concen: 11.36 ug/L
RT: 2.444 min Scan# 179
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:101 Resp: 115456

Ion	Ratio	Lower	Upper
101	100		
103	63.9	51.6	77.4

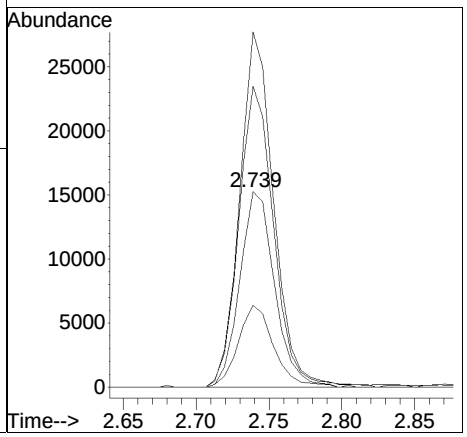


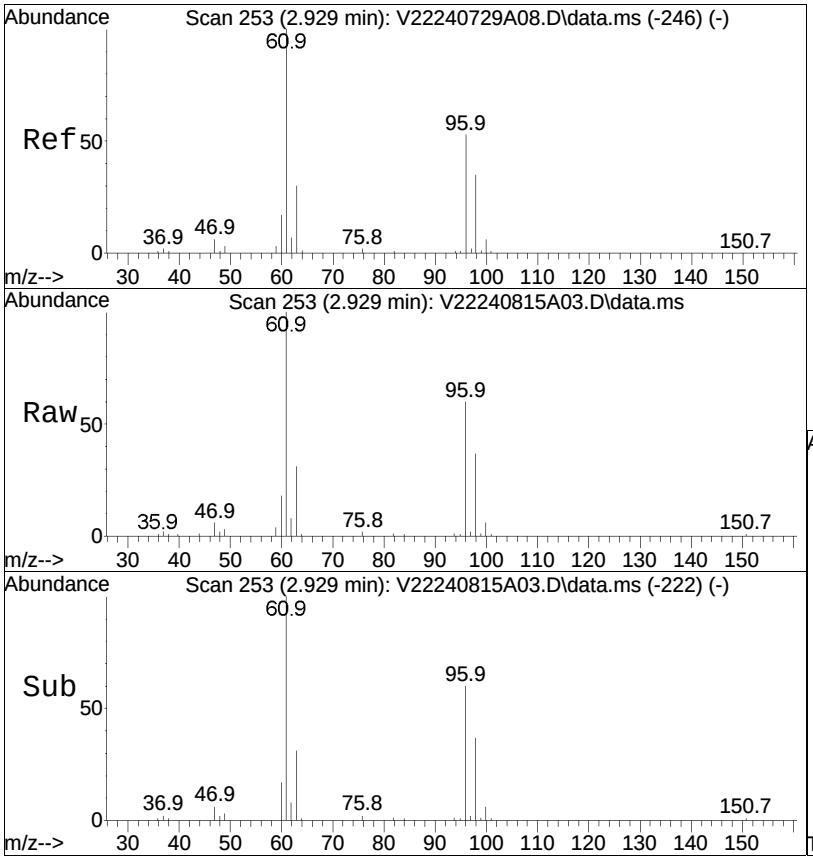


#8
Ethyl ether
Concen: 8.64 ug/L
RT: 2.739 min Scan# 224
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 74 Resp: 25574

Ion	Ratio	Lower	Upper
74	100		
59	176.1	2122.4	4408.0#
45	153.9	1435.1	2980.5#
43	42.9	407.9	847.3#

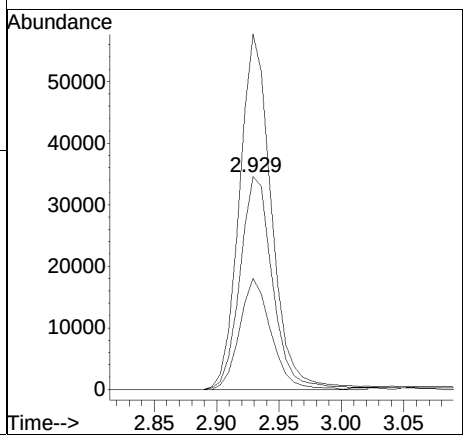


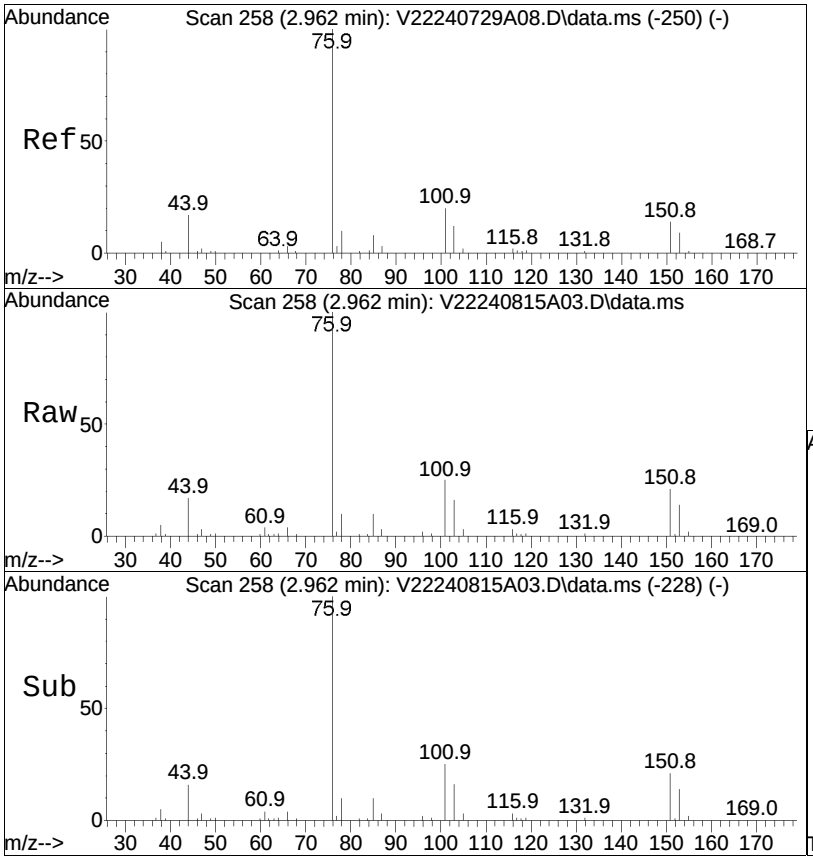


#10
1,1-Dichloroethene
Concen: 10.69 ug/L
RT: 2.929 min Scan# 253
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 96 Resp: 62854

Ion	Ratio	Lower	Upper
96	100		
61	164.4	117.0	175.4
63	50.1	37.8	56.6

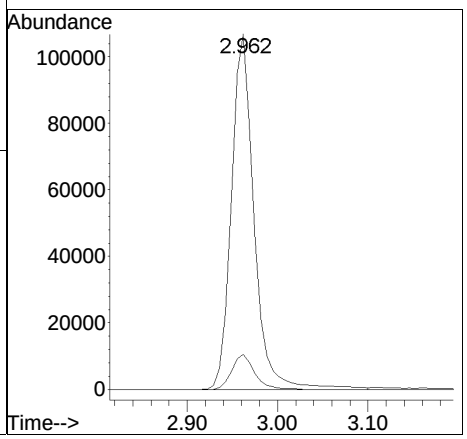


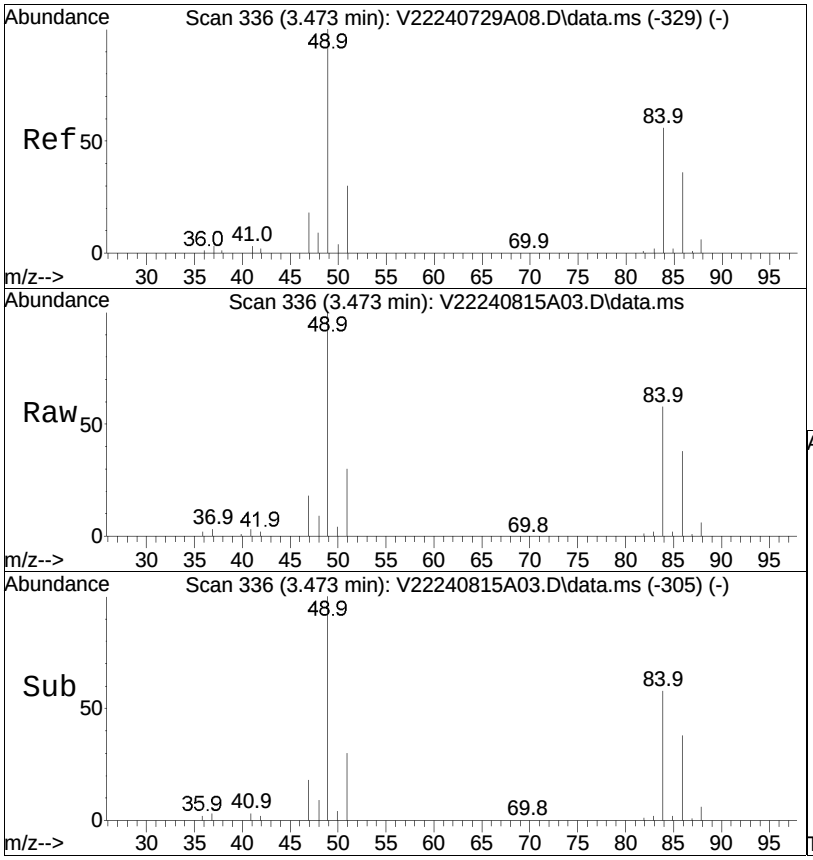


#11
Carbon disulfide
Concen: 9.64 ug/L
RT: 2.962 min Scan# 258
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 76 Resp: 186202

Ion	Ratio	Lower	Upper
76	100		
78	9.8	6.4	13.4

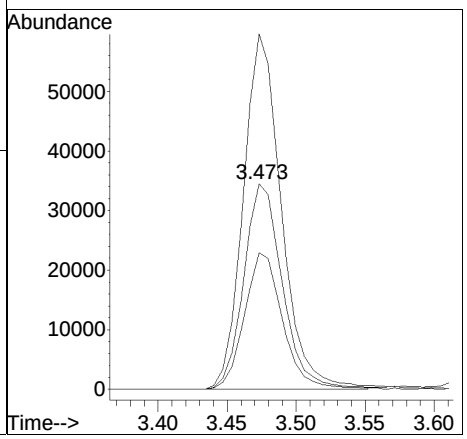


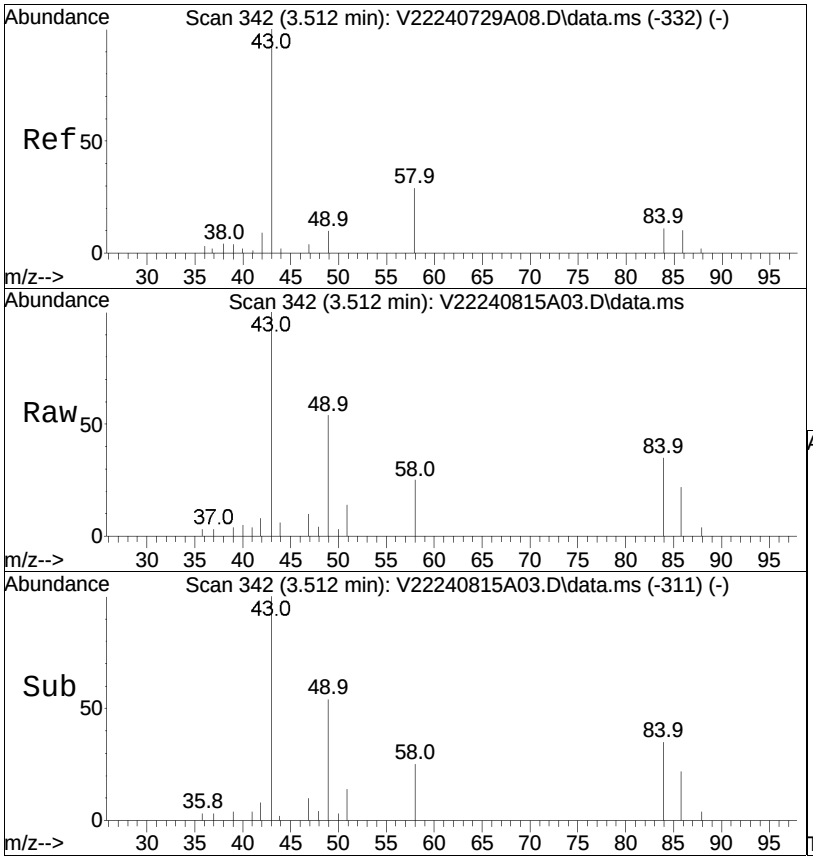


#15
Methylene chloride
Concen: 8.61 ug/L
RT: 3.473 min Scan# 336
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 84 Resp: 67103

Ion	Ratio	Lower	Upper
84	100		
86	66.0	41.5	86.3
49	172.3	68.8	143.0#

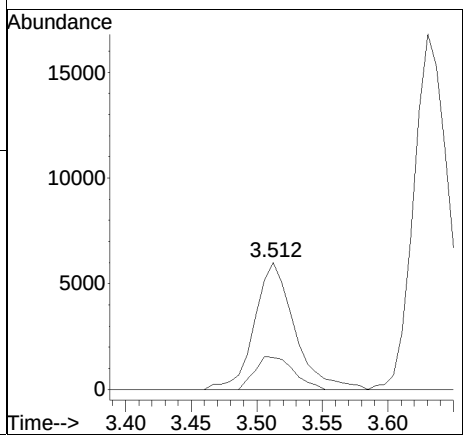


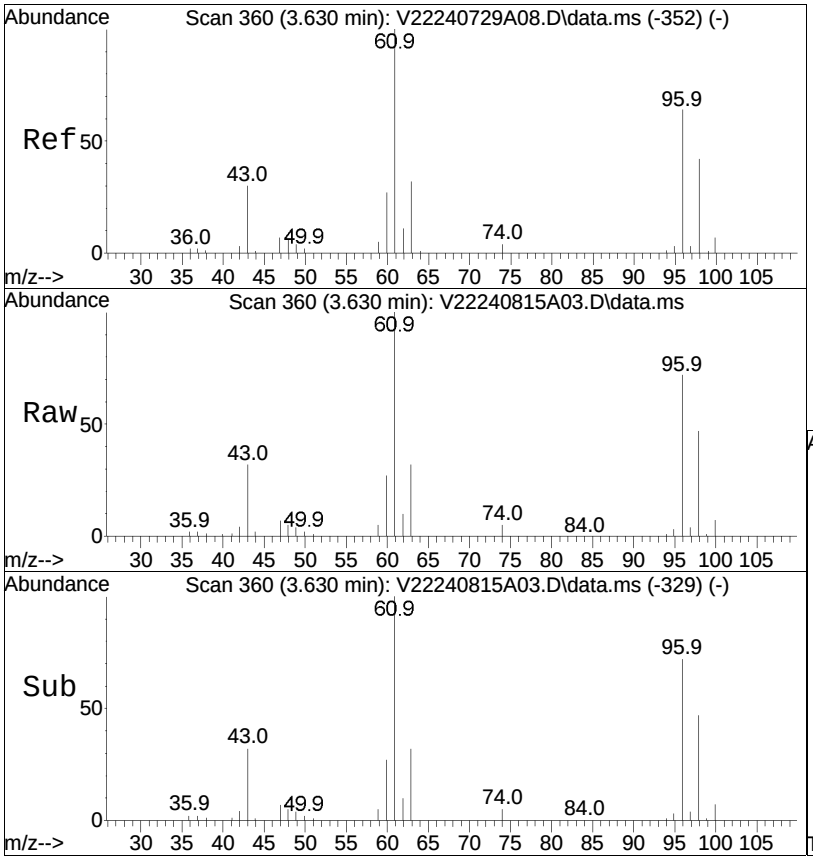


#17
Acetone
Concen: 8.98 ug/L
RT: 3.512 min Scan# 342
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 43 Resp: 12768

Ion	Ratio	Lower	Upper
43	100		
58	25.0	23.1	34.7

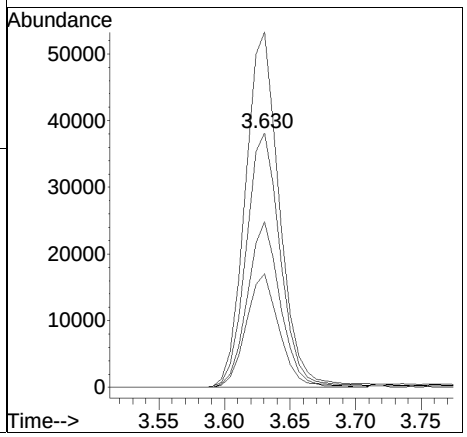


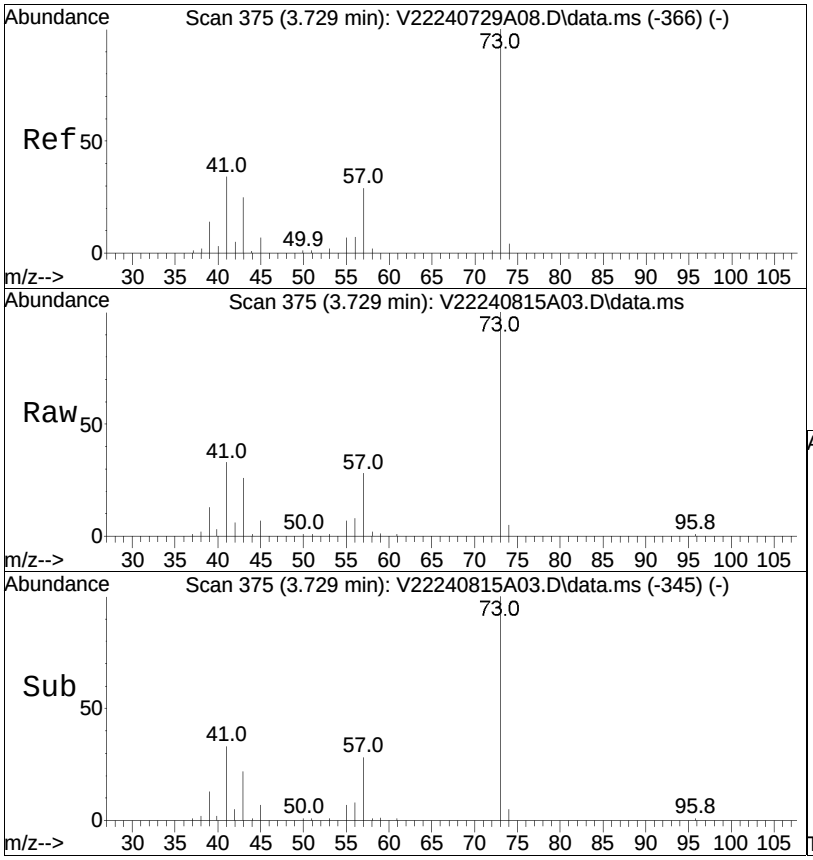


#18
trans-1,2-Dichloroethene
Concen: 10.10 ug/L
RT: 3.630 min Scan# 360
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 96 Resp: 69480

Ion	Ratio	Lower	Upper
96	100		
61	139.6	81.6	169.6
98	63.1	41.8	86.8
63	43.1	26.3	54.7

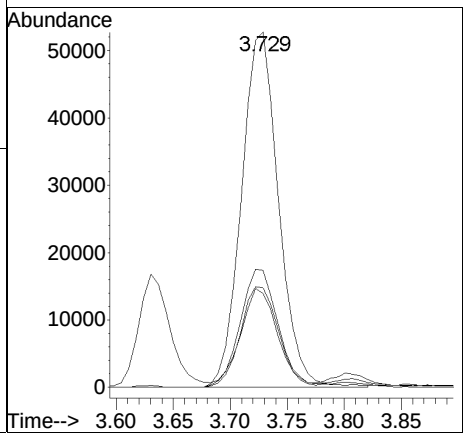


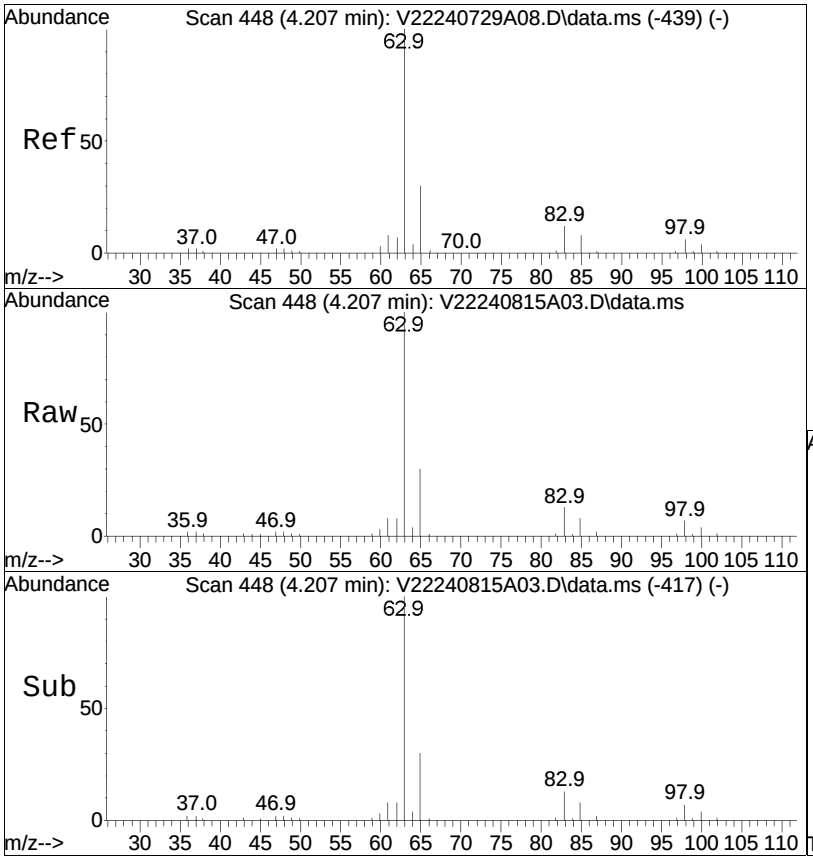


#21
Methyl tert-butyl ether
Concen: 9.07 ug/L
RT: 3.729 min Scan# 375
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 73 Resp: 119287

Ion	Ratio	Lower	Upper
73	100		
57	29.1	13.6	28.2#
43	27.6	12.7	26.5#
41	33.9	11.4	23.8#

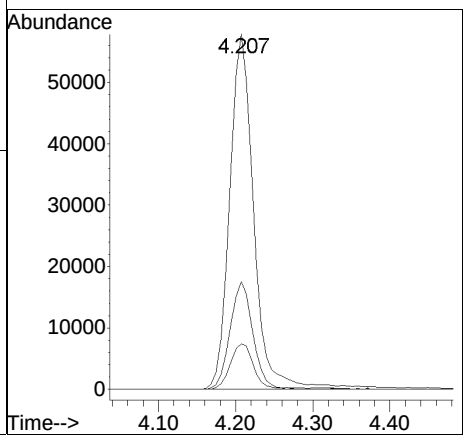


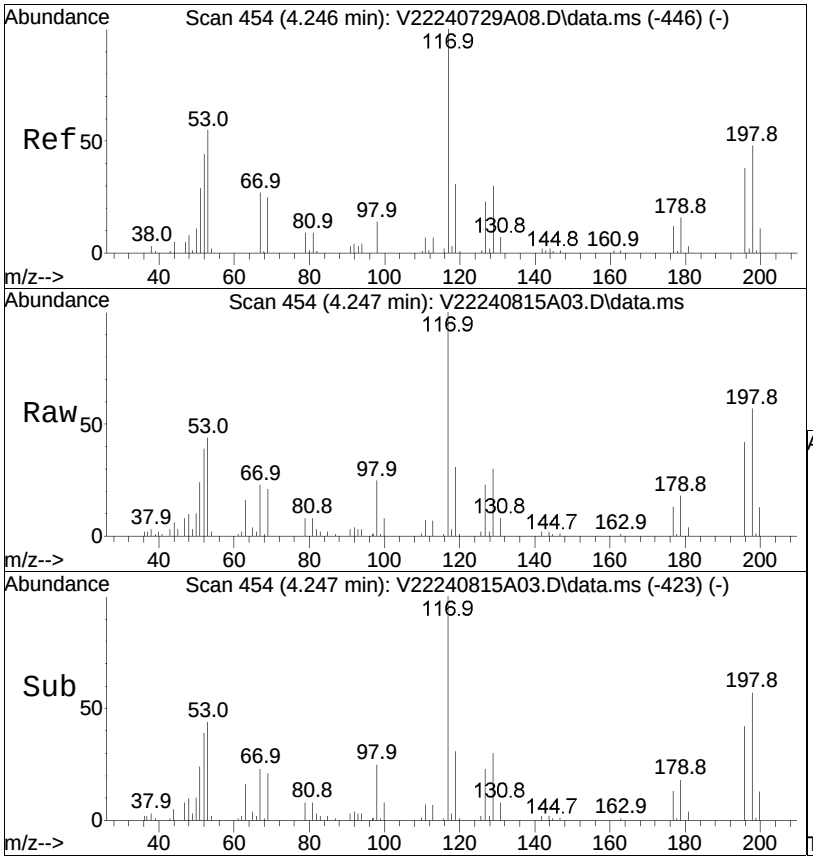


#25
1,1-Dichloroethane
Concen: 9.00 ug/L
RT: 4.207 min Scan# 448
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 63 Resp: 126419

Ion	Ratio	Lower	Upper
63	100		
65	28.7	11.9	51.9
83	12.3	0.0	34.2

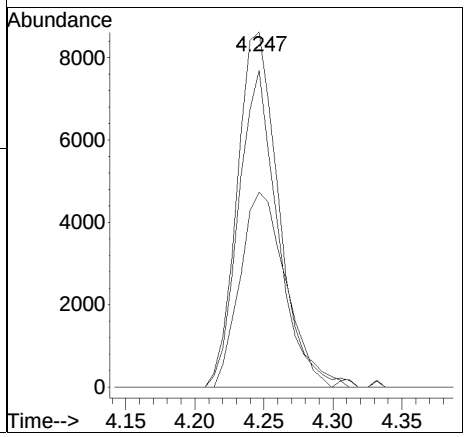


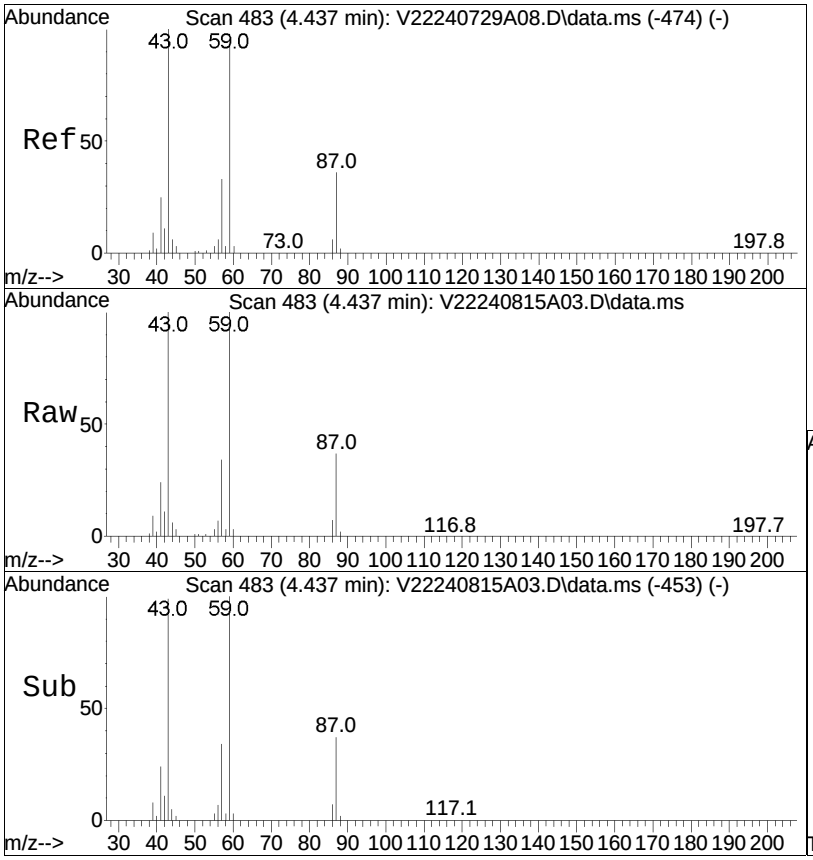


#27
Acrylonitrile
Concen: 9.40 ug/L
RT: 4.247 min Scan# 454
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 53 Resp: 18233

Ion	Ratio	Lower	Upper
53	100		
52	84.0	63.8	95.8
51	60.0	50.2	75.4

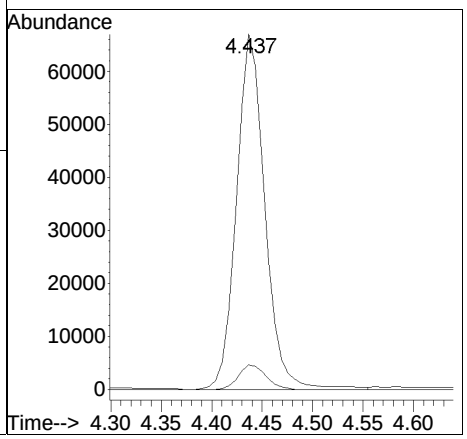


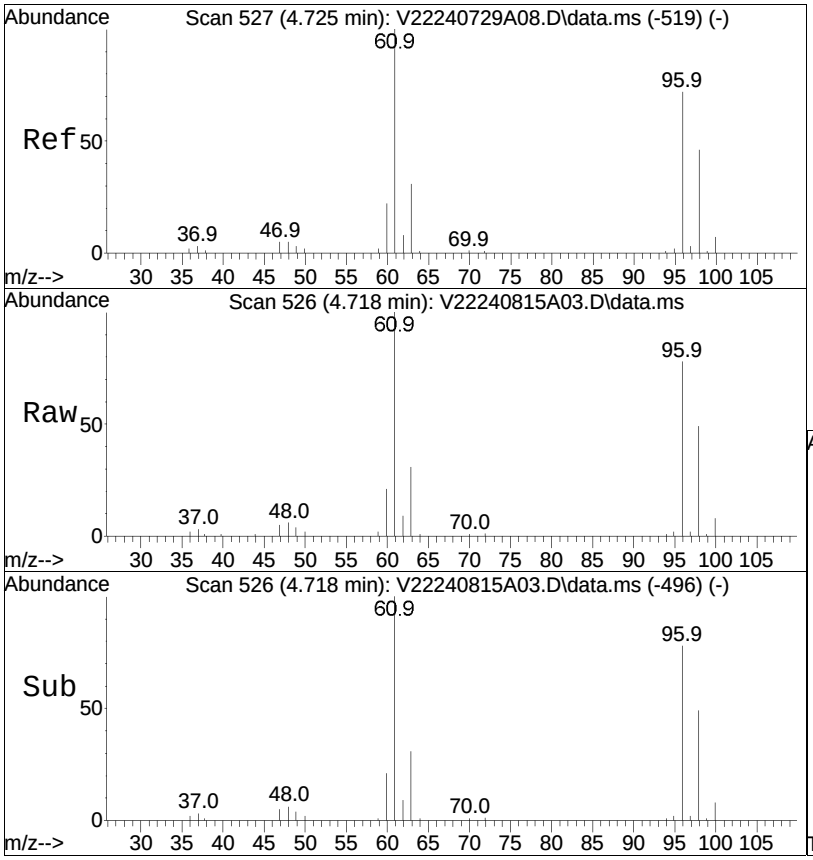


#29
Vinyl acetate
Concen: 8.88 ug/L
RT: 4.437 min Scan# 483
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 43 Resp: 131264

Ion	Ratio	Lower	Upper
43	100		
86	6.7	8.9	13.3#

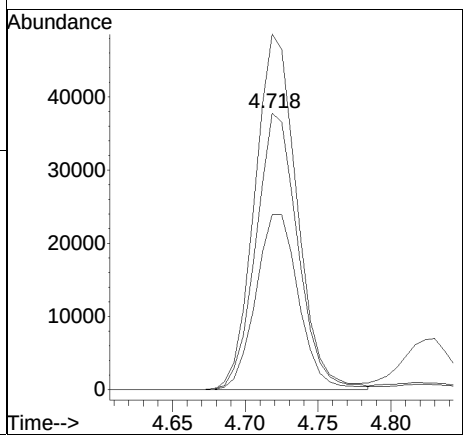


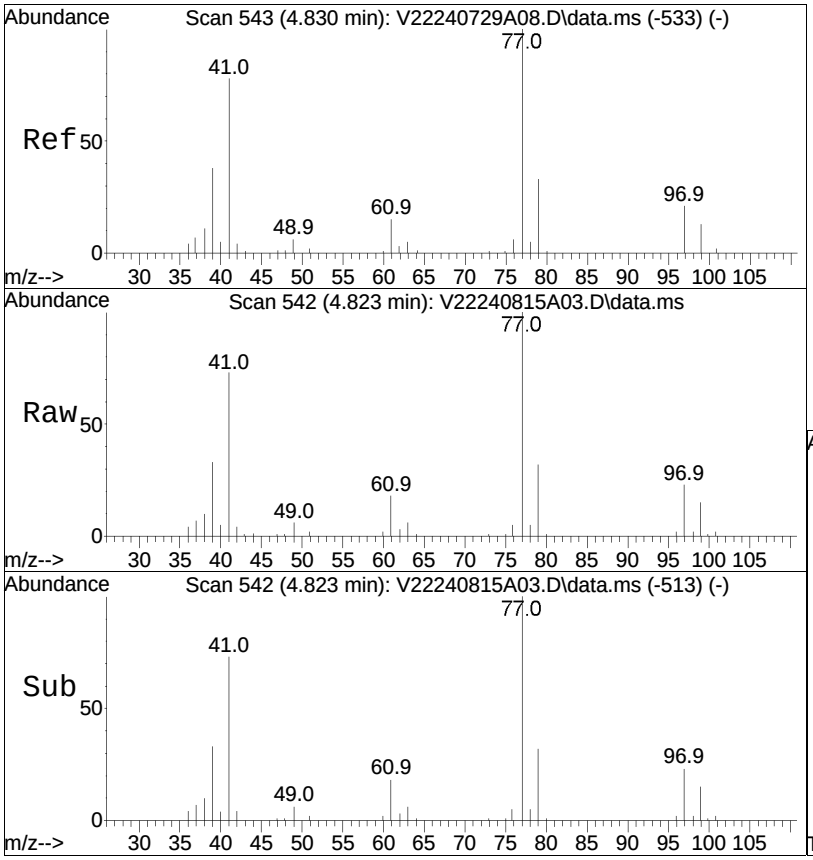


#30
cis-1,2-Dichloroethene
Concen: 9.87 ug/L
RT: 4.718 min Scan# 526
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 96 Resp: 75264

Ion	Ratio	Lower	Upper
96	100		
61	129.3	90.3	135.5
98	65.0	50.8	76.2

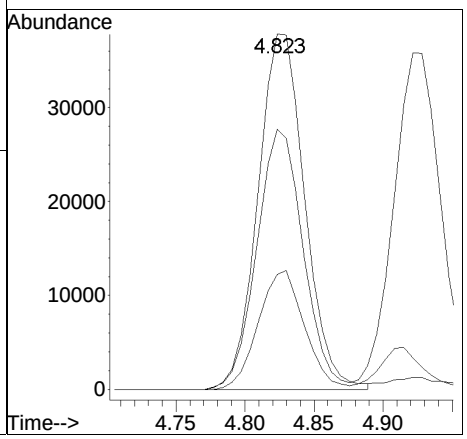


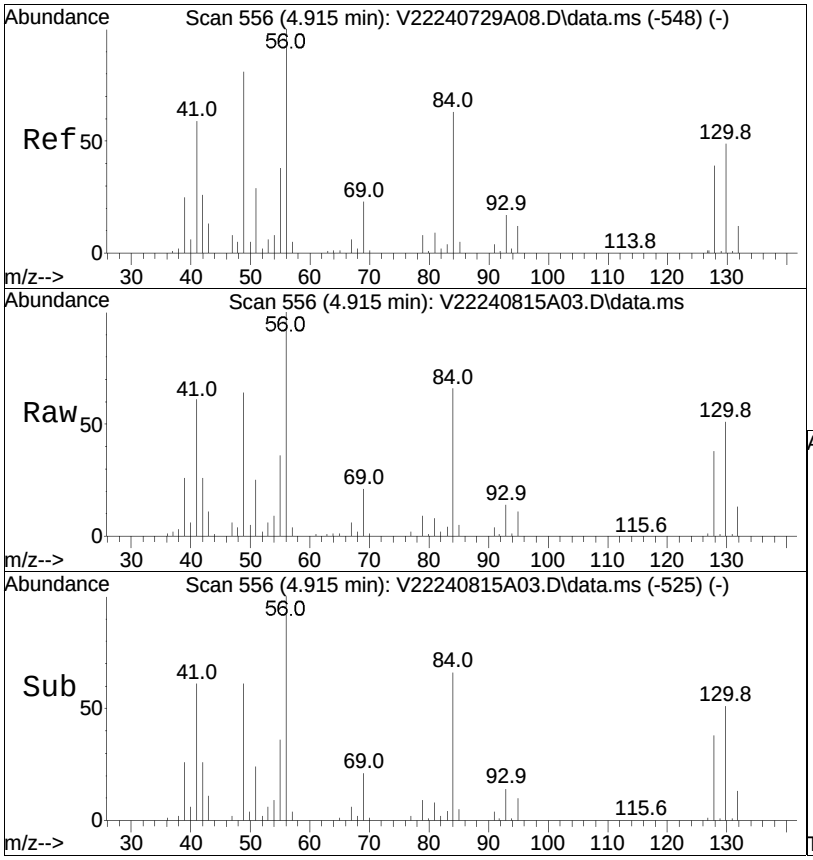


#31
2,2-Dichloropropane
Concen: 10.14 ug/L
RT: 4.823 min Scan# 542
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 77 Resp: 89322

Ion	Ratio	Lower	Upper
77	100		
41	72.4	32.3	67.1#
79	32.8	21.1	43.7

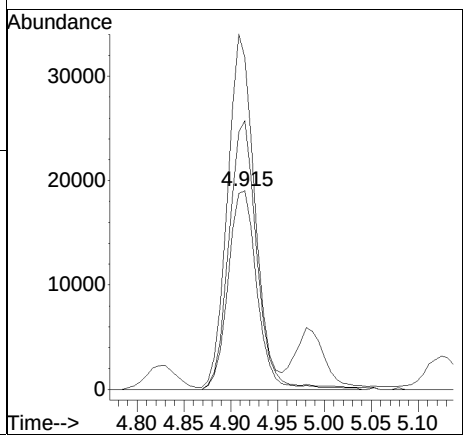


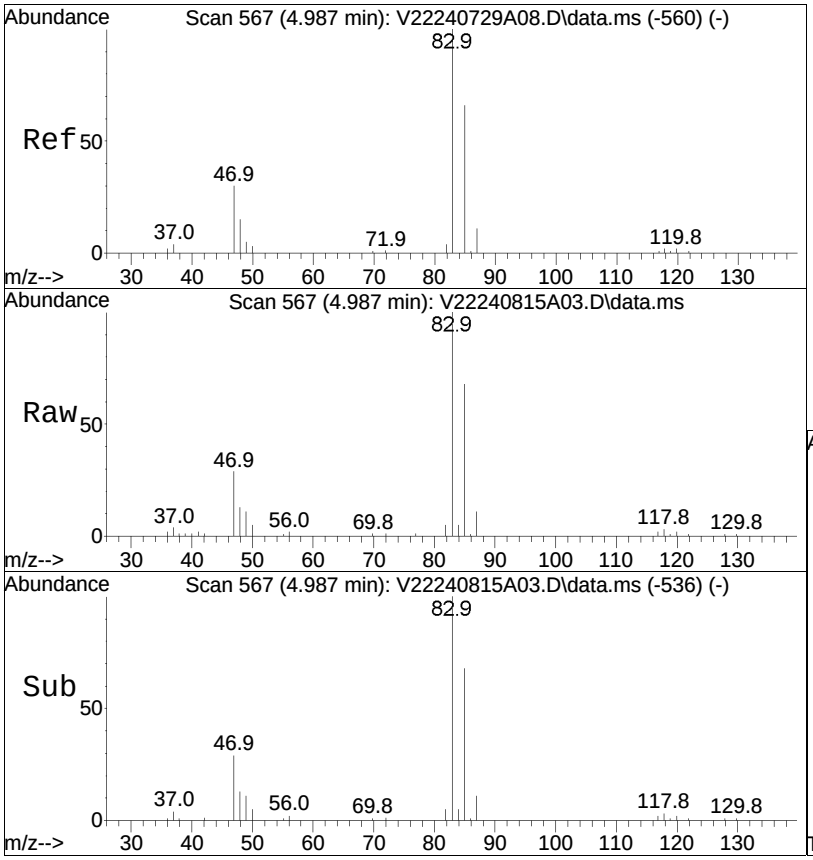


#32
Bromochloromethane
Concen: 11.40 ug/L
RT: 4.915 min Scan# 556
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:128 Resp: 41032

Ion	Ratio	Lower	Upper
128	100		
49	166.0	104.4	156.6#
130	131.2	103.9	155.9

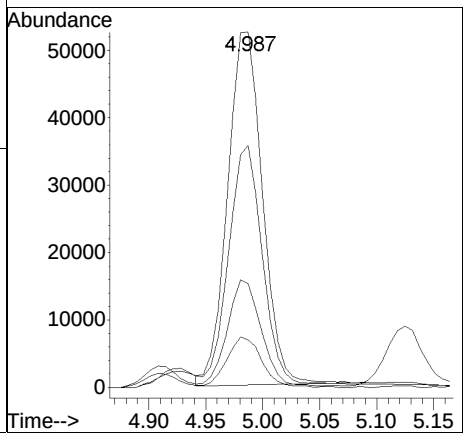


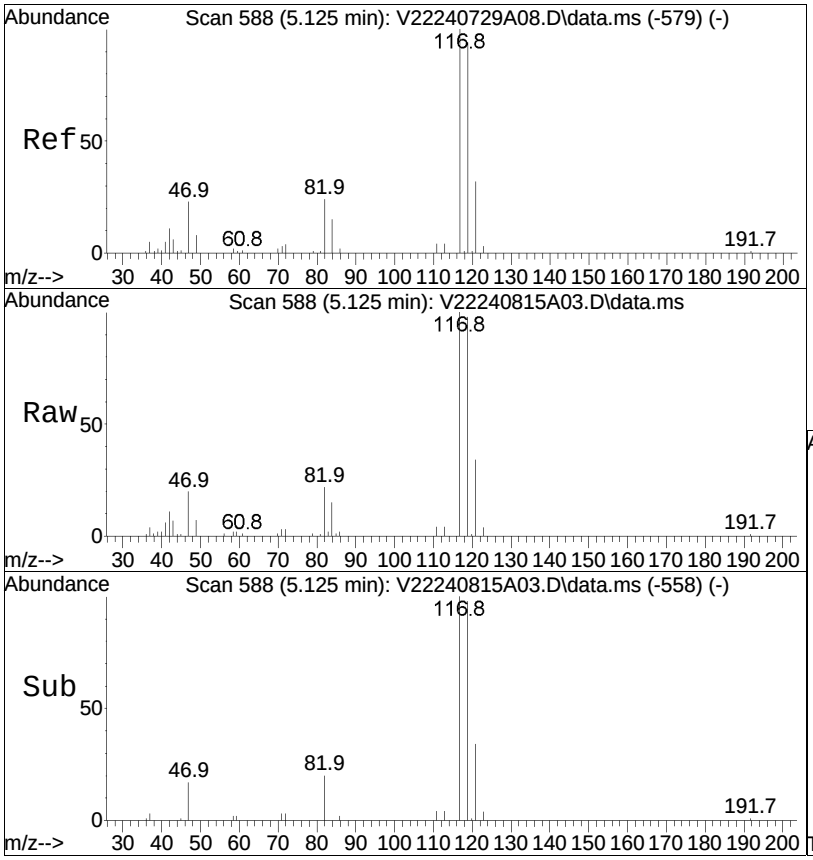


#34
Chloroform
Concen: 9.18 ug/L
RT: 4.987 min Scan# 567
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 83 Resp: 111710

Ion	Ratio	Lower	Upper
83	100		
85	64.5	42.4	88.2
47	28.5	14.0	29.0
48	14.2	6.9	14.3

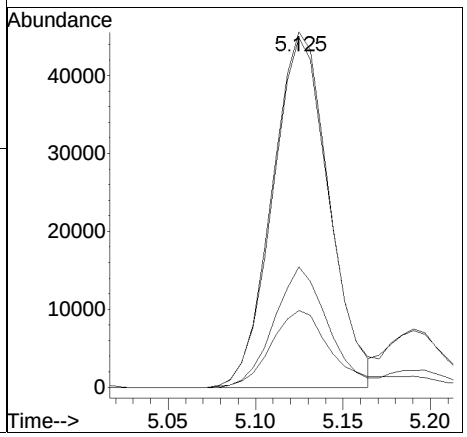


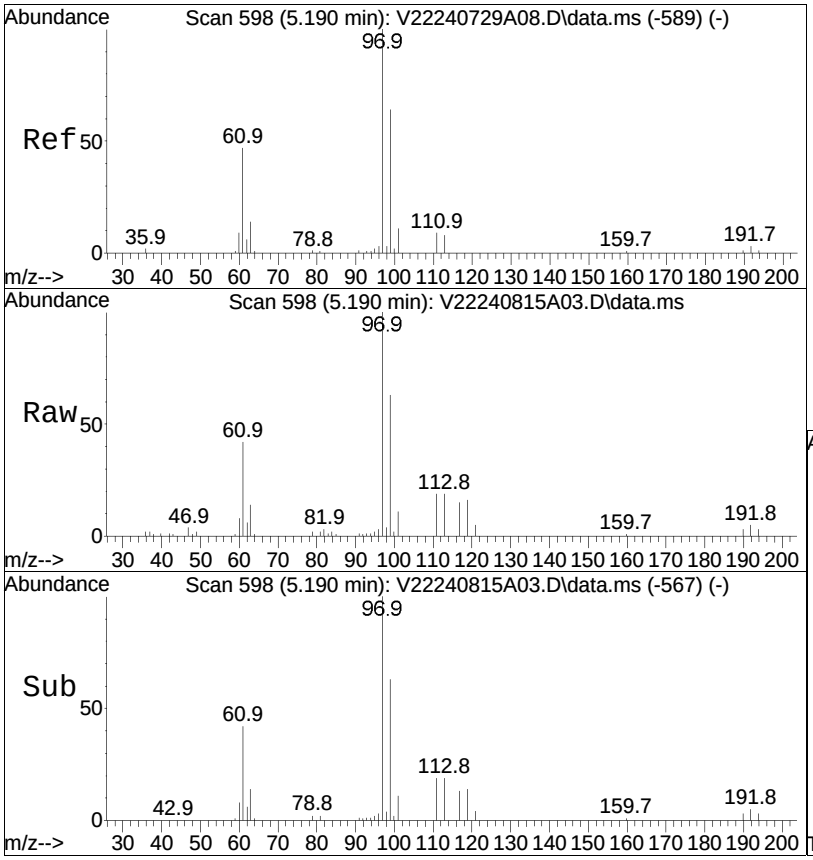


#36
Carbon tetrachloride
Concen: 11.73 ug/L
RT: 5.125 min Scan# 588
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:117 Resp: 102994

Ion	Ratio	Lower	Upper
117	100		
119	98.9	62.1	129.1
121	31.8	20.3	42.3
82	22.8	15.4	32.0

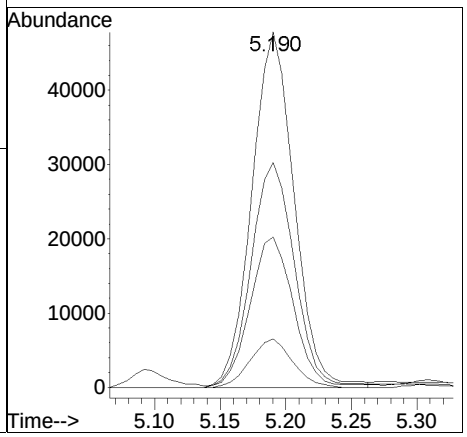


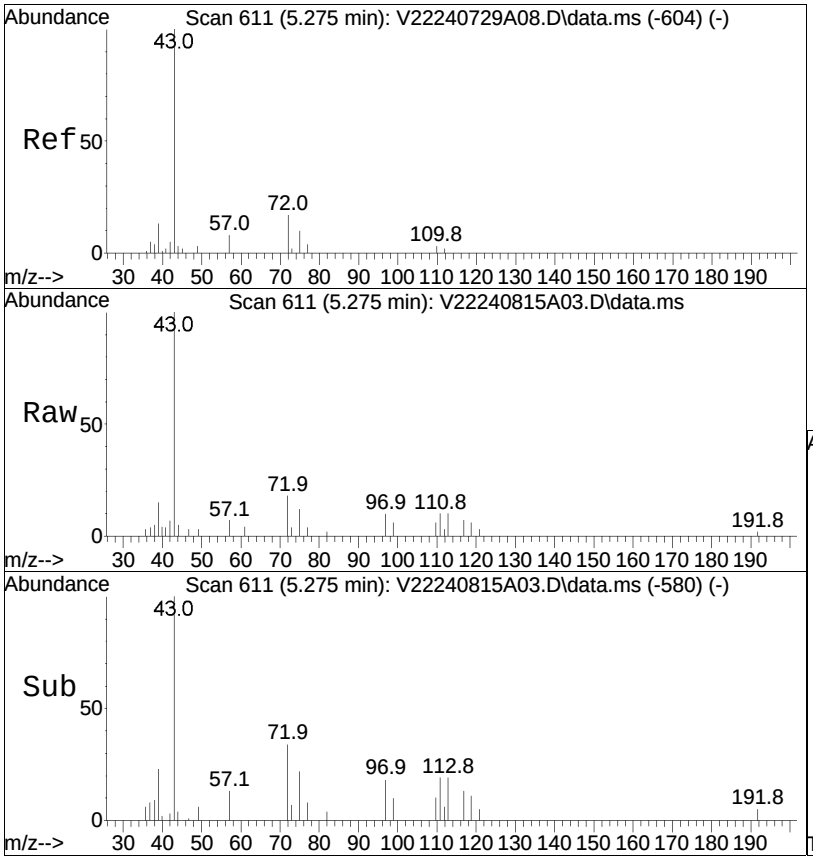


#39
1,1,1-Trichloroethane
Concen: 10.45 ug/L
RT: 5.190 min Scan# 598
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 97 Resp: 107205

Ion	Ratio	Lower	Upper
97	100		
99	65.0	42.4	88.0
61	43.2	26.0	54.0
63	13.7	8.3	17.3

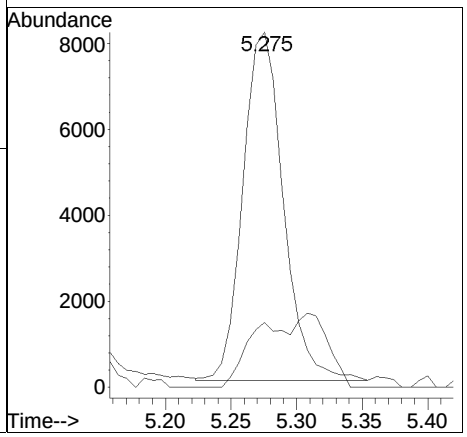


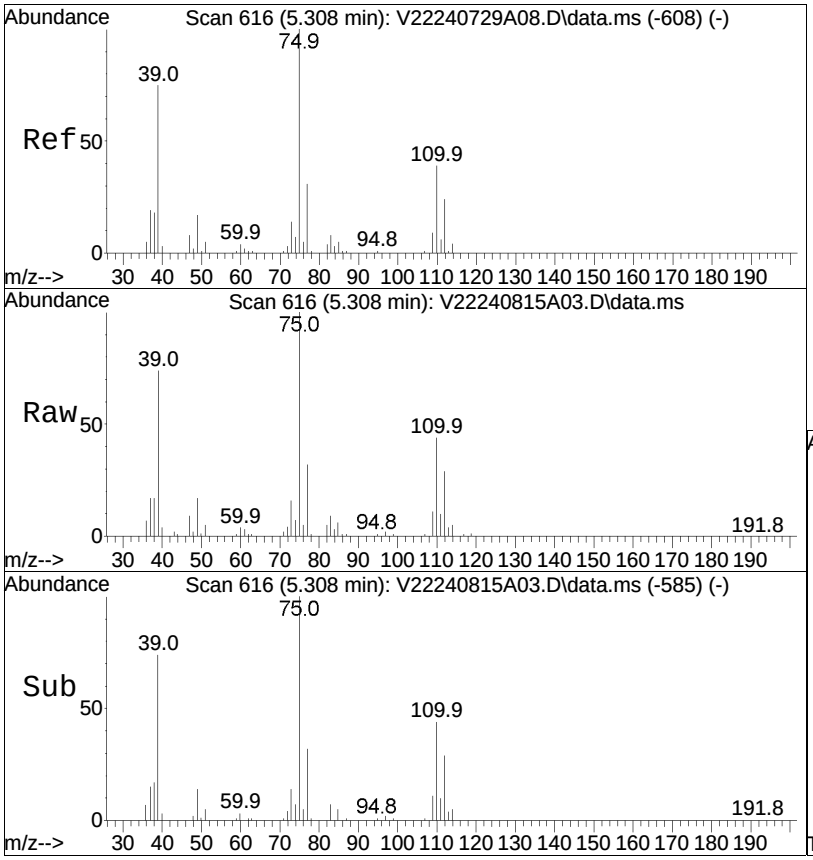


#41
2-Butanone
Concen: 8.71 ug/L
RT: 5.275 min Scan# 611
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 43 Resp: 17405

Ion	Ratio	Lower	Upper
43	100		
72	19.4	45.8	68.8#

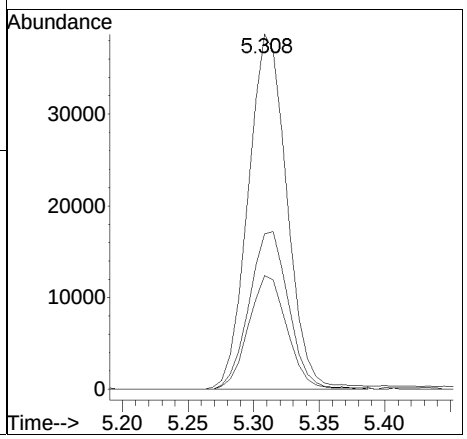


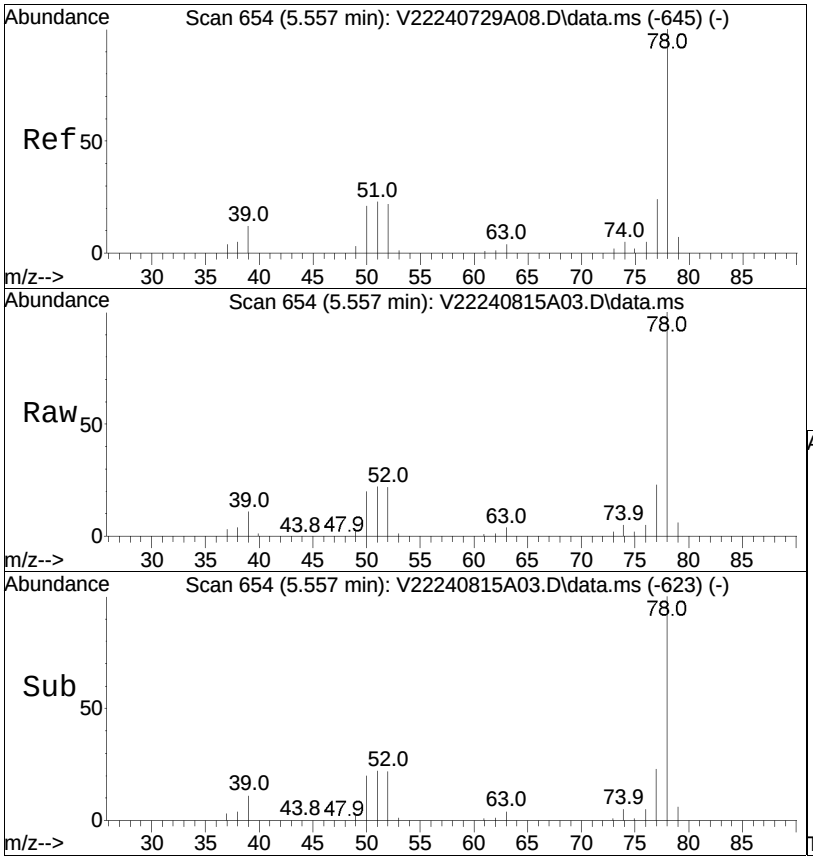


#42
1,1-Dichloropropene
Concen: 9.64 ug/L
RT: 5.308 min Scan# 616
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 75 Resp: 79807

Ion	Ratio	Lower	Upper
75	100		
110	45.2	25.4	52.8
77	31.9	20.3	42.1

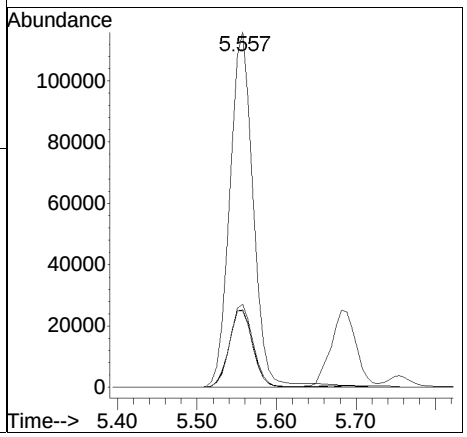


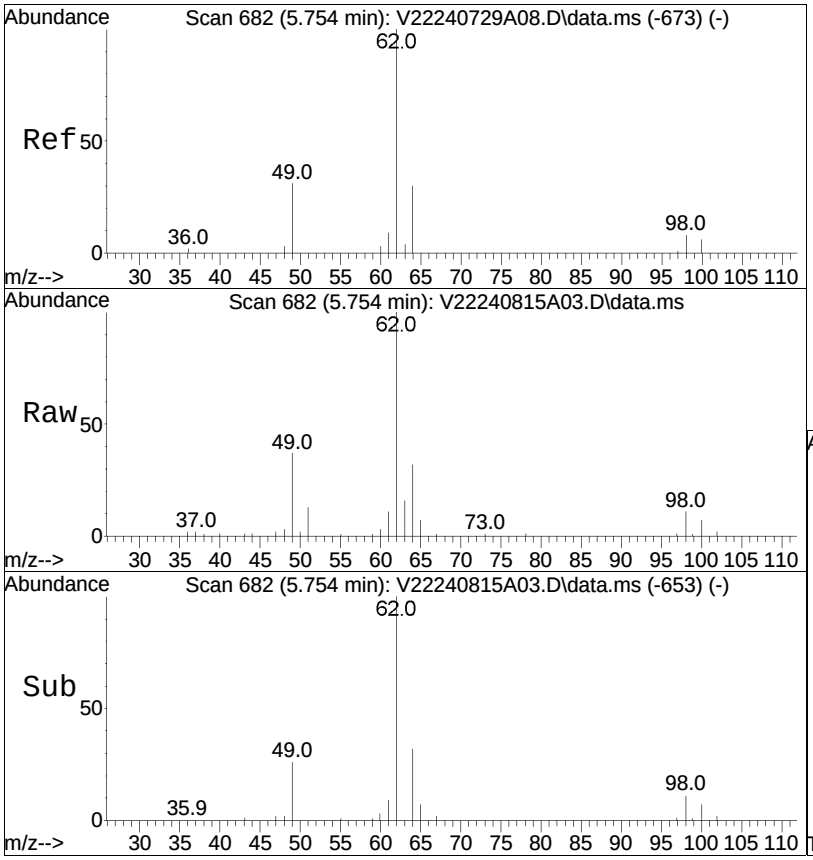


#44
Benzene
Concen: 9.43 ug/L
RT: 5.557 min Scan# 654
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 78 Resp: 254001

Ion	Ratio	Lower	Upper
78	100		
77	21.7	15.4	32.0
51	20.7	9.8	20.4#
52	20.6	9.2	19.2#

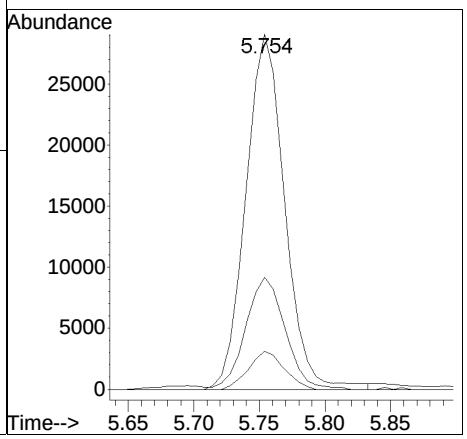


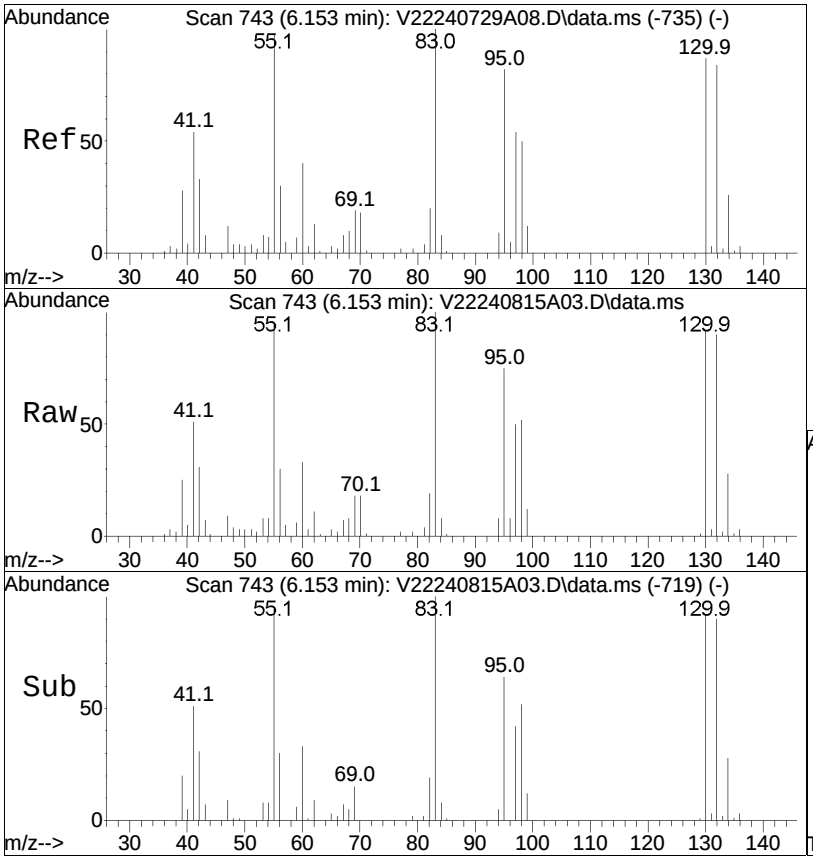


#47
1,2-Dichloroethane
Concen: 8.91 ug/L
RT: 5.754 min Scan# 682
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 62 Resp: 59956

Ion	Ratio	Lower	Upper
62	100		
64	32.0	12.3	52.3
98	9.9	0.0	30.3

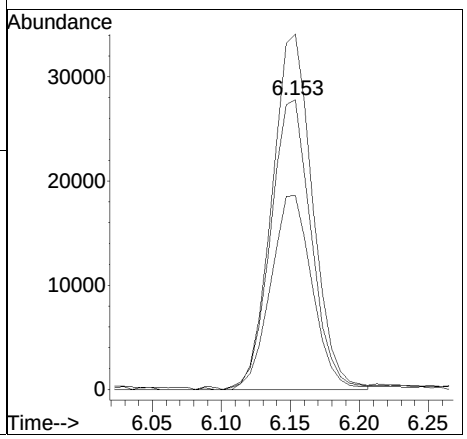


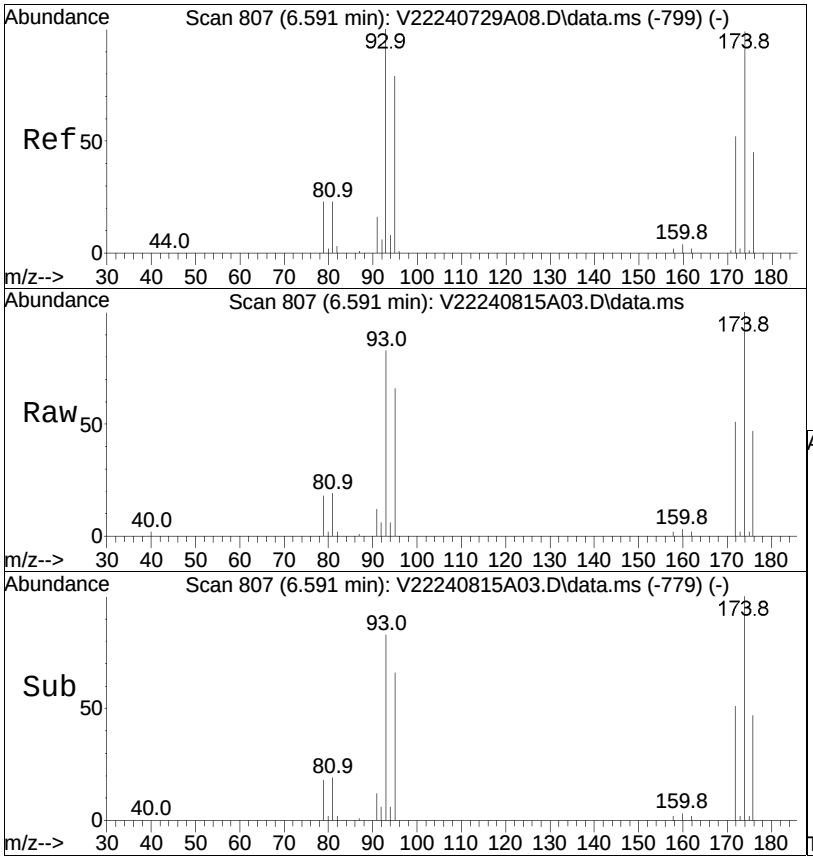


#51
Trichloroethene
Concen: 9.94 ug/L
RT: 6.153 min Scan# 743
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 95 Resp: 56911

Ion	Ratio	Lower	Upper
95	100		
97	68.3	55.0	82.4
130	122.3	89.2	133.8

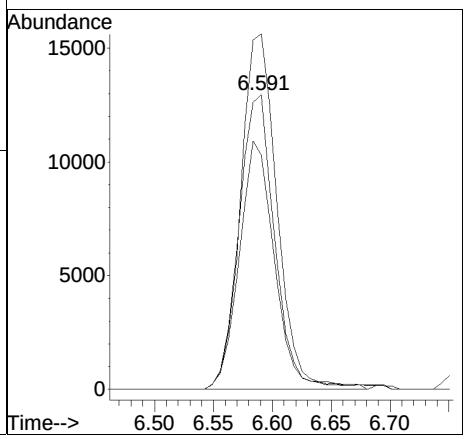


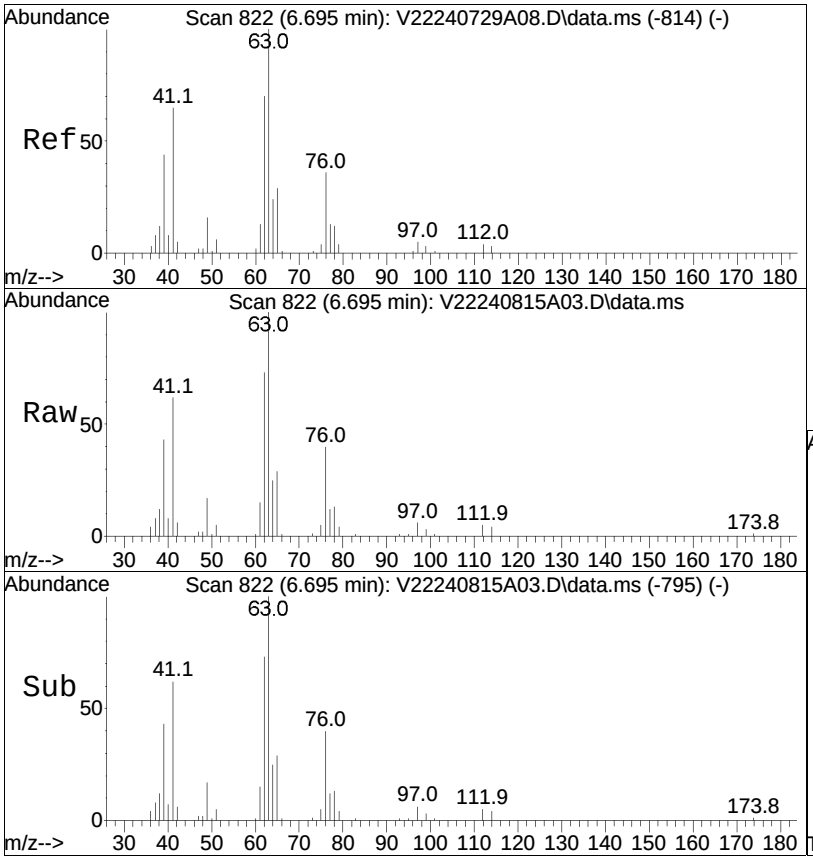


#53
Dibromomethane
Concen: 9.49 ug/L
RT: 6.591 min Scan# 807
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 93 Resp: 27467

Ion	Ratio	Lower	Upper
93	100		
95	83.0	68.0	102.0
174	123.7	106.1	159.1

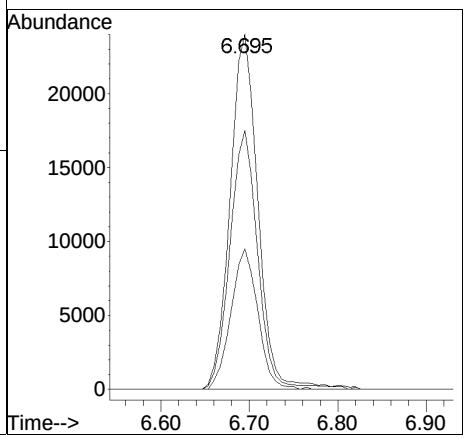


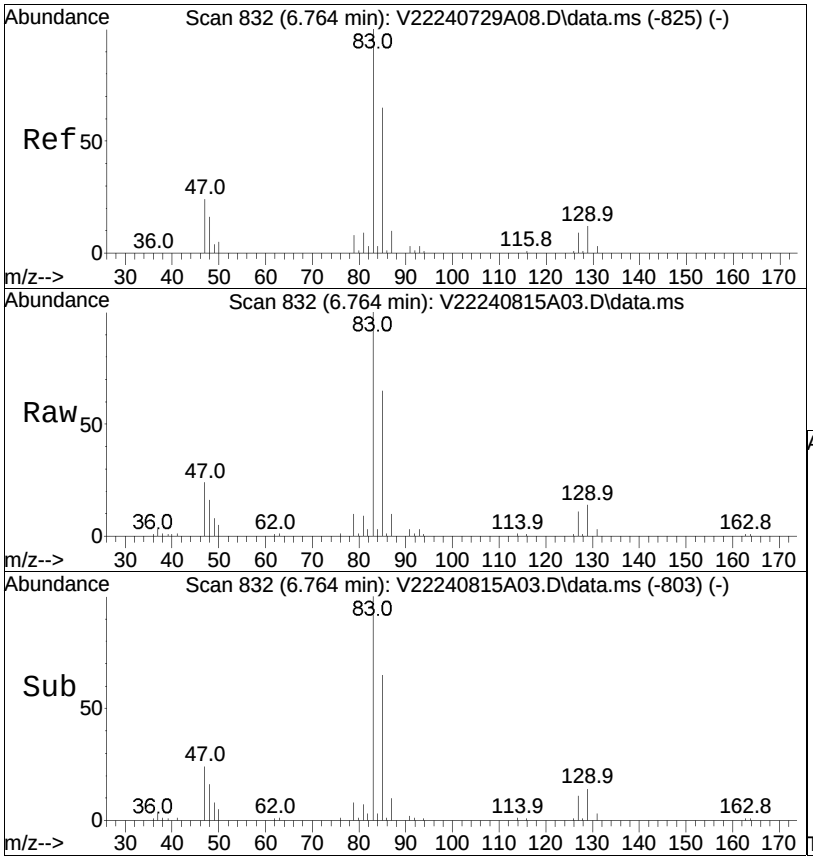


#54
1,2-Dichloropropane
Concen: 8.81 ug/L
RT: 6.695 min Scan# 822
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 63 Resp: 52996

Ion	Ratio	Lower	Upper
63	100		
62	72.6	56.9	85.3
76	38.2	35.8	53.8

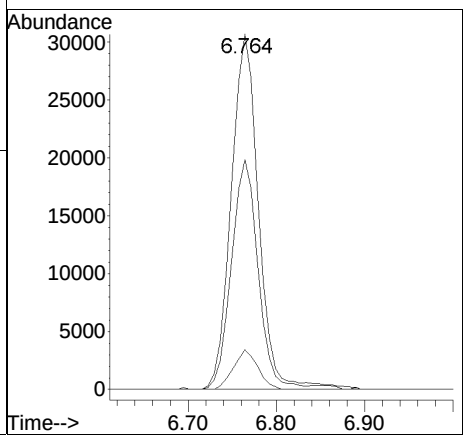


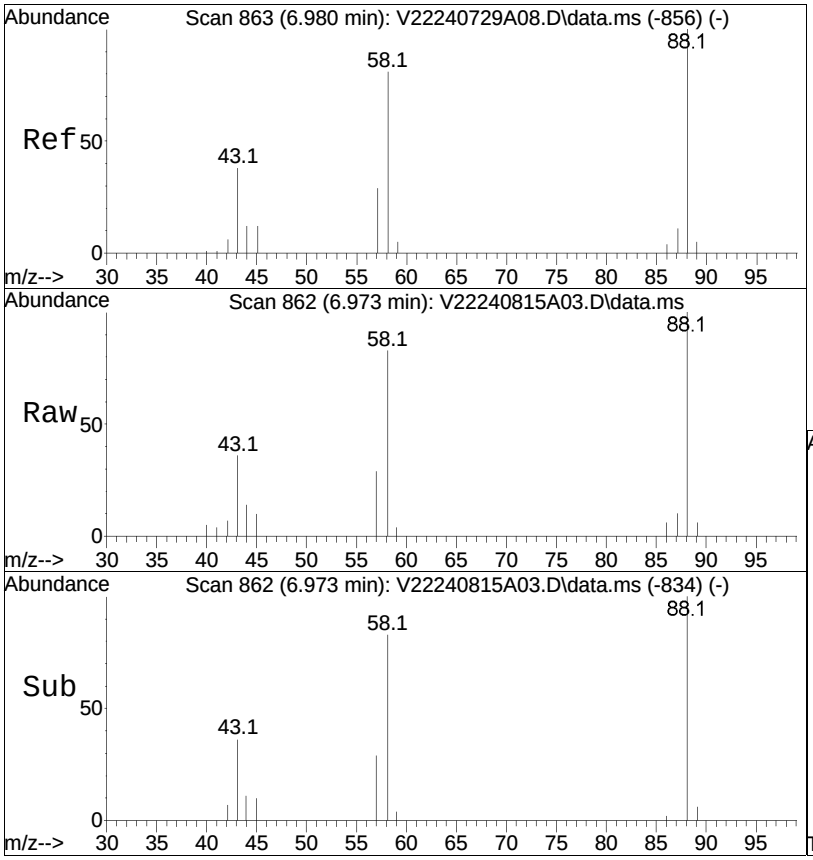


#57
Bromodichloromethane
Concen: 9.33 ug/L
RT: 6.764 min Scan# 832
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 83 Resp: 66174

Ion	Ratio	Lower	Upper
83	100		
85	62.9	51.6	77.4
127	9.9	7.4	11.0

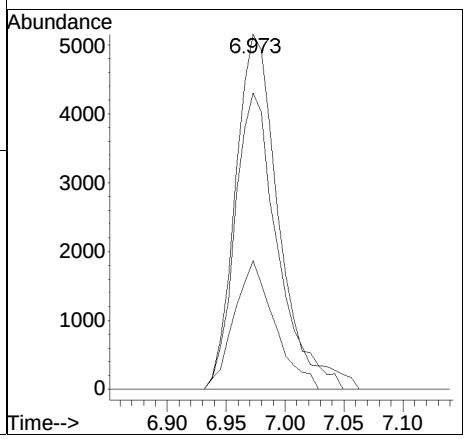


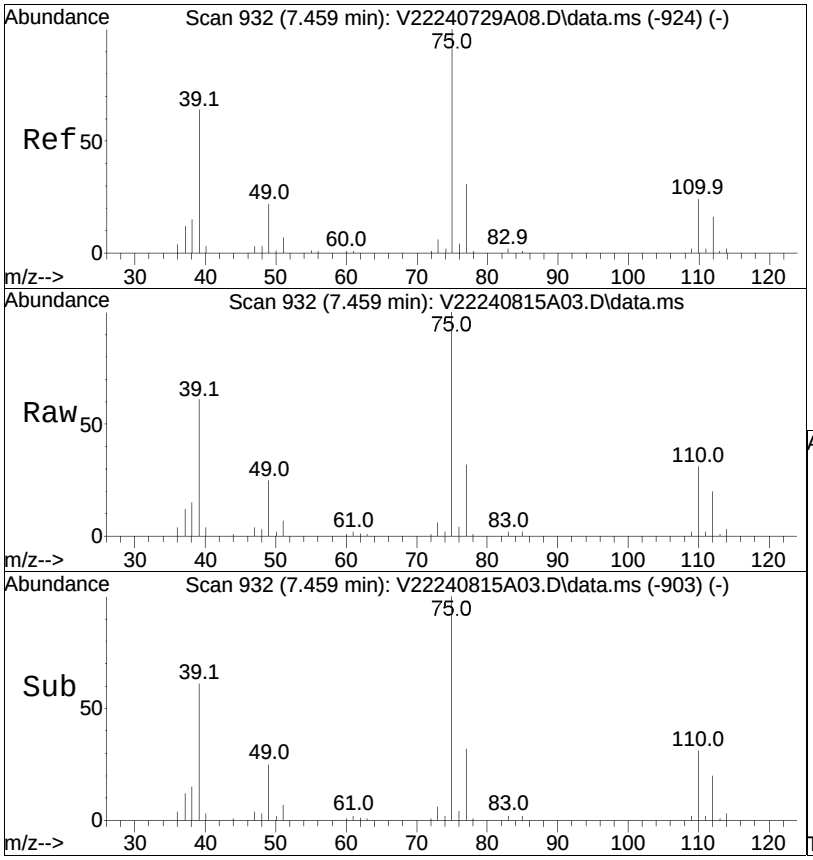


#60
1,4-Dioxane
Concen: 558.91 ug/L
RT: 6.973 min Scan# 862
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 88 Resp: 13259

Ion	Ratio	Lower	Upper
88	100		
58	81.3	43.3	64.9#
43	33.8	15.1	22.7#

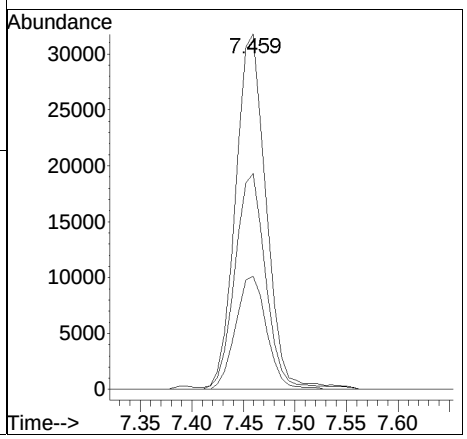


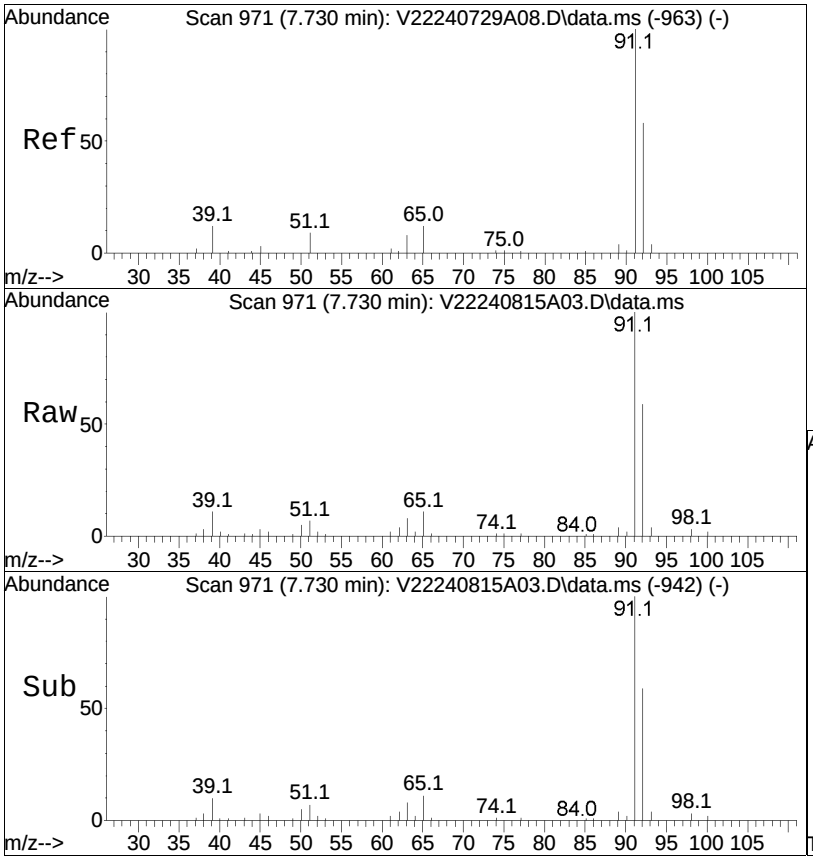


#61
cis-1,3-Dichloropropene
Concen: 9.02 ug/L
RT: 7.459 min Scan# 932
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 75 Resp: 65965

Ion	Ratio	Lower	Upper
75	100		
77	32.3	25.6	38.4
39	61.6	35.4	53.0#

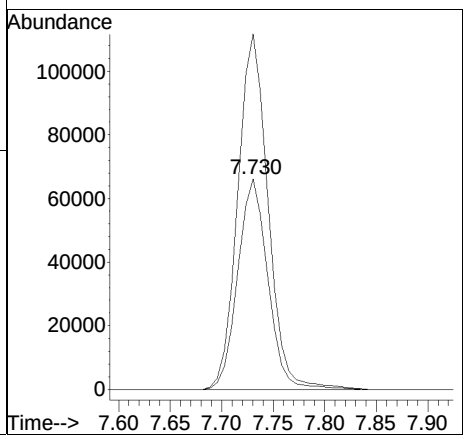


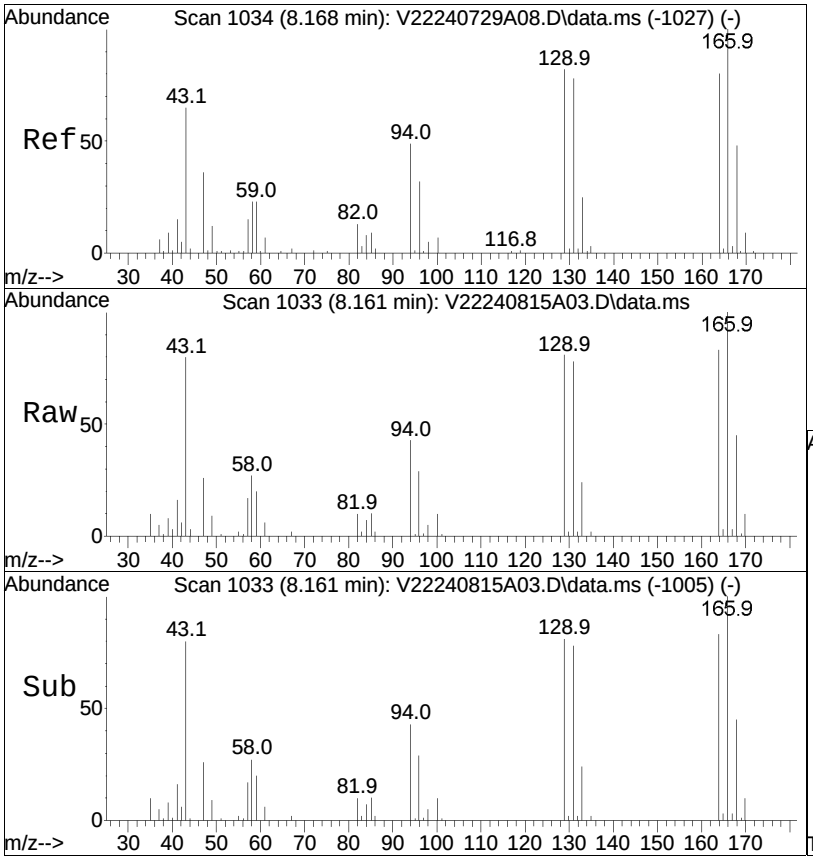


#64
Toluene
Concen: 9.07 ug/L
RT: 7.730 min Scan# 971
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 92 Resp: 134430

Ion	Ratio	Lower	Upper
92	100		
91	169.6	137.0	205.6

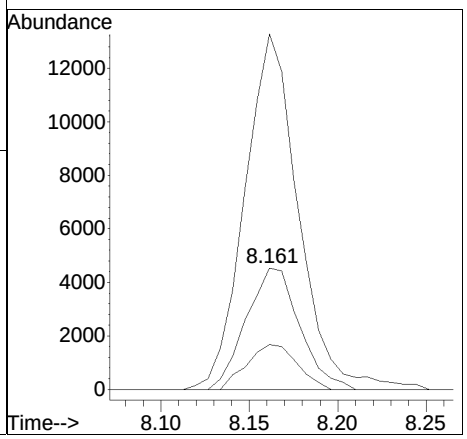


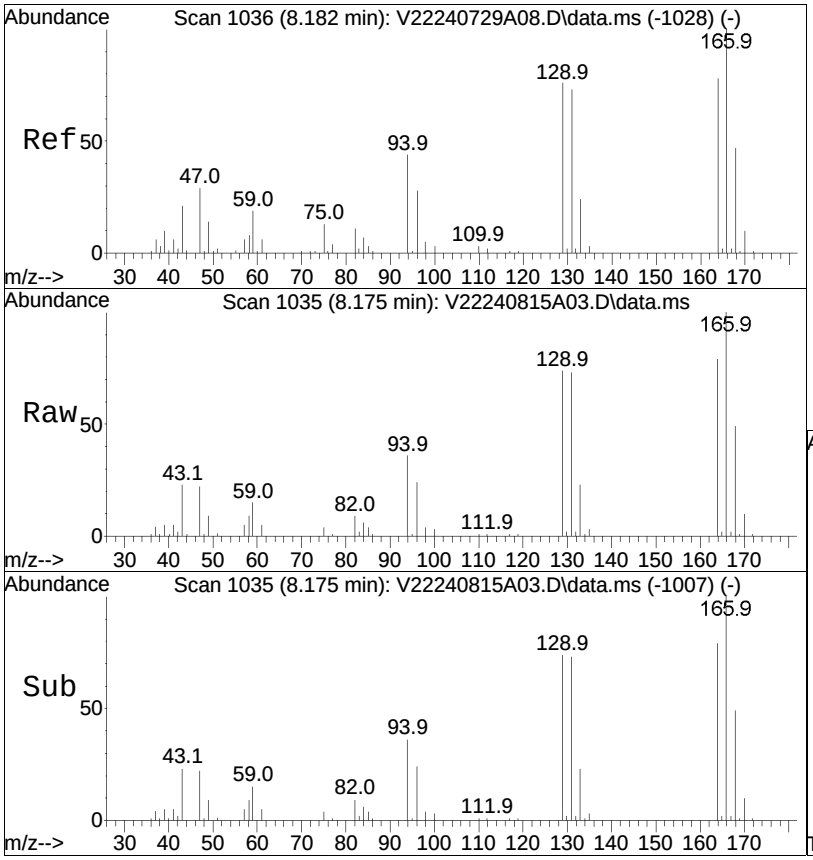


#65
4-Methyl-2-pentanone
Concen: 8.04 ug/L
RT: 8.161 min Scan# 1033
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 58 Resp: 9535

Ion	Ratio	Lower	Upper
58	100		
100	34.9	36.2	54.4#
43	295.3	181.8	272.8#

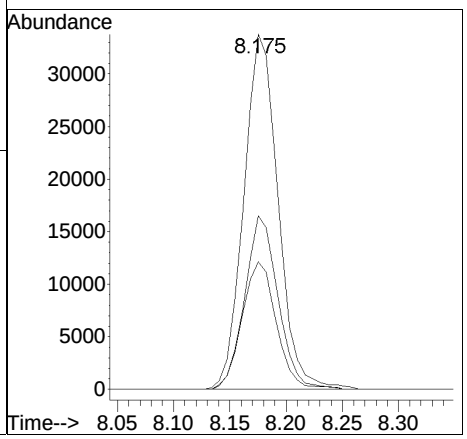


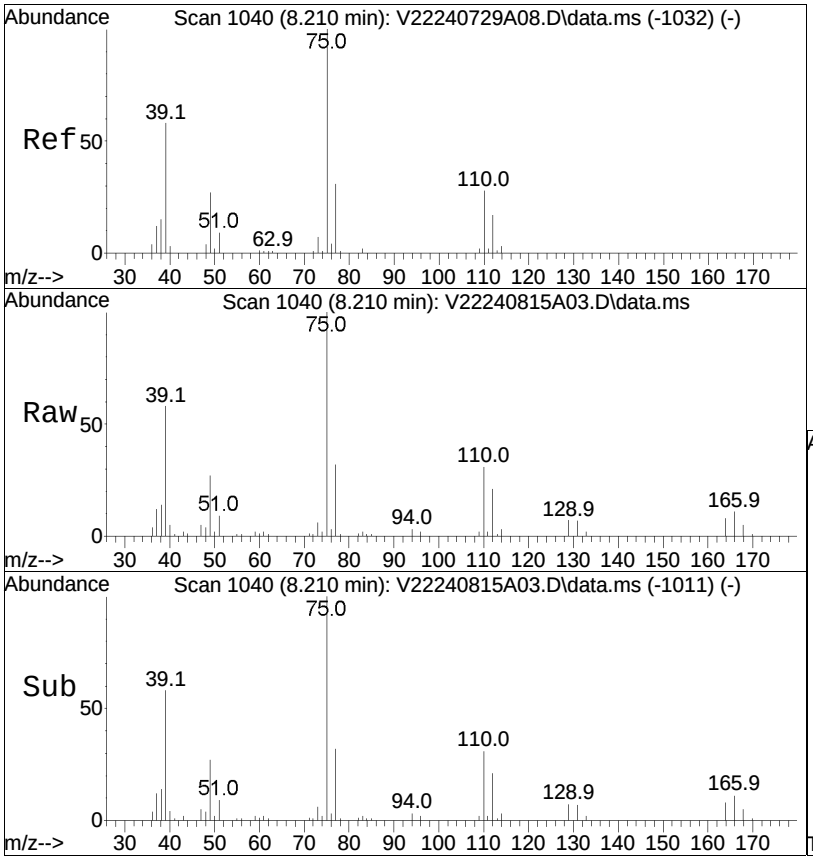


#66
Tetrachloroethene
Concen: 12.35 ug/L
RT: 8.175 min Scan# 1035
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:166 Resp: 71747

Ion	Ratio	Lower	Upper
166	100		
168	47.5	27.8	67.8
94	36.0	16.7	56.7

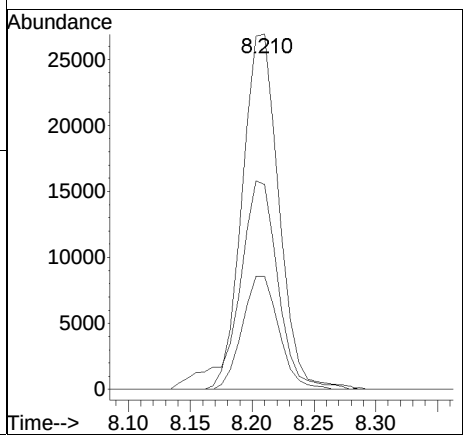


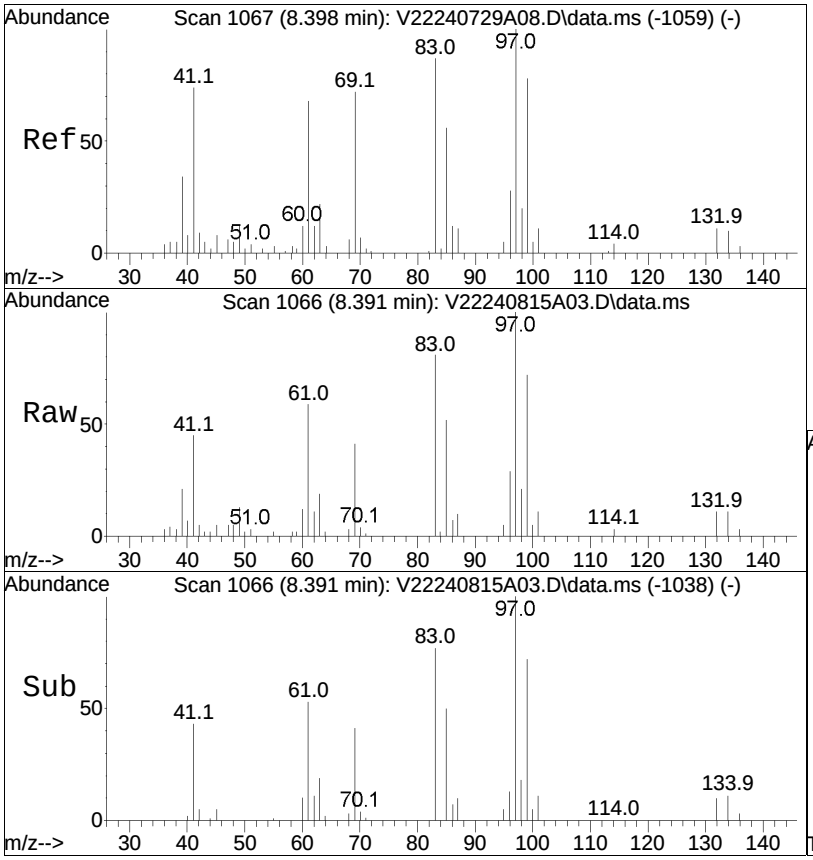


#68
trans-1,3-Dichloropropene
Concen: 7.62 ug/L
RT: 8.210 min Scan# 1040
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 75 Resp: 55607

Ion	Ratio	Lower	Upper
75	100		
77	31.7	11.9	51.9
39	63.3	27.4	67.4

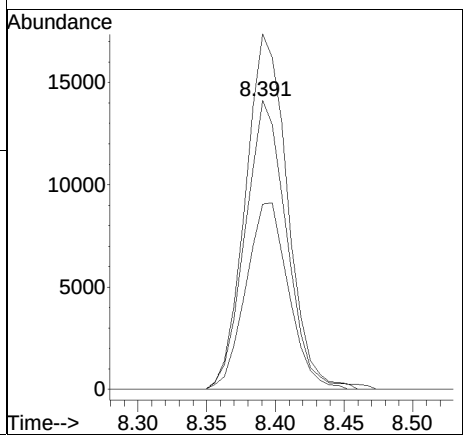


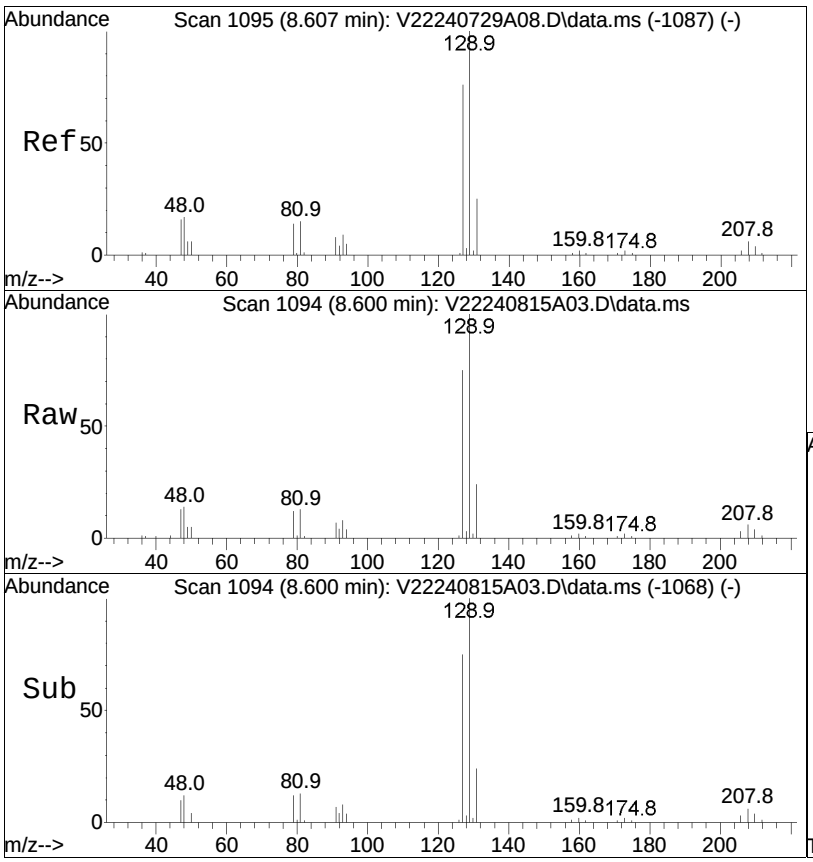


#71
1,1,2-Trichloroethane
Concen: 8.48 ug/L
RT: 8.391 min Scan# 1066
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 83 Resp: 29522

Ion	Ratio	Lower	Upper
83	100		
97	125.7	103.4	143.4
85	66.9	47.9	87.9

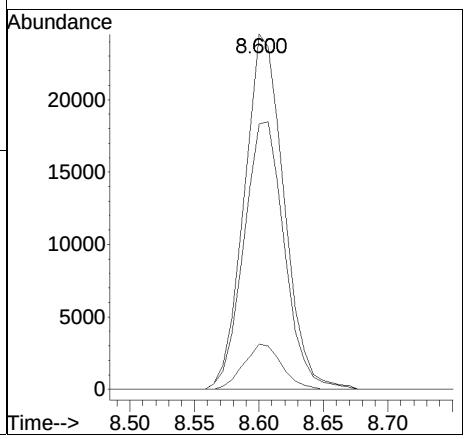


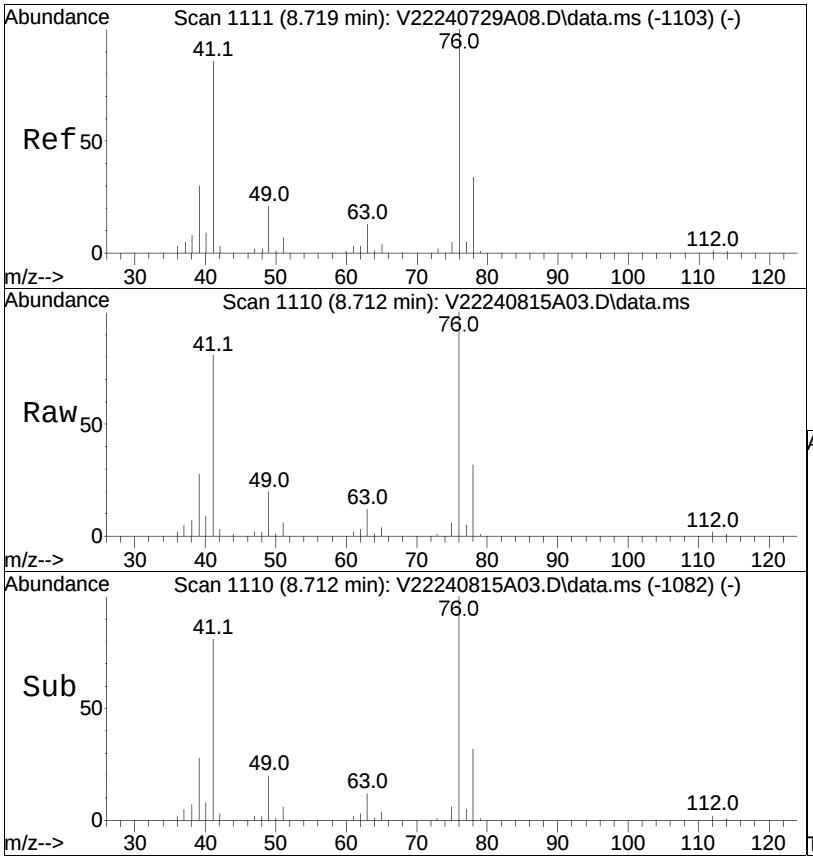


#72
Chlorodibromomethane
Concen: 9.37 ug/L
RT: 8.600 min Scan# 1094
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:129 Resp: 52653

Ion	Ratio	Lower	Upper
129	100		
81	12.2	0.0	33.8
127	77.0	57.1	97.1

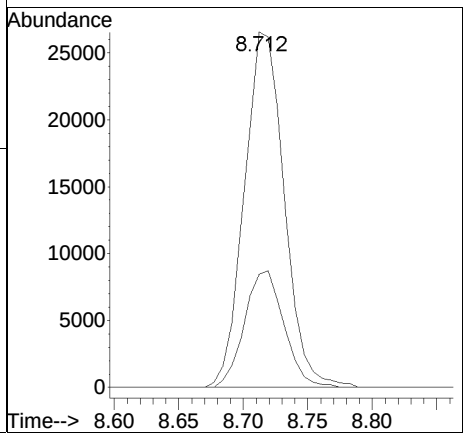


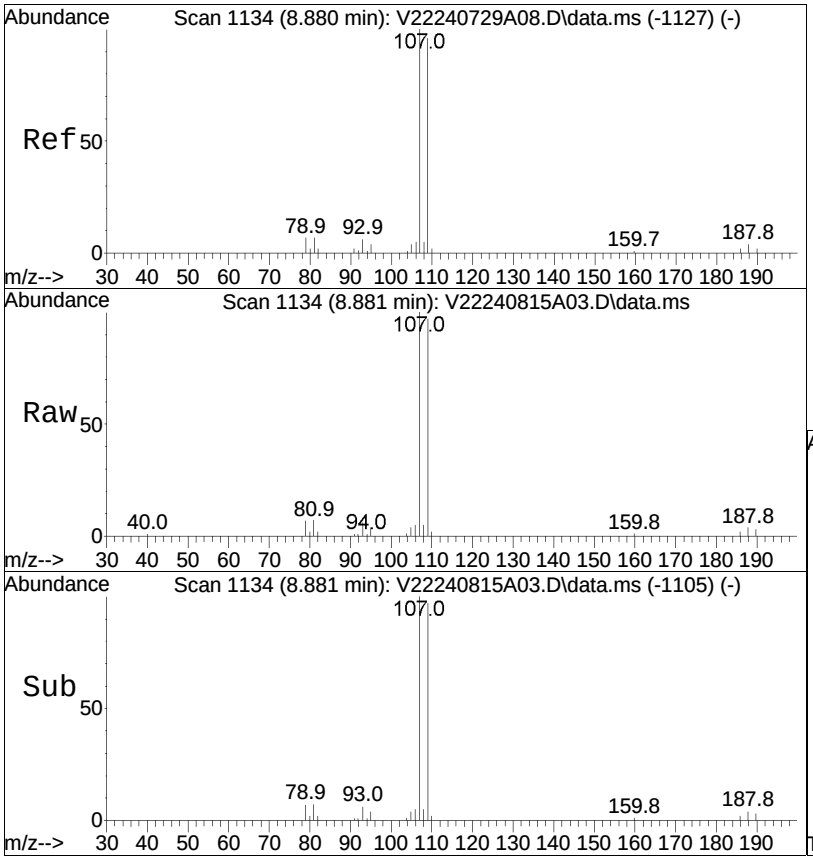


#73
1,3-Dichloropropane
Concen: 8.39 ug/L
RT: 8.712 min Scan# 1110
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 76 Resp: 57227

Ion	Ratio	Lower	Upper
76	100		
78	32.4	25.7	38.5

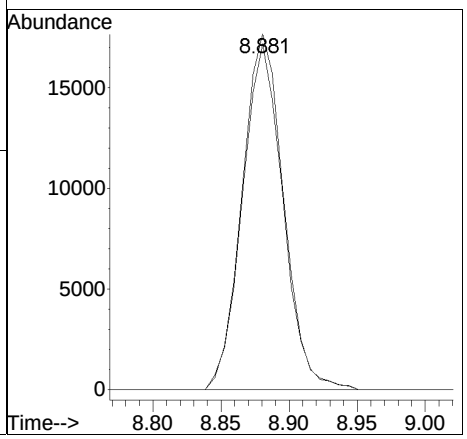


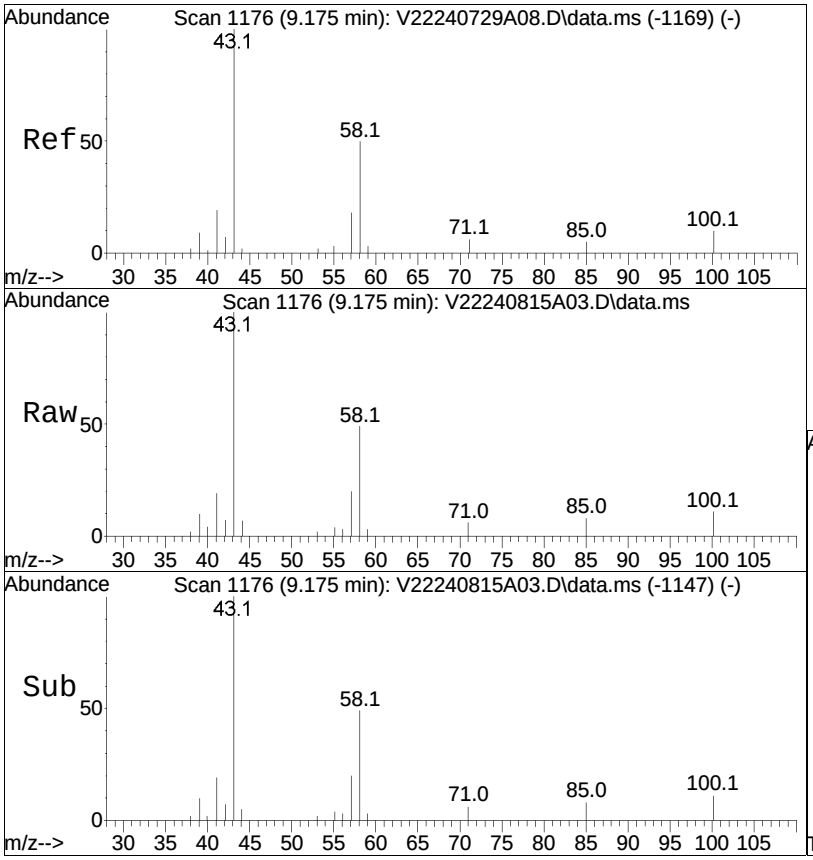


#74
1,2-Dibromoethane
Concen: 9.59 ug/L
RT: 8.881 min Scan# 1134
Delta R.T. 0.001 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:107 Resp: 37418

Ion	Ratio	Lower	Upper
107	100		
109	95.2	75.1	112.7

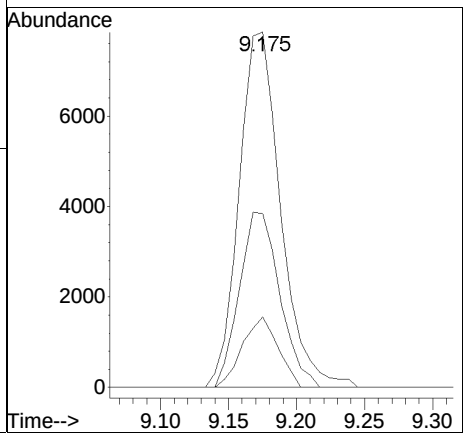


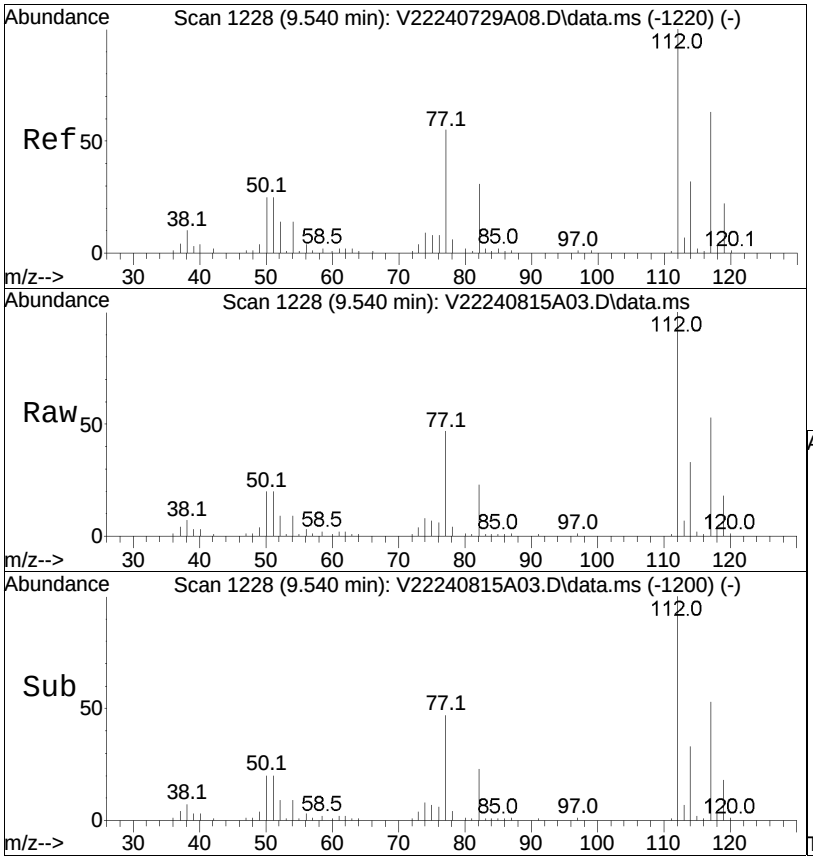


#76
2-Hexanone
Concen: 7.59 ug/L
RT: 9.175 min Scan# 1176
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 43 Resp: 16728

Ion	Ratio	Lower	Upper
43	100		
58	47.8	47.6	71.4
57	17.0	16.6	24.8

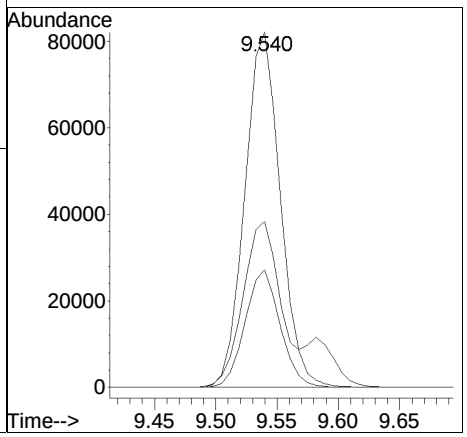


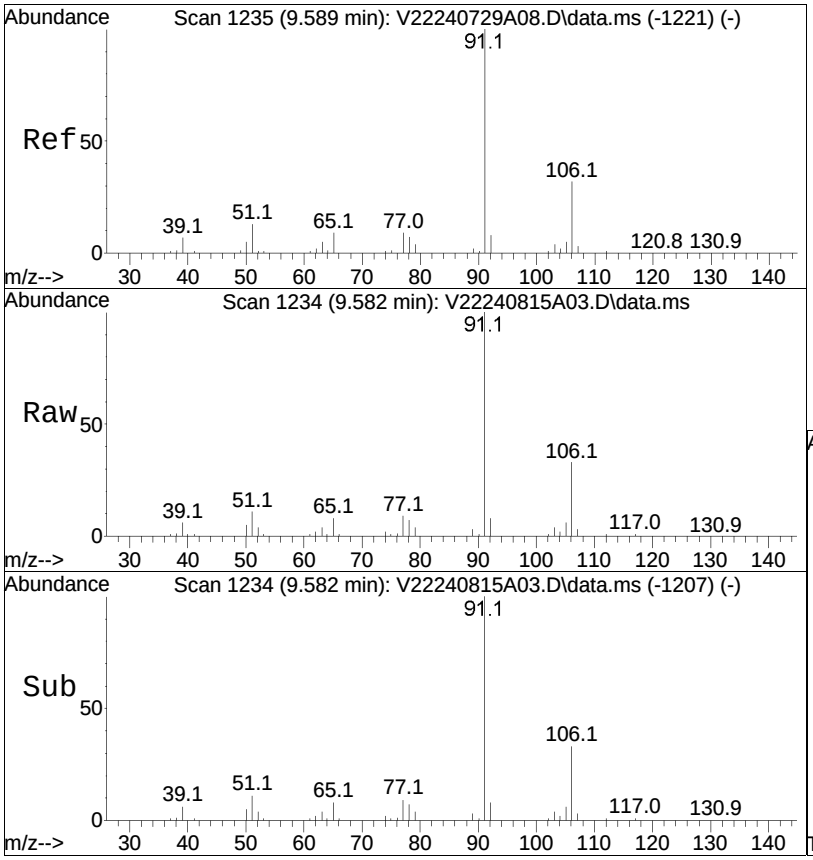


#77
Chlorobenzene
Concen: 9.85 ug/L
RT: 9.540 min Scan# 1228
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:112 Resp: 165300

Ion	Ratio	Lower	Upper
112	100		
77	49.8	55.4	83.0#
114	32.7	26.2	39.4

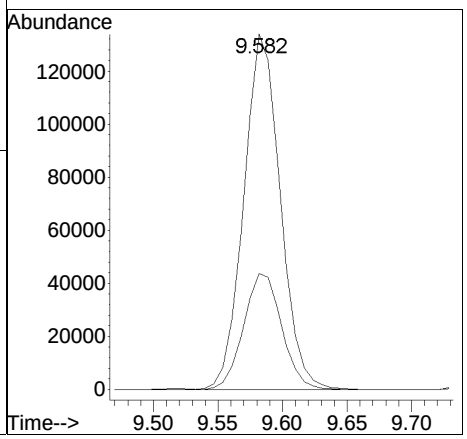


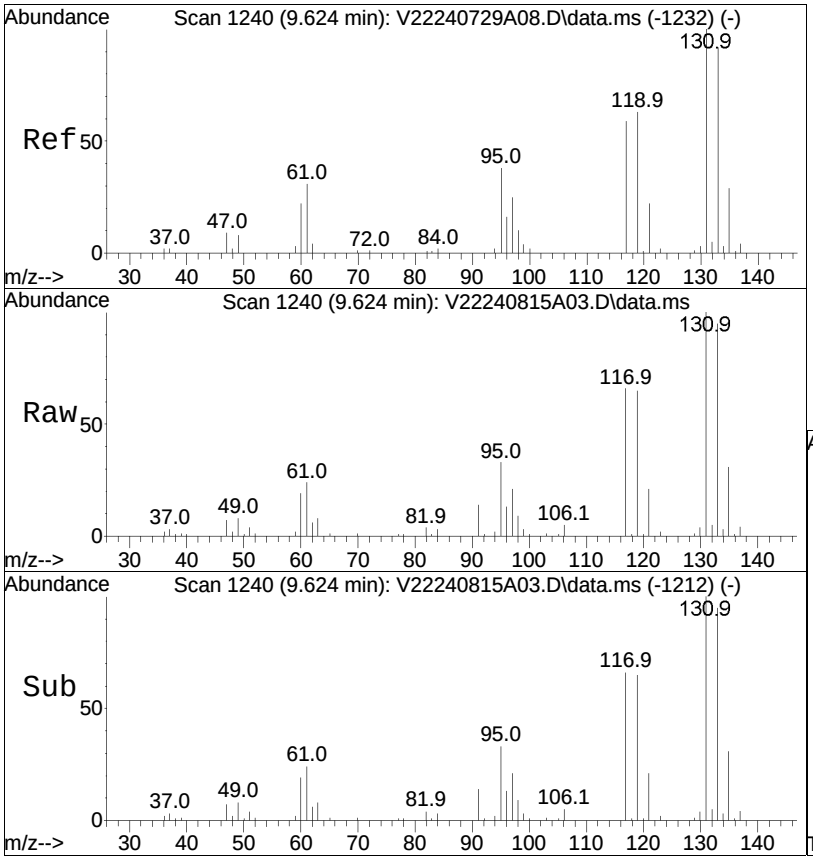


#78
Ethylbenzene
Concen: 9.42 ug/L
RT: 9.582 min Scan# 1234
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 91 Resp: 263505

Ion	Ratio	Lower	Upper
91	100		
106	33.9	25.8	38.6

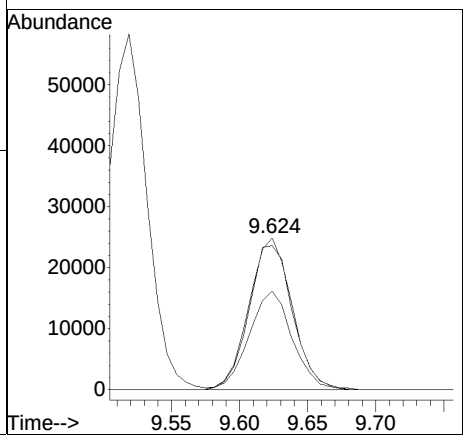


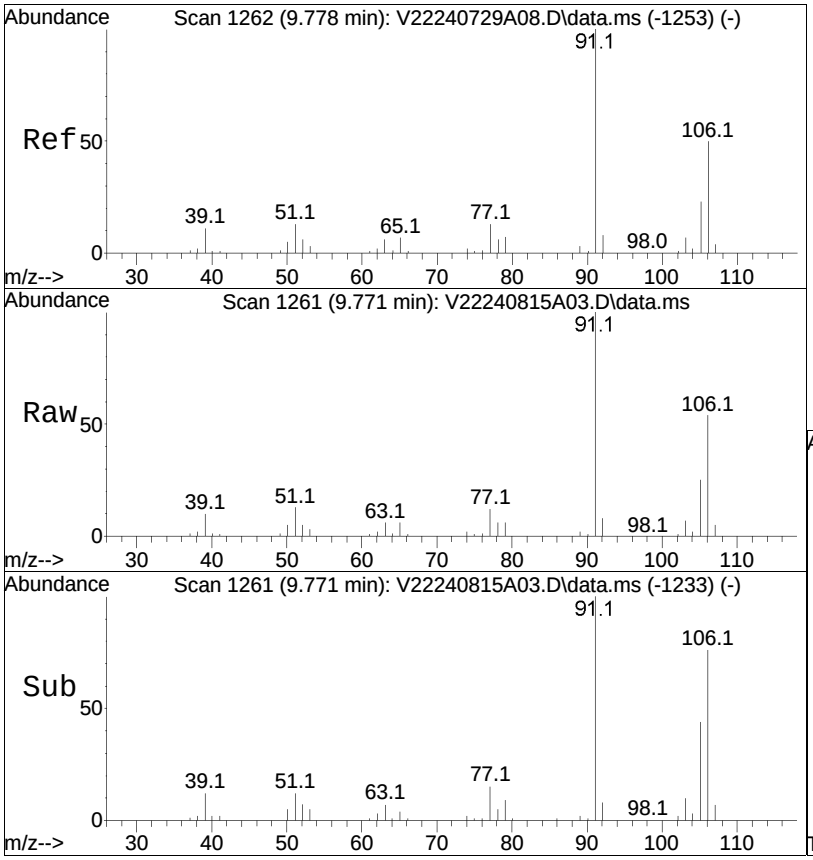


#79
1,1,1,2-Tetrachloroethane
Concen: 10.22 ug/L
RT: 9.624 min Scan# 1240
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:131 Resp: 54544

Ion	Ratio	Lower	Upper
131	100		
133	96.7	75.3	115.3
119	64.8	49.3	89.3

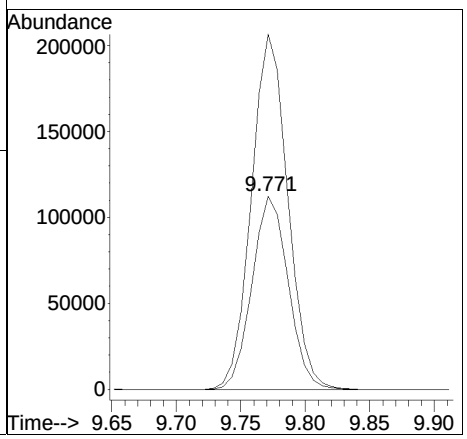


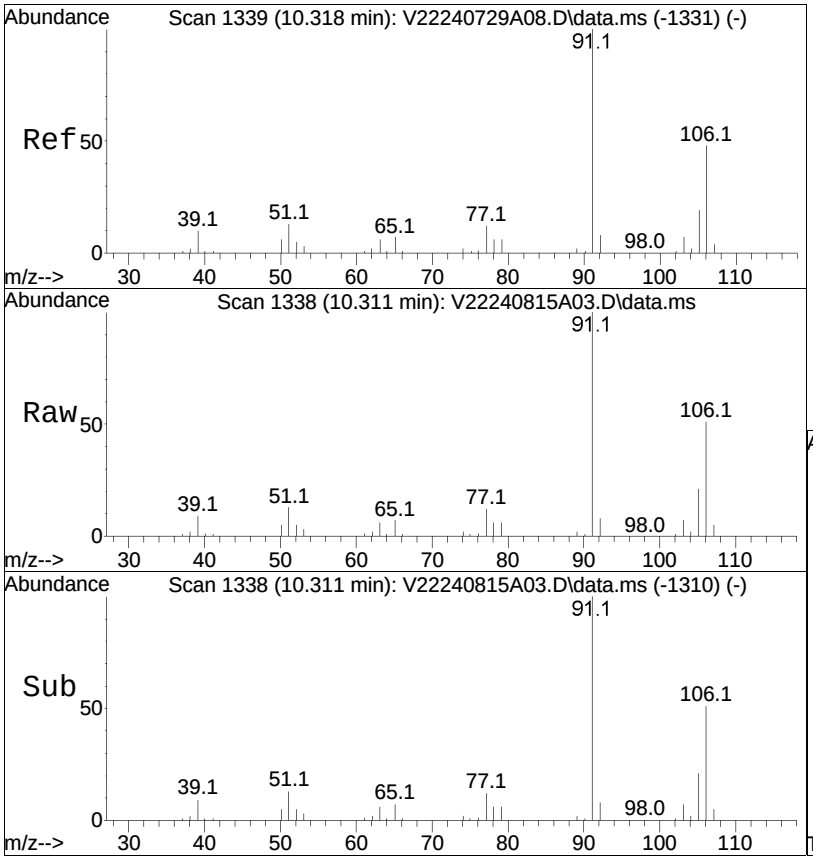


#80
p/m Xylene
Concen: 20.23 ug/L
RT: 9.771 min Scan# 1261
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:106 Resp: 219714

Ion	Ratio	Lower	Upper
106	100		
91	184.2	156.0	234.0

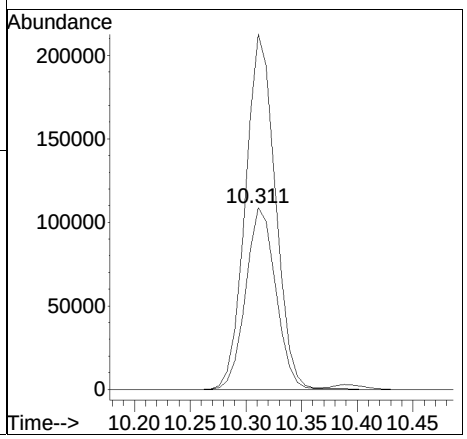


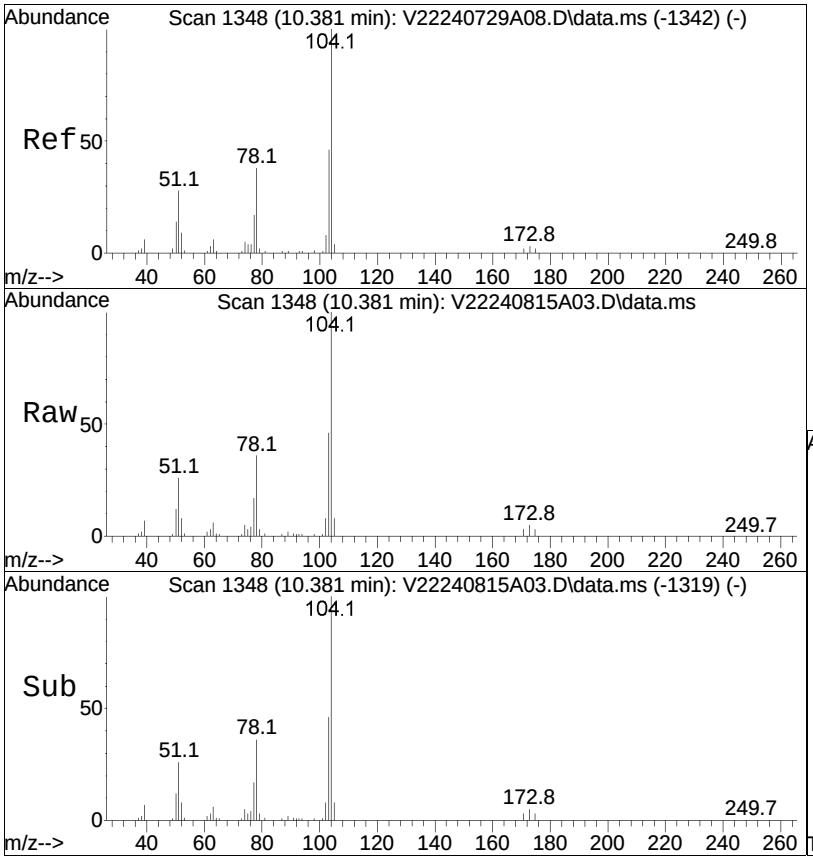


#81
o Xylene
Concen: 19.94 ug/L
RT: 10.311 min Scan# 1338
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:106 Resp: 204806

Ion	Ratio	Lower	Upper
106	100		
91	193.7	164.0	246.0

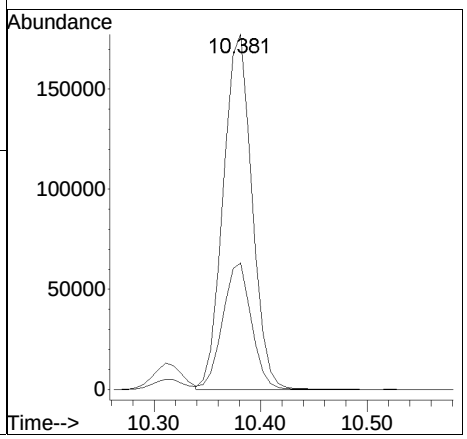


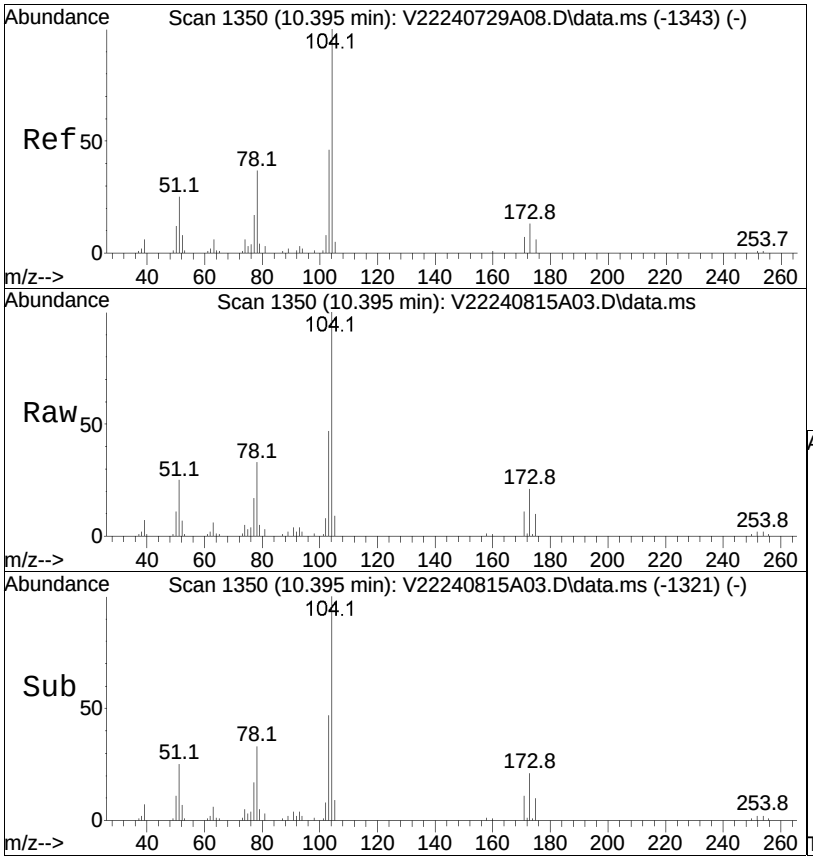


#82
Styrene
Concen: 20.14 ug/L
RT: 10.381 min Scan# 1348
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:104 Resp: 332724

Ion	Ratio	Lower	Upper
104	100		
78	35.5	32.1	48.1

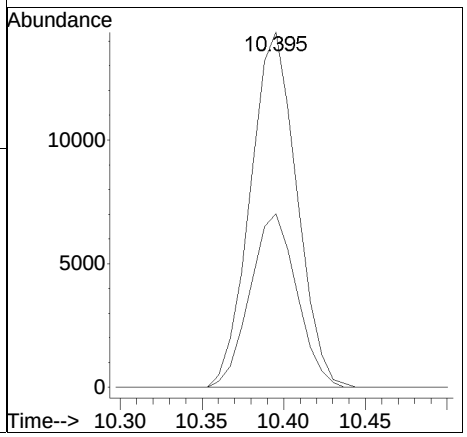


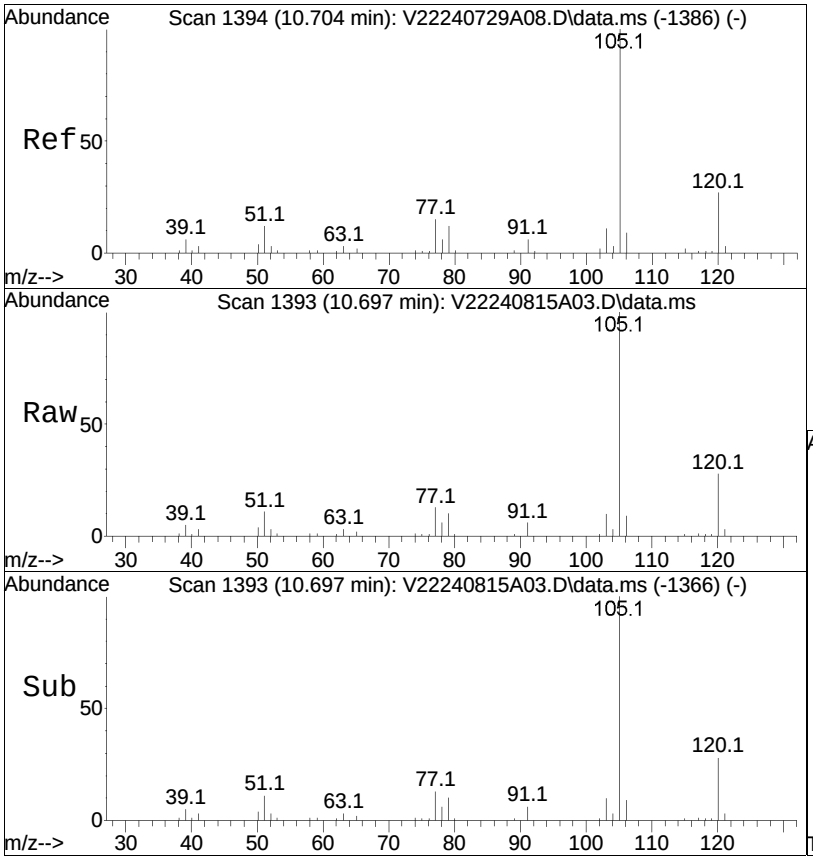


#84
Bromoform
Concen: 9.72 ug/L
RT: 10.395 min Scan# 1350
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:173 Resp: 28442

Ion	Ratio	Lower	Upper
173	100		
175	49.0	29.3	69.3

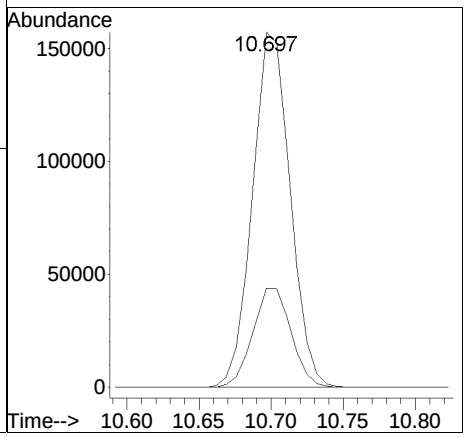


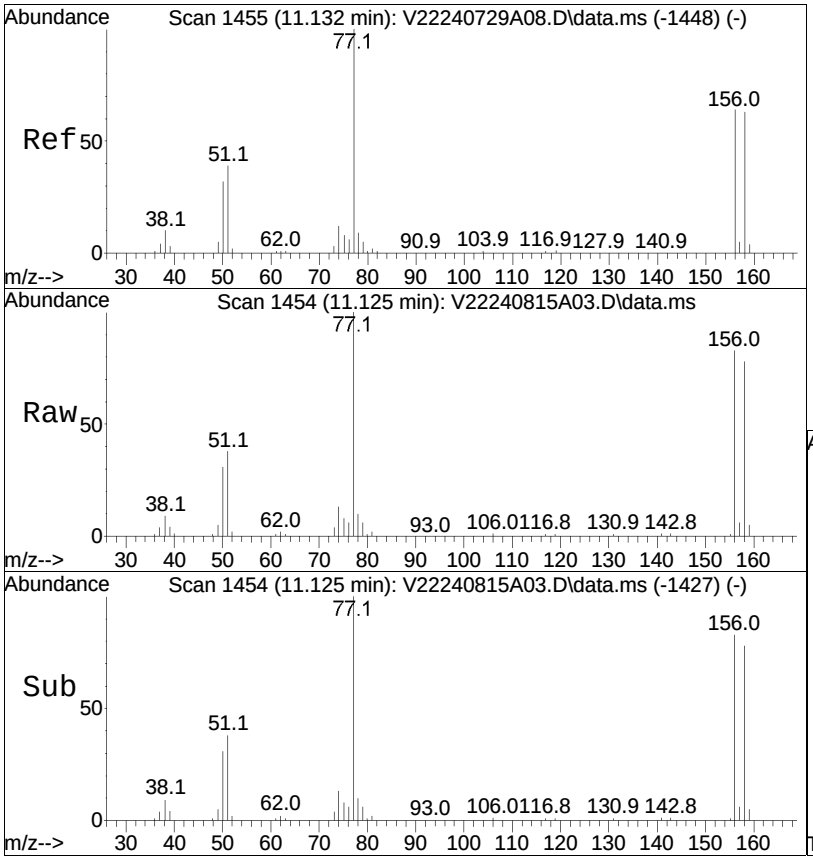


#86
Isopropylbenzene
Concen: 9.49 ug/L
RT: 10.697 min Scan# 1393
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:105 Resp: 286211

Ion	Ratio	Lower	Upper
105	100		
120	28.4	7.7	47.7

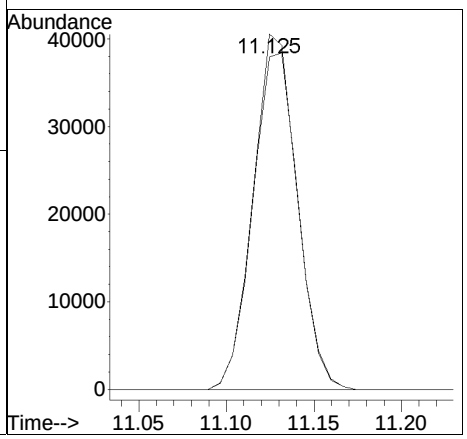


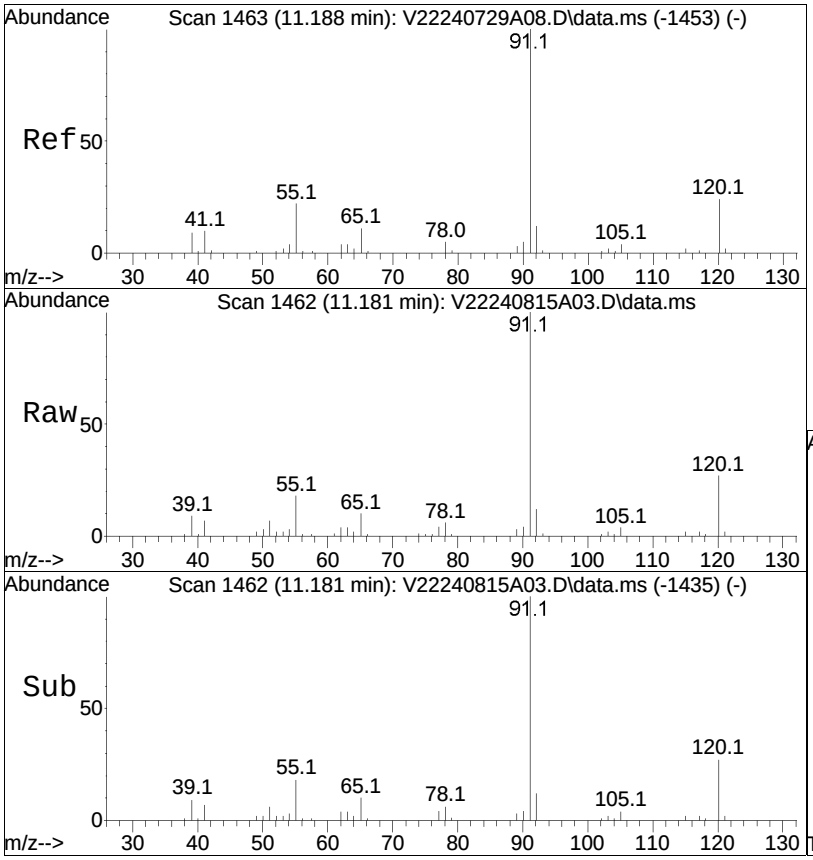


#88
Bromobenzene
Concen: 9.97 ug/L
RT: 11.125 min Scan# 1454
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:156 Resp: 70681

Ion	Ratio	Lower	Upper
156	100		
158	97.8	77.9	116.9

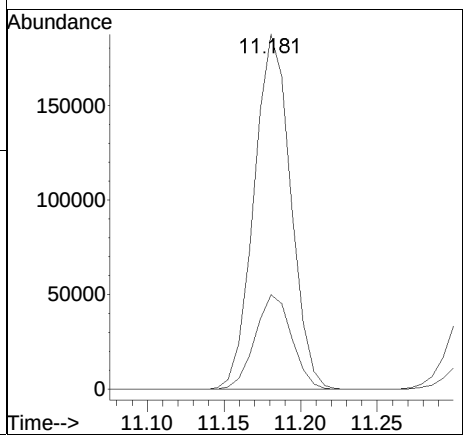


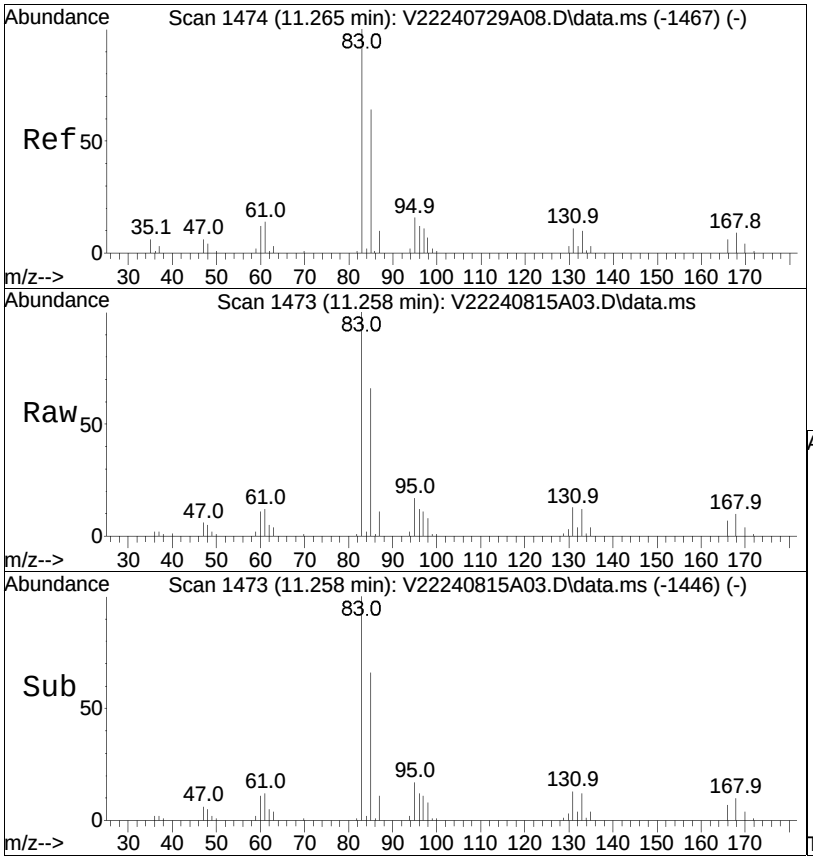


#89
n-Propylbenzene
Concen: 8.91 ug/L
RT: 11.181 min Scan# 1462
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 91 Resp: 312255

Ion	Ratio	Lower	Upper
91	100		
120	26.6	19.5	29.3

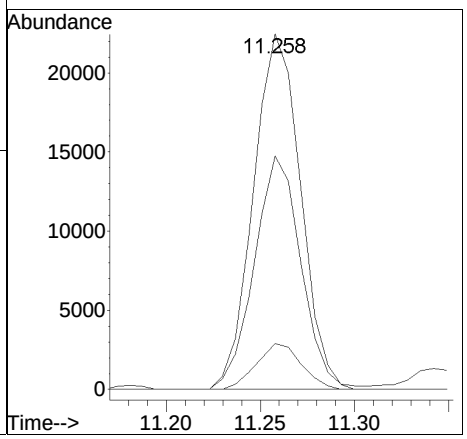


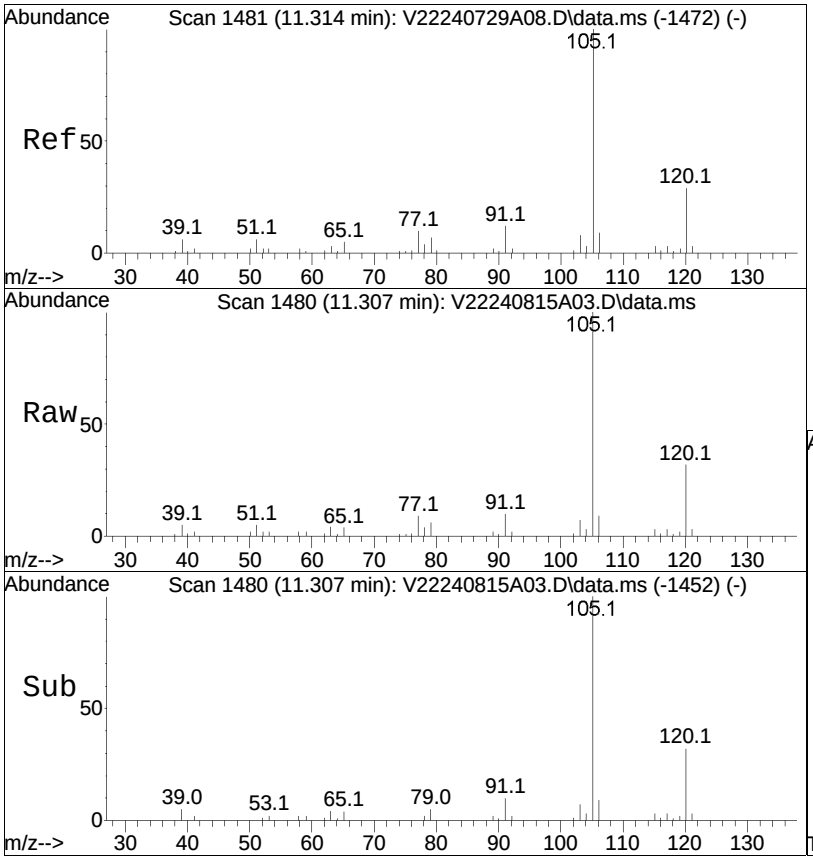


#91
1,1,2,2-Tetrachloroethane
Concen: 7.92 ug/L
RT: 11.258 min Scan# 1473
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 83 Resp: 39068

Ion	Ratio	Lower	Upper
83	100		
131	12.4	0.0	30.8
85	65.1	45.4	85.4

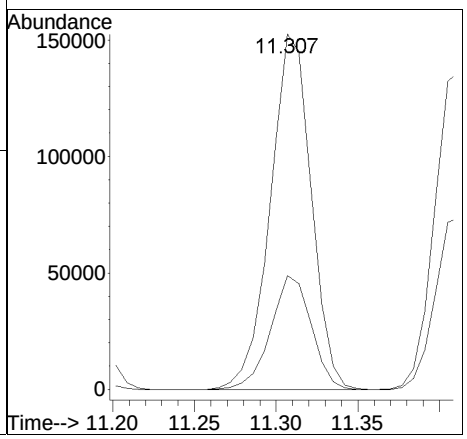


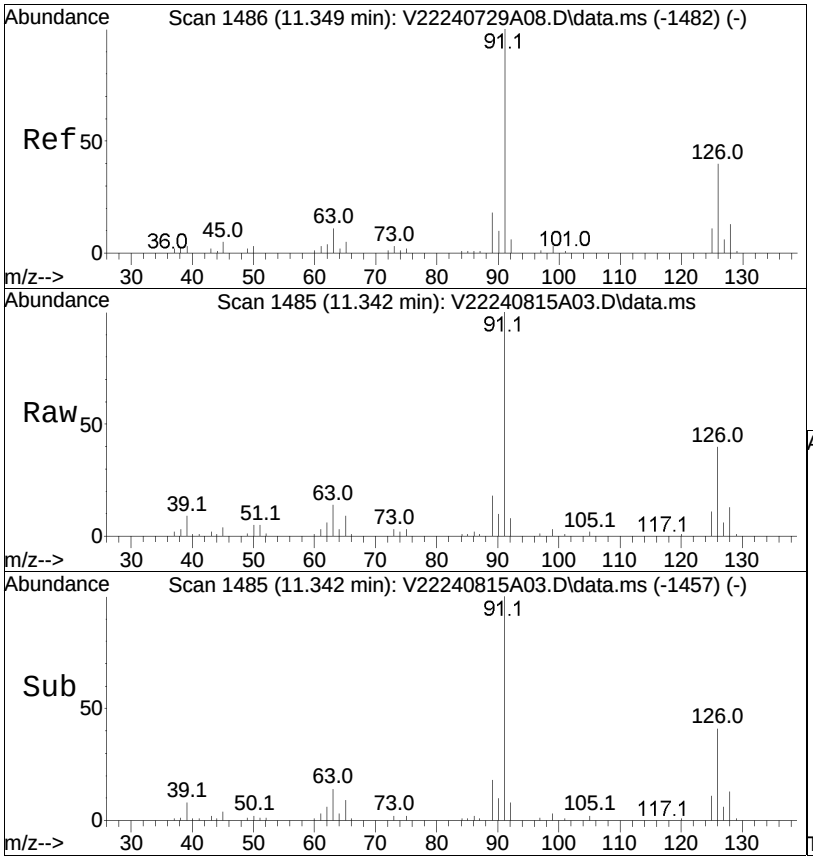


#92
4-Ethyltoluene
Concen: 9.29 ug/L
RT: 11.307 min Scan# 1480
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:105 Resp: 265456

Ion	Ratio	Lower	Upper
105	100		
120	31.8	19.8	41.0

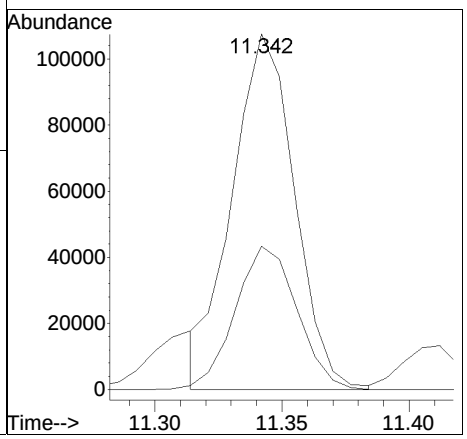


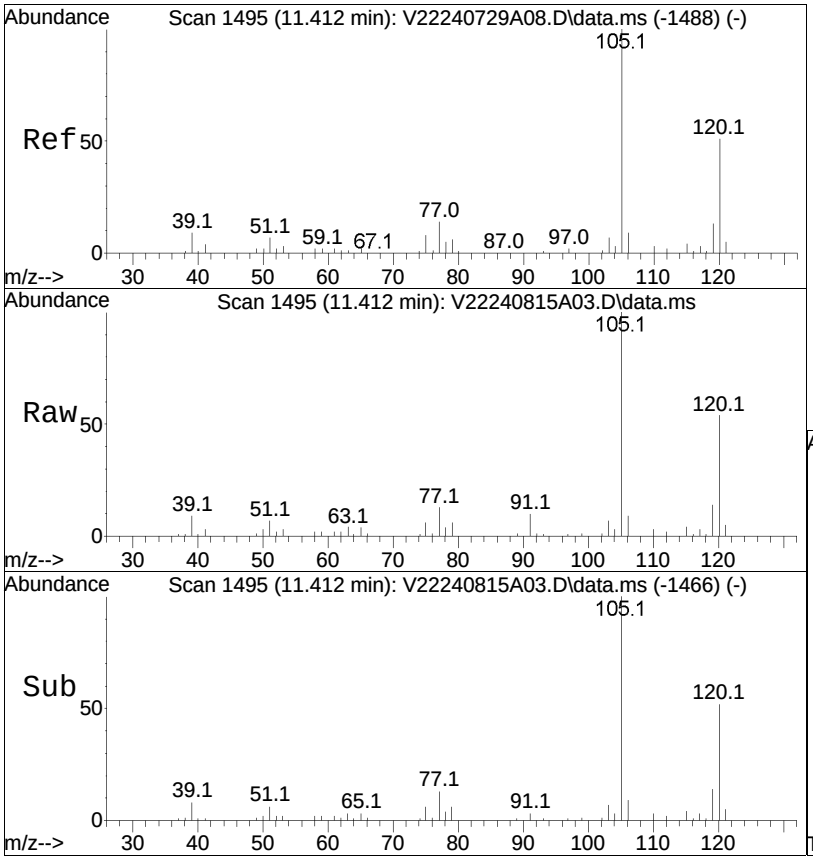


#93
2-Chlorotoluene
Concen: 8.71 ug/L M6
RT: 11.342 min Scan# 1485
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 91 Resp: 183784

Ion	Ratio	Lower	Upper
91	100		
126	39.8	24.6	37.0#

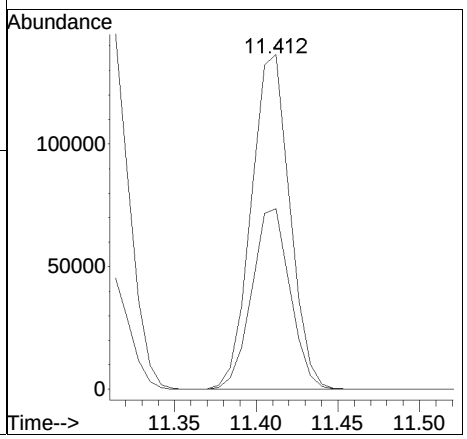


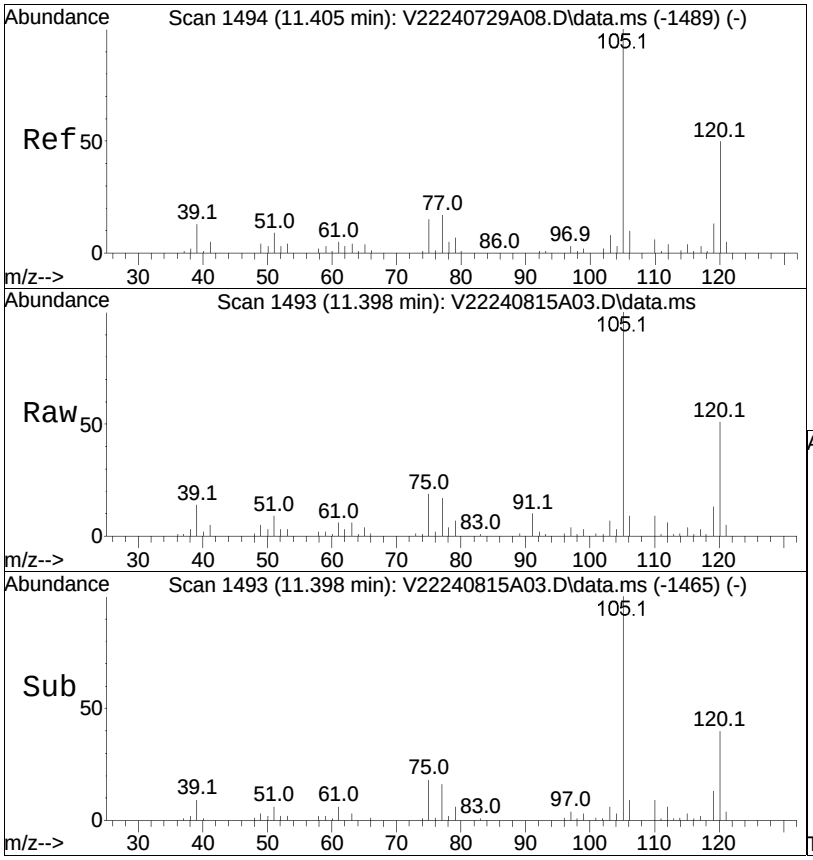


#94
1,3,5-Trimethylbenzene
Concen: 9.28 ug/L
RT: 11.412 min Scan# 1495
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:105 Resp: 224581

Ion	Ratio	Lower	Upper
105	100		
120	53.6	40.9	61.3

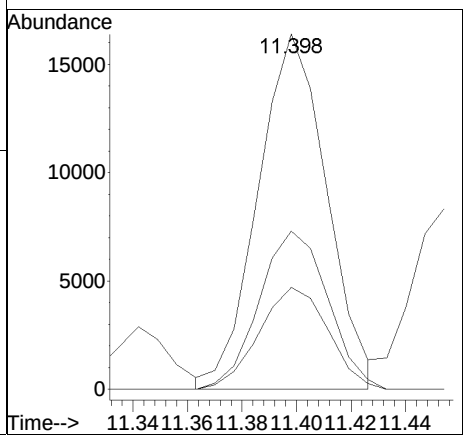


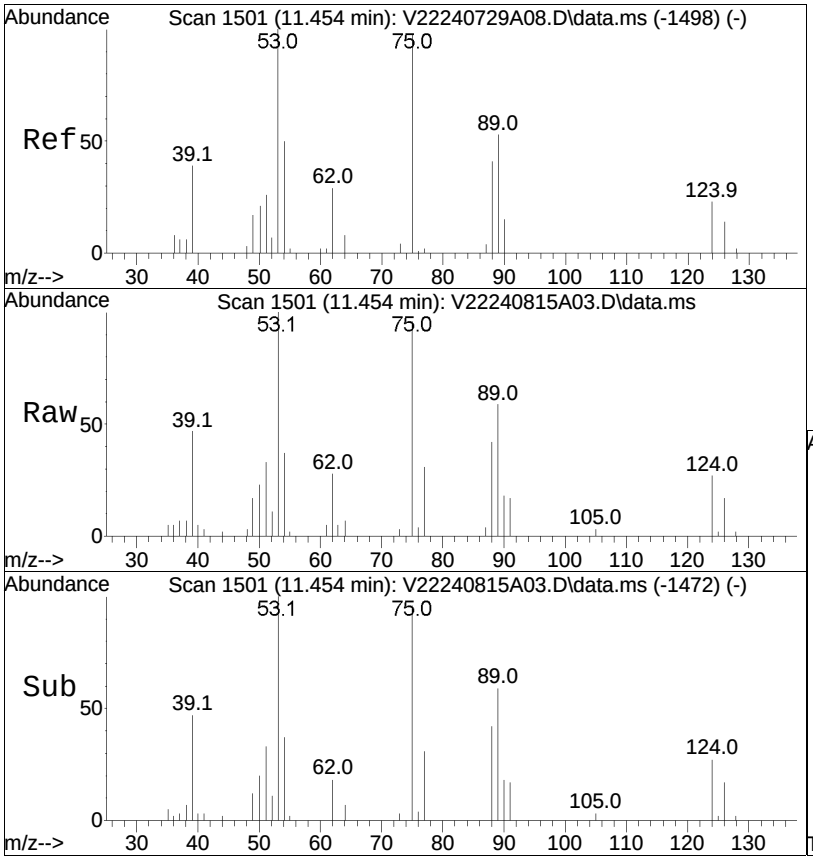


#95
1,2,3-Trichloropropane
Concen: 7.64 ug/L
RT: 11.398 min Scan# 1493
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 75 Resp: 28758

Ion	Ratio	Lower	Upper
75	100		
110	44.5	26.3	54.7
112	28.8	16.8	35.0

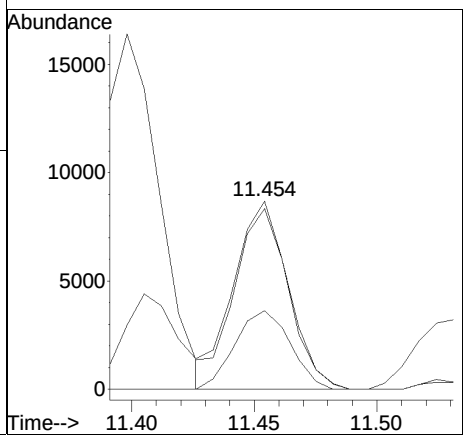


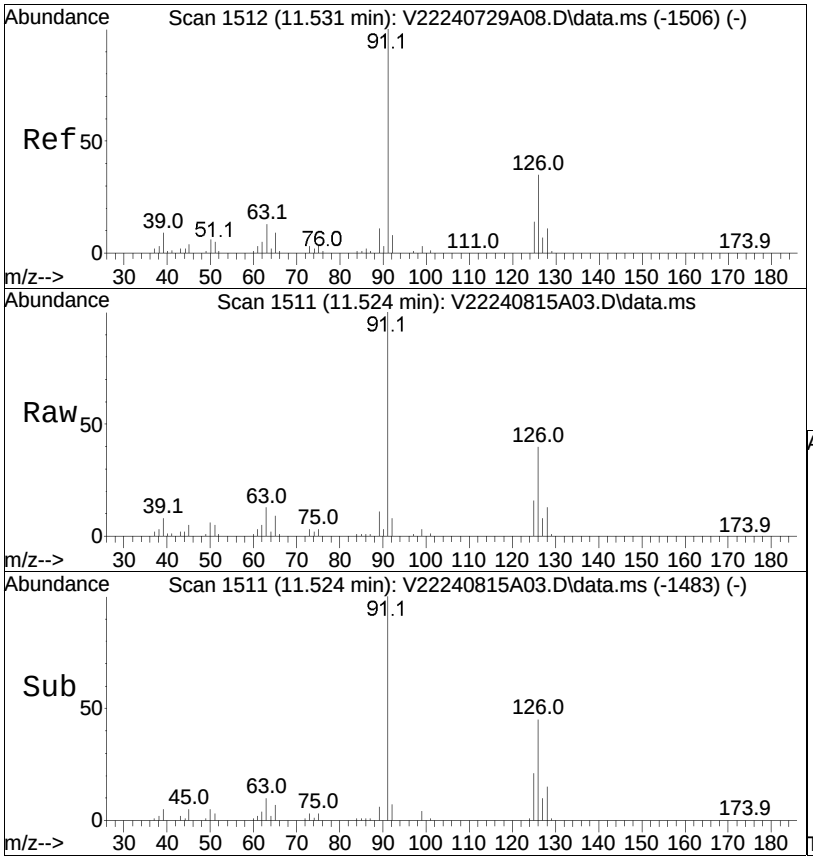


#96
trans-1,4-Dichloro-2-butene
Concen: 7.98 ug/L
RT: 11.454 min Scan# 1501
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 53 Resp: 13398

Ion	Ratio	Lower	Upper
53	100		
88	42.6	46.3	69.5#
75	96.8	109.0	163.4#

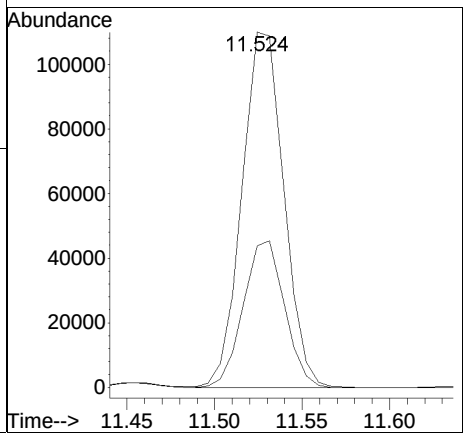


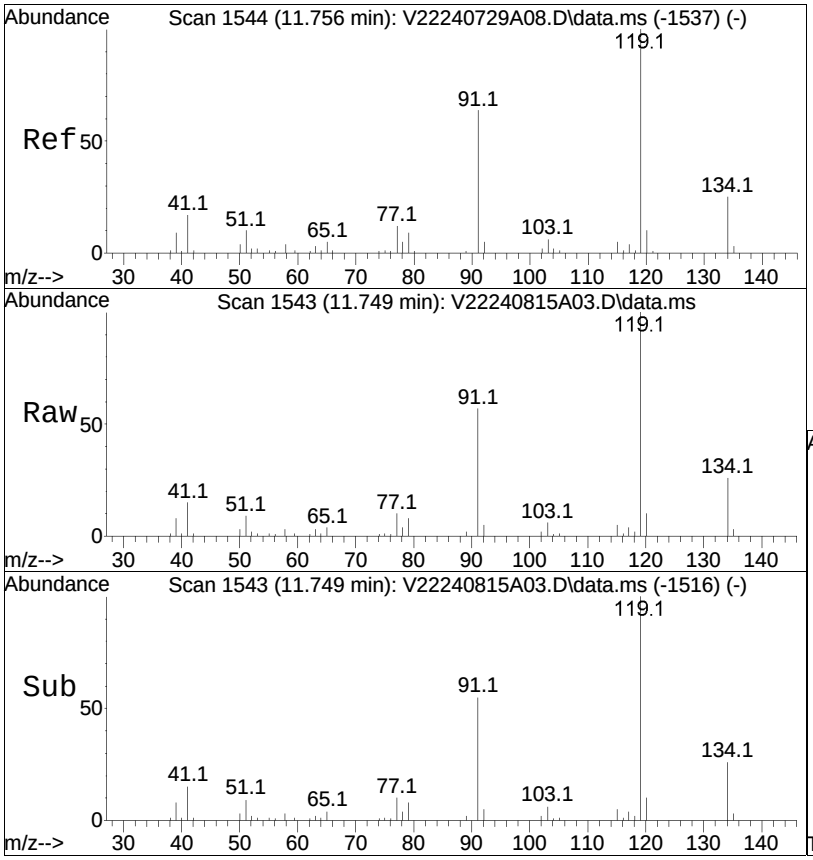


#97
4-Chlorotoluene
Concen: 8.40 ug/L
RT: 11.524 min Scan# 1511
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 91 Resp: 182982

Ion	Ratio	Lower	Upper
91	100		
126	40.6	28.5	42.7

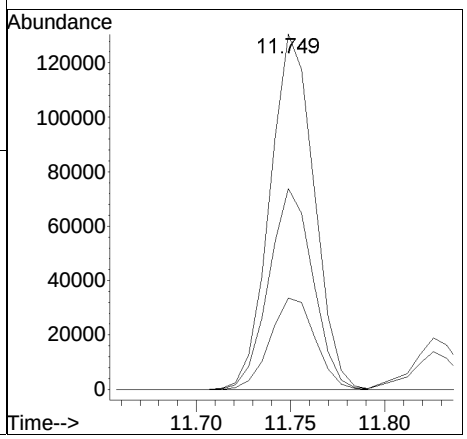


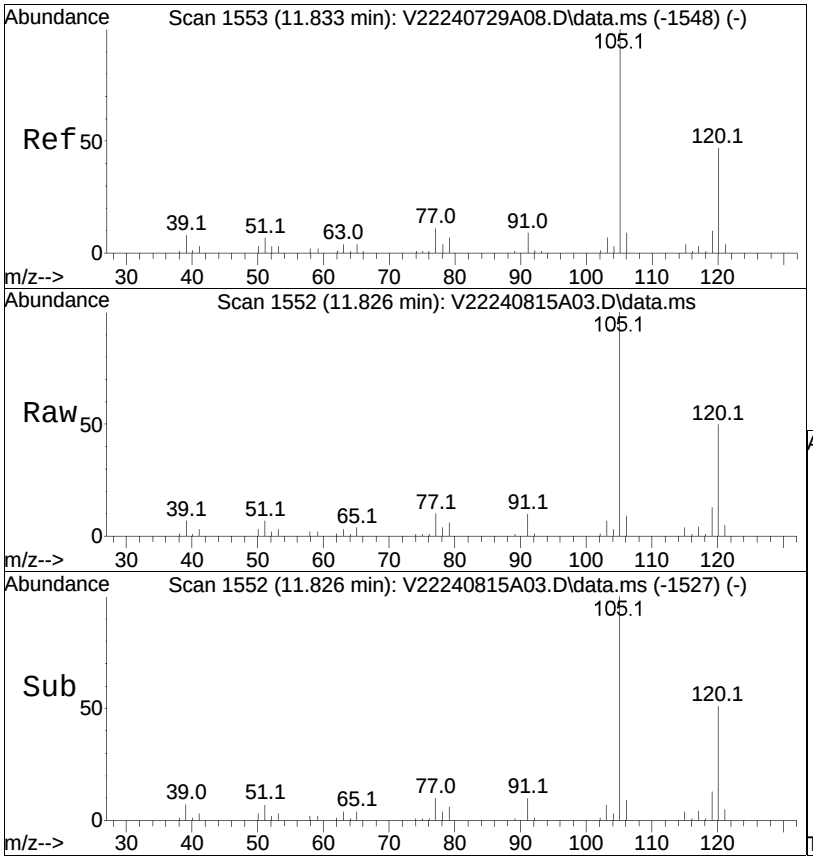


#98
tert-Butylbenzene
Concen: 10.12 ug/L
RT: 11.749 min Scan# 1543
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:119 Resp: 212641

Ion	Ratio	Lower	Upper
119	100		
91	56.4	50.2	75.4
134	30.3	20.8	31.2

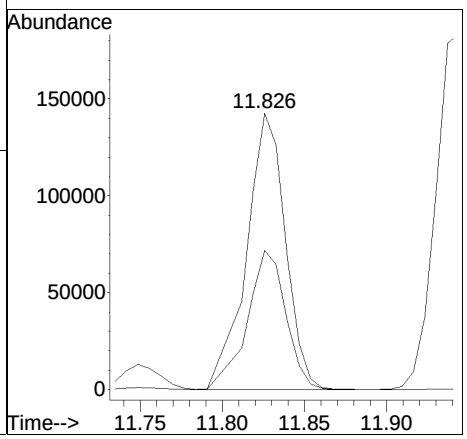


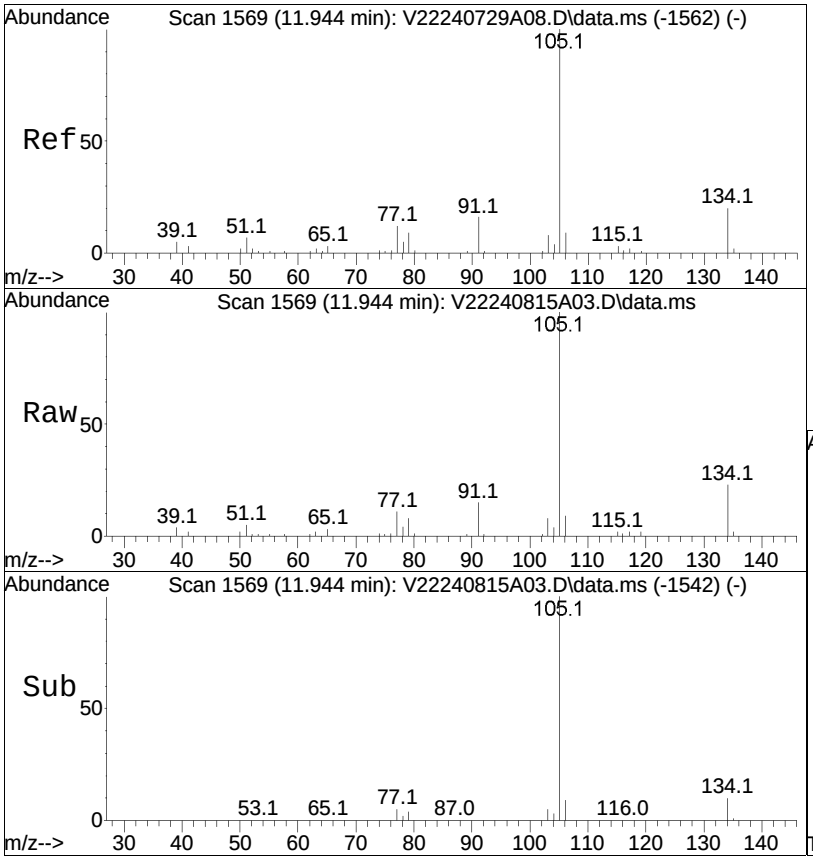


#101
1,2,4-Trimethylbenzene
Concen: 9.20 ug/L
RT: 11.826 min Scan# 1552
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:105 Resp: 248740

Ion	Ratio	Lower	Upper
105	100		
120	51.4	38.5	57.7

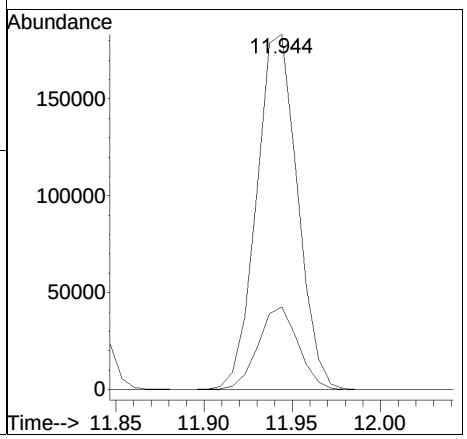


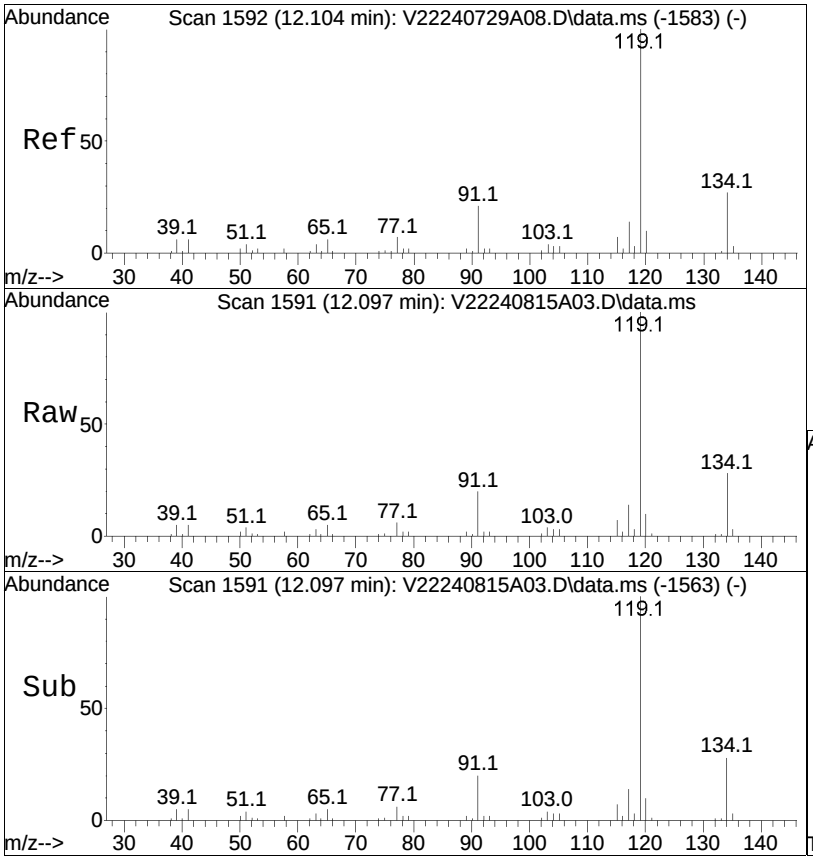


#102
sec-Butylbenzene
Concen: 9.29 ug/L
RT: 11.944 min Scan# 1569
Delta R.T. -0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:105 Resp: 296268

Ion	Ratio	Lower	Upper
105	100		
134	22.6	13.9	28.9

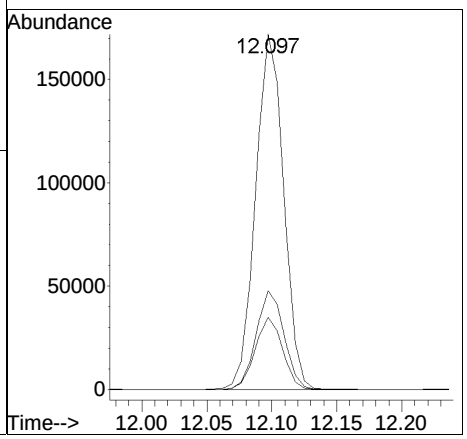


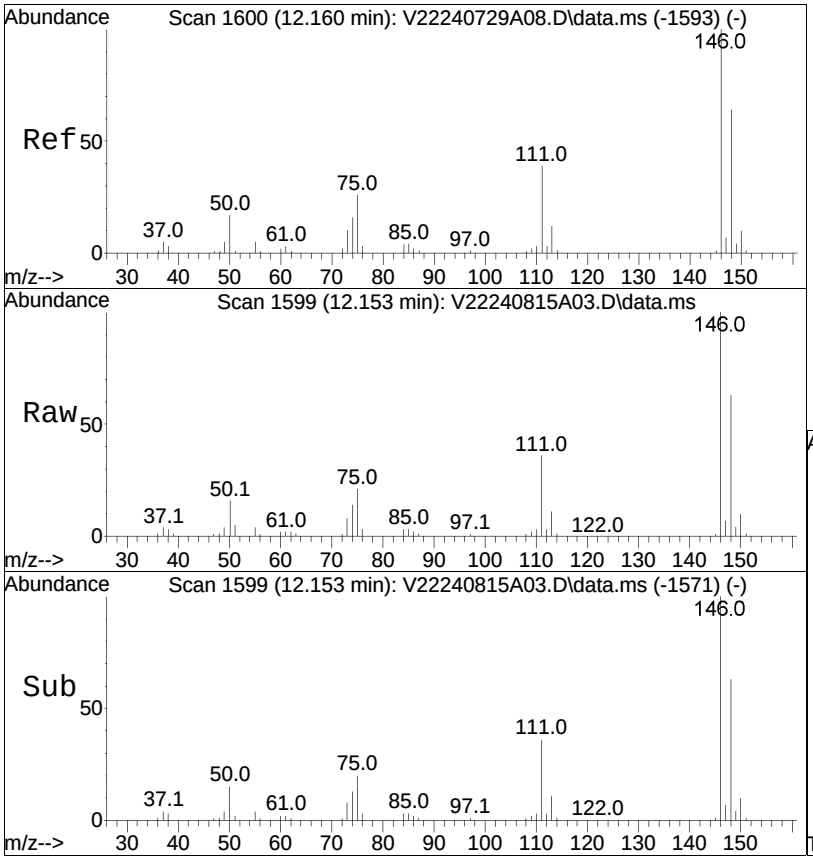


#103
p-Isopropyltoluene
Concen: 9.58 ug/L
RT: 12.097 min Scan# 1591
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:119 Resp: 258242

Ion	Ratio	Lower	Upper
119	100		
134	27.5	17.7	36.7
91	19.8	14.1	29.3

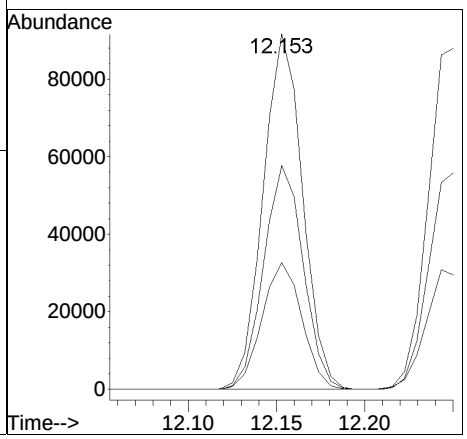


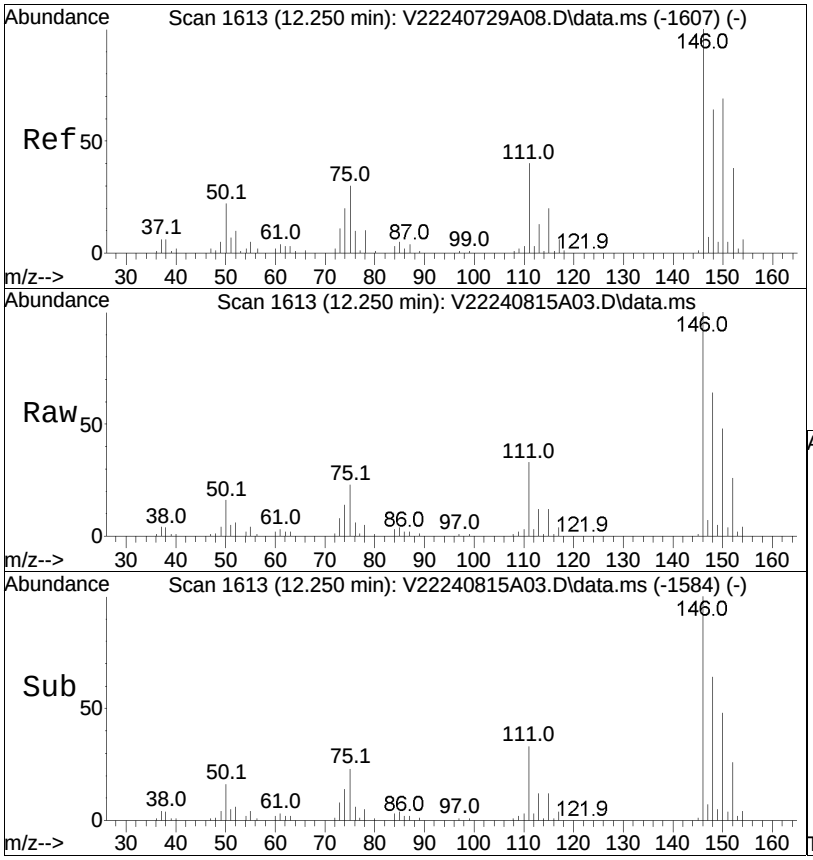


#104
1,3-Dichlorobenzene
Concen: 10.14 ug/L
RT: 12.153 min Scan# 1599
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:146 Resp: 142612

Ion	Ratio	Lower	Upper
146	100		
111	36.2	24.0	49.8
148	63.4	41.8	86.8

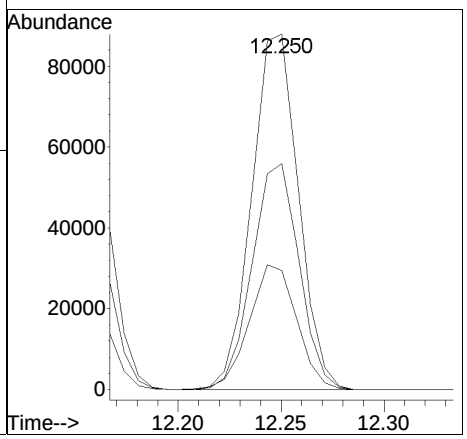


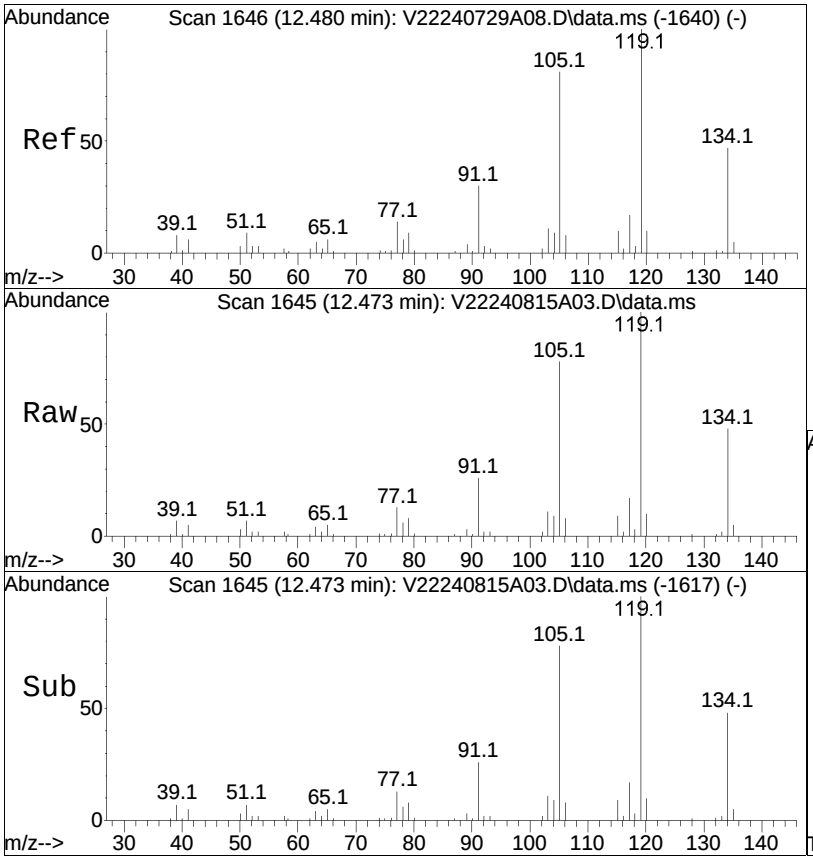


#105
1,4-Dichlorobenzene
Concen: 9.95 ug/L
RT: 12.250 min Scan# 1613
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:146 Resp: 138857

Ion	Ratio	Lower	Upper
146	100		
111	35.7	28.9	43.3
148	63.8	51.4	77.2

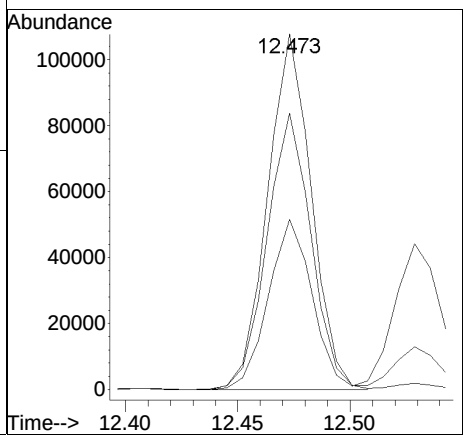


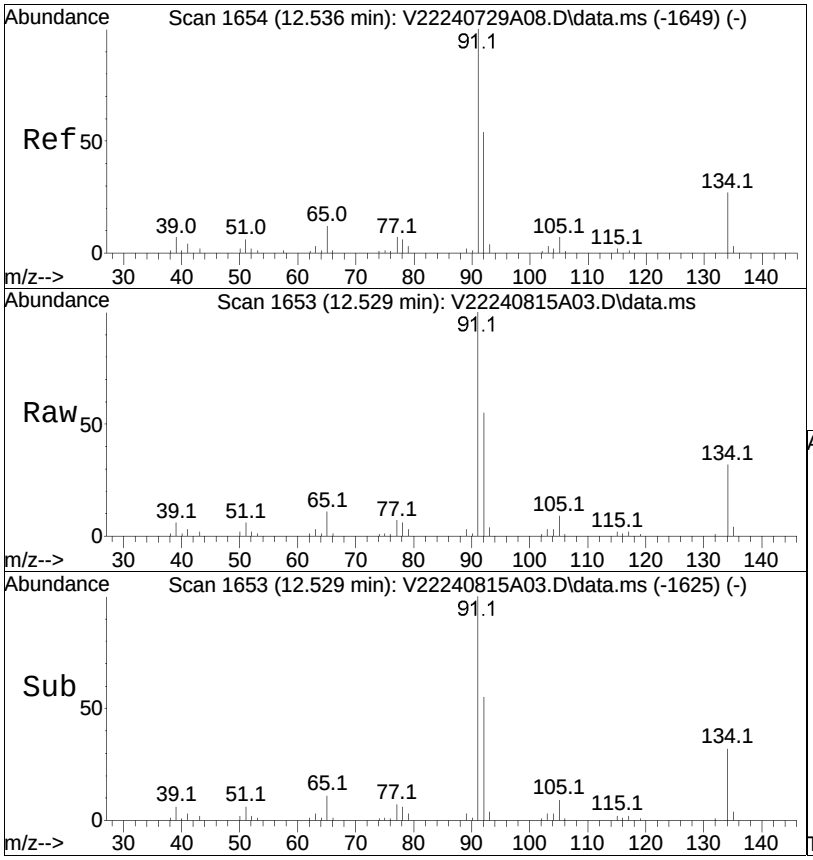


#106
p-Diethylbenzene
Concen: 9.51 ug/L
RT: 12.473 min Scan# 1645
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:119 Resp: 145649

Ion	Ratio	Lower	Upper
119	100		
105	78.7	53.4	110.8
134	48.0	30.9	64.1

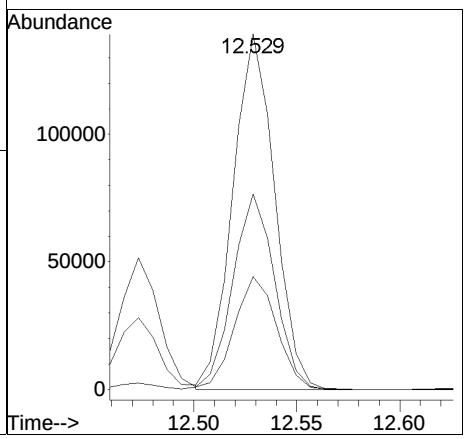


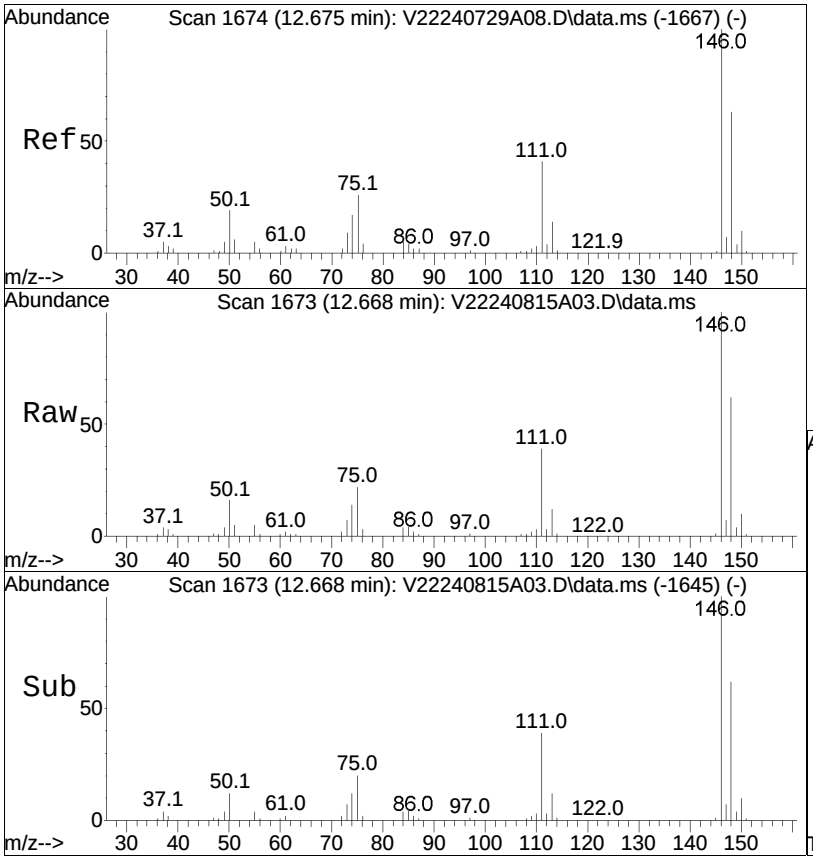


#107
n-Butylbenzene
Concen: 8.79 ug/L
RT: 12.529 min Scan# 1653
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion: 91 Resp: 196830

Ion	Ratio	Lower	Upper
91	100		
92	55.0	44.6	66.8
134	32.0	22.9	34.3

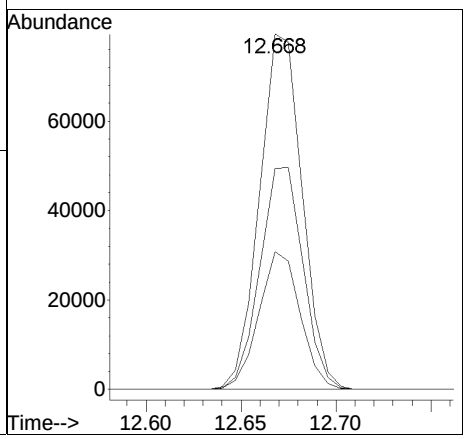


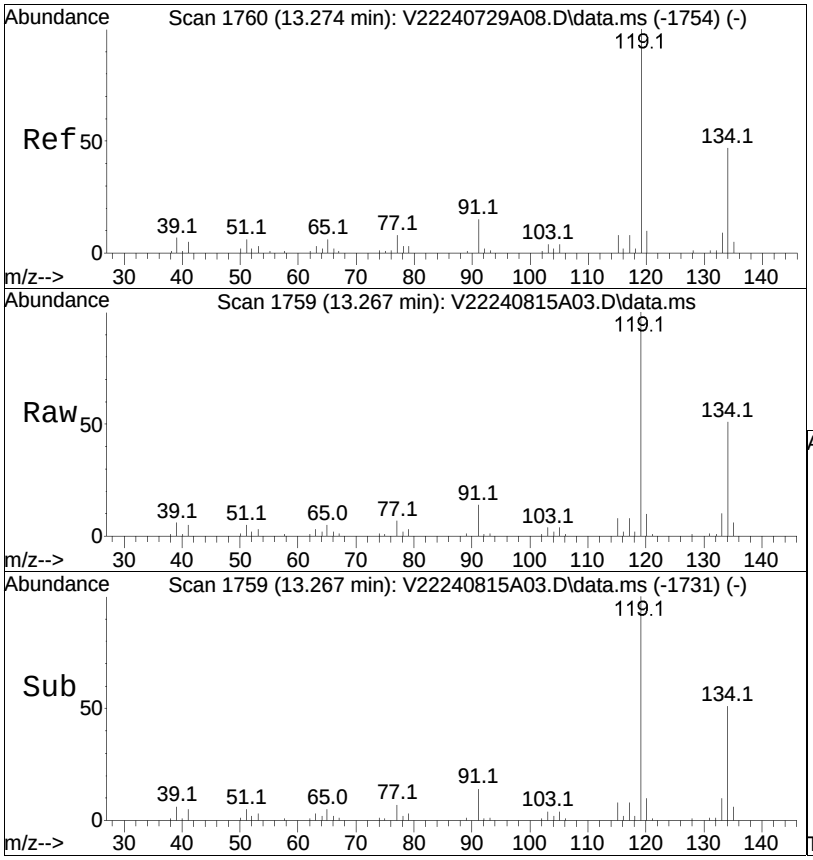


#108
1,2-Dichlorobenzene
Concen: 9.99 ug/L
RT: 12.668 min Scan# 1673
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:146 Resp: 124278

Ion	Ratio	Lower	Upper
146	100		
111	37.6	24.8	51.6
148	63.2	42.2	87.6

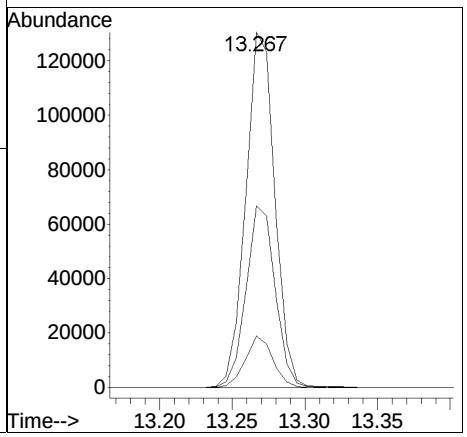


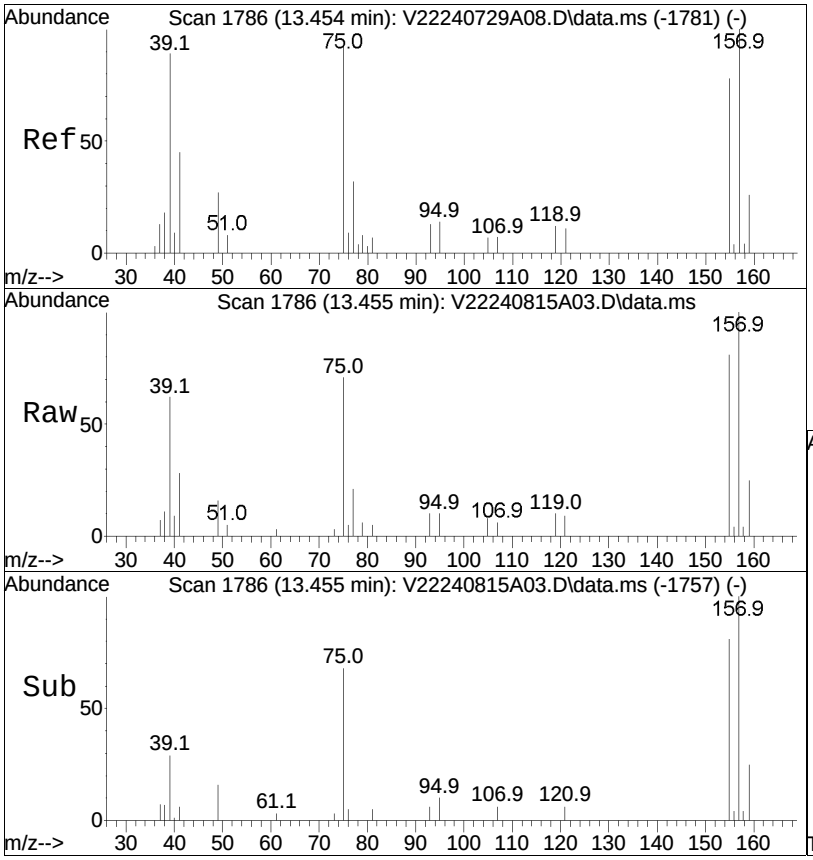


#109
1,2,4,5-Tetramethylbenzene
Concen: 8.64 ug/L
RT: 13.267 min Scan# 1759
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:119 Resp: 181570

Ion	Ratio	Lower	Upper
119	100		
134	51.1	31.9	66.1
91	13.7	9.8	20.3

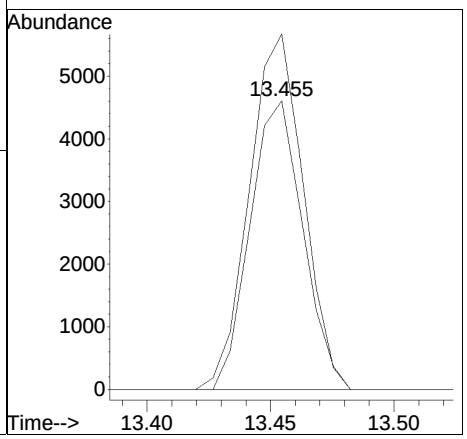


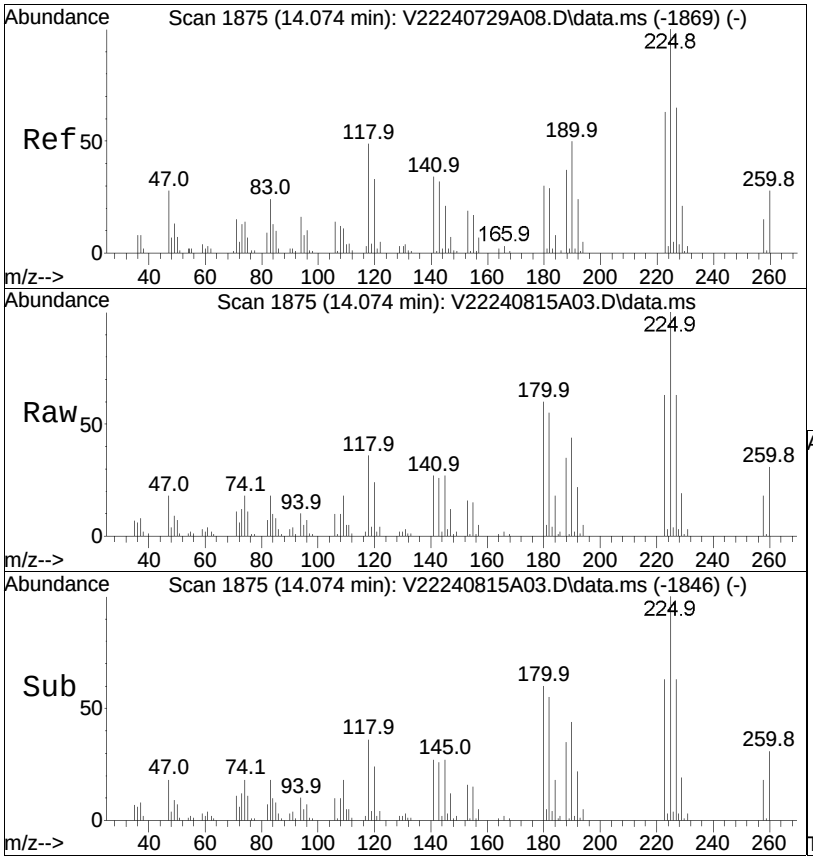


#110
1,2-Dibromo-3-chloropropane
Concen: 9.28 ug/L
RT: 13.455 min Scan# 1786
Delta R.T. 0.001 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:155 Resp: 6854

Ion	Ratio	Lower	Upper
155	100		
157	125.8	102.3	153.5

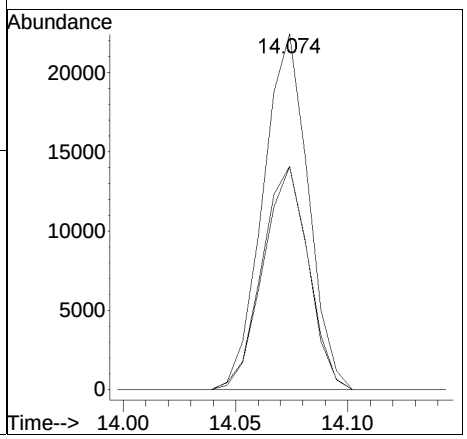


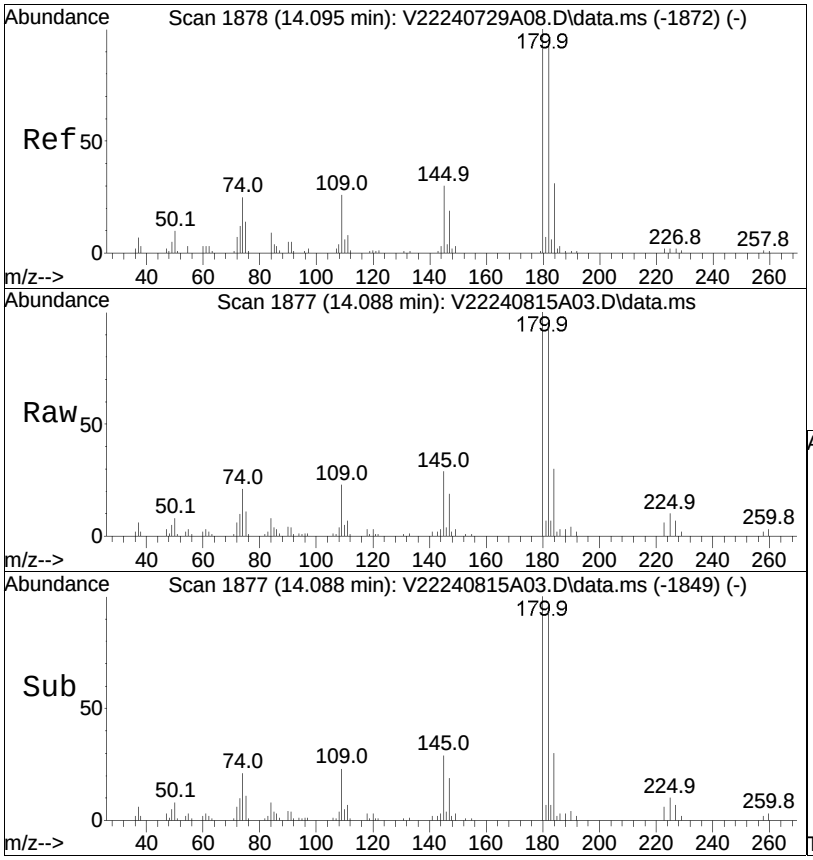


#112
Hexachlorobutadiene
Concen: 10.69 ug/L
RT: 14.074 min Scan# 1875
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:225 Resp: 31432

Ion	Ratio	Lower	Upper
225	100		
223	64.2	49.8	74.8
227	62.6	52.2	78.4

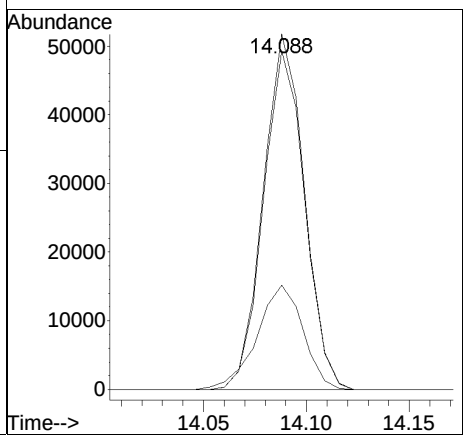


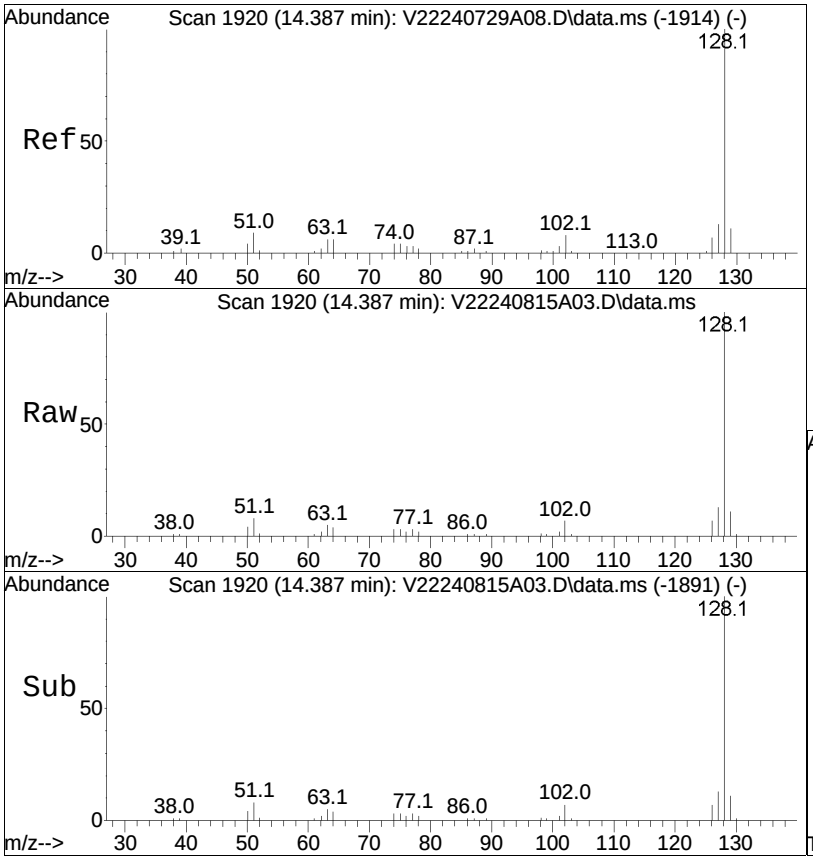


#113
1,2,4-Trichlorobenzene
Concen: 10.43 ug/L
RT: 14.088 min Scan# 1877
Delta R.T. -0.007 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:180 Resp: 71920

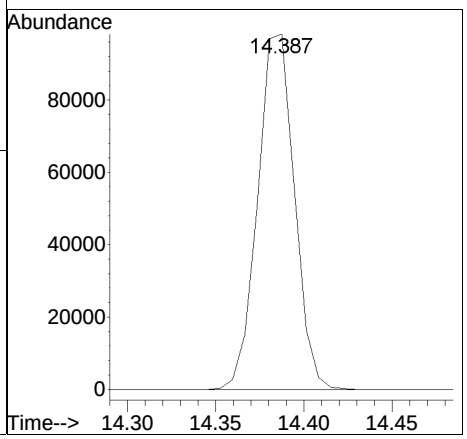
Ion	Ratio	Lower	Upper
180	100		
182	95.6	76.6	114.8
145	32.8	25.5	38.3

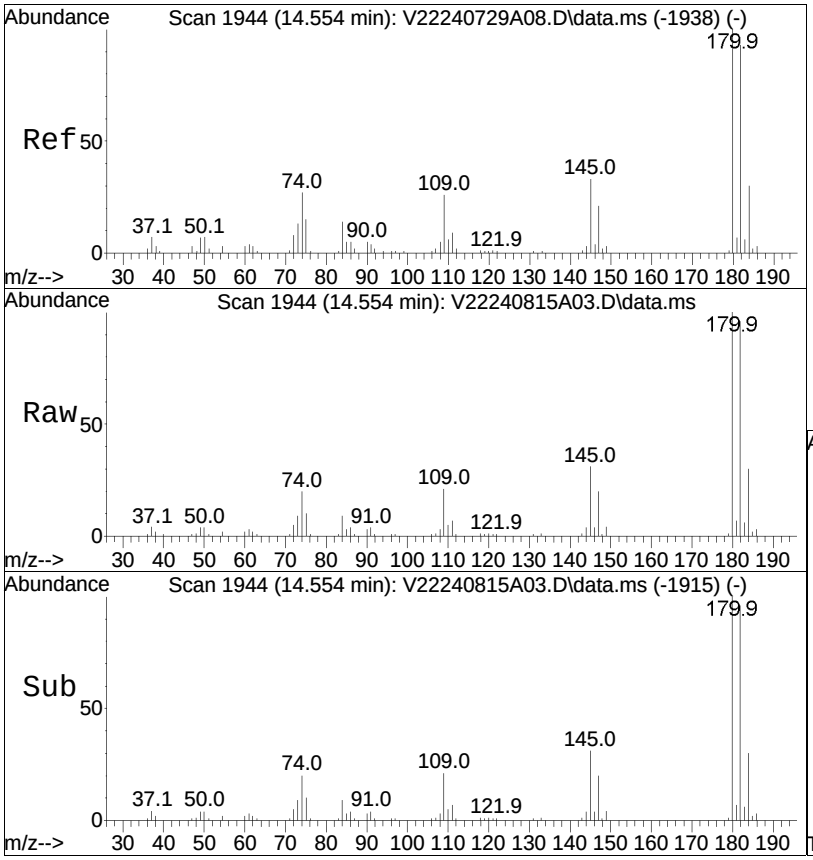




#114
Naphthalene
Concen: 8.98 ug/L
RT: 14.387 min Scan# 1920
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:128 Resp: 142550

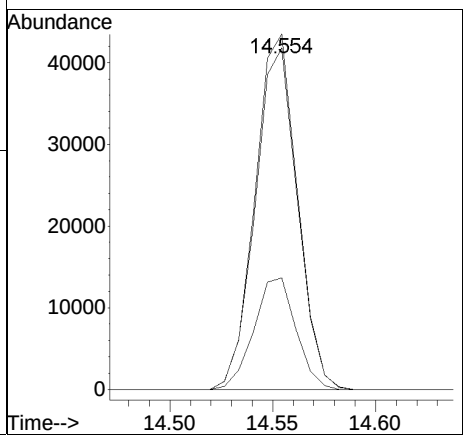




#115
1,2,3-Trichlorobenzene
Concen: 10.62 ug/L
RT: 14.554 min Scan# 1944
Delta R.T. 0.000 min
Lab File: V22240815A03.D
Acq: 15 Aug 2024 07:26 am

Tgt Ion:180 Resp: 62211

Ion	Ratio	Lower	Upper
180	100		
182	95.9	76.0	114.0
145	31.2	23.8	35.8

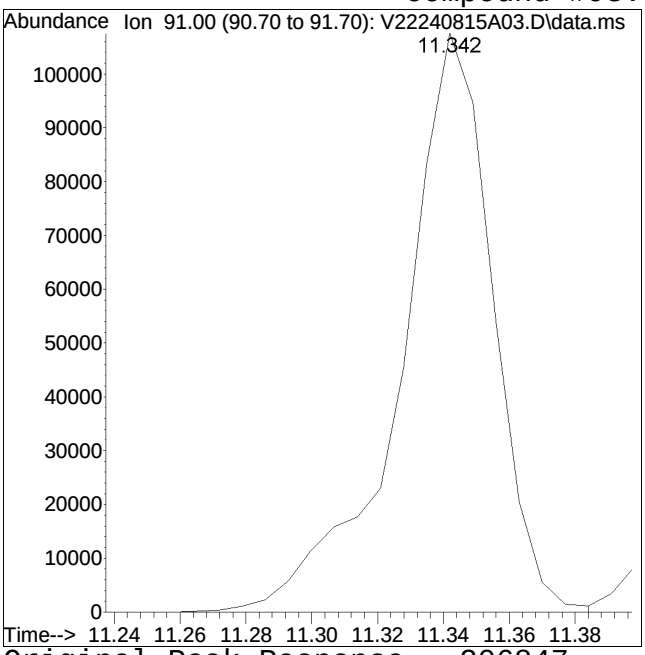


Manual Integration Report

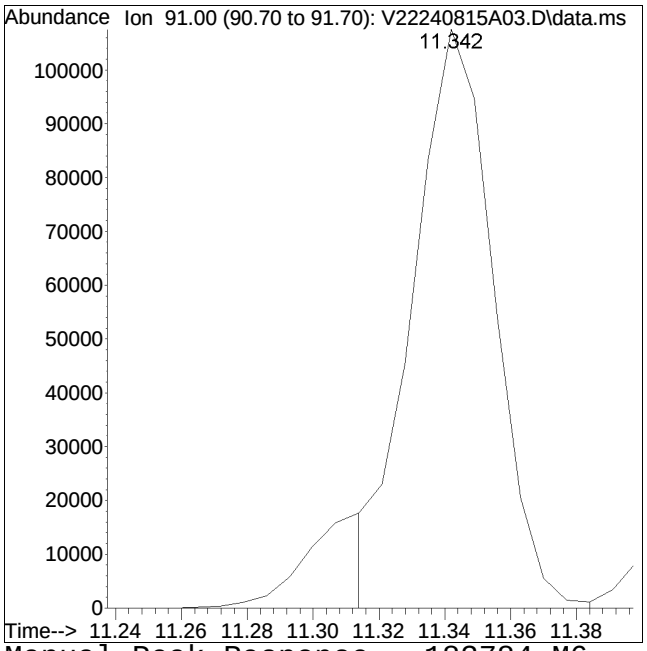
Data Path : K:\VOA122\2024\240815A\
Data File : V22240815A03.D
Date Inj'd : 8/15/2024 7:26 am
Sample : WG1959760-4,31,10,10

QMethod : V122_240729A_8260.m
Operator : VOA122:PID
Instrument : VOA 122
Quant Date : 8/15/2024 9:45 am

Compound #93: 2-Chlorotoluene



Original Peak Response = 206847



Manual Peak Response = 183784 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 15 2024, 11:55 am

Work Group: WG1959746 for Department: 31 GC/MS - Volatiles

Created: 15-AUG-24 Due: Operator: PID

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2446104-04	LMW-10RD_40.75	S	NYTCL-8260	WATER	DONE	U	0828	0815	1A	Vial-B
L2446104-05	LMW-10RD_30.75	S	NYTCL-8260	WATER	DONE	U	0828	0815	1A	Vial-B
L2446104-06	LMW-10RS_24.75	S	NYTCL-8260	WATER	DONE	U	0828	0815	1A	Vial-B
L2446104-07	TRIP BLANK	S	NYTCL-8260	WATER	DONE	U	0827	0815	1A	Vial-B
WG1959746-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1959746-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1959746-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1959746-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1959746-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG1959746-4 WG1959746-3

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 15 2024, 11:55 am

Work Group: WG1959760 for Department: 31 GC/MS - Volatiles

Created: 15-AUG-24 Due: Operator: PID

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2445098-23	DUP-01 (08082024)	S	NYTCL-8260-R2	WATER	DONE	U	0822	0815	S0	Vial-B
L2445098-24	DUP-02 (08082024)	S	NYTCL-8260-R2	WATER	DONE	U	0822	0815	S0	Vial-B
L2446104-01	LMW-7RD_23.75	S	NYTCL-8260	WATER	DONE	U	0827	0815	1A	Vial-B
L2446104-02	LMW-8RD_59.75	S	NYTCL-8260	WATER	DONE	U	0827	0815	1A	Vial-B
L2446104-03	LMW-6RS_18.75	S	NYTCL-8260	WATER	DONE	U	0827	0815	1A	Vial-B
WG1959760-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1959760-1	MS BFB Tune Standard	S	NYTCL-8260-R2	WATER	DONE	U				
WG1959760-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1959760-2	Continuing Calibrati	S	NYTCL-8260-R2	WATER	DONE	U				
WG1959760-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1959760-3	Laboratory Control S	S	NYTCL-8260-R2	WATER	DACQ	U				
WG1959760-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1959760-4	LCS Duplicate	S	NYTCL-8260-R2	WATER	DACQ	U				
WG1959760-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				
WG1959760-5	Laboratory Method Bl	S	NYTCL-8260-R2	WATER	DACQ	U				

Comments:

WG1959760-4 WG1959760-3

Inst: VOA122 BFB: V10571 Method GC: 8260
Initials: PID IS/SS: V10570 Autosampler: 8260water
Date: **07/29/24** ICAL: V10572,V10561C Concentrator: 8260 v122
Run **A** ICV: V10539,V10563,V10564,V10527,V10541,V10540 QC:_____ Seq:_____

Vial	Data File	Sample	pH<2
1	V22240729ABF1	BFB TUNE 12:26	
1	V22240729A01	BLK	
2	V22240729A02	BLK	
3	V22240729A03	I8260STD0.19PPB	
4	V22240729A04	I8260STD0.5PPB	
5	V22240729A05	I8260STD0.5PPB	
6	V22240729A06	I8260STD2PPB	
7	V22240729A07	I8260STD2PPB	
8	V22240729A08	I8260STD10PPB	
9	V22240729A09	I8260STD30PPB	
10	V22240729A10	I8260STD80PPB	
11	V22240729A11	I8260STD120PPB	
12	V22240729A12	I8260STD200PPB	
13	V22240729A13	BLK	
14	V22240729A14	BLK	
15	V22240729A15	BLK	
16	V22240729A16	BLK	
17	V22240729A17	C8260STD10PPB	
18	V22240729A18	C8260STD10PPB	
19	V22240729A19	BLK	
20	V22240729A20	BLK	
21	V22240729A21	MDL METHOD BLK	
22	V22240729A22	MDL L1	
23	V22240729A23	MDL L1	
24	V22240729A24	MDL L2	
25	V22240729A25	MDL L2	
26	V22240729A26	BLK	

Inst: Elaine
Initials: MAG
Date: **07/31/24**
Run: **N**

BFB: V10571
IS/SS: V10570
ICAL: V10561B,V10585
ICV: V10539, V10563, V10564, V10586, V10541, V10540

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample	obs
1	VE240731NBF1	BFB TUNE 17:25	
1	VE240731N01	BLK	
2	VE240731N02	BLK	
3	VE240731N03	I8260STD0.19PPB	
4	VE240731N04	I8260STD0.19PPB	
5	VE240731N05	I8260STD0.5PPB	
6	VE240731N06	I8260STD0.5PPB	
7	VE240731N07	I8260STD2PPB	
8	VE240731N08	I8260STD10PPB	
9	VE240731N09	I8260STD30PPB	
10	VE240731N10	I8260STD80PPB	
11	VE240731N11	I8260STD120PPB	
12	VE240731N12	I8260STD200PPB	
13	VE240731N13	BLK	
14	VE240731N14	BLK	
15	VE240731N15	BLK	
16	VE240731N16	BLK	
17	VE240731N17	C8260STD10PPB	
18	VE240731N18	C8260STD10PPB	
19	VE240731N19	BLK	
20	VE240731N20	BLK	
21	VE240731N21	METHOD BLK	
22	VE240731N22	MDL LVL 11	
23	VE240731N23	MDL LVL 1	
24	VE240731N24	MDL LVL 2	
25	VE240731N25	BLK	

Inst: Elaine
Initials: MJV
Date: **08/15/24**
Run: **A**

BFB: V10571
IS/SS: V10570
ICAL: V10594A,V10606

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample			obs
1	VE240815ABF1	BFB TUNE	06:25		
1	VE240815A01	8260 CCAL	LCS		
2	VE240815A02	8260 CCAL	LCSD		
3	VE240815A03	8260 CCAL			
4	VE240815A04	BLK			
5	VE240815A05	METHOD BLK			
6	VE240815A06	L2446104-04,31,10,10,,A,R1A	NYTCL		pH<2
7	VE240815A07	L2446104-05,31,10,10,,A,R1A	NYTCL		pH<2
8	VE240815A08	L2446104-07,31,10,10,,A,R1A	NYTCL	TB	pH<2
9	VE240815A09	L2446104-06D,31,5.0,10,,A,R1	NYTCL		pH<2
10	VE240815A10	L2445045-11,31,10,10,,A	NJ/NOTICS		pH<2
11	VE240815A11	d STD BENZ			
12	VE240815A12	L2445645-01,31,10,10,,A	ME8260CURVE	TB	
13	VE240815A13	L2445645-02,31,10,10,,A	ME8260CURVE		
14	VE240815A14	L2445671-01D,31,5.0,10,,A	8260CURVE/IM		
15	VE240815A15	L2445671-02D,31,5.0,10,,A	8260CURVE/IM		
16	VE240815A16	L2445671-03,31,10,10,,A	8260CURVE/IM		
17	VE240815A17	L2445708-01,31,10,10,,A	NJ/BENZ/15	TB	
18	VE240815A18	L2445708-02,31,10,10,,A	NJ/BENZ/15	FB	
19	VE240815A19	L2445742-06,31,10,10,,A,R3E	NY/R2	TB	
20	VE240815A20	L2445670-08,31,10,10,,A	NY/R2	TB	
21	VE240815A21	L2445832-08,31,10,10,,A	NJ/15	FB	
22	VE240815A22	L2445832-09,31,10,10,,A	NJ/15	TB	
23	VE240815A23	L2445775-06,31,10,10,,A	PA/BTEX/NAPTH	TB	
24	VE240815A24	L2445775-01D,31,0.005,10,,A	PA/BTEX/NAPTH		pH<2
25	VE240815A25	L2445775-02D,31,0.5,10,,A	PA/BTEX/NAPTH		pH<2
26	VE240815A26	L2445775-03D,31,0.1,10,,A	PA/BTEX/NAPTH		pH<2
27	VE240815A27	L2445775-03DUP,31,0.1,10,,A	NJ QC		pH<2
28	VE240815A28	L2445775-03MS,31,0.1,10,,A	NJ QC		pH<2
29	VE240815A29	HSTD			
30	VE240815A30	BLK			
31	VE240815A31	BLK			

Inst: VOA122 BFB: V10571 Method GC: 8260
Initials: PID IS/SS: V10600 Autosampler: 8260water
Date: **08/15/24** ICAL: V10594A,V10606 Concentrator: 8260 v122
Run **A** QC:_____ Seq:_____

Vial	Data File	Sample		pH<2
1	V22240815ABF1	BFB TUNE 06:23		
1	V22240815A01	8260 CCAL SUBLIST FAILS		
2	V22240815A02	8260 CCAL LCS		
3	V22240815A03	8260 CCAL LCSD		
4	V22240815A04	BLK		
5	V22240815A05	METHOD BLK		
6	V22240815A06	L2446104-01D,31,1.0,10,,A,R1A	NYTCL CLOUDY	pH>2
7	V22240815A07	L2446104-03D,31,2.5,10,,A,R1A	NYTCL CLOUDY	pH>2
8	V22240815A08	L2446104-02D,31,2.5,10,,A,R1A	NYTCL	pH>2
9	V22240815A09	L2445098-24,31,10,10,,C	NY/R2	pH<2
10	V22240815A10	L2445098-23D,31,1.0,10,,C	NY/R2	pH<2
11	V22240815A11	L2445057-04D,31,0.1,10,,C	NJ/15	pH<2
12	V22240815A12	L2446104-01D2,31,0.2,10,,C,R1A	NYTCL/2BUT	pH>2
13	V22240815A13	DSTD		
14	V22240815A14	L2445642-01,31,10,10,,A,R3C	NJ/NOTICS/TBA+NAPH	
15	V22240815A15	L2445642-03,31,10,10,,A,R3C	NJ/NOTICS/TBA+NAPH	
16	V22240815A16	L2445527-17,31,10,10,,A	NJ/15	
17	V22240815A17	L2445098-23DUP,31,1.0,10,,C	NJQC	pH<2
18	V22240815A18	L2445098-23MS,31,1.0,10,,C	NJQC	pH<2
19	V22240815A19	HSTD		
20	V22240815A20	BLK		
21	V22240815A21	BLK		

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Alpha Analytical

Laboratory Code: 11148

SDG Number: L2446555

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Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2446555
Report Date: 08/22/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2446555-01	LMW-8R-S_6.75	WATER	1487 FIRST AVE	08/15/24 14:00	08/15/24
L2446555-02	LMW-9R-S_13.75	WATER	1487 FIRST AVE	08/15/24 11:20	08/15/24
L2446555-03	LMW-6R-D_42.75	WATER	1487 FIRST AVE	08/15/24 09:30	08/15/24
L2446555-04	LMW-7R-S_16.75	WATER	1487 FIRST AVE	08/15/24 13:20	08/15/24
L2446555-05	TRIP BLANK	WATER	1487 FIRST AVE	08/15/24 00:00	08/15/24
L2446555-06	FIELD BLANK 08152024	WATER	1487 FIRST AVE	08/15/24 16:00	08/15/24
L2446555-07	LMW-8R-S_6.75	WATER	1487 FIRST AVE	08/15/24 17:40	08/15/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission
August 22, 2024: This final report includes the results of all requested analyses.
August 16, 2024: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analyses of DHC and EBAC were subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Sample Receipt
The analyses performed were specified by the client.
L2446555-01 through -04 and -07: The Client IDs were changed at the client's request.
L2446555-02: The collection date and time on the chain of custody was 14-AUG-24 11:20; however, the collection date/time on the container label was 15-AUG-24 11:20. At the client's request, the collection date/time is reported as 15-AUG-24 11:20.
L2446555-03: The collection date and time on the chain of custody was 14-AUG-24 09:30; however, the collection date/time on the container label was 15-AUG-24 09:30. At the client's request, the collection date/time is reported as 15-AUG-24 09:30.
L2446555-04: The sample was received above the appropriate pH for the Total Metals analysis. The laboratory added additional HNO3; however, the pH would not adjust into the proper range.
L2446555-06: Headspace was noted in the sample container submitted for Total Alkalinity - SM 2320. The analysis was performed at the client's request.
L2446555-07: A sample identified as "LMW-8R-S_6.75" was added and analyzed at the client's request.

Volatile Organics
L2446555-01D and -02D: The pH was greater than two; however, the sample was analyzed within the method required holding time.

Case Narrative (continued)

L2446555-05: Headspace was noted in the sample container utilized for analysis.

Total Metals

L2446555-04: The sample has elevated detection limits for all elements due to the prep dilution required by the sample matrix.

Sulfate

L2446555-04: The sample has an elevated detection limit due to the dilution required by the sample matrix.

Dissolved Organic Carbon

L2446555-06: The DOC result is greater than the TOC result due to the filtering procedure required by the DOC method.

Alkalinity, Total

The WG1962625-4 MS recovery for alkalinity, total (60%), performed on L2446555-04, does not apply because the sample concentration is greater than four times the spike amount added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom Report Date: 08/22/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD	
	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2446555

Received : 15-AUG-2024
Reviewer : Sharon Hoffman

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVE

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	5.4	

Condition Information

1) All samples on COC received? **YES**

2) Extra samples received? **NO**

3) Are there any sample container discrepancies? **NO**

4) Are there any discrepancies between COC & sample labels? **YES**
L2446555-02: 14-AUG-24 11:20 vs. 15-AUG-24 11:20
L2446555-03: 14-AUG-24 09:30 vs. 15-AUG-24 09:30

5) Are samples in appropriate containers for requested analysis? **YES**

6) Are samples properly preserved for requested analysis? **NO**

Container	pH	Preservative Added	Final pH
L2446555-04L	5	HNO3	4

Following containers were received with headspace: -01B, -06J

7) Are samples within holding time for requested analysis? **YES**

8) All sampling equipment returned? **NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client? **NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 22 2024, 07:39 pm

Login Number: L2446555
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 15AUG24 Due Date: 29AUG24

Sample #	Client ID	Mat	PR	Collected
L2446555-01	LMW-8R-S_6.75		1 1A	15AUG24 14:00

Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 08/29/24

ASP-B,NYTCL-8260

L2446555-02	LMW-9R-S_13.75		1 1A	15AUG24 11:20

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/29/24

NYTCL-8260

L2446555-03	LMW-6R-D_42.75		1 1A	15AUG24 09:30

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/29/24

NYTCL-8260

L2446555-04	LMW-7R-S_16.75		1 1A	15AUG24 13:20

Batch Separately, Run On Same Instrument When Possible SUB DHC/EBAC sent direct from field by Langan to Microbial Insights FILTER: DOC HNO3 added 8/16/24 04:30 Package Due Date: 08/29/24

ALK-T-2320,CA-6020T,CL-4500,DOC-9060,FE-6020T,FILTER,HARDT-6020,MG-6020T,MN-6020T,NO3-4500,PREPT,SO4-9038,SUB-DHC,TOC-9060

L2446555-05	TRIP BLANK		1 1A	15AUG24 00:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/29/24

NYTCL-8260

L2446555-06	FIELD BLANK 08152024		1 1A	15AUG24 16:00

Batch Separately, Run On Same Instrument When Possible FILTER: DOC Package Due Date: 08/29/24

ALK-T-2320,CA-6020T,CL-4500,DOC-9060,FE-6020T,FILTER,HARDT-6020,MG-6020T,MN-6020T,NO3-4500,NYTCL-8260,PREPT,SO4-9038,TOC-9060

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 22 2024, 07:39 pm

Login Number: L2446555

Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701

Received: 15AUG24 Due Date: 29AUG24

Sample #	Client ID	Mat	PR	Collected
L2446555-07	LMW-8R-S_6.75		1 1A	15AUG24 17:40

Batch Separately, Run On Same Instrument When Possible FILTER: DOC Package Due Date: 08/29/24

SUB-DHC

Logged By: Ben Rao

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/16/24

ALPHA Job #: L2446555

Client Information

Client: Langan
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfriscia@langan.com

Project Information

Project Name: 1487 First Ave
Project Location: 1487 First Ave
Project #: 100963701
(Use Project name as Project #) ☐
Project Manager: Jess Friscia
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date: ~~Today~~ Friday
Rush (only if pre approved) ☑ # of Days: 1

Deliverables

☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☒ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	Alk-T-2320	Total Hg Total Metals	TOC	SO4 Cl NO3	DOC			Total Bottle	Sample Specific Comments
46555-01	LMW-8RS-6.75	8/15	1400	AQ	RB	X								3	
-02	LMW-9RS-13.75	8/14	1120			X								3	
-03	LMW-6RD-42.75	8/14	930			X								3	
-04	LMW-7RS-16.75	8/13	1320				X	X	X	X	X			9	
-05	Trip Blank														
-06	Field Blank 08152024	8/13	1600	AQ	RB	X	X	X	X	X	X				

Container Type
Preservative

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/15 1630	WIFI (Pace)	8/15/24 1630
WIFI (Pace)	8/15/24 1846		8/16 00
	8/16 220	Julie	8/16/24 2:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVE

Lab Number: L2446555
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
LMW-8RS_6.75 (L2446555-01D)	99	97	91	106	0
LMW-9RS_13.75 (L2446555-02D)	102	98	92	107	0
LMW-6RD_42.75 (L2446555-03)	97	94	92	97	0
TRIP BLANK (L2446555-05)	100	98	92	106	0
FIELD BLANK 08152024 (L2446555-06)	101	99	92	106	0
WG1960231-3LCS	109	100	92	98	0
WG1960231-4LCSD	109	102	91	98	0
WG1960231-5BLANK	107	99	92	102	0
WG1960272-3LCS	93	101	88	100	0
WG1960272-4LCSD	96	100	92	102	0
WG1960272-5BLANK	102	101	93	106	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L2446555
Project Name : 1487 FIRST AVE **Project Number** : 100963701
Matrix (Level) : WATER (LOW)
LCS Sample ID : WG1960231-3 **Analysis Date** : 08/16/24 06:49 **File ID** : VG240816A01
LCSD Sample ID : WG1960231-4 **Analysis Date** : 08/16/24 07:12 **File ID** : VG240816A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.0	90	10	8.8	88	2	70-130	20
1,1-Dichloroethane	10	10	100	10	9.6	96	4	70-130	20
Chloroform	10	9.5	95	10	9.1	91	4	70-130	20
Carbon tetrachloride	10	9.8	98	10	8.9	89	10	63-132	20
1,2-Dichloropropane	10	9.8	98	10	9.7	97	1	70-130	20
Dibromochloromethane	10	9.3	93	10	9.3	93	0	63-130	20
1,1,2-Trichloroethane	10	9.1	91	10	9.6	96	5	70-130	20
Tetrachloroethene	10	10	100	10	9.5	95	5	70-130	20
Chlorobenzene	10	9.6	96	10	9.4	94	2	75-130	20
Trichlorofluoromethane	10	9.2	92	10	8.4	84	9	62-150	20
1,2-Dichloroethane	10	10	100	10	10	100	0	70-130	20
1,1,1-Trichloroethane	10	9.6	96	10	8.8	88	9	67-130	20
Bromodichloromethane	10	9.2	92	10	9.2	92	0	67-130	20
trans-1,3-Dichloropropene	10	9.0	90	10	9.3	93	3	70-130	20
cis-1,3-Dichloropropene	10	8.8	88	10	8.9	89	1	70-130	20
1,1-Dichloropropene	10	9.7	97	10	9.0	90	7	70-130	20
Bromoform	10	8.5	85	10	8.8	88	3	54-136	20
1,1,2,2-Tetrachloroethane	10	9.4	94	10	10	100	6	67-130	20
Benzene	10	9.7	97	10	9.3	93	4	70-130	20
Toluene	10	9.6	96	10	9.1	91	5	70-130	20
Ethylbenzene	10	9.4	94	10	9.0	90	4	70-130	20
Chloromethane	10	9.5	95	10	9.0	90	5	64-130	20
Bromomethane	10	6.5	65	10	6.2	62	5	39-139	20
Vinyl chloride	10	10	100	10	9.4	94	6	55-140	20
Chloroethane	10	10	100	10	12	120	18	55-138	20
1,1-Dichloroethene	10	9.6	96	10	8.7	87	10	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L2446555
Project Name : 1487 FIRST AVE **Project Number** : 100963701
Matrix (Level) : WATER (LOW)
LCS Sample ID : WG1960231-3 **Analysis Date** : 08/16/24 06:49 **File ID** : VG240816A01
LCSD Sample ID : WG1960231-4 **Analysis Date** : 08/16/24 07:12 **File ID** : VG240816A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	9.3	93	10	9.2	92	1	70-130	20
Trichloroethene	10	9.2	92	10	8.5	85	8	70-130	20
1,2-Dichlorobenzene	10	9.9	99	10	9.5	95	4	70-130	20
1,3-Dichlorobenzene	10	9.9	99	10	9.5	95	4	70-130	20
1,4-Dichlorobenzene	10	9.9	99	10	9.4	94	5	70-130	20
Methyl tert butyl ether	10	8.1	81	10	8.6	86	6	63-130	20
p/m-Xylene	20	19	95	20	18	90	5	70-130	20
o-Xylene	20	19	95	20	18	90	5	70-130	20
cis-1,2-Dichloroethene	10	9.2	92	10	9.2	92	0	70-130	20
Dibromomethane	10	9.0	90	10	9.3	93	3	70-130	20
1,2,3-Trichloropropane	10	8.5	85	10	9.1	91	7	64-130	20
Acrylonitrile	10	9.5	95	10	10	100	5	70-130	20
Styrene	20	19	95	20	18	90	5	70-130	20
Dichlorodifluoromethane	10	8.8	88	10	7.5	75	16	36-147	20
Acetone	10	7.3	73	10	8.4	84	14	58-148	20
Carbon disulfide	10	10	100	10	9.2	92	8	51-130	20
2-Butanone	10	9.5	95	10	10	100	5	63-138	20
Vinyl acetate	10	13	130	10	14	140 Q	7	70-130	20
4-Methyl-2-pentanone	10	7.8	78	10	9.5	95	20	59-130	20
2-Hexanone	10	7.7	77	10	9.4	94	20	57-130	20
Bromochloromethane	10	9.4	94	10	9.4	94	0	70-130	20
2,2-Dichloropropane	10	10	100	10	9.5	95	5	63-133	20
1,2-Dibromoethane	10	8.8	88	10	9.6	96	9	70-130	20
1,3-Dichloropropane	10	9.4	94	10	9.7	97	3	70-130	20
1,1,1,2-Tetrachloroethane	10	9.4	94	10	9.2	92	2	64-130	20
Bromobenzene	10	9.5	95	10	9.4	94	1	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1960231-3 **Analysis Date** : 08/16/24 06:49	**File ID**	: VG240816A01
LCSD Sample ID	: WG1960231-4 **Analysis Date** : 08/16/24 07:12	**File ID**	: VG240816A02

	Laboratory Control Sample				Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R		True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	9.7	97		10	8.8	88	10	53-136	20
sec-Butylbenzene	10	9.5	95		10	8.6	86	10	70-130	20
tert-Butylbenzene	10	9.4	94		10	8.7	87	8	70-130	20
o-Chlorotoluene	10	9.3	93		10	8.9	89	4	70-130	20
p-Chlorotoluene	10	9.4	94		10	8.7	87	8	70-130	20
1,2-Dibromo-3-chloropropane	10	7.8	78		10	9.3	93	18	41-144	20
Hexachlorobutadiene	10	11	110		10	10	100	10	63-130	20
Isopropylbenzene	10	9.4	94		10	8.5	85	10	70-130	20
p-Isopropyltoluene	10	9.4	94		10	8.8	88	7	70-130	20
Naphthalene	10	6.9	69	Q	10	7.7	77	11	70-130	20
n-Propylbenzene	10	9.5	95		10	8.6	86	10	69-130	20
1,2,3-Trichlorobenzene	10	8.7	87		10	9.2	92	6	70-130	20
1,2,4-Trichlorobenzene	10	9.3	93		10	9.3	93	0	70-130	20
1,3,5-Trimethylbenzene	10	9.4	94		10	8.8	88	7	64-130	20
1,2,4-Trimethylbenzene	10	9.3	93		10	8.7	87	7	70-130	20
1,4-Dioxane	500	350	70		500	440	88	23	Q 56-162	20
p-Diethylbenzene	10	9.4	94		10	8.8	88	7	70-130	20
p-Ethyltoluene	10	9.5	95		10	8.8	88	8	70-130	20
1,2,4,5-Tetramethylbenzene	10	8.5	85		10	8.0	80	6	70-130	20
Ethyl ether	10	8.7	87		10	9.1	91	4	59-134	20
trans-1,4-Dichloro-2-butene	10	10	100		10	11	110	10	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1960272-3 **Analysis Date** : 08/16/24 06:49	**File ID**	: VE240816A01
LCSD Sample ID	: WG1960272-4 **Analysis Date** : 08/16/24 07:13	**File ID**	: VE240816A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	10	100	10	10	100	0	70-130	20
1,1-Dichloroethane	10	11	110	10	11	110	0	70-130	20
Chloroform	10	11	110	10	11	110	0	70-130	20
Carbon tetrachloride	10	11	110	10	12	120	9	63-132	20
1,2-Dichloropropane	10	10	100	10	10	100	0	70-130	20
Dibromochloromethane	10	9.8	98	10	9.9	99	1	63-130	20
1,1,2-Trichloroethane	10	10	100	10	10	100	0	70-130	20
Tetrachloroethene	10	12	120	10	12	120	0	70-130	20
Chlorobenzene	10	11	110	10	11	110	0	75-130	20
Trichlorofluoromethane	10	12	120	10	12	120	0	62-150	20
1,2-Dichloroethane	10	10	100	10	10	100	0	70-130	20
1,1,1-Trichloroethane	10	11	110	10	11	110	0	67-130	20
Bromodichloromethane	10	11	110	10	11	110	0	67-130	20
trans-1,3-Dichloropropene	10	9.6	96	10	10	100	4	70-130	20
cis-1,3-Dichloropropene	10	10	100	10	11	110	10	70-130	20
1,1-Dichloropropene	10	11	110	10	11	110	0	70-130	20
Bromoform	10	9.1	91	10	9.7	97	6	54-136	20
1,1,2,2-Tetrachloroethane	10	8.9	89	10	9.5	95	7	67-130	20
Benzene	10	11	110	10	11	110	0	70-130	20
Toluene	10	11	110	10	11	110	0	70-130	20
Ethylbenzene	10	11	110	10	11	110	0	70-130	20
Chloromethane	10	11	110	10	11	110	0	64-130	20
Bromomethane	10	15	150 Q	10	14	140 Q	7	39-139	20
Vinyl chloride	10	11	110	10	11	110	0	55-140	20
Chloroethane	10	12	120	10	12	120	0	55-138	20
1,1-Dichloroethene	10	10	100	10	10	100	0	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1960272-3 **Analysis Date** : 08/16/24 06:49	**File ID**	: VE240816A01
LCSD Sample ID	: WG1960272-4 **Analysis Date** : 08/16/24 07:13	**File ID**	: VE240816A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	11	110	10	11	110	0	70-130	20
Trichloroethene	10	11	110	10	11	110	0	70-130	20
1,2-Dichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,3-Dichlorobenzene	10	11	110	10	11	110	0	70-130	20
1,4-Dichlorobenzene	10	10	100	10	11	110	10	70-130	20
Methyl tert butyl ether	10	9.1	91	10	9.3	93	2	63-130	20
p/m-Xylene	20	23	115	20	23	115	0	70-130	20
o-Xylene	20	22	110	20	23	115	4	70-130	20
cis-1,2-Dichloroethene	10	11	110	10	11	110	0	70-130	20
Dibromomethane	10	10	100	10	11	110	10	70-130	20
1,2,3-Trichloropropane	10	8.7	87	10	9.7	97	11	64-130	20
Acrylonitrile	10	8.0	80	10	8.2	82	2	70-130	20
Styrene	20	22	110	20	23	115	4	70-130	20
Dichlorodifluoromethane	10	9.8	98	10	9.7	97	1	36-147	20
Acetone	10	6.8	68	10	7.3	73	7	58-148	20
Carbon disulfide	10	11	110	10	11	110	0	51-130	20
2-Butanone	10	7.4	74	10	8.2	82	10	63-138	20
Vinyl acetate	10	9.6	96	10	10	100	4	70-130	20
4-Methyl-2-pentanone	10	7.6	76	10	7.8	78	3	59-130	20
2-Hexanone	10	6.7	67	10	7.2	72	7	57-130	20
Bromochloromethane	10	11	110	10	11	110	0	70-130	20
2,2-Dichloropropane	10	11	110	10	11	110	0	63-133	20
1,2-Dibromoethane	10	9.5	95	10	9.7	97	2	70-130	20
1,3-Dichloropropane	10	10	100	10	10	100	0	70-130	20
1,1,1,2-Tetrachloroethane	10	11	110	10	11	110	0	64-130	20
Bromobenzene	10	10	100	10	10	100	0	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1960272-3 **Analysis Date** : 08/16/24 06:49	**File ID**	: VE240816A01
LCSD Sample ID	: WG1960272-4 **Analysis Date** : 08/16/24 07:13	**File ID**	: VE240816A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	10	100	10	11	110	10	53-136	20
sec-Butylbenzene	10	10	100	10	11	110	10	70-130	20
tert-Butylbenzene	10	10	100	10	11	110	10	70-130	20
o-Chlorotoluene	10	10	100	10	11	110	10	70-130	20
p-Chlorotoluene	10	10	100	10	11	110	10	70-130	20
1,2-Dibromo-3-chloropropane	10	7.5	75	10	7.9	79	5	41-144	20
Hexachlorobutadiene	10	10	100	10	11	110	10	63-130	20
Isopropylbenzene	10	10	100	10	11	110	10	70-130	20
p-Isopropyltoluene	10	10	100	10	11	110	10	70-130	20
Naphthalene	10	7.7	77	10	8.5	85	10	70-130	20
n-Propylbenzene	10	11	110	10	11	110	0	69-130	20
1,2,3-Trichlorobenzene	10	8.6	86	10	9.4	94	9	70-130	20
1,2,4-Trichlorobenzene	10	9.3	93	10	9.7	97	4	70-130	20
1,3,5-Trimethylbenzene	10	11	110	10	11	110	0	64-130	20
1,2,4-Trimethylbenzene	10	10	100	10	11	110	10	70-130	20
1,4-Dioxane	500	400	80	500	410	82	2	56-162	20
p-Diethylbenzene	10	10	100	10	11	110	10	70-130	20
p-Ethyltoluene	10	10	100	10	11	110	10	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.6	96	10	10	100	4	70-130	20
Ethyl ether	10	10	100	10	11	110	10	59-134	20
trans-1,4-Dichloro-2-butene	10	7.8	78	10	8.3	83	6	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1960231-5	**Lab File ID**	: VG240816A05
Instrument ID	: GONZO		
Matrix	: WATER	**Analysis Date**	: 08/16/24 08:24

Client Sample No.	Lab Sample ID	Analysis Date
WG1960231-3LCS	WG1960231-3	08/16/24 06:49
WG1960231-4LCSD	WG1960231-4	08/16/24 07:12
LMW-6RD_42.75	L2446555-03	08/16/24 09:35

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1960272-5	**Lab File ID**	: VE240816A05
Instrument ID	: ELAINE		
Matrix	: WATER	**Analysis Date**	: 08/16/24 08:27

Client Sample No.	Lab Sample ID	Analysis Date
WG1960272-3LCS	WG1960272-3	08/16/24 06:49
WG1960272-4LCSD	WG1960272-4	08/16/24 07:13
TRIP BLANK	L2446555-05	08/16/24 09:16
FIELD BLANK 08152024	L2446555-06	08/16/24 09:40
LMW-8RS_6.75	L2446555-01D	08/16/24 10:53
LMW-9RS_13.75	L2446555-02D	08/16/24 12:31

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 07/12/24 20:14
Tune Standard	: WG1947004-1	**Tune File ID**	: VG240712PBF3_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 80.0% of mass 95	49.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9 (1)1
174	Greater than 50.0% of mass 95	84.6
175	5.0 - 9.0% of mass 174	5.9 (7)1
176	Greater than 95.0% but less than 101% of mass	82.2 (97.1)1
177	5.0 - 9.0% of mass 176	5.6 (6.8)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1852824-1	VG240712P03	07/12/24 21:20
STD0.5PPB	R1852824-2	VG240712P06	07/12/24 22:32
STD2PPB	R1852824-4	VG240712P07	07/12/24 22:56
STD10PPB	R1852824-3	VG240712P08	07/12/24 23:20
STD30PPB	R1852824-5	VG240712P09	07/12/24 23:44
STD80PPB	R1852824-6	VG240712P10	07/13/24 00:09
STD120PPB	R1852824-7	VG240712P11	07/13/24 00:32
STD200PPB	R1852824-8	VG240712P12	07/13/24 00:56
Correlation Data Summary	R1852824-9	VG240712P17	07/13/24 02:55
ICV Quant Report	R1852824-9	VG240712P17	07/13/24 02:55

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 08/16/24 06:35
Tune Standard	: WG1960231-1	**Tune File ID**	: VG240816ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	21.6
75	30.0 - 80.0% of mass 95	50.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	1.5 (1.6)1
174	Greater than 50.0% of mass 95	89.2
175	5.0 - 9.0% of mass 174	7.1 (8)1
176	Greater than 95.0% but less than 101% of mass	87.1 (97.6)1
177	5.0 - 9.0% of mass 176	5.1 (5.9)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1960231-2CCAL	WG1960231-2	VG240816A01	08/16/24 06:49
WG1960231-3LCS	WG1960231-3	VG240816A01	08/16/24 06:49
WG1960231-4LCSD	WG1960231-4	VG240816A02	08/16/24 07:12
WG1960231-5BLANK	WG1960231-5	VG240816A05	08/16/24 08:24
LMW-6RD_42.75	L2446555-03	VG240816A08	08/16/24 09:35

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 07/31/24 17:25
Tune Standard	: WG1954249-1	**Tune File ID**	: VE240731NBF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 80.0% of mass 95	47.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5 (.6)1
174	Greater than 50.0% of mass 95	83.7
175	5.0 - 9.0% of mass 174	6 (7.1)1
176	Greater than 95.0% but less than 101% of mass	80.5 (96.2)1
177	5.0 - 9.0% of mass 176	5.2 (6.5)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1859523-1	VE240731N03	07/31/24 18:35
STD0.5PPB	R1859523-2	VE240731N05	07/31/24 19:26
STD2PPB	R1859523-4	VE240731N07	07/31/24 20:16
STD10PPB	R1859523-3	VE240731N08	07/31/24 20:42
STD30PPB	R1859523-5	VE240731N09	07/31/24 21:07
STD80PPB	R1859523-6	VE240731N10	07/31/24 21:32
STD120PPB	R1859523-7	VE240731N11	07/31/24 21:57
STD200PPB	R1859523-8	VE240731N12	07/31/24 22:22
ICV Quant Report	R1859523-9	VE240731N17	08/01/24 00:28

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 08/16/24 06:34
Tune Standard	: WG1960272-1	**Tune File ID**	: VE240816ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	27.1
75	30.0 - 80.0% of mass 95	53.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.9 (1)1
174	Greater than 50.0% of mass 95	94.2
175	5.0 - 9.0% of mass 174	6.9 (7.3)1
176	Greater than 95.0% but less than 101% of mass	90.9 (96.5)1
177	5.0 - 9.0% of mass 176	6 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1960272-2CCAL	WG1960272-2	VE240816A01	08/16/24 06:49
WG1960272-3LCS	WG1960272-3	VE240816A01	08/16/24 06:49
WG1960272-4LCSD	WG1960272-4	VE240816A02	08/16/24 07:13
WG1960272-5BLANK	WG1960272-5	VE240816A05	08/16/24 08:27
TRIP BLANK	L2446555-05	VE240816A07	08/16/24 09:16
FIELD BLANK 08152024	L2446555-06	VE240816A08	08/16/24 09:40
LMW-8RS_6.75	L2446555-01D	VE240816A11	08/16/24 10:53
LMW-9RS_13.75	L2446555-02D	VE240816A15	08/16/24 12:31

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 08/16/24 06:49:00
Sample No	: WG1960231-2	**Lab File ID**	: VG240816A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1960231-2	376279	6.09	290800	9.63	167416	12.31
Upper Limit	752558	6.59	581600	10.13	334832	12.81
Lower Limit	188140	5.59	145400	9.13	83708	11.81
Sample ID						
WG1960231-3 LCS	376279	6.09	290800	9.63	167416	12.31
WG1960231-4 LCSD	346730	6.09	268356	9.63	158700	12.31
WG1960231-5 BLANK	324647	6.09	248380	9.63	139321	12.31
LMW-6RD_42.75	366958	6.09	301302	9.63	167672	12.31

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 08/16/24 06:49:00
Sample No	: WG1960272-2	**Lab File ID**	: VE240816A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1960272-2	184749	5.96	135681	9.49	81388	12.21
Upper Limit	369498	6.46	271362	9.99	162776	12.71
Lower Limit	92375	5.46	67841	8.99	40694	11.71
Sample ID						
WG1960272-3 LCS	184749	5.96	135681	9.49	81388	12.21
WG1960272-4 LCSD	179101	5.96	130030	9.49	77124	12.20
WG1960272-5 BLANK	165632	5.96	125198	9.49	72798	12.20
TRIP BLANK	160782	5.96	122795	9.49	69025	12.20
FIELD BLANK 08152024	162899	5.96	124404	9.49	70297	12.20
LMW-8RS_6.75	167674	5.96	127773	9.49	78271	12.20
LMW-9RS_13.75	161202	5.96	123618	9.49	71916	12.21

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

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Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14094-1
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Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-01D	**Date Collected**	: 08/15/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 10:53
Sample Matrix	: WATER	**Dilution Factor**	: 2.5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A11	**Instrument ID**	: ELAINE
Sample Amount	: 4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	6.2	1.8	U
75-34-3	1,1-Dichloroethane	ND	6.2	1.8	U
67-66-3	Chloroform	ND	6.2	1.8	U
56-23-5	Carbon tetrachloride	ND	1.2	0.34	U
78-87-5	1,2-Dichloropropane	ND	2.5	0.34	U
124-48-1	Dibromochloromethane	ND	1.2	0.37	U
79-00-5	1,1,2-Trichloroethane	ND	3.8	1.2	U
127-18-4	Tetrachloroethene	ND	1.2	0.45	U
108-90-7	Chlorobenzene	ND	6.2	1.8	U
75-69-4	Trichlorofluoromethane	ND	6.2	1.8	U
107-06-2	1,2-Dichloroethane	ND	1.2	0.33	U
71-55-6	1,1,1-Trichloroethane	ND	6.2	1.8	U
75-27-4	Bromodichloromethane	ND	1.2	0.48	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.2	0.41	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.2	0.36	U
542-75-6	1,3-Dichloropropene, Total	ND	1.2	0.36	U
563-58-6	1,1-Dichloropropene	ND	6.2	1.8	U
75-25-2	Bromoform	ND	5.0	1.6	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.2	0.42	U
71-43-2	Benzene	0.48	1.2	0.40	J
108-88-3	Toluene	ND	6.2	1.8	U
100-41-4	Ethylbenzene	ND	6.2	1.8	U
74-87-3	Chloromethane	ND	6.2	1.8	U
74-83-9	Bromomethane	ND	6.2	1.8	U
75-01-4	Vinyl chloride	0.20	2.5	0.18	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-01D	**Date Collected**	: 08/15/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 10:53
Sample Matrix	: WATER	**Dilution Factor**	: 2.5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A11	**Instrument ID**	: ELAINE
Sample Amount	: 4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	6.2	1.8	U
75-35-4	1,1-Dichloroethene	ND	1.2	0.42	U
156-60-5	trans-1,2-Dichloroethene	ND	6.2	1.8	U
79-01-6	Trichloroethene	ND	1.2	0.44	U
95-50-1	1,2-Dichlorobenzene	ND	6.2	1.8	U
541-73-1	1,3-Dichlorobenzene	ND	6.2	1.8	U
106-46-7	1,4-Dichlorobenzene	ND	6.2	1.8	U
1634-04-4	Methyl tert butyl ether	ND	6.2	0.42	U
179601-23-1	p/m-Xylene	ND	6.2	1.8	U
95-47-6	o-Xylene	ND	6.2	1.8	U
1330-20-7	Xylenes, Total	ND	6.2	1.8	U
156-59-2	cis-1,2-Dichloroethene	ND	6.2	1.8	U
540-59-0	1,2-Dichloroethene, Total	ND	6.2	1.8	U
74-95-3	Dibromomethane	ND	12	2.5	U
96-18-4	1,2,3-Trichloropropane	ND	6.2	1.8	U
107-13-1	Acrylonitrile	ND	12	3.8	U
100-42-5	Styrene	ND	6.2	1.8	U
75-71-8	Dichlorodifluoromethane	ND	12	2.5	U
67-64-1	Acetone	120	12	3.6	
75-15-0	Carbon disulfide	ND	12	2.5	U
78-93-3	2-Butanone	360	12	4.8	
108-05-4	Vinyl acetate	ND	12	2.5	U
108-10-1	4-Methyl-2-pentanone	ND	12	2.5	U
591-78-6	2-Hexanone	ND	12	2.5	U
74-97-5	Bromochloromethane	ND	6.2	1.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-01D	**Date Collected**	: 08/15/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 10:53
Sample Matrix	: WATER	**Dilution Factor**	: 2.5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A11	**Instrument ID**	: ELAINE
Sample Amount	: 4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	6.2	1.8	U
106-93-4	1,2-Dibromoethane	ND	5.0	1.6	U
142-28-9	1,3-Dichloropropane	ND	6.2	1.8	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.2	1.8	U
108-86-1	Bromobenzene	ND	6.2	1.8	U
104-51-8	n-Butylbenzene	ND	6.2	1.8	U
135-98-8	sec-Butylbenzene	ND	6.2	1.8	U
98-06-6	tert-Butylbenzene	ND	6.2	1.8	U
95-49-8	o-Chlorotoluene	ND	6.2	1.8	U
106-43-4	p-Chlorotoluene	ND	6.2	1.8	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.2	1.8	U
87-68-3	Hexachlorobutadiene	ND	6.2	1.8	U
98-82-8	Isopropylbenzene	ND	6.2	1.8	U
99-87-6	p-Isopropyltoluene	ND	6.2	1.8	U
91-20-3	Naphthalene	ND	6.2	1.8	U
103-65-1	n-Propylbenzene	ND	6.2	1.8	U
87-61-6	1,2,3-Trichlorobenzene	ND	6.2	1.8	U
120-82-1	1,2,4-Trichlorobenzene	ND	6.2	1.8	U
108-67-8	1,3,5-Trimethylbenzene	ND	6.2	1.8	U
95-63-6	1,2,4-Trimethylbenzene	ND	6.2	1.8	U
123-91-1	1,4-Dioxane	ND	620	150	U
105-05-5	p-Diethylbenzene	ND	5.0	1.8	U
622-96-8	p-Ethyltoluene	ND	5.0	1.8	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	5.0	1.4	U
60-29-7	Ethyl ether	ND	6.2	1.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-01D	**Date Collected**	: 08/15/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 10:53
Sample Matrix	: WATER	**Dilution Factor**	: 2.5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A11	**Instrument ID**	: ELAINE
Sample Amount	: 4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	6.2	1.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-02D	**Date Collected**	: 08/15/24 11:20
Client ID	: LMW-9RS_13.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 12:31
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A15	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	62	18.	U
75-34-3	1,1-Dichloroethane	ND	62	18.	U
67-66-3	Chloroform	ND	62	18.	U
56-23-5	Carbon tetrachloride	ND	12	3.4	U
78-87-5	1,2-Dichloropropane	ND	25	3.4	U
124-48-1	Dibromochloromethane	ND	12	3.7	U
79-00-5	1,1,2-Trichloroethane	ND	38	12.	U
127-18-4	Tetrachloroethene	ND	12	4.5	U
108-90-7	Chlorobenzene	ND	62	18.	U
75-69-4	Trichlorofluoromethane	ND	62	18.	U
107-06-2	1,2-Dichloroethane	ND	12	3.3	U
71-55-6	1,1,1-Trichloroethane	ND	62	18.	U
75-27-4	Bromodichloromethane	ND	12	4.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	12	4.1	U
10061-01-5	cis-1,3-Dichloropropene	ND	12	3.6	U
542-75-6	1,3-Dichloropropene, Total	ND	12	3.6	U
563-58-6	1,1-Dichloropropene	ND	62	18.	U
75-25-2	Bromoform	ND	50	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	12	4.2	U
71-43-2	Benzene	ND	12	4.0	U
108-88-3	Toluene	ND	62	18.	U
100-41-4	Ethylbenzene	ND	62	18.	U
74-87-3	Chloromethane	ND	62	18.	U
74-83-9	Bromomethane	ND	62	18.	U
75-01-4	Vinyl chloride	ND	25	1.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-02D	**Date Collected**	: 08/15/24 11:20
Client ID	: LMW-9RS_13.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 12:31
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A15	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	62	18.	U
75-35-4	1,1-Dichloroethene	ND	12	4.2	U
156-60-5	trans-1,2-Dichloroethene	ND	62	18.	U
79-01-6	Trichloroethene	ND	12	4.4	U
95-50-1	1,2-Dichlorobenzene	ND	62	18.	U
541-73-1	1,3-Dichlorobenzene	ND	62	18.	U
106-46-7	1,4-Dichlorobenzene	ND	62	18.	U
1634-04-4	Methyl tert butyl ether	ND	62	4.2	U
179601-23-1	p/m-Xylene	ND	62	18.	U
95-47-6	o-Xylene	ND	62	18.	U
1330-20-7	Xylenes, Total	ND	62	18.	U
156-59-2	cis-1,2-Dichloroethene	ND	62	18.	U
540-59-0	1,2-Dichloroethene, Total	ND	62	18.	U
74-95-3	Dibromomethane	ND	120	25.	U
96-18-4	1,2,3-Trichloropropane	ND	62	18.	U
107-13-1	Acrylonitrile	ND	120	38.	U
100-42-5	Styrene	ND	62	18.	U
75-71-8	Dichlorodifluoromethane	ND	120	25.	U
67-64-1	Acetone	650	120	36.	
75-15-0	Carbon disulfide	ND	120	25.	U
78-93-3	2-Butanone	3600	120	48.	
108-05-4	Vinyl acetate	ND	120	25.	U
108-10-1	4-Methyl-2-pentanone	ND	120	25.	U
591-78-6	2-Hexanone	ND	120	25.	U
74-97-5	Bromochloromethane	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-02D	**Date Collected**	: 08/15/24 11:20
Client ID	: LMW-9RS_13.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 12:31
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A15	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	62	18.	U
106-93-4	1,2-Dibromoethane	ND	50	16.	U
142-28-9	1,3-Dichloropropane	ND	62	18.	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	18.	U
108-86-1	Bromobenzene	ND	62	18.	U
104-51-8	n-Butylbenzene	ND	62	18.	U
135-98-8	sec-Butylbenzene	ND	62	18.	U
98-06-6	tert-Butylbenzene	ND	62	18.	U
95-49-8	o-Chlorotoluene	ND	62	18.	U
106-43-4	p-Chlorotoluene	ND	62	18.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	62	18.	U
87-68-3	Hexachlorobutadiene	ND	62	18.	U
98-82-8	Isopropylbenzene	ND	62	18.	U
99-87-6	p-Isopropyltoluene	ND	62	18.	U
91-20-3	Naphthalene	ND	62	18.	U
103-65-1	n-Propylbenzene	ND	62	18.	U
87-61-6	1,2,3-Trichlorobenzene	ND	62	18.	U
120-82-1	1,2,4-Trichlorobenzene	ND	62	18.	U
108-67-8	1,3,5-Trimethylbenzene	ND	62	18.	U
95-63-6	1,2,4-Trimethylbenzene	ND	62	18.	U
123-91-1	1,4-Dioxane	ND	6200	1500	U
105-05-5	p-Diethylbenzene	ND	50	18.	U
622-96-8	p-Ethyltoluene	ND	50	18.	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	50	14.	U
60-29-7	Ethyl ether	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-02D	**Date Collected**	: 08/15/24 11:20
Client ID	: LMW-9RS_13.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 12:31
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A15	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-03	**Date Collected**	: 08/15/24 09:30
Client ID	: LMW-6RD_42.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A08	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	3.1	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.38	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-03	**Date Collected**	: 08/15/24 09:30
Client ID	: LMW-6RD_42.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A08	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.18	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	15	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	6.3	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-03	**Date Collected**	: 08/15/24 09:30
Client ID	: LMW-6RD_42.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A08	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-03	**Date Collected**	: 08/15/24 09:30
Client ID	: LMW-6RD_42.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A08	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-05	**Date Collected**	: 08/15/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-05	**Date Collected**	: 08/15/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-05	**Date Collected**	: 08/15/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-05	**Date Collected**	: 08/15/24 00:00
Client ID	: TRIP BLANK	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:40
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:40
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:40
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/16/24 09:40
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960231-5	**Date Collected**	: NA
Client ID	: WG1960231-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960231-5	**Date Collected**	: NA
Client ID	: WG1960231-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960231-5	**Date Collected**	: NA
Client ID	: WG1960231-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960231-5	**Date Collected**	: NA
Client ID	: WG1960231-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG240816A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960272-5	**Date Collected**	: NA
Client ID	: WG1960272-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960272-5	**Date Collected**	: NA
Client ID	: WG1960272-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960272-5	**Date Collected**	: NA
Client ID	: WG1960272-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960272-5	**Date Collected**	: NA
Client ID	: WG1960272-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/16/24 08:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE240816A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A07.D
Acq On : 16 Aug 2024 9:16 am
Operator : ELAINE:PID
Sample : l2446555-05,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 16 10:42:14 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.961	96	160782	10.000 ug/L	0.00
Standard Area 1 = 184749			Recovery = 87.03%		
63) Chlorobenzene-d5	9.492	117	122795	10.000 ug/L	0.00
Standard Area 1 = 135681			Recovery = 90.50%		
84) 1,4-Dichlorobenzene-d4	12.202	152	69025	10.000 ug/L	0.00
Standard Area 1 = 81388			Recovery = 84.81%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.153	113	39910	10.603 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.03%		
47) 1,2-Dichloroethane-d4	5.677	65	50316	10.019 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.19%		
64) Toluene-d8	7.646	98	158352	9.790 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.90%		
88) 4-Bromofluorobenzene	10.989	95	58840	9.228 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.28%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.469	85	28	N.D.	
3) Chloromethane	1.781	50	36	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	d
6) Chloroethane	2.208	64	26	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	3.463	84	26	N.D.	
17) Acetone	0.000		0	N.D.	d
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.508	43	31	N.D.	
30) cis-1,2-Dichloroethene	4.787	96	27	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A07.D
Acq On : 16 Aug 2024 9:16 am
Operator : ELAINE:PID
Sample : l2446555-05,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 16 10:42:14 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	5.250	43	27		N.D.	
43) 1,1-Dichloropropene	0.000		0		N.D.	
45) Benzene	5.532	78	154		N.D.	
48) 1,2-Dichloroethane	5.719	62	43		N.D.	
52) Trichloroethene	0.000		0		N.D.	
54) Dibromomethane	6.608	93	29		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	7.707	92	357		N.D.	
66) 4-Methyl-2-pentanone	0.000		0		N.D.	
67) Tetrachloroethene	0.000		0		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	0.000		0		N.D.	
77) 2-Hexanone	9.154	43	27		N.D.	
78) Chlorobenzene	0.000		0		N.D.	
79) Ethylbenzene	9.547	91	32		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	9.729	106	32		N.D.	
82) o Xylene	0.000		0		N.D.	
83) Styrene	10.348	104	29		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	0.000		0		N.D.	
89) Bromobenzene	0.000		0		N.D.	
90) n-Propylbenzene	11.000	91	42		N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
93) 4-Ethyltoluene	11.268	105	54		N.D.	
94) 2-Chlorotoluene	0.000		0		N.D.	
95) 1,3,5-Trimethylbenzene	11.371	105	27		N.D.	
96) 1,2,3-Trichloropropane	0.000		0		N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
98) 4-Chlorotoluene	0.000		0		N.D.	
99) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A07.D
Acq On : 16 Aug 2024 9:16 am
Operator : ELAINE:PID
Sample : l2446555-05,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 16 10:42:14 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.806	105	37		N.D.	
103) sec-Butylbenzene	11.901	105	64		N.D.	
104) p-Isopropyltoluene	12.054	119	26		N.D.	
105) 1,3-Dichlorobenzene	12.121	146	26		N.D.	
106) 1,4-Dichlorobenzene	12.222	146	36		N.D.	
107) p-Diethylbenzene	12.437	119	40		N.D.	
108) n-Butylbenzene	12.492	91	72		N.D.	
109) 1,2-Dichlorobenzene	12.660	146	30		N.D.	
110) 1,2,4,5-Tetramethylben...	13.223	119	58		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.059	180	56		N.D.	
115) Naphthalene	14.341	128	203		N.D.	
116) 1,2,3-Trichlorobenzene	14.517	180	35		N.D.	

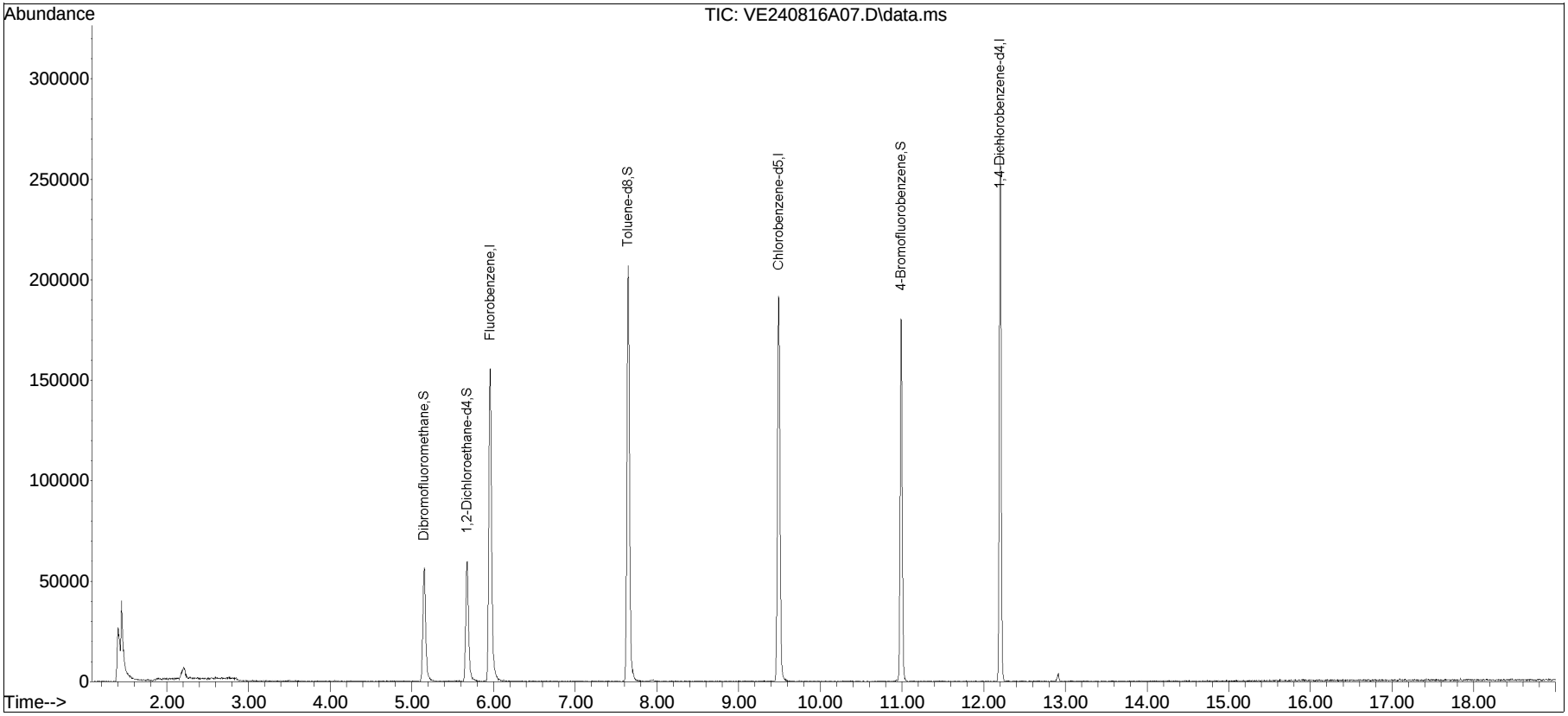
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A07.D
Acq On : 16 Aug 2024 9:16 am
Operator : ELAINE:PID
Sample : l2446555-05,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 16 10:42:14 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40816A01.D•



Manual Integration Report

Data Path	: K:\Elaine\2024\240816A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240816A07.D	Operator	: ELAINE:PID
Date Inj'd	: 8/16/2024 9:16 am	Instrument	: Elaine
Sample	: l2446555-05,31,10,10,,a,r1	Quant Date	: 8/16/2024 10:39 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A08.D
Acq On : 16 Aug 2024 9:40 am
Operator : ELAINE:PID
Sample : l2446555-06,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:42:23 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.959	96	162899	10.000 ug/L	0.00
Standard Area 1 = 184749			Recovery = 88.17%		
63) Chlorobenzene-d5	9.492	117	124404	10.000 ug/L	0.00
Standard Area 1 = 135681			Recovery = 91.69%		
84) 1,4-Dichlorobenzene-d4	12.202	152	70297	10.000 ug/L	0.00
Standard Area 1 = 81388			Recovery = 86.37%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.150	113	40396	10.593 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.93%		
47) 1,2-Dichloroethane-d4	5.677	65	51208	10.064 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%		
64) Toluene-d8	7.651	98	161901	9.880 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.80%		
88) 4-Bromofluorobenzene	10.992	95	60020	9.243 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.43%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.405	85	59	N.D.	
3) Chloromethane	1.759	50	25	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D. d	
6) Chloroethane	2.202	64	53	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	0.000		0	N.D.	
15) Methylene chloride	0.000		0	N.D.	
17) Acetone	3.488	43	955M1	0.799 ug/L	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.397	43	54	N.D.	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	
31) 2,2-Dichloropropane	4.826	77	27	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A08.D
Acq On : 16 Aug 2024 9:40 am
Operator : ELAINE:PID
Sample : l2446555-06,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:42:23 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	5.281	43	29		N.D.	
43) 1,1-Dichloropropene	0.000		0		N.D.	
45) Benzene	5.529	78	25		N.D.	
48) 1,2-Dichloroethane	5.719	62	47		N.D.	
52) Trichloroethene	0.000		0		N.D.	
54) Dibromomethane	0.000		0		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	7.704	92	345		N.D.	
66) 4-Methyl-2-pentanone	0.000		0		N.D.	
67) Tetrachloroethene	0.000		0		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	0.000		0		N.D.	
77) 2-Hexanone	9.207	43	95		N.D.	
78) Chlorobenzene	0.000		0		N.D.	
79) Ethylbenzene	9.548	91	59		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	9.748	106	32		N.D.	
82) o Xylene	0.000		0		N.D.	
83) Styrene	10.351	104	27		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	0.000		0		N.D.	
89) Bromobenzene	0.000		0		N.D.	
90) n-Propylbenzene	11.148	91	38		N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
93) 4-Ethyltoluene	11.265	105	80		N.D.	
94) 2-Chlorotoluene	11.148	91	38		N.D.	
95) 1,3,5-Trimethylbenzene	11.288	105	32		N.D.	
96) 1,2,3-Trichloropropane	11.491	75	28		N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
98) 4-Chlorotoluene	11.508	91	26		N.D.	
99) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A08.D
Acq On : 16 Aug 2024 9:40 am
Operator : ELAINE:PID
Sample : l2446555-06,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:42:23 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.790	105	27		N.D.	
103) sec-Butylbenzene	11.809	105	25		N.D.	
104) p-Isopropyltoluene	12.055	119	67		N.D.	
105) 1,3-Dichlorobenzene	12.219	146	26		N.D.	
106) 1,4-Dichlorobenzene	12.219	146	26		N.D.	
107) p-Diethylbenzene	12.350	119	26		N.D.	
108) n-Butylbenzene	12.495	91	27		N.D.	
109) 1,2-Dichlorobenzene	12.640	146	38		N.D.	
110) 1,2,4,5-Tetramethylben...	13.220	119	29		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	0.000		0		N.D.	
115) Naphthalene	14.350	128	229		N.D.	
116) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

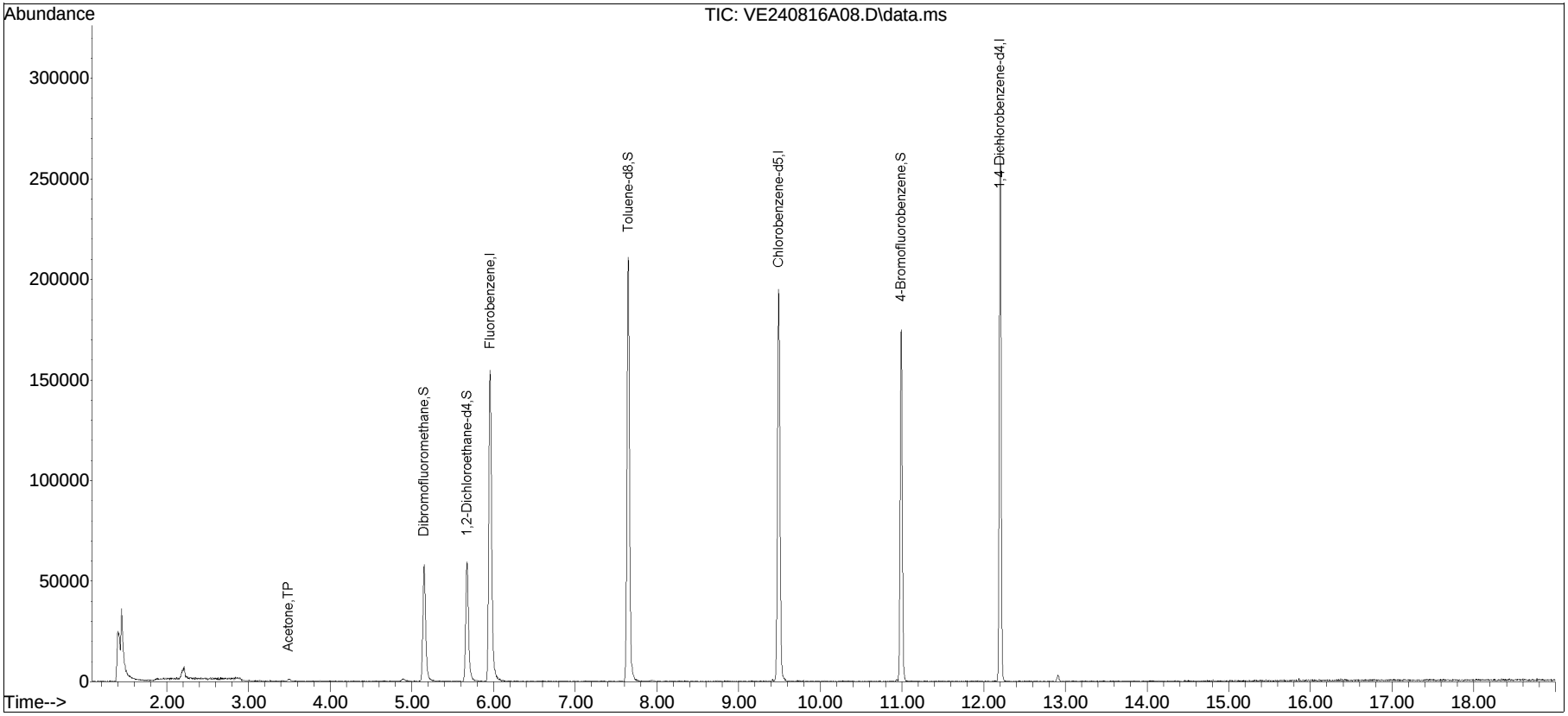
(#) = qualifier out of range (m) = manual integration (+) = signals summed

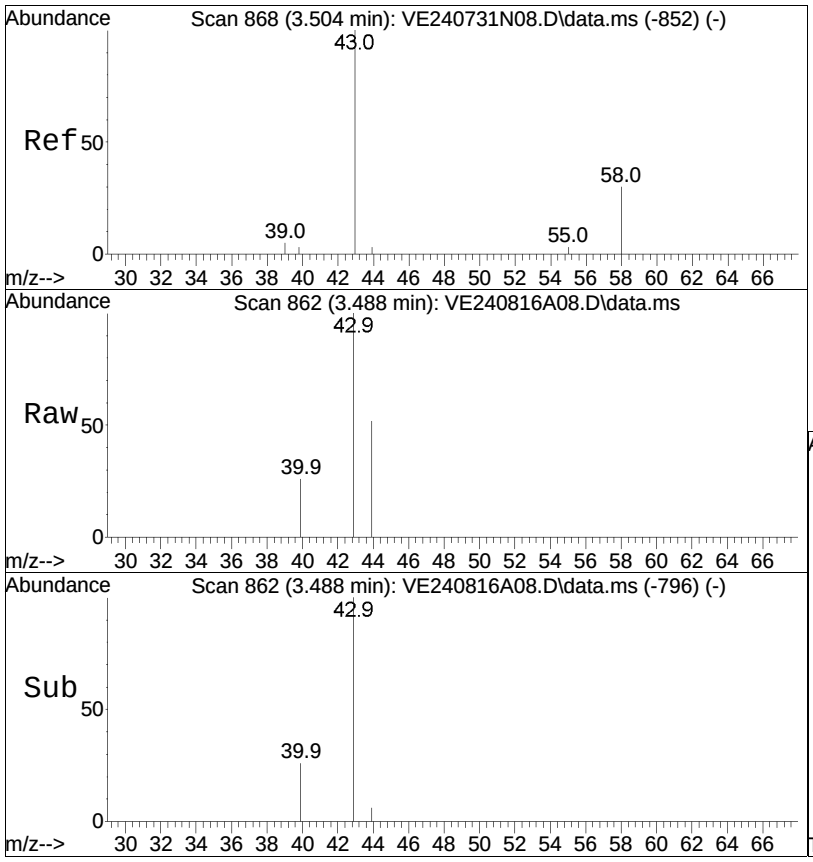
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A08.D
Acq On : 16 Aug 2024 9:40 am
Operator : ELAINE:PID
Sample : l2446555-06,31,10,10,,a,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:42:23 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40816A01.D•

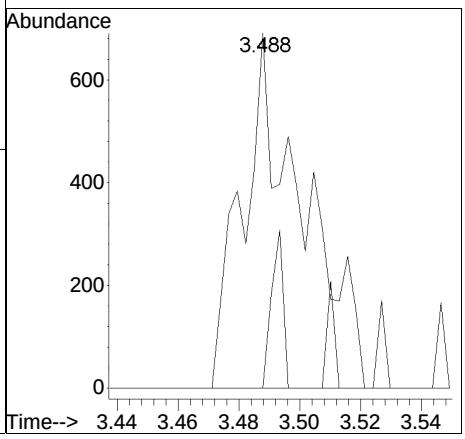




#17
Acetone
Concen: 0.80 ug/L M1
RT: 3.488 min Scan# 862
Delta R.T. -0.016 min
Lab File: VE240816A08.D
Acq: 16 Aug 2024 9:40 am

Tgt Ion: 43 Resp: 955

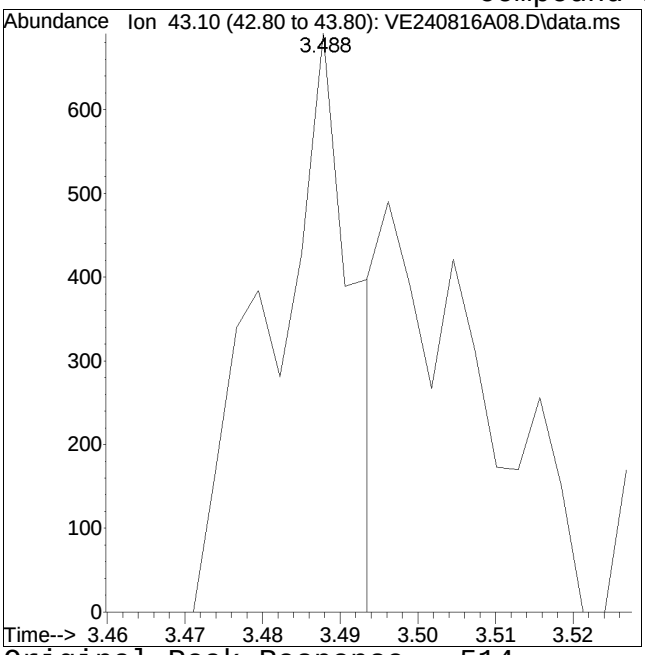
Ion	Ratio	Lower	Upper
43	100		
58	8.6	23.4	35.0#

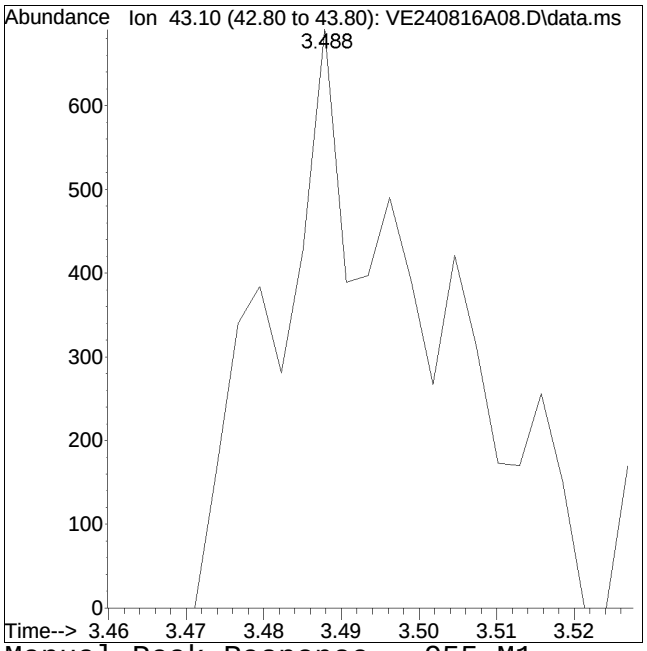


Manual Integration Report

Data Path : K:\Elaine\2024\240816A\ QMethod : Elaine_240731N_8260.m
Data File : VE240816A08.D Operator : ELAINE:PID
Date Inj'd : 8/16/2024 9:40 am Instrument : Elaine
Sample : l2446555-06,31,10,10,,a,r1 Quant Date : 8/16/2024 10:39 am

Compound #17: Acetone





Original Peak Response = 514 Manual Peak Response = 955 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A11.D
Acq On : 16 Aug 2024 10:53 am
Operator : ELAINE:PID
Sample : L2446555-01d,31,4.0,10,,A,R1A
Misc : WG1960272,ICAL21358
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 16 11:17:26 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.956	96	167674	10.000	ug/L	-0.01
Standard Area 1 = 184749			Recovery = 90.76%			
63) Chlorobenzene-d5	9.492	117	127773	10.000	ug/L	0.00
Standard Area 1 = 135681			Recovery = 94.17%			
84) 1,4-Dichlorobenzene-d4	12.202	152	78271	10.000	ug/L	0.00
Standard Area 1 = 81388			Recovery = 96.17%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	41679	10.618	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.18%			
47) 1,2-Dichloroethane-d4	5.677	65	51924	9.914	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%			
64) Toluene-d8	7.649	98	163892	9.738	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.38%			
88) 4-Bromofluorobenzene	10.992	95	65688	9.085	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.85%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.419	85	35	N.D.		
3) Chloromethane	1.778	50	144	N.D.		
4) Vinyl chloride	1.857	62	303	0.078	ug/L	84
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	2.269	64	26	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.927	76	5152	0.622	ug/L	95
15) Methylene chloride	3.452	84	1002M1	0.296	ug/L	
17) Acetone	3.493	43	60091	48.845	ug/L	99
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	3.714	73	26	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	4.252	53	27	N.D.		
29) Vinyl acetate	4.411	43	102	N.D.		
30) cis-1,2-Dichloroethene	4.709	96	1741M3	0.503	ug/L	
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A11.D
Acq On : 16 Aug 2024 10:53 am
Operator : ELAINE:PID
Sample : L2446555-01d,31,4.0,10,,A,R1A
Misc : WG1960272,ICAL21358
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 16 11:17:26 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.		
42) 2-Butanone	5.259	43	255621	145.420	ug/L	100
43) 1,1-Dichloropropene	0.000		0	N.D.		
45) Benzene	5.543	78	2544M3	0.192	ug/L	
48) 1,2-Dichloroethane	5.738	62	26	N.D.		
52) Trichloroethene	6.179	95	113	N.D.		
54) Dibromomethane	6.734	93	33	N.D.		
55) 1,2-Dichloropropane	0.000		0	N.D.		
58) Bromodichloromethane	0.000		0	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	7.704	92	6028	0.685	ug/L #	56
66) 4-Methyl-2-pentanone	0.000		0	N.D. d		
67) Tetrachloroethene	0.000		0	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D. d		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	8.845	76	38	N.D.		
75) 1,2-Dibromoethane	0.000		0	N.D.		
77) 2-Hexanone	0.000		0	N.D. d		
78) Chlorobenzene	9.659	112	78	N.D.		
79) Ethylbenzene	9.553	91	304	N.D.		
80) 1,1,1,2-Tetrachloroethane	9.623	131	26	N.D.		
81) p/m Xylene	9.743	106	31	N.D.		
82) o Xylene	10.275	106	37	N.D.		
83) Styrene	10.351	104	144	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	0.000		0	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.148	91	47	N.D.		
92) 1,1,2,2-Tetrachloroethane	11.251	83	26	N.D.		
93) 4-Ethyltoluene	11.271	105	28	N.D.		
94) 2-Chlorotoluene	11.159	91	67	N.D.		
95) 1,3,5-Trimethylbenzene	11.366	105	26	N.D.		
96) 1,2,3-Trichloropropane	11.396	75	84	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d		
98) 4-Chlorotoluene	11.511	91	175	N.D.		
99) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A11.D
Acq On : 16 Aug 2024 10:53 am
Operator : ELAINE:PID
Sample : L2446555-01d,31,4.0,10,,A,R1A
Misc : WG1960272,ICAL21358
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 16 11:17:26 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.784	105	31		N.D.	
103) sec-Butylbenzene	11.924	105	27		N.D.	
104) p-Isopropyltoluene	12.052	119	66		N.D.	
105) 1,3-Dichlorobenzene	12.119	146	30		N.D.	
106) 1,4-Dichlorobenzene	12.208	146	26		N.D.	
107) p-Diethylbenzene	0.000		0		N.D.	
108) n-Butylbenzene	12.487	91	107		N.D.	
109) 1,2-Dichlorobenzene	0.000		0		N.D.	
110) 1,2,4,5-Tetramethylben...	13.220	119	34		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.046	180	40		N.D.	
115) Naphthalene	14.350	128	390		N.D.	
116) 1,2,3-Trichlorobenzene	14.509	180	29		N.D.	

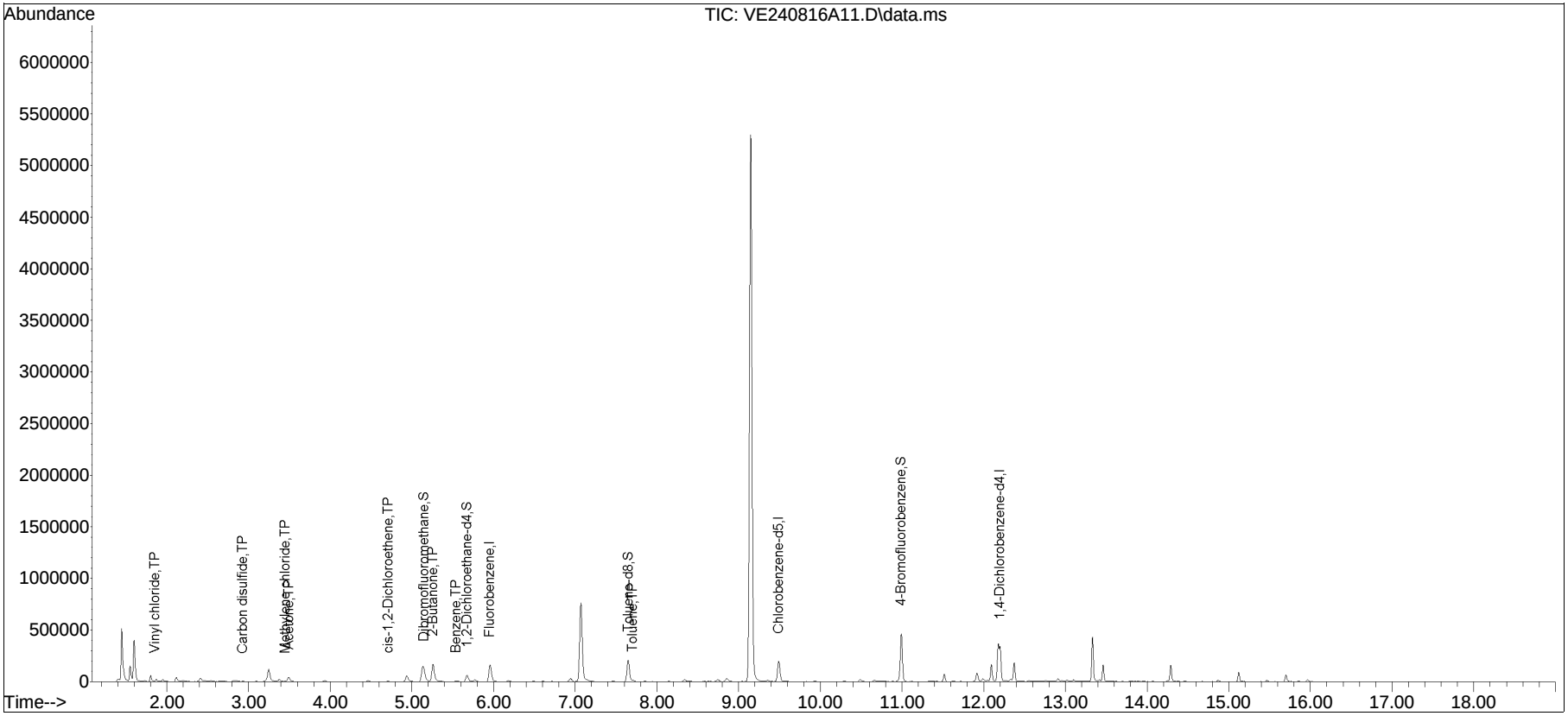
(#) = qualifier out of range (m) = manual integration (+) = signals summed

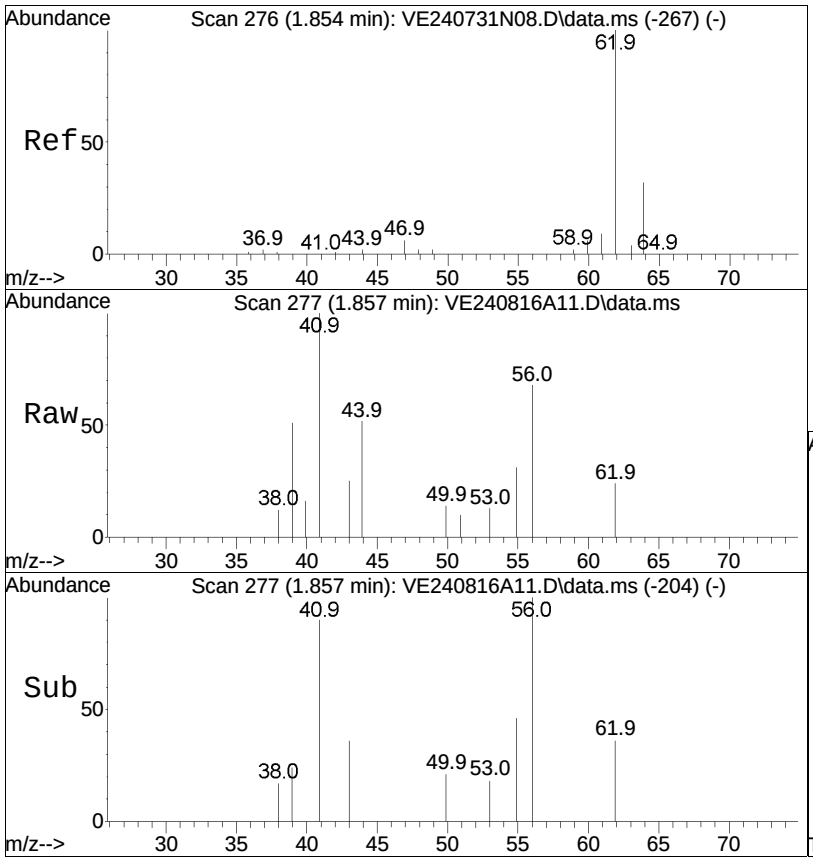
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A11.D
Acq On : 16 Aug 2024 10:53 am
Operator : ELAINE:PID
Sample : L2446555-01d,31,4.0,10,,A,R1A
Misc : WG1960272,ICAL21358
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 16 11:17:26 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40816A01.D•

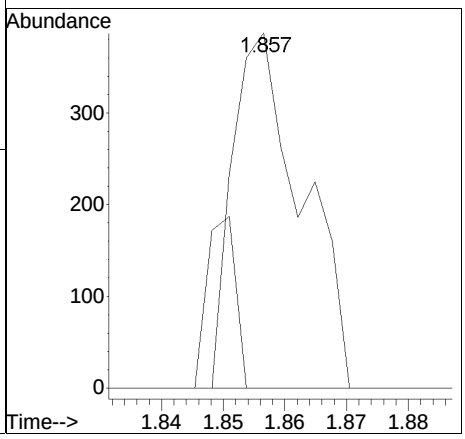


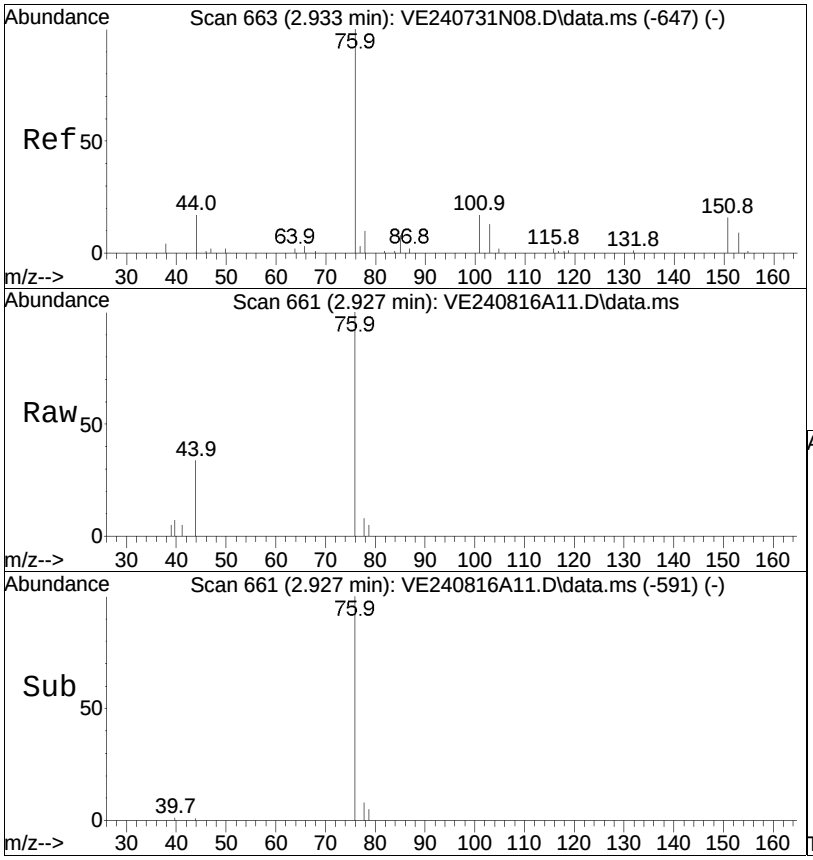


#4
Vinyl chloride
Concen: 0.08 ug/L
RT: 1.857 min Scan# 277
Delta R.T. 0.003 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 62 Resp: 303

Ion	Ratio	Lower	Upper
62	100		
64	19.8	8.1	48.1

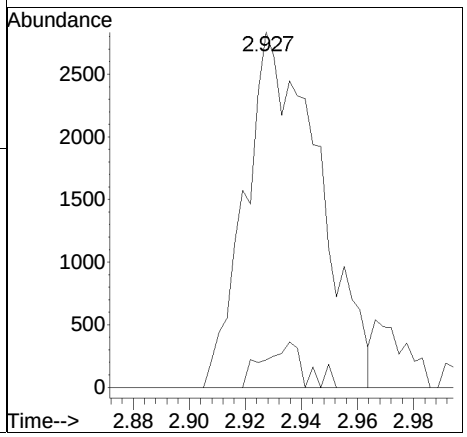


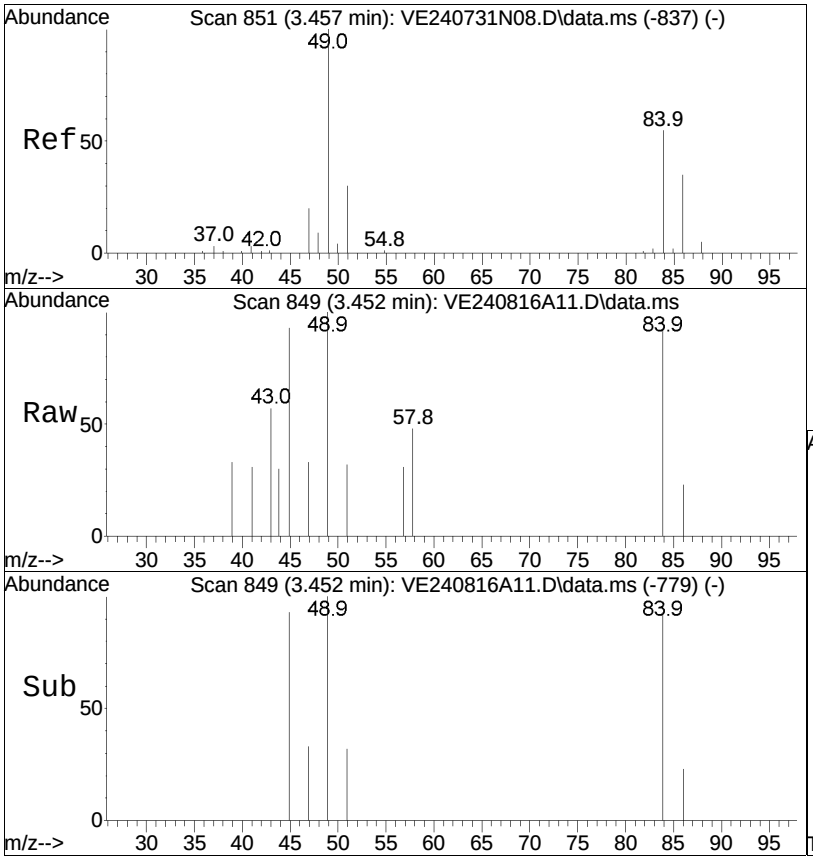


#11
Carbon disulfide
Concen: 0.62 ug/L
RT: 2.927 min Scan# 661
Delta R.T. -0.006 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 76 Resp: 5152

Ion	Ratio	Lower	Upper
76	100		
78	6.5	5.5	11.3

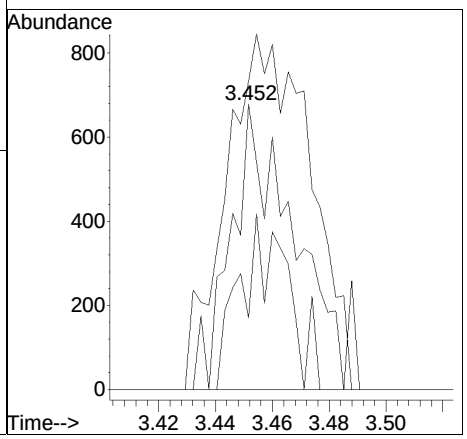


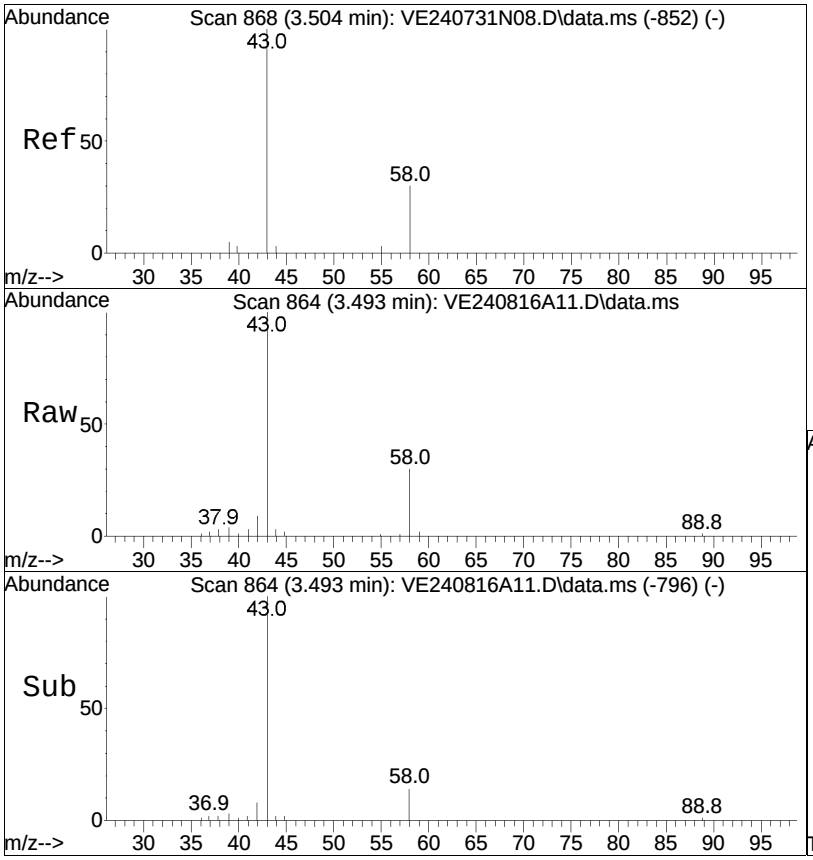


#15
Methylene chloride
Concen: 0.30 ug/L M1
RT: 3.452 min Scan# 849
Delta R.T. -0.005 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 84 Resp: 1002

Ion	Ratio	Lower	Upper
84	100		
86	25.0	40.2	83.6#
49	173.7	103.2	214.4

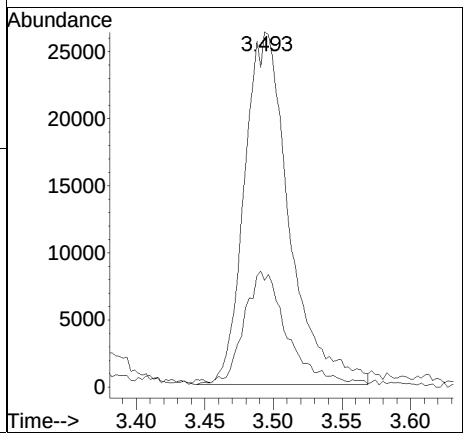


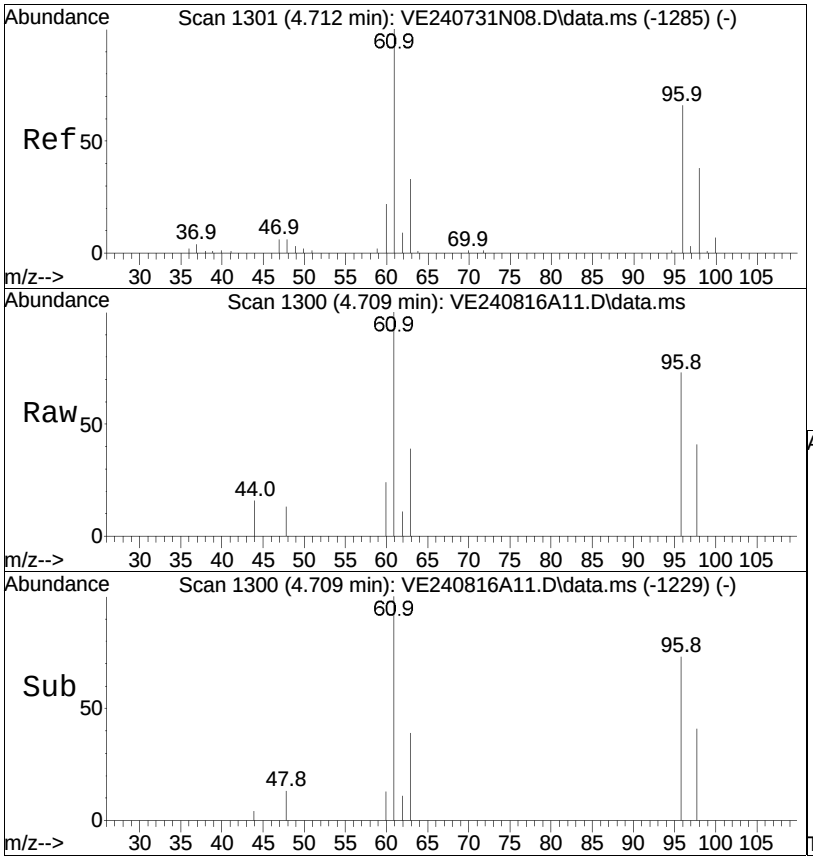


#17
Acetone
Concen: 48.85 ug/L
RT: 3.493 min Scan# 864
Delta R.T. -0.011 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 43 Resp: 60091

Ion	Ratio	Lower	Upper
43	100		
58	28.9	23.4	35.0

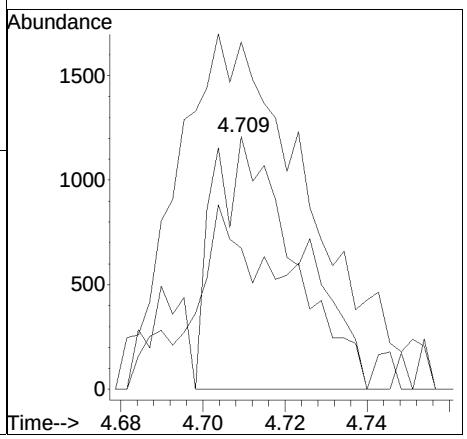


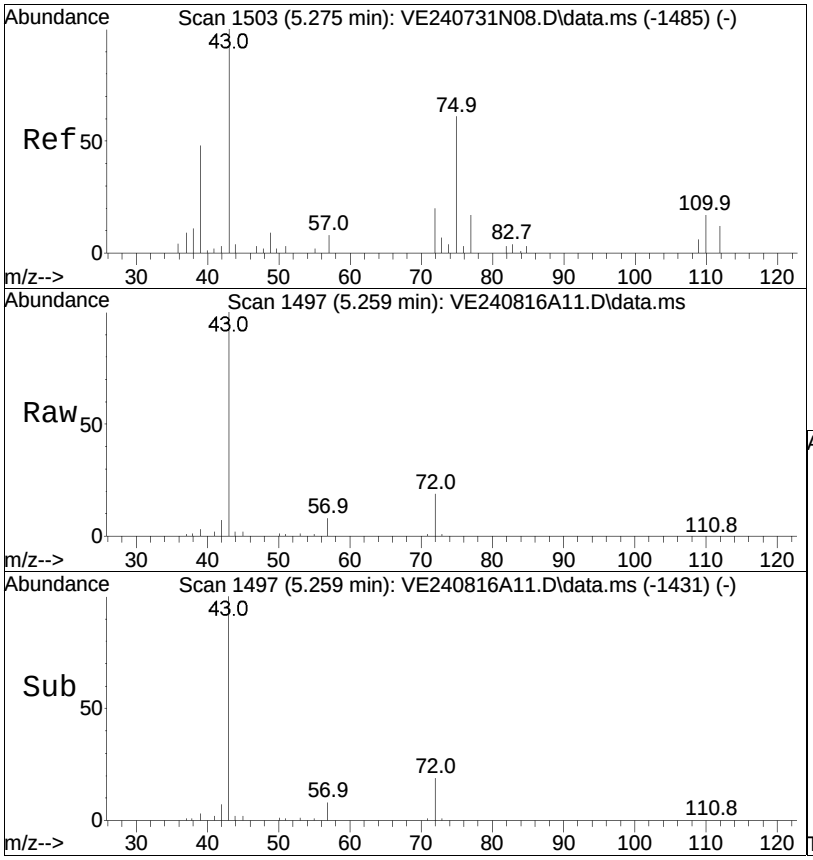


#30
cis-1,2-Dichloroethene
Concen: 0.50 ug/L M3
RT: 4.709 min Scan# 1300
Delta R.T. -0.003 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 96 Resp: 1741

Ion	Ratio	Lower	Upper
96	100		
61	220.0	120.3	180.5#
98	83.5	50.2	75.4#

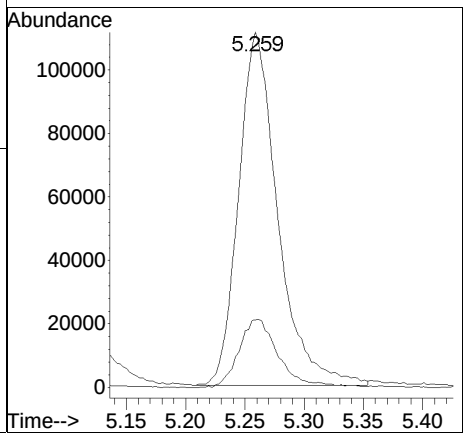


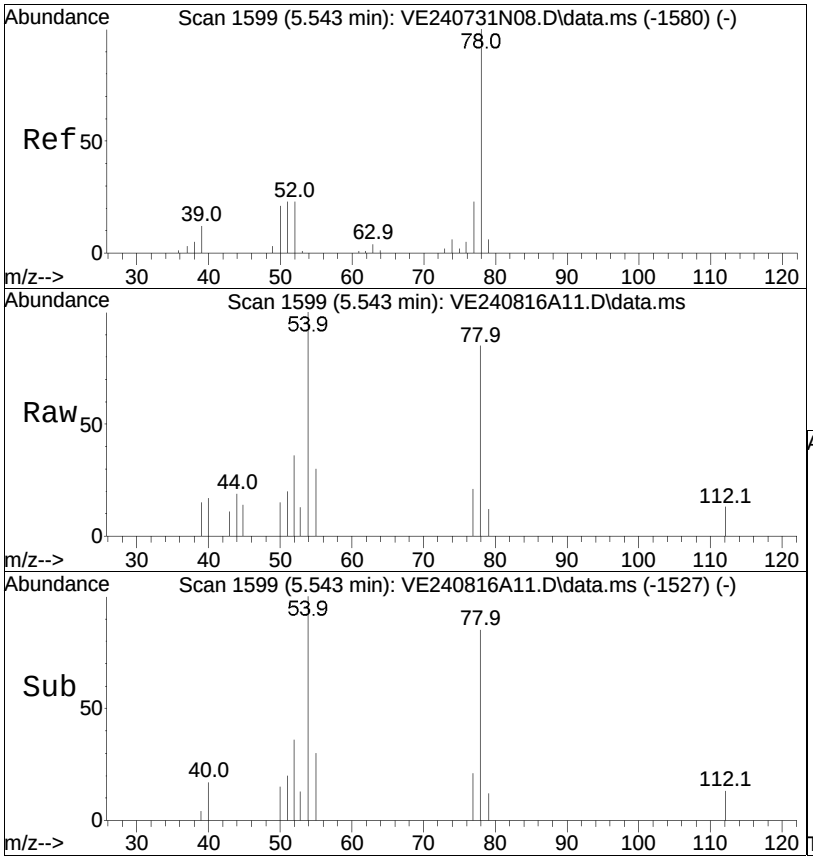


#42
2-Butanone
Concen: 145.42 ug/L
RT: 5.259 min Scan# 1497
Delta R.T. -0.016 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 43 Resp: 255621

Ion	Ratio	Lower	Upper
43	100		
72	19.5	15.7	23.5

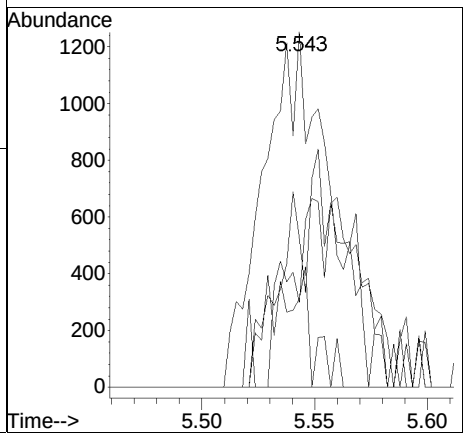


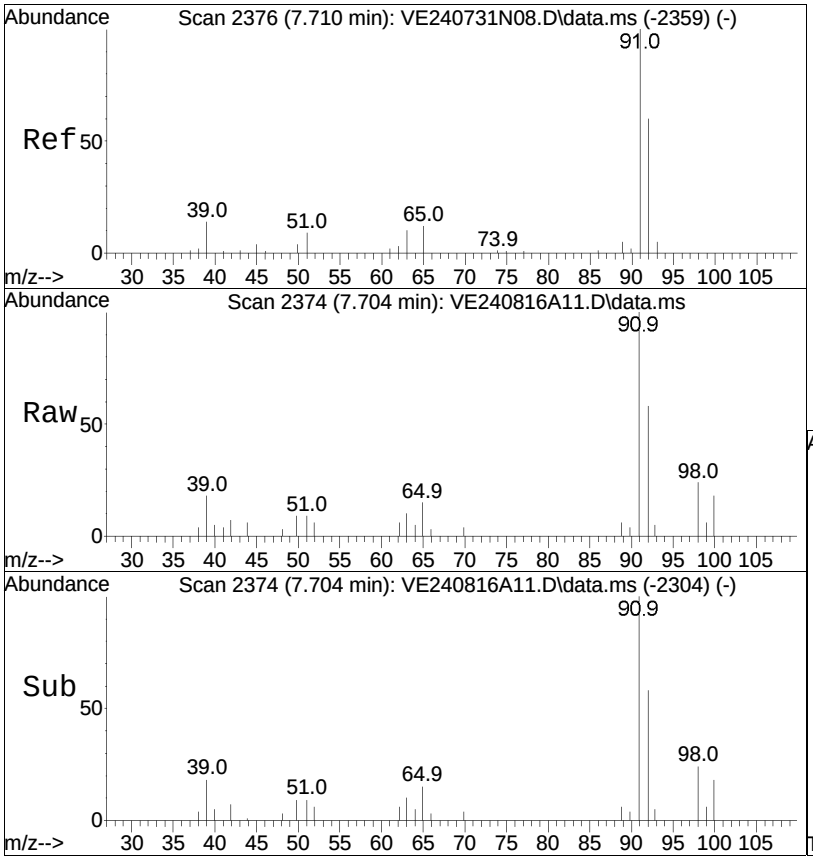


#45
Benzene
Concen: 0.19 ug/L M3
RT: 5.543 min Scan# 1599
Delta R.T. 0.000 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 78 Resp: 2544

Ion	Ratio	Lower	Upper
78	100		
77	6.2	12.8	26.6#
51	0.0	13.5	27.9#
52	22.3	12.0	25.0

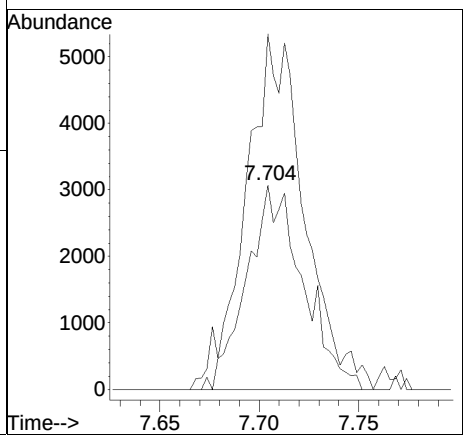




#65
Toluene
Concen: 0.69 ug/L
RT: 7.704 min Scan# 2374
Delta R.T. -0.006 min
Lab File: VE240816A11.D
Acq: 16 Aug 2024 10:53 am

Tgt Ion: 92 Resp: 6028

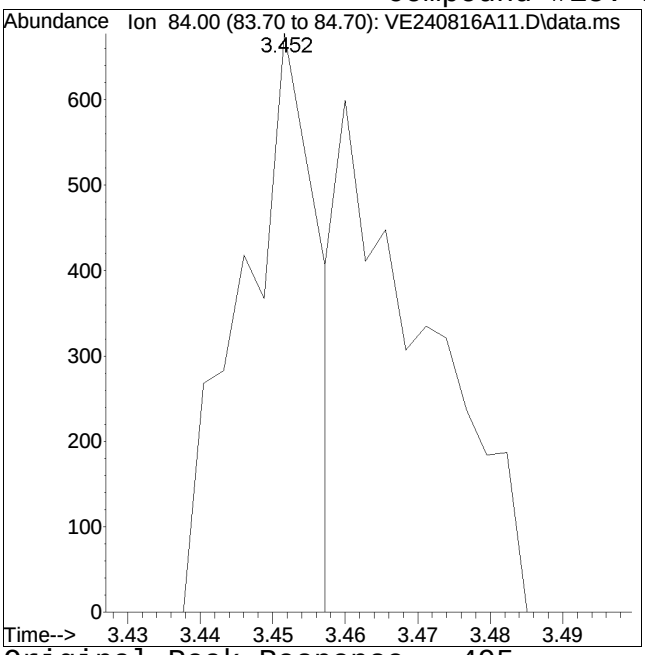
Ion	Ratio	Lower	Upper
92	100		
91	103.5	129.1	193.7#



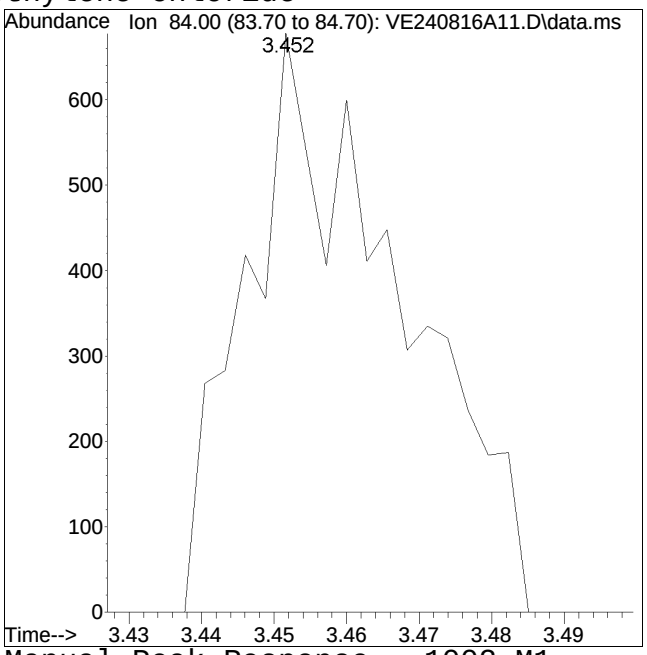
Manual Integration Report

Data Path : K:\Elaine\2024\240816A\ QMethod : Elaine_240731N_8260.m
Data File : VE240816A11.D Operator : ELAINE:PID
Date Inj'd : 8/16/2024 10:53 am Instrument : Elaine
Sample : L2446555-01d,31,4.0,10,,A, Quant Date : 8/16/2024 11:16 am

Compound #15: Methylene chloride



Original Peak Response = 495



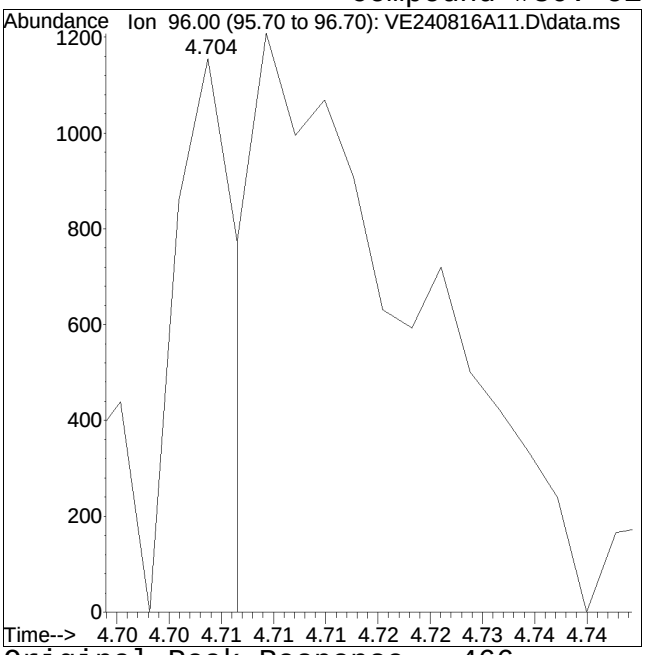
Manual Peak Response = 1002 M1

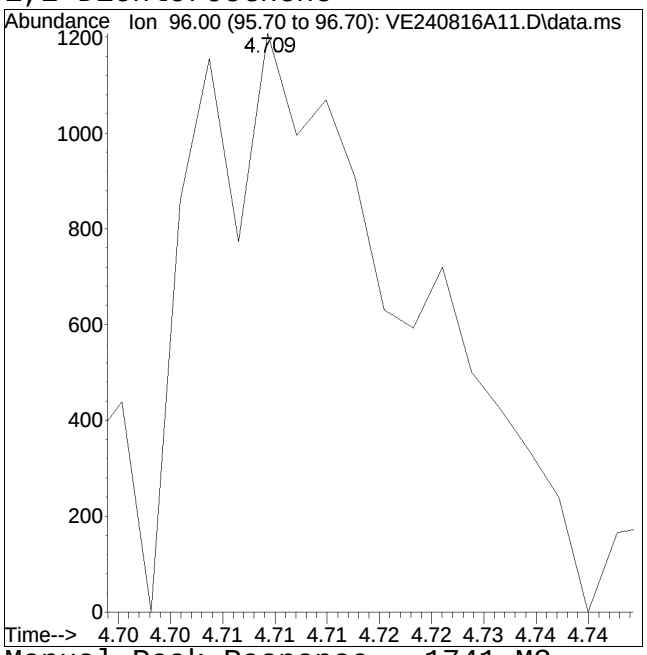
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240816A\ QMethod : Elaine_240731N_8260.m
Data File : VE240816A11.D Operator : ELAINE:PID
Date Inj'd : 8/16/2024 10:53 am Instrument : Elaine
Sample : L2446555-01d,31,4.0,10,,A, Quant Date : 8/16/2024 11:16 am

Compound #30: cis-1,2-Dichloroethene





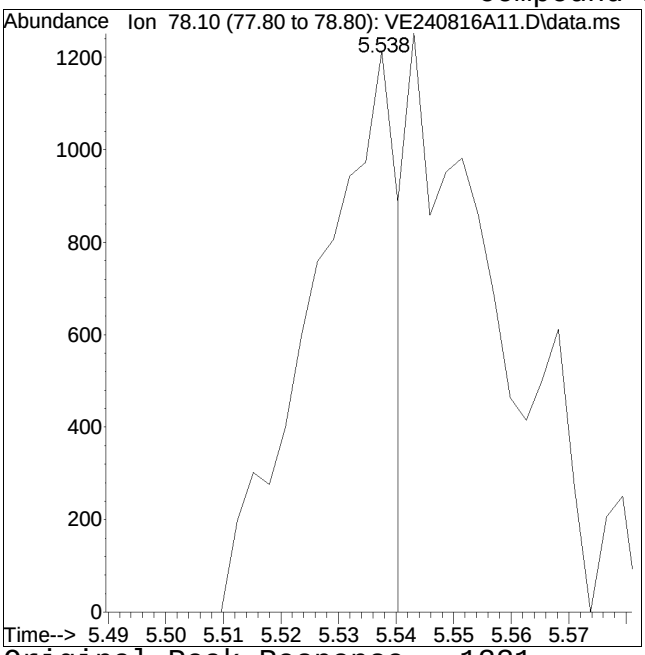
Original Peak Response = 466 Manual Peak Response = 1741 M3

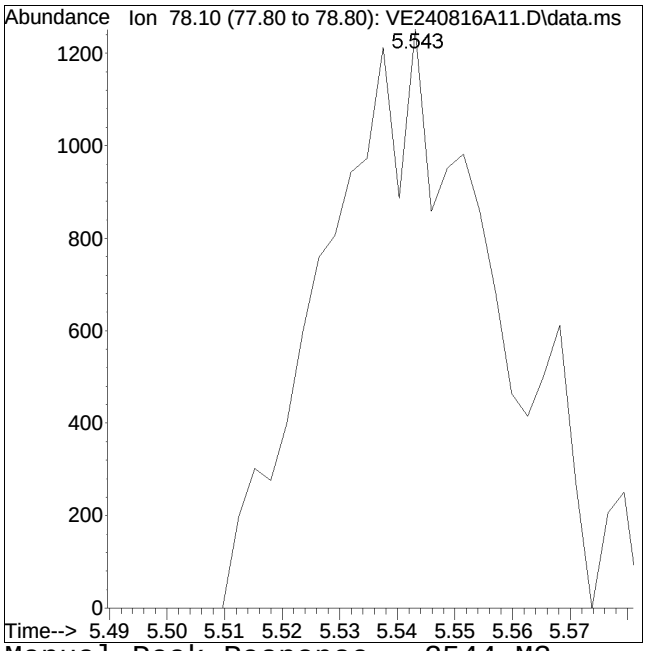
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\240816A\ QMethod : Elaine_240731N_8260.m
Data File : VE240816A11.D Operator : ELAINE:PID
Date Inj'd : 8/16/2024 10:53 am Instrument : Elaine
Sample : L2446555-01d,31,4.0,10,,A, Quant Date : 8/16/2024 11:16 am

Compound #45: Benzene





Original Peak Response = 1231 Manual Peak Response = 2544 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A15.D
Acq On : 16 Aug 2024 12:31 pm
Operator : ELAINE:PID
Sample : l2446555-02D,31,0.4,10,,c,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 16 12:51:04 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.959	96	161202	10.000 ug/L	0.00
Standard Area 1 = 184749			Recovery = 87.25%		
63) Chlorobenzene-d5	9.489	117	123618	10.000 ug/L	0.00
Standard Area 1 = 135681			Recovery = 91.11%		
84) 1,4-Dichlorobenzene-d4	12.205	152	71916	10.000 ug/L	0.00
Standard Area 1 = 81388			Recovery = 88.36%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.150	113	40553	10.746 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.46%		
47) 1,2-Dichloroethane-d4	5.674	65	51329	10.194 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.94%		
64) Toluene-d8	7.646	98	160290	9.844 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.44%		
88) 4-Bromofluorobenzene	10.989	95	60999	9.182 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.82%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.427	85	70	N.D.	
3) Chloromethane	1.806	50	46	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.936	76	1710	0.215 ug/L #	81
15) Methylene chloride	3.457	84	376	0.115 ug/L #	52
17) Acetone	3.494	43	30793	26.035 ug/L	98
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D. d	
29) Vinyl acetate	4.461	43	1224	0.124 ug/L #	78
30) cis-1,2-Dichloroethene	4.765	96	26	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A15.D
Acq On : 16 Aug 2024 12:31 pm
Operator : ELAINE:PID
Sample : l2446555-02D,31,0.4,10,,c,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 16 12:51:04 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.			
40) 1,1,1-Trichloroethane	0.000		0	N.D.			
42) 2-Butanone	5.262	43	247102	146.217	ug/L		99
43) 1,1-Dichloropropene	0.000		0	N.D.			
45) Benzene	5.535	78	226	N.D.			
48) 1,2-Dichloroethane	5.716	62	32	N.D.			
52) Trichloroethene	6.037	95	108	N.D.			
54) Dibromomethane	0.000		0	N.D.			
55) 1,2-Dichloropropane	0.000		0	N.D.			
58) Bromodichloromethane	0.000		0	N.D.			
61) 1,4-Dioxane	0.000		0	N.D.			
62) cis-1,3-Dichloropropene	0.000		0	N.D.			
65) Toluene	7.710	92	1184	0.139	ug/L	#	53
66) 4-Methyl-2-pentanone	8.148	58	61	N.D.			
67) Tetrachloroethene	0.000		0	N.D.			
69) trans-1,3-Dichloropropene	0.000		0	N.D.			
72) 1,1,2-Trichloroethane	0.000		0	N.D.			
73) Chlorodibromomethane	0.000		0	N.D.			
74) 1,3-Dichloropropane	0.000		0	N.D.			
75) 1,2-Dibromoethane	0.000		0	N.D.			
77) 2-Hexanone	9.152	43	181	N.D.			
78) Chlorobenzene	0.000		0	N.D.			
79) Ethylbenzene	9.492	91	33	N.D.			
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
81) p/m Xylene	0.000		0	N.D.			
82) o Xylene	0.000		0	N.D.			
83) Styrene	10.356	104	29	N.D.			
85) Bromoform	0.000		0	N.D.			
87) Isopropylbenzene	0.000		0	N.D.			
89) Bromobenzene	10.989	156	27	N.D.			
90) n-Propylbenzene	10.989	91	118	N.D.			
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
93) 4-Ethyltoluene	0.000		0	N.D.			
94) 2-Chlorotoluene	0.000		0	N.D.			
95) 1,3,5-Trimethylbenzene	0.000		0	N.D.			
96) 1,2,3-Trichloropropane	0.000		0	N.D.			
97) trans-1,4-Dichloro-2-b...	11.508	53	51	N.D.			
98) 4-Chlorotoluene	0.000		0	N.D.			
99) tert-Butylbenzene	0.000		0	N.D.			

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A15.D
Acq On : 16 Aug 2024 12:31 pm
Operator : ELAINE:PID
Sample : l2446555-02D,31,0.4,10,,c,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 16 12:51:04 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	0.000		0		N.D.	
103) sec-Butylbenzene	0.000		0		N.D.	
104) p-Isopropyltoluene	0.000		0		N.D.	
105) 1,3-Dichlorobenzene	0.000		0		N.D.	
106) 1,4-Dichlorobenzene	0.000		0		N.D.	
107) p-Diethylbenzene	0.000		0		N.D.	
108) n-Butylbenzene	12.484	91	28		N.D.	
109) 1,2-Dichlorobenzene	0.000		0		N.D.	
110) 1,2,4,5-Tetramethylben...	0.000		0		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.068	180	40		N.D.	
115) Naphthalene	14.344	128	108		N.D.	
116) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

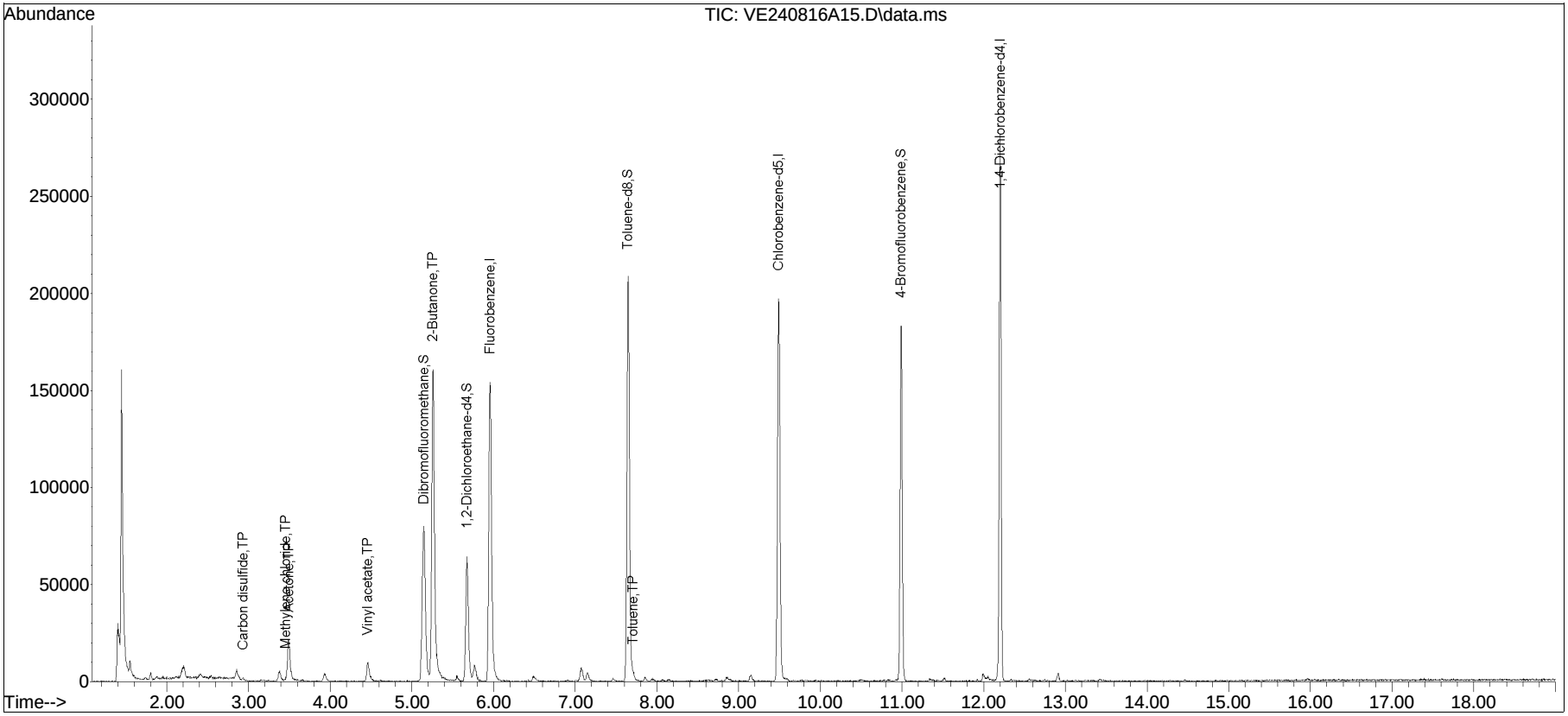
(#) = qualifier out of range (m) = manual integration (+) = signals summed

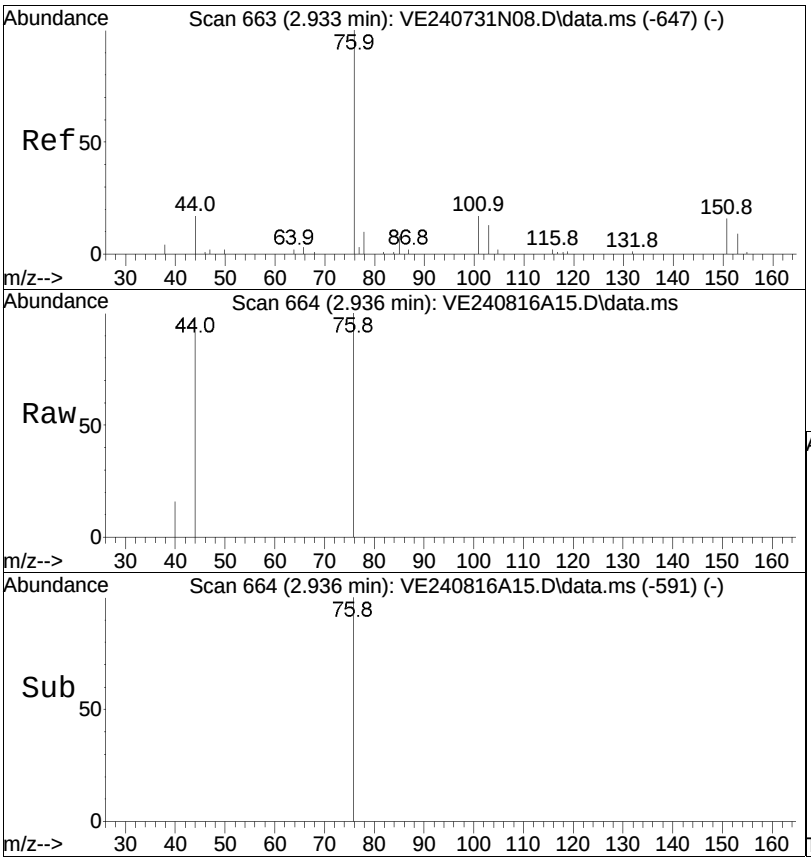
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A15.D
Acq On : 16 Aug 2024 12:31 pm
Operator : ELAINE:PID
Sample : l2446555-02D,31,0.4,10,,c,r1a
Misc : WG1960272,ICAL21358
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 16 12:51:04 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40816A01.D•

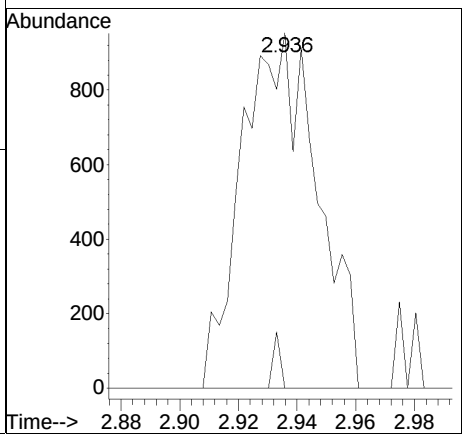


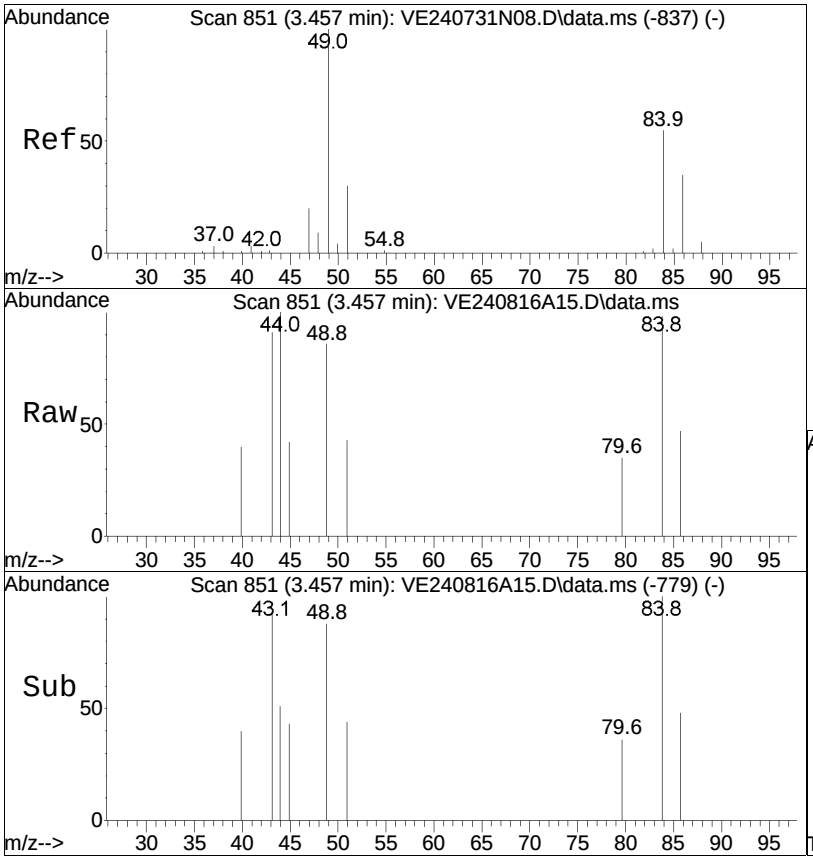


#11
Carbon disulfide
Concen: 0.21 ug/L
RT: 2.936 min Scan# 664
Delta R.T. 0.003 min
Lab File: VE240816A15.D
Acq: 16 Aug 2024 12:31 pm

Tgt Ion: 76 Resp: 1710

Ion	Ratio	Lower	Upper
76	100		
78	1.5	5.5	11.3#

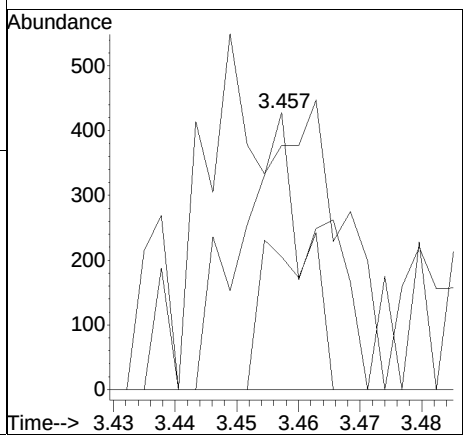


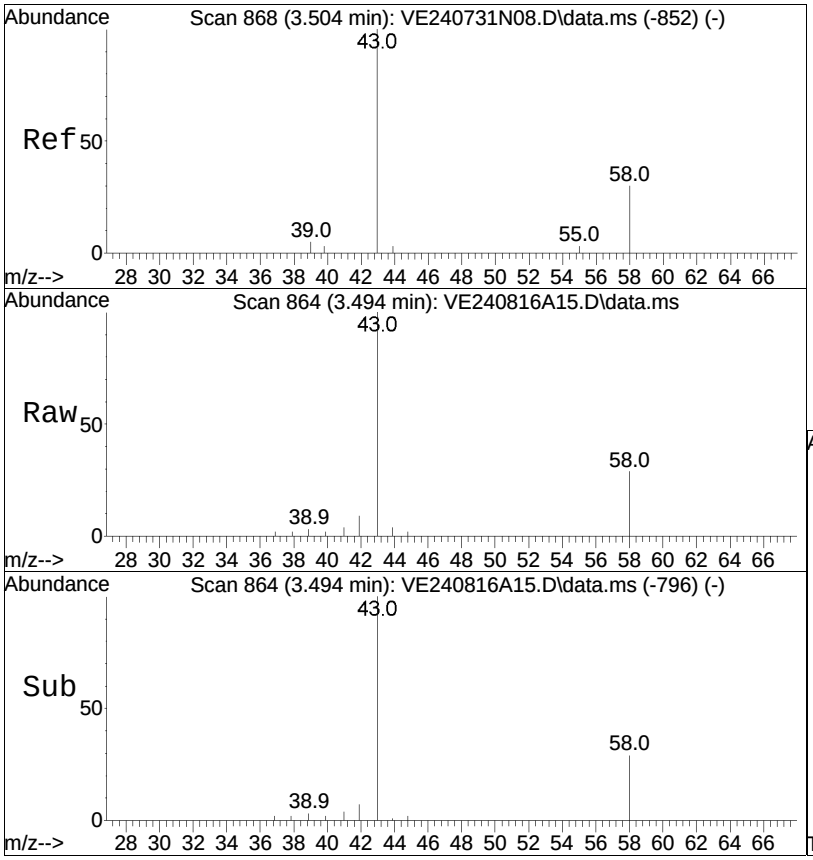


#15
Methylene chloride
Concen: 0.12 ug/L
RT: 3.457 min Scan# 851
Delta R.T. 0.000 min
Lab File: VE240816A15.D
Acq: 16 Aug 2024 12:31 pm

Tgt Ion: 84 Resp: 376

Ion	Ratio	Lower	Upper
84	100		
86	37.8	40.2	83.6#
49	88.0	103.2	214.4#

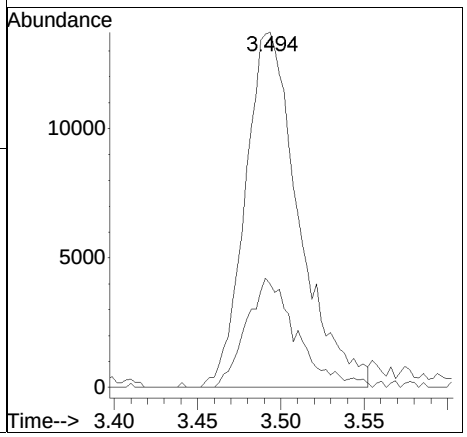


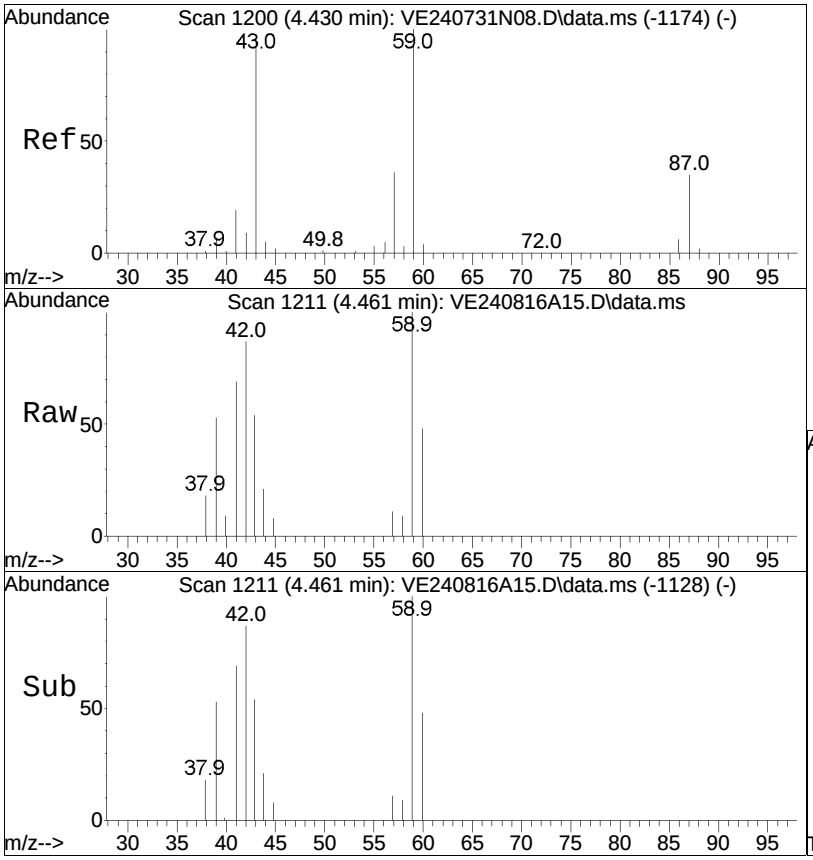


#17
Acetone
Concen: 26.04 ug/L
RT: 3.494 min Scan# 864
Delta R.T. -0.010 min
Lab File: VE240816A15.D
Acq: 16 Aug 2024 12:31 pm

Tgt Ion: 43 Resp: 30793

Ion	Ratio	Lower	Upper
43	100		
58	28.4	23.4	35.0

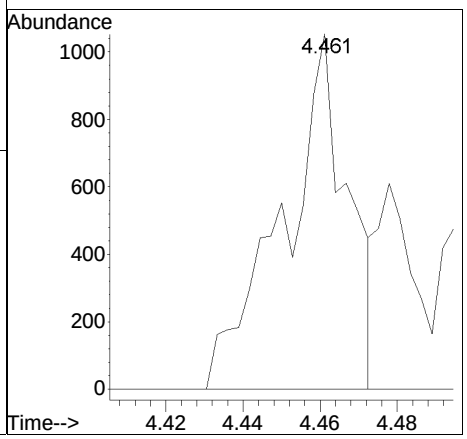


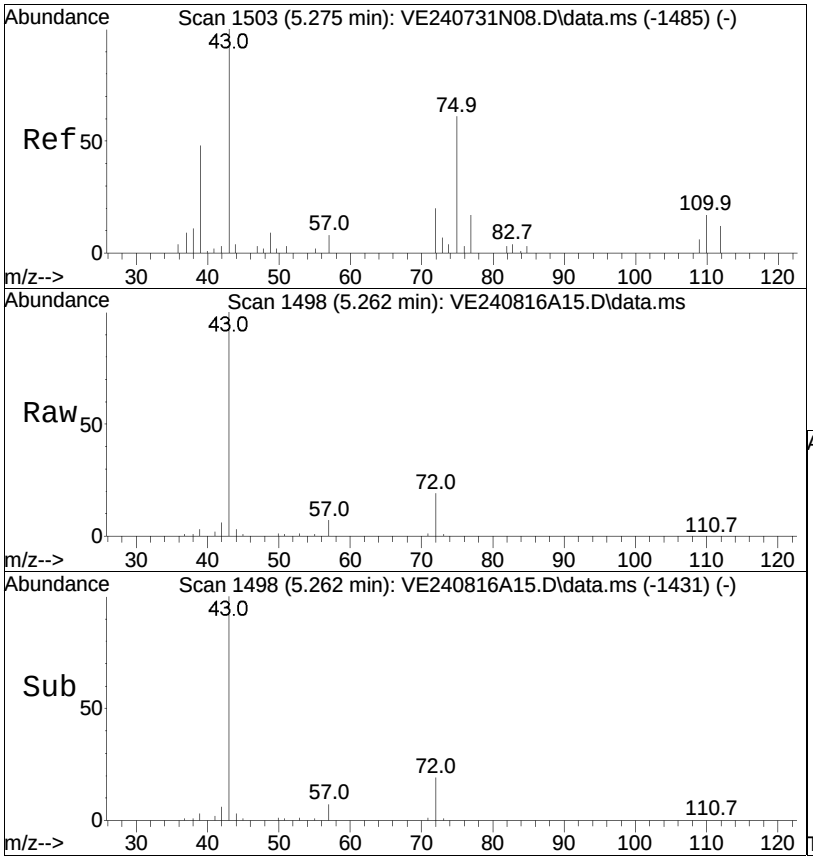


#29
Vinyl acetate
Concen: 0.12 ug/L
RT: 4.461 min Scan# 1211
Delta R.T. 0.031 min
Lab File: VE240816A15.D
Acq: 16 Aug 2024 12:31 pm

Tgt Ion: 43 Resp: 1224

Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.2	9.4#

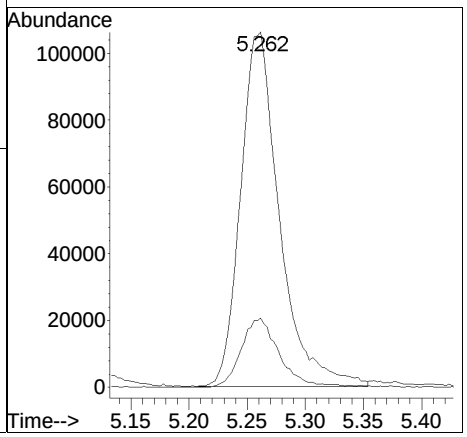


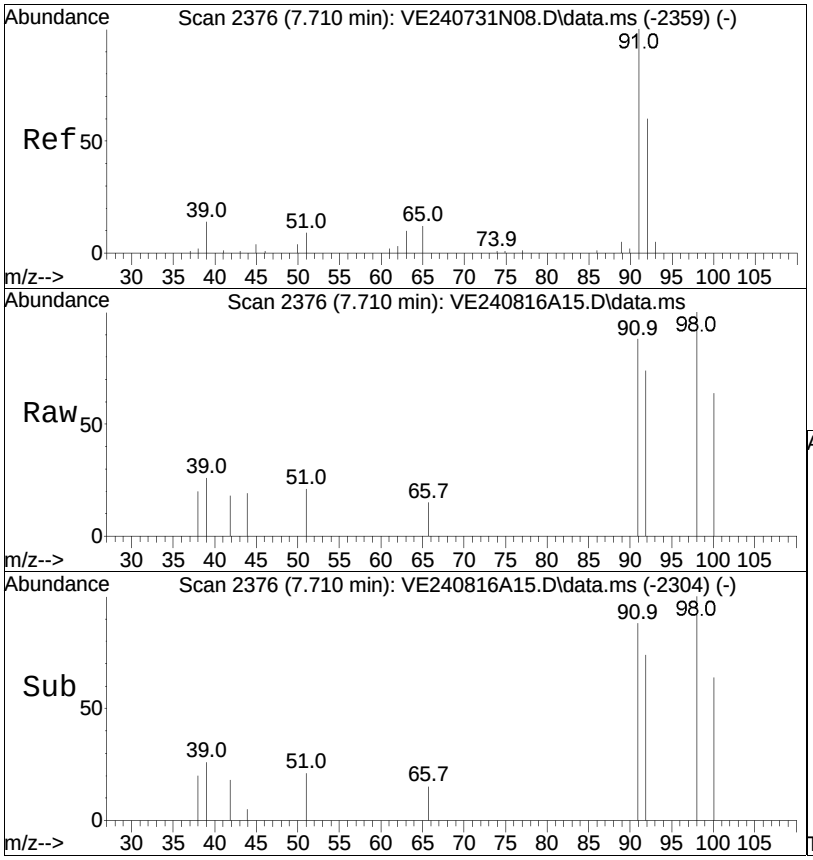


#42
2-Butanone
Concen: 146.22 ug/L
RT: 5.262 min Scan# 1498
Delta R.T. -0.013 min
Lab File: VE240816A15.D
Acq: 16 Aug 2024 12:31 pm

Tgt Ion: 43 Resp: 247102

Ion	Ratio	Lower	Upper
43	100		
72	19.1	15.7	23.5

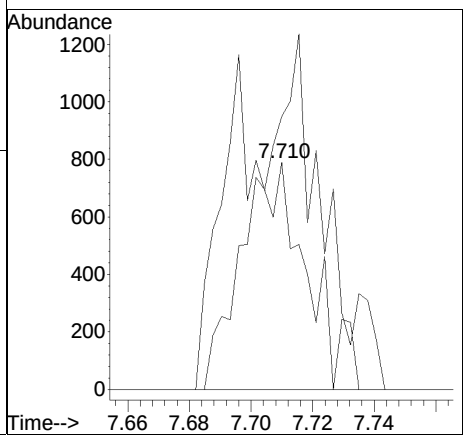




#65
Toluene
Concen: 0.14 ug/L
RT: 7.710 min Scan# 2376
Delta R.T. -0.000 min
Lab File: VE240816A15.D
Acq: 16 Aug 2024 12:31 pm

Tgt Ion: 92 Resp: 1184

Ion	Ratio	Lower	Upper
92	100		
91	99.4	129.1	193.7#



Manual Integration Report

Data Path	: K:\Elaine\2024\240816A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240816A15.D	Operator	: ELAINE:PID
Date Inj'd	: 8/16/2024 12:31 pm	Instrument	: Elaine
Sample	: l2446555-02D,31,0.4,10,,c,	Quant Date	: 8/16/2024 12:50 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A08.D
Acq On : 16 Aug 2024 9:35 am
Operator : GONZO:PID
Sample : l2446555-03,31,10,10,,a,r1a
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:48:11 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.086	96	366958	10.000 ug/L	0.00
Standard Area 1 = 376279			Recovery = 97.52%		
59) Chlorobenzene-d5	9.629	117	301302	10.000 ug/L	0.00
Standard Area 1 = 290800			Recovery = 103.61%		
79) 1,4-Dichlorobenzene-d4	12.310	152	167672	10.000 ug/L	0.00
Standard Area 1 = 167416			Recovery = 100.15%		
System Monitoring Compounds					
36) Dibromofluoromethane	5.281	113	93248	9.729 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.29%		
43) 1,2-Dichloroethane-d4	5.805	65	98742	9.698 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.98%		
60) Toluene-d8	7.779	98	354286	9.366 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.66%		
83) 4-Bromofluorobenzene	11.109	95	128569	9.181 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.81%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D. d	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl chloride	1.946	62	3312	0.384 ug/L	83
5) Bromomethane	2.272	94	365	0.080 ug/L #	77
6) Chloroethane	2.287	64	320	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	3.047	76	5674	0.278 ug/L #	89
15) Methylene chloride	3.571	84	197	N.D.	
17) Acetone	3.617	43	28699	15.290 ug/L #	47
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
20) Methyl tert-butyl ether	3.845	73	76	N.D.	
23) 1,1-Dichloroethane	0.000		0	N.D.	
25) Acrylonitrile	0.000		0	N.D. d	
27) Vinyl acetate	4.574	43	84	N.D.	
28) cis-1,2-Dichloroethene	4.840	96	3382	0.387 ug/L	96
29) 2,2-Dichloropropane	5.022	77	242	N.D.	
30) Bromochloromethane	0.000		0	N.D.	
32) Chloroform	5.098	83	80	N.D.	

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A08.D
Acq On : 16 Aug 2024 9:35 am
Operator : GONZO:PID
Sample : l2446555-03,31,10,10,,a,r1a
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:48:11 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
34) Carbon tetrachloride	5.250	117	71	N.D.	
37) 1,1,1-Trichloroethane	0.000		0	N.D.	
39) 2-Butanone	5.402	43	16665	6.261 ug/L #	68
40) 1,1-Dichloropropene	5.205	75	88	N.D.	
41) Benzene	5.676	78	3243M6	0.103 ug/L	
44) 1,2-Dichloroethane	0.000		0	N.D. d	
48) Trichloroethene	6.276	95	1556M3	0.176 ug/L	
50) Dibromomethane	0.000		0	N.D.	
51) 1,2-Dichloropropane	0.000		0	N.D.	
54) Bromodichloromethane	0.000		0	N.D. d	
57) 1,4-Dioxane	0.000		0	N.D.	
58) cis-1,3-Dichloropropene	0.000		0	N.D.	
61) Toluene	7.836	92	65573	3.131 ug/L	98
62) 4-Methyl-2-pentanone	8.280	58	1021	0.442 ug/L #	35
63) Tetrachloroethene	8.295	166	156	N.D.	
65) trans-1,3-Dichloropropene	8.101	75	84	N.D.	
68) 1,1,2-Trichloroethane	8.638	83	73	N.D.	
69) Chlorodibromomethane	0.000		0	N.D.	
70) 1,3-Dichloropropane	0.000		0	N.D.	
71) 1,2-Dibromoethane	8.954	107	99	N.D.	
72) 2-Hexanone	0.000		0	N.D. d	
73) Chlorobenzene	9.818	112	1088	N.D.	
74) Ethylbenzene	9.884	91	1622	N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
76) p/m Xylene	9.875	106	568	N.D.	
77) o Xylene	0.000		0	N.D.	
78) Styrene	10.492	104	169	N.D.	
80) Bromoform	10.509	173	91	N.D.	
82) Isopropylbenzene	10.789	105	288	N.D.	
84) Bromobenzene	0.000		0	N.D.	
85) n-Propylbenzene	11.274	91	247	N.D.	
87) 1,1,2,2-Tetrachloroethane	11.183	83	81	N.D.	
88) 4-Ethyltoluene	11.381	105	1586	N.D.	
89) 2-Chlorotoluene	11.414	91	89	N.D.	
90) 1,3,5-Trimethylbenzene	11.496	105	1046	N.D.	
91) 1,2,3-Trichloropropane	11.504	75	471	N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d	
93) 4-Chlorotoluene	11.619	91	740	N.D.	
94) tert-Butylbenzene	11.907	119	327	N.D.	

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A08.D
Acq On : 16 Aug 2024 9:35 am
Operator : GONZO:PID
Sample : l2446555-03,31,10,10,,a,r1a
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:48:11 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97) 1,2,4-Trimethylbenzene	11.907	105	3438	0.108 ug/L	94
98) sec-Butylbenzene	12.022	105	350	N.D.	
99) p-Isopropyltoluene	12.162	119	488	N.D.	
100) 1,3-Dichlorobenzene	12.335	146	907	N.D.	
101) 1,4-Dichlorobenzene	12.335	146	907	N.D.	
102) p-Diethylbenzene	12.565	119	2009	0.108 ug/L #	76
103) n-Butylbenzene	12.590	91	893	N.D.	
104) 1,2-Dichlorobenzene	0.000		0	N.D.	
105) 1,2,4,5-Tetramethylben...	13.330	119	2057	0.074 ug/L	95
106) 1,2-Dibromo-3-chloropr...	13.684	155	89	N.D.	
108) Hexachlorobutadiene	0.000		0	N.D.	
109) 1,2,4-Trichlorobenzene	14.161	180	238	N.D.	
110) Naphthalene	14.457	128	1985	0.085 ug/L	100
111) 1,2,3-Trichlorobenzene	14.408	180	85	N.D.	

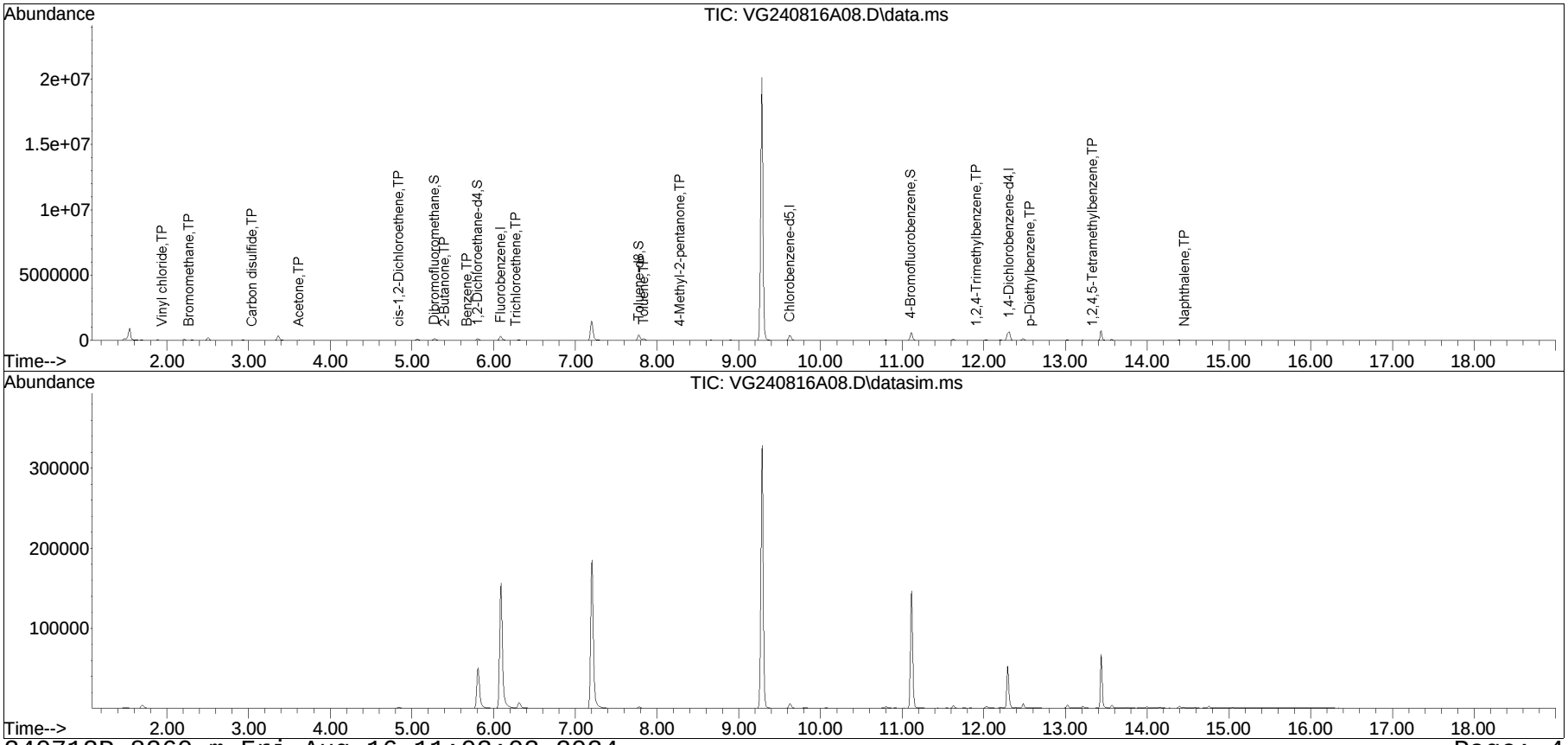
(#) = qualifier out of range (m) = manual integration (+) = signals summed

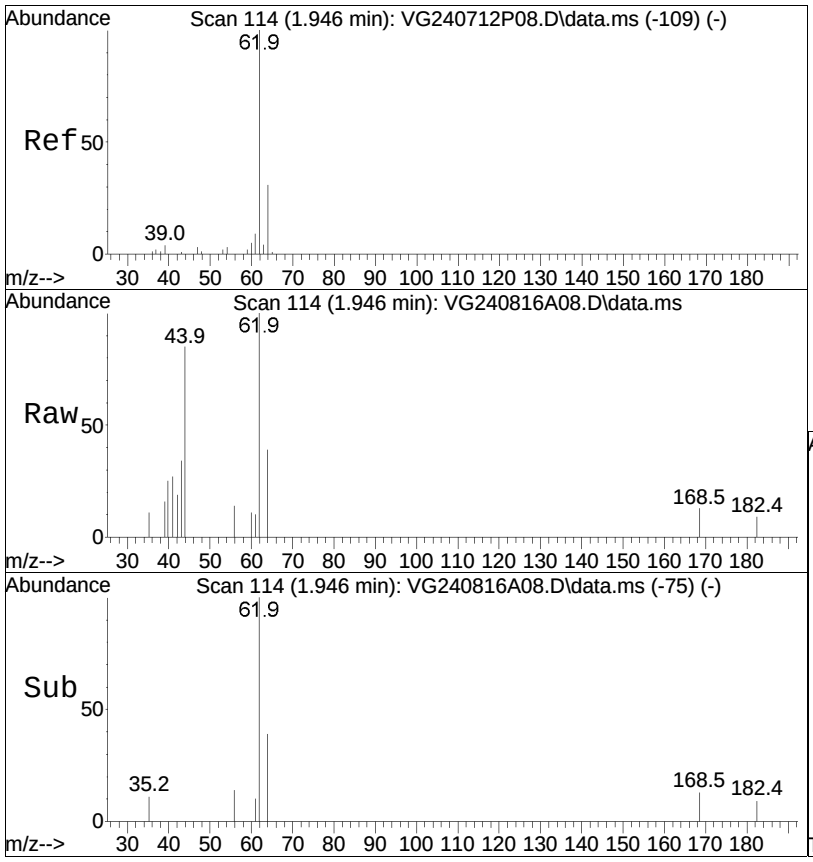
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A08.D
Acq On : 16 Aug 2024 9:35 am
Operator : GONZO:PID
Sample : l2446555-03,31,10,10,,a,r1a
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 16 10:48:11 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox0816A01.D•

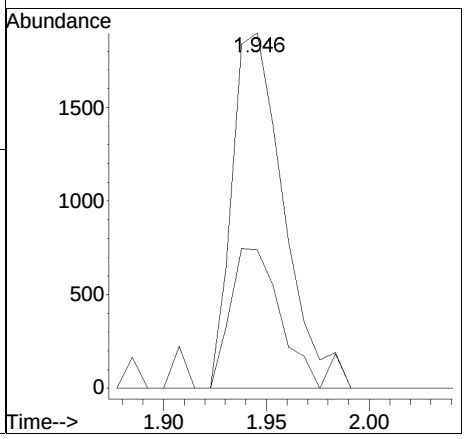


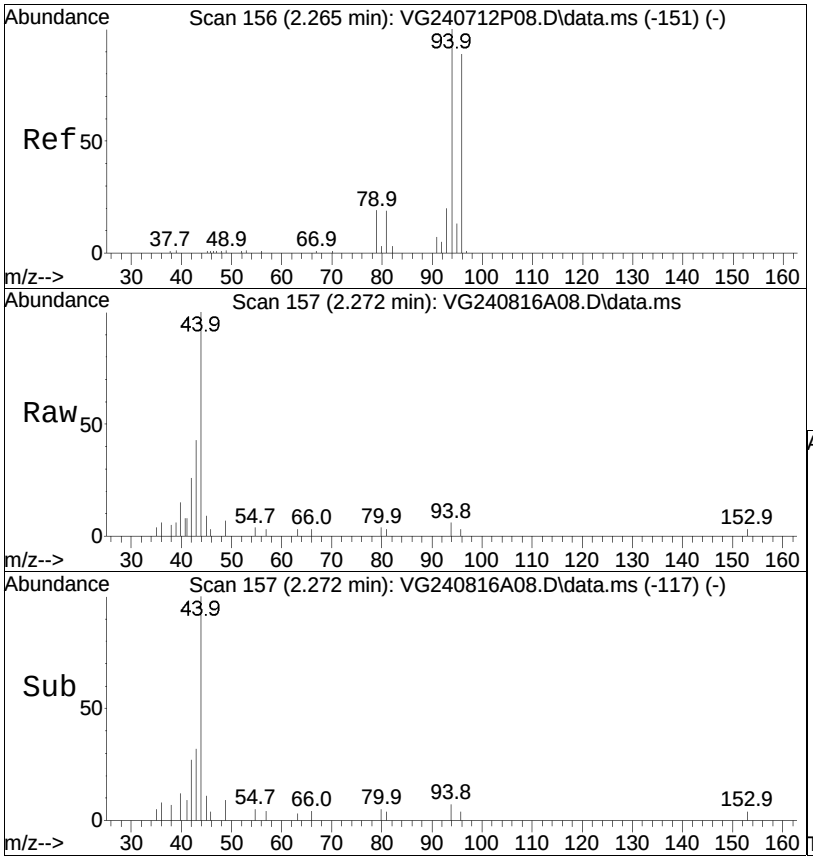


#4
Vinyl chloride
Concen: 0.38 ug/L
RT: 1.946 min Scan# 114
Delta R.T. -0.000 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 62 Resp: 3312

Ion	Ratio	Lower	Upper
62	100		
64	40.5	11.3	51.3

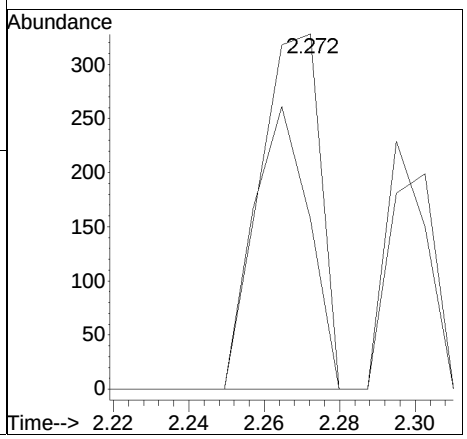


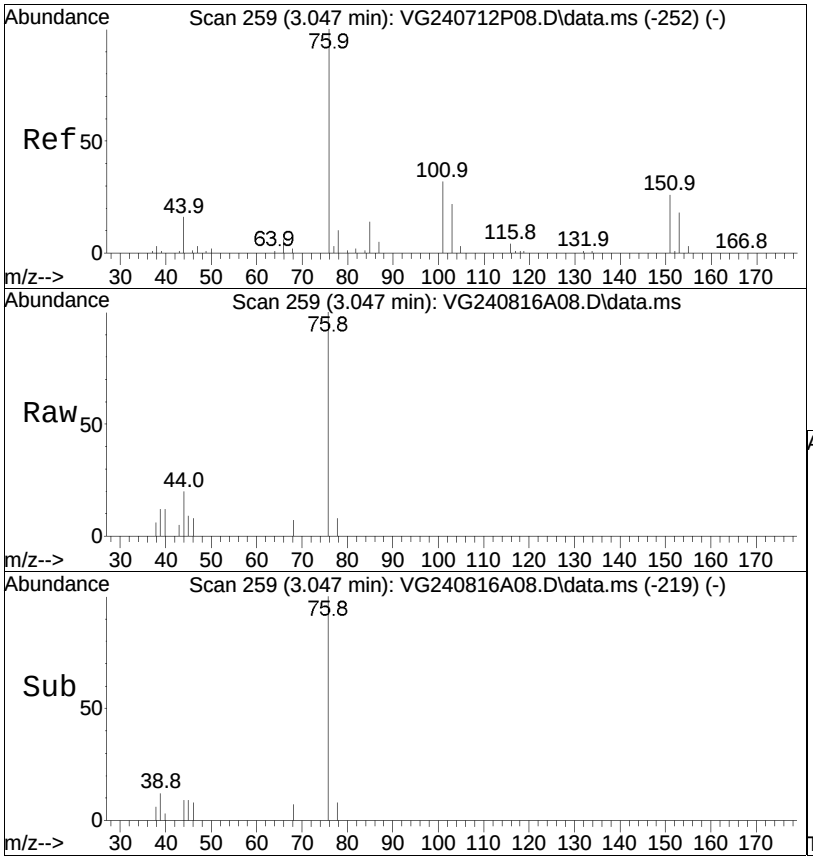


#5
Bromomethane
Concen: 0.08 ug/L
RT: 2.272 min Scan# 157
Delta R.T. 0.007 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 94 Resp: 365

Ion	Ratio	Lower	Upper
94	100		
96	73.2	75.2	115.2#

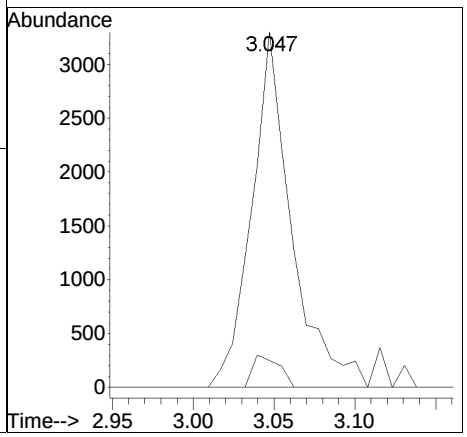


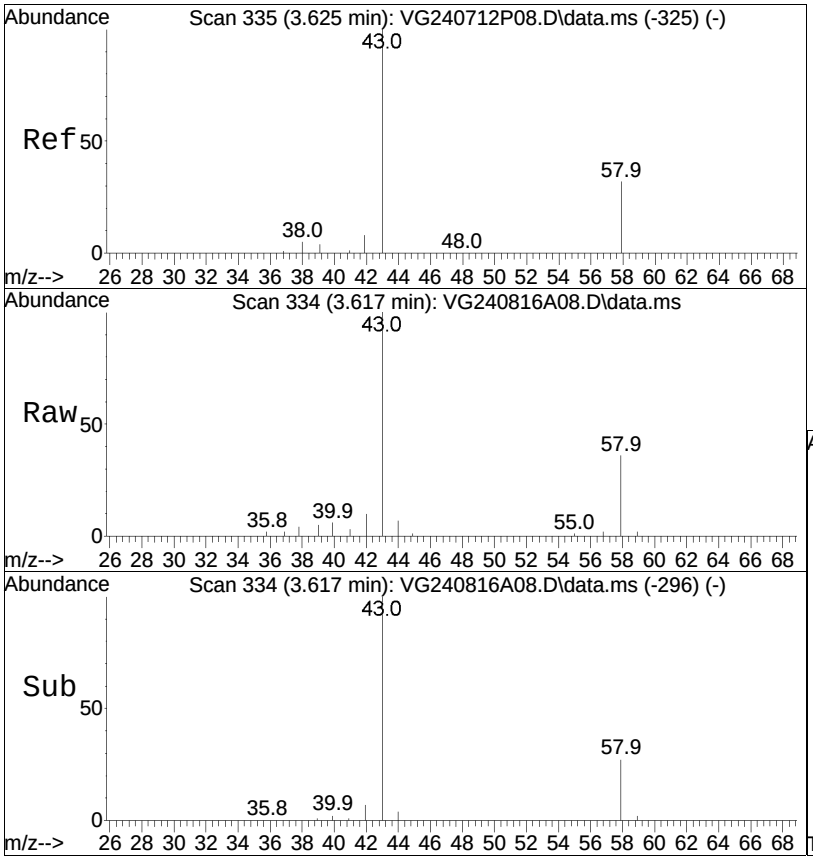


#11
Carbon disulfide
Concen: 0.28 ug/L
RT: 3.047 min Scan# 259
Delta R.T. 0.000 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 76 Resp: 5674

Ion	Ratio	Lower	Upper
76	100		
78	6.0	6.6	13.6#

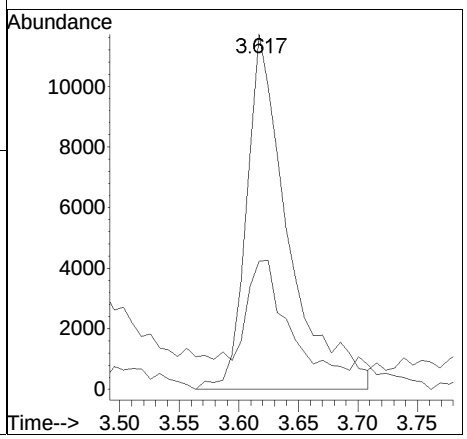


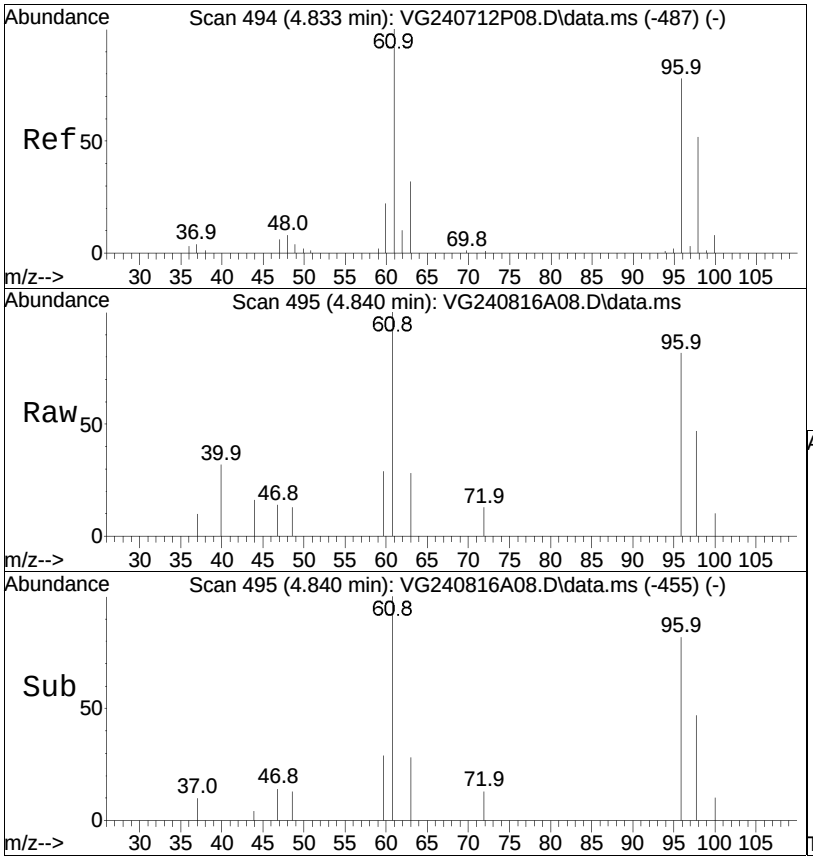


#17
Acetone
Concen: 15.29 ug/L
RT: 3.617 min Scan# 334
Delta R.T. -0.008 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 43 Resp: 28699

Ion	Ratio	Lower	Upper
43	100		
58	0.0	22.2	33.4#

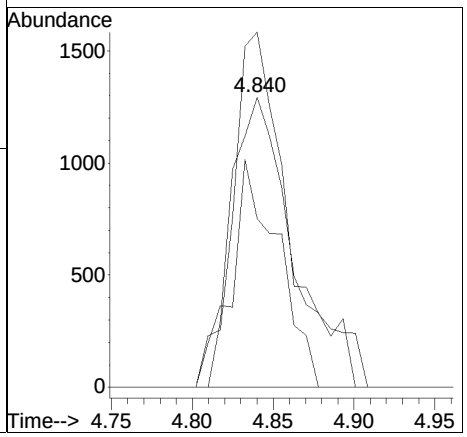


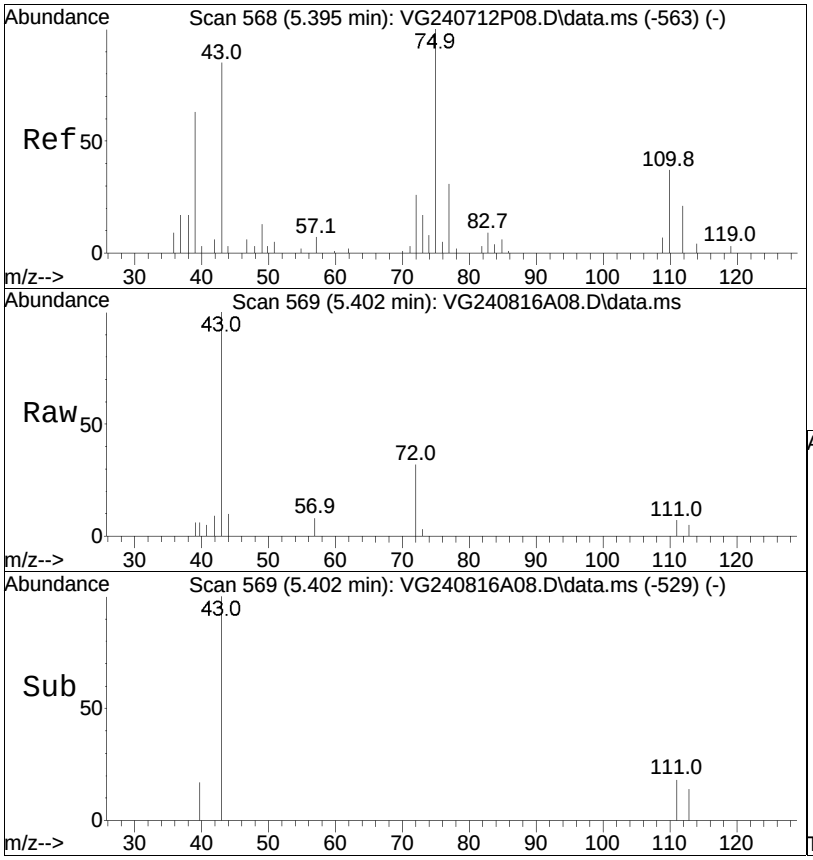


#28
cis-1,2-Dichloroethene
Concen: 0.39 ug/L
RT: 4.840 min Scan# 495
Delta R.T. 0.007 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 96 Resp: 3382

Ion	Ratio	Lower	Upper
96	100		
61	115.5	96.6	144.8
98	61.5	51.3	76.9

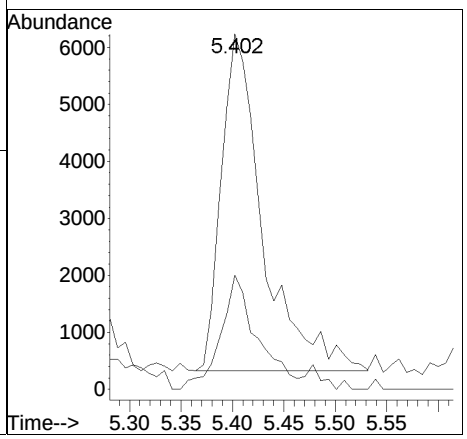


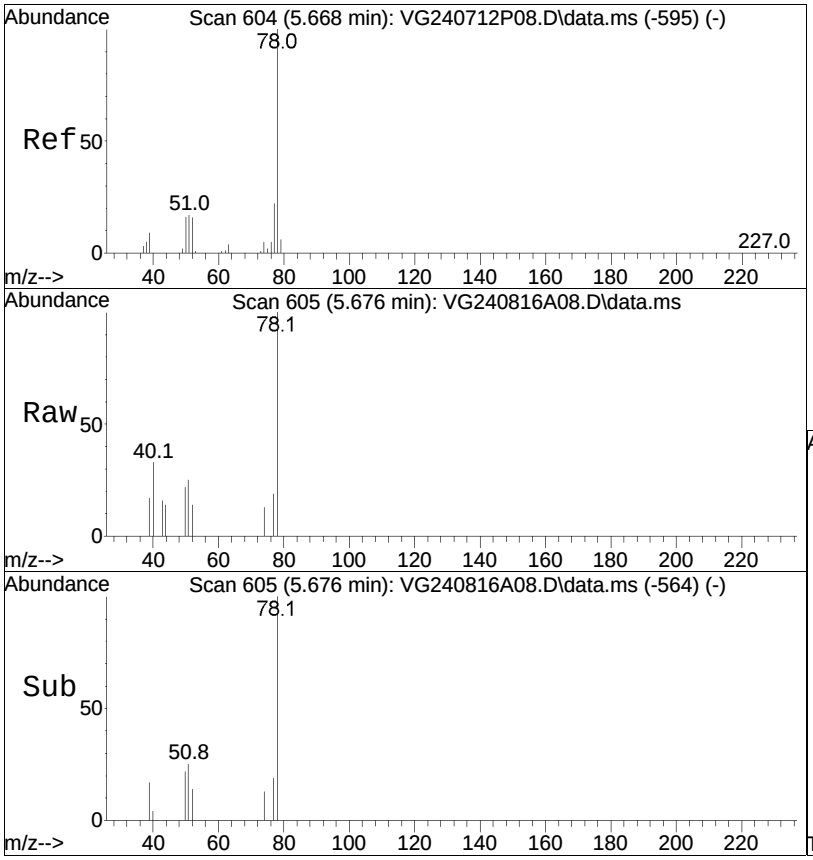


#39
2-Butanone
Concen: 6.26 ug/L
RT: 5.402 min Scan# 569
Delta R.T. 0.007 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 43 Resp: 16665

Ion	Ratio	Lower	Upper
43	100		
72	30.1	42.6	63.8#

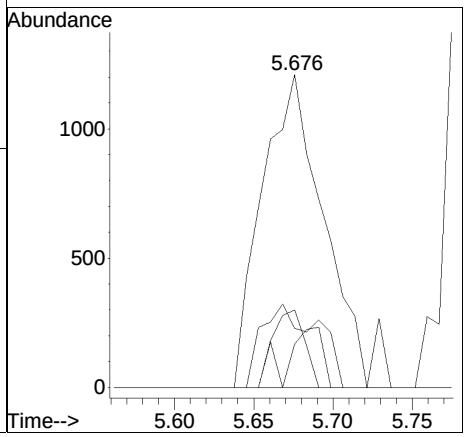


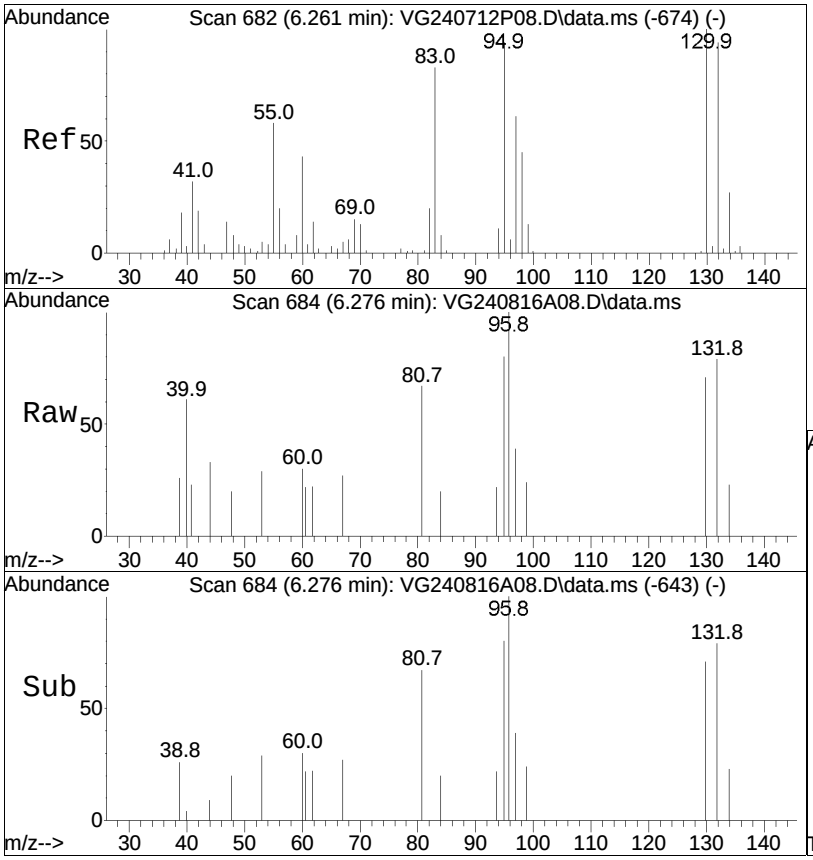


#41
Benzene
Concen: 0.10 ug/L M6
RT: 5.676 min Scan# 605
Delta R.T. 0.008 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 78 Resp: 3243

Ion	Ratio	Lower	Upper
78	100		
77	24.2	15.5	32.1
51	0.0	9.9	20.7#
52	11.3	9.2	19.2

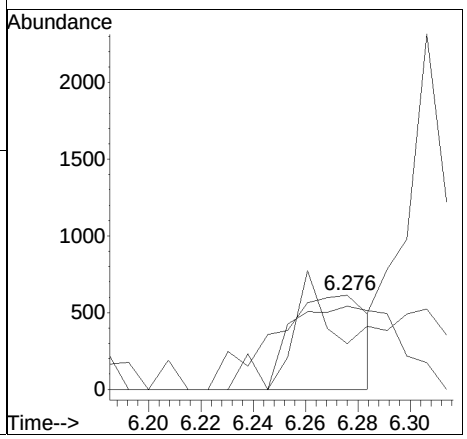


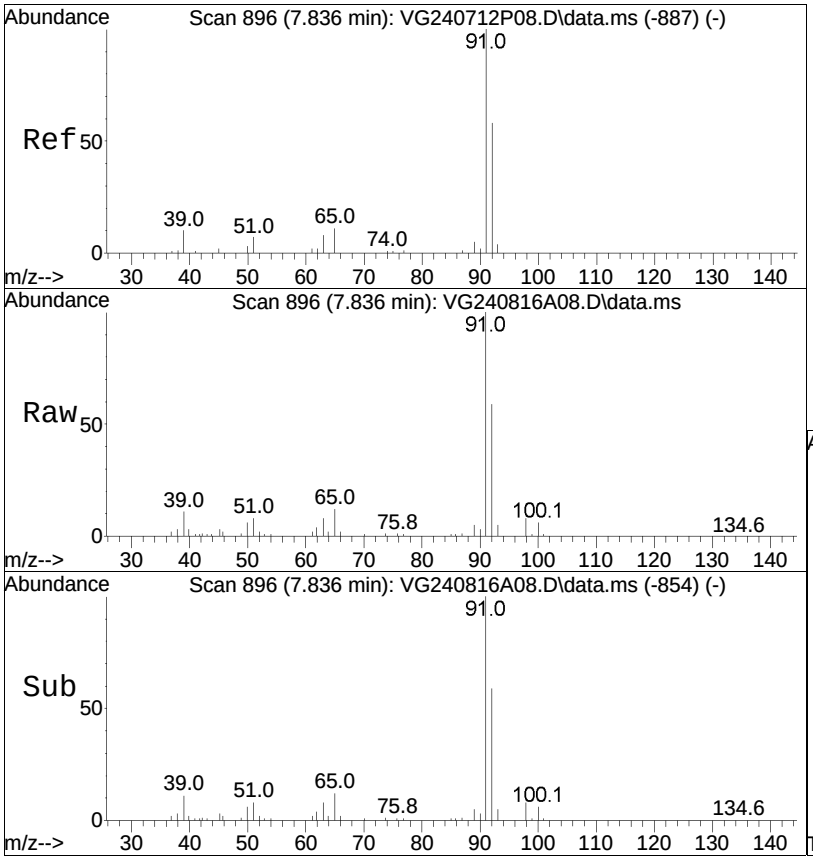


#48
Trichloroethene
Concen: 0.18 ug/L M3
RT: 6.276 min Scan# 684
Delta R.T. 0.015 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 95 Resp: 1556

Ion	Ratio	Lower	Upper
95	100		
97	84.6	54.0	81.0#
130	0.0	85.0	127.4#

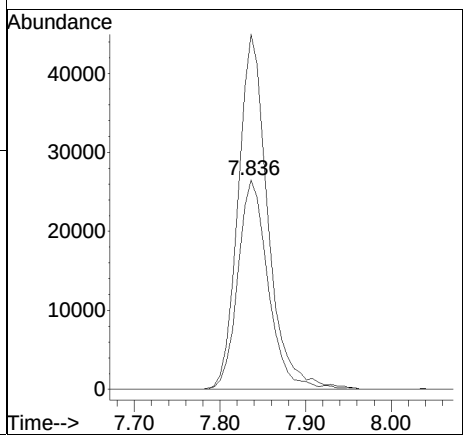


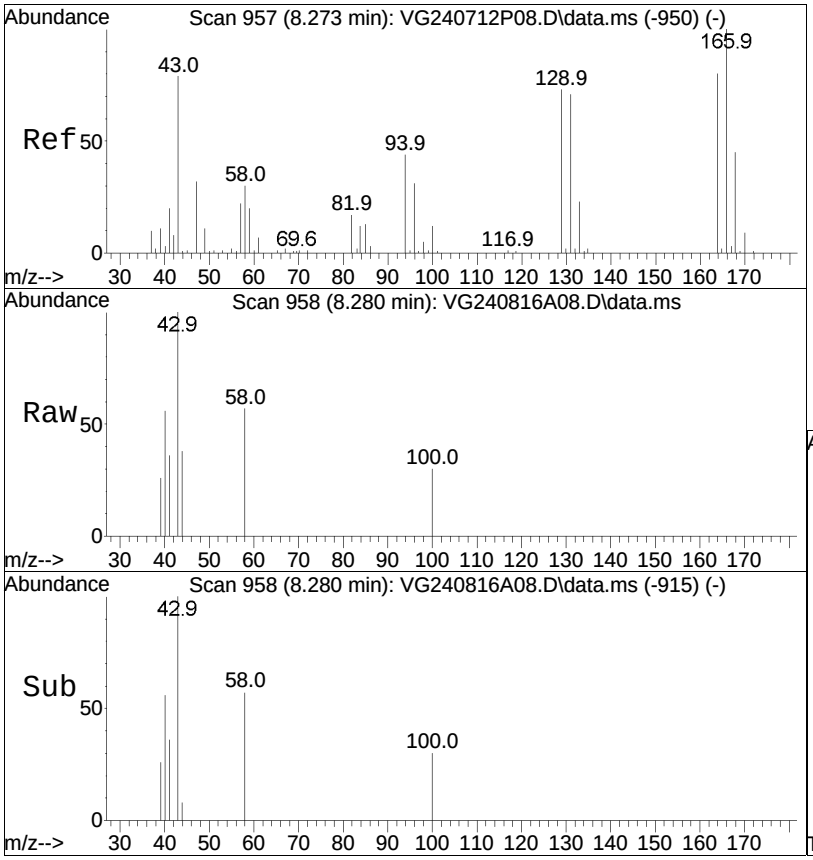


#61
Toluene
Concen: 3.13 ug/L
RT: 7.836 min Scan# 896
Delta R.T. 0.000 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 92 Resp: 65573

Ion	Ratio	Lower	Upper
92	100		
91	165.2	134.8	202.2

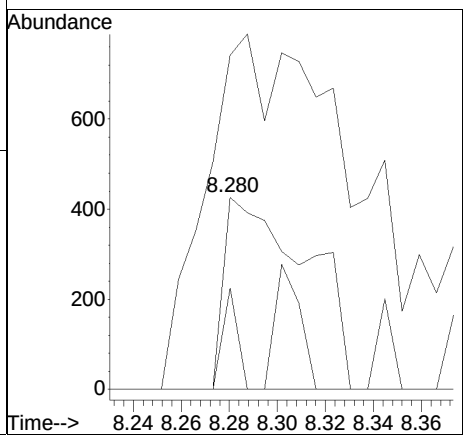


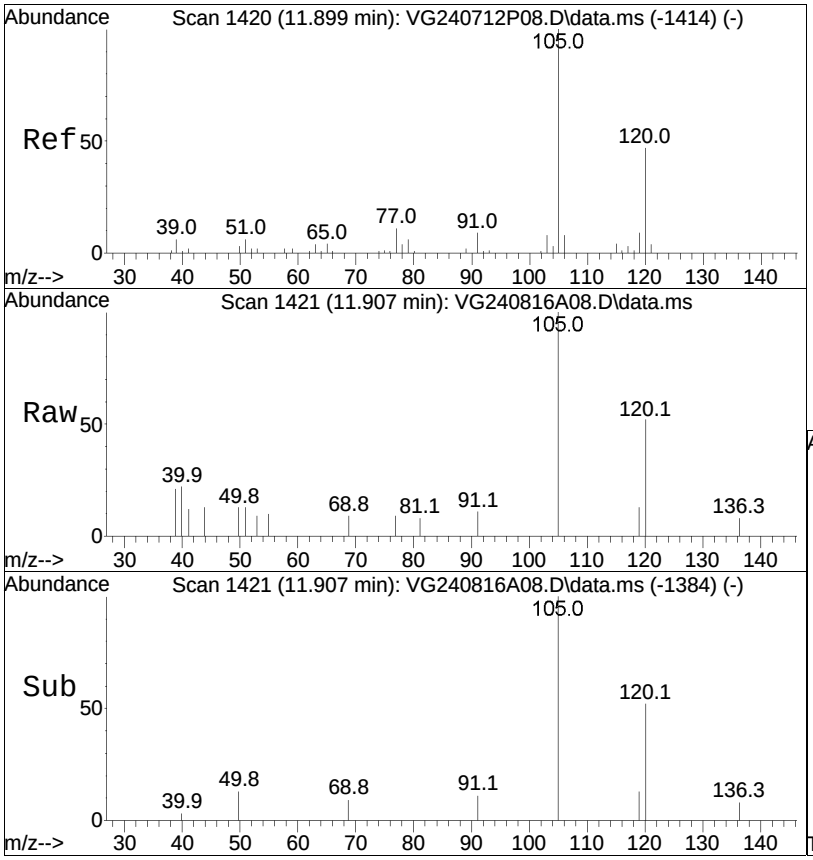


#62
4-Methyl-2-pentanone
Concen: 0.44 ug/L
RT: 8.280 min Scan# 958
Delta R.T. 0.007 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion: 58 Resp: 1021

Ion	Ratio	Lower	Upper
58	100		
100	9.5	33.6	50.4#
43	135.9	204.3	306.5#

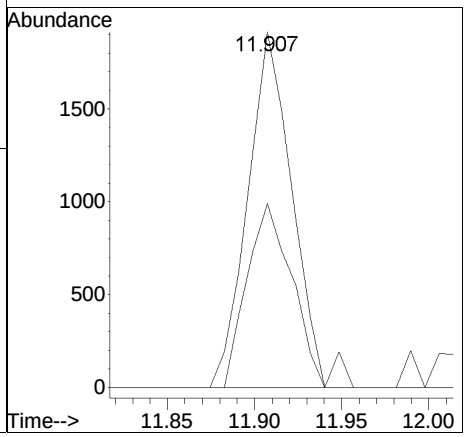


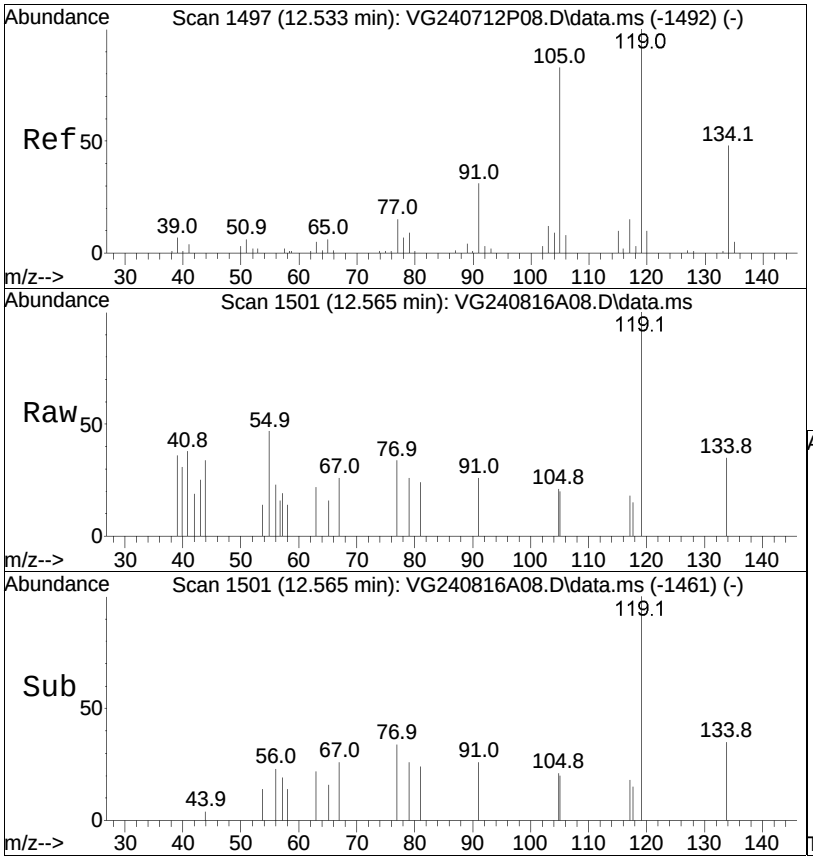


#97
1,2,4-Trimethylbenzene
Concen: 0.11 ug/L
RT: 11.907 min Scan# 1421
Delta R.T. 0.008 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion:105 Resp: 3438

Ion	Ratio	Lower	Upper
105	100		
120	51.5	37.8	56.6

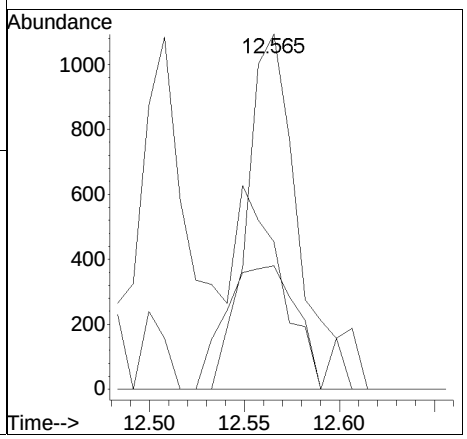


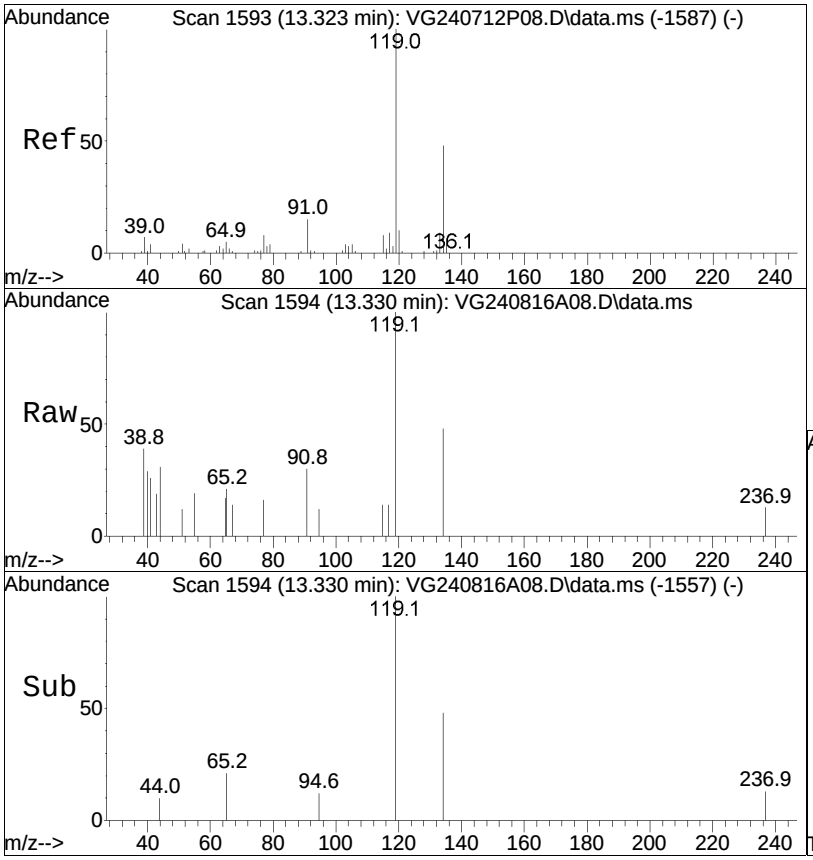


#102
p-Diethylbenzene
Concen: 0.11 ug/L
RT: 12.565 min Scan# 1501
Delta R.T. 0.032 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion:119 Resp: 2009

Ion	Ratio	Lower	Upper
119	100		
105	49.1	53.9	112.1#
134	49.2	32.0	66.6

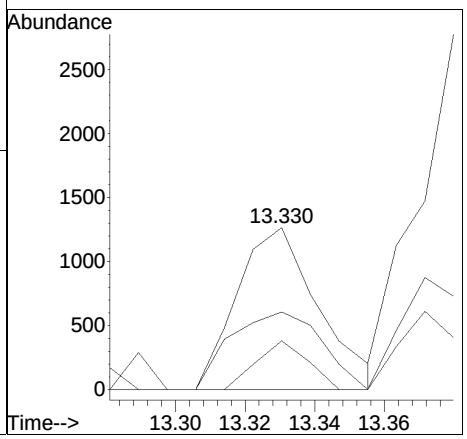


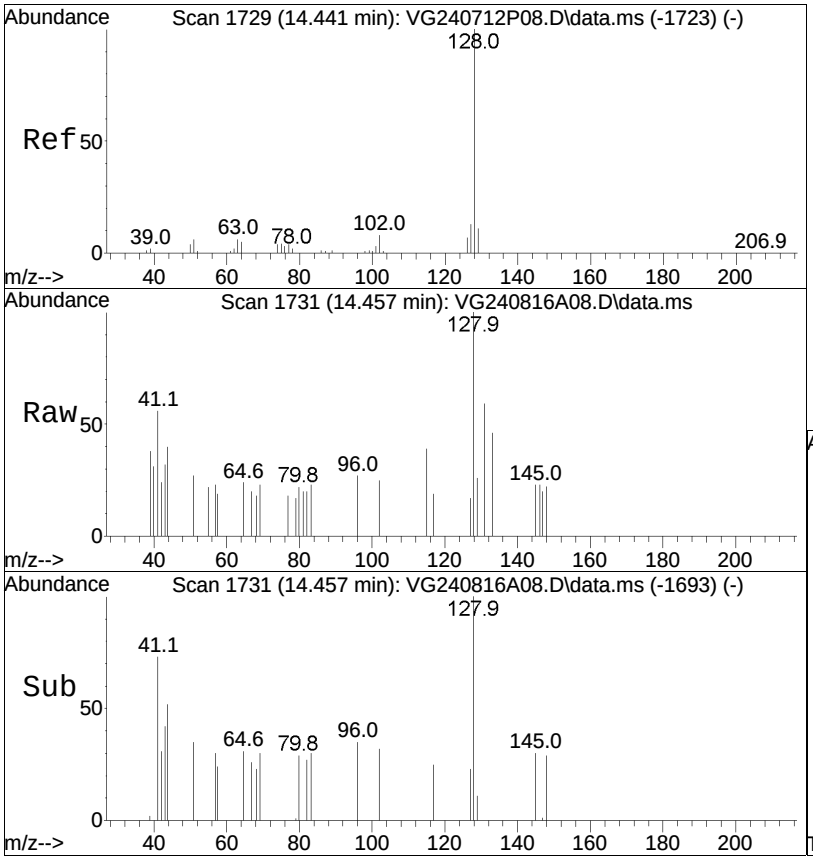


#105
1,2,4,5-Tetramethylbenzene
Concen: 0.07 ug/L
RT: 13.330 min Scan# 1594
Delta R.T. 0.007 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

Tgt Ion:119 Resp: 2057

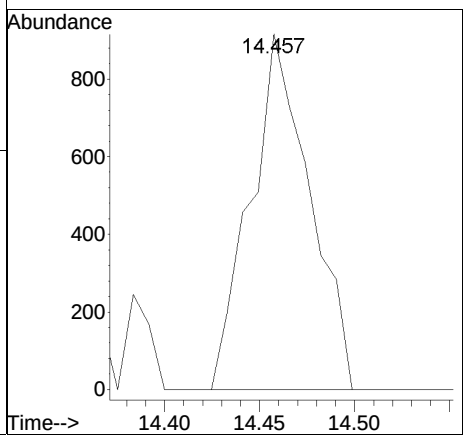
Ion	Ratio	Lower	Upper
119	100		
134	53.3	32.7	67.9
91	18.9	9.9	20.7





#110
Naphthalene
Concen: 0.09 ug/L
RT: 14.457 min Scan# 1731
Delta R.T. 0.016 min
Lab File: VG240816A08.D
Acq: 16 Aug 2024 9:35 am

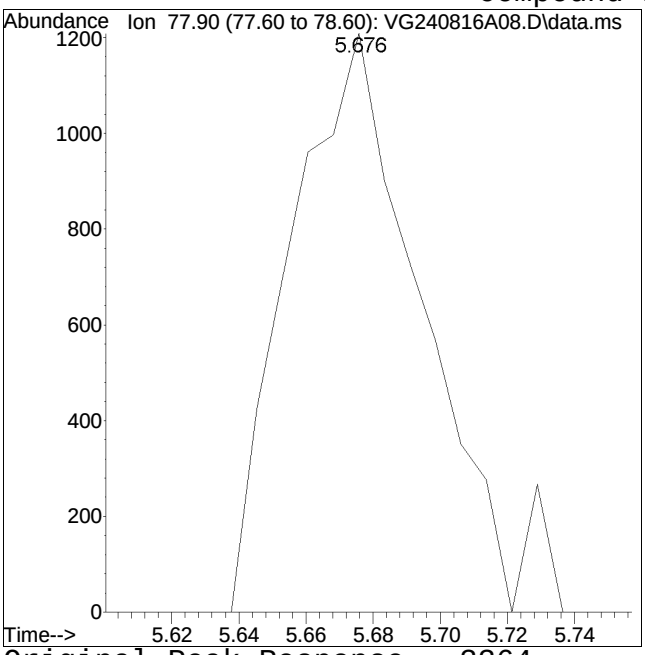
Tgt Ion:128 Resp: 1985



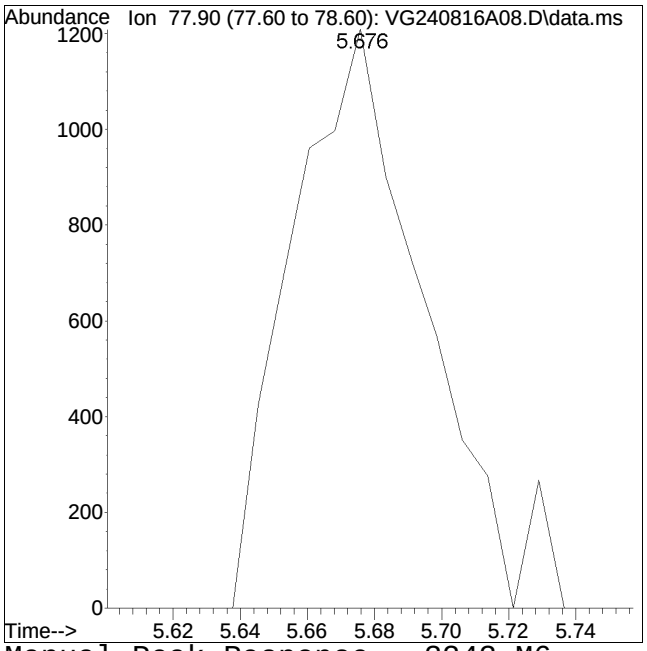
Manual Integration Report

Data Path : K:\Gonzo\2024\240816A\ QMethod : G_240712P_8260.m
Data File : VG240816A08.D Operator : GONZO:PID
Date Inj'd : 8/16/2024 9:35 am Instrument : Gonzo
Sample : l2446555-03,31,10,10,,a,r1 Quant Date : 8/16/2024 10:45 am

Compound #41: Benzene



Original Peak Response = 3364



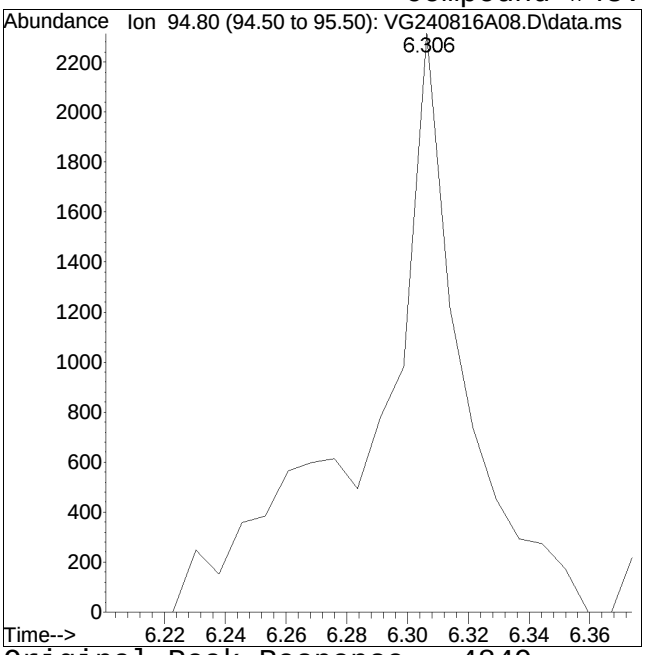
Manual Peak Response = 3243 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

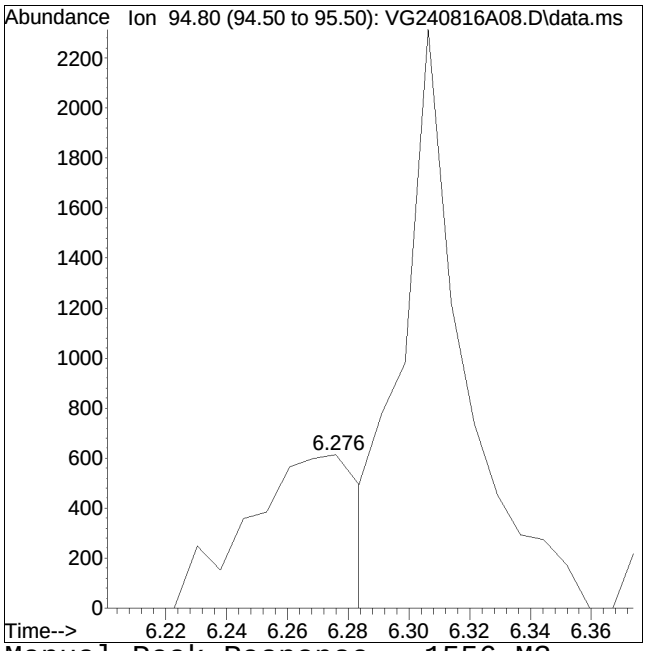
Manual Integration Report

Data Path : K:\Gonzo\2024\240816A\ QMethod : G_240712P_8260.m
Data File : VG240816A08.D Operator : GONZO:PID
Date Inj'd : 8/16/2024 9:35 am Instrument : Gonzo
Sample : l2446555-03,31,10,10,,a,r1 Quant Date : 8/16/2024 10:45 am

Compound #48: Trichloroethene



Original Peak Response = 4849



Manual Peak Response = 1556 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446555**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21287**
Calibration dates	**: 07/12/24 21:20 07/13/24 00:56**		

Calibration Files

L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D

L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.203	0.284	0.294	0.290	0.281	0.234	0.273	0.265	12.90
3)	TP	Chloromethane		0.237	0.243	0.227	0.229	0.227	0.190	0.236	0.227	7.62
4)	TP	Vinyl chloride	0.191	0.177	0.268	0.263	0.256	0.251	0.211	0.266	0.235	15.50
5)	TP	Bromomethane		0.089	0.117	0.124	0.130	0.151	0.136		0.125	16.72
6)	TP	Chloroethane		0.165	0.201	0.188	0.190	0.192	0.160	0.163	0.180	9.11
7)	TP	Trichlorofluor		0.246	0.359	0.340	0.382	0.375	0.318	0.394	0.345	14.74
8)	TP	Ethyl ether		0.107	0.125	0.114	0.114	0.117	0.100	0.124	0.115	7.96
10)	TP	1,1-Dichloroet		0.136	0.194	0.200	0.204	0.202	0.172	0.216	0.189	14.31
11)	TP	Carbon disulfide		0.447	0.585	0.573	0.562	0.581	0.503	0.644	0.556	11.38
12)	TP	Freon-113		0.150	0.220	0.215	0.226	0.224	0.188	0.228	0.208	13.82
13)	TP	Iodomethane			0.298	0.350	0.383	0.407	0.333	0.421	0.365	12.81
14)	TP	Acrolein		0.034	0.029	0.034	0.032	0.034	0.029	0.036	0.033	8.15
15)	TP	Methylene chlo		0.251	0.229	0.224	0.219	0.223	0.186	0.233	0.224	8.80
17)	TP	Acetone			0.075	0.048	0.051	0.050	0.042	0.052	*L	0.9901
18)	TP	trans-1,2-Dich		0.159	0.222	0.218	0.215	0.219	0.182	0.233	0.207	12.68
19)	TP	Methyl acetate			0.154	0.111	0.107	0.110	0.092	0.115	0.115	17.92
20)	TP	Methyl tert butyl ether		0.590	0.643	0.631	0.652	0.672	0.559	0.708	0.636	7.82
21)	TP	tert-Butyl alc		0.016	0.017	0.017	0.018	0.019	0.016	0.020	0.018	8.32
22)	TP	Diisopropyl ether		0.541	0.639	0.669	0.682	0.702	0.582	0.734	0.650	10.50
23)	TP	1,1-Dichloroet		0.306	0.400	0.395	0.386	0.395	0.331	0.410	0.375	10.68
24)	TP	Halothane		0.143	0.173	0.180	0.180	0.182	0.153	0.192	0.172	10.04
25)	TP	Acrylonitrile			0.052	0.058	0.059	0.063	0.053	0.067	0.058	10.02
26)	TP	Ethyl tert-but		0.551	0.632	0.643	0.664	0.687	0.570	0.728	0.639	9.79
27)	TP	Vinyl acetate		0.286	0.333	0.370	0.382	0.372	0.337	0.351	0.347	9.47
28)	TP	cis-1,2-Dichlo		0.198	0.259	0.245	0.246	0.248	0.208	0.263	0.238	10.52
29)	TP	2,2-Dichloropr		0.292	0.331	0.321	0.320	0.324	0.267	0.333	0.313	7.81
30)	TP	Bromochloromet		0.110	0.121	0.121	0.119	0.121	0.100	0.123	0.116	7.32
31)	TP	Cyclohexane		0.258	0.366	0.374	0.400	0.384	0.321	0.385	0.356	13.97
32)	TP	Chloroform		0.339	0.386	0.407	0.392	0.405	0.331	0.426	0.384	9.27
33)	TP	Ethyl acetate			0.167	0.162	0.175	0.179	0.150	0.186	0.170	7.75
34)	TP	Carbon tetrachloride	0.226	0.257	0.327	0.345	0.346	0.343	0.287	0.356	0.311	15.54
35)	TP	Tetrahydrofuran			0.061	0.059	0.056	0.055	0.046	0.057	0.056	9.03
36)	S	Dibromofluoromethane	0.266	0.264	0.262	0.260	0.260	0.258	0.259	0.263	0.261	1.02
37)	TP	1,1,1-Trichlor		0.286	0.360	0.374	0.377	0.377	0.314	0.390	0.354	10.89
39)	TP	2-Butanone			0.055	0.072	0.076	0.080	0.067	0.084	0.073	14.30

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446555**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21287**
Calibration dates	**: 07/12/24 21:20 07/13/24 00:56**		

Calibration Files

L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D

L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40) TP	1,1-Dichloropr		0.207	0.287	0.297	0.312	0.305	0.256	0.317	0.283	13.83
41) TP	Benzene	0.745	0.717	0.890	0.923	0.917	0.917	0.768	0.976	0.857	11.42
42) TP	Tertiary-Amyl Methyl Ether		0.544	0.559	0.586	0.605	0.621	0.519	0.662	0.585	8.39
43) S	1,2-Dichloroethane-d4	0.288	0.279	0.281	0.289	0.268	0.272	0.264	0.278	0.277	3.23
44) TP	1,2-Dichloroet		0.270	0.289	0.274	0.278	0.279	0.231	0.290	0.273	7.30
47) TP	Methyl cyclohe		0.234	0.330	0.364	0.384	0.364	0.301	0.353	0.333	15.41
48) TP	Trichloroethene	0.246	0.210	0.248	0.249	0.253	0.250	0.207	0.270	0.242	9.05
50) TP	Dibromomethane		0.135	0.140	0.139	0.136	0.137	0.114	0.144	0.135	7.28
51) TP	1,2-Dichloropr		0.171	0.219	0.220	0.219	0.221	0.183	0.231	0.209	10.76
53) TP	2-Chloroethyl		0.109	0.117	0.122	0.135	0.140	0.117	0.146	0.126	10.96
54) TP	Bromodichlorom		0.278	0.312	0.313	0.314	0.321	0.264	0.334	0.305	8.10
57) TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.92
58) TP	cis-1,3-Dichlo		0.308	0.338	0.350	0.350	0.359	0.301	0.383	0.341	8.39
59) I	Chlorobenzene-d5	----------ISTD----------									
60) S	Toluene-d8	1.258	1.266	1.270	1.267	1.248	1.246	1.258	1.232	1.255	1.03
61) TP	Toluene		0.628	0.724	0.733	0.716	0.720	0.606	0.738	0.695	7.82
62) TP	4-Methyl-2-pen		0.061	0.077	0.079	0.081	0.083	0.070	0.086	0.077	11.14
63) TP	Tetrachloroethene		0.238	0.323	0.326	0.324	0.321	0.274	0.329	0.305	11.51
65) TP	trans-1,3-Dich		0.347	0.369	0.394	0.389	0.403	0.341	0.421	0.380	7.79
67) TP	Ethyl methacry		0.299	0.305	0.320	0.331	0.340	0.287	0.358	0.320	7.77
68) TP	1,1,2-Trichlor		0.191	0.188	0.193	0.193	0.198	0.166	0.207	0.191#	6.61
69) TP	Chlorodibromom		0.263	0.303	0.312	0.311	0.320	0.270	0.331	0.302	8.47
70) TP	1,3-Dichloropr		0.367	0.389	0.397	0.386	0.392	0.327	0.403	0.380	6.83
71) TP	1,2-Dibromoethane		0.241	0.246	0.245	0.242	0.250	0.211	0.257	0.242	6.11
72) TP	2-Hexanone		0.159	0.134	0.135	0.148	0.145	0.123	0.151	0.142	8.54
73) TP	Chlorobenzene		0.704	0.802	0.813	0.790	0.801	0.673	0.839	0.775	7.92
74) TP	Ethylbenzene		1.116	1.365	1.404	1.372	1.389	1.178	1.465	1.327	9.70
75) TP	1,1,1,2-Tetrac		0.230	0.294	0.301	0.303	0.310	0.258	0.321	0.288	11.16
76) TP	p/m Xylene		0.438	0.518	0.557	0.544	0.554	0.468	0.593	0.525	10.39
77) TP	o Xylene		0.426	0.524	0.538	0.525	0.530	0.446	0.567	0.508	10.15
78) TP	Styrene		0.686	0.836	0.902	0.891	0.920	0.779	1.014	0.861	12.32
79) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80) TP	Bromoform		0.330	0.332	0.345	0.368	0.372	0.325	0.408	0.354	8.43
82) TP	Isopropylbenzene		1.696	2.246	2.377	2.403	2.343	2.056	2.540	2.237	12.60
83) S	4-Bromofluorobenzene	0.840	0.858	0.860	0.809	0.839	0.814	0.843	0.820	0.835	2.31
84) TP	Bromobenzene		0.578	0.641	0.639	0.638	0.629	0.541	0.664	0.619	6.94

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446555**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21287**
Calibration dates	**: 07/12/24 21:20 07/13/24 00:56**		

Calibration Files

L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D

L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
85)	TP n-Propylbenzene		2.100	2.663	2.727	2.750	2.704	2.365	2.933	2.606	10.73
86)	TP 1,4-Dichlorobu		0.723	0.770	0.719	0.709	0.709	0.618	0.776	0.718	7.24
87)	TP 1,1,2,2-Tetrac		0.515	0.495	0.493	0.507	0.497	0.443	0.530	0.497	5.44
88)	TP 4-Ethyltoluene		1.755	2.192	2.303	2.301	2.260	1.982	2.456	2.179	10.80
89)	TP 2-Chlorotoluene		1.433	1.674	1.648	1.628	1.612	1.414	1.779	1.598	8.22
90)	TP 1,3,5-Trimethy		1.589	1.978	2.035	2.015	1.977	1.723	2.181	1.929	10.48
91)	TP 1,2,3-Trichlor		0.421	0.448	0.417	0.408	0.407	0.357	0.452	0.416	7.60
92)	TP trans-1,4-Dich		0.098	0.090	0.103	0.115	0.127	0.115	0.149	0.114	17.34
93)	TP 4-Chlorotoluene		1.409	1.669	1.738	1.694	1.690	1.470	1.847	1.645	9.31
94)	TP tert-Butylbenzene		1.193	1.577	1.675	1.680	1.631	1.411	1.743	1.559	12.38
97)	TP 1,2,4-Trimethy		1.561	1.932	2.022	1.989	1.960	1.715	2.121	1.900	10.20
98)	TP sec-Butylbenzene		1.744	2.245	2.376	2.373	2.310	2.014	2.458	2.217	11.38
99)	TP p-Isopropyltol		1.451	1.944	2.048	2.063	2.024	1.761	2.183	1.925	12.77
100)	TP 1,3-Dichlorobe		1.005	1.162	1.195	1.185	1.157	1.006	1.245	1.136	8.27
101)	TP 1,4-Dichlorobe		1.065	1.241	1.216	1.201	1.179	1.026	1.266	1.170	7.75
102)	TP p-Diethylbenzene		0.812	1.117	1.183	1.187	1.167	1.010	1.264	1.106	13.67
103)	TP n-Butylbenzene		1.116	1.529	1.621	1.628	1.599	1.409	1.752	1.522	13.62
104)	TP 1,2-Dichlorobe		0.974	1.109	1.132	1.129	1.108	0.955	1.181	1.084	7.87
105)	TP 1,2,4,5-Tetram		1.330	1.611	1.676	1.726	1.759	1.528	1.955	1.655	11.84
106)	TP 1,2-Dibromo-3-		0.092	0.087	0.087	0.096	0.095	0.085	0.105	0.092	7.58
107)	TP 1,3,5-Trichlor		0.606	0.711	0.737	0.758	0.750	0.652	0.781	0.713	8.82
108)	TP Hexachlorobuta		0.149	0.190	0.199	0.217	0.218	0.192	0.234	0.200	13.72
109)	TP 1,2,4-Trichlor		0.533	0.582	0.619	0.666	0.668	0.576	0.682	0.618	9.16
110)	TP Naphthalene		1.390	1.296	1.316	1.427	1.441	1.281	1.558	1.387	7.11
111)	TP 1,2,3-Trichlor		0.469	0.501	0.514	0.539	0.546	0.477	0.550	0.514	6.42

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446555**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D

L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.138	0.246	0.220	0.243	0.243	0.244	0.235	0.224	17.36
3)	TP	Chloromethane		0.199	0.251	0.263	0.261	0.259	0.260	0.256	0.250	9.09
4)	TP	Vinyl chloride	0.163	0.159	0.248	0.243	0.263	0.260	0.265	0.260	0.233	19.30
5)	TP	Bromomethane		0.043	0.054	0.058	0.067	0.084	0.095	0.102	*Q	0.9983
6)	TP	Chloroethane		0.109	0.166	0.154	0.151	0.153	0.144	0.107	0.140	16.43
7)	TP	Trichlorofluor		0.189	0.262	0.254	0.291	0.294	0.295	0.287	0.267	14.21
8)	TP	Ethyl ether		0.098	0.094	0.106	0.111	0.111	0.108	0.108	0.105	6.41
10)	TP	1,1-Dichloroet		0.128	0.165	0.154	0.168	0.170	0.170	0.165	0.160	9.41
11)	TP	Carbon disulfide		0.423	0.489	0.504	0.523	0.517	0.512	0.493	0.494	6.86
12)	TP	Freon-113		0.120	0.172	0.163	0.178	0.178	0.183	0.175	0.167	13.06
13)	TP	Iodomethane			0.056	0.087	0.130	0.163	0.172	0.180	*Q	0.9978
14)	TP	Acrolein		0.042	0.047	0.044	0.045	0.045	0.046	0.048	0.045	4.40
15)	TP	Methylene chlo		0.219	0.207	0.204	0.201	0.197	0.195	0.191	0.202	4.65
17)	TP	Acetone			0.094	0.071	0.077	0.071	0.065	0.063	0.073	15.12
18)	TP	trans-1,2-Dich		0.134	0.173	0.177	0.180	0.183	0.181	0.176	0.172	9.89
19)	TP	Methyl acetate		0.231	0.183	0.165	0.161	0.156	0.153	0.149	0.171	16.75
21)	TP	Methyl tert butyl ether		0.595	0.630	0.676	0.661	0.657	0.646	0.629	0.642	4.16
22)	TP	tert-Butyl alc		0.021	0.023	0.024	0.024	0.023	0.023	0.023	0.023	4.09
24)	TP	Diisopropyl ether		0.797	0.878	0.965	0.985	0.960	0.936	0.916	0.920	7.03
25)	TP	1,1-Dichloroet		0.339	0.407	0.424	0.424	0.420	0.409	0.405	0.404	7.39
26)	TP	Halothane		0.117	0.137	0.142	0.147	0.145	0.143	0.141	0.139	7.40
27)	TP	Acrylonitrile		0.076	0.081	0.088	0.089	0.087	0.086	0.084	0.084	5.26
28)	TP	Ethyl tert-but		0.694	0.779	0.838	0.837	0.826	0.811	0.800	0.798	6.32
29)	TP	Vinyl acetate		0.679	0.649	0.556	0.550	0.513	0.670	0.667	0.612	11.34
30)	TP	cis-1,2-Dichlo		0.183	0.211	0.211	0.208	0.214	0.211	0.205	0.206	5.19
31)	TP	2,2-Dichloropr		0.240	0.279	0.270	0.284	0.278	0.279	0.263	0.270	5.58
33)	TP	Bromochloromet		0.089	0.091	0.096	0.096	0.091	0.086	0.085	0.091#	4.89
34)	TP	Cyclohexane		0.384	0.496	0.452	0.498	0.498	0.499	0.484	0.473	8.98
35)	TP	Chloroform		0.303	0.352	0.346	0.336	0.339	0.333	0.335	0.335	4.66
36)	TP	Ethyl acetate		0.314	0.226	0.262	0.255	0.249	0.243	0.242	0.256	11.00
37)	TP	Carbon tetrachloride	0.229	0.188	0.270	0.260	0.275	0.275	0.279	0.271	0.256	12.38
38)	TP	Tetrahydrofuran		0.087	0.083	0.081	0.080	0.078	0.074	0.073	0.079	5.85
39)	S	Dibromofluoromethane	0.242	0.242	0.240	0.238	0.232	0.231	0.224	0.223	0.234	3.26
40)	TP	1,1,1-Trichlor		0.265	0.301	0.310	0.316	0.315	0.315	0.308	0.304	5.96
42)	TP	2-Butanone			0.118	0.104	0.105	0.104	0.100	0.099	0.105	6.40

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446555**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D

L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
43) TP	1,1-Dichloropr		0.193	0.259	0.260	0.270	0.271	0.271	0.268	0.256	11.09
45) TP	Benzene	0.719	0.654	0.814	0.838	0.839	0.835	0.825	0.813	0.792	8.59
46) TP	Tertiary-Amyl Methyl Ether		0.549	0.579	0.619	0.622	0.611	0.607	0.598	0.598	4.33
47) S	1,2-Dichloroethane-d4	0.326	0.322	0.322	0.316	0.305	0.309	0.298	0.302	0.312	3.33
48) T	1,2-Dichloroet		0.295	0.300	0.320	0.314	0.310	0.303	0.299	0.306	2.93
51) TP	Methyl cyclohe		0.281	0.360	0.333	0.364	0.386	0.390	0.377	0.356	10.67
52) TP	Trichloroethene	0.193	0.161	0.200	0.210	0.217	0.216	0.201	0.195	0.199#	8.96
54) TP	Dibromomethane		0.096	0.116	0.120	0.119	0.118	0.116	0.117	0.115	7.18
55) TP	1,2-Dichloropr		0.215	0.233	0.249	0.248	0.246	0.242	0.239	0.239	5.05
57) TP	2-Chloroethyl		0.127	0.145	0.157	0.163	0.167	0.160	0.158	0.154	8.95
58) TP	Bromodichlorom		0.250	0.293	0.294	0.289	0.290	0.286	0.282	0.283#	5.40
61) TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	1.58
62) TP	cis-1,3-Dichloropropene	0.241	0.293	0.316	0.341	0.345	0.345	0.339	0.334	0.319	11.31
63) I	Chlorobenzene-d5	----------ISTD----------									
64) S	Toluene-d8	1.316	1.311	1.306	1.323	1.314	1.308	1.321	1.339	1.317	0.79
65) TP	Toluene		0.596	0.701	0.712	0.711	0.697	0.702	0.700	0.689	5.96
66) TP	4-Methyl-2-pen		0.096	0.114	0.124	0.124	0.122	0.121	0.120	0.117	8.43
67) TP	Tetrachloroethene		0.219	0.288	0.302	0.312	0.308	0.313	0.307	0.293	11.47
69) TP	trans-1,3-Dichloropropene	0.319	0.359	0.375	0.414	0.420	0.408	0.405	0.402	0.388	8.92
71) TP	Ethyl methacry		0.356	0.363	0.387	0.378	0.367	0.368	0.365	0.369	2.79
72) TP	1,1,2-Trichlor		0.183	0.190	0.204	0.201	0.193	0.192	0.190	0.193#	3.69
73) TP	Chlorodibromom		0.230	0.258	0.281	0.283	0.277	0.281	0.281	0.270	7.23
74) TP	1,3-Dichloropr		0.369	0.398	0.430	0.429	0.412	0.410	0.409	0.408	5.11
75) TP	1,2-Dibromoethane		0.216	0.223	0.237	0.236	0.229	0.228	0.230	0.228	3.24
77) TP	2-Hexanone		0.238	0.227	0.234	0.233	0.225	0.221	0.222	0.229	2.91
78) TP	Chlorobenzene		0.673	0.728	0.767	0.755	0.737	0.742	0.734	0.734	4.10
79) TP	Ethylbenzene		1.142	1.358	1.408	1.393	1.353	1.359	1.329	1.335	6.66
80) TP	1,1,1,2-Tetrac		0.215	0.270	0.287	0.286	0.276	0.276	0.273	0.269	9.12
81) TP	p/m Xylene		0.447	0.521	0.548	0.535	0.510	0.508	0.492	0.509	6.43
82) TP	o Xylene		0.454	0.508	0.533	0.516	0.497	0.495	0.479	0.497	5.16
83) TP	Styrene		0.718	0.838	0.886	0.858	0.817	0.812	0.779	0.816	6.74
84) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85) TP	Bromoform		0.284	0.320	0.331	0.334	0.334	0.338	0.337	0.325	5.92
87) TP	Isopropylbenzene		1.911	2.394	2.445	2.472	2.475	2.556	2.509	2.395	9.15
88) S	4-Bromofluorobenzene	0.912	0.926	0.900	0.927	0.899	0.923	0.942	0.959	0.924	2.20
89) TP	Bromobenzene		0.539	0.594	0.625	0.612	0.613	0.627	0.622	0.605	5.15

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446555**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D

L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP	n-Propylbenzene		2.463	2.827	2.941	2.951	2.948	3.011	2.888	2.861	6.45
91) TP	1,4-Dichlorobu		1.076	1.063	1.068	1.046	1.022	1.031	1.015	1.046	2.29
92) TP	1,1,2,2-Tetrac		0.512	0.521	0.493	0.487	0.485	0.530	0.529	0.508	3.87
93) TP	4-Ethyltoluene		1.935	2.296	2.424	2.400	2.399	2.443	2.350	2.321	7.63
94) TP	2-Chlorotoluene		1.451	1.722	1.764	1.719	1.699	1.724	1.705	1.683	6.21
95) TP	1,3,5-Trimethy		1.733	2.008	2.145	2.110	2.089	2.133	2.036	2.036	7.01
96) TP	1,2,3-Trichlor		0.395	0.420	0.431	0.422	0.414	0.414	0.407	0.415	2.78
97) TP	trans-1,4-Dich		0.185	0.197	0.203	0.201	0.207	0.213	0.219	0.204	5.51
98) TP	4-Chlorotoluene		1.530	1.763	1.829	1.796	1.785	1.839	1.801	1.763	6.02
99) TP	tert-Butylbenzene		1.412	1.689	1.769	1.762	1.779	1.824	1.747	1.712	8.07
102) TP	1,2,4-Trimethy		1.747	1.954	2.131	2.103	2.101	2.135	2.057	2.033	6.91
103) TP	sec-Butylbenzene		2.141	2.500	2.584	2.607	2.644	2.708	2.584	2.538	7.33
104) TP	p-Isopropyltol		1.701	2.077	2.196	2.232	2.258	2.294	2.214	2.139	9.58
105) TP	1,3-Dichlorobe		1.015	1.081	1.169	1.146	1.135	1.148	1.122	1.117	4.72
106) TP	1,4-Dichlorobe		1.009	1.087	1.157	1.145	1.138	1.145	1.131	1.116	4.67
107) TP	p-Diethylbenzene		1.028	1.180	1.302	1.316	1.335	1.335	1.333	1.261	9.25
108) TP	n-Butylbenzene		1.501	1.792	1.868	1.891	1.948	1.955	1.939	1.842	8.74
109) TP	1,2-Dichlorobe		0.978	1.026	1.115	1.108	1.094	1.098	1.099	1.074	4.80
110) TP	1,2,4,5-Tetram		1.737	1.892	2.127	2.116	2.105	2.156	2.192	2.046	8.17
111) TP	1,2-Dibromo-3-		0.049	0.087	0.092	0.094	0.094	0.097	0.102	*L	0.9989
112) TP	1,3,5-Trichlor		0.709	0.775	0.890	0.883	0.879	0.919	0.916	0.853	9.33
113) TP	Hexachlorobuta		0.225	0.275	0.285	0.293	0.293	0.305	0.303	0.283	9.74
114) TP	1,2,4-Trichlor		0.666	0.683	0.789	0.797	0.806	0.839	0.809	0.770	8.71
115) TP	Naphthalene		1.419	1.532	1.695	1.747	1.797	1.858	1.833	1.697	9.67
116) TP	1,2,3-Trichlor		0.578	0.647	0.721	0.728	0.750	0.771	0.757	0.707	9.89

Response Factor Report Gonzo

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------	----------	ISTD	----------	----------	----------	----------	----------		
2)	TP	Dichlorodifluo...		0.203	0.284	0.294	0.290	0.281	0.234	0.273	0.265	12.90
3)	TP	Chloromethane		0.237	0.243	0.227	0.229	0.227	0.190	0.236	0.227	7.62
4)	TP	Vinyl chloride	0.191	0.177	0.268	0.263	0.256	0.251	0.211	0.266	0.235	15.50
5)	TP	Bromomethane		0.089	0.117	0.124	0.130	0.151	0.136		0.125	16.72
6)	TP	Chloroethane		0.165	0.201	0.188	0.190	0.192	0.160	0.163	0.180	9.11
7)	TP	Trichlorofluor...		0.246	0.359	0.340	0.382	0.375	0.318	0.394	0.345	14.74
8)	TP	Ethyl ether		0.107	0.125	0.114	0.114	0.117	0.100	0.124	0.115	7.96
10)	TP	1,1-Dichloroet...		0.136	0.194	0.200	0.204	0.202	0.172	0.216	0.189	14.31
11)	TP	Carbon disulfide		0.447	0.585	0.573	0.562	0.581	0.503	0.644	0.556	11.38
12)	TP	Freon-113		0.150	0.220	0.215	0.226	0.224	0.188	0.228	0.208	13.82
13)	TP	Iodomethane			0.298	0.350	0.383	0.407	0.333	0.421	0.365	12.81
14)	TP	Acrolein		0.034	0.029	0.034	0.032	0.034	0.029	0.036	0.033	8.15
15)	TP	Methylene chlo...		0.251	0.229	0.224	0.219	0.223	0.186	0.233	0.224	8.80
17)	TP	Acetone			0.075	0.048	0.051	0.050	0.042	0.052	*L	0.9901
18)	TP	trans-1,2-Dich...		0.159	0.222	0.218	0.215	0.219	0.182	0.233	0.207	12.68
19)	TP	Methyl acetate			0.154	0.111	0.107	0.110	0.092	0.115	0.115	17.92
20)	TP	Methyl tert-bu...		0.590	0.643	0.631	0.652	0.672	0.559	0.708	0.636	7.82
21)	TP	tert-Butyl alc...		0.016	0.017	0.017	0.018	0.019	0.016	0.020	0.018	8.32
22)	TP	Diisopropyl ether		0.541	0.639	0.669	0.682	0.702	0.582	0.734	0.650	10.50
23)	TP	1,1-Dichloroet...		0.306	0.400	0.395	0.386	0.395	0.331	0.410	0.375	10.68
24)	TP	Halothane		0.143	0.173	0.180	0.180	0.182	0.153	0.192	0.172	10.04
25)	TP	Acrylonitrile			0.052	0.058	0.059	0.063	0.053	0.067	0.058	10.02
26)	TP	Ethyl tert-but...		0.551	0.632	0.643	0.664	0.687	0.570	0.728	0.639	9.79
27)	TP	Vinyl acetate		0.286	0.333	0.370	0.382	0.372	0.337	0.351	0.347	9.47
28)	TP	cis-1,2-Dichlo...		0.198	0.259	0.245	0.246	0.248	0.208	0.263	0.238	10.52
29)	TP	2,2-Dichloropr...		0.292	0.331	0.321	0.320	0.324	0.267	0.333	0.313	7.81
30)	TP	Bromochloromet...		0.110	0.121	0.121	0.119	0.121	0.100	0.123	0.116	7.32
31)	TP	Cyclohexane		0.258	0.366	0.374	0.400	0.384	0.321	0.385	0.356	13.97
32)	TP	Chloroform		0.339	0.386	0.407	0.392	0.405	0.331	0.426	0.384	9.27
33)	TP	Ethyl acetate			0.167	0.162	0.175	0.179	0.150	0.186	0.170	7.75

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
34)	TP	Carbon tetrach...	0.226	0.257	0.327	0.345	0.346	0.343	0.287	0.356	0.311	15.54
35)	TP	Tetrahydrofuran		0.061	0.059	0.056	0.055	0.046	0.057	0.056		9.03
36)	S	Dibromofluorom...	0.266	0.264	0.262	0.260	0.260	0.258	0.259	0.263	0.261	1.02
37)	TP	1,1,1-Trichlor...		0.286	0.360	0.374	0.377	0.377	0.314	0.390	0.354	10.89
39)	TP	2-Butanone			0.055	0.072	0.076	0.080	0.067	0.084	0.073	14.30
40)	TP	1,1-Dichloropr...		0.207	0.287	0.297	0.312	0.305	0.256	0.317	0.283	13.83
41)	TP	Benzene	0.745	0.717	0.890	0.923	0.917	0.917	0.768	0.976	0.857	11.42
42)	TP	tert-Amyl meth...		0.544	0.559	0.586	0.605	0.621	0.519	0.662	0.585	8.39
43)	S	1,2-Dichloroet...	0.288	0.279	0.281	0.289	0.268	0.272	0.264	0.278	0.277	3.23
44)	TP	1,2-Dichloroet...		0.270	0.289	0.274	0.278	0.279	0.231	0.290	0.273	7.30
47)	TP	Methyl cyclohe...		0.234	0.330	0.364	0.384	0.364	0.301	0.353	0.333	15.41
48)	TP	Trichloroethene	0.246	0.210	0.248	0.249	0.253	0.250	0.207	0.270	0.242	9.05
50)	TP	Dibromomethane		0.135	0.140	0.139	0.136	0.137	0.114	0.144	0.135	7.28
51)	TP	1,2-Dichloropr...		0.171	0.219	0.220	0.219	0.221	0.183	0.231	0.209	10.76
53)	TP	2-Chloroethyl ...		0.109	0.117	0.122	0.135	0.140	0.117	0.146	0.126	10.96
54)	TP	Bromodichlorom...		0.278	0.312	0.313	0.314	0.321	0.264	0.334	0.305	8.10
57)	TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.92
58)	TP	cis-1,3-Dichlo...		0.308	0.338	0.350	0.350	0.359	0.301	0.383	0.341	8.39
59)	I	Chlorobenzene-d5	----------ISTD----------									
60)	S	Toluene-d8	1.258	1.266	1.270	1.267	1.248	1.246	1.258	1.232	1.255	1.03
61)	TP	Toluene		0.628	0.724	0.733	0.716	0.720	0.606	0.738	0.695	7.82
62)	TP	4-Methyl-2-pen...		0.061	0.077	0.079	0.081	0.083	0.070	0.086	0.077	11.14
63)	TP	Tetrachloroethene		0.238	0.323	0.326	0.324	0.321	0.274	0.329	0.305	11.51
65)	TP	trans-1,3-Dich...		0.347	0.369	0.394	0.389	0.403	0.341	0.421	0.380	7.79
67)	TP	Ethyl methacry...		0.299	0.305	0.320	0.331	0.340	0.287	0.358	0.320	7.77
68)	TP	1,1,2-Trichlor...		0.191	0.188	0.193	0.193	0.198	0.166	0.207	0.191#	6.61
69)	TP	Chlorodibromom...		0.263	0.303	0.312	0.311	0.320	0.270	0.331	0.302	8.47
70)	TP	1,3-Dichloropr...		0.367	0.389	0.397	0.386	0.392	0.327	0.403	0.380	6.83
71)	TP	1,2-Dibromoethane		0.241	0.246	0.245	0.242	0.250	0.211	0.257	0.242	6.11
72)	TP	2-Hexanone		0.159	0.134	0.135	0.148	0.145	0.123	0.151	0.142	8.54
73)	TP	Chlorobenzene		0.704	0.802	0.813	0.790	0.801	0.673	0.839	0.775	7.92

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
74)	TP	Ethylbenzene		1.116	1.365	1.404	1.372	1.389	1.178	1.465	1.327	9.70
75)	TP	1,1,1,2-Tetrac...		0.230	0.294	0.301	0.303	0.310	0.258	0.321	0.288	11.16
76)	TP	p/m Xylene		0.438	0.518	0.557	0.544	0.554	0.468	0.593	0.525	10.39
77)	TP	o Xylene		0.426	0.524	0.538	0.525	0.530	0.446	0.567	0.508	10.15
78)	TP	Styrene		0.686	0.836	0.902	0.891	0.920	0.779	1.014	0.861	12.32
79)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80)	TP	Bromoform		0.330	0.332	0.345	0.368	0.372	0.325	0.408	0.354	8.43
82)	TP	Isopropylbenzene		1.696	2.246	2.377	2.403	2.343	2.056	2.540	2.237	12.60
83)	S	4-Bromofluorob...	0.840	0.858	0.860	0.809	0.839	0.814	0.843	0.820	0.835	2.31
84)	TP	Bromobenzene		0.578	0.641	0.639	0.638	0.629	0.541	0.664	0.619	6.94
85)	TP	n-Propylbenzene		2.100	2.663	2.727	2.750	2.704	2.365	2.933	2.606	10.73
86)	TP	1,4-Dichlorobu...		0.723	0.770	0.719	0.709	0.709	0.618	0.776	0.718	7.24
87)	TP	1,1,2,2-Tetrac...		0.515	0.495	0.493	0.507	0.497	0.443	0.530	0.497	5.44
88)	TP	4-Ethyltoluene		1.755	2.192	2.303	2.301	2.260	1.982	2.456	2.179	10.80
89)	TP	2-Chlorotoluene		1.433	1.674	1.648	1.628	1.612	1.414	1.779	1.598	8.22
90)	TP	1,3,5-Trimethy...		1.589	1.978	2.035	2.015	1.977	1.723	2.181	1.929	10.48
91)	TP	1,2,3-Trichlor...		0.421	0.448	0.417	0.408	0.407	0.357	0.452	0.416	7.60
92)	TP	trans-1,4-Dich...		0.098	0.090	0.103	0.115	0.127	0.115	0.149	0.114	17.34
93)	TP	4-Chlorotoluene		1.409	1.669	1.738	1.694	1.690	1.470	1.847	1.645	9.31
94)	TP	tert-Butylbenzene		1.193	1.577	1.675	1.680	1.631	1.411	1.743	1.559	12.38
97)	TP	1,2,4-Trimethy...		1.561	1.932	2.022	1.989	1.960	1.715	2.121	1.900	10.20
98)	TP	sec-Butylbenzene		1.744	2.245	2.376	2.373	2.310	2.014	2.458	2.217	11.38
99)	TP	p-Isopropyltol...		1.451	1.944	2.048	2.063	2.024	1.761	2.183	1.925	12.77
100)	TP	1,3-Dichlorobe...		1.005	1.162	1.195	1.185	1.157	1.006	1.245	1.136	8.27
101)	TP	1,4-Dichlorobe...		1.065	1.241	1.216	1.201	1.179	1.026	1.266	1.170	7.75
102)	TP	p-Diethylbenzene		0.812	1.117	1.183	1.187	1.167	1.010	1.264	1.106	13.67
103)	TP	n-Butylbenzene		1.116	1.529	1.621	1.628	1.599	1.409	1.752	1.522	13.62
104)	TP	1,2-Dichlorobe...		0.974	1.109	1.132	1.129	1.108	0.955	1.181	1.084	7.87
105)	TP	1,2,4,5-Tetram...		1.330	1.611	1.676	1.726	1.759	1.528	1.955	1.655	11.84
106)	TP	1,2-Dibromo-3-...		0.092	0.087	0.087	0.096	0.095	0.085	0.105	0.092	7.58
107)	TP	1,3,5-Trichlor...		0.606	0.711	0.737	0.758	0.750	0.652	0.781	0.713	8.82

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG240712P03.D L1 =VG240712P06.D L2 =VG240712P07.D L3 =VG240712P08.D L4 =VG240712P09.D
L6 =VG240712P10.D L8 =VG240712P11.D L10 =VG240712P12.D

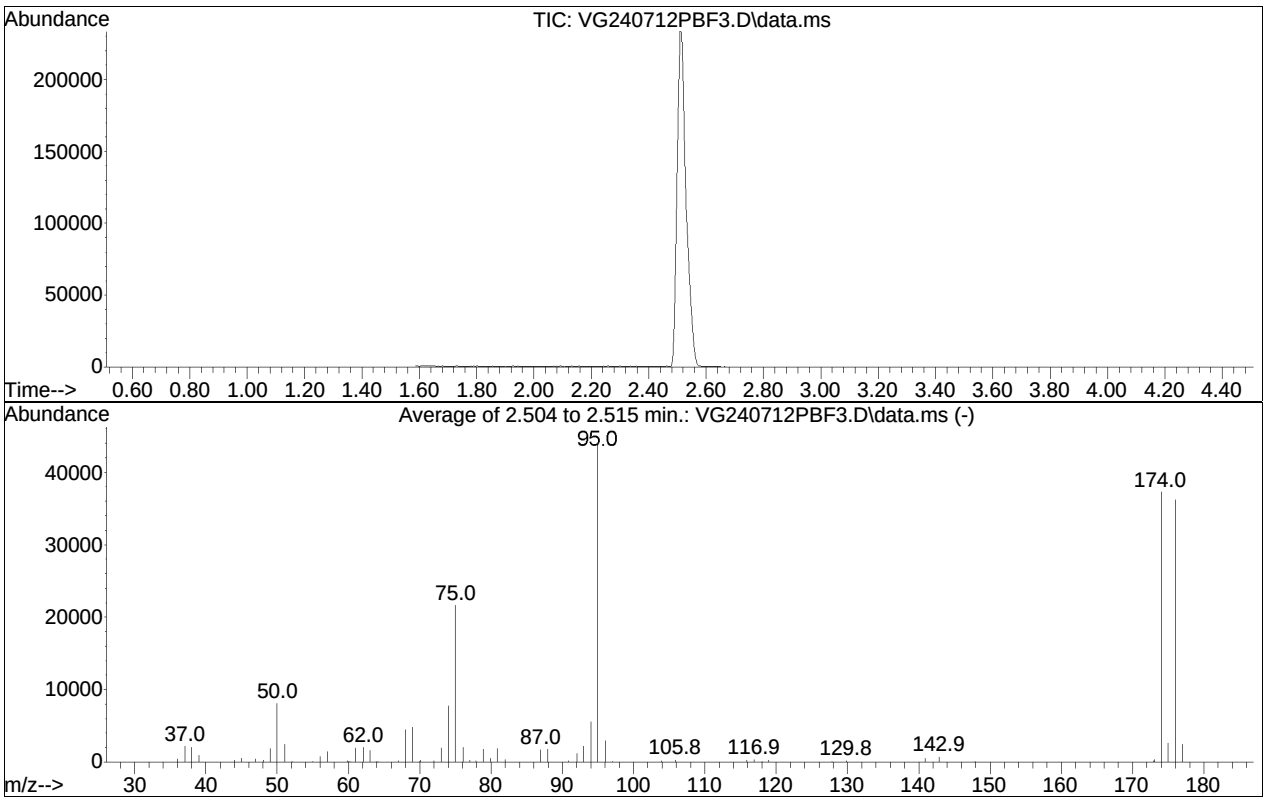
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
108)	TP Hexachlorobuta...	0.149	0.190	0.199	0.217	0.218	0.192	0.234	0.200	13.72	
109)	TP 1,2,4-Trichlor...	0.533	0.582	0.619	0.666	0.668	0.576	0.682	0.618	9.16	
110)	TP Naphthalene	1.390	1.296	1.316	1.427	1.441	1.281	1.558	1.387	7.11	
111)	TP 1,2,3-Trichlor...	0.469	0.501	0.514	0.539	0.546	0.477	0.550	0.514	6.42	

(#) = Out of Range

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712PBF3.D
Acq On : 12 Jul 2024 8:14 pm
Operator : GONZO:LAC
Sample : WG1947004-1
Misc : WG1947004
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024



AutoFind: Scans 176, 177, 178; Background Corrected with Scan 168

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	8143	PASS
75	95	30	60	49.1	21632	PASS
95	95	100	100	100.0	44088	PASS
96	95	5	9	6.7	2957	PASS
173	174	0.00	2	1.0	377	PASS
174	95	50	100	84.6	37320	PASS
175	174	5	9	7.0	2610	PASS
176	174	95	101	97.1	36251	PASS
177	176	5	9	6.8	2465	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P03.D
Acq On : 12 Jul 2024 9:20 pm
Operator : GONZO:PID
Sample : I8260STD0.19PPB
Misc : WG1947004,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 15 09:37:31 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-L11 - Level 11 for 8260-LRR product

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	310780	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery =	87.72%		
59) Chlorobenzene-d5	9.629	117	249910	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery =	90.23%		
79) 1,4-Dichlorobenzene-d4	12.311	152	134693	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery =	84.16%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	82545	10.169	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.69%		
43) 1,2-Dichloroethane-d4	5.805	65	89609	10.392	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.92%		
60) Toluene-d8	7.779	98	314288	10.018	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.18%		
83) 4-Bromofluorobenzene	11.110	95	113149	10.058	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.58%		
Target Compounds						Qvalue
4) Vinyl chloride	1.946	62	1126M6	0.154	ug/L	
34) Carbon tetrachloride	5.228	117	1334	0.138	ug/L #	80
41) Benzene	5.668	78	4399	0.165	ug/L #	87
48) Trichloroethene	6.268	95	1454	0.194	ug/L	90

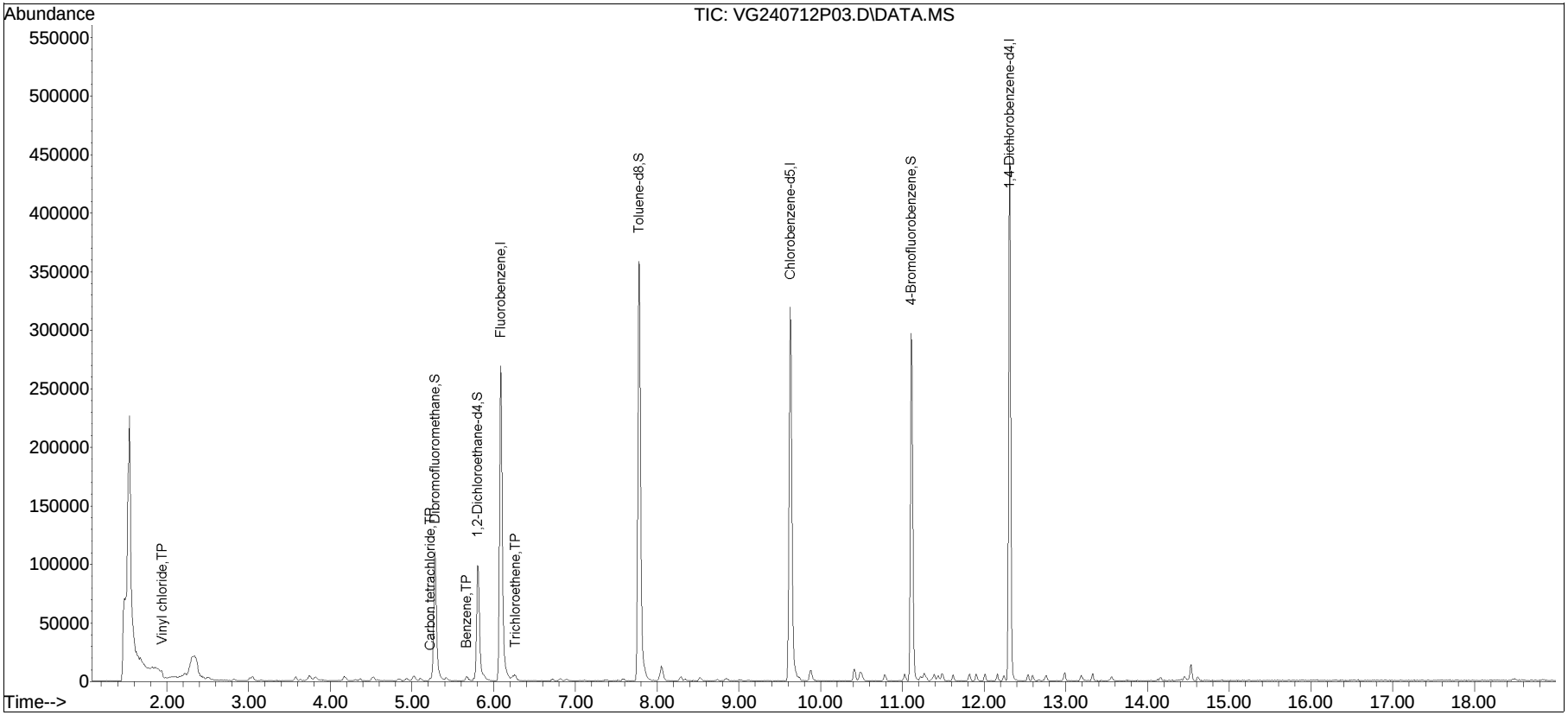
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P03.D
Acq On : 12 Jul 2024 9:20 pm
Operator : GONZO:PID
Sample : I8260STD0.19PPB
Misc : WG1947004,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 15 09:37:31 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

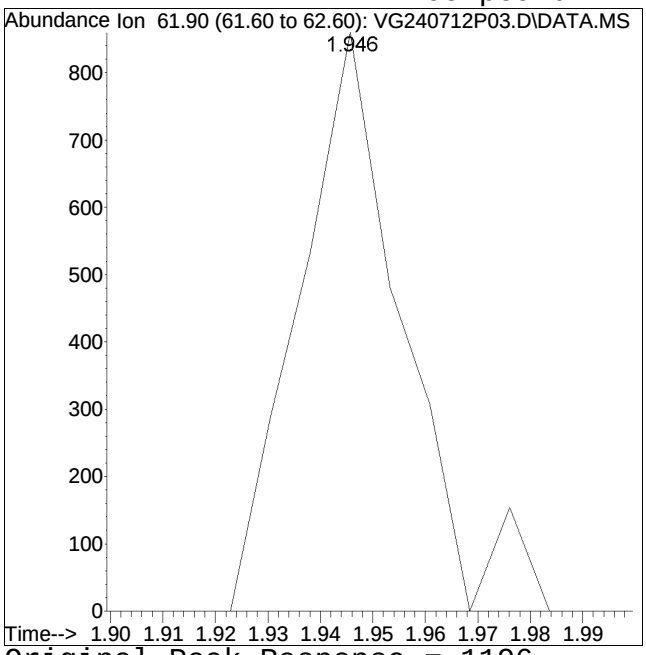
Sub List : 8260-L11 - Level 11 for 8260-LRR product8.D•



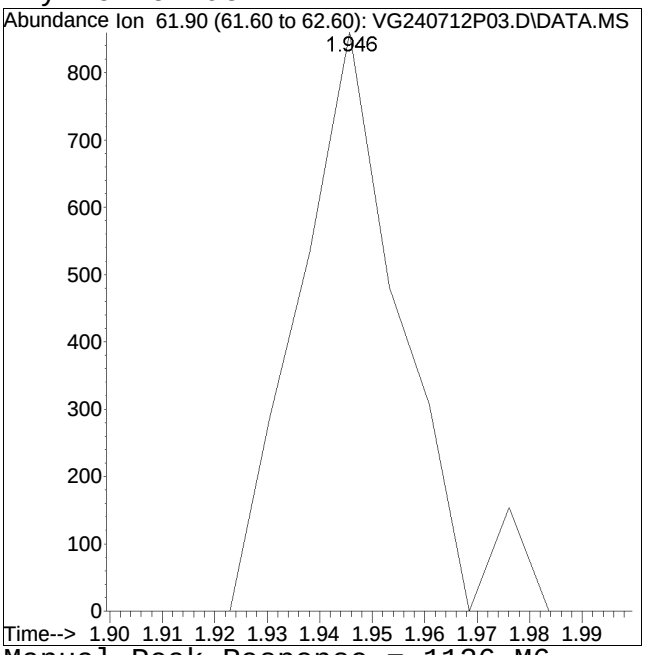
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P03.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 9:20 pm Instrument : Gonzo
Sample : I8260STD0.19PPB Quant Date : 7/15/2024 9:37 am

Compound #4: Vinyl chloride



Original Peak Response = 1196



Manual Peak Response = 1126 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.086	96	335173	10.000 ug/L	0.00
Standard Area 1 = 354306			Recovery =	94.60%	
59) Chlorobenzene-d5	9.629	117	262430	10.000 ug/L	0.00
Standard Area 1 = 276985			Recovery =	94.75%	
79) 1,4-Dichlorobenzene-d4	12.311	152	142379	10.000 ug/L	0.00
Standard Area 1 = 160037			Recovery =	88.97%	
System Monitoring Compounds					
36) Dibromofluoromethane	5.281	113	88340	10.091 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.91%	
43) 1,2-Dichloroethane-d4	5.805	65	93465	10.050 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.50%	
60) Toluene-d8	7.779	98	332128	10.081 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.81%	
83) 4-Bromofluorobenzene	11.110	95	122190	10.275 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.75%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.680	85	3395	0.382 ug/L	94
3) Chloromethane	1.893	50	3979M6	0.523 ug/L	
4) Vinyl chloride	1.946	62	2973	0.377 ug/L	94
5) Bromomethane	2.257	94	1496M3	0.336 ug/L	
6) Chloroethane	2.371	64	2770	0.459 ug/L	89
7) Trichlorofluoromethane	2.516	101	4120	0.356 ug/L	96
8) Ethyl ether	2.819	74	1796	0.468 ug/L #	73
10) 1,1-Dichloroethene	3.017	96	2275	0.359 ug/L	97
11) Carbon disulfide	3.047	76	7497	0.402 ug/L	98
12) Freon-113	3.047	101	2519	0.362 ug/L #	70
13) Iodomethane	3.154	142	3499	0.305 ug/L	96
14) Acrolein	3.366	56	569M6	0.522 ug/L	
15) Methylene chloride	3.572	84	4200	0.560 ug/L	91
17) Acetone	3.640	43	2464M6	1.106 ug/L	
18) trans-1,2-Dichloroethene	3.739	96	2668	0.385 ug/L	90
19) Methyl acetate	3.754	43	5881M6	1.180 ug/L	
20) Methyl tert-butyl ether	3.822	73	9884	0.463 ug/L #	81
21) tert-Butyl alcohol	3.913	59	1371	2.317 ug/L #	71
22) Diisopropyl ether	4.179	45	9064	0.416 ug/L #	87
23) 1,1-Dichloroethane	4.316	63	5121	0.408 ug/L	95
24) Halothane	4.354	117	2400	0.417 ug/L	81

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	0.000		0	N.D.	d		
26) Ethyl tert-butyl ether	4.521	59	9240	0.431	ug/L	#	73
27) Vinyl acetate	4.567	43	4789M3	0.411	ug/L		
28) cis-1,2-Dichloroethene	4.840	96	3318	0.416	ug/L		93
29) 2,2-Dichloropropane	4.924	77	4893	0.467	ug/L		97
30) Bromochloromethane	5.030	128	1836	0.471	ug/L	#	81
31) Cyclohexane	5.023	56	4324	0.363	ug/L		87
32) Chloroform	5.099	83	5683	0.442	ug/L		96
33) Ethyl acetate	0.000		0	N.D.	d		
34) Carbon tetrachloride	5.235	117	4313	0.414	ug/L		98
35) Tetrahydrofuran	5.243	42	1660	0.801	ug/L	#	54
37) 1,1,1-Trichloroethane	5.288	97	4794	0.404	ug/L		96
39) 2-Butanone	0.000		0	N.D.	d		
40) 1,1-Dichloropropene	5.425	75	3465	0.365	ug/L		97
41) Benzene	5.668	78	12021	0.419	ug/L		98
42) tert-Amyl methyl ether	5.775	73	9109	0.465	ug/L		92
44) 1,2-Dichloroethane	5.881	62	4529	0.495	ug/L		96
47) Methyl cyclohexane	6.253	83	3917	0.351	ug/L	#	79
48) Trichloroethene	6.276	95	3511	0.434	ug/L		85
50) Dibromomethane	6.724	93	2256	0.498	ug/L		96
51) 1,2-Dichloropropane	6.816	63	2871	0.410	ug/L		96
53) 2-Chloroethyl vinyl ether	7.514	63	1826	0.431	ug/L	#	84
54) Bromodichloromethane	6.884	83	4664	0.456	ug/L	#	93
57) 1,4-Dioxane	7.106	88	6862	96.286	ug/L		89
58) cis-1,3-Dichloropropene	7.586	75	5155	0.451	ug/L		96
61) Toluene	7.844	92	8239	0.452	ug/L		97
62) 4-Methyl-2-pentanone	8.288	58	798	0.397	ug/L	#	53
63) Tetrachloroethene	8.288	166	3122	0.390	ug/L		97
65) trans-1,3-Dichloropropene	8.345	75	4551	0.456	ug/L		97
67) Ethyl methacrylate	8.524	69	3918	0.467	ug/L		90
68) 1,1,2-Trichloroethane	8.517	83	2500	0.500	ug/L		98
69) Chlorodibromomethane	8.732	129	3450	0.436	ug/L		93
70) 1,3-Dichloropropane	8.839	76	4812	0.482	ug/L		95
71) 1,2-Dibromoethane	9.018	107	3162	0.498	ug/L		87
72) 2-Hexanone	9.298	43	2082	0.558	ug/L	#	63
73) Chlorobenzene	9.645	112	9242	0.455	ug/L	#	79
74) Ethylbenzene	9.686	91	14639	0.420	ug/L		98
75) 1,1,1,2-Tetrachloroethane	9.728	131	3019	0.399	ug/L	#	63
76) p/m Xylene	9.876	106	11498	0.835	ug/L		96
77) o Xylene	10.410	106	11190	0.839	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.484	104	18007	0.797	ug/L		94
80) Bromoform	10.509	173	2349	0.466	ug/L		98
82) Isopropylbenzene	10.789	105	12071	0.379	ug/L		92
84) Bromobenzene	11.225	156	4114	0.467	ug/L		99
85) n-Propylbenzene	11.266	91	14951	0.403	ug/L		99
86) 1,4-Dichlorobutane	11.291	55	5148	0.504	ug/L		92
87) 1,1,2,2-Tetrachloroethane	11.365	83	3665	0.518	ug/L		97
88) 4-Ethyltoluene	11.389	105	12497	0.403	ug/L		98
89) 2-Chlorotoluene	11.439	91	10202M4	0.448	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	11312	0.412	ug/L		97
91) 1,2,3-Trichloropropane	11.496	75	2998	0.506	ug/L		97
92) trans-1,4-Dichloro-2-b...	11.554	53	701M6	0.432	ug/L		
93) 4-Chlorotoluene	11.620	91	10033M6	0.428	ug/L		
94) tert-Butylbenzene	11.825	119	8494	0.383	ug/L		95
97) 1,2,4-Trimethylbenzene	11.899	105	11113	0.411	ug/L		98
98) sec-Butylbenzene	12.014	105	12415	0.393	ug/L		98
99) p-Isopropyltoluene	12.163	119	10327	0.377	ug/L		97
100) 1,3-Dichlorobenzene	12.245	146	7154	0.442	ug/L		98
101) 1,4-Dichlorobenzene	12.327	146	7579	0.455	ug/L	#	82
102) p-Diethylbenzene	12.533	119	5781	0.367	ug/L		95
103) n-Butylbenzene	12.590	91	7943	0.367	ug/L		96
104) 1,2-Dichlorobenzene	12.747	146	6935	0.449	ug/L		95
105) 1,2,4,5-Tetramethylben...	13.331	119	9465	0.402	ug/L		94
106) 1,2-Dibromo-3-chloropr...	13.536	155	655	0.499	ug/L		87
107) 1,3,5-Trichlorobenzene	13.561	180	4315	0.425	ug/L		96
108) Hexachlorobutadiene	14.120	225	1063	0.373	ug/L		93
109) 1,2,4-Trichlorobenzene	14.153	180	3793	0.431	ug/L	#	96
110) Naphthalene	14.449	128	9895	0.501	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	3339	0.456	ug/L		94

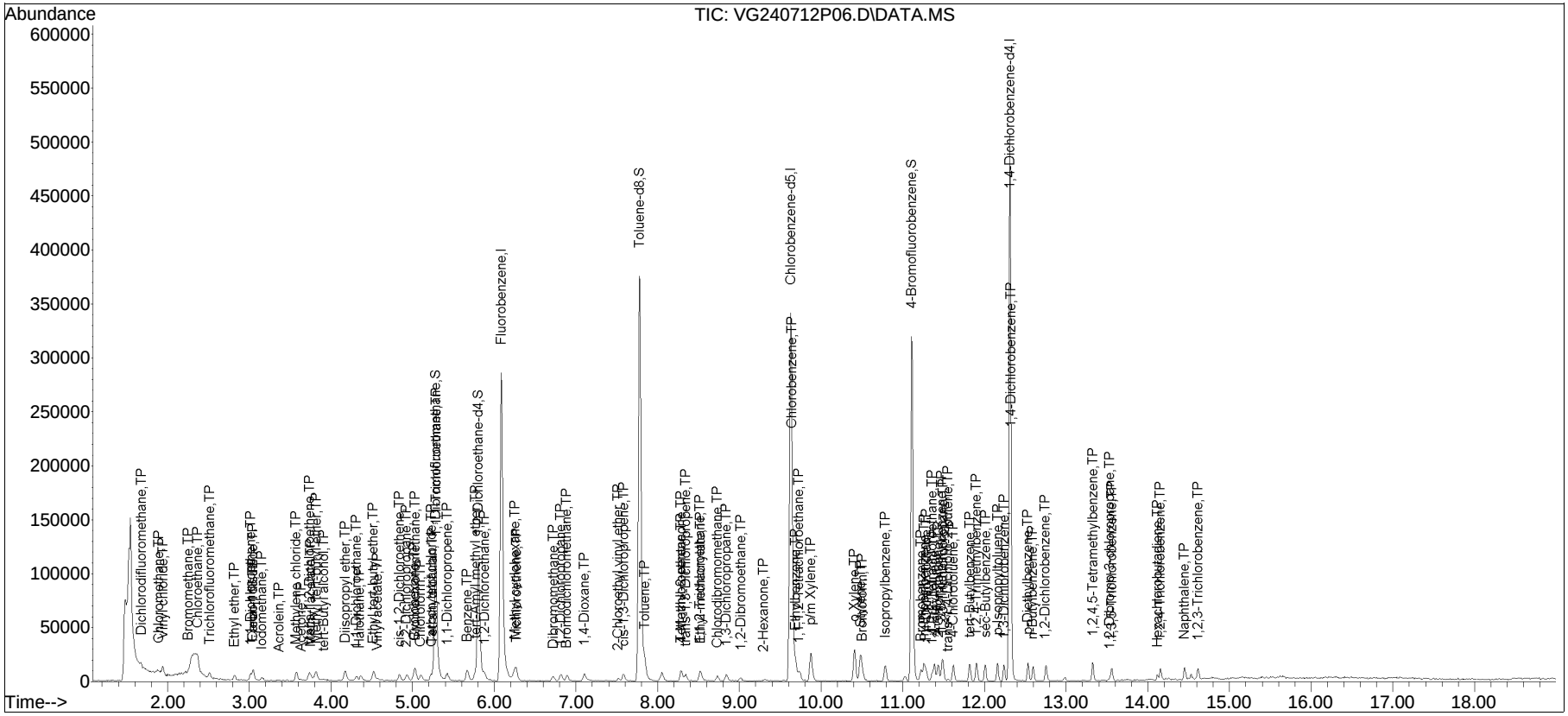
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P06.D
Acq On : 12 Jul 2024 10:32 pm
Operator : GONZO:PID
Sample : I8260STD0.5PPB
Misc : WG1947004,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 15 09:37:40 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

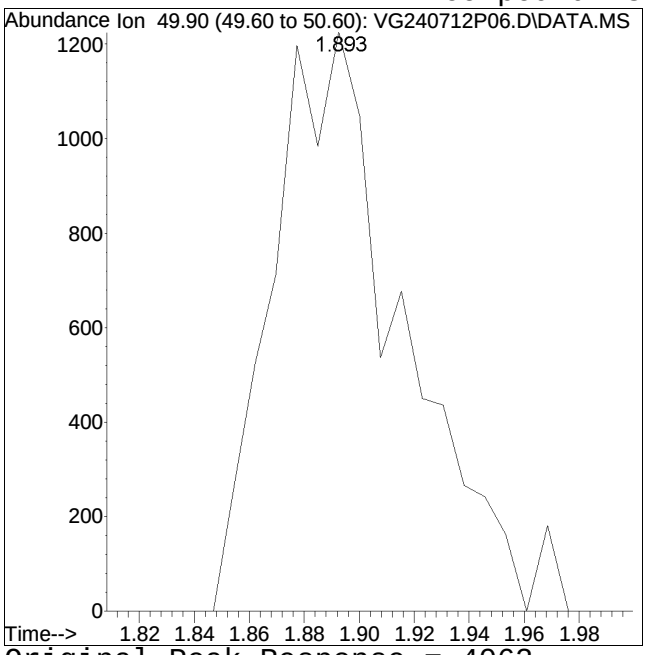
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



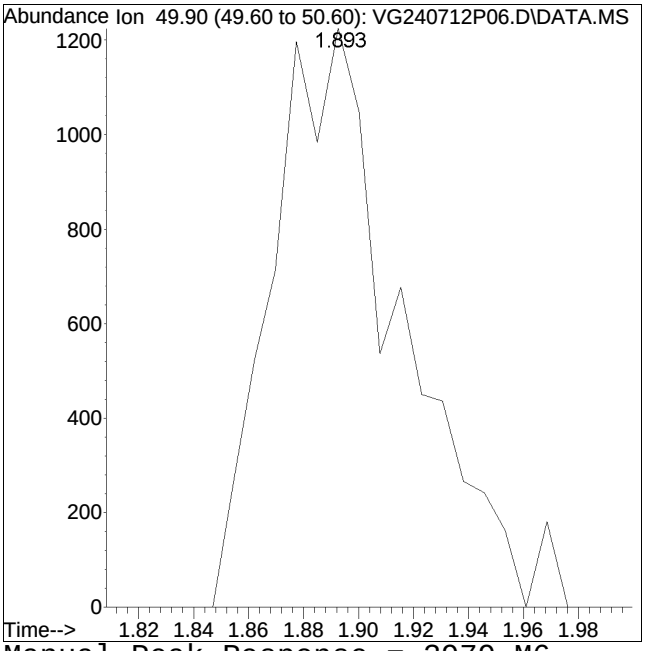
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #3: Chloromethane



Original Peak Response = 4062



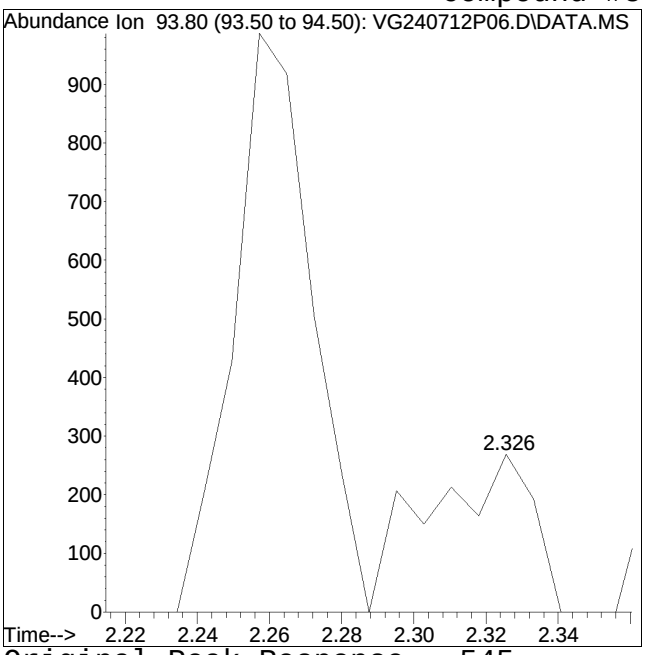
Manual Peak Response = 3979 M6

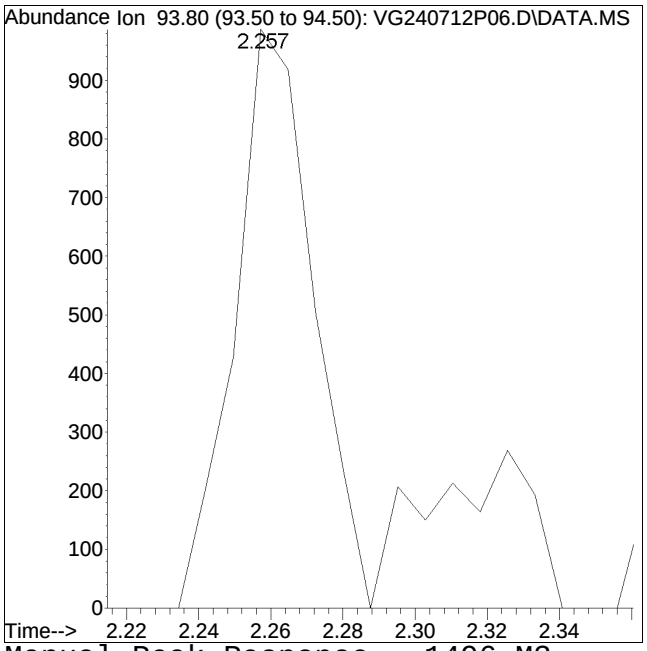
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #5: Bromomethane





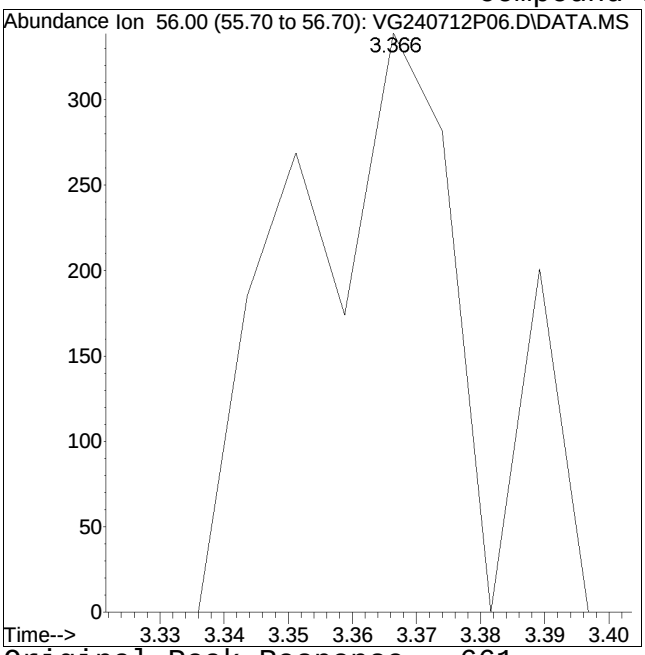
Original Peak Response = 545 Manual Peak Response = 1496 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

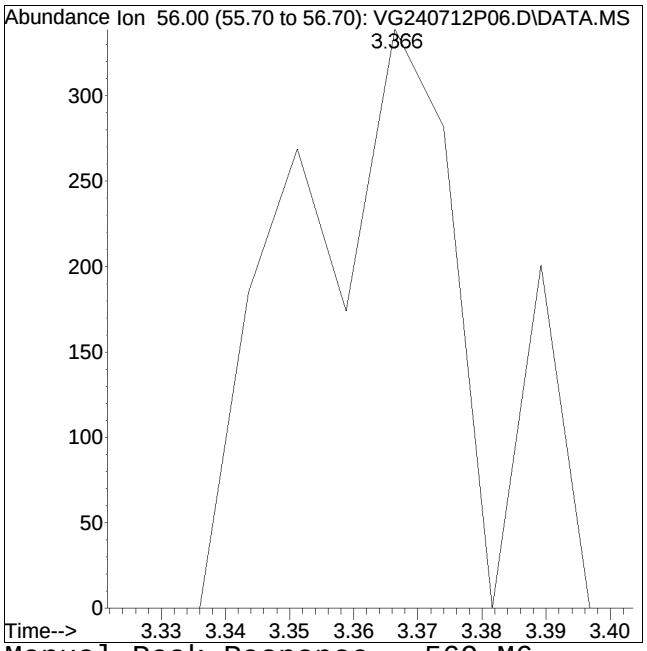
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #14: Acrolein



Original Peak Response = 661



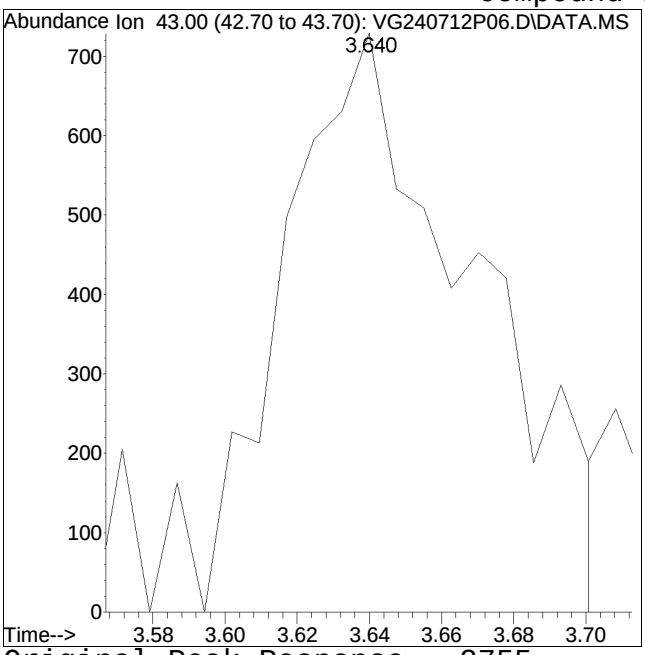
Manual Peak Response = 569 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

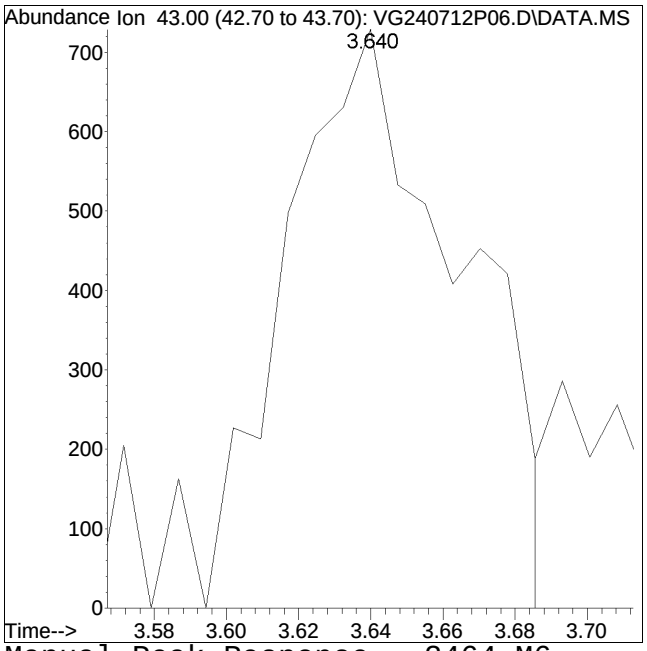
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #17: Acetone



Original Peak Response = 2755



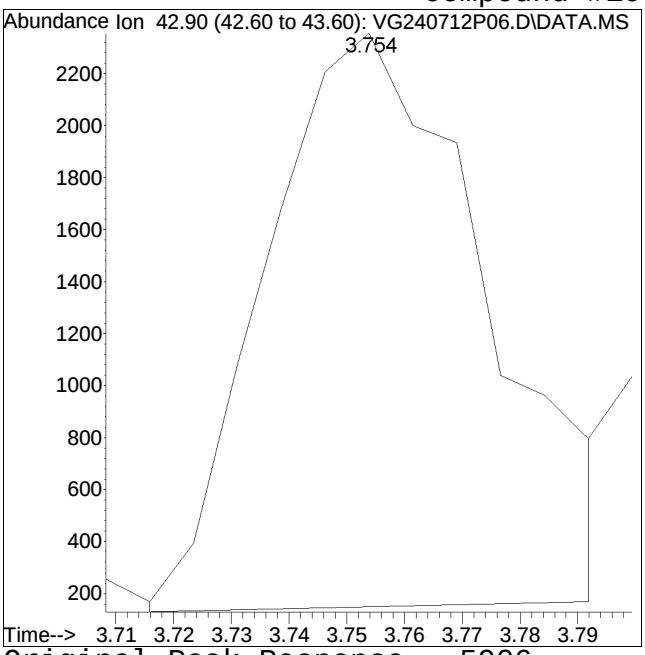
Manual Peak Response = 2464 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

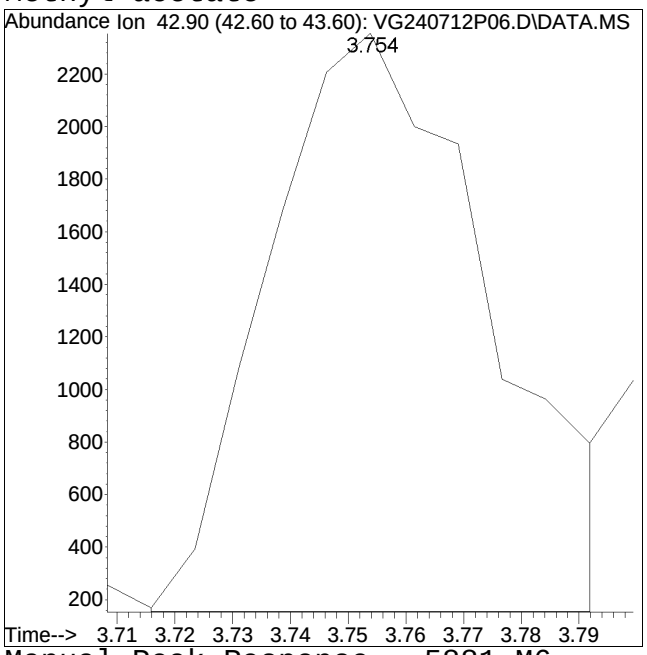
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #19: Methyl acetate



Original Peak Response = 5906



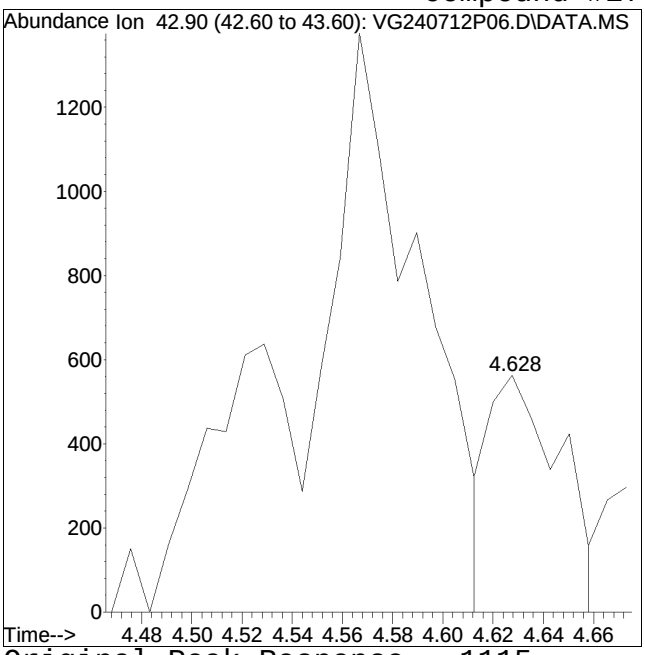
Manual Peak Response = 5881 M6

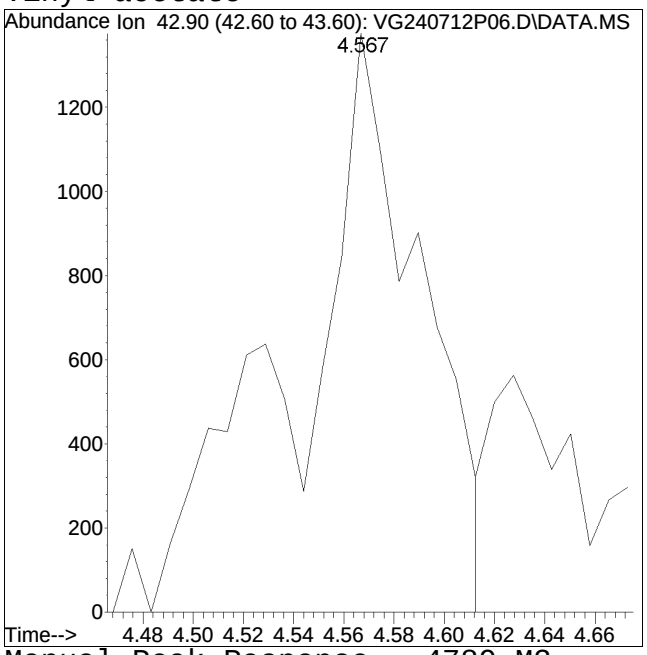
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #27: Vinyl acetate





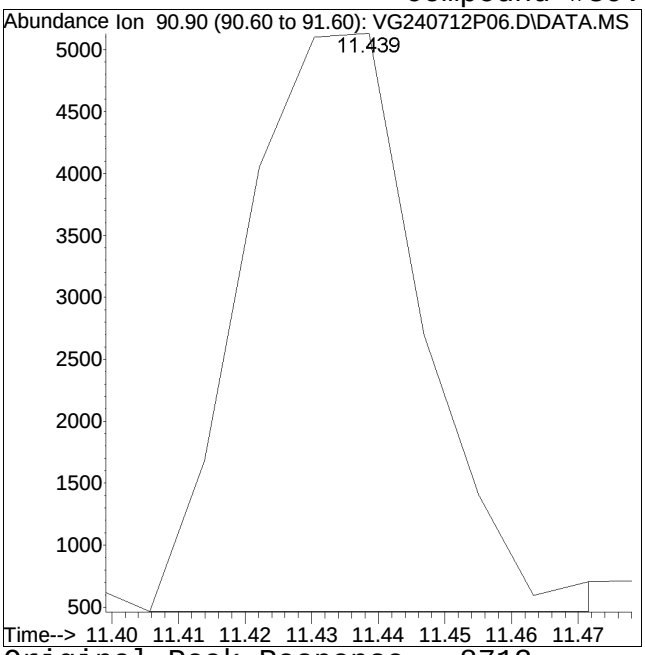
Original Peak Response = 1115 Manual Peak Response = 4789 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

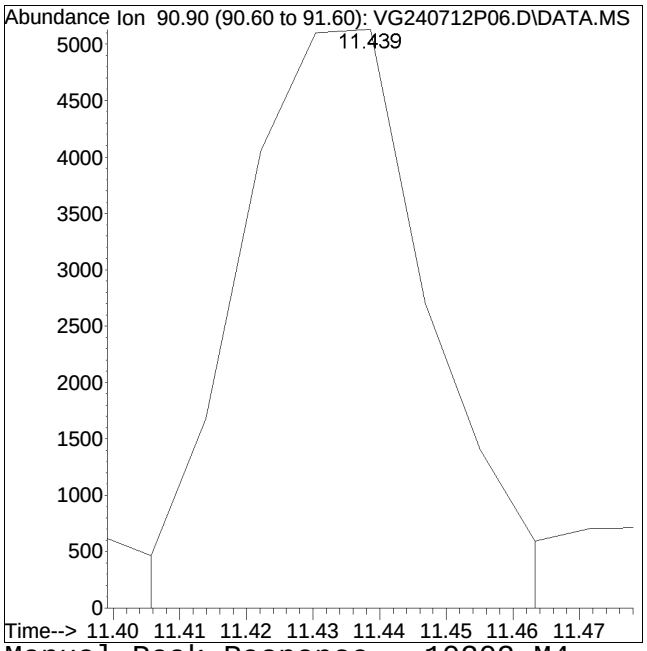
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 8713



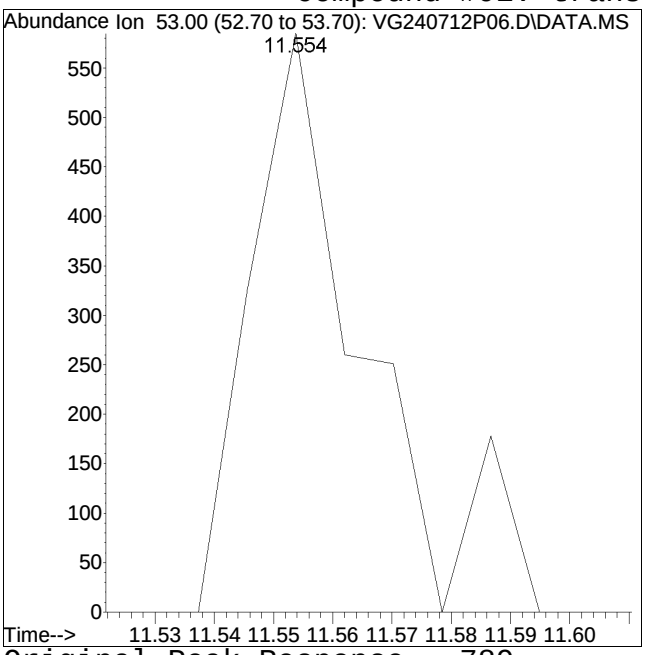
Manual Peak Response = 10202 M4

M4 = Poor automated baseline construction.

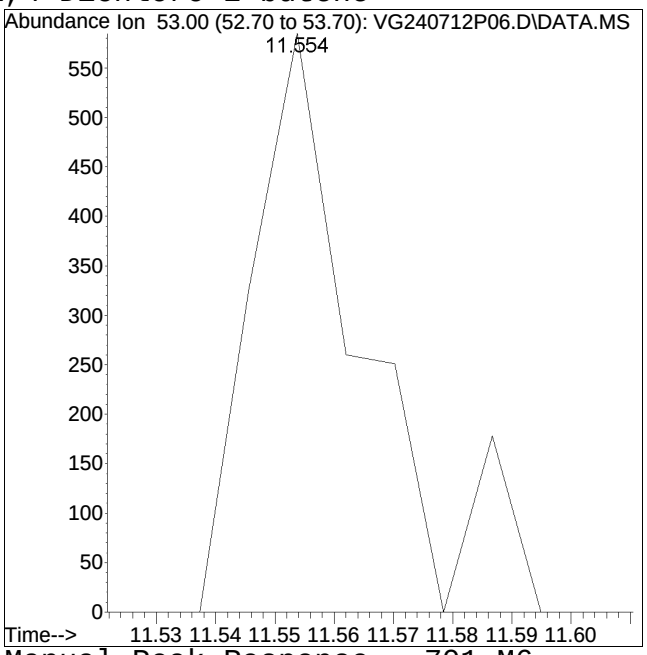
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 789



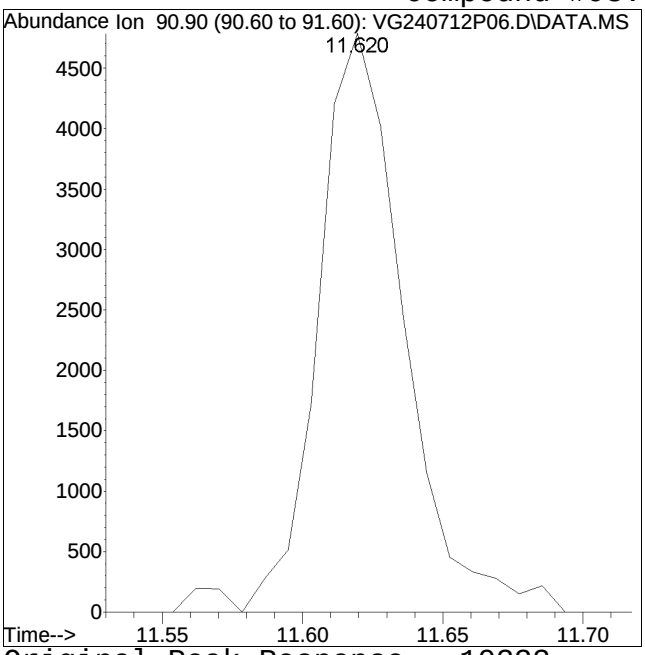
Manual Peak Response = 701 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

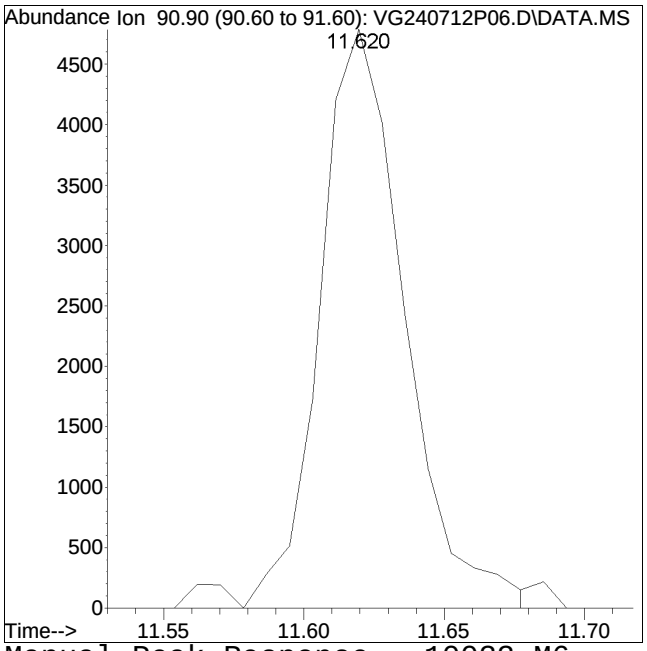
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P06.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:32 pm Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 7/15/2024 9:37 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 10333



Manual Peak Response = 10033 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.086	96	339095	10.000 ug/L	0.00
Standard Area 1 = 354306			Recovery =	95.71%	
59) Chlorobenzene-d5	9.629	117	267471	10.000 ug/L	0.00
Standard Area 1 = 276985			Recovery =	96.57%	
79) 1,4-Dichlorobenzene-d4	12.311	152	146727	10.000 ug/L	0.00
Standard Area 1 = 160037			Recovery =	91.68%	
System Monitoring Compounds					
36) Dibromofluoromethane	5.281	113	88717	10.017 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.17%	
43) 1,2-Dichloroethane-d4	5.805	65	95269	10.126 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.26%	
60) Toluene-d8	7.779	98	339712	10.117 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.17%	
83) 4-Bromofluorobenzene	11.110	95	126143	10.293 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.93%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.680	85	19249	2.138 ug/L	99
3) Chloromethane	1.885	50	16465	2.138 ug/L	99
4) Vinyl chloride	1.946	62	18154	2.275 ug/L	97
5) Bromomethane	2.265	94	7941	1.763 ug/L	96
6) Chloroethane	2.371	64	13605	2.231 ug/L	95
7) Trichlorofluoromethane	2.516	101	24371	2.084 ug/L	98
8) Ethyl ether	2.819	74	8500	2.189 ug/L	95
10) 1,1-Dichloroethene	3.009	96	13159	2.051 ug/L	92
11) Carbon disulfide	3.047	76	39642	2.101 ug/L	98
12) Freon-113	3.055	101	14950	2.124 ug/L	84
13) Iodomethane	3.154	142	20184	1.737 ug/L	97
14) Acrolein	3.351	56	1942	1.760 ug/L #	81
15) Methylene chloride	3.579	84	15558	2.051 ug/L	89
17) Acetone	3.625	43	5068	2.249 ug/L #	84
18) trans-1,2-Dichloroethene	3.724	96	15023	2.141 ug/L	99
19) Methyl acetate	3.746	43	10439	2.070 ug/L #	94
20) Methyl tert-butyl ether	3.815	73	43598	2.021 ug/L	97
21) tert-Butyl alcohol	3.913	59	5817	9.717 ug/L #	74
22) Diisopropyl ether	4.172	45	43322	1.966 ug/L	96
23) 1,1-Dichloroethane	4.316	63	27160	2.137 ug/L	99
24) Halothane	4.362	117	11719	2.011 ug/L	90

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.384	53	3499	1.765	ug/L		95
26) Ethyl tert-butyl ether	4.521	59	42838	1.976	ug/L		94
27) Vinyl acetate	4.559	43	22580	1.917	ug/L		96
28) cis-1,2-Dichloroethene	4.840	96	17545	2.175	ug/L		93
29) 2,2-Dichloropropane	4.931	77	22451	2.119	ug/L		97
30) Bromochloromethane	5.030	128	8234	2.086	ug/L		91
31) Cyclohexane	5.023	56	24829	2.059	ug/L		84
32) Chloroform	5.099	83	26195	2.013	ug/L		93
33) Ethyl acetate	5.220	43	11333	1.967	ug/L	#	93
34) Carbon tetrachloride	5.235	117	22186	2.104	ug/L	#	96
35) Tetrahydrofuran	5.258	42	4122M6	1.966	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	24403	2.034	ug/L		97
39) 2-Butanone	5.418	43	3735	1.519	ug/L		94
40) 1,1-Dichloropropene	5.418	75	19439	2.026	ug/L		99
41) Benzene	5.668	78	60361	2.078	ug/L		97
42) tert-Amyl methyl ether	5.767	73	37905	1.911	ug/L		97
44) 1,2-Dichloroethane	5.881	62	19600	2.117	ug/L		99
47) Methyl cyclohexane	6.246	83	22413	1.985	ug/L		89
48) Trichloroethene	6.269	95	16818	2.053	ug/L		95
50) Dibromomethane	6.717	93	9528	2.079	ug/L		98
51) 1,2-Dichloropropane	6.808	63	14837	2.093	ug/L		98
53) 2-Chloroethyl vinyl ether	7.514	63	7911	1.845	ug/L		95
54) Bromodichloromethane	6.892	83	21170	2.046	ug/L		97
57) 1,4-Dioxane	7.099	88	30548	423.683	ug/L		100
58) cis-1,3-Dichloropropene	7.571	75	22927	1.981	ug/L		95
61) Toluene	7.836	92	38753	2.085	ug/L		96
62) 4-Methyl-2-pentanone	8.273	58	4127	2.014	ug/L		81
63) Tetrachloroethene	8.288	166	17253	2.114	ug/L		96
65) trans-1,3-Dichloropropene	8.338	75	19727	1.938	ug/L		99
67) Ethyl methacrylate	8.517	69	16341	1.910	ug/L		99
68) 1,1,2-Trichloroethane	8.517	83	10049	1.970	ug/L		96
69) Chlorodibromomethane	8.732	129	16191	2.008	ug/L		98
70) 1,3-Dichloropropane	8.839	76	20789	2.045	ug/L		94
71) 1,2-Dibromoethane	9.011	107	13176	2.036	ug/L		94
72) 2-Hexanone	9.305	43	7172	1.887	ug/L		95
73) Chlorobenzene	9.654	112	42909	2.071	ug/L		94
74) Ethylbenzene	9.686	91	73017	2.057	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.736	131	15752	2.043	ug/L		97
76) p/m Xylene	9.867	106	55393	3.947	ug/L		96
77) o Xylene	10.410	106	56091	4.126	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78)	Styrene	10.476	104	89487	3.885	ug/L		99
80)	Bromoform	10.509	173	9748	1.875	ug/L		94
82)	Isopropylbenzene	10.781	105	65915	2.008	ug/L		98
84)	Bromobenzene	11.225	156	18817	2.073	ug/L		96
85)	n-Propylbenzene	11.258	91	78139	2.043	ug/L		99
86)	1,4-Dichlorobutane	11.282	55	22587	2.145	ug/L		95
87)	1,1,2,2-Tetrachloroethane	11.356	83	14540	1.993	ug/L		99
88)	4-Ethyltoluene	11.381	105	64338	2.013	ug/L		97
89)	2-Chlorotoluene	11.430	91	49112M1	2.094	ug/L		
90)	1,3,5-Trimethylbenzene	11.480	105	58055	2.052	ug/L		97
91)	1,2,3-Trichloropropane	11.496	75	13152M1	2.156	ug/L		
92)	trans-1,4-Dichloro-2-b...	11.546	53	2644	1.581	ug/L	#	86
93)	4-Chlorotoluene	11.611	91	48983	2.029	ug/L		96
94)	tert-Butylbenzene	11.817	119	46267	2.023	ug/L		94
97)	1,2,4-Trimethylbenzene	11.899	105	56701	2.034	ug/L		100
98)	sec-Butylbenzene	12.006	105	65866	2.025	ug/L		98
99)	p-Isopropyltoluene	12.163	119	57060	2.021	ug/L		96
100)	1,3-Dichlorobenzene	12.237	146	34096	2.045	ug/L		98
101)	1,4-Dichlorobenzene	12.327	146	36405	2.120	ug/L		96
102)	p-Diethylbenzene	12.533	119	32769	2.020	ug/L		99
103)	n-Butylbenzene	12.590	91	44868	2.009	ug/L		99
104)	1,2-Dichlorobenzene	12.755	146	32532	2.046	ug/L		99
105)	1,2,4,5-Tetramethylben...	13.323	119	47276	1.947	ug/L		96
106)	1,2-Dibromo-3-chloropr...	13.528	155	2543	1.879	ug/L		95
107)	1,3,5-Trichlorobenzene	13.553	180	20867	1.993	ug/L		99
108)	Hexachlorobutadiene	14.120	225	5584	1.904	ug/L		96
109)	1,2,4-Trichlorobenzene	14.153	180	17073	1.883	ug/L		98
110)	Naphthalene	14.450	128	38026	1.869	ug/L		100
111)	1,2,3-Trichlorobenzene	14.614	180	14701	1.950	ug/L		97

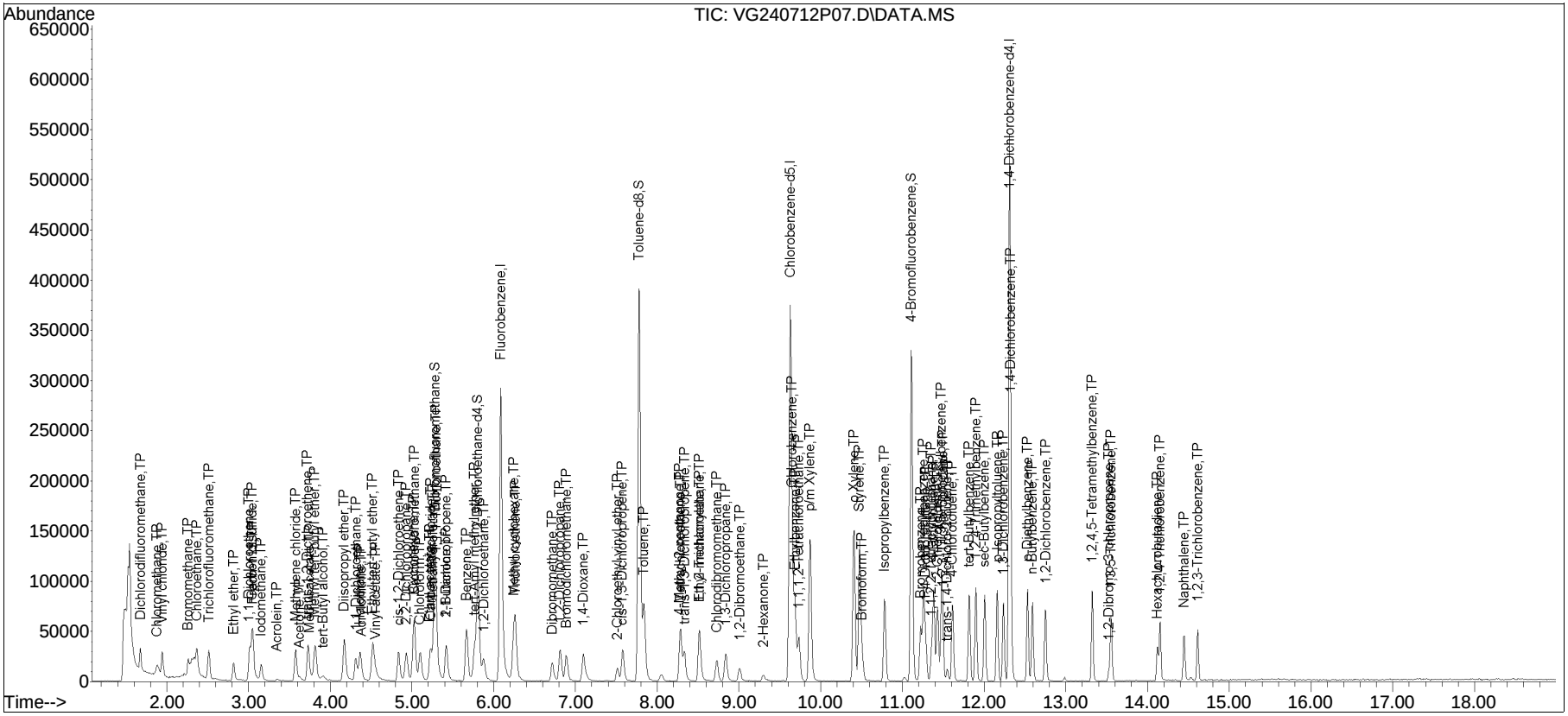
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P07.D
Acq On : 12 Jul 2024 10:56 pm
Operator : GONZO:PID
Sample : I8260STD2PPB
Misc : WG1947004,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 09:37:49 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

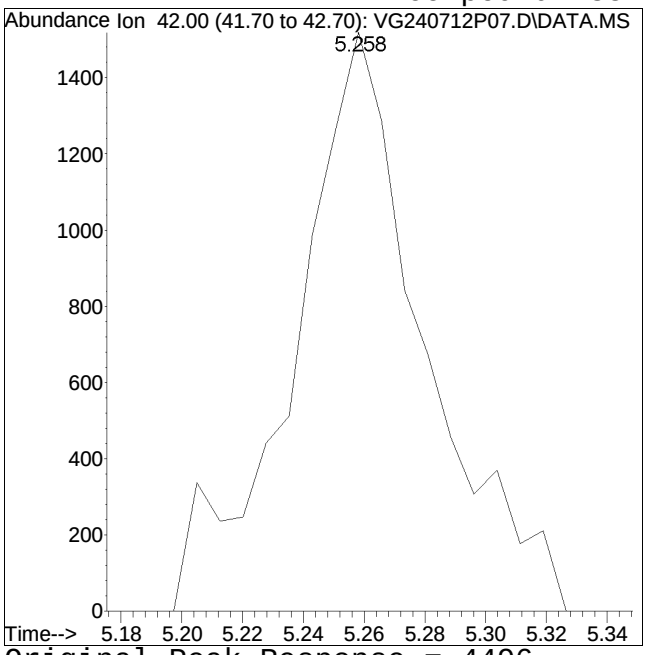
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



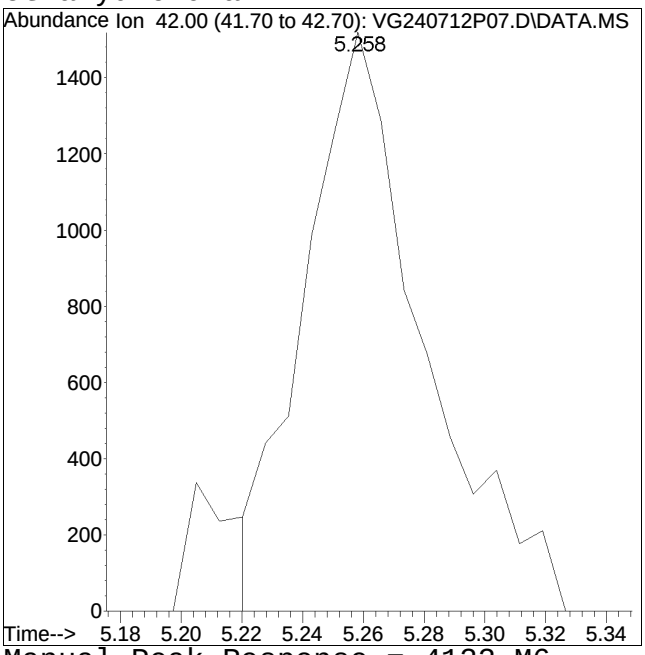
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P07.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:56 pm Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 7/15/2024 9:37 am

Compound #35: Tetrahydrofuran



Original Peak Response = 4496



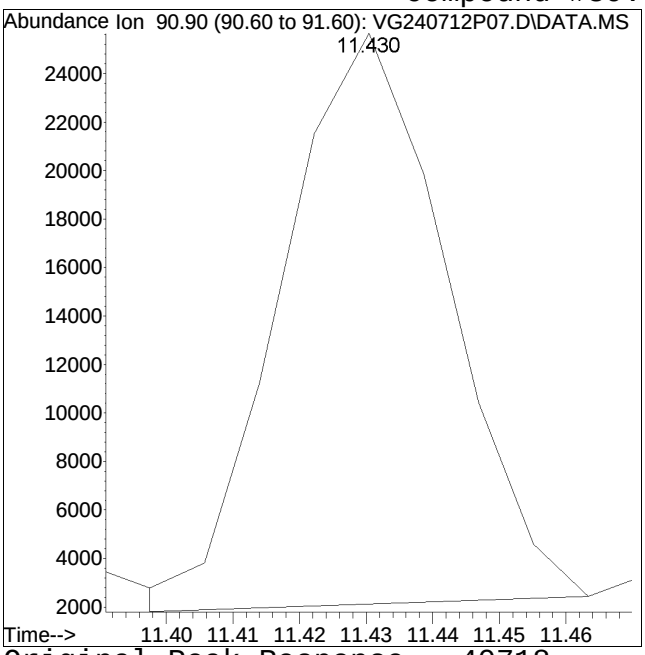
Manual Peak Response = 4122 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

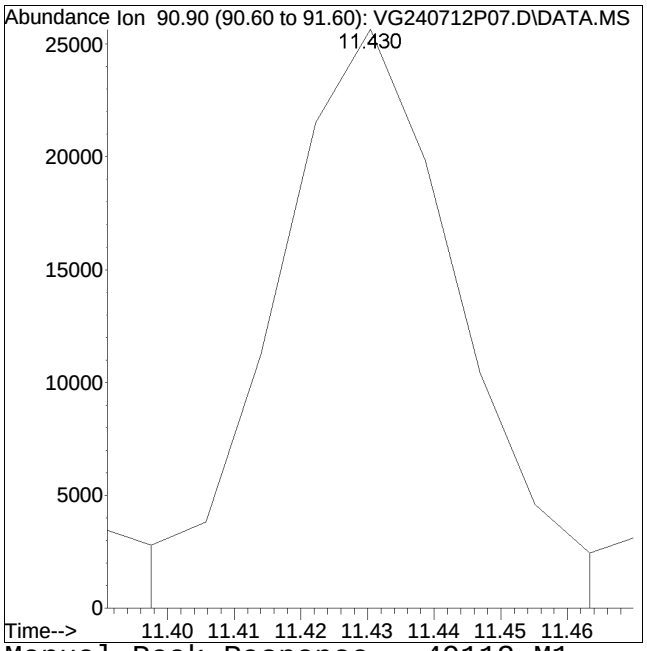
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P07.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:56 pm Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 7/15/2024 9:37 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 40718



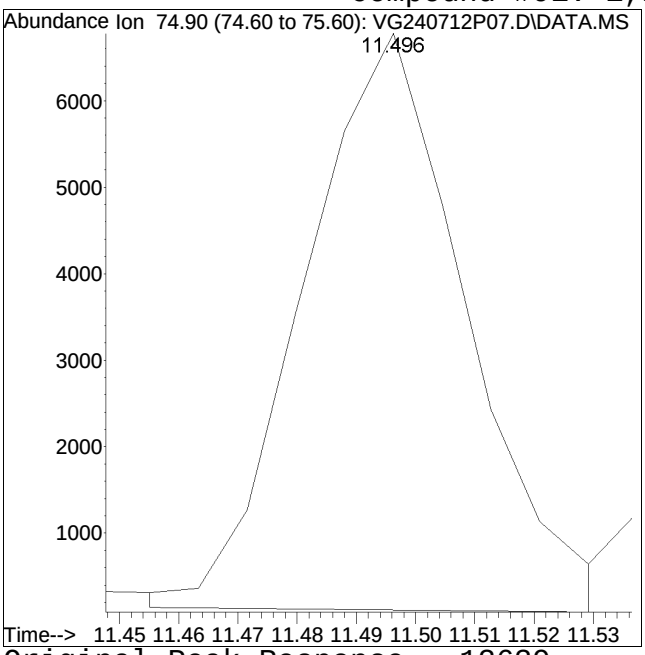
Manual Peak Response = 49112 M1

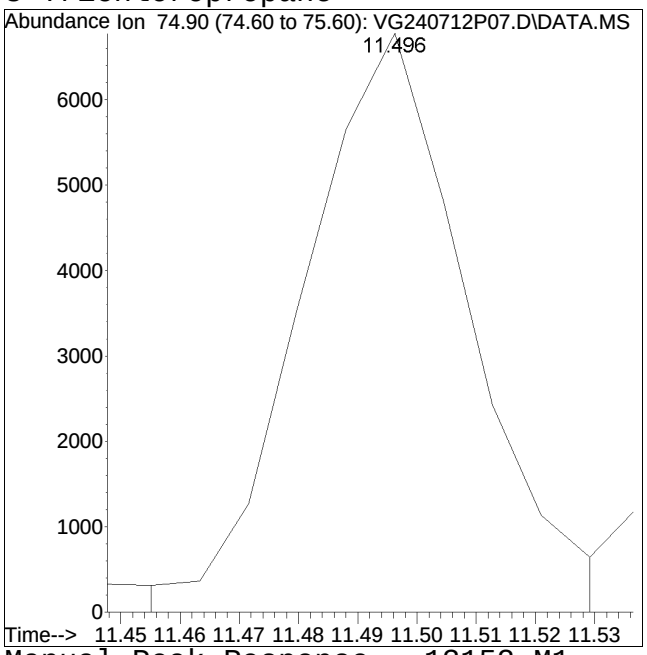
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P07.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 10:56 pm Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 7/15/2024 9:37 am

Compound #91: 1,2,3-Trichloropropane





Original Peak Response = 12639 Manual Peak Response = 13152 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	354306	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 100.00%			
59) Chlorobenzene-d5	9.629	117	276985	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 100.00%			
79) 1,4-Dichlorobenzene-d4	12.311	152	160037	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 100.00%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	92133	9.956	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.56%			
43) 1,2-Dichloroethane-d4	5.805	65	102401	10.416	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.16%			
60) Toluene-d8	7.779	98	350971	10.093	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.93%			
83) 4-Bromofluorobenzene	11.110	95	129463	9.686	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.86%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	104073	11.064	ug/L	98
3) Chloromethane	1.885	50	80582	10.015	ug/L	96
4) Vinyl chloride	1.946	62	93018	11.159	ug/L	100
5) Bromomethane	2.265	94	43942	9.335	ug/L	96
6) Chloroethane	2.371	64	66558	10.444	ug/L	99
7) Trichlorofluoromethane	2.516	101	120321	9.845	ug/L	91
8) Ethyl ether	2.819	74	40300	9.932	ug/L	94
10) 1,1-Dichloroethene	3.017	96	70738	10.554	ug/L	98
11) Carbon disulfide	3.047	76	202979	10.298	ug/L	99
12) Freon-113	3.047	101	76313	10.377	ug/L	85
13) Iodomethane	3.154	142	124010	10.212	ug/L	98
14) Acrolein	3.344	56	12033	10.440	ug/L	99
15) Methylene chloride	3.579	84	79539	10.037	ug/L	95
17) Acetone	3.625	43	17021	7.230	ug/L	98
18) trans-1,2-Dichloroethene	3.724	96	77412	10.559	ug/L	98
19) Methyl acetate	3.739	43	39376	7.472	ug/L	99
20) Methyl tert-butyl ether	3.815	73	223554	9.917	ug/L	97
21) tert-Butyl alcohol	3.906	59	30651	49.004	ug/L	98
22) Diisopropyl ether	4.172	45	236966	10.292	ug/L	99
23) 1,1-Dichloroethane	4.316	63	139835	10.530	ug/L	99
24) Halothane	4.362	117	63937	10.500	ug/L	98

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	4.369	53	20495	9.896	ug/L	94
26) Ethyl tert-butyl ether	4.521	59	227890	10.061	ug/L	97
27) Vinyl acetate	4.544	43	131130	10.656	ug/L	99
28) cis-1,2-Dichloroethene	4.833	96	86739	10.289	ug/L	96
29) 2,2-Dichloropropane	4.931	77	113646	10.264	ug/L	94
30) Bromochloromethane	5.030	128	42938	10.411	ug/L	96
31) Cyclohexane	5.023	56	132450	10.515	ug/L	86
32) Chloroform	5.099	83	144183	10.606	ug/L	99
33) Ethyl acetate	5.205	43	57402	9.537	ug/L	99
34) Carbon tetrachloride	5.228	117	122210	11.092	ug/L	98
35) Tetrahydrofuran	5.258	42	20810M6	9.498	ug/L	
37) 1,1,1-Trichloroethane	5.296	97	132414	10.561	ug/L	99
39) 2-Butanone	5.395	43	25684	9.995	ug/L	89
40) 1,1-Dichloropropene	5.418	75	105224	10.498	ug/L	98
41) Benzene	5.668	78	326866	10.769	ug/L	98
42) tert-Amyl methyl ether	5.767	73	207586	10.015	ug/L	99
44) 1,2-Dichloroethane	5.874	62	97001	10.027	ug/L	98
47) Methyl cyclohexane	6.246	83	128925	10.930	ug/L	92
48) Trichloroethene	6.261	95	88397	10.328	ug/L	100
50) Dibromomethane	6.717	93	49277	10.292	ug/L	95
51) 1,2-Dichloropropane	6.816	63	77980	10.529	ug/L	99
53) 2-Chloroethyl vinyl ether	7.507	63	43244	9.650	ug/L	99
54) Bromodichloromethane	6.884	83	110833	10.252	ug/L	100
57) 1,4-Dioxane	7.099	88	35915	476.735	ug/L	96
58) cis-1,3-Dichloropropene	7.579	75	123908	10.248	ug/L	97
61) Toluene	7.836	92	203126	10.552	ug/L	98
62) 4-Methyl-2-pentanone	8.273	58	21862	10.301	ug/L	96
63) Tetrachloroethene	8.288	166	90280	10.684	ug/L	98
65) trans-1,3-Dichloropropene	8.331	75	109161	10.358	ug/L	96
67) Ethyl methacrylate	8.510	69	88709	10.011	ug/L	99
68) 1,1,2-Trichloroethane	8.517	83	53589	10.145	ug/L	99
69) Chlorodibromomethane	8.725	129	86439	10.350	ug/L	97
70) 1,3-Dichloropropane	8.839	76	110016	10.450	ug/L	98
71) 1,2-Dibromoethane	9.004	107	67957	10.142	ug/L	100
72) 2-Hexanone	9.283	43	37271	9.469	ug/L	98
73) Chlorobenzene	9.645	112	225099	10.492	ug/L	100
74) Ethylbenzene	9.678	91	389004	10.584	ug/L	99
75) 1,1,1,2-Tetrachloroethane	9.736	131	83492	10.457	ug/L	99
76) p/m Xylene	9.867	106	308831	21.252	ug/L	99
77) o Xylene	10.402	106	298234	21.186	ug/L	99

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78)	Styrene	10.476	104	499564	20.942	ug/L		98
80)	Bromoform	10.509	173	55204	9.737	ug/L		99
82)	Isopropylbenzene	10.781	105	380415	10.625	ug/L		100
84)	Bromobenzene	11.225	156	102225	10.327	ug/L		99
85)	n-Propylbenzene	11.258	91	436489	10.466	ug/L		99
86)	1,4-Dichlorobutane	11.282	55	115065	10.019	ug/L		99
87)	1,1,2,2-Tetrachloroethane	11.356	83	78939	9.921	ug/L		98
88)	4-Ethyltoluene	11.381	105	368555	10.571	ug/L		100
89)	2-Chlorotoluene	11.430	91	263738M1	10.311	ug/L		
90)	1,3,5-Trimethylbenzene	11.480	105	325688	10.553	ug/L		99
91)	1,2,3-Trichloropropane	11.496	75	66787	10.036	ug/L		98
92)	trans-1,4-Dichloro-2-b...	11.546	53	16540	9.065	ug/L	#	96
93)	4-Chlorotoluene	11.611	91	278152	10.563	ug/L		99
94)	tert-Butylbenzene	11.817	119	268117	10.748	ug/L		99
97)	1,2,4-Trimethylbenzene	11.899	105	323593	10.642	ug/L		100
98)	sec-Butylbenzene	12.006	105	380308	10.718	ug/L		100
99)	p-Isopropyltoluene	12.163	119	327721	10.640	ug/L		99
100)	1,3-Dichlorobenzene	12.237	146	191268	10.517	ug/L		100
101)	1,4-Dichlorobenzene	12.327	146	194645	10.392	ug/L		99
102)	p-Diethylbenzene	12.533	119	189303	10.699	ug/L		99
103)	n-Butylbenzene	12.590	91	259443	10.652	ug/L		99
104)	1,2-Dichlorobenzene	12.747	146	181112	10.441	ug/L		99
105)	1,2,4,5-Tetramethylben...	13.323	119	268152	10.125	ug/L		98
106)	1,2-Dibromo-3-chloropr...	13.528	155	13870	9.398	ug/L		95
107)	1,3,5-Trichlorobenzene	13.553	180	117896	10.325	ug/L		98
108)	Hexachlorobutadiene	14.120	225	31839	9.952	ug/L		97
109)	1,2,4-Trichlorobenzene	14.153	180	99009	10.014	ug/L		99
110)	Naphthalene	14.441	128	210646	9.491	ug/L		100
111)	1,2,3-Trichlorobenzene	14.614	180	82318	10.012	ug/L		99

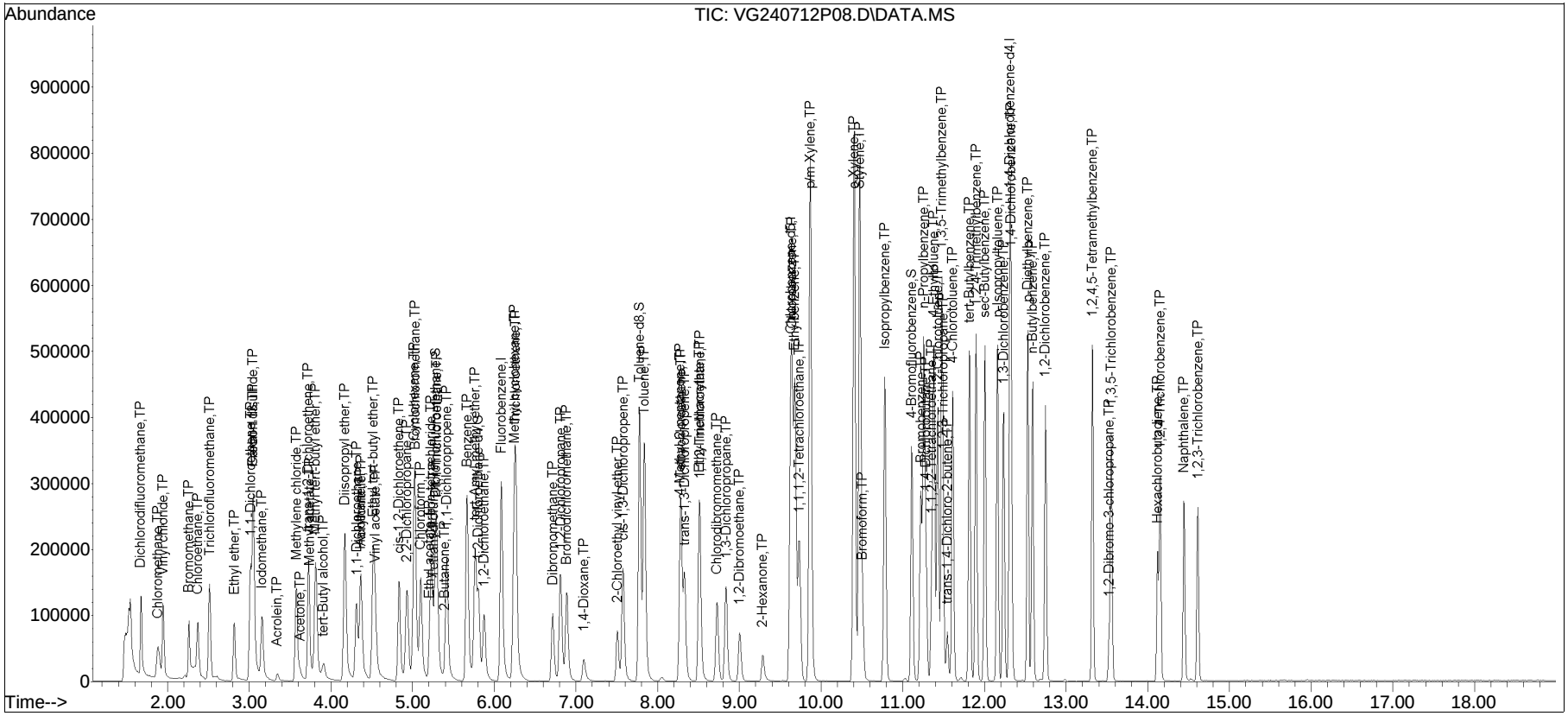
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P08.D
Acq On : 12 Jul 2024 11:20 pm
Operator : GONZO:PID
Sample : I8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 15 09:37:57 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

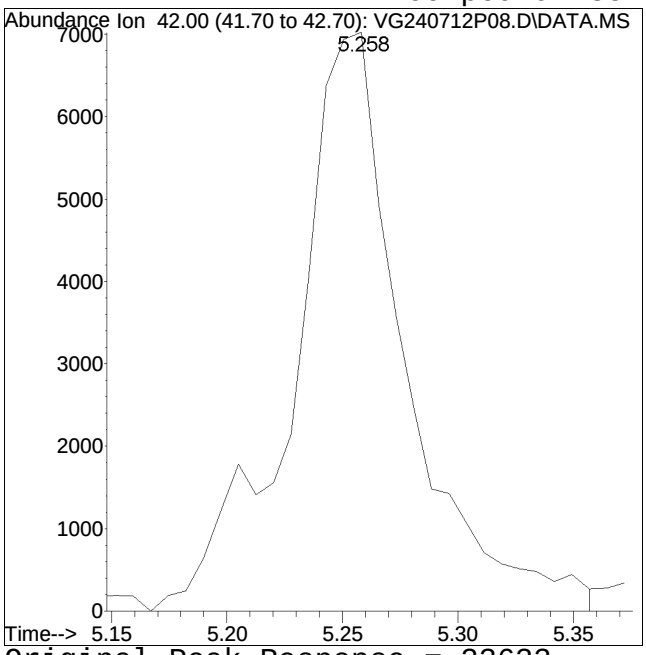
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



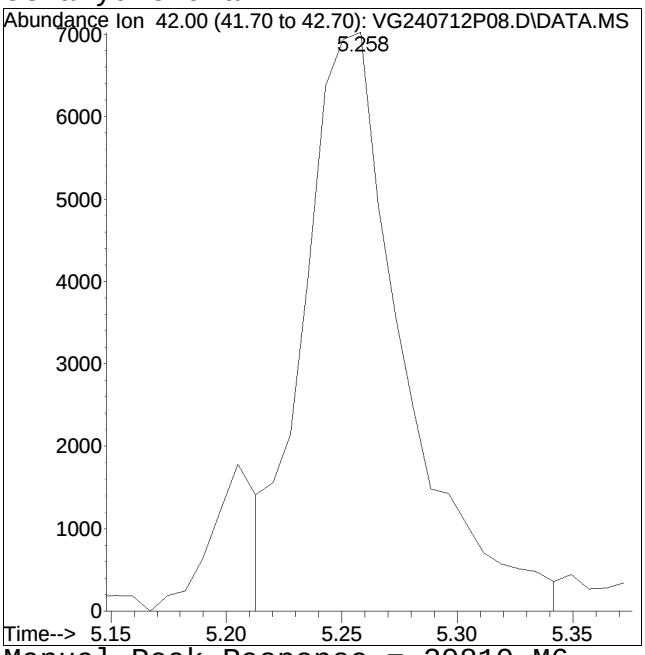
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P08.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:20 pm Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 7/15/2024 9:37 am

Compound #35: Tetrahydrofuran



Original Peak Response = 23633



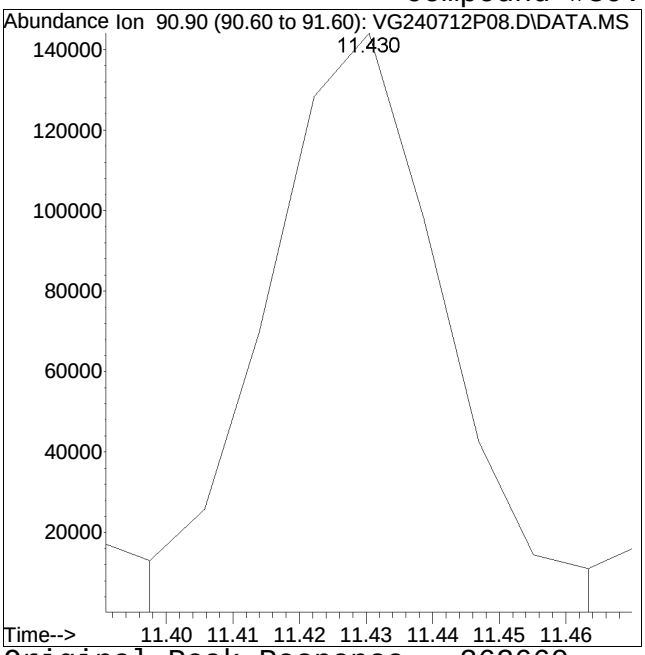
Manual Peak Response = 20810 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

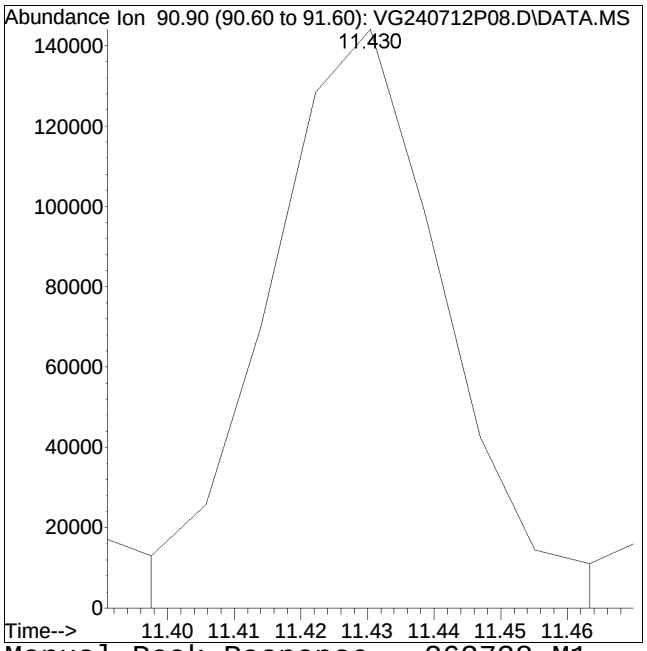
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P08.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:20 pm Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 7/15/2024 9:37 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 262660



Manual Peak Response = 263738 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	372719	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 105.20%			
59) Chlorobenzene-d5	9.629	117	299867	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 108.26%			
79) 1,4-Dichlorobenzene-d4	12.311	152	171304	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 107.04%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	96776	9.941	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.41%			
43) 1,2-Dichloroethane-d4	5.805	65	100020	9.671	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.71%			
60) Toluene-d8	7.779	98	374235	9.941	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.41%			
83) 4-Bromofluorobenzene	11.110	95	143682	10.042	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	324565	32.799	ug/L	99
3) Chloromethane	1.885	50	255836	30.224	ug/L	98
4) Vinyl chloride	1.946	62	286164	32.633	ug/L	99
5) Bromomethane	2.265	94	145483	29.379	ug/L	98
6) Chloroethane	2.364	64	212529	31.701	ug/L	97
7) Trichlorofluoromethane	2.516	101	427640	33.261	ug/L	99
8) Ethyl ether	2.812	74	127609	29.895	ug/L	94
10) 1,1-Dichloroethene	3.009	96	228092	32.351	ug/L	100
11) Carbon disulfide	3.047	76	628055	30.289	ug/L	99
12) Freon-113	3.047	101	252957	32.698	ug/L	93
13) Iodomethane	3.154	142	427847	33.492	ug/L	99
14) Acrolein	3.336	56	35475	29.258	ug/L	98
15) Methylene chloride	3.572	84	244841	29.371	ug/L	95
17) Acetone	3.617	43	57477	23.208	ug/L	94
18) trans-1,2-Dichloroethene	3.724	96	239932	31.110	ug/L	99
19) Methyl acetate	3.731	43	119708	21.594	ug/L	99
20) Methyl tert-butyl ether	3.815	73	728561	30.722	ug/L	98
21) tert-Butyl alcohol	3.906	59	100969	153.451	ug/L	92
22) Diisopropyl ether	4.172	45	763008	31.502	ug/L	99
23) 1,1-Dichloroethane	4.308	63	432018	30.924	ug/L	98
24) Halothane	4.362	117	200927	31.366	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	65880	30.239	ug/L		96
26) Ethyl tert-butyl ether	4.521	59	742121	31.145	ug/L		97
27) Vinyl acetate	4.544	43	427564	33.028	ug/L		100
28) cis-1,2-Dichloroethene	4.833	96	274947	31.004	ug/L		96
29) 2,2-Dichloropropane	4.931	77	357399	30.684	ug/L		93
30) Bromochloromethane	5.030	128	132953	30.643	ug/L		96
31) Cyclohexane	5.023	56	447301	33.755	ug/L		86
32) Chloroform	5.099	83	438380	30.654	ug/L		97
33) Ethyl acetate	5.205	43	195972	30.951	ug/L		98
34) Carbon tetrachloride	5.228	117	386449	33.343	ug/L		98
35) Tetrahydrofuran	5.251	42	62108M6	26.946	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	421180	31.934	ug/L		99
39) 2-Butanone	5.387	43	85414	31.596	ug/L	#	82
40) 1,1-Dichloropropene	5.418	75	348555	33.056	ug/L		99
41) Benzene	5.668	78	1025888	32.129	ug/L		98
42) tert-Amyl methyl ether	5.767	73	676608	31.030	ug/L		99
44) 1,2-Dichloroethane	5.873	62	311218	30.582	ug/L		99
47) Methyl cyclohexane	6.246	83	429499	34.614	ug/L		92
48) Trichloroethene	6.261	95	282627	31.388	ug/L		100
50) Dibromomethane	6.709	93	152501	30.278	ug/L		99
51) 1,2-Dichloropropane	6.808	63	244606	31.396	ug/L		100
53) 2-Chloroethyl vinyl ether	7.507	63	151030	32.039	ug/L		94
54) Bromodichloromethane	6.884	83	350592	30.827	ug/L		99
57) 1,4-Dioxane	7.099	88	47572	600.274	ug/L		98
58) cis-1,3-Dichloropropene	7.571	75	391518	30.782	ug/L		98
61) Toluene	7.836	92	643877	30.895	ug/L		98
62) 4-Methyl-2-pentanone	8.273	58	72792	31.680	ug/L		97
63) Tetrachloroethene	8.281	166	291708	31.888	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	349573	30.639	ug/L		94
67) Ethyl methacrylate	8.503	69	297496	31.011	ug/L		97
68) 1,1,2-Trichloroethane	8.517	83	173270	30.299	ug/L		100
69) Chlorodibromomethane	8.725	129	280060	30.975	ug/L		99
70) 1,3-Dichloropropane	8.839	76	346843	30.432	ug/L		99
71) 1,2-Dibromoethane	9.004	107	218120	30.069	ug/L		99
72) 2-Hexanone	9.283	43	132929	31.195	ug/L		97
73) Chlorobenzene	9.645	112	710577	30.594	ug/L		100
74) Ethylbenzene	9.678	91	1233930	31.011	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.736	131	272925	31.575	ug/L		99
76) p/m Xylene	9.867	106	979290	62.247	ug/L		98
77) o Xylene	10.402	106	944700	61.989	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	1602988	62.069	ug/L		99
80) Bromoform	10.509	173	189180	31.172	ug/L		99
82) Isopropylbenzene	10.781	105	1234887	32.221	ug/L		100
84) Bromobenzene	11.225	156	327754	30.934	ug/L		99
85) n-Propylbenzene	11.258	91	1413029	31.652	ug/L		100
86) 1,4-Dichlorobutane	11.282	55	364471	29.647	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	260616	30.598	ug/L		98
88) 4-Ethyltoluene	11.381	105	1182608	31.688	ug/L		100
89) 2-Chlorotoluene	11.430	91	836860M1	30.566	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	1035689	31.350	ug/L		100
91) 1,2,3-Trichloropropane	11.496	75	209842	29.459	ug/L		97
92) trans-1,4-Dichloro-2-b...	11.546	53	58880	30.149	ug/L	#	93
93) 4-Chlorotoluene	11.611	91	870420	30.882	ug/L		98
94) tert-Butylbenzene	11.817	119	863614	32.343	ug/L		99
97) 1,2,4-Trimethylbenzene	11.899	105	1022060	31.402	ug/L		100
98) sec-Butylbenzene	12.006	105	1219756	32.115	ug/L		99
99) p-Isopropyltoluene	12.154	119	1060162	32.155	ug/L		99
100) 1,3-Dichlorobenzene	12.237	146	608789	31.274	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	617006	30.775	ug/L		100
102) p-Diethylbenzene	12.533	119	609843	32.201	ug/L		99
103) n-Butylbenzene	12.590	91	836761	32.095	ug/L		99
104) 1,2-Dichlorobenzene	12.747	146	580058	31.240	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.322	119	887011	31.289	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.528	155	49106	31.084	ug/L		99
107) 1,3,5-Trichlorobenzene	13.553	180	389689	31.884	ug/L		99
108) Hexachlorobutadiene	14.120	225	111654	32.606	ug/L		99
109) 1,2,4-Trichlorobenzene	14.153	180	342320	32.345	ug/L		98
110) Naphthalene	14.441	128	733269	30.865	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	277050	31.481	ug/L		99

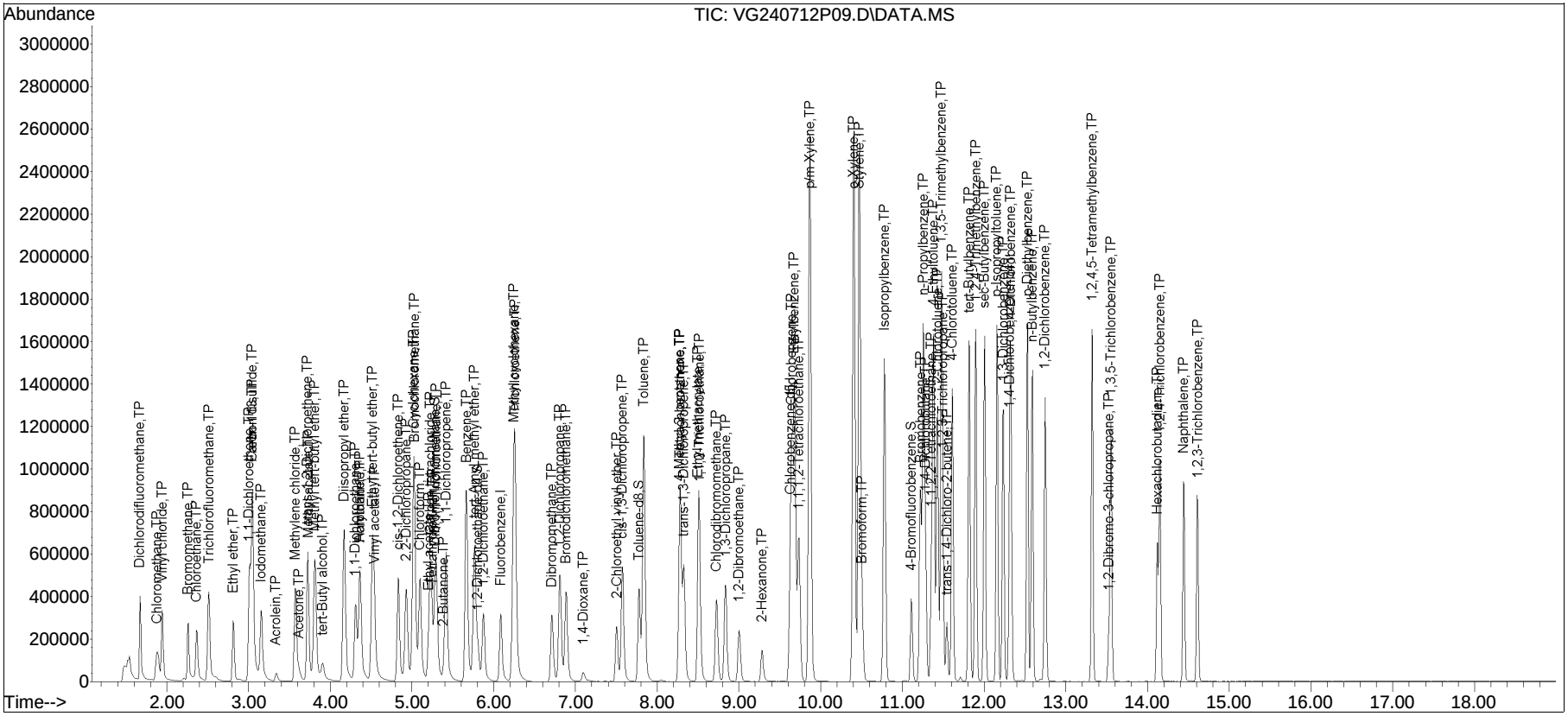
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P09.D
Acq On : 12 Jul 2024 11:44 pm
Operator : GONZO:PID
Sample : I8260STD30PPB
Misc : WG1947004,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 15 09:38:06 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

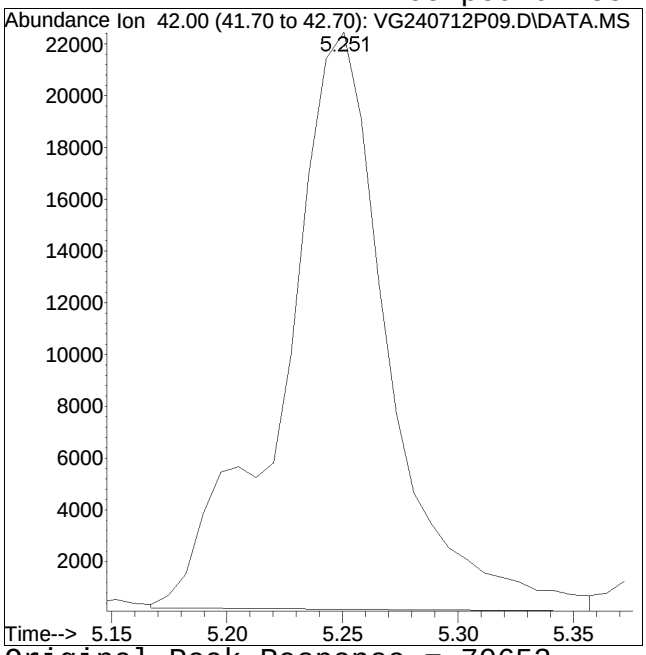
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



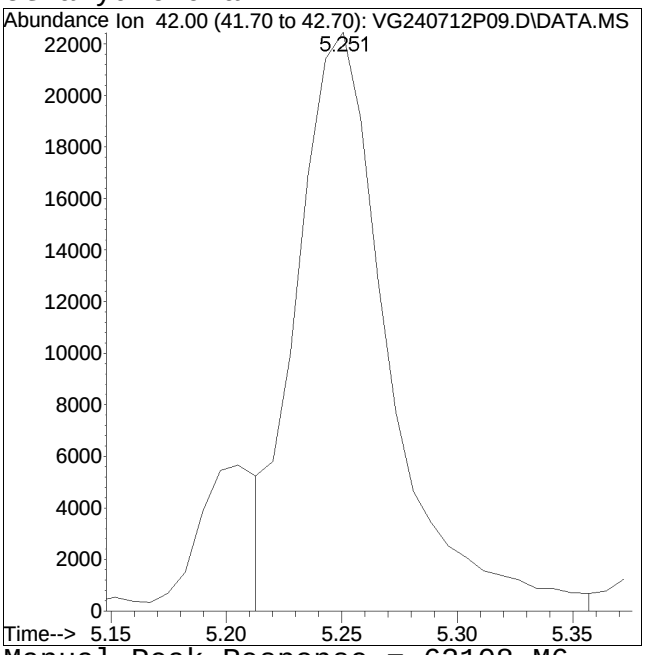
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P09.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:44 pm Instrument : Gonzo
Sample : I8260STD30PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 70652



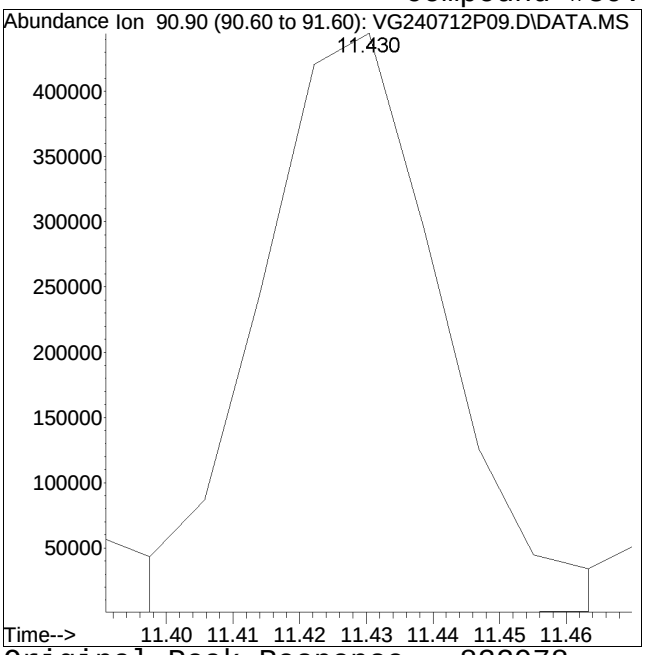
Manual Peak Response = 62108 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

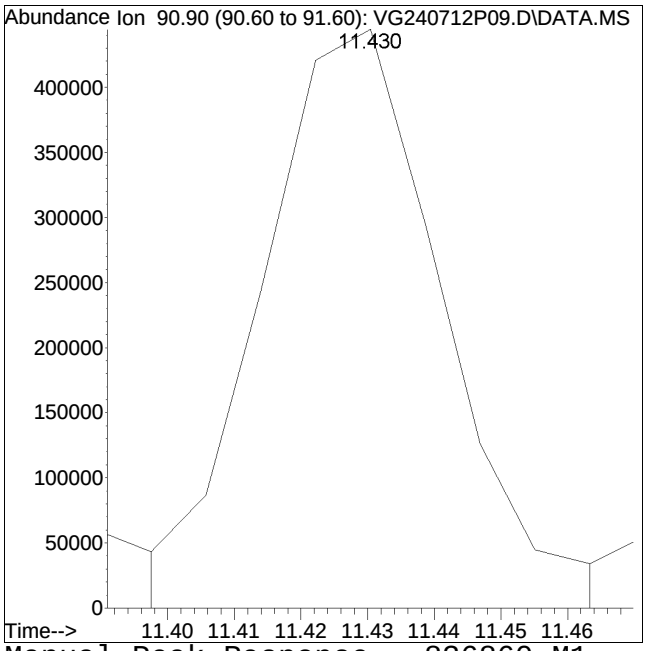
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P09.D Operator : GONZO:PID
Date Inj'd : 7/12/2024 11:44 pm Instrument : Gonzo
Sample : I8260STD30PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 832978



Manual Peak Response = 836860 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	383032	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 108.11%			
59) Chlorobenzene-d5	9.629	117	309567	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 111.76%			
79) 1,4-Dichlorobenzene-d4	12.311	152	180694	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 112.91%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	98748	9.870	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.70%			
43) 1,2-Dichloroethane-d4	5.805	65	104156	9.800	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.00%			
60) Toluene-d8	7.779	98	385574	9.921	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.21%			
83) 4-Bromofluorobenzene	11.110	95	147049	9.744	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.44%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	862472	84.810	ug/L	99
3) Chloromethane	1.885	50	695432	79.945	ug/L	99
4) Vinyl chloride	1.946	62	769310	85.366	ug/L	99
5) Bromomethane	2.265	94	463493	91.078	ug/L	99
6) Chloroethane	2.364	64	587477	85.270	ug/L	97
7) Trichlorofluoromethane	2.516	101	1150188	87.052	ug/L	99
8) Ethyl ether	2.812	74	359838	82.030	ug/L	92
10) 1,1-Dichloroethene	3.017	96	620430	85.628	ug/L	98
11) Carbon disulfide	3.047	76	1778961	83.483	ug/L	100
12) Freon-113	3.047	101	687108	86.425	ug/L	88
13) Iodomethane	3.154	142	1245768	94.893	ug/L	99
14) Acrolein	3.336	56	105198	84.427	ug/L	96
15) Methylene chloride	3.572	84	683427	79.776	ug/L	96
17) Acetone	3.617	43	152239	59.817	ug/L	91
18) trans-1,2-Dichloroethene	3.724	96	670424	84.588	ug/L	98
19) Methyl acetate	3.731	43	338259	59.375	ug/L	98
20) Methyl tert-butyl ether	3.815	73	2058933	84.483	ug/L	98
21) tert-Butyl alcohol	3.906	59	289665	428.375	ug/L	92
22) Diisopropyl ether	4.172	45	2152115	86.462	ug/L	98
23) 1,1-Dichloroethane	4.309	63	1211459	84.382	ug/L	99
24) Halothane	4.362	117	557588	84.699	ug/L	99

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	193173	86.281	ug/L		92
26) Ethyl tert-butyl ether	4.521	59	2105888	86.000	ug/L		95
27) Vinyl acetate	4.544	43	1140924	85.760	ug/L		99
28) cis-1,2-Dichloroethene	4.833	96	758949	83.276	ug/L		97
29) 2,2-Dichloropropane	4.932	77	993680	83.013	ug/L		93
30) Bromochloromethane	5.030	128	369889	82.957	ug/L		96
31) Cyclohexane	5.023	56	1178107	86.511	ug/L		87
32) Chloroform	5.099	83	1240690	84.421	ug/L		99
33) Ethyl acetate	5.197	43	548149	84.242	ug/L		97
34) Carbon tetrachloride	5.228	117	1052509	88.367	ug/L		99
35) Tetrahydrofuran	5.243	42	168967M6	71.334	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	1154438	85.173	ug/L		99
39) 2-Butanone	5.387	43	245796	88.475	ug/L	#	84
40) 1,1-Dichloropropene	5.418	75	934892	86.276	ug/L		98
41) Benzene	5.661	78	2809967	85.633	ug/L		98
42) tert-Amyl methyl ether	5.767	73	1903739	84.957	ug/L		99
44) 1,2-Dichloroethane	5.874	62	854820	81.737	ug/L		100
47) Methyl cyclohexane	6.246	83	1114480	87.400	ug/L		93
48) Trichloroethene	6.261	95	767225	82.914	ug/L		99
50) Dibromomethane	6.709	93	420450	81.230	ug/L		99
51) 1,2-Dichloropropane	6.808	63	676967	84.551	ug/L		100
53) 2-Chloroethyl vinyl ether	7.500	63	427961	88.342	ug/L		95
54) Bromodichloromethane	6.884	83	983509	84.151	ug/L		99
57) 1,4-Dioxane	7.099	88	63356	777.915	ug/L		97
58) cis-1,3-Dichloropropene	7.571	75	1100773	84.214	ug/L		99
61) Toluene	7.837	92	1782574	82.854	ug/L		99
62) 4-Methyl-2-pentanone	8.273	58	204922	86.389	ug/L		99
63) Tetrachloroethene	8.281	166	795917	84.279	ug/L		98
65) trans-1,3-Dichloropropene	8.324	75	999200	84.834	ug/L		94
67) Ethyl methacrylate	8.503	69	841792	85.000	ug/L		96
68) 1,1,2-Trichloroethane	8.510	83	491058	83.179	ug/L		100
69) Chlorodibromomethane	8.725	129	792845	84.941	ug/L		99
70) 1,3-Dichloropropane	8.832	76	971521	82.571	ug/L		99
71) 1,2-Dibromoethane	9.004	107	620246	82.824	ug/L		100
72) 2-Hexanone	9.276	43	360048	81.847	ug/L		99
73) Chlorobenzene	9.645	112	1983776	82.737	ug/L		100
74) Ethylbenzene	9.678	91	3439373	83.730	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.736	131	766504	85.899	ug/L		99
76) p/m Xylene	9.868	106	2742934	168.888	ug/L		97
77) o Xylene	10.402	106	2624144	166.795	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	4557406	170.938	ug/L		98
80) Bromoform	10.509	173	537544	83.970	ug/L		99
82) Isopropylbenzene	10.781	105	3387062	83.782	ug/L		100
84) Bromobenzene	11.217	156	908955	81.331	ug/L		99
85) n-Propylbenzene	11.258	91	3908848	83.007	ug/L		100
86) 1,4-Dichlorobutane	11.282	55	1024805	79.028	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	717844	79.901	ug/L		99
88) 4-Ethyltoluene	11.381	105	3267391	83.000	ug/L		100
89) 2-Chlorotoluene	11.431	91	2329687M1	80.670	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	2857961	82.014	ug/L		99
91) 1,2,3-Trichloropropane	11.488	75	587774	78.227	ug/L		97
92) trans-1,4-Dichloro-2-b...	11.546	53	183515	89.085	ug/L	#	91
93) 4-Chlorotoluene	11.611	91	2443388	82.184	ug/L		99
94) tert-Butylbenzene	11.817	119	2357887	83.717	ug/L		99
97) 1,2,4-Trimethylbenzene	11.899	105	2833212	82.526	ug/L		99
98) sec-Butylbenzene	12.006	105	3339056	83.345	ug/L		99
99) p-Isopropyltoluene	12.163	119	2925150	84.109	ug/L		99
100) 1,3-Dichlorobenzene	12.237	146	1672782	81.466	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	1703845	80.567	ug/L		100
102) p-Diethylbenzene	12.533	119	1686786	84.438	ug/L		99
103) n-Butylbenzene	12.590	91	2311763	84.062	ug/L		99
104) 1,2-Dichlorobenzene	12.747	146	1601713	81.780	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.323	119	2542605	85.027	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.528	155	137995	82.813	ug/L		96
107) 1,3,5-Trichlorobenzene	13.553	180	1084044	84.085	ug/L		99
108) Hexachlorobutadiene	14.121	225	314745	87.137	ug/L		99
109) 1,2,4-Trichlorobenzene	14.145	180	965002	86.441	ug/L		99
110) Naphthalene	14.441	128	2082405	83.098	ug/L		100
111) 1,2,3-Trichlorobenzene	14.606	180	789706	85.070	ug/L		99

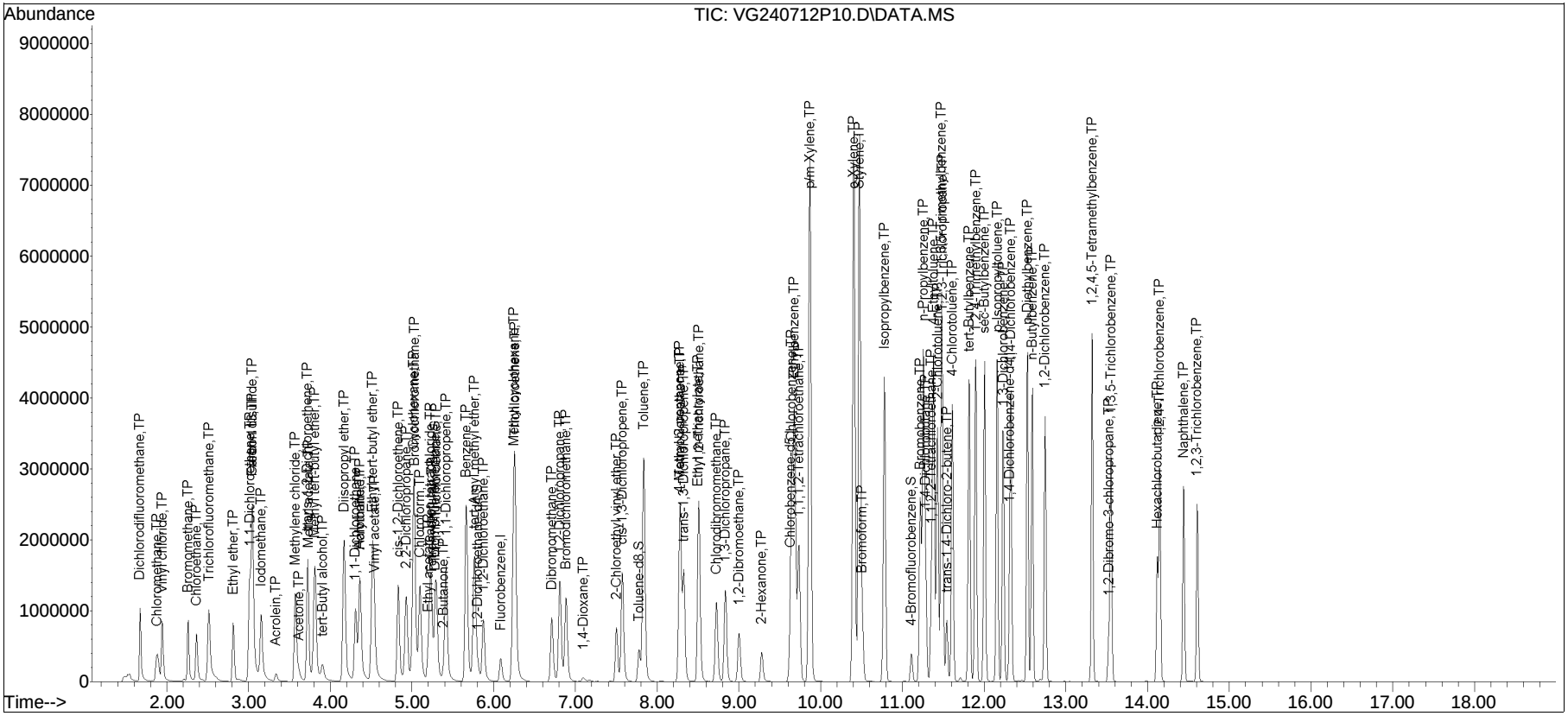
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P10.D
Acq On : 13 Jul 2024 12:09 am
Operator : GONZO:PID
Sample : I8260STD80PPB
Misc : WG1947004,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 15 09:38:15 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

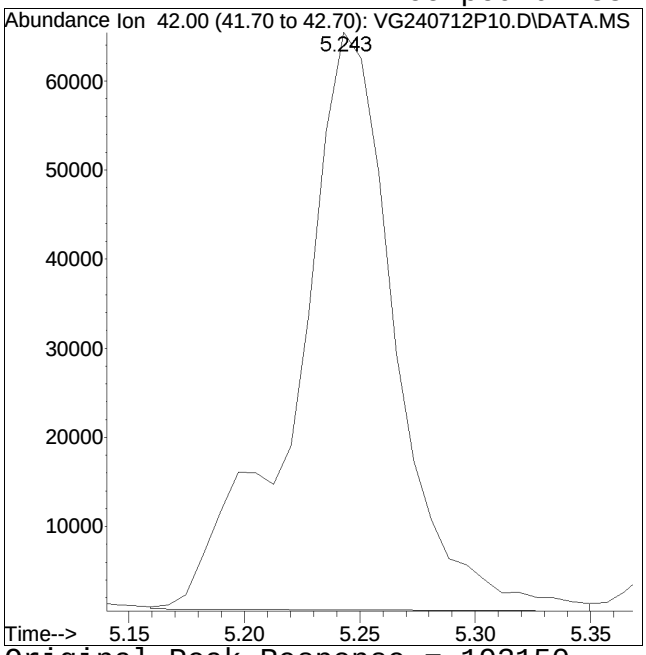
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



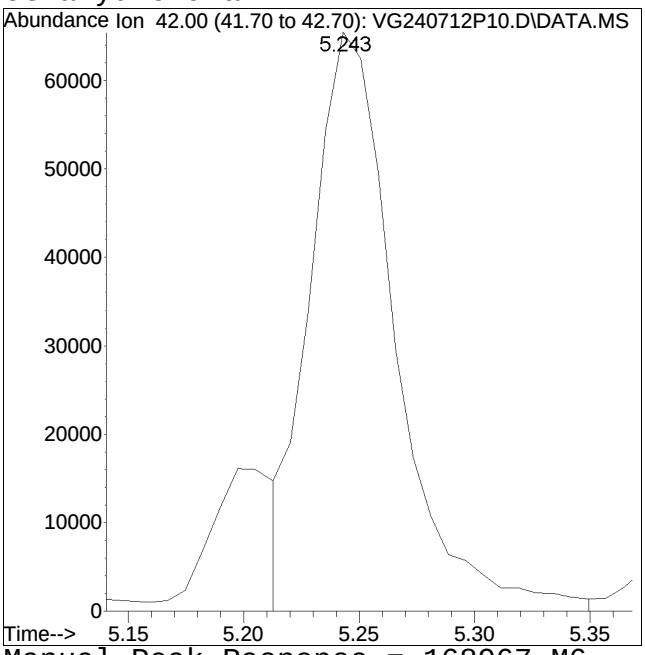
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P10.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:09 am Instrument : Gonzo
Sample : I8260STD80PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 193150



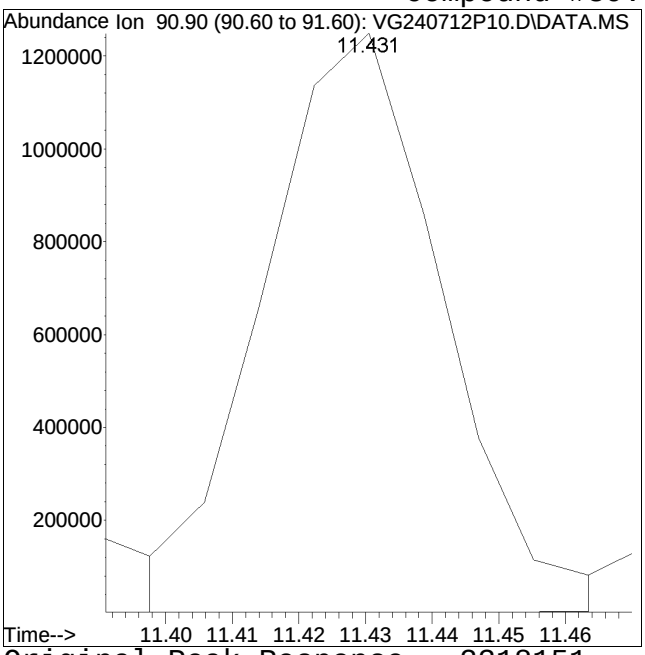
Manual Peak Response = 168967 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

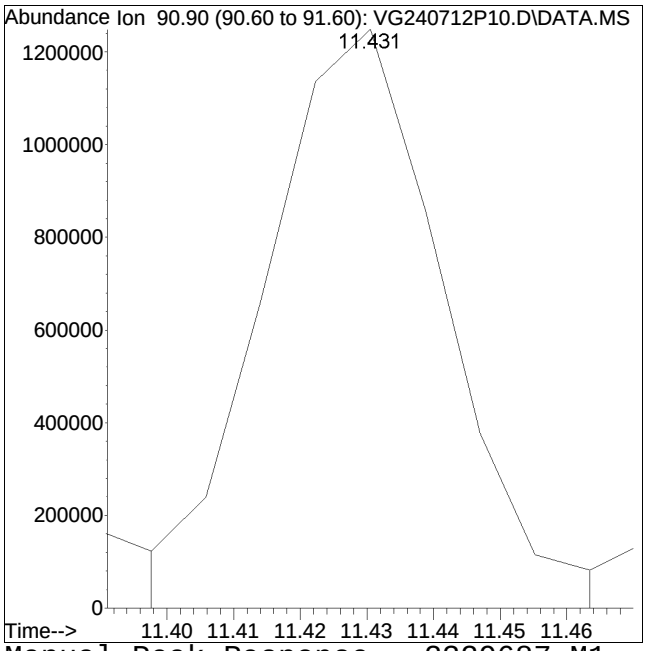
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P10.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:09 am Instrument : Gonzo
Sample : I8260STD80PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 2318151



Manual Peak Response = 2329687 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	377936	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 106.67%			
59) Chlorobenzene-d5	9.629	117	302217	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 109.11%			
79) 1,4-Dichlorobenzene-d4	12.310	152	171302	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 107.04%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	97723	9.900	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.00%			
43) 1,2-Dichloroethane-d4	5.805	65	99788	9.516	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.16%			
60) Toluene-d8	7.779	98	380044	10.017	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.17%			
83) 4-Bromofluorobenzene	11.109	95	144339	10.088	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	1059142	105.554	ug/L	99
3) Chloromethane	1.885	50	862812	100.524	ug/L	99
4) Vinyl chloride	1.946	62	958158	107.755	ug/L	98
5) Bromomethane	2.265	94	615199	122.518	ug/L	99
6) Chloroethane	2.363	64	727175	106.969	ug/L	96
7) Trichlorofluoromethane	2.515	101	1442684	110.661	ug/L	99
8) Ethyl ether	2.812	74	451593	104.335	ug/L	95
10) 1,1-Dichloroethene	3.017	96	780991	109.241	ug/L	98
11) Carbon disulfide	3.047	76	2282406	108.553	ug/L	100
12) Freon-113	3.047	101	852944	108.731	ug/L	84
13) Iodomethane	3.154	142	1509994	116.571	ug/L	99
14) Acrolein	3.336	56	133657	108.713	ug/L	98
15) Methylene chloride	3.571	84	841960	99.606	ug/L	96
17) Acetone	3.609	43	189682	75.534	ug/L	91
18) trans-1,2-Dichloroethene	3.723	96	827161	105.771	ug/L	97
19) Methyl acetate	3.731	43	419216	74.578	ug/L	98
20) Methyl tert-butyl ether	3.815	73	2534557	105.401	ug/L	98
21) tert-Butyl alcohol	3.906	59	357581	535.944	ug/L	98
22) Diisopropyl ether	4.172	45	2637814	107.404	ug/L	98
23) 1,1-Dichloroethane	4.308	63	1500414	105.918	ug/L	99
24) Halothane	4.362	117	695872	107.130	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	238475	107.951	ug/L		94
26) Ethyl tert-butyl ether	4.521	59	2583270	106.918	ug/L		98
27) Vinyl acetate	4.536	43	1528446	116.437	ug/L		99
28) cis-1,2-Dichloroethene	4.833	96	942272	104.786	ug/L		97
29) 2,2-Dichloropropane	4.931	77	1208765	102.343	ug/L		93
30) Bromochloromethane	5.030	128	453303	103.036	ug/L		96
31) Cyclohexane	5.022	56	1457858	108.497	ug/L		93
32) Chloroform	5.098	83	1500849	103.500	ug/L		99
33) Ethyl acetate	5.197	43	678282	105.648	ug/L		98
34) Carbon tetrachloride	5.228	117	1303399	110.907	ug/L		99
35) Tetrahydrofuran	5.243	42	210002M6	89.854	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	1425900	106.619	ug/L		99
39) 2-Butanone	5.387	43	304291	111.007	ug/L	#	84
40) 1,1-Dichloropropene	5.418	75	1162603	108.736	ug/L		98
41) Benzene	5.661	78	3481925	107.541	ug/L		98
42) tert-Amyl methyl ether	5.767	73	2351567	106.357	ug/L		99
44) 1,2-Dichloroethane	5.873	62	1047471	101.509	ug/L		99
47) Methyl cyclohexane	6.246	83	1366320	108.595	ug/L		93
48) Trichloroethene	6.261	95	937809	102.715	ug/L		99
50) Dibromomethane	6.709	93	516891	101.209	ug/L		99
51) 1,2-Dichloropropane	6.808	63	828576	104.882	ug/L		100
53) 2-Chloroethyl vinyl ether	7.500	63	529545	110.785	ug/L		95
54) Bromodichloromethane	6.884	83	1197815	103.869	ug/L		99
57) 1,4-Dioxane	7.098	88	99538	1238.654	ug/L		95
58) cis-1,3-Dichloropropene	7.571	75	1366954	105.988	ug/L		99
61) Toluene	7.836	92	2196660	104.584	ug/L		98
62) 4-Methyl-2-pentanone	8.273	58	254155	109.750	ug/L		99
63) Tetrachloroethene	8.280	166	995011	107.923	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	1235583	107.454	ug/L		94
67) Ethyl methacrylate	8.502	69	1039952	107.563	ug/L		97
68) 1,1,2-Trichloroethane	8.517	83	600812	104.245	ug/L		100
69) Chlorodibromomethane	8.725	129	979830	107.526	ug/L		99
70) 1,3-Dichloropropane	8.839	76	1186604	103.304	ug/L		99
71) 1,2-Dibromoethane	9.004	107	764085	104.513	ug/L		100
72) 2-Hexanone	9.276	43	446306	103.922	ug/L		99
73) Chlorobenzene	9.645	112	2439959	104.237	ug/L		100
74) Ethylbenzene	9.678	91	4271202	106.509	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.736	131	936936	107.553	ug/L		99
76) p/m Xylene	9.867	106	3391427	213.896	ug/L		97
77) o Xylene	10.410	106	3236266	210.706	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	5649135	217.039	ug/L		97
80) Bromoform	10.509	173	668617	110.172	ug/L		100
82) Isopropylbenzene	10.780	105	4226170	110.270	ug/L		100
84) Bromobenzene	11.225	156	1112838	105.033	ug/L		99
85) n-Propylbenzene	11.258	91	4862561	108.922	ug/L		100
86) 1,4-Dichlorobutane	11.282	55	1270210	103.323	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	911294	106.994	ug/L		99
88) 4-Ethyltoluene	11.381	105	4073585	109.153	ug/L		100
89) 2-Chlorotoluene	11.430	91	2905702M1	106.132	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	3542742	107.239	ug/L		99
91) 1,2,3-Trichloropropane	11.496	75	733961	103.039	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.545	53	236928	121.319	ug/L	#	93
93) 4-Chlorotoluene	11.611	91	3021687	107.208	ug/L		99
94) tert-Butylbenzene	11.817	119	2900762	108.639	ug/L		98
97) 1,2,4-Trimethylbenzene	11.899	105	3524887	108.302	ug/L		99
98) sec-Butylbenzene	12.006	105	4140838	109.025	ug/L		100
99) p-Isopropyltoluene	12.162	119	3619561	109.782	ug/L		99
100) 1,3-Dichlorobenzene	12.236	146	2067463	106.208	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	2108277	105.157	ug/L		100
102) p-Diethylbenzene	12.533	119	2075192	109.577	ug/L		98
103) n-Butylbenzene	12.590	91	2895891	111.076	ug/L		99
104) 1,2-Dichlorobenzene	12.746	146	1963112	105.727	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.322	119	3140805	110.791	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.528	155	173972	110.127	ug/L		98
107) 1,3,5-Trichlorobenzene	13.553	180	1339414	109.590	ug/L		99
108) Hexachlorobutadiene	14.120	225	393823	115.008	ug/L		99
109) 1,2,4-Trichlorobenzene	14.153	180	1183732	111.848	ug/L		99
110) Naphthalene	14.441	128	2632511	110.809	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	980116	111.370	ug/L		99

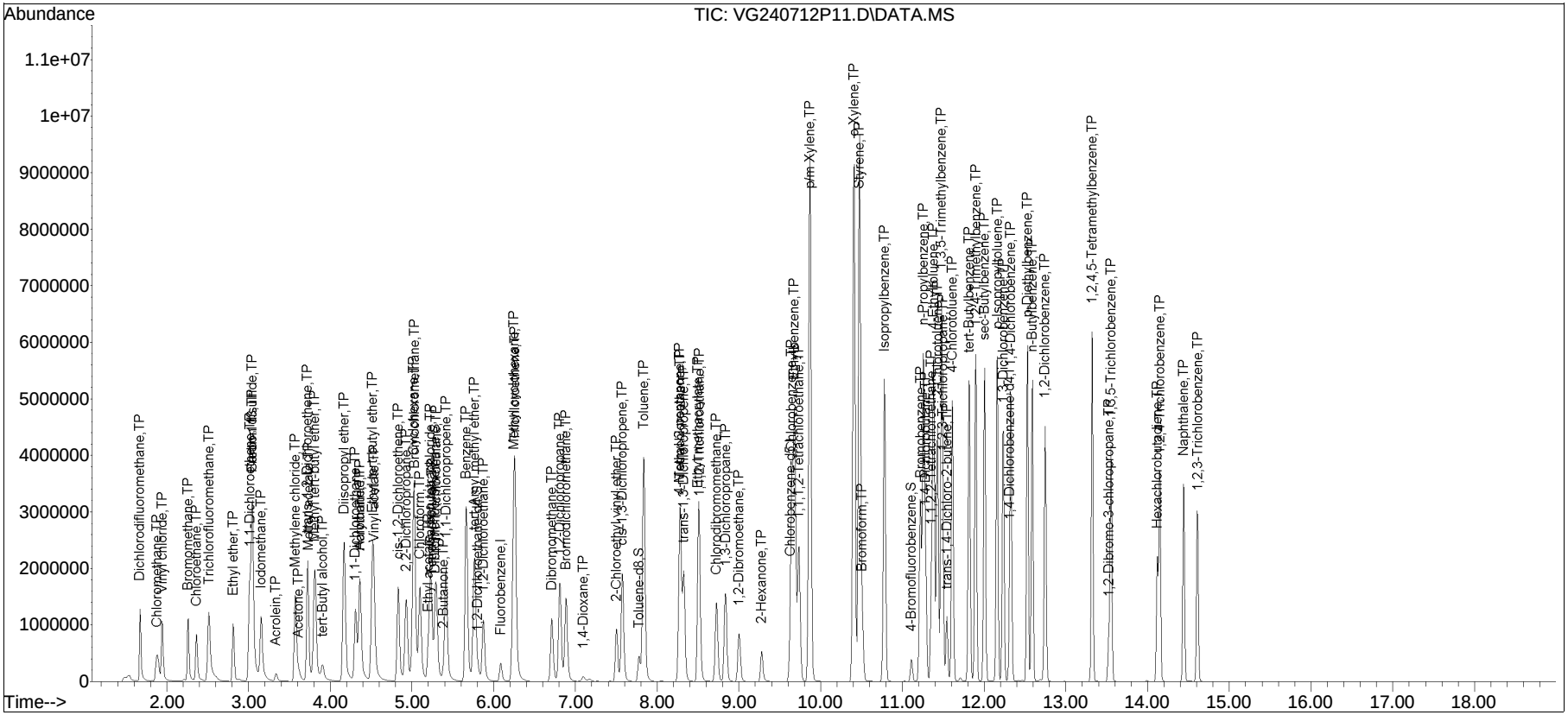
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P11.D
Acq On : 13 Jul 2024 12:32 am
Operator : GONZO:PID
Sample : I8260STD120PPB
Misc : WG1947004,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 15 09:38:24 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

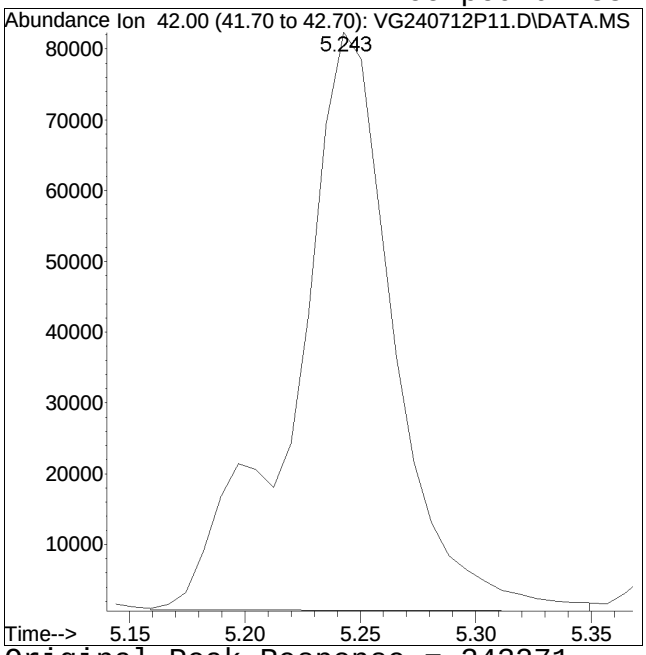
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



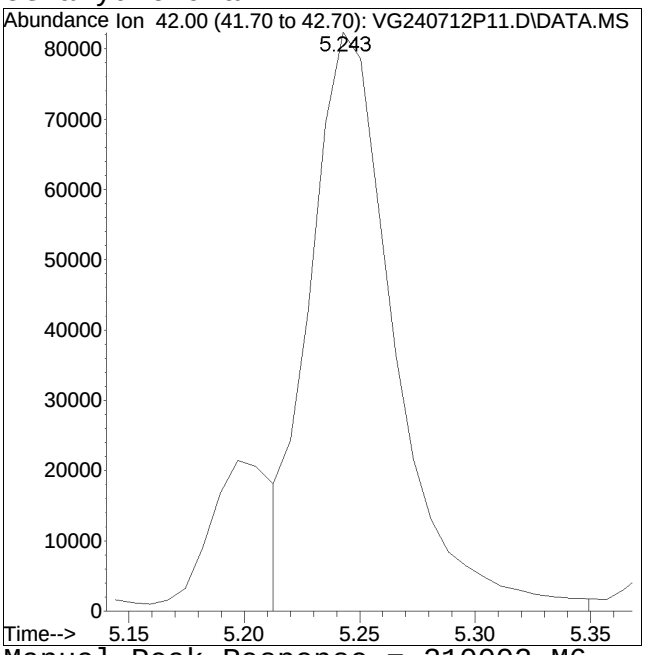
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P11.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:32 am Instrument : Gonzo
Sample : I8260STD120PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 243271



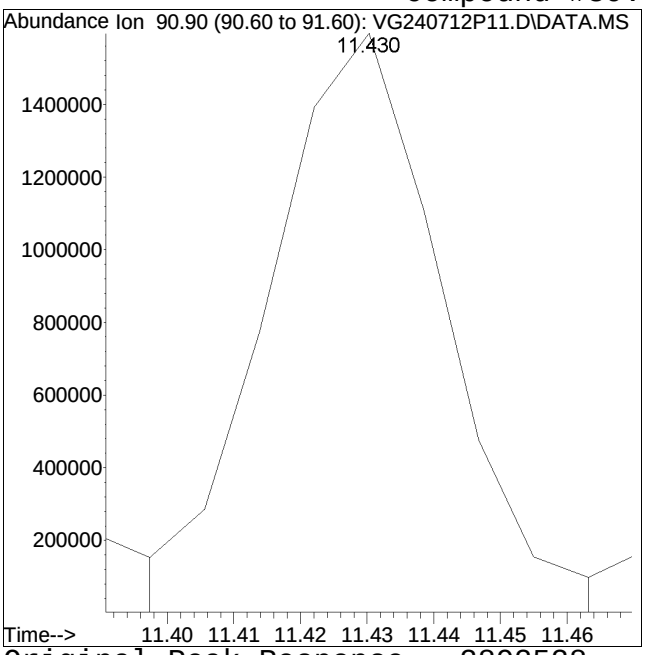
Manual Peak Response = 210002 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

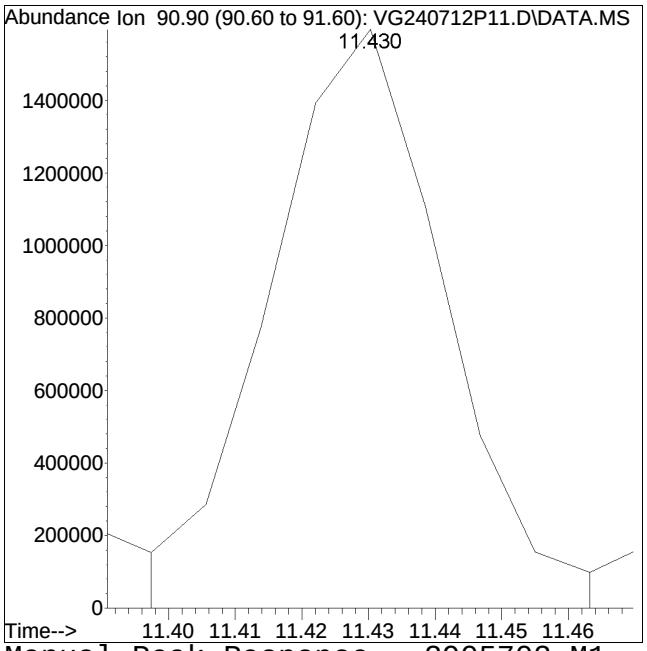
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P11.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:32 am Instrument : Gonzo
Sample : I8260STD120PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 2892528



Manual Peak Response = 2905702 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	386380	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 109.05%			
59) Chlorobenzene-d5	9.629	117	319803	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 115.46%			
79) 1,4-Dichlorobenzene-d4	12.310	152	177767	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 111.08%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.273	113	101487	10.056	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.56%			
43) 1,2-Dichloroethane-d4	5.805	65	107518	10.029	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.29%			
60) Toluene-d8	7.779	98	393921	9.812	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.12%			
83) 4-Bromofluorobenzene	11.109	95	145700	9.813	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.13%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	2110199	205.706	ug/L	99
3) Chloromethane	1.885	50	1824456	207.918	ug/L	99
4) Vinyl chloride	1.938	62	2052905	225.825	ug/L	98
5) Bromomethane	2.257	94	1411260	274.914	ug/L	99
6) Chloroethane	2.356	64	1261279	181.483	ug/L	96
7) Trichlorofluoromethane	2.508	101	3044262	228.408	ug/L	99
8) Ethyl ether	2.812	74	960523	217.067	ug/L	93
10) 1,1-Dichloroethene	3.017	96	1669643	228.436	ug/L	98
11) Carbon disulfide	3.040	76	4976838	231.530	ug/L	100
12) Freon-113	3.040	101	1764003	219.955	ug/L #	77
13) Iodomethane	3.154	142	3250628	245.462	ug/L	99
14) Acrolein	3.336	56	275384	219.095	ug/L	100
15) Methylene chloride	3.571	84	1804030	208.757	ug/L	96
17) Acetone	3.609	43	405037	157.765	ug/L	91
18) trans-1,2-Dichloroethene	3.723	96	1804294	225.678	ug/L	98
19) Methyl acetate	3.723	43	890738	154.998	ug/L	98
20) Methyl tert-butyl ether	3.815	73	5470454	222.520	ug/L	98
21) tert-Butyl alcohol	3.906	59	773650	1134.209	ug/L	99
22) Diisopropyl ether	4.172	45	5672664	225.926	ug/L	99
23) 1,1-Dichloroethane	4.308	63	3171928	219.021	ug/L	99
24) Halothane	4.362	117	1480015	222.871	ug/L	100

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	515668	228.327	ug/L		92
26) Ethyl tert-butyl ether	4.521	59	5628078	227.848	ug/L		92
27) Vinyl acetate	4.536	43	2710445	201.970	ug/L		100
28) cis-1,2-Dichloroethene	4.833	96	2030006	220.814	ug/L		98
29) 2,2-Dichloropropane	4.931	77	2576116	213.347	ug/L		93
30) Bromochloromethane	5.030	128	951515	211.553	ug/L		95
31) Cyclohexane	5.022	56	2973713	216.474	ug/L		86
32) Chloroform	5.098	83	3289177	221.868	ug/L		98
33) Ethyl acetate	5.197	43	1440671	219.491	ug/L		98
34) Carbon tetrachloride	5.228	117	2749711	228.861	ug/L		99
35) Tetrahydrofuran	5.243	42	442965M6	185.389	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	3010744	220.203	ug/L		99
39) 2-Butanone	5.387	43	648512	231.411	ug/L	#	84
40) 1,1-Dichloropropene	5.418	75	2447948	223.949	ug/L		98
41) Benzene	5.661	78	7545706	227.960	ug/L		98
42) tert-Amyl methyl ether	5.767	73	5115122	226.291	ug/L		99
44) 1,2-Dichloroethane	5.873	62	2240678	212.396	ug/L		100
47) Methyl cyclohexane	6.246	83	2729273	212.181	ug/L		93
48) Trichloroethene	6.261	95	2082595	223.115	ug/L		100
50) Dibromomethane	6.709	93	1114091	213.376	ug/L		99
51) 1,2-Dichloropropane	6.808	63	1782489	220.698	ug/L		99
53) 2-Chloroethyl vinyl ether	7.507	63	1129499	231.137	ug/L		95
54) Bromodichloromethane	6.884	83	2581110	218.931	ug/L		99
57) 1,4-Dioxane	7.098	88	167499	2038.811	ug/L		97
58) cis-1,3-Dichloropropene	7.578	75	2956730	224.242	ug/L		99
61) Toluene	7.836	92	4720477	212.385	ug/L		97
62) 4-Methyl-2-pentanone	8.273	58	548428	223.801	ug/L		98
63) Tetrachloroethene	8.280	166	2104713	215.733	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	2692029	221.242	ug/L		94
67) Ethyl methacrylate	8.502	69	2287886	223.624	ug/L		96
68) 1,1,2-Trichloroethane	8.517	83	1320957	216.592	ug/L		99
69) Chlorodibromomethane	8.725	129	2119297	219.782	ug/L		99
70) 1,3-Dichloropropane	8.839	76	2577242	212.034	ug/L		99
71) 1,2-Dibromoethane	9.004	107	1644629	212.585	ug/L		99
72) 2-Hexanone	9.276	43	967153	212.818	ug/L		99
73) Chlorobenzene	9.653	112	5365625	216.619	ug/L		99
74) Ethylbenzene	9.686	91	9371930	220.852	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.736	131	2050168	222.401	ug/L		99
76) p/m Xylene	9.875	106	7591569	452.468	ug/L		95
77) o Xylene	10.410	106	7258699	446.609	ug/L		93

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.476	104	12976391	471.137	ug/L		95
80) Bromoform	10.509	173	1449234	230.113	ug/L		99
82) Isopropylbenzene	10.780	105	9032081	227.096	ug/L		99
84) Bromobenzene	11.225	156	2359837	214.628	ug/L		99
85) n-Propylbenzene	11.258	91	10428370	225.101	ug/L		99
86) 1,4-Dichlorobutane	11.282	55	2757804	216.171	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.356	83	1883791	213.131	ug/L		99
88) 4-Ethyltoluene	11.389	105	8732627	225.484	ug/L		99
89) 2-Chlorotoluene	11.430	91	6326654M6	222.680	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	7755534	226.223	ug/L		98
91) 1,2,3-Trichloropropane	11.496	75	1607514	217.468	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.545	53	530929	261.976	ug/L	#	93
93) 4-Chlorotoluene	11.611	91	6566691	224.509	ug/L		99
94) tert-Butylbenzene	11.817	119	6197300	223.659	ug/L		97
97) 1,2,4-Trimethylbenzene	11.899	105	7541150	223.275	ug/L		99
98) sec-Butylbenzene	12.006	105	8737521	221.687	ug/L		100
99) p-Isopropyltoluene	12.162	119	7760233	226.810	ug/L		98
100) 1,3-Dichlorobenzene	12.236	146	4426516	219.125	ug/L		99
101) 1,4-Dichlorobenzene	12.327	146	4502235	216.396	ug/L		99
102) p-Diethylbenzene	12.533	119	4494489	228.693	ug/L		98
103) n-Butylbenzene	12.590	91	6227543	230.178	ug/L		99
104) 1,2-Dichlorobenzene	12.746	146	4199734	217.959	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.322	119	6952315	236.321	ug/L		97
106) 1,2-Dibromo-3-chloropr...	13.528	155	371736	226.757	ug/L		97
107) 1,3,5-Trichlorobenzene	13.553	180	2775675	218.844	ug/L		99
108) Hexachlorobutadiene	14.120	225	832535	234.282	ug/L		99
109) 1,2,4-Trichlorobenzene	14.153	180	2424607	220.764	ug/L		99
110) Naphthalene	14.441	128	5539160	224.678	ug/L		100
111) 1,2,3-Trichlorobenzene	14.606	180	1954213	213.980	ug/L		98

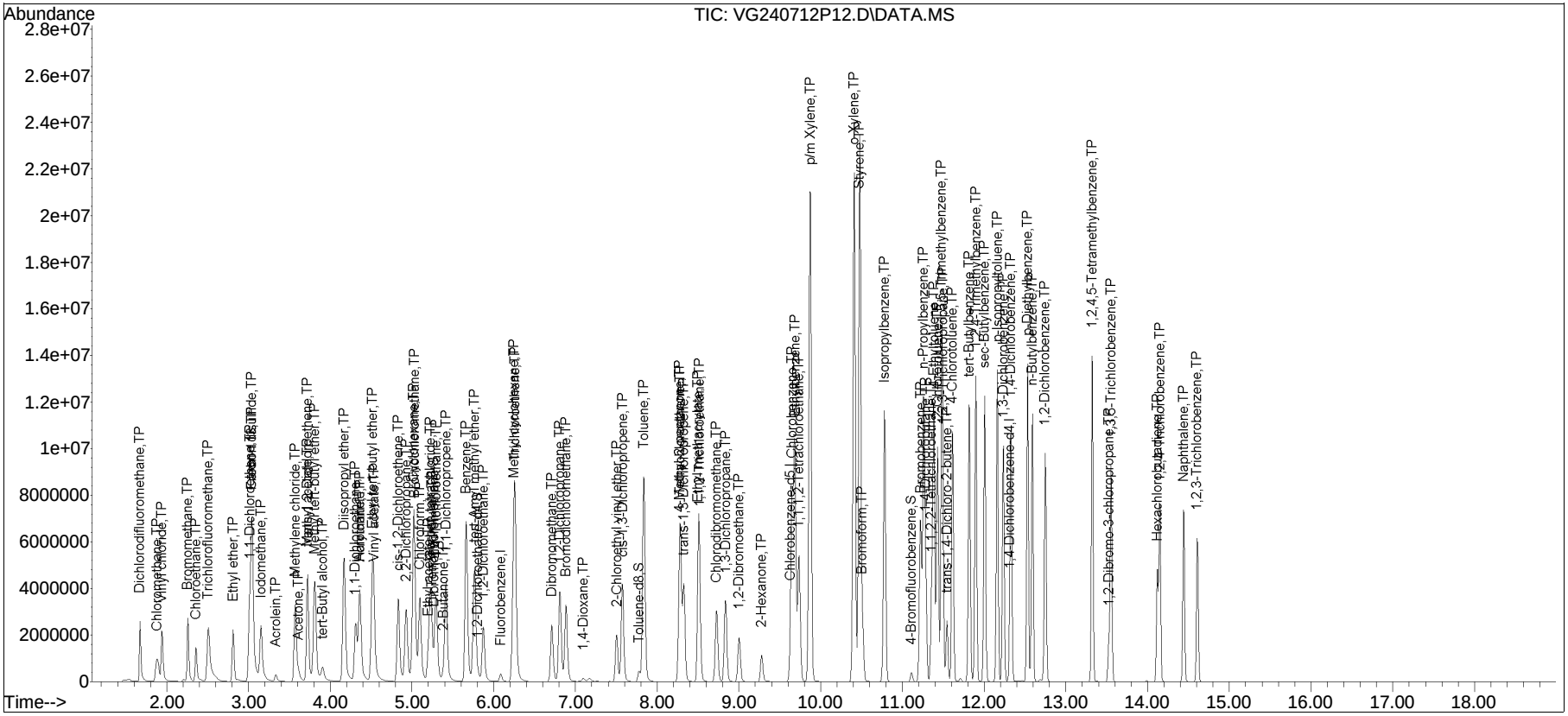
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P12.D
Acq On : 13 Jul 2024 12:56 am
Operator : GONZO:PID
Sample : I8260STD200PPB
Misc : WG1947004,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 15 09:38:33 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:36:56 2024
Response via : Initial Calibration

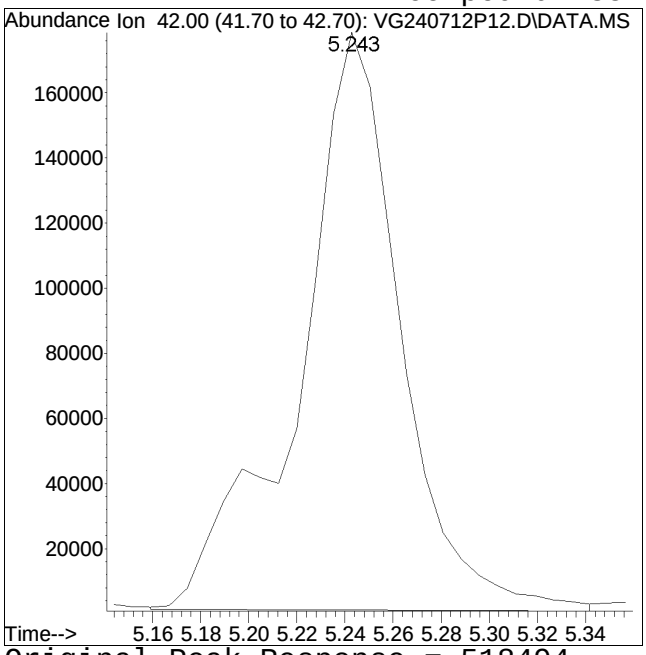
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



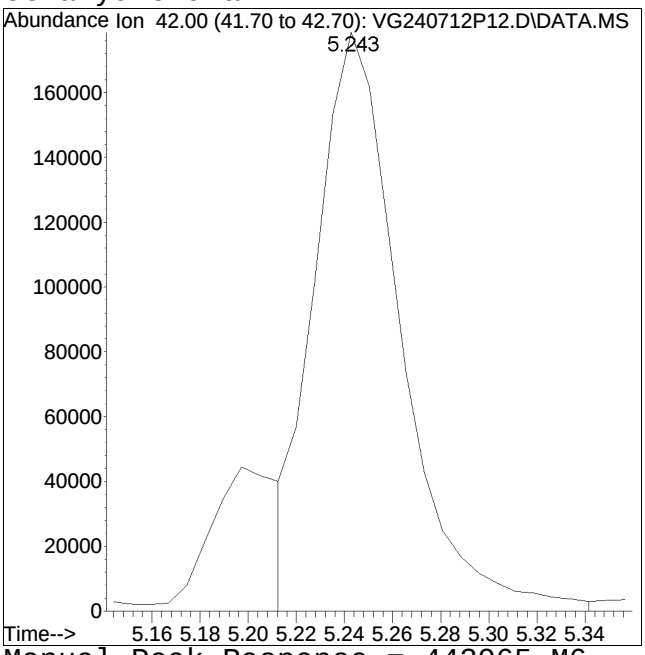
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P12.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:56 am Instrument : Gonzo
Sample : I8260STD200PPB Quant Date : 7/15/2024 9:38 am

Compound #35: Tetrahydrofuran



Original Peak Response = 518494



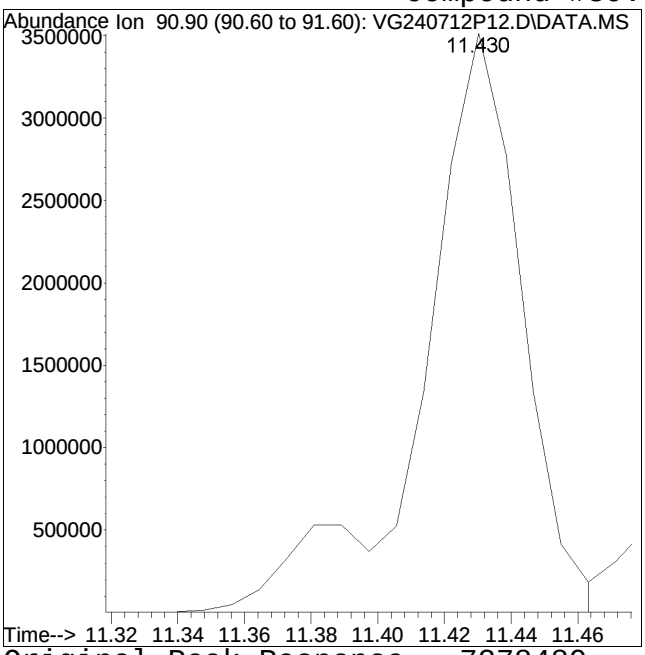
Manual Peak Response = 442965 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

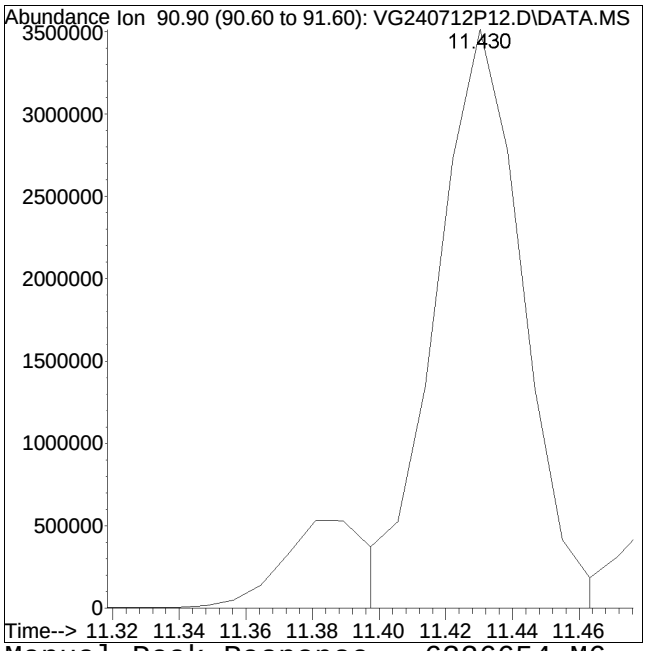
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P12.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 12:56 am Instrument : Gonzo
Sample : I8260STD200PPB Quant Date : 7/15/2024 9:38 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 7278489



Manual Peak Response = 6326654 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	100	0.00
2	TP	Dichlorodifluoromethane	0.265	0.246	7.2	84	0.00
3	TP	Chloromethane	0.227	0.260	-14.5	114	0.00
4	TP	Vinyl chloride	0.235	0.243	-3.4	93	0.00
5	TP	Bromomethane	0.125	0.212	-69.6#	172	0.00
6	TP	Chloroethane	0.180	0.196	-8.9	105	0.00
7	TP	Trichlorofluoromethane	0.345	0.344	0.3	101	0.00
8	TP	Ethyl ether	0.115	0.116	-0.9	102	0.00
10	TP	1,1-Dichloroethene	0.189	0.187	1.1	94	0.00
11	TP	Carbon disulfide	0.556	0.499	10.3	87	0.00
12	TP	Freon-113	0.208	0.195	6.2	91	0.00
13	TP	Iodomethane	0.365	0.234	35.9#	67	0.00
14	TP	Acrolein	0.033	0.022	33.3#	63	0.00
15	TP	Methylene chloride	0.224	0.220	1.8	98	0.00
17	TP	Acetone	* 10.000	9.753	2.5	107	0.00
18	TP	trans-1,2-Dichloroethene	0.207	0.205	1.0	94	0.00
19	TP	Methyl acetate	0.115	0.111	3.5	101	0.00
20	TP	Methyl tert-butyl ether	0.636	0.546	14.2	87	0.00
21	TP	tert-Butyl alcohol	0.018	0.018	0.0	102	0.00
22	TP	Diisopropyl ether	0.650	0.658	-1.2	99	0.00
23	TP	1,1-Dichloroethane	0.375	0.385	-2.7	98	0.00
24	TP	Halothane	0.172	0.169	1.7	94	0.00
25	TP	Acrylonitrile	0.058	0.053	8.6	91	0.00
26	TP	Ethyl tert-butyl ether	0.639	0.611	4.4	95	0.00
27	TP	Vinyl acetate	0.347	0.348	-0.3	94	0.00
28	TP	cis-1,2-Dichloroethene	0.238	0.242	-1.7	99	0.00
29	TP	2,2-Dichloropropane	0.313	0.278	11.2	87	0.00
30	TP	Bromochloromethane	0.116	0.113	2.6	94	0.00
31	TP	Cyclohexane	0.356	0.319	10.4	85	0.00
32	TP	Chloroform	0.384	0.402	-4.7	99	0.00
33	TP	Ethyl acetate	0.170	0.168	1.2	104	0.00
34	TP	Carbon tetrachloride	0.311	0.319	-2.6	93	0.00
35	TP	Tetrahydrofuran	0.056	0.054	3.6	93	0.00
36	S	Dibromofluoromethane	0.261	0.258	1.1	99	0.00
37	TP	1,1,1-Trichloroethane	0.354	0.365	-3.1	98	0.00
39	TP	2-Butanone	0.073	0.075	-2.7	104	0.00
40	TP	1,1-Dichloropropene	0.283	0.296	-4.6	100	0.00
41	TP	Benzene	0.857	0.889	-3.7	97	0.00
42	TP	tert-Amyl methyl ether	0.585	0.570	2.6	98	0.00

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	S	1,2-Dichloroethane-d4	0.277	0.297	-7.2	103	0.00
44	TP	1,2-Dichloroethane	0.273	0.285	-4.4	104	0.00
47	TP	Methyl cyclohexane	0.333	0.308	7.5	85	0.00
48	TP	Trichloroethene	0.242	0.245	-1.2	98	0.00
50	TP	Dibromomethane	0.135	0.137	-1.5	99	0.00
51	TP	1,2-Dichloropropane	0.209	0.217	-3.8	99	0.00
53	TP	2-Chloroethyl vinyl ether	0.126	0.109	13.5	90	0.00
54	TP	Bromodichloromethane	0.305	0.298#	2.3	95	0.00
57	TP	1,4-Dioxane	0.00213	0.00212#	0.5	105	0.00
58	TP	cis-1,3-Dichloropropene	0.341	0.350	-2.6	100	0.00
59	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
60	S	Toluene-d8	1.255	1.277	-1.8	101	0.00
61	TP	Toluene	0.695	0.721	-3.7	98	0.00
62	TP	4-Methyl-2-pentanone	0.077	0.078	-1.3	99	0.00
63	TP	Tetrachloroethene	0.305	0.310	-1.6	95	0.00
65	TP	trans-1,3-Dichloropropene	0.380	0.396	-4.2	100	0.00
67	TP	Ethyl methacrylate	0.320	0.313	2.2	97	0.00
68	TP	1,1,2-Trichloroethane	0.191	0.195#	-2.1	101	0.00
69	TP	Chlorodibromomethane	0.302	0.307	-1.7	98	0.00
70	TP	1,3-Dichloropropane	0.380	0.402	-5.8	101	0.00
71	TP	1,2-Dibromoethane	0.242	0.245	-1.2	100	0.00
72	TP	2-Hexanone	0.142	0.143	-0.7	106	0.00
73	TP	Chlorobenzene	0.775	0.821	-5.9	101	0.00
74	TP	Ethylbenzene	1.327	1.359	-2.4	97	0.00
75	TP	1,1,1,2-Tetrachloroethane	0.288	0.307	-6.6	102	0.00
76	TP	p/m Xylene	0.525	0.552	-5.1	99	0.00
77	TP	o Xylene	0.508	0.530	-4.3	98	0.00
78	TP	Styrene	0.861	0.911	-5.8	101	0.00
79	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
80	TP	Bromoform	0.354	0.346	2.3	100	0.00
82	TP	Isopropylbenzene	2.237	2.332	-4.2	98	0.00
83	S	4-Bromofluorobenzene	0.835	0.818	2.0	101	0.00
84	TP	Bromobenzene	0.619	0.642	-3.7	101	0.00
85	TP	n-Propylbenzene	2.606	2.616	-0.4	96	0.00
86	TP	1,4-Dichlorobutane	0.718	0.708	1.4	99	0.00
87	TP	1,1,2,2-Tetrachloroethane	0.497	0.510	-2.6	104	0.00
88	TP	4-Ethyltoluene	2.179	2.268	-4.1	99	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
89 TP	2-Chlorotoluene	1.598	1.654	-3.5	101	0.00
90 TP	1,3,5-Trimethylbenzene	1.929	1.994	-3.4	98	0.00
91 TP	1,2,3-Trichloropropane	0.416	0.415	0.2	100	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.114	0.107	6.1	104	0.00
93 TP	4-Chlorotoluene	1.645	1.750	-6.4	101	0.00
94 TP	tert-Butylbenzene	1.559	1.645	-5.5	98	0.00
97 TP	1,2,4-Trimethylbenzene	1.900	2.055	-8.2	102	0.00
98 TP	sec-Butylbenzene	2.217	2.267	-2.3	96	0.00
99 TP	p-Isopropyltoluene	1.925	2.004	-4.1	98	0.00
100 TP	1,3-Dichlorobenzene	1.136	1.229	-8.2	103	0.00
101 TP	1,4-Dichlorobenzene	1.170	1.242	-6.2	102	0.00
102 TP	p-Diethylbenzene	1.106	1.078	2.5	91	0.00
103 TP	n-Butylbenzene	1.522	1.638	-7.6	101	0.00
104 TP	1,2-Dichlorobenzene	1.084	1.160	-7.0	103	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.655	1.668	-0.8	100	0.00
106 TP	1,2-Dibromo-3-chloropropane	0.092	0.096	-4.3	111	0.00
107 TP	1,3,5-Trichlorobenzene	0.713	0.707	0.8	96	0.00
108 TP	Hexachlorobutadiene	0.200	0.184	8.0	93	0.00
109 TP	1,2,4-Trichlorobenzene	0.618	0.609	1.5	99	0.00
110 TP	Naphthalene	1.387	1.373	1.0	105	0.00
111 TP	1,2,3-Trichlorobenzene	0.514	0.509	1.0	99	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 3 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	355201	10.000	ug/L	0.00
Standard Area 1 = 354306			Recovery = 100.25%			
59) Chlorobenzene-d5	9.629	117	276630	10.000	ug/L	0.00
Standard Area 1 = 276985			Recovery = 99.87%			
79) 1,4-Dichlorobenzene-d4	12.311	152	160431	10.000	ug/L	0.00
Standard Area 1 = 160037			Recovery = 100.25%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	91568	9.870	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.70%			
43) 1,2-Dichloroethane-d4	5.805	65	105560	10.711	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.11%			
60) Toluene-d8	7.779	98	353216	10.171	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.71%			
83) 4-Bromofluorobenzene	11.110	95	131167	9.789	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.89%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.672	85	87365	9.264	ug/L	99
3) Chloromethane	1.885	50	92176	11.427	ug/L	99
4) Vinyl chloride	1.946	62	86491	10.349	ug/L	97
5) Bromomethane	2.257	94	75469	17.057	ug/L	93
6) Chloroethane	2.364	64	69571	10.889	ug/L	97
7) Trichlorofluoromethane	2.508	101	122027	9.959	ug/L	98
8) Ethyl ether	2.812	74	41081	10.099	ug/L	93
10) 1,1-Dichloroethene	3.009	96	66382	9.879	ug/L	99
11) Carbon disulfide	3.047	76	177336	8.974	ug/L	100
12) Freon-113	3.047	101	69376	9.410	ug/L	90
13) Iodomethane	3.154	142	83271	6.422	ug/L	96
14) Acrolein	3.344	56	7638	6.610	ug/L	97
15) Methylene chloride	3.579	84	78000	9.818	ug/L	96
17) Acetone	3.625	43	18260	9.753	ug/L	100
18) trans-1,2-Dichloroethene	3.724	96	72939	9.924	ug/L	94
19) Methyl acetate	3.731	43	39593	9.690	ug/L	99
20) Methyl tert-butyl ether	3.815	73	194005	8.584	ug/L	96
21) tert-Butyl alcohol	3.906	59	31230	49.804	ug/L	97
22) Diisopropyl ether	4.172	45	233777	10.128	ug/L	99
23) 1,1-Dichloroethane	4.309	63	136804	10.275	ug/L	98
24) Halothane	4.362	117	59863	9.806	ug/L	98

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	4.369	53	18701	9.007	ug/L	97
26) Ethyl tert-butyl ether	4.521	59	217157	9.563	ug/L	97
27) Vinyl acetate	4.544	43	123564	10.016	ug/L	100
28) cis-1,2-Dichloroethene	4.833	96	86005	10.176	ug/L	93
29) 2,2-Dichloropropane	4.924	77	98778	8.899	ug/L	94
30) Bromochloromethane	5.030	128	40236	9.731	ug/L	97
31) Cyclohexane	5.023	56	113236	8.967	ug/L	89
32) Chloroform	5.099	83	142940	10.488	ug/L	99
33) Ethyl acetate	5.205	43	59660	9.887	ug/L	96
34) Carbon tetrachloride	5.228	117	113189	10.248	ug/L	98
35) Tetrahydrofuran	5.251	42	19334M6	9.783	ug/L	
37) 1,1,1-Trichloroethane	5.296	97	129507	10.303	ug/L	98
39) 2-Butanone	5.395	43	26613	10.330	ug/L	90
40) 1,1-Dichloropropene	5.418	75	105202	10.469	ug/L	99
41) Benzene	5.668	78	315948	10.383	ug/L	98
42) tert-Amyl methyl ether	5.767	73	202501	9.745	ug/L	98
44) 1,2-Dichloroethane	5.874	62	101162	10.431	ug/L	99
47) Methyl cyclohexane	6.246	83	109578	9.267	ug/L	91
48) Trichloroethene	6.261	95	87053	10.145	ug/L	99
50) Dibromomethane	6.709	93	48791	10.165	ug/L	97
51) 1,2-Dichloropropane	6.808	63	77021	10.373	ug/L	98
53) 2-Chloroethyl vinyl ether	7.507	63	38817	8.641	ug/L	99
54) Bromodichloromethane	6.884	83	105820	9.764	ug/L	99
57) 1,4-Dioxane	7.099	88	37634	498.294	ug/L	95
58) cis-1,3-Dichloropropene	7.579	75	124306	10.255	ug/L	97
61) Toluene	7.836	92	199542	10.379	ug/L	98
62) 4-Methyl-2-pentanone	8.273	58	21705	10.240	ug/L	98
63) Tetrachloroethene	8.288	166	85687	10.154	ug/L	97
65) trans-1,3-Dichloropropene	8.324	75	109467	10.400	ug/L	94
67) Ethyl methacrylate	8.510	69	86448	9.768	ug/L	97
68) 1,1,2-Trichloroethane	8.510	83	54047	10.245	ug/L	100
69) Chlorodibromomethane	8.725	129	84807	10.168	ug/L	98
70) 1,3-Dichloropropane	8.832	76	111331	10.589	ug/L	100
71) 1,2-Dibromoethane	9.004	107	67902	10.147	ug/L	99
72) 2-Hexanone	9.283	43	39496	10.047	ug/L	97
73) Chlorobenzene	9.645	112	227169	10.603	ug/L	99
74) Ethylbenzene	9.678	91	375983	10.243	ug/L	99
75) 1,1,1,2-Tetrachloroethane	9.736	131	84883	10.645	ug/L	96
76) p/m Xylene	9.867	106	305427	21.045	ug/L	100
77) o Xylene	10.402	106	293118	20.849	ug/L	100

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240712PICAL\VG240712P08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78)	Styrene	10.476	104	504179	21.162	ug/L		99
80)	Bromoform	10.509	173	55431	9.753	ug/L		96
82)	Isopropylbenzene	10.781	105	374070	10.422	ug/L		98
84)	Bromobenzene	11.225	156	103042	10.384	ug/L		100
85)	n-Propylbenzene	11.258	91	419745	10.039	ug/L		99
86)	1,4-Dichlorobutane	11.282	55	113635	9.870	ug/L		100
87)	1,1,2,2-Tetrachloroethane	11.356	83	81821	10.257	ug/L		97
88)	4-Ethyltoluene	11.381	105	363815	10.409	ug/L		99
89)	2-Chlorotoluene	11.430	91	265430M1	10.352	ug/L		
90)	1,3,5-Trimethylbenzene	11.480	105	319940	10.341	ug/L		99
91)	1,2,3-Trichloropropane	11.496	75	66579M1	9.980	ug/L		
92)	trans-1,4-Dichloro-2-b...	11.546	53	17125	9.363	ug/L	#	90
93)	4-Chlorotoluene	11.611	91	280755	10.636	ug/L		97
94)	tert-Butylbenzene	11.817	119	263971	10.556	ug/L		100
97)	1,2,4-Trimethylbenzene	11.899	105	329670	10.815	ug/L		99
98)	sec-Butylbenzene	12.006	105	363744	10.226	ug/L		100
99)	p-Isopropyltoluene	12.154	119	321524	10.413	ug/L		99
100)	1,3-Dichlorobenzene	12.237	146	197162	10.815	ug/L		99
101)	1,4-Dichlorobenzene	12.327	146	199238	10.611	ug/L		99
102)	p-Diethylbenzene	12.533	119	173022	9.755	ug/L		98
103)	n-Butylbenzene	12.590	91	262856	10.765	ug/L		100
104)	1,2-Dichlorobenzene	12.747	146	186115	10.703	ug/L		100
105)	1,2,4,5-Tetramethylben...	13.323	119	267638	10.081	ug/L		97
106)	1,2-Dibromo-3-chloropr...	13.528	155	15353	10.377	ug/L		97
107)	1,3,5-Trichlorobenzene	13.553	180	113458	9.912	ug/L		99
108)	Hexachlorobutadiene	14.120	225	29501	9.199	ug/L		97
109)	1,2,4-Trichlorobenzene	14.153	180	97695	9.856	ug/L		99
110)	Naphthalene	14.441	128	220203	9.897	ug/L		100
111)	1,2,3-Trichlorobenzene	14.606	180	81692	9.912	ug/L		98

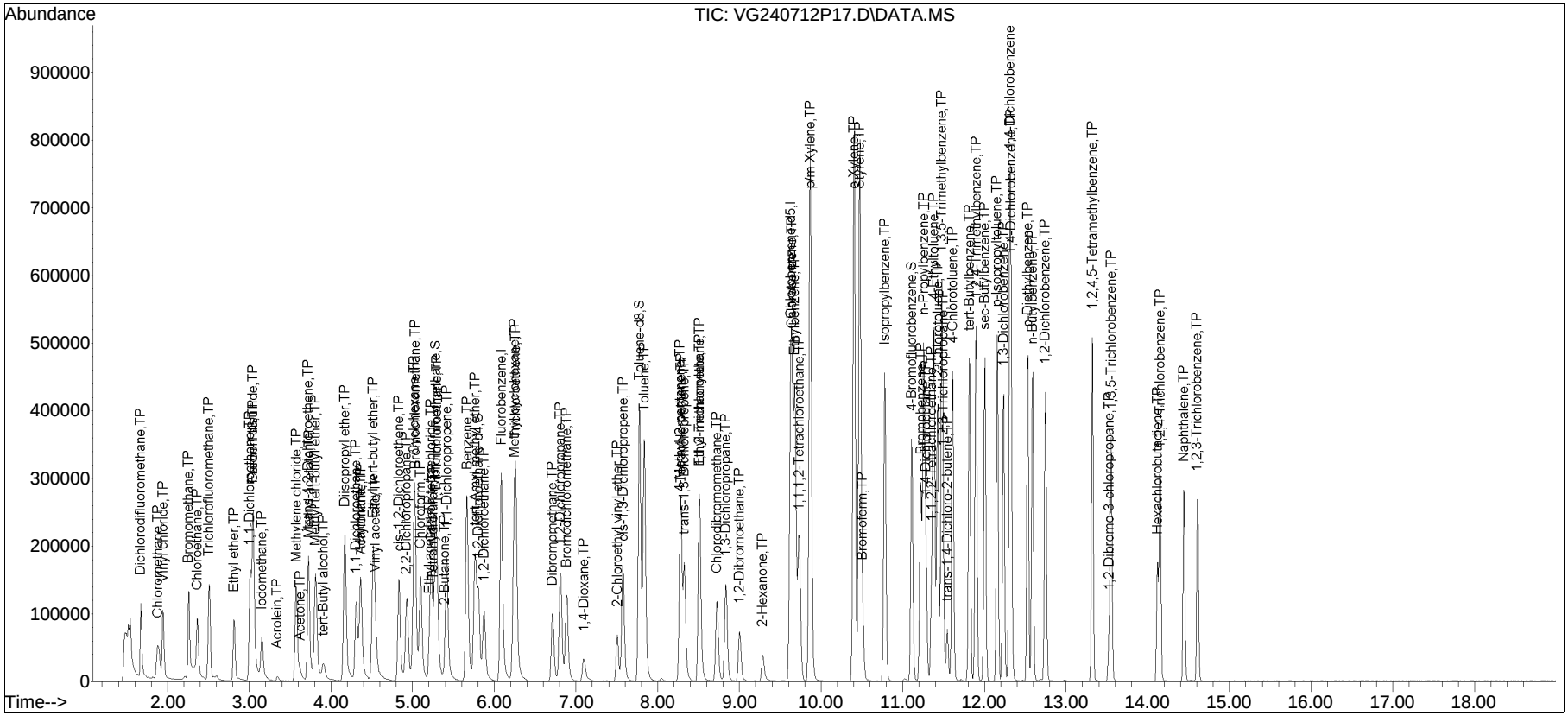
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240712PICAL\
Data File : VG240712P17.D
Acq On : 13 Jul 2024 2:55 am
Operator : GONZO:PID
Sample : C8260STD10PPB
Misc : WG1947004,ICAL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 15 09:47:19 2024
Quant Method : K:\Gonzo\2024\240712PICAL\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

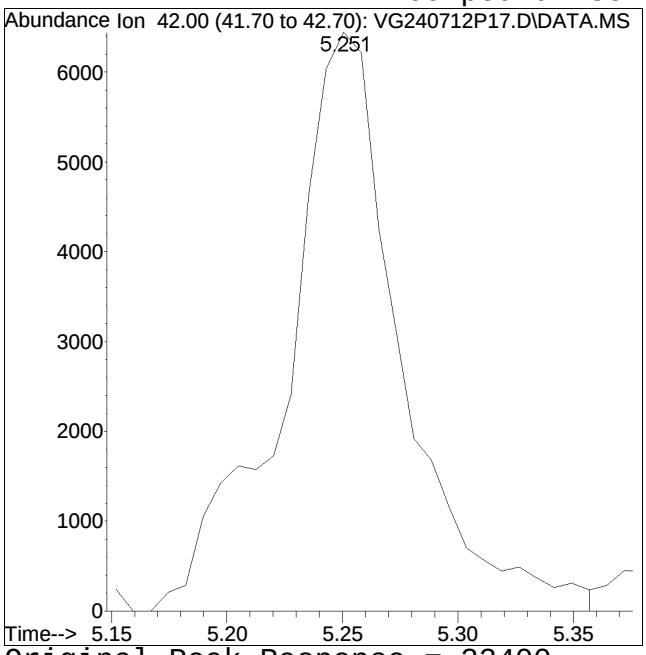
Sub List : 8260-Curve - Megamix plus DioxVG240712P08.D•



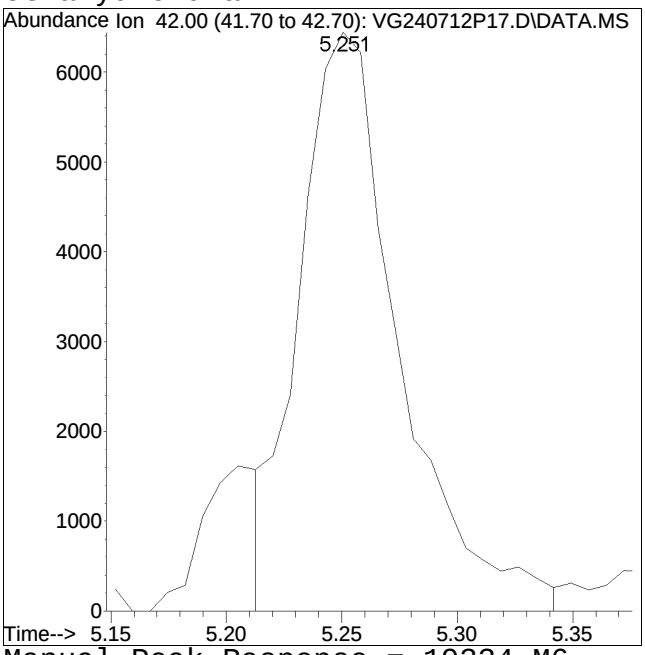
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P17.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 2:55 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 7/15/2024 9:45 am

Compound #35: Tetrahydrofuran



Original Peak Response = 22400



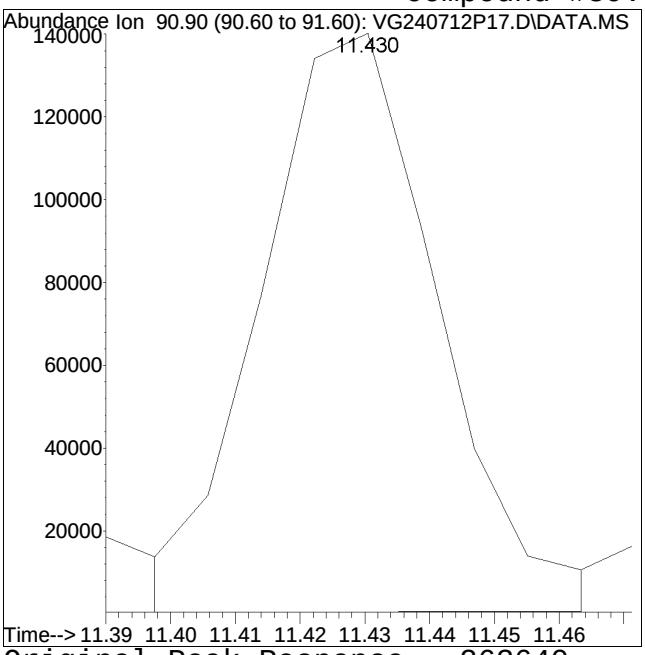
Manual Peak Response = 19334 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

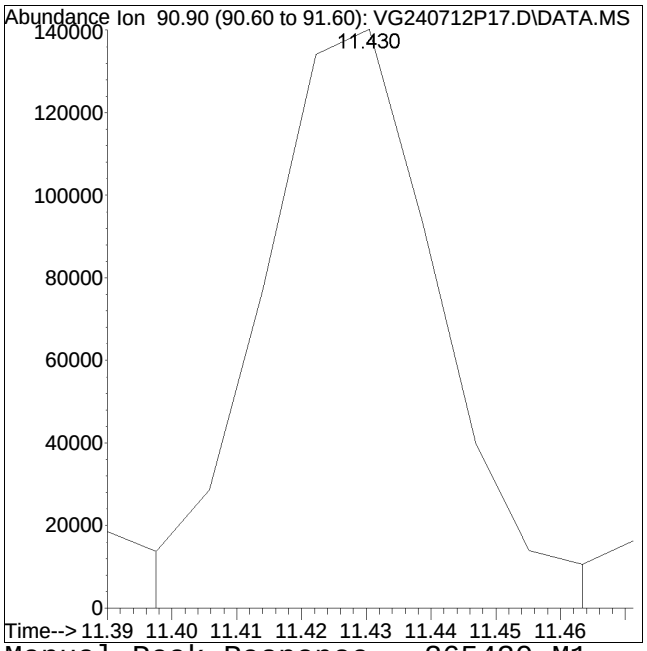
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P17.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 2:55 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 7/15/2024 9:45 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 263640



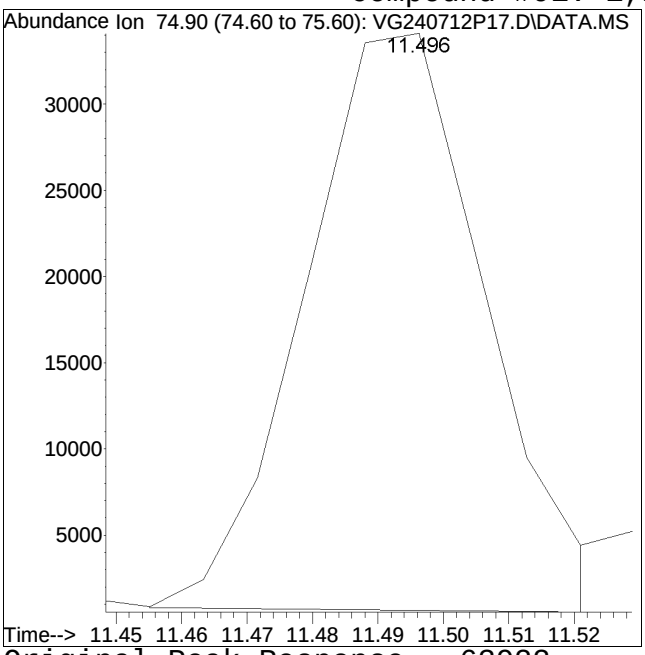
Manual Peak Response = 265430 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

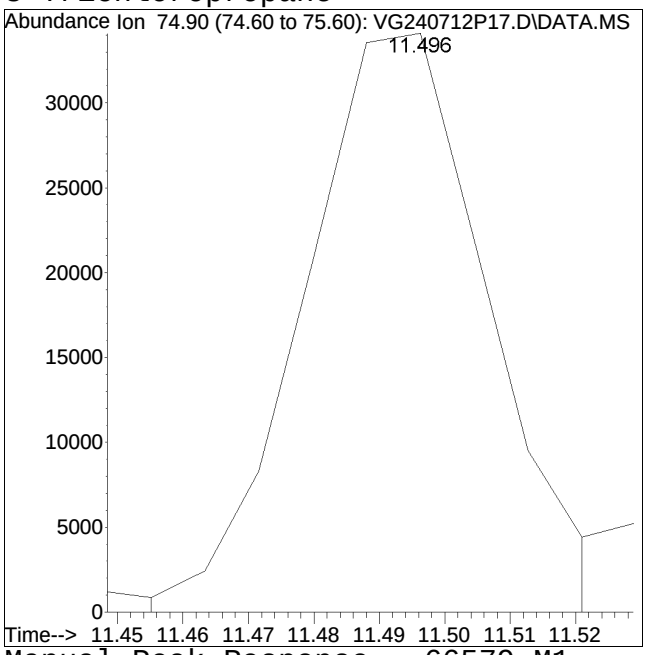
Manual Integration Report

Data Path : K:\Gonzo\2024\240712PICAL\QMethod : G_240712P_8260.m
Data File : VG240712P17.D Operator : GONZO:PID
Date Inj'd : 7/13/2024 2:55 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 7/15/2024 9:45 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 63922



Manual Peak Response = 66579 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Relative Error Report Gonzo

Method Path : K:\Gonzo\2024\240712PICAL\
Method File : G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
17	TP Acetone	L	ug/L	10.0	9.058	-9.4	2.00	2.221	11.1

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
17	TP Acetone	Linear	0.990142	0.000000	0.0484088	0.00419312

Response Factor Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------	ISTD	----------							
2)	TP	Dichlorodifluo...		0.138	0.246	0.220	0.243	0.243	0.244	0.235	0.224	17.36
3)	TP	Chloromethane		0.199	0.251	0.263	0.261	0.259	0.260	0.256	0.250	9.09
4)	TP	Vinyl chloride	0.163	0.159	0.248	0.243	0.263	0.260	0.265	0.260	0.233	19.30
5)	TP	Bromomethane		0.043	0.054	0.058	0.067	0.084	0.095	0.102	*Q	0.9983
6)	TP	Chloroethane		0.109	0.166	0.154	0.151	0.153	0.144	0.107	0.140	16.43
7)	TP	Trichlorofluor...		0.189	0.262	0.254	0.291	0.294	0.295	0.287	0.267	14.21
8)	TP	Ethyl ether		0.098	0.094	0.106	0.111	0.111	0.108	0.108	0.105	6.41
10)	TP	1,1-Dichloroet...		0.128	0.165	0.154	0.168	0.170	0.170	0.165	0.160	9.41
11)	TP	Carbon disulfide		0.423	0.489	0.504	0.523	0.517	0.512	0.493	0.494	6.86
12)	TP	Freon-113		0.120	0.172	0.163	0.178	0.178	0.183	0.175	0.167	13.06
13)	TP	Iodomethane			0.056	0.087	0.130	0.163	0.172	0.180	*Q	0.9978
14)	TP	Acrolein		0.042	0.047	0.044	0.045	0.045	0.046	0.048	0.045	4.40
15)	TP	Methylene chlo...		0.219	0.207	0.204	0.201	0.197	0.195	0.191	0.202	4.65
17)	TP	Acetone			0.094	0.071	0.077	0.071	0.065	0.063	0.073	15.12
18)	TP	trans-1,2-Dich...		0.134	0.173	0.177	0.180	0.183	0.181	0.176	0.172	9.89
19)	TP	Methyl acetate		0.231	0.183	0.165	0.161	0.156	0.153	0.149	0.171	16.75
21)	TP	Methyl tert-bu...		0.595	0.630	0.676	0.661	0.657	0.646	0.629	0.642	4.16
22)	TP	tert-Butyl alc...		0.021	0.023	0.024	0.024	0.023	0.023	0.023	0.023	4.09
24)	TP	Diisopropyl ether		0.797	0.878	0.965	0.985	0.960	0.936	0.916	0.920	7.03
25)	TP	1,1-Dichloroet...		0.339	0.407	0.424	0.424	0.420	0.409	0.405	0.404	7.39
26)	TP	Halothane		0.117	0.137	0.142	0.147	0.145	0.143	0.141	0.139	7.40
27)	TP	Acrylonitrile		0.076	0.081	0.088	0.089	0.087	0.086	0.084	0.084	5.26
28)	TP	Ethyl tert-but...		0.694	0.779	0.838	0.837	0.826	0.811	0.800	0.798	6.32
29)	TP	Vinyl acetate		0.679	0.649	0.556	0.550	0.513	0.670	0.667	0.612	11.34
30)	TP	cis-1,2-Dichlo...		0.183	0.211	0.211	0.208	0.214	0.211	0.205	0.206	5.19
31)	TP	2,2-Dichloropr...		0.240	0.279	0.270	0.284	0.278	0.279	0.263	0.270	5.58
33)	TP	Bromochloromet...		0.089	0.091	0.096	0.096	0.091	0.086	0.085	0.091#	4.89
34)	TP	Cyclohexane		0.384	0.496	0.452	0.498	0.498	0.499	0.484	0.473	8.98
35)	TP	Chloroform		0.303	0.352	0.346	0.336	0.339	0.333	0.335	0.335	4.66
36)	TP	Ethyl acetate		0.314	0.226	0.262	0.255	0.249	0.243	0.242	0.256	11.00

Response Factor Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
37)	TP	Carbon tetrach...	0.229	0.188	0.270	0.260	0.275	0.275	0.279	0.271	0.256	12.38
38)	TP	Tetrahydrofuran		0.087	0.083	0.081	0.080	0.078	0.074	0.073	0.079	5.85
39)	S	Dibromofluorom...	0.242	0.242	0.240	0.238	0.232	0.231	0.224	0.223	0.234	3.26
40)	TP	1,1,1-Trichlor...		0.265	0.301	0.310	0.316	0.315	0.315	0.308	0.304	5.96
42)	TP	2-Butanone			0.118	0.104	0.105	0.104	0.100	0.099	0.105	6.40
43)	TP	1,1-Dichloropr...		0.193	0.259	0.260	0.270	0.271	0.271	0.268	0.256	11.09
45)	TP	Benzene	0.719	0.654	0.814	0.838	0.839	0.835	0.825	0.813	0.792	8.59
46)	TP	tert-Amyl meth...		0.549	0.579	0.619	0.622	0.611	0.607	0.598	0.598	4.33
47)	S	1,2-Dichloroet...	0.326	0.322	0.322	0.316	0.305	0.309	0.298	0.302	0.312	3.33
48)	T	1,2-Dichloroet...		0.295	0.300	0.320	0.314	0.310	0.303	0.299	0.306	2.93
51)	TP	Methyl cyclohe...		0.281	0.360	0.333	0.364	0.386	0.390	0.377	0.356	10.67
52)	TP	Trichloroethene	0.193	0.161	0.200	0.210	0.217	0.216	0.201	0.195	0.199#	8.96
54)	TP	Dibromomethane		0.096	0.116	0.120	0.119	0.118	0.116	0.117	0.115	7.18
55)	TP	1,2-Dichloropr...		0.215	0.233	0.249	0.248	0.246	0.242	0.239	0.239	5.05
57)	TP	2-Chloroethyl ...		0.127	0.145	0.157	0.163	0.167	0.160	0.158	0.154	8.95
58)	TP	Bromodichlorom...		0.250	0.293	0.294	0.289	0.290	0.286	0.282	0.283#	5.40
61)	TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	1.58
62)	TP	cis-1,3-Dichlo...	0.241	0.293	0.316	0.341	0.345	0.345	0.339	0.334	0.319	11.31
63)	I	Chlorobenzene-d5	----------ISTD----------									
64)	S	Toluene-d8	1.316	1.311	1.306	1.323	1.314	1.308	1.321	1.339	1.317	0.79
65)	TP	Toluene		0.596	0.701	0.712	0.711	0.697	0.702	0.700	0.689	5.96
66)	TP	4-Methyl-2-pen...		0.096	0.114	0.124	0.124	0.122	0.121	0.120	0.117	8.43
67)	TP	Tetrachloroethene		0.219	0.288	0.302	0.312	0.308	0.313	0.307	0.293	11.47
69)	TP	trans-1,3-Dich...	0.319	0.359	0.375	0.414	0.420	0.408	0.405	0.402	0.388	8.92
71)	TP	Ethyl methacry...		0.356	0.363	0.387	0.378	0.367	0.368	0.365	0.369	2.79
72)	TP	1,1,2-Trichlor...		0.183	0.190	0.204	0.201	0.193	0.192	0.190	0.193#	3.69
73)	TP	Chlorodibromom...		0.230	0.258	0.281	0.283	0.277	0.281	0.281	0.270	7.23
74)	TP	1,3-Dichloropr...		0.369	0.398	0.430	0.429	0.412	0.410	0.409	0.408	5.11
75)	TP	1,2-Dibromoethane		0.216	0.223	0.237	0.236	0.229	0.228	0.230	0.228	3.24
77)	TP	2-Hexanone		0.238	0.227	0.234	0.233	0.225	0.221	0.222	0.229	2.91
78)	TP	Chlorobenzene		0.673	0.728	0.767	0.755	0.737	0.742	0.734	0.734	4.10

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79)	TP	Ethylbenzene		1.142	1.358	1.408	1.393	1.353	1.359	1.329	1.335	6.66
80)	TP	1,1,1,2-Tetrac...		0.215	0.270	0.287	0.286	0.276	0.276	0.273	0.269	9.12
81)	TP	p/m Xylene		0.447	0.521	0.548	0.535	0.510	0.508	0.492	0.509	6.43
82)	TP	o Xylene		0.454	0.508	0.533	0.516	0.497	0.495	0.479	0.497	5.16
83)	TP	Styrene		0.718	0.838	0.886	0.858	0.817	0.812	0.779	0.816	6.74
84)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85)	TP	Bromoform		0.284	0.320	0.331	0.334	0.334	0.338	0.337	0.325	5.92
87)	TP	Isopropylbenzene		1.911	2.394	2.445	2.472	2.475	2.556	2.509	2.395	9.15
88)	S	4-Bromofluorob...	0.912	0.926	0.900	0.927	0.899	0.923	0.942	0.959	0.924	2.20
89)	TP	Bromobenzene		0.539	0.594	0.625	0.612	0.613	0.627	0.622	0.605	5.15
90)	TP	n-Propylbenzene		2.463	2.827	2.941	2.951	2.948	3.011	2.888	2.861	6.45
91)	TP	1,4-Dichlorobu...		1.076	1.063	1.068	1.046	1.022	1.031	1.015	1.046	2.29
92)	TP	1,1,2,2-Tetrac...		0.512	0.521	0.493	0.487	0.485	0.530	0.529	0.508	3.87
93)	TP	4-Ethyltoluene		1.935	2.296	2.424	2.400	2.399	2.443	2.350	2.321	7.63
94)	TP	2-Chlorotoluene		1.451	1.722	1.764	1.719	1.699	1.724	1.705	1.683	6.21
95)	TP	1,3,5-Trimethy...		1.733	2.008	2.145	2.110	2.089	2.133	2.036	2.036	7.01
96)	TP	1,2,3-Trichlor...		0.395	0.420	0.431	0.422	0.414	0.414	0.407	0.415	2.78
97)	TP	trans-1,4-Dich...		0.185	0.197	0.203	0.201	0.207	0.213	0.219	0.204	5.51
98)	TP	4-Chlorotoluene		1.530	1.763	1.829	1.796	1.785	1.839	1.801	1.763	6.02
99)	TP	tert-Butylbenzene		1.412	1.689	1.769	1.762	1.779	1.824	1.747	1.712	8.07
102)	TP	1,2,4-Trimethy...		1.747	1.954	2.131	2.103	2.101	2.135	2.057	2.033	6.91
103)	TP	sec-Butylbenzene		2.141	2.500	2.584	2.607	2.644	2.708	2.584	2.538	7.33
104)	TP	p-Isopropyltol...		1.701	2.077	2.196	2.232	2.258	2.294	2.214	2.139	9.58
105)	TP	1,3-Dichlorobe...		1.015	1.081	1.169	1.146	1.135	1.148	1.122	1.117	4.72
106)	TP	1,4-Dichlorobe...		1.009	1.087	1.157	1.145	1.138	1.145	1.131	1.116	4.67
107)	TP	p-Diethylbenzene		1.028	1.180	1.302	1.316	1.335	1.335	1.333	1.261	9.25
108)	TP	n-Butylbenzene		1.501	1.792	1.868	1.891	1.948	1.955	1.939	1.842	8.74
109)	TP	1,2-Dichlorobe...		0.978	1.026	1.115	1.108	1.094	1.098	1.099	1.074	4.80
110)	TP	1,2,4,5-Tetram...		1.737	1.892	2.127	2.116	2.105	2.156	2.192	2.046	8.17
111)	TP	1,2-Dibromo-3-...		0.049	0.087	0.092	0.094	0.094	0.097	0.102	*L	0.9989
112)	TP	1,3,5-Trichlor...		0.709	0.775	0.890	0.883	0.879	0.919	0.916	0.853	9.33

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

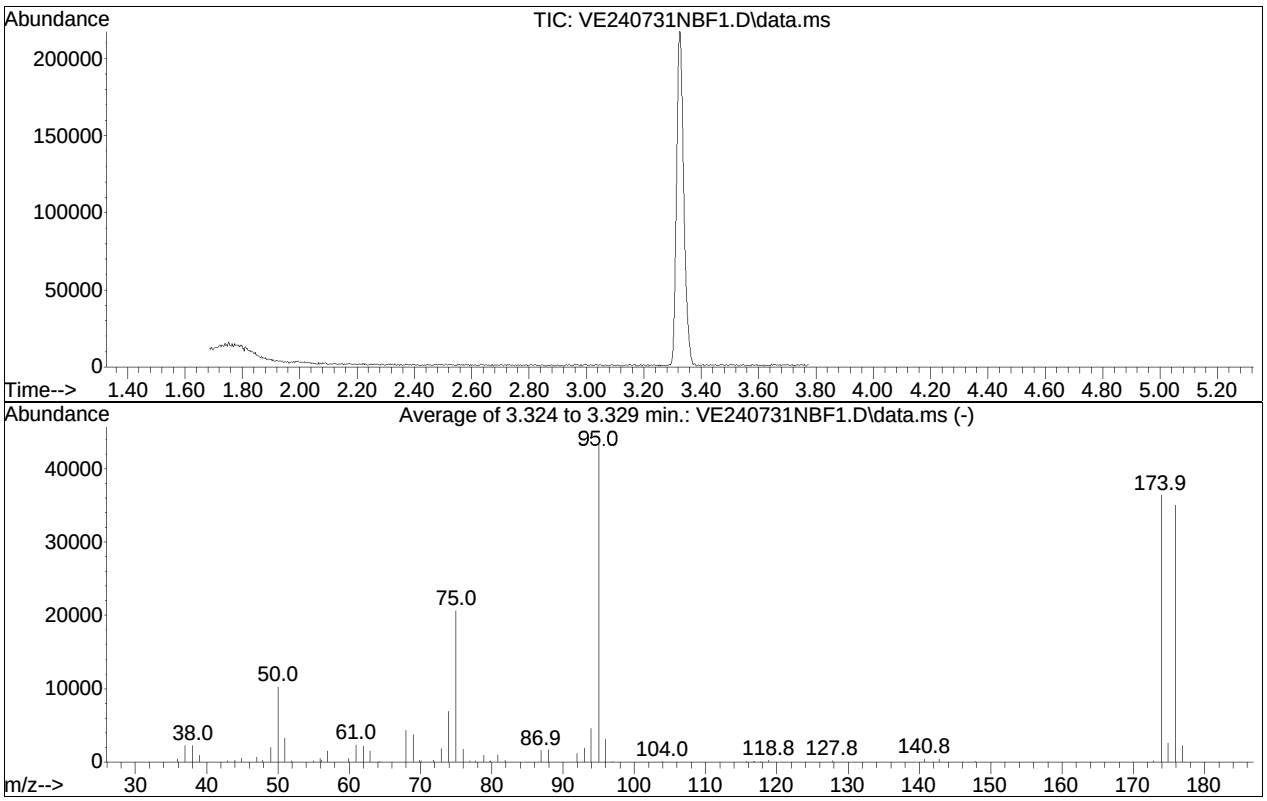
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
113)	TP Hexachlorobuta...	0.225	0.275	0.285	0.293	0.293	0.305	0.303	0.283		9.74
114)	TP 1,2,4-Trichlor...	0.666	0.683	0.789	0.797	0.806	0.839	0.809	0.770		8.71
115)	TP Naphthalene	1.419	1.532	1.695	1.747	1.797	1.858	1.833	1.697		9.67
116)	TP 1,2,3-Trichlor...	0.578	0.647	0.721	0.728	0.750	0.771	0.757	0.707		9.89

(#) = Out of Range

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731NBF1.D
Acq On : 31 Jul 2024 5:25 pm
Operator : ELAINE:MAG
Sample : WG1954249-1
Misc : WG1954249
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024



AutoFind: Scans 588, 589, 590; Background Corrected with Scan 574

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.6	10291	PASS
75	95	30	60	47.5	20672	PASS
95	95	100	100	100.0	43531	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.6	217	PASS
174	95	50	100	83.7	36424	PASS
175	174	5	9	7.1	2596	PASS
176	174	95	101	96.2	35043	PASS
177	176	5	9	6.5	2267	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N03.D
Acq On : 31 Jul 2024 6:35 pm
Operator : ELAINE:MKS
Sample : I8260STD0.19PPB
Misc : WG1954249
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 01 11:59:43 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.967	96	205517	10.000 ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.46%		
63) Chlorobenzene-d5	9.497	117	152868	10.000 ug/L	0.00
Standard Area 1 = 147756			Recovery = 103.46%		
84) 1,4-Dichlorobenzene-d4	12.208	152	86858	10.000 ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.78%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.158	113	49774	10.178 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.78%		
47) 1,2-Dichloroethane-d4	5.680	65	66950	10.310 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.10%		
64) Toluene-d8	7.657	98	201231	9.951 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.51%		
88) 4-Bromofluorobenzene	10.995	95	79257	9.840 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.40%		
Target Compounds					Qvalue
4) Vinyl chloride	1.854	62	637	0.127 ug/L #	12
37) Carbon tetrachloride	5.122	117	895M1	0.167 ug/L	
45) Benzene	5.549	78	2809	0.163 ug/L #	76
52) Trichloroethene	6.156	95	755M1	0.175 ug/L	
62) cis-1,3-Dichloropropene	7.453	75	943	0.135 ug/L #	55
69) trans-1,3-Dichloropropene	8.203	75	927M1	0.146 ug/L	

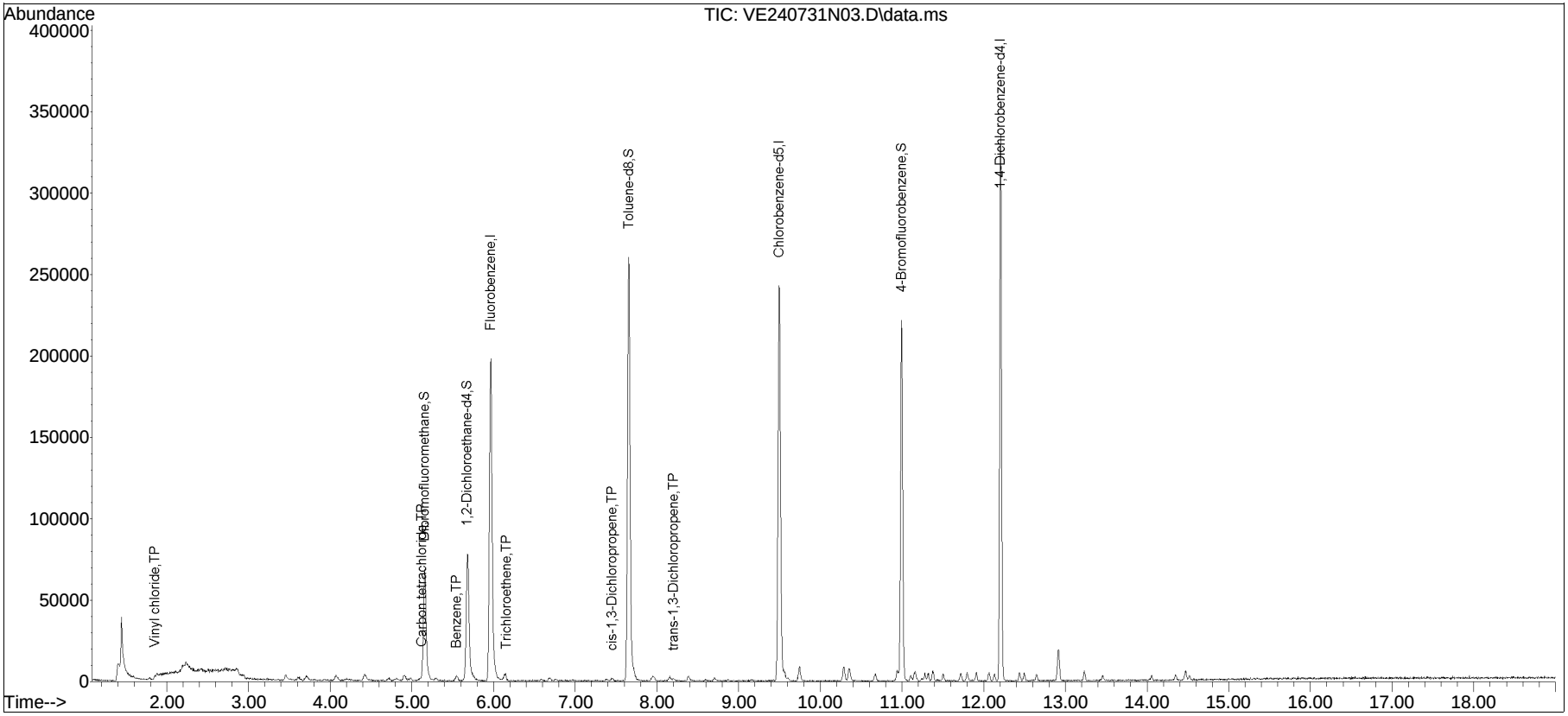
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N03.D
Acq On : 31 Jul 2024 6:35 pm
Operator : ELAINE:MKS
Sample : I8260STD0.19PPB
Misc : WG1954249
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 01 11:59:43 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-L11_MCP - L11 MCP731N-ICAL\VE240731N08.D•

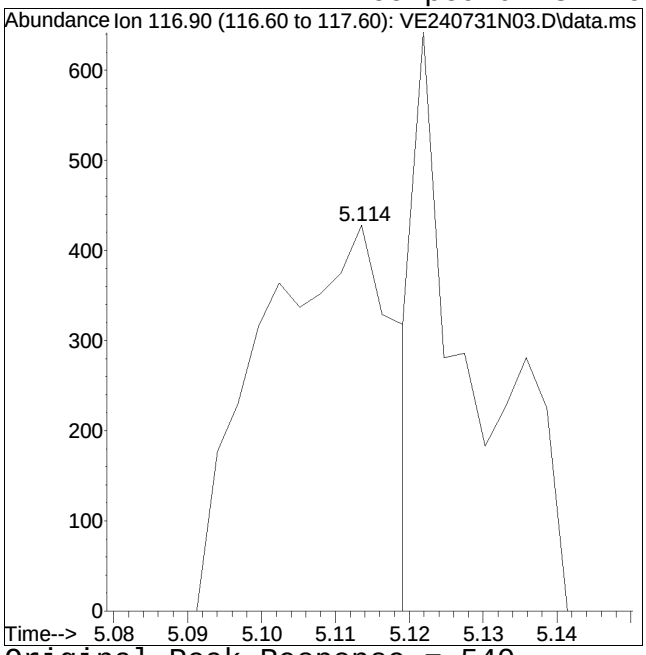


Manual Integration Report

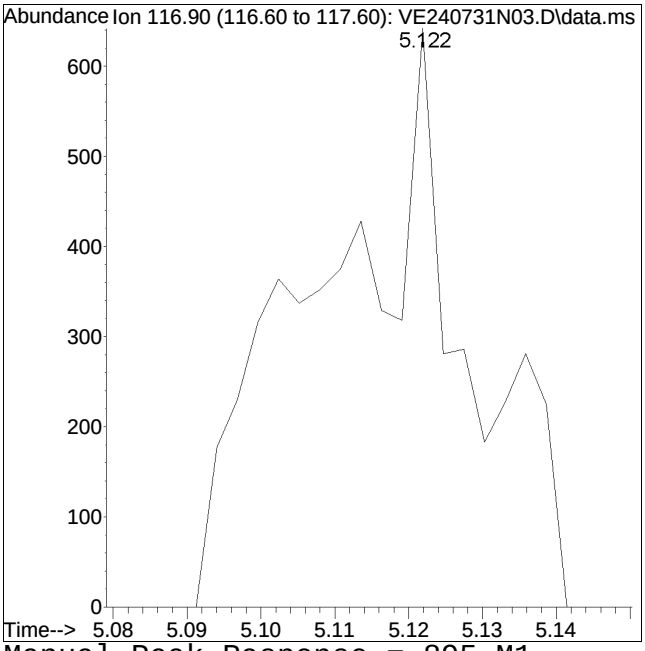
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N03.D
Date Inj'd : 7/31/2024 6:35 pm
Sample : I8260STD0.19PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #37: Carbon tetrachloride



Original Peak Response = 540



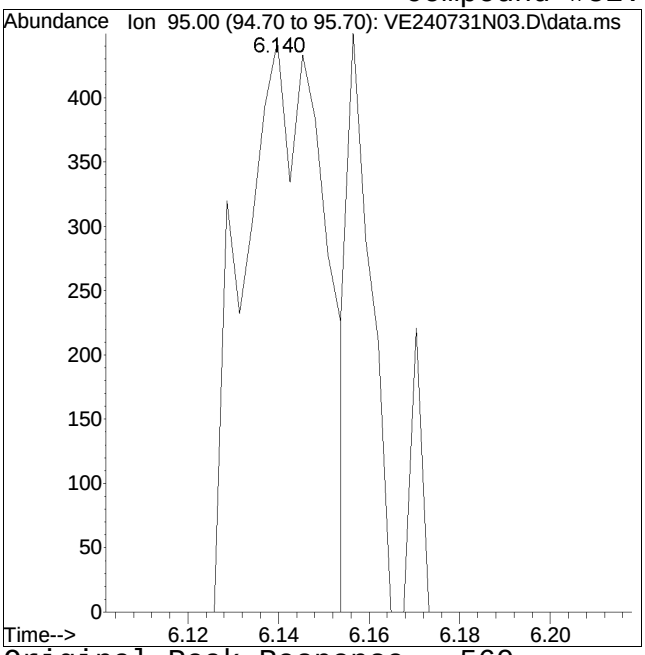
Manual Peak Response = 895 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

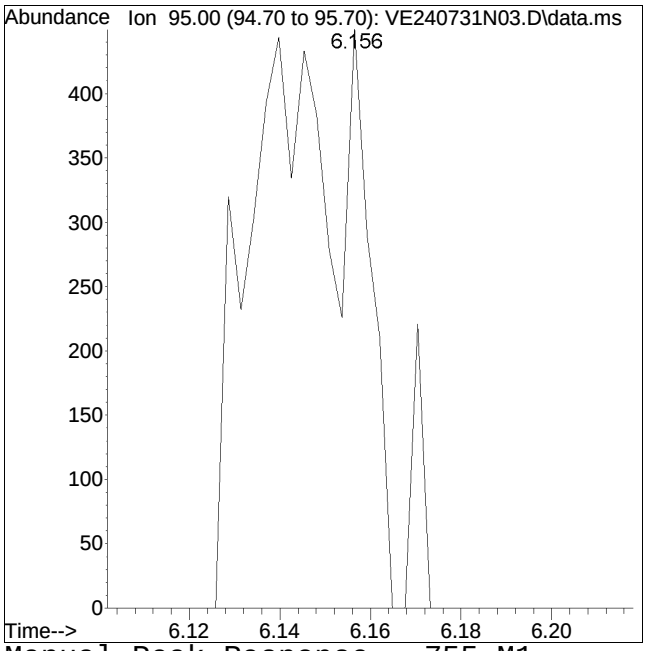
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N03.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 6:35 pm Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 8/1/2024 11:57 am

Compound #52: Trichloroethene



Original Peak Response = 560



Manual Peak Response = 755 M1

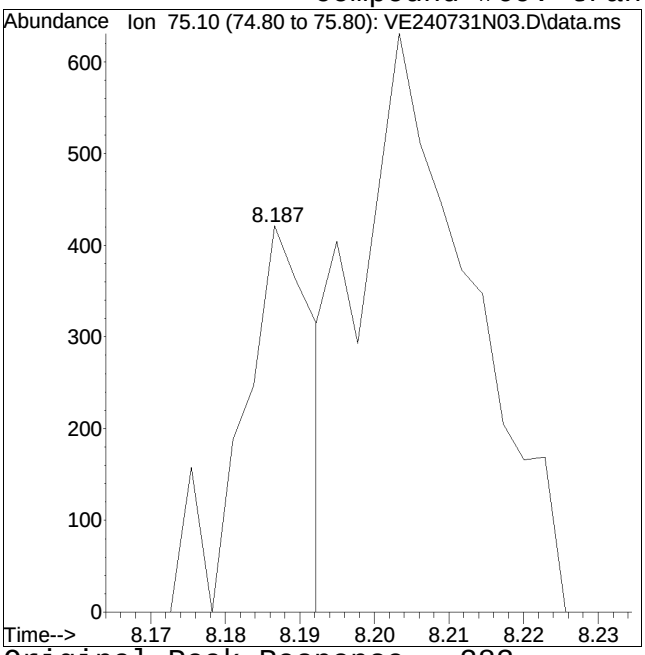
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

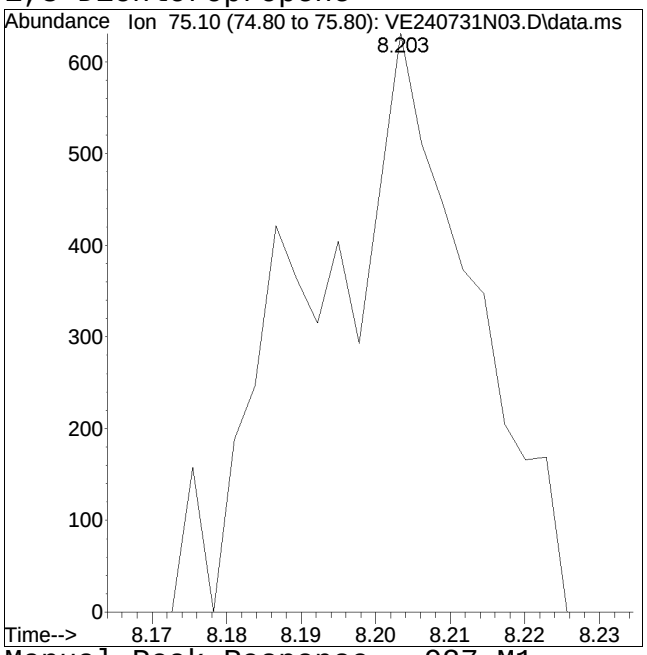
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N03.D
Date Inj'd : 7/31/2024 6:35 pm
Sample : I8260STD0.19PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #69: trans-1,3-Dichloropropene



Original Peak Response = 283



Manual Peak Response = 927 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.964	96	205652	10.000 ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.52%		
63) Chlorobenzene-d5	9.497	117	152599	10.000 ug/L	0.00
Standard Area 1 = 147756			Recovery = 103.28%		
84) 1,4-Dichlorobenzene-d4	12.205	152	86607	10.000 ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.49%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.158	113	49722	10.161 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.61%		
47) 1,2-Dichloroethane-d4	5.680	65	66192	10.187 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.87%		
64) Toluene-d8	7.651	98	200132	9.914 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%		
88) 4-Bromofluorobenzene	10.995	95	80217	9.988 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.592	85	1422	0.314 ug/L	88
3) Chloromethane	1.790	50	2046	0.379 ug/L	89
4) Vinyl chloride	1.857	62	1632	0.326 ug/L	73
5) Bromomethane	2.161	94	446	0.371 ug/L	81
6) Chloroethane	2.272	64	1120M4	0.355 ug/L	
7) Trichlorofluoromethane	2.420	101	1947	0.372 ug/L #	69
8) Ethyl ether	2.716	74	1005M1	0.461 ug/L	
10) 1,1-Dichloroethene	2.900	96	1318	0.415 ug/L #	79
11) Carbon disulfide	2.933	76	4345	0.420 ug/L #	83
12) Freon-113	2.939	101	1230M1	0.367 ug/L	
13) Iodomethane	0.000		0	N.D. d	
14) Acrolein	3.229	56	430M1	0.473 ug/L	
15) Methylene chloride	3.463	84	2255	0.538 ug/L	95
17) Acetone	3.499	43	1696M1	1.168 ug/L	
18) trans-1,2-Dichloroethene	3.611	96	1381	0.380 ug/L	78
19) Methyl acetate	3.622	43	2374M1	0.700 ug/L	
21) Methyl tert-butyl ether	3.714	73	6120M1	0.440 ug/L	
22) tert-Butyl alcohol	3.792	59	1084M1	2.240 ug/L	
24) Diisopropyl ether	4.079	45	8193	0.413 ug/L #	75
25) 1,1-Dichloroethane	4.196	63	3485	0.399 ug/L	82
26) Halothane	4.258	117	1199M1	0.411 ug/L	

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.230	53	782M1	0.433	ug/L		
28) Ethyl tert-butyl ether	4.422	59	7137	0.414	ug/L	#	76
29) Vinyl acetate	4.431	43	6978M1	0.610	ug/L		
30) cis-1,2-Dichloroethene	4.709	96	1882M1	0.433	ug/L		
31) 2,2-Dichloropropane	4.818	77	2468	0.444	ug/L	#	31
33) Bromochloromethane	4.907	128	912M1	0.463	ug/L		
34) Cyclohexane	4.913	56	3953	0.426	ug/L	#	23
35) Chloroform	4.980	83	3115	0.438	ug/L	#	88
36) Ethyl acetate	5.097	43	3232M1	0.601	ug/L		
37) Carbon tetrachloride	5.117	117	1932	0.361	ug/L	#	25
38) Tetrahydrofuran	5.144	42	890M1	0.535	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	2722M1	0.427	ug/L		
42) 2-Butanone	0.000		0	N.D.	d		
43) 1,1-Dichloropropene	5.301	75	1981	0.370	ug/L	#	73
45) Benzene	5.552	78	6728	0.390	ug/L	#	79
46) tert-Amyl methyl ether	5.663	73	5646M1	0.444	ug/L		
48) 1,2-Dichloroethane	5.752	62	3030	0.461	ug/L	#	59
51) Methyl cyclohexane	6.134	83	2892	0.422	ug/L	#	61
52) Trichloroethene	6.148	95	1655M1	0.383	ug/L		
54) Dibromomethane	6.583	93	990M1	0.402	ug/L		
55) 1,2-Dichloropropane	6.684	63	2209M1	0.431	ug/L		
57) 2-Chloroethyl vinyl ether	7.381	63	1303M1	0.404	ug/L		
58) Bromodichloromethane	6.756	83	2570	0.424	ug/L	#	77
61) 1,4-Dioxane	6.971	88	3965M1	99.134	ug/L		
62) cis-1,3-Dichloropropene	7.448	75	3009	0.430	ug/L	#	84
65) Toluene	7.718	92	4550	0.419	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	735M1	0.388	ug/L		
67) Tetrachloroethene	8.151	166	1670	0.362	ug/L	#	47
69) trans-1,3-Dichloropropene	8.201	75	2736	0.433	ug/L	#	86
71) Ethyl methacrylate	8.382	69	2714	0.460	ug/L	#	32
72) 1,1,2-Trichloroethane	8.382	83	1399M1	0.449	ug/L		
73) Chlorodibromomethane	8.594	129	1758M1	0.409	ug/L		
74) 1,3-Dichloropropane	8.705	76	2813	0.428	ug/L		95
75) 1,2-Dibromoethane	8.864	107	1649	0.455	ug/L	#	59
77) 2-Hexanone	9.157	43	1819	0.509	ug/L	#	40
78) Chlorobenzene	9.517	112	5132	0.438	ug/L	#	61
79) Ethylbenzene	9.559	91	8713	0.405	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.609	131	1642	0.375	ug/L	#	44
81) p/m Xylene	9.746	106	6826	0.817	ug/L		100
82) o Xylene	10.289	106	6928M1	0.852	ug/L		

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	10959	0.810	ug/L		96
85) Bromoform	10.381	173	1229M1	0.429	ug/L		
87) Isopropylbenzene	10.669	105	8275	0.391	ug/L		94
89) Bromobenzene	11.104	156	2333	0.431	ug/L		96
90) n-Propylbenzene	11.154	91	10667	0.419	ug/L		99
91) 1,4-Dichlorobutane	11.168	55	4660	0.504	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.238	83	2216M1	0.519	ug/L		
93) 4-Ethyltoluene	11.282	105	8381	0.399	ug/L		99
94) 2-Chlorotoluene	11.324	91	6283	0.411	ug/L		100
95) 1,3,5-Trimethylbenzene	11.377	105	7504	0.404	ug/L		100
96) 1,2,3-Trichloropropane	11.377	75	1709	0.458	ug/L		98
97) trans-1,4-Dichloro-2-b...	11.430	53	800M1	0.454	ug/L		
98) 4-Chlorotoluene	11.505	91	6625	0.418	ug/L		99
99) tert-Butylbenzene	11.717	119	6113	0.399	ug/L		94
102) 1,2,4-Trimethylbenzene	11.798	105	7563	0.410	ug/L		99
103) sec-Butylbenzene	11.910	105	9273	0.414	ug/L		100
104) p-Isopropyltoluene	12.066	119	7364	0.387	ug/L		96
105) 1,3-Dichlorobenzene	12.127	146	4394	0.434	ug/L		93
106) 1,4-Dichlorobenzene	12.222	146	4371M3	0.436	ug/L		
107) p-Diethylbenzene	12.437	119	4450	0.395	ug/L		96
108) n-Butylbenzene	12.492	91	6499	0.402	ug/L	#	40
109) 1,2-Dichlorobenzene	12.643	146	4236	0.439	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	7522	0.408	ug/L		98
111) 1,2-Dibromo-3-chloropr...	13.424	155	212M1	0.267	ug/L		
112) 1,3,5-Trichlorobenzene	13.457	180	3071	0.398	ug/L		92
113) Hexachlorobutadiene	14.029	225	974	0.395	ug/L		90
114) 1,2,4-Trichlorobenzene	14.057	180	2885	0.422	ug/L		90
115) Naphthalene	14.350	128	6143	0.418	ug/L		100
116) 1,2,3-Trichlorobenzene	14.514	180	2501	0.400	ug/L	#	83

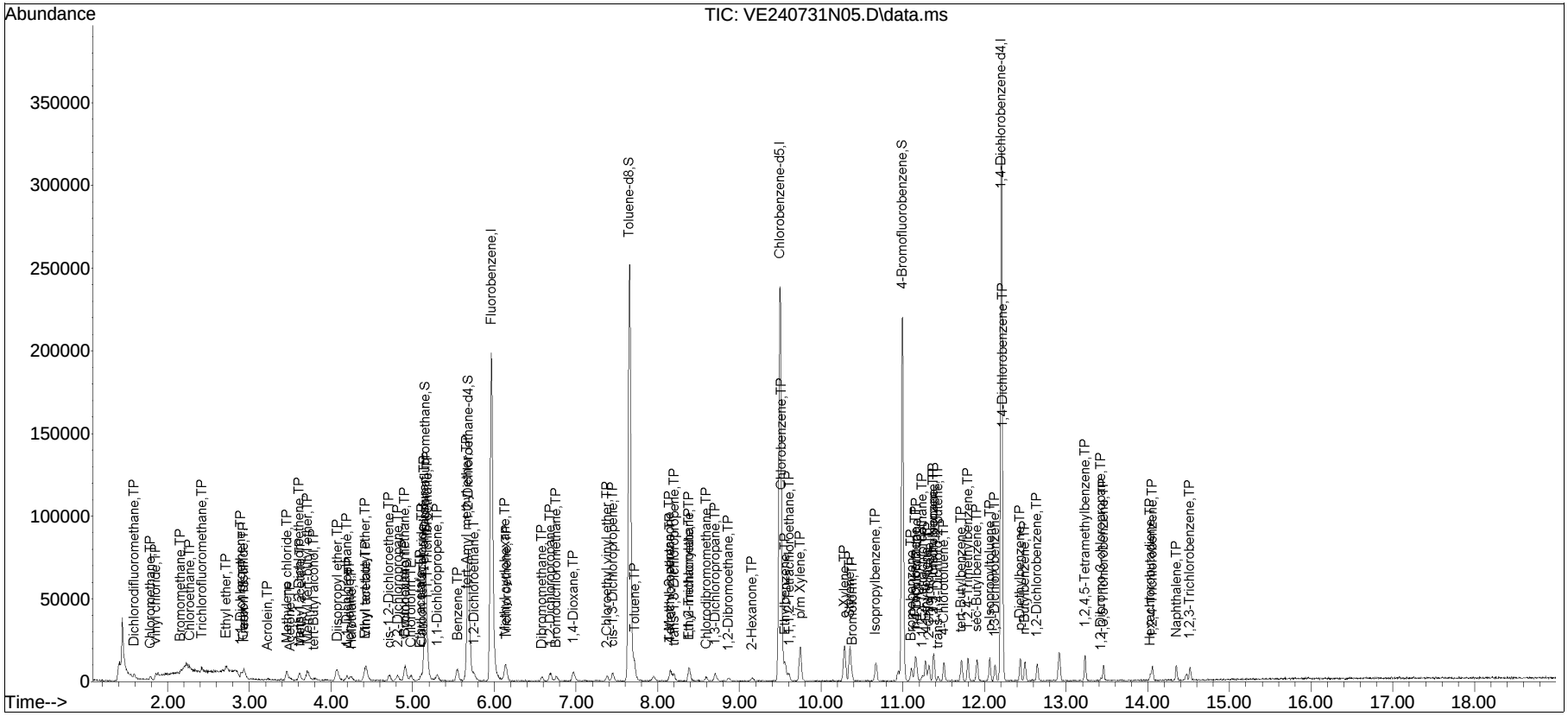
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

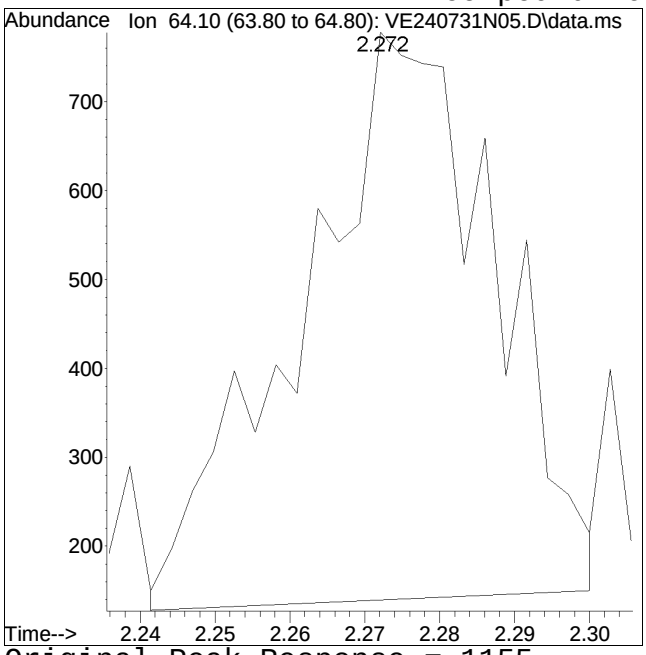


Manual Integration Report

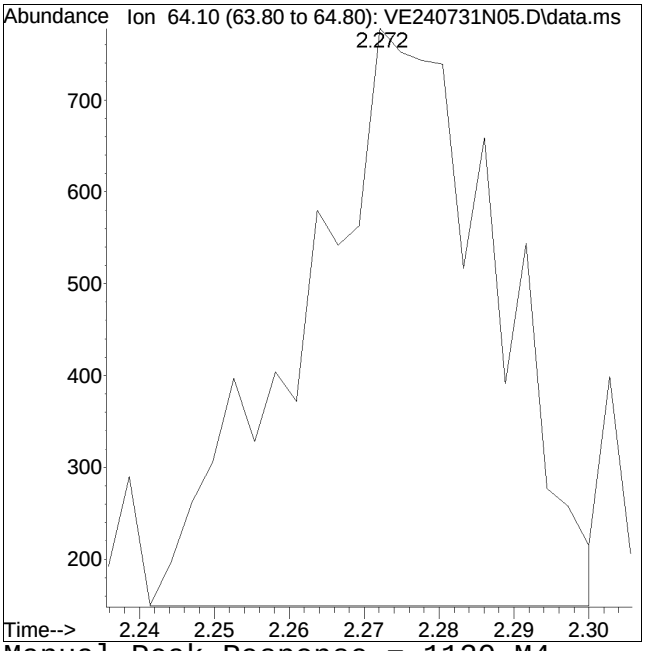
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



Original Peak Response = 1155



Manual Peak Response = 1120 M4

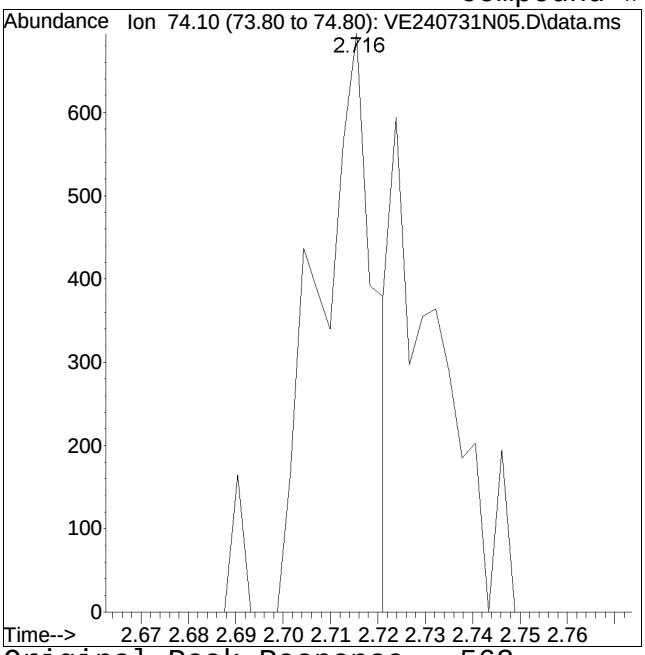
M4 = Poor automated baseline construction.

Manual Integration Report

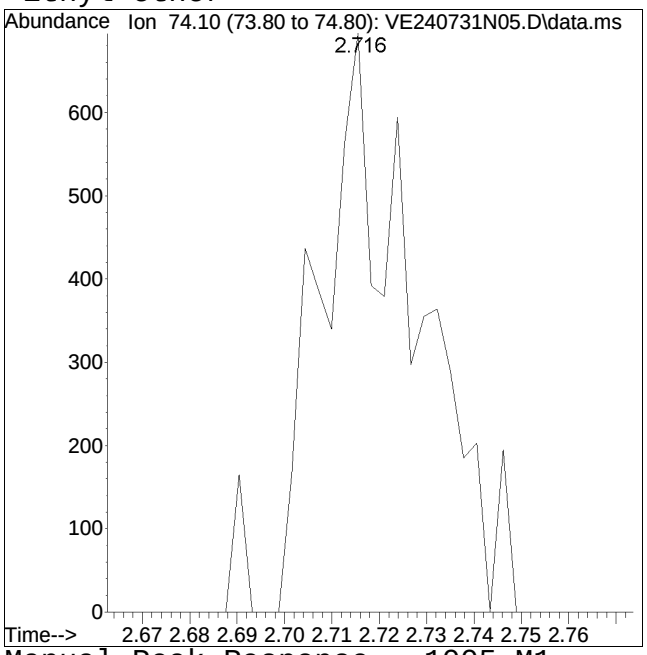
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #8: Ethyl ether



Original Peak Response = 562



Manual Peak Response = 1005 M1

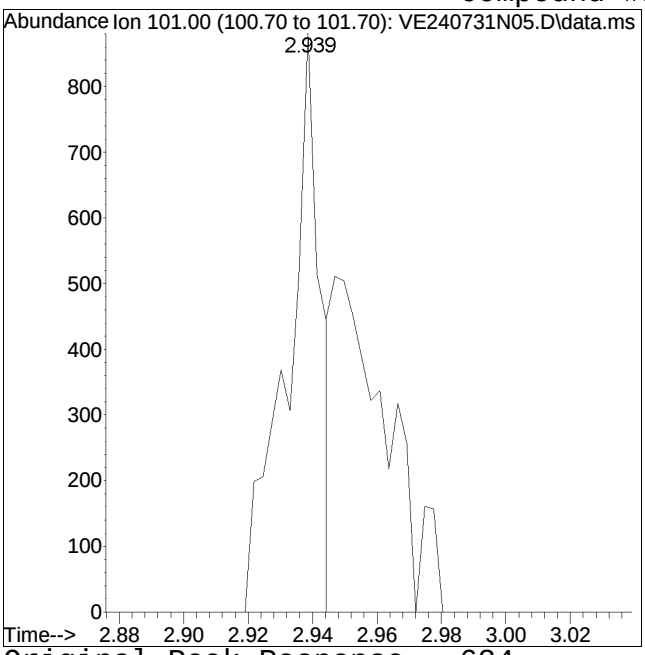
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

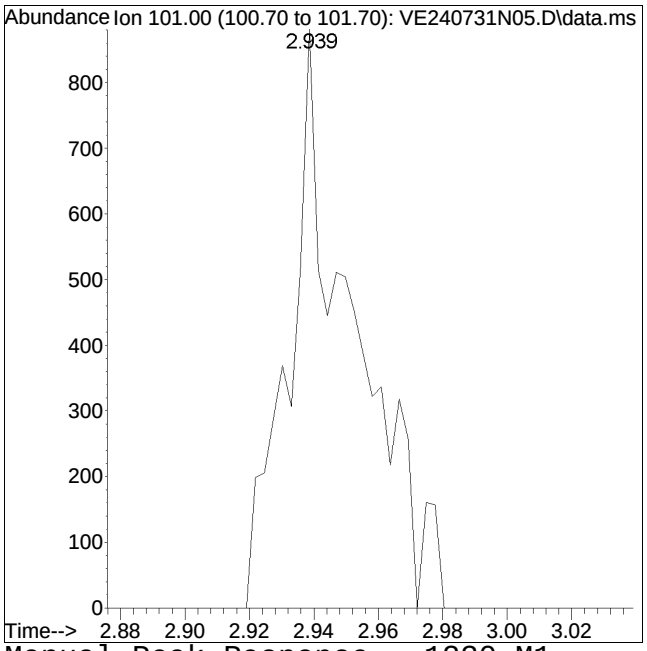
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #12: Freon-113



Original Peak Response = 624



Manual Peak Response = 1230 M1

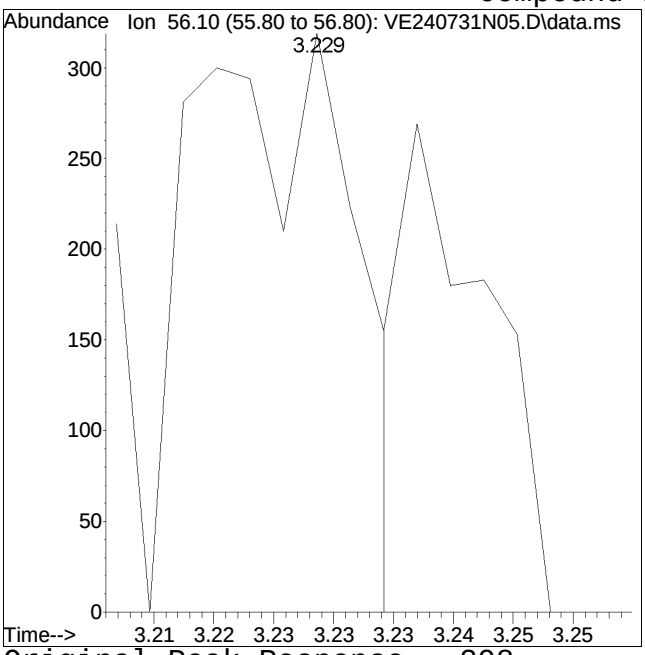
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

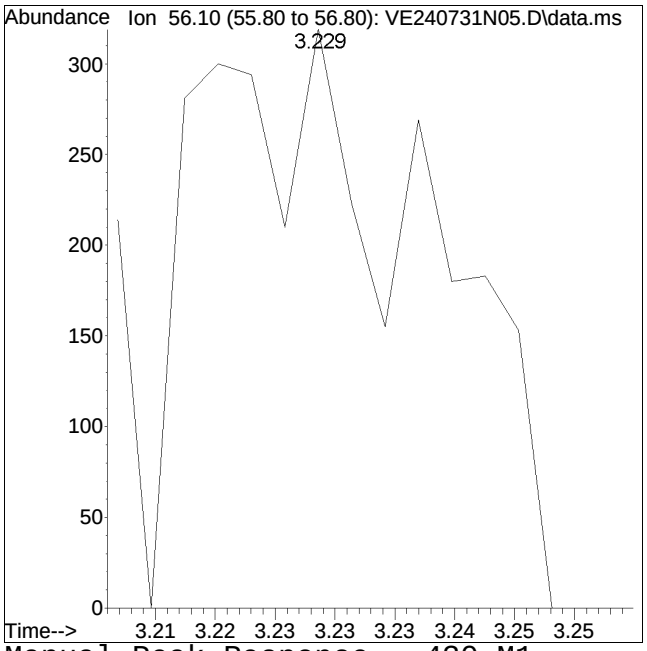
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #14: Acrolein



Original Peak Response = 298



Manual Peak Response = 430 M1

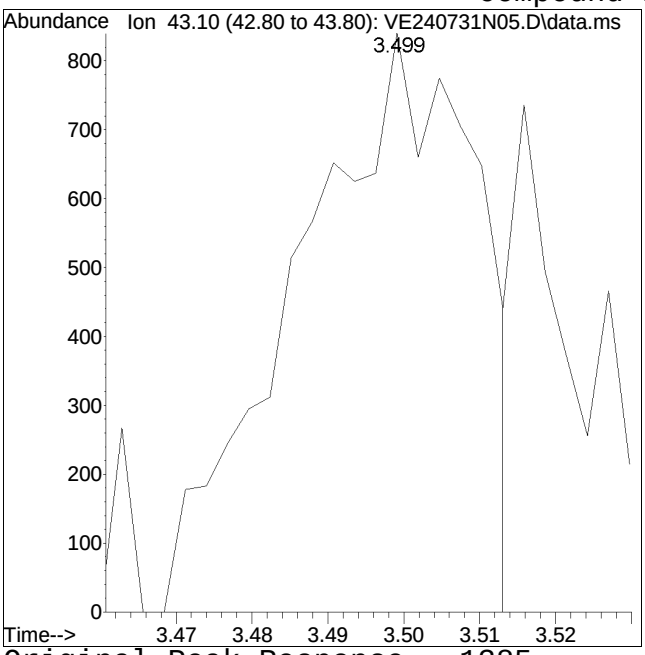
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

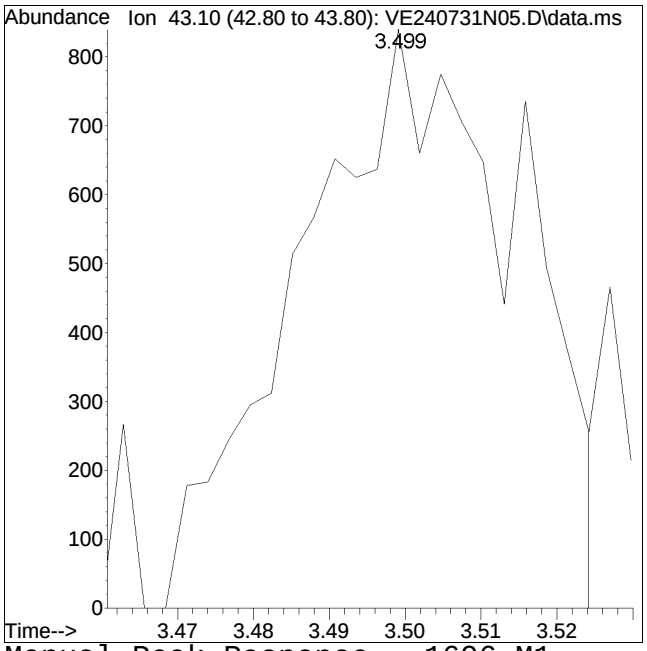
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #17: Acetone



Original Peak Response = 1385



Manual Peak Response = 1696 M1

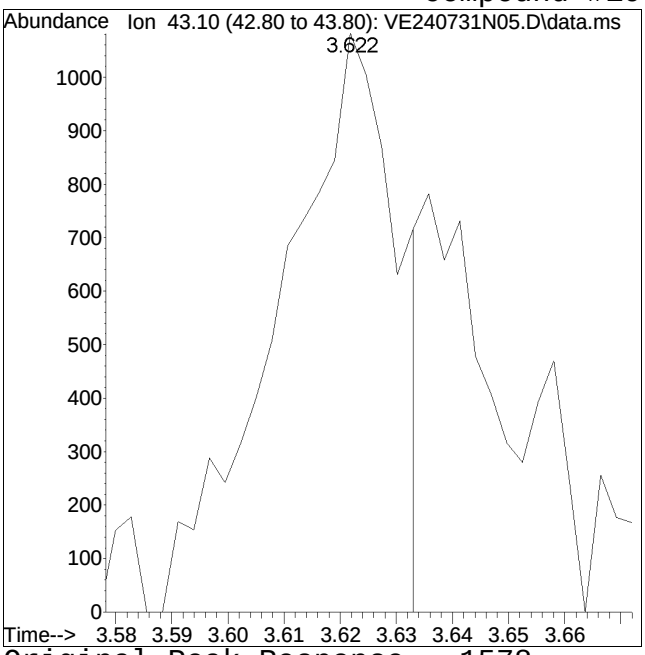
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

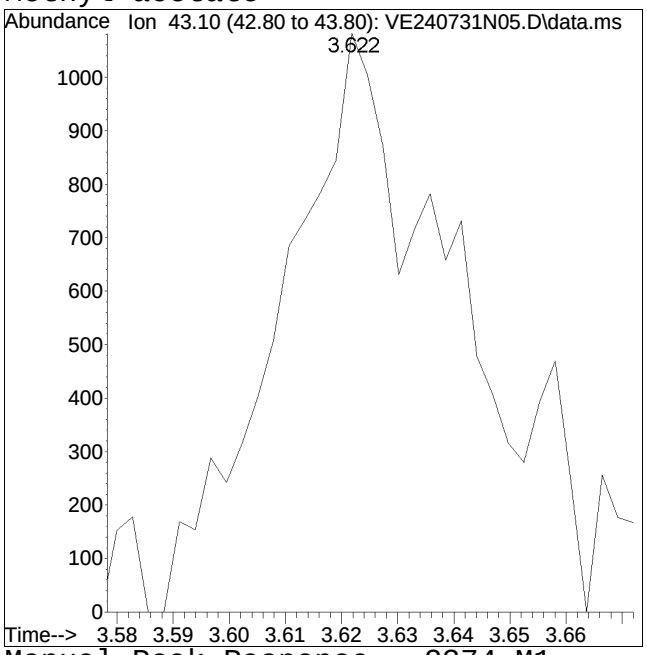
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #19: Methyl acetate



Original Peak Response = 1578



Manual Peak Response = 2374 M1

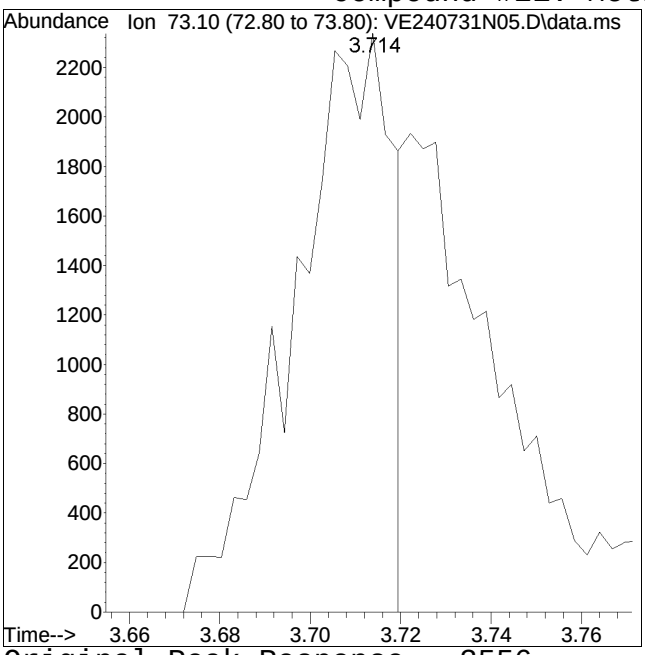
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

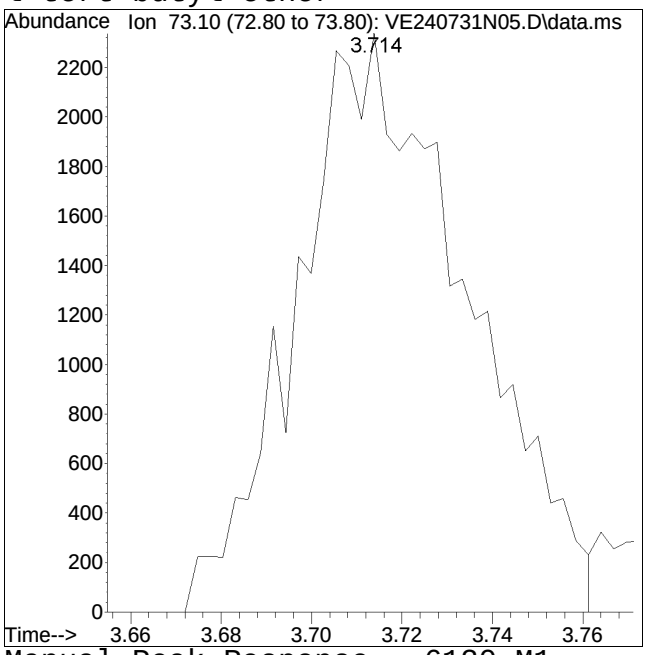
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 3556



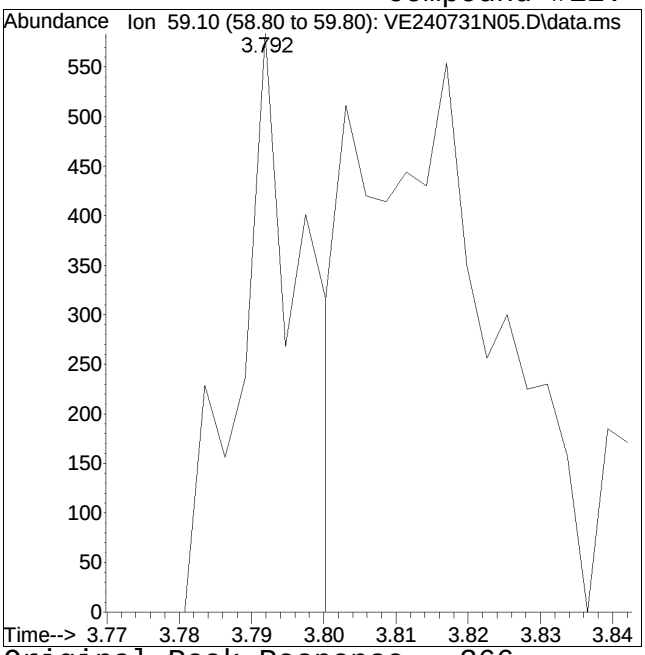
Manual Peak Response = 6120 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

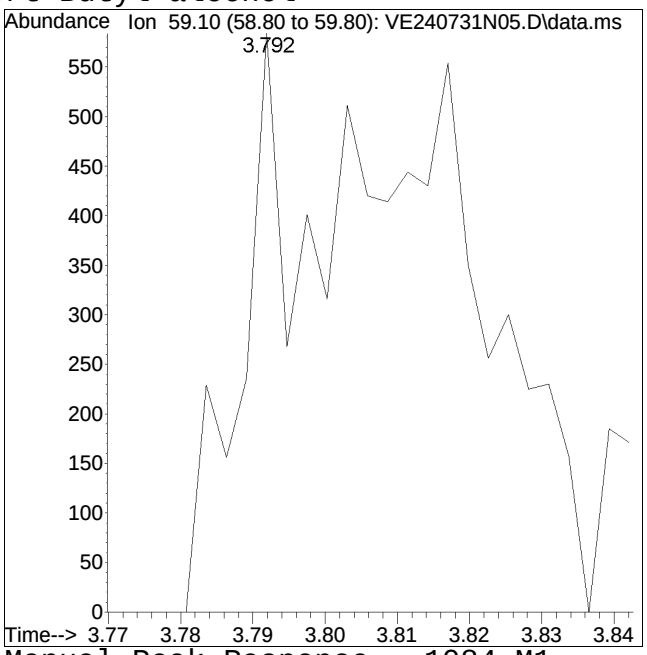
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #22: tert-Butyl alcohol



Original Peak Response = 366



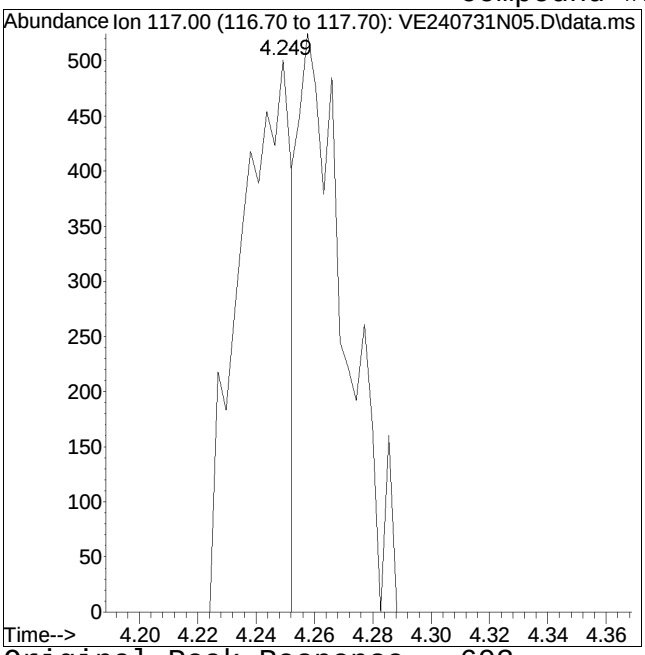
Manual Peak Response = 1084 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

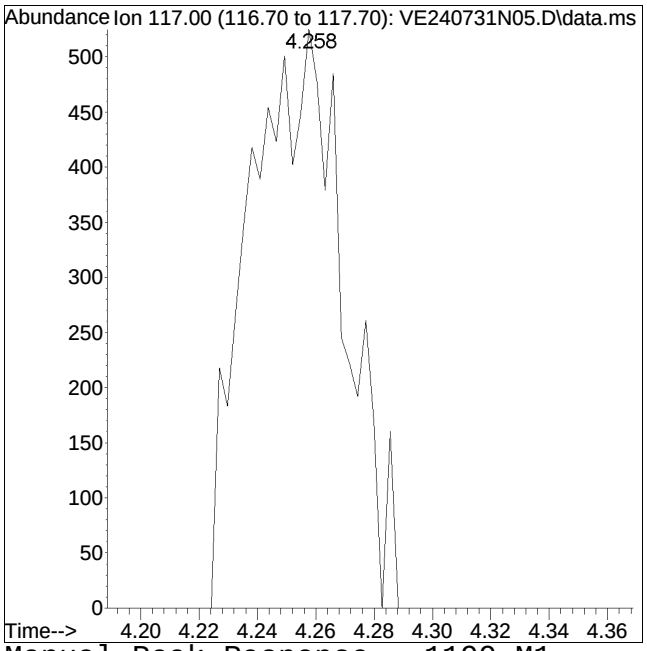
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #26: Halothane



Original Peak Response = 603



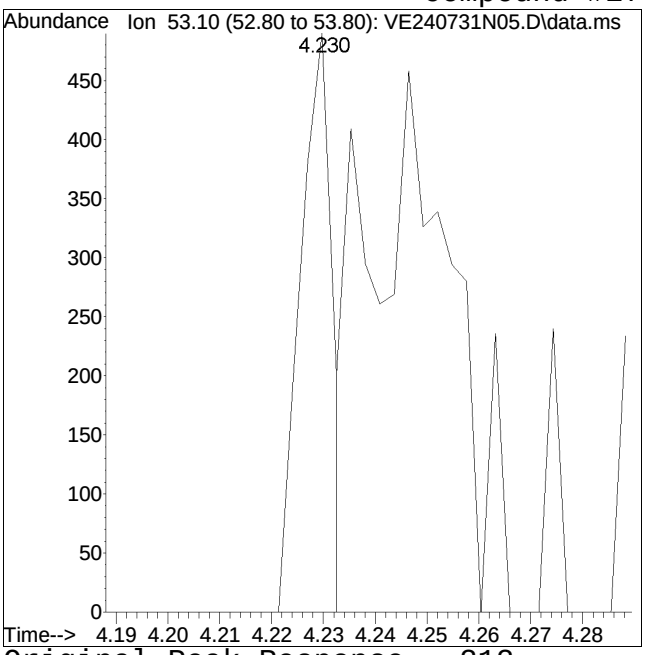
Manual Peak Response = 1199 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

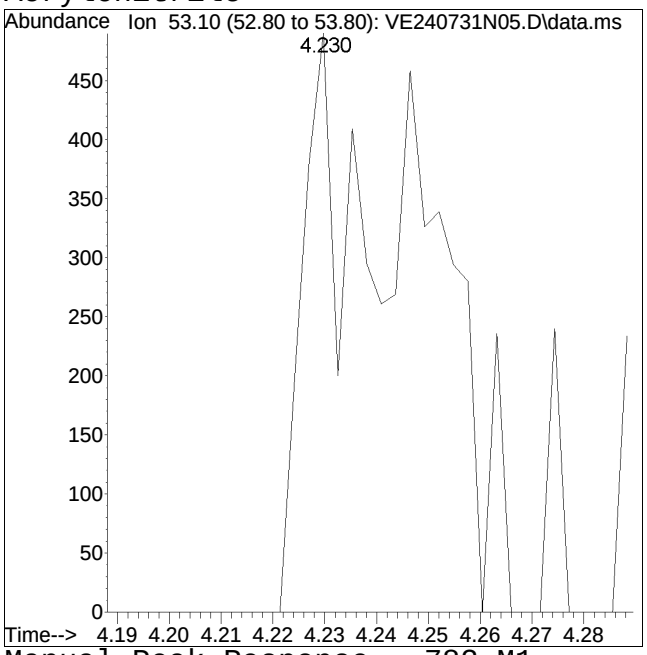
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #27: Acrylonitrile



Original Peak Response = 212



Manual Peak Response = 782 M1

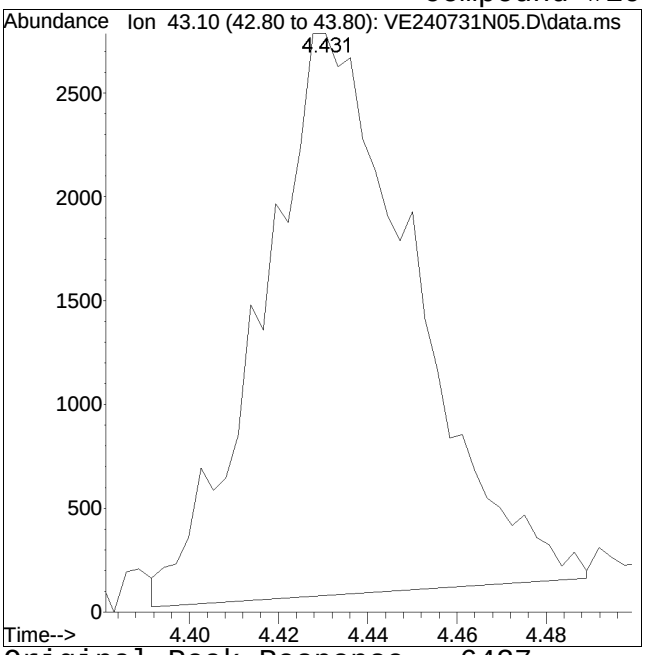
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

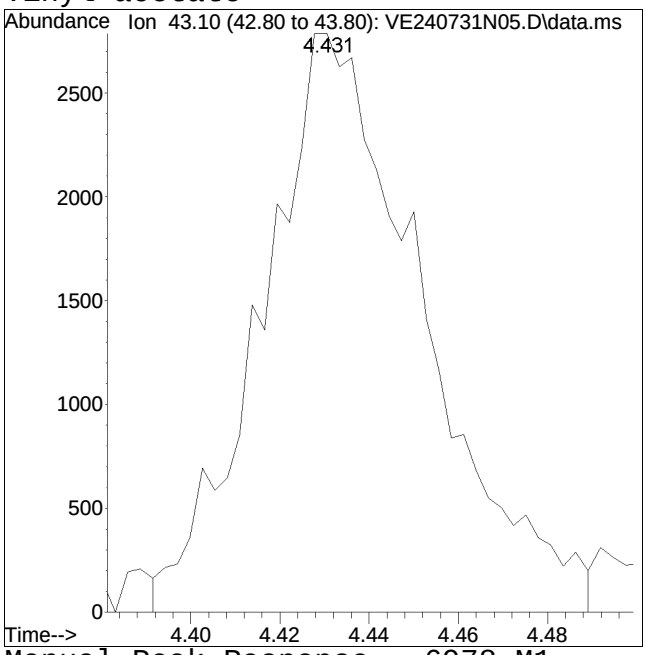
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #29: Vinyl acetate



Original Peak Response = 6427



Manual Peak Response = 6978 M1

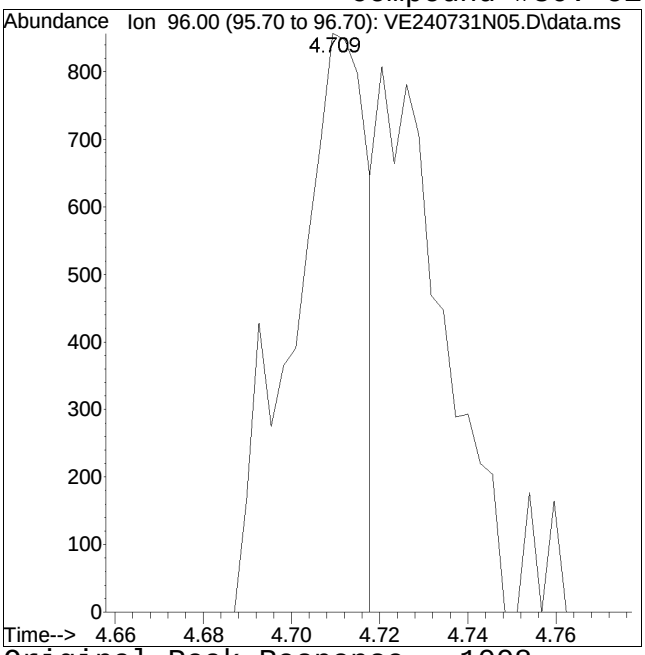
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

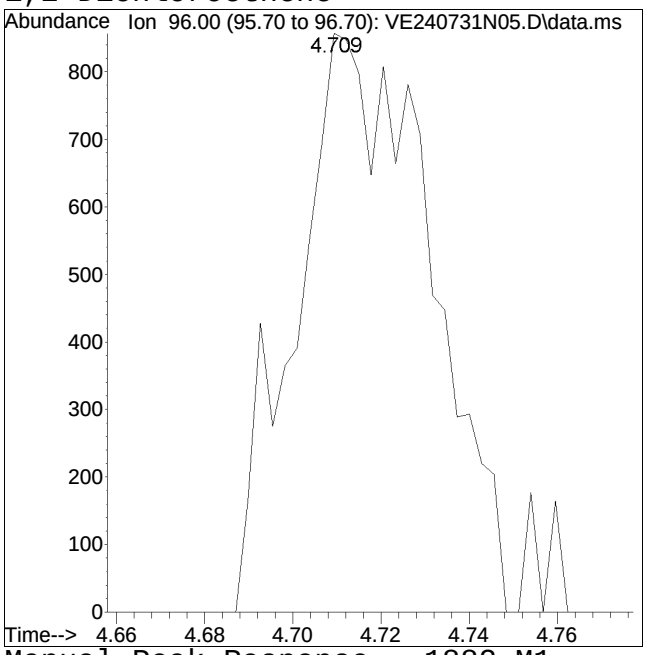
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #30: cis-1,2-Dichloroethene





Original Peak Response = 1008 Manual Peak Response = 1882 M1

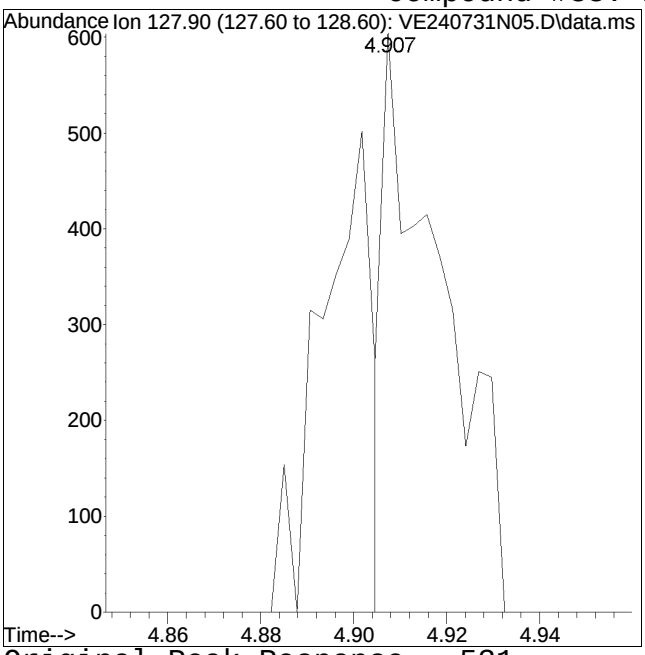
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

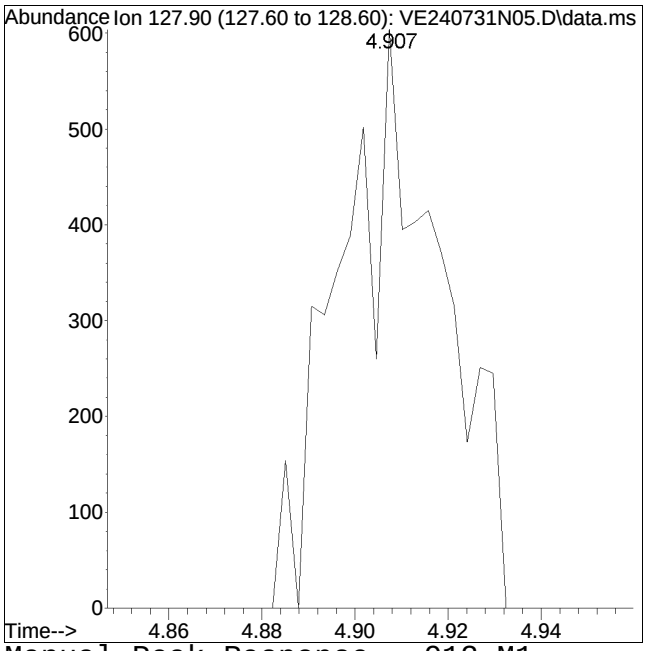
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #33: Bromochloromethane



Original Peak Response = 531



Manual Peak Response = 912 M1

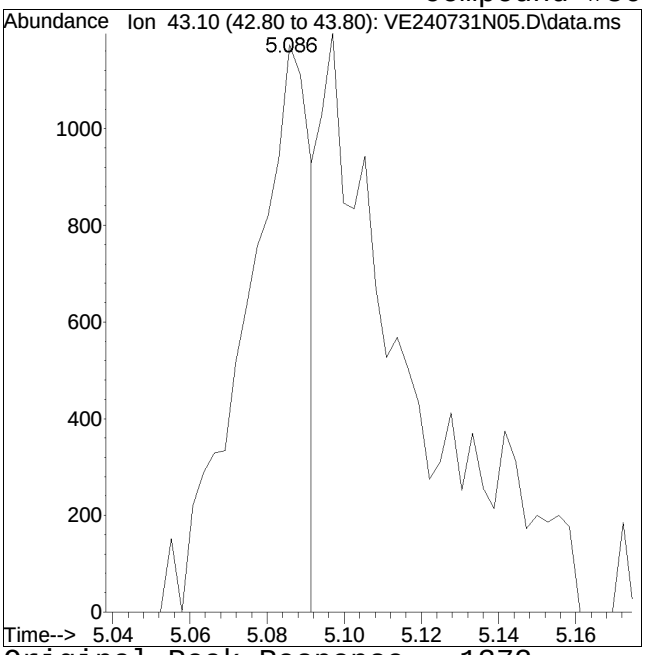
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

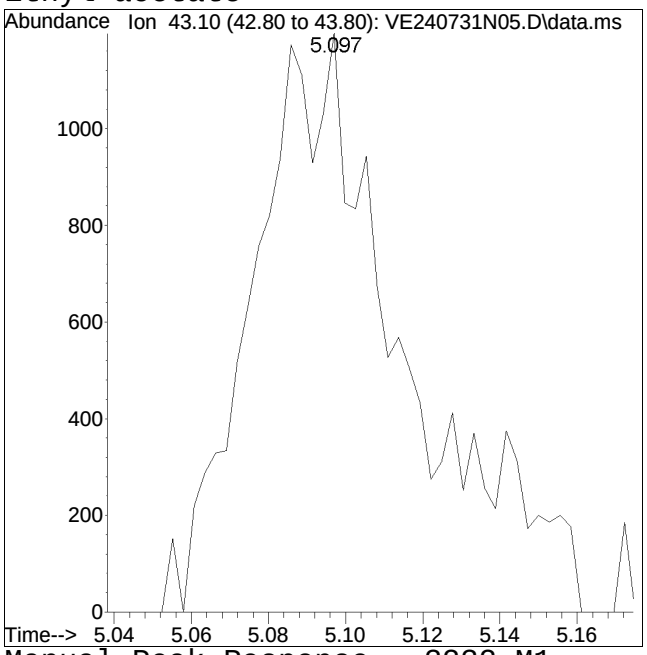
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #36: Ethyl acetate



Original Peak Response = 1372



Manual Peak Response = 3232 M1

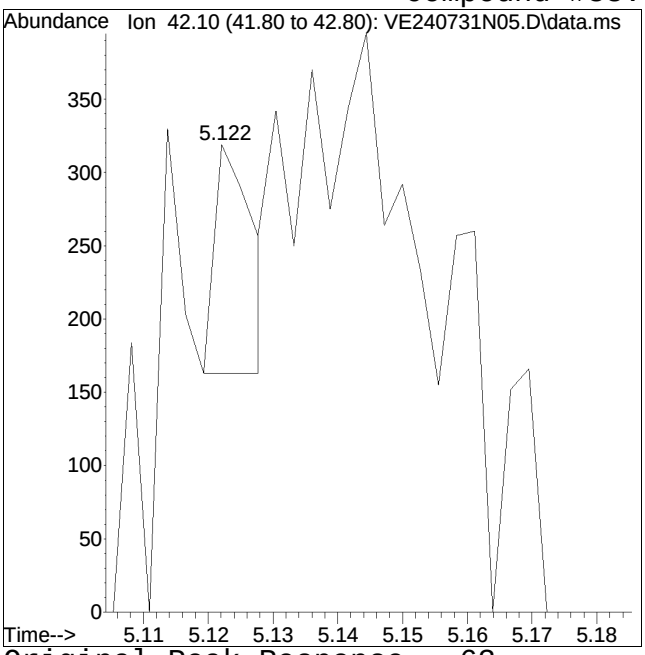
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

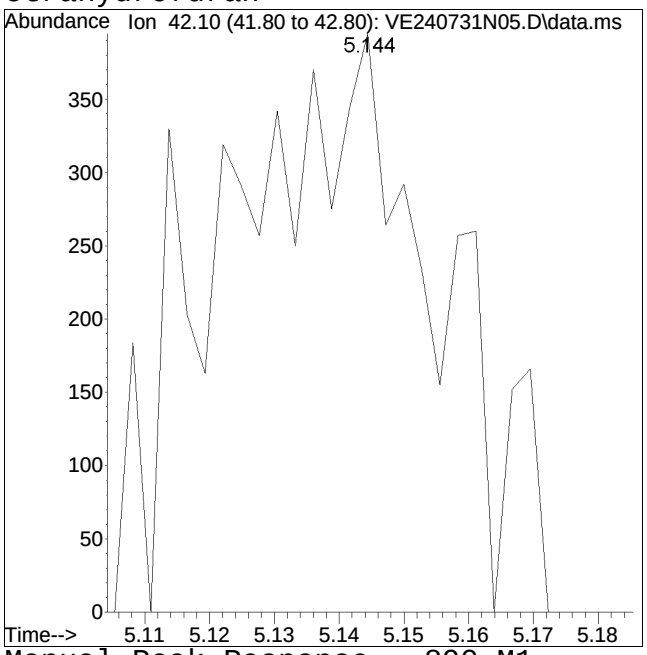
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran



Original Peak Response = 63



Manual Peak Response = 890 M1

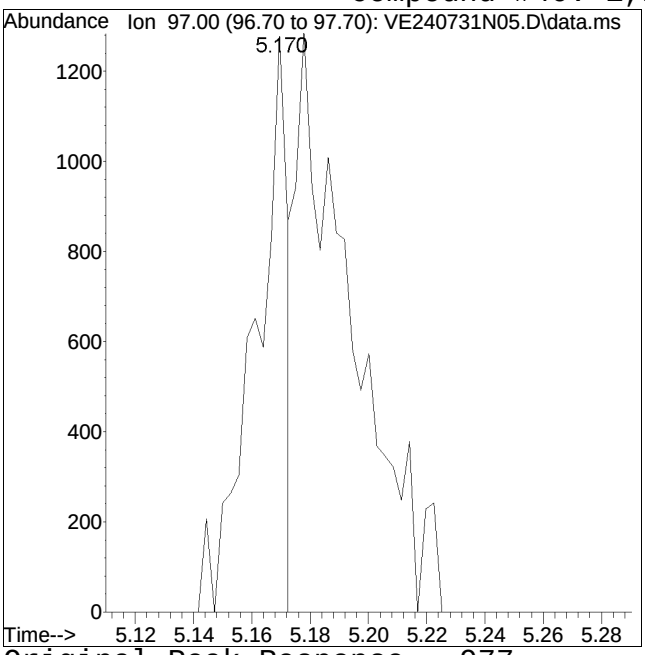
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

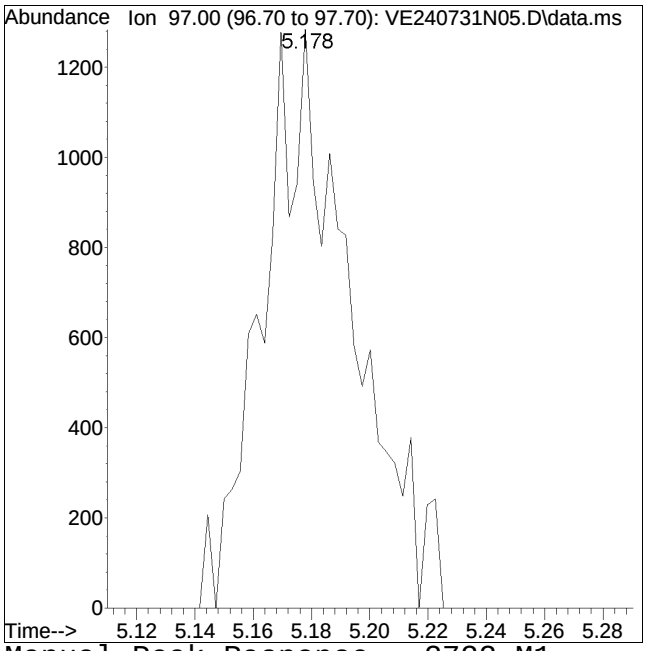
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 977



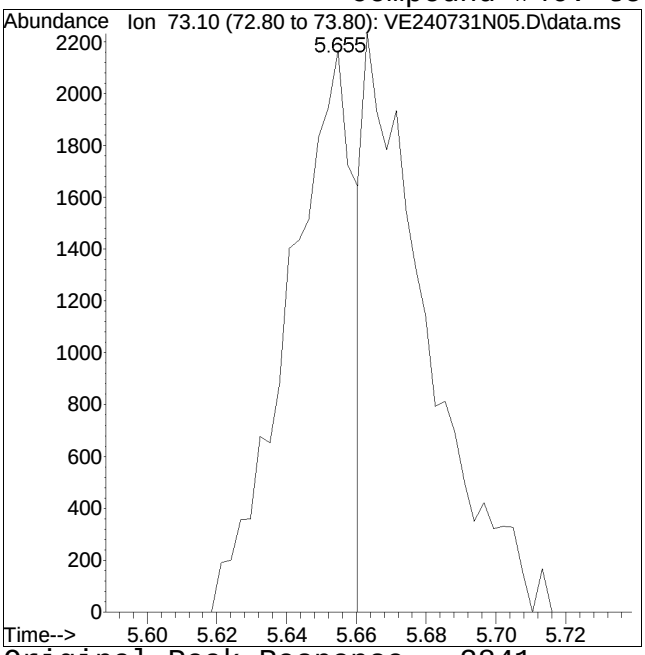
Manual Peak Response = 2722 M1

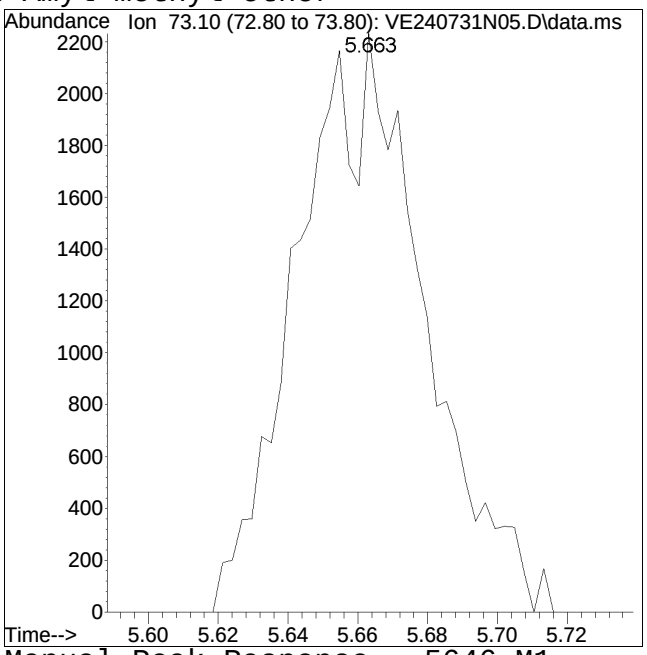
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #46: tert-Amyl methyl ether





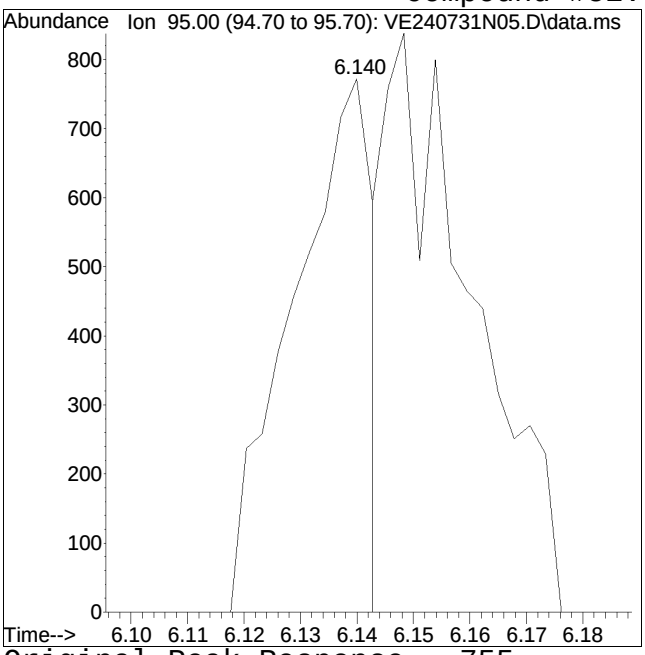
Original Peak Response = 2841 Manual Peak Response = 5646 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

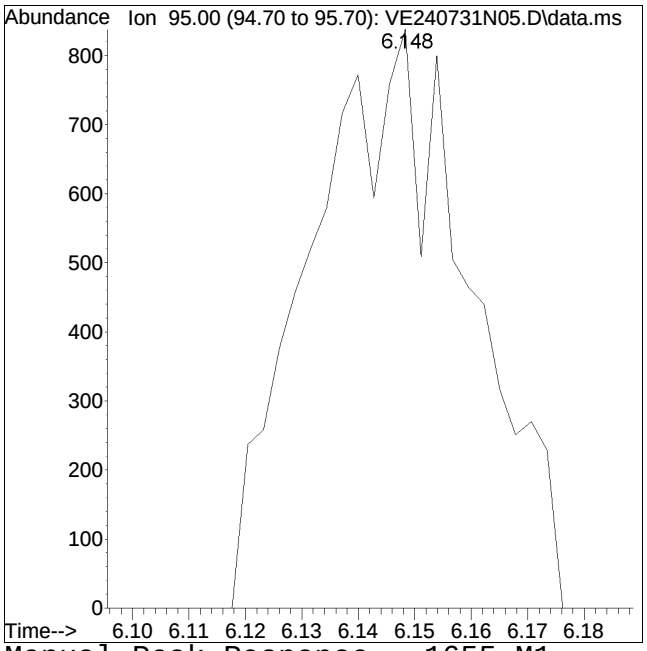
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #52: Trichloroethene



Original Peak Response = 755



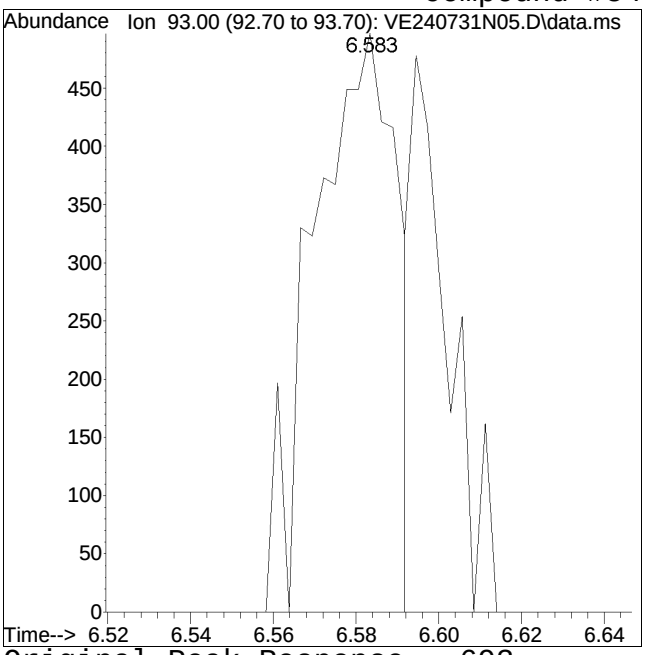
Manual Peak Response = 1655 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

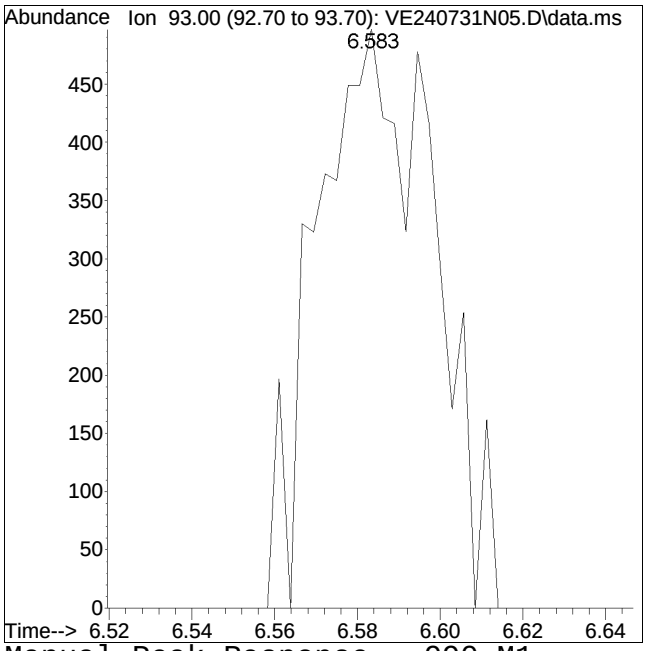
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #54: Dibromomethane



Original Peak Response = 693



Manual Peak Response = 990 M1

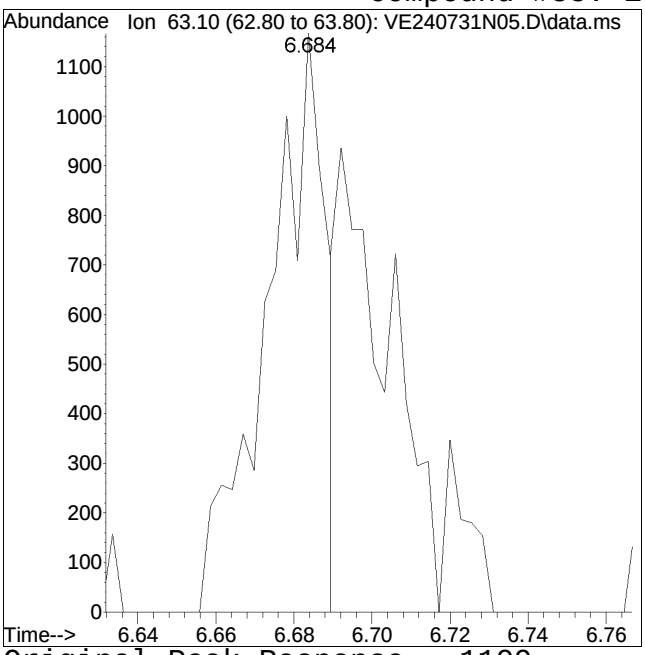
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

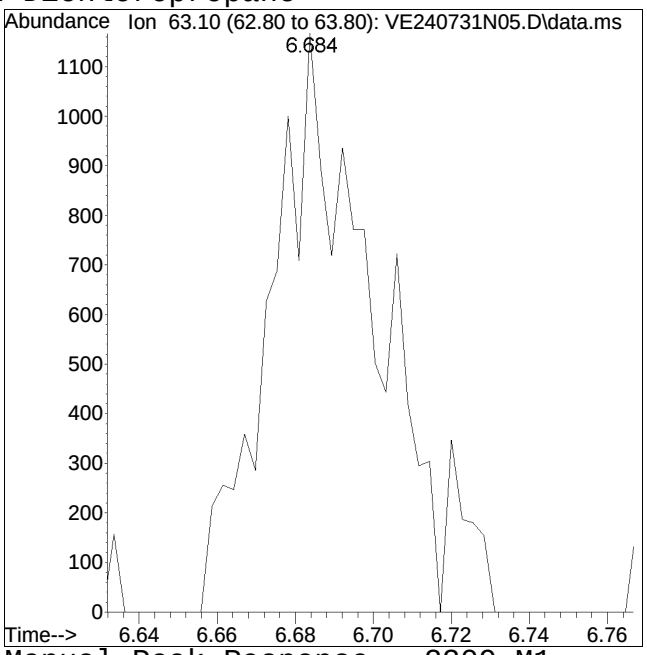
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #55: 1,2-Dichloropropane



Original Peak Response = 1199



Manual Peak Response = 2209 M1

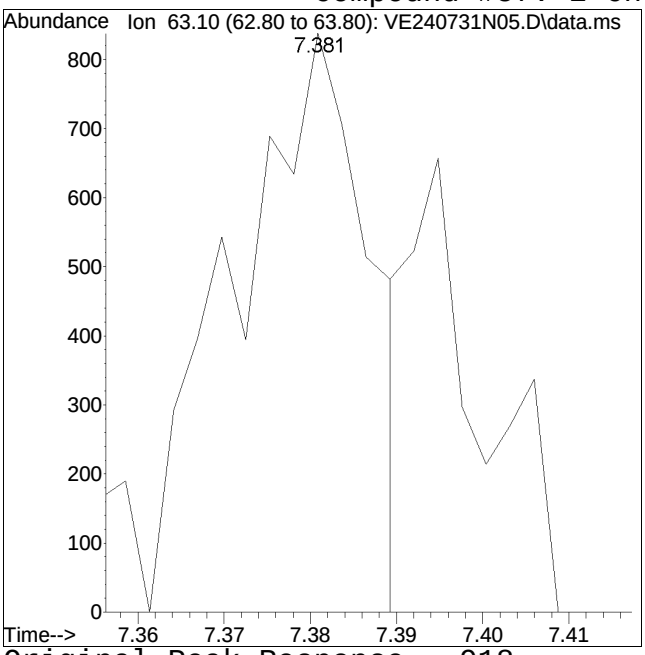
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

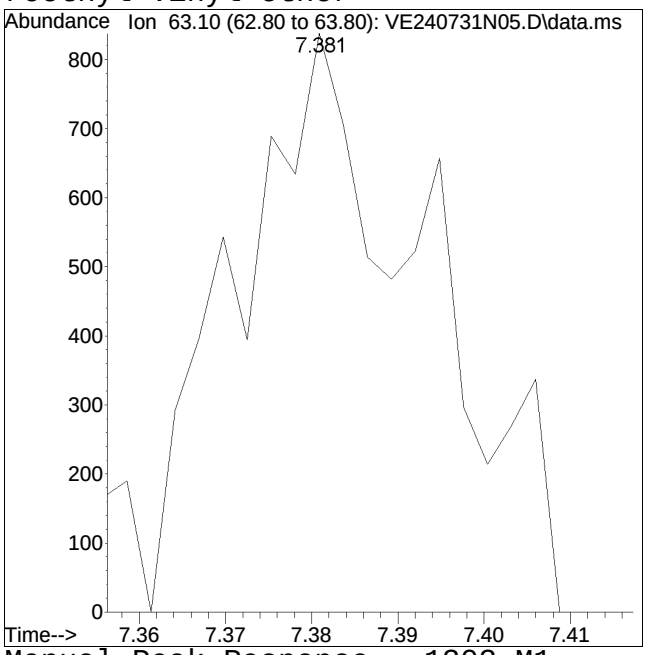
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #57: 2-Chloroethyl vinyl ether



Original Peak Response = 918



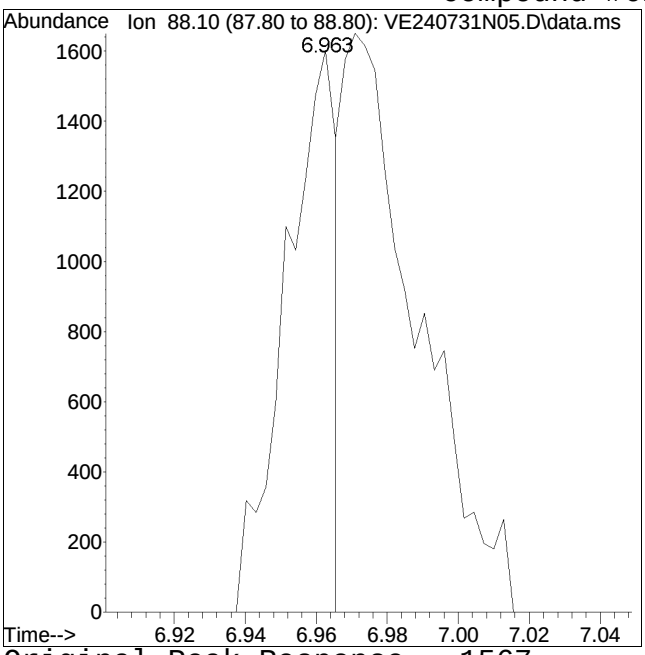
Manual Peak Response = 1303 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

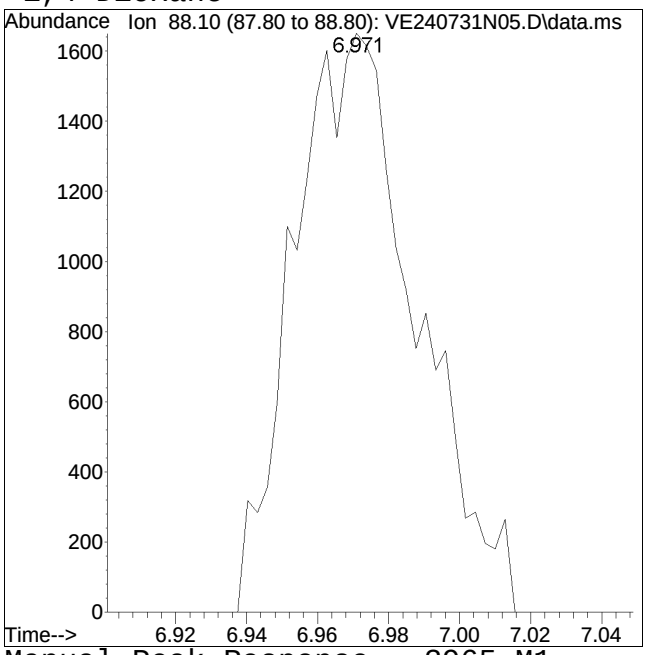
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #61: 1,4-Dioxane



Original Peak Response = 1567



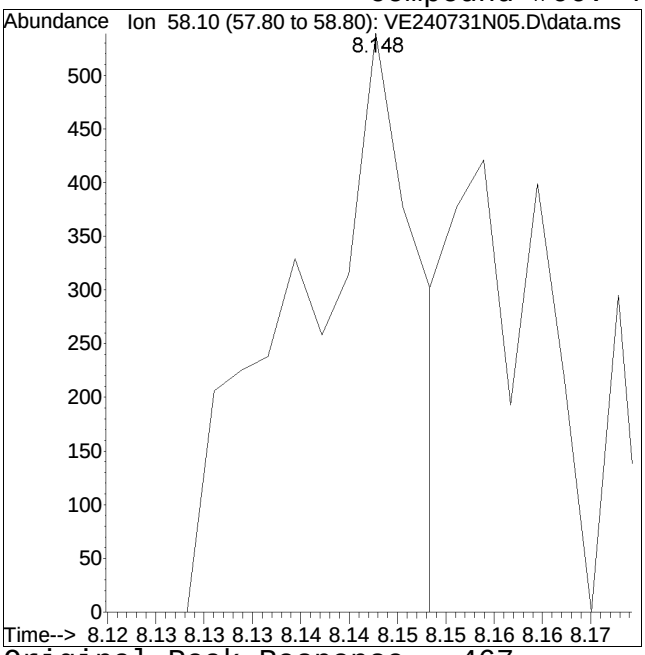
Manual Peak Response = 3965 M1

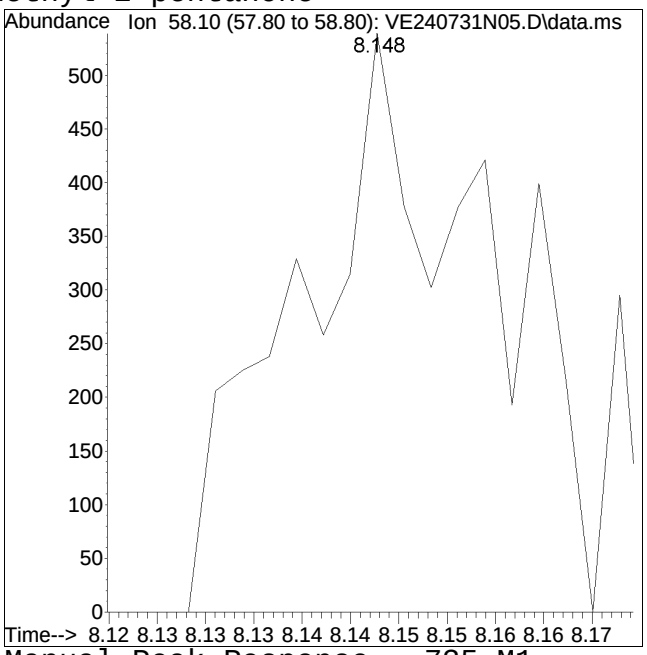
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #66: 4-Methyl-2-pentanone





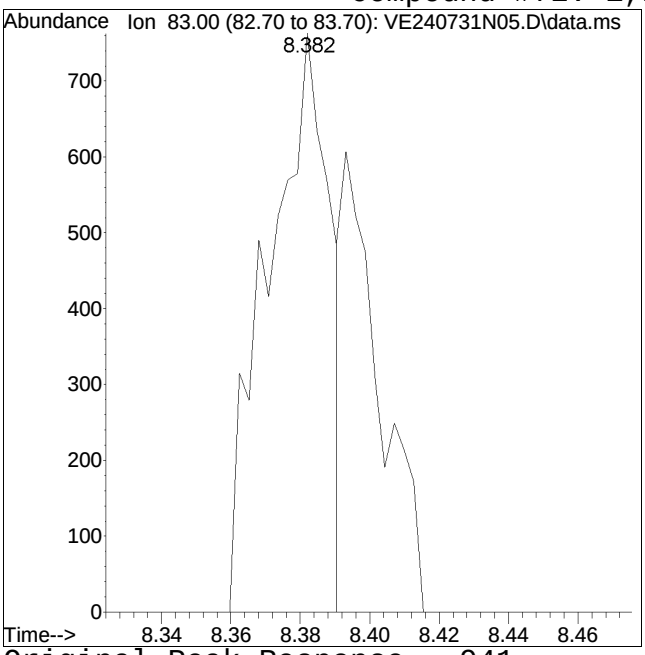
Original Peak Response = 467 Manual Peak Response = 735 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

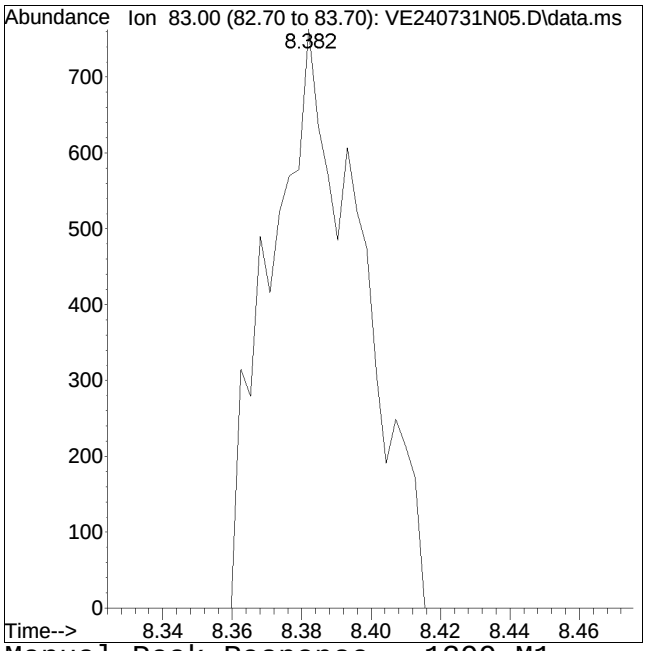
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #72: 1,1,2-Trichloroethane



Original Peak Response = 941



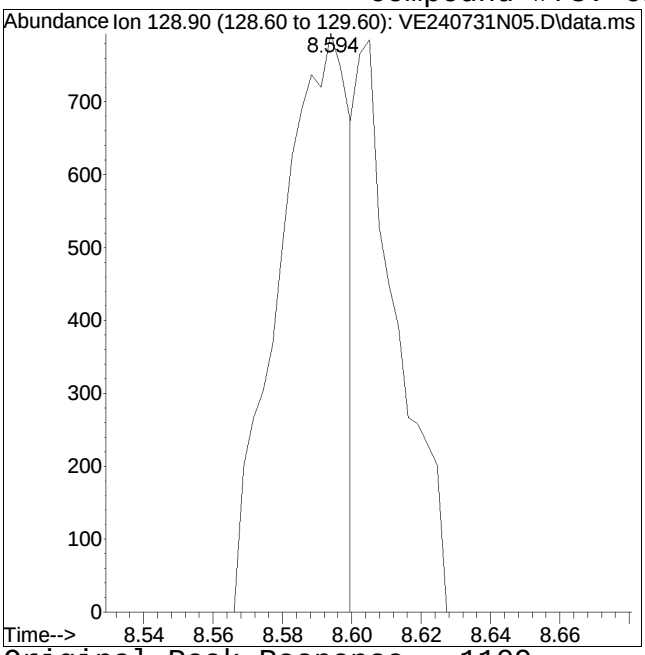
Manual Peak Response = 1399 M1

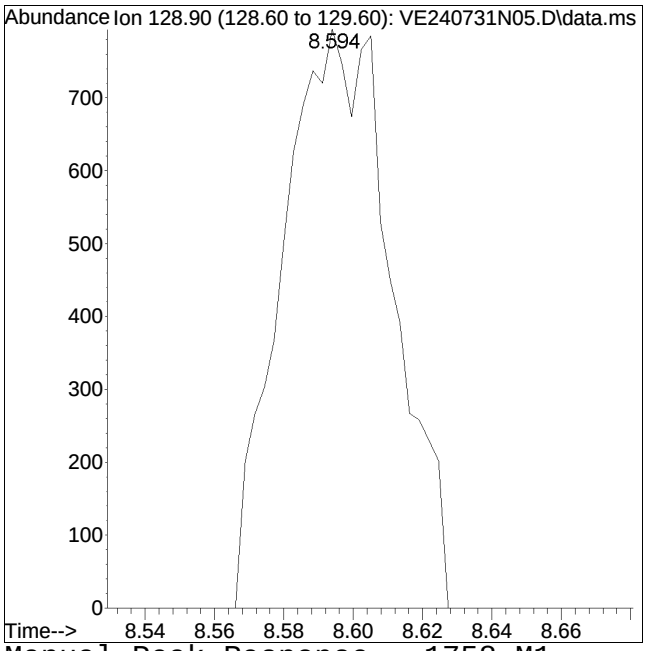
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #73: Chlorodibromomethane



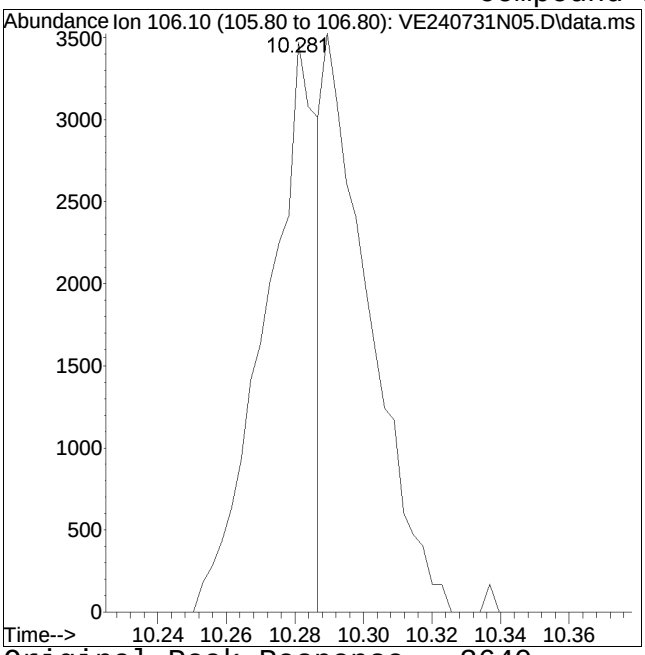


Original Peak Response = 1109 Manual Peak Response = 1758 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

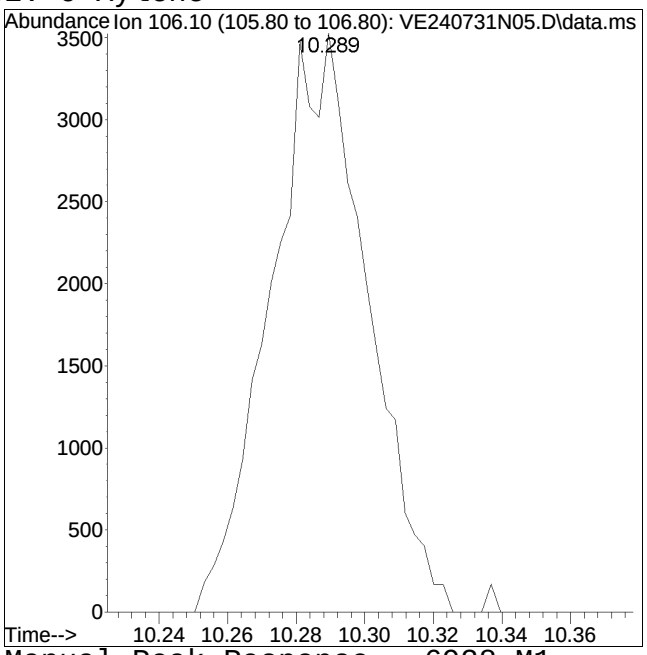
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #82: o Xylene



Original Peak Response = 3640



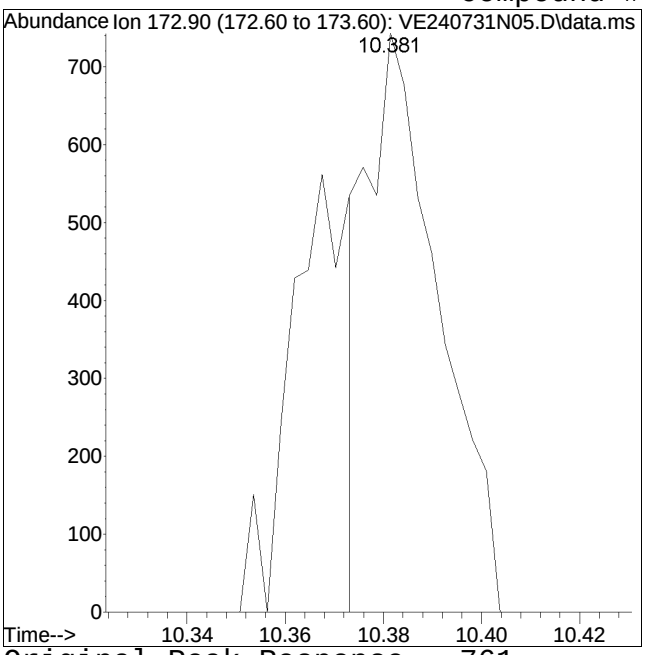
Manual Peak Response = 6928 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

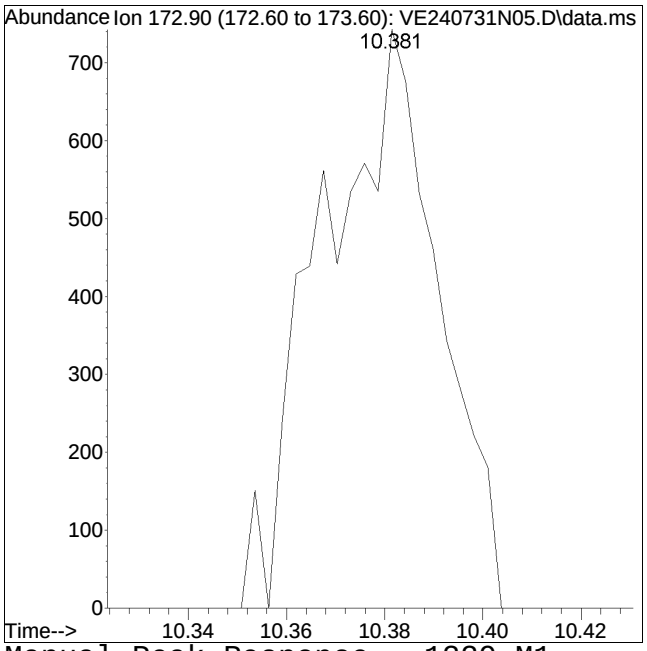
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #85: Bromoform



Original Peak Response = 761



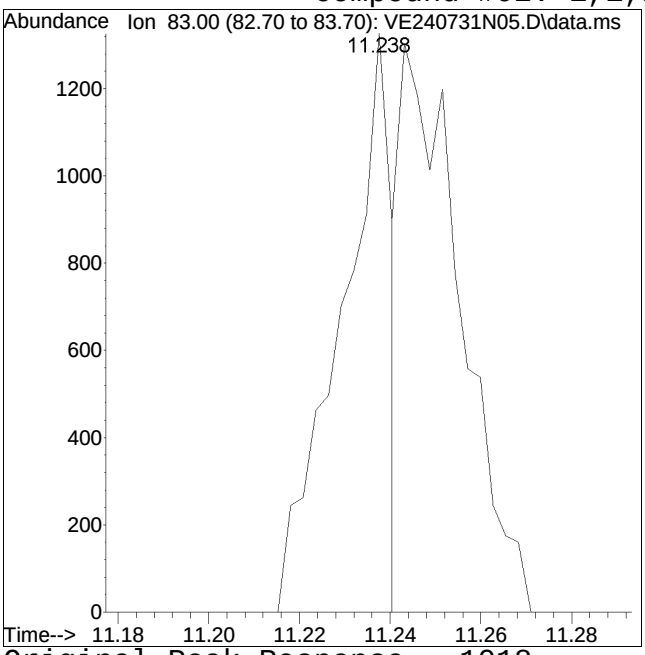
Manual Peak Response = 1229 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

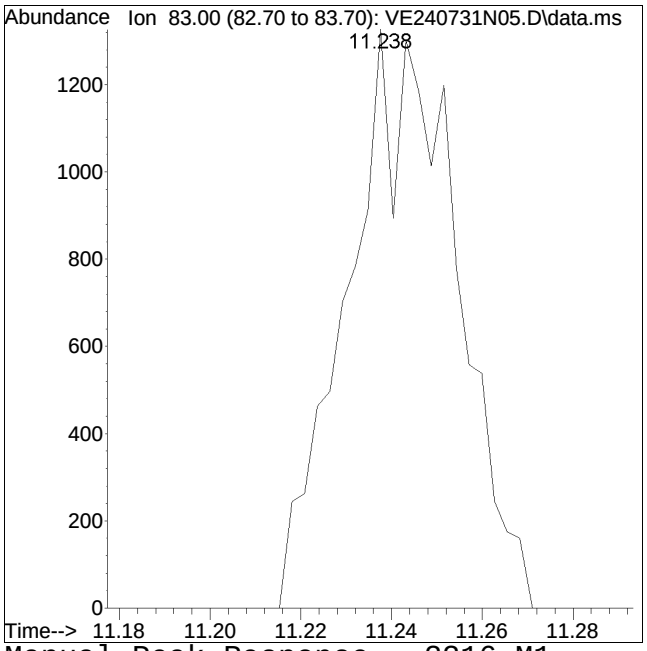
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #92: 1,1,2,2-Tetrachloroethane



Original Peak Response = 1018



Manual Peak Response = 2216 M1

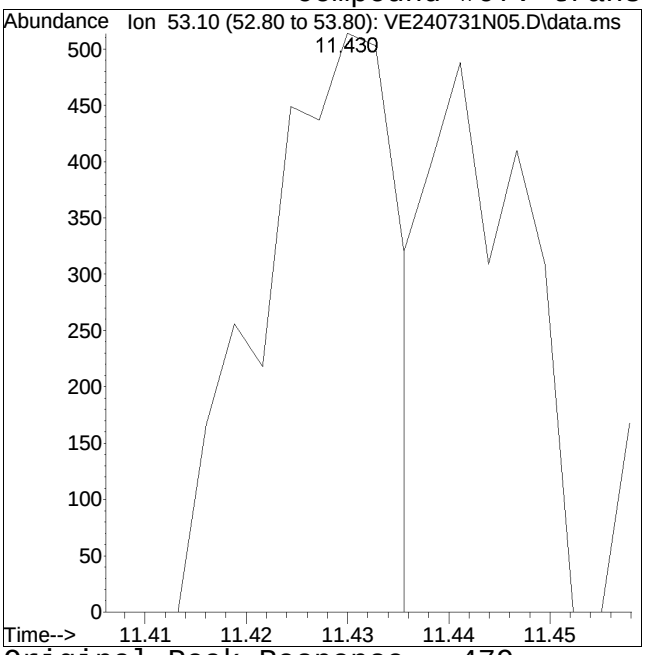
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

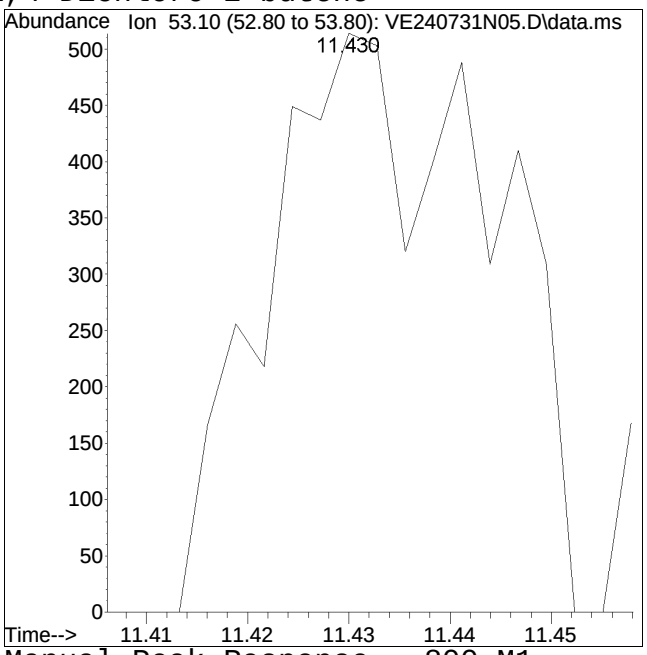
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #97: trans-1,4-Dichloro-2-butene



Original Peak Response = 479



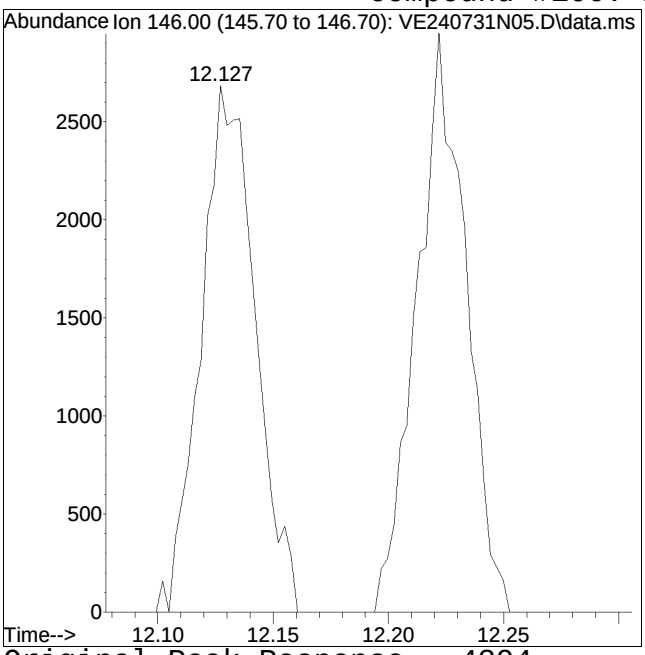
Manual Peak Response = 800 M1

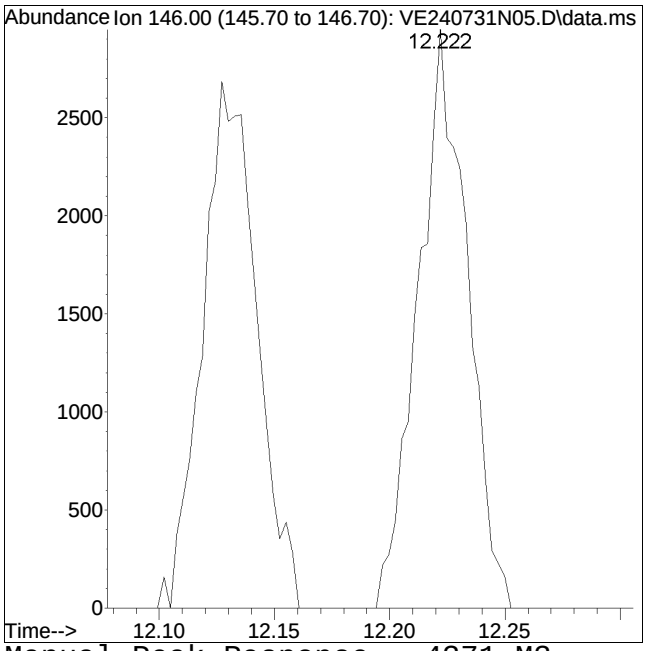
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #106: 1,4-Dichlorobenzene





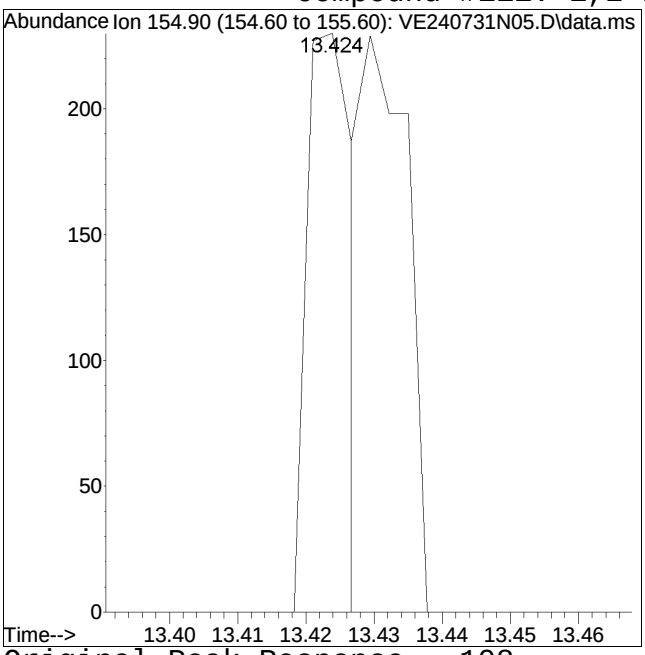
Original Peak Response = 4394 Manual Peak Response = 4371 M3

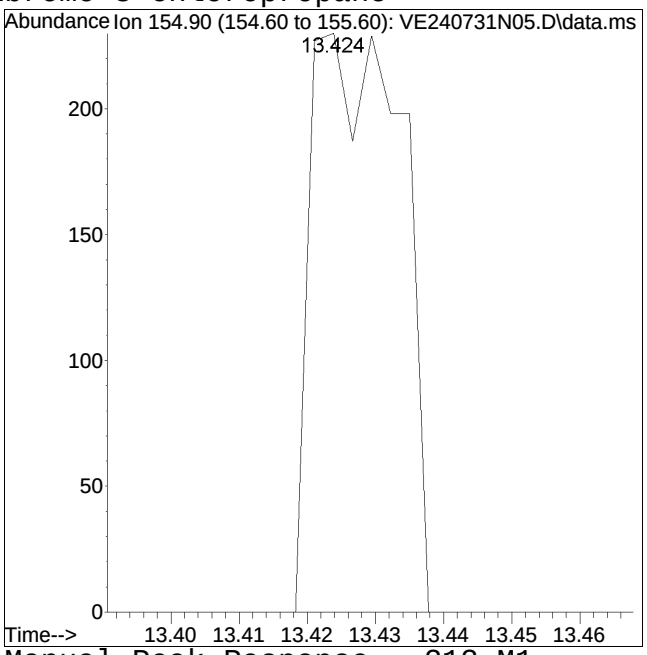
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #111: 1,2-Dibromo-3-chloropropane





Original Peak Response = 108 Manual Peak Response = 212 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	205965	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.68%			
63) Chlorobenzene-d5	9.497	117	151862	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 102.78%			
84) 1,4-Dichlorobenzene-d4	12.208	152	86373	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.21%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.153	113	49492	10.098	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.98%			
47) 1,2-Dichloroethane-d4	5.682	65	66293	10.187	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.87%			
64) Toluene-d8	7.651	98	198351	9.874	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.74%			
88) 4-Bromofluorobenzene	10.998	95	77750	9.707	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.07%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	10135	2.234	ug/L #	87
3) Chloromethane	1.787	50	10322	1.907	ug/L	98
4) Vinyl chloride	1.854	62	10227	2.041	ug/L	83
5) Bromomethane	2.160	94	2217	1.844	ug/L	99
6) Chloroethane	2.272	64	6822M1	2.156	ug/L	
7) Trichlorofluoromethane	2.420	101	10784	2.060	ug/L	87
8) Ethyl ether	2.713	74	3876	1.776	ug/L #	61
10) 1,1-Dichloroethene	2.905	96	6805	2.139	ug/L	87
11) Carbon disulfide	2.933	76	20147	1.943	ug/L	92
12) Freon-113	2.944	101	7065M1	2.106	ug/L	
13) Iodomethane	3.036	142	2297	1.282	ug/L #	84
14) Acrolein	3.228	56	1941M3	2.134	ug/L	
15) Methylene chloride	3.457	84	8519	2.029	ug/L	89
17) Acetone	3.499	43	3859M1	2.655	ug/L	
18) trans-1,2-Dichloroethene	3.613	96	7133	1.958	ug/L	78
19) Methyl acetate	3.622	43	7542	2.220	ug/L #	84
21) Methyl tert-butyl ether	3.719	73	25937	1.863	ug/L	96
22) tert-Butyl alcohol	3.803	59	4687	9.669	ug/L #	72
24) Diisopropyl ether	4.073	45	36164	1.819	ug/L #	89
25) 1,1-Dichloroethane	4.196	63	16753	1.917	ug/L	95
26) Halothane	4.246	117	5656M1	1.936	ug/L	

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	3350	1.851	ug/L	#	71
28) Ethyl tert-butyl ether	4.422	59	32105	1.861	ug/L	#	83
29) Vinyl acetate	4.436	43	26731M1	2.333	ug/L		
30) cis-1,2-Dichloroethene	4.715	96	8707	2.000	ug/L		97
31) 2,2-Dichloropropane	4.815	77	11494	2.065	ug/L	#	81
33) Bromochloromethane	4.907	128	3765	1.909	ug/L	#	76
34) Cyclohexane	4.913	56	20412M1	2.195	ug/L		
35) Chloroform	4.980	83	14505	2.035	ug/L		95
36) Ethyl acetate	5.091	43	9324	1.730	ug/L	#	96
37) Carbon tetrachloride	5.114	117	11111	2.073	ug/L		96
38) Tetrahydrofuran	5.130	42	3400M3	2.040	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	12396	1.940	ug/L	#	79
42) 2-Butanone	5.273	43	4841M3	2.253	ug/L		
43) 1,1-Dichloropropene	5.303	75	10689	1.993	ug/L		92
45) Benzene	5.549	78	33518	1.941	ug/L		91
46) tert-Amyl methyl ether	5.655	73	23844	1.870	ug/L		98
48) 1,2-Dichloroethane	5.749	62	12349	1.876	ug/L		96
51) Methyl cyclohexane	6.134	83	14843	2.162	ug/L		86
52) Trichloroethene	6.145	95	8248	1.904	ug/L	#	68
54) Dibromomethane	6.580	93	4791	1.944	ug/L		87
55) 1,2-Dichloropropane	6.686	63	9613	1.871	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	5980	1.853	ug/L	#	77
58) Bromodichloromethane	6.759	83	12056	1.988	ug/L	#	93
61) 1,4-Dioxane	6.968	88	16165	403.548	ug/L		88
62) cis-1,3-Dichloropropene	7.445	75	13006	1.854	ug/L		92
65) Toluene	7.713	92	21290	1.968	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	3470	1.842	ug/L	#	96
67) Tetrachloroethene	8.159	166	8736	1.904	ug/L		96
69) trans-1,3-Dichloropropene	8.195	75	11383	1.811	ug/L		87
71) Ethyl methacrylate	8.387	69	11034	1.879	ug/L		89
72) 1,1,2-Trichloroethane	8.385	83	5762	1.858	ug/L		97
73) Chlorodibromomethane	8.594	129	7851	1.837	ug/L		98
74) 1,3-Dichloropropane	8.708	76	12084	1.849	ug/L		99
75) 1,2-Dibromoethane	8.867	107	6772	1.878	ug/L		86
77) 2-Hexanone	9.157	43	6900	1.938	ug/L	#	88
78) Chlorobenzene	9.520	112	22113	1.898	ug/L		90
79) Ethylbenzene	9.559	91	41231	1.928	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.603	131	8186	1.881	ug/L		93
81) p/m Xylene	9.745	106	31668	3.808	ug/L		98
82) o Xylene	10.289	106	30832	3.808	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.351	104	50933	3.785	ug/L		99
85) Bromoform	10.379	173	5528	1.934	ug/L		92
87) Isopropylbenzene	10.669	105	41364	1.959	ug/L		95
89) Bromobenzene	11.104	156	10259	1.901	ug/L		100
90) n-Propylbenzene	11.151	91	48832	1.922	ug/L		97
91) 1,4-Dichlorobutane	11.168	55	18365	1.991	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	9003	2.115	ug/L		97
93) 4-Ethyltoluene	11.279	105	39669	1.895	ug/L		99
94) 2-Chlorotoluene	11.321	91	29752	1.953	ug/L		99
95) 1,3,5-Trimethylbenzene	11.377	105	34688	1.872	ug/L		100
96) 1,2,3-Trichloropropane	11.377	75	7255	1.949	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.433	53	3407	1.939	ug/L	#	84
98) 4-Chlorotoluene	11.502	91	30450	1.927	ug/L		98
99) tert-Butylbenzene	11.720	119	29184	1.910	ug/L	#	97
102) 1,2,4-Trimethylbenzene	11.798	105	33754	1.834	ug/L		94
103) sec-Butylbenzene	11.909	105	43184	1.935	ug/L		98
104) p-Isopropyltoluene	12.063	119	35878	1.891	ug/L		97
105) 1,3-Dichlorobenzene	12.127	146	18671M3	1.849	ug/L		
106) 1,4-Dichlorobenzene	12.225	146	18771	1.878	ug/L		94
107) p-Diethylbenzene	12.439	119	20387	1.813	ug/L		94
108) n-Butylbenzene	12.498	91	30950	1.918	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	17729	1.841	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.229	119	32685	1.779	ug/L		94
111) 1,2-Dibromo-3-chloropr...	13.432	155	1498	1.893	ug/L		95
112) 1,3,5-Trichlorobenzene	13.457	180	13388	1.742	ug/L		93
113) Hexachlorobutadiene	14.032	225	4746	1.931	ug/L		93
114) 1,2,4-Trichlorobenzene	14.054	180	11806	1.733	ug/L		98
115) Naphthalene	14.352	128	26466	1.808	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	11185	1.795	ug/L		95

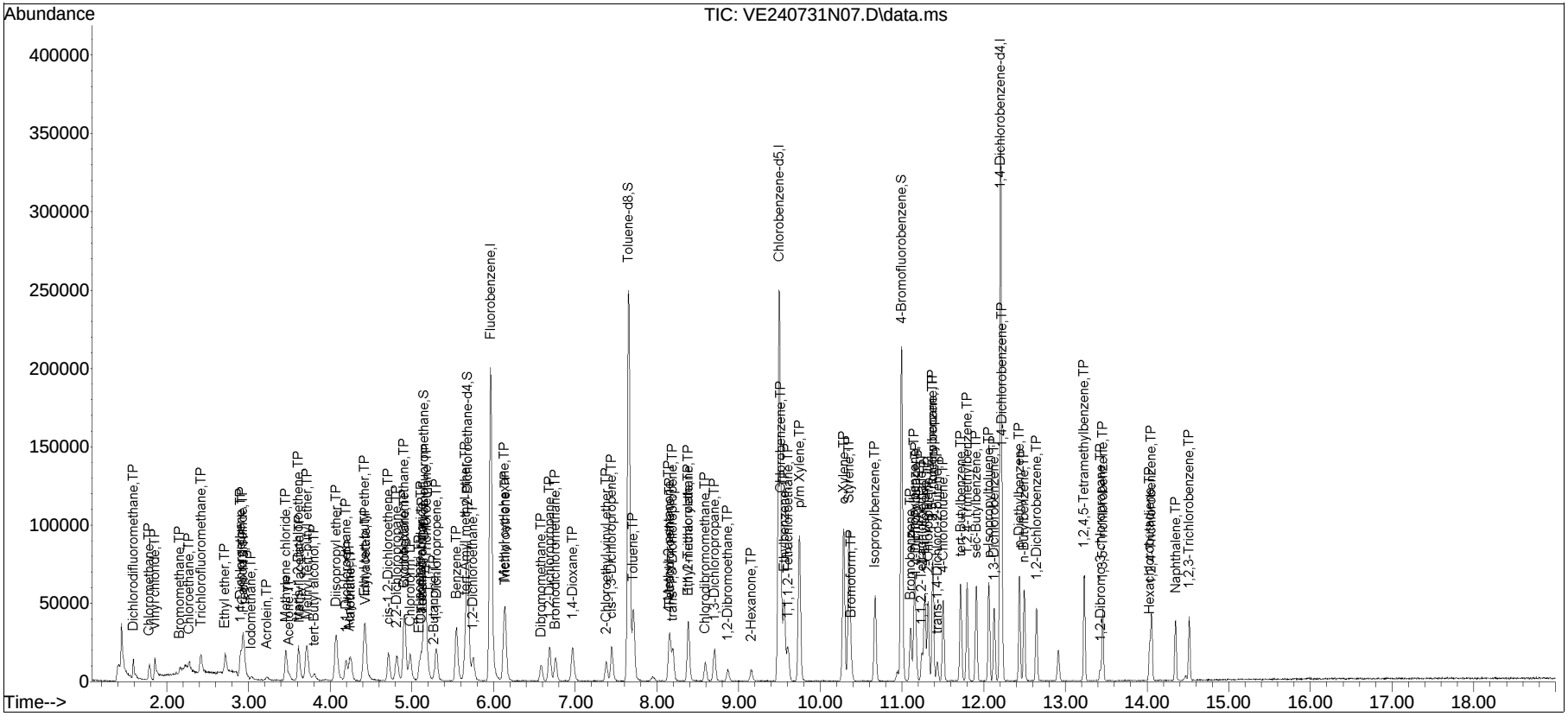
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

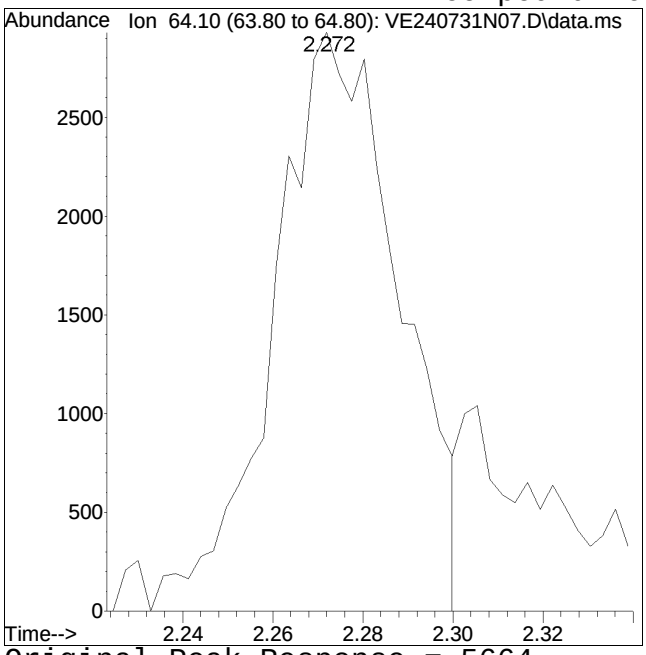
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

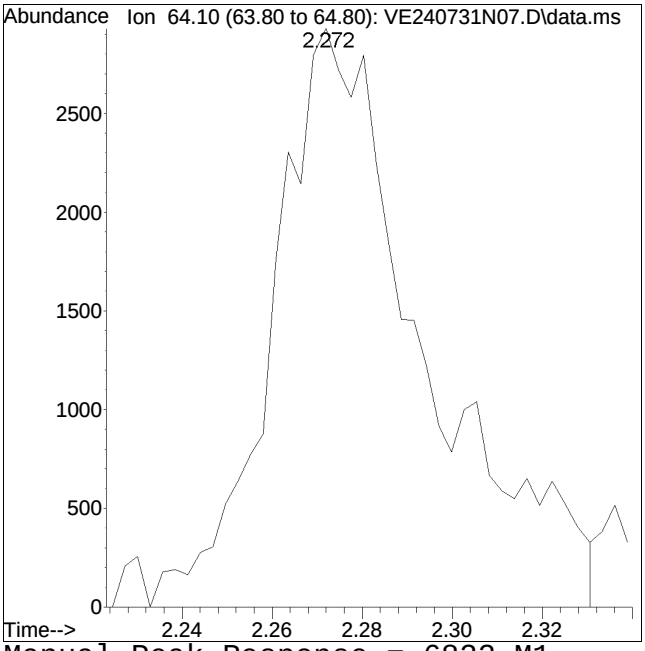


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB
Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane





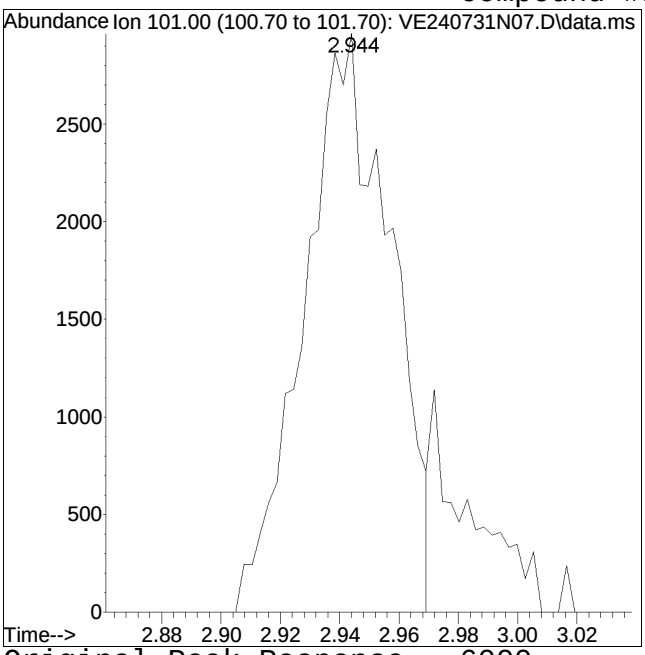
Original Peak Response = 5664 Manual Peak Response = 6822 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

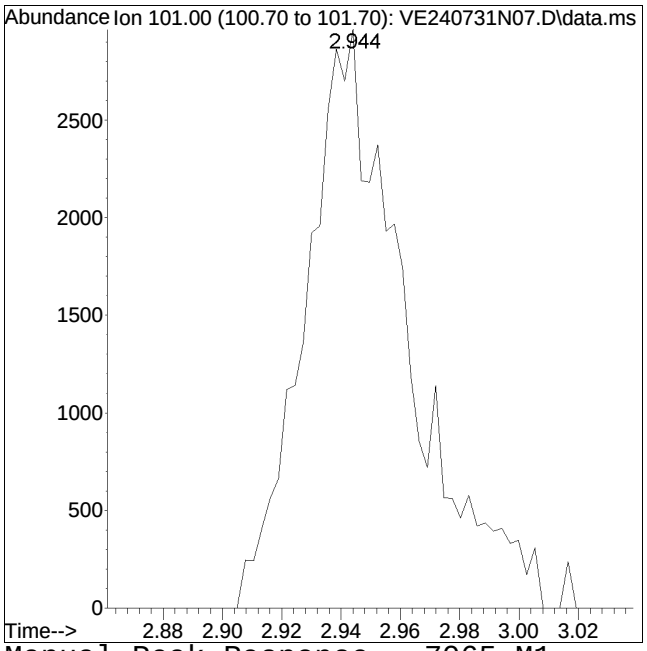
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #12: Freon-113



Original Peak Response = 6000



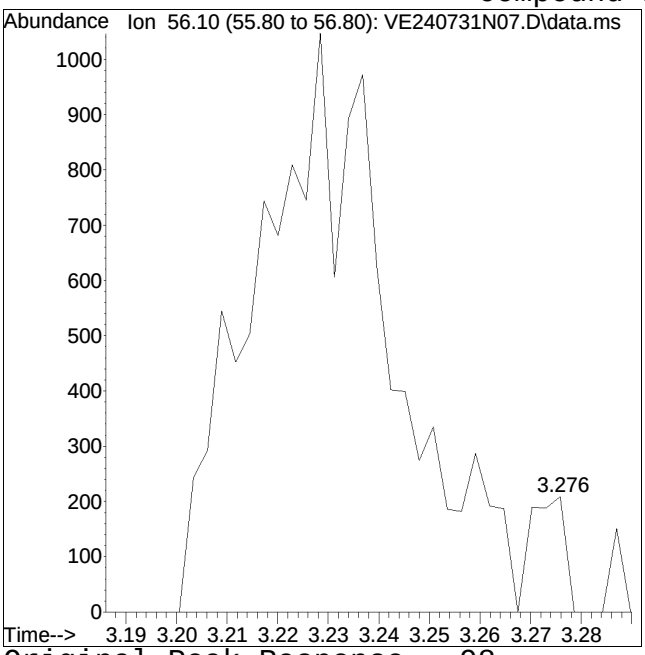
Manual Peak Response = 7065 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

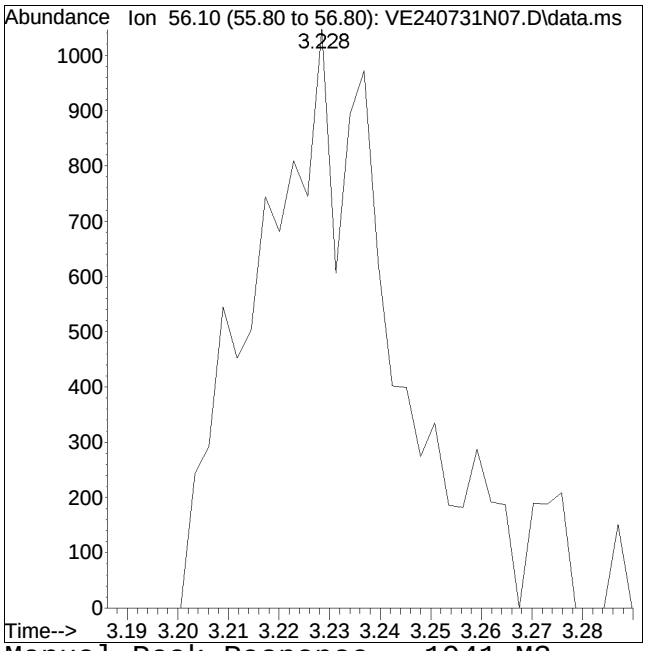
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #14: Acrolein



Original Peak Response = 98



Manual Peak Response = 1941 M3

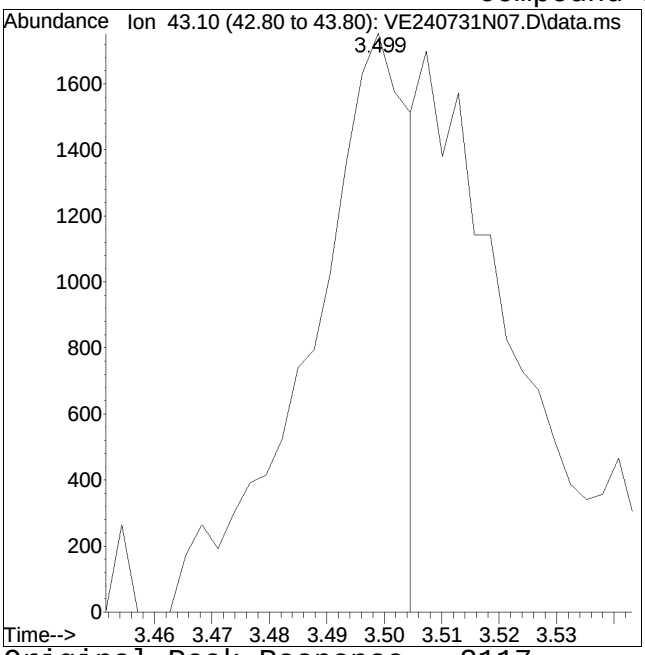
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

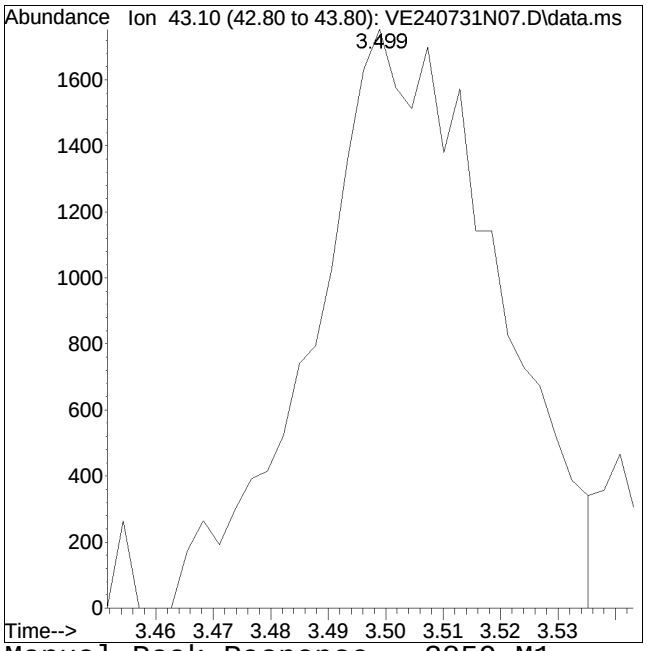
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #17: Acetone



Original Peak Response = 2117



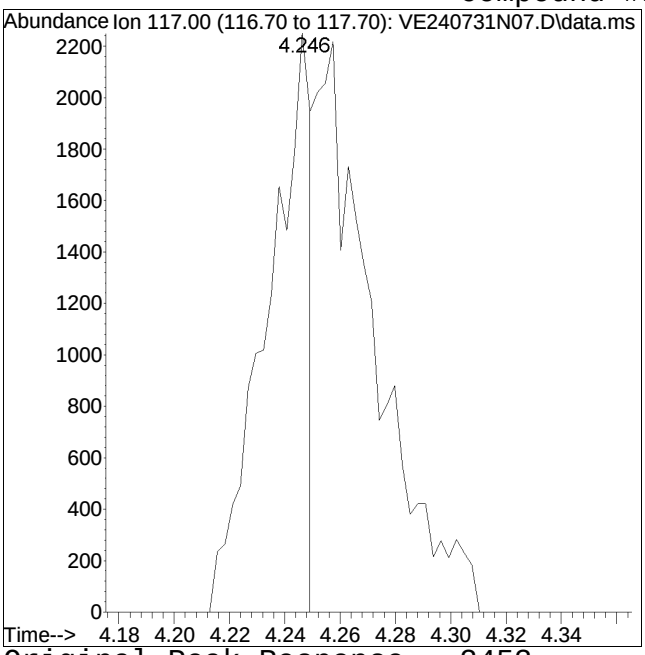
Manual Peak Response = 3859 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

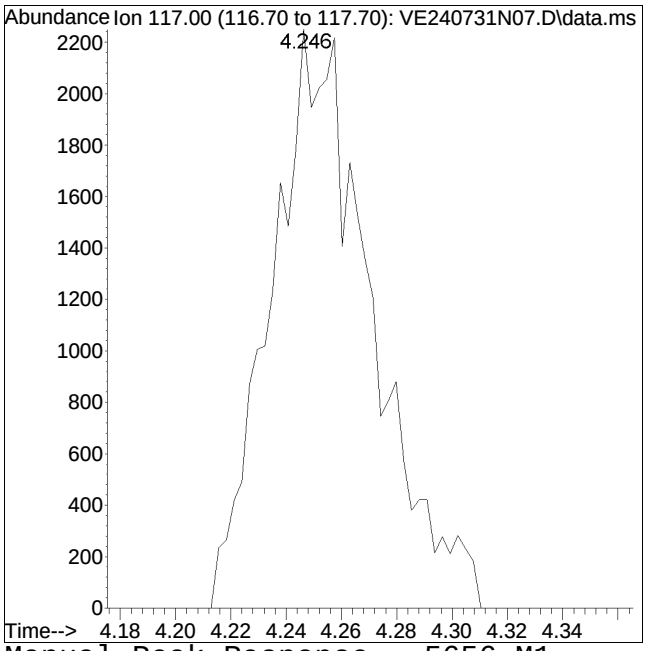
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #26: Halothane



Original Peak Response = 2453



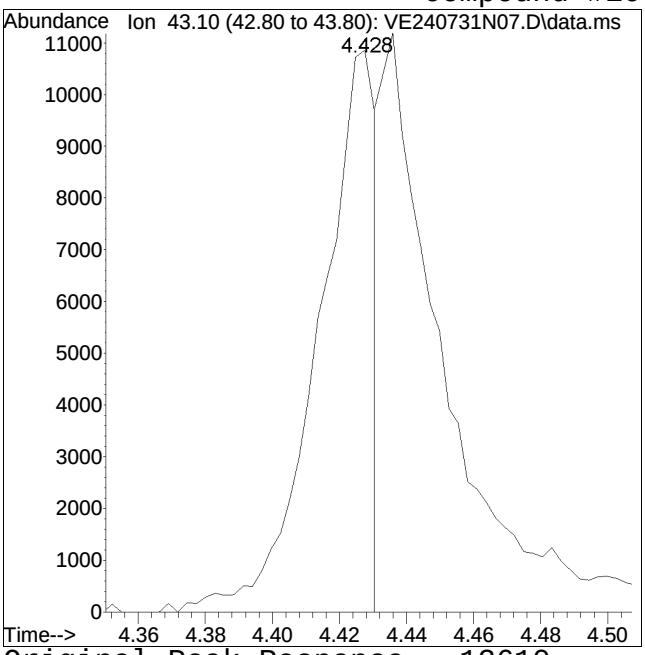
Manual Peak Response = 5656 M1

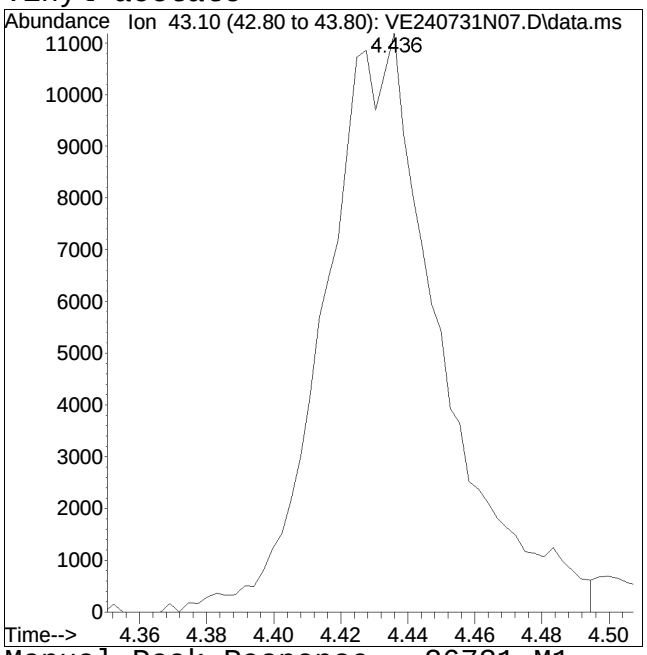
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #29: Vinyl acetate



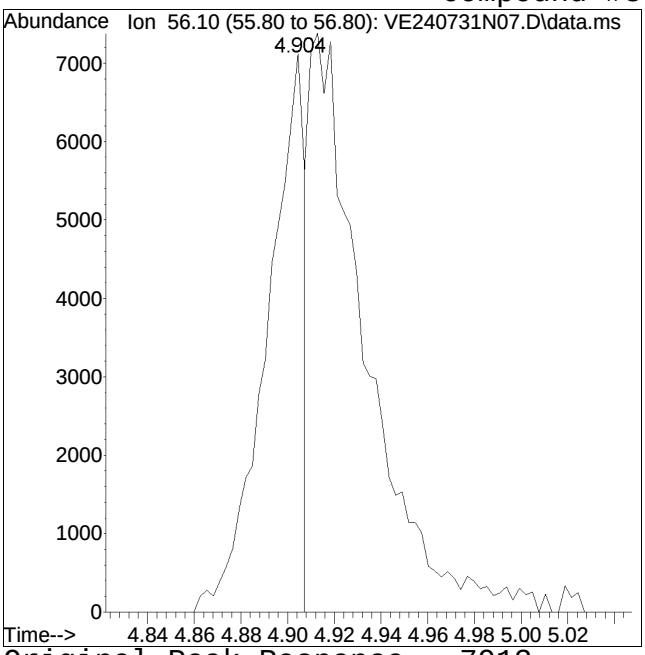


Original Peak Response = 12610 Manual Peak Response = 26731 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

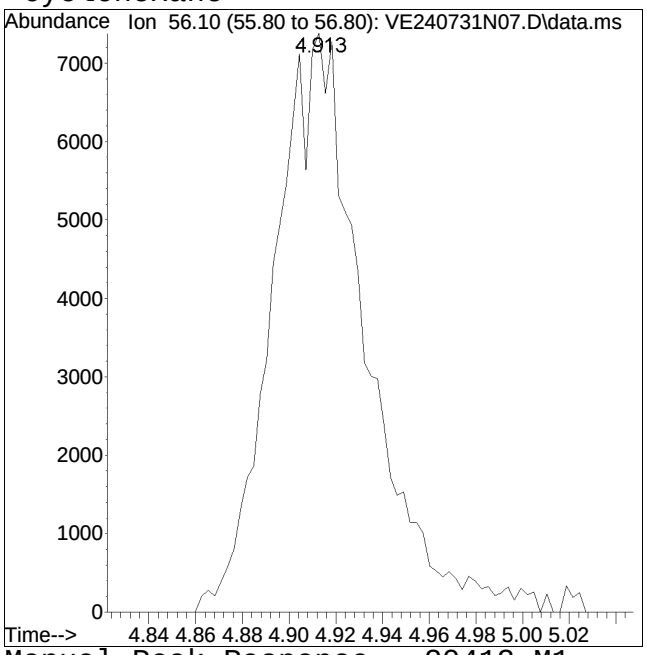
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #34: Cyclohexane



Original Peak Response = 7913



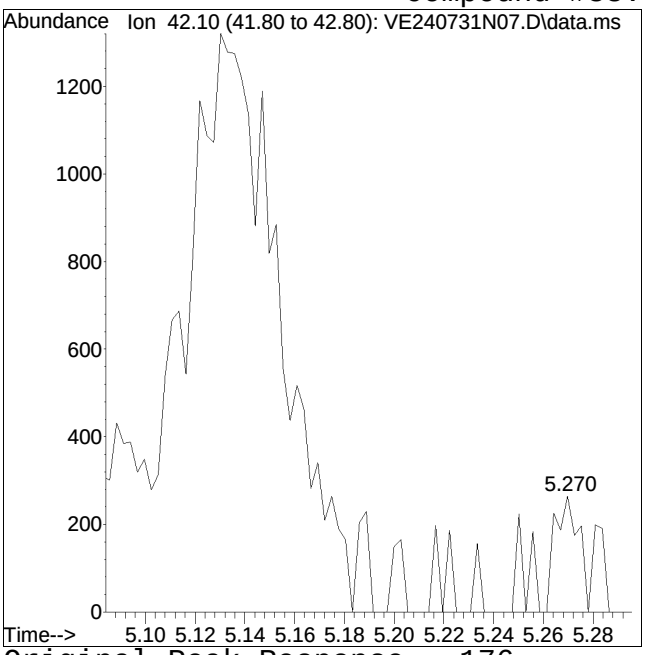
Manual Peak Response = 20412 M1

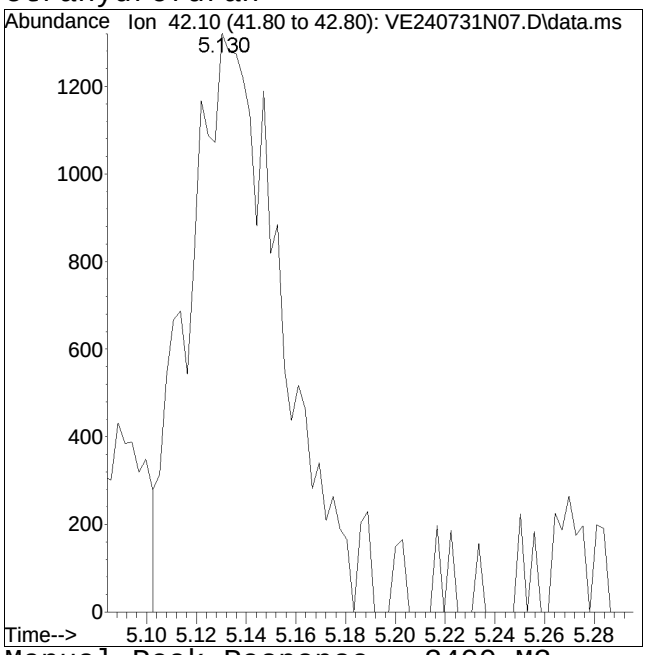
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





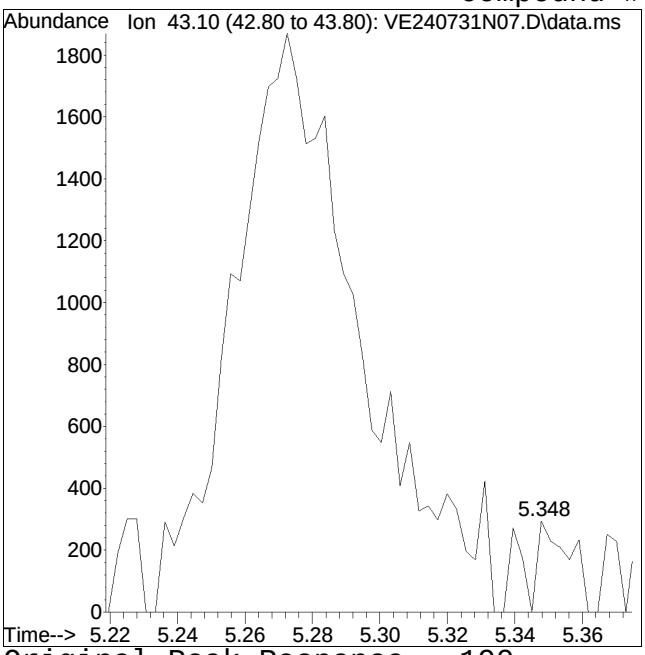
Original Peak Response = 176 Manual Peak Response = 3400 M3

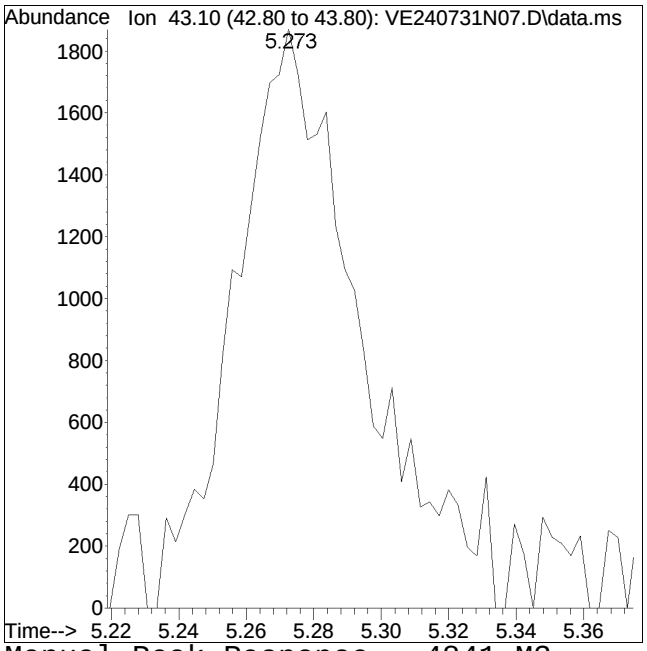
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #42: 2-Butanone





Original Peak Response = 190 Manual Peak Response = 4841 M3

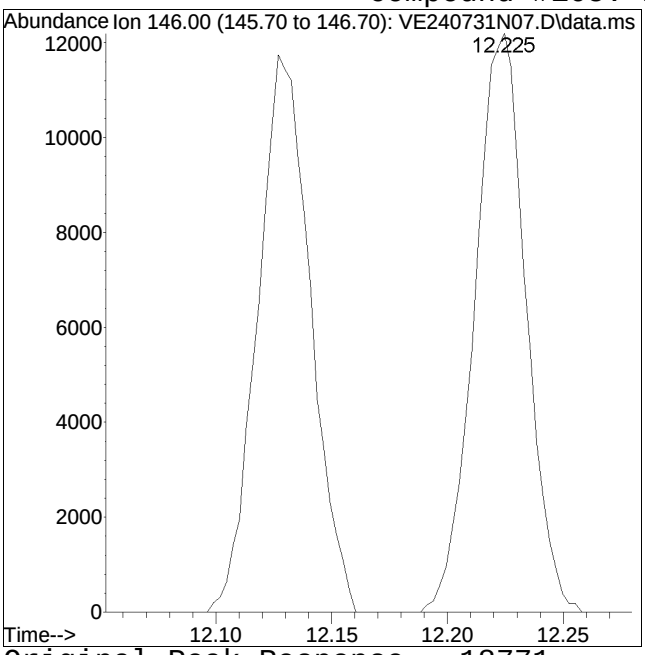
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

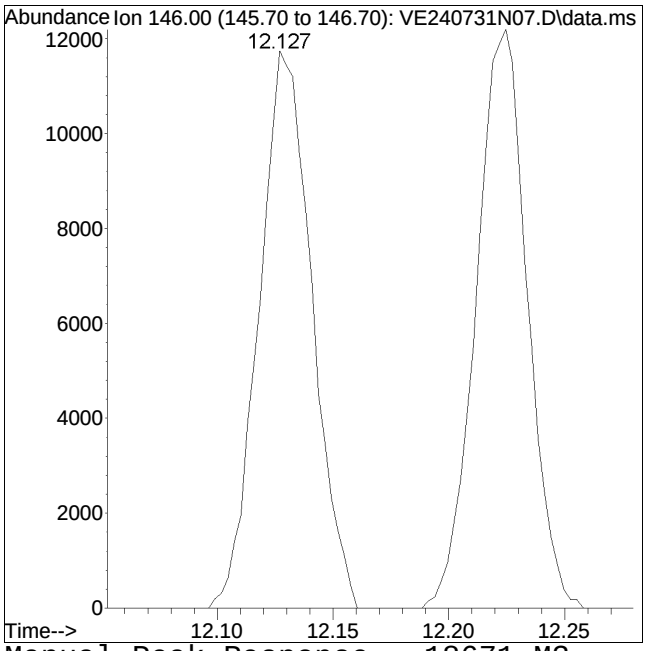
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #105: 1,3-Dichlorobenzene



Original Peak Response = 18771



Manual Peak Response = 18671 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	204581	10.000	ug/L	-0.11
Standard Area 1 = 204581			Recovery = 100.00%			
63) Chlorobenzene-d5	9.494	117	147756	10.000	ug/L	-0.12
Standard Area 1 = 147756			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84505	10.000	ug/L	-0.10
Standard Area 1 = 84505			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	48680	10.071	ug/L	-0.10
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.71%			
47) 1,2-Dichloroethane-d4	5.680	65	64640	11.293	ug/L	-0.10
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.93%			
64) Toluene-d8	7.654	98	195456	10.248	ug/L	-0.11
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.48%			
88) 4-Bromofluorobenzene	10.995	95	78367	9.155	ug/L	-0.11
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.55%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.591	85	45066	10.341	ug/L	95
3) Chloromethane	1.789	50	53760	10.543	ug/L	96
4) Vinyl chloride	1.854	62	49777	10.843	ug/L	93
5) Bromomethane	2.160	94	11943	5.484	ug/L	97
6) Chloroethane	2.275	64	31423	12.949	ug/L	99
7) Trichlorofluoromethane	2.417	101	52002	9.781	ug/L	94
8) Ethyl ether	2.721	74	21677	12.265	ug/L	70
10) 1,1-Dichloroethene	2.905	96	31598	9.087	ug/L #	73
11) Carbon disulfide	2.933	76	103009	9.770	ug/L	96
12) Freon-113	2.938	101	33321M1	8.975	ug/L	
13) Iodomethane	3.042	142	17802	6.094	ug/L	90
14) Acrolein	3.226	56	9036	12.767	ug/L #	70
15) Methylene chloride	3.457	84	41711	9.623	ug/L	85
17) Acetone	3.504	43	14439	12.752	ug/L	95
18) trans-1,2-Dichloroethene	3.610	96	36183	9.609	ug/L	78
19) Methyl acetate	3.622	43	33745	13.642	ug/L	97
21) Methyl tert-butyl ether	3.711	73	138295	12.360	ug/L	95
22) tert-Butyl alcohol	3.806	59	24074	69.596	ug/L #	81
24) Diisopropyl ether	4.071	45	197488	12.583	ug/L	92
25) 1,1-Dichloroethane	4.193	63	86782	11.170	ug/L	96
26) Halothane	4.249	117	29017	9.517	ug/L	95

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	17977	15.263	ug/L		92
28) Ethyl tert-butyl ether	4.419	59	171389	11.890	ug/L		97
29) Vinyl acetate	4.430	43	113807	21.432	ug/L	#	94
30) cis-1,2-Dichloroethene	4.712	96	43236	9.861	ug/L		93
31) 2,2-Dichloropropane	4.812	77	55274	9.397	ug/L		96
33) Bromochloromethane	4.907	128	19592	10.285	ug/L		84
34) Cyclohexane	4.907	56	92383	10.659	ug/L		92
35) Chloroform	4.980	83	70787	9.942	ug/L		98
36) Ethyl acetate	5.088	43	53536	13.935	ug/L		97
37) Carbon tetrachloride	5.114	117	53227	9.425	ug/L		95
38) Tetrahydrofuran	5.127	42	16553M1	15.540	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	63467	9.719	ug/L		95
42) 2-Butanone	5.275	43	21339	12.529	ug/L	#	90
43) 1,1-Dichloropropene	5.300	75	53283	9.911	ug/L		96
45) Benzene	5.543	78	171532	10.324	ug/L		92
46) tert-Amyl methyl ether	5.663	73	126640	10.776	ug/L		98
48) 1,2-Dichloroethane	5.752	62	65371	11.273	ug/L		95
51) Methyl cyclohexane	6.131	83	68206	9.257	ug/L		85
52) Trichloroethene	6.143	95	43027	9.068	ug/L		97
54) Dibromomethane	6.580	93	24484	10.201	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	51035	11.347	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	32060	12.970	ug/L		89
58) Bromodichloromethane	6.759	83	60227	10.235	ug/L		95
61) 1,4-Dioxane	6.971	88	19894	537.767	ug/L		87
62) cis-1,3-Dichloropropene	7.448	75	69674	10.183	ug/L		95
65) Toluene	7.710	92	105232	10.216	ug/L		93
66) 4-Methyl-2-pentanone	8.150	58	18333	13.376	ug/L		92
67) Tetrachloroethene	8.161	166	44641	10.701	ug/L		95
69) trans-1,3-Dichloropropene	8.195	75	61164	10.422	ug/L		99
71) Ethyl methacrylate	8.382	69	57150	12.437	ug/L		90
72) 1,1,2-Trichloroethane	8.385	83	30175	10.730	ug/L		99
73) Chlorodibromomethane	8.591	129	41583	10.106	ug/L		97
74) 1,3-Dichloropropane	8.705	76	63598	10.633	ug/L		97
75) 1,2-Dibromoethane	8.870	107	35086	10.324	ug/L		88
77) 2-Hexanone	9.151	43	34633	13.757	ug/L		96
78) Chlorobenzene	9.520	112	113340	10.114	ug/L	#	80
79) Ethylbenzene	9.556	91	208074	10.388	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	42343	10.608	ug/L		97
81) p/m Xylene	9.745	106	161846	21.186	ug/L		99
82) o Xylene	10.284	106	157536	21.096	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83)	Styrene	10.353	104	261864	21.427	ug/L	99
85)	Bromoform	10.378	173	27962	10.670	ug/L	94
87)	Isopropylbenzene	10.671	105	206589	8.866	ug/L	97
89)	Bromobenzene	11.106	156	52794	9.847	ug/L	99
90)	n-Propylbenzene	11.151	91	248567	9.173	ug/L	96
91)	1,4-Dichlorobutane	11.168	55	90223	12.511	ug/L	99
92)	1,1,2,2-Tetrachloroethane	11.243	83	41654	10.363	ug/L	97
93)	4-Ethyltoluene	11.279	105	204854	9.166	ug/L	100
94)	2-Chlorotoluene	11.321	91	149060	9.239	ug/L	97
95)	1,3,5-Trimethylbenzene	11.377	105	181257	9.354	ug/L	97
96)	1,2,3-Trichloropropane	11.382	75	36413	9.806	ug/L	95
97)	trans-1,4-Dichloro-2-b...	11.430	53	17188	11.349	ug/L	88
98)	4-Chlorotoluene	11.502	91	154593	9.170	ug/L	99
99)	tert-Butylbenzene	11.717	119	149482	9.048	ug/L	98
102)	1,2,4-Trimethylbenzene	11.795	105	180087	9.233	ug/L	95
103)	sec-Butylbenzene	11.909	105	218386	9.091	ug/L	99
104)	p-Isopropyltoluene	12.063	119	185594	9.031	ug/L	96
105)	1,3-Dichlorobenzene	12.130	146	98794	9.599	ug/L	96
106)	1,4-Dichlorobenzene	12.225	146	97784	9.413	ug/L	99
107)	p-Diethylbenzene	12.439	119	110030	9.210	ug/L	98
108)	n-Butylbenzene	12.498	91	157868	9.276	ug/L	97
109)	1,2-Dichlorobenzene	12.646	146	94225	9.408	ug/L	98
110)	1,2,4,5-Tetramethylben...	13.231	119	179730	9.214	ug/L	95
111)	1,2-Dibromo-3-chloropr...	13.429	155	7741	10.135	ug/L	92
112)	1,3,5-Trichlorobenzene	13.457	180	75211	10.551	ug/L	93
113)	Hexachlorobutadiene	14.034	225	24042	11.211	ug/L	90
114)	1,2,4-Trichlorobenzene	14.057	180	66652	10.420	ug/L	99
115)	Naphthalene	14.347	128	143235	9.075	ug/L	100
116)	1,2,3-Trichlorobenzene	14.517	180	60948	10.602	ug/L	96

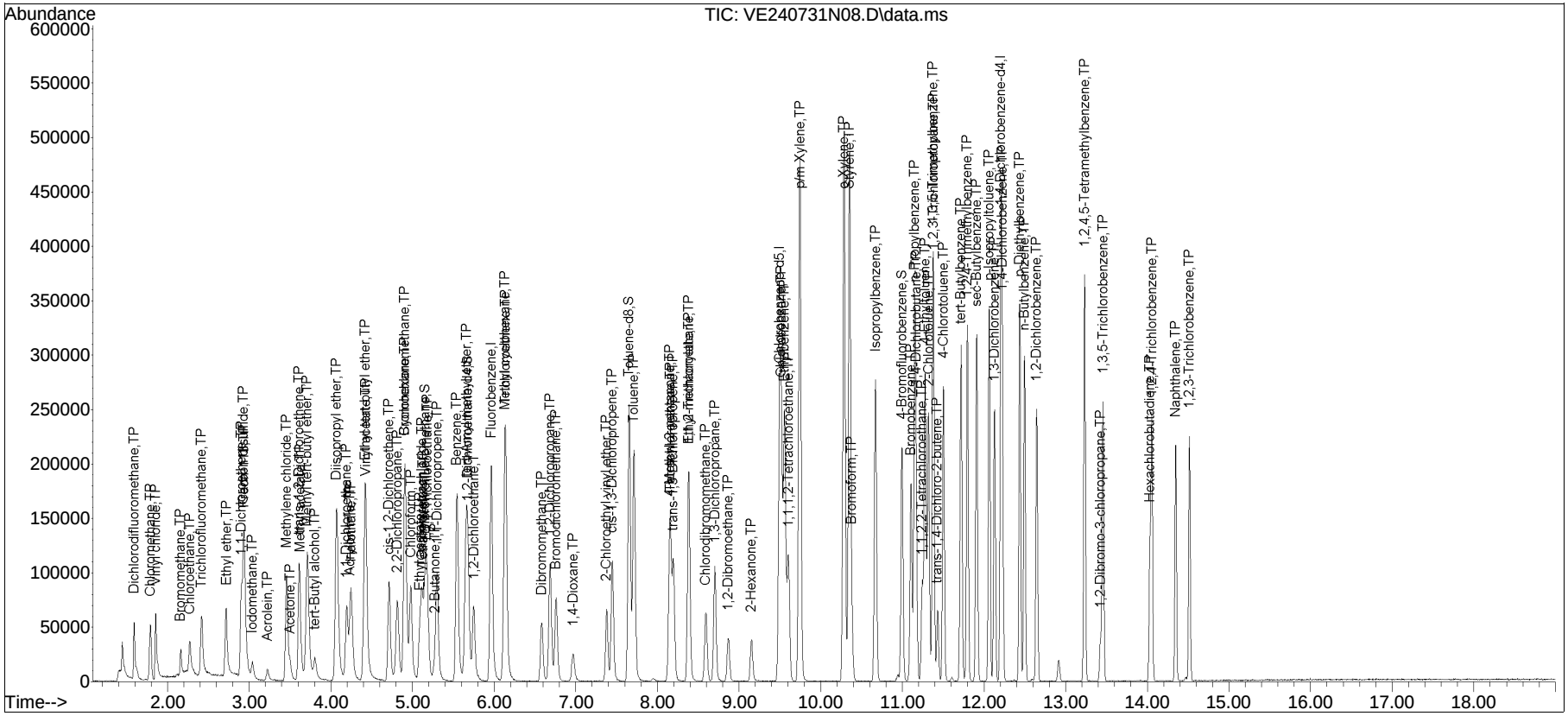
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

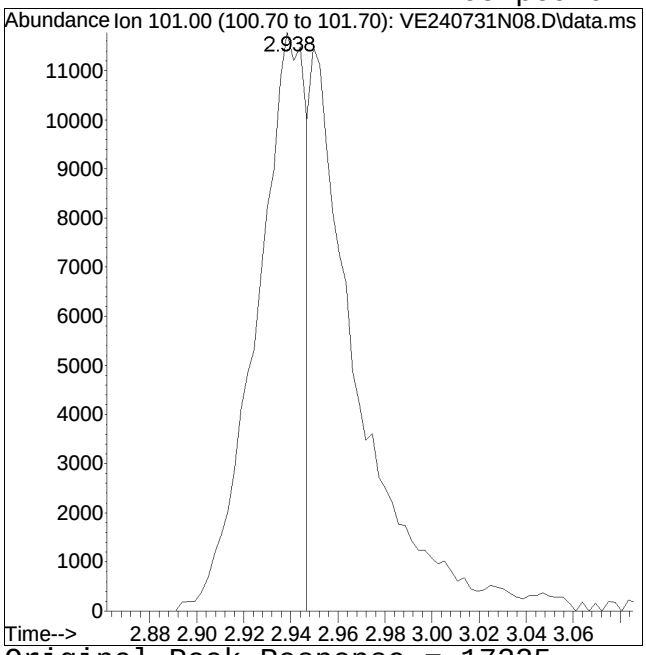


Manual Integration Report

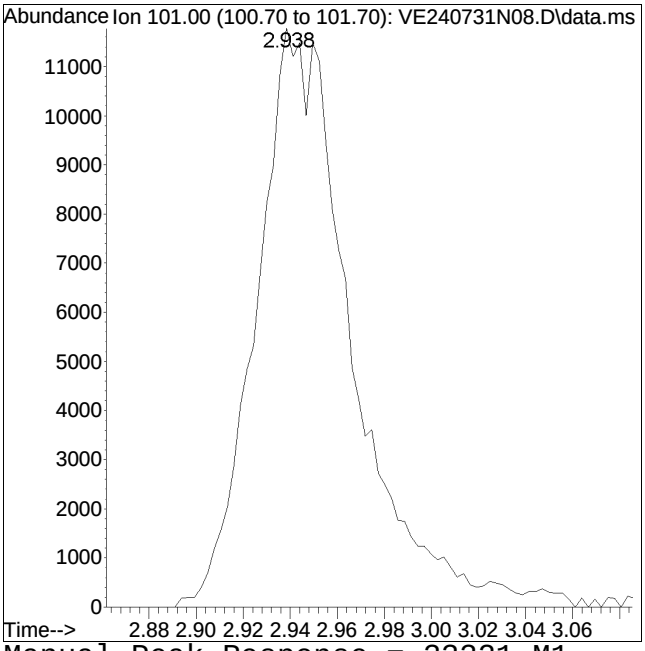
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N08.D
Date Inj'd : 7/31/2024 8:42 pm
Sample : I8260STD10PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:54 am

Compound #12: Freon-113



Original Peak Response = 17225



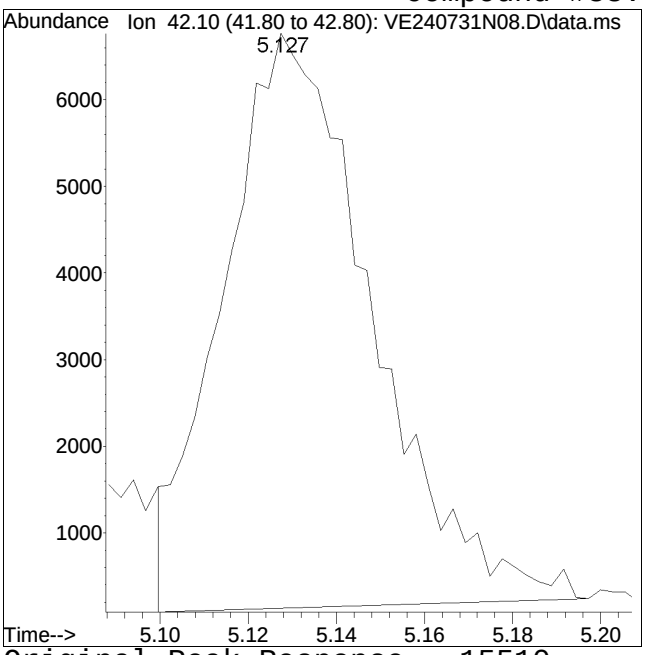
Manual Peak Response = 33321 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

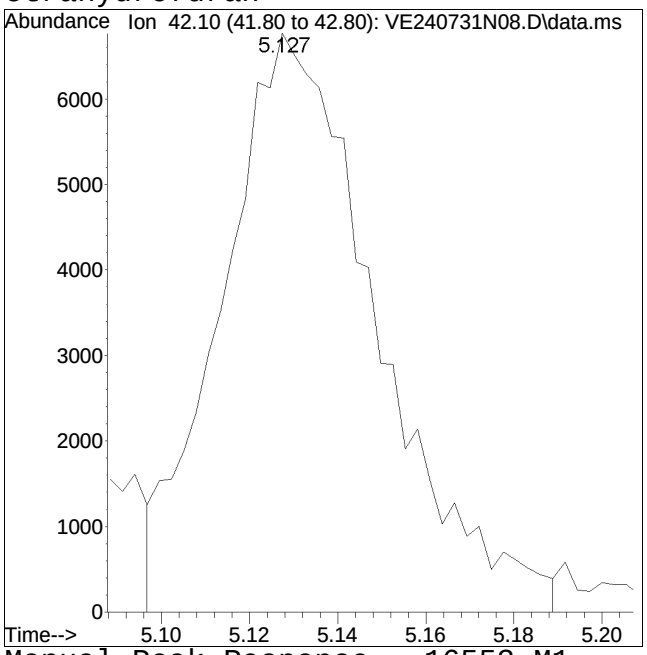
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N08.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:42 pm Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 8/1/2024 11:54 am

Compound #38: Tetrahydrofuran



Original Peak Response = 15510



Manual Peak Response = 16553 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	204403	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 99.91%			
63) Chlorobenzene-d5	9.500	117	149625	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 101.26%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84874	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.44%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.156	113	47450	9.756	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.56%			
47) 1,2-Dichloroethane-d4	5.685	65	62257	9.640	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.40%			
64) Toluene-d8	7.657	98	196570	9.931	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.31%			
88) 4-Bromofluorobenzene	10.998	95	76337	9.699	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.99%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	149245	33.146	ug/L	96
3) Chloromethane	1.787	50	160207	29.826	ug/L	97
4) Vinyl chloride	1.854	62	161006	32.374	ug/L	96
5) Bromomethane	2.163	94	41058	34.408	ug/L	95
6) Chloroethane	2.272	64	92566	29.484	ug/L	100
7) Trichlorofluoromethane	2.417	101	178263	34.310	ug/L	97
8) Ethyl ether	2.718	74	68340	31.554	ug/L	75
10) 1,1-Dichloroethene	2.905	96	102934	32.604	ug/L	79
11) Carbon disulfide	2.933	76	320678	31.158	ug/L	96
12) Freon-113	2.941	101	108914	32.715	ug/L	86
13) Iodomethane	3.042	142	79903	44.923	ug/L	90
14) Acrolein	3.223	56	27320	30.261	ug/L #	65
15) Methylene chloride	3.460	84	123480	29.629	ug/L	87
17) Acetone	3.502	43	47292	32.781	ug/L	96
18) trans-1,2-Dichloroethene	3.611	96	110330	30.519	ug/L	78
19) Methyl acetate	3.619	43	98711	29.278	ug/L	96
21) Methyl tert-butyl ether	3.711	73	405204	29.325	ug/L	95
22) tert-Butyl alcohol	3.806	59	73709	153.222	ug/L	91
24) Diisopropyl ether	4.071	45	603714	30.596	ug/L	91
25) 1,1-Dichloroethane	4.196	63	260295	30.020	ug/L	92
26) Halothane	4.255	117	90214	31.117	ug/L	94

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	54373	30.272	ug/L		90
28) Ethyl tert-butyl ether	4.419	59	513557	29.991	ug/L		97
29) Vinyl acetate	4.430	43	337157	29.651	ug/L	#	94
30) cis-1,2-Dichloroethene	4.712	96	127517	29.519	ug/L		93
31) 2,2-Dichloropropane	4.813	77	173960	31.500	ug/L		97
33) Bromochloromethane	4.907	128	58968	30.124	ug/L		88
34) Cyclohexane	4.910	56	305150	33.060	ug/L		96
35) Chloroform	4.980	83	205797	29.098	ug/L		98
36) Ethyl acetate	5.086	43	156227	29.207	ug/L		96
37) Carbon tetrachloride	5.114	117	168502	31.685	ug/L		94
38) Tetrahydrofuran	5.128	42	49298M1	29.808	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	193545	30.522	ug/L		96
42) 2-Butanone	5.267	43	64303	30.160	ug/L		96
43) 1,1-Dichloropropene	5.301	75	165534	31.094	ug/L		95
45) Benzene	5.546	78	514522	30.022	ug/L		92
46) tert-Amyl methyl ether	5.657	73	381559	30.156	ug/L		97
48) 1,2-Dichloroethane	5.752	62	192313	29.444	ug/L		98
51) Methyl cyclohexane	6.132	83	223375	32.779	ug/L		84
52) Trichloroethene	6.143	95	132908	30.916	ug/L		97
54) Dibromomethane	6.583	93	73052	29.863	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	152088	29.827	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	99727	31.133	ug/L		89
58) Bromodichloromethane	6.762	83	176926	29.402	ug/L		92
61) 1,4-Dioxane	6.971	88	23357	587.548	ug/L		86
62) cis-1,3-Dichloropropene	7.448	75	211389	30.366	ug/L		95
65) Toluene	7.713	92	319096	29.944	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	55773	30.042	ug/L		93
67) Tetrachloroethene	8.159	166	139900	30.947	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	188733	30.471	ug/L		99
71) Ethyl methacrylate	8.385	69	169809	29.342	ug/L		91
72) 1,1,2-Trichloroethane	8.382	83	90229	29.528	ug/L		100
73) Chlorodibromomethane	8.594	129	127142	30.194	ug/L		97
74) 1,3-Dichloropropane	8.705	76	192488	29.888	ug/L		97
75) 1,2-Dibromoethane	8.867	107	106125	29.869	ug/L		88
77) 2-Hexanone	9.152	43	104812	29.886	ug/L		98
78) Chlorobenzene	9.520	112	339097	29.545	ug/L	#	80
79) Ethylbenzene	9.556	91	625293	29.676	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.606	131	128406	29.946	ug/L		97
81) p/m Xylene	9.743	106	480185	58.597	ug/L		99
82) o Xylene	10.284	106	463412	58.098	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	770256	58.094	ug/L		100
85) Bromoform	10.376	173	85058	30.287	ug/L		93
87) Isopropylbenzene	10.671	105	629312	30.330	ug/L		97
89) Bromobenzene	11.106	156	155787	29.380	ug/L		98
90) n-Propylbenzene	11.151	91	751510	30.102	ug/L		96
91) 1,4-Dichlorobutane	11.168	55	266291	29.386	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.240	83	124080	29.659	ug/L		97
93) 4-Ethyltoluene	11.279	105	611178	29.705	ug/L		99
94) 2-Chlorotoluene	11.318	91	437659	29.234	ug/L		97
95) 1,3,5-Trimethylbenzene	11.377	105	537259	29.512	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	107348	29.353	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.430	53	51127	29.616	ug/L	#	84
98) 4-Chlorotoluene	11.502	91	457411	29.459	ug/L		99
99) tert-Butylbenzene	11.720	119	448526	29.875	ug/L		98
102) 1,2,4-Trimethylbenzene	11.795	105	535558	29.610	ug/L		95
103) sec-Butylbenzene	11.910	105	663673	30.258	ug/L		99
104) p-Isopropyltoluene	12.063	119	568430	30.494	ug/L		96
105) 1,3-Dichlorobenzene	12.130	146	291786	29.406	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	291447	29.676	ug/L		99
107) p-Diethylbenzene	12.439	119	335133	30.326	ug/L		97
108) n-Butylbenzene	12.495	91	481406	30.362	ug/L		97
109) 1,2-Dichlorobenzene	12.646	146	282170	29.816	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	538890	29.853	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.427	155	23835	30.657	ug/L		92
112) 1,3,5-Trichlorobenzene	13.457	180	224773	29.756	ug/L		93
113) Hexachlorobutadiene	14.032	225	74680	30.927	ug/L		92
114) 1,2,4-Trichlorobenzene	14.054	180	202950	30.317	ug/L		99
115) Naphthalene	14.347	128	444851	30.922	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	185426	30.291	ug/L		95

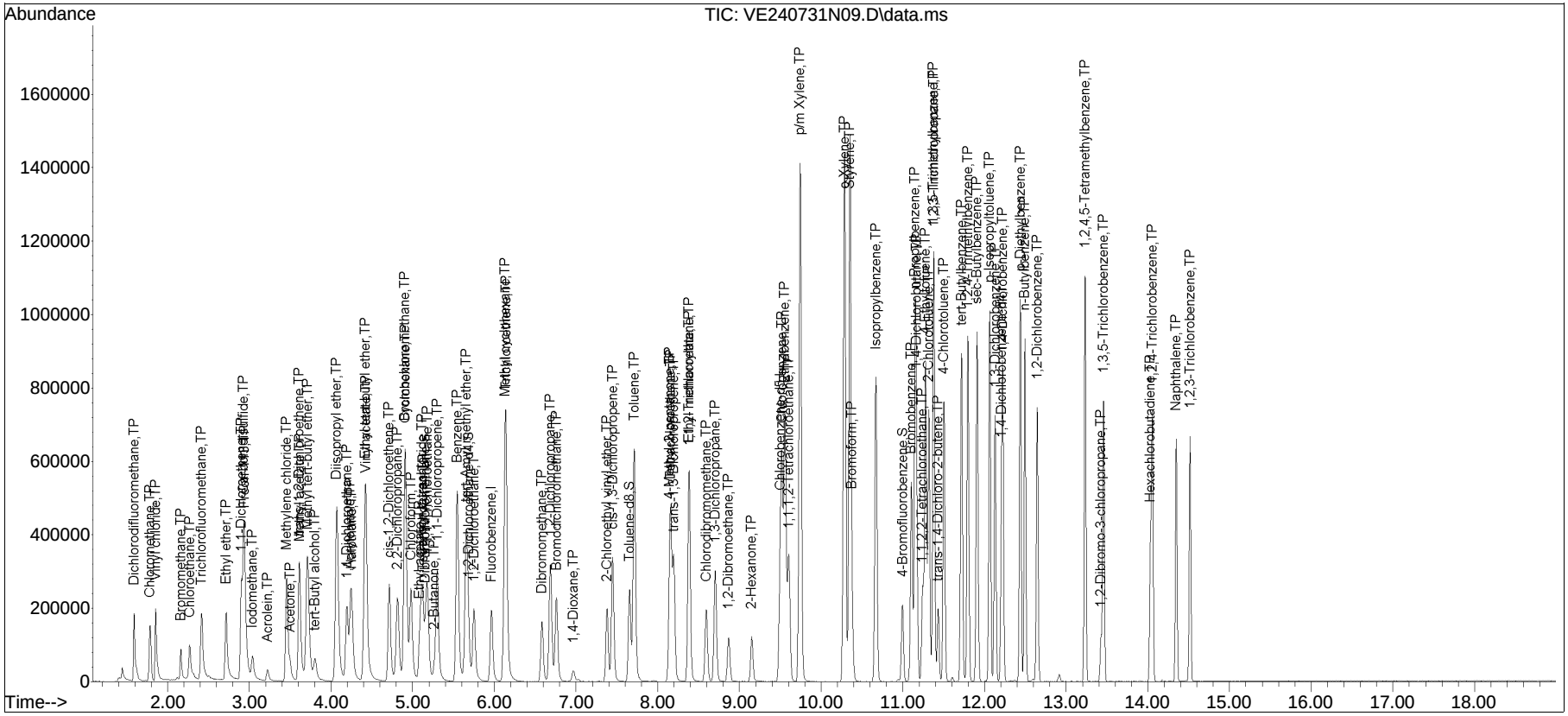
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

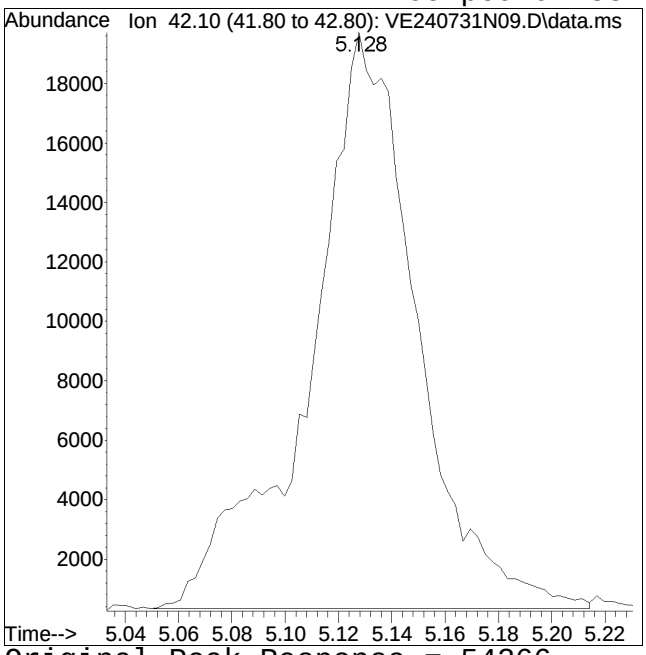


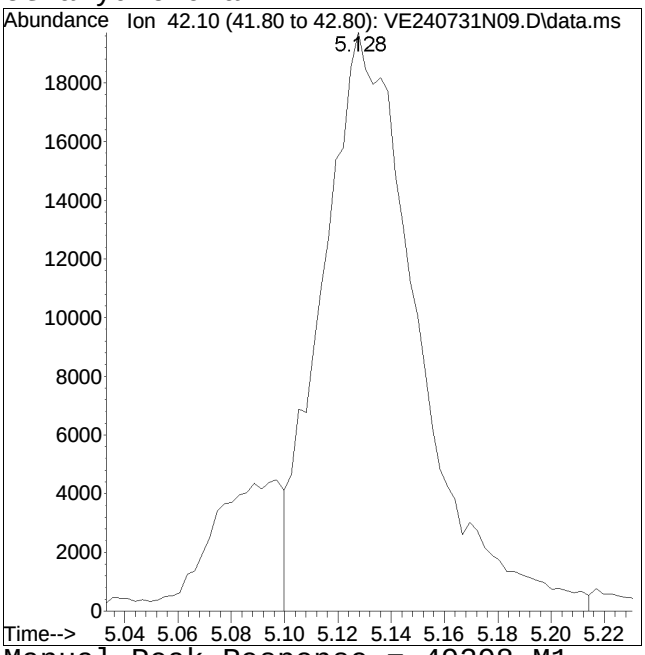
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N09.D
Date Inj'd : 7/31/2024 9:07 pm
Sample : I8260STD30PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





Original Peak Response = 54266 Manual Peak Response = 49298 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	205552	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.47%			
63) Chlorobenzene-d5	9.497	117	153791	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 104.08%			
84) 1,4-Dichlorobenzene-d4	12.211	152	85405	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 101.07%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	47510	9.714	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.14%			
47) 1,2-Dichloroethane-d4	5.680	65	63482	9.774	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.74%			
64) Toluene-d8	7.654	98	201166	9.888	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.88%			
88) 4-Bromofluorobenzene	10.995	95	78835	9.954	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	398777	88.069	ug/L	96
3) Chloromethane	1.787	50	425203	78.719	ug/L	96
4) Vinyl chloride	1.854	62	427307	85.439	ug/L	94
5) Bromomethane	2.163	94	137967	114.976	ug/L	94
6) Chloroethane	2.266	64	251474	79.651	ug/L	87
7) Trichlorofluoromethane	2.417	101	483684	92.573	ug/L	95
8) Ethyl ether	2.718	74	182990	84.018	ug/L	73
10) 1,1-Dichloroethene	2.902	96	279624	88.076	ug/L	79
11) Carbon disulfide	2.933	76	849801	82.108	ug/L	96
12) Freon-113	2.944	101	292977	87.510	ug/L	88
13) Iodomethane	3.039	142	267444	149.523	ug/L	92
14) Acrolein	3.223	56	74031	81.542	ug/L #	70
15) Methylene chloride	3.460	84	324549	77.441	ug/L	87
17) Acetone	3.502	43	116076	80.011	ug/L	99
18) trans-1,2-Dichloroethene	3.611	96	301708	82.990	ug/L	81
19) Methyl acetate	3.622	43	256155	75.550	ug/L	97
21) Methyl tert-butyl ether	3.711	73	1080950	77.793	ug/L	95
22) tert-Butyl alcohol	3.806	59	192001	396.889	ug/L	90
24) Diisopropyl ether	4.071	45	1579187	79.586	ug/L	91
25) 1,1-Dichloroethane	4.193	63	690552	79.197	ug/L	97
26) Halothane	4.249	117	237954	81.618	ug/L	93

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	143107	79.230	ug/L		91
28) Ethyl tert-butyl ether	4.419	59	1358577	78.894	ug/L		97
29) Vinyl acetate	4.428	43	844268	73.834	ug/L	#	95
30) cis-1,2-Dichloroethene	4.715	96	352546	81.155	ug/L		97
31) 2,2-Dichloropropane	4.815	77	456698	82.234	ug/L		98
33) Bromochloromethane	4.904	128	149382	75.886	ug/L		87
34) Cyclohexane	4.910	56	818733	88.205	ug/L		97
35) Chloroform	4.980	83	557889	78.440	ug/L		98
36) Ethyl acetate	5.086	43	409173	76.068	ug/L		95
37) Carbon tetrachloride	5.114	117	452565	84.624	ug/L		95
38) Tetrahydrofuran	5.128	42	127579M1	76.709	ug/L		
40) 1,1,1-Trichloroethane	5.181	97	517219	81.109	ug/L		95
42) 2-Butanone	5.267	43	170745	79.637	ug/L	#	76
43) 1,1-Dichloropropene	5.300	75	445417	83.200	ug/L		95
45) Benzene	5.546	78	1372838	79.656	ug/L		93
46) tert-Amyl methyl ether	5.657	73	1003985	78.904	ug/L		97
48) 1,2-Dichloroethane	5.749	62	510065	77.658	ug/L		97
51) Methyl cyclohexane	6.131	83	634905	92.647	ug/L		87
52) Trichloroethene	6.143	95	354708	82.049	ug/L		97
54) Dibromomethane	6.583	93	194273	78.972	ug/L	#	84
55) 1,2-Dichloropropane	6.684	63	405164	79.014	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	275108	85.405	ug/L		92
58) Bromodichloromethane	6.759	83	477315	78.878	ug/L		93
61) 1,4-Dioxane	6.968	88	30991	775.224	ug/L		88
62) cis-1,3-Dichloropropene	7.448	75	566751	80.959	ug/L		95
65) Toluene	7.715	92	857485	78.288	ug/L		94
66) 4-Methyl-2-pentanone	8.145	58	150511	78.877	ug/L		91
67) Tetrachloroethene	8.162	166	378641	81.491	ug/L		96
69) trans-1,3-Dichloropropene	8.198	75	501573	78.787	ug/L		98
71) Ethyl methacrylate	8.385	69	451462	75.896	ug/L		91
72) 1,1,2-Trichloroethane	8.382	83	237889	75.743	ug/L		99
73) Chlorodibromomethane	8.594	129	340620	78.699	ug/L		98
74) 1,3-Dichloropropane	8.703	76	507269	76.632	ug/L		97
75) 1,2-Dibromoethane	8.870	107	281759	77.154	ug/L		87
77) 2-Hexanone	9.152	43	277176	76.892	ug/L		98
78) Chlorobenzene	9.520	112	906237	76.820	ug/L	#	81
79) Ethylbenzene	9.559	91	1664160	76.841	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	340057	77.159	ug/L		97
81) p/m Xylene	9.746	106	1254976	148.997	ug/L		98
82) o Xylene	10.287	106	1224130	149.311	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.353	104	2011221	147.580	ug/L		100
85) Bromoform	10.381	173	228150	80.733	ug/L		94
87) Isopropylbenzene	10.671	105	1691278	81.004	ug/L		97
89) Bromobenzene	11.106	156	418818	78.495	ug/L		98
90) n-Propylbenzene	11.154	91	2013910	80.167	ug/L		97
91) 1,4-Dichlorobutane	11.171	55	698575	76.612	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	331120	78.655	ug/L		97
93) 4-Ethyltoluene	11.279	105	1639001	79.165	ug/L		100
94) 2-Chlorotoluene	11.321	91	1160531M1	77.036	ug/L		
95) 1,3,5-Trimethylbenzene	11.380	105	1427143	77.906	ug/L		98
96) 1,2,3-Trichloropropane	11.382	75	282589	76.789	ug/L		95
97) trans-1,4-Dichloro-2-b...	11.433	53	141551	81.487	ug/L	#	81
98) 4-Chlorotoluene	11.505	91	1219919	78.080	ug/L		99
99) tert-Butylbenzene	11.720	119	1215335	80.446	ug/L		98
102) 1,2,4-Trimethylbenzene	11.798	105	1435491	78.871	ug/L		96
103) sec-Butylbenzene	11.912	105	1806280	81.839	ug/L		99
104) p-Isopropyltoluene	12.066	119	1543039	82.264	ug/L		97
105) 1,3-Dichlorobenzene	12.130	146	775535	77.673	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	777852	78.710	ug/L		99
107) p-Diethylbenzene	12.439	119	912031	82.016	ug/L		96
108) n-Butylbenzene	12.495	91	1330681	83.402	ug/L		97
109) 1,2-Dichlorobenzene	12.646	146	747610	78.507	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	1438355	79.185	ug/L		95
111) 1,2-Dibromo-3-chloropr...	13.427	155	64007	81.814	ug/L		94
112) 1,3,5-Trichlorobenzene	13.457	180	600411	78.989	ug/L		93
113) Hexachlorobutadiene	14.032	225	199869	82.257	ug/L		92
114) 1,2,4-Trichlorobenzene	14.057	180	550611	81.739	ug/L		99
115) Naphthalene	14.347	128	1227574	84.800	ug/L		100
116) 1,2,3-Trichlorobenzene	14.514	180	512444	83.193	ug/L		95

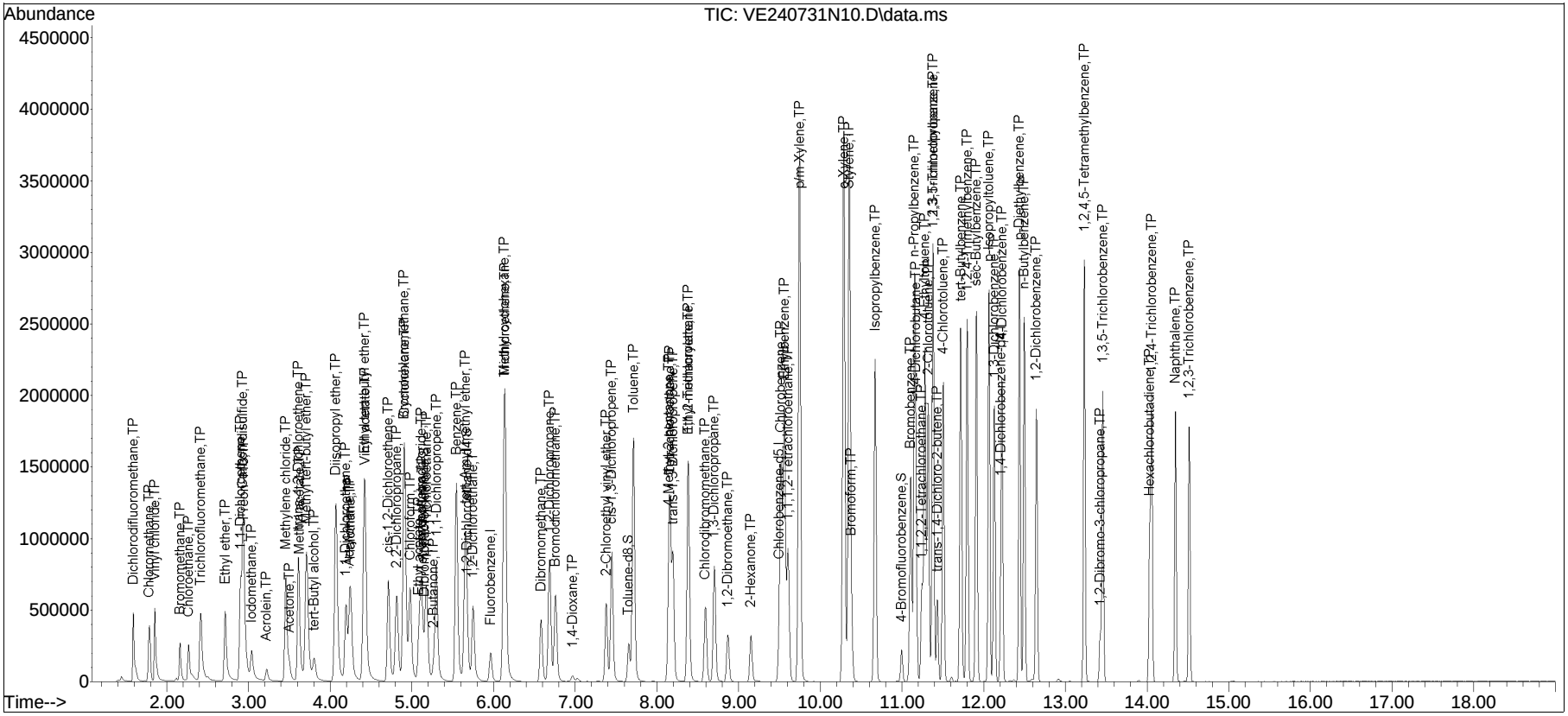
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

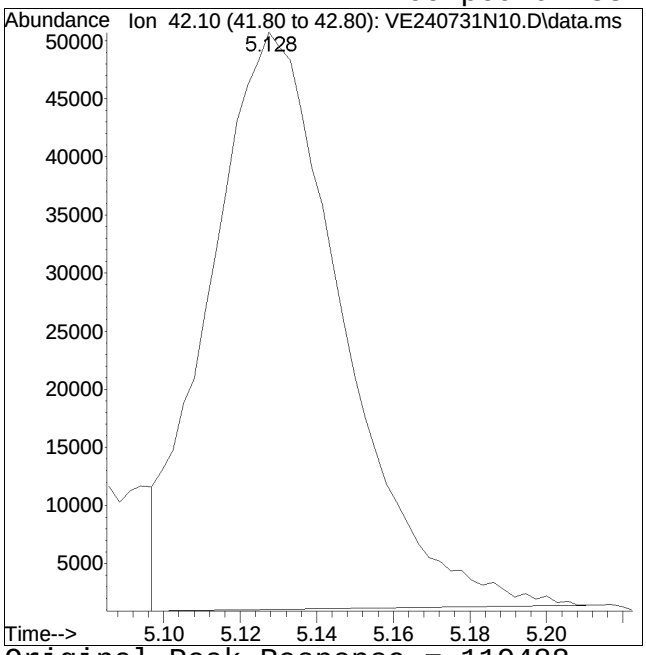
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

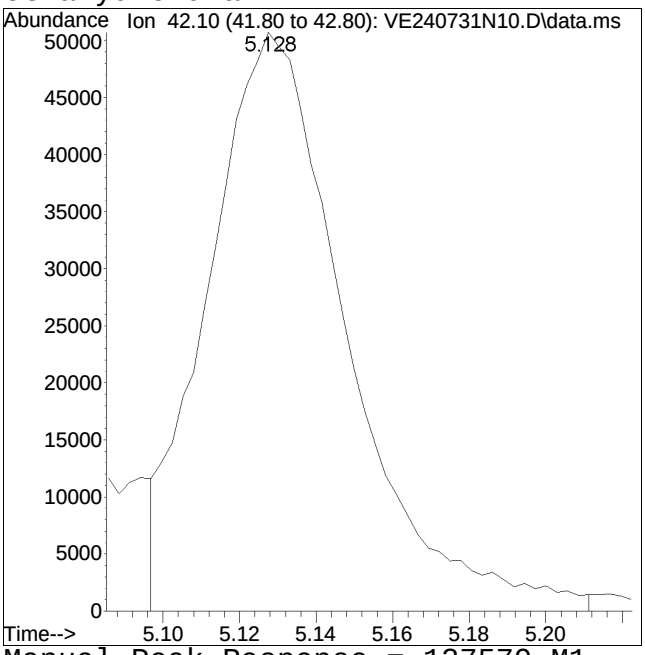


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N10.D
Date Inj'd : 7/31/2024 9:32 pm
Sample : I8260STD80PPB
Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





Original Peak Response = 119488 Manual Peak Response = 127579 M1

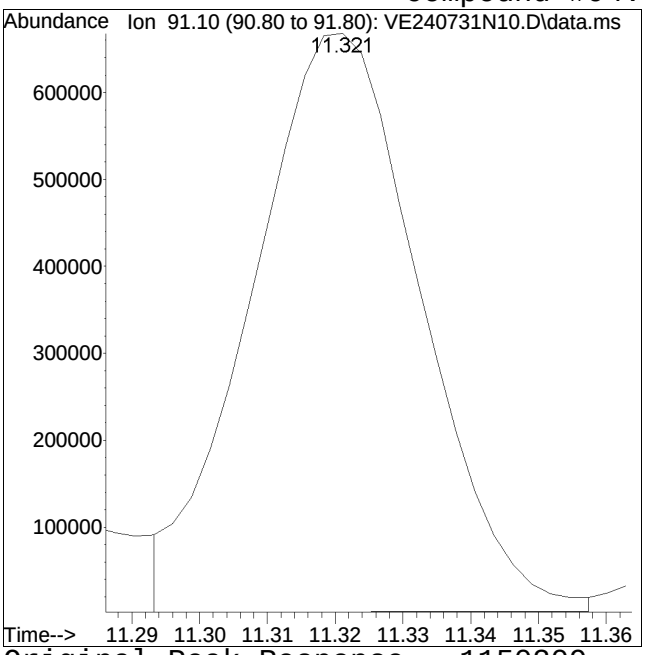
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

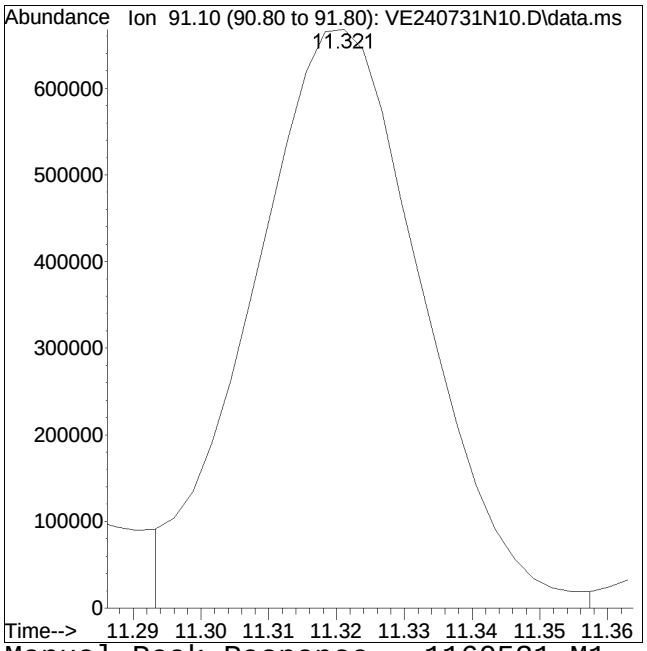
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N10.D
Date Inj'd : 7/31/2024 9:32 pm
Sample : I8260STD80PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 1150209



Manual Peak Response = 1160531 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	212189	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 103.72%			
63) Chlorobenzene-d5	9.497	117	156001	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 105.58%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84877	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.44%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.158	113	47539	9.415	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 94.15%		
47) 1,2-Dichloroethane-d4	5.680	65	63246	9.434	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 94.34%		
64) Toluene-d8	7.654	98	206007	9.983	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 99.83%		
88) 4-Bromofluorobenzene	10.995	95	79943	10.156	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 101.56%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.591	85	621695	133.006	ug/L	96
3) Chloromethane	1.787	50	661240	118.588	ug/L	96
4) Vinyl chloride	1.854	62	675555	130.850	ug/L	95
5) Bromomethane	2.163	94	241549	195.000	ug/L	96
6) Chloroethane	2.264	64	366944M1	112.589	ug/L	
7) Trichlorofluoromethane	2.414	101	749914	139.038	ug/L	95
8) Ethyl ether	2.715	74	274710	122.185	ug/L	71
10) 1,1-Dichloroethene	2.902	96	432970	132.112	ug/L #	77
11) Carbon disulfide	2.930	76	1302644	121.925	ug/L	96
12) Freon-113	2.941	101	466342	134.936	ug/L	89
13) Iodomethane	3.039	142	437611	237.007	ug/L	92
14) Acrolein	3.223	56	117858	125.755	ug/L #	71
15) Methylene chloride	3.457	84	496205	114.697	ug/L	88
17) Acetone	3.502	43	165824	110.727	ug/L	99
18) trans-1,2-Dichloroethene	3.610	96	460682	122.755	ug/L	80
19) Methyl acetate	3.619	43	388572	111.021	ug/L	98
21) Methyl tert-butyl ether	3.714	73	1643799	114.600	ug/L	95
22) tert-Butyl alcohol	3.806	59	291372	583.461	ug/L	87
24) Diisopropyl ether	4.071	45	2382897	116.334	ug/L	91
25) 1,1-Dichloroethane	4.193	63	1040719	115.624	ug/L	98
26) Halothane	4.249	117	364896	121.244	ug/L	93

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	217765	116.792	ug/L		92
28) Ethyl tert-butyl ether	4.419	59	2065717	116.206	ug/L		87
29) Vinyl acetate	4.430	43	1705877	144.518	ug/L	#	96
30) cis-1,2-Dichloroethene	4.715	96	538397	120.060	ug/L		98
31) 2,2-Dichloropropane	4.815	77	711165	124.049	ug/L		98
33) Bromochloromethane	4.904	128	219330	107.935	ug/L		84
34) Cyclohexane	4.910	56	1269361	132.475	ug/L		98
35) Chloroform	4.980	83	848229	115.532	ug/L		98
36) Ethyl acetate	5.086	43	617701	111.244	ug/L		95
37) Carbon tetrachloride	5.116	117	710348	128.671	ug/L		95
38) Tetrahydrofuran	5.130	42	189666M1	110.473	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	801432	121.748	ug/L		95
42) 2-Butanone	5.267	43	253892	114.714	ug/L	#	78
43) 1,1-Dichloropropene	5.300	75	691130	125.059	ug/L		96
45) Benzene	5.546	78	2099718	118.021	ug/L		93
46) tert-Amyl methyl ether	5.657	73	1544881	117.616	ug/L		97
48) 1,2-Dichloroethane	5.749	62	772246	113.897	ug/L		98
51) Methyl cyclohexane	6.134	83	992238	140.261	ug/L		87
52) Trichloroethene	6.143	95	512619	114.867	ug/L		97
54) Dibromomethane	6.580	93	296625	116.807	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	617455	116.649	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	408384	122.814	ug/L		92
58) Bromodichloromethane	6.759	83	727451	116.454	ug/L		92
61) 1,4-Dioxane	6.971	88	49111	1190.061	ug/L		88
62) cis-1,3-Dichloropropene	7.448	75	862920	119.410	ug/L		96
65) Toluene	7.713	92	1314787	118.338	ug/L		94
66) 4-Methyl-2-pentanone	8.145	58	225705	116.607	ug/L		91
67) Tetrachloroethene	8.159	166	585961	124.323	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	758357	117.434	ug/L		99
71) Ethyl methacrylate	8.385	69	688690	114.137	ug/L		90
72) 1,1,2-Trichloroethane	8.382	83	359465	112.831	ug/L		99
73) Chlorodibromomethane	8.594	129	526073	119.825	ug/L		97
74) 1,3-Dichloropropane	8.705	76	767624	114.320	ug/L		97
75) 1,2-Dibromoethane	8.867	107	426364	115.097	ug/L		87
77) 2-Hexanone	9.149	43	414223	113.282	ug/L		99
78) Chlorobenzene	9.520	112	1389349	116.104	ug/L	#	81
79) Ethylbenzene	9.559	91	2544867	115.842	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	516387	115.508	ug/L		97
81) p/m Xylene	9.745	106	1901677	222.578	ug/L		98
82) o Xylene	10.289	106	1853015	222.816	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.356	104	3040245	219.928	ug/L		100
85) Bromoform	10.381	173	344244	122.572	ug/L		94
87) Isopropylbenzene	10.671	105	2603670	125.479	ug/L		97
89) Bromobenzene	11.106	156	638995	120.505	ug/L		98
90) n-Propylbenzene	11.154	91	3066625	122.831	ug/L		97
91) 1,4-Dichlorobutane	11.170	55	1050044	115.873	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	539535	128.960	ug/L		97
93) 4-Ethyltoluene	11.282	105	2488678	120.953	ug/L		100
94) 2-Chlorotoluene	11.321	91	1755872M1	117.280	ug/L		
95) 1,3,5-Trimethylbenzene	11.380	105	2172113	119.311	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	421191	115.164	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.433	53	217211	125.820	ug/L	#	80
98) 4-Chlorotoluene	11.508	91	1872710	120.607	ug/L		98
99) tert-Butylbenzene	11.720	119	1857545	123.721	ug/L		98
102) 1,2,4-Trimethylbenzene	11.798	105	2174551	120.221	ug/L		96
103) sec-Butylbenzene	11.912	105	2758090	125.741	ug/L		99
104) p-Isopropyltoluene	12.066	119	2336309	125.331	ug/L		96
105) 1,3-Dichlorobenzene	12.133	146	1169649	117.874	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	1165916	118.711	ug/L		99
107) p-Diethylbenzene	12.439	119	1359462	123.012	ug/L		96
108) n-Butylbenzene	12.498	91	1991135	125.574	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	1118649	118.201	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.234	119	2195611	121.626	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.426	155	98831	127.113	ug/L		93
112) 1,3,5-Trichlorobenzene	13.457	180	936160	123.926	ug/L		93
113) Hexachlorobutadiene	14.032	225	311088	128.826	ug/L		93
114) 1,2,4-Trichlorobenzene	14.057	180	854868	127.696	ug/L		99
115) Naphthalene	14.350	128	1892881	131.573	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	785081	128.247	ug/L		95

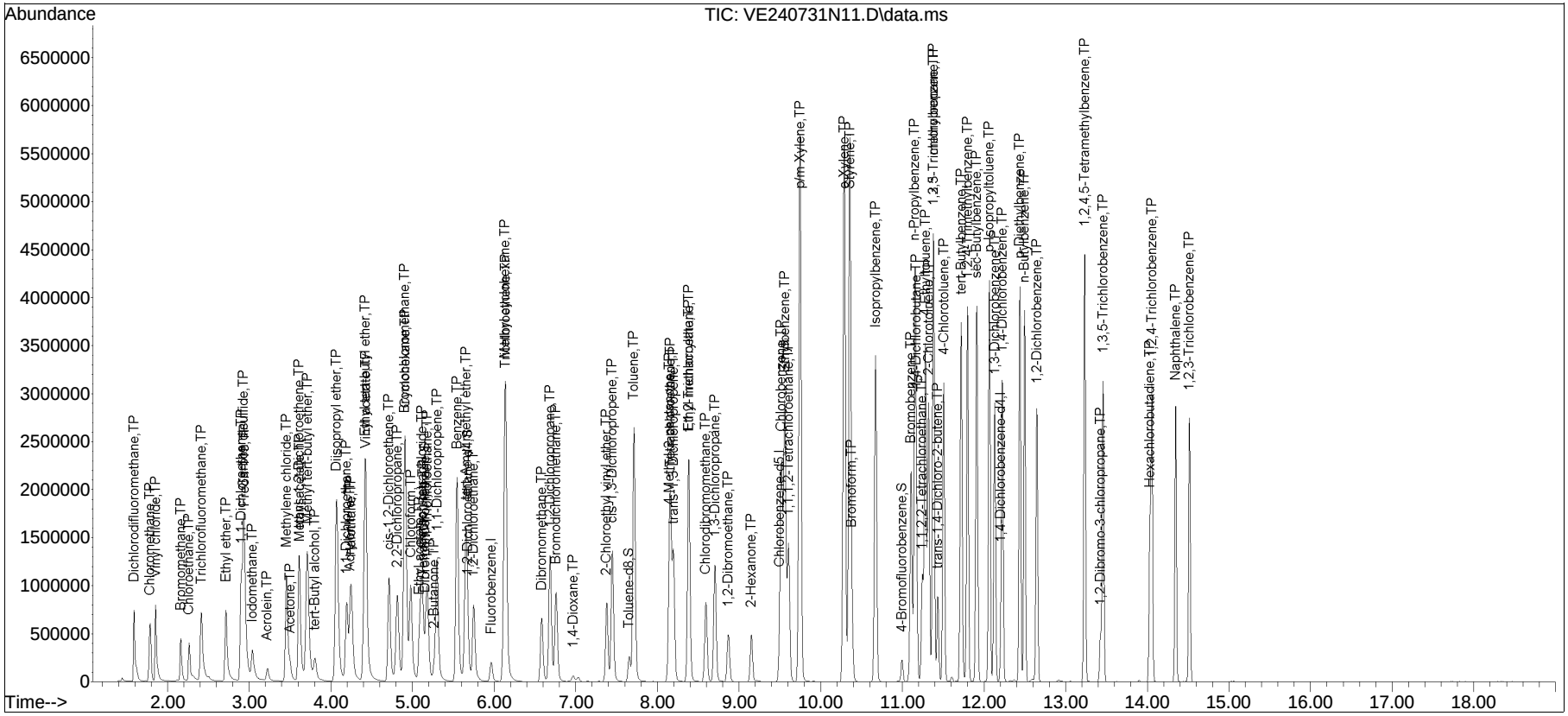
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

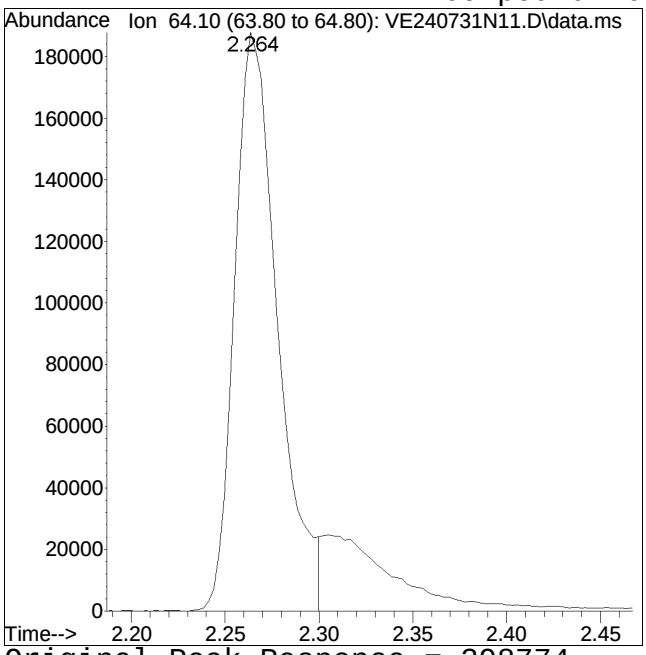


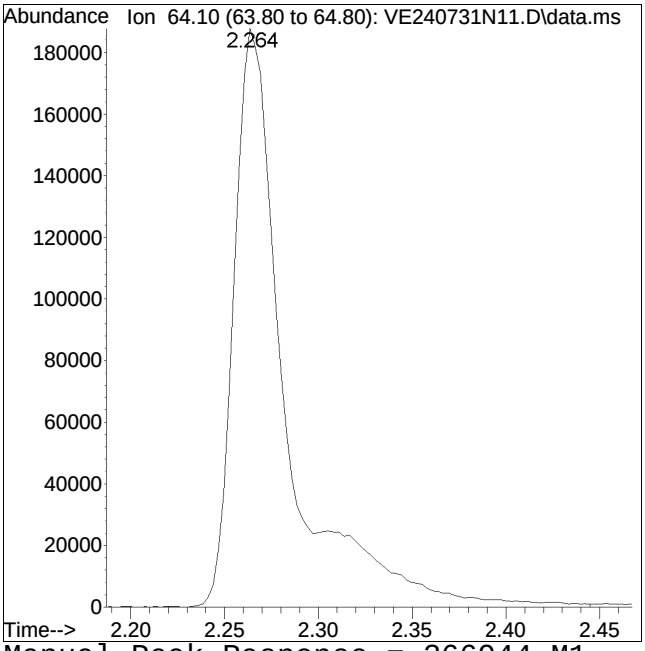
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N11.D
Date Inj'd : 7/31/2024 9:57 pm
Sample : I8260STD120PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane





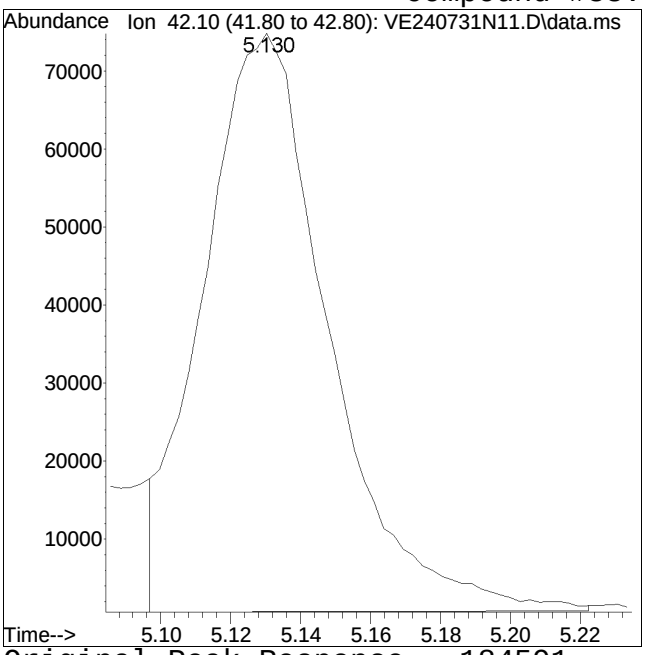
Original Peak Response = 298774 Manual Peak Response = 366944 M1

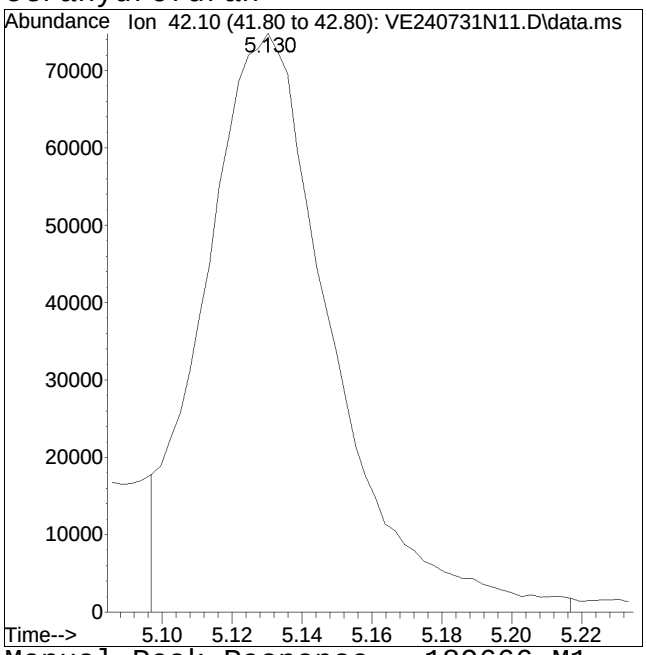
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N11.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 9:57 pm Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





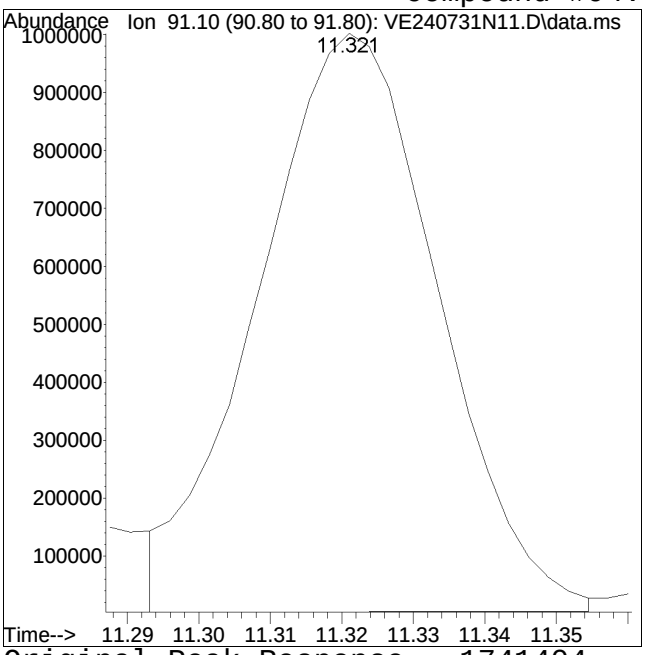
Original Peak Response = 184591 Manual Peak Response = 189666 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

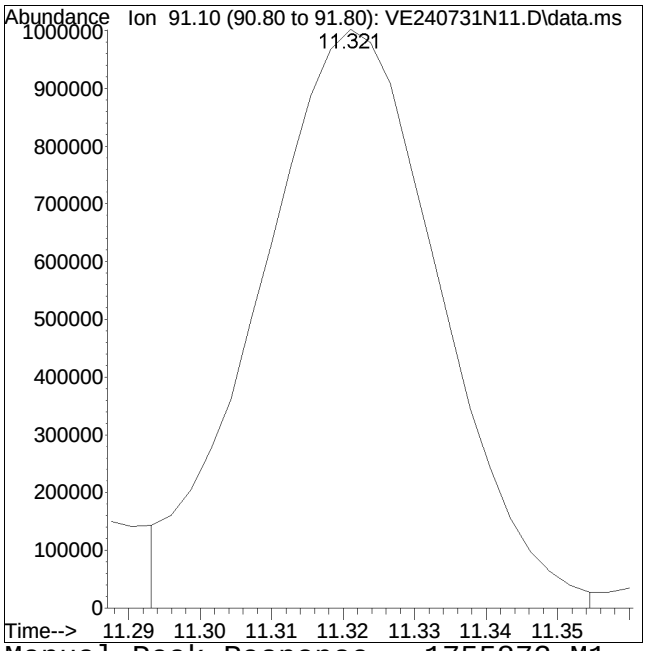
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N11.D
Date Inj'd : 7/31/2024 9:57 pm
Sample : I8260STD120PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene





Original Peak Response = 1741404 Manual Peak Response = 1755872 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	218082	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 106.60%			
63) Chlorobenzene-d5	9.497	117	158225	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 107.09%			
84) 1,4-Dichlorobenzene-d4	12.211	152	85112	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.72%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	48693	9.383	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 93.83%		
47) 1,2-Dichloroethane-d4	5.680	65	65855	9.557	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 95.57%		
64) Toluene-d8	7.654	98	211806	10.120	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 101.20%		
88) 4-Bromofluorobenzene	10.995	95	81664	10.346	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 103.46%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.589	85	1023946	213.144	ug/L	96
3) Chloromethane	1.787	50	1114665	194.505	ug/L	96
4) Vinyl chloride	1.854	62	1133872	213.688	ug/L	95
5) Bromomethane	2.160	94	443466	348.331	ug/L	95
6) Chloroethane	2.264	64	466826M1	139.365	ug/L	
7) Trichlorofluoromethane	2.409	101	1250069	225.507	ug/L	95
8) Ethyl ether	2.715	74	473080	204.730	ug/L	74
10) 1,1-Dichloroethene	2.899	96	720867	214.013	ug/L #	77
11) Carbon disulfide	2.930	76	2148112	195.626	ug/L	96
12) Freon-113	2.941	101	764970	215.363	ug/L	87
13) Iodomethane	3.039	142	787010	414.722	ug/L	90
14) Acrolein	3.223	56	207835	215.768	ug/L #	68
15) Methylene chloride	3.457	84	830961	186.885	ug/L	88
17) Acetone	3.499	43	275343	178.888	ug/L	100
18) trans-1,2-Dichloroethene	3.610	96	769562	199.519	ug/L	80
19) Methyl acetate	3.619	43	649913	180.672	ug/L	97
21) Methyl tert-butyl ether	3.711	73	2743068	186.070	ug/L	95
22) tert-Butyl alcohol	3.806	59	494549	963.555	ug/L #	74
24) Diisopropyl ether	4.071	45	3996934	189.859	ug/L	91
25) 1,1-Dichloroethane	4.193	63	1767256	191.036	ug/L	97
26) Halothane	4.249	117	614966	198.813	ug/L	95

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	364875	190.402	ug/L		91
28) Ethyl tert-butyl ether	4.419	59	3489282	190.985	ug/L		87
29) Vinyl acetate	4.427	43	2909289	239.808	ug/L		96
30) cis-1,2-Dichloroethene	4.715	96	893849	193.939	ug/L		96
31) 2,2-Dichloropropane	4.815	77	1146211	194.531	ug/L		98
33) Bromochloromethane	4.904	128	369034	176.699	ug/L		87
34) Cyclohexane	4.910	56	2111879	214.448	ug/L		97
35) Chloroform	4.980	83	1463012	193.883	ug/L		98
36) Ethyl acetate	5.086	43	1054490	184.774	ug/L		95
37) Carbon tetrachloride	5.111	117	1180255	208.012	ug/L		94
38) Tetrahydrofuran	5.127	42	319470M1	181.050	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	1345108	198.818	ug/L		94
42) 2-Butanone	5.264	43	430836	189.401	ug/L	#	77
43) 1,1-Dichloropropene	5.300	75	1167560	205.559	ug/L		95
45) Benzene	5.546	78	3545099	193.878	ug/L		93
46) tert-Amyl methyl ether	5.660	73	2608163	193.201	ug/L		97
48) 1,2-Dichloroethane	5.749	62	1303976	187.124	ug/L		98
51) Methyl cyclohexane	6.134	83	1644127	226.130	ug/L		87
52) Trichloroethene	6.143	95	848815	185.062	ug/L		97
54) Dibromomethane	6.580	93	510294	195.517	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	1043986	191.899	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	689730	201.819	ug/L		91
58) Bromodichloromethane	6.759	83	1230248	191.623	ug/L		93
61) 1,4-Dioxane	6.968	88	82040	1934.279	ug/L		87
62) cis-1,3-Dichloropropene	7.450	75	1455382	195.953	ug/L		96
65) Toluene	7.715	92	2216340	196.679	ug/L		95
66) 4-Methyl-2-pentanone	8.145	58	380672	193.904	ug/L		89
67) Tetrachloroethene	8.161	166	969941	202.900	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	1271120	194.071	ug/L		98
71) Ethyl methacrylate	8.385	69	1153549	188.491	ug/L		90
72) 1,1,2-Trichloroethane	8.385	83	600082	185.709	ug/L		99
73) Chlorodibromomethane	8.594	129	888579	199.549	ug/L		97
74) 1,3-Dichloropropane	8.705	76	1294671	190.102	ug/L		97
75) 1,2-Dibromoethane	8.870	107	726378	193.330	ug/L		88
77) 2-Hexanone	9.149	43	701973	189.278	ug/L		98
78) Chlorobenzene	9.520	112	2322389	191.347	ug/L	#	81
79) Ethylbenzene	9.561	91	4205575	188.746	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.606	131	864694	190.700	ug/L		97
81) p/m Xylene	9.748	106	3113211	359.258	ug/L		98
82) o Xylene	10.292	106	3031575	359.409	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.359	104	4931534	351.727	ug/L		100
85) Bromoform	10.384	173	573519	203.644	ug/L		94
87) Isopropylbenzene	10.671	105	4270477	205.239	ug/L		97
89) Bromobenzene	11.109	156	1059408	199.237	ug/L		98
90) n-Propylbenzene	11.156	91	4915379	196.338	ug/L		97
91) 1,4-Dichlorobutane	11.173	55	1727211	190.073	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.246	83	901020	214.768	ug/L		97
93) 4-Ethyltoluene	11.282	105	4000085	193.873	ug/L		100
94) 2-Chlorotoluene	11.324	91	2902075M1	193.303	ug/L		
95) 1,3,5-Trimethylbenzene	11.382	105	3465448	189.826	ug/L		98
96) 1,2,3-Trichloropropane	11.382	75	693466	189.086	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.435	53	373208	215.584	ug/L	#	81
98) 4-Chlorotoluene	11.508	91	3065128	196.857	ug/L		99
99) tert-Butylbenzene	11.723	119	2974388	197.561	ug/L		98
102) 1,2,4-Trimethylbenzene	11.801	105	3501105	193.025	ug/L		96
103) sec-Butylbenzene	11.912	105	4398637	199.979	ug/L		99
104) p-Isopropyltoluene	12.068	119	3768238	201.589	ug/L		96
105) 1,3-Dichlorobenzene	12.133	146	1909080	191.860	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	1925869	195.547	ug/L		99
107) p-Diethylbenzene	12.442	119	2268316	204.684	ug/L		96
108) n-Butylbenzene	12.501	91	3301190	207.619	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	1871437	197.197	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.234	119	3731663	206.145	ug/L		95
111) 1,2-Dibromo-3-chloropr...	13.429	155	172945	221.821	ug/L		92
112) 1,3,5-Trichlorobenzene	13.460	180	1558415	205.728	ug/L		93
113) Hexachlorobutadiene	14.032	225	516197	213.175	ug/L		93
114) 1,2,4-Trichlorobenzene	14.057	180	1377565	205.206	ug/L		100
115) Naphthalene	14.349	128	3120105	216.278	ug/L		100
116) 1,2,3-Trichlorobenzene	14.520	180	1288109	209.838	ug/L		96

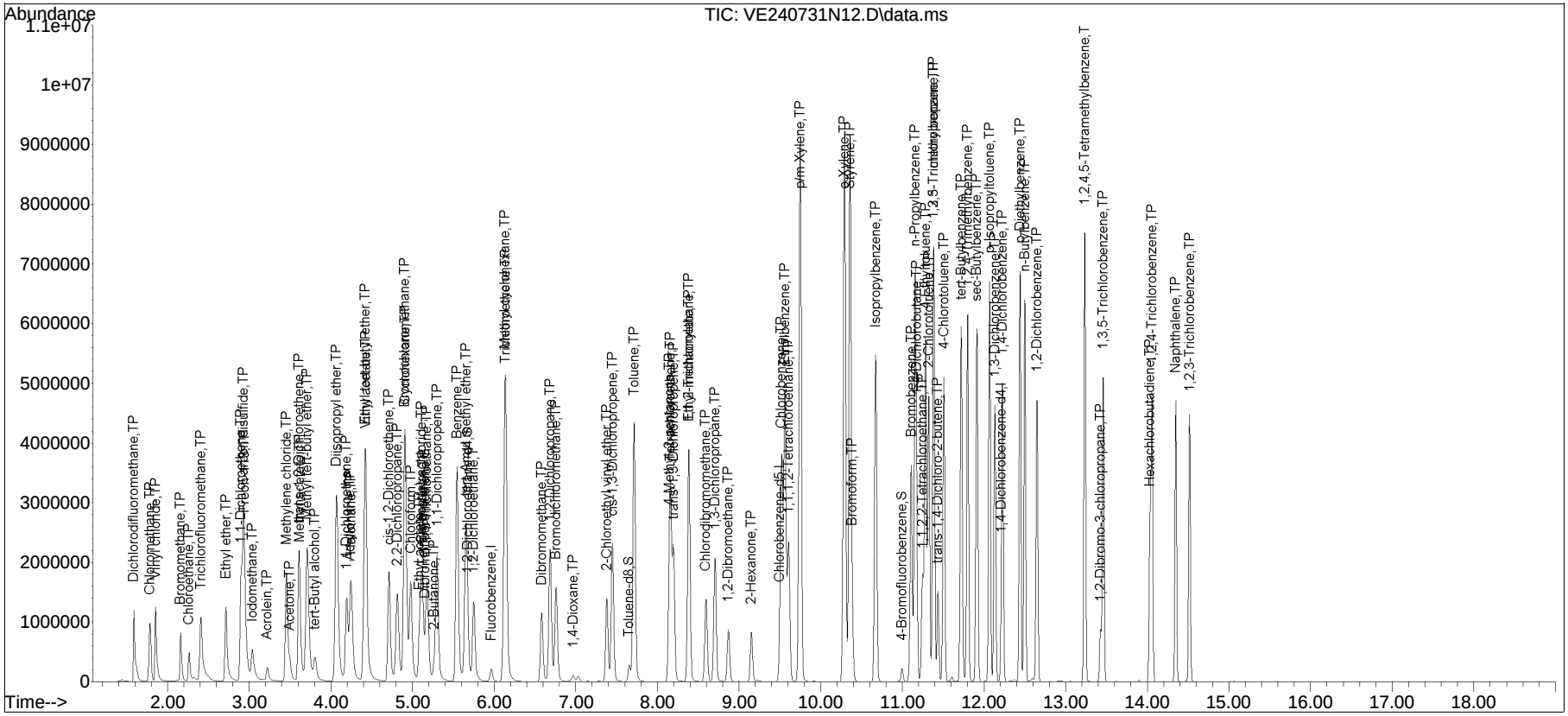
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

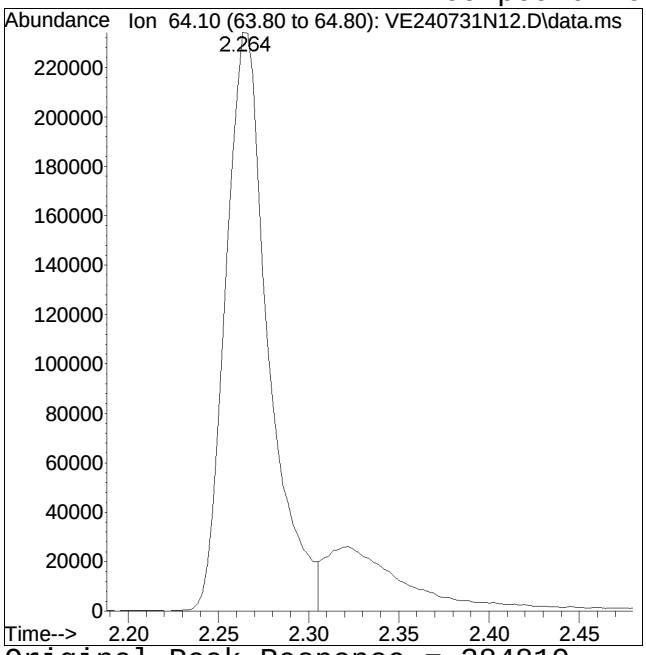
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

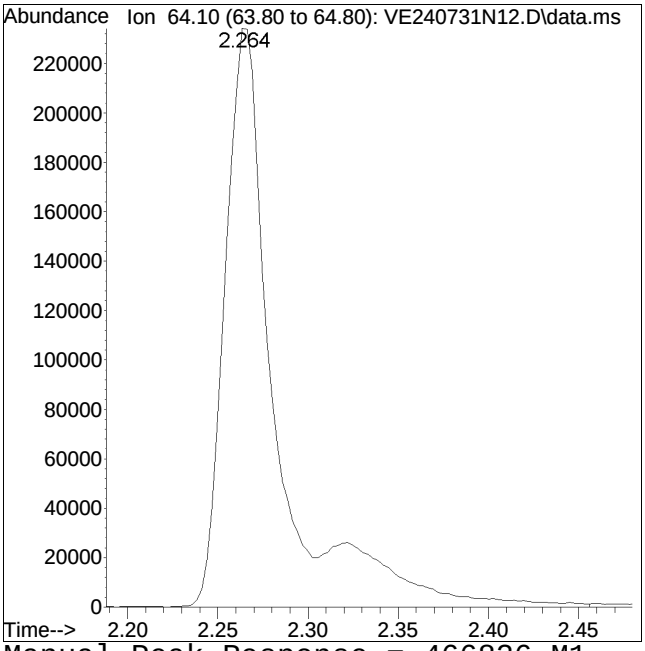


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N12.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 10:22 pm Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



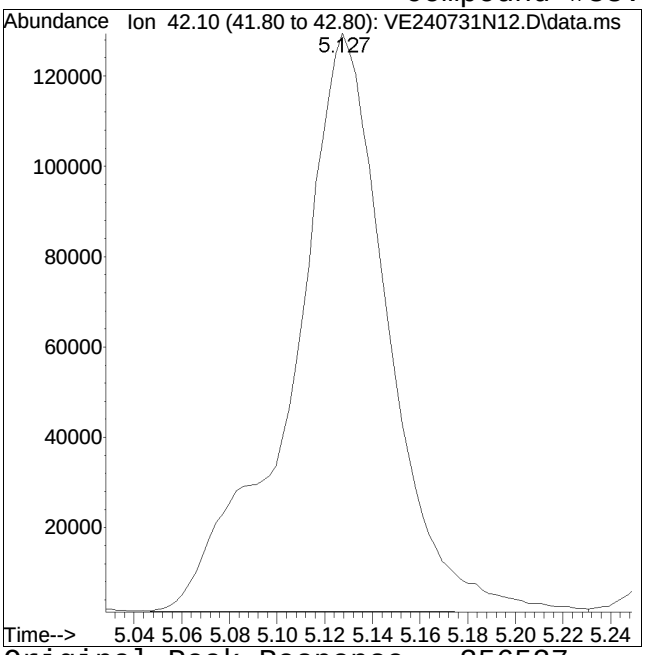


Original Peak Response = 384819 Manual Peak Response = 466826 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

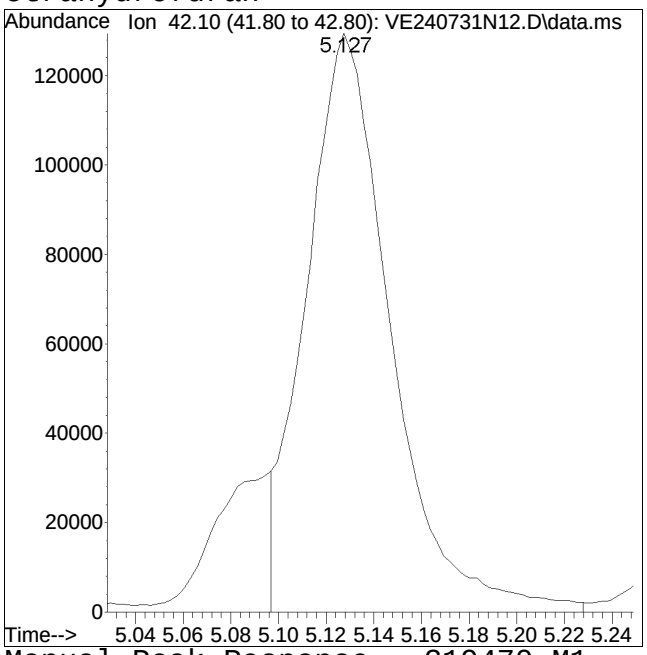
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N12.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 10:22 pm Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran



Original Peak Response = 356527



Manual Peak Response = 319470 M1

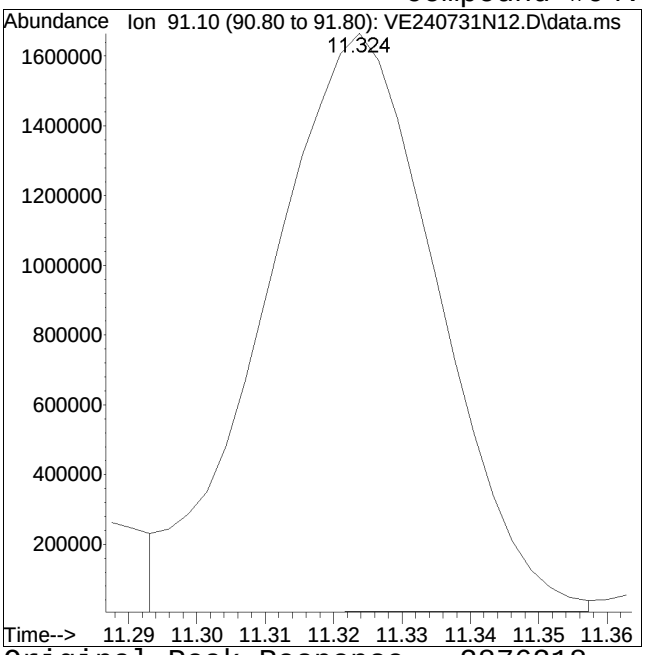
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

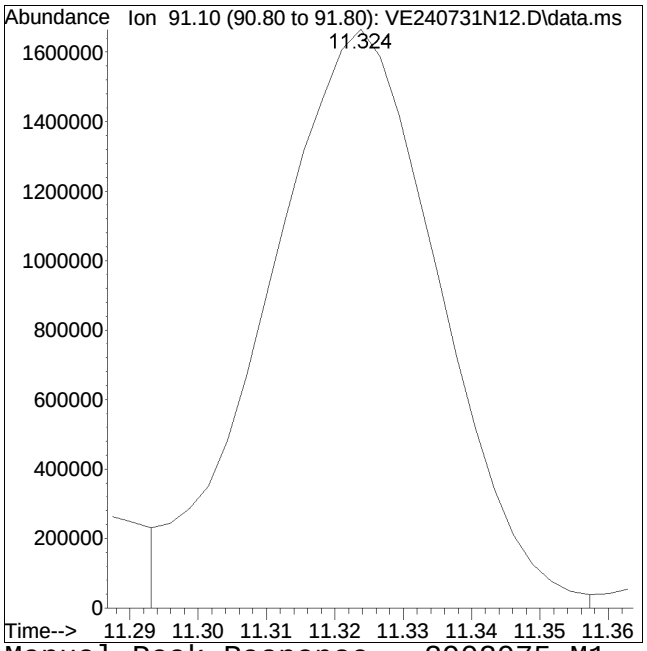
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N12.D
Date Inj'd : 7/31/2024 10:22 pm
Sample : I8260STD200PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 2876218



Manual Peak Response = 2902075 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	102	0.00
2	TP	Dichlorodifluoromethane	0.224	0.184	17.9	85	0.00
3	TP	Chloromethane	0.250	0.279	-11.6	108	0.00
4	TP	Vinyl chloride	0.233	0.239	-2.6	100	0.00
5	TP	Bromomethane	* 10.000	9.312	6.9	112	0.00
6	TP	Chloroethane	0.140	0.152	-8.6	101	0.00
7	TP	Trichlorofluoromethane	0.267	0.291	-9.0	117	0.00
8	TP	Ethyl ether	0.105	0.106	-1.0	102	0.00
10	TP	1,1-Dichloroethene	0.160	0.160	0.0	105	0.00
11	TP	Carbon disulfide	0.494	0.453	8.3	92	0.00
12	TP	Freon-113	0.167	0.181	-8.4	113	0.00
13	TP	Iodomethane	* 10.000	5.388	46.1#	62	0.00
14	TP	Acrolein	0.045	0.032	28.9#	75	0.00
15	TP	Methylene chloride	0.202	0.202	0.0	101	0.00
17	TP	Acetone	0.073	0.073	0.0	105	0.00
18	TP	trans-1,2-Dichloroethene	0.172	0.181	-5.2	104	0.00
19	TP	Methyl acetate	0.171	0.151	11.7	93	0.00
21	TP	Methyl tert-butyl ether	0.642	0.561	12.6	85	0.00
22	TP	tert-Butyl alcohol	0.023	0.022	4.3	96	0.00
24	TP	Diisopropyl ether	0.920	0.922	-0.2	97	0.00
25	TP	1,1-Dichloroethane	0.404	0.436	-7.9	105	0.00
26	TP	Halothane	0.139	0.154	-10.8	111	0.00
27	TP	Acrylonitrile	0.084	0.077	8.3	89	0.00
28	TP	Ethyl tert-butyl ether	0.798	0.794	0.5	97	0.00
29	TP	Vinyl acetate	0.612	0.506	17.3	93	0.00
30	TP	cis-1,2-Dichloroethene	0.206	0.210	-1.9	101	0.00
31	TP	2,2-Dichloropropane	0.270	0.248	8.1	93	0.00
33	TP	Bromochloromethane	0.091	0.092#	-1.1	97	0.00
34	TP	Cyclohexane	0.473	0.498	-5.3	112	0.00
35	TP	Chloroform	0.335	0.346	-3.3	102	0.00
36	TP	Ethyl acetate	0.256	0.246	3.9	96	0.00
37	TP	Carbon tetrachloride	0.256	0.287	-12.1	112	0.00
38	TP	Tetrahydrofuran	0.079	0.075	5.1	94	0.00
39	S	Dibromofluoromethane	0.234	0.239	-2.1	102	0.00
40	TP	1,1,1-Trichloroethane	0.304	0.321	-5.6	106	0.00
42	TP	2-Butanone	0.105	0.098	6.7	95	0.00
43	TP	1,1-Dichloropropene	0.256	0.286	-11.7	112	0.00
45	TP	Benzene	0.792	0.833	-5.2	101	0.00
46	TP	tert-Amyl methyl ether	0.598	0.569	4.8	94	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.312	0.314	-0.6	101	0.00
48	T	1,2-Dichloroethane	0.306	0.319	-4.2	102	0.00
51	TP	Methyl cyclohexane	0.356	0.371	-4.2	114	0.00
52	TP	Trichloroethene	0.199	0.216	-8.5	105	0.00
54	TP	Dibromomethane	0.115	0.119	-3.5	101	0.00
55	TP	1,2-Dichloropropane	0.239	0.252	-5.4	103	0.00
57	TP	2-Chloroethyl vinyl ether	0.154	0.137	11.0	89	0.00
58	TP	Bromodichloromethane	0.283	0.287#	-1.4	99	0.00
61	TP	1,4-Dioxane	0.00192	0.00183#	4.7	96	0.00
62	TP	cis-1,3-Dichloropropene	0.319	0.344	-7.8	103	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
64	S	Toluene-d8	1.317	1.314	0.2	103	0.00
65	TP	Toluene	0.689	0.694	-0.7	102	0.00
66	TP	4-Methyl-2-pentanone	0.117	0.112	4.3	94	0.00
67	TP	Tetrachloroethene	0.293	0.316	-7.8	109	0.00
69	TP	trans-1,3-Dichloropropene	0.388	0.396	-2.1	100	0.00
71	TP	Ethyl methacrylate	0.369	0.356	3.5	96	0.00
72	TP	1,1,2-Trichloroethane	0.193	0.197#	-2.1	100	0.00
73	TP	Chlorodibromomethane	0.270	0.268	0.7	99	0.00
74	TP	1,3-Dichloropropane	0.408	0.422	-3.4	102	0.00
75	TP	1,2-Dibromoethane	0.228	0.226	0.9	99	0.00
77	TP	2-Hexanone	0.229	0.212	7.4	94	0.00
78	TP	Chlorobenzene	0.734	0.773	-5.3	105	0.00
79	TP	Ethylbenzene	1.335	1.426	-6.8	105	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.269	0.286	-6.3	104	0.00
81	TP	p/m Xylene	0.509	0.545	-7.1	104	0.00
82	TP	o Xylene	0.497	0.524	-5.4	102	0.00
83	TP	Styrene	0.816	0.883	-8.2	104	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
85	TP	Bromoform	0.325	0.321	1.2	101	0.00
87	TP	Isopropylbenzene	2.395	2.542	-6.1	108	0.00
88	S	4-Bromofluorobenzene	0.924	0.917	0.8	103	0.00
89	TP	Bromobenzene	0.605	0.612	-1.2	102	0.00
90	TP	n-Propylbenzene	2.861	3.016	-5.4	106	0.00
91	TP	1,4-Dichlorobutane	1.046	0.991	5.3	96	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.508	0.472	7.1	99	0.00
93	TP	4-Ethyltoluene	2.321	2.520	-8.6	108	0.00

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94 TP	2-Chlorotoluene	1.683	1.751	-4.0	103	0.00
95 TP	1,3,5-Trimethylbenzene	2.036	2.143	-5.3	104	0.00
96 TP	1,2,3-Trichloropropane	0.415	0.417	-0.5	100	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.204	0.171	16.2	87	0.00
98 TP	4-Chlorotoluene	1.763	1.845	-4.7	105	0.00
99 TP	tert-Butylbenzene	1.712	1.823	-6.5	107	0.00
102 TP	1,2,4-Trimethylbenzene	2.033	2.161	-6.3	105	0.00
103 TP	sec-Butylbenzene	2.538	2.673	-5.3	107	0.00
104 TP	p-Isopropyltoluene	2.139	2.259	-5.6	107	0.00
105 TP	1,3-Dichlorobenzene	1.117	1.178	-5.5	105	0.00
106 TP	1,4-Dichlorobenzene	1.116	1.167	-4.6	105	0.00
107 TP	p-Diethylbenzene	1.261	1.249	1.0	100	0.00
108 TP	n-Butylbenzene	1.842	2.034	-10.4	113	0.00
109 TP	1,2-Dichlorobenzene	1.074	1.130	-5.2	105	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.046	2.063	-0.8	101	0.00
111 TP	1,2-Dibromo-3-chloropropane *	10.000	8.973	10.3	97	0.00
112 TP	1,3,5-Trichlorobenzene	0.853	0.845	0.9	99	0.00
113 TP	Hexachlorobutadiene	0.283	0.291	-2.8	106	0.00
114 TP	1,2,4-Trichlorobenzene	0.770	0.781	-1.4	103	0.00
115 TP	Naphthalene	1.697	1.637	3.5	100	0.00
116 TP	1,2,3-Trichlorobenzene	0.707	0.697	1.4	100	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 4 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	208493	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 101.91%			
63) Chlorobenzene-d5	9.497	117	153829	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 104.11%			
84) 1,4-Dichlorobenzene-d4	12.205	152	87716	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 103.80%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.158	113	49879	10.219	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.19%			
47) 1,2-Dichloroethane-d4	5.683	65	65490	10.056	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.56%			
64) Toluene-d8	7.654	98	202159	9.977	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.77%			
88) 4-Bromofluorobenzene	10.995	95	80452	9.929	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.29%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	38360	8.206	ug/L	95
3) Chloromethane	1.784	50	58239	11.190	ug/L	97
4) Vinyl chloride	1.854	62	49740	10.255	ug/L	91
5) Bromomethane	2.163	94	13377	9.312	ug/L	95
6) Chloroethane	2.269	64	31590	10.788	ug/L	91
7) Trichlorofluoromethane	2.417	101	60700	10.891	ug/L	98
8) Ethyl ether	2.713	74	22105	10.072	ug/L	74
10) 1,1-Dichloroethene	2.905	96	33298	9.972	ug/L	79
11) Carbon disulfide	2.930	76	94536	9.176	ug/L	95
12) Freon-113	2.941	101	37812	10.866	ug/L	89
13) Iodomethane	3.039	142	11076	5.388	ug/L	89
14) Acrolein	3.223	56	6767	7.176	ug/L #	62
15) Methylene chloride	3.454	84	42181	10.015	ug/L	89
17) Acetone	3.496	43	15145	9.901	ug/L	98
18) trans-1,2-Dichloroethene	3.611	96	37651	10.490	ug/L	77
19) Methyl acetate	3.619	43	31485	8.829	ug/L	96
21) Methyl tert-butyl ether	3.708	73	116912	8.735	ug/L	96
22) tert-Butyl alcohol	3.803	59	23155	48.488	ug/L #	68
24) Diisopropyl ether	4.068	45	192295	10.030	ug/L	91
25) 1,1-Dichloroethane	4.193	63	90833	10.783	ug/L	96
26) Halothane	4.252	117	32152	11.107	ug/L	97

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	15982	9.093	ug/L		86
28) Ethyl tert-butyl ether	4.417	59	165609	9.954	ug/L		98
29) Vinyl acetate	4.428	43	105450	8.264	ug/L	#	94
30) cis-1,2-Dichloroethene	4.715	96	43745	10.168	ug/L		93
31) 2,2-Dichloropropane	4.818	77	51622	9.157	ug/L		95
33) Bromochloromethane	4.905	128	19089	10.115	ug/L		83
34) Cyclohexane	4.913	56	103732	10.523	ug/L		95
35) Chloroform	4.980	83	72175	10.336	ug/L		99
36) Ethyl acetate	5.086	43	51304	9.621	ug/L	#	92
37) Carbon tetrachloride	5.111	117	59745	11.201	ug/L		97
38) Tetrahydrofuran	5.130	42	15553M1	9.397	ug/L		
40) 1,1,1-Trichloroethane	5.175	97	66968	10.560	ug/L	#	76
42) 2-Butanone	5.267	43	20338	9.305	ug/L	#	85
43) 1,1-Dichloropropene	5.295	75	59608	11.165	ug/L		96
45) Benzene	5.546	78	173673	10.516	ug/L		93
46) tert-Amyl methyl ether	5.660	73	118656	9.521	ug/L		98
48) 1,2-Dichloroethane	5.749	62	66413	10.419	ug/L		96
51) Methyl cyclohexane	6.134	83	77419	10.431	ug/L		86
52) Trichloroethene	6.140	95	45095	10.860	ug/L		97
54) Dibromomethane	6.578	93	24744	10.345	ug/L	#	84
55) 1,2-Dichloropropane	6.684	63	52520	10.534	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	28542	8.897	ug/L		91
58) Bromodichloromethane	6.762	83	59854	10.131	ug/L		94
61) 1,4-Dioxane	6.965	88	19108	477.556	ug/L		87
62) cis-1,3-Dichloropropene	7.448	75	71821	10.797	ug/L		95
65) Toluene	7.715	92	106822	10.085	ug/L		91
66) 4-Methyl-2-pentanone	8.148	58	17267	9.558	ug/L	#	91
67) Tetrachloroethene	8.162	166	48681	10.819	ug/L		96
69) trans-1,3-Dichloropropene	8.195	75	60906	10.213	ug/L		98
71) Ethyl methacrylate	8.385	69	54689	9.633	ug/L		92
72) 1,1,2-Trichloroethane	8.379	83	30235	10.167	ug/L		99
73) Chlorodibromomethane	8.591	129	41173	9.901	ug/L		97
74) 1,3-Dichloropropane	8.705	76	64959	10.345	ug/L		97
75) 1,2-Dibromoethane	8.867	107	34815	9.906	ug/L		88
77) 2-Hexanone	9.152	43	32606	9.263	ug/L		97
78) Chlorobenzene	9.520	112	118893	10.534	ug/L	#	80
79) Ethylbenzene	9.556	91	219382	10.686	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	44053	10.647	ug/L		99
81) p/m Xylene	9.746	106	167676	21.427	ug/L		98
82) o Xylene	10.287	106	161242	21.071	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83)	Styrene	10.354	104	271514	21.640	ug/L		99
85)	Bromoform	10.381	173	28158	9.866	ug/L		93
87)	Isopropylbenzene	10.671	105	223005	10.617	ug/L		98
89)	Bromobenzene	11.106	156	53699	10.126	ug/L		97
90)	n-Propylbenzene	11.151	91	264513	10.539	ug/L		97
91)	1,4-Dichlorobutane	11.168	55	86888	9.472	ug/L		99
92)	1,1,2,2-Tetrachloroethane	11.243	83	41382	9.285	ug/L		99
93)	4-Ethyltoluene	11.279	105	221024	10.855	ug/L		100
94)	2-Chlorotoluene	11.318	91	153587	10.402	ug/L		97
95)	1,3,5-Trimethylbenzene	11.377	105	188009	10.527	ug/L		98
96)	1,2,3-Trichloropropane	11.380	75	36549	10.052	ug/L		94
97)	trans-1,4-Dichloro-2-b...	11.433	53	14957	8.371	ug/L	#	85
98)	4-Chlorotoluene	11.502	91	161865	10.465	ug/L		99
99)	tert-Butylbenzene	11.720	119	159878	10.649	ug/L		97
102)	1,2,4-Trimethylbenzene	11.795	105	189585	10.634	ug/L		96
103)	sec-Butylbenzene	11.910	105	234466	10.531	ug/L		99
104)	p-Isopropyltoluene	12.066	119	198149	10.562	ug/L		96
105)	1,3-Dichlorobenzene	12.127	146	103303	10.548	ug/L		96
106)	1,4-Dichlorobenzene	12.222	146	102337	10.454	ug/L		99
107)	p-Diethylbenzene	12.439	119	109518	9.900	ug/L		96
108)	n-Butylbenzene	12.495	91	178383	11.041	ug/L		98
109)	1,2-Dichlorobenzene	12.646	146	99100	10.517	ug/L		97
110)	1,2,4,5-Tetramethylben...	13.231	119	180976	10.082	ug/L		96
111)	1,2-Dibromo-3-chloropr...	13.427	155	7500	8.973	ug/L		85
112)	1,3,5-Trichlorobenzene	13.457	180	74121	9.907	ug/L		92
113)	Hexachlorobutadiene	14.032	225	25535	10.299	ug/L		93
114)	1,2,4-Trichlorobenzene	14.054	180	68475	10.138	ug/L		98
115)	Naphthalene	14.347	128	143556	9.643	ug/L		100
116)	1,2,3-Trichlorobenzene	14.517	180	61106	9.847	ug/L		94

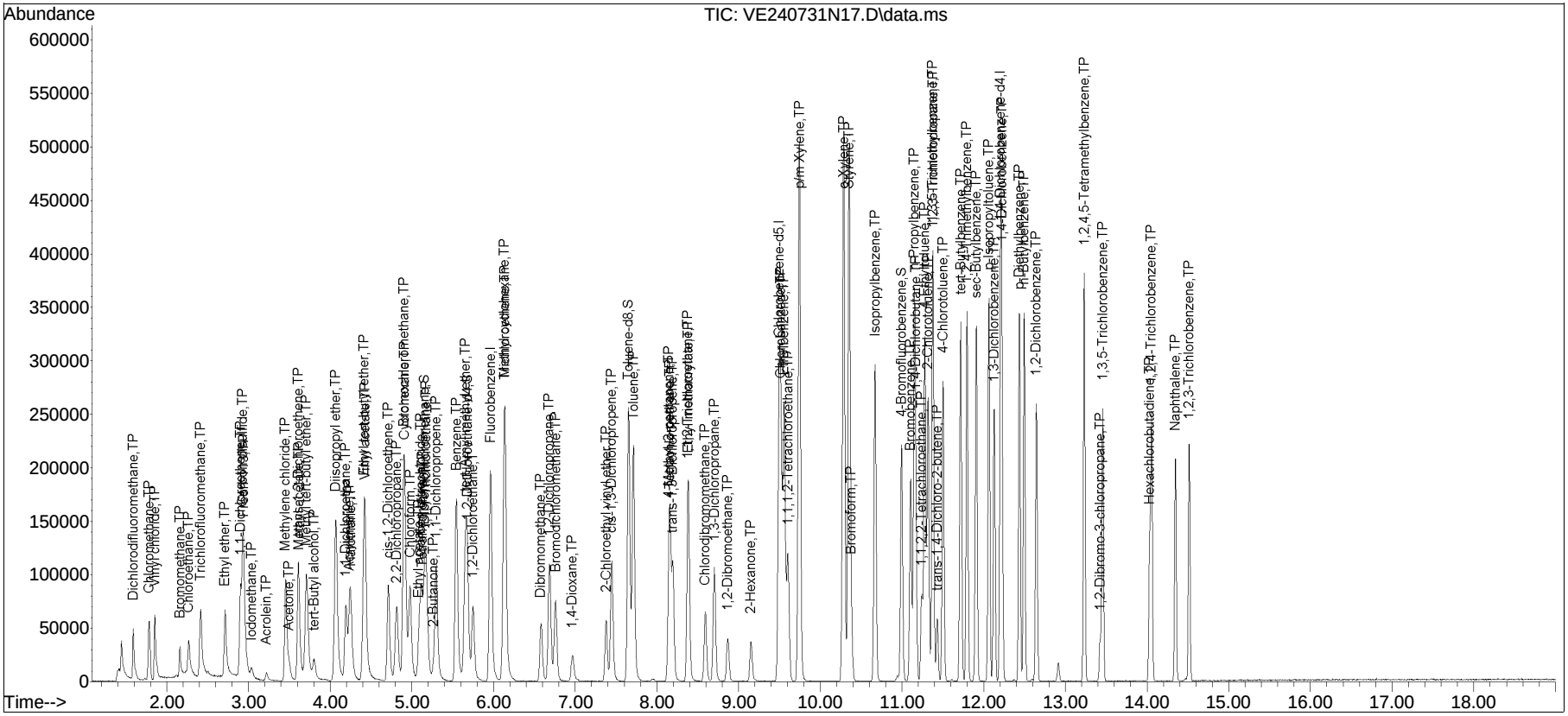
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

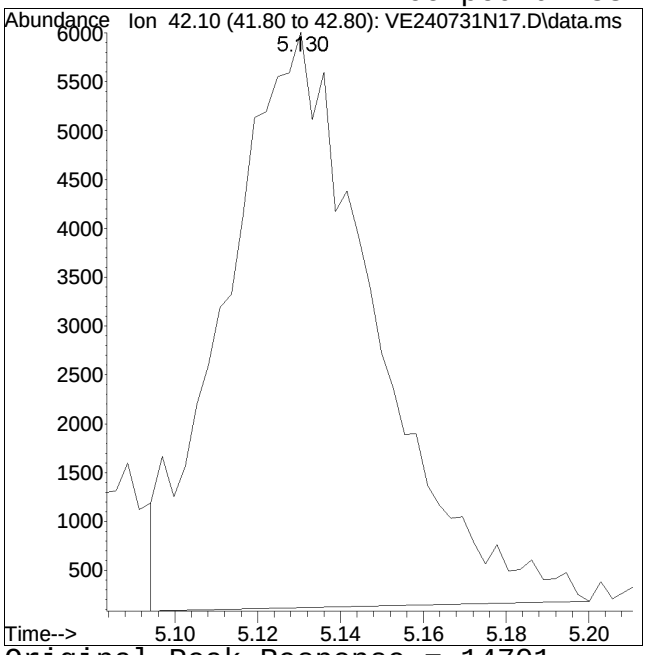


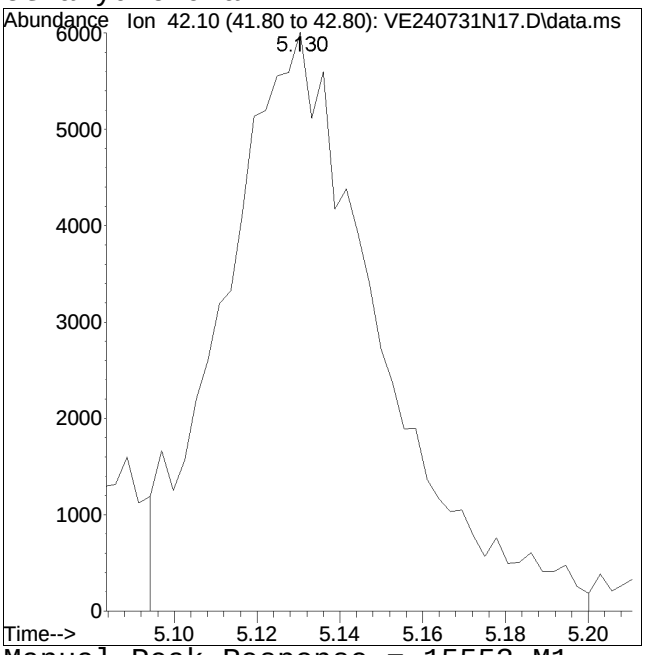
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N17.D
Date Inj'd : 8/1/2024 12:28 am
Sample : C8260STD10PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 12:13 pm

Compound #38: Tetrahydrofuran





Original Peak Response = 14701 Manual Peak Response = 15553 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Relative Error Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
5	TP Bromomethane	Q	ug/L	10.0	8.517	-14.8	0.50	0.634	26.8
13	TP Iodomethane	Q	ug/L	10.0	7.698	-23.0	2.00	2.507	25.4
111	TP 1,2-Dibromo-3-chloropropane	L	ug/L	10.0	9.592	-4.1	0.50	0.540	8.0

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
5	TP Bromomethane	Quadratic	0.998253	0.001690	0.069754	-0.00225974
13	TP Iodomethane	Quadratic	0.997800	0.002010	0.144116	-0.0251075
111	TP 1,2-Dibromo-3-chloropropane	Linear	0.998896	0.000000	0.0984884	-0.00286624

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: GONZO	**Calibration Date**	: 08/16/24 06:49		
Lab File ID	: VG240816A01	**Init. Calib. Date(s)**	: 07/12/24	07/13/24	
Sample No	: WG1960231-2	**Init. Calib. Times**	: 21:20	00:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	106	0
Dichlorodifluoromethane	0.265	0.232	-	12.5	20	84	0
Chloromethane	0.227	0.216	-	4.8	20	101	0
Vinyl chloride	0.235	0.237	-	-0.9	20	96	0
Bromomethane	0.125	0.081	-	35.2*	20	69	0
Chloroethane	0.18	0.19	-	-5.6	20	108	0
Trichlorofluoromethane	0.345	0.316	-	8.4	20	99	0
Ethyl ether	0.115	0.099	-	13.9	20	93	0
1,1-Dichloroethene	0.189	0.181	-	4.2	20	96	0
Carbon disulfide	0.556	0.556	-	0	20	103	0
Freon-113	0.208	0.201	-	3.4	20	99	0
Acrolein	0.033	0.026	-	21.2*	20	82	0
Methylene chloride	0.224	0.202	-	9.8	20	96	0
Acetone	10	7.333	-	26.7*	20	88	0
trans-1,2-Dichloroethene	0.207	0.192	-	7.2	20	93	0
Methyl acetate	0.115	0.092	-	20	20	87	0
Methyl tert-butyl ether	0.636	0.515	-	19	20	87	0
tert-Butyl alcohol	0.018	0.011	-	38.9*	20	68	0
Diisopropyl ether	0.65	0.658	-	-1.2	20	105	0
1,1-Dichloroethane	0.375	0.374	-	0.3	20	101	0
Halothane	0.172	0.163	-	5.2	20	96	0
Acrylonitrile	0.058	0.055	-	5.2	20	102	0
Ethyl tert-butyl ether	0.639	0.561	-	12.2	20	93	0
Vinyl acetate	0.347	0.439	-	-26.5*	20	126	0
cis-1,2-Dichloroethene	0.238	0.22	-	7.6	20	95	0
2,2-Dichloropropane	0.313	0.313	-	0	20	104	0
Bromochloromethane	0.116	0.109	-	6	20	96	0
Cyclohexane	0.356	0.358	-	-0.6	20	102	0
Chloroform	0.384	0.366	-	4.7	20	95	0
Ethyl acetate	0.17	0.146	-	14.1	20	95	0
Carbon tetrachloride	0.311	0.305	-	1.9	20	94	0
Tetrahydrofuran	0.056	0.05	-	10.7	20	91	0
Dibromofluoromethane	0.261	0.256	-	1.9	20	104	0
1,1,1-Trichloroethane	0.354	0.34	-	4	20	96	0
2-Butanone	0.073	0.069	-	5.5	20	101	0
1,1-Dichloropropene	0.283	0.274	-	3.2	20	98	0
Benzene	0.857	0.832	-	2.9	20	96	0
tert-Amyl methyl ether	0.585	0.448	-	23.4*	20	81	0
1,2-Dichloroethane-d4	0.277	0.301	-	-8.7	20	111	0
1,2-Dichloroethane	0.273	0.272	-	0.4	20	105	0
Methyl cyclohexane	0.333	0.308	-	7.5	20	90	0
Trichloroethene	0.242	0.223	-	7.9	20	95	0
Dibromomethane	0.135	0.121	-	10.4	20	93	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: GONZO	**Calibration Date**	: 08/16/24 06:49	
Lab File ID	: VG240816A01	**Init. Calib. Date(s)**	: 07/12/24	07/13/24
Sample No	: WG1960231-2	**Init. Calib. Times**	: 21:20	00:56
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.209	0.205	-	1.9	20	99	0
Bromodichloromethane	0.305	0.28*	-	8.2	20	95	0
1,4-Dioxane	0.00213	0.00148*	-	30.5*	20	77	0
cis-1,3-Dichloropropene	0.341	0.302	-	11.4	20	92	0
Chlorobenzene-d5	1	1	-	0	20	105	0
Toluene-d8	1.255	1.252	-	0.2	20	104	0
Toluene	0.695	0.664	-	4.5	20	95	0
4-Methyl-2-pentanone	0.077	0.06	-	22.1*	20	80	0
Tetrachloroethene	0.305	0.31	-	-1.6	20	100	0
trans-1,3-Dichloropropene	0.38	0.344	-	9.5	20	92	0
Ethyl methacrylate	0.32	0.247	-	22.8*	20	81	0
1,1,2-Trichloroethane	0.191	0.174*	-	8.9	20	94	0
Chlorodibromomethane	0.302	0.282	-	6.6	20	95	0
1,3-Dichloropropane	0.38	0.358	-	5.8	20	95	0
1,2-Dibromoethane	0.242	0.212	-	12.4	20	91	0
2-Hexanone	0.142	0.11	-	22.5*	20	86	0
Chlorobenzene	0.775	0.746	-	3.7	20	96	0
Ethylbenzene	1.327	1.248	-	6	20	93	0
1,1,1,2-Tetrachloroethane	0.288	0.27	-	6.2	20	94	0
p/m Xylene	0.525	0.493	-	6.1	20	93	0
o Xylene	0.508	0.478	-	5.9	20	93	0
Styrene	0.861	0.807	-	6.3	20	94	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	105	0
Bromoform	0.354	0.301	-	15	20	91	0
Isopropylbenzene	2.237	2.108	-	5.8	20	93	0
4-Bromofluorobenzene	0.835	0.765	-	8.4	20	99	0
Bromobenzene	0.619	0.587	-	5.2	20	96	0
n-Propylbenzene	2.606	2.483	-	4.7	20	95	0
1,4-Dichlorobutane	0.718	0.706	-	1.7	20	103	0
1,1,2,2-Tetrachloroethane	0.497	0.465	-	6.4	20	99	0
4-Ethyltoluene	2.179	2.075	-	4.8	20	94	0
2-Chlorotoluene	1.598	1.489	-	6.8	20	95	0
1,3,5-Trimethylbenzene	1.929	1.804	-	6.5	20	93	0
1,2,3-Trichloropropane	0.416	0.354	-	14.9	20	89	0
trans-1,4-Dichloro-2-buten	0.114	0.115	-	-0.9	20	116	0
4-Chlorotoluene	1.645	1.538	-	6.5	20	93	0
tert-Butylbenzene	1.559	1.46	-	6.4	20	91	0
1,2,4-Trimethylbenzene	1.9	1.775	-	6.6	20	92	0
sec-Butylbenzene	2.217	2.106	-	5	20	93	0
p-Isopropyltoluene	1.925	1.813	-	5.8	20	93	0
1,3-Dichlorobenzene	1.136	1.122	-	1.2	20	98	0
1,4-Dichlorobenzene	1.17	1.158	-	1	20	100	0
p-Diethylbenzene	1.106	1.043	-	5.7	20	92	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: GONZO	**Calibration Date**	: 08/16/24 06:49	
Lab File ID	: VG240816A01	**Init. Calib. Date(s)**	: 07/12/24	07/13/24
Sample No	: WG1960231-2	**Init. Calib. Times**	: 21:20	00:56
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.522	1.483	-	2.6	20	96	0
1,2-Dichlorobenzene	1.084	1.077	-	0.6	20	100	0
1,2,4,5-Tetramethylbenzene	1.655	1.4	-	15.4	20	87	0
1,2-Dibromo-3-chloropropan	0.092	0.072	-	21.7*	20	87	0
1,3,5-Trichlorobenzene	0.713	0.719	-	-0.8	20	102	0
Hexachlorobutadiene	0.2	0.219	-	-9.5	20	115	0
1,2,4-Trichlorobenzene	0.618	0.576	-	6.8	20	97	0
Naphthalene	1.387	0.961	-	30.7*	20	76	0
1,2,3-Trichlorobenzene	0.514	0.448	-	12.8	20	91	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 08/16/24 06:49	
Lab File ID	: VE240816A01	**Init. Calib. Date(s)**	: 07/31/24	07/31/24
Sample No	: WG1960272-2	**Init. Calib. Times**	: 18:35	22:22
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	90	0
Dichlorodifluoromethane	0.224	0.22	-	1.8	20	90	0
Chloromethane	0.25	0.266	-	-6.4	20	91	-.01
Vinyl chloride	0.233	0.255	-	-9.4	20	95	0
Bromomethane	10	15.169	-	-51.7*	20	166	0
Chloroethane	0.14	0.168	-	-20	20	99	0
Trichlorofluoromethane	0.267	0.322	-	-20.6*	20	114	0
Ethyl ether	0.105	0.108	-	-2.9	20	92	0
1,1-Dichloroethene	0.16	0.164	-	-2.5	20	96	0
Carbon disulfide	0.494	0.533	-	-7.9	20	96	0
Freon-113	0.167	0.185	-	-10.8	20	103	0
Acrolein	0.045	0.034	-	24.4*	20	69	-.01
Methylene chloride	0.202	0.204	-	-1	20	90	0
Acetone	0.073	0.05	-	31.5*	20	64	0
trans-1,2-Dichloroethene	0.172	0.194	-	-12.8	20	99	0
Methyl acetate	0.171	0.117	-	31.6*	20	64	-.01
Methyl tert-butyl ether	0.642	0.584	-	9	20	78	0
tert-Butyl alcohol	0.023	0.014	-	39.1*	20	53	0
Diisopropyl ether	0.92	0.88	-	4.3	20	82	-.01
1,1-Dichloroethane	0.404	0.44	-	-8.9	20	94	0
Halothane	0.139	0.146	-	-5	20	93	0
Acrylonitrile	0.084	0.068	-	19	20	69	0
Ethyl tert-butyl ether	0.798	0.75	-	6	20	81	0
Vinyl acetate	0.612	0.59	-	3.6	20	96	0
cis-1,2-Dichloroethene	0.206	0.226	-	-9.7	20	97	0
2,2-Dichloropropane	0.27	0.307	-	-13.7	20	103	0
Bromochloromethane	0.091	0.101	-	-11	20	96	-.01
Cyclohexane	0.473	0.501	-	-5.9	20	100	0
Chloroform	0.335	0.357	-	-6.6	20	93	0
Ethyl acetate	0.256	0.179	-	30.1*	20	62	0
Carbon tetrachloride	0.256	0.293	-	-14.5	20	102	-.01
Tetrahydrofuran	0.079	0.059	-	25.3*	20	66	0
Dibromofluoromethane	0.234	0.233	-	0.4	20	88	0
1,1,1-Trichloroethane	0.304	0.338	-	-11.2	20	99	-.01
2-Butanone	0.105	0.078	-	25.7*	20	67	-.02
1,1-Dichloropropene	0.256	0.294	-	-14.8	20	102	-.01
Benzene	0.792	0.881	-	-11.2	20	95	0
tert-Amyl methyl ether	0.598	0.536	-	10.4	20	78	-.01
1,2-Dichloroethane-d4	0.312	0.29	-	7.1	20	83	0
1,2-Dichloroethane	0.306	0.31	-	-1.3	20	88	0
Methyl cyclohexane	0.356	0.392	-	-10.1	20	106	0
Trichloroethene	0.199	0.223	-	-12.1	20	96	0
Dibromomethane	0.115	0.117	-	-1.7	20	89	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 08/16/24 06:49		
Lab File ID	: VE240816A01	**Init. Calib. Date(s)**	: 07/31/24	07/31/24	
Sample No	: WG1960272-2	**Init. Calib. Times**	: 18:35	22:22	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.239	0.247	-	-3.3	20	89	-.01
Bromodichloromethane	0.283	0.3	-	-6	20	92	0
1,4-Dioxane	0.00192	0.00153*	-	20.3*	20	71	-.01
cis-1,3-Dichloropropene	0.319	0.336	-	-5.3	20	89	0
Chlorobenzene-d5	1	1	-	0	20	92	0
Toluene-d8	1.317	1.324	-	-0.5	20	92	0
Toluene	0.689	0.77	-	-11.8	20	99	0
4-Methyl-2-pentanone	0.117	0.09	-	23.1*	20	66	-.01
Tetrachloroethene	0.293	0.36	-	-22.9*	20	109	-.01
trans-1,3-Dichloropropene	0.388	0.374	-	3.6	20	83	0
Ethyl methacrylate	0.369	0.308	-	16.5	20	73	0
1,1,2-Trichloroethane	0.193	0.195*	-	-1	20	88	-.01
Chlorodibromomethane	0.27	0.265	-	1.9	20	86	0
1,3-Dichloropropane	0.408	0.409	-	-0.2	20	87	-.01
1,2-Dibromoethane	0.228	0.218	-	4.4	20	84	0
2-Hexanone	0.229	0.153	-	33.2*	20	60	0
Chlorobenzene	0.734	0.816	-	-11.2	20	98	0
Ethylbenzene	1.335	1.522	-	-14	20	99	0
1,1,1,2-Tetrachloroethane	0.269	0.3	-	-11.5	20	96	-.01
p/m Xylene	0.509	0.586	-	-15.1	20	98	0
o Xylene	0.497	0.562	-	-13.1	20	97	0
Styrene	0.816	0.911	-	-11.6	20	94	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	96	0
Bromoform	0.325	0.295	-	9.2	20	86	0
Isopropylbenzene	2.395	2.535	-	-5.8	20	100	0
4-Bromofluorobenzene	0.924	0.812	-	12.1	20	84	0
Bromobenzene	0.605	0.622	-	-2.8	20	96	0
n-Propylbenzene	2.861	3.058	-	-6.9	20	100	0
1,4-Dichlorobutane	1.046	0.892	-	14.7	20	81	0
1,1,2,2-Tetrachloroethane	0.508	0.454	-	10.6	20	89	0
4-Ethyltoluene	2.321	2.459	-	-5.9	20	98	0
2-Chlorotoluene	1.683	1.753	-	-4.2	20	96	0
1,3,5-Trimethylbenzene	2.036	2.16	-	-6.1	20	97	0
1,2,3-Trichloropropane	0.415	0.361	-	13	20	81	0
trans-1,4-Dichloro-2-buten	0.204	0.159	-	22.1*	20	76	0
4-Chlorotoluene	1.763	1.823	-	-3.4	20	96	0
tert-Butylbenzene	1.712	1.784	-	-4.2	20	97	0
1,2,4-Trimethylbenzene	2.033	2.115	-	-4	20	96	0
sec-Butylbenzene	2.538	2.672	-	-5.3	20	100	0
p-Isopropyltoluene	2.139	2.25	-	-5.2	20	99	0
1,3-Dichlorobenzene	1.117	1.203	-	-7.7	20	99	0
1,4-Dichlorobenzene	1.116	1.179	-	-5.6	20	98	0
p-Diethylbenzene	1.261	1.285	-	-1.9	20	95	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 08/16/24 06:49	
Lab File ID	: VE240816A01	**Init. Calib. Date(s)**	: 07/31/24	07/31/24
Sample No	: WG1960272-2	**Init. Calib. Times**	: 18:35	22:22
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.842	1.942	-	-5.4	20	100	0
1,2-Dichlorobenzene	1.074	1.1	-	-2.4	20	95	0
1,2,4,5-Tetramethylbenzene	2.046	1.957	-	4.3	20	89	0
1,2-Dibromo-3-chloropropan	10	7.474	-	25.3*	20	74	-.01
1,3,5-Trichlorobenzene	0.853	0.865	-	-1.4	20	94	0
Hexachlorobutadiene	0.283	0.297	-	-4.9	20	101	0
1,2,4-Trichlorobenzene	0.77	0.713	-	7.4	20	87	0
Naphthalene	1.697	1.306	-	23*	20	74	0
1,2,3-Trichlorobenzene	0.707	0.611	-	13.6	20	82	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-2
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	90	0.00
2	TP	Dichlorodifluoromethane	0.224	0.220	1.8	90	0.00
3	TP	Chloromethane	0.250	0.266	-6.4	91	-0.01
4	TP	Vinyl chloride	0.233	0.255	-9.4	95	0.00
5	TP	Bromomethane	* 10.000	15.169	-51.7#	166	0.00
6	TP	Chloroethane	0.140	0.168	-20.0	99	0.00
7	TP	Trichlorofluoromethane	0.267	0.322	-20.6#	114	0.00
8	TP	Ethyl ether	0.105	0.108	-2.9	92	0.00
10	TP	1,1-Dichloroethene	0.160	0.164	-2.5	96	0.00
11	TP	Carbon disulfide	0.494	0.533	-7.9	96	0.00
12	TP	Freon-113	0.167	0.185	-10.8	103	0.00
14	TP	Acrolein	0.045	0.034	24.4#	69	-0.01
15	TP	Methylene chloride	0.202	0.204	-1.0	90	0.00
17	TP	Acetone	0.073	0.050	31.5#	64	0.00
18	TP	trans-1,2-Dichloroethene	0.172	0.194	-12.8	99	0.00
19	TP	Methyl acetate	0.171	0.117	31.6#	64	-0.01
21	TP	Methyl tert-butyl ether	0.642	0.584	9.0	78	0.00
22	TP	tert-Butyl alcohol	0.023	0.014	39.1#	53	0.00
24	TP	Diisopropyl ether	0.920	0.880	4.3	82	-0.01
25	TP	1,1-Dichloroethane	0.404	0.440	-8.9	94	0.00
26	TP	Halothane	0.139	0.146	-5.0	93	0.00
27	TP	Acrylonitrile	0.084	0.068	19.0	69	0.00
28	TP	Ethyl tert-butyl ether	0.798	0.750	6.0	81	0.00
29	TP	Vinyl acetate	0.612	0.590	3.6	96	0.00
30	TP	cis-1,2-Dichloroethene	0.206	0.226	-9.7	97	0.00
31	TP	2,2-Dichloropropane	0.270	0.307	-13.7	103	0.00
33	TP	Bromochloromethane	0.091	0.101	-11.0	96	-0.01
34	TP	Cyclohexane	0.473	0.501	-5.9	100	0.00
35	TP	Chloroform	0.335	0.357	-6.6	93	0.00
36	TP	Ethyl acetate	0.256	0.179	30.1#	62	0.00
37	TP	Carbon tetrachloride	0.256	0.293	-14.5	102	-0.01
38	TP	Tetrahydrofuran	0.079	0.059	25.3#	66	0.00
39	S	Dibromofluoromethane	0.234	0.233	0.4	88	0.00
40	TP	1,1,1-Trichloroethane	0.304	0.338	-11.2	99	-0.01
42	TP	2-Butanone	0.105	0.078	25.7#	67	-0.02
43	TP	1,1-Dichloropropene	0.256	0.294	-14.8	102	-0.01
45	TP	Benzene	0.792	0.881	-11.2	95	0.00
46	TP	tert-Amyl methyl ether	0.598	0.536	10.4	78	-0.01
47	S	1,2-Dichloroethane-d4	0.312	0.290	7.1	83	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-2
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	T	1,2-Dichloroethane	0.306	0.310	-1.3	88	0.00
51	TP	Methyl cyclohexane	0.356	0.392	-10.1	106	0.00
52	TP	Trichloroethene	0.199	0.223	-12.1	96	0.00
54	TP	Dibromomethane	0.115	0.117	-1.7	89	0.00
55	TP	1,2-Dichloropropane	0.239	0.247	-3.3	89	-0.01
58	TP	Bromodichloromethane	0.283	0.300	-6.0	92	0.00
61	TP	1,4-Dioxane	0.00192	0.00153#	20.3#	71	-0.01
62	TP	cis-1,3-Dichloropropene	0.319	0.336	-5.3	89	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
64	S	Toluene-d8	1.317	1.324	-0.5	92	0.00
65	TP	Toluene	0.689	0.770	-11.8	99	0.00
66	TP	4-Methyl-2-pentanone	0.117	0.090	23.1#	66	-0.01
67	TP	Tetrachloroethene	0.293	0.360	-22.9#	109	-0.01
69	TP	trans-1,3-Dichloropropene	0.388	0.374	3.6	83	0.00
71	TP	Ethyl methacrylate	0.369	0.308	16.5	73	0.00
72	TP	1,1,2-Trichloroethane	0.193	0.195#	-1.0	88	-0.01
73	TP	Chlorodibromomethane	0.270	0.265	1.9	86	0.00
74	TP	1,3-Dichloropropane	0.408	0.409	-0.2	87	-0.01
75	TP	1,2-Dibromoethane	0.228	0.218	4.4	84	0.00
77	TP	2-Hexanone	0.229	0.153	33.2#	60	0.00
78	TP	Chlorobenzene	0.734	0.816	-11.2	98	0.00
79	TP	Ethylbenzene	1.335	1.522	-14.0	99	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.269	0.300	-11.5	96	-0.01
81	TP	p/m Xylene	0.509	0.586	-15.1	98	0.00
82	TP	o Xylene	0.497	0.562	-13.1	97	0.00
83	TP	Styrene	0.816	0.911	-11.6	94	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
85	TP	Bromoform	0.325	0.295	9.2	86	0.00
87	TP	Isopropylbenzene	2.395	2.535	-5.8	100	0.00
88	S	4-Bromofluorobenzene	0.924	0.812	12.1	84	0.00
89	TP	Bromobenzene	0.605	0.622	-2.8	96	0.00
90	TP	n-Propylbenzene	2.861	3.058	-6.9	100	0.00
91	TP	1,4-Dichlorobutane	1.046	0.892	14.7	81	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.508	0.454	10.6	89	0.00
93	TP	4-Ethyltoluene	2.321	2.459	-5.9	98	0.00
94	TP	2-Chlorotoluene	1.683	1.753	-4.2	96	0.00
95	TP	1,3,5-Trimethylbenzene	2.036	2.160	-6.1	97	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-2
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 TP	1,2,3-Trichloropropane	0.415	0.361	13.0	81	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.204	0.159	22.1#	76	0.00
98 TP	4-Chlorotoluene	1.763	1.823	-3.4	96	0.00
99 TP	tert-Butylbenzene	1.712	1.784	-4.2	97	0.00
102 TP	1,2,4-Trimethylbenzene	2.033	2.115	-4.0	96	0.00
103 TP	sec-Butylbenzene	2.538	2.672	-5.3	100	0.00
104 TP	p-Isopropyltoluene	2.139	2.250	-5.2	99	0.00
105 TP	1,3-Dichlorobenzene	1.117	1.203	-7.7	99	0.00
106 TP	1,4-Dichlorobenzene	1.116	1.179	-5.6	98	0.00
107 TP	p-Diethylbenzene	1.261	1.285	-1.9	95	0.00
108 TP	n-Butylbenzene	1.842	1.942	-5.4	100	0.00
109 TP	1,2-Dichlorobenzene	1.074	1.100	-2.4	95	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.046	1.957	4.3	89	0.00
111 TP	1,2-Dibromo-3-chloropropane *	10.000	7.474	25.3#	74	-0.01
112 TP	1,3,5-Trichlorobenzene	0.853	0.865	-1.4	94	0.00
113 TP	Hexachlorobutadiene	0.283	0.297	-4.9	101	0.00
114 TP	1,2,4-Trichlorobenzene	0.770	0.713	7.4	87	0.00
115 TP	Naphthalene	1.697	1.306	23.0#	74	0.00
116 TP	1,2,3-Trichlorobenzene	0.707	0.611	13.6	82	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 2 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-2
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	5.959	96	184749	10.000	ug/L		0.00
63) Chlorobenzene-d5	9.492	117	135681	10.000	ug/L		0.00
84) 1,4-Dichlorobenzene-d4	12.205	152	81388	10.000	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	5.147	113	43059	9.956	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.56%				
47) 1,2-Dichloroethane-d4	5.674	65	53614	9.290	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.90%				
64) Toluene-d8	7.649	98	179608	10.050	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.50%				
88) 4-Bromofluorobenzene	10.992	95	66071	8.788	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.88%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.592	85	40729	9.833	ug/L		98
3) Chloromethane	1.778	50	49185	10.665	ug/L		98
4) Vinyl chloride	1.854	62	47085	10.955	ug/L		95
5) Bromomethane	2.161	94	19849	15.169	ug/L		95
6) Chloroethane	2.278	64	31039	11.962	ug/L		97
7) Trichlorofluoromethane	2.414	101	59431	12.033	ug/L		94
8) Ethyl ether	2.713	74	20002	10.285	ug/L	#	77
10) 1,1-Dichloroethene	2.900	96	30360	10.261	ug/L	#	74
11) Carbon disulfide	2.927	76	98389	10.777	ug/L		98
12) Freon-113	2.939	101	34254	11.109	ug/L		90
14) Acrolein	3.215	56	6208	7.429	ug/L	#	81
15) Methylene chloride	3.454	84	37654	10.089	ug/L		87
17) Acetone	3.496	43	9205	6.791	ug/L		93
18) trans-1,2-Dichloroethene	3.602	96	35888	11.284	ug/L		84
19) Methyl acetate	3.611	43	21584	6.831	ug/L		96
21) Methyl tert-butyl ether	3.703	73	107840	9.093	ug/L		95
22) tert-Butyl alcohol	3.797	59	12689M1	29.986	ug/L		
24) Diisopropyl ether	4.060	45	162523	9.566	ug/L		95
25) 1,1-Dichloroethane	4.188	63	81381	10.903	ug/L		97
26) Halothane	4.244	117	26882	10.480	ug/L		90
27) Acrylonitrile	4.232	53	12473	8.008	ug/L	#	83
28) Ethyl tert-butyl ether	4.411	59	138616	9.402	ug/L		90
29) Vinyl acetate	4.422	43	109055	9.645	ug/L	#	95
30) cis-1,2-Dichloroethene	4.707	96	41829	10.972	ug/L		98
31) 2,2-Dichloropropane	4.813	77	56667	11.344	ug/L		88

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-2
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) Bromochloromethane	4.896	128	18714	11.191	ug/L		90
34) Cyclohexane	4.899	56	92627	10.604	ug/L		95
35) Chloroform	4.971	83	65968	10.661	ug/L		98
36) Ethyl acetate	5.080	43	32982	6.980	ug/L	#	84
37) Carbon tetrachloride	5.103	117	54120	11.451	ug/L		93
38) Tetrahydrofuran	5.122	42	10901	7.432	ug/L		91
40) 1,1,1-Trichloroethane	5.169	97	62517	11.125	ug/L		95
42) 2-Butanone	5.259	43	14377	7.423	ug/L	#	80
43) 1,1-Dichloropropene	5.289	75	54239	11.465	ug/L		97
45) Benzene	5.538	78	162716	11.118	ug/L		93
46) tert-Amyl methyl ether	5.652	73	99087	8.972	ug/L		99
48) 1,2-Dichloroethane	5.747	62	57246	10.135	ug/L		99
51) Methyl cyclohexane	6.123	83	72449	11.015	ug/L		91
52) Trichloroethene	6.134	95	41239	11.208	ug/L		96
54) Dibromomethane	6.572	93	21673	10.226	ug/L	#	83
55) 1,2-Dichloropropane	6.675	63	45622	10.327	ug/L		97
58) Bromodichloromethane	6.751	83	55497	10.601	ug/L	#	93
61) 1,4-Dioxane	6.957	88	14170M1	399.657	ug/L		
62) cis-1,3-Dichloropropene	7.442	75	62076	10.531	ug/L		95
65) Toluene	7.704	92	104438	11.179	ug/L		94
66) 4-Methyl-2-pentanone	8.137	58	12158	7.630	ug/L	#	87
67) Tetrachloroethene	8.151	166	48864	12.312	ug/L		95
69) trans-1,3-Dichloropropene	8.187	75	50750	9.648	ug/L		98
71) Ethyl methacrylate	8.382	69	41856	8.359	ug/L	#	67
72) 1,1,2-Trichloroethane	8.374	83	26437	10.078	ug/L		96
73) Chlorodibromomethane	8.586	129	35956	9.803	ug/L		99
74) 1,3-Dichloropropane	8.694	76	55552	10.031	ug/L		96
75) 1,2-Dibromoethane	8.862	107	29593	9.546	ug/L		89
77) 2-Hexanone	9.143	43	20813	6.703	ug/L	#	93
78) Chlorobenzene	9.511	112	110773	11.128	ug/L	#	82
79) Ethylbenzene	9.548	91	206510	11.405	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.589	131	40736	11.162	ug/L		97
81) p/m Xylene	9.740	106	158906	23.022	ug/L		99
82) o Xylene	10.278	106	152403	22.579	ug/L		92
83) Styrene	10.345	104	247315	22.348	ug/L		99
85) Bromoform	10.370	173	24046	9.080	ug/L		94
87) Isopropylbenzene	10.666	105	206349	10.588	ug/L		96
89) Bromobenzene	11.101	156	50662	10.296	ug/L		98
90) n-Propylbenzene	11.146	91	248871	10.687	ug/L		96
91) 1,4-Dichlorobutane	11.162	55	72637	8.534	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.235	83	36924	8.929	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-2
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	4-Ethyltoluene	11.274	105	200115	10.593	ug/L		98
94)	2-Chlorotoluene	11.313	91	142671M1	10.414	ug/L		
95)	1,3,5-Trimethylbenzene	11.371	105	175818	10.609	ug/L		100
96)	1,2,3-Trichloropropane	11.374	75	29403	8.715	ug/L		93
97)	trans-1,4-Dichloro-2-b...	11.430	53	12981	7.830	ug/L		92
98)	4-Chlorotoluene	11.500	91	148347	10.337	ug/L		98
99)	tert-Butylbenzene	11.714	119	145179	10.422	ug/L	#	97
102)	1,2,4-Trimethylbenzene	11.792	105	172121	10.405	ug/L		94
103)	sec-Butylbenzene	11.904	105	217480	10.528	ug/L		98
104)	p-Isopropyltoluene	12.057	119	183122	10.520	ug/L		96
105)	1,3-Dichlorobenzene	12.124	146	97898	10.773	ug/L		96
106)	1,4-Dichlorobenzene	12.216	146	95941	10.562	ug/L		100
107)	p-Diethylbenzene	12.434	119	104597	10.190	ug/L		97
108)	n-Butylbenzene	12.490	91	158035	10.542	ug/L		97
109)	1,2-Dichlorobenzene	12.640	146	89552	10.243	ug/L		98
110)	1,2,4,5-Tetramethylben...	13.229	119	159301	9.564	ug/L		94
111)	1,2-Dibromo-3-chloropr...	13.418	155	5758M1	7.474	ug/L		
112)	1,3,5-Trichlorobenzene	13.454	180	70429	10.146	ug/L		94
113)	Hexachlorobutadiene	14.029	225	24183	10.512	ug/L		91
114)	1,2,4-Trichlorobenzene	14.051	180	58063	9.265	ug/L		98
115)	Naphthalene	14.344	128	106333	7.698	ug/L		100
116)	1,2,3-Trichlorobenzene	14.514	180	49712	8.634	ug/L		94

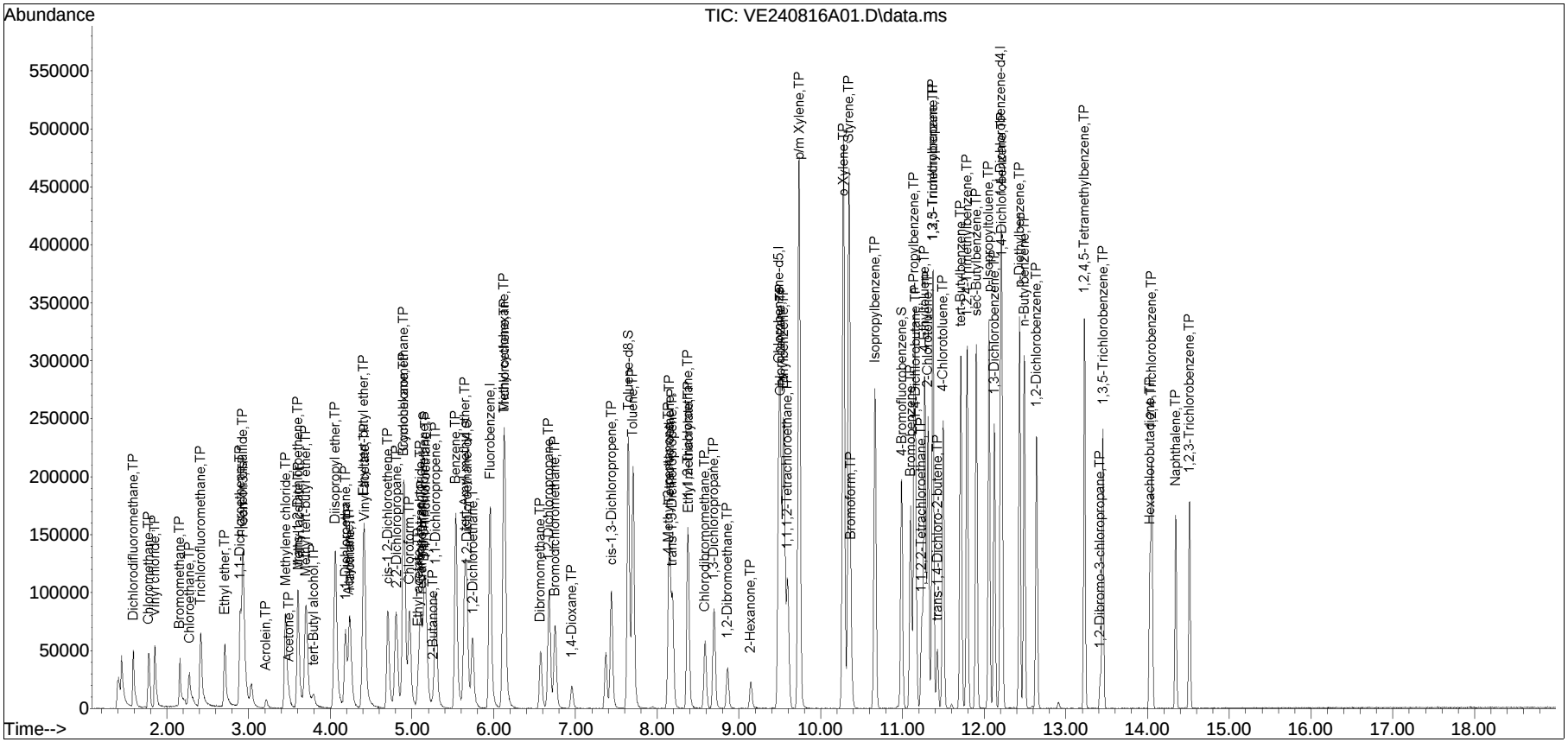
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-2
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

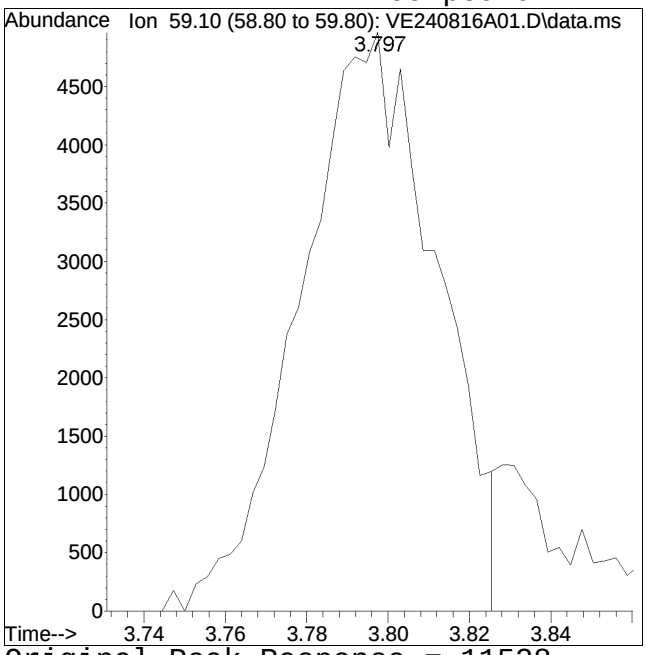
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

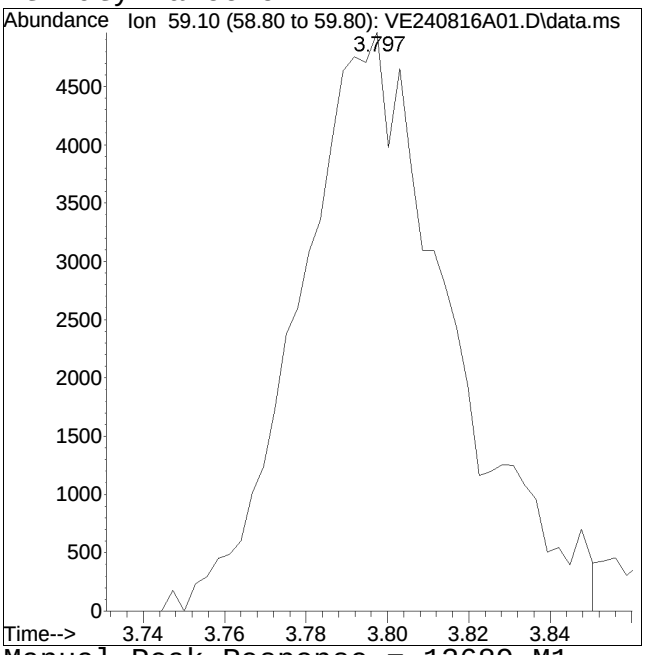


Manual Integration Report

Data Path	: K:\Elaine\2024\240816A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240816A01.D	Operator	: ELAINE:PID
Date Inj'd	: 8/16/2024 6:49 am	Instrument	: Elaine
Sample	: WG1960272-2	Quant Date	: 8/16/2024 7:18 am

Compound #22: tert-Butyl alcohol





Original Peak Response = 11528 Manual Peak Response = 12689 M1

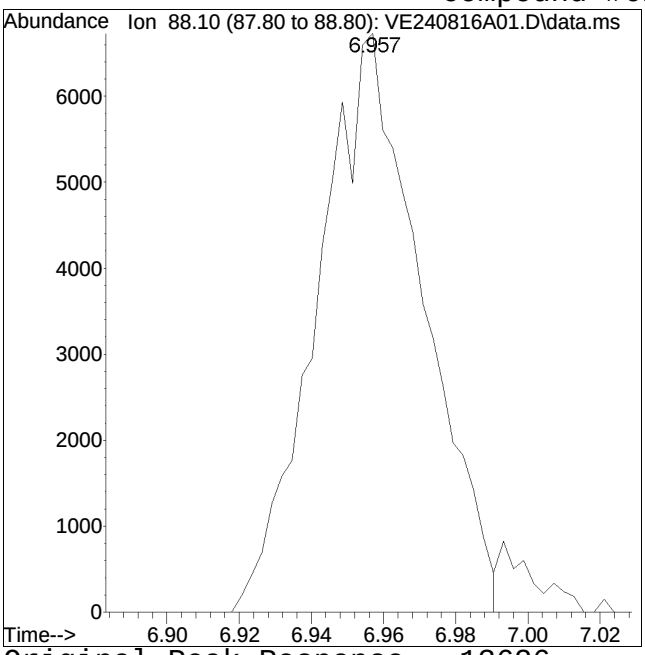
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

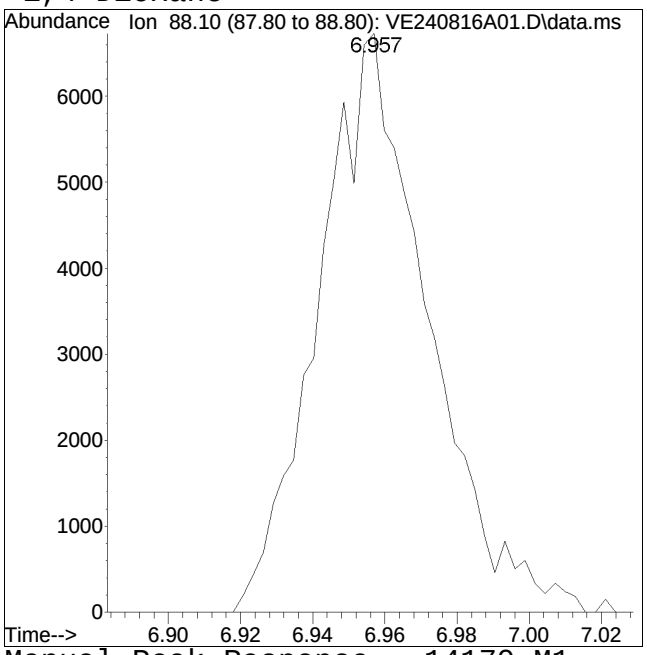
Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960272-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/16/2024 7:18 am

Compound #61: 1,4-Dioxane



Original Peak Response = 13626



Manual Peak Response = 14170 M1

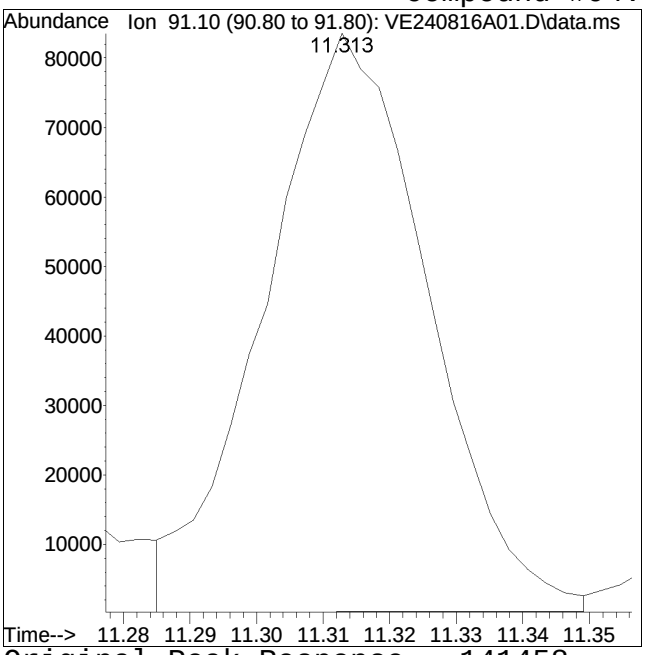
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

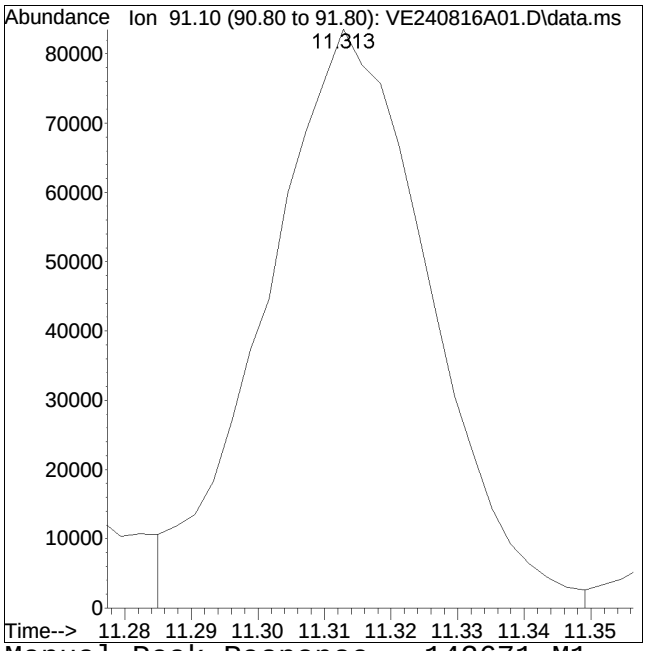
Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960272-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/16/2024 7:18 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 141458



Manual Peak Response = 142671 M1

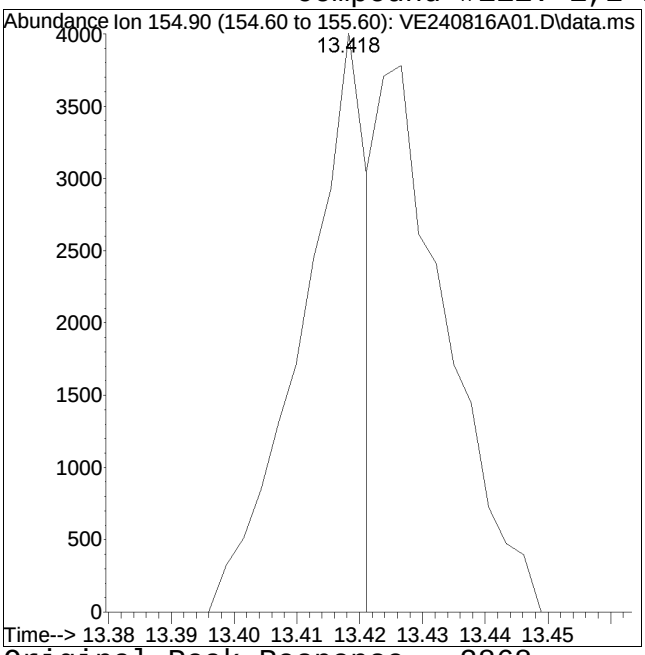
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

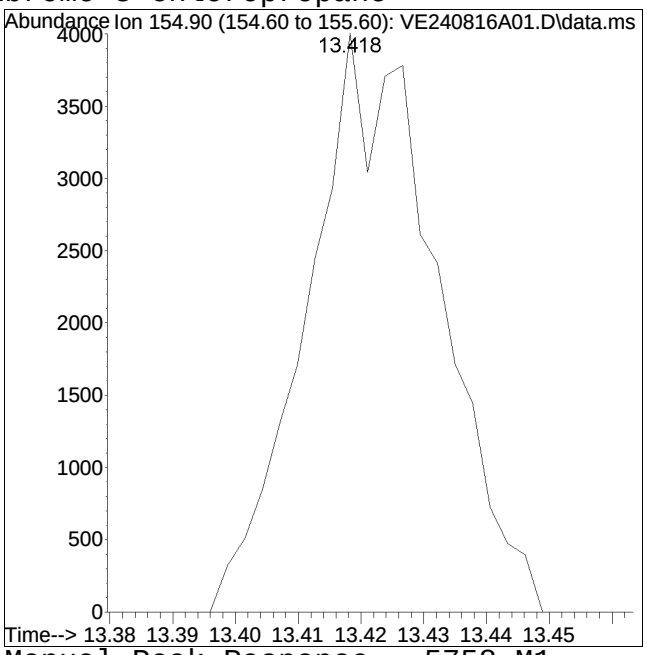
Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960272-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/16/2024 7:18 am

Compound #111: 1,2-Dibromo-3-chloropropane



Original Peak Response = 2868



Manual Peak Response = 5758 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	106	0.00
2	TP	Dichlorodifluoromethane	0.265	0.232	12.5	84	0.00
3	TP	Chloromethane	0.227	0.216	4.8	101	0.00
4	TP	Vinyl chloride	0.235	0.237	-0.9	96	0.00
5	TP	Bromomethane	0.125	0.081	35.2#	69	0.00
6	TP	Chloroethane	0.180	0.190	-5.6	108	0.00
7	TP	Trichlorofluoromethane	0.345	0.316	8.4	99	0.00
8	TP	Ethyl ether	0.115	0.099	13.9	93	0.00
10	TP	1,1-Dichloroethene	0.189	0.181	4.2	96	0.00
11	TP	Carbon disulfide	0.556	0.556	0.0	103	0.00
12	TP	Freon-113	0.208	0.201	3.4	99	0.00
14	TP	Acrolein	0.033	0.026	21.2#	82	0.00
15	TP	Methylene chloride	0.224	0.202	9.8	96	0.00
17	TP	Acetone	* 10.000	7.333	26.7#	88	0.00
18	TP	trans-1,2-Dichloroethene	0.207	0.192	7.2	93	0.00
19	TP	Methyl acetate	0.115	0.092	20.0#	87	0.00
20	TP	Methyl tert-butyl ether	0.636	0.515	19.0	87	0.00
21	TP	tert-Butyl alcohol	0.018	0.011	38.9#	68	0.00
22	TP	Diisopropyl ether	0.650	0.658	-1.2	105	0.00
23	TP	1,1-Dichloroethane	0.375	0.374	0.3	101	0.00
24	TP	Halothane	0.172	0.163	5.2	96	0.00
25	TP	Acrylonitrile	0.058	0.055	5.2	102	0.00
26	TP	Ethyl tert-butyl ether	0.639	0.561	12.2	93	0.00
27	TP	Vinyl acetate	0.347	0.439	-26.5#	126	0.00
28	TP	cis-1,2-Dichloroethene	0.238	0.220	7.6	95	0.00
29	TP	2,2-Dichloropropane	0.313	0.313	0.0	104	0.00
30	TP	Bromochloromethane	0.116	0.109	6.0	96	0.00
31	TP	Cyclohexane	0.356	0.358	-0.6	102	0.00
32	TP	Chloroform	0.384	0.366	4.7	95	0.00
33	TP	Ethyl acetate	0.170	0.146	14.1	95	0.00
34	TP	Carbon tetrachloride	0.311	0.305	1.9	94	0.00
35	TP	Tetrahydrofuran	0.056	0.050	10.7	91	0.00
36	S	Dibromofluoromethane	0.261	0.256	1.9	104	0.00
37	TP	1,1,1-Trichloroethane	0.354	0.340	4.0	96	0.00
39	TP	2-Butanone	0.073	0.069	5.5	101	0.00
40	TP	1,1-Dichloropropene	0.283	0.274	3.2	98	0.00
41	TP	Benzene	0.857	0.832	2.9	96	0.00
42	TP	tert-Amyl methyl ether	0.585	0.448	23.4#	81	0.00
43	S	1,2-Dichloroethane-d4	0.277	0.301	-8.7	111	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
44	TP	1,2-Dichloroethane	0.273	0.272	0.4	105	0.00
47	TP	Methyl cyclohexane	0.333	0.308	7.5	90	0.00
48	TP	Trichloroethene	0.242	0.223	7.9	95	0.00
50	TP	Dibromomethane	0.135	0.121	10.4	93	0.00
51	TP	1,2-Dichloropropane	0.209	0.205	1.9	99	0.00
54	TP	Bromodichloromethane	0.305	0.280#	8.2	95	0.00
57	TP	1,4-Dioxane	0.00213	0.00148#	30.5#	77	0.00
58	TP	cis-1,3-Dichloropropene	0.341	0.302	11.4	92	0.00
59	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00
60	S	Toluene-d8	1.255	1.252	0.2	104	0.00
61	TP	Toluene	0.695	0.664	4.5	95	0.00
62	TP	4-Methyl-2-pentanone	0.077	0.060	22.1#	80	0.00
63	TP	Tetrachloroethene	0.305	0.310	-1.6	100	0.00
65	TP	trans-1,3-Dichloropropene	0.380	0.344	9.5	92	0.00
67	TP	Ethyl methacrylate	0.320	0.247	22.8#	81	0.00
68	TP	1,1,2-Trichloroethane	0.191	0.174#	8.9	94	0.00
69	TP	Chlorodibromomethane	0.302	0.282	6.6	95	0.00
70	TP	1,3-Dichloropropane	0.380	0.358	5.8	95	0.00
71	TP	1,2-Dibromoethane	0.242	0.212	12.4	91	0.00
72	TP	2-Hexanone	0.142	0.110	22.5#	86	0.00
73	TP	Chlorobenzene	0.775	0.746	3.7	96	0.00
74	TP	Ethylbenzene	1.327	1.248	6.0	93	0.00
75	TP	1,1,1,2-Tetrachloroethane	0.288	0.270	6.2	94	0.00
76	TP	p/m Xylene	0.525	0.493	6.1	93	0.00
77	TP	o Xylene	0.508	0.478	5.9	93	0.00
78	TP	Styrene	0.861	0.807	6.3	94	0.00
79	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00
80	TP	Bromoform	0.354	0.301	15.0	91	0.00
82	TP	Isopropylbenzene	2.237	2.108	5.8	93	0.00
83	S	4-Bromofluorobenzene	0.835	0.765	8.4	99	0.00
84	TP	Bromobenzene	0.619	0.587	5.2	96	0.00
85	TP	n-Propylbenzene	2.606	2.483	4.7	95	0.00
86	TP	1,4-Dichlorobutane	0.718	0.706	1.7	103	0.00
87	TP	1,1,2,2-Tetrachloroethane	0.497	0.465	6.4	99	0.00
88	TP	4-Ethyltoluene	2.179	2.075	4.8	94	0.00
89	TP	2-Chlorotoluene	1.598	1.489	6.8	95	0.00
90	TP	1,3,5-Trimethylbenzene	1.929	1.804	6.5	93	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
91 TP	1,2,3-Trichloropropane	0.416	0.354	14.9	89	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.114	0.115	-0.9	116	0.00
93 TP	4-Chlorotoluene	1.645	1.538	6.5	93	0.00
94 TP	tert-Butylbenzene	1.559	1.460	6.4	91	0.00
97 TP	1,2,4-Trimethylbenzene	1.900	1.775	6.6	92	0.00
98 TP	sec-Butylbenzene	2.217	2.106	5.0	93	0.00
99 TP	p-Isopropyltoluene	1.925	1.813	5.8	93	0.00
100 TP	1,3-Dichlorobenzene	1.136	1.122	1.2	98	0.00
101 TP	1,4-Dichlorobenzene	1.170	1.158	1.0	100	0.00
102 TP	p-Diethylbenzene	1.106	1.043	5.7	92	0.00
103 TP	n-Butylbenzene	1.522	1.483	2.6	96	0.00
104 TP	1,2-Dichlorobenzene	1.084	1.077	0.6	100	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.655	1.400	15.4	87	0.00
106 TP	1,2-Dibromo-3-chloropropane	0.092	0.072	21.7#	87	0.00
107 TP	1,3,5-Trichlorobenzene	0.713	0.719	-0.8	102	0.00
108 TP	Hexachlorobutadiene	0.200	0.219	-9.5	115	0.00
109 TP	1,2,4-Trichlorobenzene	0.618	0.576	6.8	97	0.00
110 TP	Naphthalene	1.387	0.961	30.7#	76	0.00
111 TP	1,2,3-Trichlorobenzene	0.514	0.448	12.8	91	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 3 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	376279	10.000	ug/L	0.00
59) Chlorobenzene-d5	9.629	117	290800	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	12.310	152	167416	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	96276	9.796	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.96%			
43) 1,2-Dichloroethane-d4	5.805	65	113301	10.852	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.52%			
60) Toluene-d8	7.779	98	363970	9.970	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.70%			
83) 4-Bromofluorobenzene	11.109	95	128077	9.160	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.680	85	87483	8.757	ug/L	97
3) Chloromethane	1.885	50	81412	9.527	ug/L	99
4) Vinyl chloride	1.946	62	89148	10.070	ug/L	99
5) Bromomethane	2.265	94	30453	6.497	ug/L	97
6) Chloroethane	2.371	64	71617	10.581	ug/L	94
7) Trichlorofluoromethane	2.515	101	118898	9.160	ug/L	93
8) Ethyl ether	2.819	74	37436	8.687	ug/L #	86
10) 1,1-Dichloroethene	3.017	96	68255	9.589	ug/L	89
11) Carbon disulfide	3.047	76	209043	9.986	ug/L	98
12) Freon-113	3.055	101	75787	9.704	ug/L	81
14) Acrolein	3.343	56	9912	8.098	ug/L	96
15) Methylene chloride	3.579	84	75994	9.030	ug/L	82
17) Acetone	3.632	43	14935	7.333	ug/L	99
18) trans-1,2-Dichloroethene	3.731	96	72276	9.283	ug/L	93
19) Methyl acetate	3.739	43	34437	7.956	ug/L #	93
20) Methyl tert-butyl ether	3.814	73	193706	8.091	ug/L	90
21) tert-Butyl alcohol	3.906	59	20783	31.287	ug/L #	80
22) Diisopropyl ether	4.172	45	247686	10.129	ug/L	94
23) 1,1-Dichloroethane	4.316	63	140582	9.968	ug/L	99
24) Halothane	4.362	117	61154	9.456	ug/L	99
25) Acrylonitrile	4.369	53	20828	9.470	ug/L	95
26) Ethyl tert-butyl ether	4.521	59	210965	8.770	ug/L	86
27) Vinyl acetate	4.544	43	165172	12.638	ug/L	100
28) cis-1,2-Dichloroethene	4.833	96	82766	9.245	ug/L	94
29) 2,2-Dichloropropane	4.931	77	117658	10.006	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Bromochloromethane	5.030	128	41121	9.388	ug/L		88
31) Cyclohexane	5.022	56	134891	10.083	ug/L		79
32) Chloroform	5.098	83	137601	9.531	ug/L		96
33) Ethyl acetate	5.205	43	54761	8.567	ug/L		99
34) Carbon tetrachloride	5.228	117	114648	9.798	ug/L		98
35) Tetrahydrofuran	5.250	42	18969M6	9.061	ug/L		
37) 1,1,1-Trichloroethane	5.296	97	127762	9.595	ug/L		96
39) 2-Butanone	5.402	43	25911	9.494	ug/L	#	80
40) 1,1-Dichloropropene	5.418	75	103015	9.677	ug/L		99
41) Benzene	5.668	78	312966	9.709	ug/L		96
42) tert-Amyl methyl ether	5.767	73	168489	7.654	ug/L	#	89
44) 1,2-Dichloroethane	5.873	62	102295	9.957	ug/L		96
47) Methyl cyclohexane	6.246	83	116026	9.262	ug/L	#	81
48) Trichloroethene	6.261	95	83825	9.222	ug/L		98
50) Dibromomethane	6.709	93	45657	8.979	ug/L		99
51) 1,2-Dichloropropane	6.808	63	77089	9.801	ug/L		98
54) Bromodichloromethane	6.884	83	105450	9.184	ug/L		100
57) 1,4-Dioxane	7.091	88	27797	347.430	ug/L		89
58) cis-1,3-Dichloropropene	7.571	75	113697	8.854	ug/L		91
61) Toluene	7.836	92	193060	9.553	ug/L		95
62) 4-Methyl-2-pentanone	8.280	58	17405	7.811	ug/L		84
63) Tetrachloroethene	8.280	166	90009	10.146	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	100055	9.043	ug/L		99
67) Ethyl methacrylate	8.510	69	71827	7.721	ug/L		94
68) 1,1,2-Trichloroethane	8.517	83	50566	9.118	ug/L		97
69) Chlorodibromomethane	8.724	129	81937	9.345	ug/L		97
70) 1,3-Dichloropropane	8.832	76	103997	9.409	ug/L		98
71) 1,2-Dibromoethane	9.004	107	61741	8.777	ug/L		100
72) 2-Hexanone	9.283	43	31986	7.740	ug/L		89
73) Chlorobenzene	9.645	112	216811	9.626	ug/L		99
74) Ethylbenzene	9.678	91	362774	9.401	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.727	131	78490	9.364	ug/L		99
76) p/m Xylene	9.867	106	286545	18.782	ug/L		98
77) o Xylene	10.402	106	278199	18.824	ug/L		98
78) Styrene	10.476	104	469459	18.745	ug/L		100
80) Bromoform	10.509	173	50422	8.501	ug/L		100
82) Isopropylbenzene	10.780	105	352863	9.421	ug/L		99
84) Bromobenzene	11.225	156	98341	9.497	ug/L		99
85) n-Propylbenzene	11.258	91	415629	9.526	ug/L		100
86) 1,4-Dichlorobutane	11.282	55	118246	9.842	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.356	83	77911	9.360	ug/L		98

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
88) 4-Ethyltoluene	11.381	105	347443	9.526	ug/L		100
89) 2-Chlorotoluene	11.430	91	249280M4	9.316	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	302049	9.355	ug/L		100
91) 1,2,3-Trichloropropane	11.496	75	59254M1	8.512	ug/L		
92) trans-1,4-Dichloro-2-b...	11.545	53	19214	10.067	ug/L	#	90
93) 4-Chlorotoluene	11.611	91	257564	9.350	ug/L		98
94) tert-Butylbenzene	11.817	119	244372	9.365	ug/L		99
97) 1,2,4-Trimethylbenzene	11.899	105	297200	9.343	ug/L		99
98) sec-Butylbenzene	12.006	105	352498	9.496	ug/L		100
99) p-Isopropyltoluene	12.162	119	303599	9.422	ug/L		98
100) 1,3-Dichlorobenzene	12.236	146	187783	9.871	ug/L		98
101) 1,4-Dichlorobenzene	12.327	146	193785	9.890	ug/L		99
102) p-Diethylbenzene	12.533	119	174644	9.436	ug/L		98
103) n-Butylbenzene	12.590	91	248313	9.745	ug/L		98
104) 1,2-Dichlorobenzene	12.746	146	180378	9.940	ug/L		97
105) 1,2,4,5-Tetramethylben...	13.322	119	234465	8.463	ug/L		97
106) 1,2-Dibromo-3-chloropr...	13.528	155	11999	7.772	ug/L		98
107) 1,3,5-Trichlorobenzene	13.553	180	120290	10.070	ug/L		98
108) Hexachlorobutadiene	14.120	225	36584	10.932	ug/L		96
109) 1,2,4-Trichlorobenzene	14.153	180	96422	9.322	ug/L		99
110) Naphthalene	14.449	128	160930	6.931	ug/L		100
111) 1,2,3-Trichlorobenzene	14.614	180	74999	8.720	ug/L		98

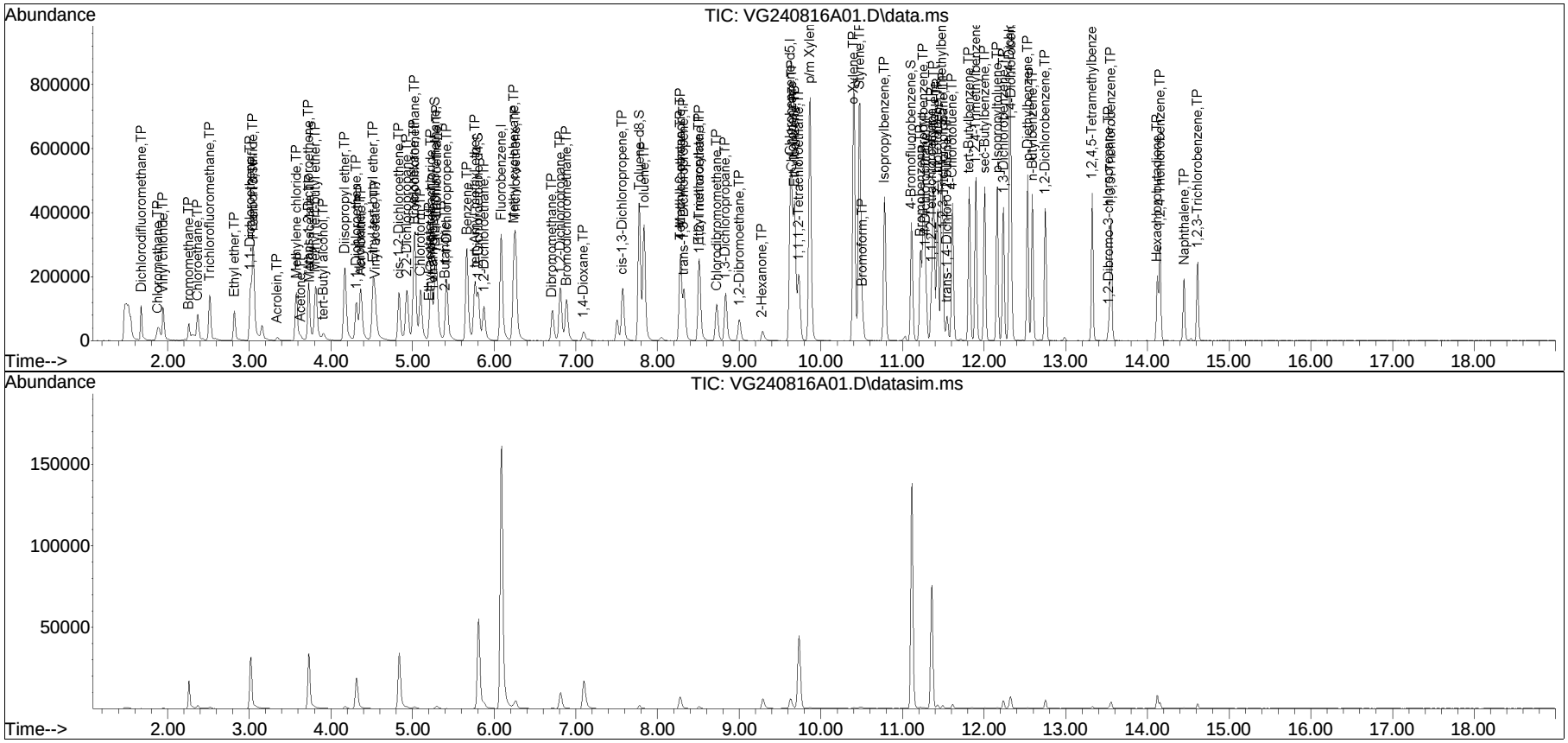
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

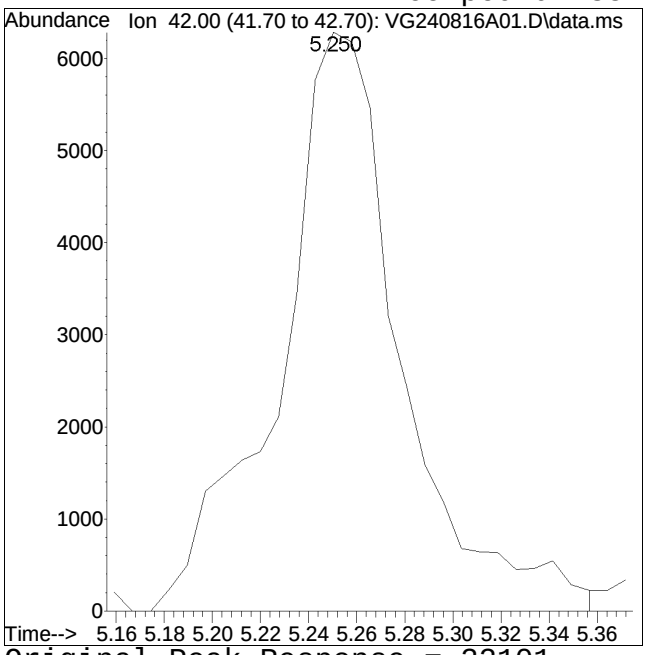


Manual Integration Report

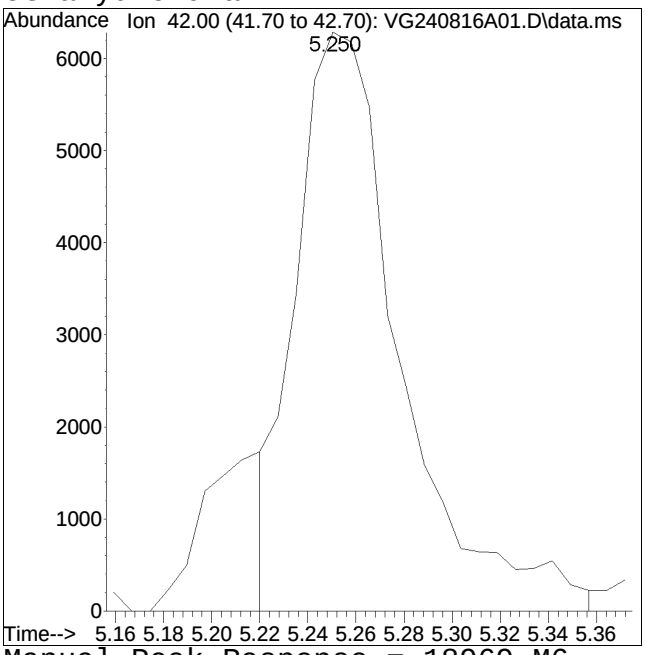
Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960231-2

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/16/2024 7:25 am

Compound #35: Tetrahydrofuran



Original Peak Response = 22101



Manual Peak Response = 18969 M6

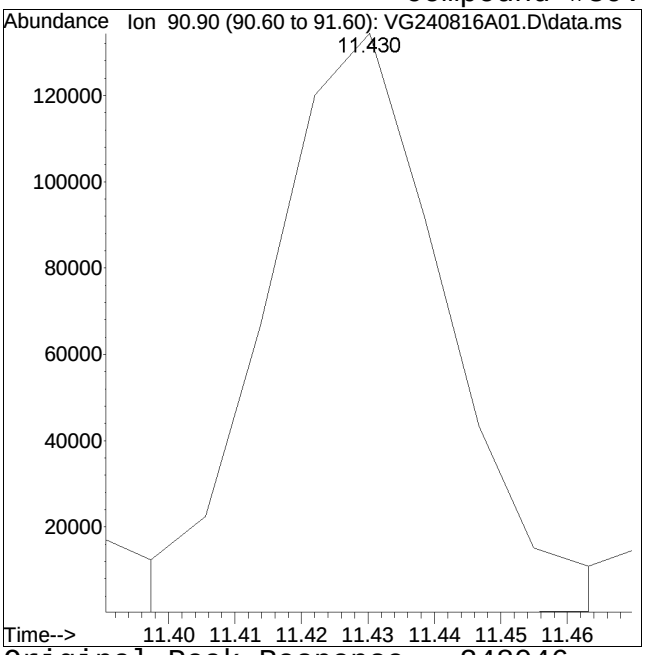
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

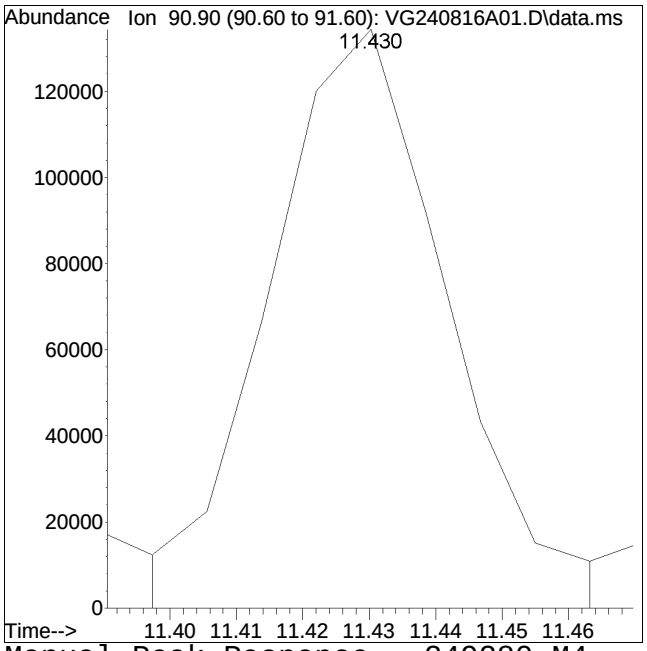
Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960231-2

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/16/2024 7:25 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 248046



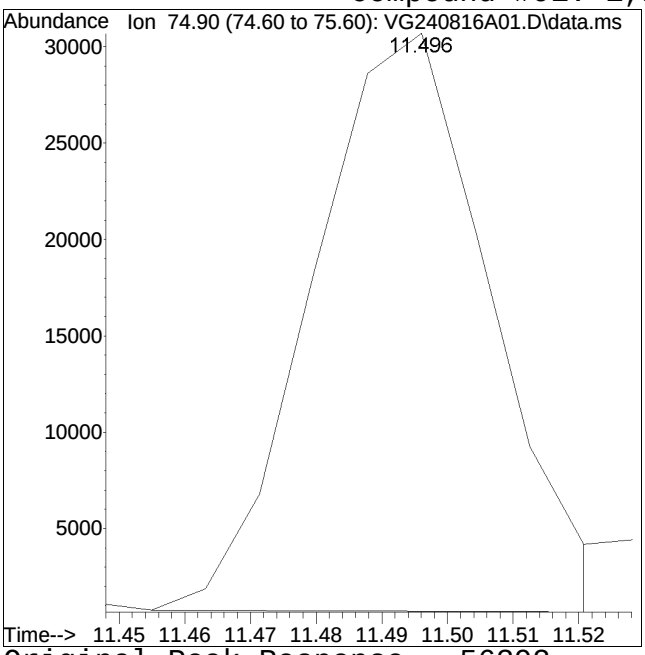
Manual Peak Response = 249280 M4

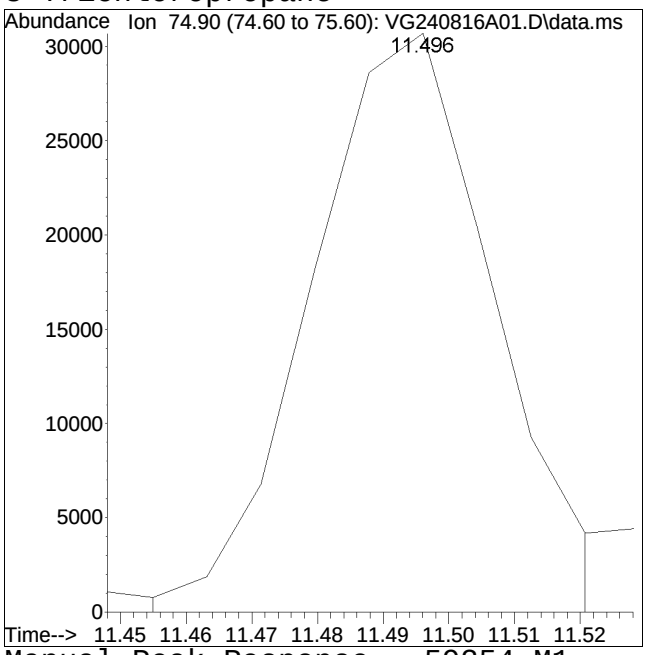
M4 = Poor automated baseline construction.

Manual Integration Report

Data Path	: K:\Gonzo\2024\240816A\	QMethod	: G_240712P_8260.m
Data File	: VG240816A01.D	Operator	: GONZO:PID
Date Inj'd	: 8/16/2024 6:49 am	Instrument	: Gonzo
Sample	: WG1960231-2	Quant Date	: 8/16/2024 7:25 am

Compound #91: 1,2,3-Trichloropropane





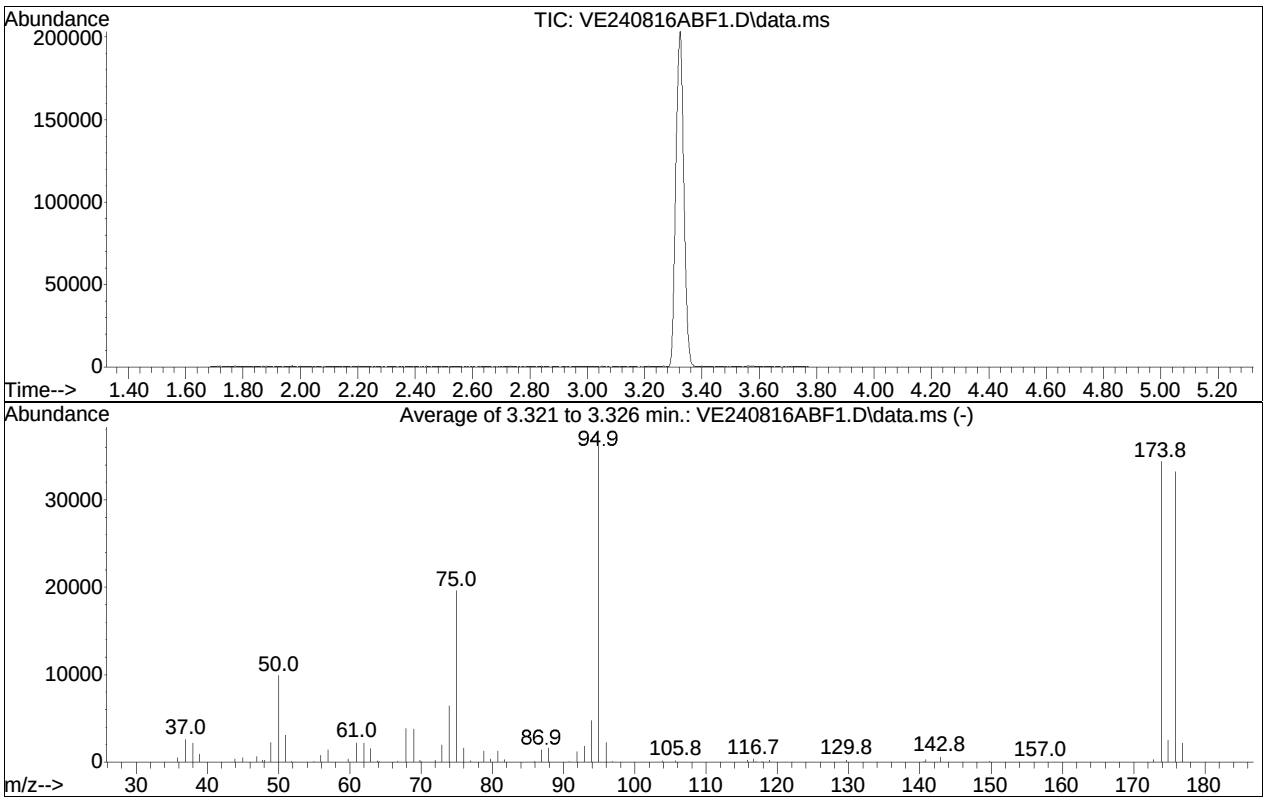
Original Peak Response = 56392 Manual Peak Response = 59254 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816ABF1.D
Acq On : 16 Aug 2024 6:34 am
Operator : ELAINE:PID
Sample : WG1960272-1
Misc : WG1960272
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024



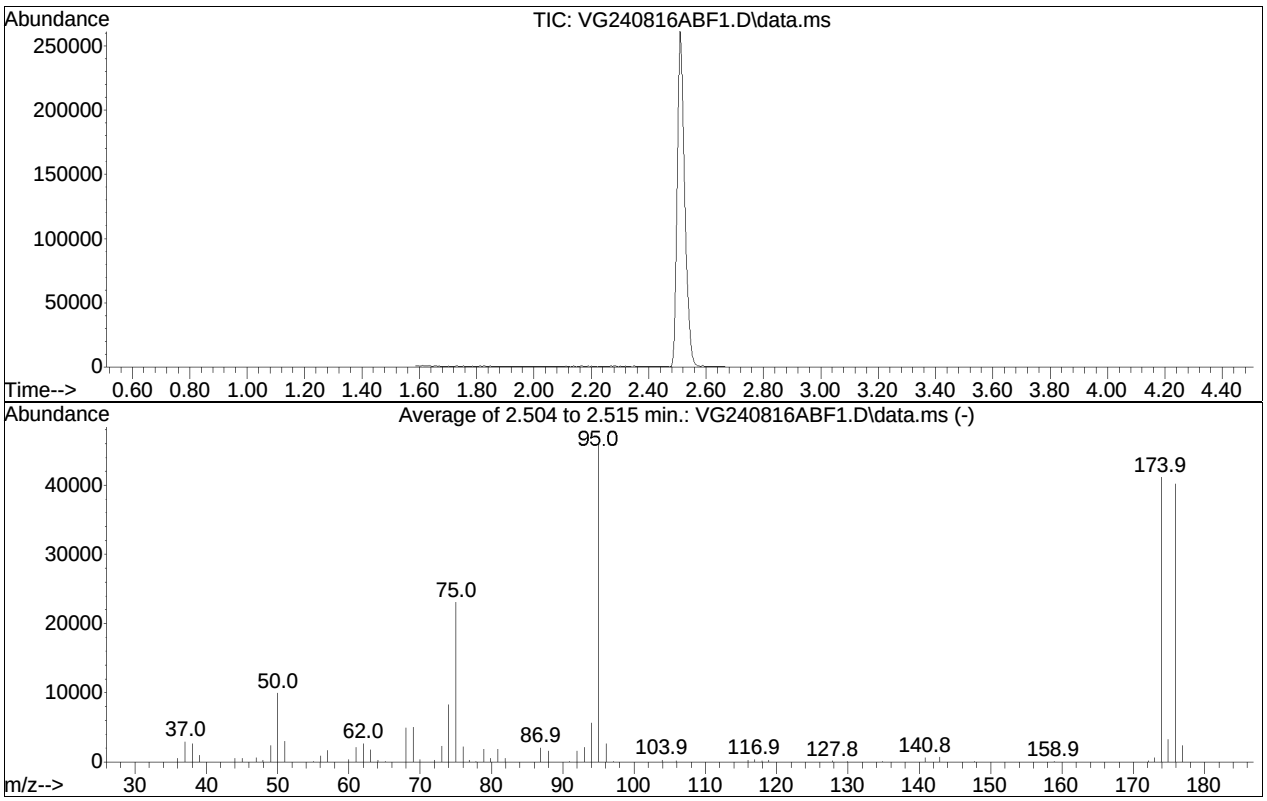
AutoFind: Scans 587, 588, 589; Background Corrected with Scan 572

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.1	9897	PASS
75	95	30	60	53.6	19605	PASS
95	95	100	100	100.0	36552	PASS
96	95	5	9	6.1	2245	PASS
173	174	0.00	2	1.0	336	PASS
174	95	50	100	94.2	34440	PASS
175	174	5	9	7.3	2524	PASS
176	174	95	101	96.5	33229	PASS
177	176	5	9	6.6	2189	PASS

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816ABF1.D
Acq On : 16 Aug 2024 6:35 am
Operator : GONZO:PID
Sample : WG1960231-1
Misc : WG1960231
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Jul 15 09:43:32 2024



AutoFind: Scans 176, 177, 178; Background Corrected with Scan 169

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	9990	PASS
75	95	30	60	50.1	23131	PASS
95	95	100	100	100.0	46147	PASS
96	95	5	9	5.8	2695	PASS
173	174	0.00	2	1.6	678	PASS
174	95	50	100	89.2	41184	PASS
175	174	5	9	8.0	3278	PASS
176	174	95	101	97.6	40211	PASS
177	176	5	9	5.9	2372	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A05.D
Acq On : 16 Aug 2024 8:27 am
Operator : ELAINE:PID
Sample : WG1960272-5,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:07:44 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.956	96	165632	10.000	ug/L	-0.01
Standard Area 1 = 184749			Recovery = 89.65%			
63) Chlorobenzene-d5	9.492	117	125198	10.000	ug/L	0.00
Standard Area 1 = 135681			Recovery = 92.27%			
84) 1,4-Dichlorobenzene-d4	12.202	152	72798	10.000	ug/L	0.00
Standard Area 1 = 81388			Recovery = 89.45%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	41182	10.621	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.21%			
47) 1,2-Dichloroethane-d4	5.671	65	52943	10.233	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.33%			
64) Toluene-d8	7.648	98	166681	10.107	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.07%			
88) 4-Bromofluorobenzene	10.989	95	62270	9.260	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.438	85	34	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	2.211	64	63	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.936	76	227	N.D.		
15) Methylene chloride	3.460	84	28	N.D.		
17) Acetone	3.502	43	33	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	4.408	43	35	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A05.D
Acq On : 16 Aug 2024 8:27 am
Operator : ELAINE:PID
Sample : WG1960272-5,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:07:44 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	5.259	43	30		N.D.	
43) 1,1-Dichloropropene	0.000		0		N.D.	
45) Benzene	0.000		0		N.D.	
48) 1,2-Dichloroethane	5.719	62	59		N.D.	
52) Trichloroethene	6.037	95	141		N.D.	
54) Dibromomethane	0.000		0		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	0.000		0		N.D.	
66) 4-Methyl-2-pentanone	0.000		0		N.D.	
67) Tetrachloroethene	0.000		0		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	0.000		0		N.D.	
77) 2-Hexanone	9.146	43	49		N.D.	
78) Chlorobenzene	9.522	112	29		N.D.	
79) Ethylbenzene	9.559	91	32		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	0.000		0		N.D.	
82) o Xylene	0.000		0		N.D.	
83) Styrene	10.353	104	69		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	10.671	105	62		N.D.	
89) Bromobenzene	0.000		0		N.D.	
90) n-Propylbenzene	11.151	91	92		N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
93) 4-Ethyltoluene	11.268	105	71		N.D.	
94) 2-Chlorotoluene	11.318	91	42		N.D.	
95) 1,3,5-Trimethylbenzene	11.374	105	32		N.D.	
96) 1,2,3-Trichloropropane	0.000		0		N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
98) 4-Chlorotoluene	11.497	91	70		N.D.	
99) tert-Butylbenzene	11.714	119	37		N.D.	

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A05.D
Acq On : 16 Aug 2024 8:27 am
Operator : ELAINE:PID
Sample : WG1960272-5,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:07:44 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.798	105	69	N.D.		
103) sec-Butylbenzene	11.901	105	32	N.D.		
104) p-Isopropyltoluene	12.066	119	150	N.D.		
105) 1,3-Dichlorobenzene	12.119	146	28	N.D.		
106) 1,4-Dichlorobenzene	12.219	146	167	N.D.		
107) p-Diethylbenzene	12.437	119	51	N.D.		
108) n-Butylbenzene	12.495	91	316	N.D.		
109) 1,2-Dichlorobenzene	12.640	146	26	N.D.		
110) 1,2,4,5-Tetramethylben...	13.220	119	213	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.	d	
114) 1,2,4-Trichlorobenzene	14.048	180	265	N.D.		
115) Naphthalene	14.350	128	518	N.D.		
116) 1,2,3-Trichlorobenzene	14.509	180	189	N.D.		

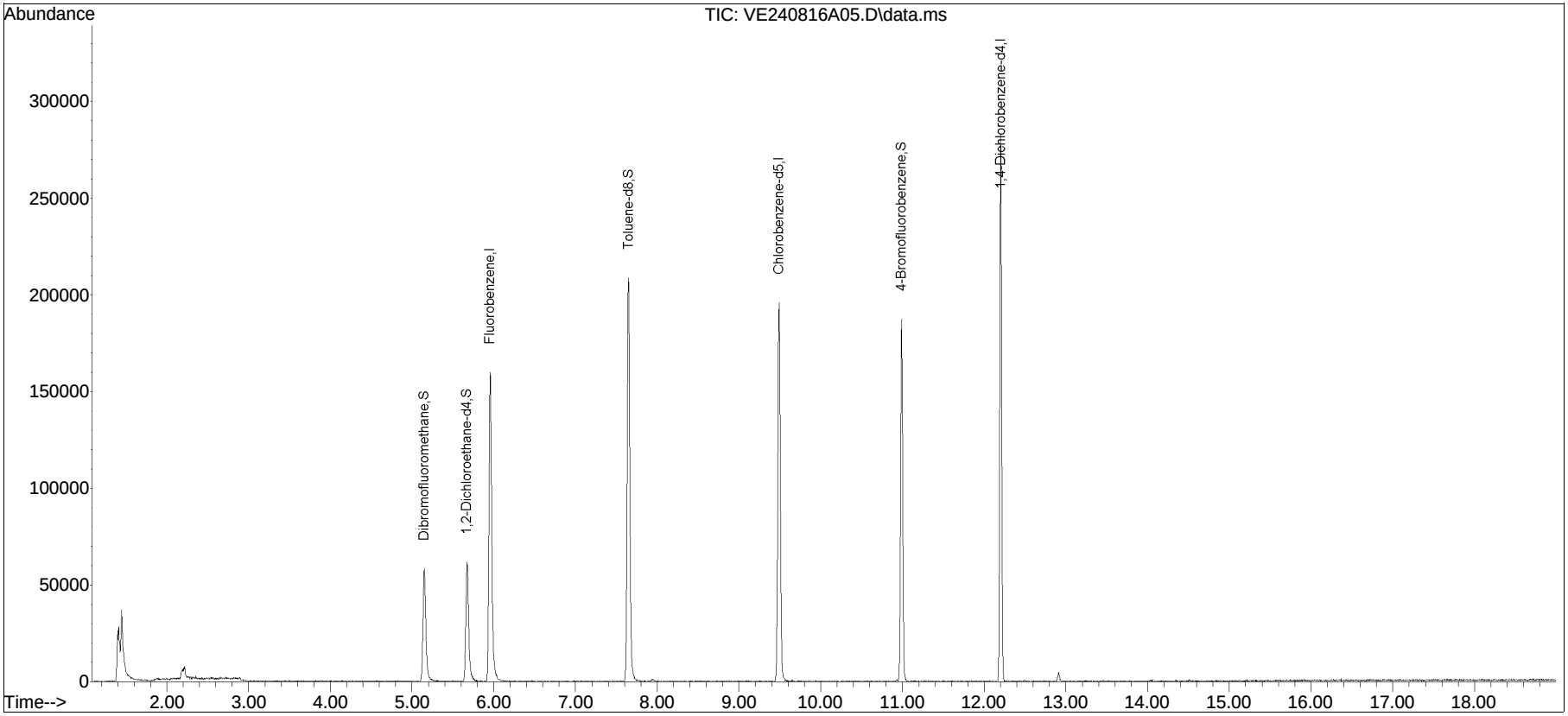
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A05.D
Acq On : 16 Aug 2024 8:27 am
Operator : ELAINE:PID
Sample : WG1960272-5,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:07:44 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

Data Path	: K:\Elaine\2024\240816A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240816A05.D	Operator	: ELAINE:PID
Date Inj'd	: 8/16/2024 8:27 am	Instrument	: Elaine
Sample	: WG1960272-5,31,10,10	Quant Date	: 8/16/2024 9:06 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT/LSC Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A05.D
Acq On : 16 Aug 2024 8:24 am
Operator : GONZO:PID
Sample : WG1960231-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:04:58 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.086	96	324647	10.000 ug/L	0.00
Standard Area 1 = 376279			Recovery = 86.28%		
59) Chlorobenzene-d5	9.629	117	248380	10.000 ug/L	0.00
Standard Area 1 = 290800			Recovery = 85.41%		
79) 1,4-Dichlorobenzene-d4	12.311	152	139321	10.000 ug/L	0.00
Standard Area 1 = 167416			Recovery = 83.22%		
System Monitoring Compounds					
36) Dibromofluoromethane	5.281	113	86264	10.173 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.73%		
43) 1,2-Dichloroethane-d4	5.805	65	96722	10.737 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.37%		
60) Toluene-d8	7.779	98	309222	9.917 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.17%		
83) 4-Bromofluorobenzene	11.110	95	107536	9.241 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.41%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.634	85	72	N.D.	
3) Chloromethane	1.870	50	138	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.318	94	188	N.D.	
6) Chloroethane	0.000		0	N.D.	d
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	3.047	76	1033	N.D.	
15) Methylene chloride	3.579	84	432	N.D.	
17) Acetone	0.000		0	N.D.	d
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
20) Methyl tert-butyl ether	0.000		0	N.D.	
23) 1,1-Dichloroethane	0.000		0	N.D.	
25) Acrylonitrile	0.000		0	N.D.	
27) Vinyl acetate	0.000		0	N.D.	
28) cis-1,2-Dichloroethene	4.825	96	83	N.D.	
29) 2,2-Dichloropropane	0.000		0	N.D.	
30) Bromochloromethane	0.000		0	N.D.	
32) Chloroform	0.000		0	N.D.	

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A05.D
Acq On : 16 Aug 2024 8:24 am
Operator : GONZO:PID
Sample : WG1960231-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:04:58 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0	N.D.		
37) 1,1,1-Trichloroethane	0.000		0	N.D.		
39) 2-Butanone	5.539	43	73	N.D.		
40) 1,1-Dichloropropene	0.000		0	N.D.		
41) Benzene	0.000		0	N.D.		
44) 1,2-Dichloroethane	0.000		0	N.D.	d	
48) Trichloroethene	0.000		0	N.D.	d	
50) Dibromomethane	0.000		0	N.D.		
51) 1,2-Dichloropropane	0.000		0	N.D.		
54) Bromodichloromethane	6.709	83	68	N.D.		
57) 1,4-Dioxane	0.000		0	N.D.		
58) cis-1,3-Dichloropropene	0.000		0	N.D.		
61) Toluene	0.000		0	N.D.		
62) 4-Methyl-2-pentanone	0.000		0	N.D.		
63) Tetrachloroethene	0.000		0	N.D.		
65) trans-1,3-Dichloropropene	0.000		0	N.D.		
68) 1,1,2-Trichloroethane	0.000		0	N.D.		
69) Chlorodibromomethane	0.000		0	N.D.		
70) 1,3-Dichloropropane	0.000		0	N.D.		
71) 1,2-Dibromoethane	0.000		0	N.D.		
72) 2-Hexanone	9.369	43	69	N.D.		
73) Chlorobenzene	0.000		0	N.D.		
74) Ethylbenzene	9.637	91	318	N.D.		
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
76) p/m Xylene	0.000		0	N.D.		
77) o Xylene	0.000		0	N.D.		
78) Styrene	10.295	104	76	N.D.		
80) Bromoform	0.000		0	N.D.		
82) Isopropylbenzene	0.000		0	N.D.		
84) Bromobenzene	0.000		0	N.D.		
85) n-Propylbenzene	11.118	91	447	N.D.		
87) 1,1,2,2-Tetrachloroethane	11.118	83	92	N.D.		
88) 4-Ethyltoluene	11.513	105	76	N.D.		
89) 2-Chlorotoluene	0.000		0	N.D.		
90) 1,3,5-Trimethylbenzene	11.513	105	76	N.D.		
91) 1,2,3-Trichloropropane	0.000		0	N.D.		
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
93) 4-Chlorotoluene	0.000		0	N.D.		
94) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A05.D
Acq On : 16 Aug 2024 8:24 am
Operator : GONZO:PID
Sample : WG1960231-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:04:58 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	11.932	105	116	N.D.		
98)	sec-Butylbenzene	12.039	105	100	N.D.		
99)	p-Isopropyltoluene	12.171	119	193	N.D.		
100)	1,3-Dichlorobenzene	12.327	146	366	N.D.		
101)	1,4-Dichlorobenzene	12.327	146	366	N.D.		
102)	p-Diethylbenzene	0.000		0	N.D.		
103)	n-Butylbenzene	0.000		0	N.D.		
104)	1,2-Dichlorobenzene	12.771	146	75	N.D.		
105)	1,2,4,5-Tetramethylben...	0.000		0	N.D.		
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	0.000		0	N.D.		
109)	1,2,4-Trichlorobenzene	0.000		0	N.D.		
110)	Naphthalene	14.474	128	607	N.D.		
111)	1,2,3-Trichlorobenzene	14.622	180	287	N.D.		

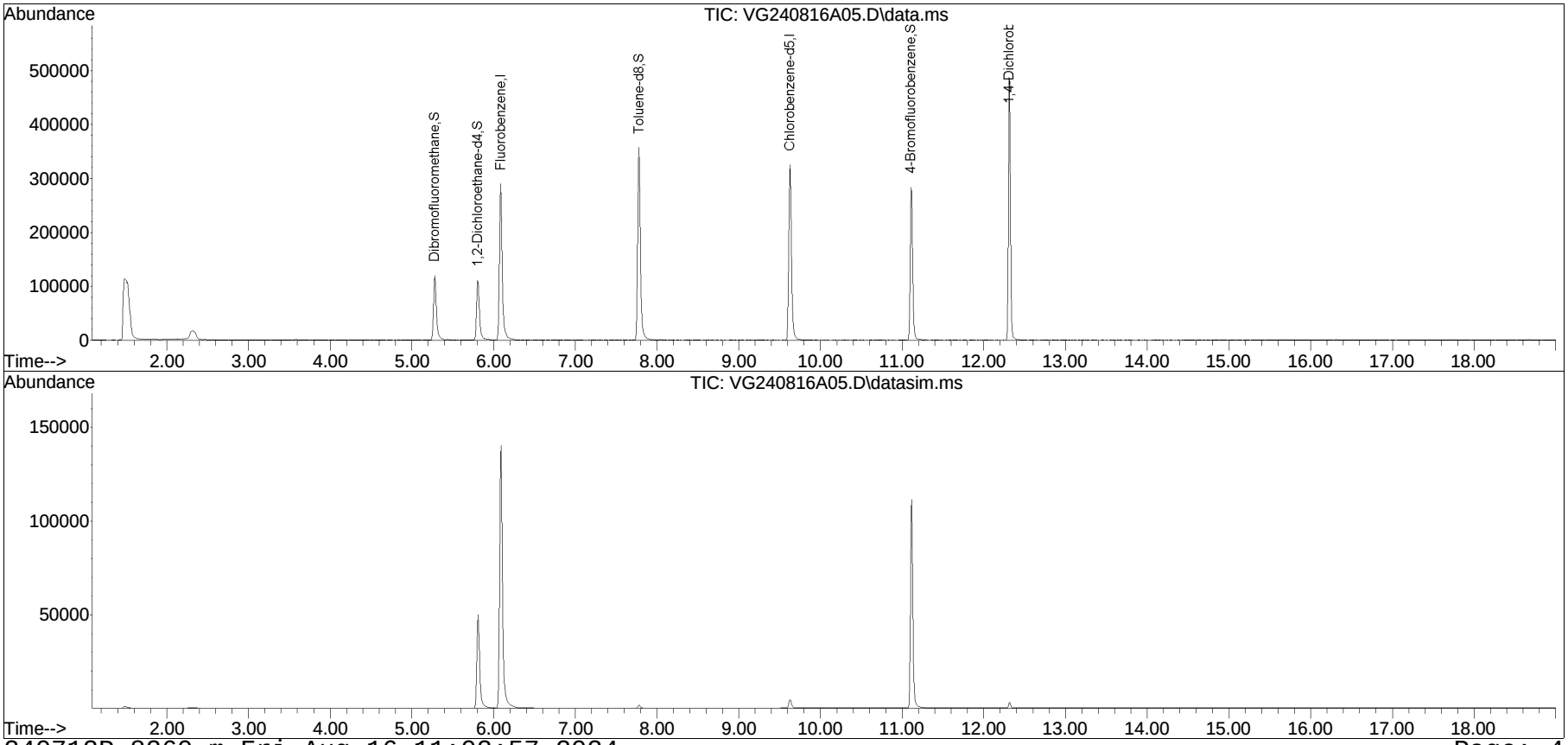
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A05.D
Acq On : 16 Aug 2024 8:24 am
Operator : GONZO:PID
Sample : WG1960231-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 16 09:04:58 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

Data Path	: K:\Gonzo\2024\240816A\	QMethod	: G_240712P_8260.m
Data File	: VG240816A05.D	Operator	: GONZO:PID
Date Inj'd	: 8/16/2024 8:24 am	Instrument	: Gonzo
Sample	: WG1960231-5,31,10,10	Quant Date	: 8/16/2024 9:04 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	376279	10.000	ug/L	0.00
59) Chlorobenzene-d5	9.629	117	290800	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	12.310	152	167416	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	96276	9.796	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.96%			
43) 1,2-Dichloroethane-d4	5.805	65	113301	10.852	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.52%			
60) Toluene-d8	7.779	98	363970	9.970	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.70%			
83) 4-Bromofluorobenzene	11.109	95	128077	9.160	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.680	85	87483	8.757	ug/L	97
3) Chloromethane	1.885	50	81412	9.527	ug/L	99
4) Vinyl chloride	1.946	62	89148	10.070	ug/L	99
5) Bromomethane	2.265	94	30453	6.497	ug/L	97
6) Chloroethane	2.371	64	71617	10.581	ug/L	94
7) Trichlorofluoromethane	2.515	101	118898	9.160	ug/L	93
8) Ethyl ether	2.819	74	37436	8.687	ug/L #	86
10) 1,1-Dichloroethene	3.017	96	68255	9.589	ug/L	89
11) Carbon disulfide	3.047	76	209043	9.986	ug/L	98
15) Methylene chloride	3.579	84	75994	9.030	ug/L	82
17) Acetone	3.632	43	14935	7.333	ug/L	99
18) trans-1,2-Dichloroethene	3.731	96	72276	9.283	ug/L	93
20) Methyl tert-butyl ether	3.814	73	193706	8.091	ug/L	90
23) 1,1-Dichloroethane	4.316	63	140582	9.968	ug/L	99
25) Acrylonitrile	4.369	53	20828	9.470	ug/L	95
27) Vinyl acetate	4.544	43	165172	12.638	ug/L	100
28) cis-1,2-Dichloroethene	4.833	96	82766	9.245	ug/L	94
29) 2,2-Dichloropropane	4.931	77	117658	10.006	ug/L	94
30) Bromochloromethane	5.030	128	41121	9.388	ug/L	88
32) Chloroform	5.098	83	137601	9.531	ug/L	96
34) Carbon tetrachloride	5.228	117	114648	9.798	ug/L	98
37) 1,1,1-Trichloroethane	5.296	97	127762	9.595	ug/L	96
39) 2-Butanone	5.402	43	25911	9.494	ug/L #	80
40) 1,1-Dichloropropene	5.418	75	103015	9.677	ug/L	99

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Benzene	5.668	78	312966	9.709	ug/L		96
44) 1,2-Dichloroethane	5.873	62	102295	9.957	ug/L		96
48) Trichloroethene	6.261	95	83825	9.222	ug/L		98
50) Dibromomethane	6.709	93	45657	8.979	ug/L		99
51) 1,2-Dichloropropane	6.808	63	77089	9.801	ug/L		98
54) Bromodichloromethane	6.884	83	105450	9.184	ug/L		100
57) 1,4-Dioxane	7.091	88	27797	347.430	ug/L		89
58) cis-1,3-Dichloropropene	7.571	75	113697	8.854	ug/L		91
61) Toluene	7.836	92	193060	9.553	ug/L		95
62) 4-Methyl-2-pentanone	8.280	58	17405	7.811	ug/L		84
63) Tetrachloroethene	8.280	166	90009	10.146	ug/L		98
65) trans-1,3-Dichloropropene	8.323	75	100055	9.043	ug/L		99
68) 1,1,2-Trichloroethane	8.517	83	50566	9.118	ug/L		97
69) Chlorodibromomethane	8.724	129	81937	9.345	ug/L		97
70) 1,3-Dichloropropane	8.832	76	103997	9.409	ug/L		98
71) 1,2-Dibromoethane	9.004	107	61741	8.777	ug/L		100
72) 2-Hexanone	9.283	43	31986	7.740	ug/L		89
73) Chlorobenzene	9.645	112	216811	9.626	ug/L		99
74) Ethylbenzene	9.678	91	362774	9.401	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.727	131	78490	9.364	ug/L		99
76) p/m Xylene	9.867	106	286545	18.782	ug/L		98
77) o Xylene	10.402	106	278199	18.824	ug/L		98
78) Styrene	10.476	104	469459	18.745	ug/L		100
80) Bromoform	10.509	173	50422	8.501	ug/L		100
82) Isopropylbenzene	10.780	105	352863	9.421	ug/L		99
84) Bromobenzene	11.225	156	98341	9.497	ug/L		99
85) n-Propylbenzene	11.258	91	415629	9.526	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.356	83	77911	9.360	ug/L		98
88) 4-Ethyltoluene	11.381	105	347443	9.526	ug/L		100
89) 2-Chlorotoluene	11.430	91	249280M4	9.316	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	302049	9.355	ug/L		100
91) 1,2,3-Trichloropropane	11.496	75	59254M1	8.512	ug/L		
92) trans-1,4-Dichloro-2-b...	11.545	53	19214	10.067	ug/L	#	90
93) 4-Chlorotoluene	11.611	91	257564	9.350	ug/L		98
94) tert-Butylbenzene	11.817	119	244372	9.365	ug/L		99
97) 1,2,4-Trimethylbenzene	11.899	105	297200	9.343	ug/L		99
98) sec-Butylbenzene	12.006	105	352498	9.496	ug/L		100
99) p-Isopropyltoluene	12.162	119	303599	9.422	ug/L		98
100) 1,3-Dichlorobenzene	12.236	146	187783	9.871	ug/L		98
101) 1,4-Dichlorobenzene	12.327	146	193785	9.890	ug/L		99

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) p-Diethylbenzene	12.533	119	174644	9.436	ug/L	98
103) n-Butylbenzene	12.590	91	248313	9.745	ug/L	98
104) 1,2-Dichlorobenzene	12.746	146	180378	9.940	ug/L	97
105) 1,2,4,5-Tetramethylben...	13.322	119	234465	8.463	ug/L	97
106) 1,2-Dibromo-3-chloropr...	13.528	155	11999	7.772	ug/L	98
108) Hexachlorobutadiene	14.120	225	36584	10.932	ug/L	96
109) 1,2,4-Trichlorobenzene	14.153	180	96422	9.322	ug/L	99
110) Naphthalene	14.449	128	160930	6.931	ug/L	100
111) 1,2,3-Trichlorobenzene	14.614	180	74999	8.720	ug/L	98

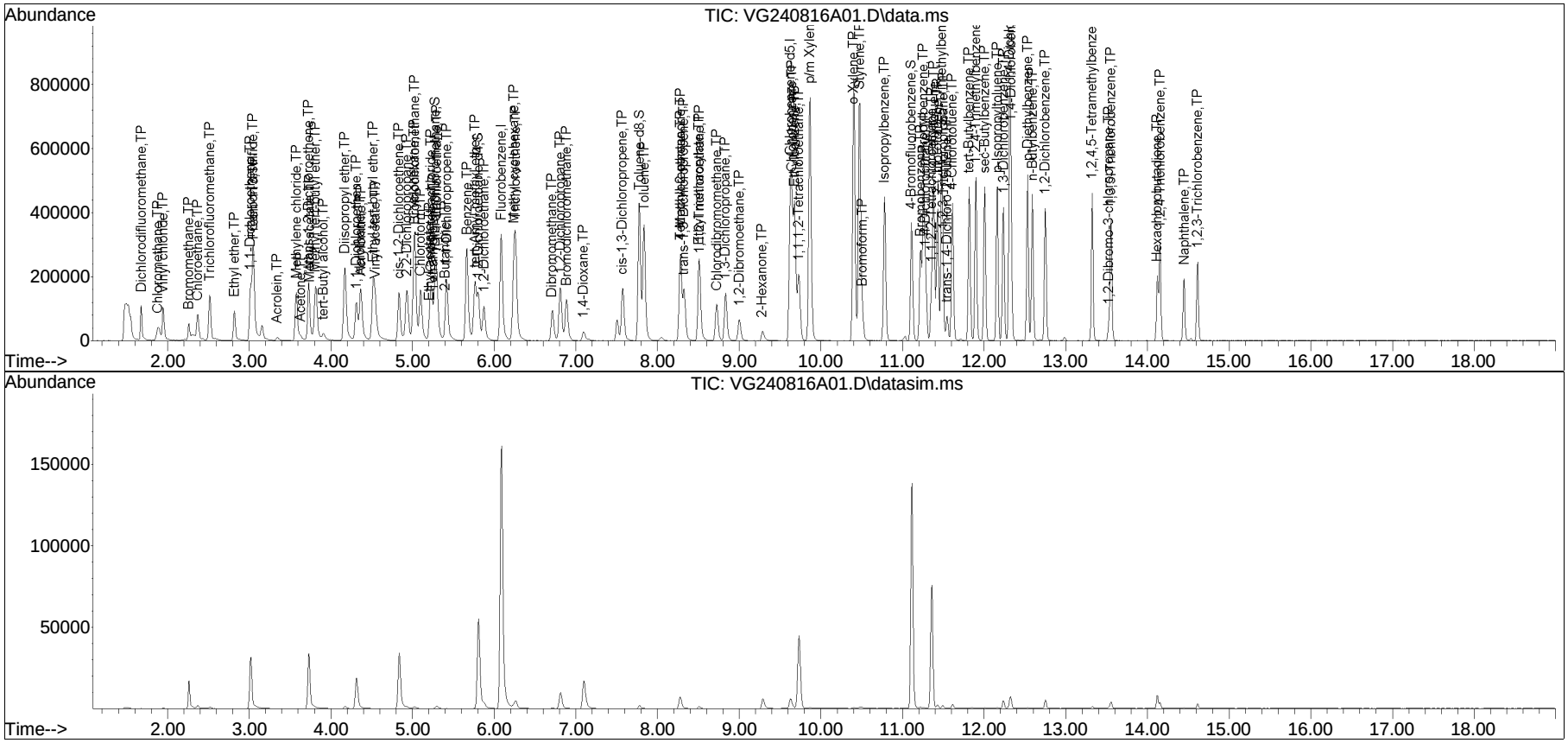
(#) = qualifier out of range (m) = manual integration (+) = signals summed

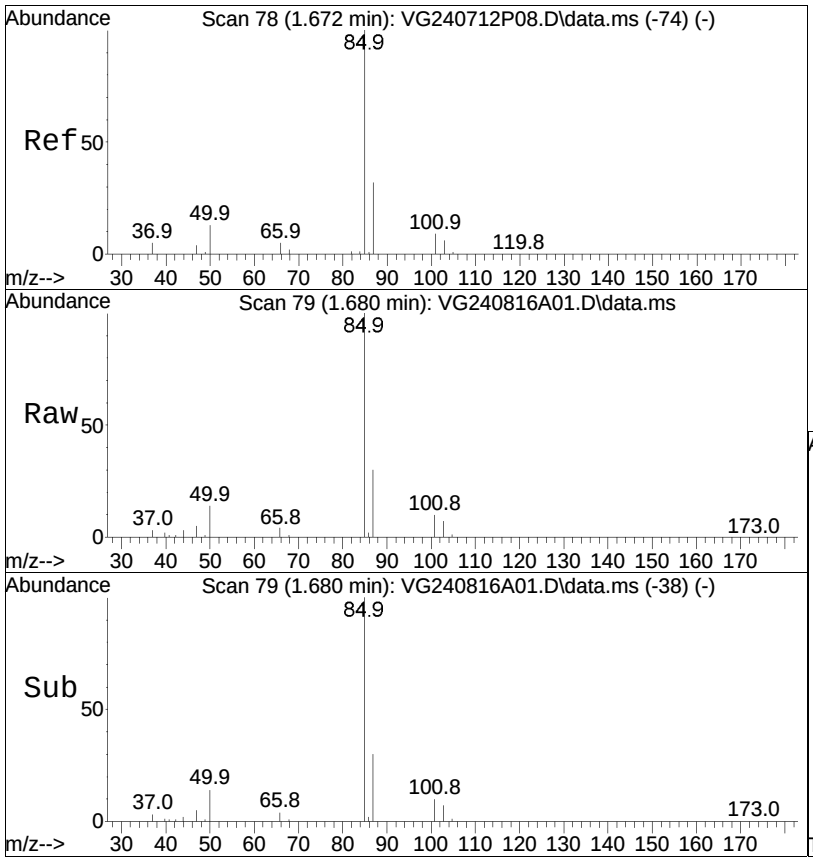
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : GONZO:PID
Sample : WG1960231-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:26:44 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

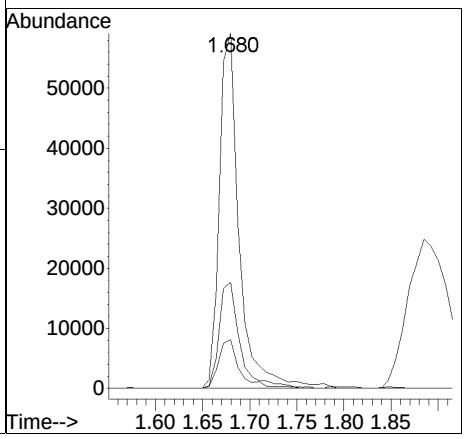


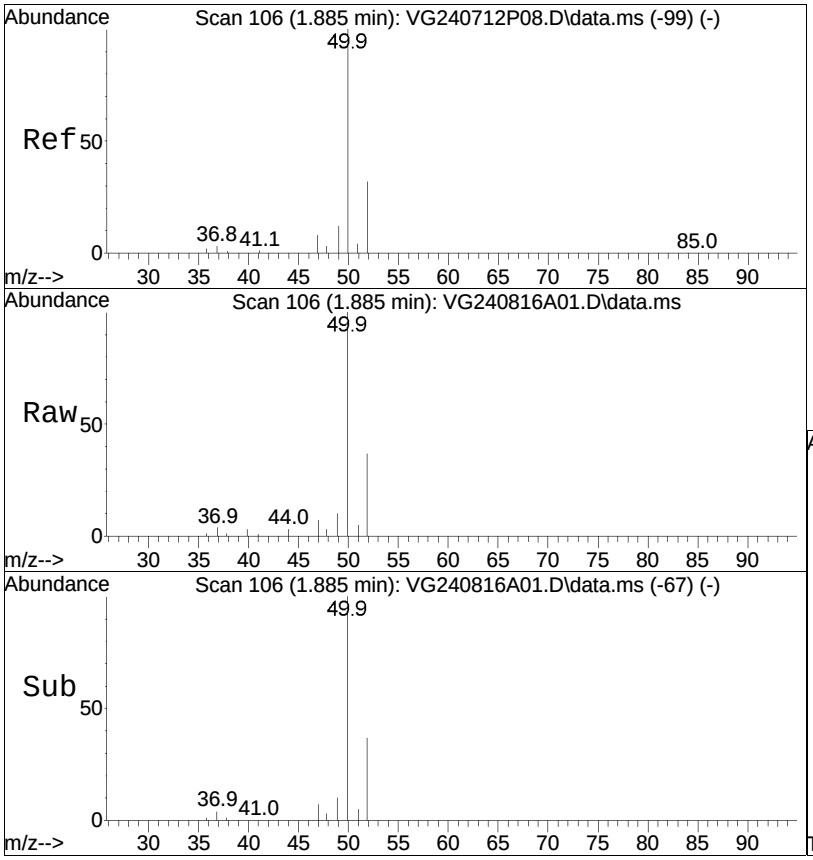


#2
Dichlorodifluoromethane
Concen: 8.76 ug/L
RT: 1.680 min Scan# 79
Delta R.T. 0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 85 Resp: 87483

Ion	Ratio	Lower	Upper
85	100		
87	31.3	20.7	42.9
50	14.6	7.5	15.5

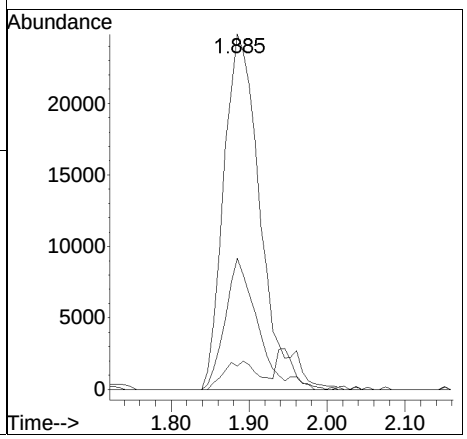


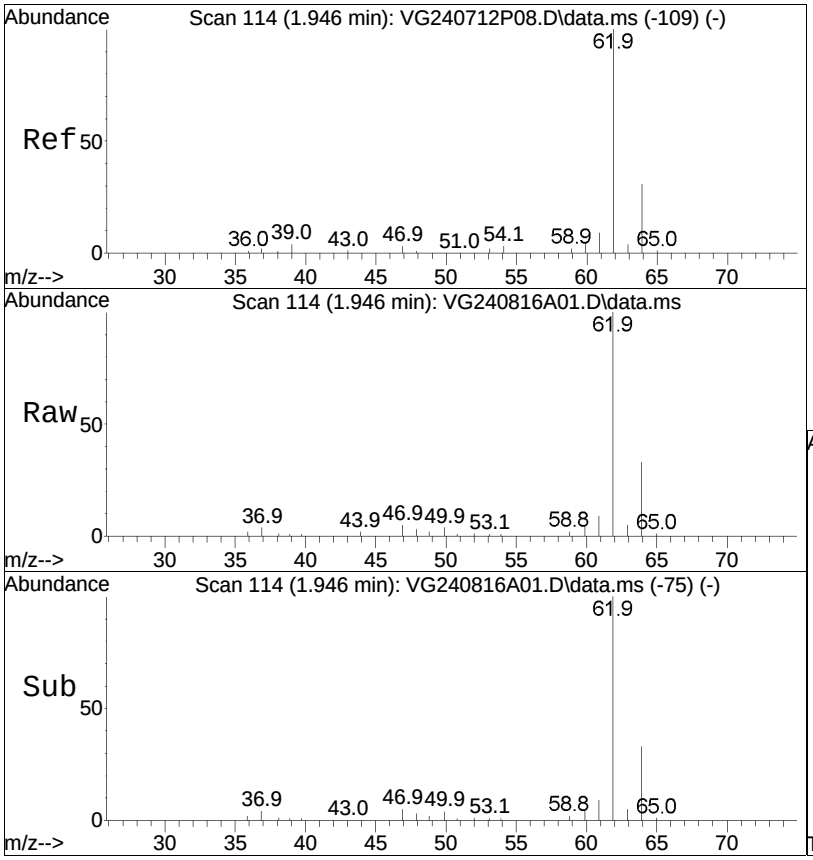


#3
Chloromethane
Concen: 9.53 ug/L
RT: 1.885 min Scan# 106
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 50 Resp: 81412

Ion	Ratio	Lower	Upper
50	100		
52	31.1	11.7	51.7
47	7.1	0.0	28.0

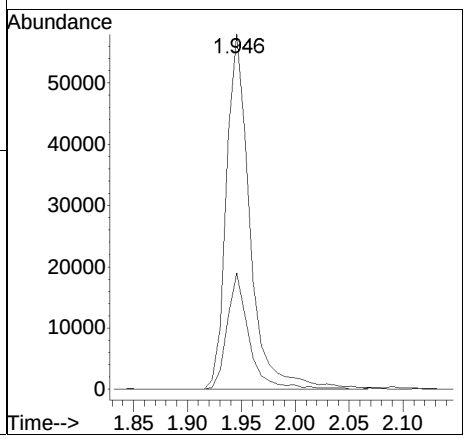


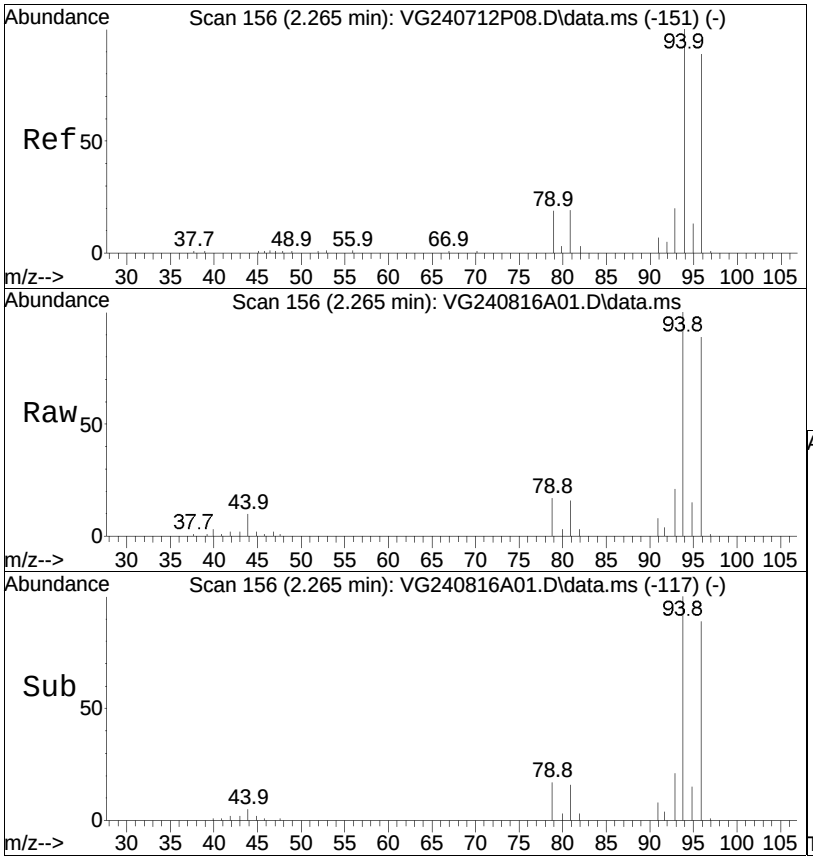


#4
Vinyl chloride
Concen: 10.07 ug/L
RT: 1.946 min Scan# 114
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 62 Resp: 89148

Ion	Ratio	Lower	Upper
62	100		
64	30.5	11.3	51.3

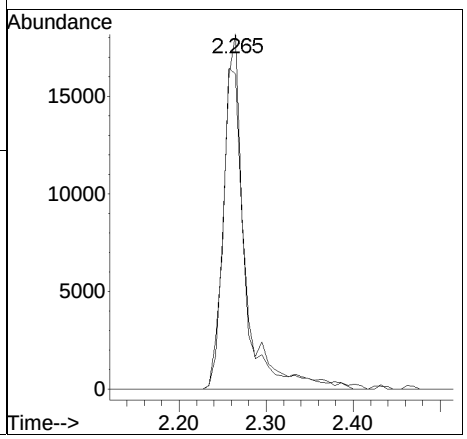


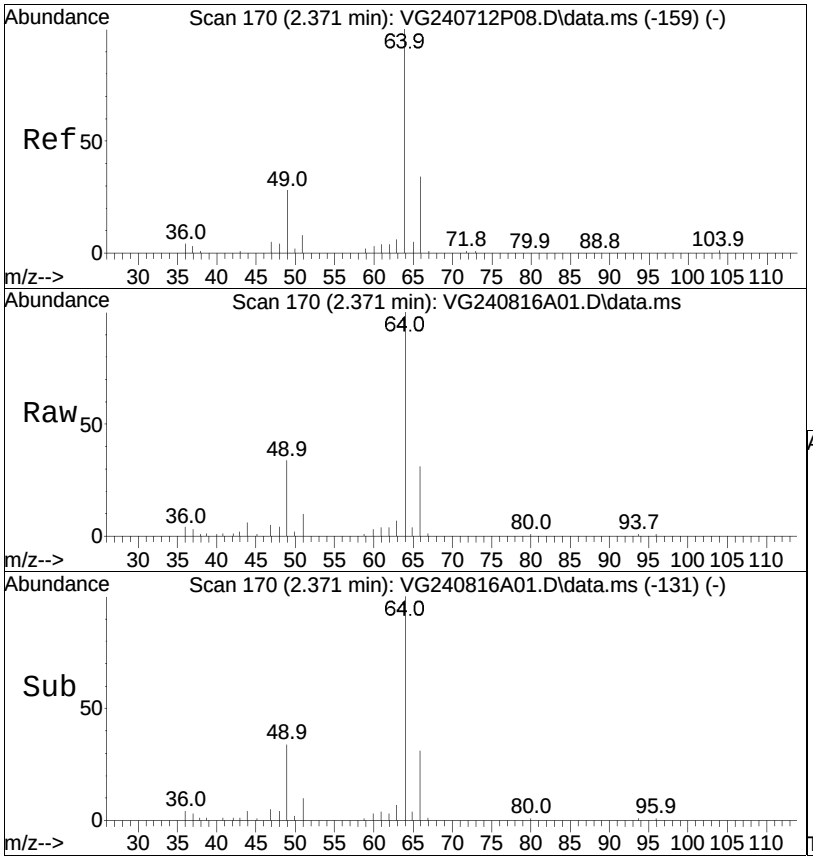


#5
Bromomethane
Concen: 6.50 ug/L
RT: 2.265 min Scan# 156
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 94 Resp: 30453

Ion	Ratio	Lower	Upper
94	100		
96	98.4	75.2	115.2

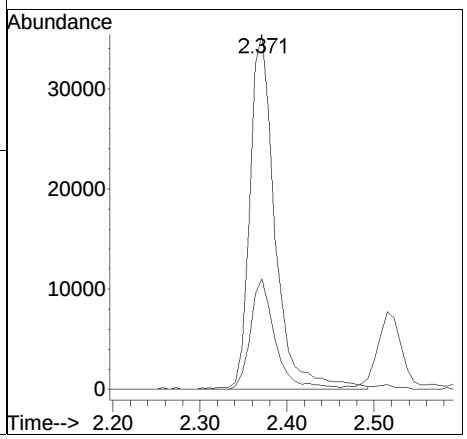


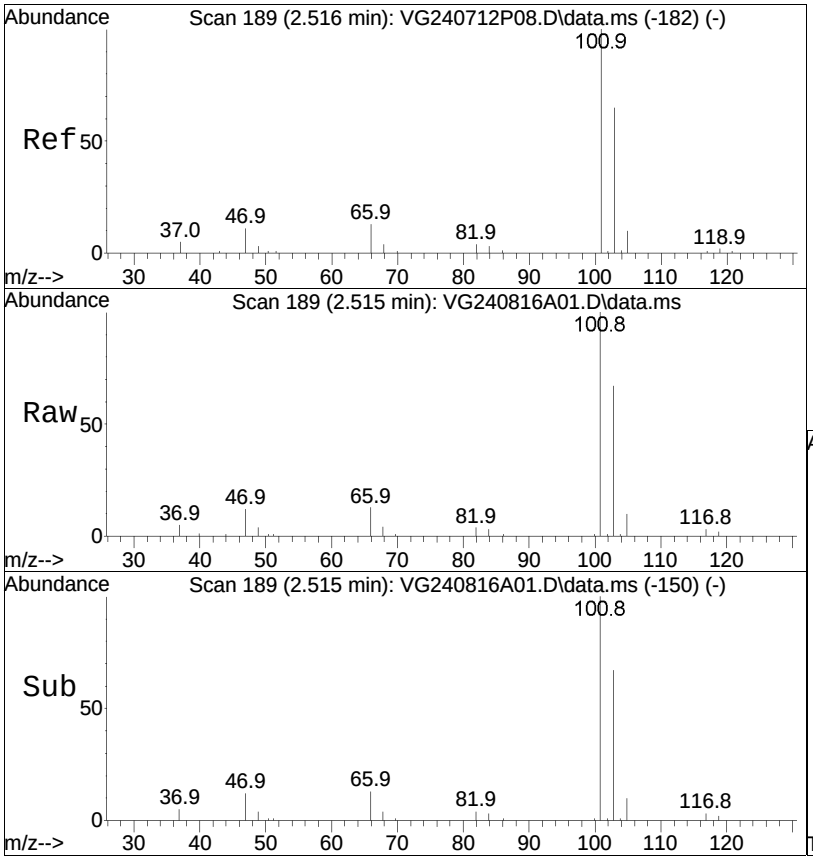


#6
Chloroethane
Concen: 10.58 ug/L
RT: 2.371 min Scan# 170
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 64 Resp: 71617

Ion	Ratio	Lower	Upper
64	100		
66	30.5	13.7	53.7

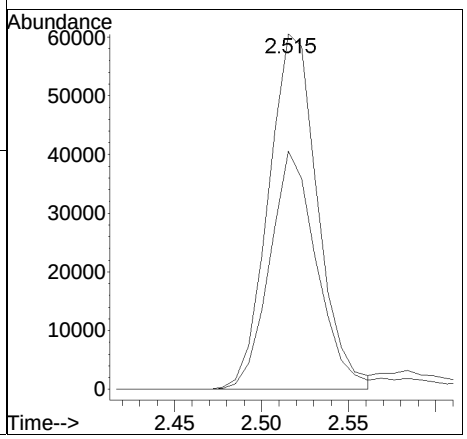


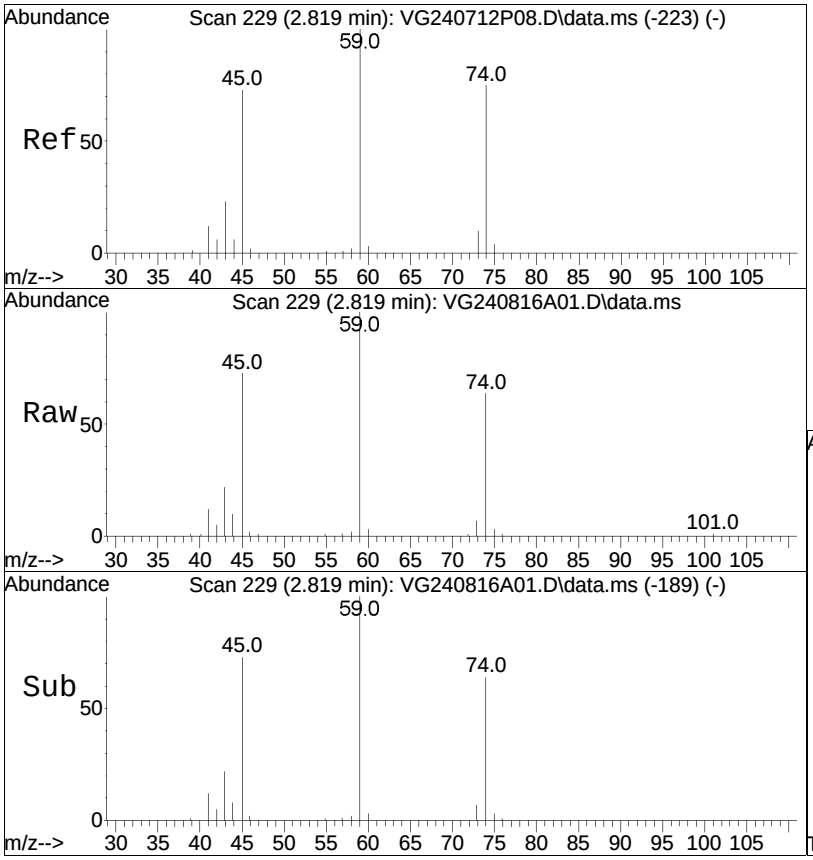


#7
Trichlorofluoromethane
Concen: 9.16 ug/L
RT: 2.515 min Scan# 189
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:101 Resp: 118898

Ion	Ratio	Lower	Upper
101	100		
103	70.5	52.2	78.2

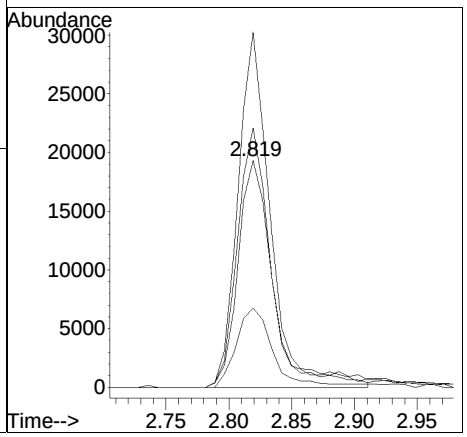


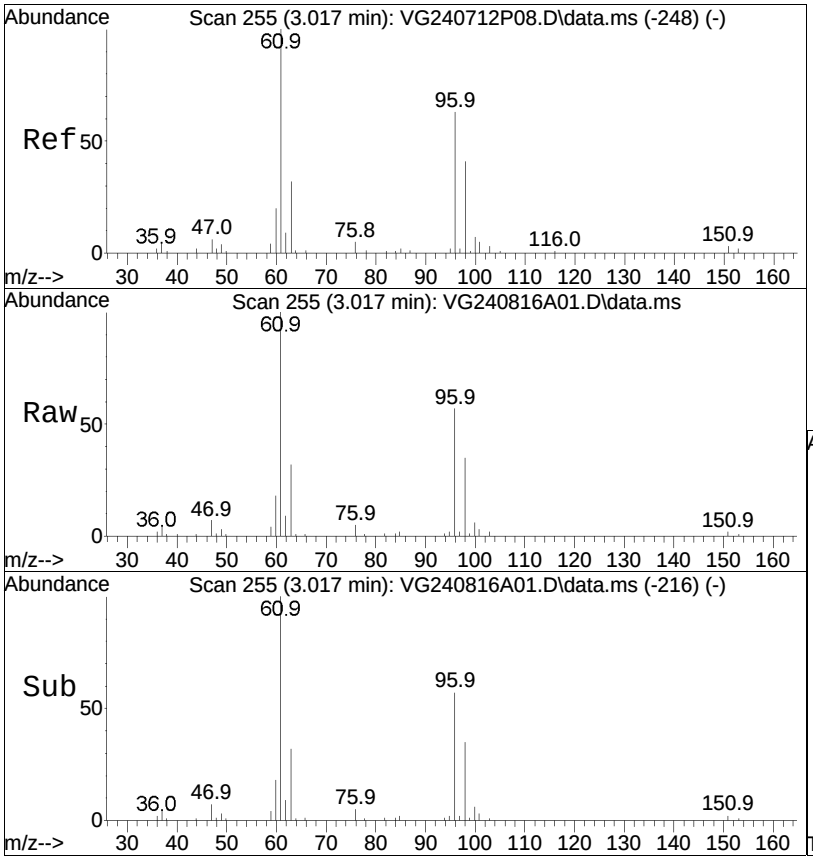


#8
Ethyl ether
Concen: 8.69 ug/L
RT: 2.819 min Scan# 229
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 74 Resp: 37436

Ion	Ratio	Lower	Upper
74	100		
59	142.4	83.5	173.3
45	106.5	59.7	123.9
43	36.6	17.6	36.6#

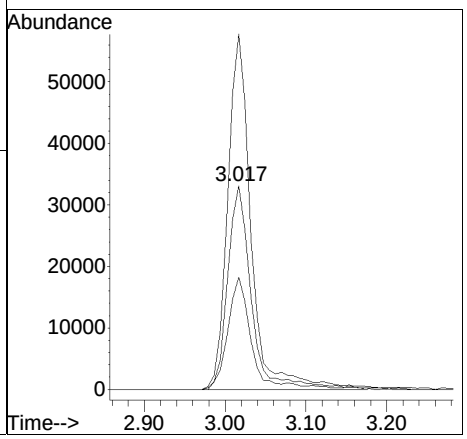


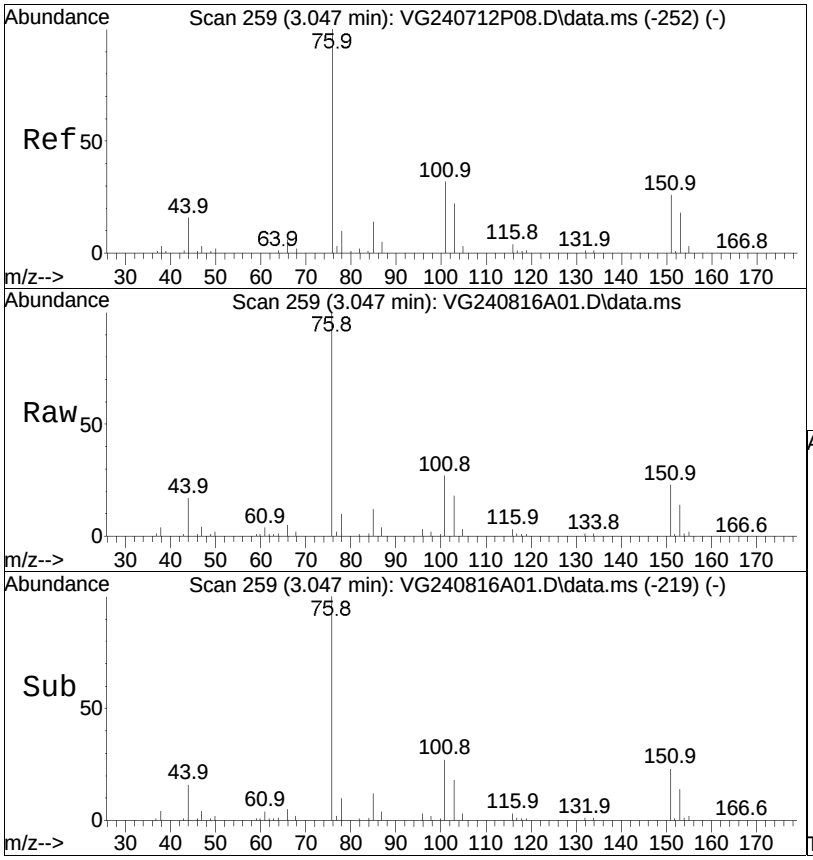


#10
1,1-Dichloroethene
Concen: 9.59 ug/L
RT: 3.017 min Scan# 255
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 96 Resp: 68255

Ion	Ratio	Lower	Upper
96	100		
61	171.8	124.2	186.4
63	54.5	40.0	60.0

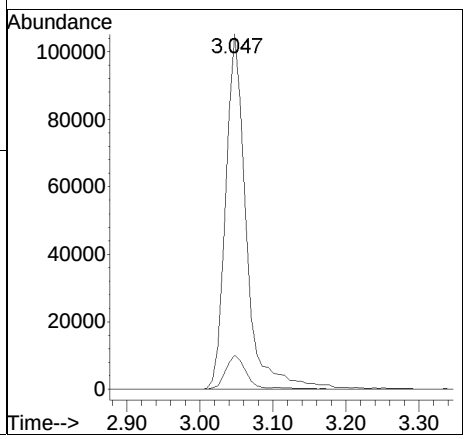


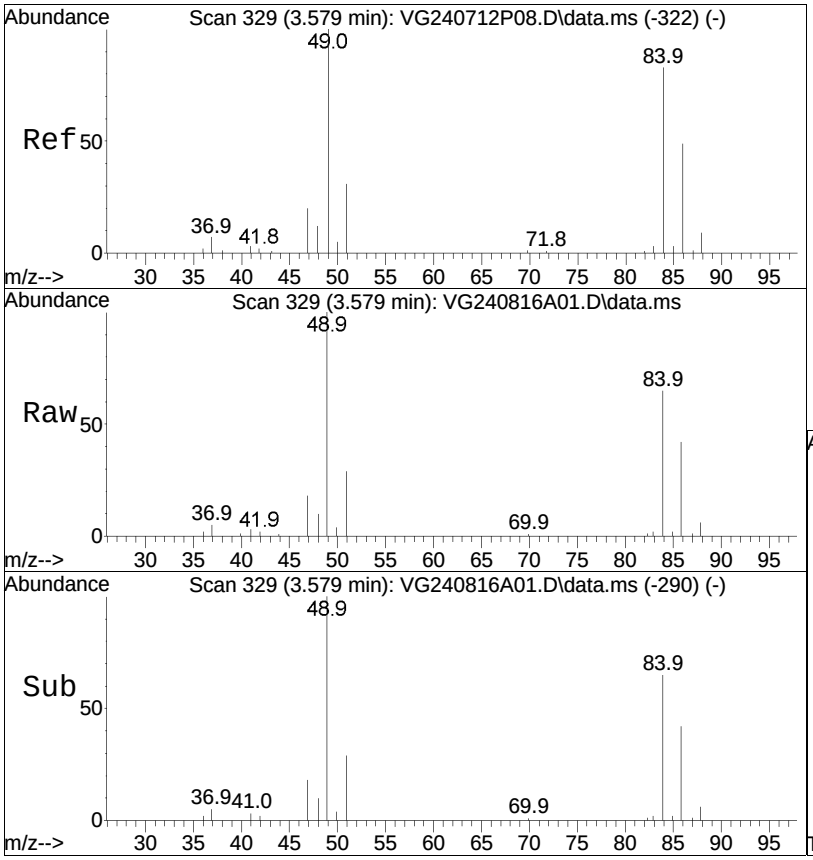


#11
Carbon disulfide
Concen: 9.99 ug/L
RT: 3.047 min Scan# 259
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 76 Resp: 209043

Ion	Ratio	Lower	Upper
76	100		
78	9.3	6.6	13.6

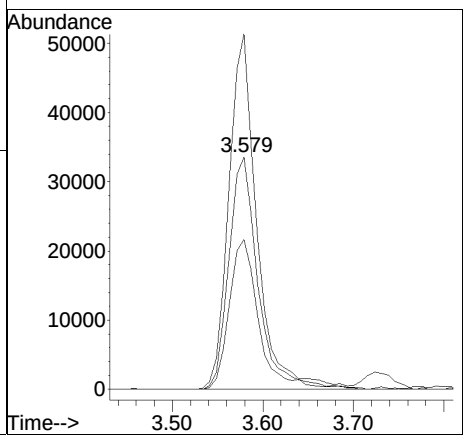


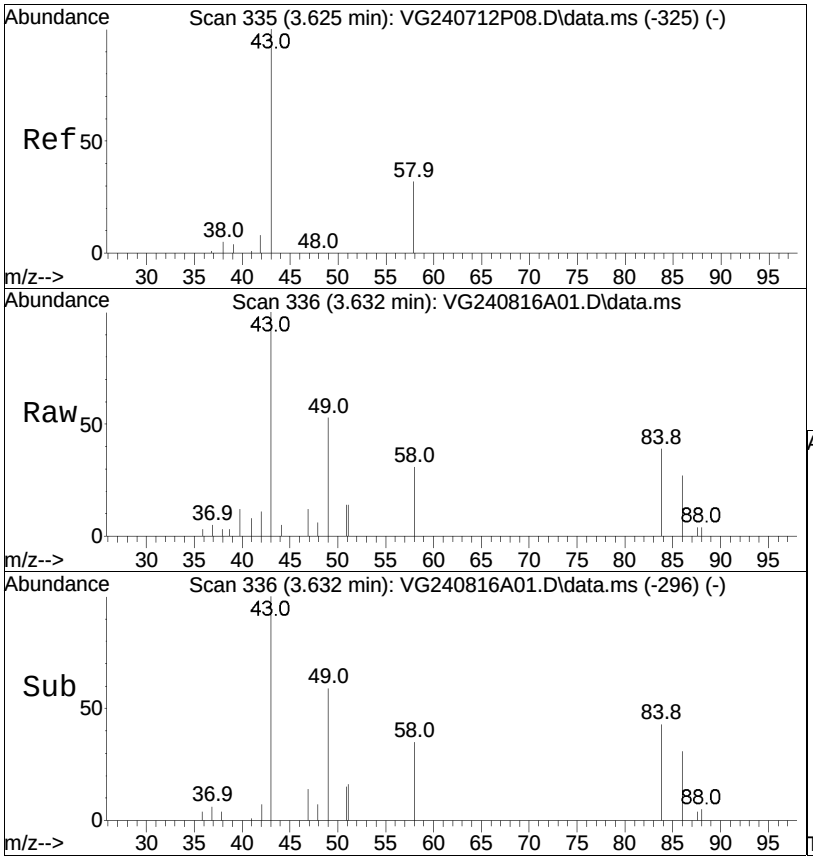


#15
Methylene chloride
Concen: 9.03 ug/L
RT: 3.579 min Scan# 329
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 84 Resp: 75994

Ion	Ratio	Lower	Upper
84	100		
86	65.1	41.1	85.5
49	146.2	76.2	158.2

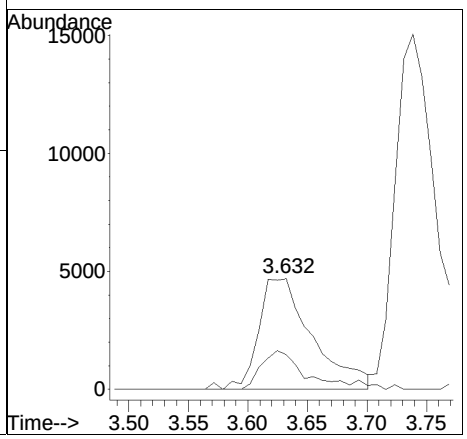


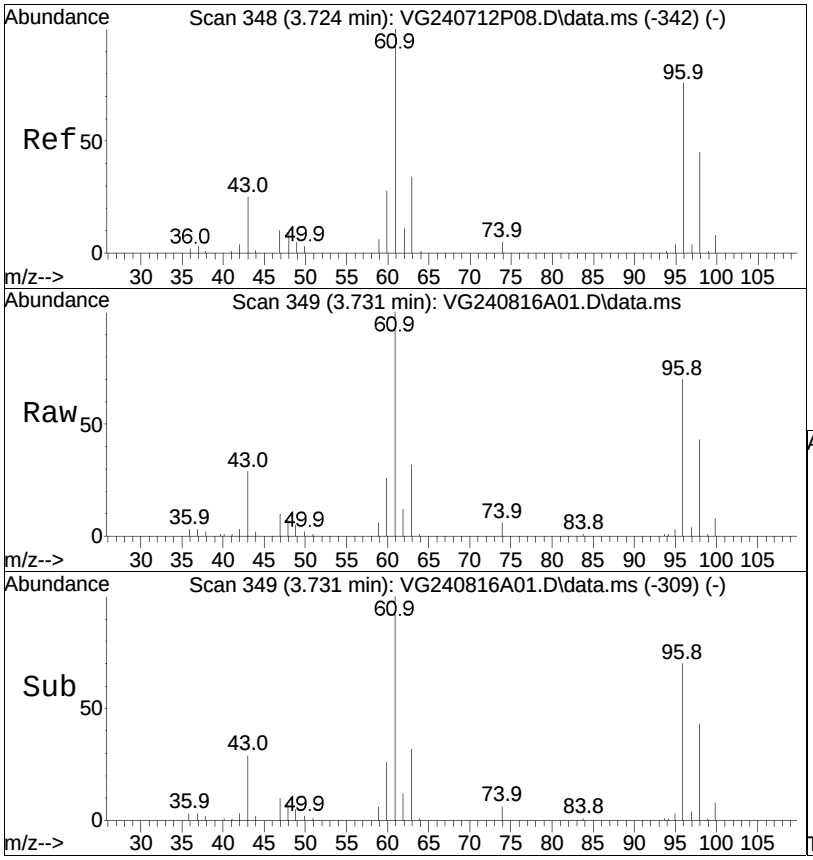


#17
Acetone
Concen: 7.33 ug/L
RT: 3.632 min Scan# 336
Delta R.T. 0.007 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 14935

Ion	Ratio	Lower	Upper
43	100		
58	27.4	22.2	33.4

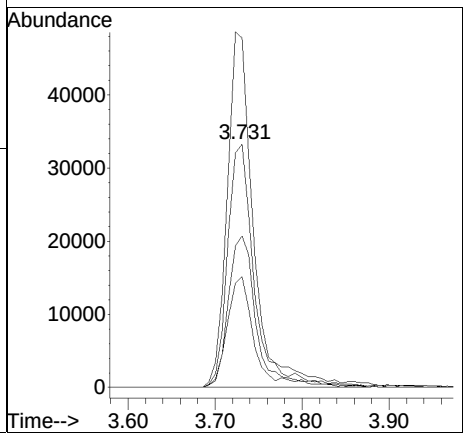


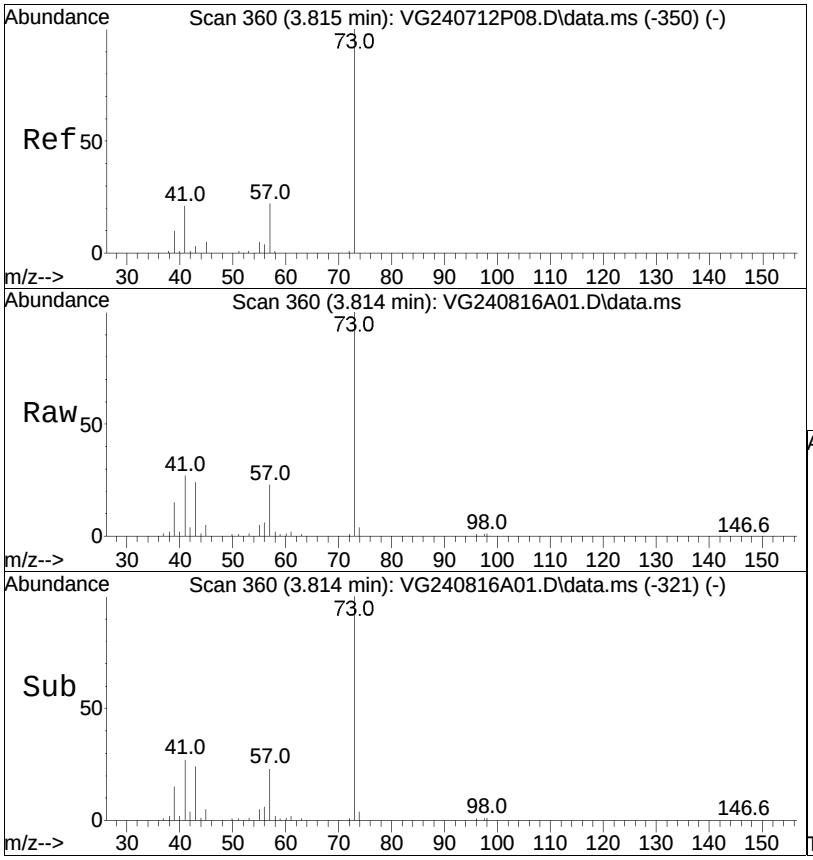


#18
trans-1,2-Dichloroethene
Concen: 9.28 ug/L
RT: 3.731 min Scan# 349
Delta R.T. 0.007 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 96 Resp: 72276

Ion	Ratio	Lower	Upper
96	100		
61	142.9	85.7	178.1
98	65.6	40.2	83.4
63	46.0	28.0	58.2

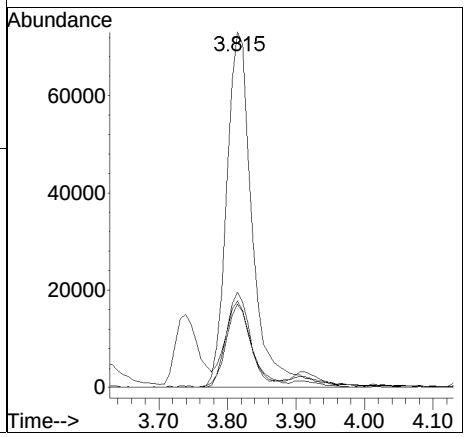


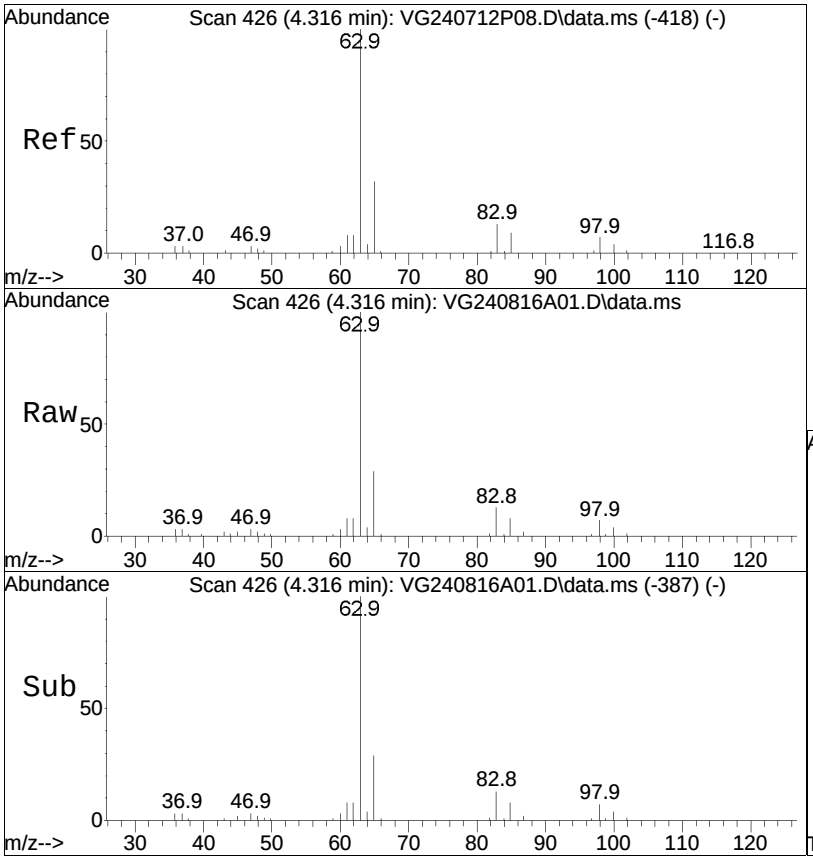


#20
Methyl tert-butyl ether
Concen: 8.09 ug/L
RT: 3.814 min Scan# 360
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 73 Resp: 193706

Ion	Ratio	Lower	Upper
73	100		
57	22.7	12.5	26.1
43	23.7	13.0	27.0
41	25.8	12.5	26.1

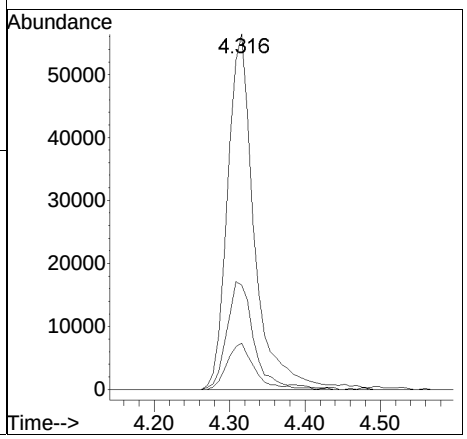


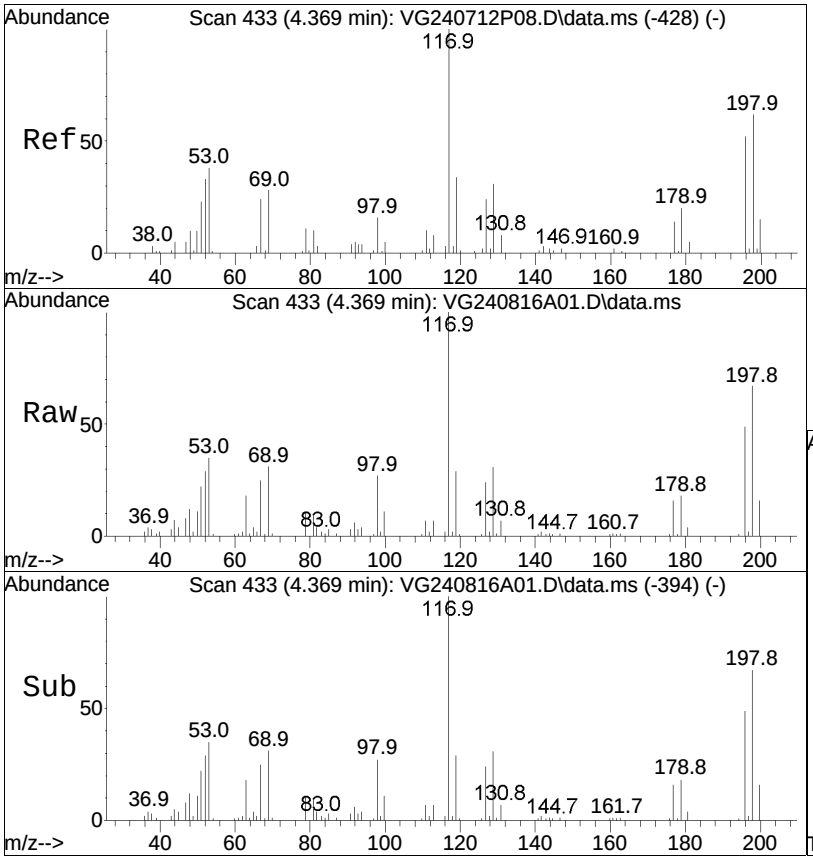


#23
1,1-Dichloroethane
Concen: 9.97 ug/L
RT: 4.316 min Scan# 426
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 63 Resp: 140582

Ion	Ratio	Lower	Upper
63	100		
65	30.8	10.4	50.4
83	13.1	0.0	33.2

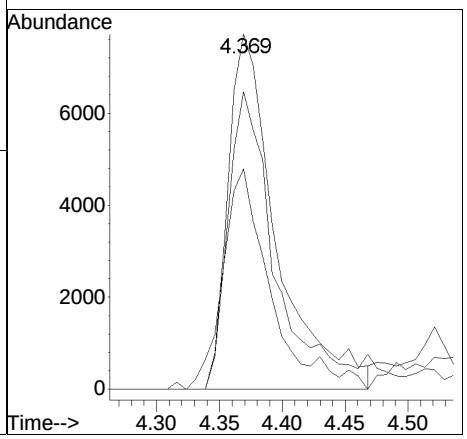


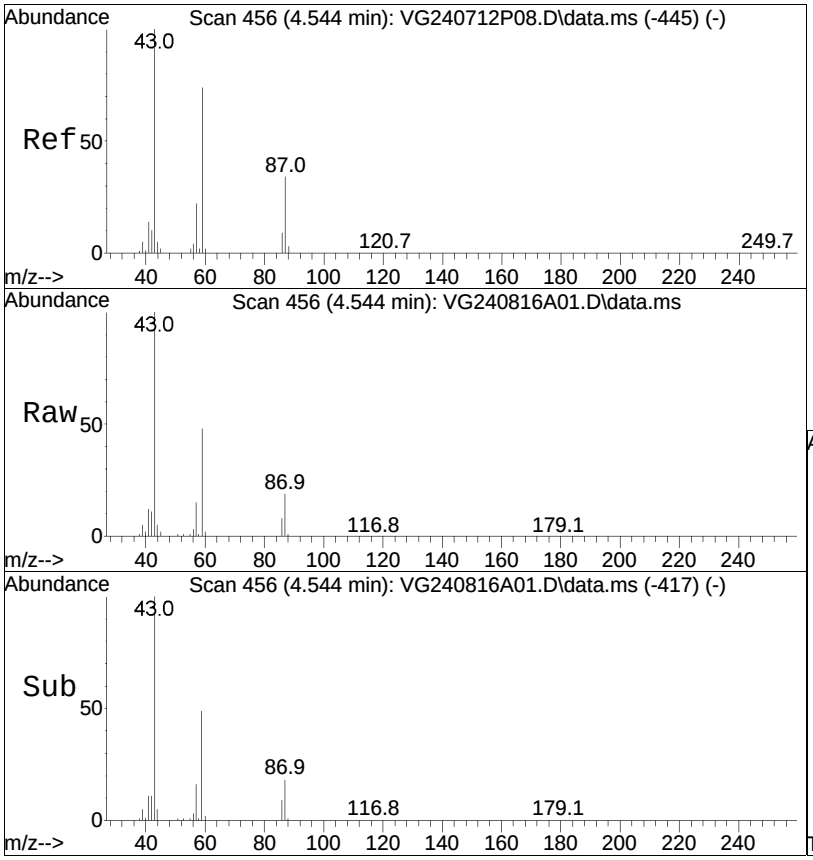


#25
Acrylonitrile
Concen: 9.47 ug/L
RT: 4.369 min Scan# 433
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 53 Resp: 20828

Ion	Ratio	Lower	Upper
53	100		
52	80.9	68.3	102.5
51	60.9	51.9	77.9

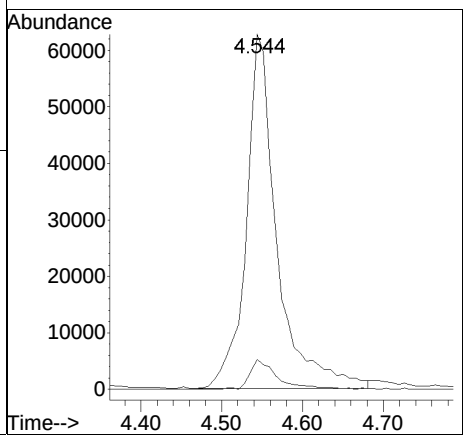


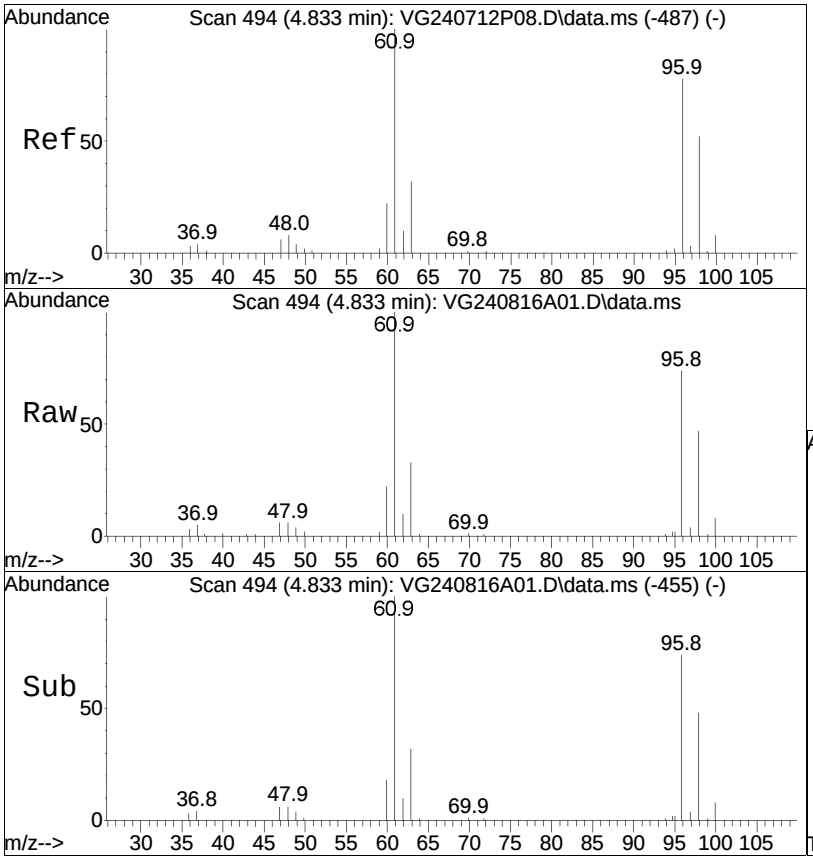


#27
Vinyl acetate
Concen: 12.64 ug/L
RT: 4.544 min Scan# 456
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 165172

Ion	Ratio	Lower	Upper
43	100		
86	7.8	6.3	9.5

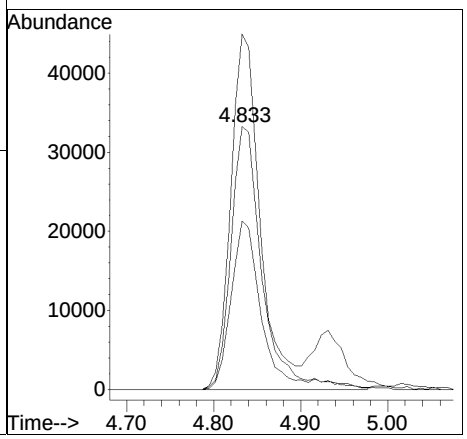


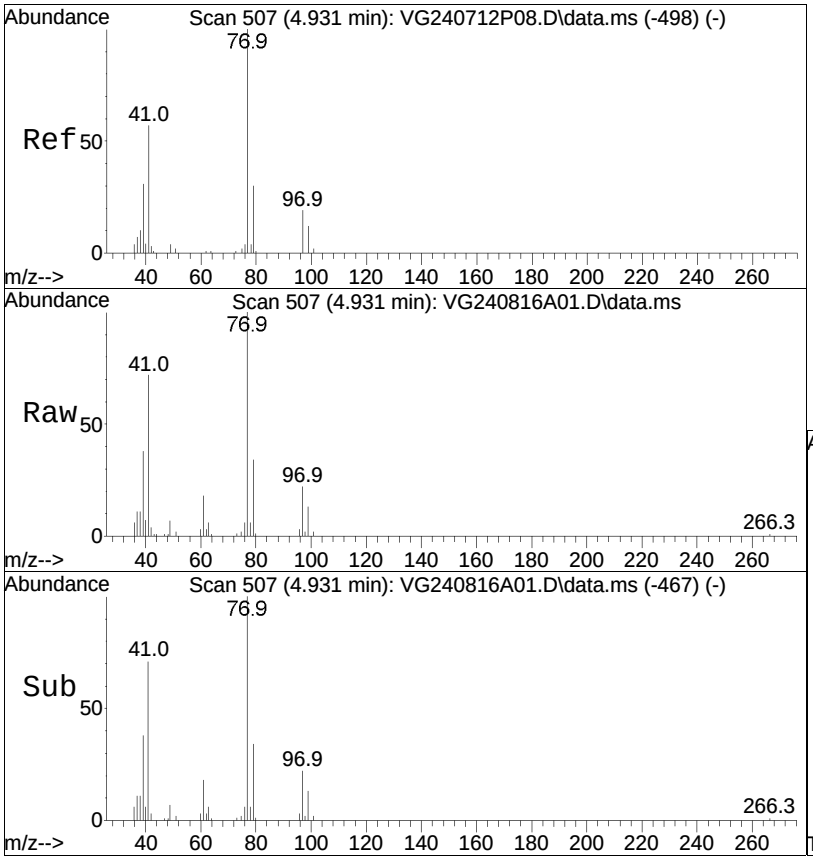


#28
cis-1,2-Dichloroethene
Concen: 9.24 ug/L
RT: 4.833 min Scan# 494
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 96 Resp: 82766

Ion	Ratio	Lower	Upper
96	100		
61	127.8	96.6	144.8
98	60.8	51.3	76.9

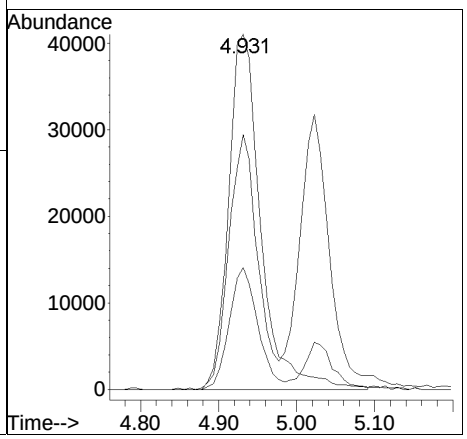


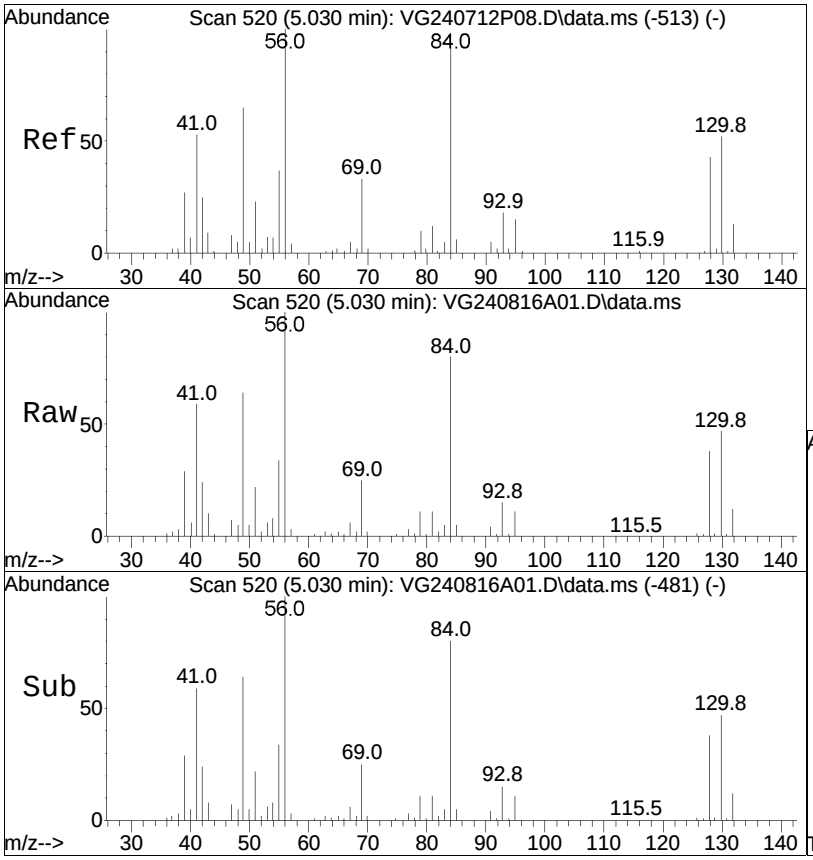


#29
2,2-Dichloropropane
Concen: 10.01 ug/L
RT: 4.931 min Scan# 507
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 77 Resp: 117658

Ion	Ratio	Lower	Upper
77	100		
41	64.7	38.1	79.1
79	30.7	20.6	42.8

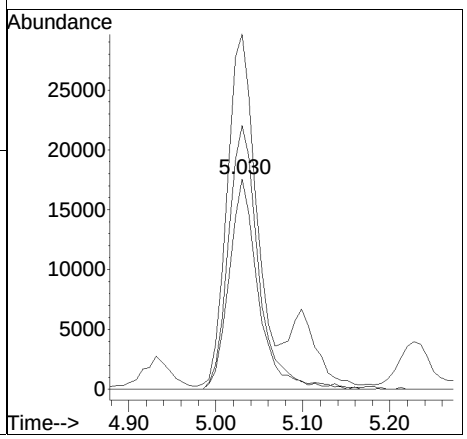


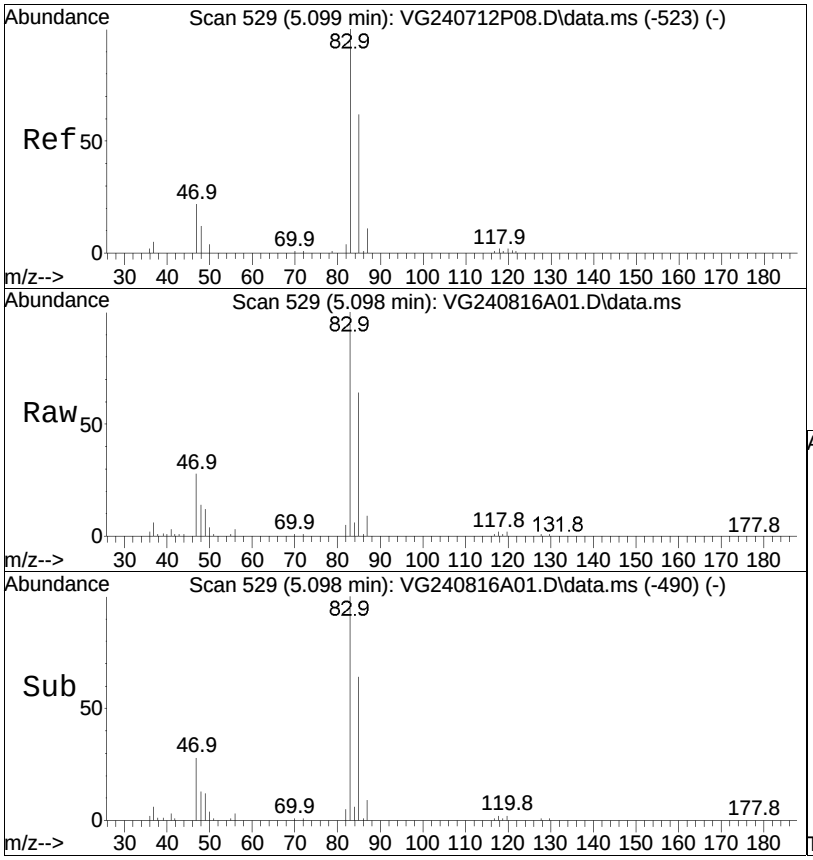


#30
Bromochloromethane
Concen: 9.39 ug/L
RT: 5.030 min Scan# 520
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:128 Resp: 41121

Ion	Ratio	Lower	Upper
128	100		
49	168.1	112.7	169.1
130	129.6	103.3	154.9

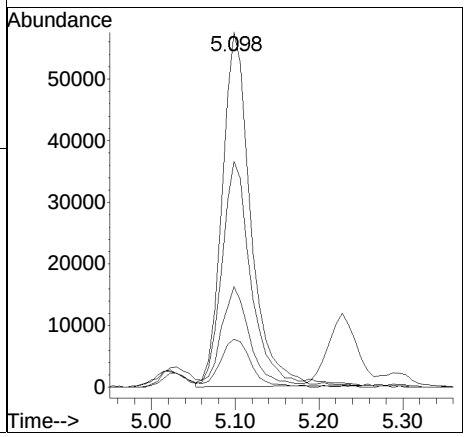


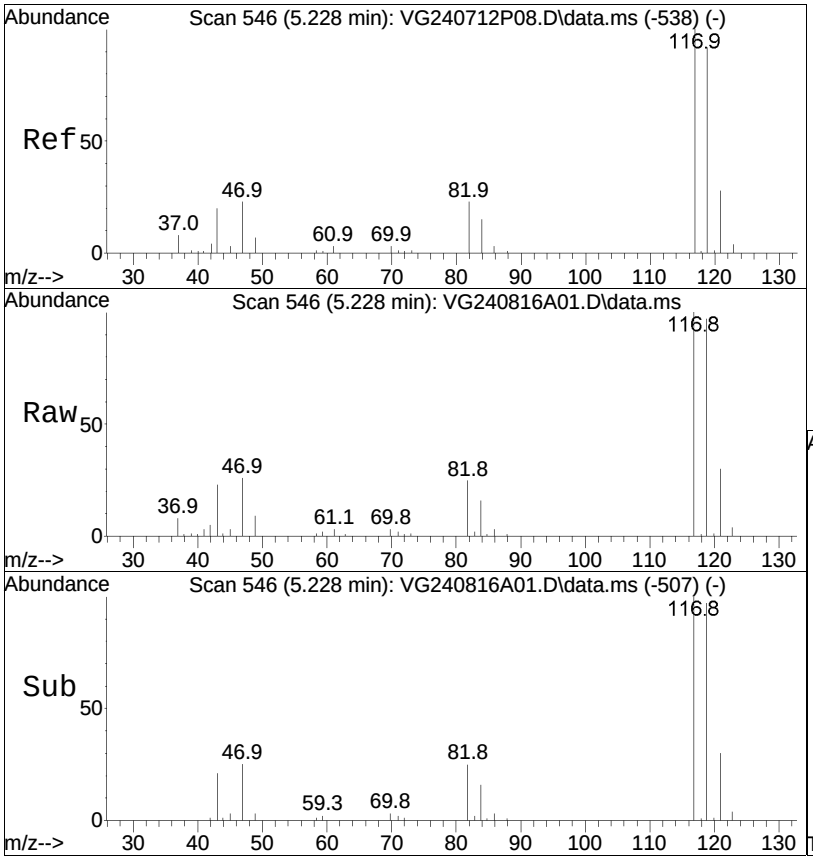


#32
Chloroform
Concen: 9.53 ug/L
RT: 5.098 min Scan# 529
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 137601

Ion	Ratio	Lower	Upper
83	100		
85	62.8	41.4	86.0
47	27.8	15.1	31.3
48	14.6	7.7	16.1

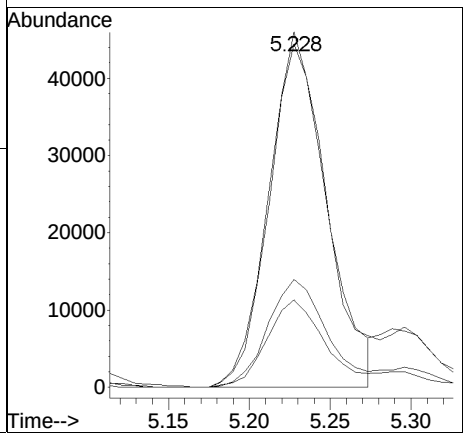


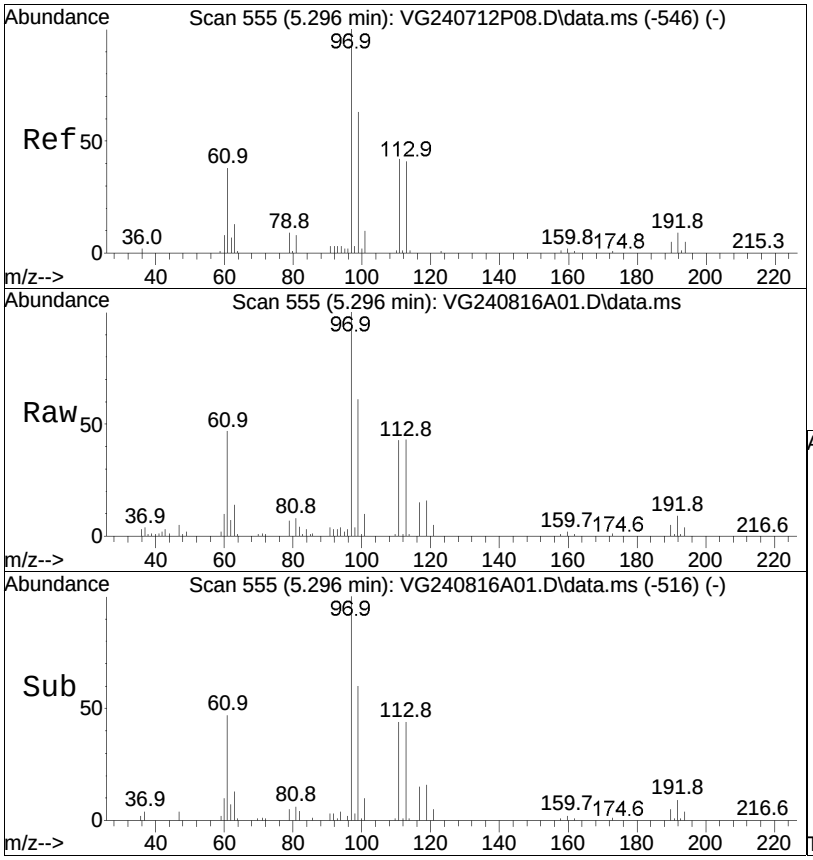


#34
Carbon tetrachloride
Concen: 9.80 ug/L
RT: 5.228 min Scan# 546
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:117 Resp: 114648

Ion	Ratio	Lower	Upper
117	100		
119	99.1	63.2	131.2
121	31.0	20.4	42.4
82	24.9	15.4	32.0

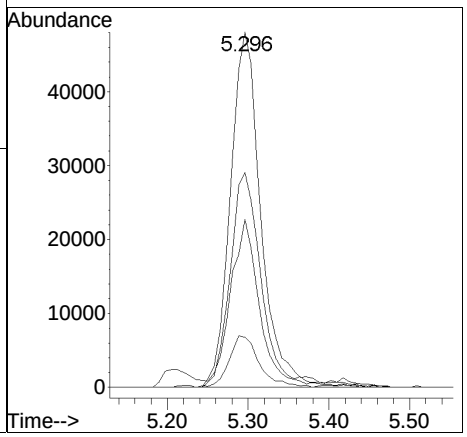


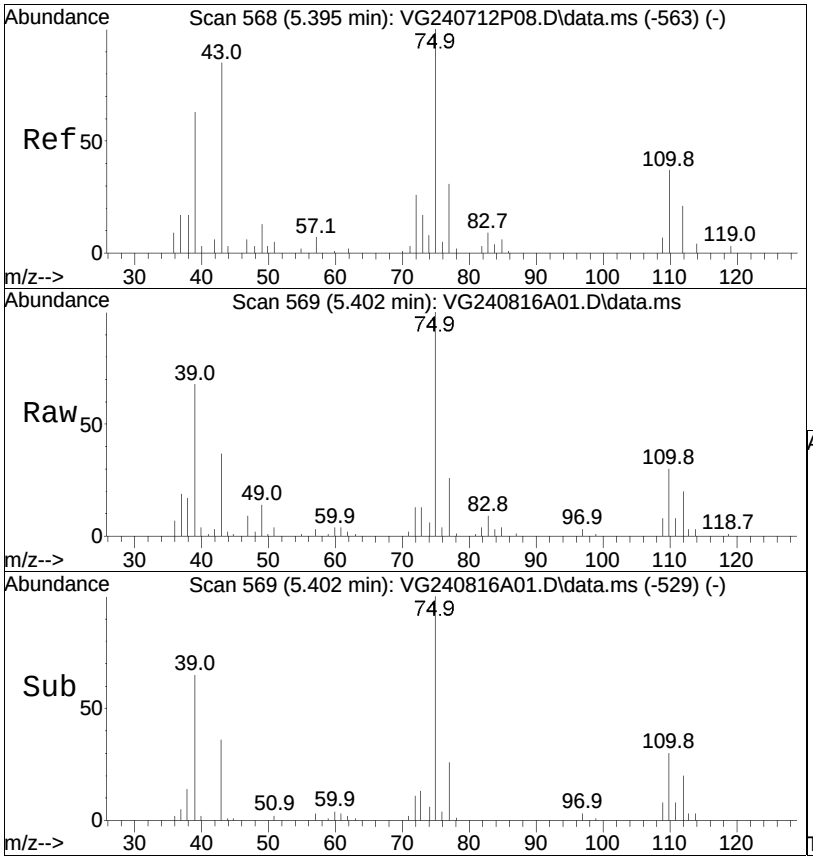


#37
1,1,1-Trichloroethane
Concen: 9.60 ug/L
RT: 5.296 min Scan# 555
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 97 Resp: 127762

Ion	Ratio	Lower	Upper
97	100		
99	61.1	41.3	85.7
61	44.1	26.0	54.0
63	14.3	8.6	18.0

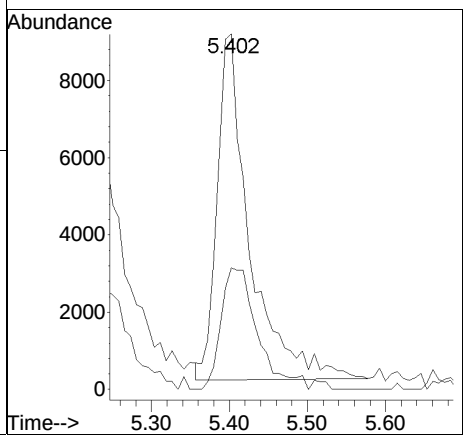


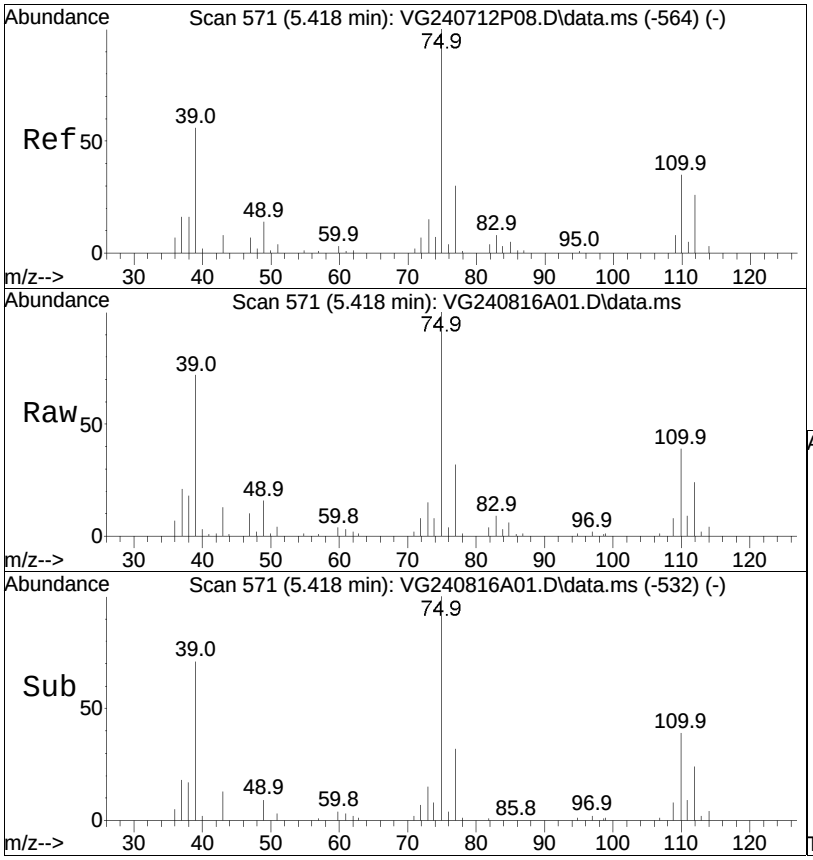


#39
2-Butanone
Concen: 9.49 ug/L
RT: 5.402 min Scan# 569
Delta R.T. 0.007 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 25911

Ion	Ratio	Lower	Upper
43	100		
72	39.3	42.6	63.8#

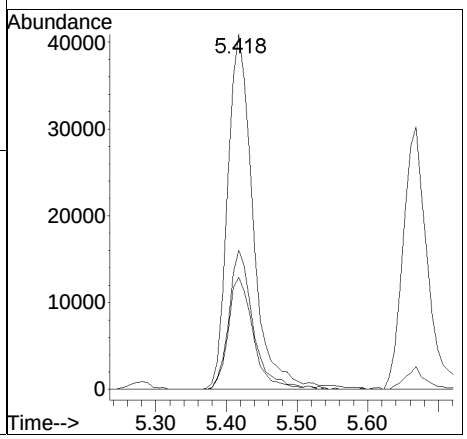


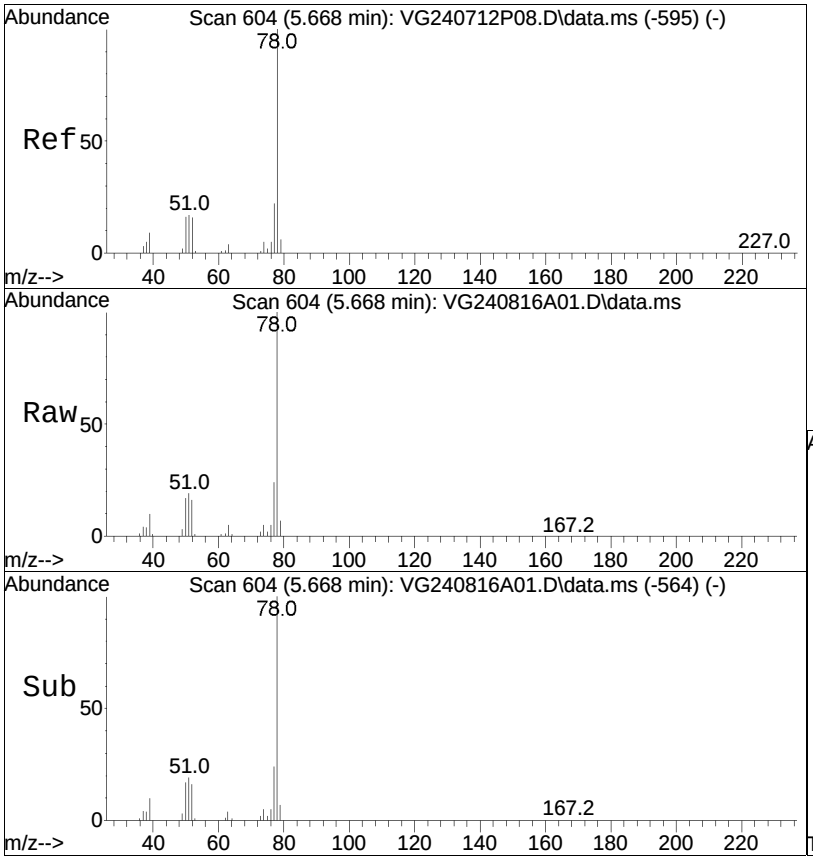


#40
1,1-Dichloropropene
Concen: 9.68 ug/L
RT: 5.418 min Scan# 571
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 103015

Ion	Ratio	Lower	Upper
75	100		
110	37.5	24.1	50.1
77	31.0	19.8	41.0

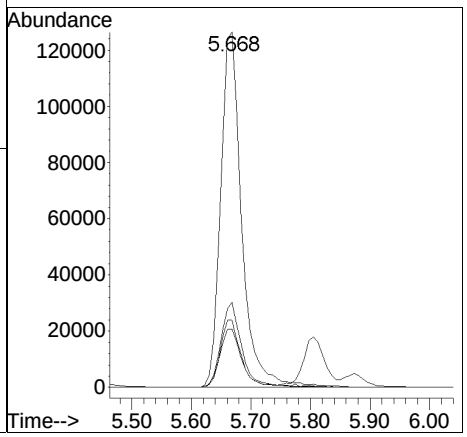


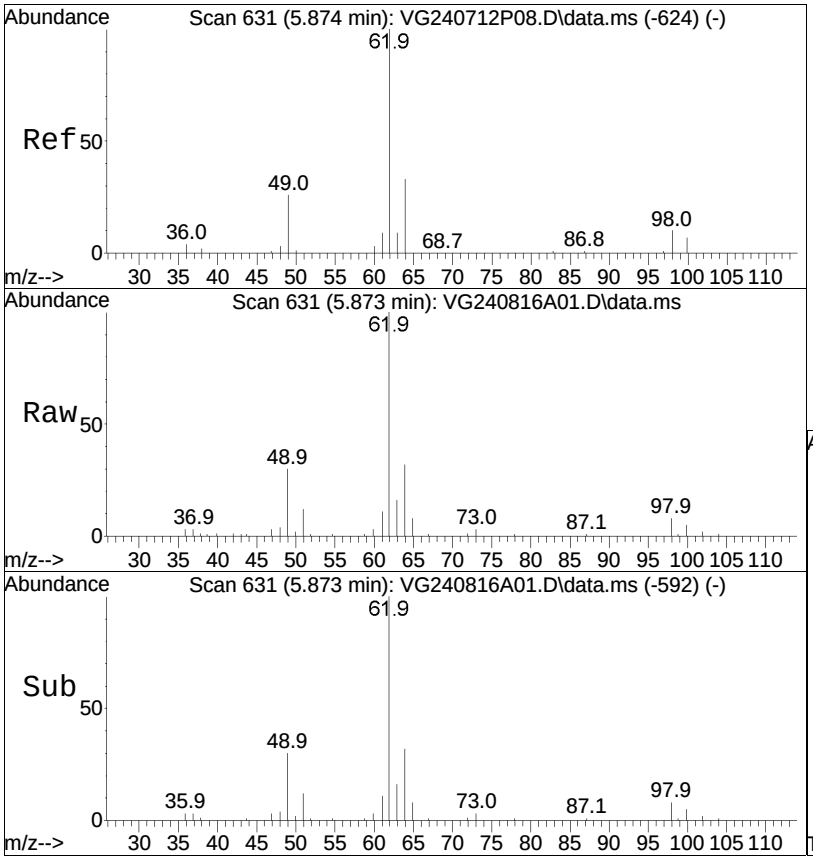


#41
Benzene
Concen: 9.71 ug/L
RT: 5.668 min Scan# 604
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 78 Resp: 312966

Ion	Ratio	Lower	Upper
78	100		
77	23.5	15.5	32.1
51	18.6	9.9	20.7
52	17.3	9.2	19.2

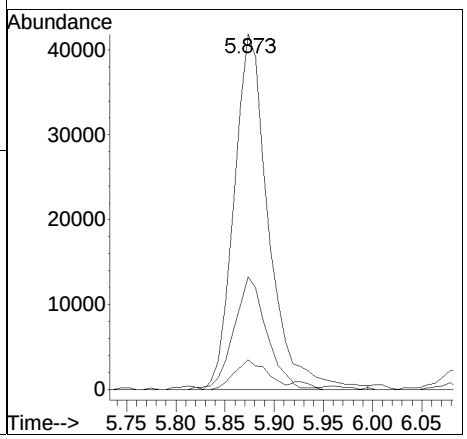


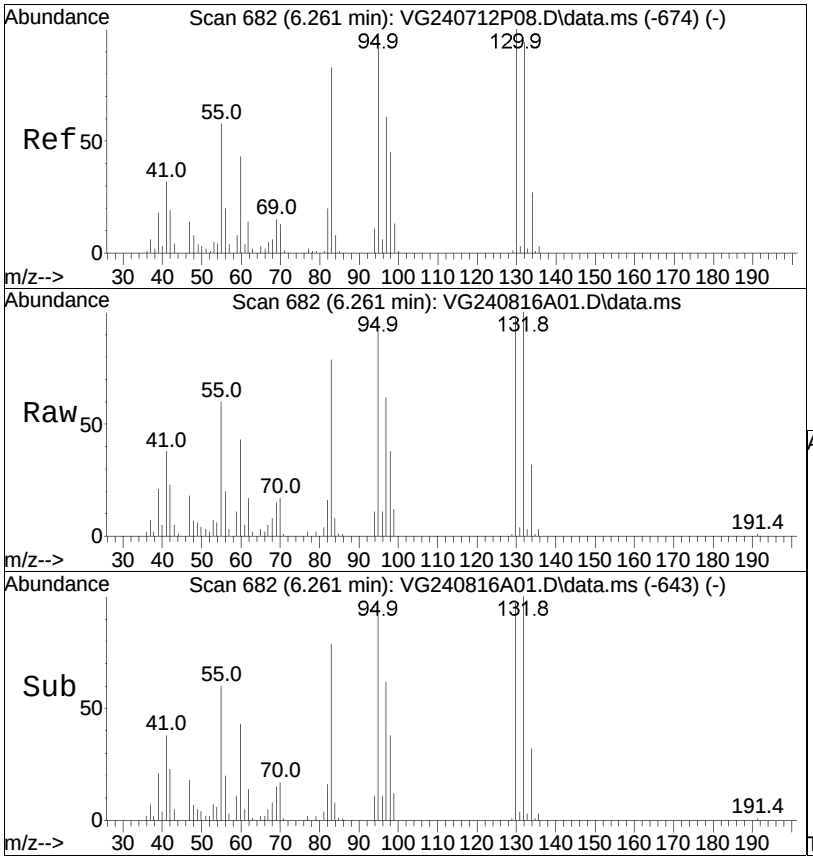


#44
1,2-Dichloroethane
Concen: 9.96 ug/L
RT: 5.873 min Scan# 631
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 62 Resp: 102295

Ion	Ratio	Lower	Upper
62	100		
64	29.4	11.9	51.9
98	8.4	0.0	29.3

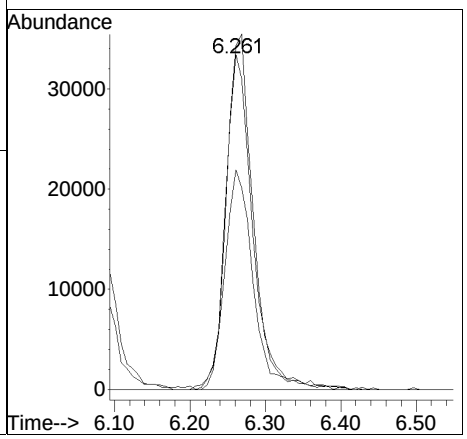


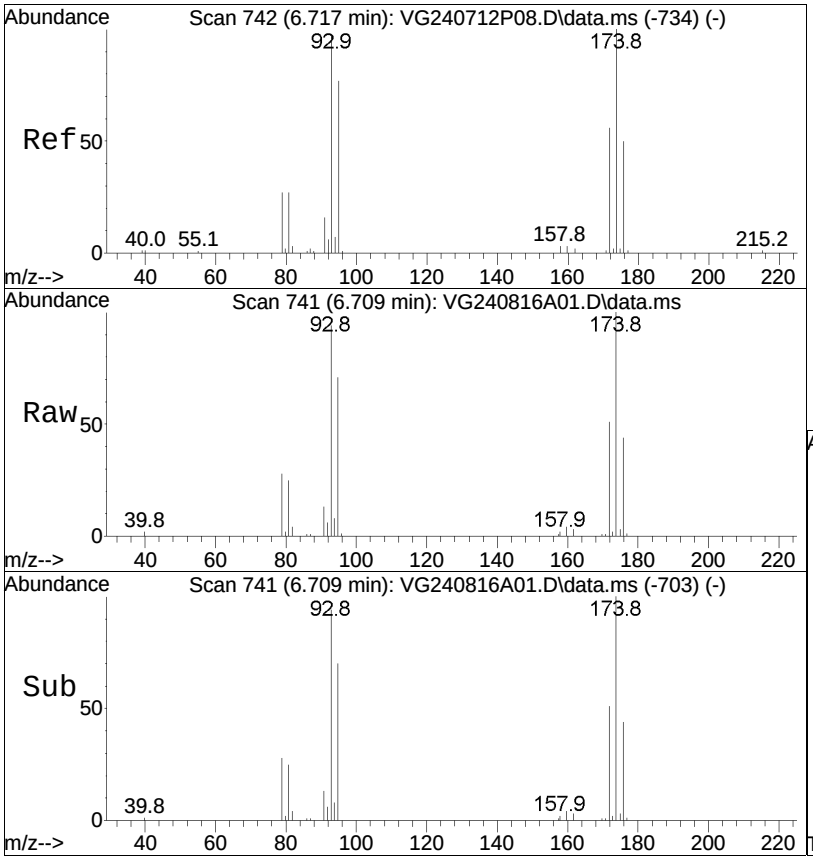


#48
Trichloroethene
Concen: 9.22 ug/L
RT: 6.261 min Scan# 682
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 95 Resp: 83825

Ion	Ratio	Lower	Upper
95	100		
97	69.3	54.0	81.0
130	105.1	85.0	127.4

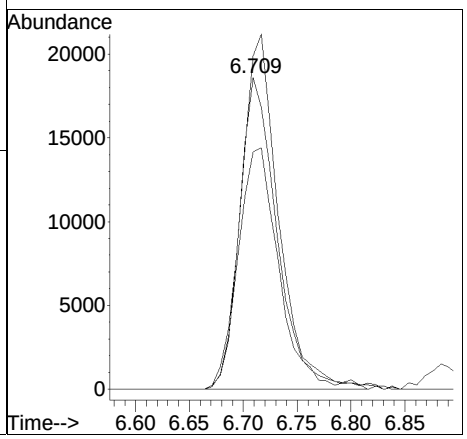


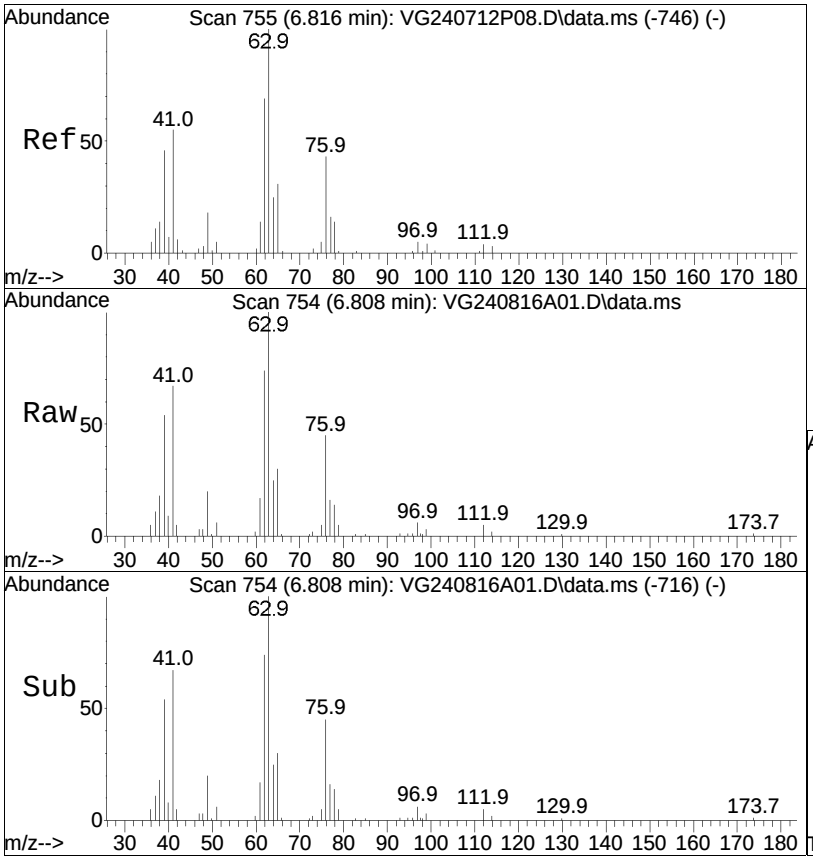


#50
Dibromomethane
Concen: 8.98 ug/L
RT: 6.709 min Scan# 741
Delta R.T. -0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 93 Resp: 45657

Ion	Ratio	Lower	Upper
93	100		
95	81.5	66.6	100.0
174	112.4	90.5	135.7

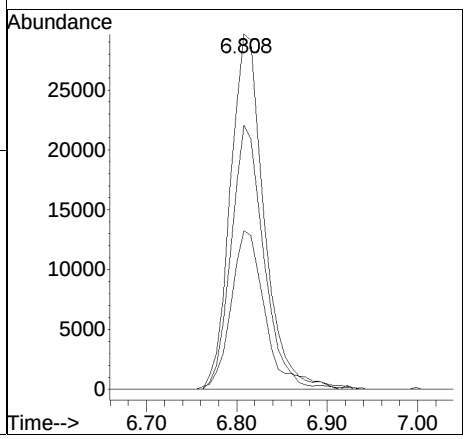


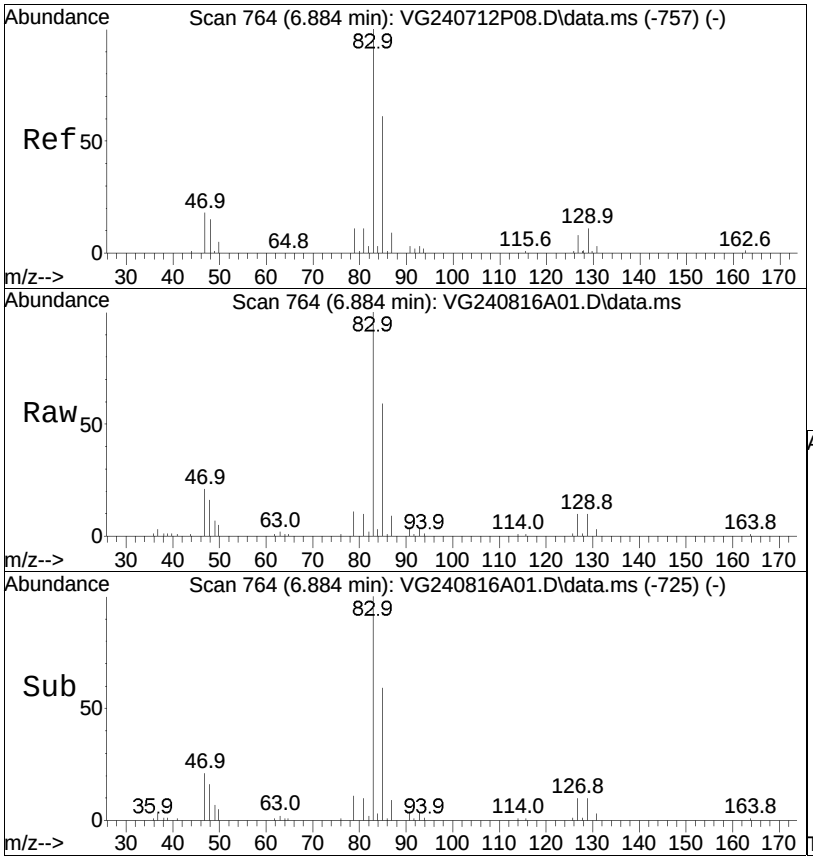


#51
1,2-Dichloropropane
Concen: 9.80 ug/L
RT: 6.808 min Scan# 754
Delta R.T. -0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 63 Resp: 77089

Ion	Ratio	Lower	Upper
63	100		
62	72.6	56.5	84.7
76	44.7	34.6	52.0

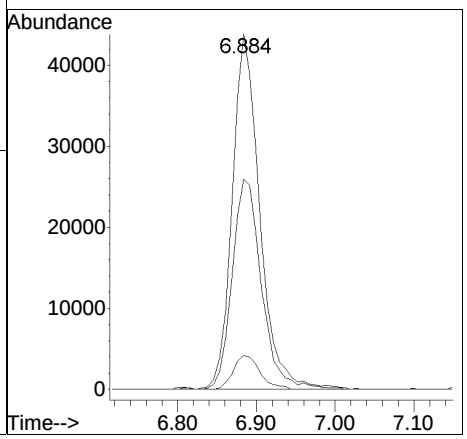


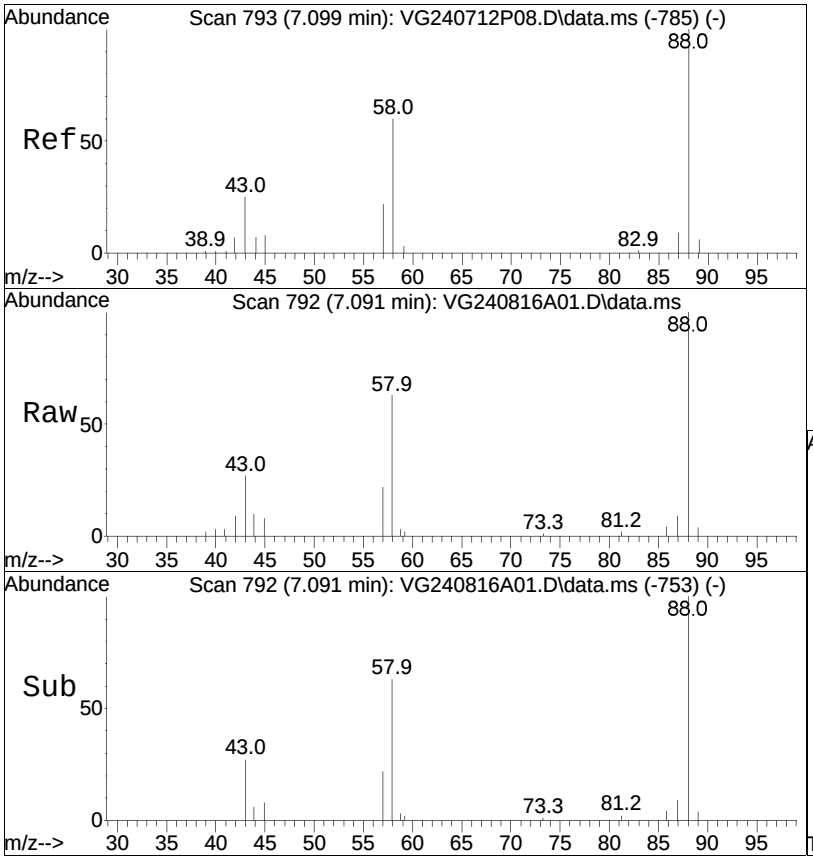


#54
Bromodichloromethane
Concen: 9.18 ug/L
RT: 6.884 min Scan# 764
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 105450

Ion	Ratio	Lower	Upper
83	100		
85	63.4	50.8	76.2
127	9.4	7.4	11.2

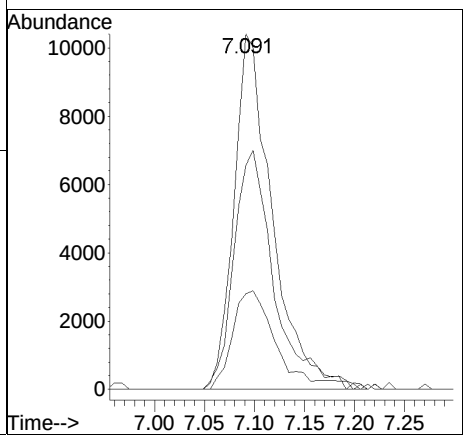


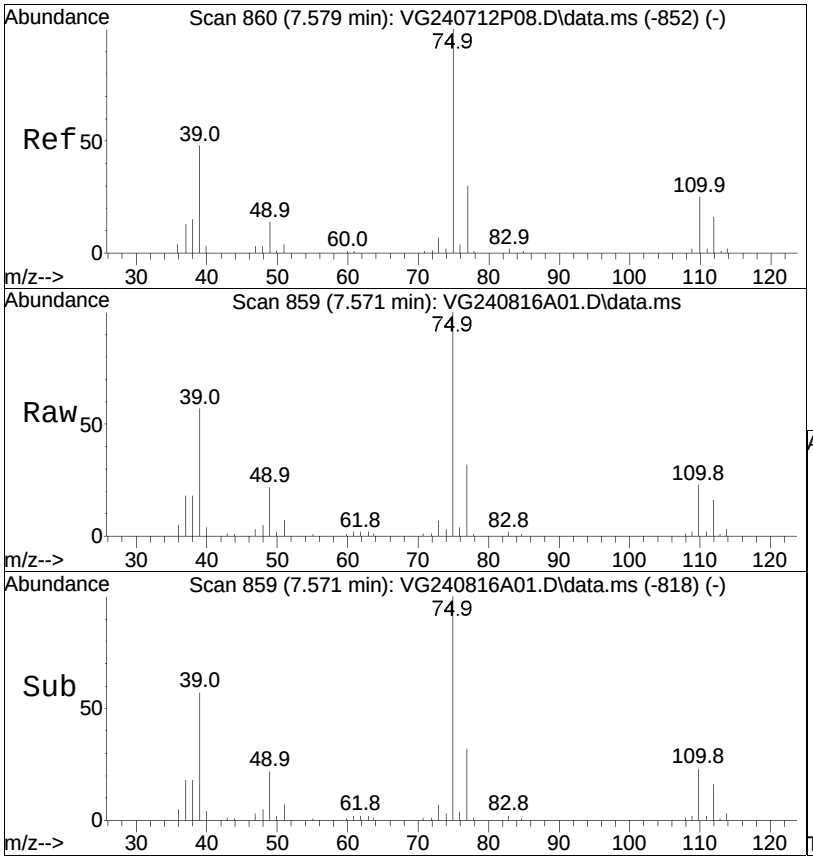


#57
1,4-Dioxane
Concen: 347.43 ug/L
RT: 7.091 min Scan# 792
Delta R.T. -0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 88 Resp: 27797

Ion	Ratio	Lower	Upper
88	100		
58	71.1	48.7	73.1
43	30.4	22.4	33.6

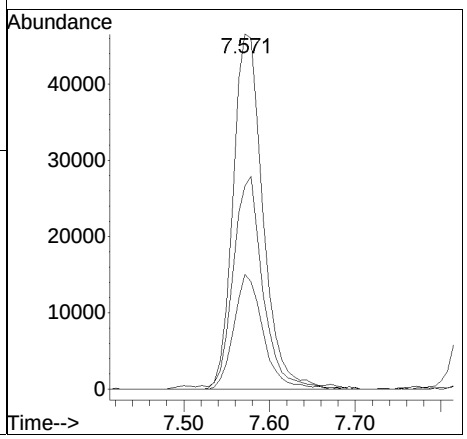


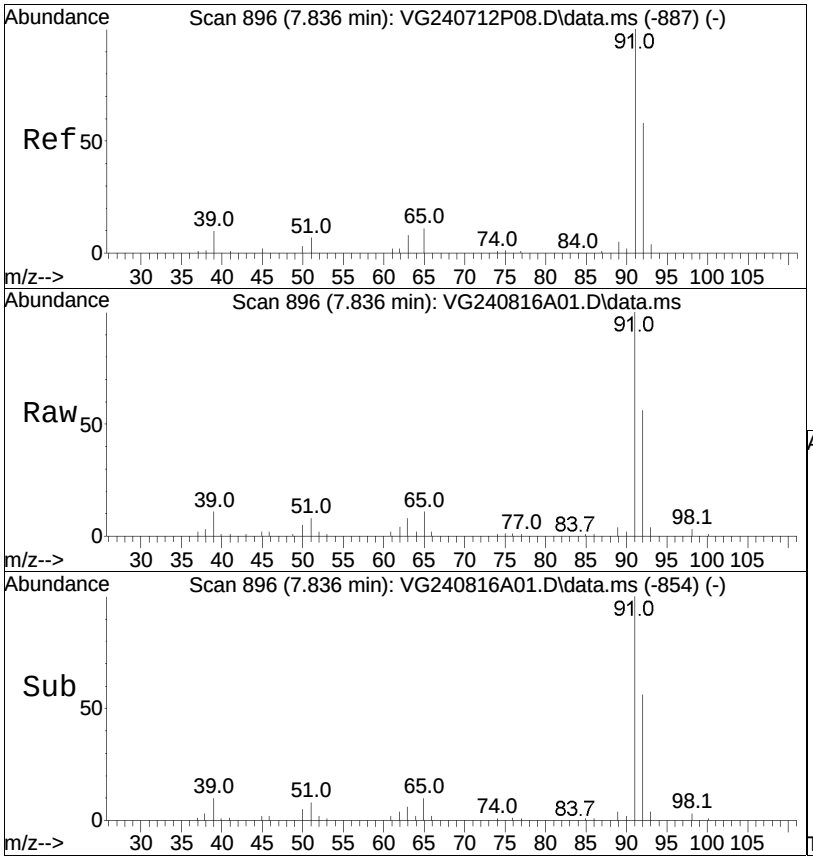


#58
cis-1,3-Dichloropropene
Concen: 8.85 ug/L
RT: 7.571 min Scan# 859
Delta R.T. -0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 113697

Ion	Ratio	Lower	Upper
75	100		
77	31.8	24.6	36.8
39	59.8	40.8	61.2

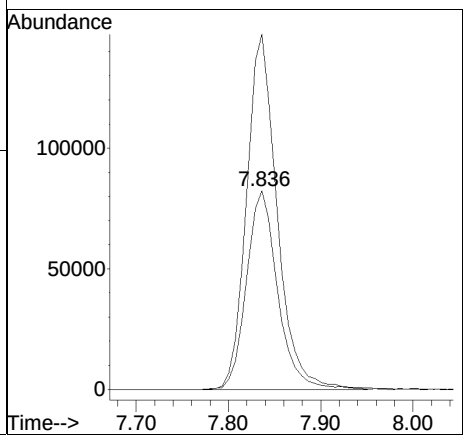


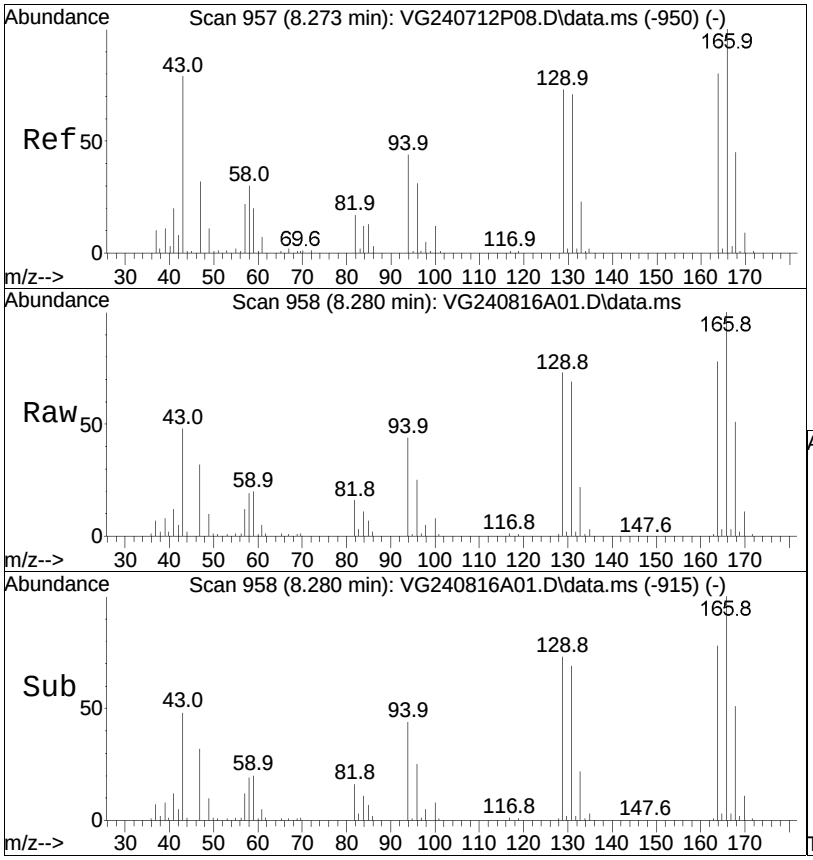


#61
Toluene
Concen: 9.55 ug/L
RT: 7.836 min Scan# 896
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 92 Resp: 193060

Ion	Ratio	Lower	Upper
92	100		
91	175.6	134.8	202.2

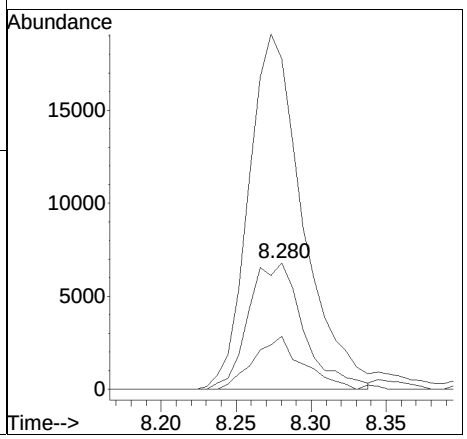


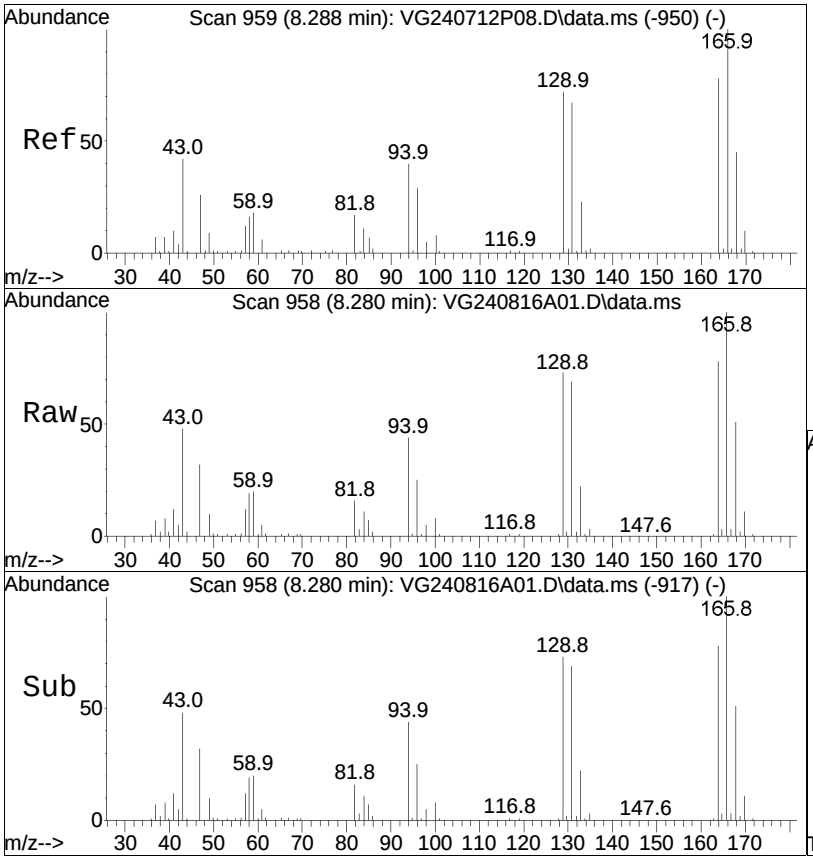


#62
4-Methyl-2-pentanone
Concen: 7.81 ug/L
RT: 8.280 min Scan# 958
Delta R.T. 0.007 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 58 Resp: 17405

Ion	Ratio	Lower	Upper
58	100		
100	37.6	33.6	50.4
43	286.2	204.3	306.5

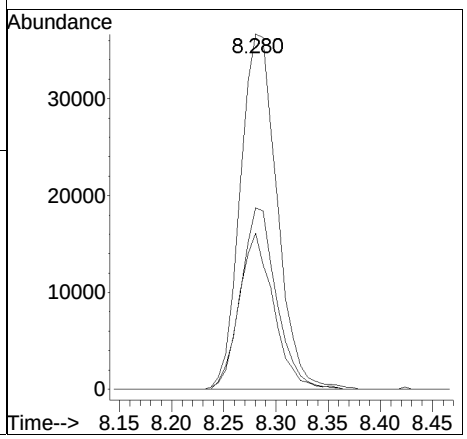


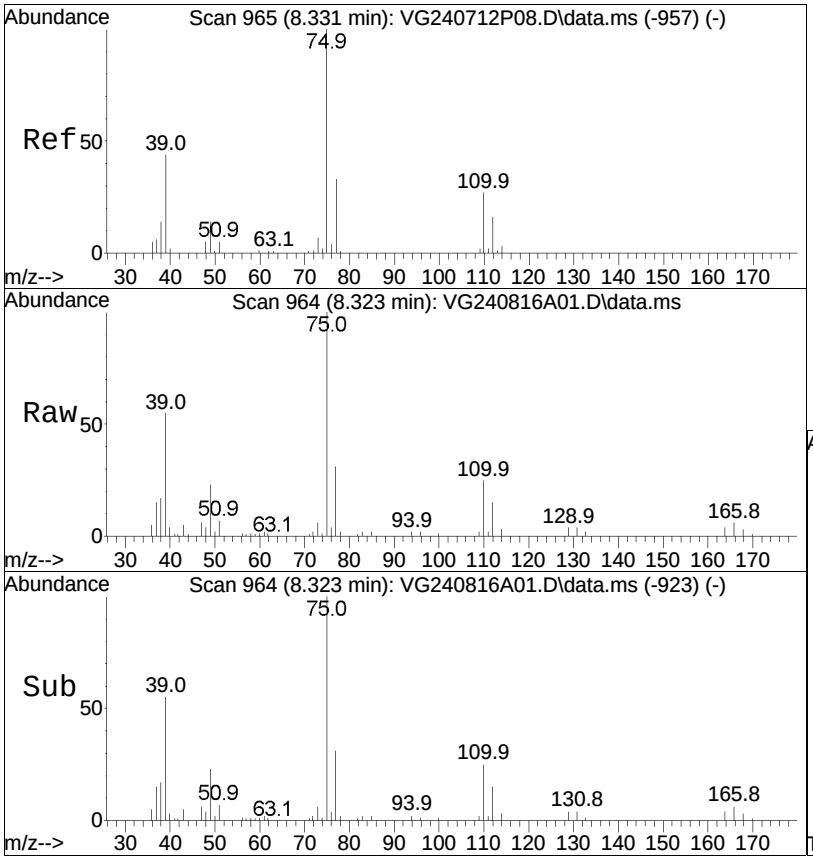


#63
Tetrachloroethene
Concen: 10.15 ug/L
RT: 8.280 min Scan# 958
Delta R.T. -0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:166 Resp: 90009

Ion	Ratio	Lower	Upper
166	100		
168	49.4	27.3	67.3
94	41.5	20.5	60.5

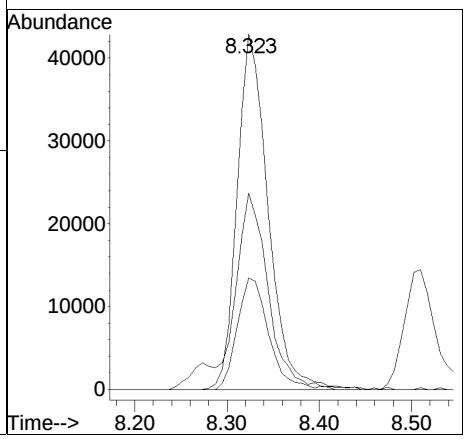


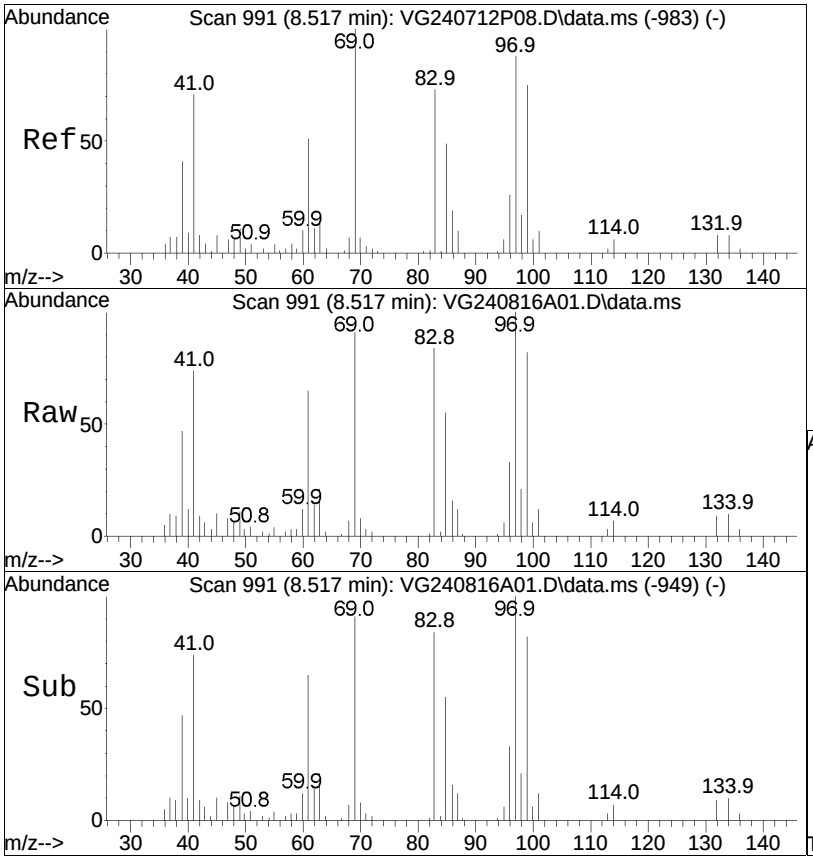


#65
trans-1,3-Dichloropropene
Concen: 9.04 ug/L
RT: 8.323 min Scan# 964
Delta R.T. -0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 100055

Ion	Ratio	Lower	Upper
75	100		
77	32.0	11.3	51.3
39	56.9	36.0	76.0

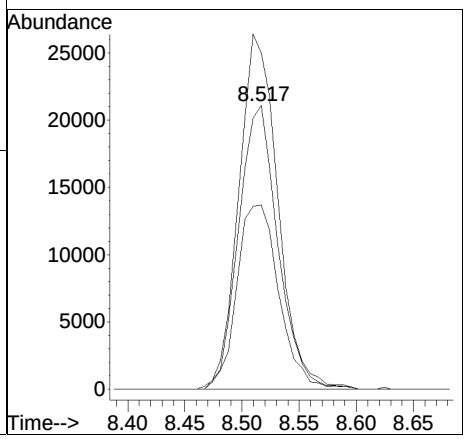


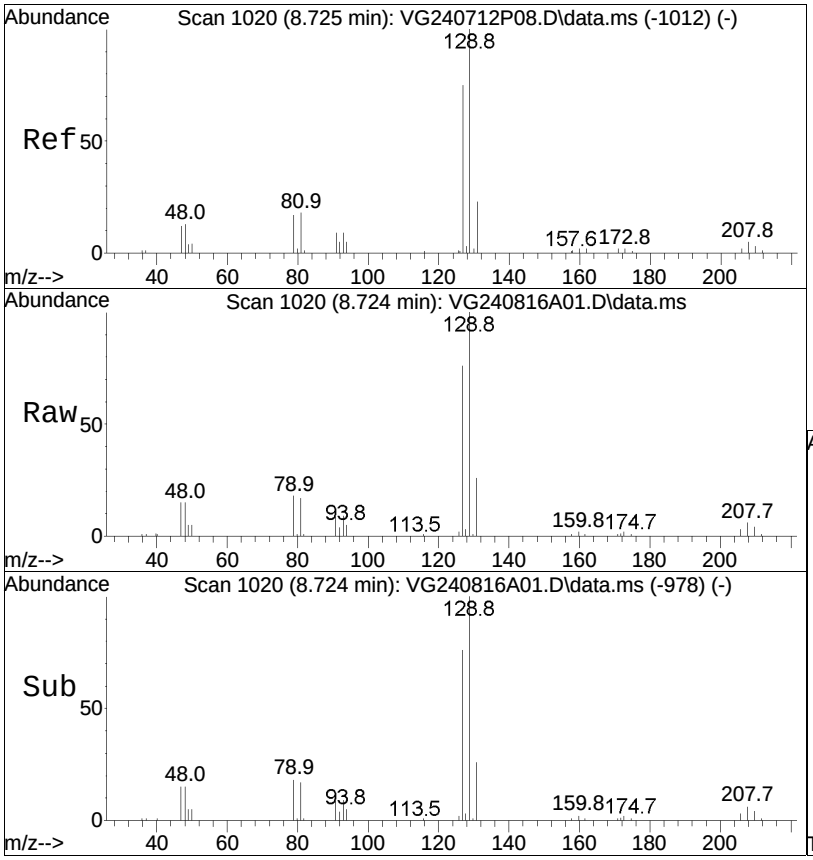


#68
1,1,2-Trichloroethane
Concen: 9.12 ug/L
RT: 8.517 min Scan# 991
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 50566

Ion	Ratio	Lower	Upper
83	100		
97	124.5	101.0	141.0
85	69.8	47.9	87.9

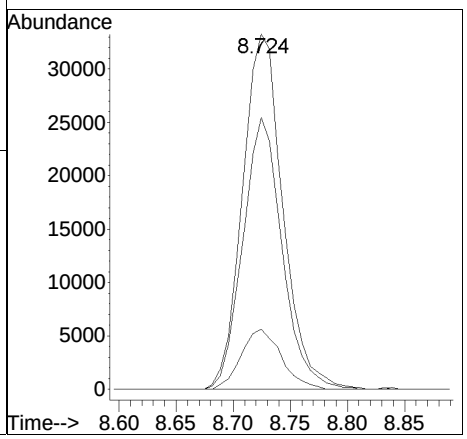


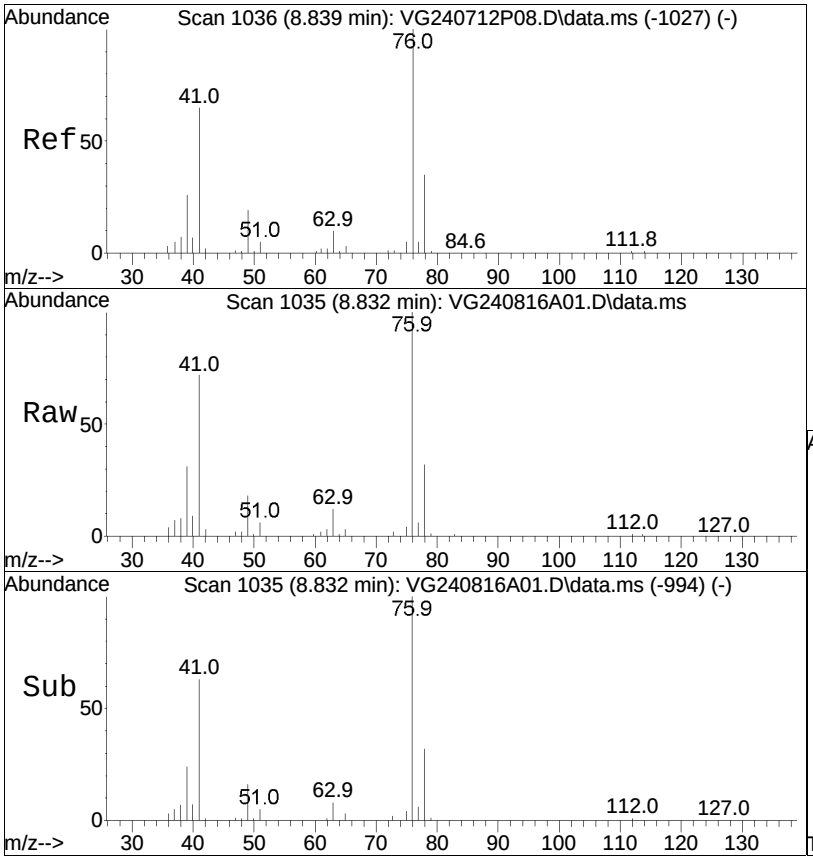


#69
Chlorodibromomethane
Concen: 9.34 ug/L
RT: 8.724 min Scan# 1020
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:129 Resp: 81937

Ion	Ratio	Lower	Upper
129	100		
81	16.9	0.0	35.0
127	74.3	57.1	97.1

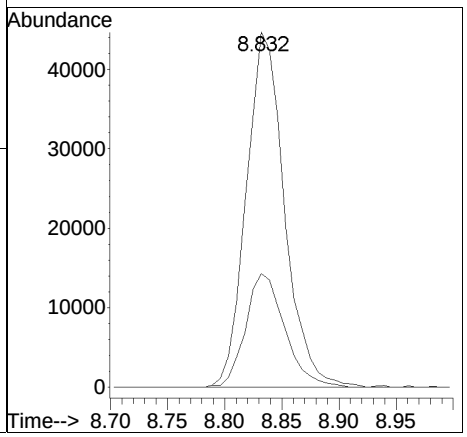


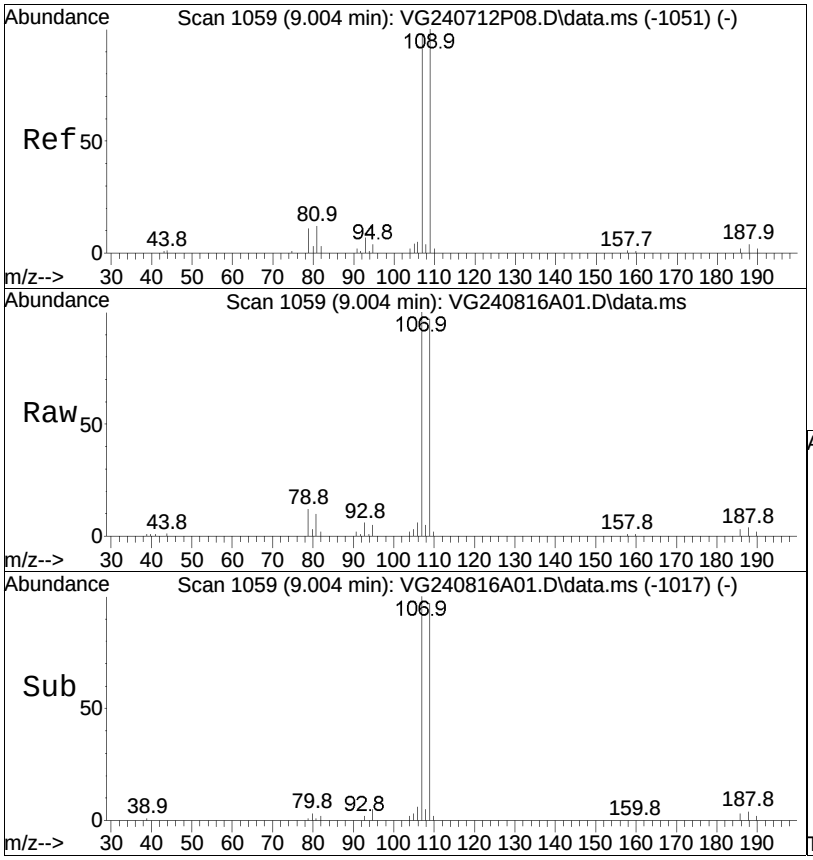


#70
1,3-Dichloropropane
Concen: 9.41 ug/L
RT: 8.832 min Scan# 1035
Delta R.T. -0.007 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 76 Resp: 103997

Ion	Ratio	Lower	Upper
76	100		
78	32.9	25.4	38.2

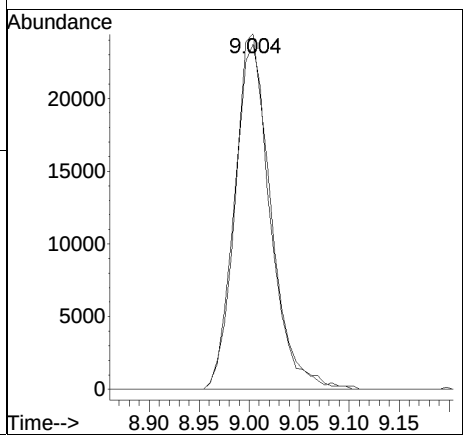


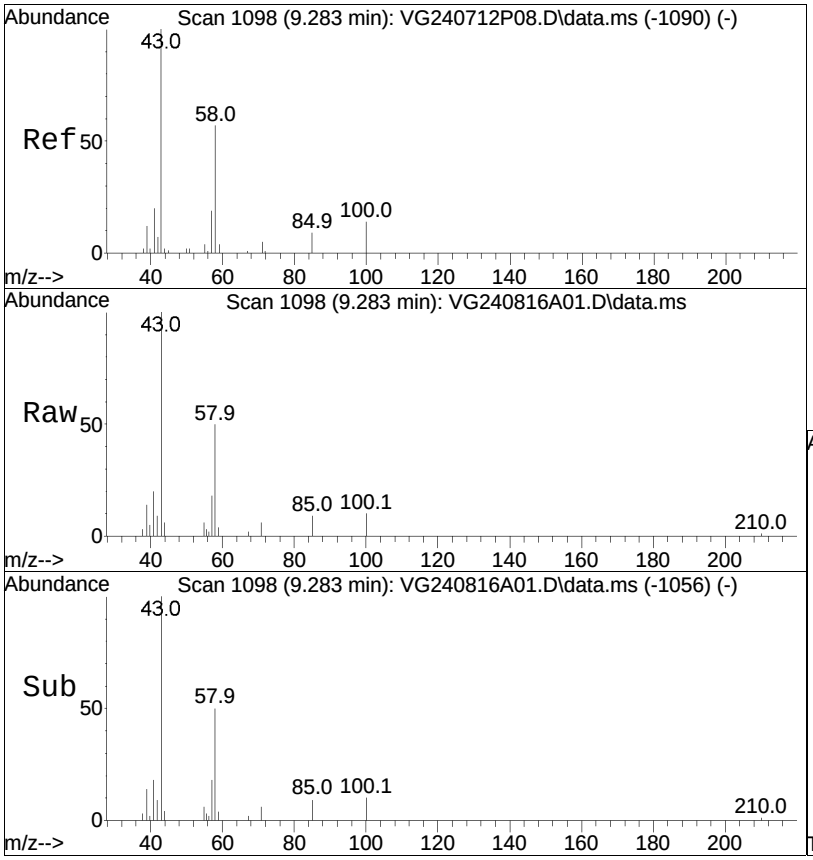


#71
1,2-Dibromoethane
Concen: 8.78 ug/L
RT: 9.004 min Scan# 1059
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:107 Resp: 61741

Ion	Ratio	Lower	Upper
107	100		
109	95.0	76.0	114.0

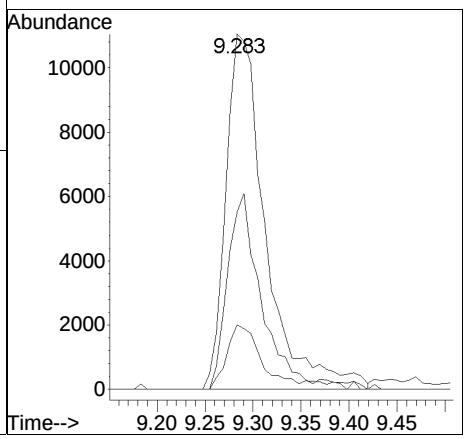


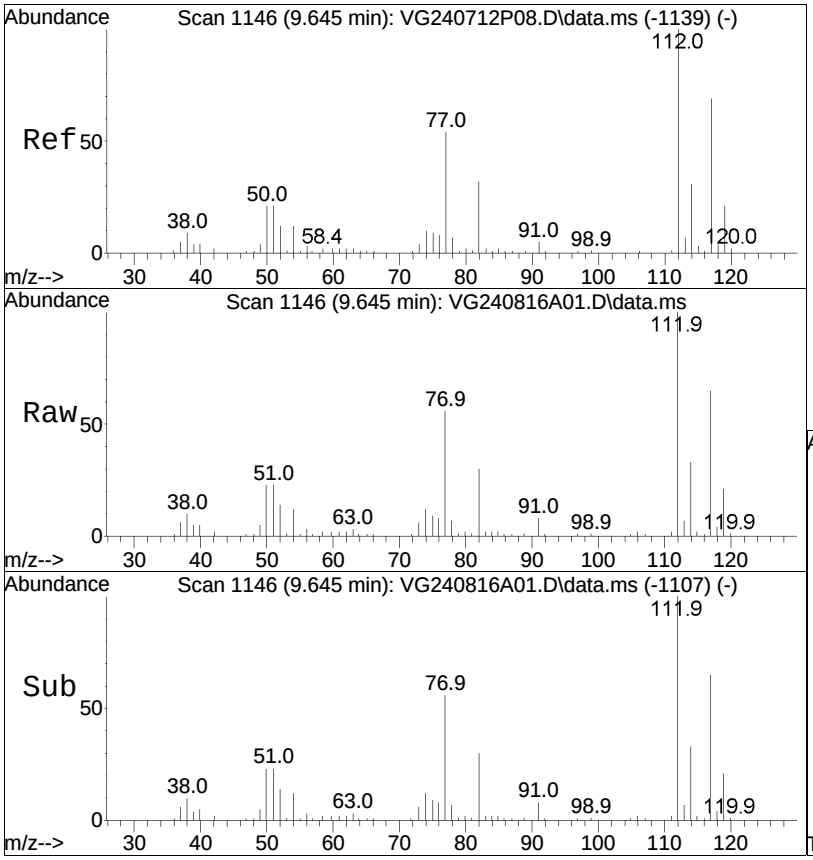


#72
2-Hexanone
Concen: 7.74 ug/L
RT: 9.283 min Scan# 1098
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 31986

Ion	Ratio	Lower	Upper
43	100		
58	45.9	43.8	65.6
57	15.7	15.2	22.8

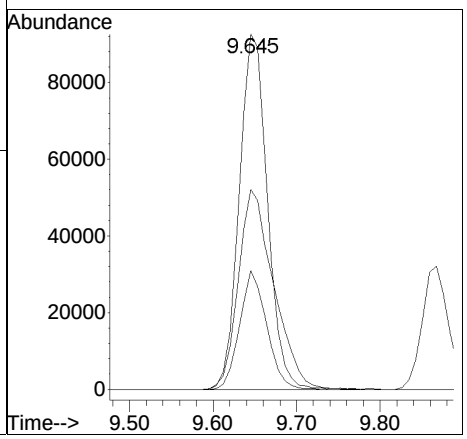


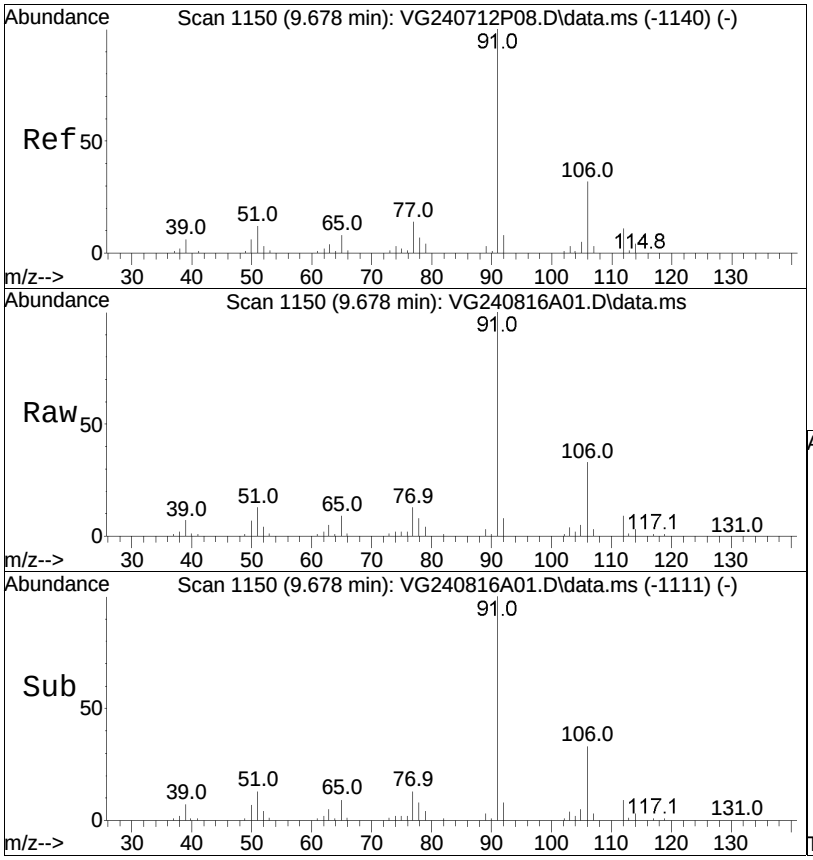


#73
Chlorobenzene
Concen: 9.63 ug/L
RT: 9.645 min Scan# 1146
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:112 Resp: 216811

Ion	Ratio	Lower	Upper
112	100		
77	70.6	55.9	83.9
114	32.0	25.4	38.0

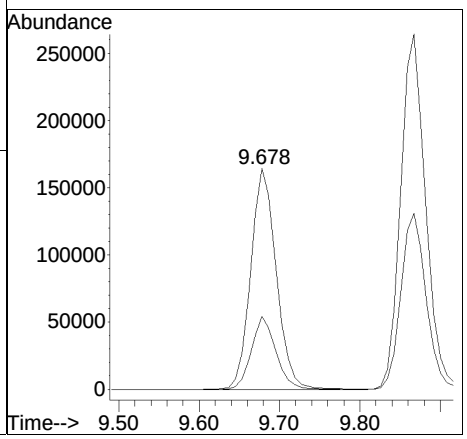


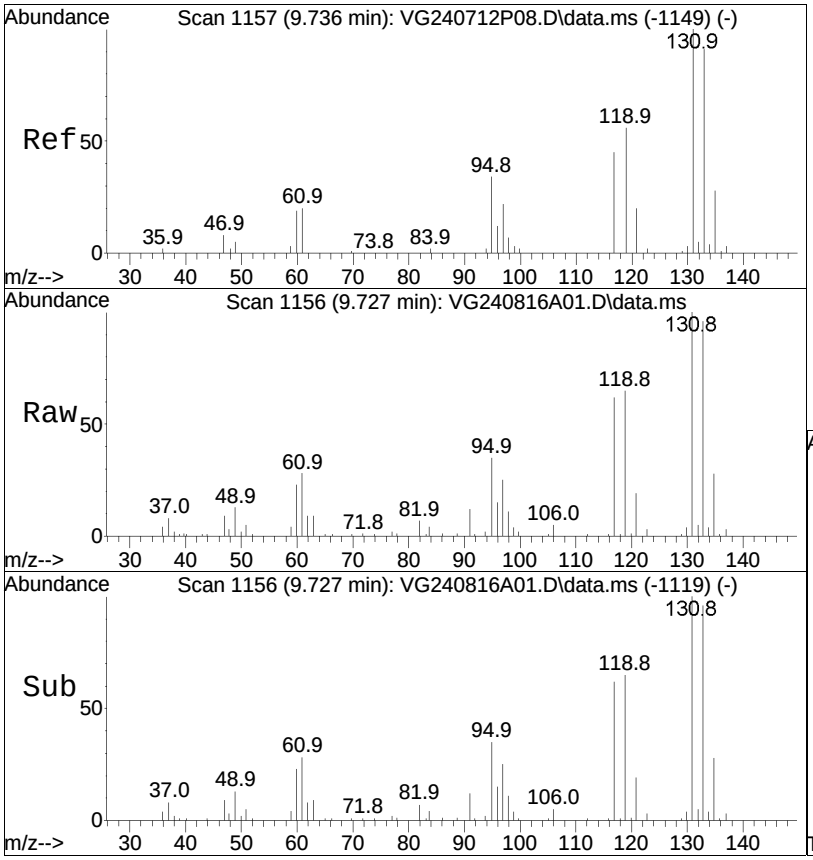


#74
Ethylbenzene
Concen: 9.40 ug/L
RT: 9.678 min Scan# 1150
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 362774

Ion	Ratio	Lower	Upper
91	100		
106	31.6	25.3	37.9

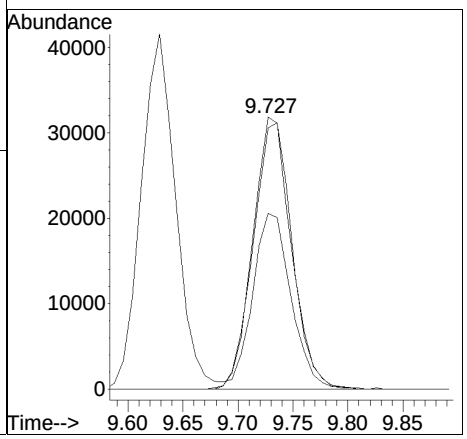


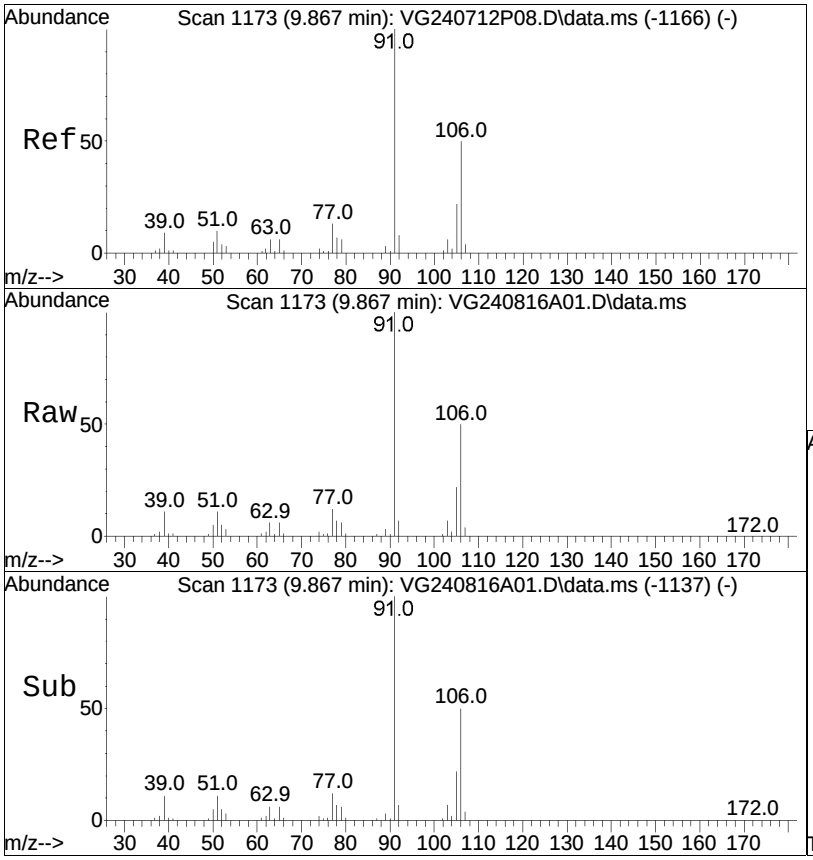


#75
1,1,1,2-Tetrachloroethane
Concen: 9.36 ug/L
RT: 9.727 min Scan# 1156
Delta R.T. -0.009 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:131 Resp: 78490

Ion	Ratio	Lower	Upper
131	100		
133	96.9	77.3	117.3
119	63.8	42.7	82.7

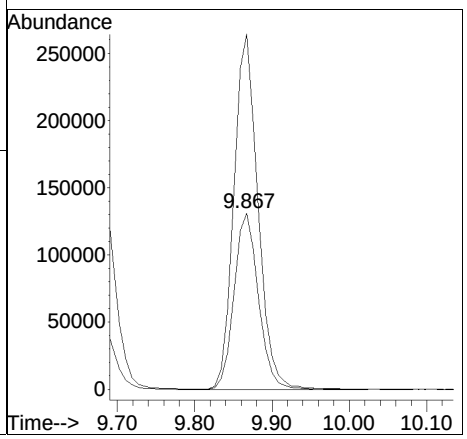


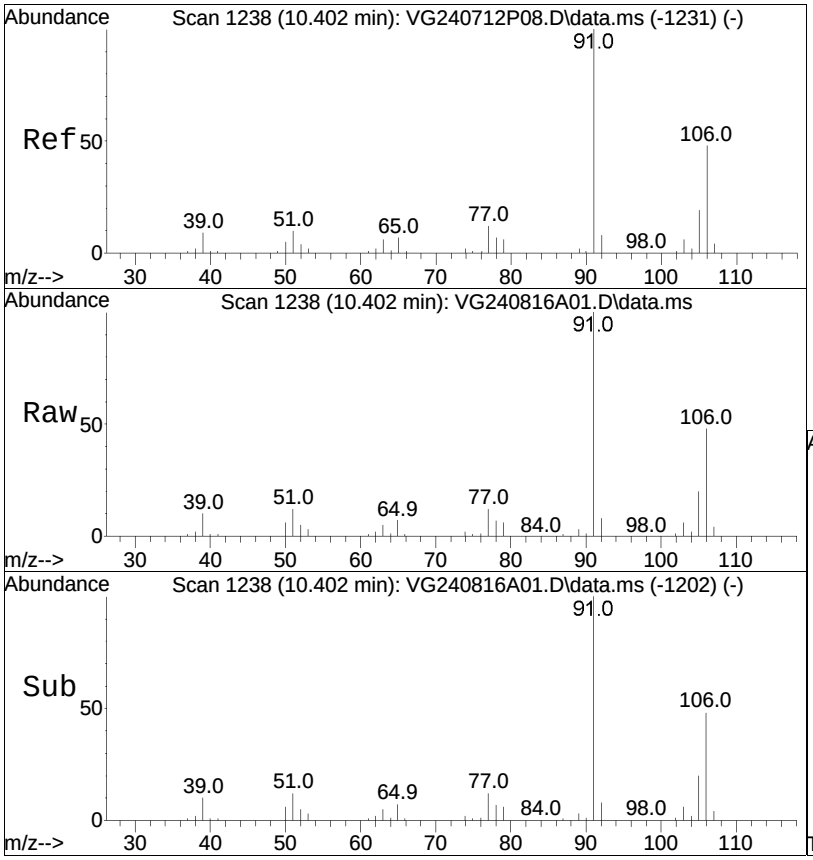


#76
p/m Xylene
Concen: 18.78 ug/L
RT: 9.867 min Scan# 1173
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:106 Resp: 286545

Ion	Ratio	Lower	Upper
106	100		
91	199.1	157.1	235.7

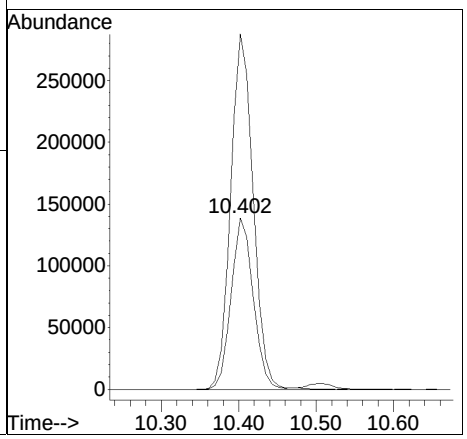


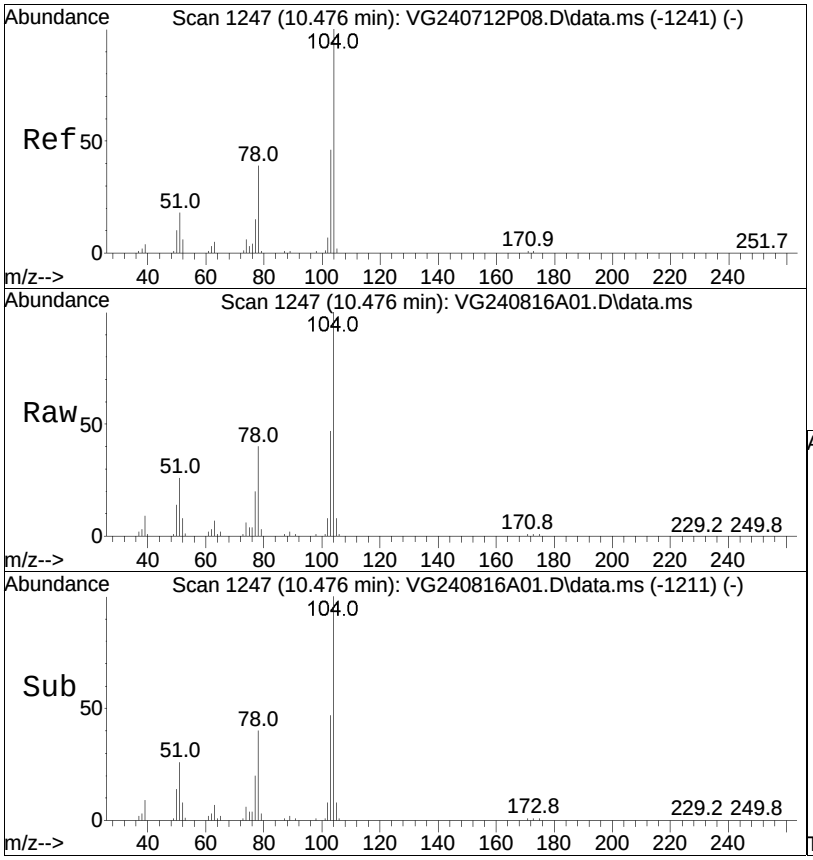


#77
o Xylene
Concen: 18.82 ug/L
RT: 10.402 min Scan# 1238
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:106 Resp: 278199

Ion	Ratio	Lower	Upper
106	100		
91	208.4	164.7	247.1

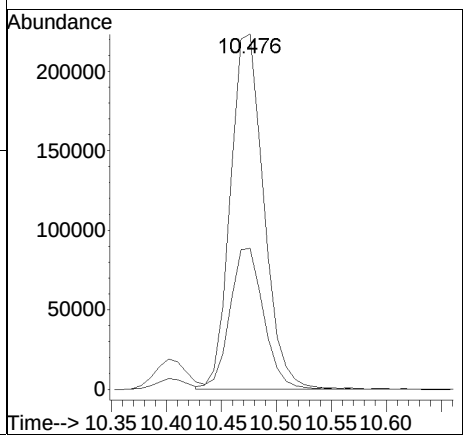


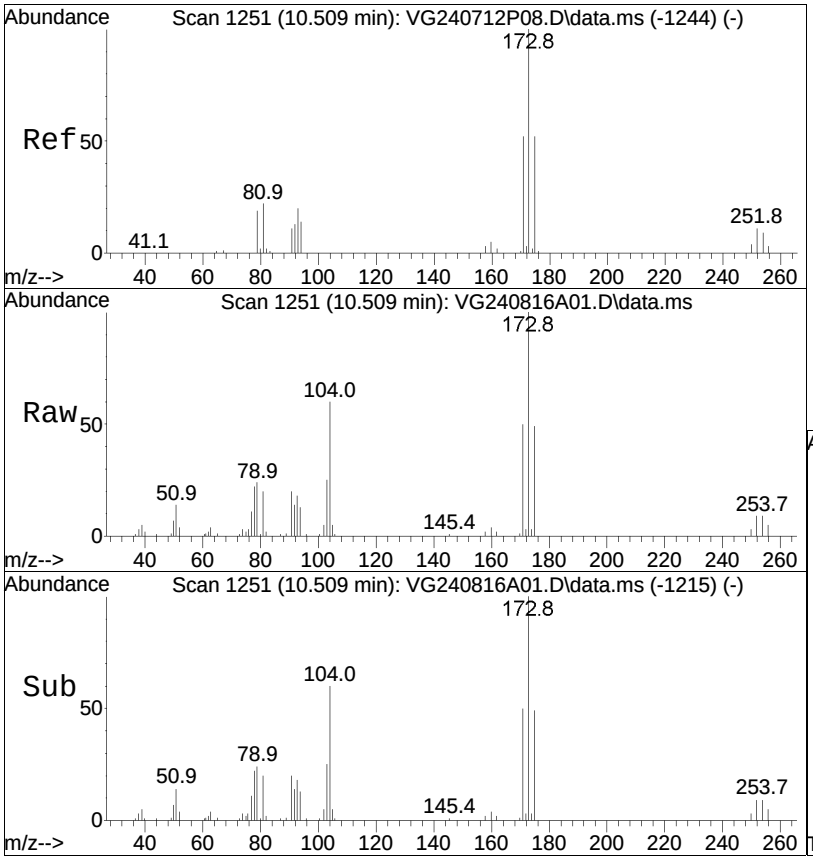


#78
Styrene
Concen: 18.74 ug/L
RT: 10.476 min Scan# 1247
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:104 Resp: 469459

Ion	Ratio	Lower	Upper
104	100		
78	40.2	32.2	48.4

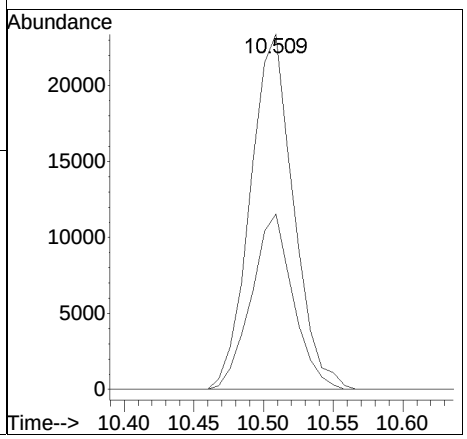


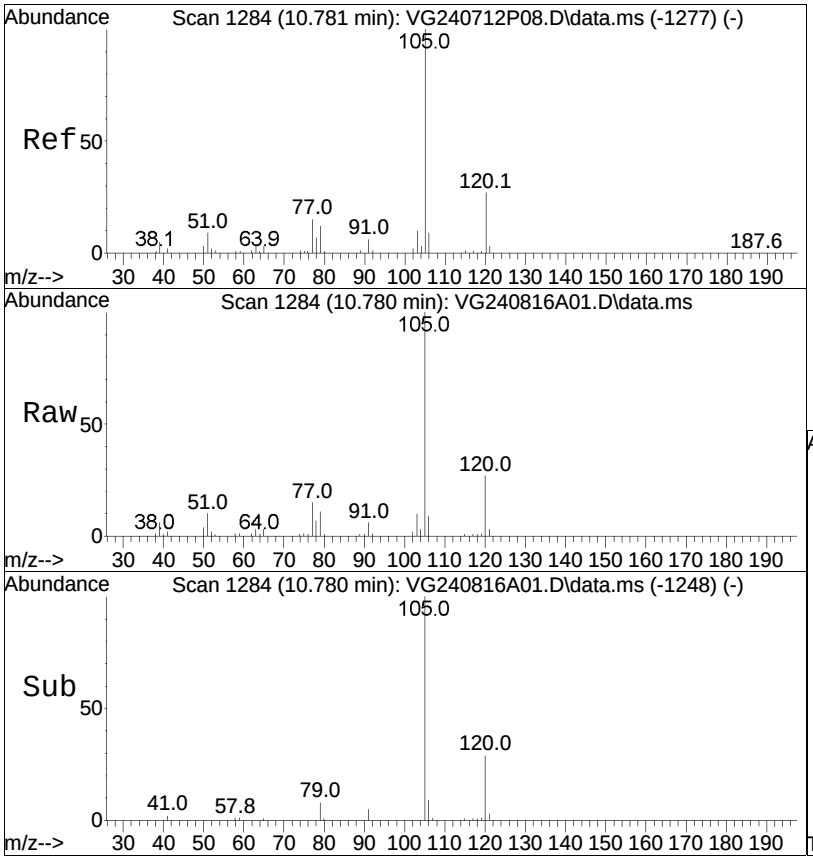


#80
Bromoform
Concen: 8.50 ug/L
RT: 10.509 min Scan# 1251
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:173 Resp: 50422

Ion	Ratio	Lower	Upper
173	100		
175	47.8	28.0	68.0

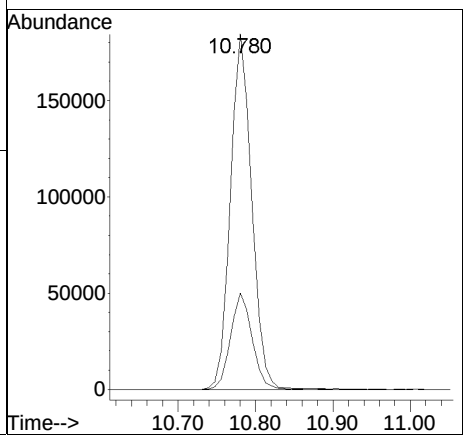


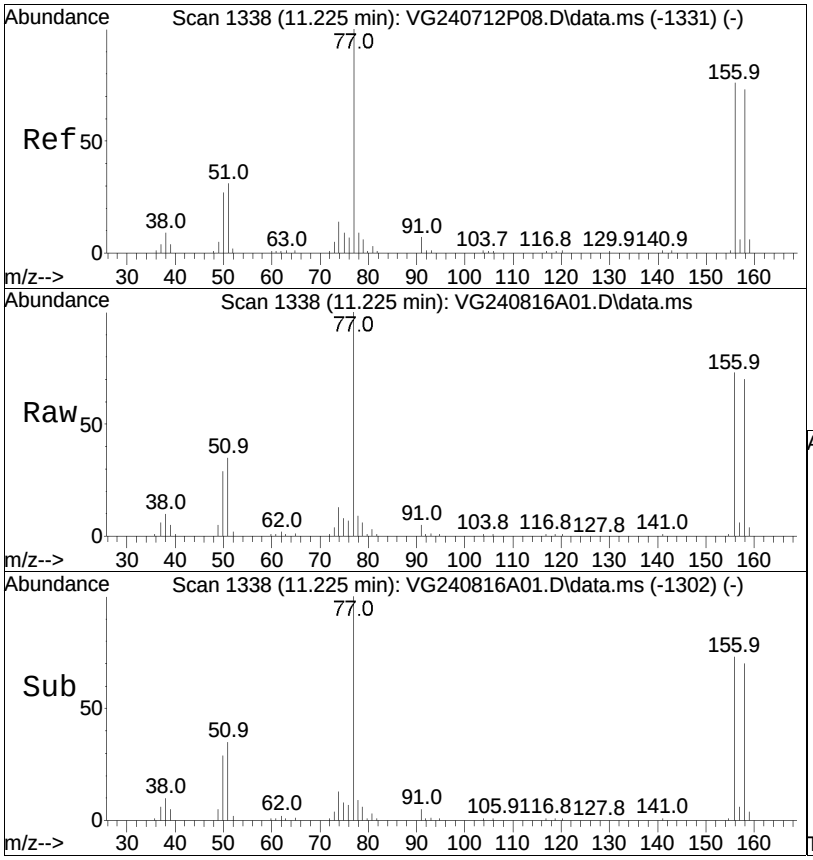


#82
Isopropylbenzene
Concen: 9.42 ug/L
RT: 10.780 min Scan# 1284
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 352863

Ion	Ratio	Lower	Upper
105	100		
120	27.3	7.0	47.0

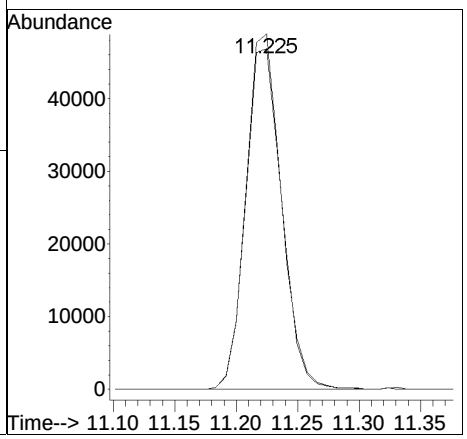


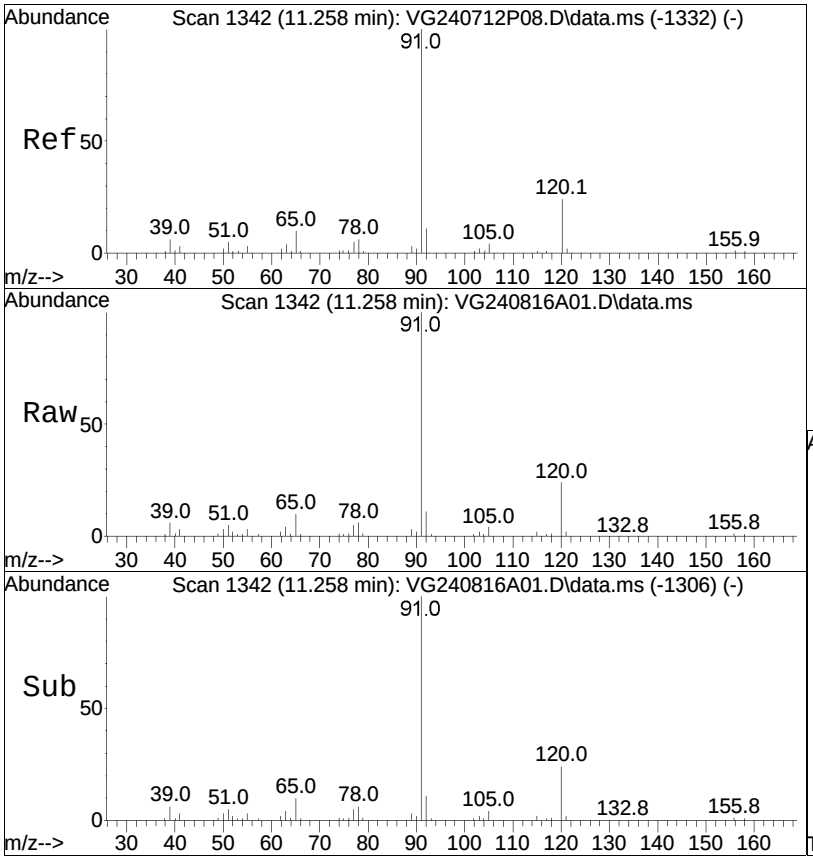


#84
Bromobenzene
Concen: 9.50 ug/L
RT: 11.225 min Scan# 1338
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:156 Resp: 98341

Ion	Ratio	Lower	Upper
156	100		
158	97.6	76.9	115.3

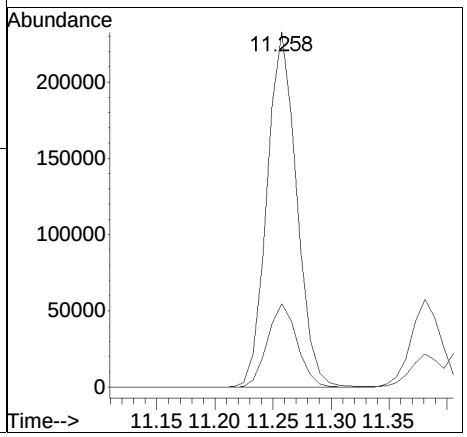


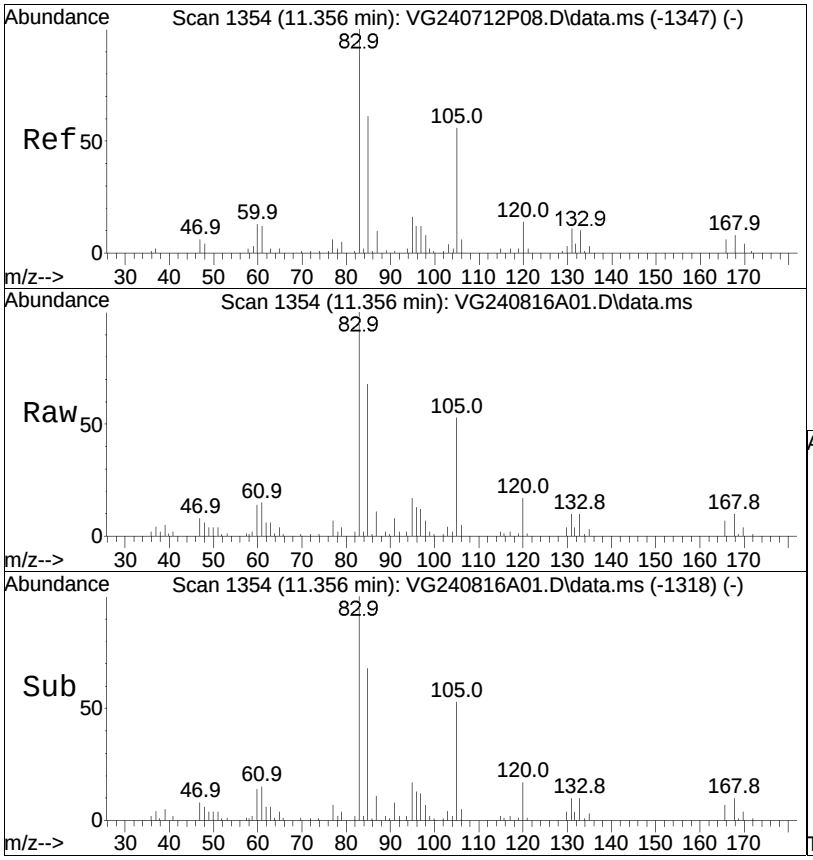


#85
n-Propylbenzene
Concen: 9.53 ug/L
RT: 11.258 min Scan# 1342
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 415629

Ion	Ratio	Lower	Upper
91	100		
120	23.6	19.0	28.6

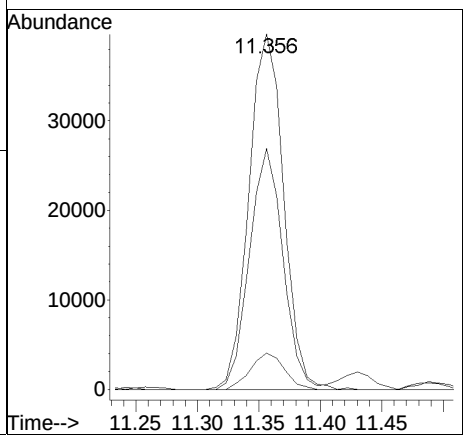


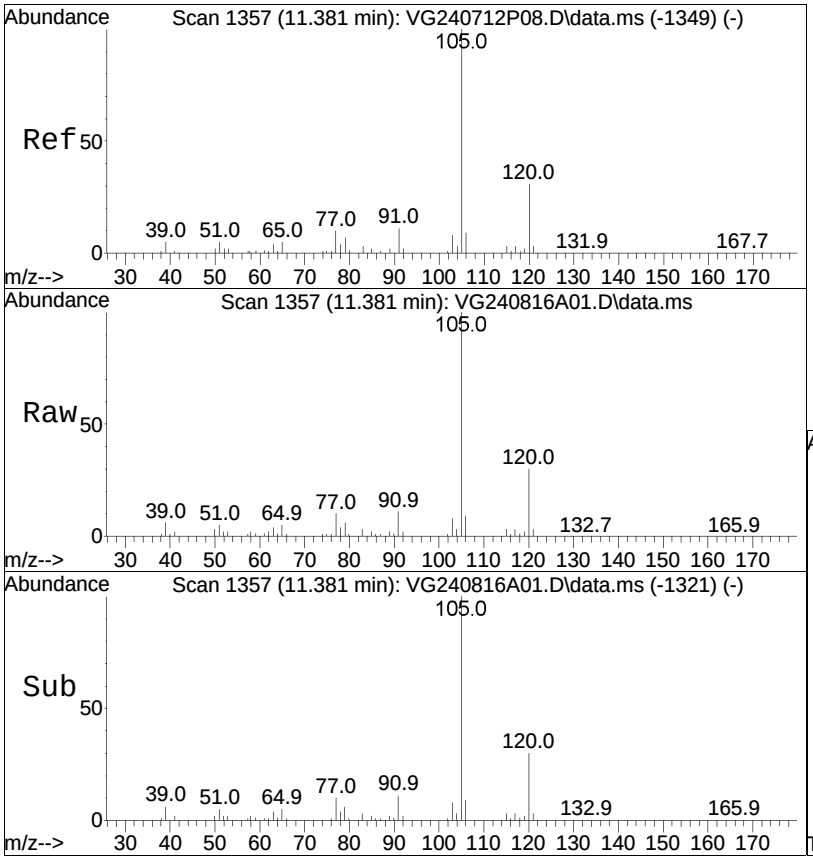


#87
1,1,2,2-Tetrachloroethane
Concen: 9.36 ug/L
RT: 11.356 min Scan# 1354
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 77911

Ion	Ratio	Lower	Upper
83	100		
131	10.0	0.0	31.0
85	65.4	43.9	83.9

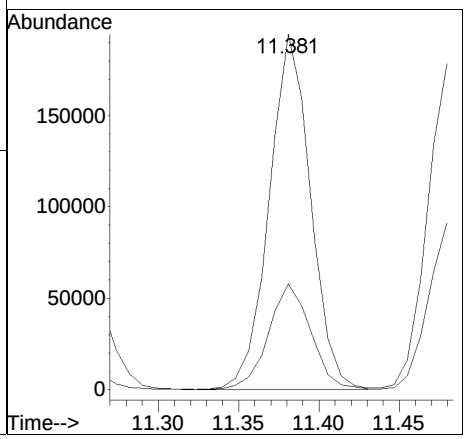


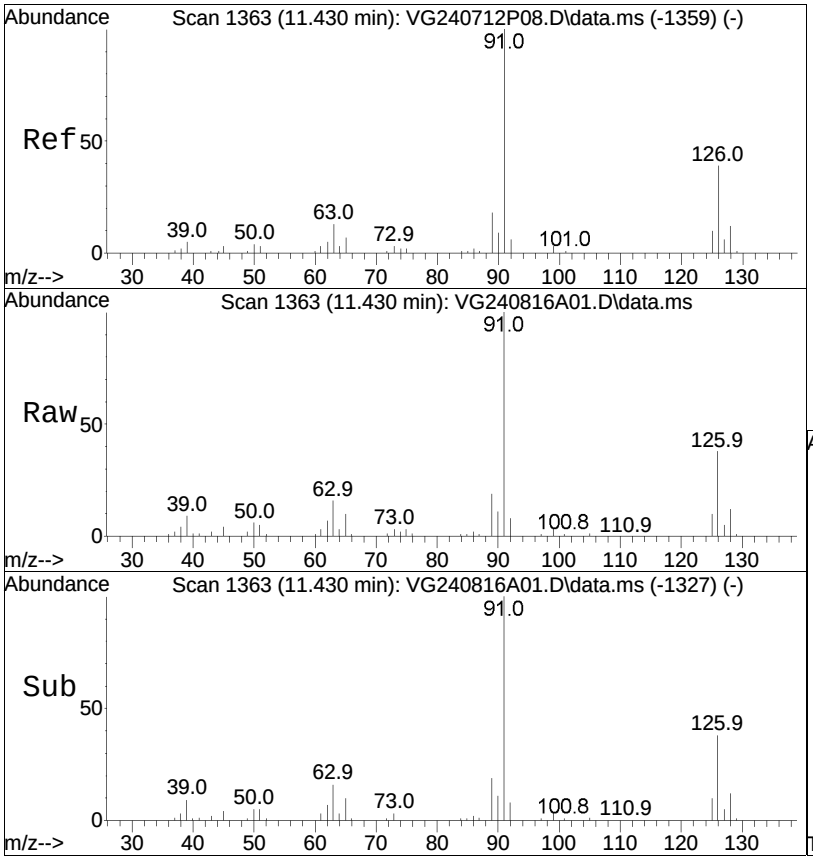


#88
4-Ethyltoluene
Concen: 9.53 ug/L
RT: 11.381 min Scan# 1357
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 347443

Ion	Ratio	Lower	Upper
105	100		
120	30.4	19.9	41.3

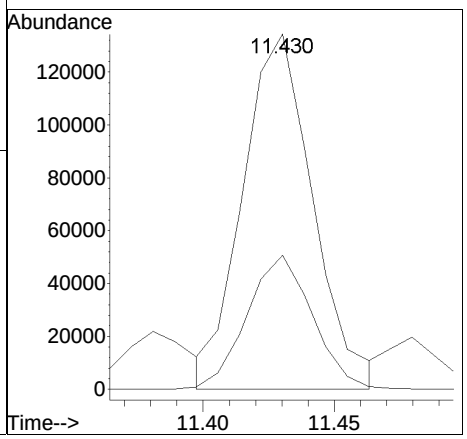


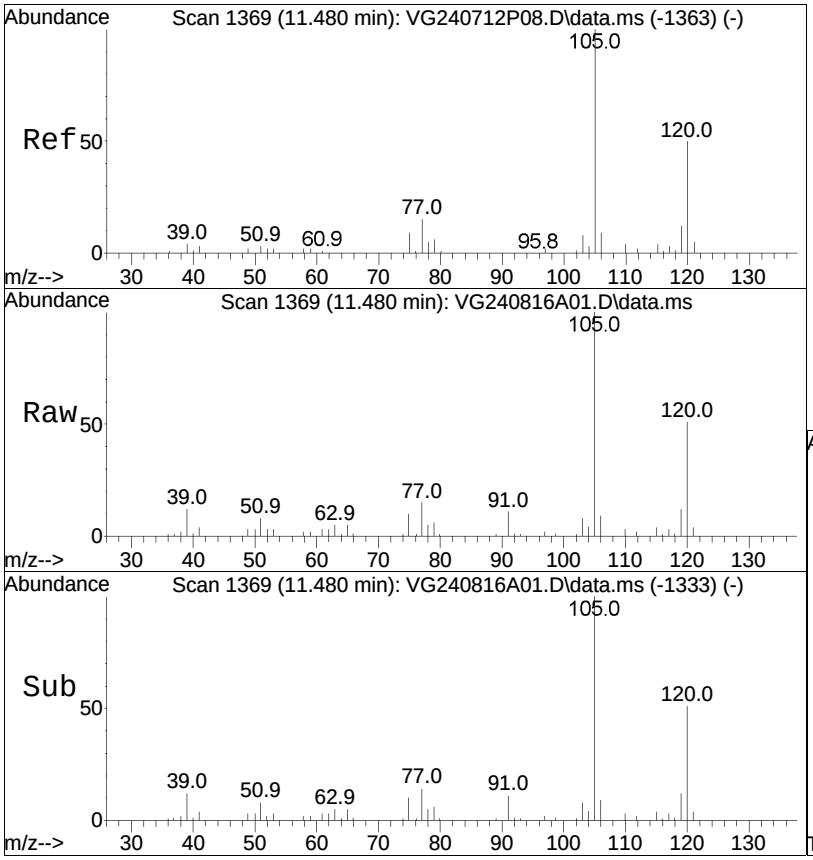


#89
2-Chlorotoluene
Concen: 9.32 ug/L M4
RT: 11.430 min Scan# 1363
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 249280

Ion	Ratio	Lower	Upper
91	100		
126	35.5	27.4	41.2

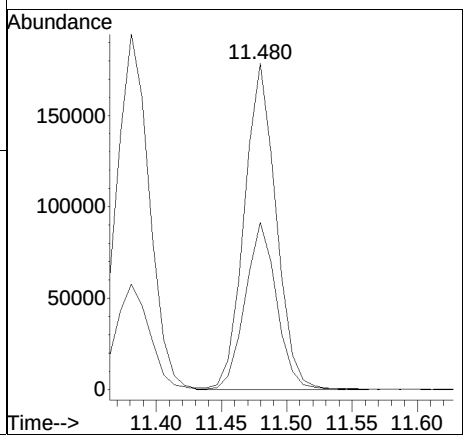


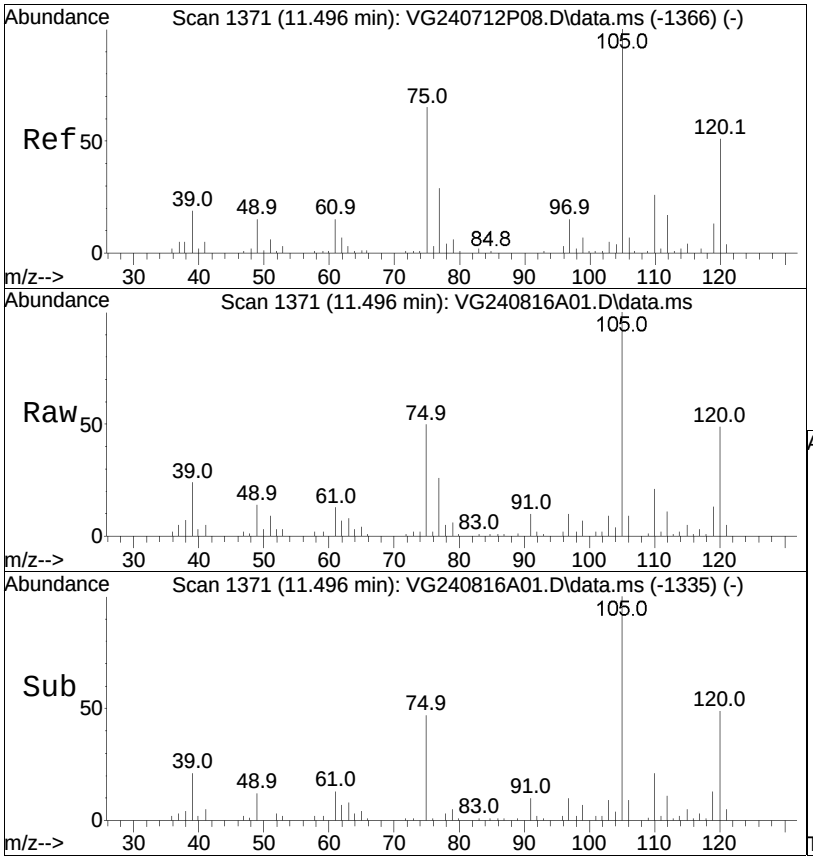


#90
1,3,5-Trimethylbenzene
Concen: 9.36 ug/L
RT: 11.480 min Scan# 1369
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 302049

Ion	Ratio	Lower	Upper
105	100		
120	50.5	40.3	60.5

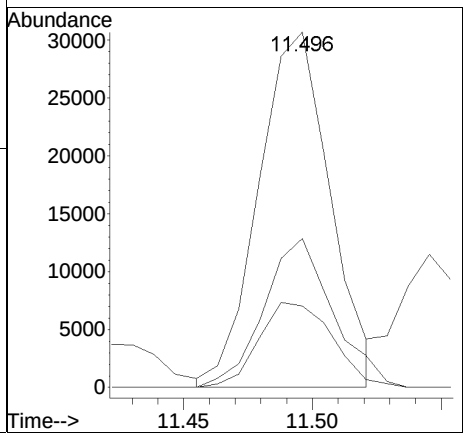


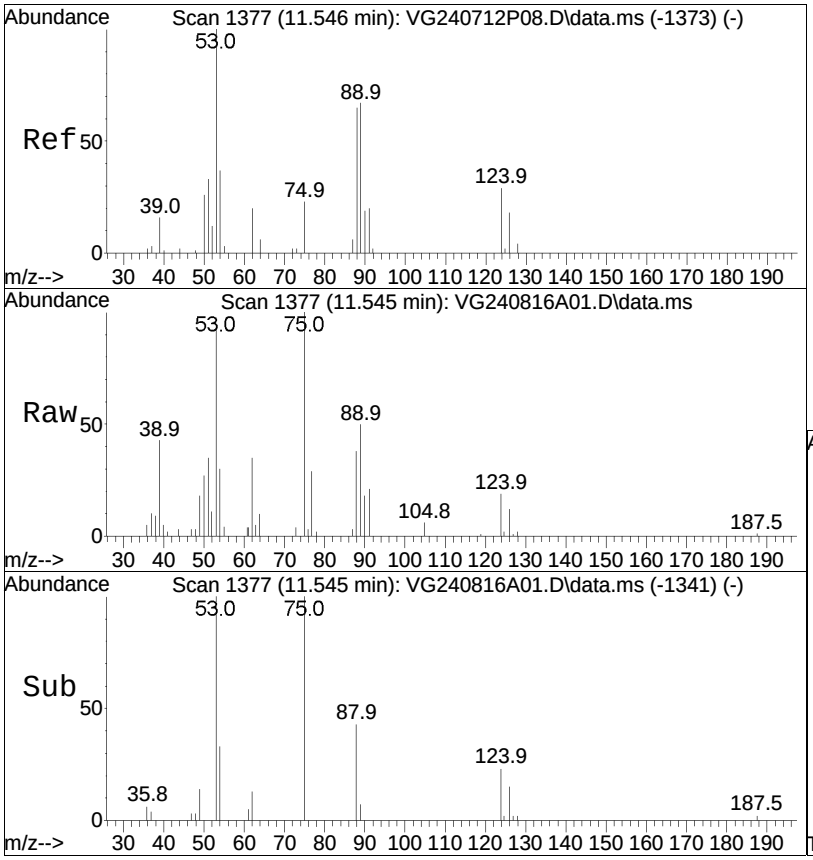


#91
1,2,3-Trichloropropane
Concen: 8.51 ug/L M1
RT: 11.496 min Scan# 1371
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 59254

Ion	Ratio	Lower	Upper
75	100		
110	40.4	23.5	48.9
112	24.6	15.9	32.9

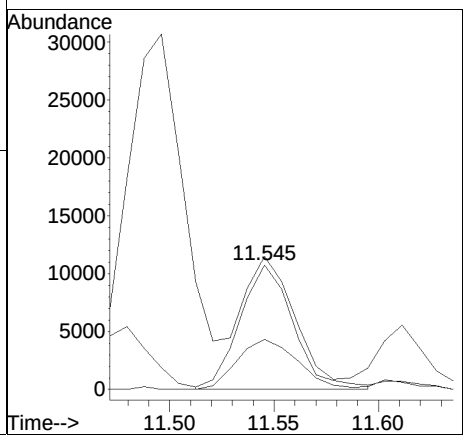


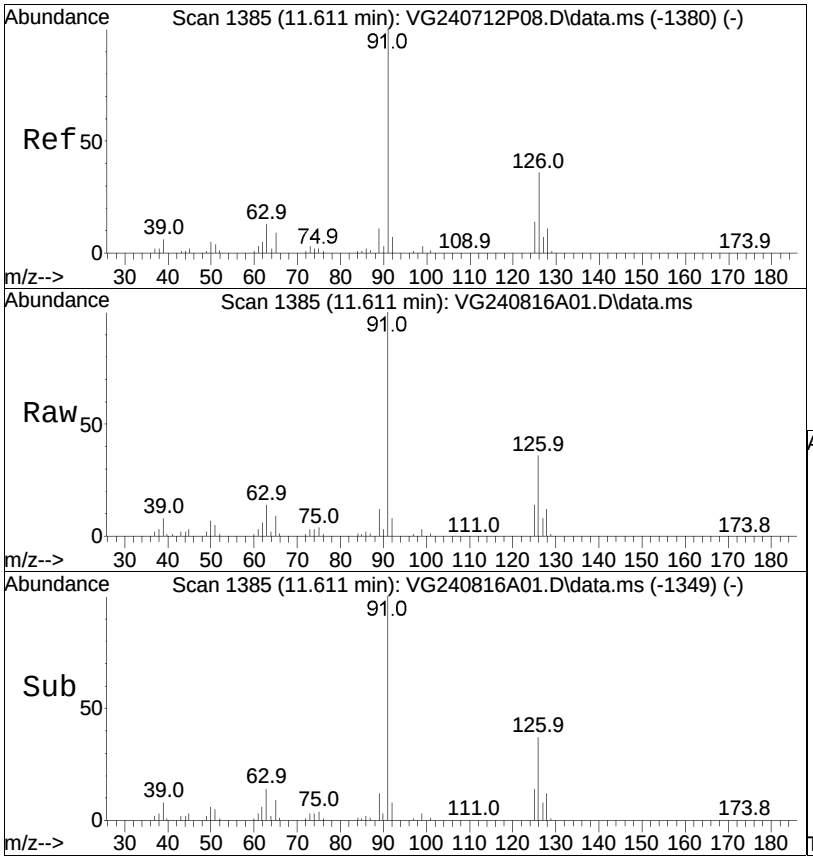


#92
trans-1,4-Dichloro-2-butene
Concen: 10.07 ug/L
RT: 11.545 min Scan# 1377
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 53 Resp: 19214

Ion	Ratio	Lower	Upper
53	100		
88	45.1	41.6	62.4
75	108.6	0.0	0.0#

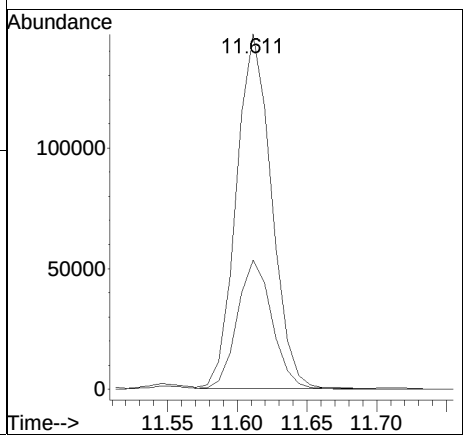


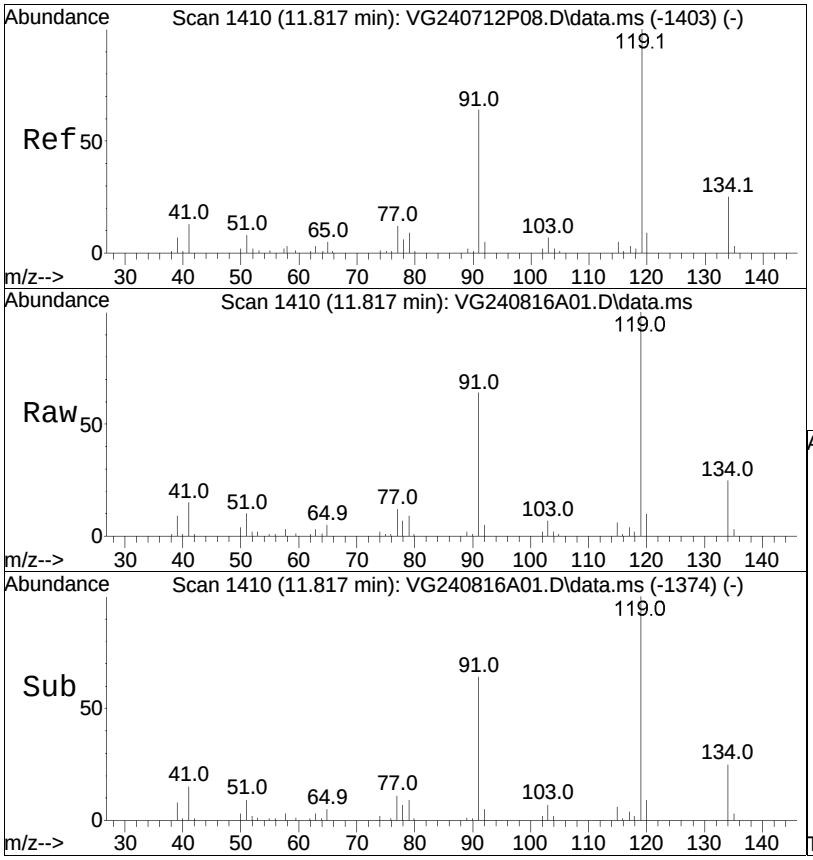


#93
4-Chlorotoluene
Concen: 9.35 ug/L
RT: 11.611 min Scan# 1385
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 257564

Ion	Ratio	Lower	Upper
91	100		
126	36.5	28.2	42.4

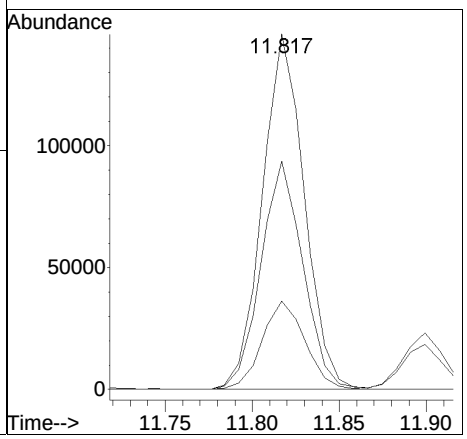


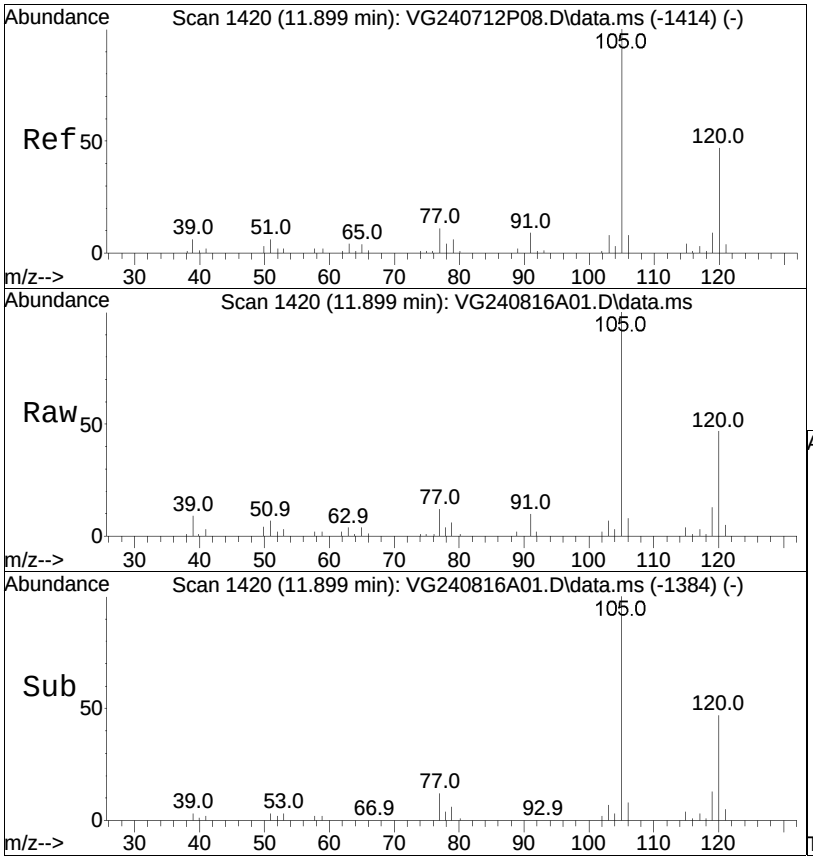


#94
tert-Butylbenzene
Concen: 9.36 ug/L
RT: 11.817 min Scan# 1410
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 244372

Ion	Ratio	Lower	Upper
119	100		
91	64.4	50.8	76.2
134	25.4	20.2	30.4

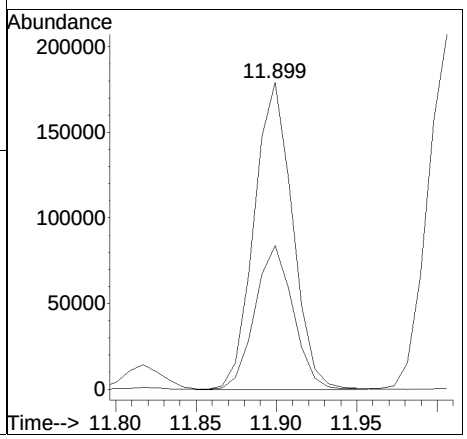


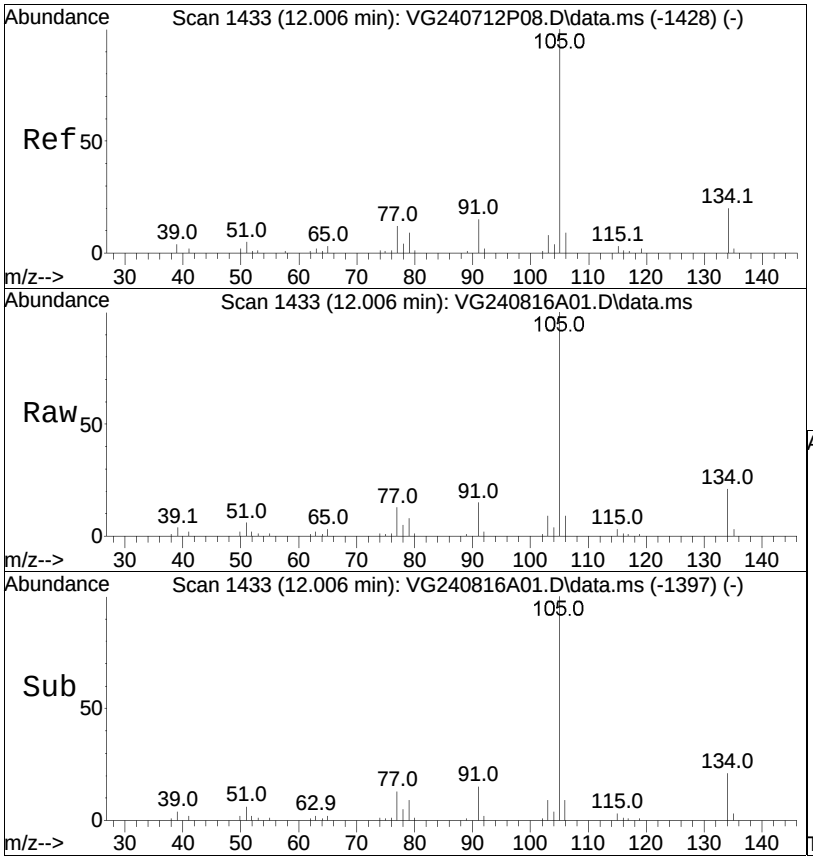


#97
1,2,4-Trimethylbenzene
Concen: 9.34 ug/L
RT: 11.899 min Scan# 1420
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 297200

Ion	Ratio	Lower	Upper
105	100		
120	46.8	37.8	56.6

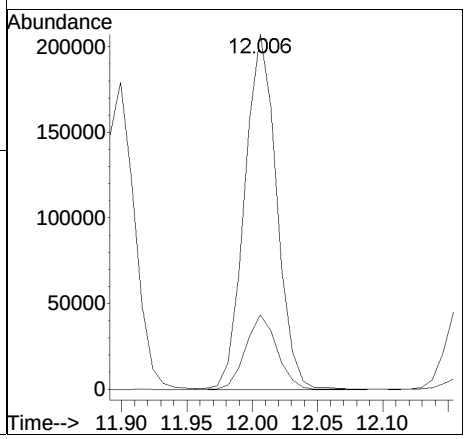


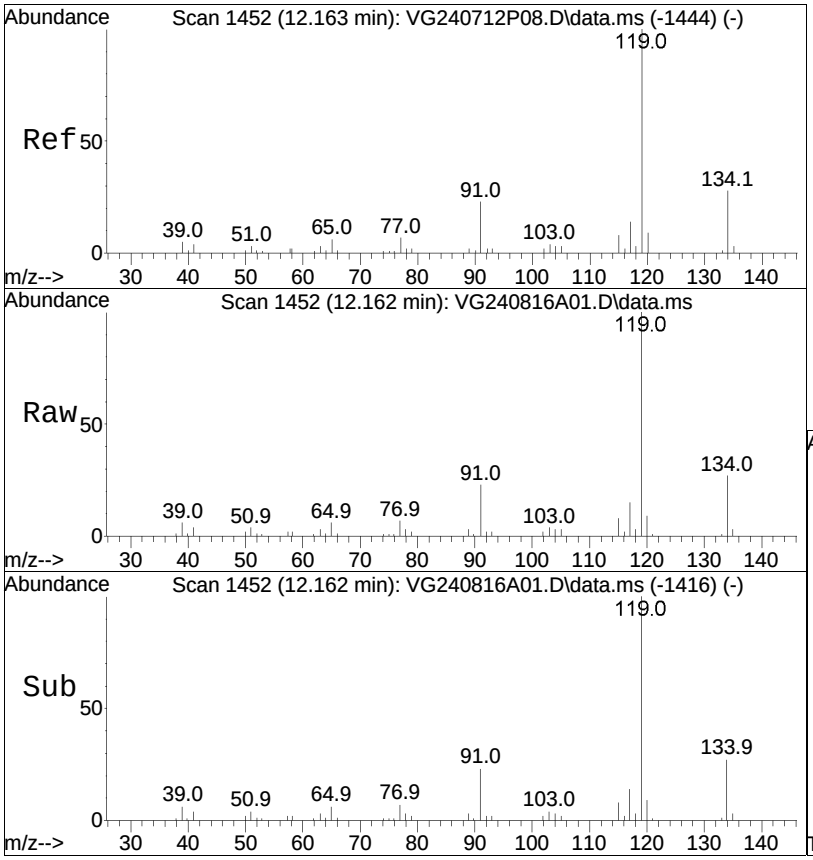


#98
sec-Butylbenzene
Concen: 9.50 ug/L
RT: 12.006 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 352498

Ion	Ratio	Lower	Upper
105	100		
134	20.5	13.3	27.7

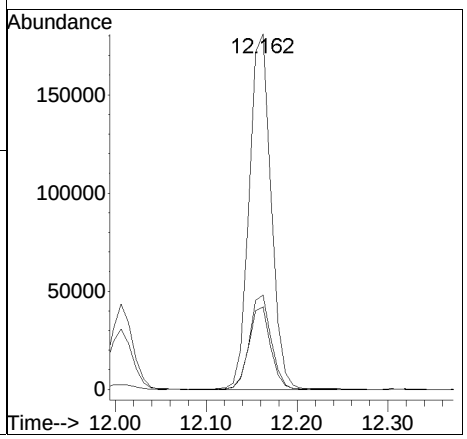


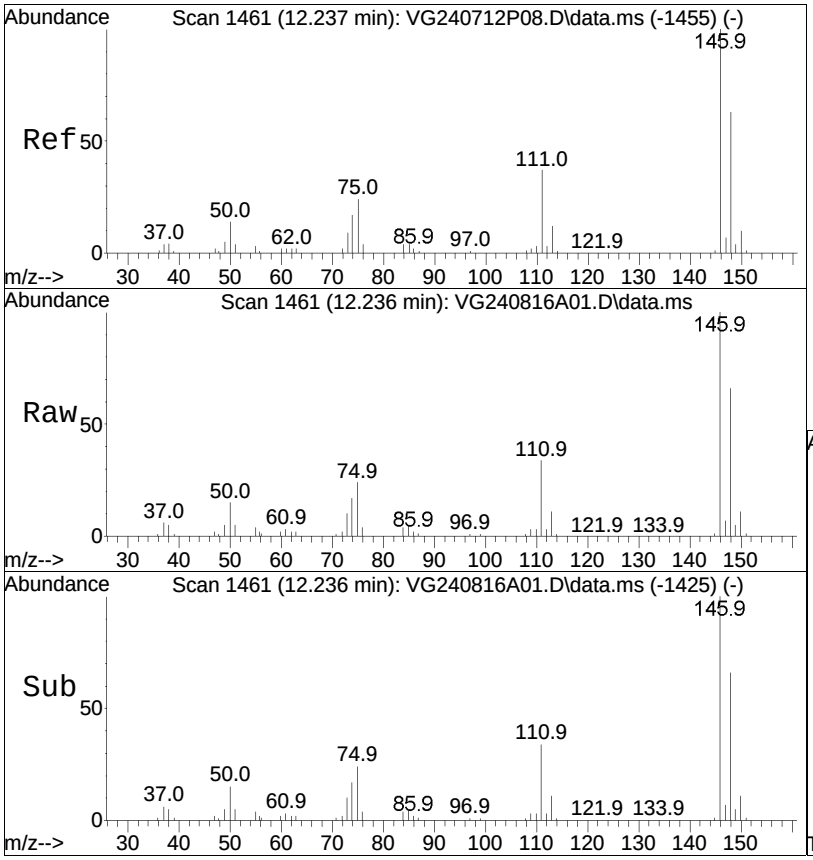


#99
p-Isopropyltoluene
Concen: 9.42 ug/L
RT: 12.162 min Scan# 1452
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 303599

Ion	Ratio	Lower	Upper
119	100		
134	26.2	17.5	36.3
91	23.3	14.6	30.4

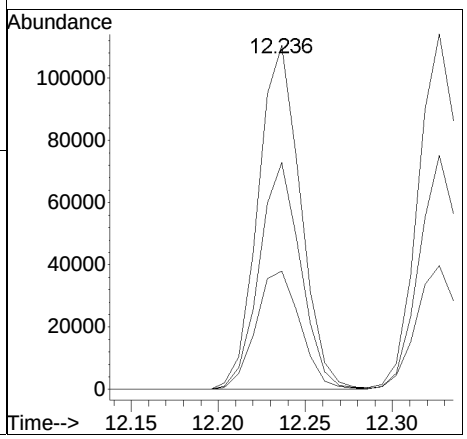


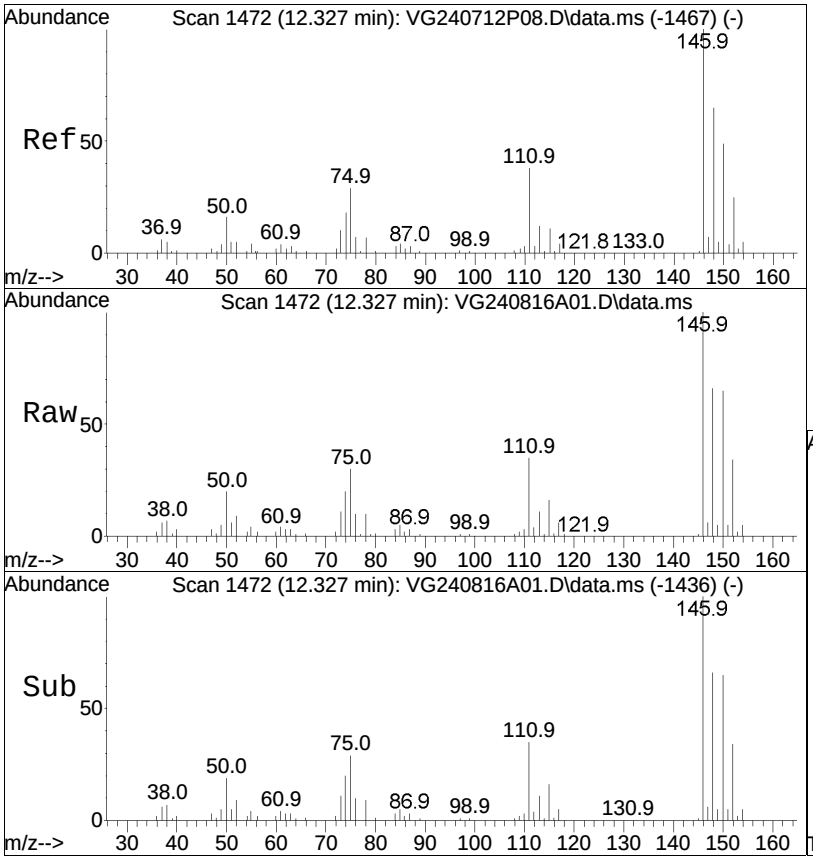


#100
1,3-Dichlorobenzene
Concen: 9.87 ug/L
RT: 12.236 min Scan# 1461
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:146 Resp: 187783

Ion	Ratio	Lower	Upper
146	100		
111	36.1	24.4	50.6
148	64.3	41.0	85.2

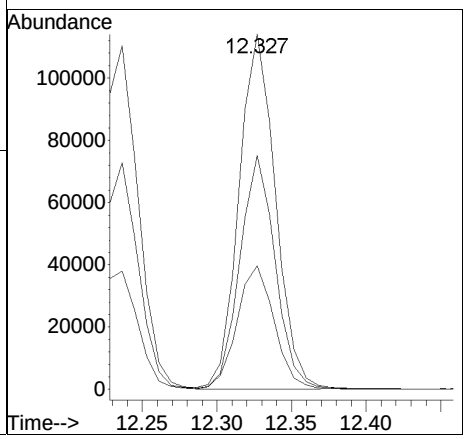


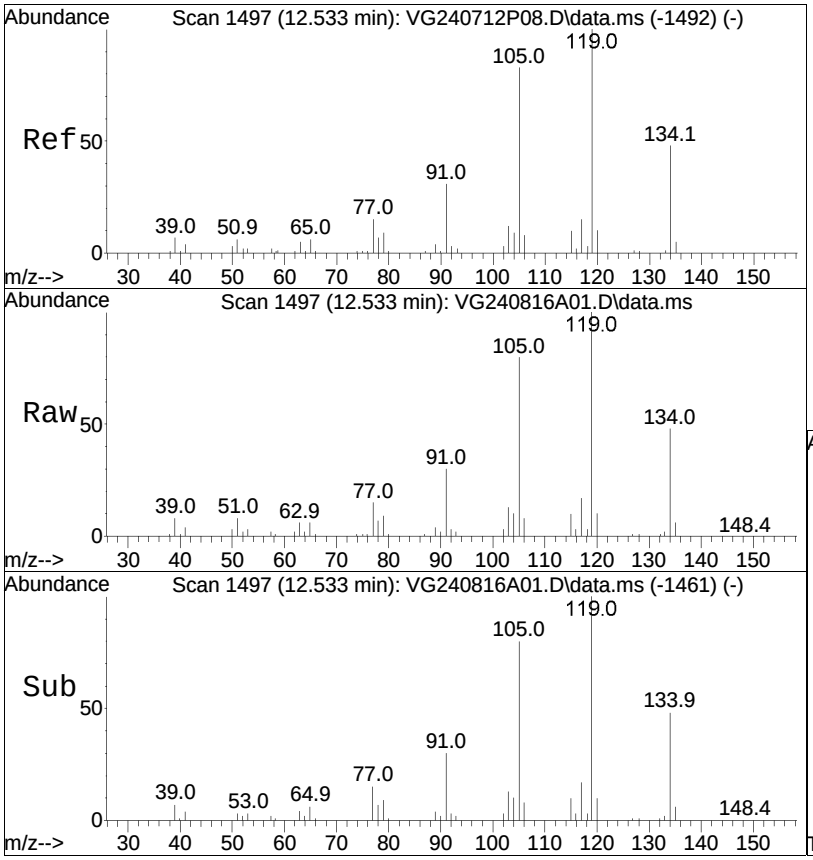


#101
1,4-Dichlorobenzene
Concen: 9.89 ug/L
RT: 12.327 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:146 Resp: 193785

Ion	Ratio	Lower	Upper
146	100		
111	35.8	29.3	43.9
148	64.4	51.2	76.8

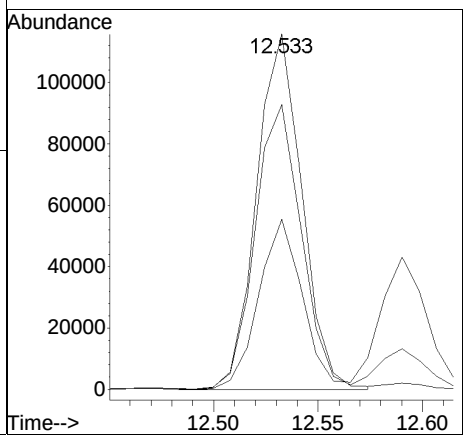


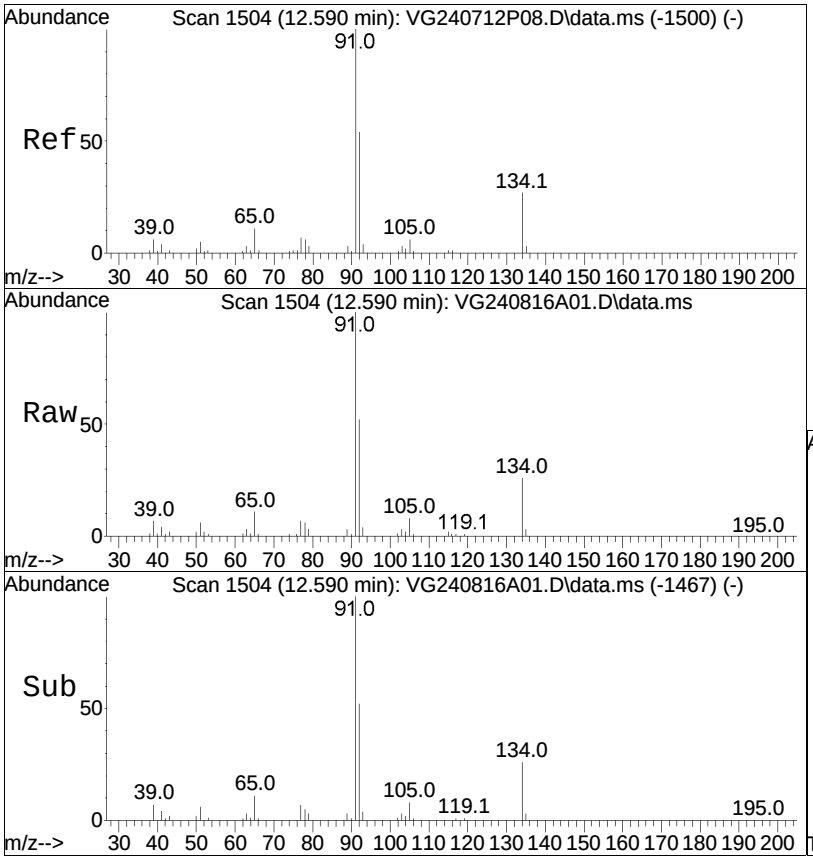


#102
p-Diethylbenzene
Concen: 9.44 ug/L
RT: 12.533 min Scan# 1497
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 174644

Ion	Ratio	Lower	Upper
119	100		
105	81.7	53.9	112.1
134	46.6	32.0	66.6

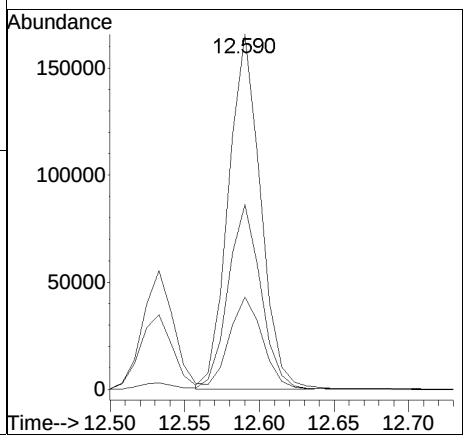


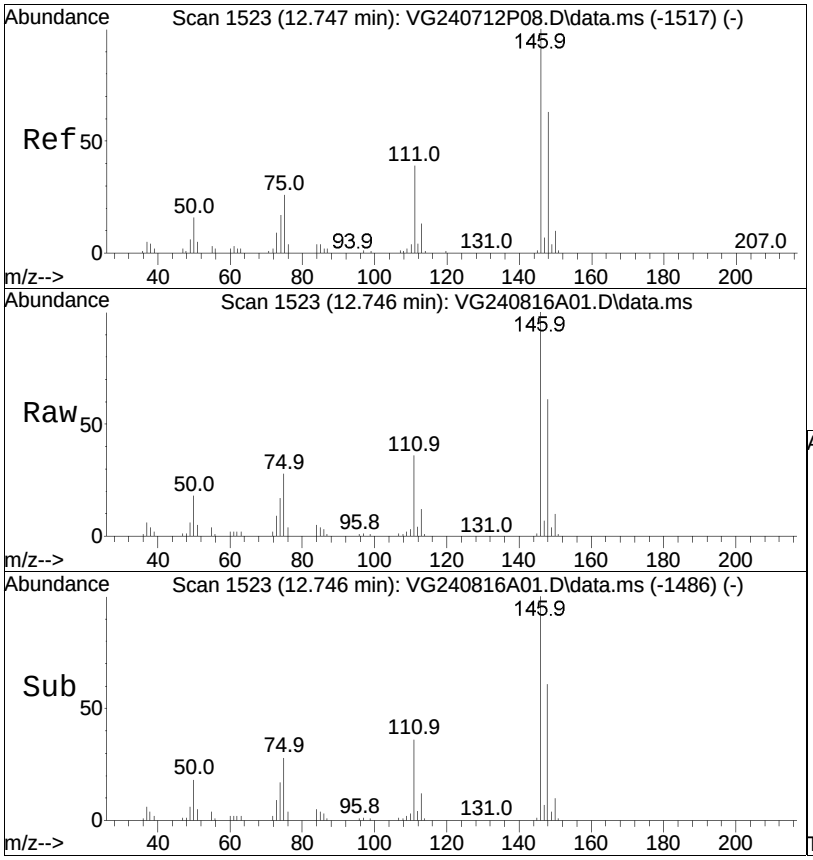


#103
n-Butylbenzene
Concen: 9.75 ug/L
RT: 12.590 min Scan# 1504
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 248313

Ion	Ratio	Lower	Upper
91	100		
92	53.4	43.8	65.8
134	26.7	22.0	33.0

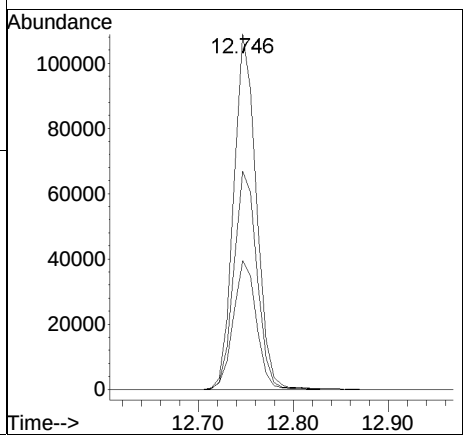


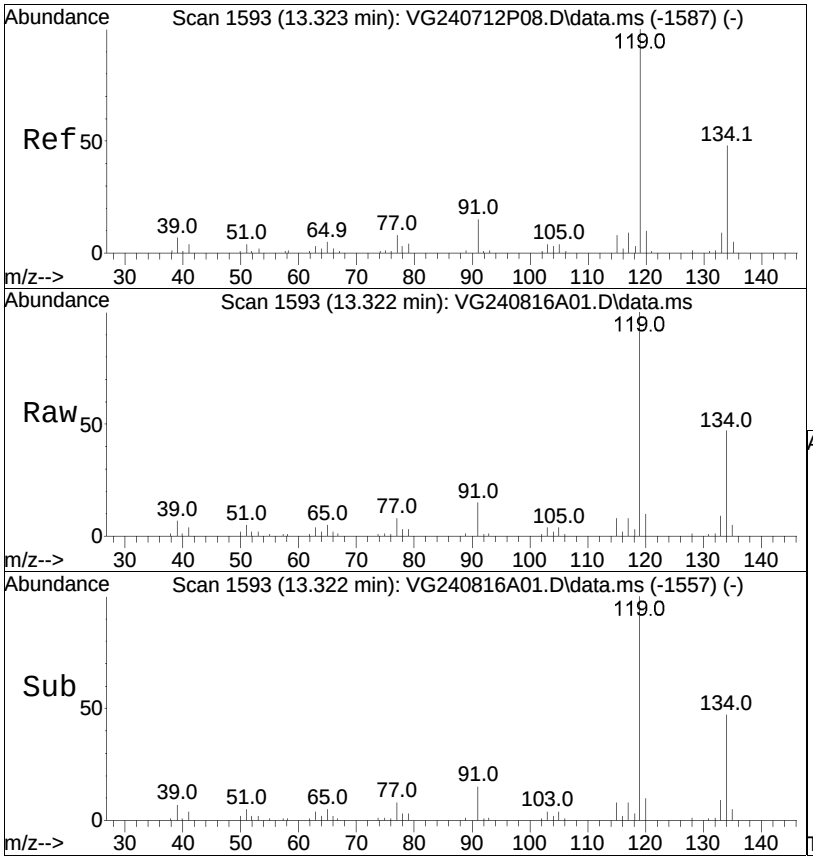


#104
1,2-Dichlorobenzene
Concen: 9.94 ug/L
RT: 12.746 min Scan# 1523
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:146 Resp: 180378

Ion	Ratio	Lower	Upper
146	100		
111	36.9	25.4	52.8
148	62.6	41.7	86.5

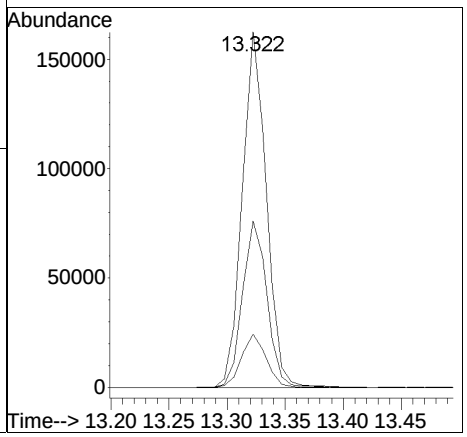


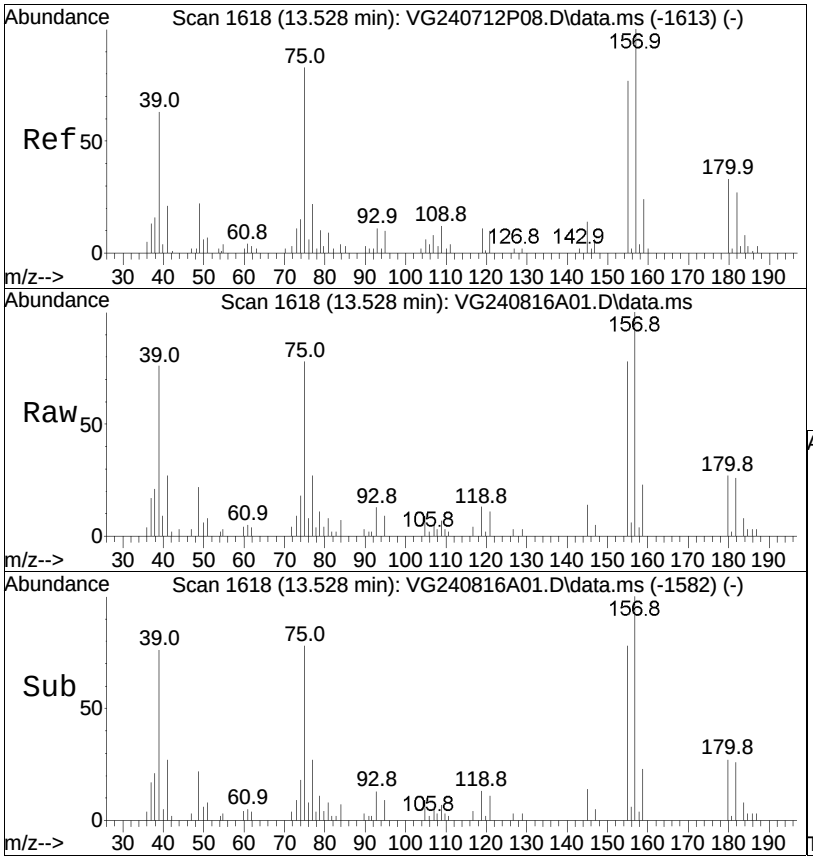


#105
1,2,4,5-Tetramethylbenzene
Concen: 8.46 ug/L
RT: 13.322 min Scan# 1593
Delta R.T. -0.001 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 234465

Ion	Ratio	Lower	Upper
119	100		
134	47.7	32.7	67.9
91	15.4	9.9	20.7

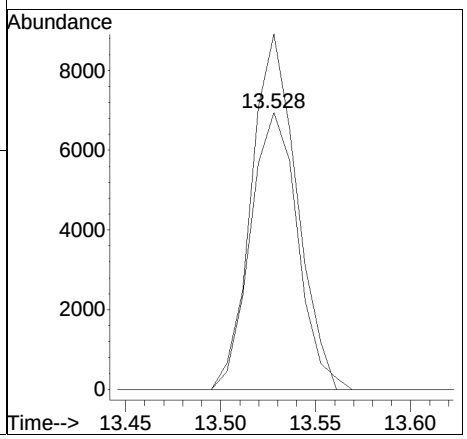


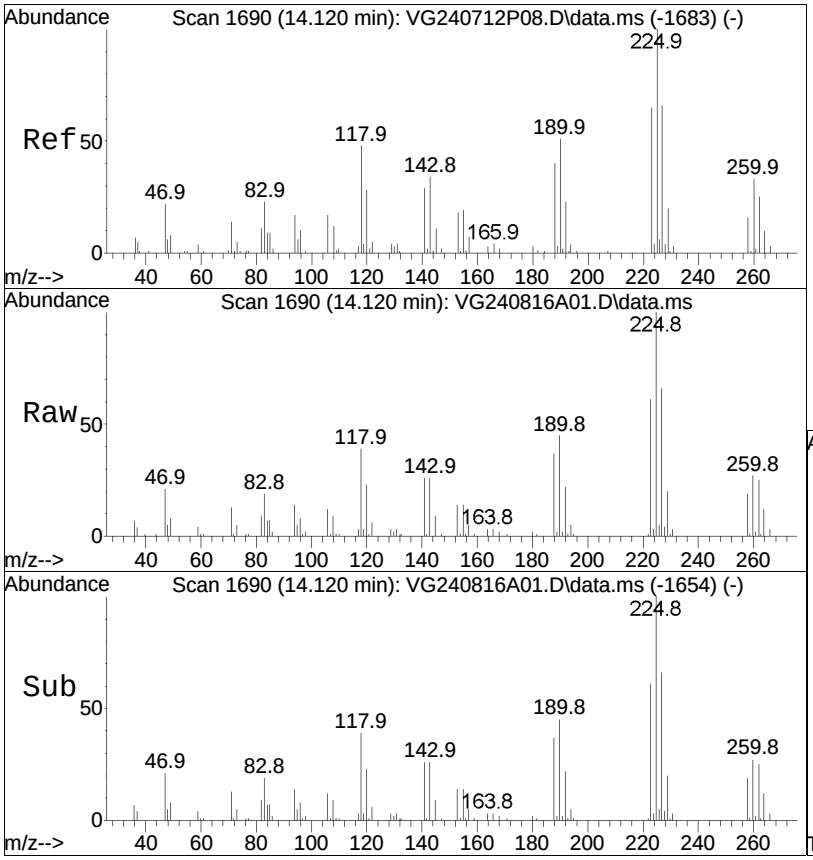


#106
1,2-Dibromo-3-chloropropane
Concen: 7.77 ug/L
RT: 13.528 min Scan# 1618
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:155 Resp: 11999

Ion	Ratio	Lower	Upper
155	100		
157	123.2	99.9	149.9

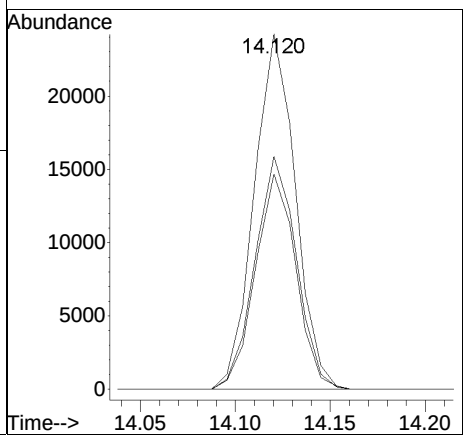


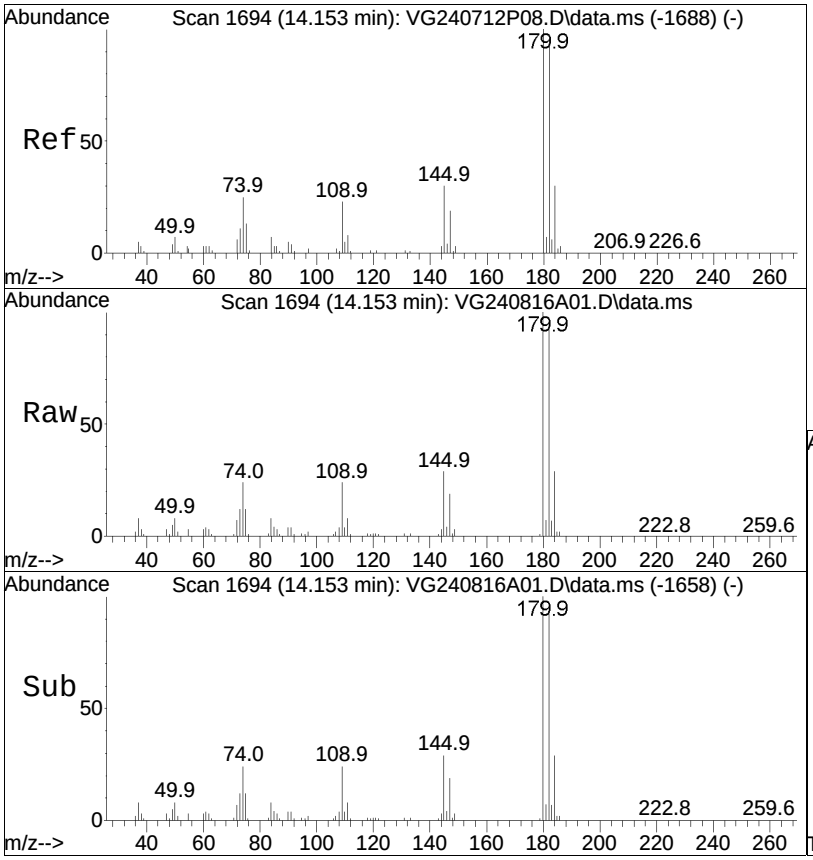


#108
Hexachlorobutadiene
Concen: 10.93 ug/L
RT: 14.120 min Scan# 1690
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:225 Resp: 36584

Ion	Ratio	Lower	Upper
225	100		
223	59.7	50.1	75.1
227	65.9	50.2	75.4

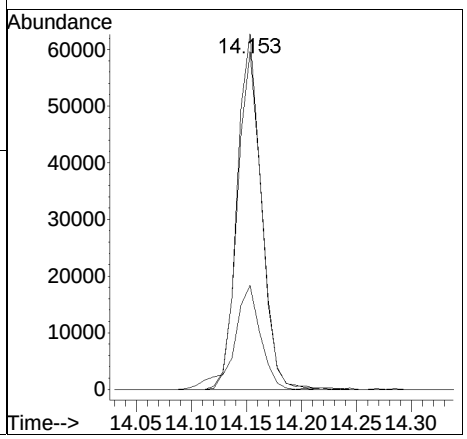


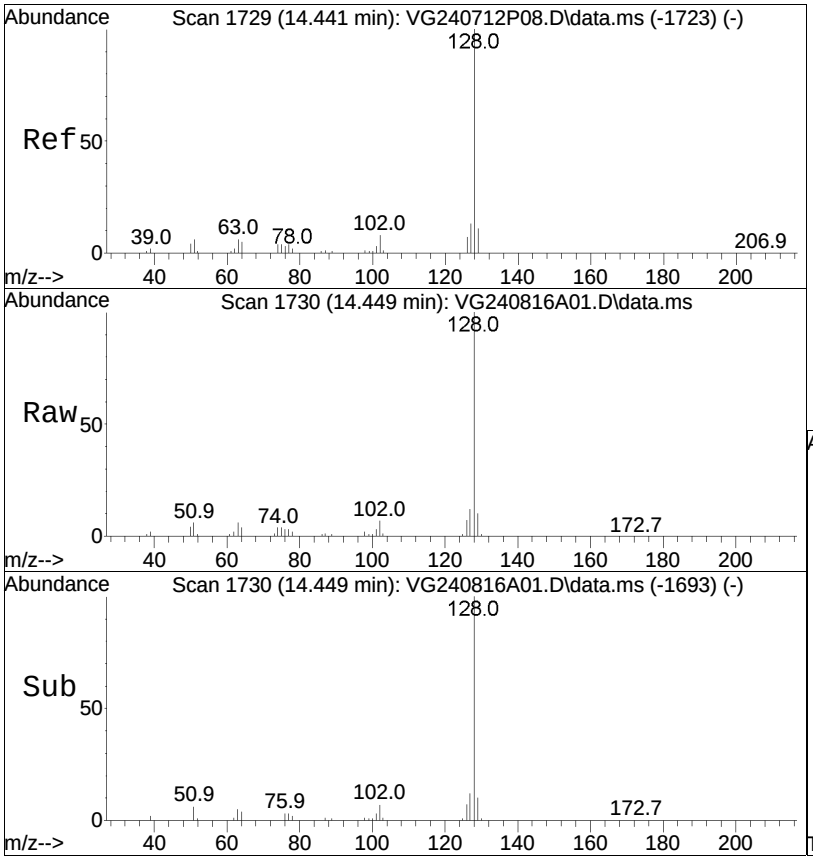


#109
1,2,4-Trichlorobenzene
Concen: 9.32 ug/L
RT: 14.153 min Scan# 1694
Delta R.T. 0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:180 Resp: 96422

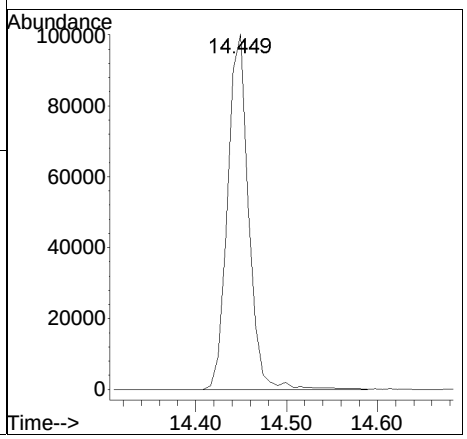
Ion	Ratio	Lower	Upper
180	100		
182	95.0	76.7	115.1
145	32.0	26.5	39.7

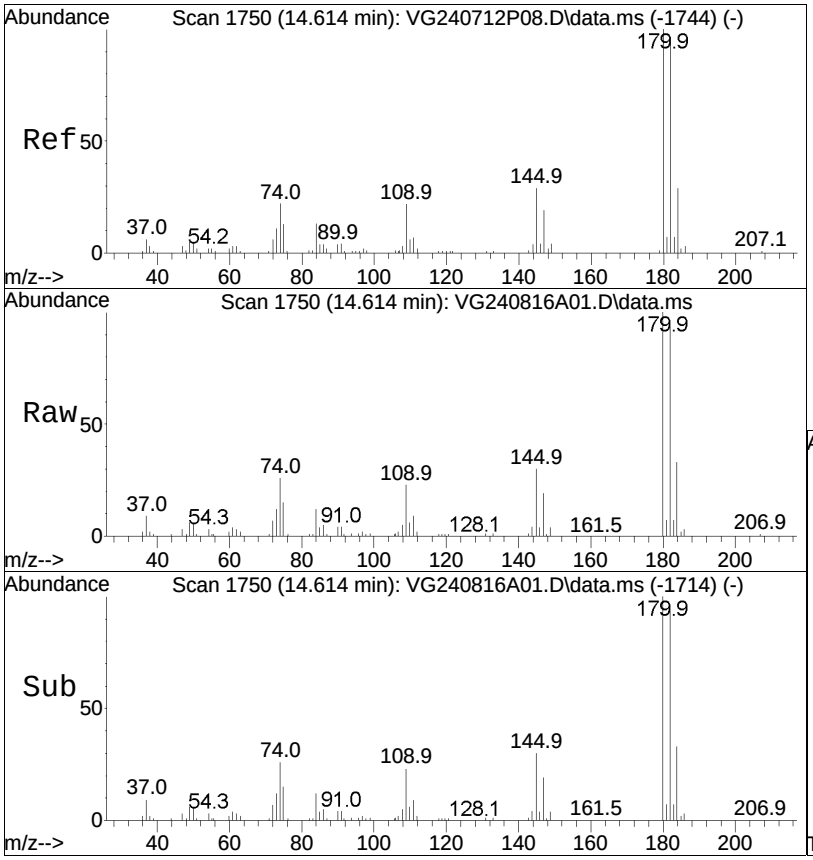




#110
Naphthalene
Concen: 6.93 ug/L
RT: 14.449 min Scan# 1730
Delta R.T. 0.008 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:128 Resp: 160930

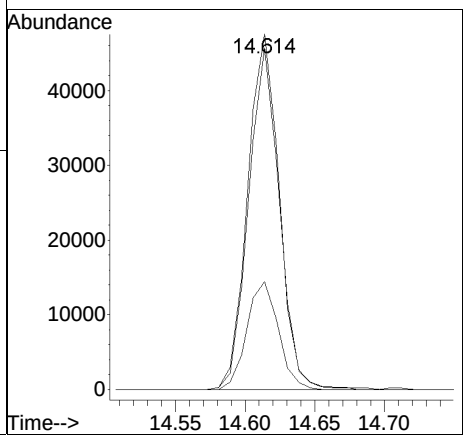




#111
1,2,3-Trichlorobenzene
Concen: 8.72 ug/L
RT: 14.614 min Scan# 1750
Delta R.T. -0.000 min
Lab File: VG240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:180 Resp: 74999

Ion	Ratio	Lower	Upper
180	100		
182	93.9	77.0	115.4
145	30.2	24.1	36.1

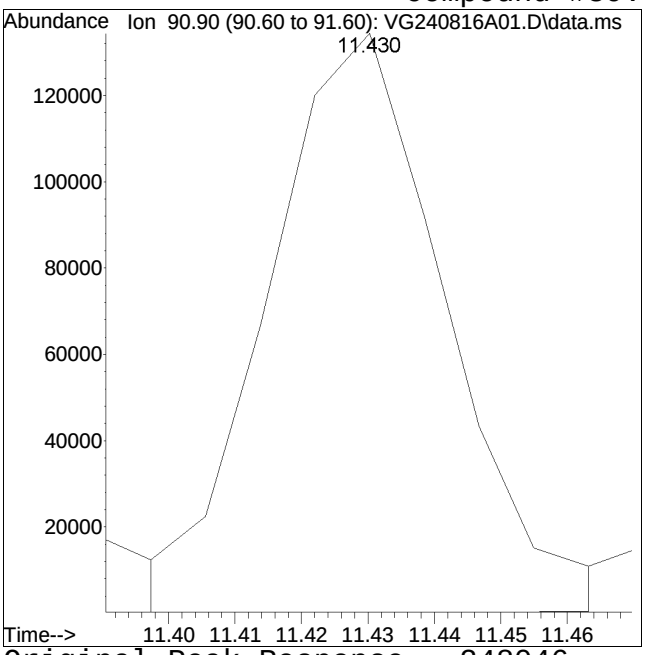


Manual Integration Report

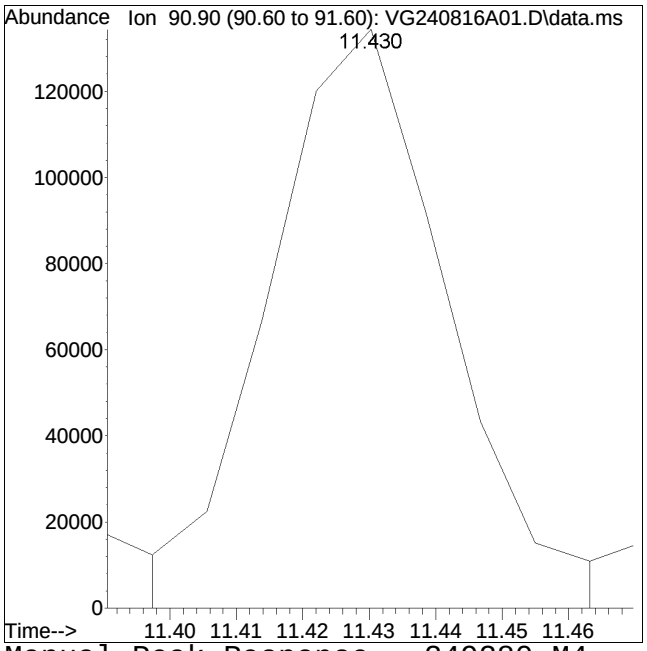
Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960231-3,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/16/2024 7:25 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 248046



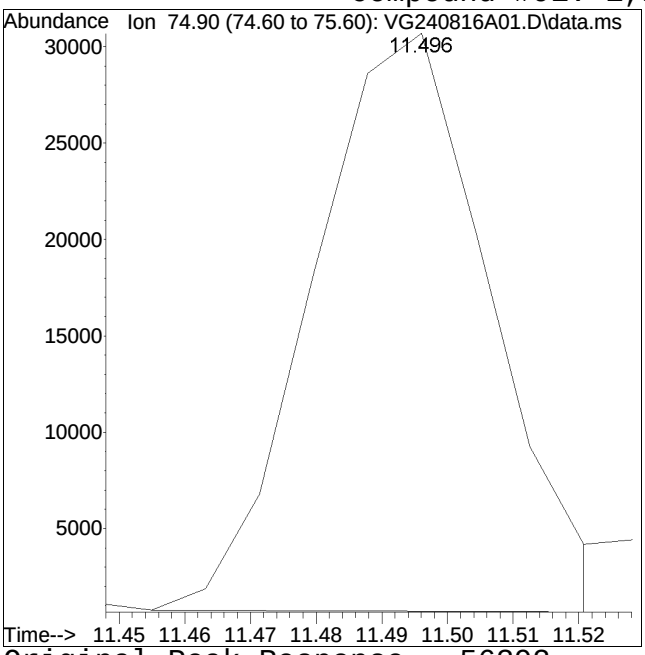
Manual Peak Response = 249280 M4

M4 = Poor automated baseline construction.

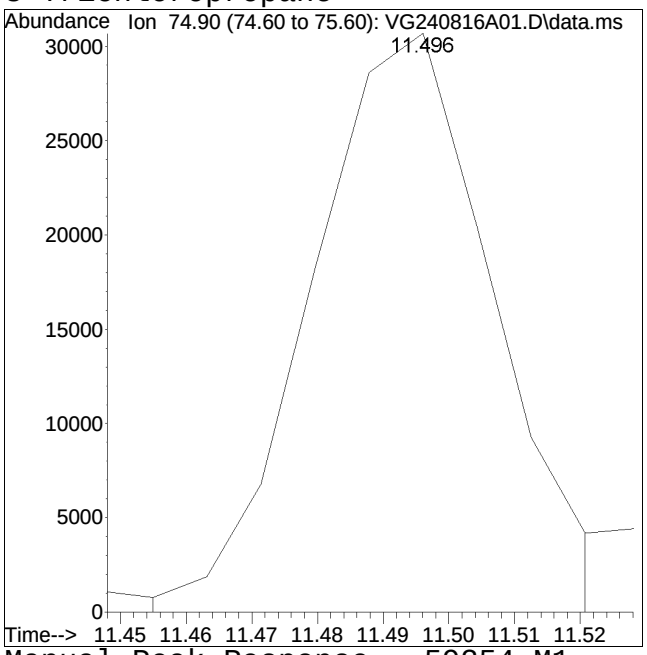
Manual Integration Report

Data Path	: K:\Gonzo\2024\240816A\	QMethod	: G_240712P_8260.m
Data File	: VG240816A01.D	Operator	: GONZO:PID
Date Inj'd	: 8/16/2024 6:49 am	Instrument	: Gonzo
Sample	: WG1960231-3,31,10,10	Quant Date	: 8/16/2024 7:25 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 56392



Manual Peak Response = 59254 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-3,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	5.959	96	184749	10.000	ug/L		0.00
63) Chlorobenzene-d5	9.492	117	135681	10.000	ug/L		0.00
84) 1,4-Dichlorobenzene-d4	12.205	152	81388	10.000	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	5.147	113	43059	9.956	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.56%				
47) 1,2-Dichloroethane-d4	5.674	65	53614	9.290	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.90%				
64) Toluene-d8	7.649	98	179608	10.050	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.50%				
88) 4-Bromofluorobenzene	10.992	95	66071	8.788	ug/L		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.88%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.592	85	40729	9.833	ug/L		98
3) Chloromethane	1.778	50	49185	10.665	ug/L		98
4) Vinyl chloride	1.854	62	47085	10.955	ug/L		95
5) Bromomethane	2.161	94	19849	15.169	ug/L		95
6) Chloroethane	2.278	64	31039	11.962	ug/L		97
7) Trichlorofluoromethane	2.414	101	59431	12.033	ug/L		94
8) Ethyl ether	2.713	74	20002	10.285	ug/L	#	77
10) 1,1-Dichloroethene	2.900	96	30360	10.261	ug/L	#	74
11) Carbon disulfide	2.927	76	98389	10.777	ug/L		98
15) Methylene chloride	3.454	84	37654	10.089	ug/L		87
17) Acetone	3.496	43	9205	6.791	ug/L		93
18) trans-1,2-Dichloroethene	3.602	96	35888	11.284	ug/L		84
21) Methyl tert-butyl ether	3.703	73	107840	9.093	ug/L		95
25) 1,1-Dichloroethane	4.188	63	81381	10.903	ug/L		97
27) Acrylonitrile	4.232	53	12473	8.008	ug/L	#	83
29) Vinyl acetate	4.422	43	109055	9.645	ug/L	#	95
30) cis-1,2-Dichloroethene	4.707	96	41829	10.972	ug/L		98
31) 2,2-Dichloropropane	4.813	77	56667	11.344	ug/L		88
33) Bromochloromethane	4.896	128	18714	11.191	ug/L		90
35) Chloroform	4.971	83	65968	10.661	ug/L		98
37) Carbon tetrachloride	5.103	117	54120	11.451	ug/L		93
40) 1,1,1-Trichloroethane	5.169	97	62517	11.125	ug/L		95
42) 2-Butanone	5.259	43	14377	7.423	ug/L	#	80
43) 1,1-Dichloropropene	5.289	75	54239	11.465	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-3,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) Benzene	5.538	78	162716	11.118	ug/L		93
48) 1,2-Dichloroethane	5.747	62	57246	10.135	ug/L		99
52) Trichloroethene	6.134	95	41239	11.208	ug/L		96
54) Dibromomethane	6.572	93	21673	10.226	ug/L	#	83
55) 1,2-Dichloropropane	6.675	63	45622	10.327	ug/L		97
58) Bromodichloromethane	6.751	83	55497	10.601	ug/L	#	93
61) 1,4-Dioxane	6.957	88	14170M1	399.657	ug/L		
62) cis-1,3-Dichloropropene	7.442	75	62076	10.531	ug/L		95
65) Toluene	7.704	92	104438	11.179	ug/L		94
66) 4-Methyl-2-pentanone	8.137	58	12158	7.630	ug/L	#	87
67) Tetrachloroethene	8.151	166	48864	12.312	ug/L		95
69) trans-1,3-Dichloropropene	8.187	75	50750	9.648	ug/L		98
72) 1,1,2-Trichloroethane	8.374	83	26437	10.078	ug/L		96
73) Chlorodibromomethane	8.586	129	35956	9.803	ug/L		99
74) 1,3-Dichloropropane	8.694	76	55552	10.031	ug/L		96
75) 1,2-Dibromoethane	8.862	107	29593	9.546	ug/L		89
77) 2-Hexanone	9.143	43	20813	6.703	ug/L	#	93
78) Chlorobenzene	9.511	112	110773	11.128	ug/L	#	82
79) Ethylbenzene	9.548	91	206510	11.405	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.589	131	40736	11.162	ug/L		97
81) p/m Xylene	9.740	106	158906	23.022	ug/L		99
82) o Xylene	10.278	106	152403	22.579	ug/L		92
83) Styrene	10.345	104	247315	22.348	ug/L		99
85) Bromoform	10.370	173	24046	9.080	ug/L		94
87) Isopropylbenzene	10.666	105	206349	10.588	ug/L		96
89) Bromobenzene	11.101	156	50662	10.296	ug/L		98
90) n-Propylbenzene	11.146	91	248871	10.687	ug/L		96
92) 1,1,2,2-Tetrachloroethane	11.235	83	36924	8.929	ug/L		98
93) 4-Ethyltoluene	11.274	105	200115	10.593	ug/L		98
94) 2-Chlorotoluene	11.313	91	142671M1	10.414	ug/L		
95) 1,3,5-Trimethylbenzene	11.371	105	175818	10.609	ug/L		100
96) 1,2,3-Trichloropropane	11.374	75	29403	8.715	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.430	53	12981	7.830	ug/L		92
98) 4-Chlorotoluene	11.500	91	148347	10.337	ug/L		98
99) tert-Butylbenzene	11.714	119	145179	10.422	ug/L	#	97
102) 1,2,4-Trimethylbenzene	11.792	105	172121	10.405	ug/L		94
103) sec-Butylbenzene	11.904	105	217480	10.528	ug/L		98
104) p-Isopropyltoluene	12.057	119	183122	10.520	ug/L		96
105) 1,3-Dichlorobenzene	12.124	146	97898	10.773	ug/L		96
106) 1,4-Dichlorobenzene	12.216	146	95941	10.562	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-3,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107)	p-Diethylbenzene	12.434	119	104597	10.190	ug/L	97
108)	n-Butylbenzene	12.490	91	158035	10.542	ug/L	97
109)	1,2-Dichlorobenzene	12.640	146	89552	10.243	ug/L	98
110)	1,2,4,5-Tetramethylben...	13.229	119	159301	9.564	ug/L	94
111)	1,2-Dibromo-3-chloropr...	13.418	155	5758M1	7.474	ug/L	
113)	Hexachlorobutadiene	14.029	225	24183	10.512	ug/L	91
114)	1,2,4-Trichlorobenzene	14.051	180	58063	9.265	ug/L	98
115)	Naphthalene	14.344	128	106333	7.698	ug/L	100
116)	1,2,3-Trichlorobenzene	14.514	180	49712	8.634	ug/L	94

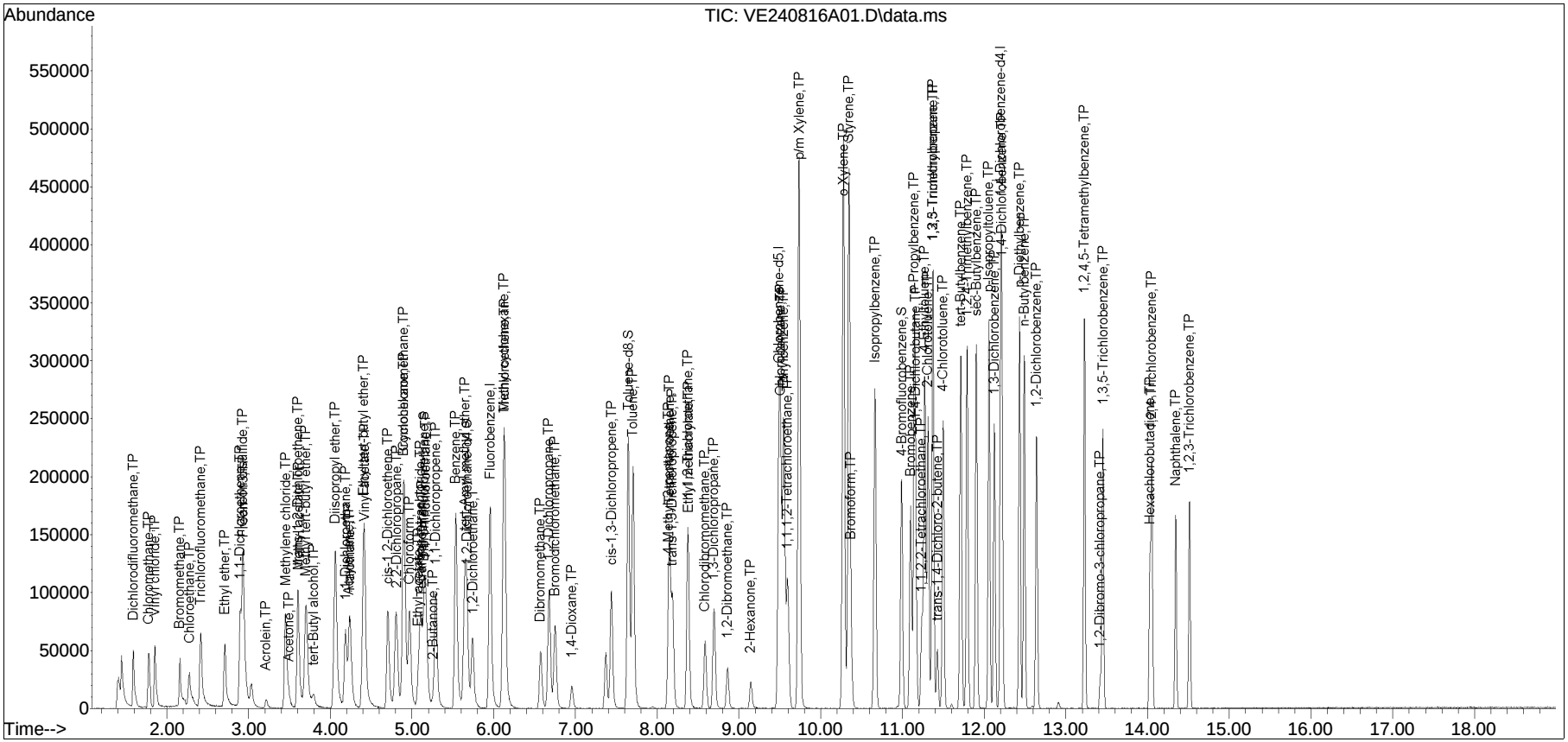
(#) = qualifier out of range (m) = manual integration (+) = signals summed

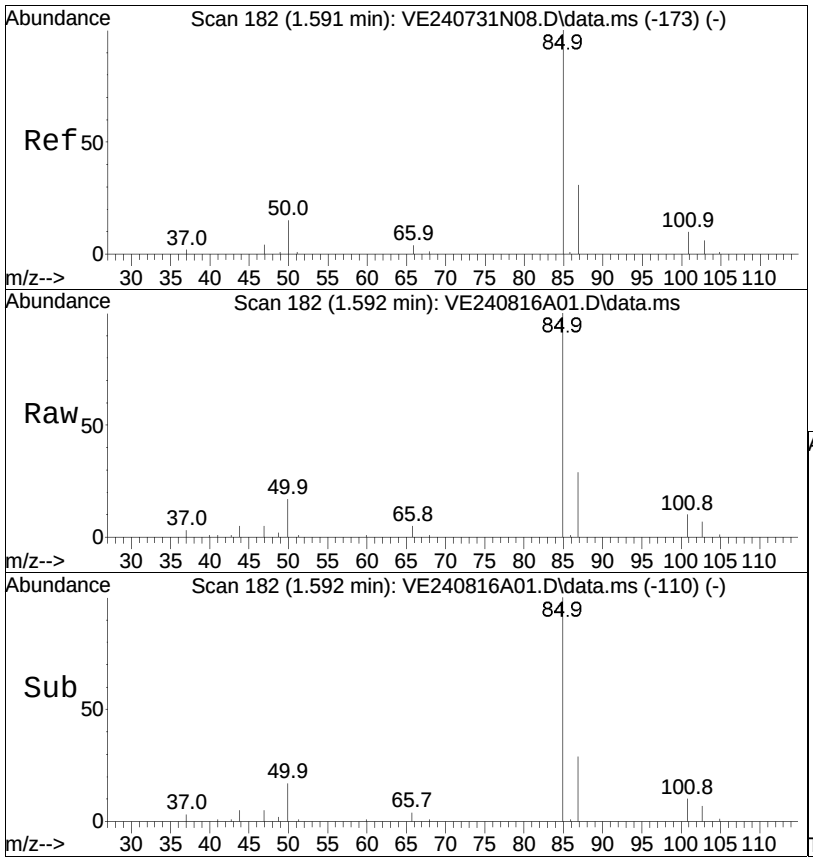
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Acq On : 16 Aug 2024 6:49 am
Operator : ELAINE:PID
Sample : WG1960272-3,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 07:19:31 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

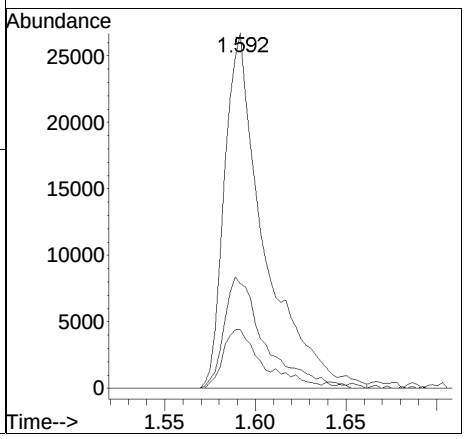


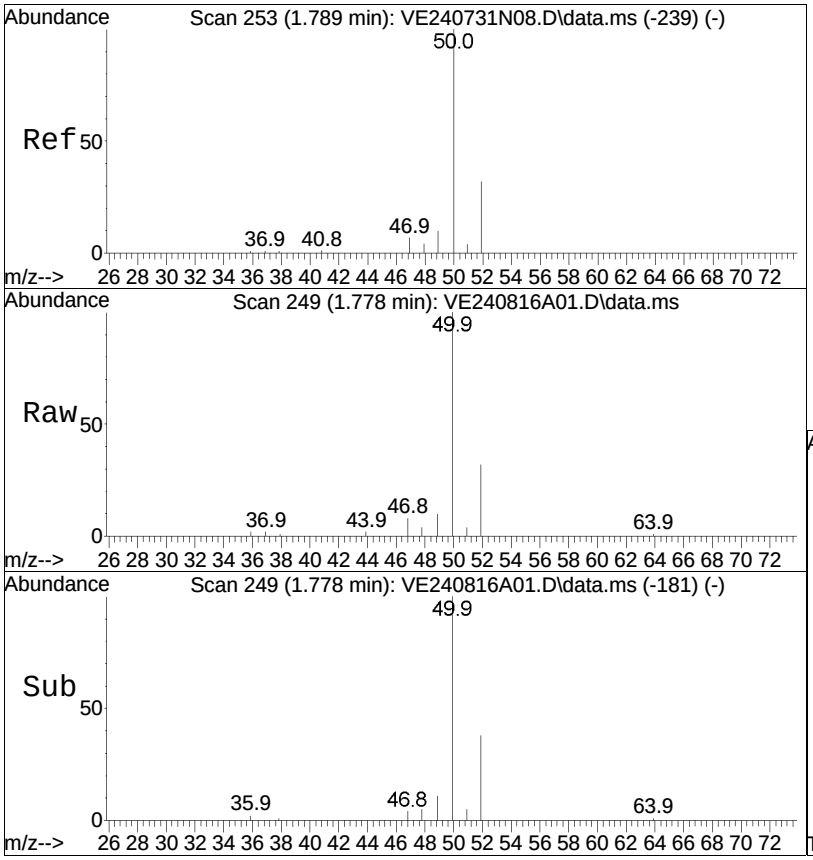


#2
Dichlorodifluoromethane
Concen: 9.83 ug/L
RT: 1.592 min Scan# 182
Delta R.T. 0.001 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 85 Resp: 40729

Ion	Ratio	Lower	Upper
85	100		
87	32.3	21.7	45.1
50	16.8	11.8	24.4

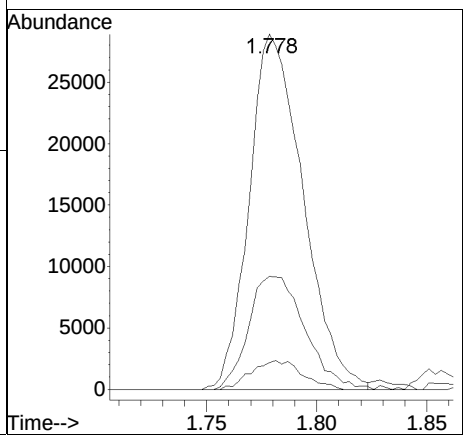


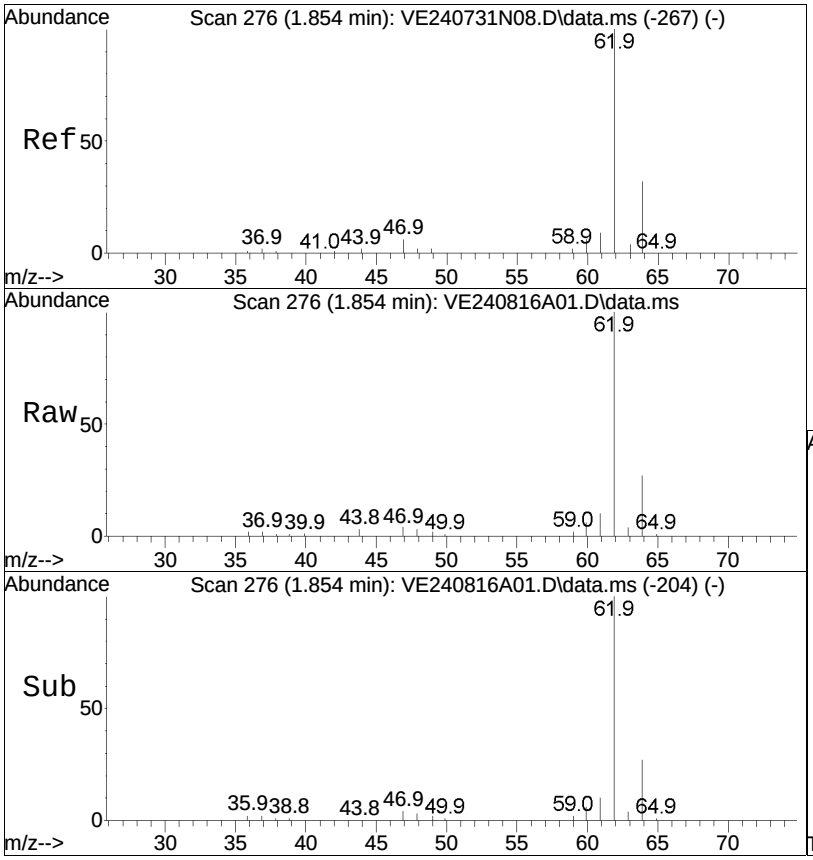


#3
Chloromethane
Concen: 10.66 ug/L
RT: 1.778 min Scan# 249
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 50 Resp: 49185

Ion	Ratio	Lower	Upper
50	100		
52	33.2	14.9	54.9
47	7.8	0.0	28.0

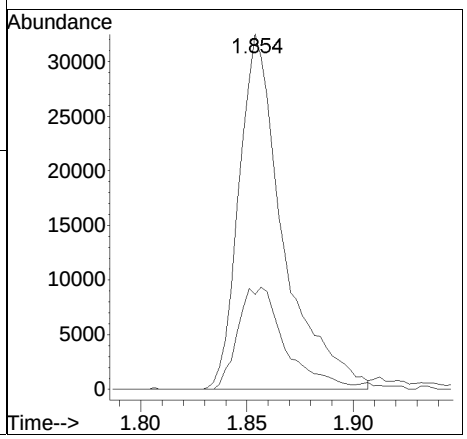


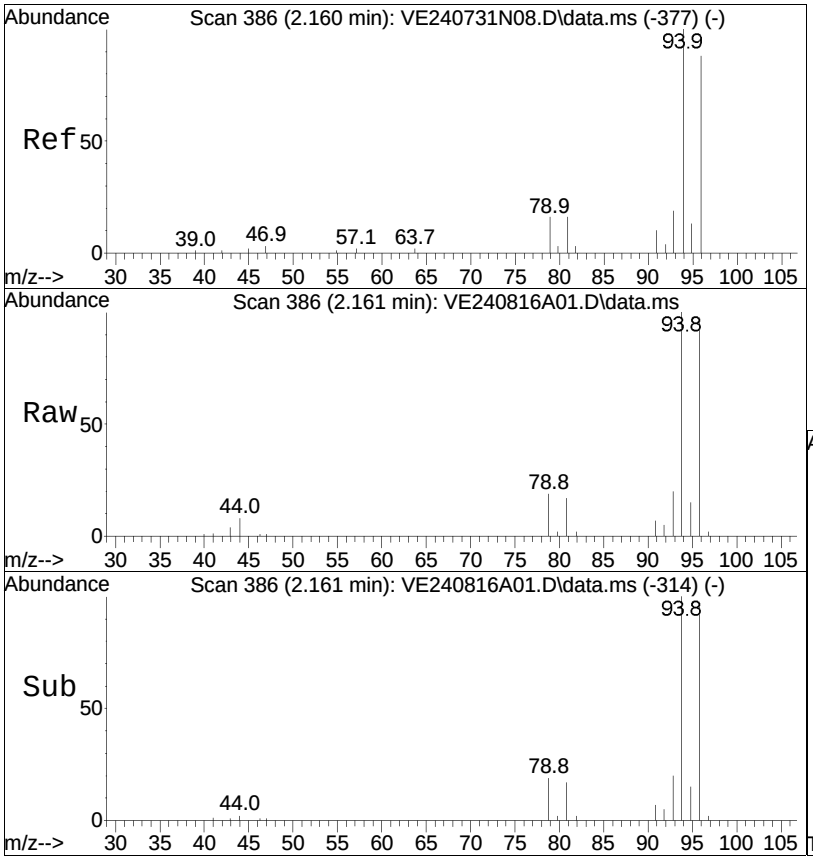


#4
Vinyl chloride
Concen: 10.96 ug/L
RT: 1.854 min Scan# 276
Delta R.T. -0.000 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 62 Resp: 47085

Ion	Ratio	Lower	Upper
62	100		
64	30.9	8.1	48.1

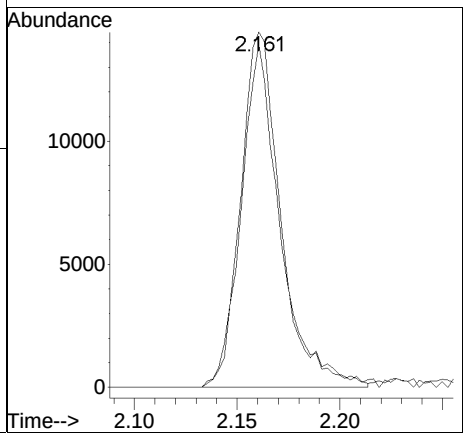


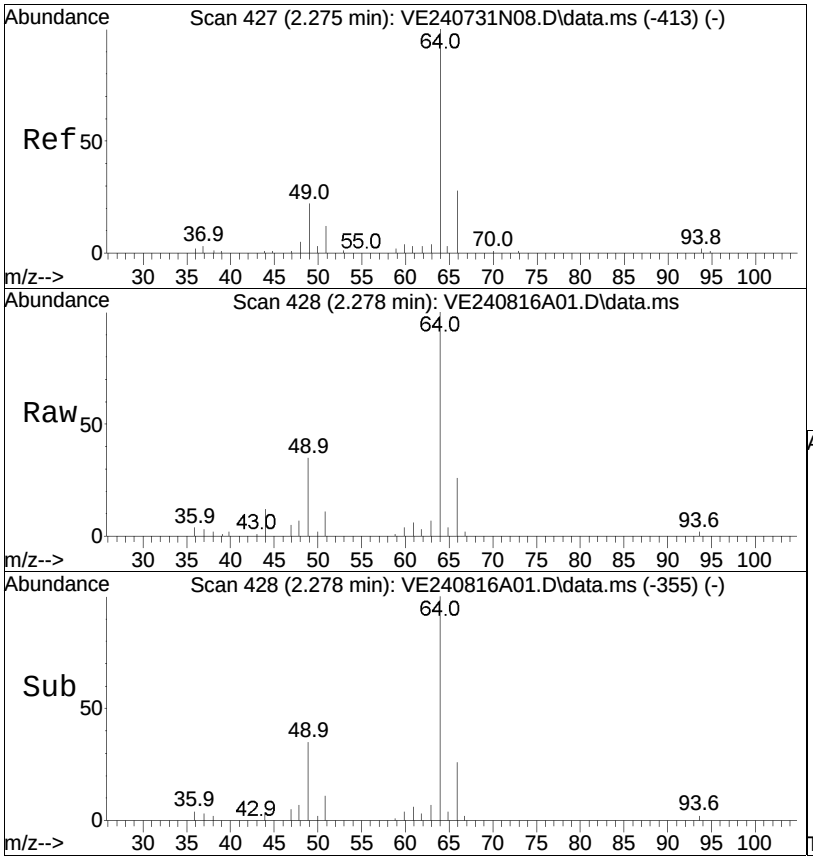


#5
Bromomethane
Concen: 15.17 ug/L
RT: 2.161 min Scan# 386
Delta R.T. 0.001 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 94 Resp: 19849

Ion	Ratio	Lower	Upper
94	100		
96	92.4	68.2	108.2

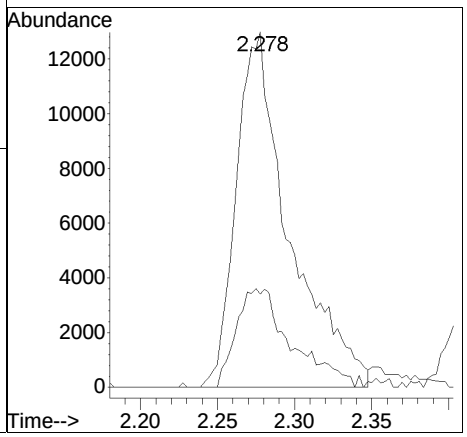


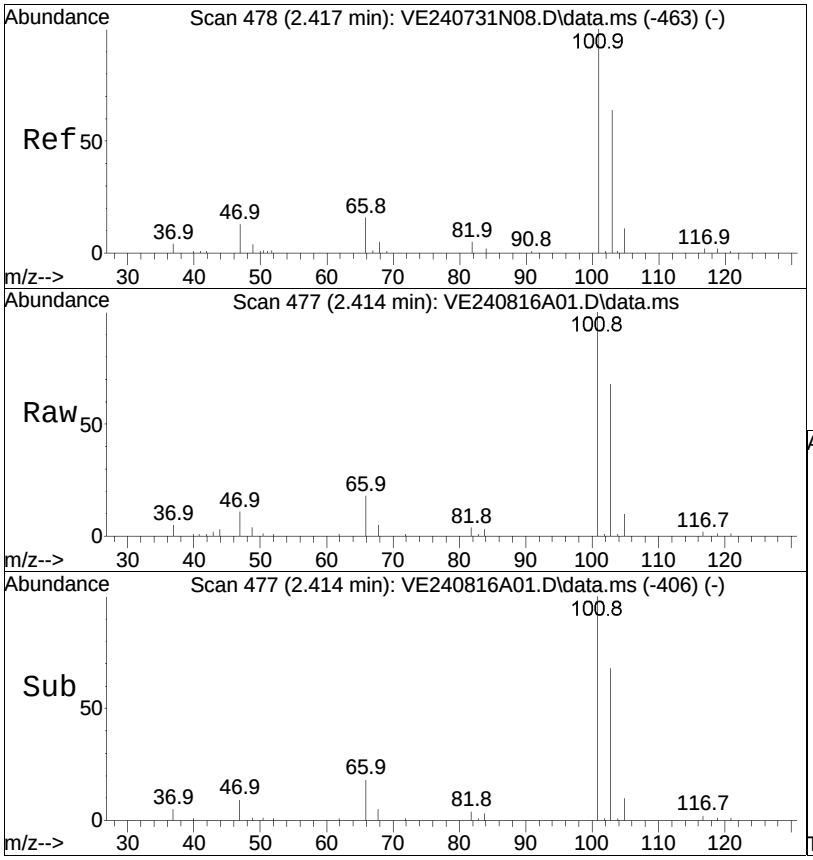


#6
Chloroethane
Concen: 11.96 ug/L
RT: 2.278 min Scan# 428
Delta R.T. 0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 64 Resp: 31039

Ion	Ratio	Lower	Upper
64	100		
66	28.9	10.7	50.7

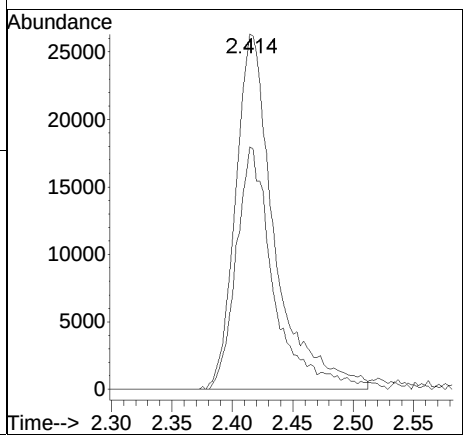


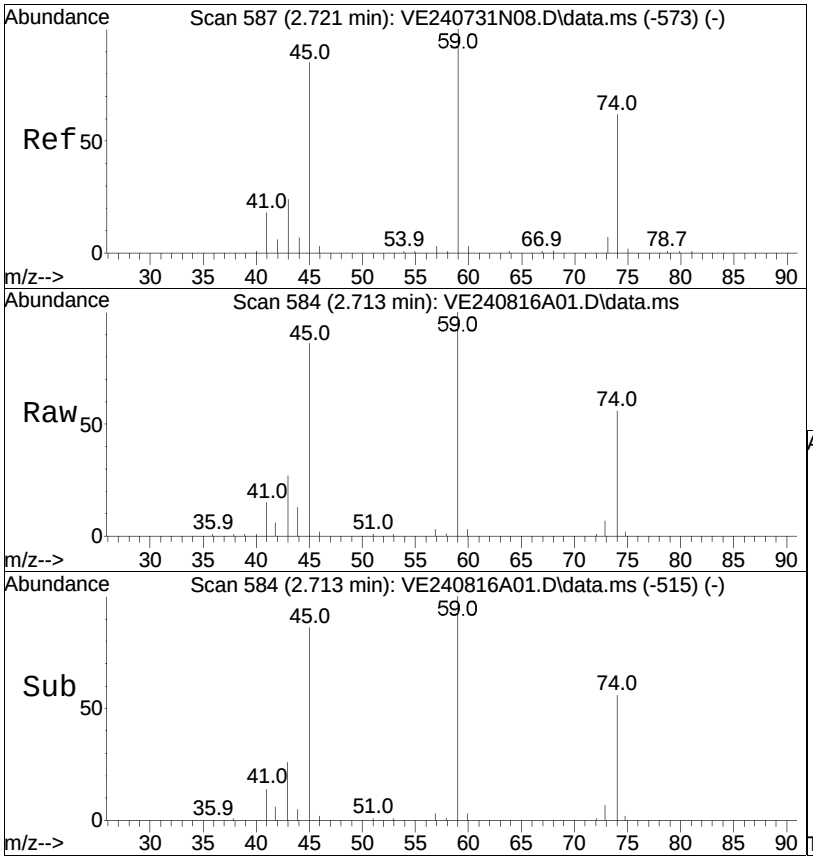


#7
Trichlorofluoromethane
Concen: 12.03 ug/L
RT: 2.414 min Scan# 477
Delta R.T. -0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:101 Resp: 59431

Ion	Ratio	Lower	Upper
101	100		
103	65.0	48.2	72.2

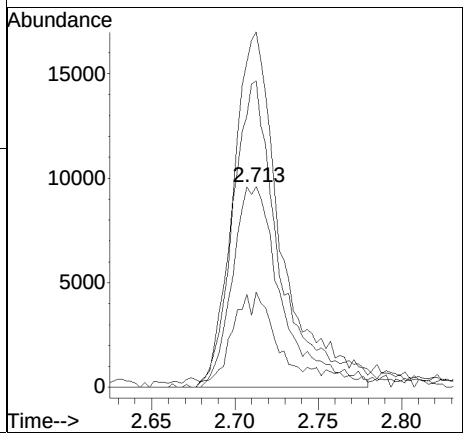


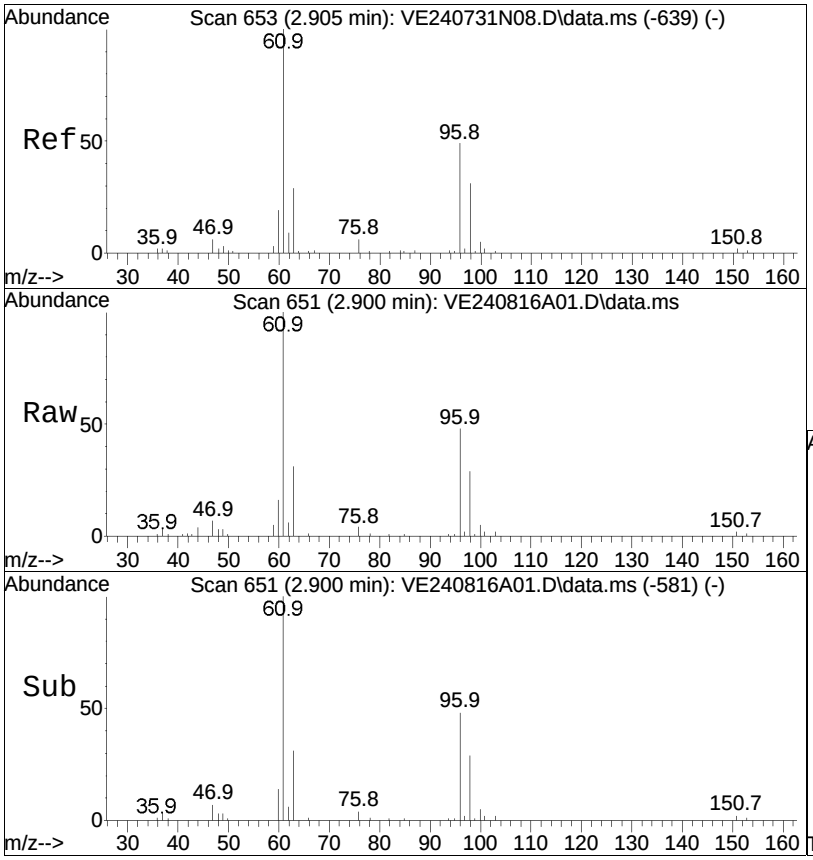


#8
Ethyl ether
Concen: 10.28 ug/L
RT: 2.713 min Scan# 584
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 74 Resp: 20002

Ion	Ratio	Lower	Upper
74	100		
59	171.2	91.7	190.5
45	139.2	77.4	160.8
43	17.3	24.6	51.2#

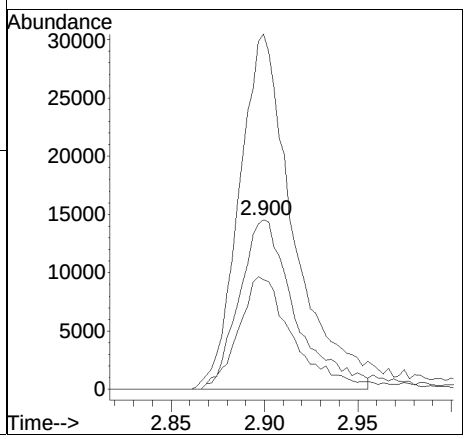


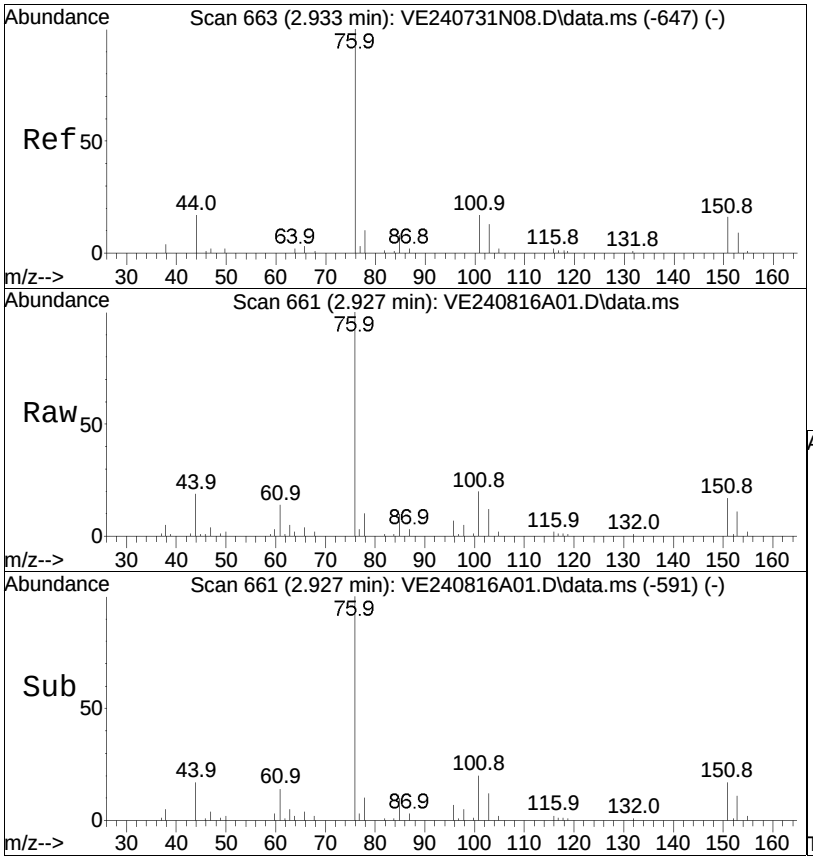


#10
1,1-Dichloroethene
Concen: 10.26 ug/L
RT: 2.900 min Scan# 651
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 96 Resp: 30360

Ion	Ratio	Lower	Upper
96	100		
61	208.2	135.4	203.0#
63	66.2	42.6	63.8#

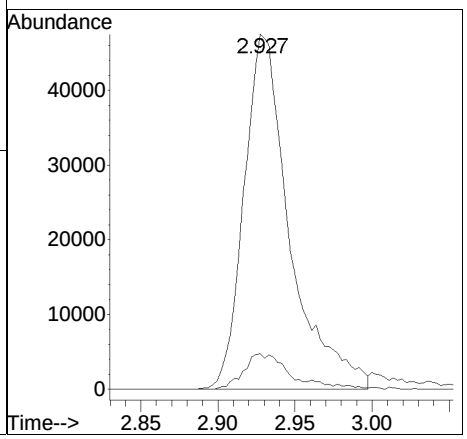


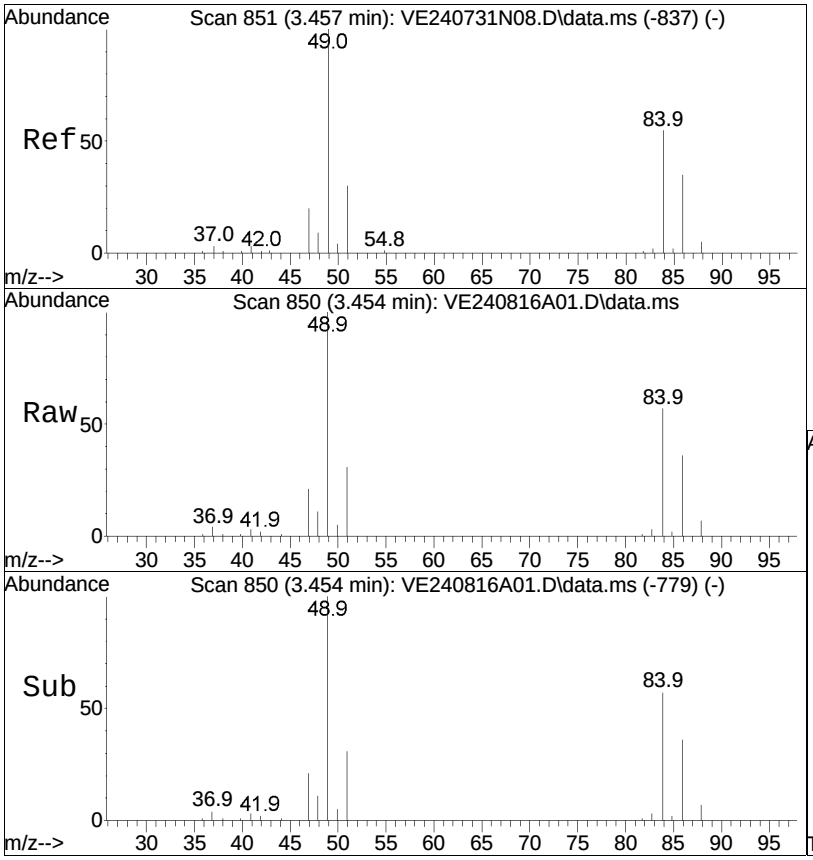


#11
Carbon disulfide
Concen: 10.78 ug/L
RT: 2.927 min Scan# 661
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 76 Resp: 98389

Ion	Ratio	Lower	Upper
76	100		
78	9.1	5.5	11.3

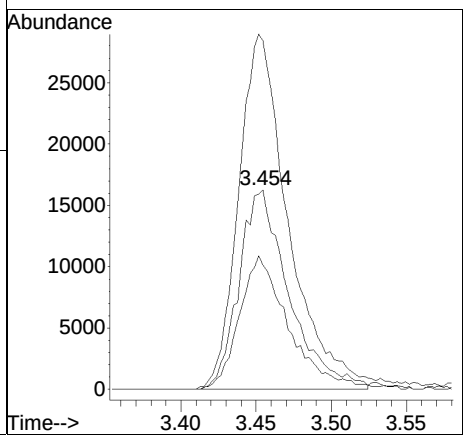


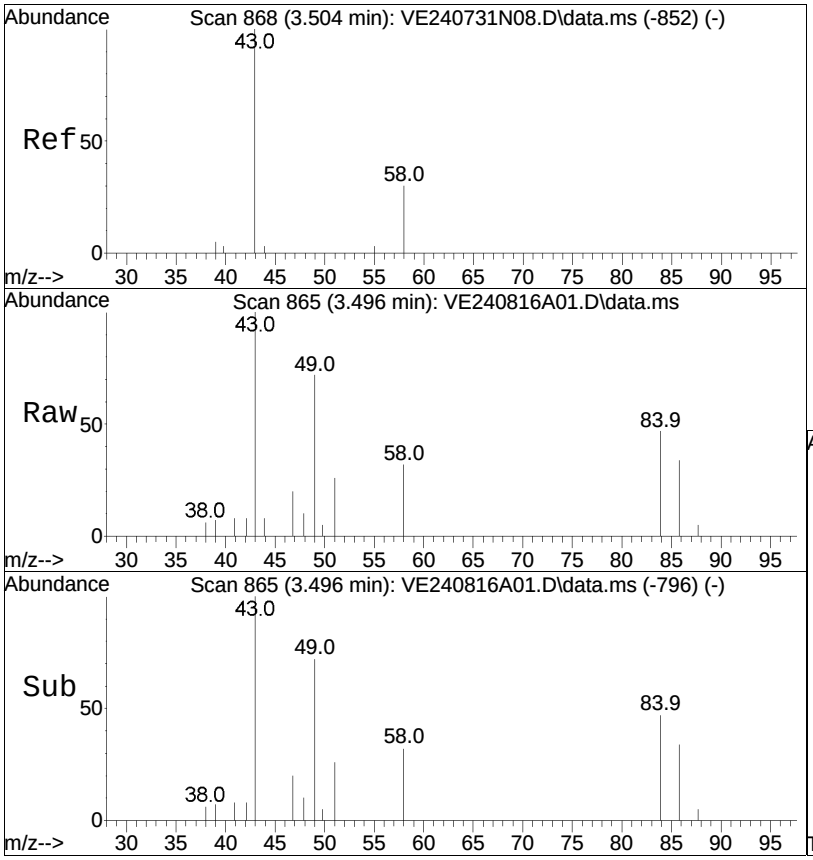


#15
Methylene chloride
Concen: 10.09 ug/L
RT: 3.454 min Scan# 850
Delta R.T. -0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 84 Resp: 37654

Ion	Ratio	Lower	Upper
84	100		
86	65.8	40.2	83.6
49	180.1	103.2	214.4

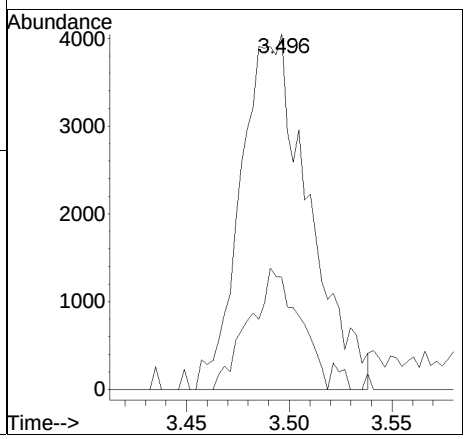


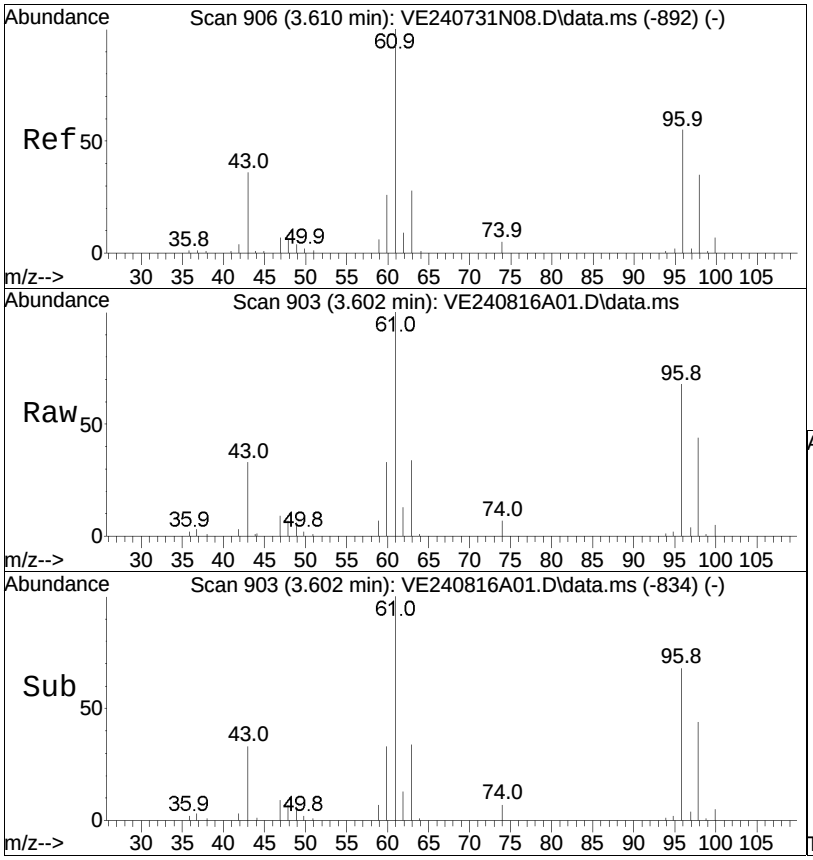


#17
Acetone
Concen: 6.79 ug/L
RT: 3.496 min Scan# 865
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 9205

Ion	Ratio	Lower	Upper
43	100		
58	25.4	23.4	35.0

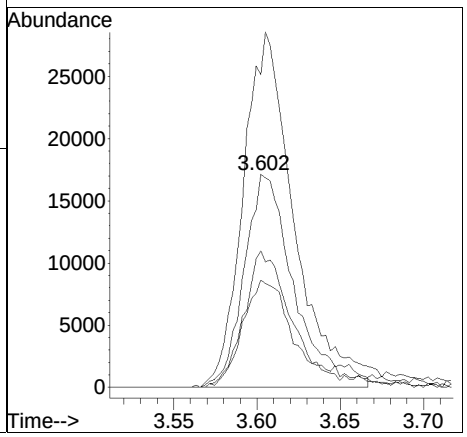


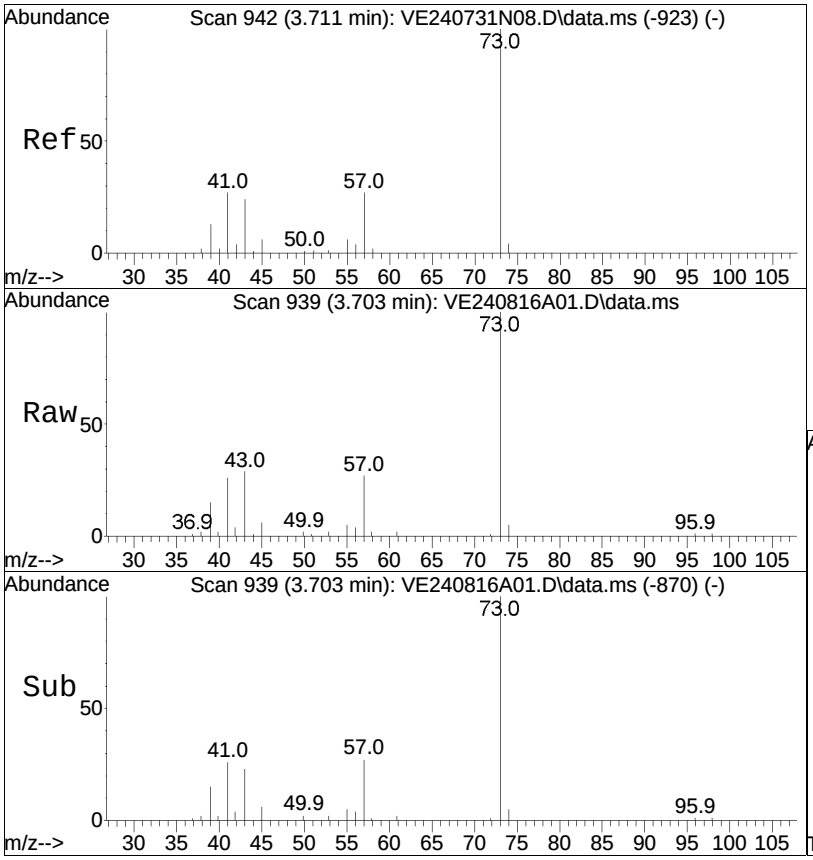


#18
trans-1,2-Dichloroethene
Concen: 11.28 ug/L
RT: 3.602 min Scan# 903
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 96 Resp: 35888

Ion	Ratio	Lower	Upper
96	100		
61	171.1	93.5	194.1
98	64.2	37.8	78.6
63	50.5	29.7	61.7

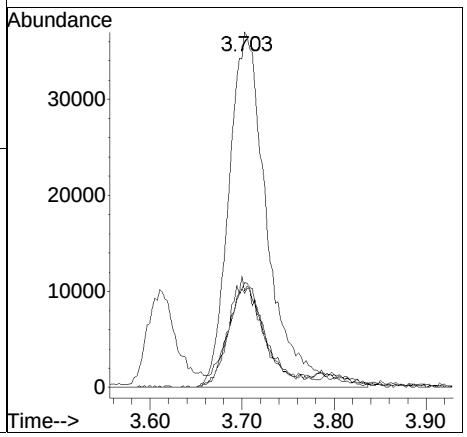


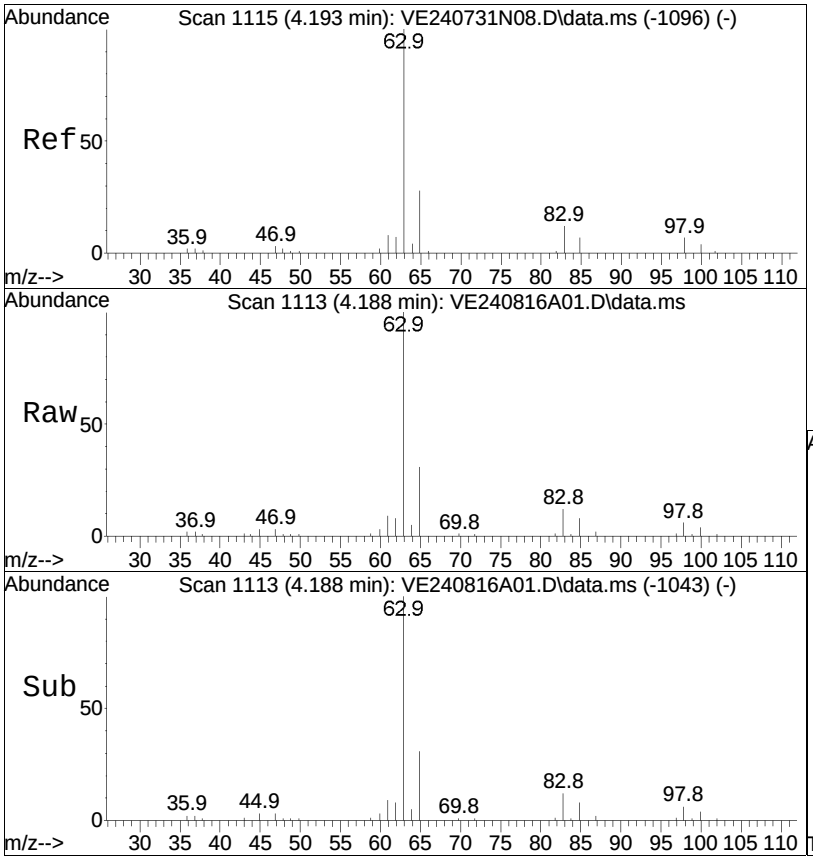


#21
Methyl tert-butyl ether
Concen: 9.09 ug/L
RT: 3.703 min Scan# 939
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 73 Resp: 107840

Ion	Ratio	Lower	Upper
73	100		
57	27.6	16.1	33.3
43	22.9	17.0	35.2
41	26.8	18.7	38.9

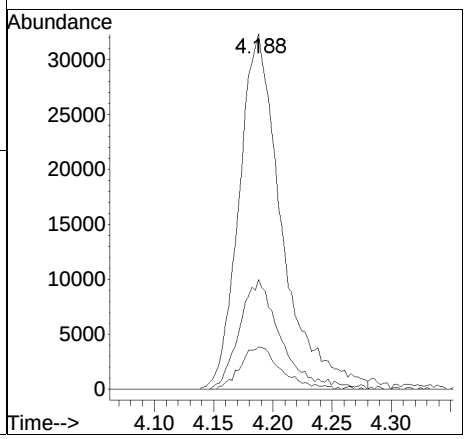


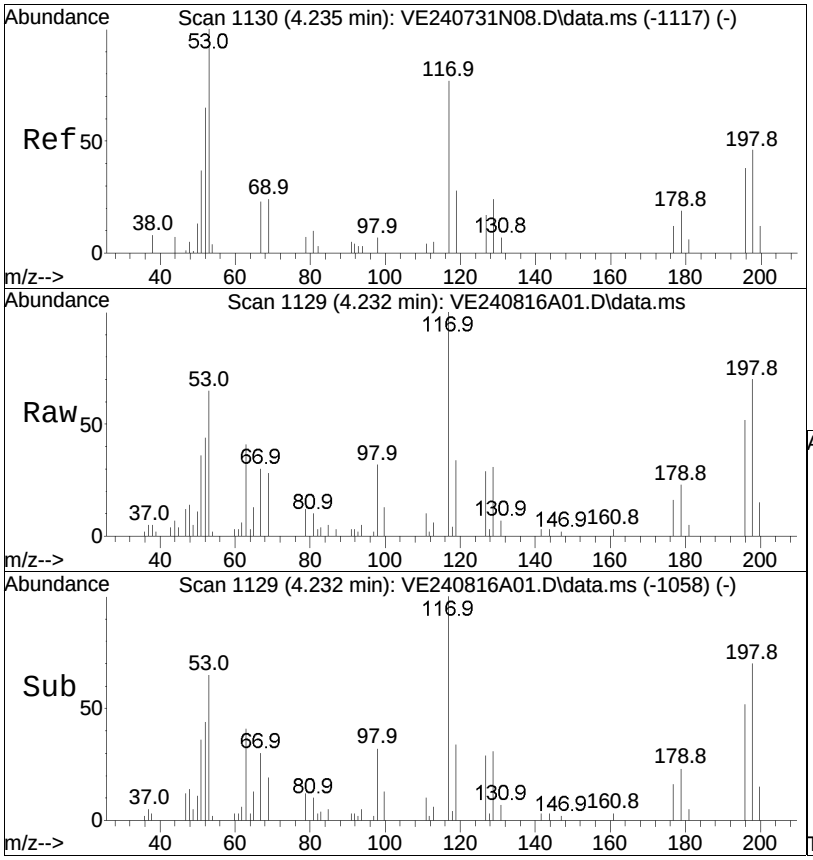


#25
1,1-Dichloroethane
Concen: 10.90 ug/L
RT: 4.188 min Scan# 1113
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 63 Resp: 81381

Ion	Ratio	Lower	Upper
63	100		
65	29.0	10.3	50.3
83	11.5	0.0	33.1

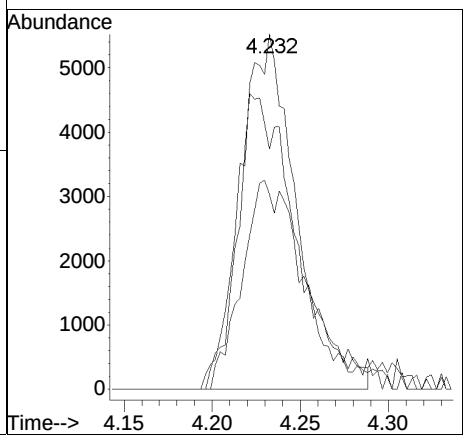


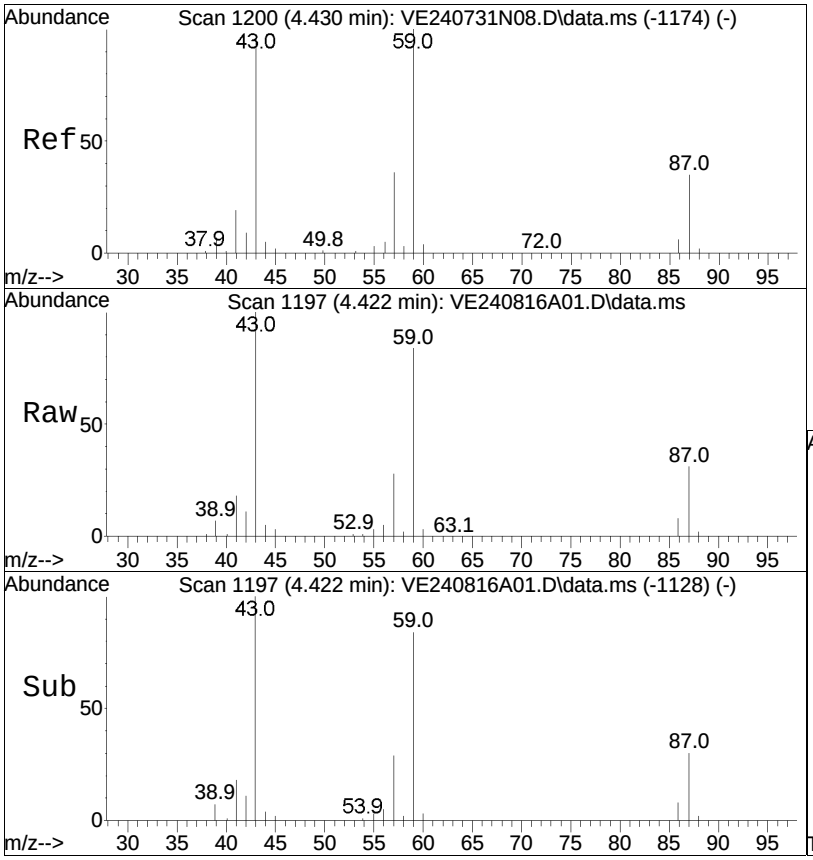


#27
Acrylonitrile
Concen: 8.01 ug/L
RT: 4.232 min Scan# 1129
Delta R.T. -0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 53 Resp: 12473

Ion	Ratio	Lower	Upper
53	100		
52	83.7	58.9	88.3
51	33.2	40.2	60.2#

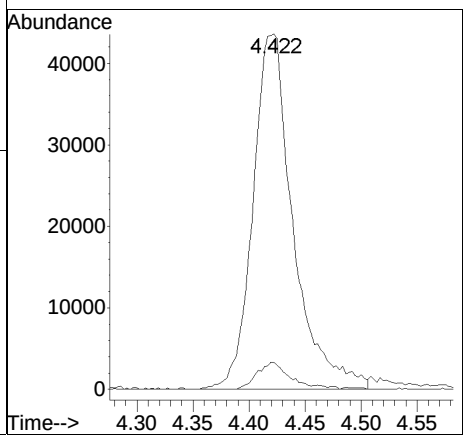


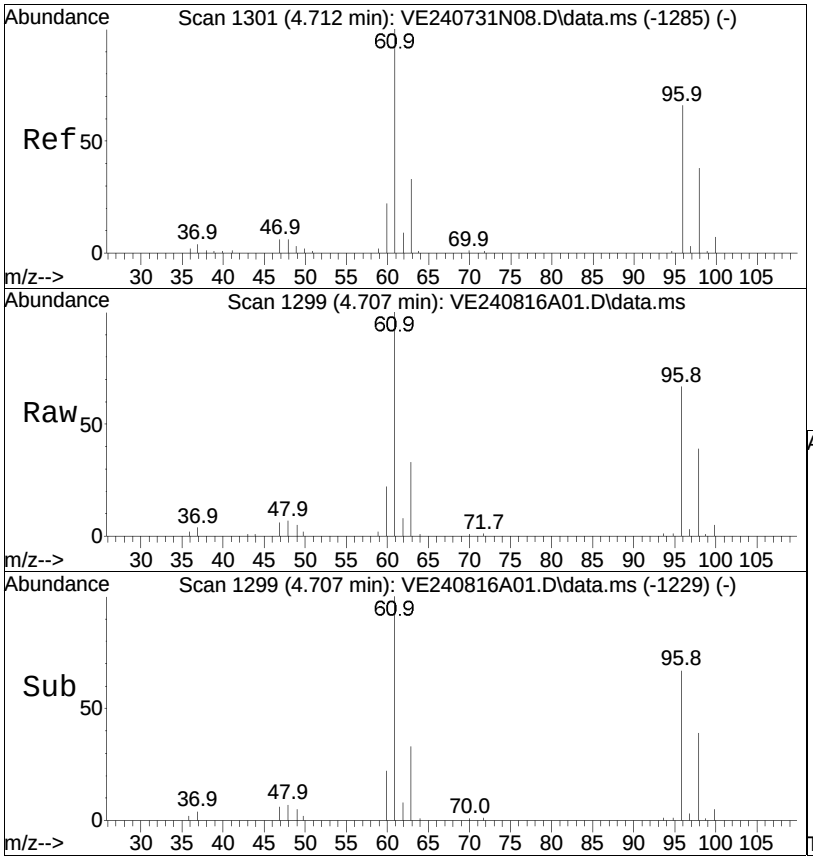


#29
Vinyl acetate
Concen: 9.65 ug/L
RT: 4.422 min Scan# 1197
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 109055

Ion	Ratio	Lower	Upper
43	100		
86	6.0	6.2	9.4#

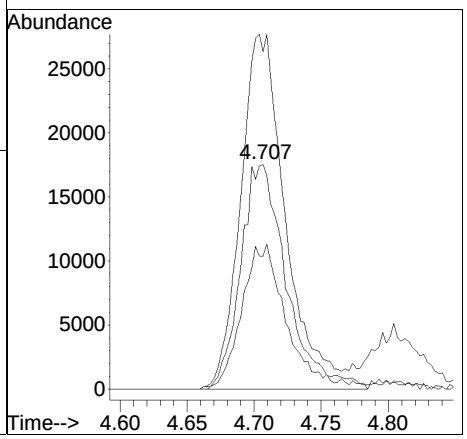


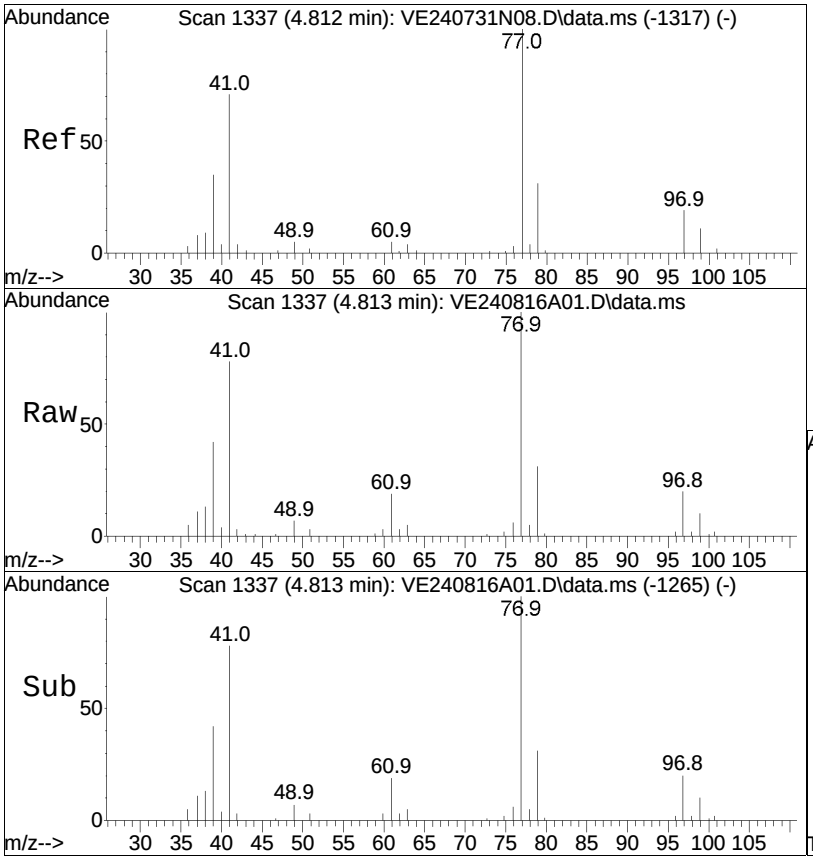


#30
cis-1,2-Dichloroethene
Concen: 10.97 ug/L
RT: 4.707 min Scan# 1299
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 96 Resp: 41829

Ion	Ratio	Lower	Upper
96	100		
61	153.3	120.3	180.5
98	61.4	50.2	75.4

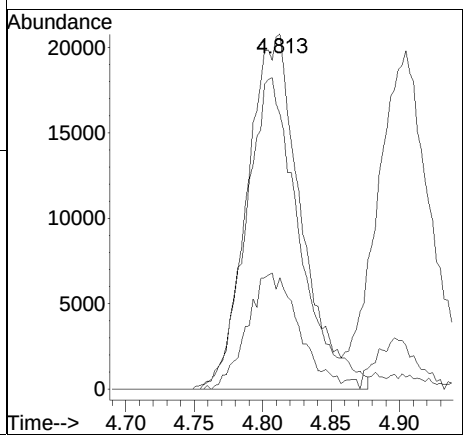


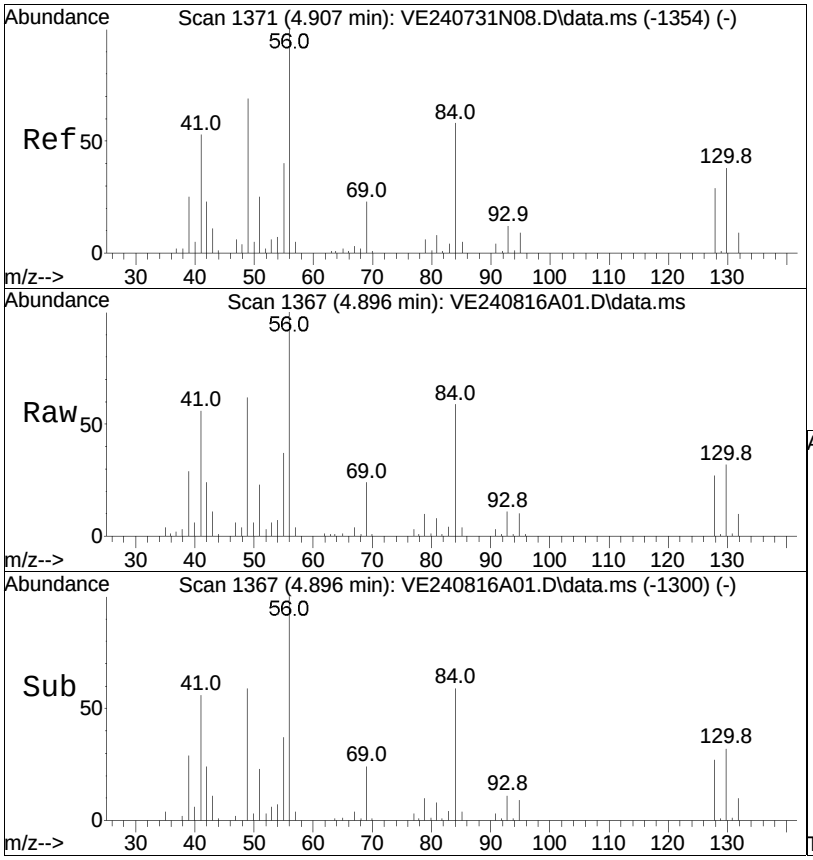


#31
2,2-Dichloropropane
Concen: 11.34 ug/L
RT: 4.813 min Scan# 1337
Delta R.T. 0.001 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 77 Resp: 56667

Ion	Ratio	Lower	Upper
77	100		
41	84.9	46.5	96.5
79	31.5	21.6	45.0

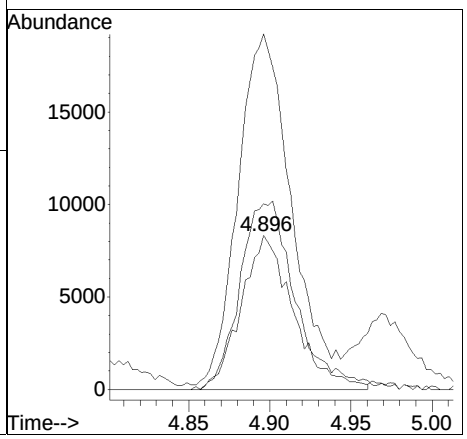


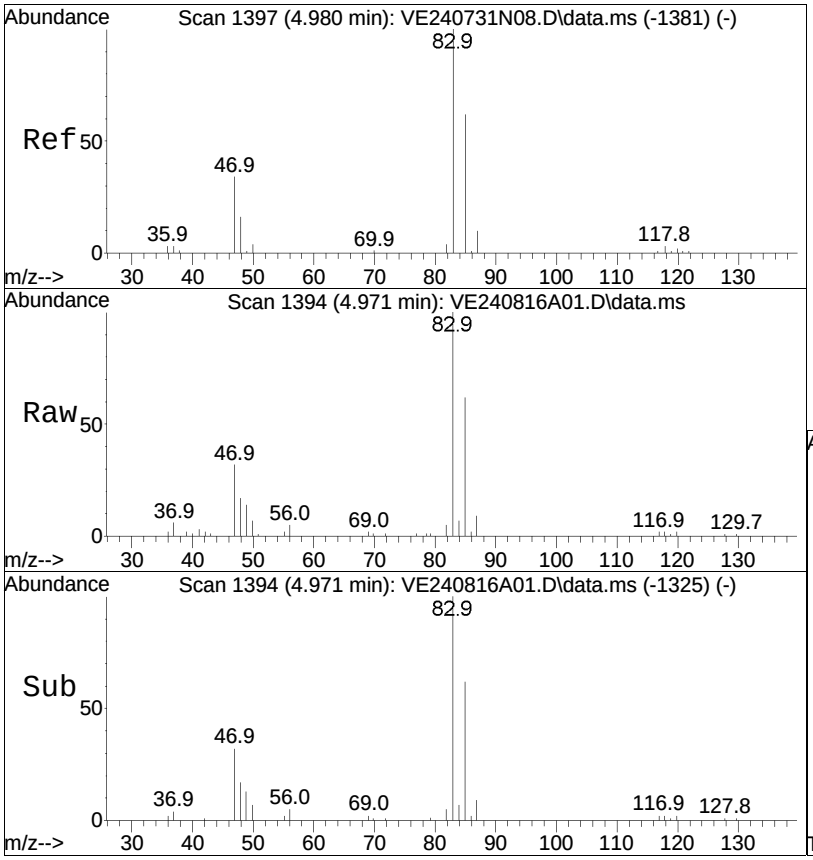


#33
Bromochloromethane
Concen: 11.19 ug/L
RT: 4.896 min Scan# 1367
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:128 Resp: 18714

Ion	Ratio	Lower	Upper
128	100		
49	237.2	170.2	255.2
130	129.3	103.7	155.5

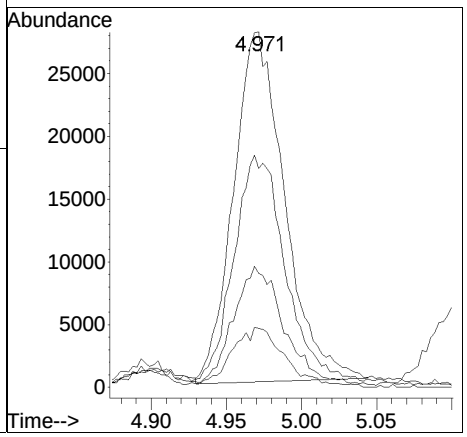


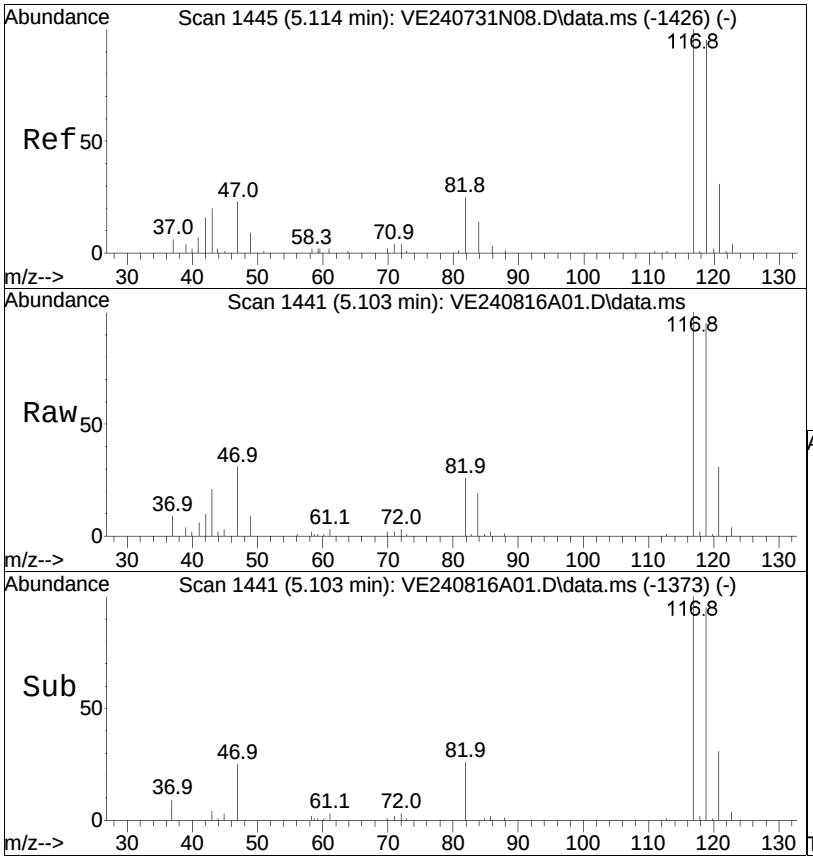


#35
Chloroform
Concen: 10.66 ug/L
RT: 4.971 min Scan# 1394
Delta R.T. -0.009 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 65968

Ion	Ratio	Lower	Upper
83	100		
85	64.2	41.3	85.9
47	33.8	20.9	43.3
48	16.8	10.3	21.5

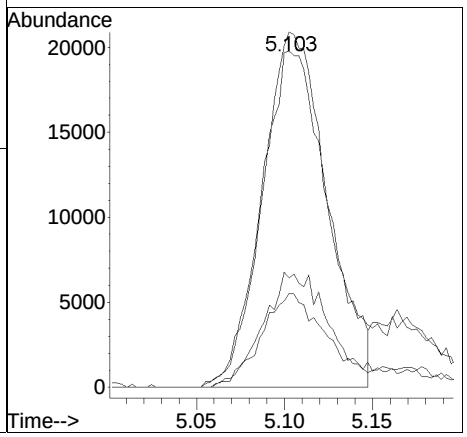


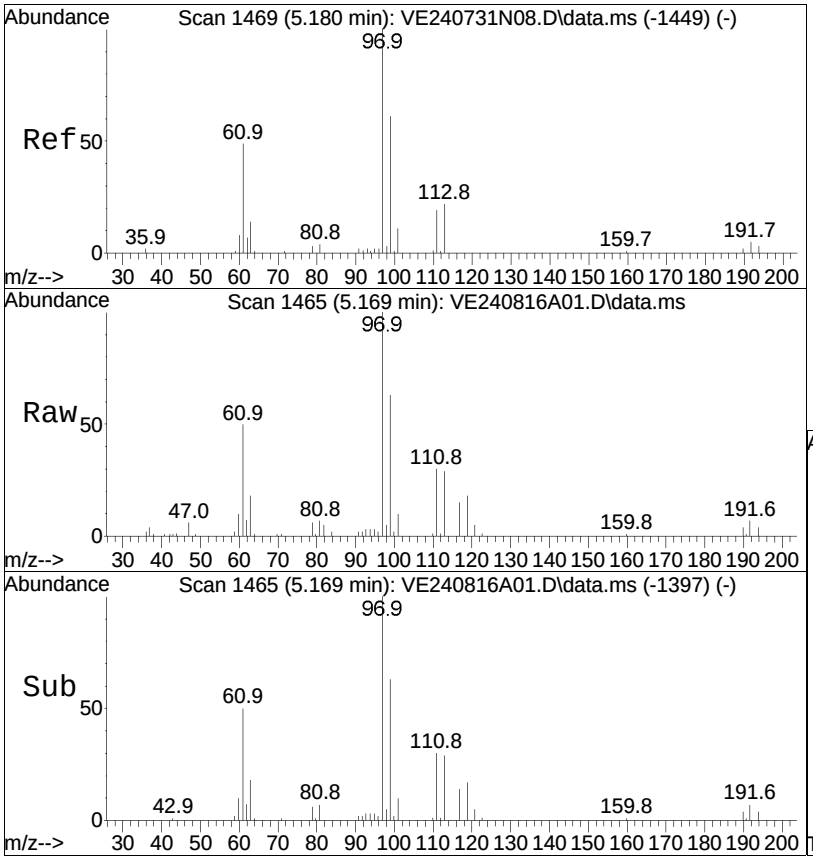


#37
Carbon tetrachloride
Concen: 11.45 ug/L
RT: 5.103 min Scan# 1441
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:117 Resp: 54120

Ion	Ratio	Lower	Upper
117	100		
119	99.9	60.6	126.0
121	32.2	18.0	37.4
82	26.1	19.8	41.0

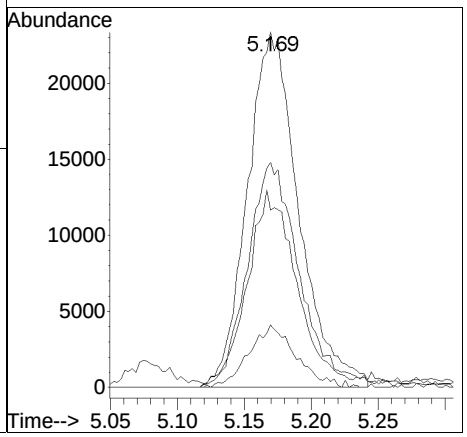


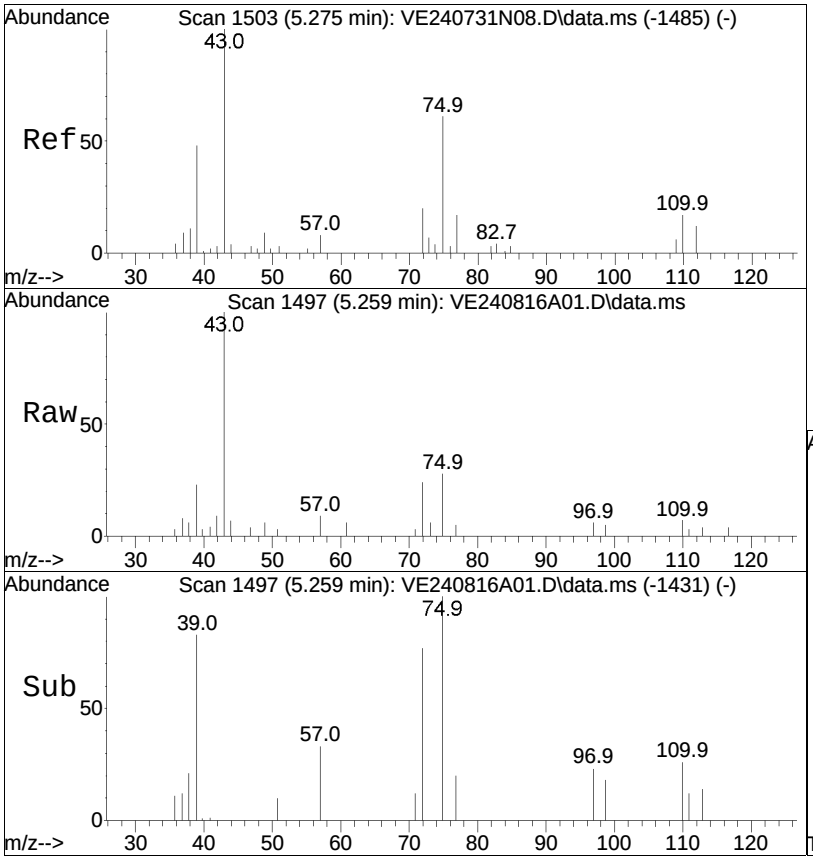


#40
1,1,1-Trichloroethane
Concen: 11.13 ug/L
RT: 5.169 min Scan# 1465
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 97 Resp: 62517

Ion	Ratio	Lower	Upper
97	100		
99	63.8	40.2	83.4
61	50.8	36.9	76.5
63	15.5	8.3	17.3

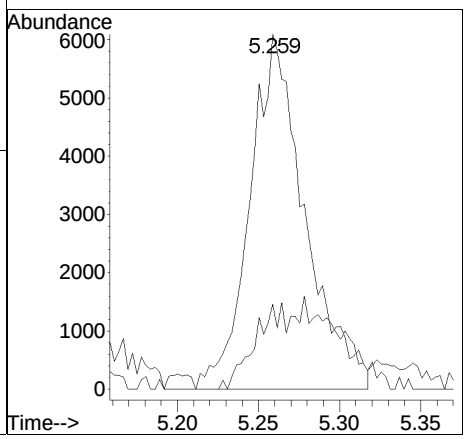


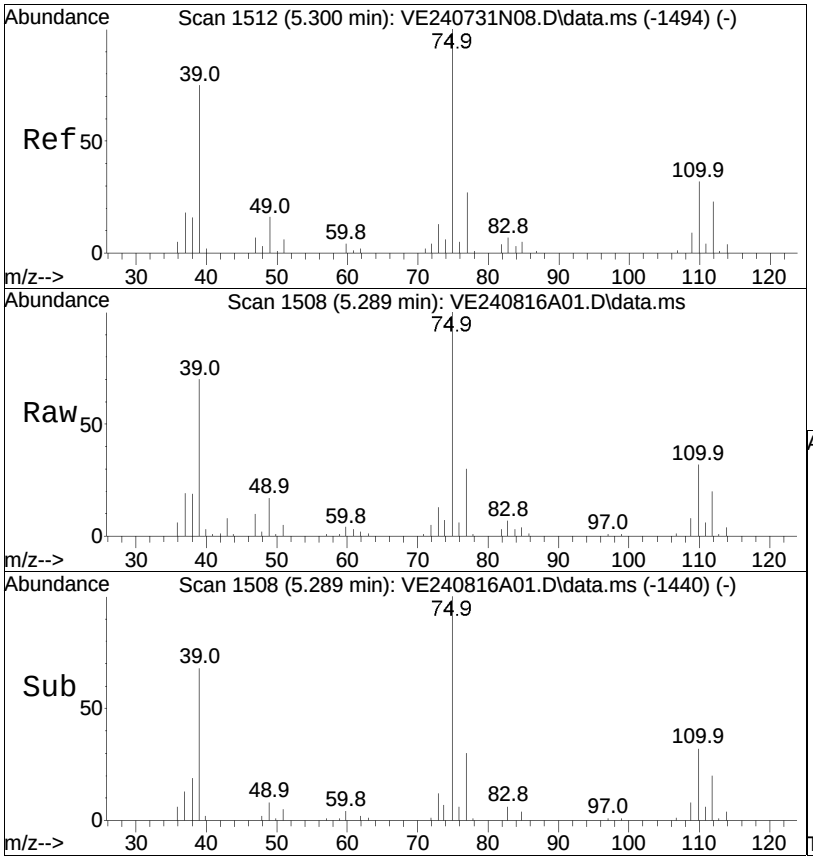


#42
2-Butanone
Concen: 7.42 ug/L
RT: 5.259 min Scan# 1497
Delta R.T. -0.016 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 14377

Ion	Ratio	Lower	Upper
43	100		
72	10.4	15.7	23.5#

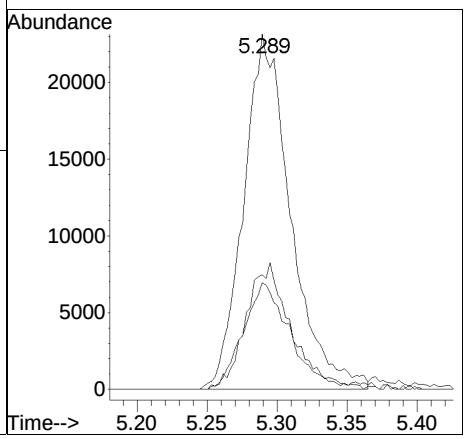


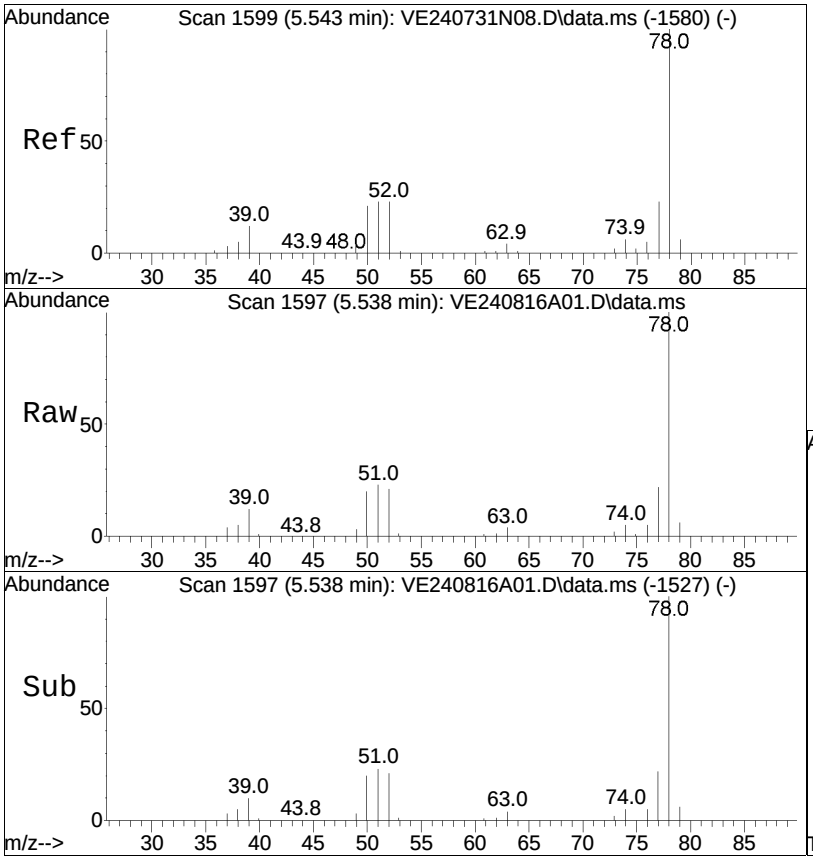


#43
1,1-Dichloropropene
Concen: 11.46 ug/L
RT: 5.289 min Scan# 1508
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 54239

Ion	Ratio	Lower	Upper
75	100		
110	34.0	20.3	42.1
77	29.1	18.9	39.3

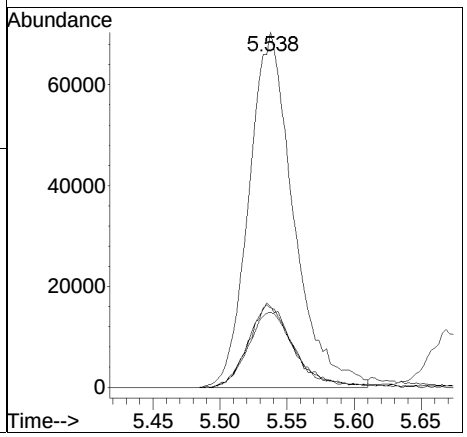


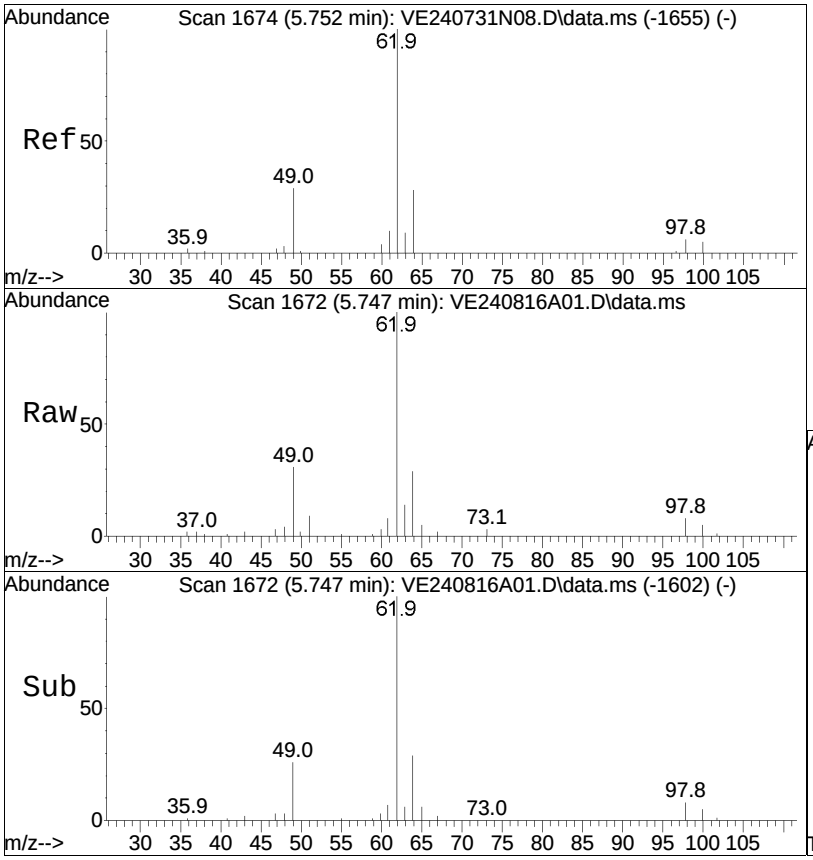


#45
Benzene
Concen: 11.12 ug/L
RT: 5.538 min Scan# 1597
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 78 Resp: 162716

Ion	Ratio	Lower	Upper
78	100		
77	23.8	12.8	26.6
51	23.2	13.5	27.9
52	21.9	12.0	25.0

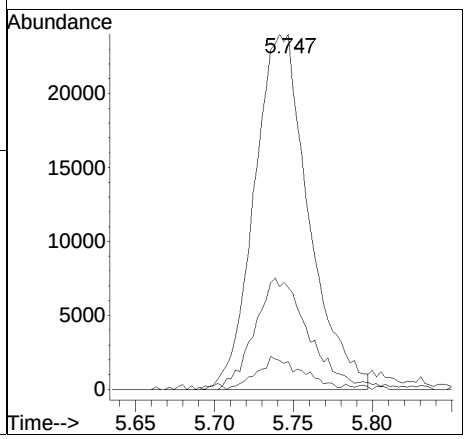


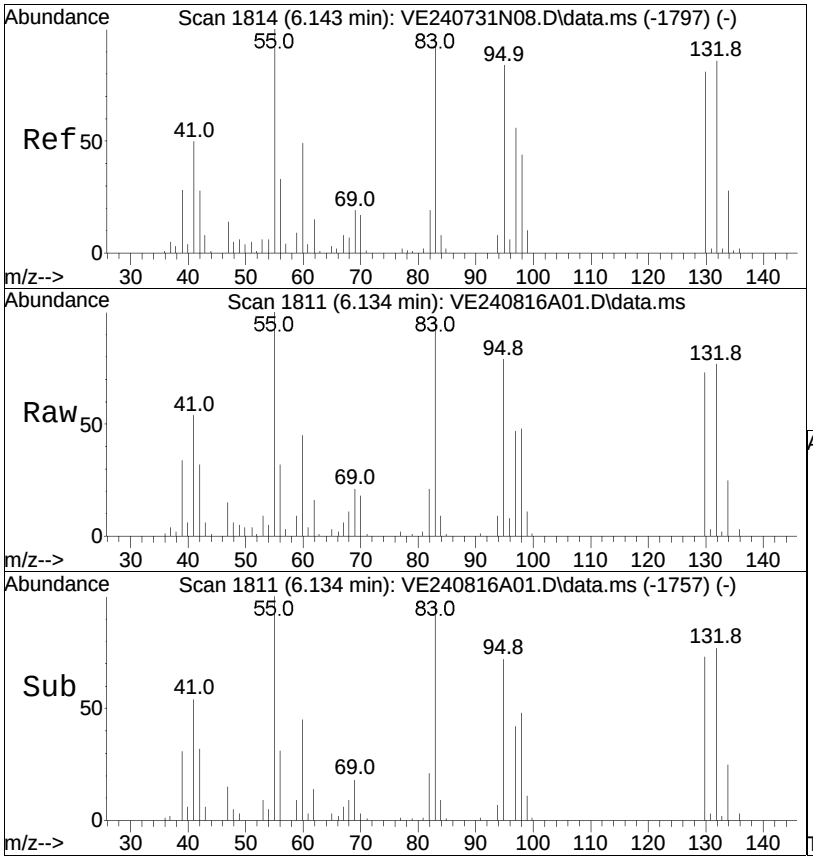


#48
1,2-Dichloroethane
Concen: 10.14 ug/L
RT: 5.747 min Scan# 1672
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 62 Resp: 57246

Ion	Ratio	Lower	Upper
62	100		
64	31.9	12.0	52.0
98	7.6	0.0	29.1

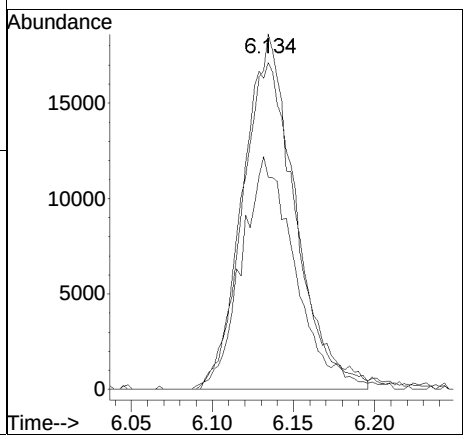


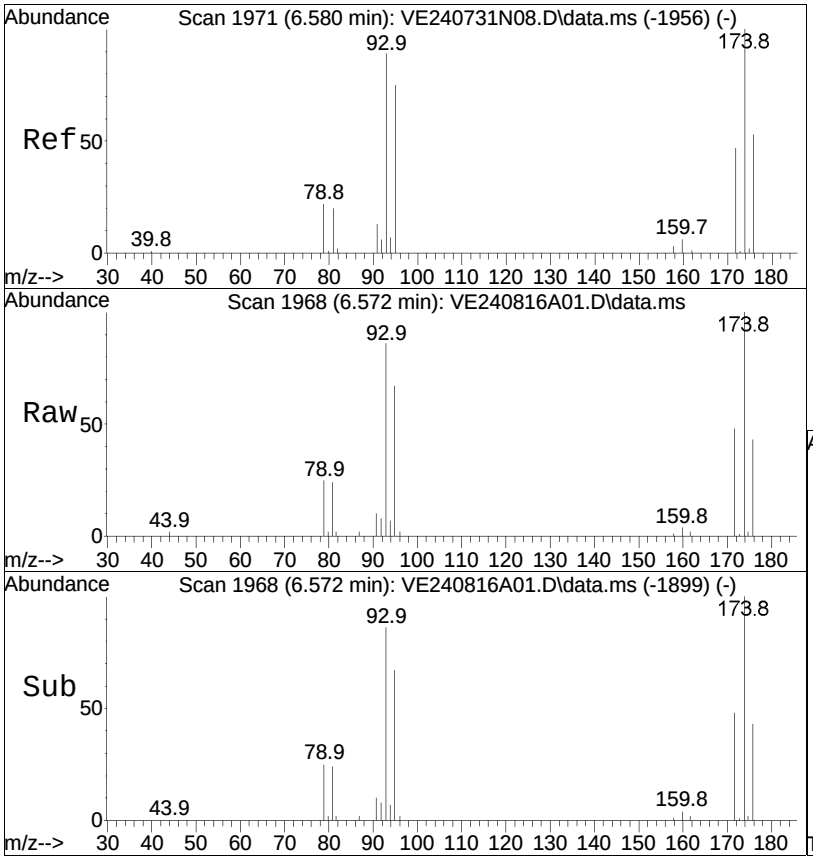


#52
Trichloroethene
Concen: 11.21 ug/L
RT: 6.134 min Scan# 1811
Delta R.T. -0.009 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 95 Resp: 41239

Ion	Ratio	Lower	Upper
95	100		
97	68.6	50.2	75.2
130	98.9	78.2	117.4

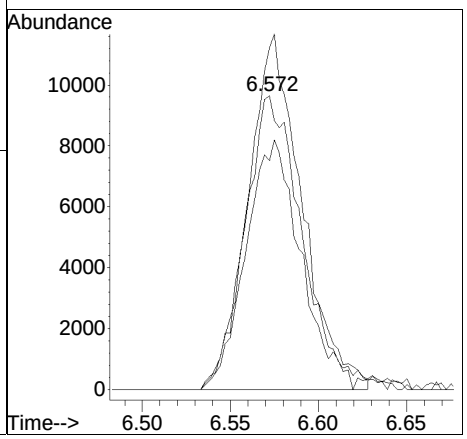


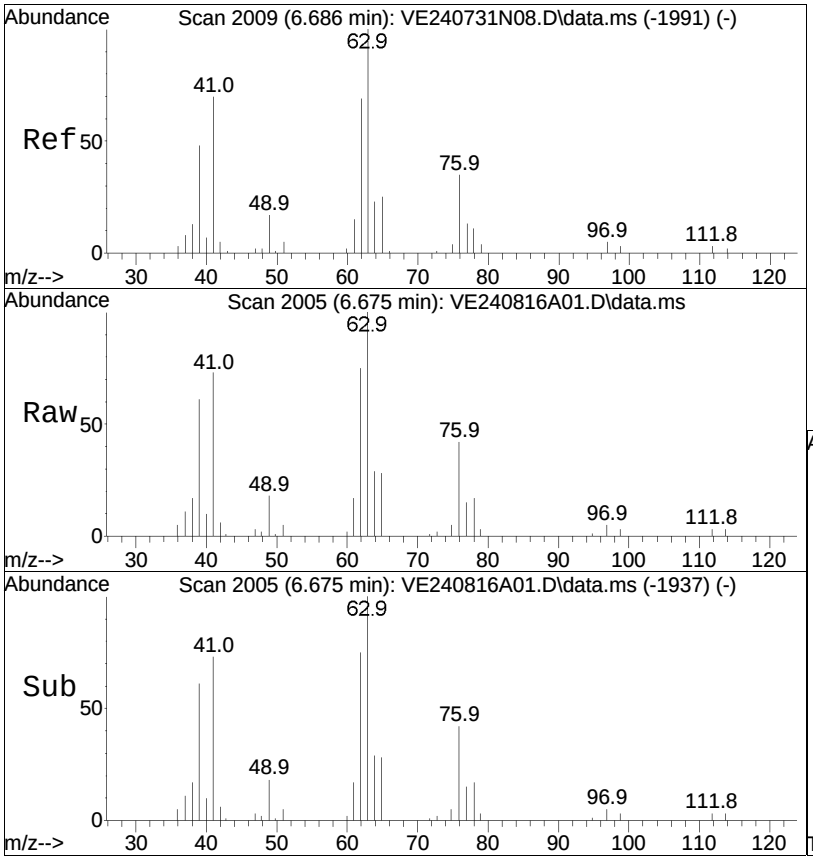


#54
Dibromomethane
Concen: 10.23 ug/L
RT: 6.572 min Scan# 1968
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 93 Resp: 21673

Ion	Ratio	Lower	Upper
93	100		
95	82.0	73.2	109.8
174	114.8	73.8	110.8#

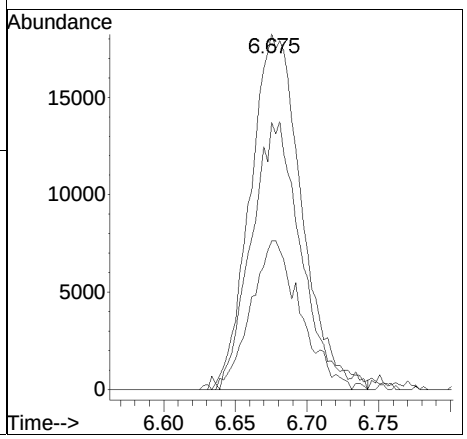


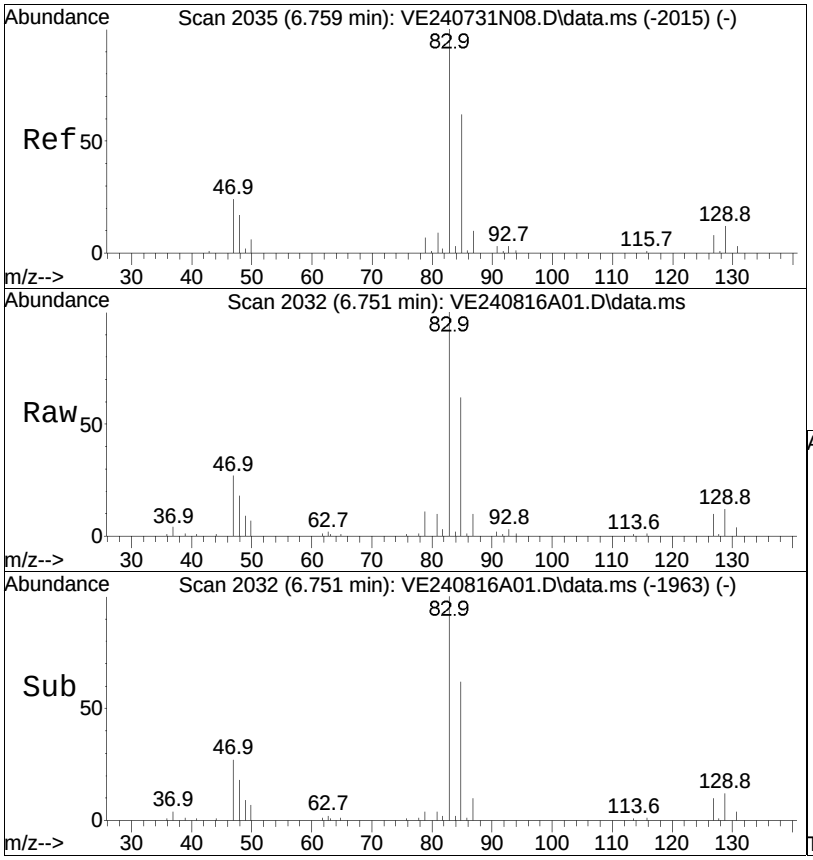


#55
1,2-Dichloropropane
Concen: 10.33 ug/L
RT: 6.675 min Scan# 2005
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 63 Resp: 45622

Ion	Ratio	Lower	Upper
63	100		
62	72.2	58.4	87.6
76	40.2	28.7	43.1

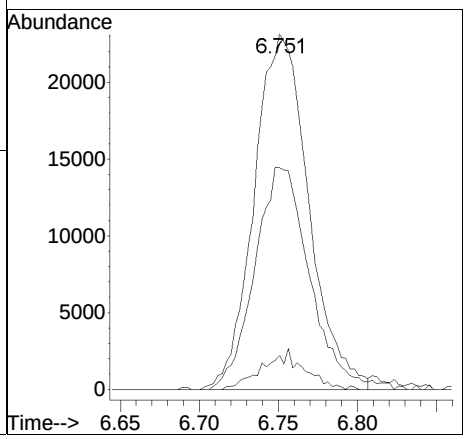


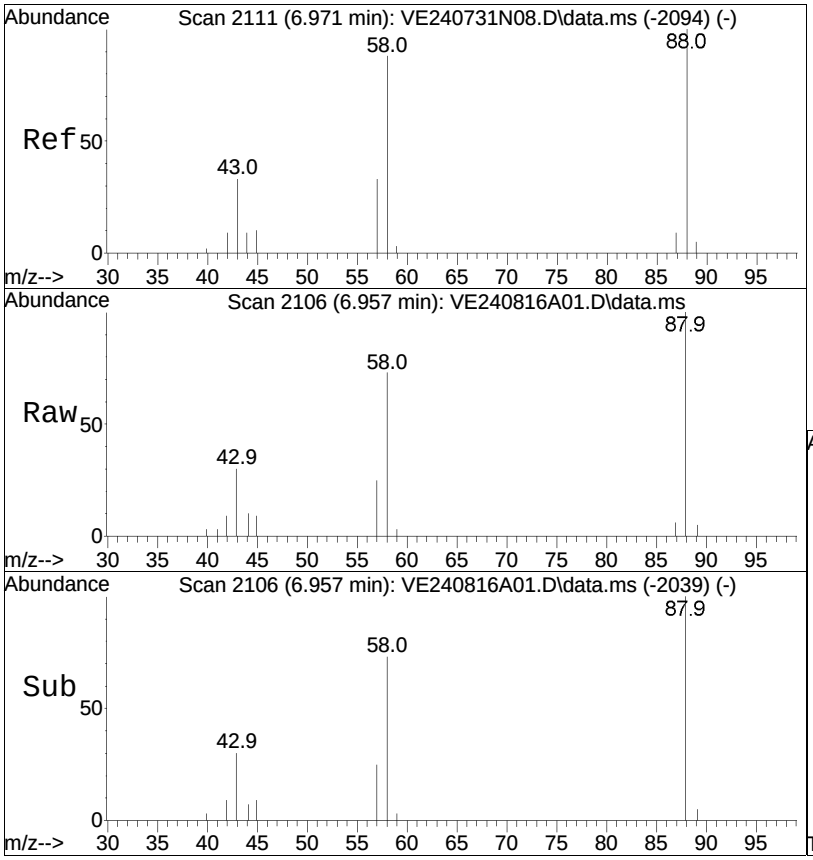


#58
Bromodichloromethane
Concen: 10.60 ug/L
RT: 6.751 min Scan# 2032
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 55497

Ion	Ratio	Lower	Upper
83	100		
85	63.2	46.6	69.8
127	4.6	6.2	9.4#

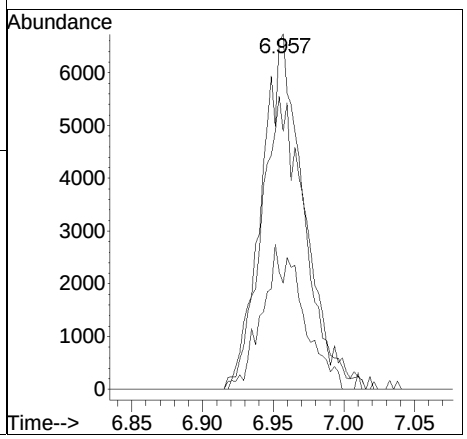


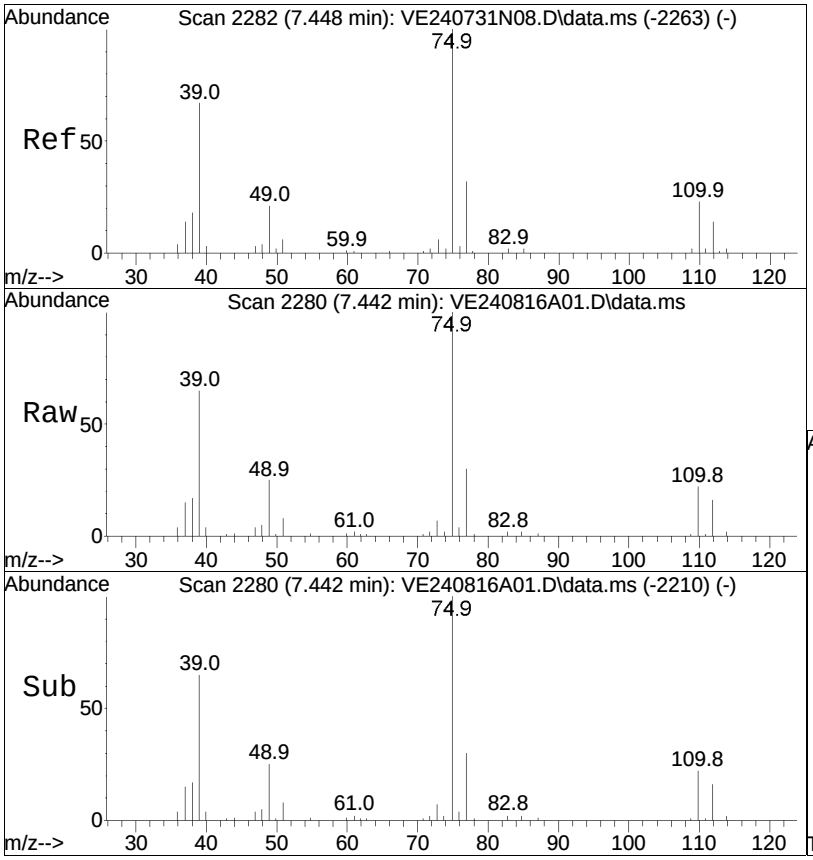


#61
1,4-Dioxane
Concen: 399.66 ug/L M1
RT: 6.957 min Scan# 2106
Delta R.T. -0.014 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 88 Resp: 14170

Ion	Ratio	Lower	Upper
88	100		
58	85.4	62.8	94.2
43	20.2	36.6	55.0#

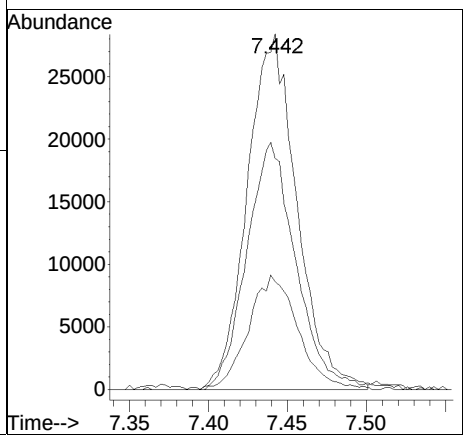


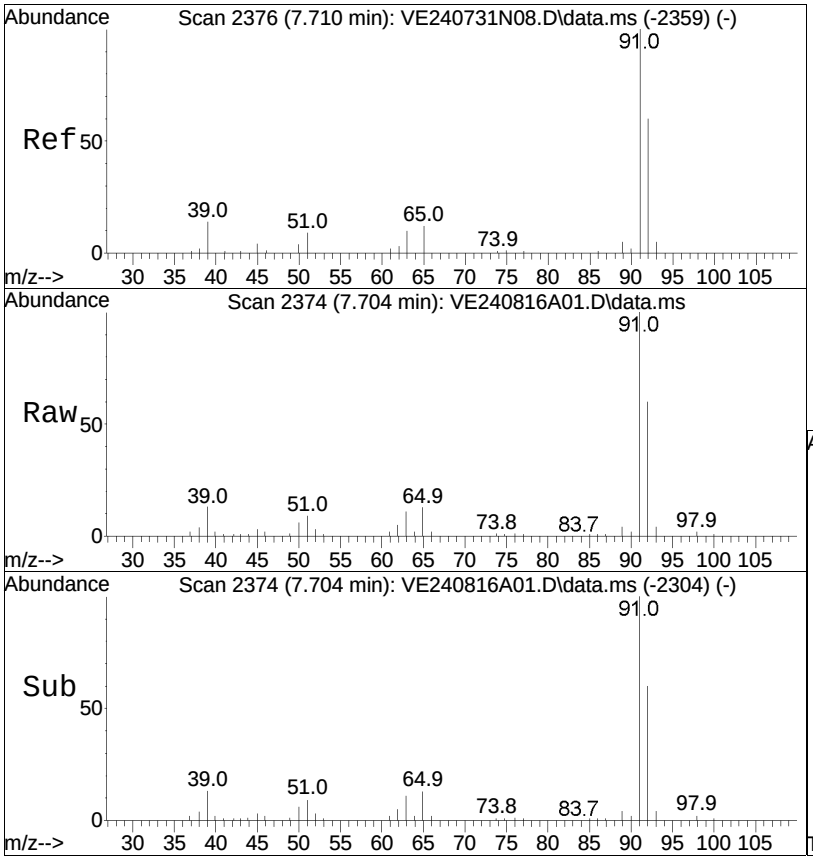


#62
cis-1,3-Dichloropropene
Concen: 10.53 ug/L
RT: 7.442 min Scan# 2280
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 62076

Ion	Ratio	Lower	Upper
75	100		
77	32.1	25.1	37.7
39	68.9	50.7	76.1

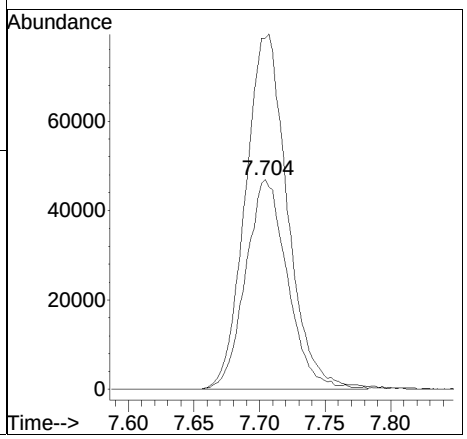


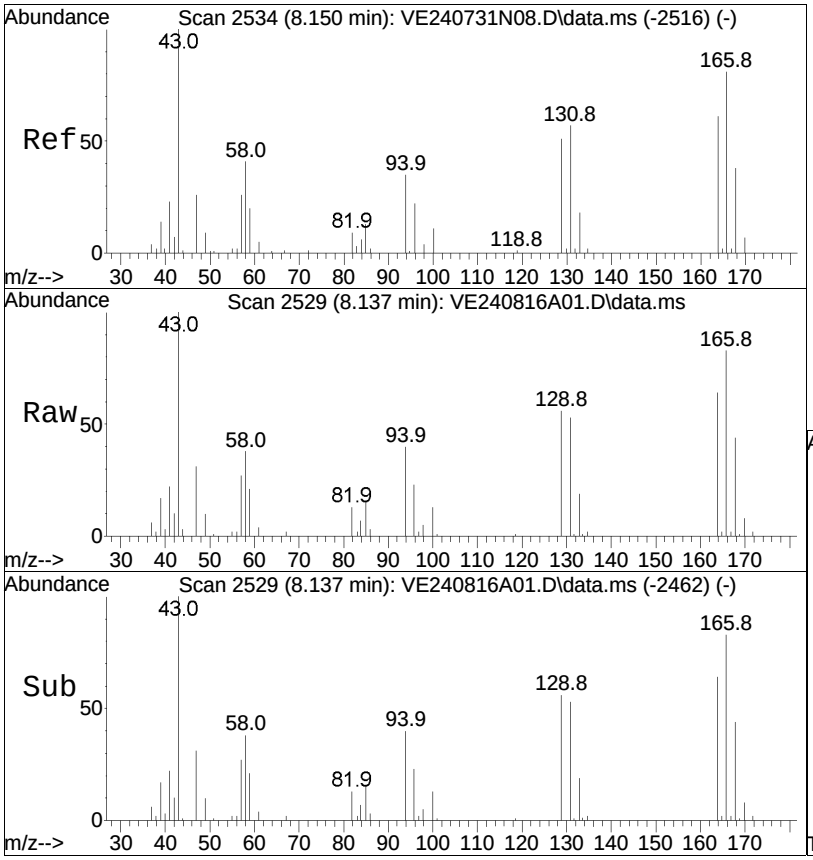


#65
Toluene
Concen: 11.18 ug/L
RT: 7.704 min Scan# 2374
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 92 Resp: 104438

Ion	Ratio	Lower	Upper
92	100		
91	169.9	129.1	193.7

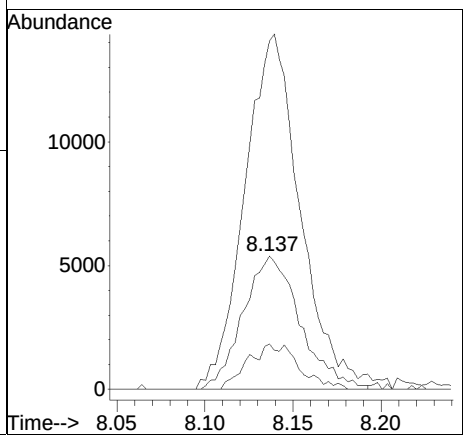


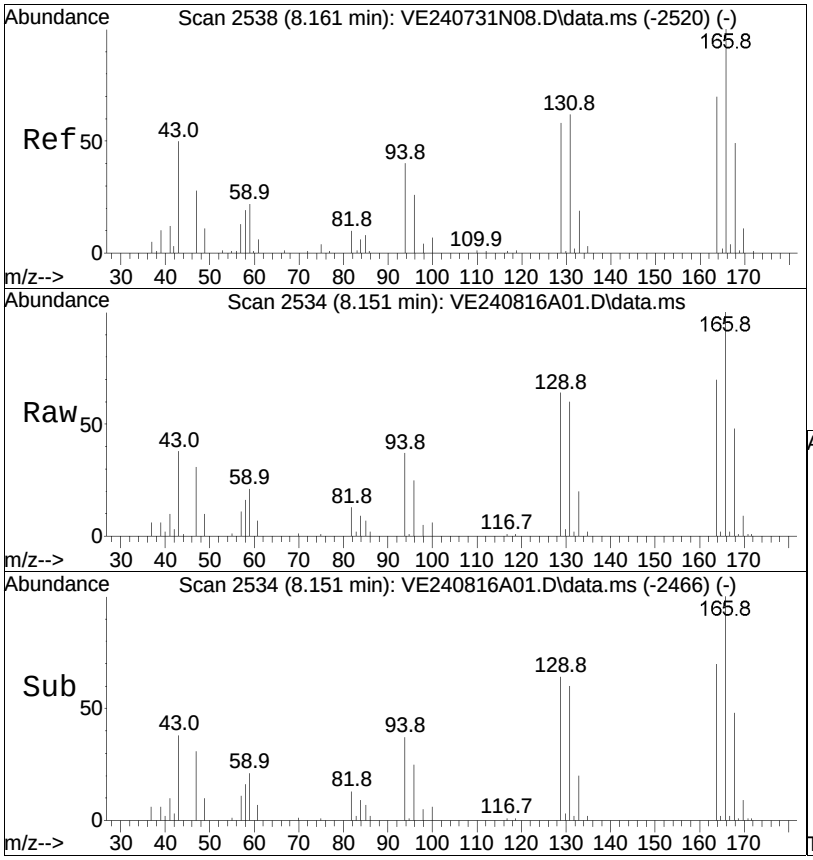


#66
4-Methyl-2-pentanone
Concen: 7.63 ug/L
RT: 8.137 min Scan# 2529
Delta R.T. -0.013 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 58 Resp: 12158

Ion	Ratio	Lower	Upper
58	100		
100	18.7	27.9	41.9#
43	260.7	225.7	338.5

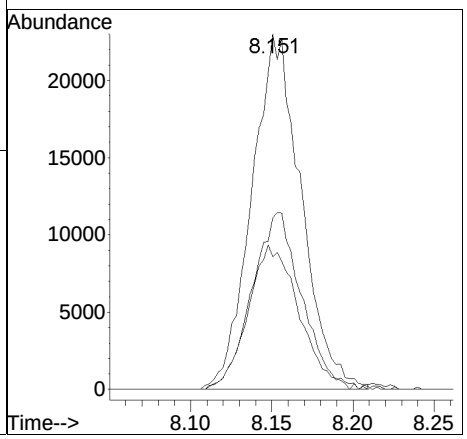


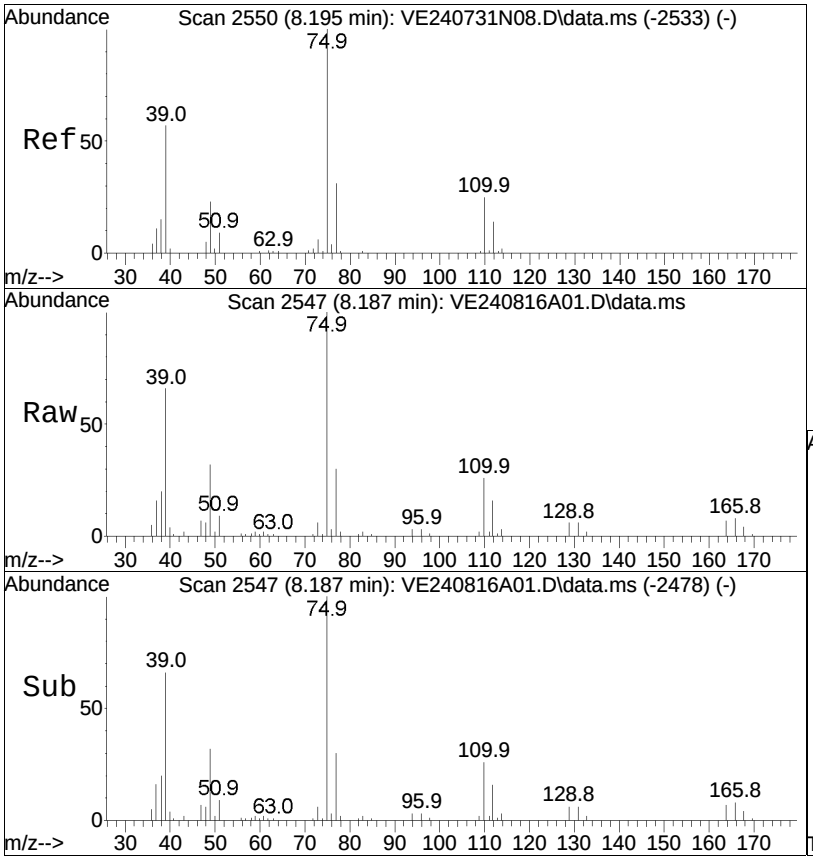


#67
Tetrachloroethene
Concen: 12.31 ug/L
RT: 8.151 min Scan# 2534
Delta R.T. -0.010 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:166 Resp: 48864

Ion	Ratio	Lower	Upper
166	100		
168	49.9	25.8	65.8
94	41.5	24.3	64.3

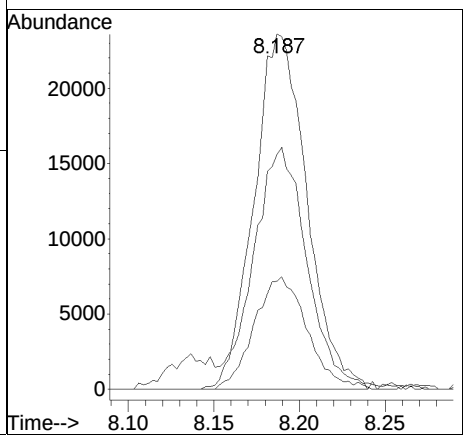


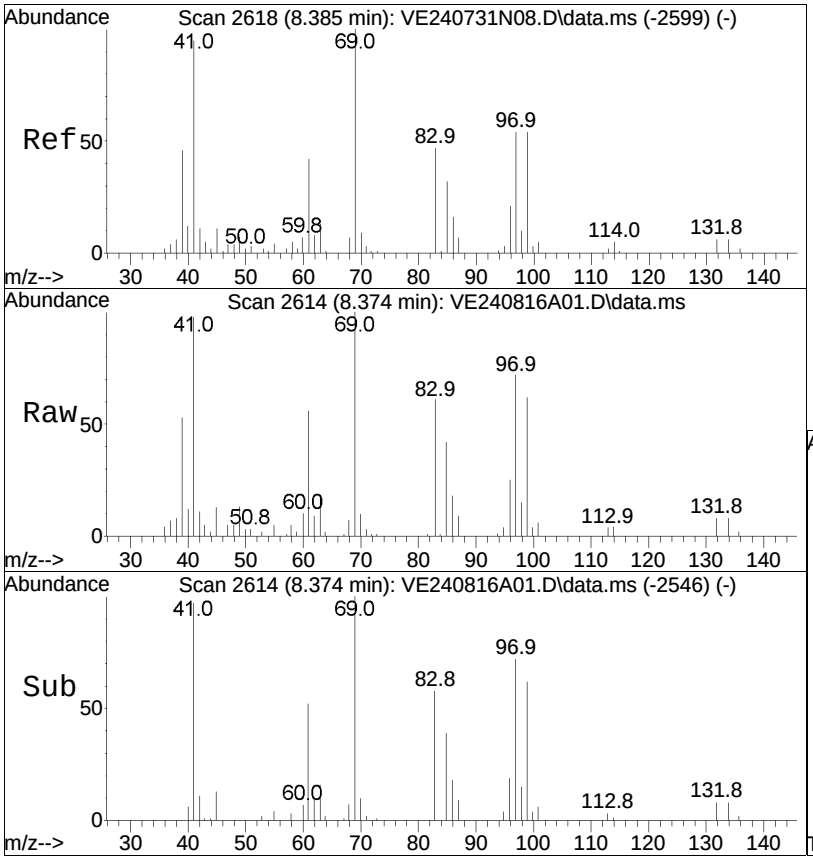


#69
trans-1,3-Dichloropropene
Concen: 9.65 ug/L
RT: 8.187 min Scan# 2547
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 50750

Ion	Ratio	Lower	Upper
75	100		
77	31.7	10.2	50.2
39	67.1	45.7	85.7

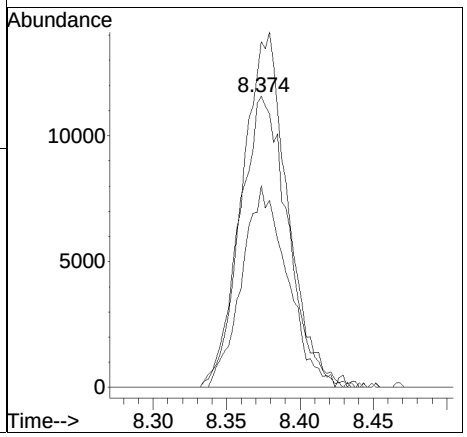


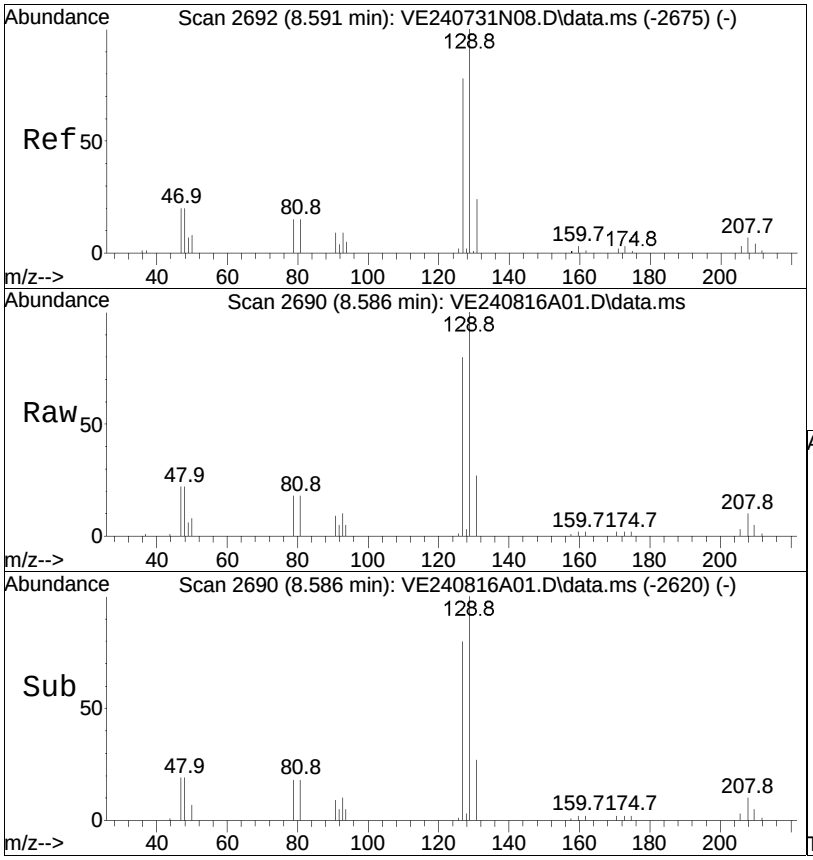


#72
1,1,2-Trichloroethane
Concen: 10.08 ug/L
RT: 8.374 min Scan# 2614
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 26437

Ion	Ratio	Lower	Upper
83	100		
97	114.5	99.2	139.2
85	65.8	48.7	88.7

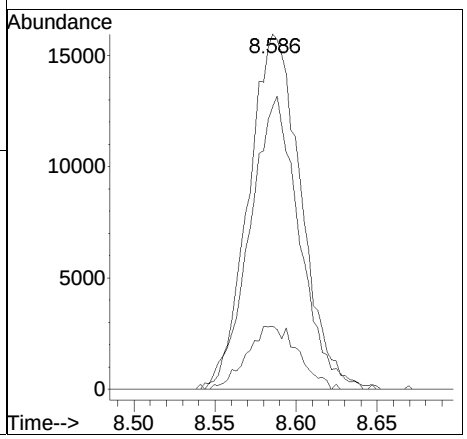


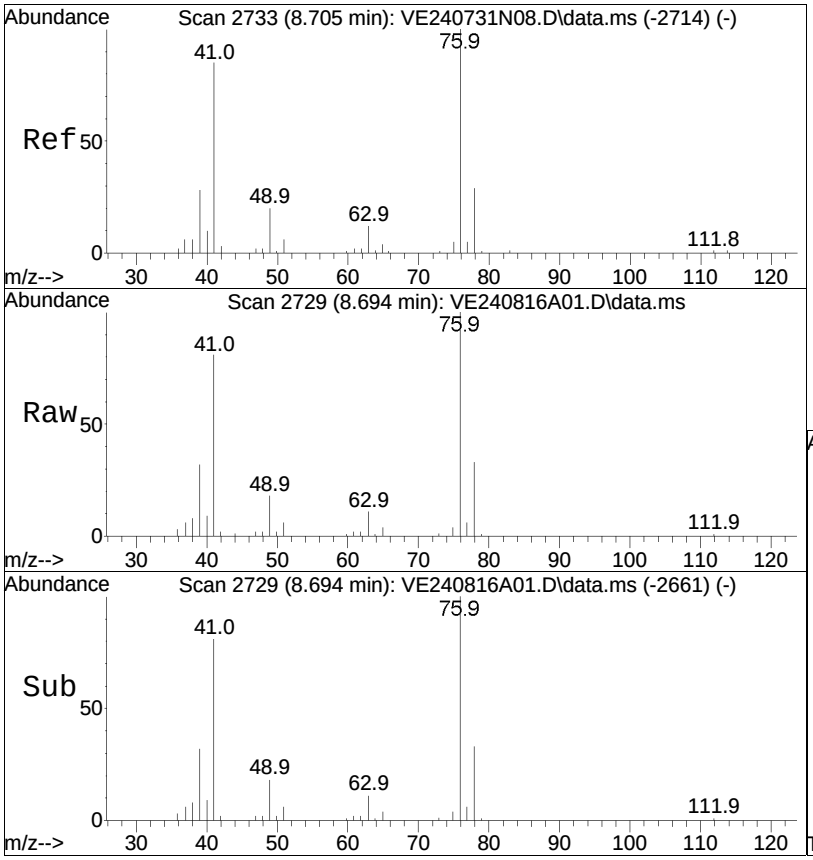


#73
Chlorodibromomethane
Concen: 9.80 ug/L
RT: 8.586 min Scan# 2690
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:129 Resp: 35956

Ion	Ratio	Lower	Upper
129	100		
81	17.5	0.0	39.5
127	78.3	58.6	98.6

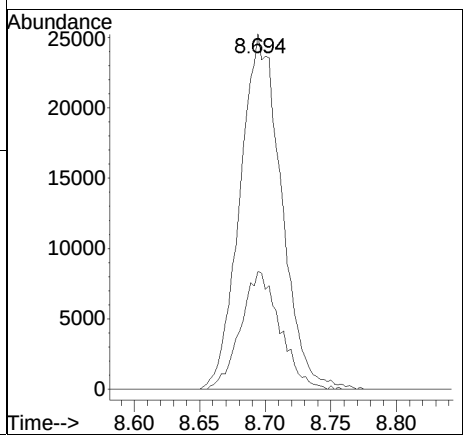


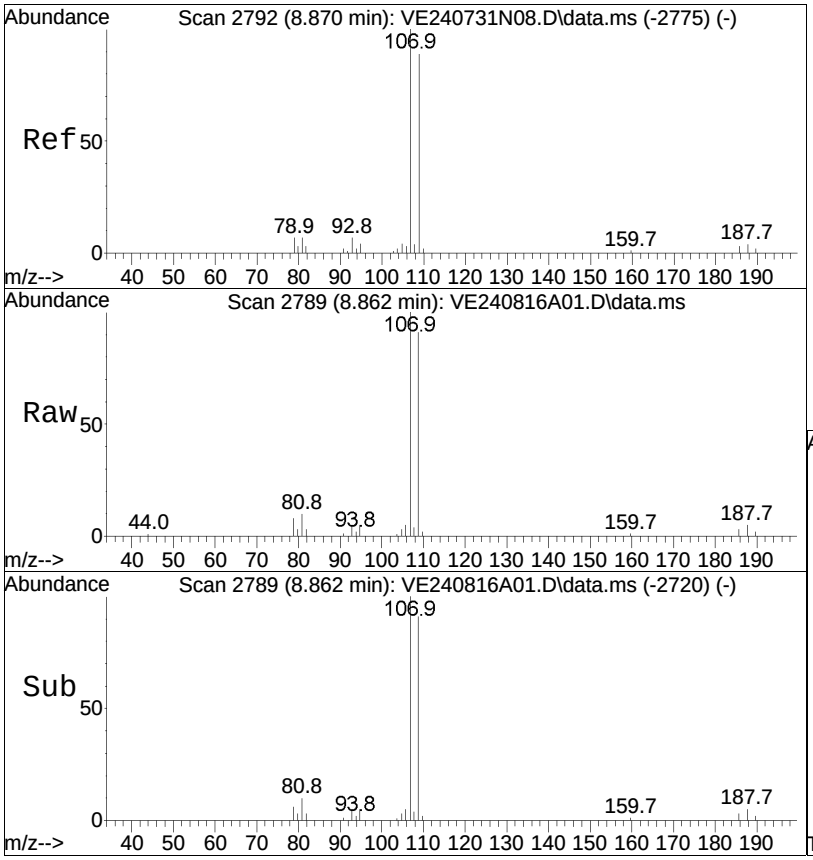


#74
1,3-Dichloropropane
Concen: 10.03 ug/L
RT: 8.694 min Scan# 2729
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 76 Resp: 55552

Ion	Ratio	Lower	Upper
76	100		
78	31.5	27.0	40.4

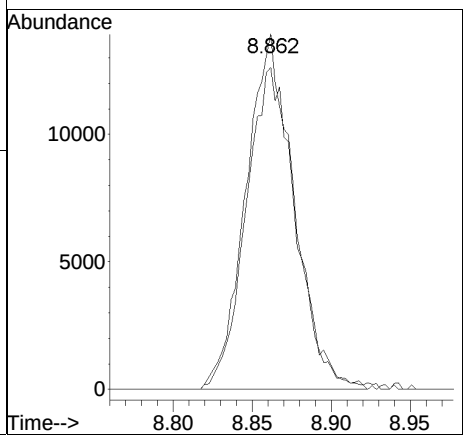


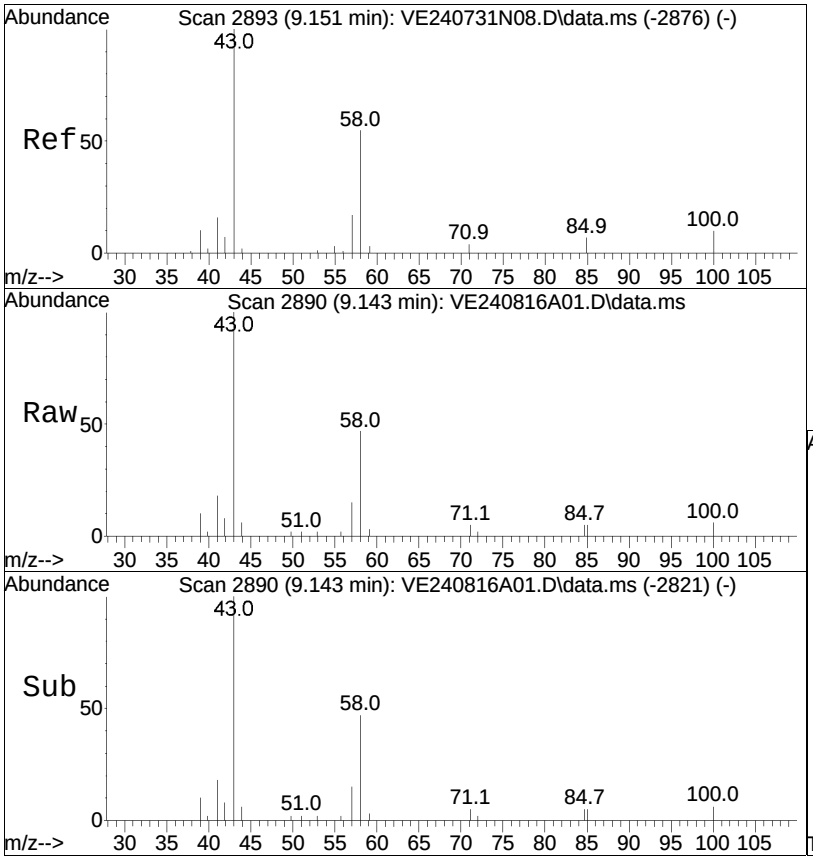


#75
1,2-Dibromoethane
Concen: 9.55 ug/L
RT: 8.862 min Scan# 2789
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:107 Resp: 29593

Ion	Ratio	Lower	Upper
107	100		
109	93.1	66.3	99.5

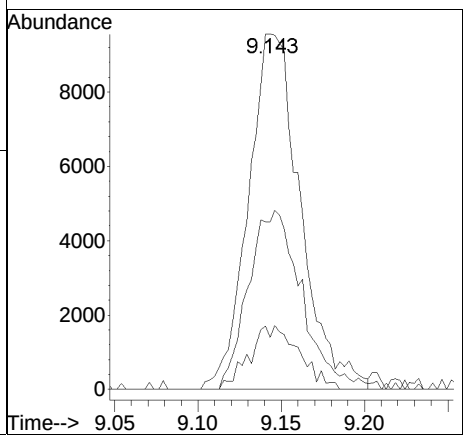


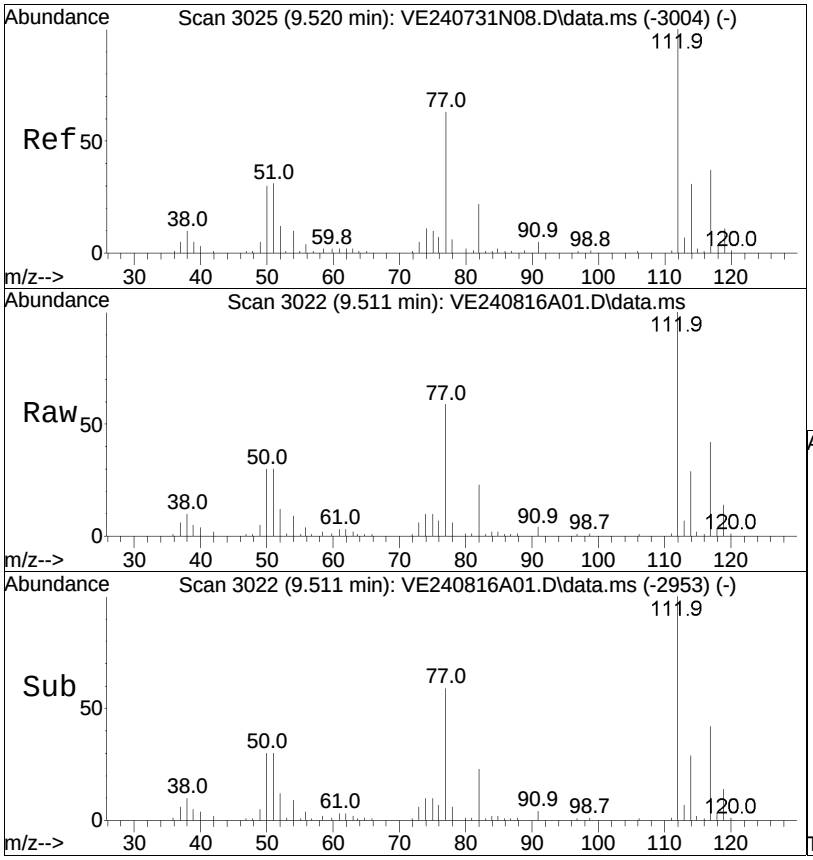


#77
2-Hexanone
Concen: 6.70 ug/L
RT: 9.143 min Scan# 2890
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 43 Resp: 20813

Ion	Ratio	Lower	Upper
43	100		
58	51.9	42.5	63.7
57	7.8	13.9	20.9#

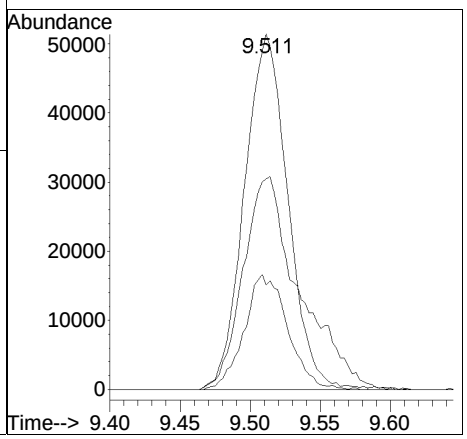


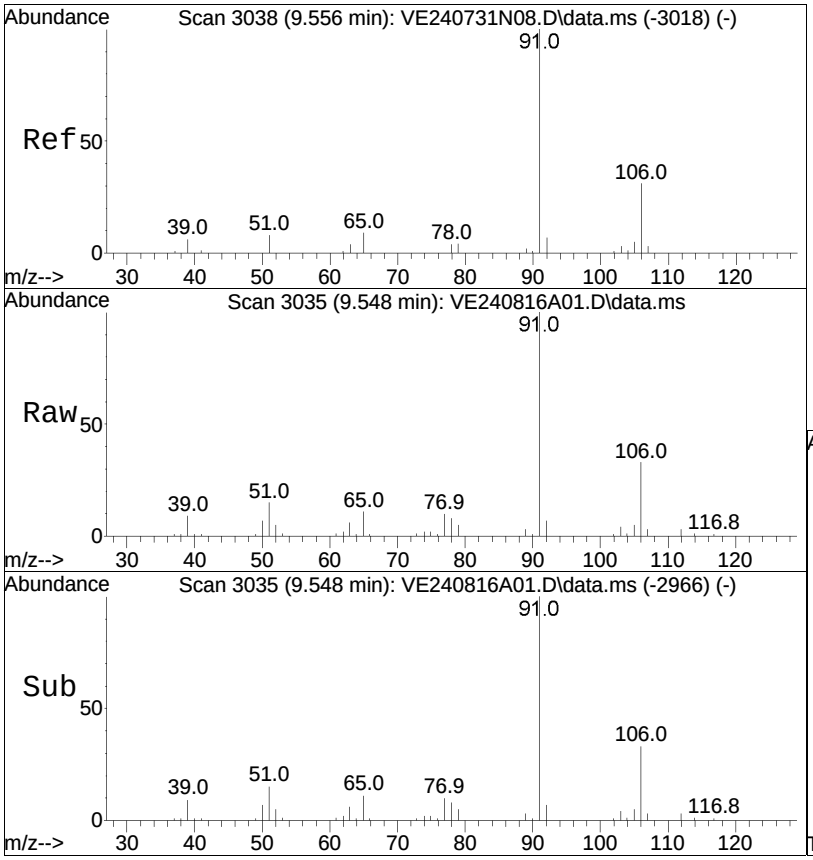


#78
Chlorobenzene
Concen: 11.13 ug/L
RT: 9.511 min Scan# 3022
Delta R.T. -0.009 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:112 Resp: 110773

Ion	Ratio	Lower	Upper
112	100		
77	77.5	46.9	70.3#
114	32.2	23.8	35.6

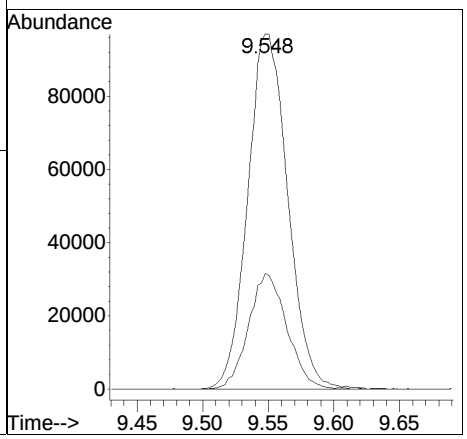


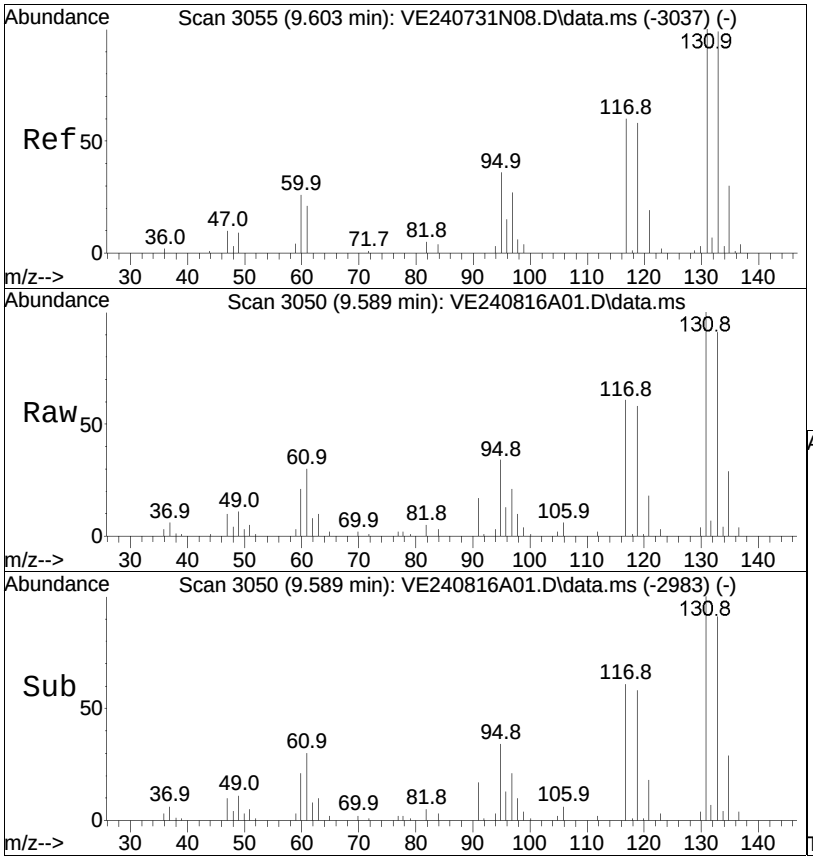


#79
Ethylbenzene
Concen: 11.40 ug/L
RT: 9.548 min Scan# 3035
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 206510

Ion	Ratio	Lower	Upper
91	100		
106	31.2	25.3	37.9

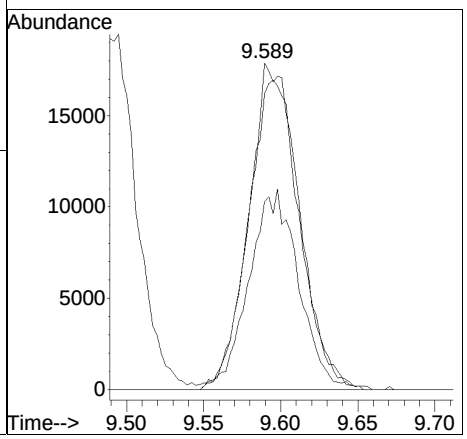


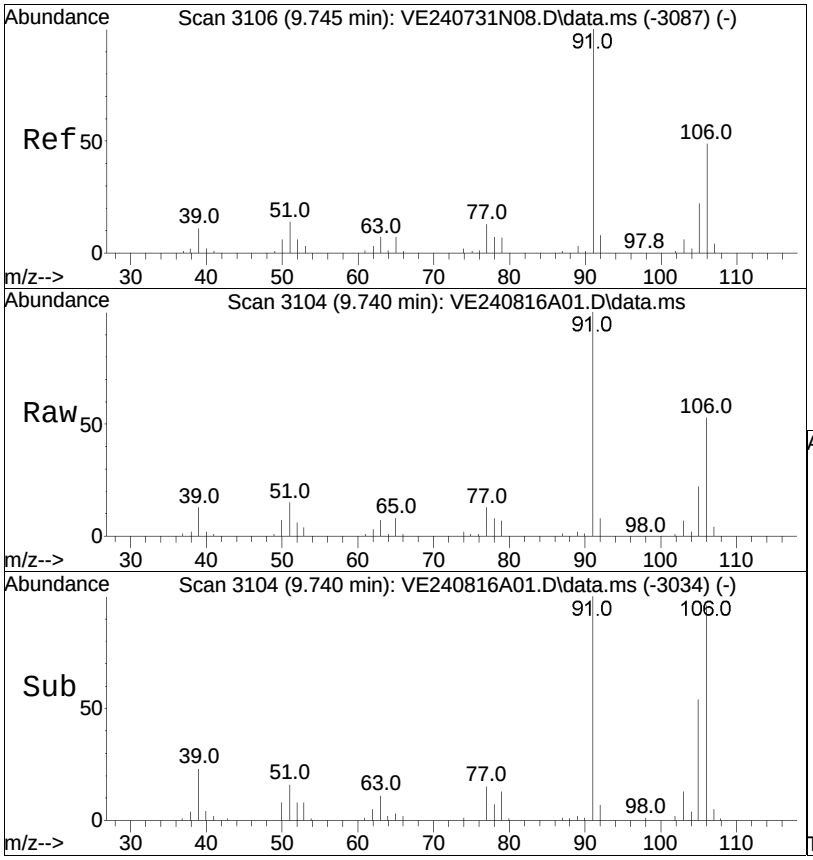


#80
1,1,1,2-Tetrachloroethane
Concen: 11.16 ug/L
RT: 9.589 min Scan# 3050
Delta R.T. -0.014 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:131 Resp: 40736

Ion	Ratio	Lower	Upper
131	100		
133	96.7	72.9	112.9
119	60.1	39.6	79.6

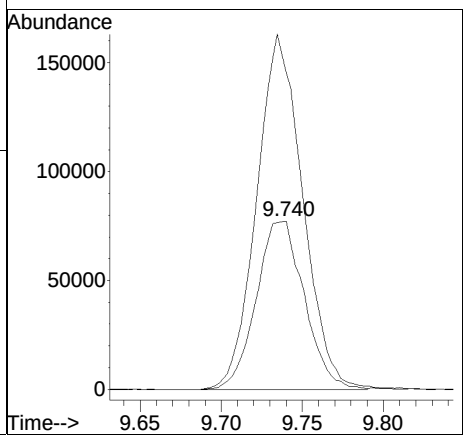


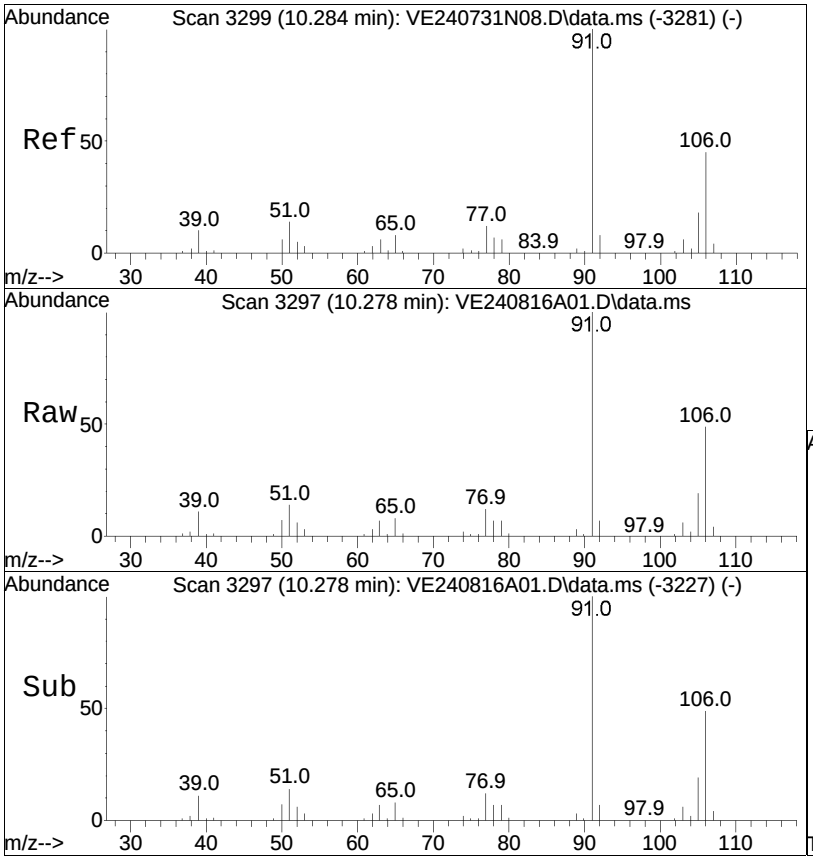


#81
p/m Xylene
Concen: 23.02 ug/L
RT: 9.740 min Scan# 3104
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:106 Resp: 158906

Ion	Ratio	Lower	Upper
106	100		
91	202.5	163.3	244.9

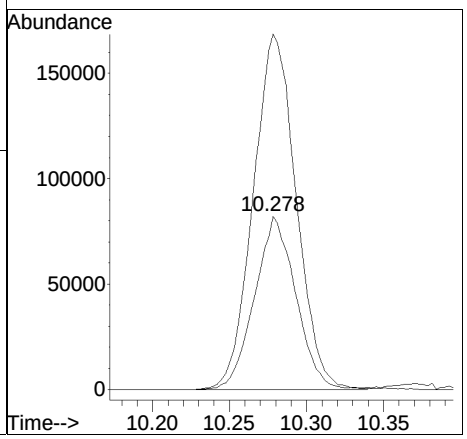


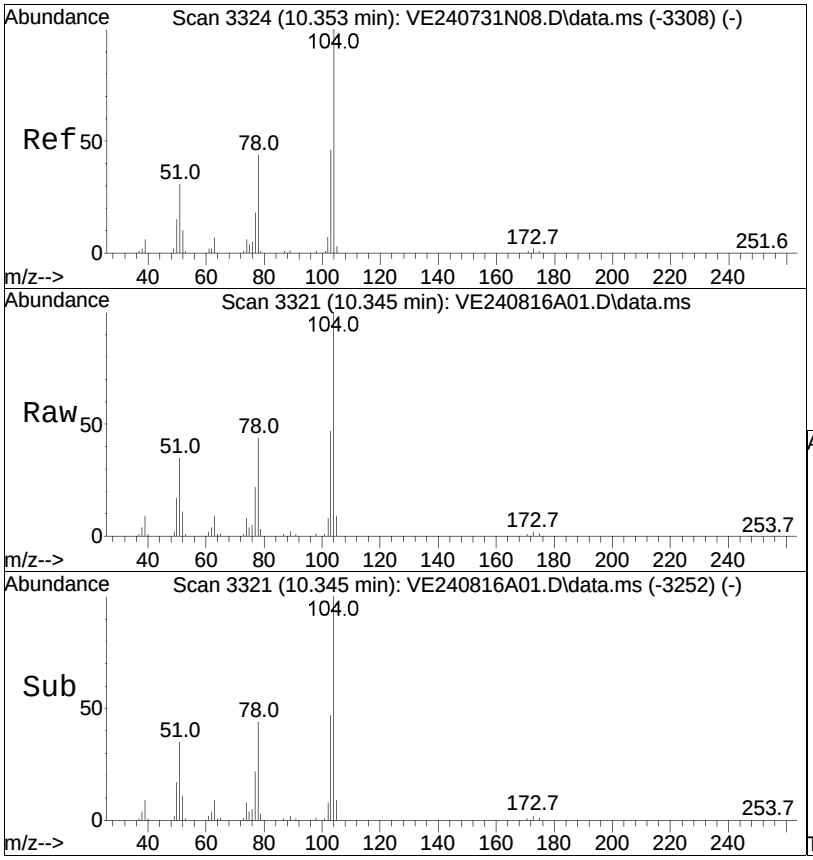


#82
o Xylene
Concen: 22.58 ug/L
RT: 10.278 min Scan# 3297
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:106 Resp: 152403

Ion	Ratio	Lower	Upper
106	100		
91	214.0	181.0	271.6

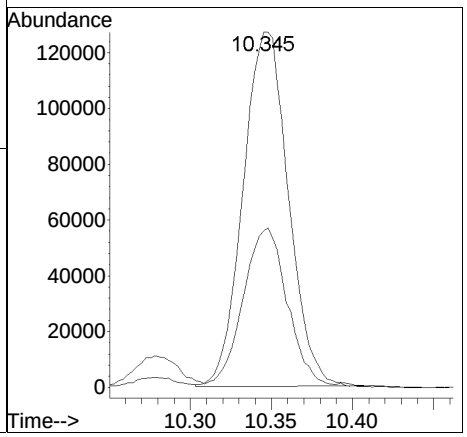


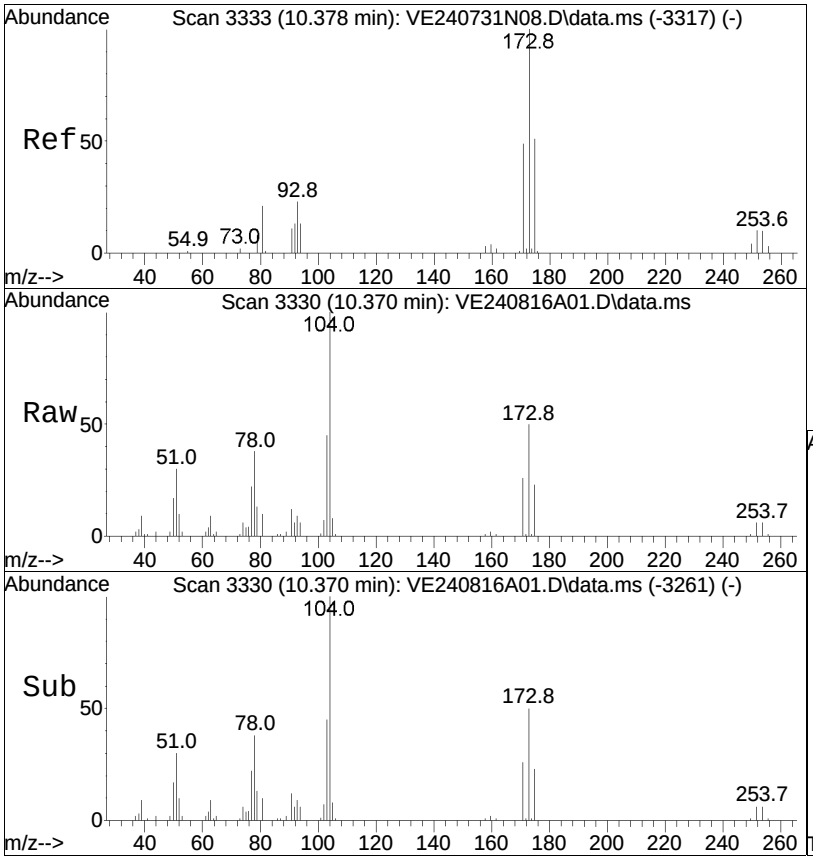


#83
Styrene
Concen: 22.35 ug/L
RT: 10.345 min Scan# 3321
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:104 Resp: 247315

Ion	Ratio	Lower	Upper
104	100		
78	44.0	35.9	53.9

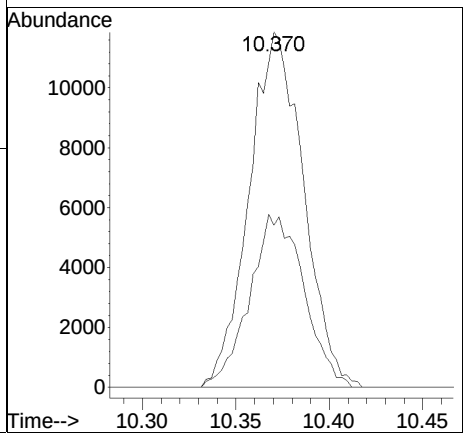


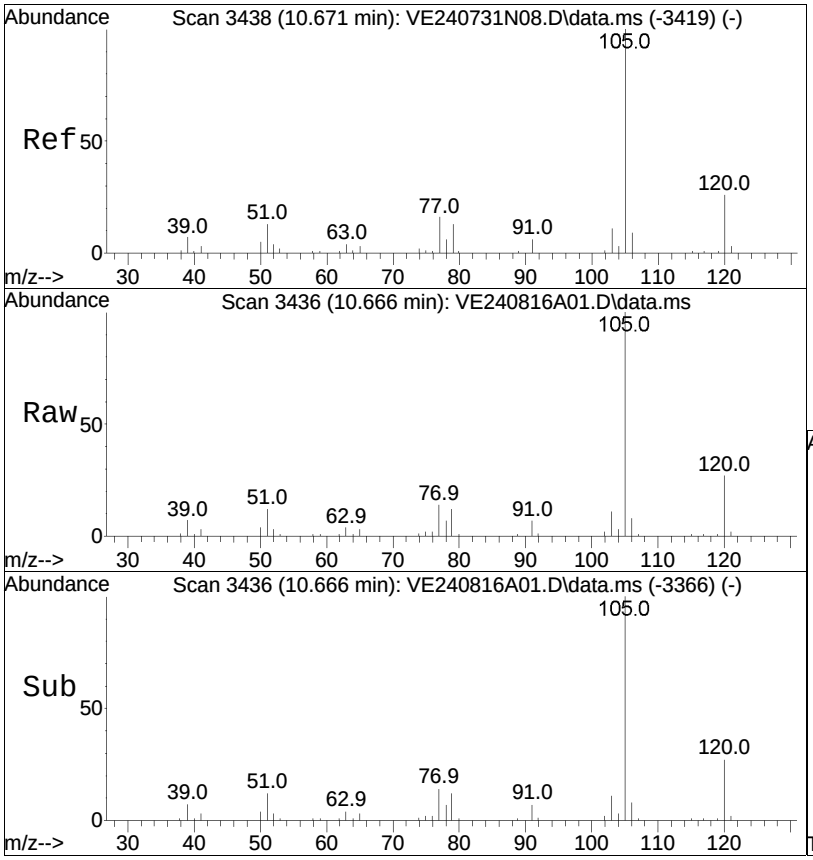


#85
Bromoform
Concen: 9.08 ug/L
RT: 10.370 min Scan# 3330
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:173 Resp: 24046

Ion	Ratio	Lower	Upper
173	100		
175	48.7	32.9	72.9

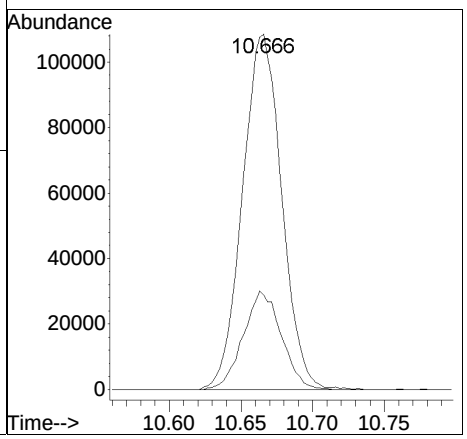


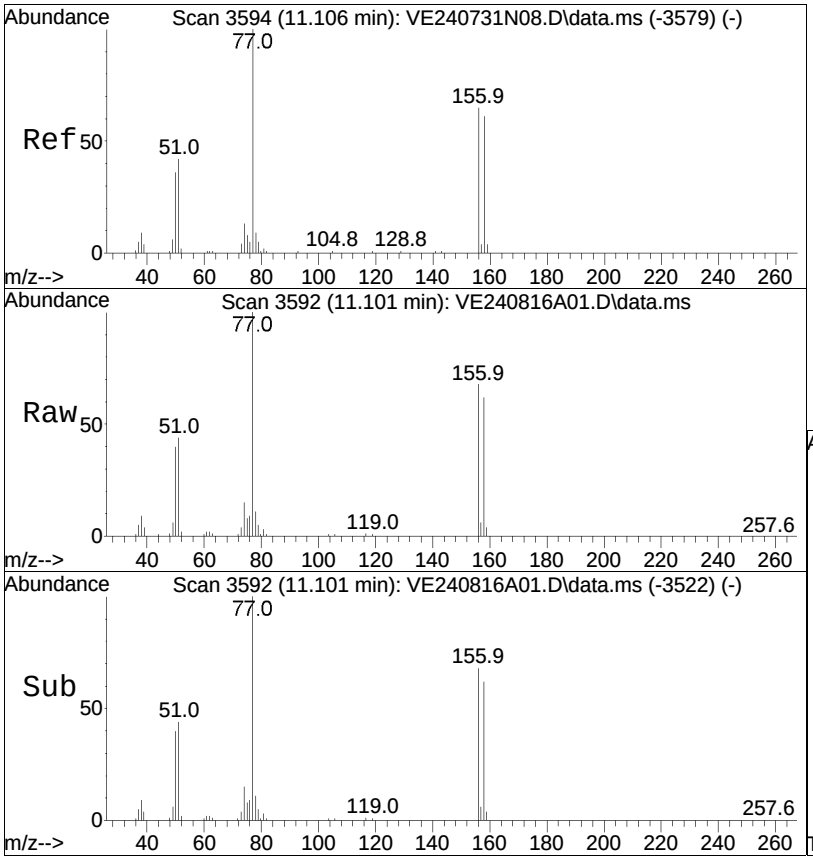


#87
Isopropylbenzene
Concen: 10.59 ug/L
RT: 10.666 min Scan# 3436
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 206349

Ion	Ratio	Lower	Upper
105	100		
120	26.8	4.8	44.8

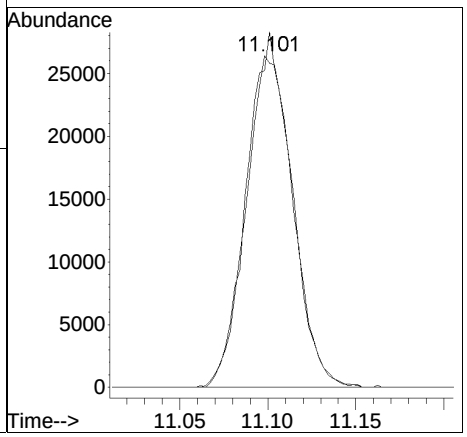


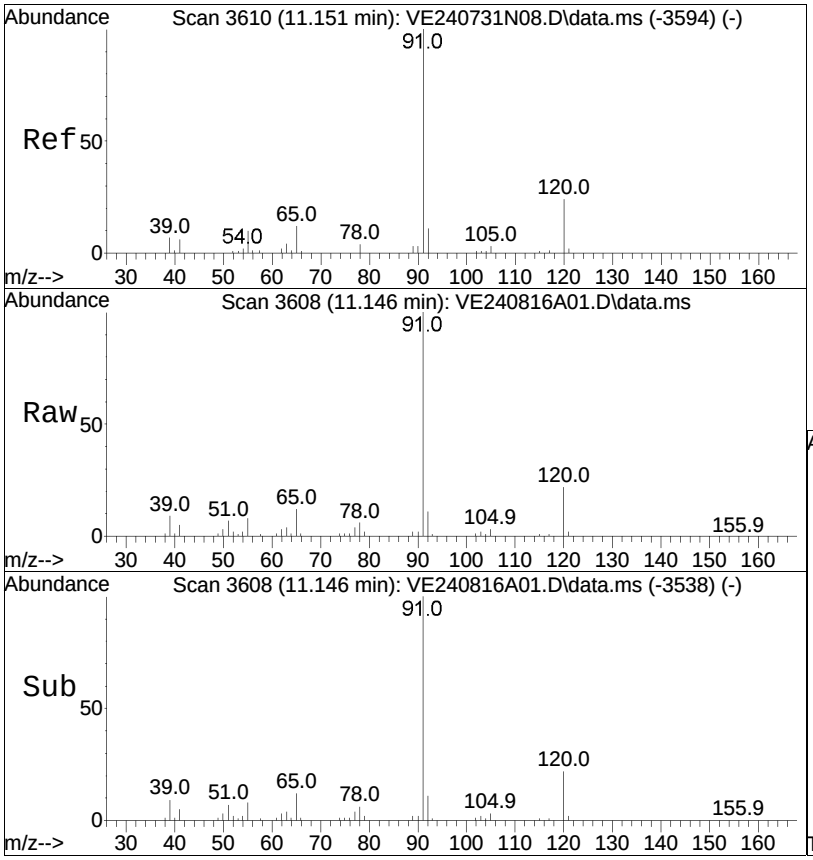


#89
Bromobenzene
Concen: 10.30 ug/L
RT: 11.101 min Scan# 3592
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:156 Resp: 50662

Ion	Ratio	Lower	Upper
156	100		
158	97.1	75.9	113.9

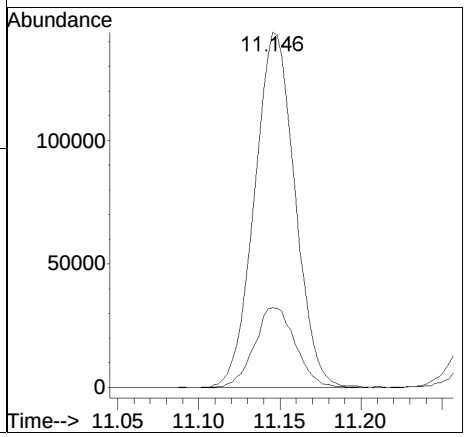


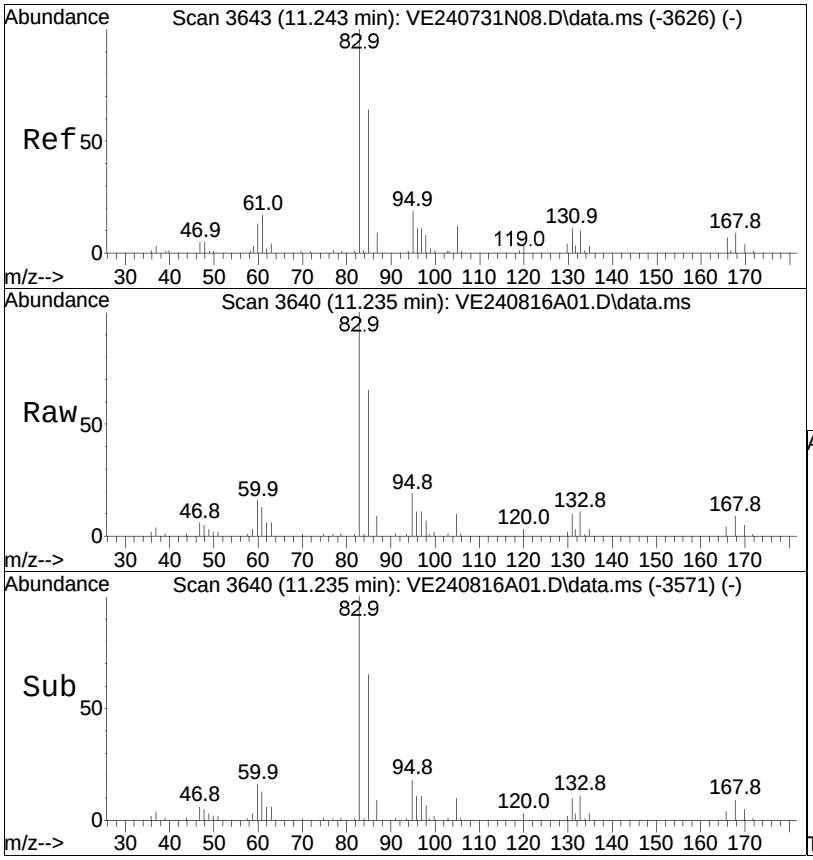


#90
n-Propylbenzene
Concen: 10.69 ug/L
RT: 11.146 min Scan# 3608
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 248871

Ion	Ratio	Lower	Upper
91	100		
120	22.8	16.7	25.1

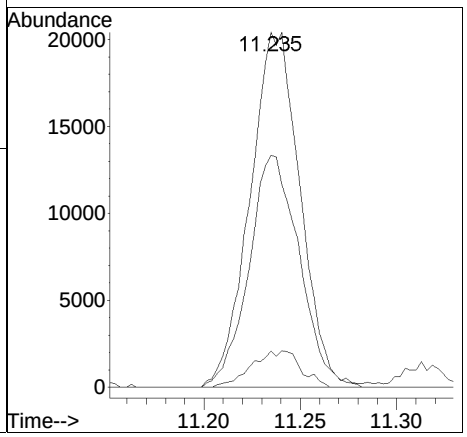


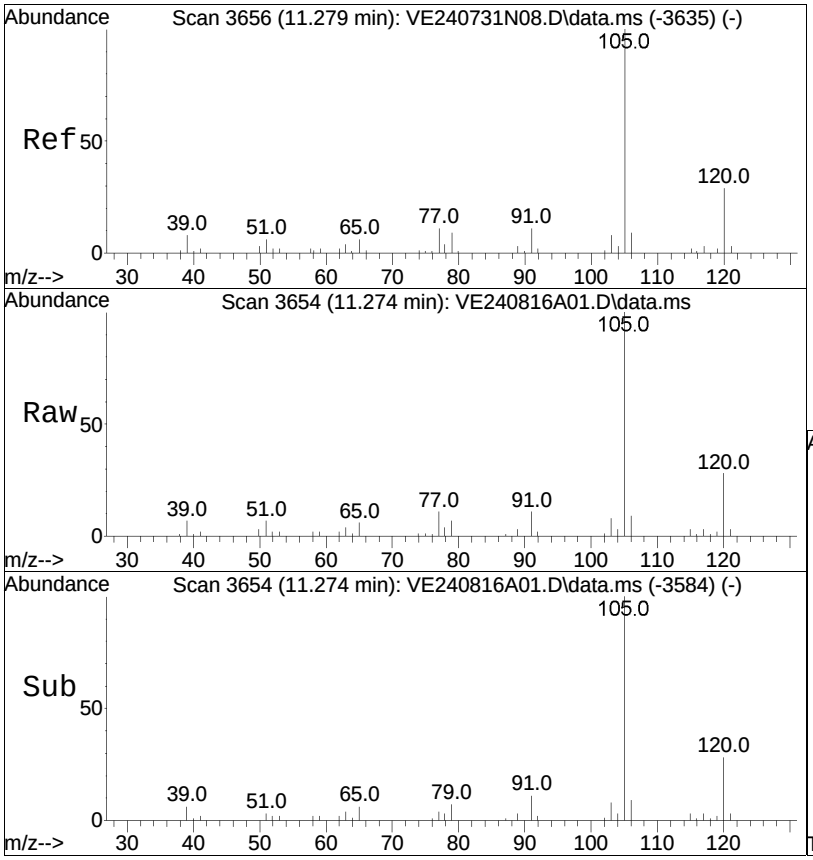


#92
1,1,2,2-Tetrachloroethane
Concen: 8.93 ug/L
RT: 11.235 min Scan# 3640
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 83 Resp: 36924

Ion	Ratio	Lower	Upper
83	100		
131	10.2	0.0	28.6
85	65.9	47.4	87.4

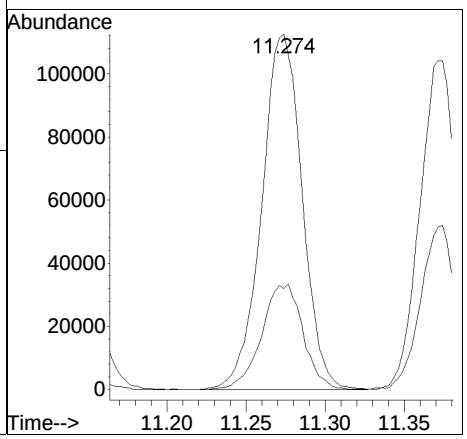


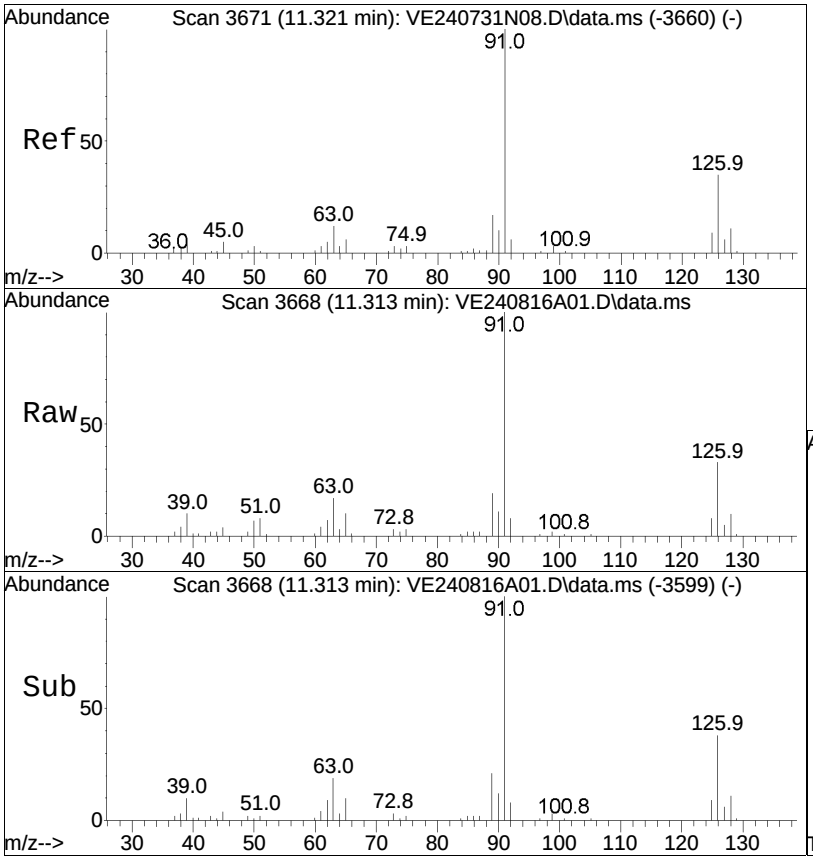


#93
4-Ethyltoluene
Concen: 10.59 ug/L
RT: 11.274 min Scan# 3654
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 200115

Ion	Ratio	Lower	Upper
105	100		
120	30.2	18.9	39.3

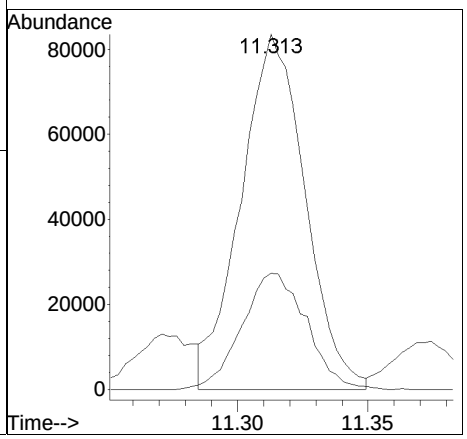


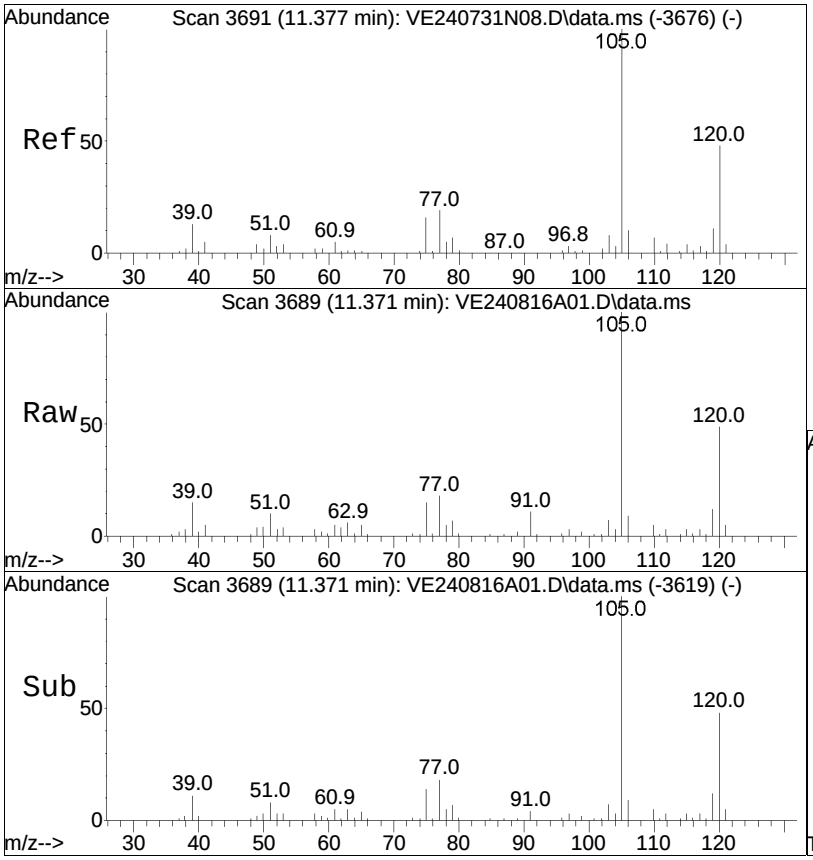


#94
2-Chlorotoluene
Concen: 10.41 ug/L M1
RT: 11.313 min Scan# 3668
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 142671

Ion	Ratio	Lower	Upper
91	100		
126	32.9	24.4	36.6

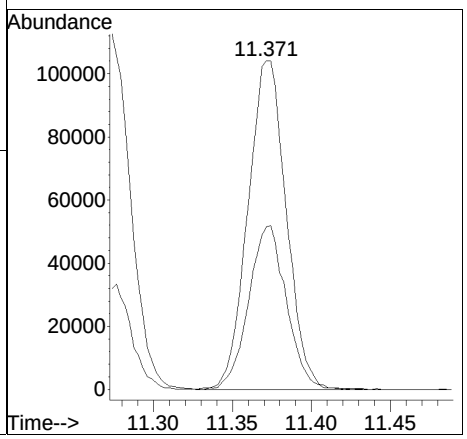


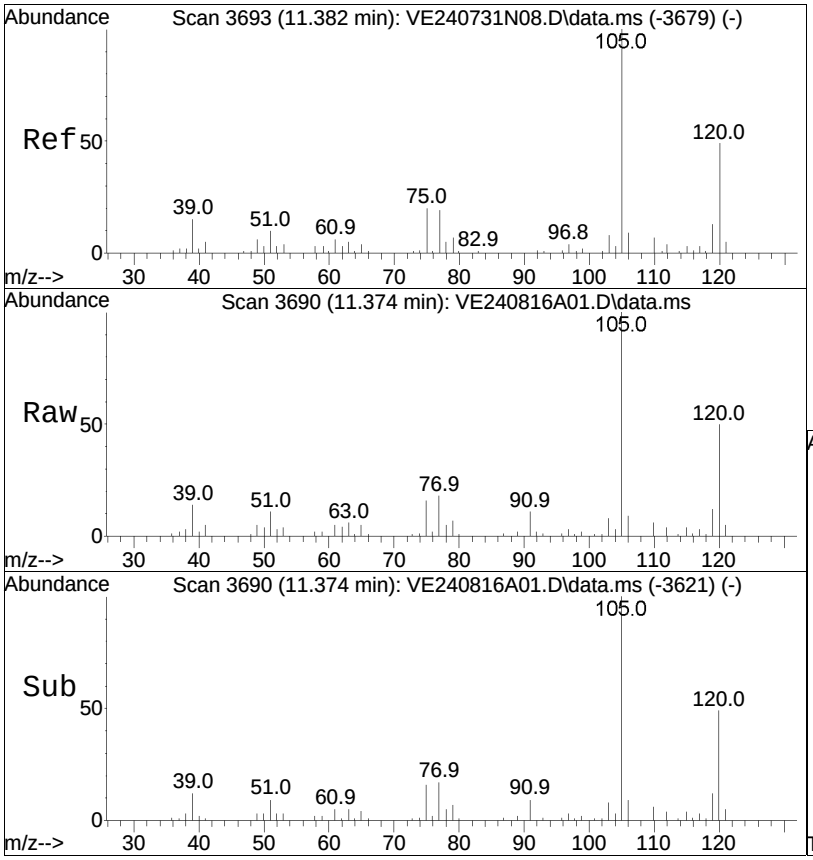


#95
1,3,5-Trimethylbenzene
Concen: 10.61 ug/L
RT: 11.371 min Scan# 3689
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 175818

Ion	Ratio	Lower	Upper
105	100		
120	48.9	39.3	58.9

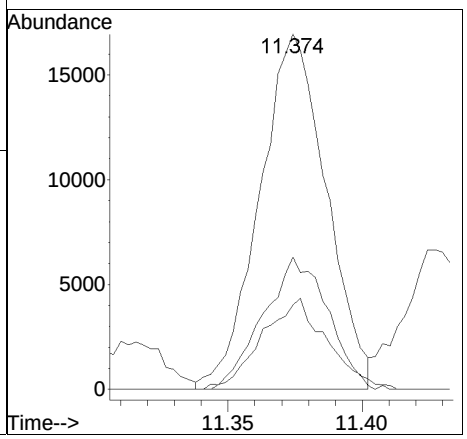


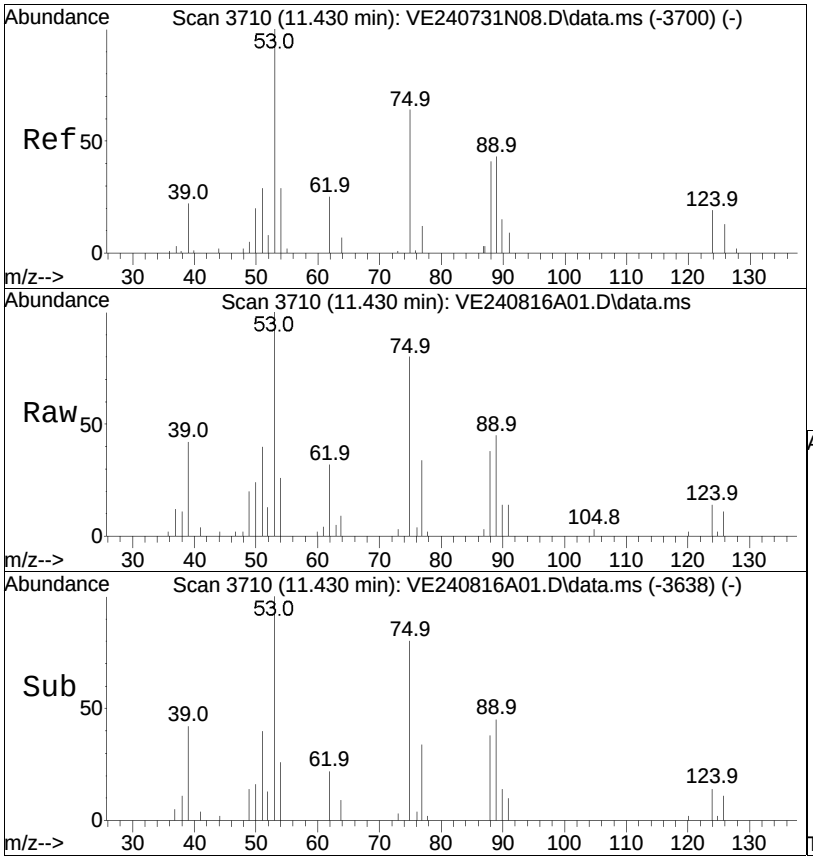


#96
1,2,3-Trichloropropane
Concen: 8.72 ug/L
RT: 11.374 min Scan# 3690
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 75 Resp: 29403

Ion	Ratio	Lower	Upper
75	100		
110	36.6	22.4	46.4
112	24.3	12.2	25.2

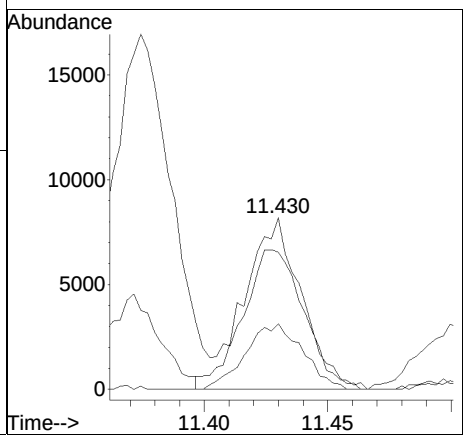


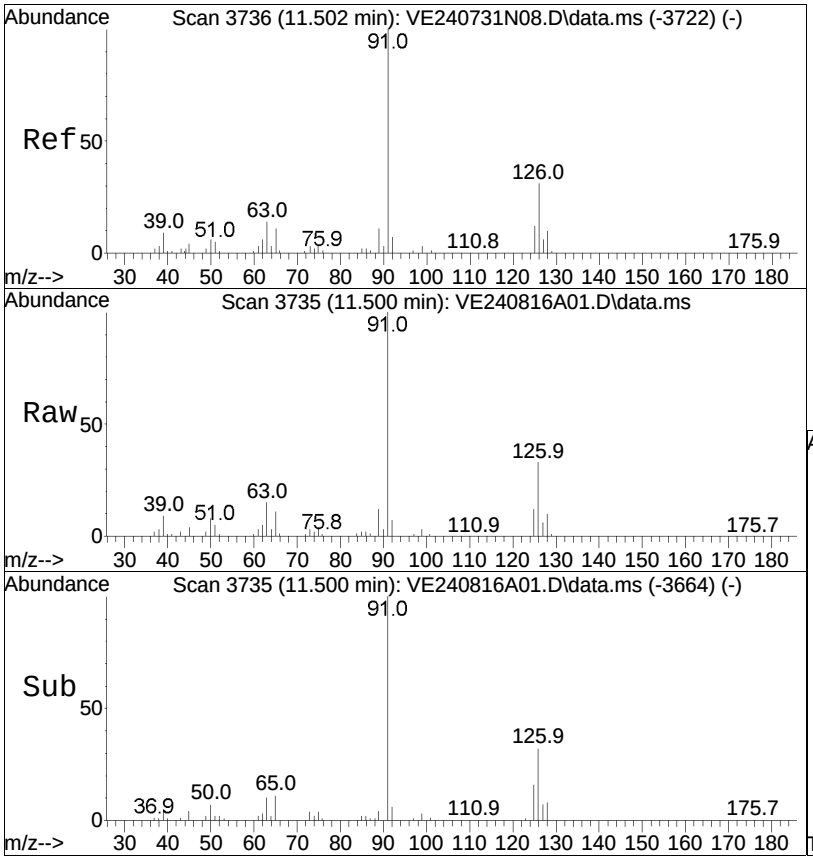


#97
trans-1,4-Dichloro-2-butene
Concen: 7.83 ug/L
RT: 11.430 min Scan# 3710
Delta R.T. -0.000 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 53 Resp: 12981

Ion	Ratio	Lower	Upper
53	100		
88	39.0	29.2	43.8
75	87.3	62.6	94.0

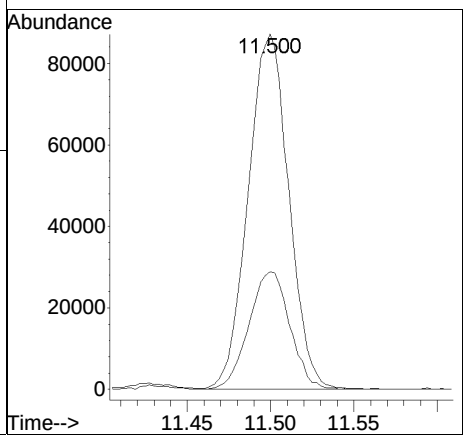


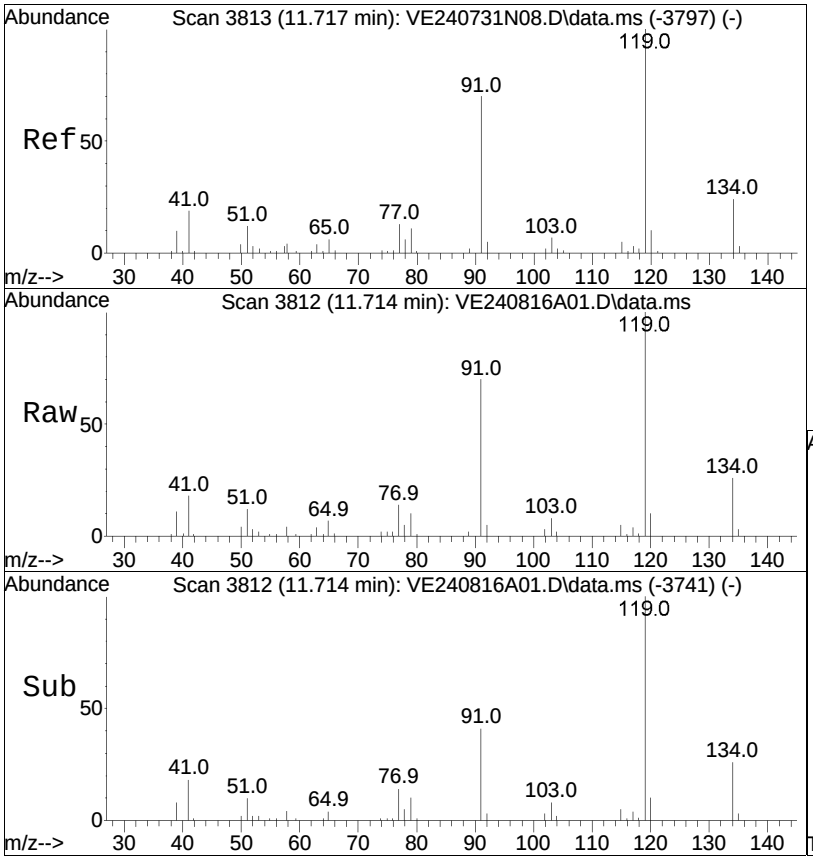


#98
4-Chlorotoluene
Concen: 10.34 ug/L
RT: 11.500 min Scan# 3735
Delta R.T. -0.002 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 148347

Ion	Ratio	Lower	Upper
91	100		
126	33.3	25.8	38.8

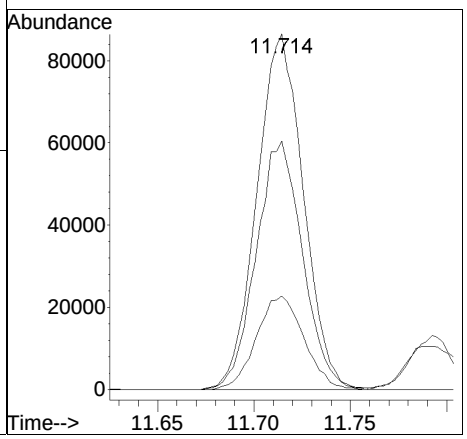


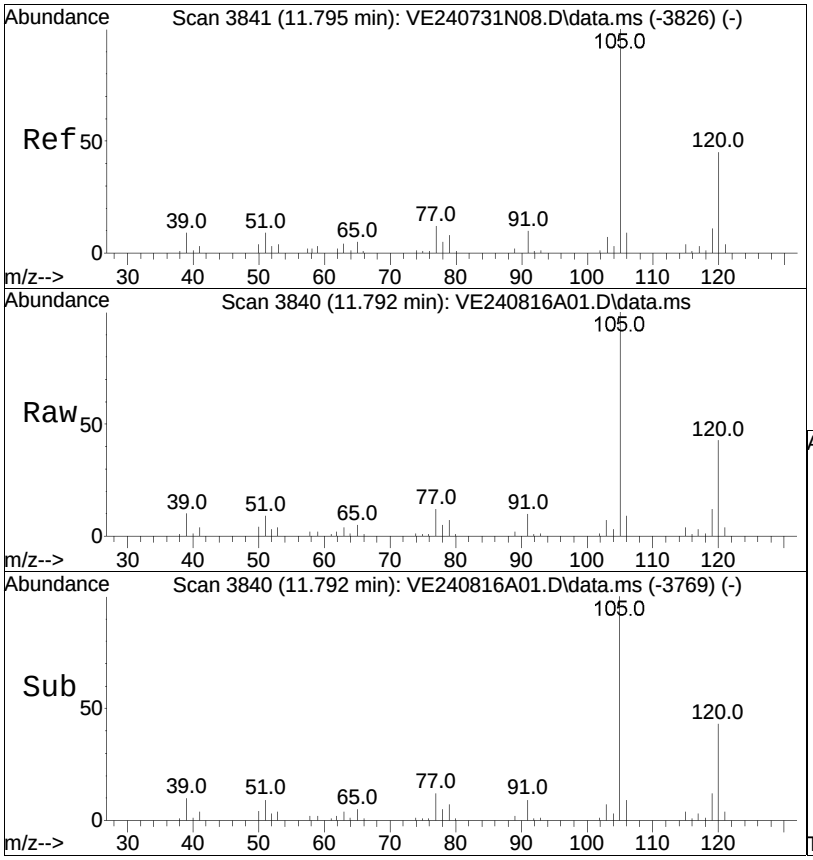


#99
tert-Butylbenzene
Concen: 10.42 ug/L
RT: 11.714 min Scan# 3812
Delta R.T. -0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 145179

Ion	Ratio	Lower	Upper
119	100		
91	69.6	56.6	84.8
134	26.7	17.7	26.5#

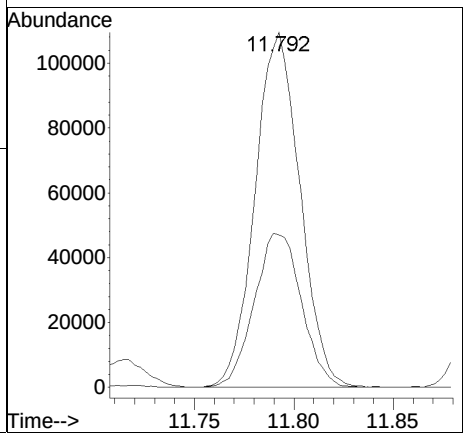


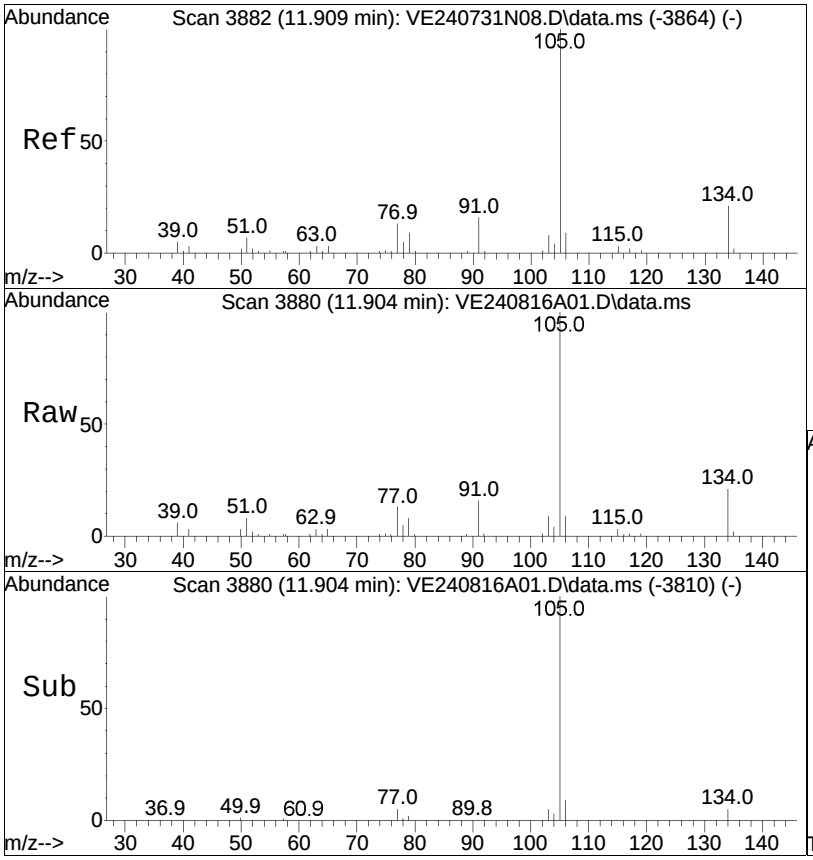


#102
1,2,4-Trimethylbenzene
Concen: 10.40 ug/L
RT: 11.792 min Scan# 3840
Delta R.T. -0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 172121

Ion	Ratio	Lower	Upper
105	100		
120	45.7	33.6	50.4

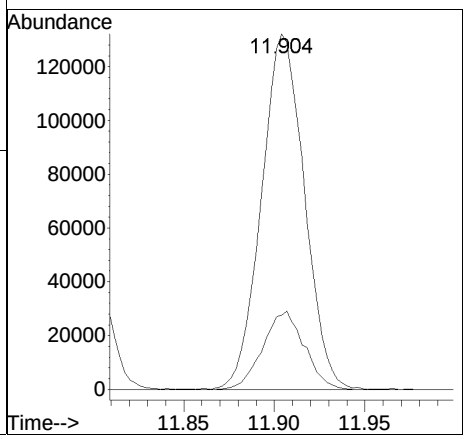


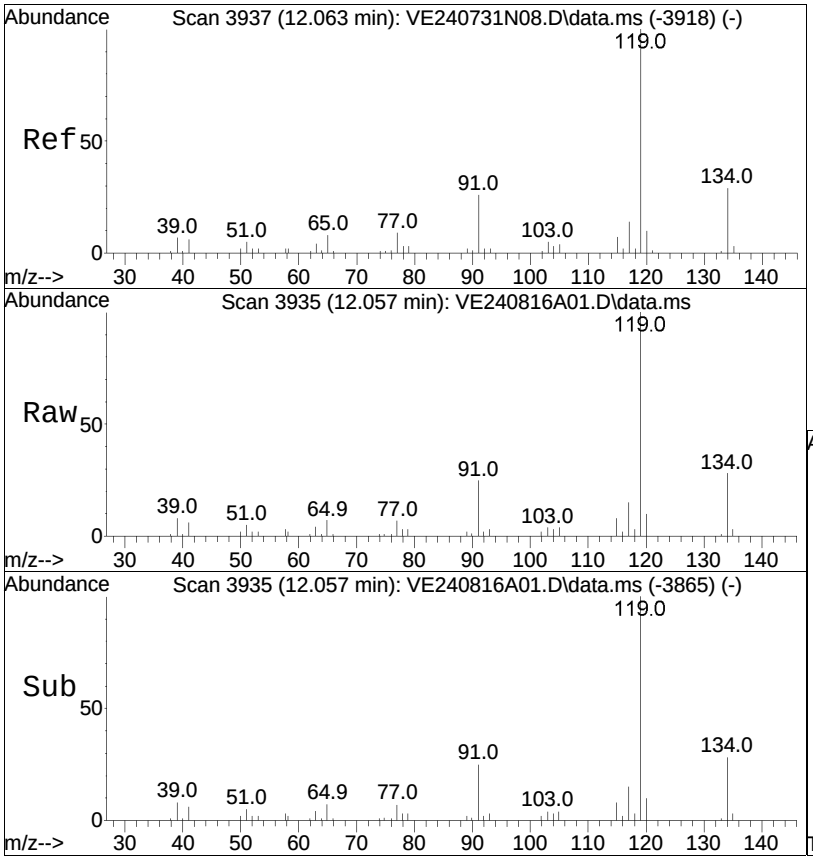


#103
sec-Butylbenzene
Concen: 10.53 ug/L
RT: 11.904 min Scan# 3880
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:105 Resp: 217480

Ion	Ratio	Lower	Upper
105	100		
134	21.2	13.3	27.5

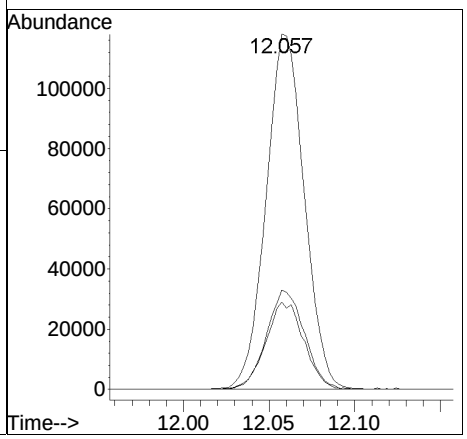


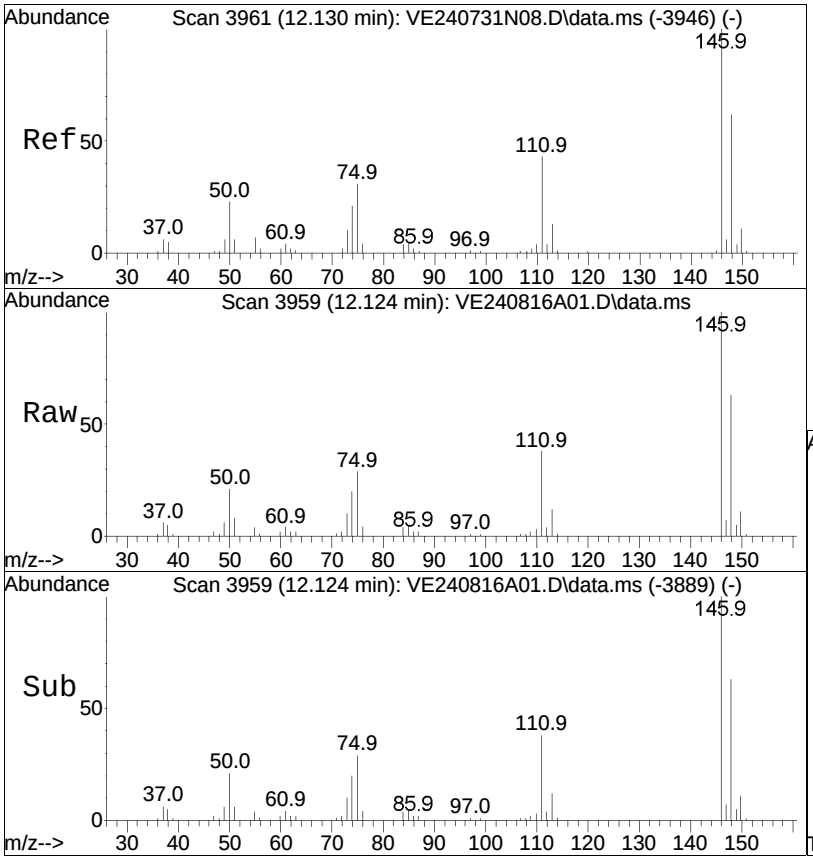


#104
p-Isopropyltoluene
Concen: 10.52 ug/L
RT: 12.057 min Scan# 3935
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 183122

Ion	Ratio	Lower	Upper
119	100		
134	27.8	15.8	32.8
91	24.6	16.6	34.4

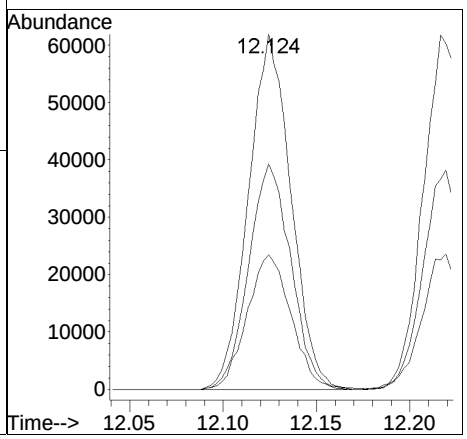


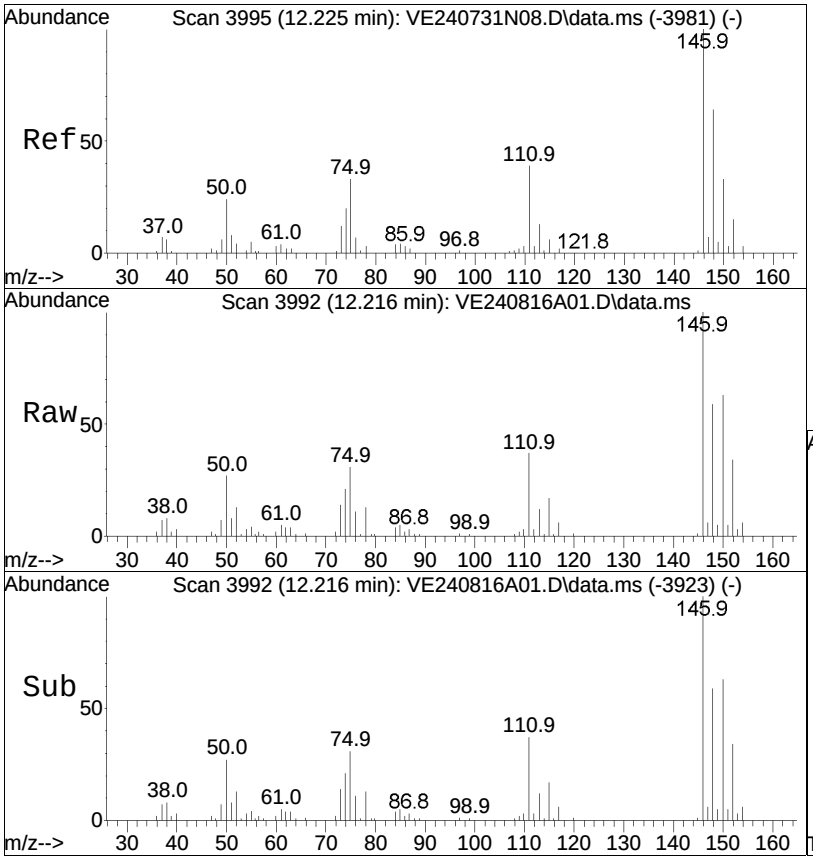


#105
1,3-Dichlorobenzene
Concen: 10.77 ug/L
RT: 12.124 min Scan# 3959
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:146 Resp: 97898

Ion	Ratio	Lower	Upper
146	100		
111	39.1	27.9	57.9
148	63.3	42.4	88.2

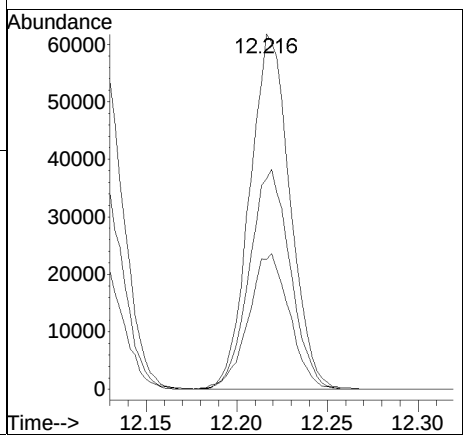


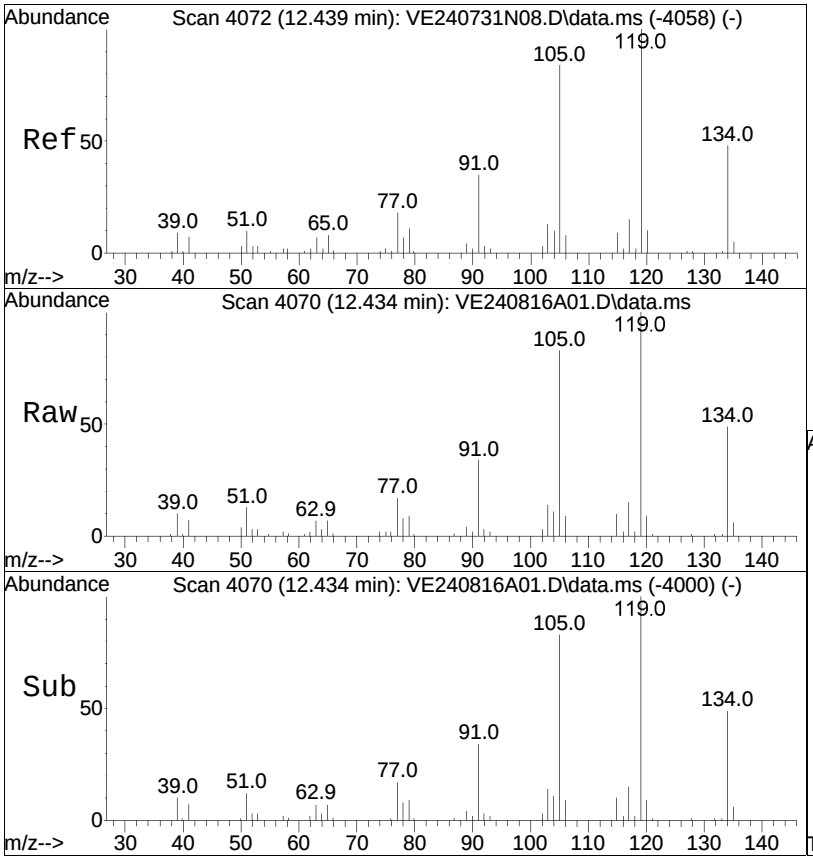


#106
1,4-Dichlorobenzene
Concen: 10.56 ug/L
RT: 12.216 min Scan# 3992
Delta R.T. -0.009 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:146 Resp: 95941

Ion	Ratio	Lower	Upper
146	100		
111	38.8	31.4	47.0
148	62.6	49.8	74.8

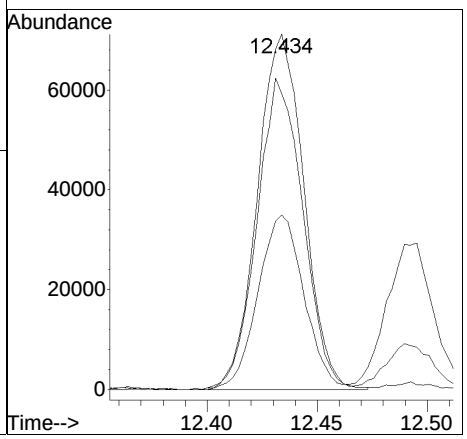


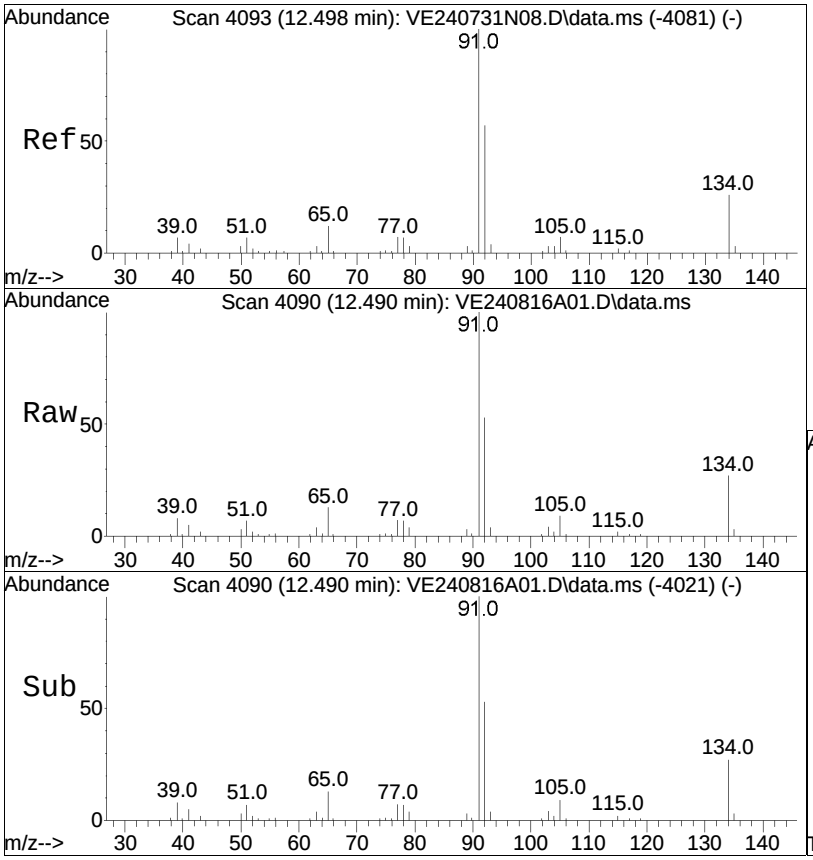


#107
p-Diethylbenzene
Concen: 10.19 ug/L
RT: 12.434 min Scan# 4070
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 104597

Ion	Ratio	Lower	Upper
119	100		
105	86.4	55.4	115.2
134	48.5	28.4	59.0

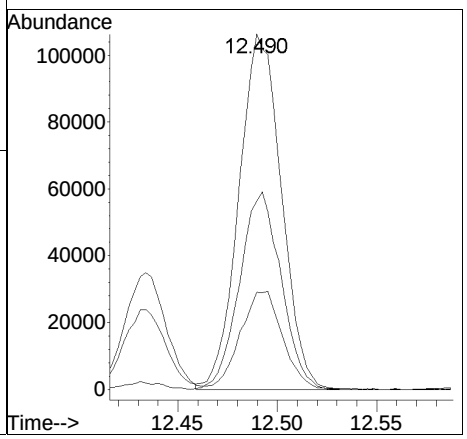


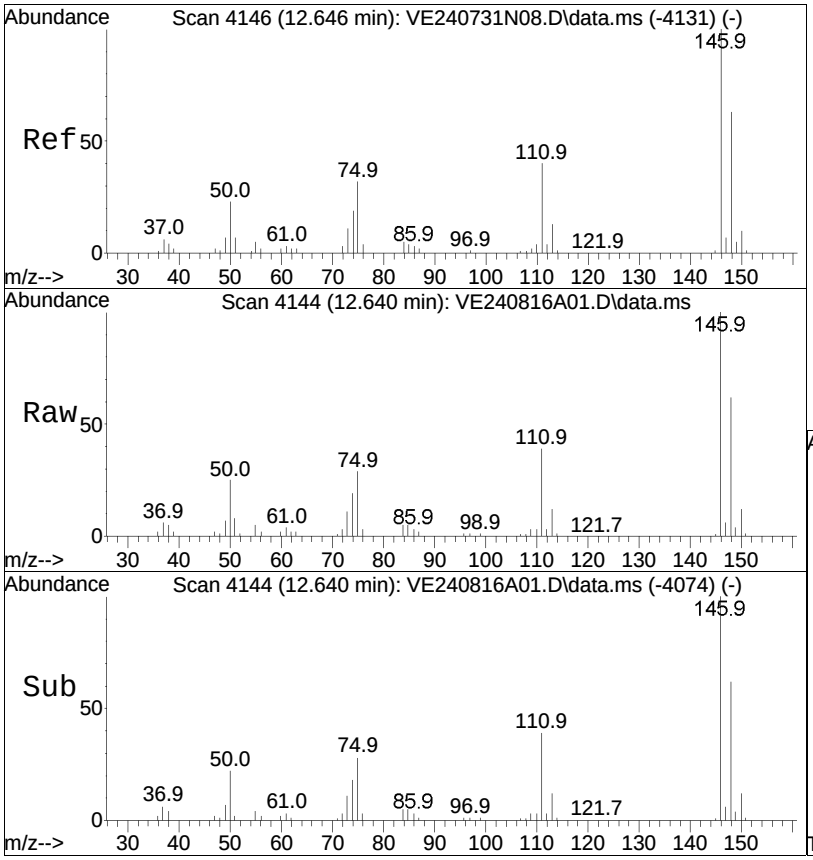


#108
n-Butylbenzene
Concen: 10.54 ug/L
RT: 12.490 min Scan# 4090
Delta R.T. -0.008 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion: 91 Resp: 158035

Ion	Ratio	Lower	Upper
91	100		
92	54.3	42.4	63.6
134	27.5	20.3	30.5

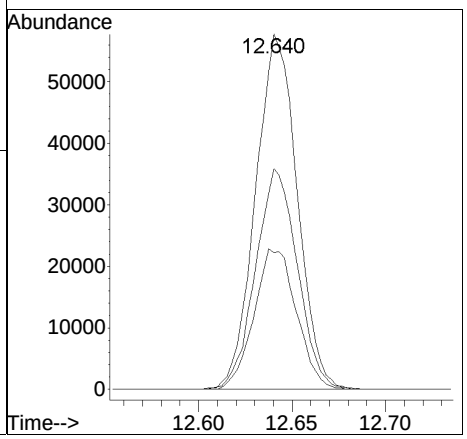


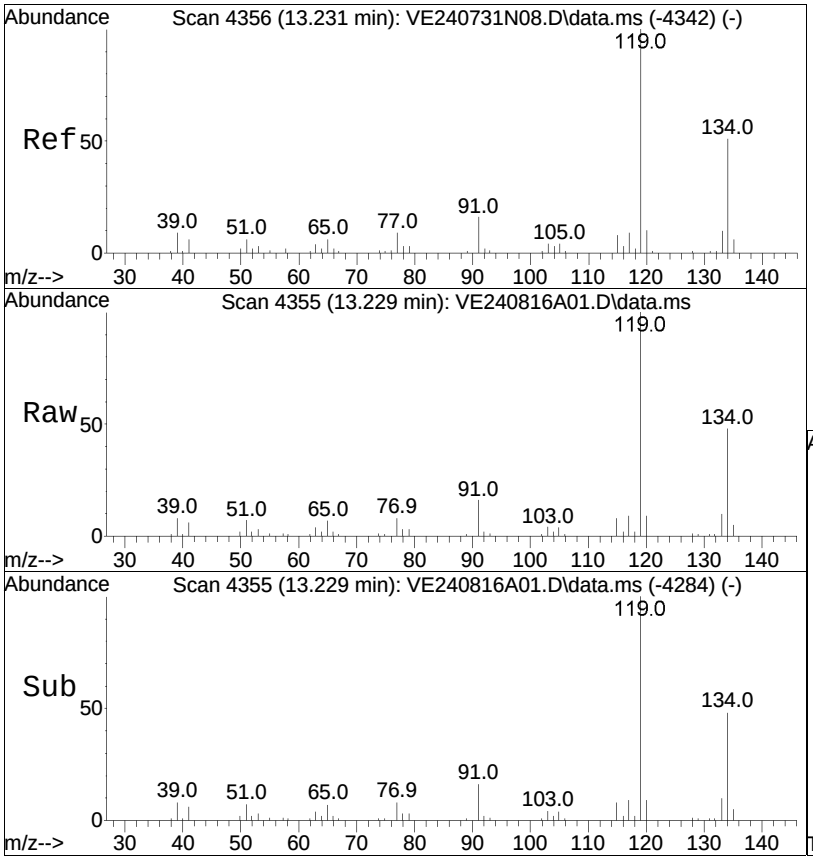


#109
1,2-Dichlorobenzene
Concen: 10.24 ug/L
RT: 12.640 min Scan# 4144
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:146 Resp: 89552

Ion	Ratio	Lower	Upper
146	100		
111	40.2	26.4	54.8
148	62.3	41.7	86.7

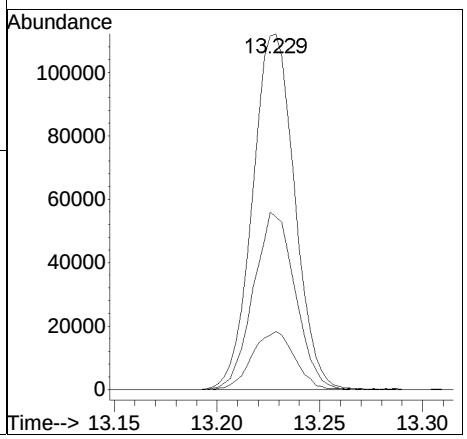


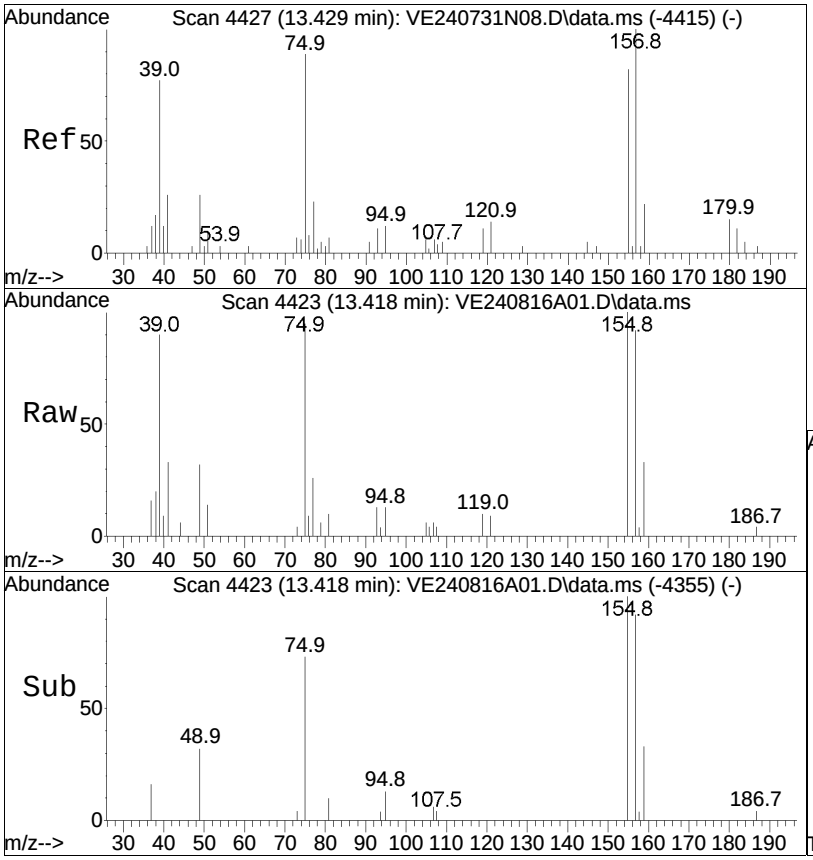


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.56 ug/L
RT: 13.229 min Scan# 4355
Delta R.T. -0.002 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:119 Resp: 159301

Ion	Ratio	Lower	Upper
119	100		
134	49.6	29.6	61.4
91	16.4	9.8	20.3

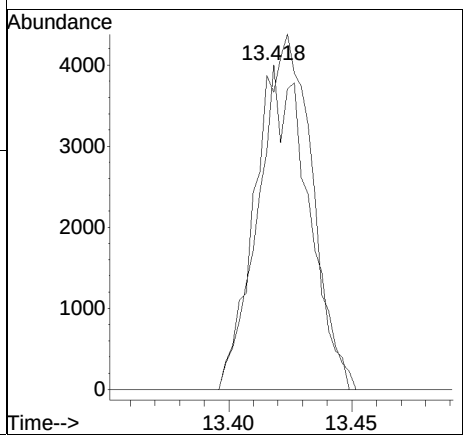


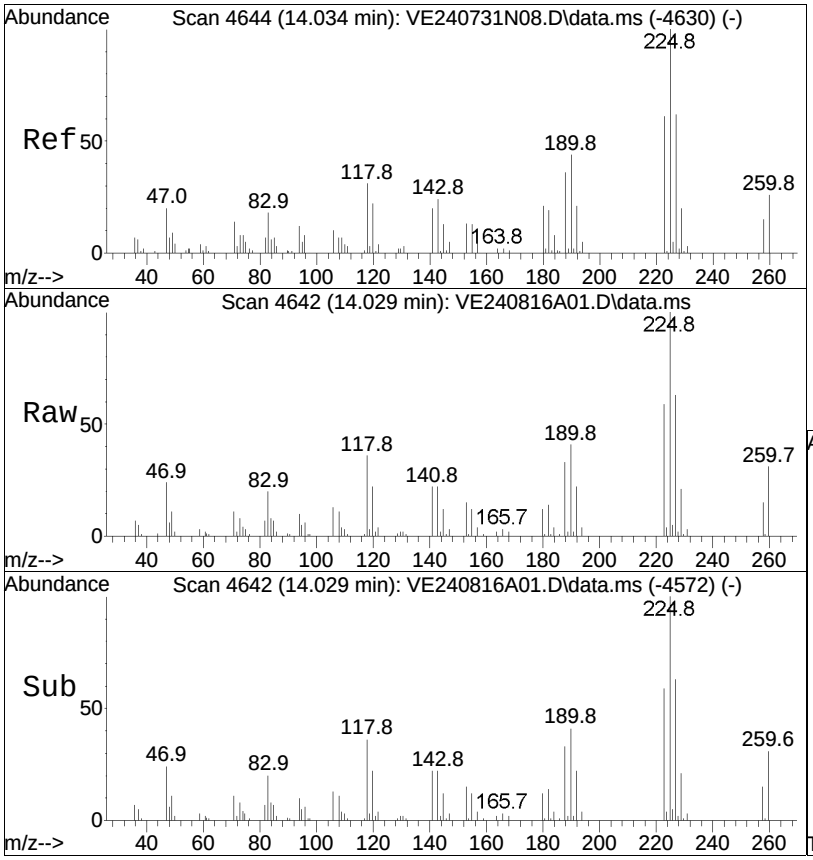


#111
1,2-Dibromo-3-chloropropane
Concen: 7.47 ug/L M1
RT: 13.418 min Scan# 4423
Delta R.T. -0.011 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:155 Resp: 5758

Ion	Ratio	Lower	Upper
155	100		
157	118.6	95.1	142.7

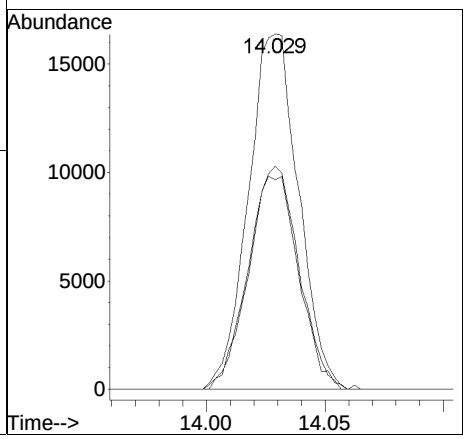


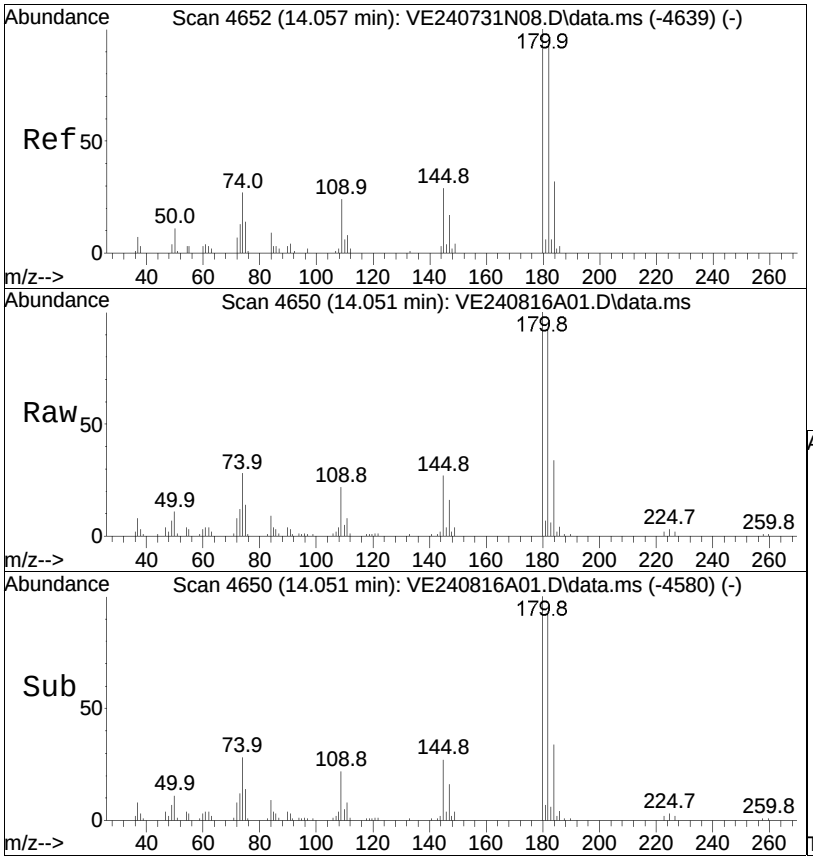


#113
Hexachlorobutadiene
Concen: 10.51 ug/L
RT: 14.029 min Scan# 4642
Delta R.T. -0.005 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:225 Resp: 24183

Ion	Ratio	Lower	Upper
225	100		
223	61.1	54.6	82.0
227	62.3	56.2	84.4

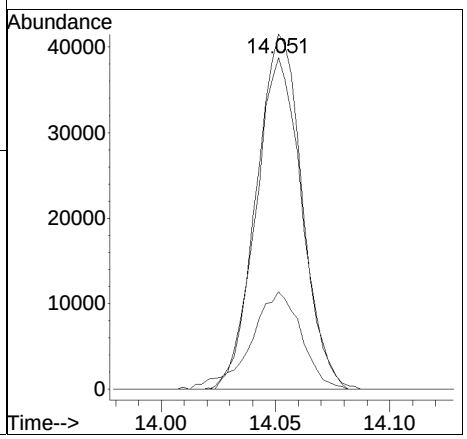


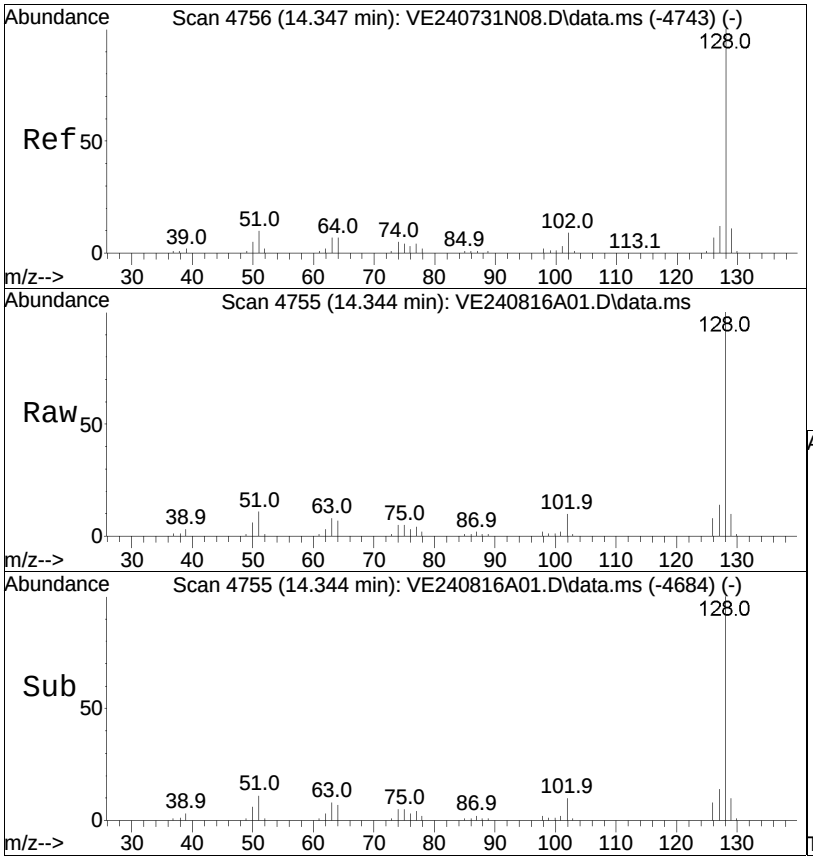


#114
1,2,4-Trichlorobenzene
Concen: 9.27 ug/L
RT: 14.051 min Scan# 4650
Delta R.T. -0.006 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:180 Resp: 58063

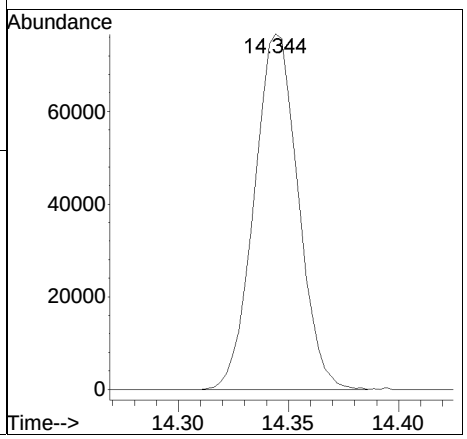
Ion	Ratio	Lower	Upper
180	100		
182	93.5	75.4	113.2
145	30.3	26.0	39.0

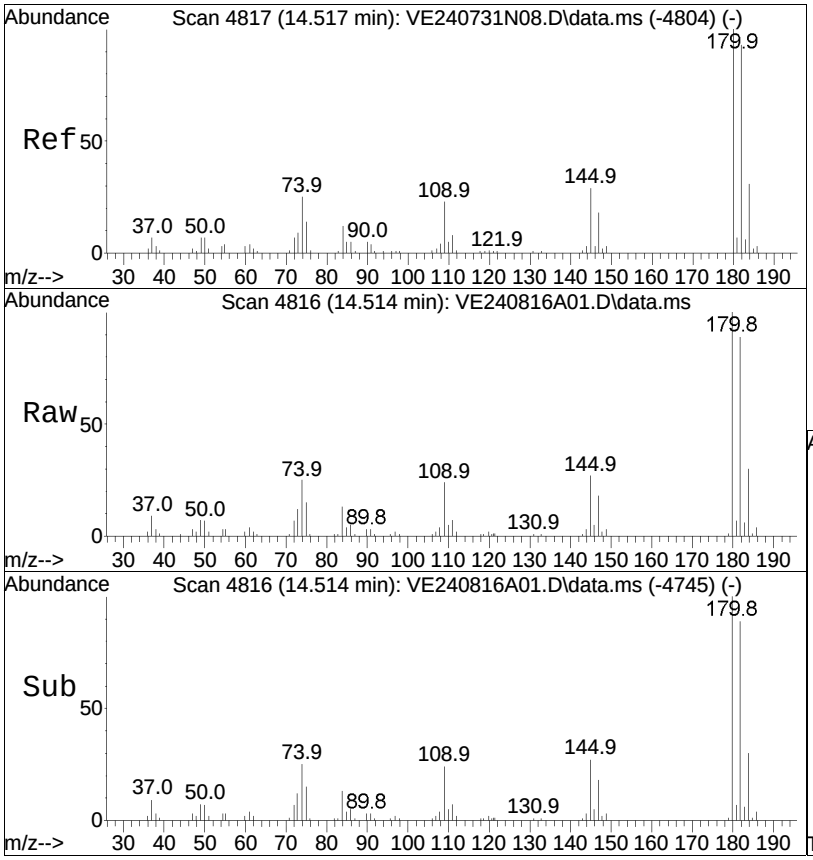




#115
Naphthalene
Concen: 7.70 ug/L
RT: 14.344 min Scan# 4755
Delta R.T. -0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:128 Resp: 106333

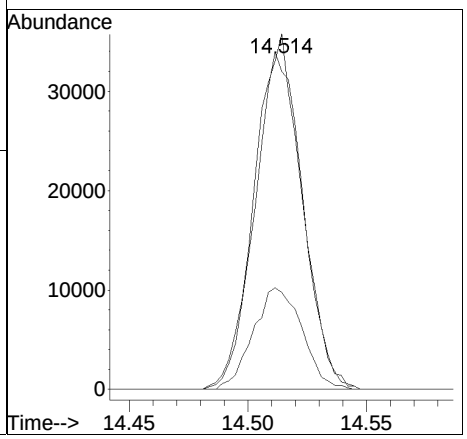




#116
1,2,3-Trichlorobenzene
Concen: 8.63 ug/L
RT: 14.514 min Scan# 4816
Delta R.T. -0.003 min
Lab File: VE240816A01.D
Acq: 16 Aug 2024 6:49 am

Tgt Ion:180 Resp: 49712

Ion	Ratio	Lower	Upper
180	100		
182	96.2	71.6	107.4
145	29.5	25.1	37.7

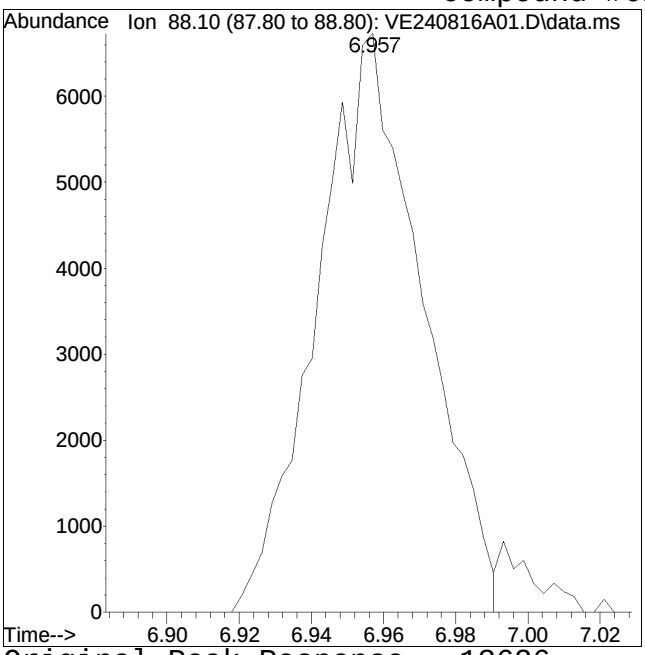


Manual Integration Report

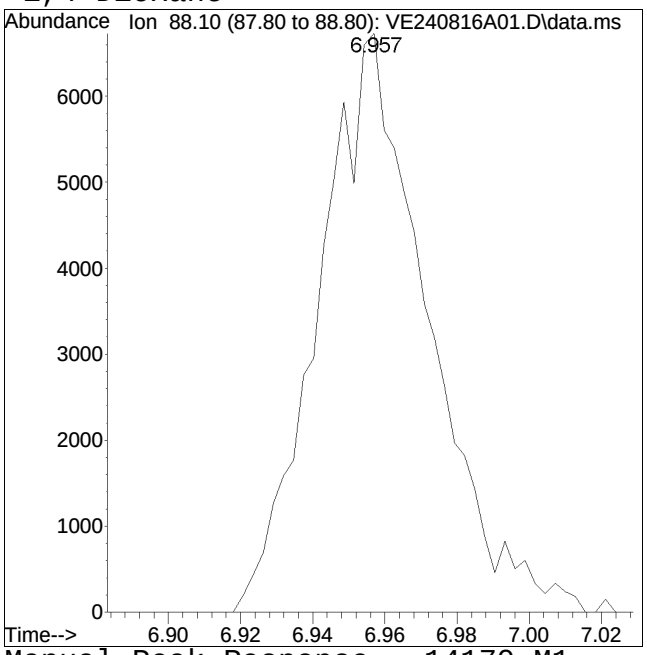
Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960272-3,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/16/2024 7:18 am

Compound #61: 1,4-Dioxane



Original Peak Response = 13626



Manual Peak Response = 14170 M1

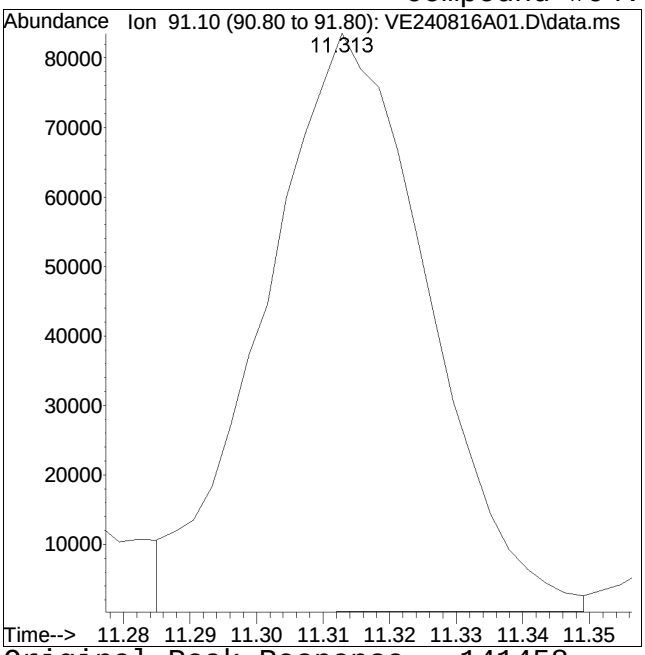
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

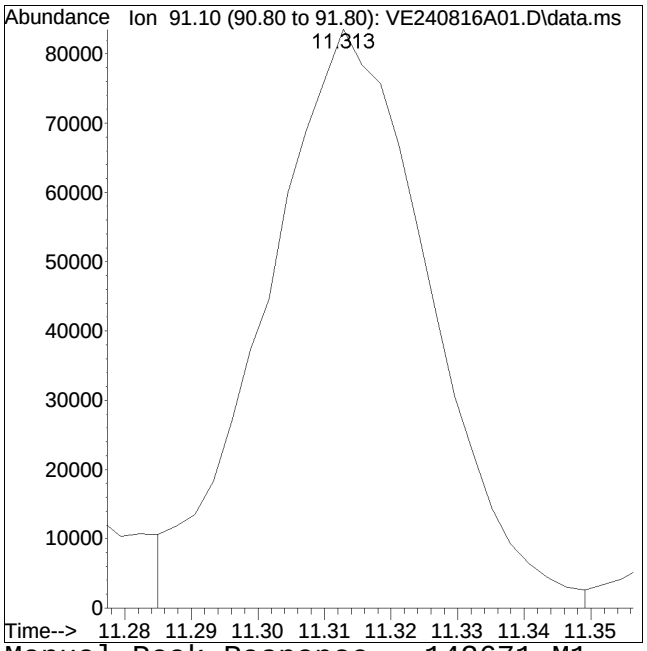
Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960272-3,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/16/2024 7:18 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 141458



Manual Peak Response = 142671 M1

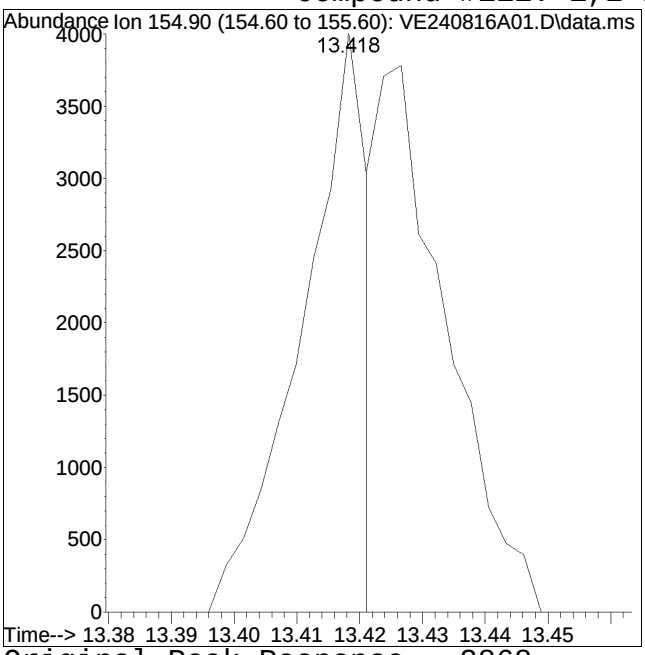
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

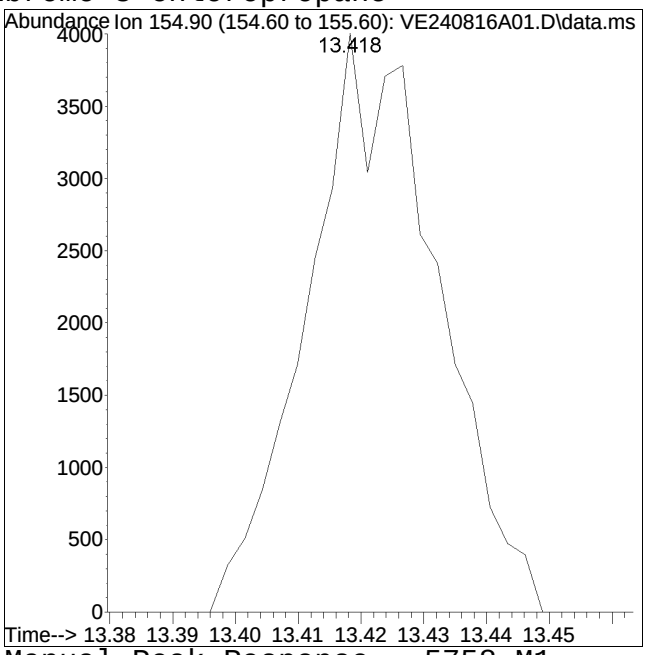
Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A01.D
Date Inj'd : 8/16/2024 6:49 am
Sample : WG1960272-3,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/16/2024 7:18 am

Compound #111: 1,2-Dibromo-3-chloropropane



Original Peak Response = 2868



Manual Peak Response = 5758 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A02.D
Acq On : 16 Aug 2024 7:12 am
Operator : GONZO:PID
Sample : WG1960231-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:59:38 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.086	96	346730	10.000	ug/L	0.00
Standard Area 1 = 376279			Recovery = 92.15%			
59) Chlorobenzene-d5	9.629	117	268356	10.000	ug/L	0.00
Standard Area 1 = 290800			Recovery = 92.28%			
79) 1,4-Dichlorobenzene-d4	12.311	152	158700	10.000	ug/L	0.00
Standard Area 1 = 167416			Recovery = 94.79%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.281	113	89170	9.846	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.46%			
43) 1,2-Dichloroethane-d4	5.805	65	104723	10.885	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.85%			
60) Toluene-d8	7.779	98	342826	10.176	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.76%			
83) 4-Bromofluorobenzene	11.110	95	120052	9.057	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.57%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.680	85	69489	7.549	ug/L	97
3) Chloromethane	1.893	50	71106	9.030	ug/L	97
4) Vinyl chloride	1.946	62	76990	9.438	ug/L	98
5) Bromomethane	2.257	94	26572	6.152	ug/L	97
6) Chloroethane	2.371	64	72123	11.564	ug/L	95
7) Trichlorofluoromethane	2.516	101	100666	8.417	ug/L	98
8) Ethyl ether	2.819	74	36129	9.098	ug/L	83
10) 1,1-Dichloroethene	3.017	96	56908	8.676	ug/L	90
11) Carbon disulfide	3.047	76	177573	9.206	ug/L	100
15) Methylene chloride	3.579	84	68565	8.841	ug/L	83
17) Acetone	3.625	43	15647	8.456	ug/L	94
18) trans-1,2-Dichloroethene	3.723	96	65968	9.195	ug/L	97
20) Methyl tert-butyl ether	3.815	73	190023	8.613	ug/L	89
23) 1,1-Dichloroethane	4.316	63	124978	9.617	ug/L	99
25) Acrylonitrile	4.369	53	21346	10.532	ug/L	90
27) Vinyl acetate	4.544	43	172894	14.357	ug/L	99
28) cis-1,2-Dichloroethene	4.840	96	75651	9.170	ug/L	97
29) 2,2-Dichloropropane	4.931	77	102644	9.473	ug/L	96
30) Bromochloromethane	5.030	128	38171	9.457	ug/L	89
32) Chloroform	5.099	83	120591	9.065	ug/L	96

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A02.D
Acq On : 16 Aug 2024 7:12 am
Operator : GONZO:PID
Sample : WG1960231-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:59:38 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34) Carbon tetrachloride	5.228	117	95935	8.898	ug/L		99
37) 1,1,1-Trichloroethane	5.296	97	108048	8.806	ug/L		96
39) 2-Butanone	5.395	43	25627	10.190	ug/L	#	77
40) 1,1-Dichloropropene	5.418	75	88410	9.013	ug/L		97
41) Benzene	5.668	78	275884	9.288	ug/L		95
44) 1,2-Dichloroethane	5.873	62	95483	10.086	ug/L		99
48) Trichloroethene	6.261	95	71394	8.523	ug/L		97
50) Dibromomethane	6.709	93	43514	9.287	ug/L		99
51) 1,2-Dichloropropane	6.808	63	70452	9.721	ug/L		98
54) Bromodichloromethane	6.884	83	97284	9.195	ug/L		99
57) 1,4-Dioxane	7.099	88	32109	435.527	ug/L		93
58) cis-1,3-Dichloropropene	7.571	75	105819	8.943	ug/L		93
61) Toluene	7.836	92	170438	9.139	ug/L		96
62) 4-Methyl-2-pentanone	8.273	58	19595	9.529	ug/L		94
63) Tetrachloroethene	8.288	166	78033	9.532	ug/L		99
65) trans-1,3-Dichloropropene	8.323	75	94975	9.302	ug/L		100
68) 1,1,2-Trichloroethane	8.517	83	49294	9.632	ug/L		99
69) Chlorodibromomethane	8.725	129	75434	9.323	ug/L		98
70) 1,3-Dichloropropane	8.832	76	99207	9.727	ug/L		98
71) 1,2-Dibromoethane	9.004	107	62650	9.651	ug/L		97
72) 2-Hexanone	9.283	43	35788	9.385	ug/L	#	91
73) Chlorobenzene	9.645	112	194927	9.378	ug/L		100
74) Ethylbenzene	9.678	91	319282	8.966	ug/L		98
75) 1,1,1,2-Tetrachloroethane	9.736	131	70786	9.151	ug/L		99
76) p/m Xylene	9.867	106	256559	18.223	ug/L		100
77) o Xylene	10.402	106	247955	18.181	ug/L		99
78) Styrene	10.476	104	417257	18.054	ug/L		100
80) Bromoform	10.509	173	49530	8.809	ug/L		99
82) Isopropylbenzene	10.781	105	301134	8.481	ug/L		99
84) Bromobenzene	11.225	156	92754	9.450	ug/L		98
85) n-Propylbenzene	11.258	91	357937	8.654	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.356	83	78567	9.957	ug/L		98
88) 4-Ethyltoluene	11.381	105	302924	8.762	ug/L		99
89) 2-Chlorotoluene	11.430	91	224806M6	8.863	ug/L		
90) 1,3,5-Trimethylbenzene	11.480	105	268548	8.774	ug/L		99
91) 1,2,3-Trichloropropane	11.496	75	59883M4	9.074	ug/L		
92) trans-1,4-Dichloro-2-b...	11.546	53	20323	11.233	ug/L	#	92
93) 4-Chlorotoluene	11.611	91	227970	8.731	ug/L		96
94) tert-Butylbenzene	11.817	119	215388	8.707	ug/L		99

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A02.D
Acq On : 16 Aug 2024 7:12 am
Operator : GONZO:PID
Sample : WG1960231-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:59:38 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\240816A\VG240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) 1,2,4-Trimethylbenzene	11.899	105	263304	8.732	ug/L	100
98) sec-Butylbenzene	12.006	105	304055	8.641	ug/L	99
99) p-Isopropyltoluene	12.163	119	267858	8.769	ug/L	99
100) 1,3-Dichlorobenzene	12.237	146	170928	9.478	ug/L	99
101) 1,4-Dichlorobenzene	12.327	146	175447	9.446	ug/L	99
102) p-Diethylbenzene	12.533	119	153835	8.768	ug/L	97
103) n-Butylbenzene	12.590	91	213625	8.845	ug/L	98
104) 1,2-Dichlorobenzene	12.747	146	162937	9.472	ug/L	99
105) 1,2,4,5-Tetramethylben...	13.322	119	210584	8.018	ug/L	97
106) 1,2-Dibromo-3-chloropr...	13.528	155	13666	9.338	ug/L	98
108) Hexachlorobutadiene	14.120	225	31570	9.951	ug/L	99
109) 1,2,4-Trichlorobenzene	14.153	180	91226	9.304	ug/L	98
110) Naphthalene	14.449	128	168739	7.667	ug/L	100
111) 1,2,3-Trichlorobenzene	14.614	180	74702	9.162	ug/L	98

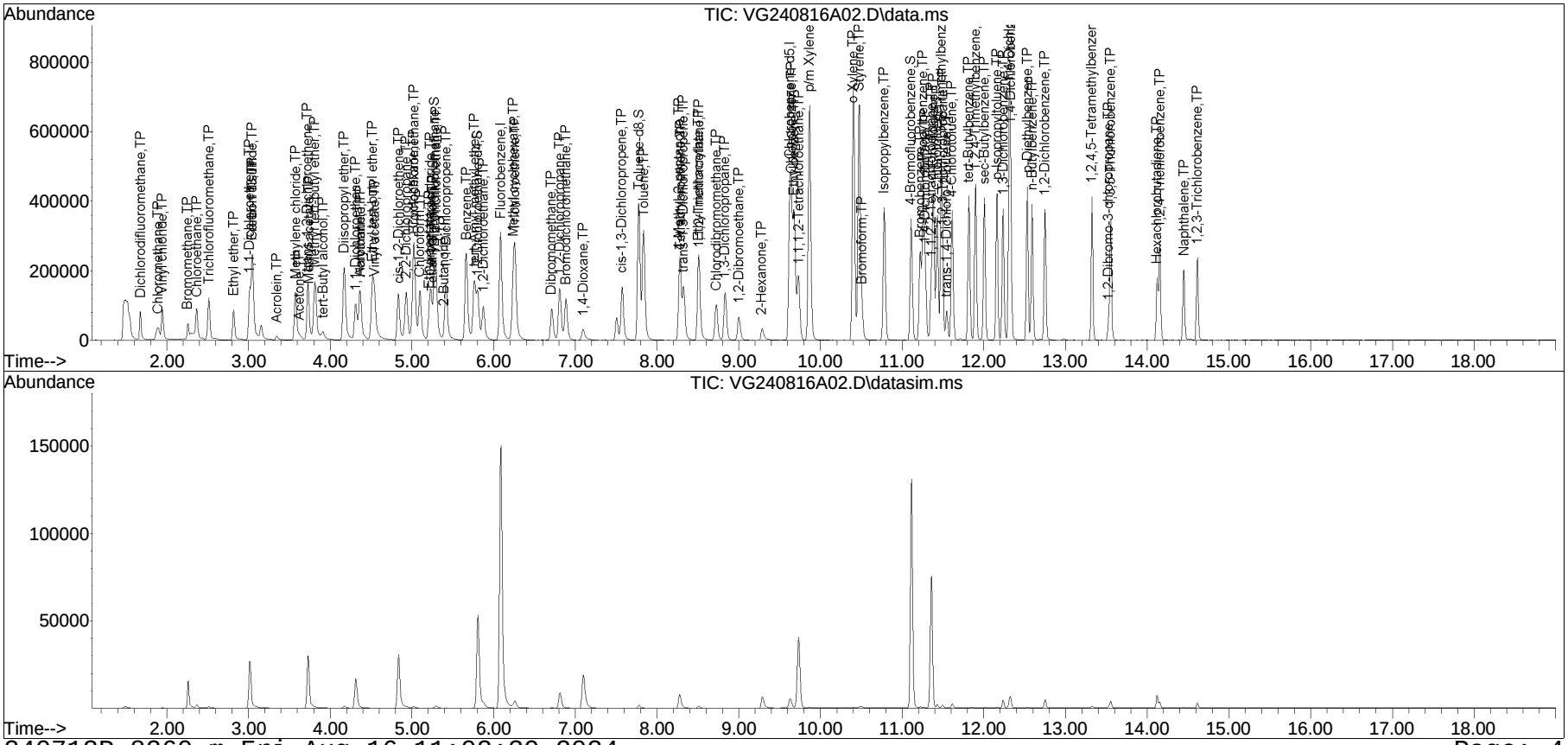
(#) = qualifier out of range (m) = manual integration (+) = signals summed

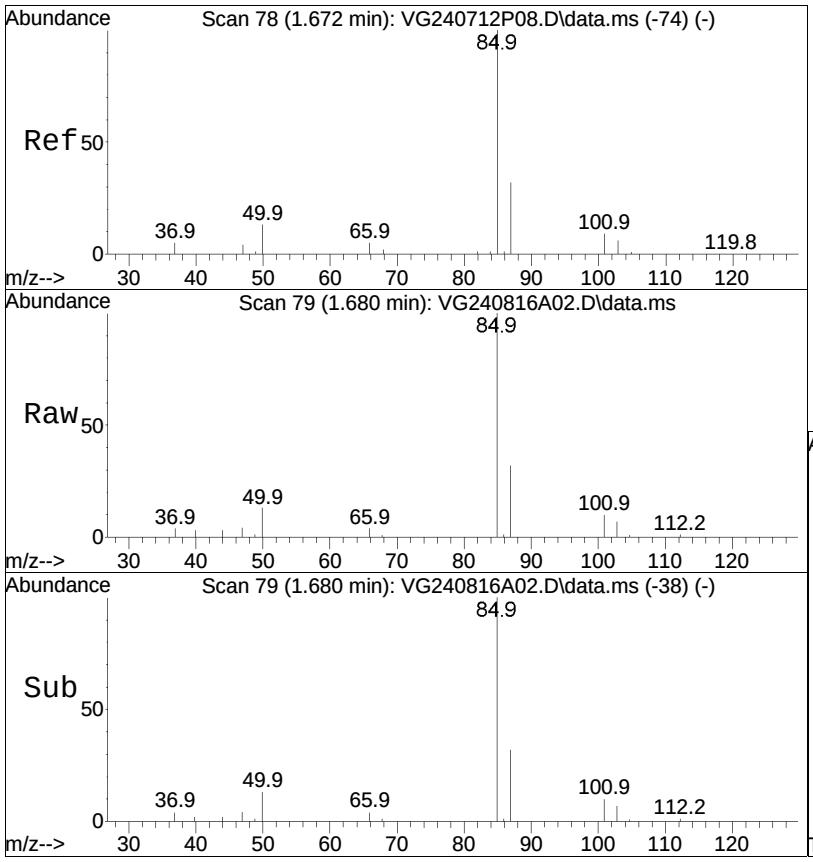
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A02.D
Acq On : 16 Aug 2024 7:12 am
Operator : GONZO:PID
Sample : WG1960231-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1960231,ICAL21287 (Sig #1); WG,ICAL21287 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:59:38 2024
Quant Method : K:\Gonzo\2024\240816A\G_240712P_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

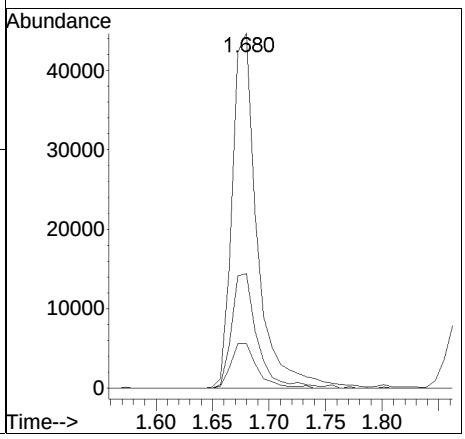


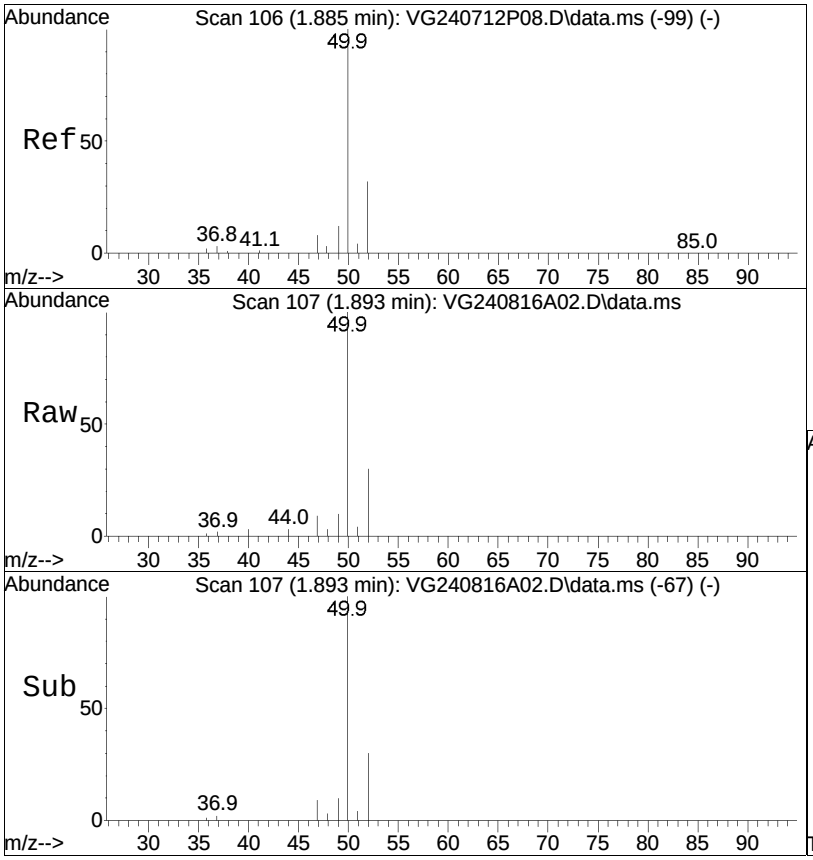


#2
Dichlorodifluoromethane
Concen: 7.55 ug/L
RT: 1.680 min Scan# 79
Delta R.T. 0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 85 Resp: 69489

Ion	Ratio	Lower	Upper
85	100		
87	33.1	20.7	42.9
50	13.5	7.5	15.5

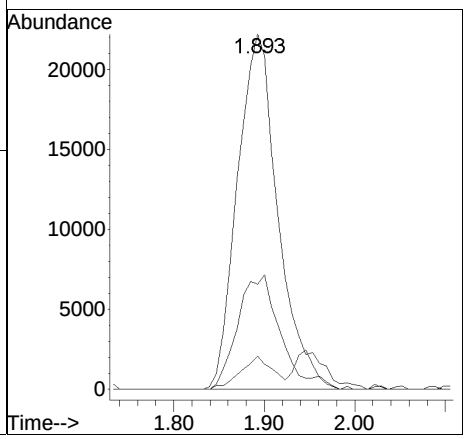


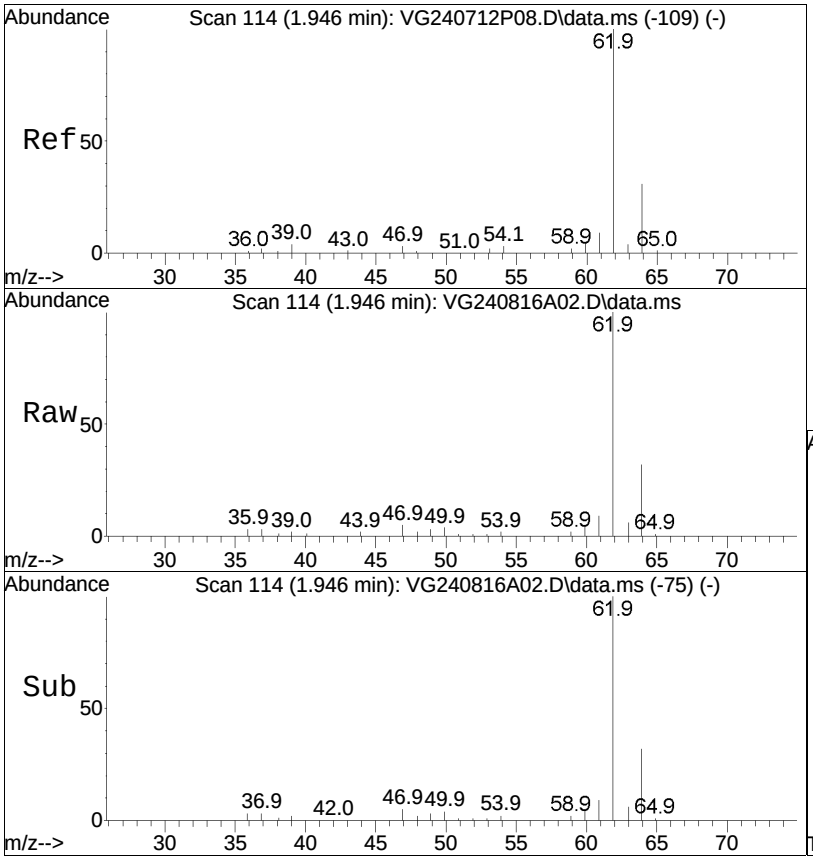


#3
Chloromethane
Concen: 9.03 ug/L
RT: 1.893 min Scan# 107
Delta R.T. 0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 50 Resp: 71106

Ion	Ratio	Lower	Upper
50	100		
52	33.2	11.7	51.7
47	7.3	0.0	28.0

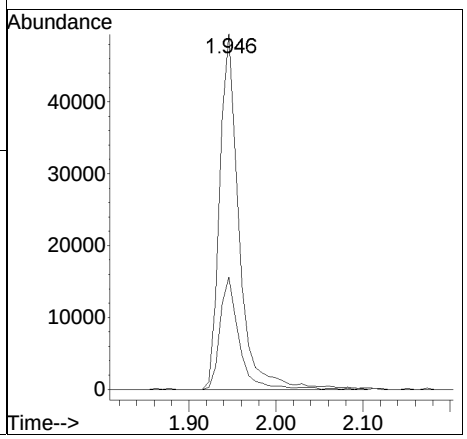


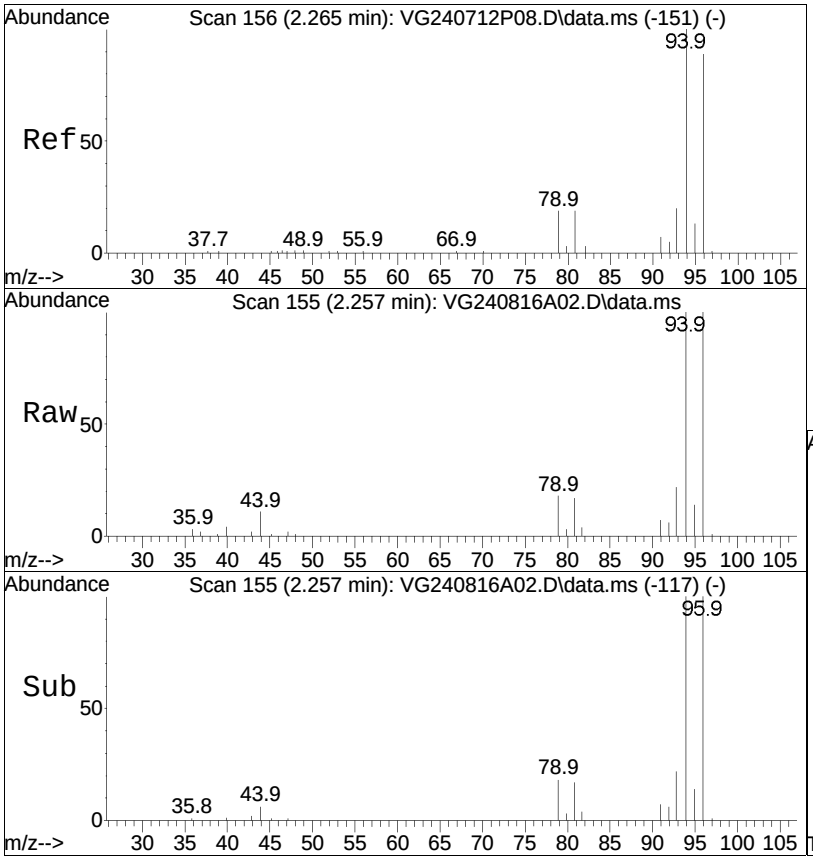


#4
Vinyl chloride
Concen: 9.44 ug/L
RT: 1.946 min Scan# 114
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 62 Resp: 76990

Ion	Ratio	Lower	Upper
62	100		
64	30.5	11.3	51.3

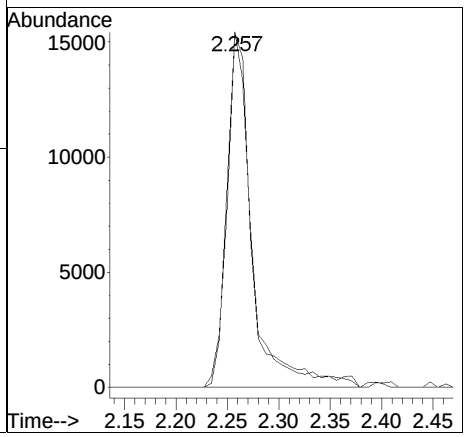


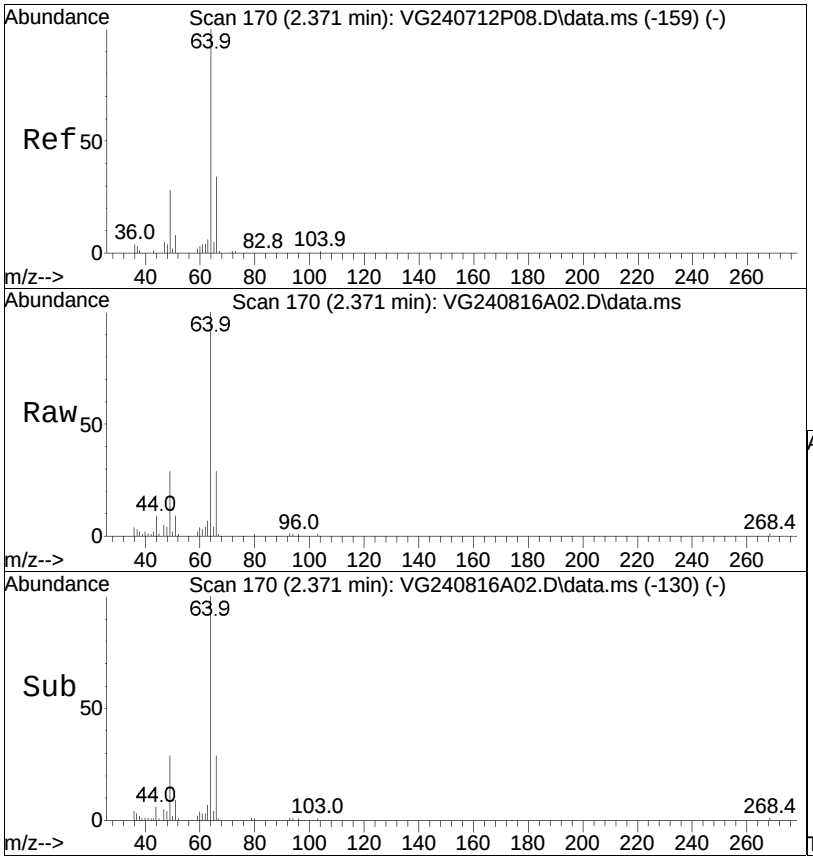


#5
Bromomethane
Concen: 6.15 ug/L
RT: 2.257 min Scan# 155
Delta R.T. -0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 94 Resp: 26572

Ion	Ratio	Lower	Upper
94	100		
96	98.2	75.2	115.2

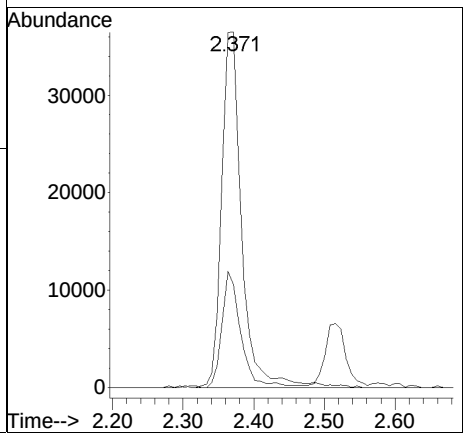


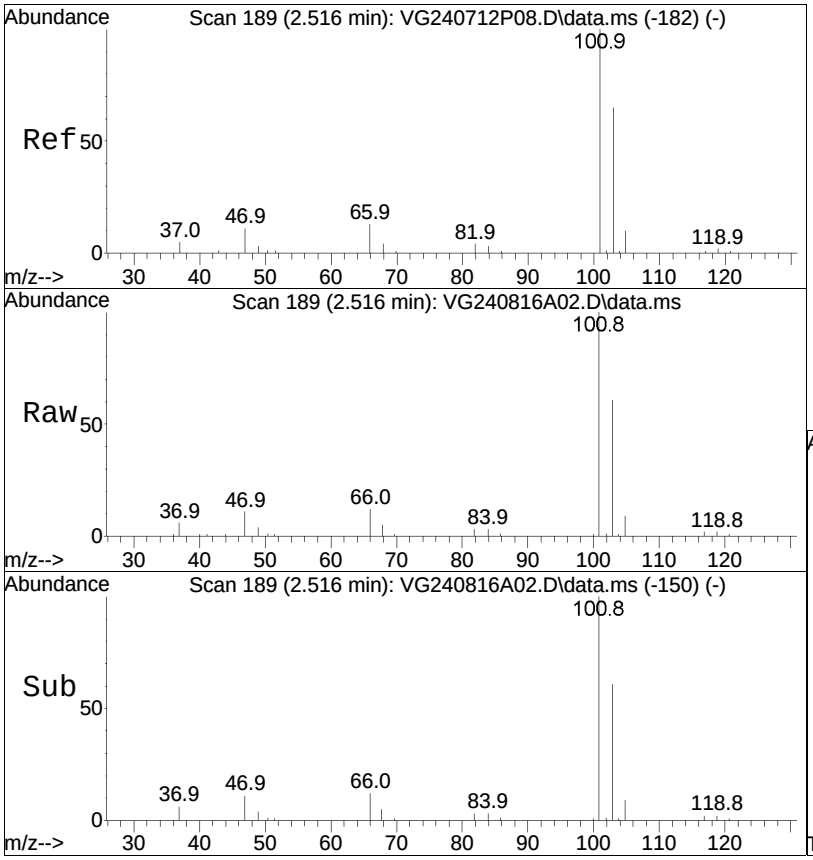


#6
Chloroethane
Concen: 11.56 ug/L
RT: 2.371 min Scan# 170
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 64 Resp: 72123

Ion	Ratio	Lower	Upper
64	100		
66	30.6	13.7	53.7

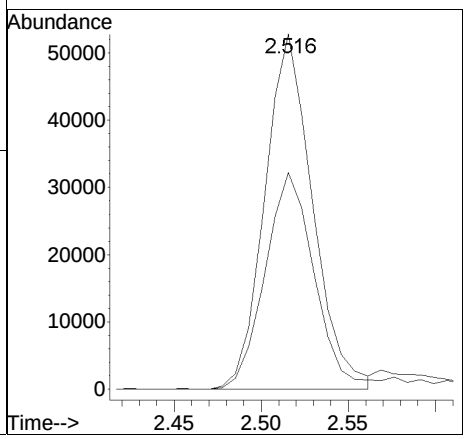


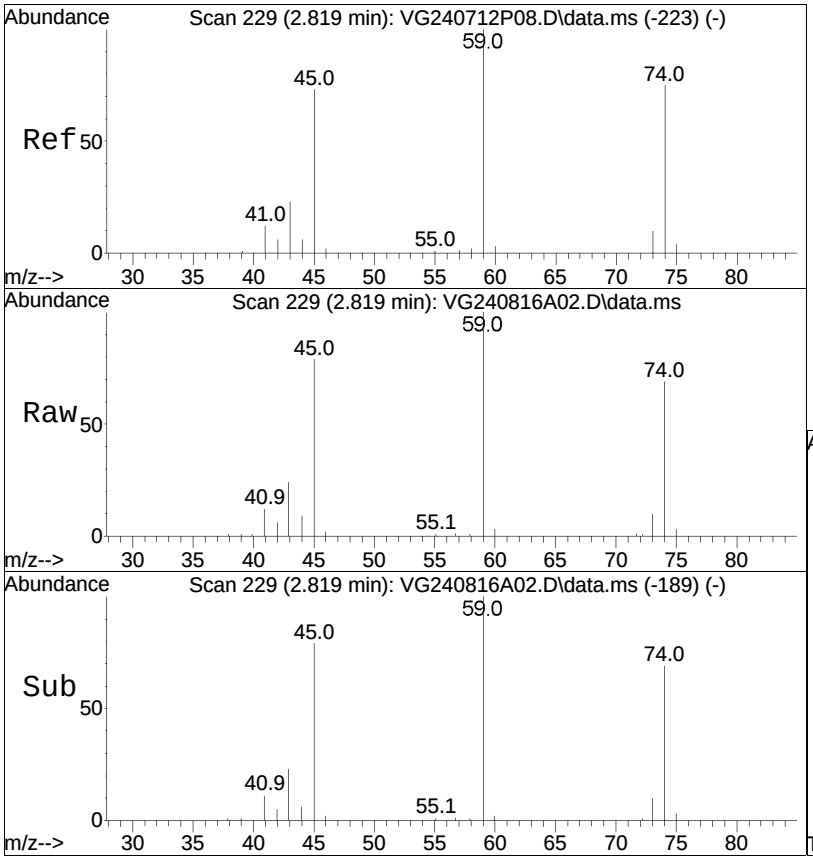


#7
Trichlorofluoromethane
Concen: 8.42 ug/L
RT: 2.516 min Scan# 189
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:101 Resp: 100666

Ion	Ratio	Lower	Upper
101	100		
103	63.2	52.2	78.2

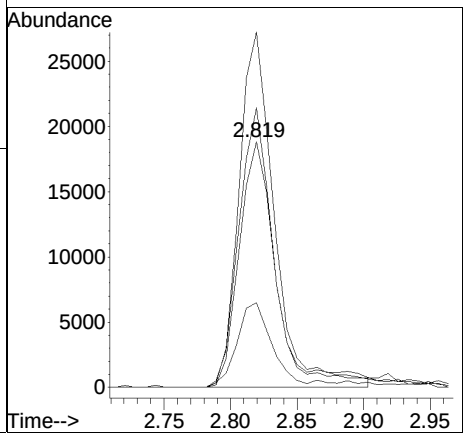


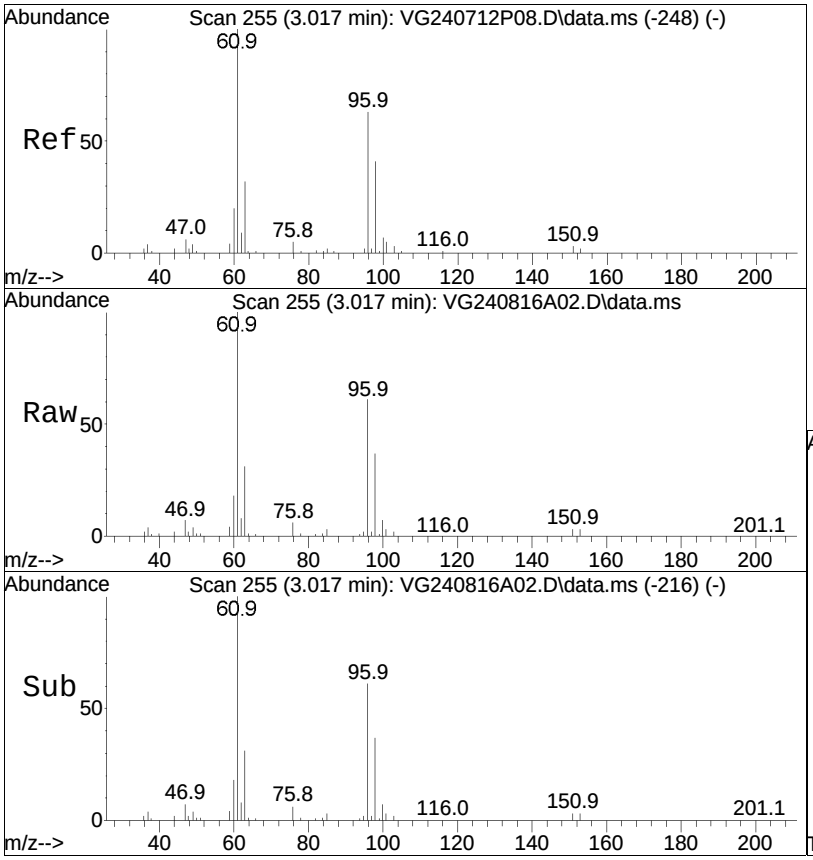


#8
Ethyl ether
Concen: 9.10 ug/L
RT: 2.819 min Scan# 229
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 74 Resp: 36129

Ion	Ratio	Lower	Upper
74	100		
59	145.1	83.5	173.3
45	114.0	59.7	123.9
43	32.9	17.6	36.6

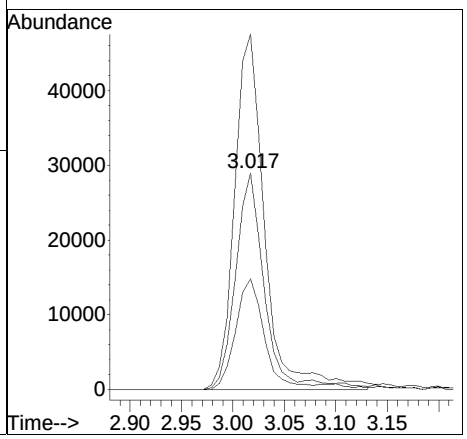


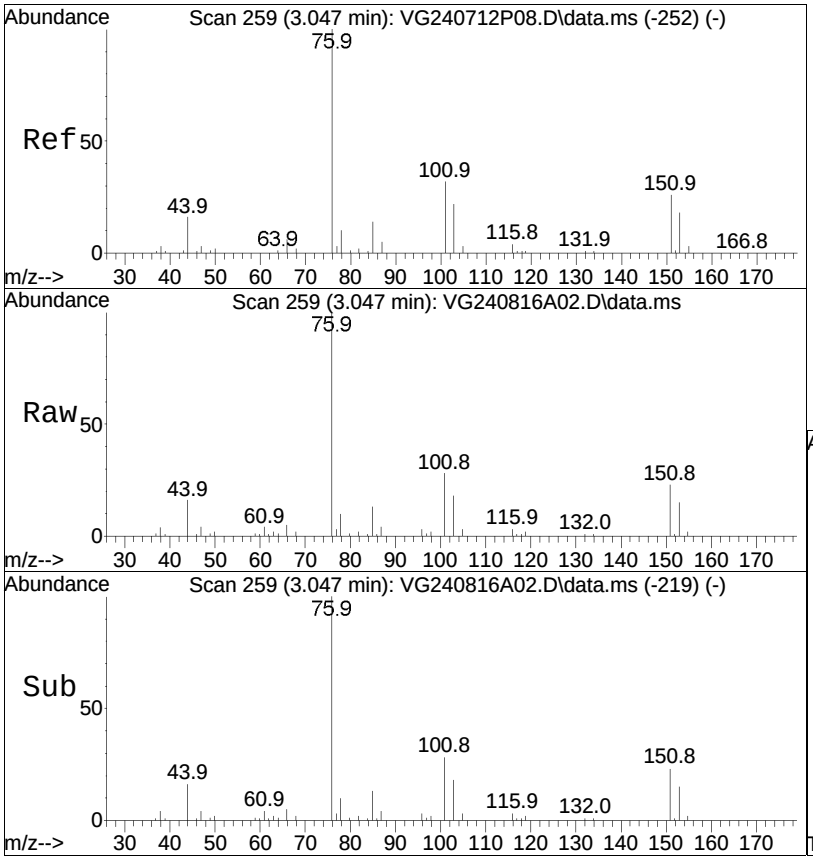


#10
1,1-Dichloroethene
Concen: 8.68 ug/L
RT: 3.017 min Scan# 255
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 96 Resp: 56908

Ion	Ratio	Lower	Upper
96	100		
61	172.8	124.2	186.4
63	50.4	40.0	60.0

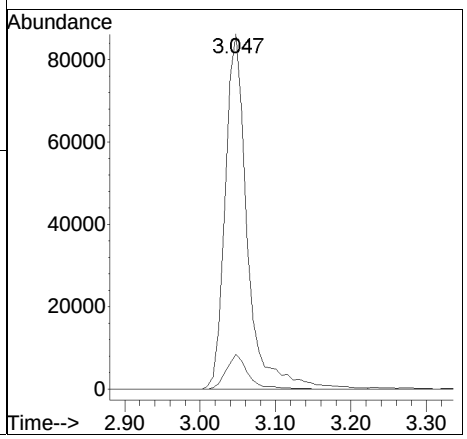


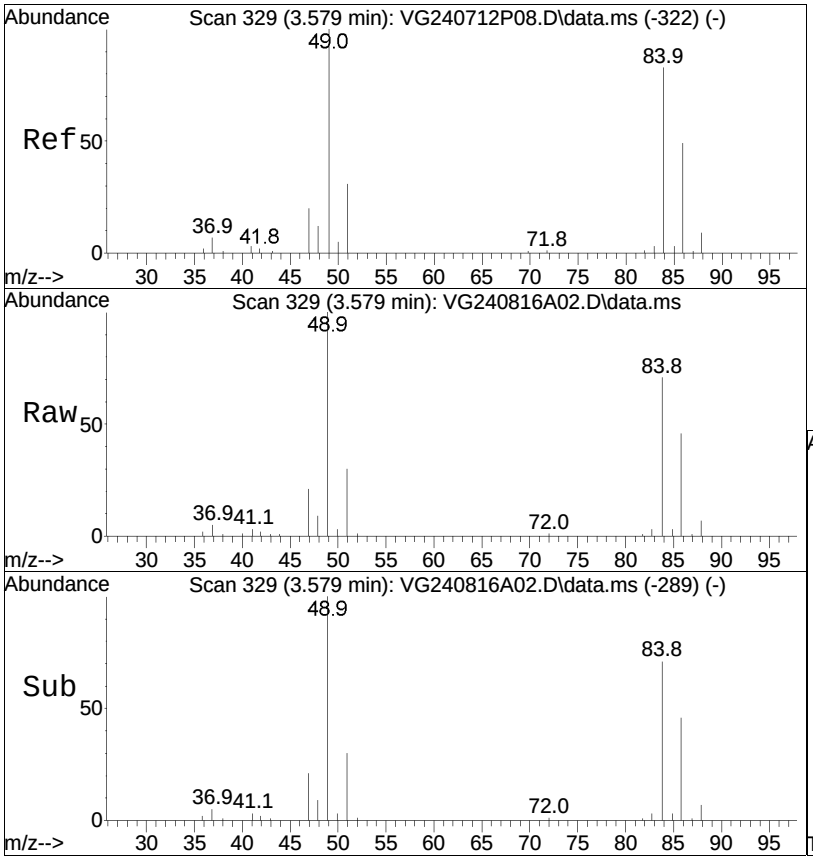


#11
Carbon disulfide
Concen: 9.21 ug/L
RT: 3.047 min Scan# 259
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 76 Resp: 177573

Ion	Ratio	Lower	Upper
76	100		
78	9.9	6.6	13.6

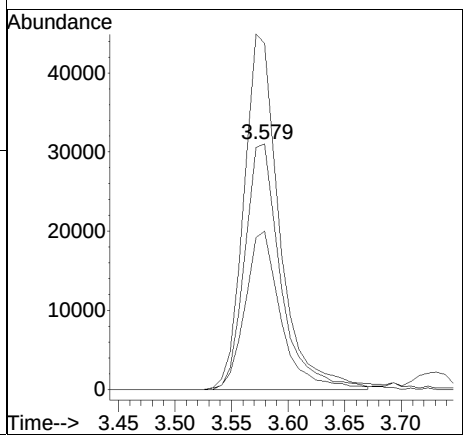


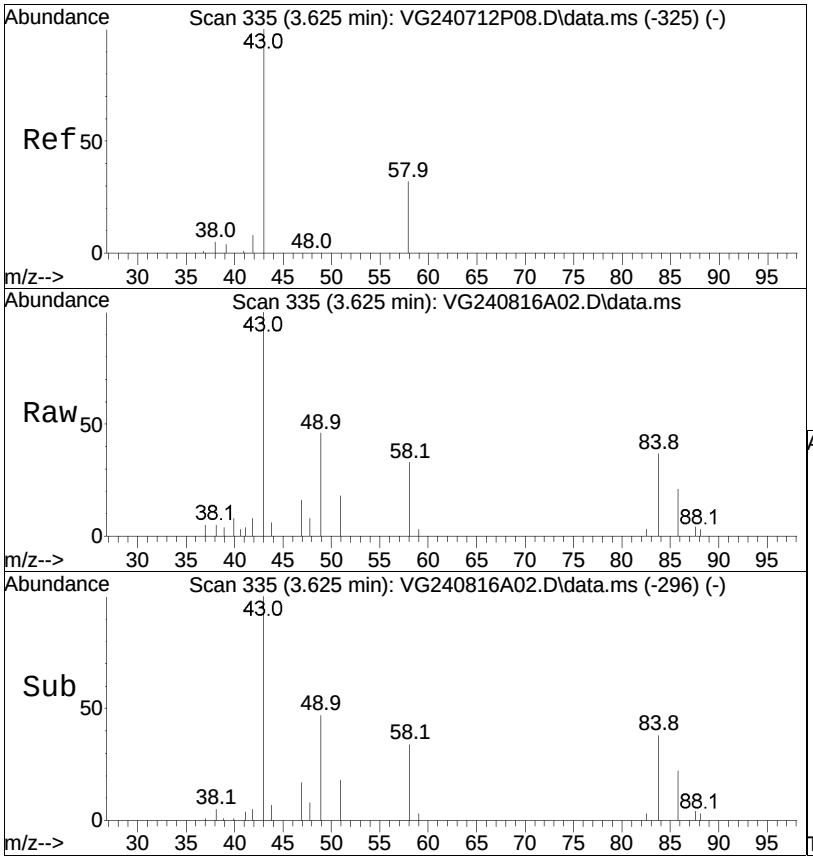


#15
Methylene chloride
Concen: 8.84 ug/L
RT: 3.579 min Scan# 329
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 84 Resp: 68565

Ion	Ratio	Lower	Upper
84	100		
86	65.2	41.1	85.5
49	144.4	76.2	158.2

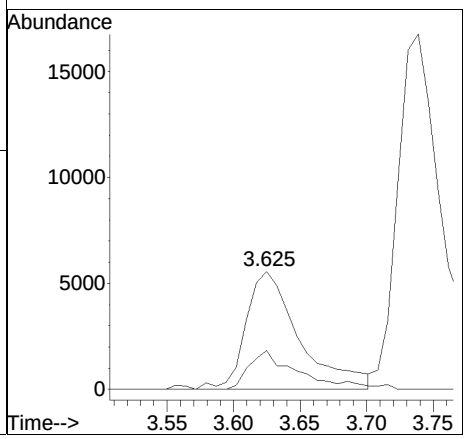


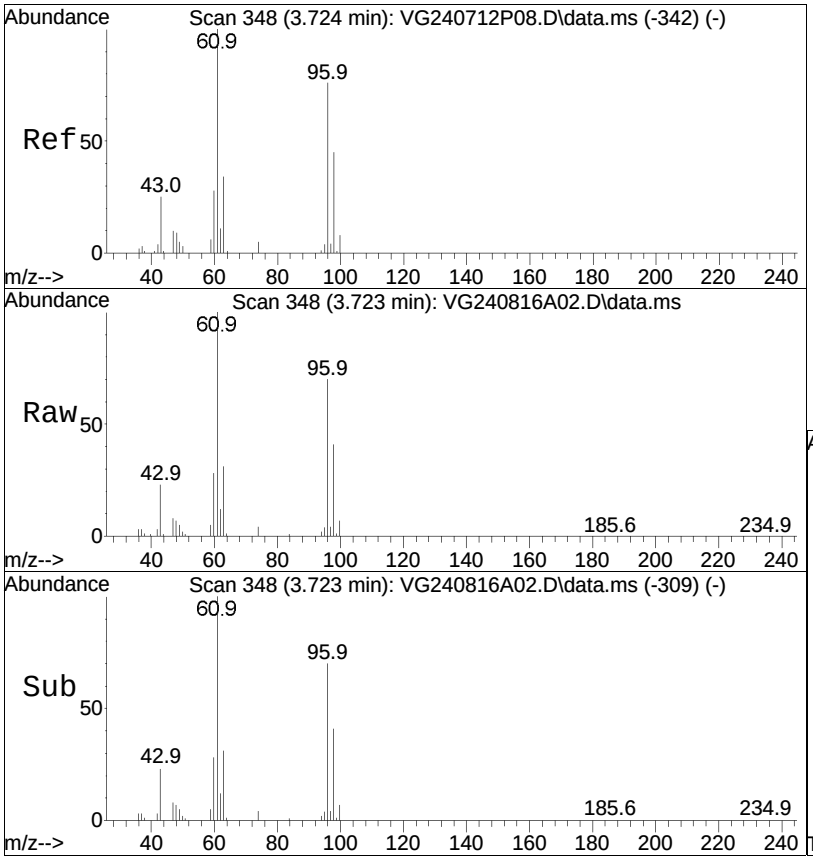


#17
Acetone
Concen: 8.46 ug/L
RT: 3.625 min Scan# 335
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 43 Resp: 15647

Ion	Ratio	Lower	Upper
43	100		
58	31.0	22.2	33.4

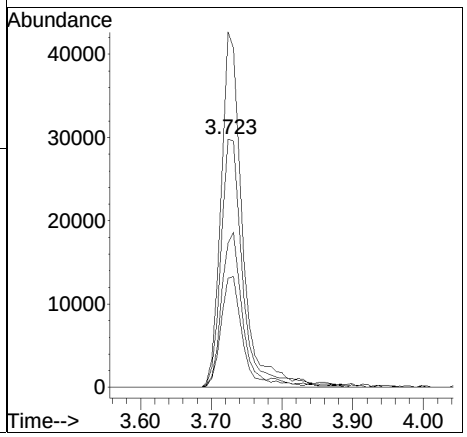


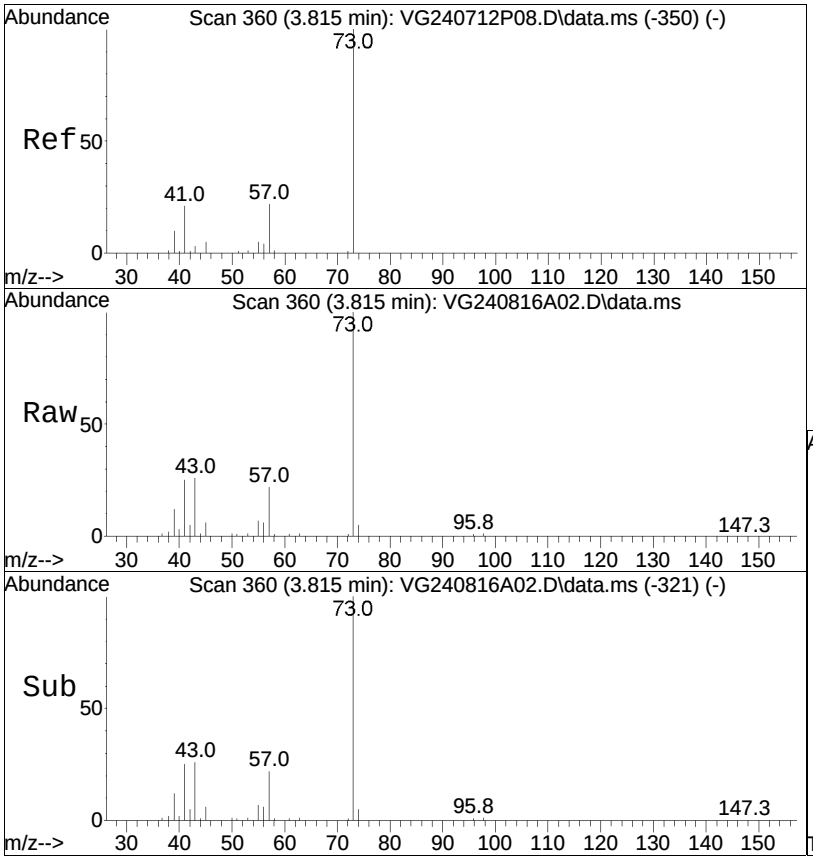


#18
trans-1,2-Dichloroethene
Concen: 9.19 ug/L
RT: 3.723 min Scan# 348
Delta R.T. -0.001 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 96 Resp: 65968

Ion	Ratio	Lower	Upper
96	100		
61	137.0	85.7	178.1
98	60.8	40.2	83.4
63	43.7	28.0	58.2

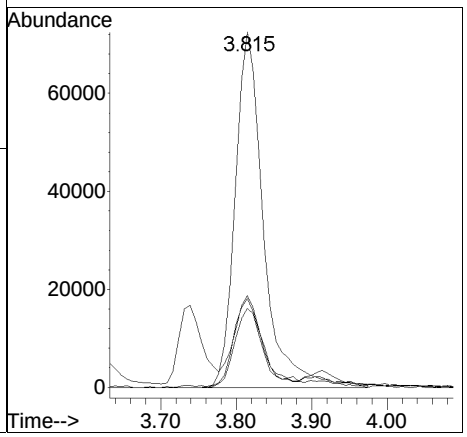


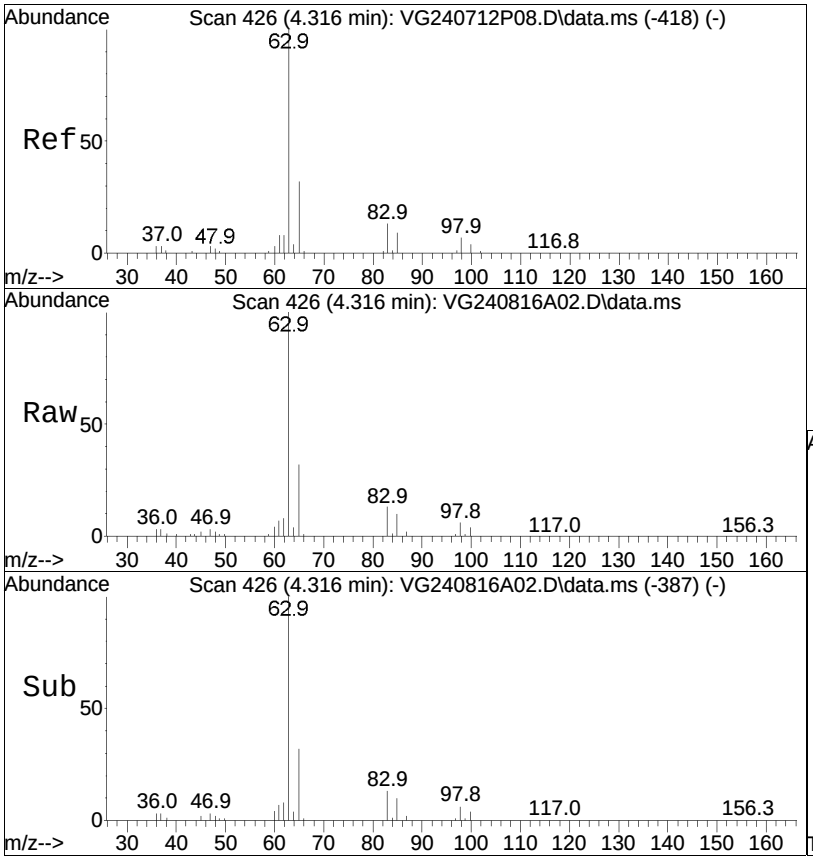


#20
Methyl tert-butyl ether
Concen: 8.61 ug/L
RT: 3.815 min Scan# 360
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 73 Resp: 190023

Ion	Ratio	Lower	Upper
73	100		
57	22.4	12.5	26.1
43	25.7	13.0	27.0
41	25.1	12.5	26.1

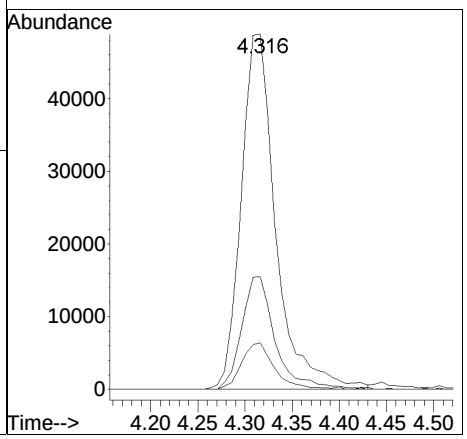


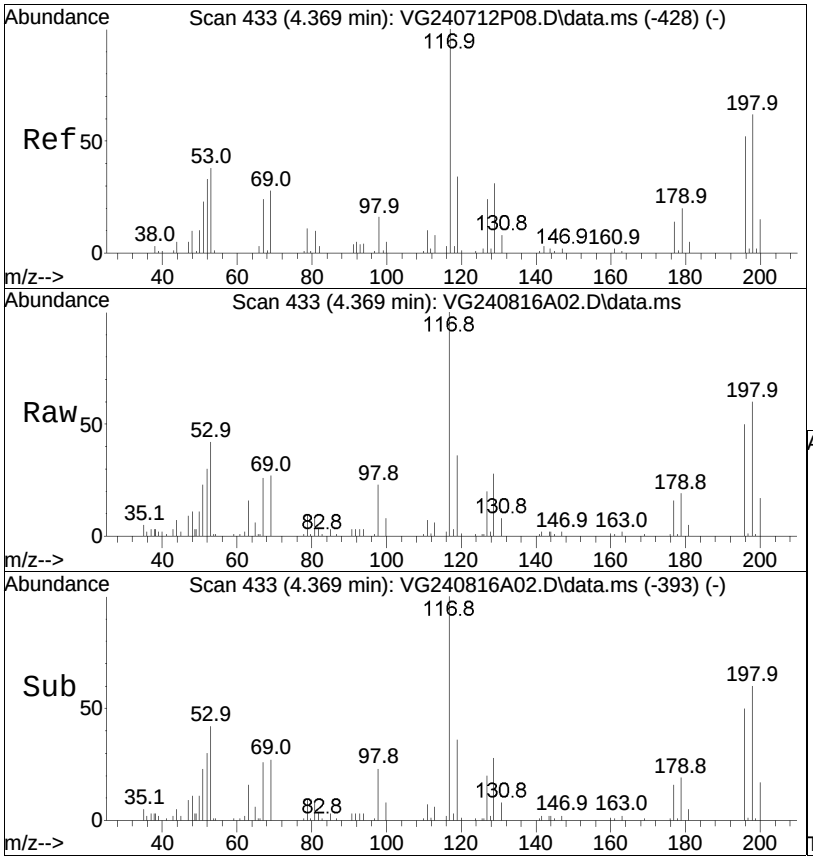


#23
1,1-Dichloroethane
Concen: 9.62 ug/L
RT: 4.316 min Scan# 426
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 63 Resp: 124978

Ion	Ratio	Lower	Upper
63	100		
65	30.9	10.4	50.4
83	12.6	0.0	33.2

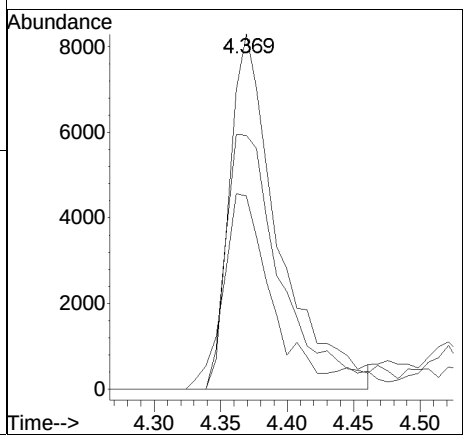


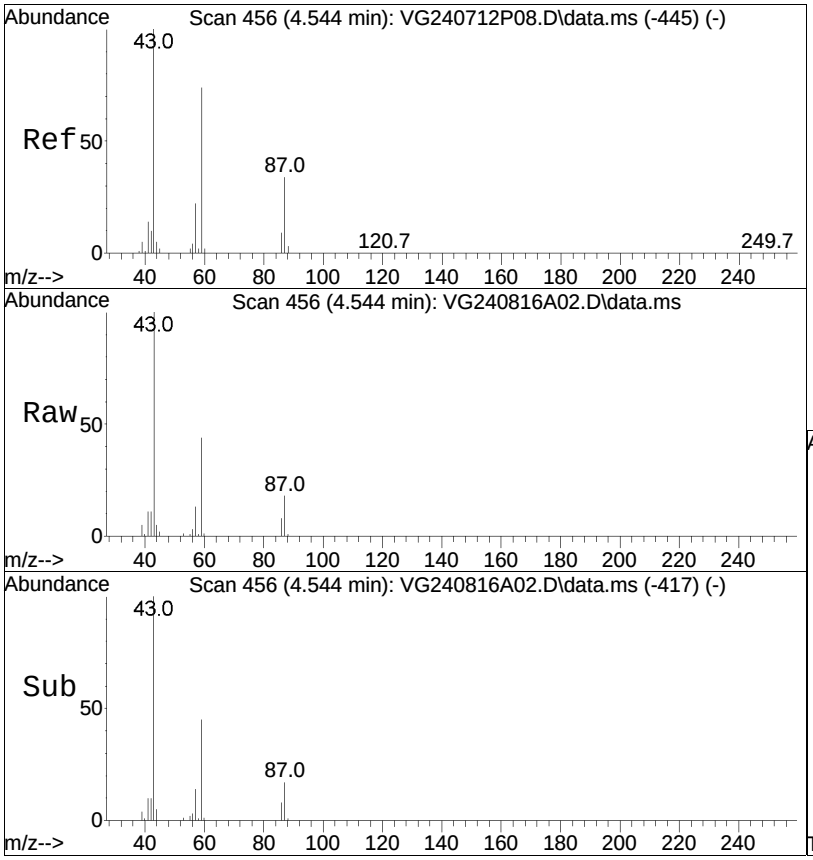


#25
Acrylonitrile
Concen: 10.53 ug/L
RT: 4.369 min Scan# 433
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 53 Resp: 21346

Ion	Ratio	Lower	Upper
53	100		
52	79.3	68.3	102.5
51	53.6	51.9	77.9

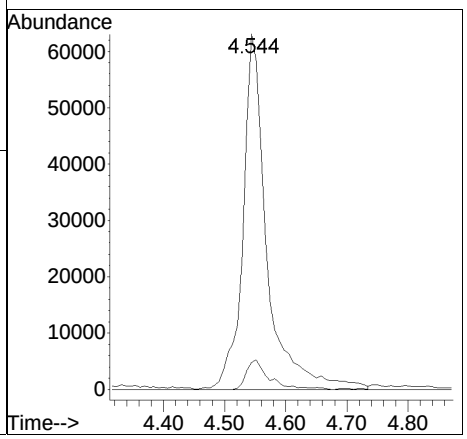


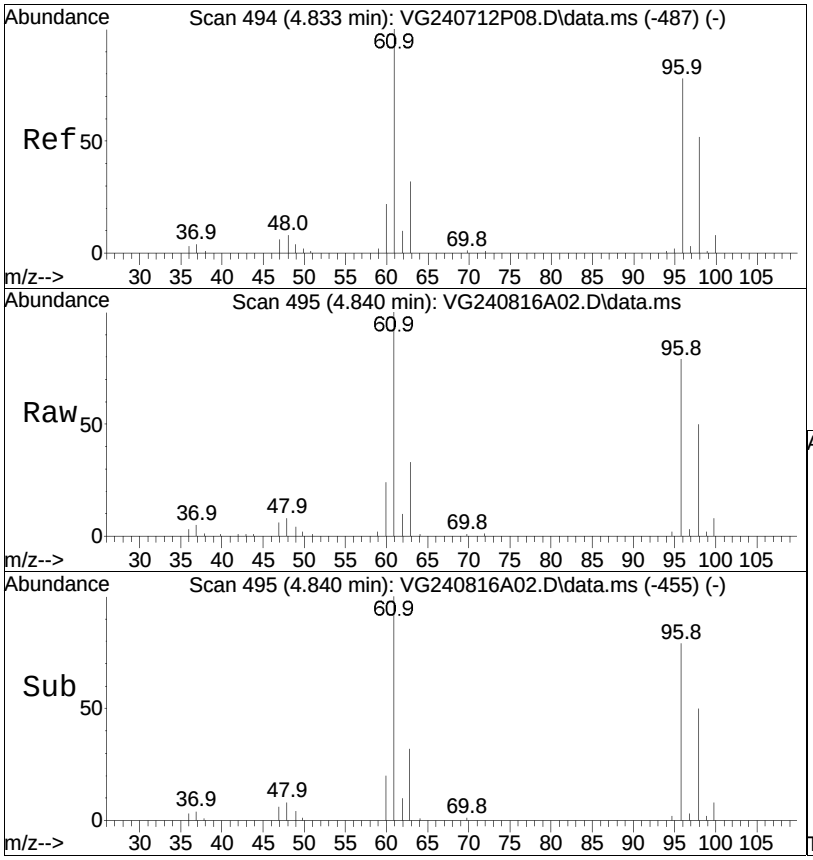


#27
Vinyl acetate
Concen: 14.36 ug/L
RT: 4.544 min Scan# 456
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 43 Resp: 172894

Ion	Ratio	Lower	Upper
43	100		
86	7.6	6.3	9.5

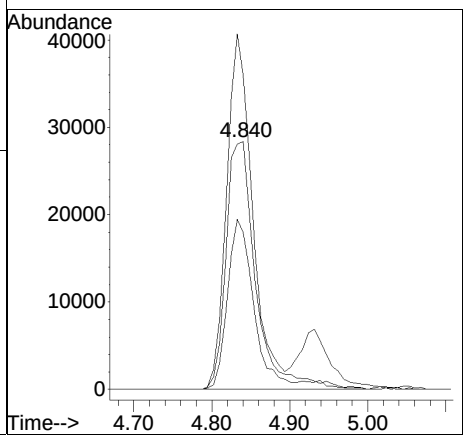


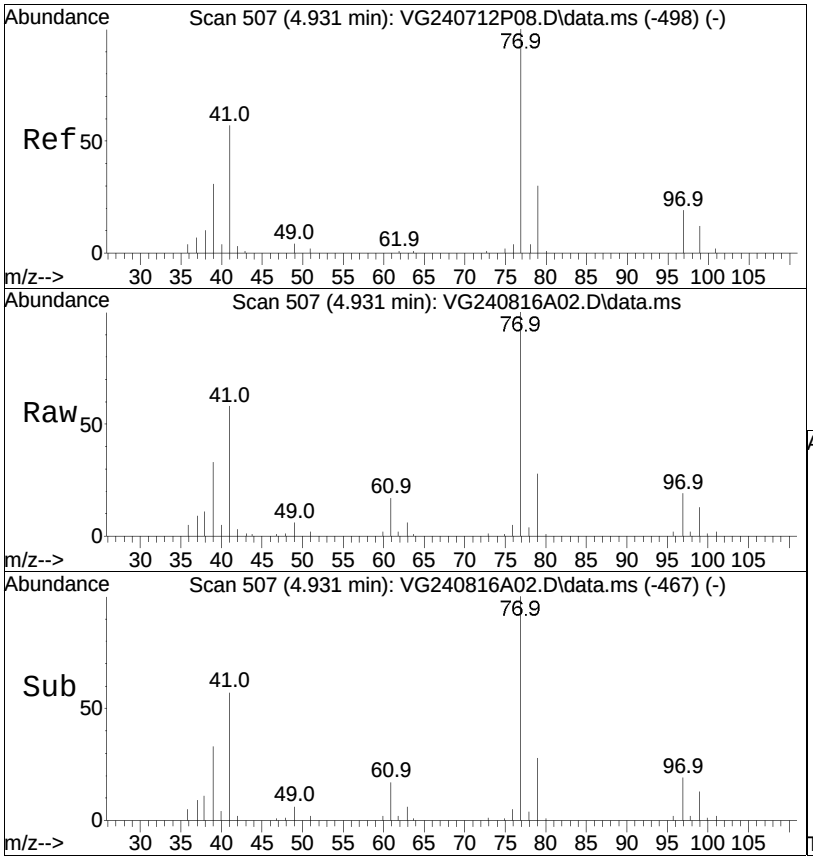


#28
cis-1,2-Dichloroethene
Concen: 9.17 ug/L
RT: 4.840 min Scan# 495
Delta R.T. 0.007 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 96 Resp: 75651

Ion	Ratio	Lower	Upper
96	100		
61	123.8	96.6	144.8
98	60.5	51.3	76.9

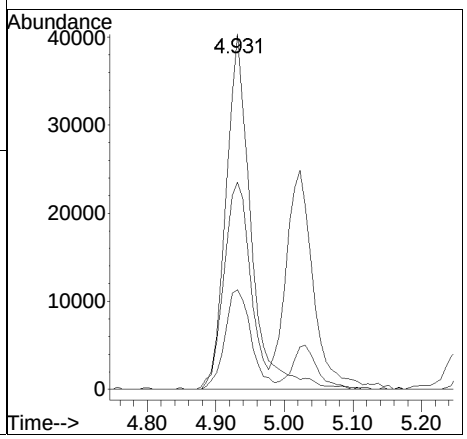


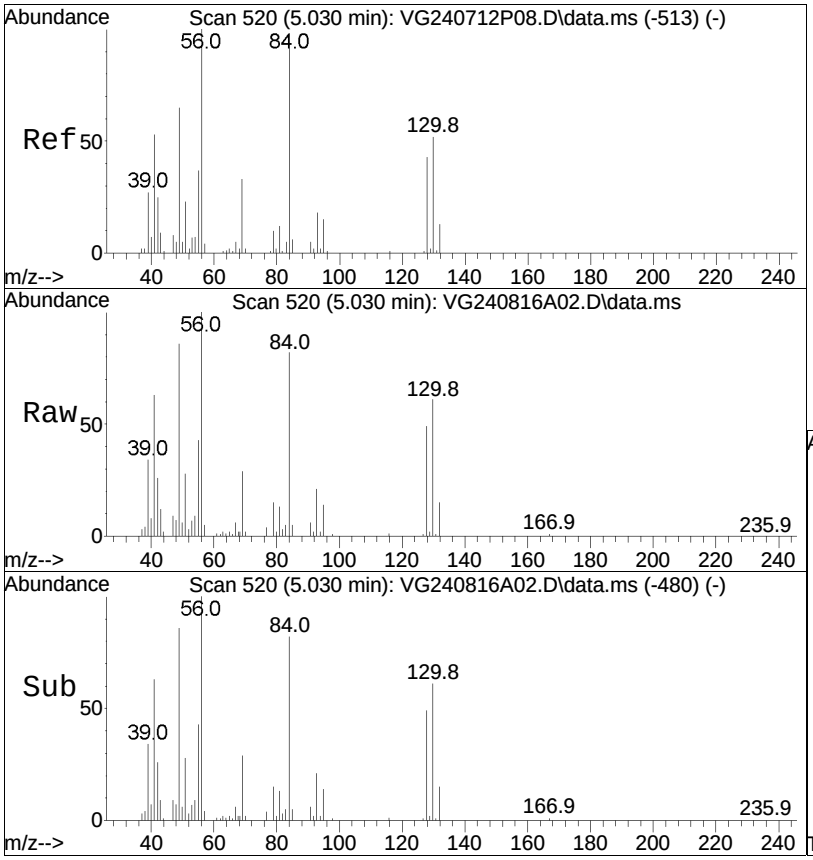


#29
2,2-Dichloropropane
Concen: 9.47 ug/L
RT: 4.931 min Scan# 507
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 77 Resp: 102644

Ion	Ratio	Lower	Upper
77	100		
41	61.9	38.1	79.1
79	29.5	20.6	42.8

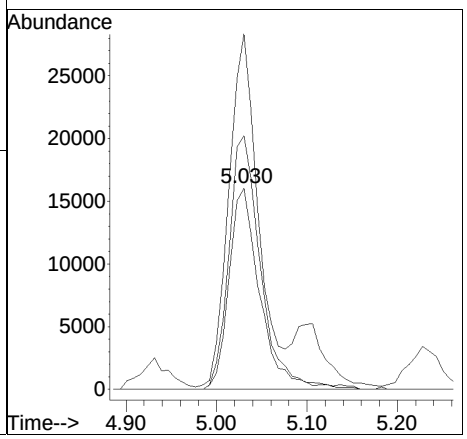


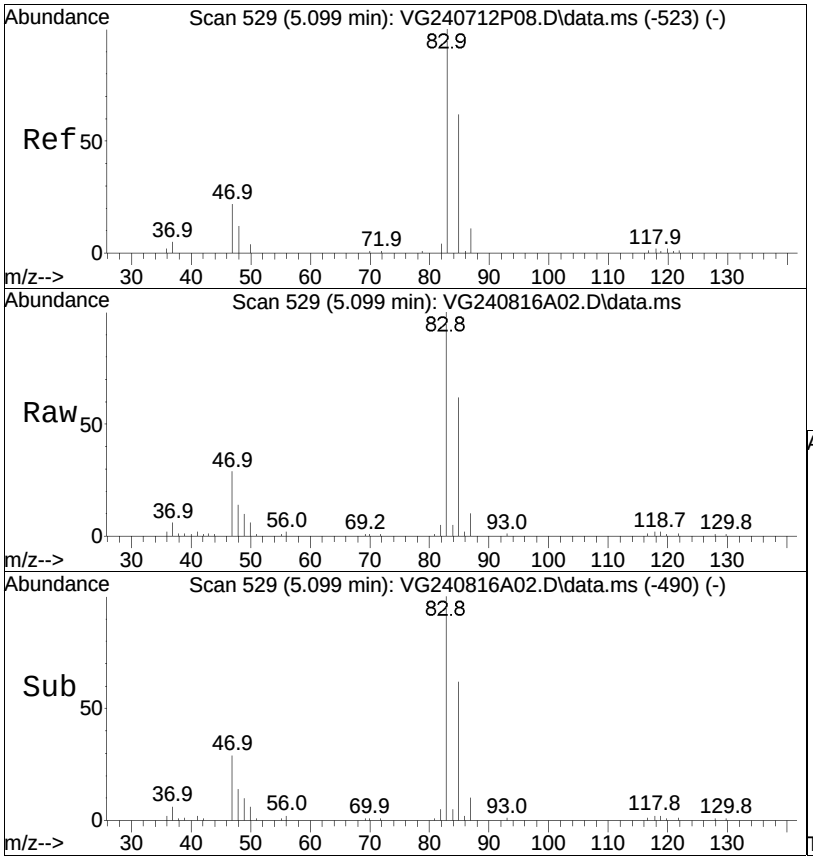


#30
Bromochloromethane
Concen: 9.46 ug/L
RT: 5.030 min Scan# 520
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:128 Resp: 38171

Ion	Ratio	Lower	Upper
128	100		
49	166.2	112.7	169.1
130	129.4	103.3	154.9

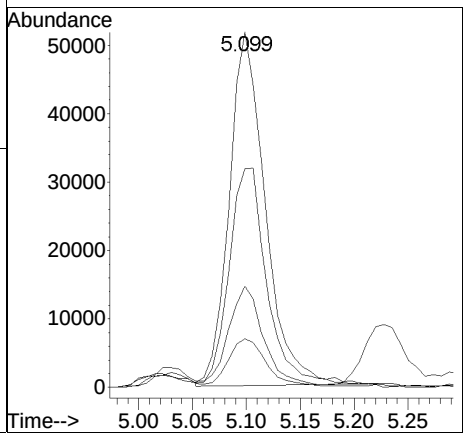


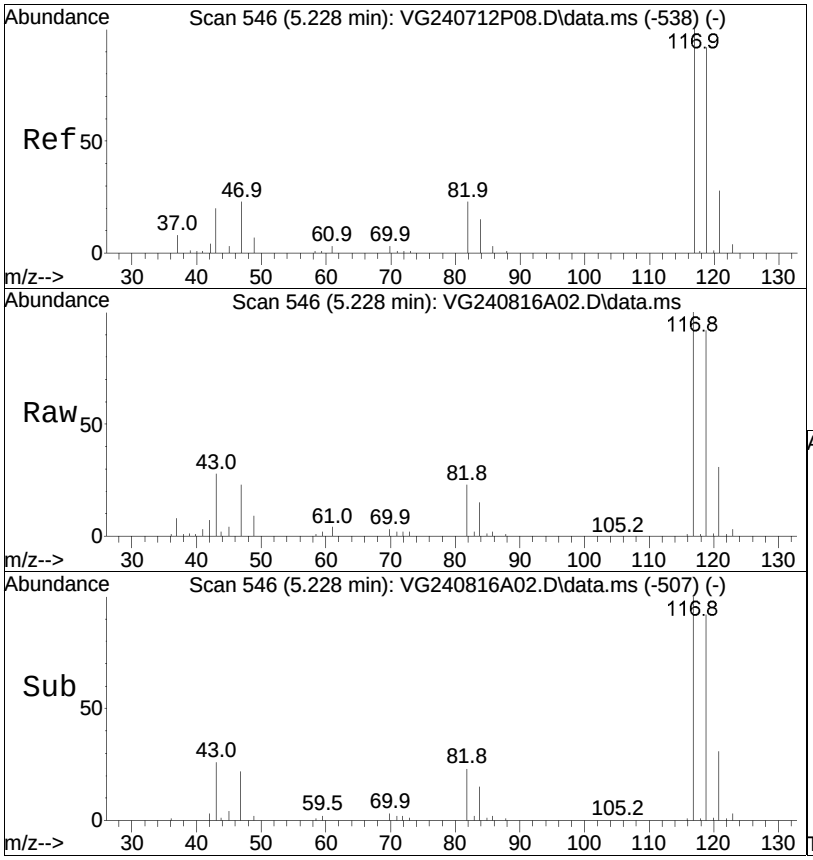


#32
Chloroform
Concen: 9.06 ug/L
RT: 5.099 min Scan# 529
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 83 Resp: 120591

Ion	Ratio	Lower	Upper
83	100		
85	66.0	41.4	86.0
47	26.1	15.1	31.3
48	14.6	7.7	16.1

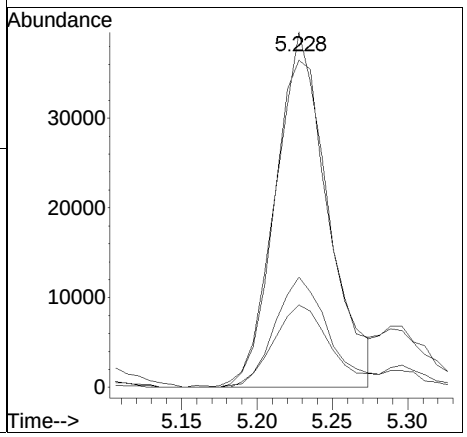


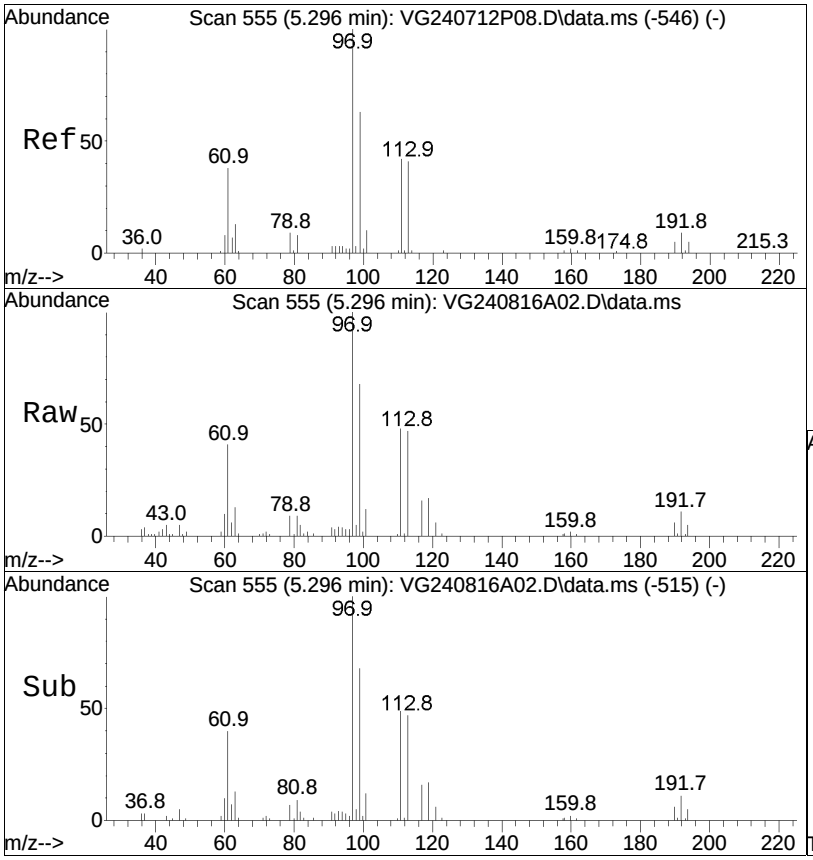


#34
Carbon tetrachloride
Concen: 8.90 ug/L
RT: 5.228 min Scan# 546
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:117 Resp: 95935

Ion	Ratio	Lower	Upper
117	100		
119	97.9	63.2	131.2
121	32.2	20.4	42.4
82	25.8	15.4	32.0

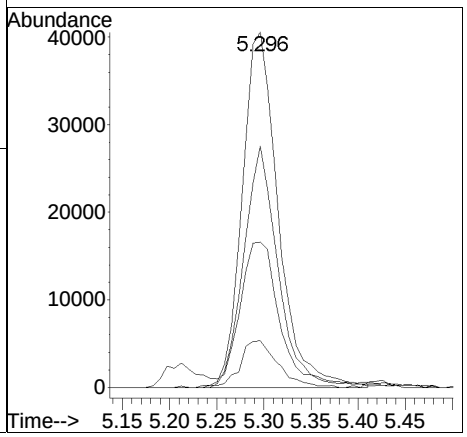


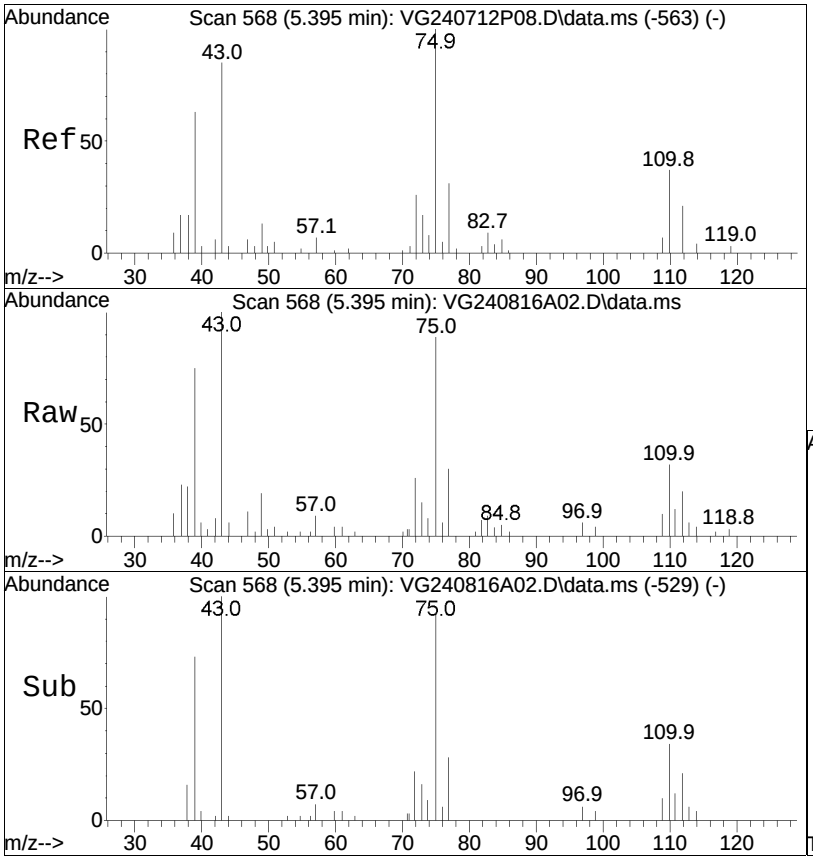


#37
1,1,1-Trichloroethane
Concen: 8.81 ug/L
RT: 5.296 min Scan# 555
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 97 Resp: 108048

Ion	Ratio	Lower	Upper
97	100		
99	65.1	41.3	85.7
61	44.8	26.0	54.0
63	13.9	8.6	18.0

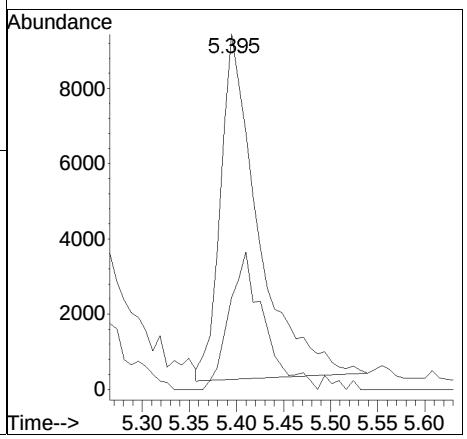


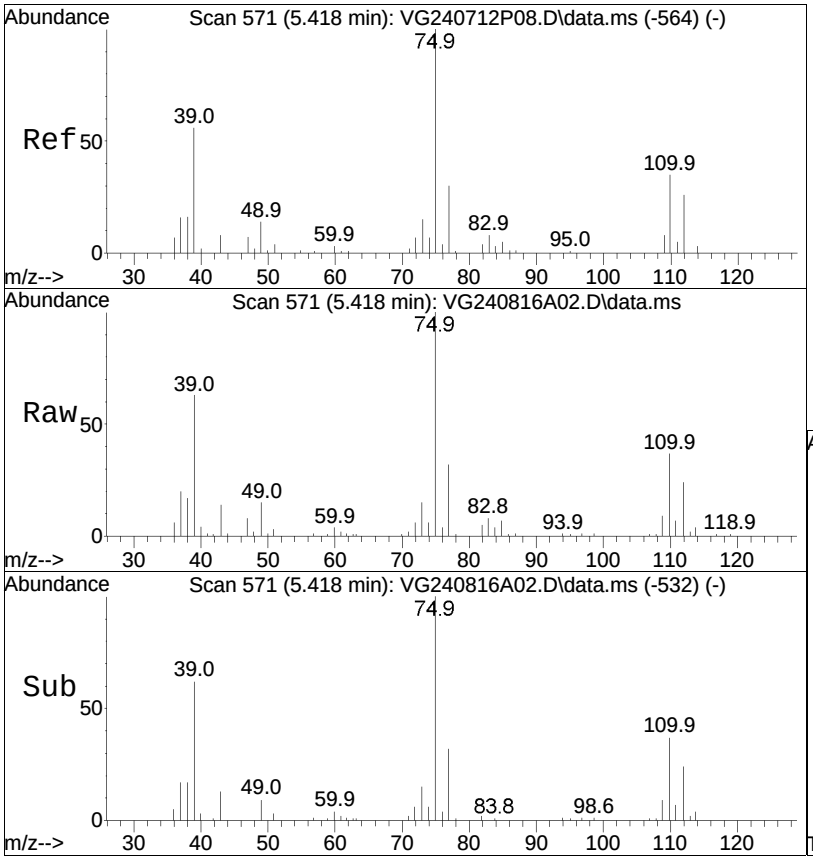


#39
2-Butanone
Concen: 10.19 ug/L
RT: 5.395 min Scan# 568
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 43 Resp: 25627

Ion	Ratio	Lower	Upper
43	100		
72	36.6	42.6	63.8#

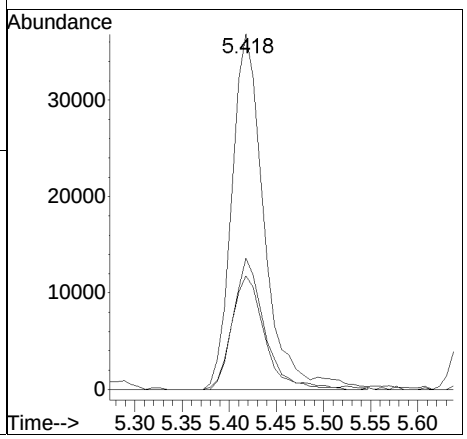


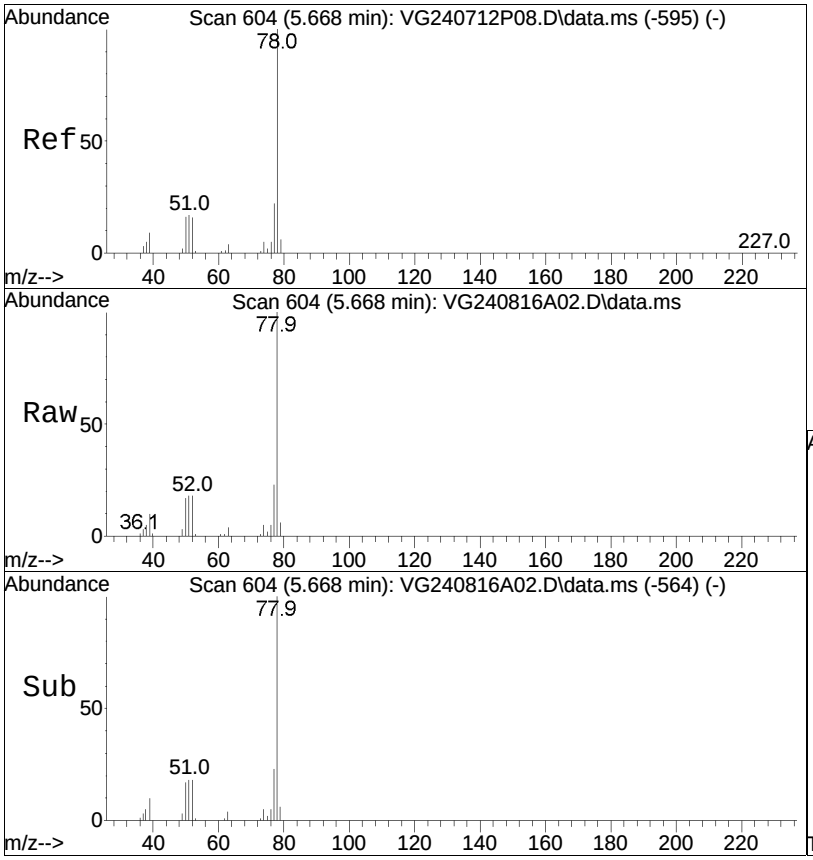


#40
1,1-Dichloropropene
Concen: 9.01 ug/L
RT: 5.418 min Scan# 571
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 75 Resp: 88410

Ion	Ratio	Lower	Upper
75	100		
110	35.7	24.1	50.1
77	31.9	19.8	41.0

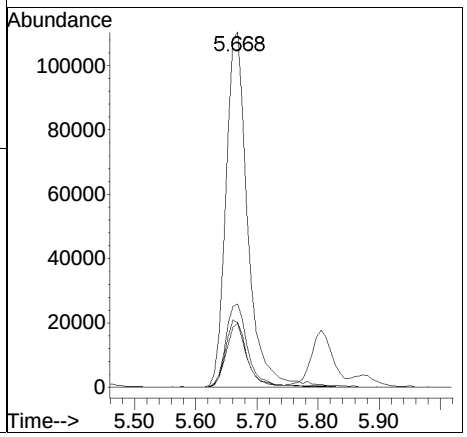


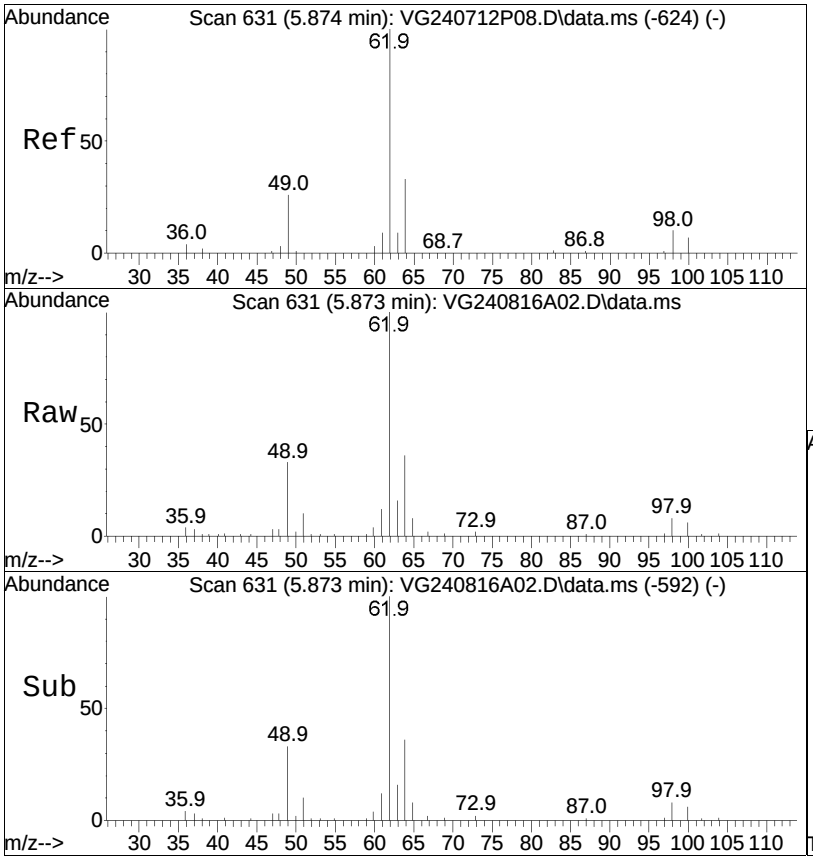


#41
Benzene
Concen: 9.29 ug/L
RT: 5.668 min Scan# 604
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 78 Resp: 275884

Ion	Ratio	Lower	Upper
78	100		
77	24.0	15.5	32.1
51	18.5	9.9	20.7
52	17.6	9.2	19.2

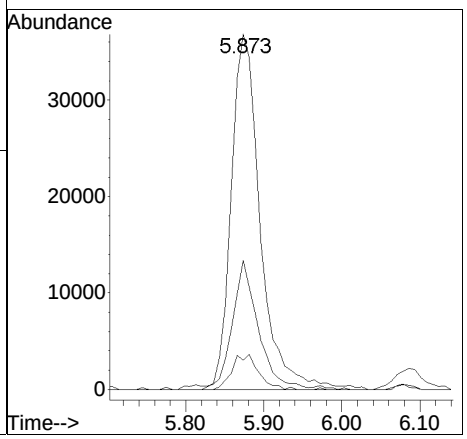


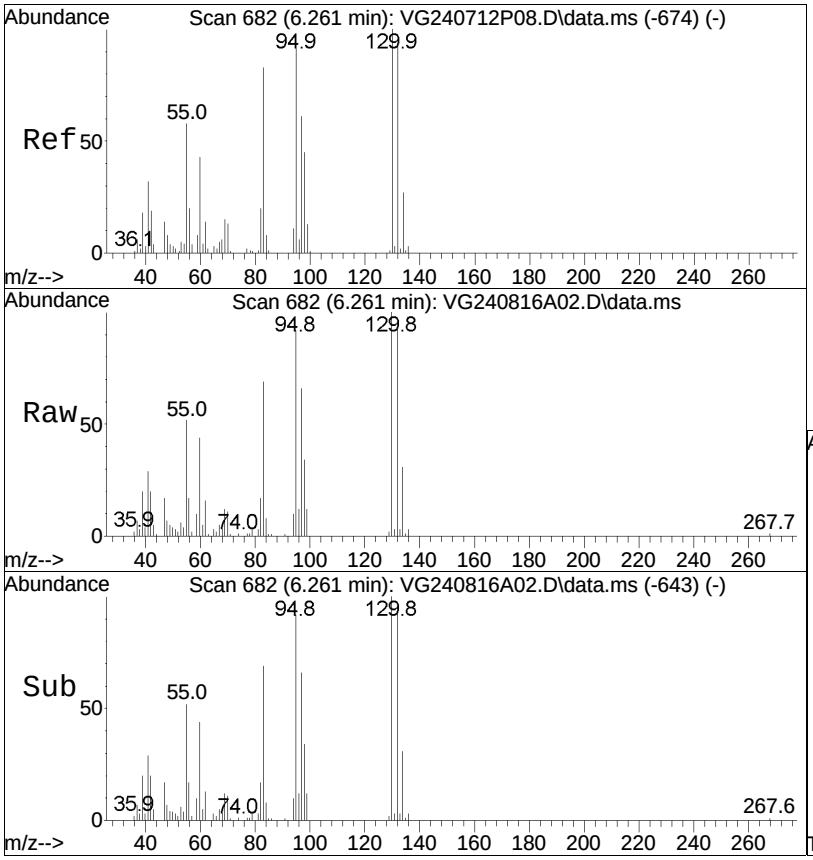


#44
1,2-Dichloroethane
Concen: 10.09 ug/L
RT: 5.873 min Scan# 631
Delta R.T. -0.001 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 62 Resp: 95483

Ion	Ratio	Lower	Upper
62	100		
64	31.1	11.9	51.9
98	8.9	0.0	29.3

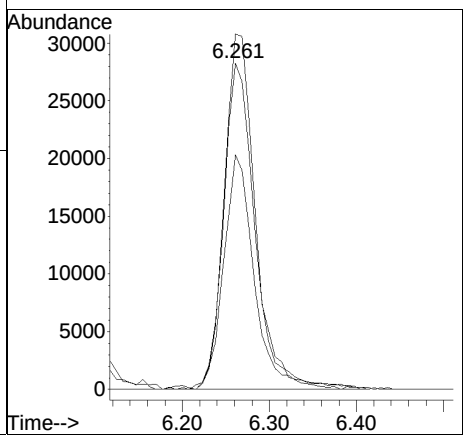


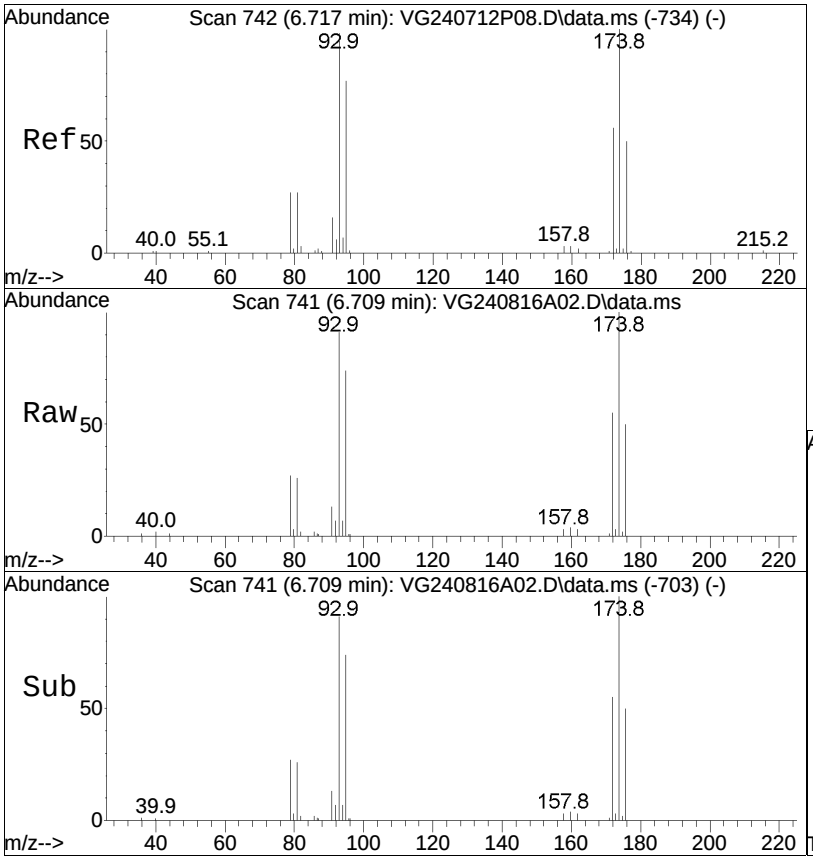


#48
Trichloroethene
Concen: 8.52 ug/L
RT: 6.261 min Scan# 682
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 95 Resp: 71394

Ion	Ratio	Lower	Upper
95	100		
97	70.0	54.0	81.0
130	108.8	85.0	127.4

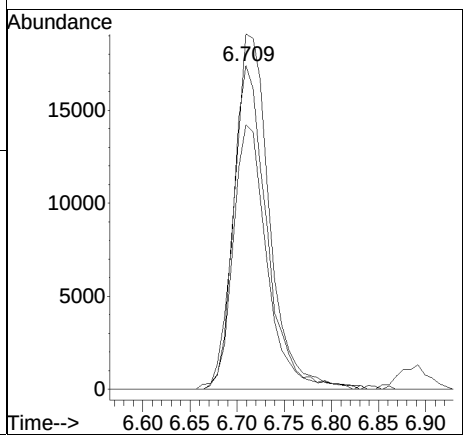


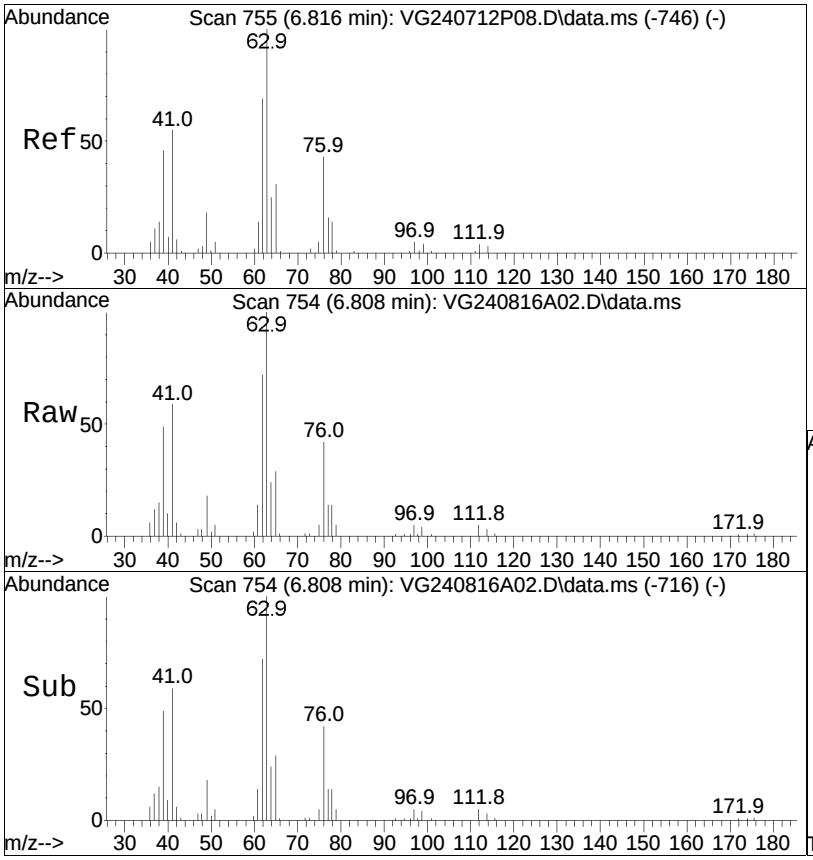


#50
Dibromomethane
Concen: 9.29 ug/L
RT: 6.709 min Scan# 741
Delta R.T. -0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 93 Resp: 43514

Ion	Ratio	Lower	Upper
93	100		
95	82.3	66.6	100.0
174	112.6	90.5	135.7

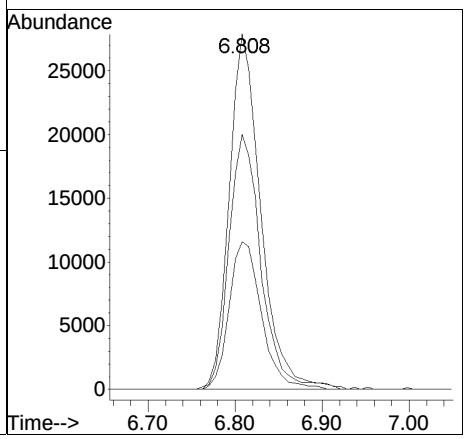


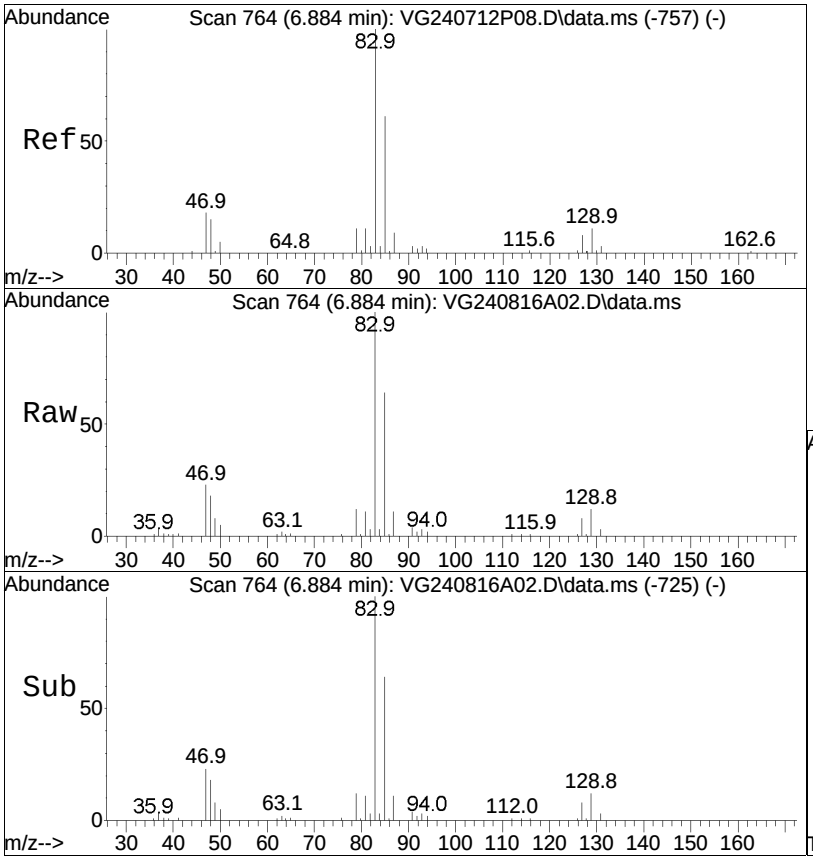


#51
1,2-Dichloropropane
Concen: 9.72 ug/L
RT: 6.808 min Scan# 754
Delta R.T. -0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 63 Resp: 70452

Ion	Ratio	Lower	Upper
63	100		
62	73.0	56.5	84.7
76	42.8	34.6	52.0

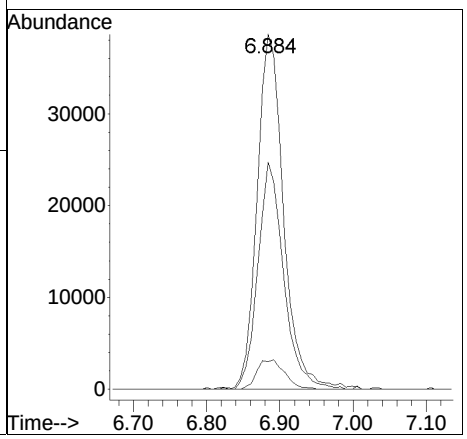


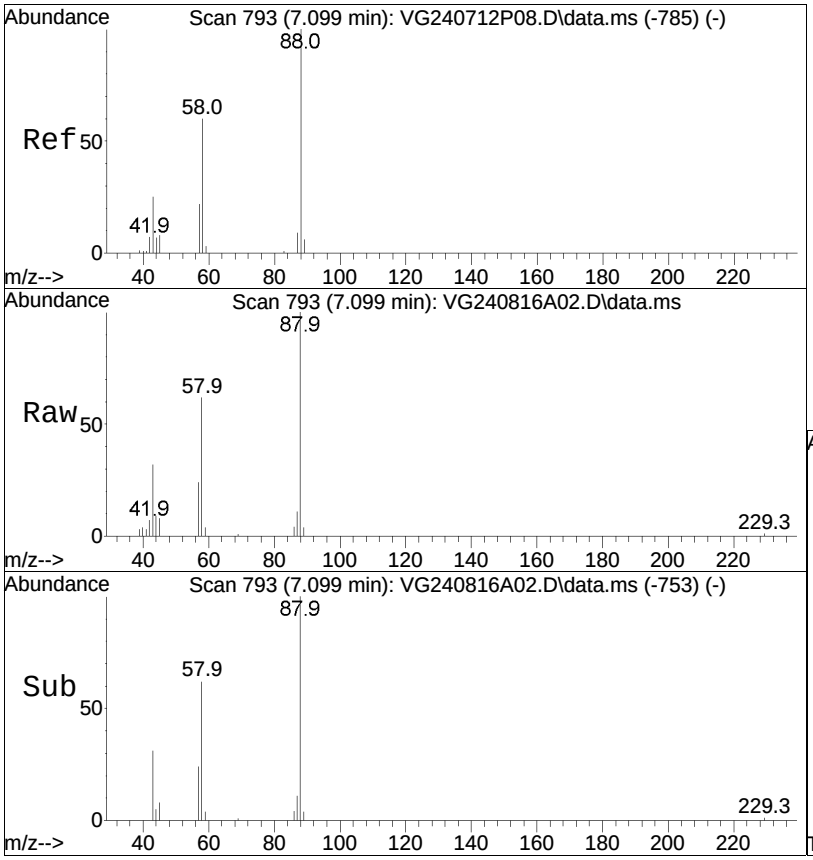


#54
Bromodichloromethane
Concen: 9.20 ug/L
RT: 6.884 min Scan# 764
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 83 Resp: 97284

Ion	Ratio	Lower	Upper
83	100		
85	62.5	50.8	76.2
127	8.8	7.4	11.2

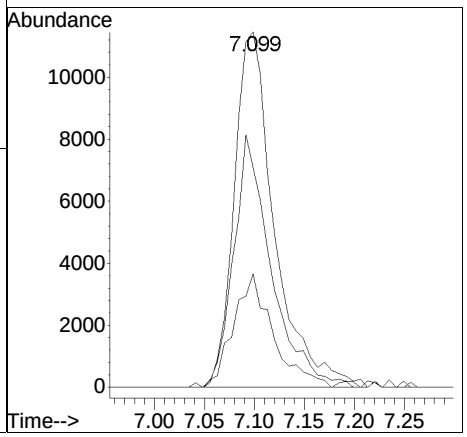


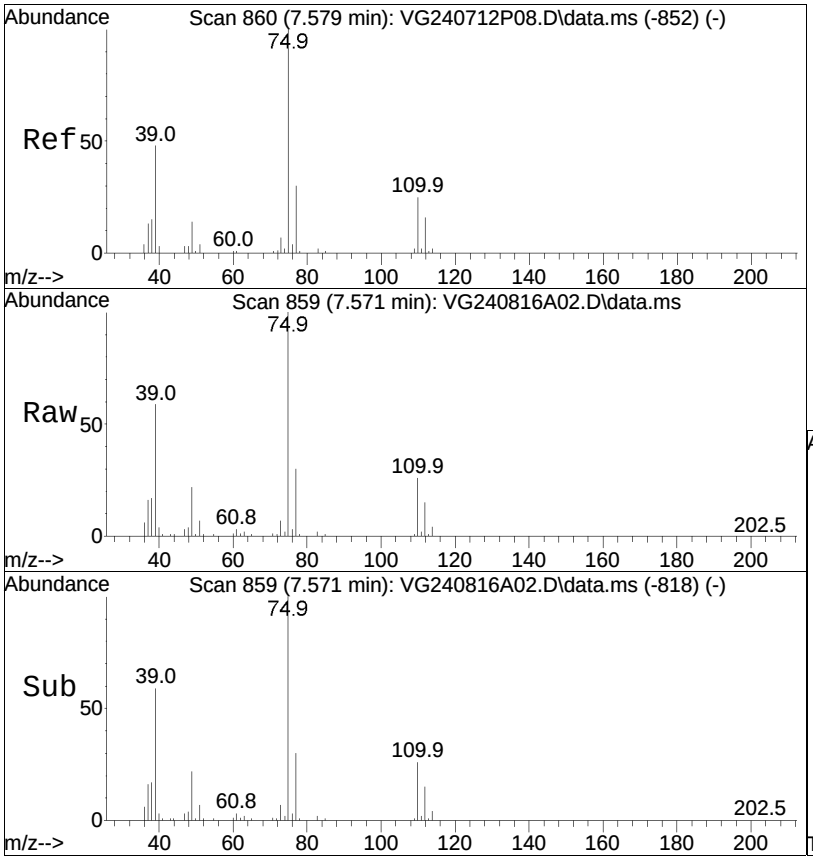


#57
1,4-Dioxane
Concen: 435.53 ug/L
RT: 7.099 min Scan# 793
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 88 Resp: 32109

Ion	Ratio	Lower	Upper
88	100		
58	66.4	48.7	73.1
43	31.6	22.4	33.6

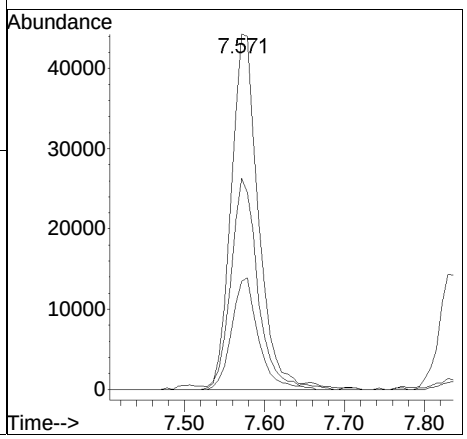


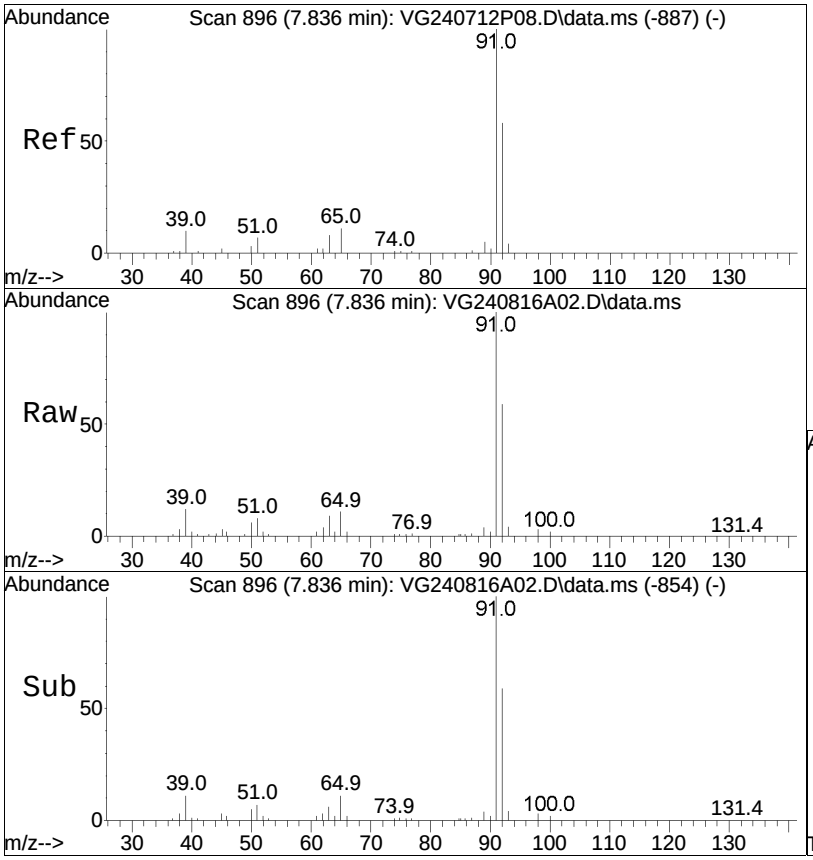


#58
cis-1,3-Dichloropropene
Concen: 8.94 ug/L
RT: 7.571 min Scan# 859
Delta R.T. -0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 75 Resp: 105819

Ion	Ratio	Lower	Upper
75	100		
77	30.4	24.6	36.8
39	58.4	40.8	61.2

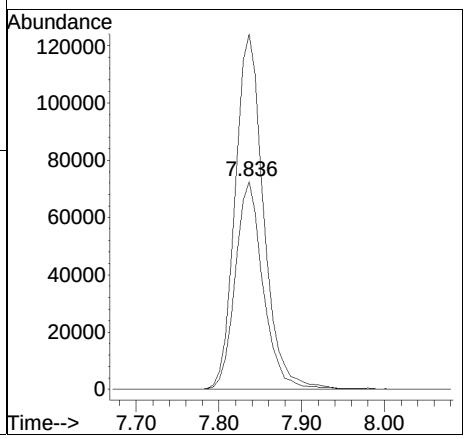


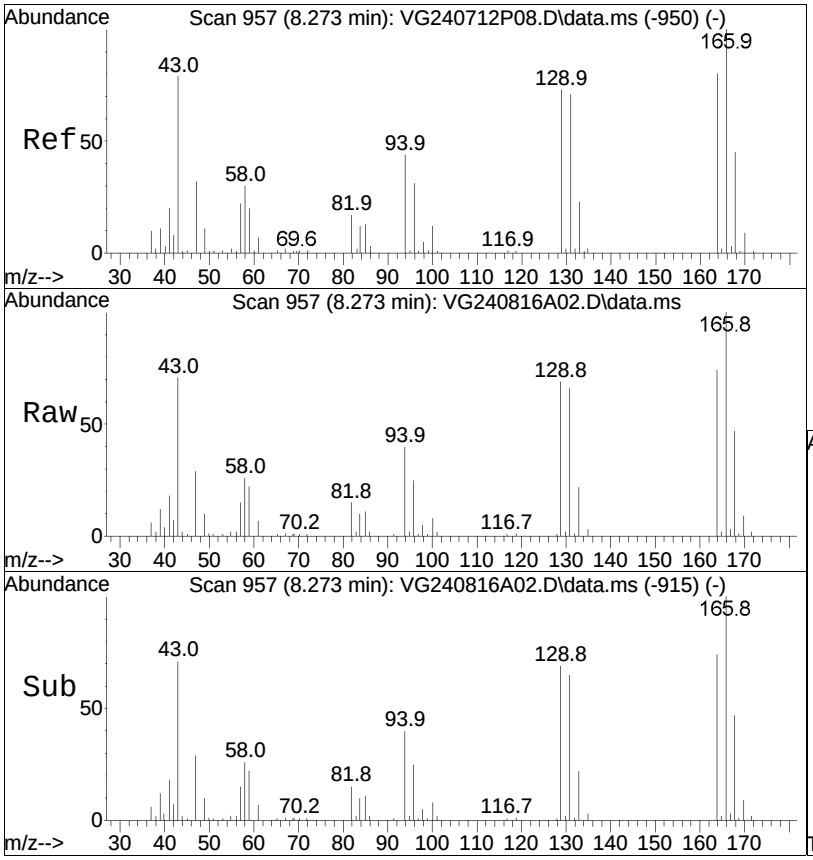


#61
Toluene
Concen: 9.14 ug/L
RT: 7.836 min Scan# 896
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 92 Resp: 170438

Ion	Ratio	Lower	Upper
92	100		
91	173.7	134.8	202.2

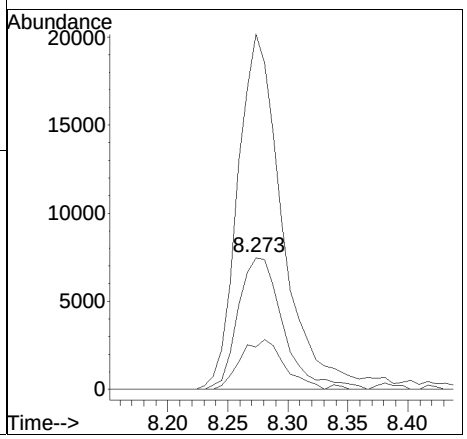


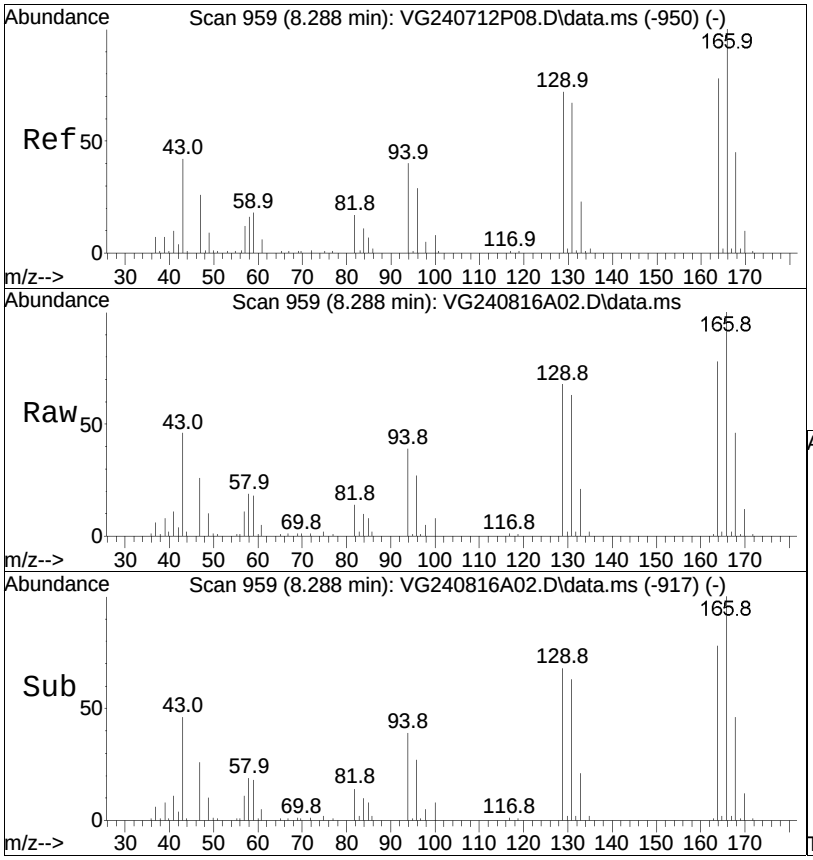


#62
4-Methyl-2-pentanone
Concen: 9.53 ug/L
RT: 8.273 min Scan# 957
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 58 Resp: 19595

Ion	Ratio	Lower	Upper
58	100		
100	36.8	33.6	50.4
43	265.2	204.3	306.5

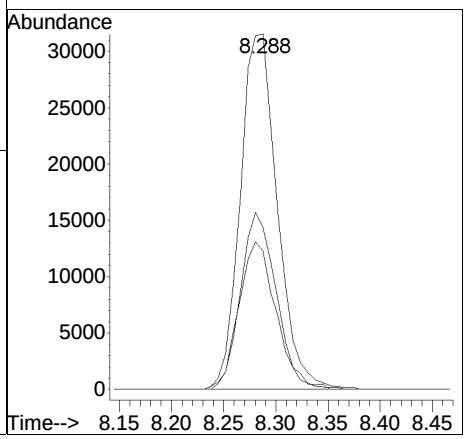


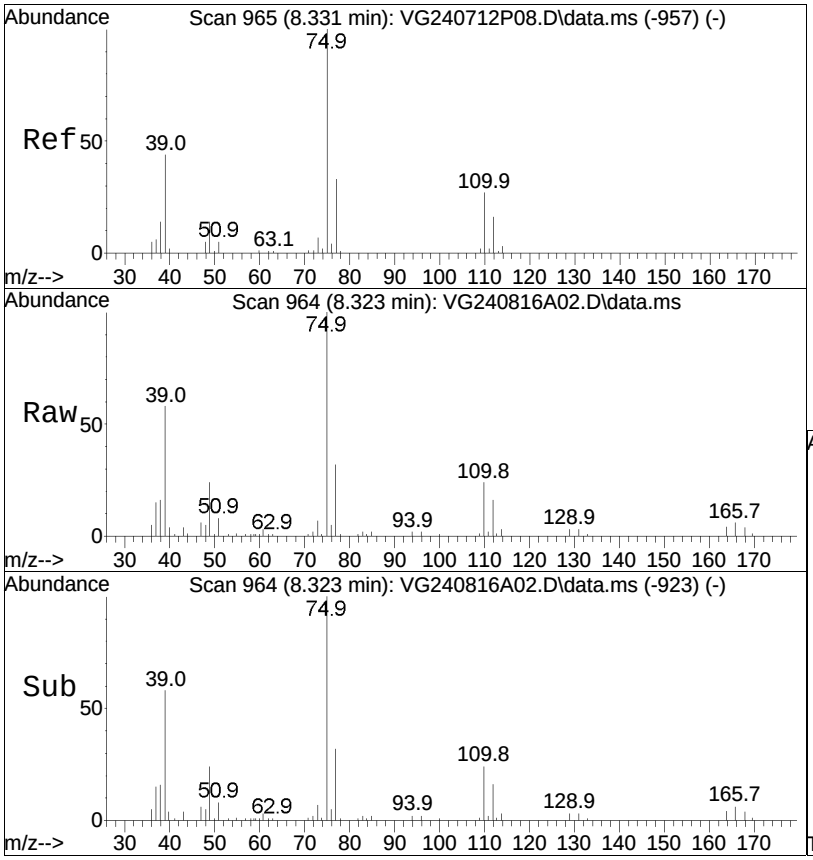


#63
Tetrachloroethene
Concen: 9.53 ug/L
RT: 8.288 min Scan# 959
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:166 Resp: 78033

Ion	Ratio	Lower	Upper
166	100		
168	48.1	27.3	67.3
94	41.5	20.5	60.5

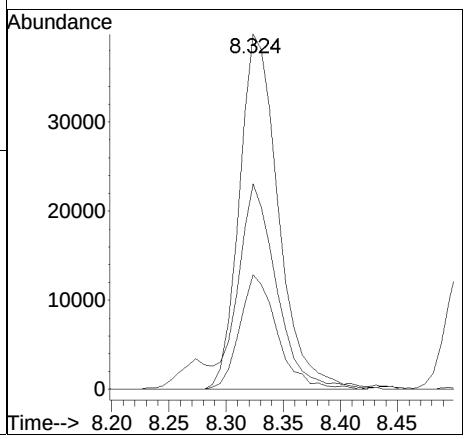


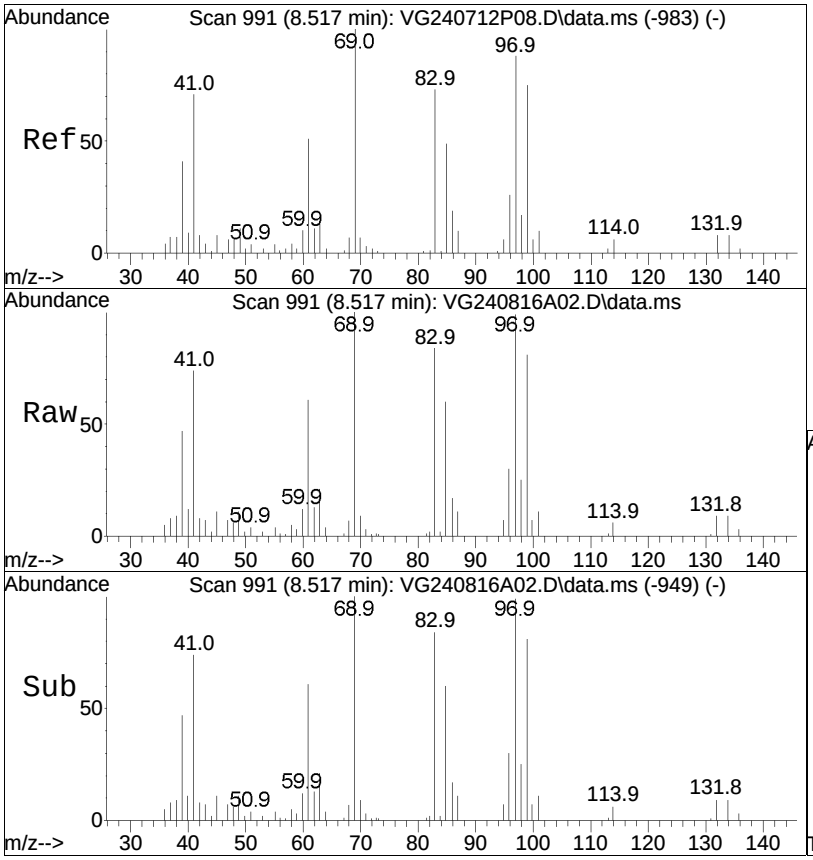


#65
trans-1,3-Dichloropropene
Concen: 9.30 ug/L
RT: 8.323 min Scan# 964
Delta R.T. -0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 75 Resp: 94975

Ion	Ratio	Lower	Upper
75	100		
77	31.1	11.3	51.3
39	55.6	36.0	76.0

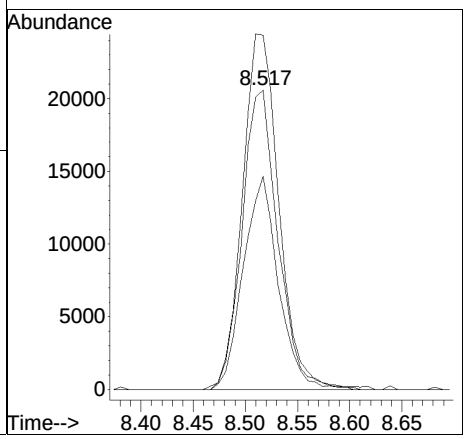


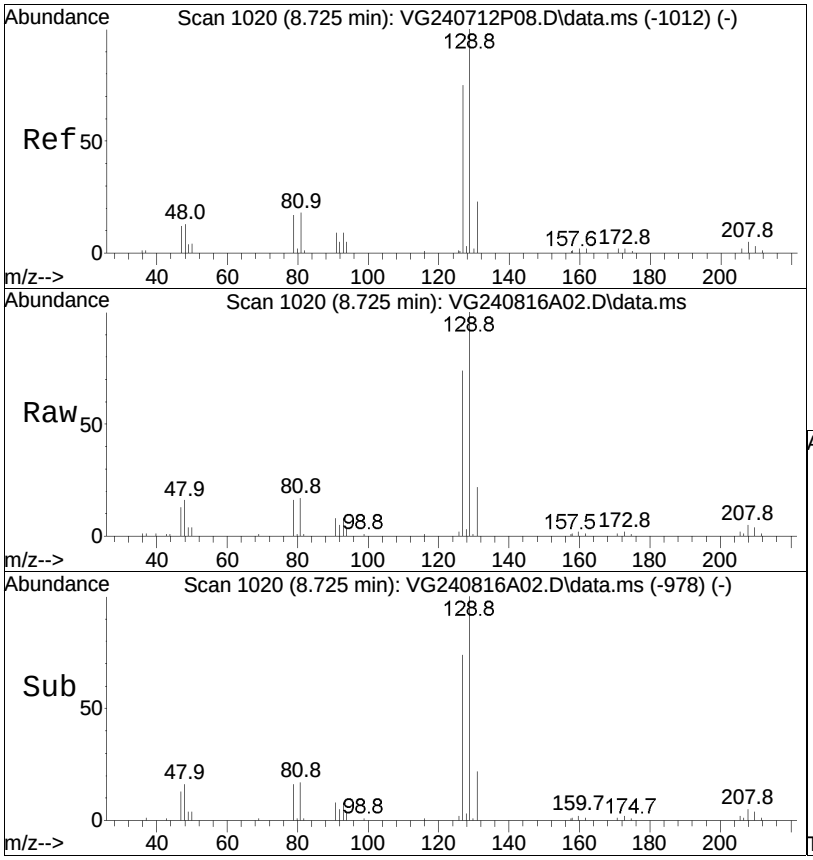


#68
1,1,2-Trichloroethane
Concen: 9.63 ug/L
RT: 8.517 min Scan# 991
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 83 Resp: 49294

Ion	Ratio	Lower	Upper
83	100		
97	120.9	101.0	141.0
85	69.7	47.9	87.9

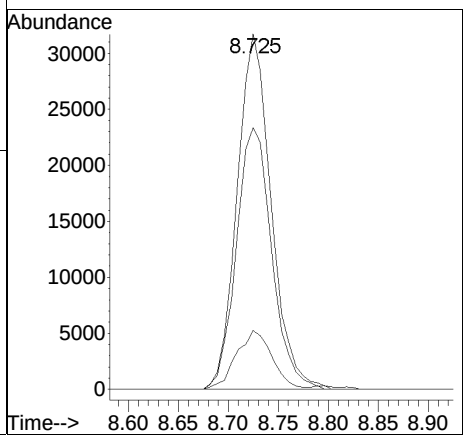


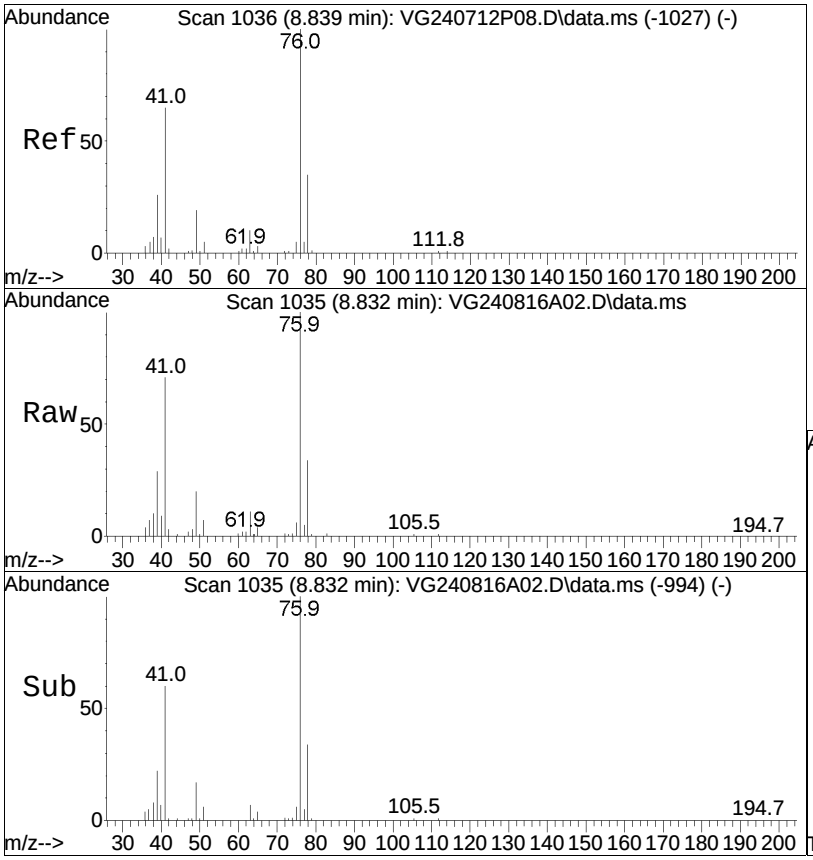


#69
Chlorodibromomethane
Concen: 9.32 ug/L
RT: 8.725 min Scan# 1020
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:129 Resp: 75434

Ion	Ratio	Lower	Upper
129	100		
81	17.6	0.0	35.0
127	76.5	57.1	97.1

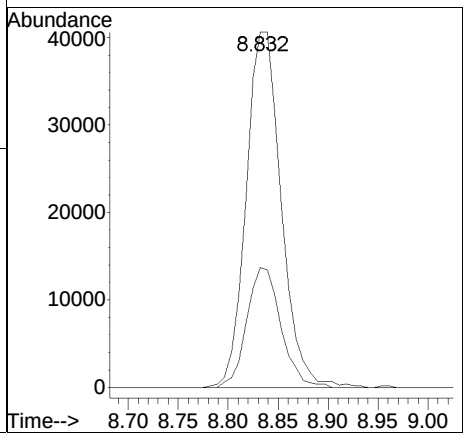


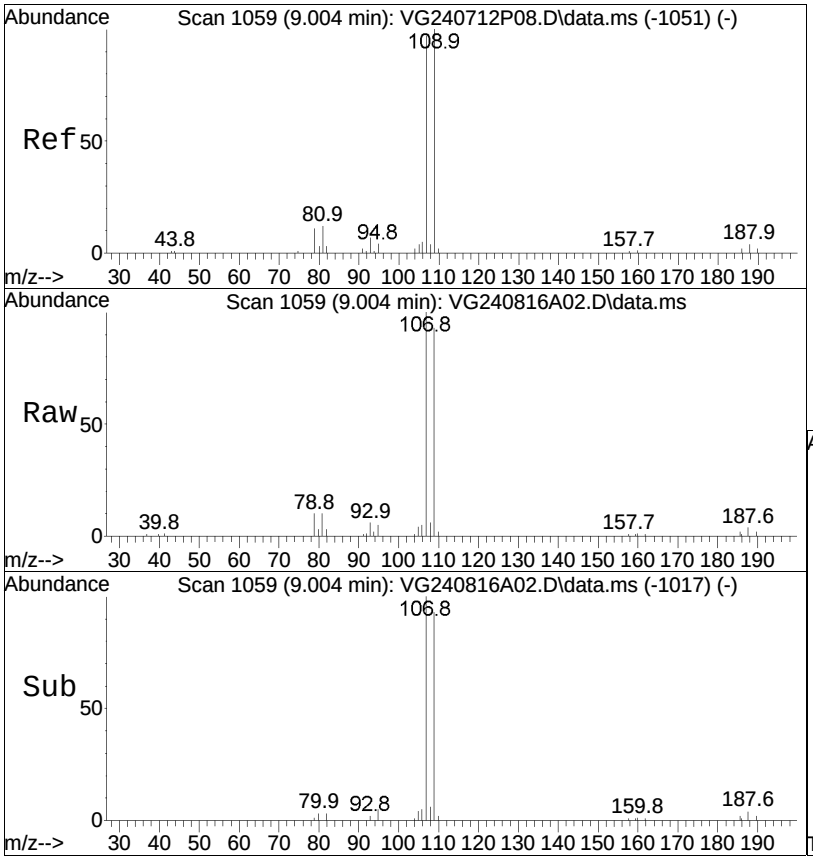


#70
1,3-Dichloropropane
Concen: 9.73 ug/L
RT: 8.832 min Scan# 1035
Delta R.T. -0.007 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 76 Resp: 99207

Ion	Ratio	Lower	Upper
76	100		
78	32.8	25.4	38.2

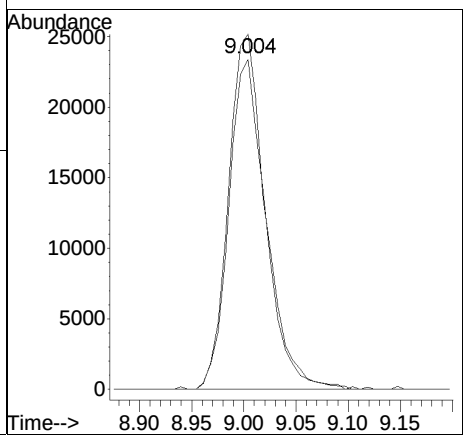


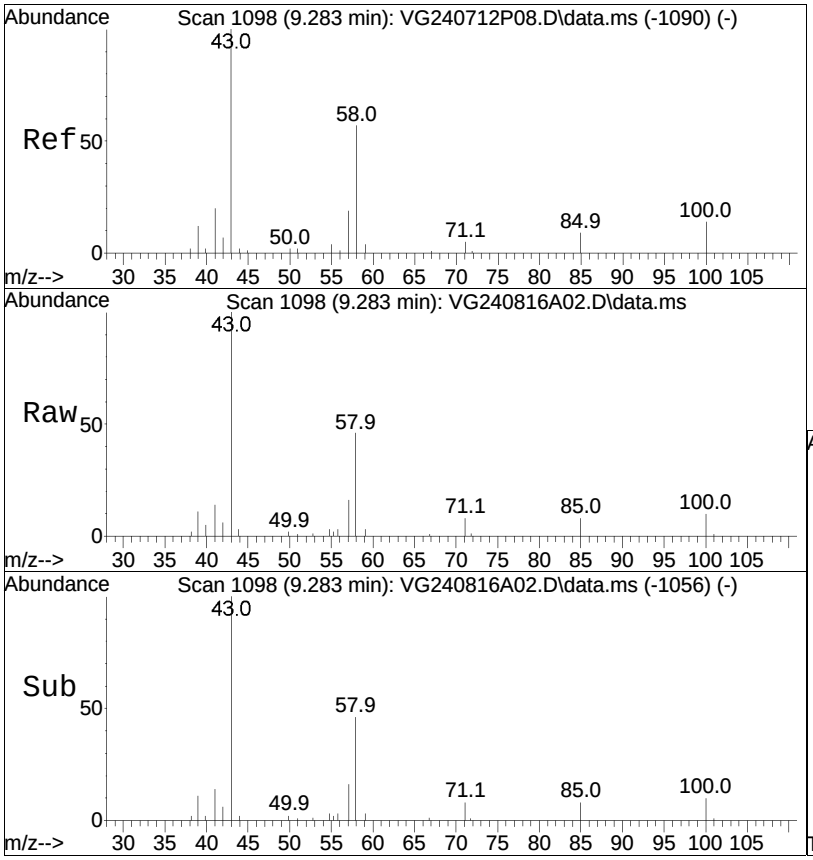


#71
1,2-Dibromoethane
Concen: 9.65 ug/L
RT: 9.004 min Scan# 1059
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:107 Resp: 62650

Ion	Ratio	Lower	Upper
107	100		
109	91.8	76.0	114.0

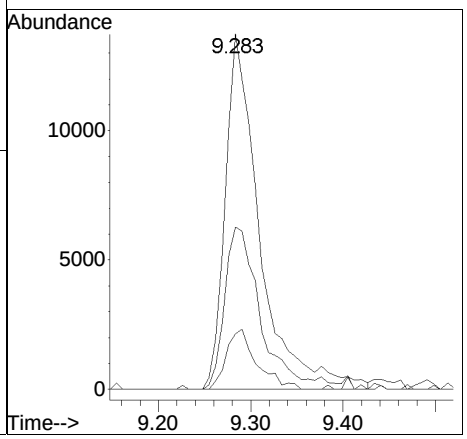


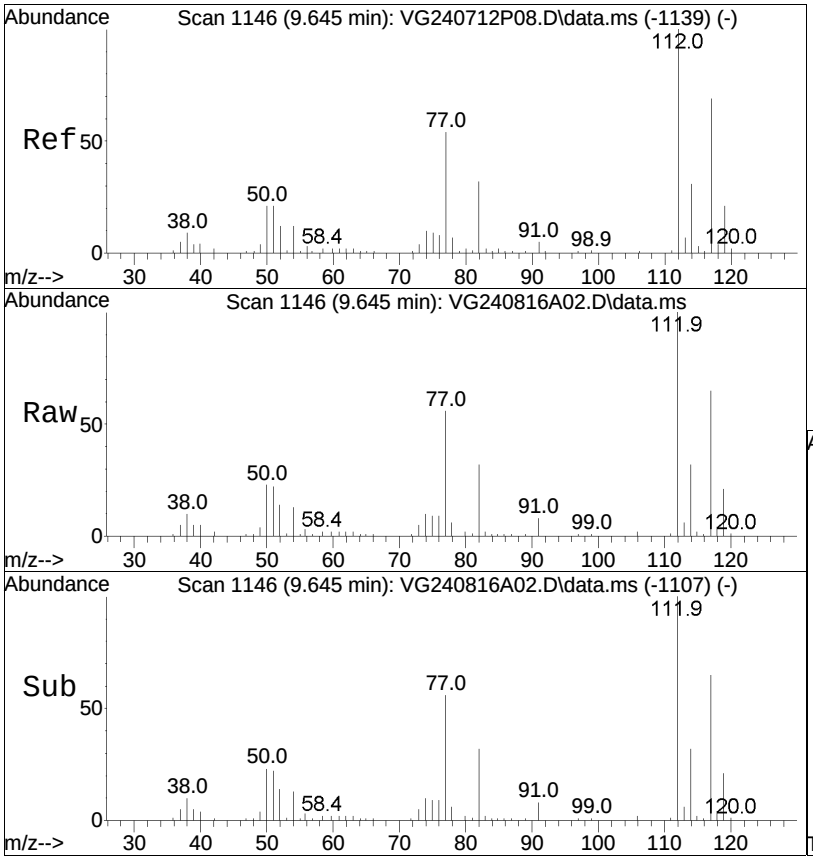


#72
2-Hexanone
Concen: 9.38 ug/L
RT: 9.283 min Scan# 1098
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 43 Resp: 35788

Ion	Ratio	Lower	Upper
43	100		
58	48.1	43.8	65.6
57	15.0	15.2	22.8#

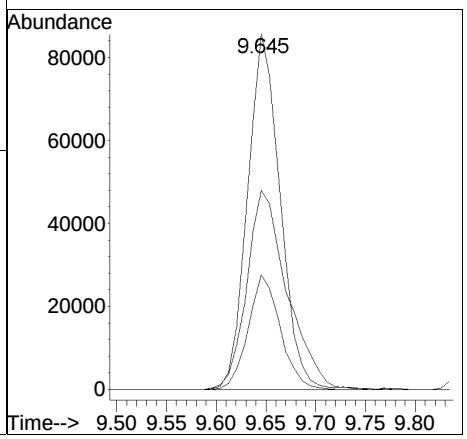


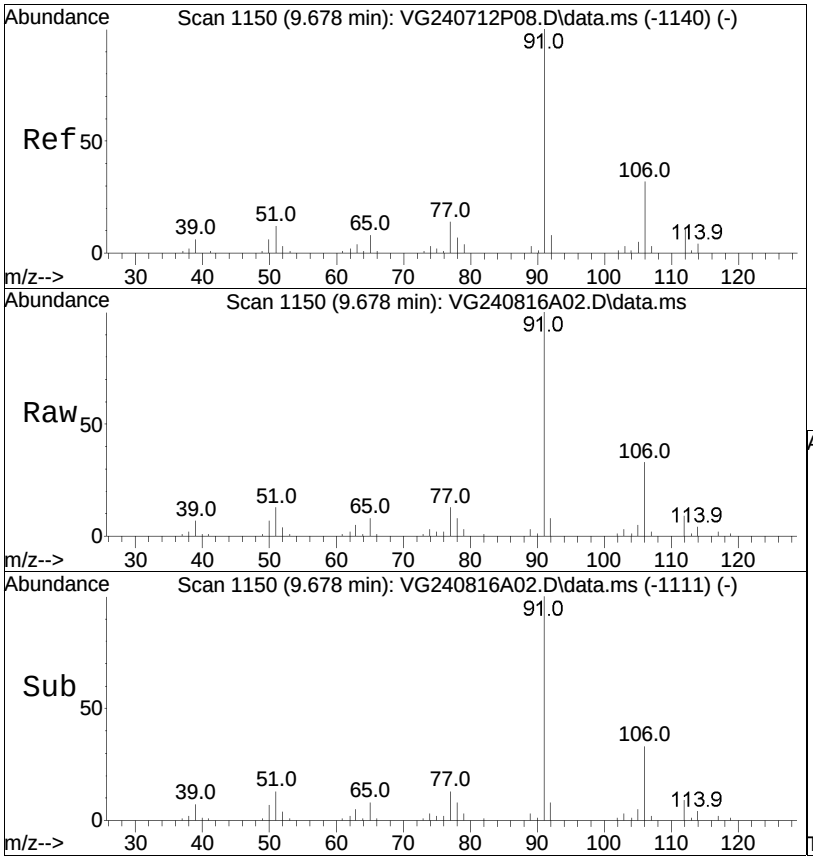


#73
Chlorobenzene
Concen: 9.38 ug/L
RT: 9.645 min Scan# 1146
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:112 Resp: 194927

Ion	Ratio	Lower	Upper
112	100		
77	69.4	55.9	83.9
114	31.7	25.4	38.0

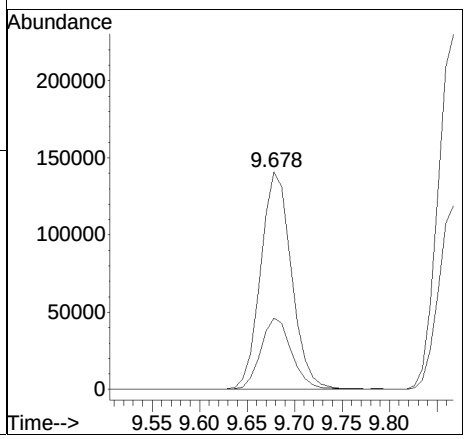


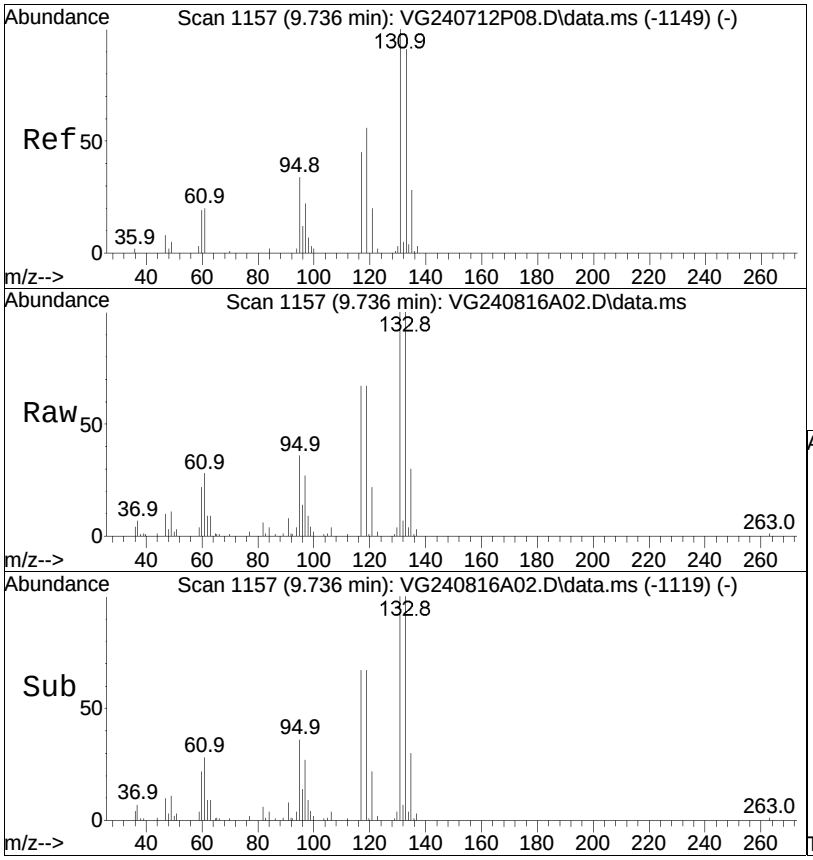


#74
Ethylbenzene
Concen: 8.97 ug/L
RT: 9.678 min Scan# 1150
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 91 Resp: 319282

Ion	Ratio	Lower	Upper
91	100		
106	32.8	25.3	37.9

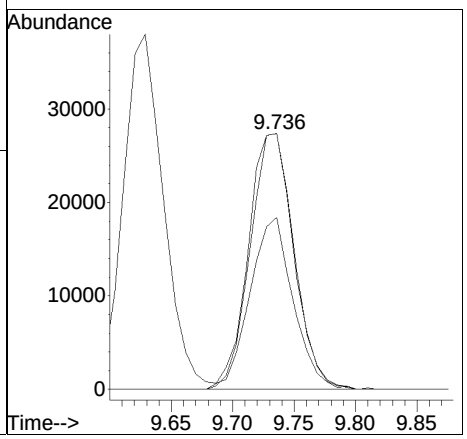


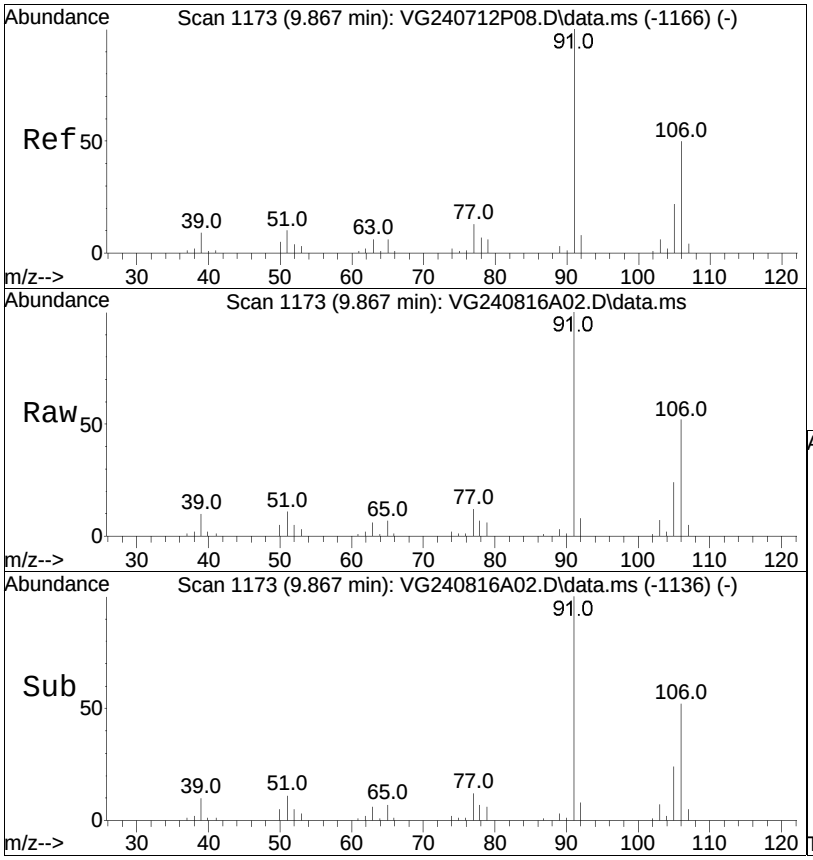


#75
1,1,1,2-Tetrachloroethane
Concen: 9.15 ug/L
RT: 9.736 min Scan# 1157
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:131 Resp: 70786

Ion	Ratio	Lower	Upper
131	100		
133	95.2	77.3	117.3
119	63.1	42.7	82.7

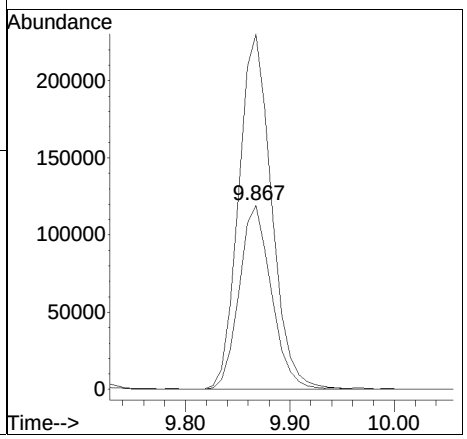


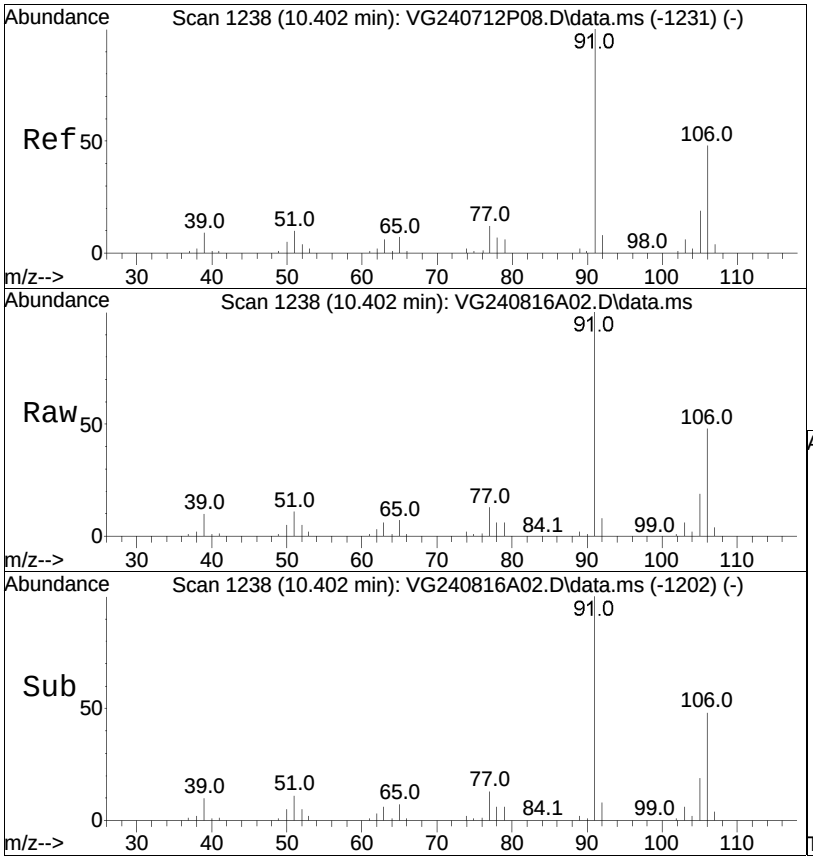


#76
p/m Xylene
Concen: 18.22 ug/L
RT: 9.867 min Scan# 1173
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:106 Resp: 256559

Ion	Ratio	Lower	Upper
106	100		
91	196.3	157.1	235.7

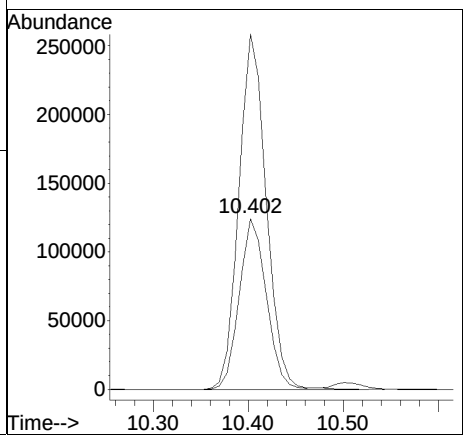


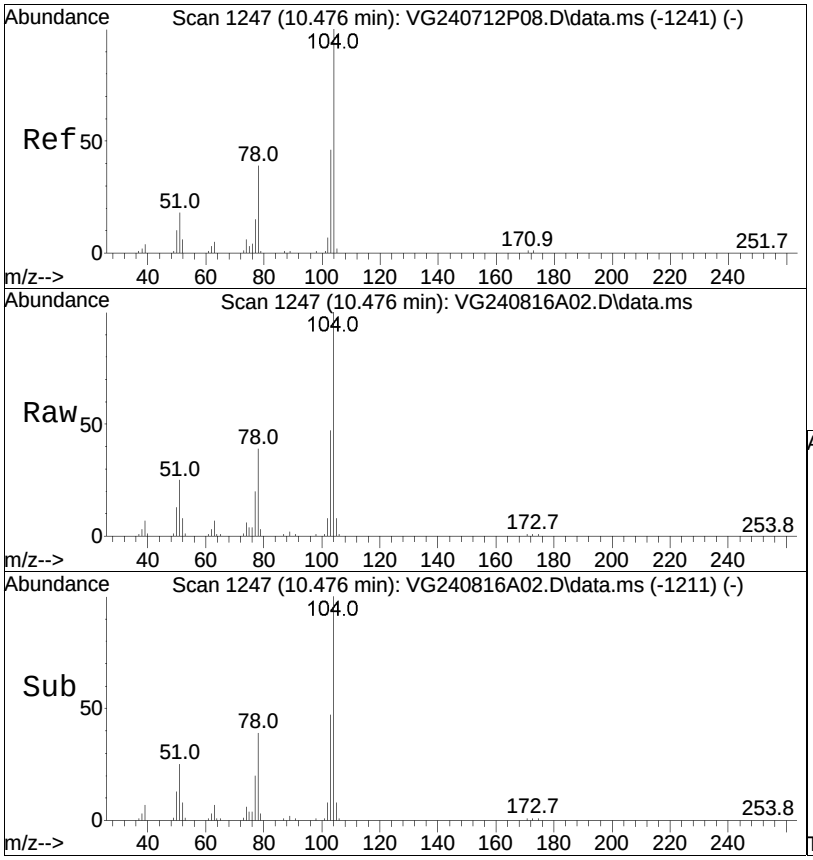


#77
o Xylene
Concen: 18.18 ug/L
RT: 10.402 min Scan# 1238
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:106 Resp: 247955

Ion	Ratio	Lower	Upper
106	100		
91	208.1	164.7	247.1

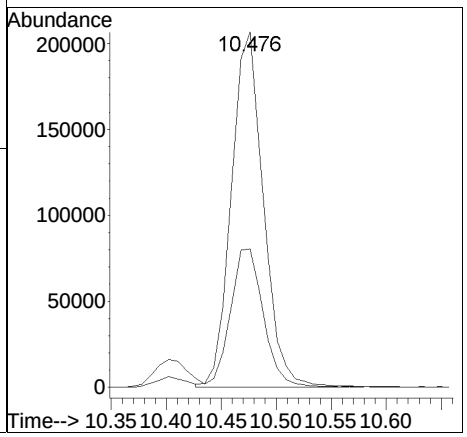


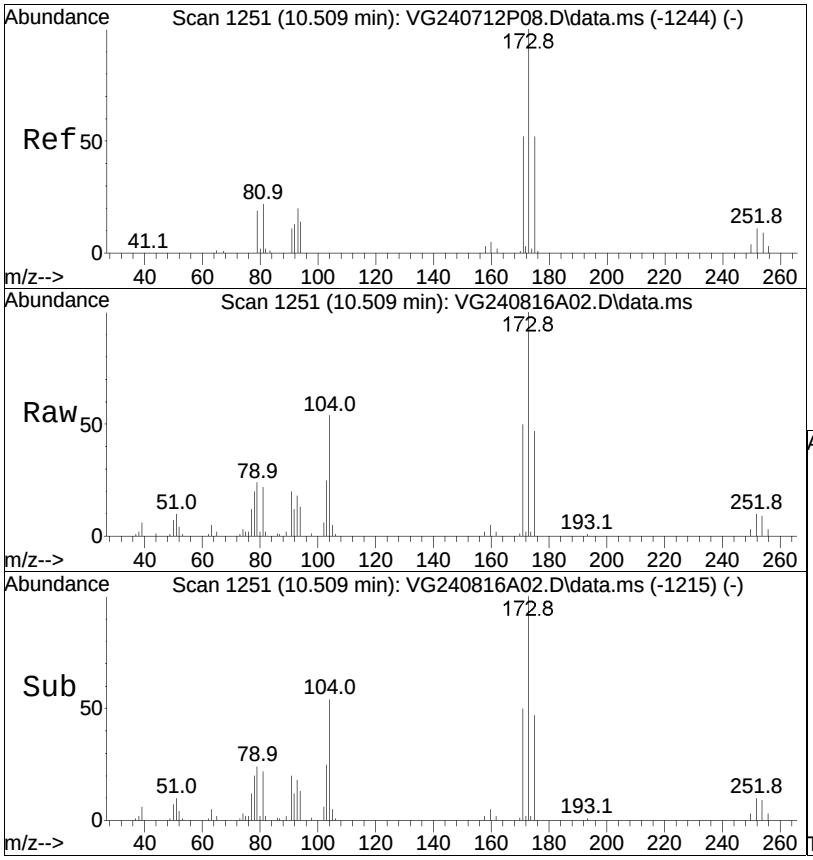


#78
Styrene
Concen: 18.05 ug/L
RT: 10.476 min Scan# 1247
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:104 Resp: 417257

Ion	Ratio	Lower	Upper
104	100		
78	40.5	32.2	48.4

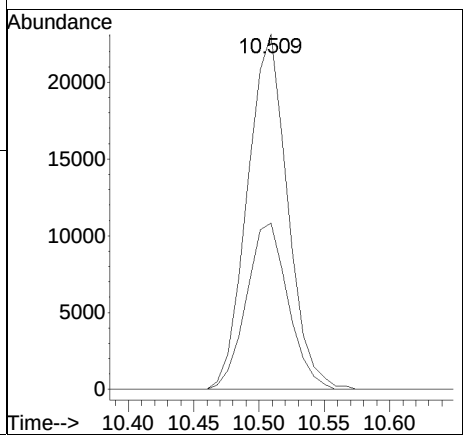


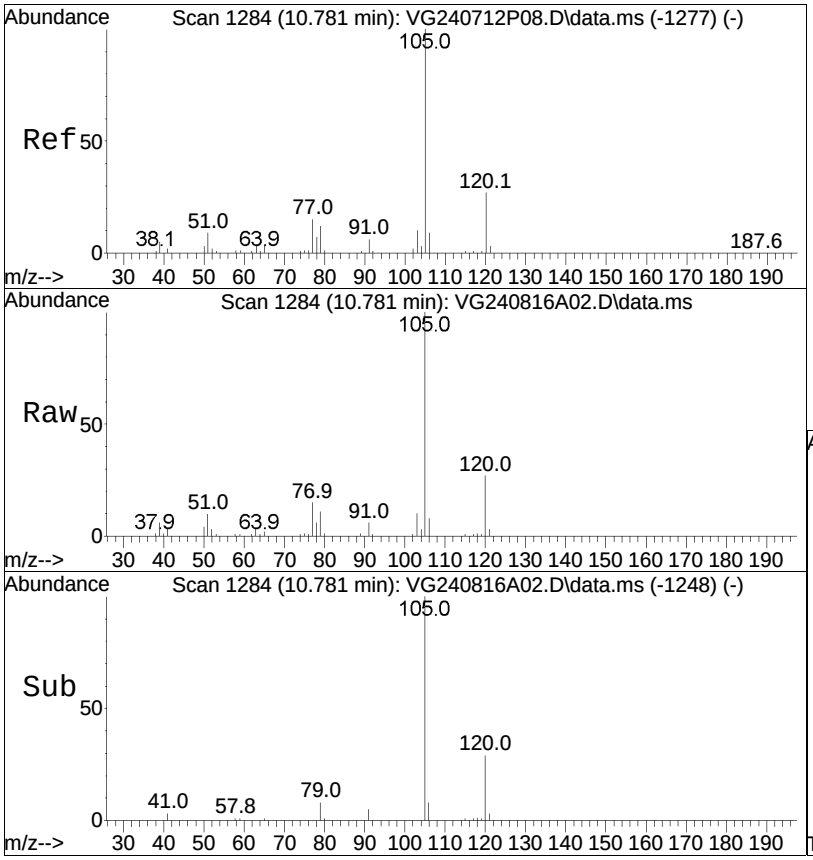


#80
Bromoform
Concen: 8.81 ug/L
RT: 10.509 min Scan# 1251
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:173 Resp: 49530

Ion	Ratio	Lower	Upper
173	100		
175	48.5	28.0	68.0

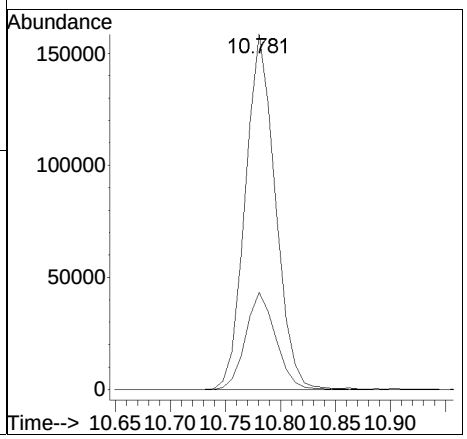


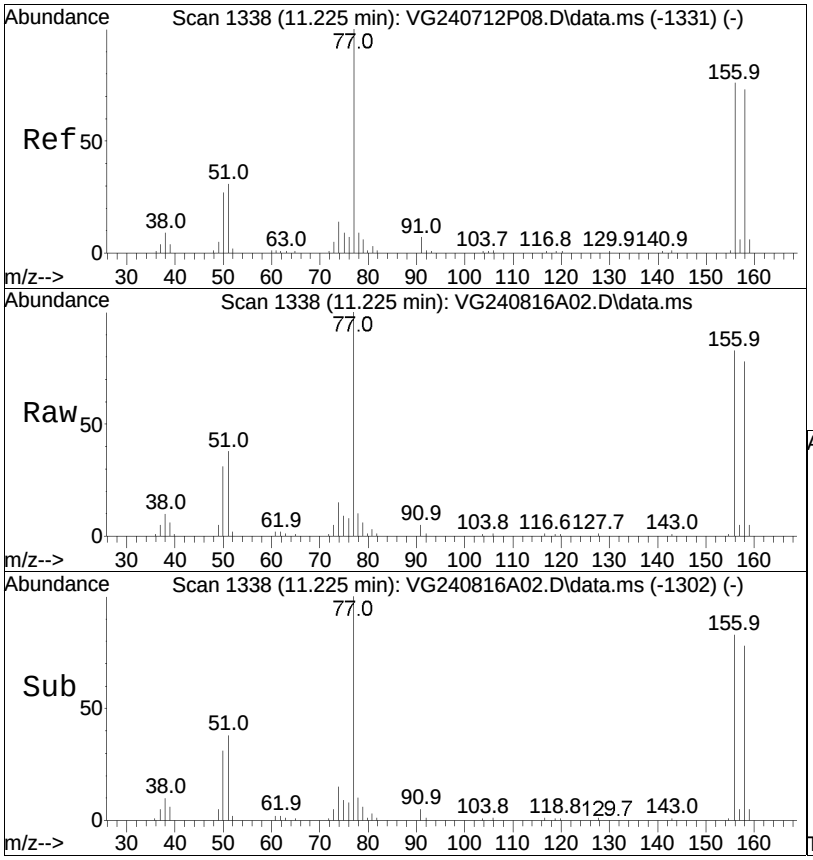


#82
Isopropylbenzene
Concen: 8.48 ug/L
RT: 10.781 min Scan# 1284
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:105 Resp: 301134

Ion	Ratio	Lower	Upper
105	100		
120	27.3	7.0	47.0

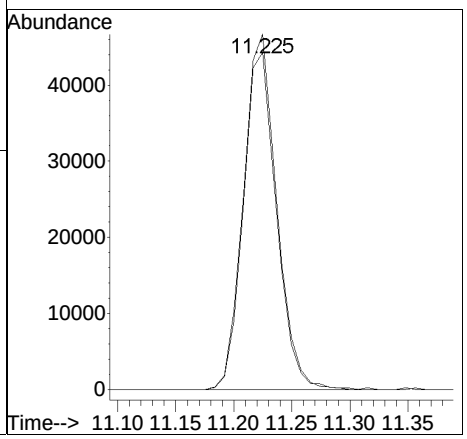


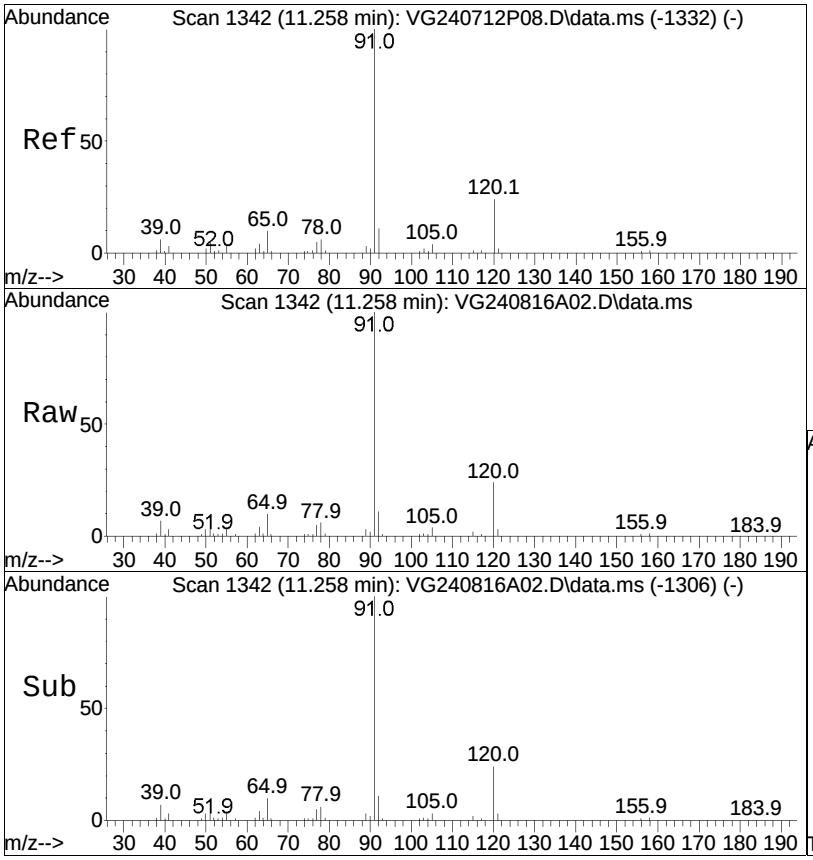


#84
Bromobenzene
Concen: 9.45 ug/L
RT: 11.225 min Scan# 1338
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:156 Resp: 92754

Ion	Ratio	Lower	Upper
156	100		
158	94.6	76.9	115.3

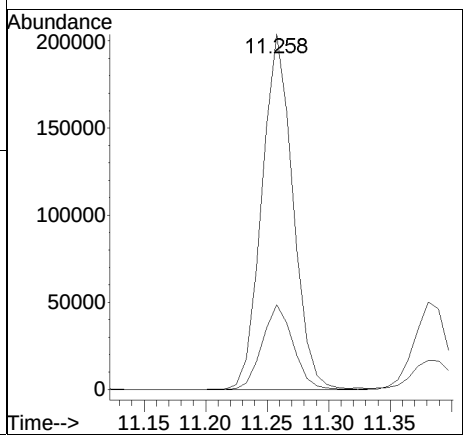


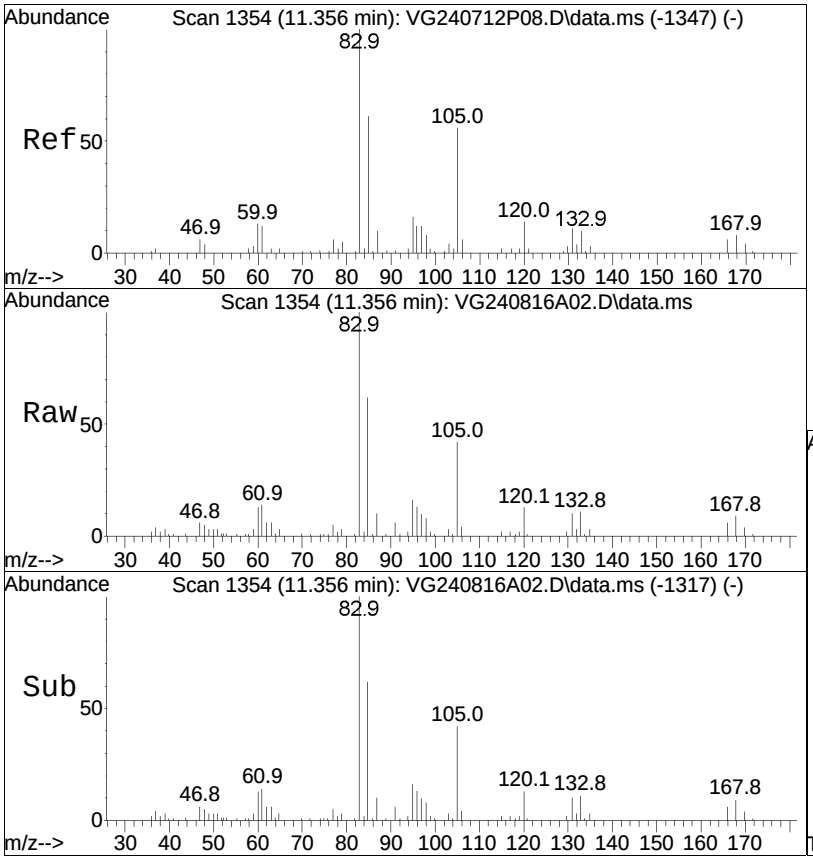


#85
n-Propylbenzene
Concen: 8.65 ug/L
RT: 11.258 min Scan# 1342
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 91 Resp: 357937

Ion	Ratio	Lower	Upper
91	100		
120	23.6	19.0	28.6

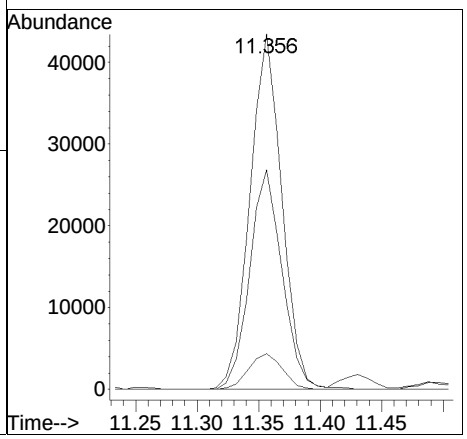


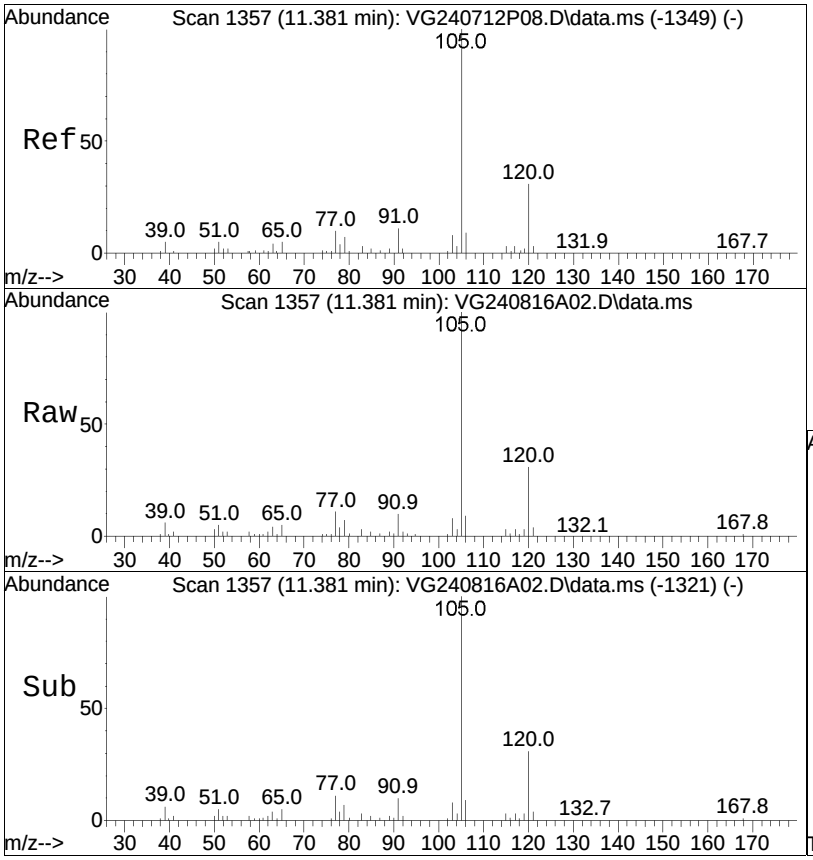


#87
1,1,2,2-Tetrachloroethane
Concen: 9.96 ug/L
RT: 11.356 min Scan# 1354
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 83 Resp: 78567

Ion	Ratio	Lower	Upper
83	100		
131	10.7	0.0	31.0
85	62.6	43.9	83.9

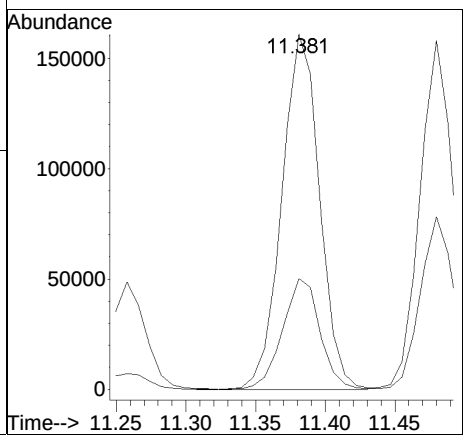


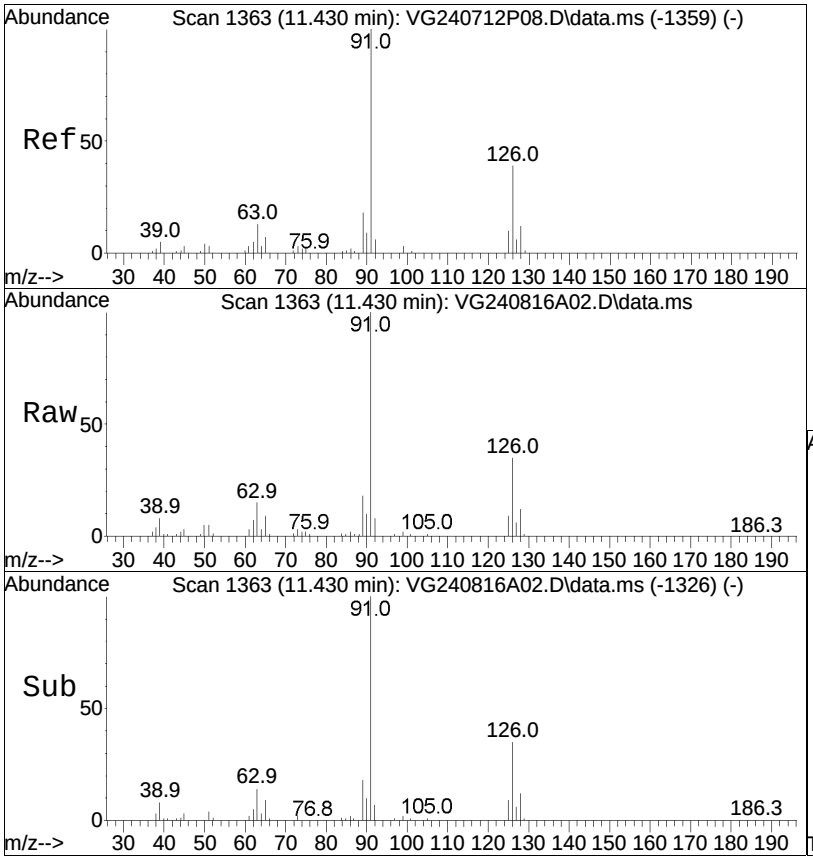


#88
4-Ethyltoluene
Concen: 8.76 ug/L
RT: 11.381 min Scan# 1357
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:105 Resp: 302924

Ion	Ratio	Lower	Upper
105	100		
120	30.9	19.9	41.3

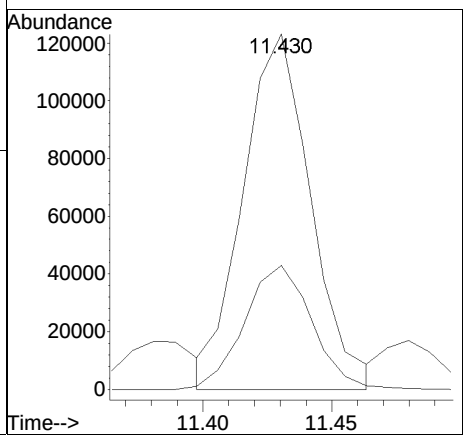


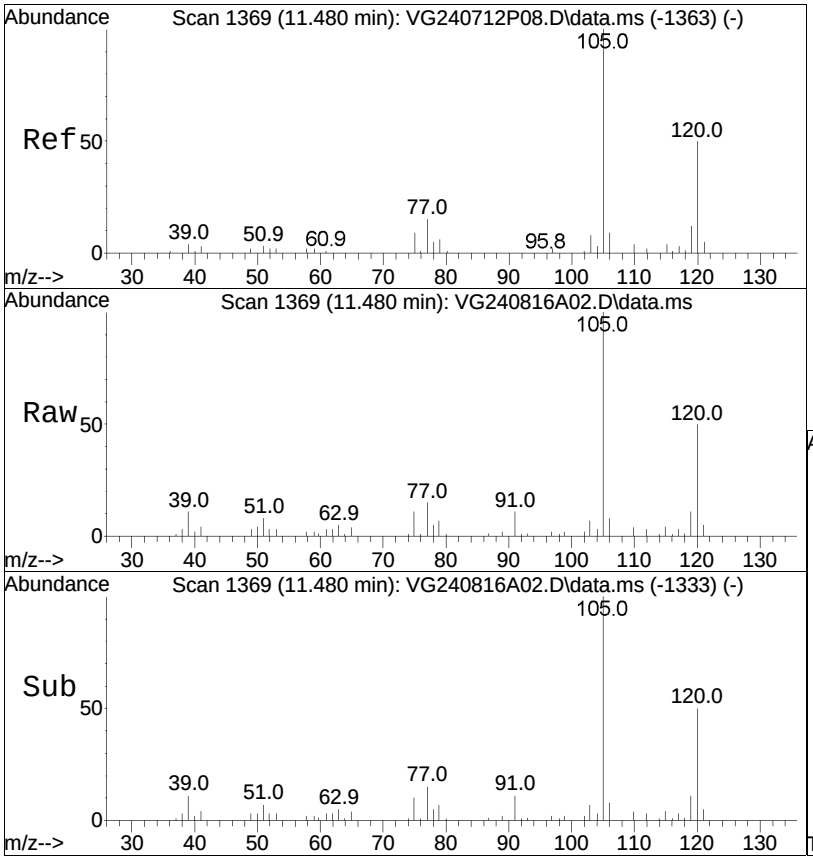


#89
2-Chlorotoluene
Concen: 8.86 ug/L M6
RT: 11.430 min Scan# 1363
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 91 Resp: 224806

Ion	Ratio	Lower	Upper
91	100		
126	34.8	27.4	41.2

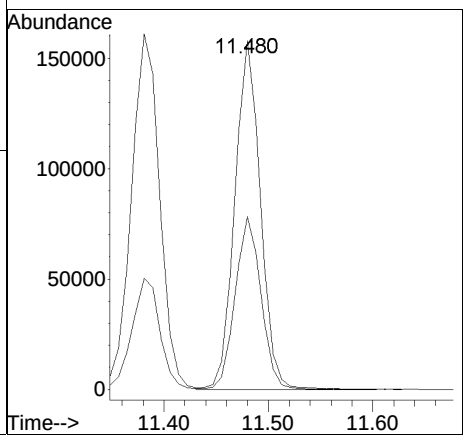


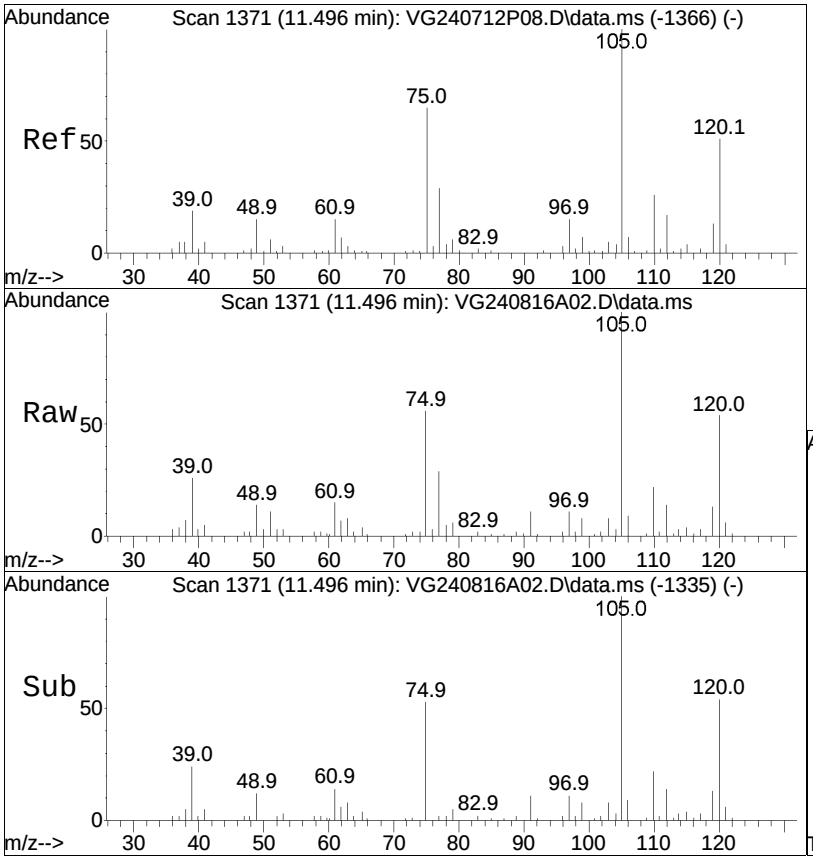


#90
1,3,5-Trimethylbenzene
Concen: 8.77 ug/L
RT: 11.480 min Scan# 1369
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:105 Resp: 268548

Ion	Ratio	Lower	Upper
105	100		
120	50.0	40.3	60.5

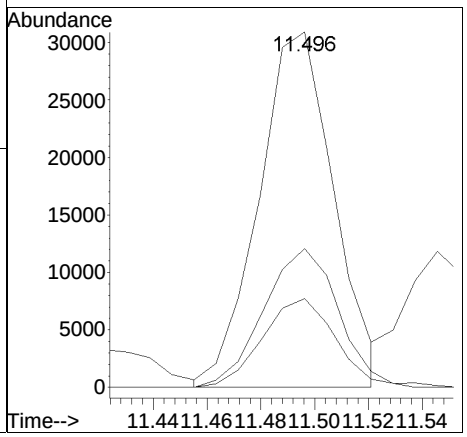


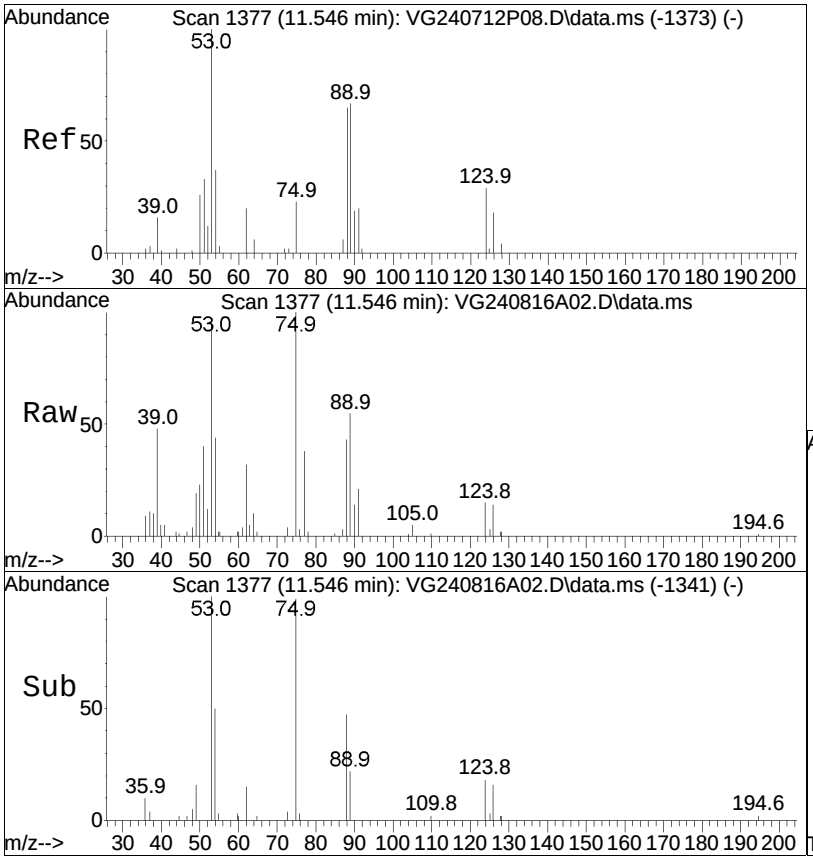


#91
1,2,3-Trichloropropane
Concen: 9.07 ug/L M4
RT: 11.496 min Scan# 1371
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 75 Resp: 59883

Ion	Ratio	Lower	Upper
75	100		
110	39.3	23.5	48.9
112	24.4	15.9	32.9

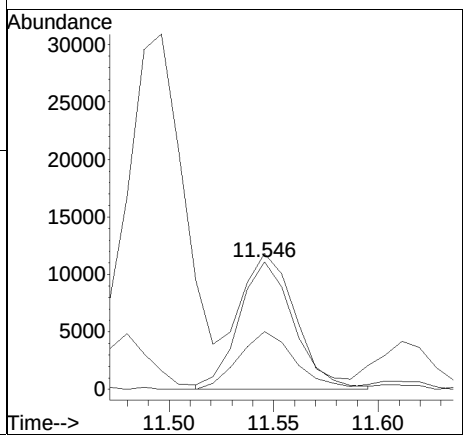


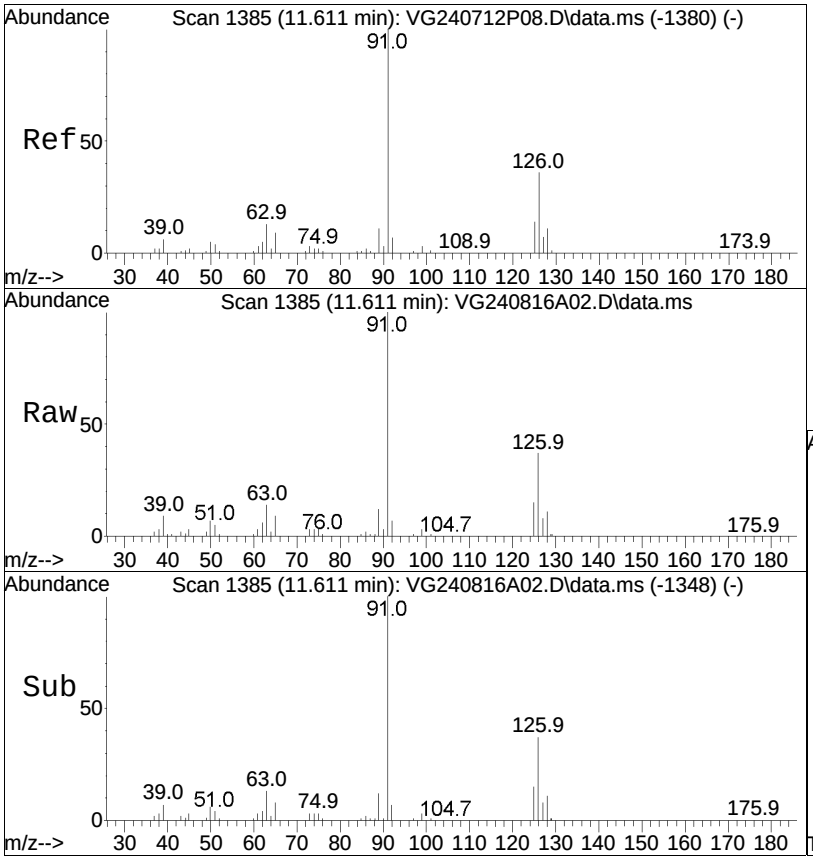


#92
trans-1,4-Dichloro-2-butene
Concen: 11.23 ug/L
RT: 11.546 min Scan# 1377
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 53 Resp: 20323

Ion	Ratio	Lower	Upper
53	100		
88	46.4	41.6	62.4
75	110.6	0.0	0.0#

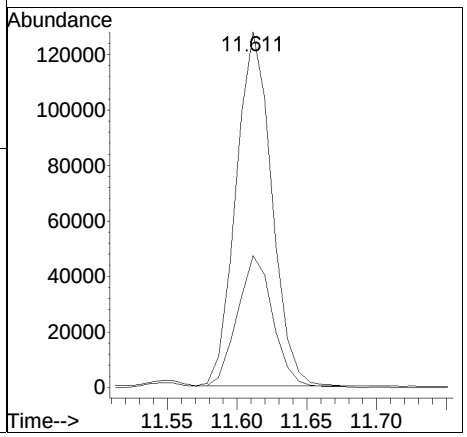


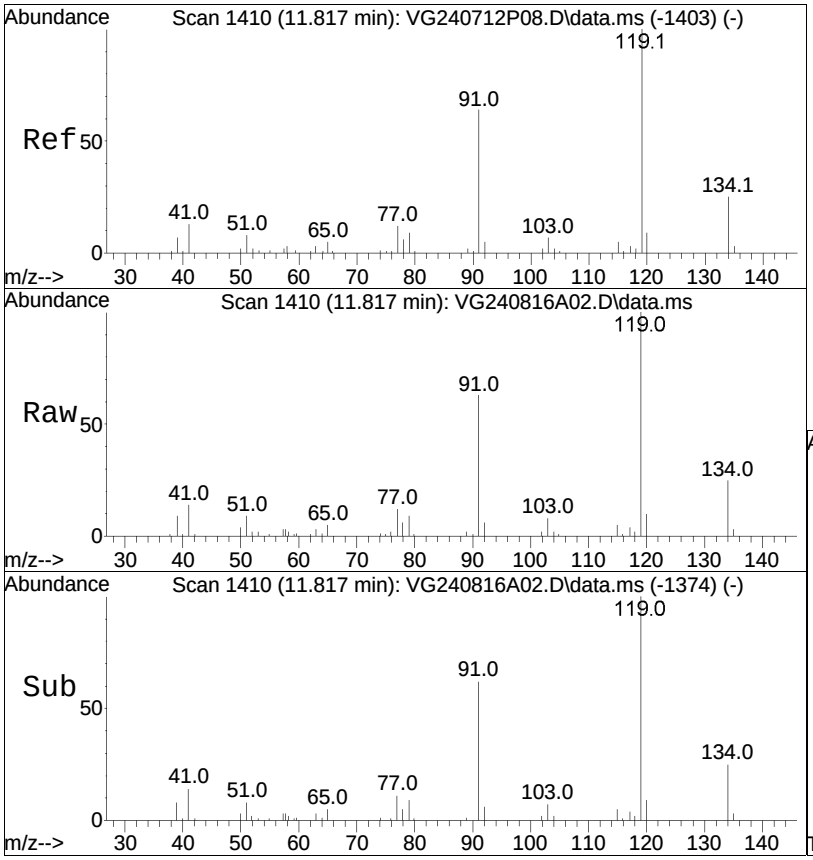


#93
4-Chlorotoluene
Concen: 8.73 ug/L
RT: 11.611 min Scan# 1385
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 91 Resp: 227970

Ion	Ratio	Lower	Upper
91	100		
126	37.4	28.2	42.4

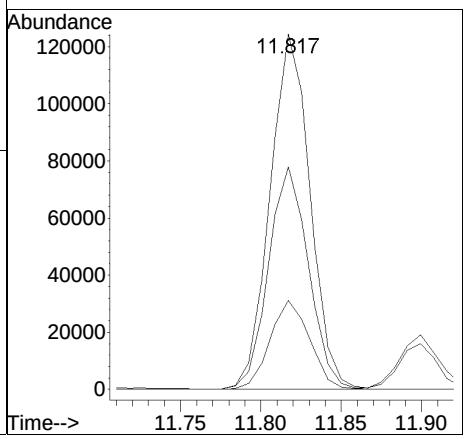


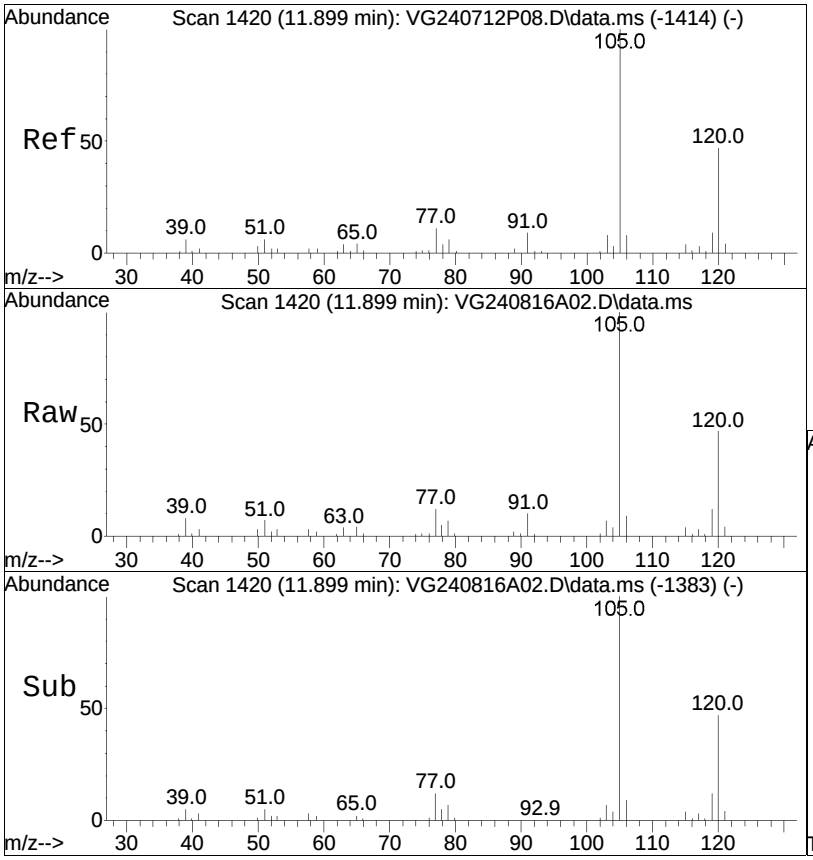


#94
tert-Butylbenzene
Concen: 8.71 ug/L
RT: 11.817 min Scan# 1410
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:119 Resp: 215388

Ion	Ratio	Lower	Upper
119	100		
91	62.3	50.8	76.2
134	24.8	20.2	30.4

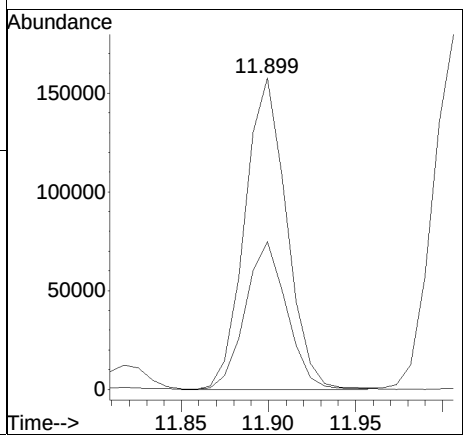


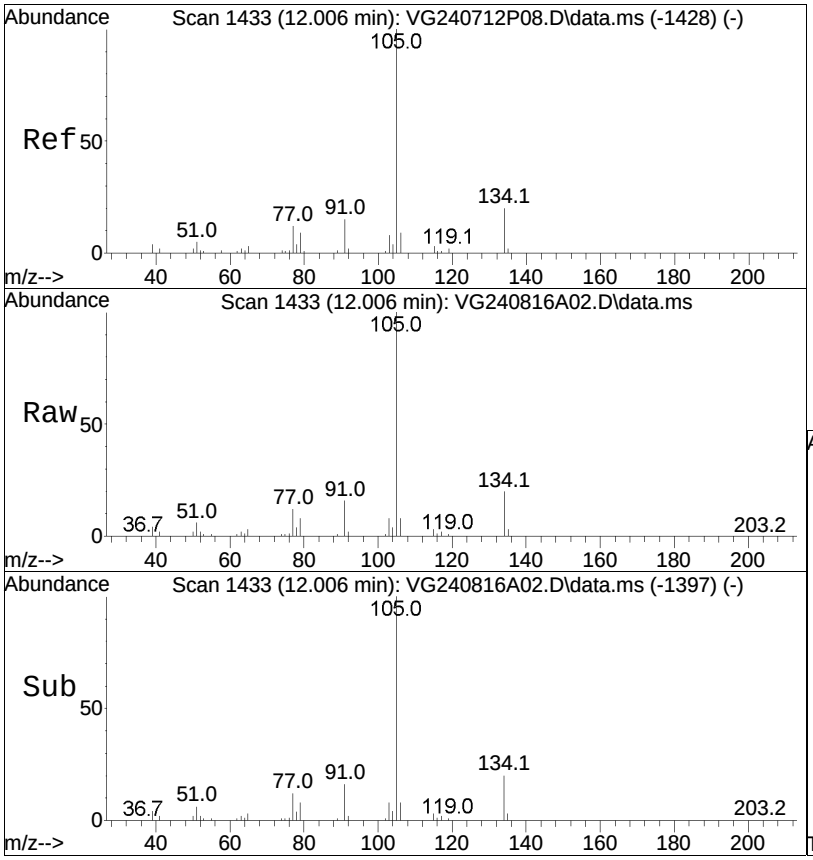


#97
1,2,4-Trimethylbenzene
Concen: 8.73 ug/L
RT: 11.899 min Scan# 1420
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:105 Resp: 263304

Ion	Ratio	Lower	Upper
105	100		
120	47.0	37.8	56.6

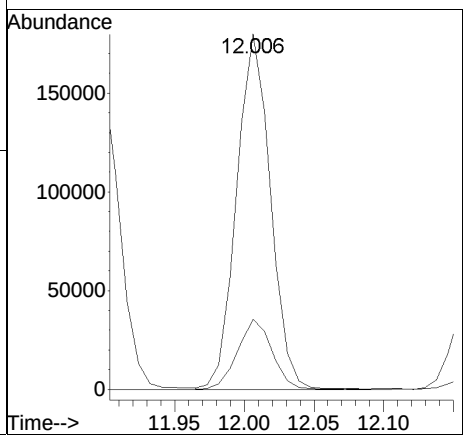


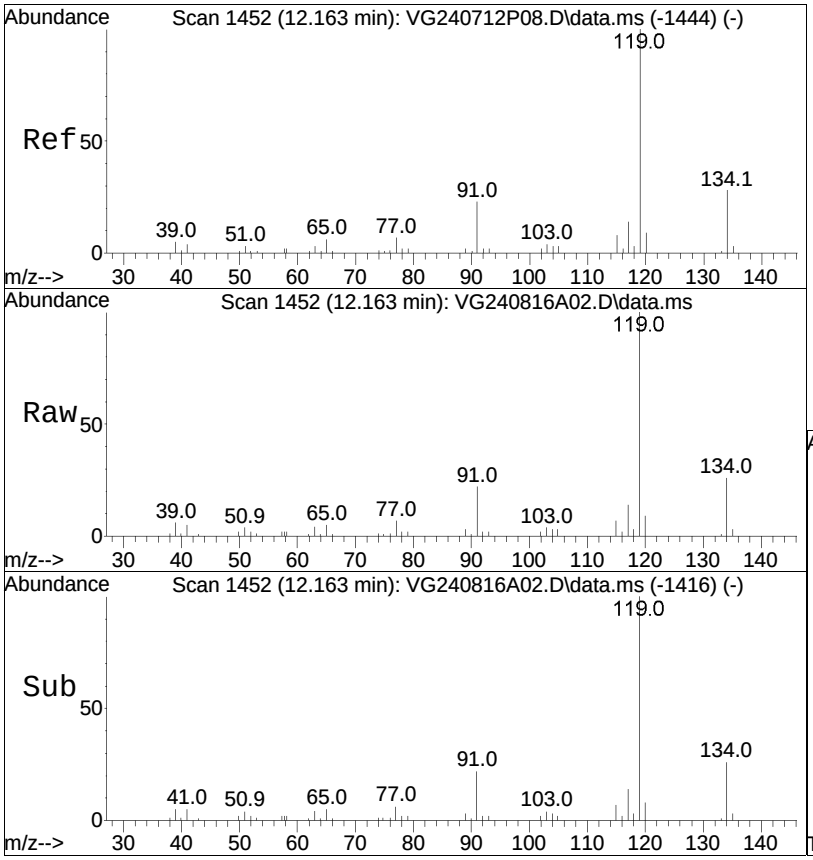


#98
sec-Butylbenzene
Concen: 8.64 ug/L
RT: 12.006 min Scan# 1433
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:105 Resp: 304055

Ion	Ratio	Lower	Upper
105	100		
134	20.1	13.3	27.7

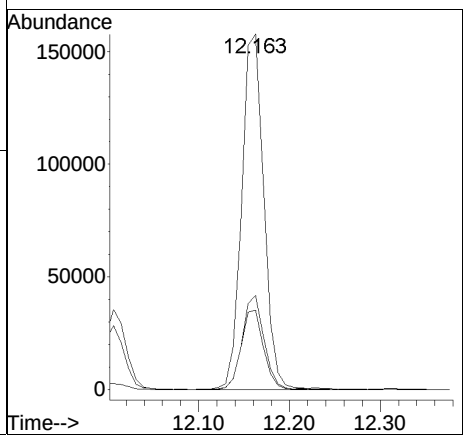


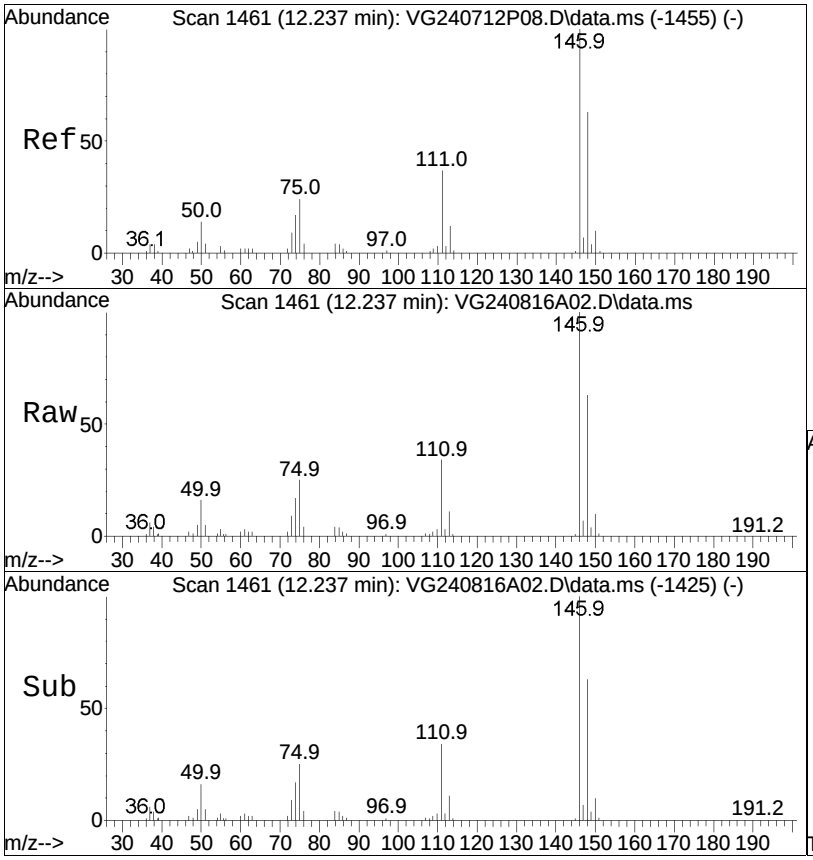


#99
p-Isopropyltoluene
Concen: 8.77 ug/L
RT: 12.163 min Scan# 1452
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:119 Resp: 267858

Ion	Ratio	Lower	Upper
119	100		
134	26.0	17.5	36.3
91	22.8	14.6	30.4

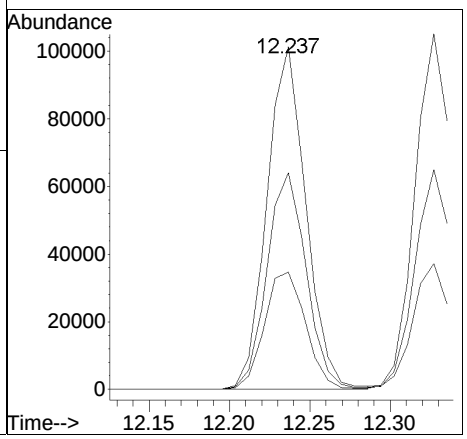


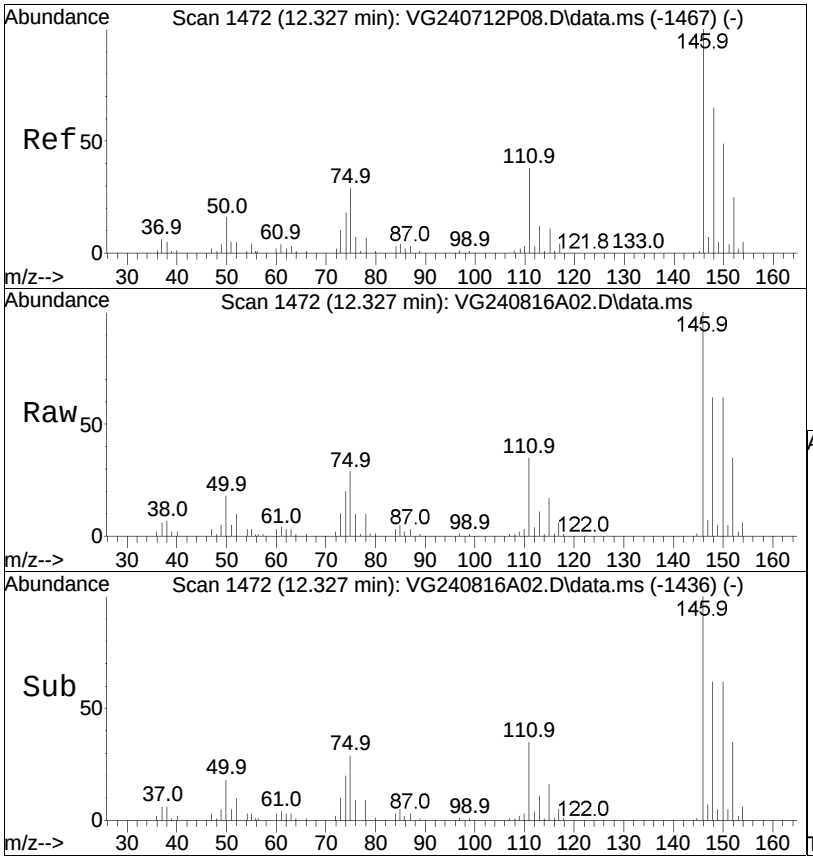


#100
1,3-Dichlorobenzene
Concen: 9.48 ug/L
RT: 12.237 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:146 Resp: 170928

Ion	Ratio	Lower	Upper
146	100		
111	36.2	24.4	50.6
148	63.6	41.0	85.2

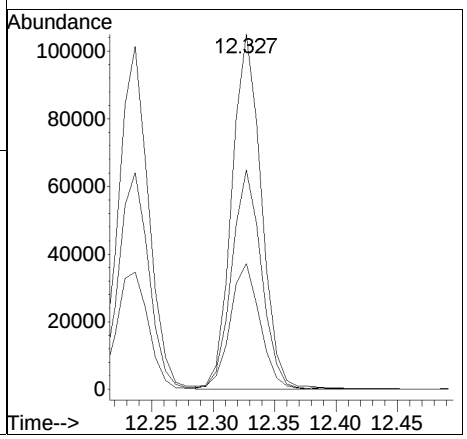


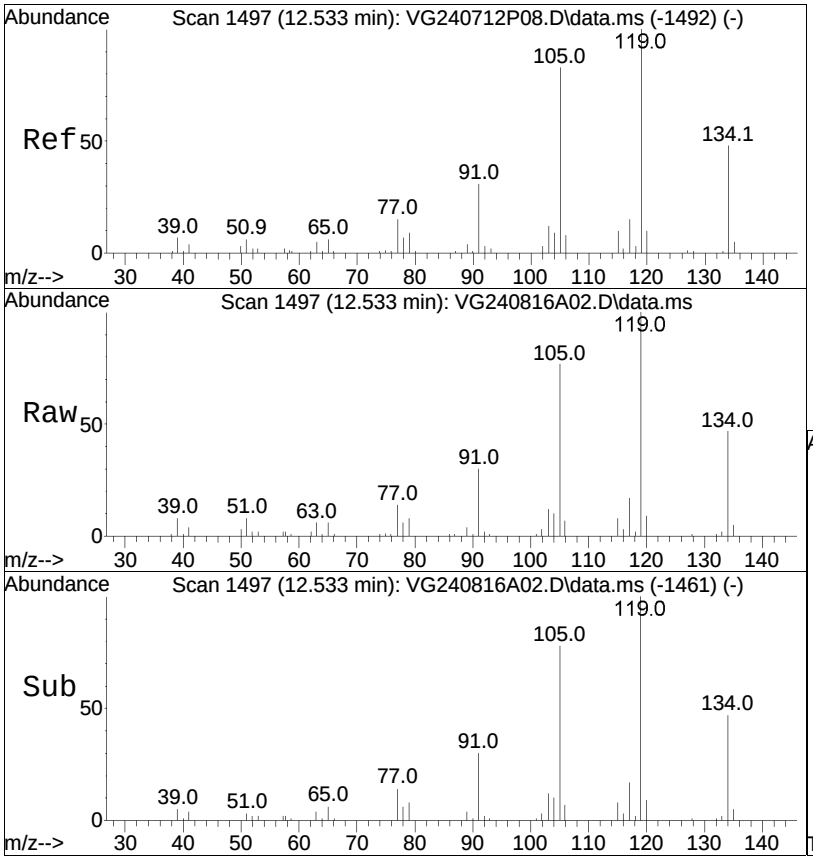


#101
1,4-Dichlorobenzene
Concen: 9.45 ug/L
RT: 12.327 min Scan# 1472
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:146 Resp: 175447

Ion	Ratio	Lower	Upper
146	100		
111	36.2	29.3	43.9
148	63.1	51.2	76.8

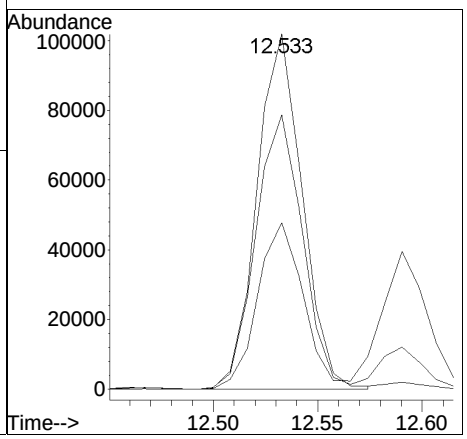


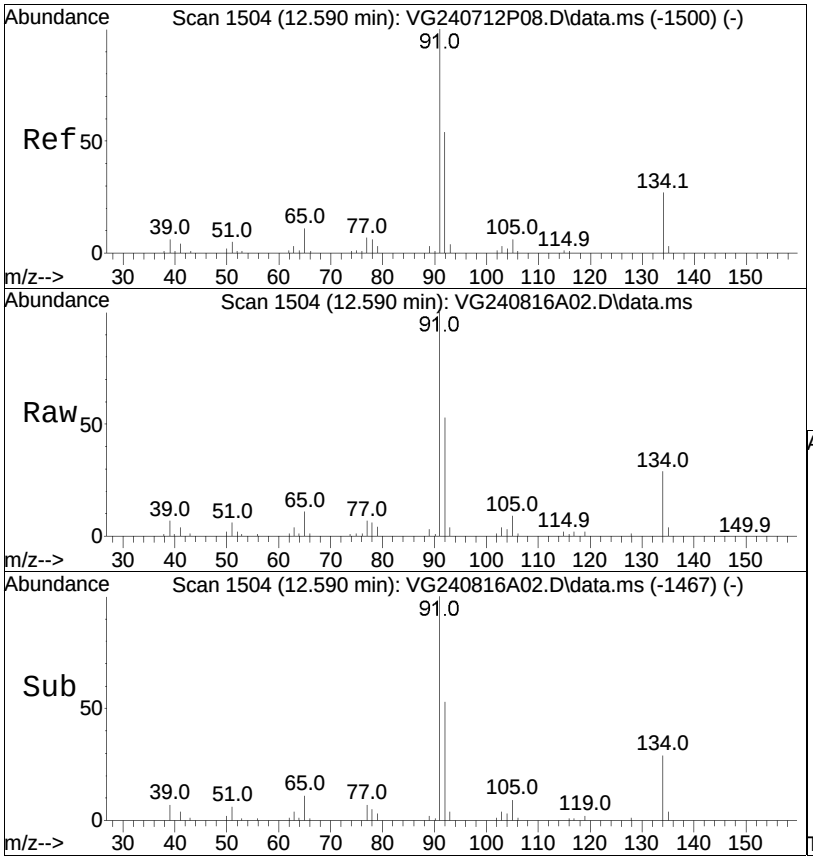


#102
p-Diethylbenzene
Concen: 8.77 ug/L
RT: 12.533 min Scan# 1497
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:119 Resp: 153835

Ion	Ratio	Lower	Upper
119	100		
105	80.0	53.9	112.1
134	47.7	32.0	66.6

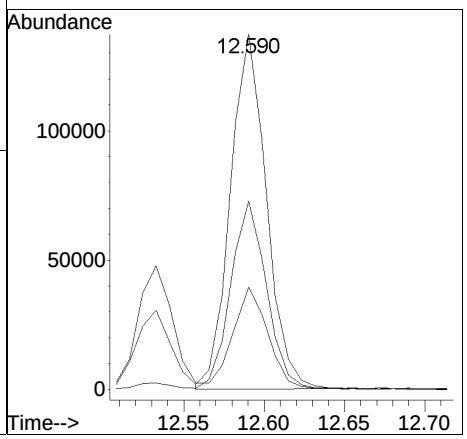


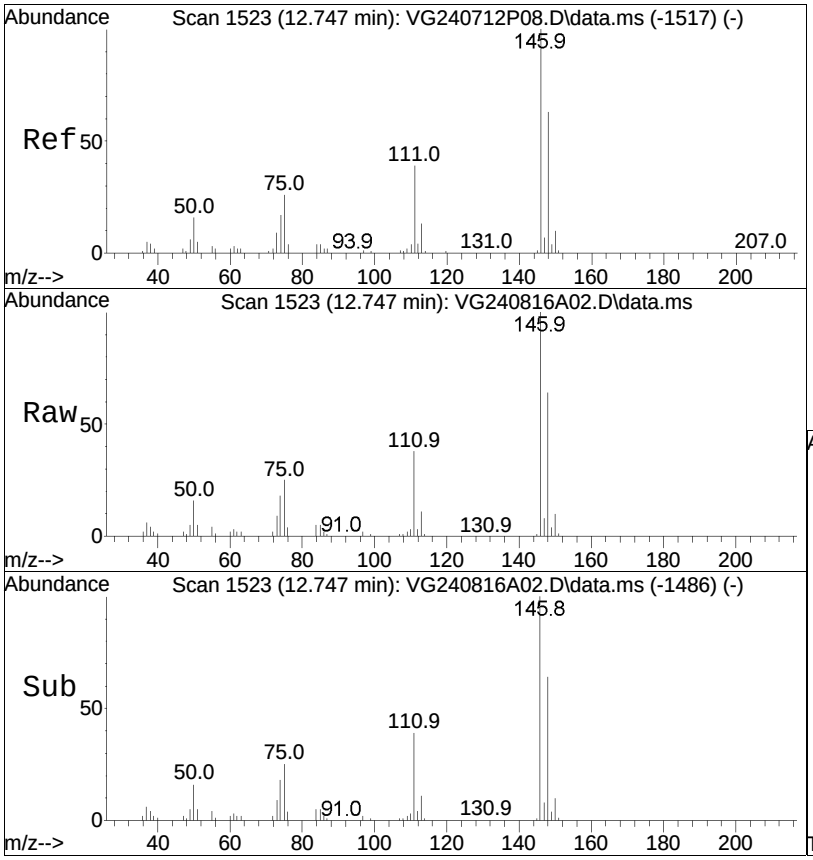


#103
n-Butylbenzene
Concen: 8.84 ug/L
RT: 12.590 min Scan# 1504
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion: 91 Resp: 213625

Ion	Ratio	Lower	Upper
91	100		
92	53.1	43.8	65.8
134	28.2	22.0	33.0

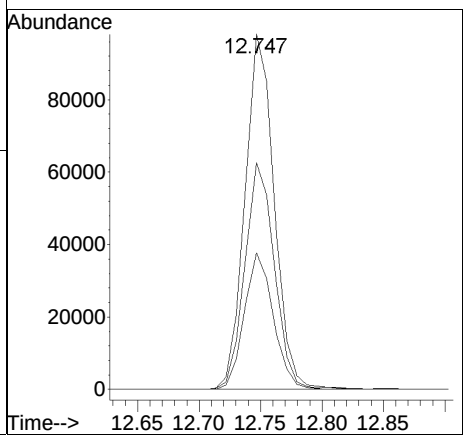


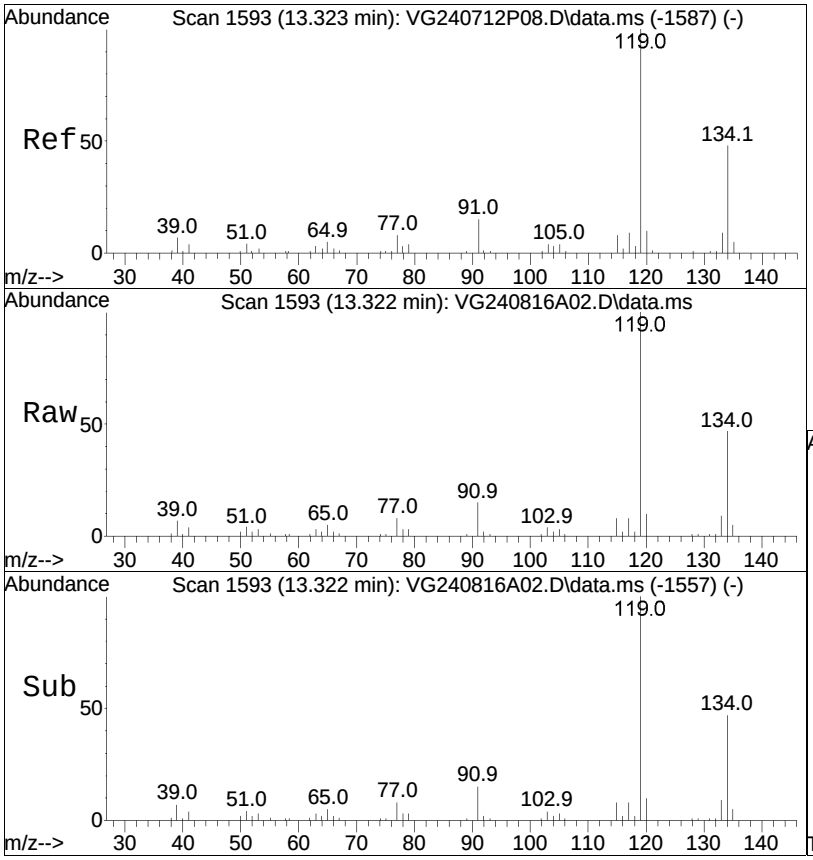


#104
1,2-Dichlorobenzene
Concen: 9.47 ug/L
RT: 12.747 min Scan# 1523
Delta R.T. -0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:146 Resp: 162937

Ion	Ratio	Lower	Upper
146	100		
111	38.1	25.4	52.8
148	64.4	41.7	86.5

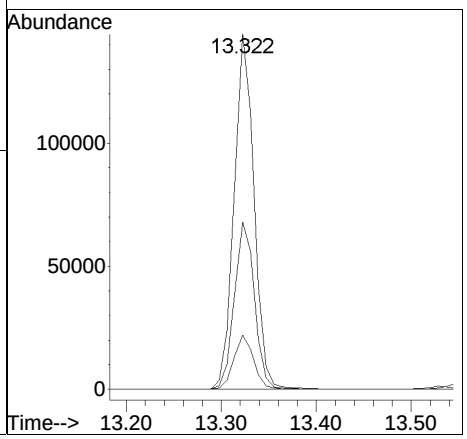


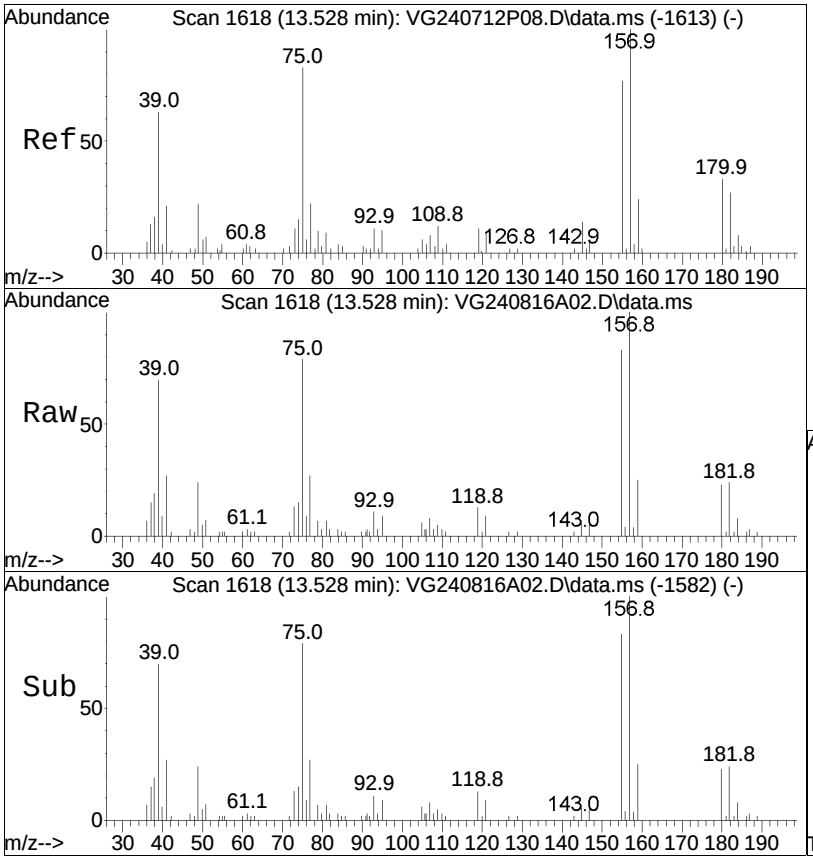


#105
1,2,4,5-Tetramethylbenzene
Concen: 8.02 ug/L
RT: 13.322 min Scan# 1593
Delta R.T. -0.001 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:119 Resp: 210584

Ion	Ratio	Lower	Upper
119	100		
134	47.8	32.7	67.9
91	15.3	9.9	20.7

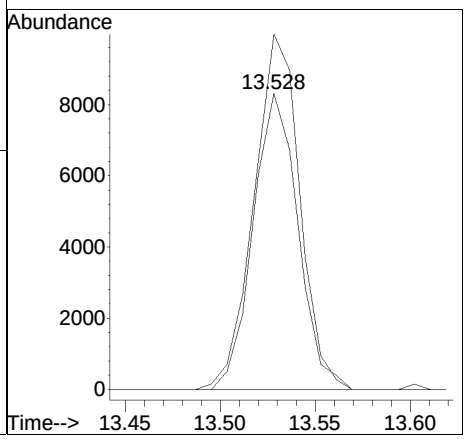


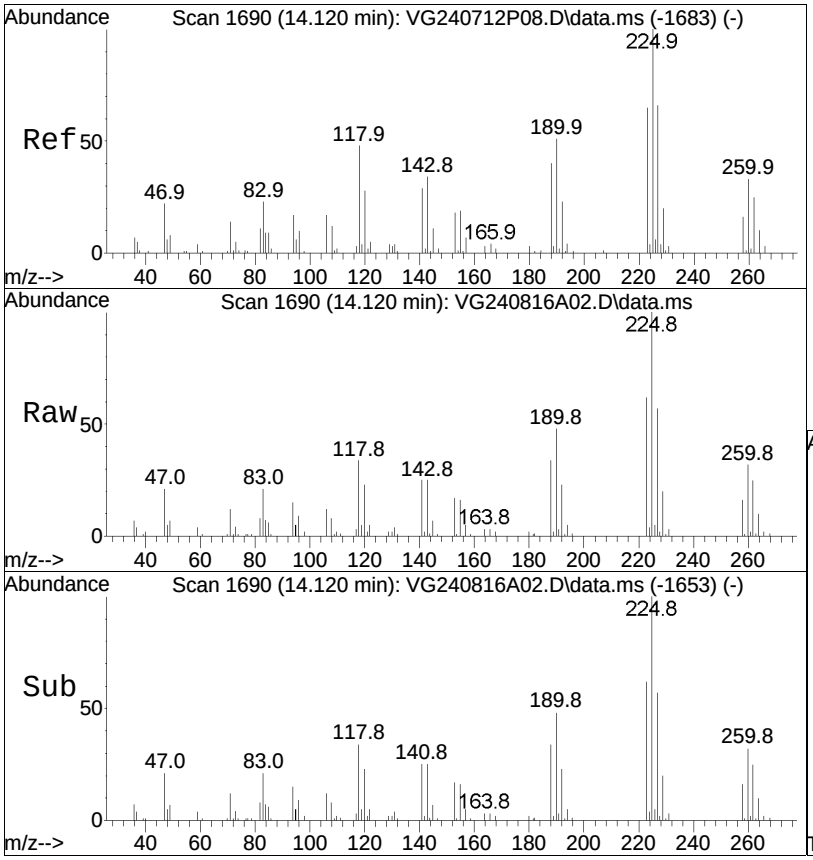


#106
1,2-Dibromo-3-chloropropane
Concen: 9.34 ug/L
RT: 13.528 min Scan# 1618
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:155 Resp: 13666

Ion	Ratio	Lower	Upper
155	100		
157	122.1	99.9	149.9

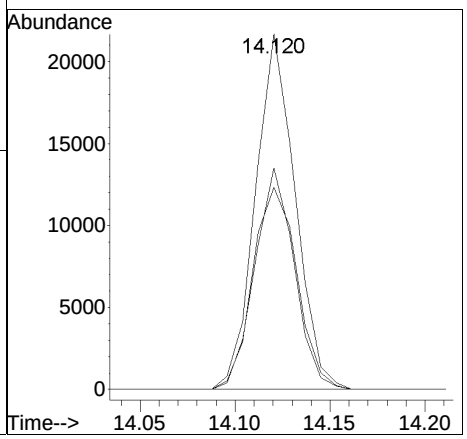


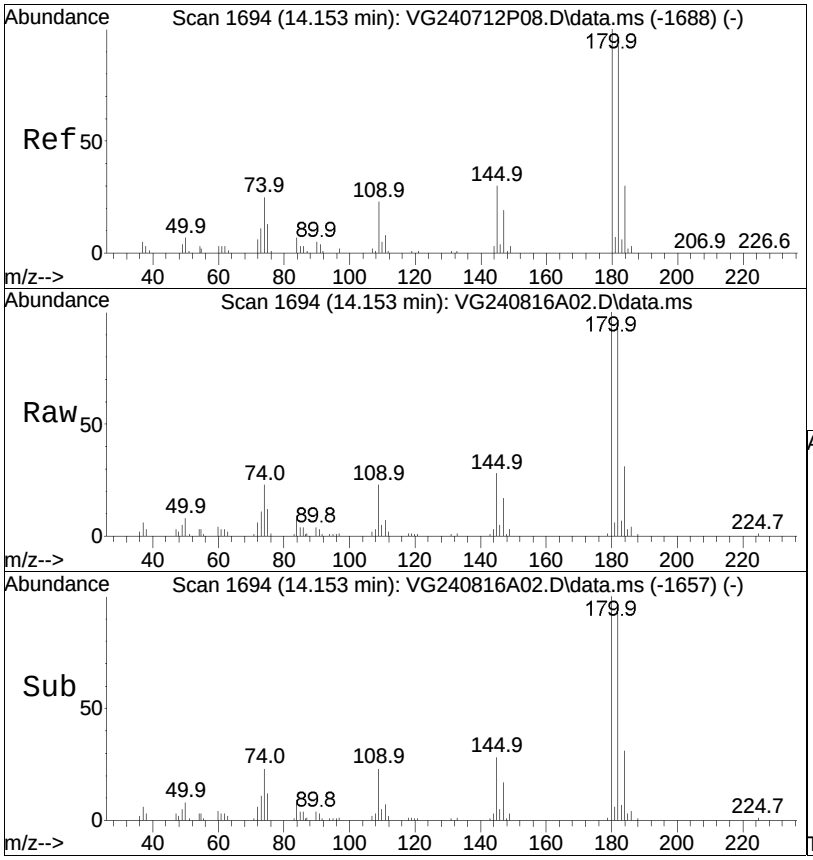


#108
Hexachlorobutadiene
Concen: 9.95 ug/L
RT: 14.120 min Scan# 1690
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:225 Resp: 31570

Ion	Ratio	Lower	Upper
225	100		
223	61.9	50.1	75.1
227	63.3	50.2	75.4

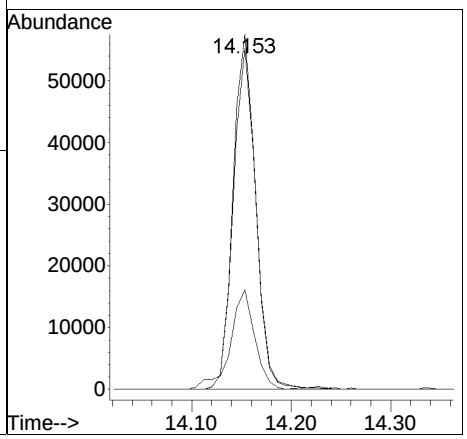


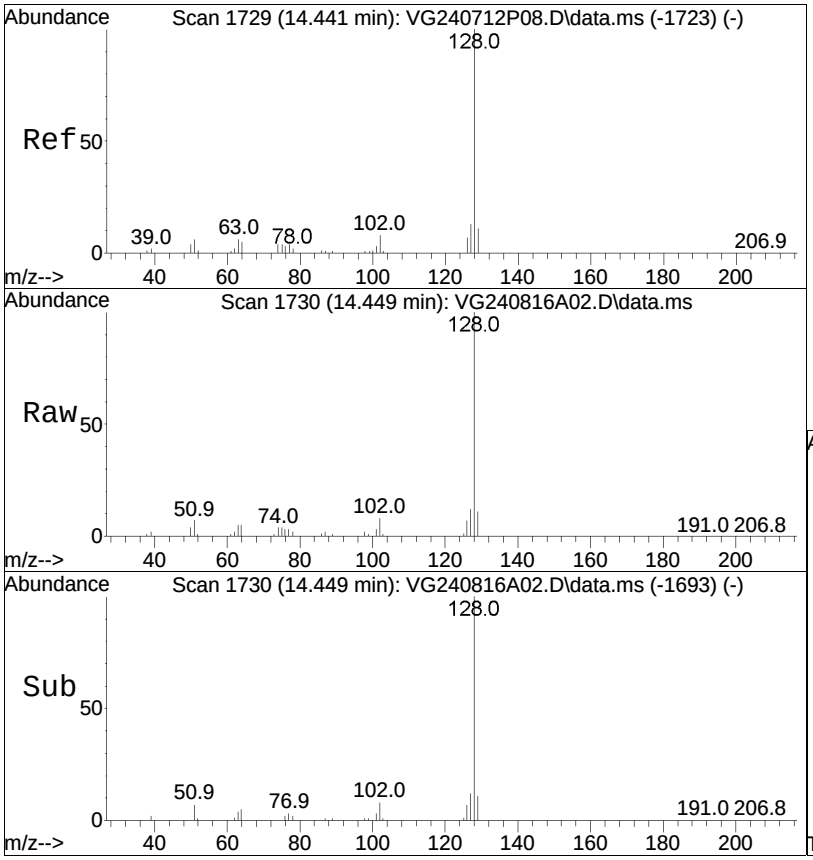


#109
1,2,4-Trichlorobenzene
Concen: 9.30 ug/L
RT: 14.153 min Scan# 1694
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:180 Resp: 91226

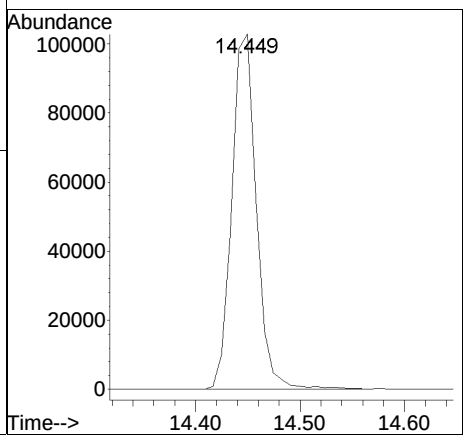
Ion	Ratio	Lower	Upper
180	100		
182	95.5	76.7	115.1
145	30.3	26.5	39.7

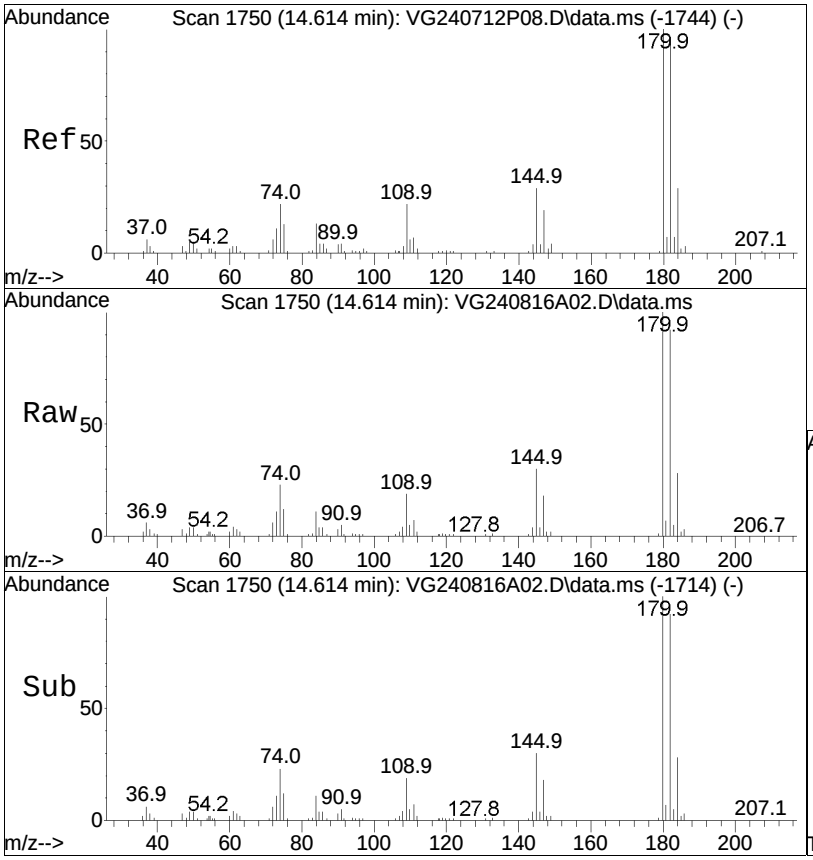




#110
Naphthalene
Concen: 7.67 ug/L
RT: 14.449 min Scan# 1730
Delta R.T. 0.008 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:128 Resp: 168739

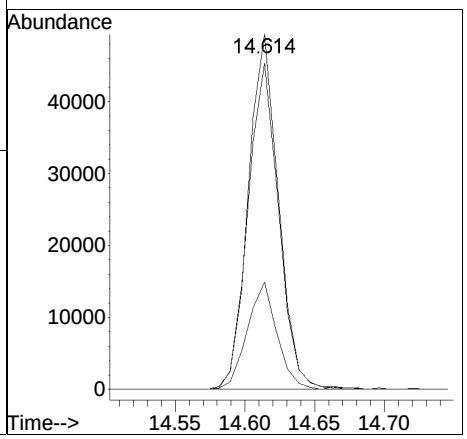




#111
1,2,3-Trichlorobenzene
Concen: 9.16 ug/L
RT: 14.614 min Scan# 1750
Delta R.T. 0.000 min
Lab File: VG240816A02.D
Acq: 16 Aug 2024 7:12 am

Tgt Ion:180 Resp: 74702

Ion	Ratio	Lower	Upper
180	100		
182	93.6	77.0	115.4
145	29.7	24.1	36.1

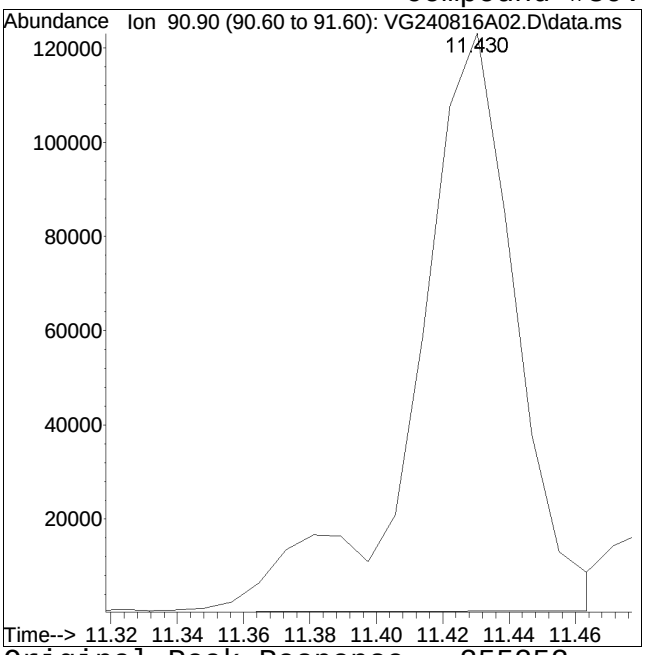


Manual Integration Report

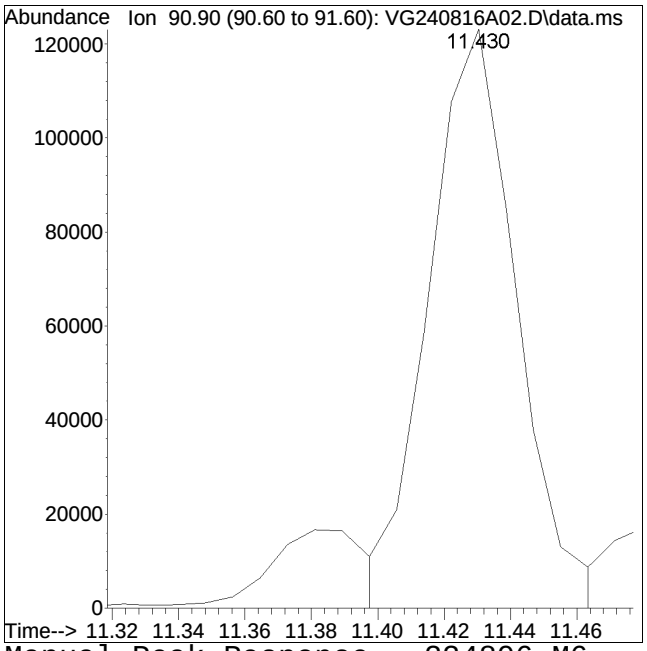
Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A02.D
Date Inj'd : 8/16/2024 7:12 am
Sample : WG1960231-4,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/16/2024 7:58 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 255252



Manual Peak Response = 224806 M6

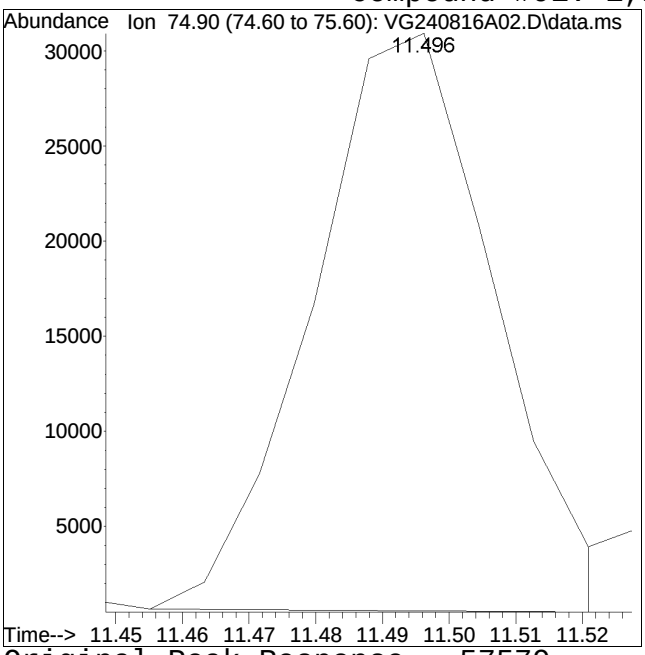
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

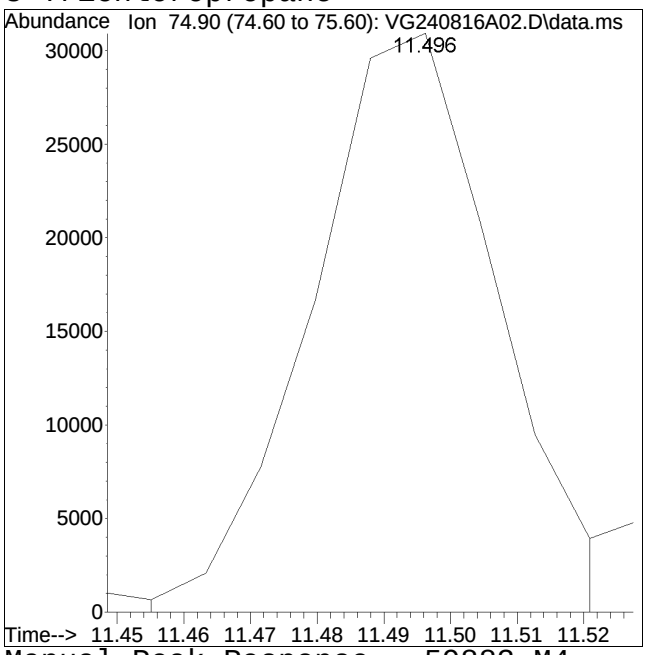
Data Path : K:\Gonzo\2024\240816A\
Data File : VG240816A02.D
Date Inj'd : 8/16/2024 7:12 am
Sample : WG1960231-4,31,10,10

QMethod : G_240712P_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 8/16/2024 7:58 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 57579



Manual Peak Response = 59883 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A02.D
Acq On : 16 Aug 2024 7:13 am
Operator : ELAINE:PID
Sample : WG1960272-4,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:37:39 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.956	96	179101	10.000	ug/L	-0.01
Standard Area 1 = 184749			Recovery = 96.94%			
63) Chlorobenzene-d5	9.492	117	130030	10.000	ug/L	0.00
Standard Area 1 = 135681			Recovery = 95.84%			
84) 1,4-Dichlorobenzene-d4	12.202	152	77124	10.000	ug/L	0.00
Standard Area 1 = 81388			Recovery = 94.76%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	42829	10.215	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.15%			
47) 1,2-Dichloroethane-d4	5.674	65	53879	9.631	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.31%			
64) Toluene-d8	7.648	98	171322	10.003	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.03%			
88) 4-Bromofluorobenzene	10.992	95	65348	9.172	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.72%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.589	85	38935	9.696	ug/L	99
3) Chloromethane	1.778	50	47578	10.642	ug/L	97
4) Vinyl chloride	1.854	62	46890	11.254	ug/L	96
5) Bromomethane	2.160	94	18267	14.441	ug/L	92
6) Chloroethane	2.278	64	30410	12.089	ug/L	99
7) Trichlorofluoromethane	2.417	101	59578	12.444	ug/L	97
8) Ethyl ether	2.715	74	20130	10.677	ug/L	81
10) 1,1-Dichloroethene	2.902	96	28791	10.038	ug/L #	73
11) Carbon disulfide	2.930	76	95966	10.843	ug/L	99
15) Methylene chloride	3.457	84	37575	10.385	ug/L	90
17) Acetone	3.496	43	9585	7.294	ug/L #	77
18) trans-1,2-Dichloroethene	3.602	96	34297	11.123	ug/L	79
21) Methyl tert-butyl ether	3.705	73	106496	9.263	ug/L	97
25) 1,1-Dichloroethane	4.188	63	80389	11.110	ug/L	97
27) Acrylonitrile	4.232	53	12354	8.182	ug/L #	79
29) Vinyl acetate	4.425	43	109965	10.032	ug/L	96
30) cis-1,2-Dichloroethene	4.709	96	39644	10.727	ug/L	96
31) 2,2-Dichloropropane	4.804	77	55227	11.404	ug/L	89
33) Bromochloromethane	4.902	128	17830	10.998	ug/L	85
35) Chloroform	4.971	83	66147	11.027	ug/L	97

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A02.D
Acq On : 16 Aug 2024 7:13 am
Operator : ELAINE:PID
Sample : WG1960272-4,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:37:39 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.105	117	54648	11.927	ug/L		97
40) 1,1,1-Trichloroethane	5.175	97	60677	11.138	ug/L		96
42) 2-Butanone	5.259	43	15373	8.188	ug/L	#	76
43) 1,1-Dichloropropene	5.298	75	52723	11.496	ug/L		96
45) Benzene	5.540	78	159416	11.236	ug/L	#	90
48) 1,2-Dichloroethane	5.741	62	57269	10.459	ug/L		96
52) Trichloroethene	6.137	95	40888	11.463	ug/L		97
54) Dibromomethane	6.580	93	21940	10.678	ug/L	#	84
55) 1,2-Dichloropropane	6.678	63	44841	10.470	ug/L		99
58) Bromodichloromethane	6.756	83	54018	10.644	ug/L		95
61) 1,4-Dioxane	6.960	88	14015	407.751	ug/L	#	79
62) cis-1,3-Dichloropropene	7.442	75	60733	10.628	ug/L		96
65) Toluene	7.704	92	100135	11.184	ug/L		96
66) 4-Methyl-2-pentanone	8.139	58	11966	7.836	ug/L		98
67) Tetrachloroethene	8.153	166	46474	12.219	ug/L		96
69) trans-1,3-Dichloropropene	8.187	75	50969	10.111	ug/L		97
72) 1,1,2-Trichloroethane	8.371	83	26432	10.515	ug/L		97
73) Chlorodibromomethane	8.588	129	34760	9.889	ug/L		96
74) 1,3-Dichloropropane	8.700	76	54880	10.340	ug/L		97
75) 1,2-Dibromoethane	8.862	107	28793	9.692	ug/L		87
77) 2-Hexanone	9.146	43	21595	7.257	ug/L		98
78) Chlorobenzene	9.514	112	107549	11.273	ug/L	#	81
79) Ethylbenzene	9.553	91	198706	11.451	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.598	131	39194	11.206	ug/L		97
81) p/m Xylene	9.737	106	154513	23.358	ug/L		99
82) o Xylene	10.284	106	148454	22.950	ug/L		93
83) Styrene	10.348	104	246455	23.238	ug/L		95
85) Bromoform	10.373	173	24360	9.708	ug/L		94
87) Isopropylbenzene	10.666	105	200672	10.866	ug/L		96
89) Bromobenzene	11.101	156	48783	10.463	ug/L		95
90) n-Propylbenzene	11.148	91	245201	11.111	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.240	83	37212	9.496	ug/L		99
93) 4-Ethyltoluene	11.274	105	196473	10.975	ug/L		98
94) 2-Chlorotoluene	11.316	91	139765M1	10.766	ug/L		
95) 1,3,5-Trimethylbenzene	11.371	105	173318	11.037	ug/L		100
96) 1,2,3-Trichloropropane	11.377	75	30898	9.665	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.424	53	13066	8.317	ug/L		91
98) 4-Chlorotoluene	11.500	91	145817	10.722	ug/L		99
99) tert-Butylbenzene	11.714	119	145221	11.001	ug/L		95

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A02.D
Acq On : 16 Aug 2024 7:13 am
Operator : ELAINE:PID
Sample : WG1960272-4,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:37:39 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240816A\VE240816A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.792	105	170839	10.898	ug/L	95
103) sec-Butylbenzene	11.907	105	214618	10.963	ug/L	98
104) p-Isopropyltoluene	12.057	119	179881	10.905	ug/L	96
105) 1,3-Dichlorobenzene	12.124	146	96055	11.155	ug/L	96
106) 1,4-Dichlorobenzene	12.216	146	95192	11.059	ug/L	99
107) p-Diethylbenzene	12.434	119	104376	10.731	ug/L	96
108) n-Butylbenzene	12.492	91	156365	11.008	ug/L	99
109) 1,2-Dichlorobenzene	12.640	146	89810	10.840	ug/L	99
110) 1,2,4,5-Tetramethylben...	13.229	119	159200	10.087	ug/L	95
111) 1,2-Dibromo-3-chloropr...	13.418	155	5774	7.893	ug/L	92
113) Hexachlorobutadiene	14.029	225	23733	10.886	ug/L	95
114) 1,2,4-Trichlorobenzene	14.051	180	57736	9.722	ug/L	97
115) Naphthalene	14.344	128	110868	8.470	ug/L	100
116) 1,2,3-Trichlorobenzene	14.511	180	51058	9.358	ug/L	94

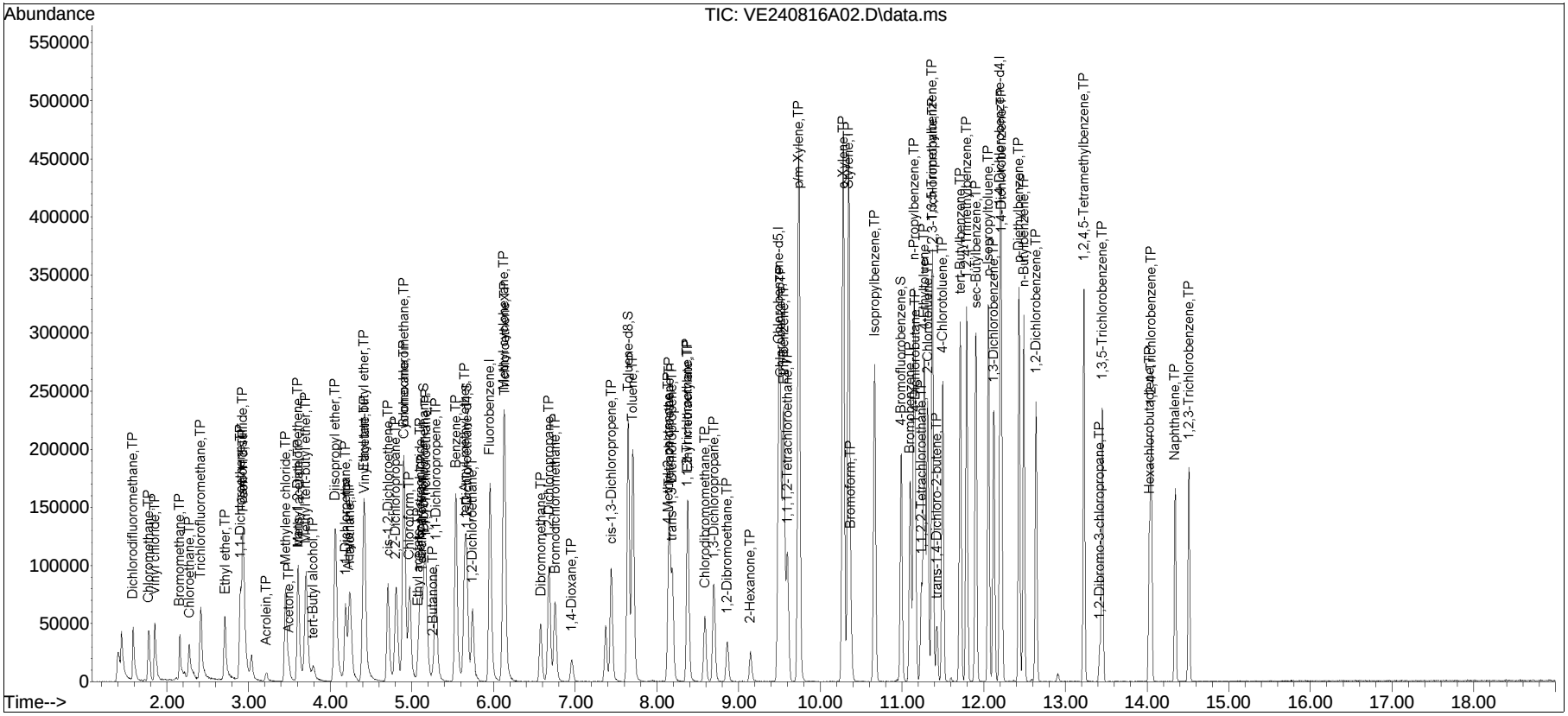
(#) = qualifier out of range (m) = manual integration (+) = signals summed

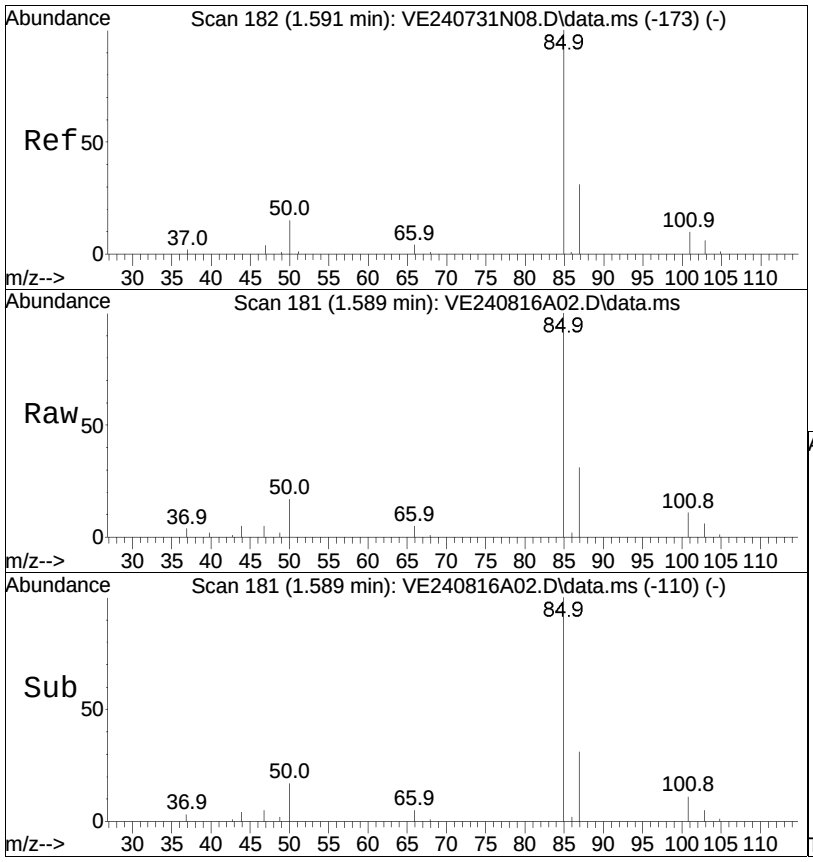
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A02.D
Acq On : 16 Aug 2024 7:13 am
Operator : ELAINE:PID
Sample : WG1960272-4,31,10,10
Misc : WG1960272,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 16 07:37:39 2024
Quant Method : K:\Elaine\2024\240816A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

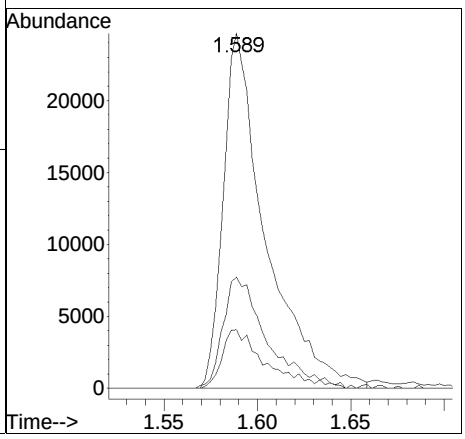


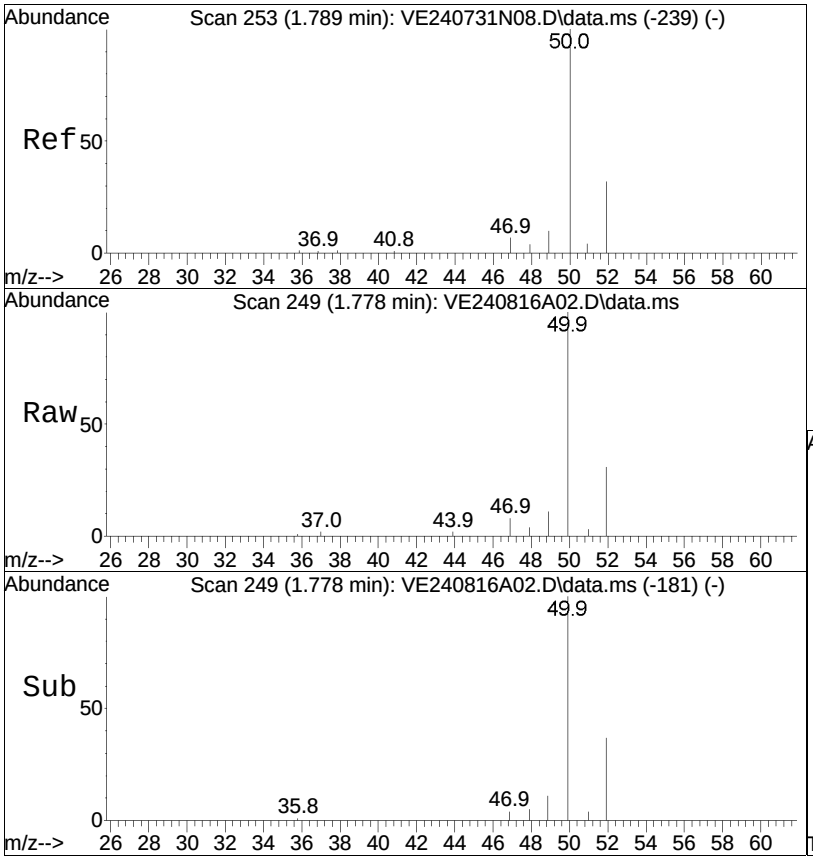


#2
Dichlorodifluoromethane
Concen: 9.70 ug/L
RT: 1.589 min Scan# 181
Delta R.T. -0.002 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 85 Resp: 38935

Ion	Ratio	Lower	Upper
85	100		
87	32.7	21.7	45.1
50	17.2	11.8	24.4

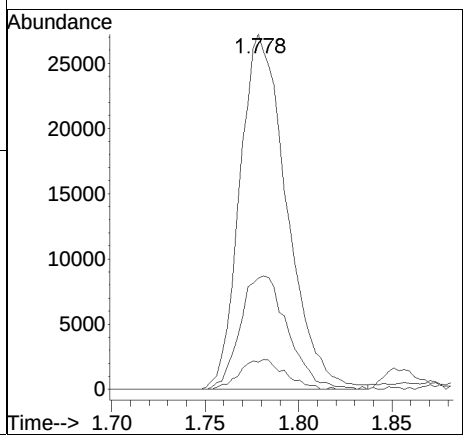


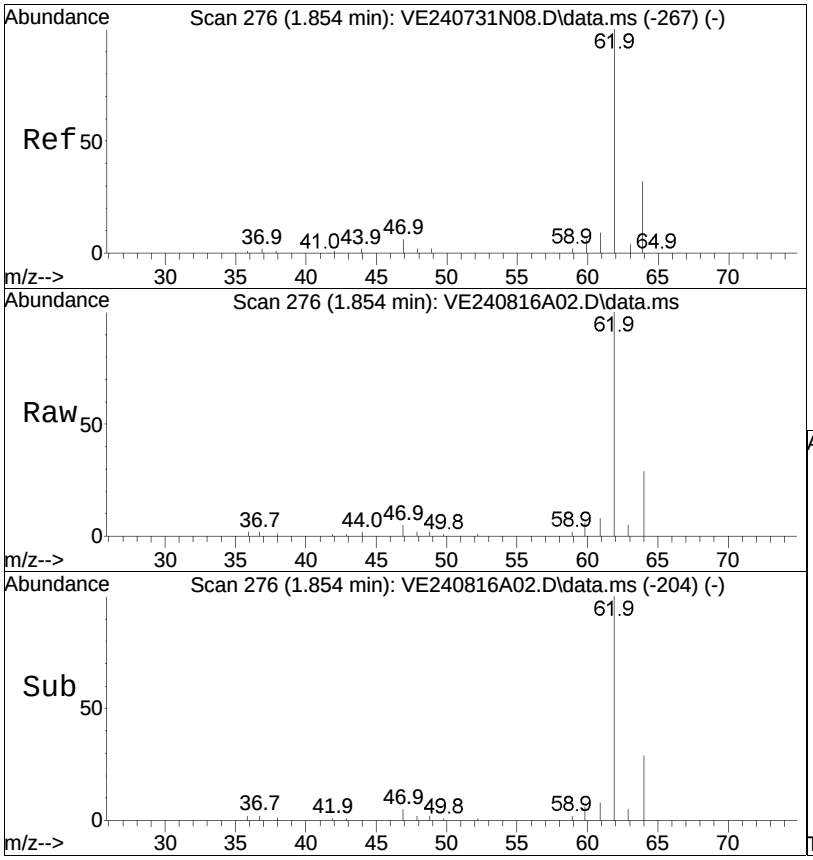


#3
Chloromethane
Concen: 10.64 ug/L
RT: 1.778 min Scan# 249
Delta R.T. -0.011 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 50 Resp: 47578

Ion	Ratio	Lower	Upper
50	100		
52	32.5	14.9	54.9
47	8.1	0.0	28.0

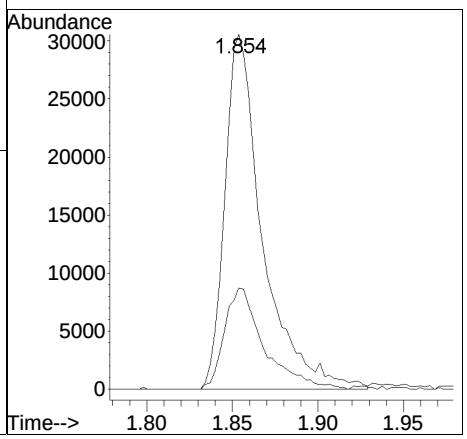


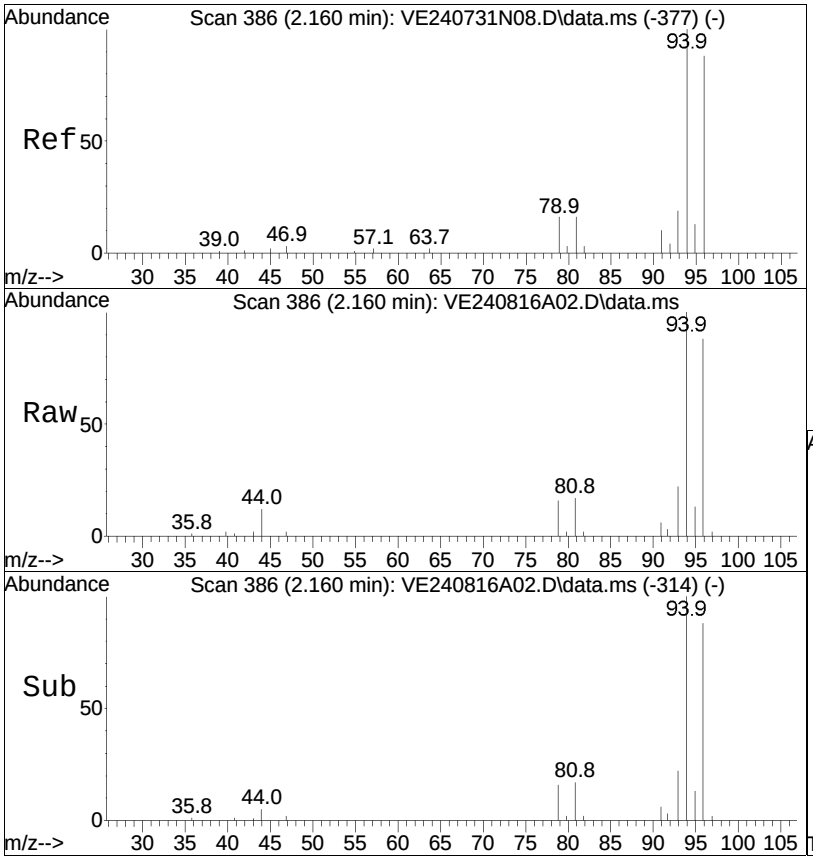


#4
Vinyl chloride
Concen: 11.25 ug/L
RT: 1.854 min Scan# 276
Delta R.T. -0.000 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 62 Resp: 46890

Ion	Ratio	Lower	Upper
62	100		
64	30.1	8.1	48.1

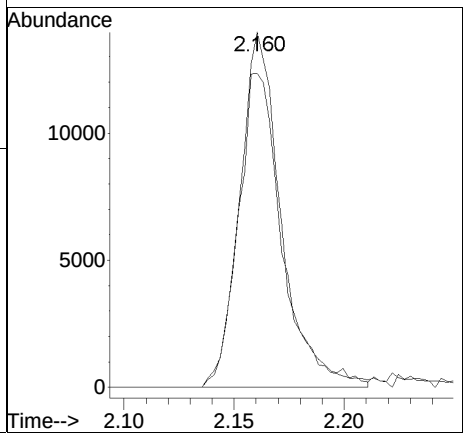


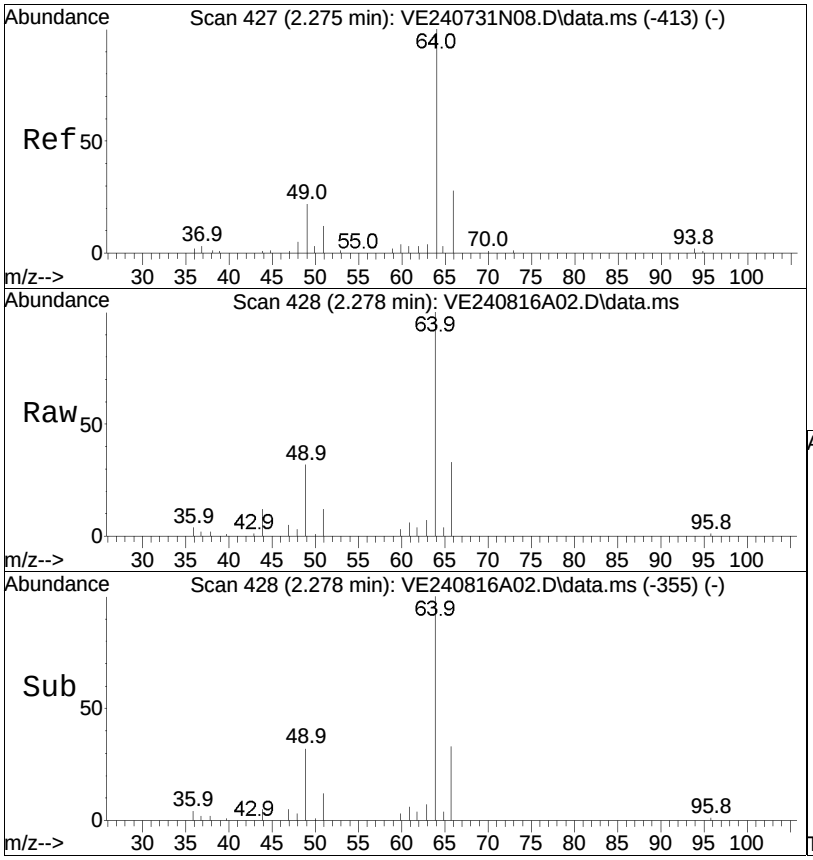


#5
Bromomethane
Concen: 14.44 ug/L
RT: 2.160 min Scan# 386
Delta R.T. 0.000 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 94 Resp: 18267

Ion	Ratio	Lower	Upper
94	100		
96	95.3	68.2	108.2

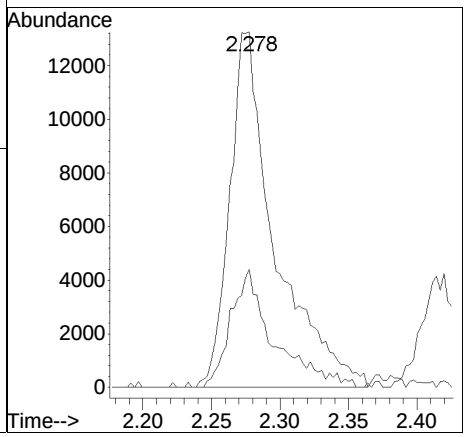


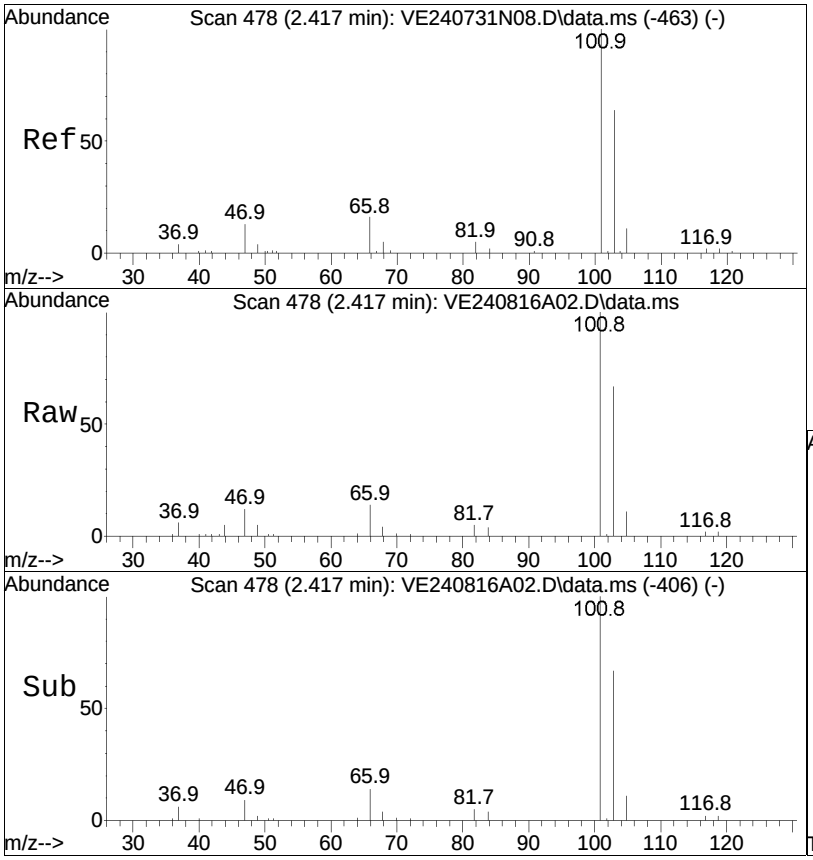


#6
Chloroethane
Concen: 12.09 ug/L
RT: 2.278 min Scan# 428
Delta R.T. 0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 64 Resp: 30410

Ion	Ratio	Lower	Upper
64	100		
66	30.3	10.7	50.7

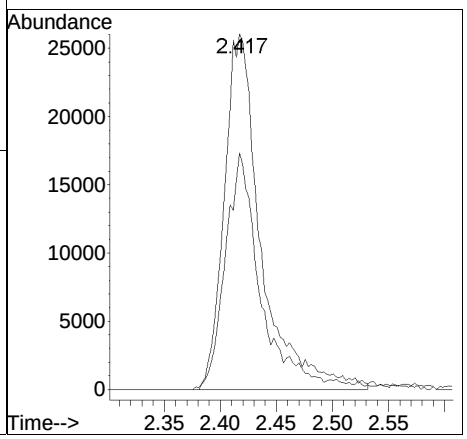


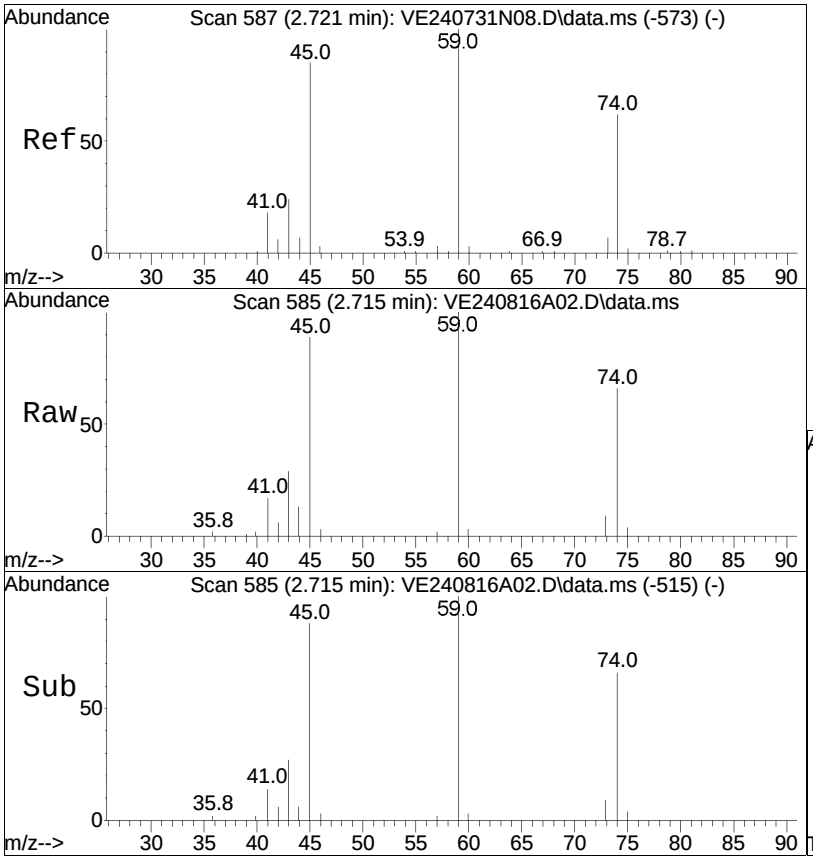


#7
Trichlorofluoromethane
Concen: 12.44 ug/L
RT: 2.417 min Scan# 478
Delta R.T. 0.000 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:101 Resp: 59578

Ion	Ratio	Lower	Upper
101	100		
103	62.5	48.2	72.2

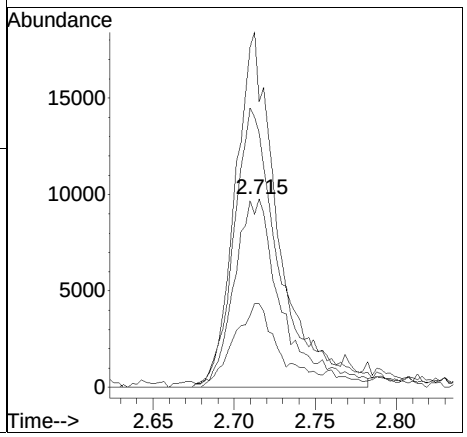


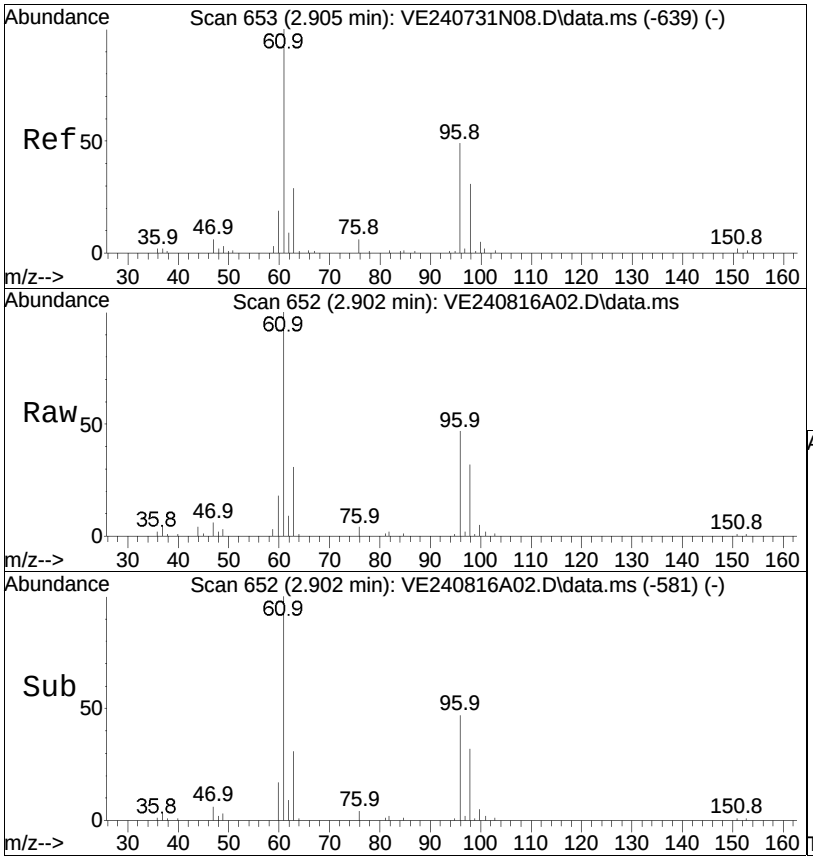


#8
Ethyl ether
Concen: 10.68 ug/L
RT: 2.715 min Scan# 585
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 74 Resp: 20130

Ion	Ratio	Lower	Upper
74	100		
59	167.0	91.7	190.5
45	143.7	77.4	160.8
43	38.3	24.6	51.2

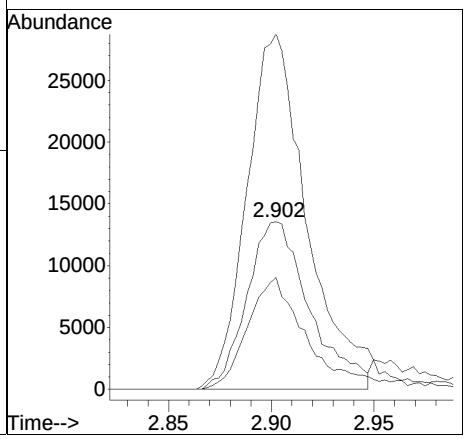


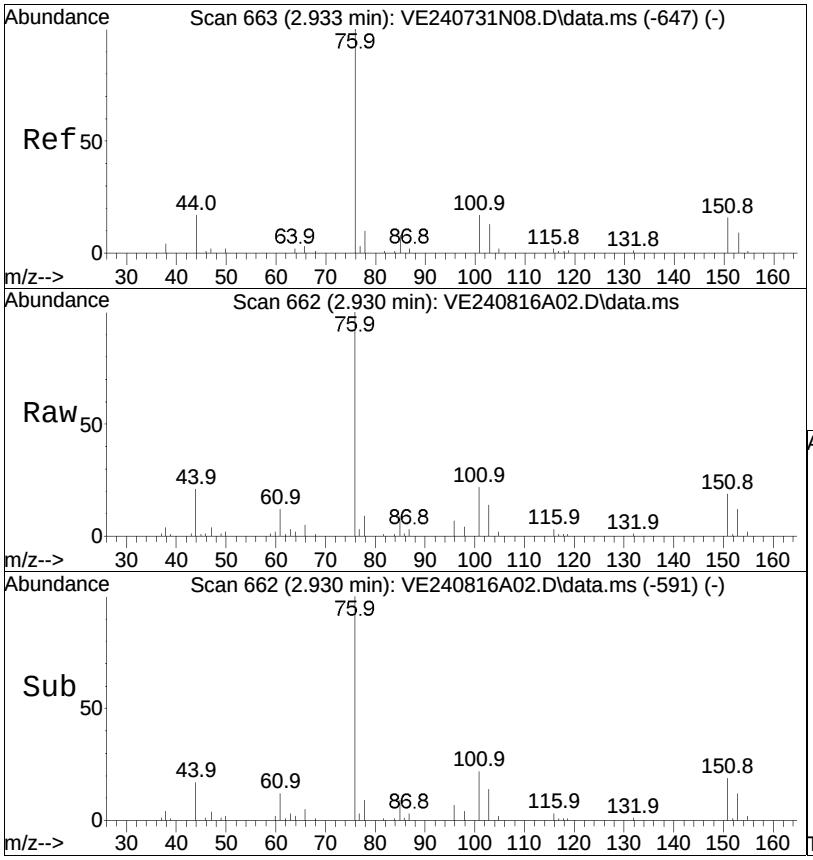


#10
1,1-Dichloroethene
Concen: 10.04 ug/L
RT: 2.902 min Scan# 652
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 96 Resp: 28791

Ion	Ratio	Lower	Upper
96	100		
61	211.3	135.4	203.0#
63	64.3	42.6	63.8#

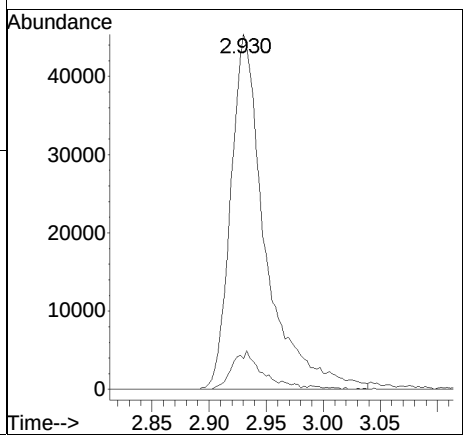


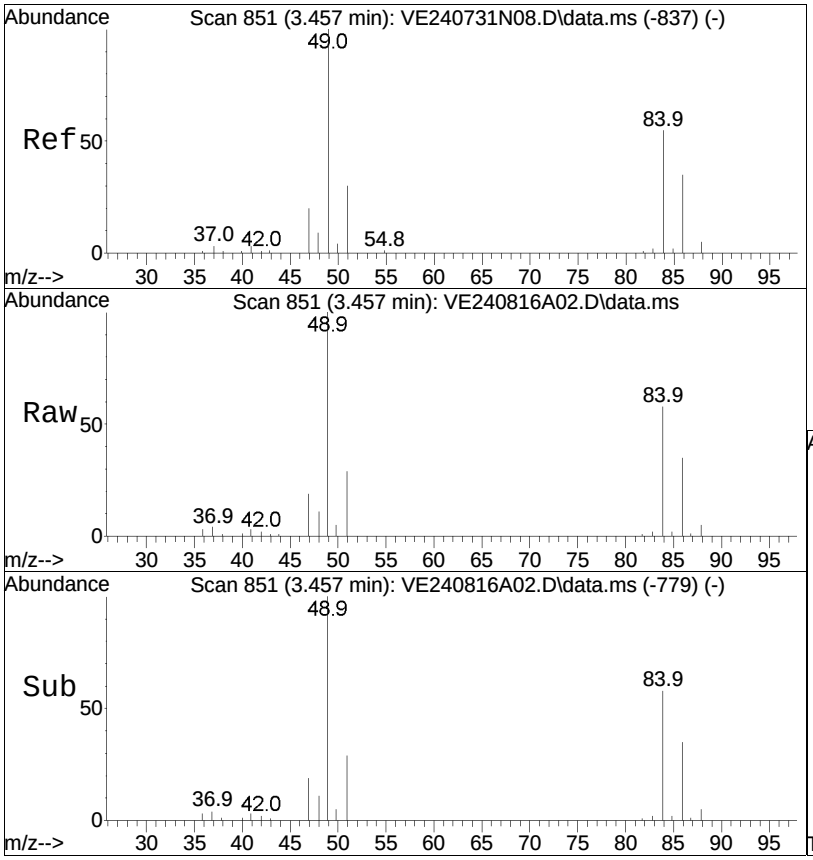


#11
Carbon disulfide
Concen: 10.84 ug/L
RT: 2.930 min Scan# 662
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 76 Resp: 95966

Ion	Ratio	Lower	Upper
76	100		
78	8.6	5.5	11.3

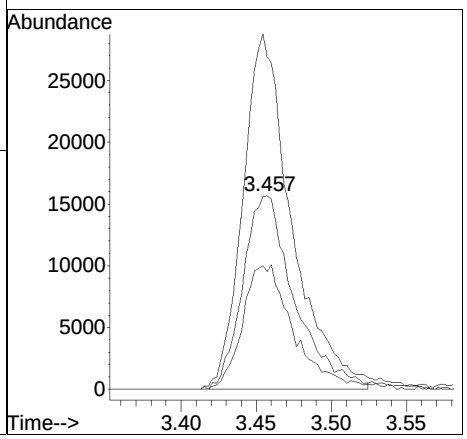


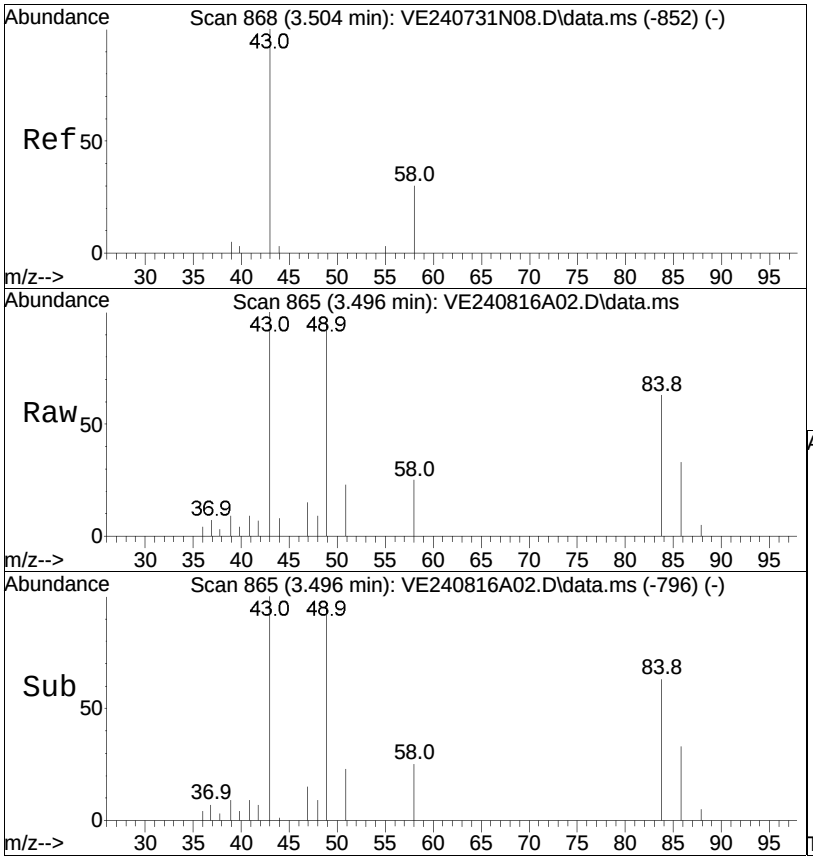


#15
Methylene chloride
Concen: 10.39 ug/L
RT: 3.457 min Scan# 851
Delta R.T. 0.000 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 84 Resp: 37575

Ion	Ratio	Lower	Upper
84	100		
86	63.8	40.2	83.6
49	176.0	103.2	214.4

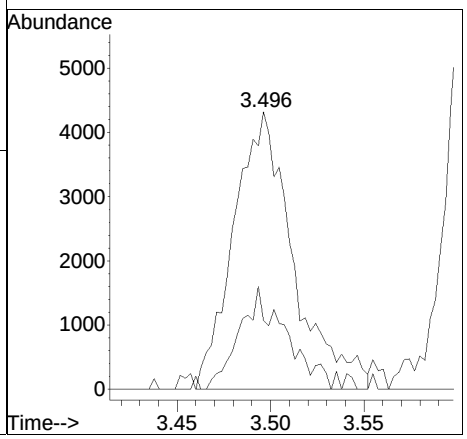


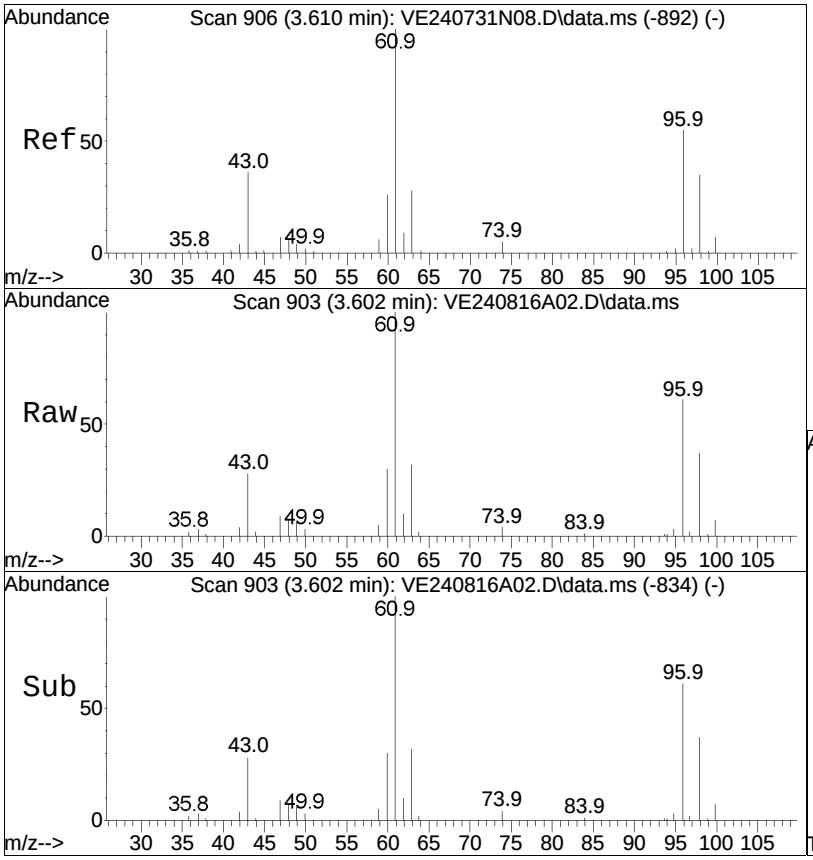


#17
Acetone
Concen: 7.29 ug/L
RT: 3.496 min Scan# 865
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 43 Resp: 9585

Ion	Ratio	Lower	Upper
43	100		
58	16.7	23.4	35.0#

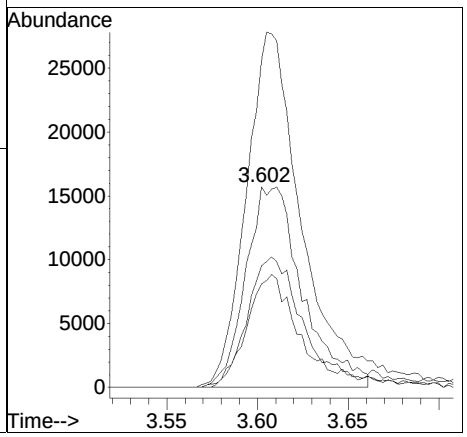


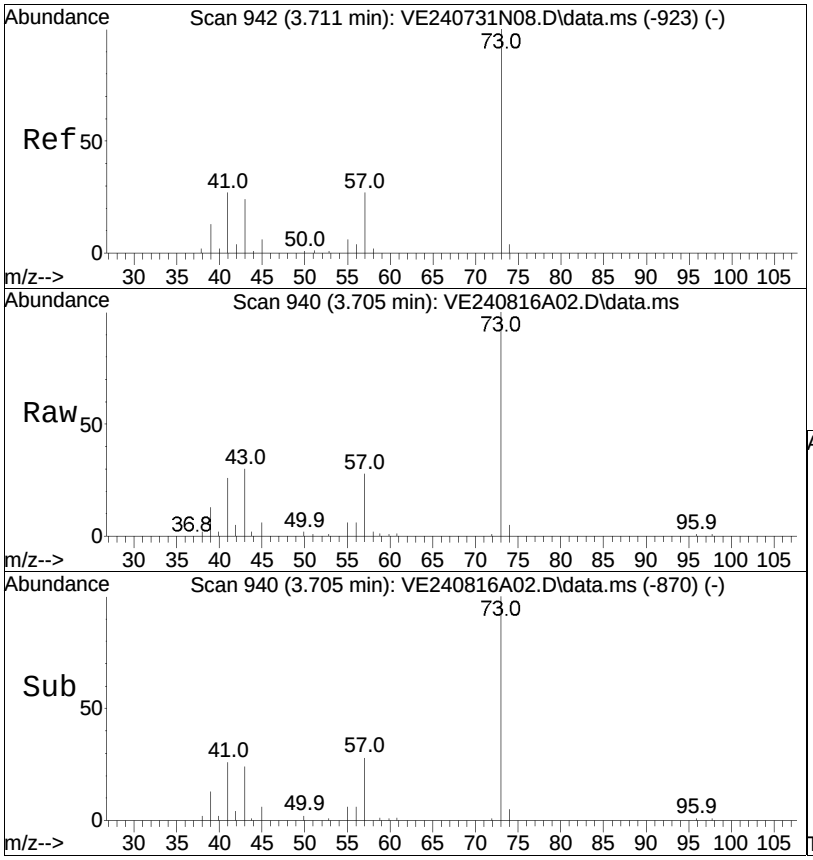


#18
trans-1,2-Dichloroethene
Concen: 11.12 ug/L
RT: 3.602 min Scan# 903
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 96 Resp: 34297

Ion	Ratio	Lower	Upper
96	100		
61	179.3	93.5	194.1
98	65.6	37.8	78.6
63	51.6	29.7	61.7

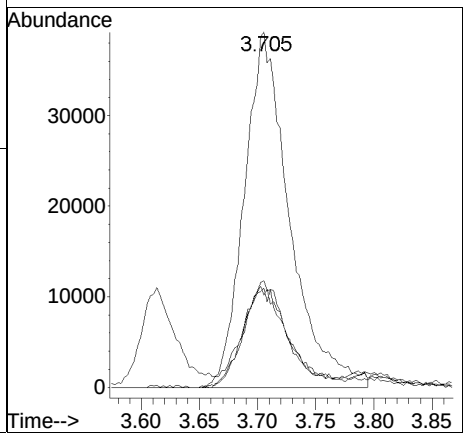


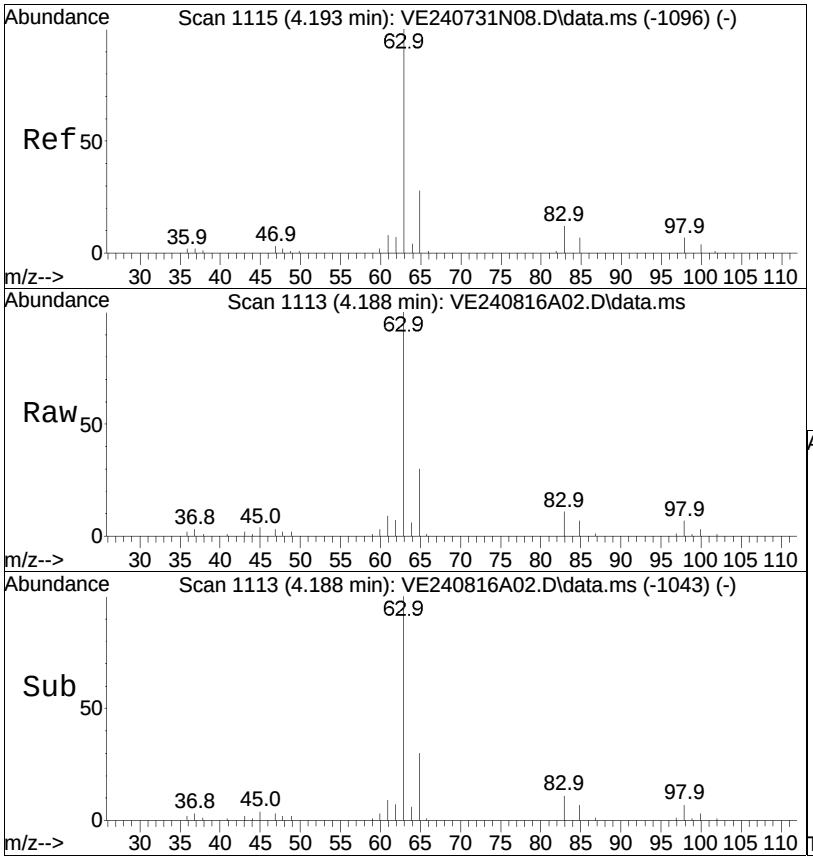


#21
Methyl tert-butyl ether
Concen: 9.26 ug/L
RT: 3.705 min Scan# 940
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 73 Resp: 106496

Ion	Ratio	Lower	Upper
73	100		
57	28.1	16.1	33.3
43	25.9	17.0	35.2
41	28.3	18.7	38.9

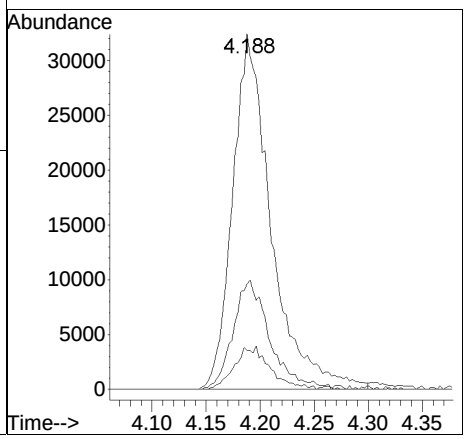


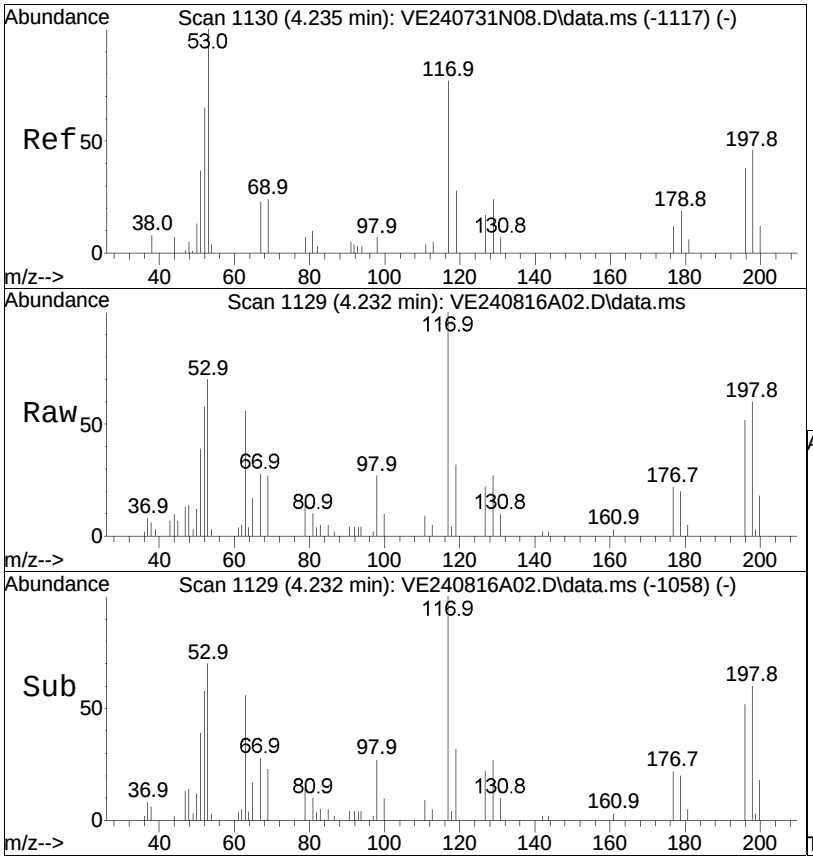


#25
1,1-Dichloroethane
Concen: 11.11 ug/L
RT: 4.188 min Scan# 1113
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 63 Resp: 80389

Ion	Ratio	Lower	Upper
63	100		
65	29.2	10.3	50.3
83	11.2	0.0	33.1

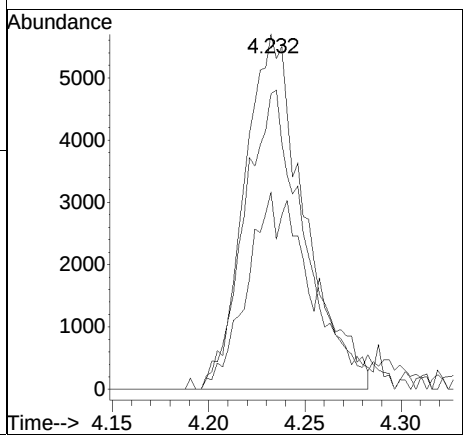


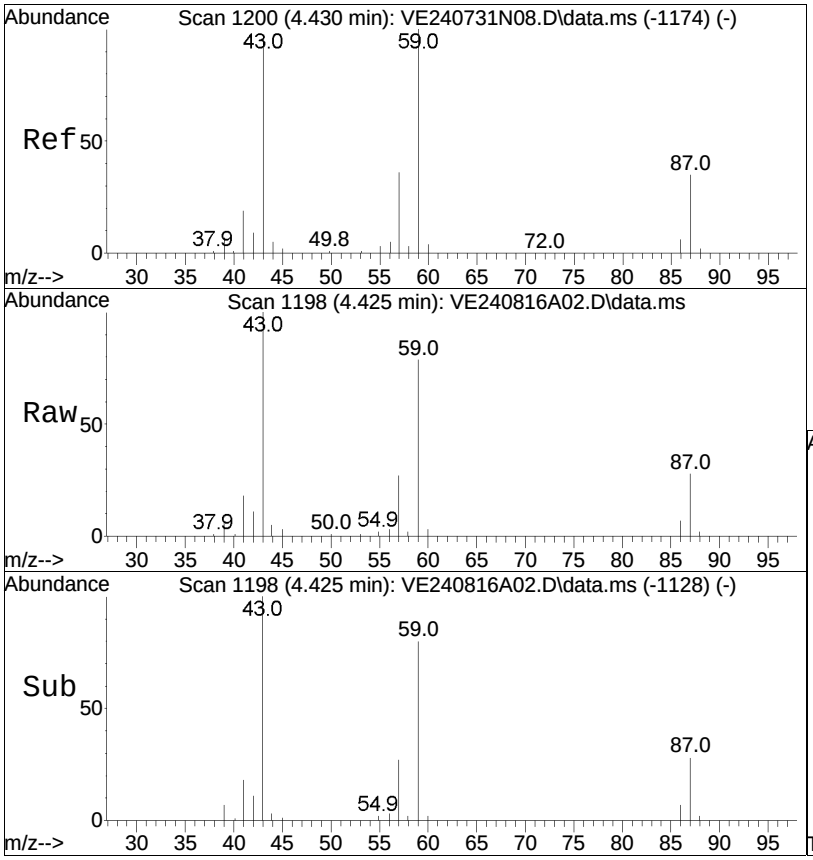


#27
Acrylonitrile
Concen: 8.18 ug/L
RT: 4.232 min Scan# 1129
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 53 Resp: 12354

Ion	Ratio	Lower	Upper
53	100		
52	84.5	58.9	88.3
51	27.9	40.2	60.2#

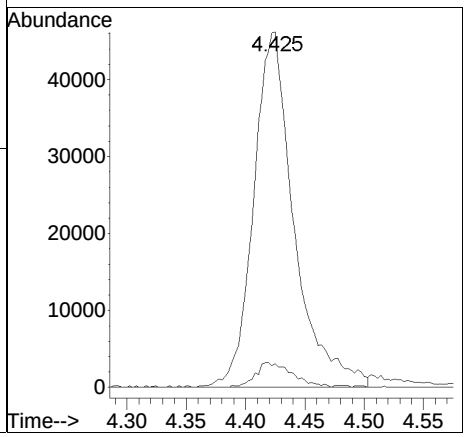


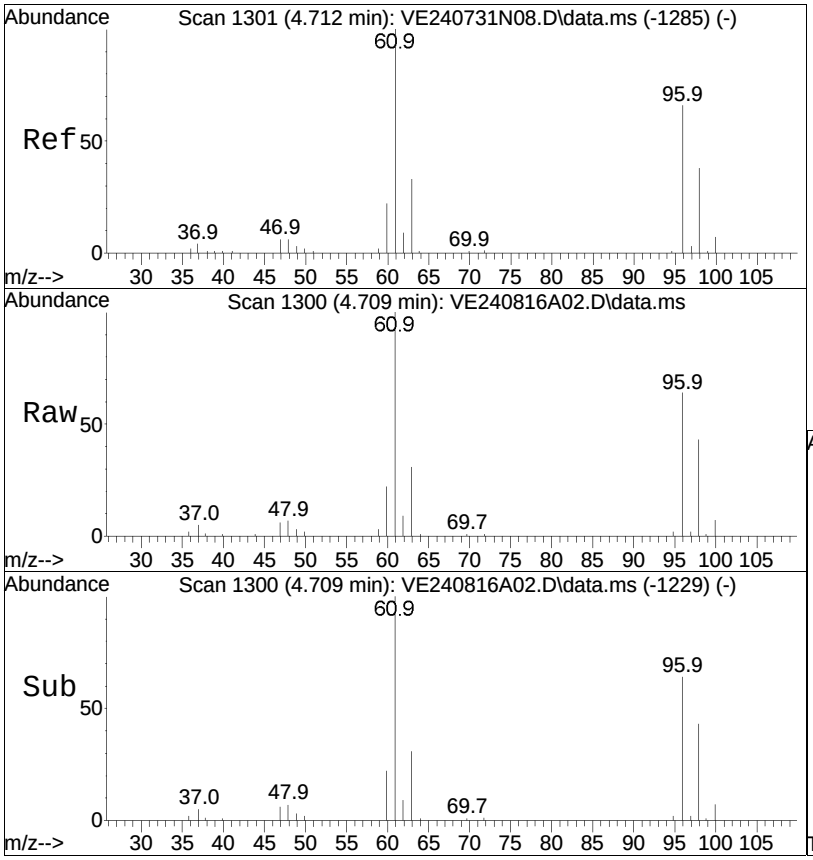


#29
Vinyl acetate
Concen: 10.03 ug/L
RT: 4.425 min Scan# 1198
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 43 Resp: 109965

Ion	Ratio	Lower	Upper
43	100		
86	6.4	6.2	9.4

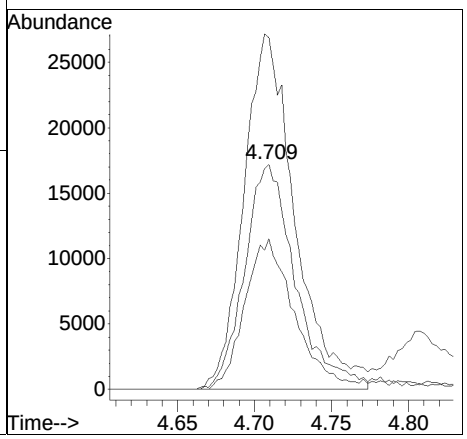


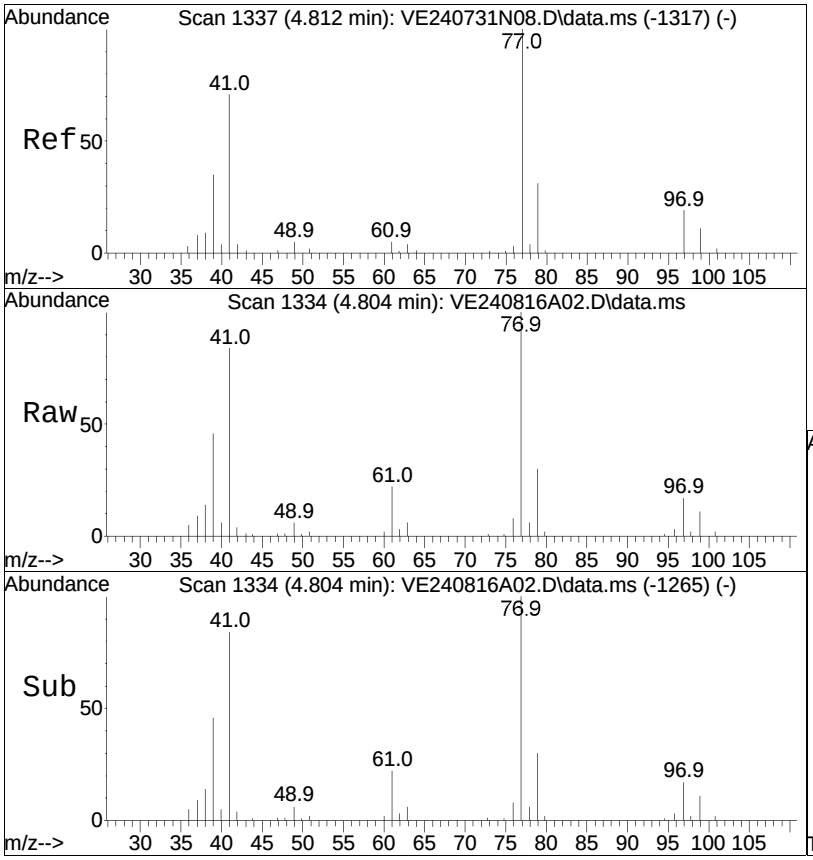


#30
cis-1,2-Dichloroethene
Concen: 10.73 ug/L
RT: 4.709 min Scan# 1300
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 96 Resp: 39644

Ion	Ratio	Lower	Upper
96	100		
61	155.8	120.3	180.5
98	65.3	50.2	75.4

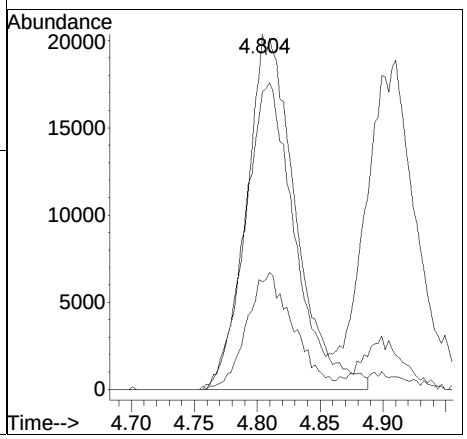


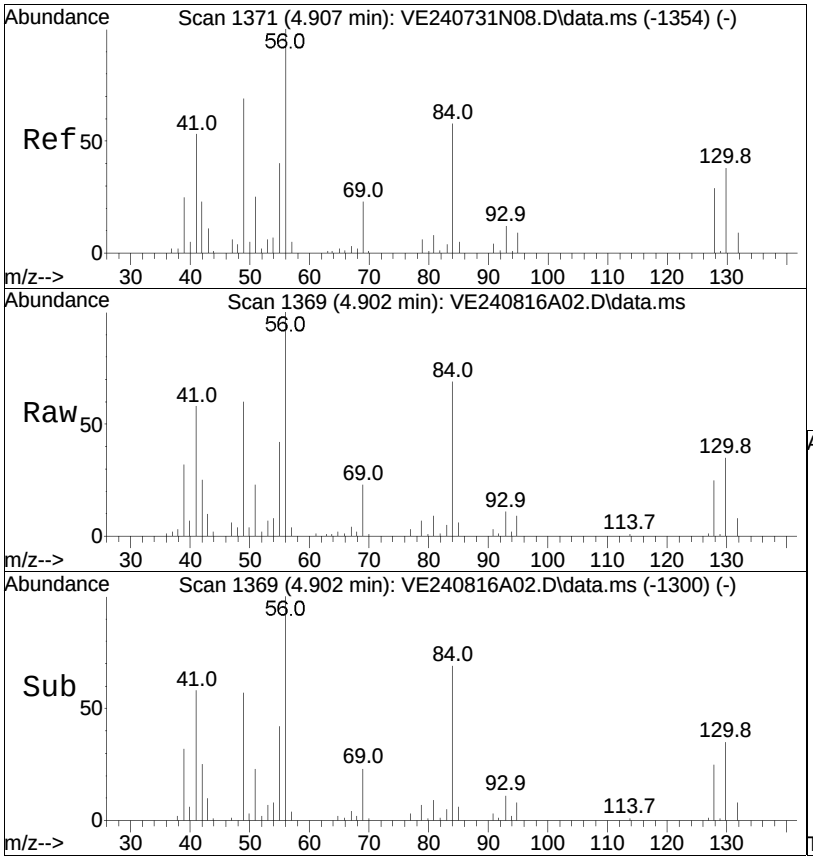


#31
2,2-Dichloropropane
Concen: 11.40 ug/L
RT: 4.804 min Scan# 1334
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 77 Resp: 55227

Ion	Ratio	Lower	Upper
77	100		
41	84.1	46.5	96.5
79	31.5	21.6	45.0

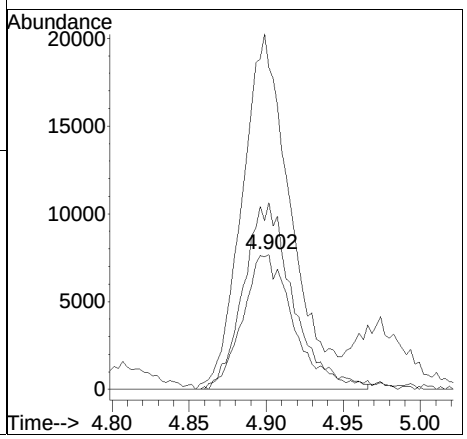


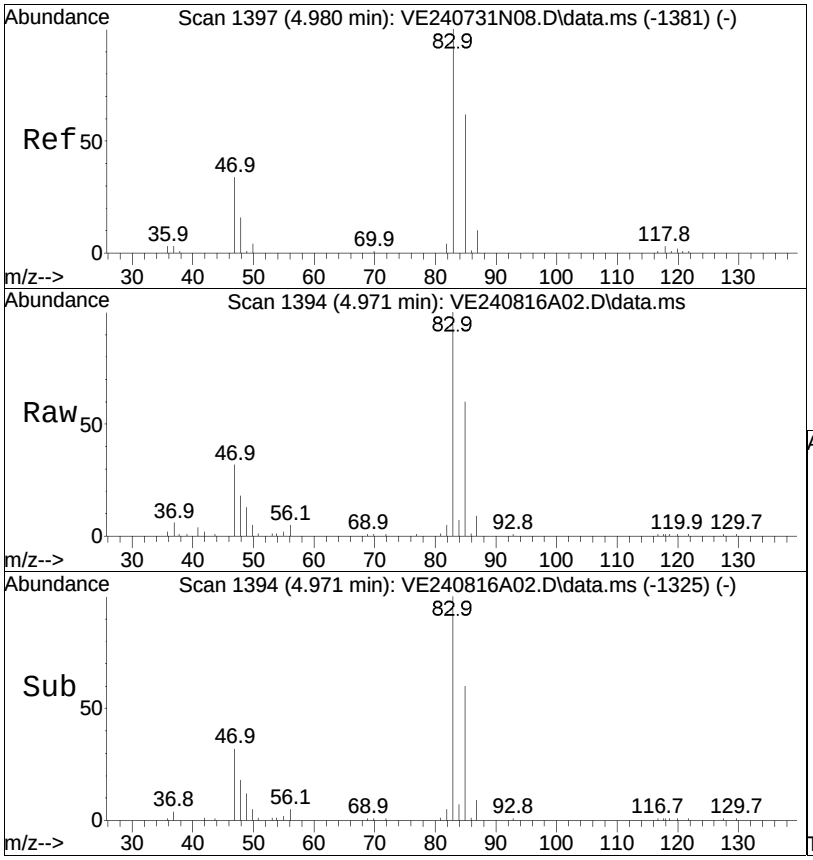


#33
Bromochloromethane
Concen: 11.00 ug/L
RT: 4.902 min Scan# 1369
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:128 Resp: 17830

Ion	Ratio	Lower	Upper
128	100		
49	247.3	170.2	255.2
130	133.8	103.7	155.5

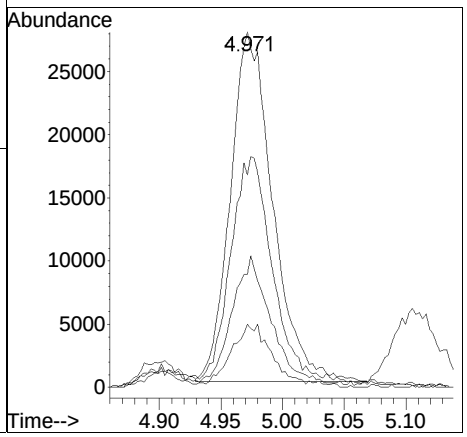


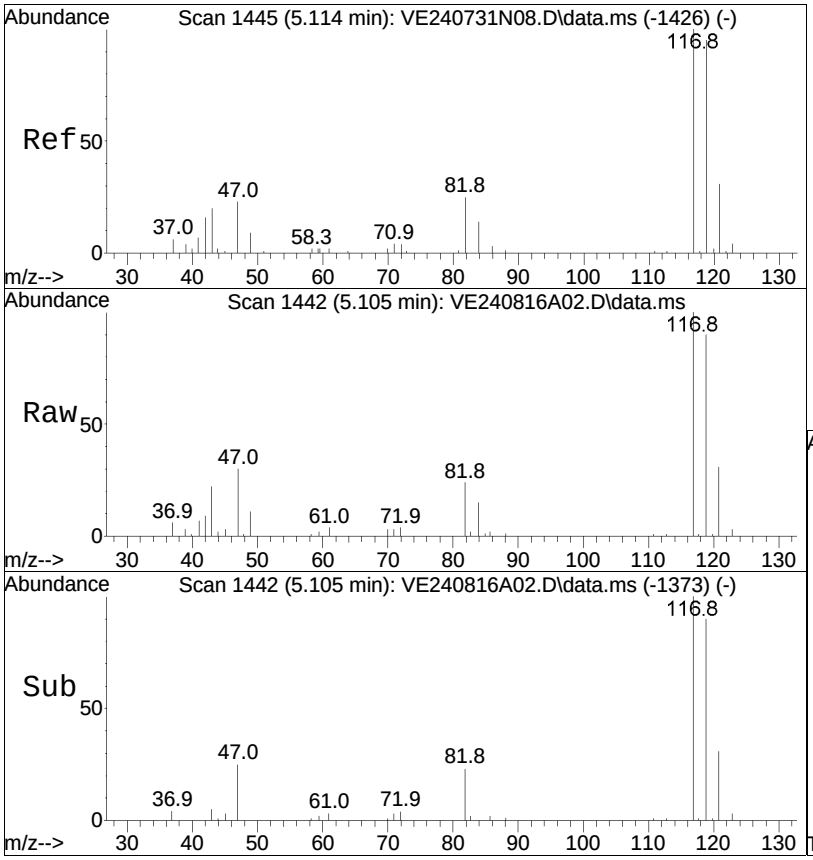


#35
Chloroform
Concen: 11.03 ug/L
RT: 4.971 min Scan# 1394
Delta R.T. -0.009 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 83 Resp: 66147

Ion	Ratio	Lower	Upper
83	100		
85	60.6	41.3	85.9
47	32.5	20.9	43.3
48	15.5	10.3	21.5

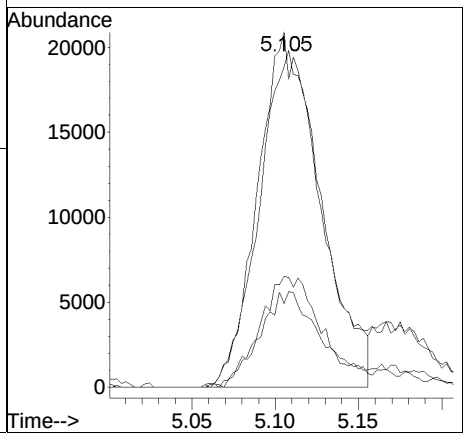


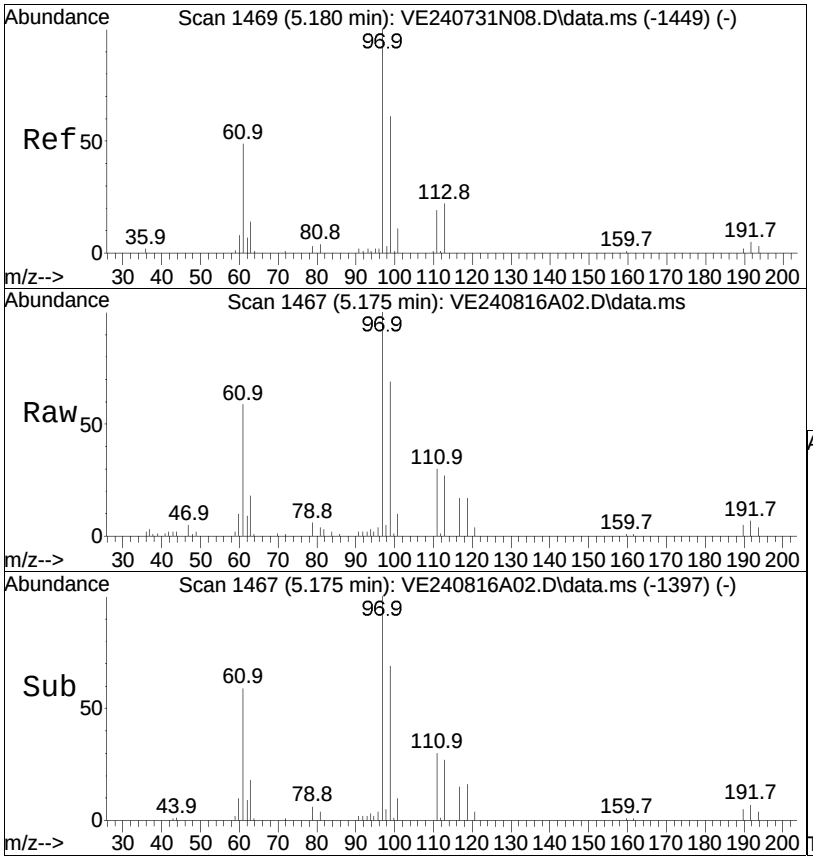


#37
Carbon tetrachloride
Concen: 11.93 ug/L
RT: 5.105 min Scan# 1442
Delta R.T. -0.009 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:117 Resp: 54648

Ion	Ratio	Lower	Upper
117	100		
119	94.1	60.6	126.0
121	31.3	18.0	37.4
82	27.0	19.8	41.0

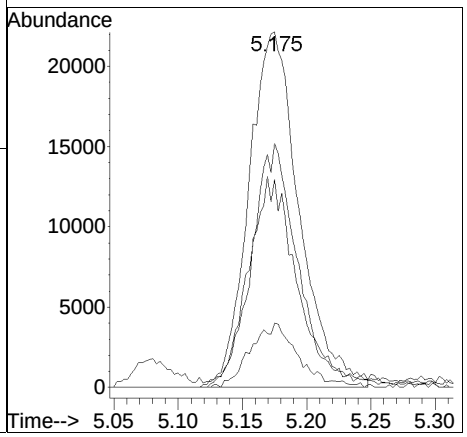


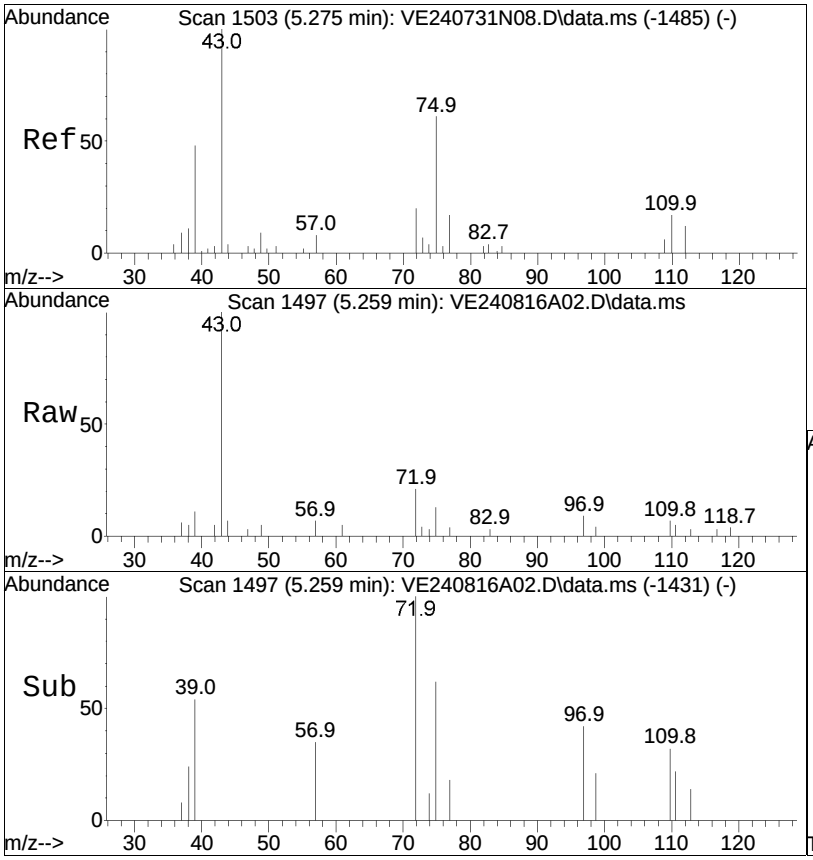


#40
1,1,1-Trichloroethane
Concen: 11.14 ug/L
RT: 5.175 min Scan# 1467
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 97 Resp: 60677

Ion	Ratio	Lower	Upper
97	100		
99	64.6	40.2	83.4
61	54.3	36.9	76.5
63	16.4	8.3	17.3

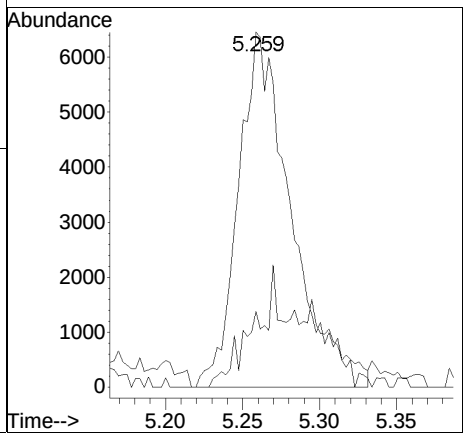


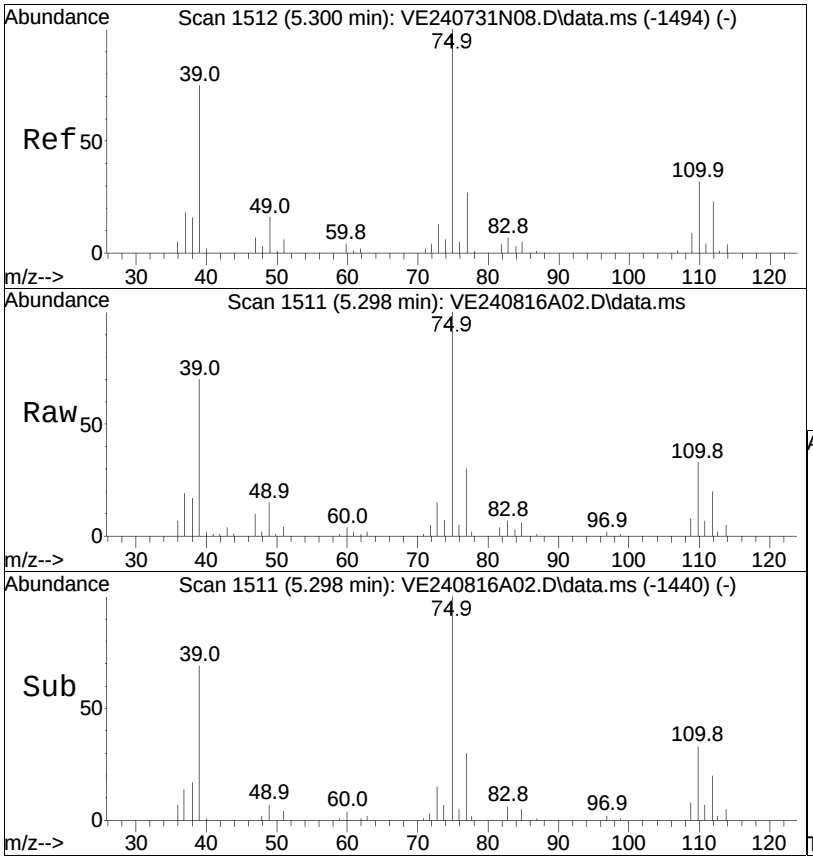


#42
2-Butanone
Concen: 8.19 ug/L
RT: 5.259 min Scan# 1497
Delta R.T. -0.016 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 43 Resp: 15373

Ion	Ratio	Lower	Upper
43	100		
72	8.6	15.7	23.5#

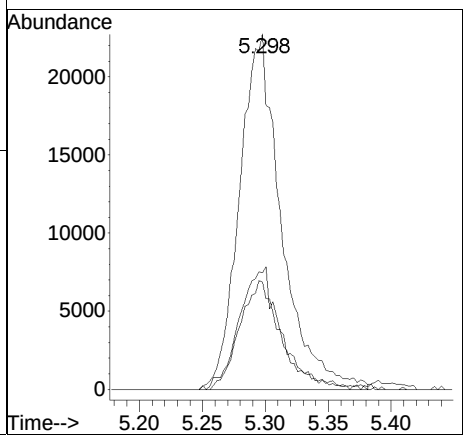


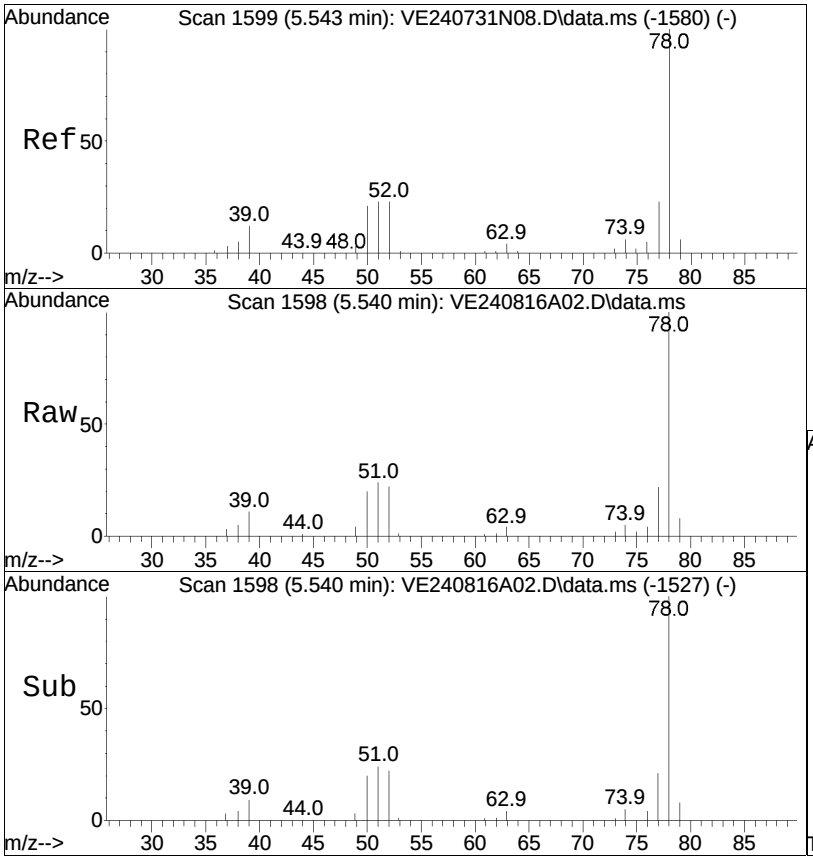


#43
1,1-Dichloropropene
Concen: 11.50 ug/L
RT: 5.298 min Scan# 1511
Delta R.T. -0.002 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 75 Resp: 52723

Ion	Ratio	Lower	Upper
75	100		
110	34.1	20.3	42.1
77	30.4	18.9	39.3

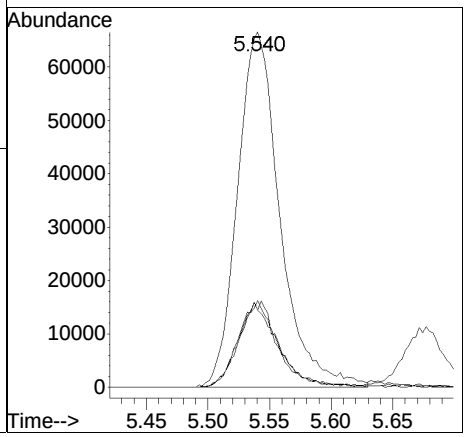


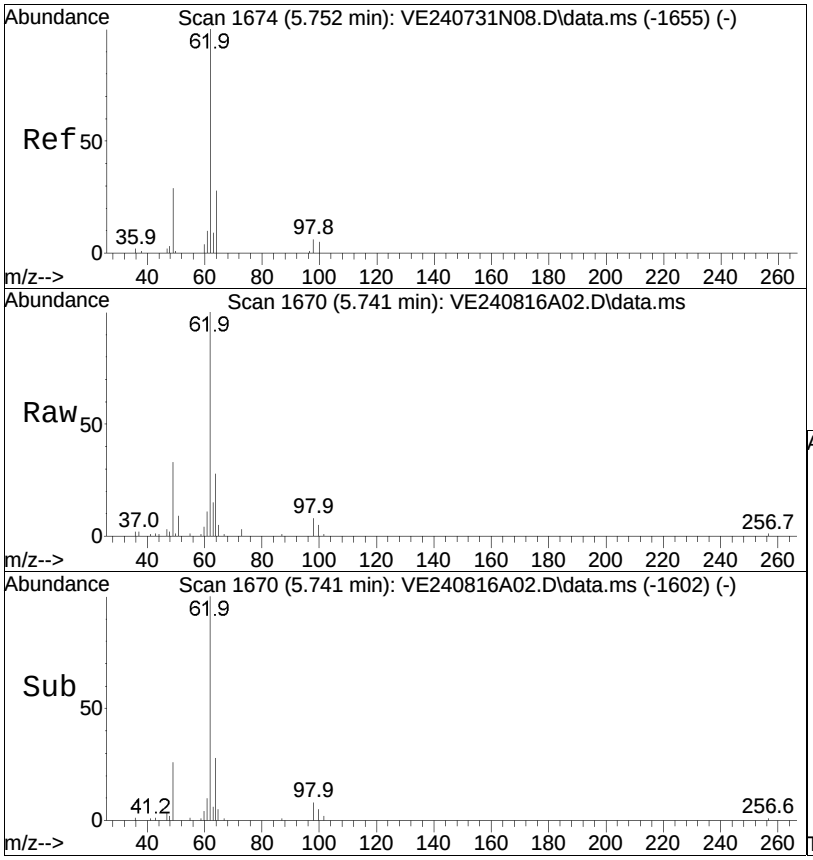


#45
Benzene
Concen: 11.24 ug/L
RT: 5.540 min Scan# 1598
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 78 Resp: 159416

Ion	Ratio	Lower	Upper
78	100		
77	11.5	12.8	26.6#
51	22.7	13.5	27.9
52	21.5	12.0	25.0

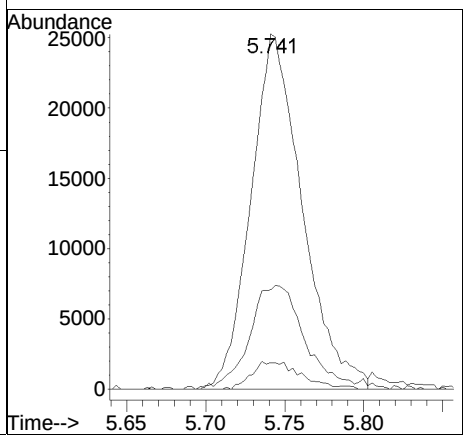


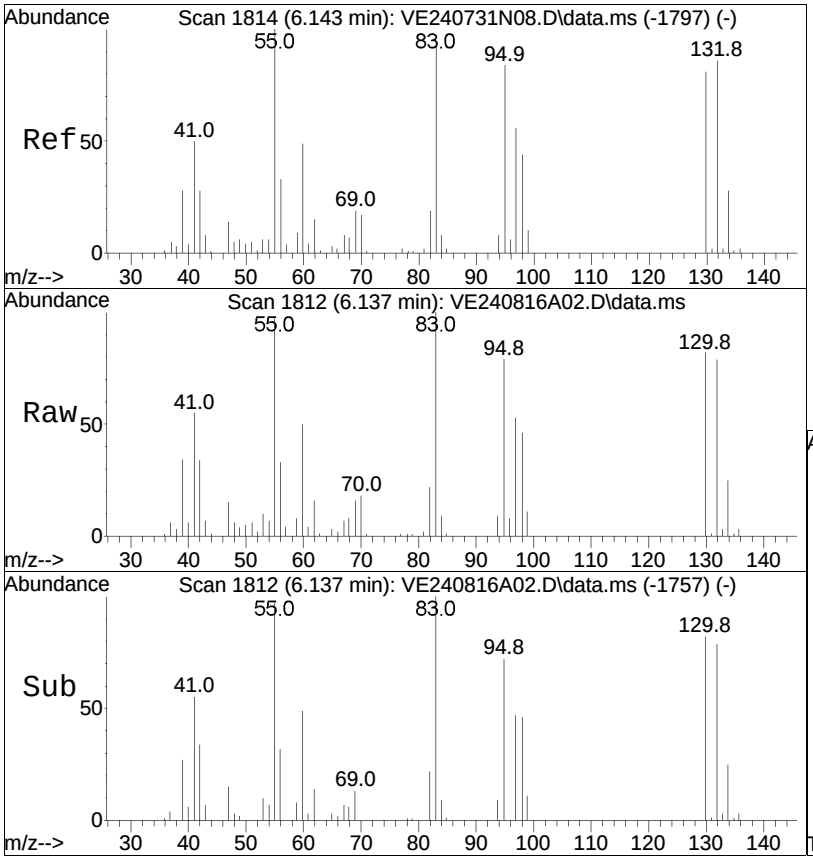


#48
1,2-Dichloroethane
Concen: 10.46 ug/L
RT: 5.741 min Scan# 1670
Delta R.T. -0.011 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 62 Resp: 57269

Ion	Ratio	Lower	Upper
62	100		
64	31.2	12.0	52.0
98	3.7	0.0	29.1

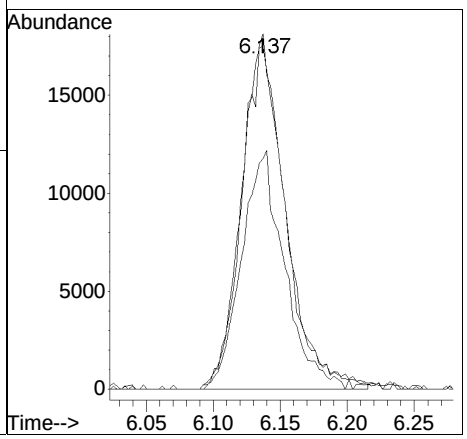


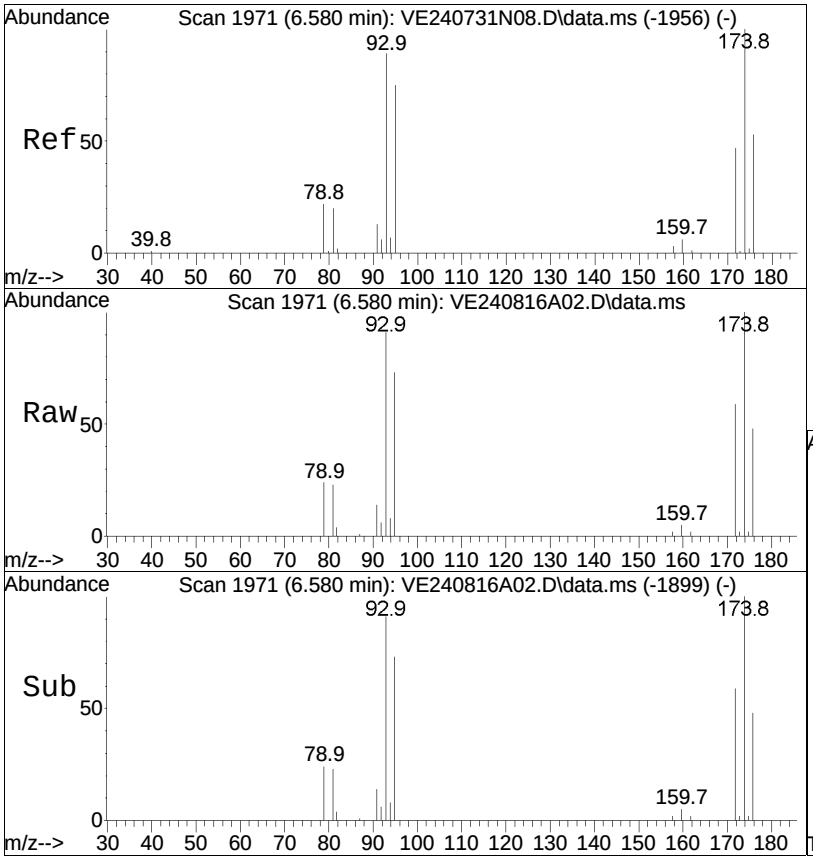


#52
Trichloroethene
Concen: 11.46 ug/L
RT: 6.137 min Scan# 1812
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 95 Resp: 40888

Ion	Ratio	Lower	Upper
95	100		
97	66.8	50.2	75.2
130	99.8	78.2	117.4

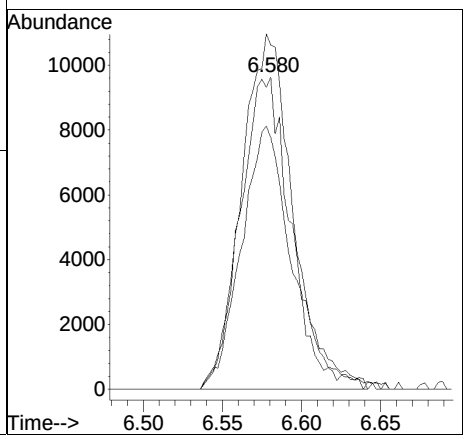


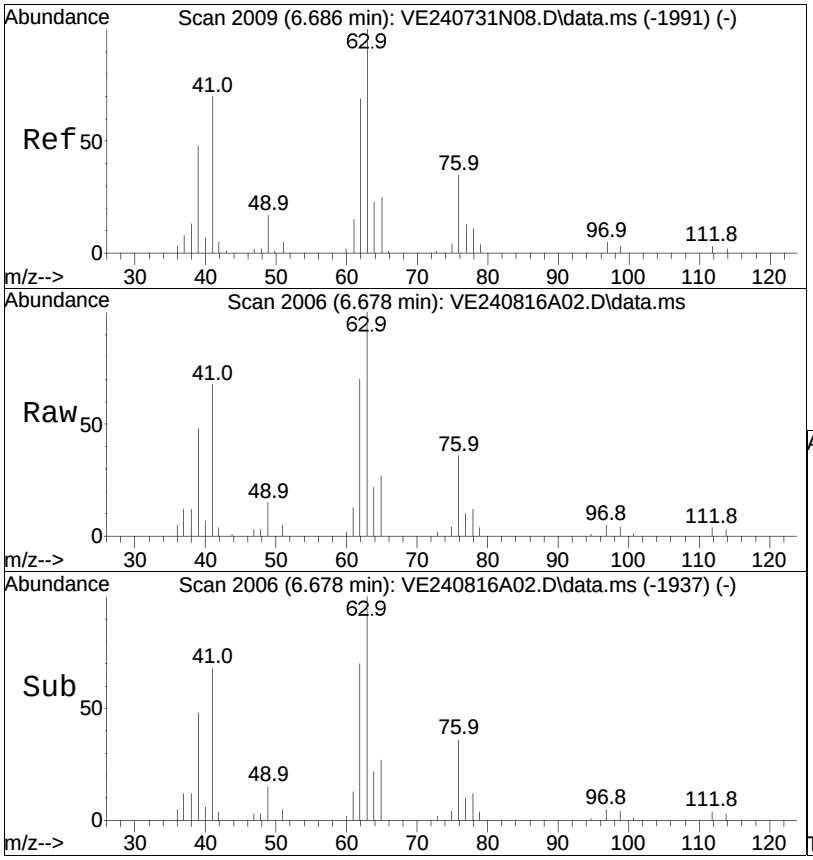


#54
Dibromomethane
Concen: 10.68 ug/L
RT: 6.580 min Scan# 1971
Delta R.T. 0.000 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 93 Resp: 21940

Ion	Ratio	Lower	Upper
93	100		
95	81.6	73.2	109.8
174	113.5	73.8	110.8#

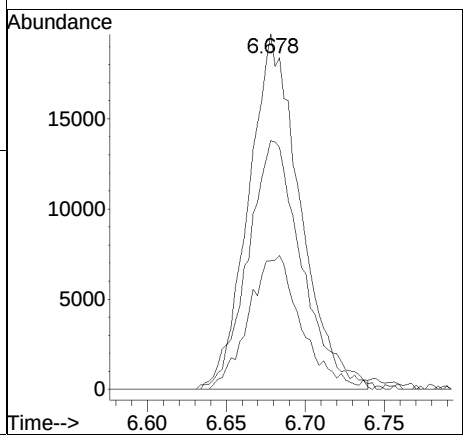


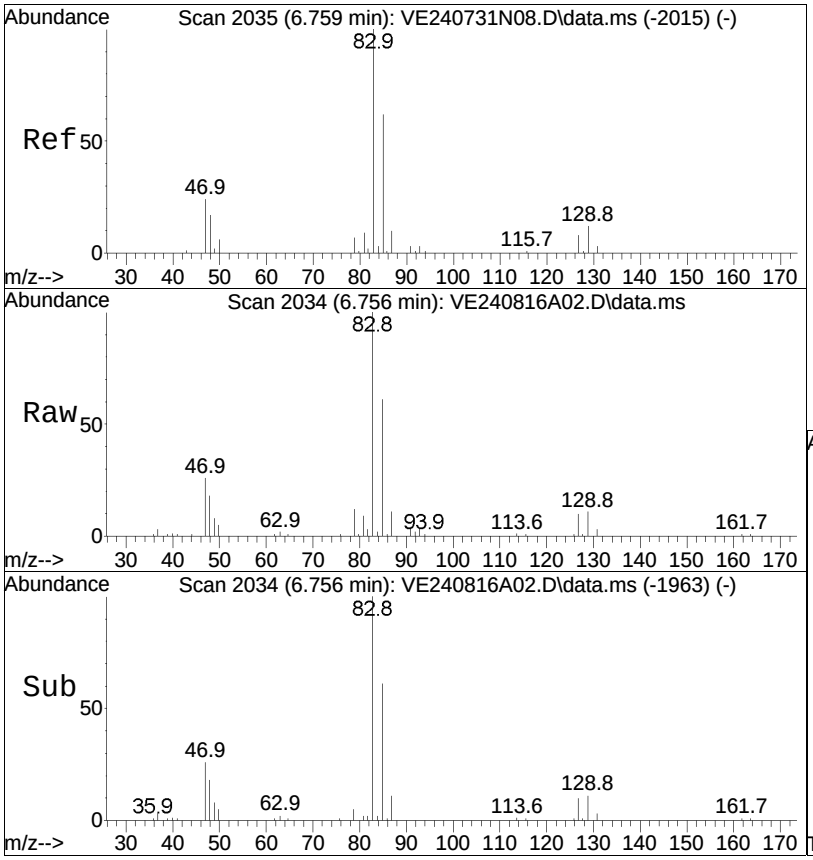


#55
1,2-Dichloropropane
Concen: 10.47 ug/L
RT: 6.678 min Scan# 2006
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 63 Resp: 44841

Ion	Ratio	Lower	Upper
63	100		
62	72.9	58.4	87.6
76	38.2	28.7	43.1

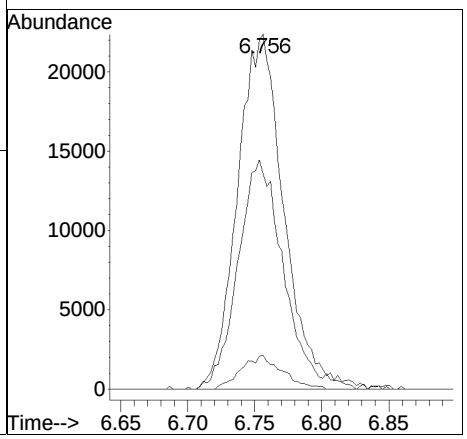


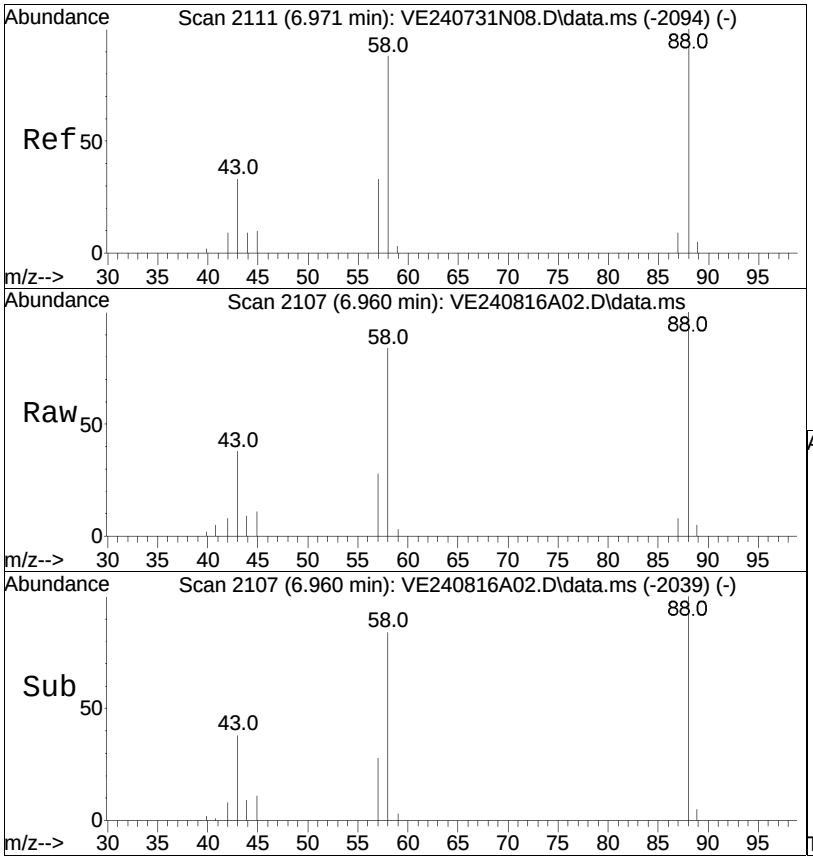


#58
Bromodichloromethane
Concen: 10.64 ug/L
RT: 6.756 min Scan# 2034
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 83 Resp: 54018

Ion	Ratio	Lower	Upper
83	100		
85	62.3	46.6	69.8
127	8.6	6.2	9.4

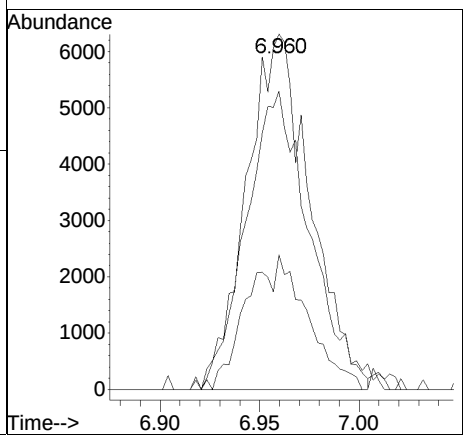


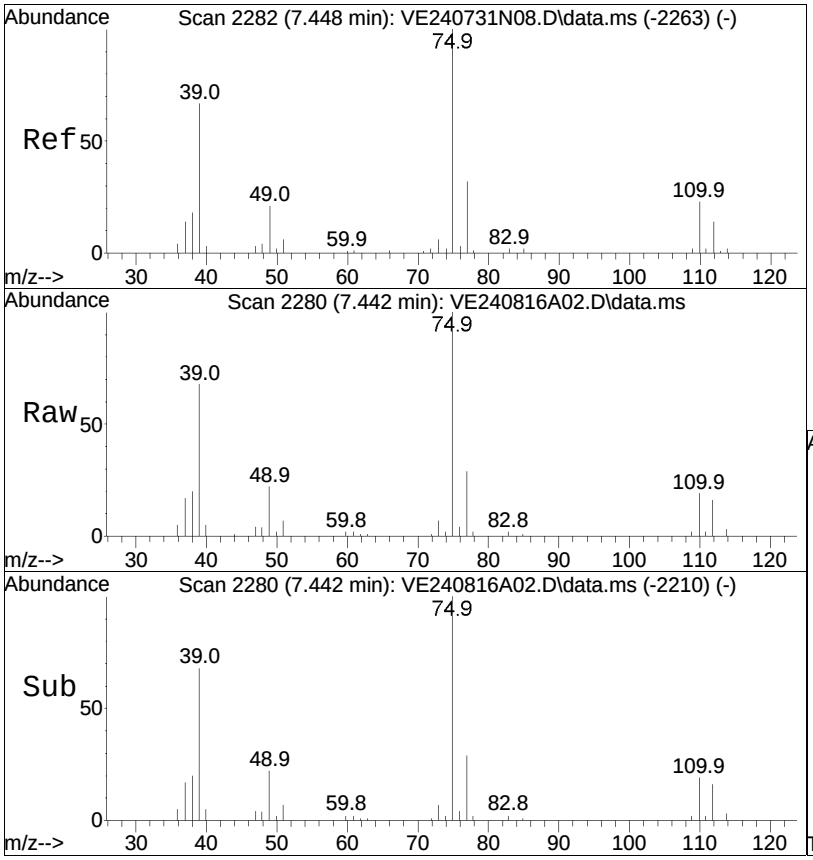


#61
1,4-Dioxane
Concen: 407.75 ug/L
RT: 6.960 min Scan# 2107
Delta R.T. -0.011 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 88 Resp: 14015

Ion	Ratio	Lower	Upper
88	100		
58	85.4	62.8	94.2
43	17.6	36.6	55.0#

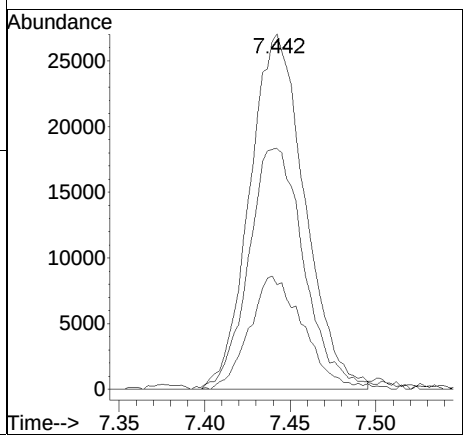


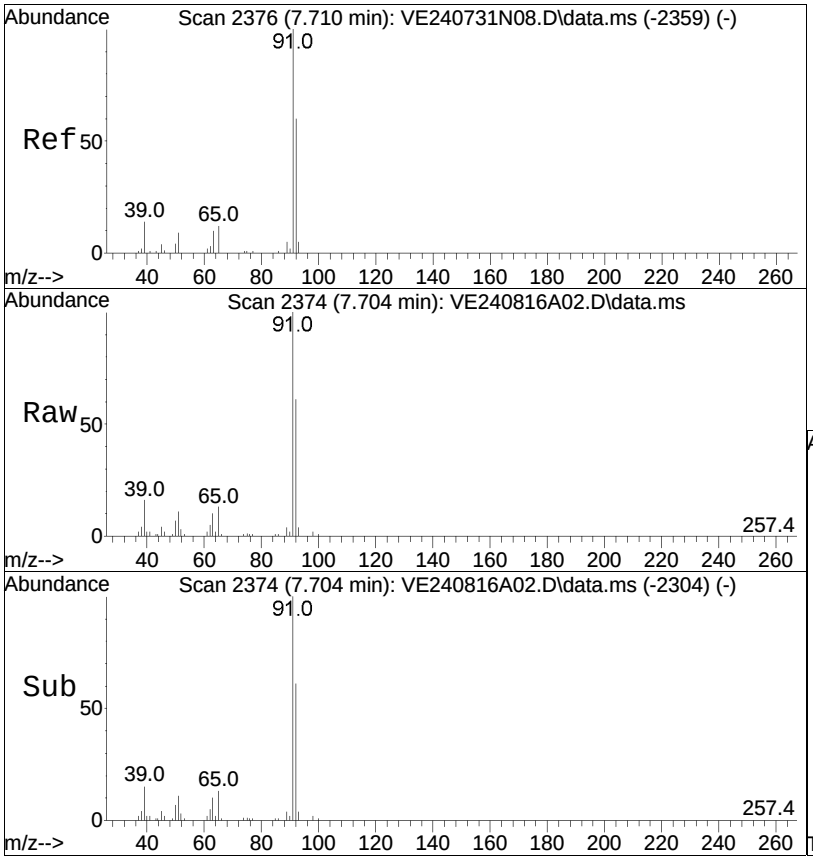


#62
cis-1,3-Dichloropropene
Concen: 10.63 ug/L
RT: 7.442 min Scan# 2280
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 75 Resp: 60733

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.1	37.7
39	68.5	50.7	76.1

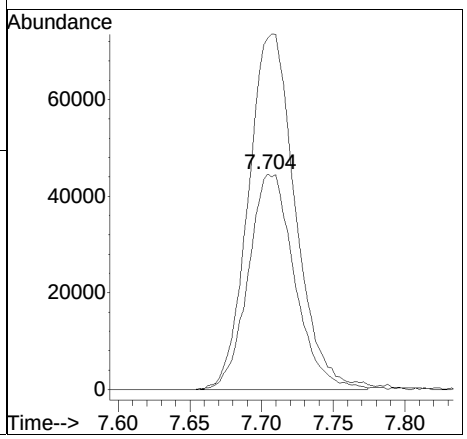


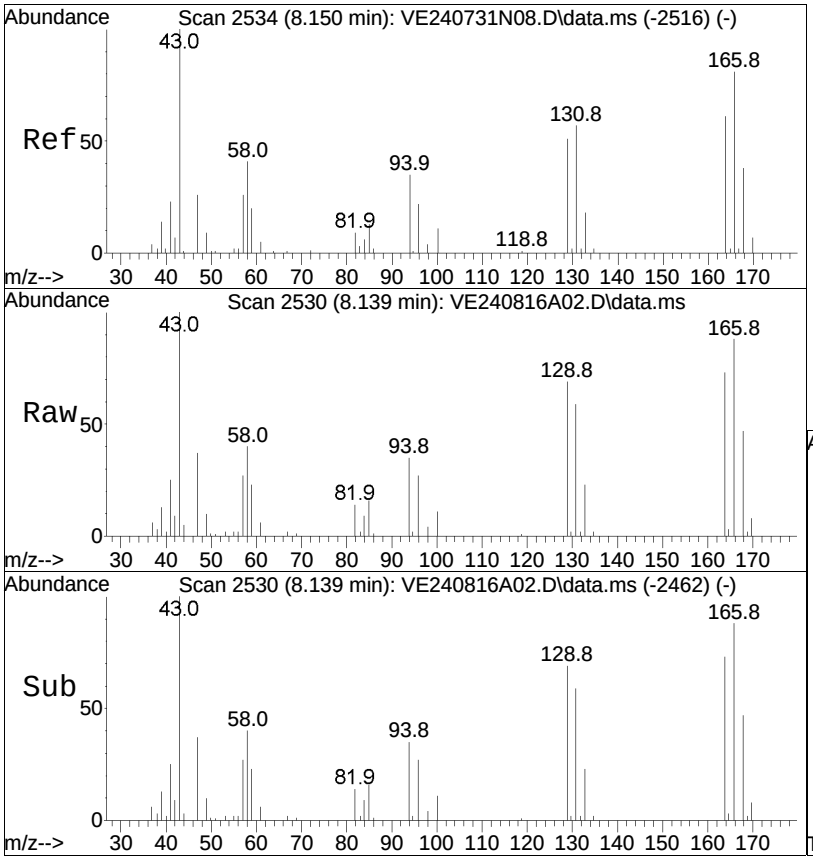


#65
Toluene
Concen: 11.18 ug/L
RT: 7.704 min Scan# 2374
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 92 Resp: 100135

Ion	Ratio	Lower	Upper
92	100		
91	166.2	129.1	193.7

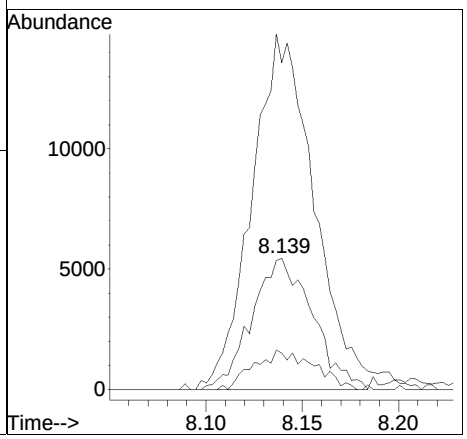


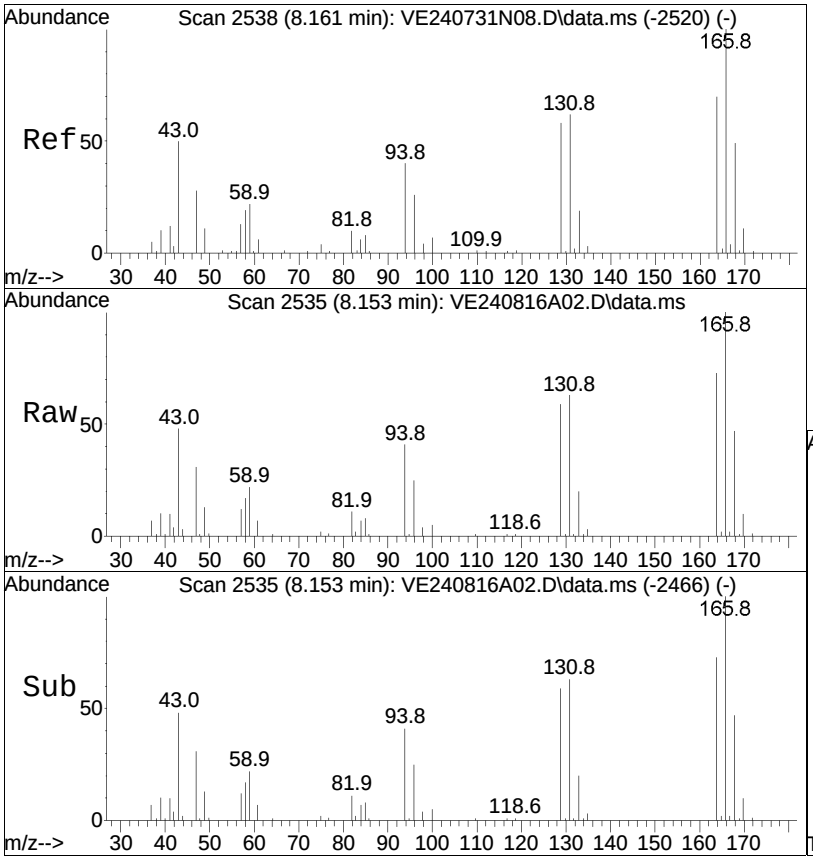


#66
4-Methyl-2-pentanone
Concen: 7.84 ug/L
RT: 8.139 min Scan# 2530
Delta R.T. -0.011 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 58 Resp: 11966

Ion	Ratio	Lower	Upper
58	100		
100	29.3	27.9	41.9
43	281.0	225.7	338.5

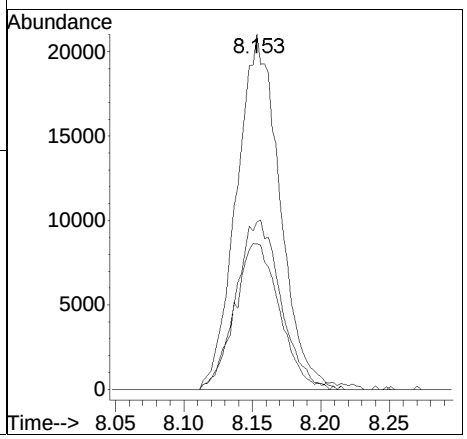


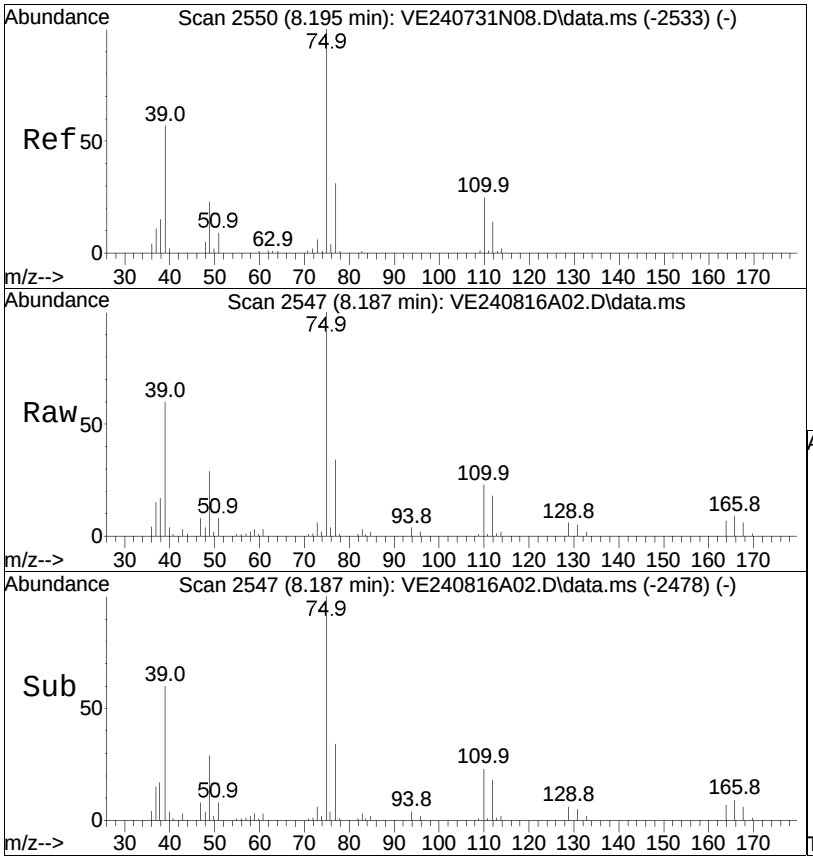


#67
Tetrachloroethene
Concen: 12.22 ug/L
RT: 8.153 min Scan# 2535
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:166 Resp: 46474

Ion	Ratio	Lower	Upper
166	100		
168	49.2	25.8	65.8
94	42.3	24.3	64.3

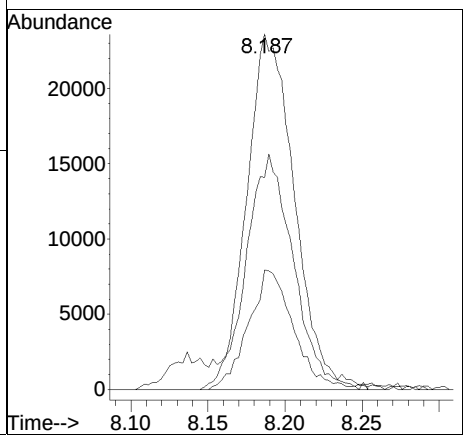


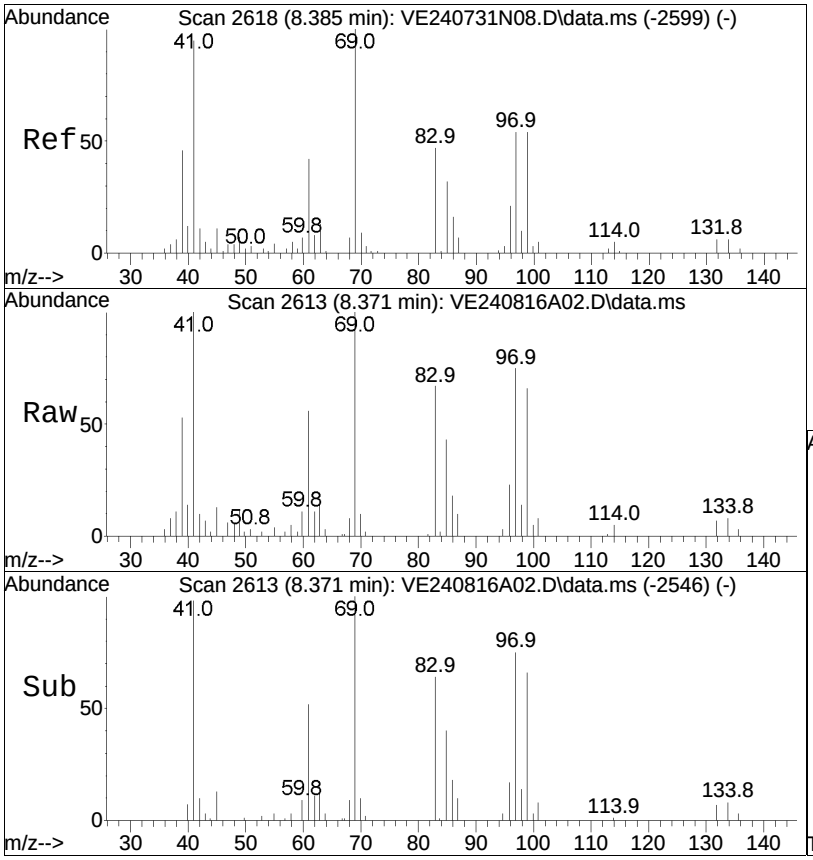


#69
trans-1,3-Dichloropropene
Concen: 10.11 ug/L
RT: 8.187 min Scan# 2547
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 75 Resp: 50969

Ion	Ratio	Lower	Upper
75	100		
77	31.6	10.2	50.2
39	63.2	45.7	85.7

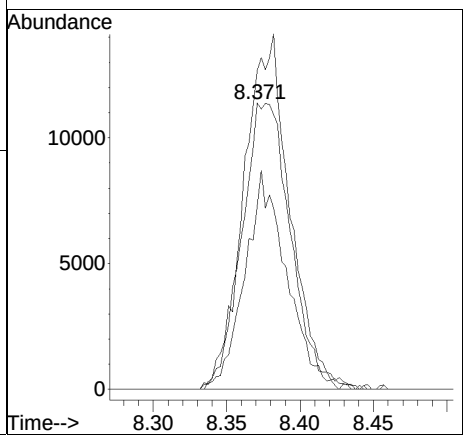


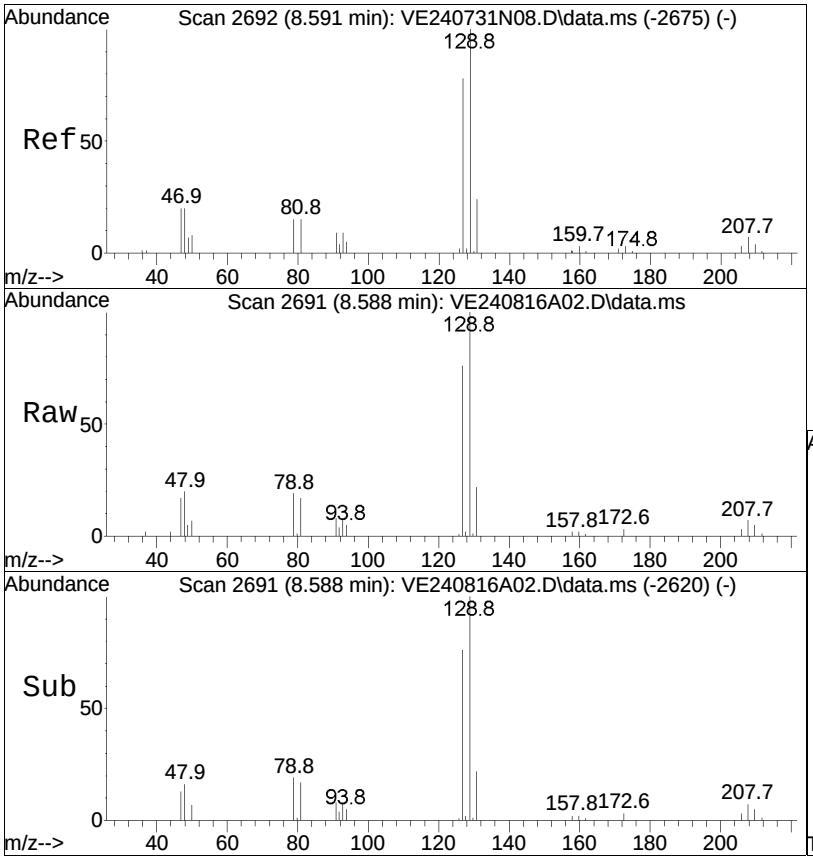


#72
1,1,2-Trichloroethane
Concen: 10.51 ug/L
RT: 8.371 min Scan# 2613
Delta R.T. -0.014 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 83 Resp: 26432

Ion	Ratio	Lower	Upper
83	100		
97	116.6	99.2	139.2
85	65.2	48.7	88.7

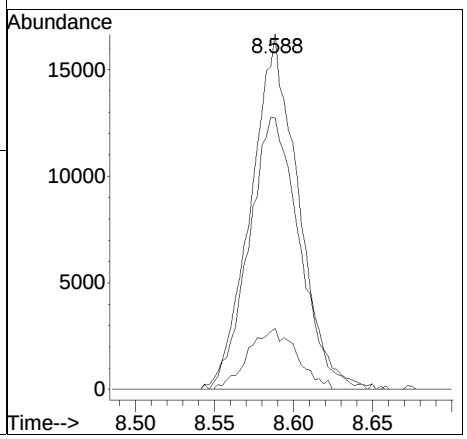


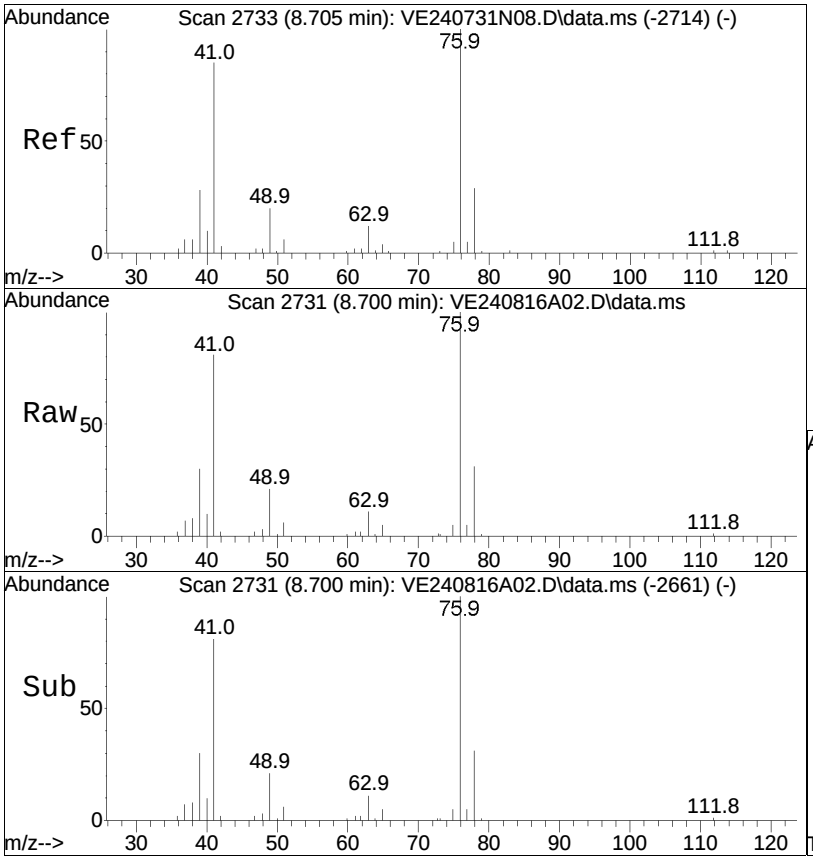


#73
Chlorodibromomethane
Concen: 9.89 ug/L
RT: 8.588 min Scan# 2691
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:129 Resp: 34760

Ion	Ratio	Lower	Upper
129	100		
81	17.6	0.0	39.5
127	82.1	58.6	98.6

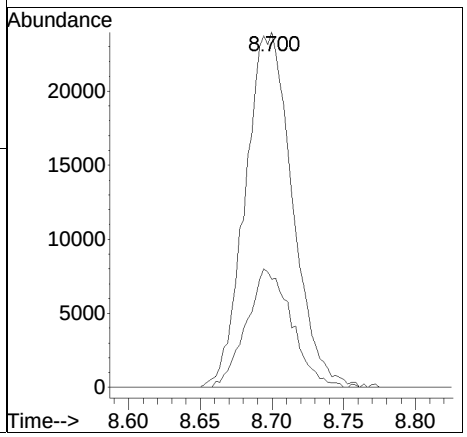


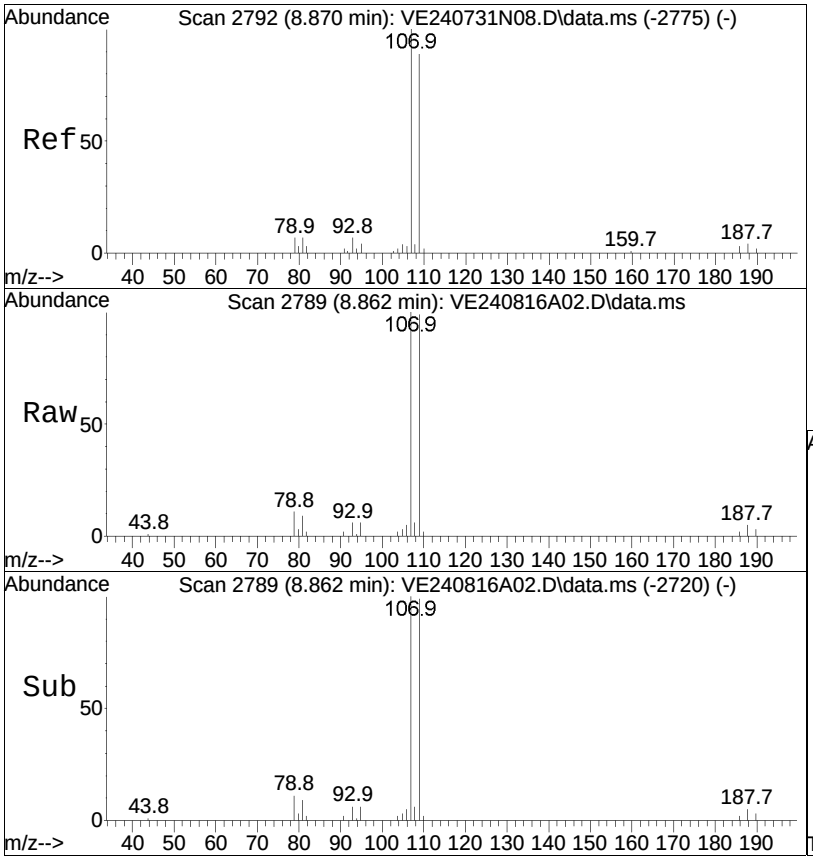


#74
1,3-Dichloropropane
Concen: 10.34 ug/L
RT: 8.700 min Scan# 2731
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 76 Resp: 54880

Ion	Ratio	Lower	Upper
76	100		
78	32.0	27.0	40.4

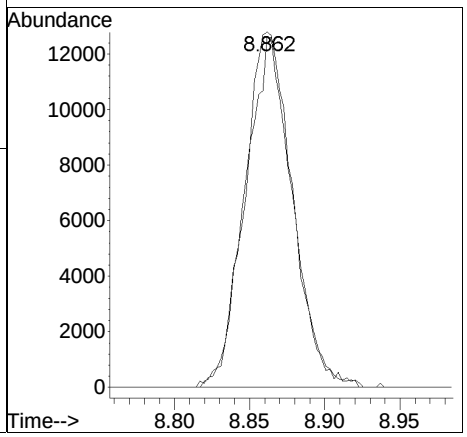


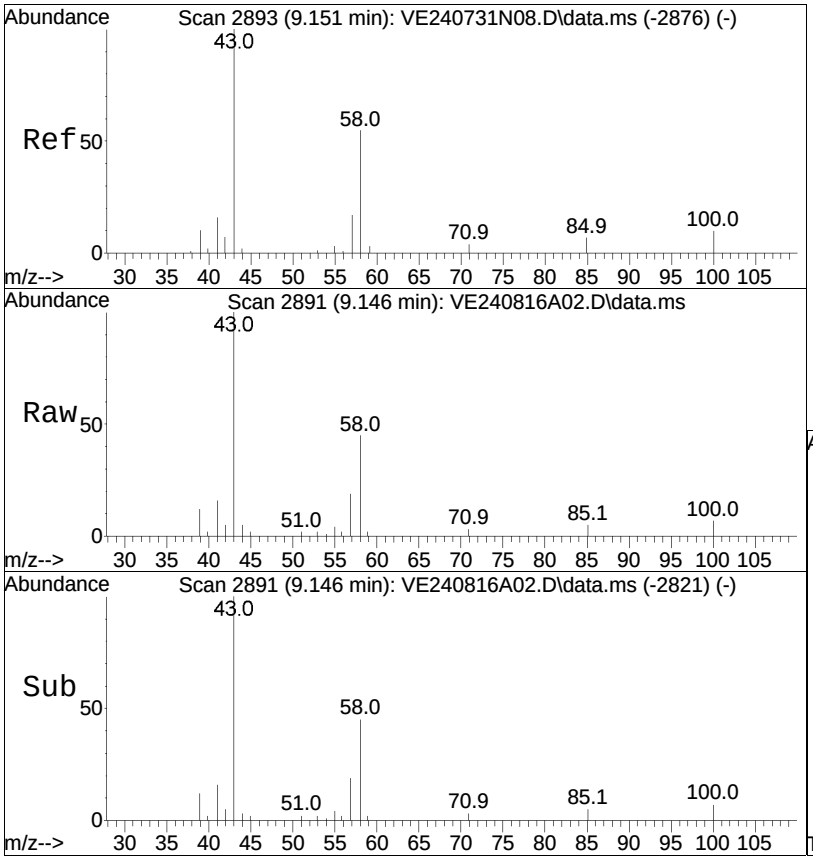


#75
1,2-Dibromoethane
Concen: 9.69 ug/L
RT: 8.862 min Scan# 2789
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:107 Resp: 28793

Ion	Ratio	Lower	Upper
107	100		
109	94.8	66.3	99.5

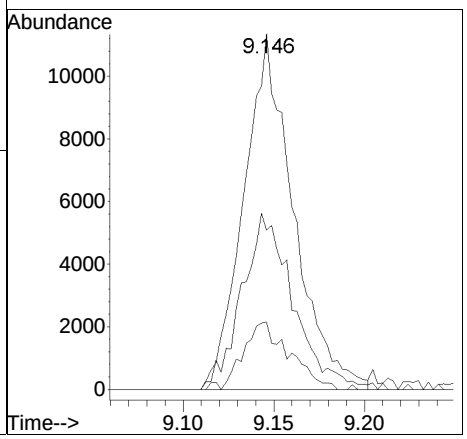


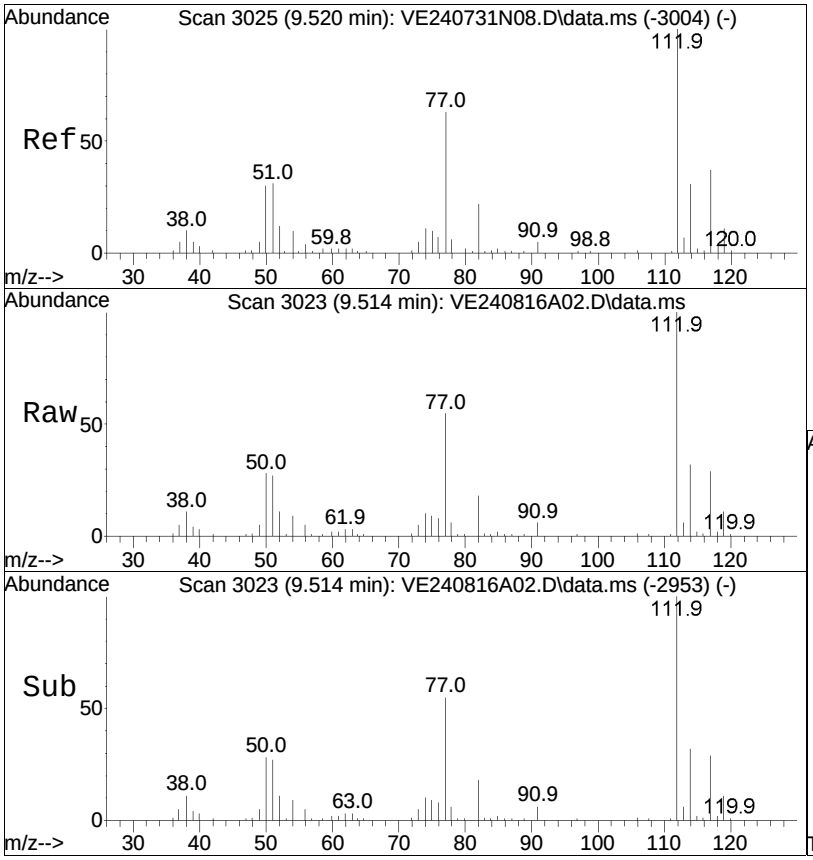


#77
2-Hexanone
Concen: 7.26 ug/L
RT: 9.146 min Scan# 2891
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 43 Resp: 21595

Ion	Ratio	Lower	Upper
43	100		
58	51.2	42.5	63.7
57	17.5	13.9	20.9

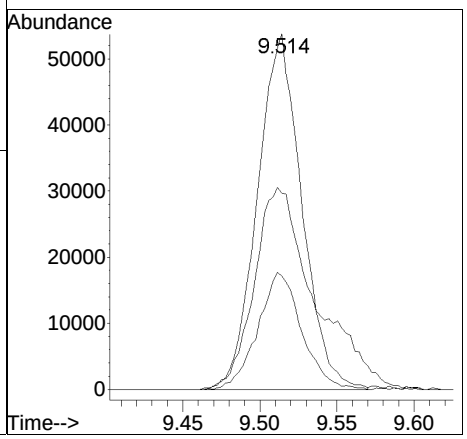


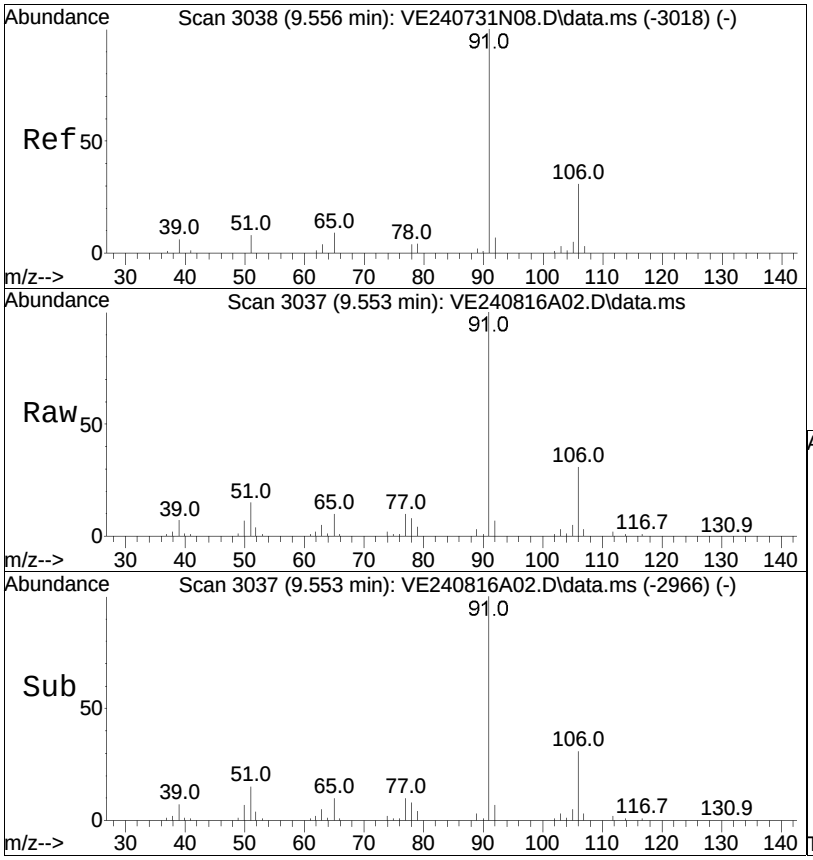


#78
Chlorobenzene
Concen: 11.27 ug/L
RT: 9.514 min Scan# 3023
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:112 Resp: 107549

Ion	Ratio	Lower	Upper
112	100		
77	77.9	46.9	70.3#
114	32.5	23.8	35.6

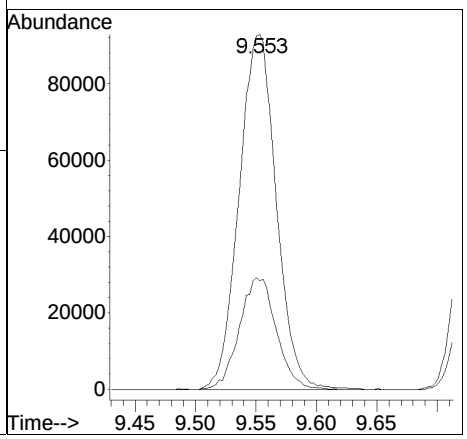


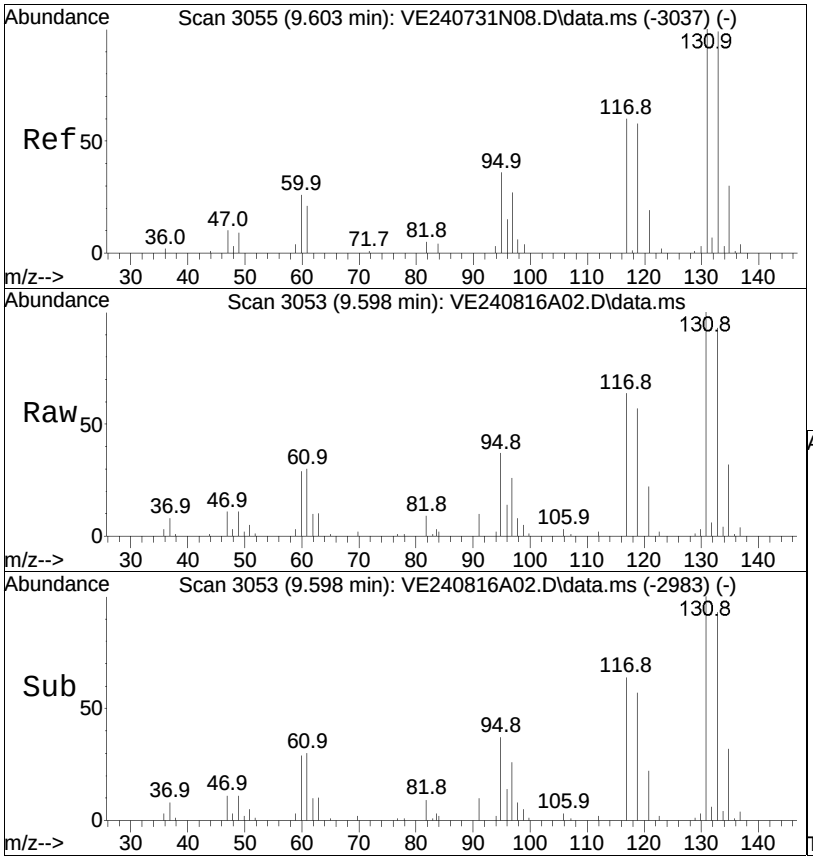


#79
Ethylbenzene
Concen: 11.45 ug/L
RT: 9.553 min Scan# 3037
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 91 Resp: 198706

Ion	Ratio	Lower	Upper
91	100		
106	31.2	25.3	37.9

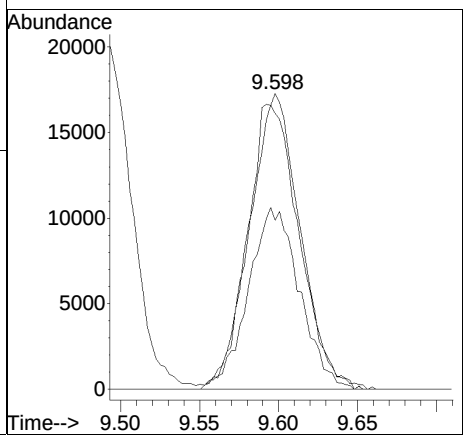


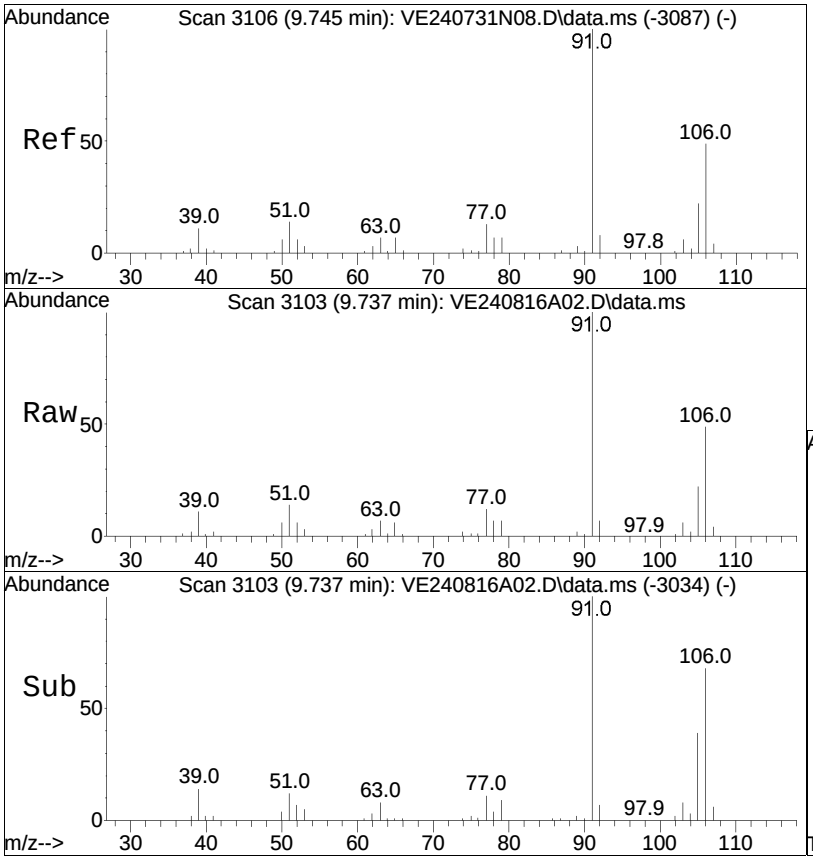


#80
1,1,1,2-Tetrachloroethane
Concen: 11.21 ug/L
RT: 9.598 min Scan# 3053
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:131 Resp: 39194

Ion	Ratio	Lower	Upper
131	100		
133	95.5	72.9	112.9
119	61.3	39.6	79.6

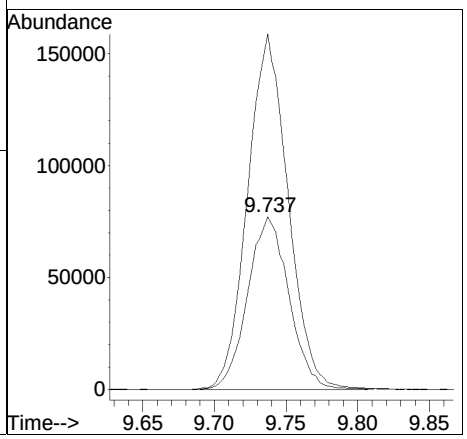


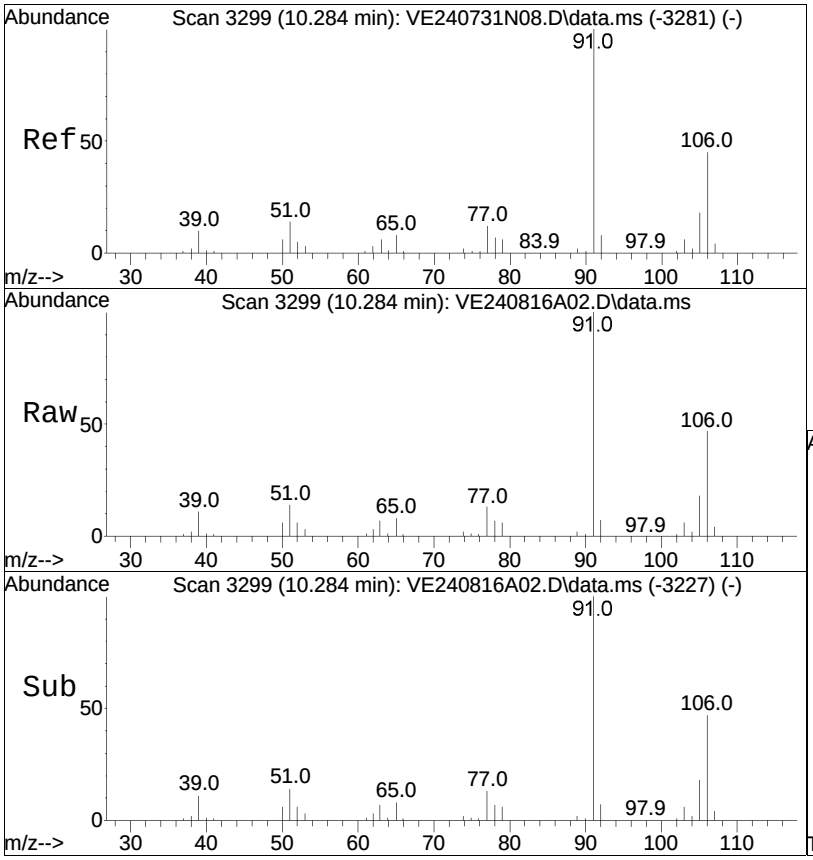


#81
p/m Xylene
Concen: 23.36 ug/L
RT: 9.737 min Scan# 3103
Delta R.T. -0.008 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:106 Resp: 154513

Ion	Ratio	Lower	Upper
106	100		
91	202.4	163.3	244.9

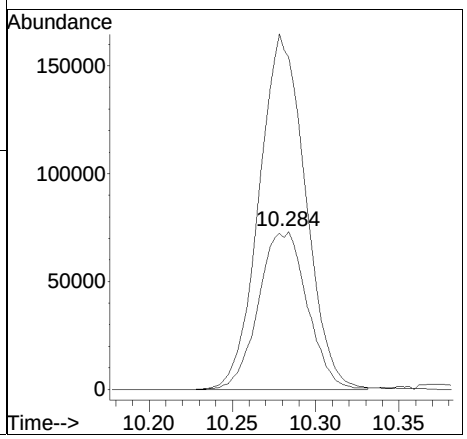


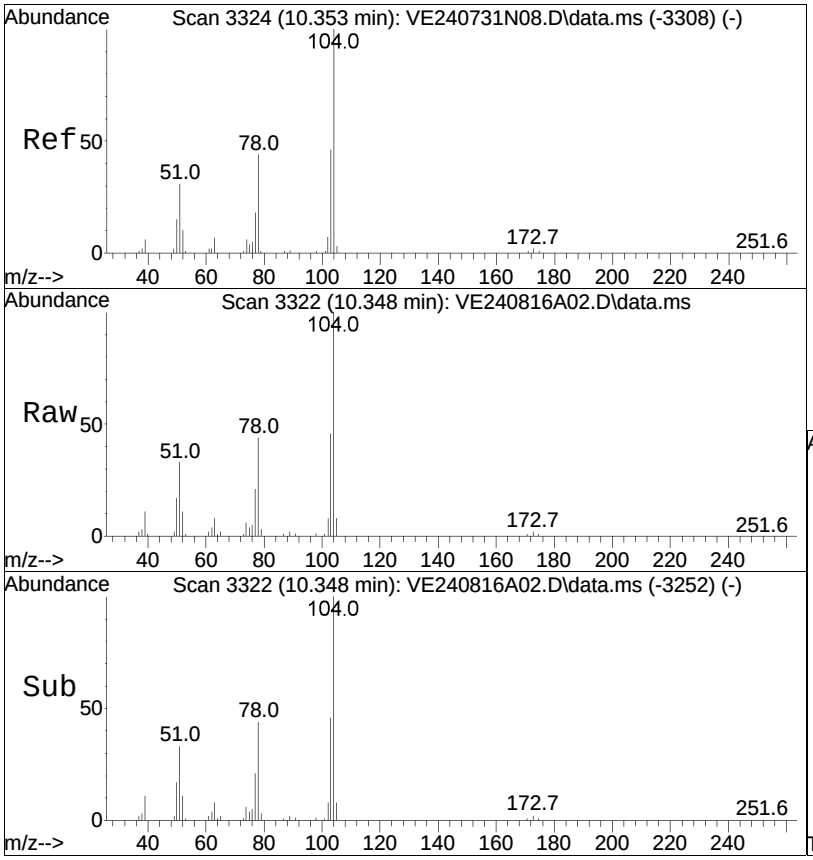


#82
o Xylene
Concen: 22.95 ug/L
RT: 10.284 min Scan# 3299
Delta R.T. -0.000 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:106 Resp: 148454

Ion	Ratio	Lower	Upper
106	100		
91	214.5	181.0	271.6

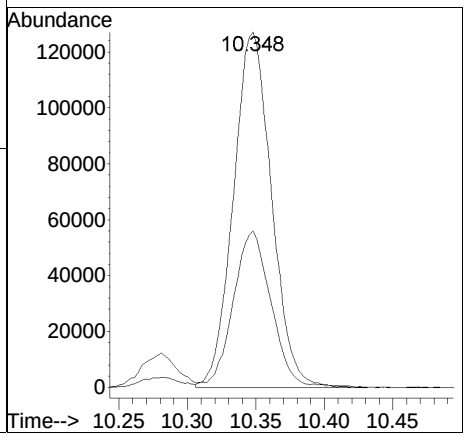


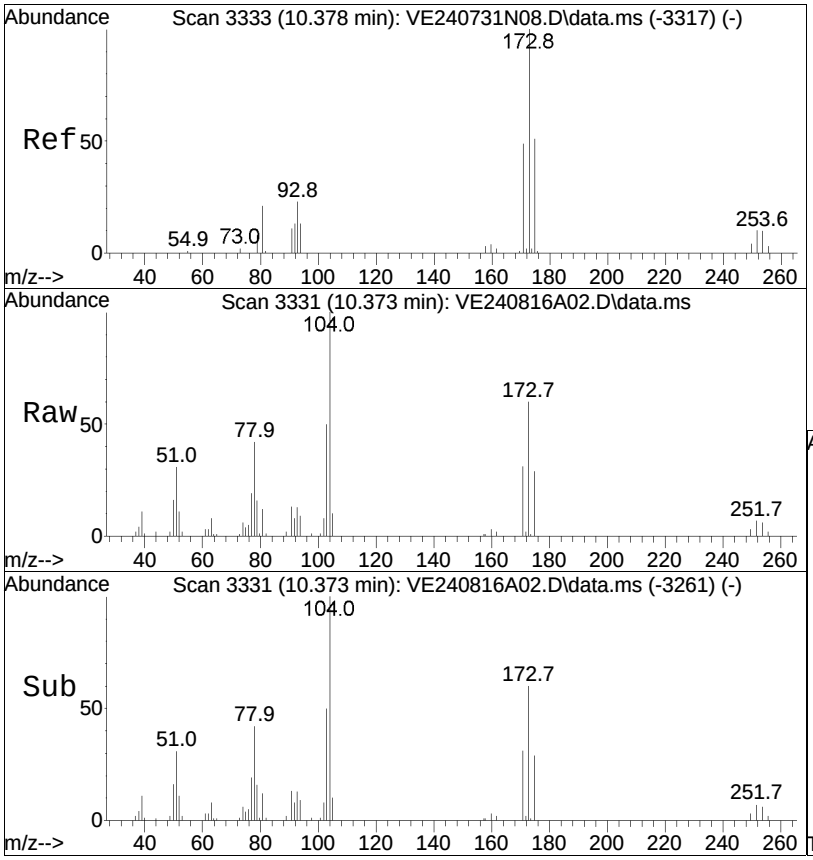


#83
Styrene
Concen: 23.24 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:104 Resp: 246455

Ion	Ratio	Lower	Upper
104	100		
78	41.6	35.9	53.9

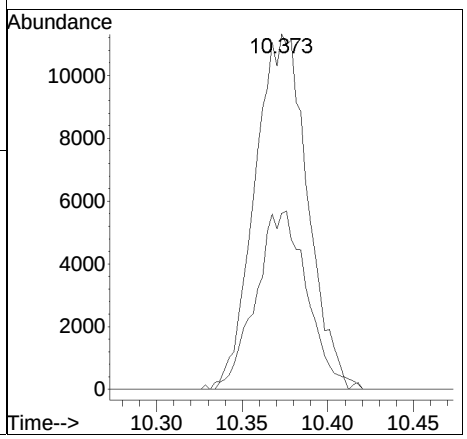


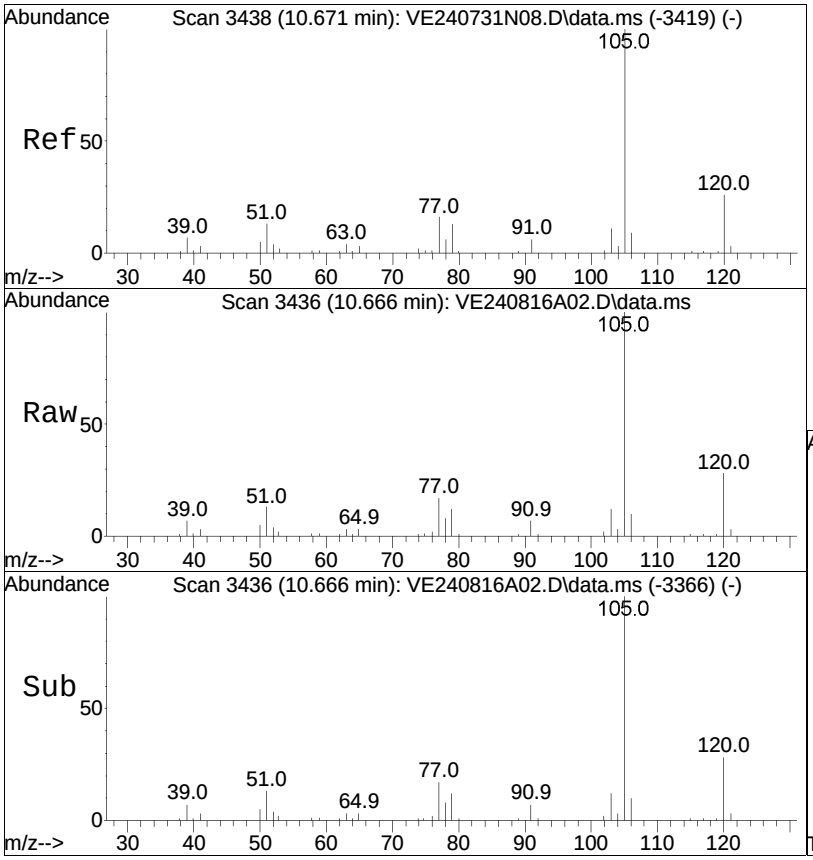


#85
Bromoform
Concen: 9.71 ug/L
RT: 10.373 min Scan# 3331
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:173 Resp: 24360

Ion	Ratio	Lower	Upper
173	100		
175	48.5	32.9	72.9

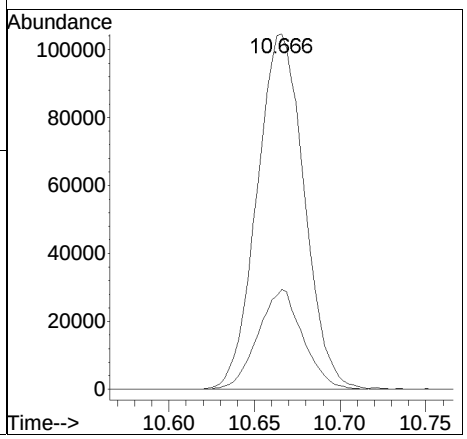


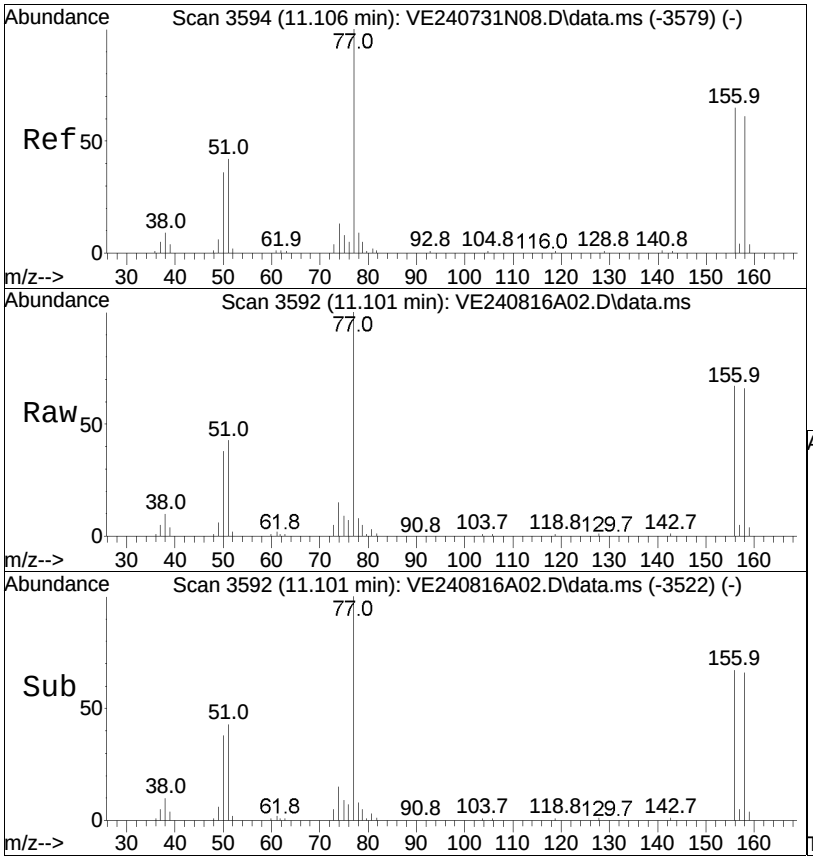


#87
Isopropylbenzene
Concen: 10.87 ug/L
RT: 10.666 min Scan# 3436
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:105 Resp: 200672

Ion	Ratio	Lower	Upper
105	100		
120	26.7	4.8	44.8

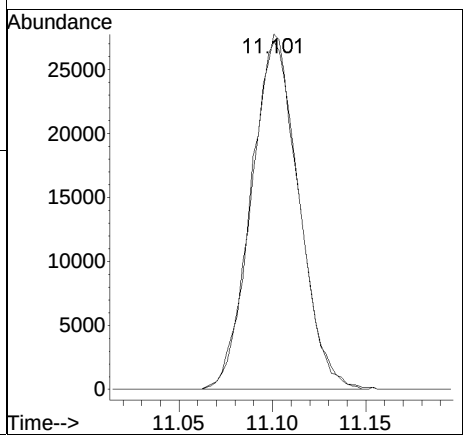


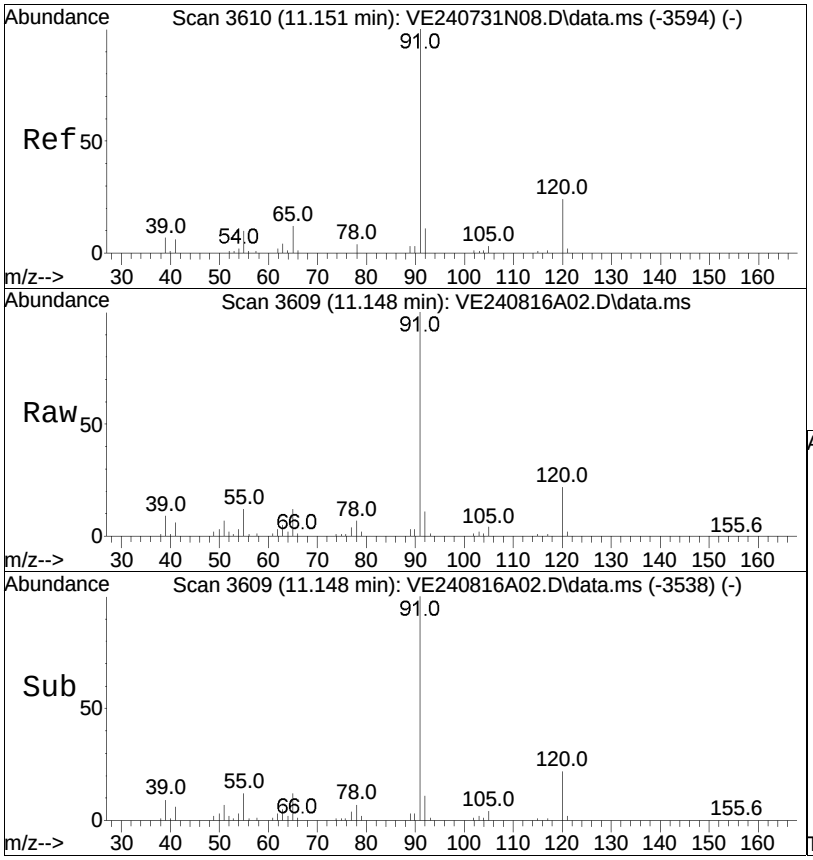


#89
Bromobenzene
Concen: 10.46 ug/L
RT: 11.101 min Scan# 3592
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:156 Resp: 48783

Ion	Ratio	Lower	Upper
156	100		
158	100.0	75.9	113.9

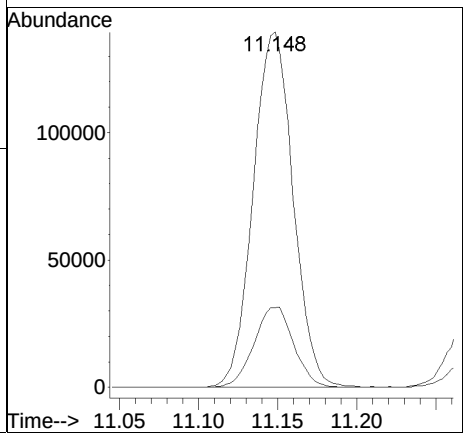


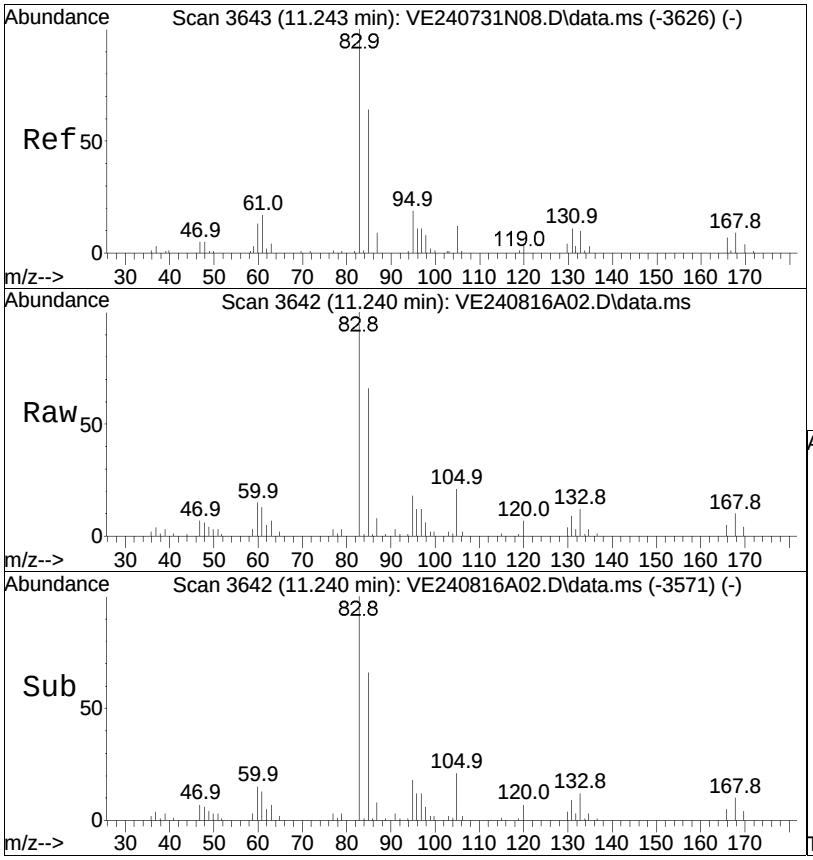


#90
n-Propylbenzene
Concen: 11.11 ug/L
RT: 11.148 min Scan# 3609
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 91 Resp: 245201

Ion	Ratio	Lower	Upper
91	100		
120	22.5	16.7	25.1

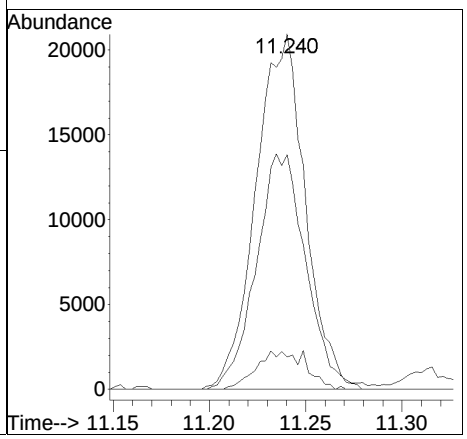


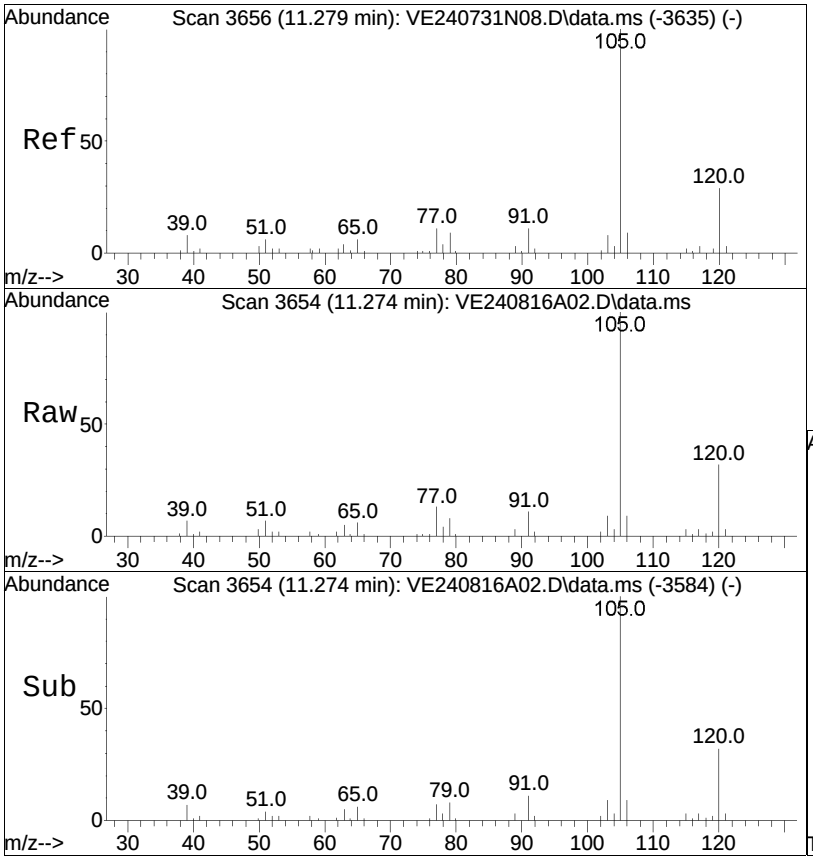


#92
1,1,2,2-Tetrachloroethane
Concen: 9.50 ug/L
RT: 11.240 min Scan# 3642
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 83 Resp: 37212

Ion	Ratio	Lower	Upper
83	100		
131	10.9	0.0	28.6
85	67.3	47.4	87.4

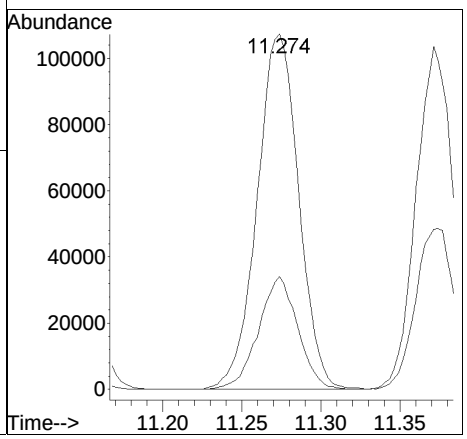


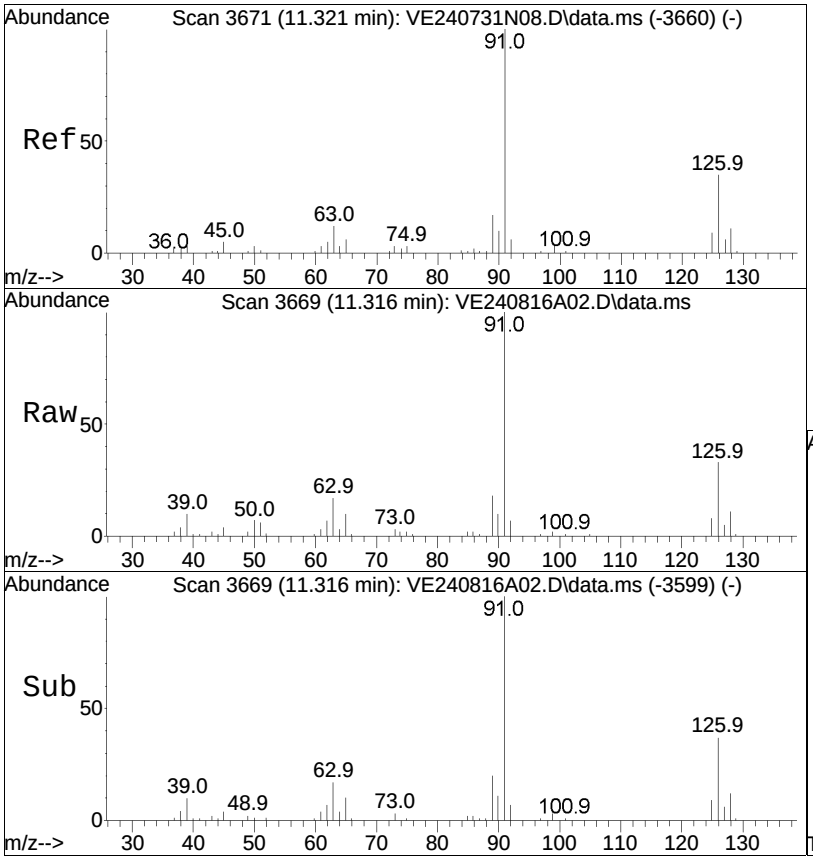


#93
4-Ethyltoluene
Concen: 10.97 ug/L
RT: 11.274 min Scan# 3654
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:105 Resp: 196473

Ion	Ratio	Lower	Upper
105	100		
120	29.9	18.9	39.3

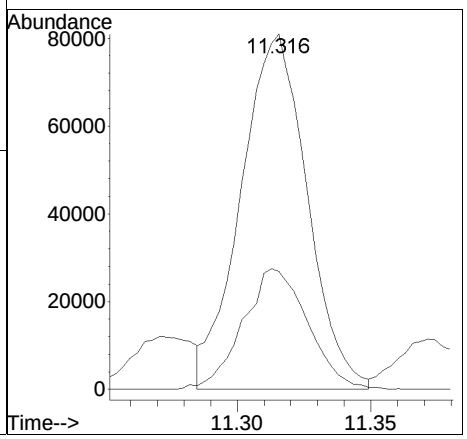


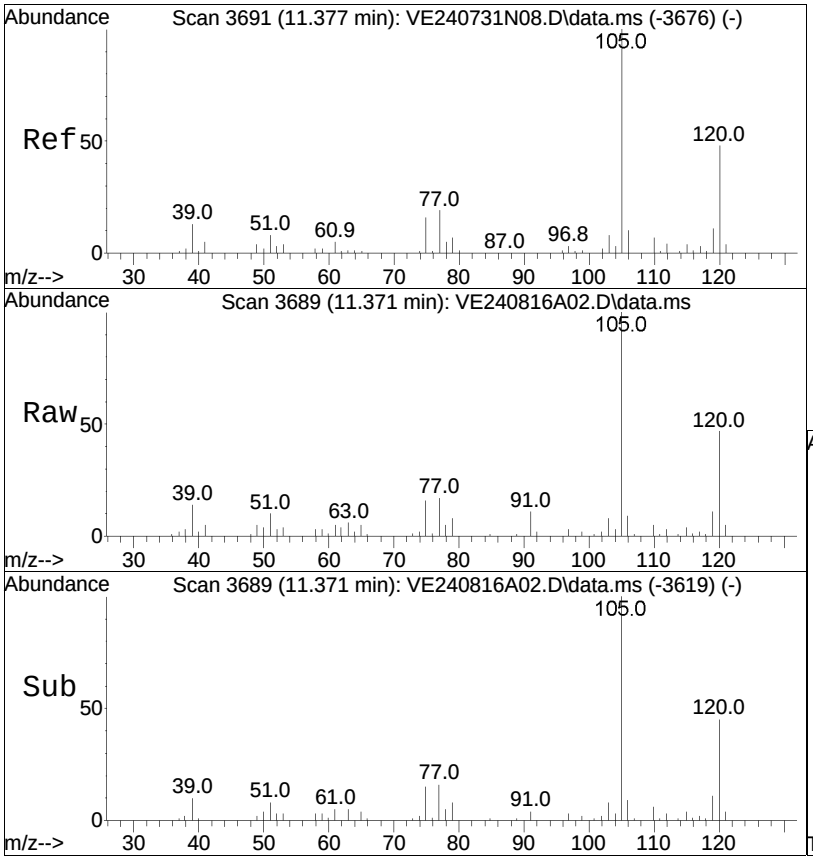


#94
2-Chlorotoluene
Concen: 10.77 ug/L M1
RT: 11.316 min Scan# 3669
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 91 Resp: 139765

Ion	Ratio	Lower	Upper
91	100		
126	33.2	24.4	36.6

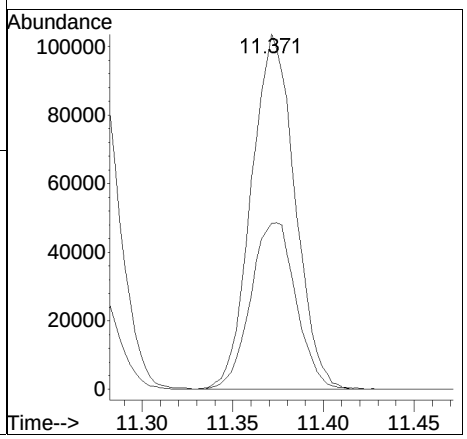


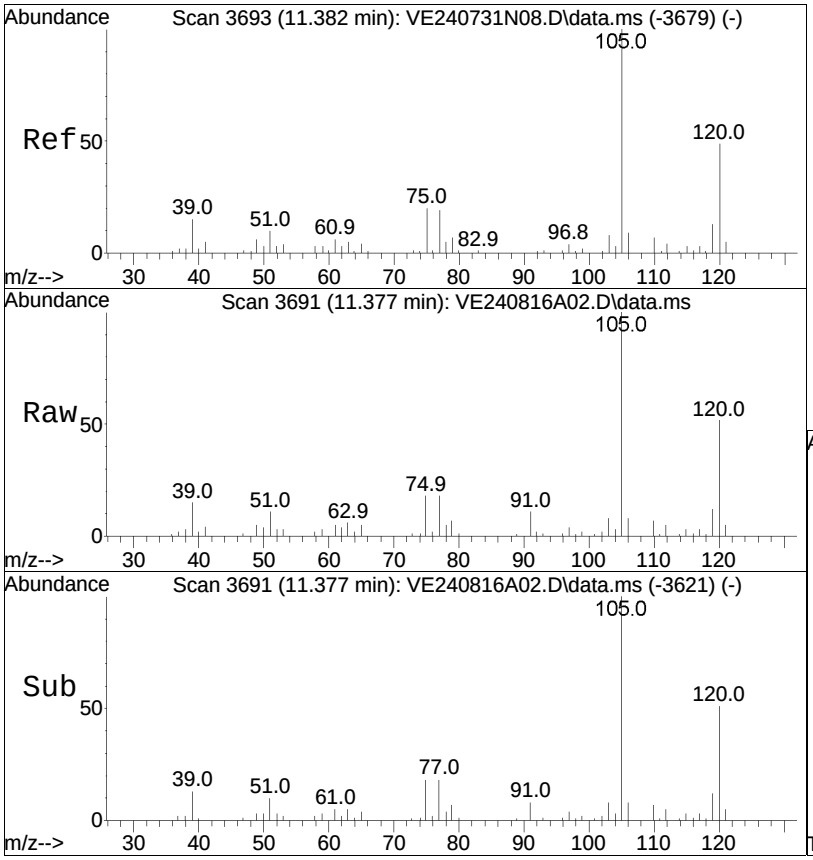


#95
1,3,5-Trimethylbenzene
Concen: 11.04 ug/L
RT: 11.371 min Scan# 3689
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:105 Resp: 173318

Ion	Ratio	Lower	Upper
105	100		
120	48.8	39.3	58.9

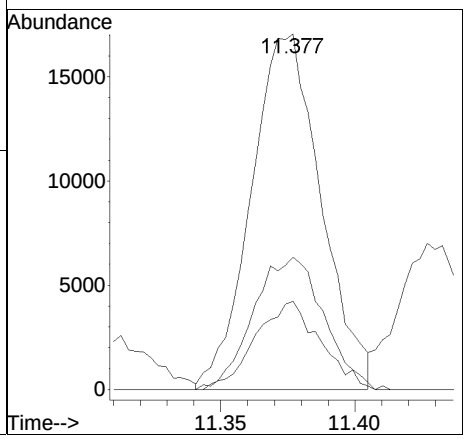


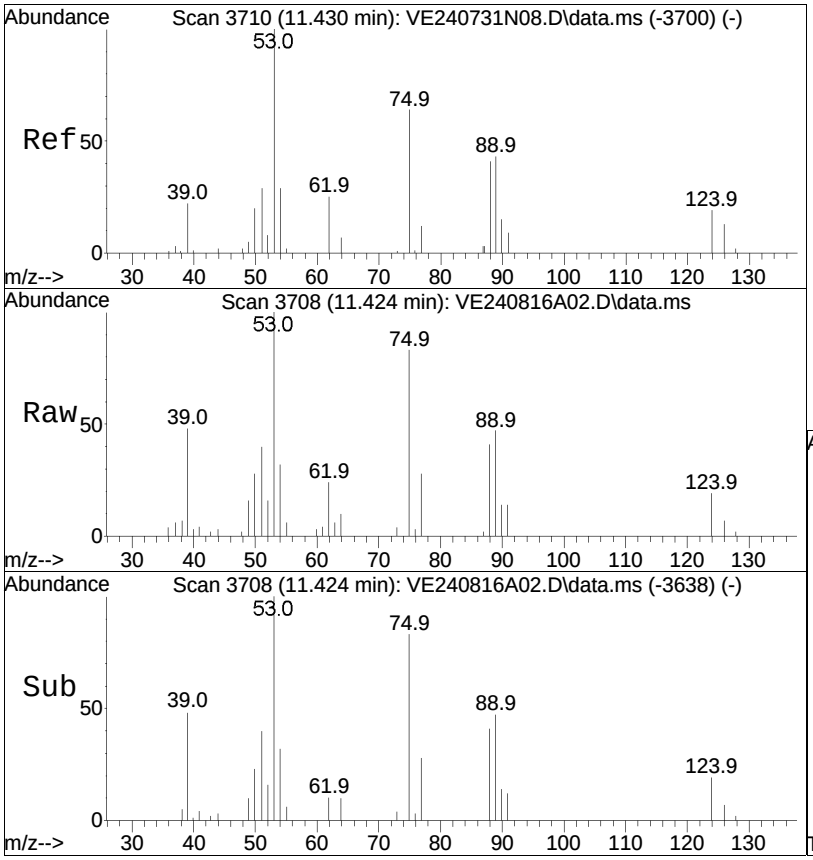


#96
1,2,3-Trichloropropane
Concen: 9.66 ug/L
RT: 11.377 min Scan# 3691
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 75 Resp: 30898

Ion	Ratio	Lower	Upper
75	100		
110	37.4	22.4	46.4
112	23.0	12.2	25.2

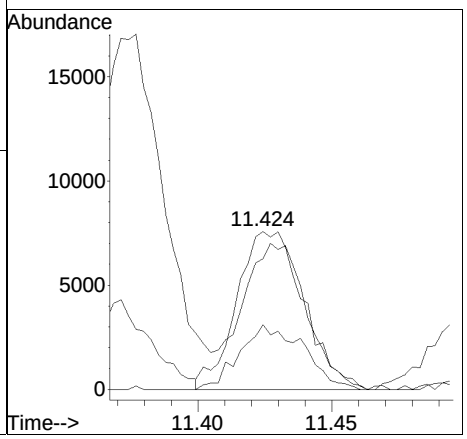


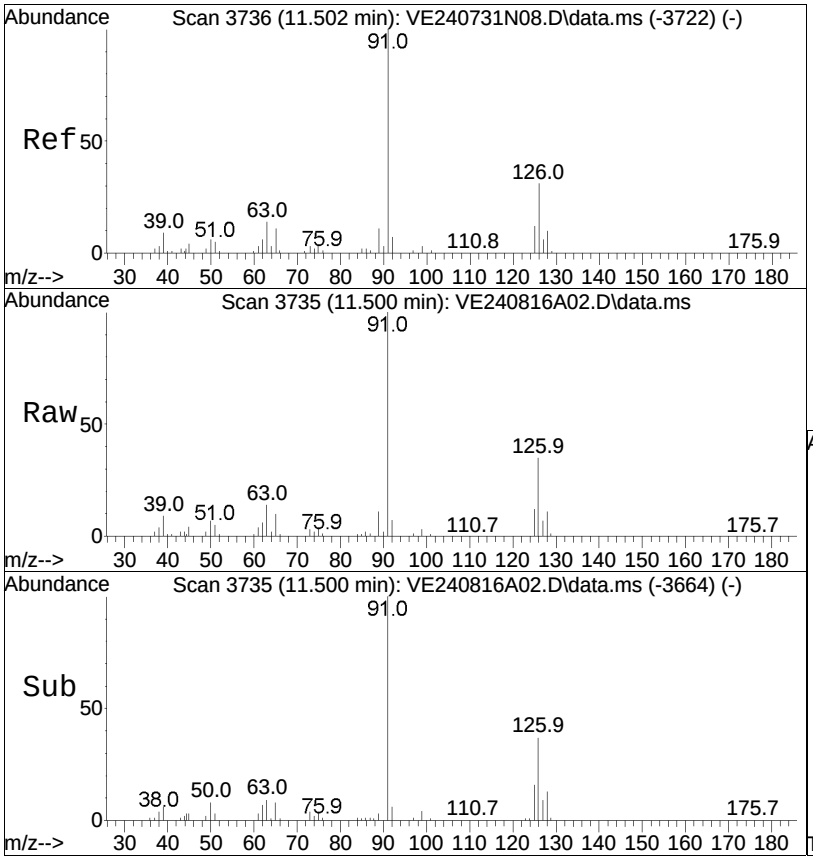


#97
trans-1,4-Dichloro-2-butene
Concen: 8.32 ug/L
RT: 11.424 min Scan# 3708
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 53 Resp: 13066

Ion	Ratio	Lower	Upper
53	100		
88	39.2	29.2	43.8
75	88.3	62.6	94.0

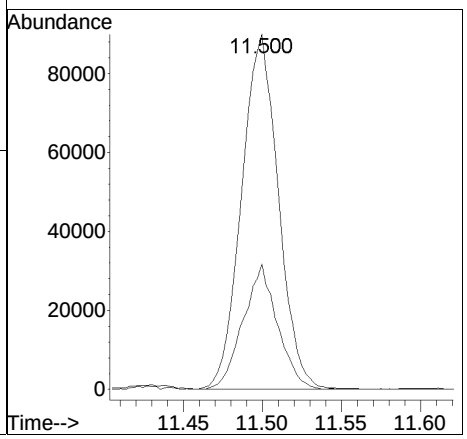


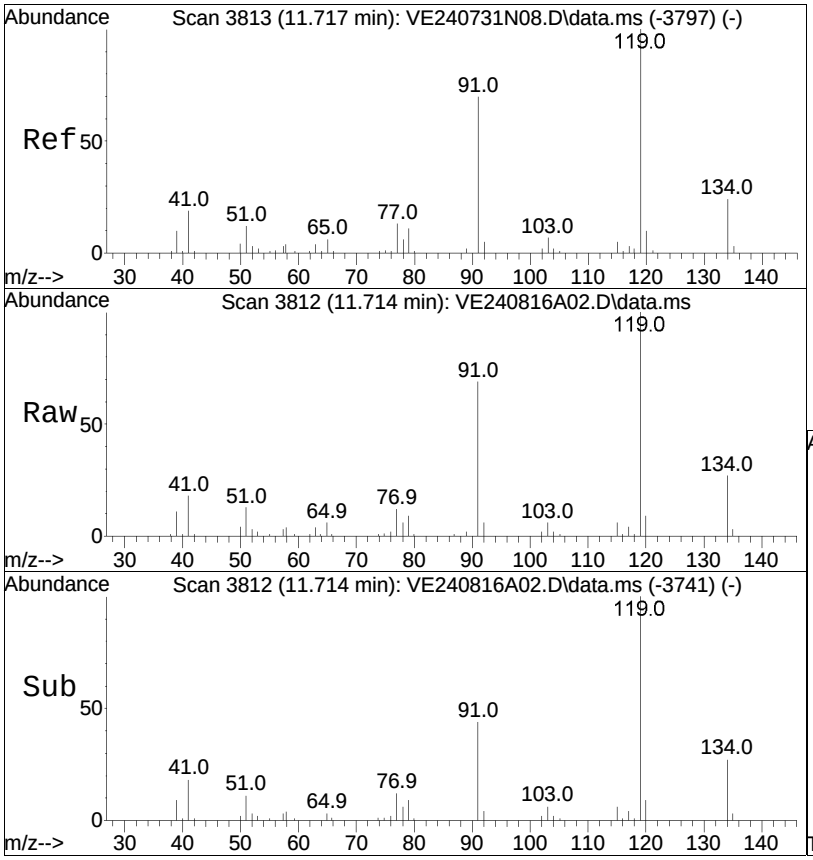


#98
4-Chlorotoluene
Concen: 10.72 ug/L
RT: 11.500 min Scan# 3735
Delta R.T. -0.002 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 91 Resp: 145817

Ion	Ratio	Lower	Upper
91	100		
126	32.9	25.8	38.8

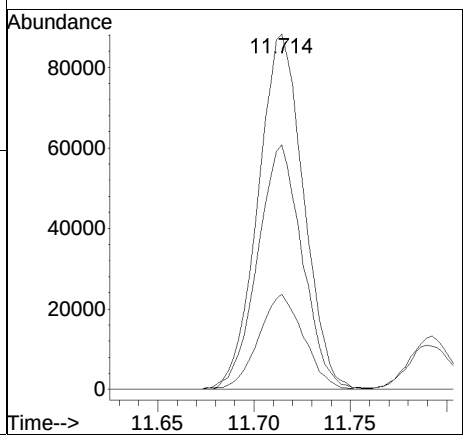


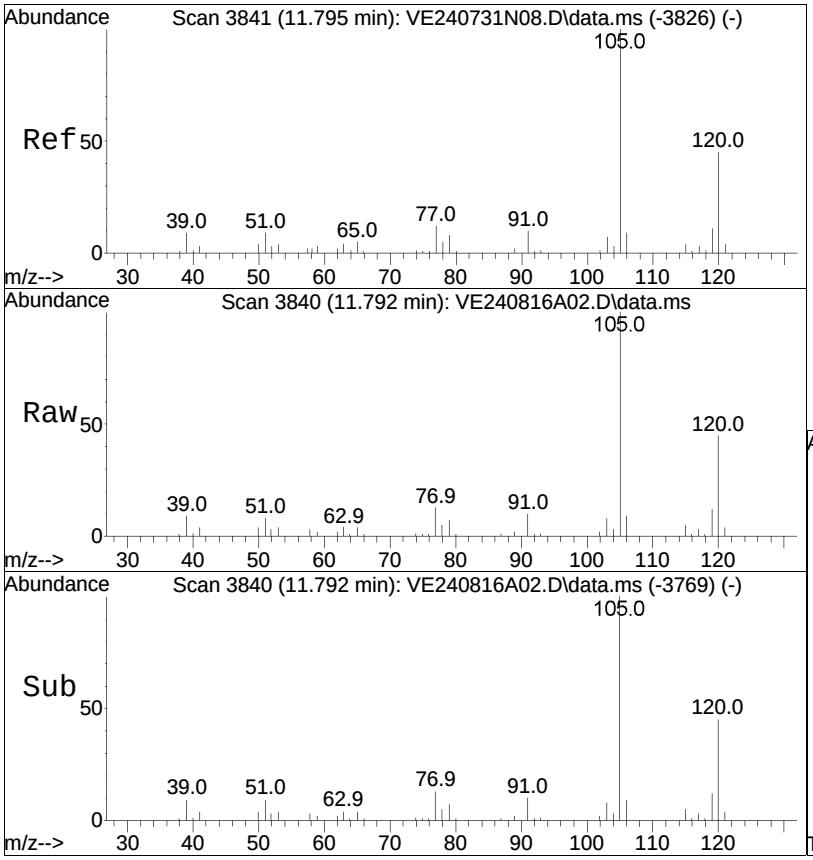


#99
tert-Butylbenzene
Concen: 11.00 ug/L
RT: 11.714 min Scan# 3812
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:119 Resp: 145221

Ion	Ratio	Lower	Upper
119	100		
91	67.8	56.6	84.8
134	26.4	17.7	26.5

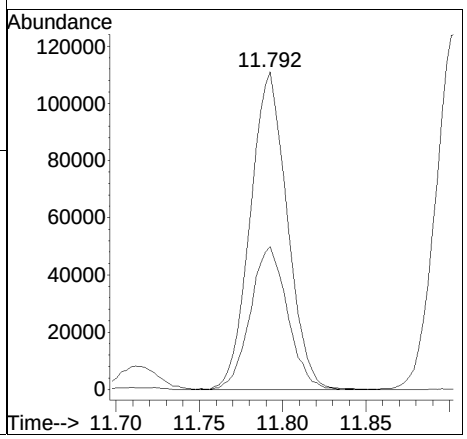


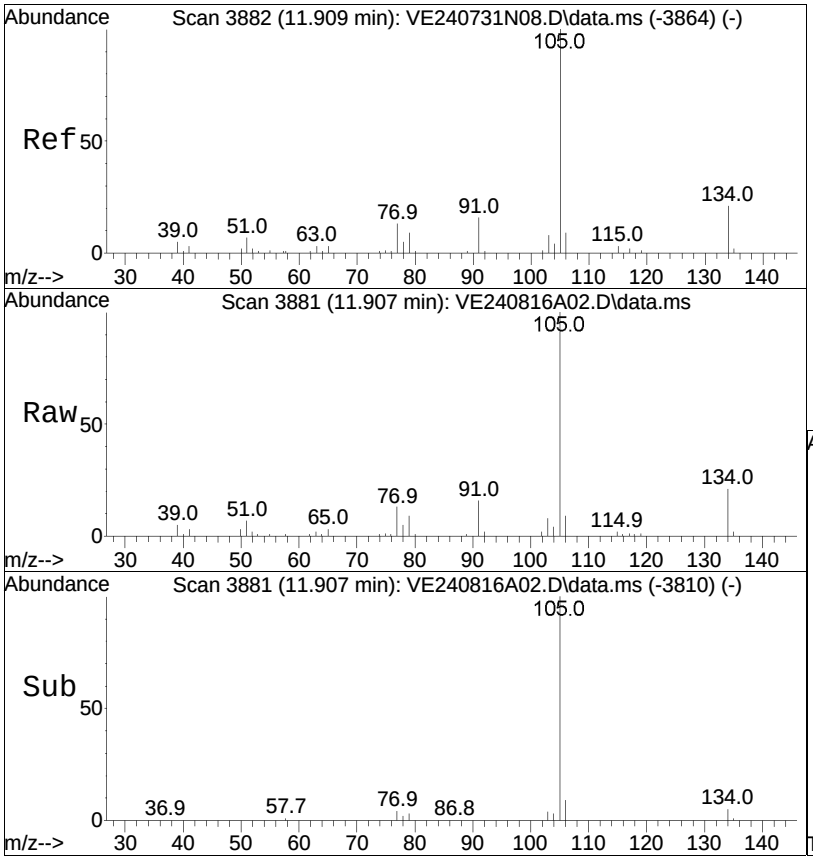


#102
1,2,4-Trimethylbenzene
Concen: 10.90 ug/L
RT: 11.792 min Scan# 3840
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:105 Resp: 170839

Ion	Ratio	Lower	Upper
105	100		
120	45.2	33.6	50.4

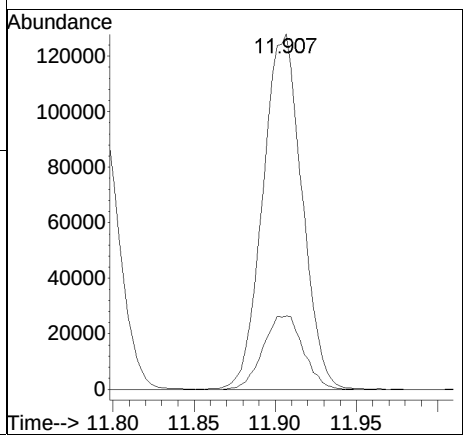


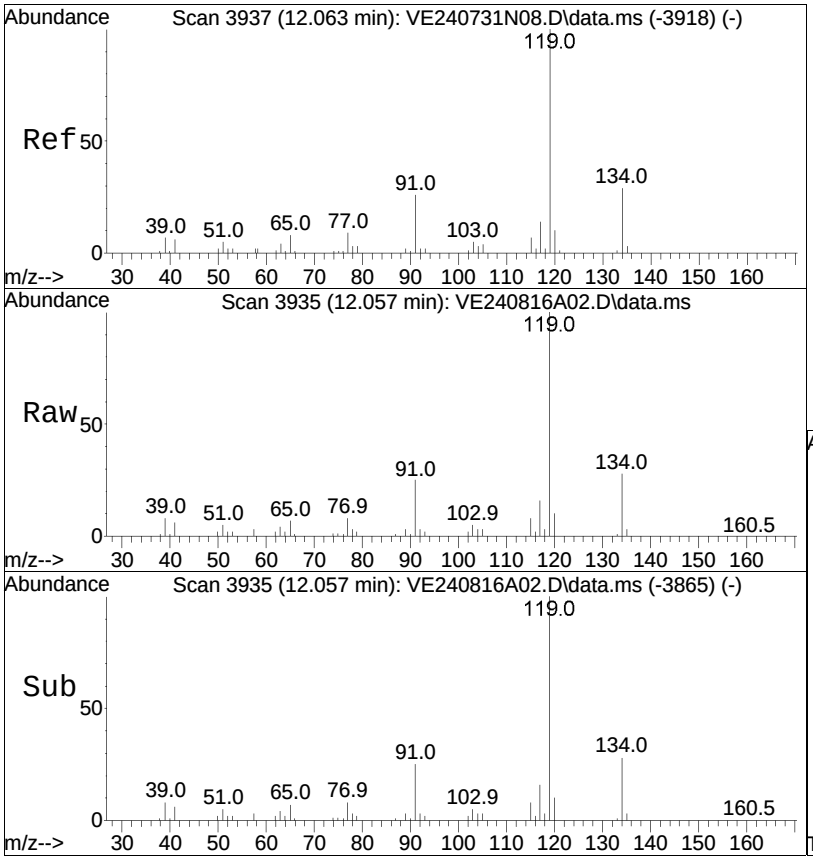


#103
sec-Butylbenzene
Concen: 10.96 ug/L
RT: 11.907 min Scan# 3881
Delta R.T. -0.002 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:105 Resp: 214618

Ion	Ratio	Lower	Upper
105	100		
134	21.2	13.3	27.5

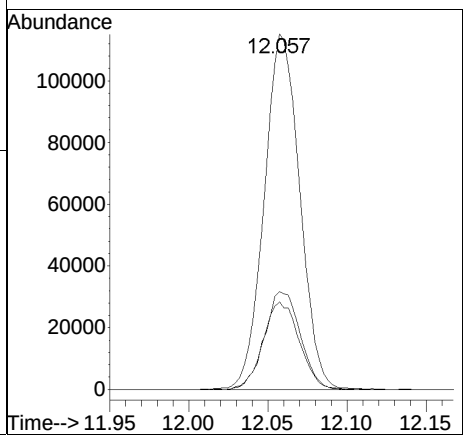


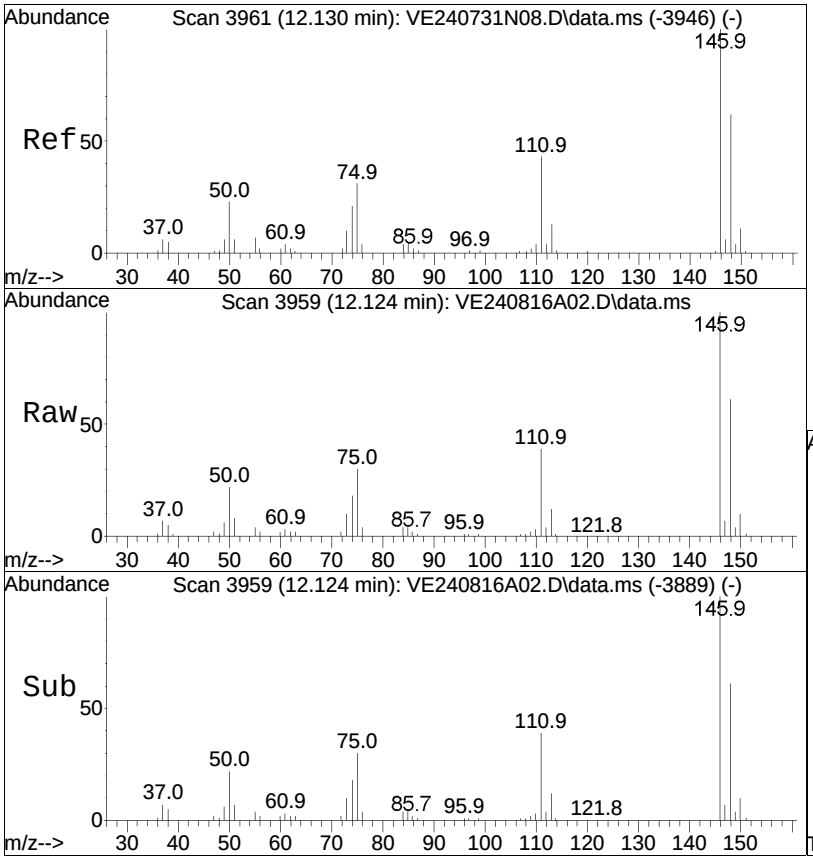


#104
p-Isopropyltoluene
Concen: 10.90 ug/L
RT: 12.057 min Scan# 3935
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:119 Resp: 179881

Ion	Ratio	Lower	Upper
119	100		
134	27.8	15.8	32.8
91	25.0	16.6	34.4

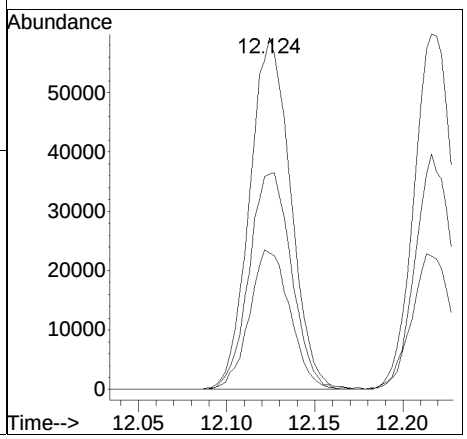


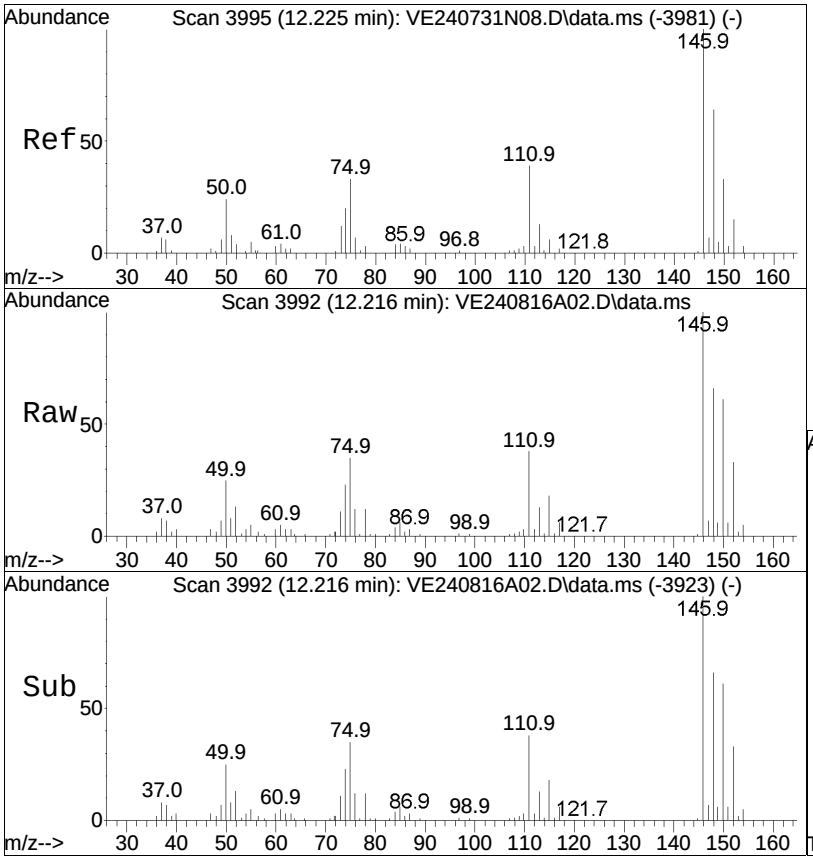


#105
1,3-Dichlorobenzene
Concen: 11.15 ug/L
RT: 12.124 min Scan# 3959
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:146 Resp: 96055

Ion	Ratio	Lower	Upper
146	100		
111	39.3	27.9	57.9
148	63.5	42.4	88.2

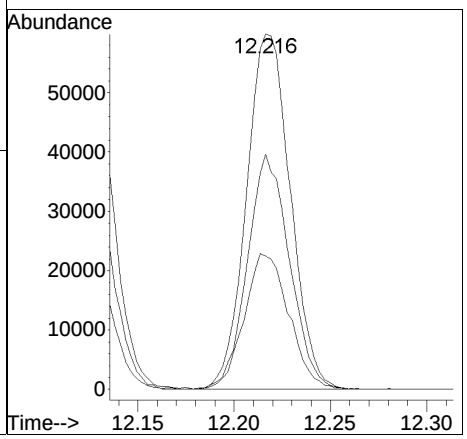


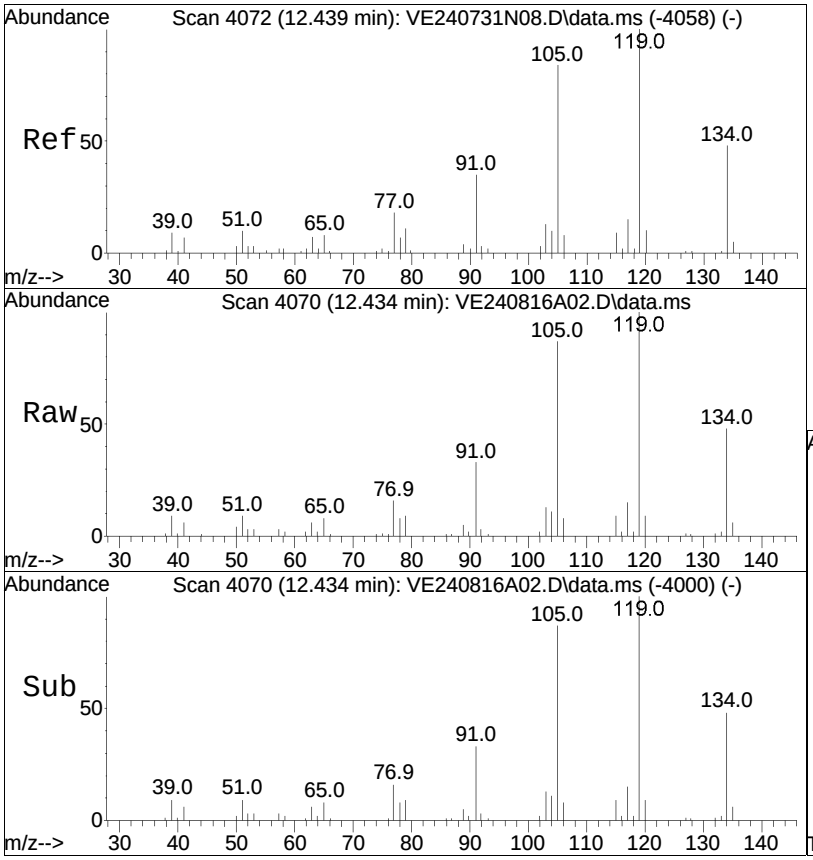


#106
1,4-Dichlorobenzene
Concen: 11.06 ug/L
RT: 12.216 min Scan# 3992
Delta R.T. -0.009 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:146 Resp: 95192

Ion	Ratio	Lower	Upper
146	100		
111	38.8	31.4	47.0
148	63.4	49.8	74.8

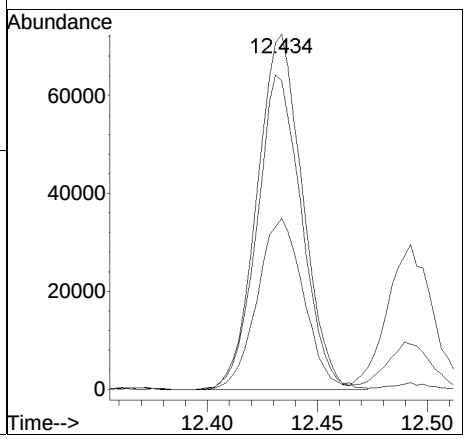


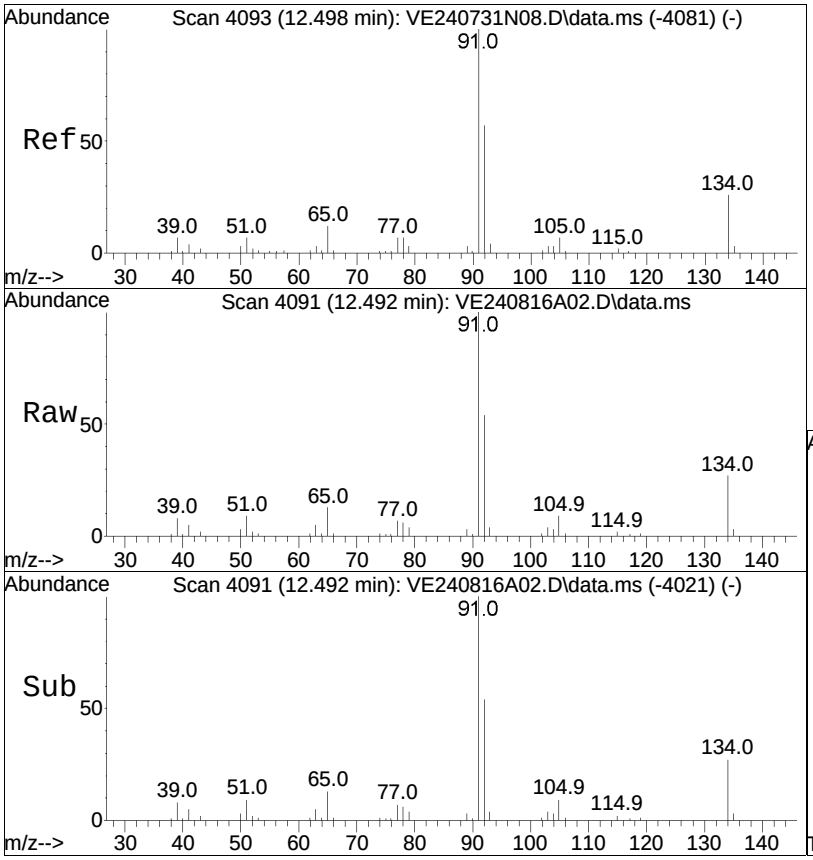


#107
p-Diethylbenzene
Concen: 10.73 ug/L
RT: 12.434 min Scan# 4070
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:119 Resp: 104376

Ion	Ratio	Lower	Upper
119	100		
105	86.6	55.4	115.2
134	48.8	28.4	59.0

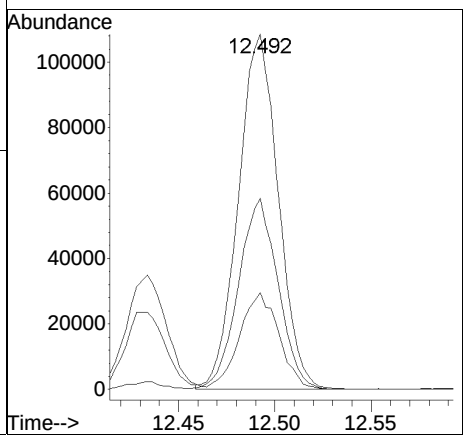


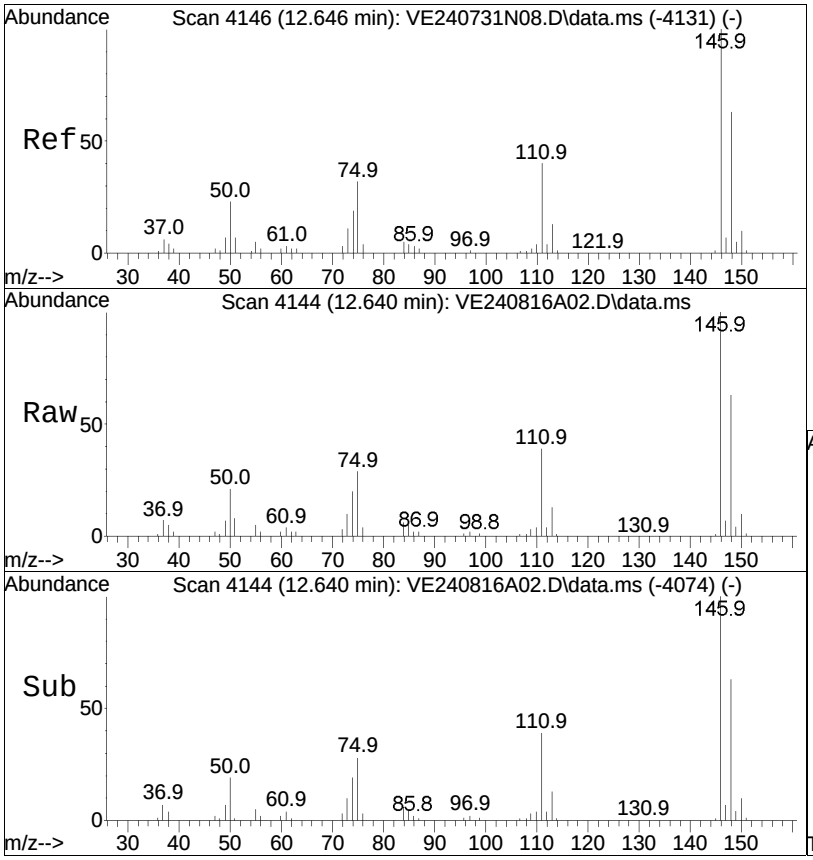


#108
n-Butylbenzene
Concen: 11.01 ug/L
RT: 12.492 min Scan# 4091
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion: 91 Resp: 156365

Ion	Ratio	Lower	Upper
91	100		
92	53.4	42.4	63.6
134	26.9	20.3	30.5

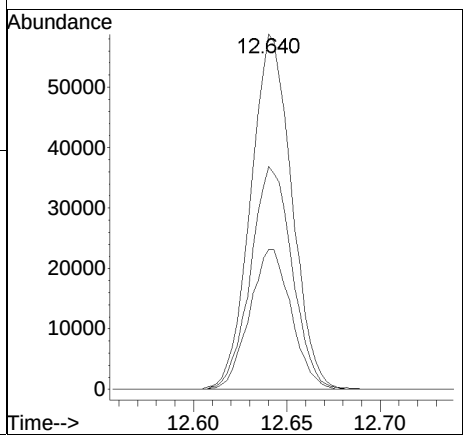


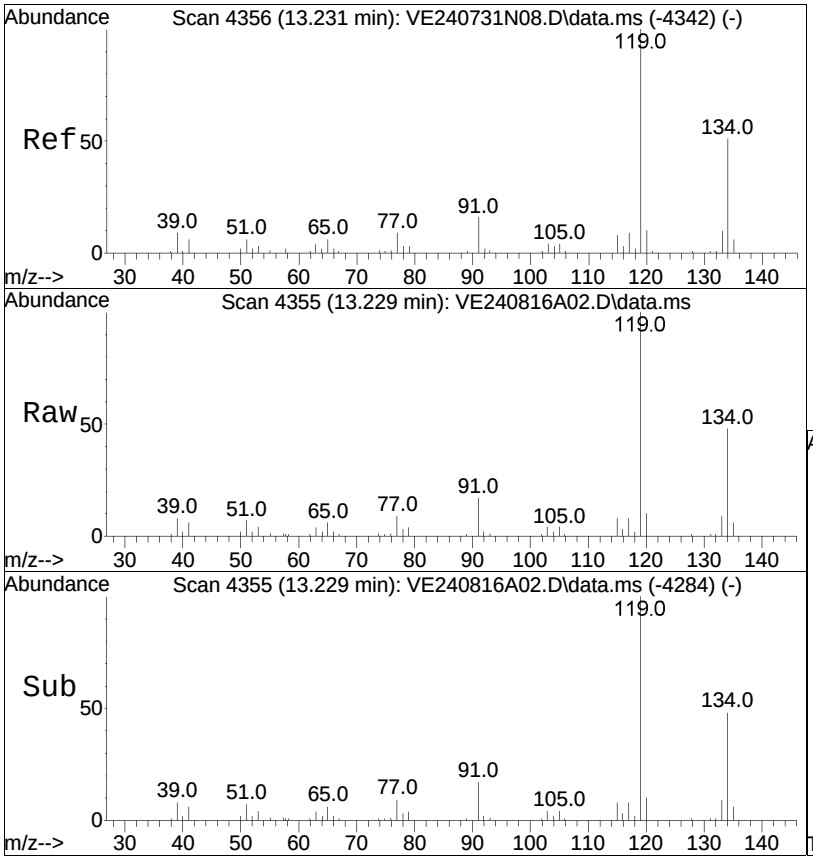


#109
1,2-Dichlorobenzene
Concen: 10.84 ug/L
RT: 12.640 min Scan# 4144
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:146 Resp: 89810

Ion	Ratio	Lower	Upper
146	100		
111	40.0	26.4	54.8
148	63.4	41.7	86.7

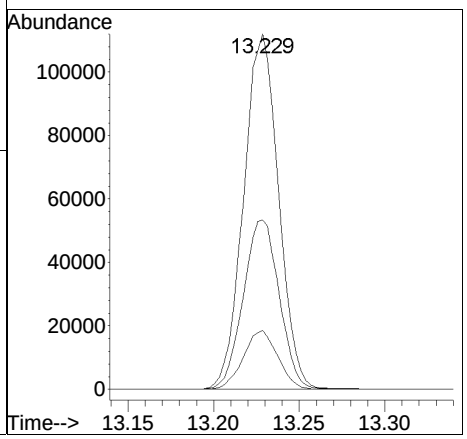


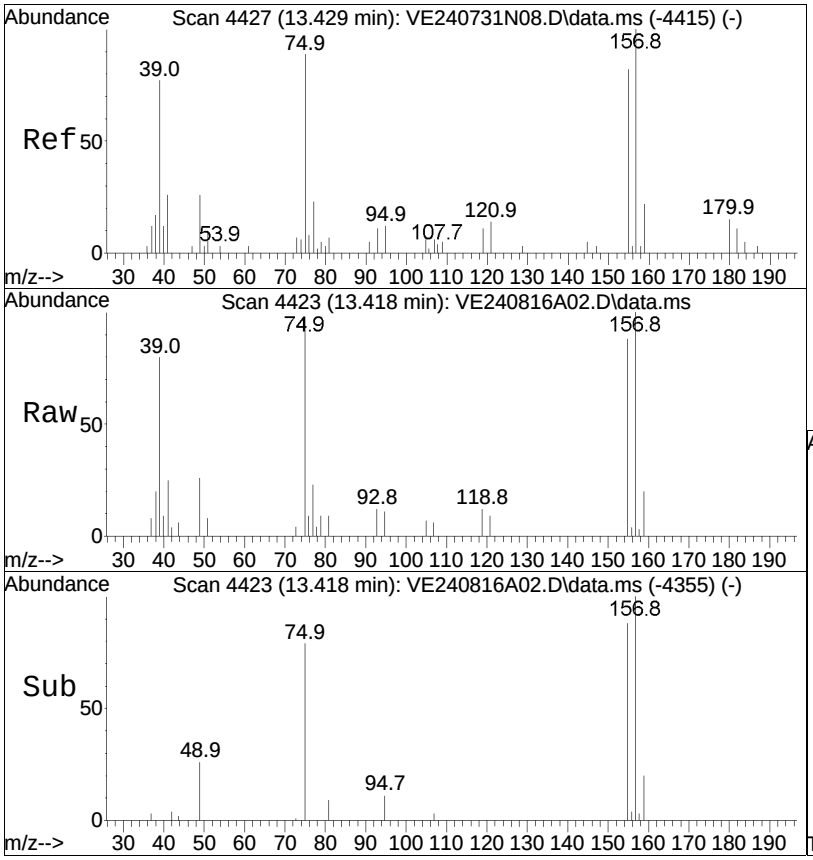


#110
1,2,4,5-Tetramethylbenzene
Concen: 10.09 ug/L
RT: 13.229 min Scan# 4355
Delta R.T. -0.002 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:119 Resp: 159200

Ion	Ratio	Lower	Upper
119	100		
134	49.1	29.6	61.4
91	16.4	9.8	20.3

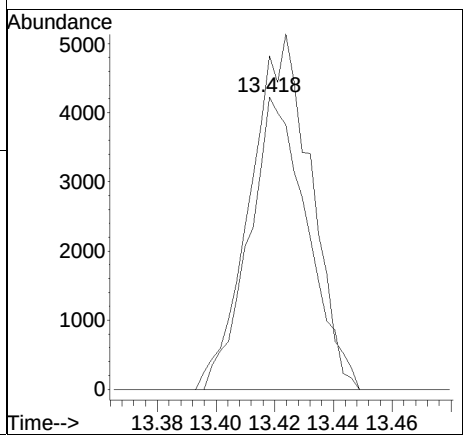


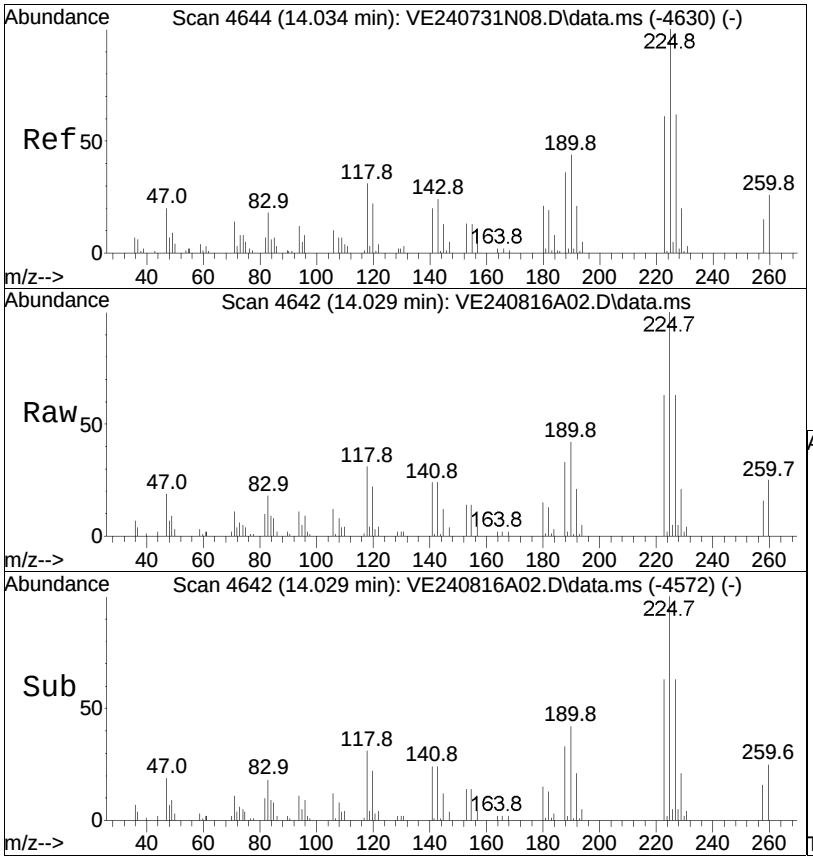


#111
1,2-Dibromo-3-chloropropane
Concen: 7.89 ug/L
RT: 13.418 min Scan# 4423
Delta R.T. -0.011 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:155 Resp: 5774

Ion	Ratio	Lower	Upper
155	100		
157	128.2	95.1	142.7

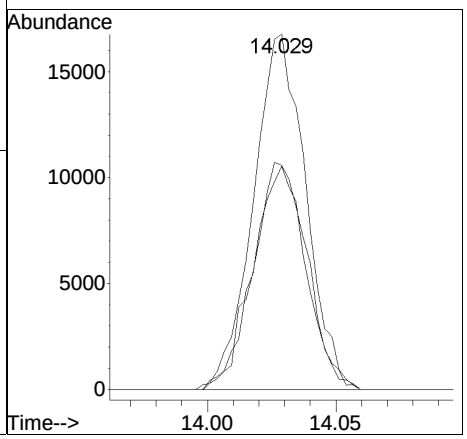


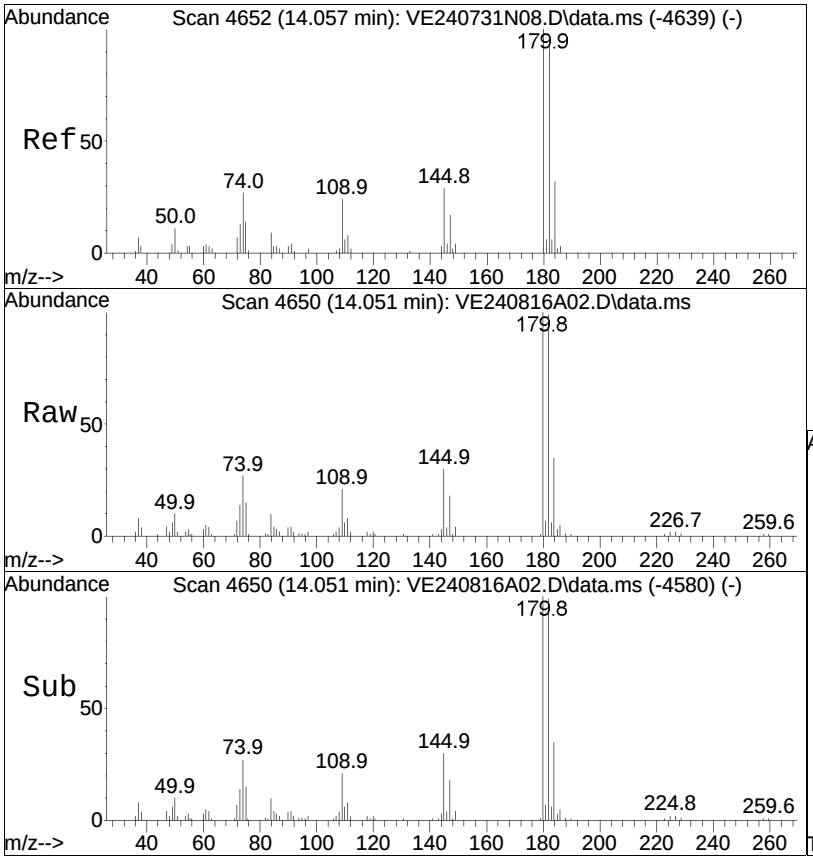


#113
Hexachlorobutadiene
Concen: 10.89 ug/L
RT: 14.029 min Scan# 4642
Delta R.T. -0.005 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:225 Resp: 23733

Ion	Ratio	Lower	Upper
225	100		
223	63.5	54.6	82.0
227	66.4	56.2	84.4

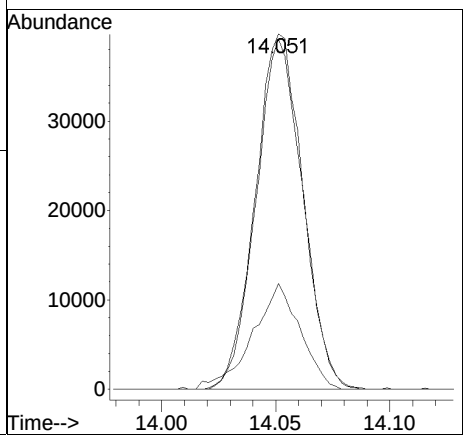


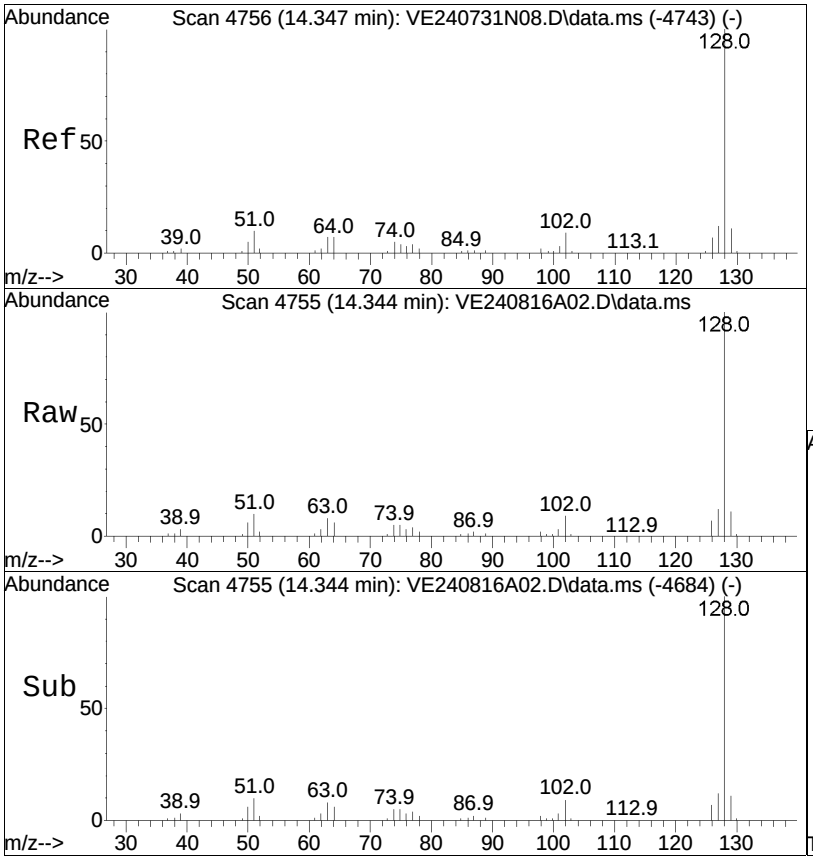


#114
1,2,4-Trichlorobenzene
Concen: 9.72 ug/L
RT: 14.051 min Scan# 4650
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:180 Resp: 57736

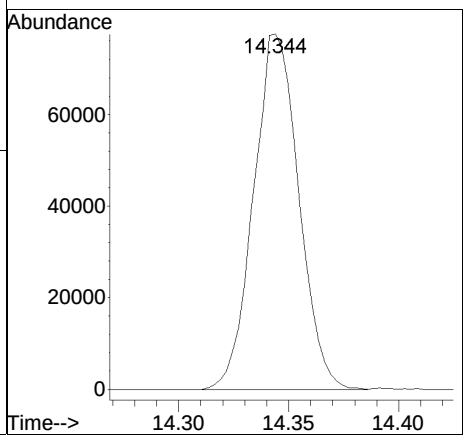
Ion	Ratio	Lower	Upper
180	100		
182	96.0	75.4	113.2
145	29.8	26.0	39.0

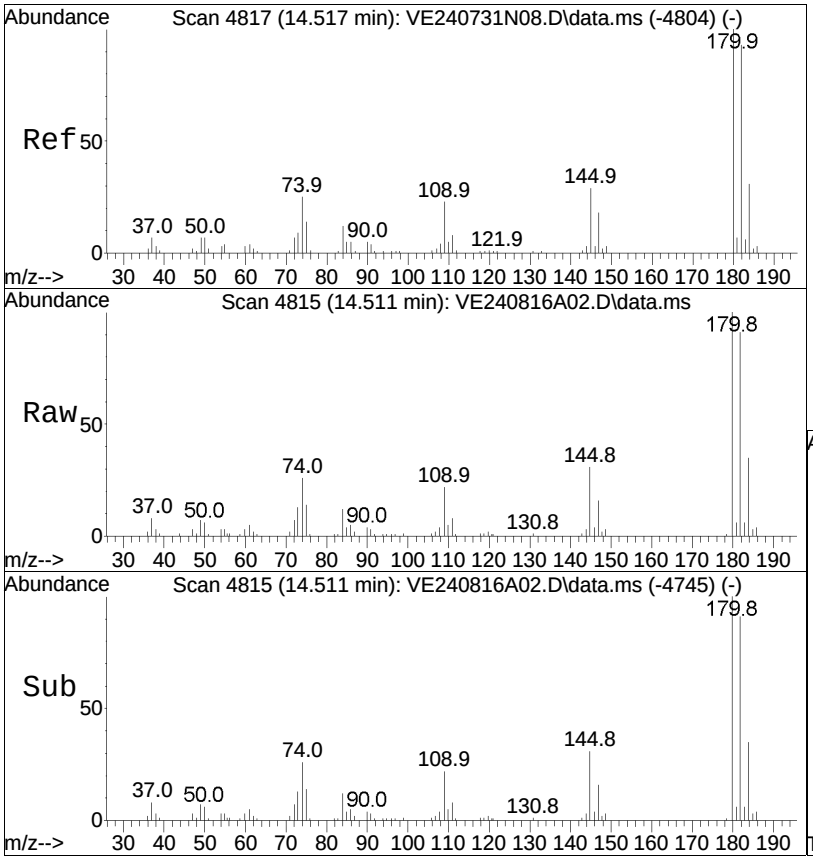




#115
Naphthalene
Concen: 8.47 ug/L
RT: 14.344 min Scan# 4755
Delta R.T. -0.003 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:128 Resp: 110868

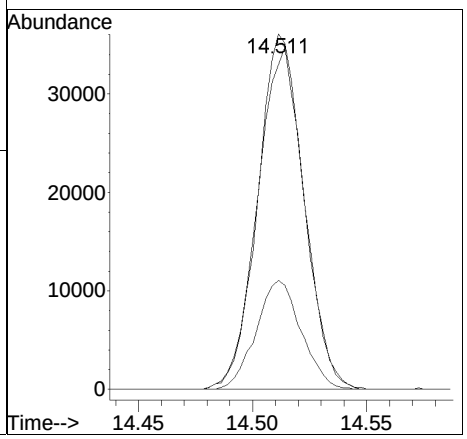




#116
1,2,3-Trichlorobenzene
Concen: 9.36 ug/L
RT: 14.511 min Scan# 4815
Delta R.T. -0.006 min
Lab File: VE240816A02.D
Acq: 16 Aug 2024 7:13 am

Tgt Ion:180 Resp: 51058

Ion	Ratio	Lower	Upper
180	100		
182	96.2	71.6	107.4
145	29.8	25.1	37.7

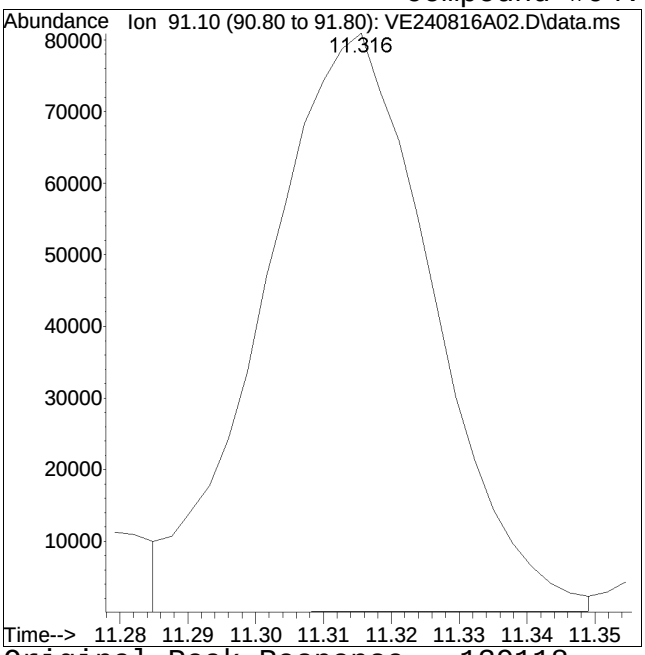


Manual Integration Report

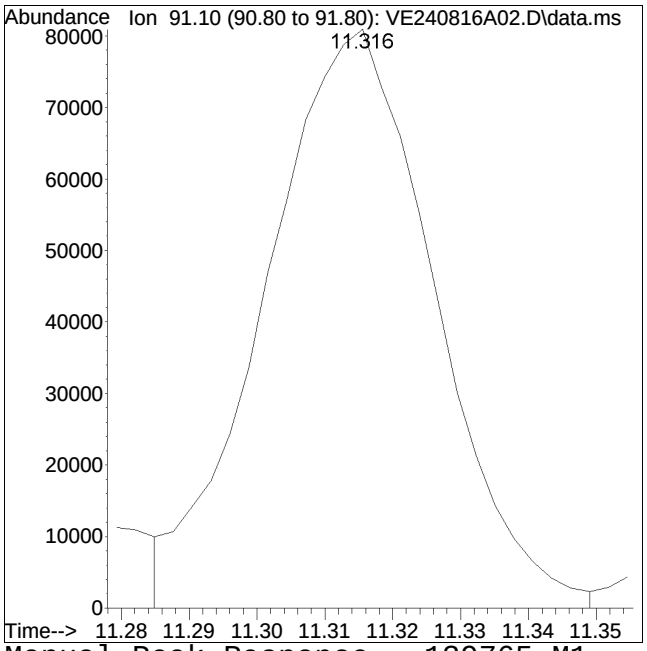
Data Path : K:\Elaine\2024\240816A\
Data File : VE240816A02.D
Date Inj'd : 8/16/2024 7:13 am
Sample : WG1960272-4,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 8/16/2024 7:37 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 139118



Manual Peak Response = 139765 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 16 2024, 01:10 pm

Work Group: WG1960231 for Department: 31 GC/MS - Volatiles

Created: 16-AUG-24 Due: Operator: PID

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2446555-03	LMW-6RD_42.75	S	NYTCL-8260	WATER	DONE	U		0829 0816	1A	Vial-B
WG1960231-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1960231-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1960231-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1960231-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1960231-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG1960231-4 WG1960231-3

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 16 2024, 01:10 pm

Work Group: WG1960272 for Department: 31 GC/MS - Volatiles

Created: 16-AUG-24 Due: Operator: PID

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2445544-59	FB01C_081224	S	NYTCL-8260	WATER	SEC	U	0826	0819	S0	Vial-B
L2446277-01	MW-9	S	NYCP51-8260	WATER	DONE	U	0828	0816	3A	Vial-B
L2446277-02	MW-10	S	NYCP51-8260	WATER	DONE	U	0828	0816	3A	Vial-B
L2446277-03	TRIP BLANK	S	NYCP51-8260	WATER	DONE	U	0828	0816	3A	Vial-B
L2446546-05	TRIP BLANK	S	NYTCL-8260	WATER	DONE	U	0819	0816	3A	Vial-B
L2446555-01	LMW-8RS_6.75	S	NYTCL-8260	WATER	DONE	U	0829	0816	1A	Vial-B
L2446555-02	LMW-9RS_13.75	S	NYTCL-8260	WATER	DONE	U	0829	0816	1A	Vial-B
L2446555-05	TRIP BLANK	S	NYTCL-8260	WATER	DONE	U	0829	0816	1A	Vial-B
L2446555-06	FIELD BLANK 08152024	S	NYTCL-8260	WATER	DONE	U	0829	0816	1A	Vial-B
WG1960272-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1960272-1	MS BFB Tune Standard	S	NYCP51-8260	WATER	DONE	U				
WG1960272-2	Continuing Calibrati	S	NYCP51-8260	WATER	DONE	U				
WG1960272-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1960272-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1960272-3	Laboratory Control S	S	NYCP51-8260	WATER	DACQ	U				
WG1960272-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1960272-4	LCS Duplicate	S	NYCP51-8260	WATER	DACQ	U				
WG1960272-5	Laboratory Method Bl	S	NYCP51-8260	WATER	DACQ	U				
WG1960272-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG1960272-4 WG1960272-3

Inst: Gonzo
Initials: RAW/LAC
Date: **07/12/24**
Run: **N**

BFB: V10509
IS/SS: V10528
ICAL: V10538,V10544A
ICV: V10539,V10500,V10501,V10527,V10541,V10540

Method
GC 8260_RTX_VMS
Autosampler: 8260water
Concentrator: 8260

QC: ____ Seq:

Vial	DATA FILE	SAMPLE	pH<2
1	VG240712PBF1	BFB TUNE	
1	VG240712PBF2	BFB TUNE	
2	VG240712PBF3	BFB TUNE	
3	VG240712P01	BLK	
4	VG240712P02	BLK	
5	VG240712P03	I8260STD0.19PPB	
6	VG240712P04	I8260STD0.19PPB	
7	VG240712P05	I8260STD0.5PPB	
8	VG240712P06	I8260STD0.5PPB	
9	VG240712P07	I8260STD2PPB	
10	VG240712P08	I8260STD10PPB	
11	VG240712P09	I8260STD30PPB	
12	VG240712P10	I8260STD80PPB	
13	VG240712P11	I8260STD120PPB	
14	VG240712P12	I8260STD200PPB	
15	VG240712P13	BLK	
16	VG240712P14	BLK	
17	VG240712P15	BLK	
18	VG240712P16	BLK	
19	VG240712P17	C8260STD10PPB	
20	VG240712P18	C8260STD10PPB	
21	VG240712P19	BLK	
22	VG240712P20	BLK	
23	VG240712P21	MDL 0.5PPB	
24	VG240712P22	MDL 0.5PPB	
25	VG240712P23	MDL 2PPB	
26	VG240712P24	MDL 2PPB	
27	VG240712P25	BLK	

Inst: Elaine
Initials: MAG
Date: **07/31/24**
Run: **N**

BFB: V10571
IS/SS: V10570
ICAL: V10561B,V10585
ICV: V10539, V10563, V10564, V10586, V10541, V10540

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample	obs
1	VE240731NBF1	BFB TUNE 17:25	
1	VE240731N01	BLK	
2	VE240731N02	BLK	
3	VE240731N03	I8260STD0.19PPB	
4	VE240731N04	I8260STD0.19PPB	
5	VE240731N05	I8260STD0.5PPB	
6	VE240731N06	I8260STD0.5PPB	
7	VE240731N07	I8260STD2PPB	
8	VE240731N08	I8260STD10PPB	
9	VE240731N09	I8260STD30PPB	
10	VE240731N10	I8260STD80PPB	
11	VE240731N11	I8260STD120PPB	
12	VE240731N12	I8260STD200PPB	
13	VE240731N13	BLK	
14	VE240731N14	BLK	
15	VE240731N15	BLK	
16	VE240731N16	BLK	
17	VE240731N17	C8260STD10PPB	
18	VE240731N18	C8260STD10PPB	
19	VE240731N19	BLK	
20	VE240731N20	BLK	
21	VE240731N21	METHOD BLK	
22	VE240731N22	MDL LVL 11	
23	VE240731N23	MDL LVL 1	
24	VE240731N24	MDL LVL 2	
25	VE240731N25	BLK	

Inst: Gonzo BFB: V10571 Method GC 8260_RTX_VMS

Initials: PID IS/SS: V10605 Autosampler: 8260water

Date: **08/16/24** ICAL: V10594A,V10606 Concentrator: 8260

Run: **A** QC: ____ Seq:

Vial	DATA FILE	SAMPLE			pH<2
1	VG240816ABF1	BFB TUNE 06:35			
1	VG240816A01	8260 CCAL LCS			
2	VG240816A02	8260 CCAL LCSD			
3	VG240816A03	8260 CCAL			
4	VG240816A04	BLK			
5	VG240816A05	METHOD BLK			
6	VG240816A06	L2445312-01d,31,2.0,10,,A	ME/TCLP/FN	VERY OILY	pH>2
7	VG240816A07	L2445381-01d,31,0.4,10,,C	8260+3		pH<2
8	VG240816A08	I2446555-03,31,10,10,,a,r1a	NYTCL		pH<2
9	VG240816A09	DSTD			
10	VG240816A10	I2445707-01,31,10,10,,a	NYTCL		
11	VG240816A11	L2445707-02d,31,5.0,10,,A	NYTCL		pH<2
12	VG240816A12	L2445707-06d,31,5.0,10,,A	NYTCL		pH<2
13	VG240816A13	I2445707-03,31,10,10,,a	NYTCL		
14	VG240816A14	I2445707-04,31,10,10,,a	NYTCL		
15	VG240816A15	I2445707-05,31,10,10,,a	NYTCL		
16	VG240816A16	I2445707-07,31,10,10,,a	NYTCL	TB	
17	VG240816A17	I2445670-01,31,10,10,,a	NY/R2		
18	VG240816A18	I2445670-02,31,10,10,,a	NY/R2		
19	VG240816A19	I2445670-03,31,10,10,,a	NY/R2		
20	VG240816A20	I2445670-04,31,10,10,,a	NY/R2		
21	VG240816A21	L2445670-05d,31,4.0,10,,A	NY/R2		pH<2
22	VG240816A22	L2445670-06d,31,2.0,10,,A	NY/R2		pH<2
23	VG240816A23	I2445670-07,31,10,10,,a	NY/R2		
24	VG240816A24	I2445946-03,31,10,10,,a	NYTCL	TB,HS	
25	VG240816A25	I2445869-05,31,10,10,,a	NYTCL/10		
26	VG240816A26	I2445869-06,31,10,10,,a	NYTCL/10		
27	VG240816A27	I2445670-04MS,31,10,10,,a1	NY/R2		
28	VG240816A28	I2445670-04MSD,31,10,10,,a2	NY/R2		
29	VG240816A29	HSTD			
30	VG240816A30	BLK			
31	VG240816A31	BLK			

Inst: Elaine
Initials: MJV
Date: **08/16/24**
Run: **A**

BFB: V10571
IS/SS: V10570
ICAL: V10594A,V10606

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample			obs
1	VE240816ABF1	BFB TUNE 06:34			
1	VE240816A01	8260 CCAL LCS			
2	VE240816A02	8260 CCAL LCSD			
3	VE240816A03	8260 CCAL			
4	VE240816A04	BLK			
5	VE240816A05	METHOD BLK			
6	VE240816A06	I2446546-05,31,10,10,,b,r3a	NYTCL/10	TB HS	pH<2
7	VE240816A07	I2446555-05,31,10,10,,a,r1a	NYTCL	TB HS	pH<2
8	VE240816A08	I2446555-06,31,10,10,,a,r1a	NYTCL	FB	pH<2
9	VE240816A09	I2445544-59,31,10,10,,a	NYCURVE	FB	pH<2
10	VE240816A10	L2446555-02d,31,0.2,10,,A,R1/	NYTCL		pH>2
11	VE240816A11	L2446555-01d,31,4.0,10,,A,R1/	NYTCL	OILY,FOAM	pH>2
12	VE240816A12	I2446277-01,31,10,10,,a,r3a	NY STARS		pH<2
13	VE240816A13	I2446277-02,31,10,10,,a,r3a	NY STARS		pH<2
14	VE240816A14	I2446277-03,31,10,10,,a,r3a	NY STARS		pH<2
15	VE240816A15	I2446555-02D,31,0.4,10,,c,r1a	NYTCL		pH>2
16	VE240816A16	d STD BENZ			
17	VE240816A17	I2445835-01,31,10,10,,a	NYCURVE		
18	VE240816A18	I2445835-02,31,10,10,,a	NYCURVE		
19	VE240816A19	I2445835-03,31,10,10,,a	NYCURVE		
20	VE240816A20	I2445835-05,31,10,10,,a	NYCURVE		
21	VE240816A21	I2445835-06,31,10,10,,a	NYCURVE		
22	VE240816A22	I2445835-07,31,10,10,,a	NYCURVE		
23	VE240816A23	I2445862-01,31,10,10,,a	NYTCL		
24	VE240816A24	I2445862-02,31,10,10,,a	NYTCL		
25	VE240816A25	I2445771-01,31,10,10,,a	NY/R2		
26	VE240816A26	I2445771-02,31,10,10,,a	NY/R2		
27	VE240816A27	I2445835-02MS,31,10,10,,a1	NYCURVE		
28	VE240816A28	I2445835-02MSD,31,10,10,,a2	NYCURVE		
29	VE240816A29	HSTD			
30	VE240816A30	BLK			
31	VE240816A31	BLK			

Metals

Inorganic Data
(ICPMS Analysis)

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-04	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/21/24 09:28
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1961852.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 10ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/19/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	2566.	27.00	NA	
7440-70-2	Calcium, Total	660.	5.00	1.97	
7439-89-6	Iron, Total	1860	2.50	0.955	
7439-95-4	Magnesium, Total	223.	3.50	1.21	
7439-96-5	Manganese, Total	9.277	0.05000	0.02200	

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/21/24 08:25
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1961852.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/19/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	ND	0.5400	NA	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960303-1	**Date Collected**	: NA
Client ID	: WG1960303-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 07:18
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1961852.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/19/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	ND	0.5400	NA	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960303-4	**Date Collected**	: 08/14/24 15:00
Client ID	: WG1960303-4 DUP	**Date Received**	: 08/14/24
Sample Location	:	**Date Analyzed**	: 08/21/24 07:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1961852.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/19/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-70-2	Calcium, Total	ND	0.100	0.039	U
7439-89-6	Iron, Total	ND	0.0500	0.019	U
7439-95-4	Magnesium, Total	ND	0.0700	0.024	U
7439-96-5	Manganese, Total	ND	0.00100	0.0004	U

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R1866642-1			R1866642-5			R1866642-8		R1866642-10	
Date Analyzed :	08/21/24 05:34			08/21/24 06:05			08/21/24 06:57		08/21/24 07:07	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium	5000	5170.0000	103	6000.0000	5840	97	6130	102	5910	98
Iron	5000	5250.0000	105	6000.0000	6300	105	6440	107	6290	105
Magnesium	5000	5120.0000	102	6000.0000	6060	101	6370	106	6100	102
Manganese	50.0	52.0000	104	60.0000	60.5	101	62.4	104	59.7	100

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1866642-12			R1866642-14		R1866642-16	
Date Analyzed :				08/21/24 08:04			08/21/24 09:08		08/21/24 09:51	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium				6000.0000	6020	100	6380	106	6350	106
Iron				6000.0000	6310	105	6180	103	6260	104
Magnesium				6000.0000	6210	104	6340	106	6200	103
Manganese				60.0000	60.3	100	62.3	104	61.9	103

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R1866642-3		R1866642-6		R1866642-7		R1866642-9		WG1960303-1	
Date Analyzed	:	08/21/24 05:46		08/21/24 06:10		08/21/24 06:17		08/21/24 07:02		08/21/24 07:18	
Parameter		ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q	mg/l	Q
Calcium		39.4	U	39.4	U	39.4	U	39.4	U	0.0394	U
Hardness										0.5400	U
Iron		19.1	U	21.3	J	19.1	U	19.1	U	0.0191	U
Magnesium		24.2	U	24.2	U	24.2	U	24.2	U	0.0242	U
Manganese		0.440	U	0.440	U	0.440	U	0.440	U	0.00044	U

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1866642-11		R1866642-13		R1866642-15			
Date Analyzed :			08/21/24 07:13		08/21/24 08:09		08/21/24 09:12			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Calcium			39.4	U	39.4	U	39.4	U		
Iron			19.1	U	19.1	U	19.1	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	0.440	U	0.440	U		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1866642-17							
Date Analyzed :			08/21/24 09:56							
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Calcium			39.4	U						
Iron			19.1	U						
Magnesium			24.2	U						
Manganese			0.440	U						

Form 4a
Interference Check Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Concentration Units**	: ug/l

		Initial Found				Final Found			
Lab ID :		R1866642-4							
Analysis Date :		08/21/24 05:51							
Analyte	**Sol. A**	**Sol. AB**	**Sol. A**	**%R**	**Sol. AB**	**%R**	**Sol. A**	**%R**	**Sol. AB**	**%R**
Calcium	300000		304000	101						
Iron	250000		254000	102						
Magnesium	100000		104000	104						
Manganese			4.62							

Acceptance Criteria: Methods 200.7, 200.8, 6010, 6020

ICSA: 80-120%

ICSAB: 80-120%

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446106-28		
Matrix Spike	: WG1960303-3	**MS Analysis Date**	: 08/21/24 07:32
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Hardness	ND	66.2	69.82	106					75-125	20
Calcium, Total	ND	10	10.2	102					75-125	20
Iron, Total	ND	1	1.13	113					75-125	20
Magnesium, Total	ND	10	10.8	108					75-125	20
Manganese, Total	ND	0.5	0.5399	108					75-125	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/21/24 07:27
Dup Sample ID	: WG1960303-4	**DUP Analysis Date**	: 08/21/24 07:36

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Calcium, Total	ND	ND	NC	20
Iron, Total	ND	ND	NC	20
Magnesium, Total	ND	ND	NC	20
Manganese, Total	ND	ND	NC	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1960303-2	**LCS Analysis Date**	: 08/21/24 07:23
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Hardness	66.2	67.1	101.					80-120	20
Calcium, Total	10.0	10.0	100.					80-120	20
Iron, Total	1.00	1.13	113.					80-120	20
Magnesium, Total	10.0	10.2	102.					80-120	20
Manganese, Total	0.500	0.526	105.					80-120	20

Form 12
Preparation Log

Client	:	**Langan Engineering & Environmental**	**Lab Number**	:	**L2446555**
Project Name	:	**1487 FIRST AVE**	**Project Number**	:	**100963701**
Matrix	:	**WATER**	**Prep Method**	:	**EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L2446555-04	08/19/24 22:54	-	10
L2446555-06	08/19/24 22:54	-	50
WG1960303-1	08/19/24 22:54	-	50
WG1960303-2	08/19/24 22:54	-	50
WG1960303-3	08/19/24 22:54	-	50
WG1960303-4	08/19/24 22:54	-	50

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/21/24 04:30	**End Date**	: 08/21/24 09:56

Sample Number	Dilution Factor	Analysis Time	CALCIUM	Calcium, Total	Hardness	Iron, Total	MAGNESIUM	Magnesium, Total	Manganese, Total
R1866642-20 TUNE		04:30:00							
R1866642-1 ICV	1	05:34:05	X	X		X	X	X	X
R1866642-3 ICB	1	05:46:47	X	X		X	X	X	X
R1866642-4 ICSA	1	05:51:52	X	X		X	X	X	X
R1866642-5 CCV	1	06:05:52	X	X		X	X	X	X
R1866642-6 CCB	1	06:10:33	X	X		X	X	X	X
R1866642-7 CCB	1	06:17:00	X	X		X	X	X	X
R1866642-8 CCV	1	06:57:26	X	X		X	X	X	X
R1866642-9 CCB	1	07:02:08	X	X		X	X	X	X
R1866642-10 CCV	1	07:07:51	X	X		X	X	X	X
R1866642-11 CCB	1	07:13:38	X	X		X	X	X	X
WG1960303-1 BLANK	1	07:18:20		X	X	X		X	X
WG1960303-2 LCS	10	07:23:00		X	X	X		X	X
WG1960303-3 MS	10	07:32:19		X	X	X		X	X
WG1960303-4 DUP	1	07:36:59		X	X	X		X	X
R1866642-12 CCV	1	08:04:44	X	X		X	X	X	X
R1866642-13 CCB	1	08:09:26	X	X		X	X	X	X
L2446555-06	1	08:25:07		X	X	X		X	X
R1866642-14 CCV	1	09:08:10	X	X		X	X	X	X
R1866642-15 CCB	1	09:12:52	X	X		X	X	X	X
L2446555-04	10	09:28:47		X	X	X		X	X
R1866642-16 CCV	1	09:51:57	X	X		X	X	X	X
R1866642-17 CCB	1	09:56:39	X	X		X	X	X	X

Form 14
ICP-MS Tune

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: R1866642-20	**Analysis Date**	: 08/21/24 04:30
ICP-MS Instrument	: iCAP Q		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.93	0.717	1.2
115 In	114.9073	0.73	1
7 Li	7.0374	0.675	1.2
238 U	238.0817	0.729	0.6

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/21/24	**End Date**	: 08/21/24

Sample #	Time	Internal Standards %RI For:				
		Lithium	Scandium	Ge	In	Bismuth
R1866642-1 ICV	05:34:05	96	102	99	99	102
R1866642-3 ICB	05:46:47	98	98	101	105	103
R1866642-4 ICSA	05:51:52	88	119	103	91	85
R1866642-5 CCV	06:05:52	92	104	104	99	101
R1866642-6 CCB	06:10:33	96	100	102	102	100
R1866642-7 CCB	06:17:00	95	98	102	100	103
R1866642-8 CCV	06:57:26	95	105	100	98	99
R1866642-9 CCB	07:02:08	94	94	105	104	101
R1866642-10 CCV	07:07:51	95	106	101	96	100
R1866642-11 CCB	07:13:38	95	97	101	100	100
WG1960303-1 BLANK	07:18:20	95	97	103	101	99
WG1960303-2 LCS	07:23:00	96	99	104	101	100
WG1960303-3 MS	07:32:19	93	98	104	104	101
WG1960303-4 DUP	07:36:59	96	99	104	106	101
R1866642-12 CCV	08:04:44	93	108	109	104	99
R1866642-13 CCB	08:09:26	92	99	105	102	97
L2446555-06	08:25:07	93	102	107	103	99
R1866642-14 CCV	09:08:10	101	108	104	102	103
R1866642-15 CCB	09:12:52	103	103	104	104	103
L2446555-04	09:28:47	97	106	99	100	100
R1866642-16 CCV	09:51:57	103	109	102	101	102
R1866642-17 CCB	09:56:39	103	102	102	100	101

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METALS by 6020B (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Aluminum, Total	7429-90-5	0.01	0.00327	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Antimony, Total	7440-36-0	0.004	0.000429	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Arsenic, Total	7440-38-2	0.0005	0.000165	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Barium, Total	7440-39-3	0.0005	0.000173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Beryllium, Total	7440-41-7	0.0005	0.000107	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cadmium, Total	7440-43-9	0.0002	0.0000599	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Calcium, Total	7440-70-2	0.1	0.0394	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Chromium, Total	7440-47-3	0.001	0.000178	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cobalt, Total	7440-48-4	0.0005	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Copper, Total	7440-50-8	0.001	0.000384	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Lithium, Total	7439-93-2	0.001	0.000083	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Iron, Total	7439-89-6	0.05	0.0191	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Lead, Total	7439-92-1	0.001	0.000343	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Magnesium, Total	7439-95-4	0.07	0.0242	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Manganese, Total	7439-96-5	0.001	0.00044	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Nickel, Total	7440-02-0	0.002	0.000556	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Potassium, Total	7440-09-7	0.1	0.0309	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Selenium, Total	7782-49-2	0.005	0.00173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Silver, Total	7440-22-4	0.0004	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Sodium, Total	7440-23-5	0.1	0.0293	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Thallium, Total	7440-28-0	0.0005	0.000143	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Vanadium, Total	7440-62-2	0.005	0.00157	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Zinc, Total	7440-66-6	0.01	0.00341	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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METALS by 6020B (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Aluminum, Total	7429-90-5	10	1.48	mg/kg	48-151	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Antimony, Total	7440-36-0	0.16	0.01352	mg/kg	1-208	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Arsenic, Total	7440-38-2	0.05	0.0066	mg/kg	79-121	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Barium, Total	7440-39-3	0.3	0.02112	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Beryllium, Total	7440-41-7	0.03	0.00872	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Cadmium, Total	7440-43-9	0.02	0.00264	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Calcium, Total	7440-70-2	50	6.08	mg/kg	81-119	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Chromium, Total	7440-47-3	0.2	0.0468	mg/kg	80-120	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Cobalt, Total	7440-48-4	0.05	0.00532	mg/kg	84-115	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Copper, Total	7440-50-8	0.2	0.0194	mg/kg	81-118	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Iron, Total	7439-89-6	20	2.06	mg/kg	45-155	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Lead, Total	7439-92-1	0.06	0.0146	mg/kg	81-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Magnesium, Total	7439-95-4	10	1.232	mg/kg	76-124	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Manganese, Total	7439-96-5	0.2	0.0444	mg/kg	81-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Nickel, Total	7440-02-0	0.1	0.02672	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Potassium, Total	7440-09-7	10	1.588	mg/kg	71-129	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Selenium, Total	7782-49-2	0.2	0.0756	mg/kg	78-122	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Silver, Total	7440-22-4	0.05	0.00488	mg/kg	75-124	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Sodium, Total	7440-23-5	15	1.172	mg/kg	72-127	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Thallium, Total	7440-28-0	0.02	0.00516	mg/kg	80-120	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Vanadium, Total	7440-62-2	0.1	0.03792	mg/kg	78-122	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Zinc, Total	7440-66-6	1	0.26	mg/kg	82-118	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Performance Report

System

Start time:	8/21/2024 4:30:42 AM
Instrument:	iCAP Q
Operator:	ALPHALAB\Metals-Instrument
Template:	STD AGD
Instrument Serial Number:	03031R
Last Autotune:	Autotune-!InstallTune KEDS Line1-20240806-164005781.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Sensitivity & Stability Test

Result	Runs	Sweeps
Passed	5	10

Sensitivity

Analyte	Result	Value	Condition	Limit
Bkg4.5	Passed	1.2 CPS	Less than	5.0 CPS
Bkg220.7	Passed	0.0 CPS	Less than	5.0 CPS
7Li	Passed	12,384.0 CPS	Greater than	10,000.0 CPS
59Co	Passed	30,671.0 CPS	Greater than	1,000.0 CPS
238U	Passed	82,658.0 CPS	Greater than	20,000.0 CPS
140Ce.16O/140Ce	Passed	0.0111	Less than	0.025
137Ba++/137Ba	Passed	0.0094	Less than	0.034
115In	Passed	49,703.0 CPS	Greater than	5,000.0 CPS

Stability

Analyte	Value	Limit
7Li	1.2%	5
59Co	1.2%	5
238U	0.6%	5
140Ce.16O	3.7%	2
140Ce	1.0%	2
115In	1.0%	5

Mass Calibration Test

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.04	1.5	0.02	10

Analyte	Result	Centroid Mass [u]	Offset	Peak width [u]	Peak width min [u]	Peak width max [u]
7Li	Passed	7.0374	0.0214	0.675	0.600	0.900
59Co	Passed	58.9300	0.0032	0.717	0.600	0.900
115In	Passed	114.9073	0.0034	0.730	0.600	0.900
238U	Passed	238.0817	0.0309	0.729	0.600	0.900

Tune Settings

Parameter	Value
Additional Gas Flow 1	35.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-374.02
Auxilliary Flow	0.80
CCT Bias	-2.01
CCT Entry Lens	-105.98
CCT Exit Lens	-39.99
CCT Focus Lens	-4.88
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	0.00
CCT2 Shut-Off Valve	0.00
Cool Flow	14.00
D1 Lens	-200.05
D2 Lens	-80.00
Deflection Entry Lens	-35.01
Dry Pump Speed	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-116.48
Focus Lens	18.09
Nebulizer Flow	0.41
Peristaltic Pump Speed	16.86
Plasma Power	1549.58
Pole Bias	-2.16
Quad Entry Lens	-19.00
Sampling Depth	5.00
Spray Chamber Temperature	2.68
Torch Horizontal Position	-0.32
Torch Vertical Position	0.62
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	1.00
Virtual CCT Mass to Dac Factor	60.00
Virtual CCT Mass to Dac Offset	80.00

Vacuum Check

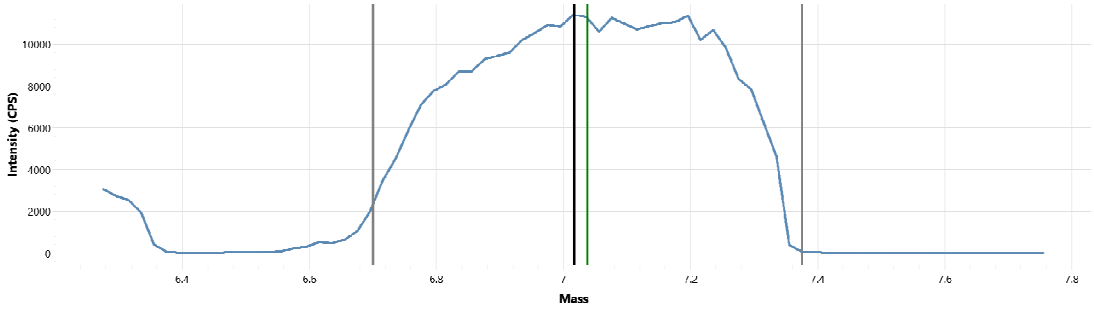
Parameter	Result	Value
Analyzer Pressure	Vacuum ok	2.196e-7
Interface Pressure		1.654e+0

Detector Voltages

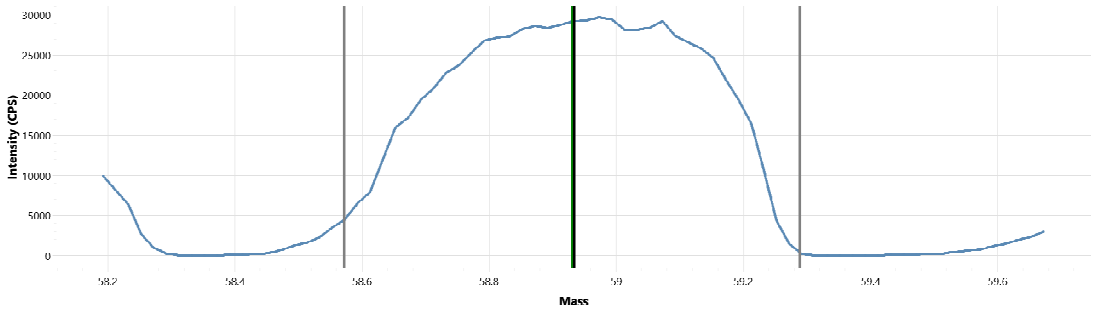
Analog	Counting
-1850.00	1625.00

Mass Calibration Peaks

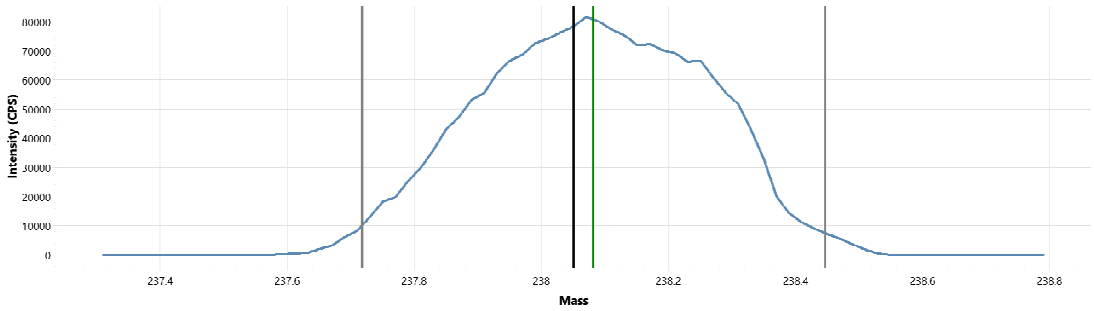
Analyte: 7Li



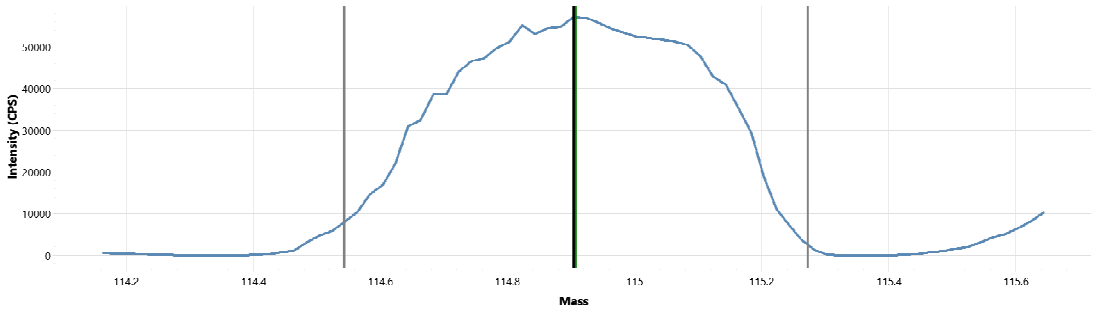
Analyte: 59Co



Analyte: 238U

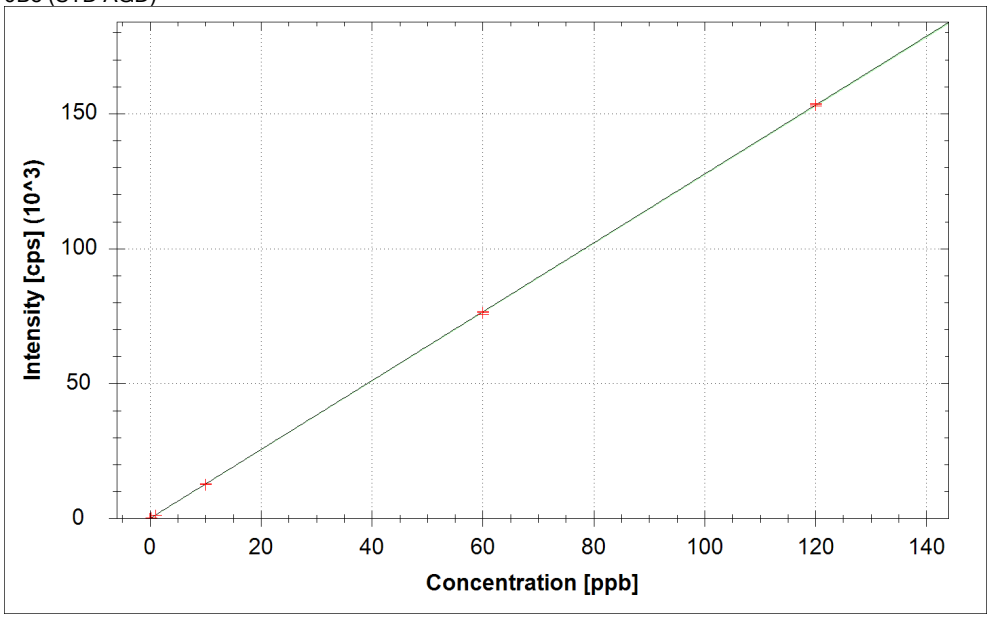


Analyte: 115In



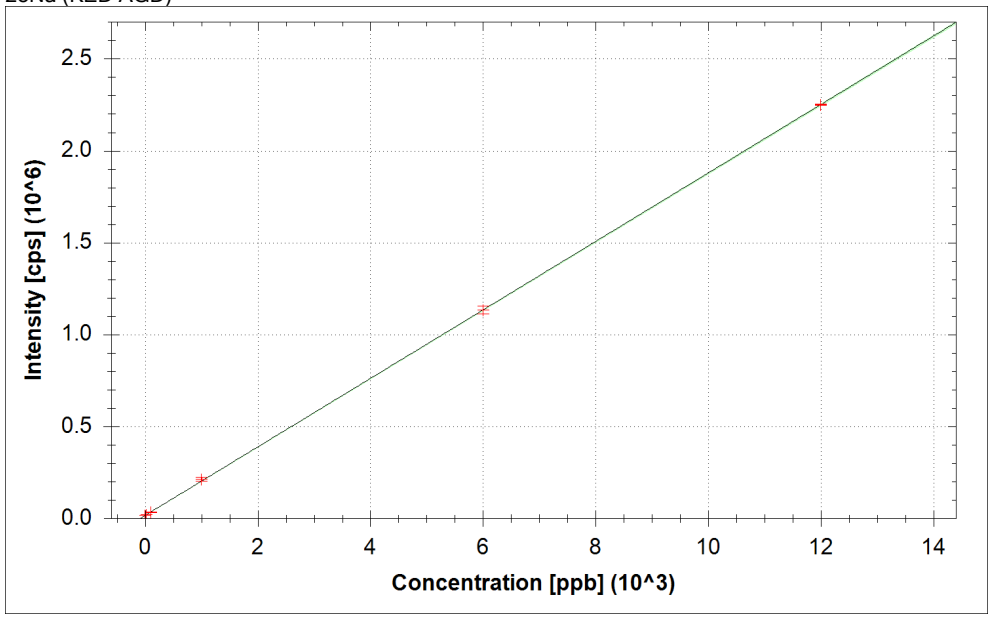
Calibration Curves:

9Be (STD AGD)



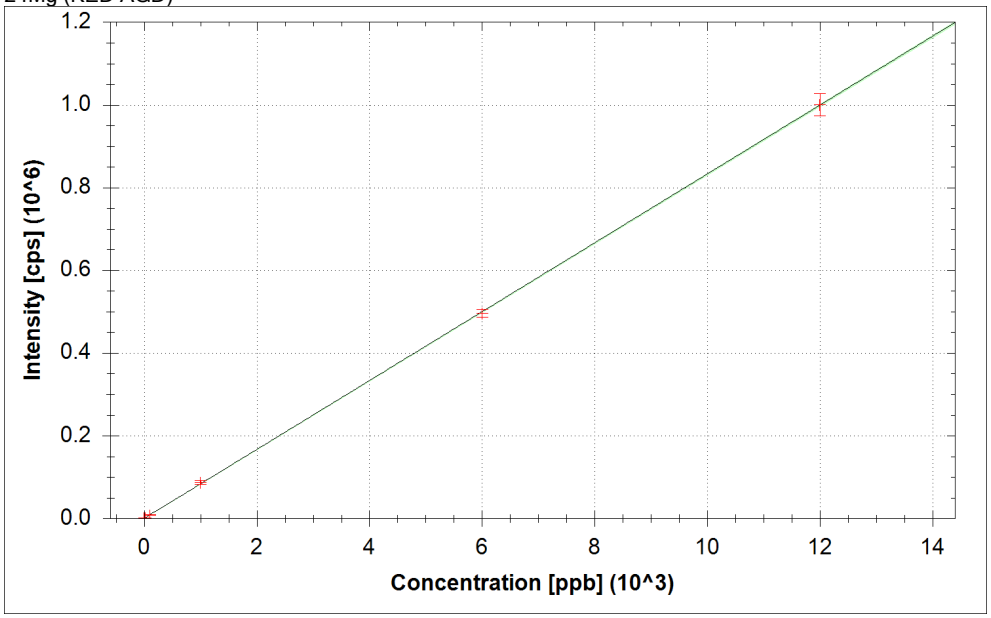
f(x) = 1275.5995*x + 13.7828
R² = 1.0000
BEC = 0.011 ppb
LoD = 0.0048 ppb

23Na (KED AGD)



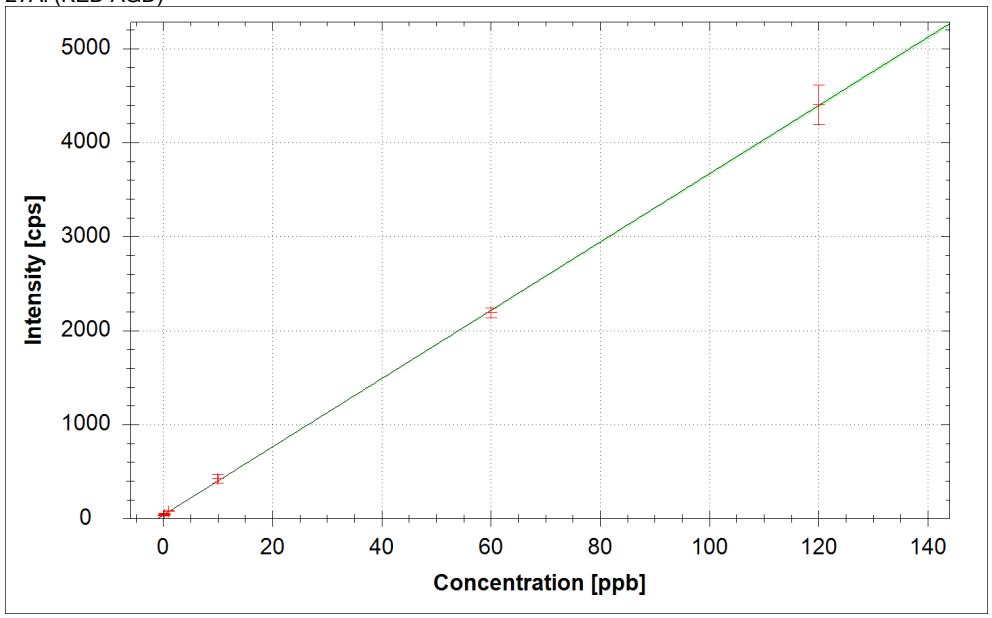
f(x) = 186.1781*x + 16807.1952
R² = 1.0000
BEC = 90.275 ppb
LoD = 11.7218 ppb

24Mg (KED AGD)



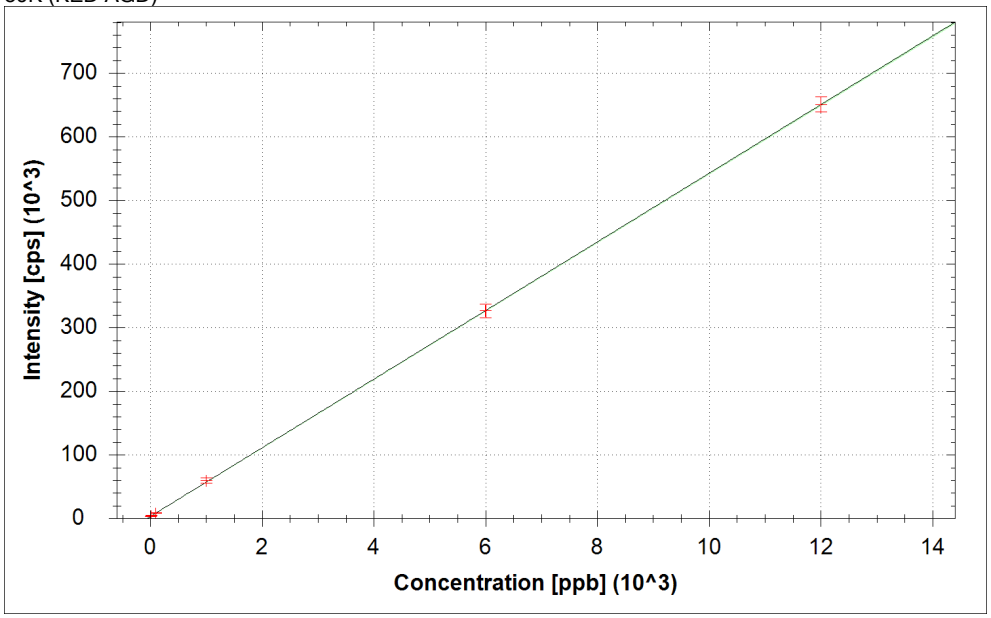
f(x) = 83.2257*x + 381.1812
R² = 1.0000
BEC = 4.580 ppb
LoD = 2.1863 ppb

27Al (KED AGD)



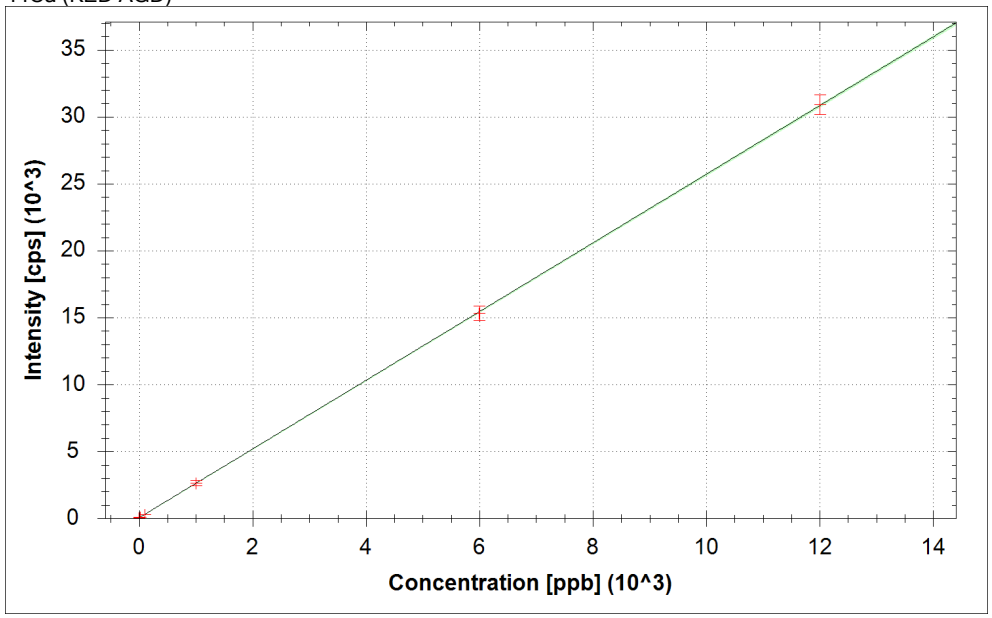
f(x) = 36.2967*x + 35.3885
R² = 0.9999
BEC = 0.975 ppb
LoD = 0.8027 ppb

39K (KED AGD)



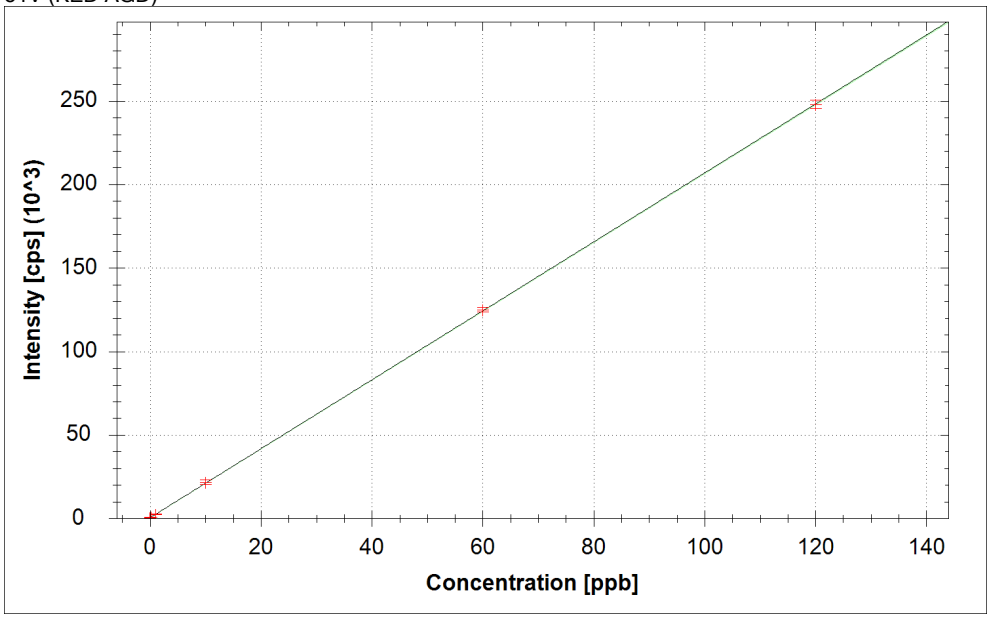
f(x) = 53.9328*x + 3114.9303
R² = 1.0000
BEC = 57.756 ppb
LoD = 5.7240 ppb

44Ca (KED AGD)



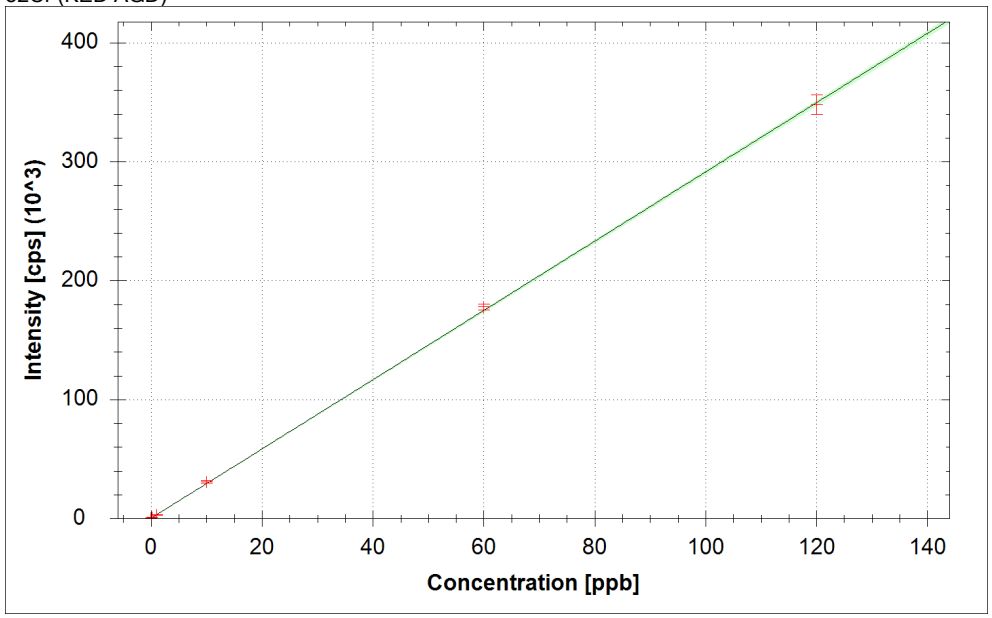
f(x) = 2.5650*x + 57.3148
R² = 1.0000
BEC = 22.345 ppb
LoD = 11.2804 ppb

51V (KED AGD)



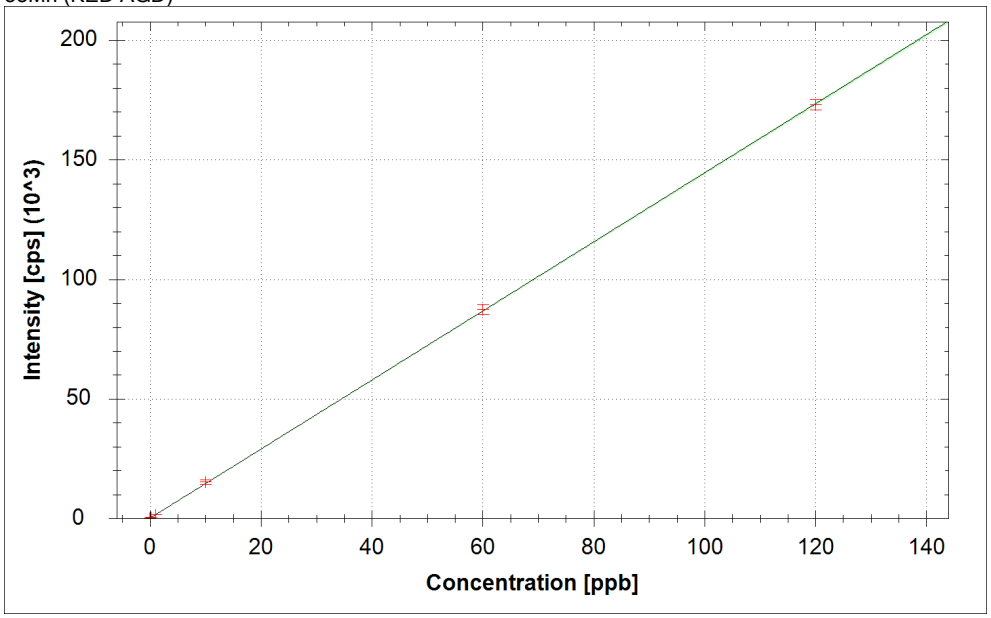
f(x) = 2063.7524*x + 460.3807
R² = 1.0000
BEC = 0.223 ppb
LoD = 0.0293 ppb

52Cr (KED AGD)



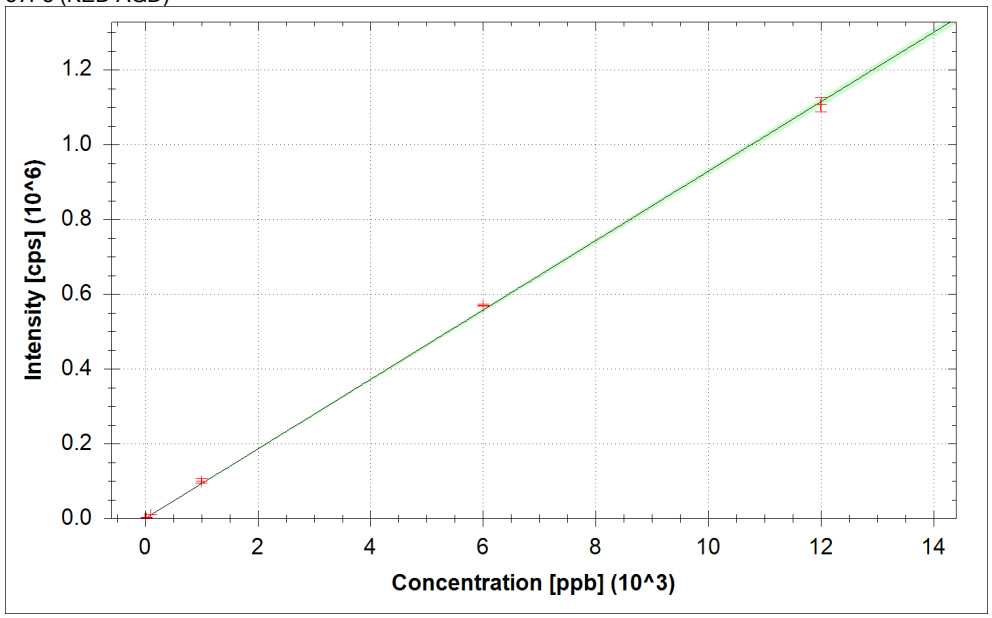
f(x) = 2910.0502*x + 205.8350
R² = 0.9999
BEC = 0.071 ppb
LoD = 0.0275 ppb

55Mn (KED AGD)



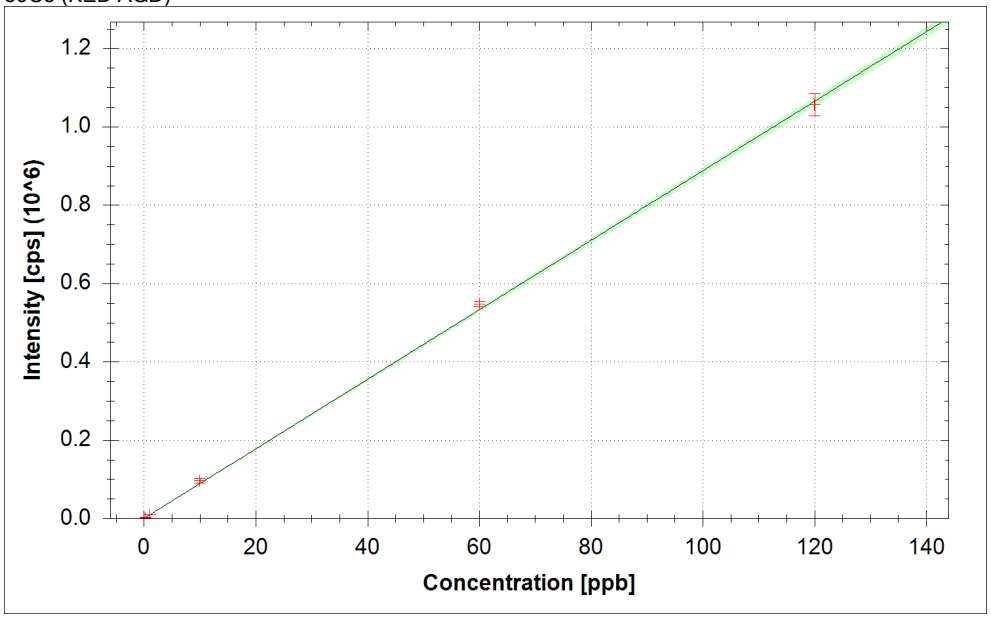
f(x) = 1443.7620*x + 130.3580
R² = 1.0000
BEC = 0.090 ppb
LoD = 0.0675 ppb

57Fe (KED AGD)



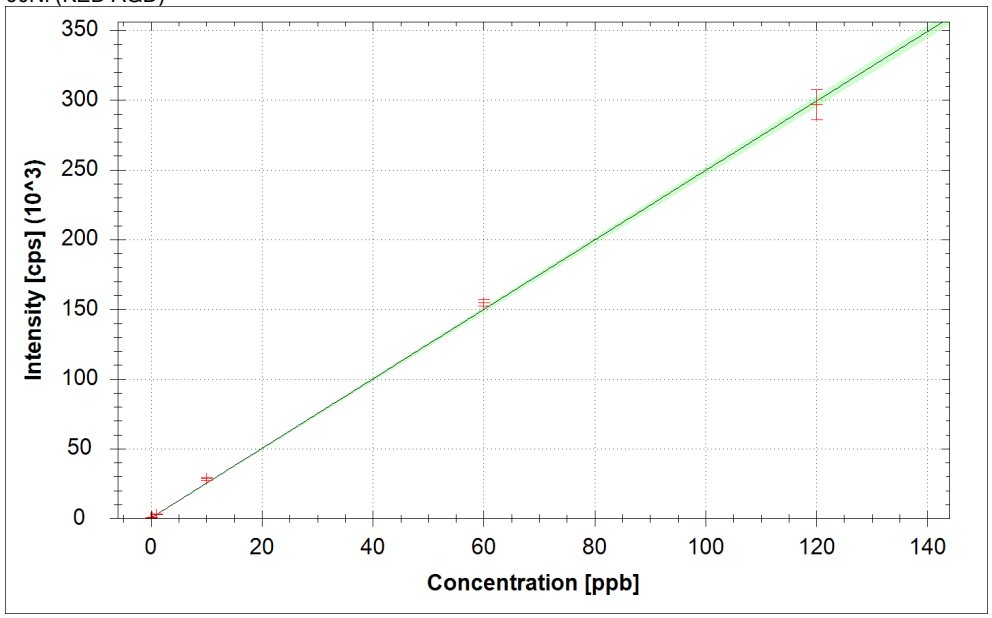
f(x) = 92.7937*x + 206.9014
R² = 0.9997
BEC = 2.230 ppb
LoD = 0.2773 ppb

59Co (KED AGD)



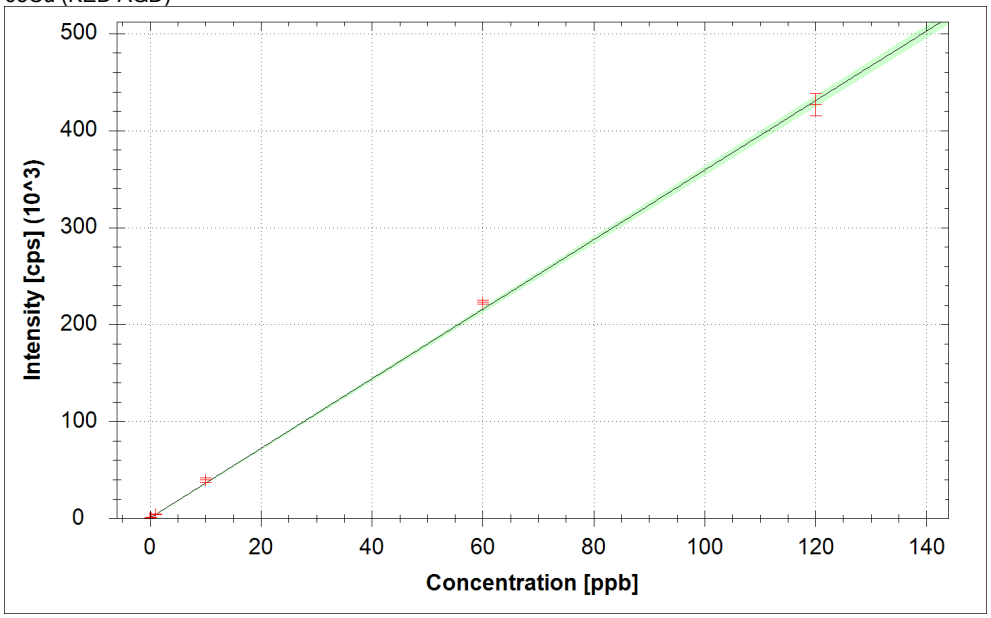
f(x) = 8870.7718*x + 59.7442
R² = 0.9996
BEC = 0.007 ppb
LoD = 0.0038 ppb

60Ni (KED AGD)



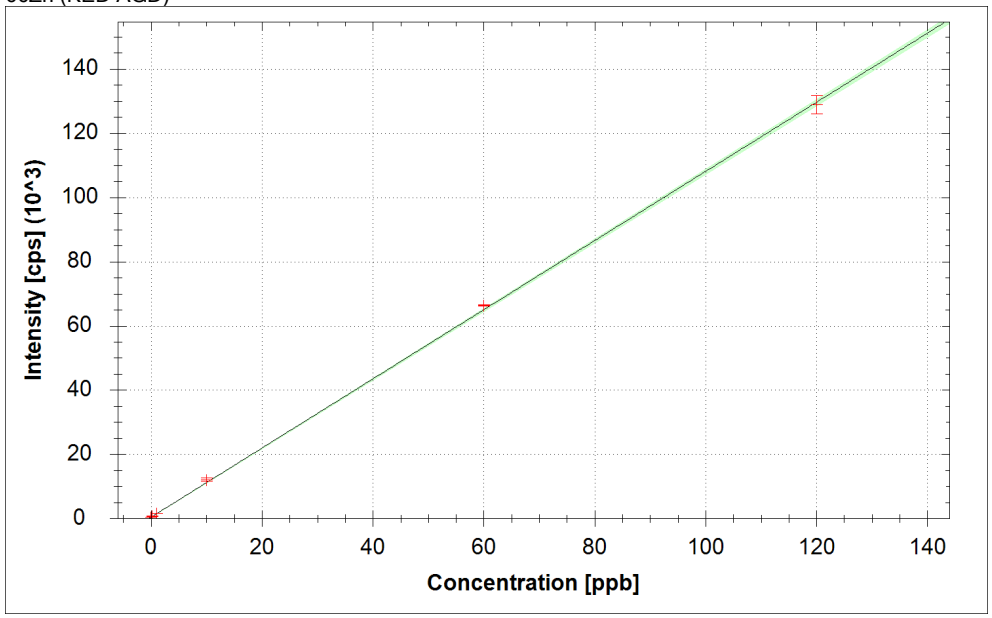
f(x) = 2490.7886*x + 363.6259
R² = 0.9995
BEC = 0.146 ppb
LoD = 0.0626 ppb

65Cu (KED AGD)



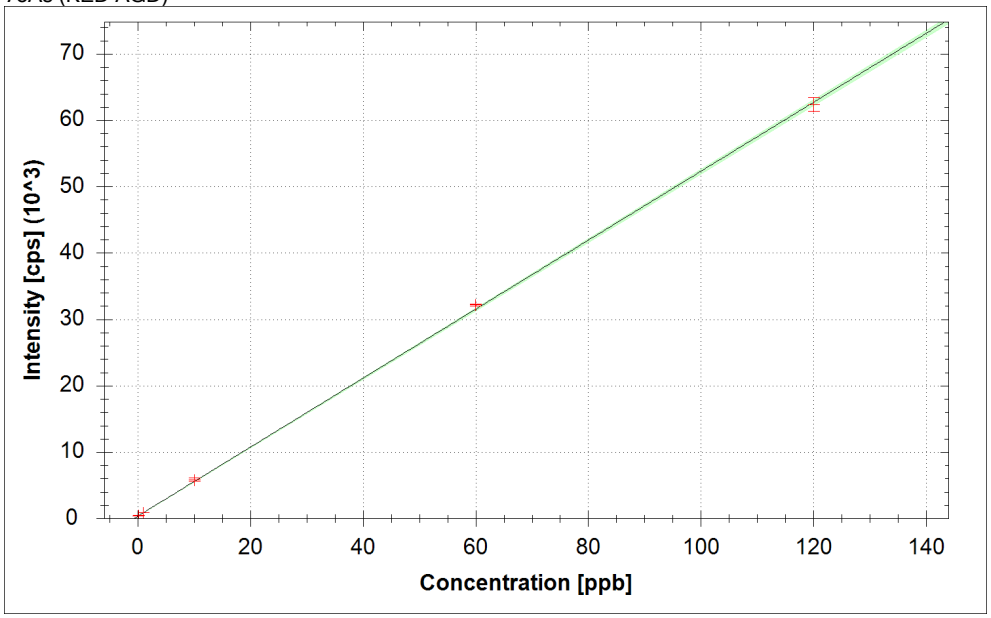
f(x) = 3584.8647*x + 479.4581
R² = 0.9995
BEC = 0.134 ppb
LoD = 0.0588 ppb

66Zn (KED AGD)



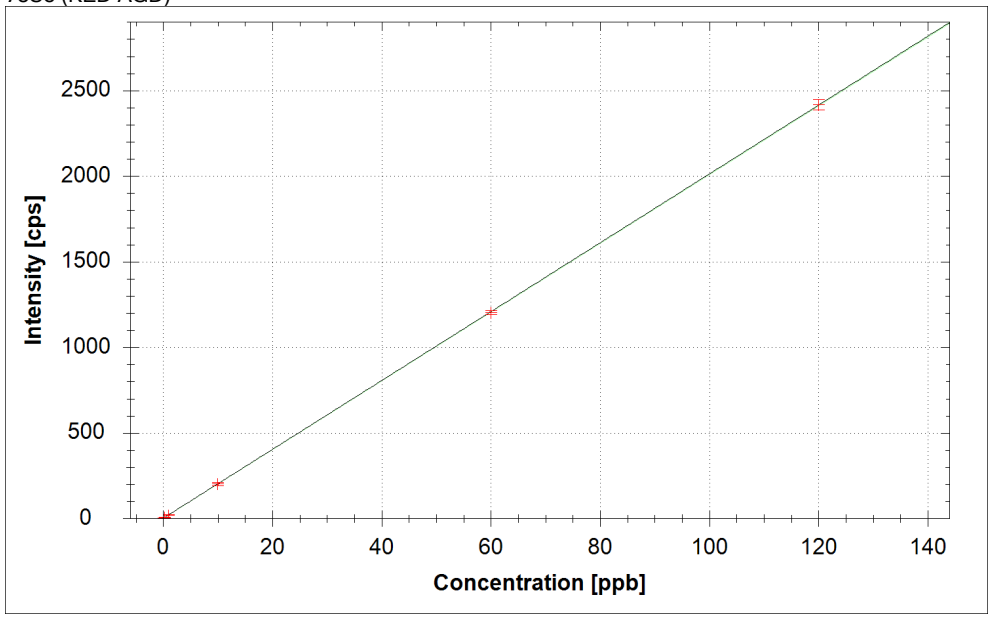
f(x) = 1076.6831*x + 398.9288
R² = 0.9998
BEC = 0.371 ppb
LoD = 0.0247 ppb

75As (KED AGD)



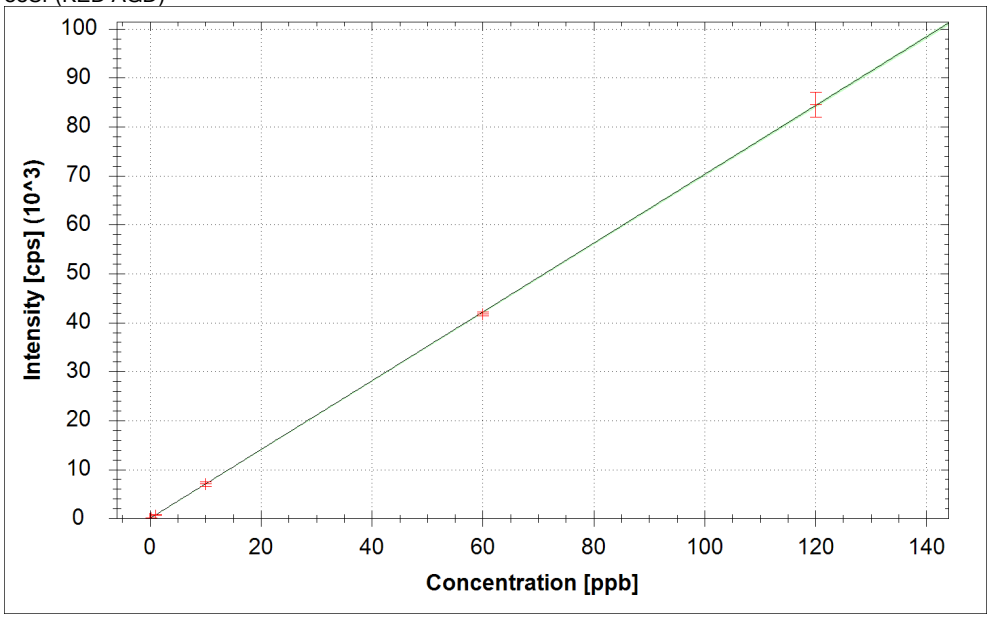
f(x) = 519.3048*x + 362.7363
R² = 0.9998
BEC = 0.699 ppb
LoD = 0.0839 ppb

78Se (KED AGD)



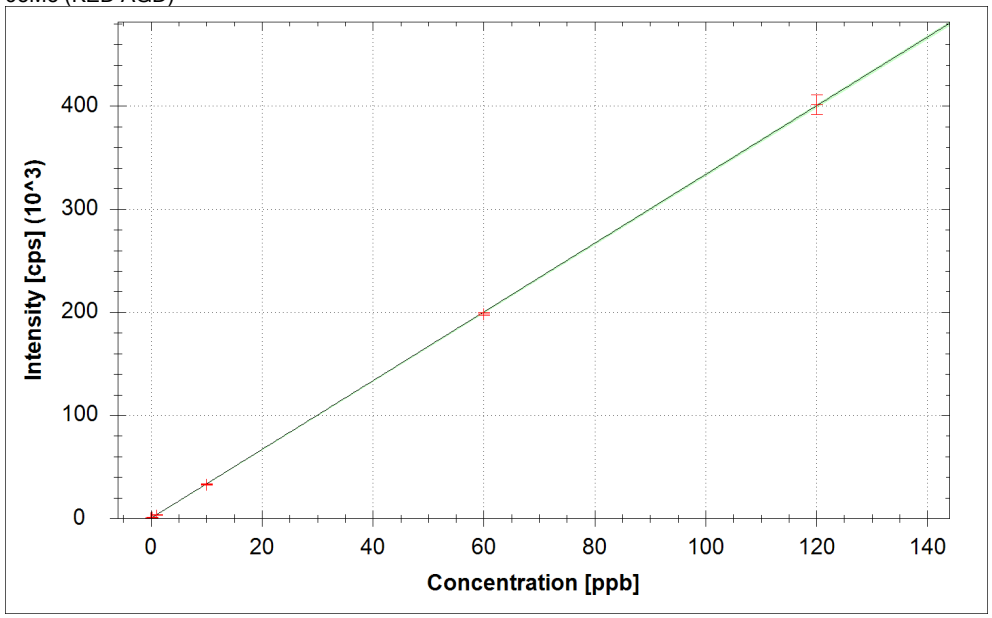
f(x) = 20.1084*x + 1.4260
R² = 1.0000
BEC = 0.071 ppb
LoD = 0.1614 ppb

88Sr (KED AGD)



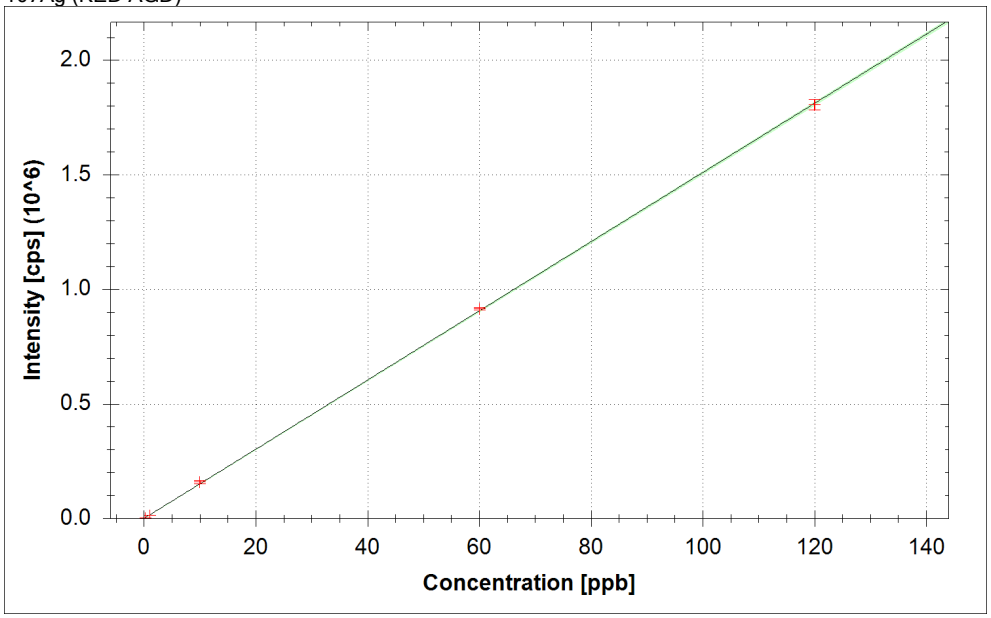
f(x) = 702.3714*x + 25.1041
R² = 1.0000
BEC = 0.036 ppb
LoD = 0.0015 ppb

95Mo (KED AGD)



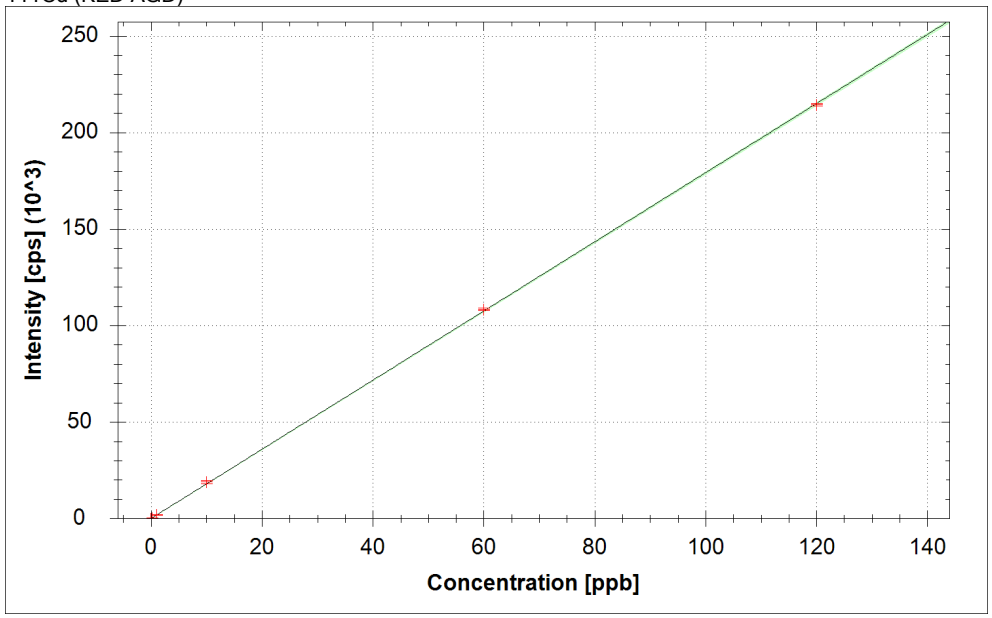
f(x) = 3332.9241*x + 250.0465
R² = 0.9999
BEC = 0.075 ppb
LoD = 0.0869 ppb

107Ag (KED AGD)



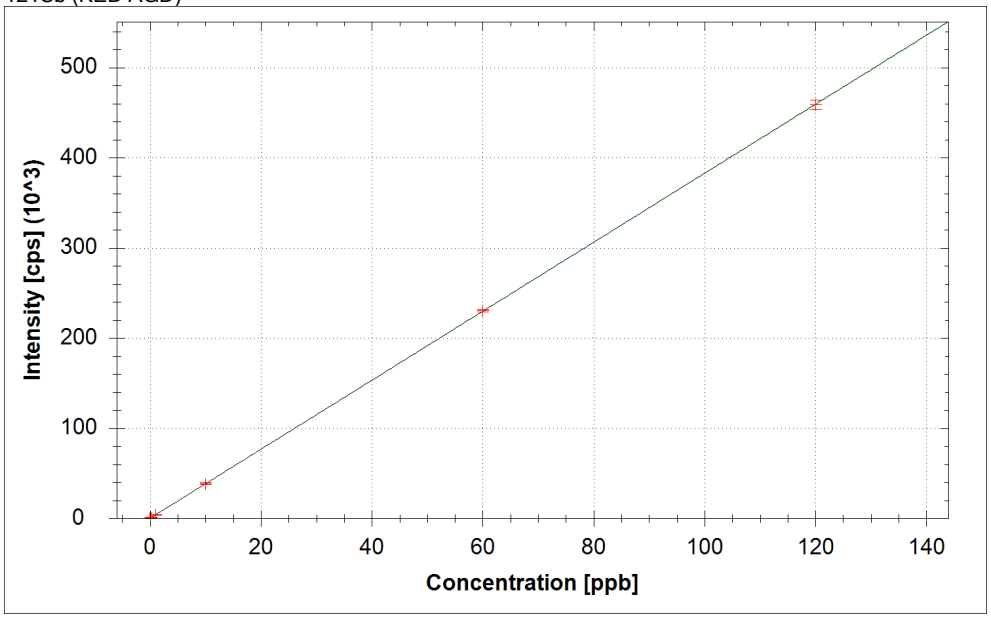
f(x) = 15092.3812*x + 24.4713
R² = 0.9999
BEC = 0.002 ppb
LoD = 0.0008 ppb

111Cd (KED AGD)



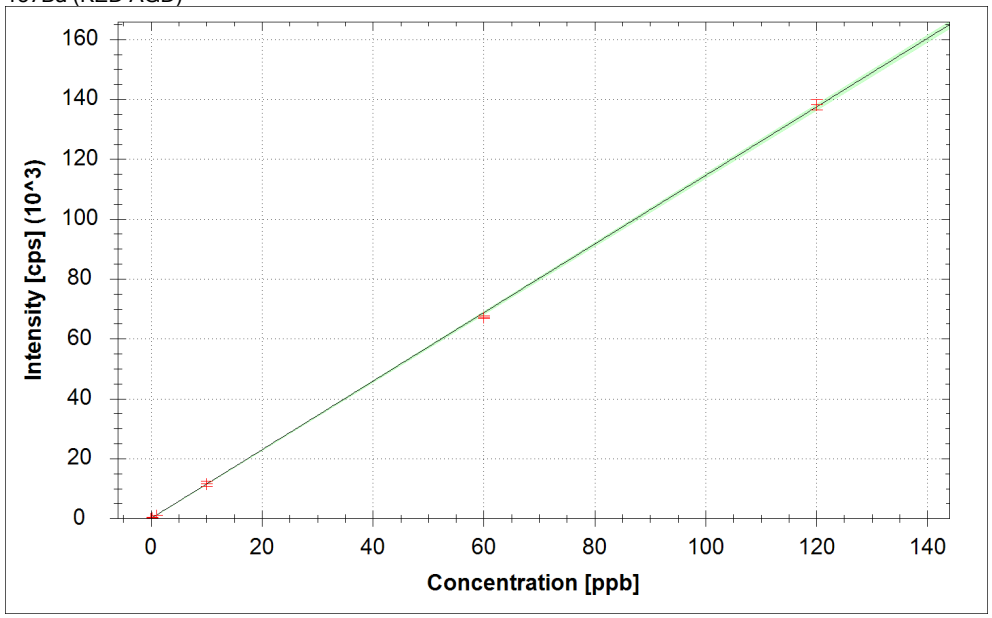
f(x) = 1790.9959*x + 1.8052
R² = 0.9999
BEC = 0.001 ppb
LoD = 0.0035 ppb

121Sb (KED AGD)



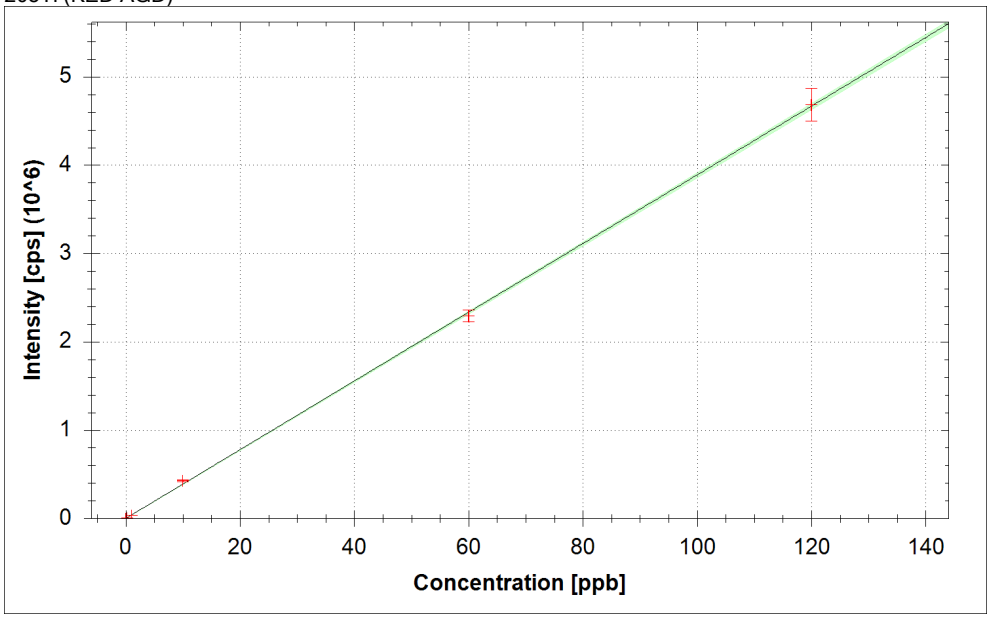
f(x) = 3824.5853*x + 225.4155
R² = 1.0000
BEC = 0.059 ppb
LoD = 0.0287 ppb

137Ba (KED AGD)



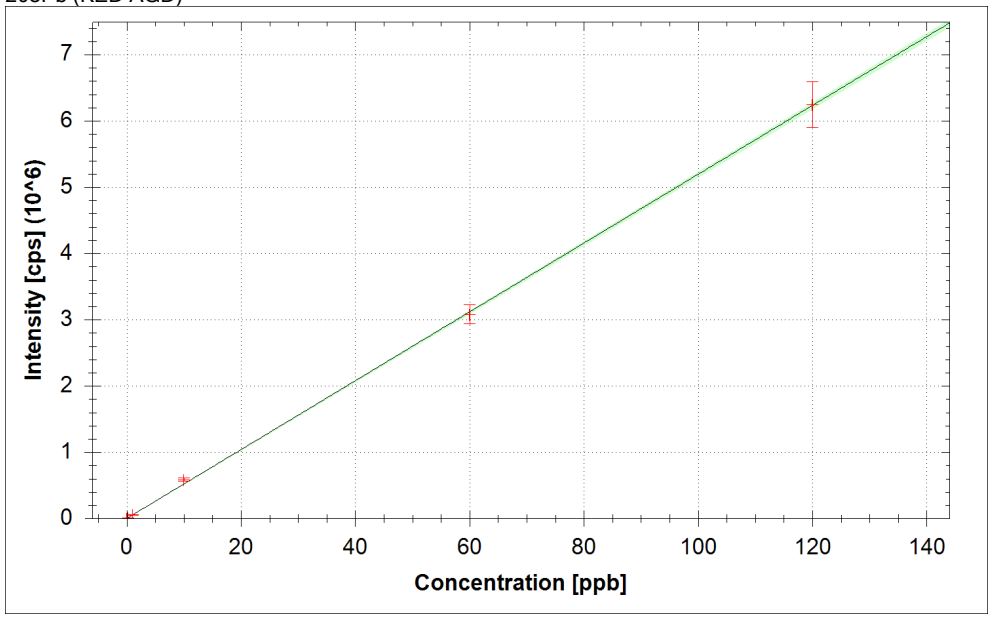
f(x) = 1144.8837*x + 27.6975
R² = 0.9998
BEC = 0.024 ppb
LoD = 0.0209 ppb

205Tl (KED AGD)



f(x) = 38878.7338*x + 328.6287
R² = 0.9998
BEC = 0.008 ppb
LoD = 0.0090 ppb

208Pb (KED AGD)



f(x) = 51928.6786*x + 324.4326
R² = 0.9998
BEC = 0.006 ppb
LoD = 0.0023 ppb

Standards:

Analysis Index: 4
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:04:34 AM
Total Dilution Factor 50000
Rack 0
Vial 2

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	101.205 %	2.7 %		0.000 %
6Li (KED AGD)	101.714 %	1.8 %		0.000 %
9Be (STD AGD)	0.185 ppb	11.6 %	0.200 ppb	7.338 %
23Na (KED AGD)	15.741 ppb	31.2 %	20.000 ppb	21.296 %
24Mg (KED AGD)	17.347 ppb	3.4 %	20.000 ppb	13.265 %
27Al (KED AGD)	0.177 ppb	147.4 %	0.200 ppb	11.467 %
39K (KED AGD)	18.840 ppb	21.5 %	20.000 ppb	5.799 %
44Ca (KED AGD)	7.708 ppb	15.9 %	20.000 ppb	61.462 %
45Sc (STD AGD)	98.300 %	3.1 %		0.000 %
51V (KED AGD)	0.182 ppb	9.0 %	0.200 ppb	9.135 %
52Cr (KED AGD)	0.190 ppb	5.6 %	0.200 ppb	5.039 %
55Mn (KED AGD)	0.213 ppb	32.4 %	0.200 ppb	6.363 %
57Fe (KED AGD)	20.395 ppb	8.2 %	20.000 ppb	1.976 %
59Co (KED AGD)	0.217 ppb	7.7 %	0.200 ppb	8.682 %
60Ni (KED AGD)	0.130 ppb	22.9 %	0.200 ppb	34.751 %
65Cu (KED AGD)	0.163 ppb	5.4 %	0.200 ppb	18.485 %
66Zn (KED AGD)	0.243 ppb	12.2 %	0.200 ppb	21.474 %
74Ge (KED AGD)	100.761 %	1.3 %		0.000 %
75As (KED AGD)	0.222 ppb	18.8 %	0.200 ppb	11.016 %
78Se (KED AGD)	0.167 ppb	22.5 %	0.200 ppb	16.366 %
88Sr (KED AGD)	0.178 ppb	6.6 %	0.200 ppb	10.913 %
95Mo (KED AGD)	0.173 ppb	14.9 %	0.200 ppb	13.528 %
103Rh (KED AGD)	99.714 %	1.3 %		0.000 %
107Ag (KED AGD)	0.204 ppb	0.9 %	0.200 ppb	1.911 %
111Cd (KED AGD)	0.188 ppb	10.7 %	0.200 ppb	6.146 %
115In (KED AGD)	100.616 %	4.6 %		0.000 %
121Sb (KED AGD)	0.187 ppb	9.1 %	0.200 ppb	6.632 %
137Ba (KED AGD)	0.180 ppb	20.0 %	0.200 ppb	9.797 %
159Tb (KED AGD)	99.593 %	1.4 %		0.000 %
175Lu (KED AGD)	99.761 %	3.9 %		0.000 %
205Tl (KED AGD)	0.202 ppb	0.4 %	0.200 ppb	0.781 %
208Pb (KED AGD)	0.212 ppb	1.8 %	0.200 ppb	5.854 %
209Bi (KED AGD)	96.348 %	3.0 %		0.000 %

Standards:

Analysis Index: 5
Analysis Name: 1/100 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:09:11 AM
Total Dilution Factor 10000
Rack 0
Vial 3

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	101.876 %	2.4 %		0.000 %
6Li (KED AGD)	106.286 %	4.9 %		0.000 %
9Be (STD AGD)	0.947 ppb	2.9 %	1.000 ppb	5.329 %
23Na (KED AGD)	90.921 ppb	5.7 %	100.000 ppb	9.079 %
24Mg (KED AGD)	92.891 ppb	3.7 %	100.000 ppb	7.109 %
27Al (KED AGD)	1.143 ppb	8.1 %	1.000 ppb	14.265 %
39K (KED AGD)	93.573 ppb	9.3 %	100.000 ppb	6.427 %
44Ca (KED AGD)	80.227 ppb	2.8 %	100.000 ppb	19.773 %
45Sc (STD AGD)	101.163 %	1.7 %		0.000 %
51V (KED AGD)	0.946 ppb	7.1 %	1.000 ppb	5.381 %
52Cr (KED AGD)	0.959 ppb	5.5 %	1.000 ppb	4.115 %
55Mn (KED AGD)	0.936 ppb	3.7 %	1.000 ppb	6.353 %
57Fe (KED AGD)	102.123 ppb	2.0 %	100.000 ppb	2.123 %
59Co (KED AGD)	1.021 ppb	3.6 %	1.000 ppb	2.123 %
60Ni (KED AGD)	0.982 ppb	5.3 %	1.000 ppb	1.784 %
65Cu (KED AGD)	1.041 ppb	0.6 %	1.000 ppb	4.067 %
66Zn (KED AGD)	1.087 ppb	3.7 %	1.000 ppb	8.705 %
74Ge (KED AGD)	102.687 %	3.0 %		0.000 %
75As (KED AGD)	1.003 ppb	4.8 %	1.000 ppb	0.270 %
78Se (KED AGD)	0.856 ppb	13.8 %	1.000 ppb	14.388 %
88Sr (KED AGD)	0.923 ppb	4.4 %	1.000 ppb	7.728 %
95Mo (KED AGD)	0.859 ppb	8.4 %	1.000 ppb	14.101 %
103Rh (KED AGD)	101.568 %	2.3 %		0.000 %
107Ag (KED AGD)	0.970 ppb	1.4 %	1.000 ppb	3.011 %
111Cd (KED AGD)	0.994 ppb	3.4 %	1.000 ppb	0.601 %
115In (KED AGD)	102.163 %	5.9 %		0.000 %
121Sb (KED AGD)	0.936 ppb	1.9 %	1.000 ppb	6.409 %
137Ba (KED AGD)	0.923 ppb	1.4 %	1.000 ppb	7.695 %
159Tb (KED AGD)	100.671 %	2.3 %		0.000 %
175Lu (KED AGD)	101.442 %	5.4 %		0.000 %
205Tl (KED AGD)	0.969 ppb	1.6 %	1.000 ppb	3.118 %
208Pb (KED AGD)	1.005 ppb	3.1 %	1.000 ppb	0.474 %
209Bi (KED AGD)	101.058 %	3.6 %		0.000 %

Standards:

Analysis Index: 6
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:13:49 AM
Total Dilution Factor 1000
Rack 0
Vial 4

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	100.641 %	1.6 %		0.000 %
6Li (KED AGD)	101.210 %	3.0 %		0.000 %
9Be (STD AGD)	9.904 ppb	1.2 %	10.000 ppb	0.961 %
23Na (KED AGD)	1,052.475 ppb	5.6 %	1,000.000 ppb	5.247 %
24Mg (KED AGD)	1,040.283 ppb	5.7 %	1,000.000 ppb	4.028 %
27Al (KED AGD)	10.618 ppb	11.9 %	10.000 ppb	6.176 %
39K (KED AGD)	1,042.664 ppb	7.2 %	1,000.000 ppb	4.266 %
44Ca (KED AGD)	1,003.214 ppb	6.8 %	1,000.000 ppb	0.321 %
45Sc (STD AGD)	99.569 %	1.8 %		0.000 %
51V (KED AGD)	10.235 ppb	6.5 %	10.000 ppb	2.345 %
52Cr (KED AGD)	10.459 ppb	3.9 %	10.000 ppb	4.593 %
55Mn (KED AGD)	10.417 ppb	5.7 %	10.000 ppb	4.171 %
57Fe (KED AGD)	1,074.413 ppb	6.3 %	1,000.000 ppb	7.441 %
59Co (KED AGD)	10.804 ppb	5.7 %	10.000 ppb	8.041 %
60Ni (KED AGD)	11.236 ppb	4.8 %	10.000 ppb	12.357 %
65Cu (KED AGD)	10.896 ppb	6.1 %	10.000 ppb	8.958 %
66Zn (KED AGD)	10.776 ppb	4.4 %	10.000 ppb	7.763 %
74Ge (KED AGD)	99.426 %	5.4 %		0.000 %
75As (KED AGD)	10.537 ppb	4.8 %	10.000 ppb	5.373 %
78Se (KED AGD)	9.925 ppb	5.3 %	10.000 ppb	0.749 %
88Sr (KED AGD)	9.938 ppb	6.2 %	10.000 ppb	0.625 %
95Mo (KED AGD)	9.797 ppb	1.3 %	10.000 ppb	2.029 %
103Rh (KED AGD)	98.948 %	2.2 %		0.000 %
107Ag (KED AGD)	10.482 ppb	3.9 %	10.000 ppb	4.816 %
111Cd (KED AGD)	10.513 ppb	4.1 %	10.000 ppb	5.126 %
115In (KED AGD)	99.005 %	2.7 %		0.000 %
121Sb (KED AGD)	9.998 ppb	2.7 %	10.000 ppb	0.025 %
137Ba (KED AGD)	10.061 ppb	7.1 %	10.000 ppb	0.608 %
159Tb (KED AGD)	99.209 %	4.8 %		0.000 %
175Lu (KED AGD)	100.404 %	5.4 %		0.000 %
205Tl (KED AGD)	10.970 ppb	2.5 %	10.000 ppb	9.698 %
208Pb (KED AGD)	11.262 ppb	3.8 %	10.000 ppb	12.616 %
209Bi (KED AGD)	92.776 %	4.7 %		0.000 %

Standards:

Analysis Index: 7
Analysis Name: 60/6000 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:18:27 AM
Total Dilution Factor 166.6666666
Rack 0
Vial 5

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	98.918 %	1.7 %		0.000 %
6Li (KED AGD)	101.916 %	3.3 %		0.000 %
9Be (STD AGD)	59.681 ppb	0.7 %	60.000 ppb	0.532 %
23Na (KED AGD)	5,995.741 ppb	1.9 %	6,000.000 ppb	0.071 %
24Mg (KED AGD)	5,961.638 ppb	1.9 %	6,000.000 ppb	0.639 %
27Al (KED AGD)	59.291 ppb	2.5 %	60.000 ppb	1.181 %
39K (KED AGD)	5,990.676 ppb	3.3 %	6,000.000 ppb	0.155 %
44Ca (KED AGD)	5,944.495 ppb	3.6 %	6,000.000 ppb	0.925 %
45Sc (STD AGD)	109.926 %	1.3 %		0.000 %
51V (KED AGD)	60.292 ppb	1.2 %	60.000 ppb	0.487 %
52Cr (KED AGD)	61.004 ppb	1.3 %	60.000 ppb	1.674 %
55Mn (KED AGD)	60.406 ppb	2.4 %	60.000 ppb	0.676 %
57Fe (KED AGD)	6,142.924 ppb	0.6 %	6,000.000 ppb	2.382 %
59Co (KED AGD)	61.726 ppb	1.2 %	60.000 ppb	2.877 %
60Ni (KED AGD)	61.842 ppb	1.5 %	60.000 ppb	3.070 %
65Cu (KED AGD)	62.083 ppb	0.8 %	60.000 ppb	3.471 %
66Zn (KED AGD)	61.205 ppb	0.3 %	60.000 ppb	2.009 %
74Ge (KED AGD)	100.788 %	1.2 %		0.000 %
75As (KED AGD)	61.213 ppb	0.6 %	60.000 ppb	2.022 %
78Se (KED AGD)	59.725 ppb	1.1 %	60.000 ppb	0.459 %
88Sr (KED AGD)	59.431 ppb	0.9 %	60.000 ppb	0.949 %
95Mo (KED AGD)	59.346 ppb	0.6 %	60.000 ppb	1.090 %
103Rh (KED AGD)	99.167 %	0.4 %		0.000 %
107Ag (KED AGD)	60.619 ppb	0.6 %	60.000 ppb	1.032 %
111Cd (KED AGD)	60.512 ppb	0.5 %	60.000 ppb	0.853 %
115In (KED AGD)	100.809 %	0.3 %		0.000 %
121Sb (KED AGD)	60.230 ppb	0.6 %	60.000 ppb	0.383 %
137Ba (KED AGD)	58.640 ppb	0.7 %	60.000 ppb	2.267 %
159Tb (KED AGD)	103.257 %	0.1 %		0.000 %
175Lu (KED AGD)	104.823 %	0.4 %		0.000 %
205Tl (KED AGD)	58.896 ppb	2.9 %	60.000 ppb	1.840 %
208Pb (KED AGD)	59.282 ppb	4.7 %	60.000 ppb	1.197 %
209Bi (KED AGD)	105.203 %	5.1 %		0.000 %

Standards:

Analysis Index: 8
Analysis Name: 120/12000 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:23:07 AM
Total Dilution Factor 83.33333333
Rack 0
Vial 6

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	96.302 %	2.5 %		0.000 %
6Li (KED AGD)	96.975 %	2.3 %		0.000 %
9Be (STD AGD)	120.168 ppb	0.3 %	120.000 ppb	0.140 %
23Na (KED AGD)	11,997.840 ppb	0.2 %	12,000.000 ppb	0.018 %
24Mg (KED AGD)	12,015.888 ppb	2.7 %	12,000.000 ppb	0.132 %
27Al (KED AGD)	120.302 ppb	4.8 %	120.000 ppb	0.252 %
39K (KED AGD)	12,001.162 ppb	1.8 %	12,000.000 ppb	0.010 %
44Ca (KED AGD)	12,027.670 ppb	2.4 %	12,000.000 ppb	0.231 %
45Sc (STD AGD)	115.177 %	0.8 %		0.000 %
51V (KED AGD)	119.835 ppb	1.0 %	120.000 ppb	0.138 %
52Cr (KED AGD)	119.460 ppb	2.4 %	120.000 ppb	0.450 %
55Mn (KED AGD)	119.763 ppb	1.3 %	120.000 ppb	0.198 %
57Fe (KED AGD)	11,922.319 ppb	1.7 %	12,000.000 ppb	0.647 %
59Co (KED AGD)	119.070 ppb	2.7 %	120.000 ppb	0.775 %
60Ni (KED AGD)	118.976 ppb	3.6 %	120.000 ppb	0.853 %
65Cu (KED AGD)	118.884 ppb	2.7 %	120.000 ppb	0.930 %
66Zn (KED AGD)	119.332 ppb	2.2 %	120.000 ppb	0.557 %
74Ge (KED AGD)	103.524 %	4.3 %		0.000 %
75As (KED AGD)	119.349 ppb	1.7 %	120.000 ppb	0.543 %
78Se (KED AGD)	120.145 ppb	1.3 %	120.000 ppb	0.121 %
88Sr (KED AGD)	120.291 ppb	3.0 %	120.000 ppb	0.242 %
95Mo (KED AGD)	120.345 ppb	2.3 %	120.000 ppb	0.288 %
103Rh (KED AGD)	98.372 %	1.5 %		0.000 %
107Ag (KED AGD)	119.650 ppb	1.2 %	120.000 ppb	0.291 %
111Cd (KED AGD)	119.702 ppb	0.3 %	120.000 ppb	0.249 %
115In (KED AGD)	101.936 %	3.9 %		0.000 %
121Sb (KED AGD)	119.886 ppb	1.1 %	120.000 ppb	0.095 %
137Ba (KED AGD)	120.676 ppb	1.2 %	120.000 ppb	0.563 %
159Tb (KED AGD)	103.311 %	1.4 %		0.000 %
175Lu (KED AGD)	107.105 %	2.7 %		0.000 %
205Tl (KED AGD)	120.471 ppb	3.9 %	120.000 ppb	0.393 %
208Pb (KED AGD)	120.254 ppb	5.5 %	120.000 ppb	0.212 %
209Bi (KED AGD)	103.064 %	5.9 %		0.000 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	1	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/21/2024 4:50:39 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.410 %	100.605 %	0.068 ppb	147.824 ppb	53.813 ppb	49.142 ppb	102.856 ppb	182.930 ppb	95.624 %
Concentration per Run 1	97.539 %	99.731 %	0.061 ppb	149.861 ppb	54.897 ppb	48.652 ppb	114.464 ppb	199.749 ppb	95.433 %
Concentration per Run 2	97.959 %	100.034 %	0.078 ppb	146.054 ppb	50.528 ppb	50.088 ppb	87.366 ppb	170.254 ppb	95.687 %
Concentration per Run 3	99.731 %	102.050 %	0.064 ppb	147.557 ppb	56.016 ppb	48.687 ppb	106.737 ppb	178.788 ppb	95.752 %
Concentration RSD	1.2 %	1.3 %	13.3 %	1.3 %	5.4 %	1.7 %	13.6 %	8.3 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.013 ppb	0.008 ppb	0.577 ppb	131.859 ppb	0.069 ppb	3.067 ppb	4.597 ppb	4.781 ppb	100.701 %
Concentration per Run 1	-0.006 ppb	0.019 ppb	0.639 ppb	135.713 ppb	0.082 ppb	3.090 ppb	4.718 ppb	4.946 ppb	97.514 %
Concentration per Run 2	-0.010 ppb	-0.010 ppb	0.525 ppb	123.488 ppb	0.060 ppb	2.863 ppb	4.491 ppb	4.649 ppb	104.944 %
Concentration per Run 3	-0.024 ppb	0.016 ppb	0.568 ppb	136.376 ppb	0.065 ppb	3.247 ppb	4.582 ppb	4.748 ppb	99.644 %
Concentration RSD	68.5 %	188.2 %	10.0 %	5.5 %	16.9 %	6.3 %	2.5 %	3.2 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.020 ppb	0.003 ppb	0.049 ppb	0.845 ppb	99.511 %	0.034 ppb	0.002 ppb	100.229 %	0.033 ppb
Concentration per Run 1	0.009 ppb	-0.055 ppb	0.048 ppb	0.833 ppb	96.712 %	0.034 ppb	0.001 ppb	98.228 %	0.016 ppb
Concentration per Run 2	-0.077 ppb	-0.028 ppb	0.043 ppb	0.853 ppb	100.574 %	0.027 ppb	0.003 ppb	100.509 %	0.030 ppb
Concentration per Run 3	0.006 ppb	0.092 ppb	0.055 ppb	0.850 ppb	101.247 %	0.041 ppb	0.002 ppb	101.949 %	0.053 ppb
Concentration RSD	240.7 %	2,562.7 %	11.8 %	1.3 %	2.5 %	20.3 %	36.1 %	1.9 %	56.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.234 ppb	99.992 %	102.579 %	0.012 ppb	0.145 ppb	98.462 %
Concentration per Run 1	0.264 ppb	97.506 %	100.014 %	0.008 ppb	0.138 ppb	103.176 %
Concentration per Run 2	0.255 ppb	101.693 %	103.091 %	0.014 ppb	0.150 ppb	92.857 %
Concentration per Run 3	0.183 ppb	100.777 %	104.632 %	0.015 ppb	0.147 ppb	99.355 %
Concentration RSD	19.1 %	2.2 %	2.3 %	33.2 %	4.2 %	5.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 2
Analysis label: CAL LOT #M24-1045
Analysis started at: 8/21/2024 4:55:15 AM
User name ALPHALAB\Metals-Instrument
Rack 0
Vial 1
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.221 %	103.664 %	0.067 ppb	147.452 ppb	53.634 ppb	49.063 ppb	105.812 ppb	178.297 ppb	99.104 %
Concentration per Run 1	95.787 %	100.840 %	0.072 ppb	152.561 ppb	53.799 ppb	50.883 ppb	111.144 ppb	165.541 ppb	98.821 %
Concentration per Run 2	98.348 %	104.471 %	0.065 ppb	141.491 ppb	52.720 ppb	47.262 ppb	103.997 ppb	174.867 ppb	98.820 %
Concentration per Run 3	100.529 %	105.681 %	0.064 ppb	148.305 ppb	54.383 ppb	49.042 ppb	102.295 ppb	194.484 ppb	99.673 %
Concentration RSD	2.4 %	2.4 %	6.5 %	3.8 %	1.6 %	3.7 %	4.4 %	8.3 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.018 ppb	0.028 ppb	0.607 ppb	132.249 ppb	0.072 ppb	3.170 ppb	4.520 ppb	4.879 ppb	101.484 %
Concentration per Run 1	-0.004 ppb	0.030 ppb	0.582 ppb	134.246 ppb	0.074 ppb	3.080 ppb	4.661 ppb	4.925 ppb	101.994 %
Concentration per Run 2	-0.073 ppb	0.031 ppb	0.549 ppb	133.564 ppb	0.070 ppb	3.223 ppb	4.467 ppb	4.814 ppb	102.806 %
Concentration per Run 3	0.022 ppb	0.023 ppb	0.689 ppb	128.937 ppb	0.073 ppb	3.206 ppb	4.433 ppb	4.897 ppb	99.653 %
Concentration RSD	266.0 %	16.0 %	12.1 %	2.2 %	2.9 %	2.5 %	2.7 %	1.2 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.066 ppb	0.001 ppb	0.045 ppb	0.875 ppb	100.180 %	0.032 ppb	0.004 ppb	102.708 %	0.023 ppb
Concentration per Run 1	0.056 ppb	0.030 ppb	0.044 ppb	0.821 ppb	99.875 %	0.033 ppb	0.003 ppb	102.544 %	0.009 ppb
Concentration per Run 2	0.037 ppb	-0.020 ppb	0.043 ppb	0.857 ppb	100.103 %	0.033 ppb	0.003 ppb	104.704 %	0.022 ppb
Concentration per Run 3	0.105 ppb	-0.007 ppb	0.048 ppb	0.948 ppb	100.561 %	0.030 ppb	0.005 ppb	100.877 %	0.038 ppb
Concentration RSD	52.9 %	2,472.9 %	5.1 %	7.5 %	0.3 %	5.3 %	31.8 %	1.9 %	63.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.202 ppb	102.231 %	103.972 %	0.011 ppb	0.137 ppb	104.248 %
Concentration per Run 1	0.208 ppb	102.840 %	102.532 %	0.006 ppb	0.131 ppb	109.683 %
Concentration per Run 2	0.164 ppb	102.680 %	105.221 %	0.013 ppb	0.142 ppb	101.534 %
Concentration per Run 3	0.232 ppb	101.174 %	104.163 %	0.013 ppb	0.137 ppb	101.528 %
Concentration RSD	17.2 %	0.9 %	1.3 %	35.6 %	4.0 %	4.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	3	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	Blank EJF ICPMSQ	Rack	4		
Analysis started at:	8/21/2024 4:59:52 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.0 %	0.0 %	0.1 %	0.0 %	0.2 %	0.3 %	0.0 %	0.2 %	0.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.0 %	0.1 %	0.2 %	0.0 %	0.2 %	0.1 %	0.1 %	0.0 %	0.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration RSD	0.0 %	0.8 %	0.0 %	0.4 %	0.0 %	0.2 %	1.2 %	0.0 %	0.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.3 %	0.0 %	0.0 %	0.4 %	0.1 %	0.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	4	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	0.2/20 Cal	Rack	0		
Analysis started at:	8/21/2024 5:04:34 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.205 %	101.714 %	0.185 ppb	15.741 ppb	17.347 ppb	0.177 ppb	18.840 ppb	7.708 ppb	98.300 %
Concentration per Run 1	98.122 %	103.261 %	0.169 ppb	17.900 ppb	16.693 ppb	0.461 ppb	20.748 ppb	8.211 ppb	94.782 %
Concentration per Run 2	102.152 %	102.151 %	0.210 ppb	10.114 ppb	17.509 ppb	-0.052 ppb	14.191 ppb	8.600 ppb	99.929 %
Concentration per Run 3	103.340 %	99.731 %	0.178 ppb	19.208 ppb	17.839 ppb	0.121 ppb	21.582 ppb	6.312 ppb	100.189 %
Concentration RSD	2.7 %	1.8 %	11.6 %	31.2 %	3.4 %	147.4 %	21.5 %	15.9 %	3.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.182 ppb	0.190 ppb	0.213 ppb	20.395 ppb	0.217 ppb	0.130 ppb	0.163 ppb	0.243 ppb	100.761 %
Concentration per Run 1	0.163 ppb	0.200 ppb	0.266 ppb	22.265 ppb	0.235 ppb	0.141 ppb	0.171 ppb	0.276 ppb	100.120 %
Concentration per Run 2	0.188 ppb	0.179 ppb	0.135 ppb	19.876 ppb	0.216 ppb	0.097 ppb	0.154 ppb	0.221 ppb	99.860 %
Concentration per Run 3	0.194 ppb	0.191 ppb	0.237 ppb	19.044 ppb	0.202 ppb	0.154 ppb	0.164 ppb	0.232 ppb	102.302 %
Concentration RSD	9.0 %	5.6 %	32.4 %	8.2 %	7.7 %	22.9 %	5.4 %	12.2 %	1.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.222 ppb	0.167 ppb	0.178 ppb	0.173 ppb	99.714 %	0.204 ppb	0.188 ppb	100.616 %	0.187 ppb
Concentration per Run 1	0.270 ppb	0.177 ppb	0.189 ppb	0.147 ppb	100.241 %	0.206 ppb	0.172 ppb	103.901 %	0.167 ppb
Concentration per Run 2	0.205 ppb	0.199 ppb	0.166 ppb	0.174 ppb	98.288 %	0.202 ppb	0.210 ppb	95.284 %	0.195 ppb
Concentration per Run 3	0.191 ppb	0.126 ppb	0.179 ppb	0.198 ppb	100.612 %	0.204 ppb	0.181 ppb	102.663 %	0.198 ppb
Concentration RSD	18.8 %	22.5 %	6.6 %	14.9 %	1.3 %	0.9 %	10.7 %	4.6 %	9.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.180 ppb	99.593 %	99.761 %	0.202 ppb	0.212 ppb	96.348 %
Concentration per Run 1	0.217 ppb	99.212 %	100.541 %	0.201 ppb	0.211 ppb	98.451 %
Concentration per Run 2	0.180 ppb	98.477 %	95.570 %	0.202 ppb	0.209 ppb	93.008 %
Concentration per Run 3	0.144 ppb	101.089 %	103.171 %	0.201 ppb	0.216 ppb	97.584 %
Concentration RSD	20.0 %	1.4 %	3.9 %	0.4 %	1.8 %	3.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	5	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	1/100 Cal	Rack	0		
Analysis started at:	8/21/2024 5:09:11 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.876 %	106.286 %	0.947 ppb	90.921 ppb	92.891 ppb	1.143 ppb	93.573 ppb	80.227 ppb	101.163 %
Concentration per Run 1	99.164 %	106.286 %	0.978 ppb	95.868 ppb	95.682 ppb	1.239 ppb	103.359 ppb	81.881 ppb	99.259 %
Concentration per Run 2	102.460 %	101.042 %	0.924 ppb	91.403 ppb	93.965 ppb	1.053 ppb	90.817 ppb	77.692 ppb	101.513 %
Concentration per Run 3	104.005 %	111.530 %	0.938 ppb	85.492 ppb	89.025 ppb	1.136 ppb	86.542 ppb	81.109 ppb	102.715 %
Concentration RSD	2.4 %	4.9 %	2.9 %	5.7 %	3.7 %	8.1 %	9.3 %	2.8 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.946 ppb	0.959 ppb	0.936 ppb	102.123 ppb	1.021 ppb	0.982 ppb	1.041 ppb	1.087 ppb	102.687 %
Concentration per Run 1	1.022 ppb	1.015 ppb	0.907 ppb	102.624 ppb	1.038 ppb	0.972 ppb	1.045 ppb	1.129 ppb	103.308 %
Concentration per Run 2	0.922 ppb	0.951 ppb	0.928 ppb	99.870 ppb	0.980 ppb	0.936 ppb	1.043 ppb	1.083 ppb	99.316 %
Concentration per Run 3	0.895 ppb	0.911 ppb	0.974 ppb	103.874 ppb	1.046 ppb	1.038 ppb	1.034 ppb	1.049 ppb	105.437 %
Concentration RSD	7.1 %	5.5 %	3.7 %	2.0 %	3.6 %	5.3 %	0.6 %	3.7 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.003 ppb	0.856 ppb	0.923 ppb	0.859 ppb	101.568 %	0.970 ppb	0.994 ppb	102.163 %	0.936 ppb
Concentration per Run 1	0.952 ppb	0.899 ppb	0.959 ppb	0.925 ppb	103.752 %	0.959 ppb	0.963 ppb	105.833 %	0.946 ppb
Concentration per Run 2	1.006 ppb	0.723 ppb	0.879 ppb	0.870 ppb	99.028 %	0.985 ppb	1.030 ppb	95.264 %	0.915 ppb
Concentration per Run 3	1.049 ppb	0.947 ppb	0.930 ppb	0.782 ppb	101.926 %	0.965 ppb	0.989 ppb	105.392 %	0.947 ppb
Concentration RSD	4.8 %	13.8 %	4.4 %	8.4 %	2.3 %	1.4 %	3.4 %	5.9 %	1.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.923 ppb	100.671 %	101.442 %	0.969 ppb	1.005 ppb	101.058 %
Concentration per Run 1	0.937 ppb	100.650 %	102.681 %	0.953 ppb	0.970 ppb	104.968 %
Concentration per Run 2	0.914 ppb	98.319 %	95.427 %	0.971 ppb	1.028 ppb	97.804 %
Concentration per Run 3	0.917 ppb	103.045 %	106.218 %	0.983 ppb	1.016 ppb	100.403 %
Concentration RSD	1.4 %	2.3 %	5.4 %	1.6 %	3.1 %	3.6 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	6	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	10/1000 Cal	Rack	0		
Analysis started at:	8/21/2024 5:13:49 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.641 %	101.210 %	9.904 ppb	1,052.475 ppb	1,040.283 ppb	10.618 ppb	1,042.664 ppb	1,003.214 ppb	99.569 %
Concentration per Run 1	99.049 %	99.025 %	10.043 ppb	1,118.579 ppb	1,108.553 ppb	12.032 ppb	1,128.502 ppb	1,082.154 ppb	97.868 %
Concentration per Run 2	100.636 %	99.933 %	9.855 ppb	1,007.591 ppb	1,004.976 ppb	9.613 ppb	993.340 ppb	963.718 ppb	99.315 %
Concentration per Run 3	102.238 %	104.672 %	9.814 ppb	1,031.255 ppb	1,007.319 ppb	10.208 ppb	1,006.152 ppb	963.770 ppb	101.525 %
Concentration RSD	1.6 %	3.0 %	1.2 %	5.6 %	5.7 %	11.9 %	7.2 %	6.8 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	10.235 ppb	10.459 ppb	10.417 ppb	1,074.413 ppb	10.804 ppb	11.236 ppb	10.896 ppb	10.776 ppb	99.426 %
Concentration per Run 1	10.861 ppb	10.929 ppb	11.107 ppb	1,146.231 ppb	11.285 ppb	11.853 ppb	11.571 ppb	11.120 ppb	96.175 %
Concentration per Run 2	10.299 ppb	10.279 ppb	10.110 ppb	1,063.941 ppb	11.019 ppb	10.990 ppb	10.881 ppb	10.973 ppb	96.525 %
Concentration per Run 3	9.543 ppb	10.169 ppb	10.035 ppb	1,013.068 ppb	10.109 ppb	10.863 ppb	10.236 ppb	10.236 ppb	105.577 %
Concentration RSD	6.5 %	3.9 %	5.7 %	6.3 %	5.7 %	4.8 %	6.1 %	4.4 %	5.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	10.537 ppb	9.925 ppb	9.938 ppb	9.797 ppb	98.948 %	10.482 ppb	10.513 ppb	99.005 %	9.998 ppb
Concentration per Run 1	11.103 ppb	10.387 ppb	10.579 ppb	9.931 ppb	97.652 %	10.941 ppb	11.002 ppb	97.970 %	10.304 ppb
Concentration per Run 2	10.391 ppb	9.356 ppb	9.343 ppb	9.773 ppb	97.778 %	10.332 ppb	10.208 ppb	96.954 %	9.854 ppb
Concentration per Run 3	10.118 ppb	10.032 ppb	9.891 ppb	9.687 ppb	101.415 %	10.171 ppb	10.328 ppb	102.091 %	9.834 ppb
Concentration RSD	4.8 %	5.3 %	6.2 %	1.3 %	2.2 %	3.9 %	4.1 %	2.7 %	2.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	10.061 ppb	99.209 %	100.404 %	10.970 ppb	11.262 ppb	92.776 %
Concentration per Run 1	10.884 ppb	95.049 %	96.946 %	10.930 ppb	11.134 ppb	95.294 %
Concentration per Run 2	9.597 ppb	98.205 %	97.663 %	11.259 ppb	11.734 ppb	87.717 %
Concentration per Run 3	9.702 ppb	104.373 %	106.603 %	10.720 ppb	10.918 ppb	95.316 %
Concentration RSD	7.1 %	4.8 %	5.4 %	2.5 %	3.8 %	4.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	7	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	60/6000 Cal	Rack	0		
Analysis started at:	8/21/2024 5:18:27 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.918 %	101.916 %	59.681 ppb	5,995.741 ppb	5,961.638 ppb	59.291 ppb	5,990.676 ppb	5,944.495 ppb	109.926 %
Concentration per Run 1	97.017 %	105.681 %	60.005 ppb	5,863.865 ppb	5,830.739 ppb	57.594 ppb	5,854.885 ppb	5,766.845 ppb	108.322 %
Concentration per Run 2	100.009 %	99.126 %	59.849 ppb	6,085.249 ppb	6,011.233 ppb	60.242 ppb	6,215.547 ppb	6,181.265 ppb	110.423 %
Concentration per Run 3	99.729 %	100.941 %	59.188 ppb	6,038.108 ppb	6,042.941 ppb	60.038 ppb	5,901.596 ppb	5,885.375 ppb	111.032 %
Concentration RSD	1.7 %	3.3 %	0.7 %	1.9 %	1.9 %	2.5 %	3.3 %	3.6 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.292 ppb	61.004 ppb	60.406 ppb	6,142.924 ppb	61.726 ppb	61.842 ppb	62.083 ppb	61.205 ppb	100.788 %
Concentration per Run 1	59.511 ppb	60.102 ppb	59.287 ppb	6,105.932 ppb	62.586 ppb	61.251 ppb	62.154 ppb	61.057 ppb	101.656 %
Concentration per Run 2	60.465 ppb	61.205 ppb	59.868 ppb	6,146.447 ppb	61.099 ppb	61.329 ppb	62.552 ppb	61.130 ppb	101.309 %
Concentration per Run 3	60.901 ppb	61.707 ppb	62.062 ppb	6,176.392 ppb	61.493 ppb	62.946 ppb	61.542 ppb	61.430 ppb	99.400 %
Concentration RSD	1.2 %	1.3 %	2.4 %	0.6 %	1.2 %	1.5 %	0.8 %	0.3 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.213 ppb	59.725 ppb	59.431 ppb	59.346 ppb	99.167 %	60.619 ppb	60.512 ppb	100.809 %	60.230 ppb
Concentration per Run 1	61.332 ppb	60.339 ppb	59.249 ppb	58.929 ppb	99.561 %	61.012 ppb	60.894 ppb	100.661 %	60.588 ppb
Concentration per Run 2	60.818 ppb	59.047 ppb	59.041 ppb	59.476 ppb	98.846 %	60.452 ppb	60.332 ppb	100.568 %	59.839 ppb
Concentration per Run 3	61.489 ppb	59.788 ppb	60.002 ppb	59.633 ppb	99.095 %	60.393 ppb	60.308 ppb	101.197 %	60.261 ppb
Concentration RSD	0.6 %	1.1 %	0.9 %	0.6 %	0.4 %	0.6 %	0.5 %	0.3 %	0.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.640 ppb	103.257 %	104.823 %	58.896 ppb	59.282 ppb	105.203 %
Concentration per Run 1	58.561 ppb	103.376 %	105.292 %	57.048 ppb	56.361 ppb	111.328 %
Concentration per Run 2	58.291 ppb	103.301 %	104.440 %	59.200 ppb	59.618 ppb	102.512 %
Concentration per Run 3	59.067 ppb	103.095 %	104.738 %	60.440 ppb	61.867 ppb	101.768 %
Concentration RSD	0.7 %	0.1 %	0.4 %	2.9 %	4.7 %	5.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 8
Analysis label: 120/12000 Cal
Analysis started at: 8/21/2024 5:23:07 AM
User name ALPHALAB\Metals-Instrument
Rack 0
Vial 6
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.302 %	96.975 %	120.168 ppb	11,997.840 ppb	12,015.888 ppb	120.302 ppb	12,001.162 ppb	12,027.670 ppb	115.177 %
Concentration per Run 1	93.563 %	98.118 %	120.276 ppb	11,979.614 ppb	11,653.553 ppb	126.957 ppb	12,099.766 ppb	12,219.071 ppb	116.217 %
Concentration per Run 2	97.939 %	98.420 %	120.523 ppb	12,022.922 ppb	12,293.908 ppb	117.336 ppb	12,156.237 ppb	12,163.481 ppb	114.674 %
Concentration per Run 3	97.404 %	94.386 %	119.705 ppb	11,990.983 ppb	12,100.203 ppb	116.612 ppb	11,747.484 ppb	11,700.457 ppb	114.639 %
Concentration RSD	2.5 %	2.3 %	0.3 %	0.2 %	2.7 %	4.8 %	1.8 %	2.4 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	119.835 ppb	119.460 ppb	119.763 ppb	11,922.319 ppb	119.070 ppb	118.976 ppb	118.884 ppb	119.332 ppb	103.524 %
Concentration per Run 1	118.424 ppb	116.365 ppb	118.046 ppb	11,696.861 ppb	115.460 ppb	114.142 ppb	115.200 ppb	116.242 ppb	108.589 %
Concentration per Run 2	120.627 ppb	120.033 ppb	120.113 ppb	12,088.888 ppb	119.991 ppb	120.307 ppb	120.986 ppb	120.830 ppb	101.910 %
Concentration per Run 3	120.453 ppb	121.982 ppb	121.130 ppb	11,981.206 ppb	121.759 ppb	122.480 ppb	120.465 ppb	120.923 ppb	100.071 %
Concentration RSD	1.0 %	2.4 %	1.3 %	1.7 %	2.7 %	3.6 %	2.7 %	2.2 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	119.349 ppb	120.145 ppb	120.291 ppb	120.345 ppb	98.372 %	119.650 ppb	119.702 ppb	101.936 %	119.886 ppb
Concentration per Run 1	117.346 ppb	119.834 ppb	124.100 ppb	117.420 ppb	100.010 %	118.113 ppb	119.247 ppb	106.317 %	118.331 ppb
Concentration per Run 2	121.350 ppb	121.842 ppb	119.906 ppb	123.033 ppb	97.363 %	121.067 ppb	120.042 ppb	101.094 %	120.796 ppb
Concentration per Run 3	119.350 ppb	118.760 ppb	116.866 ppb	120.583 ppb	97.742 %	119.771 ppb	119.816 ppb	98.399 %	120.531 ppb
Concentration RSD	1.7 %	1.3 %	3.0 %	2.3 %	1.5 %	1.2 %	0.3 %	3.9 %	1.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	120.676 ppb	103.311 %	107.105 %	120.471 ppb	120.254 ppb	103.064 %
Concentration per Run 1	120.652 ppb	104.181 %	110.495 %	115.314 ppb	112.947 ppb	109.841 %
Concentration per Run 2	122.171 ppb	104.078 %	105.535 %	121.468 ppb	121.813 ppb	101.229 %
Concentration per Run 3	119.204 ppb	101.674 %	105.283 %	124.633 ppb	126.002 ppb	98.122 %
Concentration RSD	1.2 %	1.4 %	2.7 %	3.9 %	5.5 %	5.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	9	User name	ALPHALAB\Metals-Instrument	Comment	Sr Inteference Check
Analysis label:	Sr 200ppb	Rack	4		
Analysis started at:	8/21/2024 5:29:23 AM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.337 %	97.681 %	0.021 ppb	2.458 ppb	-0.502 ppb	2.108 ppb	1.298 ppb	0.655 ppb	98.958 %
Concentration per Run 1	97.424 %	99.731 %	0.022 ppb	-0.760 ppb	-0.370 ppb	1.925 ppb	-1.780 ppb	104.482 ppb	99.834 %
Concentration per Run 2	98.853 %	95.697 %	0.025 ppb	5.343 ppb	-0.463 ppb	2.056 ppb	3.428 ppb	-23.643 ppb	98.751 %
Concentration per Run 3	98.733 %	97.613 %	0.016 ppb	2.789 ppb	-0.674 ppb	2.342 ppb	2.245 ppb	-78.874 ppb	98.291 %
Concentration RSD	0.8 %	2.1 %	23.1 %	124.7 %	31.0 %	10.1 %	210.4 %	14,365.8 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.136 ppb	0.040 ppb	1.084 ppb	34.359 ppb	0.007 ppb	0.423 ppb	0.063 ppb	1.203 ppb	99.707 %
Concentration per Run 1	-0.157 ppb	0.050 ppb	1.093 ppb	32.780 ppb	0.009 ppb	0.412 ppb	0.067 ppb	1.235 ppb	96.741 %
Concentration per Run 2	-0.152 ppb	0.056 ppb	1.087 ppb	35.350 ppb	0.006 ppb	0.411 ppb	0.065 ppb	1.143 ppb	101.689 %
Concentration per Run 3	-0.100 ppb	0.013 ppb	1.071 ppb	34.948 ppb	0.007 ppb	0.445 ppb	0.057 ppb	1.230 ppb	100.692 %
Concentration RSD	23.2 %	58.3 %	1.1 %	4.0 %	19.4 %	4.6 %	8.4 %	4.3 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.032 ppb	0.120 ppb	194.630 ppb	1.129 ppb	99.920 %	0.012 ppb	0.008 ppb	100.926 %	0.230 ppb
Concentration per Run 1	0.079 ppb	0.078 ppb	188.423 ppb	0.844 ppb	98.997 %	0.014 ppb	0.009 ppb	98.424 %	0.142 ppb
Concentration per Run 2	0.001 ppb	0.099 ppb	197.431 ppb	1.206 ppb	99.971 %	0.013 ppb	0.009 ppb	100.771 %	0.249 ppb
Concentration per Run 3	0.015 ppb	0.183 ppb	198.036 ppb	1.337 ppb	100.792 %	0.009 ppb	0.008 ppb	103.582 %	0.298 ppb
Concentration RSD	130.4 %	46.1 %	2.8 %	22.6 %	0.9 %	25.8 %	7.1 %	2.6 %	34.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.145 ppb	101.506 %	102.654 %	0.204 ppb	0.141 ppb	104.871 %
Concentration per Run 1	0.132 ppb	98.805 %	100.953 %	0.160 ppb	0.132 ppb	107.301 %
Concentration per Run 2	0.179 ppb	102.995 %	103.791 %	0.229 ppb	0.144 ppb	104.520 %
Concentration per Run 3	0.125 ppb	102.718 %	103.218 %	0.223 ppb	0.148 ppb	102.792 %
Concentration RSD	19.9 %	2.3 %	1.5 %	18.6 %	5.7 %	2.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	10	User name	ALPHALAB\Metals-Instrument	Comment	ICV
Analysis label:	ICV	Rack	0		
Analysis started at:	8/21/2024 5:34:05 AM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.483 %	95.428 %	51.041 ppb	5,253.749 ppb	5,115.004 ppb	50.834 ppb	5,075.298 ppb	5,168.296 ppb	102.082 %
Concentration per Run 1	94.004 %	93.681 %	52.137 ppb	5,261.062 ppb	5,071.417 ppb	50.164 ppb	5,093.583 ppb	5,245.571 ppb	100.249 %
Concentration per Run 2	97.621 %	95.294 %	50.042 ppb	5,324.970 ppb	5,193.256 ppb	51.210 ppb	5,039.992 ppb	5,137.124 ppb	104.243 %
Concentration per Run 3	97.824 %	97.311 %	50.943 ppb	5,175.215 ppb	5,080.340 ppb	51.127 ppb	5,092.319 ppb	5,122.195 ppb	101.753 %
Recovery Percentage 1			102.081 %	105.075 %	102.300 %	101.667 %	101.506 %	103.366 %	
Concentration RSD	2.2 %	1.9 %	2.1 %	1.4 %	1.3 %	1.1 %	0.6 %	1.3 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	52.081 ppb	51.949 ppb	52.019 ppb	5,248.379 ppb	53.269 ppb	53.183 ppb	53.574 ppb	53.566 ppb	99.129 %
Concentration per Run 1	52.863 ppb	53.235 ppb	52.793 ppb	5,411.329 ppb	55.451 ppb	54.749 ppb	55.616 ppb	54.581 ppb	93.548 %
Concentration per Run 2	51.578 ppb	51.053 ppb	51.281 ppb	5,113.765 ppb	52.037 ppb	51.983 ppb	52.009 ppb	52.906 ppb	103.356 %
Concentration per Run 3	51.803 ppb	51.559 ppb	51.982 ppb	5,220.042 ppb	52.319 ppb	52.816 ppb	53.098 ppb	53.212 ppb	100.484 %
Recovery Percentage 1	104.163 %	103.898 %	104.038 %	104.968 %	106.538 %	106.365 %	107.149 %	107.132 %	
Concentration RSD	1.3 %	2.2 %	1.5 %	2.9 %	3.6 %	2.7 %	3.5 %	1.7 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	51.552 ppb	49.562 ppb	51.048 ppb	49.963 ppb	99.297 %	50.808 ppb	51.262 ppb	99.321 %	50.039 ppb
Concentration per Run 1	52.901 ppb	49.291 ppb	50.742 ppb	50.735 ppb	96.913 %	51.841 ppb	52.217 ppb	94.942 %	51.275 ppb
Concentration per Run 2	50.568 ppb	48.174 ppb	51.010 ppb	49.133 ppb	99.966 %	50.757 ppb	51.214 ppb	101.109 %	50.896 ppb
Concentration per Run 3	51.188 ppb	51.221 ppb	51.391 ppb	50.020 ppb	101.011 %	49.826 ppb	50.356 ppb	101.910 %	47.947 ppb
Recovery Percentage 1	103.105 %	99.124 %	102.095 %	99.925 %		101.615 %	102.524 %		100.079 %
Concentration RSD	2.3 %	3.1 %	0.6 %	1.6 %	2.1 %	2.0 %	1.8 %	3.8 %	3.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	50.438 ppb	101.953 %	102.925 %	52.015 ppb	51.827 ppb	102.309 %
Concentration per Run 1	50.929 ppb	100.152 %	98.816 %	50.404 ppb	49.730 ppb	105.023 %
Concentration per Run 2	51.186 ppb	100.861 %	104.585 %	52.457 ppb	52.669 ppb	101.372 %
Concentration per Run 3	49.200 ppb	104.845 %	105.375 %	53.185 ppb	53.082 ppb	100.533 %
Recovery Percentage 1	100.877 %			104.031 %	103.654 %	
Concentration RSD	2.1 %	2.5 %	3.5 %	2.8 %	3.5 %	2.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	11	User name	ALPHALAB\Metals-Instrument	Comment	ICB
Analysis label:	ICB	Rack	0		
Analysis started at:	8/21/2024 5:38:45 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.243 %	100.168 %	0.035 ppb	-0.265 ppb	-1.066 ppb	-0.316 ppb	-0.120 ppb	-3.926 ppb	98.810 %
Concentration per Run 1	95.389 %	103.059 %	0.038 ppb	-0.357 ppb	-1.286 ppb	-0.489 ppb	-3.107 ppb	-2.071 ppb	96.865 %
Concentration per Run 2	100.130 %	97.412 %	0.032 ppb	1.095 ppb	-0.355 ppb	-0.157 ppb	-0.274 ppb	-8.588 ppb	100.441 %
Concentration per Run 3	99.210 %	100.034 %	0.036 ppb	-1.532 ppb	-1.558 ppb	-0.301 ppb	3.022 ppb	-1.119 ppb	99.125 %
Recovery Percentage 1			7.066 %	-0.265 %	-1.523 %	-3.155 %	-0.120 %	-3.926 %	
Concentration RSD	2.6 %	2.8 %	9.2 %	497.3 %	59.1 %	52.7 %	2,561.9 %	103.5 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.136 ppb	0.006 ppb	0.004 ppb	11.101 ppb	0.003 ppb	0.001 ppb	-0.028 ppb	-0.039 ppb	101.348 %
Concentration per Run 1	-0.120 ppb	-0.008 ppb	-0.003 ppb	9.147 ppb	0.001 ppb	-0.010 ppb	-0.028 ppb	-0.009 ppb	99.529 %
Concentration per Run 2	-0.136 ppb	0.009 ppb	0.024 ppb	10.463 ppb	0.008 ppb	-0.003 ppb	-0.042 ppb	-0.049 ppb	101.875 %
Concentration per Run 3	-0.150 ppb	0.017 ppb	-0.009 ppb	13.691 ppb	0.001 ppb	0.017 ppb	-0.016 ppb	-0.058 ppb	102.641 %
Recovery Percentage 1	-2.711 %	0.600 %	0.423 %	22.201 %	0.637 %	0.065 %	-2.842 %	-0.774 %	
Concentration RSD	10.9 %	214.7 %	419.0 %	21.1 %	135.5 %	1,053.9 %	46.4 %	68.2 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.004 ppb	0.248 ppb	0.002 ppb	1.138 ppb	100.802 %	0.012 ppb	0.006 ppb	101.973 %	0.365 ppb
Concentration per Run 1	0.039 ppb	0.275 ppb	0.003 ppb	0.856 ppb	102.076 %	0.013 ppb	0.008 ppb	101.988 %	0.187 ppb
Concentration per Run 2	-0.008 ppb	0.258 ppb	0.002 ppb	1.229 ppb	101.422 %	0.011 ppb	0.006 ppb	101.824 %	0.388 ppb
Concentration per Run 3	-0.018 ppb	0.210 ppb	0.002 ppb	1.328 ppb	98.908 %	0.012 ppb	0.006 ppb	102.106 %	0.519 ppb
Recovery Percentage 1	0.886 %	4.952 %	0.021 %	56.899 %		2.959 %	3.159 %		9.121 %
Concentration RSD	689.5 %	13.7 %	34.1 %	21.9 %	1.7 %	6.3 %	19.6 %	0.1 %	45.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.002 ppb	102.580 %	102.771 %	0.250 ppb	0.018 ppb	103.184 %
Concentration per Run 1	-0.001 ppb	103.021 %	103.647 %	0.181 ppb	0.016 ppb	107.455 %
Concentration per Run 2	0.007 ppb	102.642 %	102.407 %	0.300 ppb	0.019 ppb	100.426 %
Concentration per Run 3	0.001 ppb	102.076 %	102.258 %	0.268 ppb	0.017 ppb	101.670 %
Recovery Percentage 1	0.476 %			24.982 %	1.780 %	
Concentration RSD	183.7 %	0.5 %	0.7 %	24.6 %	8.4 %	3.6 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	12	User name	ALPHALAB\Metals-Instrument	Comment	ICB
Analysis label:	ICB	Rack	0		
Analysis started at:	8/21/2024 5:46:47 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.680 %	99.496 %	0.020 ppb	-0.180 ppb	-1.078 ppb	-0.391 ppb	1.797 ppb	-1.569 ppb	98.434 %
Concentration per Run 1	94.140 %	103.563 %	0.014 ppb	0.809 ppb	-1.523 ppb	-0.520 ppb	5.645 ppb	-0.657 ppb	97.337 %
Concentration per Run 2	98.619 %	98.017 %	0.032 ppb	0.391 ppb	0.122 ppb	-0.288 ppb	0.280 ppb	-5.946 ppb	98.180 %
Concentration per Run 3	100.280 %	96.907 %	0.014 ppb	-1.740 ppb	-1.834 ppb	-0.364 ppb	-0.533 ppb	1.895 ppb	99.786 %
Recovery Percentage 1			3.959 %	-0.180 %	-1.541 %	-3.907 %	1.797 %	-1.569 %	
Concentration RSD	3.3 %	3.6 %	51.7 %	760.1 %	97.4 %	30.3 %	186.8 %	254.9 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.124 ppb	0.000 ppb	0.122 ppb	2.470 ppb	0.002 ppb	0.025 ppb	0.004 ppb	0.047 ppb	101.270 %
Concentration per Run 1	-0.117 ppb	-0.002 ppb	0.108 ppb	1.726 ppb	0.000 ppb	0.011 ppb	0.037 ppb	0.033 ppb	108.345 %
Concentration per Run 2	-0.116 ppb	0.014 ppb	0.140 ppb	3.001 ppb	0.005 ppb	0.022 ppb	-0.003 ppb	0.040 ppb	101.031 %
Concentration per Run 3	-0.138 ppb	-0.012 ppb	0.118 ppb	2.683 ppb	0.001 ppb	0.043 ppb	-0.022 ppb	0.067 ppb	94.434 %
Recovery Percentage 1	-2.480 %	0.003 %	12.227 %	4.940 %	0.446 %	1.265 %	0.426 %	0.937 %	
Concentration RSD	10.0 %	38,652.3 %	13.3 %	26.9 %	118.8 %	63.9 %	707.4 %	38.9 %	6.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.004 ppb	-0.028 ppb	0.002 ppb	0.164 ppb	100.318 %	0.004 ppb	0.002 ppb	105.037 %	0.057 ppb
Concentration per Run 1	-0.020 ppb	0.055 ppb	0.008 ppb	0.086 ppb	102.414 %	0.004 ppb	0.002 ppb	114.833 %	0.015 ppb
Concentration per Run 2	0.007 ppb	-0.063 ppb	0.001 ppb	0.168 ppb	101.085 %	0.005 ppb	0.002 ppb	105.617 %	0.061 ppb
Concentration per Run 3	0.025 ppb	-0.075 ppb	-0.004 ppb	0.238 ppb	97.456 %	0.003 ppb	0.003 ppb	94.660 %	0.094 ppb
Recovery Percentage 1	0.732 %	-0.551 %	0.016 %	8.208 %		0.927 %	1.070 %		1.414 %
Concentration RSD	618.4 %	260.6 %	351.9 %	46.1 %	2.6 %	28.7 %	30.4 %	9.6 %	69.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	-0.003 ppb	101.972 %	102.834 %	0.055 ppb	0.006 ppb	103.429 %
Concentration per Run 1	-0.008 ppb	104.955 %	109.049 %	0.033 ppb	0.006 ppb	111.054 %
Concentration per Run 2	-0.002 ppb	102.784 %	101.816 %	0.061 ppb	0.005 ppb	102.432 %
Concentration per Run 3	0.000 ppb	98.178 %	97.636 %	0.069 ppb	0.008 ppb	96.800 %
Recovery Percentage 1	-0.678 %			5.455 %	0.638 %	
Concentration RSD	128.1 %	3.4 %	5.6 %	34.3 %	23.3 %	6.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	13	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	ICSA	Rack	4		
Analysis started at:	8/21/2024 5:51:52 AM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.826 %	89.311 %	0.033 ppb	267,220.023 ppb	104,216.766 ppb	97,777.698 ppb	104,039.090 ppb	304,192.797 ppb	119.145 %
Concentration per Run 1	85.342 %	90.857 %	0.032 ppb	268,797.179 ppb	103,982.415 ppb	97,662.625 ppb	106,591.396 ppb	314,845.403 ppb	116.509 %
Concentration per Run 2	88.876 %	83.193 %	0.028 ppb	264,917.595 ppb	102,970.626 ppb	95,736.132 ppb	100,523.352 ppb	297,912.453 ppb	120.156 %
Concentration per Run 3	89.260 %	93.882 %	0.039 ppb	267,945.296 ppb	105,697.257 ppb	99,934.337 ppb	105,002.523 ppb	299,820.534 ppb	120.769 %
Recovery Percentage 1			3.319 %	106.888 %	104.217 %	97.778 %	104.039 %	101.398 %	
Concentration RSD	2.5 %	6.2 %	17.2 %	0.8 %	1.3 %	2.1 %	3.0 %	3.0 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.071 ppb	1.634 ppb	4.621 ppb	254,423.894 ppb	2.174 ppb	3.035 ppb	2.978 ppb	3.129 ppb	103.232 %
Concentration per Run 1	-0.062 ppb	1.735 ppb	4.928 ppb	256,719.450 ppb	2.219 ppb	3.013 ppb	3.045 ppb	3.116 ppb	101.950 %
Concentration per Run 2	-0.066 ppb	1.611 ppb	4.362 ppb	254,138.884 ppb	2.201 ppb	3.075 ppb	3.024 ppb	2.987 ppb	100.781 %
Concentration per Run 3	-0.084 ppb	1.558 ppb	4.573 ppb	252,413.347 ppb	2.101 ppb	3.018 ppb	2.865 ppb	3.284 ppb	106.965 %
Recovery Percentage 1	-1.418 %	49.530 %	81.068 %	101.770 %	75.733 %	49.760 %	105.607 %	27.449 %	
Concentration RSD	16.9 %	5.6 %	6.2 %	0.9 %	2.9 %	1.1 %	3.3 %	4.8 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.655 ppb	3.940 ppb	2.445 ppb	2,143.958 ppb	86.386 %	0.029 ppb	0.452 ppb	91.382 %	0.248 ppb
Concentration per Run 1	0.662 ppb	3.849 ppb	2.505 ppb	2,146.979 ppb	86.388 %	0.029 ppb	0.454 ppb	94.628 %	0.199 ppb
Concentration per Run 2	0.657 ppb	3.779 ppb	2.293 ppb	2,164.565 ppb	85.102 %	0.027 ppb	0.454 ppb	86.653 %	0.249 ppb
Concentration per Run 3	0.645 ppb	4.191 ppb	2.538 ppb	2,120.331 ppb	87.670 %	0.031 ppb	0.449 ppb	92.866 %	0.297 ppb
Recovery Percentage 1	40.183 %	30.540 %	90.566 %	107.198 %		3.619 %	113.092 %		3.099 %
Concentration RSD	1.4 %	5.6 %	5.4 %	1.0 %	1.5 %	6.5 %	0.6 %	4.6 %	19.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.317 ppb	96.396 %	97.517 %	0.043 ppb	1.687 ppb	85.002 %
Concentration per Run 1	1.315 ppb	96.666 %	99.526 %	0.029 ppb	1.629 ppb	89.756 %
Concentration per Run 2	1.324 ppb	93.936 %	93.673 %	0.044 ppb	1.732 ppb	81.570 %
Concentration per Run 3	1.311 ppb	98.585 %	99.352 %	0.055 ppb	1.698 ppb	83.679 %
Recovery Percentage 1	70.037 %			2.144 %	54.404 %	
Concentration RSD	0.5 %	2.4 %	3.4 %	30.5 %	3.1 %	5.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	14	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	LDR Check	Rack	4		
Analysis started at:	8/21/2024 5:56:34 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.591 %	111.227 %	0.035 ppb	32.923 ppb	2.474 ppb	7.519 ppb	20.364 ppb	13.937 ppb	108.409 %
Concentration per Run 1	91.713 %	111.026 %	0.023 ppb	36.740 ppb	2.971 ppb	7.760 ppb	20.733 ppb	20.743 ppb	108.654 %
Concentration per Run 2	96.368 %	117.681 %	0.046 ppb	27.342 ppb	2.082 ppb	7.542 ppb	20.752 ppb	10.762 ppb	107.376 %
Concentration per Run 3	95.691 %	104.975 %	0.035 ppb	34.686 ppb	2.369 ppb	7.256 ppb	19.609 ppb	10.306 ppb	109.198 %
Concentration RSD	2.7 %	5.7 %	33.7 %	15.0 %	18.3 %	3.4 %	3.2 %	42.3 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.163 ppb	0.063 ppb	10,299.432 ppb	89.929 ppb	0.049 ppb	10,402.524 ppb	10,815.261 ppb	10,220.732 ppb	110.252 %
Concentration per Run 1	-0.157 ppb	0.074 ppb	10,216.705 ppb	82.829 ppb	0.043 ppb	10,326.555 ppb	10,695.601 ppb	10,229.510 ppb	112.377 %
Concentration per Run 2	-0.153 ppb	0.042 ppb	10,033.620 ppb	91.830 ppb	0.050 ppb	10,169.990 ppb	10,689.782 ppb	10,101.936 ppb	113.699 %
Concentration per Run 3	-0.180 ppb	0.074 ppb	10,647.971 ppb	95.127 ppb	0.054 ppb	10,711.027 ppb	11,060.400 ppb	10,330.752 ppb	104.681 %
Concentration RSD	9.0 %	29.1 %	3.1 %	7.1 %	11.7 %	2.7 %	2.0 %	1.1 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1,016.038 ppb	1.320 ppb	0.235 ppb	14.492 ppb	106.023 %	0.201 ppb	0.081 ppb	102.311 %	1.137 ppb
Concentration per Run 1	1,018.708 ppb	1.430 ppb	0.232 ppb	11.559 ppb	106.808 %	0.210 ppb	0.078 ppb	104.619 %	1.158 ppb
Concentration per Run 2	999.263 ppb	1.104 ppb	0.238 ppb	14.865 ppb	106.944 %	0.198 ppb	0.075 ppb	105.384 %	1.130 ppb
Concentration per Run 3	1,030.144 ppb	1.426 ppb	0.234 ppb	17.054 ppb	104.318 %	0.194 ppb	0.090 ppb	96.931 %	1.123 ppb
Concentration RSD	1.5 %	14.2 %	1.2 %	19.1 %	1.4 %	4.3 %	10.1 %	4.6 %	1.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	9,952.587 ppb	97.955 %	96.504 %	0.050 ppb	10,313.958 ppb	94.336 %
Concentration per Run 1	9,892.161 ppb	100.937 %	99.102 %	0.036 ppb	9,945.491 ppb	97.410 %
Concentration per Run 2	9,982.869 ppb	97.888 %	96.946 %	0.058 ppb	10,513.533 ppb	94.251 %
Concentration per Run 3	9,982.731 ppb	95.040 %	93.464 %	0.056 ppb	10,482.850 ppb	91.348 %
Concentration RSD	0.5 %	3.0 %	2.9 %	23.8 %	3.1 %	3.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	15	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/21/2024 6:01:15 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.250 %	108.941 %	0.074 ppb	186.370 ppb	58.570 ppb	52.894 ppb	136.932 ppb	192.158 ppb	106.767 %
Concentration per Run 1	95.138 %	110.118 %	0.077 ppb	195.923 ppb	60.359 ppb	56.445 ppb	152.331 ppb	199.153 ppb	105.602 %
Concentration per Run 2	98.906 %	111.126 %	0.075 ppb	178.144 ppb	54.150 ppb	50.388 ppb	134.184 ppb	172.027 ppb	107.540 %
Concentration per Run 3	100.706 %	105.580 %	0.070 ppb	185.042 ppb	61.202 ppb	51.849 ppb	124.280 ppb	205.295 ppb	107.159 %
Concentration RSD	2.9 %	2.7 %	5.3 %	4.8 %	6.6 %	6.0 %	10.4 %	9.2 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.179 ppb	0.037 ppb	0.700 ppb	157.033 ppb	0.073 ppb	3.344 ppb	5.100 ppb	6.010 ppb	107.947 %
Concentration per Run 1	-0.179 ppb	0.035 ppb	0.658 ppb	155.968 ppb	0.081 ppb	3.361 ppb	5.091 ppb	6.127 ppb	108.956 %
Concentration per Run 2	-0.185 ppb	0.050 ppb	0.623 ppb	158.633 ppb	0.069 ppb	3.086 ppb	4.836 ppb	5.872 ppb	108.769 %
Concentration per Run 3	-0.174 ppb	0.025 ppb	0.821 ppb	156.497 ppb	0.069 ppb	3.585 ppb	5.372 ppb	6.032 ppb	106.115 %
Concentration RSD	2.9 %	33.0 %	15.1 %	0.9 %	9.7 %	7.5 %	5.3 %	2.1 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.927 ppb	-0.009 ppb	0.055 ppb	3.766 ppb	105.081 %	0.039 ppb	0.002 ppb	106.262 %	0.088 ppb
Concentration per Run 1	1.051 ppb	0.026 ppb	0.062 ppb	3.079 ppb	107.183 %	0.037 ppb	0.005 ppb	114.074 %	0.051 ppb
Concentration per Run 2	0.897 ppb	-0.019 ppb	0.053 ppb	3.861 ppb	103.924 %	0.037 ppb	0.000 ppb	102.671 %	0.096 ppb
Concentration per Run 3	0.833 ppb	-0.035 ppb	0.051 ppb	4.357 ppb	104.135 %	0.042 ppb	0.002 ppb	102.041 %	0.118 ppb
Concentration RSD	12.1 %	344.7 %	10.3 %	17.1 %	1.7 %	7.6 %	95.3 %	6.4 %	38.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.318 ppb	102.639 %	100.793 %	0.026 ppb	1.233 ppb	98.947 %
Concentration per Run 1	0.293 ppb	105.912 %	104.678 %	0.015 ppb	1.353 ppb	102.521 %
Concentration per Run 2	0.259 ppb	100.966 %	99.705 %	0.029 ppb	1.194 ppb	98.175 %
Concentration per Run 3	0.400 ppb	101.038 %	97.994 %	0.034 ppb	1.151 ppb	96.145 %
Concentration RSD	23.2 %	2.8 %	3.4 %	39.0 %	8.6 %	3.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	16	User name	ALPHALAB\Metals-Instrument	Comment	CCV/MCCV
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 6:05:52 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.633 %	108.437 %	63.396 ppb	6,497.988 ppb	6,055.090 ppb	59.471 ppb	6,154.312 ppb	5,835.453 ppb	103.552 %
Concentration per Run 1	90.220 %	112.639 %	64.388 ppb	6,568.714 ppb	6,175.054 ppb	59.893 ppb	6,308.093 ppb	5,927.621 ppb	100.127 %
Concentration per Run 2	90.540 %	107.395 %	63.837 ppb	6,513.347 ppb	5,960.205 ppb	60.121 ppb	6,162.571 ppb	5,779.343 ppb	103.678 %
Concentration per Run 3	94.139 %	105.277 %	61.963 ppb	6,411.904 ppb	6,030.010 ppb	58.400 ppb	5,992.270 ppb	5,799.395 ppb	106.851 %
Recovery Percentage 1			105.660 %	108.300 %	100.918 %	99.119 %	102.572 %	97.258 %	
Concentration RSD	2.4 %	3.5 %	2.0 %	1.2 %	1.8 %	1.6 %	2.6 %	1.4 %	3.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.298 ppb	58.351 ppb	60.502 ppb	6,295.499 ppb	63.090 ppb	64.193 ppb	64.406 ppb	64.696 ppb	104.046 %
Concentration per Run 1	59.849 ppb	59.162 ppb	61.941 ppb	6,463.052 ppb	64.266 ppb	65.516 ppb	64.835 ppb	65.632 ppb	104.581 %
Concentration per Run 2	57.691 ppb	57.345 ppb	59.703 ppb	6,147.797 ppb	61.597 ppb	62.884 ppb	62.126 ppb	62.597 ppb	107.684 %
Concentration per Run 3	57.356 ppb	58.546 ppb	59.860 ppb	6,275.648 ppb	63.405 ppb	64.179 ppb	66.256 ppb	65.858 ppb	99.872 %
Recovery Percentage 1	97.164 %	97.252 %	100.836 %	104.925 %	105.149 %	106.988 %	107.343 %	107.826 %	
Concentration RSD	2.3 %	1.6 %	2.1 %	2.5 %	2.2 %	2.1 %	3.3 %	2.8 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	62.803 ppb	58.718 ppb	59.169 ppb	58.512 ppb	101.444 %	62.392 ppb	62.099 ppb	98.967 %	59.183 ppb
Concentration per Run 1	63.640 ppb	59.157 ppb	60.020 ppb	58.770 ppb	102.794 %	62.069 ppb	62.056 ppb	101.074 %	59.787 ppb
Concentration per Run 2	61.363 ppb	58.494 ppb	58.841 ppb	56.998 ppb	102.504 %	62.236 ppb	62.242 ppb	99.839 %	58.904 ppb
Concentration per Run 3	63.405 ppb	58.502 ppb	58.644 ppb	59.769 ppb	99.034 %	62.873 ppb	61.998 ppb	95.988 %	58.859 ppb
Recovery Percentage 1	104.671 %	97.863 %	98.614 %	97.521 %		103.987 %	103.498 %		98.638 %
Concentration RSD	2.0 %	0.6 %	1.3 %	2.4 %	2.1 %	0.7 %	0.2 %	2.7 %	0.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	59.623 ppb	100.830 %	100.369 %	64.053 ppb	62.100 ppb	100.721 %
Concentration per Run 1	60.729 ppb	102.246 %	101.908 %	60.649 ppb	58.815 ppb	105.803 %
Concentration per Run 2	58.835 ppb	101.123 %	101.268 %	62.905 ppb	63.148 ppb	99.402 %
Concentration per Run 3	59.306 ppb	99.121 %	97.931 %	68.605 ppb	64.336 ppb	96.958 %
Recovery Percentage 1	99.372 %			106.755 %	103.499 %	
Concentration RSD	1.7 %	1.6 %	2.1 %	6.4 %	4.7 %	4.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	17	User name	ALPHALAB\Metals-Instrument	Comment	CCB
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 6:10:33 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.468 %	105.916 %	0.021 ppb	13.815 ppb	-0.495 ppb	-0.193 ppb	6.494 ppb	-0.656 ppb	100.220 %
Concentration per Run 1	95.207 %	108.706 %	0.026 ppb	16.645 ppb	0.199 ppb	-0.318 ppb	7.495 ppb	-3.146 ppb	100.822 %
Concentration per Run 2	97.630 %	107.698 %	0.015 ppb	11.417 ppb	-0.963 ppb	-0.248 ppb	6.911 ppb	4.129 ppb	102.075 %
Concentration per Run 3	96.566 %	101.345 %	0.021 ppb	13.383 ppb	-0.720 ppb	-0.013 ppb	5.074 ppb	-2.950 ppb	97.763 %
Recovery Percentage 1			4.114 %	13.815 %	-0.707 %	-1.930 %	6.494 %	-0.656 %	
Concentration RSD	1.3 %	3.8 %	28.1 %	19.1 %	124.0 %	82.6 %	19.5 %	632.3 %	2.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.158 ppb	0.003 ppb	0.066 ppb	21.318 ppb	0.007 ppb	0.085 ppb	0.135 ppb	0.300 ppb	102.289 %
Concentration per Run 1	-0.161 ppb	-0.012 ppb	0.041 ppb	17.545 ppb	0.008 ppb	0.123 ppb	0.145 ppb	0.264 ppb	109.589 %
Concentration per Run 2	-0.158 ppb	0.011 ppb	0.061 ppb	24.431 ppb	0.012 ppb	0.053 ppb	0.099 ppb	0.308 ppb	102.443 %
Concentration per Run 3	-0.156 ppb	0.011 ppb	0.096 ppb	21.978 ppb	0.001 ppb	0.079 ppb	0.162 ppb	0.328 ppb	94.836 %
Recovery Percentage 1	-3.170 %	0.314 %	6.582 %	42.636 %	1.393 %	4.261 %	13.512 %	6.001 %	
Concentration RSD	1.4 %	419.2 %	42.6 %	16.4 %	79.9 %	41.5 %	24.1 %	10.9 %	7.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.197 ppb	0.201 ppb	0.005 ppb	2.010 ppb	101.575 %	0.010 ppb	0.007 ppb	101.809 %	0.425 ppb
Concentration per Run 1	0.195 ppb	0.184 ppb	0.006 ppb	1.599 ppb	104.665 %	0.010 ppb	0.009 ppb	109.508 %	0.310 ppb
Concentration per Run 2	0.154 ppb	0.309 ppb	0.007 ppb	1.962 ppb	100.513 %	0.008 ppb	0.006 ppb	101.460 %	0.459 ppb
Concentration per Run 3	0.242 ppb	0.111 ppb	0.002 ppb	2.469 ppb	99.545 %	0.010 ppb	0.005 ppb	94.459 %	0.508 ppb
Recovery Percentage 1	39.417 %	4.027 %	0.053 %	100.501 %		2.400 %	3.357 %		10.632 %
Concentration RSD	22.4 %	49.7 %	51.5 %	21.7 %	2.7 %	10.3 %	34.0 %	7.4 %	24.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.044 ppb	101.319 %	99.970 %	0.245 ppb	0.311 ppb	100.527 %
Concentration per Run 1	0.014 ppb	105.147 %	106.129 %	0.192 ppb	0.306 ppb	107.682 %
Concentration per Run 2	0.056 ppb	101.064 %	100.165 %	0.288 ppb	0.314 ppb	97.835 %
Concentration per Run 3	0.061 ppb	97.746 %	93.617 %	0.256 ppb	0.315 ppb	96.064 %
Recovery Percentage 1	8.716 %			24.519 %	31.139 %	
Concentration RSD	59.4 %	3.7 %	6.3 %	20.0 %	1.7 %	6.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	18	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 6:17:00 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.887 %	102.151 %	0.013 ppb	13.780 ppb	-1.086 ppb	-0.387 ppb	3.384 ppb	-1.708 ppb	97.531 %
Concentration per Run 1	92.035 %	104.471 %	0.016 ppb	13.210 ppb	-0.345 ppb	-0.410 ppb	1.157 ppb	-4.056 ppb	95.373 %
Concentration per Run 2	96.445 %	100.840 %	0.014 ppb	14.191 ppb	-2.508 ppb	-0.463 ppb	3.284 ppb	0.736 ppb	98.066 %
Concentration per Run 3	96.183 %	101.143 %	0.008 ppb	13.940 ppb	-0.403 ppb	-0.289 ppb	5.712 ppb	-1.804 ppb	99.154 %
Recovery Percentage 1			2.540 %	13.780 %	-1.551 %	-3.872 %	3.384 %	-1.708 %	
Concentration RSD	2.6 %	2.0 %	35.7 %	3.7 %	113.5 %	23.0 %	67.4 %	140.3 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.183 ppb	-0.008 ppb	0.025 ppb	5.304 ppb	0.000 ppb	0.012 ppb	0.065 ppb	0.132 ppb	101.833 %
Concentration per Run 1	-0.170 ppb	-0.014 ppb	-0.010 ppb	4.870 ppb	-0.001 ppb	0.025 ppb	0.056 ppb	0.132 ppb	102.812 %
Concentration per Run 2	-0.191 ppb	0.003 ppb	0.039 ppb	6.757 ppb	-0.001 ppb	0.009 ppb	0.047 ppb	0.115 ppb	99.635 %
Concentration per Run 3	-0.188 ppb	-0.011 ppb	0.045 ppb	4.284 ppb	0.001 ppb	0.003 ppb	0.092 ppb	0.149 ppb	103.053 %
Recovery Percentage 1	-3.661 %	-0.770 %	2.469 %	10.607 %	-0.070 %	0.622 %	6.506 %	2.636 %	
Concentration RSD	6.2 %	116.7 %	121.6 %	24.4 %	418.8 %	93.4 %	37.0 %	12.8 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.120 ppb	0.038 ppb	0.002 ppb	0.597 ppb	102.450 %	0.003 ppb	0.000 ppb	100.247 %	0.109 ppb
Concentration per Run 1	0.196 ppb	0.041 ppb	0.002 ppb	0.422 ppb	102.138 %	0.004 ppb	0.000 ppb	100.699 %	0.061 ppb
Concentration per Run 2	0.085 ppb	0.038 ppb	-0.001 ppb	0.584 ppb	101.967 %	0.002 ppb	0.000 ppb	98.410 %	0.124 ppb
Concentration per Run 3	0.078 ppb	0.035 ppb	0.004 ppb	0.786 ppb	103.244 %	0.003 ppb	0.000 ppb	101.632 %	0.143 ppb
Recovery Percentage 1	23.986 %	0.762 %	0.019 %	29.861 %		0.752 %	0.111 %		2.730 %
Concentration RSD	55.1 %	8.3 %	128.1 %	30.5 %	0.7 %	46.6 %	193.2 %	1.7 %	39.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.009 ppb	101.605 %	100.713 %	0.049 ppb	0.173 ppb	102.901 %
Concentration per Run 1	0.010 ppb	102.201 %	99.182 %	0.026 ppb	0.176 ppb	108.646 %
Concentration per Run 2	0.005 ppb	101.569 %	102.463 %	0.055 ppb	0.172 ppb	101.820 %
Concentration per Run 3	0.013 ppb	101.045 %	100.494 %	0.066 ppb	0.171 ppb	98.238 %
Recovery Percentage 1	1.889 %			4.870 %	17.278 %	
Concentration RSD	44.2 %	0.6 %	1.6 %	42.0 %	1.4 %	5.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	19	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1961587-1 CT-SPLP-6020TL	Rack	1		
Analysis started at:	8/21/2024 6:24:24 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.658 %	107.933 %	0.010 ppb	149.379 ppb	0.240 ppb	2.293 ppb	6.747 ppb	10.986 ppb	97.933 %
Concentration per Run 1	93.686 %	105.479 %	0.014 ppb	159.114 ppb	0.508 ppb	2.463 ppb	14.055 ppb	13.705 ppb	96.366 %
Concentration per Run 2	97.965 %	112.336 %	0.005 ppb	147.219 ppb	0.390 ppb	2.442 ppb	6.536 ppb	8.257 ppb	100.290 %
Concentration per Run 3	98.325 %	105.983 %	0.012 ppb	141.804 ppb	-0.179 ppb	1.975 ppb	-0.349 ppb	10.997 ppb	97.144 %
Concentration RSD	2.7 %	3.5 %	43.7 %	5.9 %	153.0 %	12.0 %	106.8 %	24.8 %	2.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.147 ppb	0.007 ppb	0.076 ppb	4.701 ppb	0.006 ppb	0.001 ppb	0.026 ppb	0.431 ppb	99.669 %
Concentration per Run 1	-0.140 ppb	0.009 ppb	0.092 ppb	5.379 ppb	0.006 ppb	0.011 ppb	0.048 ppb	0.394 ppb	99.562 %
Concentration per Run 2	-0.162 ppb	0.003 ppb	0.068 ppb	3.886 ppb	0.004 ppb	0.011 ppb	0.039 ppb	0.464 ppb	101.956 %
Concentration per Run 3	-0.139 ppb	0.008 ppb	0.067 ppb	4.838 ppb	0.007 ppb	-0.019 ppb	-0.009 ppb	0.437 ppb	97.491 %
Concentration RSD	8.6 %	47.1 %	18.8 %	16.1 %	25.3 %	2,220.3 %	118.9 %	8.1 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.097 ppb	0.060 ppb	0.042 ppb	0.287 ppb	101.594 %	0.003 ppb	0.000 ppb	97.675 %	0.073 ppb
Concentration per Run 1	0.110 ppb	0.097 ppb	0.041 ppb	0.200 ppb	101.616 %	0.002 ppb	0.000 ppb	101.145 %	0.036 ppb
Concentration per Run 2	0.087 ppb	0.067 ppb	0.049 ppb	0.296 ppb	102.540 %	0.003 ppb	0.001 ppb	98.841 %	0.084 ppb
Concentration per Run 3	0.096 ppb	0.015 ppb	0.037 ppb	0.364 ppb	100.625 %	0.002 ppb	0.000 ppb	93.038 %	0.101 ppb
Concentration RSD	12.1 %	69.3 %	14.6 %	28.7 %	0.9 %	20.9 %	149.7 %	4.3 %	45.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.061 ppb	99.033 %	99.210 %	0.025 ppb	0.129 ppb	99.910 %
Concentration per Run 1	0.069 ppb	99.475 %	99.673 %	0.013 ppb	0.133 ppb	104.139 %
Concentration per Run 2	0.065 ppb	102.575 %	102.106 %	0.026 ppb	0.129 ppb	99.814 %
Concentration per Run 3	0.050 ppb	95.050 %	95.851 %	0.035 ppb	0.123 ppb	95.778 %
Concentration RSD	16.2 %	3.8 %	3.2 %	43.9 %	4.0 %	4.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	20	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1961587-2d10 CT-SPLP-6020TL	Rack	1		
Analysis started at:	8/21/2024 6:29:02 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.806 %	107.630 %	4.944 ppb	1,071.975 ppb	967.227 ppb	190.125 ppb	1,017.673 ppb	944.554 ppb	99.855 %
Concentration per Run 1	92.398 %	107.597 %	4.985 ppb	1,073.350 ppb	964.819 ppb	187.125 ppb	1,045.411 ppb	977.651 ppb	98.861 %
Concentration per Run 2	94.962 %	110.118 %	4.958 ppb	1,047.622 ppb	950.988 ppb	187.485 ppb	1,001.478 ppb	957.843 ppb	101.764 %
Concentration per Run 3	97.059 %	105.177 %	4.887 ppb	1,094.954 ppb	985.874 ppb	195.765 ppb	1,006.131 ppb	898.168 ppb	98.938 %
Concentration RSD	2.5 %	2.3 %	1.0 %	2.2 %	1.8 %	2.6 %	2.4 %	4.4 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	46.922 ppb	18.723 ppb	49.472 ppb	109.682 ppb	52.362 ppb	52.409 ppb	26.444 ppb	50.729 ppb	102.046 %
Concentration per Run 1	46.532 ppb	18.826 ppb	48.533 ppb	108.205 ppb	52.302 ppb	52.307 ppb	26.873 ppb	50.964 ppb	101.936 %
Concentration per Run 2	46.690 ppb	18.789 ppb	49.483 ppb	106.936 ppb	51.997 ppb	51.239 ppb	26.132 ppb	50.270 ppb	102.522 %
Concentration per Run 3	47.543 ppb	18.555 ppb	50.399 ppb	113.904 ppb	52.786 ppb	53.680 ppb	26.329 ppb	50.953 ppb	101.678 %
Concentration RSD	1.2 %	0.8 %	1.9 %	3.4 %	0.8 %	2.3 %	1.5 %	0.8 %	0.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.568 ppb	11.385 ppb	95.424 ppb	99.893 ppb	100.368 %	5.083 ppb	5.291 ppb	98.794 %	50.154 ppb
Concentration per Run 1	12.533 ppb	11.452 ppb	95.829 ppb	101.156 ppb	100.930 %	5.055 ppb	5.339 ppb	98.992 %	50.855 ppb
Concentration per Run 2	12.663 ppb	11.125 ppb	94.855 ppb	98.976 ppb	99.302 %	5.074 ppb	5.337 ppb	98.469 %	50.122 ppb
Concentration per Run 3	12.508 ppb	11.579 ppb	95.587 ppb	99.545 ppb	100.872 %	5.119 ppb	5.196 ppb	98.921 %	49.484 ppb
Concentration RSD	0.7 %	2.1 %	0.5 %	1.1 %	0.9 %	0.6 %	1.5 %	0.3 %	1.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	199.522 ppb	100.828 %	99.458 %	12.406 ppb	55.994 ppb	96.884 %
Concentration per Run 1	196.130 ppb	100.138 %	98.848 %	12.417 ppb	55.589 ppb	97.408 %
Concentration per Run 2	200.414 ppb	100.989 %	98.917 %	12.410 ppb	56.261 ppb	95.270 %
Concentration per Run 3	202.020 ppb	101.357 %	100.608 %	12.391 ppb	56.130 ppb	97.975 %
Concentration RSD	1.5 %	0.6 %	1.0 %	0.1 %	0.6 %	1.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	21	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1961587-3d10 CT-SPLP-6020TL	Rack	1		
Analysis started at:	8/21/2024 6:33:40 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.408 %	105.513 %	4.823 ppb	1,073.256 ppb	972.882 ppb	185.797 ppb	1,005.749 ppb	1,002.874 ppb	100.018 %
Concentration per Run 1	94.962 %	110.219 %	4.787 ppb	1,065.656 ppb	948.965 ppb	181.517 ppb	1,010.201 ppb	1,021.455 ppb	101.141 %
Concentration per Run 2	97.141 %	107.395 %	4.830 ppb	1,050.681 ppb	954.477 ppb	185.760 ppb	1,002.094 ppb	973.964 ppb	99.686 %
Concentration per Run 3	97.122 %	98.924 %	4.850 ppb	1,103.430 ppb	1,015.205 ppb	190.112 ppb	1,004.953 ppb	1,013.203 ppb	99.226 %
Concentration RSD	1.3 %	5.6 %	0.7 %	2.5 %	3.8 %	2.3 %	0.4 %	2.5 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	45.921 ppb	18.730 ppb	48.681 ppb	106.259 ppb	50.919 ppb	51.219 ppb	25.972 ppb	49.817 ppb	102.101 %
Concentration per Run 1	46.148 ppb	18.748 ppb	48.389 ppb	102.396 ppb	50.587 ppb	51.513 ppb	26.004 ppb	50.265 ppb	102.850 %
Concentration per Run 2	45.175 ppb	18.654 ppb	49.054 ppb	108.992 ppb	51.575 ppb	50.891 ppb	26.005 ppb	50.015 ppb	102.408 %
Concentration per Run 3	46.440 ppb	18.788 ppb	48.601 ppb	107.390 ppb	50.596 ppb	51.253 ppb	25.906 ppb	49.172 ppb	101.044 %
Concentration RSD	1.4 %	0.4 %	0.7 %	3.2 %	1.1 %	0.6 %	0.2 %	1.1 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.236 ppb	11.295 ppb	93.220 ppb	100.264 ppb	100.943 %	4.984 ppb	5.196 ppb	99.175 %	48.280 ppb
Concentration per Run 1	12.397 ppb	11.085 ppb	95.989 ppb	100.328 ppb	100.702 %	4.982 ppb	5.313 ppb	102.762 %	47.906 ppb
Concentration per Run 2	12.302 ppb	11.183 ppb	94.580 ppb	100.385 ppb	102.319 %	4.929 ppb	5.180 ppb	99.682 %	48.869 ppb
Concentration per Run 3	12.007 ppb	11.616 ppb	89.089 ppb	100.080 ppb	99.808 %	5.041 ppb	5.094 ppb	95.082 %	48.064 ppb
Concentration RSD	1.7 %	2.5 %	3.9 %	0.2 %	1.3 %	1.1 %	2.1 %	3.9 %	1.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	191.739 ppb	101.786 %	99.507 %	12.533 ppb	55.658 ppb	97.302 %
Concentration per Run 1	193.341 ppb	103.321 %	102.051 %	12.353 ppb	54.119 ppb	99.927 %
Concentration per Run 2	192.255 ppb	102.345 %	99.951 %	12.581 ppb	56.277 ppb	97.767 %
Concentration per Run 3	189.621 ppb	99.693 %	96.519 %	12.665 ppb	56.579 ppb	94.213 %
Concentration RSD	1.0 %	1.8 %	2.8 %	1.3 %	2.4 %	3.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	22	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1960931-2d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 6:38:17 AM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.341 %	103.630 %	5.294 ppb	1,167.070 ppb	1,084.297 ppb	217.573 ppb	1,123.452 ppb	1,030.026 ppb	99.094 %
Concentration per Run 1	94.046 %	103.261 %	5.362 ppb	1,225.048 ppb	1,139.996 ppb	236.925 ppb	1,194.818 ppb	1,070.121 ppb	96.850 %
Concentration per Run 2	96.860 %	103.059 %	5.232 ppb	1,140.446 ppb	1,056.090 ppb	209.431 ppb	1,080.485 ppb	1,001.424 ppb	99.653 %
Concentration per Run 3	98.116 %	104.572 %	5.287 ppb	1,135.717 ppb	1,056.806 ppb	206.362 ppb	1,095.054 ppb	1,018.534 ppb	100.779 %
Concentration RSD	2.2 %	0.8 %	1.2 %	4.3 %	4.4 %	7.7 %	5.5 %	3.5 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	51.169 ppb	20.599 ppb	54.115 ppb	114.593 ppb	55.621 ppb	56.010 ppb	28.276 ppb	54.493 ppb	104.510 %
Concentration per Run 1	51.100 ppb	20.346 ppb	55.102 ppb	109.151 ppb	54.131 ppb	54.335 ppb	27.839 ppb	53.357 ppb	110.823 %
Concentration per Run 2	51.168 ppb	20.788 ppb	53.260 ppb	120.023 ppb	56.349 ppb	56.791 ppb	28.451 ppb	55.152 ppb	101.892 %
Concentration per Run 3	51.240 ppb	20.662 ppb	53.984 ppb	114.604 ppb	56.382 ppb	56.904 ppb	28.540 ppb	54.970 ppb	100.816 %
Concentration RSD	0.1 %	1.1 %	1.7 %	4.7 %	2.3 %	2.6 %	1.4 %	1.8 %	5.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	13.085 ppb	12.313 ppb	103.416 ppb	104.253 ppb	102.938 %	5.466 ppb	5.613 ppb	103.529 %	39.394 ppb
Concentration per Run 1	13.058 ppb	12.397 ppb	106.195 ppb	102.385 ppb	105.901 %	5.386 ppb	5.584 ppb	107.636 %	39.991 ppb
Concentration per Run 2	13.210 ppb	12.614 ppb	101.486 ppb	104.868 ppb	101.580 %	5.490 ppb	5.561 ppb	101.687 %	38.693 ppb
Concentration per Run 3	12.985 ppb	11.928 ppb	102.566 ppb	105.507 ppb	101.334 %	5.523 ppb	5.695 ppb	101.263 %	39.499 ppb
Concentration RSD	0.9 %	2.8 %	2.4 %	1.6 %	2.5 %	1.3 %	1.3 %	3.4 %	1.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	207.396 ppb	104.611 %	103.350 %	13.565 ppb	59.260 ppb	98.489 %
Concentration per Run 1	212.882 ppb	105.994 %	107.277 %	12.896 ppb	56.713 ppb	102.798 %
Concentration per Run 2	205.252 ppb	104.174 %	101.182 %	13.839 ppb	60.283 ppb	96.301 %
Concentration per Run 3	204.053 ppb	103.665 %	101.591 %	13.959 ppb	60.785 ppb	96.368 %
Concentration RSD	2.3 %	1.2 %	3.3 %	4.3 %	3.7 %	3.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	23	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2445940-01 CT-SPLP-6020TL	Rack	1		
Analysis started at:	8/21/2024 6:42:56 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.579 %	108.807 %	0.019 ppb	447.008 ppb	97.276 ppb	126.523 ppb	159.341 ppb	1,341.070 ppb	99.860 %
Concentration per Run 1	93.586 %	111.026 %	0.023 ppb	441.875 ppb	93.526 ppb	122.138 ppb	162.863 ppb	1,346.338 ppb	100.038 %
Concentration per Run 2	96.505 %	106.185 %	0.016 ppb	450.288 ppb	101.683 ppb	132.447 ppb	158.268 ppb	1,348.359 ppb	100.353 %
Concentration per Run 3	96.645 %	109.210 %	0.019 ppb	448.861 ppb	96.619 ppb	124.984 ppb	156.891 ppb	1,328.513 ppb	99.189 %
Concentration RSD	1.8 %	2.2 %	16.3 %	1.0 %	4.2 %	4.2 %	2.0 %	0.8 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.625 ppb	0.119 ppb	5.347 ppb	132.196 ppb	0.062 ppb	0.072 ppb	0.421 ppb	0.684 ppb	102.837 %
Concentration per Run 1	0.705 ppb	0.135 ppb	5.103 ppb	130.565 ppb	0.062 ppb	0.076 ppb	0.435 ppb	0.680 ppb	103.222 %
Concentration per Run 2	0.627 ppb	0.113 ppb	5.466 ppb	130.850 ppb	0.069 ppb	0.079 ppb	0.416 ppb	0.723 ppb	103.024 %
Concentration per Run 3	0.543 ppb	0.110 ppb	5.473 ppb	135.172 ppb	0.053 ppb	0.061 ppb	0.411 ppb	0.648 ppb	102.266 %
Concentration RSD	13.0 %	11.4 %	4.0 %	2.0 %	13.0 %	13.7 %	3.1 %	5.5 %	0.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.212 ppb	0.130 ppb	5.625 ppb	2.907 ppb	101.939 %	0.003 ppb	0.003 ppb	100.555 %	3.030 ppb
Concentration per Run 1	0.190 ppb	0.103 ppb	5.649 ppb	2.217 ppb	101.213 %	0.003 ppb	0.001 ppb	102.171 %	2.779 ppb
Concentration per Run 2	0.216 ppb	0.141 ppb	5.616 ppb	2.984 ppb	102.865 %	0.003 ppb	0.005 ppb	101.006 %	3.118 ppb
Concentration per Run 3	0.231 ppb	0.146 ppb	5.612 ppb	3.519 ppb	101.740 %	0.004 ppb	0.002 ppb	98.489 %	3.193 ppb
Concentration RSD	9.7 %	18.0 %	0.4 %	22.5 %	0.8 %	11.4 %	72.2 %	1.9 %	7.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	5.197 ppb	101.619 %	101.510 %	0.064 ppb	0.762 ppb	99.779 %
Concentration per Run 1	5.061 ppb	101.692 %	101.417 %	0.046 ppb	0.749 ppb	103.649 %
Concentration per Run 2	5.284 ppb	101.426 %	101.876 %	0.078 ppb	0.773 ppb	97.247 %
Concentration per Run 3	5.247 ppb	101.739 %	101.236 %	0.069 ppb	0.763 ppb	98.440 %
Concentration RSD	2.3 %	0.2 %	0.3 %	26.0 %	1.6 %	3.4 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	24	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2445944-01 CT-SPLP-6020TL	Rack	1		
Analysis started at:	8/21/2024 6:47:34 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.060 %	107.193 %	0.033 ppb	1,004.782 ppb	96.549 ppb	290.327 ppb	45.629 ppb	936.949 ppb	98.450 %
Concentration per Run 1	91.025 %	110.017 %	0.037 ppb	997.765 ppb	95.474 ppb	285.726 ppb	46.826 ppb	984.519 ppb	95.425 %
Concentration per Run 2	95.163 %	105.983 %	0.035 ppb	998.847 ppb	95.774 ppb	287.430 ppb	43.781 ppb	918.107 ppb	100.404 %
Concentration per Run 3	95.993 %	105.580 %	0.027 ppb	1,017.733 ppb	98.399 ppb	297.826 ppb	46.279 ppb	908.222 ppb	99.522 %
Concentration RSD	2.8 %	2.3 %	16.0 %	1.1 %	1.7 %	2.3 %	3.6 %	4.4 %	2.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.049 ppb	0.339 ppb	5.884 ppb	304.954 ppb	0.091 ppb	0.202 ppb	0.589 ppb	1.410 ppb	101.607 %
Concentration per Run 1	1.063 ppb	0.345 ppb	5.840 ppb	305.178 ppb	0.101 ppb	0.187 ppb	0.568 ppb	1.352 ppb	100.128 %
Concentration per Run 2	0.961 ppb	0.341 ppb	5.903 ppb	305.873 ppb	0.094 ppb	0.195 ppb	0.610 ppb	1.438 ppb	102.880 %
Concentration per Run 3	1.121 ppb	0.332 ppb	5.909 ppb	303.812 ppb	0.078 ppb	0.225 ppb	0.588 ppb	1.440 ppb	101.812 %
Concentration RSD	7.7 %	2.0 %	0.6 %	0.3 %	12.9 %	9.8 %	3.5 %	3.6 %	1.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.232 ppb	0.073 ppb	3.910 ppb	1.087 ppb	100.900 %	0.004 ppb	0.005 ppb	99.622 %	0.886 ppb
Concentration per Run 1	0.235 ppb	0.081 ppb	3.938 ppb	0.879 ppb	101.669 %	0.002 ppb	0.006 ppb	100.185 %	0.742 ppb
Concentration per Run 2	0.258 ppb	-0.026 ppb	3.878 ppb	1.078 ppb	101.416 %	0.006 ppb	0.002 ppb	98.839 %	0.920 ppb
Concentration per Run 3	0.204 ppb	0.163 ppb	3.913 ppb	1.304 ppb	99.614 %	0.003 ppb	0.006 ppb	99.842 %	0.997 ppb
Concentration RSD	11.8 %	130.0 %	0.8 %	19.6 %	1.1 %	53.6 %	50.6 %	0.7 %	14.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	5.605 ppb	101.383 %	99.280 %	0.034 ppb	1.852 ppb	97.886 %
Concentration per Run 1	5.509 ppb	102.244 %	99.351 %	0.019 ppb	1.782 ppb	101.005 %
Concentration per Run 2	5.570 ppb	99.709 %	99.321 %	0.040 ppb	1.894 ppb	95.708 %
Concentration per Run 3	5.736 ppb	102.197 %	99.167 %	0.041 ppb	1.881 ppb	96.943 %
Concentration RSD	2.1 %	1.4 %	0.1 %	37.0 %	3.3 %	2.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	25	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2445944-02 CT-SPLP-6020TL	Rack	1		
Analysis started at:	8/21/2024 6:52:13 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.229 %	105.277 %	0.022 ppb	679.937 ppb	54.111 ppb	144.858 ppb	57.104 ppb	281.994 ppb	95.630 %
Concentration per Run 1	92.064 %	104.773 %	0.023 ppb	702.381 ppb	54.374 ppb	152.118 ppb	59.254 ppb	303.223 ppb	96.495 %
Concentration per Run 2	93.287 %	105.378 %	0.018 ppb	655.189 ppb	51.657 ppb	133.597 ppb	53.457 ppb	288.362 ppb	96.408 %
Concentration per Run 3	94.336 %	105.681 %	0.024 ppb	682.242 ppb	56.302 ppb	148.860 ppb	58.602 ppb	254.396 ppb	93.987 %
Concentration RSD	1.2 %	0.4 %	13.6 %	3.5 %	4.3 %	6.8 %	5.6 %	8.9 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.271 ppb	0.272 ppb	3.103 ppb	189.846 ppb	0.047 ppb	0.109 ppb	0.244 ppb	1.346 ppb	98.213 %
Concentration per Run 1	0.298 ppb	0.270 ppb	3.254 ppb	195.257 ppb	0.047 ppb	0.134 ppb	0.236 ppb	1.405 ppb	98.126 %
Concentration per Run 2	0.258 ppb	0.256 ppb	3.034 ppb	182.269 ppb	0.042 ppb	0.104 ppb	0.265 ppb	1.281 ppb	95.332 %
Concentration per Run 3	0.258 ppb	0.291 ppb	3.021 ppb	192.011 ppb	0.052 ppb	0.090 ppb	0.232 ppb	1.352 ppb	101.183 %
Concentration RSD	8.6 %	6.5 %	4.2 %	3.6 %	11.0 %	20.5 %	7.3 %	4.6 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.111 ppb	0.026 ppb	1.327 ppb	1.199 ppb	98.745 %	0.003 ppb	0.002 ppb	96.319 %	0.425 ppb
Concentration per Run 1	0.157 ppb	0.057 ppb	1.361 ppb	1.097 ppb	96.254 %	0.004 ppb	0.005 ppb	96.020 %	0.346 ppb
Concentration per Run 2	0.098 ppb	-0.026 ppb	1.266 ppb	1.143 ppb	99.091 %	0.002 ppb	0.001 ppb	95.091 %	0.414 ppb
Concentration per Run 3	0.077 ppb	0.048 ppb	1.355 ppb	1.356 ppb	100.890 %	0.004 ppb	0.001 ppb	97.845 %	0.516 ppb
Concentration RSD	37.5 %	173.4 %	4.0 %	11.5 %	2.4 %	36.0 %	107.7 %	1.5 %	20.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	4.538 ppb	98.587 %	97.460 %	0.021 ppb	0.191 ppb	93.920 %
Concentration per Run 1	4.519 ppb	97.285 %	97.794 %	0.015 ppb	0.199 ppb	93.147 %
Concentration per Run 2	4.511 ppb	96.920 %	94.665 %	0.022 ppb	0.192 ppb	91.461 %
Concentration per Run 3	4.585 ppb	101.557 %	99.920 %	0.027 ppb	0.183 ppb	97.152 %
Concentration RSD	0.9 %	2.6 %	2.7 %	28.8 %	4.3 %	3.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	26	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 6:57:26 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.740 %	101.479 %	59.407 ppb	7,159.412 ppb	6,366.533 ppb	61.061 ppb	6,417.146 ppb	6,134.124 ppb	104.827 %
Concentration per Run 1	91.659 %	101.345 %	60.362 ppb	7,685.900 ppb	6,374.999 ppb	60.677 ppb	6,457.170 ppb	6,037.828 ppb	103.577 %
Concentration per Run 2	95.544 %	104.269 %	58.826 ppb	6,918.142 ppb	6,280.896 ppb	61.210 ppb	6,419.212 ppb	6,100.420 ppb	105.390 %
Concentration per Run 3	97.019 %	98.824 %	59.031 ppb	6,874.195 ppb	6,443.704 ppb	61.294 ppb	6,375.058 ppb	6,264.124 ppb	105.516 %
Recovery Percentage 1			99.011 %	119.324 %	106.109 %	101.768 %	106.952 %	102.235 %	
Concentration RSD	2.9 %	2.7 %	1.4 %	6.4 %	1.3 %	0.5 %	0.6 %	1.9 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.246 ppb	61.187 ppb	62.425 ppb	6,436.131 ppb	64.603 ppb	64.856 ppb	65.684 ppb	66.450 ppb	99.772 %
Concentration per Run 1	61.028 ppb	60.965 ppb	61.335 ppb	6,402.731 ppb	64.596 ppb	64.889 ppb	66.427 ppb	66.403 ppb	100.526 %
Concentration per Run 2	61.059 ppb	60.880 ppb	63.052 ppb	6,472.336 ppb	64.207 ppb	65.033 ppb	65.088 ppb	66.861 ppb	99.114 %
Concentration per Run 3	61.650 ppb	61.715 ppb	62.887 ppb	6,433.324 ppb	65.005 ppb	64.647 ppb	65.537 ppb	66.085 ppb	99.676 %
Recovery Percentage 1	102.076 %	101.978 %	104.041 %	107.269 %	107.671 %	108.094 %	109.473 %	110.750 %	
Concentration RSD	0.6 %	0.8 %	1.5 %	0.5 %	0.6 %	0.3 %	1.0 %	0.6 %	0.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	63.264 ppb	61.707 ppb	61.485 ppb	58.909 ppb	100.246 %	62.569 ppb	62.415 ppb	98.113 %	59.677 ppb
Concentration per Run 1	62.778 ppb	61.260 ppb	61.712 ppb	58.832 ppb	98.541 %	62.953 ppb	62.695 ppb	96.101 %	59.899 ppb
Concentration per Run 2	63.203 ppb	62.131 ppb	61.332 ppb	57.591 ppb	101.481 %	62.152 ppb	62.154 ppb	98.316 %	59.820 ppb
Concentration per Run 3	63.811 ppb	61.730 ppb	61.410 ppb	60.303 ppb	100.717 %	62.602 ppb	62.395 ppb	99.921 %	59.313 ppb
Recovery Percentage 1	105.440 %	102.845 %	102.474 %	98.182 %		104.281 %	104.024 %		99.462 %
Concentration RSD	0.8 %	0.7 %	0.3 %	2.3 %	1.5 %	0.6 %	0.4 %	2.0 %	0.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.556 ppb	99.806 %	100.067 %	67.326 ppb	63.020 ppb	99.476 %
Concentration per Run 1	61.262 ppb	100.110 %	100.225 %	66.078 ppb	60.397 ppb	103.027 %
Concentration per Run 2	62.390 ppb	99.105 %	99.486 %	68.267 ppb	64.092 ppb	98.316 %
Concentration per Run 3	61.015 ppb	100.203 %	100.491 %	67.634 ppb	64.571 ppb	97.085 %
Recovery Percentage 1	102.593 %			112.211 %	105.033 %	
Concentration RSD	1.2 %	0.6 %	0.5 %	1.7 %	3.6 %	3.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	27	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 7:02:08 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.983 %	105.614 %	0.011 ppb	10.375 ppb	-1.059 ppb	-0.381 ppb	5.579 ppb	-1.866 ppb	94.405 %
Concentration per Run 1	91.234 %	105.681 %	0.006 ppb	9.638 ppb	-1.448 ppb	-0.484 ppb	6.430 ppb	-0.156 ppb	94.391 %
Concentration per Run 2	94.970 %	109.311 %	0.015 ppb	7.216 ppb	-1.007 ppb	-0.407 ppb	7.925 ppb	-3.336 ppb	94.145 %
Concentration per Run 3	95.746 %	101.849 %	0.012 ppb	14.271 ppb	-0.720 ppb	-0.252 ppb	2.382 ppb	-2.107 ppb	94.678 %
Recovery Percentage 1			2.200 %	10.375 %	-1.512 %	-3.811 %	5.579 %	-1.866 %	
Concentration RSD	2.6 %	3.5 %	38.3 %	34.6 %	34.7 %	31.0 %	51.4 %	85.9 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.162 ppb	-0.003 ppb	0.012 ppb	12.312 ppb	0.000 ppb	0.008 ppb	0.019 ppb	-0.001 ppb	105.076 %
Concentration per Run 1	-0.164 ppb	-0.008 ppb	0.017 ppb	12.293 ppb	-0.002 ppb	-0.006 ppb	-0.013 ppb	0.021 ppb	102.636 %
Concentration per Run 2	-0.171 ppb	-0.010 ppb	0.018 ppb	11.707 ppb	-0.001 ppb	0.035 ppb	0.027 ppb	-0.029 ppb	111.354 %
Concentration per Run 3	-0.153 ppb	0.008 ppb	0.001 ppb	12.935 ppb	0.004 ppb	-0.006 ppb	0.042 ppb	0.004 ppb	101.239 %
Recovery Percentage 1	-3.250 %	-0.303 %	1.189 %	24.623 %	0.095 %	0.382 %	1.887 %	-0.030 %	
Concentration RSD	5.4 %	326.0 %	81.1 %	5.0 %	711.6 %	310.0 %	151.1 %	1,730.0 %	5.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.084 ppb	0.152 ppb	0.001 ppb	1.498 ppb	102.185 %	0.005 ppb	0.003 ppb	103.973 %	0.562 ppb
Concentration per Run 1	0.089 ppb	0.215 ppb	0.005 ppb	1.064 ppb	100.399 %	0.007 ppb	0.004 ppb	102.818 %	0.435 ppb
Concentration per Run 2	0.101 ppb	0.142 ppb	0.002 ppb	1.502 ppb	106.118 %	0.003 ppb	0.002 ppb	109.684 %	0.575 ppb
Concentration per Run 3	0.063 ppb	0.098 ppb	-0.003 ppb	1.928 ppb	100.037 %	0.005 ppb	0.003 ppb	99.418 %	0.675 ppb
Recovery Percentage 1	16.824 %	3.033 %	0.013 %	74.907 %		1.269 %	1.428 %		14.041 %
Concentration RSD	23.3 %	38.8 %	346.6 %	28.9 %	3.3 %	41.8 %	41.6 %	5.0 %	21.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.014 ppb	101.656 %	102.303 %	0.255 ppb	0.061 ppb	100.632 %
Concentration per Run 1	0.011 ppb	98.542 %	98.868 %	0.197 ppb	0.062 ppb	105.345 %
Concentration per Run 2	0.024 ppb	105.940 %	108.296 %	0.296 ppb	0.060 ppb	100.757 %
Concentration per Run 3	0.008 ppb	100.486 %	99.744 %	0.271 ppb	0.062 ppb	95.794 %
Recovery Percentage 1	2.852 %			25.490 %	6.141 %	
Concentration RSD	62.4 %	3.8 %	5.1 %	20.3 %	1.7 %	4.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	28	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 7:07:51 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.911 %	104.034 %	59.959 ppb	6,231.864 ppb	6,103.021 ppb	59.410 ppb	6,117.016 ppb	5,907.530 ppb	106.246 %
Concentration per Run 1	92.321 %	99.731 %	60.156 ppb	6,572.333 ppb	6,372.699 ppb	60.971 ppb	6,291.042 ppb	5,972.532 ppb	104.922 %
Concentration per Run 2	95.869 %	102.756 %	60.598 ppb	6,047.423 ppb	5,969.710 ppb	58.280 ppb	6,073.181 ppb	5,847.130 ppb	107.556 %
Concentration per Run 3	96.544 %	109.614 %	59.125 ppb	6,075.836 ppb	5,966.653 ppb	58.980 ppb	5,986.825 ppb	5,902.927 ppb	106.260 %
Recovery Percentage 1			99.932 %	103.864 %	101.717 %	99.017 %	101.950 %	98.459 %	
Concentration RSD	2.4 %	4.9 %	1.3 %	4.7 %	3.8 %	2.3 %	2.6 %	1.1 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.320 ppb	58.947 ppb	59.740 ppb	6,286.266 ppb	63.251 ppb	63.504 ppb	64.519 ppb	62.170 ppb	100.710 %
Concentration per Run 1	59.481 ppb	59.615 ppb	60.400 ppb	6,407.462 ppb	63.709 ppb	63.244 ppb	64.374 ppb	61.865 ppb	102.780 %
Concentration per Run 2	58.466 ppb	59.546 ppb	59.386 ppb	6,393.249 ppb	64.347 ppb	64.870 ppb	65.564 ppb	62.755 ppb	96.557 %
Concentration per Run 3	60.015 ppb	57.681 ppb	59.434 ppb	6,058.088 ppb	61.696 ppb	62.398 ppb	63.620 ppb	61.890 ppb	102.792 %
Recovery Percentage 1	98.867 %	98.246 %	99.567 %	104.771 %	105.418 %	105.840 %	107.532 %	103.616 %	
Concentration RSD	1.3 %	1.9 %	1.0 %	3.1 %	2.2 %	2.0 %	1.5 %	0.8 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.499 ppb	57.935 ppb	59.339 ppb	59.061 ppb	98.850 %	61.705 ppb	61.589 ppb	96.121 %	60.062 ppb
Concentration per Run 1	61.291 ppb	57.111 ppb	60.068 ppb	59.302 ppb	99.550 %	61.219 ppb	61.088 ppb	99.624 %	59.657 ppb
Concentration per Run 2	61.713 ppb	58.581 ppb	57.848 ppb	59.092 ppb	95.373 %	62.357 ppb	61.803 ppb	91.705 %	59.759 ppb
Concentration per Run 3	61.494 ppb	58.115 ppb	60.100 ppb	58.790 ppb	101.628 %	61.538 ppb	61.878 ppb	97.036 %	60.769 ppb
Recovery Percentage 1	102.498 %	96.559 %	98.898 %	98.436 %		102.841 %	102.649 %		100.103 %
Concentration RSD	0.3 %	1.3 %	2.2 %	0.4 %	3.2 %	1.0 %	0.7 %	4.2 %	1.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.018 ppb	100.305 %	99.557 %	61.578 ppb	61.985 ppb	99.982 %
Concentration per Run 1	59.955 ppb	102.288 %	99.991 %	58.692 ppb	59.243 ppb	105.207 %
Concentration per Run 2	59.023 ppb	96.491 %	96.500 %	63.284 ppb	63.159 ppb	96.013 %
Concentration per Run 3	61.075 ppb	102.135 %	102.179 %	62.758 ppb	63.552 ppb	98.724 %
Recovery Percentage 1	100.030 %			102.630 %	103.308 %	
Concentration RSD	1.7 %	3.3 %	2.9 %	4.1 %	3.8 %	4.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	29	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 7:13:38 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.406 %	109.009 %	0.021 ppb	6.806 ppb	-1.106 ppb	-0.401 ppb	4.967 ppb	-1.564 ppb	97.373 %
Concentration per Run 1	93.654 %	109.815 %	0.016 ppb	6.501 ppb	-1.387 ppb	-0.394 ppb	1.336 ppb	1.975 ppb	98.092 %
Concentration per Run 2	96.783 %	106.387 %	0.028 ppb	9.241 ppb	-1.301 ppb	-0.519 ppb	5.885 ppb	-0.577 ppb	98.107 %
Concentration per Run 3	95.780 %	110.824 %	0.019 ppb	4.677 ppb	-0.629 ppb	-0.288 ppb	7.681 ppb	-6.089 ppb	95.920 %
Recovery Percentage 1			4.172 %	6.806 %	-1.580 %	-4.005 %	4.967 %	-1.564 %	
Concentration RSD	1.7 %	2.1 %	30.5 %	33.8 %	37.5 %	28.9 %	65.8 %	263.6 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.163 ppb	-0.008 ppb	-0.001 ppb	8.815 ppb	-0.001 ppb	0.017 ppb	0.001 ppb	0.017 ppb	100.662 %
Concentration per Run 1	-0.189 ppb	-0.012 ppb	0.002 ppb	7.065 ppb	-0.003 ppb	0.016 ppb	-0.004 ppb	-0.009 ppb	102.529 %
Concentration per Run 2	-0.132 ppb	-0.018 ppb	-0.014 ppb	8.205 ppb	0.001 ppb	0.045 ppb	0.019 ppb	-0.019 ppb	101.323 %
Concentration per Run 3	-0.166 ppb	0.008 ppb	0.010 ppb	11.174 ppb	-0.002 ppb	-0.010 ppb	-0.011 ppb	0.079 ppb	98.134 %
Recovery Percentage 1	-3.251 %	-0.750 %	-0.061 %	17.630 %	-0.270 %	0.842 %	0.142 %	0.342 %	
Concentration RSD	17.7 %	181.0 %	1,983.7 %	24.1 %	138.6 %	164.6 %	1,116.4 %	317.2 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.086 ppb	0.095 ppb	0.003 ppb	0.929 ppb	101.508 %	0.006 ppb	0.001 ppb	100.240 %	0.360 ppb
Concentration per Run 1	0.046 ppb	0.153 ppb	-0.001 ppb	0.707 ppb	100.044 %	0.005 ppb	0.003 ppb	99.556 %	0.263 ppb
Concentration per Run 2	0.074 ppb	0.039 ppb	0.006 ppb	0.909 ppb	102.092 %	0.006 ppb	0.001 ppb	100.677 %	0.366 ppb
Concentration per Run 3	0.137 ppb	0.093 ppb	0.002 ppb	1.170 ppb	102.387 %	0.007 ppb	0.000 ppb	100.487 %	0.451 ppb
Recovery Percentage 1	17.149 %	1.896 %	0.027 %	46.441 %		1.487 %	0.733 %		9.004 %
Concentration RSD	54.9 %	60.0 %	130.5 %	25.0 %	1.3 %	13.8 %	128.6 %	0.6 %	26.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.015 ppb	99.897 %	99.834 %	0.164 ppb	0.051 ppb	100.344 %
Concentration per Run 1	0.011 ppb	101.188 %	100.130 %	0.121 ppb	0.049 ppb	103.628 %
Concentration per Run 2	0.013 ppb	101.466 %	100.755 %	0.184 ppb	0.052 ppb	99.438 %
Concentration per Run 3	0.020 ppb	97.037 %	98.616 %	0.187 ppb	0.053 ppb	97.966 %
Recovery Percentage 1	2.927 %			16.359 %	5.129 %	
Concentration RSD	33.2 %	2.5 %	1.1 %	22.8 %	4.2 %	2.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	30	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1960303-1 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:18:20 AM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.158 %	108.538 %	0.016 ppb	4.810 ppb	-0.030 ppb	1.196 ppb	1.648 ppb	1.422 ppb	96.656 %
Concentration per Run 1	94.689 %	109.715 %	0.016 ppb	4.480 ppb	-0.671 ppb	1.278 ppb	-1.165 ppb	4.652 ppb	97.286 %
Concentration per Run 2	93.883 %	109.715 %	0.015 ppb	2.609 ppb	-0.269 ppb	1.281 ppb	1.749 ppb	1.303 ppb	95.313 %
Concentration per Run 3	96.903 %	106.185 %	0.017 ppb	7.342 ppb	0.851 ppb	1.029 ppb	4.359 ppb	-1.688 ppb	97.368 %
Concentration RSD	1.6 %	1.9 %	7.9 %	49.6 %	2,642.5 %	12.1 %	167.7 %	223.0 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.191 ppb	0.010 ppb	-0.036 ppb	2.399 ppb	-0.001 ppb	-0.025 ppb	-0.054 ppb	0.029 ppb	102.870 %
Concentration per Run 1	-0.196 ppb	0.007 ppb	-0.034 ppb	1.275 ppb	-0.001 ppb	-0.055 ppb	-0.064 ppb	0.022 ppb	105.564 %
Concentration per Run 2	-0.186 ppb	0.007 ppb	-0.024 ppb	2.871 ppb	-0.002 ppb	-0.017 ppb	-0.060 ppb	0.041 ppb	102.399 %
Concentration per Run 3	-0.192 ppb	0.015 ppb	-0.050 ppb	3.051 ppb	0.001 ppb	-0.001 ppb	-0.038 ppb	0.024 ppb	100.646 %
Concentration RSD	2.6 %	47.7 %	36.0 %	40.8 %	160.9 %	112.7 %	25.3 %	35.6 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.072 ppb	-0.004 ppb	0.232 ppb	0.471 ppb	102.626 %	0.003 ppb	0.003 ppb	101.480 %	0.136 ppb
Concentration per Run 1	0.079 ppb	0.004 ppb	0.240 ppb	0.341 ppb	101.195 %	0.002 ppb	0.003 ppb	100.965 %	0.086 ppb
Concentration per Run 2	0.055 ppb	0.038 ppb	0.225 ppb	0.461 ppb	102.727 %	0.003 ppb	0.003 ppb	101.313 %	0.146 ppb
Concentration per Run 3	0.080 ppb	-0.055 ppb	0.231 ppb	0.610 ppb	103.957 %	0.004 ppb	0.003 ppb	102.163 %	0.175 ppb
Concentration RSD	19.9 %	1,067.1 %	3.4 %	28.7 %	1.3 %	31.7 %	15.6 %	0.6 %	33.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.043 ppb	101.362 %	101.050 %	0.097 ppb	0.173 ppb	99.271 %
Concentration per Run 1	0.031 ppb	101.297 %	101.513 %	0.076 ppb	0.175 ppb	101.052 %
Concentration per Run 2	0.054 ppb	100.499 %	100.462 %	0.103 ppb	0.174 ppb	97.094 %
Concentration per Run 3	0.044 ppb	102.290 %	101.176 %	0.113 ppb	0.171 ppb	99.665 %
Concentration RSD	27.3 %	0.9 %	0.5 %	19.5 %	1.1 %	2.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	31	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1960303-2d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:23:00 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.591 %	106.656 %	5.231 ppb	1,114.487 ppb	1,021.688 ppb	202.269 ppb	1,078.237 ppb	1,002.950 ppb	98.747 %
Concentration per Run 1	95.112 %	107.698 %	5.201 ppb	1,126.329 ppb	1,024.311 ppb	203.062 ppb	1,087.912 ppb	963.063 ppb	98.089 %
Concentration per Run 2	96.766 %	104.874 %	5.222 ppb	1,111.276 ppb	1,040.666 ppb	202.306 ppb	1,080.495 ppb	1,023.705 ppb	99.588 %
Concentration per Run 3	97.895 %	107.395 %	5.270 ppb	1,105.857 ppb	1,000.088 ppb	201.438 ppb	1,066.305 ppb	1,022.082 ppb	98.565 %
Concentration RSD	1.4 %	1.5 %	0.7 %	1.0 %	2.0 %	0.4 %	1.0 %	3.4 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.652 ppb	20.223 ppb	52.603 ppb	113.056 ppb	54.773 ppb	54.579 ppb	27.632 ppb	53.340 ppb	103.599 %
Concentration per Run 1	49.563 ppb	20.281 ppb	52.505 ppb	111.213 ppb	53.963 ppb	52.952 ppb	26.840 ppb	52.356 ppb	104.165 %
Concentration per Run 2	50.603 ppb	20.583 ppb	53.397 ppb	112.357 ppb	55.626 ppb	56.082 ppb	28.220 ppb	54.366 ppb	102.370 %
Concentration per Run 3	48.790 ppb	19.804 ppb	51.908 ppb	115.599 ppb	54.728 ppb	54.703 ppb	27.836 ppb	53.298 ppb	104.260 %
Concentration RSD	1.8 %	1.9 %	1.4 %	2.0 %	1.5 %	2.9 %	2.6 %	1.9 %	1.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.793 ppb	12.066 ppb	100.787 ppb	101.170 ppb	100.783 %	5.439 ppb	5.515 ppb	101.275 %	41.803 ppb
Concentration per Run 1	12.540 ppb	12.261 ppb	100.314 ppb	100.883 ppb	102.122 %	5.510 ppb	5.500 ppb	100.847 %	42.318 ppb
Concentration per Run 2	13.210 ppb	12.014 ppb	101.414 ppb	101.822 ppb	101.029 %	5.320 ppb	5.501 ppb	102.693 %	40.978 ppb
Concentration per Run 3	12.629 ppb	11.924 ppb	100.633 ppb	100.805 ppb	99.200 %	5.486 ppb	5.543 ppb	100.286 %	42.112 ppb
Concentration RSD	2.8 %	1.4 %	0.6 %	0.6 %	1.5 %	1.9 %	0.5 %	1.2 %	1.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	206.075 ppb	101.860 %	101.333 %	12.942 ppb	56.533 ppb	99.656 %
Concentration per Run 1	206.474 ppb	101.532 %	100.982 %	12.367 ppb	53.388 ppb	103.771 %
Concentration per Run 2	202.613 ppb	101.736 %	101.539 %	13.044 ppb	57.261 ppb	98.684 %
Concentration per Run 3	209.137 ppb	102.310 %	101.477 %	13.415 ppb	58.951 ppb	96.514 %
Concentration RSD	1.6 %	0.4 %	0.3 %	4.1 %	5.0 %	3.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	32	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446106-28 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:27:39 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.433 %	107.395 %	0.011 ppb	6.492 ppb	-0.585 ppb	1.531 ppb	3.136 ppb	20.369 ppb	98.240 %
Concentration per Run 1	95.884 %	107.093 %	0.015 ppb	7.095 ppb	-0.292 ppb	1.235 ppb	4.998 ppb	16.712 ppb	96.994 %
Concentration per Run 2	98.342 %	109.009 %	0.010 ppb	4.472 ppb	-0.300 ppb	1.876 ppb	1.143 ppb	27.354 ppb	99.067 %
Concentration per Run 3	98.074 %	106.084 %	0.008 ppb	7.907 ppb	-1.162 ppb	1.483 ppb	3.266 ppb	17.042 ppb	98.659 %
Concentration RSD	1.4 %	1.4 %	31.4 %	27.7 %	85.5 %	21.1 %	61.6 %	29.7 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.175 ppb	0.355 ppb	0.067 ppb	3.387 ppb	0.003 ppb	0.152 ppb	-0.024 ppb	0.195 ppb	102.922 %
Concentration per Run 1	-0.171 ppb	0.346 ppb	0.045 ppb	3.224 ppb	0.002 ppb	0.129 ppb	-0.051 ppb	0.143 ppb	104.820 %
Concentration per Run 2	-0.167 ppb	0.371 ppb	0.099 ppb	3.383 ppb	0.005 ppb	0.161 ppb	-0.005 ppb	0.213 ppb	100.209 %
Concentration per Run 3	-0.186 ppb	0.348 ppb	0.056 ppb	3.555 ppb	0.003 ppb	0.167 ppb	-0.016 ppb	0.228 ppb	103.736 %
Concentration RSD	5.8 %	3.8 %	42.4 %	4.9 %	52.7 %	13.7 %	99.2 %	23.3 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.038 ppb	0.021 ppb	0.064 ppb	2.114 ppb	103.370 %	0.001 ppb	0.002 ppb	102.559 %	1.864 ppb
Concentration per Run 1	0.066 ppb	0.026 ppb	0.061 ppb	1.665 ppb	102.526 %	0.003 ppb	0.000 ppb	102.374 %	1.598 ppb
Concentration per Run 2	0.016 ppb	0.024 ppb	0.062 ppb	2.231 ppb	103.704 %	0.001 ppb	0.004 ppb	100.734 %	1.959 ppb
Concentration per Run 3	0.032 ppb	0.013 ppb	0.069 ppb	2.445 ppb	103.881 %	0.001 ppb	0.001 ppb	104.568 %	2.036 ppb
Concentration RSD	66.8 %	34.5 %	6.7 %	19.1 %	0.7 %	87.6 %	102.8 %	1.9 %	12.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.018 ppb	101.573 %	102.773 %	0.066 ppb	0.046 ppb	99.571 %
Concentration per Run 1	0.022 ppb	101.267 %	102.071 %	0.050 ppb	0.044 ppb	100.380 %
Concentration per Run 2	0.031 ppb	100.077 %	101.380 %	0.076 ppb	0.048 ppb	99.439 %
Concentration per Run 3	0.001 ppb	103.377 %	104.868 %	0.071 ppb	0.046 ppb	98.892 %
Concentration RSD	85.8 %	1.6 %	1.8 %	21.0 %	3.8 %	0.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	33	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1960303-3d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:32:19 AM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.340 %	104.370 %	5.335 ppb	1,159.014 ppb	1,076.179 ppb	214.199 ppb	1,140.225 ppb	1,021.457 ppb	97.966 %
Concentration per Run 1	90.789 %	98.218 %	5.427 ppb	1,202.930 ppb	1,119.922 ppb	220.379 ppb	1,179.710 ppb	1,079.249 ppb	95.640 %
Concentration per Run 2	93.519 %	109.311 %	5.352 ppb	1,098.371 ppb	983.787 ppb	200.111 ppb	1,069.415 ppb	970.240 ppb	99.313 %
Concentration per Run 3	95.713 %	105.580 %	5.227 ppb	1,175.741 ppb	1,124.829 ppb	222.106 ppb	1,171.549 ppb	1,014.882 ppb	98.945 %
Concentration RSD	2.6 %	5.4 %	1.9 %	4.7 %	7.4 %	5.7 %	5.4 %	5.4 %	2.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	51.008 ppb	20.439 ppb	53.994 ppb	112.793 ppb	54.903 ppb	55.139 ppb	27.676 ppb	54.299 ppb	104.563 %
Concentration per Run 1	51.890 ppb	20.767 ppb	55.355 ppb	117.785 ppb	55.518 ppb	56.423 ppb	28.593 ppb	55.430 ppb	101.574 %
Concentration per Run 2	50.578 ppb	20.418 ppb	53.662 ppb	114.171 ppb	55.332 ppb	55.633 ppb	27.638 ppb	53.688 ppb	102.127 %
Concentration per Run 3	50.556 ppb	20.131 ppb	52.966 ppb	106.425 ppb	53.859 ppb	53.359 ppb	26.798 ppb	53.780 ppb	109.987 %
Concentration RSD	1.5 %	1.6 %	2.3 %	5.1 %	1.7 %	2.9 %	3.2 %	1.8 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.704 ppb	12.213 ppb	104.242 ppb	102.256 ppb	102.019 %	5.449 ppb	5.658 ppb	103.568 %	40.809 ppb
Concentration per Run 1	12.470 ppb	11.310 ppb	101.497 ppb	101.169 ppb	102.279 %	5.427 ppb	5.655 ppb	99.439 %	41.971 ppb
Concentration per Run 2	12.790 ppb	12.566 ppb	101.787 ppb	101.340 ppb	100.051 %	5.536 ppb	5.786 ppb	100.678 %	40.922 ppb
Concentration per Run 3	12.852 ppb	12.764 ppb	109.442 ppb	104.261 ppb	103.727 %	5.383 ppb	5.533 ppb	110.588 %	39.534 ppb
Concentration RSD	1.6 %	6.5 %	4.3 %	1.7 %	1.8 %	1.4 %	2.2 %	5.9 %	3.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	208.845 ppb	102.393 %	103.165 %	12.842 ppb	56.262 ppb	101.078 %
Concentration per Run 1	203.228 ppb	102.561 %	99.770 %	12.493 ppb	53.836 ppb	104.193 %
Concentration per Run 2	210.942 ppb	99.986 %	101.964 %	13.063 ppb	57.765 ppb	97.933 %
Concentration per Run 3	212.365 ppb	104.633 %	107.763 %	12.970 ppb	57.185 ppb	101.107 %
Concentration RSD	2.4 %	2.3 %	4.0 %	2.4 %	3.8 %	3.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	34	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1960303-4 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:36:59 AM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.513 %	107.563 %	0.007 ppb	23.322 ppb	0.828 ppb	1.331 ppb	7.727 ppb	3.937 ppb	98.698 %
Concentration per Run 1	92.791 %	104.067 %	0.008 ppb	23.588 ppb	0.679 ppb	1.297 ppb	10.905 ppb	3.465 ppb	97.172 %
Concentration per Run 2	95.725 %	111.126 %	0.010 ppb	19.899 ppb	0.082 ppb	1.241 ppb	2.982 ppb	2.417 ppb	99.584 %
Concentration per Run 3	98.023 %	107.496 %	0.002 ppb	26.480 ppb	1.724 ppb	1.455 ppb	9.292 ppb	5.929 ppb	99.338 %
Concentration RSD	2.7 %	3.3 %	62.2 %	14.1 %	100.3 %	8.4 %	54.2 %	45.8 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.163 ppb	0.348 ppb	0.087 ppb	3.175 ppb	0.006 ppb	0.114 ppb	-0.032 ppb	0.049 ppb	103.956 %
Concentration per Run 1	-0.167 ppb	0.349 ppb	0.067 ppb	1.618 ppb	0.003 ppb	0.141 ppb	-0.021 ppb	0.077 ppb	102.226 %
Concentration per Run 2	-0.158 ppb	0.371 ppb	0.102 ppb	4.399 ppb	0.010 ppb	0.139 ppb	-0.020 ppb	0.038 ppb	100.236 %
Concentration per Run 3	-0.164 ppb	0.323 ppb	0.092 ppb	3.509 ppb	0.006 ppb	0.063 ppb	-0.055 ppb	0.032 ppb	109.406 %
Concentration RSD	2.7 %	6.9 %	20.7 %	44.7 %	57.0 %	39.0 %	61.8 %	49.4 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.078 ppb	0.000 ppb	0.024 ppb	2.282 ppb	104.467 %	0.002 ppb	0.001 ppb	105.984 %	2.360 ppb
Concentration per Run 1	0.117 ppb	-0.003 ppb	0.019 ppb	1.757 ppb	104.661 %	0.003 ppb	0.003 ppb	103.437 %	2.143 ppb
Concentration per Run 2	0.041 ppb	-0.021 ppb	0.029 ppb	2.383 ppb	101.456 %	0.002 ppb	0.000 ppb	101.604 %	2.445 ppb
Concentration per Run 3	0.076 ppb	0.024 ppb	0.024 ppb	2.708 ppb	107.284 %	0.003 ppb	0.000 ppb	112.910 %	2.493 ppb
Concentration RSD	48.9 %	40,029.6 %	20.3 %	21.2 %	2.8 %	28.1 %	170.9 %	5.7 %	8.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.032 ppb	103.365 %	103.790 %	0.057 ppb	0.046 ppb	100.718 %
Concentration per Run 1	0.030 ppb	102.575 %	101.193 %	0.044 ppb	0.043 ppb	103.008 %
Concentration per Run 2	0.042 ppb	101.109 %	102.172 %	0.066 ppb	0.050 ppb	97.727 %
Concentration per Run 3	0.024 ppb	106.411 %	108.006 %	0.062 ppb	0.045 ppb	101.418 %
Concentration RSD	29.5 %	2.6 %	3.5 %	20.7 %	7.2 %	2.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	35	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1960303-5d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:41:40 AM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.181 %	102.319 %	49.338 ppb	5,244.118 ppb	5,232.290 ppb	50.101 ppb	5,211.072 ppb	5,019.093 ppb	98.462 %
Concentration per Run 1	93.037 %	107.194 %	48.200 ppb	5,110.486 ppb	5,071.489 ppb	48.321 ppb	5,340.401 ppb	4,999.761 ppb	98.130 %
Concentration per Run 2	95.233 %	94.588 %	49.031 ppb	5,427.411 ppb	5,411.453 ppb	51.177 ppb	5,188.738 ppb	5,005.199 ppb	100.089 %
Concentration per Run 3	94.272 %	105.177 %	50.784 ppb	5,194.459 ppb	5,213.929 ppb	50.804 ppb	5,104.077 ppb	5,052.320 ppb	97.166 %
Concentration RSD	1.2 %	6.6 %	2.7 %	3.1 %	3.3 %	3.1 %	2.3 %	0.6 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.251 ppb	49.218 ppb	50.767 ppb	5,301.974 ppb	53.380 ppb	53.936 ppb	54.024 ppb	52.263 ppb	100.177 %
Concentration per Run 1	48.297 ppb	48.704 ppb	50.039 ppb	5,255.883 ppb	53.308 ppb	53.367 ppb	55.052 ppb	52.605 ppb	100.826 %
Concentration per Run 2	51.140 ppb	50.336 ppb	50.706 ppb	5,393.119 ppb	54.263 ppb	55.648 ppb	54.891 ppb	53.177 ppb	96.921 %
Concentration per Run 3	48.316 ppb	48.613 ppb	51.555 ppb	5,256.921 ppb	52.569 ppb	52.793 ppb	52.130 ppb	51.008 ppb	102.783 %
Concentration RSD	3.3 %	2.0 %	1.5 %	1.5 %	1.6 %	2.8 %	3.0 %	2.2 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	51.740 ppb	48.525 ppb	49.904 ppb	49.905 ppb	97.955 %	10.862 ppb	51.667 ppb	96.207 %	51.215 ppb
Concentration per Run 1	52.401 ppb	49.890 ppb	50.653 ppb	50.748 ppb	100.028 %	10.885 ppb	51.704 ppb	97.128 %	52.413 ppb
Concentration per Run 2	51.678 ppb	47.823 ppb	48.367 ppb	48.899 ppb	96.482 %	10.990 ppb	51.349 ppb	91.289 %	51.937 ppb
Concentration per Run 3	51.142 ppb	47.861 ppb	50.692 ppb	50.067 ppb	97.355 %	10.712 ppb	51.949 ppb	100.203 %	49.295 ppb
Concentration RSD	1.2 %	2.4 %	2.7 %	1.9 %	1.9 %	1.3 %	0.6 %	4.7 %	3.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	50.373 ppb	98.937 %	97.663 %	54.223 ppb	52.869 ppb	94.865 %
Concentration per Run 1	51.076 ppb	98.706 %	97.176 %	54.395 ppb	51.783 ppb	96.719 %
Concentration per Run 2	51.351 ppb	96.809 %	95.306 %	54.214 ppb	53.742 ppb	91.708 %
Concentration per Run 3	48.693 ppb	101.296 %	100.507 %	54.059 ppb	53.081 ppb	96.169 %
Concentration RSD	2.9 %	2.3 %	2.7 %	0.3 %	1.9 %	2.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	36	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1960303-6d5 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:46:16 AM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.202 %	109.715 %	0.014 ppb	5.238 ppb	-2.926 ppb	0.610 ppb	3.685 ppb	-0.233 ppb	97.407 %
Concentration per Run 1	92.387 %	108.706 %	0.013 ppb	5.221 ppb	-3.304 ppb	0.579 ppb	2.510 ppb	2.714 ppb	97.592 %
Concentration per Run 2	94.595 %	108.605 %	0.020 ppb	4.051 ppb	-2.482 ppb	0.816 ppb	0.477 ppb	-5.339 ppb	96.949 %
Concentration per Run 3	95.623 %	111.832 %	0.010 ppb	6.443 ppb	-2.991 ppb	0.435 ppb	8.067 ppb	1.926 ppb	97.681 %
Concentration RSD	1.8 %	1.7 %	36.6 %	22.8 %	14.2 %	31.5 %	106.6 %	1,904.2 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.178 ppb	0.068 ppb	0.007 ppb	8.055 ppb	0.003 ppb	-0.004 ppb	-0.057 ppb	0.000 ppb	103.851 %
Concentration per Run 1	-0.183 ppb	0.069 ppb	-0.028 ppb	6.766 ppb	0.005 ppb	0.005 ppb	-0.043 ppb	-0.005 ppb	101.131 %
Concentration per Run 2	-0.177 ppb	0.056 ppb	0.021 ppb	7.181 ppb	0.003 ppb	-0.022 ppb	-0.054 ppb	0.007 ppb	102.231 %
Concentration per Run 3	-0.176 ppb	0.080 ppb	0.028 ppb	10.217 ppb	0.002 ppb	0.004 ppb	-0.074 ppb	-0.003 ppb	108.190 %
Concentration RSD	2.1 %	18.0 %	430.3 %	23.4 %	44.4 %	357.0 %	27.6 %	1,353.8 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.073 ppb	0.166 ppb	0.008 ppb	1.338 ppb	102.185 %	0.002 ppb	0.003 ppb	103.267 %	0.763 ppb
Concentration per Run 1	0.106 ppb	0.050 ppb	0.007 ppb	1.018 ppb	100.483 %	0.003 ppb	0.005 ppb	100.591 %	0.526 ppb
Concentration per Run 2	0.054 ppb	0.215 ppb	0.006 ppb	1.322 ppb	101.246 %	0.002 ppb	0.000 ppb	101.235 %	0.799 ppb
Concentration per Run 3	0.060 ppb	0.233 ppb	0.011 ppb	1.675 ppb	104.826 %	0.002 ppb	0.003 ppb	107.976 %	0.965 ppb
Concentration RSD	39.0 %	60.9 %	30.2 %	24.6 %	2.3 %	44.6 %	78.7 %	4.0 %	29.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	-0.002 ppb	100.327 %	100.740 %	0.243 ppb	0.044 ppb	94.315 %
Concentration per Run 1	-0.004 ppb	98.402 %	98.416 %	0.179 ppb	0.043 ppb	95.795 %
Concentration per Run 2	-0.007 ppb	99.365 %	98.291 %	0.303 ppb	0.045 ppb	90.484 %
Concentration per Run 3	0.003 ppb	103.215 %	105.512 %	0.246 ppb	0.044 ppb	96.666 %
Concentration RSD	219.9 %	2.5 %	4.1 %	25.4 %	1.9 %	3.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	37	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446007-01 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:50:53 AM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.032 %	103.530 %	3.053 ppb	14,348.995 ppb	4,444.442 ppb	1,077.967 ppb	4,228.455 ppb	17,674.845 ppb	99.332 %
Concentration per Run 1	91.412 %	99.126 %	3.035 ppb	14,511.530 ppb	4,496.225 ppb	1,060.233 ppb	4,117.270 ppb	17,251.252 ppb	96.340 %
Concentration per Run 2	92.023 %	102.252 %	3.150 ppb	14,294.646 ppb	4,384.987 ppb	1,051.886 ppb	4,211.578 ppb	17,677.567 ppb	100.610 %
Concentration per Run 3	92.661 %	109.210 %	2.975 ppb	14,240.810 ppb	4,452.114 ppb	1,121.783 ppb	4,356.516 ppb	18,095.717 ppb	101.046 %
Concentration RSD	0.7 %	5.0 %	2.9 %	1.0 %	1.3 %	3.5 %	2.9 %	2.4 %	2.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.864 ppb	1.078 ppb	4,055.681 ppb	1,320.948 ppb	1.655 ppb	2.754 ppb	7.252 ppb	177.385 ppb	115.049 %
Concentration per Run 1	0.810 ppb	1.117 ppb	3,988.832 ppb	1,299.690 ppb	1.692 ppb	2.763 ppb	7.287 ppb	176.056 ppb	112.318 %
Concentration per Run 2	0.869 ppb	1.115 ppb	4,109.174 ppb	1,356.902 ppb	1.676 ppb	2.954 ppb	7.315 ppb	181.384 ppb	109.975 %
Concentration per Run 3	0.914 ppb	1.004 ppb	4,069.038 ppb	1,306.252 ppb	1.596 ppb	2.544 ppb	7.153 ppb	174.715 ppb	122.855 %
Concentration RSD	6.0 %	6.0 %	1.5 %	2.4 %	3.1 %	7.5 %	1.2 %	2.0 %	6.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	4.749 ppb	34.298 ppb	88.893 ppb	1.820 ppb	98.693 %	0.107 ppb	4.133 ppb	102.447 %	0.456 ppb
Concentration per Run 1	4.740 ppb	34.732 ppb	88.001 ppb	1.657 ppb	95.313 %	0.115 ppb	4.201 ppb	99.166 %	0.356 ppb
Concentration per Run 2	4.928 ppb	35.988 ppb	87.401 ppb	1.873 ppb	99.480 %	0.105 ppb	4.153 ppb	98.968 %	0.466 ppb
Concentration per Run 3	4.580 ppb	32.175 ppb	91.277 ppb	1.929 ppb	101.288 %	0.101 ppb	4.044 ppb	109.208 %	0.547 ppb
Concentration RSD	3.7 %	5.7 %	2.3 %	7.9 %	3.1 %	6.7 %	1.9 %	5.7 %	21.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	74.722 ppb	131.055 %	109.405 %	0.174 ppb	7.555 ppb	96.860 %
Concentration per Run 1	73.815 ppb	130.251 %	106.156 %	0.145 ppb	7.420 ppb	97.841 %
Concentration per Run 2	75.674 ppb	128.574 %	107.393 %	0.183 ppb	7.645 ppb	94.433 %
Concentration per Run 3	74.677 ppb	134.340 %	114.665 %	0.192 ppb	7.599 ppb	98.306 %
Concentration RSD	1.2 %	2.3 %	4.2 %	14.3 %	1.6 %	2.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	38	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446007-02 6020TL	Rack	1		
Analysis started at:	8/21/2024 7:55:29 AM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.545 %	97.950 %	7.528 ppb	27,019.883 ppb	8,786.286 ppb	1,108.890 ppb	3,393.201 ppb	32,147.746 ppb	101.327 %
Concentration per Run 1	90.327 %	95.798 %	7.551 ppb	27,762.006 ppb	8,905.932 ppb	1,132.537 ppb	3,548.758 ppb	33,040.717 ppb	101.207 %
Concentration per Run 2	93.482 %	98.319 %	7.439 ppb	26,994.154 ppb	8,961.355 ppb	1,134.124 ppb	3,352.896 ppb	32,101.363 ppb	101.894 %
Concentration per Run 3	93.827 %	99.731 %	7.594 ppb	26,303.489 ppb	8,491.571 ppb	1,060.009 ppb	3,277.950 ppb	31,301.157 ppb	100.881 %
Concentration RSD	2.1 %	2.0 %	1.1 %	2.7 %	2.9 %	3.8 %	4.1 %	2.7 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.244 ppb	2.579 ppb	3,204.245 ppb	2,187.864 ppb	0.590 ppb	3.394 ppb	7.307 ppb	328.598 ppb	113.151 %
Concentration per Run 1	0.276 ppb	2.623 ppb	3,243.943 ppb	2,200.938 ppb	0.577 ppb	3.286 ppb	7.226 ppb	331.082 ppb	113.380 %
Concentration per Run 2	0.197 ppb	2.595 ppb	3,244.165 ppb	2,225.449 ppb	0.586 ppb	3.403 ppb	7.390 ppb	331.121 ppb	113.502 %
Concentration per Run 3	0.257 ppb	2.519 ppb	3,124.626 ppb	2,137.206 ppb	0.608 ppb	3.493 ppb	7.304 ppb	323.592 ppb	112.572 %
Concentration RSD	16.9 %	2.1 %	2.2 %	2.1 %	2.8 %	3.1 %	1.1 %	1.3 %	0.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	5.685 ppb	51.222 ppb	168.742 ppb	1.442 ppb	96.788 %	0.062 ppb	5.242 ppb	98.424 %	0.285 ppb
Concentration per Run 1	5.648 ppb	50.806 ppb	171.337 ppb	1.327 ppb	97.739 %	0.063 ppb	5.245 ppb	100.107 %	0.238 ppb
Concentration per Run 2	5.739 ppb	52.421 ppb	170.316 ppb	1.472 ppb	96.931 %	0.065 ppb	5.187 ppb	100.297 %	0.288 ppb
Concentration per Run 3	5.667 ppb	50.437 ppb	164.572 ppb	1.526 ppb	95.693 %	0.057 ppb	5.294 ppb	94.869 %	0.330 ppb
Concentration RSD	0.8 %	2.1 %	2.2 %	7.2 %	1.1 %	7.0 %	1.0 %	3.1 %	16.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	77.133 ppb	143.837 %	107.140 %	0.070 ppb	4.371 ppb	95.280 %
Concentration per Run 1	75.135 ppb	145.303 %	107.539 %	0.052 ppb	4.188 ppb	98.852 %
Concentration per Run 2	78.956 ppb	145.322 %	109.019 %	0.077 ppb	4.405 ppb	95.639 %
Concentration per Run 3	77.307 ppb	140.885 %	104.862 %	0.082 ppb	4.519 ppb	91.348 %
Concentration RSD	2.5 %	1.8 %	2.0 %	22.6 %	3.9 %	4.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	39	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446007-03 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:00:07 AM	Vial	17		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.153 %	112.605 %	3.084 ppb	14,223.564 ppb	4,365.454 ppb	1,027.232 ppb	4,178.405 ppb	17,150.040 ppb	103.619 %
Concentration per Run 1	91.399 %	110.622 %	3.227 ppb	15,070.109 ppb	4,655.582 ppb	1,109.901 ppb	4,492.672 ppb	18,058.137 ppb	102.903 %
Concentration per Run 2	93.775 %	112.135 %	3.018 ppb	13,975.041 ppb	4,317.422 ppb	998.331 ppb	4,033.584 ppb	16,848.330 ppb	104.498 %
Concentration per Run 3	94.285 %	115.059 %	3.007 ppb	13,625.541 ppb	4,123.358 ppb	973.465 ppb	4,008.959 ppb	16,543.652 ppb	103.457 %
Concentration RSD	1.7 %	2.0 %	4.0 %	5.3 %	6.2 %	7.1 %	6.5 %	4.7 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.842 ppb	1.035 ppb	4,088.270 ppb	1,302.693 ppb	1.700 ppb	2.890 ppb	7.017 ppb	177.998 ppb	118.710 %
Concentration per Run 1	0.886 ppb	1.033 ppb	4,082.662 ppb	1,280.287 ppb	1.691 ppb	2.807 ppb	7.048 ppb	176.608 ppb	124.779 %
Concentration per Run 2	0.776 ppb	1.096 ppb	4,112.110 ppb	1,340.732 ppb	1.753 ppb	3.092 ppb	7.145 ppb	183.595 ppb	113.268 %
Concentration per Run 3	0.864 ppb	0.976 ppb	4,070.039 ppb	1,287.060 ppb	1.655 ppb	2.769 ppb	6.858 ppb	173.790 ppb	118.082 %
Concentration RSD	6.9 %	5.8 %	0.5 %	2.5 %	2.9 %	6.1 %	2.1 %	2.8 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	4.708 ppb	36.809 ppb	87.834 ppb	1.454 ppb	100.774 %	0.090 ppb	4.285 ppb	104.705 %	0.275 ppb
Concentration per Run 1	4.519 ppb	35.203 ppb	90.150 ppb	1.438 ppb	103.693 %	0.087 ppb	4.331 ppb	109.558 %	0.211 ppb
Concentration per Run 2	4.959 ppb	38.299 ppb	87.638 ppb	1.511 ppb	99.659 %	0.097 ppb	4.345 ppb	100.418 %	0.309 ppb
Concentration per Run 3	4.646 ppb	36.925 ppb	85.715 ppb	1.412 ppb	98.970 %	0.085 ppb	4.178 ppb	104.140 %	0.305 ppb
Concentration RSD	4.8 %	4.2 %	2.5 %	3.5 %	2.5 %	7.1 %	2.2 %	4.4 %	20.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	73.421 ppb	134.068 %	109.002 %	0.125 ppb	6.937 ppb	98.616 %
Concentration per Run 1	73.137 ppb	138.470 %	113.943 %	0.111 ppb	6.796 ppb	102.893 %
Concentration per Run 2	75.441 ppb	131.335 %	106.387 %	0.129 ppb	6.925 ppb	97.807 %
Concentration per Run 3	71.685 ppb	132.398 %	106.677 %	0.135 ppb	7.091 ppb	95.147 %
Concentration RSD	2.6 %	2.9 %	3.9 %	9.8 %	2.1 %	4.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	40	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 8:04:44 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.248 %	111.530 %	59.247 ppb	6,288.467 ppb	6,207.230 ppb	62.066 ppb	6,522.214 ppb	6,017.533 ppb	108.213 %
Concentration per Run 1	90.633 %	113.647 %	58.764 ppb	6,242.842 ppb	6,083.720 ppb	57.678 ppb	6,210.897 ppb	5,728.857 ppb	108.549 %
Concentration per Run 2	93.230 %	114.757 %	60.169 ppb	6,369.170 ppb	6,287.313 ppb	67.166 ppb	7,000.456 ppb	6,236.160 ppb	109.653 %
Concentration per Run 3	95.880 %	106.185 %	58.807 ppb	6,253.390 ppb	6,250.656 ppb	61.355 ppb	6,355.290 ppb	6,087.582 ppb	106.436 %
Recovery Percentage 1			98.744 %	104.808 %	103.454 %	103.444 %	108.704 %	100.292 %	
Concentration RSD	2.8 %	4.2 %	1.3 %	1.1 %	1.7 %	7.7 %	6.4 %	4.3 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	56.732 ppb	56.923 ppb	60.313 ppb	6,309.217 ppb	62.430 ppb	62.293 ppb	62.829 ppb	61.753 ppb	109.190 %
Concentration per Run 1	55.446 ppb	55.796 ppb	58.561 ppb	6,141.998 ppb	61.228 ppb	62.345 ppb	63.184 ppb	61.271 ppb	107.781 %
Concentration per Run 2	57.378 ppb	57.278 ppb	61.219 ppb	6,354.309 ppb	62.194 ppb	60.757 ppb	61.113 ppb	62.384 ppb	113.805 %
Concentration per Run 3	57.371 ppb	57.695 ppb	61.159 ppb	6,431.344 ppb	63.867 ppb	63.775 ppb	64.188 ppb	61.605 ppb	105.984 %
Recovery Percentage 1	94.553 %	94.871 %	100.522 %	105.154 %	104.050 %	103.821 %	104.714 %	102.922 %	
Concentration RSD	2.0 %	1.8 %	2.5 %	2.4 %	2.1 %	2.4 %	2.5 %	0.9 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.838 ppb	59.399 ppb	60.979 ppb	59.272 ppb	101.845 %	61.466 ppb	61.475 ppb	103.933 %	59.407 ppb
Concentration per Run 1	61.094 ppb	56.028 ppb	59.286 ppb	59.832 ppb	101.830 %	62.736 ppb	62.357 ppb	97.839 %	61.051 ppb
Concentration per Run 2	62.139 ppb	63.935 ppb	63.619 ppb	58.202 ppb	102.933 %	60.123 ppb	60.199 ppb	110.082 %	59.502 ppb
Concentration per Run 3	62.281 ppb	58.235 ppb	60.032 ppb	59.783 ppb	100.772 %	61.539 ppb	61.871 ppb	103.878 %	57.669 ppb
Recovery Percentage 1	103.063 %	98.999 %	101.632 %	98.787 %		102.444 %	102.459 %		99.012 %
Concentration RSD	1.0 %	6.9 %	3.8 %	1.6 %	1.1 %	2.1 %	1.8 %	5.9 %	2.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.302 ppb	101.921 %	100.923 %	61.290 ppb	61.867 ppb	99.398 %
Concentration per Run 1	61.555 ppb	100.579 %	99.482 %	59.892 ppb	58.721 ppb	101.659 %
Concentration per Run 2	60.991 ppb	103.957 %	103.970 %	61.408 ppb	62.376 ppb	100.651 %
Concentration per Run 3	58.359 ppb	101.227 %	99.317 %	62.568 ppb	64.503 ppb	95.884 %
Recovery Percentage 1	100.503 %			102.149 %	103.112 %	
Concentration RSD	2.8 %	1.8 %	2.6 %	2.2 %	4.7 %	3.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	41	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 8:09:26 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.450 %	108.202 %	0.025 ppb	14.316 ppb	-0.195 ppb	-0.035 ppb	9.874 ppb	7.639 ppb	99.170 %
Concentration per Run 1	90.361 %	106.992 %	0.024 ppb	16.057 ppb	0.580 ppb	-0.015 ppb	10.386 ppb	9.778 ppb	98.324 %
Concentration per Run 2	92.704 %	112.740 %	0.015 ppb	10.880 ppb	-0.816 ppb	0.107 ppb	6.594 ppb	5.632 ppb	99.043 %
Concentration per Run 3	94.285 %	104.874 %	0.036 ppb	16.011 ppb	-0.347 ppb	-0.198 ppb	12.641 ppb	7.507 ppb	100.144 %
Recovery Percentage 1			4.946 %	14.316 %	-0.278 %	-0.351 %	9.874 %	7.639 %	
Concentration RSD	2.1 %	3.8 %	41.7 %	20.8 %	365.1 %	436.8 %	31.0 %	27.2 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.145 ppb	0.001 ppb	0.167 ppb	14.197 ppb	0.002 ppb	0.019 ppb	0.014 ppb	0.047 ppb	104.763 %
Concentration per Run 1	-0.139 ppb	-0.002 ppb	0.181 ppb	12.293 ppb	0.004 ppb	-0.006 ppb	0.005 ppb	0.066 ppb	107.475 %
Concentration per Run 2	-0.145 ppb	0.012 ppb	0.160 ppb	13.840 ppb	0.000 ppb	-0.008 ppb	0.019 ppb	0.046 ppb	104.895 %
Concentration per Run 3	-0.151 ppb	-0.006 ppb	0.161 ppb	16.457 ppb	0.000 ppb	0.071 ppb	0.017 ppb	0.028 ppb	101.918 %
Recovery Percentage 1	-2.898 %	0.129 %	16.731 %	28.394 %	0.309 %	0.942 %	1.363 %	0.936 %	
Concentration RSD	4.2 %	764.5 %	7.0 %	14.8 %	164.2 %	238.4 %	56.7 %	41.2 %	2.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.114 ppb	0.153 ppb	0.010 ppb	1.253 ppb	103.430 %	0.004 ppb	0.004 ppb	102.225 %	0.424 ppb
Concentration per Run 1	0.079 ppb	0.187 ppb	0.010 ppb	0.957 ppb	102.591 %	0.008 ppb	0.003 ppb	103.815 %	0.290 ppb
Concentration per Run 2	0.111 ppb	0.115 ppb	0.008 ppb	1.296 ppb	104.732 %	0.003 ppb	0.006 ppb	100.958 %	0.474 ppb
Concentration per Run 3	0.153 ppb	0.156 ppb	0.012 ppb	1.505 ppb	102.966 %	0.002 ppb	0.004 ppb	101.902 %	0.510 ppb
Recovery Percentage 1	22.866 %	3.056 %	0.102 %	62.630 %		1.006 %	2.159 %		10.612 %
Concentration RSD	32.4 %	23.5 %	17.9 %	22.1 %	1.1 %	78.6 %	42.9 %	1.4 %	27.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.024 ppb	100.850 %	98.630 %	0.246 ppb	0.041 ppb	96.774 %
Concentration per Run 1	0.015 ppb	101.943 %	98.234 %	0.194 ppb	0.040 ppb	99.985 %
Concentration per Run 2	0.019 ppb	100.001 %	99.175 %	0.292 ppb	0.042 ppb	94.916 %
Concentration per Run 3	0.036 ppb	100.605 %	98.482 %	0.254 ppb	0.040 ppb	95.420 %
Recovery Percentage 1	4.726 %			24.633 %	4.064 %	
Concentration RSD	46.7 %	1.0 %	0.5 %	20.0 %	3.9 %	2.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	42	User name	ALPHALAB\Metals-Instrument	Comment	FB
Analysis label:	I2446165-01 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:20:28 AM	Vial	21		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.734 %	109.210 %	0.013 ppb	23.806 ppb	-1.115 ppb	2.064 ppb	33.299 ppb	6.347 ppb	99.742 %
Concentration per Run 1	90.194 %	112.437 %	0.006 ppb	27.586 ppb	-1.302 ppb	1.901 ppb	38.520 ppb	8.312 ppb	99.365 %
Concentration per Run 2	91.955 %	108.706 %	0.013 ppb	23.580 ppb	-0.834 ppb	1.971 ppb	37.118 ppb	6.290 ppb	98.882 %
Concentration per Run 3	93.054 %	106.488 %	0.019 ppb	20.253 ppb	-1.209 ppb	2.320 ppb	24.259 ppb	4.440 ppb	100.980 %
Concentration RSD	1.6 %	2.8 %	49.9 %	15.4 %	22.2 %	10.9 %	23.6 %	30.5 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.154 ppb	0.039 ppb	0.073 ppb	5.867 ppb	0.001 ppb	-0.012 ppb	0.011 ppb	0.873 ppb	104.489 %
Concentration per Run 1	-0.137 ppb	0.038 ppb	0.111 ppb	5.765 ppb	-0.003 ppb	0.004 ppb	0.014 ppb	0.877 ppb	112.300 %
Concentration per Run 2	-0.161 ppb	0.034 ppb	0.025 ppb	5.673 ppb	0.003 ppb	-0.029 ppb	-0.007 ppb	0.879 ppb	101.950 %
Concentration per Run 3	-0.163 ppb	0.044 ppb	0.083 ppb	6.161 ppb	0.003 ppb	-0.010 ppb	0.026 ppb	0.863 ppb	99.217 %
Concentration RSD	9.4 %	13.6 %	59.8 %	4.4 %	473.9 %	141.2 %	155.0 %	1.0 %	6.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.110 ppb	-0.002 ppb	0.248 ppb	0.136 ppb	104.660 %	0.001 ppb	0.000 ppb	103.948 %	0.112 ppb
Concentration per Run 1	0.131 ppb	0.090 ppb	0.254 ppb	0.078 ppb	108.646 %	0.001 ppb	0.000 ppb	111.354 %	0.076 ppb
Concentration per Run 2	0.099 ppb	-0.068 ppb	0.239 ppb	0.133 ppb	104.636 %	0.002 ppb	0.001 ppb	102.401 %	0.119 ppb
Concentration per Run 3	0.100 ppb	-0.030 ppb	0.250 ppb	0.196 ppb	100.699 %	0.001 ppb	0.000 ppb	98.089 %	0.141 ppb
Concentration RSD	16.7 %	3,333.2 %	3.1 %	43.5 %	3.8 %	29.8 %	171.4 %	6.5 %	29.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.279 ppb	101.786 %	100.375 %	0.035 ppb	0.031 ppb	102.298 %
Concentration per Run 1	0.314 ppb	107.375 %	109.892 %	0.021 ppb	0.031 ppb	109.940 %
Concentration per Run 2	0.263 ppb	100.576 %	98.887 %	0.039 ppb	0.031 ppb	100.262 %
Concentration per Run 3	0.262 ppb	97.406 %	92.345 %	0.045 ppb	0.031 ppb	96.691 %
Concentration RSD	10.7 %	5.0 %	8.8 %	36.4 %	0.7 %	6.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	43	User name	ALPHALAB\Metals-Instrument	Comment	FB
Analysis label:	I2446555-06 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:25:07 AM	Vial	28		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.008 %	108.000 %	0.014 ppb	18.857 ppb	2.966 ppb	2.180 ppb	8.661 ppb	22.565 ppb	101.557 %
Concentration per Run 1	90.251 %	113.950 %	0.026 ppb	19.311 ppb	2.551 ppb	2.132 ppb	9.798 ppb	26.285 ppb	101.110 %
Concentration per Run 2	94.084 %	102.353 %	0.002 ppb	23.925 ppb	4.093 ppb	2.463 ppb	12.374 ppb	25.039 ppb	102.646 %
Concentration per Run 3	94.689 %	107.698 %	0.012 ppb	13.335 ppb	2.255 ppb	1.944 ppb	3.811 ppb	16.372 ppb	100.914 %
Concentration RSD	2.6 %	5.4 %	87.1 %	28.2 %	33.3 %	12.1 %	50.7 %	23.9 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.142 ppb	0.027 ppb	0.034 ppb	2.222 ppb	0.000 ppb	-0.047 ppb	-0.021 ppb	0.221 ppb	107.378 %
Concentration per Run 1	-0.122 ppb	0.014 ppb	0.010 ppb	1.122 ppb	0.001 ppb	-0.065 ppb	-0.006 ppb	0.215 ppb	116.355 %
Concentration per Run 2	-0.162 ppb	0.044 ppb	0.037 ppb	2.744 ppb	-0.002 ppb	-0.035 ppb	-0.037 ppb	0.249 ppb	106.496 %
Concentration per Run 3	-0.141 ppb	0.024 ppb	0.055 ppb	2.802 ppb	0.001 ppb	-0.040 ppb	-0.019 ppb	0.199 ppb	99.282 %
Concentration RSD	13.8 %	57.0 %	67.9 %	42.9 %	809.7 %	35.1 %	77.4 %	11.5 %	8.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.028 ppb	-0.022 ppb	0.261 ppb	0.080 ppb	105.004 %	0.002 ppb	0.001 ppb	103.314 %	0.062 ppb
Concentration per Run 1	0.022 ppb	-0.036 ppb	0.272 ppb	0.026 ppb	109.364 %	0.001 ppb	0.002 ppb	112.826 %	0.027 ppb
Concentration per Run 2	0.051 ppb	0.041 ppb	0.259 ppb	0.059 ppb	104.104 %	0.002 ppb	-0.001 ppb	103.822 %	0.063 ppb
Concentration per Run 3	0.012 ppb	-0.070 ppb	0.253 ppb	0.157 ppb	101.544 %	0.002 ppb	0.002 ppb	93.294 %	0.094 ppb
Concentration RSD	71.8 %	262.8 %	3.7 %	84.9 %	3.8 %	38.2 %	183.6 %	9.5 %	54.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.175 ppb	101.307 %	99.008 %	0.024 ppb	0.026 ppb	99.488 %
Concentration per Run 1	0.182 ppb	107.125 %	106.298 %	0.010 ppb	0.025 ppb	108.384 %
Concentration per Run 2	0.182 ppb	102.462 %	99.564 %	0.030 ppb	0.027 ppb	97.152 %
Concentration per Run 3	0.162 ppb	94.334 %	91.162 %	0.033 ppb	0.026 ppb	92.929 %
Concentration RSD	6.6 %	6.4 %	7.7 %	51.8 %	2.5 %	8.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	44	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446118-07d5 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:31:02 AM	Vial	18		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.036 %	104.303 %	0.847 ppb	17,617.660 ppb	92,169.636 ppb	6,002.367 ppb	3,030.423 ppb	815,972.948 ppb	135.680 %
Concentration per Run 1	94.794 %	103.361 %	0.897 ppb	17,240.178 ppb	89,090.708 ppb	5,803.964 ppb	3,006.225 ppb	802,409.154 ppb	134.594 %
Concentration per Run 2	96.615 %	110.723 %	0.839 ppb	16,918.014 ppb	90,538.496 ppb	5,900.306 ppb	2,935.004 ppb	802,442.710 ppb	136.498 %
Concentration per Run 3	99.700 %	98.824 %	0.806 ppb	18,694.788 ppb	96,879.703 ppb	6,302.832 ppb	3,150.040 ppb	843,066.981 ppb	135.948 %
Concentration RSD	2.6 %	5.8 %	5.4 %	5.4 %	4.5 %	4.4 %	3.6 %	2.9 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	5.574 ppb	9.906 ppb	9,935.374 ppb	12,351.244 ppb	18.422 ppb	91.920 ppb	42.778 ppb	205.149 ppb	102.303 %
Concentration per Run 1	5.527 ppb	10.049 ppb	9,834.365 ppb	12,468.791 ppb	18.800 ppb	93.957 ppb	44.033 ppb	205.621 ppb	97.502 %
Concentration per Run 2	5.346 ppb	9.657 ppb	9,694.898 ppb	11,982.622 ppb	17.913 ppb	88.563 ppb	41.907 ppb	202.621 ppb	105.557 %
Concentration per Run 3	5.849 ppb	10.014 ppb	10,276.860 ppb	12,602.319 ppb	18.552 ppb	93.239 ppb	42.393 ppb	207.205 ppb	103.850 %
Concentration RSD	4.6 %	2.2 %	3.1 %	2.6 %	2.5 %	3.2 %	2.6 %	1.1 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.352 ppb	10.399 ppb	2,441.005 ppb	0.127 ppb	92.479 %	12.990 ppb	0.651 ppb	94.669 %	0.101 ppb
Concentration per Run 1	3.454 ppb	11.163 ppb	2,384.185 ppb	0.055 ppb	90.814 %	13.049 ppb	0.668 ppb	89.945 %	0.081 ppb
Concentration per Run 2	3.307 ppb	9.657 ppb	2,456.990 ppb	0.173 ppb	93.300 %	13.117 ppb	0.641 ppb	97.073 %	0.123 ppb
Concentration per Run 3	3.296 ppb	10.376 ppb	2,481.841 ppb	0.154 ppb	93.323 %	12.803 ppb	0.644 ppb	96.990 %	0.099 ppb
Concentration RSD	2.6 %	7.2 %	2.1 %	50.1 %	1.6 %	1.3 %	2.3 %	4.3 %	21.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	327.353 ppb	103.278 %	97.643 %	0.287 ppb	62.307 ppb	88.941 %
Concentration per Run 1	326.644 ppb	100.710 %	94.062 %	0.256 ppb	58.615 ppb	91.332 %
Concentration per Run 2	328.724 ppb	105.012 %	101.323 %	0.302 ppb	63.156 ppb	89.196 %
Concentration per Run 3	326.690 ppb	104.111 %	97.542 %	0.303 ppb	65.150 ppb	86.296 %
Concentration RSD	0.4 %	2.2 %	3.7 %	9.4 %	5.4 %	2.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	45	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446118-08d5 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:35:42 AM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.580 %	105.109 %	0.732 ppb	9,012.730 ppb	62,741.790 ppb	6,747.720 ppb	2,174.514 ppb	433,291.599 ppb	146.560 %
Concentration per Run 1	98.751 %	102.454 %	0.696 ppb	8,955.953 ppb	62,632.613 ppb	6,600.759 ppb	2,185.720 ppb	430,844.043 ppb	143.495 %
Concentration per Run 2	103.444 %	103.664 %	0.775 ppb	9,216.381 ppb	64,612.836 ppb	6,967.278 ppb	2,202.610 ppb	441,021.891 ppb	146.105 %
Concentration per Run 3	105.546 %	109.210 %	0.724 ppb	8,865.855 ppb	60,979.923 ppb	6,675.121 ppb	2,135.212 ppb	428,008.862 ppb	150.081 %
Concentration RSD	3.4 %	3.4 %	5.5 %	2.0 %	2.9 %	2.9 %	1.6 %	1.6 %	2.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	7.933 ppb	17.890 ppb	4,241.569 ppb	19,501.104 ppb	13.414 ppb	46.757 ppb	92.669 ppb	150.094 ppb	105.067 %
Concentration per Run 1	8.012 ppb	18.494 ppb	4,240.934 ppb	19,599.500 ppb	13.532 ppb	48.948 ppb	94.634 ppb	151.734 ppb	100.918 %
Concentration per Run 2	8.071 ppb	17.848 ppb	4,254.086 ppb	19,569.170 ppb	13.489 ppb	45.787 ppb	92.823 ppb	150.648 ppb	107.222 %
Concentration per Run 3	7.715 ppb	17.329 ppb	4,229.686 ppb	19,334.643 ppb	13.222 ppb	45.536 ppb	90.550 ppb	147.900 ppb	107.062 %
Concentration RSD	2.4 %	3.3 %	0.3 %	0.7 %	1.3 %	4.1 %	2.2 %	1.3 %	3.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.273 ppb	8.530 ppb	1,020.584 ppb	0.116 ppb	95.339 %	6.811 ppb	0.203 ppb	97.031 %	0.109 ppb
Concentration per Run 1	3.274 ppb	9.484 ppb	990.141 ppb	0.083 ppb	93.993 %	6.860 ppb	0.202 ppb	93.366 %	0.093 ppb
Concentration per Run 2	3.182 ppb	8.506 ppb	1,038.972 ppb	0.111 ppb	95.631 %	6.834 ppb	0.197 ppb	99.183 %	0.100 ppb
Concentration per Run 3	3.364 ppb	7.599 ppb	1,032.640 ppb	0.155 ppb	96.394 %	6.739 ppb	0.211 ppb	98.544 %	0.133 ppb
Concentration RSD	2.8 %	11.1 %	2.6 %	30.8 %	1.3 %	0.9 %	3.5 %	3.3 %	19.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	610.864 ppb	105.486 %	101.030 %	0.152 ppb	72.178 ppb	92.278 %
Concentration per Run 1	602.375 ppb	104.704 %	100.171 %	0.134 ppb	69.174 ppb	94.674 %
Concentration per Run 2	613.767 ppb	107.048 %	102.217 %	0.159 ppb	73.636 ppb	91.232 %
Concentration per Run 3	616.450 ppb	104.705 %	100.703 %	0.162 ppb	73.725 ppb	90.929 %
Concentration RSD	1.2 %	1.3 %	1.1 %	10.2 %	3.6 %	2.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	46	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446118-09d5 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:40:20 AM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.220 %	103.597 %	1.133 ppb	5,460.530 ppb	112,351.082 ppb	9,347.226 ppb	2,441.016 ppb	511,398.133 ppb	161.145 %
Concentration per Run 1	100.338 %	102.756 %	1.070 ppb	5,348.596 ppb	109,125.024 ppb	9,083.728 ppb	2,396.096 ppb	511,240.765 ppb	161.807 %
Concentration per Run 2	102.531 %	109.815 %	1.164 ppb	5,343.108 ppb	109,740.910 ppb	9,139.654 ppb	2,404.415 ppb	497,063.212 ppb	162.622 %
Concentration per Run 3	103.792 %	98.218 %	1.165 ppb	5,689.884 ppb	118,187.312 ppb	9,818.297 ppb	2,522.537 ppb	525,890.421 ppb	159.006 %
Concentration RSD	1.7 %	5.6 %	4.8 %	3.6 %	4.5 %	4.4 %	2.9 %	2.8 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	7.834 ppb	22.613 ppb	14,479.465 ppb	20,955.140 ppb	20.496 ppb	132.374 ppb	162.896 ppb	255.627 ppb	106.763 %
Concentration per Run 1	7.788 ppb	23.173 ppb	14,297.228 ppb	20,758.317 ppb	20.455 ppb	134.413 ppb	166.223 ppb	261.451 ppb	101.993 %
Concentration per Run 2	7.736 ppb	22.084 ppb	14,408.006 ppb	20,700.850 ppb	20.623 ppb	130.618 ppb	160.895 ppb	253.048 ppb	108.921 %
Concentration per Run 3	7.978 ppb	22.583 ppb	14,733.160 ppb	21,406.253 ppb	20.411 ppb	132.090 ppb	161.569 ppb	252.381 ppb	109.375 %
Concentration RSD	1.6 %	2.4 %	1.6 %	1.9 %	0.5 %	1.4 %	1.8 %	2.0 %	3.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.444 ppb	14.189 ppb	880.151 ppb	0.121 ppb	93.002 %	36.940 ppb	0.649 ppb	97.538 %	0.100 ppb
Concentration per Run 1	3.586 ppb	14.089 ppb	870.356 ppb	0.075 ppb	91.440 %	38.060 ppb	0.670 ppb	93.009 %	0.079 ppb
Concentration per Run 2	3.466 ppb	14.202 ppb	879.454 ppb	0.132 ppb	93.131 %	36.141 ppb	0.627 ppb	100.814 %	0.099 ppb
Concentration per Run 3	3.282 ppb	14.275 ppb	890.642 ppb	0.154 ppb	94.436 %	36.620 ppb	0.649 ppb	98.791 %	0.123 ppb
Concentration RSD	4.4 %	0.7 %	1.2 %	33.7 %	1.6 %	2.7 %	3.3 %	4.2 %	22.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	440.368 ppb	108.738 %	100.587 %	0.424 ppb	101.837 ppb	88.695 %
Concentration per Run 1	443.308 ppb	106.249 %	97.309 %	0.407 ppb	98.633 ppb	90.372 %
Concentration per Run 2	439.371 ppb	108.184 %	101.302 %	0.422 ppb	102.294 ppb	88.860 %
Concentration per Run 3	438.424 ppb	111.780 %	103.151 %	0.444 ppb	104.583 ppb	86.854 %
Concentration RSD	0.6 %	2.6 %	3.0 %	4.4 %	2.9 %	2.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	47	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446229-01 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:44:58 AM	Vial	22		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.971 %	92.807 %	0.041 ppb	239,726.660 ppb	1,071.948 ppb	330.902 ppb	2,655.539 ppb	15,524.810 ppb	104.249 %
Concentration per Run 1	96.599 %	91.159 %	0.037 ppb	249,219.744 ppb	1,091.942 ppb	340.802 ppb	2,772.481 ppb	15,712.361 ppb	102.163 %
Concentration per Run 2	100.315 %	94.588 %	0.042 ppb	236,365.793 ppb	1,062.863 ppb	338.446 ppb	2,601.712 ppb	15,414.281 ppb	105.122 %
Concentration per Run 3	99.999 %	92.672 %	0.045 ppb	233,594.442 ppb	1,061.038 ppb	313.458 ppb	2,592.424 ppb	15,447.789 ppb	105.463 %
Concentration RSD	2.1 %	1.9 %	10.8 %	3.5 %	1.6 %	4.6 %	3.8 %	1.1 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.093 ppb	1.340 ppb	43.566 ppb	382.627 ppb	1.344 ppb	0.898 ppb	17.482 ppb	1.323 ppb	103.804 %
Concentration per Run 1	1.134 ppb	1.346 ppb	44.745 ppb	403.062 ppb	1.367 ppb	0.903 ppb	17.454 ppb	1.380 ppb	104.917 %
Concentration per Run 2	1.044 ppb	1.327 ppb	42.791 ppb	374.589 ppb	1.340 ppb	0.922 ppb	18.080 ppb	1.293 ppb	102.633 %
Concentration per Run 3	1.101 ppb	1.346 ppb	43.163 ppb	370.231 ppb	1.324 ppb	0.869 ppb	16.911 ppb	1.297 ppb	103.861 %
Concentration RSD	4.1 %	0.8 %	2.4 %	4.7 %	1.6 %	3.0 %	3.3 %	3.7 %	1.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.762 ppb	3.799 ppb	87.588 ppb	2.943 ppb	94.851 %	0.020 ppb	0.005 ppb	98.399 %	0.076 ppb
Concentration per Run 1	0.753 ppb	3.641 ppb	87.425 ppb	3.044 ppb	94.985 %	0.017 ppb	0.004 ppb	98.031 %	0.053 ppb
Concentration per Run 2	0.764 ppb	3.982 ppb	88.322 ppb	2.906 ppb	94.186 %	0.023 ppb	0.005 ppb	99.871 %	0.073 ppb
Concentration per Run 3	0.769 ppb	3.775 ppb	87.016 ppb	2.880 ppb	95.383 %	0.020 ppb	0.007 ppb	97.295 %	0.100 ppb
Concentration RSD	1.1 %	4.5 %	0.8 %	3.0 %	0.6 %	16.0 %	30.3 %	1.3 %	31.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	21.985 ppb	100.298 %	101.726 %	0.053 ppb	0.328 ppb	90.213 %
Concentration per Run 1	21.605 ppb	100.634 %	100.202 %	0.045 ppb	0.284 ppb	94.533 %
Concentration per Run 2	22.178 ppb	99.447 %	101.961 %	0.058 ppb	0.351 ppb	88.402 %
Concentration per Run 3	22.173 ppb	100.812 %	103.013 %	0.057 ppb	0.348 ppb	87.705 %
Concentration RSD	1.5 %	0.7 %	1.4 %	13.1 %	11.6 %	4.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	48	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446229-02 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:49:37 AM	Vial	23		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.647 %	91.294 %	0.009 ppb	76,843.647 ppb	335.550 ppb	84.742 ppb	1,573.789 ppb	6,019.383 ppb	107.598 %
Concentration per Run 1	101.490 %	91.361 %	0.006 ppb	77,886.785 ppb	341.924 ppb	82.464 ppb	1,585.006 ppb	6,122.311 ppb	107.739 %
Concentration per Run 2	103.045 %	92.975 %	0.009 ppb	74,653.171 ppb	327.740 ppb	85.166 ppb	1,513.553 ppb	5,937.983 ppb	106.382 %
Concentration per Run 3	103.405 %	89.546 %	0.013 ppb	77,990.985 ppb	336.985 ppb	86.595 ppb	1,622.807 ppb	5,997.854 ppb	108.673 %
Concentration RSD	1.0 %	1.9 %	41.0 %	2.5 %	2.1 %	2.5 %	3.5 %	1.6 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.121 ppb	0.426 ppb	122.820 ppb	564.009 ppb	2.558 ppb	2.547 ppb	14.614 ppb	1.581 ppb	103.895 %
Concentration per Run 1	0.162 ppb	0.419 ppb	123.999 ppb	559.116 ppb	2.579 ppb	2.455 ppb	14.549 ppb	1.609 ppb	102.846 %
Concentration per Run 2	0.121 ppb	0.430 ppb	120.977 ppb	565.559 ppb	2.495 ppb	2.597 ppb	14.226 ppb	1.577 ppb	105.827 %
Concentration per Run 3	0.079 ppb	0.430 ppb	123.484 ppb	567.351 ppb	2.602 ppb	2.589 ppb	15.065 ppb	1.559 ppb	103.011 %
Concentration RSD	34.6 %	1.4 %	1.3 %	0.8 %	2.2 %	3.1 %	2.9 %	1.6 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.098 ppb	0.868 ppb	44.827 ppb	2.083 ppb	98.297 %	0.021 ppb	0.013 ppb	102.079 %	0.043 ppb
Concentration per Run 1	0.133 ppb	0.753 ppb	44.937 ppb	2.131 ppb	99.443 %	0.024 ppb	0.010 ppb	102.515 %	0.027 ppb
Concentration per Run 2	0.094 ppb	0.870 ppb	44.679 ppb	2.095 ppb	97.457 %	0.021 ppb	0.017 ppb	103.232 %	0.044 ppb
Concentration per Run 3	0.068 ppb	0.982 ppb	44.863 ppb	2.023 ppb	97.992 %	0.018 ppb	0.012 ppb	100.491 %	0.058 ppb
Concentration RSD	33.3 %	13.2 %	0.3 %	2.7 %	1.0 %	14.8 %	25.8 %	1.4 %	35.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	27.021 ppb	103.178 %	104.866 %	0.059 ppb	0.089 ppb	102.203 %
Concentration per Run 1	26.668 ppb	103.424 %	104.365 %	0.053 ppb	0.084 ppb	105.046 %
Concentration per Run 2	26.811 ppb	103.523 %	106.252 %	0.059 ppb	0.093 ppb	101.506 %
Concentration per Run 3	27.584 ppb	102.586 %	103.981 %	0.064 ppb	0.089 ppb	100.057 %
Concentration RSD	1.8 %	0.5 %	1.2 %	9.3 %	4.8 %	2.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	49	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446229-03 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:54:17 AM	Vial	24		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.072 %	92.807 %	0.021 ppb	157,437.696 ppb	2,223.912 ppb	213.172 ppb	6,701.889 ppb	42,258.523 ppb	108.333 %
Concentration per Run 1	101.032 %	89.344 %	0.028 ppb	165,879.443 ppb	2,324.183 ppb	223.775 ppb	7,042.247 ppb	44,653.727 ppb	108.156 %
Concentration per Run 2	104.483 %	94.084 %	0.022 ppb	151,419.681 ppb	2,182.495 ppb	209.593 ppb	6,550.154 ppb	41,114.689 ppb	110.161 %
Concentration per Run 3	103.702 %	94.991 %	0.013 ppb	155,013.965 ppb	2,165.059 ppb	206.148 ppb	6,513.267 ppb	41,007.152 ppb	106.683 %
Concentration RSD	1.8 %	3.3 %	35.4 %	4.8 %	3.9 %	4.4 %	4.4 %	4.9 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.296 ppb	1.190 ppb	610.970 ppb	313.002 ppb	2.077 ppb	2.765 ppb	13.107 ppb	1.972 ppb	104.429 %
Concentration per Run 1	0.333 ppb	1.224 ppb	630.201 ppb	336.827 ppb	2.182 ppb	2.876 ppb	13.460 ppb	1.951 ppb	100.006 %
Concentration per Run 2	0.304 ppb	1.163 ppb	602.125 ppb	311.715 ppb	2.041 ppb	2.832 ppb	12.997 ppb	1.949 ppb	107.397 %
Concentration per Run 3	0.251 ppb	1.183 ppb	600.585 ppb	290.465 ppb	2.009 ppb	2.587 ppb	12.865 ppb	2.016 ppb	105.884 %
Concentration RSD	14.1 %	2.6 %	2.7 %	7.4 %	4.4 %	5.6 %	2.4 %	1.9 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.328 ppb	2.306 ppb	180.016 ppb	12.511 ppb	95.635 %	0.022 ppb	0.035 ppb	100.704 %	0.073 ppb
Concentration per Run 1	0.361 ppb	2.170 ppb	183.363 ppb	13.055 ppb	95.234 %	0.025 ppb	0.035 ppb	101.531 %	0.060 ppb
Concentration per Run 2	0.290 ppb	2.417 ppb	176.551 ppb	12.333 ppb	95.656 %	0.022 ppb	0.035 ppb	99.251 %	0.079 ppb
Concentration per Run 3	0.332 ppb	2.331 ppb	180.133 ppb	12.144 ppb	96.014 %	0.019 ppb	0.034 ppb	101.330 %	0.080 ppb
Concentration RSD	10.9 %	5.4 %	1.9 %	3.8 %	0.4 %	13.8 %	1.9 %	1.3 %	15.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	86.370 ppb	102.896 %	105.310 %	0.120 ppb	0.213 ppb	97.364 %
Concentration per Run 1	82.740 ppb	103.512 %	105.486 %	0.109 ppb	0.203 ppb	100.630 %
Concentration per Run 2	89.060 ppb	102.164 %	105.415 %	0.122 ppb	0.214 ppb	97.052 %
Concentration per Run 3	87.309 ppb	103.013 %	105.030 %	0.129 ppb	0.221 ppb	94.412 %
Concentration RSD	3.8 %	0.7 %	0.2 %	8.4 %	4.4 %	3.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	50	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446446-01 6020TL	Rack	1		
Analysis started at:	8/21/2024 8:58:56 AM	Vial	25		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.632 %	87.966 %	0.008 ppb	186,321.831 ppb	53,747.081 ppb	26.408 ppb	43,222.123 ppb	377,596.941 ppb	113.005 %
Concentration per Run 1	96.895 %	87.428 %	0.002 ppb	188,930.362 ppb	54,725.163 ppb	28.139 ppb	42,831.311 ppb	380,117.864 ppb	112.311 %
Concentration per Run 2	100.288 %	89.647 %	0.006 ppb	180,526.650 ppb	51,811.509 ppb	25.563 ppb	42,002.104 ppb	369,971.245 ppb	112.817 %
Concentration per Run 3	101.712 %	86.823 %	0.018 ppb	189,508.483 ppb	54,704.571 ppb	25.522 ppb	44,832.954 ppb	382,701.713 ppb	113.886 %
Concentration RSD	2.5 %	1.7 %	97.0 %	2.7 %	3.1 %	5.7 %	3.4 %	1.8 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.169 ppb	2.024 ppb	2,165.592 ppb	64.263 ppb	0.654 ppb	15.984 ppb	1.206 ppb	8.091 ppb	102.398 %
Concentration per Run 1	0.185 ppb	2.022 ppb	2,147.011 ppb	64.497 ppb	0.664 ppb	15.870 ppb	1.187 ppb	7.972 ppb	102.392 %
Concentration per Run 2	0.146 ppb	2.012 ppb	2,131.454 ppb	62.136 ppb	0.661 ppb	15.426 ppb	1.151 ppb	7.969 ppb	104.840 %
Concentration per Run 3	0.176 ppb	2.037 ppb	2,218.310 ppb	66.157 ppb	0.637 ppb	16.655 ppb	1.281 ppb	8.333 ppb	99.962 %
Concentration RSD	12.0 %	0.6 %	2.1 %	3.1 %	2.3 %	3.9 %	5.6 %	2.6 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.336 ppb	13.289 ppb	986.517 ppb	0.594 ppb	93.632 %	0.040 ppb	0.243 ppb	98.180 %	0.118 ppb
Concentration per Run 1	0.320 ppb	12.806 ppb	985.661 ppb	0.479 ppb	93.116 %	0.040 ppb	0.245 ppb	97.514 %	0.102 ppb
Concentration per Run 2	0.348 ppb	13.211 ppb	965.546 ppb	0.582 ppb	94.159 %	0.042 ppb	0.246 ppb	98.269 %	0.114 ppb
Concentration per Run 3	0.341 ppb	13.851 ppb	1,008.345 ppb	0.720 ppb	93.621 %	0.040 ppb	0.238 ppb	98.756 %	0.138 ppb
Concentration RSD	4.2 %	4.0 %	2.2 %	20.4 %	0.6 %	2.5 %	1.9 %	0.6 %	15.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	44.106 ppb	101.031 %	101.977 %	0.104 ppb	0.548 ppb	92.656 %
Concentration per Run 1	42.646 ppb	103.201 %	100.471 %	0.096 ppb	0.525 ppb	95.720 %
Concentration per Run 2	44.665 ppb	99.603 %	102.036 %	0.108 ppb	0.563 ppb	90.959 %
Concentration per Run 3	45.006 ppb	100.290 %	103.424 %	0.109 ppb	0.556 ppb	91.287 %
Concentration RSD	2.9 %	1.9 %	1.4 %	6.7 %	3.7 %	2.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	51	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446455-25 6020TL	Rack	1		
Analysis started at:	8/21/2024 9:03:33 AM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.350 %	102.790 %	0.006 ppb	61.863 ppb	44.126 ppb	53.137 ppb	31.981 ppb	216.341 ppb	105.501 %
Concentration per Run 1	105.100 %	100.840 %	0.007 ppb	68.570 ppb	44.554 ppb	53.883 ppb	36.925 ppb	237.158 ppb	104.218 %
Concentration per Run 2	106.247 %	100.639 %	0.005 ppb	62.993 ppb	44.206 ppb	53.840 ppb	26.619 ppb	204.004 ppb	107.226 %
Concentration per Run 3	107.704 %	106.891 %	0.005 ppb	54.025 ppb	43.618 ppb	51.689 ppb	32.400 ppb	207.862 ppb	105.059 %
Concentration RSD	1.2 %	3.5 %	23.5 %	11.9 %	1.1 %	2.4 %	16.2 %	8.4 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.059 ppb	0.276 ppb	3.681 ppb	67.181 ppb	0.035 ppb	0.099 ppb	0.366 ppb	2.047 ppb	109.128 %
Concentration per Run 1	-0.065 ppb	0.286 ppb	3.720 ppb	68.390 ppb	0.035 ppb	0.127 ppb	0.406 ppb	2.059 ppb	108.583 %
Concentration per Run 2	-0.051 ppb	0.273 ppb	3.646 ppb	65.563 ppb	0.041 ppb	0.097 ppb	0.365 ppb	2.053 ppb	110.057 %
Concentration per Run 3	-0.062 ppb	0.268 ppb	3.678 ppb	67.591 ppb	0.030 ppb	0.074 ppb	0.326 ppb	2.028 ppb	108.744 %
Concentration RSD	12.3 %	3.3 %	1.0 %	2.2 %	14.9 %	26.8 %	11.0 %	0.8 %	0.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.004 ppb	0.006 ppb	0.280 ppb	0.090 ppb	103.729 %	0.004 ppb	0.003 ppb	107.016 %	0.007 ppb
Concentration per Run 1	0.009 ppb	-0.025 ppb	0.283 ppb	0.037 ppb	103.670 %	0.005 ppb	0.003 ppb	109.111 %	-0.013 ppb
Concentration per Run 2	0.004 ppb	0.043 ppb	0.272 ppb	0.095 ppb	104.137 %	0.004 ppb	0.001 ppb	105.529 %	0.011 ppb
Concentration per Run 3	-0.024 ppb	0.000 ppb	0.286 ppb	0.137 ppb	103.379 %	0.004 ppb	0.003 ppb	106.408 %	0.023 ppb
Concentration RSD	481.5 %	578.8 %	2.6 %	55.6 %	0.4 %	19.4 %	47.9 %	1.7 %	255.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.048 ppb	103.488 %	105.815 %	0.013 ppb	0.163 ppb	100.409 %
Concentration per Run 1	1.022 ppb	102.937 %	103.872 %	0.008 ppb	0.153 ppb	104.955 %
Concentration per Run 2	1.021 ppb	103.471 %	105.360 %	0.015 ppb	0.170 ppb	98.504 %
Concentration per Run 3	1.102 ppb	104.056 %	108.214 %	0.016 ppb	0.166 ppb	97.768 %
Concentration RSD	4.4 %	0.5 %	2.1 %	31.0 %	5.3 %	3.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	52	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 9:08:10 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.880 %	98.420 %	60.214 ppb	6,551.337 ppb	6,345.429 ppb	61.794 ppb	6,479.997 ppb	6,383.433 ppb	108.281 %
Concentration per Run 1	98.193 %	96.403 %	60.454 ppb	6,793.944 ppb	6,579.076 ppb	64.077 ppb	6,782.746 ppb	6,576.085 ppb	106.635 %
Concentration per Run 2	101.304 %	96.706 %	60.640 ppb	6,656.319 ppb	6,326.953 ppb	60.512 ppb	6,395.945 ppb	6,304.349 ppb	107.982 %
Concentration per Run 3	103.143 %	102.151 %	59.548 ppb	6,203.750 ppb	6,130.258 ppb	60.793 ppb	6,261.300 ppb	6,269.865 ppb	110.225 %
Recovery Percentage 1			100.356 %	109.189 %	105.757 %	102.990 %	108.000 %	106.391 %	
Concentration RSD	2.5 %	3.3 %	1.0 %	4.7 %	3.5 %	3.2 %	4.2 %	2.6 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.728 ppb	61.144 ppb	62.335 ppb	6,183.690 ppb	62.424 ppb	63.034 ppb	62.249 ppb	61.450 ppb	104.478 %
Concentration per Run 1	63.252 ppb	63.184 ppb	63.811 ppb	6,392.843 ppb	64.362 ppb	64.520 ppb	64.542 ppb	63.422 ppb	103.076 %
Concentration per Run 2	59.880 ppb	59.771 ppb	60.939 ppb	6,087.339 ppb	61.282 ppb	60.573 ppb	60.386 ppb	60.008 ppb	107.242 %
Concentration per Run 3	62.051 ppb	60.477 ppb	62.257 ppb	6,070.887 ppb	61.626 ppb	64.010 ppb	61.820 ppb	60.920 ppb	103.115 %
Recovery Percentage 1	102.880 %	101.907 %	103.892 %	103.061 %	104.039 %	105.057 %	103.749 %	102.417 %	
Concentration RSD	2.8 %	2.9 %	2.3 %	2.9 %	2.7 %	3.4 %	3.4 %	2.9 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.454 ppb	60.059 ppb	62.067 ppb	58.854 ppb	100.199 %	61.424 ppb	61.578 ppb	102.105 %	60.026 ppb
Concentration per Run 1	63.684 ppb	62.833 ppb	64.014 ppb	60.351 ppb	96.421 %	62.995 ppb	63.800 ppb	98.614 %	62.595 ppb
Concentration per Run 2	59.128 ppb	57.407 ppb	59.806 ppb	56.565 ppb	103.114 %	60.729 ppb	60.054 ppb	103.597 %	58.246 ppb
Concentration per Run 3	61.549 ppb	59.935 ppb	62.382 ppb	59.645 ppb	101.063 %	60.547 ppb	60.881 ppb	104.104 %	59.238 ppb
Recovery Percentage 1	102.423 %	100.098 %	103.445 %	98.090 %		102.373 %	102.630 %		100.044 %
Concentration RSD	3.7 %	4.5 %	3.4 %	3.4 %	3.4 %	2.2 %	3.2 %	3.0 %	3.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.789 ppb	102.491 %	105.088 %	62.242 ppb	61.648 ppb	103.037 %
Concentration per Run 1	63.090 ppb	99.690 %	100.865 %	62.048 ppb	60.649 ppb	105.960 %
Concentration per Run 2	58.612 ppb	104.478 %	107.779 %	61.271 ppb	61.090 ppb	103.304 %
Concentration per Run 3	60.666 ppb	103.306 %	106.619 %	63.409 ppb	63.205 ppb	99.848 %
Recovery Percentage 1	101.315 %			103.737 %	102.746 %	
Concentration RSD	3.7 %	2.4 %	3.5 %	1.7 %	2.2 %	3.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	53	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 9:12:52 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.034 %	95.496 %	0.012 ppb	20.452 ppb	-0.128 ppb	-0.197 ppb	7.788 ppb	7.938 ppb	102.876 %
Concentration per Run 1	100.932 %	90.050 %	0.017 ppb	25.089 ppb	-0.401 ppb	-0.043 ppb	8.408 ppb	7.970 ppb	103.350 %
Concentration per Run 2	103.736 %	97.916 %	0.011 ppb	17.683 ppb	-0.252 ppb	-0.407 ppb	8.061 ppb	2.185 ppb	102.206 %
Concentration per Run 3	104.434 %	98.521 %	0.007 ppb	18.583 ppb	0.269 ppb	-0.142 ppb	6.895 ppb	13.658 ppb	103.072 %
Recovery Percentage 1			2.381 %	20.452 %	-0.183 %	-1.973 %	7.788 %	7.938 %	
Concentration RSD	1.8 %	4.9 %	41.6 %	19.8 %	274.5 %	95.5 %	10.2 %	72.3 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.100 ppb	-0.001 ppb	0.150 ppb	12.229 ppb	0.005 ppb	0.015 ppb	0.053 ppb	0.027 ppb	103.688 %
Concentration per Run 1	-0.110 ppb	-0.001 ppb	0.153 ppb	10.854 ppb	0.007 ppb	0.036 ppb	0.042 ppb	0.028 ppb	104.710 %
Concentration per Run 2	-0.104 ppb	-0.005 ppb	0.146 ppb	11.219 ppb	0.005 ppb	-0.002 ppb	0.037 ppb	0.020 ppb	105.552 %
Concentration per Run 3	-0.087 ppb	0.003 ppb	0.149 ppb	14.616 ppb	0.004 ppb	0.011 ppb	0.081 ppb	0.035 ppb	100.803 %
Recovery Percentage 1	-2.007 %	-0.116 %	14.958 %	24.459 %	1.062 %	0.753 %	5.324 %	0.548 %	
Concentration RSD	11.5 %	333.4 %	2.2 %	17.0 %	34.6 %	126.1 %	45.2 %	26.9 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.011 ppb	0.205 ppb	0.016 ppb	1.228 ppb	101.695 %	0.010 ppb	0.003 ppb	104.450 %	0.311 ppb
Concentration per Run 1	-0.041 ppb	0.200 ppb	0.010 ppb	0.951 ppb	103.109 %	0.011 ppb	0.005 ppb	107.469 %	0.209 ppb
Concentration per Run 2	-0.015 ppb	0.250 ppb	0.015 ppb	1.272 ppb	102.100 %	0.008 ppb	0.003 ppb	102.610 %	0.338 ppb
Concentration per Run 3	0.023 ppb	0.166 ppb	0.024 ppb	1.459 ppb	99.875 %	0.012 ppb	0.002 ppb	103.271 %	0.387 ppb
Recovery Percentage 1	-2.195 %	4.109 %	0.163 %	61.376 %		2.589 %	1.645 %		7.781 %
Concentration RSD	291.5 %	20.5 %	41.5 %	21.0 %	1.6 %	20.7 %	41.1 %	2.5 %	29.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.017 ppb	103.099 %	104.502 %	0.210 ppb	0.047 ppb	102.701 %
Concentration per Run 1	0.006 ppb	103.026 %	105.582 %	0.164 ppb	0.045 ppb	106.318 %
Concentration per Run 2	0.024 ppb	103.380 %	104.381 %	0.243 ppb	0.048 ppb	101.568 %
Concentration per Run 3	0.021 ppb	102.891 %	103.545 %	0.224 ppb	0.047 ppb	100.217 %
Recovery Percentage 1	3.407 %			21.028 %	4.679 %	
Concentration RSD	55.5 %	0.2 %	1.0 %	19.7 %	3.3 %	3.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	54	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1956741-1d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 9:19:29 AM	Vial	33		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.142 %	101.311 %	0.016 ppb	9.342 ppb	-2.021 ppb	1.226 ppb	2.148 ppb	-3.599 ppb	100.224 %
Concentration per Run 1	99.603 %	105.580 %	0.013 ppb	4.551 ppb	-2.500 ppb	1.044 ppb	4.766 ppb	-3.230 ppb	99.205 %
Concentration per Run 2	100.993 %	101.748 %	0.016 ppb	9.583 ppb	-1.674 ppb	1.221 ppb	-3.572 ppb	-7.353 ppb	100.595 %
Concentration per Run 3	102.829 %	96.605 %	0.020 ppb	13.892 ppb	-1.887 ppb	1.413 ppb	5.250 ppb	-0.215 ppb	100.872 %
Concentration RSD	1.6 %	4.4 %	19.6 %	50.0 %	21.2 %	15.1 %	230.9 %	99.6 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.071 ppb	0.036 ppb	0.110 ppb	4.518 ppb	0.002 ppb	-0.003 ppb	0.015 ppb	0.294 ppb	101.578 %
Concentration per Run 1	-0.099 ppb	0.026 ppb	0.129 ppb	4.100 ppb	0.003 ppb	0.008 ppb	0.028 ppb	0.335 ppb	99.490 %
Concentration per Run 2	-0.062 ppb	0.033 ppb	0.076 ppb	4.431 ppb	-0.003 ppb	-0.010 ppb	-0.010 ppb	0.257 ppb	102.712 %
Concentration per Run 3	-0.053 ppb	0.048 ppb	0.125 ppb	5.022 ppb	0.006 ppb	-0.006 ppb	0.027 ppb	0.289 ppb	102.533 %
Concentration RSD	34.3 %	30.4 %	26.5 %	10.3 %	237.3 %	356.1 %	148.2 %	13.4 %	1.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.019 ppb	-0.006 ppb	-0.005 ppb	0.221 ppb	100.542 %	0.005 ppb	0.000 ppb	102.647 %	0.086 ppb
Concentration per Run 1	-0.022 ppb	0.017 ppb	-0.007 ppb	0.153 ppb	101.507 %	0.008 ppb	-0.001 ppb	104.699 %	0.049 ppb
Concentration per Run 2	-0.006 ppb	-0.087 ppb	-0.002 ppb	0.194 ppb	99.713 %	0.004 ppb	0.001 ppb	104.362 %	0.090 ppb
Concentration per Run 3	-0.030 ppb	0.053 ppb	-0.005 ppb	0.315 ppb	100.405 %	0.004 ppb	0.000 ppb	98.880 %	0.118 ppb
Concentration RSD	64.4 %	1,296.4 %	48.9 %	38.3 %	0.9 %	43.0 %	515.9 %	3.2 %	40.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.018 ppb	101.004 %	102.923 %	0.039 ppb	0.039 ppb	102.128 %
Concentration per Run 1	0.026 ppb	102.589 %	101.772 %	0.024 ppb	0.037 ppb	106.767 %
Concentration per Run 2	0.007 ppb	100.526 %	102.541 %	0.046 ppb	0.038 ppb	101.130 %
Concentration per Run 3	0.020 ppb	99.897 %	104.456 %	0.047 ppb	0.040 ppb	98.488 %
Concentration RSD	55.3 %	1.4 %	1.3 %	34.1 %	4.4 %	4.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	55	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1956741-2d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 9:24:08 AM	Vial	34		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.927 %	97.815 %	10.515 ppb	2,333.337 ppb	2,215.345 ppb	426.468 ppb	2,215.516 ppb	2,095.713 ppb	104.466 %
Concentration per Run 1	98.866 %	100.235 %	10.610 ppb	2,293.597 ppb	2,179.150 ppb	425.781 ppb	2,236.934 ppb	2,117.160 ppb	103.195 %
Concentration per Run 2	101.967 %	96.907 %	10.423 ppb	2,355.055 ppb	2,224.584 ppb	426.370 ppb	2,192.302 ppb	2,126.612 ppb	104.518 %
Concentration per Run 3	101.948 %	96.302 %	10.512 ppb	2,351.360 ppb	2,242.301 ppb	427.253 ppb	2,217.312 ppb	2,043.366 ppb	105.686 %
Concentration RSD	1.8 %	2.2 %	0.9 %	1.5 %	1.5 %	0.2 %	1.0 %	2.2 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	104.683 ppb	41.557 ppb	107.065 ppb	224.283 ppb	106.991 ppb	107.058 ppb	53.767 ppb	105.642 ppb	104.543 %
Concentration per Run 1	101.665 ppb	40.562 ppb	107.182 ppb	223.142 ppb	108.288 ppb	106.795 ppb	54.746 ppb	105.924 ppb	104.549 %
Concentration per Run 2	107.985 ppb	42.003 ppb	106.989 ppb	227.119 ppb	107.382 ppb	108.922 ppb	53.353 ppb	106.016 ppb	103.560 %
Concentration per Run 3	104.399 ppb	42.107 ppb	107.023 ppb	222.587 ppb	105.303 ppb	105.455 ppb	53.201 ppb	104.985 ppb	105.519 %
Concentration RSD	3.0 %	2.1 %	0.1 %	1.1 %	1.4 %	1.6 %	1.6 %	0.5 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	25.714 ppb	23.947 ppb	209.866 ppb	209.911 ppb	100.214 %	10.493 ppb	11.325 ppb	101.946 %	102.914 ppb
Concentration per Run 1	25.713 ppb	22.214 ppb	207.356 ppb	208.145 ppb	100.568 %	10.429 ppb	11.244 ppb	101.960 %	103.763 ppb
Concentration per Run 2	26.091 ppb	25.990 ppb	211.188 ppb	210.233 ppb	98.624 %	10.759 ppb	11.549 ppb	100.681 %	102.364 ppb
Concentration per Run 3	25.340 ppb	23.638 ppb	211.056 ppb	211.356 ppb	101.451 %	10.290 ppb	11.183 ppb	103.197 %	102.614 ppb
Concentration RSD	1.5 %	8.0 %	1.0 %	0.8 %	1.4 %	2.3 %	1.7 %	1.2 %	0.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	409.979 ppb	103.418 %	104.575 %	25.988 ppb	117.471 ppb	98.570 %
Concentration per Run 1	412.270 ppb	103.839 %	103.229 %	25.753 ppb	117.031 ppb	99.038 %
Concentration per Run 2	412.003 ppb	102.087 %	105.213 %	26.504 ppb	118.754 ppb	97.108 %
Concentration per Run 3	405.665 ppb	104.327 %	105.281 %	25.708 ppb	116.627 ppb	99.563 %
Concentration RSD	0.9 %	1.1 %	1.1 %	1.7 %	1.0 %	1.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	56	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446555-04d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 9:28:47 AM	Vial	27		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.013 %	96.000 %	0.103 ppb	23,595.145 ppb	4,459.502 ppb	15.559 ppb	562.795 ppb	13,199.382 ppb	105.661 %
Concentration per Run 1	95.372 %	97.412 %	0.101 ppb	23,947.523 ppb	4,504.466 ppb	15.637 ppb	536.386 ppb	12,716.071 ppb	104.952 %
Concentration per Run 2	96.625 %	101.143 %	0.112 ppb	22,127.685 ppb	4,211.603 ppb	15.106 ppb	551.472 ppb	13,042.374 ppb	104.434 %
Concentration per Run 3	99.043 %	89.445 %	0.095 ppb	24,710.226 ppb	4,662.436 ppb	15.935 ppb	600.528 ppb	13,839.702 ppb	107.599 %
Concentration RSD	1.9 %	6.2 %	8.2 %	5.6 %	5.1 %	2.7 %	6.0 %	4.4 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.123 ppb	0.022 ppb	185.546 ppb	37,182.857 ppb	0.041 ppb	0.062 ppb	0.035 ppb	3.708 ppb	99.258 %
Concentration per Run 1	-0.158 ppb	0.027 ppb	185.621 ppb	36,784.373 ppb	0.038 ppb	0.052 ppb	0.063 ppb	3.720 ppb	100.624 %
Concentration per Run 2	-0.125 ppb	-0.003 ppb	181.054 ppb	36,860.536 ppb	0.042 ppb	0.062 ppb	0.013 ppb	3.692 ppb	98.364 %
Concentration per Run 3	-0.085 ppb	0.041 ppb	189.963 ppb	37,903.662 ppb	0.045 ppb	0.072 ppb	0.028 ppb	3.711 ppb	98.786 %
Concentration RSD	30.0 %	102.1 %	2.4 %	1.7 %	8.4 %	16.2 %	73.3 %	0.4 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.045 ppb	0.075 ppb	70.340 ppb	2.811 ppb	96.306 %	0.003 ppb	0.003 ppb	100.476 %	0.663 ppb
Concentration per Run 1	-0.032 ppb	0.110 ppb	70.017 ppb	2.240 ppb	95.824 %	0.002 ppb	0.001 ppb	101.957 %	0.325 ppb
Concentration per Run 2	0.113 ppb	0.076 ppb	70.533 ppb	2.794 ppb	96.496 %	0.005 ppb	0.004 ppb	98.639 %	0.740 ppb
Concentration per Run 3	0.054 ppb	0.037 ppb	70.471 ppb	3.400 ppb	96.600 %	0.003 ppb	0.003 ppb	100.832 %	0.924 ppb
Concentration RSD	162.8 %	49.1 %	0.4 %	20.6 %	0.4 %	50.0 %	55.9 %	1.7 %	46.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	9.309 ppb	100.252 %	102.889 %	0.164 ppb	0.055 ppb	99.905 %
Concentration per Run 1	9.162 ppb	100.969 %	103.262 %	0.120 ppb	0.056 ppb	102.650 %
Concentration per Run 2	9.427 ppb	99.969 %	103.577 %	0.196 ppb	0.055 ppb	100.015 %
Concentration per Run 3	9.339 ppb	99.816 %	101.828 %	0.175 ppb	0.052 ppb	97.050 %
Concentration RSD	1.4 %	0.6 %	0.9 %	23.8 %	3.6 %	2.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	57	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446562-02 6020TL	Rack	1		
Analysis started at:	8/21/2024 9:33:24 AM	Vial	29		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.427 %	94.084 %	0.012 ppb	16.446 ppb	-0.694 ppb	2.546 ppb	3.831 ppb	6.607 ppb	99.147 %
Concentration per Run 1	98.281 %	97.815 %	0.018 ppb	14.546 ppb	-0.269 ppb	2.155 ppb	7.796 ppb	4.348 ppb	98.776 %
Concentration per Run 2	100.082 %	95.395 %	0.006 ppb	14.530 ppb	-0.732 ppb	2.465 ppb	-0.436 ppb	8.074 ppb	98.025 %
Concentration per Run 3	102.918 %	89.042 %	0.014 ppb	20.262 ppb	-1.081 ppb	3.018 ppb	4.132 ppb	7.399 ppb	100.639 %
Concentration RSD	2.3 %	4.8 %	48.6 %	20.1 %	58.8 %	17.2 %	107.7 %	30.0 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.155 ppb	0.051 ppb	0.180 ppb	30.490 ppb	0.015 ppb	-0.020 ppb	-0.003 ppb	0.760 ppb	101.166 %
Concentration per Run 1	-0.161 ppb	0.054 ppb	0.197 ppb	26.607 ppb	0.017 ppb	-0.039 ppb	-0.005 ppb	0.811 ppb	100.286 %
Concentration per Run 2	-0.172 ppb	0.033 ppb	0.177 ppb	32.892 ppb	0.010 ppb	-0.029 ppb	-0.004 ppb	0.675 ppb	104.595 %
Concentration per Run 3	-0.132 ppb	0.067 ppb	0.165 ppb	31.971 ppb	0.018 ppb	0.006 ppb	0.000 ppb	0.794 ppb	98.616 %
Concentration RSD	13.5 %	33.6 %	9.1 %	11.1 %	29.2 %	116.2 %	87.9 %	9.7 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.036 ppb	0.036 ppb	0.304 ppb	0.850 ppb	101.096 %	0.003 ppb	0.001 ppb	101.254 %	0.193 ppb
Concentration per Run 1	-0.054 ppb	0.002 ppb	0.304 ppb	0.599 ppb	101.517 %	0.003 ppb	0.000 ppb	100.882 %	0.079 ppb
Concentration per Run 2	-0.023 ppb	0.014 ppb	0.302 ppb	0.863 ppb	102.424 %	0.003 ppb	0.002 ppb	103.135 %	0.211 ppb
Concentration per Run 3	-0.030 ppb	0.091 ppb	0.305 ppb	1.089 ppb	99.346 %	0.001 ppb	0.000 ppb	99.745 %	0.289 ppb
Concentration RSD	45.7 %	135.1 %	0.6 %	28.8 %	1.6 %	45.5 %	156.7 %	1.7 %	55.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.354 ppb	100.803 %	102.738 %	0.055 ppb	0.045 ppb	95.244 %
Concentration per Run 1	0.332 ppb	100.009 %	100.684 %	0.036 ppb	0.046 ppb	98.209 %
Concentration per Run 2	0.372 ppb	104.012 %	106.527 %	0.059 ppb	0.044 ppb	95.029 %
Concentration per Run 3	0.358 ppb	98.387 %	101.003 %	0.071 ppb	0.044 ppb	92.493 %
Concentration RSD	5.7 %	2.9 %	3.2 %	32.5 %	2.4 %	3.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	58	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446118-07d25 6020TL	Rack	1		
Analysis started at:	8/21/2024 9:38:02 AM	Vial	30		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.902 %	99.462 %	0.185 ppb	3,599.774 ppb	20,460.743 ppb	1,195.755 ppb	560.615 ppb	153,348.015 ppb	112.501 %
Concentration per Run 1	100.181 %	96.605 %	0.191 ppb	3,575.072 ppb	19,801.890 ppb	1,157.771 ppb	539.353 ppb	150,335.493 ppb	111.358 %
Concentration per Run 2	102.747 %	102.151 %	0.179 ppb	3,573.312 ppb	20,614.720 ppb	1,206.852 ppb	580.334 ppb	154,845.888 ppb	112.944 %
Concentration per Run 3	105.778 %	99.630 %	0.186 ppb	3,650.939 ppb	20,965.618 ppb	1,222.644 ppb	562.157 ppb	154,862.664 ppb	113.201 %
Concentration RSD	2.7 %	2.8 %	3.2 %	1.2 %	2.9 %	2.8 %	3.7 %	1.7 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.999 ppb	1.816 ppb	1,874.660 ppb	2,500.231 ppb	3.874 ppb	19.238 ppb	9.133 ppb	45.319 ppb	101.385 %
Concentration per Run 1	1.109 ppb	1.864 ppb	1,825.621 ppb	2,495.070 ppb	3.992 ppb	19.387 ppb	9.130 ppb	45.233 ppb	97.179 %
Concentration per Run 2	0.910 ppb	1.778 ppb	1,885.462 ppb	2,529.546 ppb	3.835 ppb	18.842 ppb	8.995 ppb	44.999 ppb	104.165 %
Concentration per Run 3	0.977 ppb	1.806 ppb	1,912.897 ppb	2,476.079 ppb	3.795 ppb	19.484 ppb	9.273 ppb	45.724 ppb	102.811 %
Concentration RSD	10.1 %	2.4 %	2.4 %	1.1 %	2.7 %	1.8 %	1.5 %	0.8 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.670 ppb	2.155 ppb	514.727 ppb	0.365 ppb	97.400 %	2.693 ppb	0.126 ppb	99.313 %	0.107 ppb
Concentration per Run 1	0.678 ppb	2.415 ppb	506.083 ppb	0.264 ppb	95.932 %	2.681 ppb	0.136 ppb	100.000 %	0.056 ppb
Concentration per Run 2	0.774 ppb	2.047 ppb	517.414 ppb	0.383 ppb	97.971 %	2.740 ppb	0.133 ppb	98.066 %	0.103 ppb
Concentration per Run 3	0.557 ppb	2.001 ppb	520.683 ppb	0.447 ppb	98.297 %	2.660 ppb	0.110 ppb	99.874 %	0.161 ppb
Concentration RSD	16.3 %	10.5 %	1.5 %	25.6 %	1.3 %	1.5 %	11.2 %	1.1 %	49.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	67.569 ppb	100.880 %	102.618 %	0.079 ppb	12.717 ppb	96.482 %
Concentration per Run 1	65.783 ppb	99.060 %	99.013 %	0.063 ppb	12.006 ppb	100.637 %
Concentration per Run 2	67.817 ppb	101.550 %	103.940 %	0.083 ppb	12.893 ppb	95.857 %
Concentration per Run 3	69.109 ppb	102.030 %	104.900 %	0.090 ppb	13.253 ppb	92.952 %
Concentration RSD	2.5 %	1.6 %	3.1 %	17.7 %	5.0 %	4.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	59	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446118-08d25 6020TL	Rack	1		
Analysis started at:	8/21/2024 9:42:40 AM	Vial	31		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.116 %	102.219 %	0.164 ppb	1,801.444 ppb	13,269.065 ppb	1,305.273 ppb	394.683 ppb	80,911.013 ppb	113.964 %
Concentration per Run 1	102.240 %	101.244 %	0.157 ppb	1,823.039 ppb	14,408.988 ppb	1,290.769 ppb	399.182 ppb	80,962.246 ppb	112.732 %
Concentration per Run 2	104.485 %	103.765 %	0.174 ppb	1,796.688 ppb	12,824.514 ppb	1,304.654 ppb	391.409 ppb	81,311.271 ppb	116.850 %
Concentration per Run 3	105.624 %	101.647 %	0.162 ppb	1,784.606 ppb	12,573.694 ppb	1,320.396 ppb	393.457 ppb	80,459.521 ppb	112.311 %
Concentration RSD	1.7 %	1.3 %	5.3 %	1.1 %	7.5 %	1.1 %	1.0 %	0.5 %	2.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.270 ppb	3.466 ppb	795.200 ppb	3,707.241 ppb	2.698 ppb	9.427 ppb	18.909 ppb	31.150 ppb	103.725 %
Concentration per Run 1	1.273 ppb	3.595 ppb	795.858 ppb	3,789.660 ppb	2.771 ppb	9.608 ppb	19.290 ppb	30.998 ppb	101.937 %
Concentration per Run 2	1.249 ppb	3.422 ppb	789.772 ppb	3,642.754 ppb	2.680 ppb	9.176 ppb	18.531 ppb	31.721 ppb	103.782 %
Concentration per Run 3	1.287 ppb	3.380 ppb	799.971 ppb	3,689.309 ppb	2.644 ppb	9.496 ppb	18.906 ppb	30.732 ppb	105.454 %
Concentration RSD	1.5 %	3.3 %	0.6 %	2.0 %	2.4 %	2.4 %	2.0 %	1.6 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.636 ppb	1.526 ppb	205.753 ppb	0.191 ppb	98.291 %	1.381 ppb	0.045 ppb	101.123 %	0.063 ppb
Concentration per Run 1	0.643 ppb	1.481 ppb	201.959 ppb	0.096 ppb	98.149 %	1.374 ppb	0.043 ppb	99.633 %	0.017 ppb
Concentration per Run 2	0.686 ppb	1.675 ppb	209.914 ppb	0.202 ppb	98.316 %	1.385 ppb	0.049 ppb	101.566 %	0.069 ppb
Concentration per Run 3	0.580 ppb	1.422 ppb	205.387 ppb	0.276 ppb	98.409 %	1.383 ppb	0.043 ppb	102.169 %	0.102 ppb
Concentration RSD	8.4 %	8.7 %	1.9 %	47.1 %	0.1 %	0.4 %	7.8 %	1.3 %	68.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	121.847 ppb	102.674 %	103.608 %	0.044 ppb	14.282 ppb	97.929 %
Concentration per Run 1	120.969 ppb	101.672 %	101.590 %	0.038 ppb	14.049 ppb	98.677 %
Concentration per Run 2	124.198 ppb	102.725 %	106.508 %	0.046 ppb	14.123 ppb	98.561 %
Concentration per Run 3	120.374 ppb	103.626 %	102.727 %	0.048 ppb	14.673 ppb	96.550 %
Concentration RSD	1.7 %	1.0 %	2.5 %	11.8 %	2.4 %	1.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	60	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2446118-09d25 6020TL	Rack	1		
Analysis started at:	8/21/2024 9:47:18 AM	Vial	32		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.389 %	101.076 %	0.266 ppb	1,096.352 ppb	23,375.890 ppb	1,892.236 ppb	475.328 ppb	99,686.936 ppb	116.400 %
Concentration per Run 1	101.323 %	101.445 %	0.276 ppb	1,103.790 ppb	23,522.339 ppb	1,904.177 ppb	473.909 ppb	98,601.215 ppb	115.296 %
Concentration per Run 2	103.716 %	106.992 %	0.253 ppb	1,041.705 ppb	22,354.296 ppb	1,824.821 ppb	449.131 ppb	96,255.231 ppb	115.916 %
Concentration per Run 3	105.128 %	94.790 %	0.270 ppb	1,143.562 ppb	24,251.035 ppb	1,947.709 ppb	502.945 ppb	104,204.360 ppb	117.990 %
Concentration RSD	1.9 %	6.0 %	4.5 %	4.7 %	4.1 %	3.3 %	5.7 %	4.1 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.435 ppb	4.477 ppb	2,776.180 ppb	4,155.430 ppb	4.245 ppb	27.754 ppb	35.036 ppb	55.957 ppb	103.402 %
Concentration per Run 1	1.472 ppb	4.352 ppb	2,785.315 ppb	4,129.921 ppb	4.252 ppb	27.130 ppb	35.089 ppb	54.849 ppb	104.558 %
Concentration per Run 2	1.353 ppb	4.458 ppb	2,730.952 ppb	4,127.421 ppb	4.285 ppb	27.930 ppb	34.894 ppb	56.905 ppb	102.648 %
Concentration per Run 3	1.479 ppb	4.621 ppb	2,812.273 ppb	4,208.947 ppb	4.197 ppb	28.201 ppb	35.127 ppb	56.118 ppb	103.000 %
Concentration RSD	4.9 %	3.0 %	1.5 %	1.1 %	1.0 %	2.0 %	0.4 %	1.9 %	1.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.701 ppb	2.709 ppb	180.843 ppb	0.125 ppb	98.426 %	7.406 ppb	0.137 ppb	103.036 %	0.036 ppb
Concentration per Run 1	0.772 ppb	2.853 ppb	179.323 ppb	0.065 ppb	98.429 %	7.429 ppb	0.148 ppb	103.221 %	0.006 ppb
Concentration per Run 2	0.649 ppb	2.638 ppb	181.561 ppb	0.154 ppb	98.631 %	7.437 ppb	0.130 ppb	103.666 %	0.042 ppb
Concentration per Run 3	0.683 ppb	2.635 ppb	181.646 ppb	0.156 ppb	98.219 %	7.351 ppb	0.131 ppb	102.221 %	0.061 ppb
Concentration RSD	9.0 %	4.6 %	0.7 %	41.6 %	0.2 %	0.6 %	7.5 %	0.7 %	75.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	89.768 ppb	103.806 %	104.194 %	0.095 ppb	19.837 ppb	97.683 %
Concentration per Run 1	88.353 ppb	105.038 %	104.890 %	0.077 ppb	19.023 ppb	101.212 %
Concentration per Run 2	89.041 ppb	103.156 %	104.014 %	0.100 ppb	20.195 ppb	96.796 %
Concentration per Run 3	91.911 ppb	103.223 %	103.679 %	0.108 ppb	20.294 ppb	95.041 %
Concentration RSD	2.1 %	1.0 %	0.6 %	17.1 %	3.6 %	3.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	61	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 9:51:57 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.884 %	99.597 %	58.952 ppb	6,318.075 ppb	6,200.106 ppb	61.259 ppb	6,458.448 ppb	6,346.254 ppb	109.089 %
Concentration per Run 1	99.059 %	98.319 %	59.424 ppb	6,452.031 ppb	6,418.240 ppb	62.033 ppb	6,468.750 ppb	6,383.940 ppb	108.409 %
Concentration per Run 2	103.541 %	100.235 %	59.465 ppb	6,332.901 ppb	6,133.472 ppb	60.921 ppb	6,552.725 ppb	6,340.217 ppb	109.985 %
Concentration per Run 3	106.051 %	100.235 %	57.966 ppb	6,169.294 ppb	6,048.606 ppb	60.823 ppb	6,353.869 ppb	6,314.606 ppb	108.873 %
Recovery Percentage 1			98.253 %	105.301 %	103.335 %	102.099 %	107.641 %	105.771 %	
Concentration RSD	3.4 %	1.1 %	1.4 %	2.2 %	3.1 %	1.1 %	1.5 %	0.6 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.259 ppb	61.476 ppb	61.909 ppb	6,257.959 ppb	62.733 ppb	62.605 ppb	63.478 ppb	62.418 ppb	102.592 %
Concentration per Run 1	60.842 ppb	61.506 ppb	61.075 ppb	6,226.731 ppb	61.829 ppb	61.619 ppb	62.551 ppb	60.931 ppb	104.975 %
Concentration per Run 2	61.750 ppb	62.557 ppb	63.766 ppb	6,369.565 ppb	64.351 ppb	64.648 ppb	64.520 ppb	63.638 ppb	100.757 %
Concentration per Run 3	61.185 ppb	60.366 ppb	60.884 ppb	6,177.582 ppb	62.020 ppb	61.547 ppb	63.365 ppb	62.684 ppb	102.043 %
Recovery Percentage 1	102.099 %	102.460 %	103.181 %	104.299 %	104.555 %	104.341 %	105.797 %	104.029 %	
Concentration RSD	0.7 %	1.8 %	2.6 %	1.6 %	2.2 %	2.8 %	1.6 %	2.2 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.978 ppb	61.481 ppb	62.594 ppb	59.370 ppb	100.135 %	61.924 ppb	61.666 ppb	101.105 %	60.218 ppb
Concentration per Run 1	61.826 ppb	60.608 ppb	61.604 ppb	57.663 ppb	101.085 %	60.536 ppb	60.544 ppb	102.672 %	60.326 ppb
Concentration per Run 2	62.912 ppb	63.915 ppb	63.529 ppb	60.336 ppb	99.897 %	62.470 ppb	62.221 ppb	100.343 %	60.290 ppb
Concentration per Run 3	61.194 ppb	59.921 ppb	62.650 ppb	60.111 ppb	99.422 %	62.765 ppb	62.232 ppb	100.302 %	60.037 ppb
Recovery Percentage 1	103.296 %	102.469 %	104.324 %	98.950 %		103.206 %	102.777 %		100.363 %
Concentration RSD	1.4 %	3.5 %	1.5 %	2.5 %	0.9 %	2.0 %	1.6 %	1.3 %	0.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.394 ppb	103.299 %	103.633 %	62.612 ppb	62.820 ppb	101.909 %
Concentration per Run 1	60.975 ppb	105.783 %	104.775 %	60.812 ppb	60.915 ppb	105.368 %
Concentration per Run 2	61.530 ppb	101.483 %	104.233 %	61.104 ppb	62.637 ppb	103.013 %
Concentration per Run 3	61.676 ppb	102.631 %	101.890 %	65.921 ppb	64.907 ppb	97.347 %
Recovery Percentage 1	102.323 %			104.354 %	104.699 %	
Concentration RSD	0.6 %	2.2 %	1.5 %	4.6 %	3.2 %	4.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	62	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 9:56:39 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.720 %	97.109 %	0.015 ppb	10.577 ppb	-0.447 ppb	-0.255 ppb	6.945 ppb	4.123 ppb	102.549 %
Concentration per Run 1	99.618 %	99.328 %	0.016 ppb	8.296 ppb	0.062 ppb	-0.443 ppb	6.193 ppb	3.581 ppb	100.573 %
Concentration per Run 2	102.969 %	88.134 %	0.016 ppb	17.213 ppb	-1.186 ppb	-0.242 ppb	7.625 ppb	5.374 ppb	102.952 %
Concentration per Run 3	105.574 %	103.866 %	0.012 ppb	6.223 ppb	-0.217 ppb	-0.080 ppb	7.017 ppb	3.415 ppb	104.124 %
Recovery Percentage 1			2.936 %	10.577 %	-0.638 %	-2.552 %	6.945 %	4.123 %	
Concentration RSD	2.9 %	8.3 %	16.1 %	55.2 %	146.6 %	71.3 %	10.3 %	26.3 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.164 ppb	-0.012 ppb	0.104 ppb	14.551 ppb	0.001 ppb	0.034 ppb	0.029 ppb	0.015 ppb	101.655 %
Concentration per Run 1	-0.159 ppb	-0.023 ppb	0.092 ppb	12.497 ppb	0.005 ppb	0.025 ppb	0.036 ppb	0.026 ppb	102.200 %
Concentration per Run 2	-0.170 ppb	-0.018 ppb	0.106 ppb	15.151 ppb	-0.002 ppb	0.031 ppb	0.028 ppb	0.013 ppb	102.904 %
Concentration per Run 3	-0.162 ppb	0.006 ppb	0.115 ppb	16.006 ppb	0.001 ppb	0.045 ppb	0.024 ppb	0.006 ppb	99.862 %
Recovery Percentage 1	-3.280 %	-1.172 %	10.447 %	29.103 %	0.291 %	1.693 %	2.940 %	0.296 %	
Concentration RSD	3.5 %	134.6 %	11.4 %	12.6 %	251.3 %	30.7 %	21.3 %	68.4 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.010 ppb	0.109 ppb	0.007 ppb	1.200 ppb	100.007 %	0.007 ppb	0.004 ppb	100.533 %	0.314 ppb
Concentration per Run 1	-0.004 ppb	0.077 ppb	0.008 ppb	0.880 ppb	100.837 %	0.008 ppb	0.006 ppb	100.672 %	0.195 ppb
Concentration per Run 2	-0.023 ppb	0.116 ppb	0.004 ppb	1.222 ppb	99.942 %	0.006 ppb	0.004 ppb	100.016 %	0.342 ppb
Concentration per Run 3	-0.003 ppb	0.135 ppb	0.008 ppb	1.499 ppb	99.241 %	0.006 ppb	0.001 ppb	100.909 %	0.404 ppb
Recovery Percentage 1	-1.953 %	2.188 %	0.067 %	59.999 %		1.633 %	1.844 %		7.838 %
Concentration RSD	114.1 %	27.1 %	29.4 %	25.8 %	0.8 %	14.0 %	61.2 %	0.5 %	34.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.008 ppb	100.893 %	101.898 %	0.247 ppb	0.036 ppb	101.018 %
Concentration per Run 1	-0.004 ppb	101.910 %	100.076 %	0.178 ppb	0.034 ppb	106.478 %
Concentration per Run 2	0.022 ppb	100.757 %	100.241 %	0.297 ppb	0.036 ppb	98.258 %
Concentration per Run 3	0.005 ppb	100.011 %	105.378 %	0.266 ppb	0.036 ppb	98.318 %
Recovery Percentage 1	1.529 %			24.691 %	3.562 %	
Concentration RSD	175.0 %	0.9 %	3.0 %	25.1 %	3.7 %	4.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	63	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2444139-01d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:02:39 AM	Vial	35		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	72.128 %	104.840 %	0.236 ppb	1,056.675 ppb	8,520.791 ppb	3,929.751 ppb	492.485 ppb	5,095.217 ppb	105.058 %
Concentration per Run 1	70.524 %	105.883 %	0.256 ppb	1,052.515 ppb	8,623.883 ppb	4,004.656 ppb	492.006 ppb	5,190.145 ppb	102.513 %
Concentration per Run 2	72.562 %	105.580 %	0.244 ppb	1,039.859 ppb	8,435.120 ppb	3,955.336 ppb	502.173 ppb	5,079.770 ppb	105.228 %
Concentration per Run 3	73.299 %	103.059 %	0.208 ppb	1,077.650 ppb	8,503.370 ppb	3,829.259 ppb	483.277 ppb	5,015.736 ppb	107.434 %
Concentration RSD	2.0 %	1.5 %	10.5 %	1.8 %	1.1 %	2.3 %	1.9 %	1.7 %	2.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	35.834 ppb	17.174 ppb	526.466 ppb	637,878.271 ppb	46.245 ppb	126.264 ppb	167.224 ppb	48.544 ppb	148.731 %
Concentration per Run 1	36.669 ppb	17.074 ppb	522.779 ppb	626,429.401 ppb	45.744 ppb	125.011 ppb	163.950 ppb	48.001 ppb	151.839 %
Concentration per Run 2	35.214 ppb	16.872 ppb	517.393 ppb	630,871.779 ppb	45.856 ppb	125.516 ppb	167.001 ppb	48.152 ppb	150.141 %
Concentration per Run 3	35.619 ppb	17.578 ppb	539.225 ppb	656,333.632 ppb	47.135 ppb	128.266 ppb	170.723 ppb	49.481 ppb	144.214 %
Concentration RSD	2.1 %	2.1 %	2.2 %	2.5 %	1.7 %	1.4 %	2.0 %	1.7 %	2.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	281.263 ppb	0.742 ppb	30.643 ppb	16.017 ppb	91.583 %	0.088 ppb	0.118 ppb	3.544 %	144.187 ppb
Concentration per Run 1	277.327 ppb	0.707 ppb	31.100 ppb	15.963 ppb	92.993 %	0.084 ppb	0.124 ppb	3.238 %	147.234 ppb
Concentration per Run 2	281.442 ppb	0.885 ppb	30.509 ppb	15.878 ppb	90.931 %	0.091 ppb	0.106 ppb	5.777 %	142.979 ppb
Concentration per Run 3	285.021 ppb	0.634 ppb	30.321 ppb	16.209 ppb	90.824 %	0.087 ppb	0.125 ppb	1.618 %	142.349 ppb
Concentration RSD	1.4 %	17.4 %	1.3 %	1.1 %	1.3 %	4.0 %	9.3 %	59.1 %	1.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	41.610 ppb	95.448 %	99.315 %	0.107 ppb	90.575 ppb	88.418 %
Concentration per Run 1	41.593 ppb	98.366 %	104.703 %	0.084 ppb	87.052 ppb	93.769 %
Concentration per Run 2	41.789 ppb	94.290 %	98.635 %	0.117 ppb	90.685 ppb	87.067 %
Concentration per Run 3	41.448 ppb	93.687 %	94.608 %	0.120 ppb	93.989 ppb	84.419 %
Concentration RSD	0.4 %	2.7 %	5.1 %	18.6 %	3.8 %	5.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	64	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1956741-3d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:07:19 AM	Vial	36		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	69.806 %	103.630 %	10.871 ppb	3,018.305 ppb	11,243.877 ppb	4,712.998 ppb	2,381.461 ppb	5,814.880 ppb	101.204 %
Concentration per Run 1	67.746 %	104.269 %	11.125 ppb	3,141.904 ppb	11,471.843 ppb	5,017.563 ppb	2,432.835 ppb	5,923.788 ppb	100.031 %
Concentration per Run 2	70.684 %	100.235 %	10.990 ppb	3,016.988 ppb	11,274.933 ppb	4,658.392 ppb	2,435.131 ppb	5,879.412 ppb	102.511 %
Concentration per Run 3	70.987 %	106.387 %	10.498 ppb	2,896.022 ppb	10,984.856 ppb	4,463.038 ppb	2,276.416 ppb	5,641.439 ppb	101.070 %
Concentration RSD	2.6 %	3.0 %	3.0 %	4.1 %	2.2 %	6.0 %	3.8 %	2.6 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	98.750 ppb	42.488 ppb	563.520 ppb	572,117.975 ppb	96.640 ppb	140.396 ppb	135.842 ppb	99.654 ppb	159.776 %
Concentration per Run 1	99.926 ppb	41.483 ppb	570.011 ppb	575,069.300 ppb	96.831 ppb	139.386 ppb	134.263 ppb	99.582 ppb	166.080 %
Concentration per Run 2	100.610 ppb	43.708 ppb	573.156 ppb	583,016.299 ppb	96.209 ppb	142.353 ppb	136.838 ppb	99.705 ppb	154.631 %
Concentration per Run 3	95.716 ppb	42.275 ppb	547.392 ppb	558,268.326 ppb	96.879 ppb	139.449 ppb	136.425 ppb	99.673 ppb	158.616 %
Concentration RSD	2.7 %	2.7 %	2.5 %	2.2 %	0.4 %	1.2 %	1.0 %	0.1 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	173.102 ppb	17.621 ppb	205.441 ppb	190.617 ppb	90.908 %	10.160 ppb	11.187 ppb	21.620 %	158.865 ppb
Concentration per Run 1	173.233 ppb	17.620 ppb	210.632 ppb	185.816 ppb	94.017 %	9.988 ppb	11.195 ppb	28.774 %	163.499 ppb
Concentration per Run 2	175.326 ppb	17.894 ppb	204.660 ppb	193.586 ppb	88.720 %	10.345 ppb	11.243 ppb	15.433 %	158.340 ppb
Concentration per Run 3	170.747 ppb	17.349 ppb	201.033 ppb	192.448 ppb	89.987 %	10.146 ppb	11.122 ppb	20.652 %	154.755 ppb
Concentration RSD	1.3 %	1.5 %	2.4 %	2.2 %	3.0 %	1.8 %	0.5 %	31.1 %	2.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	480.956 ppb	93.802 %	94.980 %	24.735 ppb	166.587 ppb	84.961 %
Concentration per Run 1	491.694 ppb	96.808 %	99.833 %	24.288 ppb	162.142 ppb	88.486 %
Concentration per Run 2	480.142 ppb	92.440 %	92.532 %	25.266 ppb	170.202 ppb	82.401 %
Concentration per Run 3	471.032 ppb	92.157 %	92.575 %	24.652 ppb	167.418 ppb	83.997 %
Concentration RSD	2.2 %	2.8 %	4.4 %	2.0 %	2.5 %	3.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	65	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1956741-4d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:11:59 AM	Vial	37		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	67.856 %	104.404 %	0.148 ppb	956.453 ppb	8,523.544 ppb	3,406.849 ppb	454.939 ppb	12,067.830 ppb	97.449 %
Concentration per Run 1	66.535 %	108.505 %	0.152 ppb	973.911 ppb	8,757.128 ppb	3,668.904 ppb	474.596 ppb	12,558.282 ppb	97.485 %
Concentration per Run 2	67.169 %	99.630 %	0.149 ppb	1,011.086 ppb	8,729.409 ppb	3,448.779 ppb	480.408 ppb	12,266.760 ppb	95.236 %
Concentration per Run 3	69.865 %	105.076 %	0.143 ppb	884.361 ppb	8,084.096 ppb	3,102.864 ppb	409.812 ppb	11,378.447 ppb	99.626 %
Concentration RSD	2.6 %	4.3 %	2.9 %	6.8 %	4.5 %	8.4 %	8.6 %	5.1 %	2.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	32.408 ppb	15.564 ppb	663.870 ppb	692,787.801 ppb	51.084 ppb	135.793 ppb	164.840 ppb	38.621 ppb	124.476 %
Concentration per Run 1	31.991 ppb	14.960 ppb	661.230 ppb	680,570.890 ppb	48.975 ppb	129.414 ppb	156.965 ppb	37.734 ppb	133.607 %
Concentration per Run 2	33.526 ppb	16.057 ppb	679.157 ppb	708,529.223 ppb	52.513 ppb	139.685 ppb	169.573 ppb	39.566 ppb	122.145 %
Concentration per Run 3	31.706 ppb	15.673 ppb	651.222 ppb	689,263.289 ppb	51.765 ppb	138.281 ppb	167.981 ppb	38.562 ppb	117.677 %
Concentration RSD	3.0 %	3.6 %	2.1 %	2.1 %	3.6 %	4.1 %	4.2 %	2.4 %	6.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	287.593 ppb	0.918 ppb	67.098 ppb	17.599 ppb	90.607 %	0.071 ppb	0.108 ppb	-2.421 %	116.020 ppb
Concentration per Run 1	284.159 ppb	0.962 ppb	69.227 ppb	16.393 ppb	93.746 %	0.072 ppb	0.123 ppb	1.179 %	117.097 ppb
Concentration per Run 2	292.658 ppb	0.927 ppb	67.887 ppb	17.818 ppb	88.799 %	0.071 ppb	0.107 ppb	-6.388 %	118.070 ppb
Concentration per Run 3	285.962 ppb	0.865 ppb	64.180 ppb	18.588 ppb	89.276 %	0.071 ppb	0.095 ppb	-2.054 %	112.894 ppb
Concentration RSD	1.6 %	5.3 %	3.9 %	6.3 %	3.0 %	0.9 %	13.4 %	156.9 %	2.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	55.576 ppb	93.598 %	95.053 %	0.229 ppb	74.851 ppb	85.029 %
Concentration per Run 1	57.671 ppb	98.681 %	103.025 %	0.186 ppb	71.506 ppb	91.163 %
Concentration per Run 2	56.872 ppb	92.467 %	93.265 %	0.257 ppb	75.835 ppb	84.479 %
Concentration per Run 3	52.184 ppb	89.646 %	88.869 %	0.242 ppb	77.212 ppb	79.445 %
Concentration RSD	5.3 %	4.9 %	7.6 %	16.5 %	4.0 %	6.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	66	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1956741-5d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:17:52 AM	Vial	38		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	69.755 %	103.563 %	53.094 ppb	5,816.873 ppb	12,814.504 ppb	3,740.857 ppb	5,341.571 ppb	9,247.825 ppb	97.391 %
Concentration per Run 1	68.313 %	102.756 %	52.806 ppb	5,605.360 ppb	12,305.154 ppb	3,571.732 ppb	5,160.454 ppb	8,969.042 ppb	96.111 %
Concentration per Run 2	70.050 %	106.185 %	53.955 ppb	5,854.954 ppb	12,858.934 ppb	3,817.490 ppb	5,395.760 ppb	9,325.713 ppb	98.199 %
Concentration per Run 3	70.901 %	101.748 %	52.521 ppb	5,990.304 ppb	13,279.424 ppb	3,833.348 ppb	5,468.497 ppb	9,448.719 ppb	97.862 %
Concentration RSD	1.9 %	2.2 %	1.4 %	3.4 %	3.8 %	3.9 %	3.0 %	2.7 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	77.913 ppb	62.377 ppb	569.313 ppb	**651,330.232 ppb**	85.398 ppb	207.121 ppb	209.078 ppb	86.305 ppb	140.743 %
Concentration per Run 1	76.639 ppb	63.578 ppb	564.158 ppb	653,285.922 ppb	86.142 ppb	205.236 ppb	214.189 ppb	85.808 ppb	136.451 %
Concentration per Run 2	77.735 ppb	61.105 ppb	565.418 ppb	636,448.206 ppb	84.547 ppb	204.454 ppb	205.828 ppb	85.509 ppb	144.428 %
Concentration per Run 3	79.366 ppb	62.449 ppb	578.363 ppb	664,256.568 ppb	85.505 ppb	211.672 ppb	207.217 ppb	87.598 ppb	141.349 %
Concentration RSD	1.8 %	2.0 %	1.4 %	2.2 %	0.9 %	1.9 %	2.1 %	1.3 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	322.720 ppb	38.863 ppb	75.546 ppb	64.311 ppb	89.516 %	10.861 ppb	52.615 ppb	-4.010 %	**188.176 ppb**
Concentration per Run 1	321.955 ppb	37.861 ppb	72.958 ppb	64.255 ppb	88.484 %	10.901 ppb	51.944 ppb	-9.536 %	186.385 ppb
Concentration per Run 2	323.174 ppb	40.001 ppb	76.315 ppb	64.743 ppb	90.831 %	10.842 ppb	52.215 ppb	-4.804 %	192.150 ppb
Concentration per Run 3	323.030 ppb	38.728 ppb	77.364 ppb	63.937 ppb	89.233 %	10.840 ppb	53.686 ppb	2.310 %	185.992 ppb
Concentration RSD	0.2 %	2.8 %	3.0 %	0.6 %	1.3 %	0.3 %	1.8 %	148.7 %	1.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	92.362 ppb	94.439 %	93.786 %	51.749 ppb	141.597 ppb	84.781 %
Concentration per Run 1	88.784 ppb	92.124 %	90.623 %	52.076 ppb	140.643 ppb	84.055 %
Concentration per Run 2	94.996 ppb	95.582 %	96.036 %	51.861 ppb	141.244 ppb	85.841 %
Concentration per Run 3	93.306 ppb	95.612 %	94.697 %	51.310 ppb	142.903 ppb	84.448 %
Concentration RSD	3.5 %	2.1 %	3.0 %	0.8 %	0.8 %	1.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	67	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1956741-6d50 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:22:31 AM	Vial	39		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	80.333 %	104.975 %	0.055 ppb	232.500 ppb	1,856.979 ppb	824.046 ppb	104.947 ppb	1,102.412 ppb	93.416 %
Concentration per Run 1	78.985 %	102.151 %	0.055 ppb	230.824 ppb	1,817.972 ppb	798.182 ppb	99.401 ppb	1,097.202 ppb	91.771 %
Concentration per Run 2	79.703 %	102.555 %	0.066 ppb	241.415 ppb	1,891.253 ppb	852.054 ppb	105.085 ppb	1,089.388 ppb	93.304 %
Concentration per Run 3	82.310 %	110.219 %	0.046 ppb	225.261 ppb	1,861.712 ppb	821.900 ppb	110.355 ppb	1,120.645 ppb	95.173 %
Concentration RSD	2.2 %	4.3 %	18.0 %	3.5 %	2.0 %	3.3 %	5.2 %	1.5 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	8.193 ppb	3.836 ppb	114.421 ppb	170,511.444 ppb	13.146 ppb	37.113 ppb	48.340 ppb	13.291 ppb	105.330 %
Concentration per Run 1	8.419 ppb	4.062 ppb	114.390 ppb	173,271.558 ppb	13.552 ppb	38.665 ppb	49.373 ppb	13.351 ppb	100.973 %
Concentration per Run 2	8.021 ppb	3.693 ppb	112.594 ppb	165,914.692 ppb	12.711 ppb	35.404 ppb	45.693 ppb	12.948 ppb	110.769 %
Concentration per Run 3	8.139 ppb	3.753 ppb	116.280 ppb	172,348.081 ppb	13.174 ppb	37.269 ppb	49.953 ppb	13.573 ppb	104.249 %
Concentration RSD	2.5 %	5.2 %	1.6 %	2.4 %	3.2 %	4.4 %	4.8 %	2.4 %	4.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	73.742 ppb	0.328 ppb	6.401 ppb	4.386 ppb	95.663 %	0.019 ppb	0.028 ppb	71.033 %	28.304 ppb
Concentration per Run 1	73.170 ppb	0.271 ppb	6.181 ppb	3.956 ppb	95.568 %	0.019 ppb	0.023 ppb	70.324 %	27.529 ppb
Concentration per Run 2	71.266 ppb	0.410 ppb	6.337 ppb	4.360 ppb	98.572 %	0.017 ppb	0.034 ppb	73.537 %	27.320 ppb
Concentration per Run 3	76.788 ppb	0.303 ppb	6.687 ppb	4.841 ppb	92.850 %	0.021 ppb	0.027 ppb	69.238 %	30.064 ppb
Concentration RSD	3.8 %	22.3 %	4.0 %	10.1 %	3.0 %	11.1 %	18.6 %	3.1 %	5.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	7.589 ppb	95.206 %	92.537 %	0.298 ppb	19.409 ppb	88.486 %
Concentration per Run 1	7.340 ppb	93.454 %	91.481 %	0.235 ppb	18.935 ppb	89.158 %
Concentration per Run 2	7.233 ppb	99.403 %	97.459 %	0.333 ppb	18.801 ppb	91.650 %
Concentration per Run 3	8.193 ppb	92.760 %	88.670 %	0.324 ppb	20.492 ppb	84.650 %
Concentration RSD	6.9 %	3.8 %	4.9 %	18.1 %	4.8 %	4.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	68	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2444139-02d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:27:09 AM	Vial	40		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	82.860 %	110.622 %	0.546 ppb	3,232.854 ppb	4,494.528 ppb	9,321.958 ppb	1,352.324 ppb	3,627.908 ppb	118.201 %
Concentration per Run 1	80.141 %	109.210 %	0.529 ppb	3,214.841 ppb	4,458.928 ppb	8,915.305 ppb	1,355.562 ppb	3,601.623 ppb	118.269 %
Concentration per Run 2	82.955 %	111.126 %	0.500 ppb	3,255.897 ppb	4,495.453 ppb	9,529.663 ppb	1,369.190 ppb	3,700.070 ppb	118.785 %
Concentration per Run 3	85.485 %	111.530 %	0.610 ppb	3,227.825 ppb	4,529.205 ppb	9,520.906 ppb	1,332.220 ppb	3,582.032 ppb	117.549 %
Concentration RSD	3.2 %	1.1 %	10.4 %	0.6 %	0.8 %	3.8 %	1.4 %	1.7 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	74.002 ppb	19.066 ppb	330.638 ppb	120,246.610 ppb	20.427 ppb	44.818 ppb	405.924 ppb	427.734 ppb	104.184 %
Concentration per Run 1	76.313 ppb	19.633 ppb	329.766 ppb	122,107.939 ppb	20.789 ppb	45.574 ppb	416.461 ppb	434.727 ppb	97.871 %
Concentration per Run 2	72.960 ppb	18.977 ppb	331.712 ppb	119,726.549 ppb	20.431 ppb	45.058 ppb	401.873 ppb	429.538 ppb	106.590 %
Concentration per Run 3	72.733 ppb	18.589 ppb	330.435 ppb	118,905.341 ppb	20.060 ppb	43.822 ppb	399.436 ppb	418.936 ppb	108.091 %
Concentration RSD	2.7 %	2.8 %	0.3 %	1.4 %	1.8 %	2.0 %	2.3 %	1.9 %	5.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	55.880 ppb	3.000 ppb	45.150 ppb	6.023 ppb	97.324 %	0.245 ppb	1.089 ppb	63.204 %	33.867 ppb
Concentration per Run 1	57.240 ppb	3.042 ppb	45.185 ppb	6.211 ppb	93.553 %	0.245 ppb	1.056 ppb	60.636 %	33.851 ppb
Concentration per Run 2	55.950 ppb	3.062 ppb	45.187 ppb	5.882 ppb	99.768 %	0.243 ppb	1.084 ppb	61.714 %	34.268 ppb
Concentration per Run 3	54.449 ppb	2.896 ppb	45.079 ppb	5.977 ppb	98.649 %	0.246 ppb	1.127 ppb	67.260 %	33.484 ppb
Concentration RSD	2.5 %	3.0 %	0.1 %	2.8 %	3.4 %	0.6 %	3.3 %	5.6 %	1.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	51.612 ppb	96.376 %	93.584 %	0.225 ppb	5,433.353 ppb	101.521 %
Concentration per Run 1	51.515 ppb	92.066 %	87.748 %	0.202 ppb	5,394.595 ppb	100.206 %
Concentration per Run 2	51.725 ppb	98.018 %	97.624 %	0.232 ppb	5,521.598 ppb	99.670 %
Concentration per Run 3	51.597 ppb	99.043 %	95.381 %	0.242 ppb	5,383.865 ppb	104.686 %
Concentration RSD	0.2 %	3.9 %	5.5 %	9.3 %	1.4 %	2.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	69	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2444139-03d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:31:46 AM	Vial	41		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.080 %	114.320 %	0.702 ppb	3,069.926 ppb	6,328.598 ppb	11,493.760 ppb	2,160.077 ppb	4,857.557 ppb	124.608 %
Concentration per Run 1	84.253 %	114.958 %	0.730 ppb	3,117.782 ppb	6,439.212 ppb	11,393.315 ppb	2,152.807 ppb	4,909.584 ppb	124.141 %
Concentration per Run 2	86.209 %	113.446 %	0.698 ppb	3,055.083 ppb	6,303.760 ppb	11,596.985 ppb	2,182.569 ppb	4,854.024 ppb	124.973 %
Concentration per Run 3	87.779 %	114.555 %	0.679 ppb	3,036.914 ppb	6,242.823 ppb	11,490.980 ppb	2,144.856 ppb	4,809.064 ppb	124.710 %
Concentration RSD	2.1 %	0.7 %	3.7 %	1.4 %	1.6 %	0.9 %	0.9 %	1.0 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	116.388 ppb	42.953 ppb	446.776 ppb	136,665.717 ppb	21.500 ppb	57.252 ppb	2,765.912 ppb	1,666.146 ppb	108.202 %
Concentration per Run 1	116.723 ppb	43.165 ppb	452.367 ppb	137,957.951 ppb	21.535 ppb	58.546 ppb	2,771.528 ppb	1,674.268 ppb	108.588 %
Concentration per Run 2	115.943 ppb	43.143 ppb	445.878 ppb	136,389.333 ppb	21.498 ppb	56.011 ppb	2,774.565 ppb	1,647.292 ppb	109.488 %
Concentration per Run 3	116.498 ppb	42.549 ppb	442.082 ppb	135,649.868 ppb	21.468 ppb	57.200 ppb	2,751.645 ppb	1,676.877 ppb	106.530 %
Concentration RSD	0.3 %	0.8 %	1.2 %	0.9 %	0.2 %	2.2 %	0.5 %	1.0 %	1.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	38.307 ppb	4.363 ppb	51.046 ppb	6.030 ppb	101.515 %	0.758 ppb	2.105 ppb	89.111 %	65.672 ppb
Concentration per Run 1	39.261 ppb	4.200 ppb	50.561 ppb	5.912 ppb	102.599 %	0.773 ppb	2.185 ppb	86.958 %	67.496 ppb
Concentration per Run 2	36.928 ppb	3.939 ppb	50.335 ppb	5.793 ppb	103.263 %	0.753 ppb	2.071 ppb	88.909 %	64.522 ppb
Concentration per Run 3	38.731 ppb	4.950 ppb	52.242 ppb	6.385 ppb	98.682 %	0.749 ppb	2.059 ppb	91.467 %	64.998 ppb
Concentration RSD	3.2 %	12.0 %	2.0 %	5.2 %	2.4 %	1.8 %	3.3 %	2.5 %	2.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	74.417 ppb	99.720 %	96.415 %	0.210 ppb	2,590.403 ppb	96.507 %
Concentration per Run 1	75.218 ppb	101.227 %	97.954 %	0.190 ppb	2,591.186 ppb	96.353 %
Concentration per Run 2	74.389 ppb	99.412 %	97.383 %	0.216 ppb	2,586.395 ppb	96.957 %
Concentration per Run 3	73.646 ppb	98.521 %	93.909 %	0.222 ppb	2,593.626 ppb	96.212 %
Concentration RSD	1.1 %	1.4 %	2.3 %	8.0 %	0.1 %	0.4 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	70	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2444139-04d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:37:34 AM	Vial	42		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	79.962 %	113.513 %	0.786 ppb	3,813.503 ppb	6,693.299 ppb	12,424.440 ppb	2,453.888 ppb	7,423.112 ppb	121.878 %
Concentration per Run 1	77.964 %	110.723 %	0.773 ppb	3,956.249 ppb	7,001.992 ppb	13,256.390 ppb	2,598.636 ppb	8,008.484 ppb	120.770 %
Concentration per Run 2	80.656 %	113.345 %	0.810 ppb	3,840.785 ppb	6,720.478 ppb	12,253.406 ppb	2,420.549 ppb	7,297.863 ppb	121.631 %
Concentration per Run 3	81.267 %	116.471 %	0.775 ppb	3,643.474 ppb	6,357.428 ppb	11,763.525 ppb	2,342.480 ppb	6,962.988 ppb	123.232 %
Concentration RSD	2.2 %	2.5 %	2.7 %	4.1 %	4.8 %	6.1 %	5.4 %	7.2 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	119.700 ppb	31.768 ppb	576.301 ppb	123,360.821 ppb	21.052 ppb	39.482 ppb	782.286 ppb	306.449 ppb	105.418 %
Concentration per Run 1	126.504 ppb	34.142 ppb	605.592 ppb	129,106.152 ppb	21.756 ppb	40.914 ppb	808.706 ppb	319.575 ppb	102.888 %
Concentration per Run 2	118.079 ppb	31.214 ppb	571.374 ppb	122,122.424 ppb	20.929 ppb	39.278 ppb	775.851 ppb	301.703 ppb	106.049 %
Concentration per Run 3	114.517 ppb	29.948 ppb	551.938 ppb	118,853.886 ppb	20.471 ppb	38.254 ppb	762.302 ppb	298.069 ppb	107.317 %
Concentration RSD	5.1 %	6.8 %	4.7 %	4.2 %	3.1 %	3.4 %	3.1 %	3.8 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	31.165 ppb	5.384 ppb	55.510 ppb	3.459 ppb	101.966 %	1.821 ppb	0.527 ppb	67.548 %	24.480 ppb
Concentration per Run 1	32.593 ppb	5.233 ppb	58.549 ppb	3.705 ppb	100.074 %	1.900 ppb	0.554 ppb	66.271 %	25.700 ppb
Concentration per Run 2	31.022 ppb	5.537 ppb	53.981 ppb	3.356 ppb	102.399 %	1.775 ppb	0.528 ppb	68.631 %	23.987 ppb
Concentration per Run 3	29.881 ppb	5.382 ppb	54.000 ppb	3.315 ppb	103.427 %	1.789 ppb	0.499 ppb	67.743 %	23.752 ppb
Concentration RSD	4.4 %	2.8 %	4.7 %	6.2 %	1.7 %	3.7 %	5.2 %	1.8 %	4.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	69.065 ppb	93.515 %	90.526 %	0.123 ppb	18,029.549 ppb	149.392 %
Concentration per Run 1	73.880 ppb	92.815 %	89.710 %	0.116 ppb	18,048.161 ppb	149.709 %
Concentration per Run 2	66.334 ppb	93.208 %	90.258 %	0.125 ppb	18,128.752 ppb	148.642 %
Concentration per Run 3	66.981 ppb	94.522 %	91.611 %	0.129 ppb	17,911.733 ppb	149.825 %
Concentration RSD	6.1 %	1.0 %	1.1 %	5.5 %	0.6 %	0.4 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	71	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2444139-05d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:42:13 AM	Vial	43		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	82.195 %	112.538 %	0.641 ppb	3,807.552 ppb	6,274.987 ppb	11,441.318 ppb	1,899.668 ppb	4,941.308 ppb	116.724 %
Concentration per Run 1	80.125 %	111.530 %	0.658 ppb	3,934.129 ppb	6,507.110 ppb	11,900.647 ppb	1,974.176 ppb	5,079.606 ppb	115.842 %
Concentration per Run 2	82.199 %	109.109 %	0.643 ppb	3,766.861 ppb	6,114.478 ppb	11,039.337 ppb	1,819.583 ppb	4,744.536 ppb	117.363 %
Concentration per Run 3	84.260 %	116.975 %	0.623 ppb	3,721.667 ppb	6,203.372 ppb	11,383.970 ppb	1,905.246 ppb	4,999.781 ppb	116.966 %
Concentration RSD	2.5 %	3.6 %	2.7 %	2.9 %	3.3 %	3.8 %	4.1 %	3.5 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	81.559 ppb	20.999 ppb	496.384 ppb	64,353.546 ppb	15.026 ppb	24.765 ppb	276.263 ppb	218.238 ppb	103.445 %
Concentration per Run 1	82.072 ppb	20.628 ppb	498.150 ppb	63,484.131 ppb	14.615 ppb	24.328 ppb	271.856 ppb	218.788 ppb	106.721 %
Concentration per Run 2	81.559 ppb	21.468 ppb	492.699 ppb	65,402.074 ppb	15.456 ppb	25.146 ppb	283.123 ppb	219.710 ppb	98.554 %
Concentration per Run 3	81.046 ppb	20.901 ppb	498.304 ppb	64,174.434 ppb	15.007 ppb	24.820 ppb	273.810 ppb	216.214 ppb	105.059 %
Concentration RSD	0.6 %	2.0 %	0.6 %	1.5 %	2.8 %	1.7 %	2.2 %	0.8 %	4.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	19.933 ppb	3.474 ppb	62.779 ppb	1.643 ppb	97.456 %	0.148 ppb	0.425 ppb	91.802 %	6.003 ppb
Concentration per Run 1	19.558 ppb	3.414 ppb	62.977 ppb	1.651 ppb	99.234 %	0.141 ppb	0.419 ppb	95.094 %	5.801 ppb
Concentration per Run 2	20.358 ppb	3.575 ppb	61.016 ppb	1.628 ppb	94.990 %	0.151 ppb	0.415 ppb	85.973 %	6.067 ppb
Concentration per Run 3	19.885 ppb	3.432 ppb	64.343 ppb	1.649 ppb	98.145 %	0.152 ppb	0.442 ppb	94.338 %	6.141 ppb
Concentration RSD	2.0 %	2.5 %	2.7 %	0.8 %	2.3 %	4.2 %	3.5 %	5.5 %	3.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	74.708 ppb	94.201 %	90.448 %	0.182 ppb	427.484 ppb	88.323 %
Concentration per Run 1	75.418 ppb	94.950 %	93.529 %	0.166 ppb	409.135 ppb	91.861 %
Concentration per Run 2	73.458 ppb	91.537 %	86.863 %	0.192 ppb	437.762 ppb	84.349 %
Concentration per Run 3	75.250 ppb	96.115 %	90.952 %	0.187 ppb	435.555 ppb	88.761 %
Concentration RSD	1.5 %	2.5 %	3.7 %	7.5 %	3.7 %	4.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	72	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2444139-04d100 6020TS	Rack	1		
Analysis started at:	8/21/2024 10:51:20 AM	Vial	44		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	83.506 %	112.135 %	0.085 ppb	395.777 ppb	675.339 ppb	1,256.819 ppb	259.837 ppb	763.576 ppb	107.197 %
Concentration per Run 1	80.975 %	111.933 %	0.089 ppb	400.351 ppb	691.583 ppb	1,272.664 ppb	266.610 ppb	756.493 ppb	106.483 %
Concentration per Run 2	84.941 %	111.429 %	0.084 ppb	384.648 ppb	649.623 ppb	1,191.211 ppb	244.014 ppb	709.008 ppb	108.238 %
Concentration per Run 3	84.600 %	113.042 %	0.082 ppb	402.331 ppb	684.810 ppb	1,306.580 ppb	268.887 ppb	825.225 ppb	106.870 %
Concentration RSD	2.6 %	0.7 %	3.8 %	2.4 %	3.3 %	4.7 %	5.3 %	7.7 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	11.419 ppb	3.243 ppb	56.794 ppb	12,524.037 ppb	2.207 ppb	4.228 ppb	81.550 ppb	31.216 ppb	106.798 %
Concentration per Run 1	11.253 ppb	3.239 ppb	55.348 ppb	12,581.744 ppb	2.232 ppb	4.218 ppb	81.203 ppb	31.092 ppb	107.141 %
Concentration per Run 2	11.298 ppb	3.284 ppb	56.822 ppb	12,524.497 ppb	2.226 ppb	4.405 ppb	82.359 ppb	30.992 ppb	104.645 %
Concentration per Run 3	11.707 ppb	3.207 ppb	58.210 ppb	12,465.872 ppb	2.163 ppb	4.062 ppb	81.088 ppb	31.563 ppb	108.609 %
Concentration RSD	2.2 %	1.2 %	2.5 %	0.5 %	1.7 %	4.1 %	0.9 %	1.0 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.214 ppb	0.558 ppb	5.480 ppb	0.346 ppb	101.654 %	0.203 ppb	0.059 ppb	96.839 %	2.449 ppb
Concentration per Run 1	3.198 ppb	0.462 ppb	5.509 ppb	0.294 ppb	102.994 %	0.203 ppb	0.059 ppb	100.036 %	2.341 ppb
Concentration per Run 2	3.173 ppb	0.461 ppb	5.280 ppb	0.366 ppb	98.050 %	0.206 ppb	0.056 ppb	91.679 %	2.469 ppb
Concentration per Run 3	3.270 ppb	0.750 ppb	5.651 ppb	0.377 ppb	103.917 %	0.199 ppb	0.063 ppb	98.802 %	2.538 ppb
Concentration RSD	1.6 %	29.8 %	3.4 %	13.1 %	3.1 %	1.8 %	6.2 %	4.7 %	4.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	6.582 ppb	95.267 %	92.819 %	0.031 ppb	2,857.000 ppb	98.376 %
Concentration per Run 1	6.461 ppb	96.824 %	93.783 %	0.020 ppb	2,696.840 ppb	103.972 %
Concentration per Run 2	6.694 ppb	91.529 %	88.758 %	0.036 ppb	2,948.761 ppb	93.951 %
Concentration per Run 3	6.592 ppb	97.447 %	95.917 %	0.037 ppb	2,925.400 ppb	97.204 %
Concentration RSD	1.8 %	3.4 %	4.0 %	29.5 %	4.9 %	5.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	73	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 10:56:00 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	88.025 %	106.521 %	61.763 ppb	6,491.350 ppb	6,517.235 ppb	62.798 ppb	6,617.068 ppb	6,128.575 ppb	100.832 %
Concentration per Run 1	86.461 %	108.908 %	61.276 ppb	6,638.950 ppb	6,623.095 ppb	64.132 ppb	6,877.530 ppb	6,116.316 ppb	99.212 %
Concentration per Run 2	88.446 %	100.538 %	61.877 ppb	6,475.722 ppb	6,446.040 ppb	62.142 ppb	6,569.485 ppb	6,150.663 ppb	101.541 %
Concentration per Run 3	89.170 %	110.118 %	62.137 ppb	6,359.379 ppb	6,482.569 ppb	62.119 ppb	6,404.190 ppb	6,118.745 ppb	101.745 %
Recovery Percentage 1			102.939 %	108.189 %	108.621 %	104.663 %	110.284 %	102.143 %	
Concentration RSD	1.6 %	4.9 %	0.7 %	2.2 %	1.4 %	1.8 %	3.6 %	0.3 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.317 ppb	57.620 ppb	62.959 ppb	6,556.677 ppb	65.955 ppb	65.687 ppb	66.165 ppb	62.536 ppb	102.447 %
Concentration per Run 1	56.996 ppb	56.504 ppb	62.928 ppb	6,525.319 ppb	65.143 ppb	64.256 ppb	67.170 ppb	61.087 ppb	107.799 %
Concentration per Run 2	58.362 ppb	58.419 ppb	62.842 ppb	6,538.438 ppb	67.642 ppb	67.098 ppb	64.949 ppb	63.996 ppb	96.245 %
Concentration per Run 3	56.593 ppb	57.938 ppb	63.106 ppb	6,606.273 ppb	65.081 ppb	65.707 ppb	66.375 ppb	62.525 ppb	103.296 %
Recovery Percentage 1	95.528 %	96.034 %	104.931 %	109.278 %	109.926 %	109.478 %	110.275 %	104.227 %	
Concentration RSD	1.6 %	1.7 %	0.2 %	0.7 %	2.2 %	2.2 %	1.7 %	2.3 %	5.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	63.104 ppb	58.304 ppb	60.945 ppb	59.182 ppb	99.587 %	63.320 ppb	61.633 ppb	95.444 %	59.998 ppb
Concentration per Run 1	61.905 ppb	57.470 ppb	60.751 ppb	59.098 ppb	100.269 %	63.329 ppb	61.753 ppb	96.843 %	59.975 ppb
Concentration per Run 2	64.748 ppb	57.111 ppb	59.726 ppb	58.803 ppb	98.563 %	64.021 ppb	61.395 ppb	92.576 %	60.187 ppb
Concentration per Run 3	62.659 ppb	60.331 ppb	62.358 ppb	59.643 ppb	99.928 %	62.611 ppb	61.751 ppb	96.915 %	59.831 ppb
Recovery Percentage 1	105.173 %	97.173 %	101.575 %	98.636 %		105.534 %	102.721 %		99.996 %
Concentration RSD	2.3 %	3.0 %	2.2 %	0.7 %	0.9 %	1.1 %	0.3 %	2.6 %	0.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.762 ppb	96.043 %	93.463 %	63.791 ppb	64.219 ppb	91.442 %
Concentration per Run 1	59.977 ppb	96.953 %	93.186 %	61.777 ppb	60.851 ppb	94.344 %
Concentration per Run 2	61.086 ppb	93.545 %	91.949 %	65.346 ppb	65.391 ppb	89.487 %
Concentration per Run 3	61.224 ppb	97.632 %	95.255 %	64.249 ppb	66.416 ppb	90.495 %
Recovery Percentage 1	101.270 %			106.318 %	107.032 %	
Concentration RSD	1.1 %	2.3 %	1.8 %	2.9 %	4.6 %	2.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	74	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 11:04:08 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.867 %	105.479 %	0.017 ppb	12.185 ppb	-0.357 ppb	-0.236 ppb	4.681 ppb	6.848 ppb	99.716 %
Concentration per Run 1	85.151 %	111.530 %	0.018 ppb	9.407 ppb	-0.091 ppb	-0.416 ppb	5.450 ppb	6.306 ppb	101.131 %
Concentration per Run 2	86.864 %	107.698 %	0.019 ppb	13.167 ppb	-0.358 ppb	-0.074 ppb	6.872 ppb	3.175 ppb	98.537 %
Concentration per Run 3	88.586 %	97.210 %	0.014 ppb	13.980 ppb	-0.622 ppb	-0.219 ppb	1.721 ppb	11.063 ppb	99.478 %
Recovery Percentage 1			3.397 %	12.185 %	-0.509 %	-2.361 %	4.681 %	6.848 %	
Concentration RSD	2.0 %	7.0 %	16.7 %	20.0 %	74.4 %	72.7 %	56.8 %	58.0 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.159 ppb	-0.002 ppb	-0.023 ppb	15.977 ppb	0.002 ppb	0.038 ppb	-0.013 ppb	0.072 ppb	100.157 %
Concentration per Run 1	-0.155 ppb	0.009 ppb	-0.042 ppb	15.402 ppb	0.000 ppb	0.025 ppb	-0.027 ppb	0.090 ppb	101.371 %
Concentration per Run 2	-0.161 ppb	-0.007 ppb	-0.015 ppb	17.127 ppb	0.003 ppb	0.041 ppb	0.011 ppb	0.045 ppb	102.181 %
Concentration per Run 3	-0.160 ppb	-0.009 ppb	-0.014 ppb	15.401 ppb	0.003 ppb	0.050 ppb	-0.022 ppb	0.080 ppb	96.919 %
Recovery Percentage 1	-3.174 %	-0.233 %	-2.343 %	31.953 %	0.438 %	1.921 %	-1.287 %	1.432 %	
Concentration RSD	1.9 %	430.1 %	67.0 %	6.2 %	94.8 %	33.2 %	160.4 %	32.8 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.176 ppb	0.073 ppb	0.008 ppb	0.934 ppb	99.810 %	0.002 ppb	0.003 ppb	97.863 %	0.371 ppb
Concentration per Run 1	0.156 ppb	-0.020 ppb	0.008 ppb	0.828 ppb	101.512 %	0.003 ppb	0.002 ppb	101.934 %	0.248 ppb
Concentration per Run 2	0.171 ppb	0.136 ppb	0.007 ppb	1.006 ppb	99.629 %	0.002 ppb	0.004 ppb	99.423 %	0.385 ppb
Concentration per Run 3	0.202 ppb	0.102 ppb	0.008 ppb	0.967 ppb	98.289 %	0.001 ppb	0.001 ppb	92.232 %	0.478 ppb
Recovery Percentage 1	35.254 %	1.457 %	0.077 %	46.677 %		0.500 %	1.252 %		9.264 %
Concentration RSD	13.2 %	112.8 %	6.2 %	10.0 %	1.6 %	45.3 %	60.8 %	5.1 %	31.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.011 ppb	96.312 %	93.807 %	0.152 ppb	0.650 ppb	106.014 %
Concentration per Run 1	0.031 ppb	98.833 %	97.065 %	0.112 ppb	0.560 ppb	128.846 %
Concentration per Run 2	0.000 ppb	95.866 %	94.289 %	0.175 ppb	0.670 ppb	97.427 %
Concentration per Run 3	0.004 ppb	94.236 %	90.067 %	0.168 ppb	0.721 ppb	91.769 %
Recovery Percentage 1	2.299 %			15.153 %	65.035 %	
Concentration RSD	147.4 %	2.4 %	3.8 %	23.0 %	12.7 %	18.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	75	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	xRinse Check	Rack	1		
Analysis started at:	8/21/2024 11:11:23 AM	Vial	54		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.294 %	110.925 %	0.012 ppb	8.038 ppb	-2.233 ppb	0.323 ppb	9.182 ppb	-6.230 ppb	96.558 %
Concentration per Run 1	84.141 %	106.488 %	0.008 ppb	8.691 ppb	-2.380 ppb	-0.069 ppb	10.628 ppb	-4.688 ppb	94.955 %
Concentration per Run 2	86.960 %	112.538 %	0.020 ppb	4.417 ppb	-1.878 ppb	0.555 ppb	7.670 ppb	-7.906 ppb	98.325 %
Concentration per Run 3	87.782 %	113.748 %	0.008 ppb	11.005 ppb	-2.440 ppb	0.484 ppb	9.250 ppb	-6.095 ppb	96.395 %
Concentration RSD	2.2 %	3.5 %	59.2 %	41.6 %	13.8 %	105.7 %	16.1 %	25.9 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.146 ppb	0.004 ppb	-0.031 ppb	5.522 ppb	0.001 ppb	-0.012 ppb	-0.084 ppb	0.050 ppb	104.391 %
Concentration per Run 1	-0.167 ppb	-0.005 ppb	-0.033 ppb	3.851 ppb	0.002 ppb	-0.017 ppb	-0.083 ppb	0.055 ppb	103.129 %
Concentration per Run 2	-0.125 ppb	0.013 ppb	-0.037 ppb	6.228 ppb	0.002 ppb	-0.033 ppb	-0.083 ppb	0.043 ppb	101.805 %
Concentration per Run 3	-0.147 ppb	0.003 ppb	-0.023 ppb	6.488 ppb	-0.002 ppb	0.013 ppb	-0.084 ppb	0.051 ppb	108.239 %
Concentration RSD	14.4 %	234.1 %	23.7 %	26.3 %	344.8 %	190.1 %	0.6 %	12.9 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.152 ppb	-0.014 ppb	-0.008 ppb	0.128 ppb	100.606 %	0.000 ppb	-0.001 ppb	100.683 %	0.118 ppb
Concentration per Run 1	0.119 ppb	0.047 ppb	-0.005 ppb	0.055 ppb	100.777 %	-0.001 ppb	0.000 ppb	97.741 %	0.055 ppb
Concentration per Run 2	0.116 ppb	-0.067 ppb	-0.008 ppb	0.146 ppb	98.811 %	-0.001 ppb	-0.001 ppb	97.909 %	0.119 ppb
Concentration per Run 3	0.222 ppb	-0.021 ppb	-0.010 ppb	0.183 ppb	102.230 %	0.001 ppb	0.000 ppb	106.399 %	0.182 ppb
Concentration RSD	39.8 %	415.4 %	33.2 %	51.4 %	1.7 %	454.9 %	81.3 %	4.9 %	53.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	-0.014 ppb	97.209 %	97.441 %	0.038 ppb	0.531 ppb	95.719 %
Concentration per Run 1	-0.009 ppb	95.449 %	96.676 %	0.018 ppb	0.501 ppb	100.810 %
Concentration per Run 2	-0.018 ppb	96.661 %	94.711 %	0.047 ppb	0.563 ppb	92.279 %
Concentration per Run 3	-0.016 ppb	99.515 %	100.935 %	0.049 ppb	0.528 ppb	94.068 %
Concentration RSD	32.7 %	2.1 %	3.3 %	45.5 %	5.9 %	4.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	76	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961139-1 6020sl	Rack	1		
Analysis started at:	8/21/2024 11:32:26 AM	Vial	45		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.725 %	114.589 %	0.014 ppb	9.175 ppb	-1.828 ppb	1.316 ppb	7.542 ppb	10.360 ppb	102.660 %
Concentration per Run 1	86.553 %	115.261 %	0.020 ppb	6.543 ppb	-2.099 ppb	1.276 ppb	6.005 ppb	6.427 ppb	101.527 %
Concentration per Run 2	88.203 %	119.597 %	0.015 ppb	9.195 ppb	-1.472 ppb	1.352 ppb	6.535 ppb	14.925 ppb	103.660 %
Concentration per Run 3	88.418 %	108.908 %	0.008 ppb	11.787 ppb	-1.914 ppb	1.320 ppb	10.086 ppb	9.728 ppb	102.792 %
Concentration RSD	1.2 %	4.7 %	43.1 %	28.6 %	17.6 %	2.9 %	29.4 %	41.3 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.140 ppb	0.024 ppb	0.017 ppb	2.105 ppb	0.001 ppb	0.015 ppb	0.154 ppb	0.179 ppb	109.466 %
Concentration per Run 1	-0.158 ppb	0.010 ppb	0.032 ppb	1.467 ppb	0.003 ppb	0.039 ppb	0.163 ppb	0.175 ppb	106.690 %
Concentration per Run 2	-0.124 ppb	0.036 ppb	0.036 ppb	3.375 ppb	0.000 ppb	-0.013 ppb	0.150 ppb	0.186 ppb	115.663 %
Concentration per Run 3	-0.139 ppb	0.026 ppb	-0.017 ppb	1.472 ppb	0.000 ppb	0.020 ppb	0.149 ppb	0.177 ppb	106.043 %
Concentration RSD	12.4 %	55.3 %	171.1 %	52.3 %	180.5 %	170.4 %	5.0 %	3.5 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.144 ppb	-0.004 ppb	0.016 ppb	-0.007 ppb	103.926 %	0.000 ppb	-0.001 ppb	104.165 %	0.034 ppb
Concentration per Run 1	0.124 ppb	0.016 ppb	0.019 ppb	-0.025 ppb	103.474 %	-0.001 ppb	0.000 ppb	104.725 %	0.003 ppb
Concentration per Run 2	0.128 ppb	-0.005 ppb	0.015 ppb	-0.021 ppb	104.091 %	0.000 ppb	-0.001 ppb	107.774 %	0.039 ppb
Concentration per Run 3	0.180 ppb	-0.022 ppb	0.015 ppb	0.024 ppb	104.214 %	0.000 ppb	0.000 ppb	99.997 %	0.059 ppb
Concentration RSD	21.6 %	545.9 %	14.0 %	376.9 %	0.4 %	29.3 %	79.6 %	3.8 %	83.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.011 ppb	97.979 %	97.244 %	0.012 ppb	0.380 ppb	98.939 %
Concentration per Run 1	0.019 ppb	96.885 %	93.750 %	0.006 ppb	0.360 ppb	103.273 %
Concentration per Run 2	0.001 ppb	99.559 %	102.335 %	0.014 ppb	0.391 ppb	98.303 %
Concentration per Run 3	0.014 ppb	97.492 %	95.647 %	0.017 ppb	0.390 ppb	95.242 %
Concentration RSD	81.4 %	1.4 %	4.6 %	45.9 %	4.6 %	4.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	77	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961139-2d10 6020sl	Rack	1		
Analysis started at:	8/21/2024 11:37:06 AM	Vial	46		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.734 %	111.093 %	5.417 ppb	1,161.649 ppb	1,064.728 ppb	218.581 ppb	1,182.232 ppb	1,119.214 ppb	105.615 %
Concentration per Run 1	85.088 %	103.361 %	5.432 ppb	1,263.350 ppb	1,123.701 ppb	226.880 ppb	1,235.306 ppb	1,201.695 ppb	105.002 %
Concentration per Run 2	89.180 %	110.420 %	5.325 ppb	1,194.365 ppb	1,115.398 ppb	236.202 ppb	1,252.245 ppb	1,144.991 ppb	108.117 %
Concentration per Run 3	88.933 %	119.496 %	5.494 ppb	1,027.232 ppb	955.086 ppb	192.661 ppb	1,059.145 ppb	1,010.956 ppb	103.725 %
Concentration RSD	2.6 %	7.3 %	1.6 %	10.5 %	8.9 %	10.5 %	9.0 %	8.8 %	2.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	48.948 ppb	19.730 ppb	54.535 ppb	116.425 ppb	56.098 ppb	56.836 ppb	28.386 ppb	54.358 ppb	105.239 %
Concentration per Run 1	50.066 ppb	20.218 ppb	56.734 ppb	120.760 ppb	58.357 ppb	59.572 ppb	29.582 ppb	55.366 ppb	104.562 %
Concentration per Run 2	51.202 ppb	20.842 ppb	57.537 ppb	117.931 ppb	58.011 ppb	58.557 ppb	29.231 ppb	57.474 ppb	103.087 %
Concentration per Run 3	45.577 ppb	18.130 ppb	49.332 ppb	110.582 ppb	51.926 ppb	52.379 ppb	26.345 ppb	50.232 ppb	108.069 %
Concentration RSD	6.1 %	7.2 %	8.3 %	4.5 %	6.4 %	6.8 %	6.3 %	6.9 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	13.209 ppb	12.417 ppb	104.561 ppb	101.280 ppb	101.213 %	5.442 ppb	5.636 ppb	99.731 %	43.530 ppb
Concentration per Run 1	13.757 ppb	11.920 ppb	108.751 ppb	106.907 ppb	98.481 %	5.533 ppb	5.809 ppb	99.570 %	45.065 ppb
Concentration per Run 2	13.879 ppb	14.079 ppb	109.617 ppb	103.344 ppb	99.424 %	5.691 ppb	5.866 ppb	97.029 %	45.715 ppb
Concentration per Run 3	11.991 ppb	11.253 ppb	95.317 ppb	93.590 ppb	105.733 %	5.101 ppb	5.233 ppb	102.595 %	39.809 ppb
Concentration RSD	8.0 %	11.9 %	7.7 %	6.8 %	3.9 %	5.6 %	6.2 %	2.8 %	7.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	210.116 ppb	97.630 %	95.920 %	13.575 ppb	60.424 ppb	88.986 %
Concentration per Run 1	213.318 ppb	95.434 %	94.070 %	12.967 ppb	57.142 ppb	93.130 %
Concentration per Run 2	225.128 ppb	95.275 %	93.260 %	15.438 ppb	69.107 ppb	78.006 %
Concentration per Run 3	191.903 ppb	102.182 %	100.429 %	12.319 ppb	55.024 ppb	95.823 %
Concentration RSD	8.0 %	4.0 %	4.1 %	12.1 %	12.6 %	10.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	78	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2444137-01 6020sl	Rack	1		
Analysis started at:	8/21/2024 11:41:46 AM	Vial	47		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	89.814 %	109.883 %	0.014 ppb	63.766 ppb	0.359 ppb	1.910 ppb	11.191 ppb	78.090 ppb	102.156 %
Concentration per Run 1	87.209 %	114.656 %	0.019 ppb	60.566 ppb	0.555 ppb	1.766 ppb	13.276 ppb	75.564 ppb	100.450 %
Concentration per Run 2	90.120 %	106.588 %	0.010 ppb	64.728 ppb	0.333 ppb	2.304 ppb	8.008 ppb	81.655 ppb	102.595 %
Concentration per Run 3	92.111 %	108.404 %	0.014 ppb	66.005 ppb	0.188 ppb	1.659 ppb	12.290 ppb	77.053 ppb	103.422 %
Concentration RSD	2.7 %	3.9 %	31.6 %	4.5 %	51.6 %	18.1 %	25.0 %	4.1 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.137 ppb	0.060 ppb	0.020 ppb	2.223 ppb	0.001 ppb	0.080 ppb	0.063 ppb	0.086 ppb	105.037 %
Concentration per Run 1	-0.134 ppb	0.065 ppb	0.012 ppb	0.963 ppb	-0.002 ppb	0.098 ppb	0.049 ppb	0.073 ppb	105.778 %
Concentration per Run 2	-0.137 ppb	0.066 ppb	0.020 ppb	3.321 ppb	0.000 ppb	0.071 ppb	0.087 ppb	0.109 ppb	104.269 %
Concentration per Run 3	-0.141 ppb	0.050 ppb	0.027 ppb	2.384 ppb	0.003 ppb	0.072 ppb	0.053 ppb	0.075 ppb	105.063 %
Concentration RSD	2.5 %	14.6 %	38.7 %	53.4 %	423.6 %	19.0 %	33.0 %	23.7 %	0.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.140 ppb	0.001 ppb	0.116 ppb	1.873 ppb	103.470 %	0.000 ppb	0.001 ppb	99.850 %	1.455 ppb
Concentration per Run 1	0.113 ppb	0.019 ppb	0.118 ppb	1.450 ppb	104.456 %	0.000 ppb	0.000 ppb	97.483 %	1.270 ppb
Concentration per Run 2	0.205 ppb	0.035 ppb	0.118 ppb	1.907 ppb	102.483 %	0.000 ppb	0.000 ppb	103.366 %	1.514 ppb
Concentration per Run 3	0.102 ppb	-0.052 ppb	0.112 ppb	2.261 ppb	103.471 %	-0.001 ppb	0.001 ppb	98.702 %	1.580 ppb
Concentration RSD	40.3 %	6,372.9 %	2.6 %	21.7 %	1.0 %	124.4 %	61.5 %	3.1 %	11.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.090 ppb	97.427 %	97.277 %	0.033 ppb	0.315 ppb	94.248 %
Concentration per Run 1	0.056 ppb	97.617 %	96.858 %	0.025 ppb	0.302 ppb	95.859 %
Concentration per Run 2	0.100 ppb	98.507 %	96.898 %	0.040 ppb	0.323 ppb	93.148 %
Concentration per Run 3	0.113 ppb	96.158 %	98.074 %	0.033 ppb	0.321 ppb	93.735 %
Concentration RSD	33.1 %	1.2 %	0.7 %	23.8 %	3.7 %	1.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	79	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961139-3d10 6020sl	Rack	1		
Analysis started at:	8/21/2024 11:46:25 AM	Vial	48		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.641 %	105.849 %	4.894 ppb	1,184.256 ppb	1,069.480 ppb	215.333 ppb	1,182.246 ppb	1,154.506 ppb	101.075 %
Concentration per Run 1	97.637 %	106.084 %	4.651 ppb	1,172.360 ppb	1,050.242 ppb	208.372 ppb	1,218.635 ppb	1,127.737 ppb	96.431 %
Concentration per Run 2	91.762 %	106.891 %	4.918 ppb	1,195.831 ppb	1,091.018 ppb	221.844 ppb	1,189.436 ppb	1,162.325 ppb	102.974 %
Concentration per Run 3	91.523 %	104.572 %	5.112 ppb	1,184.577 ppb	1,067.181 ppb	215.784 ppb	1,138.665 ppb	1,173.455 ppb	103.820 %
Concentration RSD	3.7 %	1.1 %	4.7 %	1.0 %	1.9 %	3.1 %	3.4 %	2.1 %	4.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	50.315 ppb	20.313 ppb	55.523 ppb	117.909 ppb	57.082 ppb	58.657 ppb	29.413 ppb	55.814 ppb	101.422 %
Concentration per Run 1	50.160 ppb	19.695 ppb	54.939 ppb	120.618 ppb	56.582 ppb	57.331 ppb	28.357 ppb	53.382 ppb	102.488 %
Concentration per Run 2	51.598 ppb	20.894 ppb	56.427 ppb	120.093 ppb	59.524 ppb	61.134 ppb	30.532 ppb	58.960 ppb	96.930 %
Concentration per Run 3	49.188 ppb	20.352 ppb	55.203 ppb	113.015 ppb	55.140 ppb	57.505 ppb	29.351 ppb	55.100 ppb	104.850 %
Concentration RSD	2.4 %	3.0 %	1.4 %	3.6 %	3.9 %	3.7 %	3.7 %	5.1 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	13.332 ppb	12.743 ppb	106.584 ppb	103.508 ppb	97.240 %	5.672 ppb	5.807 ppb	94.896 %	42.825 ppb
Concentration per Run 1	12.900 ppb	12.031 ppb	102.925 ppb	98.478 ppb	98.999 %	5.462 ppb	5.665 ppb	97.931 %	40.545 ppb
Concentration per Run 2	14.095 ppb	13.423 ppb	110.351 ppb	108.797 ppb	92.227 %	6.048 ppb	6.167 ppb	89.332 %	44.856 ppb
Concentration per Run 3	13.002 ppb	12.775 ppb	106.477 ppb	103.250 ppb	100.496 %	5.506 ppb	5.588 ppb	97.425 %	43.075 ppb
Concentration RSD	5.0 %	5.5 %	3.5 %	5.0 %	4.5 %	5.8 %	5.4 %	5.1 %	5.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	218.995 ppb	92.638 %	93.036 %	14.191 ppb	62.829 ppb	85.128 %
Concentration per Run 1	208.023 ppb	96.262 %	94.314 %	12.372 ppb	54.111 ppb	95.807 %
Concentration per Run 2	228.445 ppb	87.134 %	88.951 %	15.006 ppb	66.882 ppb	79.876 %
Concentration per Run 3	220.518 ppb	94.518 %	95.844 %	15.195 ppb	67.494 ppb	79.702 %
Concentration RSD	4.7 %	5.2 %	3.9 %	11.1 %	12.0 %	10.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	80	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961139-4 6020sl	Rack	1		
Analysis started at:	8/21/2024 11:51:06 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	88.072 %	111.362 %	0.009 ppb	68.413 ppb	-0.526 ppb	1.474 ppb	7.554 ppb	41.164 ppb	99.019 %
Concentration per Run 1	85.730 %	111.933 %	0.010 ppb	66.388 ppb	-0.402 ppb	1.506 ppb	2.744 ppb	39.625 ppb	98.401 %
Concentration per Run 2	89.007 %	107.899 %	0.007 ppb	68.904 ppb	-0.206 ppb	1.470 ppb	7.361 ppb	41.364 ppb	100.205 %
Concentration per Run 3	89.479 %	114.253 %	0.010 ppb	69.948 ppb	-0.972 ppb	1.446 ppb	12.558 ppb	42.501 ppb	98.450 %
Concentration RSD	2.3 %	2.9 %	21.3 %	2.7 %	75.6 %	2.0 %	65.0 %	3.5 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.115 ppb	0.037 ppb	0.027 ppb	2.084 ppb	0.002 ppb	0.044 ppb	0.070 ppb	0.514 ppb	104.595 %
Concentration per Run 1	-0.125 ppb	0.040 ppb	0.011 ppb	2.861 ppb	0.004 ppb	0.078 ppb	0.075 ppb	0.534 ppb	101.925 %
Concentration per Run 2	-0.130 ppb	0.043 ppb	-0.001 ppb	1.812 ppb	0.003 ppb	0.015 ppb	0.099 ppb	0.510 ppb	101.515 %
Concentration per Run 3	-0.090 ppb	0.027 ppb	0.071 ppb	1.578 ppb	-0.001 ppb	0.039 ppb	0.037 ppb	0.497 ppb	110.343 %
Concentration RSD	18.8 %	23.9 %	142.3 %	32.8 %	153.5 %	71.3 %	44.0 %	3.7 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.083 ppb	0.023 ppb	0.107 ppb	2.129 ppb	102.656 %	0.000 ppb	0.002 ppb	101.334 %	2.204 ppb
Concentration per Run 1	0.109 ppb	0.018 ppb	0.112 ppb	1.729 ppb	101.485 %	-0.001 ppb	0.002 ppb	99.938 %	2.029 ppb
Concentration per Run 2	0.097 ppb	0.003 ppb	0.106 ppb	2.159 ppb	101.467 %	0.001 ppb	0.000 ppb	98.021 %	2.298 ppb
Concentration per Run 3	0.043 ppb	0.049 ppb	0.102 ppb	2.499 ppb	105.018 %	-0.001 ppb	0.003 ppb	106.043 %	2.283 ppb
Concentration RSD	42.4 %	99.1 %	4.7 %	18.1 %	2.0 %	297.6 %	72.2 %	4.1 %	6.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.115 ppb	99.118 %	96.386 %	0.032 ppb	0.282 ppb	94.379 %
Concentration per Run 1	0.109 ppb	97.024 %	94.081 %	0.027 ppb	0.272 ppb	96.726 %
Concentration per Run 2	0.118 ppb	98.838 %	93.368 %	0.038 ppb	0.288 ppb	92.085 %
Concentration per Run 3	0.119 ppb	101.492 %	101.709 %	0.032 ppb	0.286 ppb	94.327 %
Concentration RSD	4.8 %	2.3 %	4.8 %	17.6 %	3.0 %	2.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	81	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961139-5d10 6020sl	Rack	1		
Analysis started at:	8/21/2024 11:55:44 AM	Vial	50		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.910 %	113.009 %	51.408 ppb	5,301.235 ppb	5,284.351 ppb	52.052 ppb	5,634.016 ppb	5,260.457 ppb	101.753 %
Concentration per Run 1	85.504 %	115.765 %	51.517 ppb	5,179.143 ppb	5,137.971 ppb	48.228 ppb	5,552.592 ppb	5,222.061 ppb	101.320 %
Concentration per Run 2	89.099 %	109.916 %	51.255 ppb	5,363.191 ppb	5,272.795 ppb	51.735 ppb	5,592.239 ppb	5,205.796 ppb	101.403 %
Concentration per Run 3	89.127 %	113.345 %	51.451 ppb	5,361.369 ppb	5,442.288 ppb	56.193 ppb	5,757.216 ppb	5,353.513 ppb	102.536 %
Concentration RSD	2.4 %	2.6 %	0.3 %	2.0 %	2.9 %	7.7 %	1.9 %	1.5 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	48.785 ppb	47.845 ppb	51.216 ppb	5,349.839 ppb	53.807 ppb	53.720 ppb	53.609 ppb	52.147 ppb	105.526 %
Concentration per Run 1	47.851 ppb	46.641 ppb	48.963 ppb	5,248.514 ppb	53.258 ppb	54.266 ppb	52.749 ppb	51.301 ppb	103.805 %
Concentration per Run 2	48.790 ppb	47.875 ppb	52.120 ppb	5,406.542 ppb	54.502 ppb	55.077 ppb	54.913 ppb	52.723 ppb	103.021 %
Concentration per Run 3	49.714 ppb	49.020 ppb	52.566 ppb	5,394.461 ppb	53.660 ppb	51.818 ppb	53.164 ppb	52.416 ppb	109.751 %
Concentration RSD	1.9 %	2.5 %	3.8 %	1.6 %	1.2 %	3.2 %	2.1 %	1.4 %	3.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	53.443 ppb	49.281 ppb	53.870 ppb	51.359 ppb	100.749 %	4.992 ppb	51.196 ppb	102.772 %	50.204 ppb
Concentration per Run 1	53.897 ppb	46.688 ppb	52.303 ppb	51.713 ppb	99.776 %	5.051 ppb	51.349 ppb	99.785 %	50.597 ppb
Concentration per Run 2	53.426 ppb	48.784 ppb	52.729 ppb	50.902 ppb	99.536 %	5.022 ppb	51.335 ppb	99.728 %	49.864 ppb
Concentration per Run 3	53.004 ppb	52.372 ppb	56.579 ppb	51.462 ppb	102.937 %	4.903 ppb	50.903 ppb	108.804 %	50.152 ppb
Concentration RSD	0.8 %	5.8 %	4.4 %	0.8 %	1.9 %	1.6 %	0.5 %	5.1 %	0.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	50.873 ppb	99.885 %	98.026 %	52.831 ppb	52.865 ppb	96.356 %
Concentration per Run 1	50.666 ppb	97.793 %	94.438 %	51.678 ppb	50.043 ppb	99.597 %
Concentration per Run 2	50.504 ppb	96.941 %	96.509 %	54.371 ppb	54.317 ppb	92.761 %
Concentration per Run 3	51.448 ppb	104.920 %	103.131 %	52.445 ppb	54.236 ppb	96.709 %
Concentration RSD	1.0 %	4.4 %	4.6 %	2.6 %	4.6 %	3.6 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	82	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961139-6d5 6020sl	Rack	1		
Analysis started at:	8/21/2024 12:00:22 PM	Vial	51		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	84.723 %	108.101 %	0.020 ppb	21.573 ppb	-1.217 ppb	0.882 ppb	5.483 ppb	13.045 ppb	90.570 %
Concentration per Run 1	84.839 %	100.840 %	0.022 ppb	23.022 ppb	-1.226 ppb	0.894 ppb	4.513 ppb	17.826 ppb	92.299 %
Concentration per Run 2	84.790 %	108.101 %	0.017 ppb	19.535 ppb	-1.318 ppb	0.998 ppb	5.175 ppb	4.997 ppb	90.882 %
Concentration per Run 3	84.540 %	115.362 %	0.020 ppb	22.161 ppb	-1.105 ppb	0.755 ppb	6.759 ppb	16.311 ppb	88.531 %
Concentration RSD	0.2 %	6.7 %	12.2 %	8.4 %	8.8 %	13.8 %	21.1 %	53.7 %	2.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.175 ppb	0.020 ppb	-0.022 ppb	8.868 ppb	0.006 ppb	0.007 ppb	-0.043 ppb	0.044 ppb	101.263 %
Concentration per Run 1	-0.174 ppb	0.023 ppb	-0.007 ppb	10.283 ppb	0.004 ppb	-0.008 ppb	-0.053 ppb	0.045 ppb	98.829 %
Concentration per Run 2	-0.188 ppb	0.016 ppb	-0.036 ppb	8.224 ppb	0.007 ppb	0.027 ppb	-0.035 ppb	0.077 ppb	98.679 %
Concentration per Run 3	-0.161 ppb	0.023 ppb	-0.022 ppb	8.096 ppb	0.006 ppb	0.003 ppb	-0.040 ppb	0.009 ppb	106.279 %
Concentration RSD	7.8 %	18.7 %	67.2 %	13.8 %	31.2 %	258.9 %	21.6 %	78.4 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.200 ppb	0.177 ppb	0.027 ppb	1.363 ppb	101.528 %	-0.001 ppb	0.005 ppb	100.308 %	0.715 ppb
Concentration per Run 1	0.225 ppb	0.209 ppb	0.028 ppb	1.043 ppb	99.773 %	0.000 ppb	0.005 ppb	96.520 %	0.497 ppb
Concentration per Run 2	0.150 ppb	0.100 ppb	0.026 ppb	1.404 ppb	101.181 %	-0.001 ppb	0.006 ppb	99.455 %	0.741 ppb
Concentration per Run 3	0.225 ppb	0.220 ppb	0.028 ppb	1.641 ppb	103.630 %	0.000 ppb	0.005 ppb	104.949 %	0.909 ppb
Concentration RSD	21.8 %	37.5 %	4.7 %	22.1 %	1.9 %	110.7 %	16.9 %	4.3 %	29.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.015 ppb	97.199 %	96.181 %	0.251 ppb	0.329 ppb	87.853 %
Concentration per Run 1	0.039 ppb	96.969 %	92.646 %	0.196 ppb	0.320 ppb	90.787 %
Concentration per Run 2	-0.006 ppb	95.386 %	94.181 %	0.304 ppb	0.325 ppb	86.473 %
Concentration per Run 3	0.013 ppb	99.241 %	101.717 %	0.254 ppb	0.343 ppb	86.299 %
Concentration RSD	149.4 %	2.0 %	5.0 %	21.6 %	3.6 %	2.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	83	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	xl2444142-01 6020sl	Rack	1		
Analysis started at:	8/21/2024 12:05:01 PM	Vial	52		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.314 %	95.832 %	0.011 ppb	713,856.596 ppb	88,935.984 ppb	1.613 ppb	29,434.923 ppb	74,746.373 ppb	108.953 %
Concentration per Run 1	95.692 %	93.580 %	0.014 ppb	727,353.029 ppb	91,155.409 ppb	1.508 ppb	30,280.537 ppb	75,271.711 ppb	107.567 %
Concentration per Run 2	97.482 %	98.319 %	0.010 ppb	690,592.002 ppb	83,895.071 ppb	1.715 ppb	29,111.649 ppb	74,130.824 ppb	108.918 %
Concentration per Run 3	98.767 %	95.597 %	0.009 ppb	723,624.758 ppb	91,757.472 ppb	1.617 ppb	28,912.583 ppb	74,836.584 ppb	110.375 %
Concentration RSD	1.6 %	2.5 %	22.9 %	2.8 %	4.9 %	6.4 %	2.5 %	0.8 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.129 ppb	0.006 ppb	683.307 ppb	9.388 ppb	2.765 ppb	5.833 ppb	5.770 ppb	105.449 ppb	99.328 %
Concentration per Run 1	-0.140 ppb	-0.003 ppb	681.465 ppb	8.313 ppb	2.992 ppb	6.044 ppb	5.970 ppb	109.020 ppb	92.385 %
Concentration per Run 2	-0.148 ppb	0.007 ppb	692.019 ppb	10.996 ppb	2.668 ppb	6.050 ppb	5.957 ppb	106.704 ppb	98.334 %
Concentration per Run 3	-0.101 ppb	0.014 ppb	676.437 ppb	8.856 ppb	2.634 ppb	5.406 ppb	5.382 ppb	100.622 ppb	107.264 %
Concentration RSD	19.2 %	137.5 %	1.2 %	15.1 %	7.1 %	6.3 %	5.8 %	4.1 %	7.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.403 ppb	0.139 ppb	1,013.659 ppb	1.472 ppb	88.296 %	0.003 ppb	0.216 ppb	93.608 %	1.334 ppb
Concentration per Run 1	0.406 ppb	0.149 ppb	1,015.094 ppb	1.368 ppb	85.057 %	0.001 ppb	0.220 ppb	88.194 %	1.288 ppb
Concentration per Run 2	0.462 ppb	0.143 ppb	1,023.313 ppb	1.384 ppb	88.618 %	0.004 ppb	0.205 ppb	95.275 %	1.347 ppb
Concentration per Run 3	0.342 ppb	0.125 ppb	1,002.571 ppb	1.663 ppb	91.213 %	0.004 ppb	0.222 ppb	97.354 %	1.368 ppb
Concentration RSD	14.9 %	9.0 %	1.0 %	11.3 %	3.5 %	60.1 %	4.2 %	5.1 %	3.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	258.710 ppb	94.076 %	95.269 %	0.081 ppb	2.181 ppb	79.608 %
Concentration per Run 1	262.946 ppb	89.728 %	89.195 %	0.067 ppb	1.268 ppb	77.594 %
Concentration per Run 2	258.319 ppb	95.591 %	97.201 %	0.091 ppb	2.323 ppb	78.804 %
Concentration per Run 3	254.865 ppb	96.908 %	99.410 %	0.085 ppb	2.952 ppb	82.427 %
Concentration RSD	1.6 %	4.1 %	5.6 %	15.6 %	39.0 %	3.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	84	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2444142-02 6020sl	Rack	1		
Analysis started at:	8/21/2024 12:09:39 PM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.624 %	108.572 %	0.011 ppb	130.763 ppb	1.331 ppb	1.350 ppb	62.329 ppb	75.364 ppb	113.642 %
Concentration per Run 1	102.694 %	105.782 %	0.013 ppb	137.252 ppb	1.096 ppb	1.073 ppb	64.856 ppb	81.702 ppb	112.778 %
Concentration per Run 2	106.469 %	111.530 %	0.006 ppb	133.115 ppb	1.204 ppb	1.348 ppb	64.888 ppb	78.836 ppb	114.318 %
Concentration per Run 3	107.710 %	108.404 %	0.014 ppb	121.922 ppb	1.692 ppb	1.630 ppb	57.243 ppb	65.552 ppb	113.829 %
Concentration RSD	2.5 %	2.7 %	41.9 %	6.1 %	23.8 %	20.6 %	7.1 %	11.4 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.117 ppb	0.031 ppb	0.060 ppb	3.392 ppb	-0.001 ppb	0.150 ppb	0.151 ppb	0.625 ppb	109.662 %
Concentration per Run 1	-0.113 ppb	0.035 ppb	0.075 ppb	3.060 ppb	-0.003 ppb	0.114 ppb	0.149 ppb	0.590 ppb	105.996 %
Concentration per Run 2	-0.109 ppb	0.020 ppb	0.069 ppb	3.538 ppb	0.001 ppb	0.182 ppb	0.138 ppb	0.645 ppb	113.976 %
Concentration per Run 3	-0.128 ppb	0.039 ppb	0.037 ppb	3.578 ppb	-0.002 ppb	0.154 ppb	0.167 ppb	0.639 ppb	109.016 %
Concentration RSD	8.6 %	31.1 %	34.0 %	8.5 %	175.3 %	22.7 %	9.6 %	4.8 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.109 ppb	0.016 ppb	0.161 ppb	0.242 ppb	105.435 %	0.004 ppb	0.000 ppb	108.051 %	0.227 ppb
Concentration per Run 1	0.077 ppb	0.063 ppb	0.159 ppb	0.147 ppb	104.229 %	0.003 ppb	0.000 ppb	103.668 %	0.156 ppb
Concentration per Run 2	0.155 ppb	0.008 ppb	0.163 ppb	0.241 ppb	106.857 %	0.004 ppb	0.000 ppb	114.043 %	0.240 ppb
Concentration per Run 3	0.094 ppb	-0.021 ppb	0.161 ppb	0.339 ppb	105.219 %	0.004 ppb	0.000 ppb	106.441 %	0.285 ppb
Concentration RSD	37.7 %	261.9 %	1.3 %	39.7 %	1.3 %	5.9 %	267.1 %	5.0 %	28.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.099 ppb	102.002 %	101.034 %	0.039 ppb	0.935 ppb	97.479 %
Concentration per Run 1	0.090 ppb	99.888 %	98.342 %	0.027 ppb	0.986 ppb	96.677 %
Concentration per Run 2	0.112 ppb	104.579 %	104.540 %	0.044 ppb	0.920 ppb	99.812 %
Concentration per Run 3	0.096 ppb	101.539 %	100.219 %	0.045 ppb	0.900 ppb	95.948 %
Concentration RSD	11.1 %	2.3 %	3.1 %	26.4 %	4.8 %	2.1 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	85	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 12:14:18 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.168 %	102.353 %	60.431 ppb	6,733.961 ppb	6,745.013 ppb	64.775 ppb	6,936.103 ppb	6,575.479 ppb	102.253 %
Concentration per Run 1	99.543 %	105.681 %	60.220 ppb	6,462.601 ppb	6,517.015 ppb	61.804 ppb	6,744.529 ppb	6,334.639 ppb	101.118 %
Concentration per Run 2	100.095 %	101.950 %	61.379 ppb	7,103.079 ppb	7,151.292 ppb	69.988 ppb	7,357.532 ppb	6,903.349 ppb	101.201 %
Concentration per Run 3	103.866 %	99.429 %	59.695 ppb	6,636.203 ppb	6,566.732 ppb	62.533 ppb	6,706.248 ppb	6,488.449 ppb	104.440 %
Recovery Percentage 1			100.719 %	112.233 %	112.417 %	107.958 %	115.602 %	109.591 %	
Concentration RSD	2.3 %	3.1 %	1.4 %	4.9 %	5.2 %	7.0 %	5.3 %	4.5 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	63.502 ppb	63.407 ppb	65.586 ppb	6,826.221 ppb	67.476 ppb	67.744 ppb	68.029 ppb	65.835 ppb	101.295 %
Concentration per Run 1	62.481 ppb	61.256 ppb	63.320 ppb	6,804.963 ppb	67.624 ppb	68.220 ppb	67.933 ppb	65.632 ppb	100.717 %
Concentration per Run 2	65.189 ppb	65.781 ppb	69.945 ppb	7,075.273 ppb	68.748 ppb	69.007 ppb	68.714 ppb	67.353 ppb	102.754 %
Concentration per Run 3	62.837 ppb	63.185 ppb	63.492 ppb	6,598.426 ppb	66.054 ppb	66.006 ppb	67.441 ppb	64.518 ppb	100.413 %
Recovery Percentage 1	105.837 %	105.678 %	109.309 %	113.770 %	112.460 %	112.907 %	113.382 %	109.724 %	
Concentration RSD	2.3 %	3.6 %	5.8 %	3.5 %	2.0 %	2.3 %	0.9 %	2.2 %	1.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	66.710 ppb	65.201 ppb	70.036 ppb	63.075 ppb	97.130 %	64.649 ppb	65.168 ppb	98.660 %	63.404 ppb
Concentration per Run 1	65.512 ppb	63.163 ppb	66.828 ppb	62.093 ppb	97.409 %	63.067 ppb	63.373 ppb	100.262 %	60.311 ppb
Concentration per Run 2	71.320 ppb	68.532 ppb	77.304 ppb	66.352 ppb	94.817 %	67.457 ppb	68.437 ppb	97.815 %	68.582 ppb
Concentration per Run 3	63.299 ppb	63.907 ppb	65.977 ppb	60.781 ppb	99.165 %	63.423 ppb	63.696 ppb	97.901 %	61.318 ppb
Recovery Percentage 1	111.183 %	108.668 %	116.727 %	105.126 %		107.749 %	108.614 %		105.673 %
Concentration RSD	6.2 %	4.5 %	9.0 %	4.6 %	2.3 %	3.8 %	4.4 %	1.4 %	7.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	64.645 ppb	98.027 %	99.695 %	63.440 ppb	66.194 ppb	88.479 %
Concentration per Run 1	61.735 ppb	99.281 %	98.498 %	62.381 ppb	64.655 ppb	97.566 %
Concentration per Run 2	71.270 ppb	95.828 %	99.766 %	64.616 ppb	68.314 ppb	86.538 %
Concentration per Run 3	60.931 ppb	98.973 %	100.822 %	63.324 ppb	65.613 ppb	81.332 %
Recovery Percentage 1	107.742 %			105.734 %	110.323 %	
Concentration RSD	8.9 %	1.9 %	1.2 %	1.8 %	2.9 %	9.4 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	86	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 12:19:00 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.297 %	104.336 %	0.029 ppb	64.547 ppb	2.141 ppb	-0.133 ppb	10.897 ppb	7.462 ppb	103.198 %
Concentration per Run 1	94.391 %	103.059 %	0.037 ppb	63.152 ppb	1.773 ppb	-0.237 ppb	9.024 ppb	9.444 ppb	102.056 %
Concentration per Run 2	98.292 %	108.605 %	0.021 ppb	66.117 ppb	1.764 ppb	-0.197 ppb	14.013 ppb	13.022 ppb	103.647 %
Concentration per Run 3	99.209 %	101.345 %	0.030 ppb	64.372 ppb	2.887 ppb	0.033 ppb	9.654 ppb	-0.079 ppb	103.889 %
Recovery Percentage 1			5.841 %	64.547 %	3.059 %	-1.334 %	10.897 %	7.462 %	
Concentration RSD	2.6 %	3.6 %	26.8 %	2.3 %	30.2 %	109.2 %	24.9 %	90.7 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.171 ppb	-0.007 ppb	0.010 ppb	11.986 ppb	0.006 ppb	0.041 ppb	0.145 ppb	0.090 ppb	103.882 %
Concentration per Run 1	-0.188 ppb	-0.010 ppb	0.002 ppb	11.791 ppb	0.005 ppb	0.025 ppb	0.127 ppb	0.072 ppb	99.561 %
Concentration per Run 2	-0.155 ppb	-0.016 ppb	0.012 ppb	11.535 ppb	0.004 ppb	0.032 ppb	0.168 ppb	0.111 ppb	108.563 %
Concentration per Run 3	-0.170 ppb	0.005 ppb	0.017 ppb	12.631 ppb	0.008 ppb	0.067 ppb	0.142 ppb	0.089 ppb	103.524 %
Recovery Percentage 1	-3.414 %	-0.710 %	1.025 %	23.972 %	1.163 %	2.055 %	14.539 %	1.809 %	
Concentration RSD	9.7 %	152.8 %	78.3 %	4.8 %	31.3 %	55.1 %	14.3 %	21.7 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.032 ppb	0.091 ppb	0.038 ppb	1.210 ppb	102.833 %	0.020 ppb	0.009 ppb	103.627 %	0.394 ppb
Concentration per Run 1	0.055 ppb	0.061 ppb	0.043 ppb	0.832 ppb	102.559 %	0.022 ppb	0.010 ppb	100.893 %	0.258 ppb
Concentration per Run 2	0.058 ppb	0.129 ppb	0.036 ppb	1.356 ppb	104.265 %	0.022 ppb	0.011 ppb	109.276 %	0.411 ppb
Concentration per Run 3	-0.016 ppb	0.083 ppb	0.035 ppb	1.444 ppb	101.677 %	0.017 ppb	0.007 ppb	100.713 %	0.511 ppb
Recovery Percentage 1	6.459 %	1.815 %	0.377 %	60.521 %		5.103 %	4.642 %		9.840 %
Concentration RSD	129.7 %	38.1 %	11.4 %	27.4 %	1.3 %	13.2 %	20.8 %	4.7 %	32.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.023 ppb	102.396 %	102.428 %	0.261 ppb	1.190 ppb	100.102 %
Concentration per Run 1	0.022 ppb	100.657 %	99.790 %	0.213 ppb	1.121 ppb	100.778 %
Concentration per Run 2	0.028 ppb	103.858 %	108.670 %	0.292 ppb	1.166 ppb	102.199 %
Concentration per Run 3	0.019 ppb	102.674 %	98.824 %	0.277 ppb	1.283 ppb	97.328 %
Recovery Percentage 1	4.567 %			26.068 %	118.993 %	
Concentration RSD	19.9 %	1.6 %	5.3 %	15.9 %	7.0 %	2.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	87	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 12:36:12 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.979 %	105.042 %	62.610 ppb	6,504.273 ppb	6,406.053 ppb	61.877 ppb	6,505.028 ppb	6,483.951 ppb	112.236 %
Concentration per Run 1	90.972 %	107.698 %	63.473 ppb	6,358.673 ppb	6,387.427 ppb	60.554 ppb	6,484.098 ppb	6,410.449 ppb	109.943 %
Concentration per Run 2	93.240 %	103.361 %	62.313 ppb	6,641.527 ppb	6,427.363 ppb	62.977 ppb	6,463.826 ppb	6,572.065 ppb	111.313 %
Concentration per Run 3	97.723 %	104.067 %	62.044 ppb	6,512.620 ppb	6,403.370 ppb	62.101 ppb	6,567.159 ppb	6,469.340 ppb	115.451 %
Recovery Percentage 1			104.350 %	108.405 %	106.768 %	103.129 %	108.417 %	108.066 %	
Concentration RSD	3.7 %	2.2 %	1.2 %	2.2 %	0.3 %	2.0 %	0.8 %	1.3 %	2.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.656 ppb	62.001 ppb	63.954 ppb	6,603.816 ppb	65.887 ppb	65.891 ppb	64.829 ppb	64.115 ppb	101.618 %
Concentration per Run 1	60.852 ppb	62.091 ppb	63.909 ppb	6,621.823 ppb	65.306 ppb	65.412 ppb	63.599 ppb	63.779 ppb	100.980 %
Concentration per Run 2	60.631 ppb	62.627 ppb	63.875 ppb	6,581.936 ppb	65.765 ppb	66.105 ppb	65.298 ppb	64.583 ppb	100.892 %
Concentration per Run 3	60.485 ppb	61.284 ppb	64.077 ppb	6,607.690 ppb	66.590 ppb	66.155 ppb	65.588 ppb	63.983 ppb	102.982 %
Recovery Percentage 1	101.093 %	103.335 %	106.589 %	110.064 %	109.812 %	109.818 %	108.048 %	106.858 %	
Concentration RSD	0.3 %	1.1 %	0.2 %	0.3 %	1.0 %	0.6 %	1.7 %	0.7 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	64.348 ppb	61.221 ppb	64.741 ppb	59.556 ppb	100.852 %	63.675 ppb	62.707 ppb	101.928 %	60.122 ppb
Concentration per Run 1	64.906 ppb	60.551 ppb	64.580 ppb	59.127 ppb	101.724 %	62.782 ppb	60.641 ppb	106.637 %	58.067 ppb
Concentration per Run 2	65.368 ppb	61.327 ppb	64.703 ppb	60.281 ppb	100.754 %	63.737 ppb	63.727 ppb	100.318 %	60.099 ppb
Concentration per Run 3	62.770 ppb	61.785 ppb	64.940 ppb	59.261 ppb	100.080 %	64.506 ppb	63.755 ppb	98.828 %	62.201 ppb
Recovery Percentage 1	107.247 %	102.035 %	107.902 %	99.261 %		106.125 %	104.512 %		100.203 %
Concentration RSD	2.2 %	1.0 %	0.3 %	1.1 %	0.8 %	1.4 %	2.9 %	4.1 %	3.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	59.967 ppb	102.863 %	103.006 %	62.226 ppb	64.576 ppb	137.997 %
Concentration per Run 1	58.004 ppb	103.881 %	104.450 %	61.988 ppb	63.963 ppb	181.037 %
Concentration per Run 2	60.340 ppb	103.072 %	102.996 %	61.105 ppb	64.427 ppb	125.548 %
Concentration per Run 3	61.558 ppb	101.636 %	101.572 %	63.586 ppb	65.338 ppb	107.407 %
Recovery Percentage 1	99.945 %			103.711 %	107.627 %	
Concentration RSD	3.0 %	1.1 %	1.4 %	2.0 %	1.1 %	27.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	88	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 12:40:54 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.066 %	106.488 %	0.036 ppb	45.045 ppb	-0.708 ppb	-0.320 ppb	3.828 ppb	5.543 ppb	101.618 %
Concentration per Run 1	93.547 %	105.782 %	0.029 ppb	43.732 ppb	-0.709 ppb	-0.369 ppb	5.174 ppb	8.676 ppb	100.672 %
Concentration per Run 2	94.770 %	107.799 %	0.040 ppb	44.379 ppb	-0.662 ppb	-0.265 ppb	2.791 ppb	4.080 ppb	101.482 %
Concentration per Run 3	96.880 %	105.882 %	0.039 ppb	47.024 ppb	-0.755 ppb	-0.325 ppb	3.520 ppb	3.873 ppb	102.699 %
Recovery Percentage 1			7.163 %	45.045 %	-1.012 %	-3.196 %	3.828 %	5.543 %	
Concentration RSD	1.8 %	1.1 %	16.1 %	3.9 %	6.5 %	16.3 %	31.9 %	49.0 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.193 ppb	0.002 ppb	-0.001 ppb	16.464 ppb	0.008 ppb	0.016 ppb	0.133 ppb	0.055 ppb	100.200 %
Concentration per Run 1	-0.191 ppb	0.003 ppb	-0.002 ppb	15.374 ppb	0.010 ppb	0.025 ppb	0.124 ppb	0.072 ppb	96.980 %
Concentration per Run 2	-0.183 ppb	0.005 ppb	0.012 ppb	17.328 ppb	0.009 ppb	0.017 ppb	0.126 ppb	0.038 ppb	102.199 %
Concentration per Run 3	-0.204 ppb	-0.002 ppb	-0.014 ppb	16.690 ppb	0.004 ppb	0.006 ppb	0.148 ppb	0.056 ppb	101.422 %
Recovery Percentage 1	-3.852 %	0.209 %	-0.128 %	32.927 %	1.518 %	0.793 %	13.257 %	1.101 %	
Concentration RSD	5.6 %	168.2 %	1,014.9 %	6.1 %	39.1 %	60.3 %	9.9 %	31.0 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.130 ppb	0.216 ppb	0.019 ppb	1.531 ppb	102.509 %	0.018 ppb	0.013 ppb	100.020 %	0.331 ppb
Concentration per Run 1	0.174 ppb	0.291 ppb	0.020 ppb	1.144 ppb	100.811 %	0.016 ppb	0.014 ppb	101.079 %	0.183 ppb
Concentration per Run 2	0.078 ppb	0.132 ppb	0.016 ppb	1.576 ppb	104.155 %	0.020 ppb	0.012 ppb	98.843 %	0.358 ppb
Concentration per Run 3	0.138 ppb	0.226 ppb	0.021 ppb	1.872 ppb	102.560 %	0.019 ppb	0.012 ppb	100.139 %	0.451 ppb
Recovery Percentage 1	26.027 %	4.325 %	0.189 %	76.538 %		4.552 %	6.385 %		8.264 %
Concentration RSD	37.2 %	37.0 %	12.9 %	23.9 %	1.6 %	10.3 %	11.9 %	1.1 %	41.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.015 ppb	101.313 %	100.005 %	0.331 ppb	0.725 ppb	99.644 %
Concentration per Run 1	0.019 ppb	102.627 %	100.859 %	0.264 ppb	0.685 ppb	102.785 %
Concentration per Run 2	0.014 ppb	99.965 %	99.269 %	0.376 ppb	0.730 ppb	97.396 %
Concentration per Run 3	0.013 ppb	101.346 %	99.888 %	0.353 ppb	0.761 ppb	98.752 %
Recovery Percentage 1	3.063 %			33.091 %	72.535 %	
Concentration RSD	19.1 %	1.3 %	0.8 %	17.8 %	5.3 %	2.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	89	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2444142-01d10 6020sl	Rack	1		
Analysis started at:	8/21/2024 12:50:28 PM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.945 %	106.387 %	0.015 ppb	70,103.612 ppb	8,859.299 ppb	0.376 ppb	3,073.796 ppb	7,954.100 ppb	105.375 %
Concentration per Run 1	93.313 %	110.521 %	0.015 ppb	71,201.424 ppb	9,097.797 ppb	0.483 ppb	3,248.688 ppb	8,262.514 ppb	104.215 %
Concentration per Run 2	97.444 %	103.261 %	0.020 ppb	70,880.210 ppb	8,872.661 ppb	0.298 ppb	3,048.311 ppb	7,915.704 ppb	106.451 %
Concentration per Run 3	97.079 %	105.378 %	0.010 ppb	68,229.202 ppb	8,607.440 ppb	0.348 ppb	2,924.388 ppb	7,684.083 ppb	105.459 %
Concentration RSD	2.4 %	3.5 %	35.8 %	2.3 %	2.8 %	25.4 %	5.3 %	3.7 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.167 ppb	-0.003 ppb	82.940 ppb	3.634 ppb	0.293 ppb	0.626 ppb	0.660 ppb	11.157 ppb	103.173 %
Concentration per Run 1	-0.178 ppb	-0.003 ppb	82.545 ppb	4.471 ppb	0.278 ppb	0.616 ppb	0.573 ppb	10.844 ppb	107.561 %
Concentration per Run 2	-0.161 ppb	-0.007 ppb	83.914 ppb	2.778 ppb	0.297 ppb	0.618 ppb	0.683 ppb	11.180 ppb	105.219 %
Concentration per Run 3	-0.161 ppb	0.002 ppb	82.362 ppb	3.655 ppb	0.306 ppb	0.645 ppb	0.725 ppb	11.447 ppb	96.740 %
Concentration RSD	5.9 %	156.5 %	1.0 %	23.3 %	4.8 %	2.6 %	11.9 %	2.7 %	5.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.090 ppb	0.045 ppb	97.421 ppb	0.270 ppb	98.279 %	0.008 ppb	0.024 ppb	100.047 %	0.183 ppb
Concentration per Run 1	0.167 ppb	0.017 ppb	103.878 ppb	0.188 ppb	100.950 %	0.004 ppb	0.024 ppb	111.581 %	0.130 ppb
Concentration per Run 2	0.071 ppb	0.049 ppb	95.004 ppb	0.269 ppb	97.247 %	0.010 ppb	0.024 ppb	96.562 %	0.189 ppb
Concentration per Run 3	0.031 ppb	0.070 ppb	93.381 ppb	0.353 ppb	96.641 %	0.012 ppb	0.024 ppb	91.998 %	0.231 ppb
Concentration RSD	77.9 %	59.7 %	5.8 %	30.7 %	2.4 %	48.7 %	1.9 %	10.2 %	27.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	25.469 ppb	100.192 %	100.556 %	0.061 ppb	0.487 ppb	94.437 %
Concentration per Run 1	25.277 ppb	106.584 %	107.978 %	0.039 ppb	0.427 ppb	103.573 %
Concentration per Run 2	25.607 ppb	98.473 %	97.946 %	0.070 ppb	0.529 ppb	90.403 %
Concentration per Run 3	25.524 ppb	95.520 %	95.744 %	0.073 ppb	0.506 ppb	89.336 %
Concentration RSD	0.7 %	5.7 %	6.5 %	30.4 %	11.1 %	8.4 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	90	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2444142-01 6020sl	Rack	1		
Analysis started at:	8/21/2024 12:55:07 PM	Vial	52		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.008 %	91.596 %	0.015 ppb	736,330.959 ppb	91,066.419 ppb	1.971 ppb	28,918.419 ppb	75,437.018 ppb	111.628 %
Concentration per Run 1	100.421 %	98.017 %	0.016 ppb	744,223.640 ppb	92,323.684 ppb	2.405 ppb	30,495.133 ppb	78,705.009 ppb	109.319 %
Concentration per Run 2	103.377 %	90.050 %	0.020 ppb	732,977.716 ppb	90,268.911 ppb	1.728 ppb	28,642.829 ppb	74,310.277 ppb	111.002 %
Concentration per Run 3	105.227 %	86.722 %	0.010 ppb	731,791.522 ppb	90,606.663 ppb	1.778 ppb	27,617.293 ppb	73,295.766 ppb	114.561 %
Concentration RSD	2.4 %	6.3 %	34.0 %	0.9 %	1.2 %	19.1 %	5.0 %	3.8 %	2.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.139 ppb	0.007 ppb	688.179 ppb	8.441 ppb	2.842 ppb	6.112 ppb	5.934 ppb	105.433 ppb	97.833 %
Concentration per Run 1	-0.134 ppb	0.006 ppb	668.263 ppb	8.672 ppb	2.800 ppb	5.998 ppb	5.755 ppb	105.141 ppb	102.649 %
Concentration per Run 2	-0.152 ppb	0.005 ppb	692.336 ppb	7.975 ppb	2.892 ppb	6.172 ppb	5.909 ppb	106.343 ppb	97.656 %
Concentration per Run 3	-0.131 ppb	0.011 ppb	703.939 ppb	8.676 ppb	2.836 ppb	6.166 ppb	6.137 ppb	104.814 ppb	93.193 %
Concentration RSD	8.2 %	42.0 %	2.6 %	4.8 %	1.6 %	1.6 %	3.2 %	0.8 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.374 ppb	0.093 ppb	1,015.890 ppb	1.138 ppb	89.177 %	0.008 ppb	0.220 ppb	93.037 %	1.041 ppb
Concentration per Run 1	0.424 ppb	0.144 ppb	1,064.948 ppb	1.131 ppb	90.819 %	0.010 ppb	0.220 ppb	98.821 %	1.009 ppb
Concentration per Run 2	0.348 ppb	0.106 ppb	1,013.027 ppb	1.065 ppb	89.260 %	0.008 ppb	0.217 ppb	93.357 %	1.030 ppb
Concentration per Run 3	0.349 ppb	0.030 ppb	969.695 ppb	1.219 ppb	87.453 %	0.007 ppb	0.222 ppb	86.933 %	1.085 ppb
Concentration RSD	11.6 %	62.5 %	4.7 %	6.8 %	1.9 %	14.7 %	1.3 %	6.4 %	3.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	253.627 ppb	95.328 %	95.804 %	0.054 ppb	0.270 ppb	81.730 %
Concentration per Run 1	263.793 ppb	97.446 %	97.562 %	0.034 ppb	0.317 ppb	85.136 %
Concentration per Run 2	246.717 ppb	96.780 %	97.761 %	0.062 ppb	0.265 ppb	81.770 %
Concentration per Run 3	250.371 ppb	91.757 %	92.089 %	0.068 ppb	0.229 ppb	78.285 %
Concentration RSD	3.5 %	3.3 %	3.4 %	33.4 %	16.4 %	4.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	91	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1962093-1d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 1:05:41 PM	Vial	56		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.625 %	106.118 %	0.007 ppb	71.143 ppb	1.706 ppb	1.482 ppb	18.035 ppb	16.713 ppb	109.513 %
Concentration per Run 1	99.536 %	97.613 %	0.006 ppb	77.180 ppb	1.559 ppb	1.445 ppb	22.540 ppb	19.038 ppb	108.763 %
Concentration per Run 2	102.657 %	109.009 %	0.015 ppb	68.294 ppb	0.902 ppb	1.883 ppb	15.815 ppb	14.515 ppb	109.115 %
Concentration per Run 3	105.683 %	111.731 %	0.002 ppb	67.956 ppb	2.657 ppb	1.119 ppb	15.750 ppb	16.588 ppb	110.662 %
Concentration RSD	3.0 %	7.1 %	85.8 %	7.4 %	52.0 %	25.9 %	21.6 %	13.5 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.016 ppb	0.071 ppb	0.200 ppb	26.054 ppb	0.003 ppb	0.307 ppb	3.723 ppb	1.440 ppb	104.015 %
Concentration per Run 1	-0.042 ppb	0.070 ppb	0.201 ppb	26.048 ppb	-0.001 ppb	0.300 ppb	3.979 ppb	1.444 ppb	98.576 %
Concentration per Run 2	0.034 ppb	0.067 ppb	0.209 ppb	24.691 ppb	0.002 ppb	0.337 ppb	3.625 ppb	1.391 ppb	105.655 %
Concentration per Run 3	-0.040 ppb	0.075 ppb	0.190 ppb	27.425 ppb	0.009 ppb	0.283 ppb	3.564 ppb	1.486 ppb	107.814 %
Concentration RSD	272.0 %	6.1 %	4.8 %	5.2 %	170.8 %	9.1 %	6.0 %	3.3 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.084 ppb	0.061 ppb	0.026 ppb	0.055 ppb	102.481 %	0.015 ppb	0.000 ppb	102.256 %	0.041 ppb
Concentration per Run 1	0.156 ppb	0.037 ppb	0.023 ppb	0.037 ppb	98.535 %	0.013 ppb	0.000 ppb	96.727 %	0.019 ppb
Concentration per Run 2	0.027 ppb	0.059 ppb	0.031 ppb	0.046 ppb	103.200 %	0.016 ppb	-0.001 ppb	106.145 %	0.039 ppb
Concentration per Run 3	0.070 ppb	0.086 ppb	0.025 ppb	0.083 ppb	105.708 %	0.015 ppb	0.000 ppb	103.895 %	0.067 ppb
Concentration RSD	78.3 %	40.5 %	15.5 %	44.3 %	3.6 %	10.8 %	256.5 %	4.8 %	58.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.064 ppb	100.060 %	98.982 %	0.023 ppb	0.381 ppb	98.179 %
Concentration per Run 1	0.082 ppb	95.831 %	95.427 %	0.012 ppb	0.324 ppb	101.059 %
Concentration per Run 2	0.071 ppb	101.143 %	100.067 %	0.027 ppb	0.393 ppb	97.061 %
Concentration per Run 3	0.038 ppb	103.207 %	101.454 %	0.029 ppb	0.427 ppb	96.416 %
Concentration RSD	36.2 %	3.8 %	3.2 %	42.3 %	13.7 %	2.6 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	92	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1962093-2d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 1:10:20 PM	Vial	57		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.435 %	106.051 %	10.518 ppb	2,454.332 ppb	2,212.922 ppb	432.321 ppb	2,381.992 ppb	2,358.157 ppb	103.898 %
Concentration per Run 1	95.084 %	106.689 %	10.583 ppb	2,494.134 ppb	2,240.840 ppb	438.787 ppb	2,513.759 ppb	2,517.818 ppb	102.731 %
Concentration per Run 2	99.285 %	105.983 %	10.324 ppb	2,426.160 ppb	2,201.331 ppb	427.489 ppb	2,335.708 ppb	2,347.747 ppb	106.009 %
Concentration per Run 3	97.935 %	105.479 %	10.646 ppb	2,442.703 ppb	2,196.595 ppb	430.688 ppb	2,296.509 ppb	2,208.904 ppb	102.953 %
Concentration RSD	2.2 %	0.6 %	1.6 %	1.4 %	1.1 %	1.3 %	4.9 %	6.6 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	98.631 ppb	39.996 ppb	107.266 ppb	233.343 ppb	112.261 ppb	112.690 ppb	56.502 ppb	106.845 ppb	104.598 %
Concentration per Run 1	98.092 ppb	40.727 ppb	108.387 ppb	235.761 ppb	114.848 ppb	113.432 ppb	57.921 ppb	109.232 ppb	102.218 %
Concentration per Run 2	97.097 ppb	39.334 ppb	105.806 ppb	226.852 ppb	109.850 ppb	112.327 ppb	55.590 ppb	104.576 ppb	105.299 %
Concentration per Run 3	100.703 ppb	39.926 ppb	107.604 ppb	237.415 ppb	112.086 ppb	112.311 ppb	55.995 ppb	106.725 ppb	106.277 %
Concentration RSD	1.9 %	1.7 %	1.2 %	2.4 %	2.2 %	0.6 %	2.2 %	2.2 %	2.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	23.740 ppb	21.045 ppb	219.853 ppb	214.291 ppb	101.691 %	10.622 ppb	11.174 ppb	100.661 %	101.228 ppb
Concentration per Run 1	24.677 ppb	21.437 ppb	226.519 ppb	220.753 ppb	98.891 %	10.869 ppb	11.555 ppb	98.038 %	104.023 ppb
Concentration per Run 2	23.485 ppb	21.402 ppb	215.691 ppb	208.492 ppb	103.410 %	10.462 ppb	10.781 ppb	101.981 %	99.088 ppb
Concentration per Run 3	23.057 ppb	20.296 ppb	217.347 ppb	213.627 ppb	102.774 %	10.537 ppb	11.185 ppb	101.964 %	100.572 ppb
Concentration RSD	3.5 %	3.1 %	2.7 %	2.9 %	2.4 %	2.0 %	3.5 %	2.3 %	2.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	424.977 ppb	99.850 %	99.803 %	24.139 ppb	113.560 ppb	94.322 %
Concentration per Run 1	433.839 ppb	96.013 %	97.374 %	24.896 ppb	117.470 ppb	92.081 %
Concentration per Run 2	419.755 ppb	101.723 %	102.450 %	22.899 ppb	106.954 ppb	99.168 %
Concentration per Run 3	421.337 ppb	101.815 %	99.584 %	24.623 ppb	116.258 ppb	91.716 %
Concentration RSD	1.8 %	3.3 %	2.5 %	4.5 %	5.1 %	4.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	93	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2444139-01d100 6020TS	Rack	1		
Analysis started at:	8/21/2024 1:14:59 PM	Vial	58		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.418 %	106.891 %	0.042 ppb	145.825 ppb	1,264.705 ppb	682.254 ppb	90.203 ppb	849.823 ppb	117.061 %
Concentration per Run 1	90.119 %	107.294 %	0.047 ppb	144.783 ppb	1,247.205 ppb	672.274 ppb	97.904 ppb	836.213 ppb	115.304 %
Concentration per Run 2	92.570 %	111.429 %	0.056 ppb	140.138 ppb	1,252.018 ppb	657.354 ppb	82.871 ppb	825.671 ppb	117.842 %
Concentration per Run 3	94.564 %	101.950 %	0.024 ppb	152.555 ppb	1,294.891 ppb	717.134 ppb	89.834 ppb	887.586 ppb	118.035 %
Concentration RSD	2.4 %	4.4 %	38.8 %	4.3 %	2.1 %	4.6 %	8.3 %	3.9 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	4.593 ppb	2.002 ppb	65.667 ppb	90,858.245 ppb	6.137 ppb	17.095 ppb	25.952 ppb	8.846 ppb	104.620 %
Concentration per Run 1	4.498 ppb	1.934 ppb	63.612 ppb	88,468.605 ppb	5.931 ppb	16.768 ppb	25.888 ppb	8.678 ppb	106.537 %
Concentration per Run 2	4.616 ppb	1.942 ppb	64.575 ppb	90,838.297 ppb	6.065 ppb	17.348 ppb	25.184 ppb	8.645 ppb	104.315 %
Concentration per Run 3	4.666 ppb	2.130 ppb	68.812 ppb	93,267.833 ppb	6.415 ppb	17.169 ppb	26.783 ppb	9.213 ppb	103.009 %
Concentration RSD	1.9 %	5.5 %	4.2 %	2.6 %	4.1 %	1.7 %	3.1 %	3.6 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	31.317 ppb	0.161 ppb	5.354 ppb	4.169 ppb	101.473 %	0.023 ppb	0.019 ppb	93.303 %	13.822 ppb
Concentration per Run 1	30.550 ppb	0.109 ppb	5.332 ppb	3.534 ppb	100.017 %	0.024 ppb	0.019 ppb	92.710 %	13.705 ppb
Concentration per Run 2	31.394 ppb	0.158 ppb	5.324 ppb	4.277 ppb	103.147 %	0.023 ppb	0.025 ppb	95.210 %	13.875 ppb
Concentration per Run 3	32.008 ppb	0.215 ppb	5.408 ppb	4.696 ppb	101.255 %	0.021 ppb	0.015 ppb	91.989 %	13.886 ppb
Concentration RSD	2.3 %	33.1 %	0.9 %	14.1 %	1.6 %	7.7 %	26.6 %	1.8 %	0.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	5.425 ppb	101.532 %	101.398 %	0.102 ppb	13.302 ppb	97.164 %
Concentration per Run 1	5.339 ppb	100.917 %	102.332 %	0.078 ppb	12.966 ppb	99.618 %
Concentration per Run 2	5.245 ppb	103.325 %	101.235 %	0.121 ppb	13.518 ppb	96.974 %
Concentration per Run 3	5.690 ppb	100.353 %	100.627 %	0.108 ppb	13.421 ppb	94.901 %
Concentration RSD	4.3 %	1.6 %	0.9 %	21.6 %	2.2 %	2.4 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	94	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1962093-3d100 6020TS	Rack	1		
Analysis started at:	8/21/2024 1:19:39 PM	Vial	59		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.816 %	105.950 %	1.089 ppb	377.729 ppb	1,339.641 ppb	708.717 ppb	310.434 ppb	1,807.228 ppb	109.173 %
Concentration per Run 1	85.541 %	101.950 %	1.096 ppb	380.556 ppb	1,324.970 ppb	703.323 ppb	320.423 ppb	1,825.314 ppb	105.450 %
Concentration per Run 2	88.884 %	107.899 %	1.044 ppb	367.056 ppb	1,302.495 ppb	672.348 ppb	294.725 ppb	1,757.924 ppb	109.828 %
Concentration per Run 3	89.022 %	108.000 %	1.127 ppb	385.576 ppb	1,391.458 ppb	750.478 ppb	316.155 ppb	1,838.445 ppb	112.240 %
Concentration RSD	2.2 %	3.3 %	3.8 %	2.5 %	3.5 %	5.6 %	4.4 %	2.4 %	3.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	13.625 ppb	5.901 ppb	67.681 ppb	90,622.481 ppb	18.115 ppb	32.944 ppb	27.145 ppb	16.816 ppb	110.321 %
Concentration per Run 1	13.504 ppb	5.949 ppb	67.247 ppb	89,980.843 ppb	18.033 ppb	33.067 ppb	27.219 ppb	16.781 ppb	108.396 %
Concentration per Run 2	13.234 ppb	5.844 ppb	67.185 ppb	91,723.905 ppb	18.289 ppb	33.348 ppb	27.644 ppb	16.747 ppb	107.809 %
Concentration per Run 3	14.137 ppb	5.910 ppb	68.612 ppb	90,162.696 ppb	18.024 ppb	32.418 ppb	26.572 ppb	16.920 ppb	114.758 %
Concentration RSD	3.4 %	0.9 %	1.2 %	1.1 %	0.8 %	1.4 %	2.0 %	0.5 %	3.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	41.379 ppb	2.148 ppb	31.367 ppb	21.589 ppb	101.123 %	1.092 ppb	1.192 ppb	91.653 %	24.361 ppb
Concentration per Run 1	41.104 ppb	1.872 ppb	30.865 ppb	21.669 ppb	99.354 %	1.094 ppb	1.194 ppb	89.713 %	24.519 ppb
Concentration per Run 2	41.722 ppb	2.360 ppb	30.836 ppb	21.396 ppb	99.788 %	1.098 ppb	1.208 ppb	90.726 %	24.033 ppb
Concentration per Run 3	41.311 ppb	2.213 ppb	32.401 ppb	21.701 ppb	104.227 %	1.084 ppb	1.174 ppb	94.520 %	24.530 ppb
Concentration RSD	0.8 %	11.7 %	2.9 %	0.8 %	2.7 %	0.7 %	1.4 %	2.8 %	1.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	49.400 ppb	100.868 %	101.124 %	2.324 ppb	20.927 ppb	93.977 %
Concentration per Run 1	49.321 ppb	98.047 %	97.330 %	2.289 ppb	20.599 ppb	94.281 %
Concentration per Run 2	49.684 ppb	98.781 %	99.013 %	2.332 ppb	21.125 ppb	92.169 %
Concentration per Run 3	49.195 ppb	105.776 %	107.029 %	2.352 ppb	21.058 ppb	95.481 %
Concentration RSD	0.5 %	4.2 %	5.1 %	1.4 %	1.4 %	1.8 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	95	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1962093-4d100 6020TS	Rack	1		
Analysis started at:	8/21/2024 1:24:19 PM	Vial	60		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.921 %	110.353 %	0.029 ppb	114.044 ppb	1,066.400 ppb	528.455 ppb	75.187 ppb	1,308.249 ppb	105.404 %
Concentration per Run 1	86.250 %	106.084 %	0.039 ppb	121.747 ppb	1,092.940 ppb	533.168 ppb	74.848 ppb	1,352.969 ppb	105.386 %
Concentration per Run 2	88.448 %	114.656 %	0.025 ppb	103.068 ppb	1,001.542 ppb	496.433 ppb	68.807 ppb	1,268.695 ppb	103.669 %
Concentration per Run 3	89.067 %	110.320 %	0.024 ppb	117.317 ppb	1,104.718 ppb	555.764 ppb	81.905 ppb	1,303.084 ppb	107.159 %
Concentration RSD	1.7 %	3.9 %	28.8 %	8.6 %	5.3 %	5.7 %	8.7 %	3.2 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	3.900 ppb	1.868 ppb	76.865 ppb	90,320.965 ppb	6.230 ppb	17.947 ppb	23.585 ppb	5.243 ppb	107.127 %
Concentration per Run 1	4.293 ppb	2.001 ppb	78.636 ppb	94,062.757 ppb	6.523 ppb	18.698 ppb	24.793 ppb	5.339 ppb	101.149 %
Concentration per Run 2	3.706 ppb	1.799 ppb	75.254 ppb	88,980.489 ppb	6.215 ppb	18.034 ppb	23.496 ppb	5.045 ppb	106.082 %
Concentration per Run 3	3.700 ppb	1.803 ppb	76.706 ppb	87,919.649 ppb	5.951 ppb	17.109 ppb	22.465 ppb	5.346 ppb	114.150 %
Concentration RSD	8.7 %	6.2 %	2.2 %	3.6 %	4.6 %	4.4 %	4.9 %	3.3 %	6.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	35.479 ppb	0.196 ppb	7.470 ppb	2.498 ppb	100.629 %	0.015 ppb	0.011 ppb	89.025 %	13.753 ppb
Concentration per Run 1	36.697 ppb	0.205 ppb	7.484 ppb	2.371 ppb	97.797 %	0.017 ppb	0.017 ppb	84.381 %	14.285 ppb
Concentration per Run 2	34.785 ppb	0.165 ppb	7.233 ppb	2.467 ppb	99.830 %	0.014 ppb	0.007 ppb	87.089 %	13.722 ppb
Concentration per Run 3	34.956 ppb	0.219 ppb	7.694 ppb	2.658 ppb	104.259 %	0.016 ppb	0.010 ppb	95.603 %	13.253 ppb
Concentration RSD	3.0 %	14.2 %	3.1 %	5.8 %	3.3 %	10.5 %	42.3 %	6.6 %	3.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	5.916 ppb	100.144 %	99.760 %	0.047 ppb	6.965 ppb	93.426 %
Concentration per Run 1	6.003 ppb	96.637 %	95.189 %	0.035 ppb	7.041 ppb	91.761 %
Concentration per Run 2	5.840 ppb	100.450 %	98.229 %	0.055 ppb	6.892 ppb	93.175 %
Concentration per Run 3	5.904 ppb	103.346 %	105.861 %	0.050 ppb	6.962 ppb	95.341 %
Concentration RSD	1.4 %	3.4 %	5.5 %	22.0 %	1.1 %	1.9 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 96
Analysis label: WG1962093-5d100 6020TS
Analysis started at: 8/21/2024 1:28:59 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 1
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.563 %	115.160 %	51.360 ppb	5,454.193 ppb	6,549.505 ppb	737.757 ppb	5,735.009 ppb	6,071.718 ppb	106.540 %
Concentration per Run 1	84.304 %	110.824 %	51.169 ppb	5,503.634 ppb	6,524.035 ppb	734.130 ppb	5,836.729 ppb	6,091.159 ppb	104.847 %
Concentration per Run 2	86.827 %	112.942 %	52.361 ppb	5,622.302 ppb	6,632.662 ppb	748.331 ppb	5,812.003 ppb	6,126.258 ppb	106.236 %
Concentration per Run 3	88.559 %	121.715 %	50.549 ppb	5,236.643 ppb	6,491.817 ppb	730.811 ppb	5,556.294 ppb	5,997.736 ppb	108.537 %
Concentration RSD	2.5 %	5.0 %	1.8 %	3.6 %	1.1 %	1.3 %	2.7 %	1.1 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	51.423 ppb	47.963 ppb	117.095 ppb	96,030.509 ppb	57.242 ppb	68.775 ppb	76.493 ppb	58.498 ppb	109.160 %
Concentration per Run 1	50.821 ppb	47.750 ppb	116.743 ppb	95,919.495 ppb	57.003 ppb	69.977 ppb	76.579 ppb	58.650 ppb	107.819 %
Concentration per Run 2	51.766 ppb	48.054 ppb	116.860 ppb	96,405.848 ppb	57.942 ppb	69.332 ppb	77.253 ppb	58.714 ppb	109.968 %
Concentration per Run 3	51.683 ppb	48.087 ppb	117.683 ppb	95,766.185 ppb	56.779 ppb	67.017 ppb	75.646 ppb	58.130 ppb	109.693 %
Concentration RSD	1.0 %	0.4 %	0.4 %	0.3 %	1.1 %	2.3 %	1.1 %	0.5 %	1.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	83.995 ppb	49.044 ppb	60.580 ppb	51.016 ppb	100.548 %	3.950 ppb	53.781 ppb	93.067 %	66.942 ppb
Concentration per Run 1	82.269 ppb	46.790 ppb	58.924 ppb	51.047 ppb	101.854 %	3.890 ppb	52.353 ppb	92.683 %	65.979 ppb
Concentration per Run 2	84.549 ppb	49.499 ppb	60.394 ppb	50.873 ppb	100.185 %	3.918 ppb	53.608 ppb	94.385 %	65.866 ppb
Concentration per Run 3	85.167 ppb	50.844 ppb	62.420 ppb	51.127 ppb	99.604 %	4.040 ppb	55.383 ppb	92.133 %	68.981 ppb
Concentration RSD	1.8 %	4.2 %	2.9 %	0.3 %	1.2 %	2.0 %	2.8 %	1.3 %	2.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.847 ppb	101.194 %	101.138 %	53.218 ppb	65.885 ppb	93.869 %
Concentration per Run 1	56.930 ppb	101.619 %	99.882 %	51.490 ppb	63.561 ppb	96.310 %
Concentration per Run 2	58.852 ppb	102.078 %	100.733 %	53.774 ppb	66.432 ppb	93.661 %
Concentration per Run 3	60.758 ppb	99.885 %	102.798 %	54.389 ppb	67.660 ppb	91.635 %
Concentration RSD	3.3 %	1.1 %	1.5 %	2.9 %	3.2 %	2.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 97
Analysis label: WG1962093-6d500 6020TS
Analysis started at: 8/21/2024 1:33:38 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 2
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.376 %	112.135 %	0.026 ppb	46.279 ppb	260.390 ppb	144.702 ppb	31.007 ppb	157.146 ppb	101.374 %
Concentration per Run 1	84.198 %	110.824 %	0.017 ppb	42.674 ppb	246.933 ppb	138.791 ppb	30.238 ppb	162.223 ppb	99.065 %
Concentration per Run 2	87.443 %	122.320 %	0.030 ppb	41.105 ppb	262.562 ppb	144.210 ppb	32.843 ppb	143.323 ppb	102.470 %
Concentration per Run 3	87.489 %	103.261 %	0.030 ppb	55.057 ppb	271.676 ppb	151.106 ppb	29.942 ppb	165.893 ppb	102.586 %
Concentration RSD	2.2 %	8.6 %	29.0 %	16.5 %	4.8 %	4.3 %	5.1 %	7.7 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.783 ppb	0.404 ppb	13.454 ppb	18,944.728 ppb	1.300 ppb	3.561 ppb	5.232 ppb	1.881 ppb	104.865 %
Concentration per Run 1	0.760 ppb	0.383 ppb	12.888 ppb	18,883.493 ppb	1.380 ppb	3.500 ppb	5.227 ppb	1.846 ppb	102.210 %
Concentration per Run 2	0.768 ppb	0.401 ppb	13.099 ppb	18,191.528 ppb	1.225 ppb	3.377 ppb	4.980 ppb	1.881 ppb	110.418 %
Concentration per Run 3	0.821 ppb	0.427 ppb	14.376 ppb	19,759.162 ppb	1.296 ppb	3.806 ppb	5.488 ppb	1.917 ppb	101.967 %
Concentration RSD	4.2 %	5.5 %	6.0 %	4.1 %	6.0 %	6.2 %	4.9 %	1.9 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	6.698 ppb	0.177 ppb	1.078 ppb	1.634 ppb	104.178 %	0.005 ppb	0.007 ppb	99.236 %	3.043 ppb
Concentration per Run 1	6.732 ppb	0.176 ppb	1.066 ppb	1.305 ppb	101.587 %	0.004 ppb	0.007 ppb	95.179 %	2.838 ppb
Concentration per Run 2	6.816 ppb	0.310 ppb	1.105 ppb	1.615 ppb	107.334 %	0.004 ppb	0.010 ppb	105.636 %	3.019 ppb
Concentration per Run 3	6.546 ppb	0.044 ppb	1.063 ppb	1.983 ppb	103.613 %	0.006 ppb	0.005 ppb	96.894 %	3.273 ppb
Concentration RSD	2.1 %	75.1 %	2.1 %	20.8 %	2.8 %	18.4 %	30.9 %	5.7 %	7.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.045 ppb	100.952 %	98.503 %	0.219 ppb	2.747 ppb	95.106 %
Concentration per Run 1	1.037 ppb	97.964 %	95.020 %	0.169 ppb	2.725 ppb	93.791 %
Concentration per Run 2	0.933 ppb	104.348 %	102.792 %	0.251 ppb	2.739 ppb	97.265 %
Concentration per Run 3	1.164 ppb	100.544 %	97.698 %	0.237 ppb	2.779 ppb	94.262 %
Concentration RSD	11.1 %	3.2 %	4.0 %	19.8 %	1.0 %	2.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	98	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 1:38:18 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	89.235 %	108.404 %	61.636 ppb	6,515.844 ppb	6,467.033 ppb	61.032 ppb	6,513.717 ppb	6,355.291 ppb	101.489 %
Concentration per Run 1	87.287 %	111.832 %	61.258 ppb	6,267.084 ppb	6,242.355 ppb	57.226 ppb	6,212.398 ppb	6,250.265 ppb	100.582 %
Concentration per Run 2	90.301 %	111.126 %	61.326 ppb	6,571.110 ppb	6,555.619 ppb	65.279 ppb	6,813.247 ppb	6,440.498 ppb	103.218 %
Concentration per Run 3	90.116 %	102.252 %	62.323 ppb	6,709.337 ppb	6,603.126 ppb	60.590 ppb	6,515.506 ppb	6,375.111 ppb	100.668 %
Recovery Percentage 1			102.726 %	108.597 %	107.784 %	101.719 %	108.562 %	105.922 %	
Concentration RSD	1.9 %	4.9 %	1.0 %	3.5 %	3.0 %	6.6 %	4.6 %	1.5 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.142 ppb	59.282 ppb	62.201 ppb	6,437.987 ppb	64.683 ppb	65.101 ppb	65.410 ppb	64.072 ppb	103.398 %
Concentration per Run 1	56.379 ppb	57.186 ppb	59.972 ppb	6,393.076 ppb	64.065 ppb	64.083 ppb	64.859 ppb	62.595 ppb	104.433 %
Concentration per Run 2	59.935 ppb	59.667 ppb	62.684 ppb	6,285.115 ppb	63.395 ppb	64.478 ppb	62.927 ppb	64.211 ppb	108.155 %
Concentration per Run 3	61.112 ppb	60.994 ppb	63.946 ppb	6,635.771 ppb	66.588 ppb	66.744 ppb	68.445 ppb	65.410 ppb	97.607 %
Recovery Percentage 1	98.570 %	98.804 %	103.668 %	107.300 %	107.804 %	108.502 %	109.017 %	106.787 %	
Concentration RSD	4.2 %	3.3 %	3.3 %	2.8 %	2.6 %	2.2 %	4.3 %	2.2 %	5.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	63.541 ppb	62.402 ppb	65.704 ppb	58.770 ppb	100.495 %	62.857 ppb	62.894 ppb	99.991 %	60.162 ppb
Concentration per Run 1	61.460 ppb	60.540 ppb	62.719 ppb	57.827 ppb	101.008 %	63.066 ppb	62.427 ppb	97.507 %	60.110 ppb
Concentration per Run 2	63.701 ppb	64.864 ppb	68.105 ppb	58.330 ppb	101.077 %	62.159 ppb	62.355 ppb	104.940 %	60.515 ppb
Concentration per Run 3	65.462 ppb	61.802 ppb	66.287 ppb	60.152 ppb	99.399 %	63.346 ppb	63.899 ppb	97.526 %	59.860 ppb
Recovery Percentage 1	105.902 %	104.003 %	109.506 %	97.950 %		104.761 %	104.823 %		100.270 %
Concentration RSD	3.2 %	3.6 %	4.2 %	2.1 %	0.9 %	1.0 %	1.4 %	4.3 %	0.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	59.915 ppb	100.739 %	100.529 %	62.588 ppb	65.141 ppb	95.242 %
Concentration per Run 1	58.995 ppb	100.428 %	98.137 %	61.128 ppb	62.867 ppb	96.135 %
Concentration per Run 2	62.513 ppb	102.083 %	104.950 %	62.281 ppb	66.101 ppb	96.013 %
Concentration per Run 3	58.238 ppb	99.707 %	98.499 %	64.355 ppb	66.454 ppb	93.578 %
Recovery Percentage 1	99.859 %			104.313 %	108.568 %	
Concentration RSD	3.8 %	1.2 %	3.8 %	2.6 %	3.0 %	1.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	99	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 1:43:00 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	88.216 %	106.555 %	0.028 ppb	21.863 ppb	0.275 ppb	-0.192 ppb	9.242 ppb	3.529 ppb	95.049 %
Concentration per Run 1	85.888 %	105.378 %	0.033 ppb	21.364 ppb	0.647 ppb	-0.180 ppb	7.813 ppb	4.497 ppb	95.063 %
Concentration per Run 2	88.647 %	109.110 %	0.024 ppb	23.504 ppb	-0.155 ppb	-0.197 ppb	13.466 ppb	3.183 ppb	96.317 %
Concentration per Run 3	90.113 %	105.177 %	0.026 ppb	20.722 ppb	0.334 ppb	-0.199 ppb	6.445 ppb	2.906 ppb	93.766 %
Recovery Percentage 1			5.546 %	21.863 %	0.393 %	-1.921 %	9.242 %	3.529 %	
Concentration RSD	2.4 %	2.1 %	15.7 %	6.7 %	147.0 %	5.3 %	40.3 %	24.1 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.182 ppb	-0.007 ppb	-0.027 ppb	21.608 ppb	0.013 ppb	0.053 ppb	-0.006 ppb	0.018 ppb	103.409 %
Concentration per Run 1	-0.185 ppb	-0.011 ppb	-0.018 ppb	20.292 ppb	0.016 ppb	0.067 ppb	-0.028 ppb	0.032 ppb	100.995 %
Concentration per Run 2	-0.172 ppb	0.010 ppb	-0.022 ppb	22.779 ppb	0.011 ppb	0.026 ppb	0.003 ppb	0.017 ppb	107.285 %
Concentration per Run 3	-0.189 ppb	-0.020 ppb	-0.041 ppb	21.755 ppb	0.010 ppb	0.065 ppb	0.008 ppb	0.006 ppb	101.947 %
Recovery Percentage 1	-3.640 %	-0.702 %	-2.689 %	43.217 %	2.508 %	2.627 %	-0.557 %	0.363 %	
Concentration RSD	4.8 %	217.4 %	45.7 %	5.8 %	25.2 %	44.5 %	344.6 %	72.5 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.128 ppb	0.220 ppb	0.021 ppb	1.489 ppb	99.796 %	0.009 ppb	0.011 ppb	99.693 %	0.344 ppb
Concentration per Run 1	0.159 ppb	0.220 ppb	0.022 ppb	1.140 ppb	98.858 %	0.010 ppb	0.010 ppb	96.561 %	0.190 ppb
Concentration per Run 2	0.154 ppb	0.233 ppb	0.024 ppb	1.528 ppb	101.971 %	0.010 ppb	0.015 ppb	106.395 %	0.358 ppb
Concentration per Run 3	0.071 ppb	0.206 ppb	0.017 ppb	1.799 ppb	98.559 %	0.008 ppb	0.009 ppb	96.121 %	0.483 ppb
Recovery Percentage 1	25.543 %	4.397 %	0.209 %	74.461 %		2.283 %	5.674 %		8.589 %
Concentration RSD	38.8 %	6.1 %	15.6 %	22.2 %	1.9 %	14.4 %	25.7 %	5.8 %	42.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.022 ppb	99.996 %	99.039 %	0.324 ppb	0.149 ppb	94.523 %
Concentration per Run 1	0.023 ppb	100.075 %	98.264 %	0.247 ppb	0.138 ppb	96.644 %
Concentration per Run 2	0.010 ppb	100.462 %	101.571 %	0.383 ppb	0.153 ppb	94.654 %
Concentration per Run 3	0.032 ppb	99.450 %	97.283 %	0.342 ppb	0.156 ppb	92.272 %
Recovery Percentage 1	4.344 %			32.390 %	14.940 %	
Concentration RSD	52.8 %	0.5 %	2.3 %	21.5 %	6.4 %	2.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 100
Analysis label: CCV
Analysis started at: 8/21/2024 2:45:24 PM
User name ALPHALAB\Metals-Instrument
Rack 0
Vial 9
Comment CCV/MCCV

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	85.150 %	104.773 %	62.663 ppb	6,603.444 ppb	6,471.022 ppb	64.411 ppb	7,431.683 ppb	6,290.272 ppb	122.461 %
Concentration per Run 1	83.282 %	108.706 %	63.561 ppb	6,445.985 ppb	6,256.093 ppb	63.925 ppb	7,543.489 ppb	6,217.705 ppb	123.822 %
Concentration per Run 2	84.987 %	103.261 %	62.445 ppb	6,702.907 ppb	6,553.020 ppb	65.079 ppb	7,342.626 ppb	6,351.436 ppb	121.896 %
Concentration per Run 3	87.182 %	102.353 %	61.983 ppb	6,661.440 ppb	6,603.952 ppb	64.229 ppb	7,408.936 ppb	6,301.675 ppb	121.663 %
Recovery Percentage 1			104.438 %	110.057 %	107.850 %	107.352 %	123.861 %	104.838 %	
Concentration RSD	2.3 %	3.3 %	1.3 %	2.1 %	2.9 %	0.9 %	1.4 %	1.1 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.001 ppb	61.143 ppb	64.843 ppb	6,701.172 ppb	66.695 ppb	67.551 ppb	65.940 ppb	65.210 ppb	99.360 %
Concentration per Run 1	60.640 ppb	60.903 ppb	64.745 ppb	6,786.073 ppb	67.712 ppb	69.307 ppb	65.940 ppb	64.272 ppb	100.114 %
Concentration per Run 2	61.556 ppb	61.177 ppb	63.533 ppb	6,608.365 ppb	65.614 ppb	66.814 ppb	65.969 ppb	66.026 ppb	99.010 %
Concentration per Run 3	60.806 ppb	61.349 ppb	66.252 ppb	6,709.079 ppb	66.758 ppb	66.534 ppb	65.912 ppb	65.332 ppb	98.956 %
Recovery Percentage 1	101.668 %	101.905 %	108.072 %	111.686 %	111.158 %	112.586 %	109.901 %	108.684 %	
Concentration RSD	0.8 %	0.4 %	2.1 %	1.3 %	1.6 %	2.3 %	0.0 %	1.4 %	0.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	66.020 ppb	61.987 ppb	65.203 ppb	58.813 ppb	99.377 %	62.525 ppb	60.909 ppb	103.633 %	57.598 ppb
Concentration per Run 1	65.771 ppb	62.507 ppb	64.864 ppb	58.646 ppb	98.677 %	61.733 ppb	58.919 ppb	108.815 %	55.499 ppb
Concentration per Run 2	66.674 ppb	61.607 ppb	64.984 ppb	57.858 ppb	100.278 %	62.190 ppb	61.092 ppb	101.900 %	58.065 ppb
Concentration per Run 3	65.614 ppb	61.848 ppb	65.761 ppb	59.936 ppb	99.177 %	63.651 ppb	62.715 ppb	100.182 %	59.231 ppb
Recovery Percentage 1	110.033 %	103.312 %	108.672 %	98.022 %		104.208 %	101.514 %		95.997 %
Concentration RSD	0.9 %	0.8 %	0.7 %	1.8 %	0.8 %	1.6 %	3.1 %	4.4 %	3.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	59.498 ppb	101.621 %	98.438 %	63.653 ppb	63.485 ppb	248.705 %
Concentration per Run 1	58.241 ppb	103.769 %	99.097 %	62.512 ppb	62.796 ppb	378.103 %
Concentration per Run 2	60.220 ppb	101.242 %	98.150 %	63.088 ppb	62.929 ppb	211.652 %
Concentration per Run 3	60.032 ppb	99.853 %	98.067 %	65.359 ppb	64.729 ppb	156.361 %
Recovery Percentage 1	99.163 %			106.088 %	105.808 %	
Concentration RSD	1.8 %	2.0 %	0.6 %	2.4 %	1.7 %	46.4 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	101	User name	ALPHALAB\Metals-Instrument	Comment	CCB
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 2:50:06 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.684 %	110.790 %	0.026 ppb	27.237 ppb	-1.137 ppb	-0.399 ppb	7.015 ppb	5.639 ppb	98.796 %
Concentration per Run 1	84.941 %	117.480 %	0.020 ppb	20.819 ppb	-1.159 ppb	-0.382 ppb	3.159 ppb	4.095 ppb	95.354 %
Concentration per Run 2	87.481 %	106.185 %	0.031 ppb	29.725 ppb	-1.045 ppb	-0.392 ppb	7.437 ppb	5.288 ppb	100.695 %
Concentration per Run 3	90.630 %	108.706 %	0.027 ppb	31.167 ppb	-1.207 ppb	-0.423 ppb	10.448 ppb	7.534 ppb	100.339 %
Recovery Percentage 1			5.143 %	27.237 %	-1.624 %	-3.991 %	7.015 %	5.639 %	
Concentration RSD	3.2 %	5.4 %	21.5 %	20.6 %	7.3 %	5.4 %	52.2 %	31.0 %	3.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.192 ppb	0.000 ppb	-0.002 ppb	15.235 ppb	0.006 ppb	0.034 ppb	0.036 ppb	0.011 ppb	99.601 %
Concentration per Run 1	-0.192 ppb	-0.002 ppb	0.003 ppb	14.147 ppb	0.001 ppb	0.040 ppb	0.029 ppb	0.012 ppb	98.302 %
Concentration per Run 2	-0.198 ppb	-0.005 ppb	0.001 ppb	14.620 ppb	0.005 ppb	0.043 ppb	0.034 ppb	-0.003 ppb	98.782 %
Concentration per Run 3	-0.186 ppb	0.005 ppb	-0.010 ppb	16.936 ppb	0.011 ppb	0.020 ppb	0.046 ppb	0.022 ppb	101.719 %
Recovery Percentage 1	-3.838 %	-0.049 %	-0.186 %	30.469 %	1.153 %	1.723 %	3.607 %	0.212 %	
Concentration RSD	3.1 %	1,075.3 %	387.9 %	9.8 %	81.9 %	36.6 %	24.2 %	117.4 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.206 ppb	0.192 ppb	0.014 ppb	1.378 ppb	99.730 %	0.006 ppb	0.005 ppb	98.344 %	0.275 ppb
Concentration per Run 1	0.178 ppb	0.108 ppb	0.012 ppb	1.041 ppb	99.398 %	0.005 ppb	0.007 ppb	99.557 %	0.138 ppb
Concentration per Run 2	0.264 ppb	0.174 ppb	0.015 ppb	1.423 ppb	100.852 %	0.006 ppb	0.001 ppb	96.782 %	0.292 ppb
Concentration per Run 3	0.176 ppb	0.295 ppb	0.016 ppb	1.671 ppb	98.939 %	0.008 ppb	0.005 ppb	98.694 %	0.393 ppb
Recovery Percentage 1	41.217 %	3.849 %	0.142 %	68.923 %		1.579 %	2.252 %		6.868 %
Concentration RSD	24.4 %	49.5 %	14.2 %	23.0 %	1.0 %	20.5 %	66.8 %	1.4 %	46.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.021 ppb	98.733 %	95.133 %	0.265 ppb	0.190 ppb	103.262 %
Concentration per Run 1	0.008 ppb	97.438 %	94.115 %	0.219 ppb	0.177 ppb	106.735 %
Concentration per Run 2	0.008 ppb	100.478 %	96.774 %	0.297 ppb	0.190 ppb	102.910 %
Concentration per Run 3	0.047 ppb	98.284 %	94.510 %	0.279 ppb	0.201 ppb	100.141 %
Recovery Percentage 1	4.224 %			26.518 %	18.972 %	
Concentration RSD	105.1 %	1.6 %	1.5 %	15.4 %	6.3 %	3.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 102
Analysis label: WG1961551-1d2 A2-6020T
Analysis started at: 8/21/2024 3:17:17 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 3
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.070 %	112.639 %	0.014 ppb	24.507 ppb	-2.082 ppb	0.512 ppb	2.978 ppb	1.622 ppb	112.764 %
Concentration per Run 1	84.449 %	123.228 %	0.012 ppb	10.242 ppb	-2.019 ppb	0.253 ppb	-0.661 ppb	6.545 ppb	112.786 %
Concentration per Run 2	86.730 %	112.236 %	0.020 ppb	25.797 ppb	-2.684 ppb	0.804 ppb	8.268 ppb	-0.325 ppb	113.022 %
Concentration per Run 3	87.031 %	102.454 %	0.010 ppb	37.482 ppb	-1.543 ppb	0.478 ppb	1.326 ppb	-1.353 ppb	112.485 %
Concentration RSD	1.6 %	9.2 %	35.7 %	55.8 %	27.5 %	54.1 %	157.4 %	264.7 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.096 ppb	0.035 ppb	-0.023 ppb	9.141 ppb	0.002 ppb	0.028 ppb	0.020 ppb	0.164 ppb	101.290 %
Concentration per Run 1	-0.114 ppb	0.019 ppb	-0.053 ppb	9.895 ppb	0.001 ppb	0.032 ppb	-0.002 ppb	0.122 ppb	106.674 %
Concentration per Run 2	-0.092 ppb	0.037 ppb	-0.012 ppb	9.964 ppb	-0.001 ppb	0.007 ppb	0.032 ppb	0.163 ppb	103.210 %
Concentration per Run 3	-0.083 ppb	0.048 ppb	-0.004 ppb	7.564 ppb	0.005 ppb	0.047 ppb	0.031 ppb	0.208 ppb	93.987 %
Concentration RSD	16.4 %	41.4 %	115.0 %	14.9 %	195.7 %	71.1 %	96.2 %	26.3 %	6.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.141 ppb	0.067 ppb	0.004 ppb	0.446 ppb	100.512 %	0.004 ppb	0.001 ppb	98.343 %	0.215 ppb
Concentration per Run 1	0.101 ppb	0.079 ppb	0.006 ppb	0.375 ppb	103.594 %	0.001 ppb	0.004 ppb	100.728 %	0.144 ppb
Concentration per Run 2	0.156 ppb	0.024 ppb	0.004 ppb	0.452 ppb	100.500 %	0.005 ppb	0.000 ppb	98.745 %	0.236 ppb
Concentration per Run 3	0.166 ppb	0.098 ppb	0.002 ppb	0.510 ppb	97.441 %	0.005 ppb	-0.001 ppb	95.555 %	0.266 ppb
Concentration RSD	24.8 %	57.6 %	52.5 %	15.2 %	3.1 %	68.6 %	219.6 %	2.7 %	29.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.027 ppb	96.984 %	94.215 %	0.060 ppb	0.128 ppb	121.231 %
Concentration per Run 1	0.017 ppb	96.954 %	94.489 %	0.041 ppb	0.080 ppb	149.237 %
Concentration per Run 2	0.023 ppb	98.967 %	96.186 %	0.074 ppb	0.134 ppb	113.407 %
Concentration per Run 3	0.040 ppb	95.032 %	91.970 %	0.066 ppb	0.169 ppb	101.049 %
Concentration RSD	44.7 %	2.0 %	2.3 %	28.8 %	35.2 %	20.6 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	103	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961551-2d10 A2-6020T	Rack	2		
Analysis started at:	8/21/2024 3:21:56 PM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.785 %	109.042 %	10.372 ppb	2,189.351 ppb	1,986.256 ppb	373.873 ppb	2,136.118 ppb	2,064.476 ppb	98.835 %
Concentration per Run 1	84.336 %	106.084 %	10.417 ppb	2,257.552 ppb	2,052.346 ppb	382.512 ppb	2,252.549 ppb	2,178.468 ppb	98.206 %
Concentration per Run 2	87.114 %	109.412 %	10.440 ppb	2,163.363 ppb	1,934.177 ppb	366.622 ppb	2,097.103 ppb	2,044.009 ppb	97.566 %
Concentration per Run 3	88.904 %	111.631 %	10.259 ppb	2,147.138 ppb	1,972.245 ppb	372.485 ppb	2,058.703 ppb	1,970.951 ppb	100.733 %
Concentration RSD	2.7 %	2.6 %	1.0 %	2.7 %	3.0 %	2.1 %	4.8 %	5.1 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	91.416 ppb	37.363 ppb	98.190 ppb	214.748 ppb	105.530 ppb	106.252 ppb	53.944 ppb	101.452 ppb	99.777 %
Concentration per Run 1	91.994 ppb	37.680 ppb	100.042 ppb	215.831 ppb	106.015 ppb	107.399 ppb	53.733 ppb	101.442 ppb	101.019 %
Concentration per Run 2	91.341 ppb	37.354 ppb	97.662 ppb	210.862 ppb	105.544 ppb	107.549 ppb	54.615 ppb	101.757 ppb	97.416 %
Concentration per Run 3	90.913 ppb	37.054 ppb	96.866 ppb	217.551 ppb	105.032 ppb	103.808 ppb	53.485 ppb	101.158 ppb	100.897 %
Concentration RSD	0.6 %	0.8 %	1.7 %	1.6 %	0.5 %	2.0 %	1.1 %	0.3 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	25.394 ppb	22.887 ppb	199.764 ppb	203.733 ppb	100.329 %	10.198 ppb	10.622 ppb	95.750 %	94.619 ppb
Concentration per Run 1	25.637 ppb	23.267 ppb	199.569 ppb	207.138 ppb	101.846 %	10.184 ppb	10.604 ppb	98.000 %	95.357 ppb
Concentration per Run 2	25.651 ppb	22.400 ppb	197.065 ppb	203.955 ppb	98.238 %	10.184 ppb	10.618 ppb	92.838 %	93.477 ppb
Concentration per Run 3	24.893 ppb	22.995 ppb	202.657 ppb	200.106 ppb	100.902 %	10.226 ppb	10.645 ppb	96.413 %	95.025 ppb
Concentration RSD	1.7 %	1.9 %	1.4 %	1.7 %	1.9 %	0.2 %	0.2 %	2.8 %	1.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	384.987 ppb	97.580 %	93.988 %	25.736 ppb	110.458 ppb	94.057 %
Concentration per Run 1	383.572 ppb	97.848 %	97.253 %	25.560 ppb	110.837 ppb	93.799 %
Concentration per Run 2	377.870 ppb	97.449 %	89.770 %	25.732 ppb	110.104 ppb	93.574 %
Concentration per Run 3	393.518 ppb	97.444 %	94.941 %	25.916 ppb	110.433 ppb	94.798 %
Concentration RSD	2.1 %	0.2 %	4.1 %	0.7 %	0.3 %	0.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	104	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1961551-3d10 A2-6020T	Rack	2		
Analysis started at:	8/21/2024 3:26:35 PM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.270 %	109.210 %	10.575 ppb	2,201.066 ppb	2,002.294 ppb	371.396 ppb	2,133.021 ppb	2,009.231 ppb	97.670 %
Concentration per Run 1	83.799 %	113.849 %	10.739 ppb	2,169.710 ppb	2,000.385 ppb	372.114 ppb	2,186.636 ppb	2,046.201 ppb	98.340 %
Concentration per Run 2	86.814 %	104.773 %	10.618 ppb	2,181.166 ppb	1,964.575 ppb	357.063 ppb	2,074.990 ppb	2,040.182 ppb	95.790 %
Concentration per Run 3	88.198 %	109.009 %	10.368 ppb	2,252.320 ppb	2,041.923 ppb	385.012 ppb	2,137.438 ppb	1,941.311 ppb	98.881 %
Concentration RSD	2.6 %	4.2 %	1.8 %	2.0 %	1.9 %	3.8 %	2.6 %	2.9 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	92.814 ppb	37.695 ppb	98.548 ppb	212.966 ppb	105.468 ppb	107.209 ppb	54.258 ppb	102.727 ppb	97.567 %
Concentration per Run 1	92.486 ppb	37.751 ppb	100.910 ppb	205.316 ppb	105.708 ppb	107.431 ppb	54.506 ppb	103.548 ppb	97.618 %
Concentration per Run 2	92.762 ppb	37.893 ppb	97.090 ppb	214.329 ppb	107.092 ppb	111.245 ppb	55.218 ppb	102.792 ppb	94.072 %
Concentration per Run 3	93.194 ppb	37.442 ppb	97.644 ppb	219.254 ppb	103.605 ppb	102.952 ppb	53.052 ppb	101.841 ppb	101.012 %
Concentration RSD	0.4 %	0.6 %	2.1 %	3.3 %	1.7 %	3.9 %	2.0 %	0.8 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	25.419 ppb	23.008 ppb	203.990 ppb	207.551 ppb	100.079 %	10.276 ppb	10.991 ppb	93.377 %	98.229 ppb
Concentration per Run 1	25.516 ppb	24.817 ppb	206.962 ppb	209.403 ppb	101.839 %	10.229 ppb	10.925 ppb	93.456 %	98.977 ppb
Concentration per Run 2	25.502 ppb	21.611 ppb	197.727 ppb	204.062 ppb	97.585 %	10.307 ppb	10.939 ppb	89.286 %	97.830 ppb
Concentration per Run 3	25.239 ppb	22.598 ppb	207.280 ppb	209.189 ppb	100.814 %	10.292 ppb	11.108 ppb	97.390 %	97.879 ppb
Concentration RSD	0.6 %	7.1 %	2.7 %	1.5 %	2.2 %	0.4 %	0.9 %	4.3 %	0.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	391.043 ppb	99.487 %	95.600 %	25.655 ppb	110.919 ppb	94.300 %
Concentration per Run 1	398.985 ppb	99.969 %	96.814 %	25.192 ppb	109.465 ppb	95.646 %
Concentration per Run 2	381.492 ppb	97.671 %	92.432 %	26.400 ppb	112.725 ppb	90.366 %
Concentration per Run 3	392.653 ppb	100.822 %	97.555 %	25.373 ppb	110.567 ppb	96.889 %
Concentration RSD	2.3 %	1.6 %	2.9 %	2.5 %	1.5 %	3.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	105	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2443365-07d2 A2-6020T	Rack	2		
Analysis started at:	8/21/2024 3:31:14 PM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	83.395 %	108.168 %	780.629 ppb	1,941.057 ppb	-1.197 ppb	4.055 ppb	13.253 ppb	84.964 ppb	94.143 %
Concentration per Run 1	78.969 %	104.370 %	820.365 ppb	2,026.976 ppb	-1.458 ppb	5.037 ppb	15.070 ppb	95.967 ppb	91.581 %
Concentration per Run 2	83.158 %	109.916 %	780.754 ppb	1,857.531 ppb	-1.025 ppb	3.702 ppb	12.035 ppb	74.708 ppb	92.669 %
Concentration per Run 3	88.058 %	110.219 %	740.767 ppb	1,938.665 ppb	-1.108 ppb	3.425 ppb	12.656 ppb	84.216 ppb	98.180 %
Concentration RSD	5.5 %	3.0 %	5.1 %	4.4 %	19.2 %	21.3 %	12.1 %	12.5 %	3.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.074 ppb	608.222 ppb	1,028.232 ppb	8.014 ppb	1,336.560 ppb	1,089.421 ppb	1,128.187 ppb	1,219.540 ppb	98.669 %
Concentration per Run 1	-0.055 ppb	624.514 ppb	1,056.753 ppb	8.030 ppb	1,353.373 ppb	1,123.625 ppb	1,149.849 ppb	1,267.264 ppb	97.794 %
Concentration per Run 2	-0.097 ppb	600.513 ppb	1,013.878 ppb	8.195 ppb	1,364.749 ppb	1,102.162 ppb	1,164.078 ppb	1,206.403 ppb	94.771 %
Concentration per Run 3	-0.070 ppb	599.640 ppb	1,014.064 ppb	7.816 ppb	1,291.559 ppb	1,042.476 ppb	1,070.633 ppb	1,184.953 ppb	103.442 %
Concentration RSD	28.6 %	2.3 %	2.4 %	2.4 %	2.9 %	3.9 %	4.5 %	3.5 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	912.859 ppb	870.162 ppb	0.083 ppb	4.104 ppb	99.561 %	644.540 ppb	875.522 ppb	95.415 %	1,209.055 ppb
Concentration per Run 1	938.558 ppb	906.525 ppb	0.090 ppb	3.331 ppb	98.224 %	658.685 ppb	899.690 ppb	93.148 %	1,267.261 ppb
Concentration per Run 2	909.337 ppb	850.885 ppb	0.077 ppb	4.305 ppb	94.520 %	662.340 ppb	896.646 ppb	89.854 %	1,211.806 ppb
Concentration per Run 3	890.682 ppb	853.077 ppb	0.082 ppb	4.676 ppb	105.939 %	612.594 ppb	830.231 ppb	103.242 %	1,148.097 ppb
Concentration RSD	2.6 %	3.6 %	7.6 %	16.9 %	5.9 %	4.3 %	4.5 %	7.3 %	4.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,197.071 ppb	98.088 %	95.589 %	1,324.929 ppb	1,009.258 ppb	96.533 %
Concentration per Run 1	1,230.038 ppb	96.702 %	93.865 %	1,350.425 ppb	1,020.221 ppb	95.134 %
Concentration per Run 2	1,199.400 ppb	94.099 %	89.659 %	1,339.465 ppb	1,023.986 ppb	94.057 %
Concentration per Run 3	1,161.775 ppb	103.462 %	103.242 %	1,284.897 ppb	983.567 ppb	100.410 %
Concentration RSD	2.9 %	4.9 %	7.3 %	2.6 %	2.2 %	3.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	106	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2445067-02d2 A2-6020T	Rack	2		
Analysis started at:	8/21/2024 3:35:53 PM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.398 %	109.210 %	0.133 ppb	257.402 ppb	109.274 ppb	13.271 ppb	33.082 ppb	505.970 ppb	97.869 %
Concentration per Run 1	85.035 %	110.824 %	0.145 ppb	256.450 ppb	105.833 ppb	13.372 ppb	36.375 ppb	519.595 ppb	98.959 %
Concentration per Run 2	87.817 %	100.034 %	0.121 ppb	270.068 ppb	113.944 ppb	14.110 ppb	38.226 ppb	518.266 ppb	94.182 %
Concentration per Run 3	89.343 %	116.774 %	0.133 ppb	245.689 ppb	108.047 ppb	12.332 ppb	24.644 ppb	480.050 ppb	100.467 %
Concentration RSD	2.5 %	7.8 %	9.0 %	4.7 %	3.8 %	6.7 %	22.3 %	4.4 %	3.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.093 ppb	2.031 ppb	0.979 ppb	25.869 ppb	0.046 ppb	0.255 ppb	2.250 ppb	5.696 ppb	95.443 %
Concentration per Run 1	-0.094 ppb	2.085 ppb	1.025 ppb	25.055 ppb	0.055 ppb	0.276 ppb	2.269 ppb	5.737 ppb	94.377 %
Concentration per Run 2	-0.085 ppb	2.098 ppb	1.009 ppb	29.188 ppb	0.046 ppb	0.263 ppb	2.277 ppb	5.797 ppb	93.507 %
Concentration per Run 3	-0.100 ppb	1.908 ppb	0.904 ppb	23.364 ppb	0.035 ppb	0.226 ppb	2.205 ppb	5.553 ppb	98.447 %
Concentration RSD	8.1 %	5.2 %	6.7 %	11.6 %	22.3 %	10.2 %	1.8 %	2.2 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.596 ppb	1.372 ppb	0.740 ppb	1.039 ppb	99.362 %	0.204 ppb	0.041 ppb	94.725 %	9.343 ppb
Concentration per Run 1	0.668 ppb	1.850 ppb	0.763 ppb	0.727 ppb	99.742 %	0.186 ppb	0.056 ppb	96.055 %	5.564 ppb
Concentration per Run 2	0.599 ppb	1.292 ppb	0.721 ppb	1.068 ppb	96.561 %	0.215 ppb	0.032 ppb	90.012 %	10.057 ppb
Concentration per Run 3	0.523 ppb	0.972 ppb	0.736 ppb	1.321 ppb	101.781 %	0.209 ppb	0.033 ppb	98.109 %	12.408 ppb
Concentration RSD	12.2 %	32.4 %	2.9 %	28.7 %	2.6 %	7.5 %	33.6 %	4.4 %	37.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.854 ppb	96.829 %	92.987 %	0.990 ppb	0.648 ppb	94.420 %
Concentration per Run 1	0.934 ppb	96.086 %	91.851 %	0.885 ppb	0.802 ppb	93.519 %
Concentration per Run 2	0.799 ppb	93.807 %	89.345 %	1.124 ppb	0.593 ppb	92.651 %
Concentration per Run 3	0.829 ppb	100.595 %	97.765 %	0.961 ppb	0.549 ppb	97.089 %
Concentration RSD	8.3 %	3.6 %	4.6 %	12.3 %	20.9 %	2.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	107	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2446200-01d2 A2-6020T	Rack	2		
Analysis started at:	8/21/2024 3:40:32 PM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.420 %	106.017 %	0.092 ppb	256.957 ppb	124.400 ppb	25.257 ppb	32.892 ppb	614.098 ppb	95.975 %
Concentration per Run 1	86.023 %	99.429 %	0.112 ppb	271.180 ppb	129.169 ppb	26.323 ppb	44.774 ppb	658.666 ppb	97.105 %
Concentration per Run 2	86.585 %	104.773 %	0.079 ppb	263.799 ppb	126.761 ppb	24.439 ppb	28.105 ppb	583.038 ppb	96.814 %
Concentration per Run 3	86.651 %	113.849 %	0.085 ppb	235.892 ppb	117.269 ppb	25.008 ppb	25.798 ppb	600.590 ppb	94.005 %
Concentration RSD	0.4 %	6.9 %	19.1 %	7.2 %	5.1 %	3.8 %	31.5 %	6.4 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.038 ppb	2.828 ppb	1.597 ppb	141.474 ppb	0.064 ppb	0.446 ppb	1.062 ppb	6.861 ppb	97.022 %
Concentration per Run 1	-0.011 ppb	3.003 ppb	1.700 ppb	195.641 ppb	0.065 ppb	0.603 ppb	1.195 ppb	6.952 ppb	92.088 %
Concentration per Run 2	-0.091 ppb	2.808 ppb	1.541 ppb	126.050 ppb	0.073 ppb	0.363 ppb	1.060 ppb	6.932 ppb	98.060 %
Concentration per Run 3	-0.011 ppb	2.674 ppb	1.549 ppb	102.731 ppb	0.053 ppb	0.373 ppb	0.930 ppb	6.700 ppb	100.919 %
Concentration RSD	121.4 %	5.8 %	5.6 %	34.2 %	15.7 %	30.4 %	12.5 %	2.0 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.279 ppb	0.334 ppb	0.884 ppb	0.504 ppb	99.711 %	0.141 ppb	0.021 ppb	95.477 %	2.443 ppb
Concentration per Run 1	0.287 ppb	0.357 ppb	0.904 ppb	0.311 ppb	98.170 %	0.117 ppb	0.021 ppb	90.485 %	1.320 ppb
Concentration per Run 2	0.281 ppb	0.330 ppb	0.887 ppb	0.529 ppb	100.710 %	0.152 ppb	0.021 ppb	98.305 %	2.485 ppb
Concentration per Run 3	0.269 ppb	0.315 ppb	0.860 ppb	0.672 ppb	100.254 %	0.153 ppb	0.022 ppb	97.640 %	3.525 ppb
Concentration RSD	3.4 %	6.4 %	2.5 %	36.1 %	1.4 %	14.4 %	2.7 %	4.5 %	45.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.612 ppb	98.201 %	95.901 %	0.274 ppb	0.977 ppb	96.329 %
Concentration per Run 1	2.108 ppb	96.039 %	91.792 %	0.198 ppb	1.015 ppb	93.789 %
Concentration per Run 2	1.562 ppb	99.537 %	97.730 %	0.311 ppb	0.956 ppb	98.513 %
Concentration per Run 3	1.166 ppb	99.028 %	98.180 %	0.315 ppb	0.960 ppb	96.684 %
Concentration RSD	29.3 %	1.9 %	3.7 %	24.2 %	3.3 %	2.5 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	109	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 3:48:49 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.238 %	106.857 %	64.617 ppb	6,540.572 ppb	6,448.182 ppb	59.462 ppb	6,696.249 ppb	6,398.232 ppb	106.021 %
Concentration per Run 1	85.489 %	106.588 %	65.070 ppb	6,861.355 ppb	6,755.410 ppb	60.597 ppb	7,041.691 ppb	6,634.696 ppb	105.053 %
Concentration per Run 2	87.840 %	104.874 %	65.246 ppb	6,675.593 ppb	6,628.290 ppb	61.133 ppb	6,739.750 ppb	6,478.373 ppb	108.285 %
Concentration per Run 3	88.386 %	109.110 %	63.536 ppb	6,084.768 ppb	5,960.846 ppb	56.655 ppb	6,307.306 ppb	6,081.626 ppb	104.725 %
Recovery Percentage 1			107.695 %	109.010 %	107.470 %	99.103 %	111.604 %	106.637 %	
Concentration RSD	1.8 %	2.0 %	1.5 %	6.2 %	6.6 %	4.1 %	5.5 %	4.5 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.306 ppb	60.670 ppb	61.059 ppb	6,511.607 ppb	65.019 ppb	66.714 ppb	64.663 ppb	63.657 ppb	97.617 %
Concentration per Run 1	60.576 ppb	61.879 ppb	63.269 ppb	6,667.108 ppb	66.807 ppb	66.716 ppb	64.832 ppb	64.330 ppb	98.198 %
Concentration per Run 2	60.742 ppb	61.264 ppb	61.503 ppb	6,572.054 ppb	65.037 ppb	67.571 ppb	63.354 ppb	64.286 ppb	97.023 %
Concentration per Run 3	56.599 ppb	58.867 ppb	58.404 ppb	6,295.661 ppb	63.212 ppb	65.855 ppb	65.804 ppb	62.356 ppb	97.629 %
Recovery Percentage 1	98.843 %	101.117 %	101.764 %	108.527 %	108.365 %	111.190 %	107.772 %	106.096 %	
Concentration RSD	4.0 %	2.6 %	4.0 %	3.0 %	2.8 %	1.3 %	1.9 %	1.8 %	0.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	64.628 ppb	61.463 ppb	65.665 ppb	59.269 ppb	99.263 %	63.193 ppb	62.736 ppb	99.464 %	59.876 ppb
Concentration per Run 1	65.046 ppb	63.158 ppb	68.408 ppb	58.458 ppb	99.864 %	61.684 ppb	61.028 ppb	106.747 %	57.101 ppb
Concentration per Run 2	64.888 ppb	62.100 ppb	64.755 ppb	59.465 ppb	99.988 %	63.758 ppb	63.498 ppb	96.808 %	60.906 ppb
Concentration per Run 3	63.948 ppb	59.132 ppb	63.830 ppb	59.886 ppb	97.937 %	64.137 ppb	63.683 ppb	94.838 %	61.622 ppb
Recovery Percentage 1	107.713 %	102.438 %	109.441 %	98.782 %		105.322 %	104.560 %		99.794 %
Concentration RSD	0.9 %	3.4 %	3.7 %	1.2 %	1.2 %	2.1 %	2.4 %	6.4 %	4.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	59.644 ppb	102.021 %	99.607 %	65.307 ppb	65.732 ppb	125.912 %
Concentration per Run 1	58.182 ppb	105.228 %	103.758 %	63.015 ppb	63.488 ppb	152.226 %
Concentration per Run 2	59.520 ppb	101.572 %	98.132 %	65.693 ppb	66.222 ppb	120.198 %
Concentration per Run 3	61.231 ppb	99.261 %	96.932 %	67.214 ppb	67.485 ppb	105.313 %
Recovery Percentage 1	99.407 %			108.845 %	109.553 %	
Concentration RSD	2.6 %	2.9 %	3.7 %	3.3 %	3.1 %	19.0 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	110	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 3:53:29 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	88.390 %	108.706 %	0.090 ppb	15.689 ppb	0.119 ppb	-0.293 ppb	8.439 ppb	4.964 ppb	94.192 %
Concentration per Run 1	86.582 %	111.026 %	0.083 ppb	14.460 ppb	-0.625 ppb	-0.442 ppb	9.817 ppb	0.363 ppb	93.741 %
Concentration per Run 2	88.996 %	107.597 %	0.083 ppb	14.508 ppb	1.119 ppb	-0.311 ppb	7.032 ppb	9.551 ppb	93.987 %
Concentration per Run 3	89.592 %	107.496 %	0.103 ppb	18.100 ppb	-0.137 ppb	-0.128 ppb	8.470 ppb	4.978 ppb	94.848 %
Recovery Percentage 1			17.902 %	15.689 %	0.170 %	-2.933 %	8.439 %	4.964 %	
Concentration RSD	1.8 %	1.8 %	13.1 %	13.3 %	756.5 %	53.7 %	16.5 %	92.5 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.177 ppb	0.006 ppb	-0.002 ppb	13.996 ppb	0.013 ppb	0.021 ppb	0.035 ppb	0.054 ppb	97.645 %
Concentration per Run 1	-0.172 ppb	0.016 ppb	-0.013 ppb	11.767 ppb	0.013 ppb	0.052 ppb	0.018 ppb	0.080 ppb	97.137 %
Concentration per Run 2	-0.185 ppb	-0.005 ppb	-0.013 ppb	14.485 ppb	0.007 ppb	-0.003 ppb	0.038 ppb	0.042 ppb	99.394 %
Concentration per Run 3	-0.175 ppb	0.007 ppb	0.021 ppb	15.737 ppb	0.020 ppb	0.014 ppb	0.047 ppb	0.040 ppb	96.403 %
Recovery Percentage 1	-3.548 %	0.624 %	-0.153 %	27.992 %	2.618 %	1.052 %	3.453 %	1.076 %	
Concentration RSD	3.8 %	165.3 %	1,279.6 %	14.5 %	50.6 %	134.1 %	42.1 %	41.6 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.123 ppb	0.288 ppb	0.020 ppb	1.613 ppb	99.808 %	0.056 ppb	0.017 ppb	97.350 %	0.750 ppb
Concentration per Run 1	0.160 ppb	0.199 ppb	0.026 ppb	1.217 ppb	98.729 %	0.043 ppb	0.014 ppb	98.304 %	0.379 ppb
Concentration per Run 2	0.101 ppb	0.307 ppb	0.018 ppb	1.624 ppb	100.003 %	0.062 ppb	0.019 ppb	97.121 %	0.752 ppb
Concentration per Run 3	0.108 ppb	0.358 ppb	0.016 ppb	1.998 ppb	100.692 %	0.062 ppb	0.017 ppb	96.625 %	1.119 ppb
Recovery Percentage 1	24.545 %	5.759 %	0.199 %	80.664 %		13.943 %	8.472 %		18.746 %
Concentration RSD	26.5 %	28.1 %	25.6 %	24.2 %	1.0 %	19.5 %	15.9 %	0.9 %	49.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.021 ppb	99.198 %	96.311 %	0.364 ppb	0.118 ppb	100.406 %
Concentration per Run 1	0.005 ppb	99.332 %	95.048 %	0.276 ppb	0.119 ppb	104.731 %
Concentration per Run 2	0.035 ppb	99.305 %	98.357 %	0.426 ppb	0.118 ppb	98.020 %
Concentration per Run 3	0.023 ppb	98.956 %	95.526 %	0.391 ppb	0.119 ppb	98.465 %
Recovery Percentage 1	4.254 %			36.425 %	11.841 %	
Concentration RSD	70.7 %	0.2 %	1.9 %	21.5 %	0.2 %	3.7 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 111
Analysis label: WG1962053-1 6020TL
Analysis started at: 8/21/2024 4:07:11 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 10
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	89.504 %	107.832 %	0.047 ppb	11.149 ppb	-0.911 ppb	2.328 ppb	5.379 ppb	7.596 ppb	104.816 %
Concentration per Run 1	87.419 %	113.244 %	0.042 ppb	11.151 ppb	-0.244 ppb	2.564 ppb	10.088 ppb	11.518 ppb	104.697 %
Concentration per Run 2	89.680 %	111.328 %	0.047 ppb	8.521 ppb	-0.757 ppb	2.425 ppb	3.483 ppb	7.510 ppb	103.340 %
Concentration per Run 3	91.415 %	98.924 %	0.051 ppb	13.776 ppb	-1.731 ppb	1.995 ppb	2.565 ppb	3.761 ppb	106.412 %
Concentration RSD	2.2 %	7.2 %	9.7 %	23.6 %	82.9 %	12.7 %	76.3 %	51.1 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.185 ppb	0.019 ppb	0.047 ppb	3.458 ppb	0.002 ppb	0.010 ppb	0.025 ppb	0.760 ppb	103.518 %
Concentration per Run 1	-0.177 ppb	0.022 ppb	0.025 ppb	3.301 ppb	0.001 ppb	-0.017 ppb	0.011 ppb	0.709 ppb	111.203 %
Concentration per Run 2	-0.199 ppb	0.025 ppb	0.055 ppb	2.371 ppb	0.003 ppb	0.026 ppb	0.013 ppb	0.770 ppb	102.400 %
Concentration per Run 3	-0.180 ppb	0.009 ppb	0.061 ppb	4.701 ppb	0.002 ppb	0.019 ppb	0.050 ppb	0.801 ppb	96.950 %
Concentration RSD	6.3 %	45.4 %	40.6 %	33.9 %	58.2 %	239.9 %	86.9 %	6.2 %	6.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.104 ppb	0.023 ppb	0.025 ppb	0.438 ppb	102.620 %	0.020 ppb	0.002 ppb	105.653 %	0.604 ppb
Concentration per Run 1	0.130 ppb	0.026 ppb	0.025 ppb	0.393 ppb	106.409 %	0.013 ppb	0.001 ppb	122.380 %	0.294 ppb
Concentration per Run 2	0.146 ppb	0.073 ppb	0.025 ppb	0.446 ppb	103.167 %	0.022 ppb	0.003 ppb	103.080 %	0.698 ppb
Concentration per Run 3	0.036 ppb	-0.031 ppb	0.025 ppb	0.477 ppb	98.284 %	0.026 ppb	0.001 ppb	91.500 %	0.821 ppb
Concentration RSD	57.1 %	227.9 %	1.3 %	9.7 %	4.0 %	33.2 %	54.0 %	14.8 %	45.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.044 ppb	103.385 %	99.324 %	0.079 ppb	0.045 ppb	172.882 %
Concentration per Run 1	0.033 ppb	109.895 %	110.637 %	0.048 ppb	0.035 ppb	229.558 %
Concentration per Run 2	0.044 ppb	101.828 %	96.919 %	0.088 ppb	0.046 ppb	162.755 %
Concentration per Run 3	0.056 ppb	98.432 %	90.417 %	0.101 ppb	0.053 ppb	126.333 %
Concentration RSD	24.9 %	5.7 %	10.4 %	35.1 %	19.9 %	30.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index: 112
Analysis label: WG1962053-2d10 6020TL
Analysis started at: 8/21/2024 4:11:50 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 11
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	89.361 %	112.202 %	5.267 ppb	1,121.432 ppb	1,033.023 ppb	195.660 ppb	1,113.312 ppb	1,019.454 ppb	98.511 %
Concentration per Run 1	87.141 %	115.967 %	5.209 ppb	1,128.253 ppb	1,052.443 ppb	207.280 ppb	1,190.763 ppb	1,046.643 ppb	97.744 %
Concentration per Run 2	90.975 %	112.538 %	5.378 ppb	1,137.597 ppb	1,053.015 ppb	197.091 ppb	1,097.562 ppb	1,003.994 ppb	98.434 %
Concentration per Run 3	89.968 %	108.101 %	5.215 ppb	1,098.446 ppb	993.610 ppb	182.609 ppb	1,051.611 ppb	1,007.723 ppb	99.354 %
Concentration RSD	2.2 %	3.5 %	1.8 %	1.8 %	3.3 %	6.3 %	6.4 %	2.3 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	48.530 ppb	19.546 ppb	51.325 ppb	113.119 ppb	55.006 ppb	55.896 ppb	27.763 ppb	53.556 ppb	98.600 %
Concentration per Run 1	47.264 ppb	18.815 ppb	52.156 ppb	108.173 ppb	52.568 ppb	53.929 ppb	26.254 ppb	51.908 ppb	105.873 %
Concentration per Run 2	50.074 ppb	20.022 ppb	51.936 ppb	115.045 ppb	56.930 ppb	57.037 ppb	28.502 ppb	54.573 ppb	97.155 %
Concentration per Run 3	48.252 ppb	19.803 ppb	49.883 ppb	116.140 ppb	55.520 ppb	56.723 ppb	28.532 ppb	54.189 ppb	92.773 %
Concentration RSD	2.9 %	3.3 %	2.4 %	3.8 %	4.0 %	3.1 %	4.7 %	2.7 %	6.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	13.197 ppb	11.889 ppb	109.054 ppb	101.106 ppb	100.352 %	5.293 ppb	5.608 ppb	95.893 %	38.630 ppb
Concentration per Run 1	13.158 ppb	11.956 ppb	111.586 ppb	100.825 ppb	102.881 %	5.181 ppb	5.540 ppb	100.713 %	38.707 ppb
Concentration per Run 2	13.343 ppb	11.810 ppb	110.842 ppb	101.276 ppb	99.446 %	5.376 ppb	5.665 ppb	95.578 %	38.535 ppb
Concentration per Run 3	13.090 ppb	11.900 ppb	104.734 ppb	101.218 ppb	98.727 %	5.321 ppb	5.620 ppb	91.387 %	38.647 ppb
Concentration RSD	1.0 %	0.6 %	3.4 %	0.2 %	2.2 %	1.9 %	1.1 %	4.9 %	0.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	203.998 ppb	99.754 %	99.447 %	12.617 ppb	54.099 ppb	102.583 %
Concentration per Run 1	205.488 ppb	101.571 %	102.121 %	11.499 ppb	49.360 ppb	111.768 %
Concentration per Run 2	204.396 ppb	101.452 %	101.546 %	12.788 ppb	55.058 ppb	101.006 %
Concentration per Run 3	202.111 ppb	96.238 %	94.673 %	13.564 ppb	57.878 ppb	94.975 %
Concentration RSD	0.8 %	3.1 %	4.2 %	8.3 %	8.0 %	8.3 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	113	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	zl2446118-07d25 6020TL	Rack	2		
Analysis started at:	8/21/2024 4:16:46 PM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.919 %	110.656 %	0.220 ppb	3,764.311 ppb	19,274.219 ppb	1,172.135 ppb	600.520 ppb	154,037.757 ppb	104.403 %
Concentration per Run 1	85.120 %	113.950 %	0.244 ppb	3,647.467 ppb	18,744.313 ppb	1,166.982 ppb	614.581 ppb	159,362.389 ppb	104.398 %
Concentration per Run 2	87.484 %	105.479 %	0.213 ppb	3,886.356 ppb	19,543.735 ppb	1,153.893 ppb	581.849 ppb	148,305.304 ppb	104.924 %
Concentration per Run 3	88.155 %	112.538 %	0.203 ppb	3,759.111 ppb	19,534.608 ppb	1,195.529 ppb	605.130 ppb	154,445.577 ppb	103.887 %
Concentration RSD	1.8 %	4.1 %	9.7 %	3.2 %	2.4 %	1.8 %	2.8 %	3.6 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.910 ppb	1.649 ppb	1,743.704 ppb	2,586.690 ppb	4.012 ppb	22.036 ppb	9.678 ppb	46.325 ppb	99.442 %
Concentration per Run 1	0.843 ppb	1.639 ppb	1,746.396 ppb	2,588.707 ppb	4.012 ppb	24.926 ppb	9.610 ppb	45.563 ppb	100.584 %
Concentration per Run 2	0.913 ppb	1.733 ppb	1,744.954 ppb	2,630.122 ppb	4.094 ppb	21.160 ppb	10.078 ppb	46.574 ppb	95.664 %
Concentration per Run 3	0.973 ppb	1.576 ppb	1,739.763 ppb	2,541.242 ppb	3.930 ppb	20.023 ppb	9.345 ppb	46.837 ppb	102.077 %
Concentration RSD	7.1 %	4.8 %	0.2 %	1.7 %	2.0 %	11.6 %	3.8 %	1.5 %	3.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.897 ppb	2.484 ppb	549.970 ppb	1.782 ppb	95.066 %	2.824 ppb	0.138 ppb	95.830 %	2.584 ppb
Concentration per Run 1	0.847 ppb	2.724 ppb	561.264 ppb	1.345 ppb	95.520 %	2.758 ppb	0.134 ppb	97.674 %	2.372 ppb
Concentration per Run 2	0.971 ppb	2.176 ppb	529.863 ppb	1.878 ppb	94.401 %	2.853 ppb	0.143 ppb	91.206 %	2.620 ppb
Concentration per Run 3	0.872 ppb	2.551 ppb	558.782 ppb	2.122 ppb	95.276 %	2.860 ppb	0.138 ppb	98.609 %	2.761 ppb
Concentration RSD	7.3 %	11.3 %	3.2 %	22.3 %	0.6 %	2.0 %	3.1 %	4.2 %	7.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	66.631 ppb	98.253 %	95.063 %	0.114 ppb	13.207 ppb	91.185 %
Concentration per Run 1	68.118 ppb	97.878 %	94.560 %	0.097 ppb	12.710 ppb	94.924 %
Concentration per Run 2	64.448 ppb	98.208 %	93.751 %	0.122 ppb	13.362 ppb	89.028 %
Concentration per Run 3	67.327 ppb	98.672 %	96.879 %	0.123 ppb	13.550 ppb	89.602 %
Concentration RSD	2.9 %	0.4 %	1.7 %	13.1 %	3.3 %	3.6 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	114	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	zl2446118-08d25 6020TL	Rack	2		
Analysis started at:	8/21/2024 4:21:26 PM	Vial	21		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.640 %	108.269 %	0.211 ppb	1,903.194 ppb	13,043.028 ppb	1,291.308 ppb	420.384 ppb	82,078.249 ppb	102.935 %
Concentration per Run 1	88.913 %	115.261 %	0.198 ppb	1,860.841 ppb	12,828.028 ppb	1,288.107 ppb	434.020 ppb	83,279.314 ppb	101.744 %
Concentration per Run 2	90.315 %	101.244 %	0.206 ppb	1,935.451 ppb	13,215.263 ppb	1,266.045 ppb	403.351 ppb	80,932.336 ppb	104.768 %
Concentration per Run 3	92.691 %	108.303 %	0.227 ppb	1,913.289 ppb	13,085.794 ppb	1,319.772 ppb	423.780 ppb	82,023.098 ppb	102.292 %
Concentration RSD	2.1 %	6.5 %	7.1 %	2.0 %	1.5 %	2.1 %	3.7 %	1.4 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.254 ppb	3.343 ppb	794.383 ppb	3,919.697 ppb	2.864 ppb	10.104 ppb	20.532 ppb	32.527 ppb	96.120 %
Concentration per Run 1	1.218 ppb	3.385 ppb	810.223 ppb	4,000.039 ppb	2.848 ppb	10.133 ppb	20.856 ppb	32.559 ppb	94.910 %
Concentration per Run 2	1.284 ppb	3.339 ppb	789.458 ppb	3,918.525 ppb	3.031 ppb	10.274 ppb	20.682 ppb	32.684 ppb	93.061 %
Concentration per Run 3	1.260 ppb	3.304 ppb	783.467 ppb	3,840.527 ppb	2.713 ppb	9.905 ppb	20.057 ppb	32.337 ppb	100.388 %
Concentration RSD	2.7 %	1.2 %	1.8 %	2.0 %	5.6 %	1.8 %	2.0 %	0.5 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.767 ppb	2.019 ppb	222.097 ppb	0.473 ppb	95.381 %	1.467 ppb	0.045 ppb	94.250 %	0.899 ppb
Concentration per Run 1	0.829 ppb	1.890 ppb	233.760 ppb	0.345 ppb	93.420 %	1.463 ppb	0.040 ppb	95.348 %	0.759 ppb
Concentration per Run 2	0.744 ppb	2.054 ppb	212.210 ppb	0.465 ppb	93.923 %	1.494 ppb	0.048 ppb	88.794 %	0.932 ppb
Concentration per Run 3	0.728 ppb	2.113 ppb	220.319 ppb	0.610 ppb	98.799 %	1.444 ppb	0.048 ppb	98.609 %	1.005 ppb
Concentration RSD	7.1 %	5.7 %	4.9 %	28.1 %	3.1 %	1.7 %	10.1 %	5.3 %	14.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	121.921 ppb	98.265 %	94.662 %	0.070 ppb	15.692 ppb	87.625 %
Concentration per Run 1	122.398 ppb	97.592 %	93.051 %	0.055 ppb	15.025 ppb	92.418 %
Concentration per Run 2	123.325 ppb	95.674 %	91.798 %	0.079 ppb	16.432 ppb	81.737 %
Concentration per Run 3	120.041 ppb	101.528 %	99.137 %	0.075 ppb	15.618 ppb	88.721 %
Concentration RSD	1.4 %	3.0 %	4.1 %	18.3 %	4.5 %	6.2 %

Alpha ICPMSQ Data with SRD

8/21/2024 4:34:11 PM

Analysis index:	115	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	zl2446118-09d25 6020TL	Rack	2		
Analysis started at:	8/21/2024 4:26:05 PM	Vial	22		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.326 %	105.681 %	0.288 ppb	1,156.616 ppb	23,346.341 ppb	1,837.845 ppb	489.456 ppb	99,741.713 ppb	109.571 %
Concentration per Run 1	88.834 %	107.698 %	0.312 ppb	1,173.714 ppb	23,730.777 ppb	1,865.583 ppb	492.052 ppb	102,766.737 ppb	109.942 %
Concentration per Run 2	91.076 %	97.714 %	0.298 ppb	1,177.189 ppb	24,070.175 ppb	1,859.339 ppb	493.133 ppb	99,706.096 ppb	108.971 %
Concentration per Run 3	94.068 %	111.631 %	0.255 ppb	1,118.944 ppb	22,238.071 ppb	1,788.612 ppb	483.183 ppb	96,752.304 ppb	109.799 %
Concentration RSD	2.9 %	6.8 %	10.3 %	2.8 %	4.2 %	2.3 %	1.1 %	3.0 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.382 ppb	4.339 ppb	2,719.969 ppb	4,351.567 ppb	4.444 ppb	29.721 ppb	37.149 ppb	56.848 ppb	97.533 %
Concentration per Run 1	1.293 ppb	4.221 ppb	2,662.785 ppb	4,295.533 ppb	4.367 ppb	29.604 ppb	37.049 ppb	57.021 ppb	99.564 %
Concentration per Run 2	1.434 ppb	4.451 ppb	2,768.343 ppb	4,448.266 ppb	4.586 ppb	30.478 ppb	38.658 ppb	57.538 ppb	92.912 %
Concentration per Run 3	1.420 ppb	4.345 ppb	2,728.780 ppb	4,310.902 ppb	4.381 ppb	29.082 ppb	35.741 ppb	55.985 ppb	100.122 %
Concentration RSD	5.6 %	2.7 %	2.0 %	1.9 %	2.8 %	2.4 %	3.9 %	1.4 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.850 ppb	3.368 ppb	190.371 ppb	0.252 ppb	95.852 %	7.748 ppb	0.137 ppb	92.804 %	0.509 ppb
Concentration per Run 1	0.883 ppb	3.572 ppb	192.922 ppb	0.148 ppb	95.830 %	7.668 ppb	0.144 ppb	94.161 %	0.379 ppb
Concentration per Run 2	0.909 ppb	3.393 ppb	185.515 ppb	0.250 ppb	93.811 %	7.785 ppb	0.129 ppb	88.332 %	0.534 ppb
Concentration per Run 3	0.758 ppb	3.141 ppb	192.677 ppb	0.357 ppb	97.915 %	7.791 ppb	0.139 ppb	95.919 %	0.612 ppb
Concentration RSD	9.5 %	6.4 %	2.2 %	41.6 %	2.1 %	0.9 %	5.8 %	4.3 %	23.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	90.160 ppb	99.308 %	96.750 %	0.113 ppb	20.278 ppb	93.153 %
Concentration per Run 1	91.184 ppb	99.275 %	98.205 %	0.096 ppb	19.352 ppb	96.807 %
Concentration per Run 2	88.443 ppb	98.211 %	92.010 %	0.120 ppb	20.432 ppb	91.067 %
Concentration per Run 3	90.853 ppb	100.437 %	100.036 %	0.124 ppb	21.050 ppb	91.585 %
Concentration RSD	1.7 %	1.1 %	4.3 %	13.1 %	4.2 %	3.4 %

Interference Check Solutions
(ICP-MS)

Solution Component	Solution A Concentration (ug/L)	Solution AB Concentration (ug/L)
Al	20,000	20,000
Ca	60,000	60,000
Fe	50,000	50,000
Mg	20,000	20,000
Na	50,000	50,000
K	20,000	20,000
Mo	400	400
As	0.0	20
Cd	0.0	20
Cr	0.0	40
Co	0.0	40
Cu	0.0	40
Mn	0.0	40
Ni	0.0	40
Se	0.0	20
Ag	0.0	10
V	0.0	40
Zn	0.0	20

LCS & MS Concentrations
(ICP-MS)

Element	Liquid Concentration (mg/L)
Aluminum	2.00
Antimony	0.5
Arsenic	0.12
Barium	2.00
Beryllium	0.05
Cadmium	0.051
Calcium	10.0
Chromium	0.20
Cobalt	0.50
Copper	0.25
Iron	1.00
Lead	0.51
Magnesium	10.0
Manganese	0.50
Molybdenum	1.00
Nickel	0.50
Potassium	10.0
Selenium	0.12
Silver	0.05
Sodium	10.0
Thallium	0.12
Vanadium	0.50
Zinc	0.50

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D102-540
Certificate Issue Date: June 22, 2018
Expiration Date: January 31, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8160	6.36	3960 - 12400	4080 - 12200
Antimony	120	60.9	9.42	0.822 - 121	12.0 - 166
Arsenic	144	135	5.08	112 - 158	94.6 - 176
Barium	469	443	6.77	366 - 521	332 - 554
Beryllium	207	197	5.86	164 - 229	148 - 246
Boron	213	174	12.6	127 - 221	105 - 244
Cadmium	224	204	6.65	169 - 240	153 - 256
Calcium	5190	4830	9.12	3950 - 5700	3510 - 6150
Chromium	138	132	8.56	109 - 155	92.2 - 171
Cobalt	182	179	7.93	151 - 207	134 - 224
Copper	191	184	6.72	155 - 213	138 - 230
Iron	15000	14400	10.7	8770 - 20000	5120 - 23600
Lead	225	216	7.72	178 - 254	159 - 274
Magnesium	2570	2340	6.13	1780 - 2900	1460 - 3230
Manganese	331	323	6.71	266 - 380	242 - 404
Mercury	16.8	13.2	16.0	8.64 - 17.7	7.89 - 18.5
Molybdenum	193	175	2.39	141 - 209	125 - 226
Nickel	163	152	5.95	126 - 178	106 - 197
Potassium	2420	2050	6.31	1440 - 2660	1210 - 2890
Selenium	81.9	74.9	4.13	59.3 - 90.5	47.0 - 103
Silver	57.6	53.9	9.00	43.0 - 64.8	37.8 - 70.0
Sodium	161	149	12.1	111 - 188	57.7 - 241
Strontium	100	96.2	4.04	78.1 - 114	69.0 - 123
Thallium	253	232	3.54	188 - 276	168 - 296

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	146	134	10.8	106 - 163	79.5 - 189
Titanium	449	340	7.20	70.2 - 609	44.9 - 711
Uranium	114	113	7.10	85.5 - 140	71.9 - 153
Vanadium	180	172	8.85	137 - 207	126 - 218
Zinc	217	211	6.58	171 - 250	147 - 274

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8160	80.8	138	-	-
Antimony	120	60.9	50.8	135	-	-
Arsenic	144	135	93.8	184	-	-
Barium	469	443	94.5	158	-	-
Beryllium	207	197	95.0	148	-	-
Boron	213	174	81.8	107	-	-
Cadmium	224	204	91.3	199	-	-
Calcium	5190	4830	93.0	122	-	-
Chromium	138	132	95.5	172	-	-
Cobalt	182	179	98.4	140	-	-
Copper	191	184	96.3	183	-	-
Iron	15000	14400	95.6	133	-	-
Lead	225	216	96.2	204	-	-
Magnesium	2570	2340	91.2	122	-	-
Manganese	331	323	97.6	147	-	-
Mercury	16.8	13.2	78.3	128	-	-
Molybdenum	193	175	90.8	143	-	-
Nickel	163	152	93.1	185	-	-
Potassium	2420	2050	84.7	121	-	-
Selenium	81.9	74.9	91.5	163	-	-

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	57.6	53.9	93.6	150	-	-
Sodium	161	149	92.8	105	-	-
Strontium	100	96.2	96.2	90	-	-
Thallium	253	232	91.6	147	-	-
Tin	146	134	92.0	100	-	-
Titanium	449	340	75.6	93	-	-
Uranium	114	113	98.8	35	-	-
Vanadium	180	172	95.4	139	-	-
Zinc	217	211	97.0	180	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

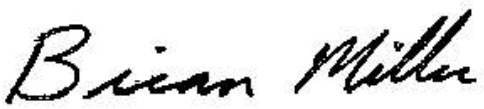
5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

ERA
A Waters Company

Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D105-540
Certificate Issue Date: March 19, 2019
Expiration Date: October 12, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8800	8.32	4600 - 13000	4470 - 13100
Antimony	282	147	7.70	6.17 - 289	28.2 - 366
Arsenic	155	143	6.34	119 - 168	100 - 186
Barium	439	415	5.37	343 - 488	311 - 519
Beryllium	192	179	2.78	149 - 210	134 - 224
Boron	216	160	7.08	113 - 208	96.1 - 238
Cadmium	61.5	56.2	0.528	46.6 - 65.9	42.2 - 70.3
Calcium	5190	4960	6.64	4090 - 5840	3610 - 6310
Chromium	104	101	4.75	83.2 - 118	70.5 - 131
Cobalt	196	189	0.500	158 - 219	141 - 236
Copper	65.0	63.1	2.65	53.1 - 73.1	47.3 - 78.9
Iron	15000	15700	8.94	10100 - 21300	6000 - 25400
Lead	126	125	4.77	103 - 146	89.3 - 160
Magnesium	2570	2410	6.26	1860 - 2970	1520 - 3310
Manganese	387	382	5.37	315 - 449	290 - 474
Mercury	7.76	7.61	13.7	5.53 - 9.69	4.57 - 10.7
Molybdenum	120	107	0.500	86.0 - 128	75.5 - 139
Nickel	117	108	0.514	89.5 - 127	75.7 - 141
Potassium	2420	2110	5.62	1500 - 2720	1260 - 2960
Selenium	84.6	77.9	7.10	61.8 - 94.0	49.2 - 107
Silver	34.6	34.3	8.34	27.8 - 40.9	23.6 - 45.1
Sodium	161	145	6.72	106 - 183	54.3 - 235
Strontium	104	104	3.95	85.1 - 123	74.8 - 133
Thallium	123	113	0.500	91.3 - 134	77.1 - 149

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	118	107	0.500	83.5 - 130	61.2 - 152
Titanium	512	421	5.80	114 - 728	0.00 - 854
Uranium	103	104	6.18	79.1 - 128	71.9 - 135
Vanadium	87.3	83.7	8.55	66.8 - 101	54.2 - 113
Zinc	251	240	3.98	194 - 285	168 - 312

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8800	87.1	193	-	-
Antimony	282	147	52.3	216	-	-
Arsenic	155	143	92.5	240	-	-
Barium	439	415	94.6	222	-	-
Beryllium	192	179	93.4	220	-	-
Boron	216	160	74.2	152	-	-
Cadmium	61.5	56.2	91.5	239	-	-
Calcium	5190	4960	95.6	175	-	-
Chromium	104	101	96.8	237	-	-
Cobalt	196	189	96.2	215	-	-
Copper	65.0	63.1	97.1	237	-	-
Iron	15000	15700	105	195	-	-
Lead	126	125	99.0	243	-	-
Magnesium	2570	2410	93.9	177	-	-
Manganese	387	382	98.7	215	-	-
Mercury	7.76	7.61	98.0	157	-	-
Molybdenum	120	107	89.4	216	-	-
Nickel	117	108	92.5	235	-	-
Potassium	2420	2110	87.2	181	-	-
Selenium	84.6	77.9	92.1	231	-	-

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Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	34.6	34.3	99.3	216	-	-
Sodium	161	145	89.8	166	-	-
Strontium	104	104	99.9	148	-	-
Thallium	123	113	91.8	215	-	-
Tin	118	107	90.4	164	-	-
Titanium	512	421	82.2	157	-	-
Uranium	103	104	101	61	-	-
Vanadium	87.3	83.7	95.9	214	-	-
Zinc	251	240	95.5	234	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Brian Miller

Quality Officer

Matthew Seebeck

ACCREDITED ACCREDITED

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Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D109-540
Certificate Issue Date: March 24, 2020
Expiration Date: October 03, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8130	2.54	3920 - 12300	4060 - 12200
Antimony	259	134	5.03	4.56 - 264	25.9 - 335
Arsenic	171	156	3.38	129 - 183	109 - 203
Barium	253	239	4.81	197 - 280	179 - 298
Beryllium	179	169	6.59	141 - 198	127 - 212
Boron	114	87.5	10.3	62.5 - 113	52.5 - 125
Cadmium	149	137	5.43	113 - 160	103 - 171
Calcium	5190	4760	3.48	3890 - 5640	3460 - 6070
Chromium	163	154	3.79	126 - 181	108 - 200
Cobalt	127	121	5.07	101 - 141	90.8 - 151
Copper	57.0	54.9	4.13	46.1 - 63.6	41.1 - 68.6
Iron	15000	14100	6.27	8470 - 19700	4920 - 23200
Lead	133	130	3.00	107 - 152	93.3 - 167
Magnesium	2570	2320	3.32	1760 - 2880	1440 - 3200
Manganese	277	269	2.67	221 - 317	199 - 340
Mercury	21.6	20.5	7.72	14.7 - 26.3	12.3 - 28.6
Molybdenum	108	95.4	2.61	76.4 - 114	66.9 - 124
Nickel	58.7	53.9	4.97	44.5 - 63.3	37.7 - 70.0
Potassium	2420	2020	3.06	1410 - 2630	1190 - 2850
Selenium	181	167	5.63	132 - 201	113 - 221
Silver	35.5	33.6	5.20	26.8 - 40.3	23.0 - 44.1
Sodium	161	133	2.76	95.1 - 171	46.5 - 220
Strontium	89.7	87.9	4.59	71.7 - 104	62.8 - 113
Thallium	121	112	5.19	90.3 - 133	76.1 - 147

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	83.5	74.0	5.42	57.6 - 90.4	39.7 - 108
Titanium	474	333	7.17	48.6 - 617	46.3 - 620
Uranium	51.9	51.9	3.36	39.6 - 64.3	35.9 - 68.0
Vanadium	68.1	62.6	6.00	49.4 - 75.8	37.0 - 88.3
Zinc	165	158	2.34	128 - 188	111 - 205

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ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8130	80.5	196	-	-
Antimony	259	134	51.8	217	-	-
Arsenic	171	156	91.3	243	-	-
Barium	253	239	94.3	230	-	-
Beryllium	179	169	94.6	223	-	-
Boron	114	87.5	76.7	150	-	-
Cadmium	149	137	91.8	249	-	-
Calcium	5190	4760	91.8	184	-	-
Chromium	163	154	94.4	245	-	-
Cobalt	127	121	95.3	221	-	-
Copper	57.0	54.9	96.2	243	-	-
Iron	15000	14100	93.9	199	-	-
Lead	133	130	97.7	251	-	-
Magnesium	2570	2320	90.1	182	-	-
Manganese	277	269	97.2	220	-	-
Mercury	21.6	20.5	94.7	172	-	-
Molybdenum	108	95.4	88.3	218	-	-
Nickel	58.7	53.9	91.8	242	-	-
Potassium	2420	2020	83.5	187	-	-
Selenium	181	167	92.2	235	-	-
Silver	35.5	33.6	94.5	222	-	-
Sodium	161	133	82.7	177	-	-
Strontium	89.7	87.9	98.0	151	-	-
Thallium	121	112	92.2	219	-	-
Tin	83.5	74.0	88.6	170	-	-
Titanium	474	333	70.3	157	-	-
Uranium	51.9	51.9	100	60	-	-
Vanadium	68.1	62.6	91.9	213	-	-
Zinc	165	158	95.8	238	-	-

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▪ Certificate of Analysis ▪

1. The **Certified Values** are the actual gravimetric/volumetric "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

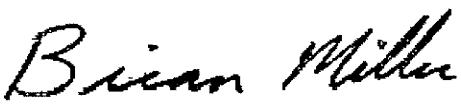
8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D113-540
Certificate Issue Date: March 23, 2021
Expiration Date: October 13, 2024
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8630	12.0	4420 - 12800	4370 - 12900
Antimony	256	129	16.8	0.742 - 257	25.6 - 323
Arsenic	91.6	84.5	15.1	70.0 - 99.0	59.2 - 110
Barium	259	249	9.94	206 - 292	187 - 311
Beryllium	175	163	3.89	135 - 191	122 - 204
Boron	95.7	76.7	12.8	55.7 - 97.7	48.0 - 107
Cadmium	107	99.0	11.5	82.2 - 116	74.2 - 124
Calcium	5190	4760	11.8	3890 - 5640	3460 - 6070
Chromium	129	122	14.6	101 - 144	85.7 - 159
Cobalt	63.6	61.7	11.5	51.9 - 71.6	46.3 - 77.2
Copper	62.3	61.5	12.3	51.9 - 71.0	46.1 - 76.8
Iron	15000	14500	15.7	8860 - 20100	5190 - 23800
Lead	122	123	13.9	103 - 144	88.3 - 158
Lithium	6.42	7.30	18.7	5.13 - 9.48	3.20 - 11.4
Magnesium	2570	2360	8.87	1810 - 2920	1480 - 3250
Manganese	470	456	13.4	375 - 538	350 - 563
Mercury	22.1	18.9	14.5	13.0 - 24.8	11.3 - 26.4
Molybdenum	80.1	72.8	11.0	58.7 - 87.0	50.5 - 95.2
Nickel	143	135	14.2	112 - 158	94.7 - 176
Potassium	2420	2090	8.21	1480 - 2700	1240 - 2940
Selenium	128	121	11.7	96.9 - 146	80.4 - 162
Silver	45.4	44.1	6.69	35.5 - 52.8	30.7 - 57.6
Sodium	161	136	9.34	97.4 - 174	48.1 - 223
Strontium	82.2	82.3	8.42	67.4 - 97.1	58.6 - 106

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Thallium	154	144	7.54	117 - 171	101 - 187
Tin	89.7	79.8	14.0	62.2 - 97.4	43.5 - 116
Titanium	705	546	10.3	123 - 969	118 - 974
Uranium	29.5	30.9	3.38	23.9 - 37.9	21.3 - 40.5
Vanadium	196	186	14.2	148 - 224	138 - 235
Zinc	307	295	10.4	240 - 351	207 - 384

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Calculation of Method 6020 Metals

Aqueous Samples

The instrument will calculate the concentration (µg/L). This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, mg/L} = C_s \times (1\text{mg}/1000\mu\text{g}) \times (DF)$$

Where:

C_s = Concentration of sample (µg/L)

DF = Dilution Factor

Alpha ICPMSQ Seq

8/21/2024 4:33:49 PM

Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
1	Rinse	0	1	3	1	8/21/2024 4:50:39 AM
2	CAL LOT #M24-1045	0	1	3	1	8/21/2024 4:55:15 AM
3	Blank EJF ICPMSQ	4	49	3	1	8/21/2024 4:59:52 AM
4	0.2/20 Cal	0	2	3	1	8/21/2024 5:04:34 AM
5	1/100 Cal	0	3	3	1	8/21/2024 5:09:11 AM
6	10/1000 Cal	0	4	3	1	8/21/2024 5:13:49 AM
7	60/6000 Cal	0	5	3	1	8/21/2024 5:18:27 AM
8	120/12000 Cal	0	6	3	1	8/21/2024 5:23:07 AM
9	Sr 200ppb	4	55	3	1	8/21/2024 5:29:23 AM
10	ICV	0	7	3	1	8/21/2024 5:34:05 AM
11	ICB	0	10	3	1	8/21/2024 5:38:45 AM
12	ICB	0	10	3	1	8/21/2024 5:46:47 AM
13	ICSA	4	53	3	1	8/21/2024 5:51:52 AM
14	LDR Check	4	1	3	1	8/21/2024 5:56:34 AM
15	Rinse	0	1	3	1	8/21/2024 6:01:15 AM
16	CCV	0	9	3	1	8/21/2024 6:05:52 AM
17	CCB	0	10	3	1	8/21/2024 6:10:33 AM
18	CCB	0	10	3	1	8/21/2024 6:17:00 AM
19	wg1961587-1 CT-SPLP-6020TL	1	1	3	1	8/21/2024 6:24:24 AM
20	wg1961587-2d10 CT-SPLP-6020TL	1	2	3	1	8/21/2024 6:29:02 AM
21	wg1961587-3d10 CT-SPLP-6020TL	1	3	3	1	8/21/2024 6:33:40 AM
22	WG1960931-2d10 6020TL	1	7	3	1	8/21/2024 6:38:17 AM
23	L2445940-01 CT-SPLP-6020TL	1	4	3	1	8/21/2024 6:42:56 AM
24	L2445944-01 CT-SPLP-6020TL	1	5	3	1	8/21/2024 6:47:34 AM
25	L2445944-02 CT-SPLP-6020TL	1	6	3	1	8/21/2024 6:52:13 AM
26	CCV	0	9	3	1	8/21/2024 6:57:26 AM
27	CCB	0	10	3	1	8/21/2024 7:02:08 AM
28	CCV	0	9	3	1	8/21/2024 7:07:51 AM
29	CCB	0	10	3	1	8/21/2024 7:13:38 AM
30	WG1960303-1 6020TL	1	8	3	1	8/21/2024 7:18:20 AM
31	WG1960303-2d10 6020TL	1	9	3	1	8/21/2024 7:23:00 AM
32	I2446106-28 6020TL	1	10	3	1	8/21/2024 7:27:39 AM
33	WG1960303-3d10 6020TL	1	11	3	1	8/21/2024 7:32:19 AM
34	WG1960303-4 6020TL	1	12	3	1	8/21/2024 7:36:59 AM
35	WG1960303-5d10 6020TL	1	13	3	1	8/21/2024 7:41:40 AM
36	WG1960303-6d5 6020TL	1	14	3	1	8/21/2024 7:46:16 AM
37	I2446007-01 6020TL	1	15	3	1	8/21/2024 7:50:53 AM
38	I2446007-02 6020TL	1	16	3	1	8/21/2024 7:55:29 AM
39	I2446007-03 6020TL	1	17	3	1	8/21/2024 8:00:07 AM
40	CCV	0	9	3	1	8/21/2024 8:04:44 AM
41	CCB	0	10	3	1	8/21/2024 8:09:26 AM
42	I2446165-01 6020TL	1	21	3	1	8/21/2024 8:20:28 AM
43	I2446555-06 6020TL	1	28	3	1	8/21/2024 8:25:07 AM
44	I2446118-07d5 6020TL	1	18	3	1	8/21/2024 8:31:02 AM
45	I2446118-08d5 6020TL	1	19	3	1	8/21/2024 8:35:42 AM
46	I2446118-09d5 6020TL	1	20	3	1	8/21/2024 8:40:20 AM
47	I2446229-01 6020TL	1	22	3	1	8/21/2024 8:44:58 AM
48	I2446229-02 6020TL	1	23	3	1	8/21/2024 8:49:37 AM
49	I2446229-03 6020TL	1	24	3	1	8/21/2024 8:54:17 AM
50	I2446446-01 6020TL	1	25	3	1	8/21/2024 8:58:56 AM
51	I2446455-25 6020TL	1	26	3	1	8/21/2024 9:03:33 AM

Alpha ICPMSQ Seq

8/21/2024 4:33:49 PM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
52	CCV	0	9	3	1	8/21/2024 9:08:10 AM
53	CCB	0	10	3	1	8/21/2024 9:12:52 AM
54	WG1956741-1d10 6020TS	1	33	3	1	8/21/2024 9:19:29 AM
55	WG1956741-2d10 6020TS	1	34	3	1	8/21/2024 9:24:08 AM
56	I2446555-04d10 6020TL	1	27	3	1	8/21/2024 9:28:47 AM
57	I2446562-02 6020TL	1	29	3	1	8/21/2024 9:33:24 AM
58	I2446118-07d25 6020TL	1	30	3	1	8/21/2024 9:38:02 AM
59	I2446118-08d25 6020TL	1	31	3	1	8/21/2024 9:42:40 AM
60	I2446118-09d25 6020TL	1	32	3	1	8/21/2024 9:47:18 AM
61	CCV	0	9	3	1	8/21/2024 9:51:57 AM
62	CCB	0	10	3	1	8/21/2024 9:56:39 AM
63	L2444139-01d10 6020TS	1	35	3	1	8/21/2024 10:02:39 AM
64	WG1956741-3d10 6020TS	1	36	3	1	8/21/2024 10:07:19 AM
65	WG1956741-4d10 6020TS	1	37	3	1	8/21/2024 10:11:59 AM
66	WG1956741-5d10 6020TS	1	38	3	1	8/21/2024 10:17:52 AM
67	WG1956741-6d50 6020TS	1	39	3	1	8/21/2024 10:22:31 AM
68	L2444139-02d10 6020TS	1	40	3	1	8/21/2024 10:27:09 AM
69	L2444139-03d10 6020TS	1	41	3	1	8/21/2024 10:31:46 AM
70	L2444139-04d10 6020TS	1	42	3	1	8/21/2024 10:37:34 AM
71	L2444139-05d10 6020TS	1	43	3	1	8/21/2024 10:42:13 AM
72	L2444139-04d100 6020TS	1	44	3	1	8/21/2024 10:51:20 AM
73	CCV	0	9	3	1	8/21/2024 10:56:00 AM
74	CCB	0	10	3	1	8/21/2024 11:04:08 AM
75	xRinse Check	1	54	3	1	8/21/2024 11:11:23 AM
76	WG1961139-1 6020sl	1	45	3	1	8/21/2024 11:32:26 AM
77	WG1961139-2d10 6020sl	1	46	3	1	8/21/2024 11:37:06 AM
78	I2444137-01 6020sl	1	47	3	1	8/21/2024 11:41:46 AM
79	WG1961139-3d10 6020sl	1	48	3	1	8/21/2024 11:46:25 AM
80	WG1961139-4 6020sl	1	49	3	1	8/21/2024 11:51:06 AM
81	WG1961139-5d10 6020sl	1	50	3	1	8/21/2024 11:55:44 AM
82	WG1961139-6d5 6020sl	1	51	3	1	8/21/2024 12:00:22 PM
83	xl2444142-01 6020sl	1	52	3	1	8/21/2024 12:05:01 PM
84	I2444142-02 6020sl	1	53	3	1	8/21/2024 12:09:39 PM
85	CCV	0	9	3	1	8/21/2024 12:14:18 PM
86	CCB	0	10	3	1	8/21/2024 12:19:00 PM
87	CCV	0	9	3	1	8/21/2024 12:36:12 PM
88	CCB	0	10	3	1	8/21/2024 12:40:54 PM
89	I2444142-01d10 6020sl	1	55	3	1	8/21/2024 12:50:28 PM
90	I2444142-01 6020sl	1	52	3	1	8/21/2024 12:55:07 PM
91	WG1962093-1d10 6020TS	1	56	3	1	8/21/2024 1:05:41 PM
92	WG1962093-2d10 6020TS	1	57	3	1	8/21/2024 1:10:20 PM
93	L2444139-01d100 6020TS	1	58	3	1	8/21/2024 1:14:59 PM
94	WG1962093-3d100 6020TS	1	59	3	1	8/21/2024 1:19:39 PM
95	WG1962093-4d100 6020TS	1	60	3	1	8/21/2024 1:24:19 PM
96	WG1962093-5d100 6020TS	2	1	3	1	8/21/2024 1:28:59 PM
97	WG1962093-6d500 6020TS	2	2	3	1	8/21/2024 1:33:38 PM
98	CCV	0	9	3	1	8/21/2024 1:38:18 PM
99	CCB	0	10	3	1	8/21/2024 1:43:00 PM
100	CCV	0	9	3	1	8/21/2024 2:45:24 PM
101	CCB	0	10	3	1	8/21/2024 2:50:06 PM
102	WG1961551-1d2 A2-6020T	2	3	3	1	8/21/2024 3:17:17 PM
103	WG1961551-2d10 A2-6020T	2	4	3	1	8/21/2024 3:21:56 PM
104	WG1961551-3d10 A2-6020T	2	5	3	1	8/21/2024 3:26:35 PM
105	L2443365-07d2 A2-6020T	2	6	3	1	8/21/2024 3:31:14 PM
106	L2445067-02d2 A2-6020T	2	7	3	1	8/21/2024 3:35:53 PM
107	L2446200-01d2 A2-6020T	2	8	3	1	8/21/2024 3:40:32 PM

Alpha ICPMSQ Seq

8/21/2024 4:33:49 PM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
108	xempty	2	9	3	1	8/21/2024 3:45:11 PM
109	CCV	0	9	3	1	8/21/2024 3:48:49 PM
110	CCB	0	10	3	1	8/21/2024 3:53:29 PM
111	WG1962053-1 6020TL	2	10	3	1	8/21/2024 4:07:11 PM
112	WG1962053-2d10 6020TL	2	11	3	1	8/21/2024 4:11:50 PM
113	zl2446118-07d25 6020TL	2	20	3	1	8/21/2024 4:16:46 PM
114	zl2446118-08d25 6020TL	2	21	3	1	8/21/2024 4:21:26 PM
115	zl2446118-09d25 6020TL	2	22	3	1	8/21/2024 4:26:05 PM
116	l2446490-06 6020TL	2	12	3	1	
117	WG1962053-3d10 6020TL	2	13	3	1	
118	WG1962053-4 6020TL	2	14	3	1	
119	WG1962053-5d10 6020TL	2	15	3	1	
120	WG1962053-6d5 6020TL	2	16	3	1	
121	CCV	0	9	3	1	
122	CCB	0	10	3	1	
123	l2446395-02 6020TL	2	17	3	1	
124	l2446490-07 6020TL	2	18	3	1	
125	l2446490-08 6020TL	2	19	3	1	
126	Unknown	2	23	3	1	
127	CCV	0	9	3	1	
128	CCB	0	10	3	1	
129	CCV	0	9	3	1	
130	CCB	0	10	3	1	

METALS ELN REPORT

Workgroup: WG1960303

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 3005A	1:1 HNO3	tHNO324331 40750ADG	1:1 HCl	tHCL243025 1705HCR	METALS	METSPIKE2	IPS,FPS,MIX	METPSMS	IPS,FPS,MIX	140, 326

Additional Reagent/Std

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2446007-01 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446007-02 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446007-03 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446106-28 WATER	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446118-07 WATER	08/19/24 22:54	Christine Hamor	25	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	2X DILUTION DUE TO PH
L2446118-08 WATER	08/19/24 22:54	Christine Hamor	25	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	2X DILUTION DUE TO PH
L2446118-09 WATER	08/19/24 22:54	Christine Hamor	25	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	2X DILUTION DUE TO PH
L2446165-01 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446229-01 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446229-02 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446229-03 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446446-01 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446455-25 WATER	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446555-04 SAMP	08/19/24 22:54	Christine Hamor	10	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	5X DILUTION DUE TO PH/MATRIX

Reported: 21-AUG-24 04:53 PM

METALS ELN REPORT

Workgroup: WG1960303

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2446555-06 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
L2446562-02 SAMP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	
WG1960303-1 BLANK	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	FM2433121954 CLH
WG1960303-2 LCS	08/19/24 22:54	Christine Hamor	50	<2	.5	08/19/24 22:54	7	94.3	08/20/24 01:54	50	IPS2426271354 ADG
WG1960303-3 MS	08/19/24 22:54	Christine Hamor	50	<2	.5	08/19/24 22:54	7	94.3	08/20/24 01:54	50	
WG1960303-4 DUP	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	ELN check:cme
WG1960303-5 PS	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	ELN check: ADG
WG1960303-6 SERDIL	08/19/24 22:54	Christine Hamor	50	<2		08/19/24 22:54	7	94.3	08/20/24 01:54	50	

Reagent	Actual Volume	Units
1:1 Hydrochloric Acid (H	.5	ml
1:1 Nitric Acid (HNO3)	1	ml

Reported: 21-AUG-24 04:53 PM

Wet Chemistry

Nitrate and Nitrite Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-04	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/17/24 06:01
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	0.107	0.100	0.022	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/17/24 06:02
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	ND	0.100	0.022	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960427-1	**Date Collected**	: NA
Client ID	: WG1960427-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/17/24 04:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	ND	0.100	0.022	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960427-3	**Date Collected**	: 08/16/24 08:15
Client ID	: WG1960427-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/17/24 06:04
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	ND	0.100	0.023	U

Sample Raw Data

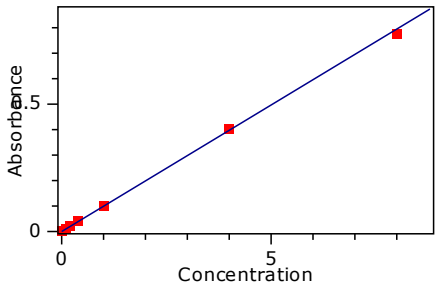
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-17 07:59:35
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-17-075915.dat

Dataset Notes:

Analyst	

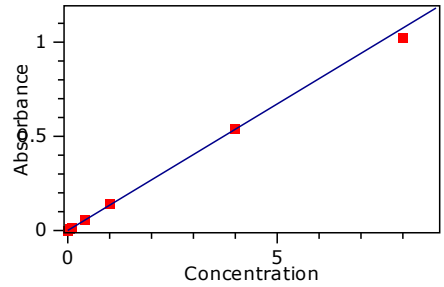
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00012
B: 0.09935
R^2: 0.99962
RSE(%): 1.59179
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
2	NOx 8.0ppm	0.77530	8.00000	7.80430	2.45	2024-08-17T03:54:15
3	NOx 4.0ppm	0.40390	4.00000	4.06680	1.67	2024-08-17T03:55:25
4	NOx 1.0ppm	0.09930	1.00000	1.00030	0.03	2024-08-17T03:56:33
5	NOx 0.4ppm	0.04000	0.40000	0.40410	1.02	2024-08-17T03:57:41
6	NOx 0.2ppm	0.01980	0.20000	0.20070	0.37	2024-08-17T03:58:51
7	NOx 0.1ppm	0.00980	0.10000	0.09960	0.43	2024-08-17T04:00:01
8	NOx 0.0ppm	0.00010	0.00000	0.00210	NA	2024-08-17T04:01:08



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00028
B: 0.13433
R^2: 0.99940
RSE(%): 3.30325
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
9	Nitrite 8.0ppm	1.02180	8.00000	7.60420	4.95	2024-08-17T04:02:10
10	Nitrite 4.0ppm	0.53740	4.00000	3.99830	0.04	2024-08-17T04:03:19
11	Nitrite 1.0ppm	0.13830	1.00000	1.02780	2.78	2024-08-17T04:04:25
12	Nitrite 0.4ppm	0.05550	0.40000	0.41140	2.85	2024-08-17T04:05:36
13	Nitrite 0.1ppm	0.01390	0.10000	0.10140	1.41	2024-08-17T04:06:45
14	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.16	2024-08-17T04:07:55
15	Nitrite 0.0ppm	0.00010	0.00000	-0.00160	NA	2024-08-17T04:09:11

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	0.0026		2024-08-17T03:53:05
NOx 8.0ppm	2	Standard	8	0.7753	1	1	1	7.8043		2024-08-17T03:54:15
NOx 4.0ppm	3	Standard	4	0.4039	1	1	1	4.0668		2024-08-17T03:55:25
NOx 1.0ppm	4	Standard	1	0.0993	1	1	1	1.0003		2024-08-17T03:56:33
NOx 0.4ppm	5	Standard	0.4	0.0400	1	1	1	0.4041		2024-08-17T03:57:41
NOx 0.2ppm	6	Standard	0.2	0.0198	1	1	1	0.2007		2024-08-17T03:58:51
NOx 0.1ppm	7	Standard	0.1	0.0098	1	1	1	0.0996		2024-08-17T04:00:01
NOx 0.0ppm	8	Standard	0	0.0001	1	1	1	0.0021		2024-08-17T04:01:08
Nitrite 8.0ppm	9	Standard	?	0.7756	1	1	1	7.8079	OVR	2024-08-17T04:02:21
Nitrite 4.0ppm	10	Standard	?	0.3920	1	1	1	3.9466		2024-08-17T04:03:31
Nitrite 1.0ppm	11	Standard	?	0.0988	1	1	1	0.9956		2024-08-17T04:04:39
Nitrite 0.4ppm	12	Standard	?	0.0390	1	1	1	0.3940		2024-08-17T04:05:47
Nitrite 0.1ppm	13	Standard	?	0.0095	1	1	1	0.0966		2024-08-17T04:06:57
Nitrite 0.05ppm	14	Standard	?	0.0048	1	1	1	0.0491		2024-08-17T04:08:07
Nitrite 0.0ppm	15	Standard	?	0.0001	1	1	1	0.0021		2024-08-17T04:09:19
CCV NO3	16	QC	1	0.0998	1	1	1	1.0062		2024-08-17T04:10:25
CCV NO2	17	QC	?	0.0995	1	1	1	1.0022		2024-08-17T04:11:31
CCB	18	QC	0	0.0000	1	1	1	0.0011		2024-08-17T04:12:16
ICV NO3 5.0	19	QC	5	0.5062	1	1	1	5.0957		2024-08-17T04:13:49
ICV NO2 5.0	20	QC	?	0.4945	1	1	1	4.9789		2024-08-17T04:14:57
ICV NO3 0.5	21	QC	0.5	0.0489	1	1	1	0.4935		2024-08-17T04:16:05
ICV NO2 0.5	22	QC	?	0.0491	1	1	1	0.4955		2024-08-17T04:17:13
ICB	23	QC	0	0.0001	1	1	1	0.0018		2024-08-17T04:18:40
Diluter CHK 8PPM	24	Unknown	?	0.0733	1	10	1	7.3885		2024-08-17T04:19:31
BLANK NO3	25	Unknown	?	0.0000	1	1	1	0.0008		2024-08-17T04:20:11
LCS NO3	26	Unknown	?	0.5049	1	1	1	5.0835		2024-08-17T04:21:45
BLANK NO2	27	Unknown	?	-0.0001	1	1	1	0.0000		2024-08-17T04:22:24
LCS NO2	28	Unknown	?	0.4961	1	1	1	4.9944		2024-08-17T04:23:58
CCV NO3	29	QC	1	0.0994	1	1	1	1.0021		2024-08-17T04:25:04
CCV NO2	30	QC	?	0.0995	1	1	1	1.0022		2024-08-17T04:26:09
CCB	31	QC	0	0.0000	1	1	1	0.0010		2024-08-17T04:26:55
WG1960424-1	32	Unknown	?	0.0001	1	1	1	0.0018		2024-08-17T04:28:29

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1960424-2	33	Unknown	?	0.4945	1	1	1	4.9789		2024-08-17T04:29:36
WG1960425-1	34	Unknown	?	-0.0001	1	1	1	-0.0002		2024-08-17T04:30:14
WG1960425-2	35	Unknown	?	0.4949	1	1	1	4.9820		2024-08-17T04:31:47
WG1960426-1	36	Unknown	?	-0.0001	1	1	1	0.0000		2024-08-17T04:32:26
WG1960426-2	37	Unknown	?	0.5081	1	1	1	5.1150		2024-08-17T04:33:59
WG1960427-1	38	Unknown	?	-0.0002	1	1	1	-0.0007		2024-08-17T04:34:41
WG1960427-2	39	Unknown	?	0.5079	1	1	1	5.1133		2024-08-17T04:36:14
WG1960428-1	40	Unknown	?	-0.0001	1	1	1	0.0003		2024-08-17T04:36:54
WG1960428-2	41	Unknown	?	0.5073	1	1	1	5.1074		2024-08-17T04:38:28
CCV NO3	42	QC	1	0.0984	1	1	1	0.9920		2024-08-17T04:39:33
CCV NO2	43	QC	?	0.0992	1	1	1	0.9994		2024-08-17T04:40:39
CCB	44	QC	0	0.0000	1	1	1	0.0012		2024-08-17T04:41:46
WG1960429-1	45	Unknown	?	0.0001	1	1	1	0.0020		2024-08-17T04:43:08
WG1960429-2	46	Unknown	?	0.5089	1	1	1	5.1236		2024-08-17T04:44:07
L2446647-01	47	Unknown	?	-0.0001	1	1	1	0.0000		2024-08-17T04:44:46
WG1960426-3	48	Unknown	?	0.0009	1	1	1	0.0100		2024-08-17T04:46:18
WG1960426-4	49	Unknown	?	0.3934	1	1	1	3.9612		2024-08-17T04:47:24
WG1960424-3	50	Unknown	?	0.0000	1	1	1	0.0010		2024-08-17T04:48:30
WG1960424-4	51	Unknown	?	0.4358	1	1	1	4.3871		2024-08-17T04:49:35
L2446647-03	52	Unknown	?	0.6196	1	1	1	6.2372		2024-08-17T04:50:40
L2446688-01	53	Unknown	?	0.0589	1	1	1	0.5941		2024-08-17T04:51:44
WG1960426-5	54	Unknown	?	0.0600	1	1	1	0.6049		2024-08-17T04:52:49
CCV NO3	55	QC	1	0.0993	1	1	1	1.0005		2024-08-17T04:53:54
CCV NO2	56	QC	?	0.0994	1	1	1	1.0015		2024-08-17T04:54:59
CCB	57	QC	0	0.0000	1	1	1	0.0010		2024-08-17T04:56:08
WG1960426-6	58	Unknown	?	0.4542	1	1	1	4.5727		2024-08-17T04:57:19
WG1960424-5	59	Unknown	?	0.0596	1	1	1	0.6011		2024-08-17T04:58:27
WG1960424-6	60	Unknown	?	0.4903	1	1	1	4.9362		2024-08-17T04:59:34
L2446752-01	61	Unknown	?	0.0322	1	1	1	0.3256		2024-08-17T05:00:41
L2446752-03	62	Unknown	?	0.0015	1	1	1	0.0160		2024-08-17T05:01:48
L2446752-05	63	Unknown	?	0.0829	1	1	1	0.8356		2024-08-17T05:02:54
L2446752-08	64	Unknown	?	0.0028	1	1	1	0.0296		2024-08-17T05:04:01
L2446752-09	65	Unknown	?	0.0007	1	1	1	0.0086		2024-08-17T05:05:07

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446752-11	66	Unknown	?	0.0055	1	1	1	0.0570		2024-08-17T05:06:12
L2446752-13	67	Unknown	?	0.0014	1	1	1	0.0154		2024-08-17T05:07:19
CCV NO3	68	QC	1	0.0995	1	1	1	1.0025		2024-08-17T05:08:23
CCV NO2	69	QC	?	0.0987	1	1	1	0.9945		2024-08-17T05:09:28
CCB	70	QC	0	0.0000	1	1	1	0.0011		2024-08-17T05:10:15
L2446752-17	71	Unknown	?	0.0830	1	1	1	0.8361		2024-08-17T05:11:48
L2446752-20	72	Unknown	?	0.0055	1	1	1	0.0567		2024-08-17T05:12:56
L2446779-01	73	Unknown	?	0.0017	1	1	1	0.0184		2024-08-17T05:14:01
L2446779-02	74	Unknown	?	0.0007	1	1	1	0.0085		2024-08-17T05:15:04
L2446801-01	75	Unknown	?	1.3655	1	1	1	13.7457	OVR	2024-08-17T05:16:15
L2446805-01	76	Unknown	?	1.3528	1	1	1	13.6169	OVR	2024-08-17T05:17:26
L2446860-01	77	Unknown	?	-0.0005	1	1	1	-0.0037		2024-08-17T05:18:22
L2446860-02	78	Unknown	?	0.0504	1	1	1	0.5084		2024-08-17T05:19:29
L2446609-01	79	Unknown	?	0.1969	1	1	1	1.9829		2024-08-17T05:20:36
L2446439-03	80	Unknown	?	0.0020	1	1	1	0.0216		2024-08-17T05:21:44
CCV NO3	81	QC	1	0.0991	1	1	1	0.9982		2024-08-17T05:22:48
CCV NO2	82	QC	?	0.0997	1	1	1	1.0044		2024-08-17T05:23:54
CCB	83	QC	0	0.0000	1	1	1	0.0016		2024-08-17T05:25:04
WG1960429-3	84	Unknown	?	0.0018	1	1	1	0.0191		2024-08-17T05:26:15
WG1960429-4	85	Unknown	?	0.3970	1	1	1	3.9973		2024-08-17T05:27:22
WG1960425-3	86	Unknown	?	0.0010	1	1	1	0.0111		2024-08-17T05:28:28
WG1960425-4	87	Unknown	?	0.4417	1	1	1	4.4465		2024-08-17T05:29:34
L2446439-04	88	Unknown	?	0.0024	1	1	1	0.0253		2024-08-17T05:30:38
L2446439-18	89	Unknown	?	0.0072	1	1	1	0.0738		2024-08-17T05:31:44
L2446439-20	90	Unknown	?	0.0011	1	1	1	0.0123		2024-08-17T05:32:50
L2446584-01	91	Unknown	?	0.0009	1	1	1	0.0105		2024-08-17T05:33:54
L2446584-02	92	Unknown	?	0.0008	1	1	1	0.0094		2024-08-17T05:34:58
L2446584-03	93	Unknown	?	0.0209	1	1	1	0.2117		2024-08-17T05:36:03
CCV NO3	94	QC	1	0.1006	1	1	1	1.0133		2024-08-17T05:37:08
CCV NO2	95	QC	?	0.0997	1	1	1	1.0051		2024-08-17T05:38:13
CCB	96	QC	0	0.0000	1	1	1	0.0013		2024-08-17T05:38:58
L2446584-04	97	Unknown	?	0.0083	1	1	1	0.0842		2024-08-17T05:40:31
L2446951-06	98	Unknown	?	0.3913	1	1	1	3.9392		2024-08-17T05:41:38

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1960428-3	99	Unknown	?	0.3916	1	1	1	3.9430		2024-08-17T05:42:45
WG1960428-4	100	Unknown	?	0.7444	1	1	1	7.4940		2024-08-17T05:43:52
L2446951-07	101	Unknown	?	0.3911	1	1	1	3.9378		2024-08-17T05:44:58
L2446951-11	102	Unknown	?	0.4701	1	1	1	4.7330		2024-08-17T05:46:04
L2446951-12	103	Unknown	?	0.2060	1	1	1	2.0751		2024-08-17T05:47:11
L2446951-13	104	Unknown	?	0.3087	1	1	1	3.1085		2024-08-17T05:48:17
L2446951-14	105	Unknown	?	0.0028	1	1	1	0.0291		2024-08-17T05:49:23
L2445937-01	106	Unknown	?	0.0967	1	1	1	0.9740		2024-08-17T05:50:28
CCV NO3	107	QC	1	0.0941	1	1	1	0.9487		2024-08-17T05:51:34
CCV NO2	108	QC	?	0.0952	1	1	1	0.9595		2024-08-17T05:52:39
CCB	109	QC	0	0.0000	1	1	1	0.0012		2024-08-17T05:53:23
L2445937-02	110	Unknown	?	0.0017	1	1	1	0.0181		2024-08-17T05:54:56
L2445937-03	111	Unknown	?	0.0007	1	1	1	0.0080		2024-08-17T05:56:02
L2445937-04	112	Unknown	?	0.0006	1	1	1	0.0074		2024-08-17T05:57:09
L2445937-05	113	Unknown	?	0.0006	1	1	1	0.0073		2024-08-17T05:58:14
L2445950-01	114	Unknown	?	0.0079	1	1	1	0.0812		2024-08-17T05:59:19
L2445950-02	115	Unknown	?	0.0133	1	1	1	0.1349		2024-08-17T06:00:24
L2446555-04	116	Unknown	?	0.0105	1	1	1	0.1073		2024-08-17T06:01:32
L2446555-06	117	Unknown	?	0.0007	1	1	1	0.0083		2024-08-17T06:02:39
L2446638-01	118	Unknown	?	0.0008	1	1	1	0.0094		2024-08-17T06:03:45
WG1960427-3	119	Unknown	?	0.0001	1	1	1	0.0022		2024-08-17T06:04:55
CCV NO3	120	QC	1	0.0951	1	1	1	0.9585		2024-08-17T06:05:58
CCV NO2	121	QC	?	0.0949	1	1	1	0.9564		2024-08-17T06:07:04
CCB	122	QC	0	0.0000	1	1	1	0.0014		2024-08-17T06:08:28
WG1960427-4	123	Unknown	?	0.3791	1	1	1	3.8168		2024-08-17T06:09:24
L2446638-02	124	Unknown	?	0.0000	1	1	1	0.0014		2024-08-17T06:10:32
L2446872-01	125	Unknown	?	0.0364	1	1	1	0.3678		2024-08-17T06:11:38
L2446872-02	126	Unknown	?	0.0013	1	1	1	0.0141		2024-08-17T06:12:44
L2446872-03	127	Unknown	?	0.0483	1	1	1	0.4877		2024-08-17T06:13:49
L2446872-04	128	Unknown	?	0.1663	1	1	1	1.6747		2024-08-17T06:14:55
WG1960445-1; WG1960448-1	129	Unknown	?	-0.0001	1	1	1	0.0004		2024-08-17T06:15:31
WG1960445-2;	130	Unknown	?	0.4922	1	1	1	4.9554		2024-08-17T06:17:05

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1960448-2										
L2446786-01	131	Unknown	?	0.0817	1	1	1	0.8234		2024-08-17T06:18:10
L2446792-17	132	Unknown	?	0.0548	1	1	1	0.5529		2024-08-17T06:19:16
CCV NO3	133	QC	1	0.0951	1	1	1	0.9587		2024-08-17T06:20:21
CCV NO2	134	QC	?	0.0947	1	1	1	0.9548		2024-08-17T06:21:26
CCB	135	QC	0	0.0000	1	1	1	0.0014		2024-08-17T06:22:17
L2446922-03	136	Unknown	?	0.0039	1	1	1	0.0407		2024-08-17T06:23:48
L2446922-04	137	Unknown	?	0.0087	1	1	1	0.0890		2024-08-17T06:24:56
L2446922-05	138	Unknown	?	0.0058	1	1	1	0.0600		2024-08-17T06:26:03
L2446922-06	139	Unknown	?	0.0098	1	1	1	0.1000		2024-08-17T06:27:09
L2446693-01	140	Unknown	?	0.0157	1	1	1	0.1596		2024-08-17T06:28:16
WG1960444-3	141	Unknown	?	0.0149	1	1	1	0.1509		2024-08-17T06:29:22
WG1960444-4	142	Unknown	?	0.4310	1	1	1	4.3397		2024-08-17T06:30:28
L2446860-01	143	Unknown	?	0.0062	1	1	1	0.0636		2024-08-17T06:31:35
L2445263-03; 0.5 UP TO 250	144	Unknown	?	0.1388	500	1	1	699.1828		2024-08-17T06:32:42
L2445417-01	145	Unknown	?	0.1522	1	1	1	1.5333		2024-08-17T06:33:47
CCV NO3	146	QC	1	0.0949	1	1	1	0.9560		2024-08-17T06:34:52
CCV NO2	147	QC	?	0.0952	1	1	1	0.9595		2024-08-17T06:35:58
CCB	148	QC	0	0.0000	1	1	1	0.0014		2024-08-17T06:36:46
WG1960445-3	149	Unknown	?	0.1508	1	1	1	1.5195		2024-08-17T06:38:18
WG1960445-4	150	Unknown	?	0.5250	1	1	1	5.2851		2024-08-17T06:39:26
L2445418-01	151	Unknown	?	0.1377	1	1	1	1.3875		2024-08-17T06:40:32
L2445604-01	152	Unknown	?	0.0095	1	1	1	0.0972		2024-08-17T06:41:38
L2445604-02	153	Unknown	?	0.0953	1	1	1	0.9606		2024-08-17T06:42:43
L2445606-02	154	Unknown	?	0.2861	1	1	1	2.8810		2024-08-17T06:43:49
L2445645-02	155	Unknown	?	0.0029	1	1	1	0.0306		2024-08-17T06:44:56
L2445677-01	156	Unknown	?	0.2872	1	1	1	2.8923		2024-08-17T06:46:02
L2445677-02	157	Unknown	?	0.2913	1	1	1	2.9332		2024-08-17T06:47:10
L2445811-01	158	Unknown	?	0.0013	1	1	1	0.0147		2024-08-17T06:48:16
CCV NO3	159	QC	1	0.0952	1	1	1	0.9593		2024-08-17T06:49:22
CCV NO2	160	QC	?	0.0948	1	1	1	0.9552		2024-08-17T06:50:27
CCB	161	QC	0	0.0000	1	1	1	0.0010		2024-08-17T06:51:12
L2445556-01	162	Unknown	?	0.0028	1	1	1	0.0296		2024-08-17T06:52:46

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2445556-02	163	Unknown	?	0.0281	1	1	1	0.2841		2024-08-17T06:53:52
L2445556-03	164	Unknown	?	0.0035	1	1	1	0.0364		2024-08-17T06:54:59
L2445556-04	165	Unknown	?	0.0033	1	1	1	0.0342		2024-08-17T06:56:05
CCV NO3	166	QC	1	0.0946	1	1	1	0.9534		2024-08-17T06:57:09
CCV NO2	167	QC	?	0.0948	1	1	1	0.9556		2024-08-17T06:58:16
CCB	168	QC	0	0.0000	1	1	1	0.0012		2024-08-17T06:59:03
L2446712-01	169	Unknown	?	0.0010	1	1	1	0.0109		2024-08-17T07:00:38
WG1960448-3	170	Unknown	?	0.0002	1	1	1	0.0030		2024-08-17T07:01:50
WG1960448-4	171	Unknown	?	0.3787	1	1	1	3.8134		2024-08-17T07:02:50
L2446712-02	172	Unknown	?	0.0757	1	1	1	0.7629		2024-08-17T07:03:56
CCV NO3	173	QC	1	0.0953	1	1	1	0.9599		2024-08-17T07:05:01
CCV NO2	174	QC	?	0.0949	1	1	1	0.9568		2024-08-17T07:06:07
CCB	175	QC	0	0.0000	1	1	1	0.0011		2024-08-17T07:06:50
spacer	176	Unknown	?	0.0001	1	1	1	0.0018		2024-08-17T07:16:36
spacer	177	Unknown	?	0.0004	1	1	1	0.0056		2024-08-17T07:17:22
L2446801-01	178	Unknown	?	0.3063	1	10	1	30.8402		2024-08-17T07:18:24
L2446805-01	179	Unknown	?	0.5140	1	10	1	51.7428		2024-08-17T07:19:33
Diluter CHK 8PPM	180	Unknown	?	0.0707	1	10	1	7.1304		2024-08-17T07:20:42
CCV NO3	181	QC	1	0.0946	1	1	1	0.9536		2024-08-17T07:21:49
CCV NO2	182	QC	?	0.0953	1	1	1	0.9608		2024-08-17T07:22:55
CCB	183	QC	0	0.0000	1	1	1	0.0008		2024-08-17T07:23:35

Channel: 2-NO2

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T03:52:58
NOx 8.0ppm	2	Standard	?	0.0001	1	1	1	-0.0015		2024-08-17T03:54:07
NOx 4.0ppm	3	Standard	?	0.0001	1	1	1	-0.0016		2024-08-17T03:55:21
NOx 1.0ppm	4	Standard	?	0.0001	1	1	1	-0.0016		2024-08-17T03:56:18
NOx 0.4ppm	5	Standard	?	0.0001	1	1	1	-0.0016		2024-08-17T03:57:28
NOx 0.2ppm	6	Standard	?	0.0001	1	1	1	-0.0017		2024-08-17T03:58:46
NOx 0.1ppm	7	Standard	?	0.0001	1	1	1	-0.0017		2024-08-17T03:59:55
NOx 0.0ppm	8	Standard	?	0.0001	1	1	1	-0.0017		2024-08-17T04:01:14
Nitrite 8.0ppm	9	Standard	8	1.0218	1	1	1	7.6042		2024-08-17T04:02:10
Nitrite	10	Standard	4	0.5374	1	1	1	3.9983		2024-08-

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
4.0ppm										17T04:03:19
Nitrite 1.0ppm	11	Standard	1	0.1383	1	1	1	1.0278		2024-08-17T04:04:25
Nitrite 0.4ppm	12	Standard	0.4	0.0555	1	1	1	0.4114		2024-08-17T04:05:36
Nitrite 0.1ppm	13	Standard	0.1	0.0139	1	1	1	0.1014		2024-08-17T04:06:45
Nitrite 0.05ppm	14	Standard	0.05	0.0069	1	1	1	0.0494		2024-08-17T04:07:55
Nitrite 0.0ppm	15	Standard	0	0.0001	1	1	1	-0.0016		2024-08-17T04:09:11
CCV NO3	16	QC	?	0.0001	1	1	1	-0.0010		2024-08-17T04:10:15
CCV NO2	17	QC	1	0.1386	1	1	1	1.0295		2024-08-17T04:11:18
CCB	18	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T04:12:27
ICV NO3 5.0	19	QC	?	0.0001	1	1	1	-0.0013		2024-08-17T04:13:38
ICV NO2 5.0	20	QC	5	0.6699	1	1	1	4.9846		2024-08-17T04:14:45
ICV NO3 0.5	21	QC	?	0.0000	1	1	1	-0.0019		2024-08-17T04:15:52
ICV NO2 0.5	22	QC	0.5	0.0700	1	1	1	0.5188		2024-08-17T04:17:01
ICB	23	QC	0	0.0001	1	1	1	-0.0013		2024-08-17T04:18:15
Diluter CHK 8PPM	24	Unknown	?	0.0001	1	10	1	-0.0165		2024-08-17T04:19:24
BLANK NO3	25	Unknown	?	0.0001	1	1	1	-0.0014		2024-08-17T04:20:20
LCS NO3	26	Unknown	?	0.0001	1	1	1	-0.0013		2024-08-17T04:21:36
BLANK NO2	27	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T04:22:51
LCS NO2	28	Unknown	?	0.6786	1	1	1	5.0496		2024-08-17T04:23:44
CCV NO3	29	QC	?	0.0000	1	1	1	-0.0018		2024-08-17T04:24:52
CCV NO2	30	QC	1	0.1385	1	1	1	1.0291		2024-08-17T04:25:56
CCB	31	QC	0	0.0001	1	1	1	-0.0014		2024-08-17T04:27:14
WG1960424-1	32	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T04:28:17
WG1960424-2	33	Unknown	?	0.6714	1	1	1	4.9961		2024-08-17T04:29:23
WG1960425-1	34	Unknown	?	0.0000	1	1	1	-0.0023		2024-08-17T04:30:14
WG1960425-2	35	Unknown	?	0.6729	1	1	1	5.0071		2024-08-17T04:31:34
WG1960426-1	36	Unknown	?	0.0000	1	1	1	-0.0021		2024-08-17T04:32:26
WG1960426-2	37	Unknown	?	0.0001	1	1	1	-0.0016		2024-08-17T04:33:50
WG1960427-1	38	Unknown	?	0.0001	1	1	1	-0.0016		2024-08-17T04:35:02
WG1960427-2	39	Unknown	?	0.0001	1	1	1	-0.0013		2024-08-17T04:36:04
WG1960428-1	40	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T04:37:17
WG1960428-2	41	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T04:38:55
CCV NO3	42	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T04:39:20

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
CCV NO2	43	QC	1	0.1376	1	1	1	1.0222		2024-08-17T04:40:25
CCB	44	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T04:41:44
WG1960429-1	45	Unknown	?	0.0000	1	1	1	-0.0018		2024-08-17T04:42:49
WG1960429-2	46	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T04:43:58
L2446647-01	47	Unknown	?	0.0011	1	1	1	0.0061		2024-08-17T04:45:00
WG1960426-3	48	Unknown	?	0.0012	1	1	1	0.0071		2024-08-17T04:46:05
WG1960426-4	49	Unknown	?	0.0011	1	1	1	0.0061		2024-08-17T04:47:10
WG1960424-3	50	Unknown	?	0.0013	1	1	1	0.0072		2024-08-17T04:48:16
WG1960424-4	51	Unknown	?	0.5909	1	1	1	4.3970		2024-08-17T04:49:21
L2446647-03	52	Unknown	?	0.0209	1	1	1	0.1536		2024-08-17T04:50:25
L2446688-01	53	Unknown	?	0.0097	1	1	1	0.0699		2024-08-17T04:51:30
WG1960426-5	54	Unknown	?	0.0090	1	1	1	0.0650		2024-08-17T04:52:34
CCV NO3	55	QC	?	0.0001	1	1	1	-0.0012		2024-08-17T04:53:36
CCV NO2	56	QC	1	0.1381	1	1	1	1.0262		2024-08-17T04:54:46
CCB	57	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T04:55:55
WG1960426-6	58	Unknown	?	0.0129	1	1	1	0.0941		2024-08-17T04:57:06
WG1960424-5	59	Unknown	?	0.0090	1	1	1	0.0650		2024-08-17T04:58:14
WG1960424-6	60	Unknown	?	0.5984	1	1	1	4.4528		2024-08-17T04:59:21
L2446752-01	61	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:00:28
L2446752-03	62	Unknown	?	0.0011	1	1	1	0.0060		2024-08-17T05:01:34
L2446752-05	63	Unknown	?	0.0008	1	1	1	0.0035		2024-08-17T05:02:40
L2446752-08	64	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:03:47
L2446752-09	65	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T05:04:52
L2446752-11	66	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T05:05:58
L2446752-13	67	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:07:04
CCV NO3	68	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T05:08:14
CCV NO2	69	QC	1	0.1366	1	1	1	1.0145		2024-08-17T05:09:15
CCB	70	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T05:10:29
L2446752-17	71	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T05:11:35
L2446752-20	72	Unknown	?	0.0008	1	1	1	0.0036		2024-08-17T05:12:41
L2446779-01	73	Unknown	?	0.0012	1	1	1	0.0071		2024-08-17T05:13:47
L2446779-02	74	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:14:51
L2446801-01	75	Unknown	?	0.0031	1	1	1	0.0213		2024-08-17T05:15:54

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446805-01	76	Unknown	?	0.0168	1	1	1	0.1227		2024-08-17T05:17:02
L2446860-01	77	Unknown	?	0.0071	1	1	1	0.0506		2024-08-17T05:18:09
L2446860-02	78	Unknown	?	0.0140	1	1	1	0.1020		2024-08-17T05:19:16
L2446609-01	79	Unknown	?	0.0874	1	1	1	0.6482		2024-08-17T05:20:22
L2446439-03	80	Unknown	?	0.0014	1	1	1	0.0084		2024-08-17T05:21:29
CCV NO3	81	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T05:22:38
CCV NO2	82	QC	1	0.1368	1	1	1	1.0163		2024-08-17T05:23:40
CCB	83	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T05:24:51
WG1960429-3	84	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T05:26:00
WG1960429-4	85	Unknown	?	0.0040	1	1	1	0.0274		2024-08-17T05:27:08
WG1960425-3	86	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:28:13
WG1960425-4	87	Unknown	?	0.5925	1	1	1	4.4086		2024-08-17T05:29:19
L2446439-04	88	Unknown	?	0.0012	1	1	1	0.0072		2024-08-17T05:30:25
L2446439-18	89	Unknown	?	0.0022	1	1	1	0.0140		2024-08-17T05:31:29
L2446439-20	90	Unknown	?	0.0006	1	1	1	0.0027		2024-08-17T05:32:35
L2446584-01	91	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T05:33:40
L2446584-02	92	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T05:34:43
L2446584-03	93	Unknown	?	0.0008	1	1	1	0.0039		2024-08-17T05:35:49
CCV NO3	94	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T05:36:58
CCV NO2	95	QC	1	0.1389	1	1	1	1.0320		2024-08-17T05:38:00
CCB	96	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T05:39:14
L2446584-04	97	Unknown	?	0.0008	1	1	1	0.0037		2024-08-17T05:40:17
L2446951-06	98	Unknown	?	0.0528	1	1	1	0.3909		2024-08-17T05:41:25
WG1960428-3	99	Unknown	?	0.0528	1	1	1	0.3911		2024-08-17T05:42:32
WG1960428-4	100	Unknown	?	0.0551	1	1	1	0.4082		2024-08-17T05:43:38
L2446951-07	101	Unknown	?	0.0537	1	1	1	0.3975		2024-08-17T05:44:44
L2446951-11	102	Unknown	?	0.0645	1	1	1	0.4782		2024-08-17T05:45:51
L2446951-12	103	Unknown	?	0.0241	1	1	1	0.1770		2024-08-17T05:46:57
L2446951-13	104	Unknown	?	0.0338	1	1	1	0.2498		2024-08-17T05:48:02
L2446951-14	105	Unknown	?	0.0036	1	1	1	0.0247		2024-08-17T05:49:08
L2445937-01	106	Unknown	?	0.0047	1	1	1	0.0326		2024-08-17T05:50:13
CCV NO3	107	QC	?	0.0001	1	1	1	-0.0015		2024-08-17T05:51:17
CCV NO2	108	QC	1	0.1358	1	1	1	1.0086		2024-08-17T05:52:24

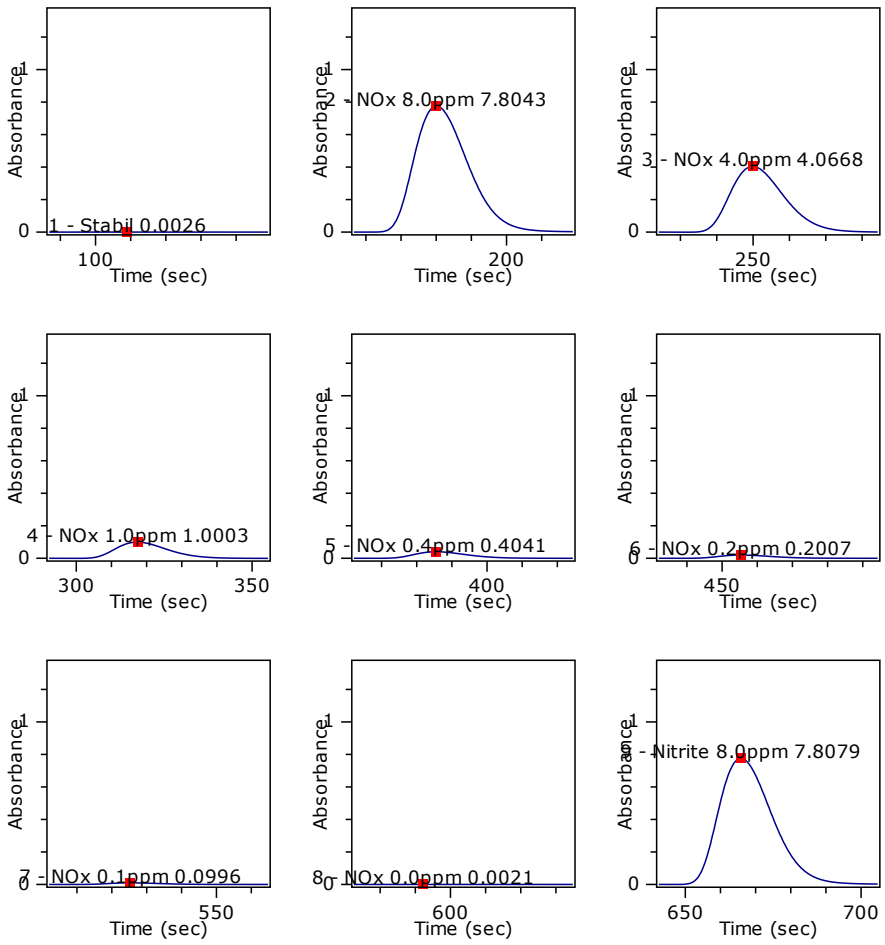
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
CCB	109	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T05:53:39
L2445937-02	110	Unknown	?	0.0008	1	1	1	0.0040		2024-08-17T05:54:42
L2445937-03	111	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T05:55:49
L2445937-04	112	Unknown	?	0.0006	1	1	1	0.0026		2024-08-17T05:56:54
L2445937-05	113	Unknown	?	0.0007	1	1	1	0.0028		2024-08-17T05:57:58
L2445950-01	114	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T05:59:04
L2445950-02	115	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T06:00:11
L2446555-04	116	Unknown	?	0.0023	1	1	1	0.0149		2024-08-17T06:01:18
L2446555-06	117	Unknown	?	0.0006	1	1	1	0.0025		2024-08-17T06:02:25
L2446638-01	118	Unknown	?	0.0009	1	1	1	0.0044		2024-08-17T06:03:31
WG1960427-3	119	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T06:04:35
CCV NO3	120	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T06:05:43
CCV NO2	121	QC	1	0.1347	1	1	1	1.0005		2024-08-17T06:06:49
CCB	122	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T06:08:02
WG1960427-4	123	Unknown	?	0.0005	1	1	1	0.0019		2024-08-17T06:09:09
L2446638-02	124	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T06:10:17
L2446872-01	125	Unknown	?	0.0008	1	1	1	0.0035		2024-08-17T06:11:24
L2446872-02	126	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T06:12:29
L2446872-03	127	Unknown	?	0.0011	1	1	1	0.0063		2024-08-17T06:13:34
L2446872-04	128	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T06:14:40
WG1960445-1; WG1960448-1	129	Unknown	?	0.0000	1	1	1	-0.0018		2024-08-17T06:16:10
WG1960445-2; WG1960448-2	130	Unknown	?	0.0001	1	1	1	-0.0016		2024-08-17T06:16:50
L2446786-01	131	Unknown	?	0.0009	1	1	1	0.0045		2024-08-17T06:17:55
L2446792-17	132	Unknown	?	0.0013	1	1	1	0.0079		2024-08-17T06:19:00
CCV NO3	133	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T06:20:06
CCV NO2	134	QC	1	0.1355	1	1	1	1.0063		2024-08-17T06:21:12
CCB	135	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T06:22:26
L2446922-03	136	Unknown	?	0.0032	1	1	1	0.0219		2024-08-17T06:23:34
L2446922-04	137	Unknown	?	0.0064	1	1	1	0.0455		2024-08-17T06:24:41
L2446922-05	138	Unknown	?	0.0047	1	1	1	0.0331		2024-08-17T06:25:49
L2446922-06	139	Unknown	?	0.0083	1	1	1	0.0594		2024-08-17T06:26:55

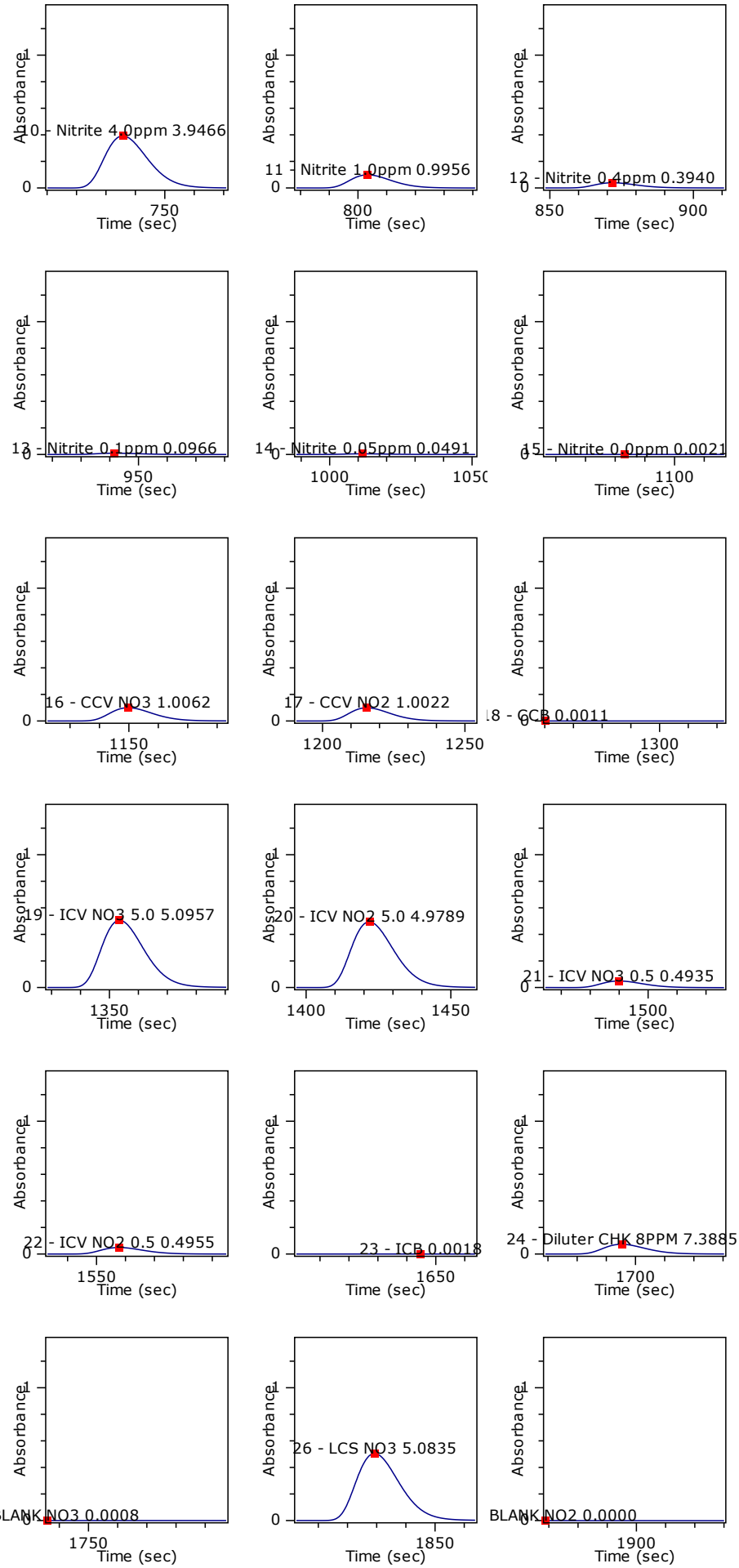
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446693-01	140	Unknown	?	0.0078	1	1	1	0.0561		2024-08-17T06:28:02
WG1960444-3	141	Unknown	?	0.0070	1	1	1	0.0502		2024-08-17T06:29:08
WG1960444-4	142	Unknown	?	0.5881	1	1	1	4.3758		2024-08-17T06:30:14
L2446860-01	143	Unknown	?	0.0070	1	1	1	0.0501		2024-08-17T06:31:21
L2445263-03; 0.5 UP TO 250	144	Unknown	?	0.0004	500	1	1	0.5061		2024-08-17T06:32:44
L2445417-01	145	Unknown	?	0.0009	1	1	1	0.0047		2024-08-17T06:33:32
CCV NO3	146	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T06:34:37
CCV NO2	147	QC	1	0.1360	1	1	1	1.0106		2024-08-17T06:35:44
CCB	148	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T06:36:56
WG1960445-3	149	Unknown	?	0.0002	1	1	1	-0.0009		2024-08-17T06:38:05
WG1960445-4	150	Unknown	?	0.0020	1	1	1	0.0130		2024-08-17T06:39:11
L2445418-01	151	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T06:40:16
L2445604-01	152	Unknown	?	0.0010	1	1	1	0.0050		2024-08-17T06:41:23
L2445604-02	153	Unknown	?	0.0008	1	1	1	0.0038		2024-08-17T06:42:28
L2445606-02	154	Unknown	?	0.1743	1	1	1	1.2951		2024-08-17T06:43:34
L2445645-02	155	Unknown	?	0.0008	1	1	1	0.0041		2024-08-17T06:44:41
L2445677-01	156	Unknown	?	0.0056	1	1	1	0.0396		2024-08-17T06:45:48
L2445677-02	157	Unknown	?	0.0021	1	1	1	0.0132		2024-08-17T06:46:55
L2445811-01	158	Unknown	?	0.0009	1	1	1	0.0045		2024-08-17T06:48:02
CCV NO3	159	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T06:49:08
CCV NO2	160	QC	1	0.1370	1	1	1	1.0181		2024-08-17T06:50:13
CCB	161	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T06:51:26
L2445556-01	162	Unknown	?	0.0009	1	1	1	0.0046		2024-08-17T06:52:31
L2445556-02	163	Unknown	?	0.0009	1	1	1	0.0048		2024-08-17T06:53:38
L2445556-03	164	Unknown	?	0.0011	1	1	1	0.0063		2024-08-17T06:54:44
L2445556-04	165	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T06:55:50
CCV NO3	166	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T06:56:59
CCV NO2	167	QC	1	0.1356	1	1	1	1.0074		2024-08-17T06:58:01
CCB	168	QC	0	0.0001	1	1	1	-0.0014		2024-08-17T06:59:14
L2446712-01	169	Unknown	?	0.0010	1	1	1	0.0052		2024-08-17T07:00:22
WG1960448-3	170	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T07:01:32
WG1960448-4	171	Unknown	?	0.0001	1	1	1	-0.0010		2024-08-17T07:02:37
L2446712-	172	Unknown	?	0.1091	1	1	1	0.8100		2024-08-

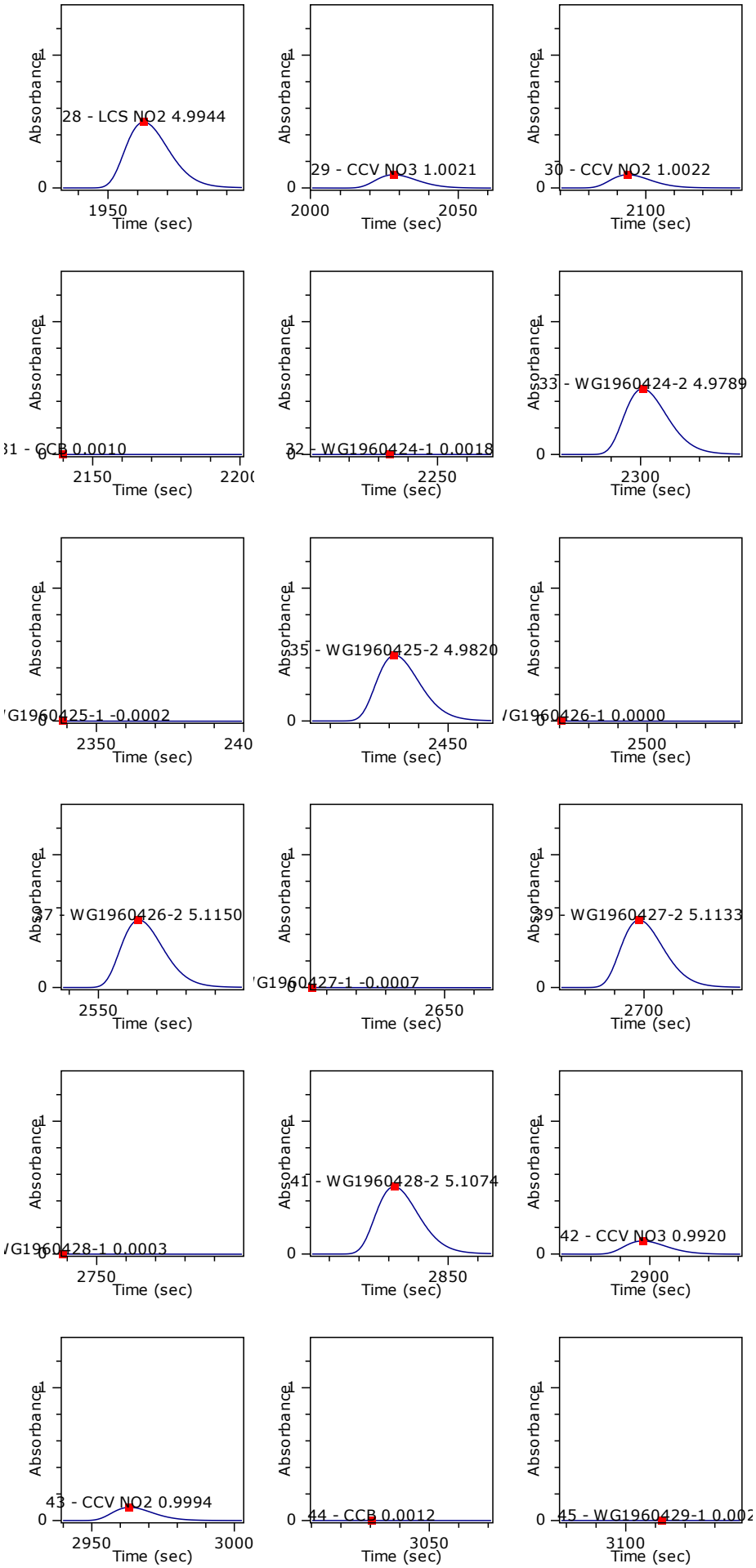
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
02										17T07:03:41
CCV NO3	173	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T07:04:47
CCV NO2	174	QC	1	0.1353	1	1	1	1.0052		2024-08-17T07:05:53
CCB	175	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T07:07:07
spacer	176	Unknown	?	0.0000	1	1	1	-0.0018		2024-08-17T07:16:20
spacer	177	Unknown	?	0.0010	1	1	1	0.0054		2024-08-17T07:17:03
L2446801-01	178	Unknown	?	0.0003	1	10	1	0.0047		2024-08-17T07:18:12
L2446805-01	179	Unknown	?	0.0016	1	10	1	0.1017		2024-08-17T07:19:20
Diluter CHK 8PPM	180	Unknown	?	0.0001	1	10	1	-0.0161		2024-08-17T07:20:24
CCV NO3	181	QC	?	0.0001	1	1	1	-0.0013		2024-08-17T07:21:34
CCV NO2	182	QC	1	0.1380	1	1	1	1.0251		2024-08-17T07:22:40
CCB	183	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T07:23:54

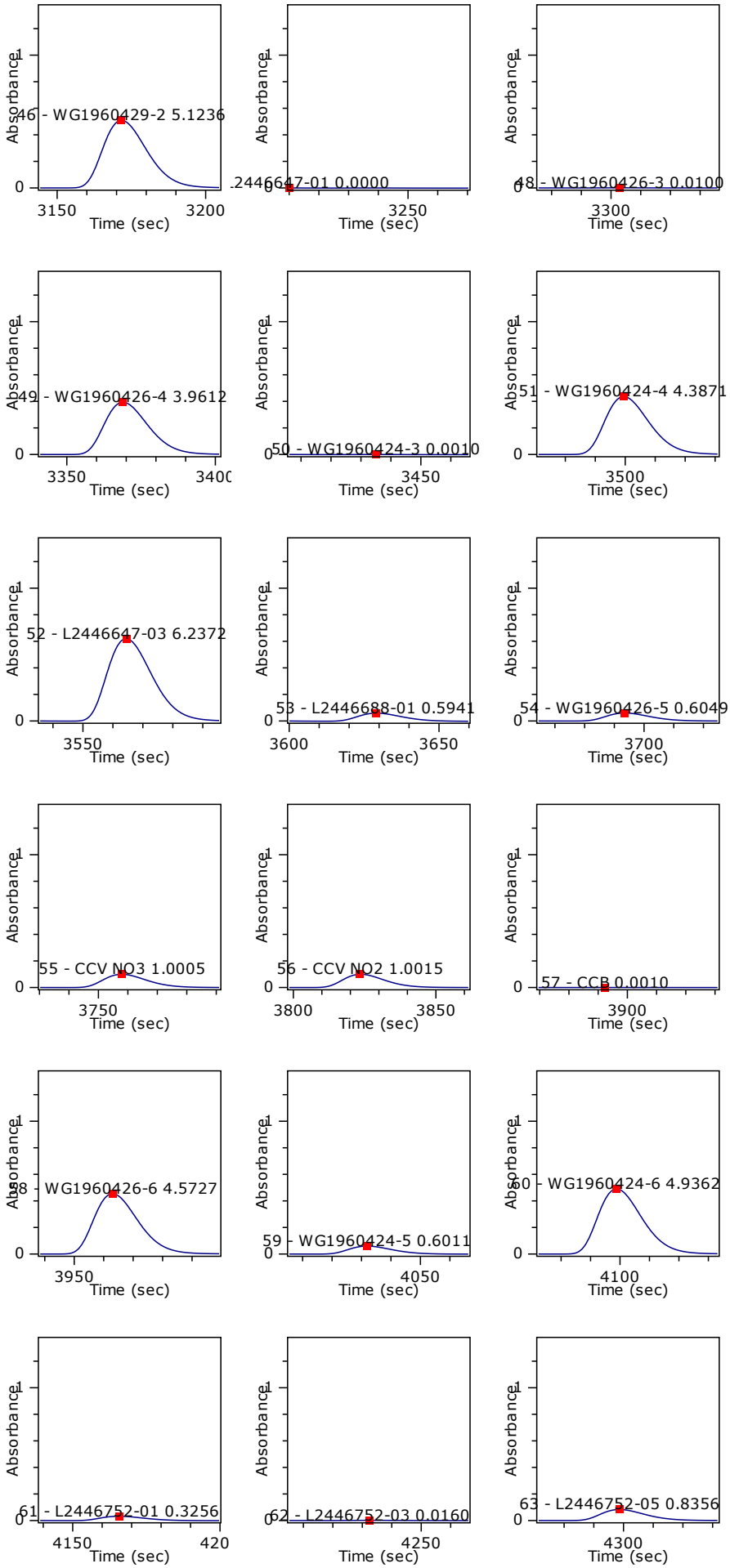
Peaks:

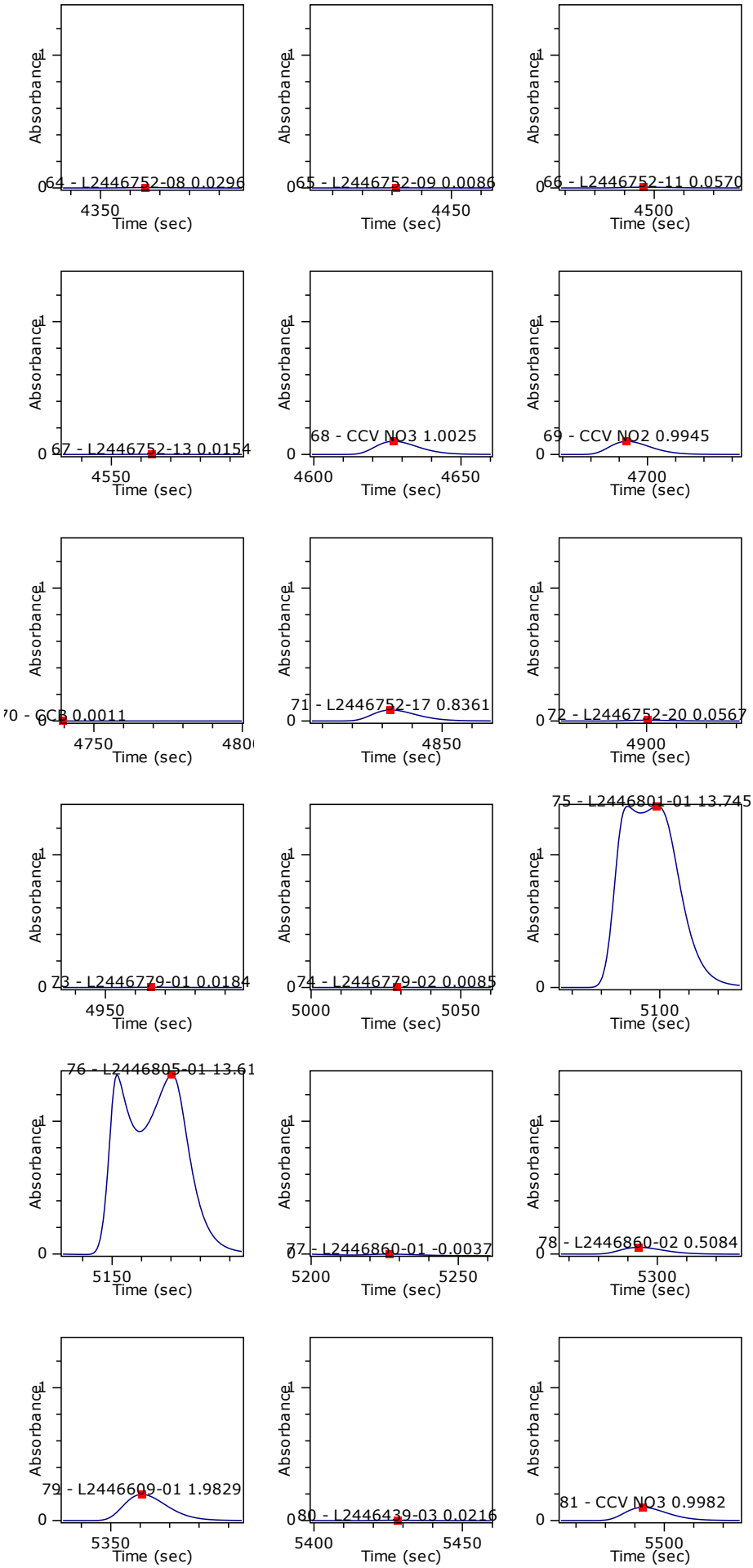
Channel: 1-NOx

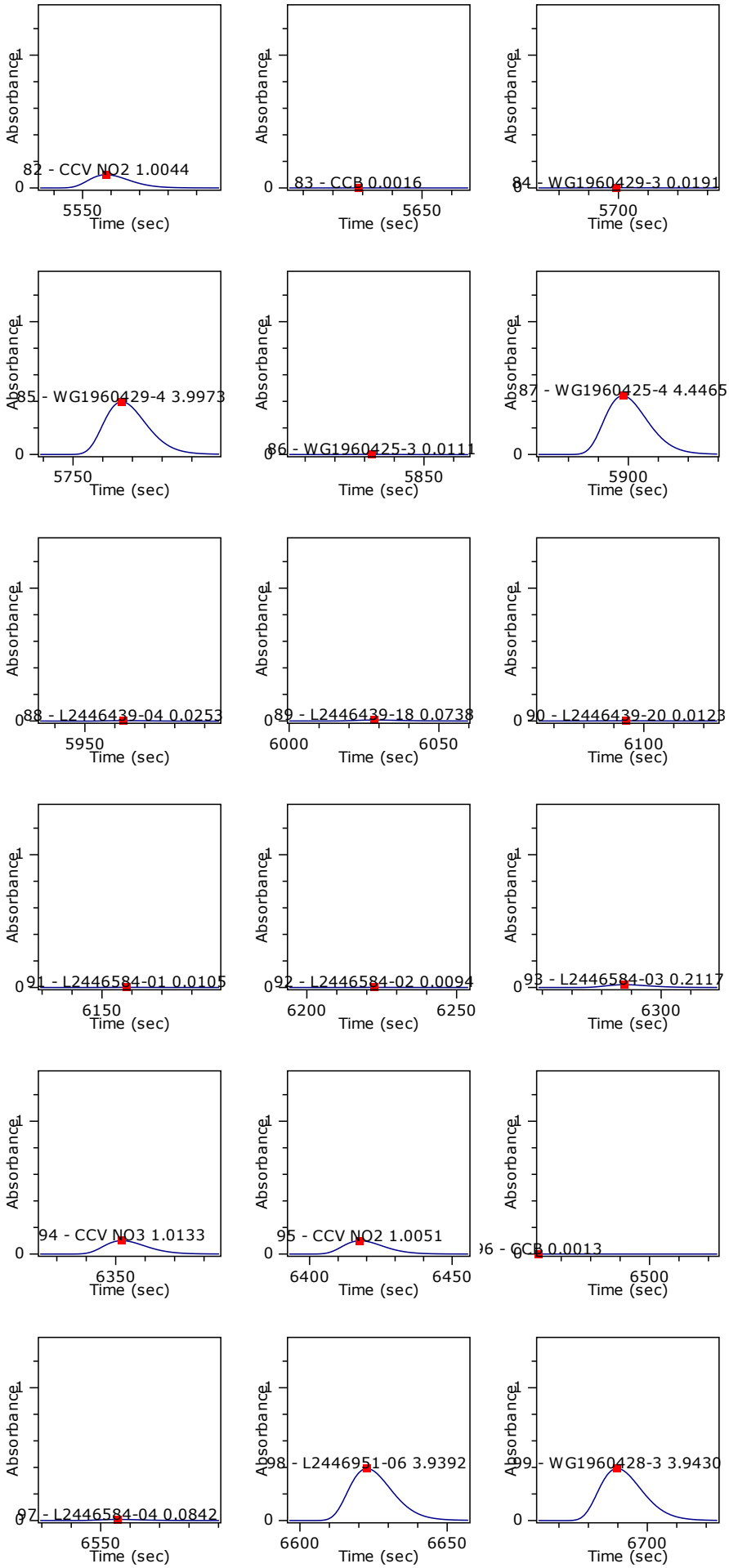


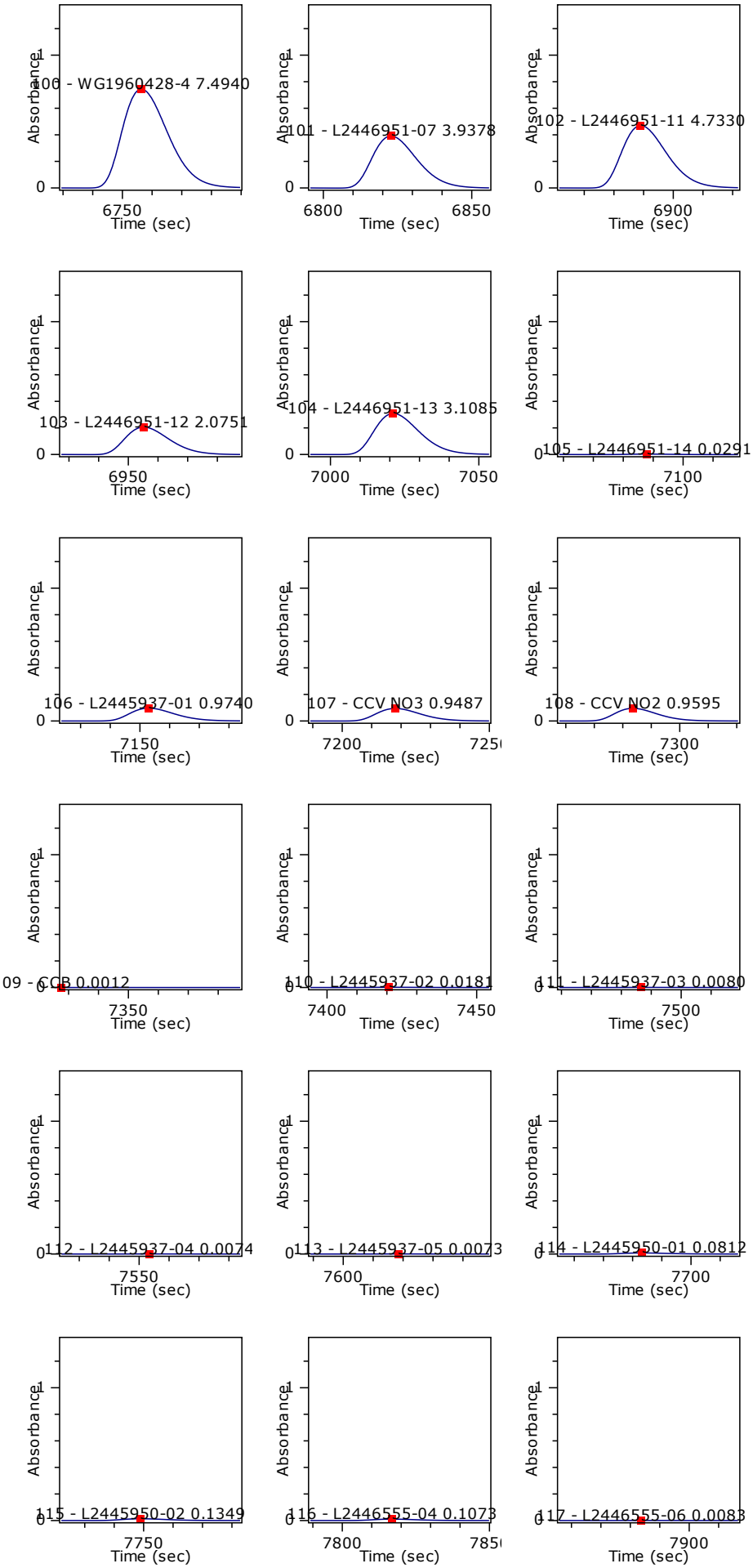

Absorbance
10 - Nitrite 4.0ppm 3.9466
Time (sec)
11 - Nitrite 1.0ppm 0.9956
12 - Nitrite 0.4ppm 0.3940
13 - Nitrite 0.1ppm 0.0966
14 - Nitrite 0.05ppm 0.0491
15 - Nitrite 0.0ppm 0.0021
16 - CCV NO3 1.0062
17 - CCV NO2 1.0022
18 - CCB 0.0011
19 - ICV NO3 5.0 5.0957
20 - ICV NO2 5.0 4.9789
21 - ICV NO3 0.5 0.4935
22 - ICV NO2 0.5 0.4955
23 - ICB 0.0018
24 - Diluter CHK 8PPM 7.3885
BLANK NO3 0.0008
26 - LCS NO3 5.0835
BLANK NO2 0.0000

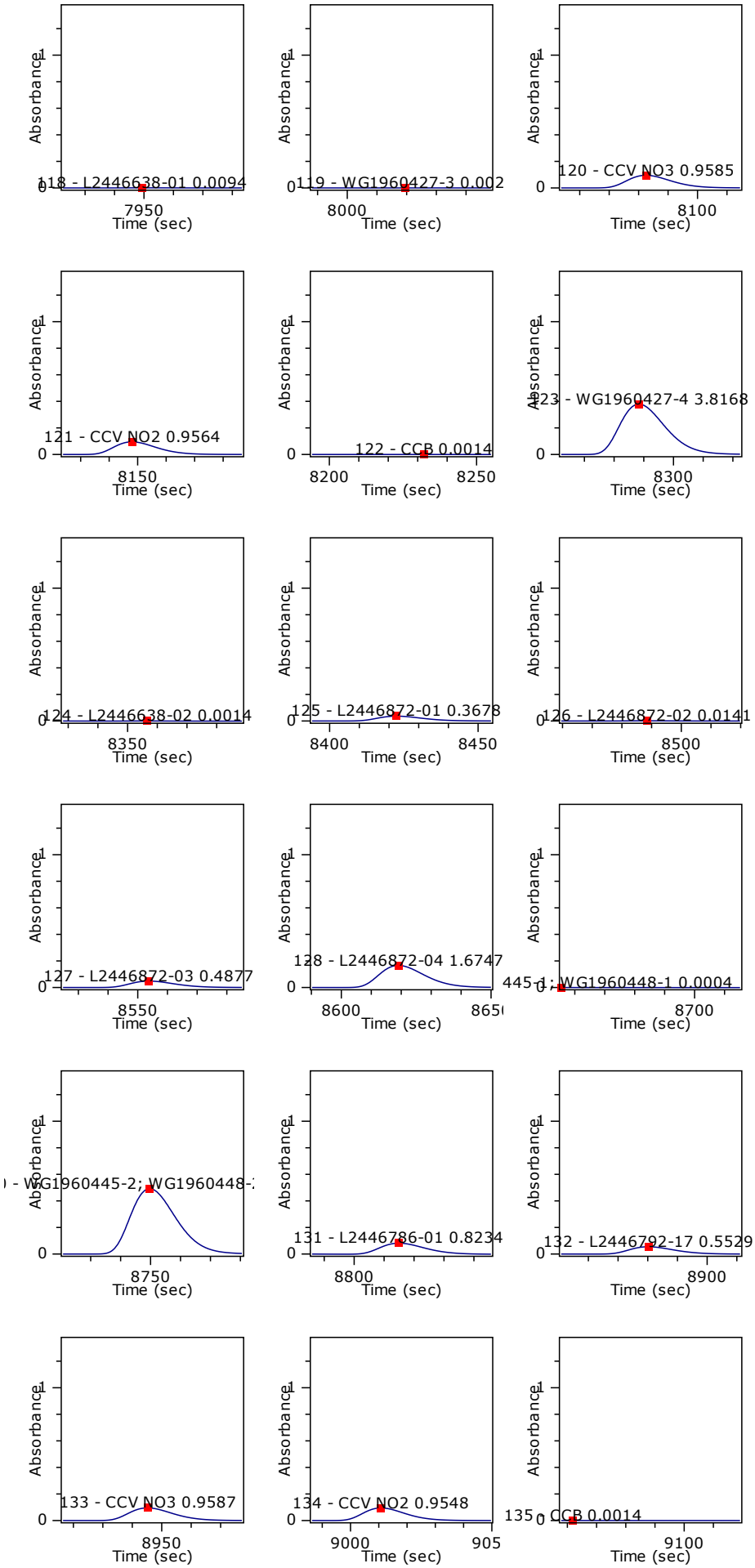

28 - LCS NO2 4.9944
29 - CCV NO3 1.0021
30 - CCV NO2 1.0022
31 - CCB 0.0010
32 - WG1960424-1 0.0018
33 - WG1960424-2 4.9789
G1960425-1 -0.0002
35 - WG1960425-2 4.9820
/G1960426-1 0.0000
37 - WG1960426-2 5.1150
G1960427-1 -0.0007
39 - WG1960427-2 5.1133
/G1960428-1 0.0003
41 - WG1960428-2 5.1074
42 - CCV NO3 0.9920
43 - CCV NO2 0.9994
44 - CCB 0.0012
45 - WG1960429-1 0.002
Absorbance
Time (sec)

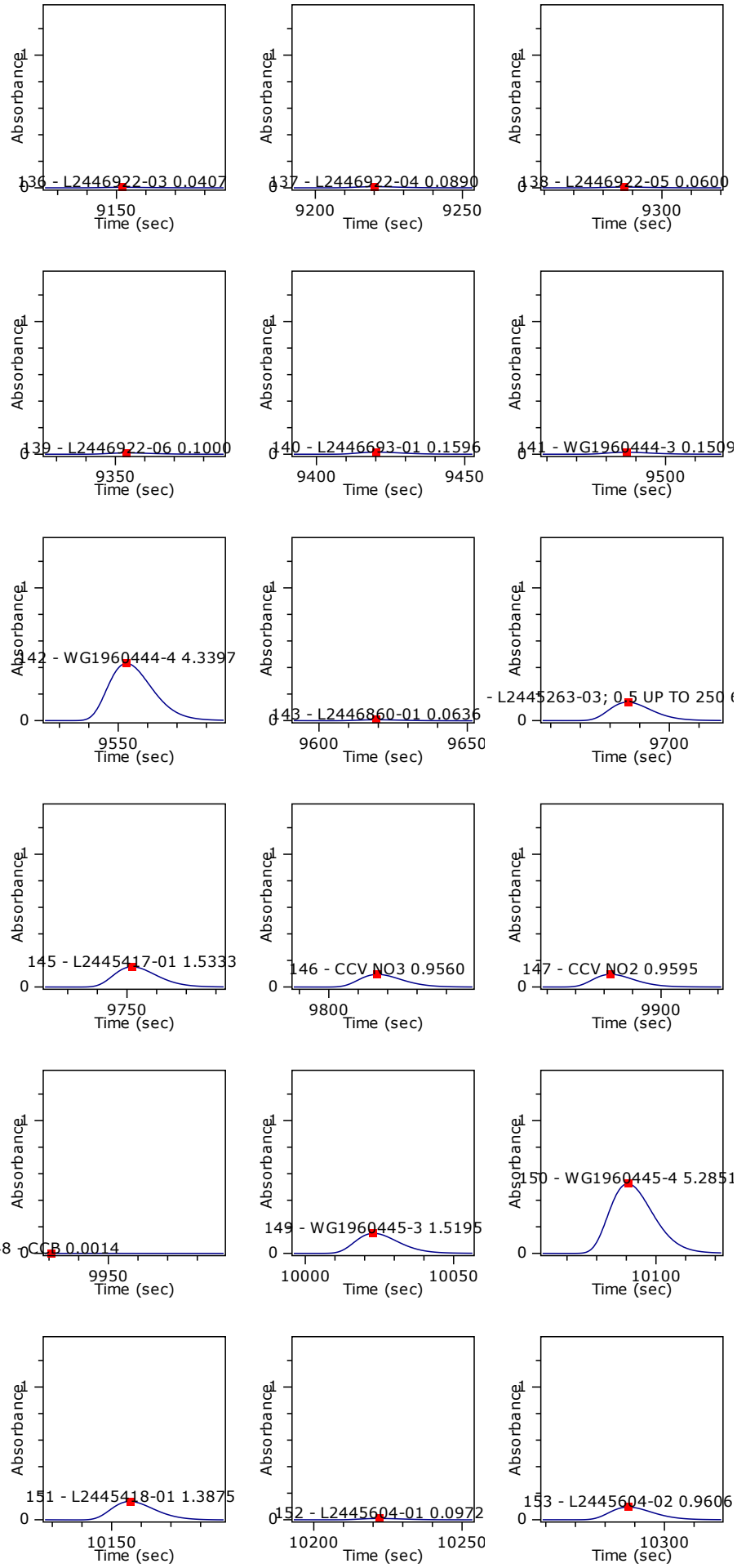

46 - WG1960429-2 5.1236
.2446647-01 0.0000
48 - WG1960426-3 0.0100
49 - WG1960426-4 3.9612
50 - WG1960424-3 0.0010
51 - WG1960424-4 4.3871
52 - L2446647-03 6.2372
53 - L2446688-01 0.5941
54 - WG1960426-5 0.6049
55 - CCV NO3 1.0005
56 - CCV NO2 1.0015
57 - CCB 0.0010
58 - WG1960426-6 4.5727
59 - WG1960424-5 0.6011
60 - WG1960424-6 4.9362
61 - L2446752-01 0.3256
62 - L2446752-03 0.0160
63 - L2446752-05 0.8356
Absorbance
Time (sec)

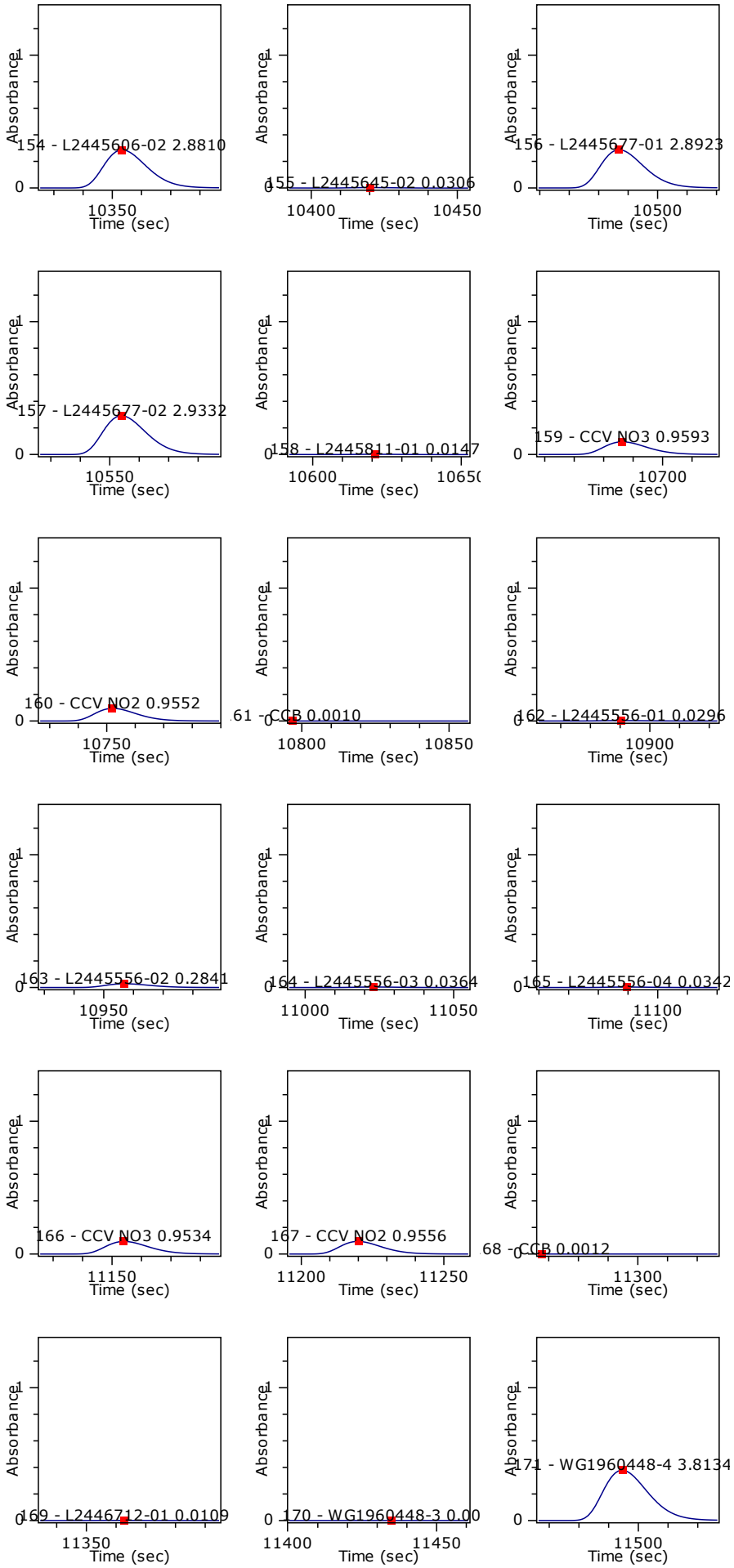

Absorbance
Time (sec)
64 - L2446752-08 0.0296
65 - L2446752-09 0.0086
66 - L2446752-11 0.0570
67 - L2446752-13 0.0154
68 - CCV NO3 1.0025
69 - CCV NO2 0.9945
70 - GCB 0.0011
71 - L2446752-17 0.8361
72 - L2446752-20 0.0567
73 - L2446779-01 0.0184
74 - L2446779-02 0.0085
75 - L2446801-01 13.745
76 - L2446805-01 13.61
77 - L2446860-01 -0.0037
78 - L2446860-02 0.5084
79 - L2446609-01 1.9829
80 - L2446439-03 0.0216
81 - CCV NO3 0.9982

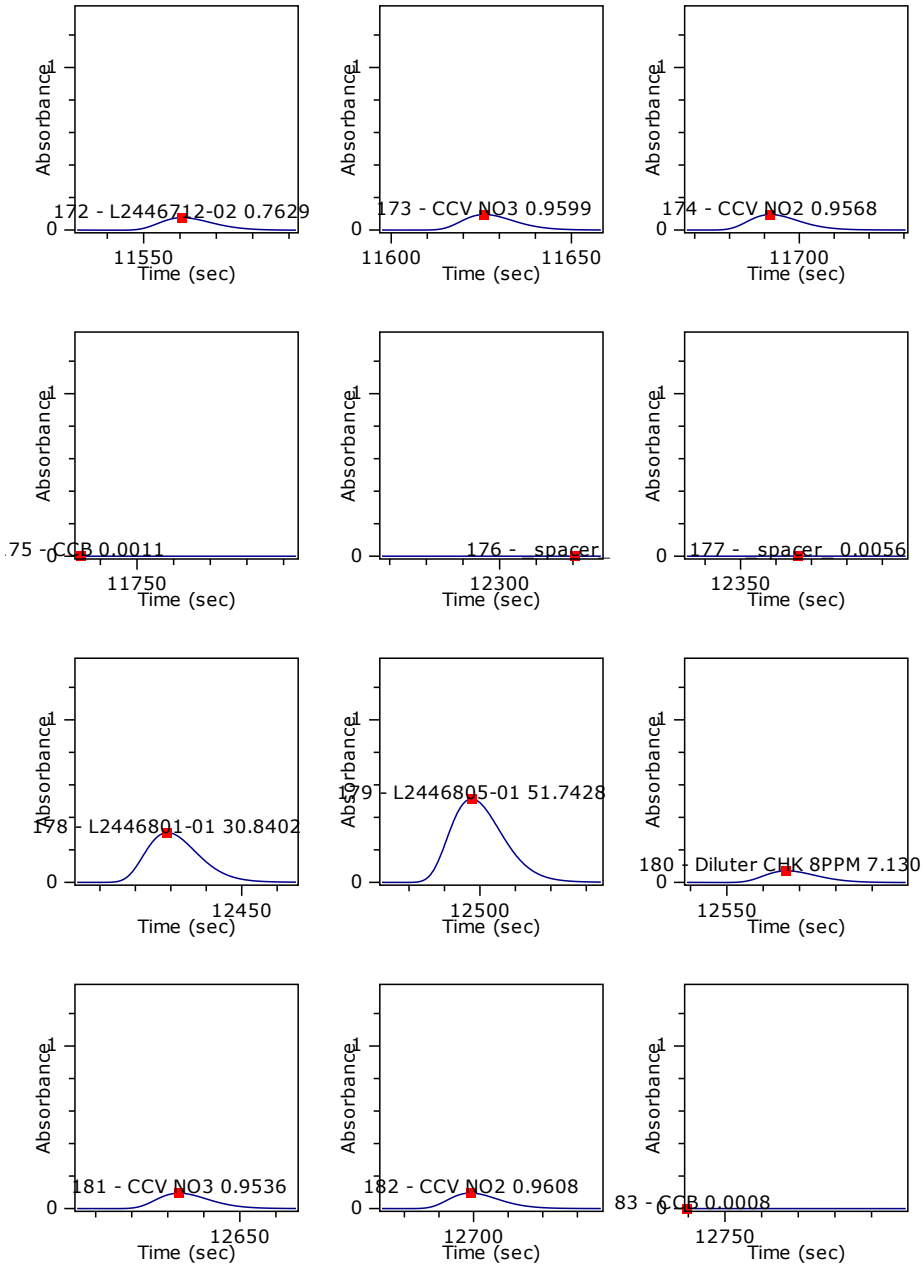

Absorbance
1
0
82 - CCV NO2 1.0044
5550
Time (sec)
Absorbance
1
0
83 - CCB 0.0016
5650
Time (sec)
Absorbance
1
0
84 - WG1960429-3 0.0191
5700
Time (sec)
Absorbance
1
0
85 - WG1960429-4 3.9973
5750
Time (sec)
Absorbance
1
0
86 - WG1960425-3 0.0111
5850
Time (sec)
Absorbance
1
0
87 - WG1960425-4 4.4465
5900
Time (sec)
Absorbance
1
0
88 - L2446439-04 0.0253
5950
Time (sec)
Absorbance
1
0
89 - L2446439-18 0.0738
6000
6050
Time (sec)
Absorbance
1
0
90 - L2446439-20 0.0123
6100
Time (sec)
Absorbance
1
0
91 - L2446584-01 0.0105
6150
Time (sec)
Absorbance
1
0
92 - L2446584-02 0.0094
6200
6250
Time (sec)
Absorbance
1
0
93 - L2446584-03 0.2117
6300
Time (sec)
Absorbance
1
0
94 - CCV NO3 1.0133
6350
Time (sec)
Absorbance
1
0
95 - CCV NO2 1.0051
6400
6450
Time (sec)
Absorbance
1
0
96 - CCB 0.0013
6500
Time (sec)
Absorbance
1
0
97 - L2446584-04 0.0842
6550
Time (sec)
Absorbance
1
0
98 - L2446951-06 3.9392
6600
6650
Time (sec)
Absorbance
1
0
99 - WG1960428-3 3.9430
6700
Time (sec)


100 - WG1960428-4 7.4940
101 - L2446951-07 3.9378
102 - L2446951-11 4.7330
103 - L2446951-12 2.0751
104 - L2446951-13 3.1085
105 - L2446951-14 0.0291
106 - L2445937-01 0.9740
107 - CCV NO3 0.9487
108 - CCV NO2 0.9595
09 - CCB 0.0012
110 - L2445937-02 0.0181
111 - L2445937-03 0.0080
112 - L2445937-04 0.0074
113 - L2445937-05 0.0073
114 - L2445950-01 0.0812
115 - L2445950-02 0.1349
116 - L2446555-04 0.1073
117 - L2446555-06 0.0083
Absorbance
Time (sec)

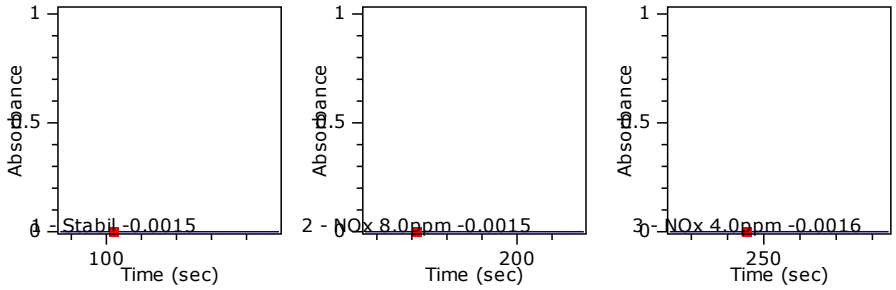

Absorbance
Time (sec)
118 - L2446638-01 0.0094
119 - WG1960427-3 0.002
120 - CCV NO3 0.9585
121 - CCV NO2 0.9564
122 - CCB 0.0014
123 - WG1960427-4 3.8168
124 - L2446638-02 0.0014
125 - L2446872-01 0.3678
126 - L2446872-02 0.0141
127 - L2446872-03 0.4877
128 - L2446872-04 1.6747
445-1 - WG1960448-1 0.0004
- WG1960445-2; WG1960448-
131 - L2446786-01 0.8234
132 - L2446792-17 0.5529
133 - CCV NO3 0.9587
134 - CCV NO2 0.9548
135 - CCB 0.0014

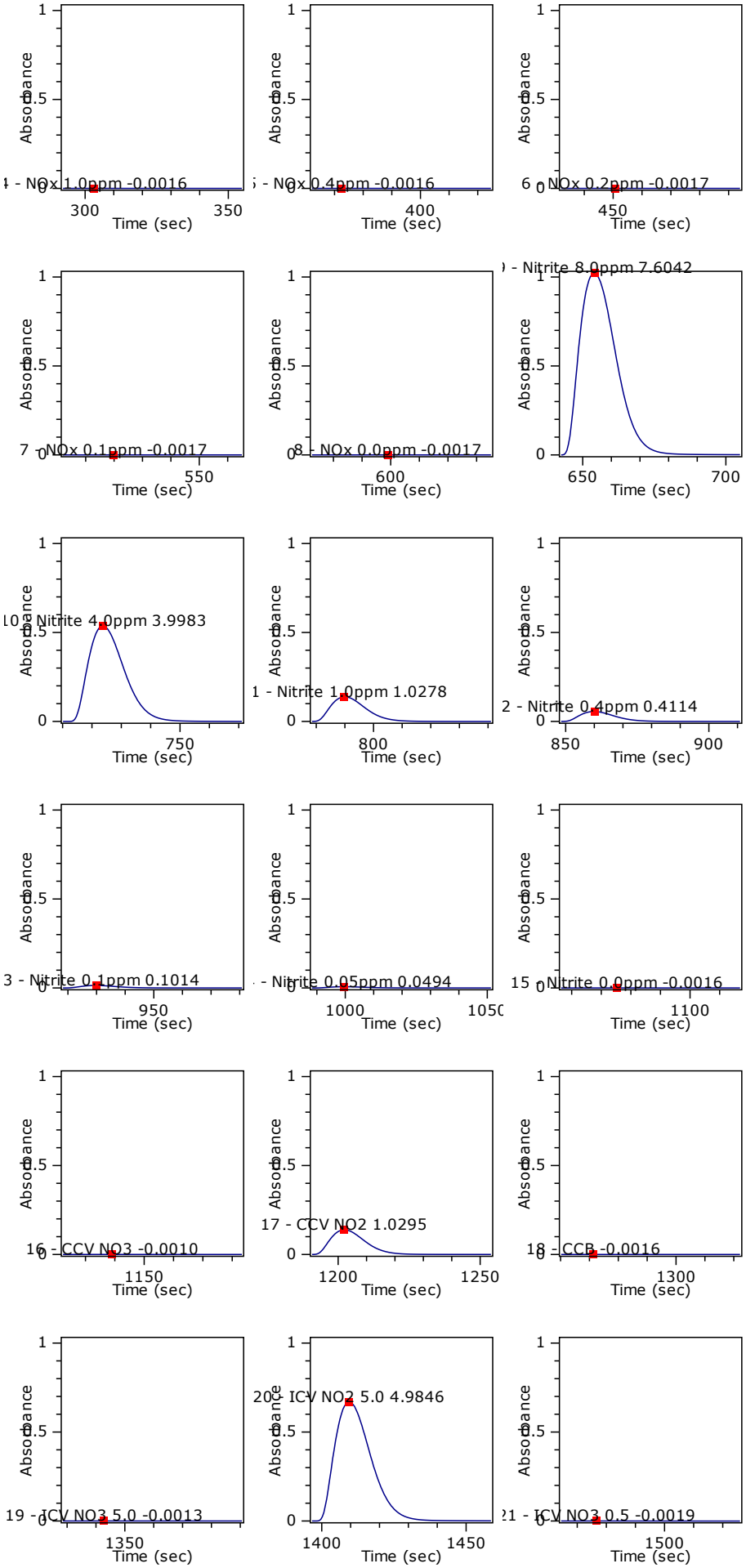

Absorbance
1
0
136 - L2446922-03 0.0407
9150
Time (sec)
137 - L2446922-04 0.0890
9200
9250
Time (sec)
138 - L2446922-05 0.0600
9300
Time (sec)
139 - L2446922-06 0.1000
9350
Time (sec)
140 - L2446693-01 0.1596
9400
9450
Time (sec)
141 - WG1960444-3 0.1509
9500
Time (sec)
142 - WG1960444-4 4.3397
9550
Time (sec)
143 - L2446860-01 0.0636
9600
9650
Time (sec)
- L2445263-03; 0.5 UP TO 250 (
9700
Time (sec)
145 - L2445417-01 1.5333
9750
Time (sec)
146 - CCV NO3 0.9560
9800
Time (sec)
147 - CCV NO2 0.9595
9900
Time (sec)
148 - CCB 0.0014
9950
Time (sec)
149 - WG1960445-3 1.5195
10000
10050
Time (sec)
150 - WG1960445-4 5.2851
10100
Time (sec)
151 - L2445418-01 1.3875
10150
Time (sec)
152 - L2445604-01 0.0972
10200
10250
Time (sec)
153 - L2445604-02 0.9606
10300
Time (sec)

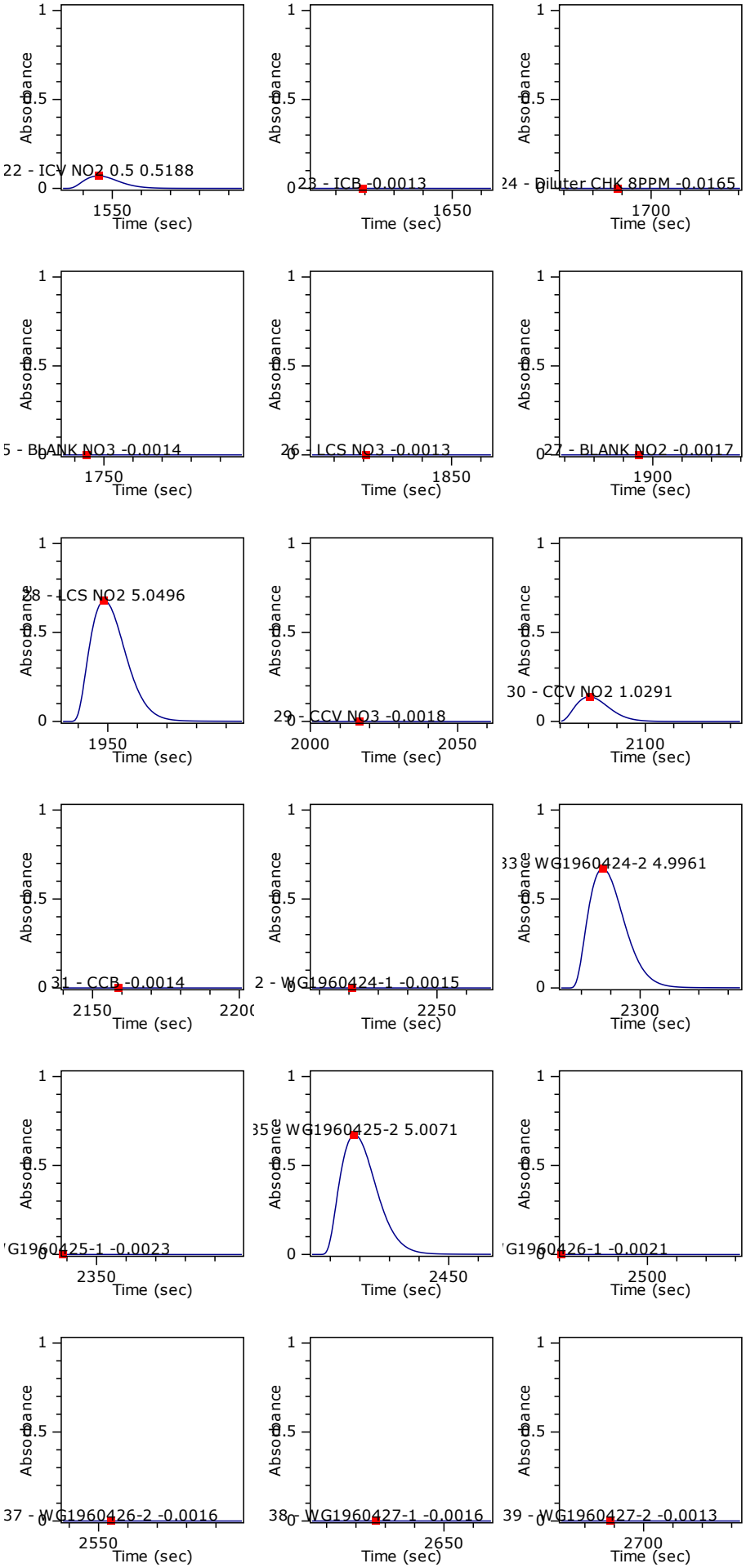

Absorbance
1
0
154 - L2445606-02 2.8810
10350
Time (sec)
155 - L2445645-02 0.0306
10400
10450
Time (sec)
156 - L2445677-01 2.8923
10500
Time (sec)
157 - L2445677-02 2.9332
10550
Time (sec)
158 - L2445811-01 0.0147
10600
Time (sec)
159 - CCV NO3 0.9593
10700
Time (sec)
160 - CCV NO2 0.9552
10750
Time (sec)
161 - CCB 0.0010
10800
10850
Time (sec)
162 - L2445556-01 0.0296
10900
Time (sec)
163 - L2445556-02 0.2841
10950
Time (sec)
164 - L2445556-03 0.0364
11000
11050
Time (sec)
165 - L2445556-04 0.0342
11100
Time (sec)
166 - CCV NO3 0.9534
11150
Time (sec)
167 - CCV NO2 0.9556
11200
11250
Time (sec)
168 - CCB 0.0012
11300
Time (sec)
169 - L2446712-01 0.0109
11350
Time (sec)
170 - WG1960448-3 0.00
11400
11450
Time (sec)
171 - WG1960448-4 3.8134
11500
Time (sec)

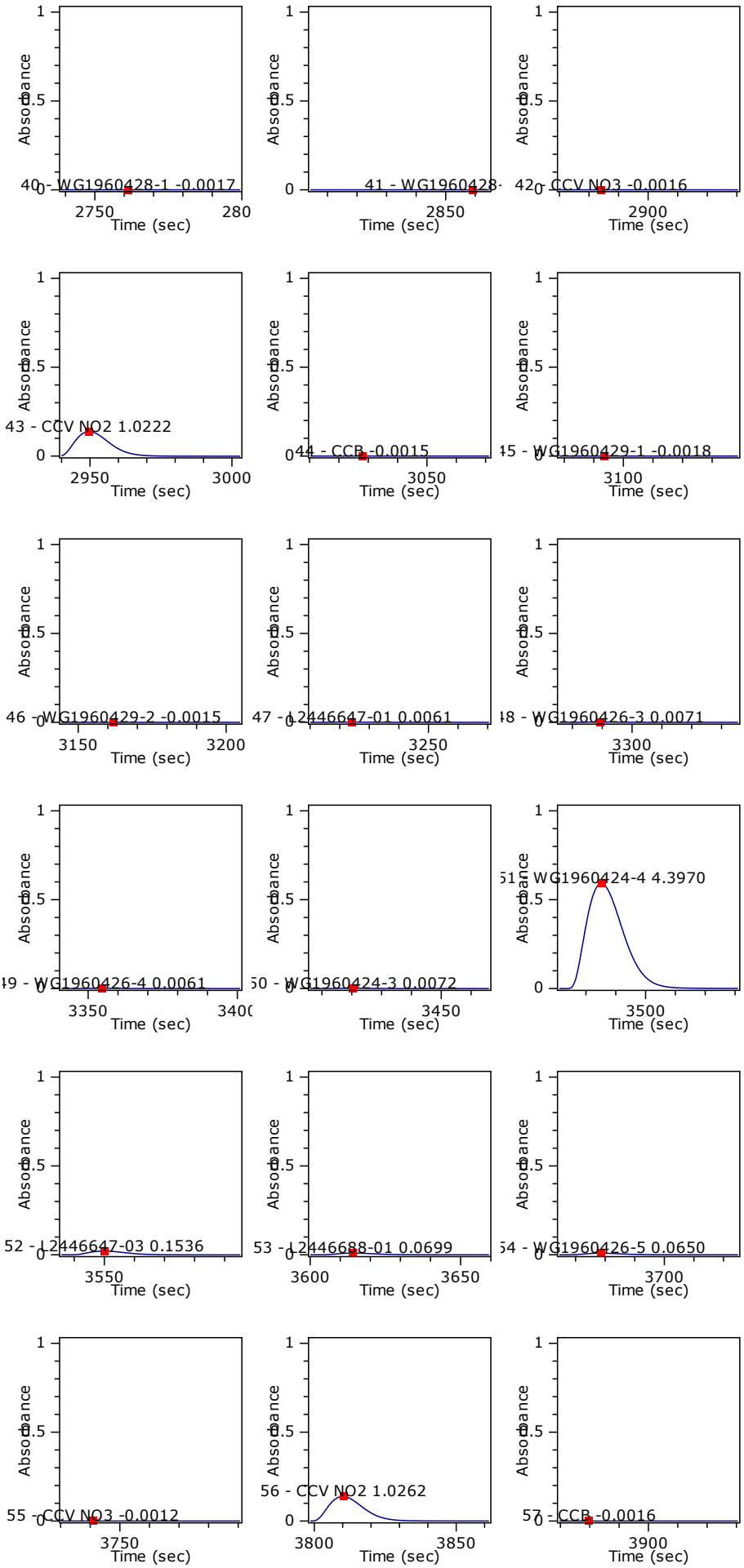


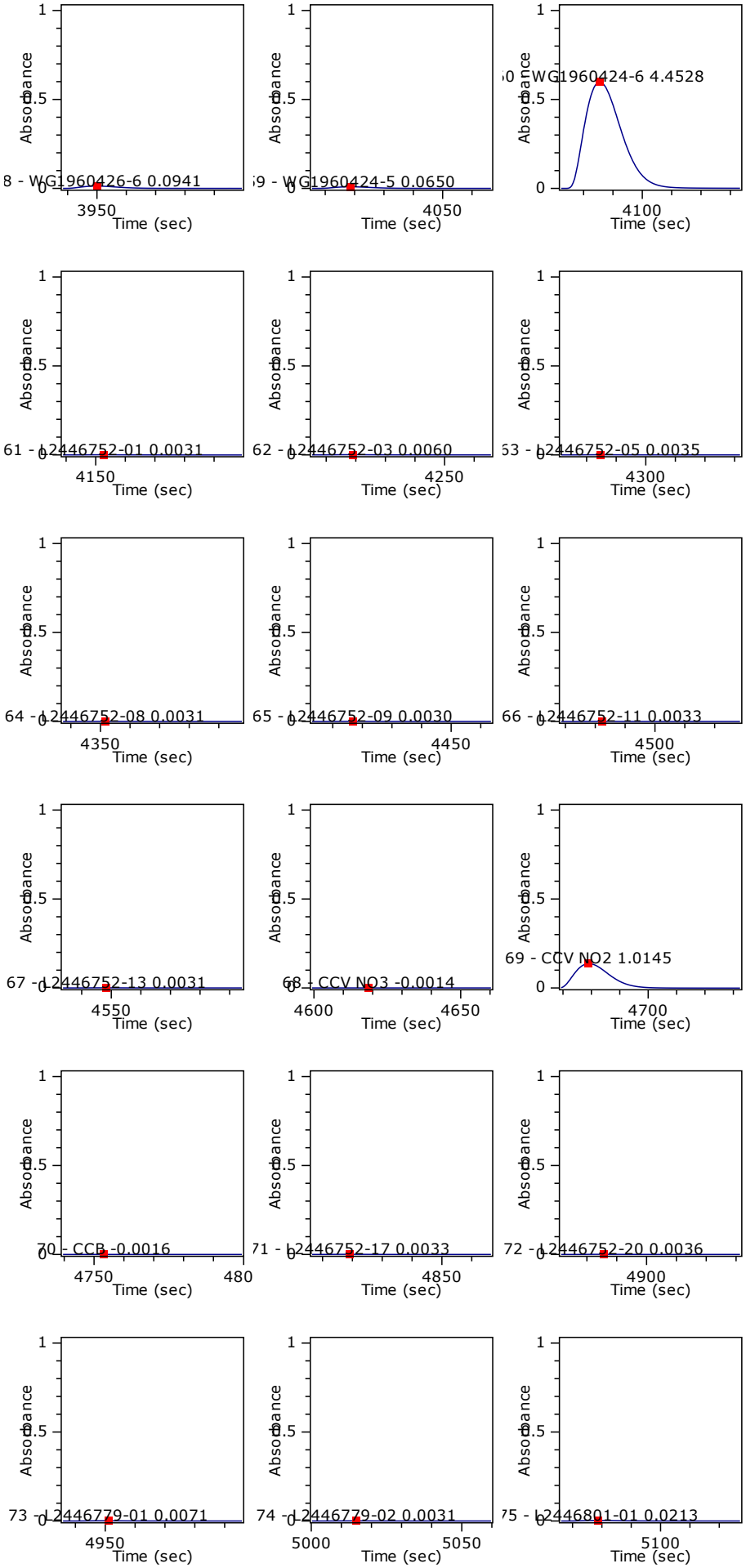
Channel: 2-NO2

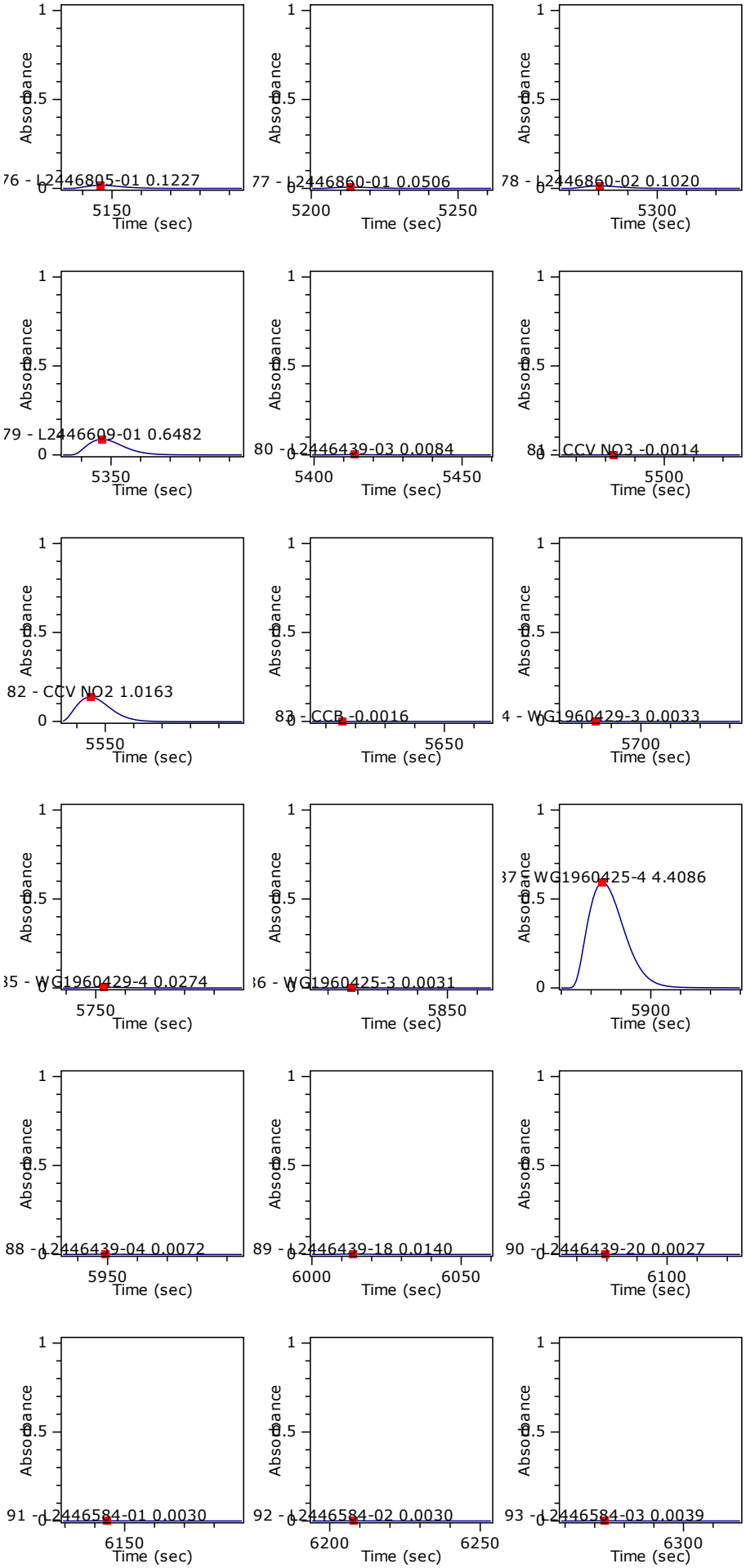


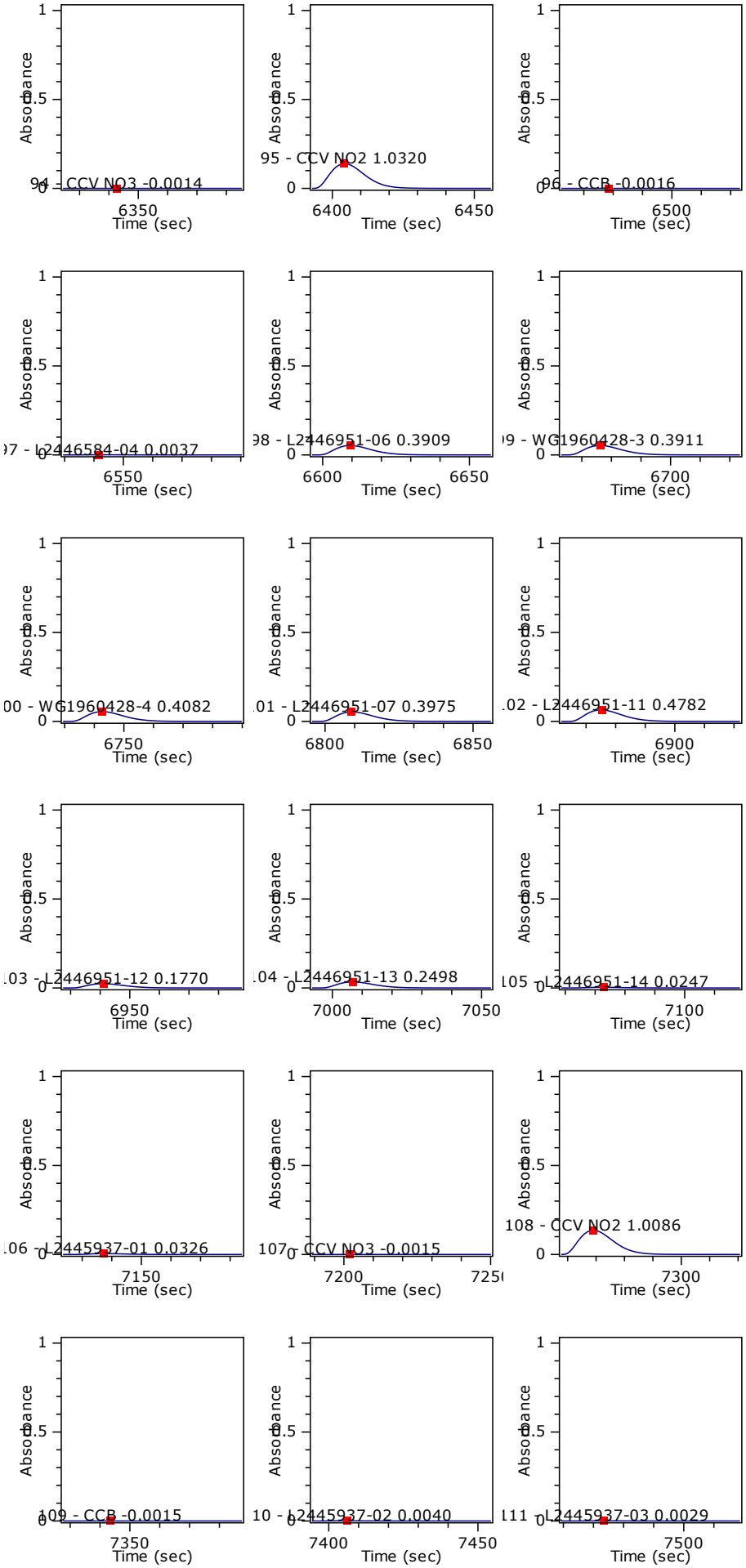

4 - NOx 1.0ppm -0.0016
5 - NOx 0.4ppm -0.0016
6 - NOx 0.2ppm -0.0017
7 - NOx 0.1ppm -0.0017
8 - NOx 0.0ppm -0.0017
9 - Nitrite 8.0ppm 7.6042
10 - Nitrite 4.0ppm 3.9983
11 - Nitrite 1.0ppm 1.0278
12 - Nitrite 0.4ppm 0.4114
13 - Nitrite 0.1ppm 0.1014
14 - Nitrite 0.05ppm 0.0494
15 - Nitrite 0.0ppm -0.0016
16 - CCV NO3 -0.0010
17 - CCV NO2 1.0295
18 - CCB -0.0016
19 - ICV NO3 5.0 -0.0013
20 - ICV NO2 5.0 4.9846
21 - ICV NO3 0.5 -0.0019
Absorbance
Time (sec)

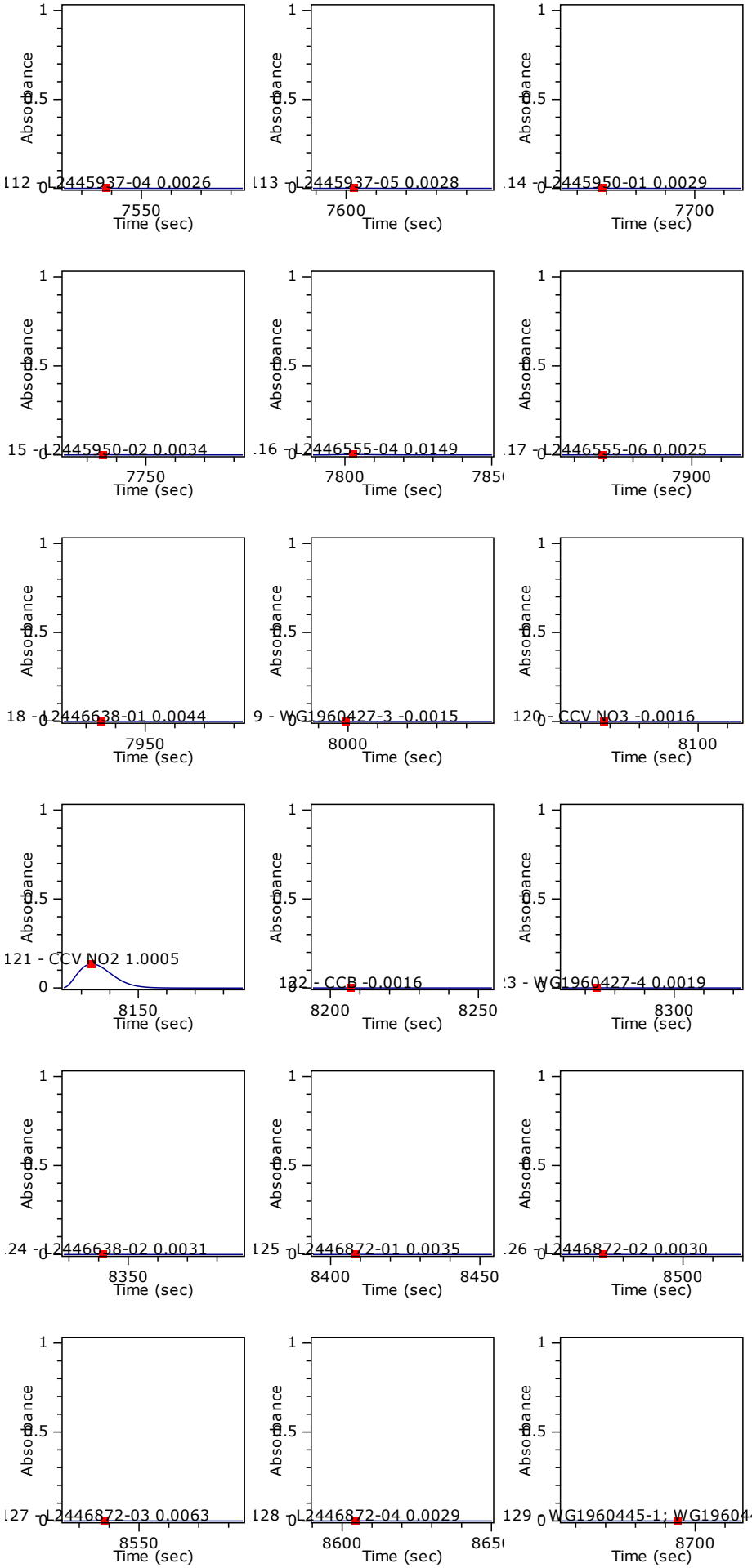

22 - ICV NO2 0.5 0.5188
23 - ICB -0.0013
24 - Diluter CHK 8PPM -0.0165
5 - BLANK NO3 -0.0014
26 - LCS NO3 -0.0013
27 - BLANK NO2 -0.0017
28 - LCS NO2 5.0496
29 - CCV NO3 -0.0018
30 - CCV NO2 1.0291
31 - CCB -0.0014
2 - WG1960424-1 -0.0015
33 WG1960424-2 4.9961
G1960425-1 -0.0023
35 WG1960425-2 5.0071
G1960426-1 -0.0021
37 - WG1960426-2 -0.0016
38 - WG1960427-1 -0.0016
39 - WG1960427-2 -0.0013
Absorbance
Time (sec)

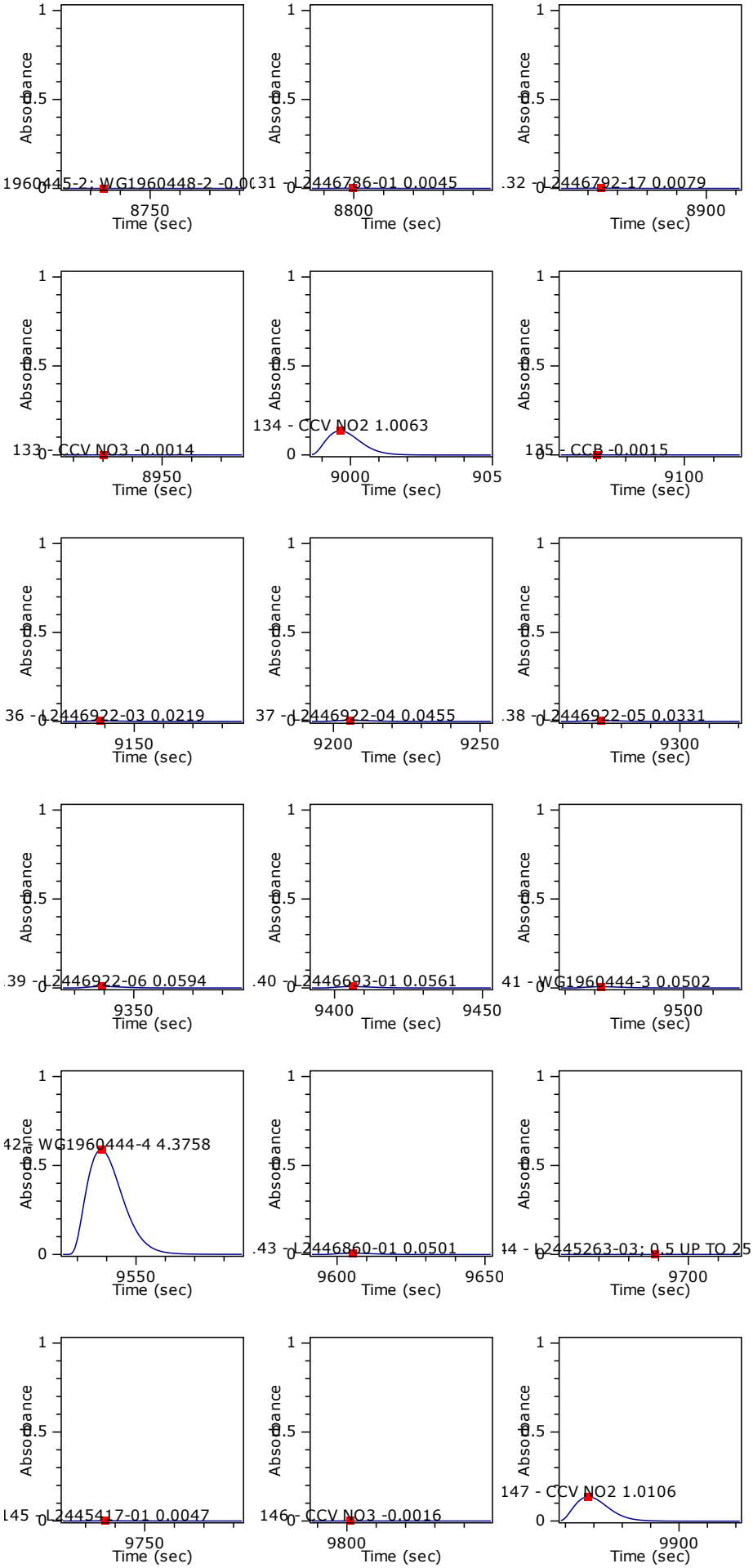

40 - WG1960428-1 -0.0017
41 - WG1960428
42 - CCV NO3 -0.0016
43 - CCV NO2 1.0222
44 - CCB -0.0015
45 - WG1960429-1 -0.0018
46 - WG1960429-2 -0.0015
47 - L2446647-01 0.0061
48 - WG1960426-3 0.0071
49 - WG1960426-4 0.0061
50 - WG1960424-3 0.0072
51 - WG1960424-4 4.3970
52 - L2446647-03 0.1536
53 - L2446688-01 0.0699
54 - WG1960426-5 0.0650
55 - CCV NO3 -0.0012
56 - CCV NO2 1.0262
57 - CCB -0.0016
Absorbance
Time (sec)

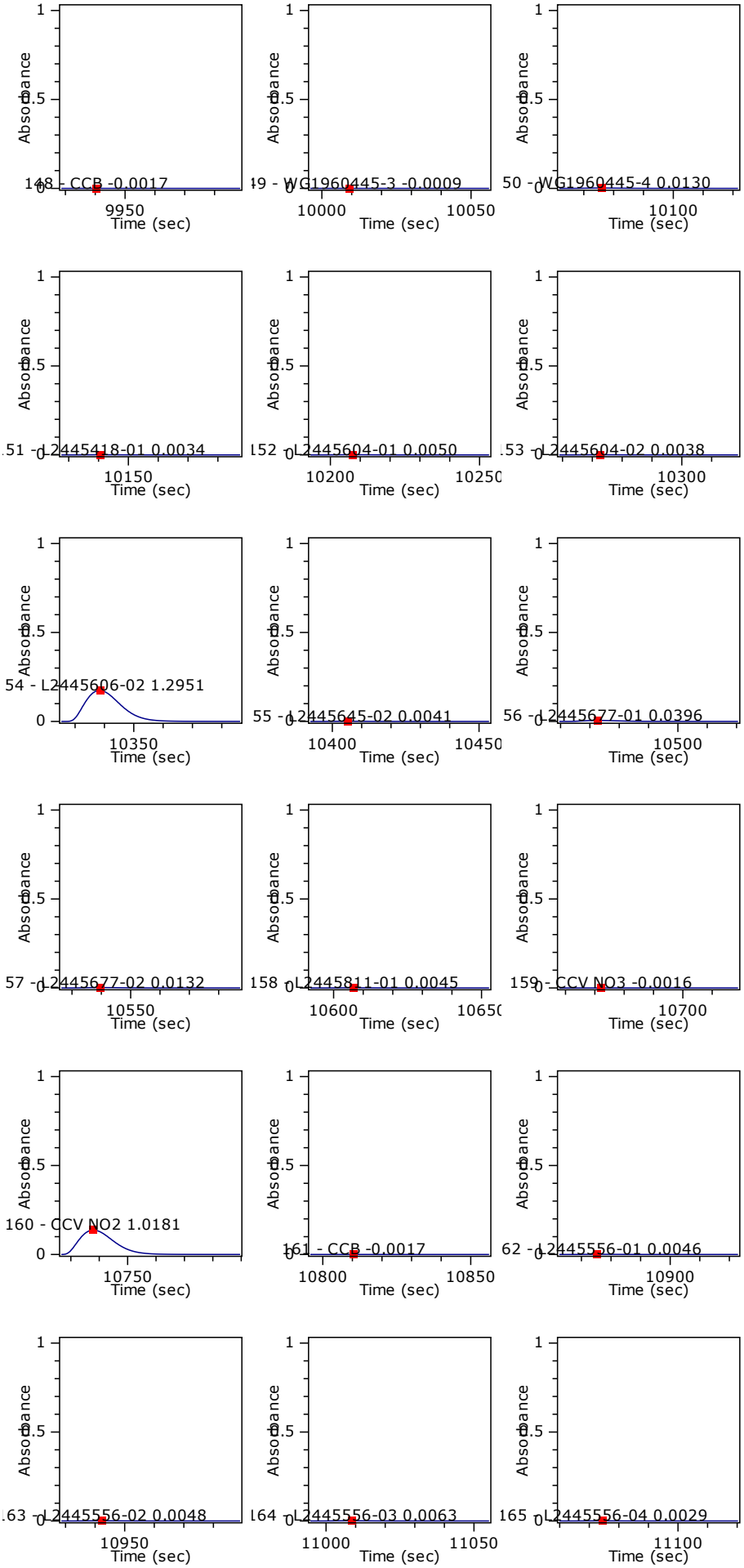

8 - WG1960426-6 0.0941
9 - WG1960424-5 0.0650
0 WG1960424-6 4.4528
61 - L2446752-01 0.0031
62 - L2446752-03 0.0060
63 - L2446752-05 0.0035
64 - L2446752-08 0.0031
65 - L2446752-09 0.0030
66 - L2446752-11 0.0033
67 - L2446752-13 0.0031
68 - CCV NO3 -0.0014
69 - CCV NO2 1.0145
70 - CCB -0.0016
71 - L2446752-17 0.0033
72 - L2446752-20 0.0036
73 - L2446779-01 0.0071
74 - L2446779-02 0.0031
75 - L2446801-01 0.0213
Absorbance
Time (sec)

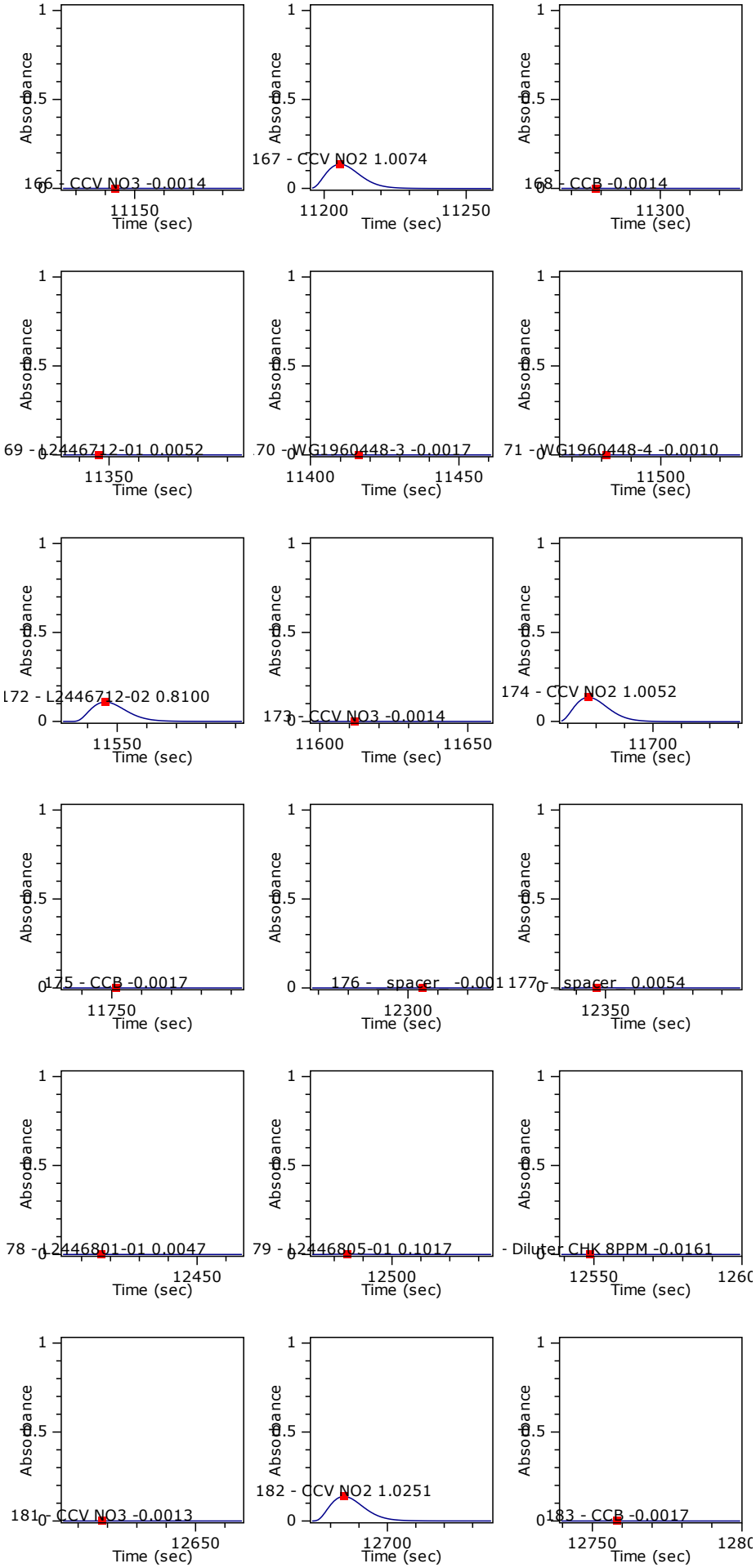

76 - L2446805-01 0.1227
77 - L2446860-01 0.0506
78 - L2446860-02 0.1020
79 - L2446609-01 0.6482
80 - L2446439-03 0.0084
81 - CCV NO3 -0.0014
82 - CCV NO2 1.0163
83 - CCB -0.0016
4 - WG1960429-3 0.0033
35 - WG1960429-4 0.0274
6 - WG1960425-3 0.0031
37 WG1960425-4 4.4086
88 - L2446439-04 0.0072
89 - L2446439-18 0.0140
90 - L2446439-20 0.0027
91 - L2446584-01 0.0030
92 - L2446584-02 0.0030
93 - L2446584-03 0.0039
Absorbance
Time (sec)


94 - CCV NO3 -0.0014
95 - CCV NO2 1.0320
96 - CCB -0.0016
97 - L2446584-04 0.0037
98 - L2446951-06 0.3909
99 - WG1960428-3 0.3911
100 - WG1960428-4 0.4082
101 - L2446951-07 0.3975
102 - L2446951-11 0.4782
103 - L2446951-12 0.1770
104 - L2446951-13 0.2498
105 - L2446951-14 0.0247
106 - L2445937-01 0.0326
107 - CCV NO3 -0.0015
108 - CCV NO2 1.0086
109 - CCB -0.0015
110 - L2445937-02 0.0040
111 - L2445937-03 0.0029
Absorbance
Time (sec)


112 - L2445937-04 0.0026
113 - L2445937-05 0.0028
114 - L2445950-01 0.0029
115 - L2445950-02 0.0034
116 - L2446555-04 0.0149
117 - L2446555-06 0.0025
118 - L2446638-01 0.0044
119 - WG1960427-3 -0.0015
120 - CCV NO3 -0.0016
121 - CCV NO2 1.0005
122 - CCB -0.0016
123 - WG1960427-4 0.0019
124 - L2446638-02 0.0031
125 - L2446872-01 0.0035
126 - L2446872-02 0.0030
127 - L2446872-03 0.0063
128 - L2446872-04 0.0029
129 - WG1960445-1; WG19604
Absorbance
Time (sec)


1960445-2: WG1960448-2 -0.0
8750
Time (sec)
131 - L2446786-01 0.0045
8800
Time (sec)
132 - L2446792-17 0.0079
8900
Time (sec)
133 - CCV NO3 -0.0014
8950
Time (sec)
134 - CCV NO2 1.0063
9000
905
Time (sec)
135 - CCB -0.0015
9100
Time (sec)
136 - L2446922-03 0.0219
9150
Time (sec)
137 - L2446922-04 0.0455
9200
9250
Time (sec)
138 - L2446922-05 0.0331
9300
Time (sec)
139 - L2446922-06 0.0594
9350
Time (sec)
140 - L2446693-01 0.0561
9400
9450
Time (sec)
141 - WG1960444-3 0.0502
9500
Time (sec)
142 - WG1960444-4 4.3758
9550
Time (sec)
143 - L2446860-01 0.0501
9600
9650
Time (sec)
144 - L2445263-03: 0.5 UP TO 25
9700
Time (sec)
145 - L2445417-01 0.0047
9750
Time (sec)
146 - CCV NO3 -0.0016
9800
Time (sec)
147 - CCV NO2 1.0106
9900
Time (sec)


148 - CCB -0.0017
149 - WG1960445-3 -0.0009
150 - WG1960445-4 0.0130
151 - L2445418-01 0.0034
152 - L2445604-01 0.0050
153 - L2445604-02 0.0038
154 - L2445606-02 1.2951
155 - L2445645-02 0.0041
156 - L2445677-01 0.0396
157 - L2445677-02 0.0132
158 - L2445811-01 0.0045
159 - CCV NO3 -0.0016
160 - CCV NO2 1.0181
161 - CCB -0.0017
162 - L2445556-01 0.0046
163 - L2445556-02 0.0048
164 - L2445556-03 0.0063
165 - L2445556-04 0.0029
Absorbance
Time (sec)


166 - CCV NO3 -0.0014
167 - CCV NO2 1.0074
168 - CCB -0.0014
69 - L2446712-01 0.0052
70 - WG1960448-3 -0.0017
71 - WG1960448-4 -0.0010
172 - L2446712-02 0.8100
173 - CCV NO3 -0.0014
174 - CCV NO2 1.0052
175 - CCB -0.0017
176 - spacer -0.001
177 - spacer 0.0054
78 - L2446801-01 0.0047
79 - L2446805-01 0.1017
- Diluter CHK 8PPM -0.0161
181 - CCV NO3 -0.0013
182 - CCV NO2 1.0251
183 - CCB -0.0017
Absorbance
Time (sec)

Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 11.5
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.7
Bandwidth: 2
```

```
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-17T03:51:16

Method
------------
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
   Delay (sec) 1
   Next Sample
   Autosampler Probe Force Down

   Spectrometer Reference Scan
   Spectrometer Absorbance Scanning

   Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

   FIAlab Injection Valve Sample Load

   Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.

   FIAlab1 Injection Valve Sample Inject
   Autosampler Probe Up
   Delay (sec) 5
   Autosampler Position (#) Rinse
   FIAlab2 Injection Valve Sample Inject

   Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

   Autosampler Probe Up

   Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

   Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

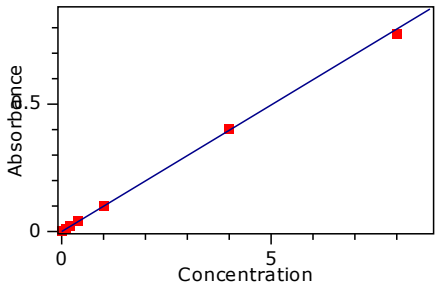
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-17 09:07:43
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-17-090728.dat

Dataset Notes:

Analyst	

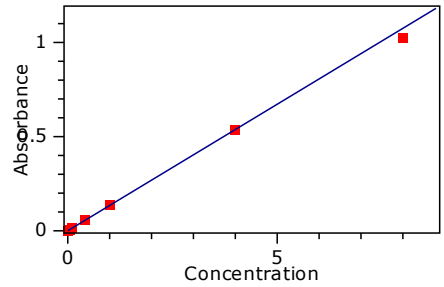
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00012
B: 0.09935
R^2: 0.99962
RSE(%): 1.59179
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	NOx 8.0ppm	0.77530	8.00000	7.80430	2.45	N/A
10002	NOx 4.0ppm	0.40390	4.00000	4.06680	1.67	N/A
10003	NOx 1.0ppm	0.09930	1.00000	1.00030	0.03	N/A
10004	NOx 0.4ppm	0.04000	0.40000	0.40410	1.02	N/A
10005	NOx 0.2ppm	0.01980	0.20000	0.20070	0.37	N/A
10006	NOx 0.1ppm	0.00980	0.10000	0.09960	0.43	N/A
10007	NOx 0.0ppm	0.00010	0.00000	0.00210	NA	N/A



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00028
B: 0.13433
R^2: 0.99940
RSE(%): 3.30325
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	Nitrite 8.0ppm	1.02180	8.00000	7.60420	4.95	N/A
10002	Nitrite 4.0ppm	0.53740	4.00000	3.99830	0.04	N/A
10003	Nitrite 1.0ppm	0.13830	1.00000	1.02780	2.78	N/A
10004	Nitrite 0.4ppm	0.05550	0.40000	0.41140	2.85	N/A
10005	Nitrite 0.1ppm	0.01390	0.10000	0.10140	1.41	N/A
10006	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.16	N/A
10007	Nitrite 0.0ppm	0.00010	0.00000	-0.00160	NA	N/A

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0002	1	1	1	0.0028		2024-08-17T08:09:47
CCV NO3	2	QC	1	0.0961	1	1	1	0.9681		2024-08-17T08:11:15
CCV NO2	3	QC	?	0.0956	1	1	1	0.9633		2024-08-17T08:12:21
CCB	4	QC	0	0.0000	1	1	1	0.0008		2024-08-17T08:13:05

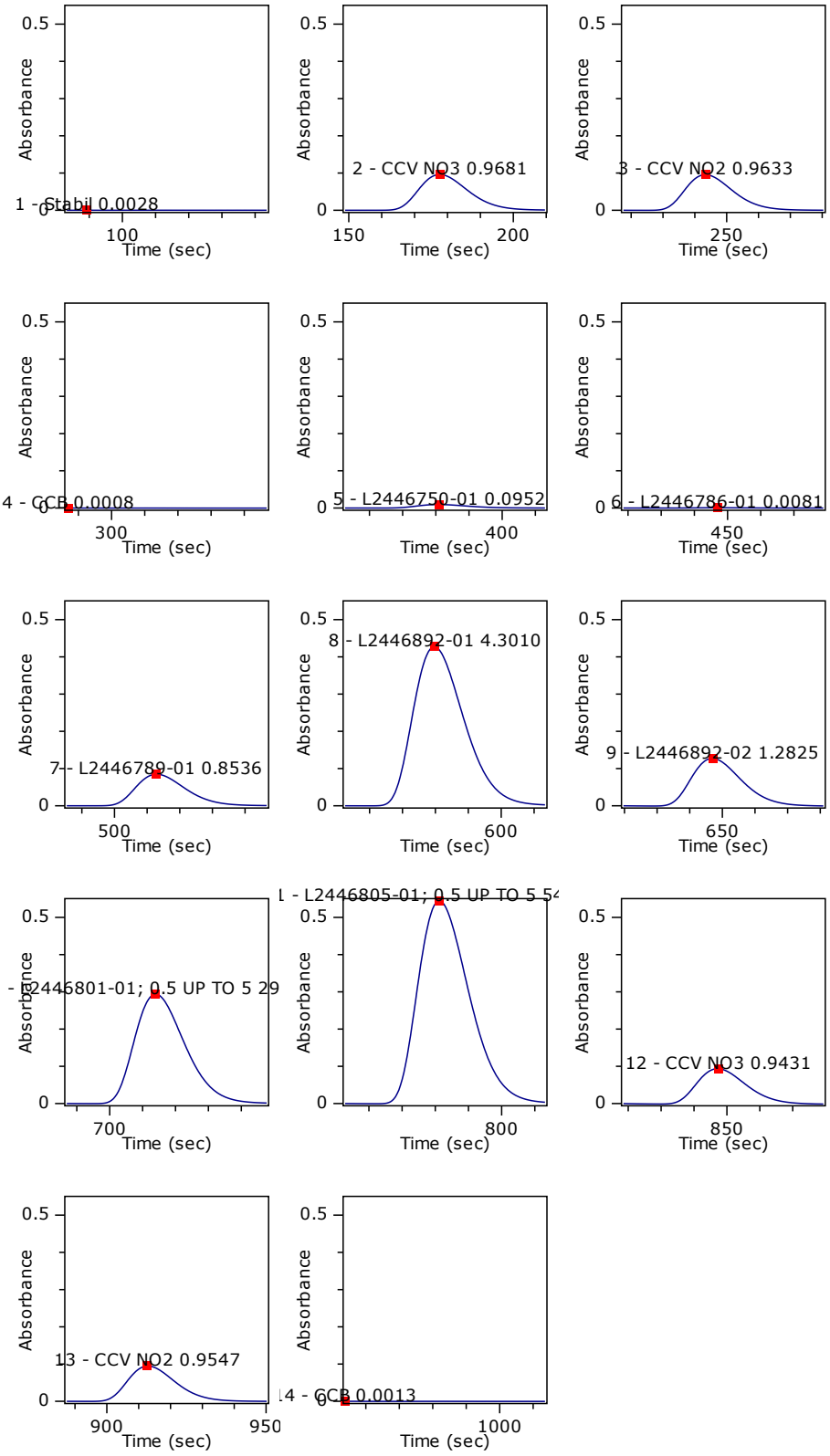
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446750-01	5	Unknown	?	0.0093	1	1	1	0.0952		2024-08-17T08:14:39
L2446786-01	6	Unknown	?	0.0007	1	1	1	0.0081		2024-08-17T08:15:44
L2446789-01	7	Unknown	?	0.0847	1	1	1	0.8536		2024-08-17T08:16:50
L2446892-01	8	Unknown	?	0.4272	1	1	1	4.3010		2024-08-17T08:17:57
L2446892-02	9	Unknown	?	0.1273	1	1	1	1.2825		2024-08-17T08:19:05
L2446801-01; 0.5 UP TO 5	10	Unknown	?	0.2939	10	1	1	29.5983		2024-08-17T08:20:11
L2446805-01; 0.5 UP TO 5	11	Unknown	?	0.5450	10	1	1	54.8648		2024-08-17T08:21:19
CCV NO3	12	QC	1	0.0936	1	1	1	0.9431		2024-08-17T08:22:25
CCV NO2	13	QC	?	0.0947	1	1	1	0.9547		2024-08-17T08:23:30
CCB	14	QC	0	0.0000	1	1	1	0.0013		2024-08-17T08:24:11

Channel: 2-NO2

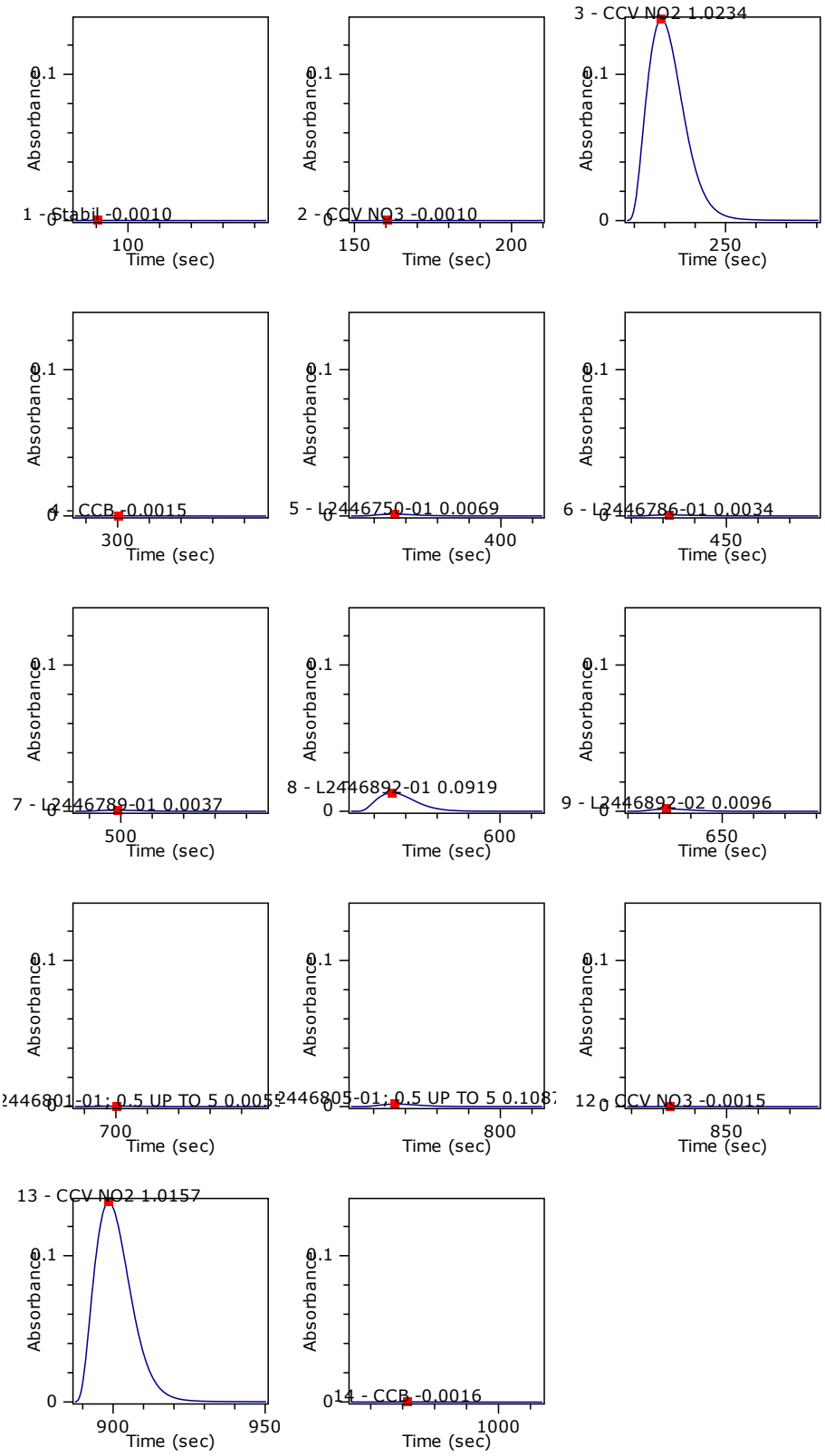
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	-0.0010		2024-08-17T08:09:48
CCV NO3	2	QC	?	0.0001	1	1	1	-0.0010		2024-08-17T08:10:58
CCV NO2	3	QC	1	0.1378	1	1	1	1.0234		2024-08-17T08:12:06
CCB	4	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T08:13:18
L2446750-01	5	Unknown	?	0.0012	1	1	1	0.0069		2024-08-17T08:14:24
L2446786-01	6	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T08:15:29
L2446789-01	7	Unknown	?	0.0008	1	1	1	0.0037		2024-08-17T08:16:37
L2446892-01	8	Unknown	?	0.0126	1	1	1	0.0919		2024-08-17T08:17:43
L2446892-02	9	Unknown	?	0.0016	1	1	1	0.0096		2024-08-17T08:18:50
L2446801-01; 0.5 UP TO 5	10	Unknown	?	0.0004	10	1	1	0.0055		2024-08-17T08:19:58
L2446805-01; 0.5 UP TO 5	11	Unknown	?	0.0017	10	1	1	0.1087		2024-08-17T08:21:04
CCV NO3	12	QC	?	0.0001	1	1	1	-0.0015		2024-08-17T08:22:10
CCV NO2	13	QC	1	0.1367	1	1	1	1.0157		2024-08-17T08:23:16
CCB	14	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T08:24:29

Peaks:

Channel: 1-NOx



Channel: 2-NO2



Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0

Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 11.5
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.7
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-17T08:08:18

Method
------------
```

```
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
   Delay (sec) 1
   Next Sample
   Autosampler Probe Force Down

   Spectrometer Reference Scan
   Spectrometer Absorbance Scanning

   Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

   FIAlab Injection Valve Sample Load

   Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.

   FIAlab1 Injection Valve Sample Inject
   Autosampler Probe Up
   Delay (sec) 5
   Autosampler Position (#) Rinse
   FIAlab2 Injection Valve Sample Inject

   Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

   Autosampler Probe Up

   Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

   Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

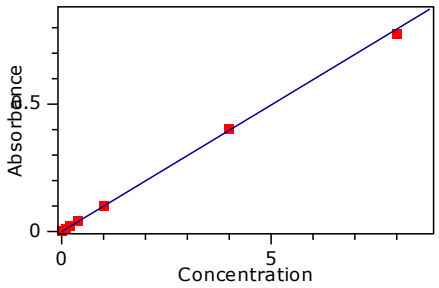
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-17 09:26:55
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-17-092629.dat

Dataset Notes:

Analyst	

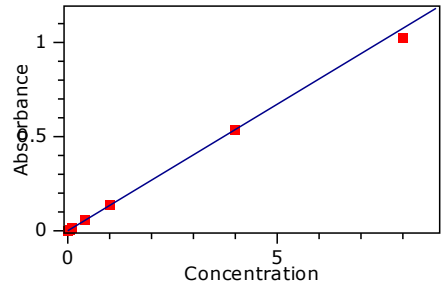
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00012
B: 0.09935
R^2: 0.99962
RSE(%): 1.59179
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	NOx 8.0ppm	0.77530	8.00000	7.80430	2.45	N/A
10002	NOx 4.0ppm	0.40390	4.00000	4.06680	1.67	N/A
10003	NOx 1.0ppm	0.09930	1.00000	1.00030	0.03	N/A
10004	NOx 0.4ppm	0.04000	0.40000	0.40410	1.02	N/A
10005	NOx 0.2ppm	0.01980	0.20000	0.20070	0.37	N/A
10006	NOx 0.1ppm	0.00980	0.10000	0.09960	0.43	N/A
10007	NOx 0.0ppm	0.00010	0.00000	0.00210	NA	N/A



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00028
B: 0.13433
R^2: 0.99940
RSE(%): 3.30325
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	Nitrite 8.0ppm	1.02180	8.00000	7.60420	4.95	N/A
10002	Nitrite 4.0ppm	0.53740	4.00000	3.99830	0.04	N/A
10003	Nitrite 1.0ppm	0.13830	1.00000	1.02780	2.78	N/A
10004	Nitrite 0.4ppm	0.05550	0.40000	0.41140	2.85	N/A
10005	Nitrite 0.1ppm	0.01390	0.10000	0.10140	1.41	N/A
10006	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.16	N/A
10007	Nitrite 0.0ppm	0.00010	0.00000	-0.00160	NA	N/A

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0002	1	1	1	0.0028		2024-08-17T09:12:16
CCV NO3	2	QC	1	0.0972	1	1	1	0.9792		2024-08-17T09:13:26
CCV NO2	3	QC	?	0.0968	1	1	1	0.9752		2024-08-17T09:14:32
CCB	4	QC	0	0.0000	1	1	1	0.0010		2024-08-17T09:15:16

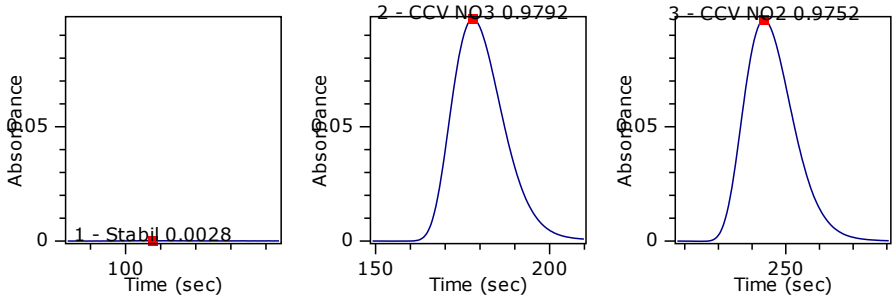
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446863-02	5	Unknown	?	0.0009	1	1	1	0.0102		2024-08-17T09:16:49
L2446863-03	6	Unknown	?	0.0031	1	1	1	0.0325		2024-08-17T09:17:57
L2446863-04	7	Unknown	?	0.0434	1	1	1	0.4377		2024-08-17T09:19:04
L2446863-05	8	Unknown	?	0.0104	1	1	1	0.1060		2024-08-17T09:20:10
L2446863-06	9	Unknown	?	0.0285	1	1	1	0.2881		2024-08-17T09:21:16
CCV NO3	10	QC	1	0.0964	1	1	1	0.9718		2024-08-17T09:22:22
CCV NO2	11	QC	?	0.0961	1	1	1	0.9681		2024-08-17T09:23:28
CCB	12	QC	0	0.0000	1	1	1	0.0013		2024-08-17T09:24:08

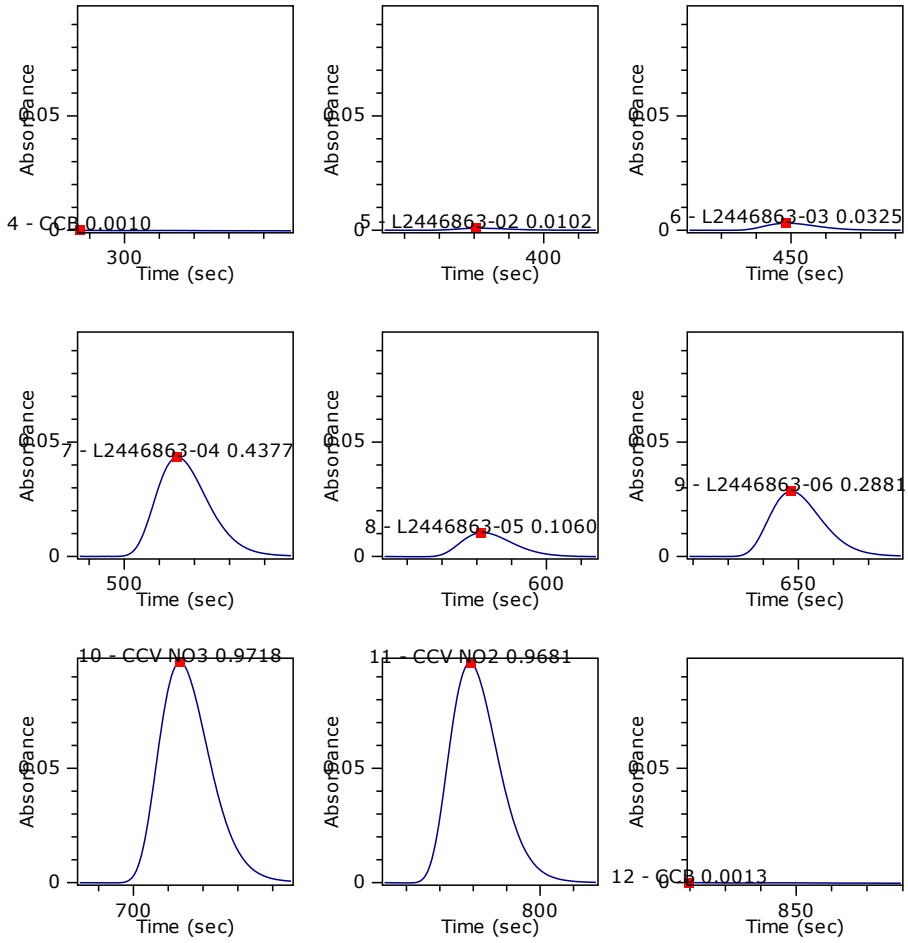
Channel: 2-NO2

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T09:12:01
CCV NO3	2	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T09:13:12
CCV NO2	3	QC	1	0.1368	1	1	1	1.0163		2024-08-17T09:14:17
CCB	4	QC	0	0.0001	1	1	1	-0.0014		2024-08-17T09:15:27
L2446863-02	5	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T09:16:35
L2446863-03	6	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T09:17:43
L2446863-04	7	Unknown	?	0.0007	1	1	1	0.0028		2024-08-17T09:18:50
L2446863-05	8	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T09:19:56
L2446863-06	9	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T09:21:03
CCV NO3	10	QC	?	0.0001	1	1	1	-0.0013		2024-08-17T09:22:08
CCV NO2	11	QC	1	0.1376	1	1	1	1.0222		2024-08-17T09:23:13
CCB	12	QC	0	0.0004	1	1	1	0.0005		2024-08-17T09:24:26

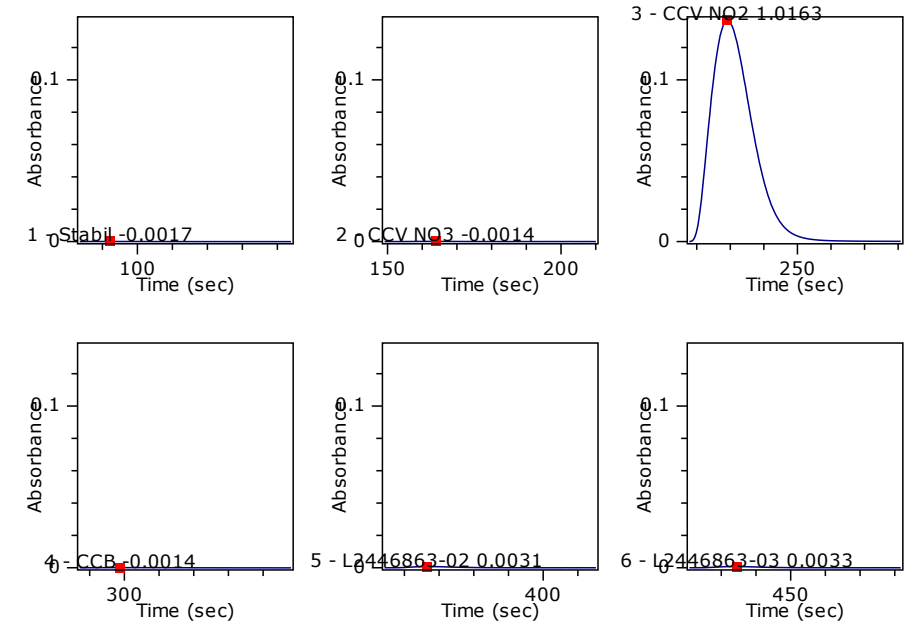
Peaks:

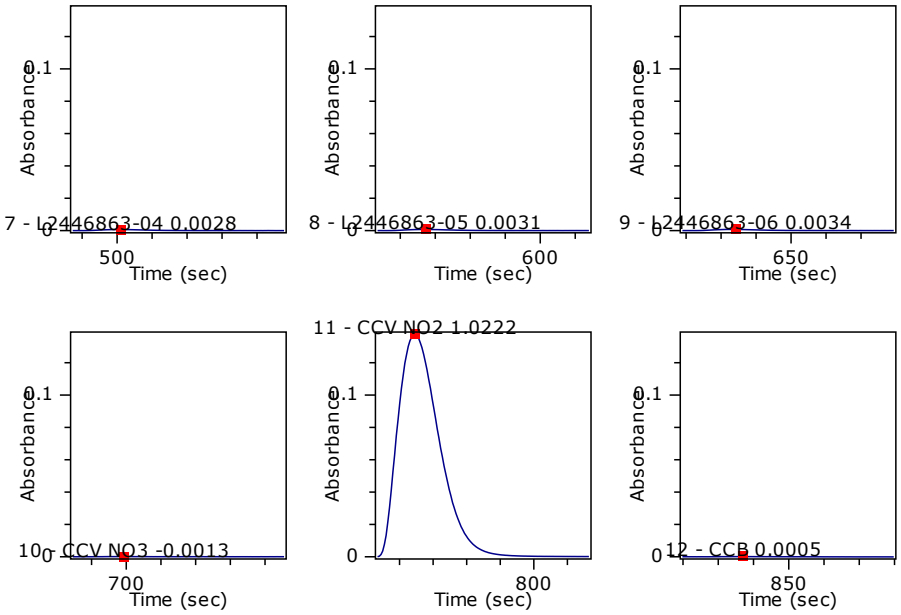
Channel: 1-NOx





Channel: 2-NO2





Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 11.5
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.7
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-17T09:10:29

Method
------------
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
   Delay (sec) 1
   Next Sample
   Autosampler Probe Force Down

   Spectrometer Reference Scan
   Spectrometer Absorbance Scanning

   Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

   FIAlab Injection Valve Sample Load

   Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.
```

```
    FIAlab1 Injection Valve Sample Inject
    Autosampler Probe Up
    Delay (sec) 5
    Autosampler Position (#) Rinse
    FIAlab2 Injection Valve Sample Inject

    Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

    Autosampler Probe Up

    Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

    Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446638-01		
Matrix Spike	: WG1960427-4	**MS Analysis Date**	: 08/17/24 06:09
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Nitrate	ND	4	3.82	96					83-113	17

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/17/24 06:03
Dup Sample ID	: WG1960427-3	**DUP Analysis Date**	: 08/17/24 06:04

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Nitrate	ND	ND	NC	17

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1960427-2	**LCS Analysis Date**	: 08/17/24 04:36
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Nitrogen, Nitrate	**5.00**	**5.11**	**102.**					**90-110**	**17**

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Nitrogen, Nitrate	14797-55-8	0.1	0.0228	mg/l	90-110		83-113	6	6	353.2	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrate	14797-55-8	0.1	0.0228	mg/l	90-110		83-113	17	17	4500NO3-F	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrite	NONE	0.05	0.0143	mg/l	90-110	20	80-120	20	20	353.2	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrite	NONE	0.05	0.0143	mg/l	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Plastic 250ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Nitrogen, Nitrate	14797-55-8	1	0.261	mg/kg	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Glass 250ml/8oz unpreserved
Nitrogen, Nitrite	NONE	1	0.282	mg/kg	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Nitrogen, Nitrate

Aqueous Samples:
Compute sample N in NO3 concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 1 (NO3+NO2) and Channel 2 (NO2)

$$NO3\ mg/I = (NO3+NO2)\ mg/L - (NO2)\ mg/L$$

To compute final results for aqueous samples, multiply the direct reading by the dilution factor (also done using software)

$$(NO3)\text{-}N\ mg/L = mg/L\ direct\ reading \times dilution\ factor$$

Calculations of Nitrogen, Nitrite

Aqueous Samples:
Compute sample N in NO2 concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 2 (NO2)

To compute final results for aqueous samples, multiply the direct reading by the dilution factor (also done using software)

$$(NO2)\text{-}N\ mg/L = mg/L\ direct\ reading \times dilution\ factor$$

Sequence Logs

Date:	Initals:	Syringe Lot:	Syringe Lot: 20230620
081724	KAF	Filter Lot:	Filter Lot: 18048470A

Injection #	Rack #	Sample ID:	Comments:
19	RA1	ICV NO3 5	*Buffer: NO3NO2_081524_BUFFER*
20	RA2	ICV NO2 5	*Color: NO3NO2_081524_COLOR*
21	RA3	ICV NO3 0.5	*NO3 MS: NO3_080224_200PPM_CAL*
22	RA4	ICV NO2 0.5	*NO2 MS: NO2_062024_200PPM_CAL*
23	RA5	ICB	*ICV NO3 5: NO3_081624_5PPM_ICV*
24	RA6	5X DILUTER CHECK	*ICV NO2 5: NO2_081424_5PPM_ICV*
25	RA7	BLANK NO3	*ICV NO3 0.5: NO3_081724_0.5PPM_ICV*
26	RA8	LCS NO3	*ICV NO2 0.5: NO2_081724_0.5PPM_ICV*
27	RA9	BLANK NO2	
28	RA10	LCS NO2	
32	RA11	WG1960424-1; NO2	*OOH*
33	RA12	WG1960424-2; NO2	*DW*
34	RA13	WG1960425-1; NO2/444	GOING OOH
35	RA14	WG1960425-2; NO2/444	FIELD BLANK
36	RA15	WG1960426-1; NO3	
37	RA16	WG1960426-2; NO3	
38	RA17	WG1960427-1; NO3	
39	RA18	WG1960427-2; NO3	
40	RA19	WG1960428-1; NO3	
41	RA20	WG1960428-2; NO3	
45	RA21	WG1960429-1; NO3	
46	RA22	WG1960429-2; NO3	
47	RA23	L2446647-01	
48	RA24	WG1960426-3; NO3	
49	RA25	WG1960426-4; NO3	
50	RA26	WG1960424-3; NO2	
51	RA27	WG1960424-4; NO2	
52	RA28	L2446647-03	
53	RA29	L2446688-01	
54	RA30	WG1960426-5; NO3	
58	RA31	WG1960426-6; NO3	
59	RA32	WG1960424-5; NO2	
60	RA33	WG1960424-6; NO2	
61	RA34	L2446752-01	
62	RA35	L2446752-03	
63	RA36	L2446752-05	
64	RA37	L2446752-08	
65	RA38	L2446752-09	
66	RA39	L2446752-11	
67	RA40	L2446752-13	
71	RA41	L2446752-17	
72	RA42	L2446752-20	
73	RA43	L2446779-01	

Injection #	Rack #	Sample ID:	Comments:
74	RA44	L2446779-02	
75	RA45	L2446801-01	
76	RA46	L2446805-01	
77; 143	RA47	L2446860-01	
78	RA48	L2446860-02	
79	RA49	L2446609-01	
80	RA50	L2446439-03	
84	RA51	WG1960429-3; NO3	
85	RA52	WG1960429-4; NO3	
86	RA53	WG1960425-3; NO2	
87	RA54	WG1960425-4; NO2	
88	RA55	L2446439-04	
89	RA56	L2446439-18	
90	RA57	L2446439-20	
91	RA58	L2446584-01	
92	RA59	L2446584-02	
93	RA60	L2446584-03	
97	RA61	L2446584-04	
98	RA62	L2446951-06	
99	RA63	WG1960428-3; NO3	
100	RA64	WG1960428-4; NO3	
101	RA65	L2446951-07	
102	RA66	L2446951-11	
103	RA67	L2446951-12	
104	RA68	L2446951-13	
105	RA69	L2446951-14	
106	RA70	L2445937-01	
110	RA71	L2445937-02	
111	RA72	L2445937-03	
112	RA73	L2445937-04	
113	RA74	L2445937-05	
114	RA75	L2445950-01	
115	RA76	L2445950-02	
116	RA77	L2446555-04	
117	RA78	L2446555-06	
118	RA79	L2446638-01	
119	RA80	WG1960427-3; NO3	
123	RA81	WG1960427-4; NO3	
124	RA82	L2446638-02	
125	RA83	L2446872-01	
126	RA84	L2446872-02	
127	RA85	L2446872-03	
128	RA86	L2446872-04	
129	RA87	WG1960445/448-1; CNO3	
130	RA88	WG1960445/448-2; CNO3	
131	RA89	L2446786-01A	

Injection #	Rack #	Sample ID:	Comments:
132	RA90	L2446792-17A	
136	RB1	L2446922-03H	
137	RB2	L2446922-04G,R1A	
138	RB3	L2446922-05F	
139	RB4	L2446922-06F,R1A	
140	RB5	L2446693-01A	
141	RB6	WG1960444-3; NO2	
142	RB7	WG1960444-4; NO2	
144	RB8	L2445263-03	
145	RB9	L2445417-01	
149	RB10	WG1960445-3; CNO3	
150	RB11	WG1960445-4; CNO3	
151	RB12	L2445418-01	
152	RB13	L2445604-01	
153	RB14	L2445604-02	
154	RB15	L2445606-02	
155	RB16	L2445645-02	
156	RB17	L2445677-01	
157	RB18	L2445677-02	
158	RB19	L2445811-01	
162	RB20	L2445556-01	
163	RB21	L2445556-02	
164	RB22	L2445556-03	
165	RB23	L2445556-04	
169	RB24	L2446712-01	
170	RB25	WG1960448-3; CNO3	
171	RB26	WG1960448-4; CNO3	
172	RB27	L2446712-02	
5	RB28	L2446750-01A	TRAY 2
6	RB29	L2446786-01A	
7	RB30	L2446789-01A	
8	RB31	L2446892-01I	
9	RB32	L2446892-02I	
10	RC1	L2446801-01	
11	RC2	L2446805-01	
5	RB33	L2446863-02K	TRAY 3
6	RB34	L2446863-03K	
7	RB35	L2446863-04K	
8	RB36	L2446863-05K	
9	RB37	L2446863-06K	

Total Organic Carbon Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-04	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/21/24 02:33
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961842.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/16/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	7100	1600	69.	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/21/24 02:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961842.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/16/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	0.30	1.0	0.04	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961842-1	**Date Collected**	: NA
Client ID	: WG1961842-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 02:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961842.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	ND	1.0	0.04	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961842-3	**Date Collected**	: 08/15/24 09:17
Client ID	: WG1961842-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/21/24 02:33
Sample Matrix	: WATER	**Dilution Factor**	: 40
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961842.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	210	40	1.7	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-04	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/19/24 05:38
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1960817	**Instrument ID**	: TOCVWP6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	7700	800	160	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/19/24 05:10
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1960817	**Instrument ID**	: TOCVWP6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	0.28	0.50	0.10	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960817-1	**Date Collected**	: NA
Client ID	: WG1960817-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/19/24 03:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1960817	**Instrument ID**	: TOCVWP6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	ND	0.50	0.10	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960817-3	**Date Collected**	: 08/14/24 12:37
Client ID	: WG1960817-3 DUP	**Date Received**	: 08/14/24
Sample Location	:	**Date Analyzed**	: 08/19/24 11:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1960817	**Instrument ID**	: TOCVWP6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	0.31	0.50	0.10	J

Cal. Curve

Sample Name: 07222024 TOC3 CURVE
Sample ID:
Cal. Curve: 07222024 TOC3 CURVE.2024_07_22_02_23_17.cal
Status Completed

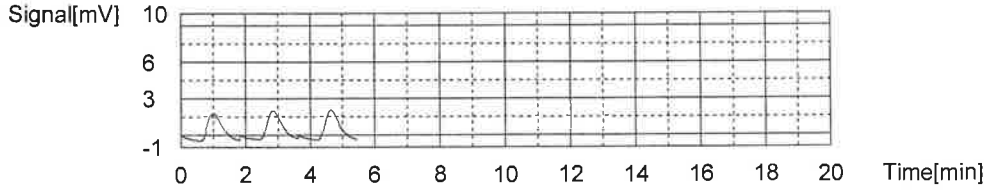
TOC 3
07222024
DEW

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.962	2500uL	1	*******		7/22/2024 2:33:54 AM
2	7.194	2500uL	1	*******		7/22/2024 2:38:10 AM
3	7.487	2500uL	1	*******		7/22/2024 2:43:03 AM

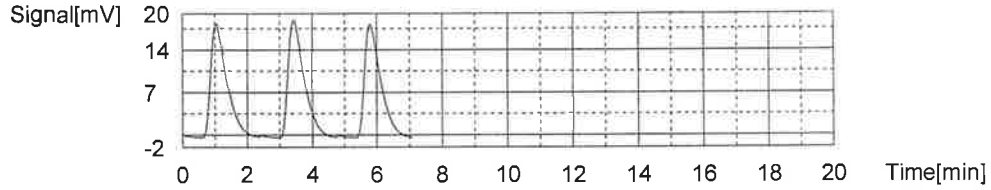
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 7.214



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	67.33	2500uL	1	*******		7/22/2024 2:54:15 AM
2	68.94	2500uL	1	*******		7/22/2024 2:58:43 AM
3	65.93	2500uL	1	*******		7/22/2024 3:03:10 AM

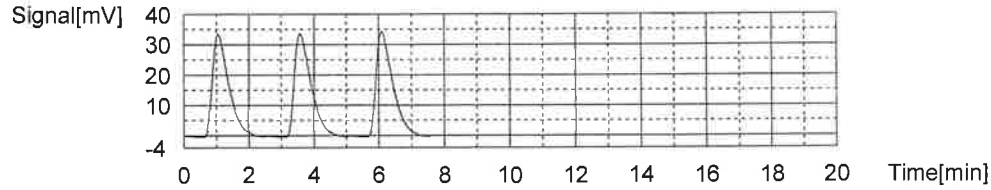
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 67.40



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	123.2	2500uL	1	*******		7/22/2024 3:14:29 AM
2	125.5	2500uL	1	*******		7/22/2024 3:19:06 AM
3	126.8	2500uL	1	*******		7/22/2024 3:23:43 AM

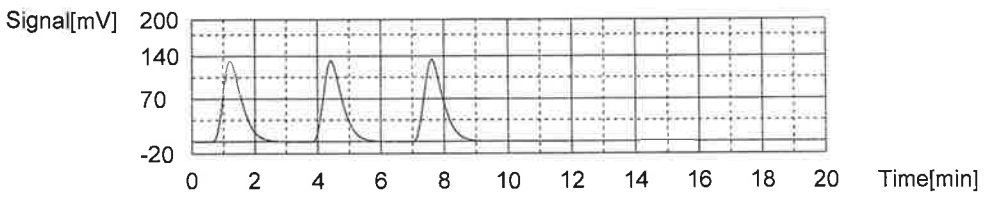
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 125.2



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	561.4	2500uL	1	*******		7/22/2024 3:35:44 AM
2	568.8	2500uL	1	*******		7/22/2024 3:41:00 AM
3	579.6	2500uL	1	*******		7/22/2024 3:46:16 AM

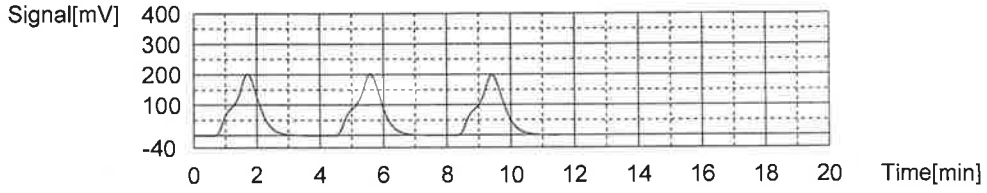
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 569.9



Conc: 10.00mg/L

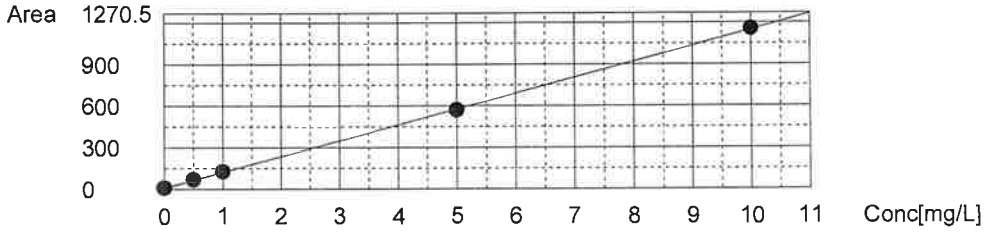
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1152	2500uL	1	*******		7/22/2024 3:58:54 AM
2	1166	2500uL	1	*******		7/22/2024 4:04:51 AM
3	1147	2500uL	1	*******		7/22/2024 4:10:46 AM

Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 1155



Slope: 114.3
Intercept 7.742
r^2 0.999871
r 0.999935
Zero Shift No

M
y



Conc	A	A-yint	%
y	7.214		
0.5	67.40	0.522	104
1.0	125.20	1.028	103
5.0	569.9	4.918	98
10.0	1155	10.04	1.00

✓ DOM

Instr.Information

System	TOCVwp 6
Instrument Options	TOC/ASI/

Cal. Curve

TOC6
072224
DEW

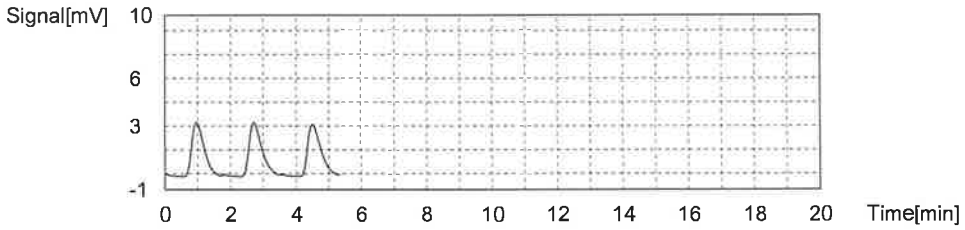
Sample Name:	07222024 TOC6 CURVE
Sample ID:	
Cal. Curve:	07222024 TOC6 CURVE.2024_07_22_02_16_07.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.067	2500uL	1	*******		7/22/2024 2:26:26 AM
2	9.342	2500uL	1	*******		7/22/2024 2:30:50 AM
3	9.231	2500uL	1	*******		7/22/2024 2:35:13 AM

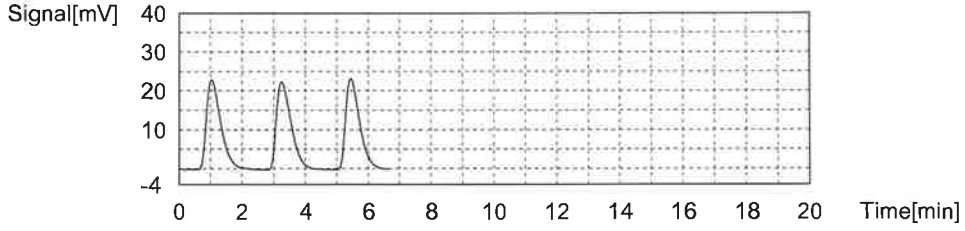
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 9.213



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	74.20	2500uL	1	*******		7/22/2024 2:46:00 AM
2	74.16	2500uL	1	*******		7/22/2024 2:50:18 AM
3	74.24	2500uL	1	*******		7/22/2024 2:54:36 AM

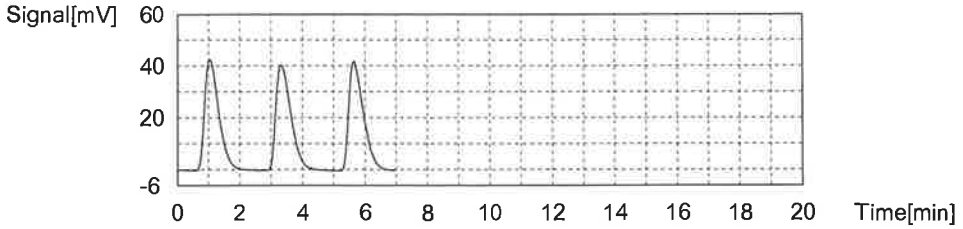
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 74.20



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	138.2	2500uL	1	*******		7/22/2024 3:05:27 AM
2	138.7	2500uL	1	*******		7/22/2024 3:09:53 AM
3	139.5	2500uL	1	*******		7/22/2024 3:14:19 AM

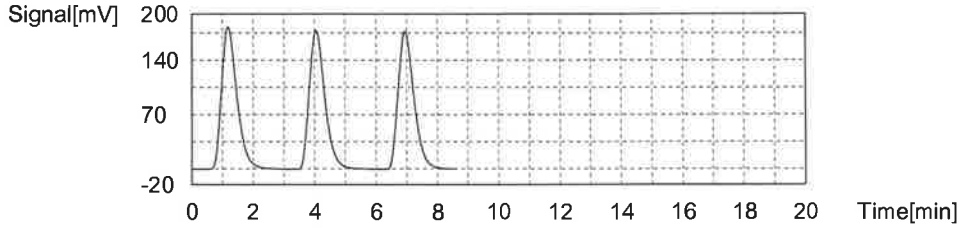
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 138.8



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	654.6	2500uL	1	*******		7/22/2024 3:25:44 AM
2	655.7	2500uL	1	*******		7/22/2024 3:30:43 AM
3	657.5	2500uL	1	*******		7/22/2024 3:35:43 AM

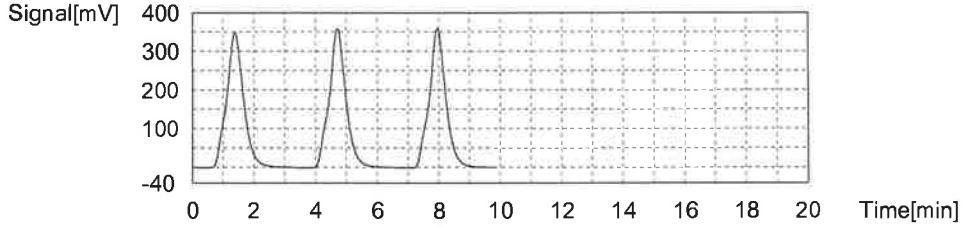
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 655.9



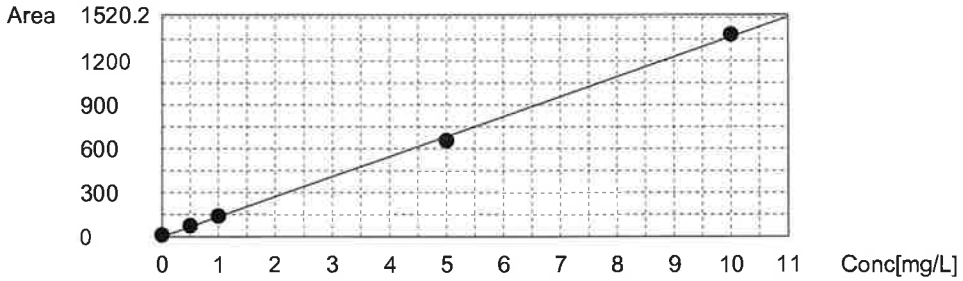
Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1374	2500uL	1	*******		7/22/2024 3:47:36 AM
2	1384	2500uL	1	*******		7/22/2024 3:52:56 AM
3	1388	2500uL	1	*******		7/22/2024 3:58:24 AM

Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 1382



Slope: 136.7
Intercept 0.8264
r^2 0.9992
r 0.9996
Zero Shift No



Conc.	A	A-y int	%
0	9.213		
0.5	74.20	0.537	107
1.0	138.8	1.099	101
5.0	655.9	4.79	96
10.0	1382	10.10	101

✓ DEW

Sample Raw Data

Instr.Information

System TOCVwp 6
Instrument Options TOC/ASI/

Sample

Sample Name: DI
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

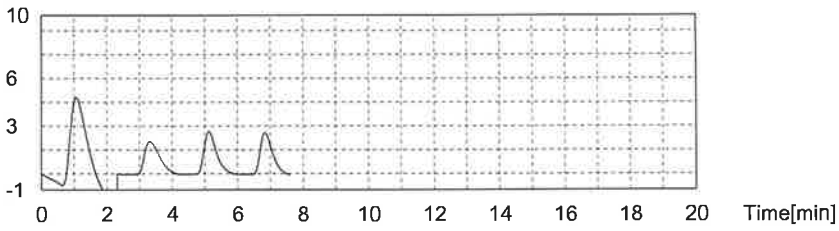
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07211mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.99	0.1548mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:37:11 AM
2	6.717	0.04308mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:41:21 AM
3	7.071	0.04567mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:46:11 AM
4	6.967	0.04491mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:50:29 AM

Mean Area 10.69
Mean Conc. 0.07211mg/L



Sample

Sample Name: IC CK STD
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

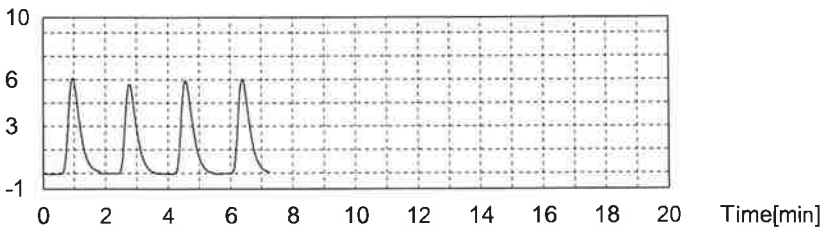
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1075mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.76	0.1092mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:00:52 AM
2	14.77	0.1020mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:05:37 AM
3	15.72	0.1089mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:10:24 AM
4	15.85	0.1099mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:15:10 AM

Mean Area 15.53
Mean Conc. 0.1075mg/L



Sample

Sample Name: ICV
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

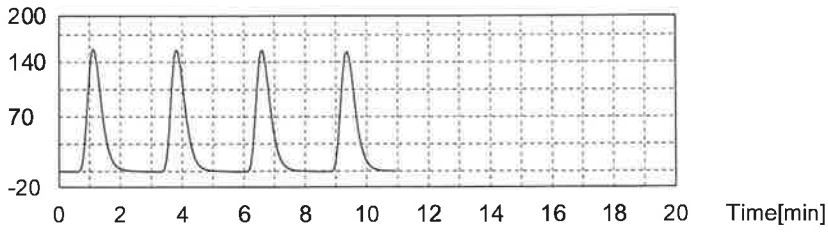
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.830mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	521.0	3.804mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:26:26 AM
2	525.4	3.837mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:31:18 AM
3	522.9	3.818mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:36:09 AM
4	528.5	3.859mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:40:59 AM

Mean Area 524.5
Mean Conc. 3.830mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

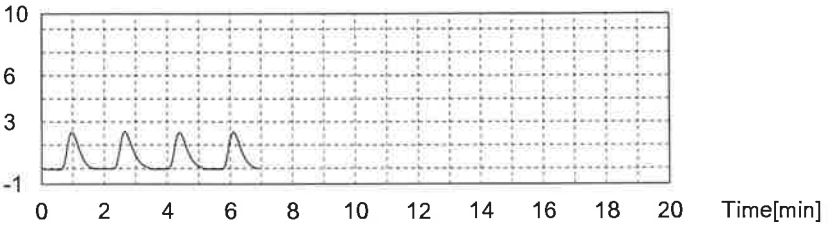
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04176mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.423	0.04093mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:51:14 AM
2	6.606	0.04227mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:55:35 AM
3	6.467	0.04125mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:59:52 AM
4	6.650	0.04259mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:04:11 AM

Mean Area 6.537
Mean Conc. 0.04176mg/L



Sample

Sample Name: MB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

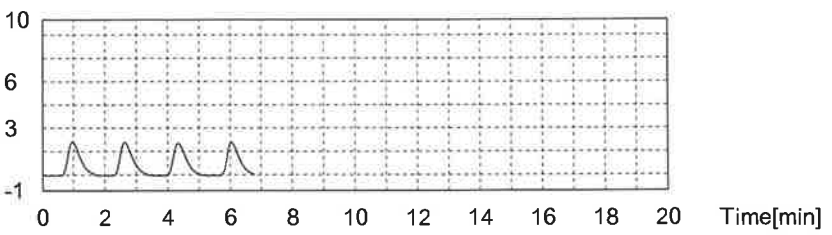
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03611mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.763	0.03611mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:14:25 AM
2	5.778	0.03622mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:18:45 AM
3	5.780	0.03623mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:23:04 AM
4	5.734	0.03589mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:27:21 AM

Mean Area 5.764
Mean Conc. 0.03611mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

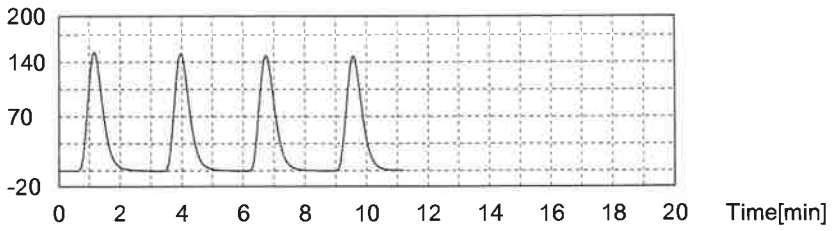
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.906mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	533.8	3.898mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:38:44 AM
2	533.7	3.897mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:43:36 AM
3	536.1	3.915mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:48:30 AM
4	535.8	3.913mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:53:24 AM

Mean Area 534.9
Mean Conc. 3.906mg/L



Sample

Sample Name: L2446555-06 FB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

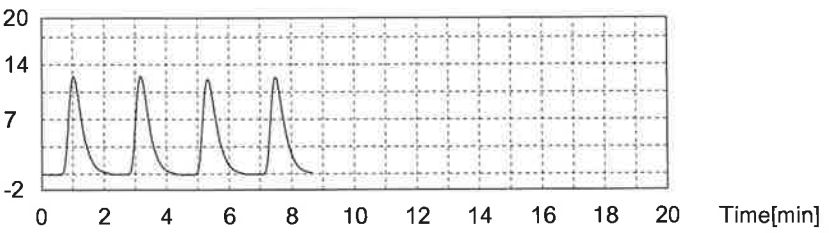
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2788mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	38.85	0.2781mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:57:59 AM
2	39.11	0.2800mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:02:17 AM
3	39.06	0.2796mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:06:36 AM
4	38.77	0.2775mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:10:54 AM

Mean Area 38.95
Mean Conc. 0.2788mg/L



Sample

Sample Name: L2446555-04; 1600X MILKY
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

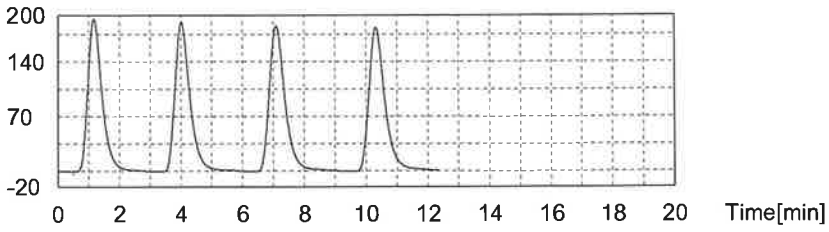
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.815mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	637.1	4.654mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:22:17 AM
2	658.9	4.813mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:27:26 AM
3	668.2	4.881mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:32:52 AM
4	672.7	4.914mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:38:12 AM

Mean Area 659.2
Mean Conc. 4.815mg/L



Sample

Sample Name: L2446148-01
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

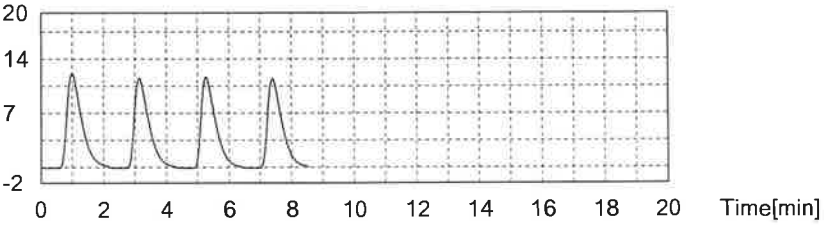
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2730mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.95	0.2861mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:48:55 AM
2	37.43	0.2677mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:53:12 AM
3	38.09	0.2725mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 5:57:29 AM
4	37.16	0.2657mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:01:48 AM

Mean Area 38.16
Mean Conc. 0.2730mg/L



Sample

Sample Name: L2446148-02
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

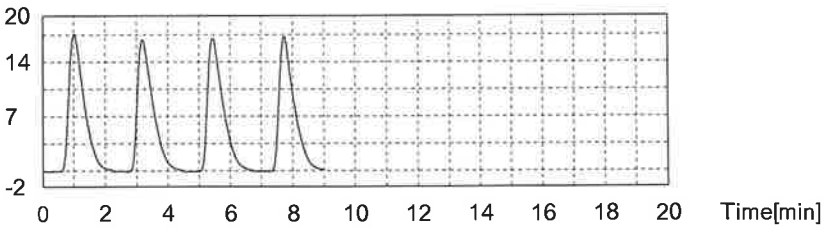
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4262mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.65	0.4302mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:12:33 AM
2	58.98	0.4253mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:16:55 AM
3	59.39	0.4283mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:21:18 AM
4	58.36	0.4208mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:25:39 AM

Mean Area 59.09
Mean Conc. 0.4262mg/L



Sample

Sample Name: L2446148-03
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

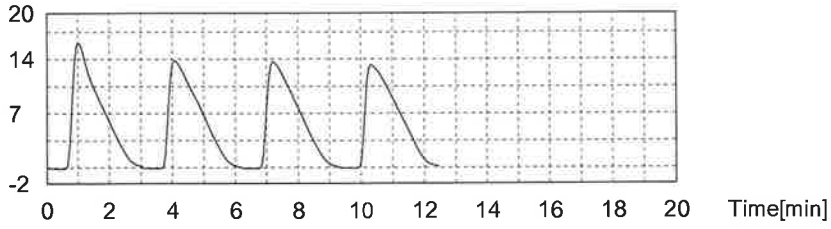
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6999mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	99.09	0.7187mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:37:16 AM
2	96.10	0.6968mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:42:29 AM
3	94.97	0.6885mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:47:43 AM
4	95.91	0.6954mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:52:58 AM

Mean Area 96.52
Mean Conc. 0.6999mg/L



Sample

Sample Name: L2446148-04
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

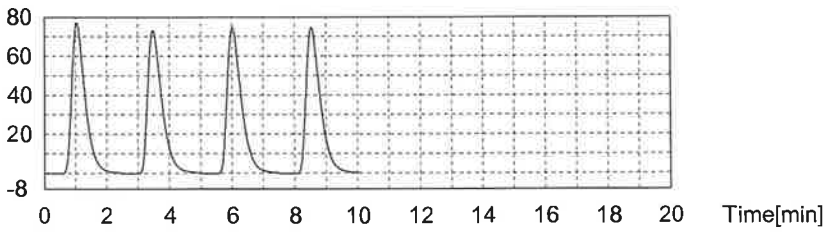
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.740mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	237.7	1.732mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:03:58 AM
2	236.7	1.725mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:08:36 AM
3	240.0	1.749mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:13:13 AM
4	240.8	1.755mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:17:53 AM

Mean Area 238.8
Mean Conc. 1.740mg/L



Sample

Sample Name: L2446194-01
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

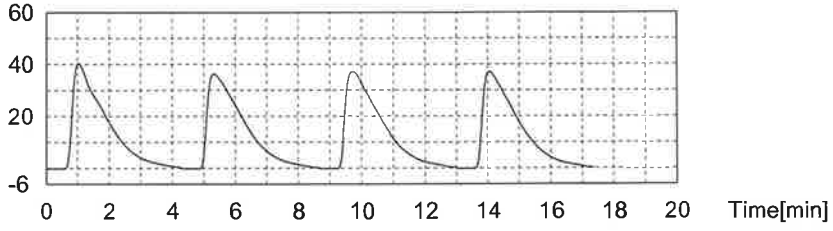
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.147mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	295.2	2.153mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:30:43 AM
2	293.0	2.137mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:37:11 AM
3	295.4	2.154mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:43:38 AM
4	294.0	2.144mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:50:07 AM

Mean Area 294.4
Mean Conc. 2.147mg/L



Sample

Sample Name: L2446194-02; 2X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

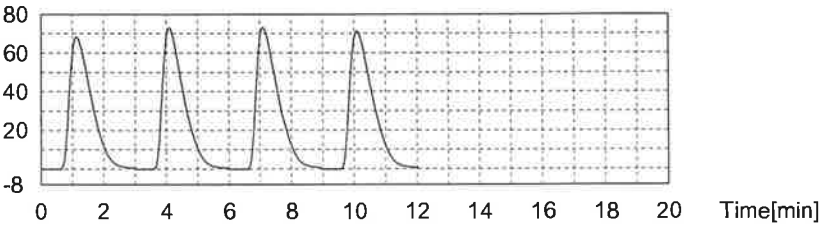
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.573mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	336.5	2.455mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 8:01:39 AM
2	349.9	2.553mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 8:06:45 AM
3	360.0	2.627mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 8:11:49 AM
4	364.0	2.656mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 8:17:03 AM

Mean Area 352.6
Mean Conc. 2.573mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

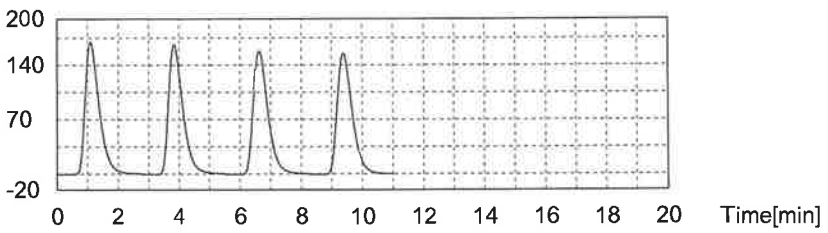
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.001mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	552.5	4.035mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 8:51:34 AM
2	549.2	4.011mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 8:56:35 AM
3	546.2	3.989mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:02:24 AM
4	543.6	3.970mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:07:15 AM

Mean Area 547.9
Mean Conc. 4.001mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

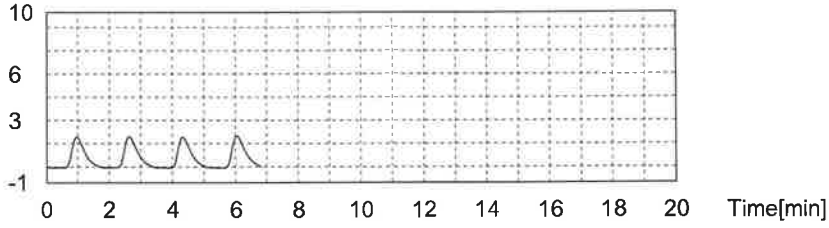
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03420mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.237	0.03226mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:17:29 AM
2	5.513	0.03428mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:21:49 AM
3	5.540	0.03447mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:26:08 AM
4	5.721	0.03580mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:30:27 AM

Mean Area 5.503
Mean Conc. 0.03420mg/L



Sample

Sample Name: L2446194-03; 2X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

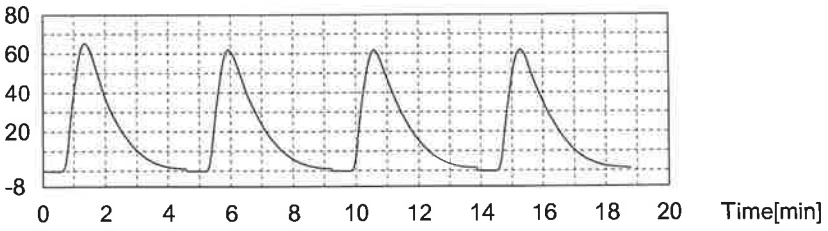
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.876mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	533.6	3.897mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:43:36 AM
2	521.7	3.810mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:50:36 AM
3	527.7	3.853mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 9:57:41 AM
4	540.3	3.946mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 10:05:01 AM

Mean Area 530.8
Mean Conc. 3.876mg/L



Sample

Sample Name: L2446194-04
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

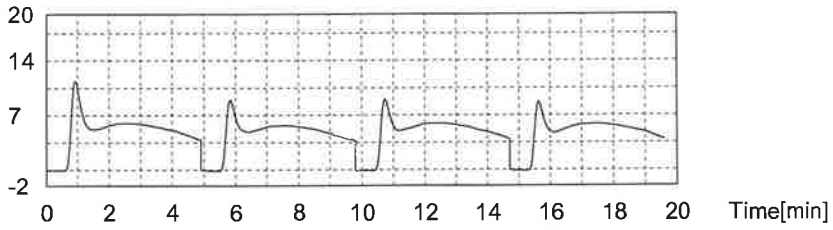
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6630mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.73	0.7160mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 10:18:29 AM
2	87.38	0.6330mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 10:26:28 AM
3	91.63	0.6641mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 10:34:28 AM
4	88.17	0.6388mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 10:42:26 AM

Mean Area 91.48
Mean Conc. 0.6630mg/L



Sample

Sample Name: L2446148-01 DUP
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

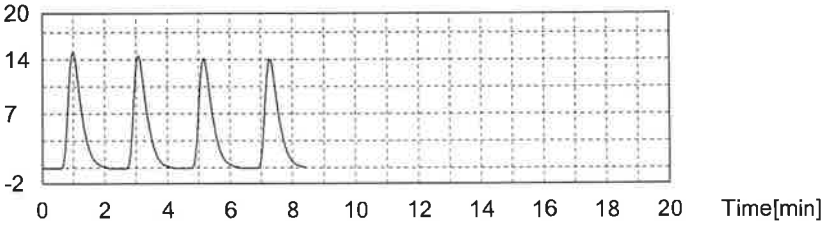
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3114mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.69	0.3208mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 10:53:05 AM
2	43.36	0.3111mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 10:57:23 AM
3	42.76	0.3067mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 11:01:43 AM
4	42.78	0.3068mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 11:06:01 AM

Mean Area 43.40
Mean Conc. 0.3114mg/L



Sample

Sample Name: L2446148-01 SPK 4X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

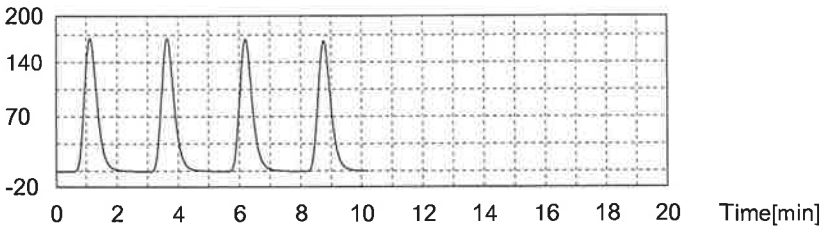
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.684mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	502.3	3.668mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 11:17:06 AM
2	505.5	3.691mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 11:21:45 AM
3	504.4	3.683mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 11:26:24 AM
4	506.1	3.695mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 11:31:05 AM

Mean Area 504.6
Mean Conc. 3.684mg/L



Sample

Sample Name: L2446208-01
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

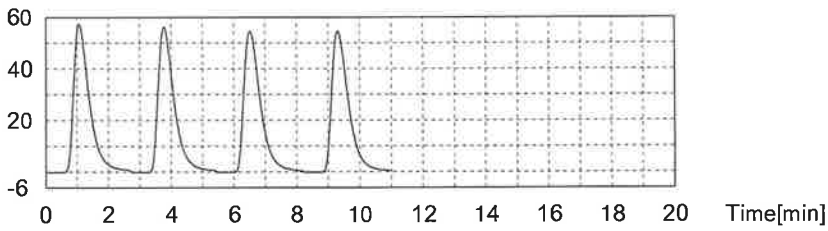
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.474mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	200.2	1.458mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 11:56:06 AM
2	202.3	1.474mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:00:56 PM
3	203.2	1.480mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:05:49 PM
4	204.0	1.486mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:10:40 PM

Mean Area 202.4
Mean Conc. 1.474mg/L



Sample

Sample Name: L2446208-02
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

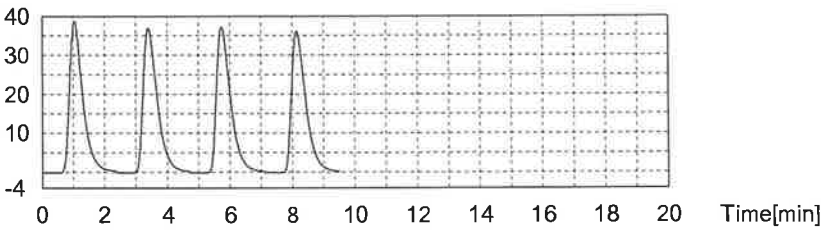
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8526mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	117.0	0.8497mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:21:35 PM
2	116.9	0.8489mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:26:02 PM
3	117.7	0.8548mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:30:31 PM
4	118.0	0.8570mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:35:02 PM

Mean Area 117.4
Mean Conc. 0.8526mg/L



Sample

Sample Name: L2446208-03
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

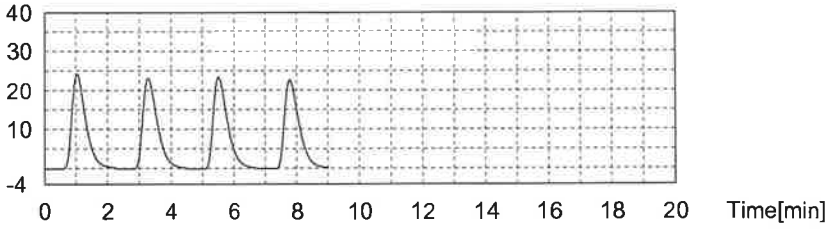
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5401mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.75	0.5407mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:45:50 PM
2	74.28	0.5372mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:50:10 PM
3	75.26	0.5444mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:54:32 PM
4	74.43	0.5383mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 12:58:53 PM

Mean Area 74.68
Mean Conc. 0.5401mg/L



Sample

Sample Name: L2446208-04; 2X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

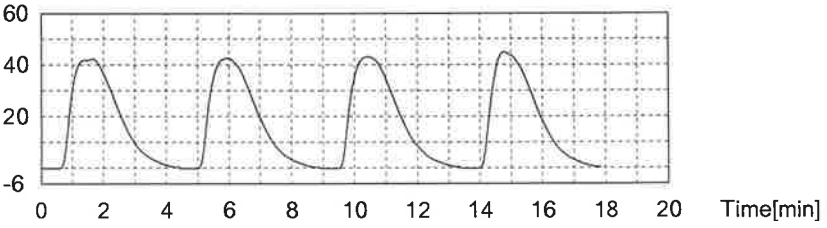
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.232mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	436.9	3.189mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:11:51 PM
2	439.8	3.211mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:18:26 PM
3	445.2	3.250mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:25:01 PM
4	449.1	3.279mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:31:35 PM

Mean Area 442.8
Mean Conc. 3.232mg/L



Sample

Sample Name: L2446208-05
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

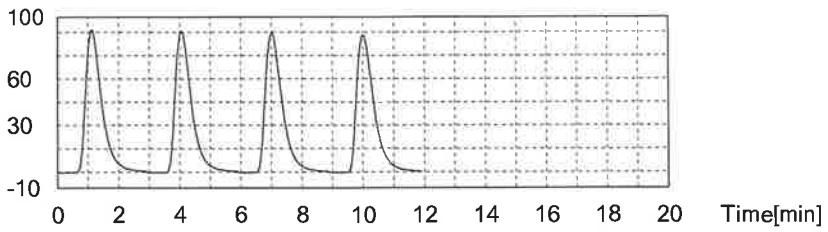
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.526mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	340.6	2.485mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:43:05 PM
2	344.1	2.511mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:48:08 PM
3	348.2	2.541mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:53:13 PM
4	352.1	2.569mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 1:58:20 PM

Mean Area 346.3
Mean Conc. 2.526mg/L



Sample

Sample Name: L2446208-06
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

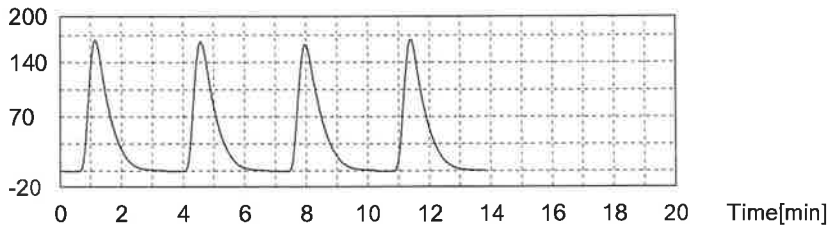
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.732mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	769.6	5.623mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:10:19 PM
2	776.4	5.672mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:15:57 PM
3	792.2	5.788mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:21:36 PM
4	800.1	5.846mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 2:27:20 PM

Mean Area 784.6
Mean Conc. 5.732mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

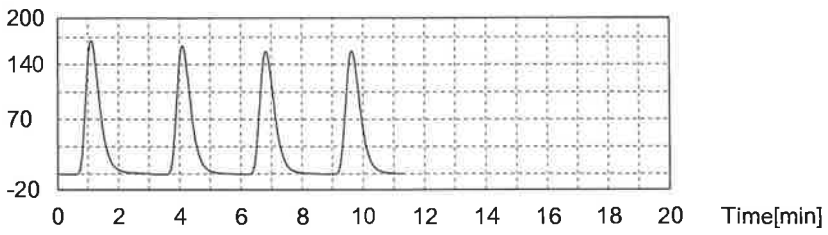
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.037mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	570.2	4.164mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:09:52 PM
2	546.7	3.992mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:14:40 PM
3	547.0	3.995mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:19:38 PM
4	547.2	3.996mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:24:33 PM

Mean Area 552.8
Mean Conc. 4.037mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

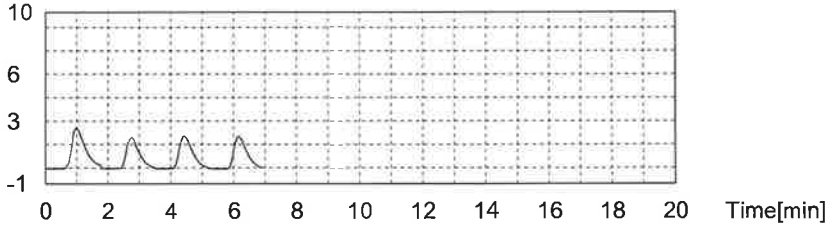
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03873mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.501	0.04882mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:34:54 PM
2	5.318	0.03285mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:39:12 PM
3	5.934	0.03736mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:43:33 PM
4	5.737	0.03592mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:47:49 PM

Mean Area 6.123
Mean Conc. 0.03873mg/L



Sample

Sample Name: L2446208-01 DUP
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

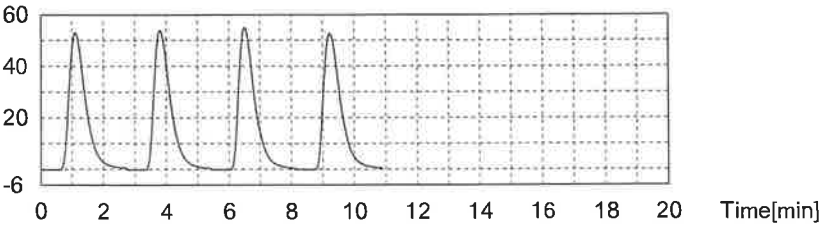
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.453mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	197.0	1.435mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 3:59:07 PM
2	198.6	1.446mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:03:55 PM
3	200.0	1.457mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:08:43 PM
4	202.5	1.475mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:13:35 PM

Mean Area 199.5
Mean Conc. 1.453mg/L



Sample

Sample Name: L2446208-01 SPK 4X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

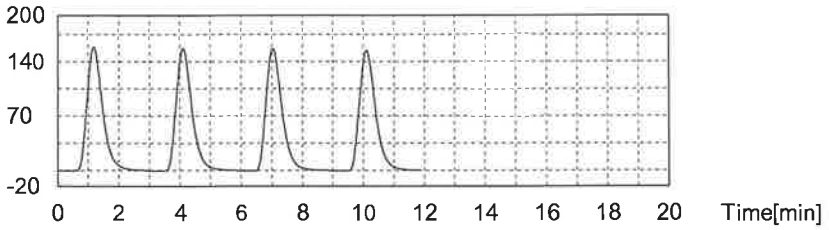
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.204mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	571.7	4.175mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:25:05 PM
2	575.0	4.199mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:30:18 PM
3	577.8	4.220mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:35:27 PM
4	577.9	4.221mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 4:40:31 PM

Mean Area 575.6
Mean Conc. 4.204mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

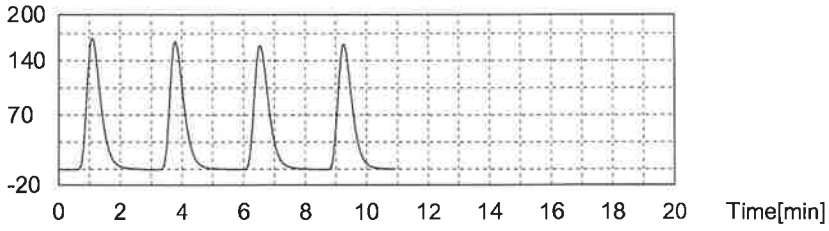
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.966mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	547.4	3.998mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:40:59 PM
2	543.4	3.968mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:45:49 PM
3	542.1	3.959mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:50:38 PM
4	539.5	3.940mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 6:55:31 PM

Mean Area 543.1
Mean Conc. 3.966mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

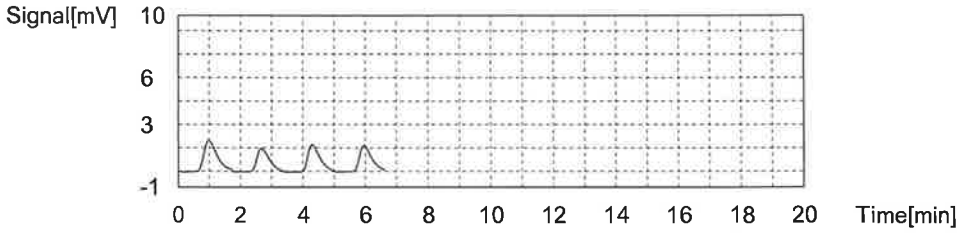
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02769mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.575	0.03473mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:05:49 PM
2	3.953	0.02287mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:10:18 PM
3	4.575	0.02742mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:14:37 PM
4	4.345	0.02573mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/19/2024 7:18:54 PM

Mean Area 4.612
Mean Conc. 0.02769mg/L



Instr.Information

System TOC-VW
Detector Wet Chemical

Sample

Sample Name: DI
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

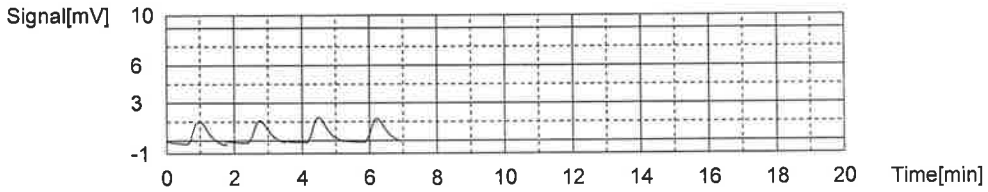
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02024mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.411	-0.02039mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:38:40 AM
2	5.231	-0.02197mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:43:39 AM
3	5.697	-0.01789mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:48:27 AM
4	5.374	-0.02072mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:53:13 AM

Mean Area 5.428
Mean Conc. -0.02024mg/L



Sample

Sample Name: IC CK STD
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

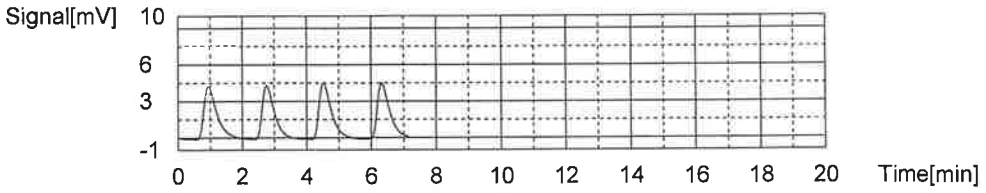
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03740mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.86	0.03603mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:03:58 AM
2	11.65	0.03419mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:09:36 AM
3	12.43	0.04101mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:15:31 AM
4	12.13	0.03839mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:21:21 AM

Mean Area 12.02
Mean Conc. 0.03740mg/L



Sample

Sample Name: ICV
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

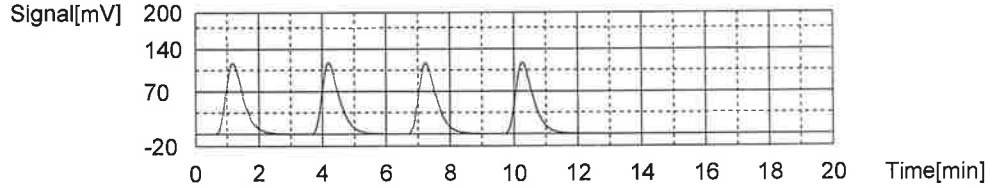
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.997mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	464.4	3.995mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:33:39 AM
2	464.9	4.000mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:38:47 AM
3	463.5	3.987mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:43:55 AM
4	465.7	4.007mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:49:01 AM

Mean Area 464.6
Mean Conc. 3.997mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

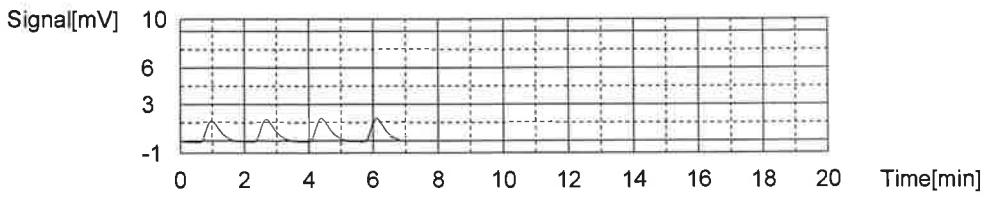
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02325mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.714	-0.02649mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:59:36 AM
2	5.087	-0.02323mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:04:21 AM
3	5.339	-0.02102mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:09:06 AM
4	5.196	-0.02227mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:13:49 AM

Mean Area 5.084
Mean Conc. -0.02325mg/L



Sample

Sample Name: MB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

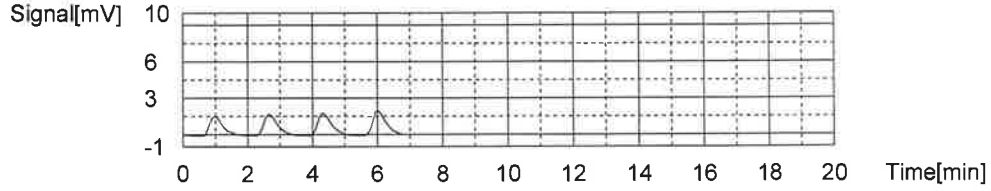
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02414mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.411	-0.02914mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:25:03 AM
2	4.774	-0.02597mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:29:46 AM
3	5.060	-0.02346mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:34:29 AM
4	5.687	-0.01798mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:39:15 AM

Mean Area 4.983
Mean Conc. -0.02414mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

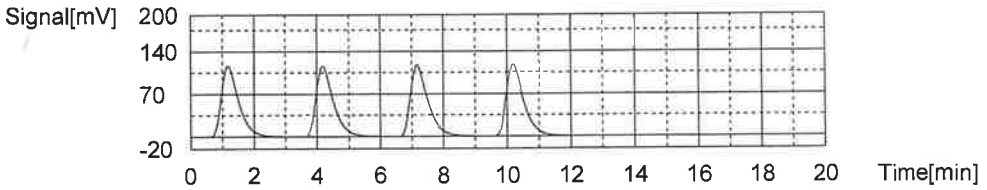
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.940mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	453.5	3.900mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:51:32 AM
2	455.0	3.913mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:56:37 AM
3	464.0	3.992mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:01:44 AM
4	460.0	3.957mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:06:50 AM

Mean Area 458.1
Mean Conc. 3.940mg/L



Sample

Sample Name: FB 8/17 830 46922 ALL DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

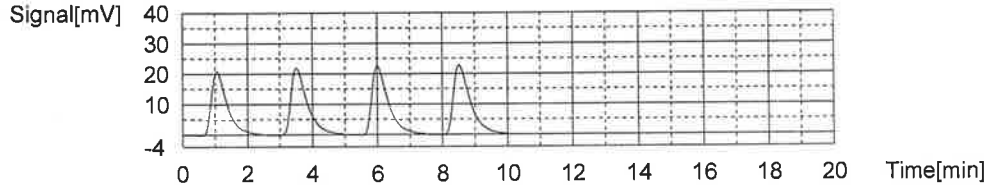
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6151mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.04	0.5625mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:26:57 AM
2	77.40	0.6094mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:31:32 AM
3	79.99	0.6321mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:36:09 AM
4	82.79	0.6566mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:40:48 AM

Mean Area 78.06
Mean Conc. 0.6151mg/L



Sample

Sample Name: FB 8/16 720 46555
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

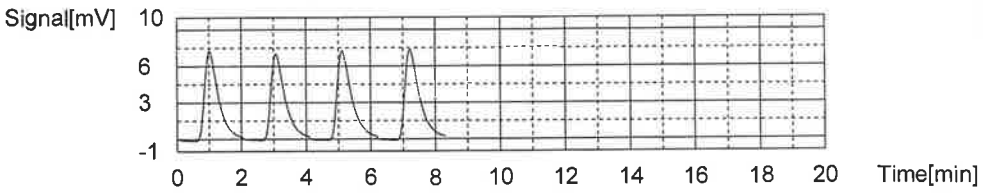
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1301mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.35	0.1278mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:51:47 AM
2	21.80	0.1230mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:56:04 AM
3	22.95	0.1330mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:00:24 AM
4	23.34	0.1365mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:04:41 AM

Mean Area 22.61
Mean Conc. 0.1301mg/L



Sample

Sample Name: 46555-06 FB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

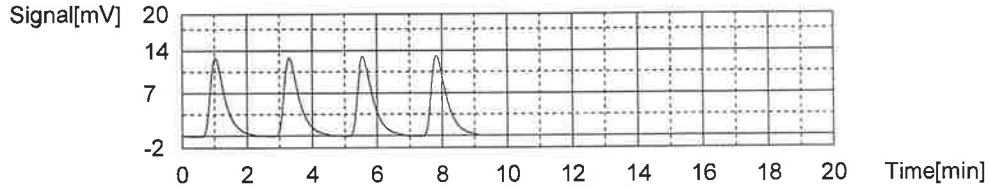
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3049mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.89	0.2987mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:16:11 AM
2	42.17	0.3012mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:20:33 AM
3	42.56	0.3046mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:24:55 AM
4	43.76	0.3151mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:29:18 AM

Mean Area 42.59
Mean Conc. 0.3049mg/L



Sample

Sample Name: 46555-04 1600X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.461mg/L

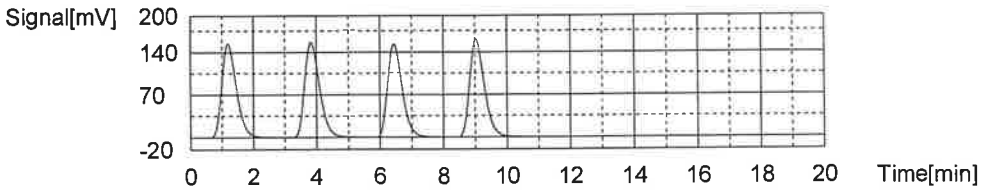
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	513.5	4.425mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:40:56 AM
2	523.3	4.510mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:45:39 AM
3	501.7	4.321mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:50:20 AM
4	532.1	4.587mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:55:03 AM

7138
1600 x

Mean Area 517.7
Mean Conc. 4.461mg/L



Sample

Sample Name: 46886-11 40X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:7.884mg/L

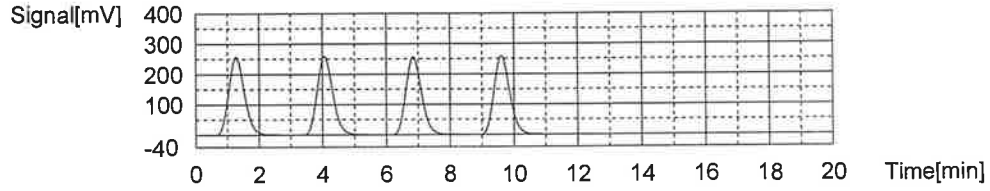
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	907.5	7.872mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:07:04 AM
2	906.4	7.862mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:11:57 AM
3	905.6	7.855mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:16:49 AM
4	916.3	7.949mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:21:41 AM

316
40f

Mean Area 909.0
Mean Conc. 7.884mg/L



Sample

Sample Name: 46886-14 400X
Sample ID: X
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4915mg/L

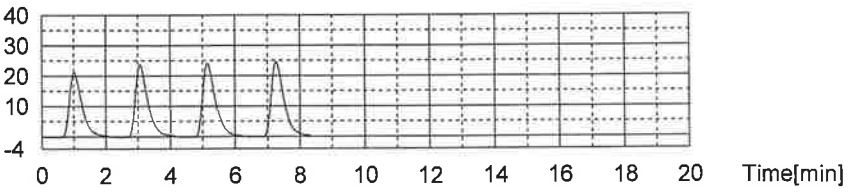
X

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.13	0.4408mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:32:57 AM
2	64.25	0.4944mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:37:16 AM
3	66.29	0.5122mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:41:35 AM
4	67.01	0.5185mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:45:49 AM

Mean Area 63.92
Mean Conc. 0.4915mg/L



Sample

Sample Name: 46886-16 400X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.014mg/L

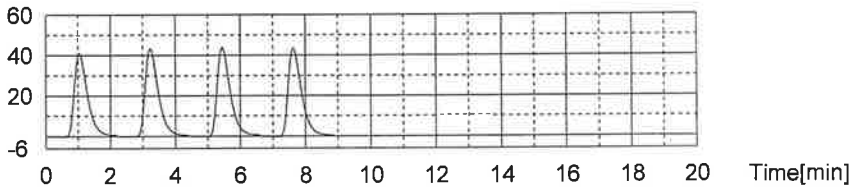
406
400x

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	117.8	0.9629mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:57:15 AM
2	124.2	1.019mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:01:43 AM
3	125.1	1.027mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:06:00 AM
4	127.3	1.046mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:10:23 AM

Mean Area 123.6
Mean Conc. 1.014mg/L



Sample

Sample Name: 46886-14 160X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.194mg/L

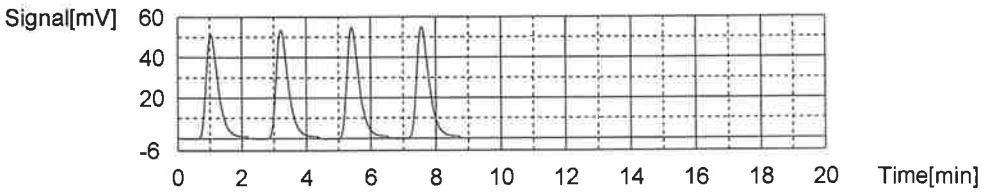
191
160x

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	137.5	1.135mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:25:54 AM
2	142.7	1.181mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:30:12 AM
3	147.0	1.218mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:34:32 AM
4	149.6	1.241mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:38:53 AM

Mean Area 144.2
Mean Conc. 1.194mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

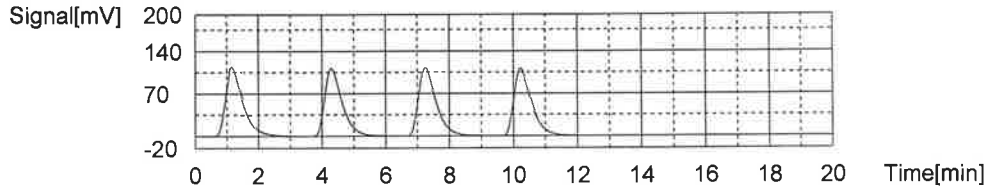
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.793mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	455.0	3.913mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:00:49 AM
2	436.7	3.753mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:05:52 AM
3	439.2	3.775mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:10:57 AM
4	434.4	3.733mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:16:04 AM

Mean Area 441.3
Mean Conc. 3.793mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

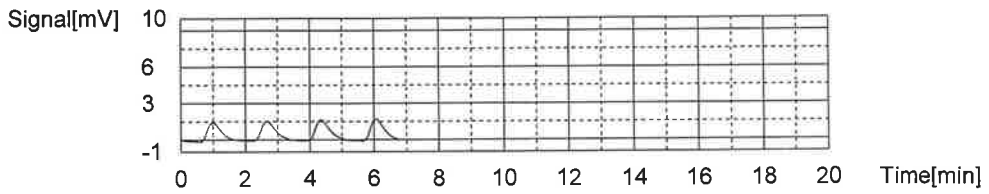
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02661mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.380	-0.02941mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:26:41 AM
2	4.481	-0.02853mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:31:24 AM
3	4.895	-0.02491mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:36:08 AM
4	5.047	-0.02358mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:40:52 AM

Mean Area 4.701
Mean Conc. -0.02661mg/L



Sample

Sample Name: 46886-11 DUP 40X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.359mg/L

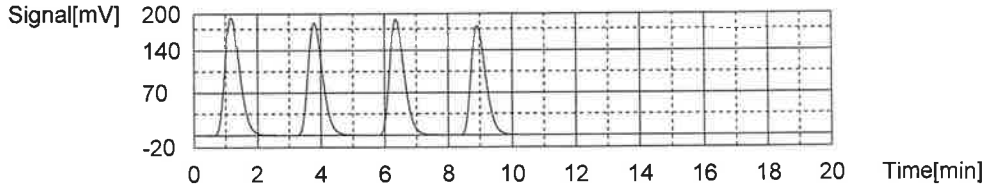
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	647.7	5.599mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:53:03 AM
2	610.2	5.271mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:57:43 AM
3	629.7	5.441mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:02:23 AM
4	593.6	5.125mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:07:03 AM

214
40X

Mean Area 620.3
Mean Conc. 5.359mg/L



Sample

Sample Name: 46886-11 SPK 160X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.729mg/L

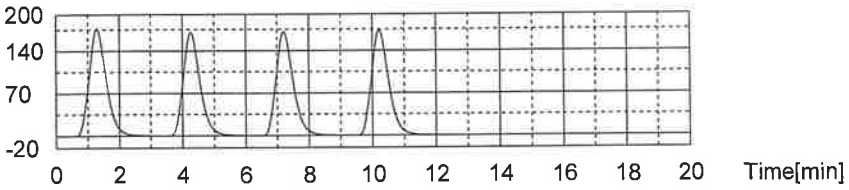
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	677.6	5.860mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:19:34 AM
2	650.9	5.627mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:24:37 AM
3	656.6	5.677mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:29:43 AM
4	665.4	5.754mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:34:48 AM

917
160X

Mean Area 662.6
Mean Conc. 5.729mg/L



Sample

Sample Name: FB 8/21 640 DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

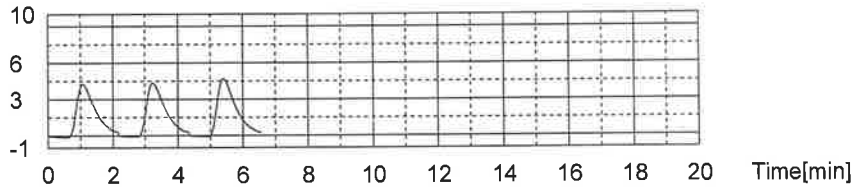
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.08254mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.47	0.07636mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 11:53:25 AM
2	16.70	0.07837mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 11:57:42 AM
3	18.36	0.09289mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:02:02 PM

Mean Area 17.18
Mean Conc. 0.08254mg/L



Sample

Sample Name: 47378-01 20X DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.135mg/L

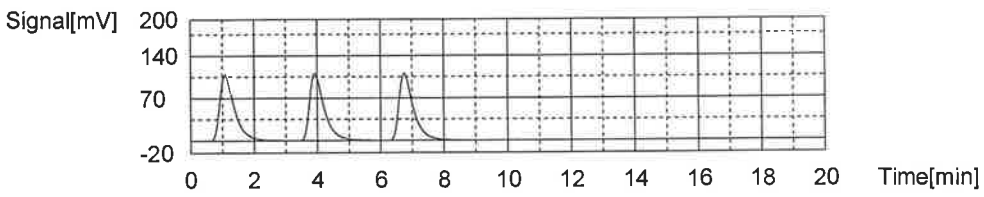
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	368.0	3.152mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:13:50 PM
2	366.4	3.138mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:18:46 PM
3	363.7	3.114mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:23:41 PM

62X
20+

Mean Area 366.0
Mean Conc. 3.135mg/L



Sample

Sample Name: 47378-01 DUP 20X DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.095mg/L

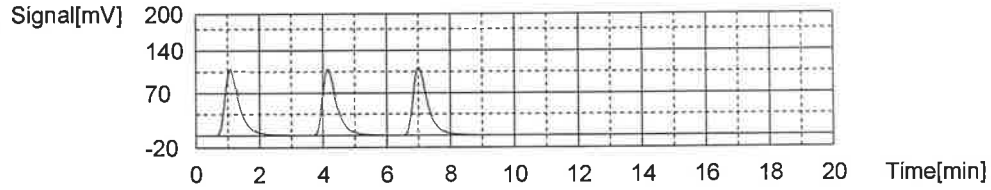
61.9 not

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	365.9	3.133mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:35:58 PM
2	354.2	3.031mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:40:55 PM
3	364.4	3.120mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:45:52 PM

Mean Area 361.5
Mean Conc. 3.095mg/L



Sample

Sample Name: 47378-01 SPK 40X DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.315mg/L

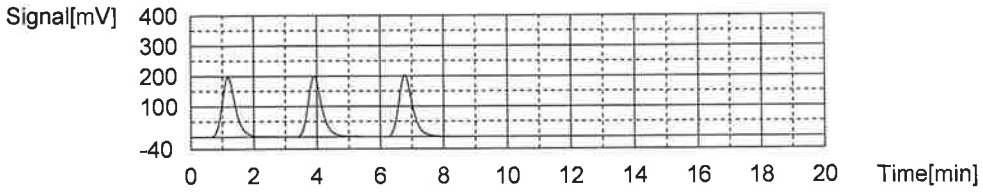
213 not

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	599.5	5.177mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:57:51 PM
2	618.8	5.346mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:03:04 PM
3	627.6	5.423mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:07:59 PM

Mean Area 615.3
Mean Conc. 5.315mg/L



Sample

Sample Name: 46922-03; 80X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.553mg/L

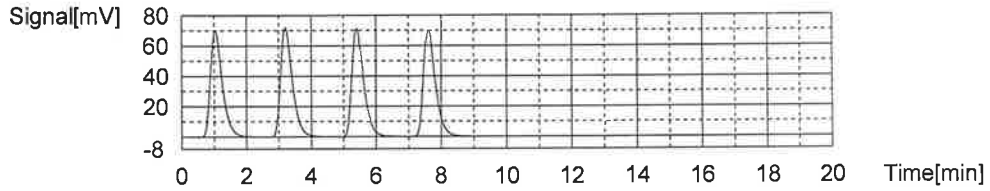
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.9	1.541mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:39:29 PM
2	186.9	1.567mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:43:48 PM
3	185.8	1.558mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:48:06 PM
4	184.2	1.544mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:52:24 PM

124
80X

Mean Area 185.2
Mean Conc. 1.553mg/L



Sample

Sample Name: 46922-04; 1600X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.698mg/L

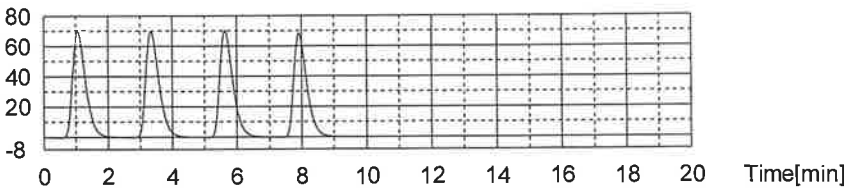
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	200.8	1.689mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:04:12 PM
2	205.7	1.732mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:08:36 PM
3	203.1	1.709mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:12:59 PM
4	197.6	1.661mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:17:21 PM

2717
1600X

Mean Area 201.8
Mean Conc. 1.698mg/L



Sample

Sample Name: 46922-05; 1600X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.341mg/L

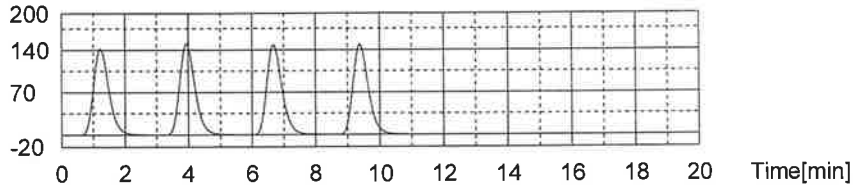
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	484.7	4.173mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:29:05 PM
2	514.7	4.435mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:33:56 PM
3	507.2	4.370mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:38:44 PM
4	509.2	4.387mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:43:34 PM

6946
1600X

Mean Area 504.0
Mean Conc. 4.341mg/L



Sample

Sample Name: 46922-06; 1600X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.207mg/L

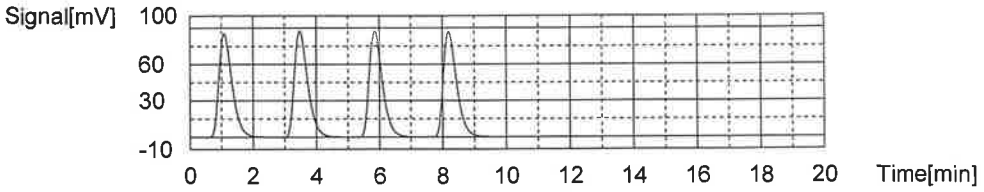
3531
1600X

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	254.7	2.161mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:55:10 PM
2	264.4	2.245mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:59:38 PM
3	262.2	2.226mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:04:05 PM
4	258.9	2.197mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:08:32 PM

Mean Area 260.1
Mean Conc. 2.207mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

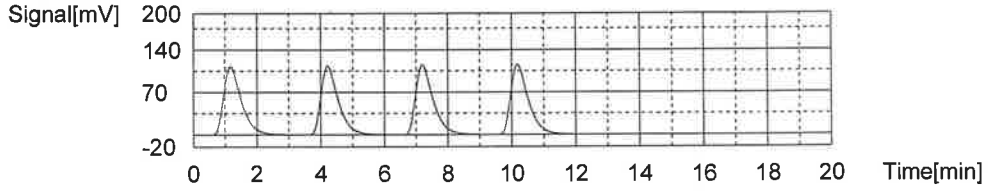
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.848mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	440.7	3.788mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:37:38 PM
2	443.4	3.811mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:42:43 PM
3	452.8	3.894mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:47:48 PM
4	453.3	3.898mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:52:56 PM

Mean Area 447.6
Mean Conc. 3.848mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

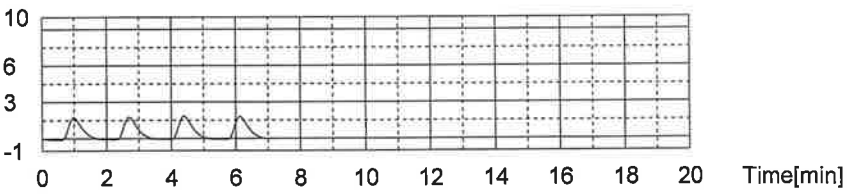
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02205mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.043	-0.02361mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:03:55 PM
2	5.133	-0.02283mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:08:38 PM
3	5.437	-0.02017mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:13:25 PM
4	5.275	-0.02158mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:18:10 PM

Mean Area	5.222
Mean Conc.	-0.02205mg/L



Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446886-11		
Matrix Spike	: WG1961842-4	**MS Analysis Date**	: 08/21/24 02:33
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Dissolved Organic Carbon	320	640	920	93					80-120	20

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446148-01		
Matrix Spike	: WG1960817-4	**MS Analysis Date**	: 08/19/24 11:31
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Total Organic Carbon	0.27J	16	15	92					80-120	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/21/24 02:33
Dup Sample ID	: WG1961842-3	**DUP Analysis Date**	: 08/21/24 02:33

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Dissolved Organic Carbon	320	210	42 Q	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/19/24 06:01
Dup Sample ID	: WG1960817-3	**DUP Analysis Date**	: 08/19/24 11:06

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Total Organic Carbon	0.27J	0.31J	NC	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1961842-2	**LCS Analysis Date**	: 08/21/24 02:33
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Dissolved Organic Carbon	**4.00**	**3.90**	**98.**					**90-110**	**20**

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1960817-2	**LCS Analysis Date**	: 08/19/24 03:53
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Total Organic Carbon	**4.00**	**3.90**	**98.**					**90-110**	**20**

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Total Organic Carbon	7440-44-0	0.5	0.114	mg/l	90-110		80-120	20	20	9060A	28 days	3 - Vial H2SO4 preserved
Total Organic Carbon	7440-44-0	0.5	0.114	mg/l	90-110		80-120	20	20	5310C	28 days	2 - Vial H2SO4 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of TOC

Aqueous samples:

The TOC Talk Software calculates the area of the peaks produced by the analyzer, compares them to the peak area of the calibration standard stored in its memory, and calculates a mean TOC value from two injections in mg/L.

If the sample was manually diluted prior to analysis, the calculated mean must be manually multiplied by the dilution factor. The Reported Detection Limit is also multiplied by the same dilution factor.

$$\text{Result, mg/L} = \frac{\text{area - y-intercept}}{\text{slope}} \times \text{Dilution Factor}$$

Sequence Logs

DATE: MON 08.14.24	CURVE ID: TOC6 072224	WORKING STDS ID:	
ANALYST: DMW	STOCK STDS ID:	4 PPM ICV:	TR- 081424- DCV
	2000 PPM CURVE SLN: TR- 071424-C	4 PPM LCS :	TR- 081424- LCS
	2000 PPM ICV/LCS/SPK SLN: TR- 071424-W	4 PPM SPK:	TR- 071424- W
	400 PPM IC CK STD SLN: TR- 073024- DCW	10 PPM IC CK STD:	TR- 081424- MCC

POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI2			
2	TC CCV			—
3	LCV			—
4	BLK			—
5	MMV			—
6	LCV			—
7	46555.6 FB		2	—
8	4	1600	2	— milky
9	46148.1	1	2	—
10	2	1	2	—
11	3	1	2	—
12	4	1	2	—
13	46194.1	1	2	—
14	2	2	2	—
15	CCV			—
16	8/14/24 CCB			—
17	~~46194.1 DUP~~	3	2x	- 46194.3
18	~~4~~	4	1x	- 4
19	46148.1 DUP	1		—
20	-1 SPK	4		—
21	208-1	1		—
22	-2	1		—
23	-3	1		—
24	-4	2		—
25	-5	1		—
26	-6	1		—

POSITION	SAMPLE	DIL X	PH	COMMENTS
27	CCV			—
28	CCB			—
29	208-1 DP	1		—
30	-1 SPK	4		
31	LCV			
32	LCS			
33				
34	DMW			
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				

DATE: Wed 082124	CURVE ID: 403 072224	WORKING STDS ID:	
ANALYST: DMW	STOCK STDS ID:	4 PPM ICV: TW 082124-ICV	
	2000 PPM CURVE SLN: TW 071924-C	4 PPM LCS: TW 082124-LCS	
	2000 PPM ICV/LCS/SPK SLN: TW 071924-W	4 PPM SPK: TW 071924-W	
	400 PPM IC CK STD SLN: TW 073024-1 4W	10 PPM IC CK STD: TW 082124-ICCK	

POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI			
2	~~RCA(LCW)~~			—
3	ICV			—
4	~~ICB~~			—
5	MB3			—
6	LCS (4W 1:10)			— JOB #
7	RB 8/17 730			— 46922
8	RB 8/16 720			— 46555
9	46555.6 FB3	1	2	—
10	4	1600	2	—
11	46836.11	40	2	—
12	14	400	2	X 10W
13	16	400	2	—
14	14 ~~1600~~	1600	2	—
15	LCW			—
16	4W			—
17	46836.11 dup	40	2	—
18	11 spk	160	2	—
19	RB 8/21 640	1	2	—
20	47378.1 DUP	20	2	—
21	.1 dup	20	2	—
22	.1 spk	40	2	—
23	22-3	80		—
24	-4	1600		—
25	-5	1600		—
26	-6	1600		—

POSITION	SAMPLE	DIL X	PH	COMMENTS
27	CCV			—
28	CCB			—
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
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47				
48				
49				
50				
51				
52				

Sulfate Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-04	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/21/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962209.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/21/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	19.	100	14.	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/21/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962209.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/21/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	1.8	10	1.4	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962209-1	**Date Collected**	: NA
Client ID	: WG1962209-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962209.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/21/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	2.1	10	1.4	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962209-3	**Date Collected**	: 08/15/24 09:10
Client ID	: WG1962209-3 DUP	**Date Received**	: 08/15/24
Sample Location	:	**Date Analyzed**	: 08/21/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962209.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/21/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	11.	10	1.4	

Sample Raw Data

ALPHA ANALYTICAL LABS

WET CHEMISTRY DEPARTMENT

S U L F A T E

Last Change 3/5/13
File SO4-L.xlt
Curve/spike/ccv;wc3437
LCS;wc3373
Reagent;lot A4117
Pippette/s: 322, 424
Acrodisk: FJ5503
Syringe: 2125536

Sample Number: _____
Client: _____
Analysis: Sulfate, SO4
Method: EPA 9038
Instrument: SPEC6
Wavelength: 420 nm
Spike Volume(ml): 0.5
Spike Concentration (mg/l): 1000

Product: SO4-9038
Curve Calibration Date : 08/21/24
Curve Identifier: 8/21/2024
Analysis Analyte: Sulfate
Analysis Date: 8/21/2024 15:00
Preparation Date: 8/21/2024 15:00
Technician: MRW
Work group: WG1962209
RL: 10 mg/l
Cell: 2.5 cm

Standard ID	Mean signal (pk area) abs	Dilution	Calc-ed Result
0	0.000	1.0	1.61
10	0.160	1.0	8.30
20	0.424	1.0	19.3
40	0.936	1.0	40.8

Calibration Curve
Volume: 25 ml

Slope	y-intercept
0.023909	-0.0384

Correlation Coefficient
0.996317

ICV/LCS Concentration (mg/l) = 20.0000

	Sample number	Sample Volume (ml)	Final Volume (ml)	Bkgd. Abs.	Gross Abs.	Net Absorbance	RESULT (mg/l)	Dilution Factor	RL Multiplier	FINAL RESULT (mg/l)	
	ICB	25	25	0	0.008	0.008	2.055	1	1.0	2.1	Recovery
	ICV	25	25	0	0.404	0.404	18.496	1	1.0	18.5	92%
SAMP	L2446490-07	25	25	0.002	0.209	0.207	10.317	1	1.0	10.3	
SAMP	L2446490-08	25	25	0.002	0.37	0.368	17.002	1	1.0	17.0	
SAMP	L2446555-04	2.5	25	0.192	0.197	0.005	1.931	1	10.0	19.3	FILTERED
SAMP	L2446555-06	25	25	0	0.002	0.002	1.806	1	1.0	1.8	
SAMP	L2446583-03	25	25	0.014	0.291	0.277	13.224	1	1.0	13.2	
SAMP	L2446583-04	0.5	25	0.007	0.36	0.353	16.379	1	50.0	819.0	
SAMP	L2446583-05	0.5	25	0.001	0.931	0.930	40.335	1	50.0	2016.8	
SAMP	L2446583-06	2.5	25	0.003	0.414	0.411	18.787	1	10.0	187.9	
	CCV	25	25	0	0.395	0.395	18.123	1	1.0	18.1	
	CCB	25	25	0	0.009	0.009	2.097	1	1.0	2.1	
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
BLANK	WG1962209-1	25	25	0.000	0.008	0.008	2.055	1	1.0	2.1	
DUP	WG1962209-3	25	25	0.002	0.218	0.216	10.691	1	1.0	10.7	L2446490-07

	Sample number	sample volume	Final volume (ml)	Bkgd. Abs.	Gross Abs.	Absorbance	Sample Result mg/l	Spiked Volume	Spike conc. mg/l	Spike Result mg/l	Recovery %
MS	WG1962209-4	12.5	25	0.002	0.619	0.617	10.300	12.5	40.0000	55	111
											L2446490-07
LCS	WG1962209-2	25	25	0	0.404	0.404		1	20.0000	18	92

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446490-07		
Matrix Spike	: WG1962209-4	**MS Analysis Date**	: 08/21/24 15:00
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Sulfate	10.	40	55.	112					55-147	14

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/21/24 15:00
Dup Sample ID	: WG1962209-3	**DUP Analysis Date**	: 08/21/24 15:00

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Sulfate	10	11.	10	14

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1962209-2	**LCS Analysis Date**	: 08/21/24 15:00
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg/l)	(mg/l)		(mg/l)	(mg/l)			Limits	Limit
Sulfate	20.0	18.0	90.					90-110	14

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Sulfate	14808-79-8	10	1.37	mg/l	90-110		55-147	14	14	4500SO4-E	28 days	1 - Plastic 500ml unpreserved
Sulfate	14808-79-8	10	1.37	mg/l	90-110		55-147	14	14	9038	28 days	1 - Plastic 500ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
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WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Sulfate	14808-79-8	100	13.6	mg/kg	80-121	12	22-183	12	12	9038	28 days	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Sulfate

Aqueous samples:

Calculate the concentration value of the sample directly from the standard curve.

$$mgSO_4/L = \frac{\text{absorbance - y-intercept}}{\text{slope}} \times \text{Dilution Factor}$$

If sample has a background absorbance, it has to be subtracted before calculation.

Alkalinity Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-04	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/22/24 10:55
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 121,2320B	**Analyst**	: MRM
Lab File ID	: 240822.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	3260	50.0	NA	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/21/24 11:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	ND	2.00	NA	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962110-1	**Date Collected**	: NA
Client ID	: WG1962110-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 16:30
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	ND	2.00	NA	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962110-3	**Date Collected**	: 08/16/24 09:00
Client ID	: WG1962110-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/21/24 13:37
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	17.5	2.00	NA	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962625-1	**Date Collected**	: NA
Client ID	: WG1962625-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/22/24 10:50
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MRM
Lab File ID	: 240822.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	ND	2.00	NA	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962625-3	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75DUP	**Date Received**	: 08/15/24
Sample Location	:	**Date Analyzed**	: 08/22/24 11:05
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 121,2320B	**Analyst**	: MRM
Lab File ID	: 240822.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	3190	50.0	NA	

Sample Raw Data

Titration report

LabX

Method

Method ID	Alk Total (2)	**Release state**	Released
Name	EP/EP	**Modified by**	SystemInternal
Modified on	10/14/2023 11:44:43 AM		

Summary

Samples

	Sample ID	Name	Result	State
1	Rinse,MRW	Sample size	50 mL	
		Potential R4	7.54 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.935 mL	OK
		Consumption 4.2 R3	0.942 mL	OK
		Content R5	18.700 mg/L	OK
		ALK LOW R6	18.560 mg/L	OK
2	Rinse,MRW	Sample size	50 mL	
		Potential R4	5.46 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.082 mL	OK
		Consumption 4.2 R3	0.088 mL	OK
		Content R5	1.640 mg/L	OK
		ALK LOW R6	1.520 mg/L	OK
3	BLANK	Sample size	50 mL	
		Potential R4	5.34 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.063 mL	OK
		Consumption 4.2 R3	0.070 mL	OK
		Content R5	1.260 mg/L	OK
		ALK LOW R6	1.120 mg/L	OK
4	LCS	Sample size	50 mL	
		Potential R4	11.22 pH	OK
		Consumption 8.3 R1	4.896 mL	OK
		Consumption 4.5 R2	5.223 mL	OK
		Consumption 4.2 R3	5.231 mL	OK
		Content R5	104.460 mg/L	OK
		ALK LOW R6	104.300 mg/L	OK
5	I2446208-09 2x+30	Sample size	50 mL	
		Potential R4	5.30 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	7.271 mL	OK
		Consumption 4.2 R3	8.155 mL	OK
		Content R5	145.420 mg/L	OK
		ALK LOW R6	127.740 mg/L	OK
6	WG1962102-3 2x+30	Sample size	50 mL	

Titration report

		Potential R4	5.37 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	6.676 mL	OK
		Consumption 4.2 R3	7.575 mL	OK
		Content R5	133.520 mg/L	OK
		ALK LOW R6	115.540 mg/L	OK
7	I2446555-06 CONF	Sample size	50 mL	
		Potential R4	5.33 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.109 mL	OK
		Consumption 4.2 R3	0.119 mL	OK
		Content R5	2.180 mg/L	OK
		ALK LOW R6	1.980 mg/L	OK
8	I2446583-04	Sample size	50 mL	
		Potential R4	8.62 pH	OK
		Consumption 8.3 R1	1.057 mL	OK
		Consumption 4.5 R2	9.755 mL	OK
		Consumption 4.2 R3	9.868 mL	OK
		Content R5	195.100 mg/L	OK
		ALK LOW R6	192.840 mg/L	OK
9	WG1962107-3	Sample size	50 mL	
		Potential R4	8.23 pH	OK
		Consumption 8.3 R1	0.772 mL	OK
		Consumption 4.5 R2	9.838 mL	OK
		Consumption 4.2 R3	9.965 mL	OK
		Content R5	196.760 mg/L	OK
		ALK LOW R6	194.220 mg/L	OK
10	WG1962107-4	Sample size	50 mL	
		Potential R4	9.62 pH	OK
		Consumption 8.3 R1	6.066 mL	OK
		Consumption 4.5 R2	15.082 mL	OK
		Consumption 4.2 R3	15.208 mL	OK
		Content R5	301.640 mg/L	OK
		ALK LOW R6	299.120 mg/L	OK
11	I2446583-05	Sample size	50 mL	
		Potential R4	5.98 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	14.895 mL	OK
		Consumption 4.2 R3	15.069 mL	OK
		Content R5	297.900 mg/L	OK
		ALK LOW R6	294.420 mg/L	OK
12	I2446583-06	Sample size	50 mL	
		Potential R4	5.88 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	6.979 mL	OK
		Consumption 4.2 R3	7.029 mL	OK
		Content R5	139.580 mg/L	OK

Titration report

		ALK LOW R6	138.580 mg/L	OK
13	I2446588-01	Sample size	50 mL	
		Potential R4	5.28 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.429 mL	OK
		Consumption 4.2 R3	0.440 mL	OK
		Content R5	8.580 mg/L	OK
		ALK LOW R6	8.360 mg/L	OK
14	I2446588-02	Sample size	50 mL	
		Potential R4	5.12 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.381 mL	OK
		Consumption 4.2 R3	0.390 mL	OK
		Content R5	7.620 mg/L	OK
		ALK LOW R6	7.440 mg/L	OK
15	I2446588-03	Sample size	50 mL	
		Potential R4	5.28 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.910 mL	OK
		Consumption 4.2 R3	0.919 mL	OK
		Content R5	18.200 mg/L	OK
		ALK LOW R6	18.020 mg/L	OK
16	I2446588-05	Sample size	50 mL	
		Potential R4	5.17 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.443 mL	OK
		Consumption 4.2 R3	0.454 mL	OK
		Content R5	8.860 mg/L	OK
		ALK LOW R6	8.640 mg/L	OK
17	I2446588-06	Sample size	50 mL	
		Potential R4	5.18 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.432 mL	OK
		Consumption 4.2 R3	0.440 mL	OK
		Content R5	8.640 mg/L	OK
		ALK LOW R6	8.480 mg/L	OK
18	I2446588-07	Sample size	50 mL	
		Potential R4	5.34 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.283 mL	OK
		Consumption 4.2 R3	1.295 mL	OK
		Content R5	25.660 mg/L	OK
		ALK LOW R6	25.420 mg/L	OK
19	I2446588-08	Sample size	50 mL	
		Potential R4	5.32 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.978 mL	OK

Titration report

		Consumption 4.2 R3	0.990 mL	OK
		Content R5	19.560 mg/L	OK
		ALK LOW R6	19.320 mg/L	OK
20	I2446647-04	Sample size	50 mL	
		Potential R4	6.95 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	17.292 mL	OK
		Consumption 4.2 R3	17.468 mL	OK
		Content R5	345.840 mg/L	OK
		ALK LOW R6	342.320 mg/L	OK
21	I2446855-01	Sample size	50 mL	
		Potential R4	5.78 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	7.469 mL	OK
		Consumption 4.2 R3	7.541 mL	OK
		Content R5	149.380 mg/L	OK
		ALK LOW R6	147.940 mg/L	OK
22	I2446855-02	Sample size	50 mL	
		Potential R4	5.25 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.475 mL	OK
		Consumption 4.2 R3	0.484 mL	OK
		Content R5	9.500 mg/L	OK
		ALK LOW R6	9.320 mg/L	OK
23	I2446855-03	Sample size	50 mL	
		Potential R4	5.55 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	4.739 mL	OK
		Consumption 4.2 R3	4.803 mL	OK
		Content R5	94.780 mg/L	OK
		ALK LOW R6	93.500 mg/L	OK
24	I2446855-04	Sample size	50 mL	
		Potential R4	5.03 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.269 mL	OK
		Consumption 4.2 R3	0.280 mL	OK
		Content R5	5.380 mg/L	OK
		ALK LOW R6	5.160 mg/L	OK
25	I2446855-05	Sample size	50 mL	
		Potential R4	5.10 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.737 mL	OK
		Consumption 4.2 R3	0.769 mL	OK
		Content R5	14.740 mg/L	OK
		ALK LOW R6	14.100 mg/L	OK
26	I2446855-06	Sample size	50 mL	
		Potential R4	6.26 pH	OK

Titration report

		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	9.169 mL	OK
		Consumption 4.2 R3	9.240 mL	OK
		Content R5	183.380 mg/L	OK
		ALK LOW R6	181.960 mg/L	OK
27	I2446886-11	Sample size	50 mL	
		Potential R4	6.58 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
28	I2446886-14	Sample size	50 mL	
		Potential R4	6.07 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
29	I2446886-16 2x+10	Sample size	50 mL	
		Potential R4	6.50 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
30	WG1962107-2	Sample size	50 mL	
		Potential R4	10.85 pH	OK
		Consumption 8.3 R1	4.903 mL	OK
		Consumption 4.5 R2	5.287 mL	OK
		Consumption 4.2 R3	5.291 mL	OK
		Content R5	105.740 mg/L	OK
		ALK LOW R6	105.660 mg/L	OK
31	WG1962107-1	Sample size	50 mL	
		Potential R4	5.37 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.076 mL	OK
		Consumption 4.2 R3	0.095 mL	OK
		Content R5	1.520 mg/L	OK
		ALK LOW R6	1.140 mg/L	OK
32	I2446990-01	Sample size	50 mL	
		Potential R4	5.42 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.921 mL	OK
		Consumption 4.2 R3	0.928 mL	OK
		Content R5	18.420 mg/L	OK
		ALK LOW R6	18.280 mg/L	OK

Titration report

33	WG1962110-3	Sample size	50 mL	
		Potential R4	5.35 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.880 mL	OK
		Consumption 4.2 R3	0.884 mL	OK
		Content R5	17.600 mg/L	OK
		ALK LOW R6	17.520 mg/L	OK
34	WG1962110-4	Sample size	50 mL	
		Potential R4	10.50 pH	OK
		Consumption 8.3 R1	5.953 mL	OK
		Consumption 4.5 R2	6.539 mL	OK
		Consumption 4.2 R3	6.543 mL	OK
		Content R5	130.780 mg/L	OK
		ALK LOW R6	130.700 mg/L	OK
35	I2446990-02	Sample size	50 mL	
		Potential R4	5.25 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.819 mL	OK
		Consumption 4.2 R3	0.829 mL	OK
		Content R5	16.380 mg/L	OK
		ALK LOW R6	16.180 mg/L	OK
36	I2446990-03	Sample size	50 mL	
		Potential R4	5.48 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.294 mL	OK
		Consumption 4.2 R3	1.301 mL	OK
		Content R5	25.880 mg/L	OK
		ALK LOW R6	25.740 mg/L	OK
37	I2446990-04	Sample size	50 mL	
		Potential R4	5.39 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.730 mL	OK
		Consumption 4.2 R3	0.742 mL	OK
		Content R5	14.600 mg/L	OK
		ALK LOW R6	14.360 mg/L	OK
38	I2446990-05	Sample size	50 mL	
		Potential R4	5.17 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.264 mL	OK
		Consumption 4.2 R3	0.269 mL	OK
		Content R5	5.280 mg/L	OK
		ALK LOW R6	5.180 mg/L	OK
39	I2446990-06	Sample size	50 mL	
		Potential R4	5.13 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.374 mL	OK
		Consumption 4.2 R3	0.381 mL	OK

Titration report

		Content R5	7.480 mg/L	OK
		ALK LOW R6	7.340 mg/L	OK
40	I2446990-07	Sample size	50 mL	
		Potential R4	5.38 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.514 mL	OK
		Consumption 4.2 R3	1.527 mL	OK
		Content R5	30.280 mg/L	OK
		ALK LOW R6	30.020 mg/L	OK
41	I2446990-08	Sample size	50 mL	
		Potential R4	5.34 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.397 mL	OK
		Consumption 4.2 R3	0.406 mL	OK
		Content R5	7.940 mg/L	OK
		ALK LOW R6	7.760 mg/L	OK
42	I2446922-03	Sample size	50 mL	
		Potential R4	5.91 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
43	I2446922-04	Sample size	50 mL	
		Potential R4	5.47 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
44	I2446922-05	Sample size	50 mL	
		Potential R4	5.72 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
45	I2446555-04 5x+30	Sample size	50 mL	
		Potential R4	5.13 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
46	I2446555-04 5x+30	Sample size	50 mL	
		Potential R4	4.53 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK

Titration report

		Consumption 4.5 R2	1.027 mL	OK
		Consumption 4.2 R3	12.111 mL	OK
		Content R5	20.540 mg/L	OK
		ALK LOW R6	-201.140 mg/L	OK
47	L2446886-11 2x+20	Sample size	50 mL	
		Potential R4	2.62 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
48	L2446886-14 5x+30	Sample size	50 mL	
		Potential R4	1.74 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
49	L2446886-16 2x+30	Sample size	50 mL	
		Potential R4	5.80 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
50	L2446922-03 2x+10	Sample size	50 mL	
		Potential R4	5.39 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.930 mL	OK
		Consumption 4.2 R3	2.255 mL	OK
		Content R5	38.600 mg/L	OK
		ALK LOW R6	32.100 mg/L	OK
51	L2446922-04 2x+10	Sample size	50 mL	
		Potential R4	5.12 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
52	L2446922-05 2x+10	Sample size	50 mL	
		Potential R4	5.42 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
53	L2446922-06 2x+10	Sample size	50 mL	

Titration report

		Potential R4	4.96 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
54	l2446886-11 1x+5	Sample size	50 mL	
		Potential R4	6.13 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	19.188 mL	OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	383.760 mg/L	OK
		ALK LOW R6	NaN mg/L	Not OK
55	l2446886-14 1x+10	Sample size	50 mL	
		Potential R4	5.83 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
56	L2446886-14 50x	Sample size	50 mL	
		Potential R4	6.41 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.012 mL	OK
		Consumption 4.2 R3	1.020 mL	OK
		Content R5	20.240 mg/L	OK
		ALK LOW R6	20.080 mg/L	OK
57	L2446886-16 50x	Sample size	50 mL	
		Potential R4	5.61 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.372 mL	OK
		Consumption 4.2 R3	3.397 mL	OK
		Content R5	67.440 mg/L	OK
		ALK LOW R6	66.940 mg/L	OK
58	L2446922-04 50x	Sample size	50 mL	
		Potential R4	5.36 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.842 mL	OK
		Consumption 4.2 R3	2.440 mL	OK
		Content R5	36.840 mg/L	OK
		ALK LOW R6	24.880 mg/L	OK
59	L2446922-05 50x	Sample size	50 mL	
		Potential R4	5.57 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.142 mL	OK
		Consumption 4.2 R3	4.019 mL	OK
		Content R5	62.840 mg/L	OK

Titration report

		ALK LOW R6	45.300 mg/L	OK
60	L2446922-06 50x	Sample size	50 mL	
		Potential R4	5.10 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	2.062 mL	OK
		Consumption 4.2 R3	2.977 mL	OK
		Content R5	41.240 mg/L	OK
		ALK LOW R6	22.940 mg/L	OK
61	WG1962110-2	Sample size	50 mL	
		Potential R4	10.51 pH	OK
		Consumption 8.3 R1	4.944 mL	OK
		Consumption 4.5 R2	5.276 mL	OK
		Consumption 4.2 R3	5.282 mL	OK
		Content R5	105.520 mg/L	OK
		ALK LOW R6	105.400 mg/L	OK
62	WG1962110-1	Sample size	50 mL	
		Potential R4	4.83 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.081 mL	OK
		Consumption 4.2 R3	0.112 mL	OK
		Content R5	1.620 mg/L	OK
		ALK LOW R6	1.000 mg/L	OK
63	--	Sample size	50 mL	
		Potential R4	4.95 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.104 mL	OK
		Consumption 4.2 R3	0.118 mL	OK
		Content R5	2.080 mg/L	OK
		ALK LOW R6	1.800 mg/L	OK

Statistics

R1

Mean	NaN mL		
Maximum	6.066 mL	**Minimum**	0.772 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R2

Mean	NaN mL		
Maximum	19.188 mL	**Minimum**	0.063 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R3

Titration report

Mean	NaN mL		
Maximum	17.468 mL	**Minimum**	0.070 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R4

Mean	5.91 pH		
Maximum	11.22 pH	**Minimum**	1.74 pH
Standard deviation	1.67 pH	**Rel. standard deviation**	28.242 %
Total samples	63	**Samples excluded**	0

R5

Mean	NaN mg/L		
Maximum	383.760 mg/L	**Minimum**	1.260 mg/L
Standard deviation	NaN mg/L	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R6

Mean	NaN mg/L		
Maximum	342.320 mg/L	**Minimum**	-201.140 mg/L
Standard deviation	NaN mg/L	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

Used Instruments

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/21/2024 10:43:38 AM	SystemInternal	System internal account

Titration report

Method

Method ID	pH Cal. 7 4 10	**Release state**	Released
Name	Calibration	**Modified by**	SystemInternal
Modified on	10/3/2023 12:47:09 PM		

Summary

Samples

	Sample ID	Name	Result	State
1	METTLER TOLEDO (Ref. 25°C) pH	pH	7.00	
2	METTLER TOLEDO (Ref. 25°C) pH	pH	4.01	
3	METTLER TOLEDO (Ref. 25°C) pH	pH	10.00	

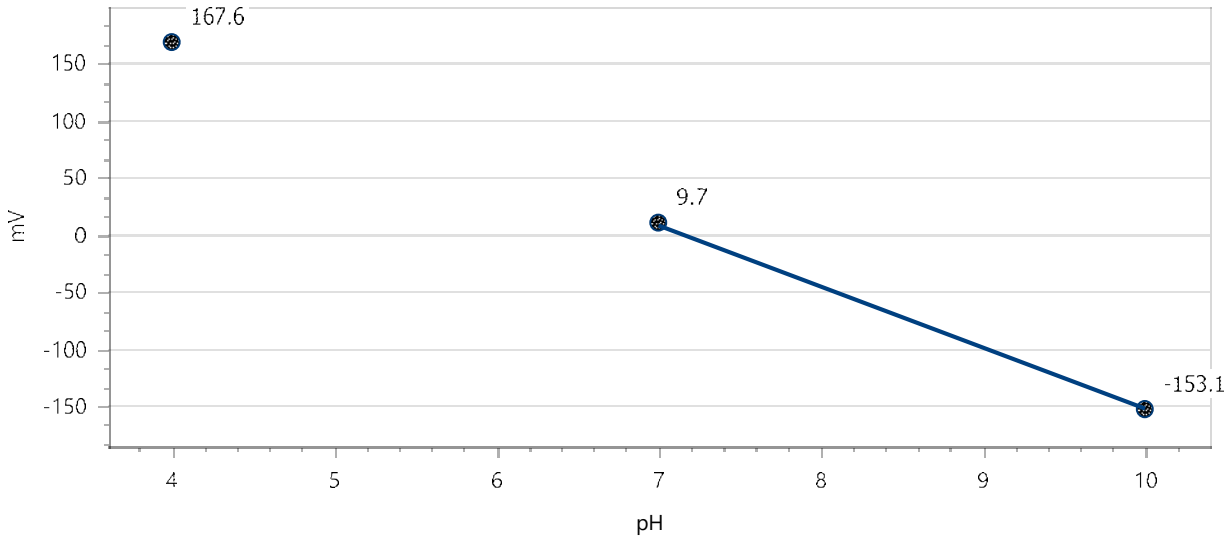
Results

Zero point 1 Cal1.Z1	7.154 pH
Slope 1 Cal1.S1	-53.54 mV/pH

Calibration

Sensor	Sensor DG111-SC
Creation time	8/21/2024 8:34:49 AM
Overall state	OK
Successful	Yes
Calib. temperature	25.0 °C
SLOPECal	-53.54 mV/pH
ZEROCal	7.154 pH

Calibration Curve



Used Instruments

Titration report

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/21/2024 8:30:12 AM	SystemInternal	System internal account

Titration report

LabX

Method

Method ID	pH Measure	**Release state**	Released
Name	Measure	**Modified by**	SystemInternal
Modified on	2/23/2024 9:31:05 AM		

Summary

Samples

	Sample ID	Name	Result	State
1	--	Sample size	0 mL	
		Potential R1	7.04 pH	OK

Used Instruments

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/21/2024 8:30:19 AM	SystemInternal	System internal account

Titration report

Method

Method ID	pH Cal. 7 4 10	**Release state**	Released
Name	Calibration	**Modified by**	SystemInternal
Modified on	10/3/2023 12:47:09 PM		

Summary

Samples

	Sample ID	Name	Result	State
1	METTLER TOLEDO (Ref. 25°C) pH	pH	7.00	
2	METTLER TOLEDO (Ref. 25°C) pH	pH	4.01	
3	METTLER TOLEDO (Ref. 25°C) pH	pH	10.00	

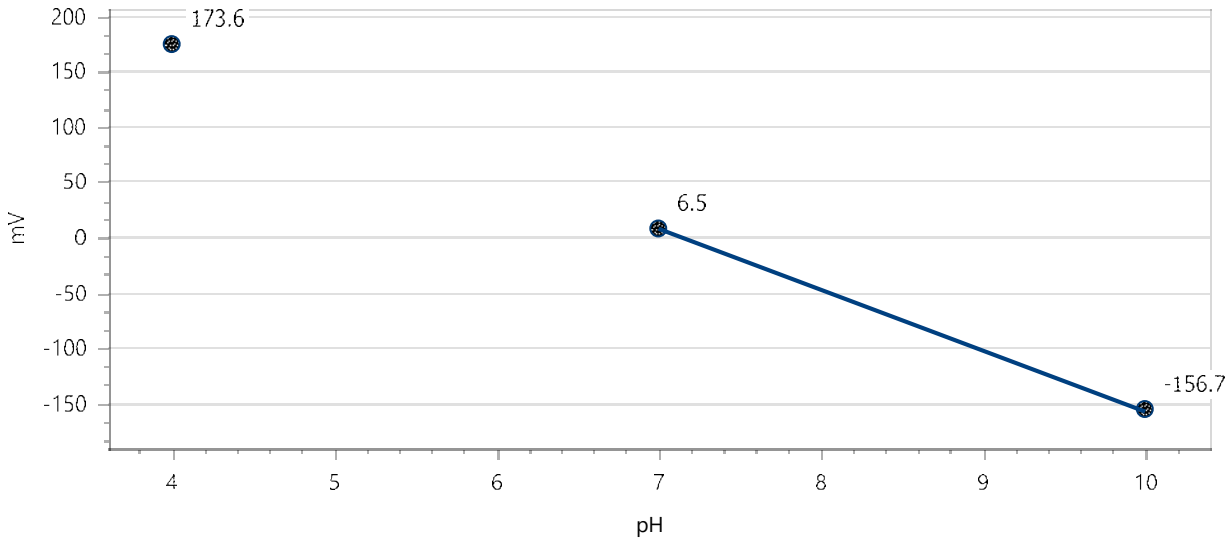
Results

Zero point 1 Cal1.Z1	7.145 pH
Slope 1 Cal1.S1	-55.14 mV/pH

Calibration

Sensor	Sensor DG111-SC
Creation time	8/22/2024 10:41:06 AM
Overall state	OK
Successful	Yes
Calib. temperature	25.0 °C
SLOPECal	-55.14 mV/pH
ZEROCal	7.145 pH

Calibration Curve



Used Instruments

Titration report

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/22/2024 10:36:38 AM	SystemInternal	System internal account

Titration report

Method

Method ID	pH Measure	**Release state**	Released
Name	Measure	**Modified by**	SystemInternal
Modified on	2/23/2024 9:31:05 AM		

Summary

Samples

	Sample ID	Name	Result	State
1	--	Sample size	0 mL	
		Potential R1	7.02 pH	OK

Used Instruments

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/22/2024 10:37:10 AM	SystemInternal	System internal account

Titration report

LabX

Method

Method ID	Alk Total (2)	**Release state**	Released
Name	EP/EP	**Modified by**	SystemInternal
Modified on	10/14/2023 11:44:43 AM		

Summary

Samples

	Sample ID	Name	Result	State
1	Rinse,MRM	Sample size	50 mL	
		Potential R4	7.45 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.106 mL	OK
		Consumption 4.2 R3	1.115 mL	OK
		Content R5	22.120 mg/L	OK
		ALK LOW R6	21.940 mg/L	OK
2	Rinse,MRM	Sample size	50 mL	
		Potential R4	5.85 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.110 mL	OK
		Consumption 4.2 R3	0.116 mL	OK
		Content R5	2.200 mg/L	OK
		ALK LOW R6	2.080 mg/L	OK
3	Rinse,MRM	Sample size	50 mL	
		Potential R4	5.25 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.079 mL	OK
		Consumption 4.2 R3	0.086 mL	OK
		Content R5	1.580 mg/L	OK
		ALK LOW R6	1.440 mg/L	OK
4	BLANK	Sample size	50 mL	
		Potential R4	5.17 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.052 mL	OK
		Consumption 4.2 R3	0.060 mL	OK
		Content R5	1.040 mg/L	OK
		ALK LOW R6	0.880 mg/L	OK
5	LCS	Sample size	50 mL	
		Potential R4	11.04 pH	OK
		Consumption 8.3 R1	4.884 mL	OK
		Consumption 4.5 R2	5.369 mL	OK
		Consumption 4.2 R3	5.374 mL	OK
		Content R5	107.380 mg/L	OK
		ALK LOW R6	107.280 mg/L	OK
6	L2446555-04 25x	Sample size	50 mL	

Titration report

		Potential R4	5.33 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	6.523 mL	OK
		Consumption 4.2 R3	8.858 mL	OK
		Content R5	130.460 mg/L	OK
		ALK LOW R6	83.760 mg/L	OK
7	46555-04 50x	Sample size	50 mL	
		Potential R4	5.35 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.278 mL	OK
		Consumption 4.2 R3	4.381 mL	OK
		Content R5	65.560 mg/L	OK
		ALK LOW R6	43.500 mg/L	OK
8	46555-04 25x DUP	Sample size	50 mL	
		Potential R4	5.35 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	6.374 mL	OK
		Consumption 4.2 R3	8.694 mL	OK
		Content R5	127.480 mg/L	OK
		ALK LOW R6	81.080 mg/L	OK
9	46555-04 50x MS	Sample size	50 mL	
		Potential R4	8.58 pH	OK
		Consumption 8.3 R1	0.568 mL	OK
		Consumption 4.5 R2	6.251 mL	OK
		Consumption 4.2 R3	7.410 mL	OK
		Content R5	125.020 mg/L	OK
		ALK LOW R6	101.840 mg/L	OK
10	CCV	Sample size	50 mL	
		Potential R4	10.61 pH	OK
		Consumption 8.3 R1	4.801 mL	OK
		Consumption 4.5 R2	5.185 mL	OK
		Consumption 4.2 R3	5.188 mL	OK
		Content R5	103.700 mg/L	OK
		ALK LOW R6	103.640 mg/L	OK
11	CCB	Sample size	50 mL	
		Potential R4	5.36 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.103 mL	OK
		Consumption 4.2 R3	0.115 mL	OK
		Content R5	2.060 mg/L	OK
		ALK LOW R6	1.820 mg/L	OK
12	CCV	Sample size	50 mL	
		Potential R4	10.47 pH	OK
		Consumption 8.3 R1	4.893 mL	OK
		Consumption 4.5 R2	5.284 mL	OK
		Consumption 4.2 R3	5.288 mL	OK
		Content R5	105.680 mg/L	OK

Titration report

			ALK LOW R6	105.600 mg/L	OK
13	CCB		Sample size	50 mL	
			Potential R4	5.19 pH	OK
			Consumption 8.3 R1	NaN mL	Not OK
			Consumption 4.5 R2	0.093 mL	OK
			Consumption 4.2 R3	0.102 mL	OK
			Content R5	1.860 mg/L	OK
			ALK LOW R6	1.680 mg/L	OK

Statistics

R1

Mean	NaN mL		
Maximum	4.893 mL	**Minimum**	0.568 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	13	**Samples excluded**	0

R2

Mean	3.062 mL		
Maximum	6.523 mL	**Minimum**	0.052 mL
Standard deviation	2.828 mL	**Rel. standard deviation**	92.370 %
Total samples	13	**Samples excluded**	0

R3

Mean	3.599 mL		
Maximum	8.858 mL	**Minimum**	0.060 mL
Standard deviation	3.474 mL	**Rel. standard deviation**	96.523 %
Total samples	13	**Samples excluded**	0

R4

Mean	7.00 pH		
Maximum	11.04 pH	**Minimum**	5.17 pH
Standard deviation	2.35 pH	**Rel. standard deviation**	33.510 %
Total samples	13	**Samples excluded**	0

R5

Mean	61.242 mg/L		
Maximum	130.460 mg/L	**Minimum**	1.040 mg/L
Standard deviation	56.569 mg/L	**Rel. standard deviation**	92.370 %
Total samples	13	**Samples excluded**	0

R6

Mean	50.503 mg/L		
Maximum	107.280 mg/L	**Minimum**	0.880 mg/L

Titration report

Standard deviation	47.075 mg/L	**Rel. standard deviation**	93.212 %
Total samples	13	**Samples excluded**	0

Used Instruments

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/22/2024 10:39:24 AM	SystemInternal	System internal account

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446990-01		
Matrix Spike	: WG1962110-4	**MS Analysis Date**	: 08/21/24 13:38
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
	Sample Conc.	Spike Added	Spike Conc.	%R	Spike Added	Spike Conc.	%R	RPD	Recovery Limits	RPD Limit
Parameter	(mg CaCO3/L)	(mg CaCO3/L)	(mg CaCO3/L)		(mg CaCO3/L)	(mg CaCO3/L)				
Alkalinity, Total	18.3	100	131.	112					86-116	10

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-7R-S_16.75	**Matrix**	: WATER
Lab Sample ID	: L2446555-04		
Matrix Spike	: WG1962625-4	**MS Analysis Date**	: 08/22/24 11:13
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample				Matrix Spike Duplicate					
	Sample Conc.	Spike Added	Spike Conc.	%R		Spike Added	Spike Conc.	%R	RPD	Recovery Limits	RPD Limit
Parameter	(mg CaCO3/L)	(mg CaCO3/L)	(mg CaCO3/L)			(mg CaCO3/L)	(mg CaCO3/L)				
Alkalinity, Total	3260	5000	6250	60	Q					86-116	10

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/21/24 13:27
Dup Sample ID	: WG1962110-3	**DUP Analysis Date**	: 08/21/24 13:37

Parameter	Sample Concentration (mg CaCO3/L)	Duplicate Concentration (mg CaCO3/L)	RPD	RPD Limit
Alkalinity, Total	18.3	17.5	4	10

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-7R-S_16.75	**Matrix**	: WATER
Lab Sample ID	: L2446555-04	**Analysis Date**	: 08/22/24 10:55
Dup Sample ID	: WG1962625-3	**DUP Analysis Date**	: 08/22/24 11:05

Parameter	Sample Concentration (mg CaCO3/L)	Duplicate Concentration (mg CaCO3/L)	RPD	RPD Limit
Alkalinity, Total	3260	3190	2	10

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1962110-2	**LCS Analysis Date**	: 08/21/24 16:16
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg CaCO3/L)	(mg CaCO3/L)		(mg CaCO3/L)	(mg CaCO3/L)			Limits	Limit
Alkalinity, Total	100.	106.	106.					90-110	10

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1962625-2	**LCS Analysis Date**	: 08/22/24 10:51
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg CaCO3/L)	(mg CaCO3/L)		(mg CaCO3/L)	(mg CaCO3/L)			Limits	Limit
Alkalinity, Total	100.	107.	107.					90-110	10

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Alkalinity, Total	471-34-1	2		mg CaCO3/L	90-110	10	86-116	10	10	2320B	14 days	1 - Plastic 250ml unpreserved/No Headspace

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Alkalinity

$$\text{Alkalinity, mg } CaCO_3/L = \frac{A \times N \times 50{,}000}{\text{mL Sample}}$$

Where:

A = mL of the standard acid titrated

N = normality of the standard acid

Results are calculated using Mettler Toledo software.

Standard sample size is 50mL, 0.02N Sulfuric acid for titration

Sequence Logs

CAL	240821	LCS 7.04	7.04	INT:	mrw
pH 4	3295	Titrant:	4193		
pH 7	3386	LCS:	3257		
pH 10	3298	MS:	3255		
LCS	3409				

1	Rinse	42	l2446922-03
2	Rinse	43	l2446922-04
3	blank	44	l2446922-05
4	lcs	45	l2446555-04 5x+30
5	l2446208-09 2x+30	46	l2446555-04 5x+30
6	dup 2x+30	47	L2446886-11 2x+20
7	l2446555-06 CONF	48	L2446886-14 5x+30
8	l2446583-04	49	L2446886-16 2x+30
9	dup	50	L2446922-03 2x+10
10	ms	51	L2446922-04 2x+10
11	l2446583-05	52	L2446922-05 2x+10
12	l2446583-06	53	L2446922-06 2x+10
13	l2446588-01	54	l2446886-11 1x+5
14	l2446588-02	55	l2446886-14 1x+10
15	l2446588-03	56	L2446886-14 50x
16	l2446588-05	57	L2446886-16 50x
17	l2446588-06	58	L2446922-04 50x
18	l2446588-07	59	L2446922-05 50x
19	l2446588-08	60	L2446922-06 50x
20	l2446647-04	61	ccv
21	l2446855-01	62	ccb
22	l2446855-02		
23	l2446855-03		
24	l2446855-04		
25	l2446855-05		
26	l2446855-06		
27	l2446886-11		
28	l2446886-14		
29	l2446886-16 2x+10		
30	ccv		
31	ccb		
32	l2446990-01		
33	dup		
34	ms		
35	l2446990-02		
36	l2446990-03		
37	l2446990-04		
38	l2446990-05		
39	l2446990-06		
40	l2446990-07		
41	l2446990-08		

CAL	240822	LCS 7.0	7.02	INT:	MRM
pH 4	3295	Titrant:	4193		
pH 7	3386	LCS:	3257		
pH 10	3298	MS:	3255		
LCS	3409				

1	Rinse,MRM	
2	Rinse,MRM	
3	Rinse,MRM	
4	WG1962625-1	
5	WG1962625-2	
6	L2446555-04 25x	25 x = 2 mL
7	L2446555-04 50x	50 x = 1 mL
8	WG1962625-3 25x	
9	WG1962625-4 50x	
10	CCV	
11	CCB	
12	CCV	
13	CCB	

Chloride Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-04	**Date Collected**	: 08/15/24 13:20
Client ID	: LMW-7R-S_16.75	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/20/24 22:38
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A3	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	490	10	8.9	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446555-06	**Date Collected**	: 08/15/24 16:00
Client ID	: FIELD BLANK 08152024	**Date Received**	: 08/15/24
Sample Location	: 1487 FIRST AVE	**Date Analyzed**	: 08/20/24 22:39
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A3	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	ND	1.0	0.89	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961689-1	**Date Collected**	: NA
Client ID	: WG1961689-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/20/24 20:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	ND	1.0	0.89	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961689-3	**Date Collected**	: 08/14/24 12:42
Client ID	: WG1961689-3 DUP	**Date Received**	: 08/14/24
Sample Location	:	**Date Analyzed**	: 08/20/24 20:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	23.	1.0	0.89	

Sample Raw Data

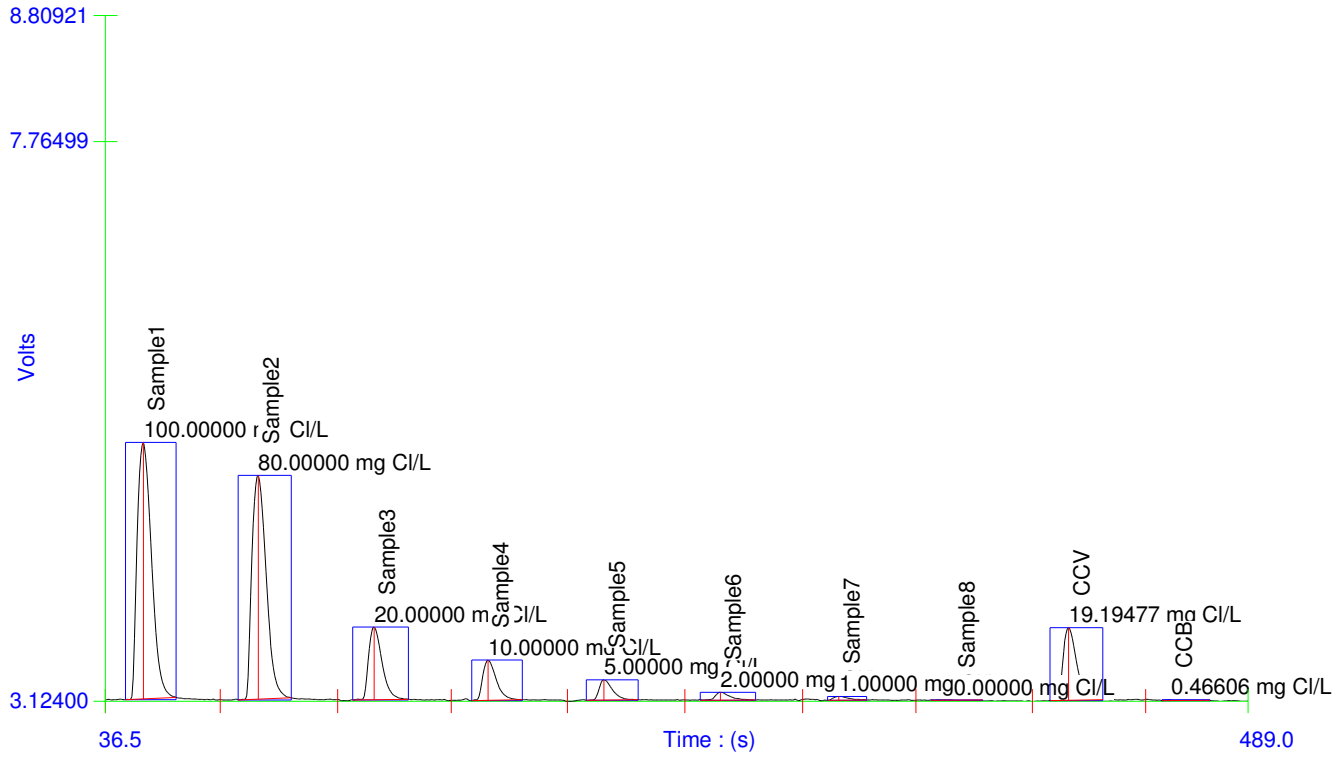
Author: Date : 8/20/2024

Original Run Filename: OM_8-20-2024_08-18-25PM.OMN Created: 8/20/2024 8:18:25 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_08-18-25PM.OMN Last Modified: 8/20/2024 9:14:53 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight	
Sample1	1	S1	100.00000				
Sample2	1	S2	80.00000				
Sample3	1	S3	20.00000				
Sample4	1	S4	10.00000				
Sample5	1	S5	5.00000				
Sample6	1	S6	2.00000				
Sample7	1	S7	1.00000				
Sample8	1	S9	0.00000				
CCV	1	S3	19.19477				
	Known Conc:		20.00000				
	Calibration:		Table/Fig. : 1				
CCB	1	S9	0.46606				
	Known Conc:		0.00000				
ICV 5.0	1	1	4.99329				100%
ICV 30.0	1	2	30.65394				102%
ICV 80.0	1	3	81.00838				101%
ICB	1	4	0.58438				
100 PPM	1	5	106.52272	10.00			
WG1961688-1; BLK	1	6	5.53697			0.10030 g	
WG1961688-2; LCS	1	7	390.87180			0.10160 g	
WG1961689/87-1; BLK	1	8	0.35341				99%
WG1961689/87-2; LCS	1	9	28.28891				
WG1961691-1; BLK	1	10	0.68363				
CCV	1	S3	19.15119				94%
	Known Conc:		20.00000				
CCB	1	S9	0.19625				
	Known Conc:		0.00000				
WG1961691-2; LCS	1	11	29.20292				
WG1961690-1; BLK	1	12	0.23434				97%
WG1961690-2; LCS	1	13	28.45318				
L2446256-01	1	14	757.39618			0.10170 g	
WG1961688-3; DUP	1	15	714.92529			0.10080 g	95%
WG1961688-4; MS	1	16	1105.46960			0.10010 g	
L2446040-01	1	17	23.56223				
WG1961689-3; DUP	1	18	23.26660				
WG1961689-4; MS	1	19	42.52200				
L2446275-01	1	20	2935.56152	10.00			
CCV	1	S3	19.31617				
	Known Conc:		20.00000				
CCB	1	S9	0.49020				
	Known Conc:		0.00000				
L2446319-01	1	21	26.99453				
L2446335-01	1	22	4.83490				
L2446555-04	1	23	293.24564				
L2446555-06	1	24	1.26141				
L2446922-03	1	25	123.20585				
L2446922-04	1	26	82.56910				
L2446922-05	1	27	293.63052				
L2446922-06	1	28	105.48059				
L2445935-01	1	29	670.86920				
L2446420-01	1	30	25.18591	10.00			
CCV	1	S3	18.78512				
	Known Conc:		20.00000				
CCB	1	S9	0.51542				
	Known Conc:		0.00000				
WG1961687-3; DUP	1	31	16.92969				
WG1961687-4; MS	1	32	36.44855				
L2446420-02	1	33	280.11588				

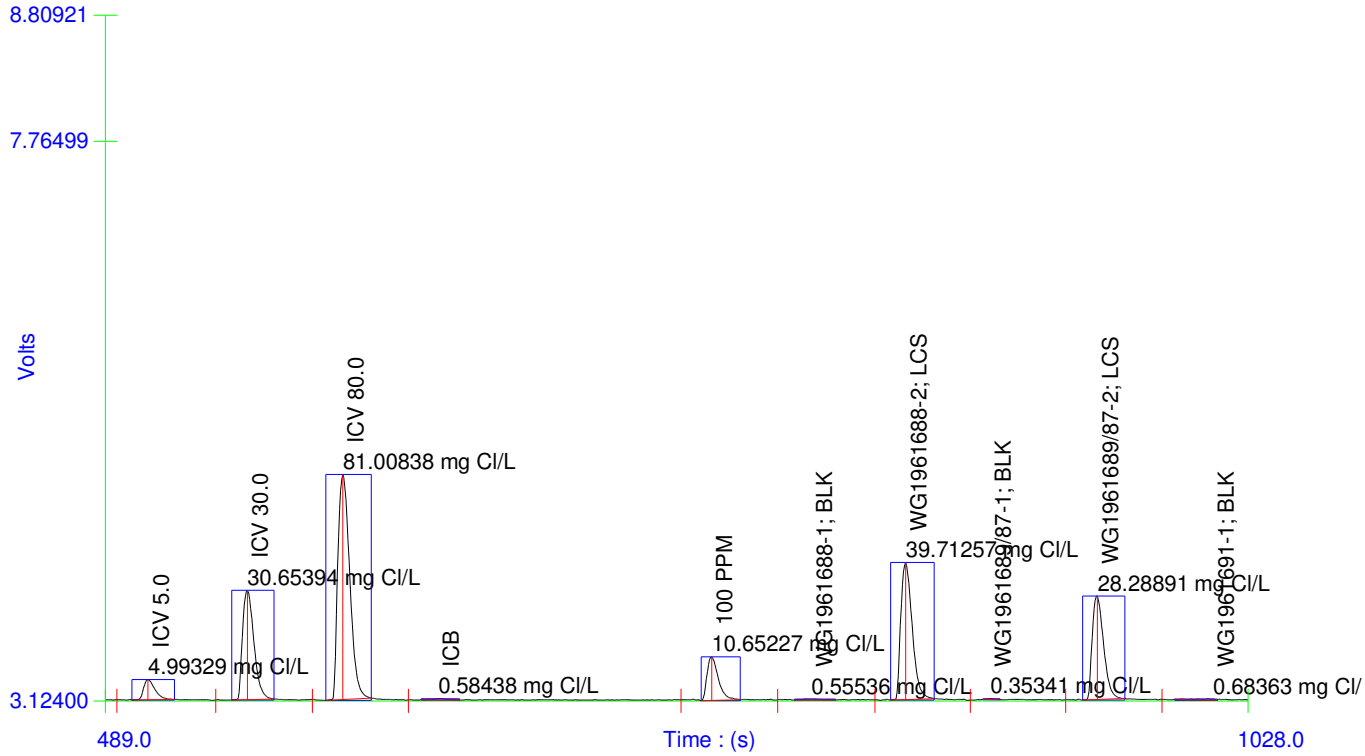
L2446420-03	1	34	8.49181			
L2446420-04	1	35	11.47057			
L2446872-01	1	36	5.56648			
L2446872-02	1	37	0.68514			
L2446872-03	1	38	2.73443			
L2446872-04	1	39	104.18729			
L2446447-01	1	40	3664.30591	50.00		
CCV	1	S3	18.89644			
	Known Conc:		20.00000			
CCB	1	S9	0.35886			
	Known Conc:		0.00000			
L2446447-02	1	41	501.71414	10.00		
L2446490-02	1	42	123.55730			
WG1961691-3; DUP	1	43	125.70085			
WG1961691-4; MS	1	44	137.20547			
L2446490-03	1	45	96.99566			
L2446490-04	1	46	124.30988			

Channel 1 (Chloride) - Set: 1 / 7

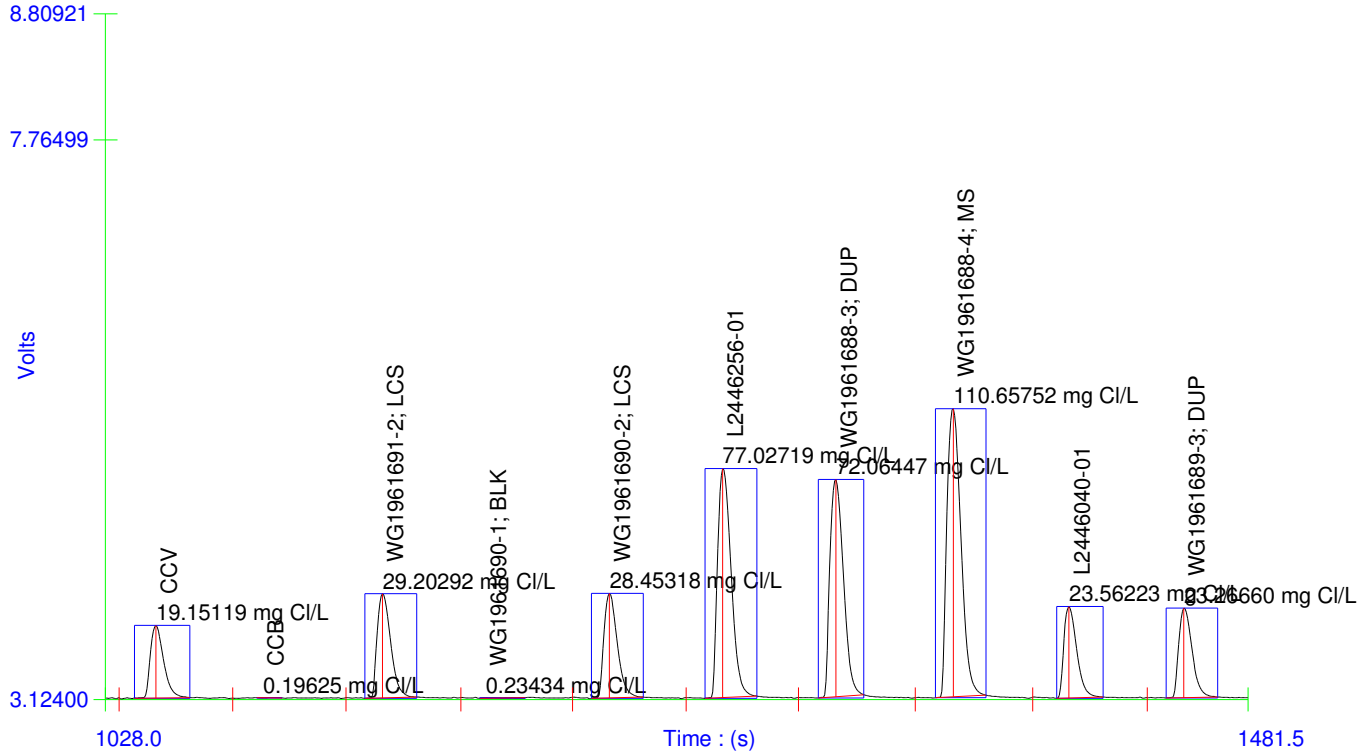


Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 2 / 7

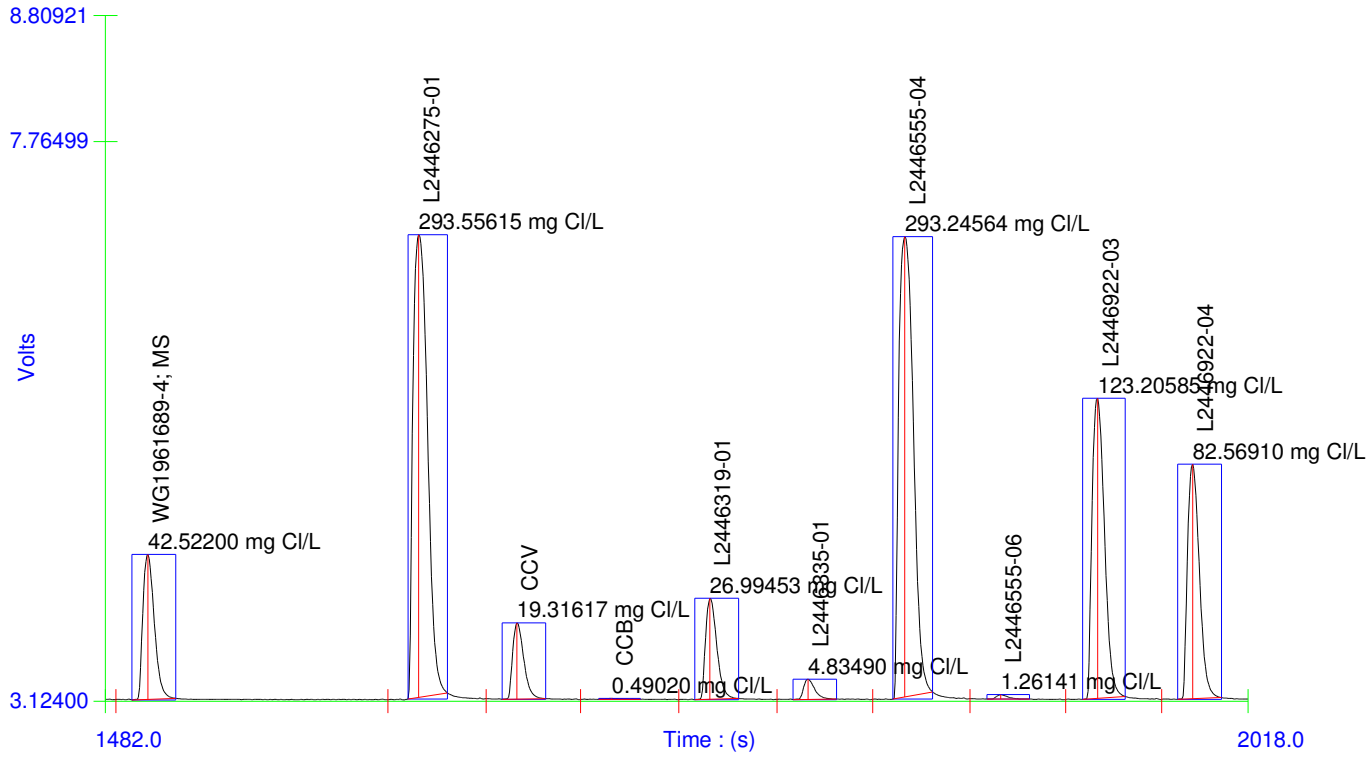


Channel 1 (Chloride) - Set: 3 / 7



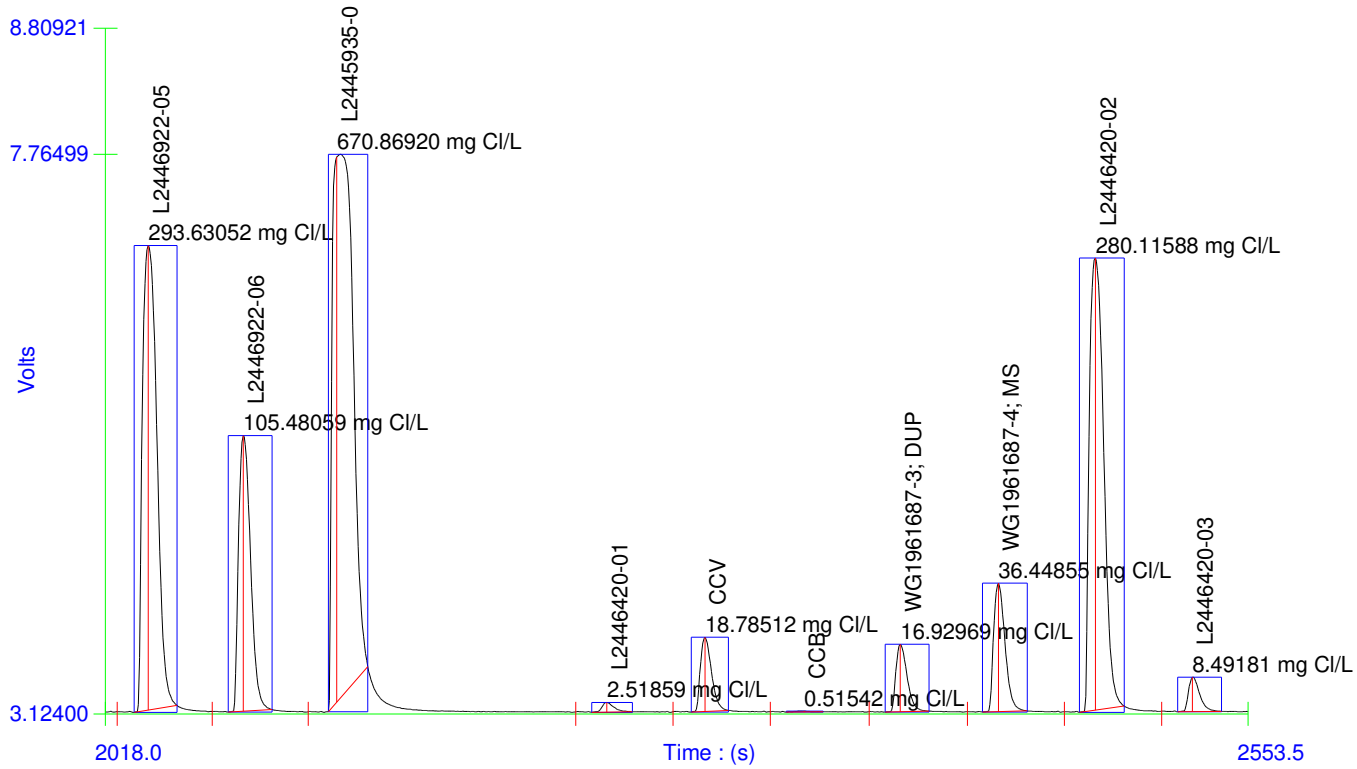
Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 4 / 7

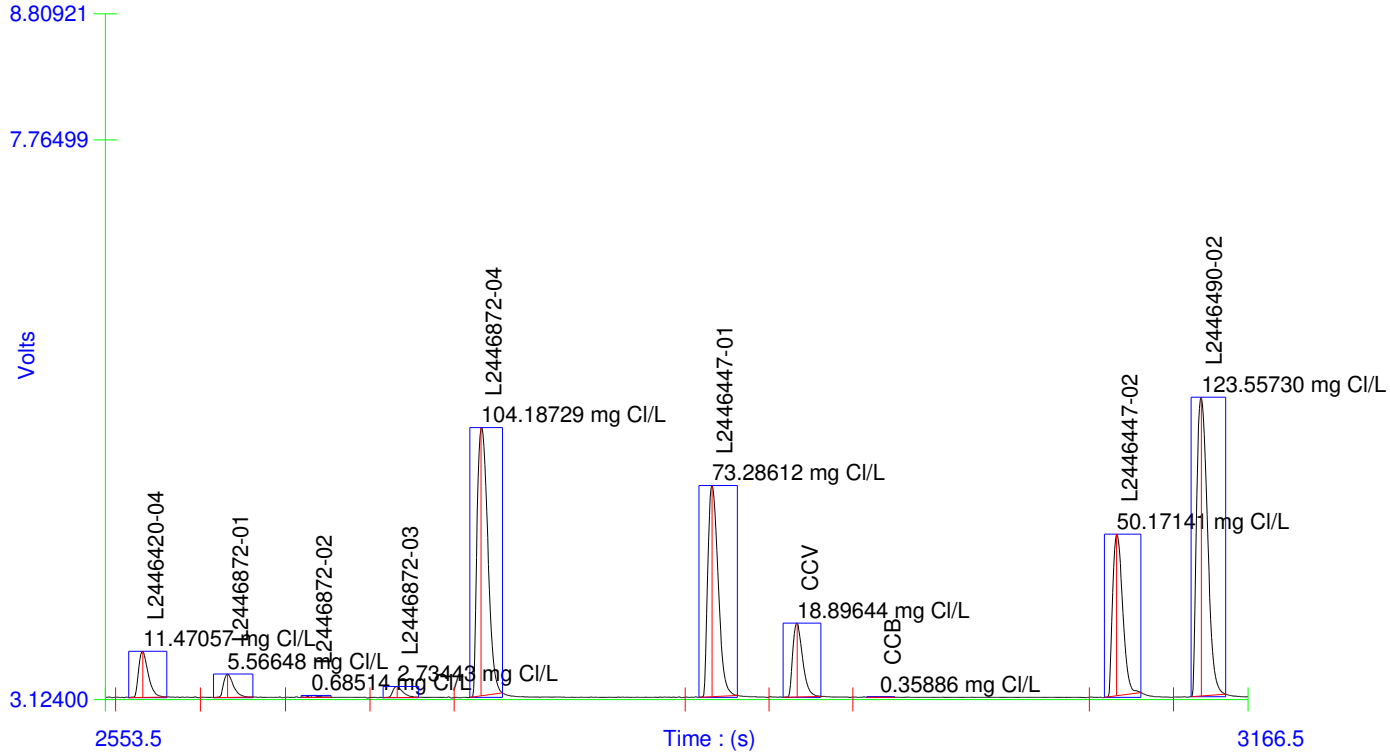


Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 5 / 7



Channel 1 (Chloride) - Set: 6 / 7



Channel 1 (Chloride) - Set: 7 / 7

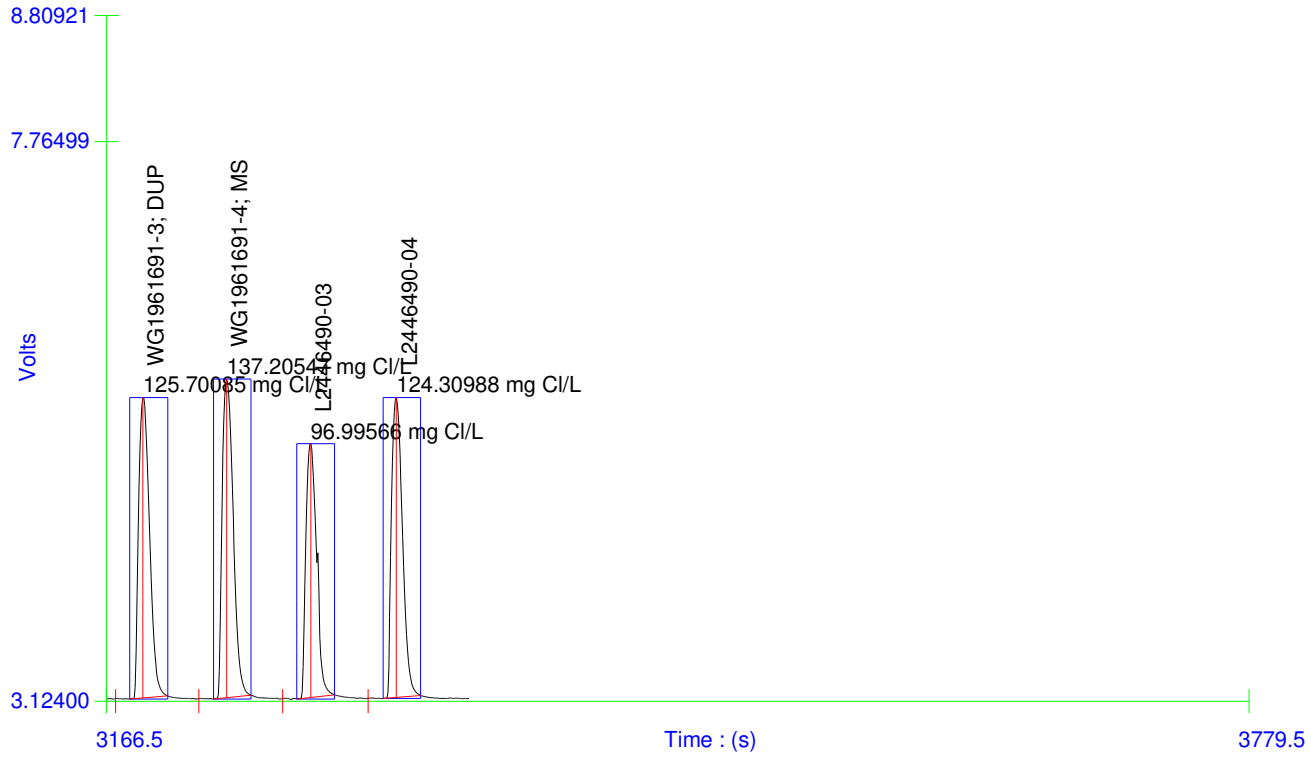
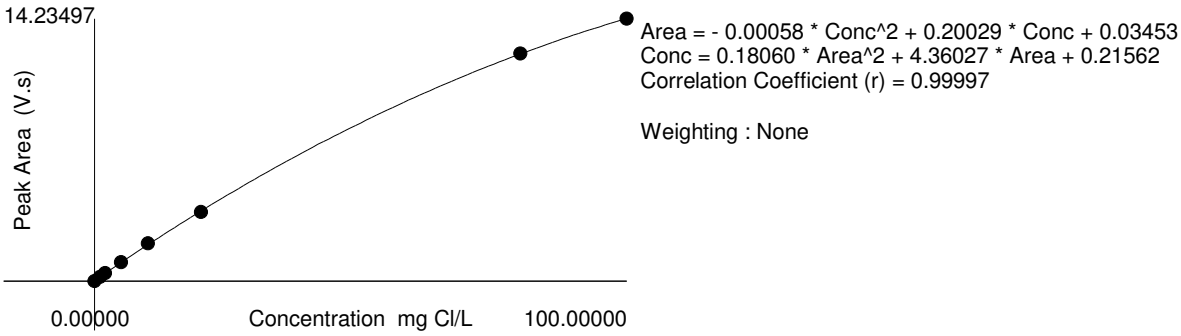


Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



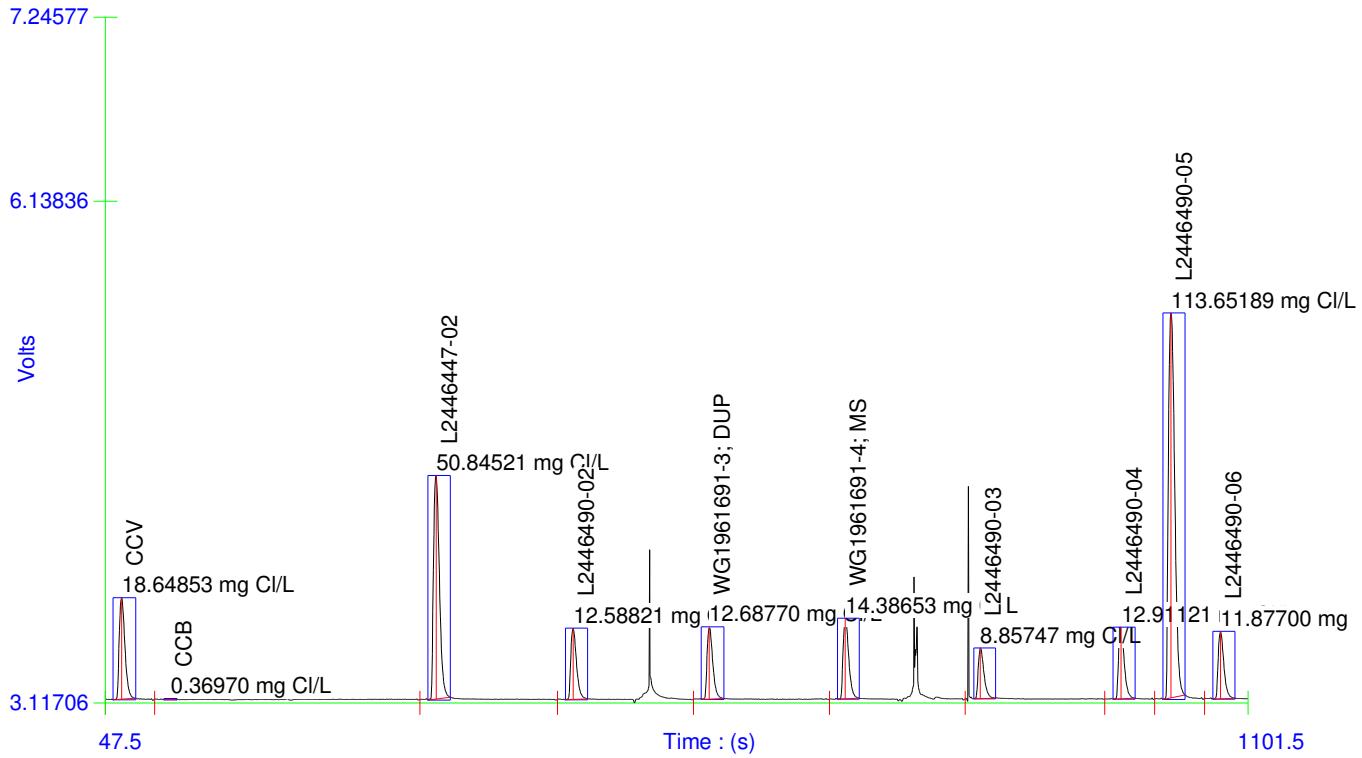
Author: Date : 8/20/2024

Original Run Filename: OM_8-20-2024_09-26-47PM.OMN Created: 8/20/2024 9:26:47 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_09-26-47PM.OMN Last Modified: 8/20/2024 10:01:04 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

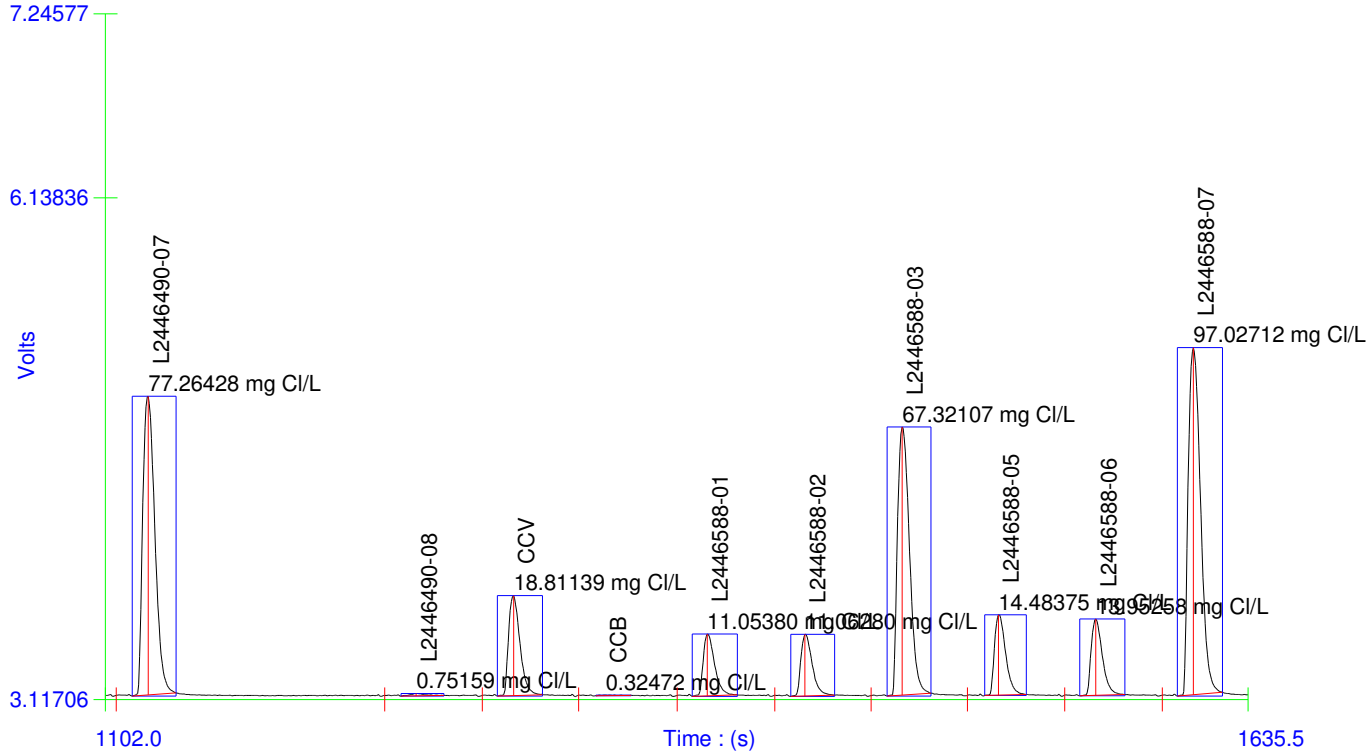
Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight
CCV	1	S3	18.64853			
	Known Conc:		20.00000			
	Calibration:		Table/Fig. : 1			
CCB	1	S9	0.36970			
	Known Conc:		0.00000			
L2446447-02	1	41	508.45209	10.00		
L2446490-02	1	42	125.88207	10.00		
WG1961691-3; DUP	1	43	126.87697	10.00		
WG1961691-4; MS	1	44	143.86533	10.00		
L2446490-03	1	45	88.57471	10.00		
L2446490-04	1	46	129.11211	10.00		
L2446490-05	1	47	113.65189			
L2446490-06	1	48	11.87700			
L2446490-07	1	49	77.26428			
L2446490-08	1	50	18.78975	25.00		
CCV	1	S3	18.81139			
	Known Conc:		20.00000			
CCB	1	S9	0.32472			
	Known Conc:		0.00000			
L2446588-01	1	51	11.05380			
L2446588-02	1	52	11.06280			
L2446588-03	1	53	67.32107			
L2446588-05	1	54	14.48375			
L2446588-06	1	55	13.95258			
L2446588-07	1	56	97.02712			
L2446588-08	1	57	19.98302			
L2446287-01	1	58	57.95541			
L2446478-01	1	59	161.44287			
WG1961690-3; DUP	1	60	182.47542	10.00		
CCV	1	S3	18.81705			
	Known Conc:		20.00000			
CCB	1	S9	0.41721			
	Known Conc:		0.00000			
WG1961690-4; MS	1	61	172.39600			

Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 1 / 3



Channel 1 (Chloride) - Set: 2 / 3



Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 3 / 3

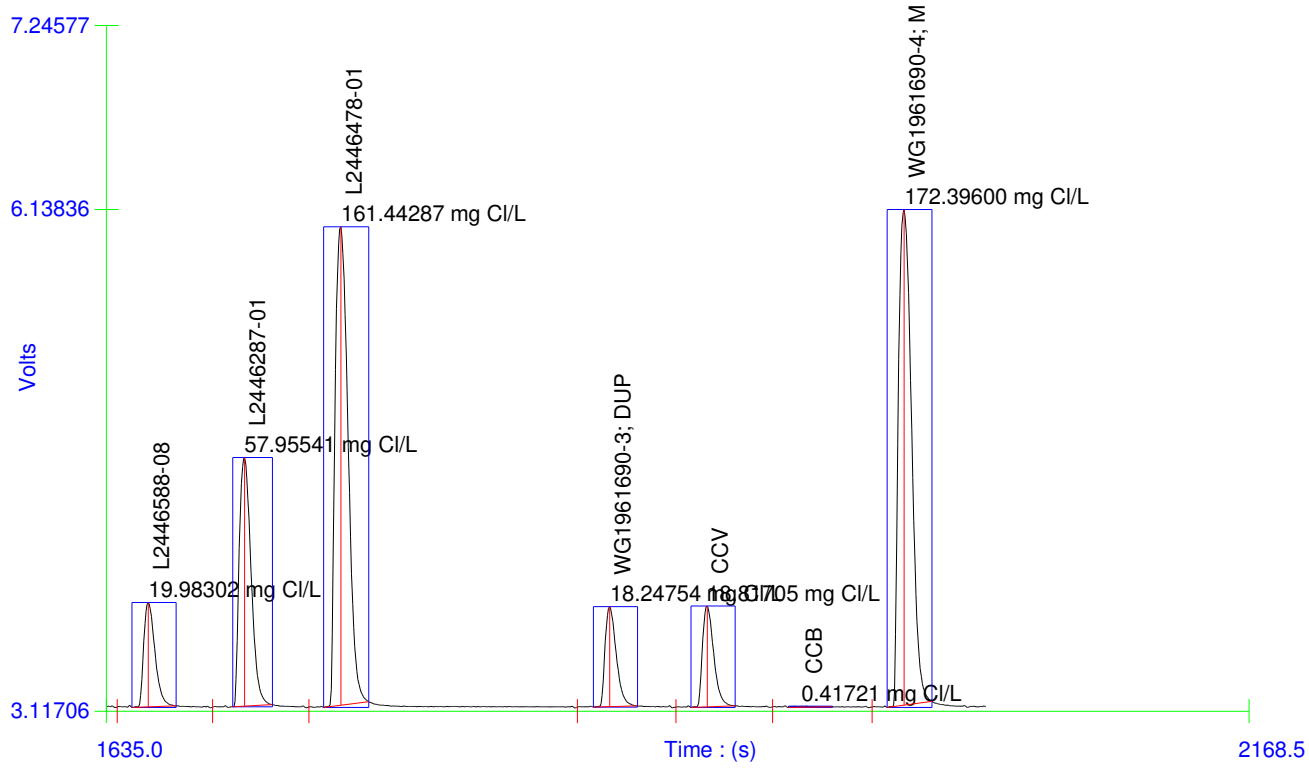
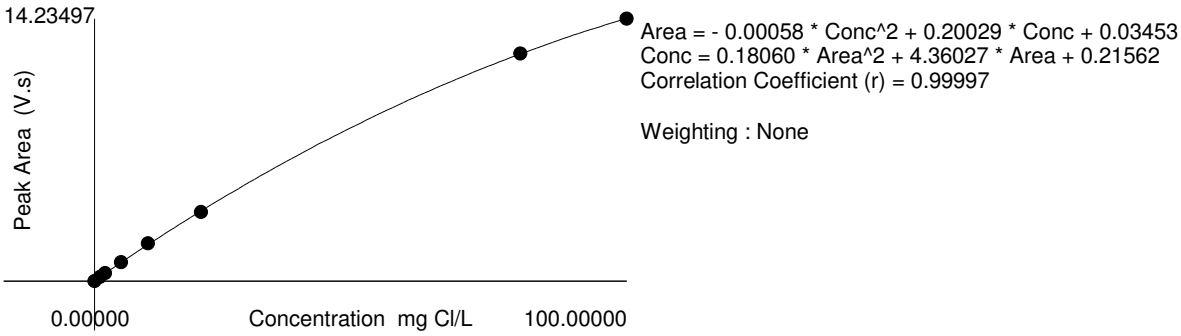


Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



Author: Date : 8/20/2024

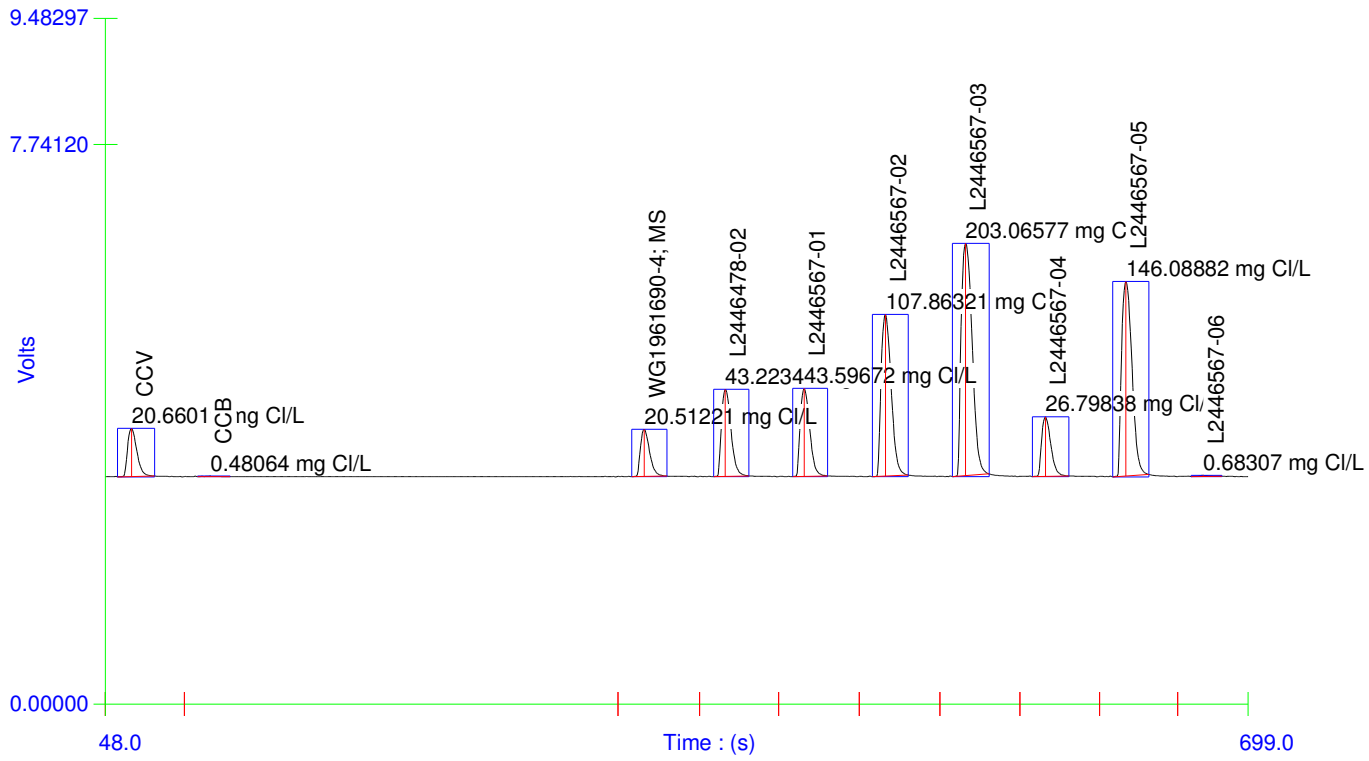
Original Run Filename: OM_8-20-2024_10-13-26PM.OMN Created: 8/20/2024 10:13:26 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_10-13-26PM.OMN Last Modified: 8/20/2024 11:33:01 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight
CCV	1	S3	20.66019			
	Known Conc:		20.00000			
	Calibration:		Table/Fig. : 1			
CCB	1	S9	0.48064			
	Known Conc:		0.00000			
WG1961690-4; MS	1	61	205.12215	10.00		
L2446478-02	1	62	43.22342			
L2446567-01	1	63	43.59672			
L2446567-02	1	64	107.86321			
L2446567-03	1	65	203.06577			
L2446567-04	1	66	26.79838			
L2446567-05	1	67	146.08882			
L2446567-06	1	68	0.68307			
L2446967-01	1	69	97.42790			
L2447184-01	1	70	54.66431	10.00		
CCV	1	S3	18.74009			
	Known Conc:		20.00000			
CCB	1	S9	0.38965			
	Known Conc:		0.00000			
L2447184-02	1	71	404.54883			
L2447184-03	1	72	446.62735			
L2447184-04	1	73	557.14966			
L2447184-05	1	74	6.31486			
WG1961688-4; MS	1	16	1185.76843	10.00		0.10010 g
L2446040-01	1	17	24.07281			
L2446275-01	1	20	4432.42627	100.00		
L2446555-04	1	23	487.18692	10.00		
L2446555-06	1	24	0.49231			
L2446922-03	1	25	126.44619	10.00		
CCV	1	S3	19.06727			
	Known Conc:		20.00000			
CCB	1	S9	0.39497			
	Known Conc:		0.00000			
L2446922-05	1	27	465.06641	10.00		
L2446922-06	1	28	103.75815	10.00		
L2445935-01	1	29	2982.69287	10.00		
L2446420-01	1	30	17.96617			
L2446420-02	1	33	405.90070	10.00		
L2446872-04	1	39	103.99273	10.00		
L2446490-05	1	47	115.80214	10.00		
L2446490-06	1	48	11.76477			
L2446490-08	1	50	10.98292			
L2446588-07	1	56	89.78046	10.00		
CCV	1	S3	18.40871			
	Known Conc:		20.00000			
CCB	1	S9	0.49379			
	Known Conc:		0.00000			
L2446478-01	1	59	184.97131	10.00		
L2446567-02	1	64	104.36871	10.00		
L2446567-03	1	65	240.40428	10.00		
L2446567-04	1	66	24.92300			
L2446567-05	1	67	156.11406	10.00		
L2446567-06	1	68	0.46718			
L2446967-01	1	69	93.95580	10.00		
L2447184-01	1	70	62.53096			
L2447184-02	1	71	847.30377	10.00		
L2447184-03	1	72	976.08435	10.00		
CCV	1	S3	18.42833			

Author: Date : 8/20/2024

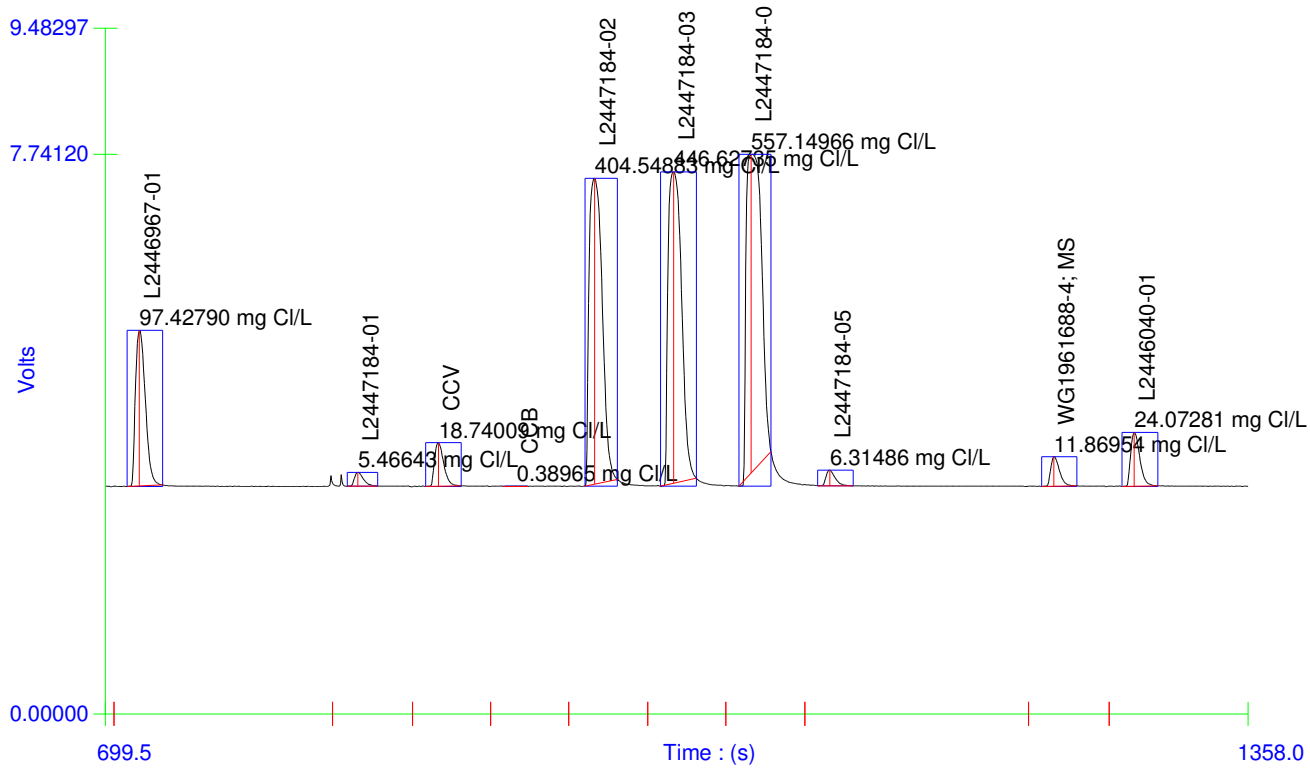
	Known Conc:		20.00000			
CCB	1	S9	0.33943			
	Known Conc:		0.00000			
L2447184-04	1	73	2248.58105	10.00		
L2447184-05	1	74	1.05313			
L2445935-01	1	29	4390.98340	100.00		
L2446420-01	1	30	17.32295			
L2447184-04	1	73	2714.23022	100.00		
L2447184-05	1	74	0.70503			
CCV	1	S3	18.51015			
	Known Conc:		20.00000			
CCB	1	S9	0.37028			
	Known Conc:		0.00000			

Channel 1 (Chloride) - Set: 1 / 6

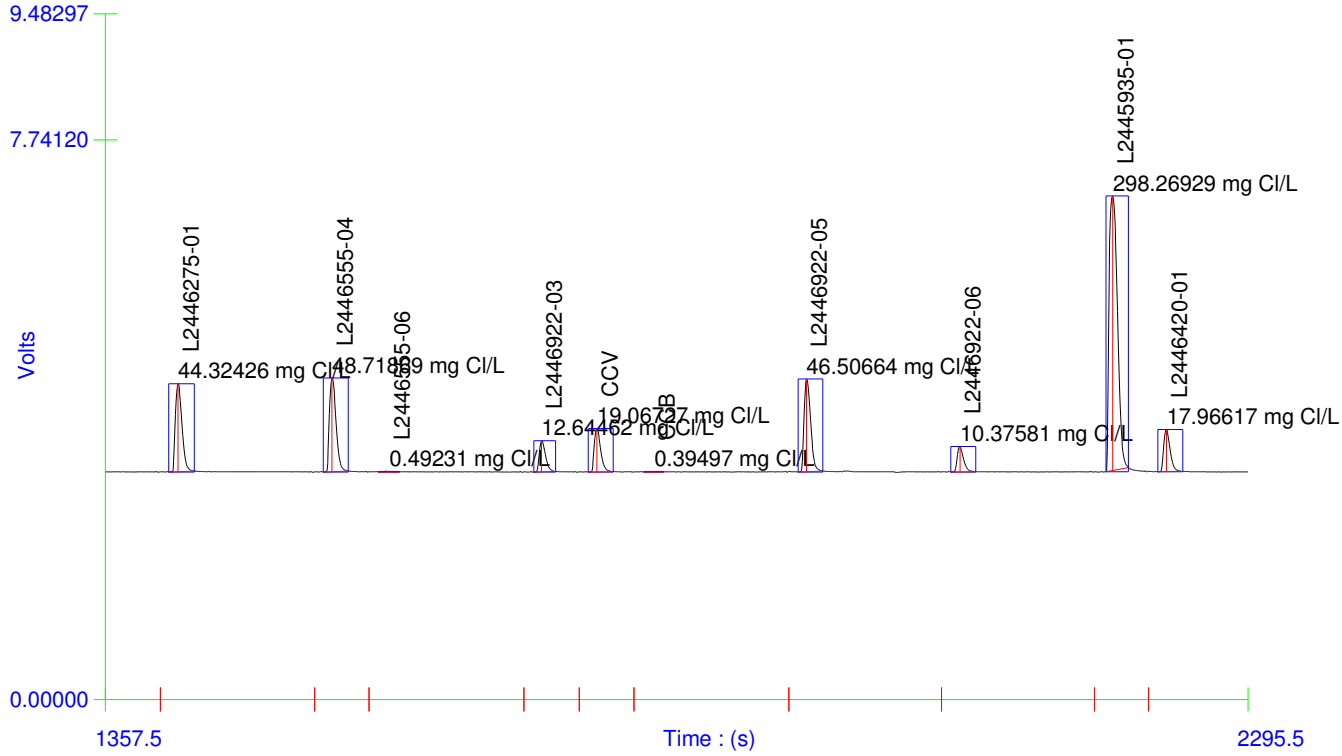


Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 2 / 6



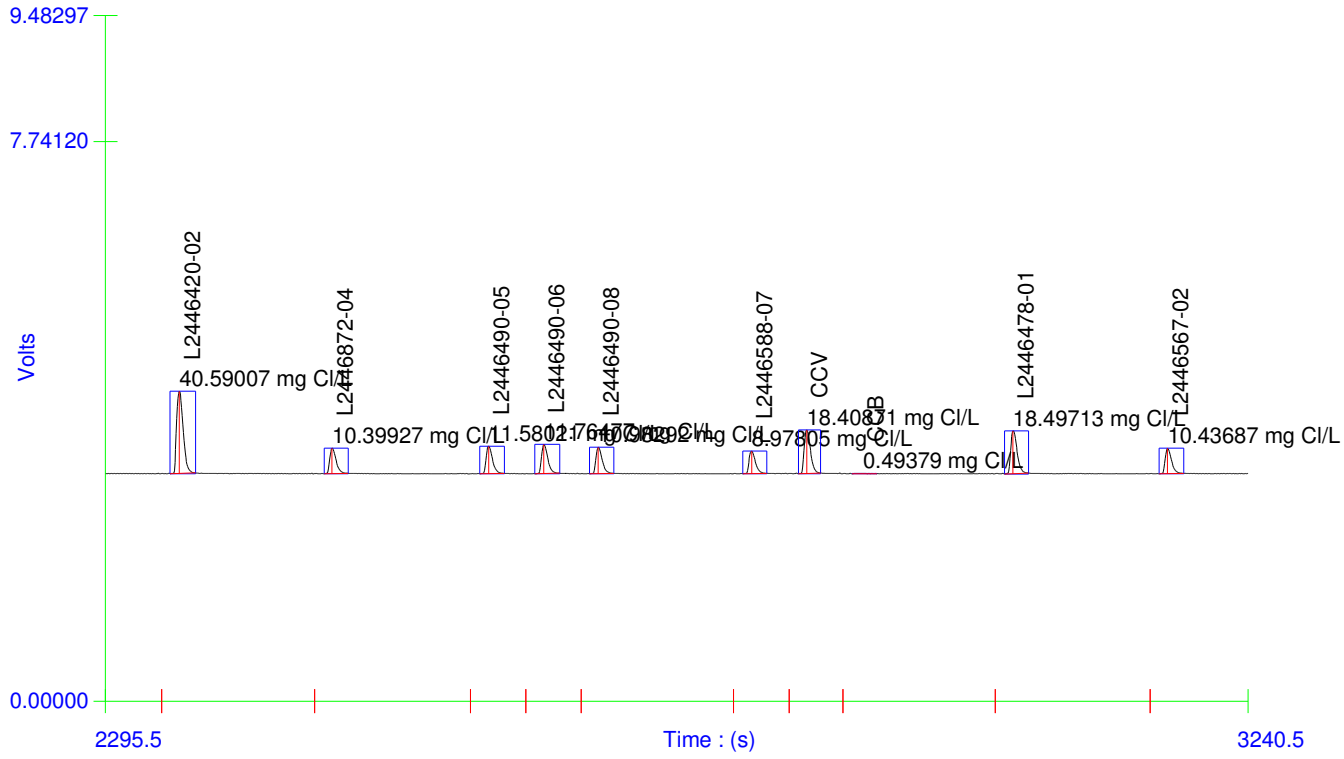
Channel 1 (Chloride) - Set: 3 / 6



Author:

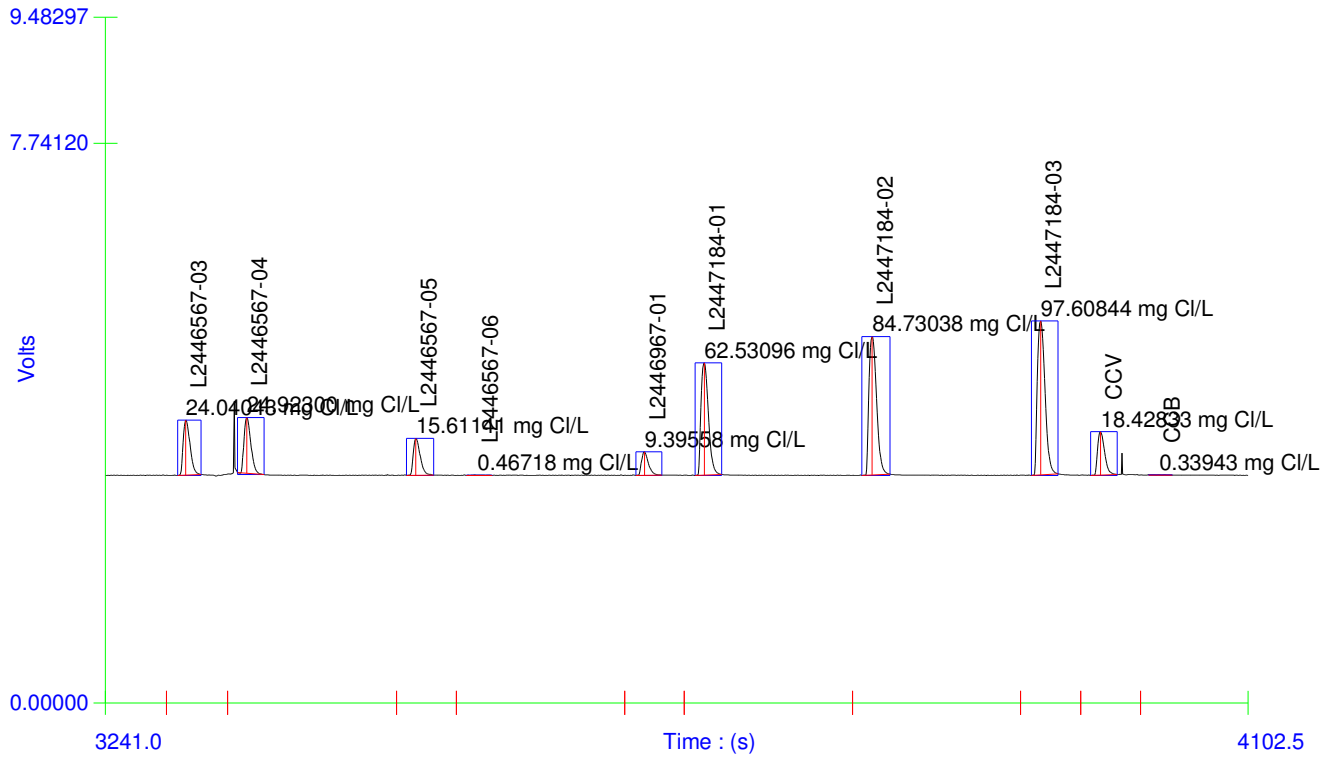
Date : 8/20/2024

Channel 1 (Chloride) - Set: 4 / 6



Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 5 / 6



Channel 1 (Chloride) - Set: 6 / 6

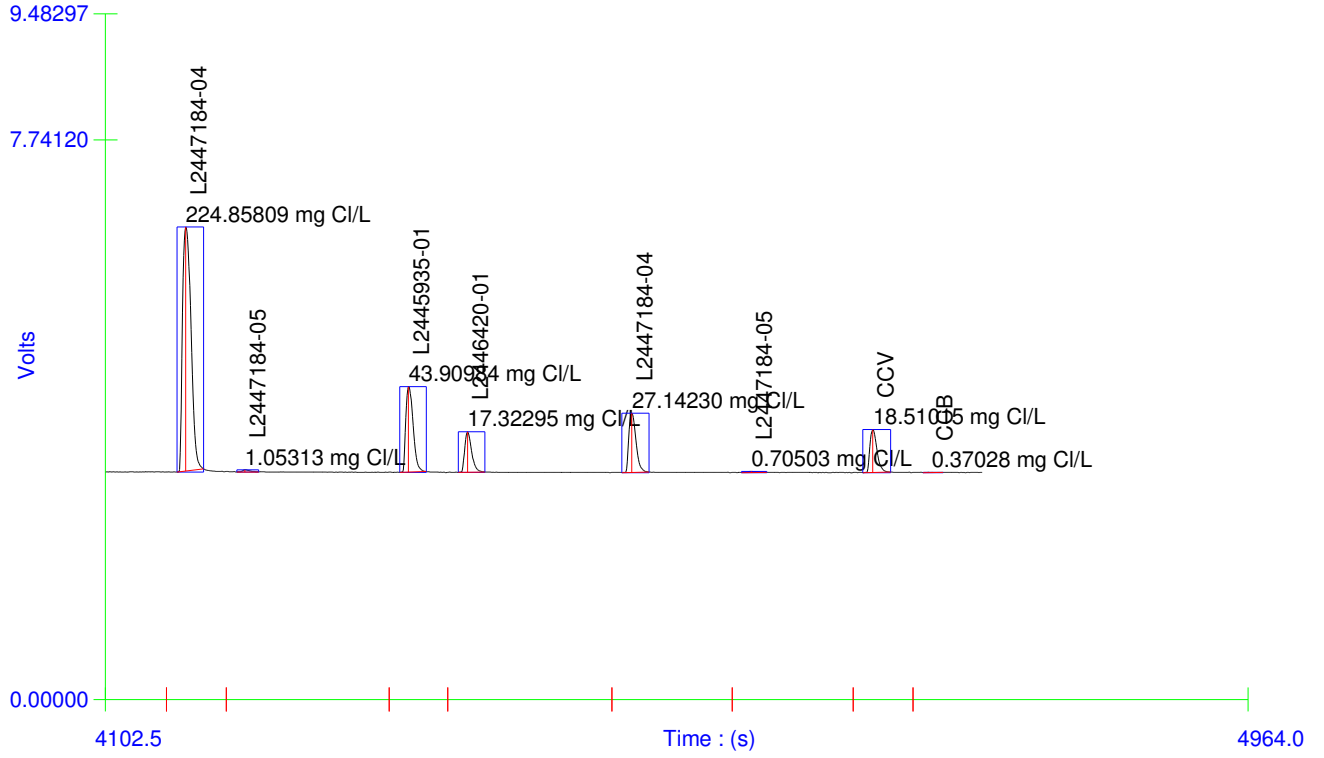
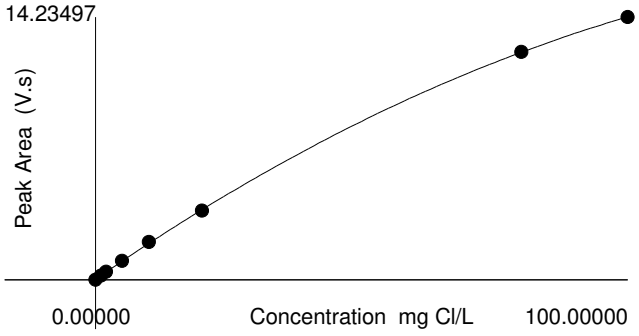


Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



Area = - 0.00058 * Conc^2 + 0.20029 * Conc + 0.03453
Conc = 0.18060 * Area^2 + 4.36027 * Area + 0.21562
Correlation Coefficient (r) = 0.99997

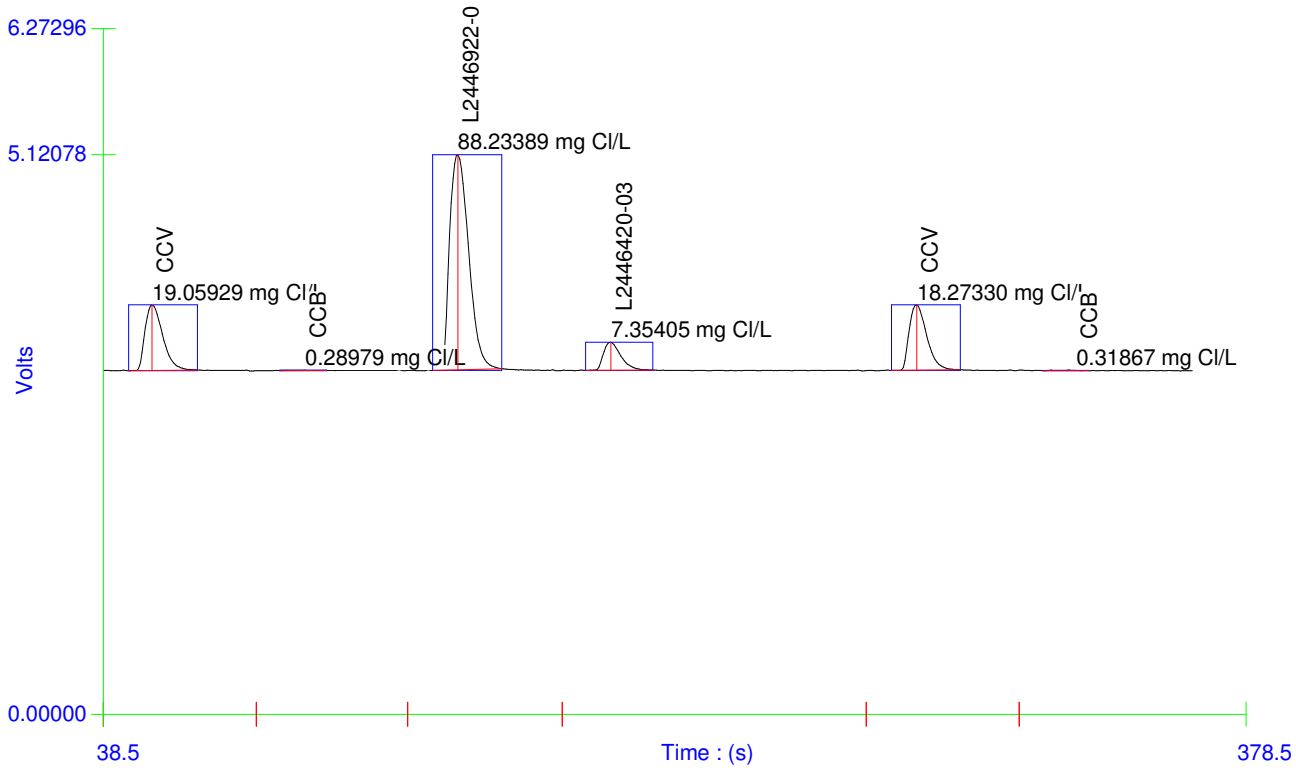
Weighting : None

Author: Date : 8/20/2024

Original Run Filename: OM_8-20-2024_11-51-49PM.OMN Created: 8/20/2024 11:51:49 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_11-51-49PM.OMN Last Modified: 8/20/2024 11:58:09 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight
CCV	1	S3	19.05929			
	Known Conc:		20.00000			
CCB	1	S9	0.28979			
	Known Conc:		0.00000			
	Calibration:		Table/Fig. : 1			
L2446922-04	1	26	88.23389			
L2446420-03	1	34	7.35405			
CCV	1	S3	18.27330			
	Known Conc:		20.00000			
CCB	1	S9	0.31867			
	Known Conc:		0.00000			

Channel 1 (Chloride) - Set: 1 / 1

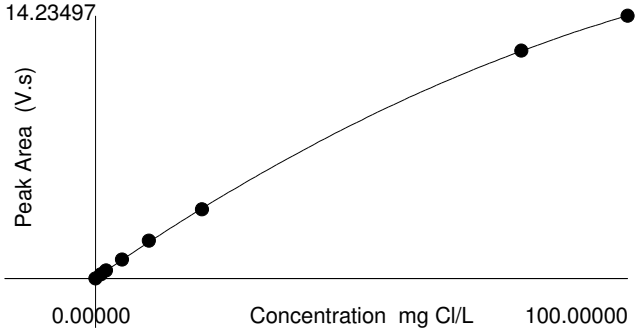


Author: Date : 8/20/2024

Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



Area = - 0.00058 * Conc^2 + 0.20029 * Conc + 0.03453
Conc = 0.18060 * Area^2 + 4.36027 * Area + 0.21562
Correlation Coefficient (r) = 0.99997

Weighting : None

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446040-01		
Matrix Spike	: WG1961689-4	**MS Analysis Date**	: 08/20/24 20:43
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Chloride	24.	20	42.	90					58-140	7

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/20/24 22:34
Dup Sample ID	: WG1961689-3	**DUP Analysis Date**	: 08/20/24 20:42

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Chloride	24	23.	4	7

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446555
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1961689-2	**LCS Analysis Date**	: 08/20/24 20:34
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg/l)	(mg/l)		(mg/l)	(mg/l)			Limits	Limit
Chloride	30.0	28.0	93.					90-110	7

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Chloride	16887-00-6	1	0.2	mg/l	90-110		58-140	7	7	4500CL-E	28 days	1 - Plastic 250ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Chloride	16887-00-6	10	3.73	mg/kg	89-109	35	62-129	35	35	9251	28 days	1 - Glass 250ml/8oz unpreserved
Chloride	16887-00-6	10	3.73	mg/kg	90-110	35	62-129	35	35	4500CL-E	28 days	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Chloride

Aqueous samples:

Compute sample Chloride concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 2 (Chloride)

To compute the final results for aqueous samples, multiply the direct reading by the dilution factor. (also done using software)

Cl mg/L = mg/L direct reading x dilution factor

Sequence Logs

From Page No. ____

1 IVC 5
2 30
3 80
4 ICB
5 1005pm 10+
6 WG1961688-1 MK 5.0193 0.1003
7 -2 MS 5.0817 0.1016
8 WG1961689/87-1 MK
9 -2 MS
10 WG1961691-1 MK
11 -2 MS
12 WG1961690-1 MK
13 -2 MS
14 46256-1 5.0848 0.1017
15 WG1961688-3 dp 5.0915 0.1008
16 -4 MS 5.0074 0.1001
17 46040-1
18 WG1961689-3dp
19 -4 MS
20 46275-1
21 46319-1
22 46335-1
23 46555-4
24 6
25 46922-3
26 4
27 5
28 6
29 45935-1
30 46420-1
31 WG1961687-3 dp
32 -4 MS
33 2
34 3
35 4
36 46872-1
37 2
38 46872-3
39 4
40 46447-1
41 -2
42 46490-1
43 WG1961691-3 dp
44 -4 MS
45 3
46 4
47 5
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49 7
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53 3
54 5
55 6
56 7
57 8
58 46287-1
59 46478-1
60 WG1961690-3 dp
61 -4 MS
62 2
63 46567-1
64 2
65 3
66 4
67 5
68 6
69 46967-1
70 47184-1
71 2
72 3
73 4
74 5

To Page N

Witnessed & Understood by me, Date

Invented by: Date

Recorded by:

Subcontracted Data

10515 Research Dr.
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

ACCREDITED
CERTIFICATE #7157.01

Client: Ben Rao
Pace Analytical (Formerly AlphaLab)
8 Walkup Dr
Westborough, MA 01581

Phone: 201-812-2633

Fax:

Identifier: 053VH **Date Rec:** 08/16/2024 **Report Date:** 08/20/2024

Client Project #: 100963701 **Client Project Name:** 1487 First Ave

Purchase Order #: L2446555

Test Results Provided For: CENSUS

Reviewed By: Sarah Keys

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Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.
10515 Research Dr., Knoxville TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Pace Analytical (Formerly AlphaLab)** **MI Project Number:** **053VH**

Project: 1487 First Ave Date Received: 08/16/2024

Sample Information

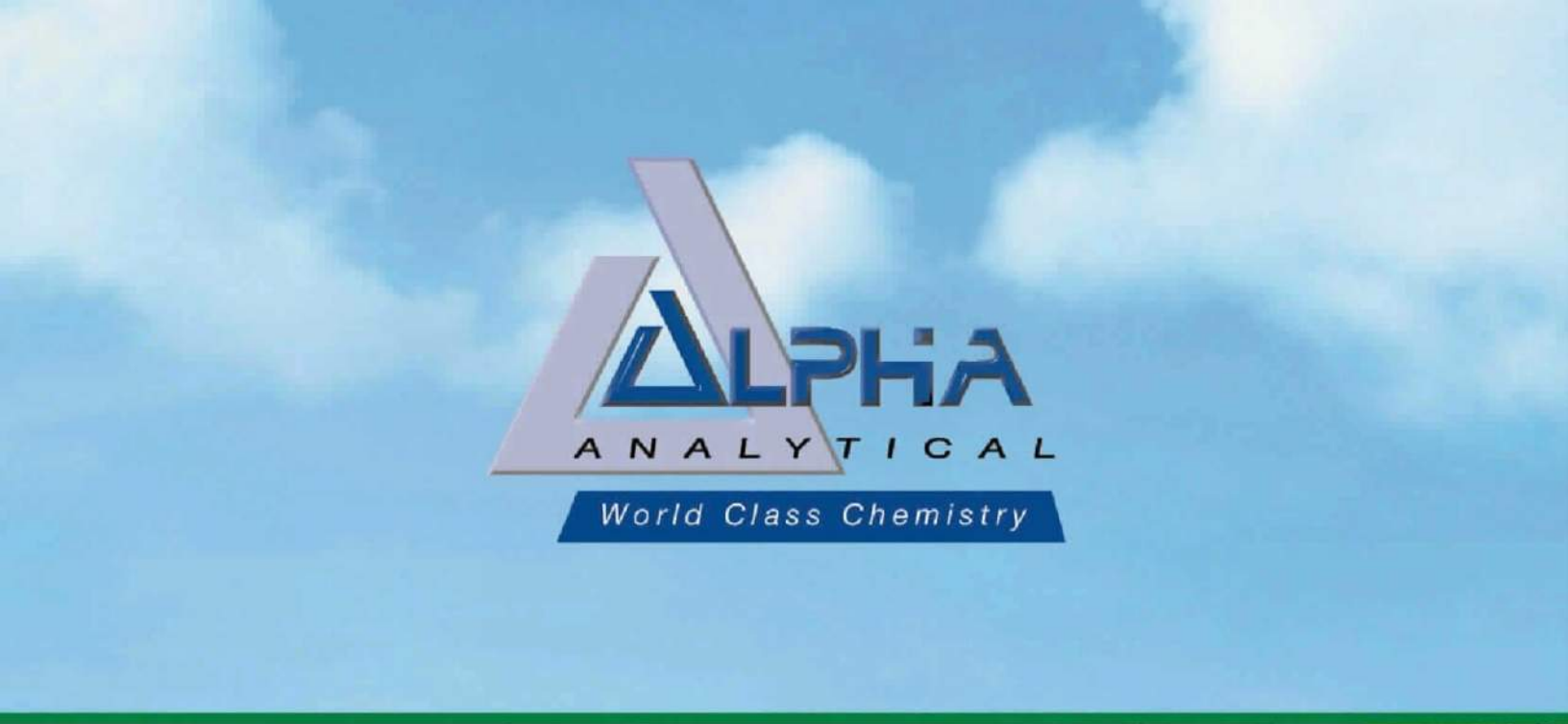
Client Sample ID:		**LMW-7R-S_16.75**	**LMW-8R-S_6.75**
Sample Date:		08/15/2024	08/15/2024
Units:		cells/mL	cells/mL
Analyst/Reviewer:		AR/SK	AR/SK
Dechlorinating Bacteria			
Dehalococcoides	*DHC*	**1.10E+03**	**9.50E+01**
Phylogenetic Group			
Total Eubacteria	EBAC	**8.18E+07**	**2.36E+07**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received: **08/16/2024**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	08/16/2024	08/20/2024	9°C	103%	non-detect	non-detect
EBAC	08/16/2024	08/20/2024	9°C	101%	non-detect	non-detect



www.alphalab.com

Alpha Analytical

Laboratory Code: 11148

SDG Number: L2446922

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Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2446922
Report Date: 08/26/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2446922-01	LMW-8R-D_54.75	WATER	1487 FIRST AVE NY, NY	08/14/24 15:30	08/16/24
L2446922-02	LMW-9R-D_58.25	WATER	1487 FIRST AVE NY, NY	08/14/24 13:40	08/16/24
L2446922-03	LMW-10R-S_24.75	WATER	1487 FIRST AVE NY, NY	08/16/24 10:30	08/16/24
L2446922-04	LMW-8R-S_6.75	WATER	1487 FIRST AVE NY, NY	08/15/24 17:40	08/16/24
L2446922-05	LMW-9R-S_13.75	WATER	1487 FIRST AVE NY, NY	08/16/24 13:00	08/16/24
L2446922-06	LMW-7R-S_6.75	WATER	1487 FIRST AVE NY, NY	08/16/24 15:30	08/16/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

August 26, 2024: This final report includes the results of all requested analyses.

August 23, 2024: This is a preliminary report.

August 19, 2024: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analyses of DHC and EBAC were subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Sample Receipt

L2446922-01 through -06: The Client IDs were changed at the client's request.

L2446922-02 through -06: Headspace was noted in the sample container submitted for Total Alkalinity - SM 2320.

L2446922-04: The collection date and time on the chain of custody was 16-AUG-24 17:40; however, the collection date/time on the container label was 15-AUG-24 17:40. At the client's request, the collection date/time is reported as 15-AUG-24 17:40.

L2446922-04: The sample was received above the appropriate pH for the Total Metals analysis. The laboratory added additional HNO3; however, the pH would not adjust into the proper range.

L2446922-05: The sample was received above the appropriate pH for the Total Metals analysis. The laboratory added additional HNO3 to a pH <2.

Dissolved Organic Carbon

L2446922-04: The sample was filtered with the method required holding time exceeded.

Total Organic Carbon

L2446922-04: The DOC result is greater than the TOC result due to the filtering procedure required by the

Case Narrative (continued)

DOC method.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristen Walker Report Date: 08/26/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD	
	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2446922

Received : 16-AUG-2024
Reviewer : Owen Jefferson

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVE

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.9	

Condition Information

1) All samples on COC received? **YES**

2) Extra samples received? **NO**

3) Are there any sample container discrepancies? **NO**

4) Are there any discrepancies between COC & sample labels? **YES**
L2446922-04: 16-AUG-24 17:40 vs. 15-AUG-24 17:40

5) Are samples in appropriate containers for requested analysis? **YES**

6) Are samples properly preserved for requested analysis? **NO**

Container	pH	Preservative Added	Final pH
L2446922-04H	4	HNO3	4
L2446922-05G	4	HNO3	<2

Following containers were received with headspace: -02B, -03G, -04F, -05E, -06E

7) Are samples within holding time for requested analysis? **YES**

8) All sampling equipment returned? **NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client? **NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 26 2024, 02:03 pm

Login Number: L2446922
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 16AUG24 Due Date: 30AUG24

Sample #	Client ID	Mat	PR	Collected
L2446922-01	LMW-8R-D_54.75		1 1A	14AUG24 15:30

Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 08/30/24

ASP-B,NYTCL-8260

Sample #	Client ID	Mat	PR	Collected
L2446922-02	LMW-9R-D_58.25		1 1A	14AUG24 13:40

Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/30/24

NYTCL-8260

Sample #	Client ID	Mat	PR	Collected
L2446922-03	LMW-10R-S_24.75		1 1A	16AUG24 10:30

FILTER: DOC SUB DHC/EBAC sent direct from field by Langan to Microbial Insights Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/30/24

ALK-T-2320,CA-6020T,CL-4500,DOC-9060,FE-6020T,FILTER,HARDT-6020,MG-6020T,MN-6020T,NO3-4500,PREPT, SO4-9038,SUB-DHC,TOC-9060

Sample #	Client ID	Mat	PR	Collected
L2446922-04	LMW-8R-S_6.75		1 1A	15AUG24 17:40

HNO3 added 8/17/24 04:17 -ODJ FILTER: DOC SUB DHC/EBAC sent direct from field by Langan to Microbial Insights Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/30/24

ALK-T-2320,CA-6020T,CL-4500,DOC-9060,FE-6020T,FILTER,HARDT-6020,MG-6020T,MN-6020T,NO3-4500,PREPT, SO4-9038,TOC-9060

Sample #	Client ID	Mat	PR	Collected
L2446922-05	LMW-9R-S_13.75		1 1A	16AUG24 13:00

HNO3 added 8/17/24 04:18 -ODJ FILTER: DOC SUB DHC/EBAC sent direct from field by Langan to Microbial Insights Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/30/24

ALK-T-2320,CA-6020T,CL-4500,DOC-9060,FE-6020T,FILTER,HARDT-6020,MG-6020T,MN-6020T,NO3-4500,PREPT, SO4-9038,SUB-DHC,TOC-9060

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 26 2024, 02:03 pm

Login Number: L2446922

Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701

Received: 16AUG24 Due Date: 30AUG24

Sample #	Client ID	Mat	PR	Collected
L2446922-06	LMW-7R-S_6.75		1 1A	16AUG24 15:30

FILTER: DOC SUB DHC/EBAC sent direct from field by Langan to Microbial Insights Batch Separately, Run On Same Instrument When Possible Package Due Date: 08/30/24

ALK-T-2320,CA-6020T,CL-4500,DOC-9060,FE-6020T,FILTER,HARDT-6020,MG-6020T,MN-6020T,NO3-4500,PREPT, SO4-9038,SUB-DHC,TOC-9060

Logged By: Ben Rao

NEW YORK CHAIN OF CUSTODY

L2446922 19AUG24
LANGAN – NJ

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab 8/17/24

Client Information
Client: LANGAN
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfiscia@langan.com

Project Information
Project Name: 1487 First Ave
Project Location: 1487 First Ave NY, NY
Project #: 100963701
(Use Project name as Project #) ☒
Project Manager: Jessica Fiscia
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☒ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
RUSH ONLY VOC

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOC	Alk, T-2320 Hardness	Metals (Iron, calcium, magnesium, manganese)	Chloride, sulfate, nitrate, total organic carbon	Dissolved org. carbon	Total Bottle	Sample Specific Comments
46922-01	LMW-8RD-54.73	8/14	1530	AQ	RB	X						
-02	LMW-9RD-58.25	8/14	1340			X						
-03	LMW-10RS-27.75	8/16	1030				X	X	X	X		
-04	LMW-8RS-6.75		1740				X	X	X	X		
-05	LMW-9RS-13.75		1300				X	X	X	X		
-06	LMW-7RS-6.75		1531				X	X	X	X		
	(RB)											

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
Rob Bandstra	8/16 1642	MS/MA(AN)	8/16 16:50
MS/MA(AN)	8/16 18:00		8/16 1900
	8/17 100		8/16 2300
		Pace	8/17/24 1:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVE

Lab Number: L2446922
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
LMW-8R-D_54.75 (L2446922-01)	99	97	92	103	0
LMW-9R-D_58.25 (L2446922-02)	98	97	91	105	0
WG1960966-3LCS	95	98	89	103	0
WG1960966-4LCSD	97	99	90	105	0
WG1960966-5BLANK	102	100	92	106	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1960966-3 **Analysis Date** : 08/19/24 06:33	**File ID**	: VE240819A02
LCSD Sample ID	: WG1960966-4 **Analysis Date** : 08/19/24 06:57	**File ID**	: VE240819A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.8	98	10	10	100	2	70-130	20
1,1-Dichloroethane	10	10	100	10	11	110	10	70-130	20
Chloroform	10	10	100	10	11	110	10	70-130	20
Carbon tetrachloride	10	11	110	10	11	110	0	63-132	20
1,2-Dichloropropane	10	10	100	10	10	100	0	70-130	20
Dibromochloromethane	10	9.8	98	10	9.8	98	0	63-130	20
1,1,2-Trichloroethane	10	9.8	98	10	9.8	98	0	70-130	20
Tetrachloroethene	10	11	110	10	11	110	0	70-130	20
Chlorobenzene	10	11	110	10	11	110	0	75-130	20
Trichlorofluoromethane	10	11	110	10	12	120	9	62-150	20
1,2-Dichloroethane	10	10	100	10	10	100	0	70-130	20
1,1,1-Trichloroethane	10	10	100	10	11	110	10	67-130	20
Bromodichloromethane	10	10	100	10	11	110	10	67-130	20
trans-1,3-Dichloropropene	10	9.7	97	10	9.7	97	0	70-130	20
cis-1,3-Dichloropropene	10	10	100	10	10	100	0	70-130	20
1,1-Dichloropropene	10	10	100	10	11	110	10	70-130	20
Bromoform	10	8.8	88	10	8.8	88	0	54-136	20
1,1,2,2-Tetrachloroethane	10	8.9	89	10	9.0	90	1	67-130	20
Benzene	10	10	100	10	11	110	10	70-130	20
Toluene	10	10	100	10	11	110	10	70-130	20
Ethylbenzene	10	11	110	10	11	110	0	70-130	20
Chloromethane	10	10	100	10	10	100	0	64-130	20
Bromomethane	10	13	130	10	15	150 Q	14	39-139	20
Vinyl chloride	10	10	100	10	11	110	10	55-140	20
Chloroethane	10	12	120	10	12	120	0	55-138	20
1,1-Dichloroethene	10	9.8	98	10	10	100	2	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L2446922
Project Name : 1487 FIRST AVE **Project Number** : 100963701
Matrix (Level) : WATER (LOW)
LCS Sample ID : WG1960966-3 **Analysis Date** : 08/19/24 06:33 **File ID** : VE240819A02
LCSD Sample ID : WG1960966-4 **Analysis Date** : 08/19/24 06:57 **File ID** : VE240819A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	11	110	10	11	110	0	70-130	20
Trichloroethene	10	11	110	10	11	110	0	70-130	20
1,2-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,3-Dichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,4-Dichlorobenzene	10	10	100	10	11	110	10	70-130	20
Methyl tert butyl ether	10	9.0	90	10	9.1	91	1	63-130	20
p/m-Xylene	20	22	110	20	23	115	4	70-130	20
o-Xylene	20	22	110	20	23	115	4	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	11	110	10	70-130	20
Dibromomethane	10	10	100	10	10	100	0	70-130	20
1,2,3-Trichloropropane	10	8.9	89	10	8.7	87	2	64-130	20
Acrylonitrile	10	7.8	78	10	7.9	79	1	70-130	20
Styrene	20	22	110	20	23	115	4	70-130	20
Dichlorodifluoromethane	10	8.4	84	10	8.7	87	4	36-147	20
Acetone	10	7.0	70	10	6.4	64	9	58-148	20
Carbon disulfide	10	10	100	10	11	110	10	51-130	20
2-Butanone	10	6.7	67	10	6.6	66	2	63-138	20
Vinyl acetate	10	9.4	94	10	9.5	95	1	70-130	20
4-Methyl-2-pentanone	10	7.2	72	10	7.4	74	3	59-130	20
2-Hexanone	10	6.2	62	10	6.5	65	5	57-130	20
Bromochloromethane	10	11	110	10	11	110	0	70-130	20
2,2-Dichloropropane	10	11	110	10	11	110	0	63-133	20
1,2-Dibromoethane	10	9.2	92	10	9.4	94	2	70-130	20
1,3-Dichloropropane	10	9.8	98	10	9.8	98	0	70-130	20
1,1,1,2-Tetrachloroethane	10	10	100	10	11	110	10	64-130	20
Bromobenzene	10	10	100	10	10	100	0	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1960966-3 **Analysis Date** : 08/19/24 06:33	**File ID**	: VE240819A02
LCSD Sample ID	: WG1960966-4 **Analysis Date** : 08/19/24 06:57	**File ID**	: VE240819A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	10	100	10	10	100	0	53-136	20
sec-Butylbenzene	10	10	100	10	10	100	0	70-130	20
tert-Butylbenzene	10	10	100	10	10	100	0	70-130	20
o-Chlorotoluene	10	10	100	10	10	100	0	70-130	20
p-Chlorotoluene	10	10	100	10	10	100	0	70-130	20
1,2-Dibromo-3-chloropropane	10	6.8	68	10	7.4	74	8	41-144	20
Hexachlorobutadiene	10	10	100	10	10	100	0	63-130	20
Isopropylbenzene	10	10	100	10	10	100	0	70-130	20
p-Isopropyltoluene	10	10	100	10	10	100	0	70-130	20
Naphthalene	10	7.7	77	10	7.9	79	3	70-130	20
n-Propylbenzene	10	10	100	10	11	110	10	69-130	20
1,2,3-Trichlorobenzene	10	8.4	84	10	8.8	88	5	70-130	20
1,2,4-Trichlorobenzene	10	9.2	92	10	9.3	93	1	70-130	20
1,3,5-Trimethylbenzene	10	10	100	10	11	110	10	64-130	20
1,2,4-Trimethylbenzene	10	10	100	10	10	100	0	70-130	20
1,4-Dioxane	500	380	76	500	390	78	3	56-162	20
p-Diethylbenzene	10	9.8	98	10	10	100	2	70-130	20
p-Ethyltoluene	10	10	100	10	11	110	10	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.3	93	10	9.7	97	4	70-130	20
Ethyl ether	10	10	100	10	9.5	95	5	59-134	20
trans-1,4-Dichloro-2-butene	10	8.3	83	10	7.8	78	6	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG1960966-5	**Lab File ID**	: VE240819A05
Instrument ID	: ELAINE		
Matrix	: WATER	**Analysis Date**	: 08/19/24 07:46

Client Sample No.	Lab Sample ID	Analysis Date
WG1960966-3LCS	WG1960966-3	08/19/24 06:33
WG1960966-4LCSD	WG1960966-4	08/19/24 06:57
LMW-8R-D_54.75	L2446922-01	08/19/24 08:35
LMW-9R-D_58.25	L2446922-02	08/19/24 09:00

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 07/31/24 17:25
Tune Standard	: WG1954249-1	**Tune File ID**	: VE240731NBF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 80.0% of mass 95	47.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5 (.6)1
174	Greater than 50.0% of mass 95	83.7
175	5.0 - 9.0% of mass 174	6 (7.1)1
176	Greater than 95.0% but less than 101% of mass	80.5 (96.2)1
177	5.0 - 9.0% of mass 176	5.2 (6.5)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1859523-1	VE240731N03	07/31/24 18:35
STD0.5PPB	R1859523-2	VE240731N05	07/31/24 19:26
STD2PPB	R1859523-4	VE240731N07	07/31/24 20:16
STD10PPB	R1859523-3	VE240731N08	07/31/24 20:42
STD30PPB	R1859523-5	VE240731N09	07/31/24 21:07
STD80PPB	R1859523-6	VE240731N10	07/31/24 21:32
STD120PPB	R1859523-7	VE240731N11	07/31/24 21:57
STD200PPB	R1859523-8	VE240731N12	07/31/24 22:22
ICV Quant Report	R1859523-9	VE240731N17	08/01/24 00:28

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 08/19/24 05:49
Tune Standard	: WG1960966-1	**Tune File ID**	: VE240819ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	26.3
75	30.0 - 80.0% of mass 95	51.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.7 (.8)1
174	Greater than 50.0% of mass 95	91.2
175	5.0 - 9.0% of mass 174	6.8 (7.4)1
176	Greater than 95.0% but less than 101% of mass	87.8 (96.2)1
177	5.0 - 9.0% of mass 176	5.8 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1960966-2CCAL	WG1960966-2	VE240819A02	08/19/24 06:33
WG1960966-3LCS	WG1960966-3	VE240819A02	08/19/24 06:33
WG1960966-4LCSD	WG1960966-4	VE240819A03	08/19/24 06:57
WG1960966-5BLANK	WG1960966-5	VE240819A05	08/19/24 07:46
LMW-8R-D_54.75	L2446922-01	VE240819A07	08/19/24 08:35
LMW-9R-D_58.25	L2446922-02	VE240819A08	08/19/24 09:00

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 08/19/24 06:33:00
Sample No	: WG1960966-2	**Lab File ID**	: VE240819A02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1960966-2	184826	5.96	135622	9.49	81358	12.20
Upper Limit	369652	6.46	271244	9.99	162716	12.70
Lower Limit	92413	5.46	67811	8.99	40679	11.70
Sample ID						
WG1960966-3 LCS	184826	5.96	135622	9.49	81358	12.20
WG1960966-4 LCSD	182247	5.96	134604	9.49	80743	12.20
WG1960966-5 BLANK	172503	5.96	129194	9.49	73170	12.21
LMW-8R-D_54.75	173819	5.96	132464	9.49	79055	12.21
LMW-9R-D_58.25	176425	5.96	133975	9.49	80789	12.20

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

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Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-01	**Date Collected**	: 08/14/24 15:30
Client ID	: LMW-8R-D_54.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 08:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-01	**Date Collected**	: 08/14/24 15:30
Client ID	: LMW-8R-D_54.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 08:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	6.1	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	3.3	5.0	1.9	J
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-01	**Date Collected**	: 08/14/24 15:30
Client ID	: LMW-8R-D_54.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 08:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-01	**Date Collected**	: 08/14/24 15:30
Client ID	: LMW-8R-D_54.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 08:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A07	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-02	**Date Collected**	: 08/14/24 13:40
Client ID	: LMW-9R-D_58.25	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 09:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	3.9	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.27	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-02	**Date Collected**	: 08/14/24 13:40
Client ID	: LMW-9R-D_58.25	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 09:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	0.65	2.5	0.17	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	2.2	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-02	**Date Collected**	: 08/14/24 13:40
Client ID	: LMW-9R-D_58.25	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 09:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-02	**Date Collected**	: 08/14/24 13:40
Client ID	: LMW-9R-D_58.25	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/19/24 09:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A08	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960966-5	**Date Collected**	: NA
Client ID	: WG1960966-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/19/24 07:46
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960966-5	**Date Collected**	: NA
Client ID	: WG1960966-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/19/24 07:46
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960966-5	**Date Collected**	: NA
Client ID	: WG1960966-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/19/24 07:46
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960966-5	**Date Collected**	: NA
Client ID	: WG1960966-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/19/24 07:46
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE240819A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A07.D
Acq On : 19 Aug 2024 8:35 am
Operator : ELAINE:MJV
Sample : l2446922-01,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 09:23:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.961	96	173819	10.000 ug/L	0.00
Standard Area 1 = 184826			Recovery = 94.04%		
63) Chlorobenzene-d5	9.492	117	132464	10.000 ug/L	0.00
Standard Area 1 = 135622			Recovery = 97.67%		
84) 1,4-Dichlorobenzene-d4	12.205	152	79055	10.000 ug/L	0.00
Standard Area 1 = 81358			Recovery = 97.17%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.153	113	42097	10.346 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.46%		
47) 1,2-Dichloroethane-d4	5.674	65	53969	9.940 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.40%		
64) Toluene-d8	7.649	98	168934	9.682 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.82%		
88) 4-Bromofluorobenzene	10.989	95	66887	9.159 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.59%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.422	85	25	N.D.	
3) Chloromethane	1.781	50	100	N.D.	
4) Vinyl chloride	1.851	62	204	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.992	76	295	N.D.	
15) Methylene chloride	3.454	84	31	N.D.	
17) Acetone	3.494	43	7802	6.118 ug/L	96
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	4.333	63	26	N.D.	
27) Acrylonitrile	4.350	53	30	N.D.	
29) Vinyl acetate	4.450	43	56	N.D.	
30) cis-1,2-Dichloroethene	4.715	96	26	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	4.977	83	38	N.D.	

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A07.D
Acq On : 19 Aug 2024 8:35 am
Operator : ELAINE:MJV
Sample : l2446922-01,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 09:23:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.		
42) 2-Butanone	5.275	43	6005M3	3.295	ug/L	
43) 1,1-Dichloropropene	0.000		0	N.D.		
45) Benzene	5.538	78	747	N.D.		
48) 1,2-Dichloroethane	0.000		0	N.D.		
52) Trichloroethene	6.014	95	189	N.D.		
54) Dibromomethane	0.000		0	N.D.		
55) 1,2-Dichloropropane	0.000		0	N.D.		
58) Bromodichloromethane	6.935	83	37	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	7.710	92	4274	0.469	ug/L	90
66) 4-Methyl-2-pentanone	8.145	58	65	N.D.		
67) Tetrachloroethene	0.000		0	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	0.000		0	N.D.		
75) 1,2-Dibromoethane	0.000		0	N.D.		
77) 2-Hexanone	0.000		0	N.D. d		
78) Chlorobenzene	0.000		0	N.D. d		
79) Ethylbenzene	9.550	91	146	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.768	106	27	N.D.		
82) o Xylene	10.298	106	27	N.D.		
83) Styrene	10.359	104	113	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.649	105	27	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.143	91	82	N.D.		
92) 1,1,2,2-Tetrachloroethane	11.330	83	25	N.D.		
93) 4-Ethyltoluene	11.279	105	114	N.D.		
94) 2-Chlorotoluene	11.316	91	56	N.D.		
95) 1,3,5-Trimethylbenzene	11.377	105	67	N.D.		
96) 1,2,3-Trichloropropane	11.380	75	28	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d		
98) 4-Chlorotoluene	11.508	91	142	N.D.		
99) tert-Butylbenzene	11.717	119	62	N.D.		

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A07.D
Acq On : 19 Aug 2024 8:35 am
Operator : ELAINE:MJV
Sample : l2446922-01,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 09:23:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.793	105	677	N.D.		
103) sec-Butylbenzene	11.915	105	31	N.D.		
104) p-Isopropyltoluene	12.069	119	120	N.D.		
105) 1,3-Dichlorobenzene	12.138	146	28	N.D.		
106) 1,4-Dichlorobenzene	12.214	146	151	N.D.		
107) p-Diethylbenzene	12.434	119	37	N.D.		
108) n-Butylbenzene	12.490	91	255	N.D.		
109) 1,2-Dichlorobenzene	12.643	146	29	N.D.		
110) 1,2,4,5-Tetramethylben...	13.229	119	515	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	d	
113) Hexachlorobutadiene	14.037	225	26	N.D.		
114) 1,2,4-Trichlorobenzene	14.051	180	111	N.D.		
115) Naphthalene	14.344	128	910	N.D.		
116) 1,2,3-Trichlorobenzene	14.514	180	28	N.D.		

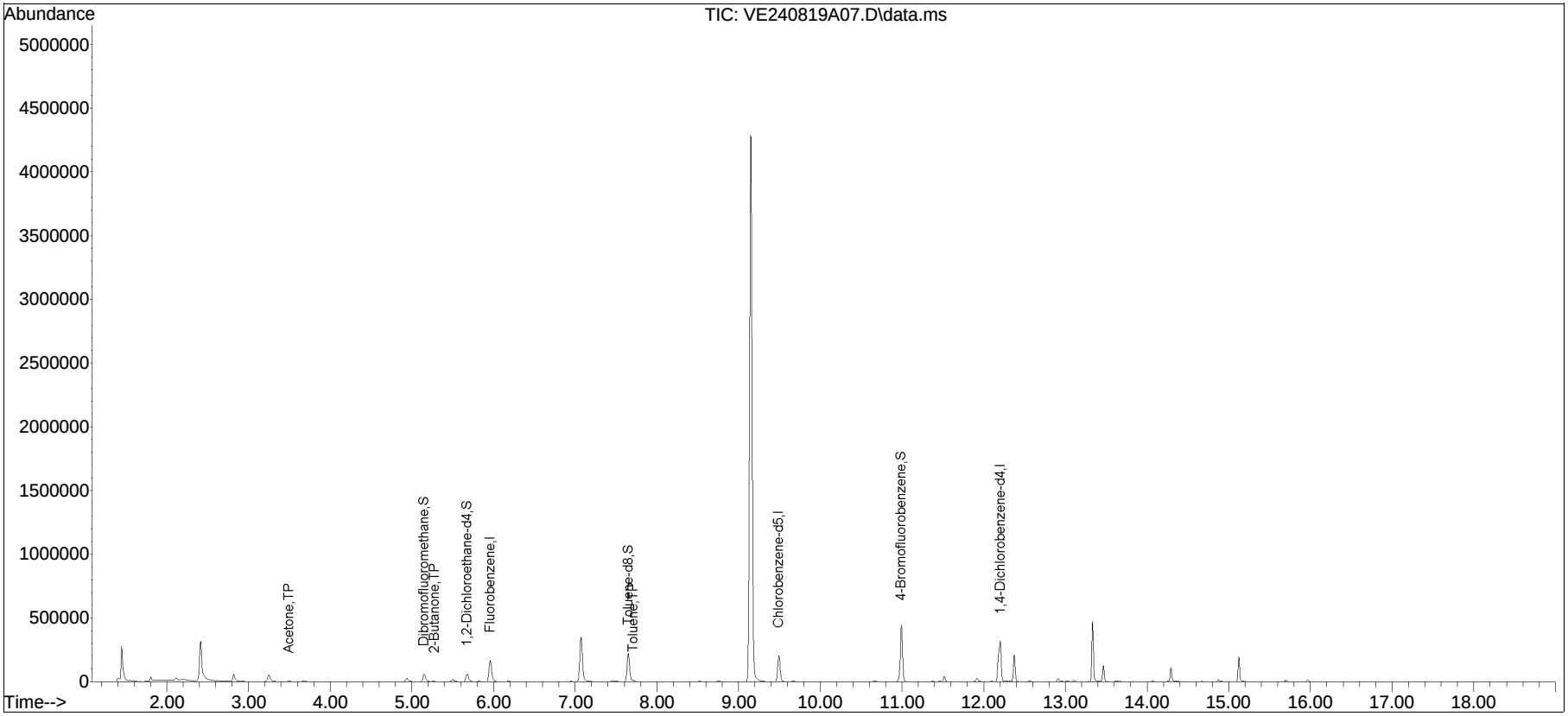
(#) = qualifier out of range (m) = manual integration (+) = signals summed

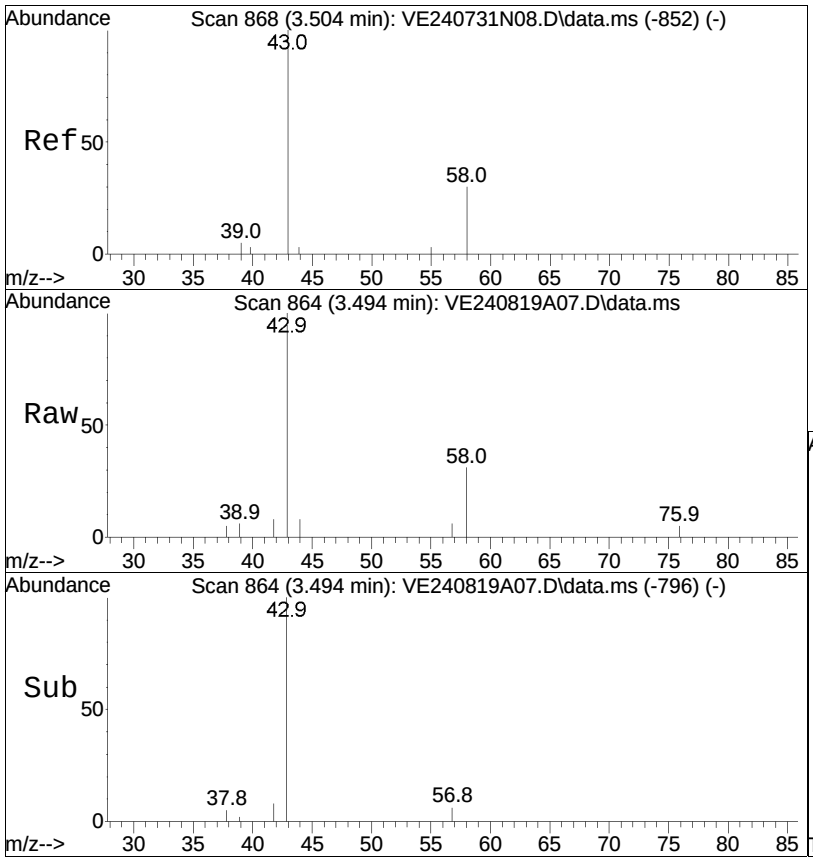
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A07.D
Acq On : 19 Aug 2024 8:35 am
Operator : ELAINE:MJV
Sample : l2446922-01,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 09:23:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40819A02.D•

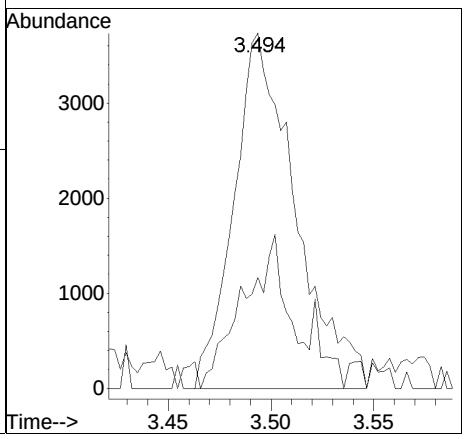


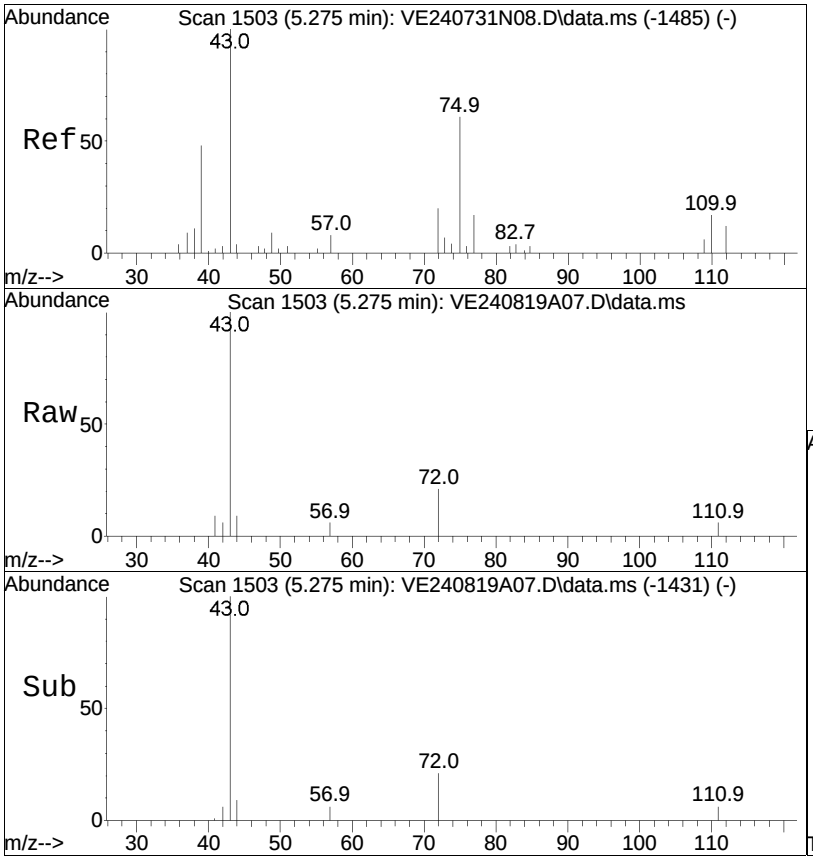


#17
Acetone
Concen: 6.12 ug/L
RT: 3.494 min Scan# 864
Delta R.T. -0.010 min
Lab File: VE240819A07.D
Acq: 19 Aug 2024 8:35 am

Tgt Ion: 43 Resp: 7802

Ion	Ratio	Lower	Upper
43	100		
58	31.6	23.4	35.0

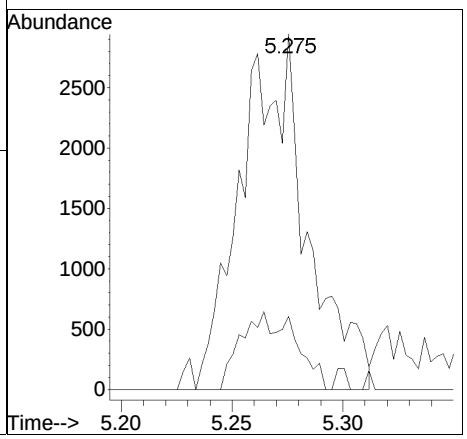


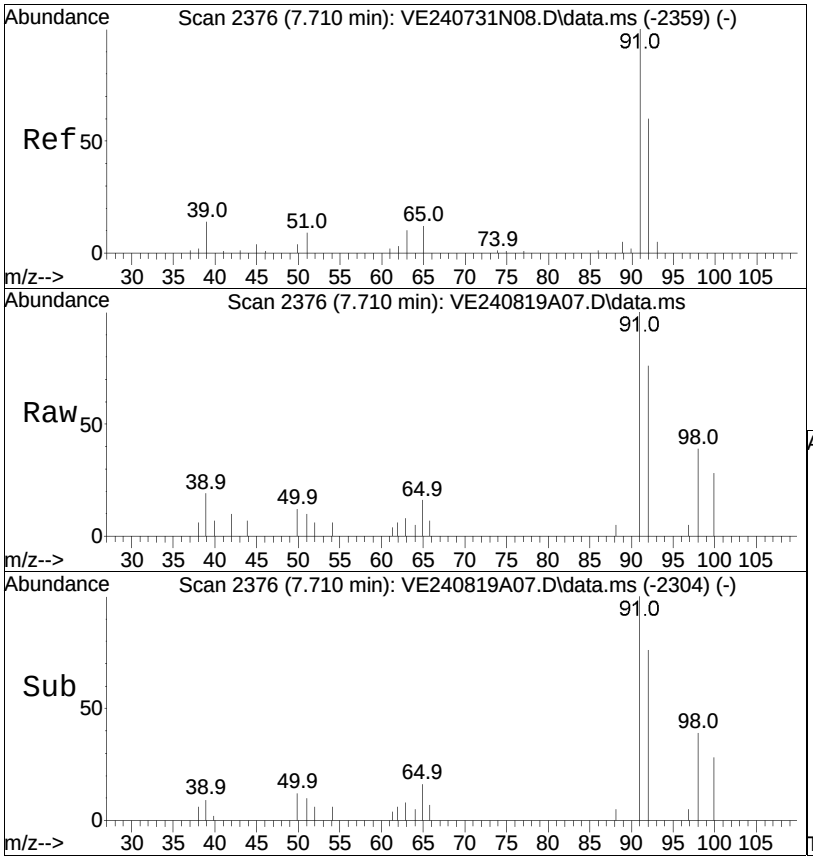


#42
2-Butanone
Concen: 3.30 ug/L M3
RT: 5.275 min Scan# 1503
Delta R.T. 0.000 min
Lab File: VE240819A07.D
Acq: 19 Aug 2024 8:35 am

Tgt Ion: 43 Resp: 6005

Ion	Ratio	Lower	Upper
43	100		
72	11.3	15.7	23.5#

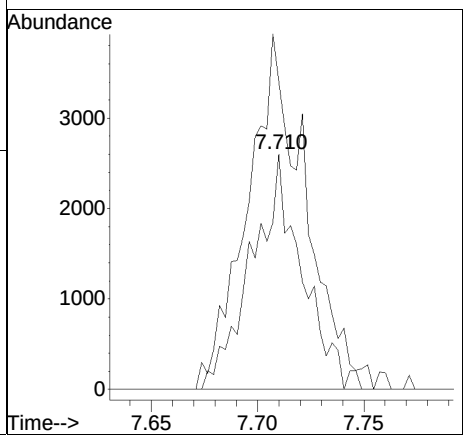




#65
Toluene
Concen: 0.47 ug/L
RT: 7.710 min Scan# 2376
Delta R.T. -0.000 min
Lab File: VE240819A07.D
Acq: 19 Aug 2024 8:35 am

Tgt Ion: 92 Resp: 4274

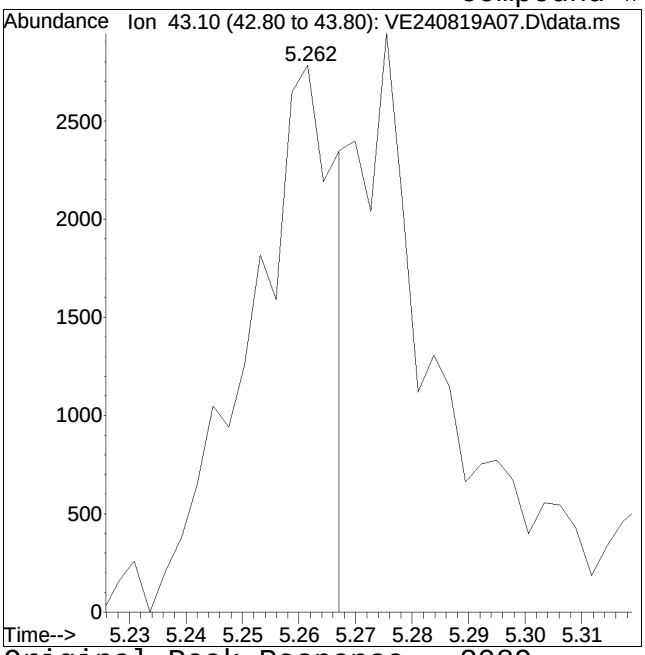
Ion	Ratio	Lower	Upper
92	100		
91	174.6	129.1	193.7



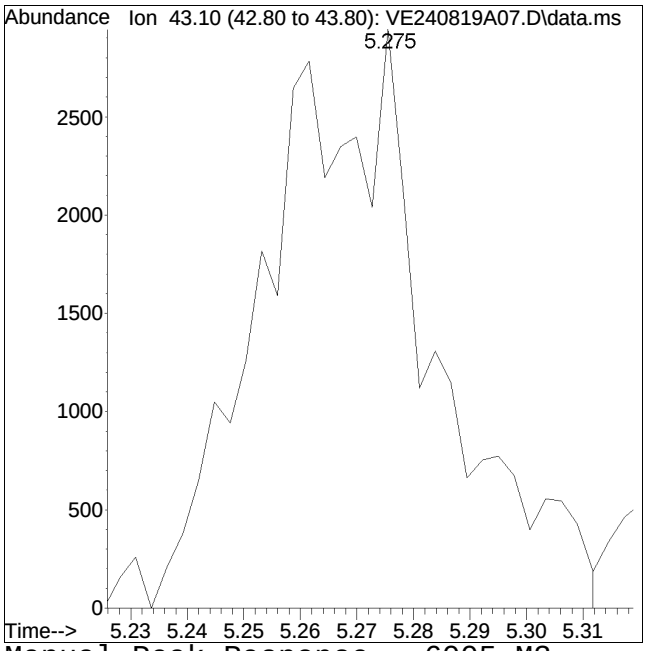
Manual Integration Report

Data Path : K:\Elaine\2024\240819A\ QMethod : Elaine_240731N_8260.m
Data File : VE240819A07.D Operator : ELAINE:MJV
Date Inj'd : 8/19/2024 8:35 am Instrument : Elaine
Sample : l2446922-01,31,10,10,,c,r1 Quant Date : 8/19/2024 9:18 am

Compound #42: 2-Butanone



Original Peak Response = 2989



Manual Peak Response = 6005 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A08.D
Acq On : 19 Aug 2024 9:00 am
Operator : ELAINE:MJV
Sample : l2446922-02,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 19 10:50:46 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.959	96	176425	10.000 ug/L	0.00
Standard Area 1 = 184826			Recovery = 95.45%		
63) Chlorobenzene-d5	9.489	117	133975	10.000 ug/L	0.00
Standard Area 1 = 135622			Recovery = 98.79%		
84) 1,4-Dichlorobenzene-d4	12.200	152	80789	10.000 ug/L	0.00
Standard Area 1 = 81358			Recovery = 99.30%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.147	113	43317	10.488 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.88%		
47) 1,2-Dichloroethane-d4	5.674	65	54083	9.814 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.14%		
64) Toluene-d8	7.651	98	171549	9.721 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.21%		
88) 4-Bromofluorobenzene	10.992	95	67813	9.087 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.87%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.433	85	25	N.D.	
3) Chloromethane	1.781	50	119	N.D.	
4) Vinyl chloride	1.851	62	1116	0.272 ug/L #	47
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.930	76	3082	0.354 ug/L #	90
15) Methylene chloride	3.460	84	96	N.D.	
17) Acetone	3.494	43	2884M1	2.228 ug/L	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	3.705	73	7340M1	0.648 ug/L	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	4.277	53	35	N.D.	
29) Vinyl acetate	4.411	43	93	N.D.	
30) cis-1,2-Dichloroethene	4.715	96	1019M1	0.280 ug/L	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A08.D
Acq On : 19 Aug 2024 9:00 am
Operator : ELAINE:MJV
Sample : l2446922-02,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 19 10:50:46 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.		
42) 2-Butanone	5.273	43	2643M3	1.429	ug/L	
43) 1,1-Dichloropropene	0.000		0	N.D.		
45) Benzene	5.540	78	54494	3.899	ug/L	93
48) 1,2-Dichloroethane	5.722	62	106	N.D.		
52) Trichloroethene	0.000		0	N.D.	d	
54) Dibromomethane	0.000		0	N.D.		
55) 1,2-Dichloropropane	0.000		0	N.D.		
58) Bromodichloromethane	6.935	83	44	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	7.451	75	64	N.D.		
65) Toluene	7.704	92	5190	0.563	ug/L	93
66) 4-Methyl-2-pentanone	0.000		0	N.D.	d	
67) Tetrachloroethene	0.000		0	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	0.000		0	N.D.		
75) 1,2-Dibromoethane	0.000		0	N.D.		
77) 2-Hexanone	0.000		0	N.D.	d	
78) Chlorobenzene	9.514	112	25	N.D.		
79) Ethylbenzene	9.550	91	295	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.735	106	125	N.D.		
82) o Xylene	10.264	106	26	N.D.		
83) Styrene	10.345	104	195	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.655	105	32	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.137	91	110	N.D.		
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
93) 4-Ethyltoluene	11.274	105	142	N.D.		
94) 2-Chlorotoluene	11.277	91	78	N.D.		
95) 1,3,5-Trimethylbenzene	11.285	105	25	N.D.		
96) 1,2,3-Trichloropropane	11.380	75	27	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	d	
98) 4-Chlorotoluene	11.497	91	28	N.D.		
99) tert-Butylbenzene	11.720	119	25	N.D.		

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A08.D
Acq On : 19 Aug 2024 9:00 am
Operator : ELAINE:MJV
Sample : l2446922-02,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 19 10:50:46 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.795	105	100	N.D.		
103)	sec-Butylbenzene	11.907	105	37	N.D.		
104)	p-Isopropyltoluene	12.052	119	99	N.D.		
105)	1,3-Dichlorobenzene	12.214	146	481	N.D.		
106)	1,4-Dichlorobenzene	12.214	146	481	N.D.		
107)	p-Diethylbenzene	12.431	119	27	N.D.		
108)	n-Butylbenzene	12.492	91	153	N.D.		
109)	1,2-Dichlorobenzene	12.640	146	42	N.D.		
110)	1,2,4,5-Tetramethylben...	13.229	119	196	N.D.		
111)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113)	Hexachlorobutadiene	0.000		0	N.D.		
114)	1,2,4-Trichlorobenzene	14.054	180	246	N.D.		
115)	Naphthalene	14.341	128	495	N.D.		
116)	1,2,3-Trichlorobenzene	14.511	180	64	N.D.		

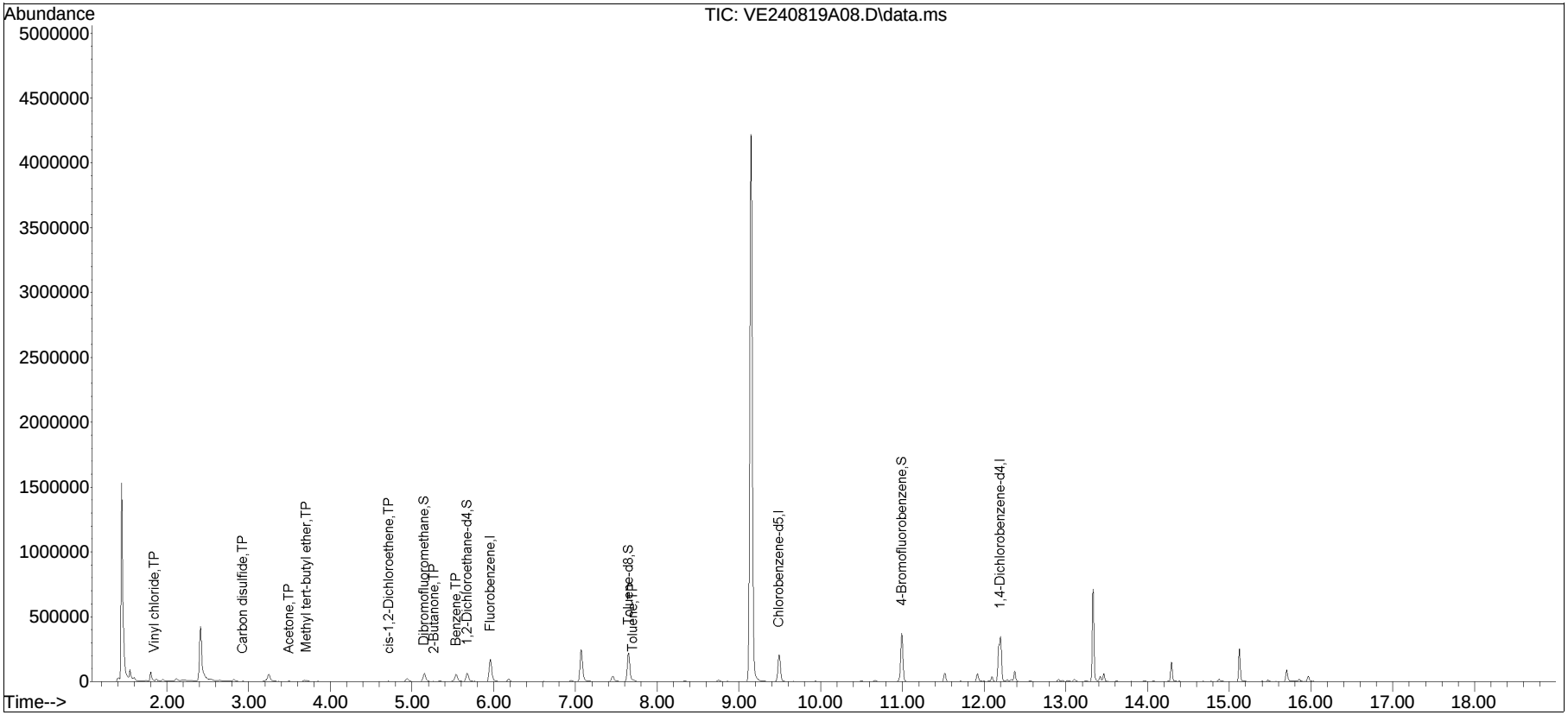
(#) = qualifier out of range (m) = manual integration (+) = signals summed

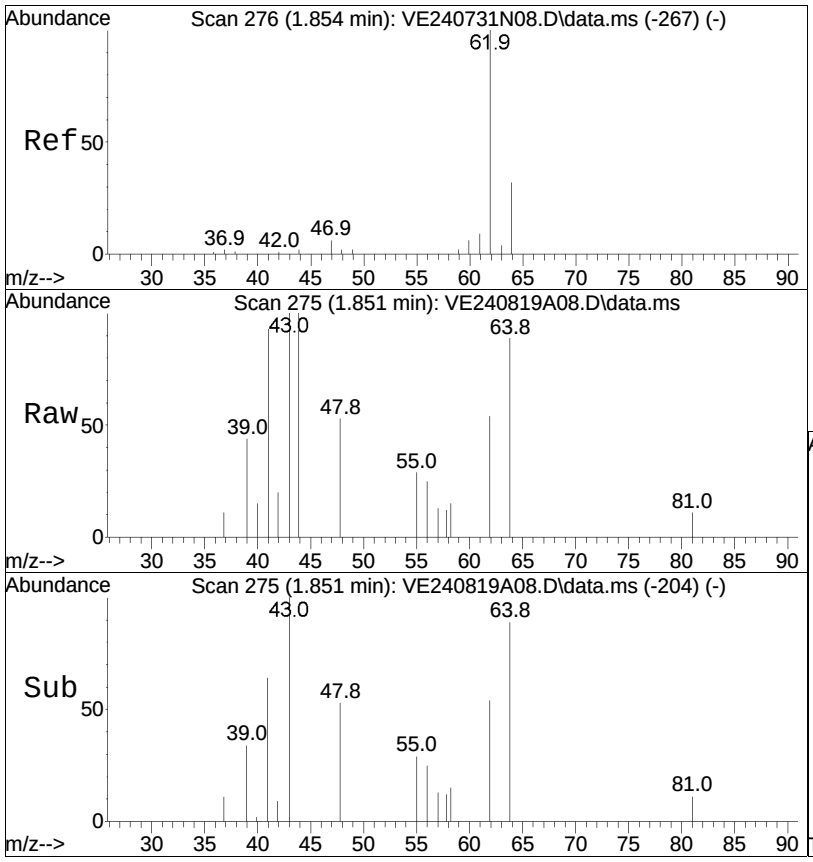
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A08.D
Acq On : 19 Aug 2024 9:00 am
Operator : ELAINE:MJV
Sample : l2446922-02,31,10,10,,c,r1a
Misc : WG1960966,ICAL21358
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 19 10:50:46 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox40819A02.D•

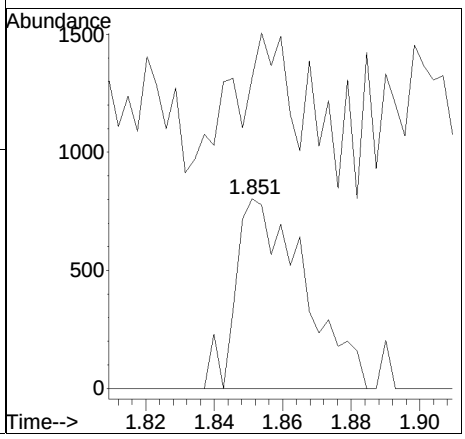


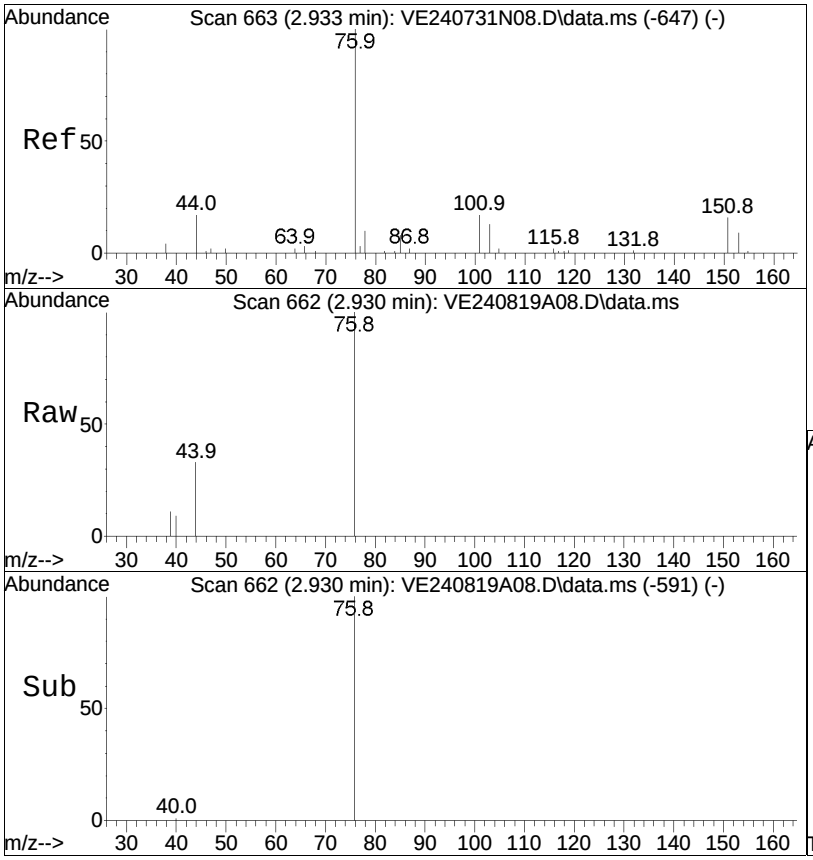


#4
Vinyl chloride
Concen: 0.27 ug/L
RT: 1.851 min Scan# 275
Delta R.T. -0.003 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 62 Resp: 1116

Ion	Ratio	Lower	Upper
62	100		
64	0.0	8.1	48.1#

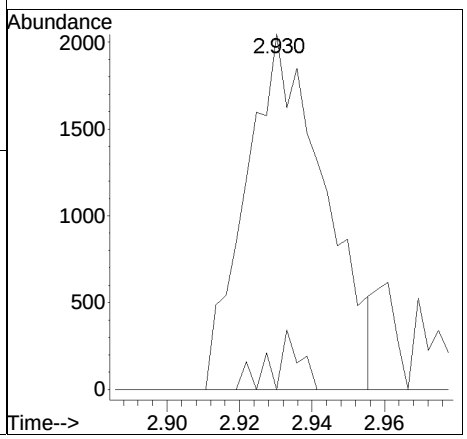


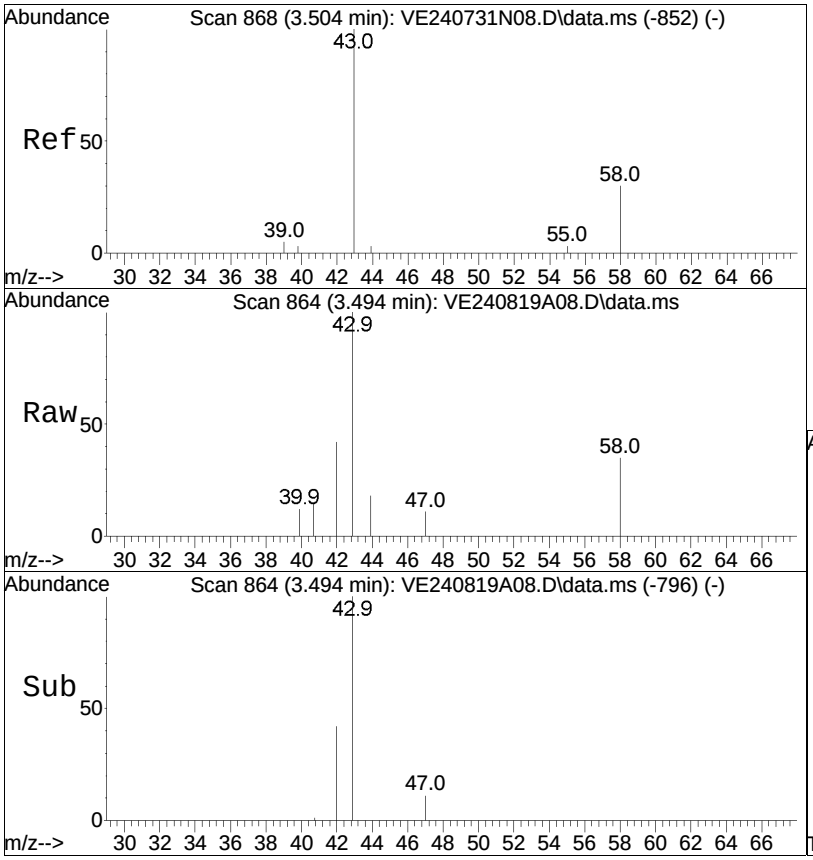


#11
Carbon disulfide
Concen: 0.35 ug/L
RT: 2.930 min Scan# 662
Delta R.T. -0.003 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 76 Resp: 3082

Ion	Ratio	Lower	Upper
76	100		
78	4.9	5.5	11.3#

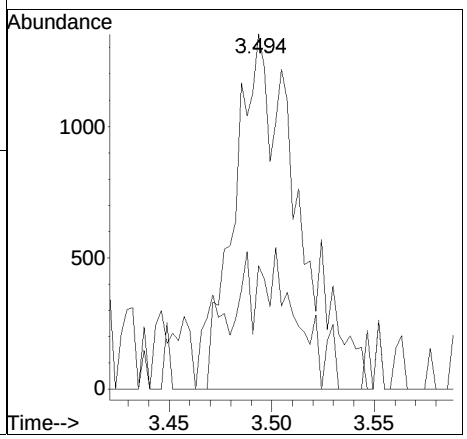


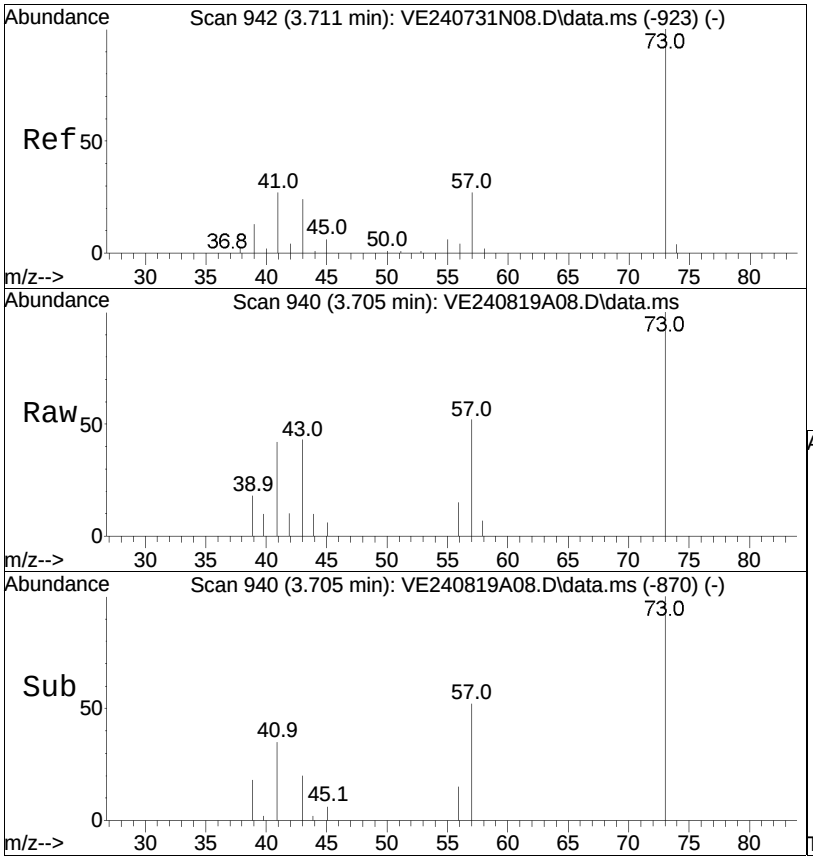


#17
Acetone
Concen: 2.23 ug/L M1
RT: 3.494 min Scan# 864
Delta R.T. -0.010 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 43 Resp: 2884

Ion	Ratio	Lower	Upper
43	100		
58	3.2	23.4	35.0#

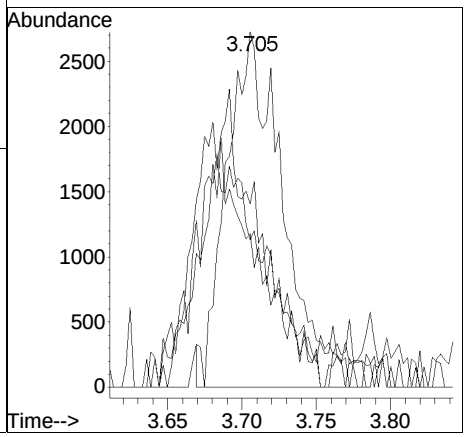


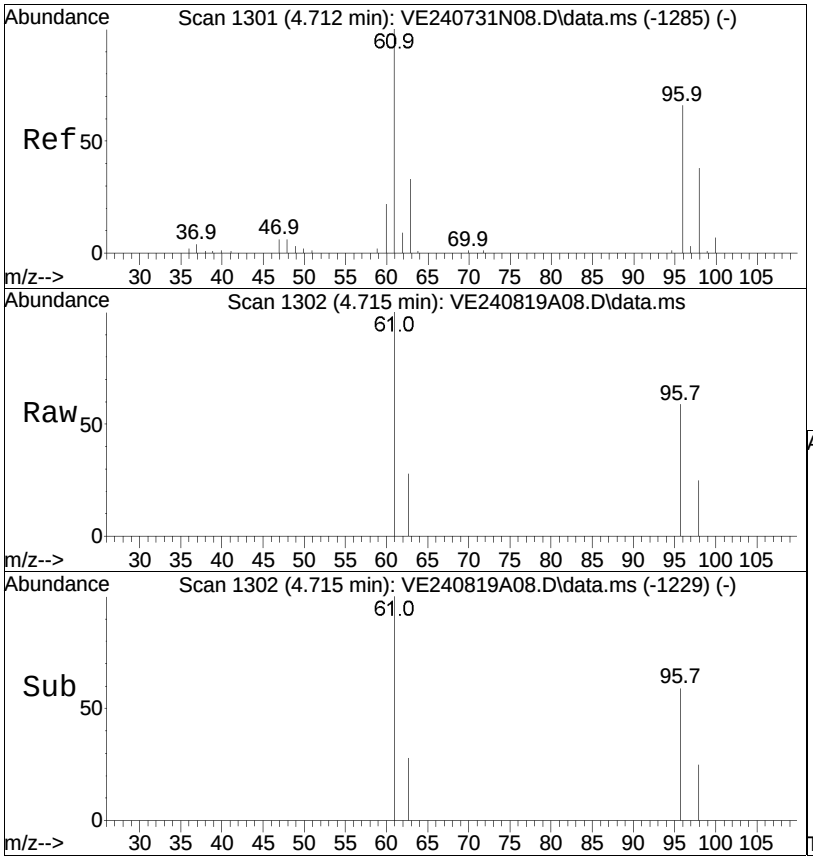


#21
Methyl tert-butyl ether
Concen: 0.65 ug/L M1
RT: 3.705 min Scan# 940
Delta R.T. -0.006 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 73 Resp: 7340

Ion	Ratio	Lower	Upper
73	100		
57	0.0	16.1	33.3#
43	0.0	17.0	35.2#
41	2.0	18.7	38.9#

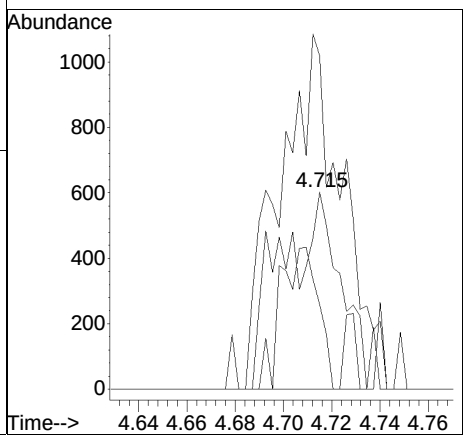


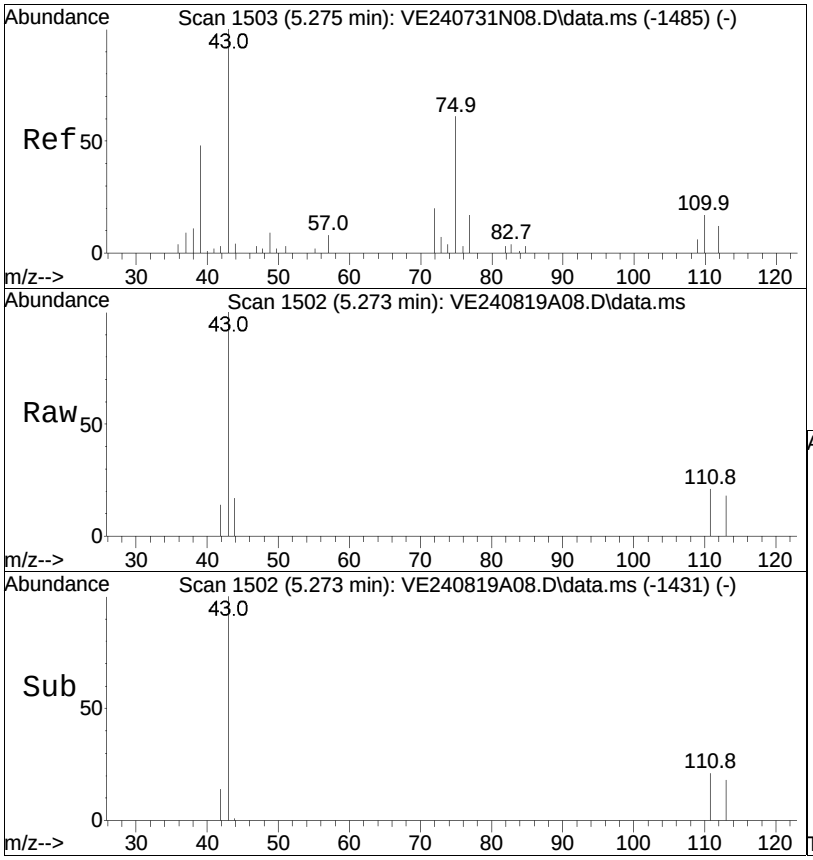


#30
cis-1,2-Dichloroethene
Concen: 0.28 ug/L M1
RT: 4.715 min Scan# 1302
Delta R.T. 0.003 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 96 Resp: 1019

Ion	Ratio	Lower	Upper
96	100		
61	192.2	120.3	180.5#
98	46.4	50.2	75.4#

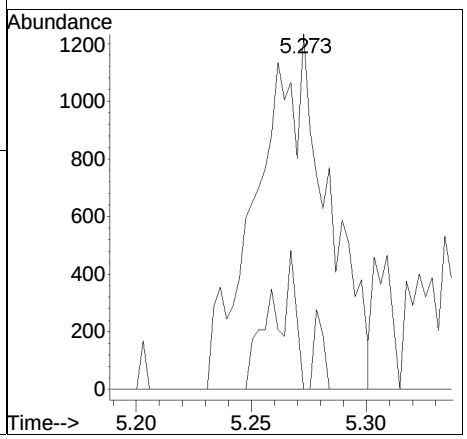


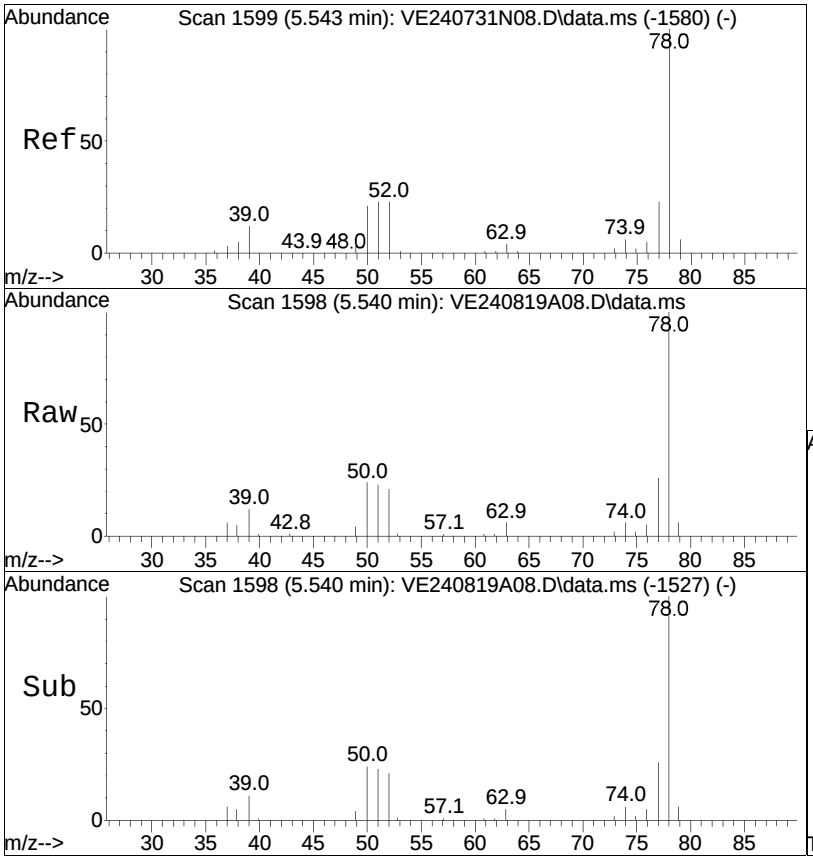


#42
2-Butanone
Concen: 1.43 ug/L M3
RT: 5.273 min Scan# 1502
Delta R.T. -0.002 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 43 Resp: 2643

Ion	Ratio	Lower	Upper
43	100		
72	8.4	15.7	23.5#

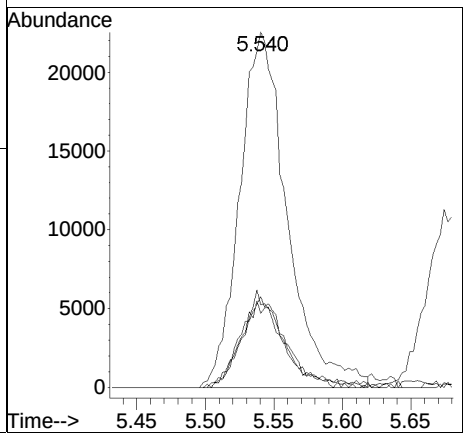


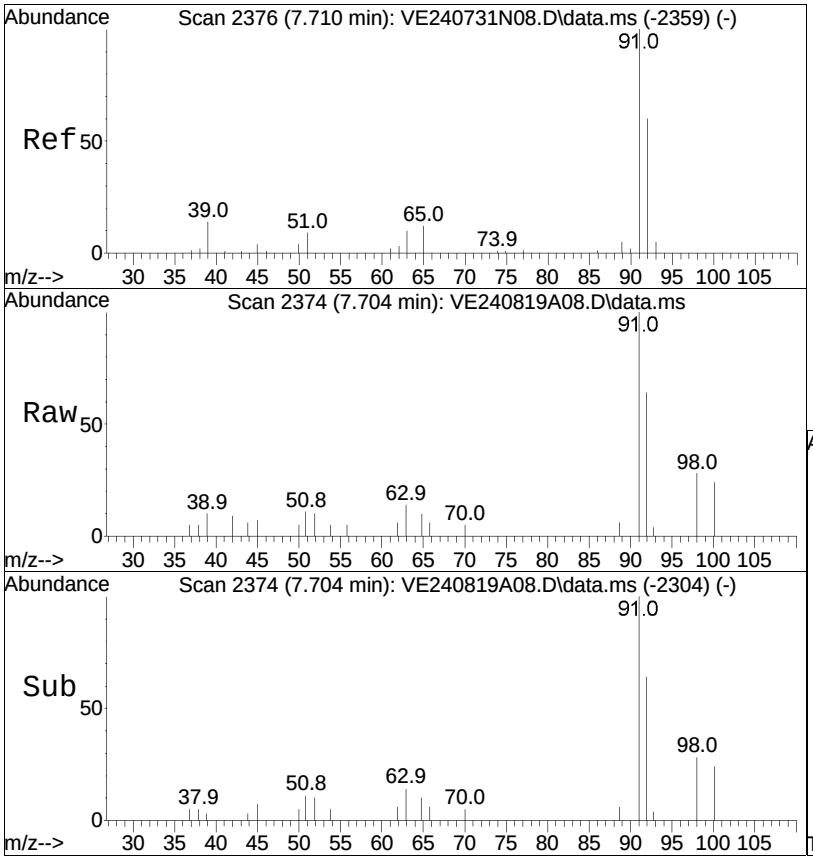


#45
Benzene
Concen: 3.90 ug/L
RT: 5.540 min Scan# 1598
Delta R.T. -0.003 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 78 Resp: 54494

Ion	Ratio	Lower	Upper
78	100		
77	23.4	12.8	26.6
51	23.3	13.5	27.9
52	21.8	12.0	25.0

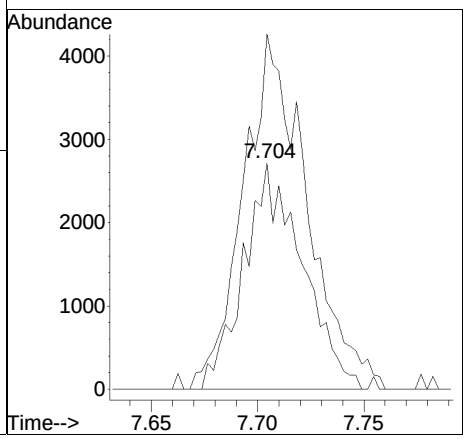




#65
Toluene
Concen: 0.56 ug/L
RT: 7.704 min Scan# 2374
Delta R.T. -0.006 min
Lab File: VE240819A08.D
Acq: 19 Aug 2024 9:00 am

Tgt Ion: 92 Resp: 5190

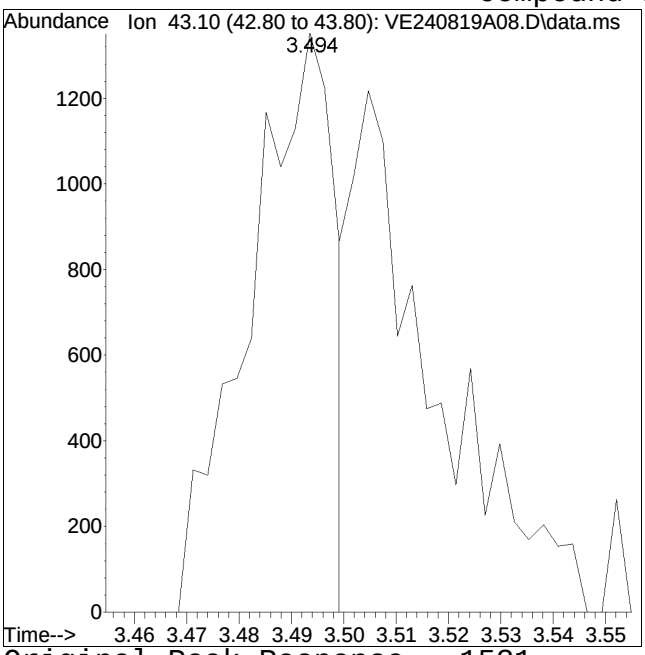
Ion	Ratio	Lower	Upper
92	100		
91	170.4	129.1	193.7



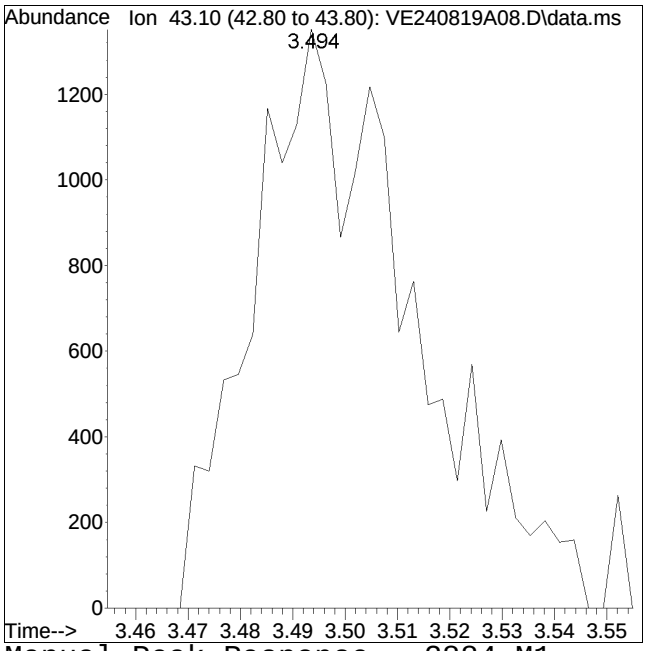
Manual Integration Report

Data Path : K:\Elaine\2024\240819A\ QMethod : Elaine_240731N_8260.m
Data File : VE240819A08.D Operator : ELAINE:MJV
Date Inj'd : 8/19/2024 9:00 am Instrument : Elaine
Sample : l2446922-02,31,10,10,,c,r1 Quant Date : 8/19/2024 10:49 am

Compound #17: Acetone



Original Peak Response = 1531



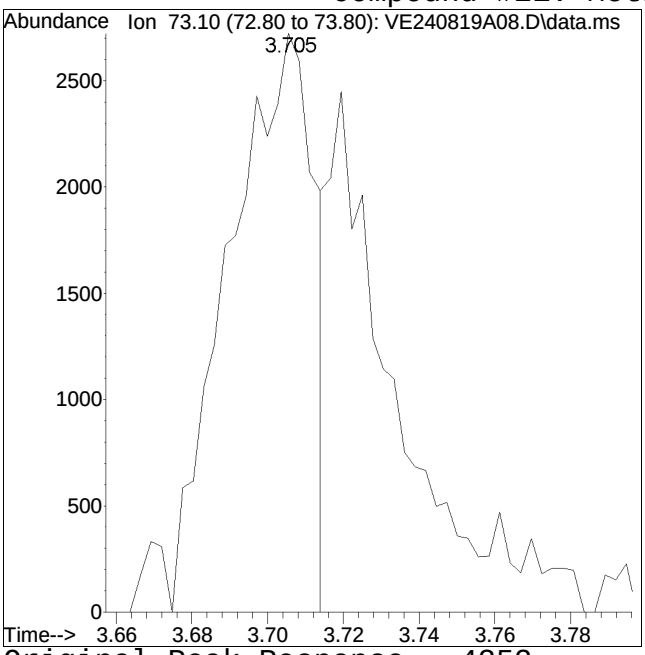
Manual Peak Response = 2884 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

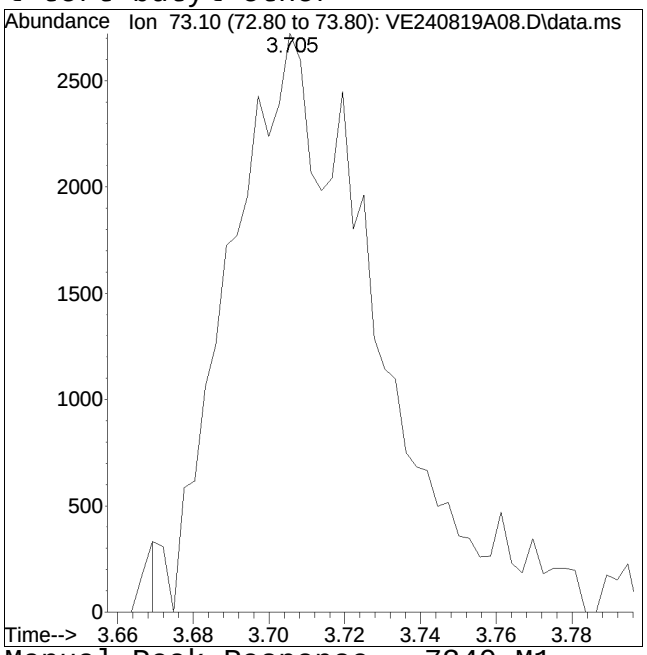
Manual Integration Report

Data Path : K:\Elaine\2024\240819A\ QMethod : Elaine_240731N_8260.m
Data File : VE240819A08.D Operator : ELAINE:MJV
Date Inj'd : 8/19/2024 9:00 am Instrument : Elaine
Sample : l2446922-02,31,10,10,,c,r1 Quant Date : 8/19/2024 10:49 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 4252



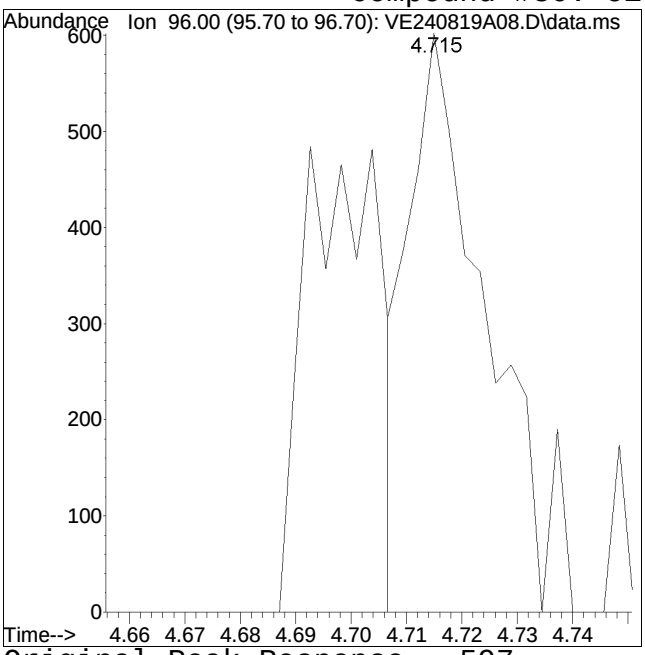
Manual Peak Response = 7340 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

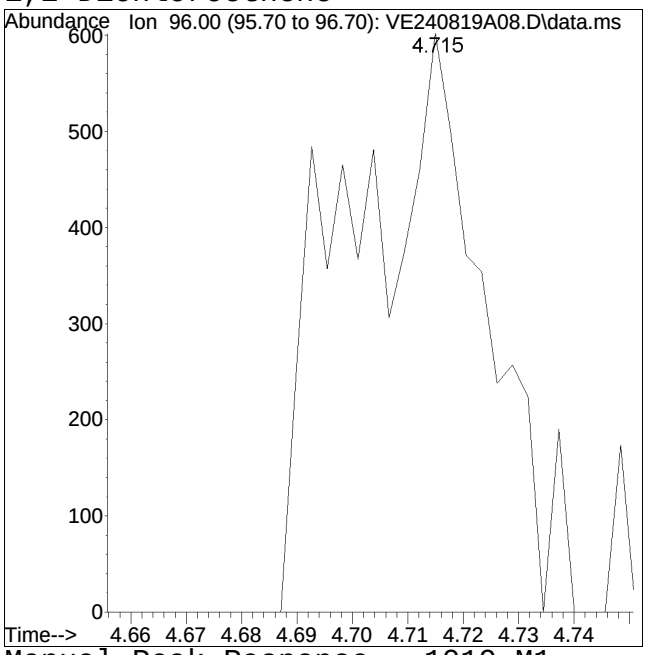
Manual Integration Report

Data Path : K:\Elaine\2024\240819A\ QMethod : Elaine_240731N_8260.m
Data File : VE240819A08.D Operator : ELAINE:MJV
Date Inj'd : 8/19/2024 9:00 am Instrument : Elaine
Sample : l2446922-02,31,10,10,,c,r1 Quant Date : 8/19/2024 10:49 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 597



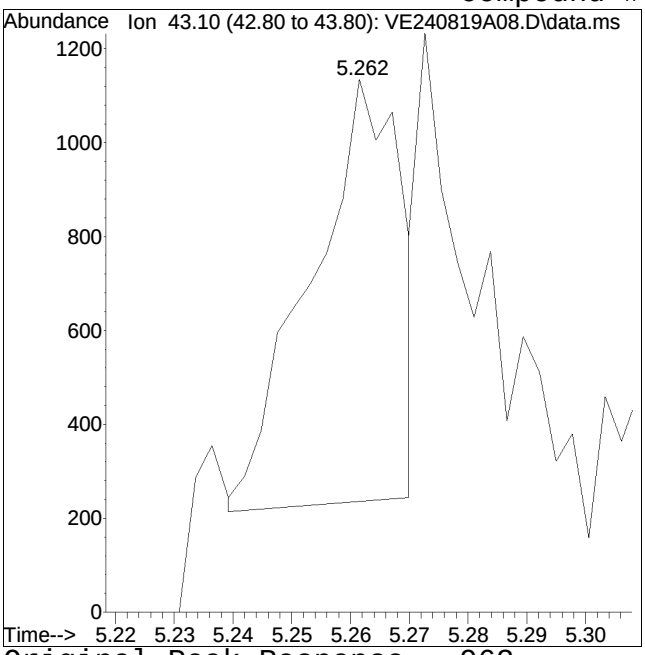
Manual Peak Response = 1019 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

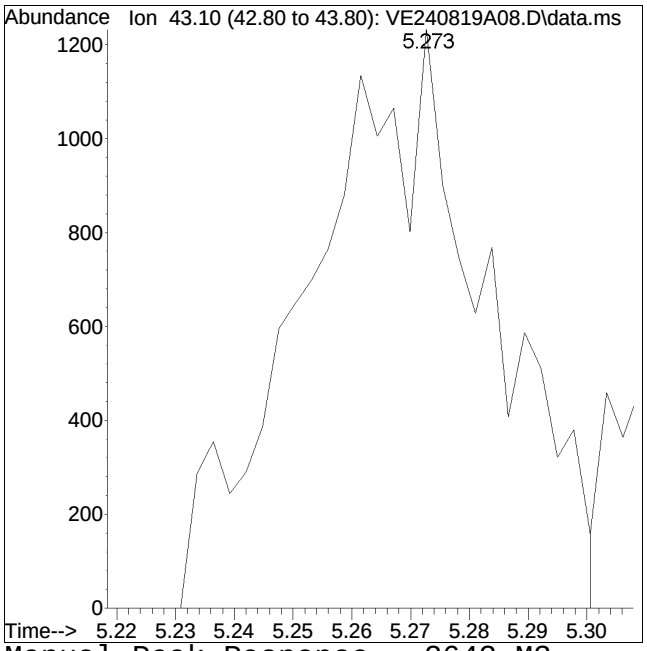
Manual Integration Report

Data Path : K:\Elaine\2024\240819A\ QMethod : Elaine_240731N_8260.m
Data File : VE240819A08.D Operator : ELAINE:MJV
Date Inj'd : 8/19/2024 9:00 am Instrument : Elaine
Sample : l2446922-02,31,10,10,,c,r1 Quant Date : 8/19/2024 10:49 am

Compound #42: 2-Butanone



Original Peak Response = 962



Manual Peak Response = 2643 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2446922**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D

L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.138	0.246	0.220	0.243	0.243	0.244	0.235	0.224	17.36
3)	TP	Chloromethane		0.199	0.251	0.263	0.261	0.259	0.260	0.256	0.250	9.09
4)	TP	Vinyl chloride	0.163	0.159	0.248	0.243	0.263	0.260	0.265	0.260	0.233	19.30
5)	TP	Bromomethane		0.043	0.054	0.058	0.067	0.084	0.095	0.102	*Q	0.9983
6)	TP	Chloroethane		0.109	0.166	0.154	0.151	0.153	0.144	0.107	0.140	16.43
7)	TP	Trichlorofluor		0.189	0.262	0.254	0.291	0.294	0.295	0.287	0.267	14.21
8)	TP	Ethyl ether		0.098	0.094	0.106	0.111	0.111	0.108	0.108	0.105	6.41
10)	TP	1,1-Dichloroet		0.128	0.165	0.154	0.168	0.170	0.170	0.165	0.160	9.41
11)	TP	Carbon disulfide		0.423	0.489	0.504	0.523	0.517	0.512	0.493	0.494	6.86
12)	TP	Freon-113		0.120	0.172	0.163	0.178	0.178	0.183	0.175	0.167	13.06
13)	TP	Iodomethane			0.056	0.087	0.130	0.163	0.172	0.180	*Q	0.9978
14)	TP	Acrolein		0.042	0.047	0.044	0.045	0.045	0.046	0.048	0.045	4.40
15)	TP	Methylene chlo		0.219	0.207	0.204	0.201	0.197	0.195	0.191	0.202	4.65
17)	TP	Acetone			0.094	0.071	0.077	0.071	0.065	0.063	0.073	15.12
18)	TP	trans-1,2-Dich		0.134	0.173	0.177	0.180	0.183	0.181	0.176	0.172	9.89
19)	TP	Methyl acetate		0.231	0.183	0.165	0.161	0.156	0.153	0.149	0.171	16.75
21)	TP	Methyl tert butyl ether		0.595	0.630	0.676	0.661	0.657	0.646	0.629	0.642	4.16
22)	TP	tert-Butyl alc		0.021	0.023	0.024	0.024	0.023	0.023	0.023	0.023	4.09
24)	TP	Diisopropyl ether		0.797	0.878	0.965	0.985	0.960	0.936	0.916	0.920	7.03
25)	TP	1,1-Dichloroet		0.339	0.407	0.424	0.424	0.420	0.409	0.405	0.404	7.39
26)	TP	Halothane		0.117	0.137	0.142	0.147	0.145	0.143	0.141	0.139	7.40
27)	TP	Acrylonitrile		0.076	0.081	0.088	0.089	0.087	0.086	0.084	0.084	5.26
28)	TP	Ethyl tert-but		0.694	0.779	0.838	0.837	0.826	0.811	0.800	0.798	6.32
29)	TP	Vinyl acetate		0.679	0.649	0.556	0.550	0.513	0.670	0.667	0.612	11.34
30)	TP	cis-1,2-Dichlo		0.183	0.211	0.211	0.208	0.214	0.211	0.205	0.206	5.19
31)	TP	2,2-Dichloropr		0.240	0.279	0.270	0.284	0.278	0.279	0.263	0.270	5.58
33)	TP	Bromochloromet		0.089	0.091	0.096	0.096	0.091	0.086	0.085	0.091#	4.89
34)	TP	Cyclohexane		0.384	0.496	0.452	0.498	0.498	0.499	0.484	0.473	8.98
35)	TP	Chloroform		0.303	0.352	0.346	0.336	0.339	0.333	0.335	0.335	4.66
36)	TP	Ethyl acetate		0.314	0.226	0.262	0.255	0.249	0.243	0.242	0.256	11.00
37)	TP	Carbon tetrachloride	0.229	0.188	0.270	0.260	0.275	0.275	0.279	0.271	0.256	12.38
38)	TP	Tetrahydrofuran		0.087	0.083	0.081	0.080	0.078	0.074	0.073	0.079	5.85
39)	S	Dibromofluoromethane	0.242	0.242	0.240	0.238	0.232	0.231	0.224	0.223	0.234	3.26
40)	TP	1,1,1-Trichlor		0.265	0.301	0.310	0.316	0.315	0.315	0.308	0.304	5.96
42)	TP	2-Butanone			0.118	0.104	0.105	0.104	0.100	0.099	0.105	6.40

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Volatiles

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Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

Calibration Files

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L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
43) TP	1,1-Dichloropr		0.193	0.259	0.260	0.270	0.271	0.271	0.268	0.256	11.09
45) TP	Benzene	0.719	0.654	0.814	0.838	0.839	0.835	0.825	0.813	0.792	8.59
46) TP	Tertiary-Amyl Methyl Ether		0.549	0.579	0.619	0.622	0.611	0.607	0.598	0.598	4.33
47) S	1,2-Dichloroethane-d4	0.326	0.322	0.322	0.316	0.305	0.309	0.298	0.302	0.312	3.33
48) T	1,2-Dichloroet		0.295	0.300	0.320	0.314	0.310	0.303	0.299	0.306	2.93
51) TP	Methyl cyclohe		0.281	0.360	0.333	0.364	0.386	0.390	0.377	0.356	10.67
52) TP	Trichloroethene	0.193	0.161	0.200	0.210	0.217	0.216	0.201	0.195	0.199#	8.96
54) TP	Dibromomethane		0.096	0.116	0.120	0.119	0.118	0.116	0.117	0.115	7.18
55) TP	1,2-Dichloropr		0.215	0.233	0.249	0.248	0.246	0.242	0.239	0.239	5.05
57) TP	2-Chloroethyl		0.127	0.145	0.157	0.163	0.167	0.160	0.158	0.154	8.95
58) TP	Bromodichlorom		0.250	0.293	0.294	0.289	0.290	0.286	0.282	0.283#	5.40
61) TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	1.58
62) TP	cis-1,3-Dichloropropene	0.241	0.293	0.316	0.341	0.345	0.345	0.339	0.334	0.319	11.31
63) I	Chlorobenzene-d5	----------ISTD----------									
64) S	Toluene-d8	1.316	1.311	1.306	1.323	1.314	1.308	1.321	1.339	1.317	0.79
65) TP	Toluene		0.596	0.701	0.712	0.711	0.697	0.702	0.700	0.689	5.96
66) TP	4-Methyl-2-pen		0.096	0.114	0.124	0.124	0.122	0.121	0.120	0.117	8.43
67) TP	Tetrachloroethene		0.219	0.288	0.302	0.312	0.308	0.313	0.307	0.293	11.47
69) TP	trans-1,3-Dichloropropene	0.319	0.359	0.375	0.414	0.420	0.408	0.405	0.402	0.388	8.92
71) TP	Ethyl methacry		0.356	0.363	0.387	0.378	0.367	0.368	0.365	0.369	2.79
72) TP	1,1,2-Trichlor		0.183	0.190	0.204	0.201	0.193	0.192	0.190	0.193#	3.69
73) TP	Chlorodibromom		0.230	0.258	0.281	0.283	0.277	0.281	0.281	0.270	7.23
74) TP	1,3-Dichloropr		0.369	0.398	0.430	0.429	0.412	0.410	0.409	0.408	5.11
75) TP	1,2-Dibromoethane		0.216	0.223	0.237	0.236	0.229	0.228	0.230	0.228	3.24
77) TP	2-Hexanone		0.238	0.227	0.234	0.233	0.225	0.221	0.222	0.229	2.91
78) TP	Chlorobenzene		0.673	0.728	0.767	0.755	0.737	0.742	0.734	0.734	4.10
79) TP	Ethylbenzene		1.142	1.358	1.408	1.393	1.353	1.359	1.329	1.335	6.66
80) TP	1,1,1,2-Tetrac		0.215	0.270	0.287	0.286	0.276	0.276	0.273	0.269	9.12
81) TP	p/m Xylene		0.447	0.521	0.548	0.535	0.510	0.508	0.492	0.509	6.43
82) TP	o Xylene		0.454	0.508	0.533	0.516	0.497	0.495	0.479	0.497	5.16
83) TP	Styrene		0.718	0.838	0.886	0.858	0.817	0.812	0.779	0.816	6.74
84) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85) TP	Bromoform		0.284	0.320	0.331	0.334	0.334	0.338	0.337	0.325	5.92
87) TP	Isopropylbenzene		1.911	2.394	2.445	2.472	2.475	2.556	2.509	2.395	9.15
88) S	4-Bromofluorobenzene	0.912	0.926	0.900	0.927	0.899	0.923	0.942	0.959	0.924	2.20
89) TP	Bromobenzene		0.539	0.594	0.625	0.612	0.613	0.627	0.622	0.605	5.15

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Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21358**
Calibration dates	**: 07/31/24 18:35 07/31/24 22:22**		

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	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP	n-Propylbenzene		2.463	2.827	2.941	2.951	2.948	3.011	2.888	2.861	6.45
91) TP	1,4-Dichlorobu		1.076	1.063	1.068	1.046	1.022	1.031	1.015	1.046	2.29
92) TP	1,1,2,2-Tetrac		0.512	0.521	0.493	0.487	0.485	0.530	0.529	0.508	3.87
93) TP	4-Ethyltoluene		1.935	2.296	2.424	2.400	2.399	2.443	2.350	2.321	7.63
94) TP	2-Chlorotoluene		1.451	1.722	1.764	1.719	1.699	1.724	1.705	1.683	6.21
95) TP	1,3,5-Trimethy		1.733	2.008	2.145	2.110	2.089	2.133	2.036	2.036	7.01
96) TP	1,2,3-Trichlor		0.395	0.420	0.431	0.422	0.414	0.414	0.407	0.415	2.78
97) TP	trans-1,4-Dich		0.185	0.197	0.203	0.201	0.207	0.213	0.219	0.204	5.51
98) TP	4-Chlorotoluene		1.530	1.763	1.829	1.796	1.785	1.839	1.801	1.763	6.02
99) TP	tert-Butylbenzene		1.412	1.689	1.769	1.762	1.779	1.824	1.747	1.712	8.07
102) TP	1,2,4-Trimethy		1.747	1.954	2.131	2.103	2.101	2.135	2.057	2.033	6.91
103) TP	sec-Butylbenzene		2.141	2.500	2.584	2.607	2.644	2.708	2.584	2.538	7.33
104) TP	p-Isopropyltol		1.701	2.077	2.196	2.232	2.258	2.294	2.214	2.139	9.58
105) TP	1,3-Dichlorobe		1.015	1.081	1.169	1.146	1.135	1.148	1.122	1.117	4.72
106) TP	1,4-Dichlorobe		1.009	1.087	1.157	1.145	1.138	1.145	1.131	1.116	4.67
107) TP	p-Diethylbenzene		1.028	1.180	1.302	1.316	1.335	1.335	1.333	1.261	9.25
108) TP	n-Butylbenzene		1.501	1.792	1.868	1.891	1.948	1.955	1.939	1.842	8.74
109) TP	1,2-Dichlorobe		0.978	1.026	1.115	1.108	1.094	1.098	1.099	1.074	4.80
110) TP	1,2,4,5-Tetram		1.737	1.892	2.127	2.116	2.105	2.156	2.192	2.046	8.17
111) TP	1,2-Dibromo-3-		0.049	0.087	0.092	0.094	0.094	0.097	0.102	*L	0.9989
112) TP	1,3,5-Trichlor		0.709	0.775	0.890	0.883	0.879	0.919	0.916	0.853	9.33
113) TP	Hexachlorobuta		0.225	0.275	0.285	0.293	0.293	0.305	0.303	0.283	9.74
114) TP	1,2,4-Trichlor		0.666	0.683	0.789	0.797	0.806	0.839	0.809	0.770	8.71
115) TP	Naphthalene		1.419	1.532	1.695	1.747	1.797	1.858	1.833	1.697	9.67
116) TP	1,2,3-Trichlor		0.578	0.647	0.721	0.728	0.750	0.771	0.757	0.707	9.89

Response Factor Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

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		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------	ISTD	----------							
2)	TP	Dichlorodifluo...		0.138	0.246	0.220	0.243	0.243	0.244	0.235	0.224	17.36
3)	TP	Chloromethane		0.199	0.251	0.263	0.261	0.259	0.260	0.256	0.250	9.09
4)	TP	Vinyl chloride	0.163	0.159	0.248	0.243	0.263	0.260	0.265	0.260	0.233	19.30
5)	TP	Bromomethane		0.043	0.054	0.058	0.067	0.084	0.095	0.102	*Q	0.9983
6)	TP	Chloroethane		0.109	0.166	0.154	0.151	0.153	0.144	0.107	0.140	16.43
7)	TP	Trichlorofluor...		0.189	0.262	0.254	0.291	0.294	0.295	0.287	0.267	14.21
8)	TP	Ethyl ether		0.098	0.094	0.106	0.111	0.111	0.108	0.108	0.105	6.41
10)	TP	1,1-Dichloroet...		0.128	0.165	0.154	0.168	0.170	0.170	0.165	0.160	9.41
11)	TP	Carbon disulfide		0.423	0.489	0.504	0.523	0.517	0.512	0.493	0.494	6.86
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13)	TP	Iodomethane			0.056	0.087	0.130	0.163	0.172	0.180	*Q	0.9978
14)	TP	Acrolein		0.042	0.047	0.044	0.045	0.045	0.046	0.048	0.045	4.40
15)	TP	Methylene chlo...		0.219	0.207	0.204	0.201	0.197	0.195	0.191	0.202	4.65
17)	TP	Acetone			0.094	0.071	0.077	0.071	0.065	0.063	0.073	15.12
18)	TP	trans-1,2-Dich...		0.134	0.173	0.177	0.180	0.183	0.181	0.176	0.172	9.89
19)	TP	Methyl acetate		0.231	0.183	0.165	0.161	0.156	0.153	0.149	0.171	16.75
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22)	TP	tert-Butyl alc...		0.021	0.023	0.024	0.024	0.023	0.023	0.023	0.023	4.09
24)	TP	Diisopropyl ether		0.797	0.878	0.965	0.985	0.960	0.936	0.916	0.920	7.03
25)	TP	1,1-Dichloroet...		0.339	0.407	0.424	0.424	0.420	0.409	0.405	0.404	7.39
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30)	TP	cis-1,2-Dichlo...		0.183	0.211	0.211	0.208	0.214	0.211	0.205	0.206	5.19
31)	TP	2,2-Dichloropr...		0.240	0.279	0.270	0.284	0.278	0.279	0.263	0.270	5.58
33)	TP	Bromochloromet...		0.089	0.091	0.096	0.096	0.091	0.086	0.085	0.091#	4.89
34)	TP	Cyclohexane		0.384	0.496	0.452	0.498	0.498	0.499	0.484	0.473	8.98
35)	TP	Chloroform		0.303	0.352	0.346	0.336	0.339	0.333	0.335	0.335	4.66
36)	TP	Ethyl acetate		0.314	0.226	0.262	0.255	0.249	0.243	0.242	0.256	11.00

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		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
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38)	TP	Tetrahydrofuran		0.087	0.083	0.081	0.080	0.078	0.074	0.073	0.079	5.85
39)	S	Dibromofluorom...	0.242	0.242	0.240	0.238	0.232	0.231	0.224	0.223	0.234	3.26
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42)	TP	2-Butanone			0.118	0.104	0.105	0.104	0.100	0.099	0.105	6.40
43)	TP	1,1-Dichloropr...		0.193	0.259	0.260	0.270	0.271	0.271	0.268	0.256	11.09
45)	TP	Benzene	0.719	0.654	0.814	0.838	0.839	0.835	0.825	0.813	0.792	8.59
46)	TP	tert-Amyl meth...		0.549	0.579	0.619	0.622	0.611	0.607	0.598	0.598	4.33
47)	S	1,2-Dichloroet...	0.326	0.322	0.322	0.316	0.305	0.309	0.298	0.302	0.312	3.33
48)	T	1,2-Dichloroet...		0.295	0.300	0.320	0.314	0.310	0.303	0.299	0.306	2.93
51)	TP	Methyl cyclohe...		0.281	0.360	0.333	0.364	0.386	0.390	0.377	0.356	10.67
52)	TP	Trichloroethene	0.193	0.161	0.200	0.210	0.217	0.216	0.201	0.195	0.199#	8.96
54)	TP	Dibromomethane		0.096	0.116	0.120	0.119	0.118	0.116	0.117	0.115	7.18
55)	TP	1,2-Dichloropr...		0.215	0.233	0.249	0.248	0.246	0.242	0.239	0.239	5.05
57)	TP	2-Chloroethyl ...		0.127	0.145	0.157	0.163	0.167	0.160	0.158	0.154	8.95
58)	TP	Bromodichlorom...		0.250	0.293	0.294	0.289	0.290	0.286	0.282	0.283#	5.40
61)	TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	1.58
62)	TP	cis-1,3-Dichlo...	0.241	0.293	0.316	0.341	0.345	0.345	0.339	0.334	0.319	11.31
63)	I	Chlorobenzene-d5	----------ISTD----------									
64)	S	Toluene-d8	1.316	1.311	1.306	1.323	1.314	1.308	1.321	1.339	1.317	0.79
65)	TP	Toluene		0.596	0.701	0.712	0.711	0.697	0.702	0.700	0.689	5.96
66)	TP	4-Methyl-2-pen...		0.096	0.114	0.124	0.124	0.122	0.121	0.120	0.117	8.43
67)	TP	Tetrachloroethene		0.219	0.288	0.302	0.312	0.308	0.313	0.307	0.293	11.47
69)	TP	trans-1,3-Dich...	0.319	0.359	0.375	0.414	0.420	0.408	0.405	0.402	0.388	8.92
71)	TP	Ethyl methacry...		0.356	0.363	0.387	0.378	0.367	0.368	0.365	0.369	2.79
72)	TP	1,1,2-Trichlor...		0.183	0.190	0.204	0.201	0.193	0.192	0.190	0.193#	3.69
73)	TP	Chlorodibromom...		0.230	0.258	0.281	0.283	0.277	0.281	0.281	0.270	7.23
74)	TP	1,3-Dichloropr...		0.369	0.398	0.430	0.429	0.412	0.410	0.409	0.408	5.11
75)	TP	1,2-Dibromoethane		0.216	0.223	0.237	0.236	0.229	0.228	0.230	0.228	3.24
77)	TP	2-Hexanone		0.238	0.227	0.234	0.233	0.225	0.221	0.222	0.229	2.91
78)	TP	Chlorobenzene		0.673	0.728	0.767	0.755	0.737	0.742	0.734	0.734	4.10

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79)	TP	Ethylbenzene		1.142	1.358	1.408	1.393	1.353	1.359	1.329	1.335	6.66
80)	TP	1,1,1,2-Tetrac...		0.215	0.270	0.287	0.286	0.276	0.276	0.273	0.269	9.12
81)	TP	p/m Xylene		0.447	0.521	0.548	0.535	0.510	0.508	0.492	0.509	6.43
82)	TP	o Xylene		0.454	0.508	0.533	0.516	0.497	0.495	0.479	0.497	5.16
83)	TP	Styrene		0.718	0.838	0.886	0.858	0.817	0.812	0.779	0.816	6.74
84)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85)	TP	Bromoform		0.284	0.320	0.331	0.334	0.334	0.338	0.337	0.325	5.92
87)	TP	Isopropylbenzene		1.911	2.394	2.445	2.472	2.475	2.556	2.509	2.395	9.15
88)	S	4-Bromofluorob...	0.912	0.926	0.900	0.927	0.899	0.923	0.942	0.959	0.924	2.20
89)	TP	Bromobenzene		0.539	0.594	0.625	0.612	0.613	0.627	0.622	0.605	5.15
90)	TP	n-Propylbenzene		2.463	2.827	2.941	2.951	2.948	3.011	2.888	2.861	6.45
91)	TP	1,4-Dichlorobu...		1.076	1.063	1.068	1.046	1.022	1.031	1.015	1.046	2.29
92)	TP	1,1,2,2-Tetrac...		0.512	0.521	0.493	0.487	0.485	0.530	0.529	0.508	3.87
93)	TP	4-Ethyltoluene		1.935	2.296	2.424	2.400	2.399	2.443	2.350	2.321	7.63
94)	TP	2-Chlorotoluene		1.451	1.722	1.764	1.719	1.699	1.724	1.705	1.683	6.21
95)	TP	1,3,5-Trimethy...		1.733	2.008	2.145	2.110	2.089	2.133	2.036	2.036	7.01
96)	TP	1,2,3-Trichlor...		0.395	0.420	0.431	0.422	0.414	0.414	0.407	0.415	2.78
97)	TP	trans-1,4-Dich...		0.185	0.197	0.203	0.201	0.207	0.213	0.219	0.204	5.51
98)	TP	4-Chlorotoluene		1.530	1.763	1.829	1.796	1.785	1.839	1.801	1.763	6.02
99)	TP	tert-Butylbenzene		1.412	1.689	1.769	1.762	1.779	1.824	1.747	1.712	8.07
102)	TP	1,2,4-Trimethy...		1.747	1.954	2.131	2.103	2.101	2.135	2.057	2.033	6.91
103)	TP	sec-Butylbenzene		2.141	2.500	2.584	2.607	2.644	2.708	2.584	2.538	7.33
104)	TP	p-Isopropyltol...		1.701	2.077	2.196	2.232	2.258	2.294	2.214	2.139	9.58
105)	TP	1,3-Dichlorobe...		1.015	1.081	1.169	1.146	1.135	1.148	1.122	1.117	4.72
106)	TP	1,4-Dichlorobe...		1.009	1.087	1.157	1.145	1.138	1.145	1.131	1.116	4.67
107)	TP	p-Diethylbenzene		1.028	1.180	1.302	1.316	1.335	1.335	1.333	1.261	9.25
108)	TP	n-Butylbenzene		1.501	1.792	1.868	1.891	1.948	1.955	1.939	1.842	8.74
109)	TP	1,2-Dichlorobe...		0.978	1.026	1.115	1.108	1.094	1.098	1.099	1.074	4.80
110)	TP	1,2,4,5-Tetram...		1.737	1.892	2.127	2.116	2.105	2.156	2.192	2.046	8.17
111)	TP	1,2-Dibromo-3-...		0.049	0.087	0.092	0.094	0.094	0.097	0.102	*L	0.9989
112)	TP	1,3,5-Trichlor...		0.709	0.775	0.890	0.883	0.879	0.919	0.916	0.853	9.33

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE240731N03.D L1 =VE240731N05.D L2 =VE240731N07.D L3 =VE240731N08.D L4 =VE240731N09.D
L6 =VE240731N10.D L8 =VE240731N11.D L10 =VE240731N12.D

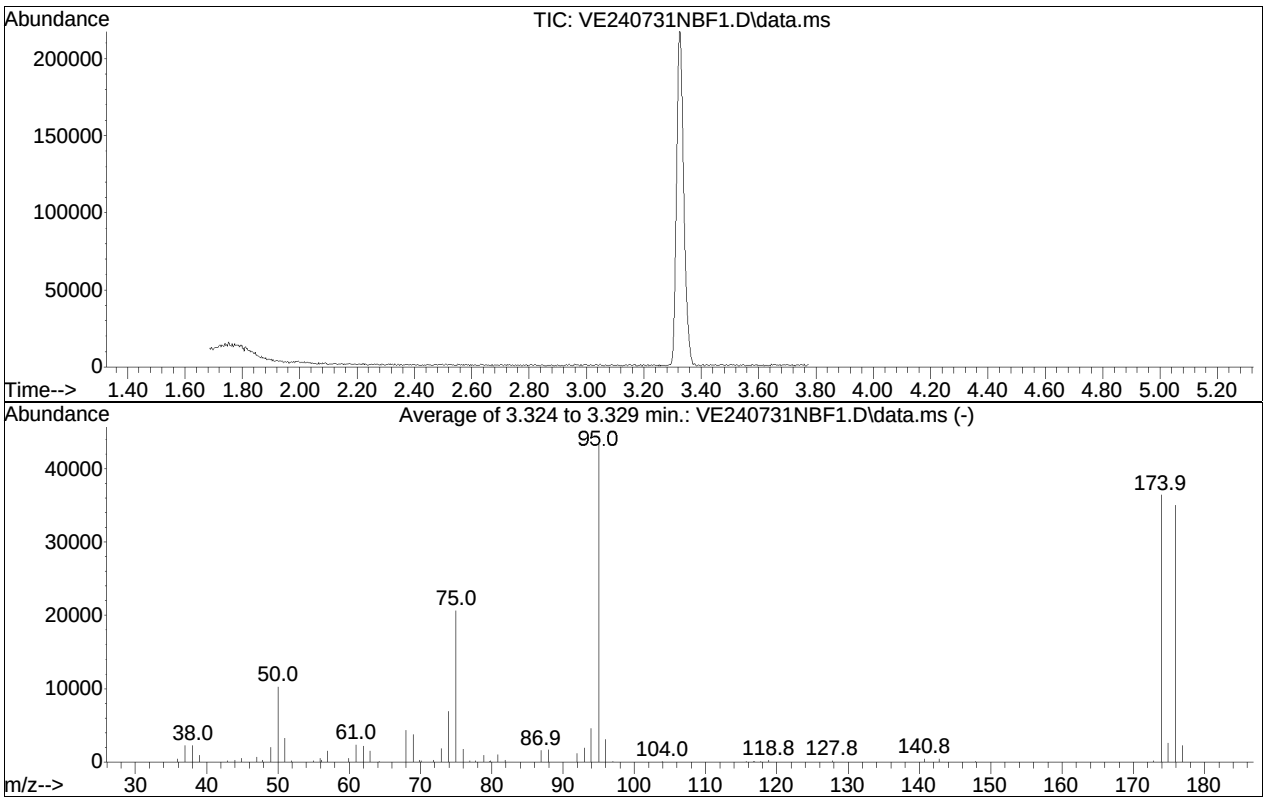
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
113)	TP Hexachlorobuta...	0.225	0.275	0.285	0.293	0.293	0.305	0.303	0.283		9.74
114)	TP 1,2,4-Trichlor...	0.666	0.683	0.789	0.797	0.806	0.839	0.809	0.770		8.71
115)	TP Naphthalene	1.419	1.532	1.695	1.747	1.797	1.858	1.833	1.697		9.67
116)	TP 1,2,3-Trichlor...	0.578	0.647	0.721	0.728	0.750	0.771	0.757	0.707		9.89

(#) = Out of Range

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731NBF1.D
Acq On : 31 Jul 2024 5:25 pm
Operator : ELAINE:MAG
Sample : WG1954249-1
Misc : WG1954249
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024



AutoFind: Scans 588, 589, 590; Background Corrected with Scan 574

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.6	10291	PASS
75	95	30	60	47.5	20672	PASS
95	95	100	100	100.0	43531	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.6	217	PASS
174	95	50	100	83.7	36424	PASS
175	174	5	9	7.1	2596	PASS
176	174	95	101	96.2	35043	PASS
177	176	5	9	6.5	2267	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N03.D
Acq On : 31 Jul 2024 6:35 pm
Operator : ELAINE:MKS
Sample : I8260STD0.19PPB
Misc : WG1954249
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 01 11:59:43 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	205517	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.46%			
63) Chlorobenzene-d5	9.497	117	152868	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 103.46%			
84) 1,4-Dichlorobenzene-d4	12.208	152	86858	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.78%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.158	113	49774	10.178	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.78%			
47) 1,2-Dichloroethane-d4	5.680	65	66950	10.310	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.10%			
64) Toluene-d8	7.657	98	201231	9.951	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.51%			
88) 4-Bromofluorobenzene	10.995	95	79257	9.840	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.40%			
Target Compounds						Qvalue
4) Vinyl chloride	1.854	62	637	0.127	ug/L #	12
37) Carbon tetrachloride	5.122	117	895M1	0.167	ug/L	
45) Benzene	5.549	78	2809	0.163	ug/L #	76
52) Trichloroethene	6.156	95	755M1	0.175	ug/L	
62) cis-1,3-Dichloropropene	7.453	75	943	0.135	ug/L #	55
69) trans-1,3-Dichloropropene	8.203	75	927M1	0.146	ug/L	

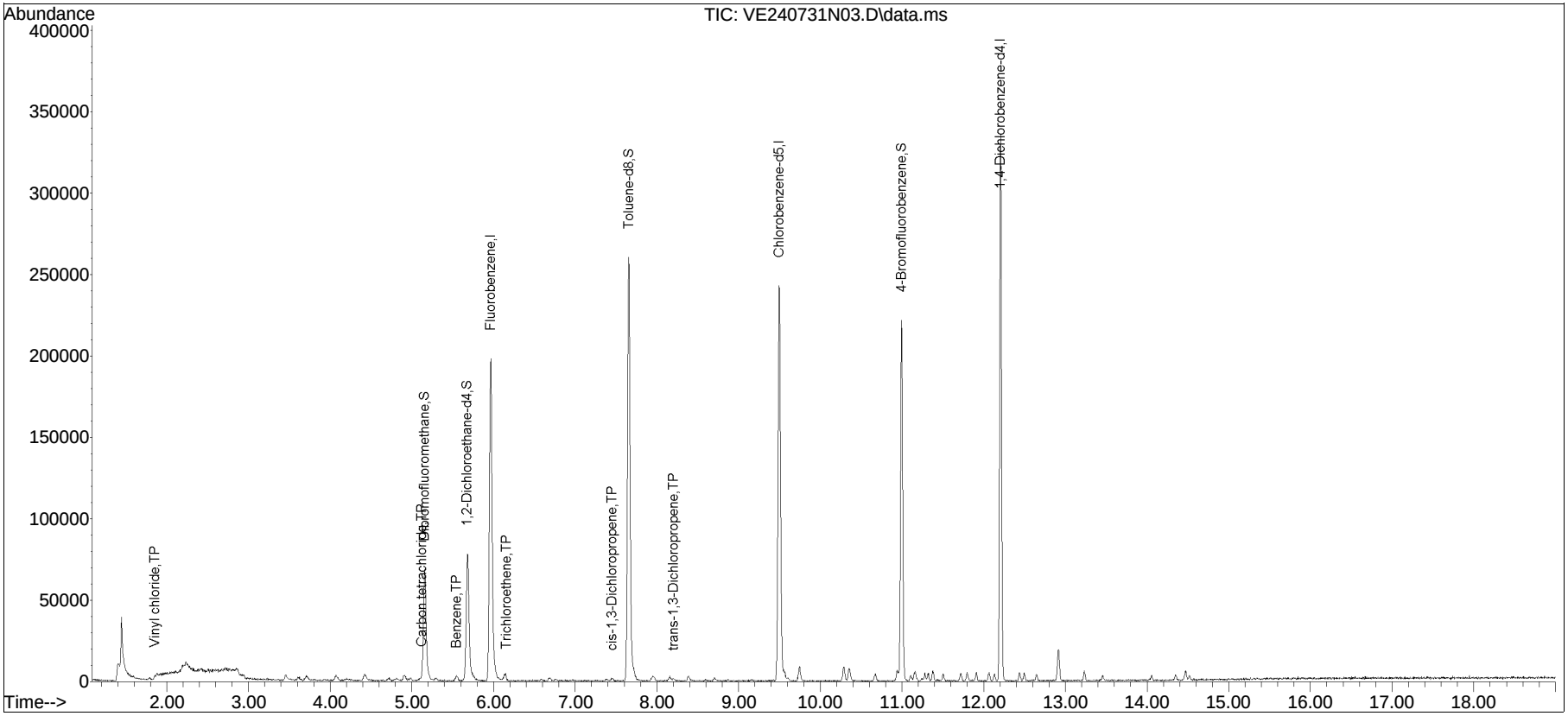
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N03.D
Acq On : 31 Jul 2024 6:35 pm
Operator : ELAINE:MKS
Sample : I8260STD0.19PPB
Misc : WG1954249
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 01 11:59:43 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-L11_MCP - L11 MCP731N-ICAL\VE240731N08.D•

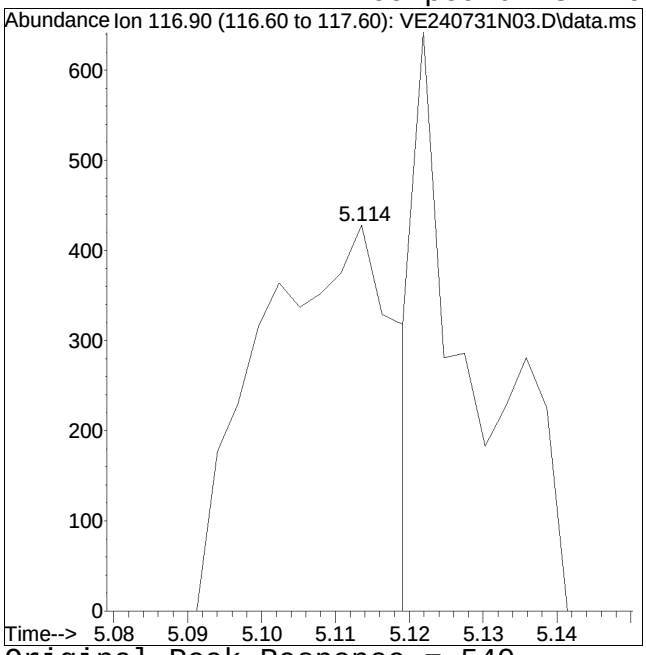


Manual Integration Report

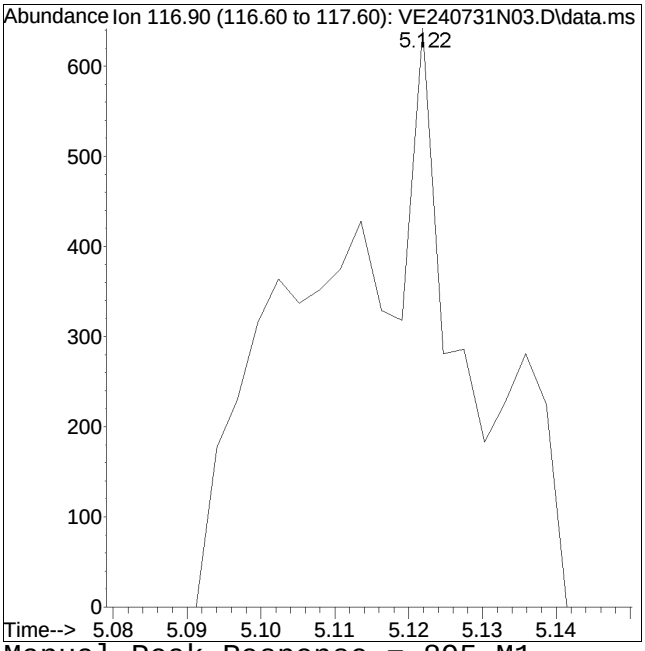
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N03.D
Date Inj'd : 7/31/2024 6:35 pm
Sample : I8260STD0.19PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #37: Carbon tetrachloride



Original Peak Response = 540



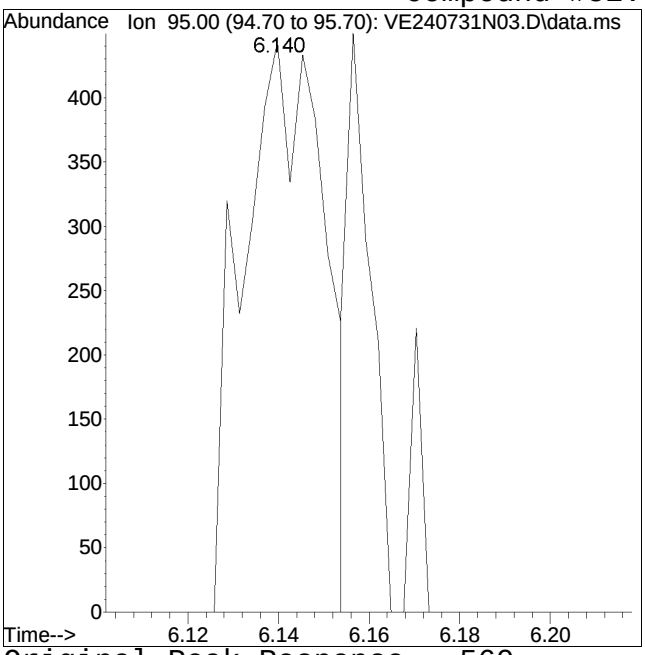
Manual Peak Response = 895 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

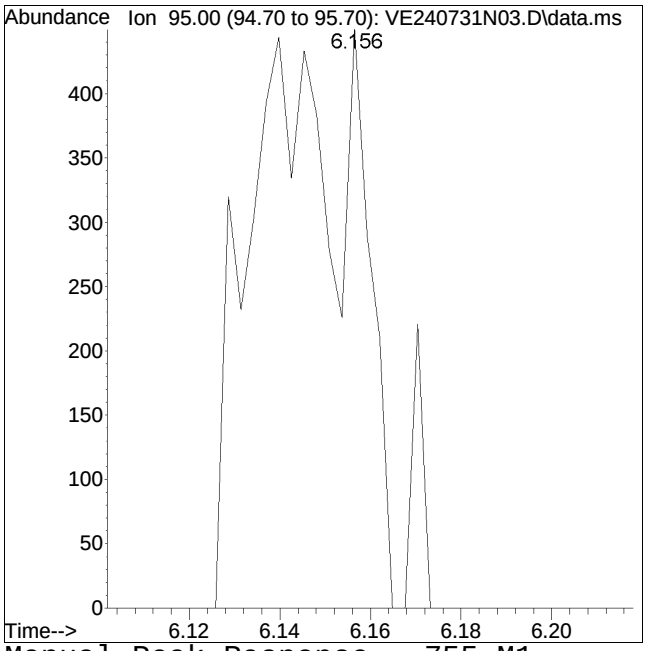
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N03.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 6:35 pm Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 8/1/2024 11:57 am

Compound #52: Trichloroethene



Original Peak Response = 560



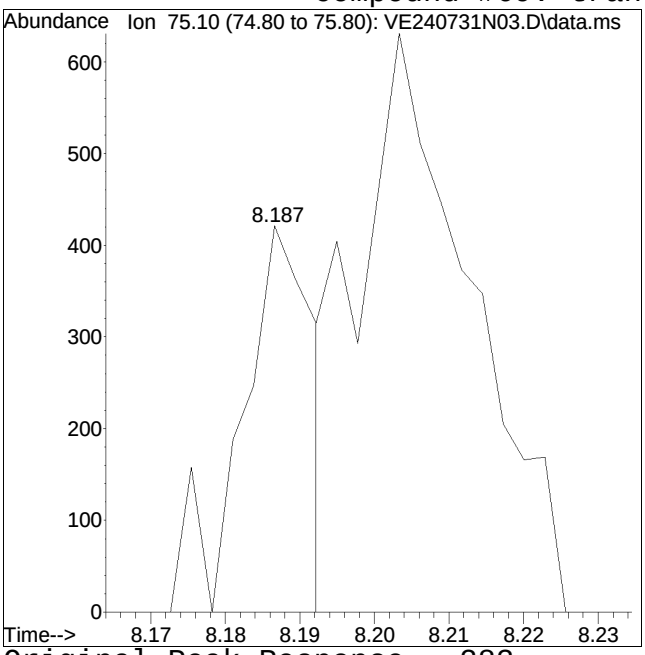
Manual Peak Response = 755 M1

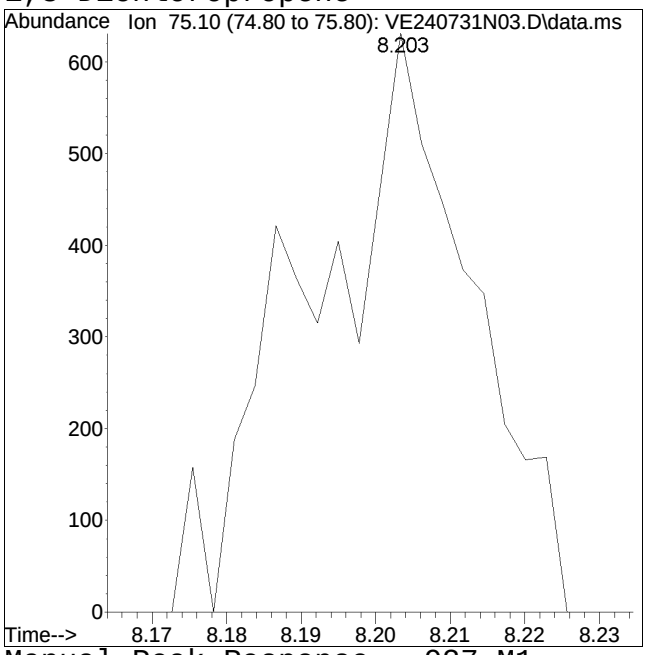
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N03.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 6:35 pm Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 8/1/2024 11:57 am

Compound #69: trans-1,3-Dichloropropene





Original Peak Response = 283 Manual Peak Response = 927 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.964	96	205652	10.000 ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.52%		
63) Chlorobenzene-d5	9.497	117	152599	10.000 ug/L	0.00
Standard Area 1 = 147756			Recovery = 103.28%		
84) 1,4-Dichlorobenzene-d4	12.205	152	86607	10.000 ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.49%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.158	113	49722	10.161 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.61%		
47) 1,2-Dichloroethane-d4	5.680	65	66192	10.187 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.87%		
64) Toluene-d8	7.651	98	200132	9.914 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.14%		
88) 4-Bromofluorobenzene	10.995	95	80217	9.988 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.592	85	1422	0.314 ug/L	88
3) Chloromethane	1.790	50	2046	0.379 ug/L	89
4) Vinyl chloride	1.857	62	1632	0.326 ug/L	73
5) Bromomethane	2.161	94	446	0.371 ug/L	81
6) Chloroethane	2.272	64	1120M4	0.355 ug/L	
7) Trichlorofluoromethane	2.420	101	1947	0.372 ug/L #	69
8) Ethyl ether	2.716	74	1005M1	0.461 ug/L	
10) 1,1-Dichloroethene	2.900	96	1318	0.415 ug/L #	79
11) Carbon disulfide	2.933	76	4345	0.420 ug/L #	83
12) Freon-113	2.939	101	1230M1	0.367 ug/L	
13) Iodomethane	0.000		0	N.D. d	
14) Acrolein	3.229	56	430M1	0.473 ug/L	
15) Methylene chloride	3.463	84	2255	0.538 ug/L	95
17) Acetone	3.499	43	1696M1	1.168 ug/L	
18) trans-1,2-Dichloroethene	3.611	96	1381	0.380 ug/L	78
19) Methyl acetate	3.622	43	2374M1	0.700 ug/L	
21) Methyl tert-butyl ether	3.714	73	6120M1	0.440 ug/L	
22) tert-Butyl alcohol	3.792	59	1084M1	2.240 ug/L	
24) Diisopropyl ether	4.079	45	8193	0.413 ug/L #	75
25) 1,1-Dichloroethane	4.196	63	3485	0.399 ug/L	82
26) Halothane	4.258	117	1199M1	0.411 ug/L	

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.230	53	782M1	0.433	ug/L		
28) Ethyl tert-butyl ether	4.422	59	7137	0.414	ug/L	#	76
29) Vinyl acetate	4.431	43	6978M1	0.610	ug/L		
30) cis-1,2-Dichloroethene	4.709	96	1882M1	0.433	ug/L		
31) 2,2-Dichloropropane	4.818	77	2468	0.444	ug/L	#	31
33) Bromochloromethane	4.907	128	912M1	0.463	ug/L		
34) Cyclohexane	4.913	56	3953	0.426	ug/L	#	23
35) Chloroform	4.980	83	3115	0.438	ug/L	#	88
36) Ethyl acetate	5.097	43	3232M1	0.601	ug/L		
37) Carbon tetrachloride	5.117	117	1932	0.361	ug/L	#	25
38) Tetrahydrofuran	5.144	42	890M1	0.535	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	2722M1	0.427	ug/L		
42) 2-Butanone	0.000		0	N.D.	d		
43) 1,1-Dichloropropene	5.301	75	1981	0.370	ug/L	#	73
45) Benzene	5.552	78	6728	0.390	ug/L	#	79
46) tert-Amyl methyl ether	5.663	73	5646M1	0.444	ug/L		
48) 1,2-Dichloroethane	5.752	62	3030	0.461	ug/L	#	59
51) Methyl cyclohexane	6.134	83	2892	0.422	ug/L	#	61
52) Trichloroethene	6.148	95	1655M1	0.383	ug/L		
54) Dibromomethane	6.583	93	990M1	0.402	ug/L		
55) 1,2-Dichloropropane	6.684	63	2209M1	0.431	ug/L		
57) 2-Chloroethyl vinyl ether	7.381	63	1303M1	0.404	ug/L		
58) Bromodichloromethane	6.756	83	2570	0.424	ug/L	#	77
61) 1,4-Dioxane	6.971	88	3965M1	99.134	ug/L		
62) cis-1,3-Dichloropropene	7.448	75	3009	0.430	ug/L	#	84
65) Toluene	7.718	92	4550	0.419	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	735M1	0.388	ug/L		
67) Tetrachloroethene	8.151	166	1670	0.362	ug/L	#	47
69) trans-1,3-Dichloropropene	8.201	75	2736	0.433	ug/L	#	86
71) Ethyl methacrylate	8.382	69	2714	0.460	ug/L	#	32
72) 1,1,2-Trichloroethane	8.382	83	1399M1	0.449	ug/L		
73) Chlorodibromomethane	8.594	129	1758M1	0.409	ug/L		
74) 1,3-Dichloropropane	8.705	76	2813	0.428	ug/L		95
75) 1,2-Dibromoethane	8.864	107	1649	0.455	ug/L	#	59
77) 2-Hexanone	9.157	43	1819	0.509	ug/L	#	40
78) Chlorobenzene	9.517	112	5132	0.438	ug/L	#	61
79) Ethylbenzene	9.559	91	8713	0.405	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.609	131	1642	0.375	ug/L	#	44
81) p/m Xylene	9.746	106	6826	0.817	ug/L		100
82) o Xylene	10.289	106	6928M1	0.852	ug/L		

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	10959	0.810	ug/L		96
85) Bromoform	10.381	173	1229M1	0.429	ug/L		
87) Isopropylbenzene	10.669	105	8275	0.391	ug/L		94
89) Bromobenzene	11.104	156	2333	0.431	ug/L		96
90) n-Propylbenzene	11.154	91	10667	0.419	ug/L		99
91) 1,4-Dichlorobutane	11.168	55	4660	0.504	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.238	83	2216M1	0.519	ug/L		
93) 4-Ethyltoluene	11.282	105	8381	0.399	ug/L		99
94) 2-Chlorotoluene	11.324	91	6283	0.411	ug/L		100
95) 1,3,5-Trimethylbenzene	11.377	105	7504	0.404	ug/L		100
96) 1,2,3-Trichloropropane	11.377	75	1709	0.458	ug/L		98
97) trans-1,4-Dichloro-2-b...	11.430	53	800M1	0.454	ug/L		
98) 4-Chlorotoluene	11.505	91	6625	0.418	ug/L		99
99) tert-Butylbenzene	11.717	119	6113	0.399	ug/L		94
102) 1,2,4-Trimethylbenzene	11.798	105	7563	0.410	ug/L		99
103) sec-Butylbenzene	11.910	105	9273	0.414	ug/L		100
104) p-Isopropyltoluene	12.066	119	7364	0.387	ug/L		96
105) 1,3-Dichlorobenzene	12.127	146	4394	0.434	ug/L		93
106) 1,4-Dichlorobenzene	12.222	146	4371M3	0.436	ug/L		
107) p-Diethylbenzene	12.437	119	4450	0.395	ug/L		96
108) n-Butylbenzene	12.492	91	6499	0.402	ug/L	#	40
109) 1,2-Dichlorobenzene	12.643	146	4236	0.439	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	7522	0.408	ug/L		98
111) 1,2-Dibromo-3-chloropr...	13.424	155	212M1	0.267	ug/L		
112) 1,3,5-Trichlorobenzene	13.457	180	3071	0.398	ug/L		92
113) Hexachlorobutadiene	14.029	225	974	0.395	ug/L		90
114) 1,2,4-Trichlorobenzene	14.057	180	2885	0.422	ug/L		90
115) Naphthalene	14.350	128	6143	0.418	ug/L		100
116) 1,2,3-Trichlorobenzene	14.514	180	2501	0.400	ug/L	#	83

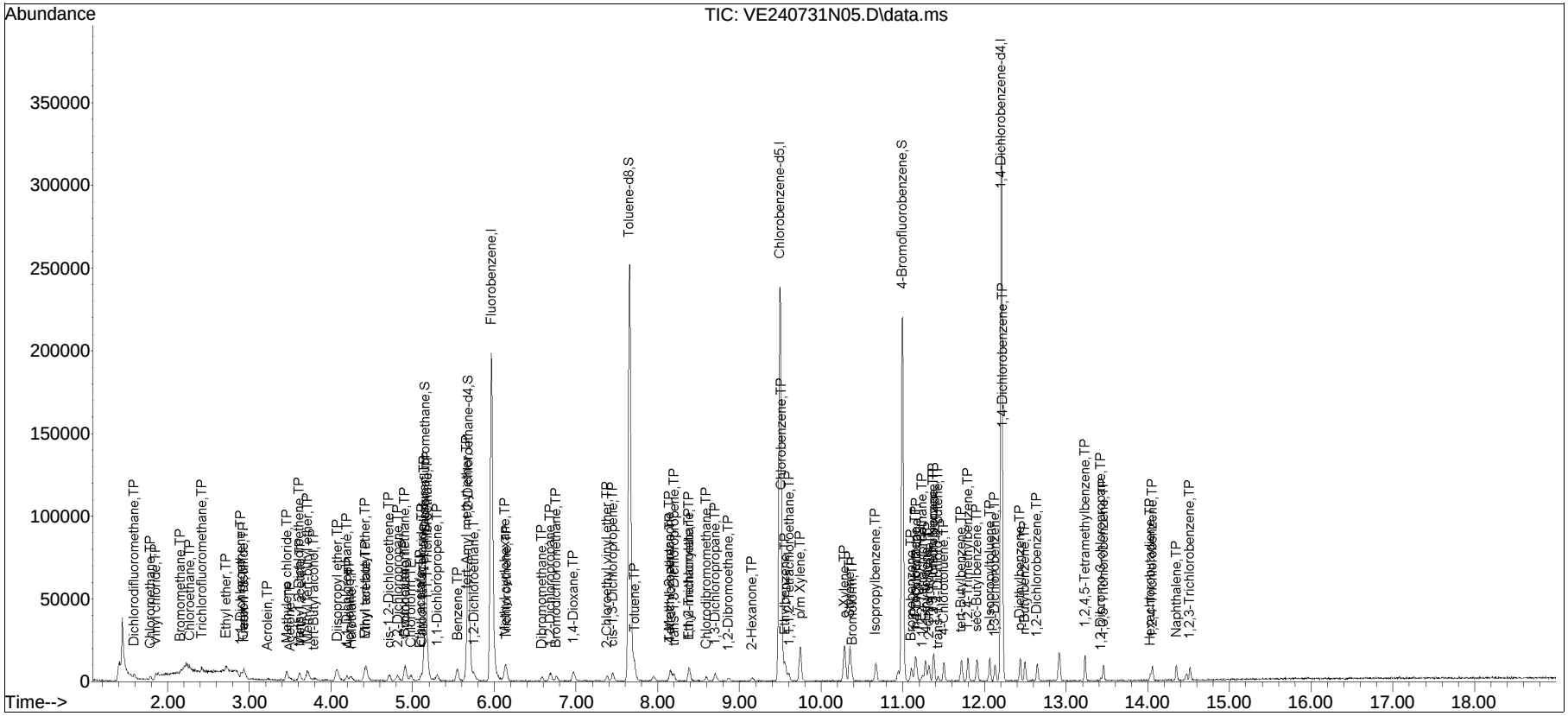
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N05.D
Acq On : 31 Jul 2024 7:26 pm
Operator : ELAINE:MKS
Sample : I8260STD0.5PPB
Misc : WG1954249
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 01 12:03:30 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

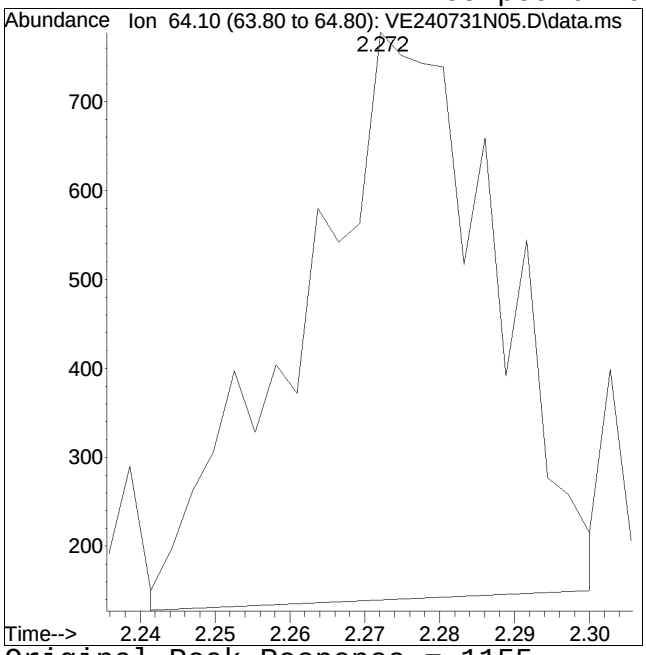


Manual Integration Report

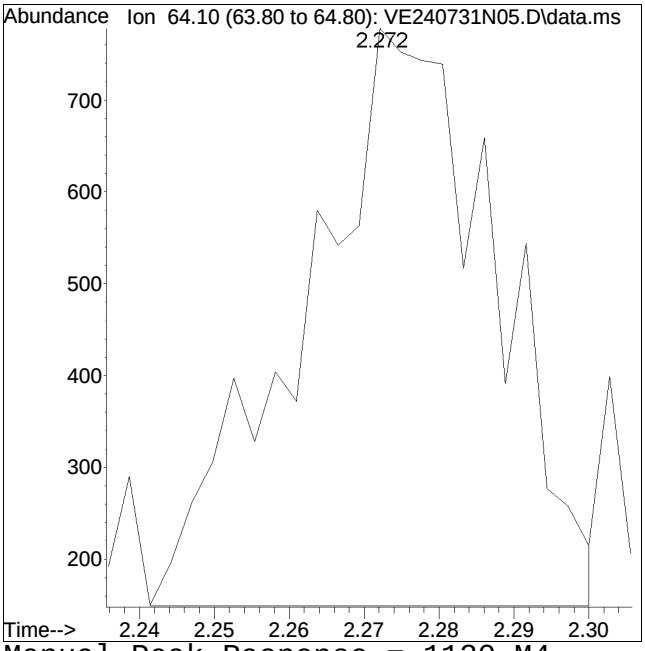
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



Original Peak Response = 1155



Manual Peak Response = 1120 M4

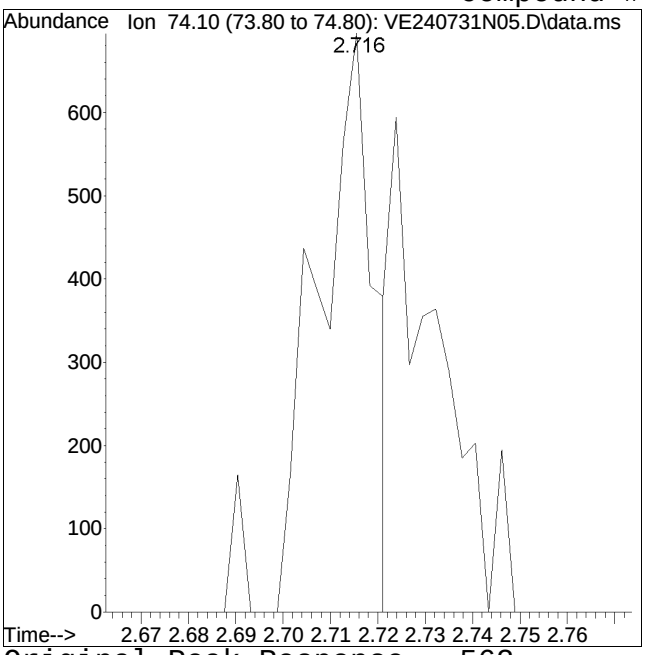
M4 = Poor automated baseline construction.

Manual Integration Report

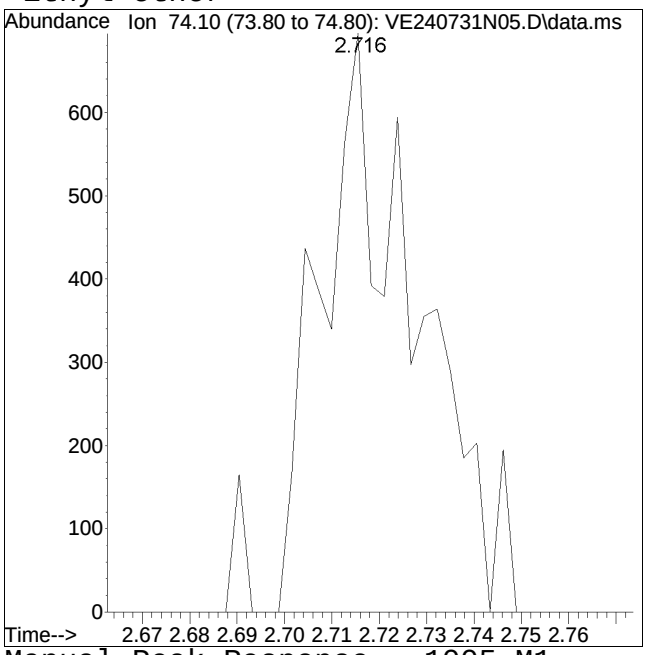
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #8: Ethyl ether



Original Peak Response = 562



Manual Peak Response = 1005 M1

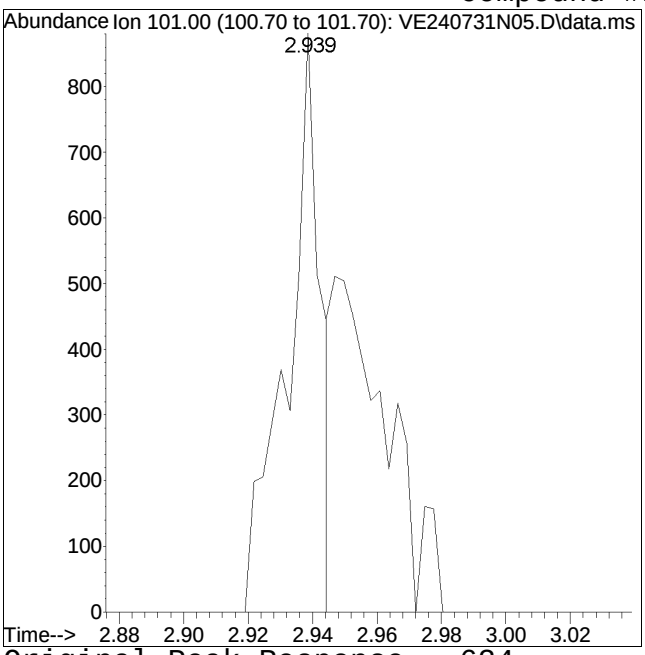
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

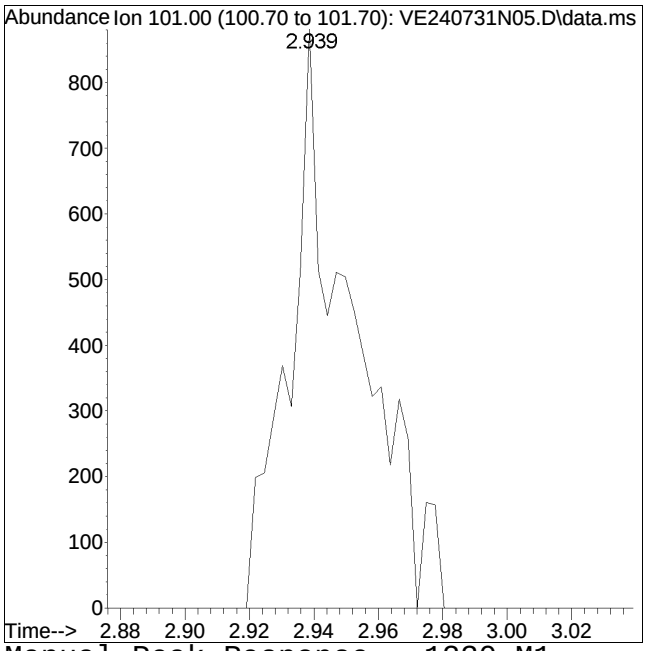
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #12: Freon-113



Original Peak Response = 624



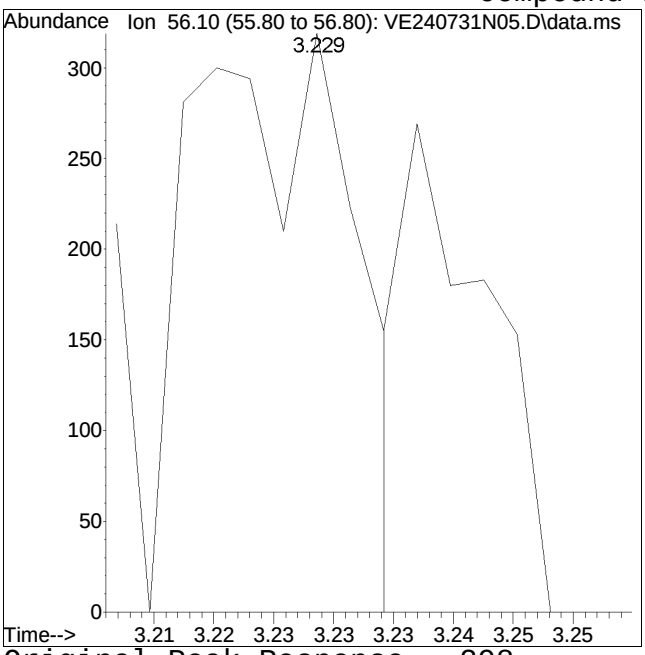
Manual Peak Response = 1230 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

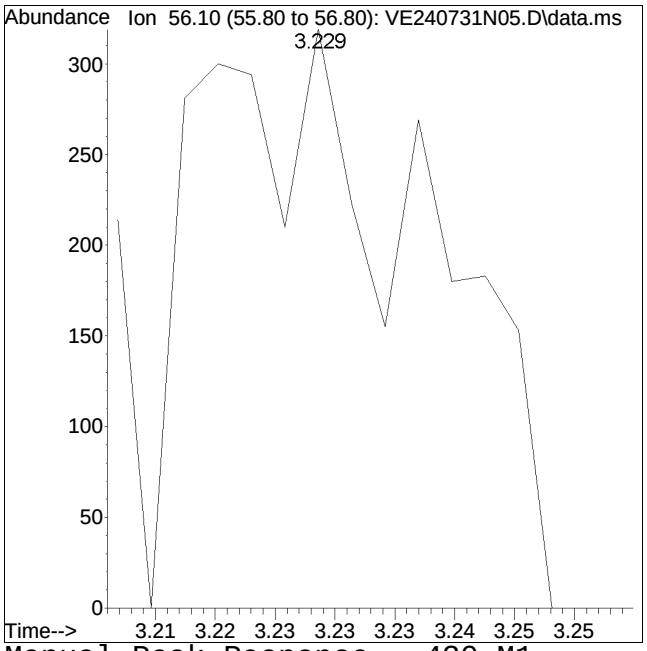
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #14: Acrolein



Original Peak Response = 298



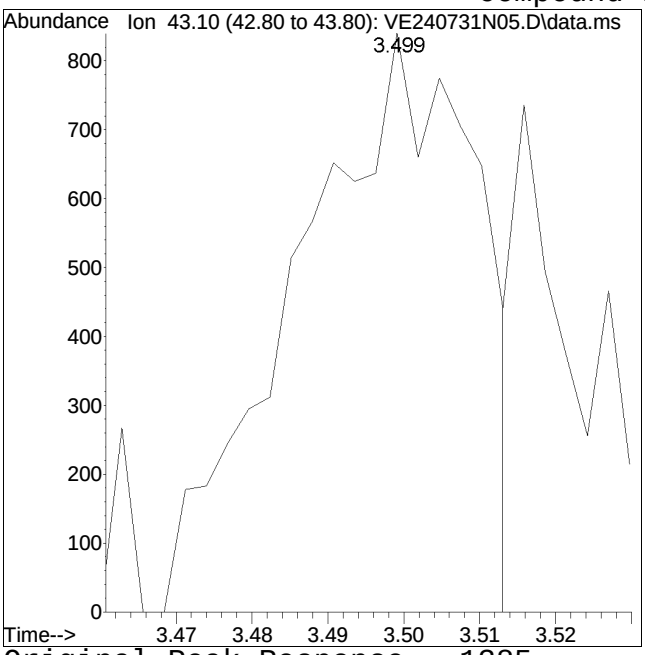
Manual Peak Response = 430 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

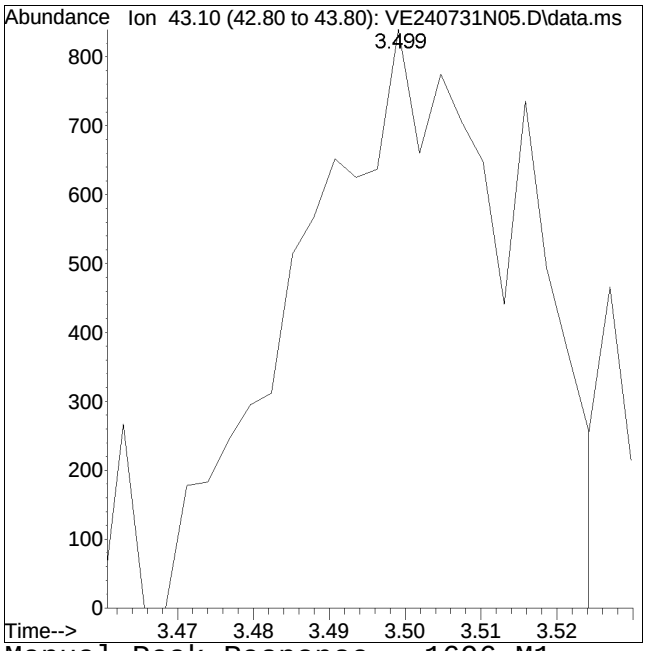
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #17: Acetone



Original Peak Response = 1385



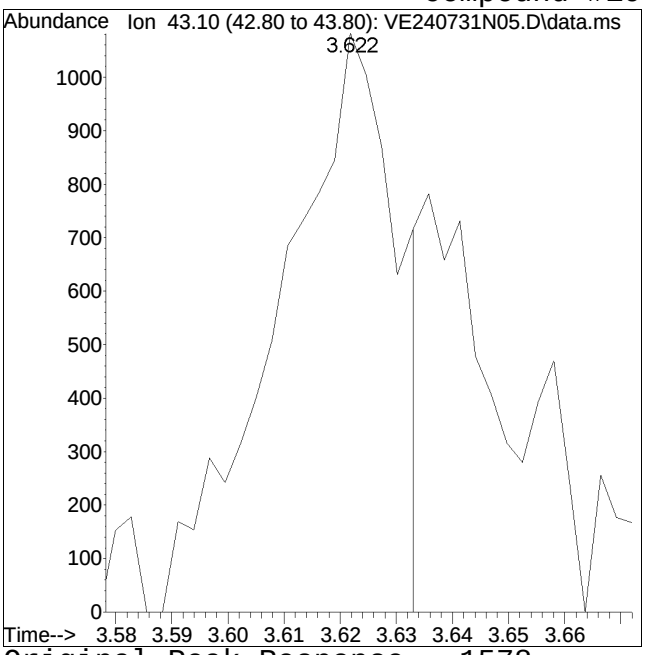
Manual Peak Response = 1696 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

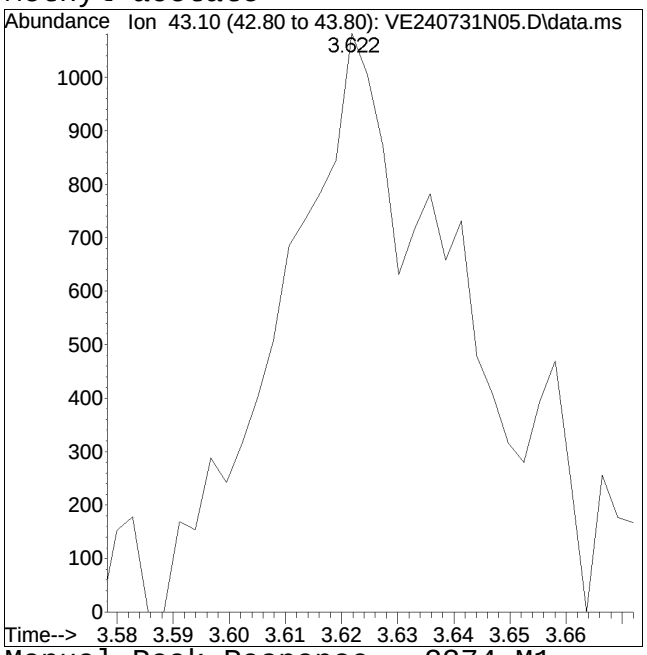
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #19: Methyl acetate



Original Peak Response = 1578



Manual Peak Response = 2374 M1

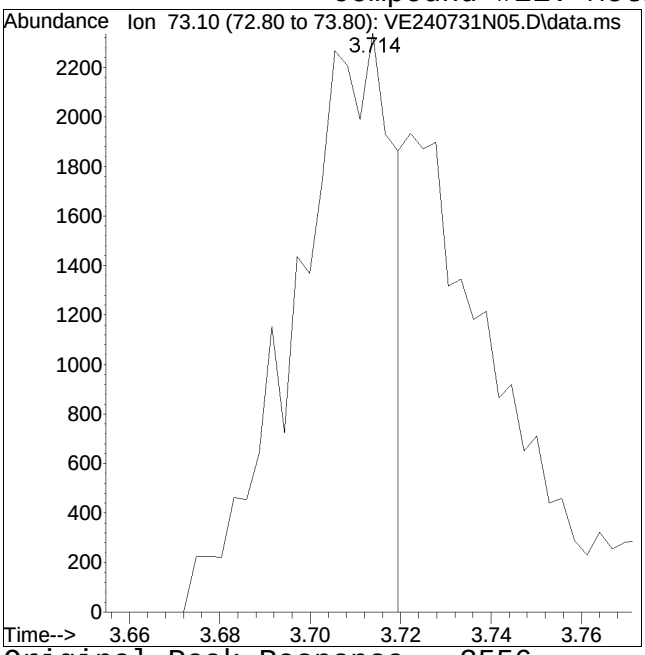
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

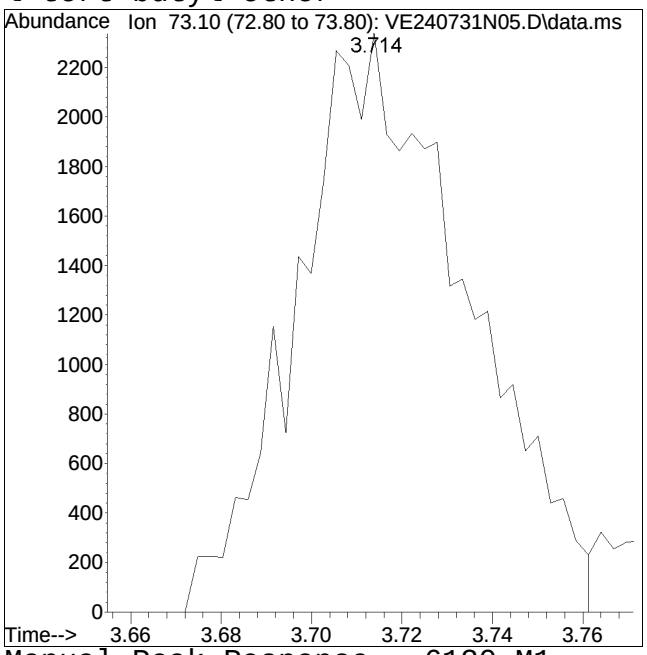
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 3556



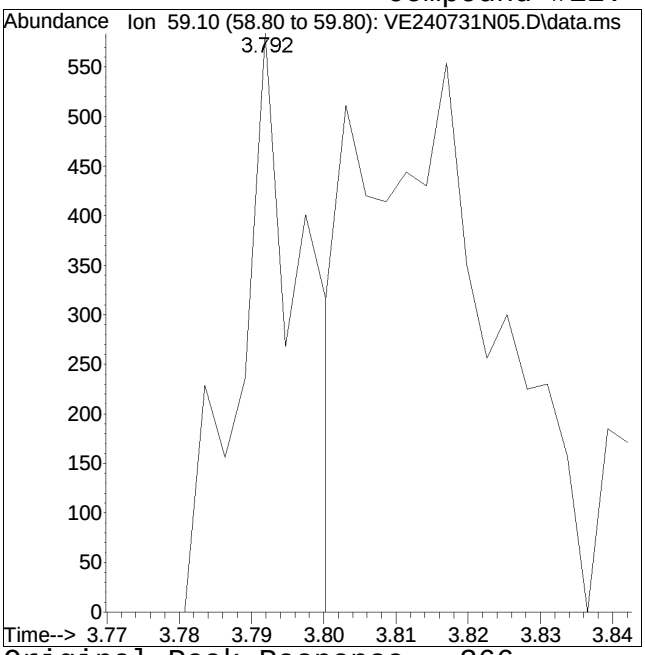
Manual Peak Response = 6120 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

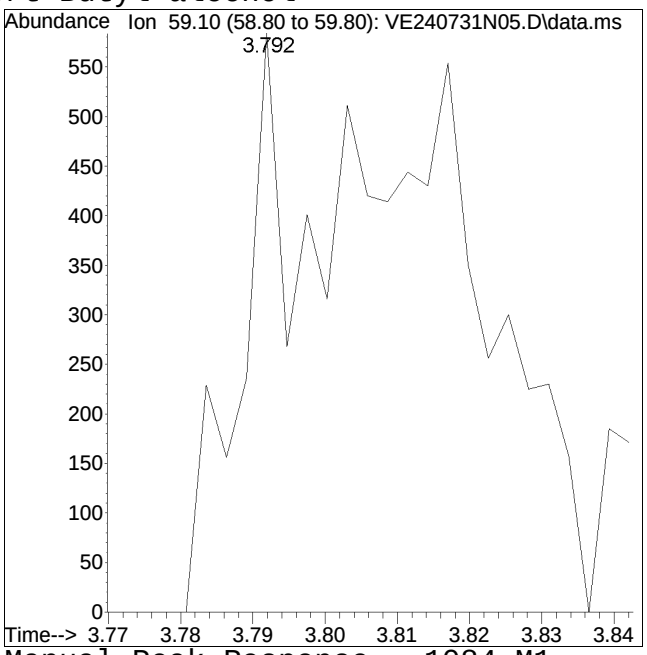
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #22: tert-Butyl alcohol



Original Peak Response = 366



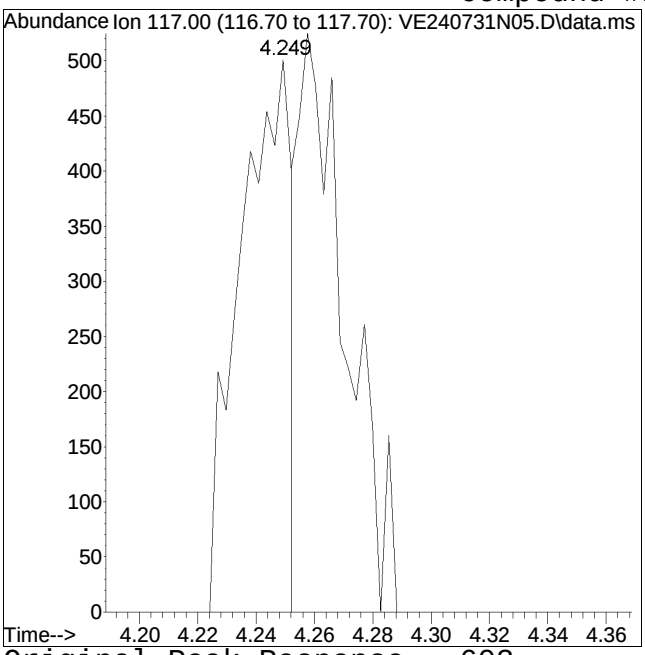
Manual Peak Response = 1084 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

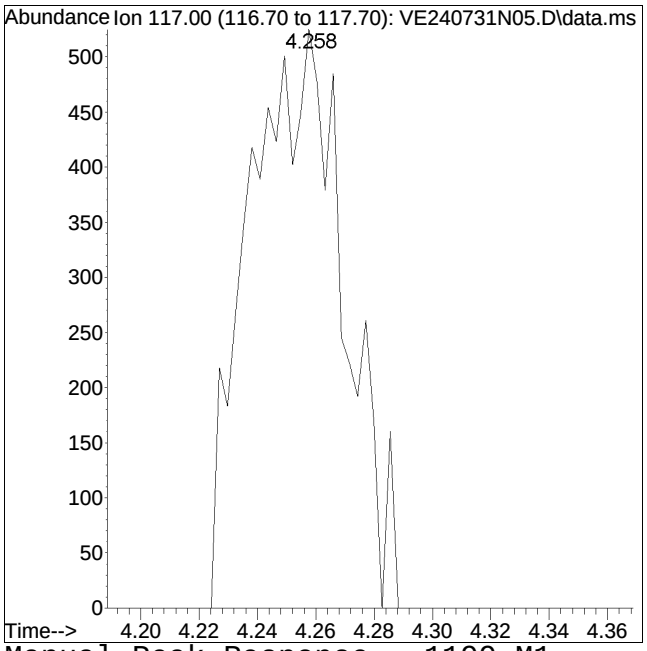
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #26: Halothane



Original Peak Response = 603



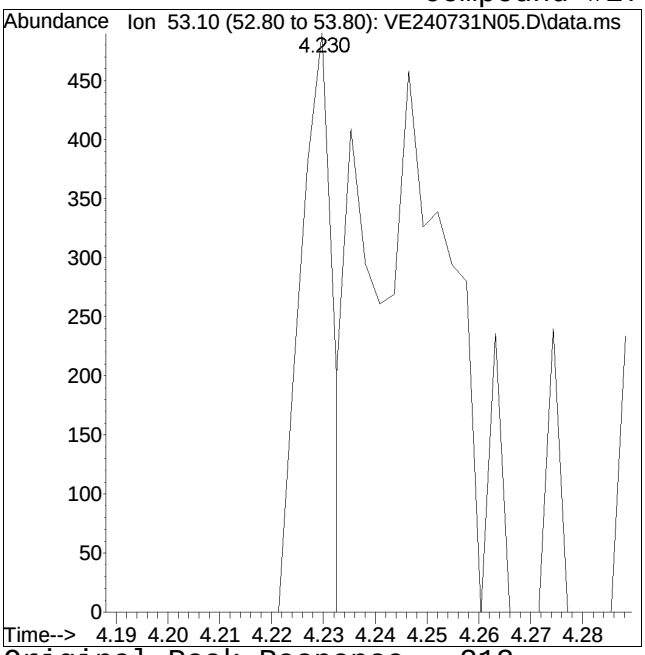
Manual Peak Response = 1199 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

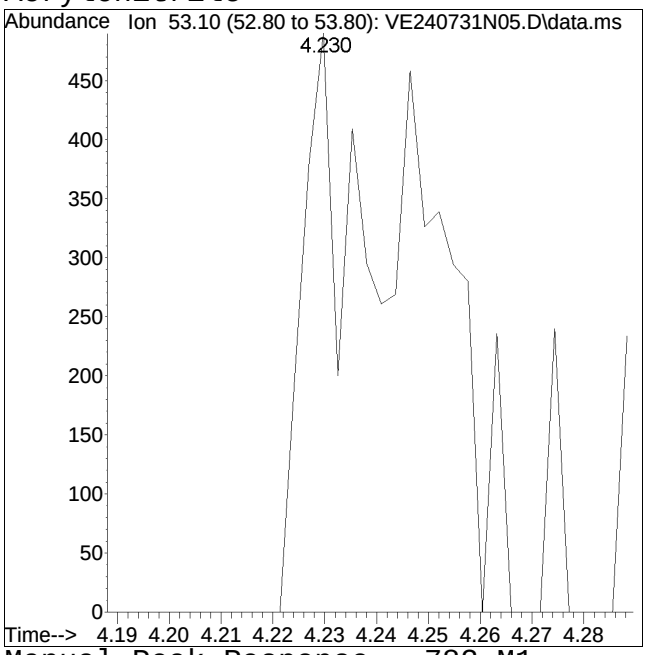
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #27: Acrylonitrile



Original Peak Response = 212



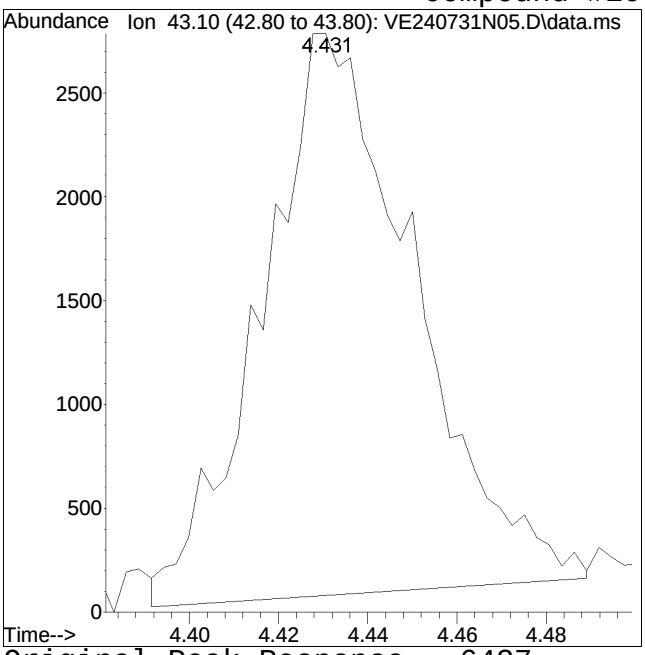
Manual Peak Response = 782 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

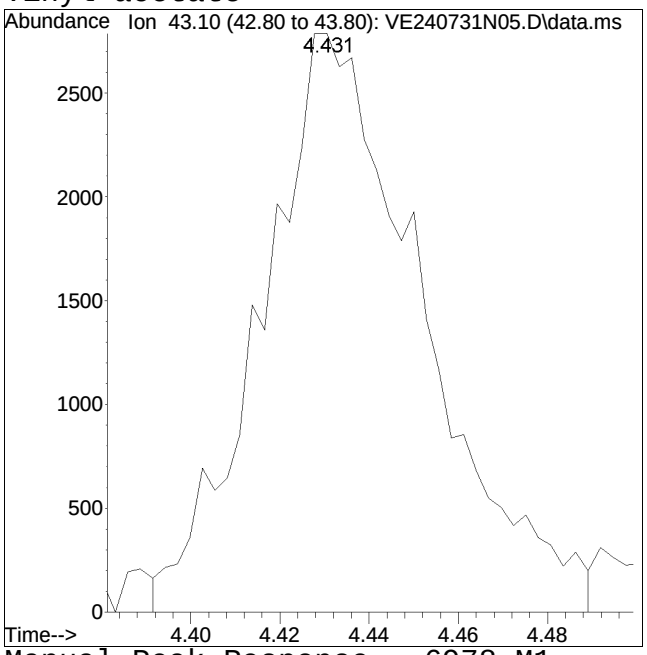
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #29: Vinyl acetate



Original Peak Response = 6427



Manual Peak Response = 6978 M1

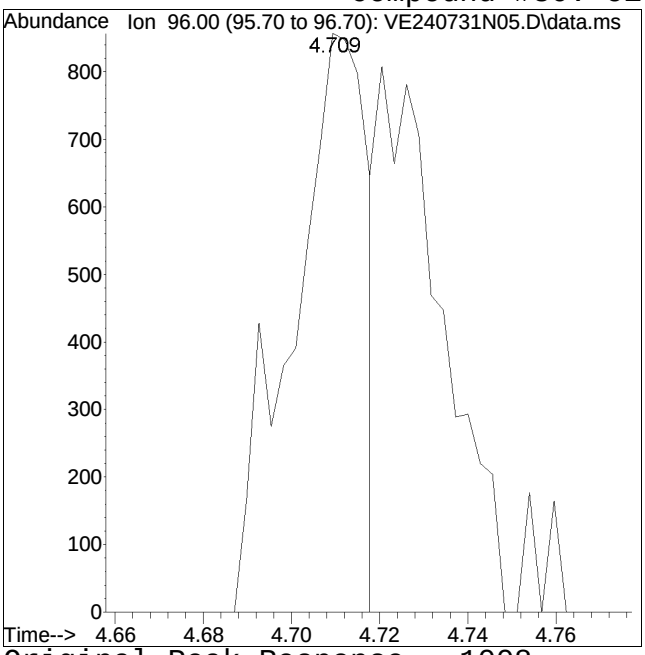
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

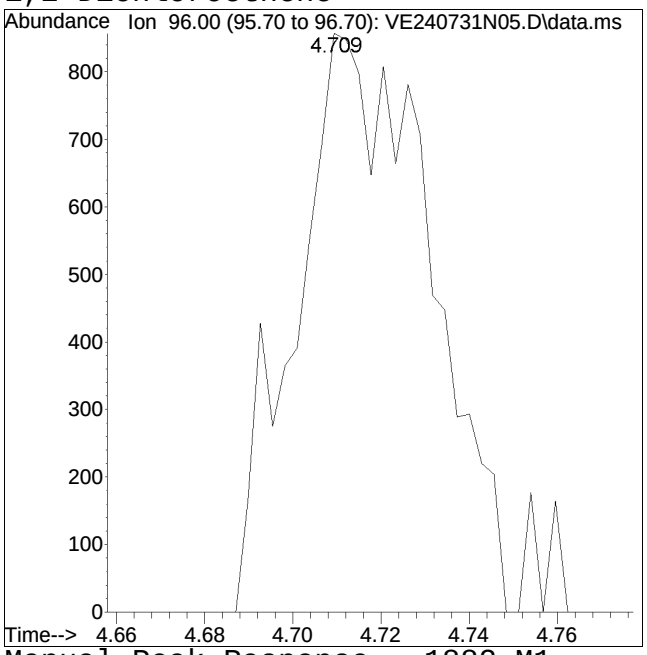
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 1008



Manual Peak Response = 1882 M1

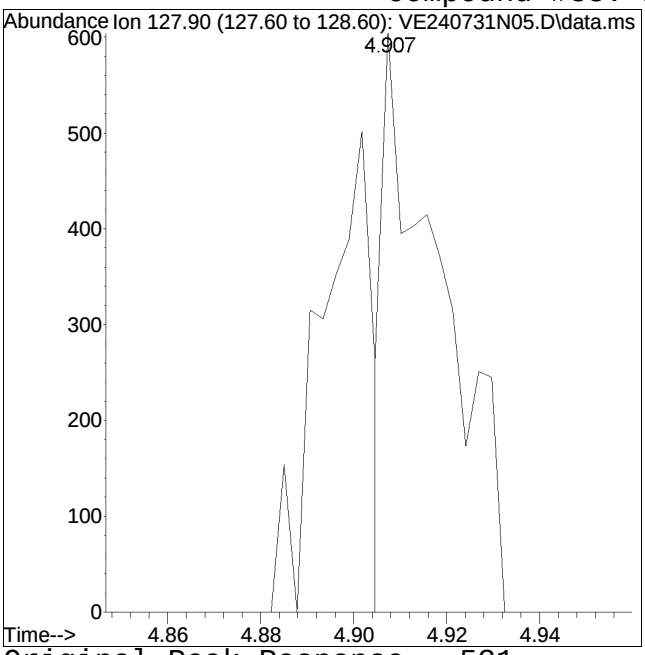
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

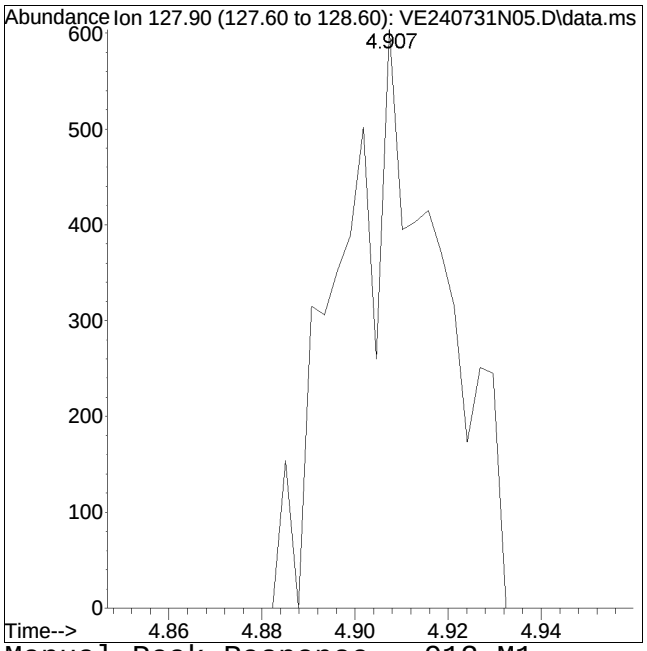
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #33: Bromochloromethane



Original Peak Response = 531



Manual Peak Response = 912 M1

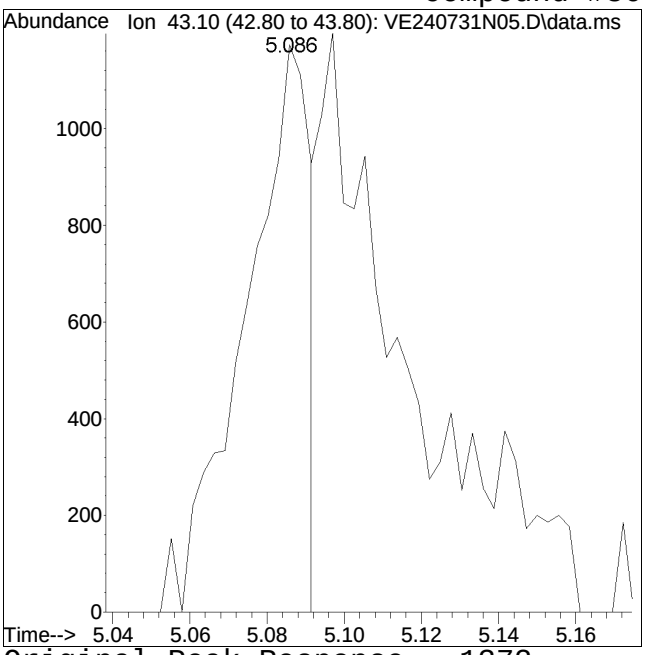
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

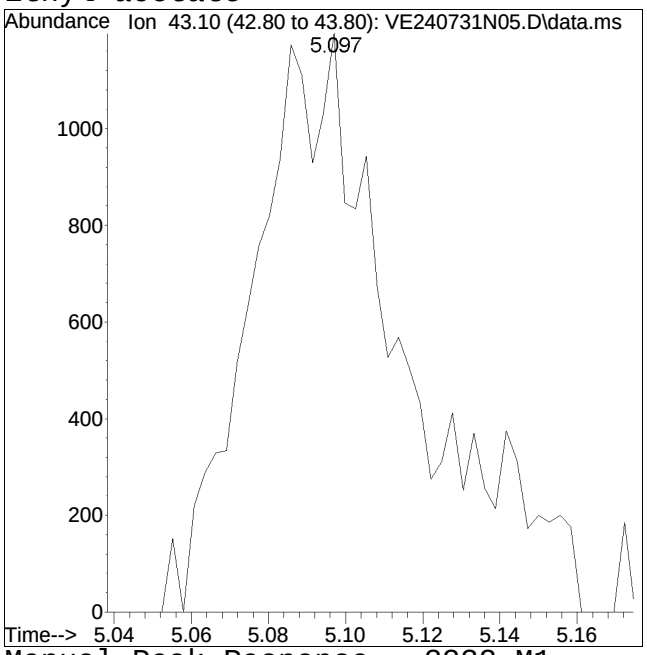
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #36: Ethyl acetate



Original Peak Response = 1372



Manual Peak Response = 3232 M1

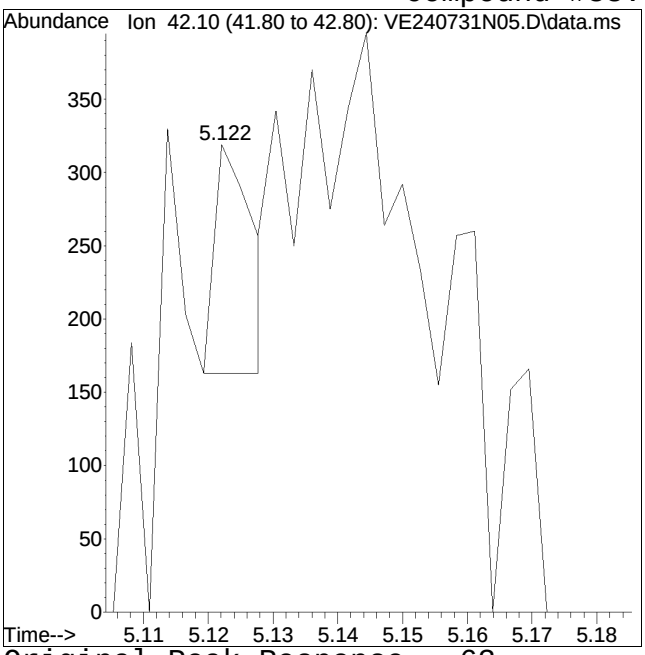
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

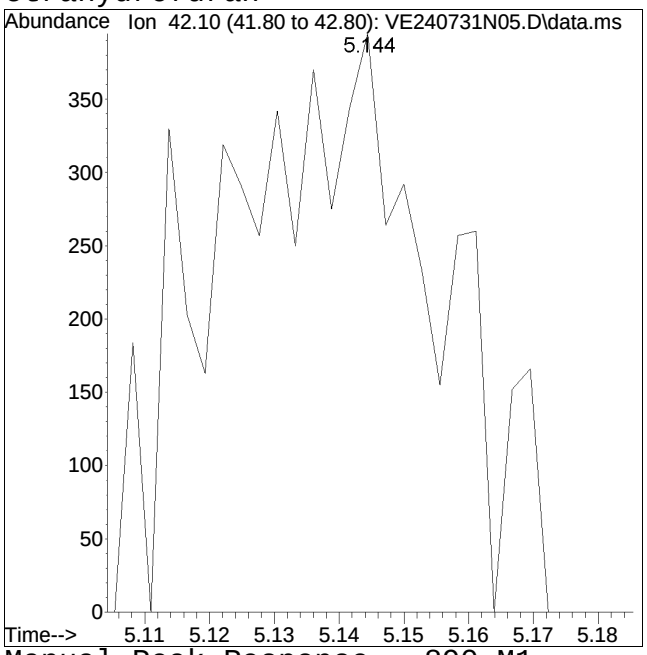
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran



Original Peak Response = 63



Manual Peak Response = 890 M1

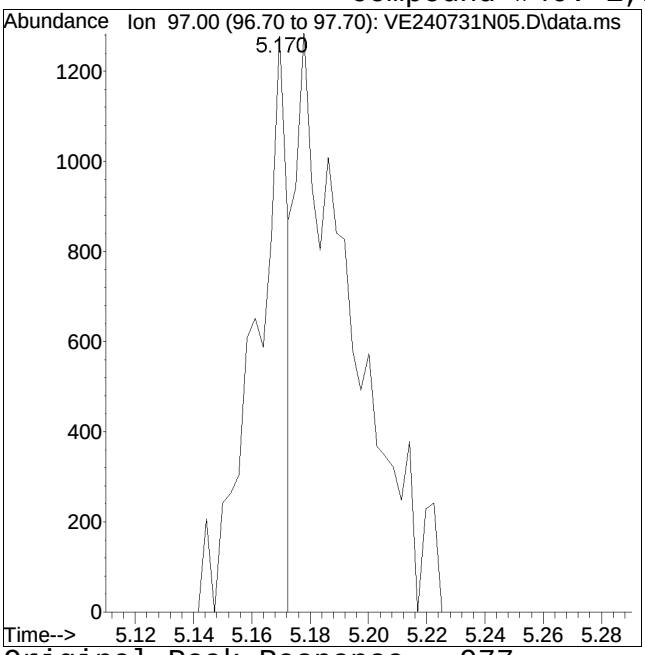
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

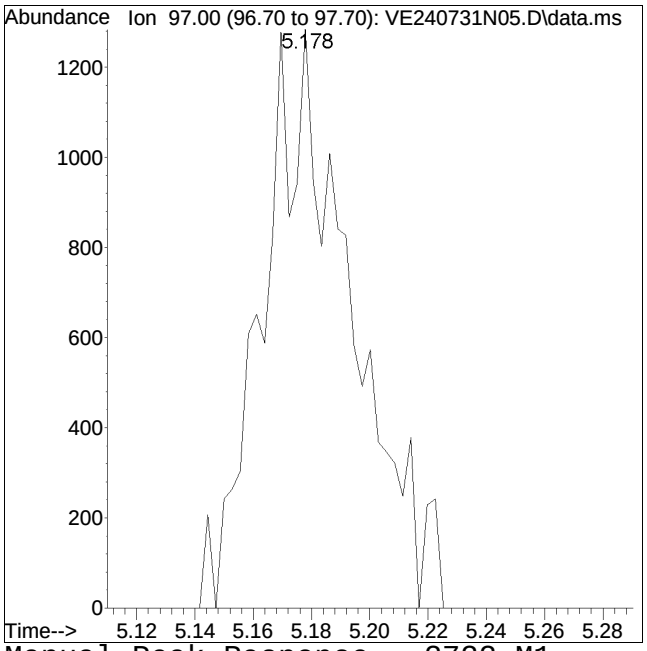
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 977



Manual Peak Response = 2722 M1

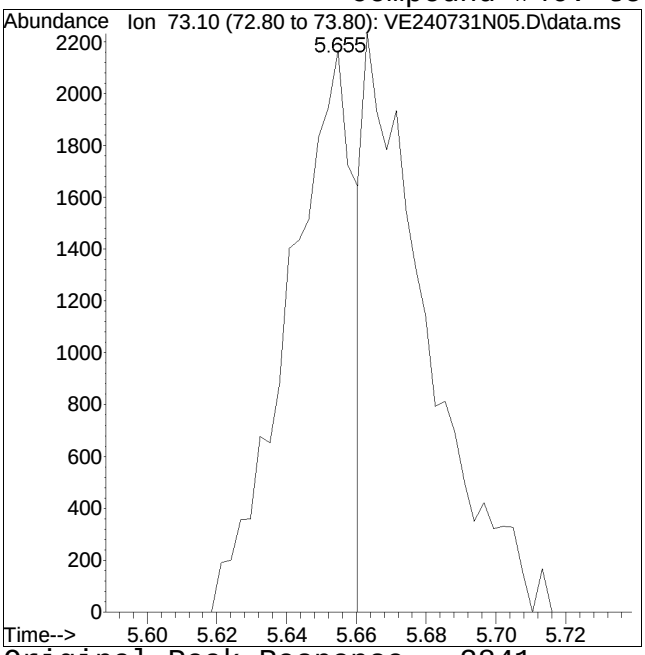
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

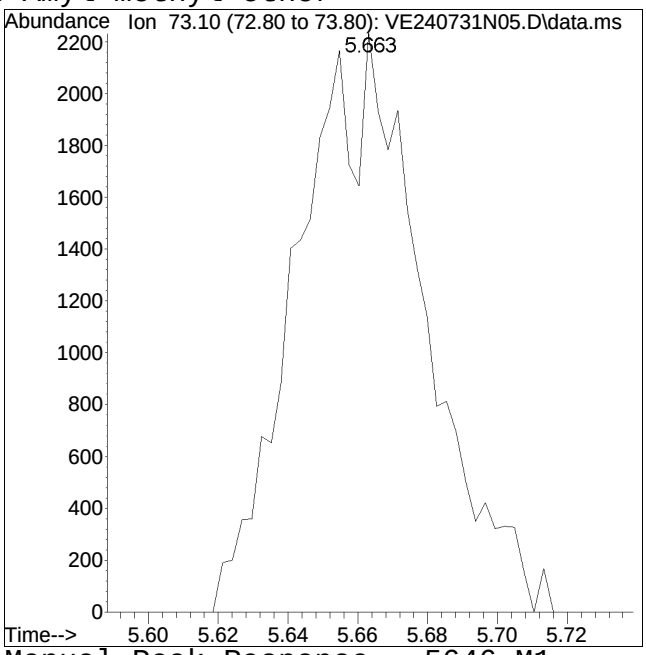
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #46: tert-Amyl methyl ether



Original Peak Response = 2841



Manual Peak Response = 5646 M1

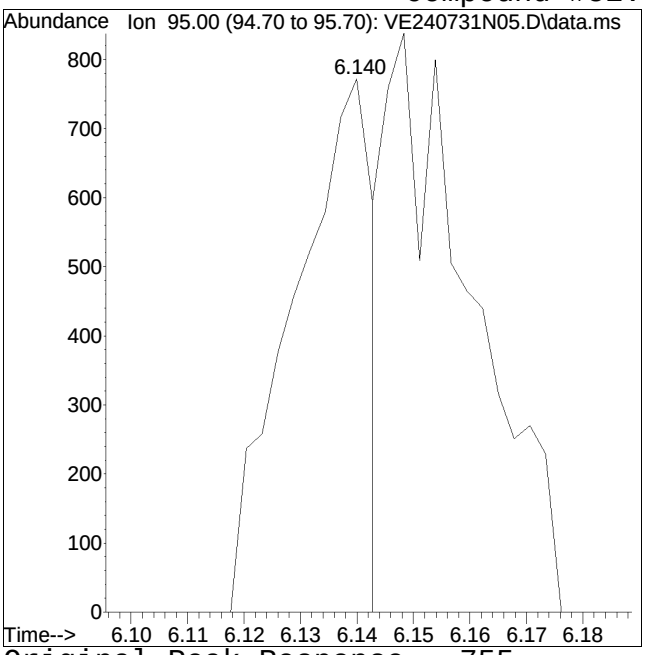
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

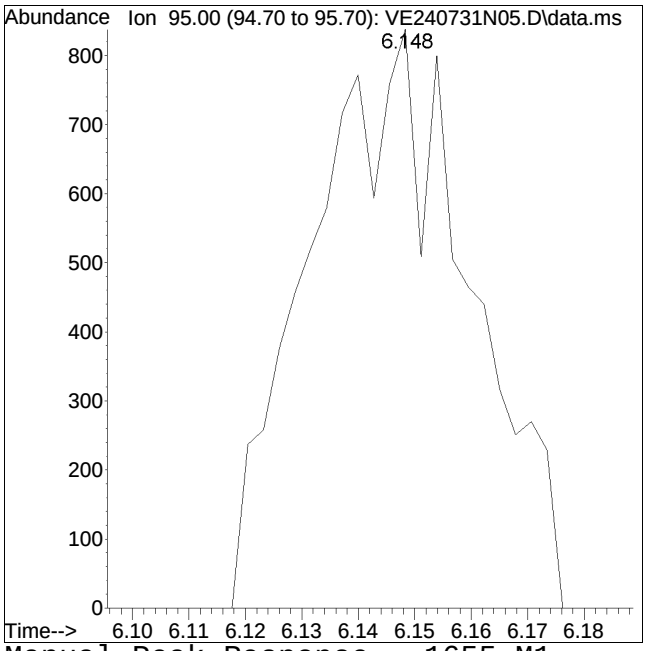
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #52: Trichloroethene



Original Peak Response = 755



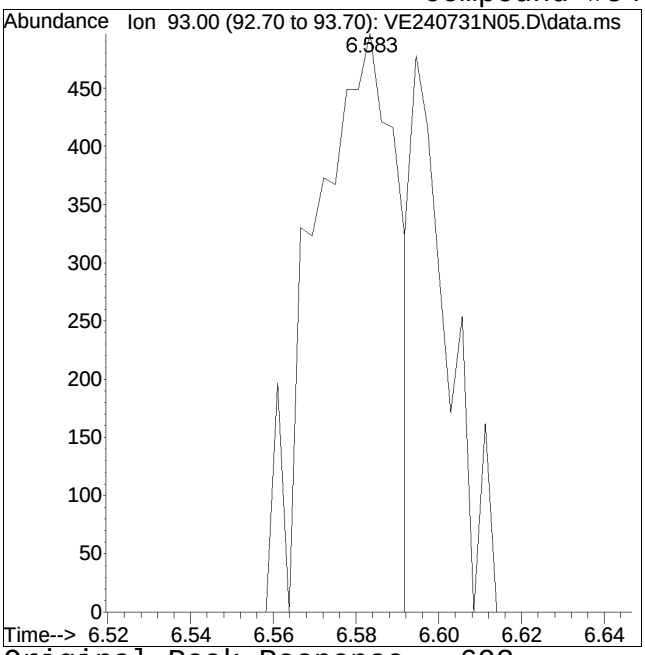
Manual Peak Response = 1655 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

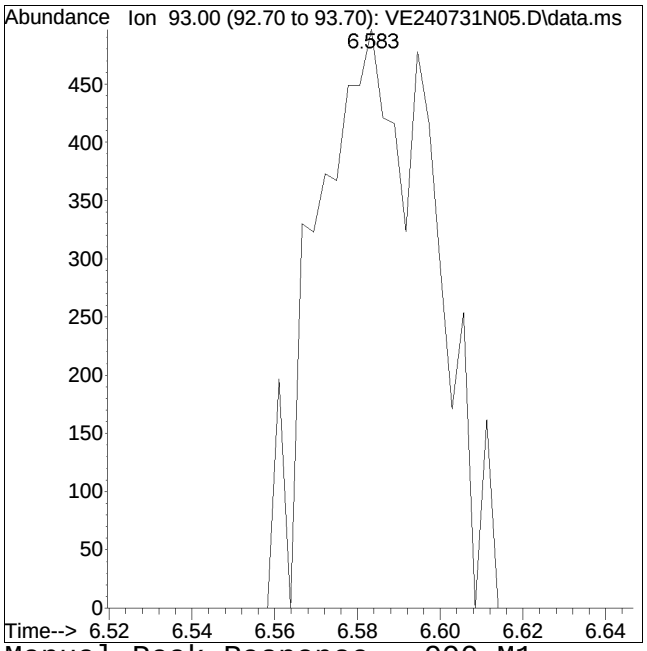
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #54: Dibromomethane



Original Peak Response = 693



Manual Peak Response = 990 M1

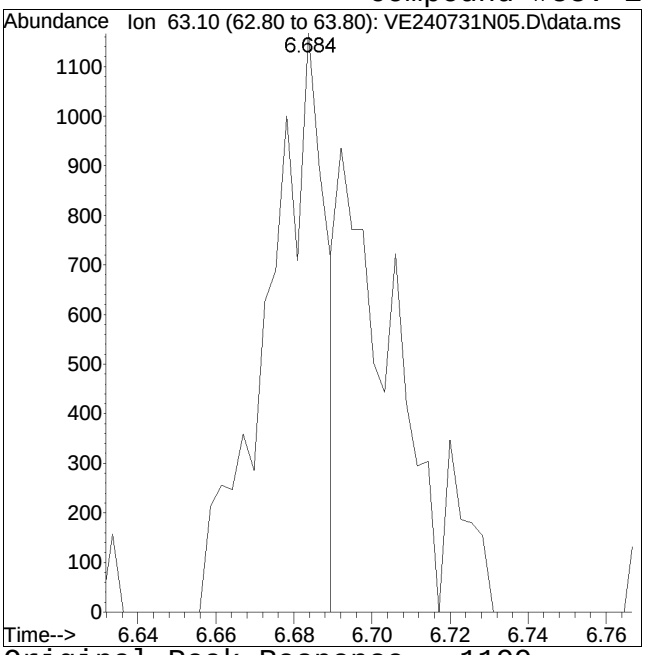
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

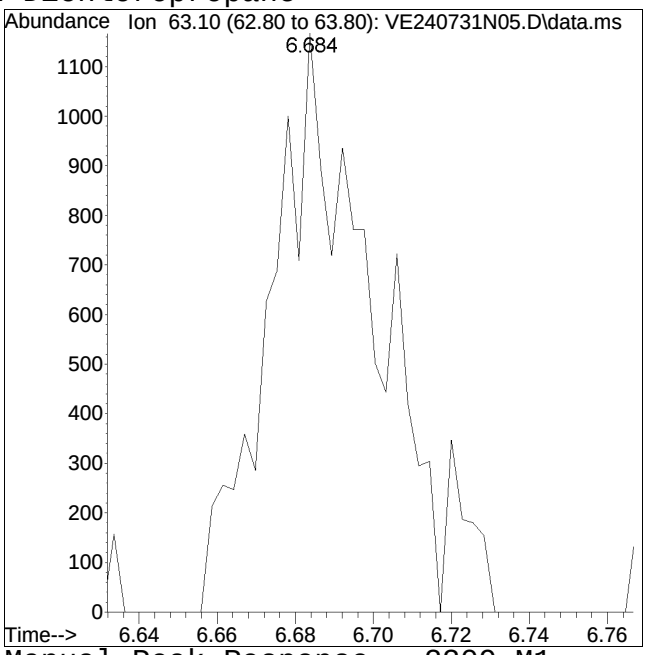
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #55: 1,2-Dichloropropane



Original Peak Response = 1199



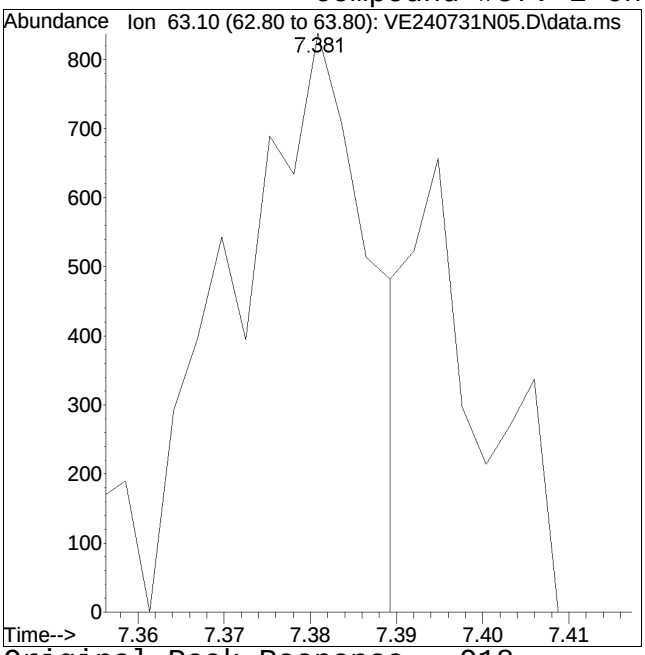
Manual Peak Response = 2209 M1

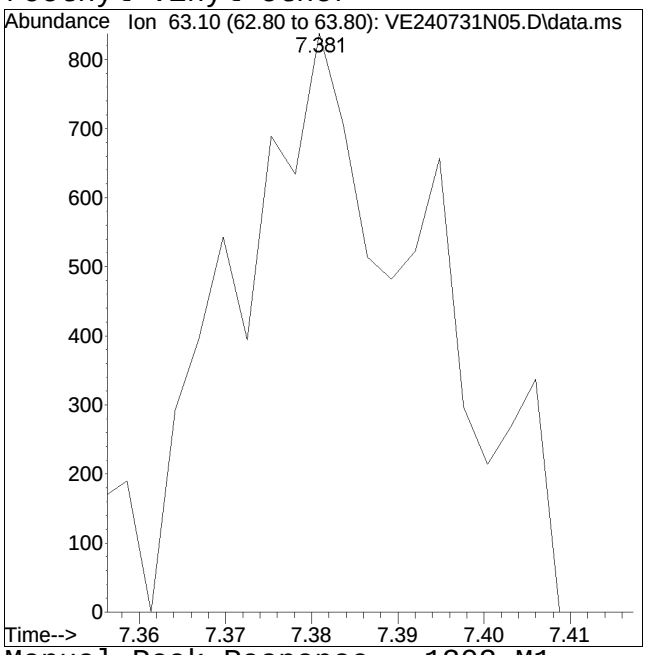
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #57: 2-Chloroethyl vinyl ether





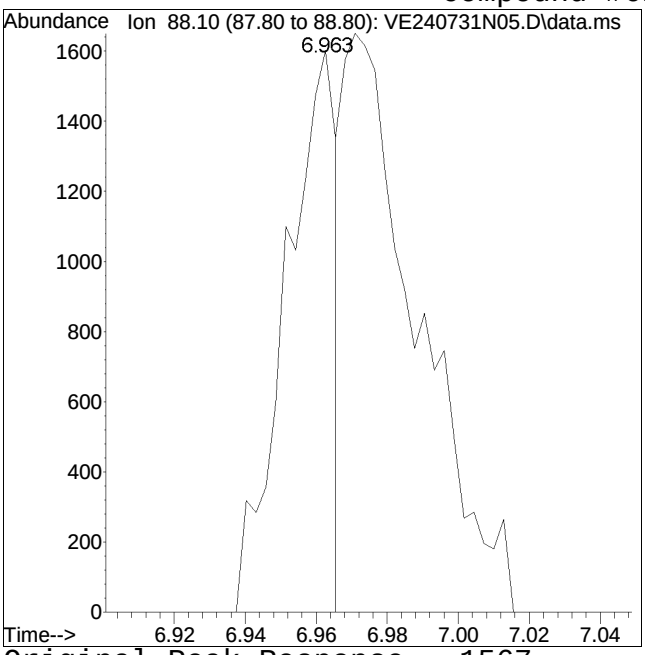
Original Peak Response = 918 Manual Peak Response = 1303 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

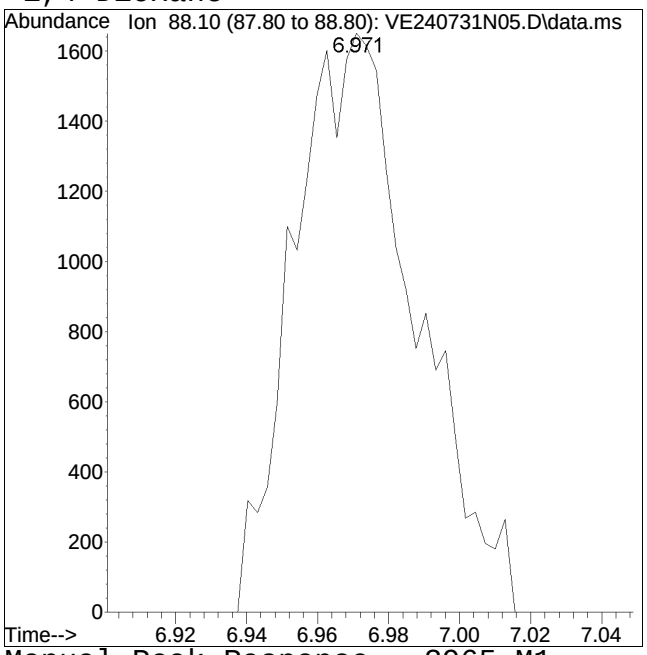
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #61: 1,4-Dioxane



Original Peak Response = 1567



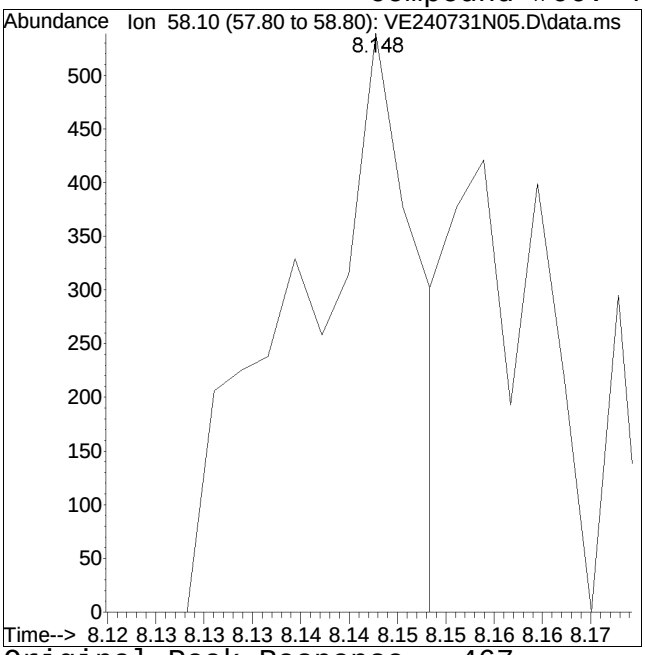
Manual Peak Response = 3965 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

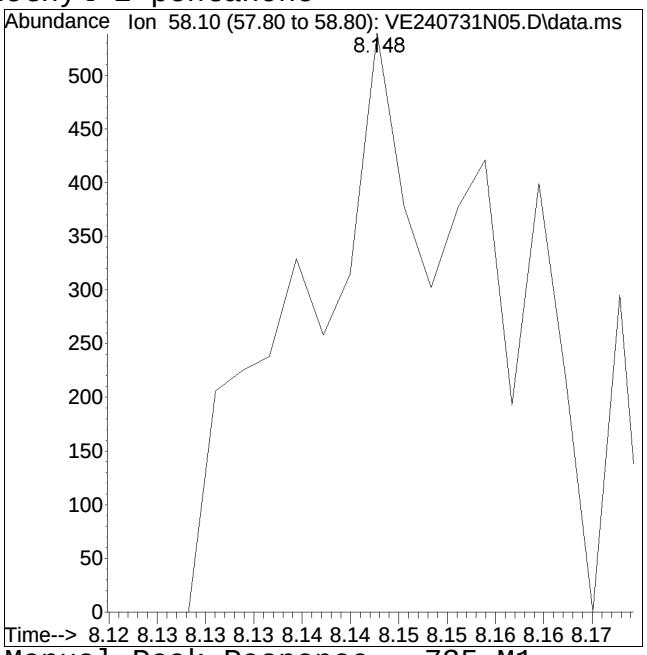
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 467



Manual Peak Response = 735 M1

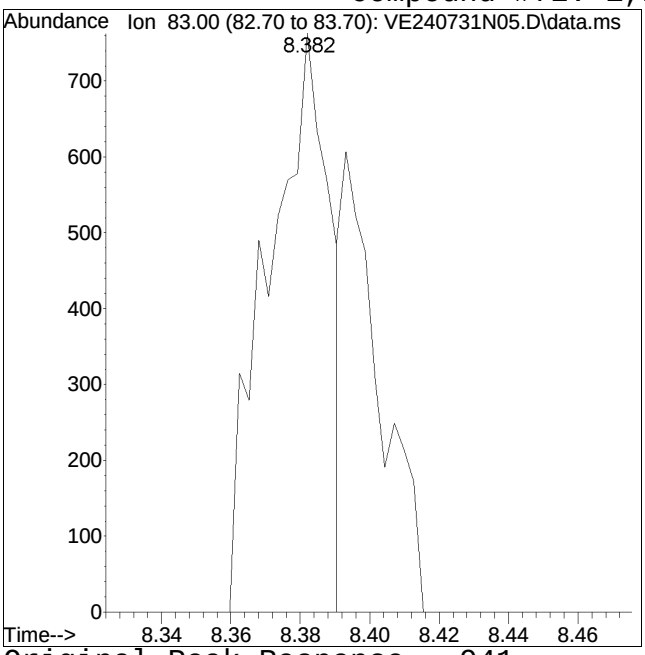
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

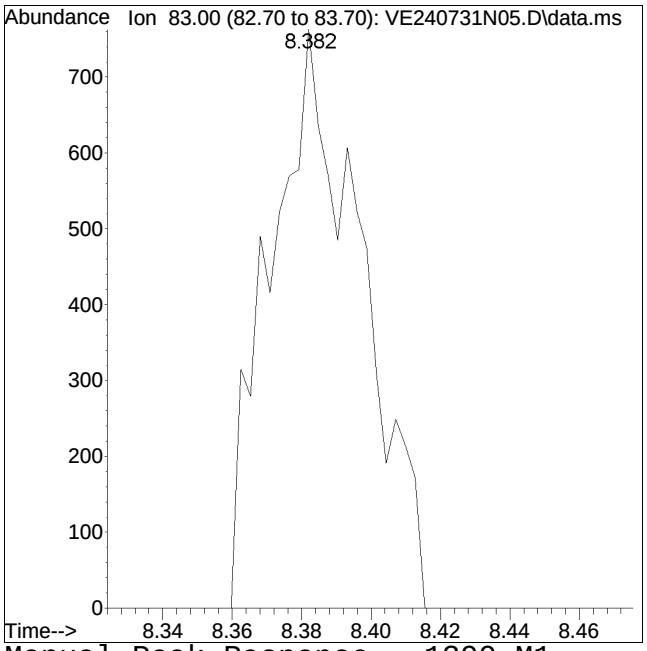
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #72: 1,1,2-Trichloroethane



Original Peak Response = 941



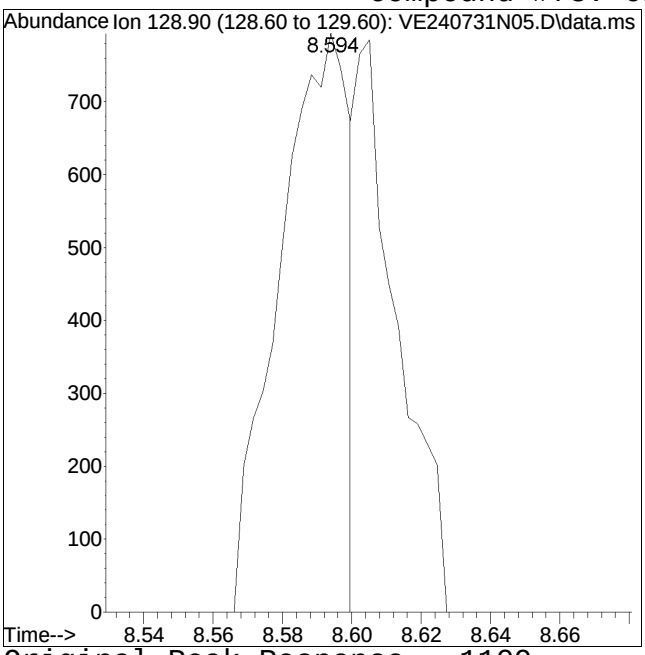
Manual Peak Response = 1399 M1

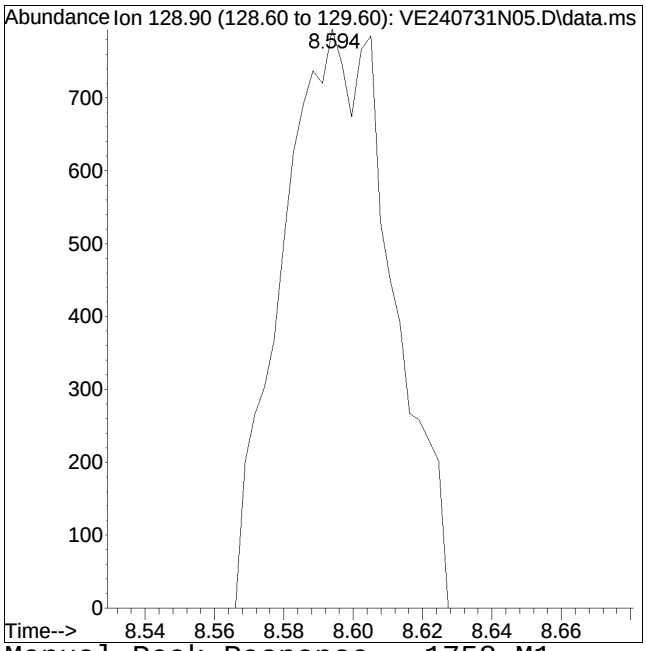
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #73: Chlorodibromomethane





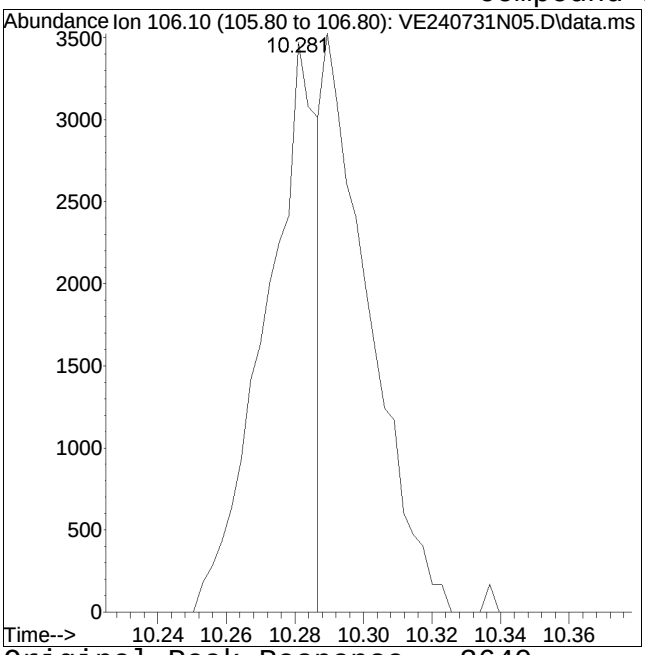
Original Peak Response = 1109 Manual Peak Response = 1758 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

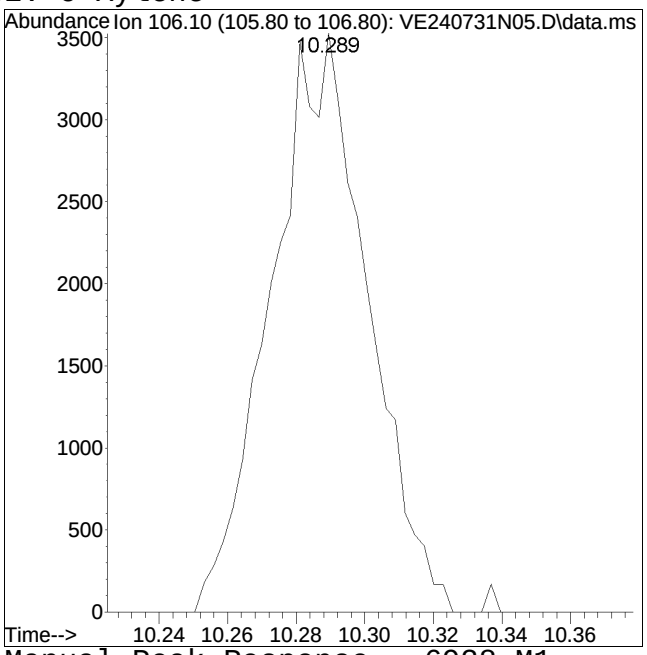
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N05.D
Date Inj'd : 7/31/2024 7:26 pm
Sample : I8260STD0.5PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #82: o Xylene



Original Peak Response = 3640



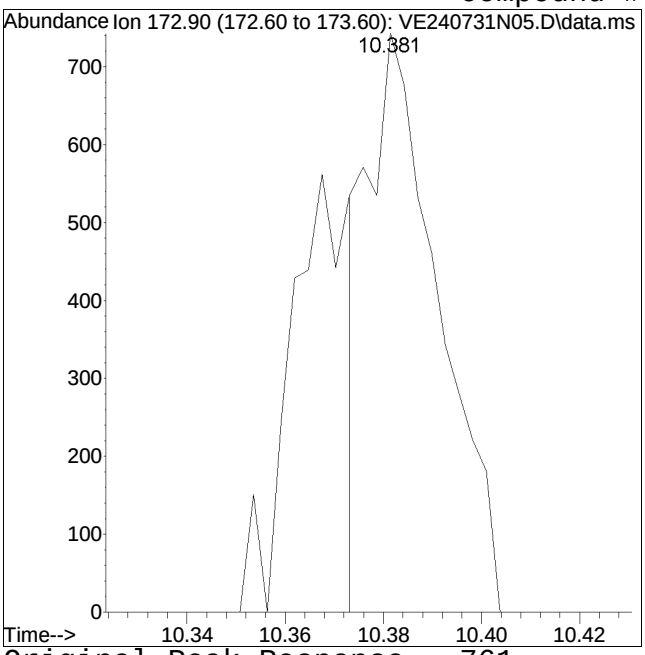
Manual Peak Response = 6928 M1

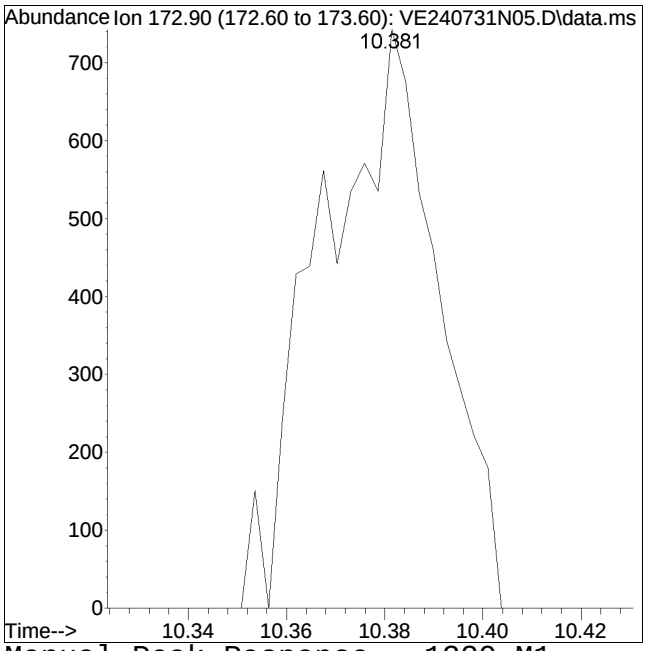
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #85: Bromoform



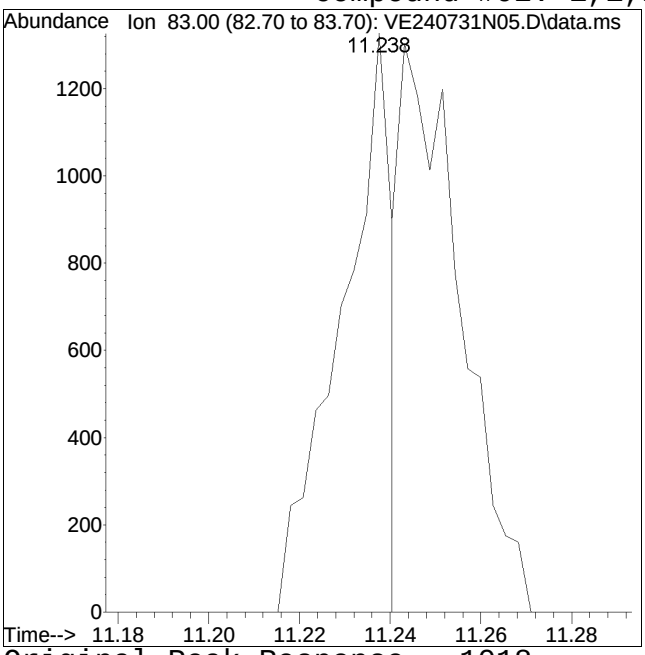


Original Peak Response = 761 Manual Peak Response = 1229 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

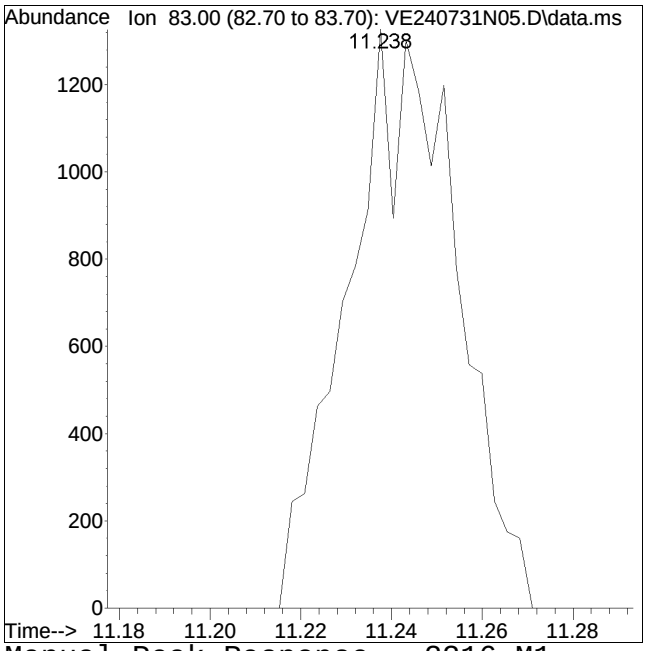
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #92: 1,1,2,2-Tetrachloroethane



Original Peak Response = 1018



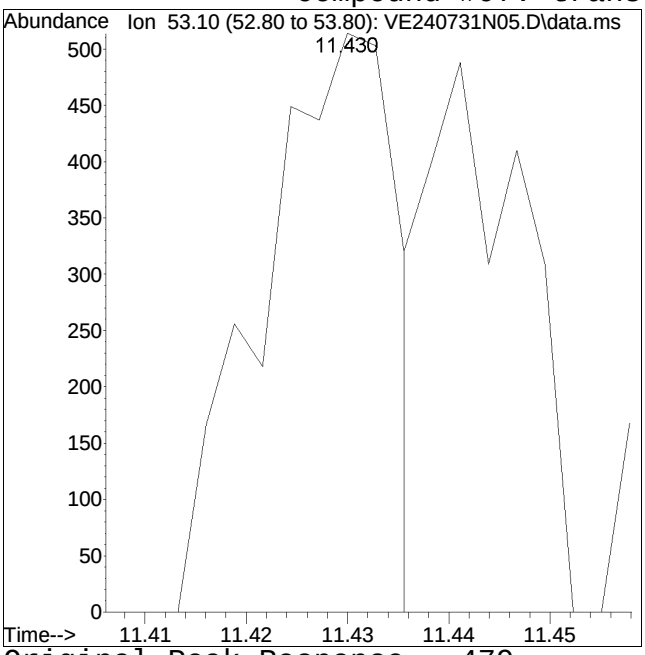
Manual Peak Response = 2216 M1

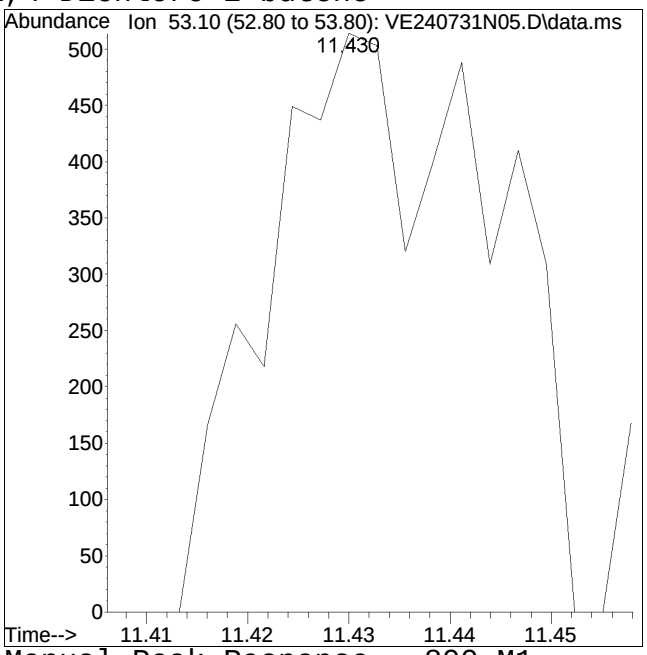
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #97: trans-1,4-Dichloro-2-butene



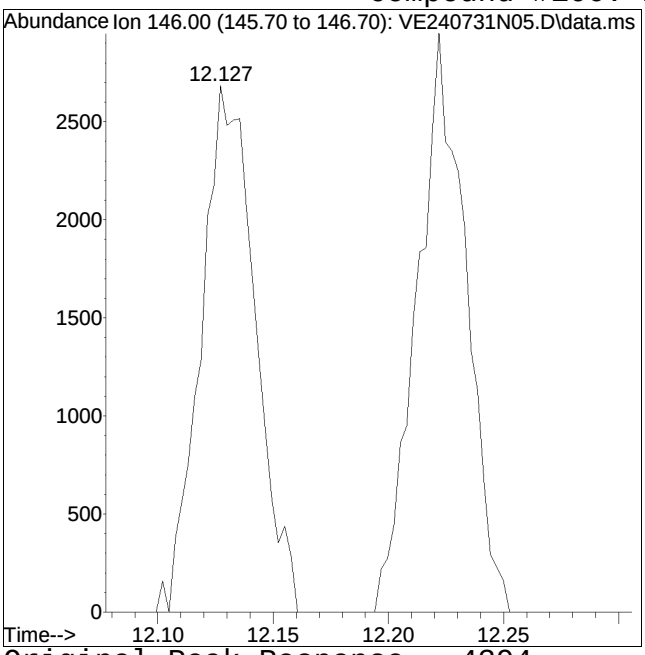


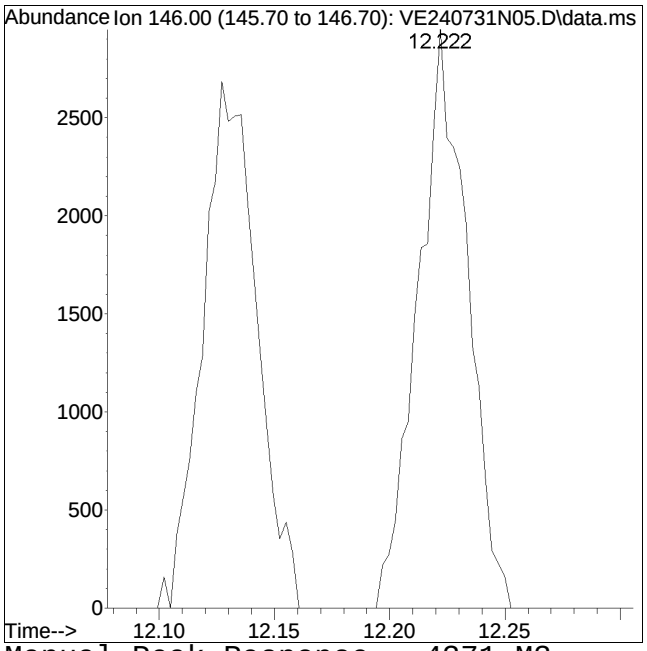
Original Peak Response = 479 Manual Peak Response = 800 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #106: 1,4-Dichlorobenzene





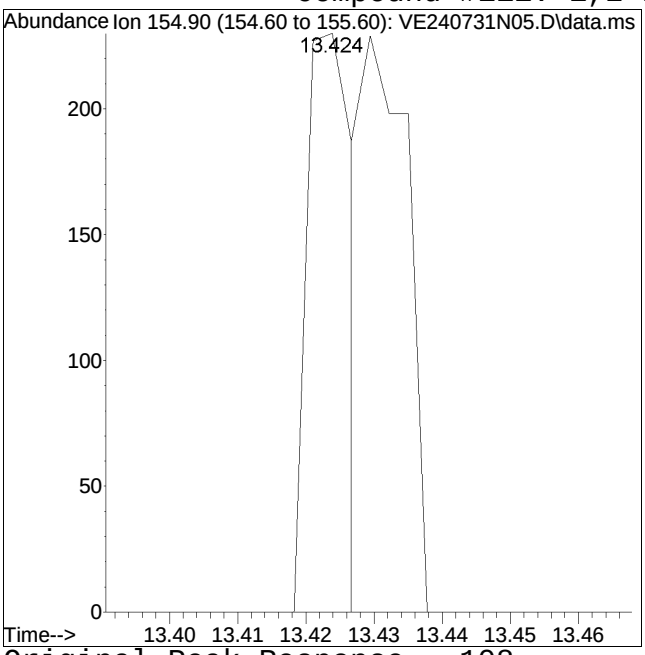
Original Peak Response = 4394 Manual Peak Response = 4371 M3

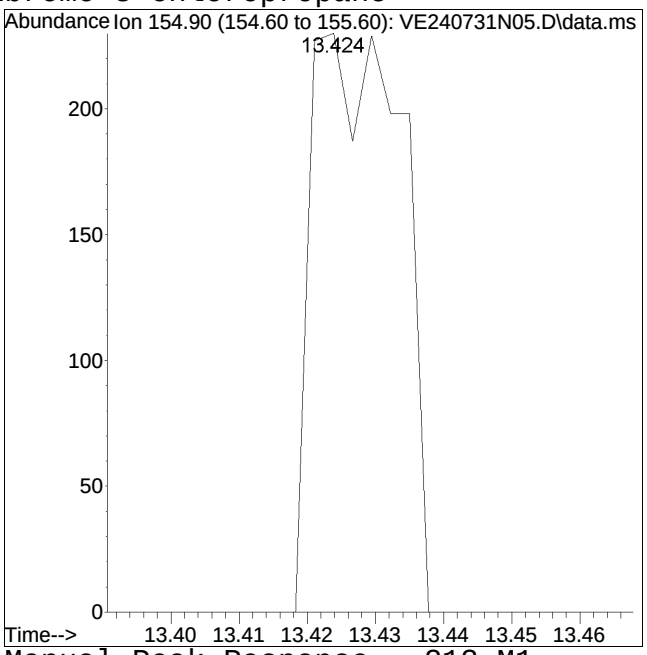
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N05.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 7:26 pm Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 8/1/2024 11:57 am

Compound #111: 1,2-Dibromo-3-chloropropane





Original Peak Response = 108 Manual Peak Response = 212 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	205965	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.68%			
63) Chlorobenzene-d5	9.497	117	151862	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 102.78%			
84) 1,4-Dichlorobenzene-d4	12.208	152	86373	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 102.21%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.153	113	49492	10.098	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.98%			
47) 1,2-Dichloroethane-d4	5.682	65	66293	10.187	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.87%			
64) Toluene-d8	7.651	98	198351	9.874	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.74%			
88) 4-Bromofluorobenzene	10.998	95	77750	9.707	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.07%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	10135	2.234	ug/L #	87
3) Chloromethane	1.787	50	10322	1.907	ug/L	98
4) Vinyl chloride	1.854	62	10227	2.041	ug/L	83
5) Bromomethane	2.160	94	2217	1.844	ug/L	99
6) Chloroethane	2.272	64	6822M1	2.156	ug/L	
7) Trichlorofluoromethane	2.420	101	10784	2.060	ug/L	87
8) Ethyl ether	2.713	74	3876	1.776	ug/L #	61
10) 1,1-Dichloroethene	2.905	96	6805	2.139	ug/L	87
11) Carbon disulfide	2.933	76	20147	1.943	ug/L	92
12) Freon-113	2.944	101	7065M1	2.106	ug/L	
13) Iodomethane	3.036	142	2297	1.282	ug/L #	84
14) Acrolein	3.228	56	1941M3	2.134	ug/L	
15) Methylene chloride	3.457	84	8519	2.029	ug/L	89
17) Acetone	3.499	43	3859M1	2.655	ug/L	
18) trans-1,2-Dichloroethene	3.613	96	7133	1.958	ug/L	78
19) Methyl acetate	3.622	43	7542	2.220	ug/L #	84
21) Methyl tert-butyl ether	3.719	73	25937	1.863	ug/L	96
22) tert-Butyl alcohol	3.803	59	4687	9.669	ug/L #	72
24) Diisopropyl ether	4.073	45	36164	1.819	ug/L #	89
25) 1,1-Dichloroethane	4.196	63	16753	1.917	ug/L	95
26) Halothane	4.246	117	5656M1	1.936	ug/L	

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	3350	1.851	ug/L	#	71
28) Ethyl tert-butyl ether	4.422	59	32105	1.861	ug/L	#	83
29) Vinyl acetate	4.436	43	26731M1	2.333	ug/L		
30) cis-1,2-Dichloroethene	4.715	96	8707	2.000	ug/L		97
31) 2,2-Dichloropropane	4.815	77	11494	2.065	ug/L	#	81
33) Bromochloromethane	4.907	128	3765	1.909	ug/L	#	76
34) Cyclohexane	4.913	56	20412M1	2.195	ug/L		
35) Chloroform	4.980	83	14505	2.035	ug/L		95
36) Ethyl acetate	5.091	43	9324	1.730	ug/L	#	96
37) Carbon tetrachloride	5.114	117	11111	2.073	ug/L		96
38) Tetrahydrofuran	5.130	42	3400M3	2.040	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	12396	1.940	ug/L	#	79
42) 2-Butanone	5.273	43	4841M3	2.253	ug/L		
43) 1,1-Dichloropropene	5.303	75	10689	1.993	ug/L		92
45) Benzene	5.549	78	33518	1.941	ug/L		91
46) tert-Amyl methyl ether	5.655	73	23844	1.870	ug/L		98
48) 1,2-Dichloroethane	5.749	62	12349	1.876	ug/L		96
51) Methyl cyclohexane	6.134	83	14843	2.162	ug/L		86
52) Trichloroethene	6.145	95	8248	1.904	ug/L	#	68
54) Dibromomethane	6.580	93	4791	1.944	ug/L		87
55) 1,2-Dichloropropane	6.686	63	9613	1.871	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	5980	1.853	ug/L	#	77
58) Bromodichloromethane	6.759	83	12056	1.988	ug/L	#	93
61) 1,4-Dioxane	6.968	88	16165	403.548	ug/L		88
62) cis-1,3-Dichloropropene	7.445	75	13006	1.854	ug/L		92
65) Toluene	7.713	92	21290	1.968	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	3470	1.842	ug/L	#	96
67) Tetrachloroethene	8.159	166	8736	1.904	ug/L		96
69) trans-1,3-Dichloropropene	8.195	75	11383	1.811	ug/L		87
71) Ethyl methacrylate	8.387	69	11034	1.879	ug/L		89
72) 1,1,2-Trichloroethane	8.385	83	5762	1.858	ug/L		97
73) Chlorodibromomethane	8.594	129	7851	1.837	ug/L		98
74) 1,3-Dichloropropane	8.708	76	12084	1.849	ug/L		99
75) 1,2-Dibromoethane	8.867	107	6772	1.878	ug/L		86
77) 2-Hexanone	9.157	43	6900	1.938	ug/L	#	88
78) Chlorobenzene	9.520	112	22113	1.898	ug/L		90
79) Ethylbenzene	9.559	91	41231	1.928	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.603	131	8186	1.881	ug/L		93
81) p/m Xylene	9.745	106	31668	3.808	ug/L		98
82) o Xylene	10.289	106	30832	3.808	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.351	104	50933	3.785	ug/L		99
85) Bromoform	10.379	173	5528	1.934	ug/L		92
87) Isopropylbenzene	10.669	105	41364	1.959	ug/L		95
89) Bromobenzene	11.104	156	10259	1.901	ug/L		100
90) n-Propylbenzene	11.151	91	48832	1.922	ug/L		97
91) 1,4-Dichlorobutane	11.168	55	18365	1.991	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	9003	2.115	ug/L		97
93) 4-Ethyltoluene	11.279	105	39669	1.895	ug/L		99
94) 2-Chlorotoluene	11.321	91	29752	1.953	ug/L		99
95) 1,3,5-Trimethylbenzene	11.377	105	34688	1.872	ug/L		100
96) 1,2,3-Trichloropropane	11.377	75	7255	1.949	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.433	53	3407	1.939	ug/L	#	84
98) 4-Chlorotoluene	11.502	91	30450	1.927	ug/L		98
99) tert-Butylbenzene	11.720	119	29184	1.910	ug/L	#	97
102) 1,2,4-Trimethylbenzene	11.798	105	33754	1.834	ug/L		94
103) sec-Butylbenzene	11.909	105	43184	1.935	ug/L		98
104) p-Isopropyltoluene	12.063	119	35878	1.891	ug/L		97
105) 1,3-Dichlorobenzene	12.127	146	18671M3	1.849	ug/L		
106) 1,4-Dichlorobenzene	12.225	146	18771	1.878	ug/L		94
107) p-Diethylbenzene	12.439	119	20387	1.813	ug/L		94
108) n-Butylbenzene	12.498	91	30950	1.918	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	17729	1.841	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.229	119	32685	1.779	ug/L		94
111) 1,2-Dibromo-3-chloropr...	13.432	155	1498	1.893	ug/L		95
112) 1,3,5-Trichlorobenzene	13.457	180	13388	1.742	ug/L		93
113) Hexachlorobutadiene	14.032	225	4746	1.931	ug/L		93
114) 1,2,4-Trichlorobenzene	14.054	180	11806	1.733	ug/L		98
115) Naphthalene	14.352	128	26466	1.808	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	11185	1.795	ug/L		95

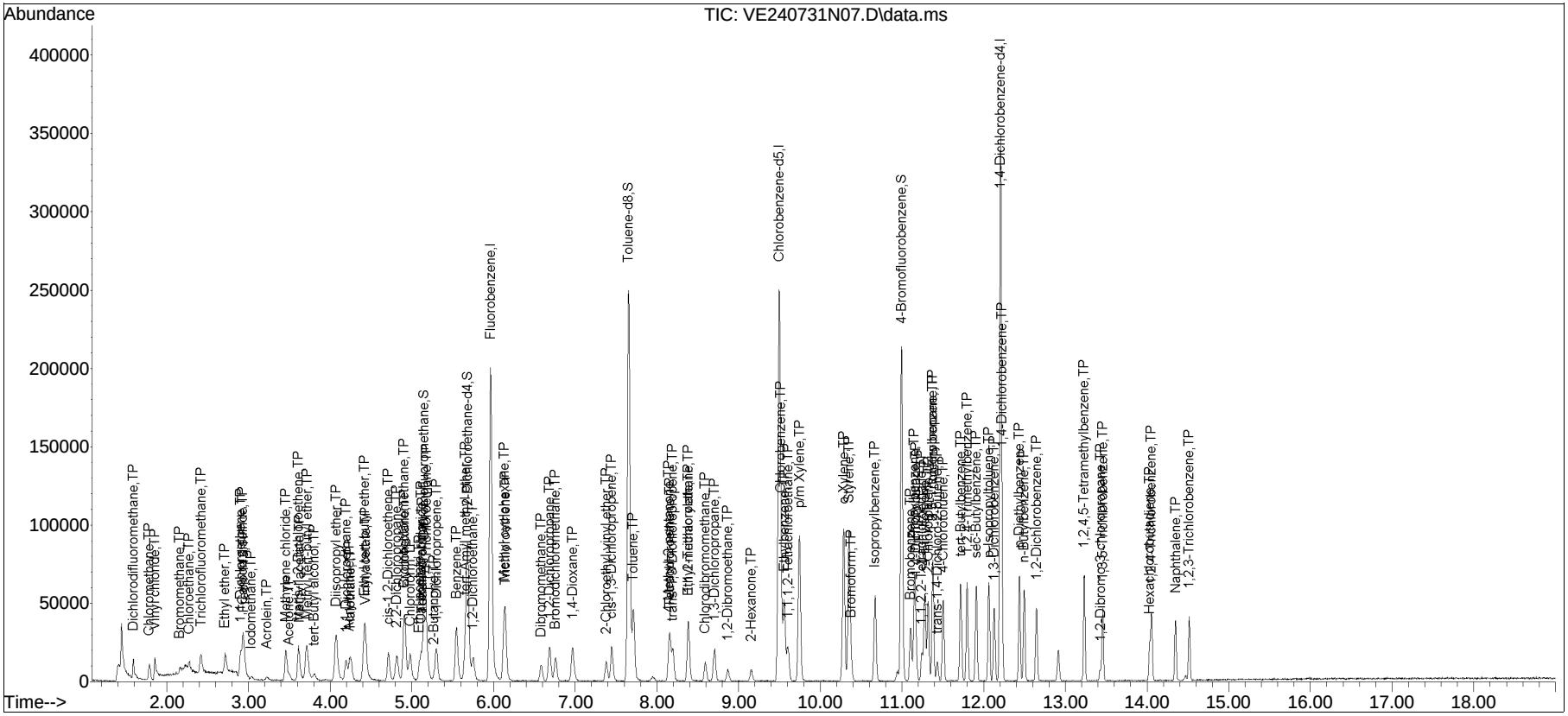
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N07.D
Acq On : 31 Jul 2024 8:16 pm
Operator : ELAINE:MKS
Sample : I8260STD2PPB
Misc : WG1954249
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 12:05:12 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

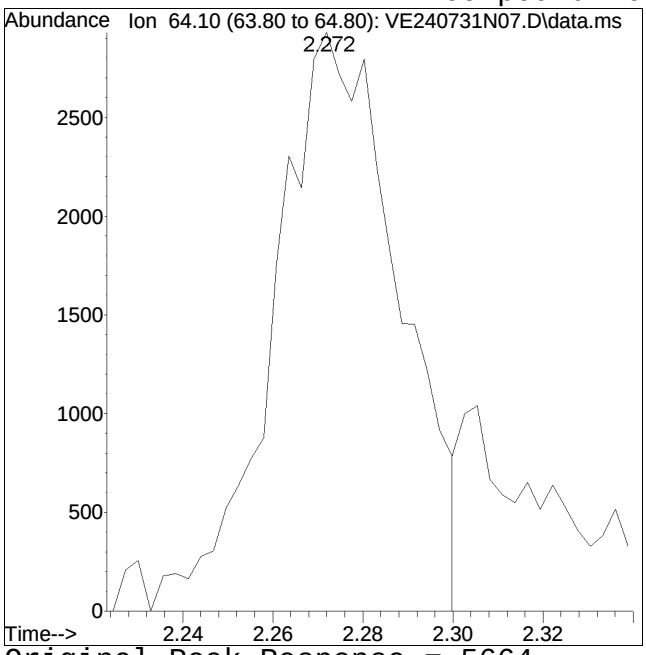


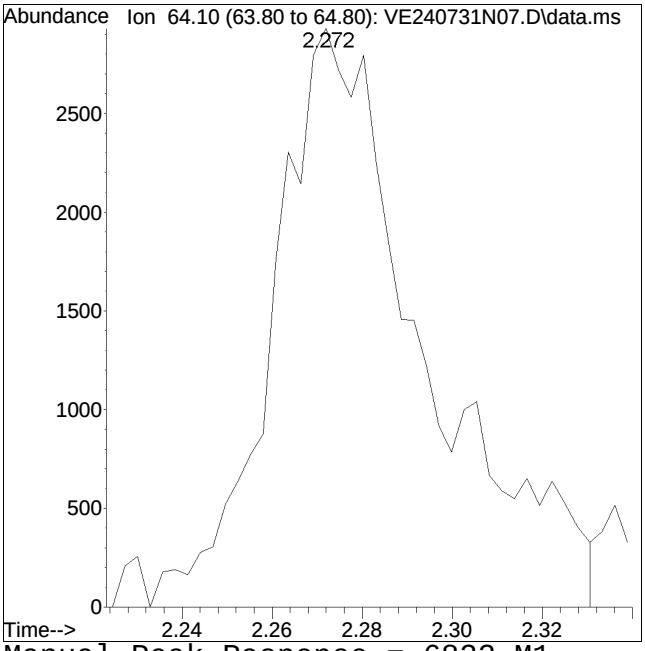
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane





Original Peak Response = 5664 Manual Peak Response = 6822 M1

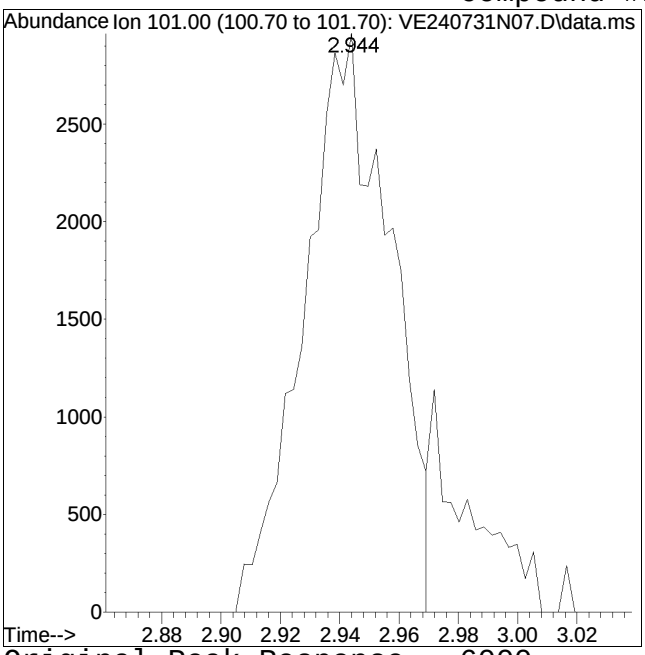
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

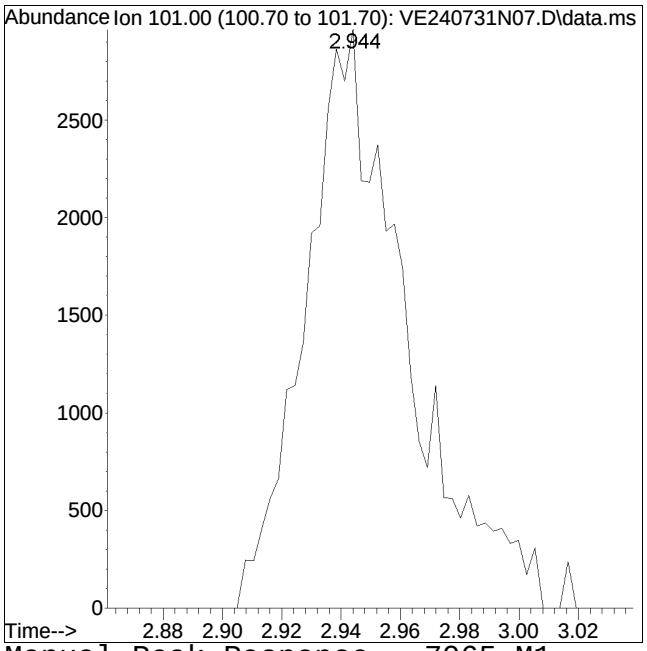
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #12: Freon-113



Original Peak Response = 6000



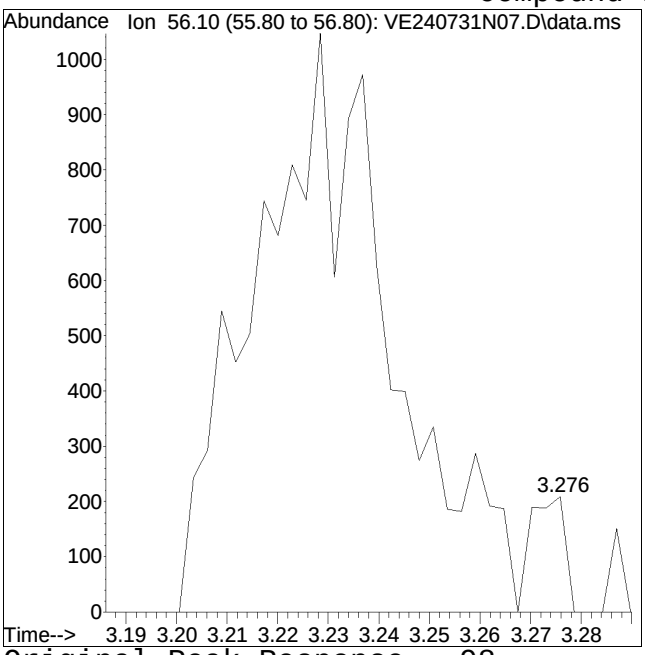
Manual Peak Response = 7065 M1

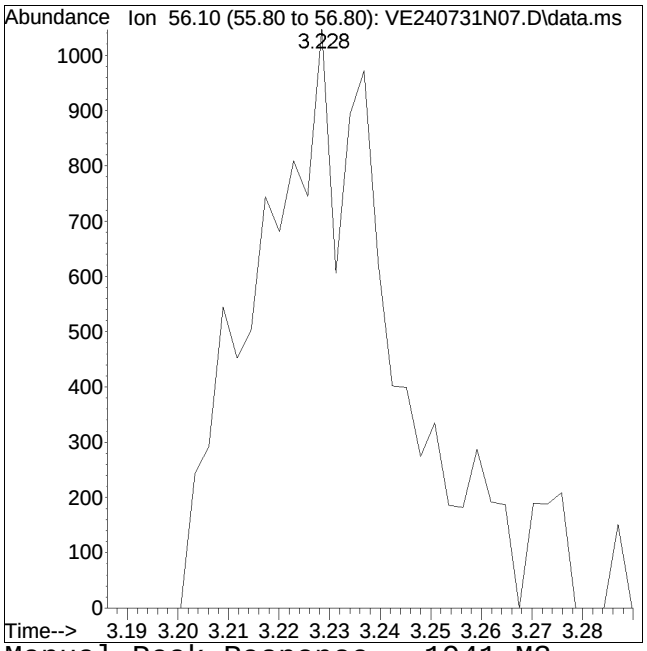
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #14: Acrolein





Original Peak Response = 98 Manual Peak Response = 1941 M3

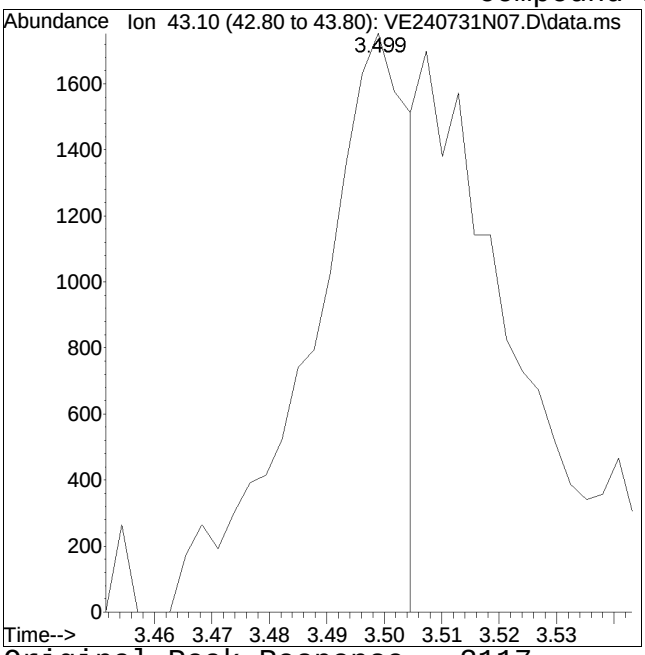
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

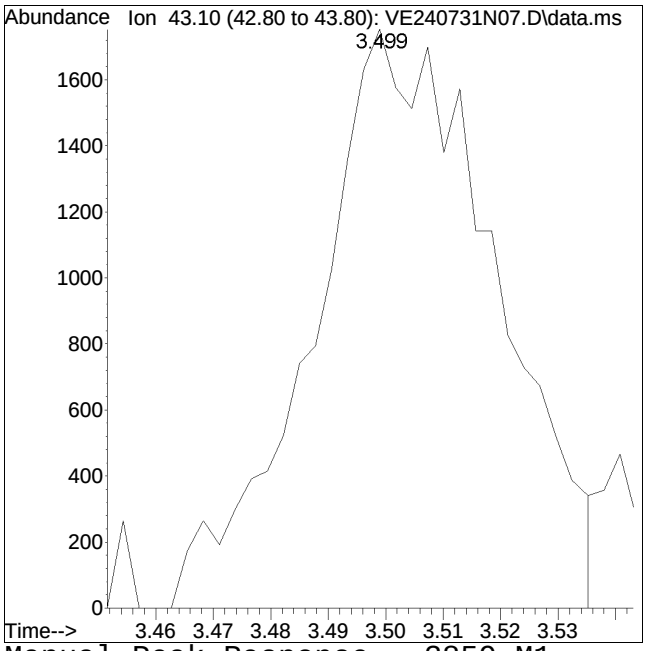
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N07.D
Date Inj'd : 7/31/2024 8:16 pm
Sample : I8260STD2PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #17: Acetone



Original Peak Response = 2117



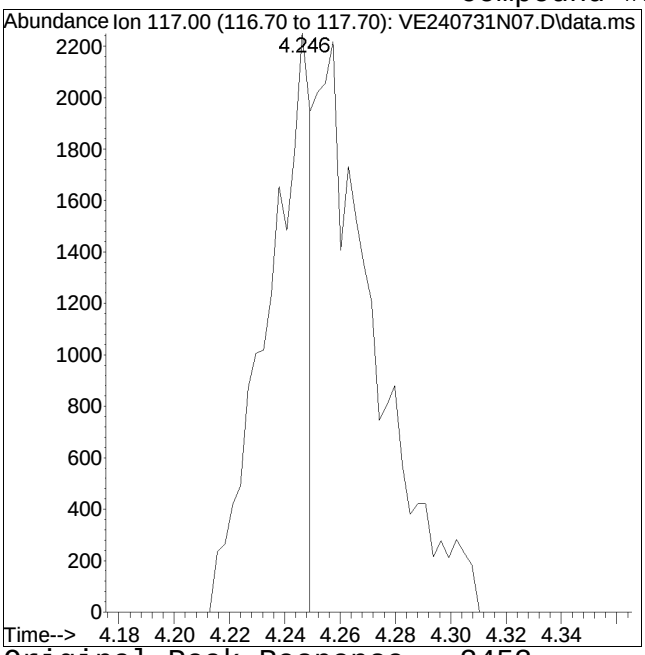
Manual Peak Response = 3859 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

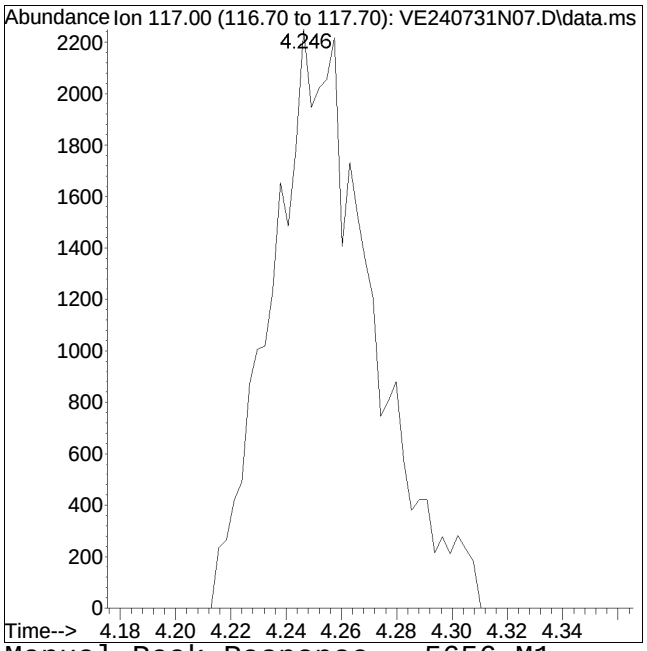
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #26: Halothane



Original Peak Response = 2453



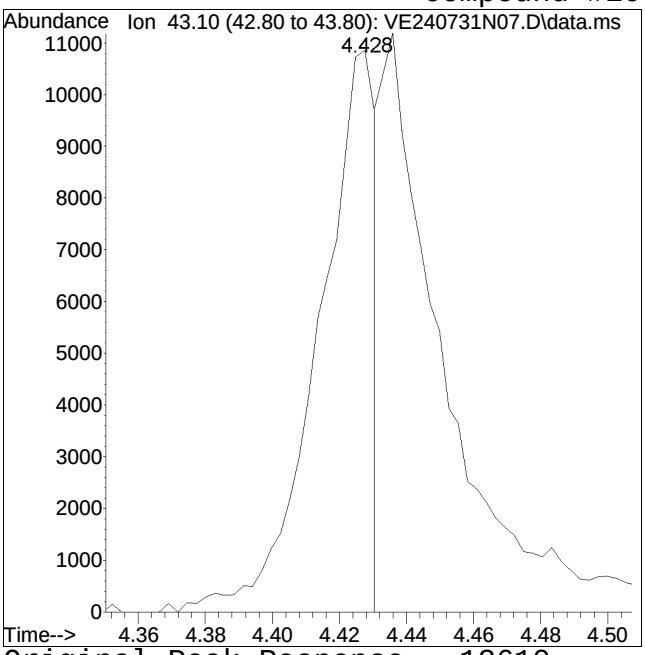
Manual Peak Response = 5656 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

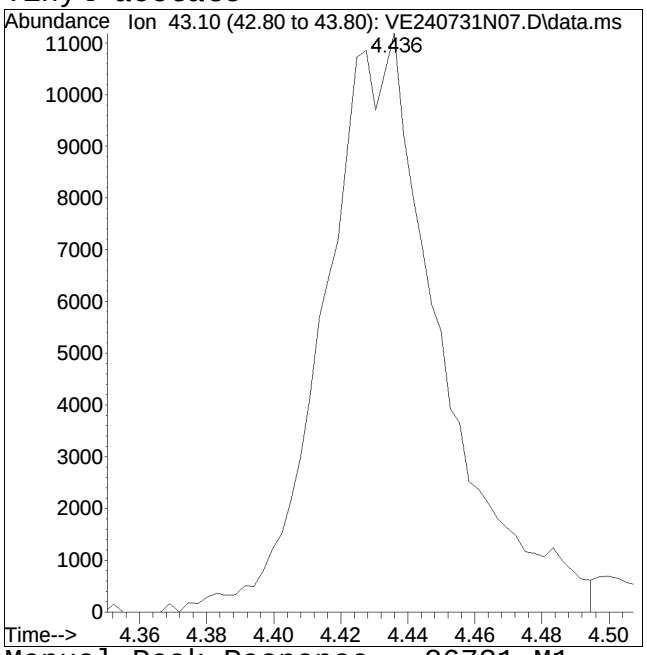
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #29: Vinyl acetate



Original Peak Response = 12610



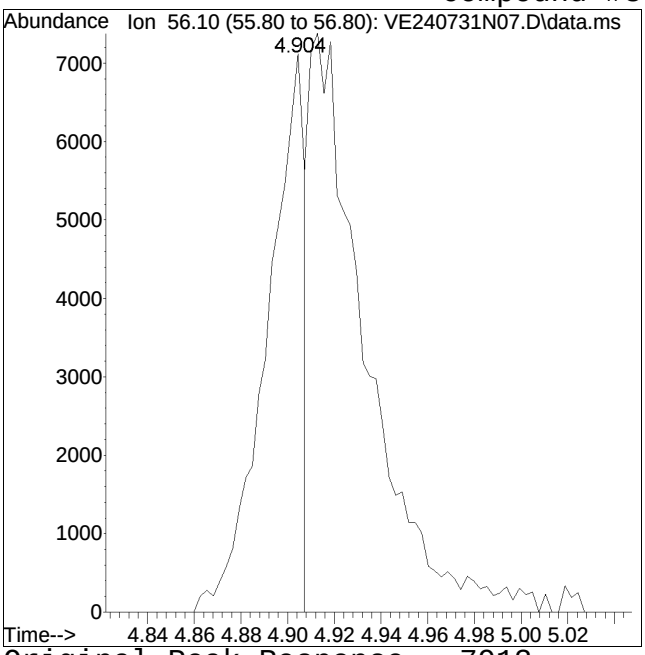
Manual Peak Response = 26731 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

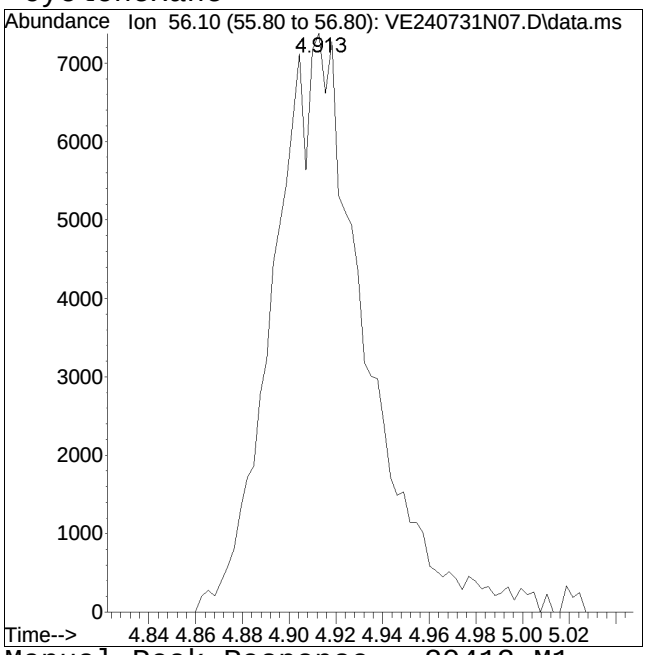
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #34: Cyclohexane



Original Peak Response = 7913



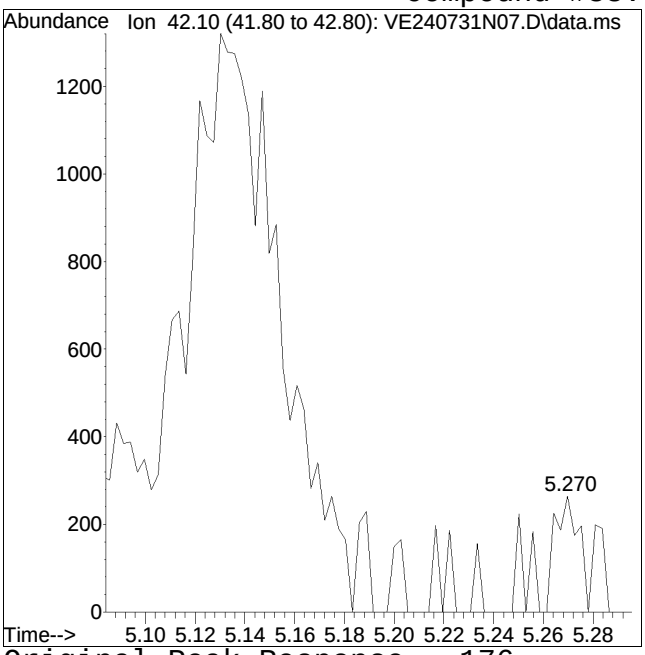
Manual Peak Response = 20412 M1

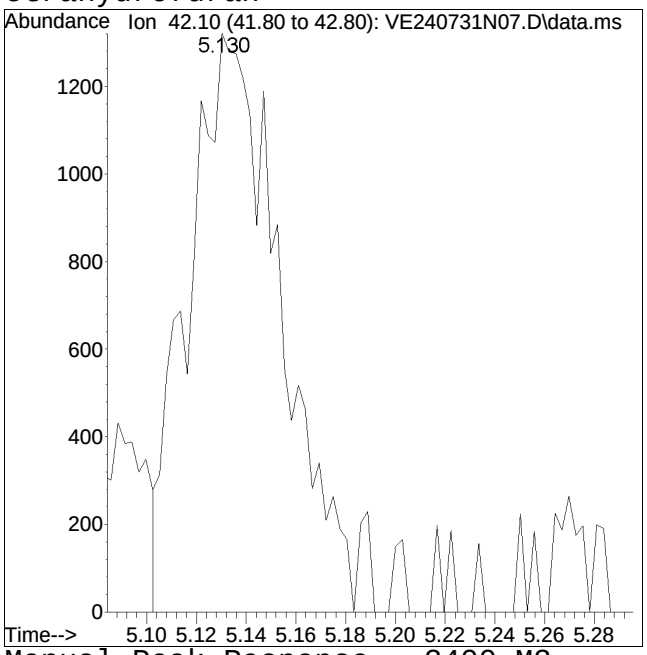
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





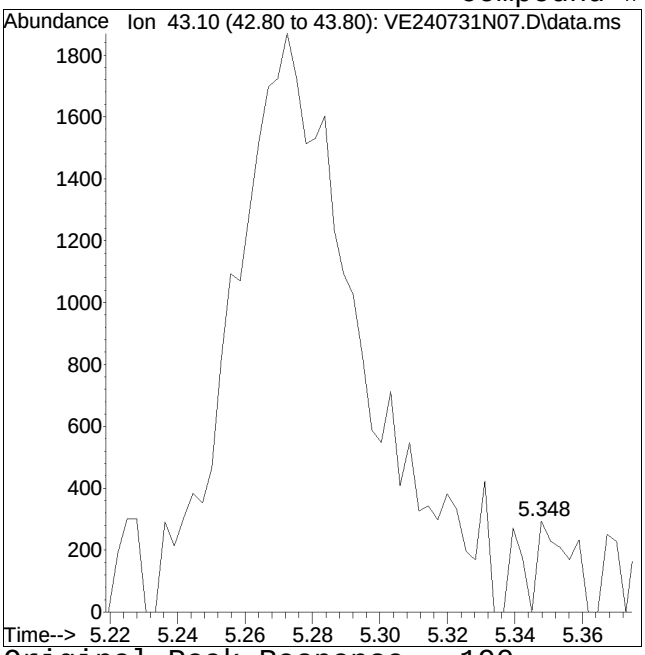
Original Peak Response = 176 Manual Peak Response = 3400 M3

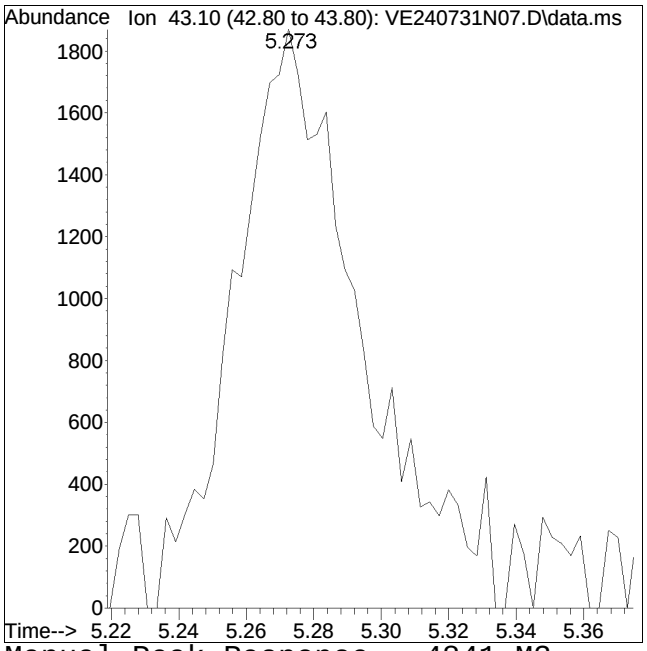
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #42: 2-Butanone





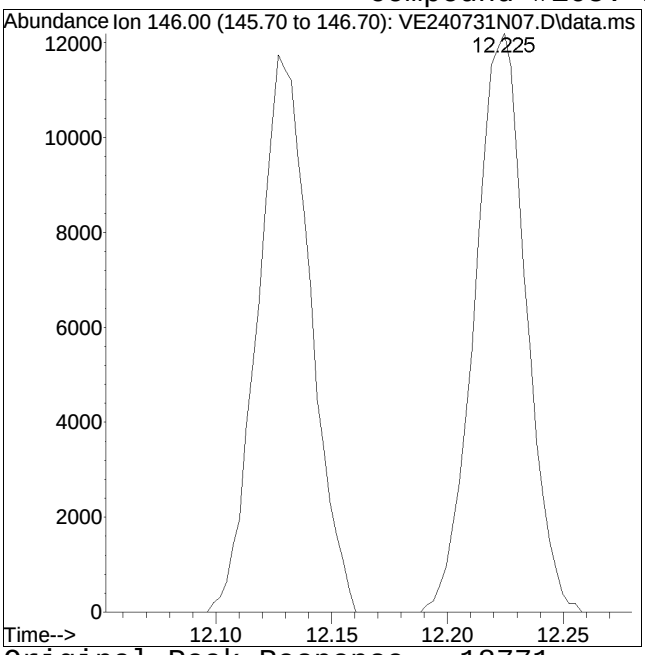
Original Peak Response = 190 Manual Peak Response = 4841 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

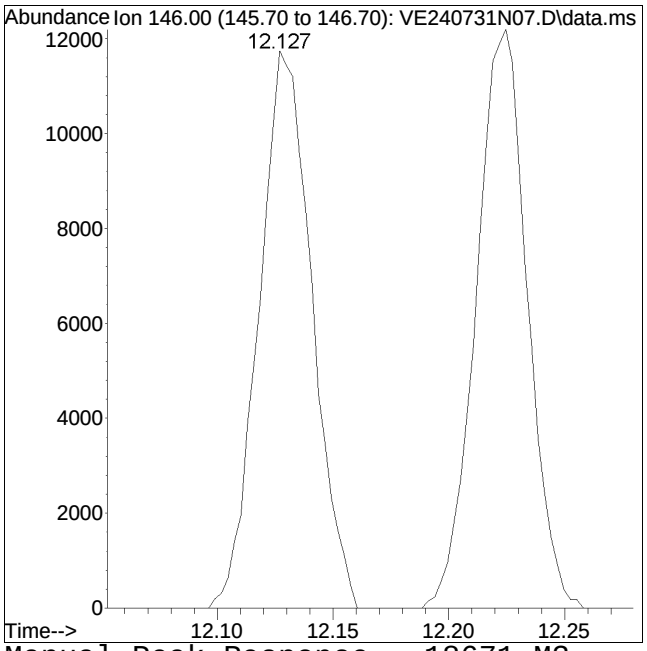
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N07.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:16 pm Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 8/1/2024 11:57 am

Compound #105: 1,3-Dichlorobenzene



Original Peak Response = 18771



Manual Peak Response = 18671 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	204581	10.000	ug/L	-0.11
Standard Area 1 = 204581			Recovery = 100.00%			
63) Chlorobenzene-d5	9.494	117	147756	10.000	ug/L	-0.12
Standard Area 1 = 147756			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84505	10.000	ug/L	-0.10
Standard Area 1 = 84505			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	48680	10.071	ug/L	-0.10
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.71%			
47) 1,2-Dichloroethane-d4	5.680	65	64640	11.293	ug/L	-0.10
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.93%			
64) Toluene-d8	7.654	98	195456	10.248	ug/L	-0.11
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.48%			
88) 4-Bromofluorobenzene	10.995	95	78367	9.155	ug/L	-0.11
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.55%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.591	85	45066	10.341	ug/L	95
3) Chloromethane	1.789	50	53760	10.543	ug/L	96
4) Vinyl chloride	1.854	62	49777	10.843	ug/L	93
5) Bromomethane	2.160	94	11943	5.484	ug/L	97
6) Chloroethane	2.275	64	31423	12.949	ug/L	99
7) Trichlorofluoromethane	2.417	101	52002	9.781	ug/L	94
8) Ethyl ether	2.721	74	21677	12.265	ug/L	70
10) 1,1-Dichloroethene	2.905	96	31598	9.087	ug/L #	73
11) Carbon disulfide	2.933	76	103009	9.770	ug/L	96
12) Freon-113	2.938	101	33321M1	8.975	ug/L	
13) Iodomethane	3.042	142	17802	6.094	ug/L	90
14) Acrolein	3.226	56	9036	12.767	ug/L #	70
15) Methylene chloride	3.457	84	41711	9.623	ug/L	85
17) Acetone	3.504	43	14439	12.752	ug/L	95
18) trans-1,2-Dichloroethene	3.610	96	36183	9.609	ug/L	78
19) Methyl acetate	3.622	43	33745	13.642	ug/L	97
21) Methyl tert-butyl ether	3.711	73	138295	12.360	ug/L	95
22) tert-Butyl alcohol	3.806	59	24074	69.596	ug/L #	81
24) Diisopropyl ether	4.071	45	197488	12.583	ug/L	92
25) 1,1-Dichloroethane	4.193	63	86782	11.170	ug/L	96
26) Halothane	4.249	117	29017	9.517	ug/L	95

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	17977	15.263	ug/L		92
28) Ethyl tert-butyl ether	4.419	59	171389	11.890	ug/L		97
29) Vinyl acetate	4.430	43	113807	21.432	ug/L	#	94
30) cis-1,2-Dichloroethene	4.712	96	43236	9.861	ug/L		93
31) 2,2-Dichloropropane	4.812	77	55274	9.397	ug/L		96
33) Bromochloromethane	4.907	128	19592	10.285	ug/L		84
34) Cyclohexane	4.907	56	92383	10.659	ug/L		92
35) Chloroform	4.980	83	70787	9.942	ug/L		98
36) Ethyl acetate	5.088	43	53536	13.935	ug/L		97
37) Carbon tetrachloride	5.114	117	53227	9.425	ug/L		95
38) Tetrahydrofuran	5.127	42	16553M1	15.540	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	63467	9.719	ug/L		95
42) 2-Butanone	5.275	43	21339	12.529	ug/L	#	90
43) 1,1-Dichloropropene	5.300	75	53283	9.911	ug/L		96
45) Benzene	5.543	78	171532	10.324	ug/L		92
46) tert-Amyl methyl ether	5.663	73	126640	10.776	ug/L		98
48) 1,2-Dichloroethane	5.752	62	65371	11.273	ug/L		95
51) Methyl cyclohexane	6.131	83	68206	9.257	ug/L		85
52) Trichloroethene	6.143	95	43027	9.068	ug/L		97
54) Dibromomethane	6.580	93	24484	10.201	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	51035	11.347	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	32060	12.970	ug/L		89
58) Bromodichloromethane	6.759	83	60227	10.235	ug/L		95
61) 1,4-Dioxane	6.971	88	19894	537.767	ug/L		87
62) cis-1,3-Dichloropropene	7.448	75	69674	10.183	ug/L		95
65) Toluene	7.710	92	105232	10.216	ug/L		93
66) 4-Methyl-2-pentanone	8.150	58	18333	13.376	ug/L		92
67) Tetrachloroethene	8.161	166	44641	10.701	ug/L		95
69) trans-1,3-Dichloropropene	8.195	75	61164	10.422	ug/L		99
71) Ethyl methacrylate	8.382	69	57150	12.437	ug/L		90
72) 1,1,2-Trichloroethane	8.385	83	30175	10.730	ug/L		99
73) Chlorodibromomethane	8.591	129	41583	10.106	ug/L		97
74) 1,3-Dichloropropane	8.705	76	63598	10.633	ug/L		97
75) 1,2-Dibromoethane	8.870	107	35086	10.324	ug/L		88
77) 2-Hexanone	9.151	43	34633	13.757	ug/L		96
78) Chlorobenzene	9.520	112	113340	10.114	ug/L	#	80
79) Ethylbenzene	9.556	91	208074	10.388	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	42343	10.608	ug/L		97
81) p/m Xylene	9.745	106	161846	21.186	ug/L		99
82) o Xylene	10.284	106	157536	21.096	ug/L		96

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83) Styrene	10.353	104	261864	21.427	ug/L	99
85) Bromoform	10.378	173	27962	10.670	ug/L	94
87) Isopropylbenzene	10.671	105	206589	8.866	ug/L	97
89) Bromobenzene	11.106	156	52794	9.847	ug/L	99
90) n-Propylbenzene	11.151	91	248567	9.173	ug/L	96
91) 1,4-Dichlorobutane	11.168	55	90223	12.511	ug/L	99
92) 1,1,2,2-Tetrachloroethane	11.243	83	41654	10.363	ug/L	97
93) 4-Ethyltoluene	11.279	105	204854	9.166	ug/L	100
94) 2-Chlorotoluene	11.321	91	149060	9.239	ug/L	97
95) 1,3,5-Trimethylbenzene	11.377	105	181257	9.354	ug/L	97
96) 1,2,3-Trichloropropane	11.382	75	36413	9.806	ug/L	95
97) trans-1,4-Dichloro-2-b...	11.430	53	17188	11.349	ug/L	88
98) 4-Chlorotoluene	11.502	91	154593	9.170	ug/L	99
99) tert-Butylbenzene	11.717	119	149482	9.048	ug/L	98
102) 1,2,4-Trimethylbenzene	11.795	105	180087	9.233	ug/L	95
103) sec-Butylbenzene	11.909	105	218386	9.091	ug/L	99
104) p-Isopropyltoluene	12.063	119	185594	9.031	ug/L	96
105) 1,3-Dichlorobenzene	12.130	146	98794	9.599	ug/L	96
106) 1,4-Dichlorobenzene	12.225	146	97784	9.413	ug/L	99
107) p-Diethylbenzene	12.439	119	110030	9.210	ug/L	98
108) n-Butylbenzene	12.498	91	157868	9.276	ug/L	97
109) 1,2-Dichlorobenzene	12.646	146	94225	9.408	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.231	119	179730	9.214	ug/L	95
111) 1,2-Dibromo-3-chloropr...	13.429	155	7741	10.135	ug/L	92
112) 1,3,5-Trichlorobenzene	13.457	180	75211	10.551	ug/L	93
113) Hexachlorobutadiene	14.034	225	24042	11.211	ug/L	90
114) 1,2,4-Trichlorobenzene	14.057	180	66652	10.420	ug/L	99
115) Naphthalene	14.347	128	143235	9.075	ug/L	100
116) 1,2,3-Trichlorobenzene	14.517	180	60948	10.602	ug/L	96

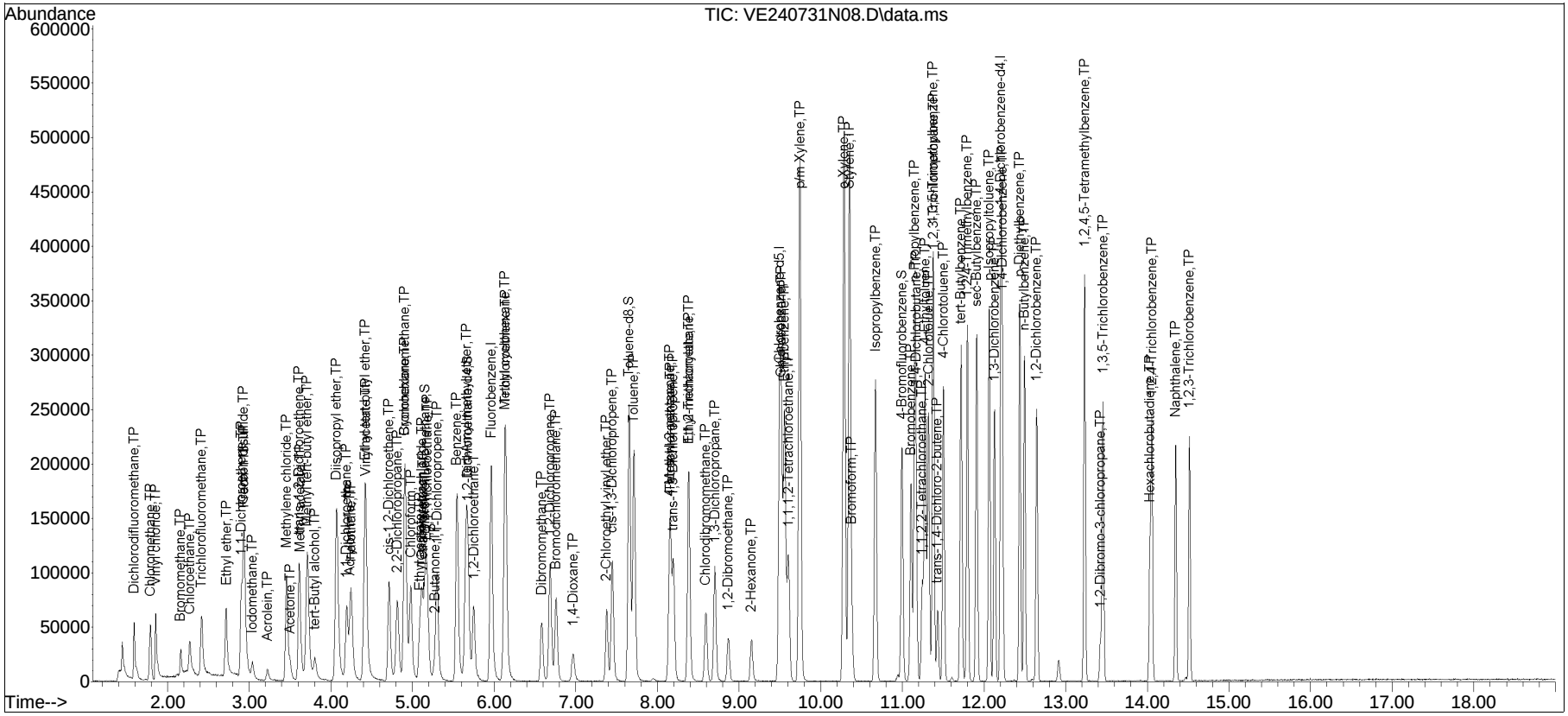
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N08.D
Acq On : 31 Jul 2024 8:42 pm
Operator : ELAINE:MKS
Sample : I8260STD10PPB
Misc : WG1954249
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 11:56:21 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 23 13:01:28 2024
Response via : Initial Calibration

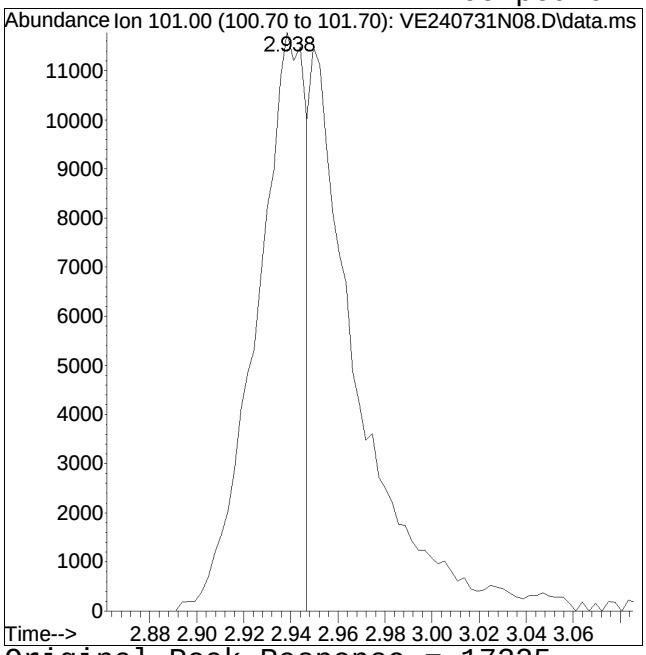
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

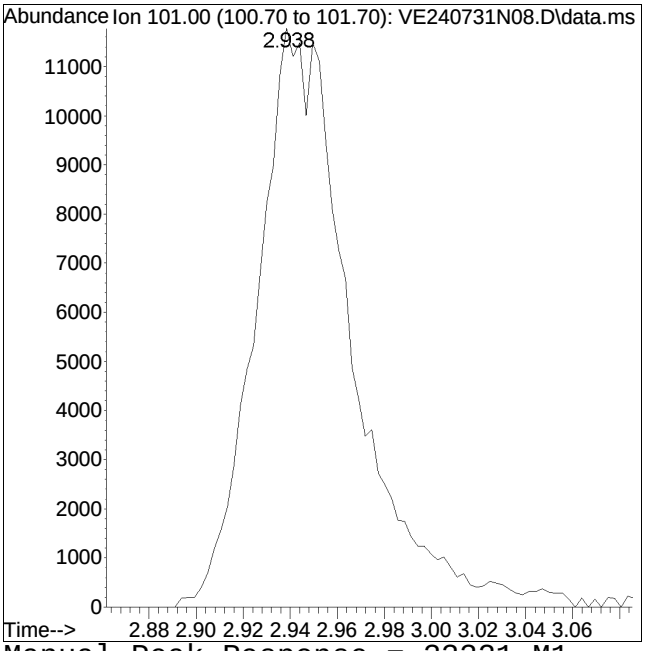


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N08.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 8:42 pm Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 8/1/2024 11:54 am

Compound #12: Freon-113





Original Peak Response = 17225 Manual Peak Response = 33321 M1

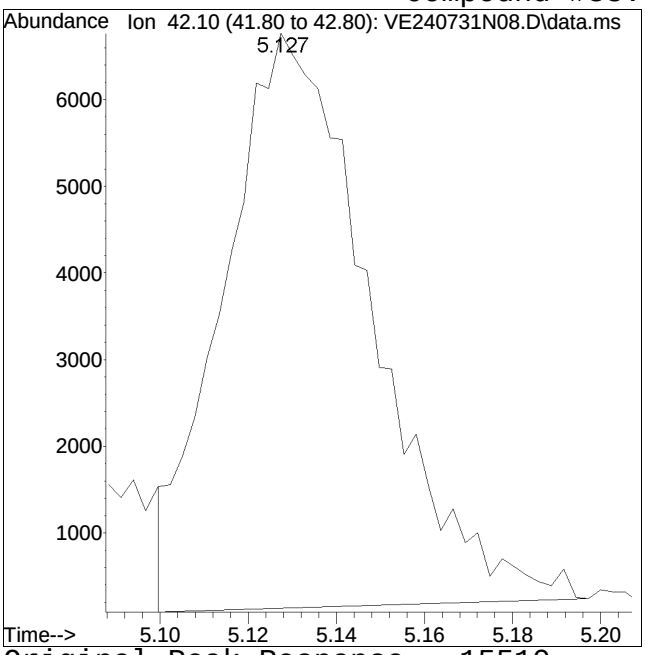
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

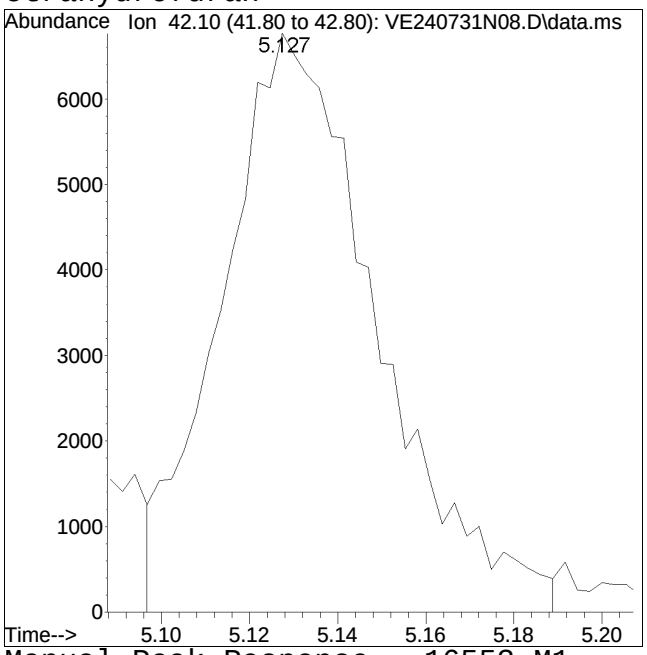
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N08.D
Date Inj'd : 7/31/2024 8:42 pm
Sample : I8260STD10PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:54 am

Compound #38: Tetrahydrofuran





Original Peak Response = 15510 Manual Peak Response = 16553 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	204403	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 99.91%			
63) Chlorobenzene-d5	9.500	117	149625	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 101.26%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84874	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.44%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.156	113	47450	9.756	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.56%			
47) 1,2-Dichloroethane-d4	5.685	65	62257	9.640	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.40%			
64) Toluene-d8	7.657	98	196570	9.931	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.31%			
88) 4-Bromofluorobenzene	10.998	95	76337	9.699	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.99%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	149245	33.146	ug/L	96
3) Chloromethane	1.787	50	160207	29.826	ug/L	97
4) Vinyl chloride	1.854	62	161006	32.374	ug/L	96
5) Bromomethane	2.163	94	41058	34.408	ug/L	95
6) Chloroethane	2.272	64	92566	29.484	ug/L	100
7) Trichlorofluoromethane	2.417	101	178263	34.310	ug/L	97
8) Ethyl ether	2.718	74	68340	31.554	ug/L	75
10) 1,1-Dichloroethene	2.905	96	102934	32.604	ug/L	79
11) Carbon disulfide	2.933	76	320678	31.158	ug/L	96
12) Freon-113	2.941	101	108914	32.715	ug/L	86
13) Iodomethane	3.042	142	79903	44.923	ug/L	90
14) Acrolein	3.223	56	27320	30.261	ug/L #	65
15) Methylene chloride	3.460	84	123480	29.629	ug/L	87
17) Acetone	3.502	43	47292	32.781	ug/L	96
18) trans-1,2-Dichloroethene	3.611	96	110330	30.519	ug/L	78
19) Methyl acetate	3.619	43	98711	29.278	ug/L	96
21) Methyl tert-butyl ether	3.711	73	405204	29.325	ug/L	95
22) tert-Butyl alcohol	3.806	59	73709	153.222	ug/L	91
24) Diisopropyl ether	4.071	45	603714	30.596	ug/L	91
25) 1,1-Dichloroethane	4.196	63	260295	30.020	ug/L	92
26) Halothane	4.255	117	90214	31.117	ug/L	94

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	54373	30.272	ug/L		90
28) Ethyl tert-butyl ether	4.419	59	513557	29.991	ug/L		97
29) Vinyl acetate	4.430	43	337157	29.651	ug/L	#	94
30) cis-1,2-Dichloroethene	4.712	96	127517	29.519	ug/L		93
31) 2,2-Dichloropropane	4.813	77	173960	31.500	ug/L		97
33) Bromochloromethane	4.907	128	58968	30.124	ug/L		88
34) Cyclohexane	4.910	56	305150	33.060	ug/L		96
35) Chloroform	4.980	83	205797	29.098	ug/L		98
36) Ethyl acetate	5.086	43	156227	29.207	ug/L		96
37) Carbon tetrachloride	5.114	117	168502	31.685	ug/L		94
38) Tetrahydrofuran	5.128	42	49298M1	29.808	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	193545	30.522	ug/L		96
42) 2-Butanone	5.267	43	64303	30.160	ug/L		96
43) 1,1-Dichloropropene	5.301	75	165534	31.094	ug/L		95
45) Benzene	5.546	78	514522	30.022	ug/L		92
46) tert-Amyl methyl ether	5.657	73	381559	30.156	ug/L		97
48) 1,2-Dichloroethane	5.752	62	192313	29.444	ug/L		98
51) Methyl cyclohexane	6.132	83	223375	32.779	ug/L		84
52) Trichloroethene	6.143	95	132908	30.916	ug/L		97
54) Dibromomethane	6.583	93	73052	29.863	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	152088	29.827	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	99727	31.133	ug/L		89
58) Bromodichloromethane	6.762	83	176926	29.402	ug/L		92
61) 1,4-Dioxane	6.971	88	23357	587.548	ug/L		86
62) cis-1,3-Dichloropropene	7.448	75	211389	30.366	ug/L		95
65) Toluene	7.713	92	319096	29.944	ug/L		94
66) 4-Methyl-2-pentanone	8.148	58	55773	30.042	ug/L		93
67) Tetrachloroethene	8.159	166	139900	30.947	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	188733	30.471	ug/L		99
71) Ethyl methacrylate	8.385	69	169809	29.342	ug/L		91
72) 1,1,2-Trichloroethane	8.382	83	90229	29.528	ug/L		100
73) Chlorodibromomethane	8.594	129	127142	30.194	ug/L		97
74) 1,3-Dichloropropane	8.705	76	192488	29.888	ug/L		97
75) 1,2-Dibromoethane	8.867	107	106125	29.869	ug/L		88
77) 2-Hexanone	9.152	43	104812	29.886	ug/L		98
78) Chlorobenzene	9.520	112	339097	29.545	ug/L	#	80
79) Ethylbenzene	9.556	91	625293	29.676	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.606	131	128406	29.946	ug/L		97
81) p/m Xylene	9.743	106	480185	58.597	ug/L		99
82) o Xylene	10.284	106	463412	58.098	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	770256	58.094	ug/L		100
85) Bromoform	10.376	173	85058	30.287	ug/L		93
87) Isopropylbenzene	10.671	105	629312	30.330	ug/L		97
89) Bromobenzene	11.106	156	155787	29.380	ug/L		98
90) n-Propylbenzene	11.151	91	751510	30.102	ug/L		96
91) 1,4-Dichlorobutane	11.168	55	266291	29.386	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.240	83	124080	29.659	ug/L		97
93) 4-Ethyltoluene	11.279	105	611178	29.705	ug/L		99
94) 2-Chlorotoluene	11.318	91	437659	29.234	ug/L		97
95) 1,3,5-Trimethylbenzene	11.377	105	537259	29.512	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	107348	29.353	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.430	53	51127	29.616	ug/L	#	84
98) 4-Chlorotoluene	11.502	91	457411	29.459	ug/L		99
99) tert-Butylbenzene	11.720	119	448526	29.875	ug/L		98
102) 1,2,4-Trimethylbenzene	11.795	105	535558	29.610	ug/L		95
103) sec-Butylbenzene	11.910	105	663673	30.258	ug/L		99
104) p-Isopropyltoluene	12.063	119	568430	30.494	ug/L		96
105) 1,3-Dichlorobenzene	12.130	146	291786	29.406	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	291447	29.676	ug/L		99
107) p-Diethylbenzene	12.439	119	335133	30.326	ug/L		97
108) n-Butylbenzene	12.495	91	481406	30.362	ug/L		97
109) 1,2-Dichlorobenzene	12.646	146	282170	29.816	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	538890	29.853	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.427	155	23835	30.657	ug/L		92
112) 1,3,5-Trichlorobenzene	13.457	180	224773	29.756	ug/L		93
113) Hexachlorobutadiene	14.032	225	74680	30.927	ug/L		92
114) 1,2,4-Trichlorobenzene	14.054	180	202950	30.317	ug/L		99
115) Naphthalene	14.347	128	444851	30.922	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	185426	30.291	ug/L		95

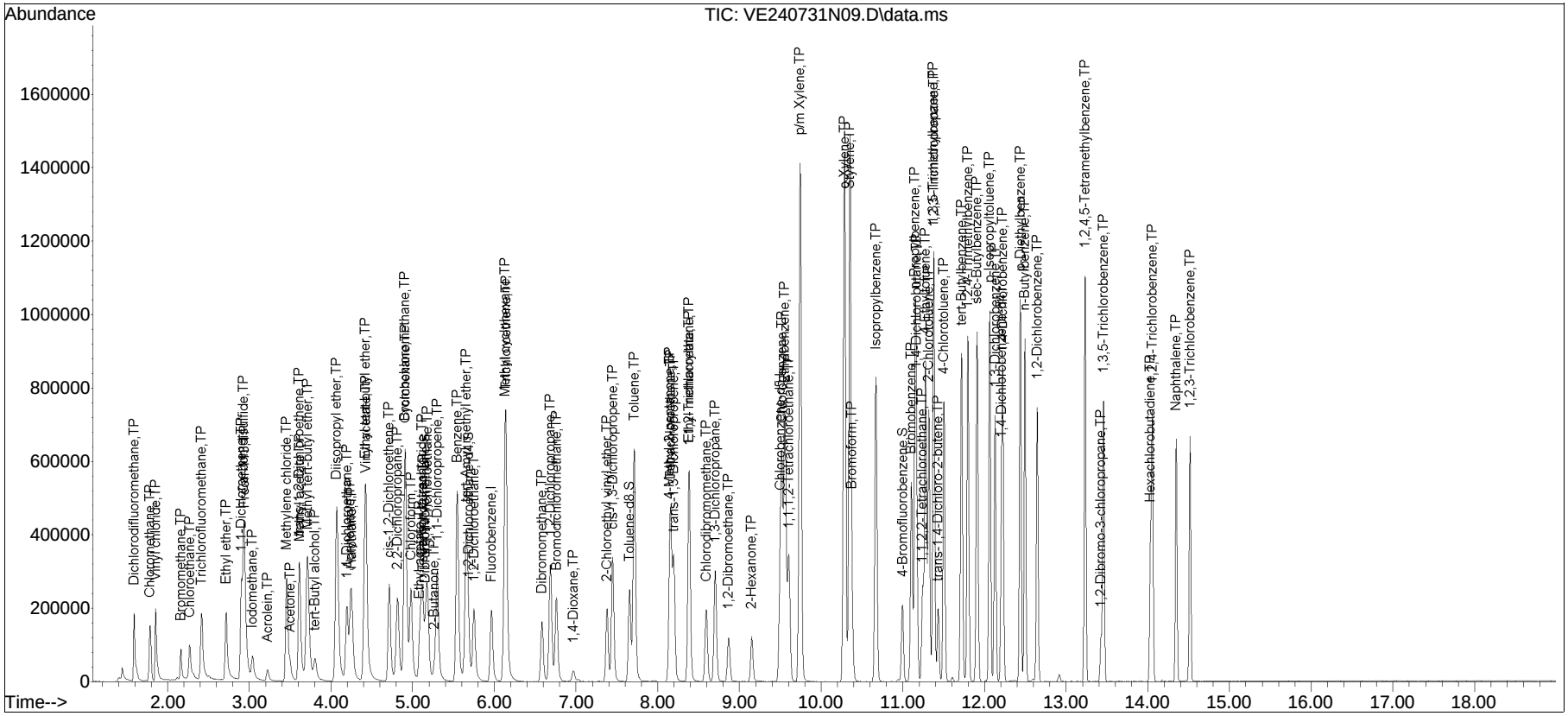
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N09.D
Acq On : 31 Jul 2024 9:07 pm
Operator : ELAINE:MKS
Sample : I8260STD30PPB
Misc : WG1954249
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 12:05:50 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

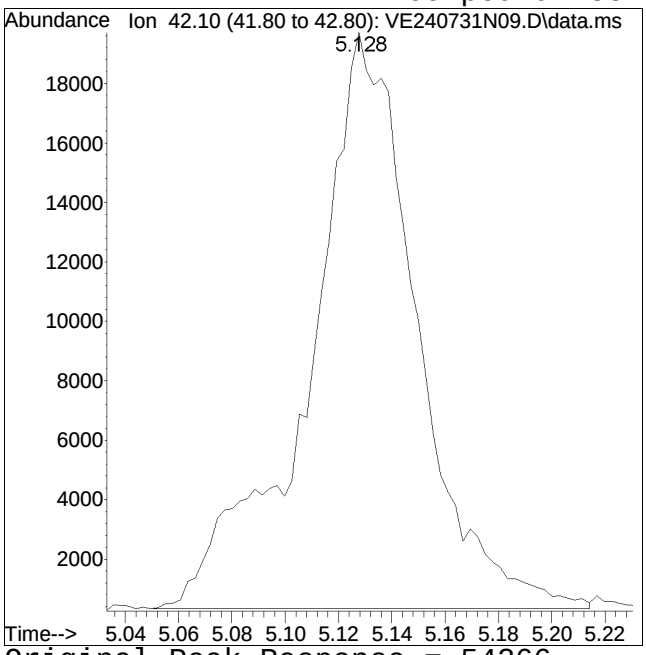


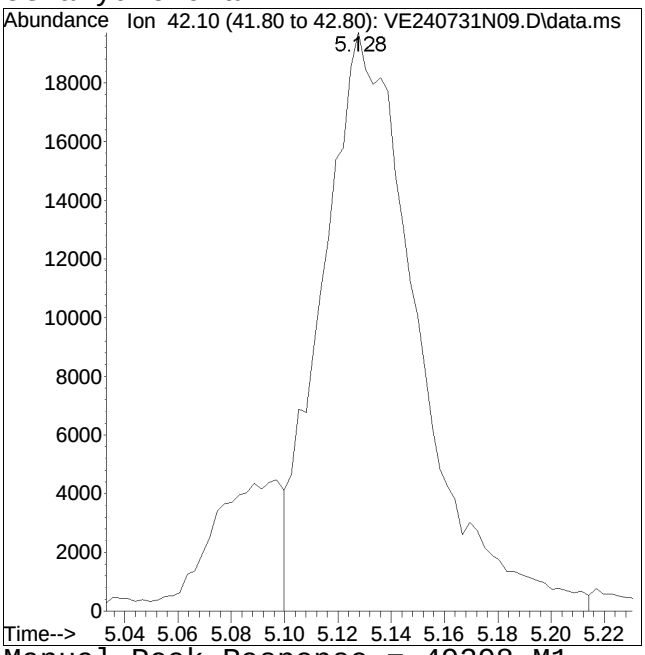
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N09.D
Date Inj'd : 7/31/2024 9:07 pm
Sample : I8260STD30PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





Original Peak Response = 54266 Manual Peak Response = 49298 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	205552	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 100.47%			
63) Chlorobenzene-d5	9.497	117	153791	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 104.08%			
84) 1,4-Dichlorobenzene-d4	12.211	152	85405	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 101.07%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	47510	9.714	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.14%			
47) 1,2-Dichloroethane-d4	5.680	65	63482	9.774	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.74%			
64) Toluene-d8	7.654	98	201166	9.888	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.88%			
88) 4-Bromofluorobenzene	10.995	95	78835	9.954	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	398777	88.069	ug/L	96
3) Chloromethane	1.787	50	425203	78.719	ug/L	96
4) Vinyl chloride	1.854	62	427307	85.439	ug/L	94
5) Bromomethane	2.163	94	137967	114.976	ug/L	94
6) Chloroethane	2.266	64	251474	79.651	ug/L	87
7) Trichlorofluoromethane	2.417	101	483684	92.573	ug/L	95
8) Ethyl ether	2.718	74	182990	84.018	ug/L	73
10) 1,1-Dichloroethene	2.902	96	279624	88.076	ug/L	79
11) Carbon disulfide	2.933	76	849801	82.108	ug/L	96
12) Freon-113	2.944	101	292977	87.510	ug/L	88
13) Iodomethane	3.039	142	267444	149.523	ug/L	92
14) Acrolein	3.223	56	74031	81.542	ug/L #	70
15) Methylene chloride	3.460	84	324549	77.441	ug/L	87
17) Acetone	3.502	43	116076	80.011	ug/L	99
18) trans-1,2-Dichloroethene	3.611	96	301708	82.990	ug/L	81
19) Methyl acetate	3.622	43	256155	75.550	ug/L	97
21) Methyl tert-butyl ether	3.711	73	1080950	77.793	ug/L	95
22) tert-Butyl alcohol	3.806	59	192001	396.889	ug/L	90
24) Diisopropyl ether	4.071	45	1579187	79.586	ug/L	91
25) 1,1-Dichloroethane	4.193	63	690552	79.197	ug/L	97
26) Halothane	4.249	117	237954	81.618	ug/L	93

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	143107	79.230	ug/L		91
28) Ethyl tert-butyl ether	4.419	59	1358577	78.894	ug/L		97
29) Vinyl acetate	4.428	43	844268	73.834	ug/L	#	95
30) cis-1,2-Dichloroethene	4.715	96	352546	81.155	ug/L		97
31) 2,2-Dichloropropane	4.815	77	456698	82.234	ug/L		98
33) Bromochloromethane	4.904	128	149382	75.886	ug/L		87
34) Cyclohexane	4.910	56	818733	88.205	ug/L		97
35) Chloroform	4.980	83	557889	78.440	ug/L		98
36) Ethyl acetate	5.086	43	409173	76.068	ug/L		95
37) Carbon tetrachloride	5.114	117	452565	84.624	ug/L		95
38) Tetrahydrofuran	5.128	42	127579M1	76.709	ug/L		
40) 1,1,1-Trichloroethane	5.181	97	517219	81.109	ug/L		95
42) 2-Butanone	5.267	43	170745	79.637	ug/L	#	76
43) 1,1-Dichloropropene	5.300	75	445417	83.200	ug/L		95
45) Benzene	5.546	78	1372838	79.656	ug/L		93
46) tert-Amyl methyl ether	5.657	73	1003985	78.904	ug/L		97
48) 1,2-Dichloroethane	5.749	62	510065	77.658	ug/L		97
51) Methyl cyclohexane	6.131	83	634905	92.647	ug/L		87
52) Trichloroethene	6.143	95	354708	82.049	ug/L		97
54) Dibromomethane	6.583	93	194273	78.972	ug/L	#	84
55) 1,2-Dichloropropane	6.684	63	405164	79.014	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	275108	85.405	ug/L		92
58) Bromodichloromethane	6.759	83	477315	78.878	ug/L		93
61) 1,4-Dioxane	6.968	88	30991	775.224	ug/L		88
62) cis-1,3-Dichloropropene	7.448	75	566751	80.959	ug/L		95
65) Toluene	7.715	92	857485	78.288	ug/L		94
66) 4-Methyl-2-pentanone	8.145	58	150511	78.877	ug/L		91
67) Tetrachloroethene	8.162	166	378641	81.491	ug/L		96
69) trans-1,3-Dichloropropene	8.198	75	501573	78.787	ug/L		98
71) Ethyl methacrylate	8.385	69	451462	75.896	ug/L		91
72) 1,1,2-Trichloroethane	8.382	83	237889	75.743	ug/L		99
73) Chlorodibromomethane	8.594	129	340620	78.699	ug/L		98
74) 1,3-Dichloropropane	8.703	76	507269	76.632	ug/L		97
75) 1,2-Dibromoethane	8.870	107	281759	77.154	ug/L		87
77) 2-Hexanone	9.152	43	277176	76.892	ug/L		98
78) Chlorobenzene	9.520	112	906237	76.820	ug/L	#	81
79) Ethylbenzene	9.559	91	1664160	76.841	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	340057	77.159	ug/L		97
81) p/m Xylene	9.746	106	1254976	148.997	ug/L		98
82) o Xylene	10.287	106	1224130	149.311	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.353	104	2011221	147.580	ug/L		100
85) Bromoform	10.381	173	228150	80.733	ug/L		94
87) Isopropylbenzene	10.671	105	1691278	81.004	ug/L		97
89) Bromobenzene	11.106	156	418818	78.495	ug/L		98
90) n-Propylbenzene	11.154	91	2013910	80.167	ug/L		97
91) 1,4-Dichlorobutane	11.171	55	698575	76.612	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	331120	78.655	ug/L		97
93) 4-Ethyltoluene	11.279	105	1639001	79.165	ug/L		100
94) 2-Chlorotoluene	11.321	91	1160531M1	77.036	ug/L		
95) 1,3,5-Trimethylbenzene	11.380	105	1427143	77.906	ug/L		98
96) 1,2,3-Trichloropropane	11.382	75	282589	76.789	ug/L		95
97) trans-1,4-Dichloro-2-b...	11.433	53	141551	81.487	ug/L	#	81
98) 4-Chlorotoluene	11.505	91	1219919	78.080	ug/L		99
99) tert-Butylbenzene	11.720	119	1215335	80.446	ug/L		98
102) 1,2,4-Trimethylbenzene	11.798	105	1435491	78.871	ug/L		96
103) sec-Butylbenzene	11.912	105	1806280	81.839	ug/L		99
104) p-Isopropyltoluene	12.066	119	1543039	82.264	ug/L		97
105) 1,3-Dichlorobenzene	12.130	146	775535	77.673	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	777852	78.710	ug/L		99
107) p-Diethylbenzene	12.439	119	912031	82.016	ug/L		96
108) n-Butylbenzene	12.495	91	1330681	83.402	ug/L		97
109) 1,2-Dichlorobenzene	12.646	146	747610	78.507	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.231	119	1438355	79.185	ug/L		95
111) 1,2-Dibromo-3-chloropr...	13.427	155	64007	81.814	ug/L		94
112) 1,3,5-Trichlorobenzene	13.457	180	600411	78.989	ug/L		93
113) Hexachlorobutadiene	14.032	225	199869	82.257	ug/L		92
114) 1,2,4-Trichlorobenzene	14.057	180	550611	81.739	ug/L		99
115) Naphthalene	14.347	128	1227574	84.800	ug/L		100
116) 1,2,3-Trichlorobenzene	14.514	180	512444	83.193	ug/L		95

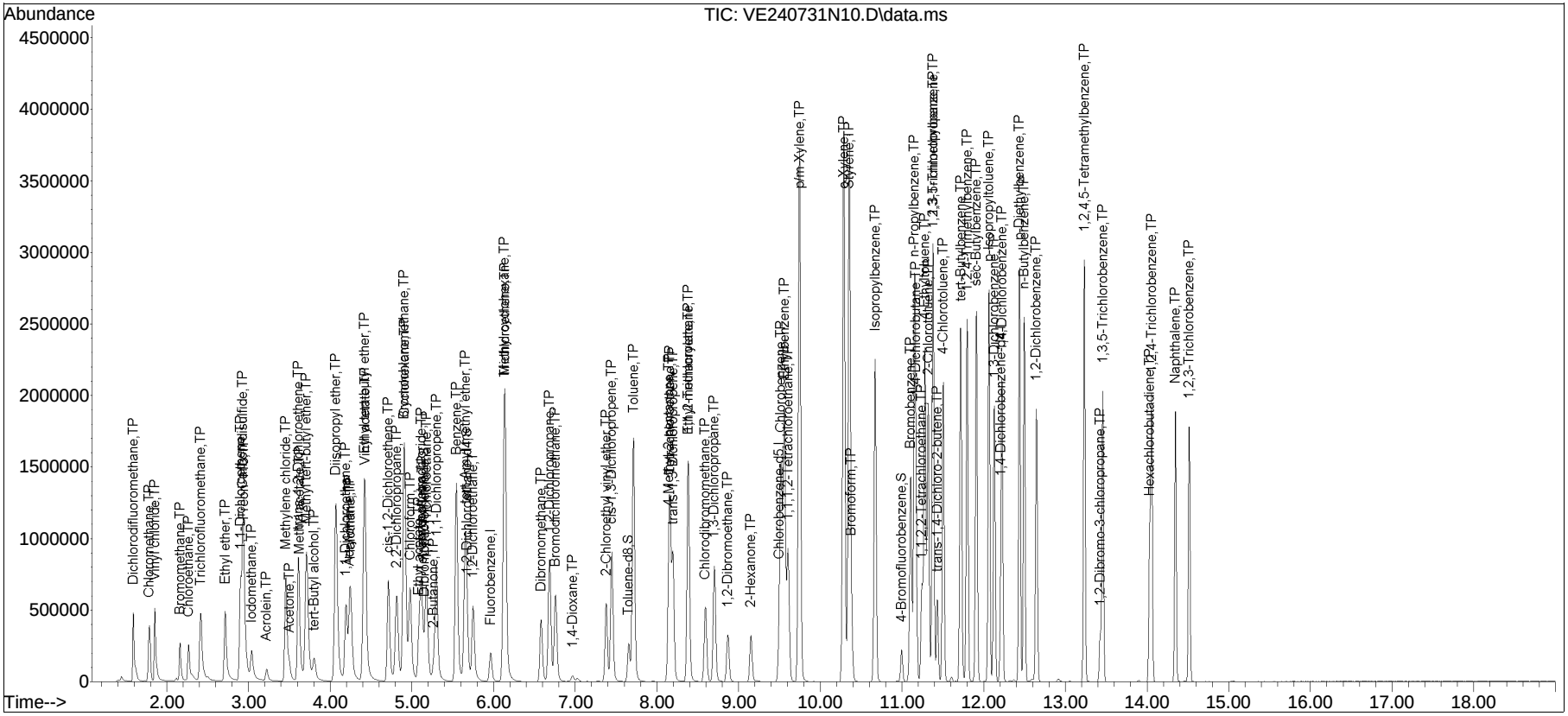
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N10.D
Acq On : 31 Jul 2024 9:32 pm
Operator : ELAINE:MKS
Sample : I8260STD80PPB
Misc : WG1954249
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 12:06:26 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

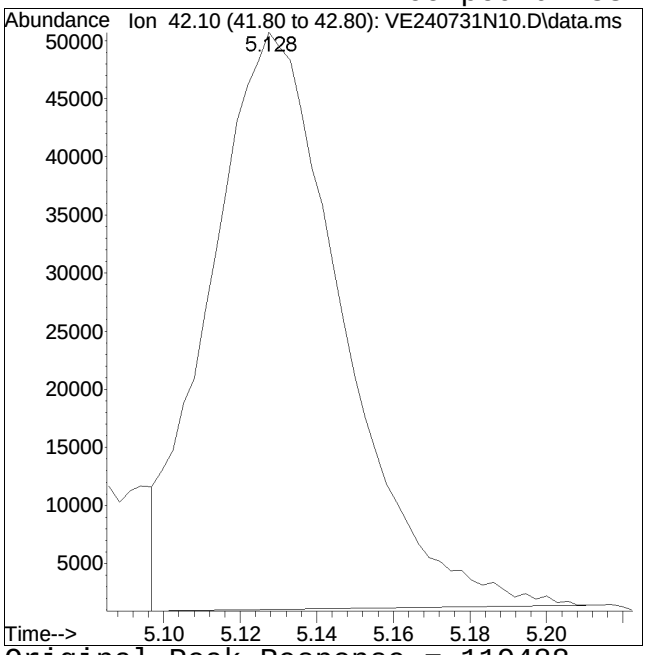
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

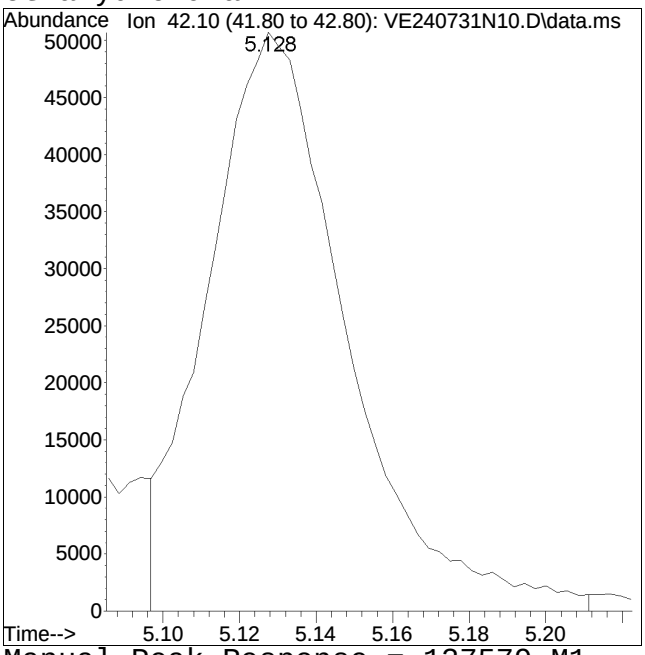


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N10.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 9:32 pm Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





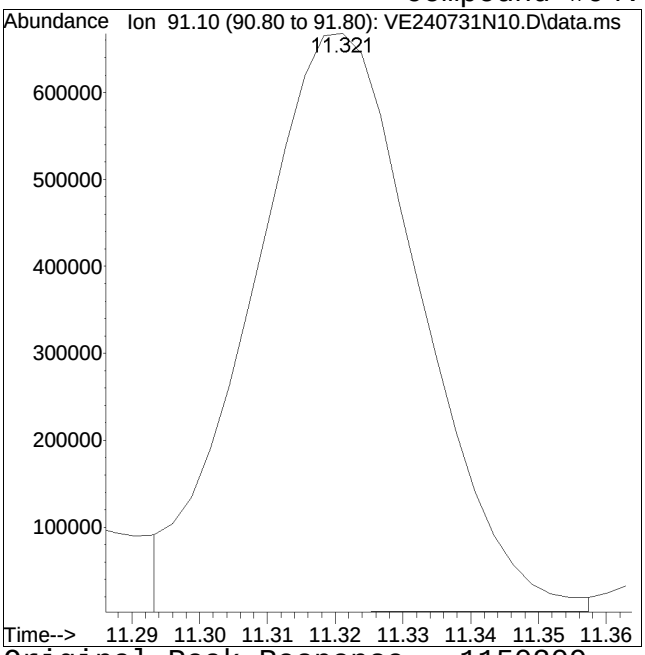
Original Peak Response = 119488 Manual Peak Response = 127579 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

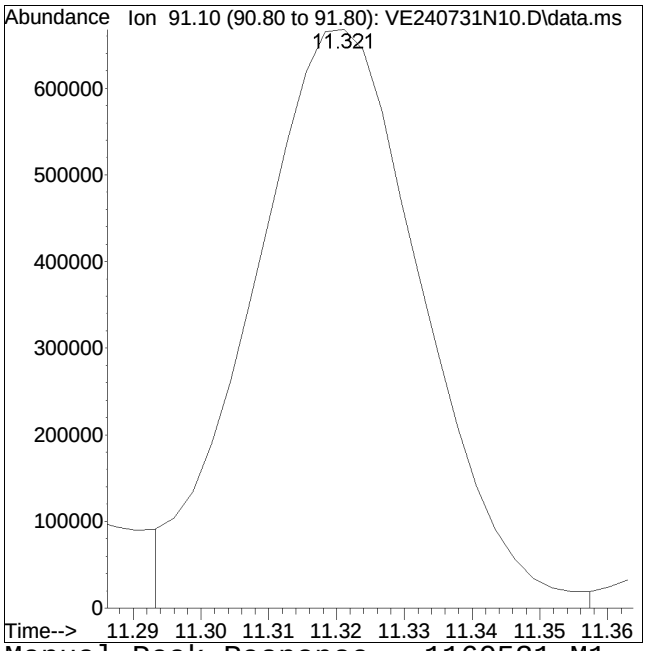
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N10.D
Date Inj'd : 7/31/2024 9:32 pm
Sample : I8260STD80PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 1150209



Manual Peak Response = 1160531 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	212189	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 103.72%			
63) Chlorobenzene-d5	9.497	117	156001	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 105.58%			
84) 1,4-Dichlorobenzene-d4	12.208	152	84877	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.44%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.158	113	47539	9.415	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 94.15%		
47) 1,2-Dichloroethane-d4	5.680	65	63246	9.434	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 94.34%		
64) Toluene-d8	7.654	98	206007	9.983	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 99.83%		
88) 4-Bromofluorobenzene	10.995	95	79943	10.156	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 101.56%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.591	85	621695	133.006	ug/L	96
3) Chloromethane	1.787	50	661240	118.588	ug/L	96
4) Vinyl chloride	1.854	62	675555	130.850	ug/L	95
5) Bromomethane	2.163	94	241549	195.000	ug/L	96
6) Chloroethane	2.264	64	366944M1	112.589	ug/L	
7) Trichlorofluoromethane	2.414	101	749914	139.038	ug/L	95
8) Ethyl ether	2.715	74	274710	122.185	ug/L	71
10) 1,1-Dichloroethene	2.902	96	432970	132.112	ug/L #	77
11) Carbon disulfide	2.930	76	1302644	121.925	ug/L	96
12) Freon-113	2.941	101	466342	134.936	ug/L	89
13) Iodomethane	3.039	142	437611	237.007	ug/L	92
14) Acrolein	3.223	56	117858	125.755	ug/L #	71
15) Methylene chloride	3.457	84	496205	114.697	ug/L	88
17) Acetone	3.502	43	165824	110.727	ug/L	99
18) trans-1,2-Dichloroethene	3.610	96	460682	122.755	ug/L	80
19) Methyl acetate	3.619	43	388572	111.021	ug/L	98
21) Methyl tert-butyl ether	3.714	73	1643799	114.600	ug/L	95
22) tert-Butyl alcohol	3.806	59	291372	583.461	ug/L	87
24) Diisopropyl ether	4.071	45	2382897	116.334	ug/L	91
25) 1,1-Dichloroethane	4.193	63	1040719	115.624	ug/L	98
26) Halothane	4.249	117	364896	121.244	ug/L	93

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	217765	116.792	ug/L		92
28) Ethyl tert-butyl ether	4.419	59	2065717	116.206	ug/L		87
29) Vinyl acetate	4.430	43	1705877	144.518	ug/L	#	96
30) cis-1,2-Dichloroethene	4.715	96	538397	120.060	ug/L		98
31) 2,2-Dichloropropane	4.815	77	711165	124.049	ug/L		98
33) Bromochloromethane	4.904	128	219330	107.935	ug/L		84
34) Cyclohexane	4.910	56	1269361	132.475	ug/L		98
35) Chloroform	4.980	83	848229	115.532	ug/L		98
36) Ethyl acetate	5.086	43	617701	111.244	ug/L		95
37) Carbon tetrachloride	5.116	117	710348	128.671	ug/L		95
38) Tetrahydrofuran	5.130	42	189666M1	110.473	ug/L		
40) 1,1,1-Trichloroethane	5.180	97	801432	121.748	ug/L		95
42) 2-Butanone	5.267	43	253892	114.714	ug/L	#	78
43) 1,1-Dichloropropene	5.300	75	691130	125.059	ug/L		96
45) Benzene	5.546	78	2099718	118.021	ug/L		93
46) tert-Amyl methyl ether	5.657	73	1544881	117.616	ug/L		97
48) 1,2-Dichloroethane	5.749	62	772246	113.897	ug/L		98
51) Methyl cyclohexane	6.134	83	992238	140.261	ug/L		87
52) Trichloroethene	6.143	95	512619	114.867	ug/L		97
54) Dibromomethane	6.580	93	296625	116.807	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	617455	116.649	ug/L		98
57) 2-Chloroethyl vinyl ether	7.378	63	408384	122.814	ug/L		92
58) Bromodichloromethane	6.759	83	727451	116.454	ug/L		92
61) 1,4-Dioxane	6.971	88	49111	1190.061	ug/L		88
62) cis-1,3-Dichloropropene	7.448	75	862920	119.410	ug/L		96
65) Toluene	7.713	92	1314787	118.338	ug/L		94
66) 4-Methyl-2-pentanone	8.145	58	225705	116.607	ug/L		91
67) Tetrachloroethene	8.159	166	585961	124.323	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	758357	117.434	ug/L		99
71) Ethyl methacrylate	8.385	69	688690	114.137	ug/L		90
72) 1,1,2-Trichloroethane	8.382	83	359465	112.831	ug/L		99
73) Chlorodibromomethane	8.594	129	526073	119.825	ug/L		97
74) 1,3-Dichloropropane	8.705	76	767624	114.320	ug/L		97
75) 1,2-Dibromoethane	8.867	107	426364	115.097	ug/L		87
77) 2-Hexanone	9.149	43	414223	113.282	ug/L		99
78) Chlorobenzene	9.520	112	1389349	116.104	ug/L	#	81
79) Ethylbenzene	9.559	91	2544867	115.842	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	516387	115.508	ug/L		97
81) p/m Xylene	9.745	106	1901677	222.578	ug/L		98
82) o Xylene	10.289	106	1853015	222.816	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.356	104	3040245	219.928	ug/L		100
85) Bromoform	10.381	173	344244	122.572	ug/L		94
87) Isopropylbenzene	10.671	105	2603670	125.479	ug/L		97
89) Bromobenzene	11.106	156	638995	120.505	ug/L		98
90) n-Propylbenzene	11.154	91	3066625	122.831	ug/L		97
91) 1,4-Dichlorobutane	11.170	55	1050044	115.873	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.243	83	539535	128.960	ug/L		97
93) 4-Ethyltoluene	11.282	105	2488678	120.953	ug/L		100
94) 2-Chlorotoluene	11.321	91	1755872M1	117.280	ug/L		
95) 1,3,5-Trimethylbenzene	11.380	105	2172113	119.311	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	421191	115.164	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.433	53	217211	125.820	ug/L	#	80
98) 4-Chlorotoluene	11.508	91	1872710	120.607	ug/L		98
99) tert-Butylbenzene	11.720	119	1857545	123.721	ug/L		98
102) 1,2,4-Trimethylbenzene	11.798	105	2174551	120.221	ug/L		96
103) sec-Butylbenzene	11.912	105	2758090	125.741	ug/L		99
104) p-Isopropyltoluene	12.066	119	2336309	125.331	ug/L		96
105) 1,3-Dichlorobenzene	12.133	146	1169649	117.874	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	1165916	118.711	ug/L		99
107) p-Diethylbenzene	12.439	119	1359462	123.012	ug/L		96
108) n-Butylbenzene	12.498	91	1991135	125.574	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	1118649	118.201	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.234	119	2195611	121.626	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.426	155	98831	127.113	ug/L		93
112) 1,3,5-Trichlorobenzene	13.457	180	936160	123.926	ug/L		93
113) Hexachlorobutadiene	14.032	225	311088	128.826	ug/L		93
114) 1,2,4-Trichlorobenzene	14.057	180	854868	127.696	ug/L		99
115) Naphthalene	14.350	128	1892881	131.573	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	785081	128.247	ug/L		95

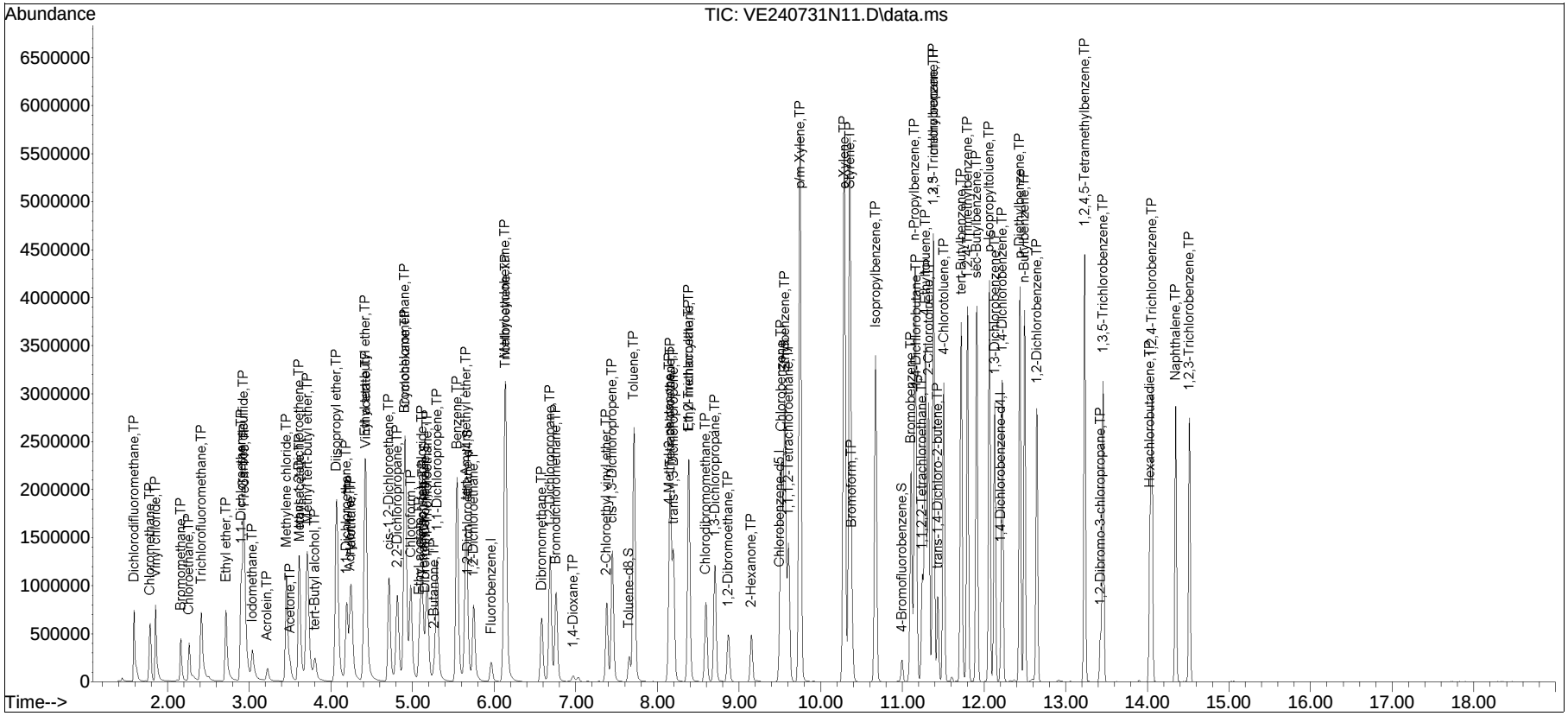
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N11.D
Acq On : 31 Jul 2024 9:57 pm
Operator : ELAINE:MKS
Sample : I8260STD120PPB
Misc : WG1954249
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 12:07:05 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

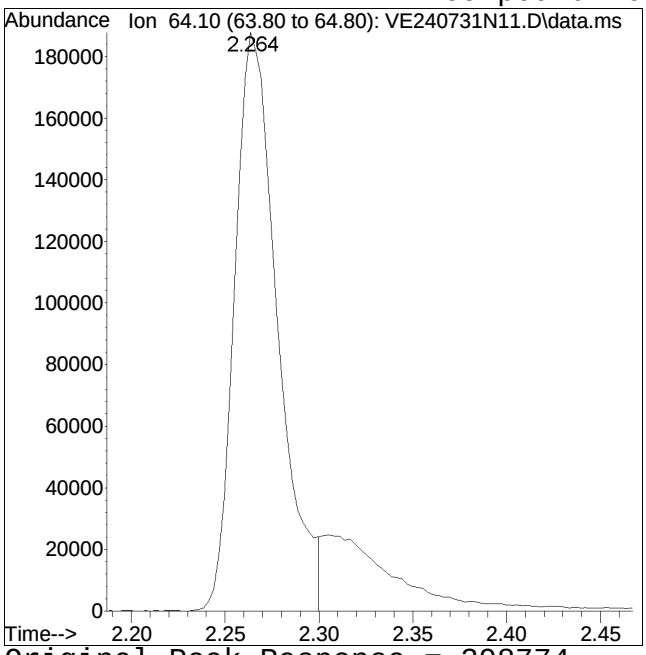


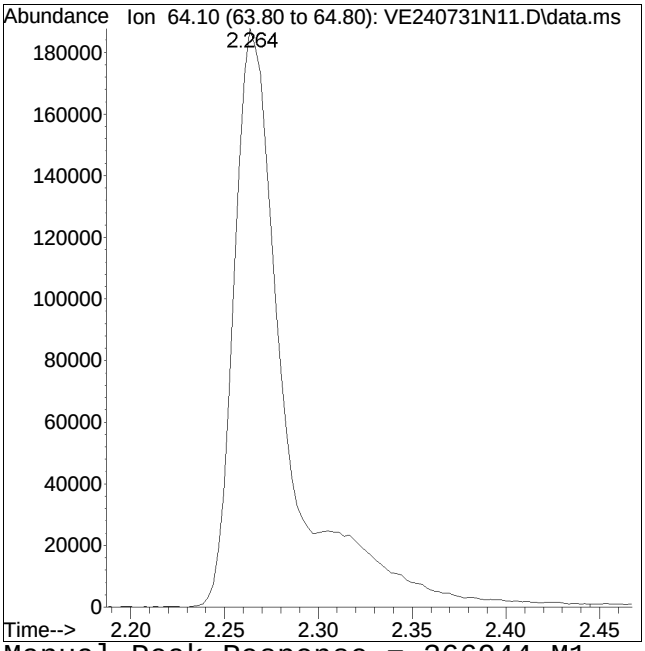
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N11.D
Date Inj'd : 7/31/2024 9:57 pm
Sample : I8260STD120PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane





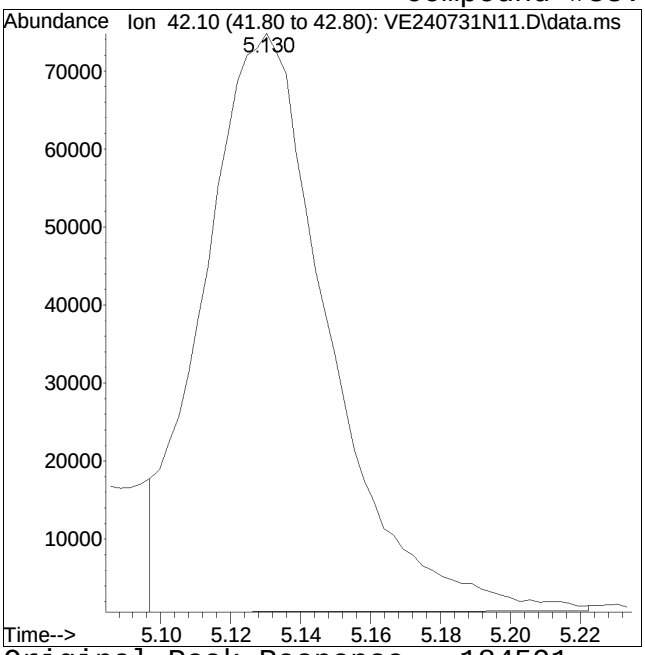
Original Peak Response = 298774 Manual Peak Response = 366944 M1

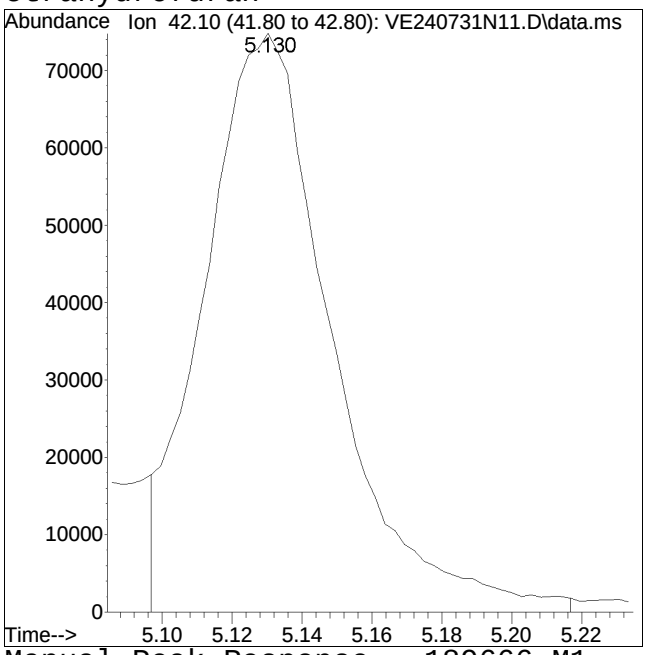
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N11.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 9:57 pm Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran





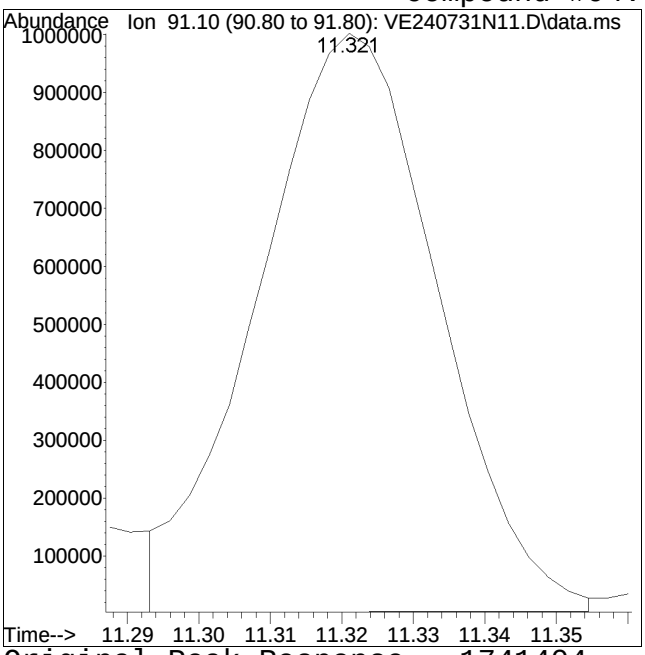
Original Peak Response = 184591 Manual Peak Response = 189666 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

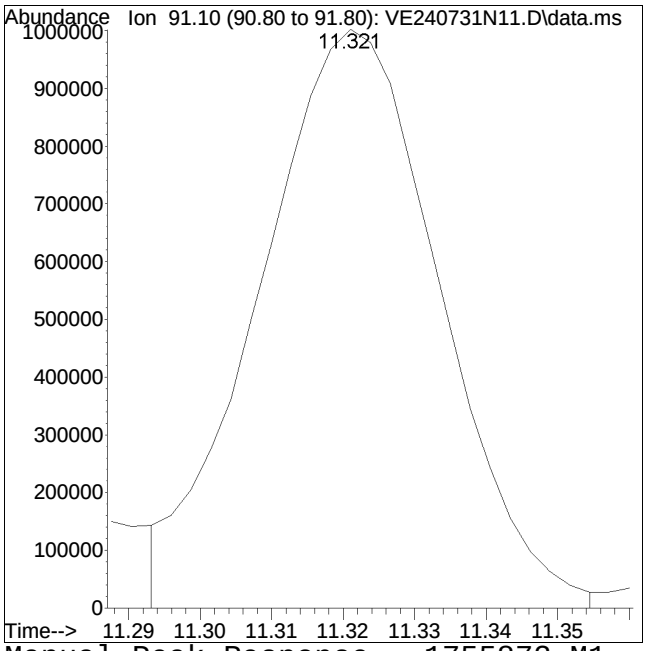
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N11.D
Date Inj'd : 7/31/2024 9:57 pm
Sample : I8260STD120PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene





Original Peak Response = 1741404 Manual Peak Response = 1755872 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.967	96	218082	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 106.60%			
63) Chlorobenzene-d5	9.497	117	158225	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 107.09%			
84) 1,4-Dichlorobenzene-d4	12.211	152	85112	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 100.72%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.155	113	48693	9.383	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.83%			
47) 1,2-Dichloroethane-d4	5.680	65	65855	9.557	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.57%			
64) Toluene-d8	7.654	98	211806	10.120	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.20%			
88) 4-Bromofluorobenzene	10.995	95	81664	10.346	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.46%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.589	85	1023946	213.144	ug/L	96
3) Chloromethane	1.787	50	1114665	194.505	ug/L	96
4) Vinyl chloride	1.854	62	1133872	213.688	ug/L	95
5) Bromomethane	2.160	94	443466	348.331	ug/L	95
6) Chloroethane	2.264	64	466826M1	139.365	ug/L	
7) Trichlorofluoromethane	2.409	101	1250069	225.507	ug/L	95
8) Ethyl ether	2.715	74	473080	204.730	ug/L	74
10) 1,1-Dichloroethene	2.899	96	720867	214.013	ug/L #	77
11) Carbon disulfide	2.930	76	2148112	195.626	ug/L	96
12) Freon-113	2.941	101	764970	215.363	ug/L	87
13) Iodomethane	3.039	142	787010	414.722	ug/L	90
14) Acrolein	3.223	56	207835	215.768	ug/L #	68
15) Methylene chloride	3.457	84	830961	186.885	ug/L	88
17) Acetone	3.499	43	275343	178.888	ug/L	100
18) trans-1,2-Dichloroethene	3.610	96	769562	199.519	ug/L	80
19) Methyl acetate	3.619	43	649913	180.672	ug/L	97
21) Methyl tert-butyl ether	3.711	73	2743068	186.070	ug/L	95
22) tert-Butyl alcohol	3.806	59	494549	963.555	ug/L #	74
24) Diisopropyl ether	4.071	45	3996934	189.859	ug/L	91
25) 1,1-Dichloroethane	4.193	63	1767256	191.036	ug/L	97
26) Halothane	4.249	117	614966	198.813	ug/L	95

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.238	53	364875	190.402	ug/L		91
28) Ethyl tert-butyl ether	4.419	59	3489282	190.985	ug/L		87
29) Vinyl acetate	4.427	43	2909289	239.808	ug/L		96
30) cis-1,2-Dichloroethene	4.715	96	893849	193.939	ug/L		96
31) 2,2-Dichloropropane	4.815	77	1146211	194.531	ug/L		98
33) Bromochloromethane	4.904	128	369034	176.699	ug/L		87
34) Cyclohexane	4.910	56	2111879	214.448	ug/L		97
35) Chloroform	4.980	83	1463012	193.883	ug/L		98
36) Ethyl acetate	5.086	43	1054490	184.774	ug/L		95
37) Carbon tetrachloride	5.111	117	1180255	208.012	ug/L		94
38) Tetrahydrofuran	5.127	42	319470M1	181.050	ug/L		
40) 1,1,1-Trichloroethane	5.178	97	1345108	198.818	ug/L		94
42) 2-Butanone	5.264	43	430836	189.401	ug/L	#	77
43) 1,1-Dichloropropene	5.300	75	1167560	205.559	ug/L		95
45) Benzene	5.546	78	3545099	193.878	ug/L		93
46) tert-Amyl methyl ether	5.660	73	2608163	193.201	ug/L		97
48) 1,2-Dichloroethane	5.749	62	1303976	187.124	ug/L		98
51) Methyl cyclohexane	6.134	83	1644127	226.130	ug/L		87
52) Trichloroethene	6.143	95	848815	185.062	ug/L		97
54) Dibromomethane	6.580	93	510294	195.517	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	1043986	191.899	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	689730	201.819	ug/L		91
58) Bromodichloromethane	6.759	83	1230248	191.623	ug/L		93
61) 1,4-Dioxane	6.968	88	82040	1934.279	ug/L		87
62) cis-1,3-Dichloropropene	7.450	75	1455382	195.953	ug/L		96
65) Toluene	7.715	92	2216340	196.679	ug/L		95
66) 4-Methyl-2-pentanone	8.145	58	380672	193.904	ug/L		89
67) Tetrachloroethene	8.161	166	969941	202.900	ug/L		95
69) trans-1,3-Dichloropropene	8.198	75	1271120	194.071	ug/L		98
71) Ethyl methacrylate	8.385	69	1153549	188.491	ug/L		90
72) 1,1,2-Trichloroethane	8.385	83	600082	185.709	ug/L		99
73) Chlorodibromomethane	8.594	129	888579	199.549	ug/L		97
74) 1,3-Dichloropropane	8.705	76	1294671	190.102	ug/L		97
75) 1,2-Dibromoethane	8.870	107	726378	193.330	ug/L		88
77) 2-Hexanone	9.149	43	701973	189.278	ug/L		98
78) Chlorobenzene	9.520	112	2322389	191.347	ug/L	#	81
79) Ethylbenzene	9.561	91	4205575	188.746	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.606	131	864694	190.700	ug/L		97
81) p/m Xylene	9.748	106	3113211	359.258	ug/L		98
82) o Xylene	10.292	106	3031575	359.409	ug/L		96

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.359	104	4931534	351.727	ug/L		100
85) Bromoform	10.384	173	573519	203.644	ug/L		94
87) Isopropylbenzene	10.671	105	4270477	205.239	ug/L		97
89) Bromobenzene	11.109	156	1059408	199.237	ug/L		98
90) n-Propylbenzene	11.156	91	4915379	196.338	ug/L		97
91) 1,4-Dichlorobutane	11.173	55	1727211	190.073	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.246	83	901020	214.768	ug/L		97
93) 4-Ethyltoluene	11.282	105	4000085	193.873	ug/L		100
94) 2-Chlorotoluene	11.324	91	2902075M1	193.303	ug/L		
95) 1,3,5-Trimethylbenzene	11.382	105	3465448	189.826	ug/L		98
96) 1,2,3-Trichloropropane	11.382	75	693466	189.086	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.435	53	373208	215.584	ug/L	#	81
98) 4-Chlorotoluene	11.508	91	3065128	196.857	ug/L		99
99) tert-Butylbenzene	11.723	119	2974388	197.561	ug/L		98
102) 1,2,4-Trimethylbenzene	11.801	105	3501105	193.025	ug/L		96
103) sec-Butylbenzene	11.912	105	4398637	199.979	ug/L		99
104) p-Isopropyltoluene	12.068	119	3768238	201.589	ug/L		96
105) 1,3-Dichlorobenzene	12.133	146	1909080	191.860	ug/L		96
106) 1,4-Dichlorobenzene	12.225	146	1925869	195.547	ug/L		99
107) p-Diethylbenzene	12.442	119	2268316	204.684	ug/L		96
108) n-Butylbenzene	12.501	91	3301190	207.619	ug/L		97
109) 1,2-Dichlorobenzene	12.648	146	1871437	197.197	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.234	119	3731663	206.145	ug/L		95
111) 1,2-Dibromo-3-chloropr...	13.429	155	172945	221.821	ug/L		92
112) 1,3,5-Trichlorobenzene	13.460	180	1558415	205.728	ug/L		93
113) Hexachlorobutadiene	14.032	225	516197	213.175	ug/L		93
114) 1,2,4-Trichlorobenzene	14.057	180	1377565	205.206	ug/L		100
115) Naphthalene	14.349	128	3120105	216.278	ug/L		100
116) 1,2,3-Trichlorobenzene	14.520	180	1288109	209.838	ug/L		96

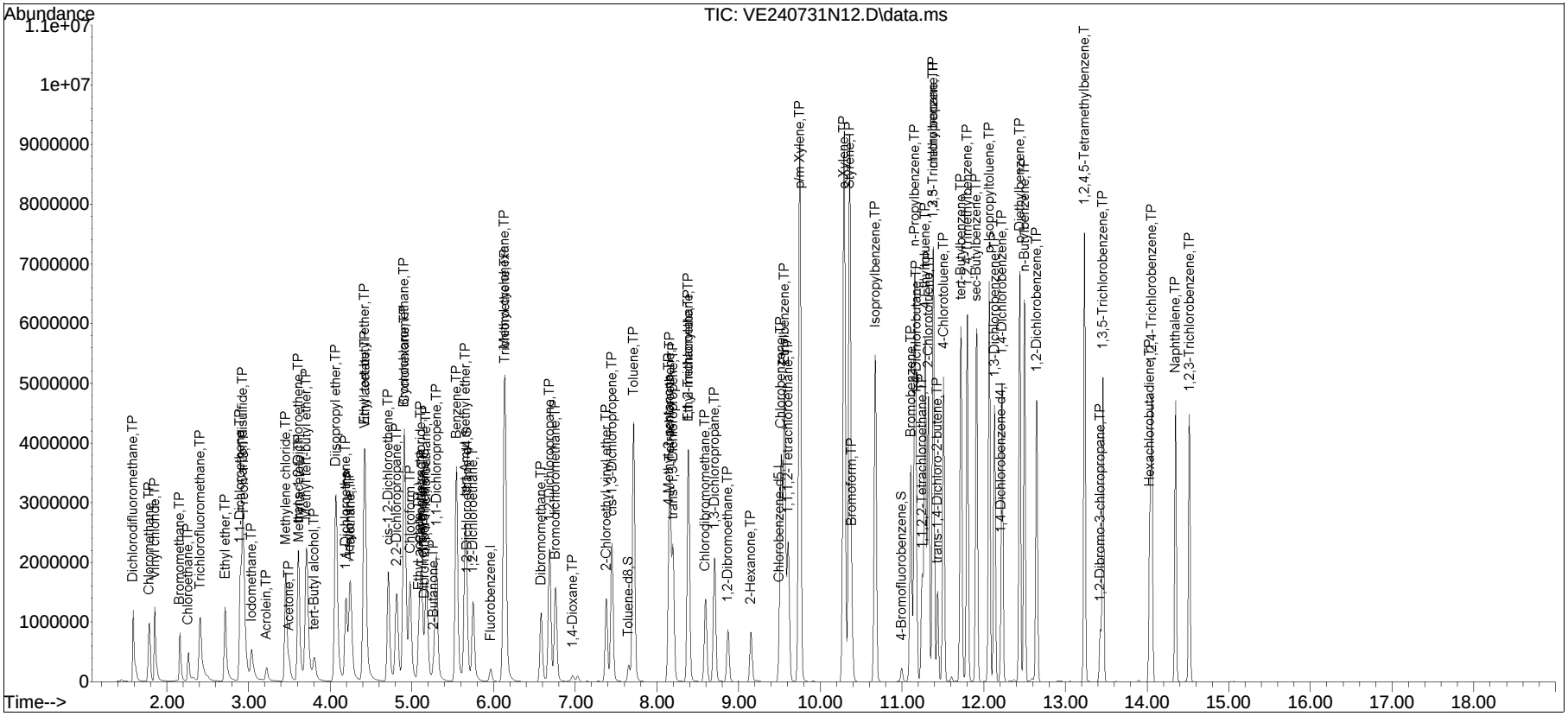
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N12.D
Acq On : 31 Jul 2024 10:22 pm
Operator : ELAINE:MKS
Sample : I8260STD200PPB
Misc : WG1954249
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 12:07:48 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 11:56:36 2024
Response via : Initial Calibration

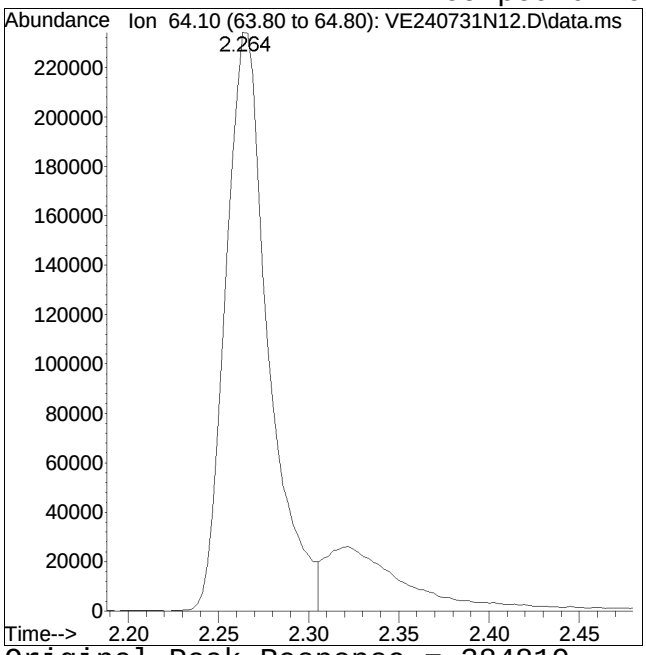
Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

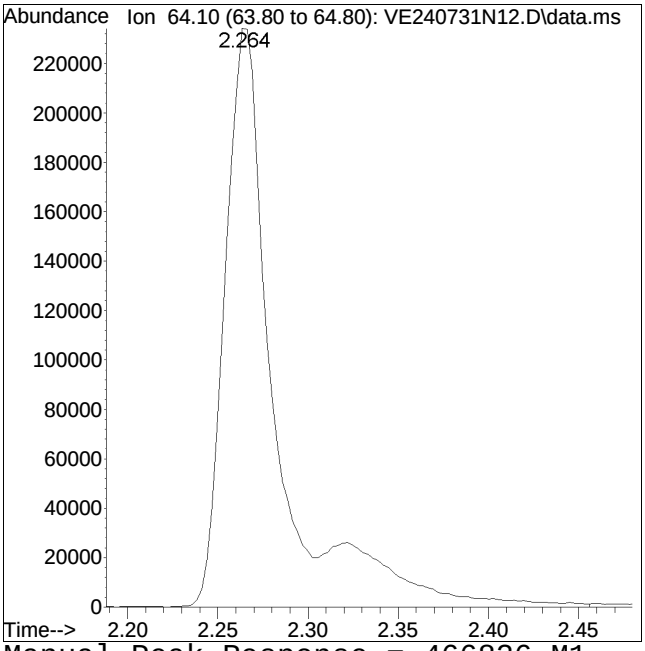


Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N12.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 10:22 pm Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 8/1/2024 11:57 am

Compound #6: Chloroethane



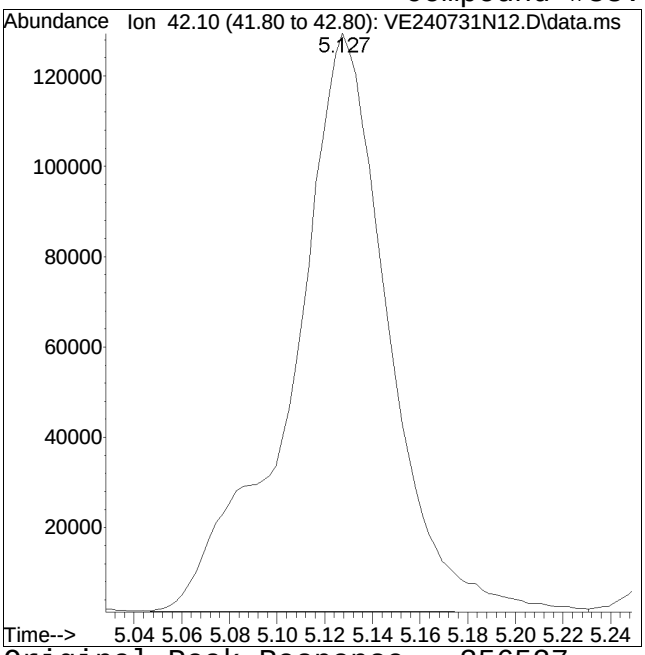


Original Peak Response = 384819 Manual Peak Response = 466826 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

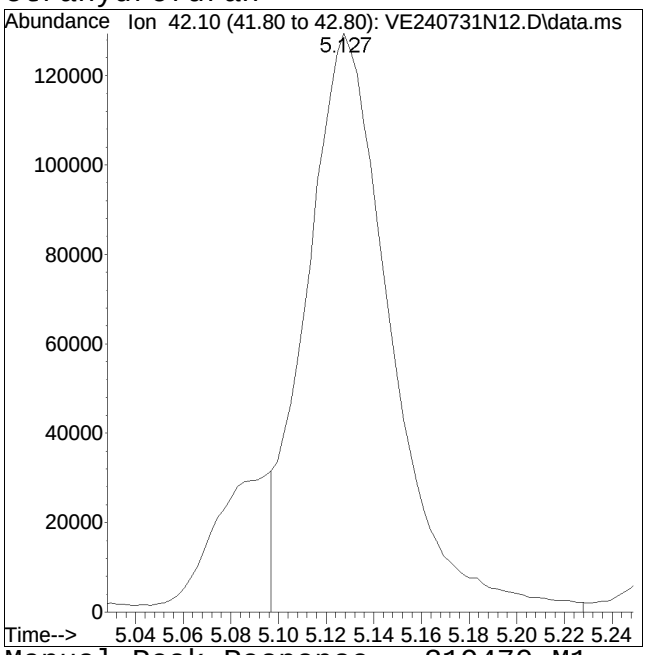
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQMethod : Elaine_240731N_8260.m
Data File : VE240731N12.D Operator : ELAINE:MKS
Date Inj'd : 7/31/2024 10:22 pm Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 8/1/2024 11:57 am

Compound #38: Tetrahydrofuran



Original Peak Response = 356527



Manual Peak Response = 319470 M1

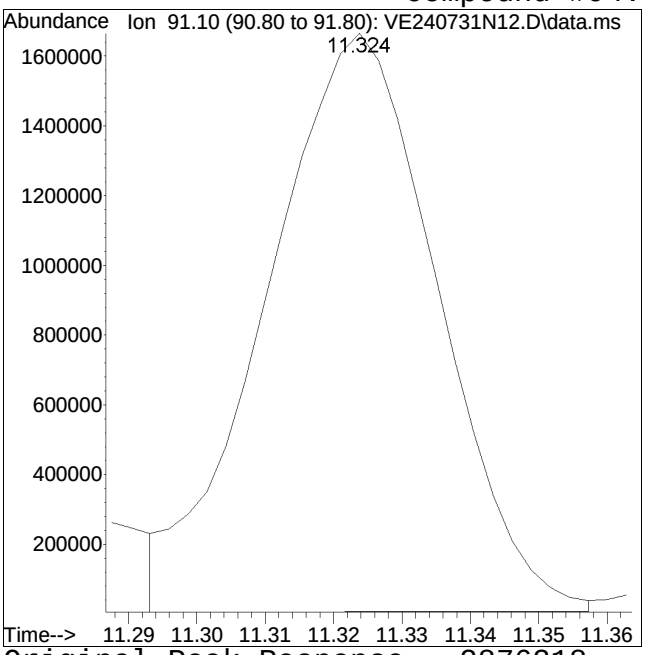
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

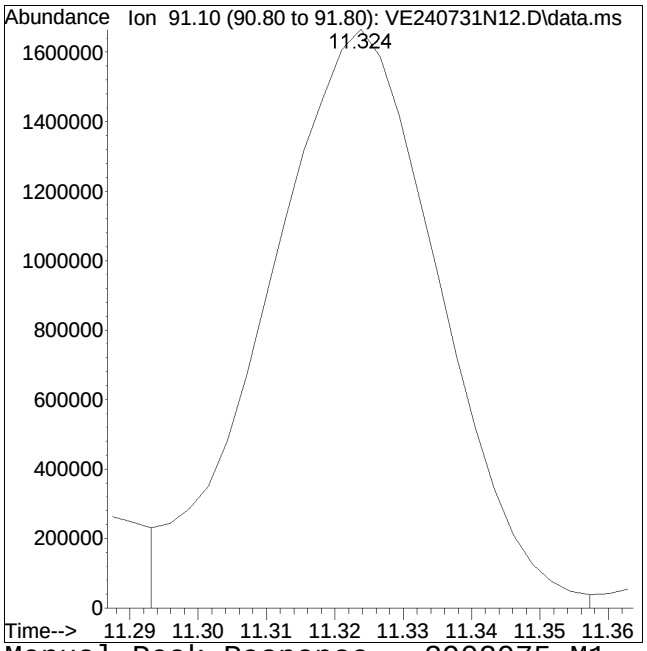
Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N12.D
Date Inj'd : 7/31/2024 10:22 pm
Sample : I8260STD200PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 11:57 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 2876218



Manual Peak Response = 2902075 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	102	0.00
2	TP	Dichlorodifluoromethane	0.224	0.184	17.9	85	0.00
3	TP	Chloromethane	0.250	0.279	-11.6	108	0.00
4	TP	Vinyl chloride	0.233	0.239	-2.6	100	0.00
5	TP	Bromomethane	* 10.000	9.312	6.9	112	0.00
6	TP	Chloroethane	0.140	0.152	-8.6	101	0.00
7	TP	Trichlorofluoromethane	0.267	0.291	-9.0	117	0.00
8	TP	Ethyl ether	0.105	0.106	-1.0	102	0.00
10	TP	1,1-Dichloroethene	0.160	0.160	0.0	105	0.00
11	TP	Carbon disulfide	0.494	0.453	8.3	92	0.00
12	TP	Freon-113	0.167	0.181	-8.4	113	0.00
13	TP	Iodomethane	* 10.000	5.388	46.1#	62	0.00
14	TP	Acrolein	0.045	0.032	28.9#	75	0.00
15	TP	Methylene chloride	0.202	0.202	0.0	101	0.00
17	TP	Acetone	0.073	0.073	0.0	105	0.00
18	TP	trans-1,2-Dichloroethene	0.172	0.181	-5.2	104	0.00
19	TP	Methyl acetate	0.171	0.151	11.7	93	0.00
21	TP	Methyl tert-butyl ether	0.642	0.561	12.6	85	0.00
22	TP	tert-Butyl alcohol	0.023	0.022	4.3	96	0.00
24	TP	Diisopropyl ether	0.920	0.922	-0.2	97	0.00
25	TP	1,1-Dichloroethane	0.404	0.436	-7.9	105	0.00
26	TP	Halothane	0.139	0.154	-10.8	111	0.00
27	TP	Acrylonitrile	0.084	0.077	8.3	89	0.00
28	TP	Ethyl tert-butyl ether	0.798	0.794	0.5	97	0.00
29	TP	Vinyl acetate	0.612	0.506	17.3	93	0.00
30	TP	cis-1,2-Dichloroethene	0.206	0.210	-1.9	101	0.00
31	TP	2,2-Dichloropropane	0.270	0.248	8.1	93	0.00
33	TP	Bromochloromethane	0.091	0.092#	-1.1	97	0.00
34	TP	Cyclohexane	0.473	0.498	-5.3	112	0.00
35	TP	Chloroform	0.335	0.346	-3.3	102	0.00
36	TP	Ethyl acetate	0.256	0.246	3.9	96	0.00
37	TP	Carbon tetrachloride	0.256	0.287	-12.1	112	0.00
38	TP	Tetrahydrofuran	0.079	0.075	5.1	94	0.00
39	S	Dibromofluoromethane	0.234	0.239	-2.1	102	0.00
40	TP	1,1,1-Trichloroethane	0.304	0.321	-5.6	106	0.00
42	TP	2-Butanone	0.105	0.098	6.7	95	0.00
43	TP	1,1-Dichloropropene	0.256	0.286	-11.7	112	0.00
45	TP	Benzene	0.792	0.833	-5.2	101	0.00
46	TP	tert-Amyl methyl ether	0.598	0.569	4.8	94	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.312	0.314	-0.6	101	0.00
48	T	1,2-Dichloroethane	0.306	0.319	-4.2	102	0.00
51	TP	Methyl cyclohexane	0.356	0.371	-4.2	114	0.00
52	TP	Trichloroethene	0.199	0.216	-8.5	105	0.00
54	TP	Dibromomethane	0.115	0.119	-3.5	101	0.00
55	TP	1,2-Dichloropropane	0.239	0.252	-5.4	103	0.00
57	TP	2-Chloroethyl vinyl ether	0.154	0.137	11.0	89	0.00
58	TP	Bromodichloromethane	0.283	0.287#	-1.4	99	0.00
61	TP	1,4-Dioxane	0.00192	0.00183#	4.7	96	0.00
62	TP	cis-1,3-Dichloropropene	0.319	0.344	-7.8	103	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
64	S	Toluene-d8	1.317	1.314	0.2	103	0.00
65	TP	Toluene	0.689	0.694	-0.7	102	0.00
66	TP	4-Methyl-2-pentanone	0.117	0.112	4.3	94	0.00
67	TP	Tetrachloroethene	0.293	0.316	-7.8	109	0.00
69	TP	trans-1,3-Dichloropropene	0.388	0.396	-2.1	100	0.00
71	TP	Ethyl methacrylate	0.369	0.356	3.5	96	0.00
72	TP	1,1,2-Trichloroethane	0.193	0.197#	-2.1	100	0.00
73	TP	Chlorodibromomethane	0.270	0.268	0.7	99	0.00
74	TP	1,3-Dichloropropane	0.408	0.422	-3.4	102	0.00
75	TP	1,2-Dibromoethane	0.228	0.226	0.9	99	0.00
77	TP	2-Hexanone	0.229	0.212	7.4	94	0.00
78	TP	Chlorobenzene	0.734	0.773	-5.3	105	0.00
79	TP	Ethylbenzene	1.335	1.426	-6.8	105	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.269	0.286	-6.3	104	0.00
81	TP	p/m Xylene	0.509	0.545	-7.1	104	0.00
82	TP	o Xylene	0.497	0.524	-5.4	102	0.00
83	TP	Styrene	0.816	0.883	-8.2	104	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
85	TP	Bromoform	0.325	0.321	1.2	101	0.00
87	TP	Isopropylbenzene	2.395	2.542	-6.1	108	0.00
88	S	4-Bromofluorobenzene	0.924	0.917	0.8	103	0.00
89	TP	Bromobenzene	0.605	0.612	-1.2	102	0.00
90	TP	n-Propylbenzene	2.861	3.016	-5.4	106	0.00
91	TP	1,4-Dichlorobutane	1.046	0.991	5.3	96	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.508	0.472	7.1	99	0.00
93	TP	4-Ethyltoluene	2.321	2.520	-8.6	108	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94 TP	2-Chlorotoluene	1.683	1.751	-4.0	103	0.00
95 TP	1,3,5-Trimethylbenzene	2.036	2.143	-5.3	104	0.00
96 TP	1,2,3-Trichloropropane	0.415	0.417	-0.5	100	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.204	0.171	16.2	87	0.00
98 TP	4-Chlorotoluene	1.763	1.845	-4.7	105	0.00
99 TP	tert-Butylbenzene	1.712	1.823	-6.5	107	0.00
102 TP	1,2,4-Trimethylbenzene	2.033	2.161	-6.3	105	0.00
103 TP	sec-Butylbenzene	2.538	2.673	-5.3	107	0.00
104 TP	p-Isopropyltoluene	2.139	2.259	-5.6	107	0.00
105 TP	1,3-Dichlorobenzene	1.117	1.178	-5.5	105	0.00
106 TP	1,4-Dichlorobenzene	1.116	1.167	-4.6	105	0.00
107 TP	p-Diethylbenzene	1.261	1.249	1.0	100	0.00
108 TP	n-Butylbenzene	1.842	2.034	-10.4	113	0.00
109 TP	1,2-Dichlorobenzene	1.074	1.130	-5.2	105	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.046	2.063	-0.8	101	0.00
111 TP	1,2-Dibromo-3-chloropropane *	10.000	8.973	10.3	97	0.00
112 TP	1,3,5-Trichlorobenzene	0.853	0.845	0.9	99	0.00
113 TP	Hexachlorobutadiene	0.283	0.291	-2.8	106	0.00
114 TP	1,2,4-Trichlorobenzene	0.770	0.781	-1.4	103	0.00
115 TP	Naphthalene	1.697	1.637	3.5	100	0.00
116 TP	1,2,3-Trichlorobenzene	0.707	0.697	1.4	100	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 4 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.964	96	208493	10.000	ug/L	0.00
Standard Area 1 = 204581			Recovery = 101.91%			
63) Chlorobenzene-d5	9.497	117	153829	10.000	ug/L	0.00
Standard Area 1 = 147756			Recovery = 104.11%			
84) 1,4-Dichlorobenzene-d4	12.205	152	87716	10.000	ug/L	0.00
Standard Area 1 = 84505			Recovery = 103.80%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.158	113	49879	10.219	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.19%			
47) 1,2-Dichloroethane-d4	5.683	65	65490	10.056	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.56%			
64) Toluene-d8	7.654	98	202159	9.977	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.77%			
88) 4-Bromofluorobenzene	10.995	95	80452	9.929	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.29%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	38360	8.206	ug/L	95
3) Chloromethane	1.784	50	58239	11.190	ug/L	97
4) Vinyl chloride	1.854	62	49740	10.255	ug/L	91
5) Bromomethane	2.163	94	13377	9.312	ug/L	95
6) Chloroethane	2.269	64	31590	10.788	ug/L	91
7) Trichlorofluoromethane	2.417	101	60700	10.891	ug/L	98
8) Ethyl ether	2.713	74	22105	10.072	ug/L	74
10) 1,1-Dichloroethene	2.905	96	33298	9.972	ug/L	79
11) Carbon disulfide	2.930	76	94536	9.176	ug/L	95
12) Freon-113	2.941	101	37812	10.866	ug/L	89
13) Iodomethane	3.039	142	11076	5.388	ug/L	89
14) Acrolein	3.223	56	6767	7.176	ug/L #	62
15) Methylene chloride	3.454	84	42181	10.015	ug/L	89
17) Acetone	3.496	43	15145	9.901	ug/L	98
18) trans-1,2-Dichloroethene	3.611	96	37651	10.490	ug/L	77
19) Methyl acetate	3.619	43	31485	8.829	ug/L	96
21) Methyl tert-butyl ether	3.708	73	116912	8.735	ug/L	96
22) tert-Butyl alcohol	3.803	59	23155	48.488	ug/L #	68
24) Diisopropyl ether	4.068	45	192295	10.030	ug/L	91
25) 1,1-Dichloroethane	4.193	63	90833	10.783	ug/L	96
26) Halothane	4.252	117	32152	11.107	ug/L	97

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.235	53	15982	9.093	ug/L		86
28) Ethyl tert-butyl ether	4.417	59	165609	9.954	ug/L		98
29) Vinyl acetate	4.428	43	105450	8.264	ug/L	#	94
30) cis-1,2-Dichloroethene	4.715	96	43745	10.168	ug/L		93
31) 2,2-Dichloropropane	4.818	77	51622	9.157	ug/L		95
33) Bromochloromethane	4.905	128	19089	10.115	ug/L		83
34) Cyclohexane	4.913	56	103732	10.523	ug/L		95
35) Chloroform	4.980	83	72175	10.336	ug/L		99
36) Ethyl acetate	5.086	43	51304	9.621	ug/L	#	92
37) Carbon tetrachloride	5.111	117	59745	11.201	ug/L		97
38) Tetrahydrofuran	5.130	42	15553M1	9.397	ug/L		
40) 1,1,1-Trichloroethane	5.175	97	66968	10.560	ug/L	#	76
42) 2-Butanone	5.267	43	20338	9.305	ug/L	#	85
43) 1,1-Dichloropropene	5.295	75	59608	11.165	ug/L		96
45) Benzene	5.546	78	173673	10.516	ug/L		93
46) tert-Amyl methyl ether	5.660	73	118656	9.521	ug/L		98
48) 1,2-Dichloroethane	5.749	62	66413	10.419	ug/L		96
51) Methyl cyclohexane	6.134	83	77419	10.431	ug/L		86
52) Trichloroethene	6.140	95	45095	10.860	ug/L		97
54) Dibromomethane	6.578	93	24744	10.345	ug/L	#	84
55) 1,2-Dichloropropane	6.684	63	52520	10.534	ug/L		98
57) 2-Chloroethyl vinyl ether	7.381	63	28542	8.897	ug/L		91
58) Bromodichloromethane	6.762	83	59854	10.131	ug/L		94
61) 1,4-Dioxane	6.965	88	19108	477.556	ug/L		87
62) cis-1,3-Dichloropropene	7.448	75	71821	10.797	ug/L		95
65) Toluene	7.715	92	106822	10.085	ug/L		91
66) 4-Methyl-2-pentanone	8.148	58	17267	9.558	ug/L	#	91
67) Tetrachloroethene	8.162	166	48681	10.819	ug/L		96
69) trans-1,3-Dichloropropene	8.195	75	60906	10.213	ug/L		98
71) Ethyl methacrylate	8.385	69	54689	9.633	ug/L		92
72) 1,1,2-Trichloroethane	8.379	83	30235	10.167	ug/L		99
73) Chlorodibromomethane	8.591	129	41173	9.901	ug/L		97
74) 1,3-Dichloropropane	8.705	76	64959	10.345	ug/L		97
75) 1,2-Dibromoethane	8.867	107	34815	9.906	ug/L		88
77) 2-Hexanone	9.152	43	32606	9.263	ug/L		97
78) Chlorobenzene	9.520	112	118893	10.534	ug/L	#	80
79) Ethylbenzene	9.556	91	219382	10.686	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.603	131	44053	10.647	ug/L		99
81) p/m Xylene	9.746	106	167676	21.427	ug/L		98
82) o Xylene	10.287	106	161242	21.071	ug/L		96

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240731N-ICAL\VE240731N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.354	104	271514	21.640	ug/L		99
85) Bromoform	10.381	173	28158	9.866	ug/L		93
87) Isopropylbenzene	10.671	105	223005	10.617	ug/L		98
89) Bromobenzene	11.106	156	53699	10.126	ug/L		97
90) n-Propylbenzene	11.151	91	264513	10.539	ug/L		97
91) 1,4-Dichlorobutane	11.168	55	86888	9.472	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.243	83	41382	9.285	ug/L		99
93) 4-Ethyltoluene	11.279	105	221024	10.855	ug/L		100
94) 2-Chlorotoluene	11.318	91	153587	10.402	ug/L		97
95) 1,3,5-Trimethylbenzene	11.377	105	188009	10.527	ug/L		98
96) 1,2,3-Trichloropropane	11.380	75	36549	10.052	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.433	53	14957	8.371	ug/L	#	85
98) 4-Chlorotoluene	11.502	91	161865	10.465	ug/L		99
99) tert-Butylbenzene	11.720	119	159878	10.649	ug/L		97
102) 1,2,4-Trimethylbenzene	11.795	105	189585	10.634	ug/L		96
103) sec-Butylbenzene	11.910	105	234466	10.531	ug/L		99
104) p-Isopropyltoluene	12.066	119	198149	10.562	ug/L		96
105) 1,3-Dichlorobenzene	12.127	146	103303	10.548	ug/L		96
106) 1,4-Dichlorobenzene	12.222	146	102337	10.454	ug/L		99
107) p-Diethylbenzene	12.439	119	109518	9.900	ug/L		96
108) n-Butylbenzene	12.495	91	178383	11.041	ug/L		98
109) 1,2-Dichlorobenzene	12.646	146	99100	10.517	ug/L		97
110) 1,2,4,5-Tetramethylben...	13.231	119	180976	10.082	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.427	155	7500	8.973	ug/L		85
112) 1,3,5-Trichlorobenzene	13.457	180	74121	9.907	ug/L		92
113) Hexachlorobutadiene	14.032	225	25535	10.299	ug/L		93
114) 1,2,4-Trichlorobenzene	14.054	180	68475	10.138	ug/L		98
115) Naphthalene	14.347	128	143556	9.643	ug/L		100
116) 1,2,3-Trichlorobenzene	14.517	180	61106	9.847	ug/L		94

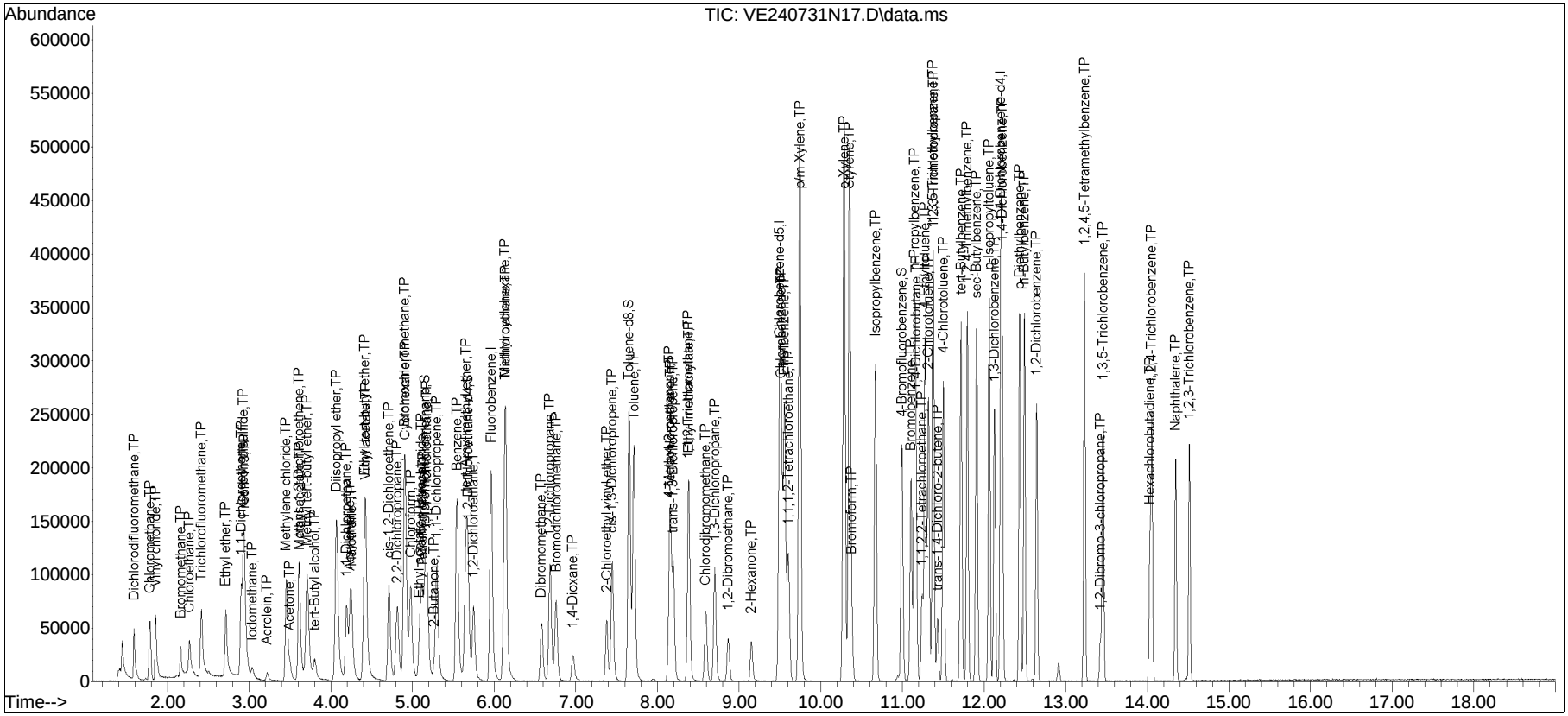
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240731N-ICAL\
Data File : VE240731N17.D
Acq On : 1 Aug 2024 12:28 am
Operator : ELAINE:MKS
Sample : C8260STD10PPB
Misc : WG1954249
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 01 12:14:14 2024
Quant Method : K:\Elaine\2024\240731N-ICAL\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus DioxL\VE240731N08.D•

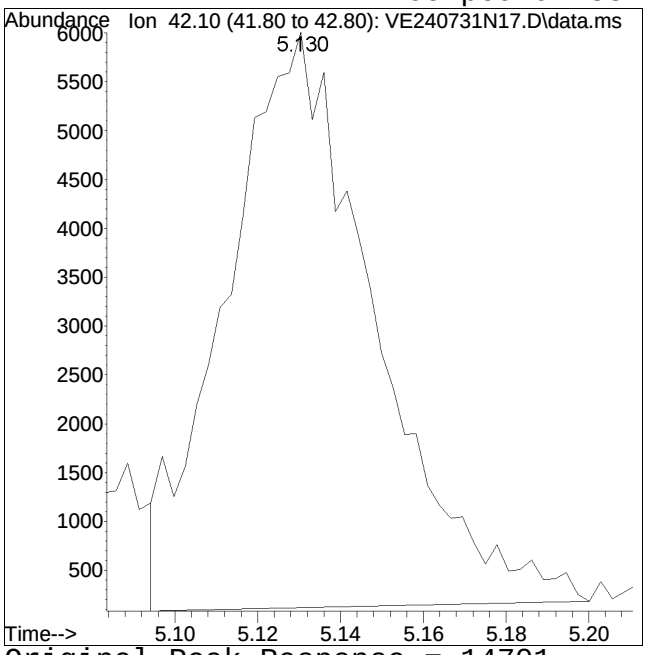


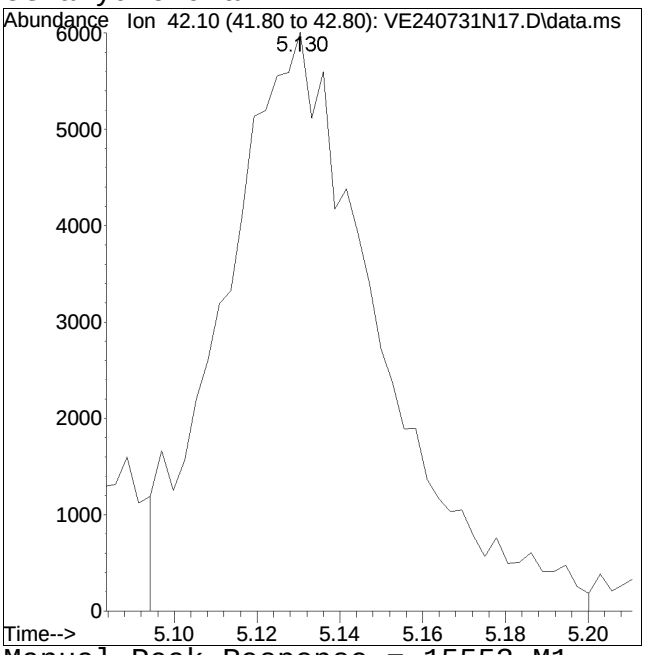
Manual Integration Report

Data Path : K:\Elaine\2024\240731N-ICAQ
Data File : VE240731N17.D
Date Inj'd : 8/1/2024 12:28 am
Sample : C8260STD10PPB

Method : Elaine_240731N_8260.m
Operator : ELAINE:MKS
Instrument : Elaine
Quant Date : 8/1/2024 12:13 pm

Compound #38: Tetrahydrofuran





Original Peak Response = 14701 Manual Peak Response = 15553 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Relative Error Report Elaine

Method Path : K:\Elaine\2024\240731N-ICAL\
Method File : Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
5	TP Bromomethane	Q	ug/L	10.0	8.517	-14.8	0.50	0.634	26.8
13	TP Iodomethane	Q	ug/L	10.0	7.698	-23.0	2.00	2.507	25.4
111	TP 1,2-Dibromo-3-chloropropane	L	ug/L	10.0	9.592	-4.1	0.50	0.540	8.0

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
5	TP Bromomethane	Quadratic	0.998253	0.001690	0.069754	-0.00225974
13	TP Iodomethane	Quadratic	0.997800	0.002010	0.144116	-0.0251075
111	TP 1,2-Dibromo-3-chloropropane	Linear	0.998896	0.000000	0.0984884	-0.00286624

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 08/19/24 06:33	
Lab File ID	: VE240819A02	**Init. Calib. Date(s)**	: 07/31/24	07/31/24
Sample No	: WG1960966-2	**Init. Calib. Times**	: 18:35	22:22
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	90	0
Dichlorodifluoromethane	0.224	0.189	-	15.6	20	77	0
Chloromethane	0.25	0.251	-	-0.4	20	86	0
Vinyl chloride	0.233	0.242	-	-3.9	20	90	0
Bromomethane	10	13.407	-	-34.1*	20	146	0
Chloroethane	0.14	0.166	-	-18.6	20	98	0
Trichlorofluoromethane	0.267	0.294	-	-10.1	20	104	0
Ethyl ether	0.105	0.106	-	-1	20	90	-.01
1,1-Dichloroethene	0.16	0.158	-	1.3	20	92	0
Carbon disulfide	0.494	0.499	-	-1	20	90	0
Freon-113	0.167	0.165	-	1.2	20	92	0
Acrolein	0.045	0.035	-	22.2*	20	72	0
Methylene chloride	0.202	0.199	-	1.5	20	88	0
Acetone	0.073	0.052	-	28.8*	20	66	0
trans-1,2-Dichloroethene	0.172	0.183	-	-6.4	20	93	0
Methyl acetate	0.171	0.124	-	27.5*	20	68	0
Methyl tert-butyl ether	0.642	0.576	-	10.3	20	77	0
tert-Butyl alcohol	0.023	0.014	-	39.1*	20	53	0
Diisopropyl ether	0.92	0.825	-	10.3	20	77	0
1,1-Dichloroethane	0.404	0.424	-	-5	20	90	0
Halothane	0.139	0.149	-	-7.2	20	95	0
Acrylonitrile	0.084	0.066	-	21.4*	20	67	0
Ethyl tert-butyl ether	0.798	0.717	-	10.2	20	77	0
Vinyl acetate	0.612	0.575	-	6	20	93	0
cis-1,2-Dichloroethene	0.206	0.214	-	-3.9	20	91	0
2,2-Dichloropropane	0.27	0.297	-	-10	20	99	0
Bromochloromethane	0.091	0.097*	-	-6.6	20	92	0
Cyclohexane	0.473	0.44	-	7	20	88	0
Chloroform	0.335	0.347	-	-3.6	20	91	0
Ethyl acetate	0.256	0.182	-	28.9*	20	63	0
Carbon tetrachloride	0.256	0.283	-	-10.5	20	98	0
Tetrahydrofuran	0.079	0.058	-	26.6*	20	65	0
Dibromofluoromethane	0.234	0.24	-	-2.6	20	91	0
1,1,1-Trichloroethane	0.304	0.318	-	-4.6	20	93	0
2-Butanone	0.105	0.071	-	32.4*	20	61	-.01
1,1-Dichloropropene	0.256	0.269	-	-5.1	20	93	0
Benzene	0.792	0.839	-	-5.9	20	90	0
tert-Amyl methyl ether	0.598	0.531	-	11.2	20	78	-.01
1,2-Dichloroethane-d4	0.312	0.296	-	5.1	20	85	0
1,2-Dichloroethane	0.306	0.309	-	-1	20	87	0
Methyl cyclohexane	0.356	0.337	-	5.3	20	91	0
Trichloroethene	0.199	0.213	-	-7	20	91	0
Dibromomethane	0.115	0.118	-	-2.6	20	89	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 08/19/24 06:33		
Lab File ID	: VE240819A02	**Init. Calib. Date(s)**	: 07/31/24	07/31/24	
Sample No	: WG1960966-2	**Init. Calib. Times**	: 18:35	22:22	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.239	0.239	-	0	20	87	0
Bromodichloromethane	0.283	0.296*	-	-4.6	20	91	0
1,4-Dioxane	0.00192	0.00147*	-	23.4*	20	68	-.01
cis-1,3-Dichloropropene	0.319	0.324	-	-1.6	20	86	0
Chlorobenzene-d5	1	1	-	0	20	92	0
Toluene-d8	1.317	1.293	-	1.8	20	90	0
Toluene	0.689	0.714	-	-3.6	20	92	0
4-Methyl-2-pentanone	0.117	0.084	-	28.2*	20	62	0
Tetrachloroethene	0.293	0.326	-	-11.3	20	99	0
trans-1,3-Dichloropropene	0.388	0.376	-	3.1	20	83	0
Ethyl methacrylate	0.369	0.301	-	18.4	20	72	0
1,1,2-Trichloroethane	0.193	0.189*	-	2.1	20	85	0
Chlorodibromomethane	0.27	0.264	-	2.2	20	86	0
1,3-Dichloropropane	0.408	0.399	-	2.2	20	85	0
1,2-Dibromoethane	0.228	0.209	-	8.3	20	81	0
2-Hexanone	0.229	0.143	-	37.6*	20	56	0
Chlorobenzene	0.734	0.779	-	-6.1	20	93	0
Ethylbenzene	1.335	1.452	-	-8.8	20	95	0
1,1,1,2-Tetrachloroethane	0.269	0.284	-	-5.6	20	91	0
p/m Xylene	0.509	0.567	-	-11.4	20	95	0
o Xylene	0.497	0.545	-	-9.7	20	94	0
Styrene	0.816	0.901	-	-10.4	20	93	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	96	0
Bromoform	0.325	0.286	-	12	20	83	0
Isopropylbenzene	2.395	2.449	-	-2.3	20	96	0
4-Bromofluorobenzene	0.924	0.822	-	11	20	85	0
Bromobenzene	0.605	0.614	-	-1.5	20	95	0
n-Propylbenzene	2.861	2.957	-	-3.4	20	97	0
1,4-Dichlorobutane	1.046	0.909	-	13.1	20	82	0
1,1,2,2-Tetrachloroethane	0.508	0.454	-	10.6	20	89	0
4-Ethyltoluene	2.321	2.369	-	-2.1	20	94	0
2-Chlorotoluene	1.683	1.72	-	-2.2	20	94	0
1,3,5-Trimethylbenzene	2.036	2.104	-	-3.3	20	94	0
1,2,3-Trichloropropane	0.415	0.371	-	10.6	20	83	0
trans-1,4-Dichloro-2-buten	0.204	0.169	-	17.2	20	80	0
4-Chlorotoluene	1.763	1.771	-	-0.5	20	93	0
tert-Butylbenzene	1.712	1.743	-	-1.8	20	95	0
1,2,4-Trimethylbenzene	2.033	2.065	-	-1.6	20	93	0
sec-Butylbenzene	2.538	2.538	-	0	20	95	0
p-Isopropyltoluene	2.139	2.157	-	-0.8	20	95	0
1,3-Dichlorobenzene	1.117	1.172	-	-4.9	20	96	0
1,4-Dichlorobenzene	1.116	1.156	-	-3.6	20	96	0
p-Diethylbenzene	1.261	1.237	-	1.9	20	91	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 08/19/24 06:33	
Lab File ID	: VE240819A02	**Init. Calib. Date(s)**	: 07/31/24	07/31/24
Sample No	: WG1960966-2	**Init. Calib. Times**	: 18:35	22:22
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.842	1.875	-	-1.8	20	97	0
1,2-Dichlorobenzene	1.074	1.107	-	-3.1	20	96	0
1,2,4,5-Tetramethylbenzene	2.046	1.903	-	7	20	86	0
1,2-Dibromo-3-chloropropan	10	6.762	-	32.4*	20	67	0
1,3,5-Trichlorobenzene	0.853	0.831	-	2.6	20	90	0
Hexachlorobutadiene	0.283	0.288	-	-1.8	20	98	0
1,2,4-Trichlorobenzene	0.77	0.705	-	8.4	20	86	0
Naphthalene	1.697	1.309	-	22.9*	20	74	0
1,2,3-Trichlorobenzene	0.707	0.595	-	15.8	20	79	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-2
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	90	0.00
2	TP	Dichlorodifluoromethane	0.224	0.189	15.6	77	0.00
3	TP	Chloromethane	0.250	0.251	-0.4	86	0.00
4	TP	Vinyl chloride	0.233	0.242	-3.9	90	0.00
5	TP	Bromomethane	* 10.000	13.407	-34.1#	146	0.00
6	TP	Chloroethane	0.140	0.166	-18.6	98	0.00
7	TP	Trichlorofluoromethane	0.267	0.294	-10.1	104	0.00
8	TP	Ethyl ether	0.105	0.106	-1.0	90	-0.01
10	TP	1,1-Dichloroethene	0.160	0.158	1.3	92	0.00
11	TP	Carbon disulfide	0.494	0.499	-1.0	90	0.00
12	TP	Freon-113	0.167	0.165	1.2	92	0.00
14	TP	Acrolein	0.045	0.035	22.2#	72	0.00
15	TP	Methylene chloride	0.202	0.199	1.5	88	0.00
17	TP	Acetone	0.073	0.052	28.8#	66	0.00
18	TP	trans-1,2-Dichloroethene	0.172	0.183	-6.4	93	0.00
19	TP	Methyl acetate	0.171	0.124	27.5#	68	0.00
21	TP	Methyl tert-butyl ether	0.642	0.576	10.3	77	0.00
22	TP	tert-Butyl alcohol	0.023	0.014	39.1#	53	0.00
24	TP	Diisopropyl ether	0.920	0.825	10.3	77	0.00
25	TP	1,1-Dichloroethane	0.404	0.424	-5.0	90	0.00
26	TP	Halothane	0.139	0.149	-7.2	95	0.00
27	TP	Acrylonitrile	0.084	0.066	21.4#	67	0.00
28	TP	Ethyl tert-butyl ether	0.798	0.717	10.2	77	0.00
29	TP	Vinyl acetate	0.612	0.575	6.0	93	0.00
30	TP	cis-1,2-Dichloroethene	0.206	0.214	-3.9	91	0.00
31	TP	2,2-Dichloropropane	0.270	0.297	-10.0	99	0.00
33	TP	Bromochloromethane	0.091	0.097#	-6.6	92	0.00
34	TP	Cyclohexane	0.473	0.440	7.0	88	0.00
35	TP	Chloroform	0.335	0.347	-3.6	91	0.00
36	TP	Ethyl acetate	0.256	0.182	28.9#	63	0.00
37	TP	Carbon tetrachloride	0.256	0.283	-10.5	98	0.00
38	TP	Tetrahydrofuran	0.079	0.058	26.6#	65	0.00
39	S	Dibromofluoromethane	0.234	0.240	-2.6	91	0.00
40	TP	1,1,1-Trichloroethane	0.304	0.318	-4.6	93	0.00
42	TP	2-Butanone	0.105	0.071	32.4#	61	-0.01
43	TP	1,1-Dichloropropene	0.256	0.269	-5.1	93	0.00
45	TP	Benzene	0.792	0.839	-5.9	90	0.00
46	TP	tert-Amyl methyl ether	0.598	0.531	11.2	78	-0.01
47	S	1,2-Dichloroethane-d4	0.312	0.296	5.1	85	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-2
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	T	1,2-Dichloroethane	0.306	0.309	-1.0	87	0.00
51	TP	Methyl cyclohexane	0.356	0.337	5.3	91	0.00
52	TP	Trichloroethene	0.199	0.213	-7.0	91	0.00
54	TP	Dibromomethane	0.115	0.118	-2.6	89	0.00
55	TP	1,2-Dichloropropane	0.239	0.239	0.0	87	0.00
58	TP	Bromodichloromethane	0.283	0.296#	-4.6	91	0.00
61	TP	1,4-Dioxane	0.00192	0.00147#	23.4#	68	-0.01
62	TP	cis-1,3-Dichloropropene	0.319	0.324	-1.6	86	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
64	S	Toluene-d8	1.317	1.293	1.8	90	0.00
65	TP	Toluene	0.689	0.714	-3.6	92	0.00
66	TP	4-Methyl-2-pentanone	0.117	0.084	28.2#	62	0.00
67	TP	Tetrachloroethene	0.293	0.326	-11.3	99	0.00
69	TP	trans-1,3-Dichloropropene	0.388	0.376	3.1	83	0.00
71	TP	Ethyl methacrylate	0.369	0.301	18.4	72	0.00
72	TP	1,1,2-Trichloroethane	0.193	0.189#	2.1	85	0.00
73	TP	Chlorodibromomethane	0.270	0.264	2.2	86	0.00
74	TP	1,3-Dichloropropane	0.408	0.399	2.2	85	0.00
75	TP	1,2-Dibromoethane	0.228	0.209	8.3	81	0.00
77	TP	2-Hexanone	0.229	0.143	37.6#	56	0.00
78	TP	Chlorobenzene	0.734	0.779	-6.1	93	0.00
79	TP	Ethylbenzene	1.335	1.452	-8.8	95	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.269	0.284	-5.6	91	0.00
81	TP	p/m Xylene	0.509	0.567	-11.4	95	0.00
82	TP	o Xylene	0.497	0.545	-9.7	94	0.00
83	TP	Styrene	0.816	0.901	-10.4	93	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
85	TP	Bromoform	0.325	0.286	12.0	83	0.00
87	TP	Isopropylbenzene	2.395	2.449	-2.3	96	0.00
88	S	4-Bromofluorobenzene	0.924	0.822	11.0	85	0.00
89	TP	Bromobenzene	0.605	0.614	-1.5	95	0.00
90	TP	n-Propylbenzene	2.861	2.957	-3.4	97	0.00
91	TP	1,4-Dichlorobutane	1.046	0.909	13.1	82	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.508	0.454	10.6	89	0.00
93	TP	4-Ethyltoluene	2.321	2.369	-2.1	94	0.00
94	TP	2-Chlorotoluene	1.683	1.720	-2.2	94	0.00
95	TP	1,3,5-Trimethylbenzene	2.036	2.104	-3.3	94	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-2
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 TP	1,2,3-Trichloropropane	0.415	0.371	10.6	83	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.204	0.169	17.2	80	0.00
98 TP	4-Chlorotoluene	1.763	1.771	-0.5	93	0.00
99 TP	tert-Butylbenzene	1.712	1.743	-1.8	95	0.00
102 TP	1,2,4-Trimethylbenzene	2.033	2.065	-1.6	93	0.00
103 TP	sec-Butylbenzene	2.538	2.538	0.0	95	0.00
104 TP	p-Isopropyltoluene	2.139	2.157	-0.8	95	0.00
105 TP	1,3-Dichlorobenzene	1.117	1.172	-4.9	96	0.00
106 TP	1,4-Dichlorobenzene	1.116	1.156	-3.6	96	0.00
107 TP	p-Diethylbenzene	1.261	1.237	1.9	91	0.00
108 TP	n-Butylbenzene	1.842	1.875	-1.8	97	0.00
109 TP	1,2-Dichlorobenzene	1.074	1.107	-3.1	96	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.046	1.903	7.0	86	0.00
111 TP	1,2-Dibromo-3-chloropropane *	10.000	6.762	32.4#	67	0.00
112 TP	1,3,5-Trichlorobenzene	0.853	0.831	2.6	90	0.00
113 TP	Hexachlorobutadiene	0.283	0.288	-1.8	98	0.00
114 TP	1,2,4-Trichlorobenzene	0.770	0.705	8.4	86	0.00
115 TP	Naphthalene	1.697	1.309	22.9#	74	0.00
116 TP	1,2,3-Trichlorobenzene	0.707	0.595	15.8	79	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 4 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-2
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.959	96	184826	10.000	ug/L	0.00
Standard Area 1 = 184826			Recovery = 100.00%			
63) Chlorobenzene-d5	9.492	117	135622	10.000	ug/L	0.00
Standard Area 1 = 135622			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.202	152	81358	10.000	ug/L	0.00
Standard Area 1 = 81358			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.156	113	44381	10.257	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.57%			
47) 1,2-Dichloroethane-d4	5.674	65	54703	9.475	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.75%			
64) Toluene-d8	7.651	98	175365	9.816	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.16%			
88) 4-Bromofluorobenzene	10.992	95	66887	8.900	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	34870	8.415	ug/L	95
3) Chloromethane	1.781	50	46448	10.067	ug/L	95
4) Vinyl chloride	1.854	62	44652	10.385	ug/L	93
5) Bromomethane	2.163	94	17428	13.407	ug/L	94
6) Chloroethane	2.278	64	30695	11.825	ug/L	86
7) Trichlorofluoromethane	2.417	101	54279	10.986	ug/L	93
8) Ethyl ether	2.710	74	19565	10.056	ug/L	78
10) 1,1-Dichloroethene	2.905	96	29168	9.854	ug/L #	77
11) Carbon disulfide	2.933	76	92300	10.106	ug/L	99
12) Freon-113	2.947	101	30502	9.888	ug/L	83
14) Acrolein	3.220	56	6467M1	7.736	ug/L	
15) Methylene chloride	3.457	84	36739	9.840	ug/L	90
17) Acetone	3.496	43	9561	7.050	ug/L #	73
18) trans-1,2-Dichloroethene	3.613	96	33810	10.626	ug/L	83
19) Methyl acetate	3.619	43	22889	7.241	ug/L	98
21) Methyl tert-butyl ether	3.708	73	106419	8.970	ug/L	95
22) tert-Butyl alcohol	3.800	59	12814	30.269	ug/L #	65
24) Diisopropyl ether	4.065	45	152470	8.971	ug/L	96
25) 1,1-Dichloroethane	4.193	63	78315	10.488	ug/L	98
26) Halothane	4.249	117	27477	10.708	ug/L	95
27) Acrylonitrile	4.235	53	12133	7.787	ug/L #	84

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-2
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Ethyl tert-butyl ether	4.414	59	132505	8.984	ug/L		89
29) Vinyl acetate	4.422	43	106218	9.390	ug/L		96
30) cis-1,2-Dichloroethene	4.709	96	39508	10.359	ug/L		96
31) 2,2-Dichloropropane	4.813	77	54824	10.970	ug/L		89
33) Bromochloromethane	4.902	128	18020	10.771	ug/L		88
34) Cyclohexane	4.907	56	81345	9.308	ug/L		100
35) Chloroform	4.977	83	64149	10.363	ug/L		97
36) Ethyl acetate	5.080	43	33701	7.129	ug/L	#	94
37) Carbon tetrachloride	5.108	117	52301	11.061	ug/L		96
38) Tetrahydrofuran	5.125	42	10746	7.324	ug/L	#	64
40) 1,1,1-Trichloroethane	5.178	97	58766	10.453	ug/L		95
42) 2-Butanone	5.261	43	13037	6.728	ug/L	#	79
43) 1,1-Dichloropropene	5.295	75	49711	10.503	ug/L		95
45) Benzene	5.540	78	155057	10.591	ug/L		94
46) tert-Amyl methyl ether	5.649	73	98175	8.886	ug/L		98
48) 1,2-Dichloroethane	5.747	62	57075	10.101	ug/L		99
51) Methyl cyclohexane	6.129	83	62340	9.475	ug/L		94
52) Trichloroethene	6.134	95	39305	10.678	ug/L		96
54) Dibromomethane	6.578	93	21822	10.292	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	44211	10.003	ug/L		98
58) Bromodichloromethane	6.759	83	54622	10.429	ug/L		94
61) 1,4-Dioxane	6.960	88	13619	383.957	ug/L		90
62) cis-1,3-Dichloropropene	7.442	75	59915	10.161	ug/L		94
65) Toluene	7.707	92	96837	10.369	ug/L		91
66) 4-Methyl-2-pentanone	8.145	58	11427M3	7.174	ug/L		
67) Tetrachloroethene	8.156	166	44182	11.137	ug/L		97
69) trans-1,3-Dichloropropene	8.192	75	50951	9.691	ug/L		98
71) Ethyl methacrylate	8.382	69	40884	8.168	ug/L		94
72) 1,1,2-Trichloroethane	8.382	83	25585	9.758	ug/L		99
73) Chlorodibromomethane	8.588	129	35804	9.766	ug/L		97
74) 1,3-Dichloropropane	8.697	76	54082	9.769	ug/L		98
75) 1,2-Dibromoethane	8.864	107	28410	9.169	ug/L		89
77) 2-Hexanone	9.146	43	19409	6.254	ug/L	#	95
78) Chlorobenzene	9.511	112	105712	10.624	ug/L	#	82
79) Ethylbenzene	9.550	91	196914	10.880	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.598	131	38579	10.576	ug/L		96
81) p/m Xylene	9.737	106	153799	22.292	ug/L		99
82) o Xylene	10.278	106	147960	21.931	ug/L		92
83) Styrene	10.348	104	244415	22.096	ug/L		99
85) Bromoform	10.376	173	23290	8.798	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-2
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
87) Isopropylbenzene	10.666	105	199229	10.226	ug/L		96
89) Bromobenzene	11.104	156	49937	10.153	ug/L		99
90) n-Propylbenzene	11.148	91	240588	10.335	ug/L		96
91) 1,4-Dichlorobutane	11.162	55	73988	8.696	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.238	83	36896	8.925	ug/L		98
93) 4-Ethyltoluene	11.274	105	192764	10.207	ug/L		98
94) 2-Chlorotoluene	11.316	91	139956	10.219	ug/L		96
95) 1,3,5-Trimethylbenzene	11.374	105	171191	10.334	ug/L		99
96) 1,2,3-Trichloropropane	11.374	75	30171	8.946	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.427	53	13745	8.294	ug/L	#	84
98) 4-Chlorotoluene	11.500	91	144067	10.042	ug/L		99
99) tert-Butylbenzene	11.717	119	141768	10.180	ug/L	#	96
102) 1,2,4-Trimethylbenzene	11.792	105	168000	10.160	ug/L		94
103) sec-Butylbenzene	11.904	105	206454	9.997	ug/L		97
104) p-Isopropyltoluene	12.060	119	175468	10.084	ug/L		95
105) 1,3-Dichlorobenzene	12.124	146	95315	10.493	ug/L		95
106) 1,4-Dichlorobenzene	12.219	146	94072	10.360	ug/L		99
107) p-Diethylbenzene	12.434	119	100629	9.807	ug/L		95
108) n-Butylbenzene	12.492	91	152532	10.179	ug/L		98
109) 1,2-Dichlorobenzene	12.640	146	90027	10.301	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.229	119	154816	9.298	ug/L		94
111) 1,2-Dibromo-3-chloropr...	13.424	155	5185	6.762	ug/L		82
112) 1,3,5-Trichlorobenzene	13.457	180	67570	9.738	ug/L		93
113) Hexachlorobutadiene	14.029	225	23443	10.194	ug/L		92
114) 1,2,4-Trichlorobenzene	14.051	180	57381	9.160	ug/L		99
115) Naphthalene	14.344	128	106502	7.713	ug/L		100
116) 1,2,3-Trichlorobenzene	14.514	180	48377	8.405	ug/L		95

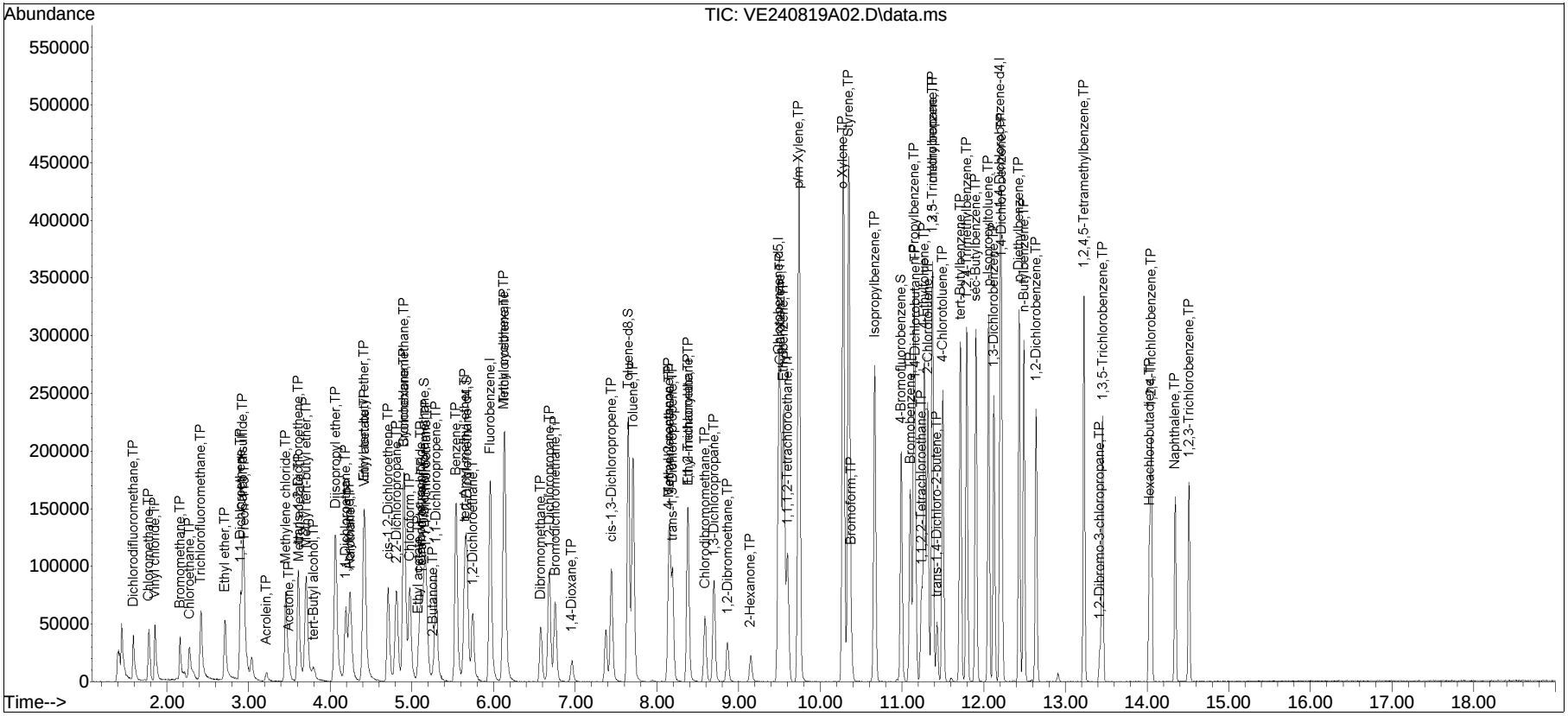
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-2
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

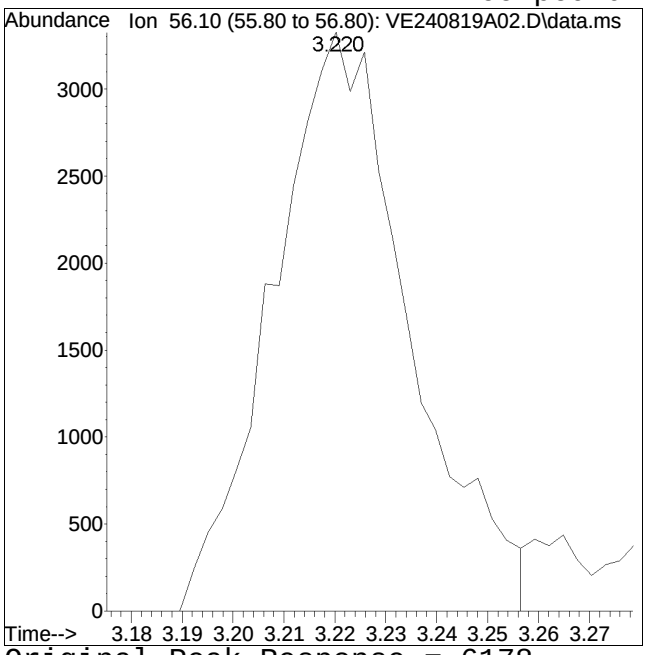
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO•

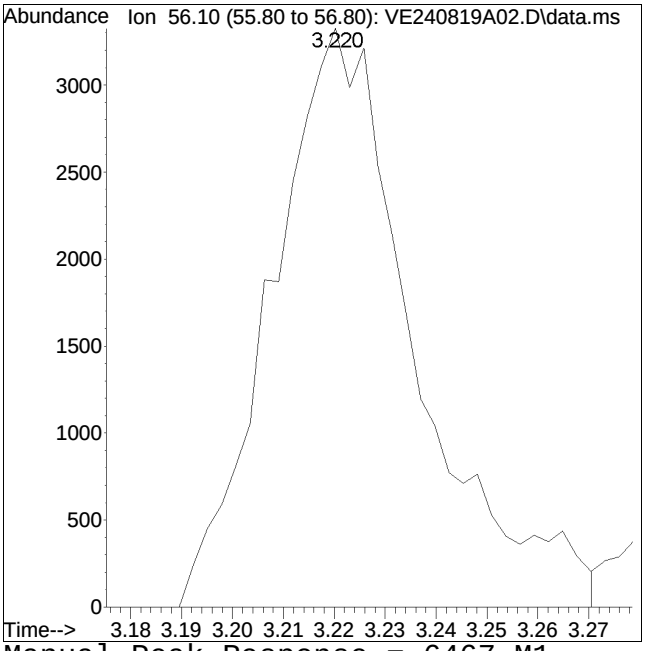


Manual Integration Report

Data Path	: K:\Elaine\2024\240819A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240819A02.D	Operator	: ELAINE:MJV
Date Inj'd	: 8/19/2024 6:33 am	Instrument	: Elaine
Sample	: WG1960966-2	Quant Date	: 8/19/2024 7:02 am

Compound #14: Acrolein





Original Peak Response = 6178 Manual Peak Response = 6467 M1

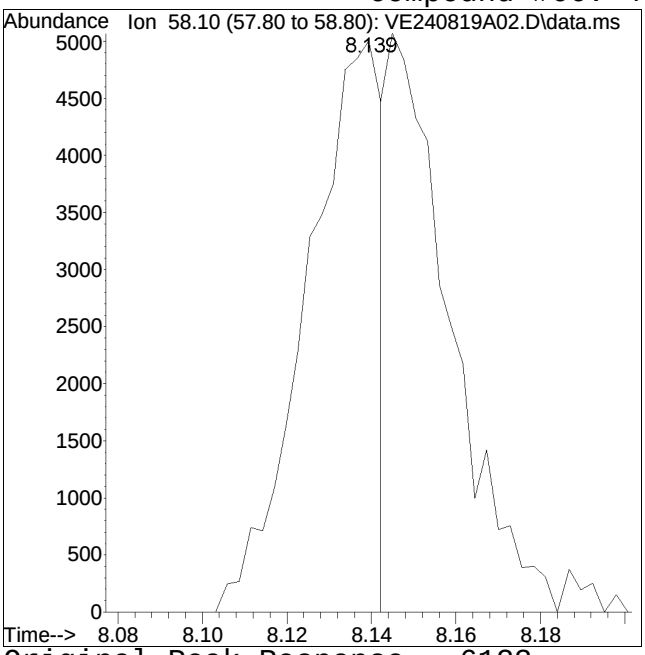
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

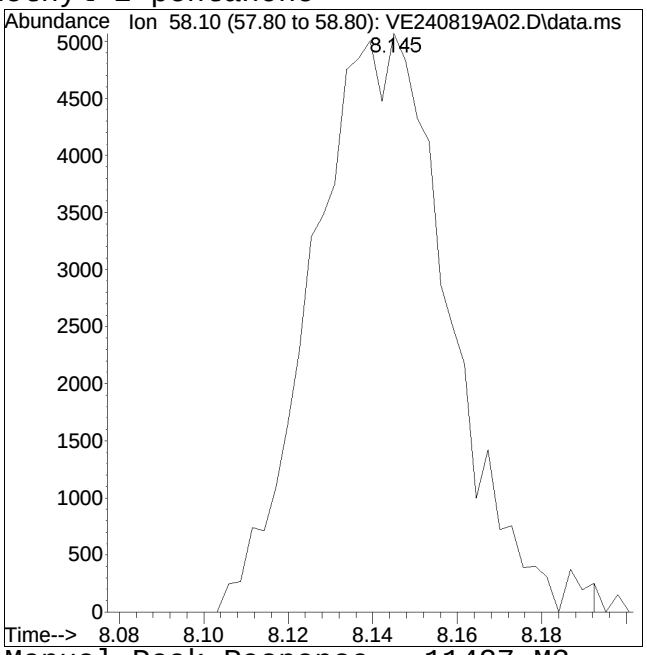
Manual Integration Report

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Date Inj'd : 8/19/2024 6:33 am
Sample : WG1960966-2

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 8/19/2024 7:02 am

Compound #66: 4-Methyl-2-pentanone





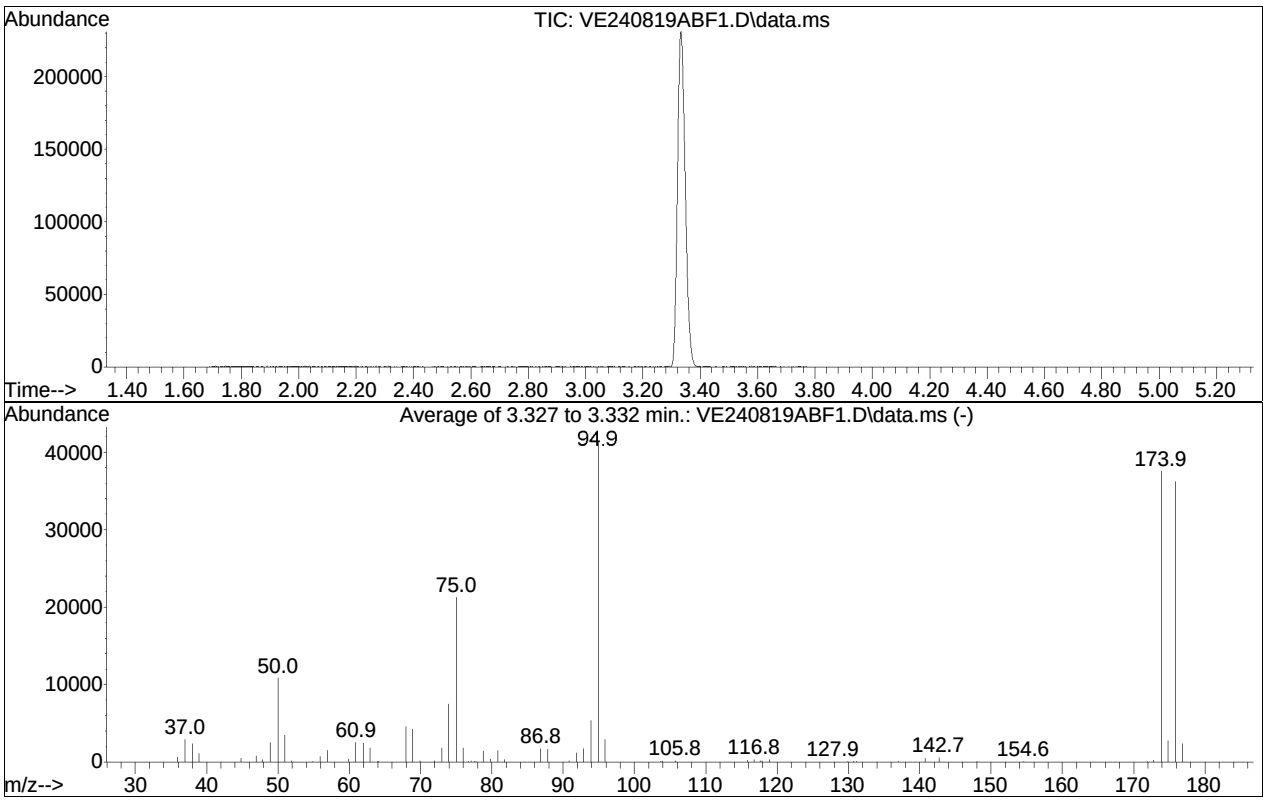
Original Peak Response = 6123 Manual Peak Response = 11427 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819ABF1.D
Acq On : 19 Aug 2024 5:49 am
Operator : ELAINE:MJV
Sample : WG1960966-1
Misc : WG1960966,ICAL21358
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 01 12:13:24 2024



Spectrum Information: Average of 3.327 to 3.332 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.3	10847	PASS
75	95	30	60	51.6	21277	PASS
95	95	100	100	100.0	41232	PASS
96	95	5	9	7.2	2962	PASS
173	174	0.00	2	0.8	307	PASS
174	95	50	100	91.2	37597	PASS
175	174	5	9	7.4	2788	PASS
176	174	95	101	96.2	36184	PASS
177	176	5	9	6.6	2382	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A05.D
Acq On : 19 Aug 2024 7:46 am
Operator : ELAINE:MJV
Sample : WG1960966-5,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 08:17:33 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.958	96	172503	10.000	ug/L	0.00
Standard Area 1 = 184826			Recovery = 93.33%			
63) Chlorobenzene-d5	9.492	117	129194	10.000	ug/L	0.00
Standard Area 1 = 135622			Recovery = 95.26%			
84) 1,4-Dichlorobenzene-d4	12.205	152	73170	10.000	ug/L	0.00
Standard Area 1 = 81358			Recovery = 89.94%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.153	113	42953	10.636	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.36%			
47) 1,2-Dichloroethane-d4	5.674	65	55045	10.216	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.16%			
64) Toluene-d8	7.648	98	170398	10.013	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.13%			
88) 4-Bromofluorobenzene	10.992	95	61968	9.168	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.68%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.424	85	26	N.D.		
3) Chloromethane	1.806	50	26	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	2.383	64	26	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	2.567	74	29	N.D.		
10) 1,1-Dichloroethene	2.827	96	27	N.D.		
11) Carbon disulfide	2.938	76	227	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.	d	
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	4.748	77	34	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A05.D
Acq On : 19 Aug 2024 7:46 am
Operator : ELAINE:MJV
Sample : WG1960966-5,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 08:17:33 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.		
42) 2-Butanone	0.000		0	N.D.	d	
43) 1,1-Dichloropropene	0.000		0	N.D.		
45) Benzene	0.000		0	N.D.		
48) 1,2-Dichloroethane	5.646	62	27	N.D.		
52) Trichloroethene	0.000		0	N.D.		
54) Dibromomethane	0.000		0	N.D.		
55) 1,2-Dichloropropane	0.000		0	N.D.		
58) Bromodichloromethane	0.000		0	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	0.000		0	N.D.		
66) 4-Methyl-2-pentanone	0.000		0	N.D.		
67) Tetrachloroethene	0.000		0	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	0.000		0	N.D.		
75) 1,2-Dibromoethane	0.000		0	N.D.		
77) 2-Hexanone	9.129	43	34	N.D.		
78) Chlorobenzene	0.000		0	N.D.		
79) Ethylbenzene	9.564	91	54	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.748	106	25	N.D.		
82) o Xylene	10.286	106	33	N.D.		
83) Styrene	10.362	104	37	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.666	105	50	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.151	91	245	N.D.		
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
93) 4-Ethyltoluene	11.279	105	27	N.D.		
94) 2-Chlorotoluene	11.324	91	27	N.D.		
95) 1,3,5-Trimethylbenzene	11.380	105	41	N.D.		
96) 1,2,3-Trichloropropane	0.000		0	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
98) 4-Chlorotoluene	11.483	91	29	N.D.		
99) tert-Butylbenzene	11.717	119	30	N.D.		

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A05.D
Acq On : 19 Aug 2024 7:46 am
Operator : ELAINE:MJV
Sample : WG1960966-5,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 08:17:33 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.803	105	72	N.D.		
103)	sec-Butylbenzene	11.901	105	248	N.D.		
104)	p-Isopropyltoluene	12.063	119	83	N.D.		
105)	1,3-Dichlorobenzene	12.121	146	87	N.D.		
106)	1,4-Dichlorobenzene	12.213	146	56	N.D.		
107)	p-Diethylbenzene	12.436	119	47	N.D.		
108)	n-Butylbenzene	12.495	91	160	N.D.		
109)	1,2-Dichlorobenzene	12.660	146	26	N.D.		
110)	1,2,4,5-Tetramethylben...	13.231	119	271	N.D.		
111)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113)	Hexachlorobutadiene	14.026	225	80	N.D.		
114)	1,2,4-Trichlorobenzene	14.051	180	56	N.D.		
115)	Naphthalene	14.349	128	468	N.D.		
116)	1,2,3-Trichlorobenzene	14.508	180	160	N.D.		

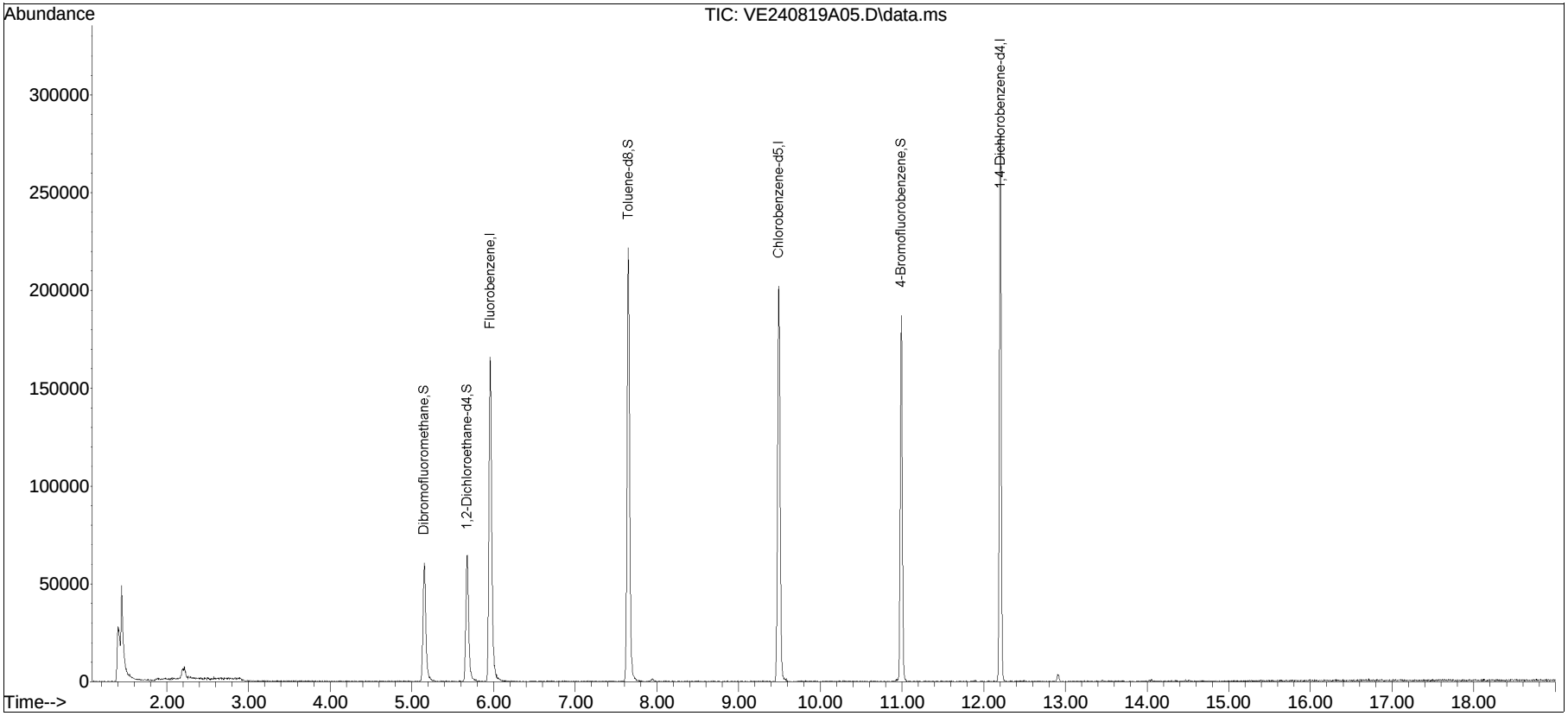
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A05.D
Acq On : 19 Aug 2024 7:46 am
Operator : ELAINE:MJV
Sample : WG1960966-5,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 08:17:33 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO•



Manual Integration Report

Data Path	: K:\Elaine\2024\240819A\	QMethod	: Elaine_240731N_8260.m
Data File	: VE240819A05.D	Operator	: ELAINE:MJV
Date Inj'd	: 8/19/2024 7:46 am	Instrument	: Elaine
Sample	: WG1960966-5,31,10,10	Quant Date	: 8/19/2024 8:16 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-3,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.959	96	184826	10.000	ug/L	0.00
Standard Area 1 = 184826			Recovery = 100.00%			
63) Chlorobenzene-d5	9.492	117	135622	10.000	ug/L	0.00
Standard Area 1 = 135622			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.202	152	81358	10.000	ug/L	0.00
Standard Area 1 = 81358			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.156	113	44381	10.257	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.57%			
47) 1,2-Dichloroethane-d4	5.674	65	54703	9.475	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.75%			
64) Toluene-d8	7.651	98	175365	9.816	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.16%			
88) 4-Bromofluorobenzene	10.992	95	66887	8.900	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.592	85	34870	8.415	ug/L	95
3) Chloromethane	1.781	50	46448	10.067	ug/L	95
4) Vinyl chloride	1.854	62	44652	10.385	ug/L	93
5) Bromomethane	2.163	94	17428	13.407	ug/L	94
6) Chloroethane	2.278	64	30695	11.825	ug/L	86
7) Trichlorofluoromethane	2.417	101	54279	10.986	ug/L	93
8) Ethyl ether	2.710	74	19565	10.056	ug/L	78
10) 1,1-Dichloroethene	2.905	96	29168	9.854	ug/L #	77
11) Carbon disulfide	2.933	76	92300	10.106	ug/L	99
15) Methylene chloride	3.457	84	36739	9.840	ug/L	90
17) Acetone	3.496	43	9561	7.050	ug/L #	73
18) trans-1,2-Dichloroethene	3.613	96	33810	10.626	ug/L	83
21) Methyl tert-butyl ether	3.708	73	106419	8.970	ug/L	95
25) 1,1-Dichloroethane	4.193	63	78315	10.488	ug/L	98
27) Acrylonitrile	4.235	53	12133	7.787	ug/L #	84
29) Vinyl acetate	4.422	43	106218	9.390	ug/L	96
30) cis-1,2-Dichloroethene	4.709	96	39508	10.359	ug/L	96
31) 2,2-Dichloropropane	4.813	77	54824	10.970	ug/L	89
33) Bromochloromethane	4.902	128	18020	10.771	ug/L	88
35) Chloroform	4.977	83	64149	10.363	ug/L	97

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-3,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.108	117	52301	11.061	ug/L		96
40) 1,1,1-Trichloroethane	5.178	97	58766	10.453	ug/L		95
42) 2-Butanone	5.261	43	13037	6.728	ug/L	#	79
43) 1,1-Dichloropropene	5.295	75	49711	10.503	ug/L		95
45) Benzene	5.540	78	155057	10.591	ug/L		94
48) 1,2-Dichloroethane	5.747	62	57075	10.101	ug/L		99
52) Trichloroethene	6.134	95	39305	10.678	ug/L		96
54) Dibromomethane	6.578	93	21822	10.292	ug/L	#	84
55) 1,2-Dichloropropane	6.686	63	44211	10.003	ug/L		98
58) Bromodichloromethane	6.759	83	54622	10.429	ug/L		94
61) 1,4-Dioxane	6.960	88	13619	383.957	ug/L		90
62) cis-1,3-Dichloropropene	7.442	75	59915	10.161	ug/L		94
65) Toluene	7.707	92	96837	10.369	ug/L		91
66) 4-Methyl-2-pentanone	8.145	58	11427M3	7.174	ug/L		
67) Tetrachloroethene	8.156	166	44182	11.137	ug/L		97
69) trans-1,3-Dichloropropene	8.192	75	50951	9.691	ug/L		98
72) 1,1,2-Trichloroethane	8.382	83	25585	9.758	ug/L		99
73) Chlorodibromomethane	8.588	129	35804	9.766	ug/L		97
74) 1,3-Dichloropropane	8.697	76	54082	9.769	ug/L		98
75) 1,2-Dibromoethane	8.864	107	28410	9.169	ug/L		89
77) 2-Hexanone	9.146	43	19409	6.254	ug/L	#	95
78) Chlorobenzene	9.511	112	105712	10.624	ug/L	#	82
79) Ethylbenzene	9.550	91	196914	10.880	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.598	131	38579	10.576	ug/L		96
81) p/m Xylene	9.737	106	153799	22.292	ug/L		99
82) o Xylene	10.278	106	147960	21.931	ug/L		92
83) Styrene	10.348	104	244415	22.096	ug/L		99
85) Bromoform	10.376	173	23290	8.798	ug/L		97
87) Isopropylbenzene	10.666	105	199229	10.226	ug/L		96
89) Bromobenzene	11.104	156	49937	10.153	ug/L		99
90) n-Propylbenzene	11.148	91	240588	10.335	ug/L		96
92) 1,1,2,2-Tetrachloroethane	11.238	83	36896	8.925	ug/L		98
93) 4-Ethyltoluene	11.274	105	192764	10.207	ug/L		98
94) 2-Chlorotoluene	11.316	91	139956	10.219	ug/L		96
95) 1,3,5-Trimethylbenzene	11.374	105	171191	10.334	ug/L		99
96) 1,2,3-Trichloropropane	11.374	75	30171	8.946	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.427	53	13745	8.294	ug/L	#	84
98) 4-Chlorotoluene	11.500	91	144067	10.042	ug/L		99
99) tert-Butylbenzene	11.717	119	141768	10.180	ug/L	#	96

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-3,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.792	105	168000	10.160	ug/L	94
103) sec-Butylbenzene	11.904	105	206454	9.997	ug/L	97
104) p-Isopropyltoluene	12.060	119	175468	10.084	ug/L	95
105) 1,3-Dichlorobenzene	12.124	146	95315	10.493	ug/L	95
106) 1,4-Dichlorobenzene	12.219	146	94072	10.360	ug/L	99
107) p-Diethylbenzene	12.434	119	100629	9.807	ug/L	95
108) n-Butylbenzene	12.492	91	152532	10.179	ug/L	98
109) 1,2-Dichlorobenzene	12.640	146	90027	10.301	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.229	119	154816	9.298	ug/L	94
111) 1,2-Dibromo-3-chloropr...	13.424	155	5185	6.762	ug/L	82
113) Hexachlorobutadiene	14.029	225	23443	10.194	ug/L	92
114) 1,2,4-Trichlorobenzene	14.051	180	57381	9.160	ug/L	99
115) Naphthalene	14.344	128	106502	7.713	ug/L	100
116) 1,2,3-Trichlorobenzene	14.514	180	48377	8.405	ug/L	95

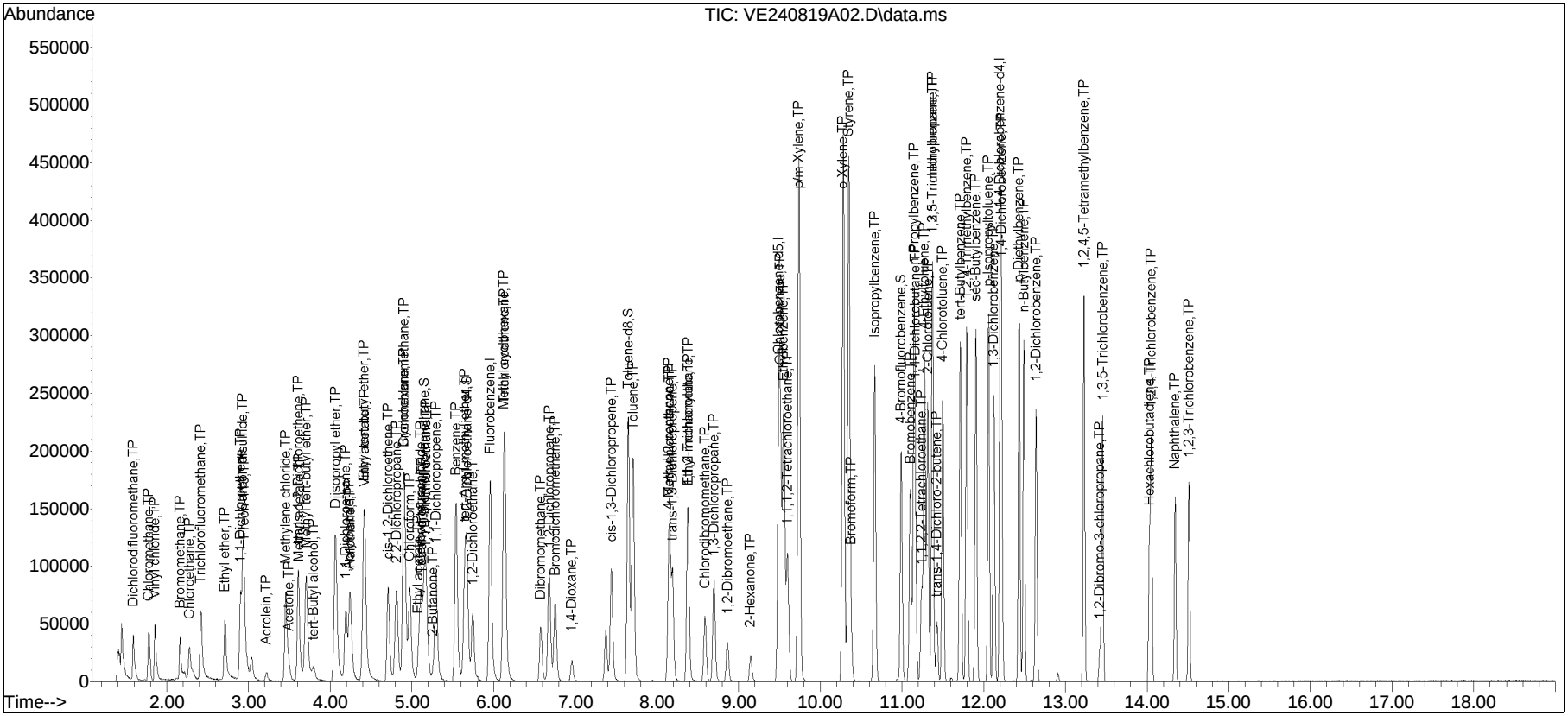
(#) = qualifier out of range (m) = manual integration (+) = signals summed

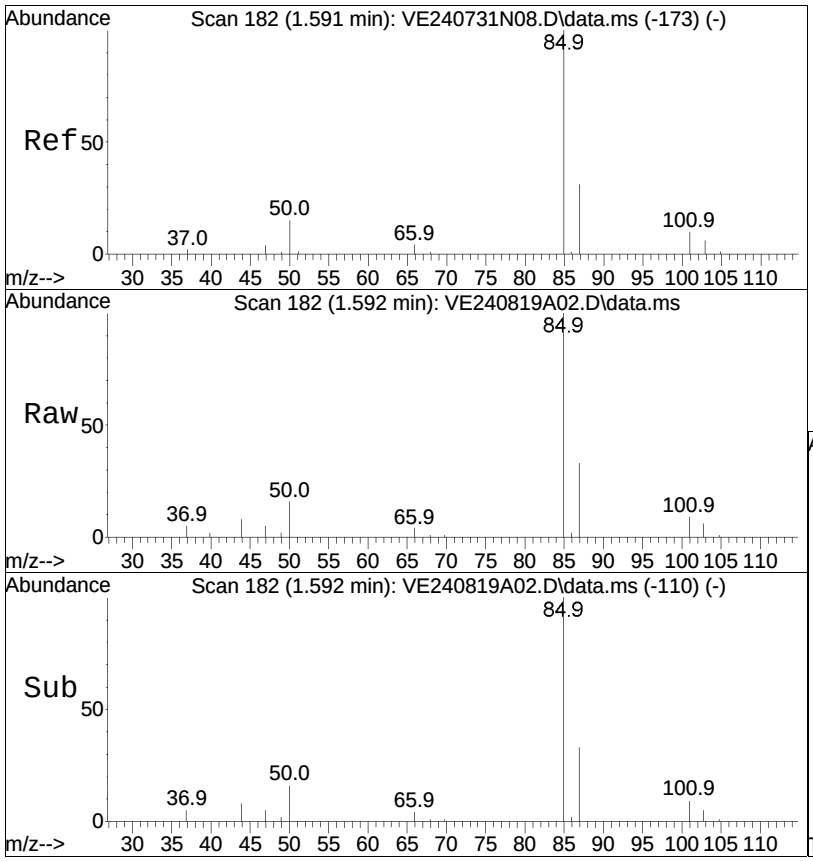
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Acq On : 19 Aug 2024 6:33 am
Operator : ELAINE:MJV
Sample : WG1960966-3,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 07:03:54 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO•

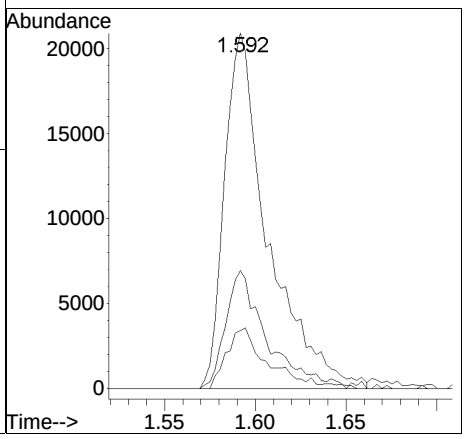


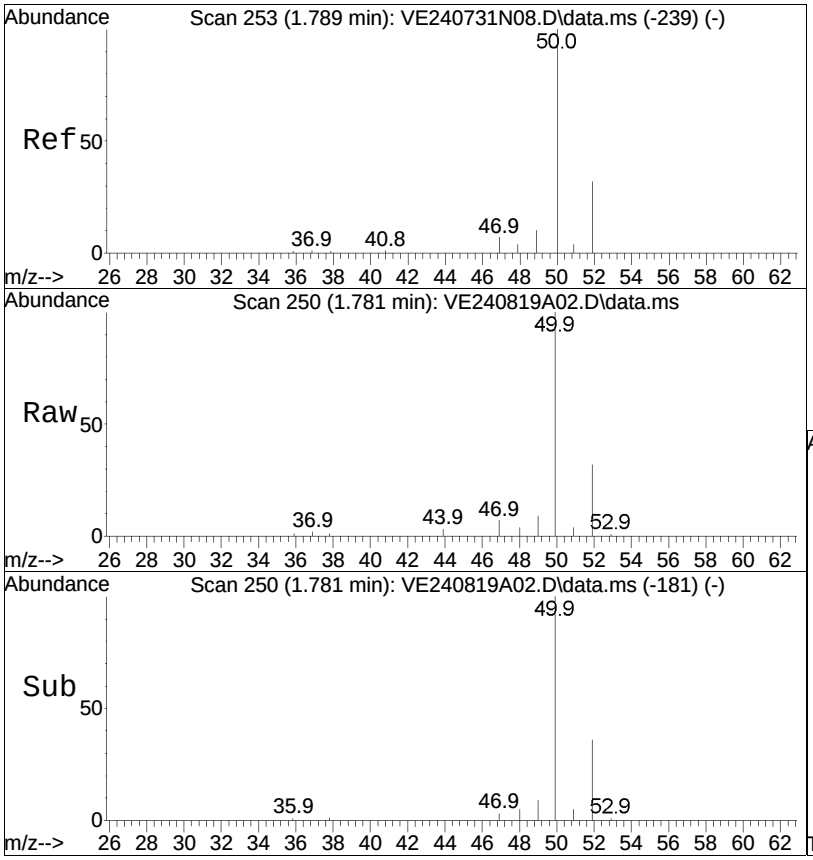


#2
Dichlorodifluoromethane
Concen: 8.41 ug/L
RT: 1.592 min Scan# 182
Delta R.T. 0.001 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 85 Resp: 34870

Ion	Ratio	Lower	Upper
85	100		
87	30.8	21.7	45.1
50	15.8	11.8	24.4

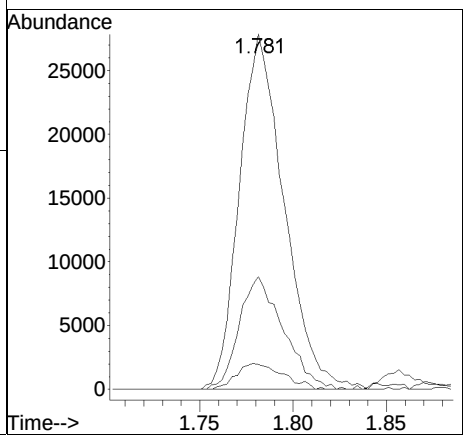


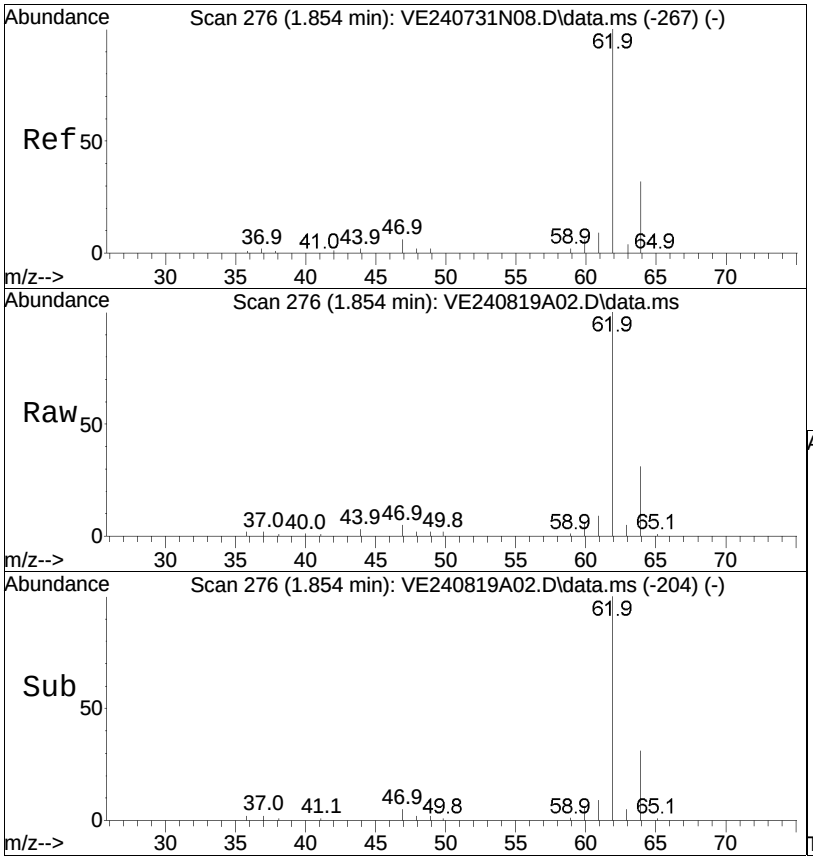


#3
Chloromethane
Concen: 10.07 ug/L
RT: 1.781 min Scan# 250
Delta R.T. -0.008 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 50 Resp: 46448

Ion	Ratio	Lower	Upper
50	100		
52	31.3	14.9	54.9
47	7.7	0.0	28.0

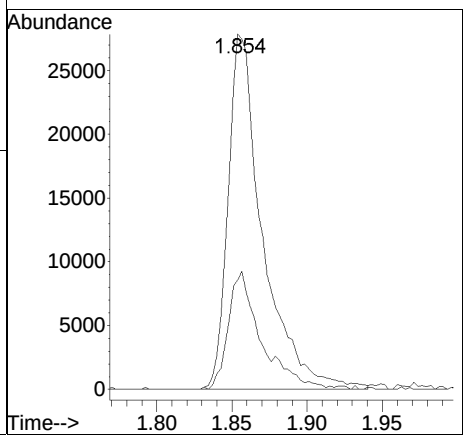


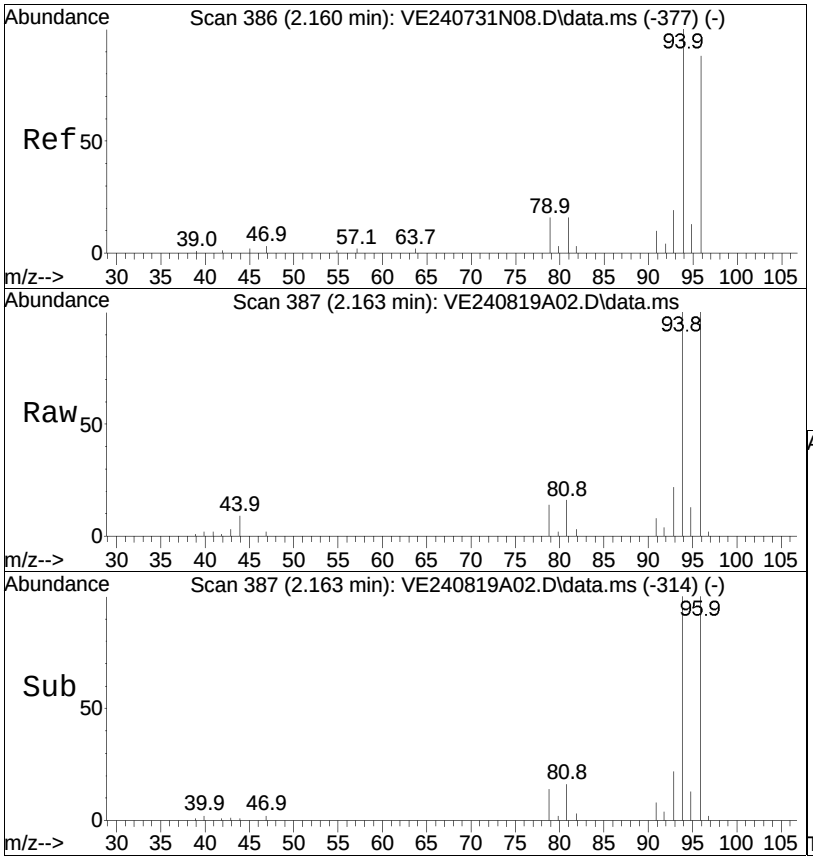


#4
Vinyl chloride
Concen: 10.38 ug/L
RT: 1.854 min Scan# 276
Delta R.T. -0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 62 Resp: 44652

Ion	Ratio	Lower	Upper
62	100		
64	31.7	8.1	48.1

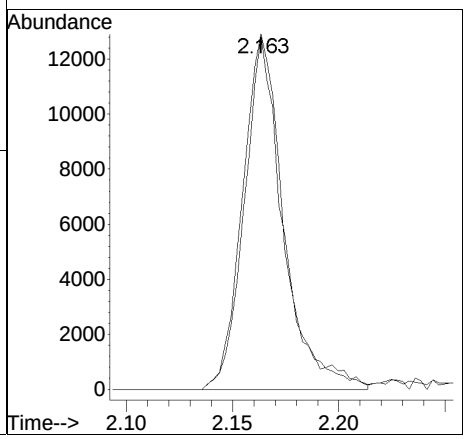


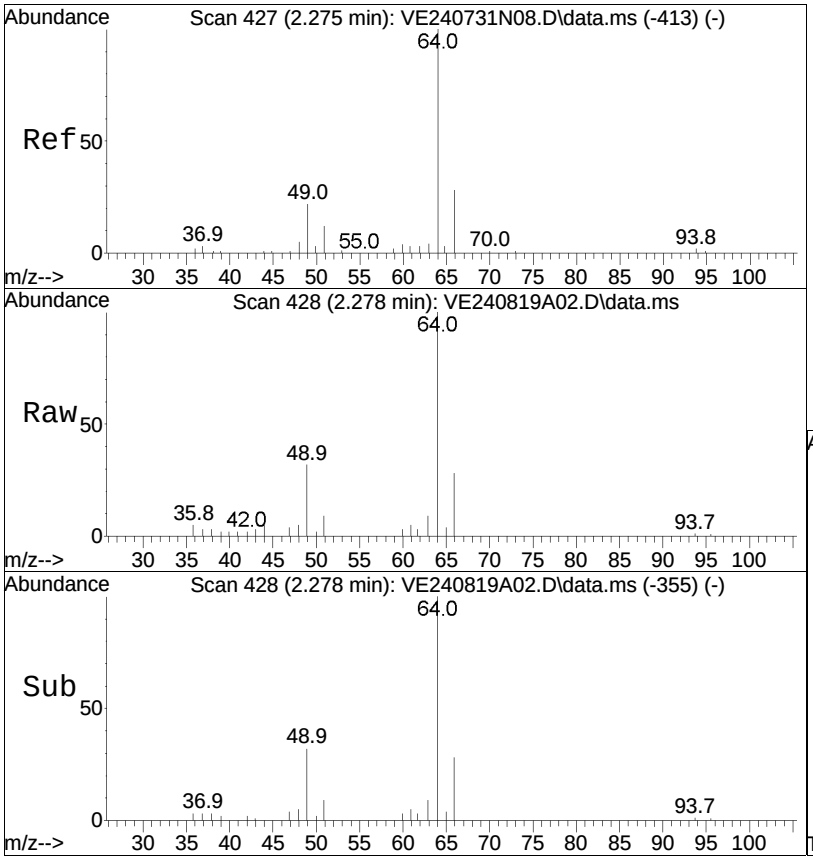


#5
Bromomethane
Concen: 13.41 ug/L
RT: 2.163 min Scan# 387
Delta R.T. 0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 94 Resp: 17428

Ion	Ratio	Lower	Upper
94	100		
96	93.4	68.2	108.2

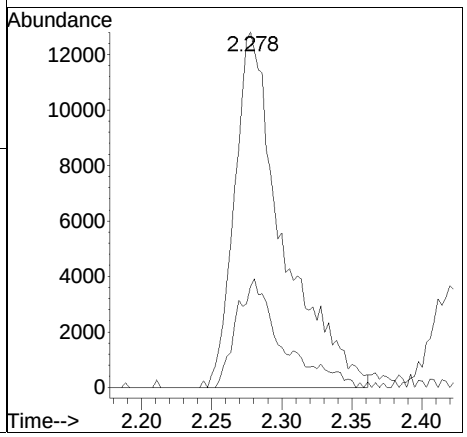


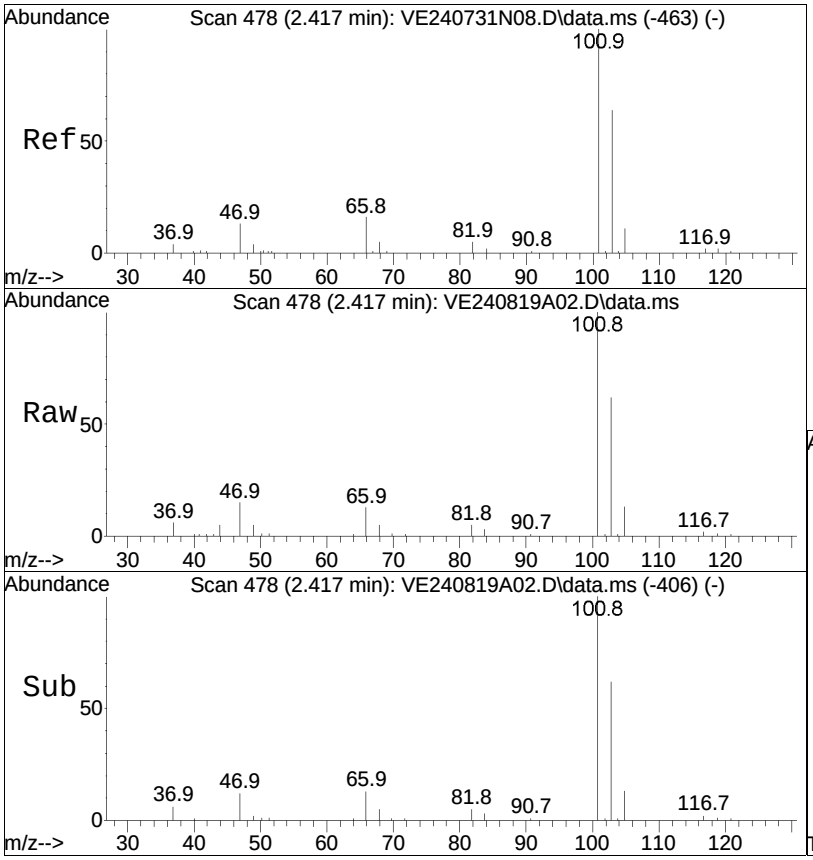


#6
Chloroethane
Concen: 11.82 ug/L
RT: 2.278 min Scan# 428
Delta R.T. 0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 64 Resp: 30695

Ion	Ratio	Lower	Upper
64	100		
66	22.9	10.7	50.7

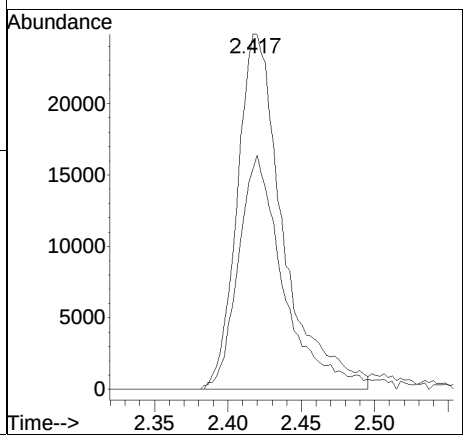


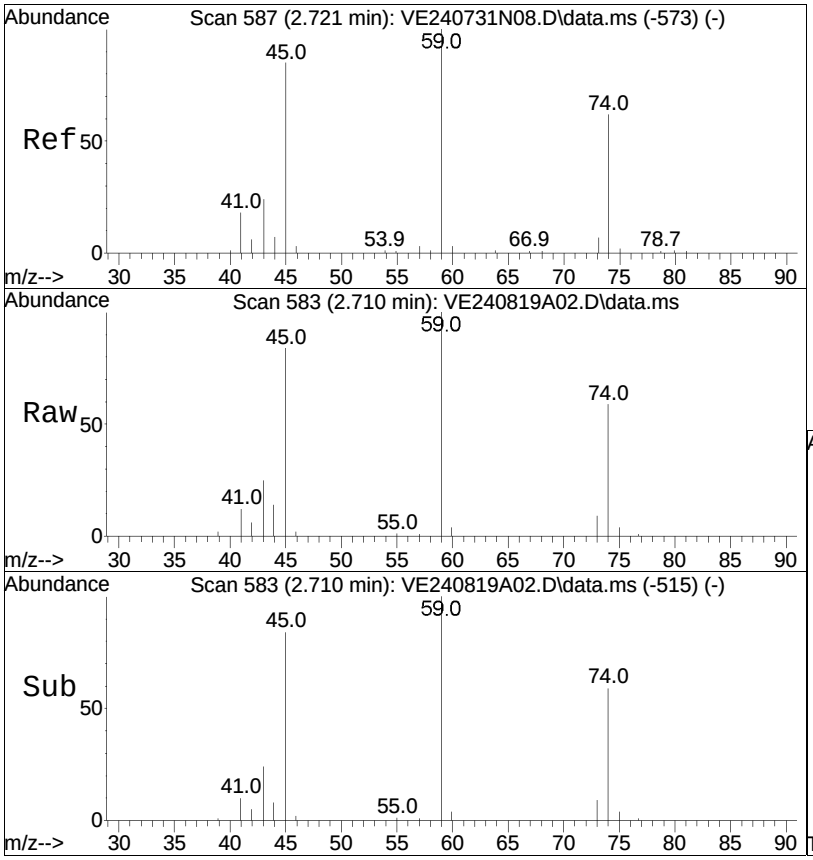


#7
Trichlorofluoromethane
Concen: 10.99 ug/L
RT: 2.417 min Scan# 478
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:101 Resp: 54279

Ion	Ratio	Lower	Upper
101	100		
103	65.1	48.2	72.2

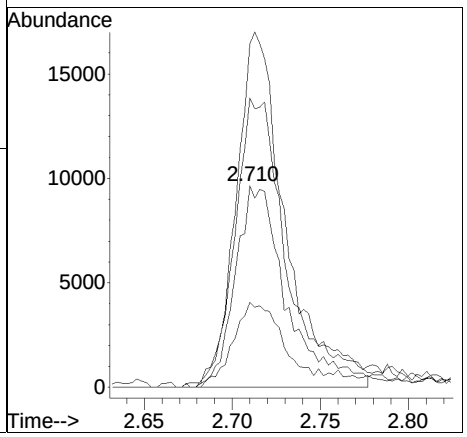


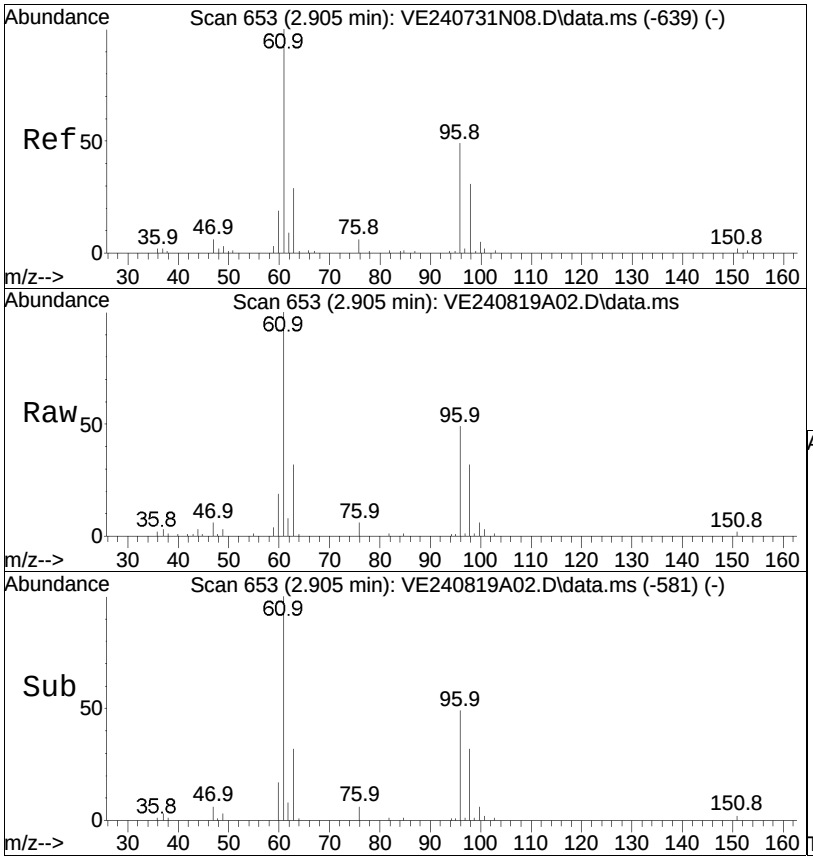


#8
Ethyl ether
Concen: 10.06 ug/L
RT: 2.710 min Scan# 583
Delta R.T. -0.011 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 74 Resp: 19565

Ion	Ratio	Lower	Upper
74	100		
59	170.1	91.7	190.5
45	146.3	77.4	160.8
43	43.8	24.6	51.2

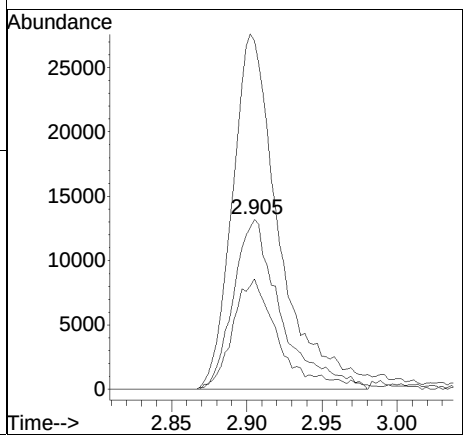


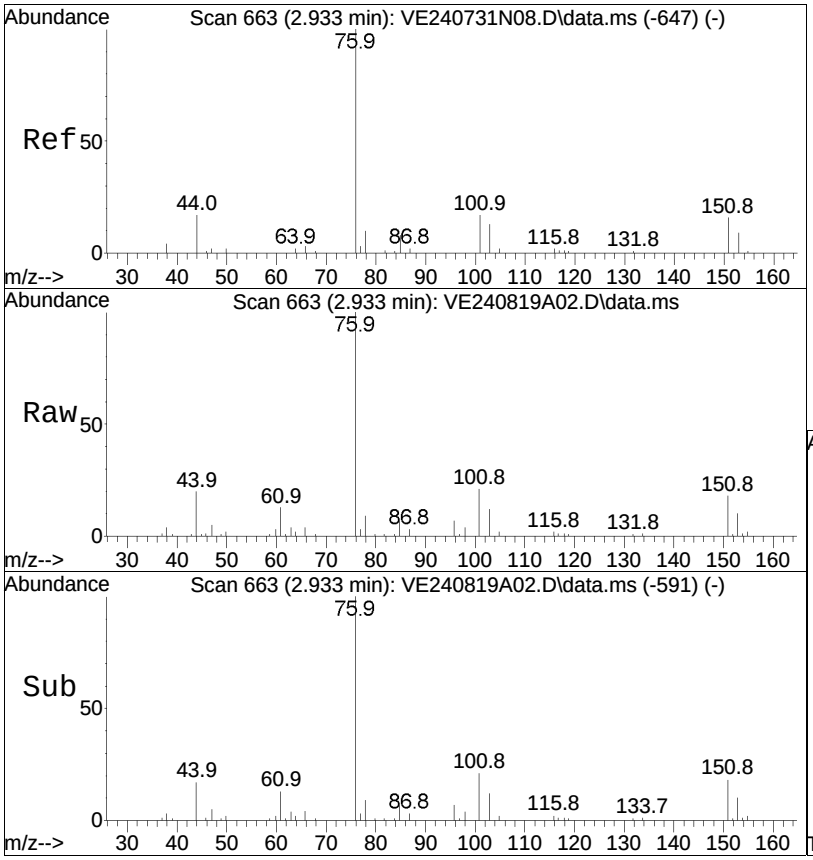


#10
1,1-Dichloroethene
Concen: 9.85 ug/L
RT: 2.905 min Scan# 653
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 96 Resp: 29168

Ion	Ratio	Lower	Upper
96	100		
61	205.3	135.4	203.0#
63	62.3	42.6	63.8

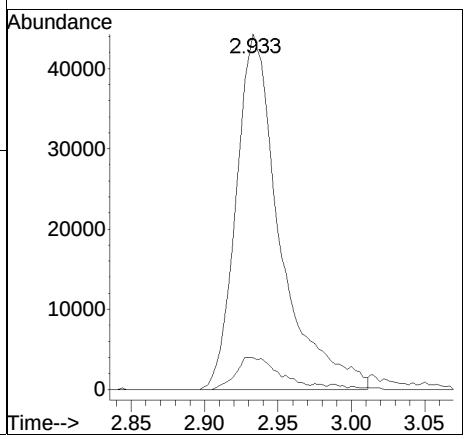


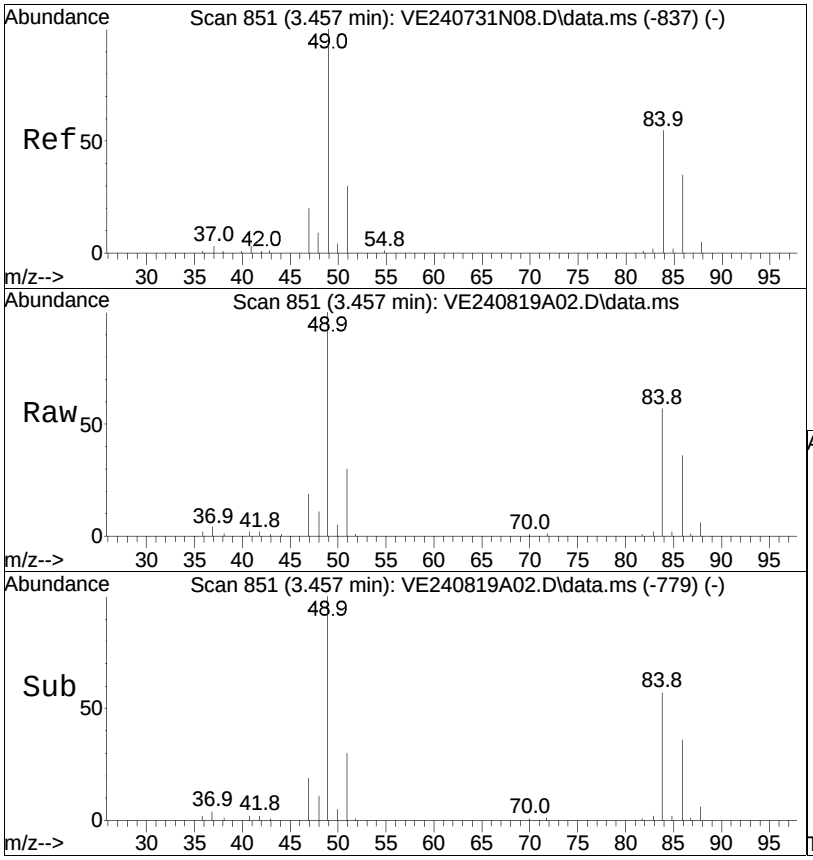


#11
Carbon disulfide
Concen: 10.11 ug/L
RT: 2.933 min Scan# 663
Delta R.T. -0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 76 Resp: 92300

Ion	Ratio	Lower	Upper
76	100		
78	8.8	5.5	11.3

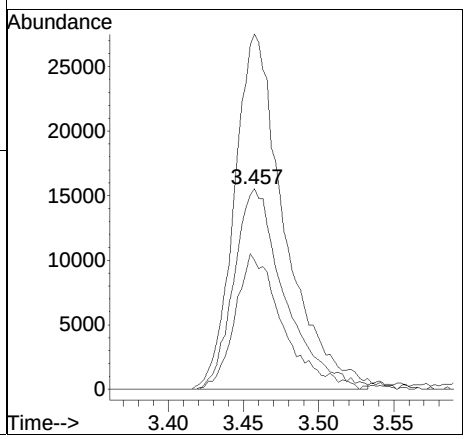


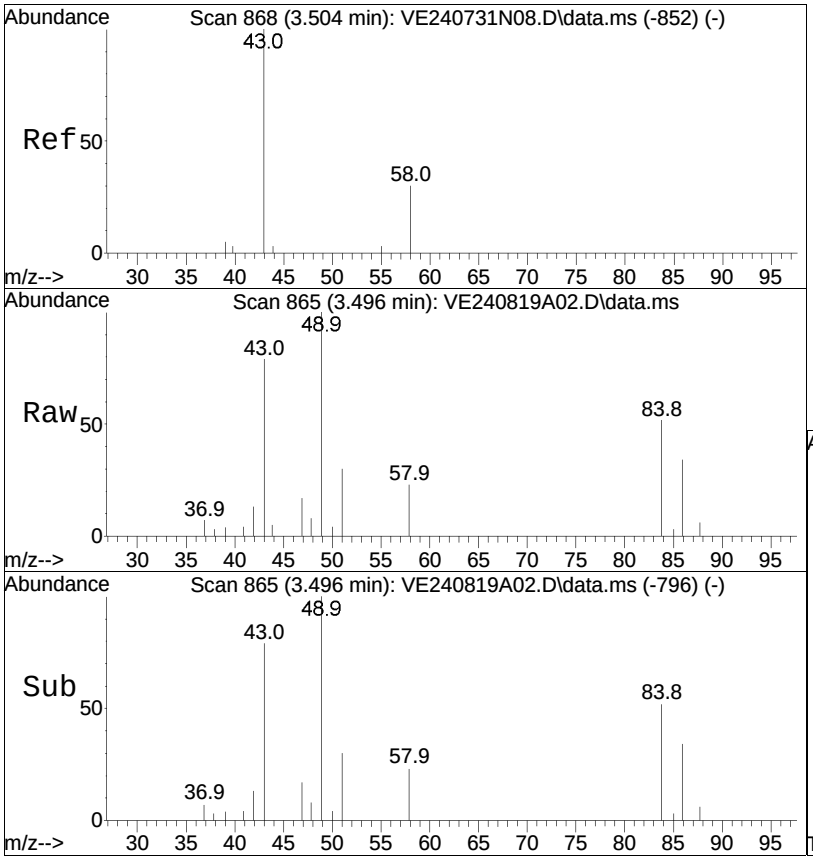


#15
Methylene chloride
Concen: 9.84 ug/L
RT: 3.457 min Scan# 851
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 84 Resp: 36739

Ion	Ratio	Lower	Upper
84	100		
86	63.8	40.2	83.6
49	175.6	103.2	214.4

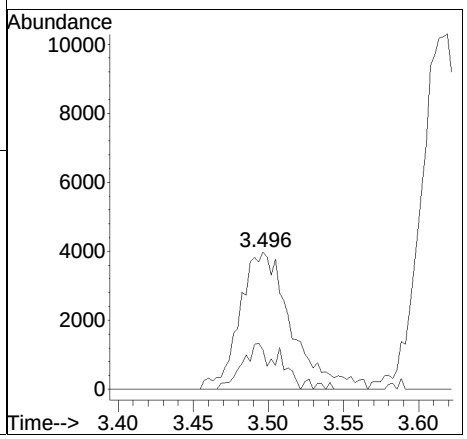


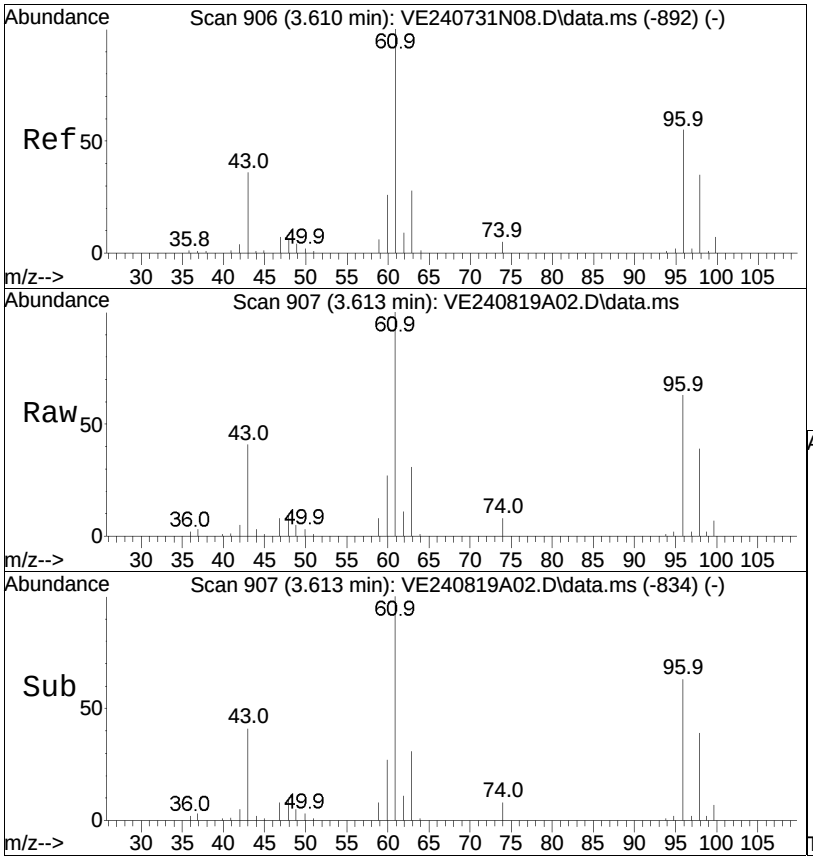


#17
Acetone
Concen: 7.05 ug/L
RT: 3.496 min Scan# 865
Delta R.T. -0.008 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 43 Resp: 9561

Ion	Ratio	Lower	Upper
43	100		
58	14.9	23.4	35.0#

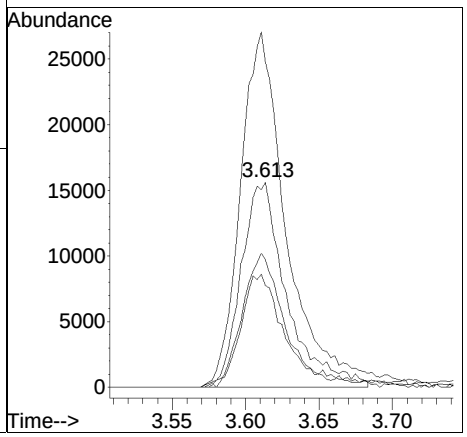


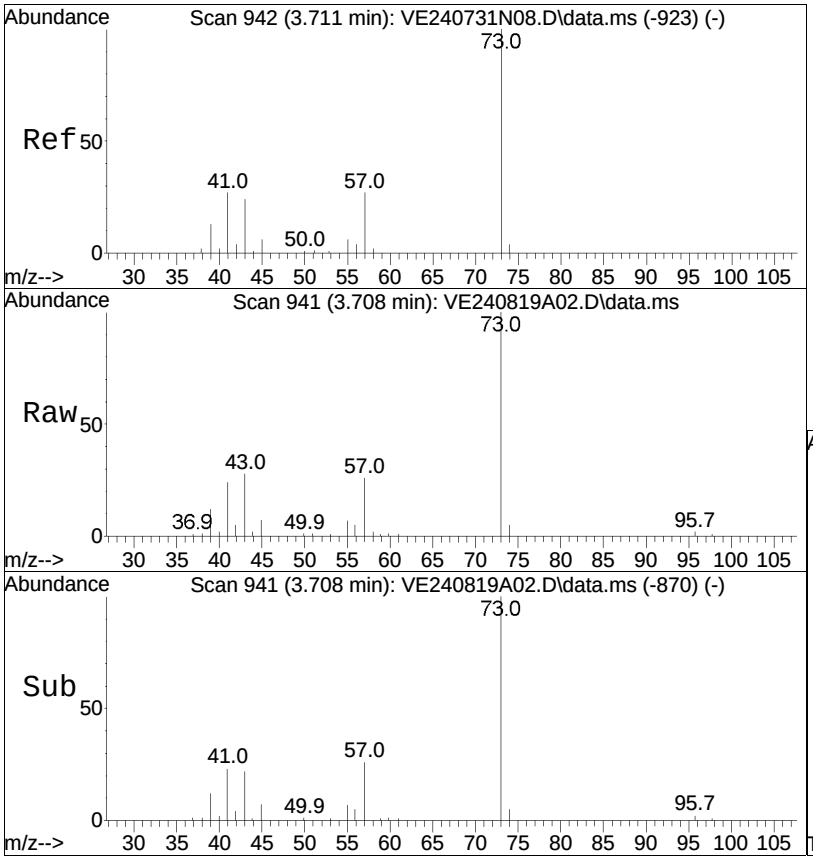


#18
trans-1,2-Dichloroethene
Concen: 10.63 ug/L
RT: 3.613 min Scan# 907
Delta R.T. 0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 96 Resp: 33810

Ion	Ratio	Lower	Upper
96	100		
61	175.4	93.5	194.1
98	59.0	37.8	78.6
63	52.1	29.7	61.7

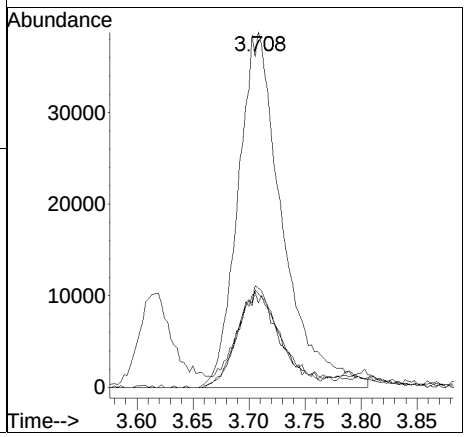


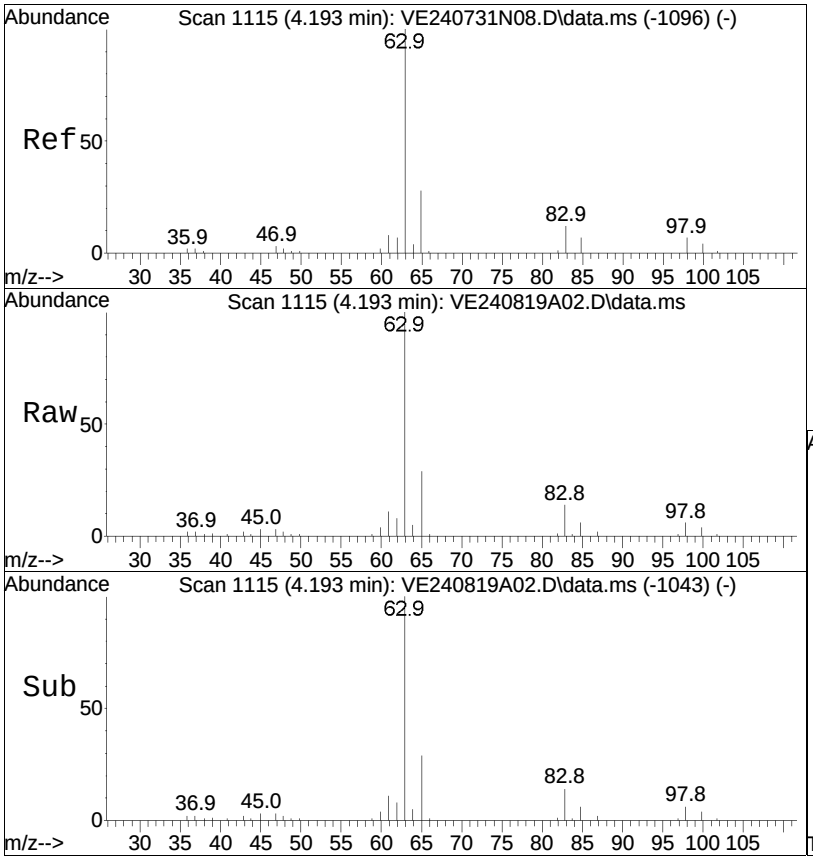


#21
Methyl tert-butyl ether
Concen: 8.97 ug/L
RT: 3.708 min Scan# 941
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 73 Resp: 106419

Ion	Ratio	Lower	Upper
73	100		
57	26.6	16.1	33.3
43	22.8	17.0	35.2
41	26.1	18.7	38.9

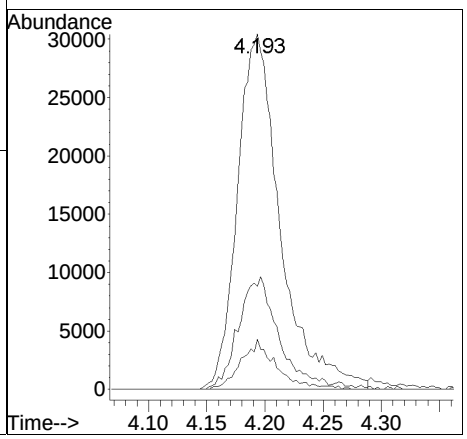


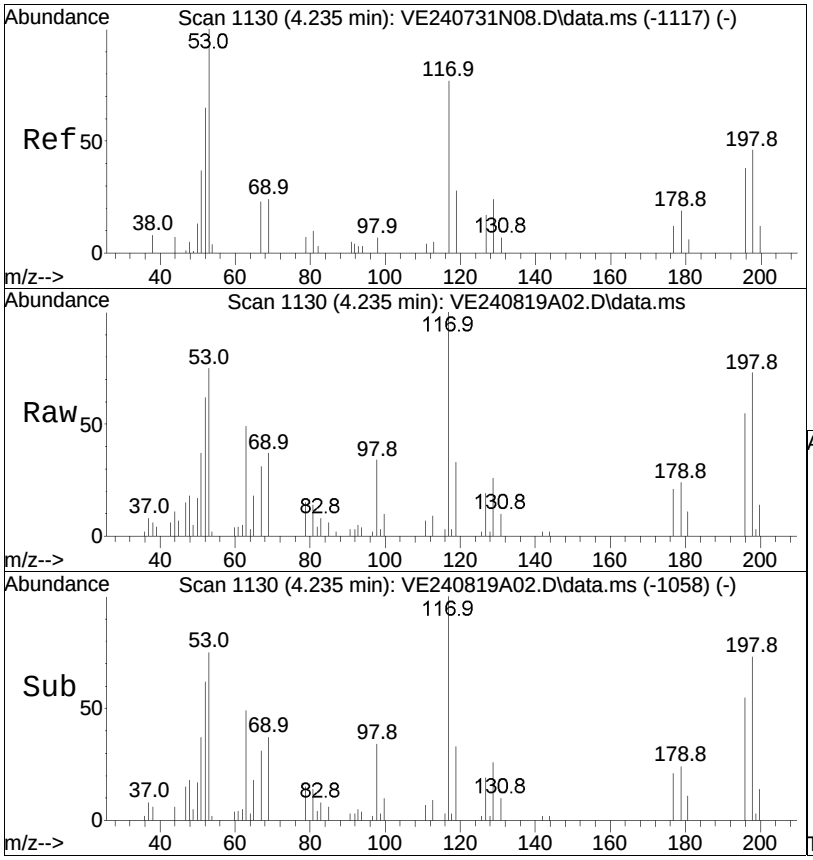


#25
1,1-Dichloroethane
Concen: 10.49 ug/L
RT: 4.193 min Scan# 1115
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 63 Resp: 78315

Ion	Ratio	Lower	Upper
63	100		
65	29.6	10.3	50.3
83	11.3	0.0	33.1

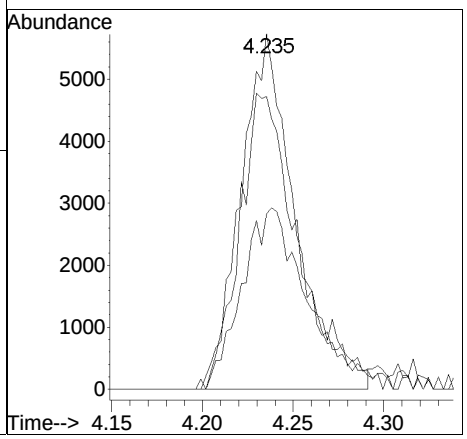


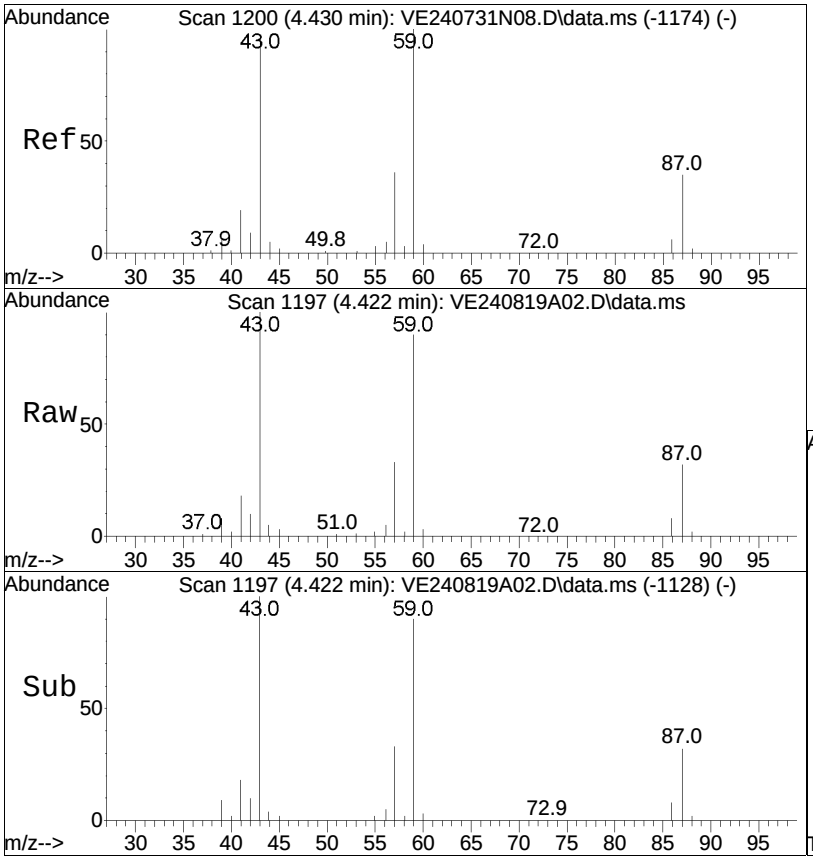


#27
Acrylonitrile
Concen: 7.79 ug/L
RT: 4.235 min Scan# 1130
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 53 Resp: 12133

Ion	Ratio	Lower	Upper
53	100		
52	87.1	58.9	88.3
51	61.0	40.2	60.2#

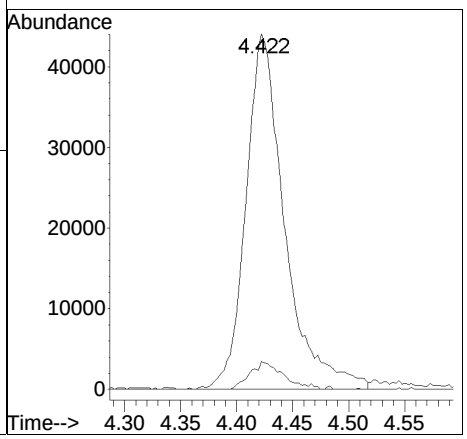


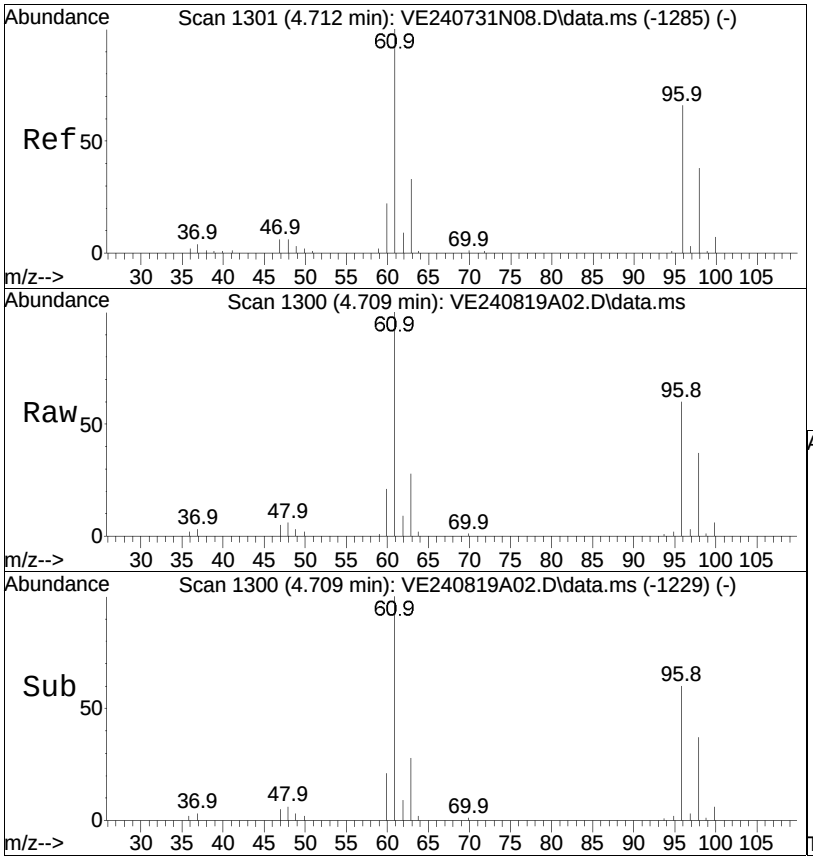


#29
Vinyl acetate
Concen: 9.39 ug/L
RT: 4.422 min Scan# 1197
Delta R.T. -0.008 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 43 Resp: 106218

Ion	Ratio	Lower	Upper
43	100		
86	6.5	6.2	9.4

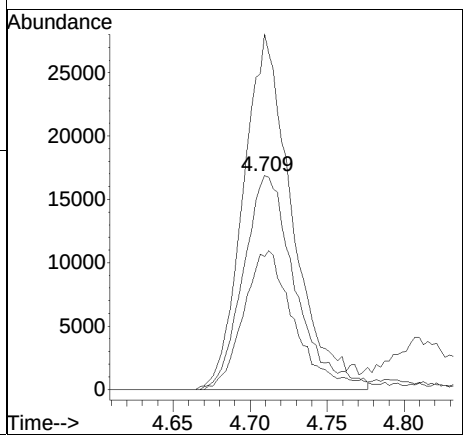


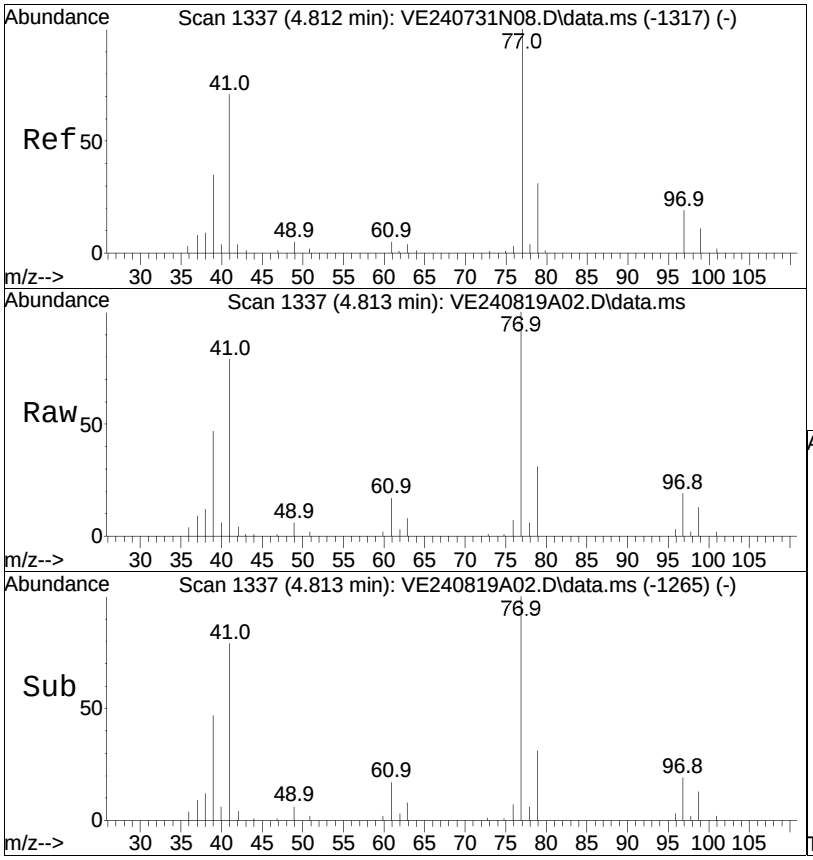


#30
cis-1,2-Dichloroethene
Concen: 10.36 ug/L
RT: 4.709 min Scan# 1300
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 96 Resp: 39508

Ion	Ratio	Lower	Upper
96	100		
61	157.6	120.3	180.5
98	63.4	50.2	75.4

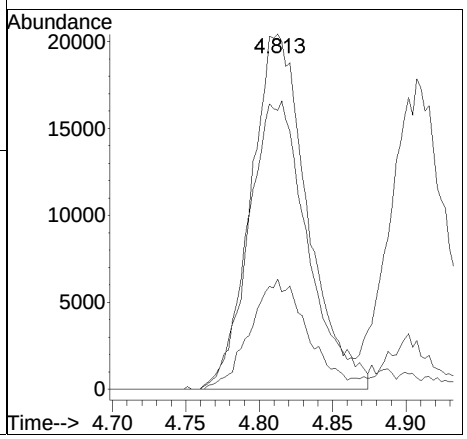


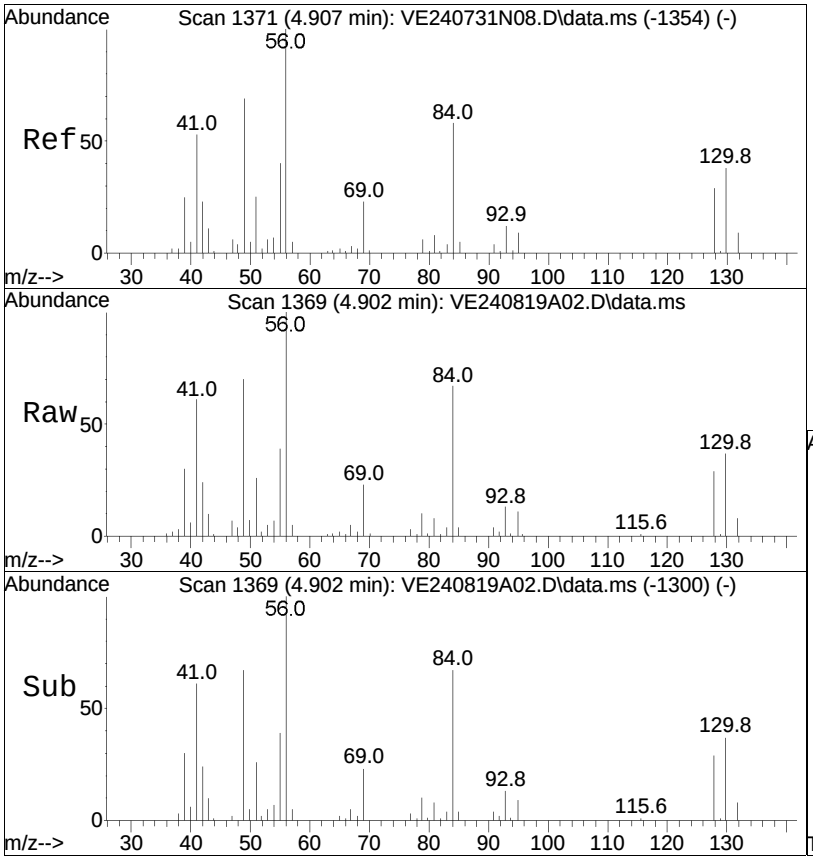


#31
2,2-Dichloropropane
Concen: 10.97 ug/L
RT: 4.813 min Scan# 1337
Delta R.T. 0.001 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 77 Resp: 54824

Ion	Ratio	Lower	Upper
77	100		
41	83.6	46.5	96.5
79	31.3	21.6	45.0

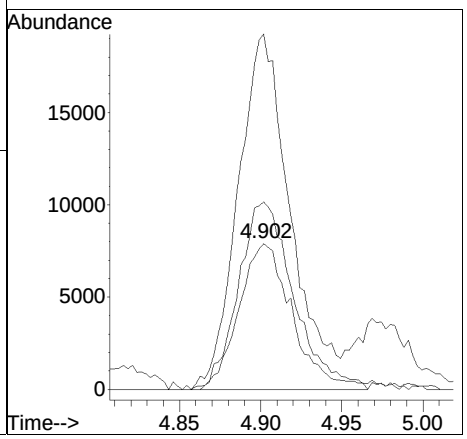


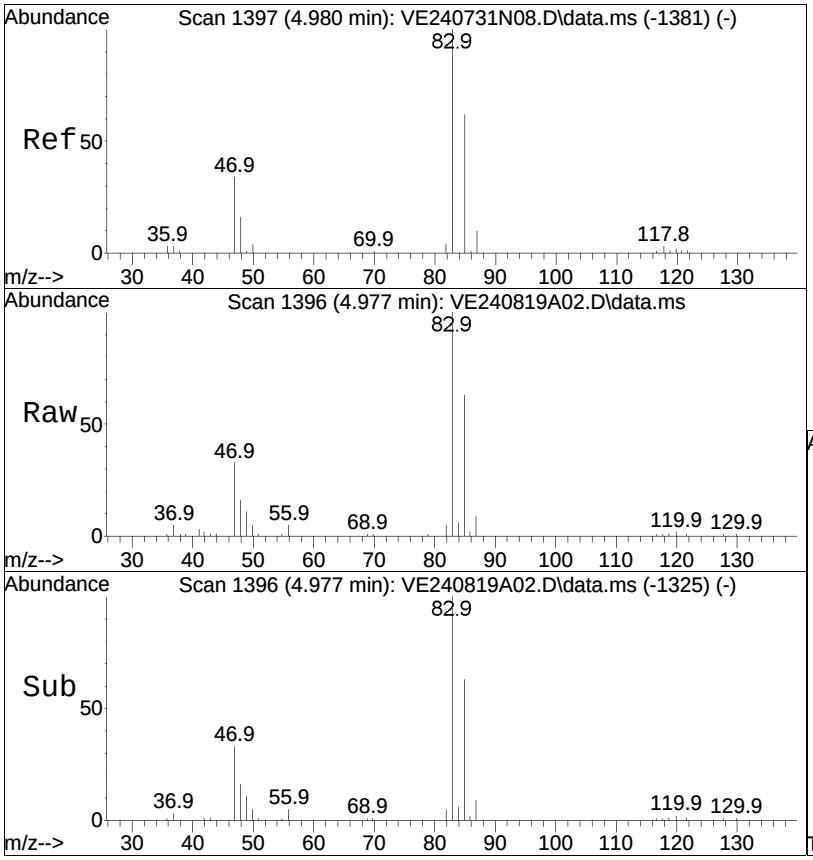


#33
Bromochloromethane
Concen: 10.77 ug/L
RT: 4.902 min Scan# 1369
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:128 Resp: 18020

Ion	Ratio	Lower	Upper
128	100		
49	239.4	170.2	255.2
130	133.6	103.7	155.5

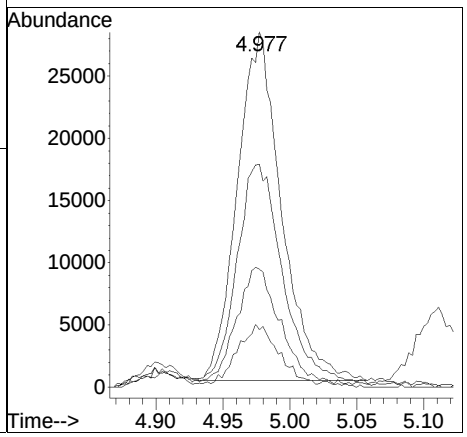


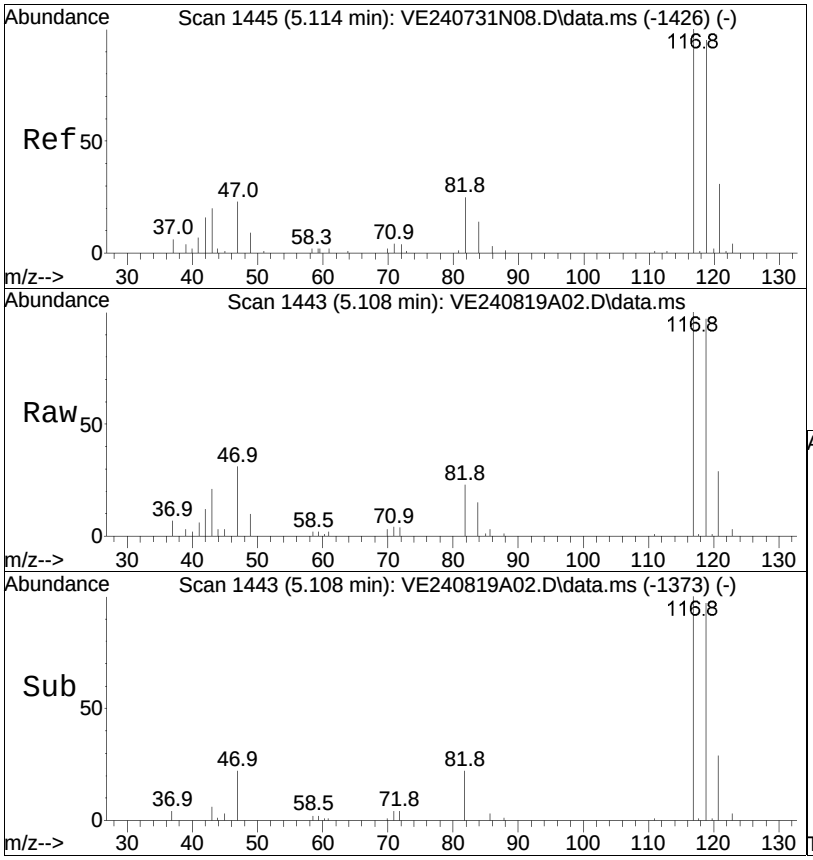


#35
Chloroform
Concen: 10.36 ug/L
RT: 4.977 min Scan# 1396
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 83 Resp: 64149

Ion	Ratio	Lower	Upper
83	100		
85	66.0	41.3	85.9
47	33.7	20.9	43.3
48	17.8	10.3	21.5

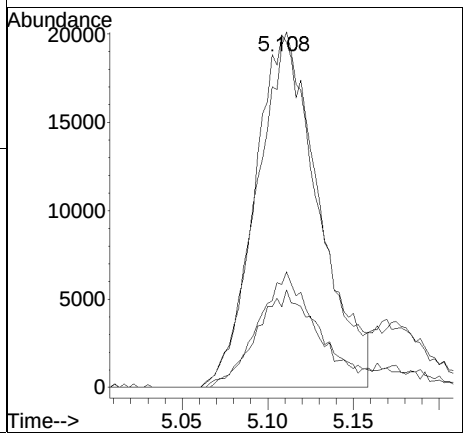


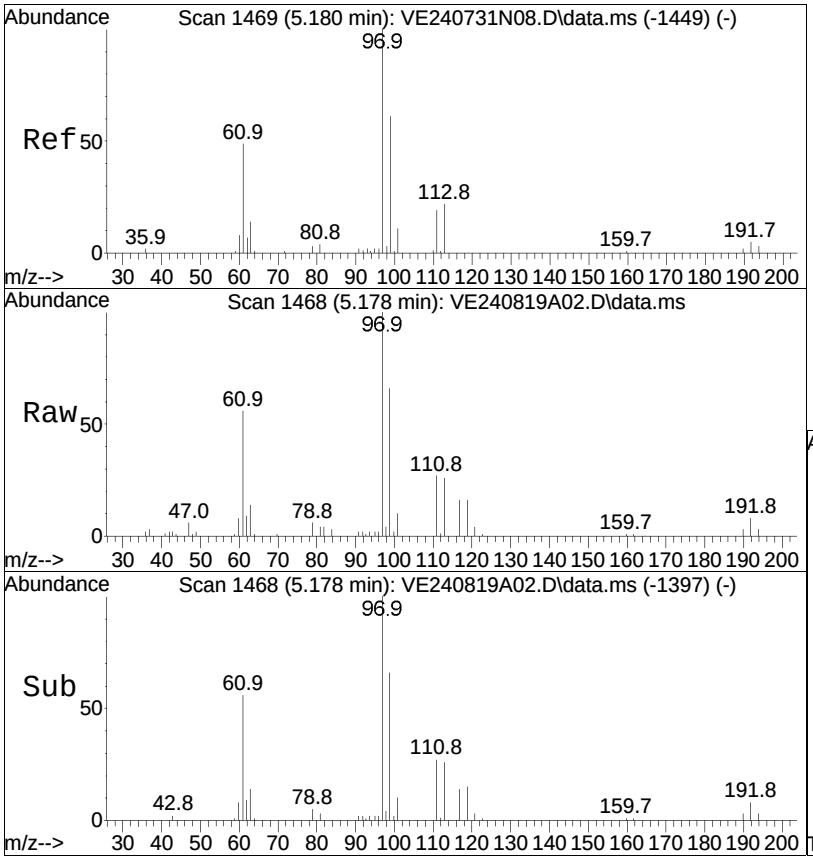


#37
Carbon tetrachloride
Concen: 11.06 ug/L
RT: 5.108 min Scan# 1443
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:117 Resp: 52301

Ion	Ratio	Lower	Upper
117	100		
119	95.7	60.6	126.0
121	30.7	18.0	37.4
82	27.6	19.8	41.0

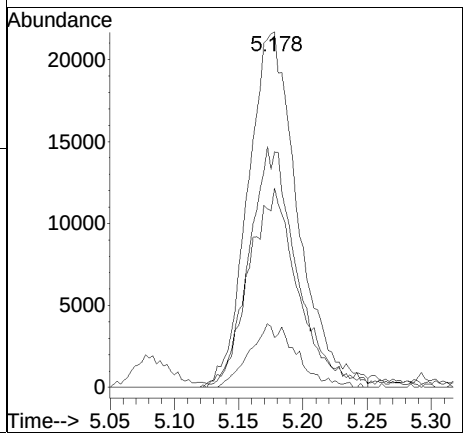


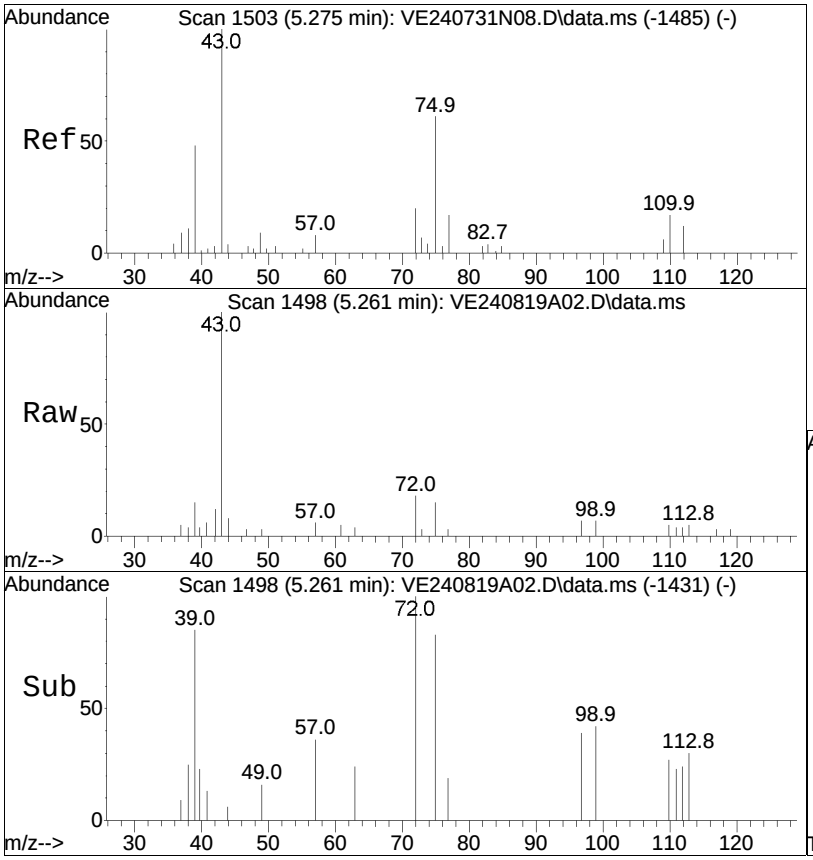


#40
1,1,1-Trichloroethane
Concen: 10.45 ug/L
RT: 5.178 min Scan# 1468
Delta R.T. -0.002 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 97 Resp: 58766

Ion	Ratio	Lower	Upper
97	100		
99	64.2	40.2	83.4
61	52.2	36.9	76.5
63	9.0	8.3	17.3

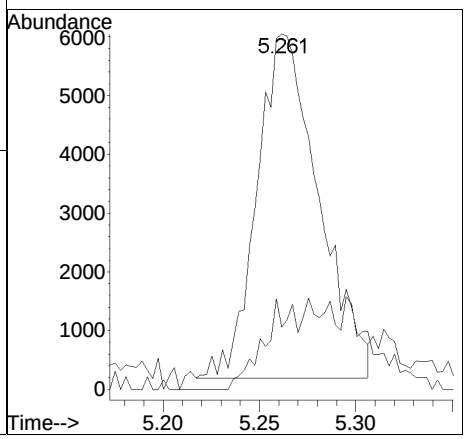


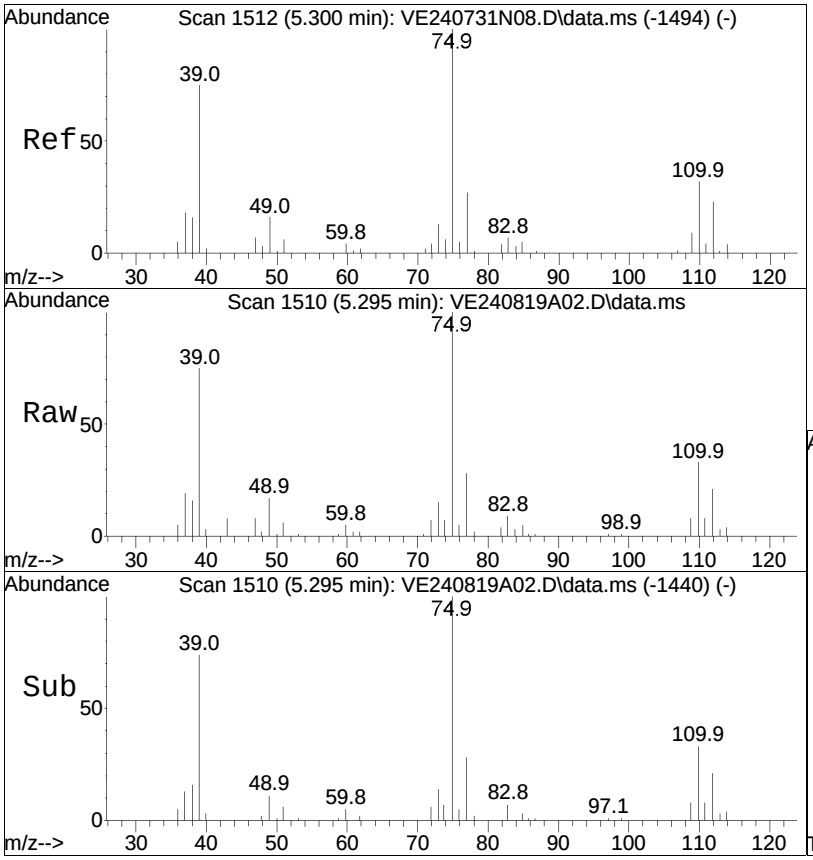


#42
2-Butanone
Concen: 6.73 ug/L
RT: 5.261 min Scan# 1498
Delta R.T. -0.014 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 43 Resp: 13037

Ion	Ratio	Lower	Upper
43	100		
72	10.1	15.7	23.5#

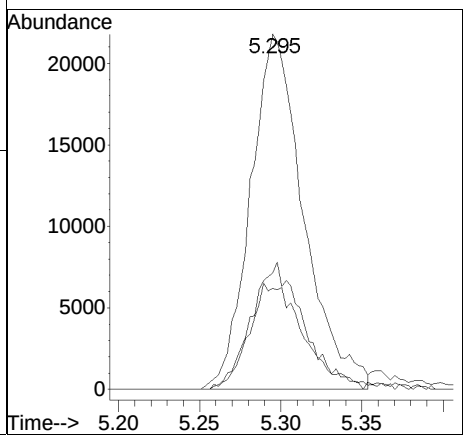


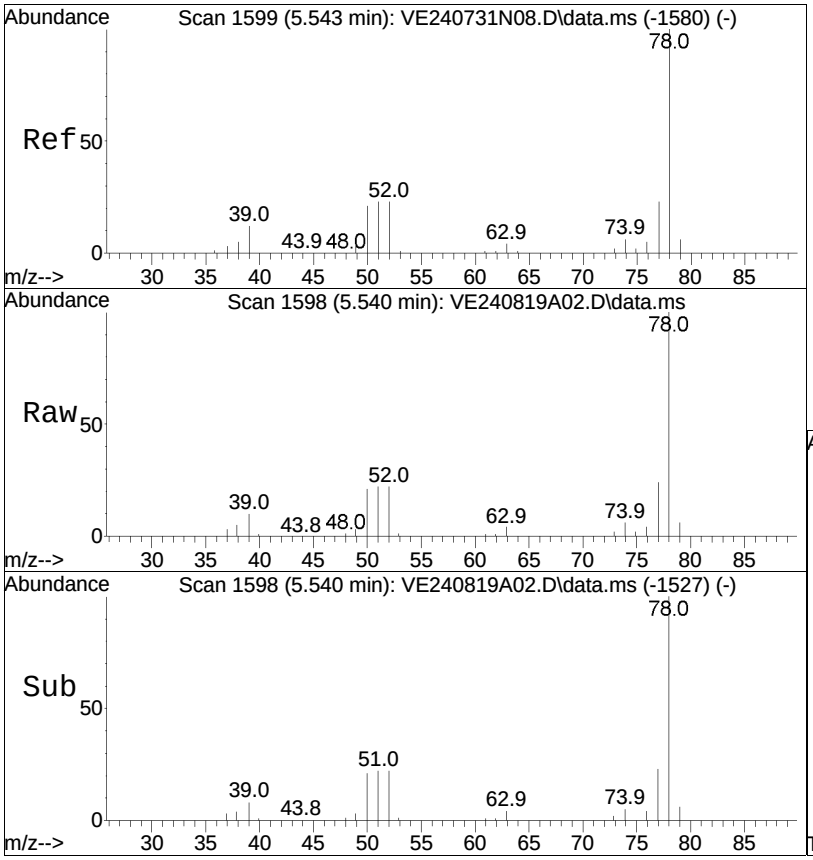


#43
1,1-Dichloropropene
Concen: 10.50 ug/L
RT: 5.295 min Scan# 1510
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 75 Resp: 49711

Ion	Ratio	Lower	Upper
75	100		
110	35.2	20.3	42.1
77	30.7	18.9	39.3

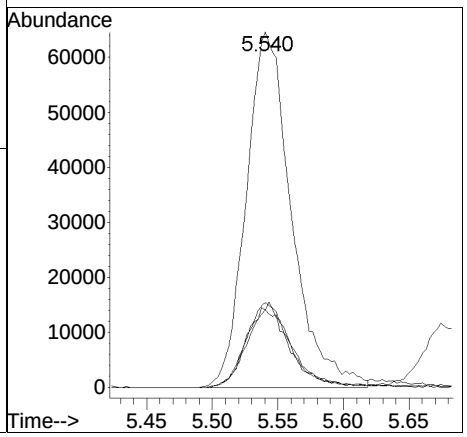


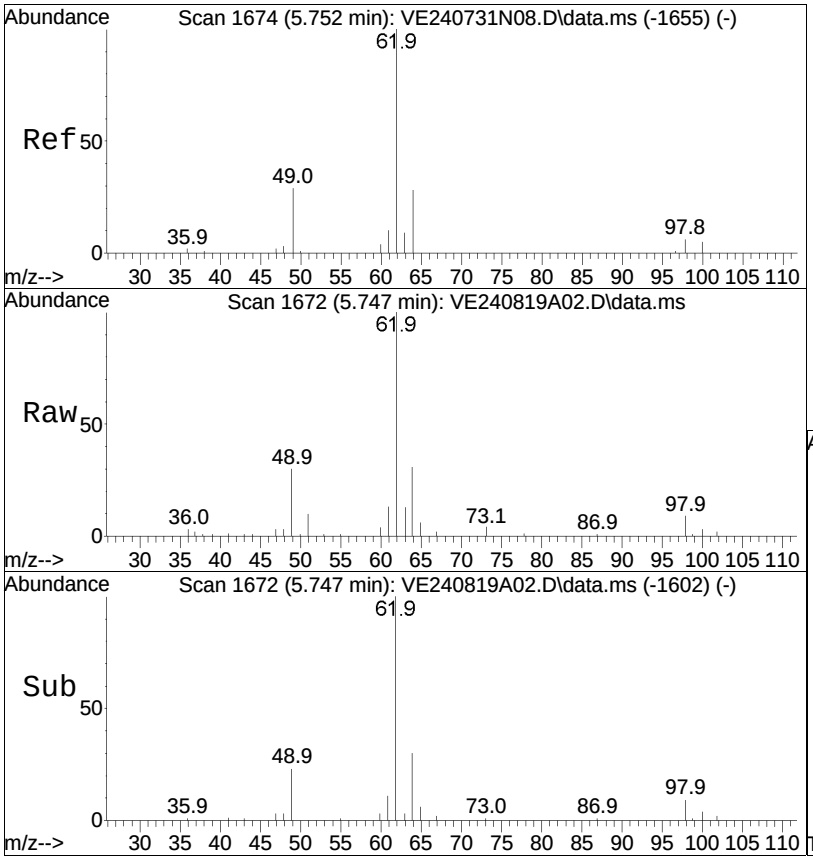


#45
Benzene
Concen: 10.59 ug/L
RT: 5.540 min Scan# 1598
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 78 Resp: 155057

Ion	Ratio	Lower	Upper
78	100		
77	23.6	12.8	26.6
51	22.7	13.5	27.9
52	21.4	12.0	25.0

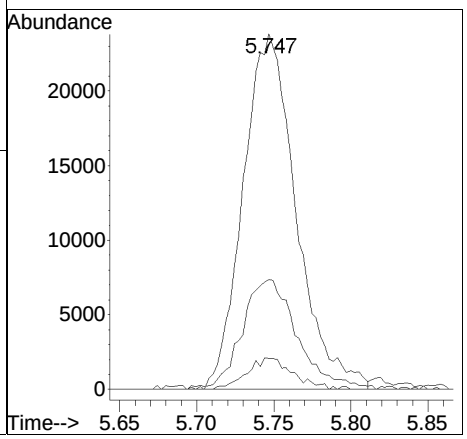


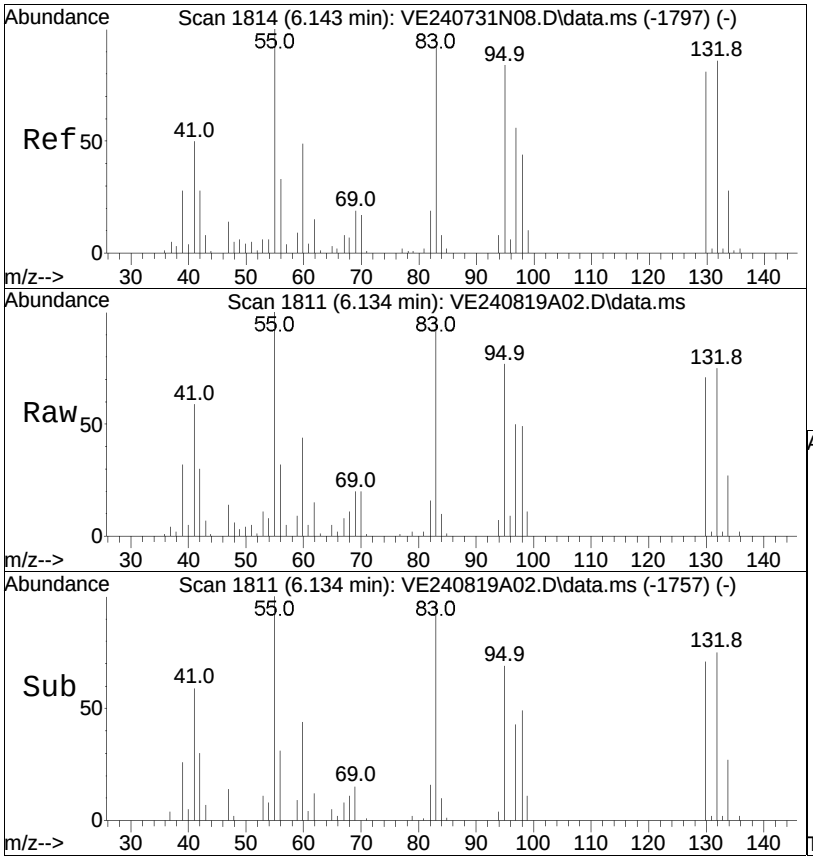


#48
1,2-Dichloroethane
Concen: 10.10 ug/L
RT: 5.747 min Scan# 1672
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 62 Resp: 57075

Ion	Ratio	Lower	Upper
62	100		
64	32.2	12.0	52.0
98	7.7	0.0	29.1

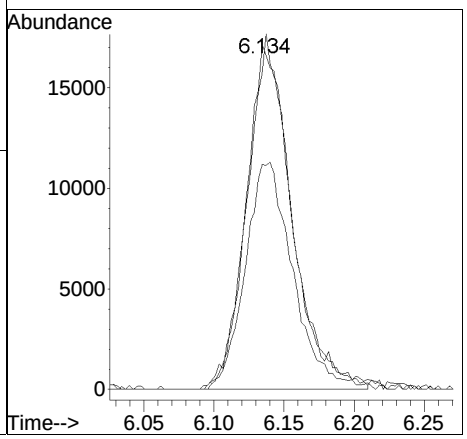


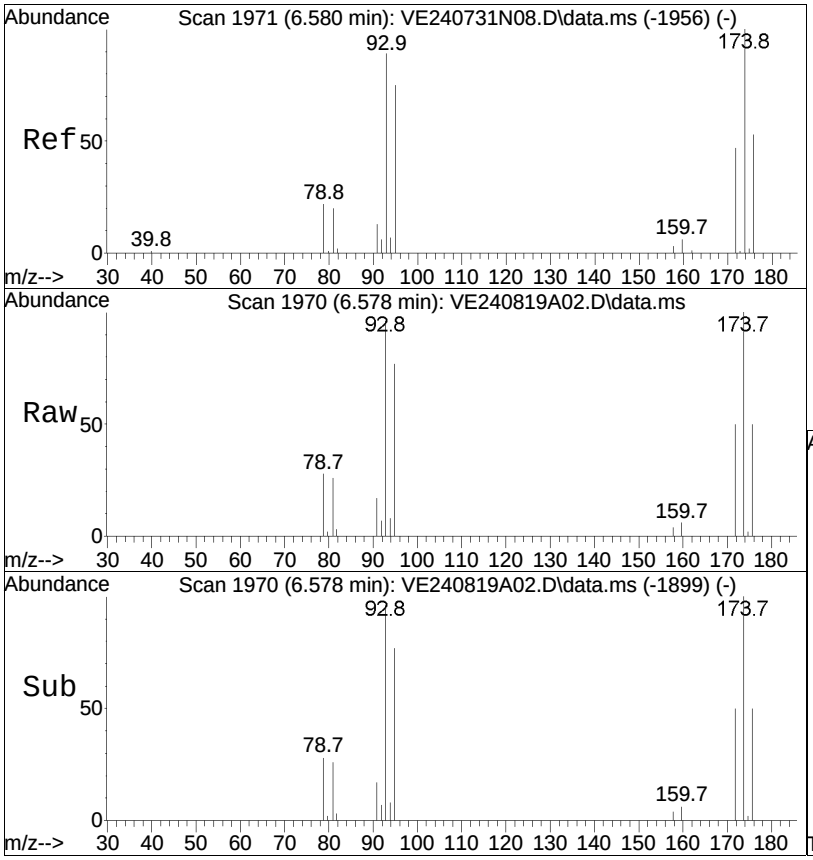


#52
Trichloroethene
Concen: 10.68 ug/L
RT: 6.134 min Scan# 1811
Delta R.T. -0.009 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 95 Resp: 39305

Ion	Ratio	Lower	Upper
95	100		
97	68.0	50.2	75.2
130	99.8	78.2	117.4

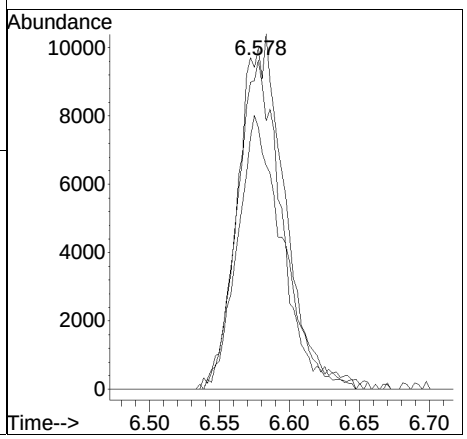


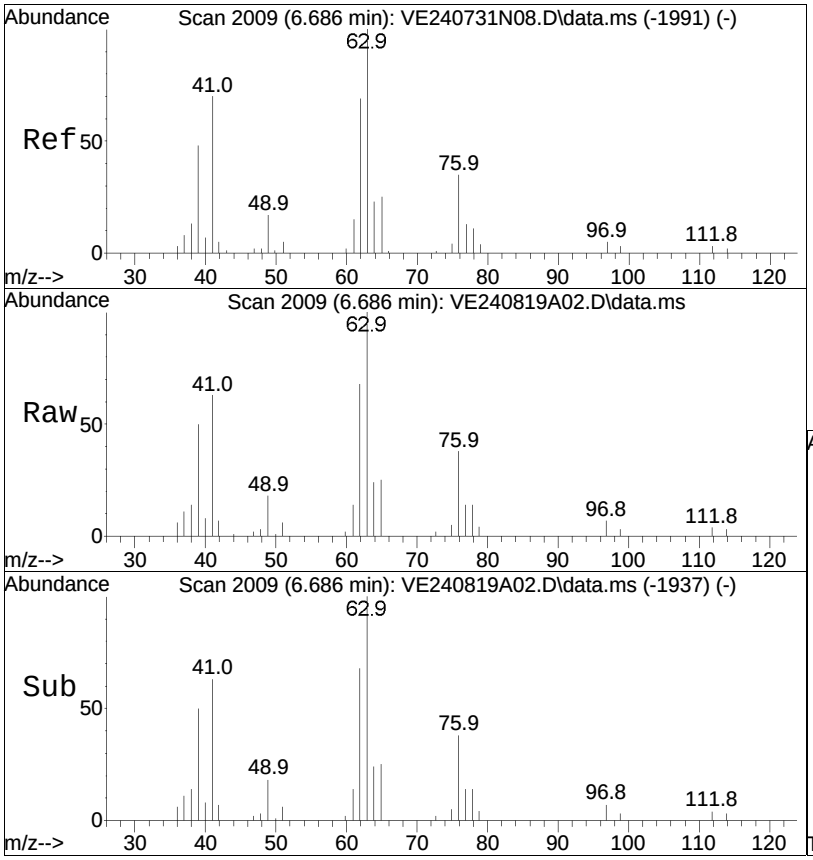


#54
Dibromomethane
Concen: 10.29 ug/L
RT: 6.578 min Scan# 1970
Delta R.T. -0.002 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 93 Resp: 21822

Ion	Ratio	Lower	Upper
93	100		
95	80.5	73.2	109.8
174	111.3	73.8	110.8#

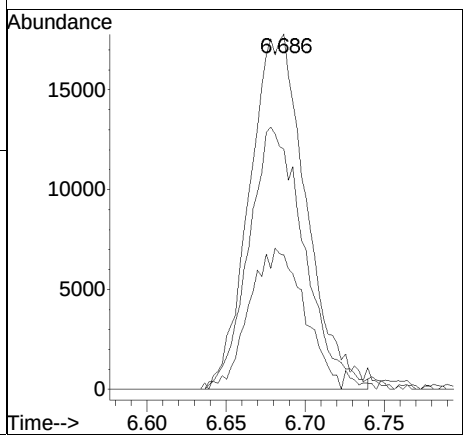


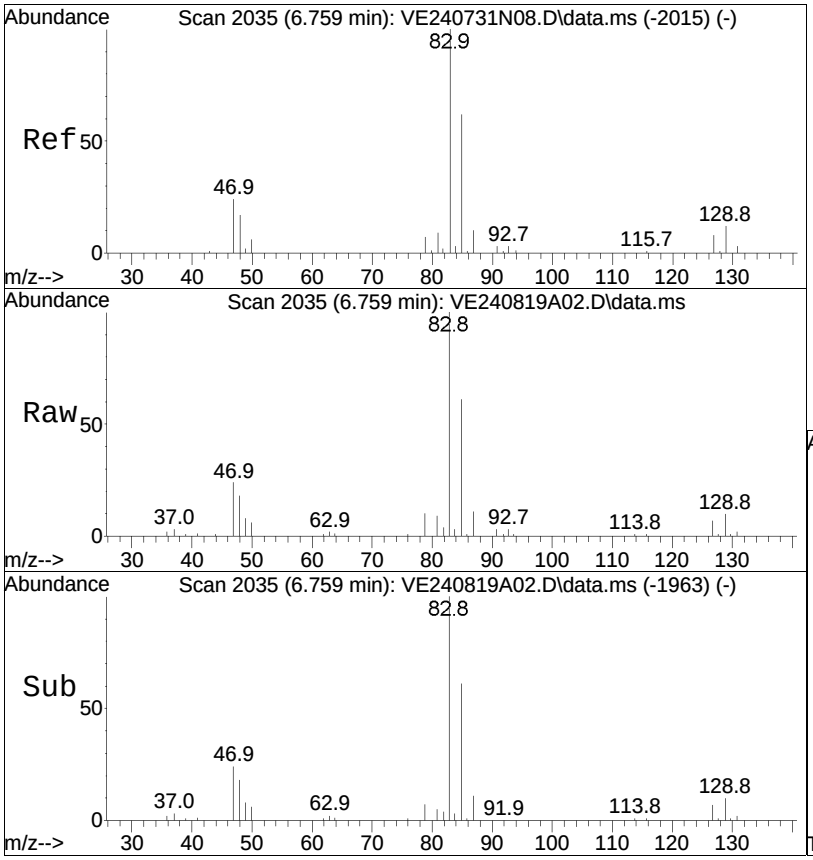


#55
1,2-Dichloropropane
Concen: 10.00 ug/L
RT: 6.686 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 63 Resp: 44211

Ion	Ratio	Lower	Upper
63	100		
62	72.7	58.4	87.6
76	38.8	28.7	43.1

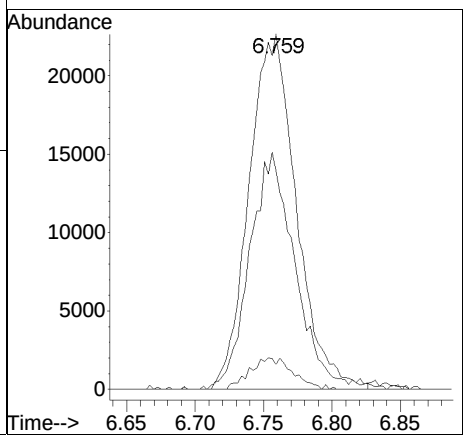


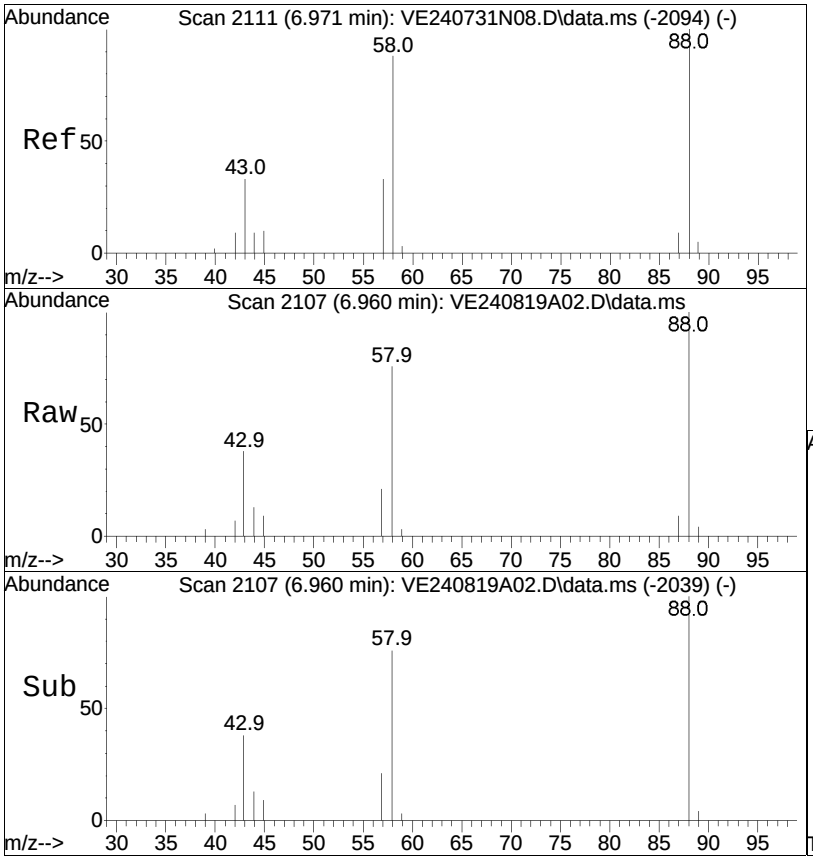


#58
Bromodichloromethane
Concen: 10.43 ug/L
RT: 6.759 min Scan# 2035
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 83 Resp: 54622

Ion	Ratio	Lower	Upper
83	100		
85	63.5	46.6	69.8
127	8.0	6.2	9.4

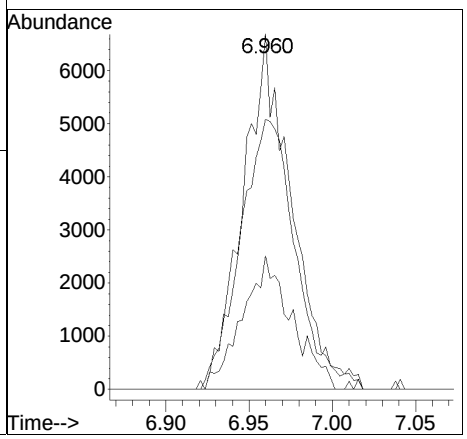


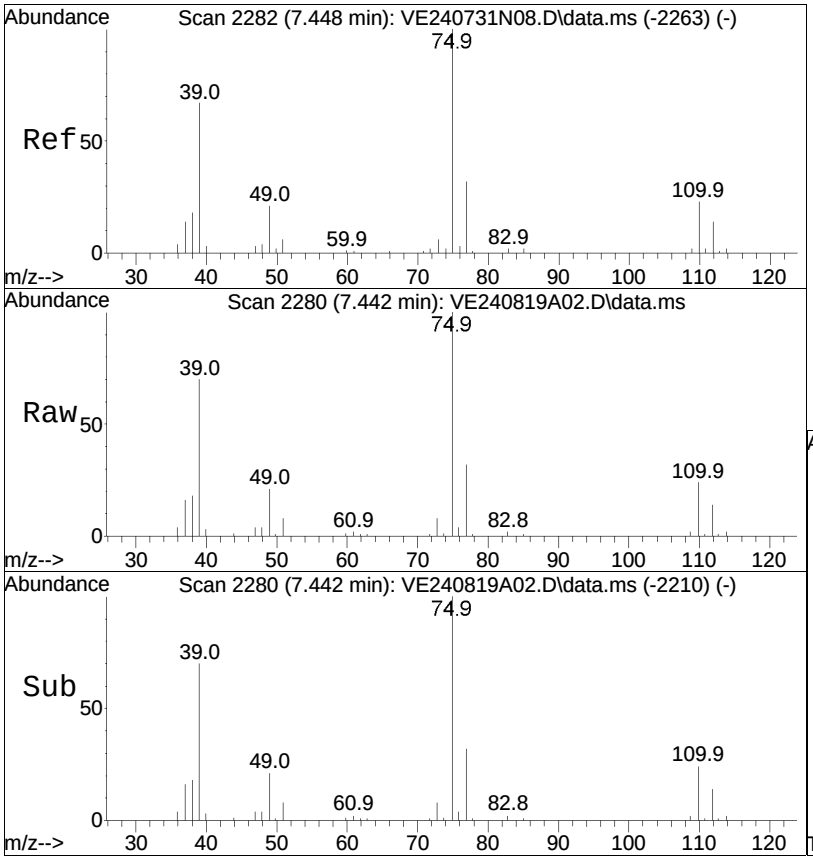


#61
1,4-Dioxane
Concen: 383.96 ug/L
RT: 6.960 min Scan# 2107
Delta R.T. -0.011 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 88 Resp: 13619

Ion	Ratio	Lower	Upper
88	100		
58	85.9	62.8	94.2
43	38.1	36.6	55.0

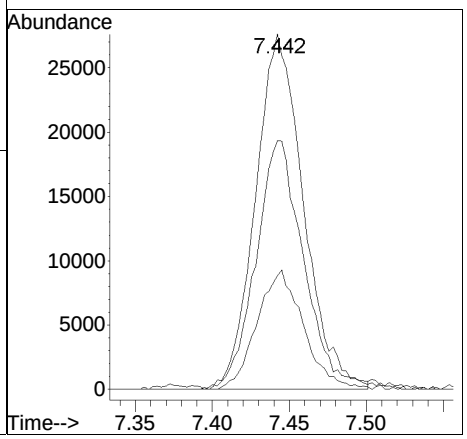


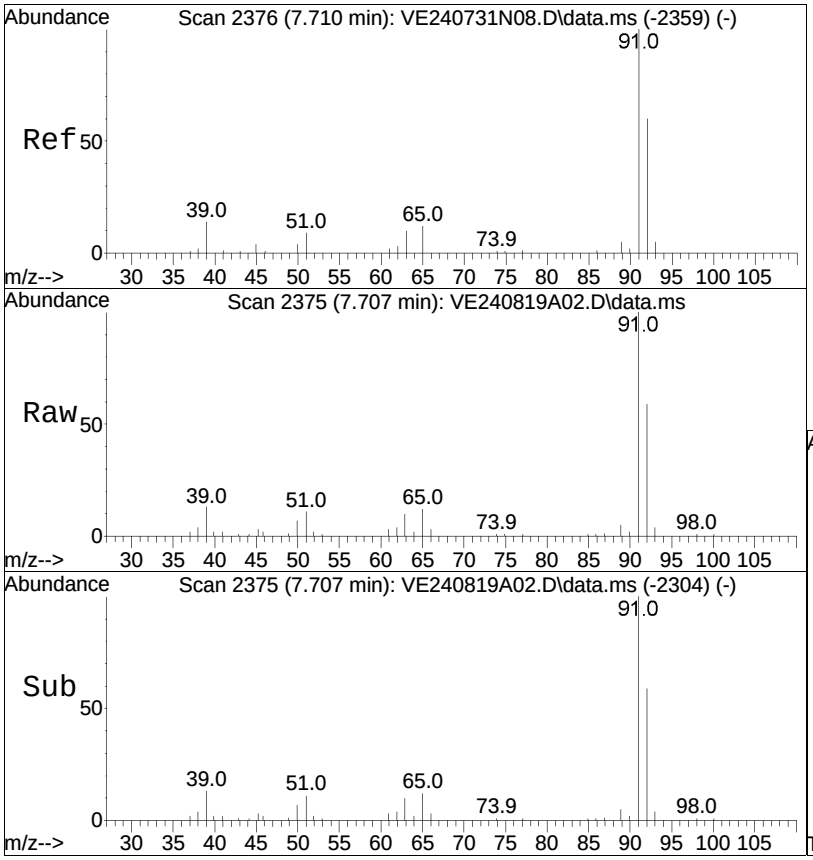


#62
cis-1,3-Dichloropropene
Concen: 10.16 ug/L
RT: 7.442 min Scan# 2280
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 75 Resp: 59915

Ion	Ratio	Lower	Upper
75	100		
77	32.5	25.1	37.7
39	70.1	50.7	76.1

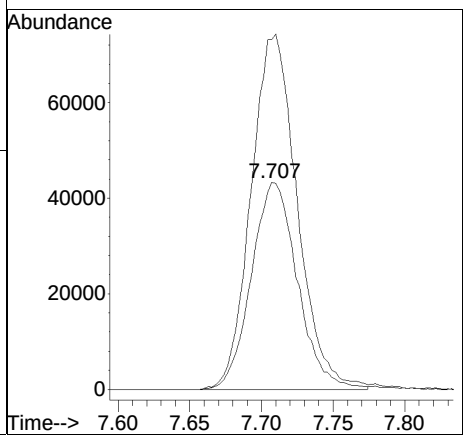


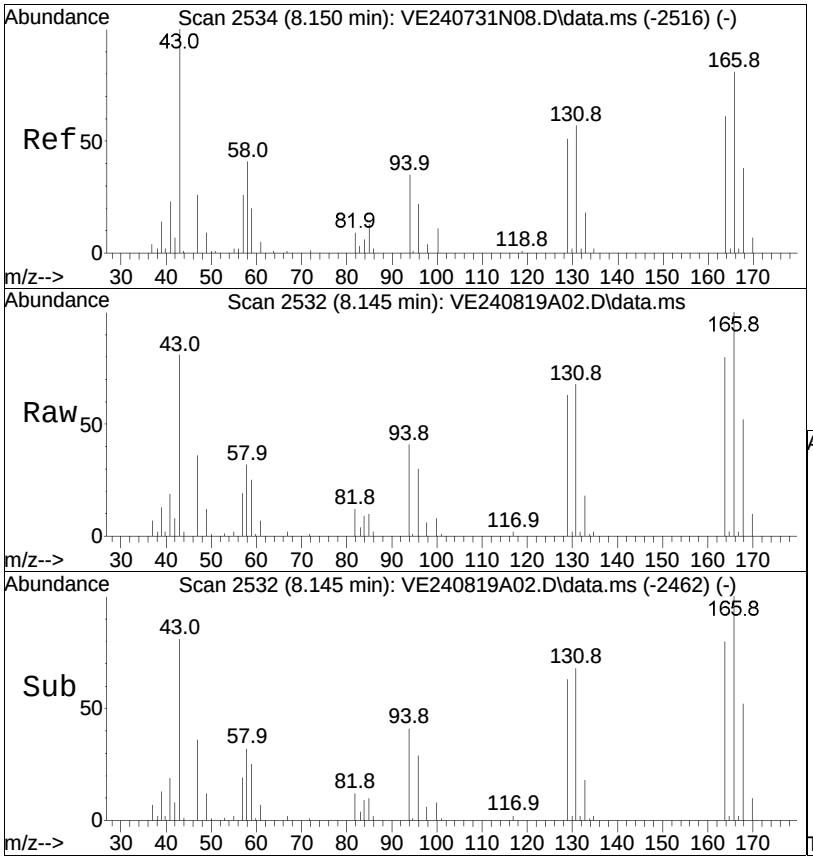


#65
Toluene
Concen: 10.37 ug/L
RT: 7.707 min Scan# 2375
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 92 Resp: 96837

Ion	Ratio	Lower	Upper
92	100		
91	172.8	129.1	193.7

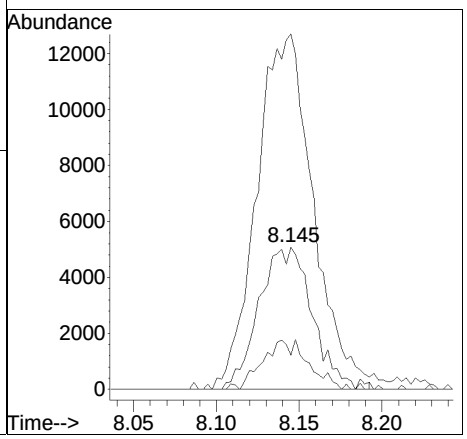


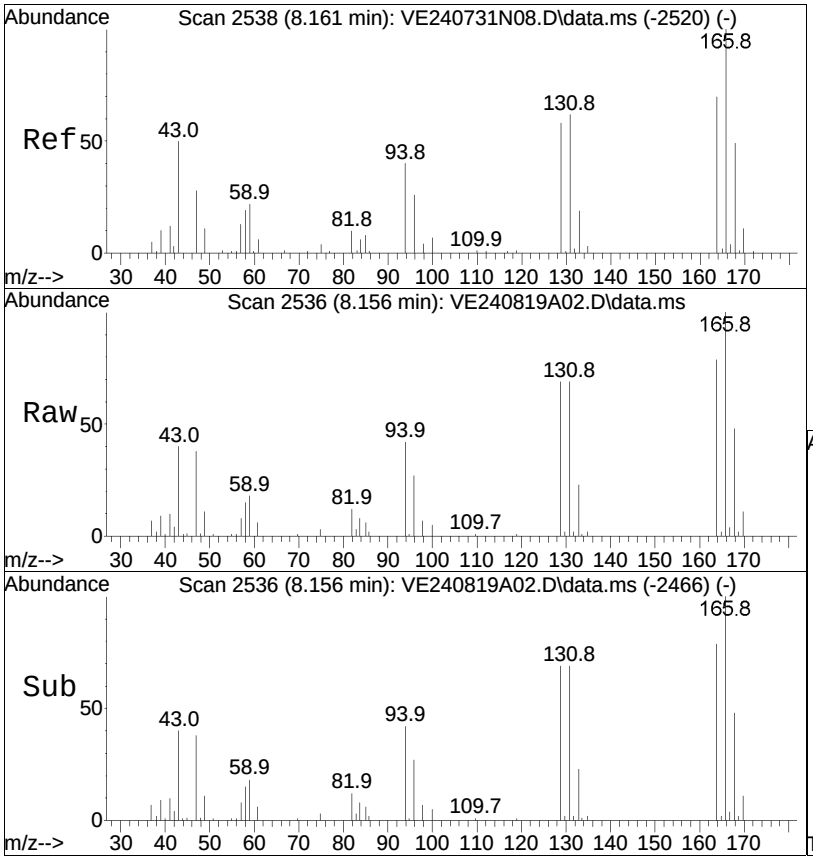


#66
4-Methyl-2-pentanone
Concen: 7.17 ug/L M3
RT: 8.145 min Scan# 2532
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 58 Resp: 11427

Ion	Ratio	Lower	Upper
58	100		
100	18.4	27.9	41.9#
43	265.1	225.7	338.5

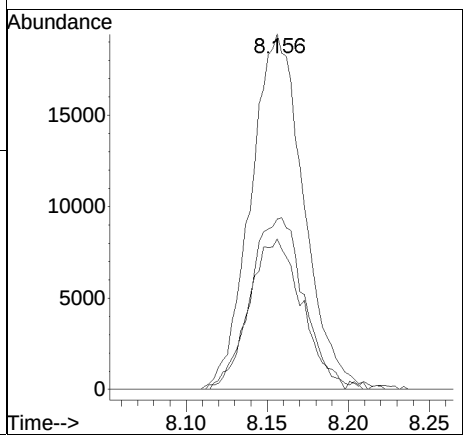


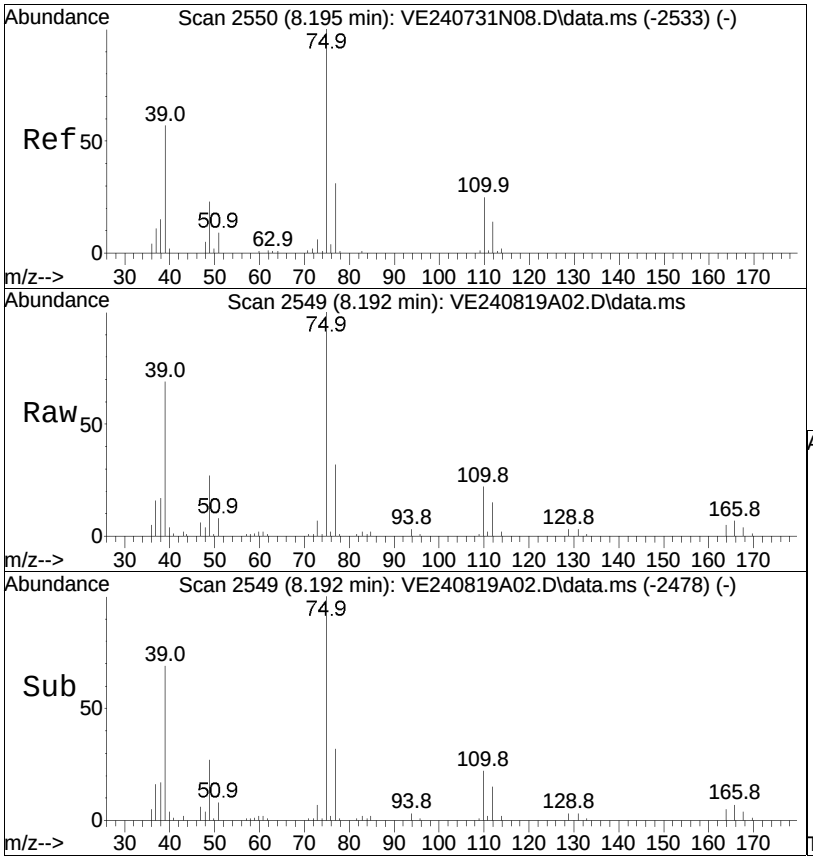


#67
Tetrachloroethene
Concen: 11.14 ug/L
RT: 8.156 min Scan# 2536
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:166 Resp: 44182

Ion	Ratio	Lower	Upper
166	100		
168	48.6	25.8	65.8
94	42.8	24.3	64.3

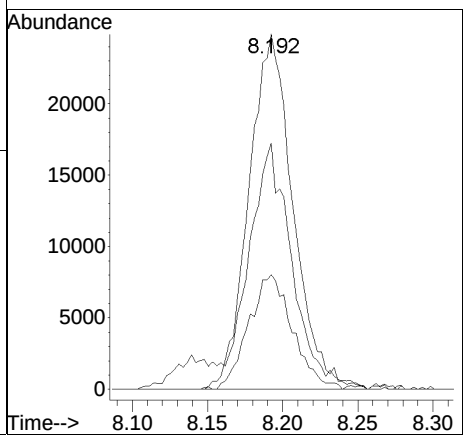


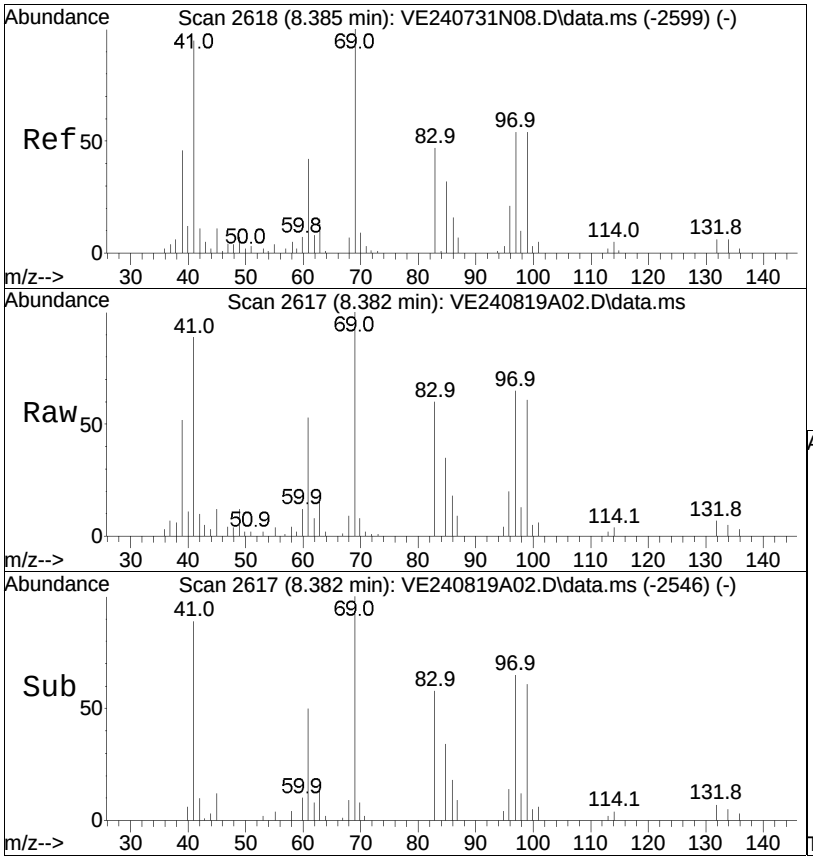


#69
trans-1,3-Dichloropropene
Concen: 9.69 ug/L
RT: 8.192 min Scan# 2549
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 75 Resp: 50951

Ion	Ratio	Lower	Upper
75	100		
77	32.0	10.2	50.2
39	66.3	45.7	85.7

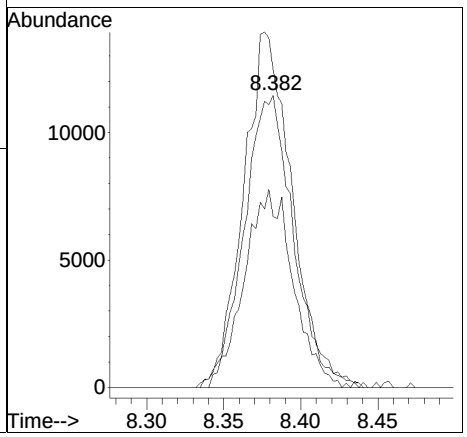


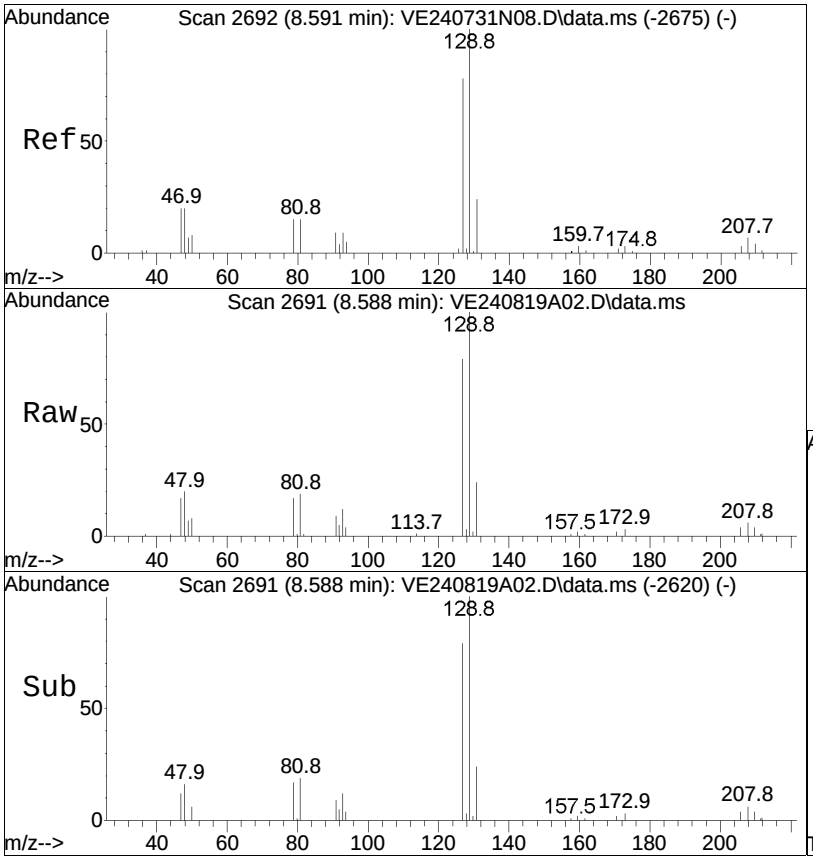


#72
1,1,2-Trichloroethane
Concen: 9.76 ug/L
RT: 8.382 min Scan# 2617
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 83 Resp: 25585

Ion	Ratio	Lower	Upper
83	100		
97	119.5	99.2	139.2
85	66.8	48.7	88.7

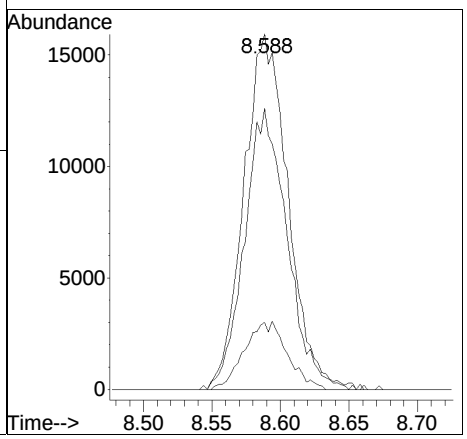


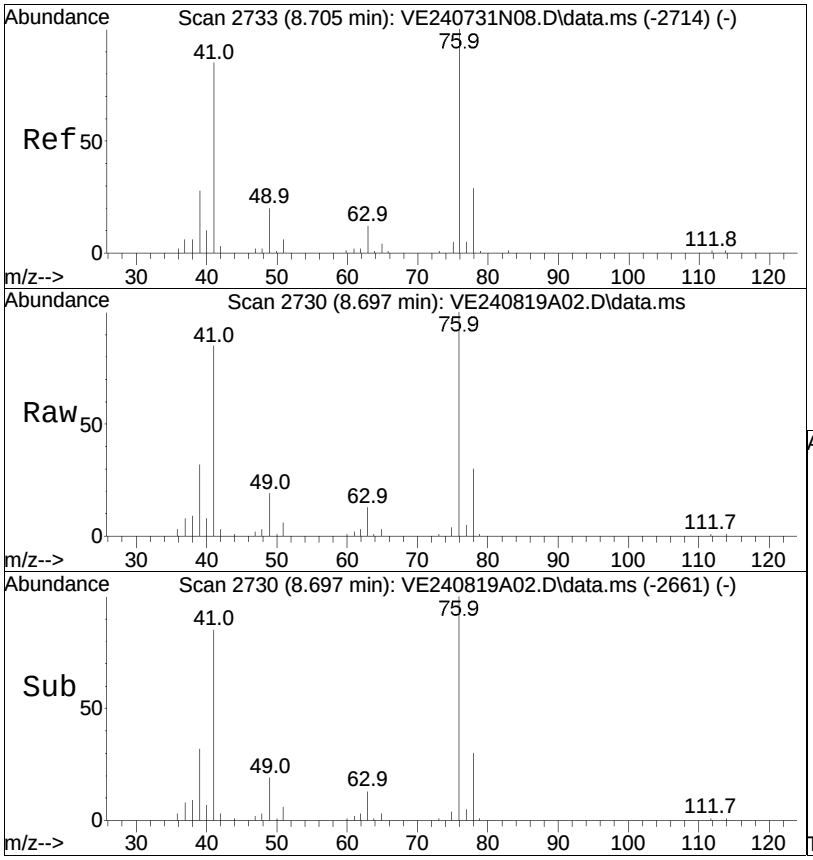


#73
Chlorodibromomethane
Concen: 9.77 ug/L
RT: 8.588 min Scan# 2691
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:129 Resp: 35804

Ion	Ratio	Lower	Upper
129	100		
81	18.5	0.0	39.5
127	76.0	58.6	98.6

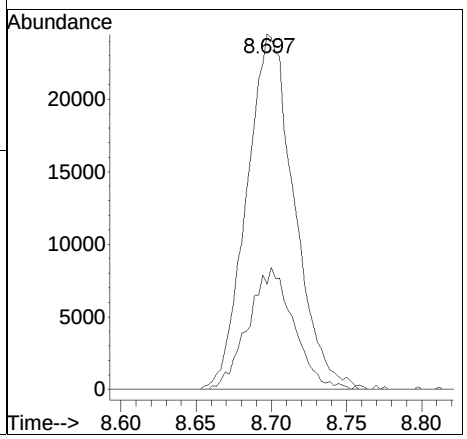


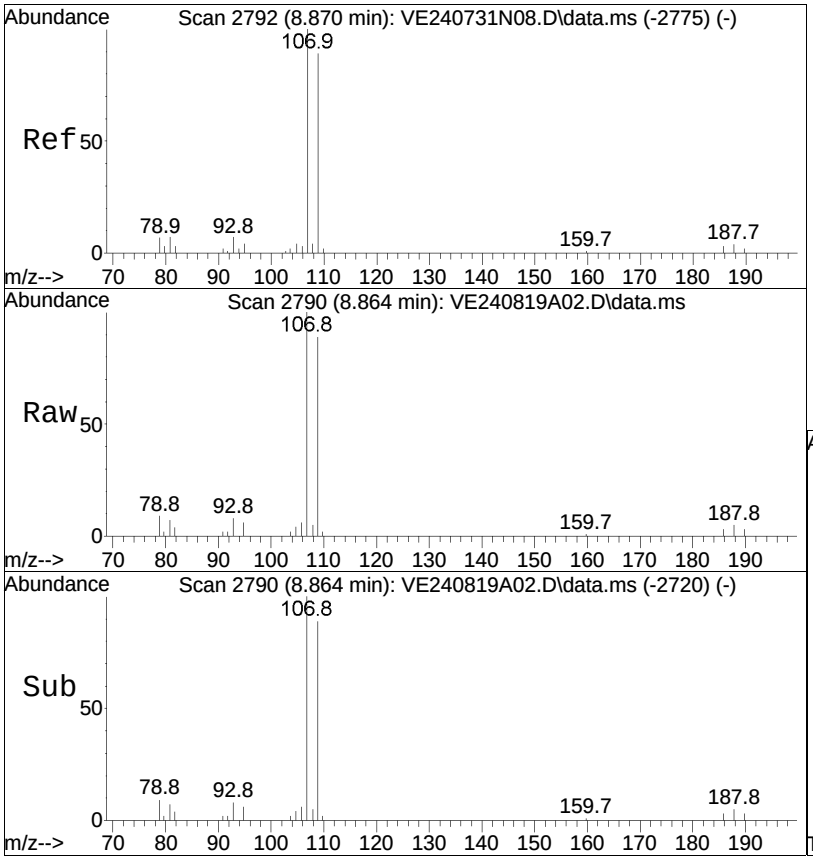


#74
1,3-Dichloropropane
Concen: 9.77 ug/L
RT: 8.697 min Scan# 2730
Delta R.T. -0.008 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 76 Resp: 54082

Ion	Ratio	Lower	Upper
76	100		
78	32.7	27.0	40.4

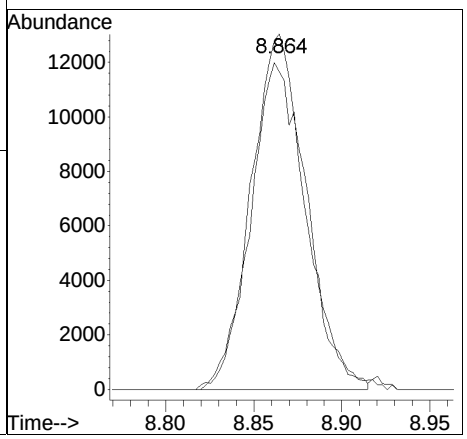


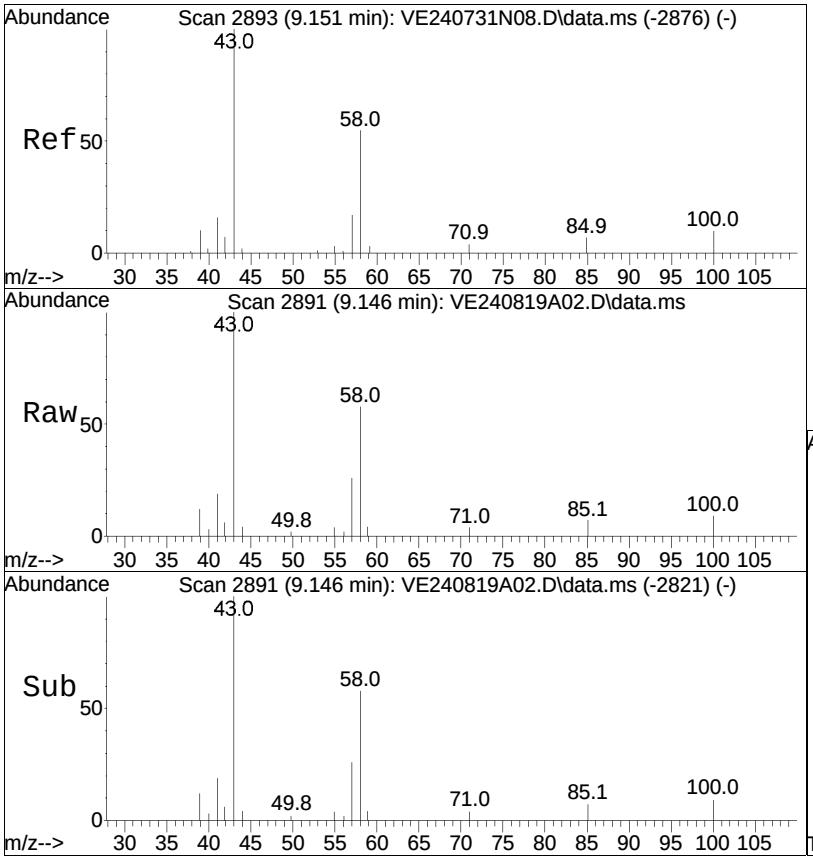


#75
1,2-Dibromoethane
Concen: 9.17 ug/L
RT: 8.864 min Scan# 2790
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:107 Resp: 28410

Ion	Ratio	Lower	Upper
107	100		
109	92.6	66.3	99.5

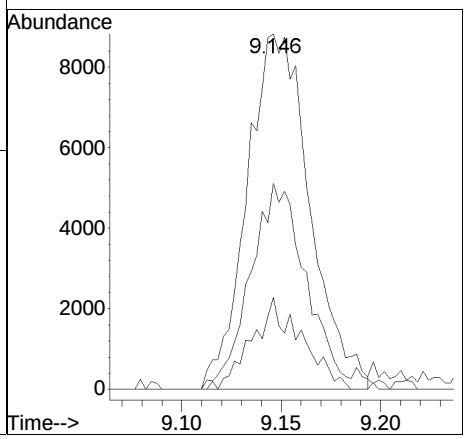


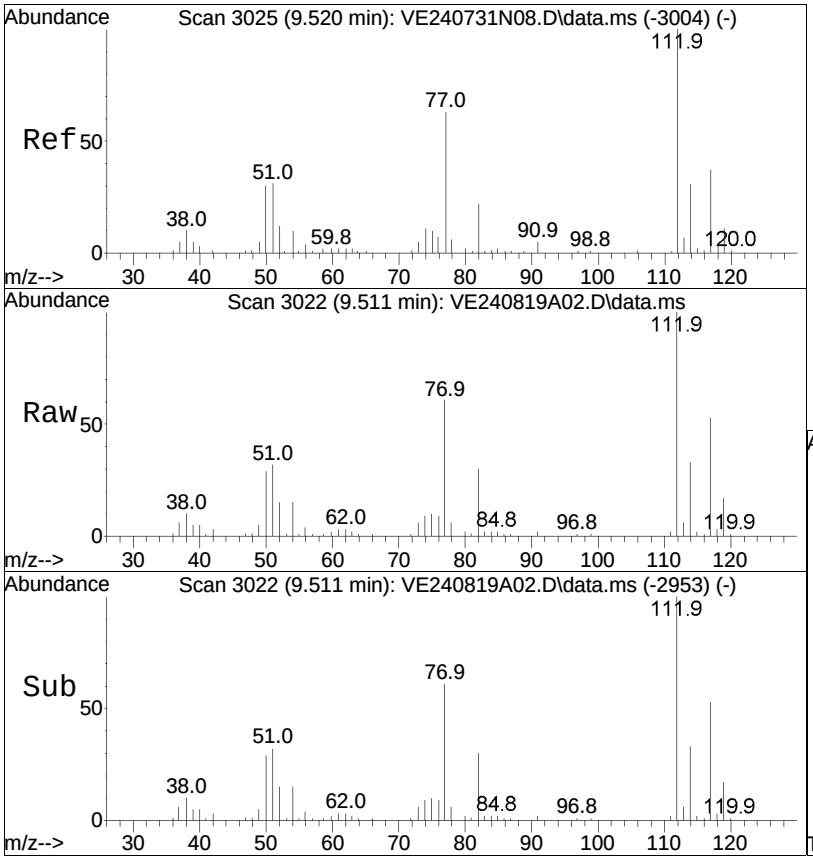


#77
2-Hexanone
Concen: 6.25 ug/L
RT: 9.146 min Scan# 2891
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 43 Resp: 19409

Ion	Ratio	Lower	Upper
43	100		
58	51.1	42.5	63.7
57	12.4	13.9	20.9#

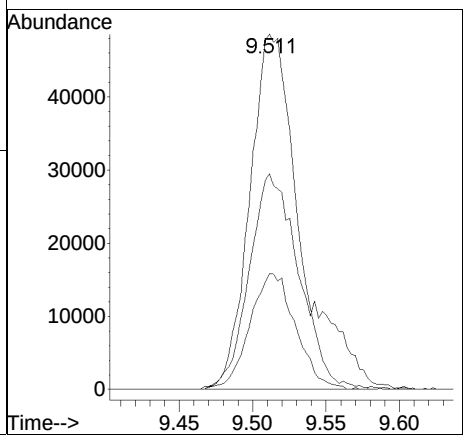


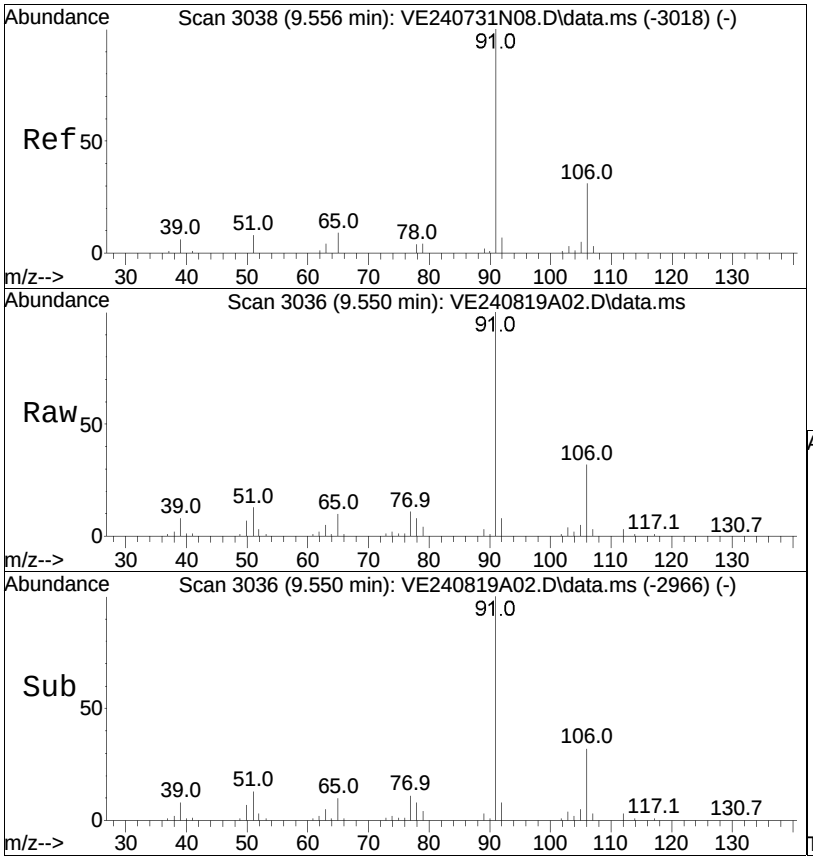


#78
Chlorobenzene
Concen: 10.62 ug/L
RT: 9.511 min Scan# 3022
Delta R.T. -0.009 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:112 Resp: 105712

Ion	Ratio	Lower	Upper
112	100		
77	77.1	46.9	70.3#
114	32.6	23.8	35.6

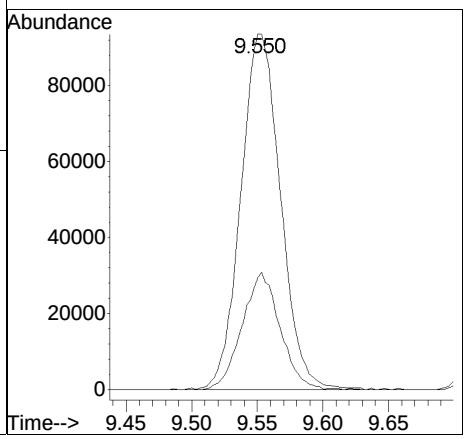


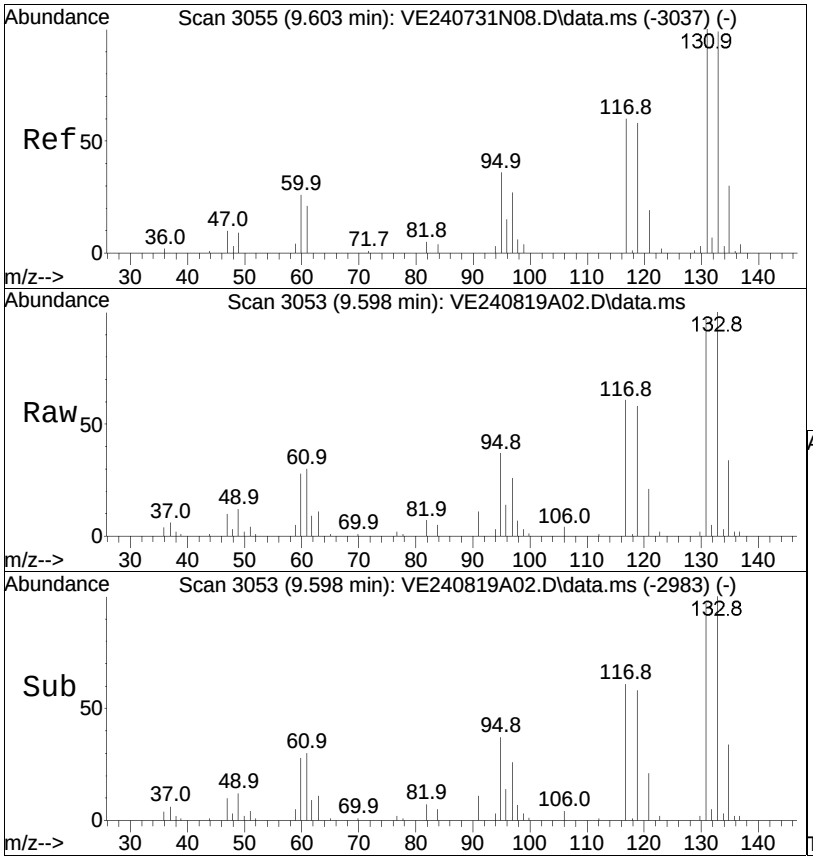


#79
Ethylbenzene
Concen: 10.88 ug/L
RT: 9.550 min Scan# 3036
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 91 Resp: 196914

Ion	Ratio	Lower	Upper
91	100		
106	31.2	25.3	37.9

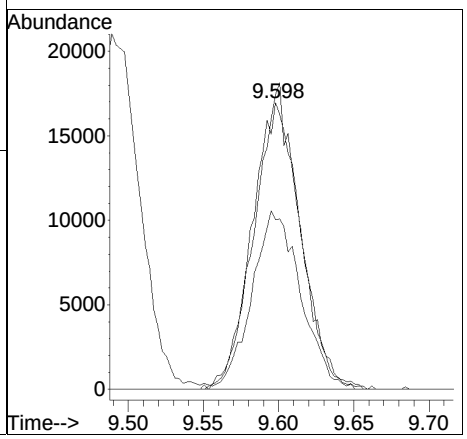


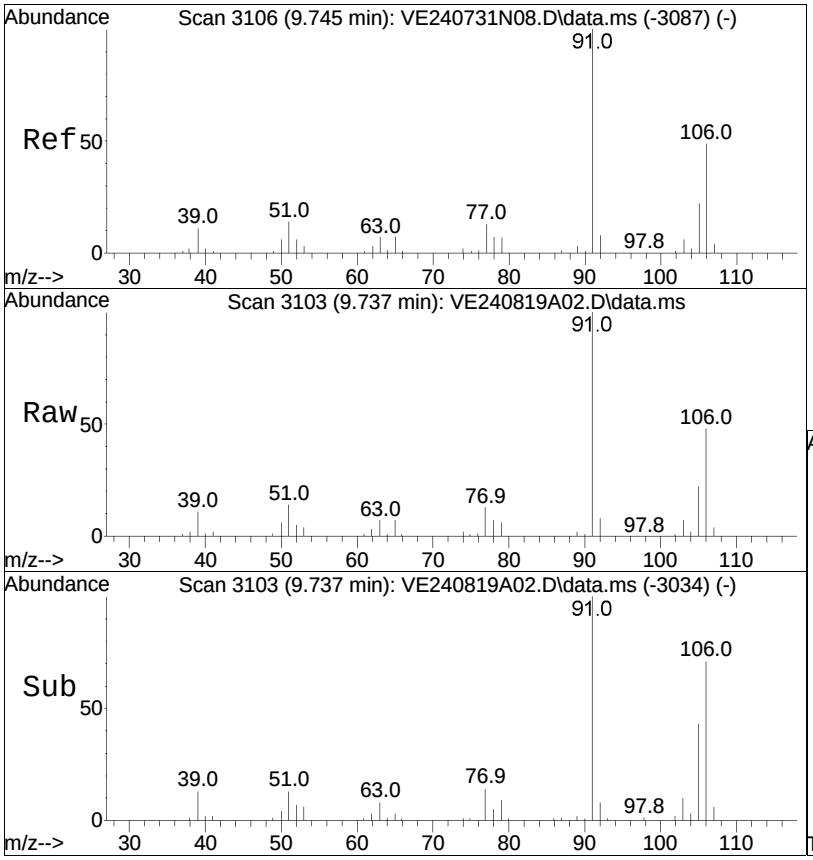


#80
1,1,1,2-Tetrachloroethane
Concen: 10.58 ug/L
RT: 9.598 min Scan# 3053
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:131 Resp: 38579

Ion	Ratio	Lower	Upper
131	100		
133	98.1	72.9	112.9
119	61.8	39.6	79.6

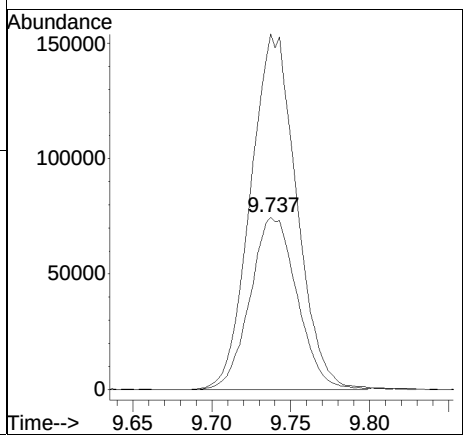


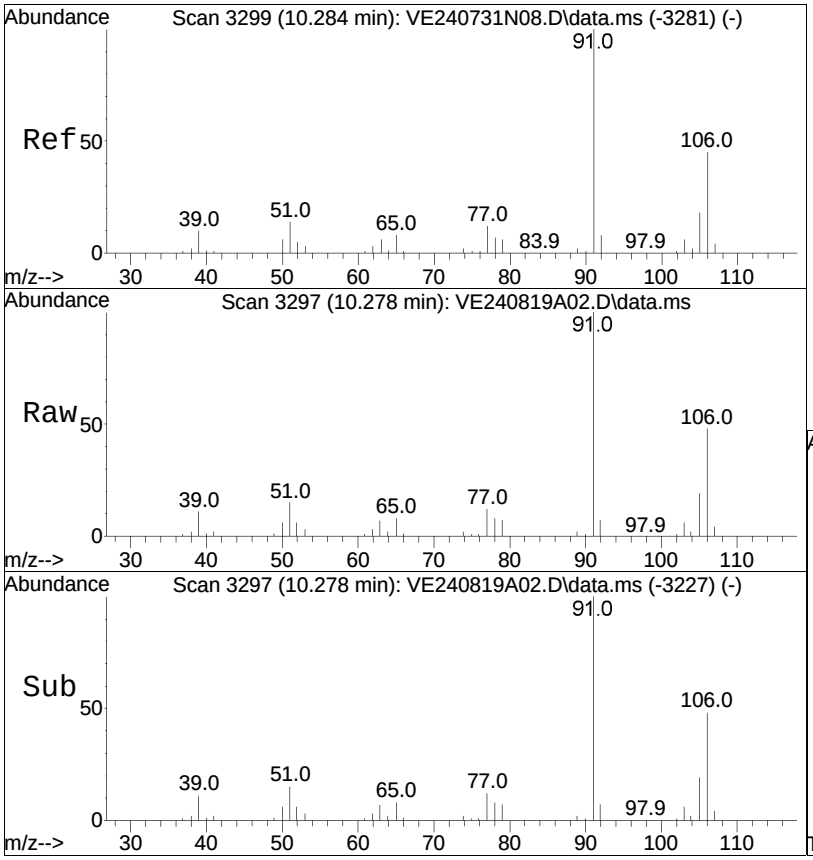


#81
p/m Xylene
Concen: 22.29 ug/L
RT: 9.737 min Scan# 3103
Delta R.T. -0.008 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:106 Resp: 153799

Ion	Ratio	Lower	Upper
106	100		
91	203.1	163.3	244.9

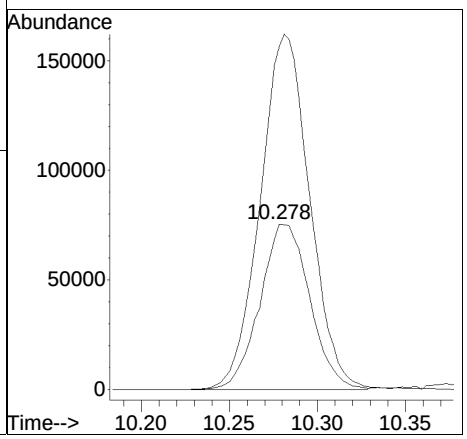


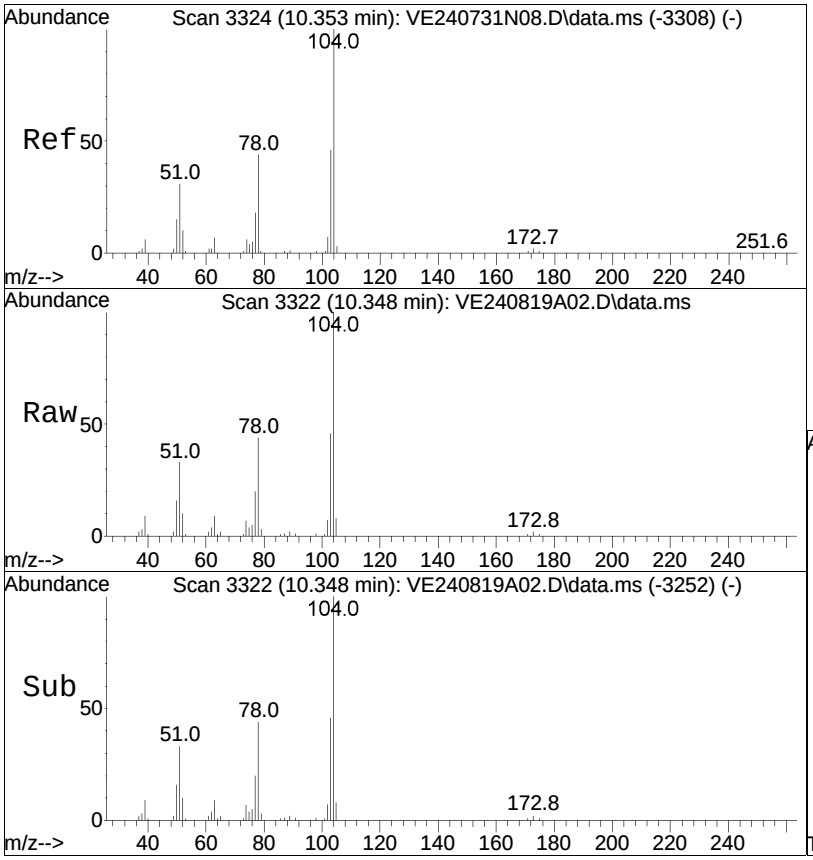


#82
o Xylene
Concen: 21.93 ug/L
RT: 10.278 min Scan# 3297
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:106 Resp: 147960

Ion	Ratio	Lower	Upper
106	100		
91	213.9	181.0	271.6

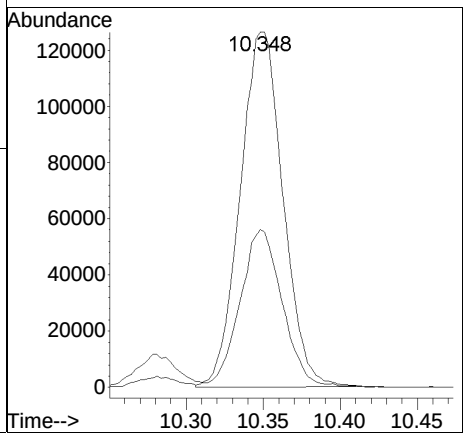


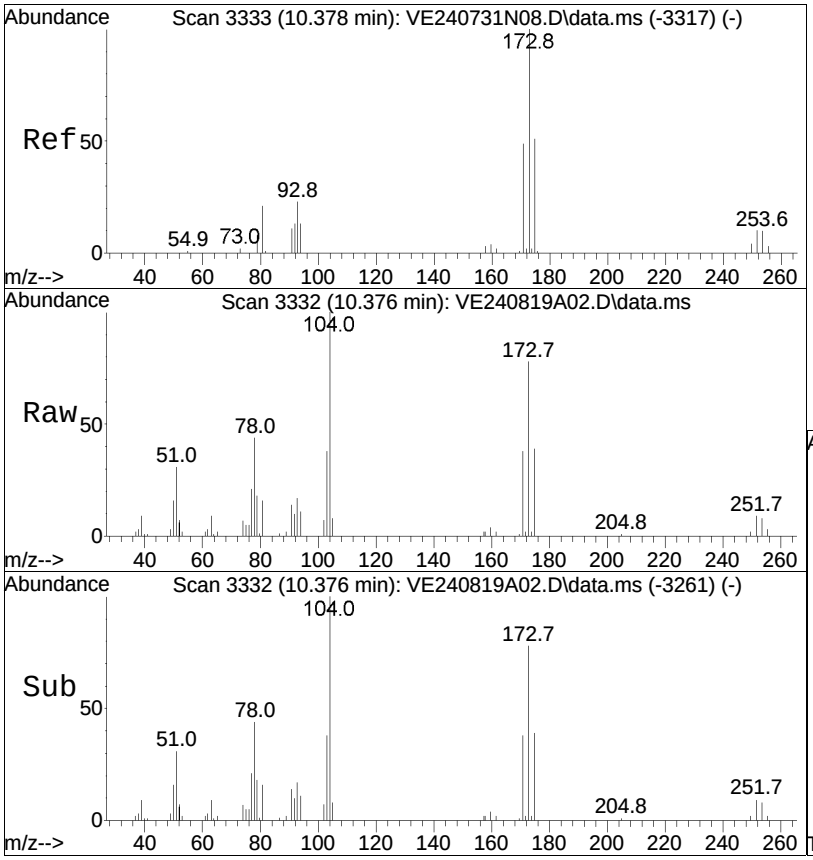


#83
Styrene
Concen: 22.10 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:104 Resp: 244415

Ion	Ratio	Lower	Upper
104	100		
78	44.0	35.9	53.9

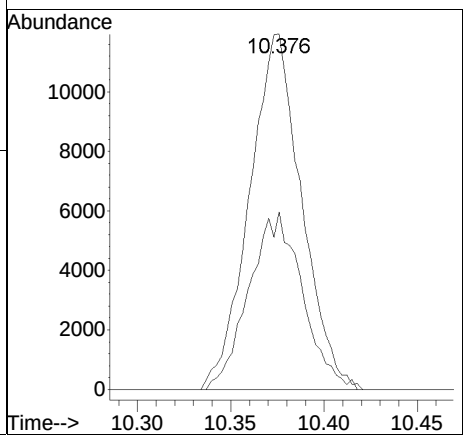


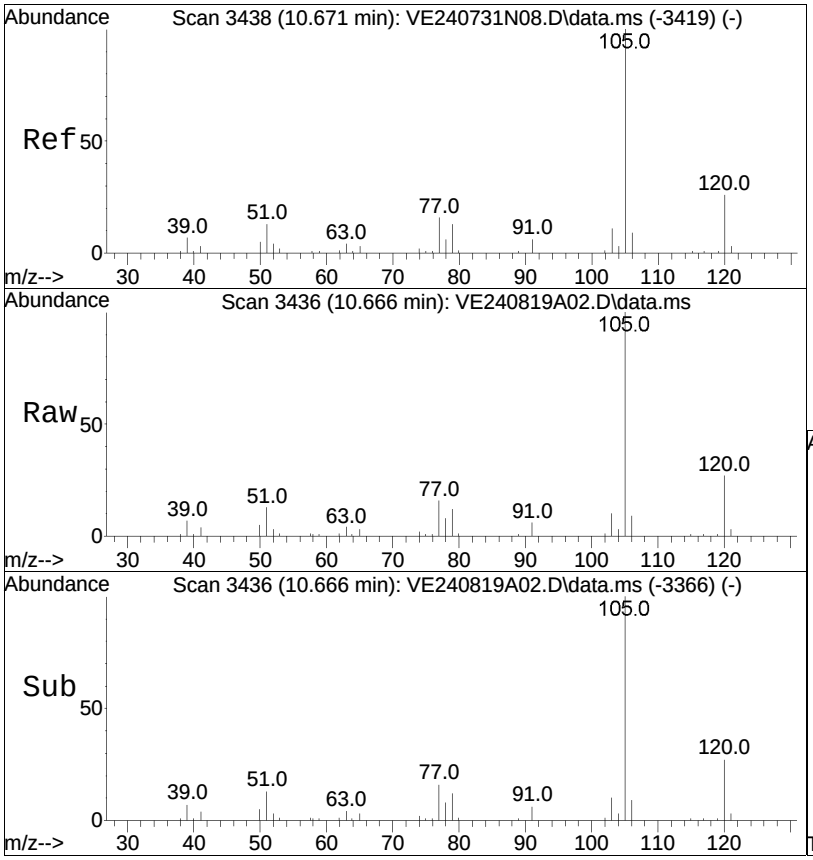


#85
Bromoform
Concen: 8.80 ug/L
RT: 10.376 min Scan# 3332
Delta R.T. -0.002 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:173 Resp: 23290

Ion	Ratio	Lower	Upper
173	100		
175	50.8	32.9	72.9

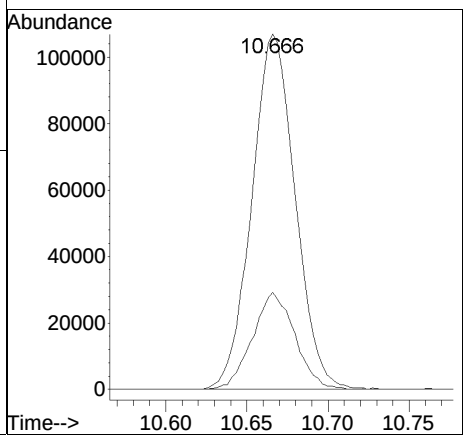


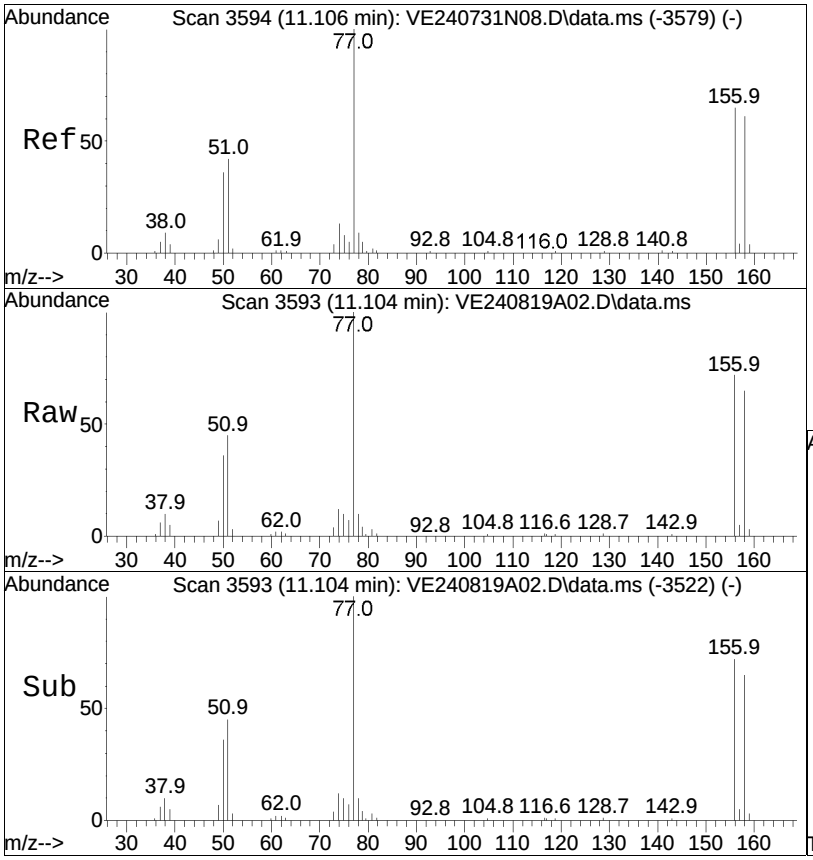


#87
Isopropylbenzene
Concen: 10.23 ug/L
RT: 10.666 min Scan# 3436
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:105 Resp: 199229

Ion	Ratio	Lower	Upper
105	100		
120	26.7	4.8	44.8

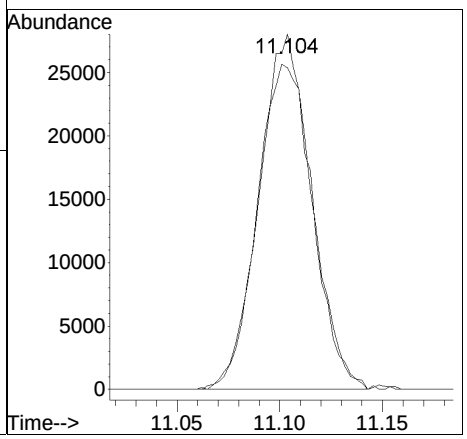


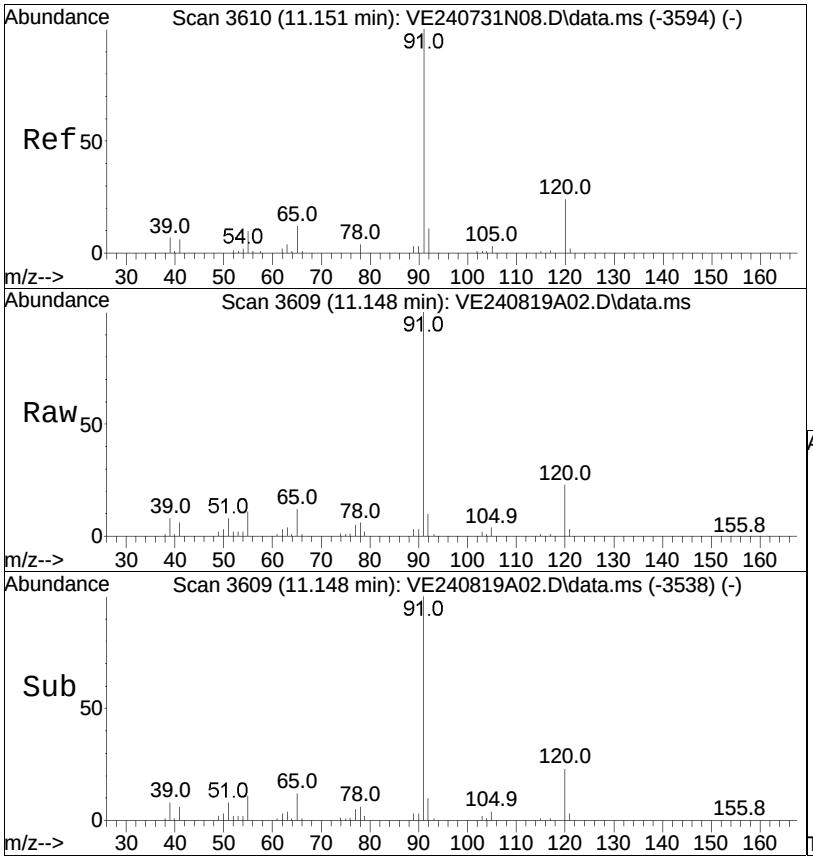


#89
Bromobenzene
Concen: 10.15 ug/L
RT: 11.104 min Scan# 3593
Delta R.T. -0.002 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:156 Resp: 49937

Ion	Ratio	Lower	Upper
156	100		
158	96.3	75.9	113.9

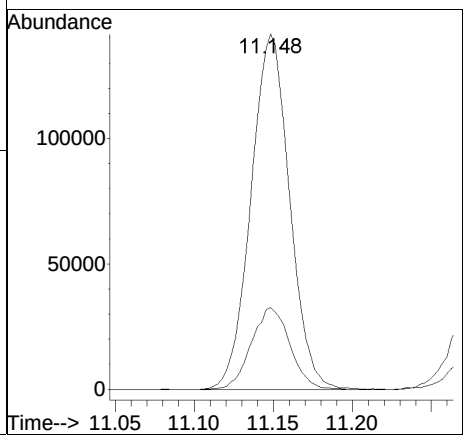


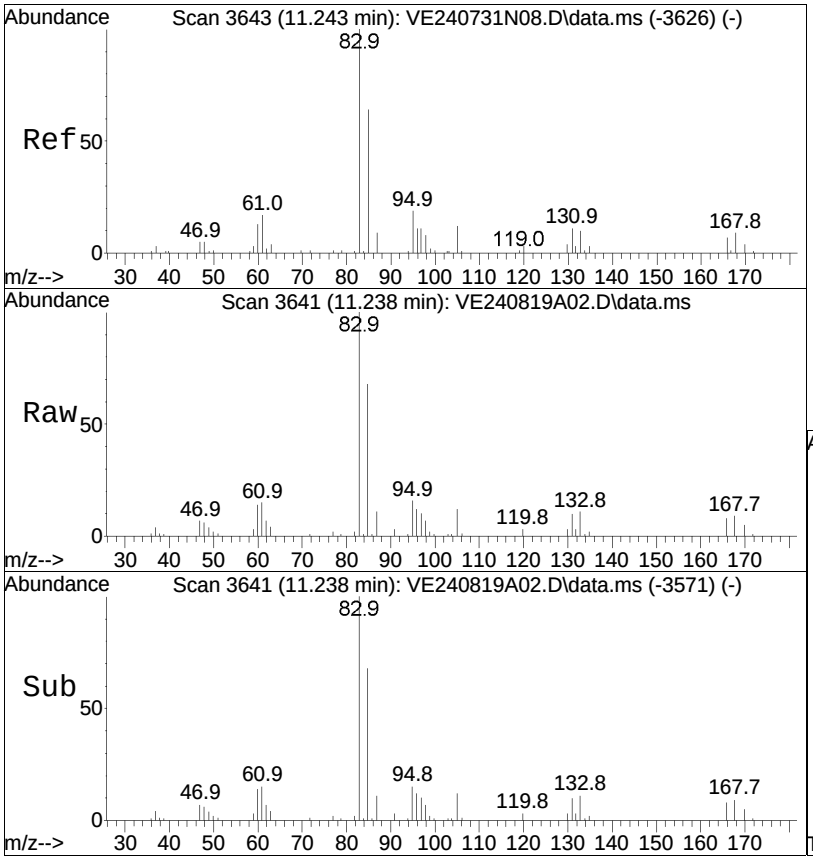


#90
n-Propylbenzene
Concen: 10.34 ug/L
RT: 11.148 min Scan# 3609
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 91 Resp: 240588

Ion	Ratio	Lower	Upper
91	100		
120	23.0	16.7	25.1

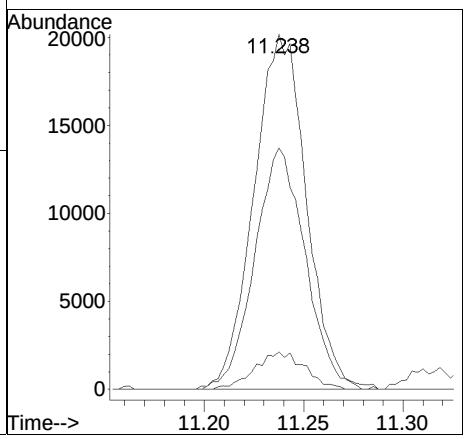


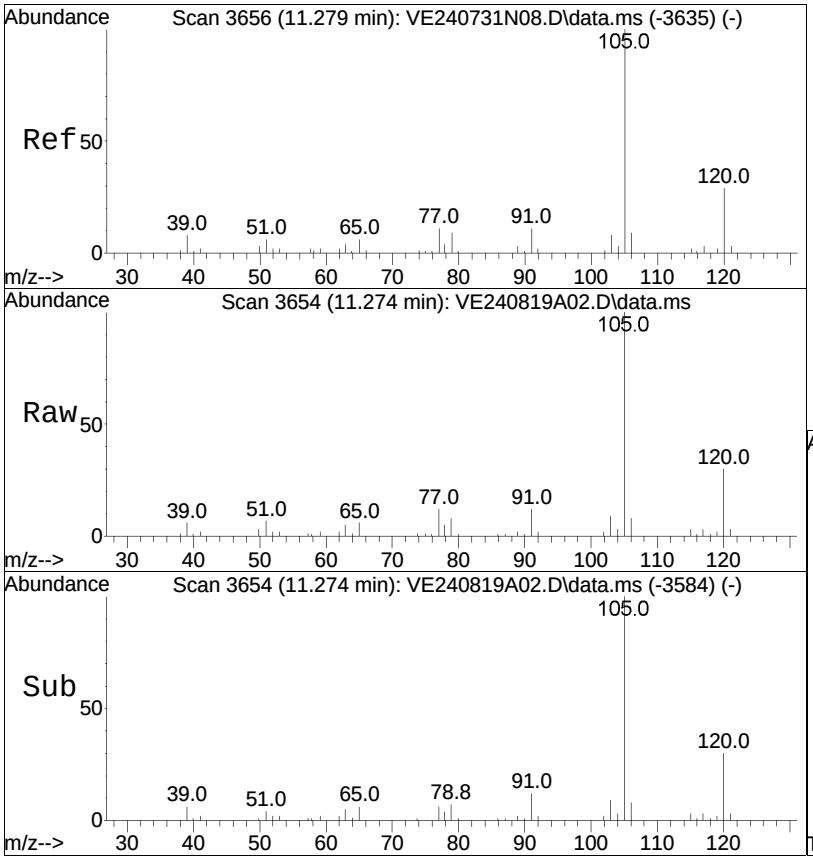


#92
1,1,2,2-Tetrachloroethane
Concen: 8.93 ug/L
RT: 11.238 min Scan# 3641
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 83 Resp: 36896

Ion	Ratio	Lower	Upper
83	100		
131	10.1	0.0	28.6
85	66.2	47.4	87.4

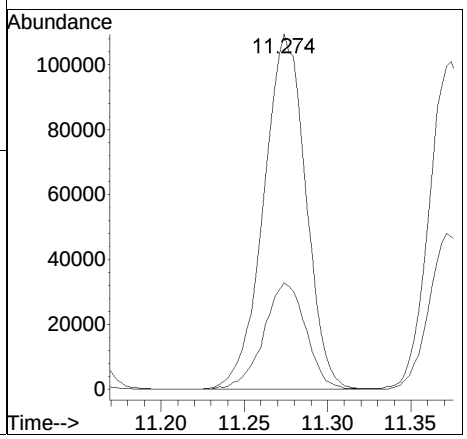


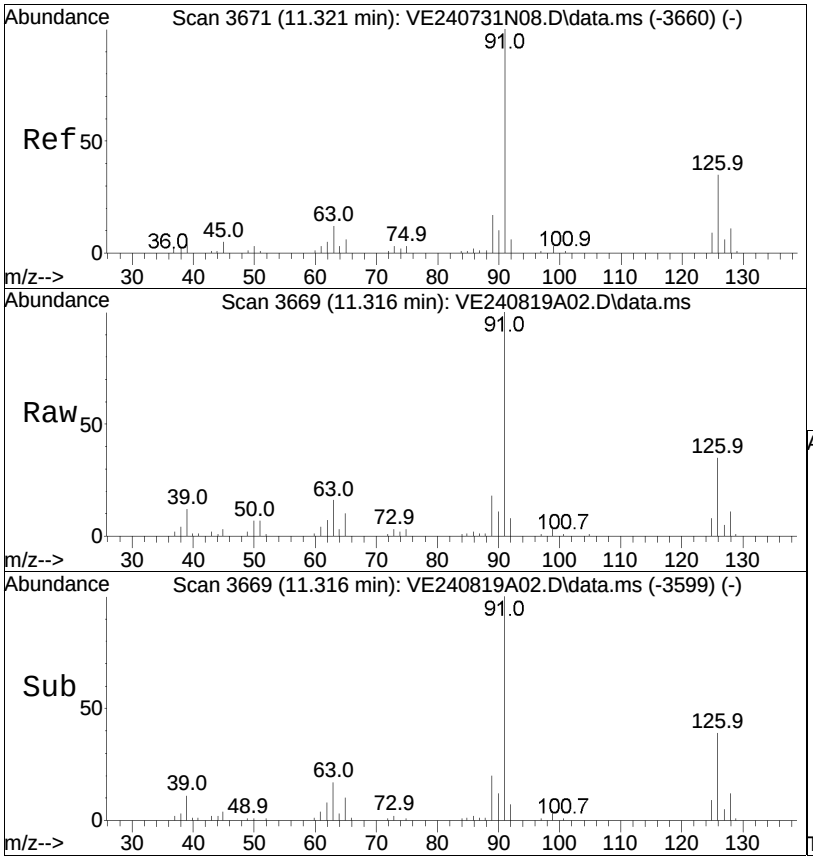


#93
4-Ethyltoluene
Concen: 10.21 ug/L
RT: 11.274 min Scan# 3654
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:105 Resp: 192764

Ion	Ratio	Lower	Upper
105	100		
120	30.0	18.9	39.3

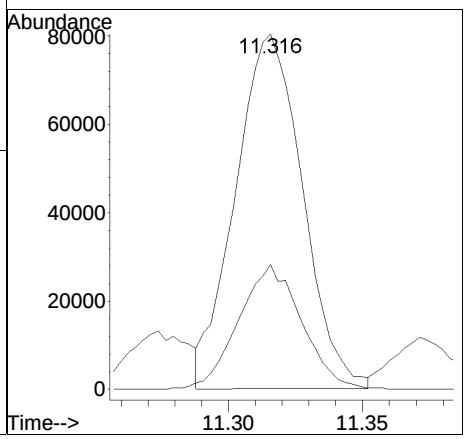


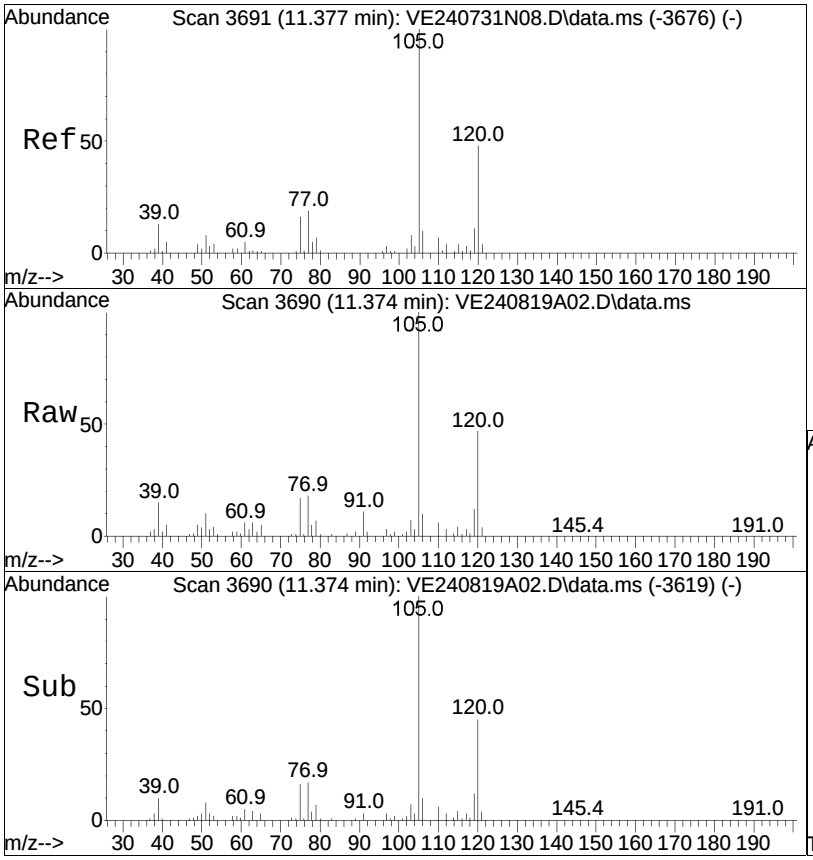


#94
2-Chlorotoluene
Concen: 10.22 ug/L
RT: 11.316 min Scan# 3669
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 91 Resp: 139956

Ion	Ratio	Lower	Upper
91	100		
126	32.9	24.4	36.6

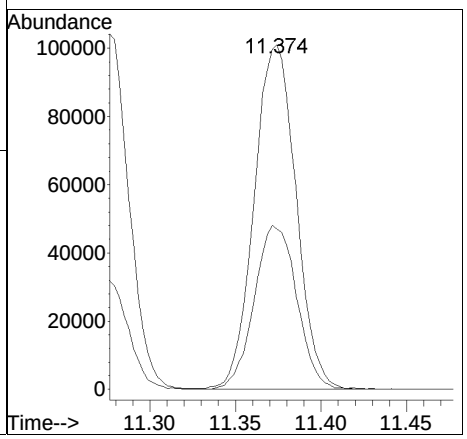


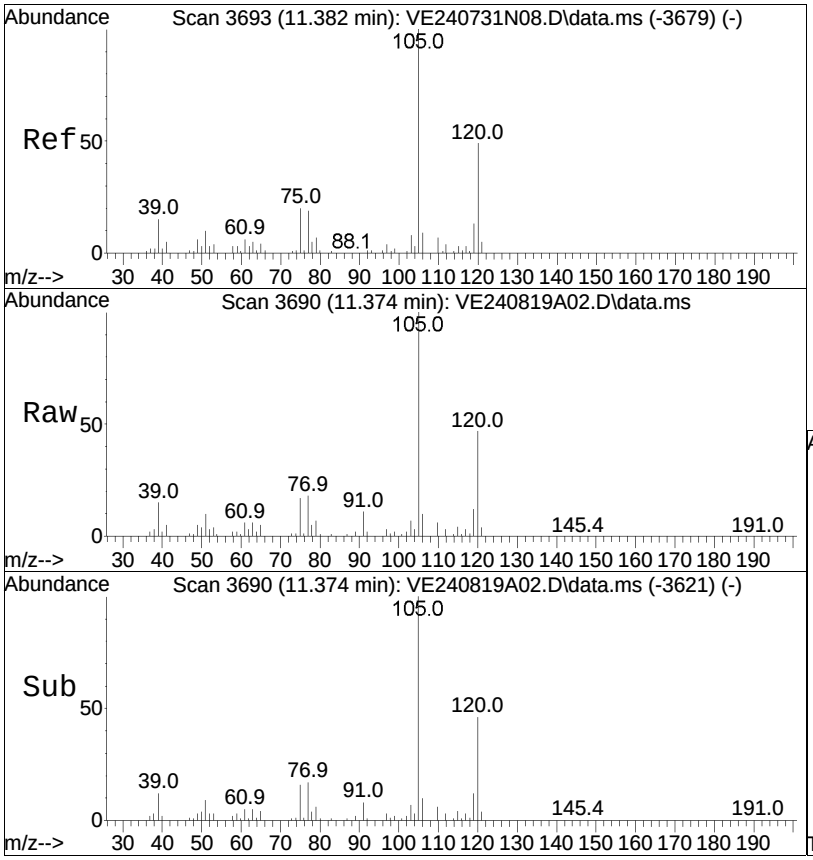


#95
1,3,5-Trimethylbenzene
Concen: 10.33 ug/L
RT: 11.374 min Scan# 3690
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:105 Resp: 171191

Ion	Ratio	Lower	Upper
105	100		
120	48.5	39.3	58.9

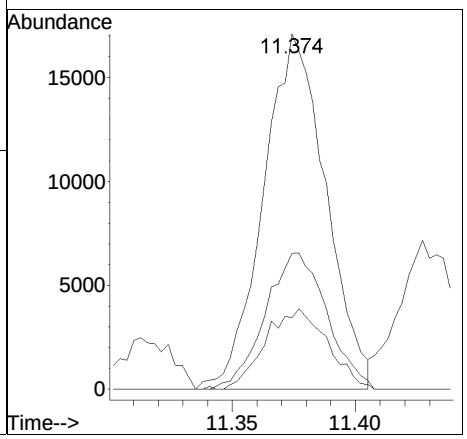


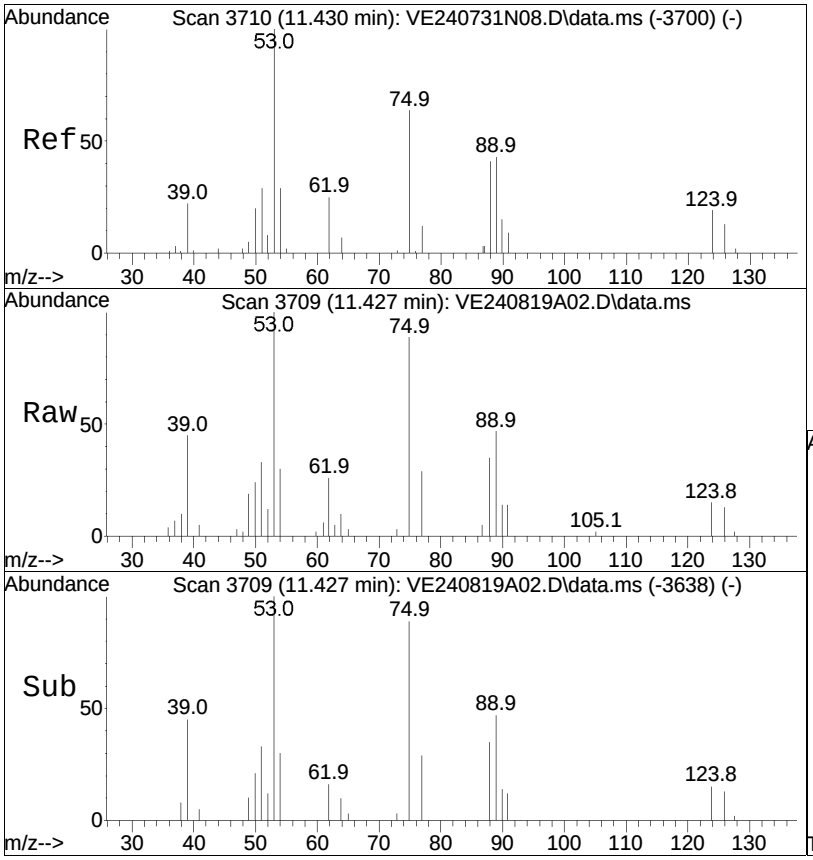


#96
1,2,3-Trichloropropane
Concen: 8.95 ug/L
RT: 11.374 min Scan# 3690
Delta R.T. -0.008 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 75 Resp: 30171

Ion	Ratio	Lower	Upper
75	100		
110	37.8	22.4	46.4
112	22.5	12.2	25.2

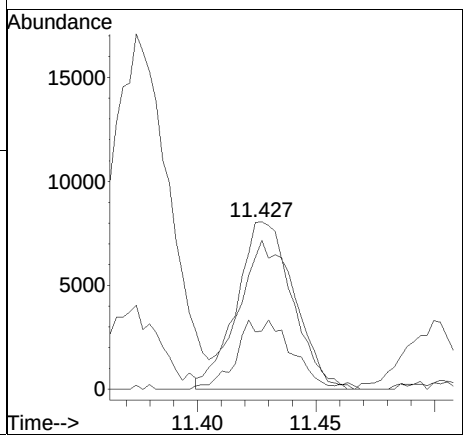


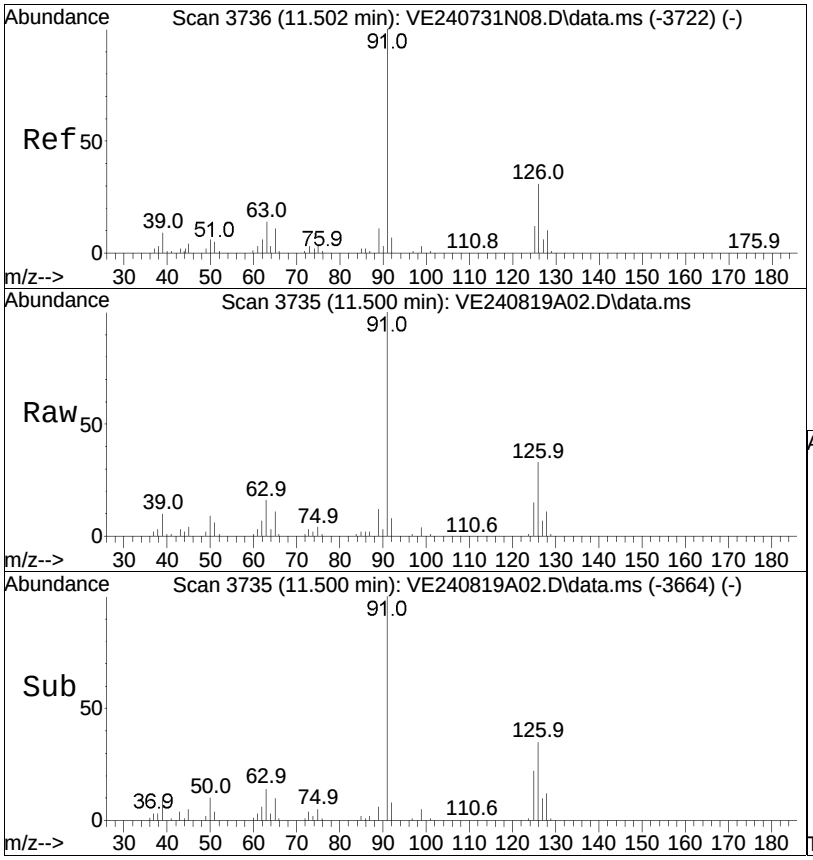


#97
trans-1,4-Dichloro-2-butene
Concen: 8.29 ug/L
RT: 11.427 min Scan# 3709
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 53 Resp: 13745

Ion	Ratio	Lower	Upper
53	100		
88	15.6	29.2	43.8#
75	84.1	62.6	94.0

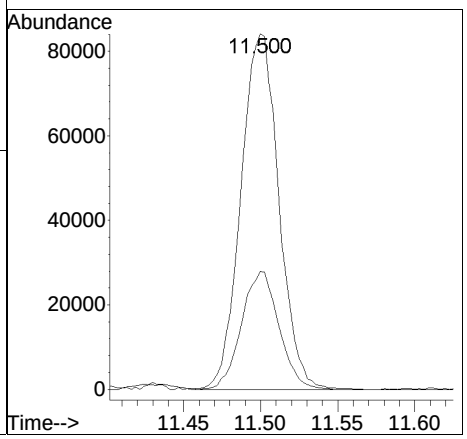


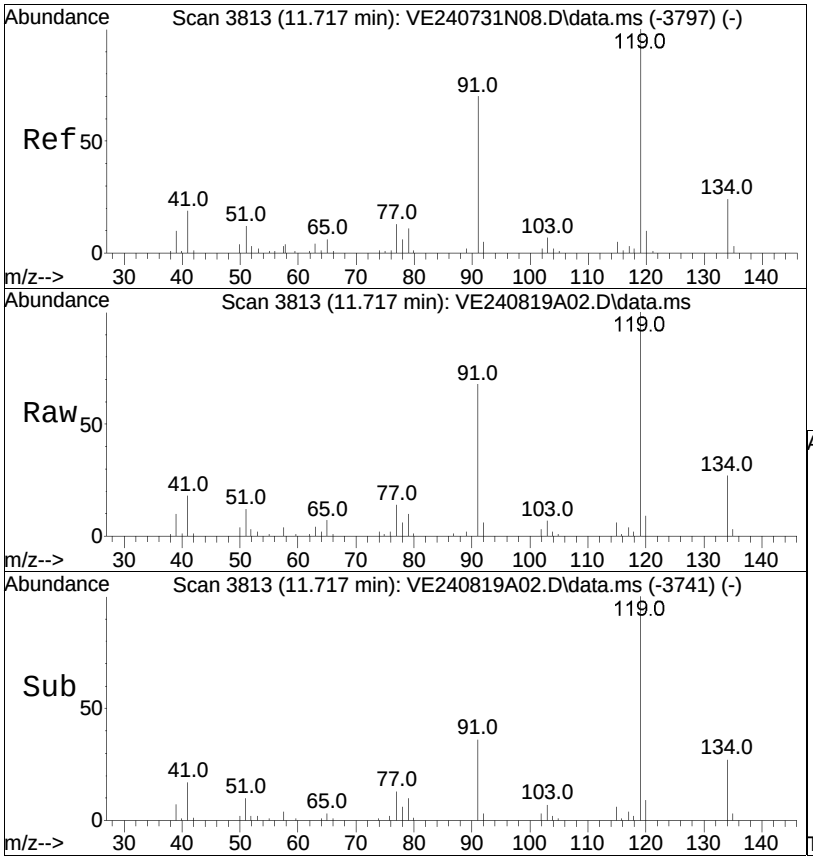


#98
4-Chlorotoluene
Concen: 10.04 ug/L
RT: 11.500 min Scan# 3735
Delta R.T. -0.002 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 91 Resp: 144067

Ion	Ratio	Lower	Upper
91	100		
126	32.7	25.8	38.8

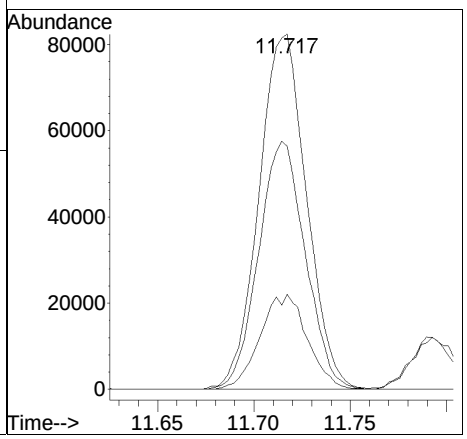


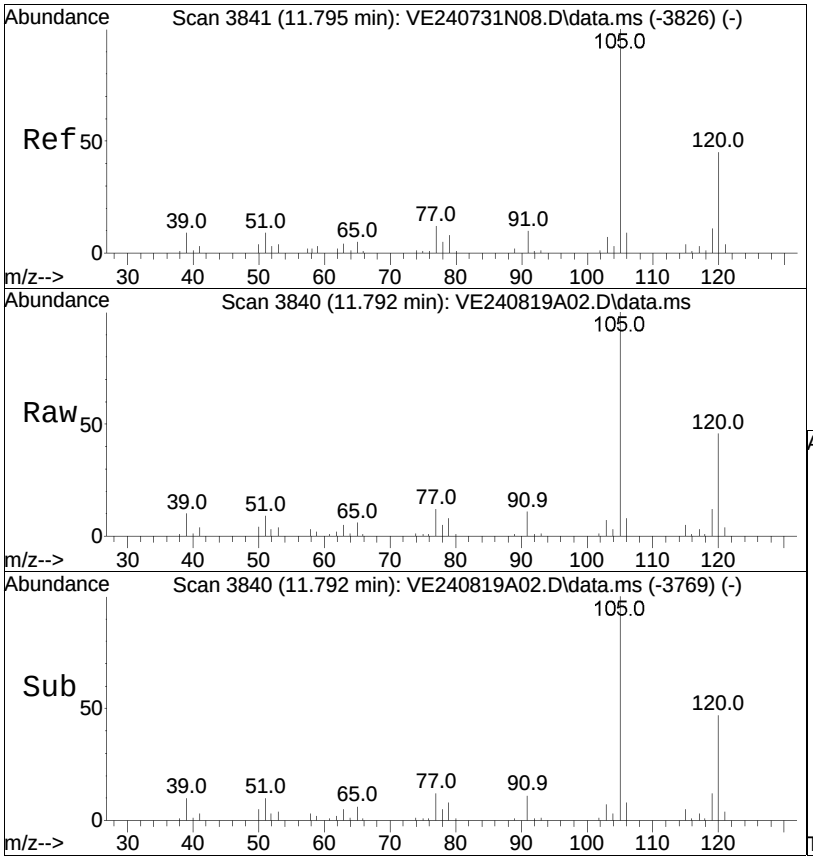


#99
tert-Butylbenzene
Concen: 10.18 ug/L
RT: 11.717 min Scan# 3813
Delta R.T. 0.000 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:119 Resp: 141768

Ion	Ratio	Lower	Upper
119	100		
91	68.7	56.6	84.8
134	26.5	17.7	26.5#

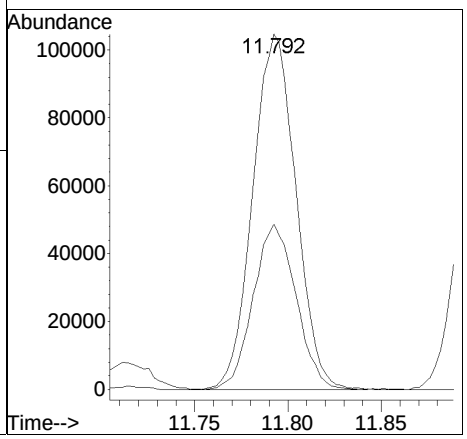


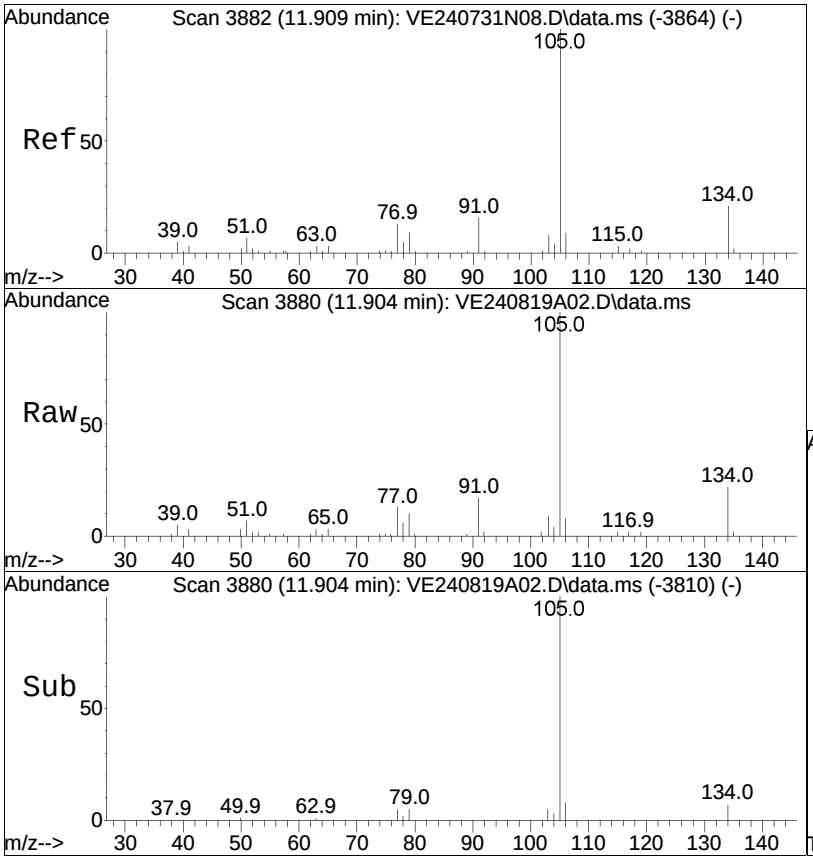


#102
1,2,4-Trimethylbenzene
Concen: 10.16 ug/L
RT: 11.792 min Scan# 3840
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:105 Resp: 168000

Ion	Ratio	Lower	Upper
105	100		
120	46.1	33.6	50.4

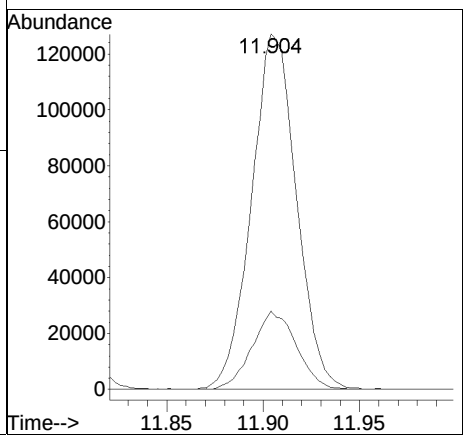


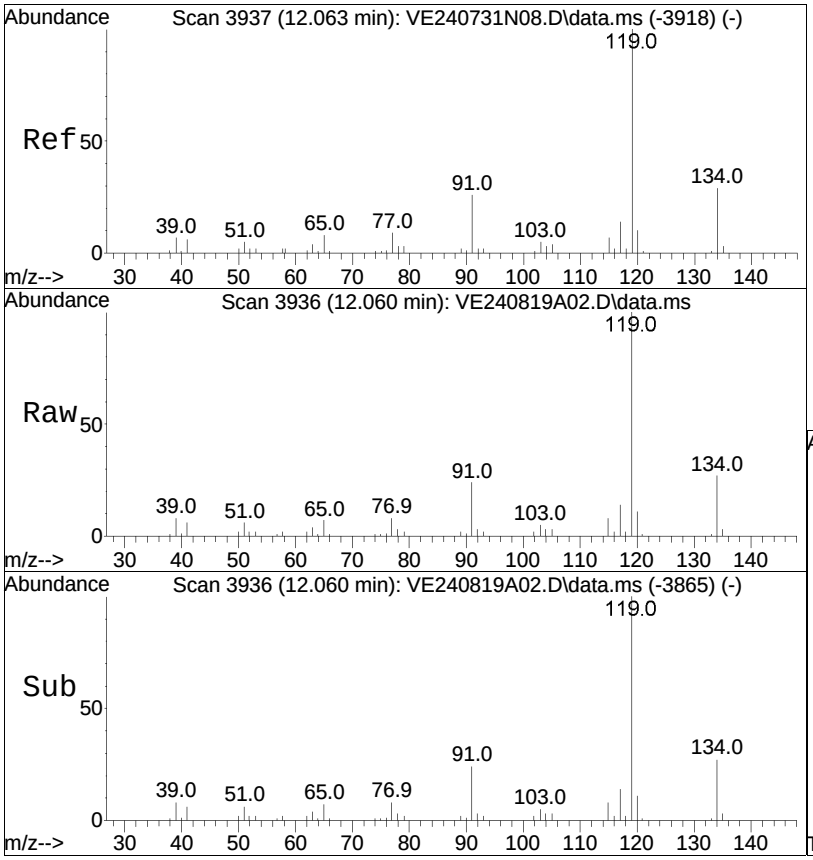


#103
sec-Butylbenzene
Concen: 10.00 ug/L
RT: 11.904 min Scan# 3880
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:105 Resp: 206454

Ion	Ratio	Lower	Upper
105	100		
134	21.7	13.3	27.5

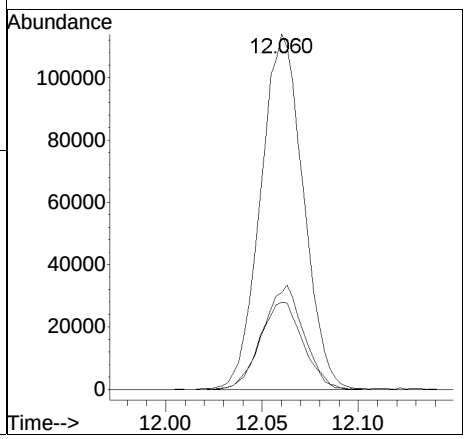


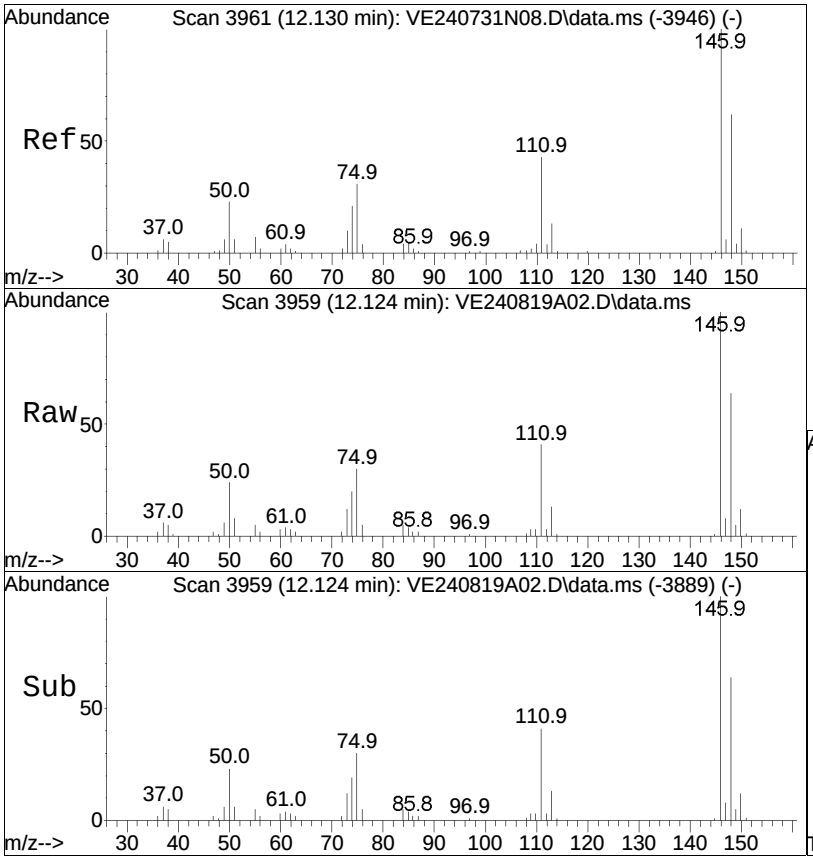


#104
p-Isopropyltoluene
Concen: 10.08 ug/L
RT: 12.060 min Scan# 3936
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:119 Resp: 175468

Ion	Ratio	Lower	Upper
119	100		
134	28.3	15.8	32.8
91	24.7	16.6	34.4

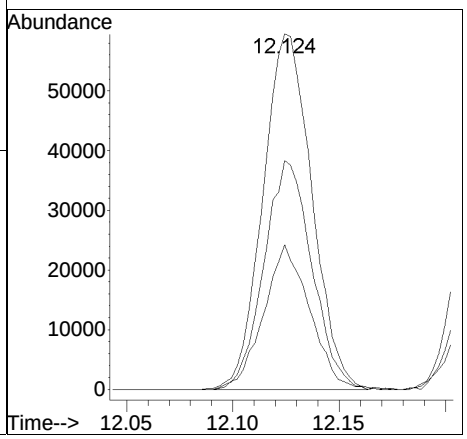


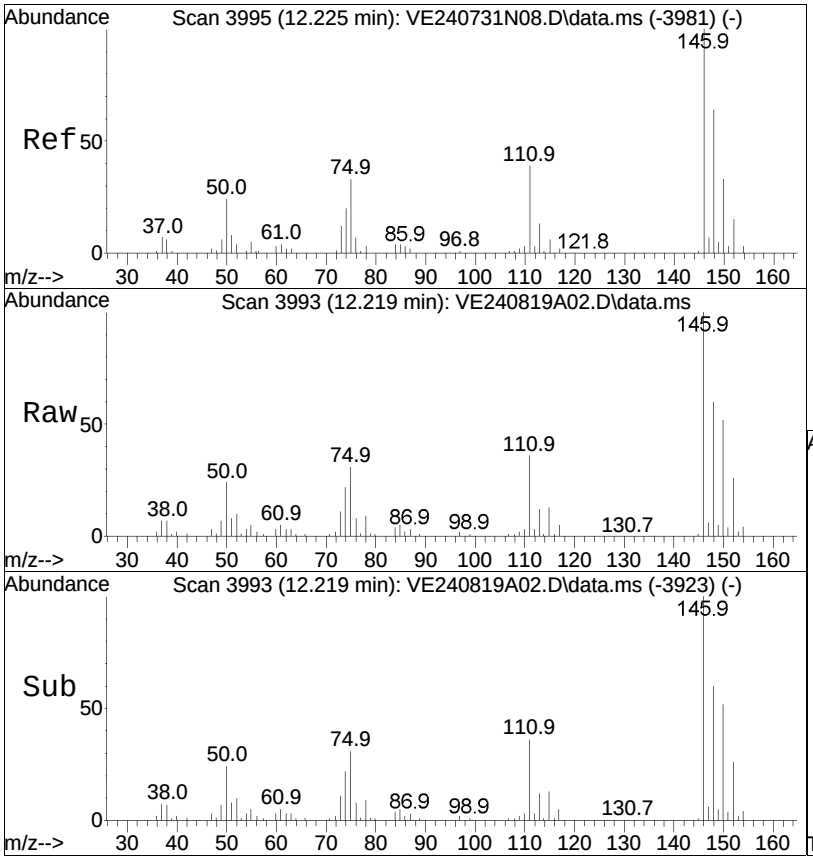


#105
1,3-Dichlorobenzene
Concen: 10.49 ug/L
RT: 12.124 min Scan# 3959
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:146 Resp: 95315

Ion	Ratio	Lower	Upper
146	100		
111	38.2	27.9	57.9
148	63.0	42.4	88.2

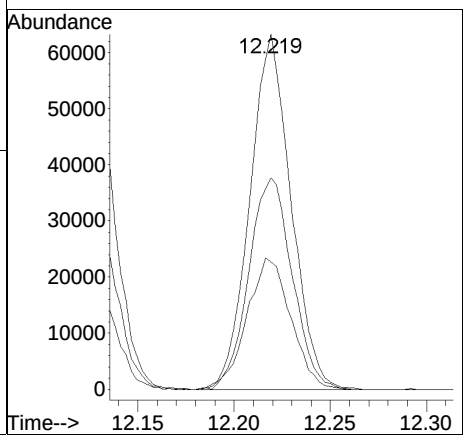


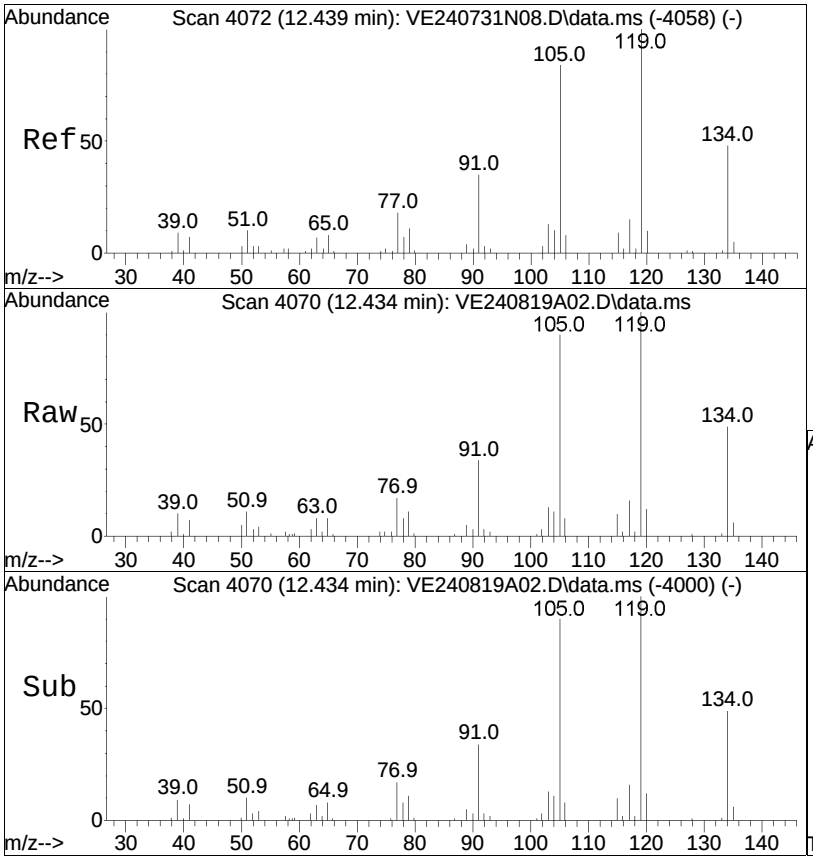


#106
1,4-Dichlorobenzene
Concen: 10.36 ug/L
RT: 12.219 min Scan# 3993
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:146 Resp: 94072

Ion	Ratio	Lower	Upper
146	100		
111	39.5	31.4	47.0
148	62.8	49.8	74.8

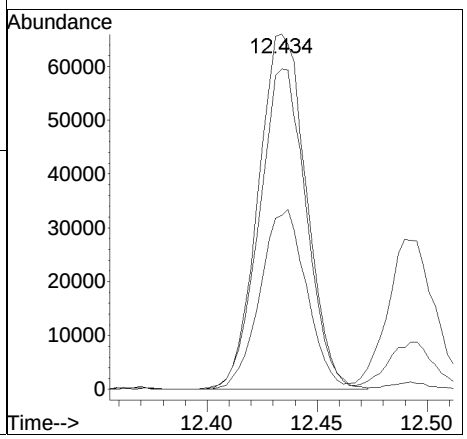


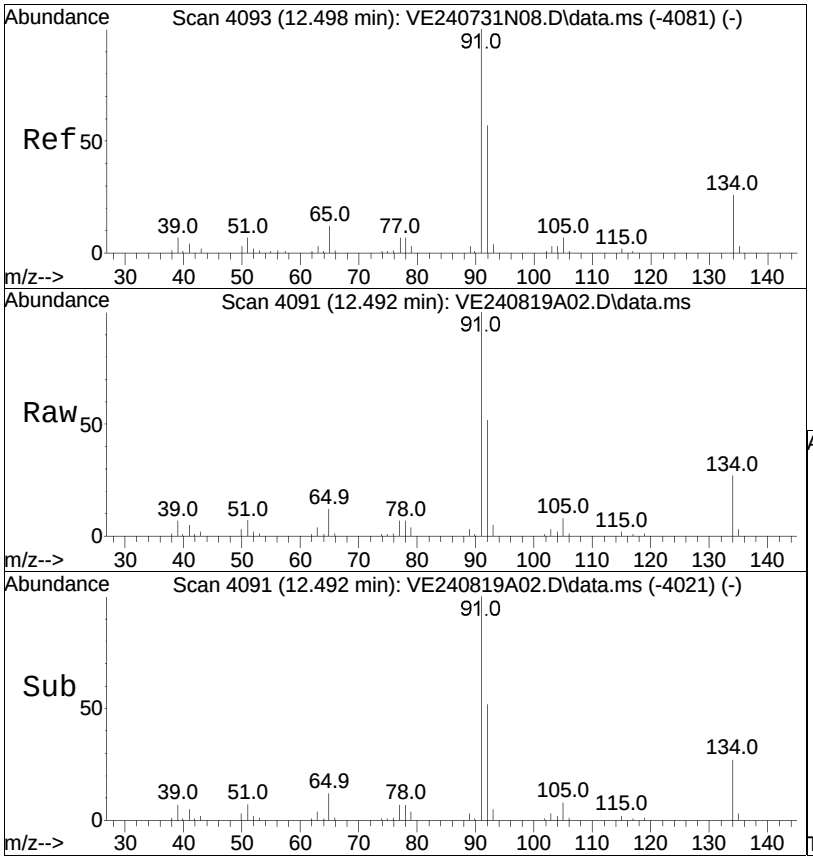


#107
p-Diethylbenzene
Concen: 9.81 ug/L
RT: 12.434 min Scan# 4070
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:119 Resp: 100629

Ion	Ratio	Lower	Upper
119	100		
105	88.2	55.4	115.2
134	48.8	28.4	59.0

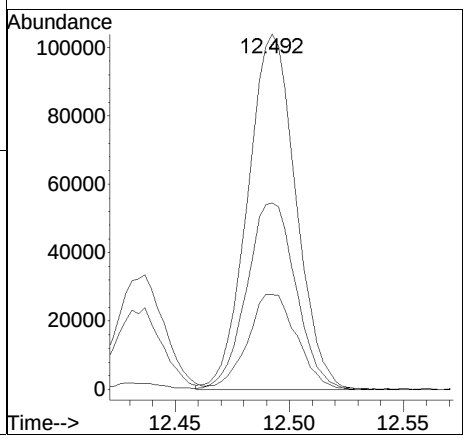


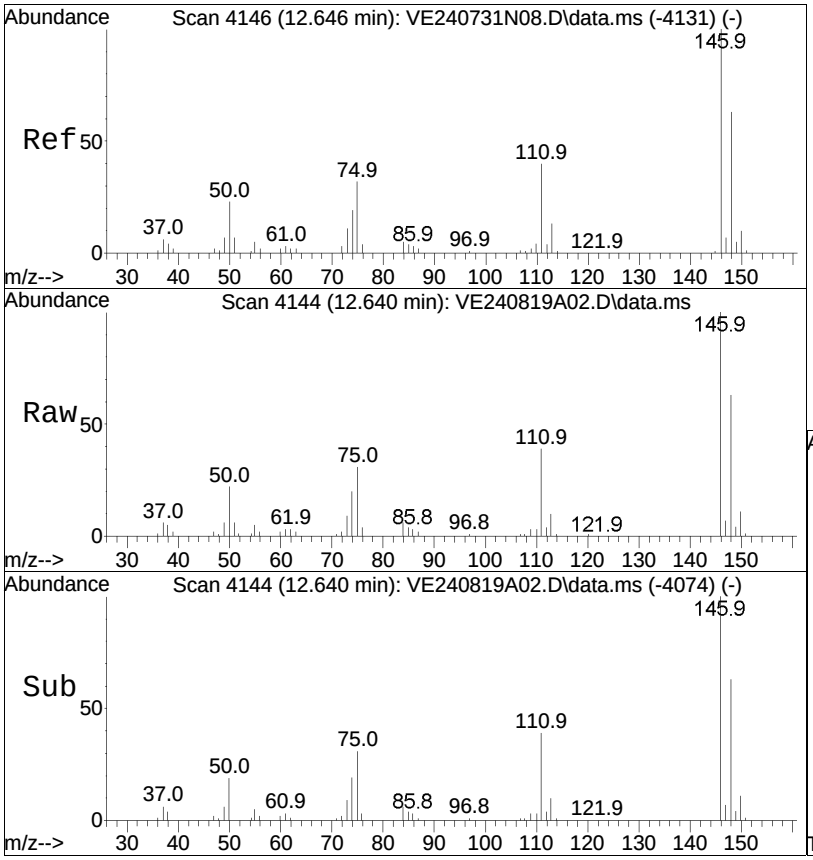


#108
n-Butylbenzene
Concen: 10.18 ug/L
RT: 12.492 min Scan# 4091
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion: 91 Resp: 152532

Ion	Ratio	Lower	Upper
91	100		
92	53.7	42.4	63.6
134	27.2	20.3	30.5

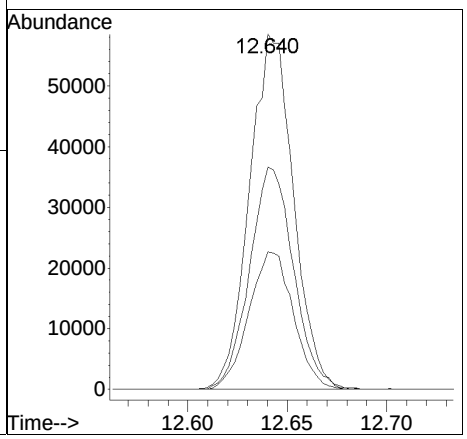


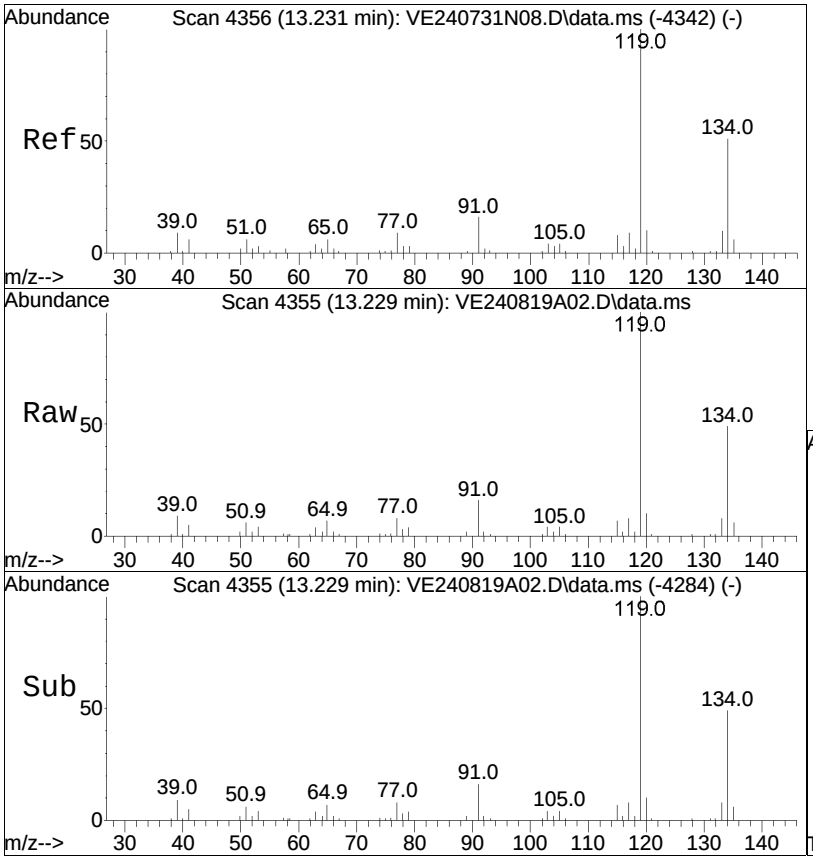


#109
1,2-Dichlorobenzene
Concen: 10.30 ug/L
RT: 12.640 min Scan# 4144
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:146 Resp: 90027

Ion	Ratio	Lower	Upper
146	100		
111	39.2	26.4	54.8
148	62.7	41.7	86.7

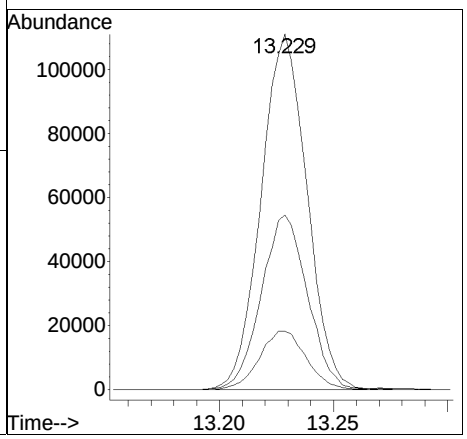


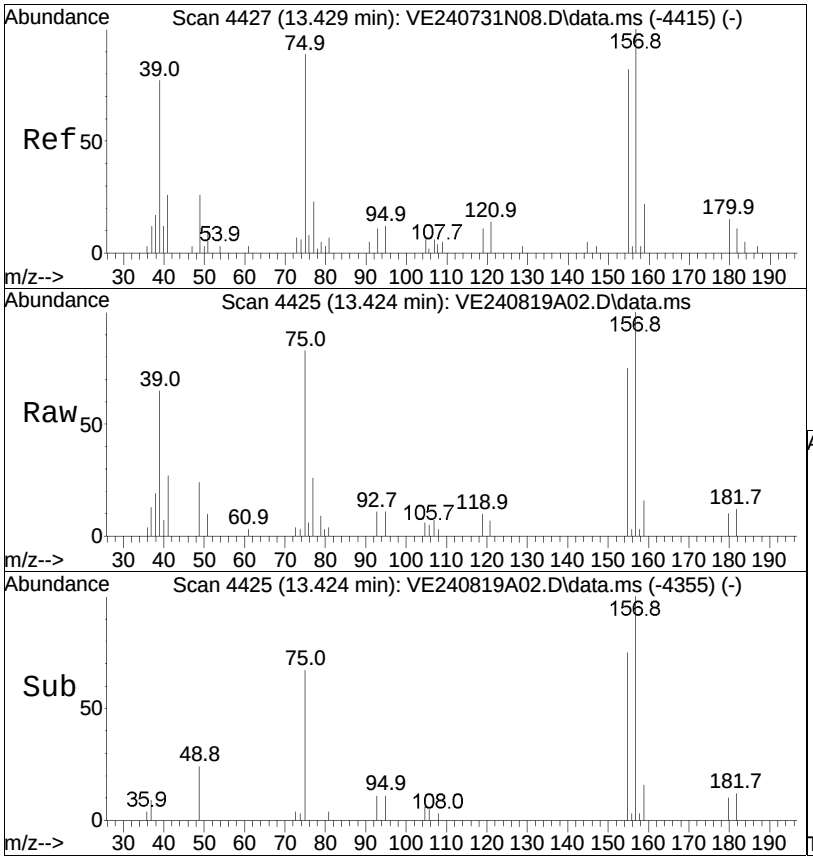


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.30 ug/L
RT: 13.229 min Scan# 4355
Delta R.T. -0.002 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:119 Resp: 154816

Ion	Ratio	Lower	Upper
119	100		
134	49.5	29.6	61.4
91	16.7	9.8	20.3

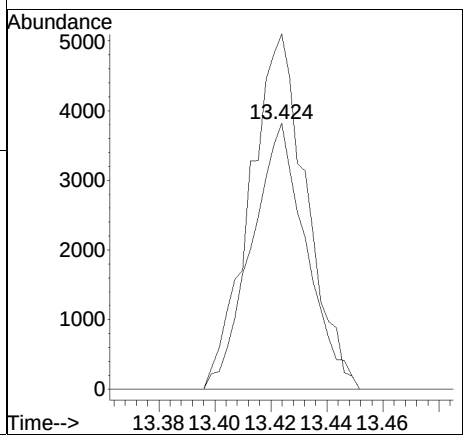


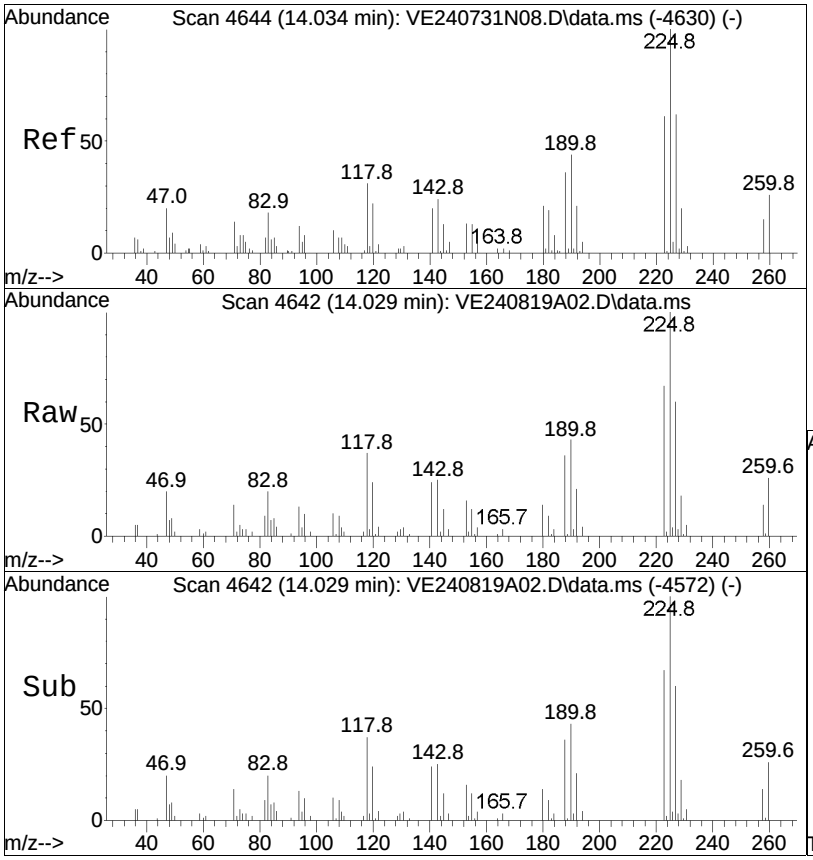


#111
1,2-Dibromo-3-chloropropane
Concen: 6.76 ug/L
RT: 13.424 min Scan# 4425
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:155 Resp: 5185

Ion	Ratio	Lower	Upper
155	100		
157	138.4	95.1	142.7

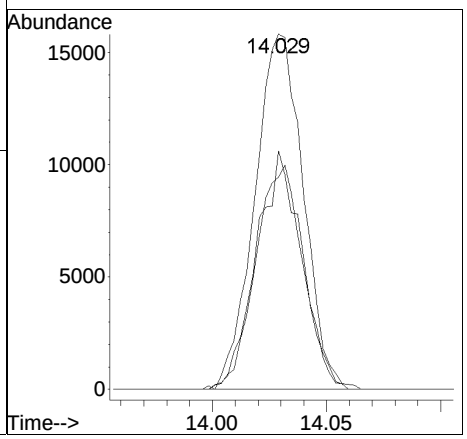


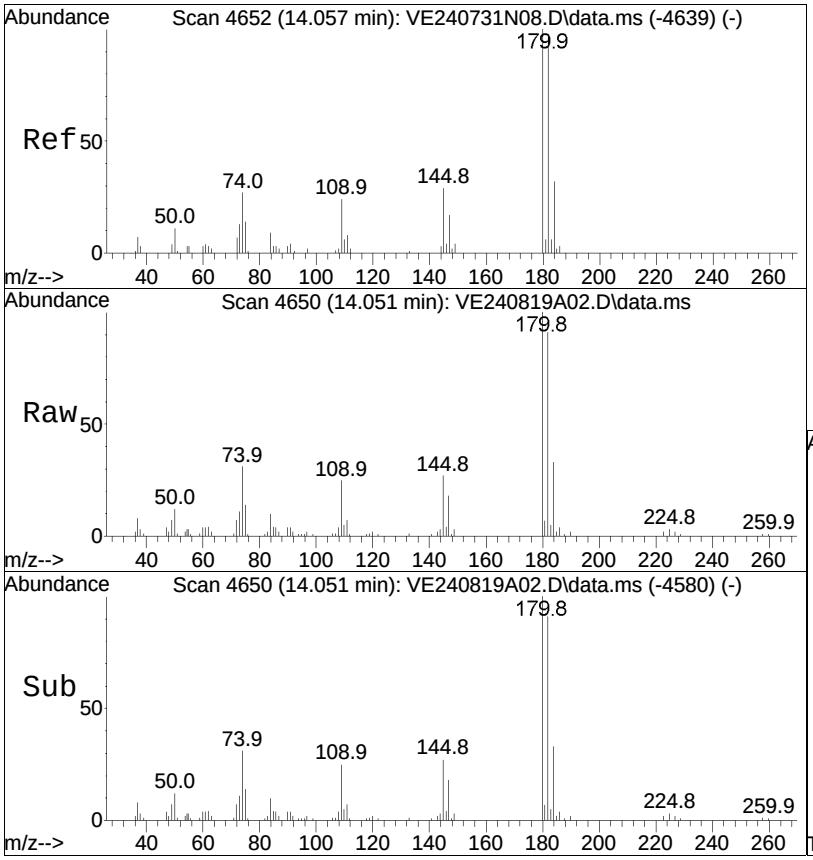


#113
Hexachlorobutadiene
Concen: 10.19 ug/L
RT: 14.029 min Scan# 4642
Delta R.T. -0.005 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:225 Resp: 23443

Ion	Ratio	Lower	Upper
225	100		
223	63.3	54.6	82.0
227	61.9	56.2	84.4

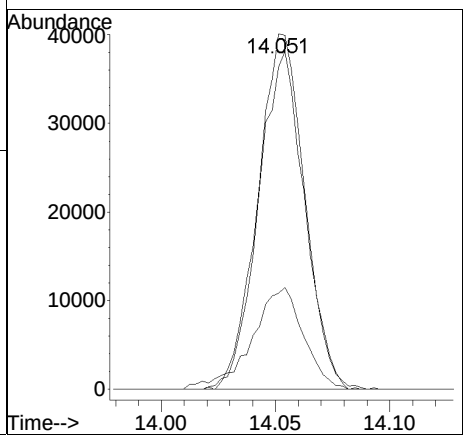


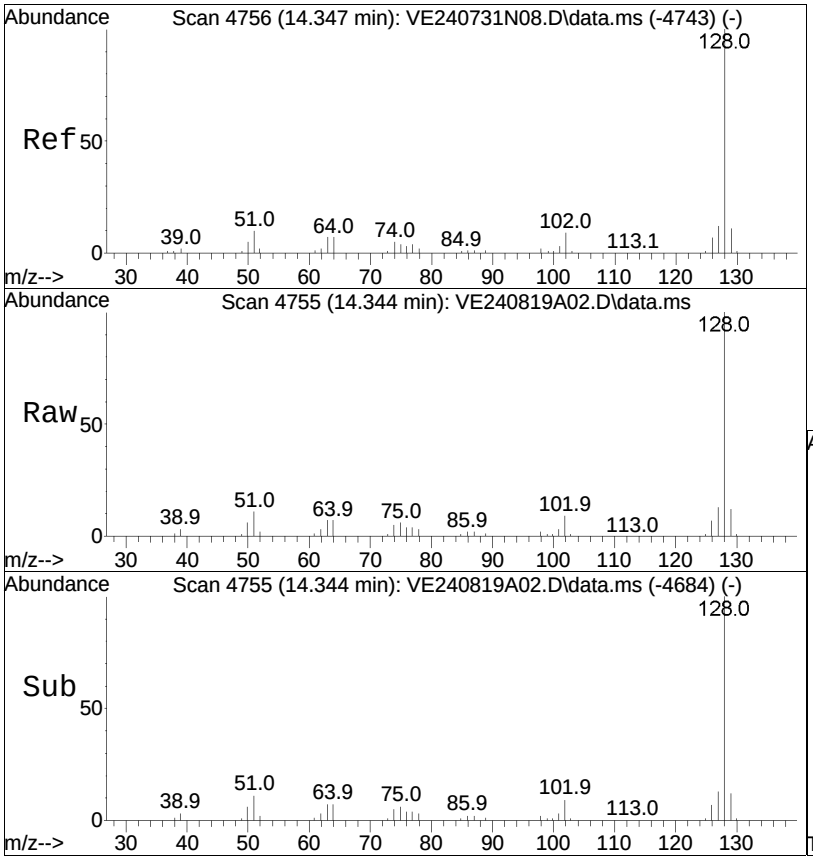


#114
1,2,4-Trichlorobenzene
Concen: 9.16 ug/L
RT: 14.051 min Scan# 4650
Delta R.T. -0.006 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:180 Resp: 57381

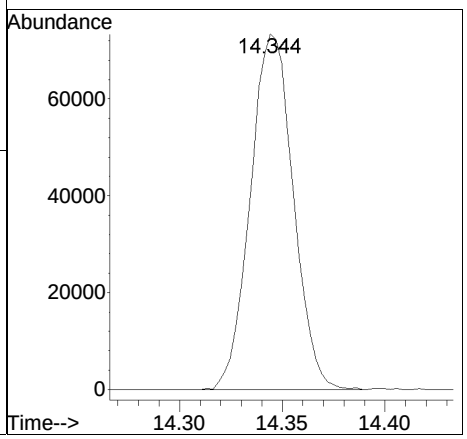
Ion	Ratio	Lower	Upper
180	100		
182	93.4	75.4	113.2
145	31.4	26.0	39.0

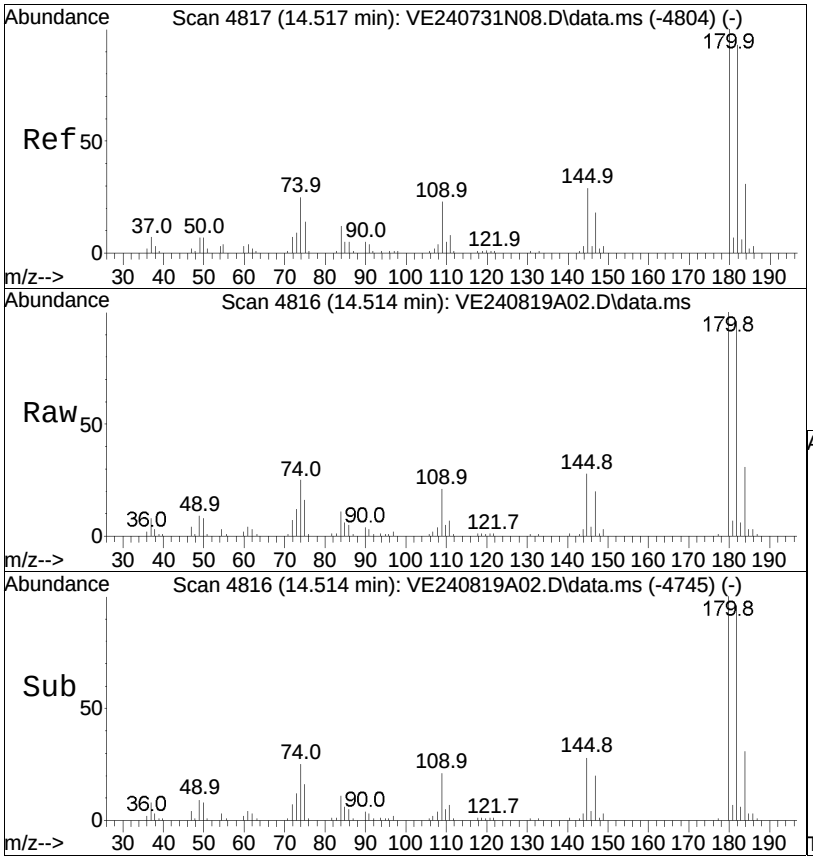




#115
Naphthalene
Concen: 7.71 ug/L
RT: 14.344 min Scan# 4755
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:128 Resp: 106502

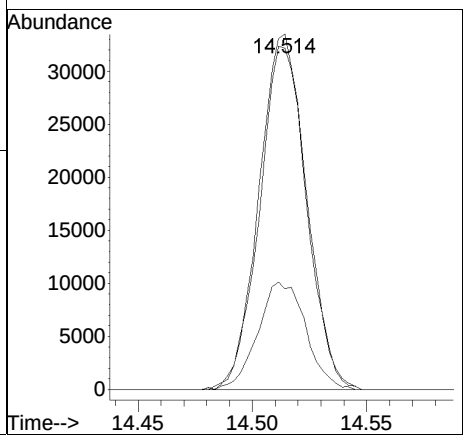




#116
1,2,3-Trichlorobenzene
Concen: 8.41 ug/L
RT: 14.514 min Scan# 4816
Delta R.T. -0.003 min
Lab File: VE240819A02.D
Acq: 19 Aug 2024 6:33 am

Tgt Ion:180 Resp: 48377

Ion	Ratio	Lower	Upper
180	100		
182	95.6	71.6	107.4
145	30.5	25.1	37.7

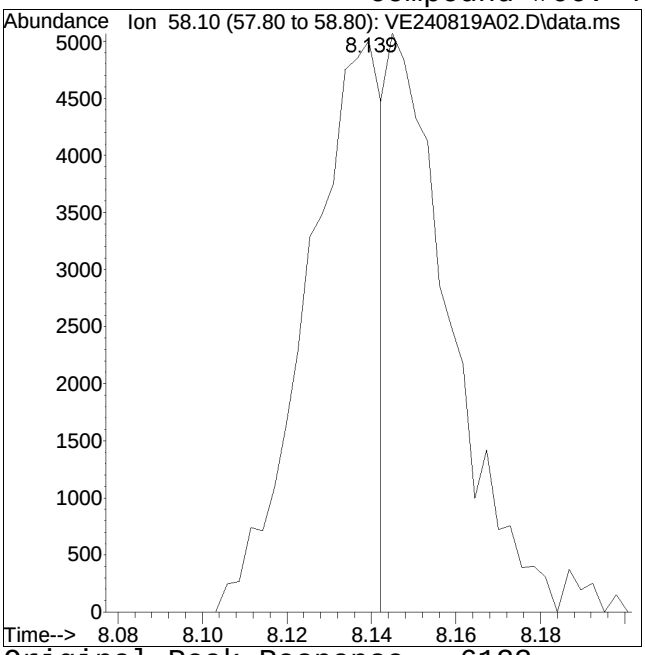


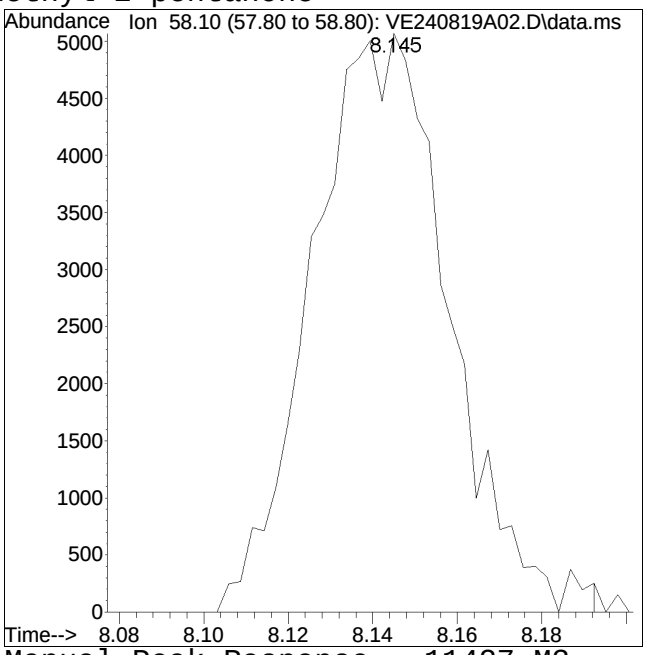
Manual Integration Report

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A02.D
Date Inj'd : 8/19/2024 6:33 am
Sample : WG1960966-3,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 8/19/2024 7:02 am

Compound #66: 4-Methyl-2-pentanone





Original Peak Response = 6123 Manual Peak Response = 11427 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A03.D
Acq On : 19 Aug 2024 6:57 am
Operator : ELAINE:MJV
Sample : WG1960966-4,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 19 07:27:34 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.961	96	182247	10.000	ug/L	0.00
Standard Area 1 = 184826			Recovery = 98.60%			
63) Chlorobenzene-d5	9.492	117	134604	10.000	ug/L	0.00
Standard Area 1 = 135622			Recovery = 99.25%			
84) 1,4-Dichlorobenzene-d4	12.202	152	80743	10.000	ug/L	0.00
Standard Area 1 = 81358			Recovery = 99.24%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.150	113	44971	10.541	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.41%			
47) 1,2-Dichloroethane-d4	5.680	65	55250	9.705	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.05%			
64) Toluene-d8	7.651	98	175870	9.919	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.19%			
88) 4-Bromofluorobenzene	10.992	95	66822	8.959	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.59%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.591	85	35515	8.692	ug/L	97
3) Chloromethane	1.781	50	46627	10.249	ug/L	97
4) Vinyl chloride	1.854	62	47240	11.142	ug/L	95
5) Bromomethane	2.166	94	18834	14.621	ug/L	97
6) Chloroethane	2.277	64	30516	11.922	ug/L	95
7) Trichlorofluoromethane	2.420	101	56942	11.688	ug/L	99
8) Ethyl ether	2.715	74	18251	9.513	ug/L	74
10) 1,1-Dichloroethene	2.905	96	29968	10.268	ug/L	84
11) Carbon disulfide	2.933	76	97529	10.830	ug/L	99
15) Methylene chloride	3.454	84	38209	10.378	ug/L	91
17) Acetone	3.496	43	8548	6.393	ug/L	95
18) trans-1,2-Dichloroethene	3.613	96	34457	10.982	ug/L	84
21) Methyl tert-butyl ether	3.705	73	106017	9.062	ug/L	96
25) 1,1-Dichloroethane	4.193	63	81650	11.089	ug/L	97
27) Acrylonitrile	4.238	53	12194M3	7.937	ug/L	
29) Vinyl acetate	4.425	43	105867	9.492	ug/L	97
30) cis-1,2-Dichloroethene	4.712	96	40776	10.843	ug/L	97
31) 2,2-Dichloropropane	4.810	77	55250	11.212	ug/L	88
33) Bromochloromethane	4.904	128	17878	10.838	ug/L	92
35) Chloroform	4.977	83	66421	10.882	ug/L	99

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A03.D
Acq On : 19 Aug 2024 6:57 am
Operator : ELAINE:MJV
Sample : WG1960966-4,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 19 07:27:34 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.105	117	52373	11.233	ug/L	#	88
40) 1,1,1-Trichloroethane	5.175	97	60082	10.839	ug/L		94
42) 2-Butanone	5.261	43	12586	6.587	ug/L	#	62
43) 1,1-Dichloropropene	5.292	75	52958	11.348	ug/L		97
45) Benzene	5.543	78	160919	11.147	ug/L	#	90
48) 1,2-Dichloroethane	5.744	62	56006	10.052	ug/L		97
52) Trichloroethene	6.137	95	40148	11.062	ug/L		98
54) Dibromomethane	6.577	93	21814	10.434	ug/L	#	84
55) 1,2-Dichloropropane	6.681	63	44904	10.304	ug/L		97
58) Bromodichloromethane	6.756	83	55187	10.686	ug/L		95
61) 1,4-Dioxane	6.965	88	13664	390.677	ug/L	#	56
62) cis-1,3-Dichloropropene	7.442	75	61100	10.508	ug/L		95
65) Toluene	7.707	92	100568	10.850	ug/L		93
66) 4-Methyl-2-pentanone	8.139	58	11653	7.371	ug/L		91
67) Tetrachloroethene	8.161	166	44999	11.429	ug/L		96
69) trans-1,3-Dichloropropene	8.195	75	50485	9.675	ug/L		98
72) 1,1,2-Trichloroethane	8.376	83	25434	9.774	ug/L	#	82
73) Chlorodibromomethane	8.591	129	35599	9.784	ug/L		99
74) 1,3-Dichloropropane	8.700	76	54135	9.853	ug/L		98
75) 1,2-Dibromoethane	8.864	107	28812	9.369	ug/L		86
77) 2-Hexanone	9.149	43	20103	6.526	ug/L		97
78) Chlorobenzene	9.517	112	110217	11.160	ug/L		94
79) Ethylbenzene	9.550	91	202660	11.282	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.595	131	39183	10.822	ug/L		97
81) p/m Xylene	9.737	106	157717	23.033	ug/L		100
82) o Xylene	10.281	106	152571	22.785	ug/L		92
83) Styrene	10.348	104	249781	22.752	ug/L		98
85) Bromoform	10.376	173	23195	8.829	ug/L		98
87) Isopropylbenzene	10.666	105	203355	10.518	ug/L		96
89) Bromobenzene	11.103	156	50919	10.431	ug/L		98
90) n-Propylbenzene	11.148	91	249720	10.809	ug/L		96
92) 1,1,2,2-Tetrachloroethane	11.240	83	37030	9.026	ug/L		96
93) 4-Ethyltoluene	11.276	105	199944	10.668	ug/L		98
94) 2-Chlorotoluene	11.315	91	141784	10.432	ug/L		96
95) 1,3,5-Trimethylbenzene	11.374	105	176132	10.713	ug/L		99
96) 1,2,3-Trichloropropane	11.377	75	29054	8.681	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.427	53	12748	7.751	ug/L		91
98) 4-Chlorotoluene	11.499	91	148548	10.434	ug/L		98
99) tert-Butylbenzene	11.714	119	144399	10.448	ug/L	#	96

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A03.D
Acq On : 19 Aug 2024 6:57 am
Operator : ELAINE:MJV
Sample : WG1960966-4,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 19 07:27:34 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\240819A\VE240819A02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.792	105	171569	10.454	ug/L	94
103)	sec-Butylbenzene	11.907	105	215083	10.495	ug/L	98
104)	p-Isopropyltoluene	12.060	119	181874	10.531	ug/L	95
105)	1,3-Dichlorobenzene	12.127	146	96789	10.736	ug/L	96
106)	1,4-Dichlorobenzene	12.222	146	97307	10.798	ug/L	99
107)	p-Diethylbenzene	12.436	119	105113	10.322	ug/L	97
108)	n-Butylbenzene	12.492	91	156234	10.505	ug/L	98
109)	1,2-Dichlorobenzene	12.643	146	90174	10.396	ug/L	98
110)	1,2,4,5-Tetramethylben...	13.228	119	160609	9.720	ug/L	96
111)	1,2-Dibromo-3-chloropr...	13.421	155	5654	7.401	ug/L	95
113)	Hexachlorobutadiene	14.029	225	23923	10.482	ug/L	90
114)	1,2,4-Trichlorobenzene	14.054	180	57893	9.312	ug/L	98
115)	Naphthalene	14.344	128	108198	7.895	ug/L	100
116)	1,2,3-Trichlorobenzene	14.514	180	50426	8.828	ug/L	94

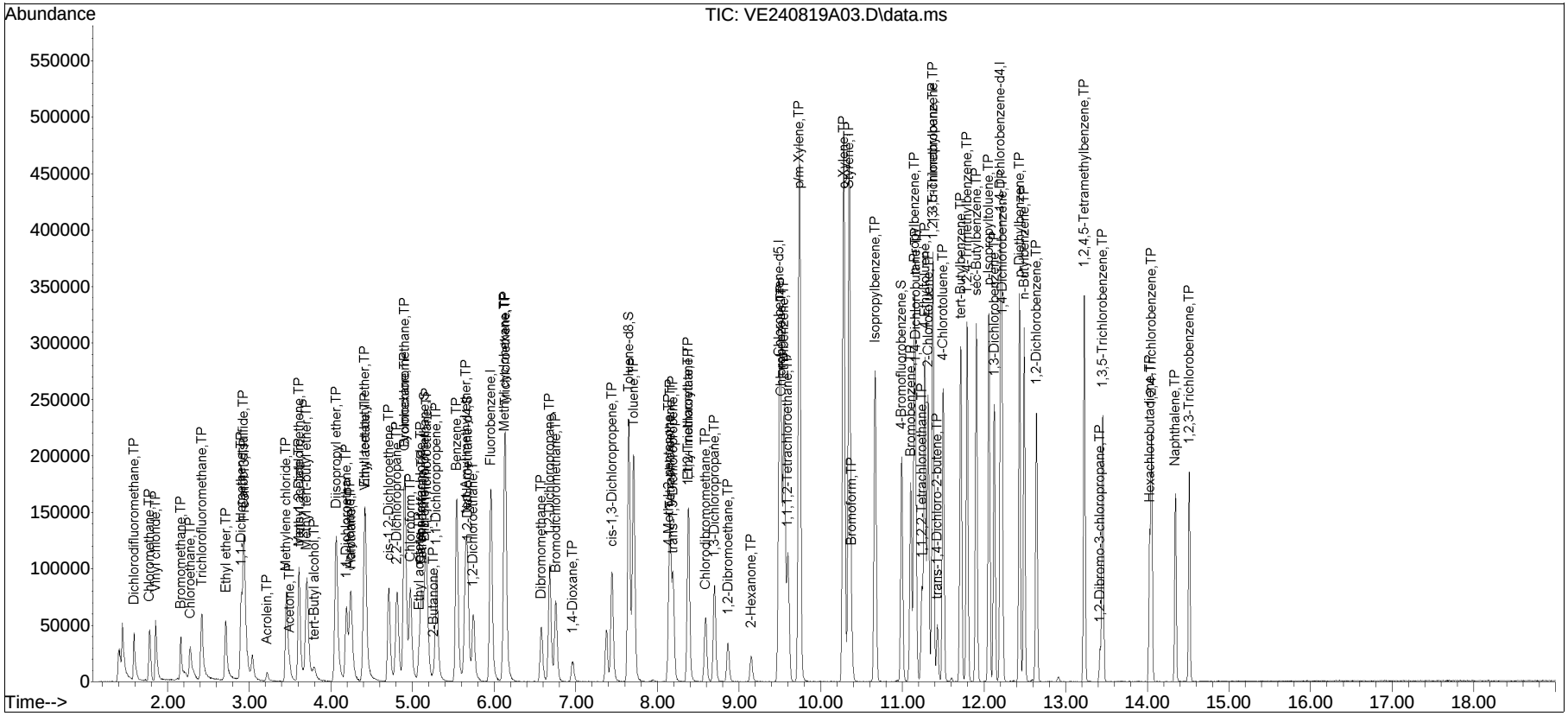
(#) = qualifier out of range (m) = manual integration (+) = signals summed

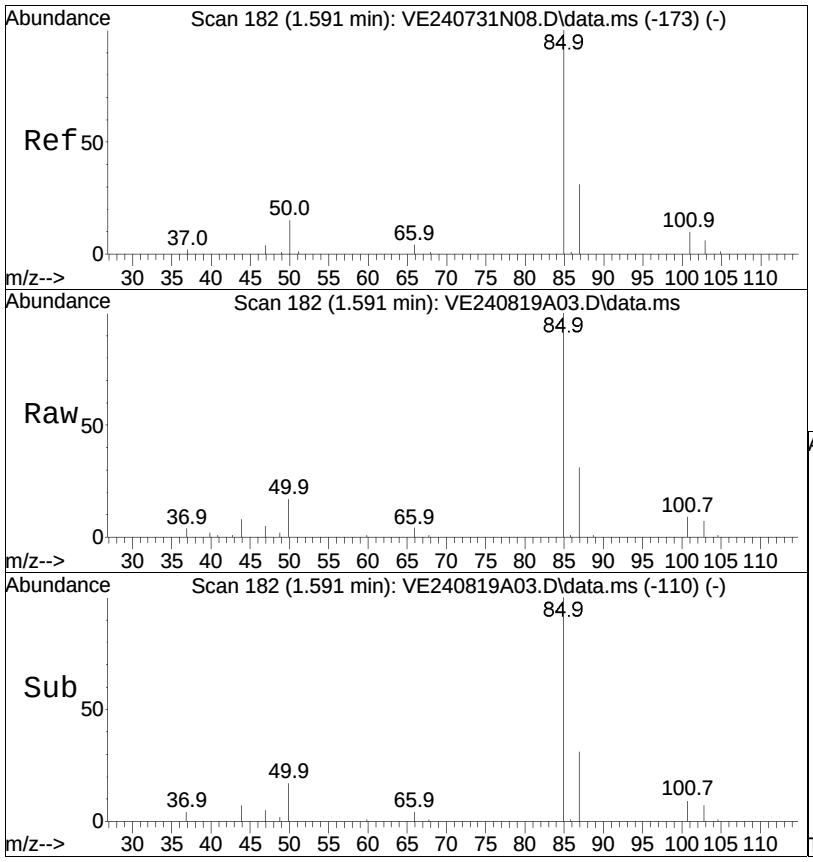
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A03.D
Acq On : 19 Aug 2024 6:57 am
Operator : ELAINE:MJV
Sample : WG1960966-4,31,10,10
Misc : WG1960966,ICAL21358
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 19 07:27:34 2024
Quant Method : K:\Elaine\2024\240819A\Elaine_240731N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 01 12:13:24 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO•

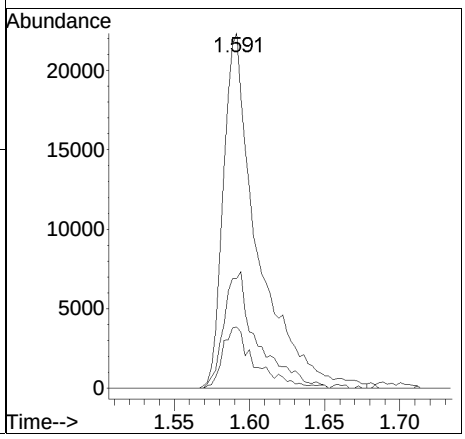


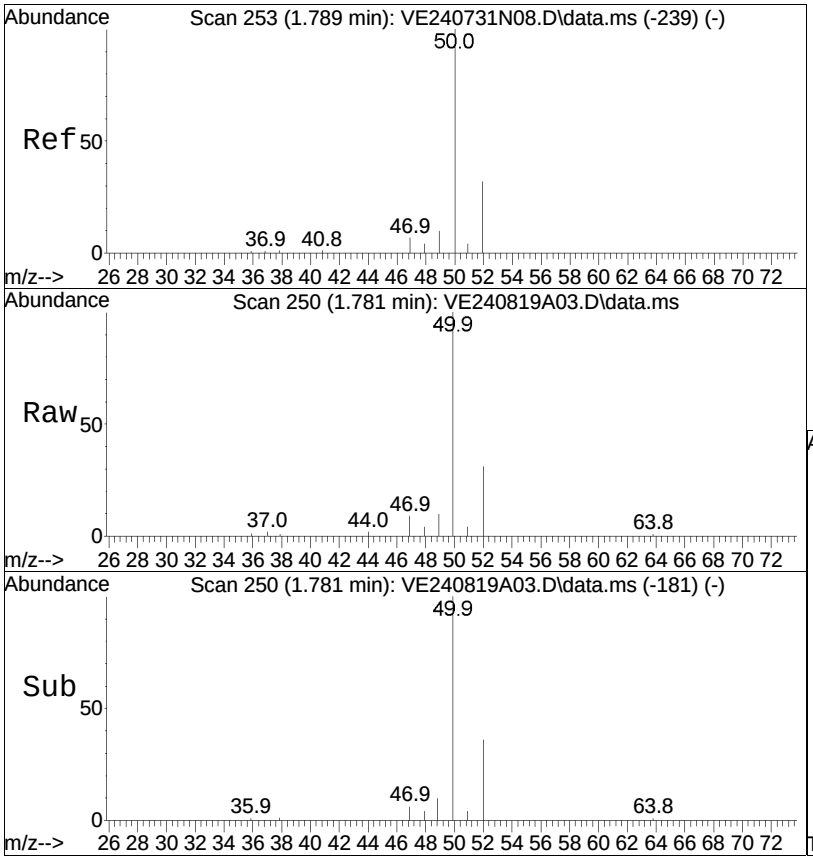


#2
Dichlorodifluoromethane
Concen: 8.69 ug/L
RT: 1.591 min Scan# 182
Delta R.T. 0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 85 Resp: 35515

Ion	Ratio	Lower	Upper
85	100		
87	32.3	21.7	45.1
50	16.3	11.8	24.4

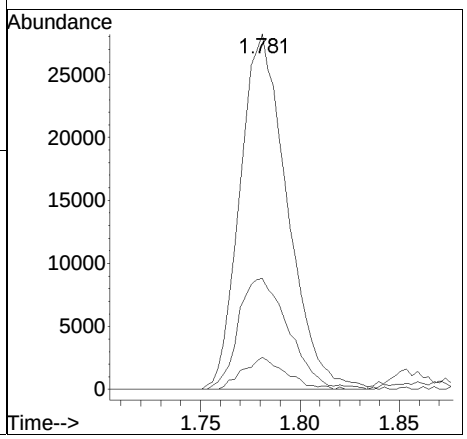


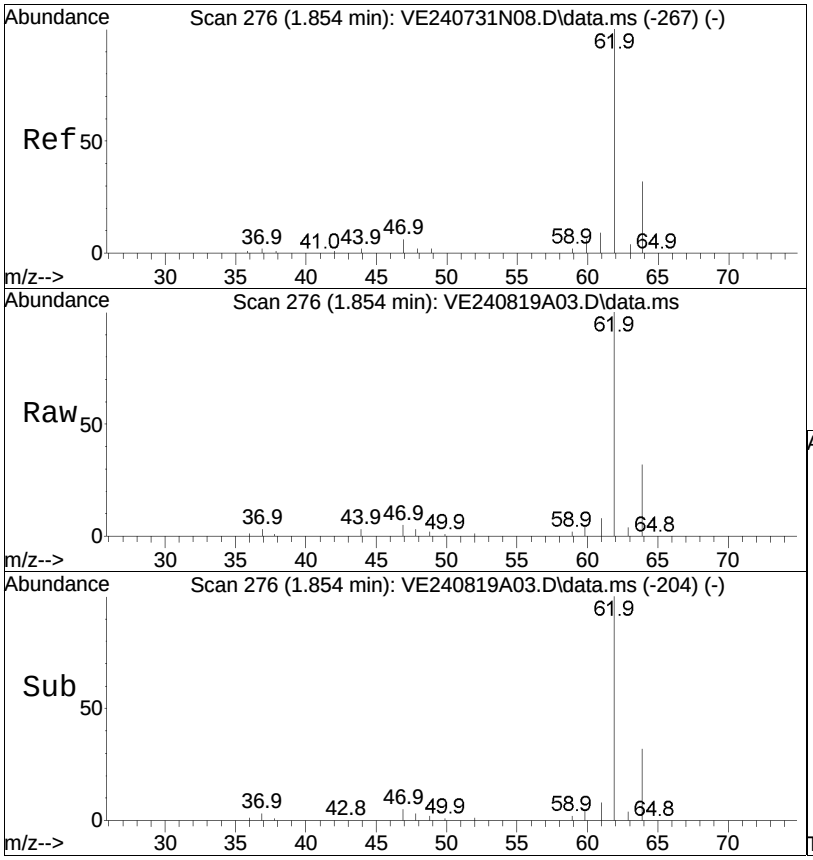


#3
Chloromethane
Concen: 10.25 ug/L
RT: 1.781 min Scan# 250
Delta R.T. -0.008 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 50 Resp: 46627

Ion	Ratio	Lower	Upper
50	100		
52	32.9	14.9	54.9
47	8.3	0.0	28.0

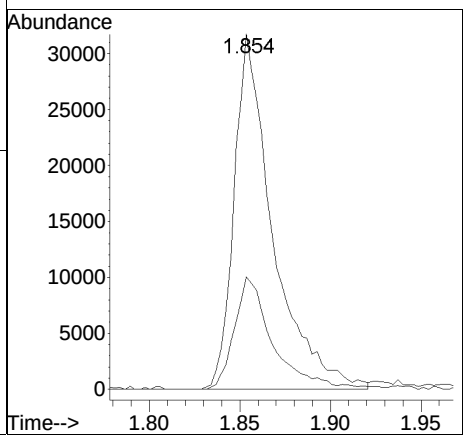


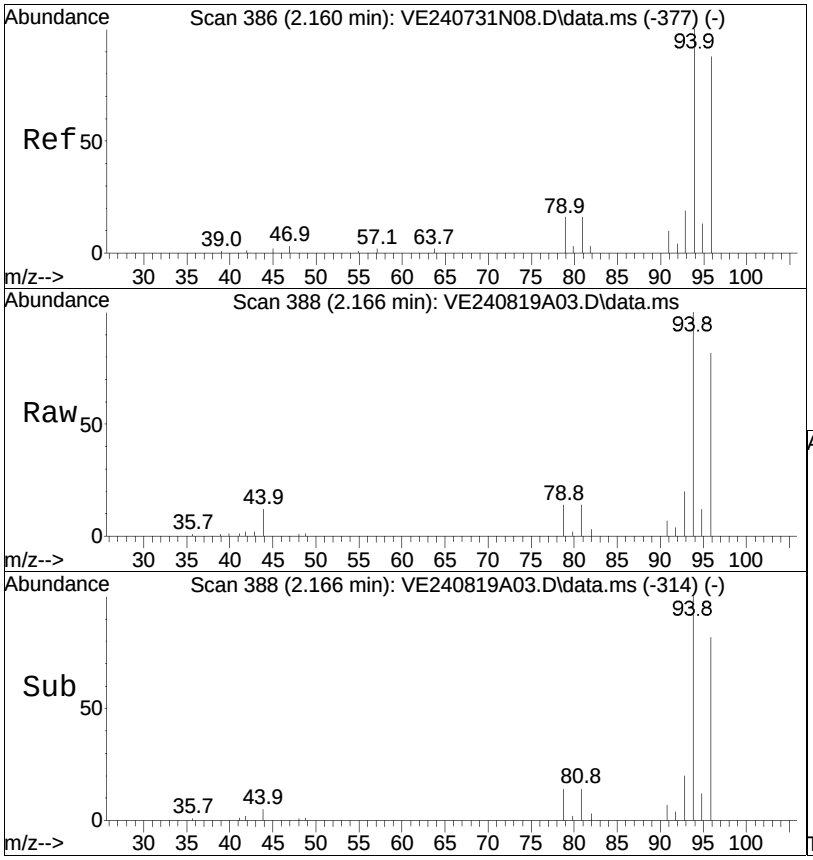


#4
Vinyl chloride
Concen: 11.14 ug/L
RT: 1.854 min Scan# 276
Delta R.T. -0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 62 Resp: 47240

Ion	Ratio	Lower	Upper
62	100		
64	30.7	8.1	48.1

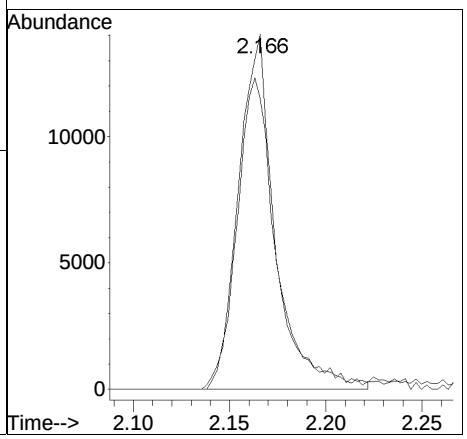


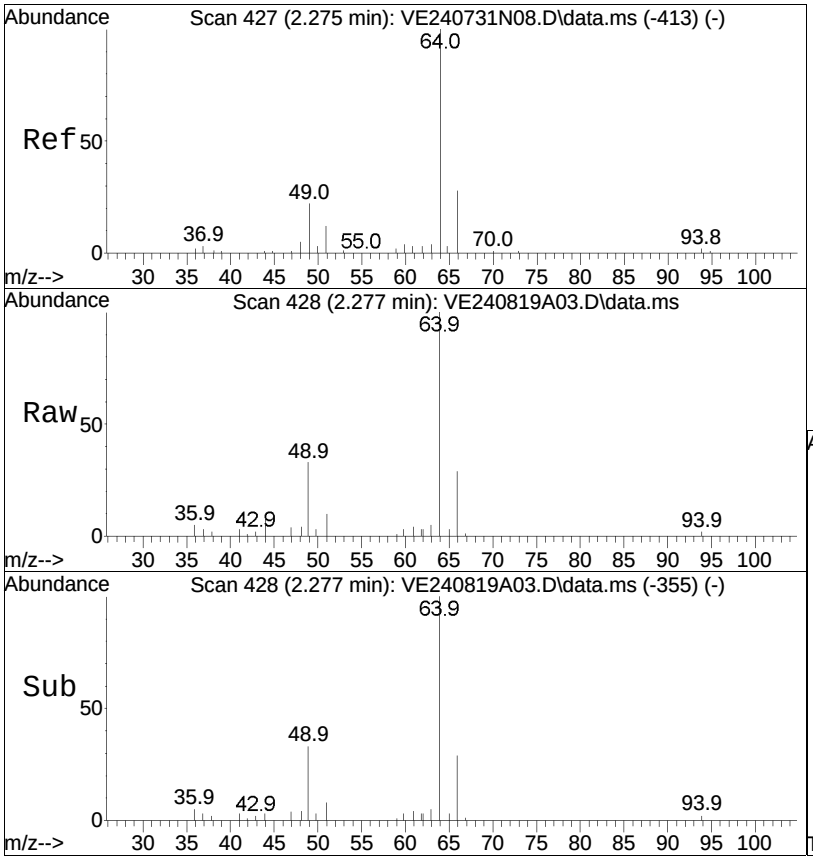


#5
Bromomethane
Concen: 14.62 ug/L
RT: 2.166 min Scan# 388
Delta R.T. 0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 94 Resp: 18834

Ion	Ratio	Lower	Upper
94	100		
96	91.2	68.2	108.2

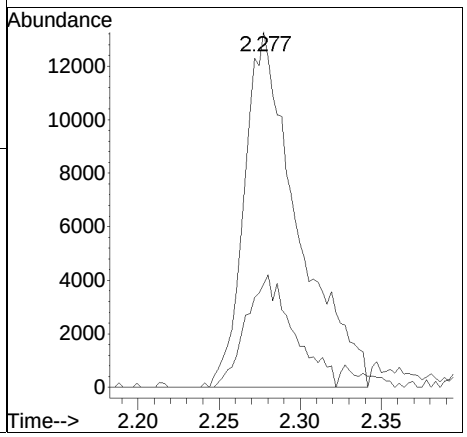


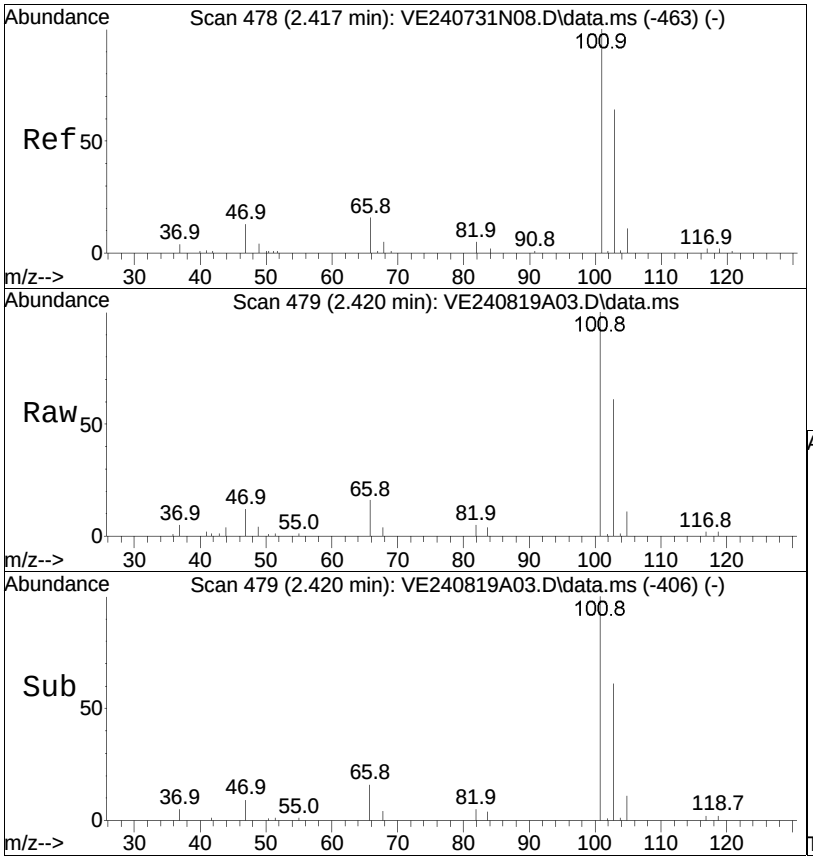


#6
Chloroethane
Concen: 11.92 ug/L
RT: 2.277 min Scan# 428
Delta R.T. 0.002 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 64 Resp: 30516

Ion	Ratio	Lower	Upper
64	100		
66	28.2	10.7	50.7

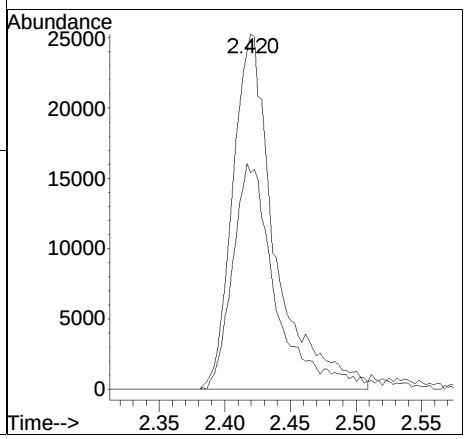


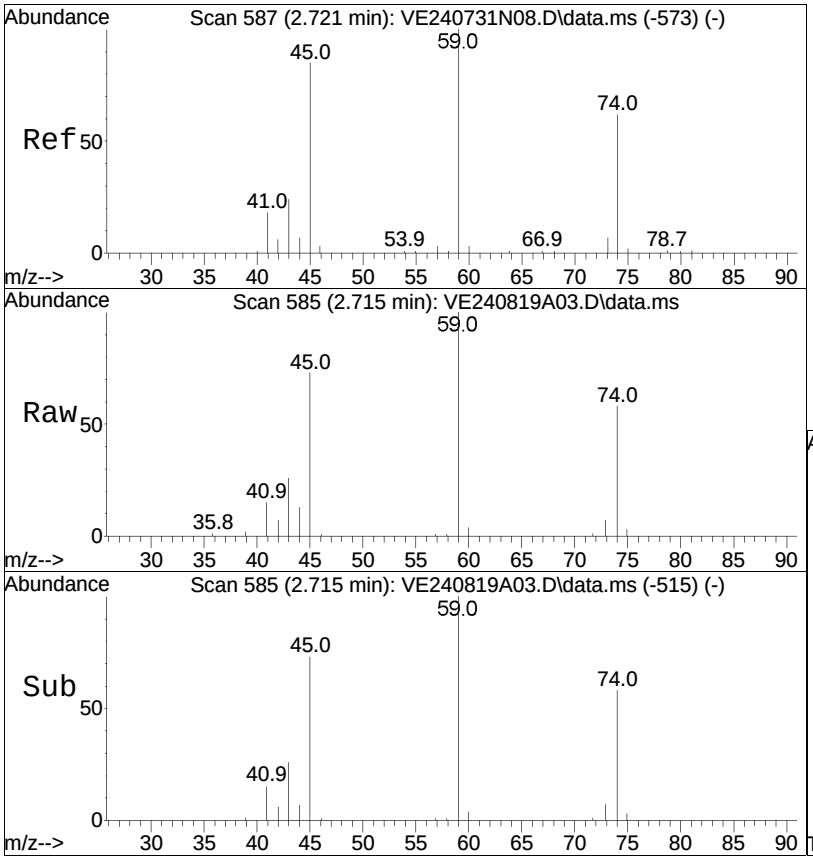


#7
Trichlorofluoromethane
Concen: 11.69 ug/L
RT: 2.420 min Scan# 479
Delta R.T. 0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:101 Resp: 56942

Ion	Ratio	Lower	Upper
101	100		
103	60.7	48.2	72.2

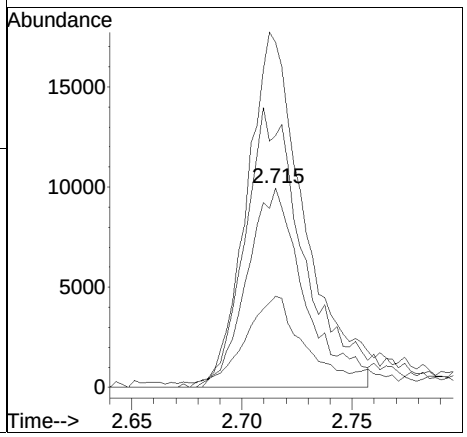


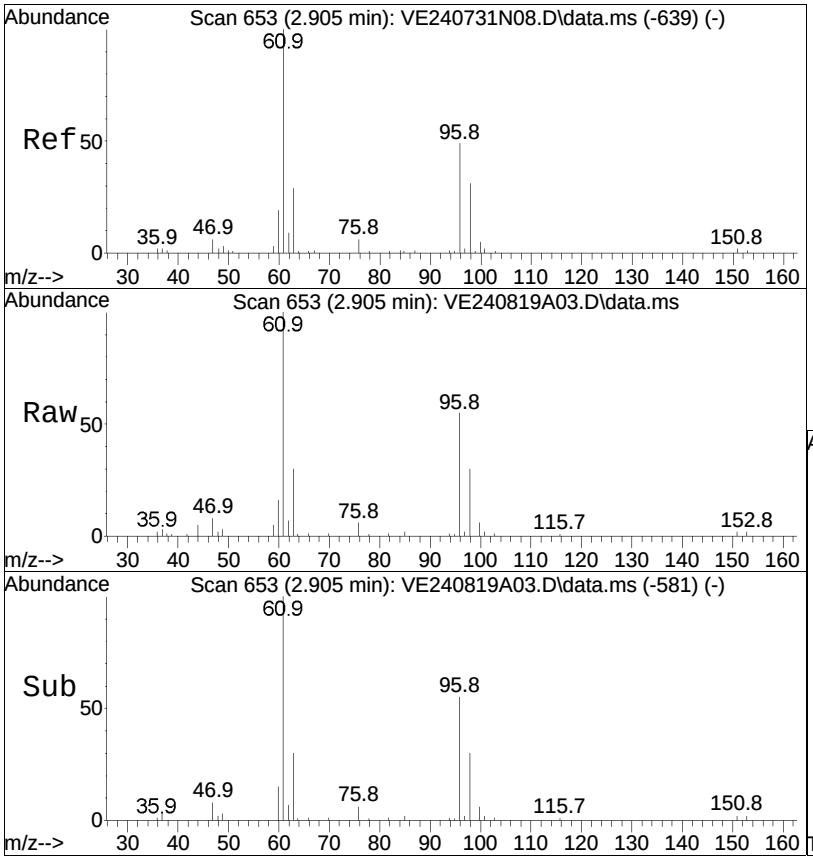


#8
Ethyl ether
Concen: 9.51 ug/L
RT: 2.715 min Scan# 585
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 74 Resp: 18251

Ion	Ratio	Lower	Upper
74	100		
59	182.7	91.7	190.5
45	145.6	77.4	160.8
43	41.2	24.6	51.2

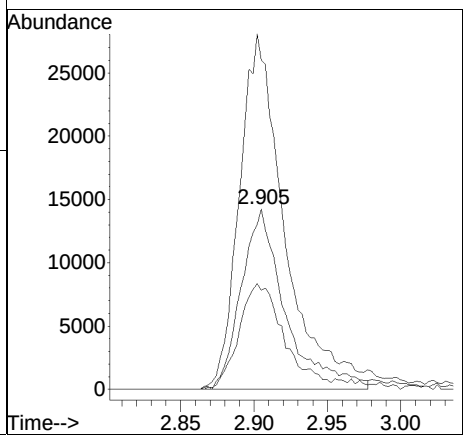


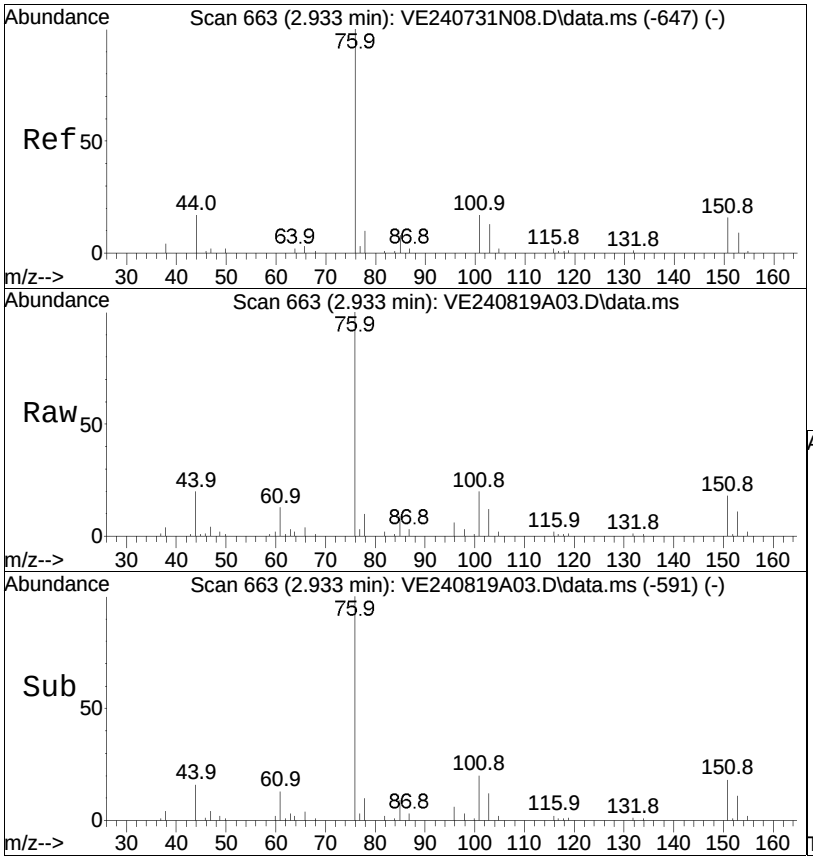


#10
1,1-Dichloroethene
Concen: 10.27 ug/L
RT: 2.905 min Scan# 653
Delta R.T. -0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 96 Resp: 29968

Ion	Ratio	Lower	Upper
96	100		
61	194.5	135.4	203.0
63	60.0	42.6	63.8

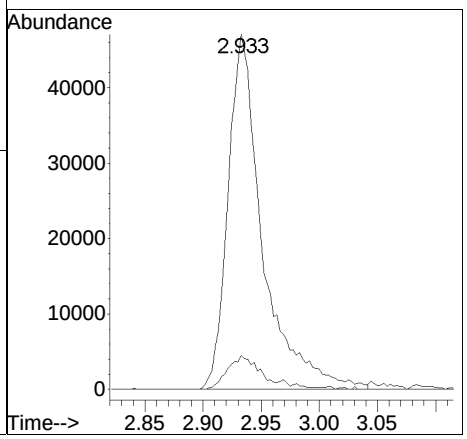


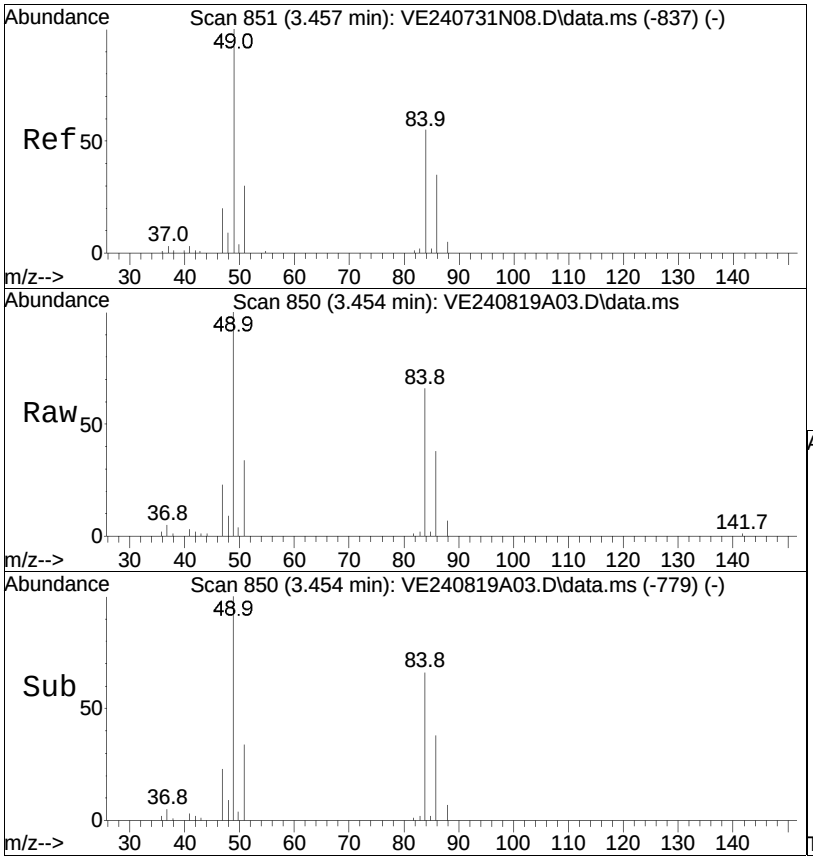


#11
Carbon disulfide
Concen: 10.83 ug/L
RT: 2.933 min Scan# 663
Delta R.T. -0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 76 Resp: 97529

Ion	Ratio	Lower	Upper
76	100		
78	8.6	5.5	11.3

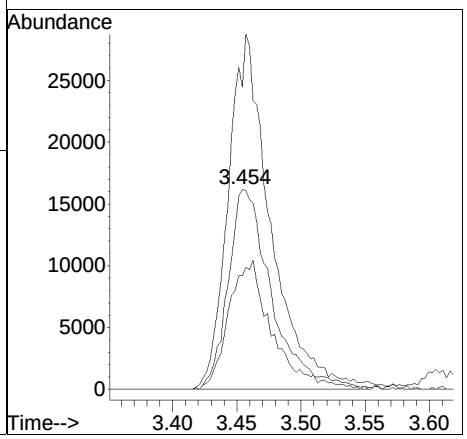


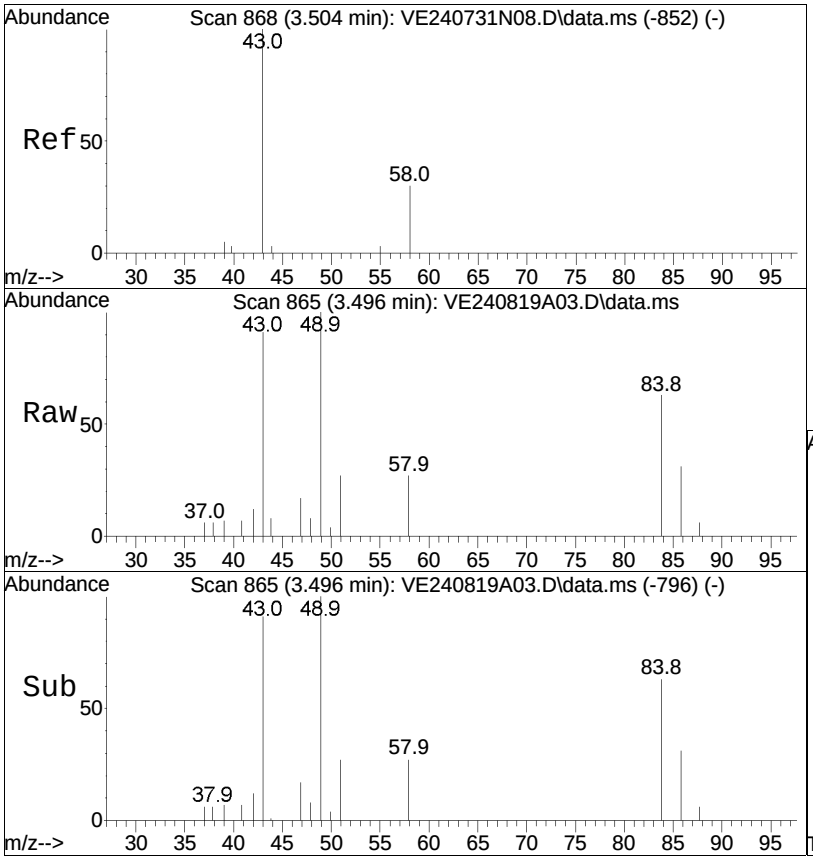


#15
Methylene chloride
Concen: 10.38 ug/L
RT: 3.454 min Scan# 850
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 84 Resp: 38209

Ion	Ratio	Lower	Upper
84	100		
86	64.2	40.2	83.6
49	173.1	103.2	214.4

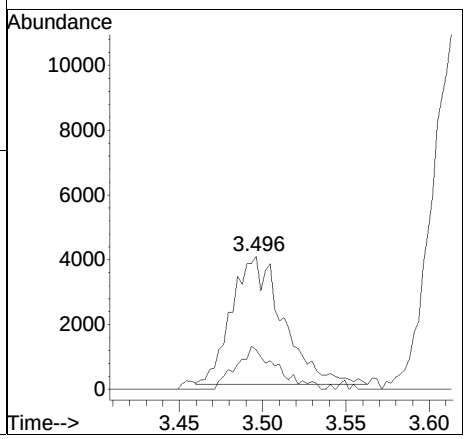


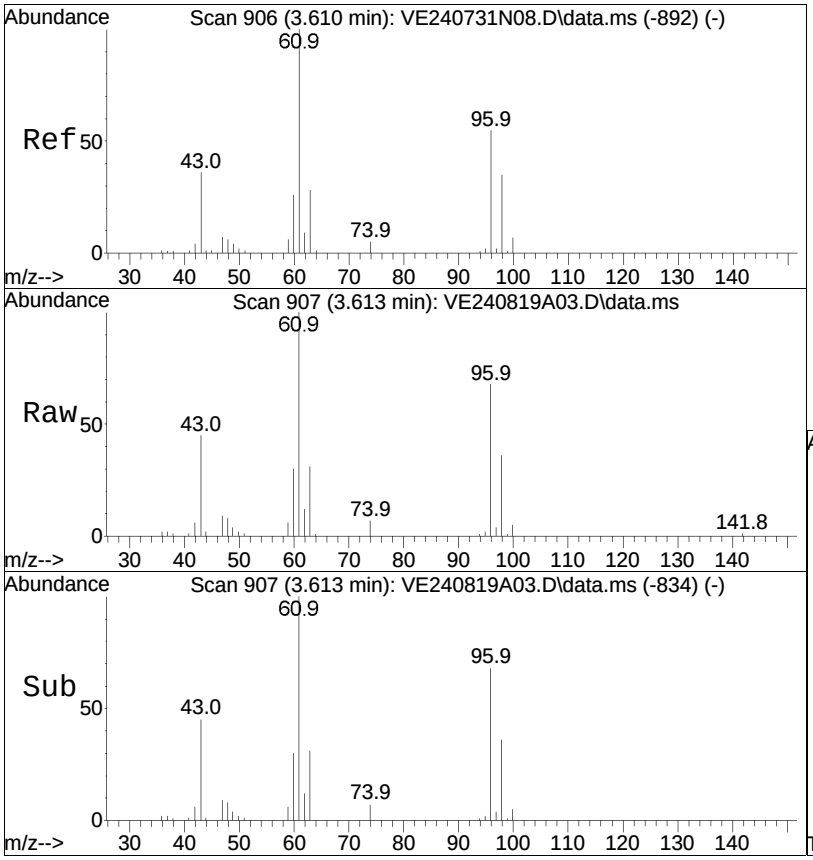


#17
Acetone
Concen: 6.39 ug/L
RT: 3.496 min Scan# 865
Delta R.T. -0.008 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 43 Resp: 8548

Ion	Ratio	Lower	Upper
43	100		
58	26.4	23.4	35.0

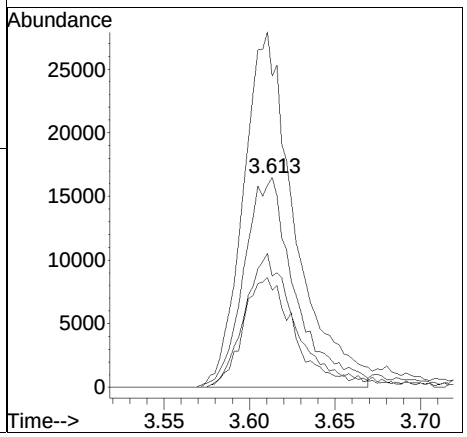


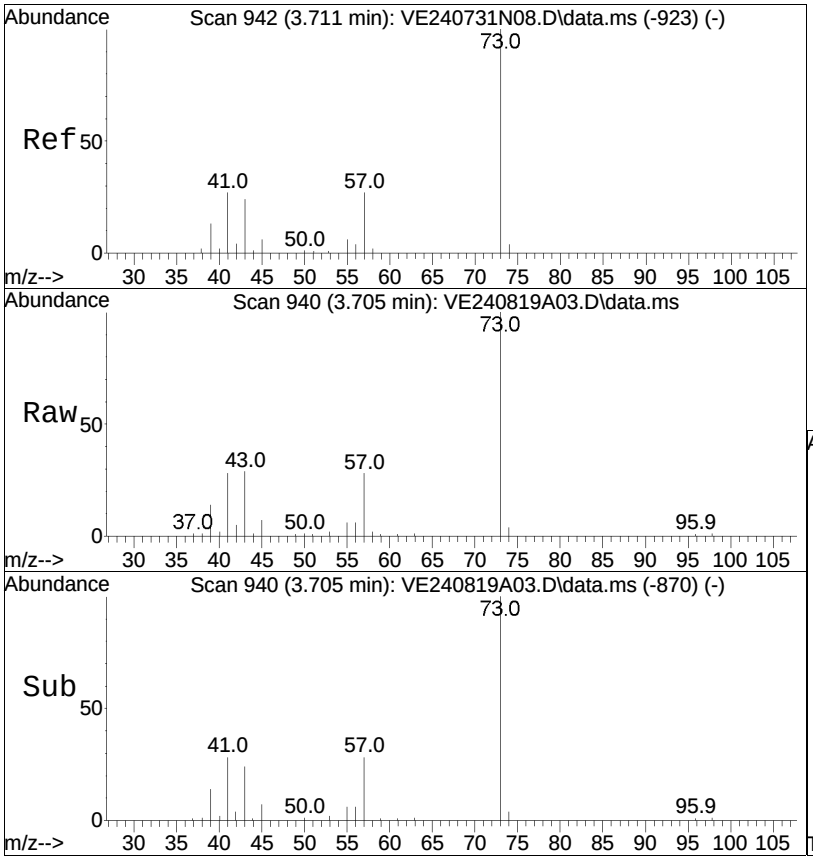


#18
trans-1,2-Dichloroethene
Concen: 10.98 ug/L
RT: 3.613 min Scan# 907
Delta R.T. 0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 96 Resp: 34457

Ion	Ratio	Lower	Upper
96	100		
61	170.3	93.5	194.1
98	63.1	37.8	78.6
63	52.1	29.7	61.7

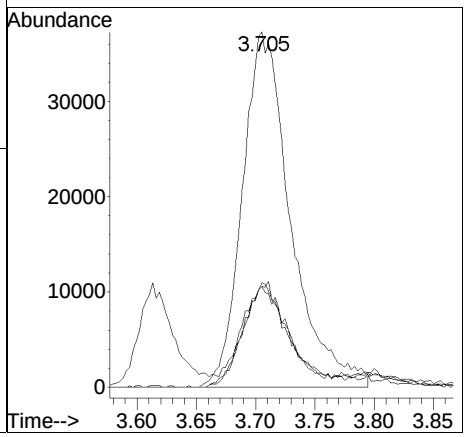


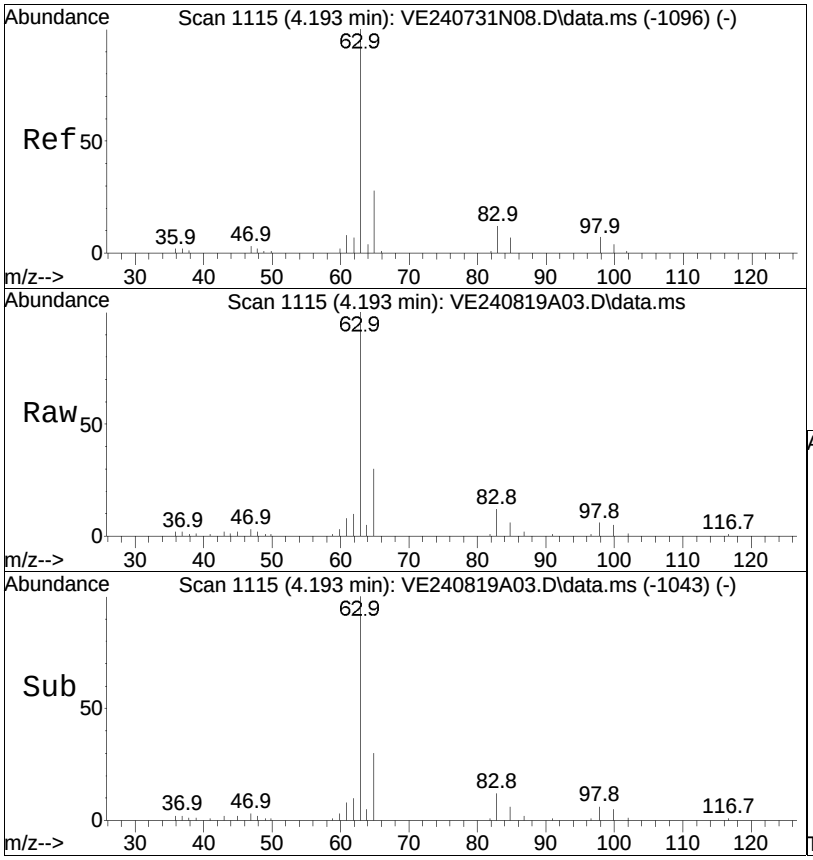


#21
Methyl tert-butyl ether
Concen: 9.06 ug/L
RT: 3.705 min Scan# 940
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 73 Resp: 106017

Ion	Ratio	Lower	Upper
73	100		
57	27.2	16.1	33.3
43	24.7	17.0	35.2
41	27.0	18.7	38.9

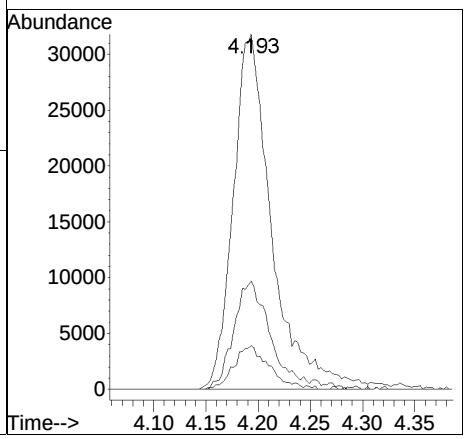


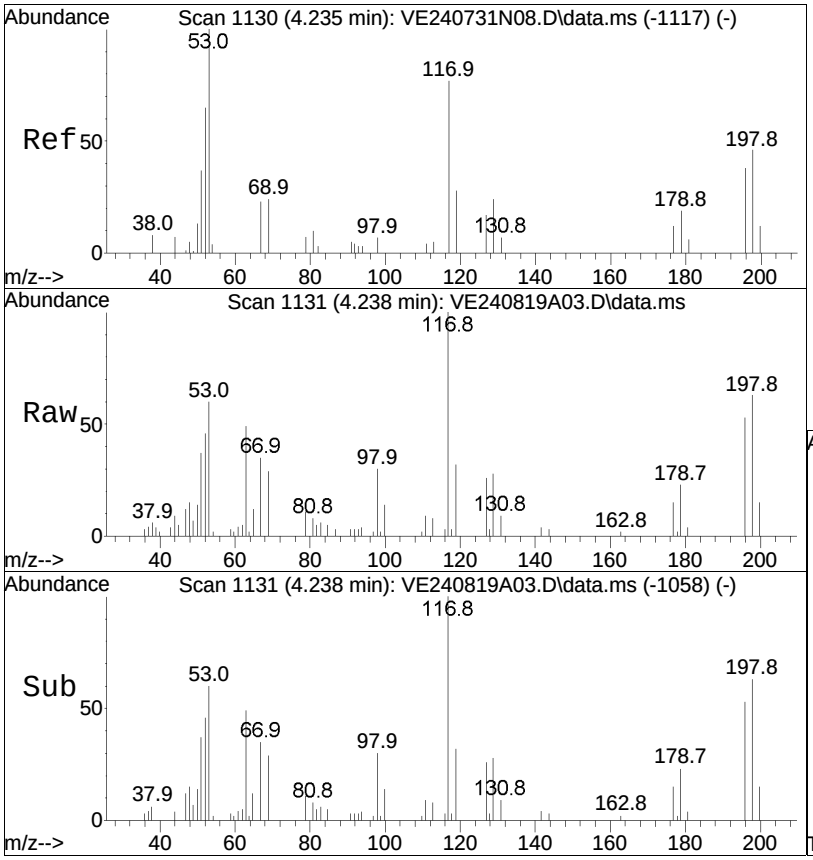


#25
1,1-Dichloroethane
Concen: 11.09 ug/L
RT: 4.193 min Scan# 1115
Delta R.T. 0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 63 Resp: 81650

Ion	Ratio	Lower	Upper
63	100		
65	28.8	10.3	50.3
83	11.3	0.0	33.1

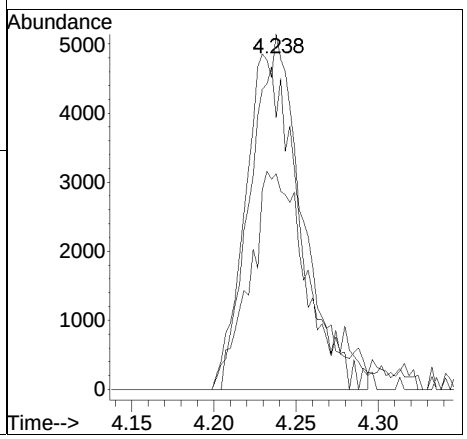


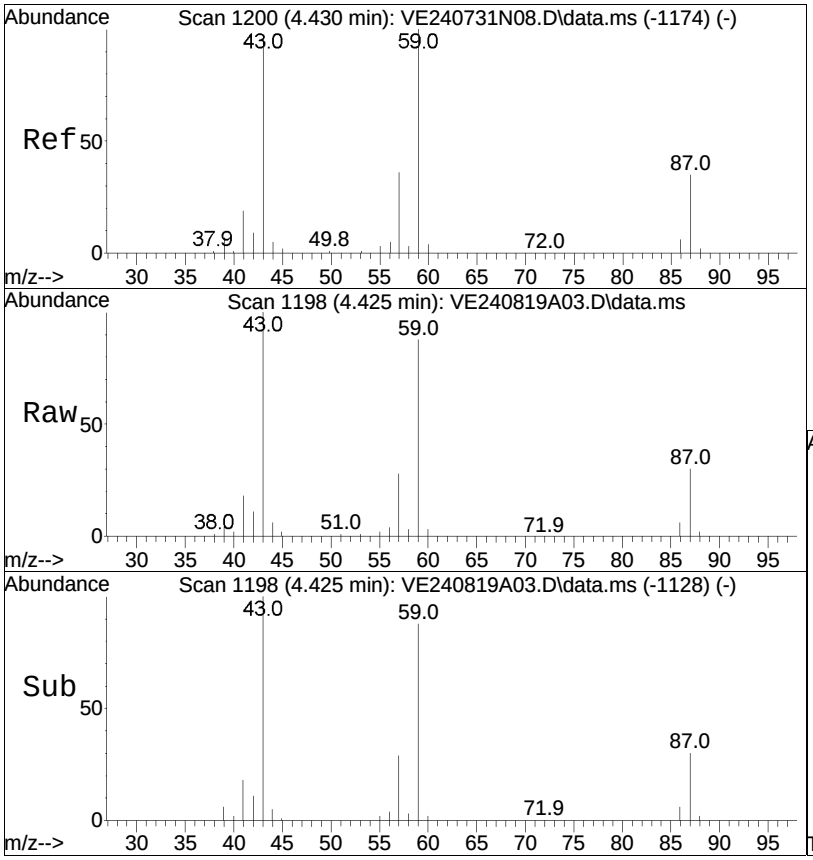


#27
Acrylonitrile
Concen: 7.94 ug/L M3
RT: 4.238 min Scan# 1131
Delta R.T. 0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 53 Resp: 12194

Ion	Ratio	Lower	Upper
53	100		
52	83.9	58.9	88.3
51	58.9	40.2	60.2

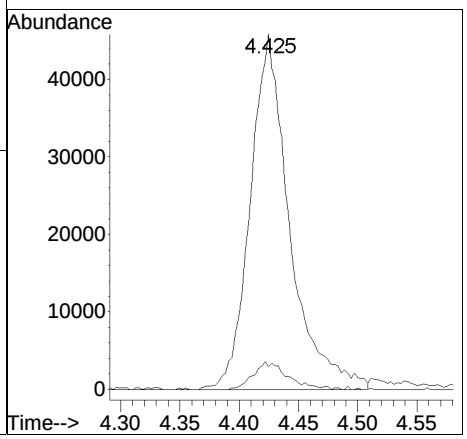


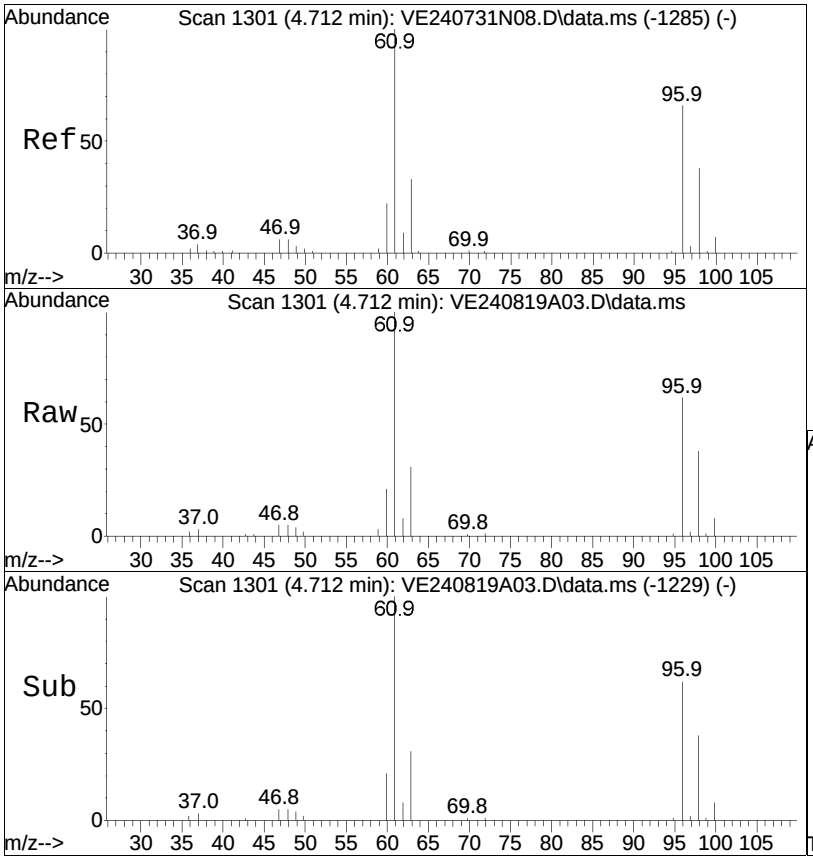


#29
Vinyl acetate
Concen: 9.49 ug/L
RT: 4.425 min Scan# 1198
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 43 Resp: 105867

Ion	Ratio	Lower	Upper
43	100		
86	6.6	6.2	9.4

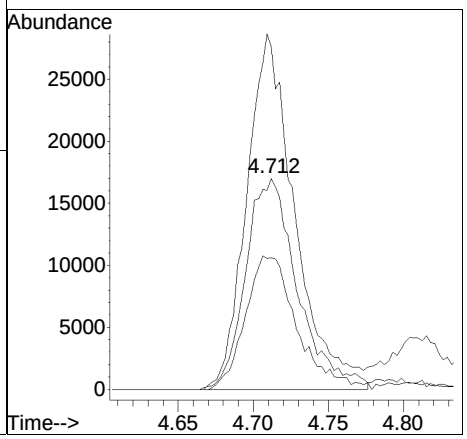


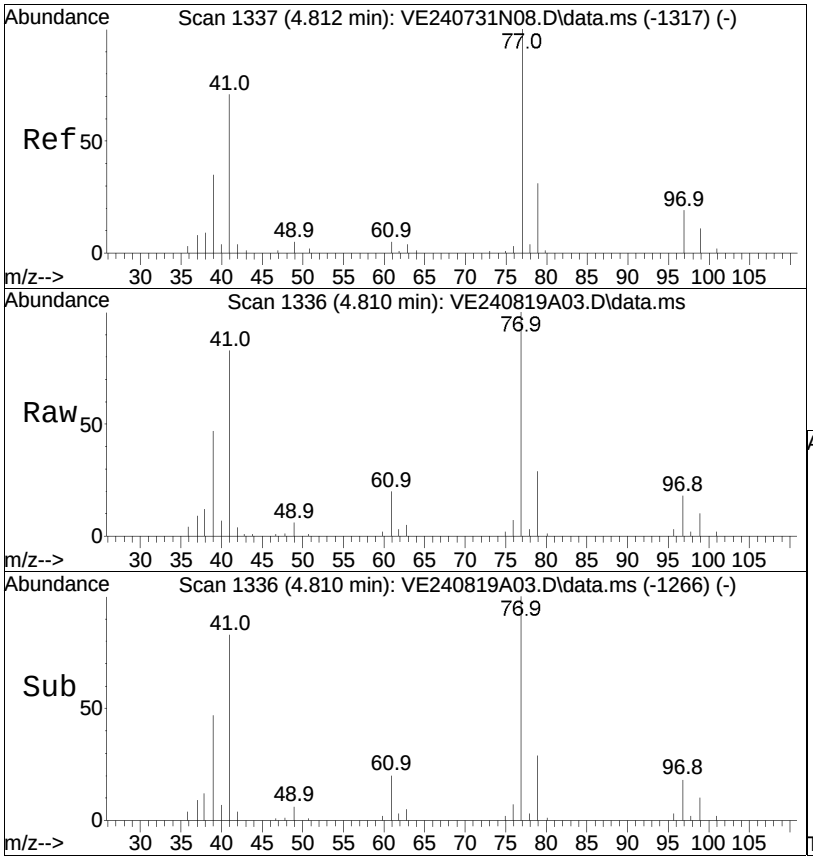


#30
cis-1,2-Dichloroethene
Concen: 10.84 ug/L
RT: 4.712 min Scan# 1301
Delta R.T. -0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 96 Resp: 40776

Ion	Ratio	Lower	Upper
96	100		
61	156.3	120.3	180.5
98	62.8	50.2	75.4

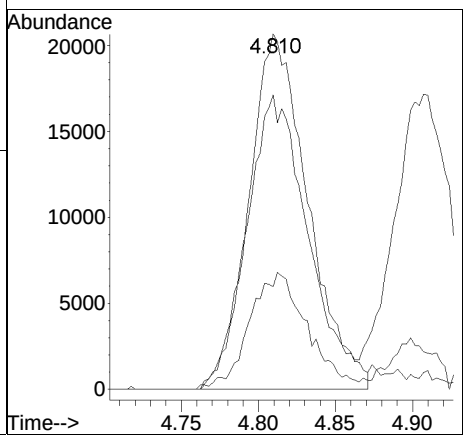


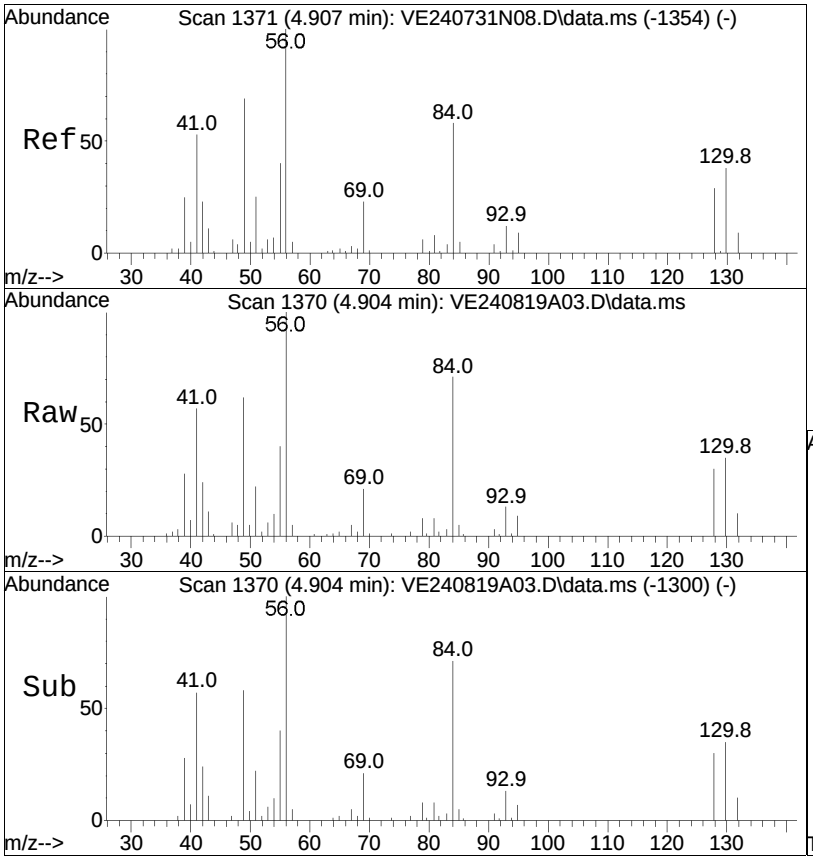


#31
2,2-Dichloropropane
Concen: 11.21 ug/L
RT: 4.810 min Scan# 1336
Delta R.T. -0.002 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 77 Resp: 55250

Ion	Ratio	Lower	Upper
77	100		
41	85.2	46.5	96.5
79	32.1	21.6	45.0

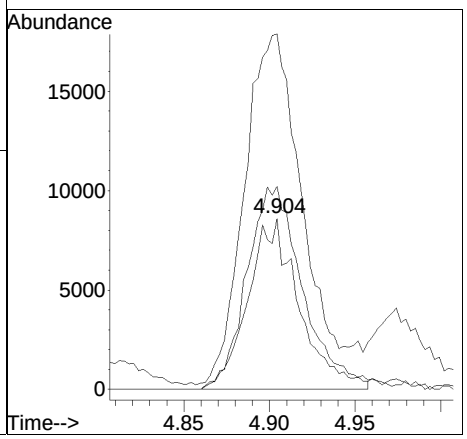


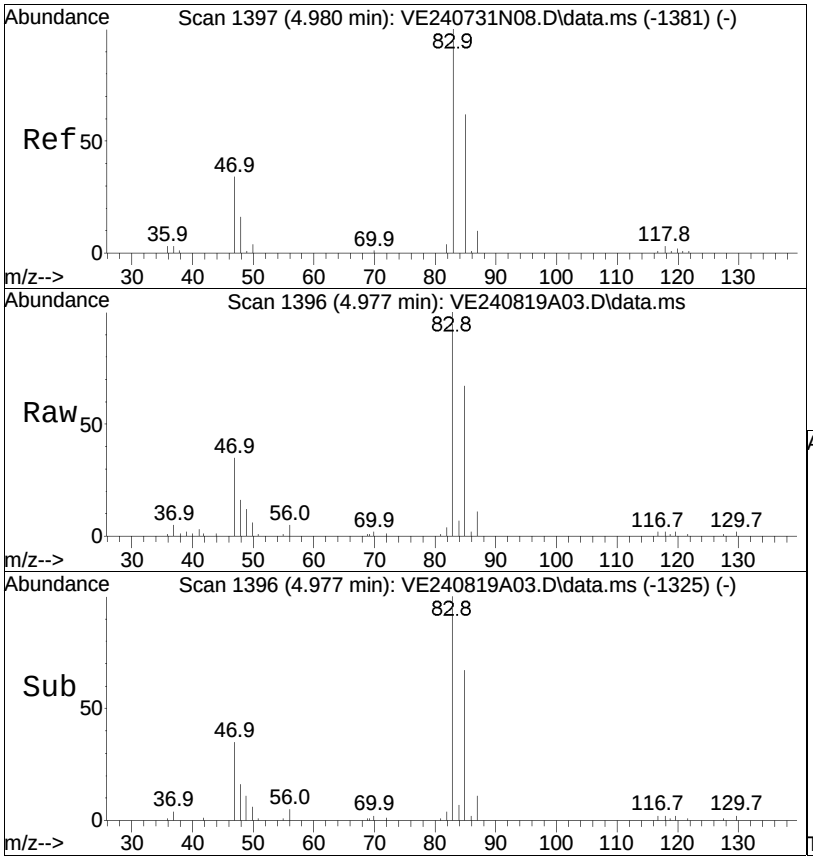


#33
Bromochloromethane
Concen: 10.84 ug/L
RT: 4.904 min Scan# 1370
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:128 Resp: 17878

Ion	Ratio	Lower	Upper
128	100		
49	231.0	170.2	255.2
130	130.5	103.7	155.5

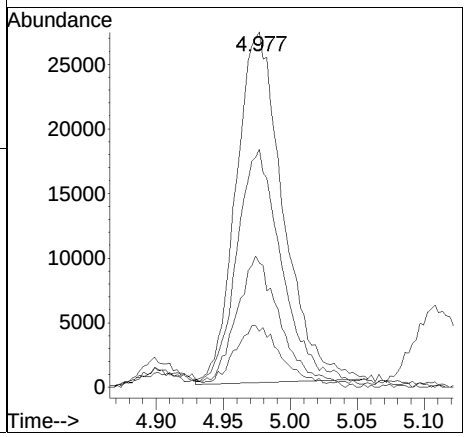


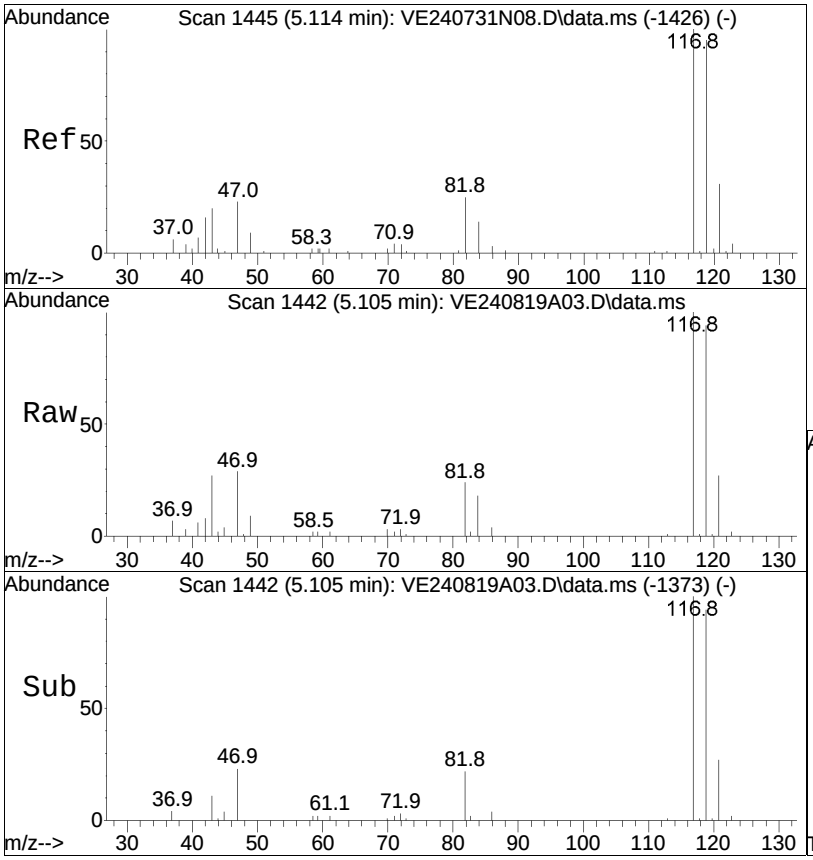


#35
Chloroform
Concen: 10.88 ug/L
RT: 4.977 min Scan# 1396
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 83 Resp: 66421

Ion	Ratio	Lower	Upper
83	100		
85	62.5	41.3	85.9
47	32.7	20.9	43.3
48	15.3	10.3	21.5

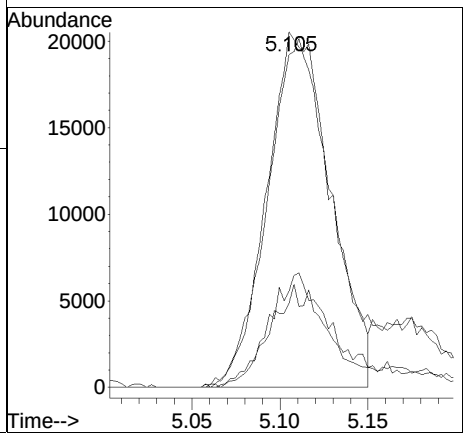


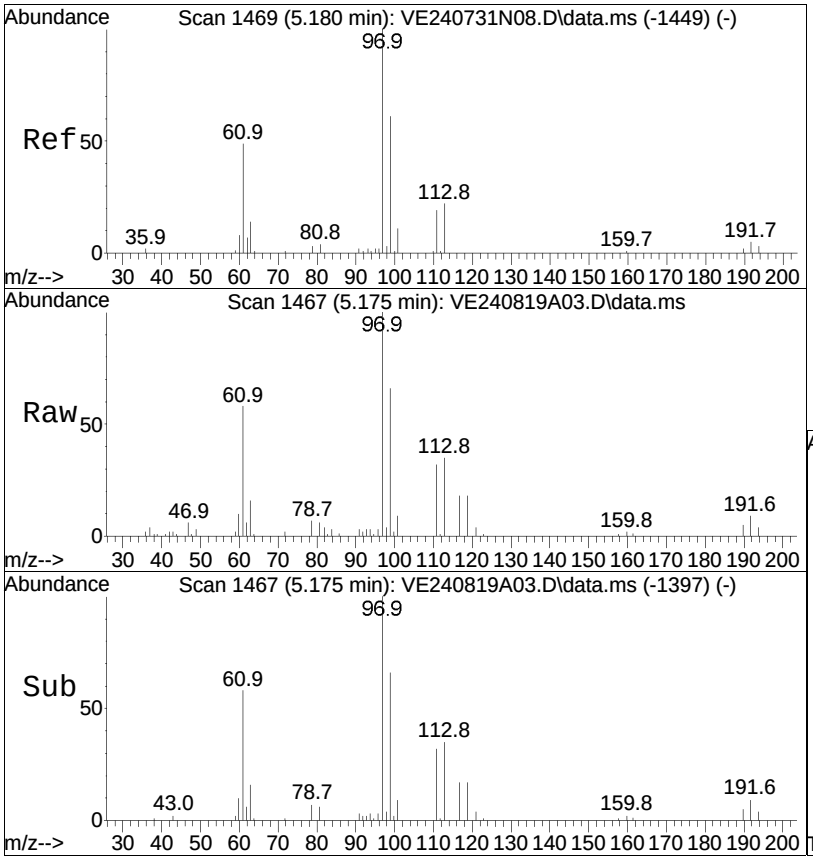


#37
Carbon tetrachloride
Concen: 11.23 ug/L
RT: 5.105 min Scan# 1442
Delta R.T. -0.009 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:117 Resp: 52373

Ion	Ratio	Lower	Upper
117	100		
119	101.0	60.6	126.0
121	30.9	18.0	37.4
82	14.9	19.8	41.0#

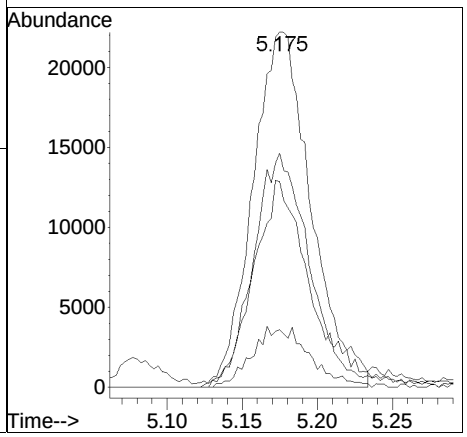


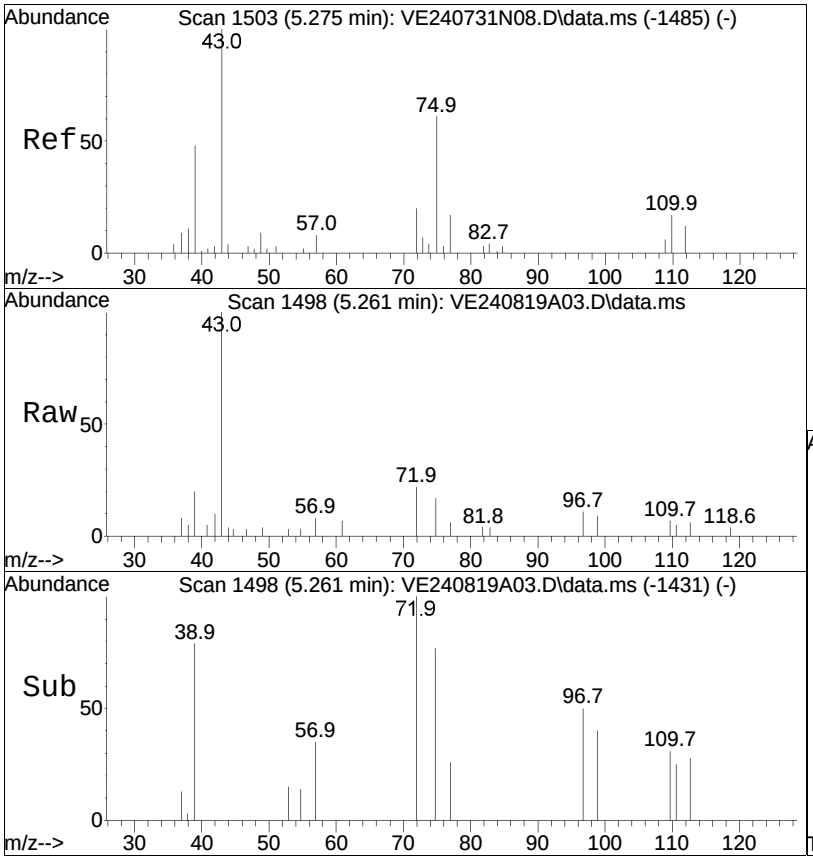


#40
1,1,1-Trichloroethane
Concen: 10.84 ug/L
RT: 5.175 min Scan# 1467
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 97 Resp: 60082

Ion	Ratio	Lower	Upper
97	100		
99	65.6	40.2	83.4
61	51.8	36.9	76.5
63	16.6	8.3	17.3

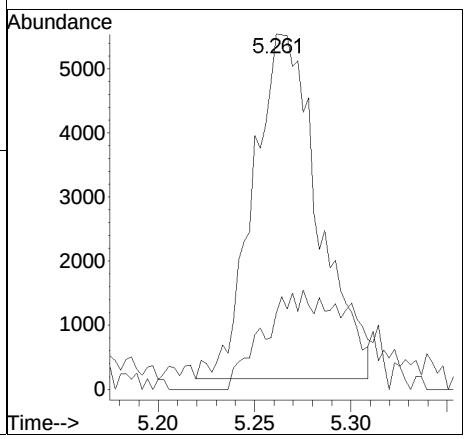


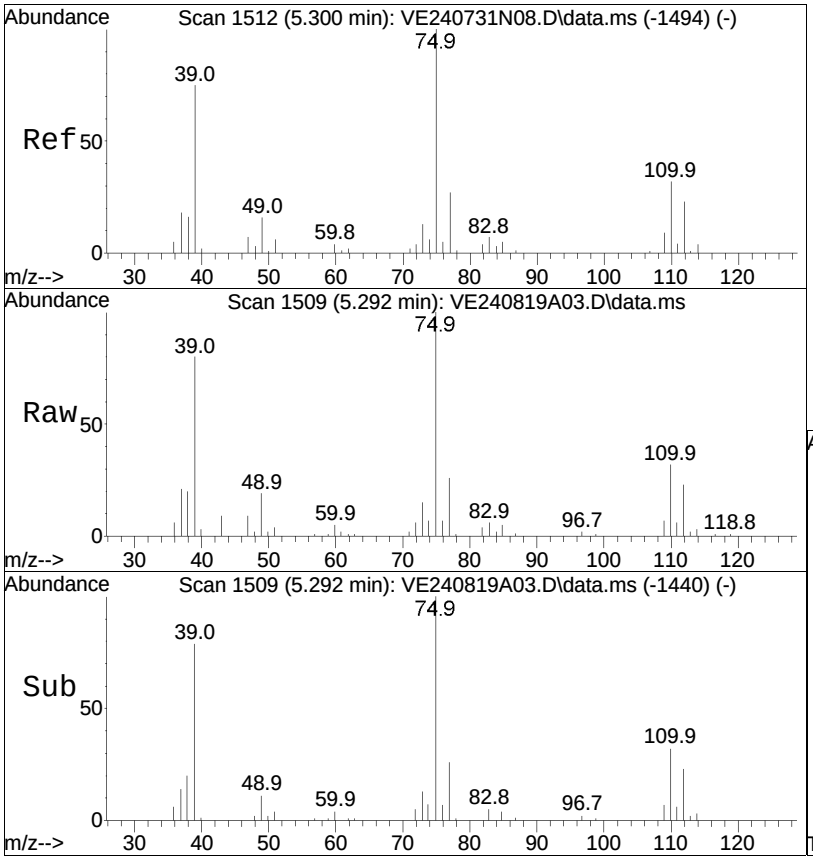


#42
2-Butanone
Concen: 6.59 ug/L
RT: 5.261 min Scan# 1498
Delta R.T. -0.014 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 43 Resp: 12586

Ion	Ratio	Lower	Upper
43	100		
72	2.1	15.7	23.5#

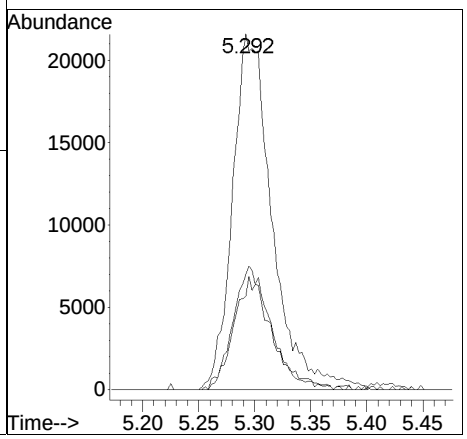


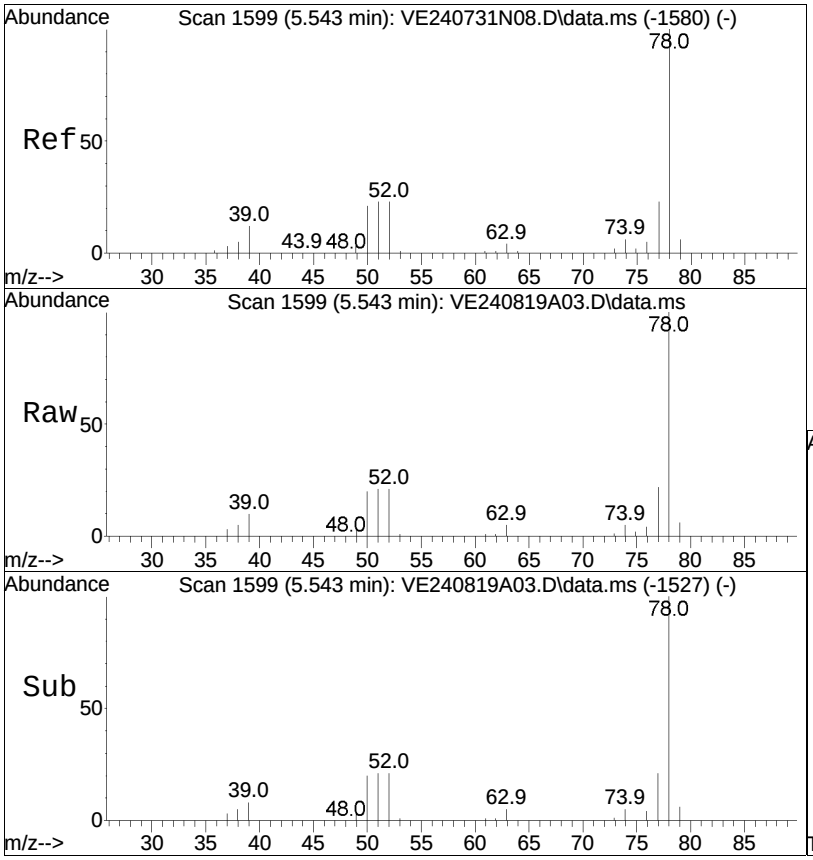


#43
1,1-Dichloropropene
Concen: 11.35 ug/L
RT: 5.292 min Scan# 1509
Delta R.T. -0.008 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 75 Resp: 52958

Ion	Ratio	Lower	Upper
75	100		
110	33.7	20.3	42.1
77	30.1	18.9	39.3

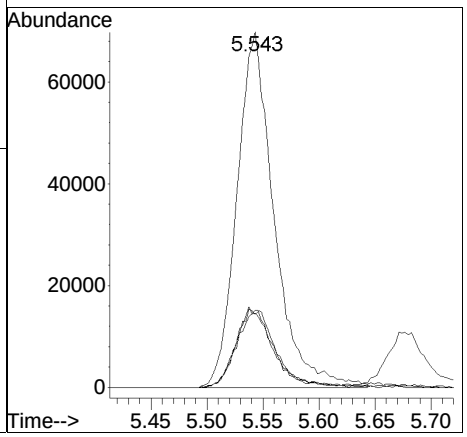


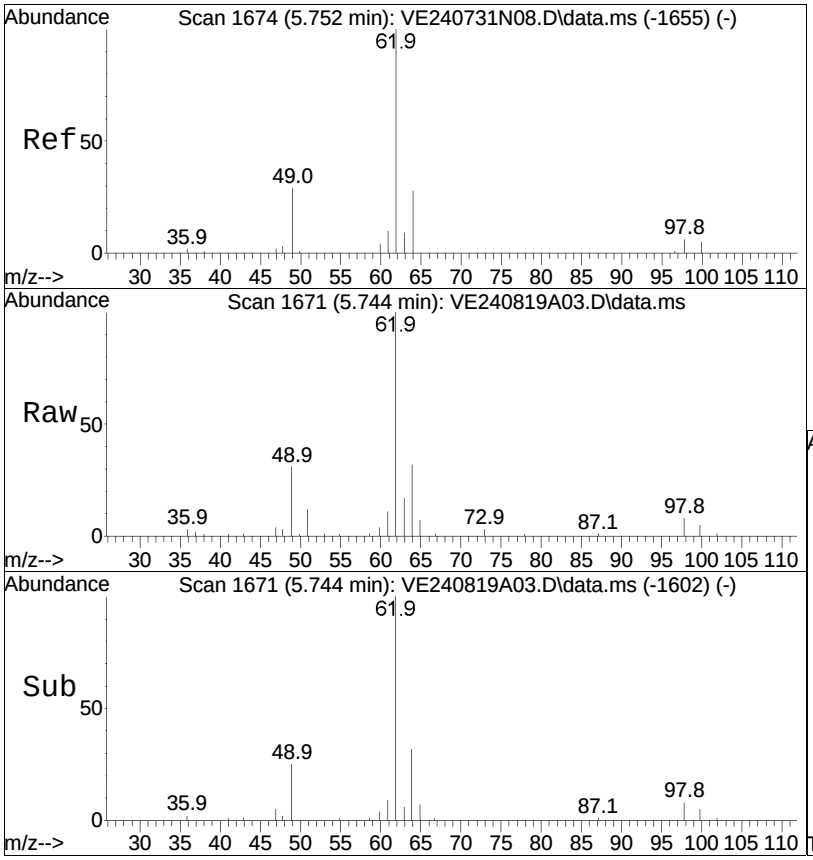


#45
Benzene
Concen: 11.15 ug/L
RT: 5.543 min Scan# 1599
Delta R.T. -0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 78 Resp: 160919

Ion	Ratio	Lower	Upper
78	100		
77	10.4	12.8	26.6#
51	22.7	13.5	27.9
52	20.9	12.0	25.0

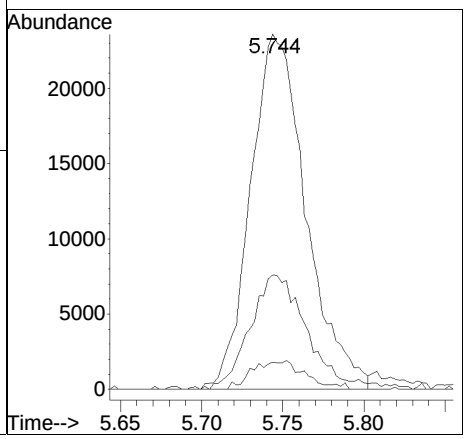


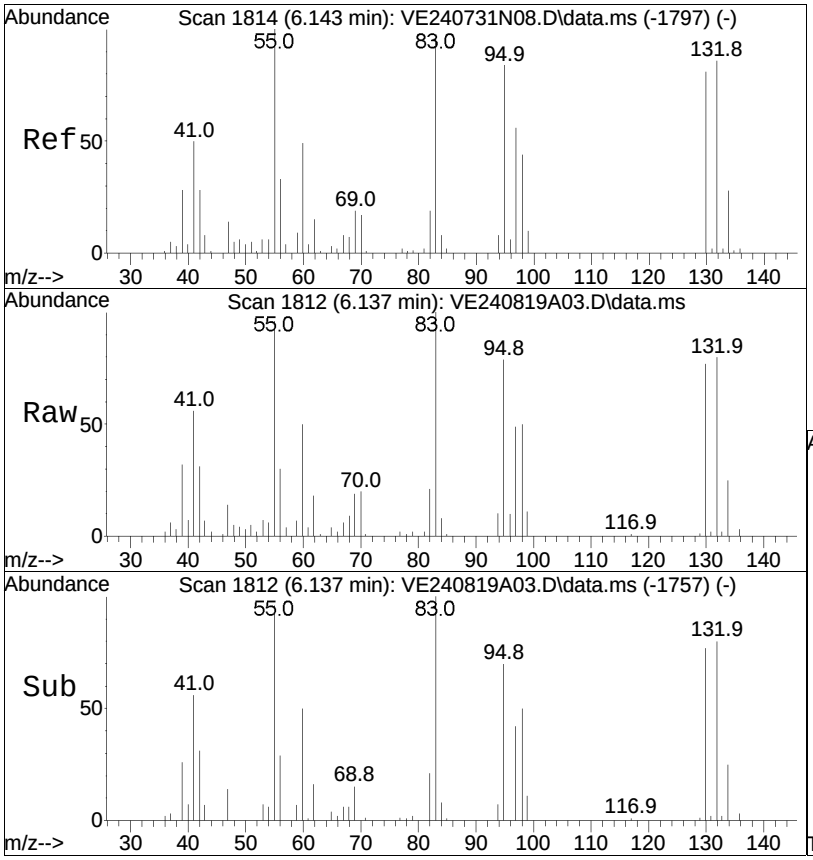


#48
1,2-Dichloroethane
Concen: 10.05 ug/L
RT: 5.744 min Scan# 1671
Delta R.T. -0.008 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 62 Resp: 56006

Ion	Ratio	Lower	Upper
62	100		
64	33.2	12.0	52.0
98	7.5	0.0	29.1

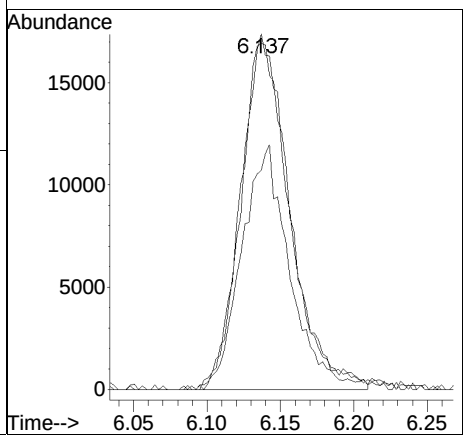


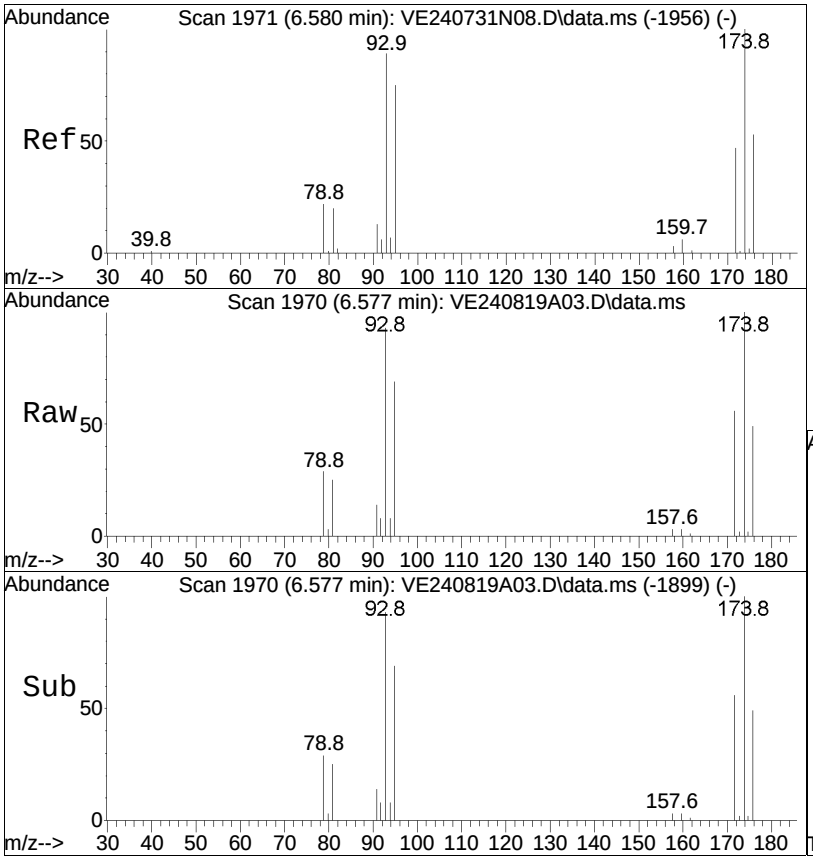


#52
Trichloroethene
Concen: 11.06 ug/L
RT: 6.137 min Scan# 1812
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 95 Resp: 40148

Ion	Ratio	Lower	Upper
95	100		
97	66.8	50.2	75.2
130	97.8	78.2	117.4

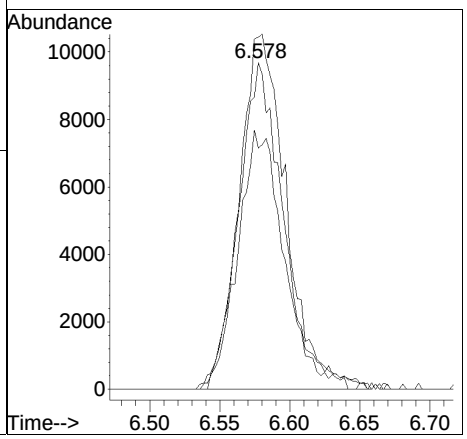


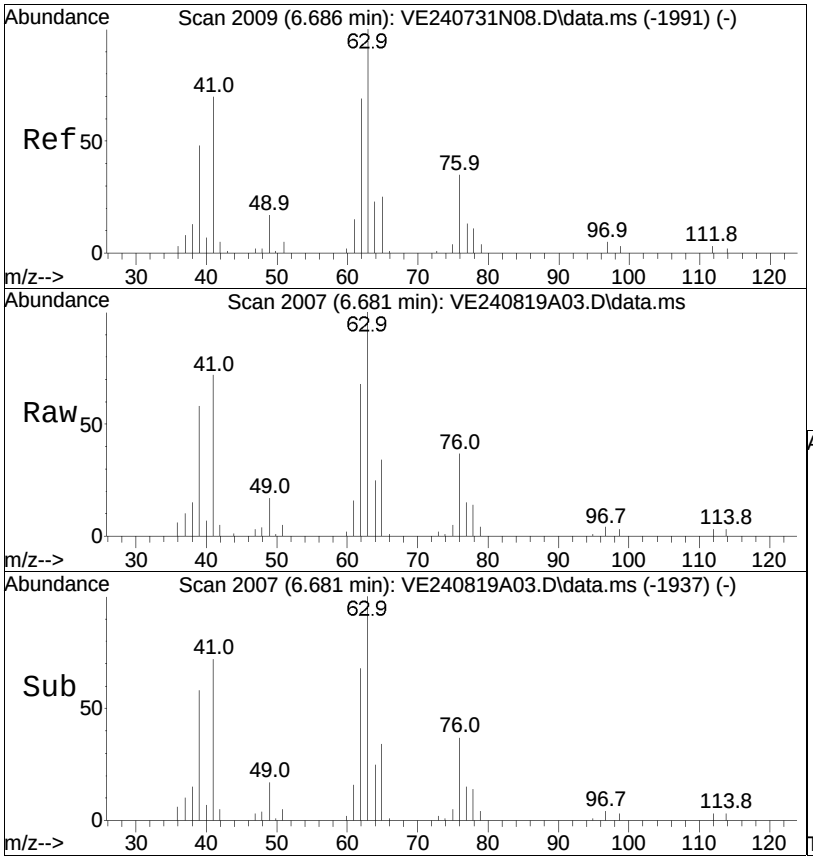


#54
Dibromomethane
Concen: 10.43 ug/L
RT: 6.577 min Scan# 1970
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 93 Resp: 21814

Ion	Ratio	Lower	Upper
93	100		
95	81.0	73.2	109.8
174	113.1	73.8	110.8#

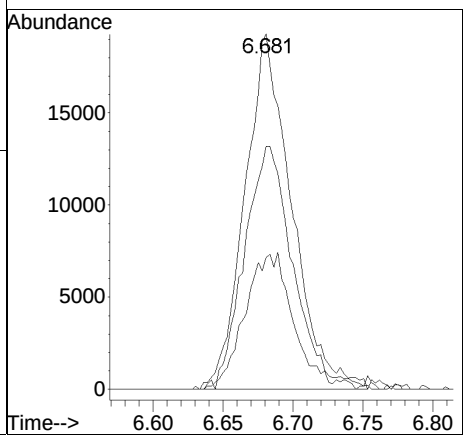


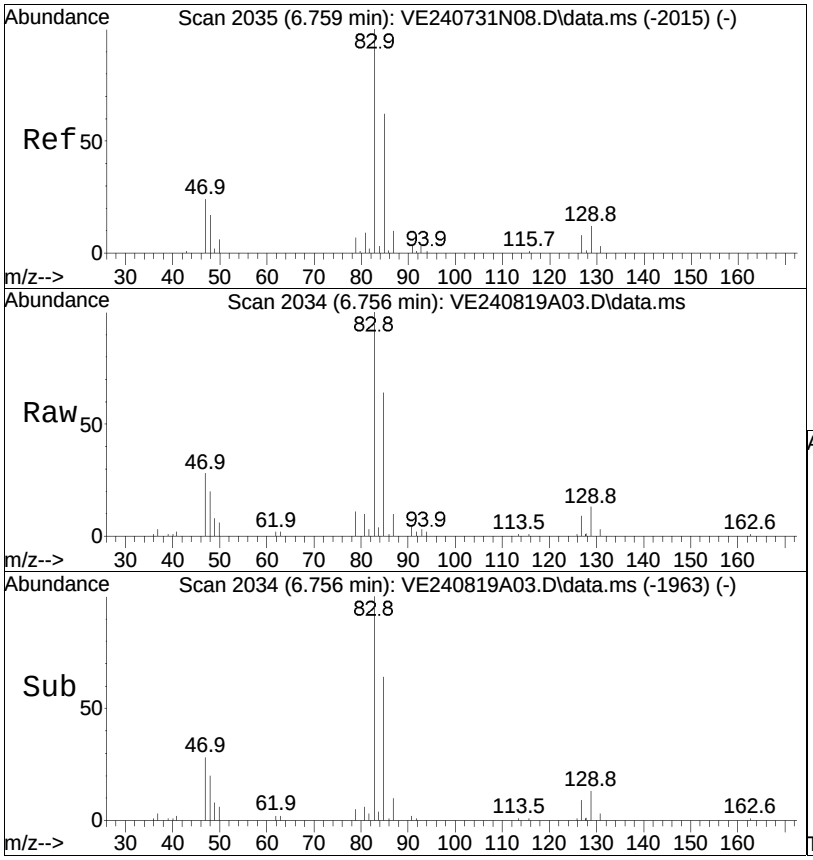


#55
1,2-Dichloropropane
Concen: 10.30 ug/L
RT: 6.681 min Scan# 2007
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 63 Resp: 44904

Ion	Ratio	Lower	Upper
63	100		
62	71.2	58.4	87.6
76	39.2	28.7	43.1

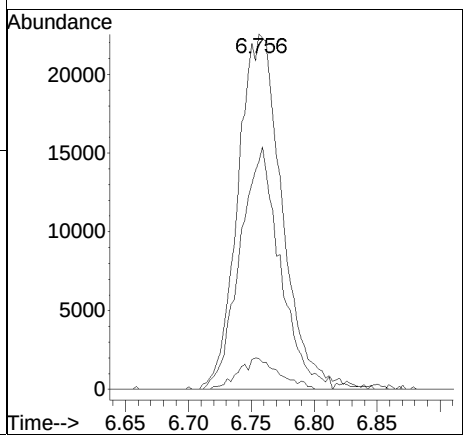


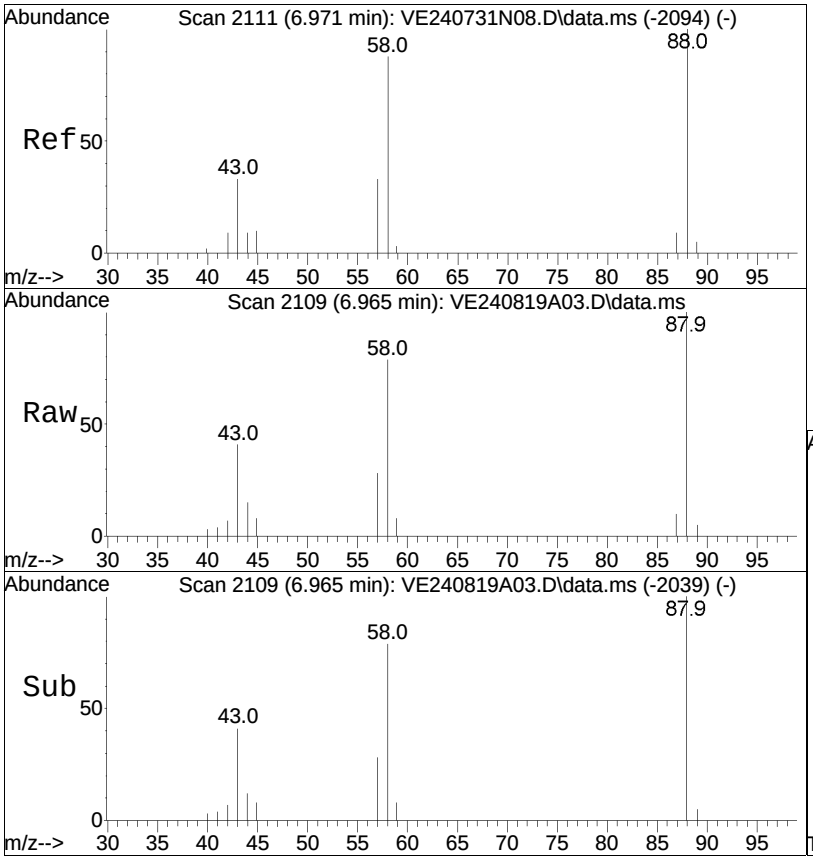


#58
Bromodichloromethane
Concen: 10.69 ug/L
RT: 6.756 min Scan# 2034
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 83 Resp: 55187

Ion	Ratio	Lower	Upper
83	100		
85	62.4	46.6	69.8
127	8.1	6.2	9.4

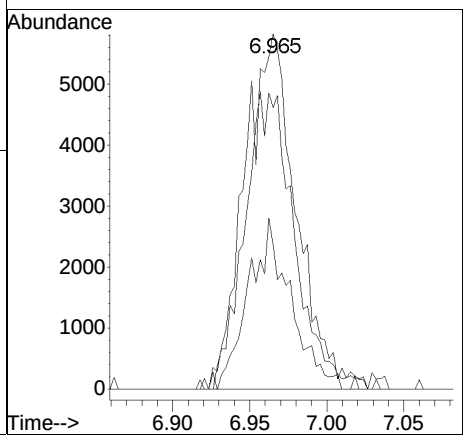


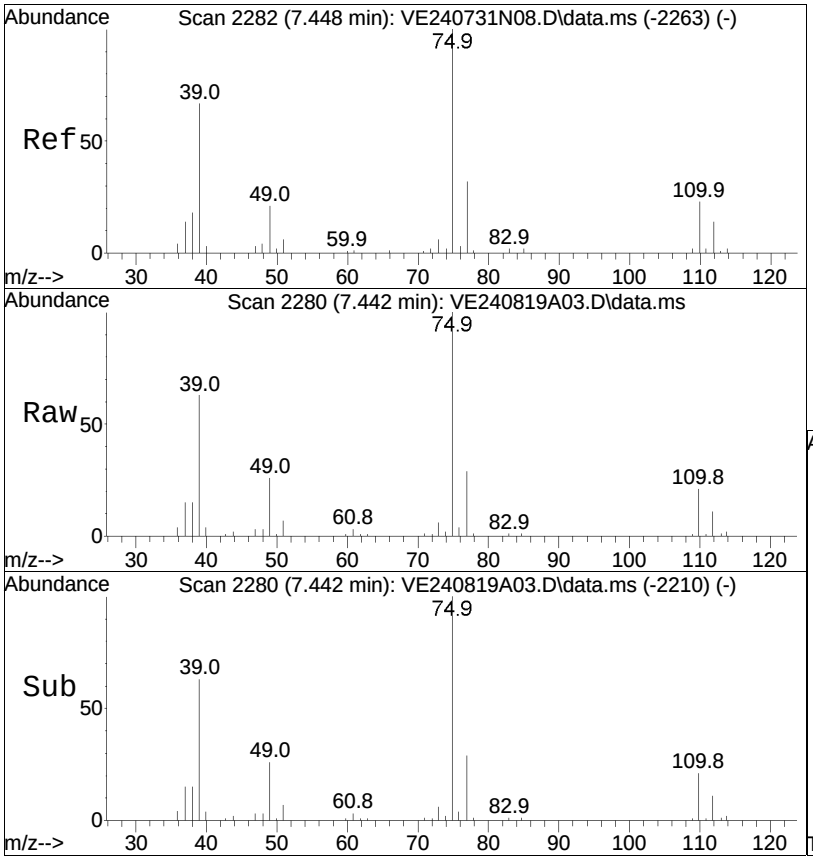


#61
1,4-Dioxane
Concen: 390.68 ug/L
RT: 6.965 min Scan# 2109
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 88 Resp: 13664

Ion	Ratio	Lower	Upper
88	100		
58	35.3	62.8	94.2#
43	22.3	36.6	55.0#

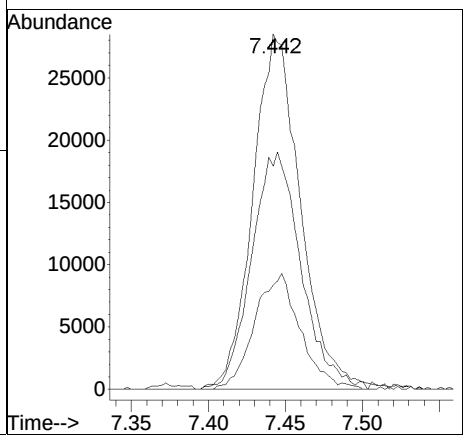


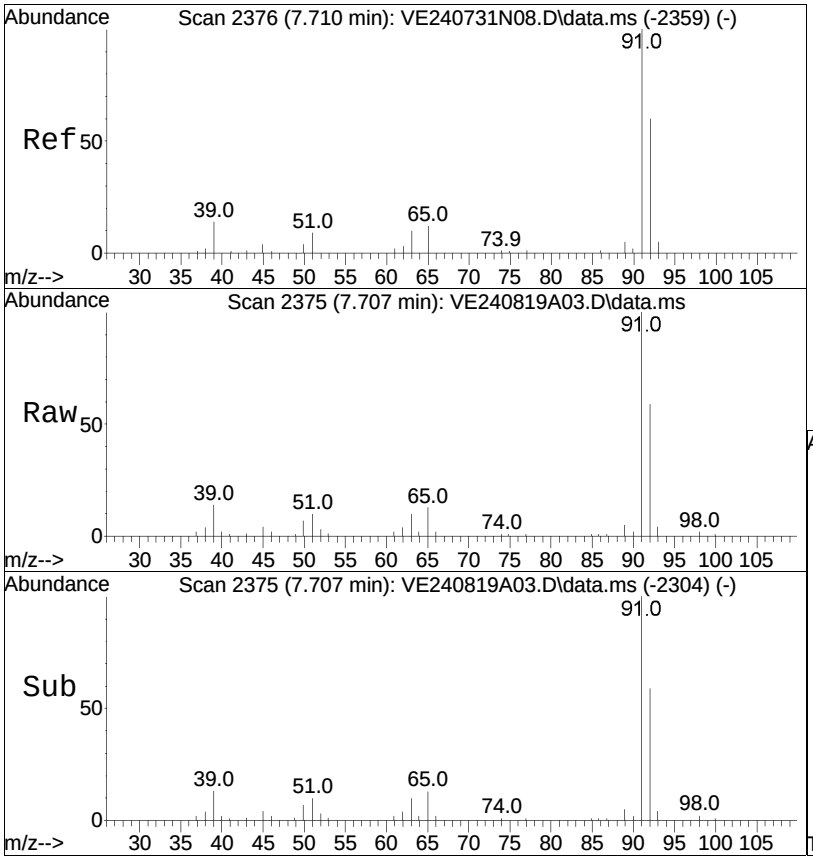


#62
cis-1,3-Dichloropropene
Concen: 10.51 ug/L
RT: 7.442 min Scan# 2280
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 75 Resp: 61100

Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.1	37.7
39	69.4	50.7	76.1

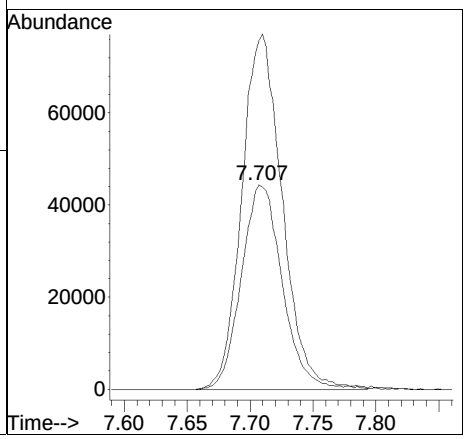


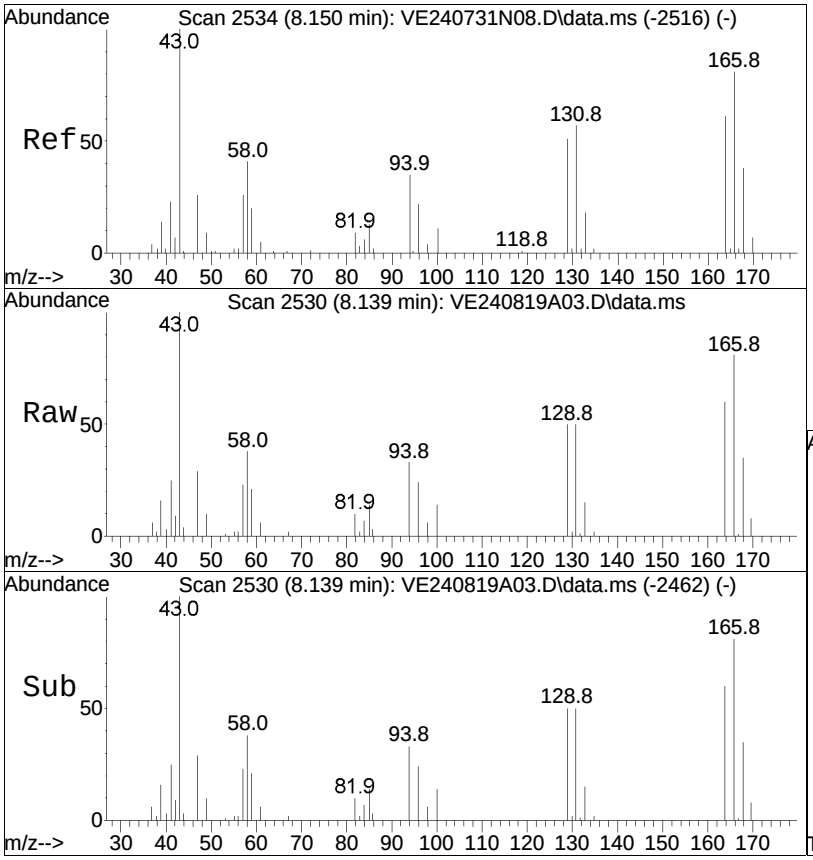


#65
Toluene
Concen: 10.85 ug/L
RT: 7.707 min Scan# 2375
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 92 Resp: 100568

Ion	Ratio	Lower	Upper
92	100		
91	171.2	129.1	193.7

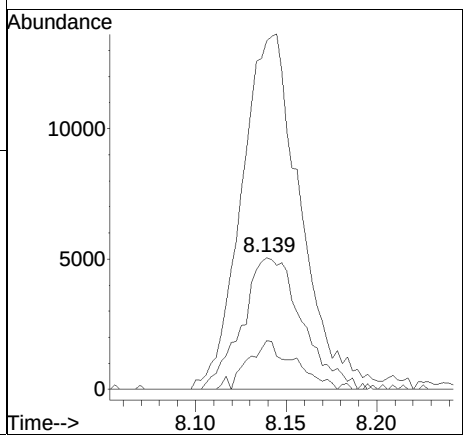


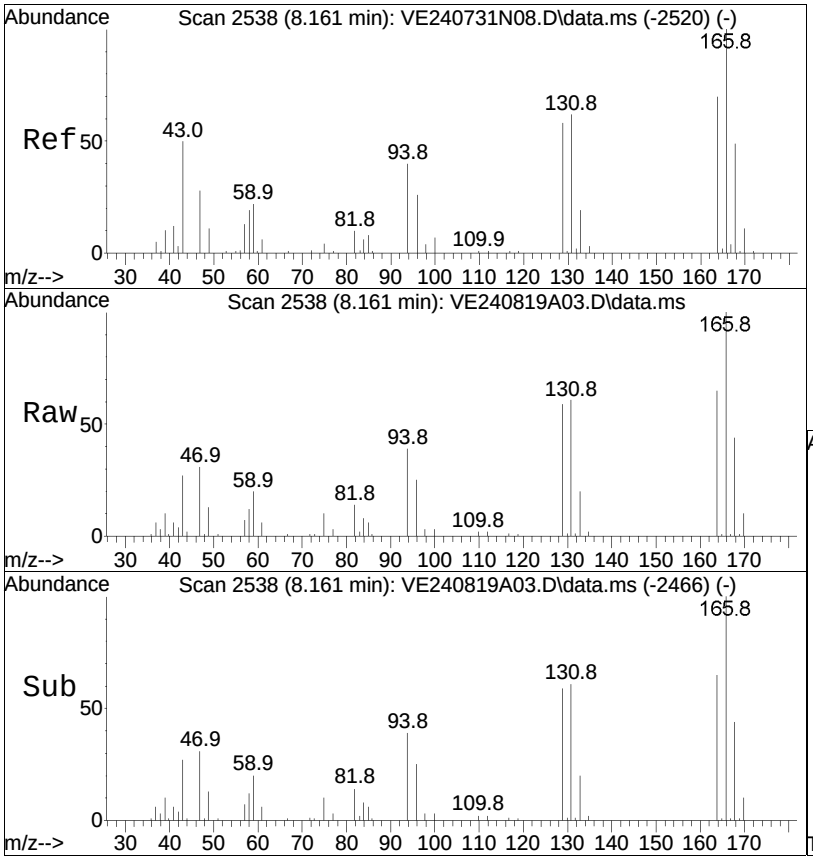


#66
4-Methyl-2-pentanone
Concen: 7.37 ug/L
RT: 8.139 min Scan# 2530
Delta R.T. -0.011 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 58 Resp: 11653

Ion	Ratio	Lower	Upper
58	100		
100	29.4	27.9	41.9
43	264.4	225.7	338.5

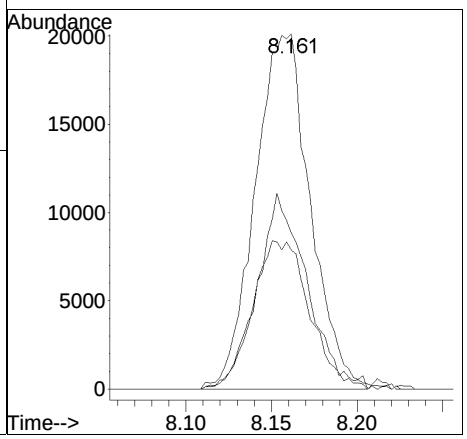


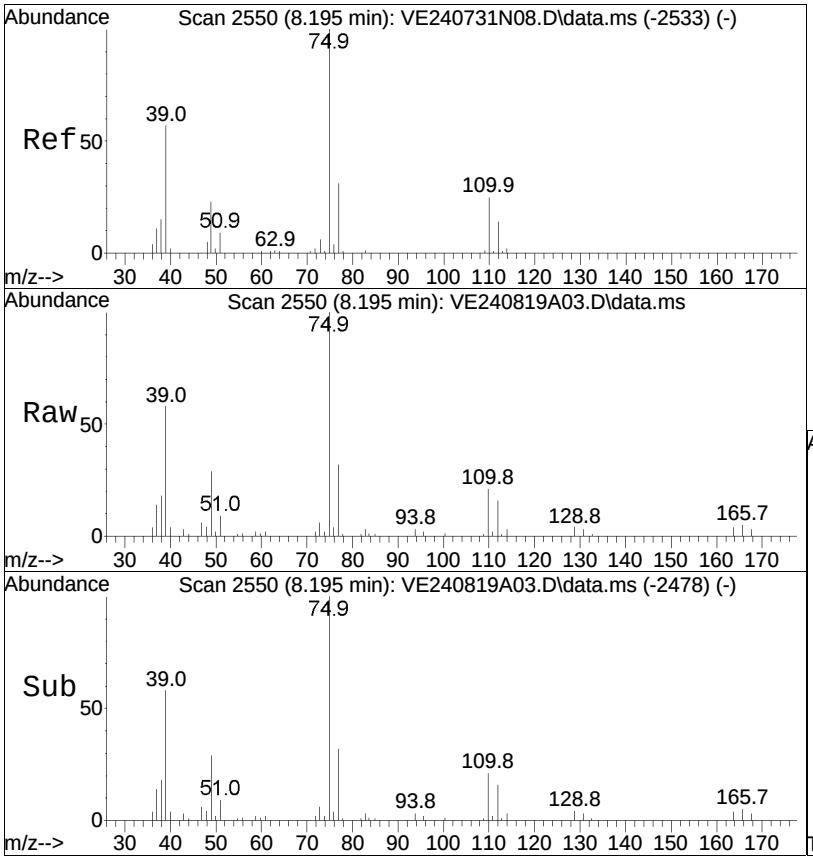


#67
Tetrachloroethene
Concen: 11.43 ug/L
RT: 8.161 min Scan# 2538
Delta R.T. 0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:166 Resp: 44999

Ion	Ratio	Lower	Upper
166	100		
168	49.7	25.8	65.8
94	43.4	24.3	64.3

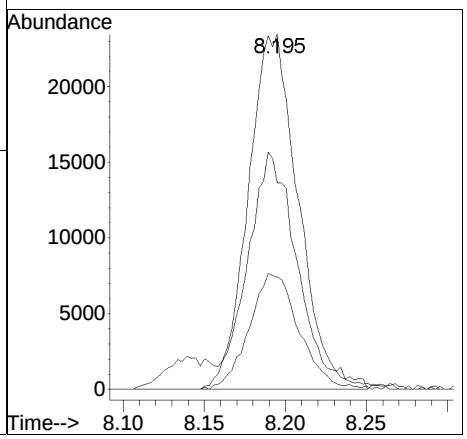


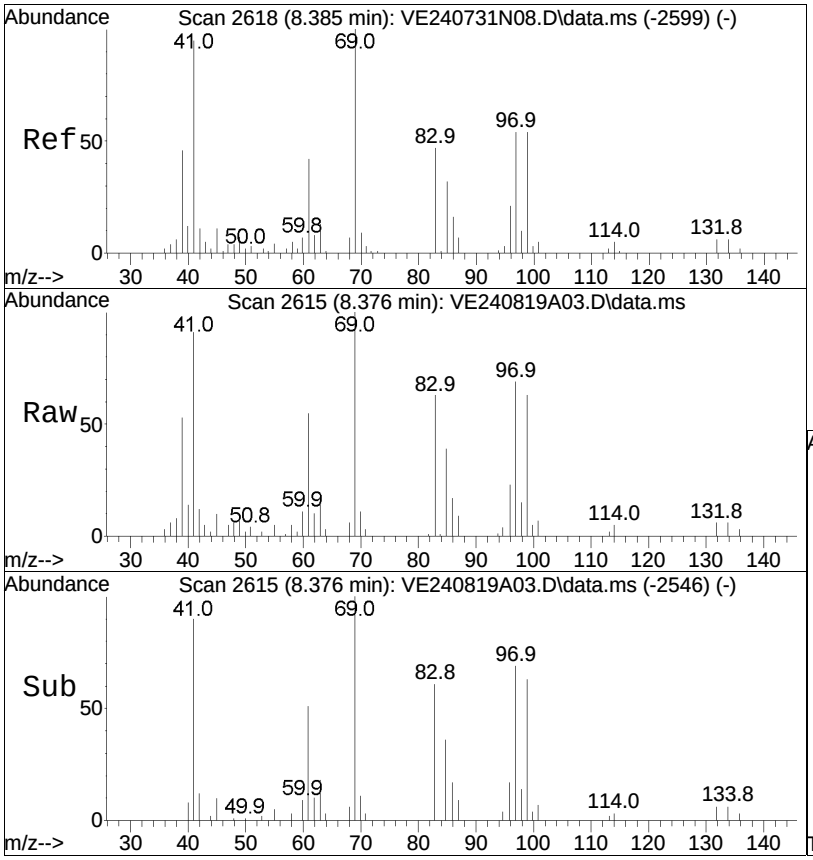


#69
trans-1,3-Dichloropropene
Concen: 9.67 ug/L
RT: 8.195 min Scan# 2550
Delta R.T. -0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 75 Resp: 50485

Ion	Ratio	Lower	Upper
75	100		
77	32.5	10.2	50.2
39	64.4	45.7	85.7

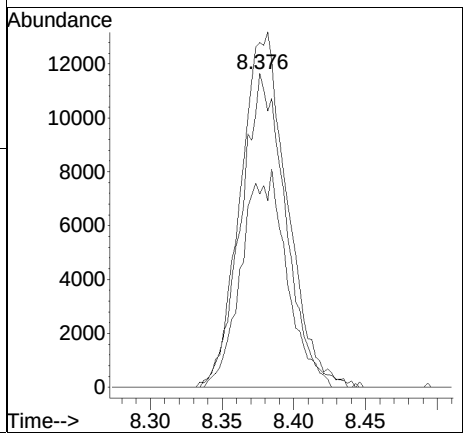


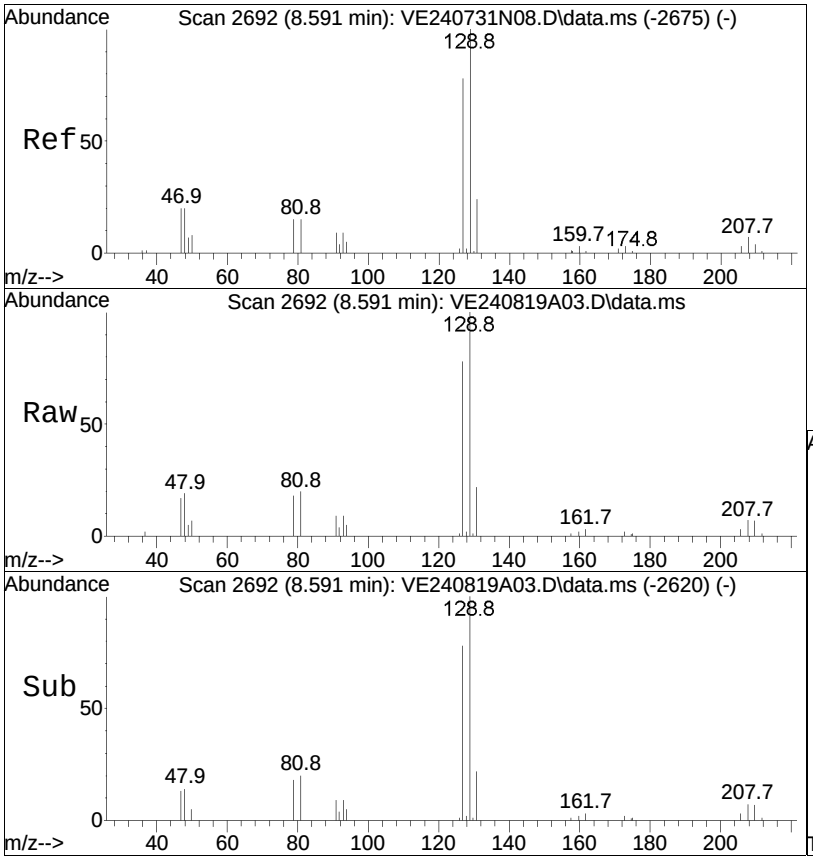


#72
1,1,2-Trichloroethane
Concen: 9.77 ug/L
RT: 8.376 min Scan# 2615
Delta R.T. -0.009 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 83 Resp: 25434

Ion	Ratio	Lower	Upper
83	100		
97	117.5	99.2	139.2
85	31.5	48.7	88.7#

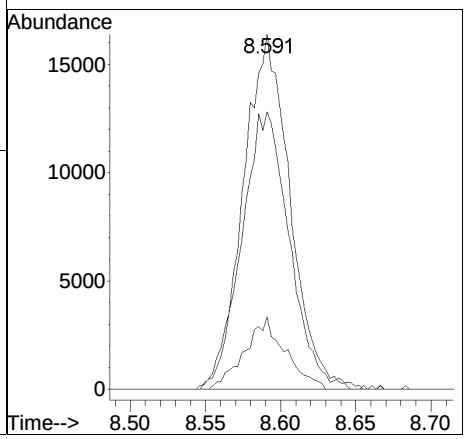


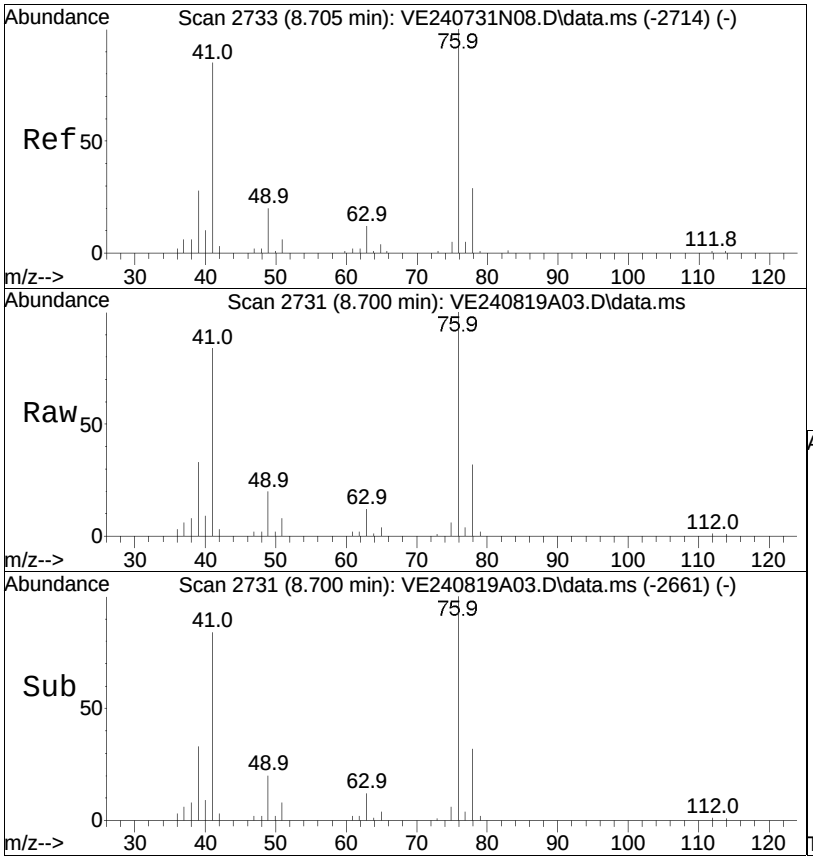


#73
Chlorodibromomethane
Concen: 9.78 ug/L
RT: 8.591 min Scan# 2692
Delta R.T. -0.000 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:129 Resp: 35599

Ion	Ratio	Lower	Upper
129	100		
81	17.7	0.0	39.5
127	78.8	58.6	98.6

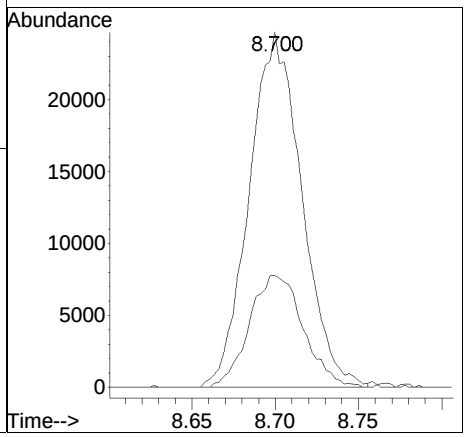


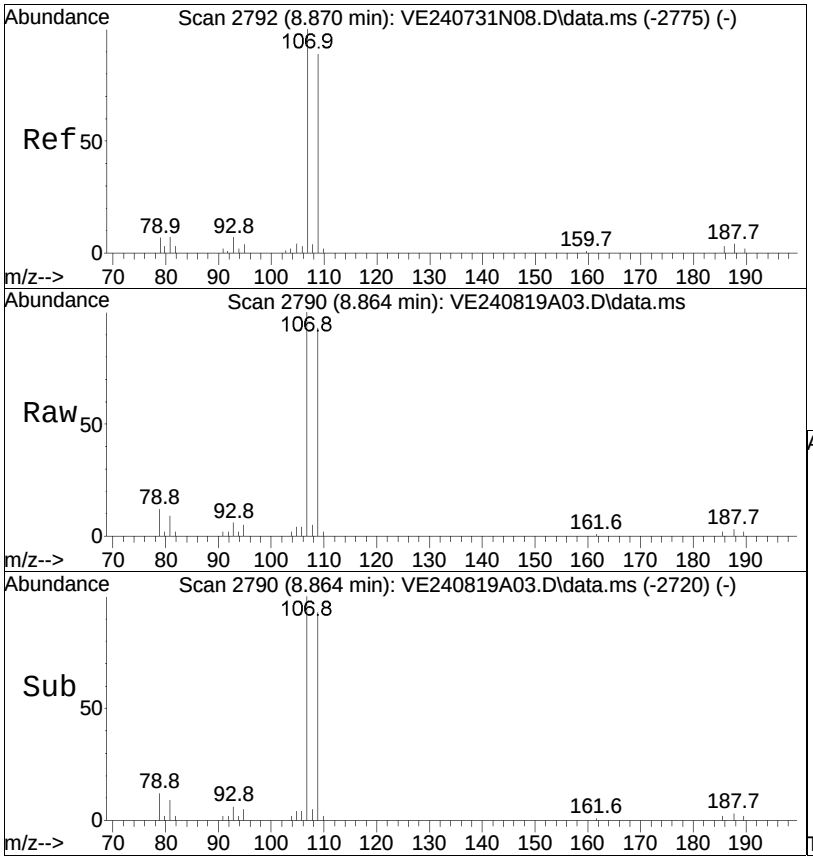


#74
1,3-Dichloropropane
Concen: 9.85 ug/L
RT: 8.700 min Scan# 2731
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 76 Resp: 54135

Ion	Ratio	Lower	Upper
76	100		
78	32.4	27.0	40.4

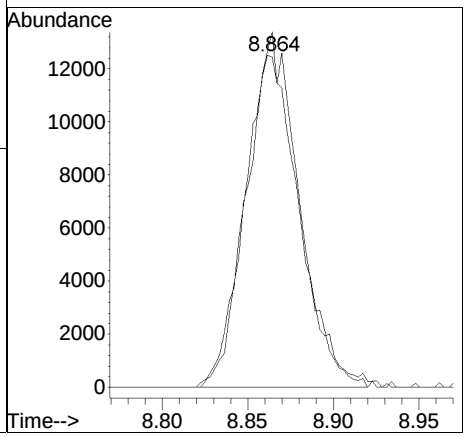


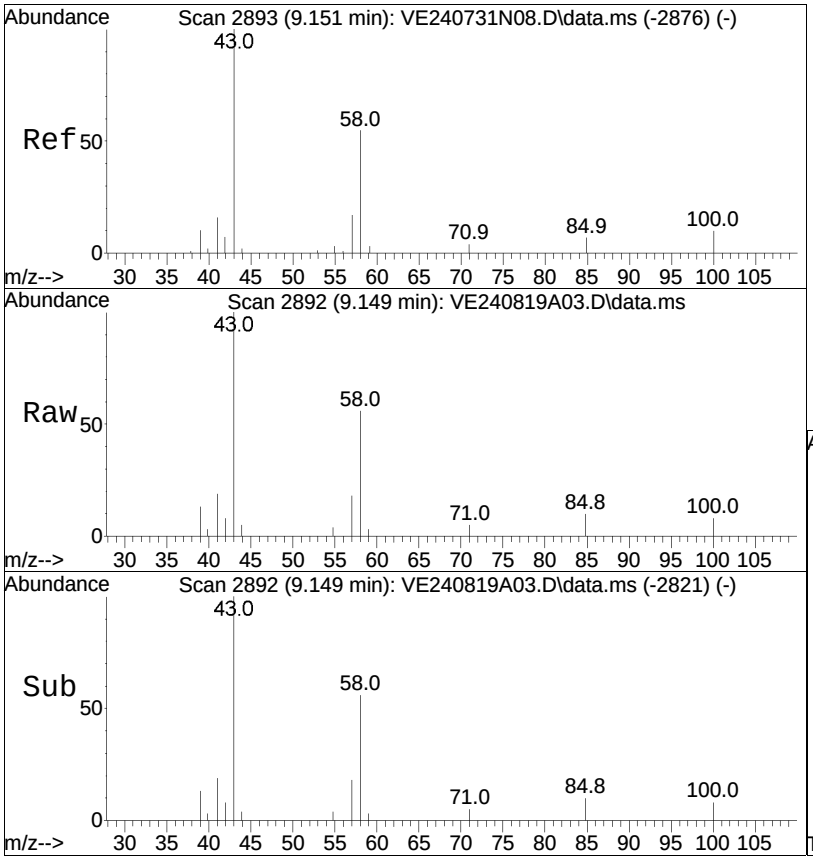


#75
1,2-Dibromoethane
Concen: 9.37 ug/L
RT: 8.864 min Scan# 2790
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:107 Resp: 28812

Ion	Ratio	Lower	Upper
107	100		
109	95.3	66.3	99.5

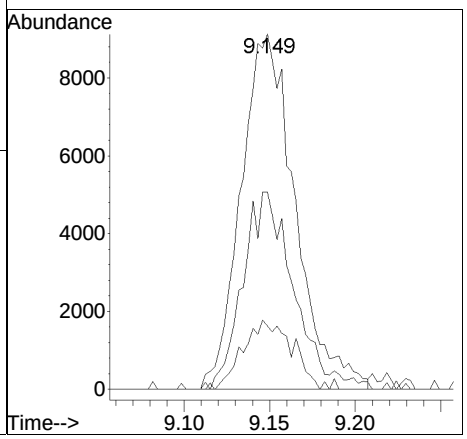


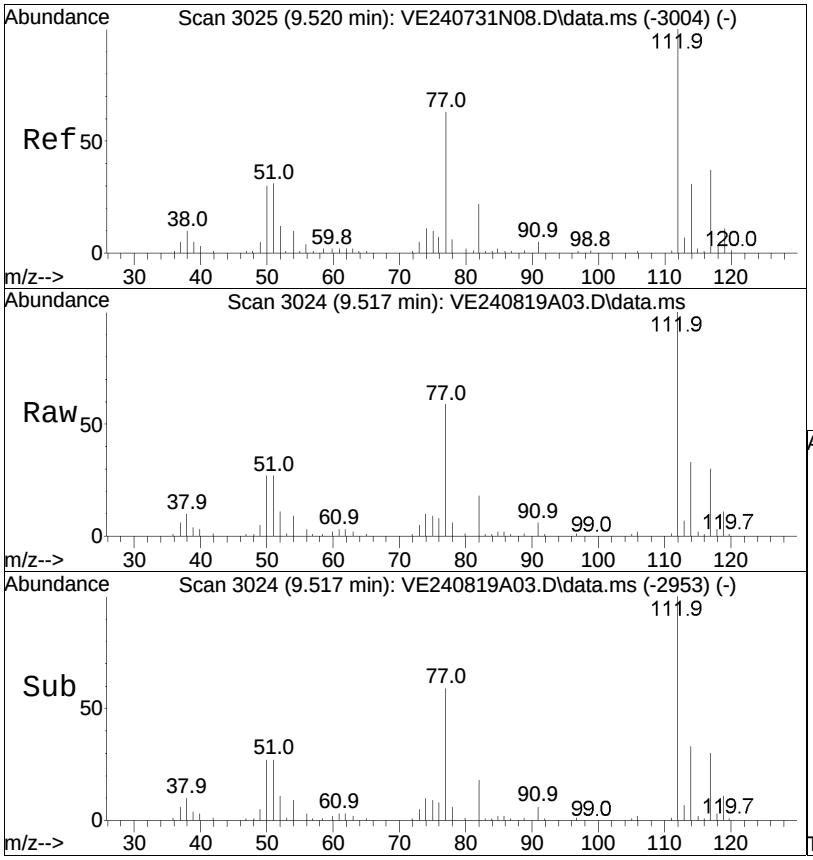


#77
2-Hexanone
Concen: 6.53 ug/L
RT: 9.149 min Scan# 2892
Delta R.T. -0.002 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 43 Resp: 20103

Ion	Ratio	Lower	Upper
43	100		
58	50.4	42.5	63.7
57	17.7	13.9	20.9

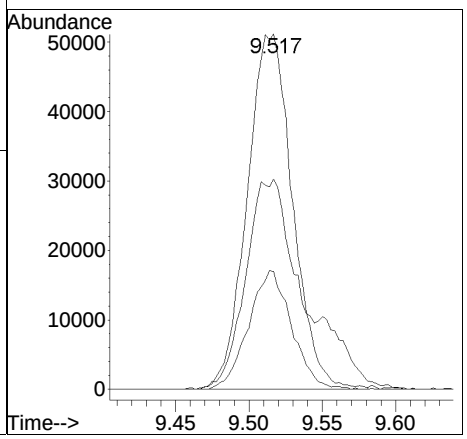


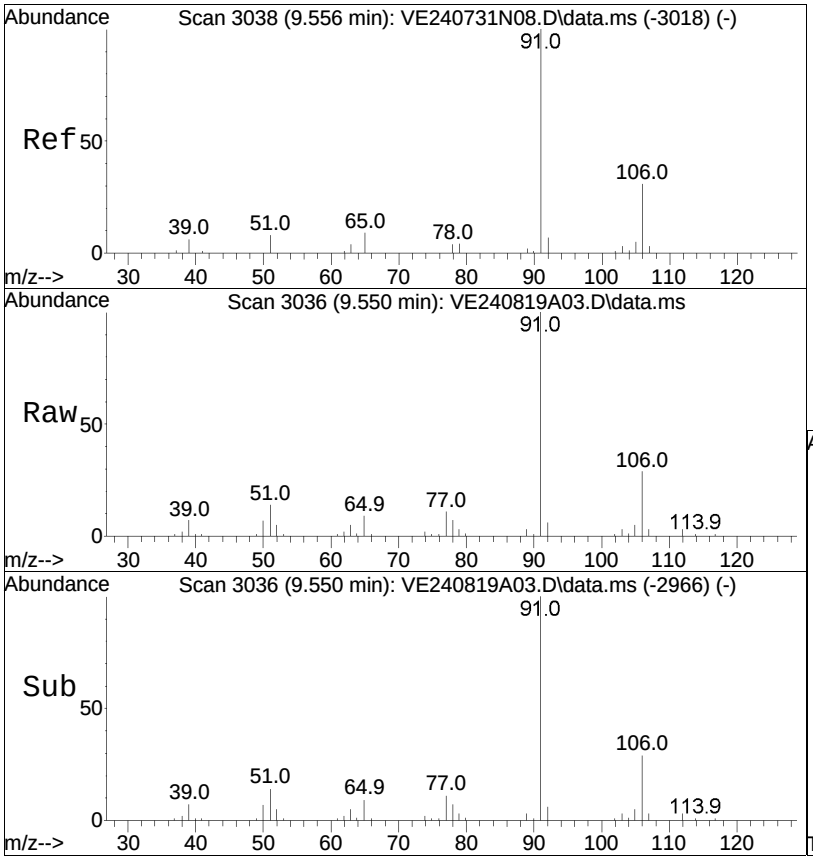


#78
Chlorobenzene
Concen: 11.16 ug/L
RT: 9.517 min Scan# 3024
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:112 Resp: 110217

Ion	Ratio	Lower	Upper
112	100		
77	63.4	46.9	70.3
114	31.7	23.8	35.6

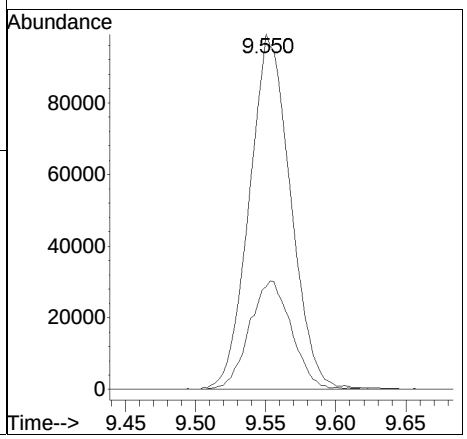


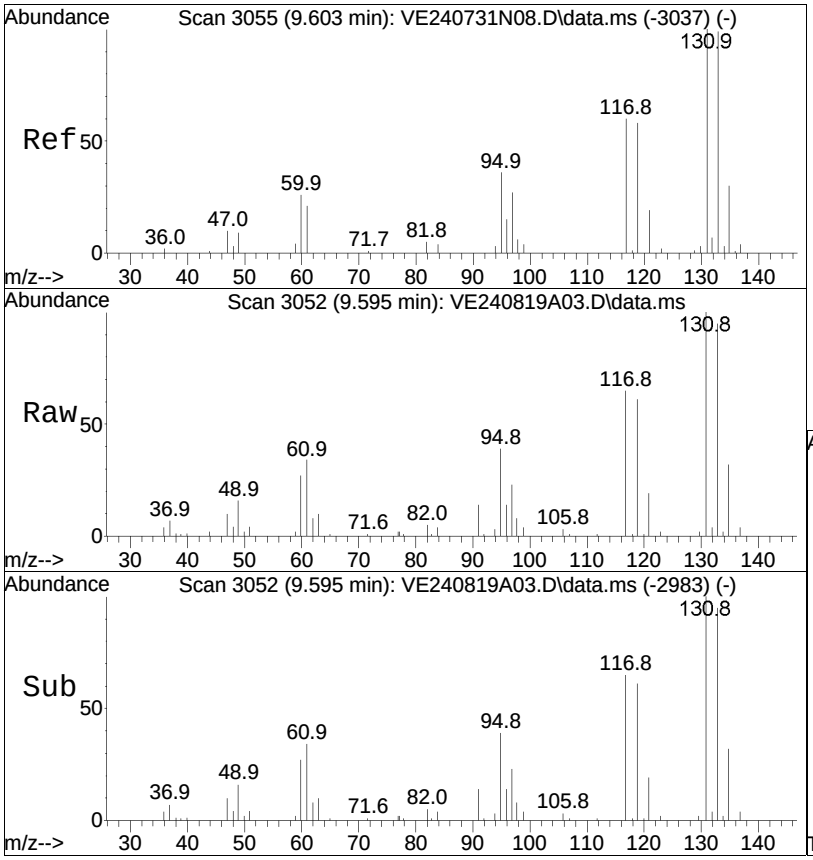


#79
Ethylbenzene
Concen: 11.28 ug/L
RT: 9.550 min Scan# 3036
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 91 Resp: 202660

Ion	Ratio	Lower	Upper
91	100		
106	31.3	25.3	37.9

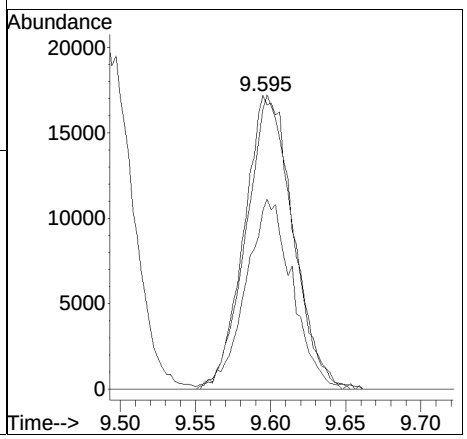


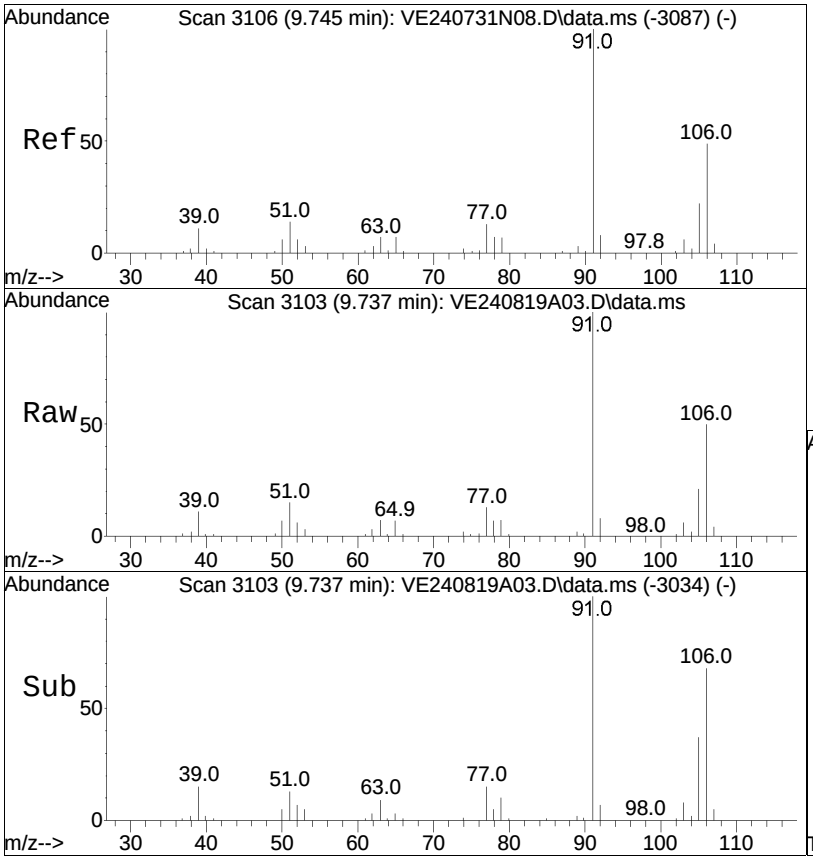


#80
1,1,1,2-Tetrachloroethane
Concen: 10.82 ug/L
RT: 9.595 min Scan# 3052
Delta R.T. -0.008 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:131 Resp: 39183

Ion	Ratio	Lower	Upper
131	100		
133	95.9	72.9	112.9
119	61.3	39.6	79.6

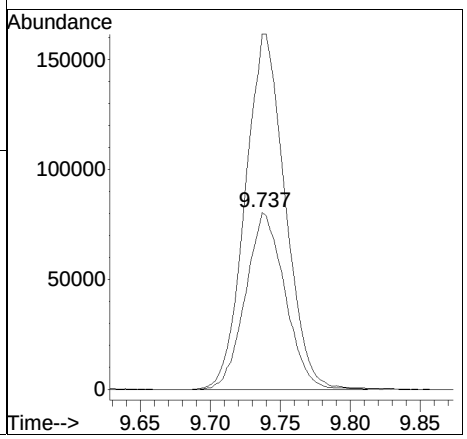


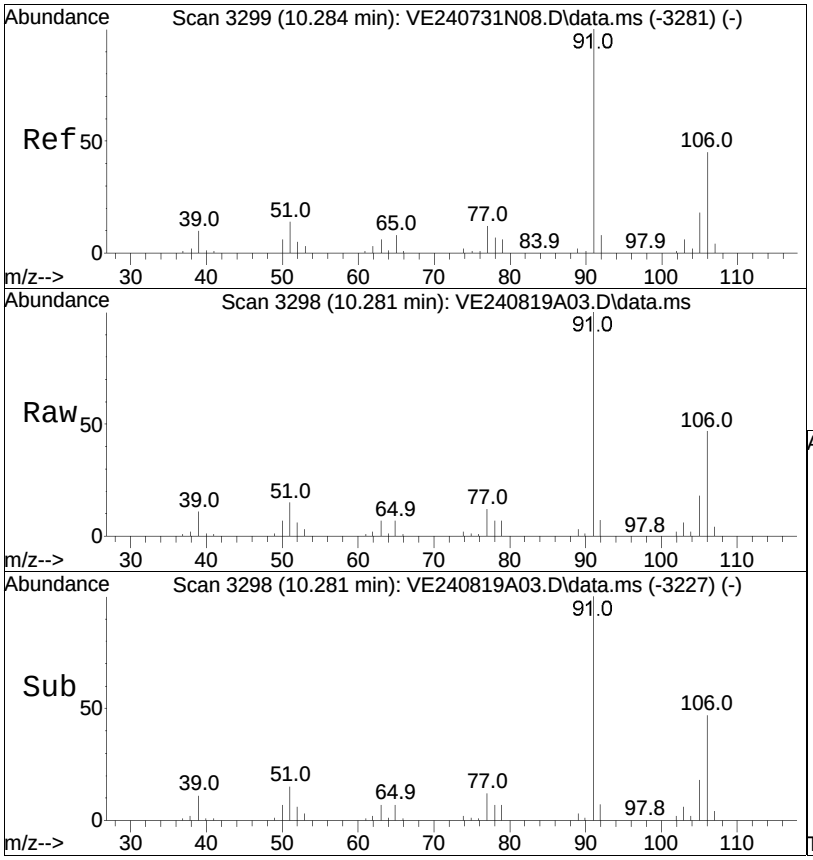


#81
p/m Xylene
Concen: 23.03 ug/L
RT: 9.737 min Scan# 3103
Delta R.T. -0.008 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:106 Resp: 157717

Ion	Ratio	Lower	Upper
106	100		
91	203.4	163.3	244.9

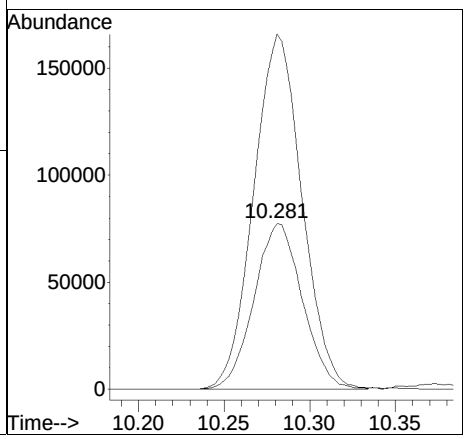


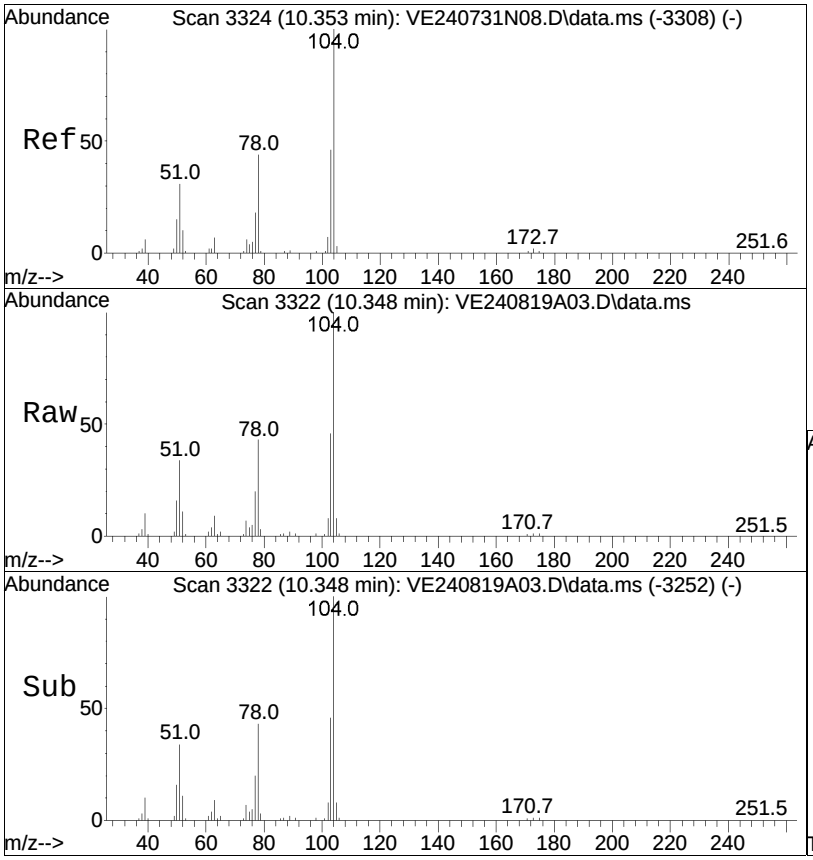


#82
o Xylene
Concen: 22.79 ug/L
RT: 10.281 min Scan# 3298
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:106 Resp: 152571

Ion	Ratio	Lower	Upper
106	100		
91	213.7	181.0	271.6

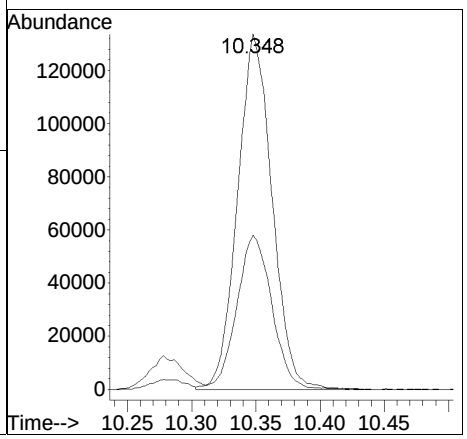


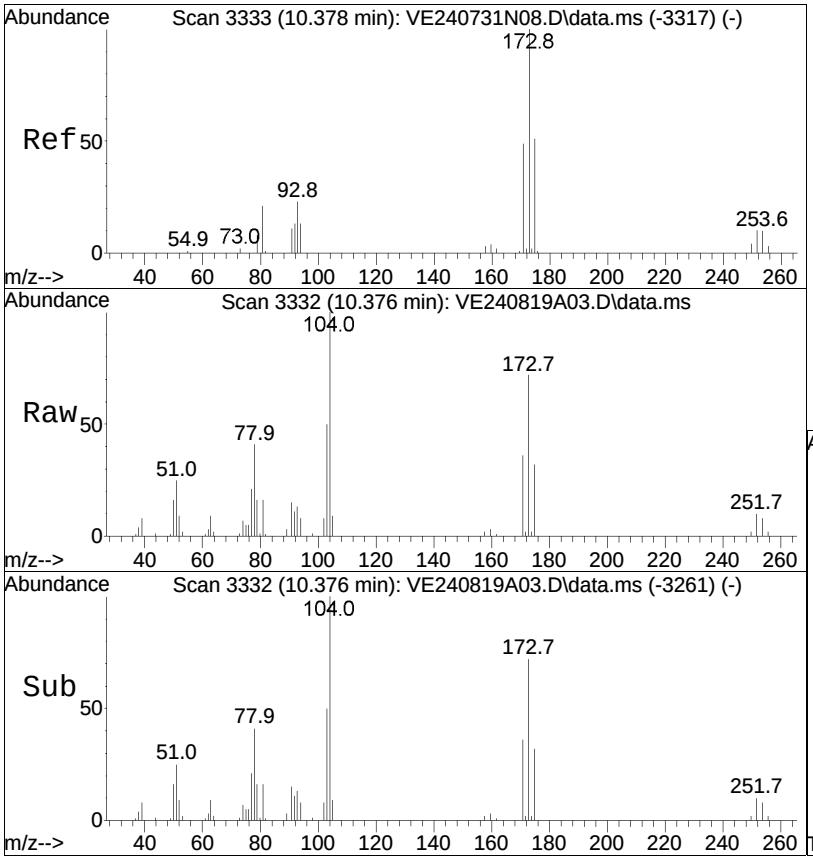


#83
Styrene
Concen: 22.75 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:104 Resp: 249781

Ion	Ratio	Lower	Upper
104	100		
78	43.4	35.9	53.9

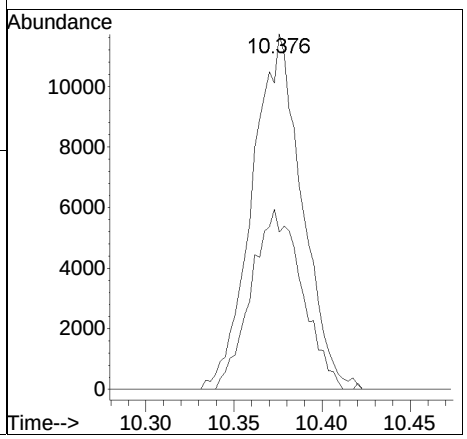


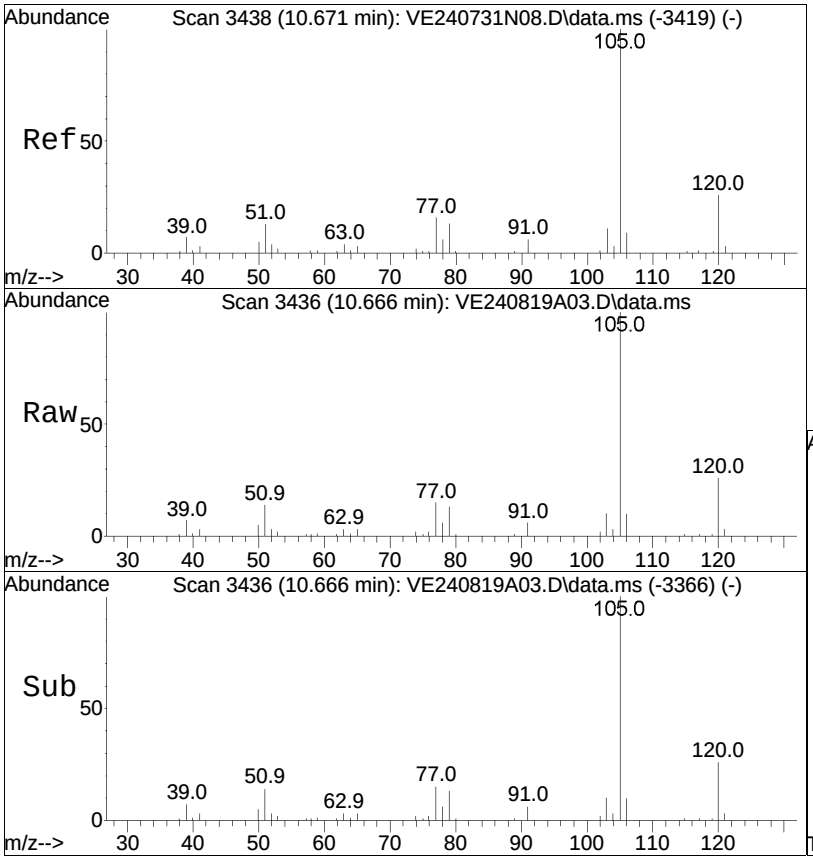


#85
Bromoform
Concen: 8.83 ug/L
RT: 10.376 min Scan# 3332
Delta R.T. -0.002 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:173 Resp: 23195

Ion	Ratio	Lower	Upper
173	100		
175	51.5	32.9	72.9

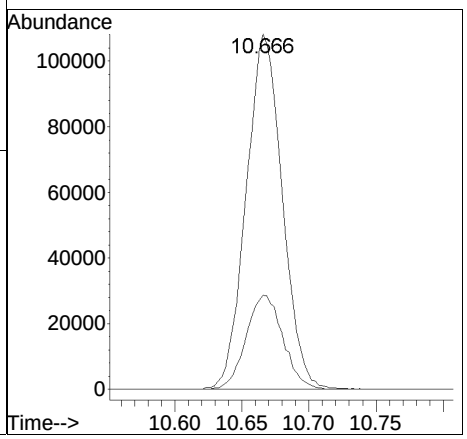


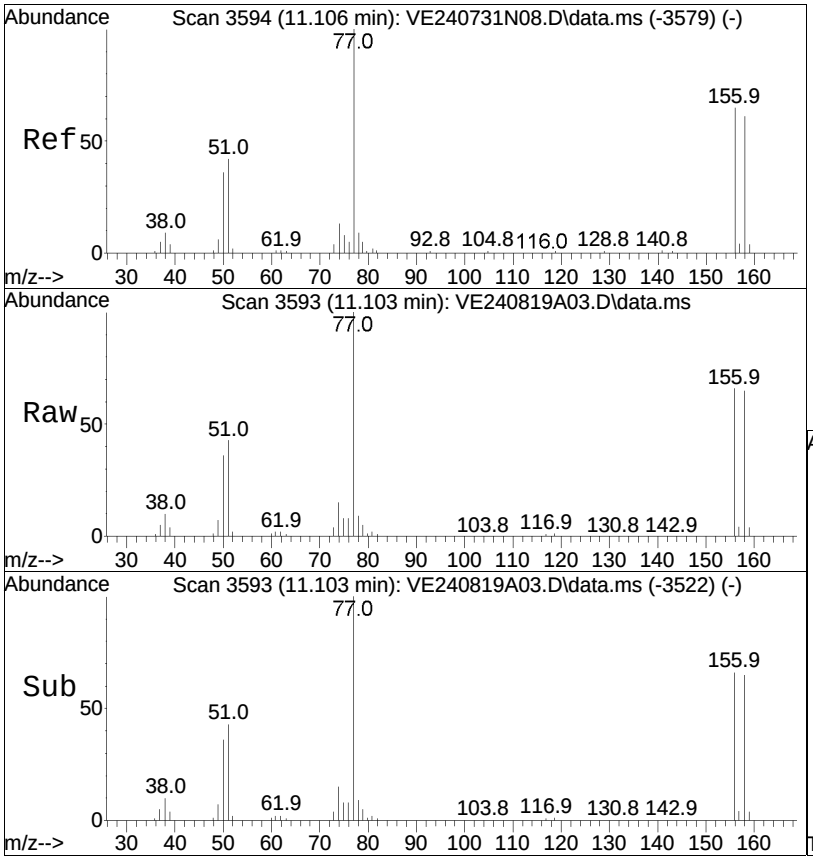


#87
Isopropylbenzene
Concen: 10.52 ug/L
RT: 10.666 min Scan# 3436
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:105 Resp: 203355

Ion	Ratio	Lower	Upper
105	100		
120	27.0	4.8	44.8

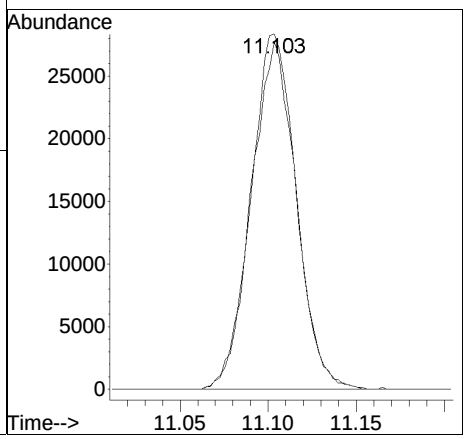


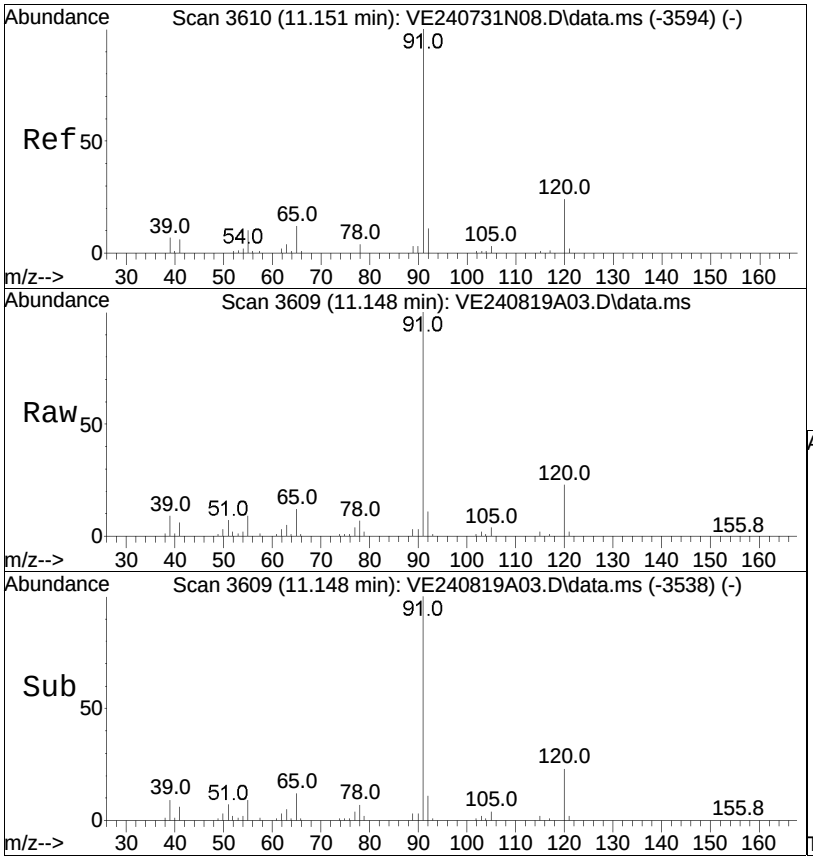


#89
Bromobenzene
Concen: 10.43 ug/L
RT: 11.103 min Scan# 3593
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:156 Resp: 50919

Ion	Ratio	Lower	Upper
156	100		
158	96.4	75.9	113.9

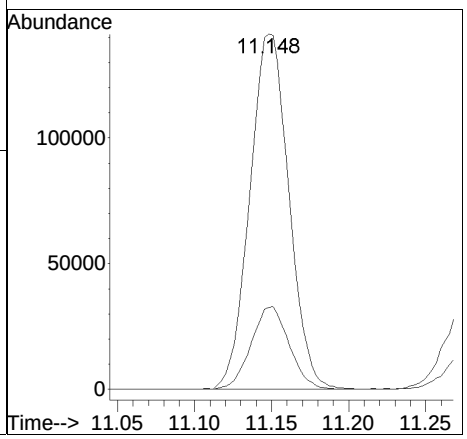


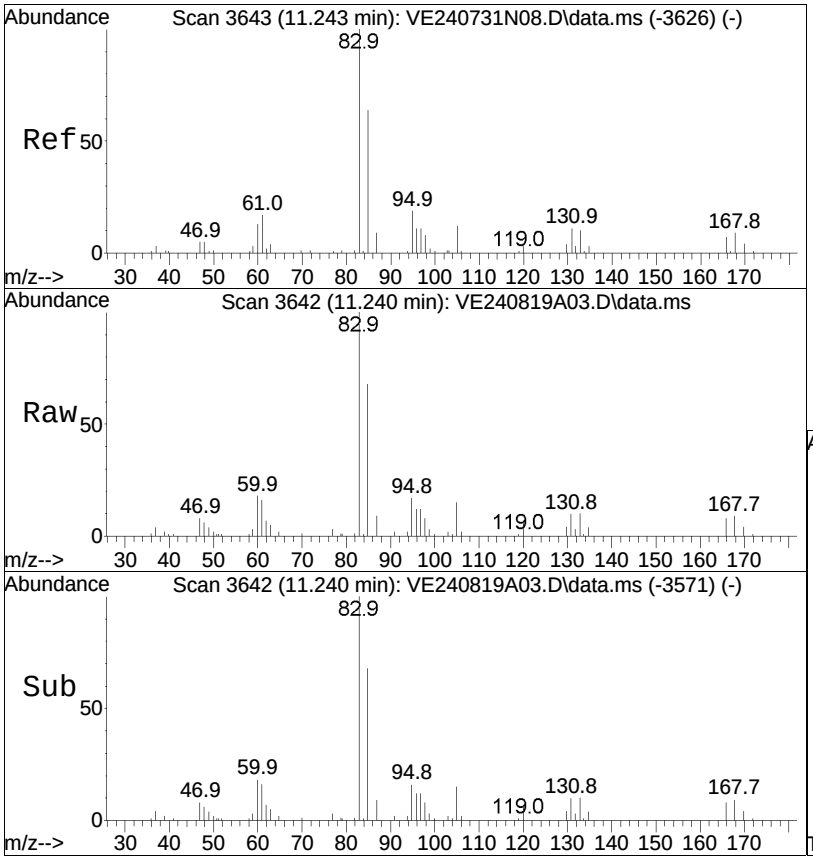


#90
n-Propylbenzene
Concen: 10.81 ug/L
RT: 11.148 min Scan# 3609
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 91 Resp: 249720

Ion	Ratio	Lower	Upper
91	100		
120	22.7	16.7	25.1

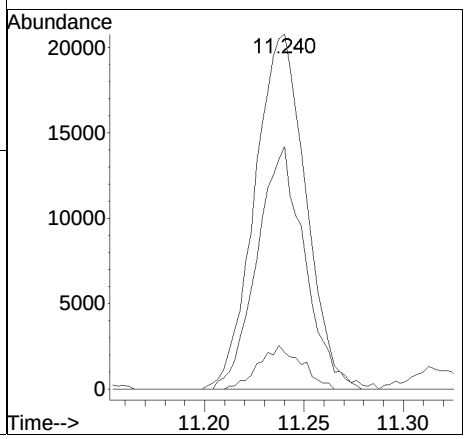


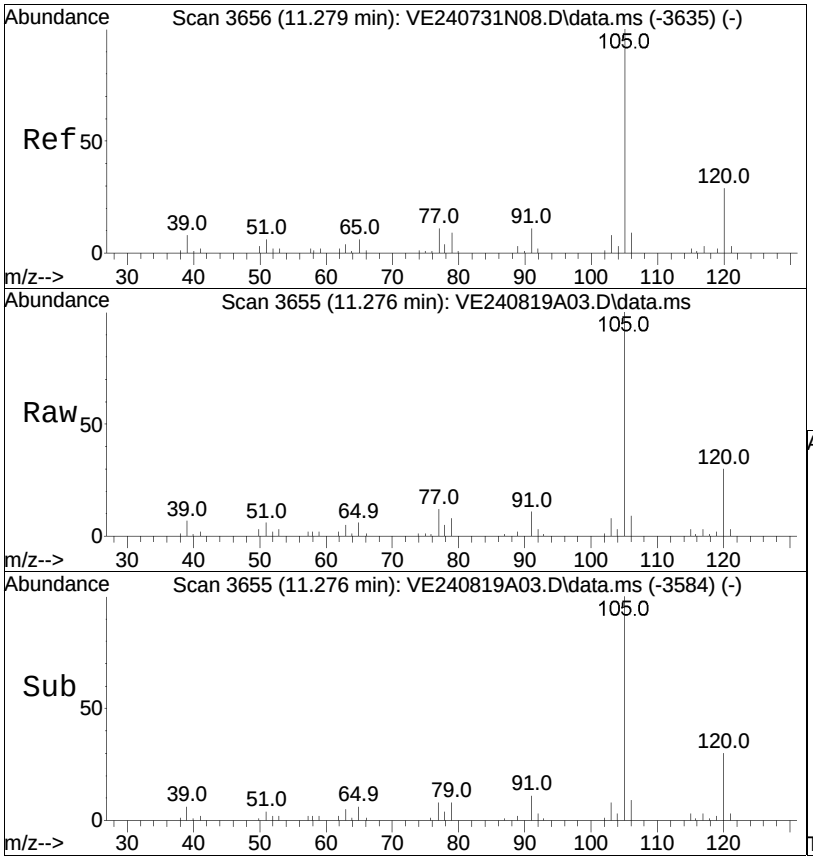


#92
1,1,2,2-Tetrachloroethane
Concen: 9.03 ug/L
RT: 11.240 min Scan# 3642
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 83 Resp: 37030

Ion	Ratio	Lower	Upper
83	100		
131	10.5	0.0	28.6
85	64.4	47.4	87.4

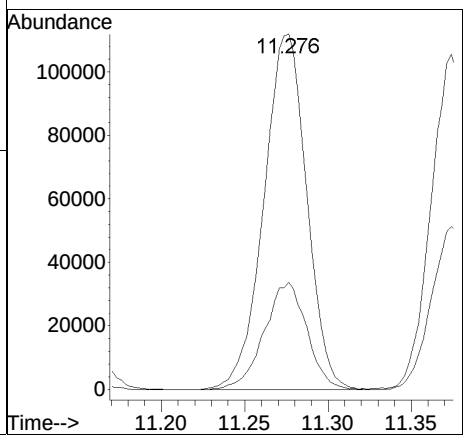


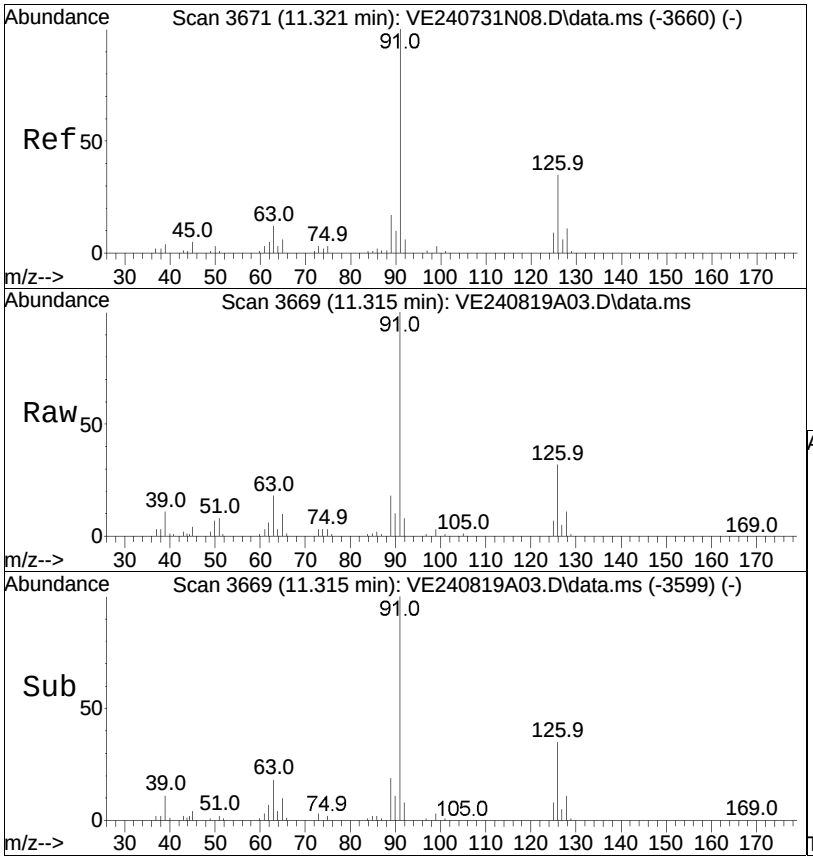


#93
4-Ethyltoluene
Concen: 10.67 ug/L
RT: 11.276 min Scan# 3655
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:105 Resp: 199944

Ion	Ratio	Lower	Upper
105	100		
120	29.9	18.9	39.3

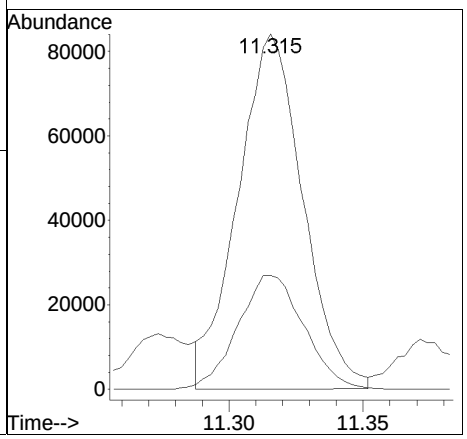


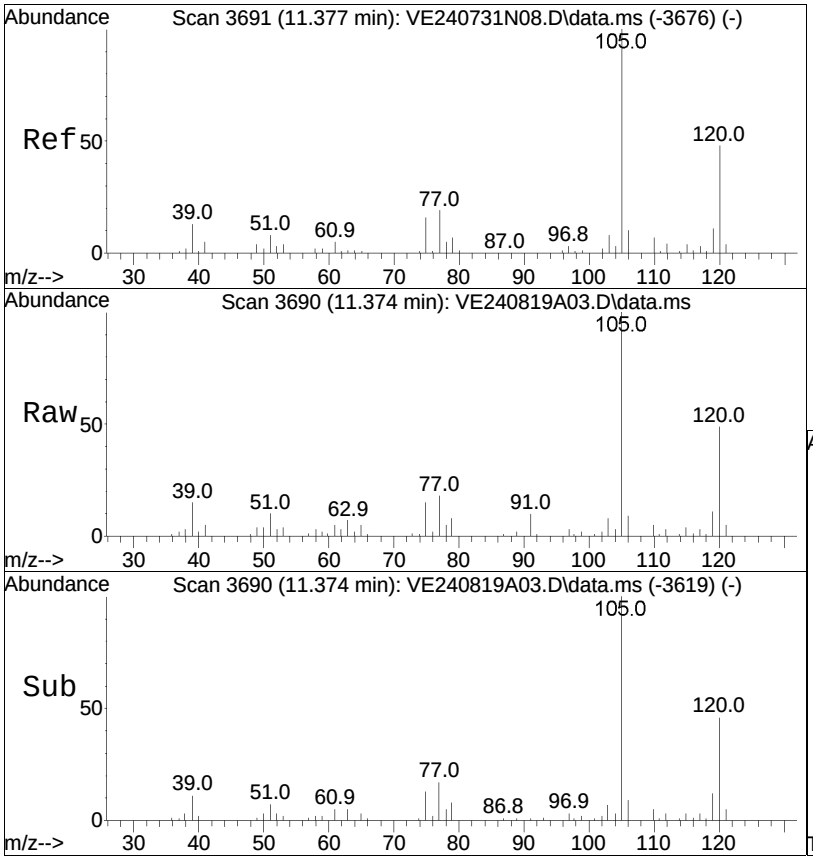


#94
2-Chlorotoluene
Concen: 10.43 ug/L
RT: 11.315 min Scan# 3669
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 91 Resp: 141784

Ion	Ratio	Lower	Upper
91	100		
126	32.7	24.4	36.6

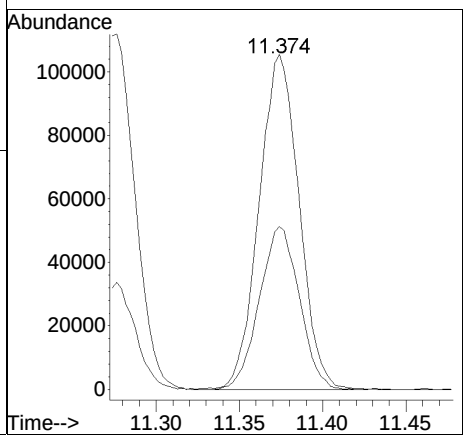


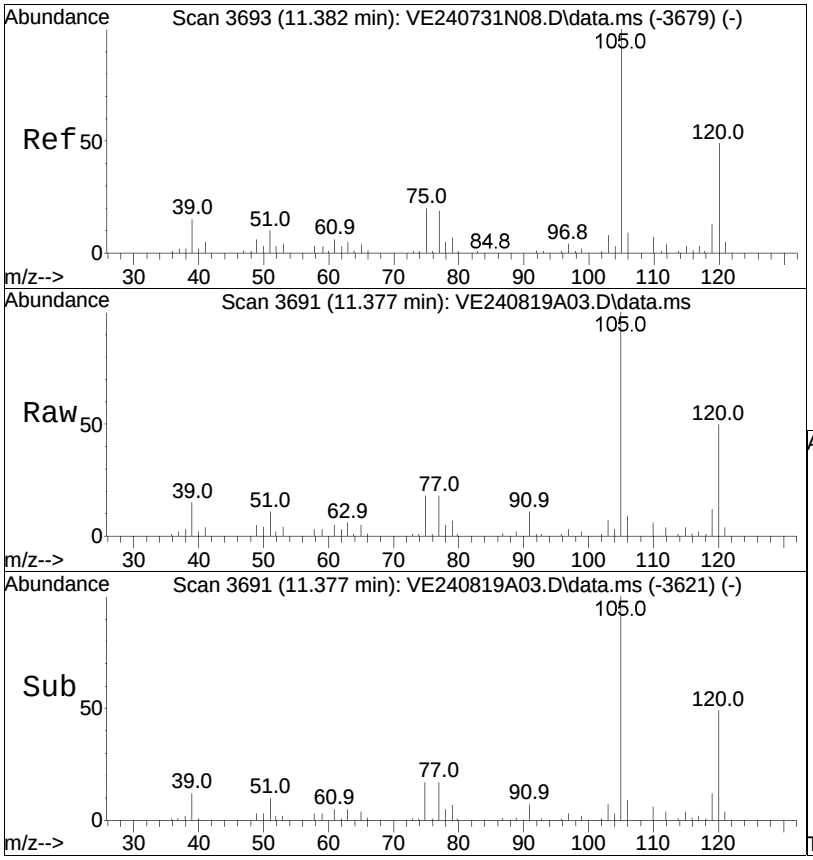


#95
1,3,5-Trimethylbenzene
Concen: 10.71 ug/L
RT: 11.374 min Scan# 3690
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:105 Resp: 176132

Ion	Ratio	Lower	Upper
105	100		
120	48.5	39.3	58.9

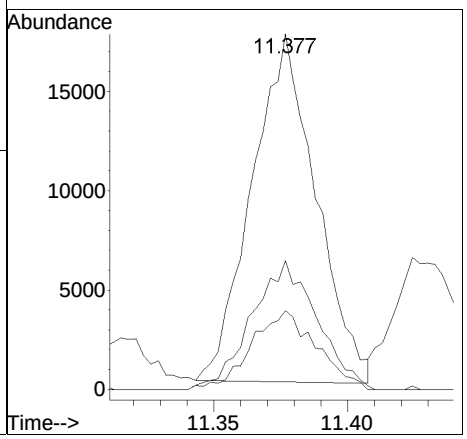


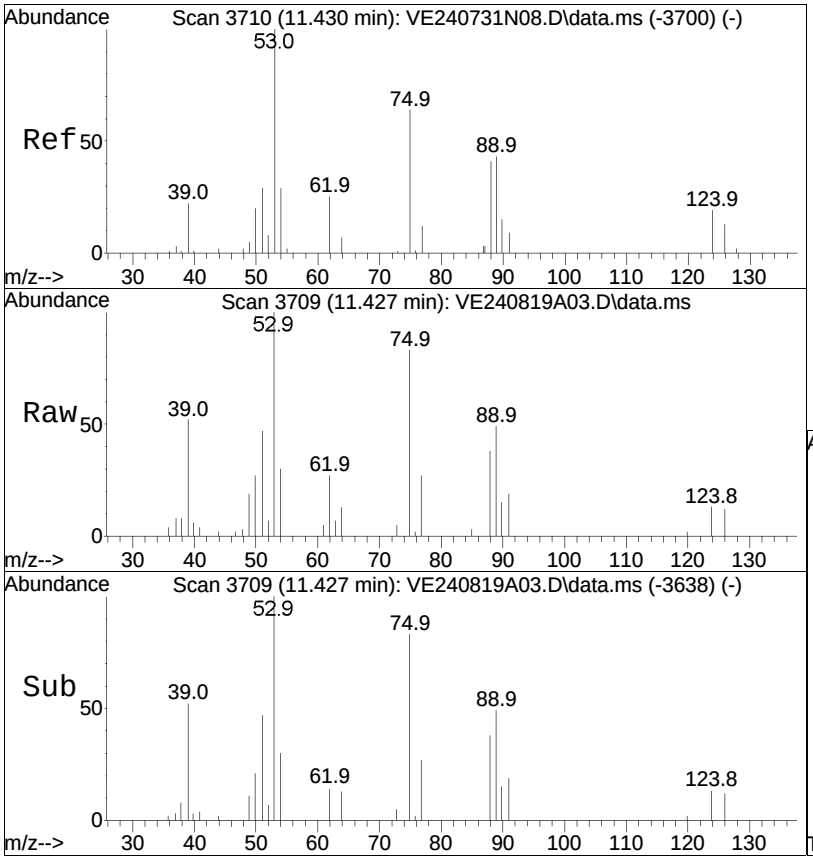


#96
1,2,3-Trichloropropane
Concen: 8.68 ug/L
RT: 11.377 min Scan# 3691
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 75 Resp: 29054

Ion	Ratio	Lower	Upper
75	100		
110	37.5	22.4	46.4
112	22.9	12.2	25.2

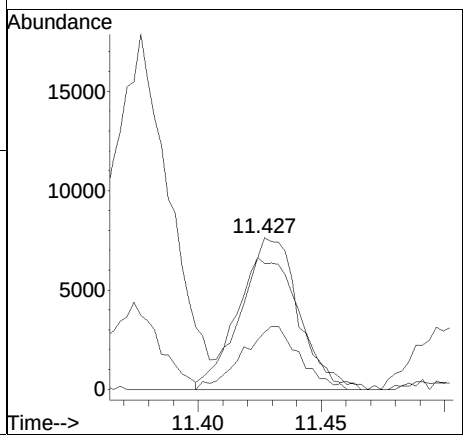


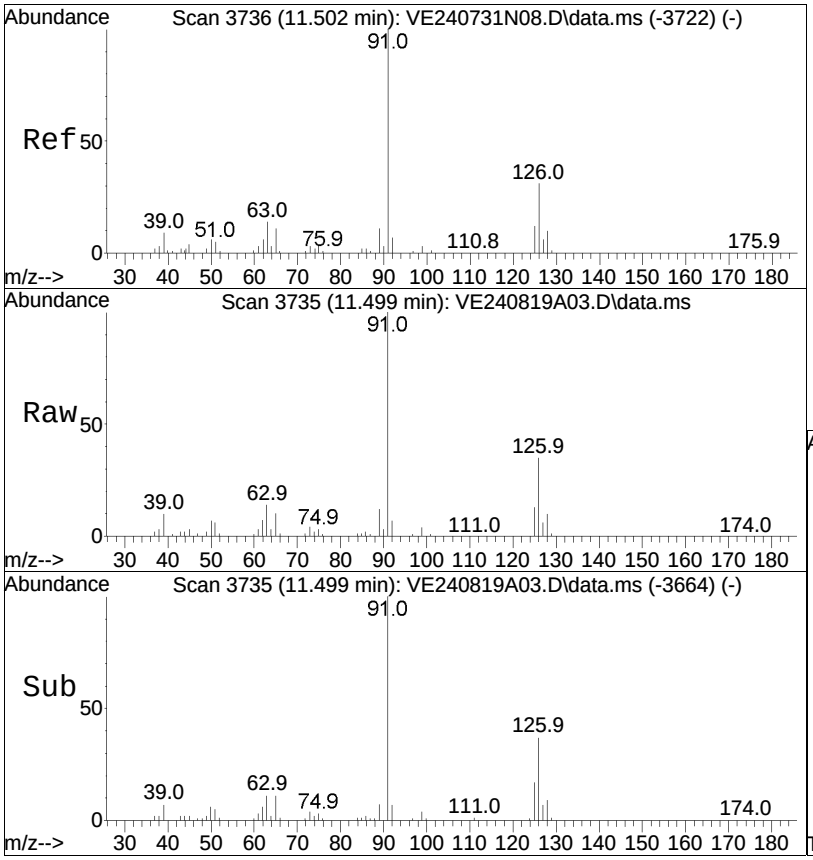


#97
trans-1,4-Dichloro-2-butene
Concen: 7.75 ug/L
RT: 11.427 min Scan# 3709
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 53 Resp: 12748

Ion	Ratio	Lower	Upper
53	100		
88	39.9	29.2	43.8
75	87.7	62.6	94.0

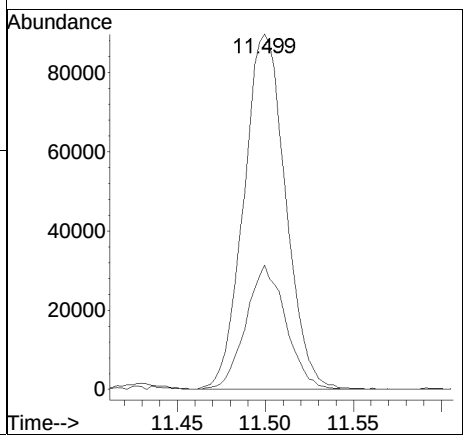


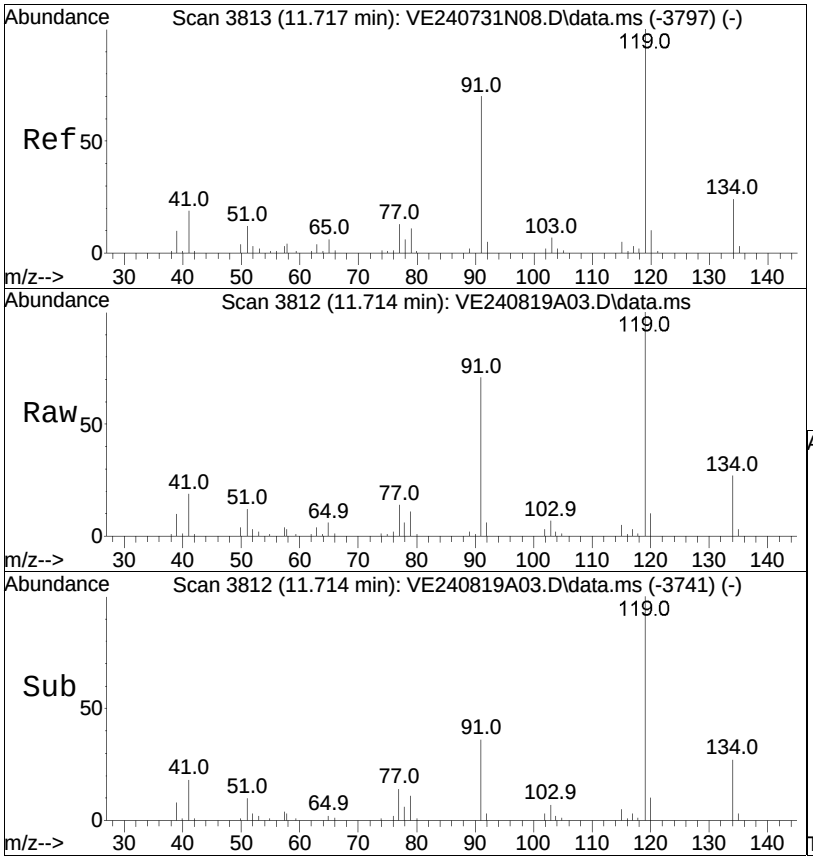


#98
4-Chlorotoluene
Concen: 10.43 ug/L
RT: 11.499 min Scan# 3735
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 91 Resp: 148548

Ion	Ratio	Lower	Upper
91	100		
126	33.3	25.8	38.8

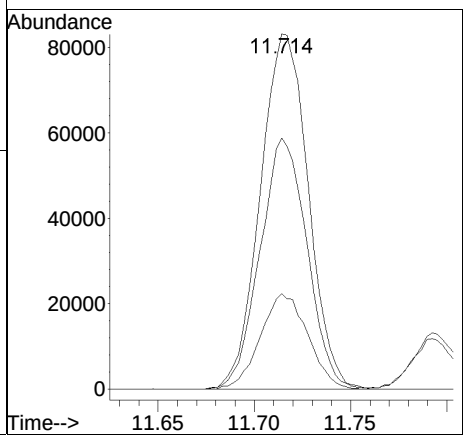


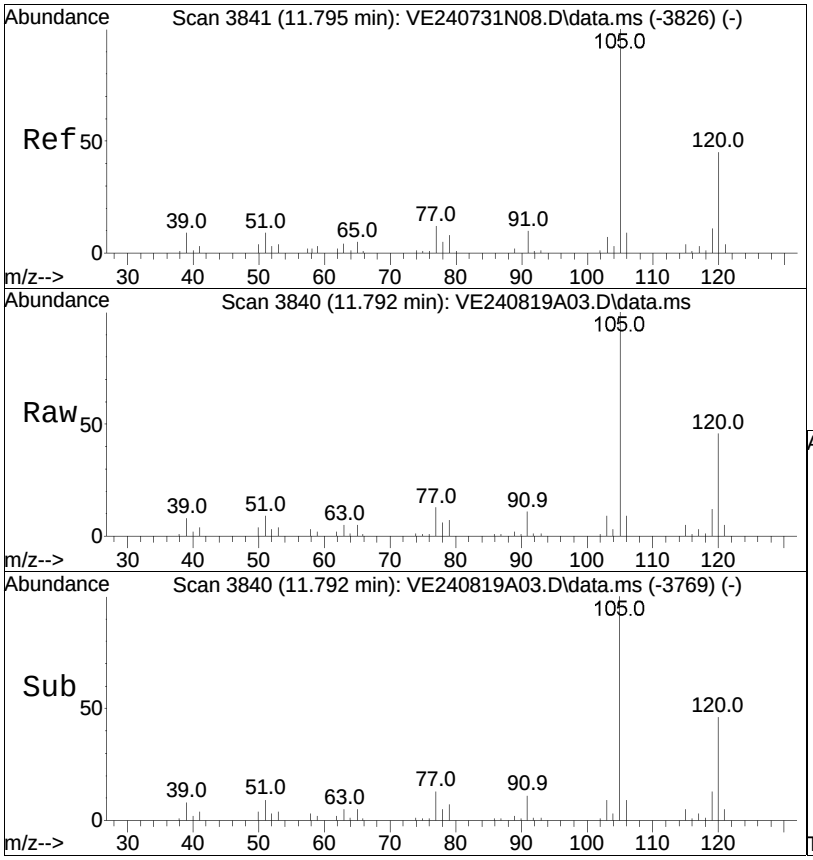


#99
tert-Butylbenzene
Concen: 10.45 ug/L
RT: 11.714 min Scan# 3812
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:119 Resp: 144399

Ion	Ratio	Lower	Upper
119	100		
91	69.3	56.6	84.8
134	26.7	17.7	26.5#

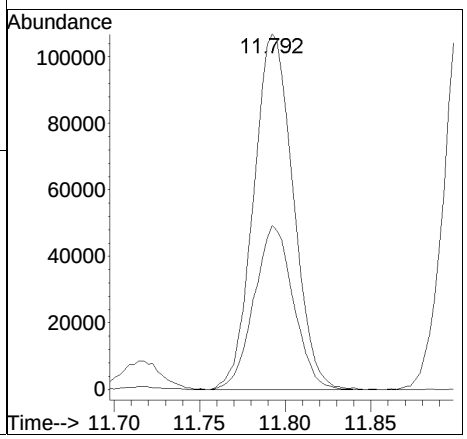


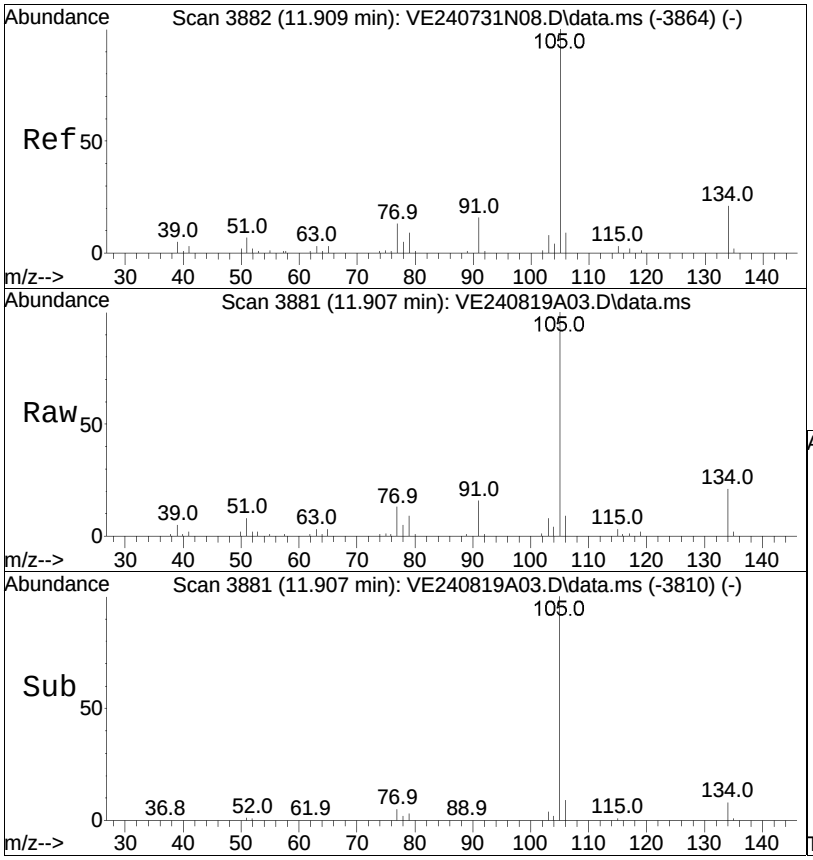


#102
1,2,4-Trimethylbenzene
Concen: 10.45 ug/L
RT: 11.792 min Scan# 3840
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:105 Resp: 171569

Ion	Ratio	Lower	Upper
105	100		
120	45.8	33.6	50.4

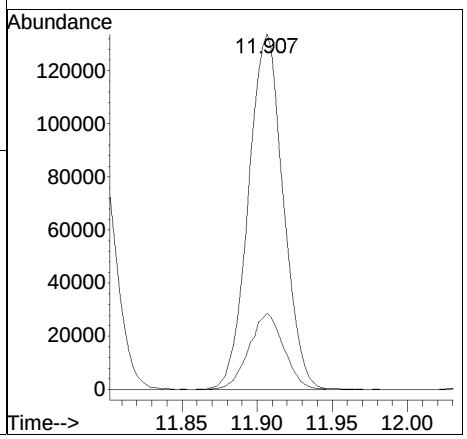


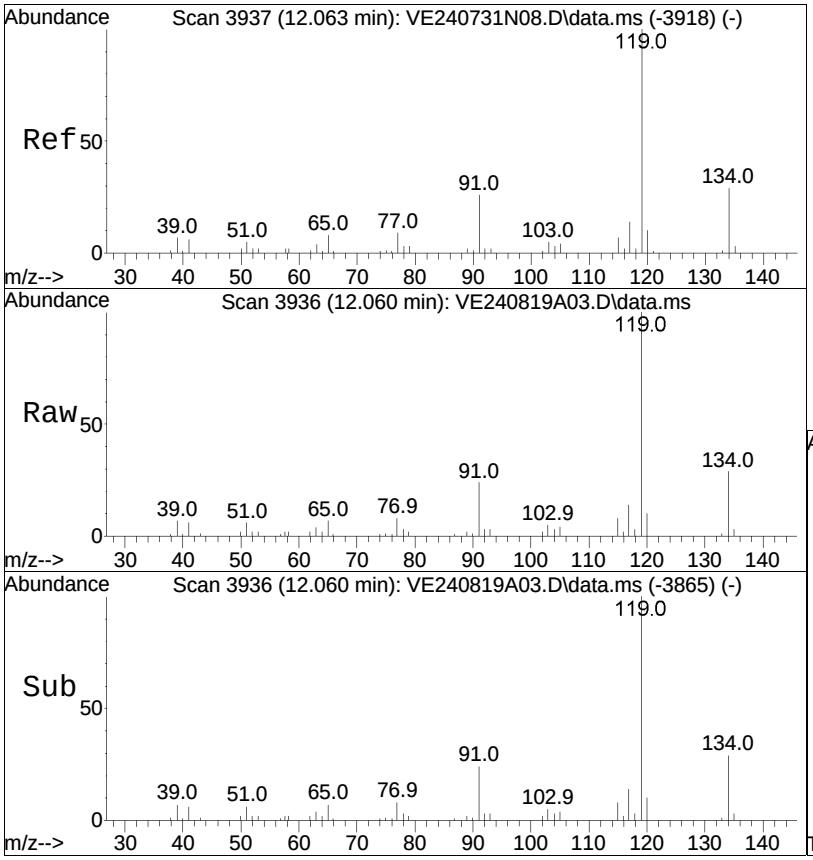


#103
sec-Butylbenzene
Concen: 10.49 ug/L
RT: 11.907 min Scan# 3881
Delta R.T. -0.002 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:105 Resp: 215083

Ion	Ratio	Lower	Upper
105	100		
134	21.3	13.3	27.5

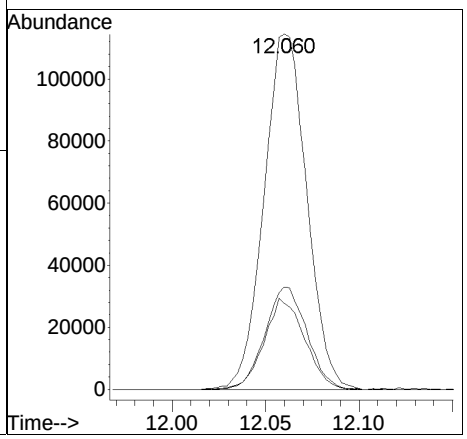


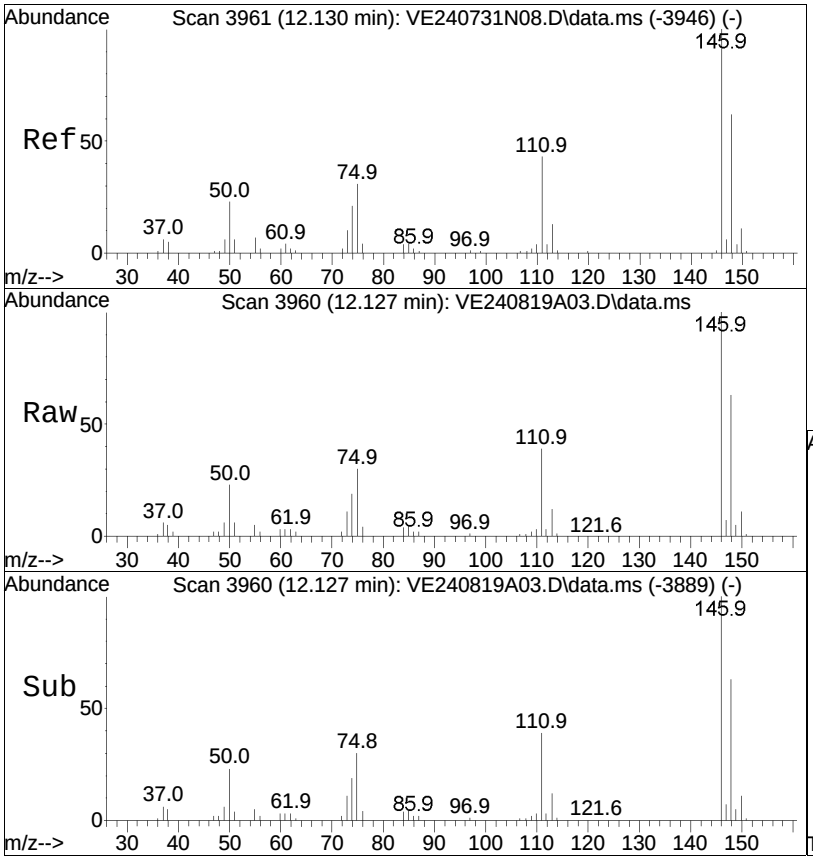


#104
p-Isopropyltoluene
Concen: 10.53 ug/L
RT: 12.060 min Scan# 3936
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:119 Resp: 181874

Ion	Ratio	Lower	Upper
119	100		
134	28.2	15.8	32.8
91	24.3	16.6	34.4

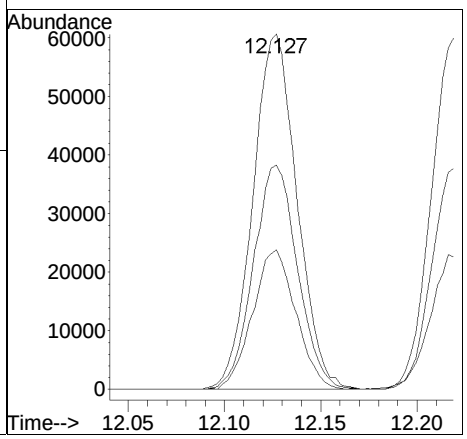


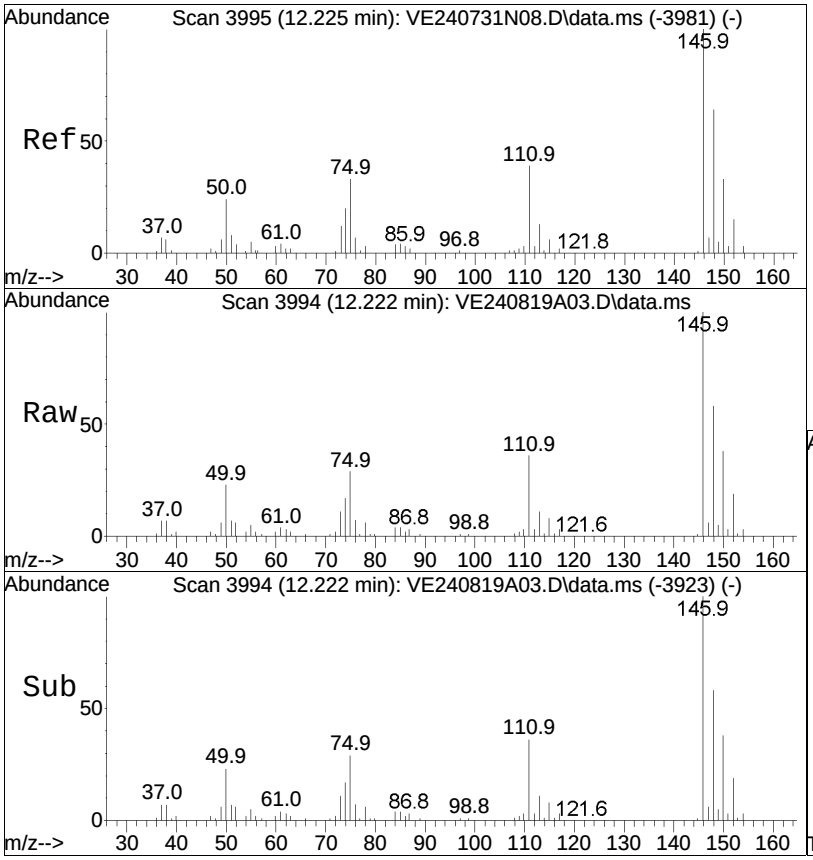


#105
1,3-Dichlorobenzene
Concen: 10.74 ug/L
RT: 12.127 min Scan# 3960
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:146 Resp: 96789

Ion	Ratio	Lower	Upper
146	100		
111	38.5	27.9	57.9
148	63.2	42.4	88.2

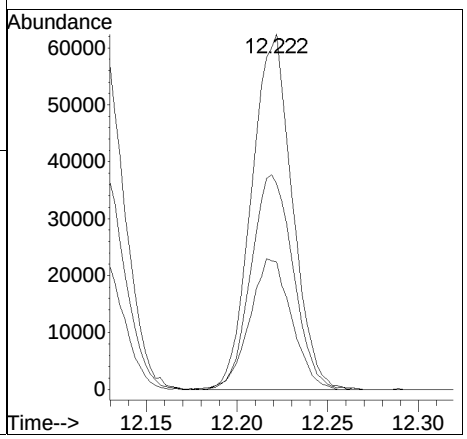


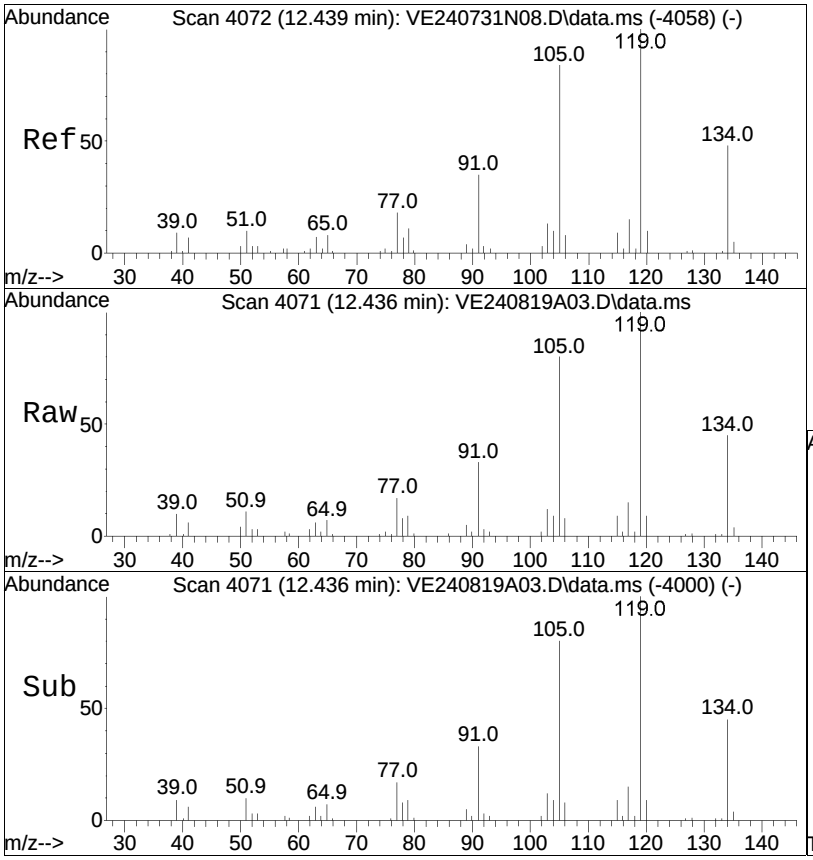


#106
1,4-Dichlorobenzene
Concen: 10.80 ug/L
RT: 12.222 min Scan# 3994
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:146 Resp: 97307

Ion	Ratio	Lower	Upper
146	100		
111	37.9	31.4	47.0
148	62.8	49.8	74.8

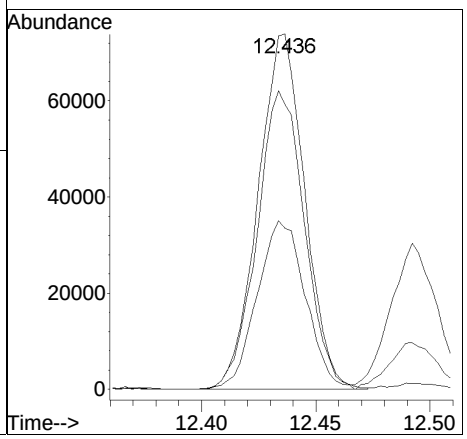


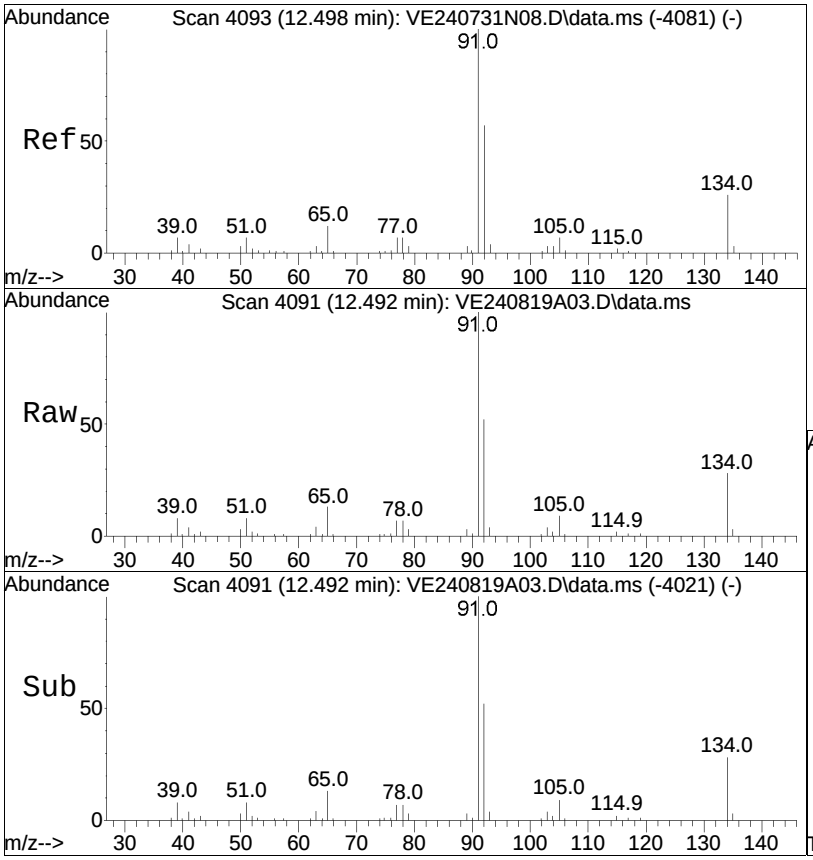


#107
p-Diethylbenzene
Concen: 10.32 ug/L
RT: 12.436 min Scan# 4071
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:119 Resp: 105113

Ion	Ratio	Lower	Upper
119	100		
105	85.4	55.4	115.2
134	49.0	28.4	59.0

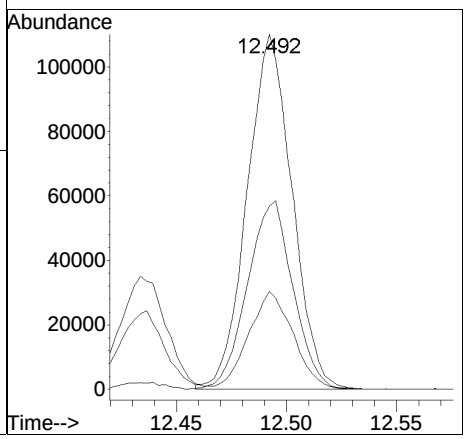


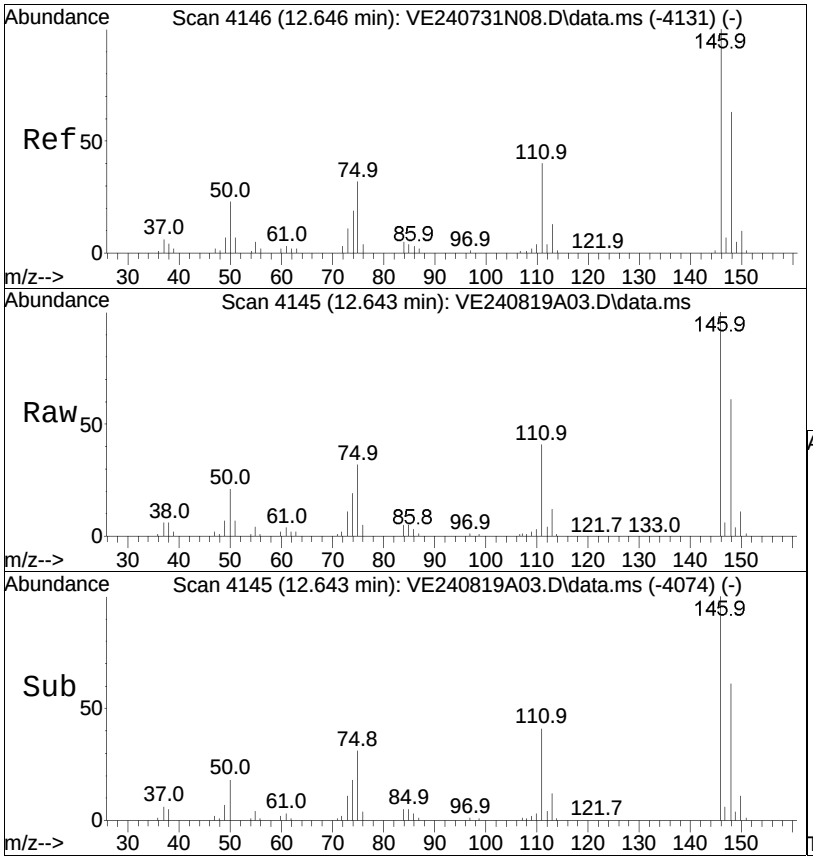


#108
n-Butylbenzene
Concen: 10.51 ug/L
RT: 12.492 min Scan# 4091
Delta R.T. -0.006 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion: 91 Resp: 156234

Ion	Ratio	Lower	Upper
91	100		
92	54.0	42.4	63.6
134	27.4	20.3	30.5

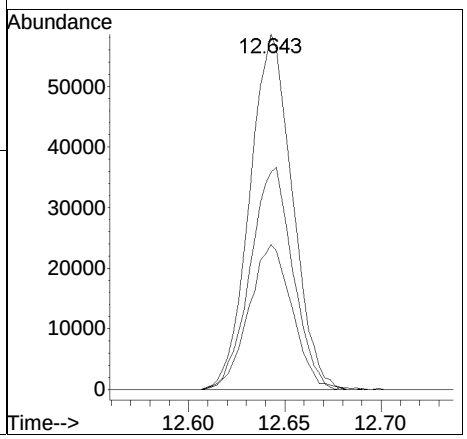


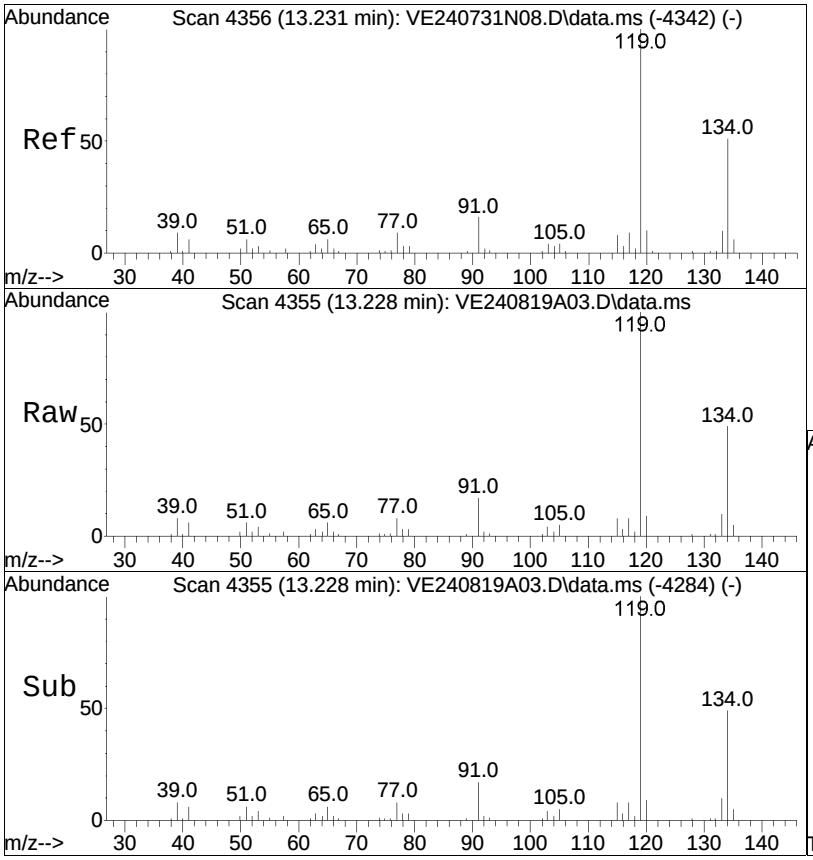


#109
1,2-Dichlorobenzene
Concen: 10.40 ug/L
RT: 12.643 min Scan# 4145
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:146 Resp: 90174

Ion	Ratio	Lower	Upper
146	100		
111	41.3	26.4	54.8
148	62.7	41.7	86.7

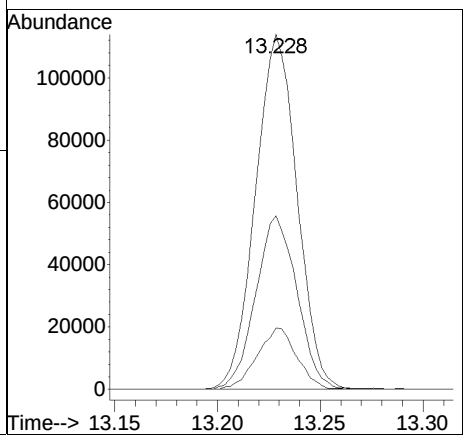


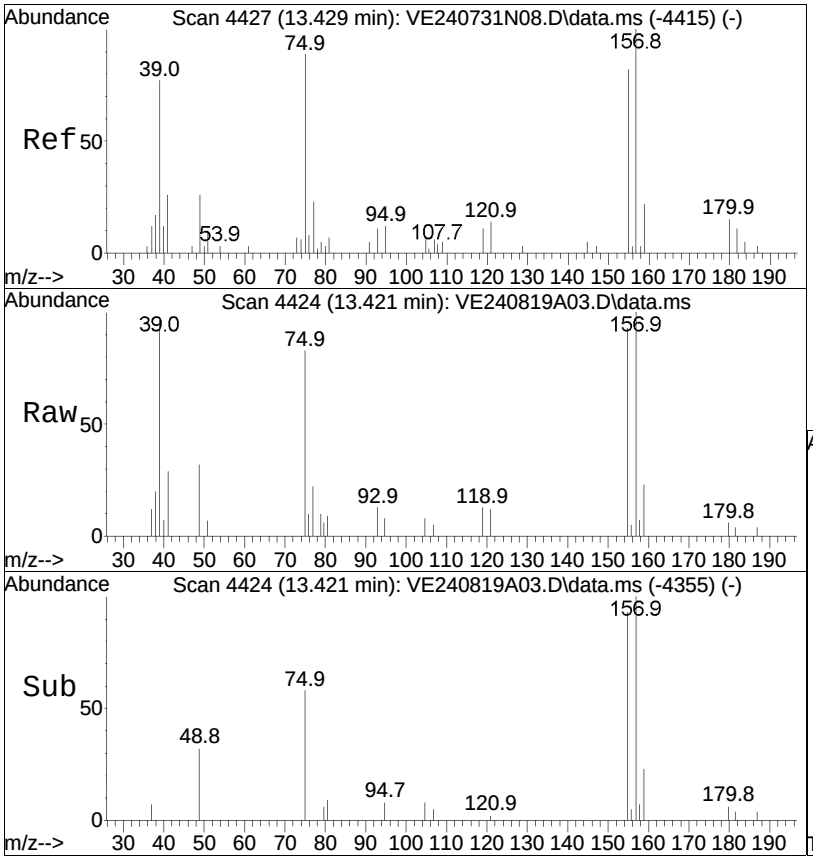


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.72 ug/L
RT: 13.228 min Scan# 4355
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:119 Resp: 160609

Ion	Ratio	Lower	Upper
119	100		
134	48.5	29.6	61.4
91	16.5	9.8	20.3

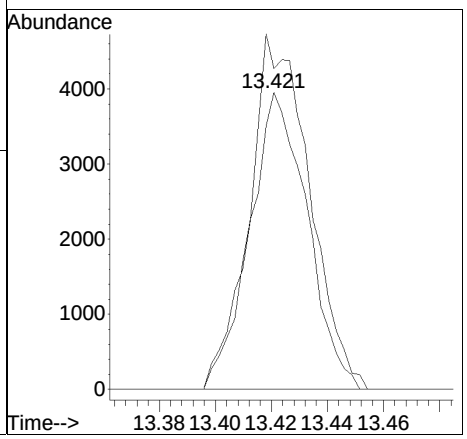


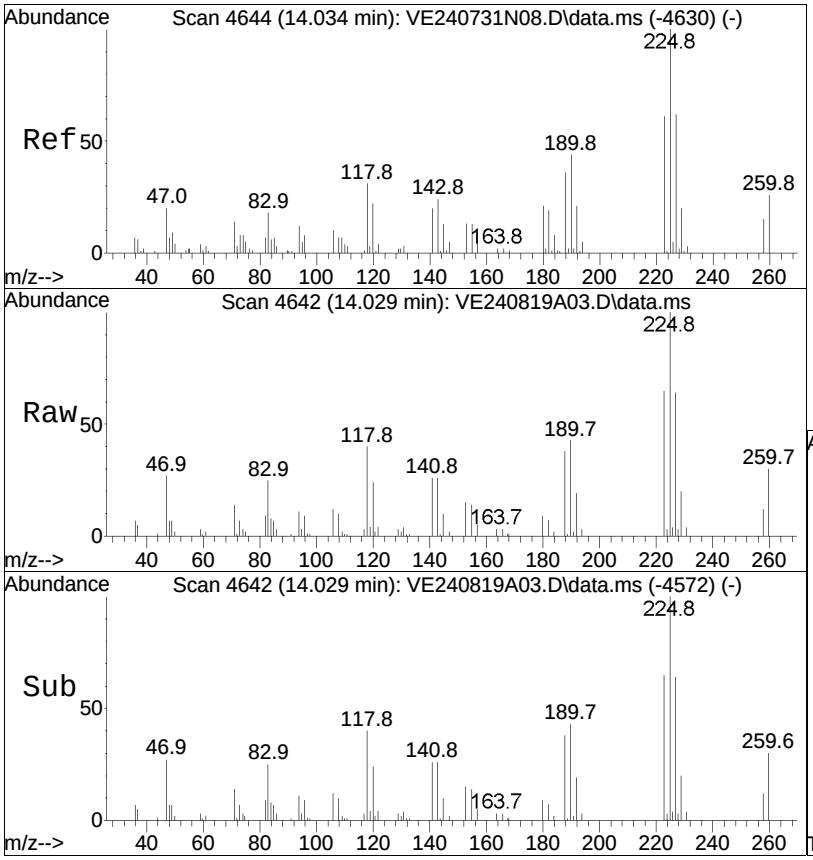


#111
1,2-Dibromo-3-chloropropane
Concen: 7.40 ug/L
RT: 13.421 min Scan# 4424
Delta R.T. -0.008 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:155 Resp: 5654

Ion	Ratio	Lower	Upper
155	100		
157	124.5	95.1	142.7

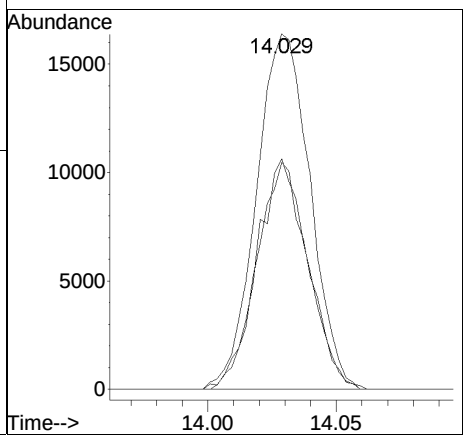


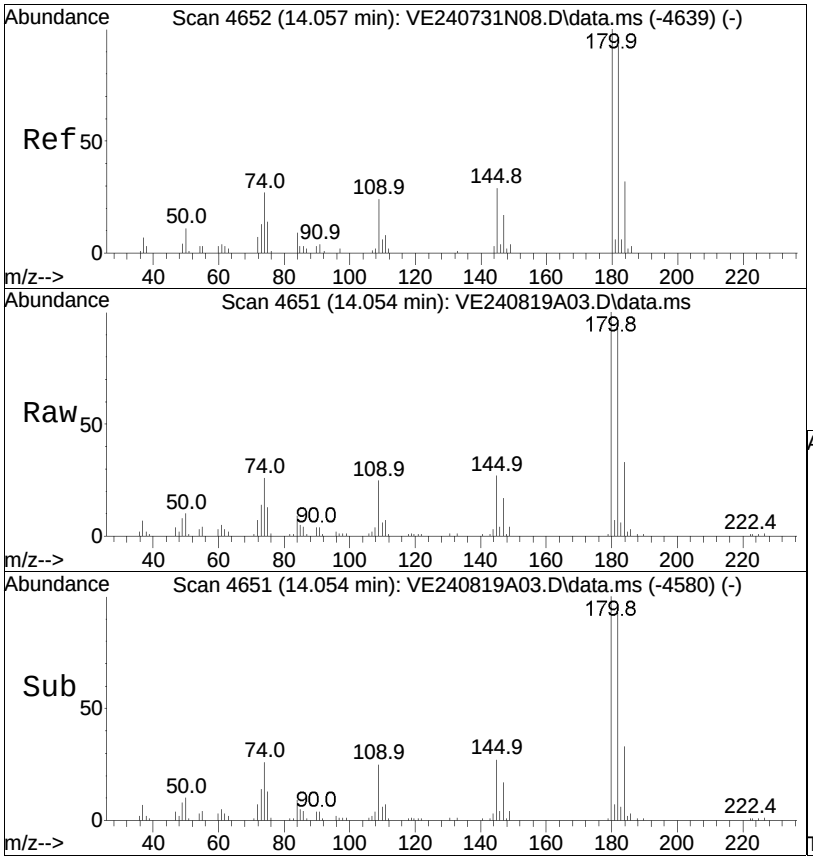


#113
Hexachlorobutadiene
Concen: 10.48 ug/L
RT: 14.029 min Scan# 4642
Delta R.T. -0.005 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:225 Resp: 23923

Ion	Ratio	Lower	Upper
225	100		
223	61.9	54.6	82.0
227	60.9	56.2	84.4

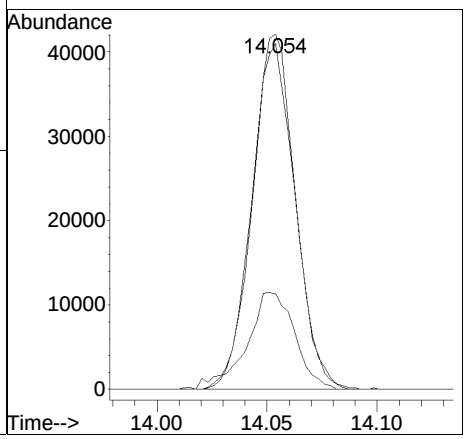


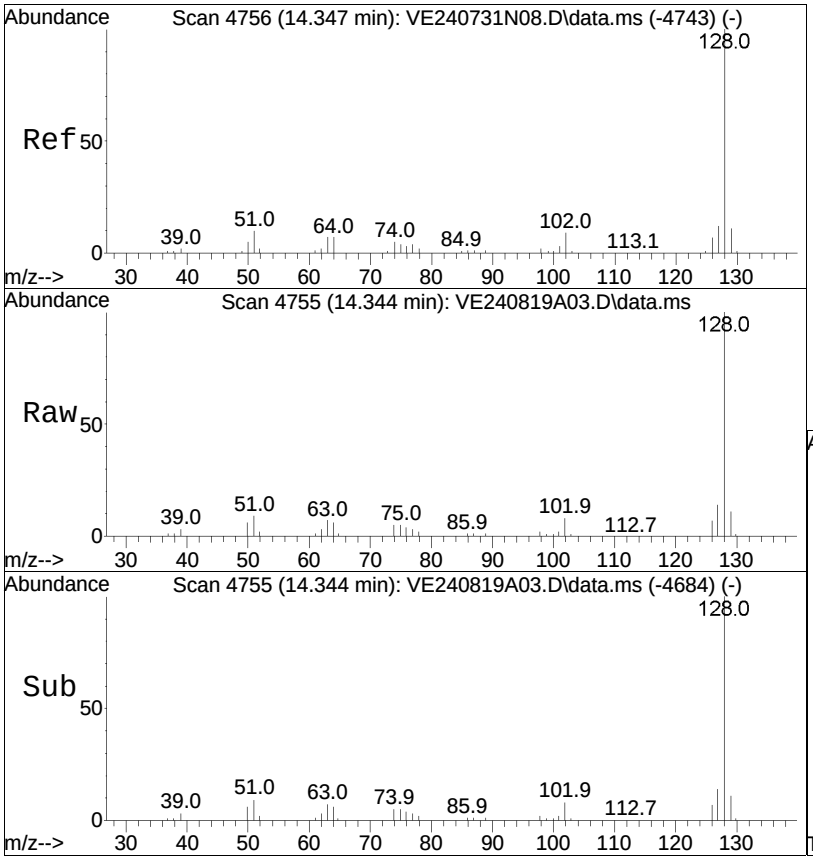


#114
1,2,4-Trichlorobenzene
Concen: 9.31 ug/L
RT: 14.054 min Scan# 4651
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:180 Resp: 57893

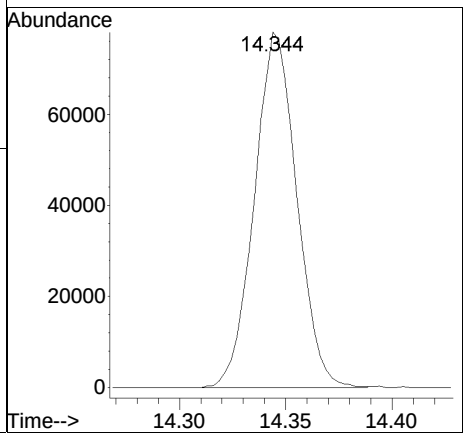
Ion	Ratio	Lower	Upper
180	100		
182	95.7	75.4	113.2
145	30.3	26.0	39.0

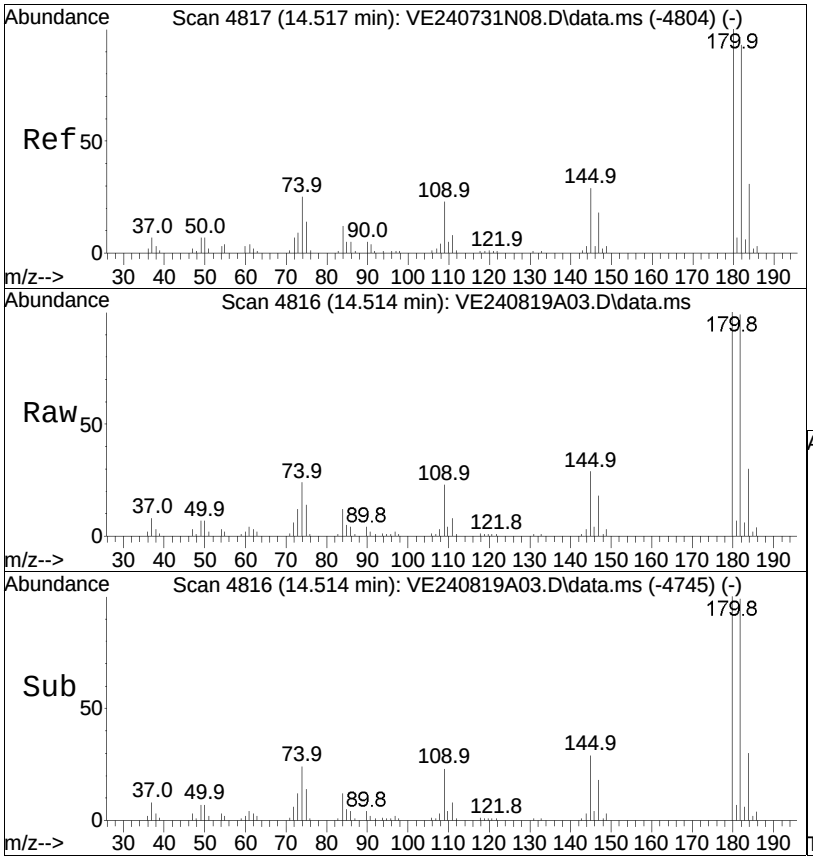




#115
Naphthalene
Concen: 7.90 ug/L
RT: 14.344 min Scan# 4755
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:128 Resp: 108198

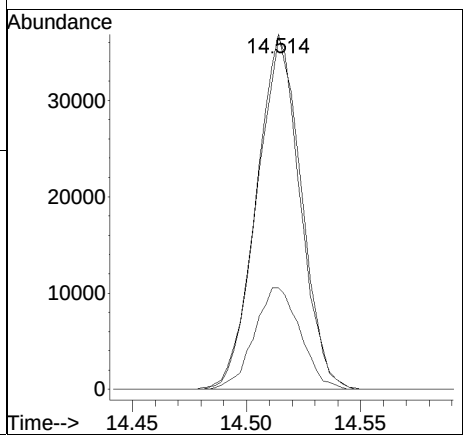




#116
1,2,3-Trichlorobenzene
Concen: 8.83 ug/L
RT: 14.514 min Scan# 4816
Delta R.T. -0.003 min
Lab File: VE240819A03.D
Acq: 19 Aug 2024 6:57 am

Tgt Ion:180 Resp: 50426

Ion	Ratio	Lower	Upper
180	100		
182	95.8	71.6	107.4
145	29.4	25.1	37.7

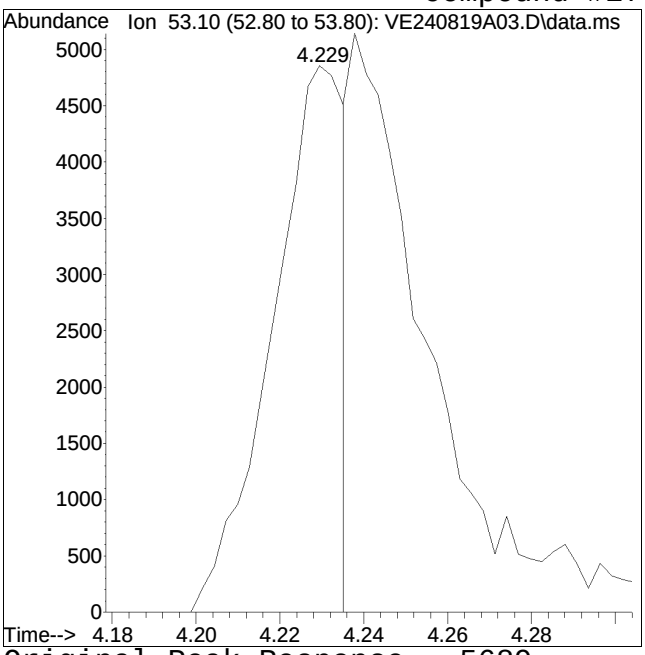


Manual Integration Report

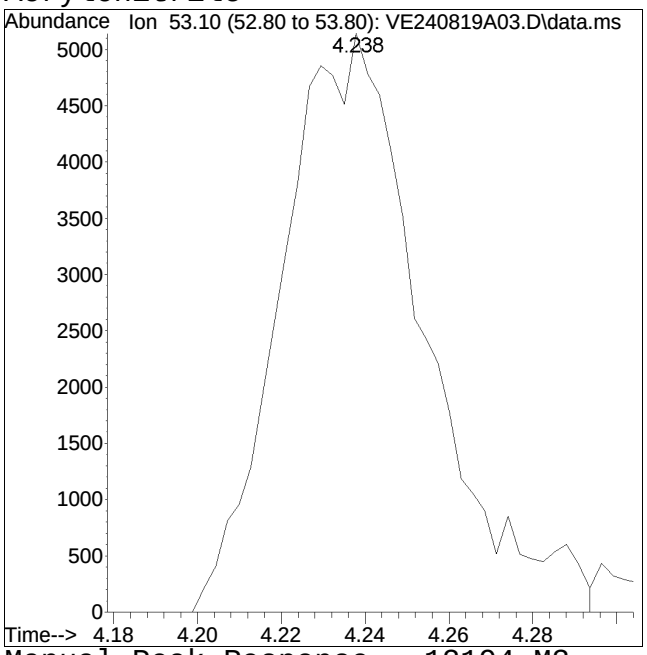
Data Path : K:\Elaine\2024\240819A\
Data File : VE240819A03.D
Date Inj'd : 8/19/2024 6:57 am
Sample : WG1960966-4,31,10,10

QMethod : Elaine_240731N_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 8/19/2024 7:27 am

Compound #27: Acrylonitrile



Original Peak Response = 5689



Manual Peak Response = 12194 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Aug 19 2024, 12:22 pm

Work Group: WG1960966 for Department: 31 GC/MS - Volatiles

Created: 19-AUG-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2446380-03	TRIP BLANK	S	NYTCL-8260-R2	WATER	SEC	U	0829	0822	3E	Vial-B
L2446666-01	BERQ RNG WOODCREST	S	NYTCL-8260-R2	WATER	DONE	U	0827	0819	3A	Vial-B
L2446922-01	LMW-8R-D_54.75	S	NYTCL-8260	WATER	DONE	U	0828	0819	1A	Vial-B
L2446922-02	LMW-9R-D_58.25	S	NYTCL-8260	WATER	DONE	U	0828	0819	1A	Vial-B
WG1960966-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG1960966-1	MS BFB Tune Standard	S	NYTCL-8260-R2	WATER	DONE	U				
WG1960966-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG1960966-2	Continuing Calibrati	S	NYTCL-8260-R2	WATER	DONE	U				
WG1960966-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG1960966-3	Laboratory Control S	S	NYTCL-8260-R2	WATER	DACQ	U				
WG1960966-4	LCS Duplicate	S	NYTCL-8260-R2	WATER	DACQ	U				
WG1960966-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG1960966-5	Laboratory Method Bl	S	NYTCL-8260-R2	WATER	DACQ	U				
WG1960966-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG1960966-4 WG1960966-3

Inst: Elaine
Initials: MAG
Date: **07/31/24**
Run: **N**

BFB: V10571
IS/SS: V10570
ICAL: V10561B,V10585
ICV: V10539, V10563, V10564, V10586, V10541, V10540

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample	obs
1	VE240731NBF1	BFB TUNE 17:25	
1	VE240731N01	BLK	
2	VE240731N02	BLK	
3	VE240731N03	I8260STD0.19PPB	
4	VE240731N04	I8260STD0.19PPB	
5	VE240731N05	I8260STD0.5PPB	
6	VE240731N06	I8260STD0.5PPB	
7	VE240731N07	I8260STD2PPB	
8	VE240731N08	I8260STD10PPB	
9	VE240731N09	I8260STD30PPB	
10	VE240731N10	I8260STD80PPB	
11	VE240731N11	I8260STD120PPB	
12	VE240731N12	I8260STD200PPB	
13	VE240731N13	BLK	
14	VE240731N14	BLK	
15	VE240731N15	BLK	
16	VE240731N16	BLK	
17	VE240731N17	C8260STD10PPB	
18	VE240731N18	C8260STD10PPB	
19	VE240731N19	BLK	
20	VE240731N20	BLK	
21	VE240731N21	METHOD BLK	
22	VE240731N22	MDL LVL 11	
23	VE240731N23	MDL LVL 1	
24	VE240731N24	MDL LVL 2	
25	VE240731N25	BLK	

Inst: Elaine
Initials: MJV
Date: **08/19/24**
Run: **A**

BFB: V10571
IS/SS: V10570
ICAL: V10594A,V10606

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample			obs
1	VE240819ABF1	BFB TUNE			
1	VE240819A01	8260 CCAL QC FAILS			
2	VE240819A02	8260 CCAL LCS			
3	VE240819A03	8260 CCAL LCSD			
4	VE240819A04	BLNK			
5	VE240819A05	METHOD BLANK			
6	VE240819A06	I2446380-03,31,10,10,,a,r3e	NY/R2	TB	pH<2
7	VE240819A07	I2446922-01,31,10,10,,c,r1a	NYTCL		pH<2
8	VE240819A08	I2446922-02,31,10,10,,c,r1a	NYTCL		pH<2
9	VE240819A09	I2446551-03,31,10,10,,a	PA/BTEX+NAPTH	TB	pH<2
10	VE240819A10	I2446666-01,31,10,10,,b,r3a	NYTCL	COMP VIAL	pH<2
11	VE240819A11	d STD BENZ			
12	VE240819A12	I2446418-01,31,10,10,,a	PA/SHORT	TB	
13	VE240819A13	I2446551-01,31,10,10,,a	PA/BTEX+NAPTH		
14	VE240819A14	I2446350-01,31,10,10,,a	NY/R2/CURVE		
15	VE240819A15	I2446974-01,31,10,10,,a,r1c	NYTCL/10		
16	VE240819A16	I2445935-01,31,10,10,,a	NY/R2		
17	VE240819A17	I2447030-03,31,10,10,,a	NY/BTEX	HT8-22	
18	VE240819A18	I2447030-04,31,10,10,,a	NY/BTEX	HT8-22	
19	VE240819A19	I2447030-05,31,10,10,,a	NY/BTEX	HT8-22	
20	VE240819A20	I2447030-06,31,10,10,,a	NY/BTEX	HT8-22	
21	VE240819A21	I2447030-07,31,10,10,,a	NY/BTEX	HT8-22	
22	VE240819A22	I2447030-08,31,10,10,,a	NY/BTEX	HT8-22	
23	VE240819A23	I2447030-09,31,10,10,,a	NY/BTEX	HT8-22	
24	VE240819A24	I2447030-10,31,10,10,,a	NY/BTEX	HT8-22	
25	VE240819A25	I2447030-11,31,10,10,,a	NY/BTEX	HT8-22	
26	VE240819A26	I2447030-12,31,10,10,,a	NY/BTEX	HT8-22	
27	VE240819A27	H STD			
28	VE240819A28	BLNK			
29	VE240819A29	BLNK			

Metals

Inorganic Data
(ICPMS Analysis)

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961342-1	**Date Collected**	: NA
Client ID	: WG1961342-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 19:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1961851.csv	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/20/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	ND	0.5400	NA	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-03	**Date Collected**	: 08/16/24 10:30
Client ID	: LMW-10R-S_24.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/23/24 06:44
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1962883.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/20/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	458.9	10.80	NA	
7440-70-2	Calcium, Total	140.	2.00	0.788	
7439-89-6	Iron, Total	36.8	1.00	0.382	
7439-95-4	Magnesium, Total	26.6	1.40	0.484	
7439-96-5	Manganese, Total	1.017	0.02000	0.00880	

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-04	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/23/24 06:48
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1962883.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/20/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	1327.	10.80	NA	
7440-70-2	Calcium, Total	353.	2.00	0.788	
7439-89-6	Iron, Total	1180	1.00	0.382	
7439-95-4	Magnesium, Total	108.	1.40	0.484	
7439-96-5	Manganese, Total	2.066	0.02000	0.00880	

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-05	**Date Collected**	: 08/16/24 13:00
Client ID	: LMW-9R-S_13.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/23/24 06:53
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1962883.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/20/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	1262.	10.80	NA	
7440-70-2	Calcium, Total	374.	2.00	0.788	
7439-89-6	Iron, Total	1210	1.00	0.382	
7439-95-4	Magnesium, Total	79.5	1.40	0.484	
7439-96-5	Manganese, Total	0.7442	0.02000	0.00880	

Form 1
METALS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-06	**Date Collected**	: 08/16/24 15:30
Client ID	: LMW-7R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/23/24 06:57
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1962883.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/20/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Hardness	450.1	10.80	NA	
7440-70-2	Calcium, Total	124.	2.00	0.788	
7439-89-6	Iron, Total	302.	1.00	0.382	
7439-95-4	Magnesium, Total	34.2	1.40	0.484	
7439-96-5	Manganese, Total	0.8603	0.02000	0.00880	

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R1866631-1			R1866631-5			R1866631-8		R1866631-12	
Date Analyzed :	08/21/24 05:49			08/21/24 06:22			08/21/24 07:45		08/21/24 08:59	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium	5000	4830.0000	97	6000.0000	5500	92	5700	95	5510	92
Iron	5000	4950.0000	99	6000.0000	5860	98	6010	100	5780	96
Magnesium	5000	4860.0000	97	6000.0000	5580	93	5700	95	5480	91
Manganese	50.0	48.4000	97	60.0000	59.9	100	61.4	102	57.1	95

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1866631-15			R1866631-17		R1866631-19	
Date Analyzed :				08/21/24 10:23			08/21/24 11:19		08/21/24 11:31	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium				6000.0000	5600	93	5460	91	5580	93
Iron				6000.0000	5890	98	5990	100	5950	99
Magnesium				6000.0000	5940	99	5830	97	5730	96
Manganese				60.0000	59.2	99	58.8	98	59.3	99

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1866631-21			R1866631-23		R1866631-25	
Date Analyzed :				08/21/24 12:26			08/21/24 13:41		08/21/24 14:38	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium				6000.0000	5730	96	5590	93	5600	93
Iron				6000.0000	5950	99	5990	100	5930	99
Magnesium				6000.0000	5870	98	5800	97	5890	98
Manganese				60.0000	60.0	100	60.9	102	58.8	98

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1866631-27			R1866631-29		R1866631-31	
Date Analyzed :				08/21/24 15:46			08/21/24 16:41		08/21/24 18:01	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium				6000.0000	5790	96	5520	92	5580	93
Iron				6000.0000	6060	101	5890	98	5940	99
Magnesium				6000.0000	5990	100	5860	98	5720	95
Manganese				60.0000	60.4	101	59.7	100	58.3	97

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1866631-33			R1866631-35			
Date Analyzed :				08/21/24 19:11			08/21/24 20:05			
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium				6000.0000	5560	93	5690	95		
Iron				6000.0000	5900	98	5970	100		
Magnesium				6000.0000	5790	96	5840	97		
Manganese				60.0000	59.4	99	61.4	102		

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R1867622-1			R1867622-4			R1867622-6		R1867622-8	
Date Analyzed :	08/23/24 05:32			08/23/24 05:58			08/23/24 06:31		08/23/24 07:34	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Calcium	5000	5000.0000	100	6000.0000	5940	99	6070	101	6040	101
Iron	5000	5080.0000	102	6000.0000	6250	104	6190	103	6260	104
Magnesium	5000	4900.0000	98	6000.0000	6080	101	6210	104	6180	103
Manganese	50.0	50.2000	100	60.0000	61.9	103	63.0	105	61.2	102

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R1866631-2		R1866631-6		R1866631-7		R1866631-9		WG1961342-1	
Date Analyzed	:	08/21/24 05:53		08/21/24 06:26		08/21/24 06:53		08/21/24 07:50		08/21/24 19:20	
Parameter		ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q	mg/l	Q
Calcium		39.4	U	39.4	U	39.4	U	39.4	U	0.0394	U
Hardness										0.5400	U
Iron		19.1	U	26.0	J	19.1	U	19.1	U	0.0191	U
Magnesium		24.2	U	24.2	U	24.2	U	24.2	U	0.0242	U
Manganese		0.440	U	2.09		0.440	U	0.642	J	0.00044	U

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R1866631-3		R1866631-11		R1866631-13		R1866631-14			
Date Analyzed	:	08/21/24 05:59		08/21/24 07:58		08/21/24 09:03		08/21/24 09:16			
Parameter		ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Calcium		39.4	U	39.4	U	39.4	U	39.4	U		
Iron		19.1	U	19.1	U	62.4		19.1	U		
Magnesium		24.2	U	24.2	U	24.2	U	24.2	U		
Manganese		0.440	U	0.440	U	0.440	U	0.440	U		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1866631-16		R1866631-18		R1866631-20			
Date Analyzed :			08/21/24 10:28		08/21/24 11:24		08/21/24 11:35			
Parameter	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**		**Q**
Calcium			39.4	U	39.4	U	39.4	U		
Iron			19.1	U	28.8	J	19.1	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	0.440	U	0.440	U		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1866631-22		R1866631-24		R1866631-26			
Date Analyzed :			08/21/24 12:31		08/21/24 13:46		08/21/24 14:42			
Parameter	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**		**Q**
Calcium			39.4	U	39.4	U	39.4	U		
Iron			19.1	U	19.1	U	19.1	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	0.440	U	0.440	U		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1866631-28		R1866631-30		R1866631-32			
Date Analyzed :			08/21/24 15:50		08/21/24 16:45		08/21/24 18:06			
Parameter	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**		**Q**
Calcium			39.4	U	39.4	U	39.4	U		
Iron			19.1	U	19.1	U	19.1	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	0.440	U	0.440	U		

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1866631-34		R1866631-36					
Date Analyzed :			08/21/24 19:16		08/21/24 20:10					
Parameter	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**		**Q**
Calcium			39.4	U	79.3	J				
Iron			19.1	U	19.1	U				
Magnesium			24.2	U	24.2	U				
Manganese			0.440	U	0.676	J				

Form 3
Blanks

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :	R1867622-2		R1867622-5		R1867622-7		R1867622-9			
Date Analyzed :	08/23/24 05:36		08/23/24 06:02		08/23/24 06:35		08/23/24 07:38			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Calcium	39.4	U	39.4	U	39.4	U	39.4	U		
Iron	19.1	U	19.1	U	19.1	U	19.1	U		
Magnesium	24.2	U	24.2	U	24.2	U	24.2	U		
Manganese	0.440	U	0.440	U	0.440	U	0.440	U		

Form 4a
Interference Check Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Concentration Units**	: ug/l

		Initial Found				Final Found			
Lab ID :		R1866631-4							
Analysis Date :		08/21/24 06:08							
Analyte	**Sol. A**	**Sol. AB**	**Sol. A**	**%R**	**Sol. AB**	**%R**	**Sol. A**	**%R**	**Sol. AB**	**%R**
Calcium	300000		296000	99						
Iron	250000		219000	88						
Magnesium	100000		79600	80						
Manganese			4.39							

Acceptance Criteria: Methods 200.7, 200.8, 6010, 6020

ICSA: 80-120%

ICSAB: 80-120%

Form 4a
Interference Check Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Concentration Units**	: ug/l

		Initial Found				Final Found			
Lab ID :		R1867622-3							
Analysis Date :		08/23/24 05:44							
Analyte	**Sol. A**	**Sol. AB**	**Sol. A**	**%R**	**Sol. AB**	**%R**	**Sol. A**	**%R**	**Sol. AB**	**%R**
Calcium	300000		290000	97						
Iron	250000		216000	86						
Magnesium	100000		80100	80						
Manganese			4.41							

Acceptance Criteria: Methods 200.7, 200.8, 6010, 6020

ICSA: 80-120%

ICSAB: 80-120%

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446490-02		
Matrix Spike	: WG1961342-3	**MS Analysis Date**	: 08/21/24 19:34
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample				Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R		Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Hardness	761.5	66.2	814.2	80						75-125	20
Calcium, Total	243	10	248.	50	Q					75-125	20
Iron, Total	12.8	1	13.9	110						75-125	20
Magnesium, Total	37.8	10	47.4	96						75-125	20
Manganese, Total	1.184	0.5	1.682	100						75-125	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1961342-2	**LCS Analysis Date**	: 08/21/24 18:35
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Hardness	66.2	59.8	90.					80-120	20
Calcium, Total	10.0	8.46	85.					80-120	20
Iron, Total	1.00	1.02	102.					80-120	20
Magnesium, Total	10.0	9.38	94.					80-120	20
Manganese, Total	0.500	0.492	98.					80-120	20

Form 12
Preparation Log

Client	:	**Langan Engineering & Environmental**	**Lab Number**	:	**L2446922**
Project Name	:	**1487 FIRST AVE**	**Project Number**	:	**100963701**
Matrix	:	**WATER**	**Prep Method**	:	**EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
WG1961342-1	08/20/24 08:37	-	50
WG1961342-2	08/20/24 08:37	-	50
WG1961342-3	08/20/24 08:37	-	50

Form 12
Preparation Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix	: WATER	**Prep Method**	: EPA 3005A

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L2446922-03	08/20/24 08:37	-	50
L2446922-04	08/20/24 08:37	-	50
L2446922-05	08/20/24 08:37	-	50
L2446922-06	08/20/24 08:37	-	50

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/21/24 04:46	**End Date**	: 08/21/24 20:10

Sample Number	Dilution Factor	Analysis Time	CALCIUM	Calcium, Total	Hardness	Iron, Total	MAGNESIUM	Magnesium, Total	Manganese, Total
R1866631-10 TUNE		04:46:00							
R1866631-1 ICV	1	05:49:18	X	X		X	X	X	X
R1866631-2 ICB	1	05:53:48	X	X		X	X	X	X
R1866631-3 ICB	1	05:59:14	X	X		X	X	X	X
R1866631-4 ICSA	1	06:08:42	X	X		X	X	X	X
R1866631-5 CCV	1	06:22:09	X	X		X	X	X	X
R1866631-6 CCB	1	06:26:39	X	X		X	X	X	X
R1866631-7 CCB	1	06:53:59	X	X		X	X	X	X
R1866631-8 CCV	1	07:45:53	X	X		X	X	X	X
R1866631-9 CCB	1	07:50:24	X	X		X	X	X	X
R1866631-11 CCB	1	07:58:18	X	X		X	X	X	X
R1866631-12 CCV	1	08:59:11	X	X		X	X	X	X
R1866631-13 CCB	1	09:03:42	X	X		X	X	X	X
R1866631-14 CCB	1	09:16:57	X	X		X	X	X	X
R1866631-15 CCV	1	10:23:36	X	X		X	X	X	X
R1866631-16 CCB	1	10:28:07	X	X		X	X	X	X
R1866631-17 CCV	1	11:19:49	X	X		X	X	X	X
R1866631-18 CCB	1	11:24:20	X	X		X	X	X	X
R1866631-19 CCV	1	11:31:13	X	X		X	X	X	X
R1866631-20 CCB	1	11:35:44	X	X		X	X	X	X
R1866631-21 CCV	1	12:26:41	X	X		X	X	X	X
R1866631-22 CCB	1	12:31:13	X	X		X	X	X	X
R1866631-23 CCV	1	13:41:43	X	X		X	X	X	X
R1866631-24 CCB	1	13:46:14	X	X		X	X	X	X
R1866631-25 CCV	1	14:38:06	X	X		X	X	X	X
R1866631-26 CCB	1	14:42:37	X	X		X	X	X	X
R1866631-27 CCV	1	15:46:26	X	X		X	X	X	X

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/21/24 04:46	**End Date**	: 08/21/24 20:10

Sample Number	Dilution Factor	Analysis Time	CALCIUM	Calcium, Total	Hardness	Iron, Total	MAGNESIUM	Magnesium, Total	Manganese, Total
R1866631-28 CCB	1	15:50:58	X	X		X	X	X	X
R1866631-29 CCV	1	16:41:07	X	X		X	X	X	X
R1866631-30 CCB	1	16:45:39	X	X		X	X	X	X
R1866631-31 CCV	1	18:01:41	X	X		X	X	X	X
R1866631-32 CCB	1	18:06:13	X	X		X	X	X	X
WG1961342-2 LCS	10	18:35:49		X	X	X		X	X
R1866631-33 CCV	1	19:11:40	X	X		X	X	X	X
R1866631-34 CCB	1	19:16:12	X	X		X	X	X	X
WG1961342-1 BLANK	1	19:20:44		X	X	X		X	X
WG1961342-3 MS	10	19:34:11		X	X	X		X	X
R1866631-35 CCV	1	20:05:34	X	X		X	X	X	X
R1866631-36 CCB	1	20:10:06	X	X		X	X	X	X

Form 13
Analysis Run Log

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/23/24 04:35	**End Date**	: 08/23/24 07:38

Sample Number	Dilution Factor	Analysis Time	CALCIUM	Calcium, Total	Hardness	Iron, Total	MAGNESIUM	Magnesium, Total	Manganese, Total
R1867622-10 TUNE		04:35:00							
R1867622-1 ICV	1	05:32:07	X	X		X	X	X	X
R1867622-2 ICB	1	05:36:37	X	X		X	X	X	X
R1867622-3 ICSA	1	05:44:43	X	X		X	X	X	X
R1867622-4 CCV	1	05:58:10	X	X		X	X	X	X
R1867622-5 CCB	1	06:02:41	X	X		X	X	X	X
R1867622-6 CCV	1	06:31:06	X	X		X	X	X	X
R1867622-7 CCB	1	06:35:37	X	X		X	X	X	X
L2446922-03	20	06:44:10		X	X	X		X	X
L2446922-04	20	06:48:36		X	X	X		X	X
L2446922-05	20	06:53:03		X	X	X		X	X
L2446922-06	20	06:57:30		X	X	X		X	X
R1867622-8 CCV	1	07:34:02	X	X		X	X	X	X
R1867622-9 CCB	1	07:38:33	X	X		X	X	X	X

Form 14
ICP-MS Tune

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: R1866631-10	**Analysis Date**	: 08/21/24 04:46
ICP-MS Instrument	: iCAP Q		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.9371	0.689	1.3
115 In	114.8833	0.709	0.4
7 Li	7.0186	0.671	0.6
238 U	238.025	0.7	0.8

Form 14
ICP-MS Tune

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: R1867622-10	**Analysis Date**	: 08/23/24 04:35
ICP-MS Instrument	: iCAP Q		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.9418	0.68	0.4
115 In	114.8873	0.713	0.6
7 Li	7.0242	0.663	0.7
238 U	238.0303	0.7	0.7

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	:	**Analysis Method**	:
Start Date	: 08/21/24	**End Date**	: 08/21/24

Sample #	Time	Internal Standards %RI For:				
		Lithium	Scandium	Ge	In	Bismuth
R1866631-1 ICV	05:49:18	91	91	87	87	96
R1866631-2 ICB	05:53:48	91	90	90	90	96
R1866631-3 ICB	05:59:14	91	90	86	90	96
R1866631-4 ICSA	06:08:42	77	79	82	77	80
R1866631-5 CCV	06:22:09	89	90	88	86	94
R1866631-6 CCB	06:26:39	90	89	84	86	92
R1866631-7 CCB	06:53:59	93	87	86	88	95
R1866631-8 CCV	07:45:53	93	94	94	95	104
R1866631-9 CCB	07:50:24	94	93	90	90	99
R1866631-11 CCB	07:58:18	97	95	91	91	100
R1866631-12 CCV	08:59:11	94	94	95	94	105
R1866631-13 CCB	09:03:42	96	93	90	91	100
R1866631-14 CCB	09:16:57	97	95	90	90	104
R1866631-15 CCV	10:23:36	107	108	99	97	104
R1866631-16 CCB	10:28:07	107	106	96	98	105
R1866631-17 CCV	11:19:49	103	105	102	98	104
R1866631-18 CCB	11:24:20	106	106	100	98	104
R1866631-19 CCV	11:31:13	103	108	102	98	112
R1866631-20 CCB	11:35:44	103	103	97	98	105
R1866631-21 CCV	12:26:41	99	97	92	95	102
R1866631-22 CCB	12:31:13	101	98	92	93	101
R1866631-23 CCV	13:41:43	100	104	95	94	102
R1866631-24 CCB	13:46:14	100	98	96	97	103
R1866631-25 CCV	14:38:06	97	101	94	95	108
R1866631-26 CCB	14:42:37	98	98	93	94	102
R1866631-27 CCV	15:46:26	96	102	93	95	103
R1866631-28 CCB	15:50:58	98	97	95	94	99

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	:	**Analysis Method**	:
Start Date	: 08/21/24	**End Date**	: 08/21/24

Sample #	Time	Internal Standards %RI For:				
		Lithium	Scandium	Ge	In	Bismuth
R1866631-29 CCV	16:41:07	102	110	100	101	105
R1866631-30 CCB	16:45:39	103	106	101	101	106
R1866631-31 CCV	18:01:41	100	106	94	97	110
R1866631-32 CCB	18:06:13	99	100	99	99	105
WG1961342-2 LCS	18:35:49	100	104	99	99	105
R1866631-33 CCV	19:11:40	103	114	102	101	105
R1866631-34 CCB	19:16:12	102	103	97	98	102
WG1961342-1 BLANK	19:20:44	102	105	102	101	105
WG1961342-3 MS	19:34:11	102	107	104	101	103
R1866631-35 CCV	20:05:34	103	111	100	100	103
R1866631-36 CCB	20:10:06	102	105	98	99	103

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/23/24	**End Date**	: 08/23/24

Sample #	Time	Internal Standards %RI For:				
		Lithium	Scandium	Ge	In	Bismuth
R1867622-1 ICV	05:32:07	92	92	92	94	90
R1867622-2 ICB	05:36:37	94	91	92	94	88
R1867622-3 ICSA	05:44:43	83	85	87	83	73
R1867622-4 CCV	05:58:10	99	104	98	98	87
R1867622-5 CCB	06:02:41	101	104	99	100	88
R1867622-6 CCV	06:31:06	96	99	101	100	84
R1867622-7 CCB	06:35:37	96	97	95	98	82
L2446922-03	06:44:10	95	95	95	97	82
L2446922-04	06:48:36	92	96	94	96	78
L2446922-05	06:53:03	91	95	91	92	74
L2446922-06	06:57:30	93	94	92	93	75
R1867622-8 CCV	07:34:02	104	108	99	100	78
R1867622-9 CCB	07:38:33	105	107	97	99	77

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METALS by 6020B (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Aluminum, Total	7429-90-5	0.01	0.00327	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Antimony, Total	7440-36-0	0.004	0.000429	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Arsenic, Total	7440-38-2	0.0005	0.000165	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Barium, Total	7440-39-3	0.0005	0.000173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Beryllium, Total	7440-41-7	0.0005	0.000107	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cadmium, Total	7440-43-9	0.0002	0.0000599	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Calcium, Total	7440-70-2	0.1	0.0394	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Chromium, Total	7440-47-3	0.001	0.000178	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cobalt, Total	7440-48-4	0.0005	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Copper, Total	7440-50-8	0.001	0.000384	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Lithium, Total	7439-93-2	0.001	0.000083	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Iron, Total	7439-89-6	0.05	0.0191	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Lead, Total	7439-92-1	0.001	0.000343	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Magnesium, Total	7439-95-4	0.07	0.0242	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Manganese, Total	7439-96-5	0.001	0.00044	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Nickel, Total	7440-02-0	0.002	0.000556	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Potassium, Total	7440-09-7	0.1	0.0309	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Selenium, Total	7782-49-2	0.005	0.00173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Silver, Total	7440-22-4	0.0004	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Sodium, Total	7440-23-5	0.1	0.0293	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Thallium, Total	7440-28-0	0.0005	0.000143	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Vanadium, Total	7440-62-2	0.005	0.00157	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Zinc, Total	7440-66-6	0.01	0.00341	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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METALS by 6020B (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Aluminum, Total	7429-90-5	10	1.48	mg/kg	48-151	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Antimony, Total	7440-36-0	0.16	0.01352	mg/kg	1-208	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Arsenic, Total	7440-38-2	0.05	0.0066	mg/kg	79-121	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Barium, Total	7440-39-3	0.3	0.02112	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Beryllium, Total	7440-41-7	0.03	0.00872	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Cadmium, Total	7440-43-9	0.02	0.00264	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Calcium, Total	7440-70-2	50	6.08	mg/kg	81-119	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Chromium, Total	7440-47-3	0.2	0.0468	mg/kg	80-120	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Cobalt, Total	7440-48-4	0.05	0.00532	mg/kg	84-115	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Copper, Total	7440-50-8	0.2	0.0194	mg/kg	81-118	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Iron, Total	7439-89-6	20	2.06	mg/kg	45-155	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Lead, Total	7439-92-1	0.06	0.0146	mg/kg	81-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Magnesium, Total	7439-95-4	10	1.232	mg/kg	76-124	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Manganese, Total	7439-96-5	0.2	0.0444	mg/kg	81-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Nickel, Total	7440-02-0	0.1	0.02672	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Potassium, Total	7440-09-7	10	1.588	mg/kg	71-129	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Selenium, Total	7782-49-2	0.2	0.0756	mg/kg	78-122	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Silver, Total	7440-22-4	0.05	0.00488	mg/kg	75-124	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Sodium, Total	7440-23-5	15	1.172	mg/kg	72-127	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Thallium, Total	7440-28-0	0.02	0.00516	mg/kg	80-120	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Vanadium, Total	7440-62-2	0.1	0.03792	mg/kg	78-122	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Zinc, Total	7440-66-6	1	0.26	mg/kg	82-118	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

System

Start time:	8/21/2024 4:46:41 AM
Instrument:	iCAP Q
Operator:	ALPHALAB\a2-icpmsq2
Template:	STD AGD
Instrument Serial Number:	Q01717
Last Autotune:	Autotune-Torch Position via In115 ONLY-20240627-201110165.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Sensitivity & Stability Test

Result	Runs	Sweeps
Passed	5	10

Sensitivity

Analyte	Result	Value	Condition	Limit
Bkg4.5	Passed	0.0 CPS	Less than	5.0 CPS
Bkg220.7	Passed	0.0 CPS	Less than	5.0 CPS
7Li	Passed	28,999.0 CPS	Greater than	10,000.0 CPS
59Co	Passed	32,135.0 CPS	Greater than	1,000.0 CPS
238U	Passed	57,986.0 CPS	Greater than	20,000.0 CPS
140Ce.16O/140Ce	Passed	0.0113	Less than	0.025
137Ba++/137Ba	Passed	0.027	Less than	0.034
115In	Passed	40,105.0 CPS	Greater than	5,000.0 CPS

Stability

Analyte	Value	Limit
7Li	0.6%	5
59Co	1.3%	5
238U	0.8%	5
140Ce.16O	4.3%	2
140Ce	0.7%	2
115In	0.4%	5

Mass Calibration Test

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.04	1.5	0.02	10

Analyte	Result	Centroid Mass [u]	Offset	Peak width [u]	Peak width min [u]	Peak width max [u]
7Li	Passed	7.0186	0.0026	0.671	0.650	0.850
59Co	Passed	58.9371	0.0039	0.689	0.650	0.850
115In	Passed	114.8833	0.0206	0.709	0.650	0.850
238U	Passed	238.0250	0.0258	0.700	0.650	0.850

Tune Settings

Parameter	Value
Additional Gas Flow 1	41.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-384.97
Auxilliary Flow	0.80
CCT Bias	-3.21
CCT Entry Lens	-70.02
CCT Exit Lens	-160.01
CCT Focus Lens	-11.56
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	0.00
CCT2 Shut-Off Valve	0.00
Cool Flow	14.00
D1 Lens	-200.05
D2 Lens	-90.01
Deflection Entry Lens	-35.01
Dry Pump Speed	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-130.40
Focus Lens	21.00
Nebulizer Flow	0.54
Peristaltic Pump Speed	17.00
Plasma Power	1550.00
Pole Bias	1.00
Quad Entry Lens	-20.00
Sampling Depth	5.00
Spray Chamber Temperature	2.70
Torch Horizontal Position	-0.19
Torch Vertical Position	-0.84
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	0.65
Virtual CCT Mass to Dac Factor	130.00
Virtual CCT Mass to Dac Offset	0.01

Vacuum Check

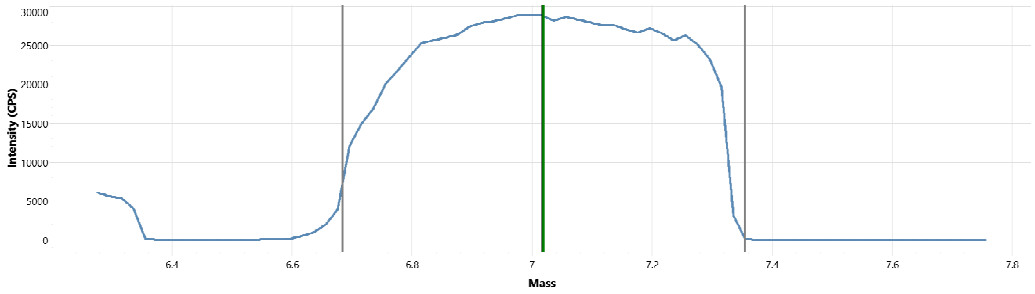
Parameter	Result	Value
Analyzer Pressure	Vacuum ok	3.943e-7
Interface Pressure		1.936e+0

Detector Voltages

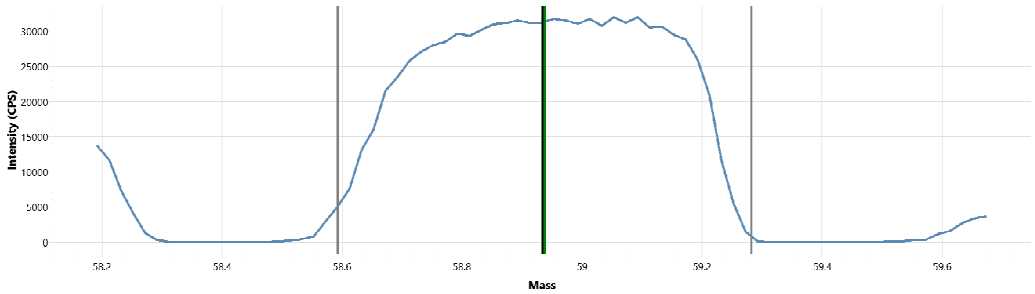
Analog	Counting
-2087.50	1662.50

Mass Calibration Peaks

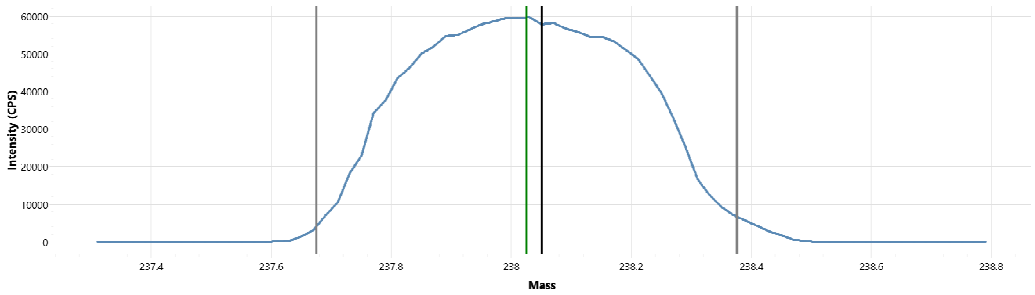
Analyte: 7Li



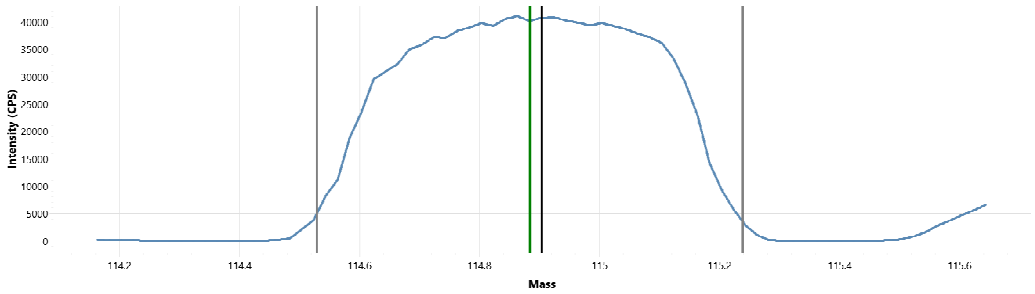
Analyte: 59Co



Analyte: 238U



Analyte: 115In



System

Start time:	8/23/2024 4:35:01 AM
Instrument:	iCAP Q
Operator:	ALPHALAB\a2-icpmsq2
Template:	STD AGD
Instrument Serial Number:	Q01717
Last Autotune:	Autotune-Torch Position via In115 ONLY-20240627-201110165.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Sensitivity & Stability Test

Result	Runs	Sweeps
Passed	5	10

Sensitivity

Analyte	Result	Value	Condition	Limit
Bkg4.5	Passed	0.0 CPS	Less than	5.0 CPS
Bkg220.7	Passed	0.0 CPS	Less than	5.0 CPS
7Li	Passed	30,758.0 CPS	Greater than	10,000.0 CPS
59Co	Passed	37,492.0 CPS	Greater than	1,000.0 CPS
238U	Passed	66,333.0 CPS	Greater than	20,000.0 CPS
140Ce.16O/140Ce	Passed	0.0122	Less than	0.025
137Ba++/137Ba	Passed	0.0238	Less than	0.034
115In	Passed	51,119.0 CPS	Greater than	5,000.0 CPS

Stability

Analyte	Value	Limit
7Li	0.7%	5
59Co	0.4%	5
238U	0.7%	5
140Ce.16O	1.5%	2
140Ce	0.9%	2
115In	0.6%	5

Mass Calibration Test

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.04	1.5	0.02	10

Analyte	Result	Centroid Mass [u]	Offset	Peak width [u]	Peak width min [u]	Peak width max [u]
7Li	Passed	7.0242	0.0082	0.663	0.650	0.850
59Co	Passed	58.9418	0.0086	0.680	0.650	0.850
115In	Passed	114.8873	0.0165	0.713	0.650	0.850
238U	Passed	238.0303	0.0205	0.700	0.650	0.850

Tune Settings

Parameter	Value
Additional Gas Flow 1	41.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-384.97
Auxilliary Flow	0.80
CCT Bias	-3.21
CCT Entry Lens	-70.02
CCT Exit Lens	-160.01
CCT Focus Lens	-11.56
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	0.00
CCT2 Shut-Off Valve	0.00
Cool Flow	14.00
D1 Lens	-200.05
D2 Lens	-90.01
Deflection Entry Lens	-35.01
Dry Pump Speed	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-130.40
Focus Lens	21.00
Nebulizer Flow	0.54
Peristaltic Pump Speed	17.00
Plasma Power	1550.00
Pole Bias	1.00
Quad Entry Lens	-20.00
Sampling Depth	5.00
Spray Chamber Temperature	2.70
Torch Horizontal Position	-0.19
Torch Vertical Position	-0.84
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	0.65
Virtual CCT Mass to Dac Factor	130.00
Virtual CCT Mass to Dac Offset	0.01

Vacuum Check

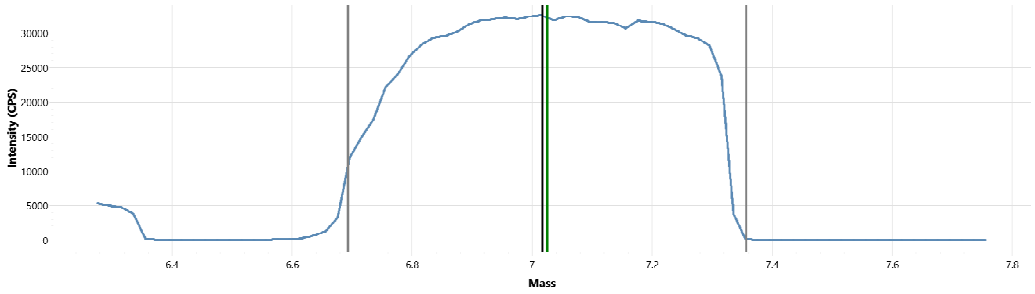
Parameter	Result	Value
Analyzer Pressure	Vacuum ok	3.603e-7
Interface Pressure		1.936e+0

Detector Voltages

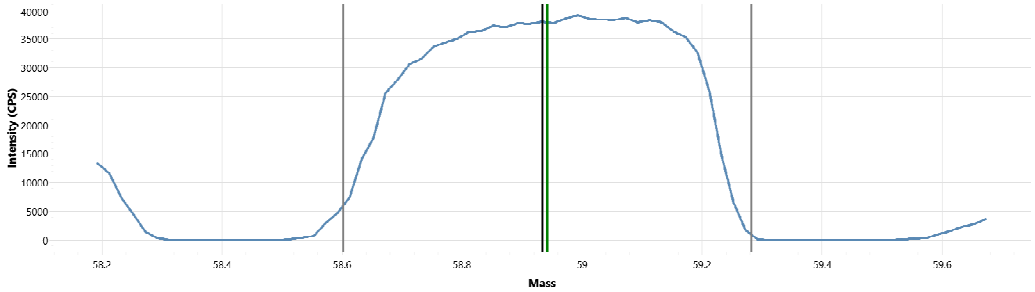
Analog	Counting
-2087.50	1662.50

Mass Calibration Peaks

Analyte: 7Li

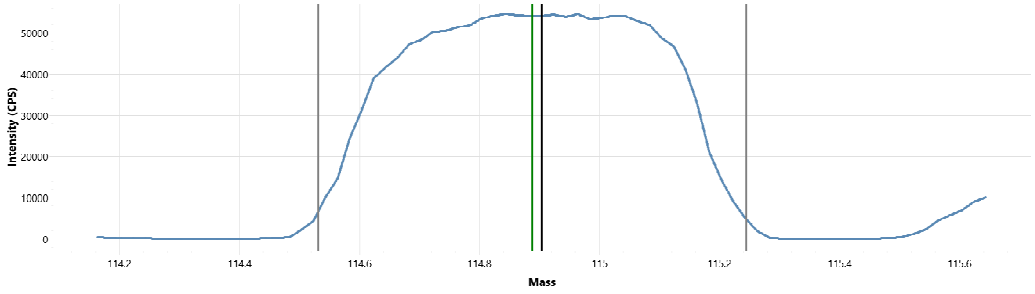


Analyte: 59Co



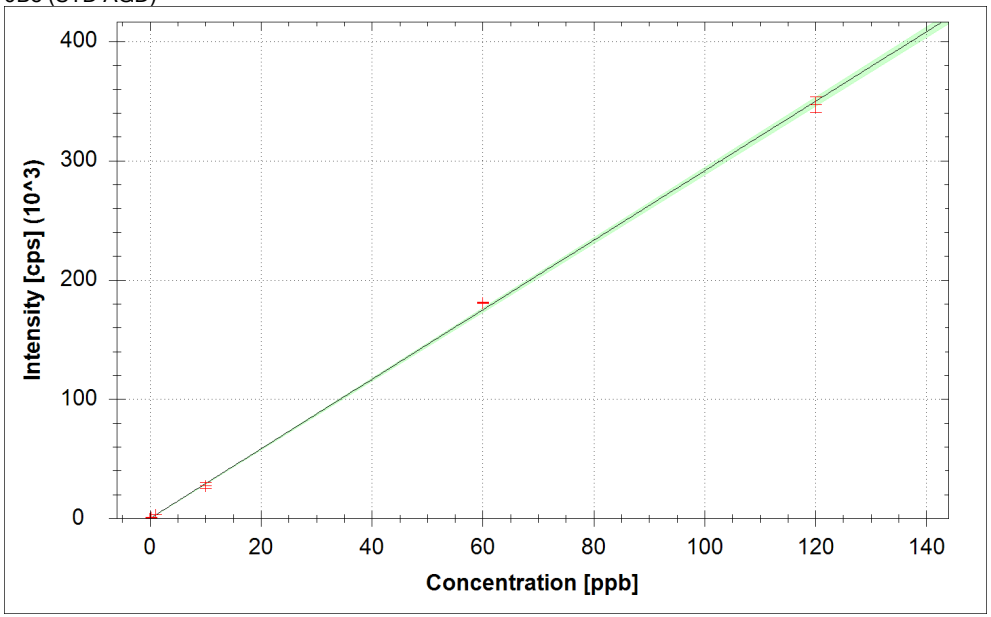
Analyte: 238U

Analyte: 115In



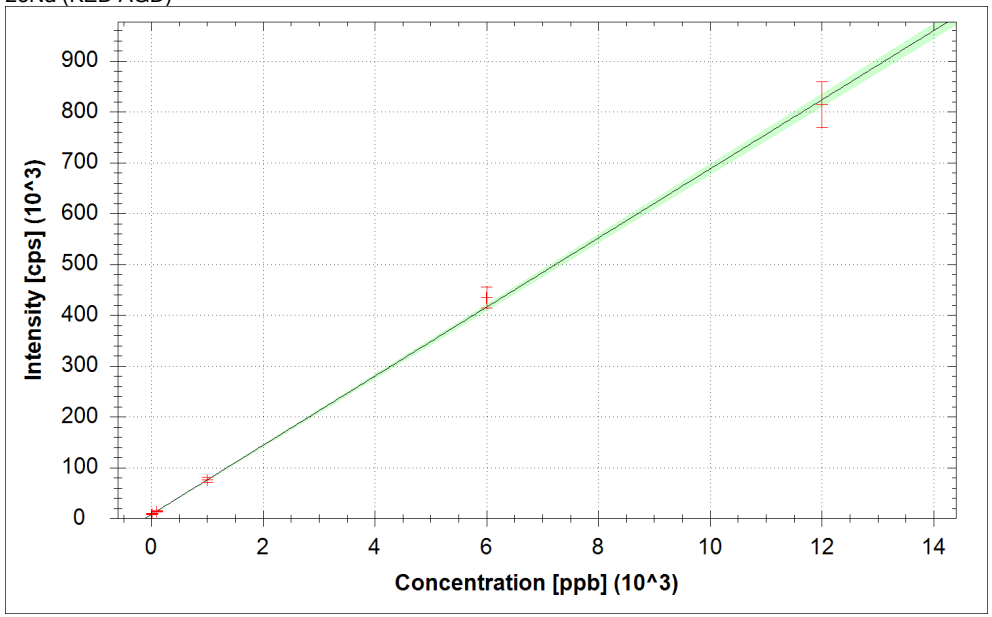
Calibration Curves:

9Be (STD AGD)



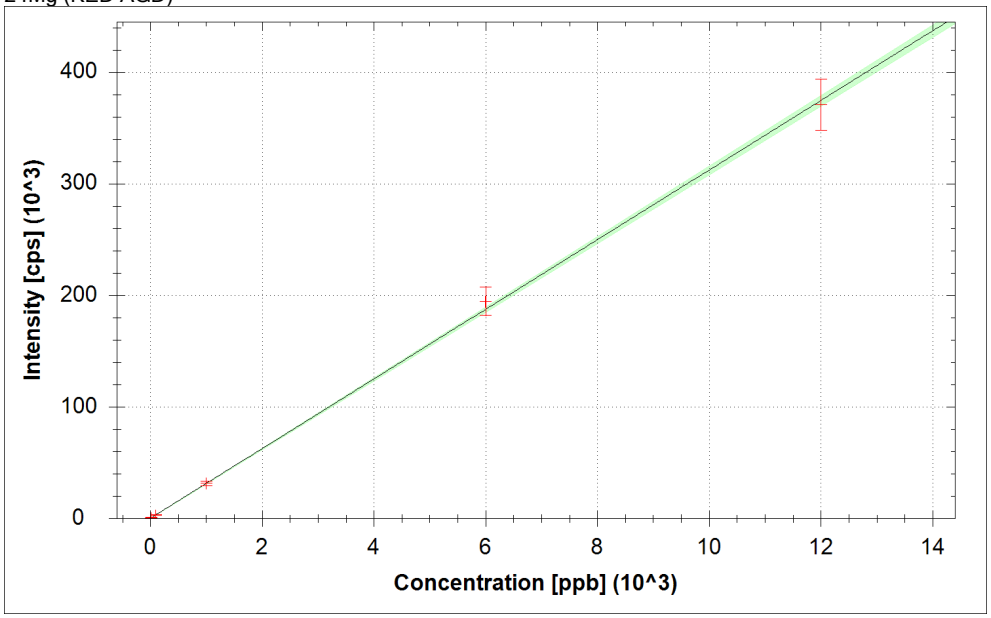
f(x) = 2913.8206*x + 39.1418
R² = 0.9996
BEC = 0.013 ppb
LoD = 0.0065 ppb

23Na (KED AGD)



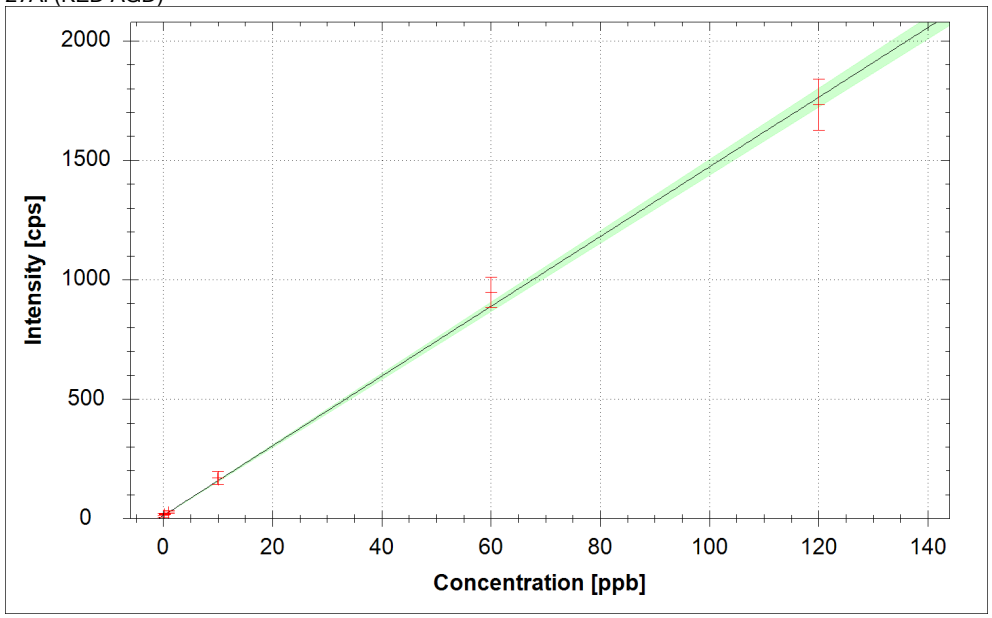
f(x) = 67.9356*x + 7919.5094
R² = 0.9992
BEC = 116.574 ppb
LoD = 43.0389 ppb

24Mg (KED AGD)



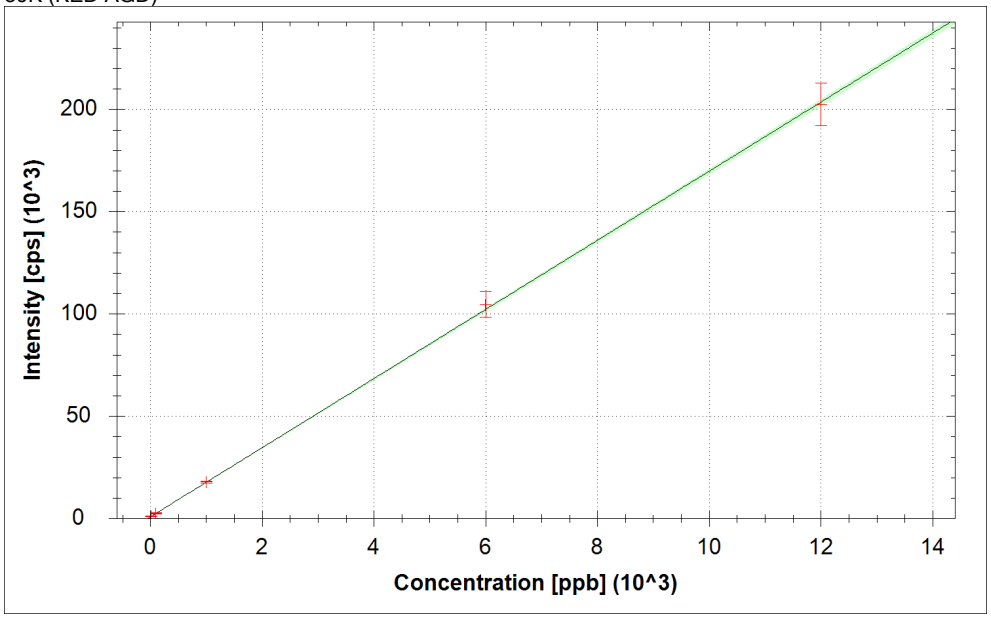
f(x) = 31.2065*x + 143.0423
R² = 0.9994
BEC = 4.584 ppb
LoD = 2.9205 ppb

27Al (KED AGD)



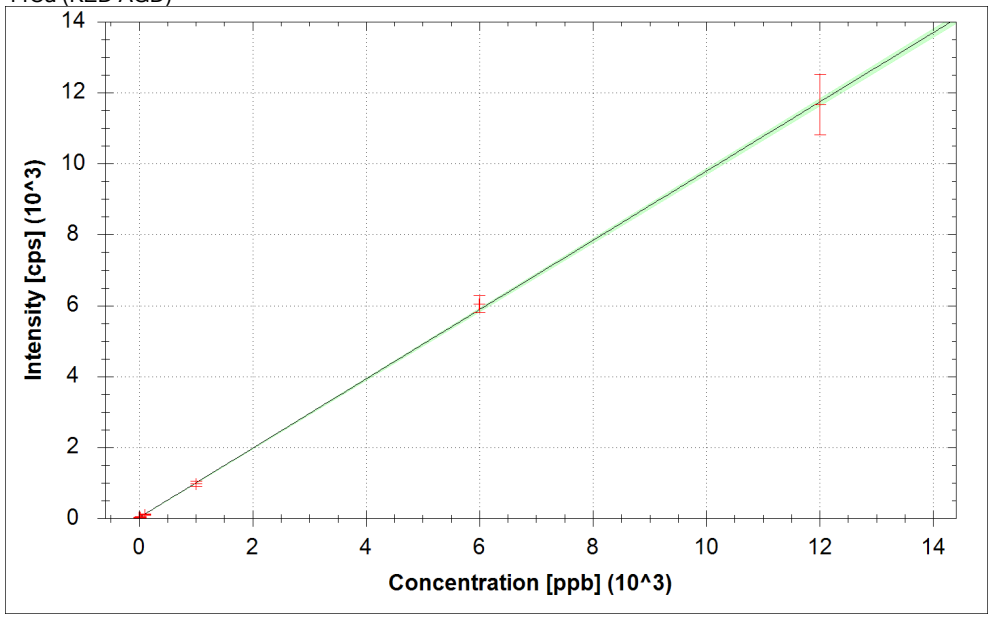
f(x) = 14.5862*x + 11.9670
R² = 0.9982
BEC = 0.820 ppb
LoD = 1.6581 ppb

39K (KED AGD)



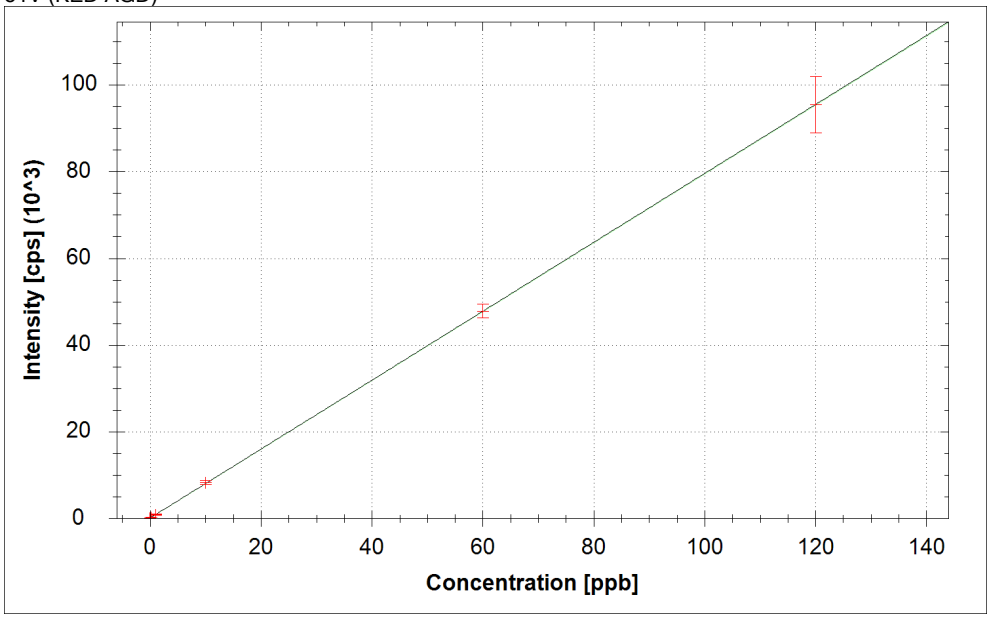
f(x) = 16.8859*x + 787.9423
R² = 0.9998
BEC = 46.663 ppb
LoD = 13.6281 ppb

44Ca (KED AGD)



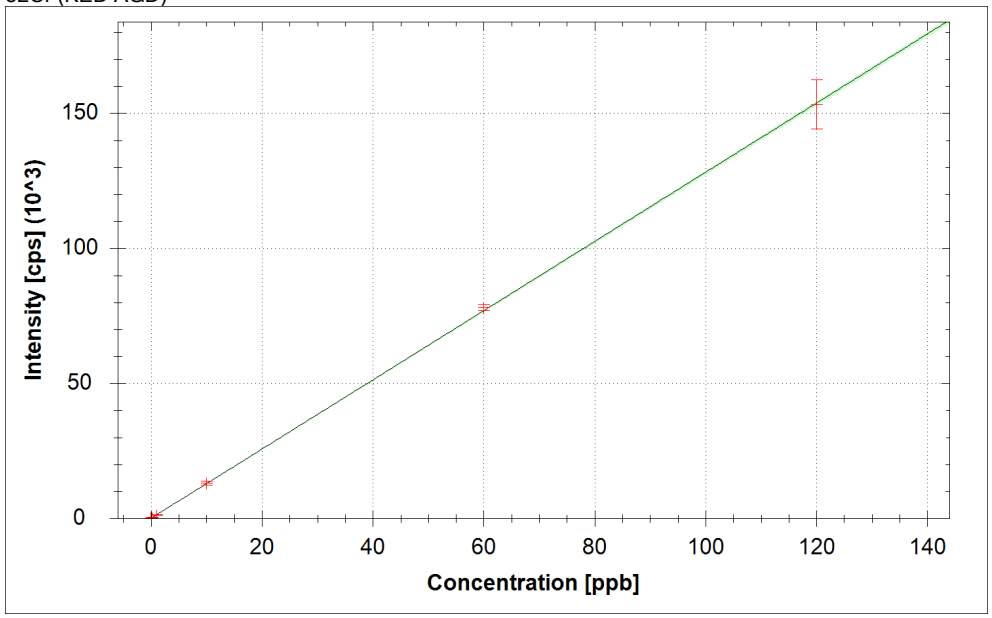
f(x) = 0.9760*x + 25.1275
R² = 0.9997
BEC = 25.745 ppb
LoD = 24.3616 ppb

51V (KED AGD)



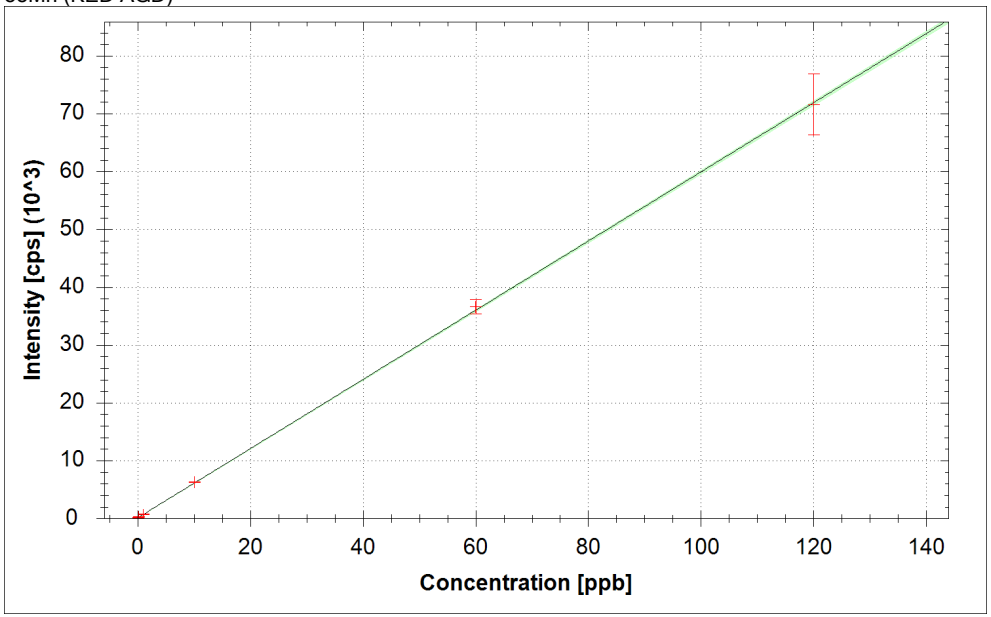
f(x) = 794.5862*x + 91.6991
R² = 1.0000
BEC = 0.115 ppb
LoD = 0.0812 ppb

52Cr (KED AGD)



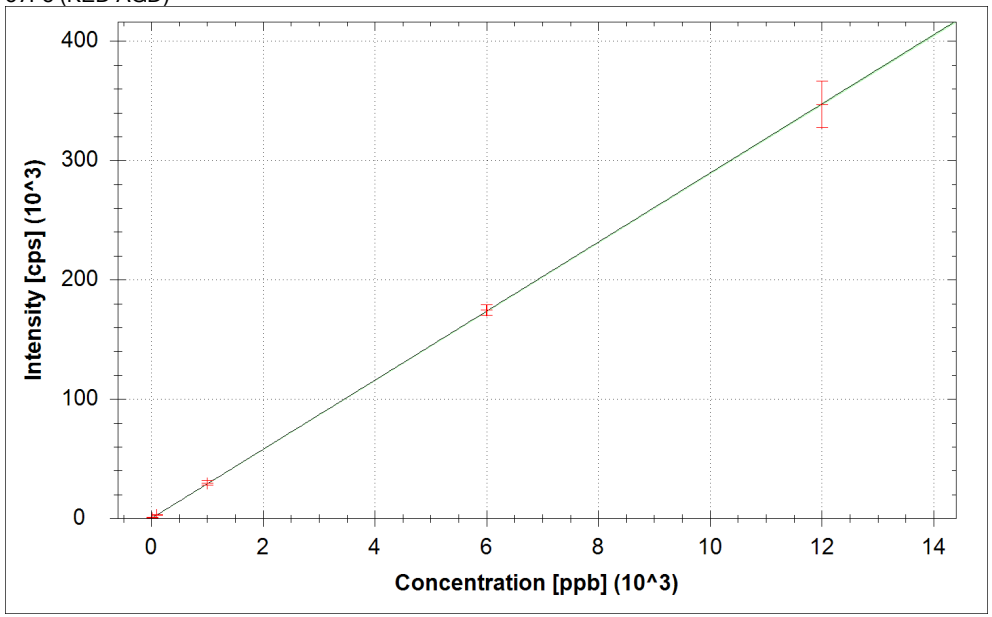
f(x) = 1280.5193*x + 79.2878
R² = 0.9999
BEC = 0.062 ppb
LoD = 0.0185 ppb

55Mn (KED AGD)



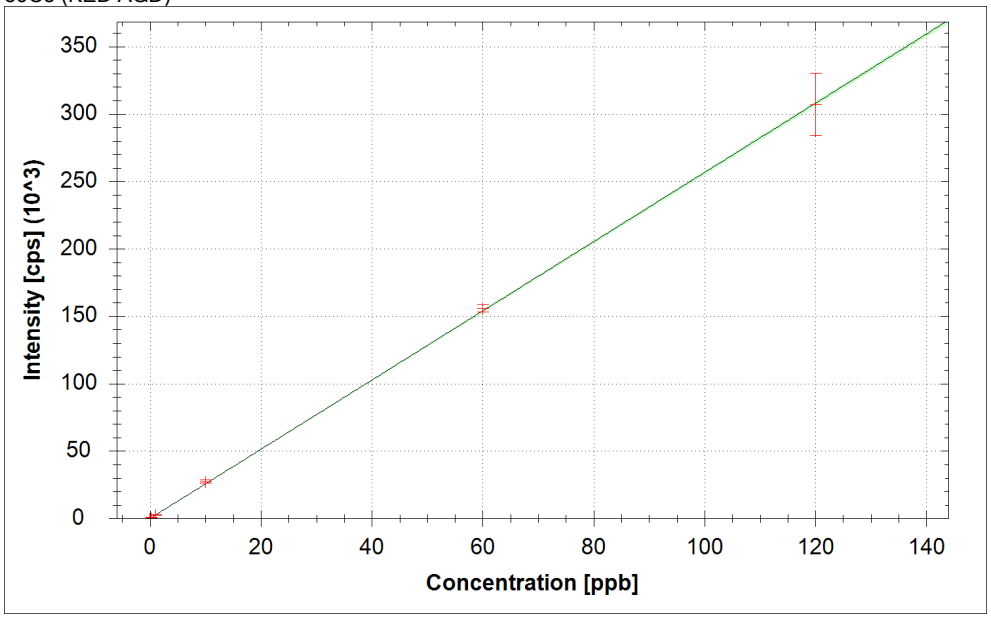
f(x) = 597.7639*x + 128.8645
R² = 0.9999
BEC = 0.216 ppb
LoD = 0.2158 ppb

57Fe (KED AGD)



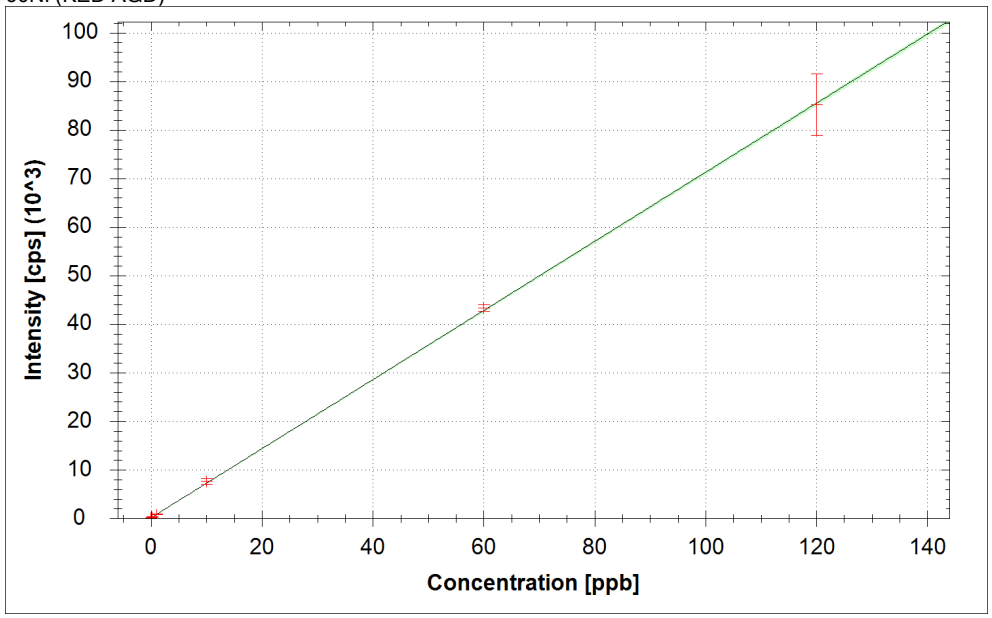
f(x) = 28.9348*x + 22.2694
R² = 1.0000
BEC = 0.770 ppb
LoD = 0.8146 ppb

59Co (KED AGD)



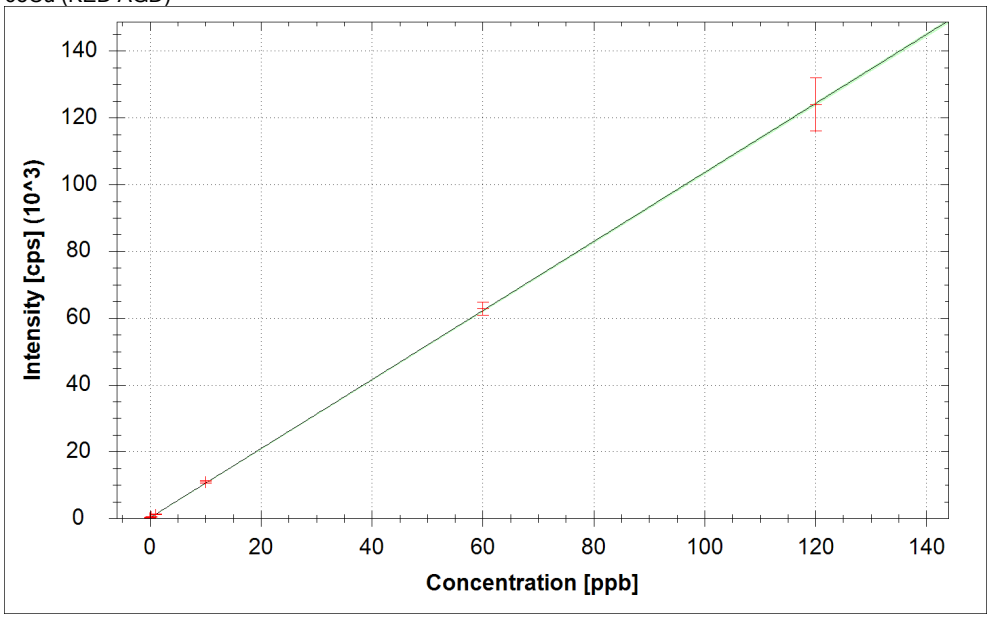
f(x) = 2565.8797*x + 13.2079
R² = 0.9999
BEC = 0.005 ppb
LoD = 0.0071 ppb

60Ni (KED AGD)



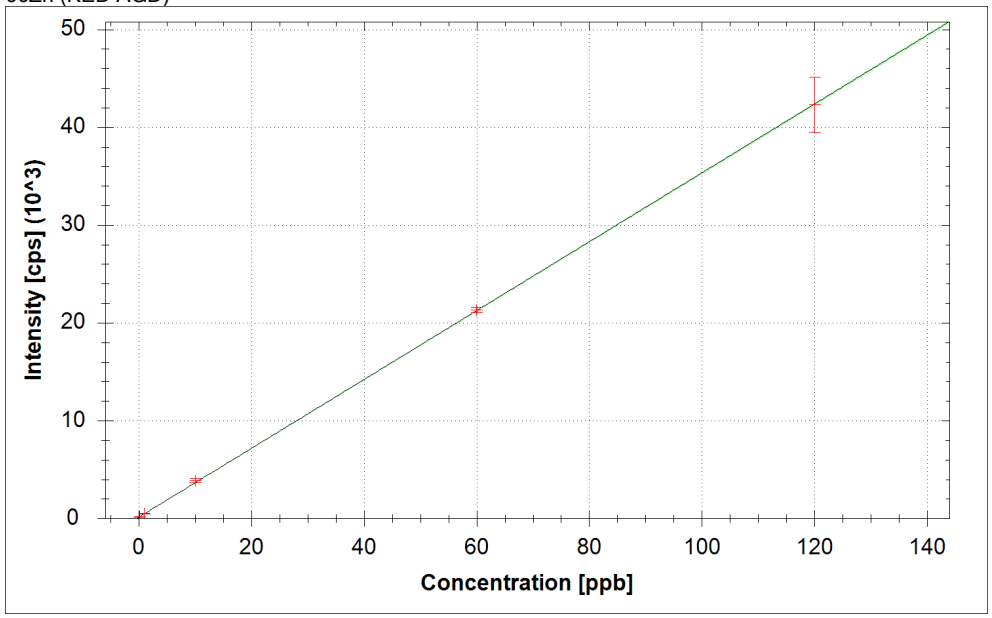
f(x) = 711.0657*x + 146.1898
R² = 0.9999
BEC = 0.206 ppb
LoD = 0.0609 ppb

65Cu (KED AGD)



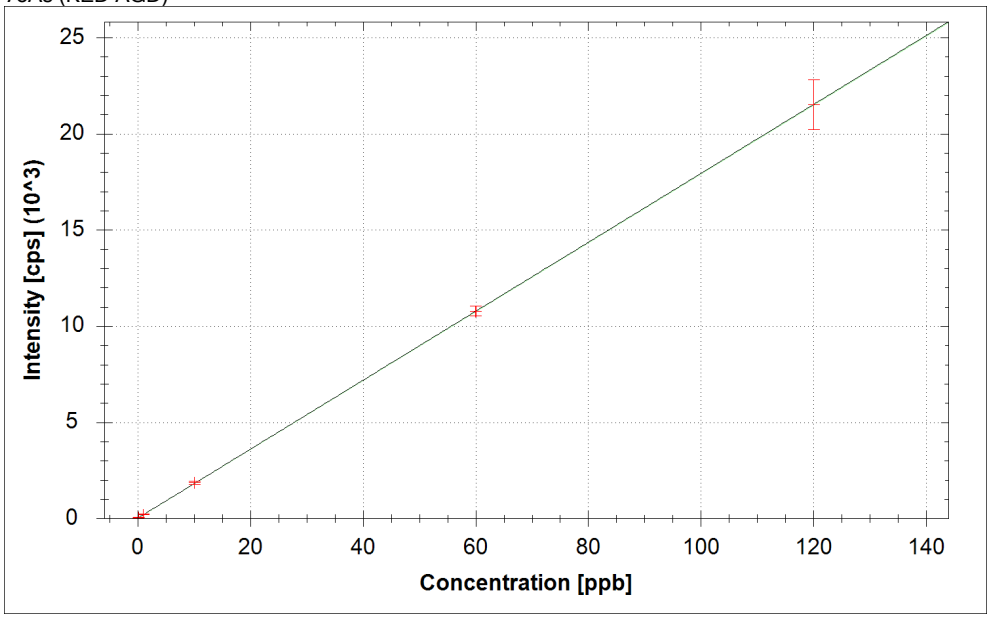
f(x) = 1033.4049*x + 230.9550
R² = 1.0000
BEC = 0.223 ppb
LoD = 0.1090 ppb

66Zn (KED AGD)



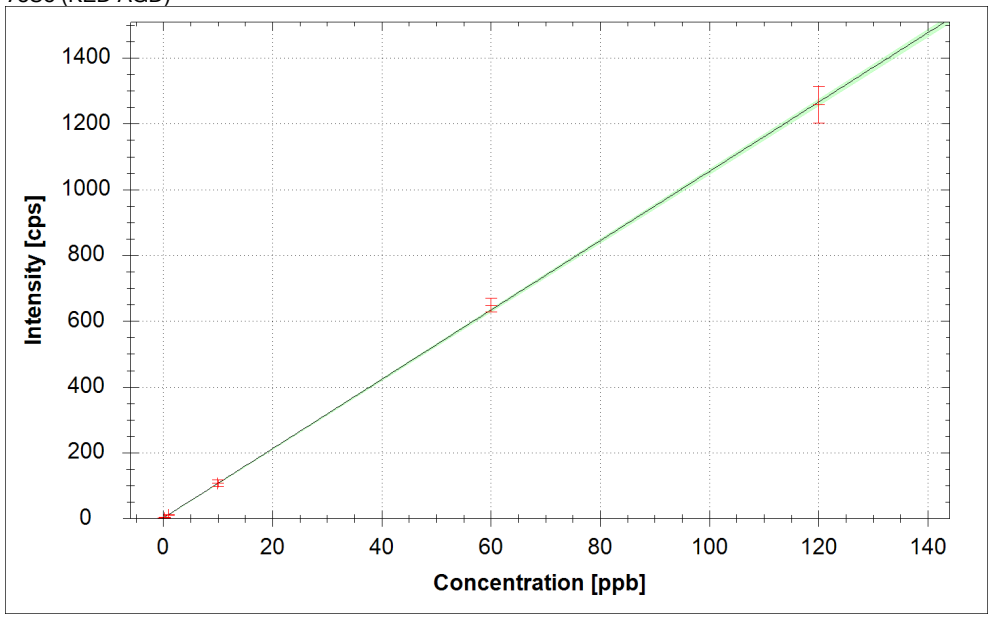
f(x) = 351.9252*x + 130.5494
R² = 1.0000
BEC = 0.371 ppb
LoD = 0.0593 ppb

75As (KED AGD)



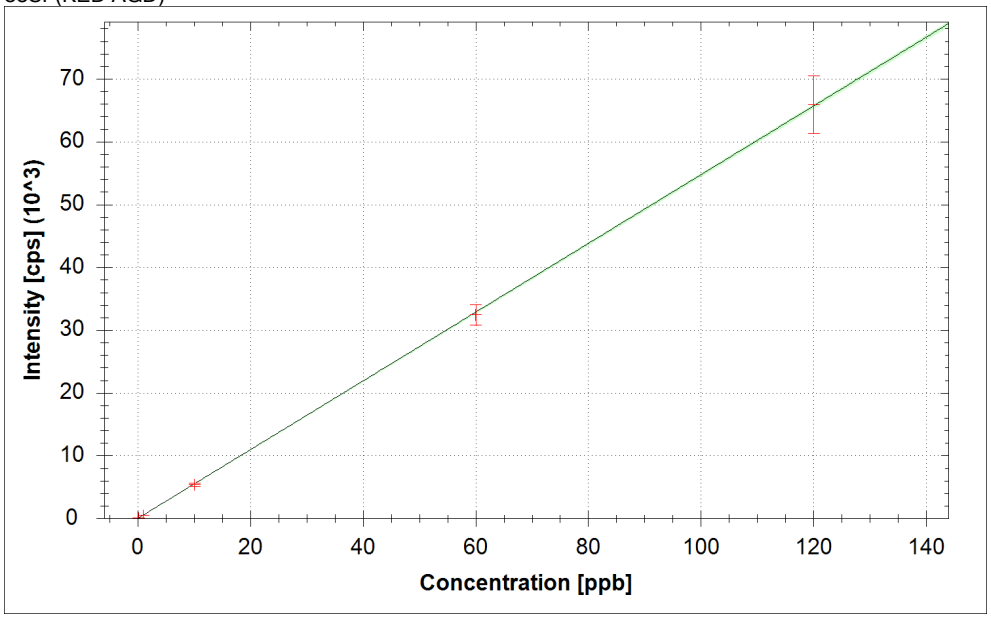
f(x) = 179.1511*x + 19.4622
R² = 1.0000
BEC = 0.109 ppb
LoD = 0.0543 ppb

78Se (KED AGD)



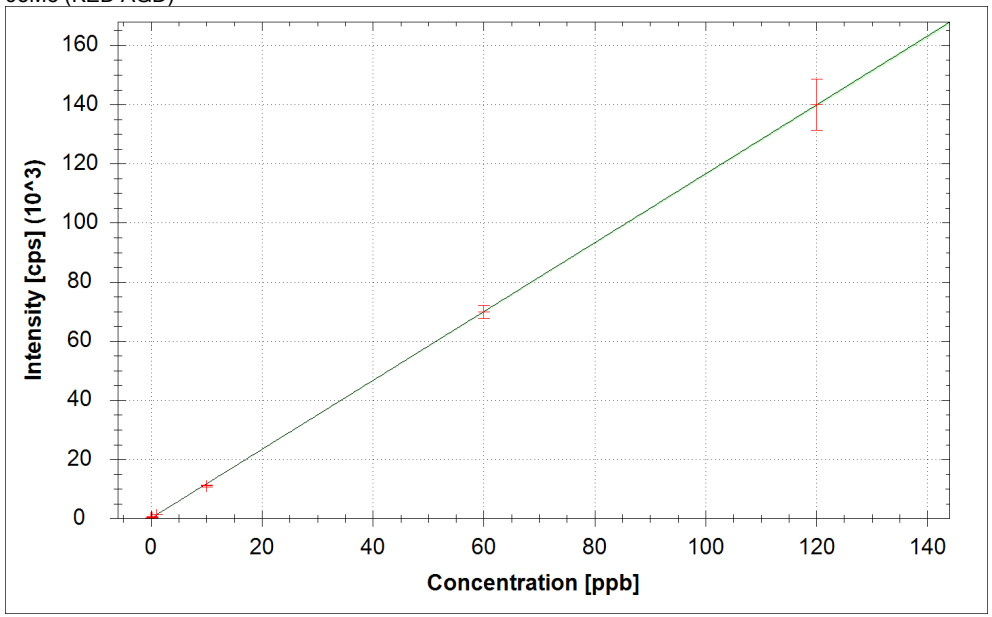
f(x) = 10.5347*x + 1.2032
R² = 0.9998
BEC = 0.114 ppb
LoD = 0.1414 ppb

88Sr (KED AGD)



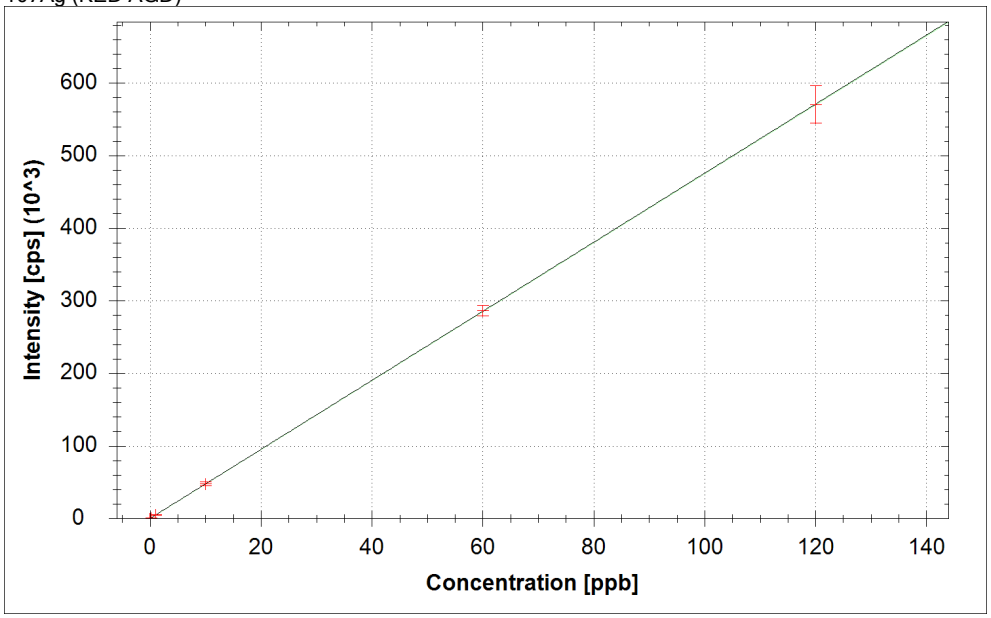
f(x) = 547.0436*x + 21.5981
R² = 0.9999
BEC = 0.039 ppb
LoD = 0.0111 ppb

95Mo (KED AGD)



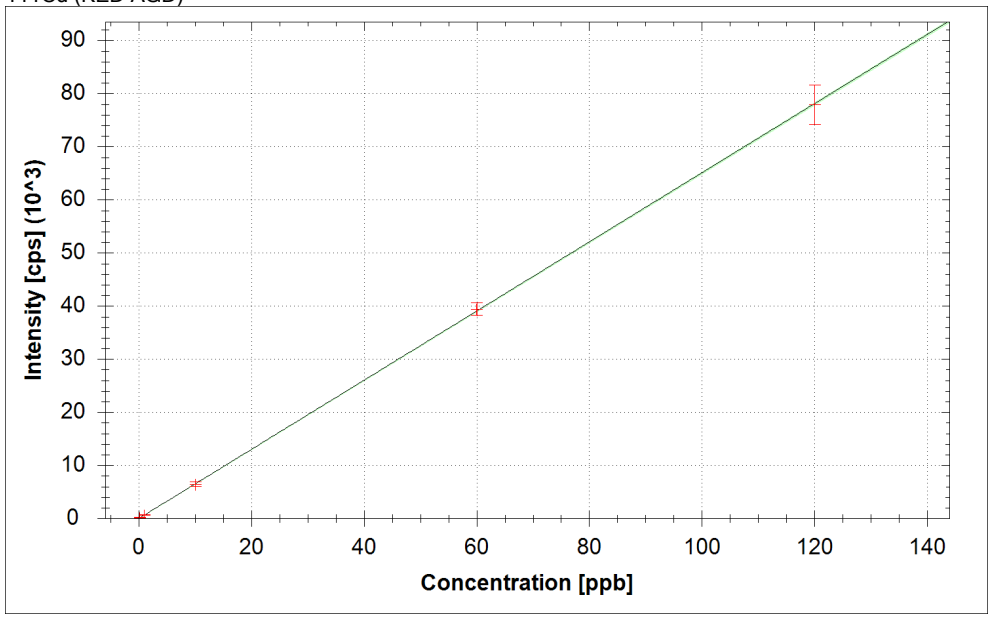
f(x) = 1164.4379*x + 80.5717
R² = 1.0000
BEC = 0.069 ppb
LoD = 0.0951 ppb

107Ag (KED AGD)



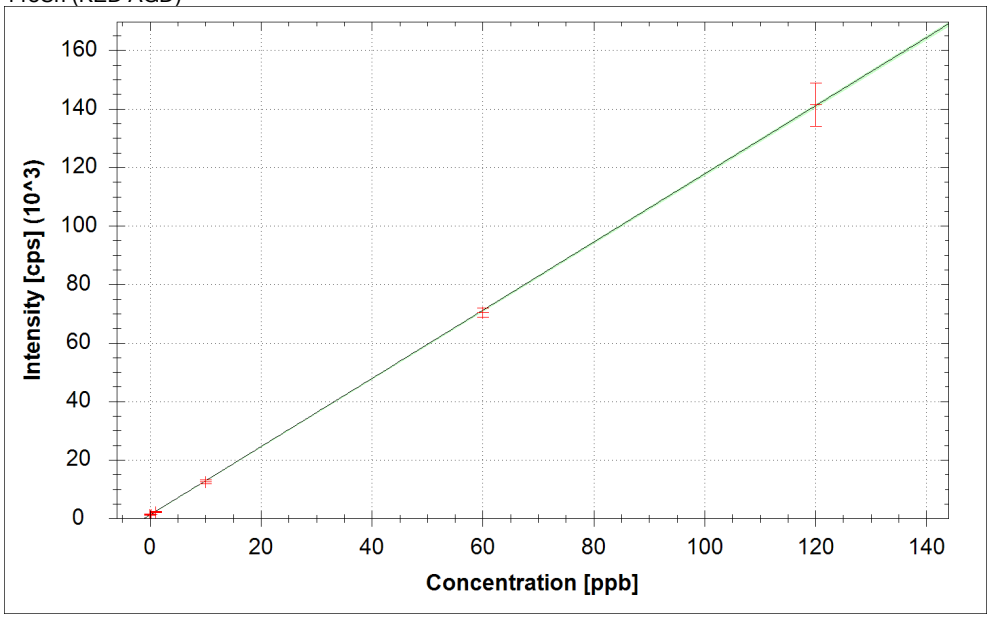
f(x) = 4755.0265*x + 35.4194
R² = 1.0000
BEC = 0.007 ppb
LoD = 0.0082 ppb

111Cd (KED AGD)



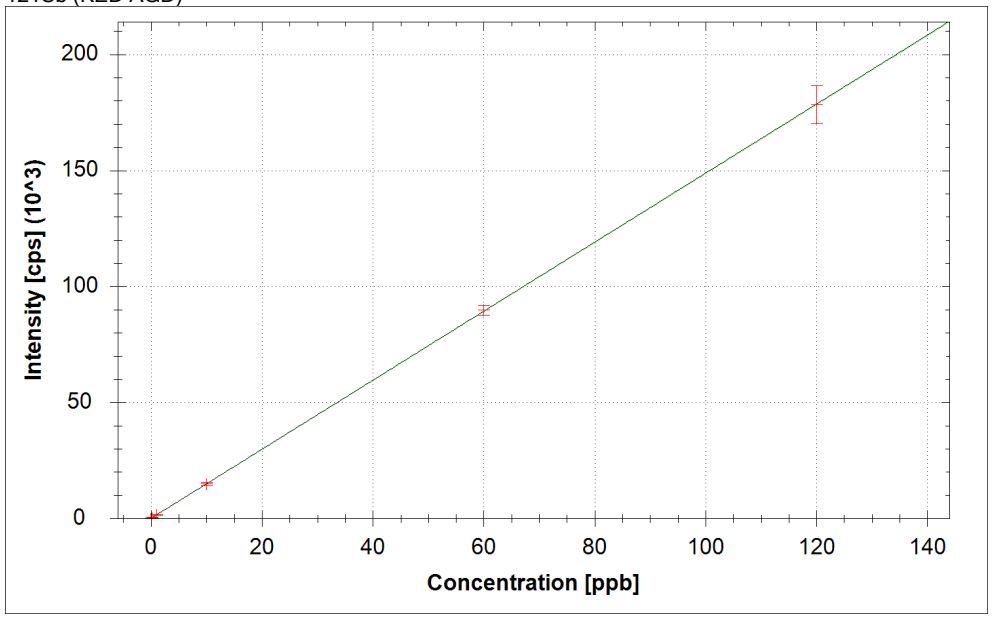
f(x) = 650.7674*x + 0.8784
R² = 1.0000
BEC = 0.001 ppb
LoD = 0.0035 ppb

118Sn (KED AGD)



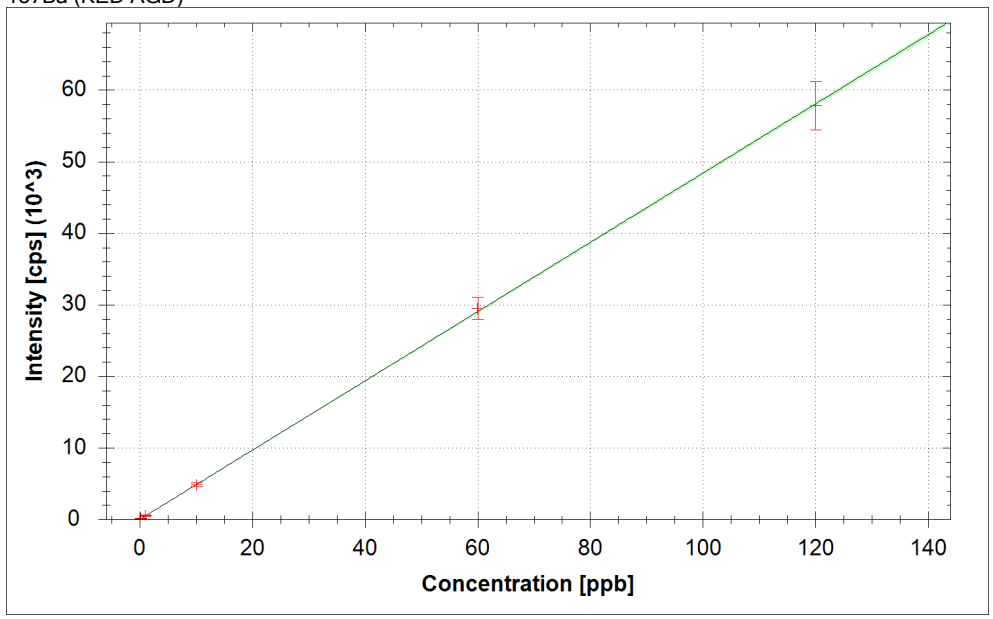
f(x) = 1165.0200*x + 1231.4053
R² = 0.9999
BEC = 1.057 ppb
LoD = 0.4773 ppb

121Sb (KED AGD)



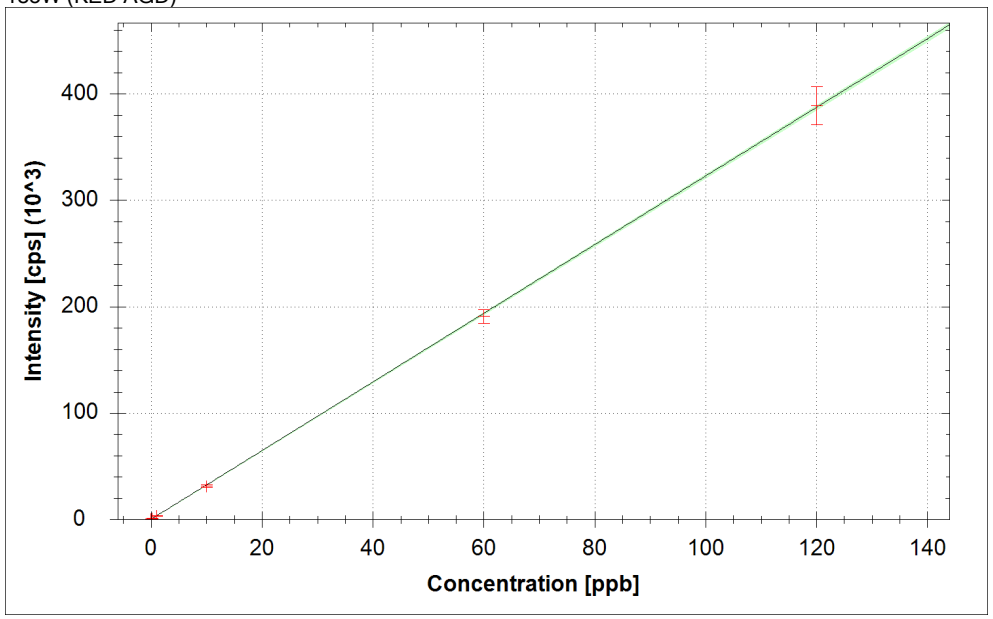
f(x) = 1487.3174*x + 58.9069
R² = 1.0000
BEC = 0.040 ppb
LoD = 0.0344 ppb

137Ba (KED AGD)



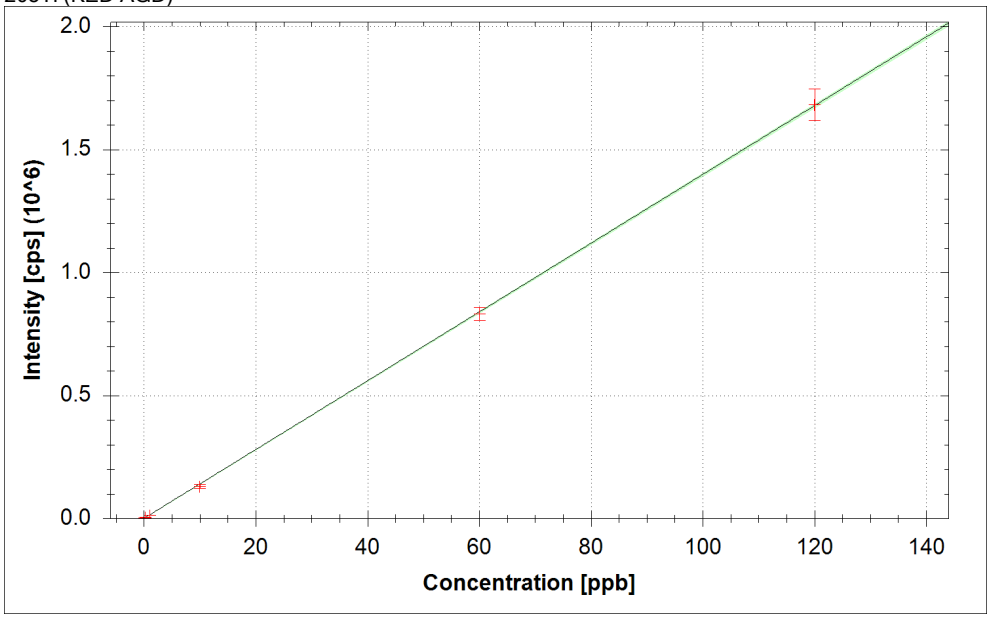
f(x) = 483.5101*x + 15.7315
R² = 0.9999
BEC = 0.033 ppb
LoD = 0.0464 ppb

183W (KED AGD)



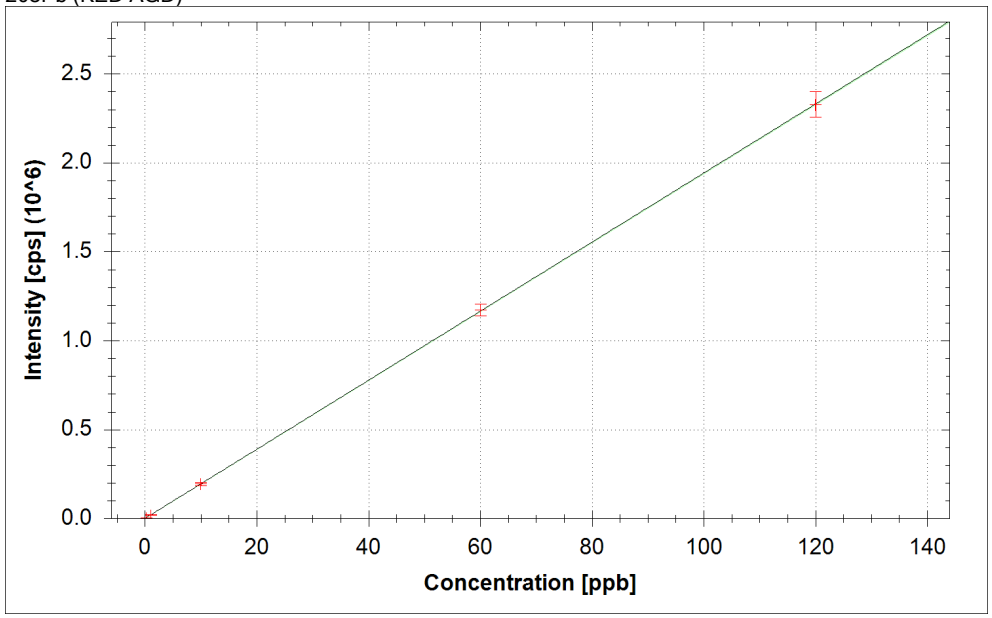
f(x) = 3225.0315*x + 205.9525
R² = 0.9999
BEC = 0.064 ppb
LoD = 0.0333 ppb

205Tl (KED AGD)



f(x) = 13978.2521*x + 533.0863
R² = 0.9999
BEC = 0.038 ppb
LoD = 0.0369 ppb

208Pb (KED AGD)



f(x) = 19413.3054*x + 413.3480
R² = 1.0000
BEC = 0.021 ppb
LoD = 0.0022 ppb

Standards:

Analysis Index:	4
Analysis Name:	x0.2/20 Cal
Analysis Type:	STD
Analysis Started at:	8/21/2024 5:11:05 AM
Total Dilution Factor	50000
Rack	0
Vial	2

Standards:

Analysis Index: 5
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:15:31 AM
Total Dilution Factor 50000
Rack 0
Vial 3

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	99.726 %	0.1 %		0.000 %
6Li (KED AGD)	94.185 %	6.9 %		0.000 %
9Be (STD AGD)	0.216 ppb	5.0 %	0.200 ppb	8.010 %
23Na (KED AGD)	15.907 ppb	33.2 %	20.000 ppb	20.465 %
24Mg (KED AGD)	17.384 ppb	10.6 %	20.000 ppb	13.082 %
27Al (KED AGD)	0.372 ppb	45.8 %	0.200 ppb	85.817 %
39K (KED AGD)	20.576 ppb	30.2 %	20.000 ppb	2.880 %
44Ca (KED AGD)	6.600 ppb	202.5 %	20.000 ppb	66.998 %
45Sc (STD AGD)	101.269 %	0.7 %		0.000 %
51V (KED AGD)	0.216 ppb	18.0 %	0.200 ppb	8.119 %
52Cr (KED AGD)	0.156 ppb	26.2 %	0.200 ppb	21.815 %
55Mn (KED AGD)	0.206 ppb	49.6 %	0.200 ppb	3.240 %
57Fe (KED AGD)	22.111 ppb	15.7 %	20.000 ppb	10.556 %
59Co (KED AGD)	0.203 ppb	12.7 %	0.200 ppb	1.719 %
60Ni (KED AGD)	0.174 ppb	32.9 %	0.200 ppb	13.020 %
65Cu (KED AGD)	0.222 ppb	25.3 %	0.200 ppb	10.768 %
66Zn (KED AGD)	0.150 ppb	18.3 %	0.200 ppb	24.999 %
74Ge (KED AGD)	97.803 %	4.8 %		0.000 %
75As (KED AGD)	0.242 ppb	20.0 %	0.200 ppb	20.890 %
78Se (KED AGD)	0.106 ppb	34.6 %	0.200 ppb	47.135 %
88Sr (KED AGD)	0.183 ppb	5.0 %	0.200 ppb	8.636 %
95Mo (KED AGD)	0.262 ppb	46.8 %	0.200 ppb	31.020 %
103Rh (KED AGD)	99.260 %	3.2 %		0.000 %
107Ag (KED AGD)	0.194 ppb	6.6 %	0.200 ppb	2.834 %
111Cd (KED AGD)	0.206 ppb	14.4 %	0.200 ppb	2.814 %
115In (KED AGD)	97.845 %	6.2 %		0.000 %
118Sn (KED AGD)	0.032 ppb	233.5 %	0.200 ppb	83.865 %
121Sb (KED AGD)	0.178 ppb	11.1 %	0.200 ppb	11.007 %
137Ba (KED AGD)	0.200 ppb	28.5 %	0.200 ppb	0.248 %
159Tb (KED AGD)	98.672 %	2.9 %		0.000 %
175Lu (KED AGD)	99.127 %	4.5 %		0.000 %
183W (KED AGD)	0.175 ppb	11.9 %	0.200 ppb	12.380 %
205Tl (KED AGD)	0.205 ppb	10.7 %	0.200 ppb	2.491 %
208Pb (KED AGD)	0.198 ppb	1.6 %	0.200 ppb	0.995 %
209Bi (KED AGD)	97.724 %	2.8 %		0.000 %

Standards:

Analysis Index: 6
Analysis Name: 1/100 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:21:42 AM
Total Dilution Factor 10000
Rack 0
Vial 3

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	99.701 %	0.4 %		0.000 %
6Li (KED AGD)	96.251 %	7.7 %		0.000 %
9Be (STD AGD)	1.028 ppb	0.8 %	1.000 ppb	2.801 %
23Na (KED AGD)	88.553 ppb	17.8 %	100.000 ppb	11.447 %
24Mg (KED AGD)	91.403 ppb	6.4 %	100.000 ppb	8.597 %
27Al (KED AGD)	1.009 ppb	41.5 %	1.000 ppb	0.903 %
39K (KED AGD)	97.495 ppb	14.1 %	100.000 ppb	2.505 %
44Ca (KED AGD)	82.190 ppb	12.2 %	100.000 ppb	17.810 %
45Sc (STD AGD)	101.874 %	1.1 %		0.000 %
51V (KED AGD)	0.944 ppb	22.5 %	1.000 ppb	5.604 %
52Cr (KED AGD)	0.913 ppb	9.5 %	1.000 ppb	8.705 %
55Mn (KED AGD)	0.914 ppb	14.0 %	1.000 ppb	8.580 %
57Fe (KED AGD)	103.261 ppb	11.2 %	100.000 ppb	3.261 %
59Co (KED AGD)	1.004 ppb	2.8 %	1.000 ppb	0.363 %
60Ni (KED AGD)	0.953 ppb	17.3 %	1.000 ppb	4.723 %
65Cu (KED AGD)	0.957 ppb	9.2 %	1.000 ppb	4.348 %
66Zn (KED AGD)	1.007 ppb	8.6 %	1.000 ppb	0.732 %
74Ge (KED AGD)	96.912 %	4.8 %		0.000 %
75As (KED AGD)	1.031 ppb	14.0 %	1.000 ppb	3.059 %
78Se (KED AGD)	0.915 ppb	14.5 %	1.000 ppb	8.473 %
88Sr (KED AGD)	0.929 ppb	2.6 %	1.000 ppb	7.057 %
95Mo (KED AGD)	1.024 ppb	8.6 %	1.000 ppb	2.414 %
103Rh (KED AGD)	97.919 %	2.1 %		0.000 %
107Ag (KED AGD)	1.003 ppb	3.4 %	1.000 ppb	0.301 %
111Cd (KED AGD)	0.969 ppb	2.0 %	1.000 ppb	3.051 %
115In (KED AGD)	94.944 %	3.2 %		0.000 %
118Sn (KED AGD)	0.808 ppb	24.3 %	1.000 ppb	19.235 %
121Sb (KED AGD)	0.961 ppb	3.8 %	1.000 ppb	3.892 %
137Ba (KED AGD)	1.048 ppb	15.7 %	1.000 ppb	4.767 %
159Tb (KED AGD)	98.591 %	2.7 %		0.000 %
175Lu (KED AGD)	99.295 %	2.8 %		0.000 %
183W (KED AGD)	0.952 ppb	6.3 %	1.000 ppb	4.758 %
205Tl (KED AGD)	0.869 ppb	8.1 %	1.000 ppb	13.113 %
208Pb (KED AGD)	0.945 ppb	6.4 %	1.000 ppb	5.485 %
209Bi (KED AGD)	101.984 %	4.9 %		0.000 %

Standards:

Analysis Index: 7
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:26:09 AM
Total Dilution Factor 1000
Rack 0
Vial 4

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	104.653 %	5.1 %		0.000 %
6Li (KED AGD)	94.797 %	5.3 %		0.000 %
9Be (STD AGD)	9.444 ppb	8.6 %	10.000 ppb	5.559 %
23Na (KED AGD)	998.493 ppb	7.3 %	1,000.000 ppb	0.151 %
24Mg (KED AGD)	1,002.373 ppb	6.6 %	1,000.000 ppb	0.237 %
27Al (KED AGD)	10.727 ppb	17.5 %	10.000 ppb	7.265 %
39K (KED AGD)	1,002.266 ppb	3.1 %	1,000.000 ppb	0.227 %
44Ca (KED AGD)	968.612 ppb	8.0 %	1,000.000 ppb	3.139 %
45Sc (STD AGD)	110.139 %	5.4 %		0.000 %
51V (KED AGD)	10.285 ppb	5.5 %	10.000 ppb	2.851 %
52Cr (KED AGD)	10.131 ppb	5.2 %	10.000 ppb	1.311 %
55Mn (KED AGD)	10.277 ppb	0.9 %	10.000 ppb	2.772 %
57Fe (KED AGD)	1,027.124 ppb	6.2 %	1,000.000 ppb	2.712 %
59Co (KED AGD)	10.609 ppb	4.9 %	10.000 ppb	6.091 %
60Ni (KED AGD)	10.474 ppb	8.6 %	10.000 ppb	4.741 %
65Cu (KED AGD)	10.415 ppb	4.0 %	10.000 ppb	4.145 %
66Zn (KED AGD)	10.645 ppb	4.7 %	10.000 ppb	6.454 %
74Ge (KED AGD)	95.702 %	1.5 %		0.000 %
75As (KED AGD)	10.272 ppb	4.3 %	10.000 ppb	2.716 %
78Se (KED AGD)	9.982 ppb	9.6 %	10.000 ppb	0.176 %
88Sr (KED AGD)	9.749 ppb	4.1 %	10.000 ppb	2.510 %
95Mo (KED AGD)	9.386 ppb	3.2 %	10.000 ppb	6.136 %
103Rh (KED AGD)	96.807 %	2.9 %		0.000 %
107Ag (KED AGD)	10.042 ppb	5.1 %	10.000 ppb	0.425 %
111Cd (KED AGD)	9.862 ppb	6.4 %	10.000 ppb	1.383 %
115In (KED AGD)	93.956 %	3.9 %		0.000 %
118Sn (KED AGD)	9.663 ppb	6.4 %	10.000 ppb	3.374 %
121Sb (KED AGD)	9.899 ppb	5.2 %	10.000 ppb	1.007 %
137Ba (KED AGD)	9.923 ppb	6.3 %	10.000 ppb	0.773 %
159Tb (KED AGD)	97.573 %	1.9 %		0.000 %
175Lu (KED AGD)	97.508 %	1.5 %		0.000 %
183W (KED AGD)	9.630 ppb	3.5 %	10.000 ppb	3.698 %
205Tl (KED AGD)	9.280 ppb	6.4 %	10.000 ppb	7.200 %
208Pb (KED AGD)	9.929 ppb	4.7 %	10.000 ppb	0.709 %
209Bi (KED AGD)	97.816 %	2.6 %		0.000 %

Standards:

Analysis Index: 8
Analysis Name: 60/6000 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:30:37 AM
Total Dilution Factor 166.6666666
Rack 0
Vial 5

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	93.729 %	0.8 %		0.000 %
6Li (KED AGD)	87.529 %	4.0 %		0.000 %
9Be (STD AGD)	61.972 ppb	0.3 %	60.000 ppb	3.286 %
23Na (KED AGD)	6,273.934 ppb	4.9 %	6,000.000 ppb	4.566 %
24Mg (KED AGD)	6,234.650 ppb	6.6 %	6,000.000 ppb	3.911 %
27Al (KED AGD)	64.043 ppb	6.9 %	60.000 ppb	6.739 %
39K (KED AGD)	6,138.554 ppb	6.0 %	6,000.000 ppb	2.309 %
44Ca (KED AGD)	6,160.868 ppb	4.0 %	6,000.000 ppb	2.681 %
45Sc (STD AGD)	94.949 %	1.1 %		0.000 %
51V (KED AGD)	60.008 ppb	3.3 %	60.000 ppb	0.014 %
52Cr (KED AGD)	60.860 ppb	1.3 %	60.000 ppb	1.433 %
55Mn (KED AGD)	60.996 ppb	3.4 %	60.000 ppb	1.660 %
57Fe (KED AGD)	6,032.871 ppb	2.6 %	6,000.000 ppb	0.548 %
59Co (KED AGD)	60.670 ppb	1.8 %	60.000 ppb	1.117 %
60Ni (KED AGD)	60.713 ppb	1.5 %	60.000 ppb	1.189 %
65Cu (KED AGD)	60.559 ppb	3.2 %	60.000 ppb	0.932 %
66Zn (KED AGD)	60.198 ppb	1.3 %	60.000 ppb	0.330 %
74Ge (KED AGD)	95.682 %	3.8 %		0.000 %
75As (KED AGD)	60.007 ppb	2.4 %	60.000 ppb	0.012 %
78Se (KED AGD)	61.426 ppb	3.2 %	60.000 ppb	2.377 %
88Sr (KED AGD)	59.194 ppb	5.1 %	60.000 ppb	1.343 %
95Mo (KED AGD)	59.861 ppb	3.1 %	60.000 ppb	0.232 %
103Rh (KED AGD)	92.571 %	2.0 %		0.000 %
107Ag (KED AGD)	60.235 ppb	2.6 %	60.000 ppb	0.392 %
111Cd (KED AGD)	60.566 ppb	3.1 %	60.000 ppb	0.943 %
115In (KED AGD)	91.336 %	3.2 %		0.000 %
118Sn (KED AGD)	59.376 ppb	2.3 %	60.000 ppb	1.040 %
121Sb (KED AGD)	60.310 ppb	2.4 %	60.000 ppb	0.517 %
137Ba (KED AGD)	60.943 ppb	5.2 %	60.000 ppb	1.572 %
159Tb (KED AGD)	96.646 %	1.9 %		0.000 %
175Lu (KED AGD)	96.898 %	2.8 %		0.000 %
183W (KED AGD)	59.054 ppb	3.3 %	60.000 ppb	1.577 %
205Tl (KED AGD)	59.472 ppb	3.2 %	60.000 ppb	0.879 %
208Pb (KED AGD)	60.352 ppb	2.7 %	60.000 ppb	0.586 %
209Bi (KED AGD)	93.565 %	1.3 %		0.000 %

Standards:

Analysis Index: 9
Analysis Name: 120/12000 Cal
Analysis Type: STD
Analysis Started at: 8/21/2024 5:35:05 AM
Total Dilution Factor 83.33333333
Rack 0
Vial 6

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	90.266 %	0.1 %		0.000 %
6Li (KED AGD)	89.059 %	4.6 %		0.000 %
9Be (STD AGD)	119.060 ppb	1.9 %	120.000 ppb	0.783 %
23Na (KED AGD)	11,863.261 ppb	5.6 %	12,000.000 ppb	1.139 %
24Mg (KED AGD)	11,882.553 ppb	6.2 %	12,000.000 ppb	0.979 %
27Al (KED AGD)	117.917 ppb	6.2 %	120.000 ppb	1.736 %
39K (KED AGD)	11,930.554 ppb	5.2 %	12,000.000 ppb	0.579 %
44Ca (KED AGD)	11,922.353 ppb	7.3 %	12,000.000 ppb	0.647 %
45Sc (STD AGD)	99.245 %	1.4 %		0.000 %
51V (KED AGD)	119.972 ppb	6.9 %	120.000 ppb	0.023 %
52Cr (KED AGD)	119.560 ppb	6.0 %	120.000 ppb	0.367 %
55Mn (KED AGD)	119.480 ppb	7.4 %	120.000 ppb	0.434 %
57Fe (KED AGD)	11,981.273 ppb	5.6 %	12,000.000 ppb	0.156 %
59Co (KED AGD)	119.614 ppb	7.5 %	120.000 ppb	0.322 %
60Ni (KED AGD)	119.604 ppb	7.4 %	120.000 ppb	0.330 %
65Cu (KED AGD)	119.686 ppb	6.4 %	120.000 ppb	0.261 %
66Zn (KED AGD)	119.847 ppb	6.6 %	120.000 ppb	0.127 %
74Ge (KED AGD)	90.402 %	5.5 %		0.000 %
75As (KED AGD)	119.974 ppb	6.1 %	120.000 ppb	0.022 %
78Se (KED AGD)	119.289 ppb	4.5 %	120.000 ppb	0.592 %
88Sr (KED AGD)	120.425 ppb	7.0 %	120.000 ppb	0.354 %
95Mo (KED AGD)	120.120 ppb	6.2 %	120.000 ppb	0.100 %
103Rh (KED AGD)	87.932 %	3.6 %		0.000 %
107Ag (KED AGD)	119.879 ppb	4.5 %	120.000 ppb	0.101 %
111Cd (KED AGD)	119.729 ppb	4.8 %	120.000 ppb	0.226 %
115In (KED AGD)	88.912 %	4.1 %		0.000 %
118Sn (KED AGD)	120.342 ppb	5.3 %	120.000 ppb	0.285 %
121Sb (KED AGD)	119.854 ppb	4.6 %	120.000 ppb	0.122 %
137Ba (KED AGD)	119.534 ppb	5.9 %	120.000 ppb	0.388 %
159Tb (KED AGD)	93.973 %	2.4 %		0.000 %
175Lu (KED AGD)	95.057 %	3.2 %		0.000 %
183W (KED AGD)	120.504 ppb	4.6 %	120.000 ppb	0.420 %
205Tl (KED AGD)	120.325 ppb	3.8 %	120.000 ppb	0.271 %
208Pb (KED AGD)	119.830 ppb	3.1 %	120.000 ppb	0.141 %
209Bi (KED AGD)	92.621 %	1.2 %		0.000 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	1	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/21/2024 4:57:42 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.042 %	104.744 %	0.022 ppb	14.100 ppb	-0.575 ppb	0.413 ppb	-0.212 ppb	-11.982 ppb	102.627 %
Concentration per Run 1	105.772 %	110.635 %	0.026 ppb	15.689 ppb	-0.103 ppb	0.223 ppb	0.138 ppb	-9.701 ppb	103.916 %
Concentration per Run 2	103.565 %	103.979 %	0.019 ppb	14.758 ppb	-0.270 ppb	0.454 ppb	1.550 ppb	-15.481 ppb	102.360 %
Concentration per Run 3	102.790 %	99.617 %	0.021 ppb	11.853 ppb	-1.353 ppb	0.563 ppb	-2.324 ppb	-10.764 ppb	101.604 %
Concentration RSD	1.5 %	5.3 %	16.4 %	14.2 %	118.1 %	42.0 %	926.0 %	25.7 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.030 ppb	0.009 ppb	0.058 ppb	6.549 ppb	0.016 ppb	0.422 ppb	0.178 ppb	1.716 ppb	102.984 %
Concentration per Run 1	0.040 ppb	0.001 ppb	0.012 ppb	5.854 ppb	0.021 ppb	0.474 ppb	0.221 ppb	1.666 ppb	106.907 %
Concentration per Run 2	0.046 ppb	0.013 ppb	0.117 ppb	5.433 ppb	0.012 ppb	0.434 ppb	0.155 ppb	1.702 ppb	104.026 %
Concentration per Run 3	0.004 ppb	0.012 ppb	0.045 ppb	8.361 ppb	0.013 ppb	0.357 ppb	0.157 ppb	1.782 ppb	98.020 %
Concentration RSD	76.4 %	80.0 %	92.9 %	24.2 %	31.6 %	14.1 %	21.1 %	3.5 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.012 ppb	-0.043 ppb	-0.004 ppb	0.050 ppb	102.669 %	0.009 ppb	-0.001 ppb	102.521 %	-0.035 ppb
Concentration per Run 1	-0.009 ppb	0.042 ppb	0.003 ppb	0.027 ppb	107.258 %	0.008 ppb	-0.001 ppb	106.865 %	-0.147 ppb
Concentration per Run 2	0.021 ppb	-0.106 ppb	-0.007 ppb	0.021 ppb	100.400 %	0.016 ppb	0.001 ppb	100.651 %	0.012 ppb
Concentration per Run 3	0.024 ppb	-0.064 ppb	-0.008 ppb	0.103 ppb	100.349 %	0.004 ppb	-0.001 ppb	100.047 %	0.032 ppb
Concentration RSD	147.7 %	178.4 %	143.3 %	90.7 %	3.9 %	64.9 %	175.4 %	3.7 %	284.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.024 ppb	0.042 ppb	103.320 %	105.237 %	0.020 ppb	0.046 ppb	0.030 ppb	104.254 %
Concentration per Run 1	0.021 ppb	0.096 ppb	108.111 %	109.779 %	0.014 ppb	-0.014 ppb	0.029 ppb	109.262 %
Concentration per Run 2	0.028 ppb	-0.005 ppb	100.745 %	103.284 %	0.008 ppb	0.014 ppb	0.033 ppb	102.993 %
Concentration per Run 3	0.023 ppb	0.036 ppb	101.105 %	102.648 %	0.038 ppb	0.138 ppb	0.029 ppb	100.508 %
Concentration RSD	15.8 %	120.2 %	4.0 %	3.7 %	79.1 %	175.4 %	8.6 %	4.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	2	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CAL LOT #M24-1045	Rack	0		
Analysis started at:	8/21/2024 5:02:08 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.725 %	98.240 %	0.016 ppb	11.977 ppb	-0.437 ppb	0.375 ppb	3.459 ppb	-7.623 ppb	102.444 %
Concentration per Run 1	103.164 %	105.126 %	0.015 ppb	11.497 ppb	-0.557 ppb	0.728 ppb	7.984 ppb	-4.374 ppb	102.702 %
Concentration per Run 2	102.590 %	95.945 %	0.020 ppb	13.863 ppb	0.444 ppb	0.252 ppb	1.889 ppb	-9.573 ppb	102.400 %
Concentration per Run 3	102.422 %	93.650 %	0.012 ppb	10.570 ppb	-1.197 ppb	0.144 ppb	0.504 ppb	-8.921 ppb	102.229 %
Concentration RSD	0.4 %	6.2 %	25.7 %	14.2 %	189.4 %	82.9 %	115.0 %	37.2 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.019 ppb	0.006 ppb	0.075 ppb	7.854 ppb	0.008 ppb	0.509 ppb	0.077 ppb	1.576 ppb	102.944 %
Concentration per Run 1	0.017 ppb	0.028 ppb	0.022 ppb	9.479 ppb	0.007 ppb	0.593 ppb	0.027 ppb	1.467 ppb	108.846 %
Concentration per Run 2	0.052 ppb	-0.020 ppb	0.083 ppb	7.444 ppb	0.008 ppb	0.498 ppb	0.062 ppb	1.656 ppb	102.673 %
Concentration per Run 3	-0.011 ppb	0.011 ppb	0.120 ppb	6.640 ppb	0.008 ppb	0.435 ppb	0.143 ppb	1.604 ppb	97.313 %
Concentration RSD	160.7 %	400.7 %	65.7 %	18.6 %	9.4 %	15.6 %	77.4 %	6.2 %	5.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.018 ppb	-0.087 ppb	-0.002 ppb	-0.011 ppb	100.512 %	0.005 ppb	0.002 ppb	101.192 %	-0.092 ppb
Concentration per Run 1	0.016 ppb	-0.112 ppb	-0.001 ppb	-0.020 ppb	103.088 %	0.009 ppb	-0.001 ppb	106.234 %	-0.119 ppb
Concentration per Run 2	0.023 ppb	-0.113 ppb	-0.004 ppb	-0.006 ppb	98.855 %	0.002 ppb	0.001 ppb	99.158 %	-0.036 ppb
Concentration per Run 3	0.016 ppb	-0.037 ppb	0.000 ppb	-0.006 ppb	99.592 %	0.005 ppb	0.007 ppb	98.185 %	-0.123 ppb
Concentration RSD	23.7 %	50.2 %	125.7 %	77.2 %	2.2 %	69.7 %	205.1 %	4.3 %	53.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.018 ppb	0.042 ppb	101.480 %	101.826 %	0.007 ppb	0.005 ppb	0.024 ppb	100.689 %
Concentration per Run 1	0.018 ppb	0.039 ppb	104.570 %	105.693 %	-0.013 ppb	-0.011 ppb	0.025 ppb	104.814 %
Concentration per Run 2	0.024 ppb	0.058 ppb	99.510 %	99.433 %	0.017 ppb	0.011 ppb	0.023 ppb	99.452 %
Concentration per Run 3	0.013 ppb	0.030 ppb	100.361 %	100.353 %	0.017 ppb	0.014 ppb	0.023 ppb	97.799 %
Concentration RSD	28.7 %	33.3 %	2.7 %	3.3 %	255.5 %	283.0 %	3.6 %	3.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	3	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Blank EJF ICPMSQ2	Rack	4		
Analysis started at:	8/21/2024 5:06:34 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.0 %	0.2 %	0.2 %	0.1 %	0.2 %	0.7 %	0.1 %	0.3 %	0.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.2 %	0.1 %	0.3 %	0.4 %	0.5 %	0.1 %	0.2 %	0.1 %	0.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration RSD	0.2 %	0.4 %	0.1 %	0.5 %	0.0 %	0.4 %	0.9 %	0.1 %	0.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	0.000 ppb	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.3 %	0.5 %	0.0 %	0.0 %	0.2 %	0.3 %	0.0 %	0.0 %

Analysis index:	4	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	x0.2/20 Cal	Rack	0		
Analysis started at:	8/21/2024 5:11:05 AM	Vial	2		

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	5	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	0.2/20 Cal	Rack	0		
Analysis started at:	8/21/2024 5:15:31 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.726 %	94.185 %	0.216 ppb	15.907 ppb	17.384 ppb	0.372 ppb	20.576 ppb	6.600 ppb	101.269 %
Concentration per Run 1	99.761 %	101.683 %	0.225 ppb	10.259 ppb	18.665 ppb	0.568 ppb	25.151 ppb	21.906 ppb	102.085 %
Concentration per Run 2	99.812 %	89.977 %	0.219 ppb	20.702 ppb	18.207 ppb	0.283 ppb	23.074 ppb	0.666 ppb	100.900 %
Concentration per Run 3	99.605 %	90.895 %	0.204 ppb	16.760 ppb	15.278 ppb	0.263 ppb	13.503 ppb	-2.771 ppb	100.821 %
Concentration RSD	0.1 %	6.9 %	5.0 %	33.2 %	10.6 %	45.8 %	30.2 %	202.5 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.216 ppb	0.156 ppb	0.206 ppb	22.111 ppb	0.203 ppb	0.174 ppb	0.222 ppb	0.150 ppb	97.803 %
Concentration per Run 1	0.261 ppb	0.172 ppb	0.111 ppb	19.446 ppb	0.192 ppb	0.206 ppb	0.210 ppb	0.123 ppb	102.874 %
Concentration per Run 2	0.193 ppb	0.110 ppb	0.315 ppb	20.862 ppb	0.233 ppb	0.209 ppb	0.282 ppb	0.178 ppb	93.569 %
Concentration per Run 3	0.194 ppb	0.187 ppb	0.194 ppb	26.026 ppb	0.185 ppb	0.108 ppb	0.172 ppb	0.149 ppb	96.966 %
Concentration RSD	18.0 %	26.2 %	49.6 %	15.7 %	12.7 %	32.9 %	25.3 %	18.3 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.242 ppb	0.106 ppb	0.183 ppb	0.262 ppb	99.260 %	0.194 ppb	0.206 ppb	97.845 %	0.032 ppb
Concentration per Run 1	0.253 ppb	0.144 ppb	0.187 ppb	0.399 ppb	102.823 %	0.193 ppb	0.183 ppb	104.885 %	-0.054 ppb
Concentration per Run 2	0.283 ppb	0.071 ppb	0.189 ppb	0.161 ppb	98.039 %	0.208 ppb	0.194 ppb	94.076 %	0.086 ppb
Concentration per Run 3	0.189 ppb	0.102 ppb	0.172 ppb	0.226 ppb	96.918 %	0.182 ppb	0.239 ppb	94.574 %	0.064 ppb
Concentration RSD	20.0 %	34.6 %	5.0 %	46.8 %	3.2 %	6.6 %	14.4 %	6.2 %	233.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.178 ppb	0.200 ppb	98.672 %	99.127 %	0.175 ppb	0.205 ppb	0.198 ppb	97.724 %
Concentration per Run 1	0.157 ppb	0.141 ppb	101.839 %	104.116 %	0.153 ppb	0.187 ppb	0.195 ppb	100.870 %
Concentration per Run 2	0.181 ppb	0.255 ppb	97.991 %	97.826 %	0.177 ppb	0.199 ppb	0.201 ppb	96.647 %
Concentration per Run 3	0.196 ppb	0.206 ppb	96.188 %	95.439 %	0.195 ppb	0.229 ppb	0.198 ppb	95.655 %
Concentration RSD	11.1 %	28.5 %	2.9 %	4.5 %	11.9 %	10.7 %	1.6 %	2.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	6	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	1/100 Cal	Rack	0		
Analysis started at:	8/21/2024 5:21:42 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.701 %	96.251 %	1.028 ppb	88.553 ppb	91.403 ppb	1.009 ppb	97.495 ppb	82.190 ppb	101.874 %
Concentration per Run 1	99.319 %	98.699 %	1.026 ppb	77.726 ppb	85.162 ppb	0.556 ppb	85.358 ppb	74.460 ppb	101.185 %
Concentration per Run 2	100.055 %	87.911 %	1.038 ppb	106.645 ppb	96.835 ppb	1.380 ppb	112.391 ppb	93.505 ppb	101.312 %
Concentration per Run 3	99.728 %	102.142 %	1.020 ppb	81.288 ppb	92.212 ppb	1.091 ppb	94.735 ppb	78.606 ppb	103.124 %
Concentration RSD	0.4 %	7.7 %	0.8 %	17.8 %	6.4 %	41.5 %	14.1 %	12.2 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.944 ppb	0.913 ppb	0.914 ppb	103.261 ppb	1.004 ppb	0.953 ppb	0.957 ppb	1.007 ppb	96.912 %
Concentration per Run 1	0.709 ppb	0.834 ppb	0.768 ppb	90.258 ppb	0.974 ppb	0.786 ppb	0.865 ppb	0.907 ppb	101.773 %
Concentration per Run 2	1.121 ppb	1.005 ppb	1.008 ppb	112.282 ppb	1.029 ppb	1.116 ppb	1.041 ppb	1.055 ppb	92.450 %
Concentration per Run 3	1.001 ppb	0.899 ppb	0.967 ppb	107.245 ppb	1.008 ppb	0.956 ppb	0.964 ppb	1.060 ppb	96.513 %
Concentration RSD	22.5 %	9.5 %	14.0 %	11.2 %	2.8 %	17.3 %	9.2 %	8.6 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.031 ppb	0.915 ppb	0.929 ppb	1.024 ppb	97.919 %	1.003 ppb	0.969 ppb	94.944 %	0.808 ppb
Concentration per Run 1	0.943 ppb	0.801 ppb	0.910 ppb	0.950 ppb	100.121 %	0.968 ppb	0.976 ppb	98.309 %	0.581 ppb
Concentration per Run 2	0.952 ppb	1.060 ppb	0.922 ppb	1.002 ppb	96.172 %	1.005 ppb	0.947 ppb	92.494 %	0.918 ppb
Concentration per Run 3	1.197 ppb	0.885 ppb	0.956 ppb	1.121 ppb	97.465 %	1.036 ppb	0.985 ppb	94.027 %	0.924 ppb
Concentration RSD	14.0 %	14.5 %	2.6 %	8.6 %	2.1 %	3.4 %	2.0 %	3.2 %	24.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.961 ppb	1.048 ppb	98.591 %	99.295 %	0.952 ppb	0.869 ppb	0.945 ppb	101.984 %
Concentration per Run 1	0.922 ppb	0.886 ppb	101.425 %	102.458 %	0.886 ppb	0.788 ppb	0.879 ppb	107.657 %
Concentration per Run 2	0.967 ppb	1.043 ppb	96.034 %	97.273 %	1.005 ppb	0.899 ppb	0.961 ppb	99.984 %
Concentration per Run 3	0.994 ppb	1.215 ppb	98.315 %	98.153 %	0.966 ppb	0.920 ppb	0.996 ppb	98.312 %
Concentration RSD	3.8 %	15.7 %	2.7 %	2.8 %	6.3 %	8.1 %	6.4 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	7	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	10/1000 Cal	Rack	0		
Analysis started at:	8/21/2024 5:26:09 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.653 %	94.797 %	9.444 ppb	998.493 ppb	1,002.373 ppb	10.727 ppb	1,002.266 ppb	968.612 ppb	110.139 %
Concentration per Run 1	110.117 %	100.536 %	8.557 ppb	916.216 ppb	926.093 ppb	8.867 ppb	975.878 ppb	880.010 ppb	115.931 %
Concentration per Run 2	104.337 %	91.354 %	9.623 ppb	1,024.581 ppb	1,034.049 ppb	10.689 ppb	994.850 ppb	1,003.095 ppb	110.398 %
Concentration per Run 3	99.506 %	92.502 %	10.152 ppb	1,054.682 ppb	1,046.977 ppb	12.624 ppb	1,036.072 ppb	1,022.733 ppb	104.088 %
Concentration RSD	5.1 %	5.3 %	8.6 %	7.3 %	6.6 %	17.5 %	3.1 %	8.0 %	5.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	10.285 ppb	10.131 ppb	10.277 ppb	1,027.124 ppb	10.609 ppb	10.474 ppb	10.415 ppb	10.645 ppb	95.702 %
Concentration per Run 1	9.639 ppb	9.532 ppb	10.175 ppb	953.628 ppb	10.059 ppb	9.459 ppb	9.929 ppb	10.114 ppb	97.346 %
Concentration per Run 2	10.497 ppb	10.336 ppb	10.336 ppb	1,068.055 ppb	10.686 ppb	10.775 ppb	10.686 ppb	10.704 ppb	95.157 %
Concentration per Run 3	10.718 ppb	10.525 ppb	10.321 ppb	1,059.689 ppb	11.082 ppb	11.188 ppb	10.628 ppb	11.119 ppb	94.603 %
Concentration RSD	5.5 %	5.2 %	0.9 %	6.2 %	4.9 %	8.6 %	4.0 %	4.7 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	10.272 ppb	9.982 ppb	9.749 ppb	9.386 ppb	96.807 %	10.042 ppb	9.862 ppb	93.956 %	9.663 ppb
Concentration per Run 1	9.850 ppb	10.519 ppb	9.287 ppb	9.083 ppb	100.063 %	9.455 ppb	9.136 ppb	98.169 %	8.957 ppb
Concentration per Run 2	10.734 ppb	8.872 ppb	9.950 ppb	9.401 ppb	95.376 %	10.427 ppb	10.136 ppb	91.866 %	10.130 ppb
Concentration per Run 3	10.231 ppb	10.556 ppb	10.010 ppb	9.674 ppb	94.983 %	10.246 ppb	10.314 ppb	91.833 %	9.901 ppb
Concentration RSD	4.3 %	9.6 %	4.1 %	3.2 %	2.9 %	5.1 %	6.4 %	3.9 %	6.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	9.899 ppb	9.923 ppb	97.573 %	97.508 %	9.630 ppb	9.280 ppb	9.929 ppb	97.816 %
Concentration per Run 1	9.315 ppb	9.228 ppb	99.741 %	99.055 %	9.245 ppb	8.626 ppb	9.397 ppb	100.712 %
Concentration per Run 2	10.262 ppb	10.430 ppb	96.356 %	96.245 %	9.875 ppb	9.421 ppb	10.135 ppb	96.410 %
Concentration per Run 3	10.121 ppb	10.110 ppb	96.623 %	97.224 %	9.771 ppb	9.794 ppb	10.255 ppb	96.325 %
Concentration RSD	5.2 %	6.3 %	1.9 %	1.5 %	3.5 %	6.4 %	4.7 %	2.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	8	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	60/6000 Cal	Rack	0		
Analysis started at:	8/21/2024 5:30:37 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.729 %	87.529 %	61.972 ppb	6,273.934 ppb	6,234.650 ppb	64.043 ppb	6,138.554 ppb	6,160.868 ppb	94.949 %
Concentration per Run 1	94.177 %	85.616 %	61.966 ppb	6,088.953 ppb	6,019.344 ppb	59.628 ppb	5,920.927 ppb	5,934.966 ppb	94.397 %
Concentration per Run 2	94.109 %	85.386 %	61.781 ppb	6,627.825 ppb	6,708.147 ppb	68.439 ppb	6,564.912 ppb	6,419.117 ppb	96.169 %
Concentration per Run 3	92.901 %	91.584 %	62.169 ppb	6,105.025 ppb	5,976.458 ppb	64.064 ppb	5,929.822 ppb	6,128.521 ppb	94.280 %
Concentration RSD	0.8 %	4.0 %	0.3 %	4.9 %	6.6 %	6.9 %	6.0 %	4.0 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.008 ppb	60.860 ppb	60.996 ppb	6,032.871 ppb	60.670 ppb	60.713 ppb	60.559 ppb	60.198 ppb	95.682 %
Concentration per Run 1	57.774 ppb	59.965 ppb	58.681 ppb	5,854.431 ppb	59.469 ppb	60.541 ppb	59.062 ppb	59.305 ppb	94.605 %
Concentration per Run 2	61.624 ppb	61.416 ppb	62.754 ppb	6,149.808 ppb	60.978 ppb	59.927 ppb	59.893 ppb	60.884 ppb	99.739 %
Concentration per Run 3	60.626 ppb	61.199 ppb	61.554 ppb	6,094.375 ppb	61.563 ppb	61.672 ppb	62.723 ppb	60.406 ppb	92.702 %
Concentration RSD	3.3 %	1.3 %	3.4 %	2.6 %	1.8 %	1.5 %	3.2 %	1.3 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	60.007 ppb	61.426 ppb	59.194 ppb	59.861 ppb	92.571 %	60.235 ppb	60.566 ppb	91.336 %	59.376 ppb
Concentration per Run 1	58.529 ppb	59.134 ppb	56.092 ppb	57.781 ppb	94.111 %	58.493 ppb	58.446 ppb	90.782 %	57.858 ppb
Concentration per Run 2	60.083 ppb	62.721 ppb	62.176 ppb	61.397 ppb	93.084 %	60.796 ppb	61.313 ppb	94.508 %	59.851 ppb
Concentration per Run 3	61.409 ppb	62.424 ppb	59.314 ppb	60.404 ppb	90.518 %	61.417 ppb	61.938 ppb	88.718 %	60.419 ppb
Concentration RSD	2.4 %	3.2 %	5.1 %	3.1 %	2.0 %	2.6 %	3.1 %	3.2 %	2.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.310 ppb	60.943 ppb	96.646 %	96.898 %	59.054 ppb	59.472 ppb	60.352 ppb	93.565 %
Concentration per Run 1	58.743 ppb	57.581 ppb	97.621 %	96.356 %	57.128 ppb	57.675 ppb	58.456 ppb	93.894 %
Concentration per Run 2	61.601 ppb	63.858 ppb	97.748 %	99.860 %	59.011 ppb	59.318 ppb	61.131 ppb	94.568 %
Concentration per Run 3	60.587 ppb	61.390 ppb	94.567 %	94.477 %	61.023 ppb	61.424 ppb	61.468 ppb	92.232 %
Concentration RSD	2.4 %	5.2 %	1.9 %	2.8 %	3.3 %	3.2 %	2.7 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	9	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	120/12000 Cal	Rack	0		
Analysis started at:	8/21/2024 5:35:05 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.266 %	89.059 %	119.060 ppb	11,863.261 ppb	11,882.553 ppb	117.917 ppb	11,930.554 ppb	11,922.353 ppb	99.245 %
Concentration per Run 1	90.218 %	89.747 %	121.676 ppb	11,258.255 ppb	11,135.858 ppb	110.541 ppb	11,259.096 ppb	10,991.302 ppb	98.823 %
Concentration per Run 2	90.272 %	92.731 %	118.232 ppb	11,749.877 ppb	11,902.539 ppb	118.038 ppb	12,065.899 ppb	12,067.896 ppb	98.098 %
Concentration per Run 3	90.309 %	84.698 %	117.273 ppb	12,581.649 ppb	12,609.264 ppb	125.173 ppb	12,466.667 ppb	12,707.859 ppb	100.815 %
Concentration RSD	0.1 %	4.6 %	1.9 %	5.6 %	6.2 %	6.2 %	5.2 %	7.3 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	119.972 ppb	119.560 ppb	119.480 ppb	11,981.273 ppb	119.614 ppb	119.604 ppb	119.686 ppb	119.847 ppb	90.402 %
Concentration per Run 1	112.226 ppb	112.583 ppb	110.227 ppb	11,360.456 ppb	111.865 ppb	112.704 ppb	113.549 ppb	112.835 ppb	91.798 %
Concentration per Run 2	119.075 ppb	119.267 ppb	120.472 ppb	11,881.283 ppb	117.513 ppb	116.495 ppb	117.185 ppb	118.197 ppb	94.554 %
Concentration per Run 3	128.616 ppb	126.830 ppb	127.740 ppb	12,702.082 ppb	129.465 ppb	129.614 ppb	128.325 ppb	128.510 ppb	84.853 %
Concentration RSD	6.9 %	6.0 %	7.4 %	5.6 %	7.5 %	7.4 %	6.4 %	6.6 %	5.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	119.974 ppb	119.289 ppb	120.425 ppb	120.120 ppb	87.932 %	119.879 ppb	119.729 ppb	88.912 %	120.342 ppb
Concentration per Run 1	113.188 ppb	114.549 ppb	110.758 ppb	111.925 ppb	90.947 %	114.194 ppb	113.370 ppb	89.873 %	113.287 ppb
Concentration per Run 2	119.077 ppb	118.231 ppb	124.176 ppb	122.117 ppb	88.143 %	120.389 ppb	121.446 ppb	91.950 %	122.151 ppb
Concentration per Run 3	127.656 ppb	125.088 ppb	126.340 ppb	126.319 ppb	84.704 %	125.053 ppb	124.371 ppb	84.913 %	125.587 ppb
Concentration RSD	6.1 %	4.5 %	7.0 %	6.2 %	3.6 %	4.5 %	4.8 %	4.1 %	5.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	119.854 ppb	119.534 ppb	93.973 %	95.057 %	120.504 ppb	120.325 ppb	119.830 ppb	92.621 %
Concentration per Run 1	113.452 ppb	111.429 ppb	95.150 %	95.659 %	114.882 ppb	115.013 ppb	115.785 ppb	92.015 %
Concentration per Run 2	122.559 ppb	123.155 ppb	95.416 %	97.738 %	120.616 ppb	123.109 ppb	123.057 ppb	91.964 %
Concentration per Run 3	123.550 ppb	124.019 ppb	91.354 %	91.774 %	126.015 ppb	122.853 ppb	120.650 ppb	93.883 %
Concentration RSD	4.6 %	5.9 %	2.4 %	3.2 %	4.6 %	3.8 %	3.1 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	10	User name	ALPHALAB\a2-icpmsq2	Comment	Sr Inteference Check
Analysis label:	Sr 200ppb	Rack	4		
Analysis started at:	8/21/2024 5:44:47 AM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.094 %	93.267 %	0.040 ppb	-13.851 ppb	4.157 ppb	0.824 ppb	-3.291 ppb	-0.093 ppb	89.515 %
Concentration per Run 1	90.632 %	98.929 %	0.052 ppb	-22.550 ppb	4.502 ppb	0.799 ppb	-7.307 ppb	-34.025 ppb	87.733 %
Concentration per Run 2	91.306 %	90.895 %	0.029 ppb	-14.133 ppb	3.979 ppb	0.556 ppb	-0.929 ppb	67.461 ppb	90.190 %
Concentration per Run 3	91.345 %	89.977 %	0.038 ppb	-4.869 ppb	3.992 ppb	1.117 ppb	-1.638 ppb	-33.716 ppb	90.622 %
Concentration RSD	0.4 %	5.3 %	30.2 %	63.9 %	7.2 %	34.1 %	106.2 %	62,625.7 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.044 ppb	0.040 ppb	0.808 ppb	15.455 ppb	0.040 ppb	0.021 ppb	0.040 ppb	1.218 ppb	88.364 %
Concentration per Run 1	-0.034 ppb	0.028 ppb	0.790 ppb	14.544 ppb	0.040 ppb	0.061 ppb	0.026 ppb	1.090 ppb	89.391 %
Concentration per Run 2	-0.049 ppb	0.038 ppb	0.723 ppb	18.116 ppb	0.048 ppb	-0.024 ppb	0.079 ppb	1.326 ppb	86.824 %
Concentration per Run 3	-0.050 ppb	0.055 ppb	0.910 ppb	13.703 ppb	0.033 ppb	0.026 ppb	0.016 ppb	1.238 ppb	88.876 %
Concentration RSD	20.1 %	33.2 %	11.7 %	15.2 %	19.1 %	202.2 %	85.2 %	9.8 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.042 ppb	0.121 ppb	190.985 ppb	0.165 ppb	89.767 %	0.042 ppb	0.038 ppb	89.341 %	-0.013 ppb
Concentration per Run 1	0.047 ppb	0.144 ppb	180.572 ppb	0.062 ppb	92.928 %	0.049 ppb	0.034 ppb	92.646 %	-0.037 ppb
Concentration per Run 2	0.063 ppb	0.113 ppb	194.629 ppb	0.218 ppb	85.462 %	0.031 ppb	0.047 ppb	84.077 %	0.060 ppb
Concentration per Run 3	0.017 ppb	0.106 ppb	197.755 ppb	0.216 ppb	90.910 %	0.045 ppb	0.032 ppb	91.302 %	-0.061 ppb
Concentration RSD	55.3 %	16.7 %	4.8 %	54.3 %	4.3 %	22.3 %	21.4 %	5.2 %	505.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.085 ppb	0.192 ppb	95.530 %	96.475 %	0.290 ppb	0.321 ppb	0.208 ppb	98.628 %
Concentration per Run 1	0.065 ppb	0.269 ppb	99.347 %	100.149 %	0.199 ppb	0.241 ppb	0.200 ppb	103.805 %
Concentration per Run 2	0.093 ppb	0.133 ppb	91.226 %	92.071 %	0.308 ppb	0.369 ppb	0.222 ppb	94.852 %
Concentration per Run 3	0.096 ppb	0.174 ppb	96.017 %	97.204 %	0.364 ppb	0.354 ppb	0.202 ppb	97.226 %
Concentration RSD	20.3 %	36.5 %	4.3 %	4.2 %	28.9 %	21.7 %	5.7 %	4.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index: 11
Analysis label: ICV
Analysis started at: 8/21/2024 5:49:18 AM
User name ALPHALAB\a2-icpmsq2
Rack 0
Vial 7
Comment ICV

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.686 %	88.370 %	52.437 ppb	4,911.286 ppb	4,857.130 ppb	47.888 ppb	4,817.829 ppb	4,834.816 ppb	90.736 %
Concentration per Run 1	89.878 %	92.731 %	53.151 ppb	4,545.874 ppb	4,503.101 ppb	43.996 ppb	4,625.996 ppb	4,579.225 ppb	89.594 %
Concentration per Run 2	91.339 %	89.518 %	51.986 ppb	4,939.920 ppb	4,880.955 ppb	46.749 ppb	4,810.057 ppb	4,864.743 ppb	91.576 %
Concentration per Run 3	90.841 %	82.861 %	52.174 ppb	5,248.063 ppb	5,187.334 ppb	52.919 ppb	5,017.436 ppb	5,060.479 ppb	91.038 %
Recovery Percentage 1			104.873 %	98.226 %	97.143 %	95.776 %	96.357 %	96.696 %	
Concentration RSD	0.8 %	5.7 %	1.2 %	7.2 %	7.1 %	9.5 %	4.1 %	5.0 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.228 ppb	49.384 ppb	48.360 ppb	4,949.639 ppb	50.813 ppb	50.542 ppb	51.201 ppb	51.505 ppb	86.942 %
Concentration per Run 1	45.353 ppb	47.000 ppb	45.749 ppb	4,798.134 ppb	48.727 ppb	47.932 ppb	48.992 ppb	49.111 ppb	90.000 %
Concentration per Run 2	50.230 ppb	50.392 ppb	49.758 ppb	5,086.137 ppb	51.995 ppb	51.935 ppb	52.242 ppb	52.664 ppb	87.753 %
Concentration per Run 3	52.101 ppb	50.760 ppb	49.574 ppb	4,964.646 ppb	51.717 ppb	51.760 ppb	52.367 ppb	52.740 ppb	83.071 %
Recovery Percentage 1	98.456 %	98.767 %	96.720 %	98.993 %	101.626 %	101.084 %	102.401 %	103.010 %	
Concentration RSD	7.1 %	4.2 %	4.7 %	2.9 %	3.6 %	4.5 %	3.7 %	4.0 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	50.072 ppb	48.269 ppb	47.743 ppb	51.532 ppb	88.193 %	48.160 ppb	50.918 ppb	86.627 %	47.652 ppb
Concentration per Run 1	47.849 ppb	46.112 ppb	45.454 ppb	47.926 ppb	91.645 %	45.968 ppb	47.852 ppb	89.161 %	45.371 ppb
Concentration per Run 2	51.547 ppb	48.211 ppb	49.032 ppb	53.160 ppb	86.501 %	49.229 ppb	52.357 ppb	85.483 %	48.617 ppb
Concentration per Run 3	50.820 ppb	50.483 ppb	48.743 ppb	53.511 ppb	86.432 %	49.282 ppb	52.545 ppb	85.238 %	48.968 ppb
Recovery Percentage 1	100.144 %	96.538 %	95.486 %	103.065 %		96.320 %	101.836 %		95.304 %
Concentration RSD	3.9 %	4.5 %	4.2 %	6.1 %	3.4 %	3.9 %	5.2 %	2.5 %	4.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	51.024 ppb	50.058 ppb	93.836 %	93.735 %	47.853 ppb	48.133 ppb	49.412 ppb	95.622 %
Concentration per Run 1	48.385 ppb	47.653 ppb	96.519 %	95.164 %	45.027 ppb	44.083 ppb	46.678 ppb	98.411 %
Concentration per Run 2	52.189 ppb	51.509 ppb	92.038 %	92.218 %	49.154 ppb	49.432 ppb	50.859 ppb	94.394 %
Concentration per Run 3	52.498 ppb	51.014 ppb	92.951 %	93.823 %	49.377 ppb	50.882 ppb	50.699 ppb	94.061 %
Recovery Percentage 1	102.048 %	100.117 %			95.705 %	96.265 %	98.824 %	
Concentration RSD	4.5 %	4.2 %	2.5 %	1.6 %	5.1 %	7.4 %	4.8 %	2.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	12	User name	ALPHALAB\a2-icpmsq2	Comment	ICB
Analysis label:	ICB	Rack	0		
Analysis started at:	8/21/2024 5:53:48 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.668 %	93.649 %	0.103 ppb	-23.226 ppb	-0.041 ppb	-0.231 ppb	2.299 ppb	-9.723 ppb	89.575 %
Concentration per Run 1	90.808 %	100.076 %	0.096 ppb	-25.941 ppb	-0.240 ppb	-0.168 ppb	10.350 ppb	-9.582 ppb	89.784 %
Concentration per Run 2	91.300 %	93.190 %	0.125 ppb	-26.447 ppb	-0.627 ppb	-0.172 ppb	-3.102 ppb	-8.473 ppb	90.050 %
Concentration per Run 3	89.896 %	87.682 %	0.088 ppb	-17.291 ppb	0.744 ppb	-0.355 ppb	-0.352 ppb	-11.115 ppb	88.892 %
Recovery Percentage 1			20.600 %	-23.226 %	-0.059 %	-2.314 %	2.299 %	-9.723 %	
Concentration RSD	0.8 %	6.6 %	18.9 %	22.2 %	1,711.4 %	46.1 %	309.1 %	13.6 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.062 ppb	0.030 ppb	-0.040 ppb	8.116 ppb	0.045 ppb	0.110 ppb	0.082 ppb	-0.022 ppb	90.424 %
Concentration per Run 1	-0.107 ppb	0.028 ppb	-0.064 ppb	6.004 ppb	0.047 ppb	0.120 ppb	0.063 ppb	-0.018 ppb	93.639 %
Concentration per Run 2	-0.041 ppb	0.051 ppb	-0.016 ppb	8.783 ppb	0.044 ppb	0.089 ppb	0.053 ppb	0.006 ppb	87.926 %
Concentration per Run 3	-0.040 ppb	0.011 ppb	-0.040 ppb	9.562 ppb	0.044 ppb	0.120 ppb	0.130 ppb	-0.053 ppb	89.706 %
Recovery Percentage 1	-1.248 %	3.011 %	-4.002 %	16.233 %	9.037 %	5.491 %	8.211 %	-0.437 %	
Concentration RSD	61.4 %	67.1 %	59.6 %	23.0 %	3.1 %	16.2 %	50.8 %	135.9 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.078 ppb	0.135 ppb	0.071 ppb	0.386 ppb	90.194 %	0.036 ppb	0.030 ppb	90.248 %	0.122 ppb
Concentration per Run 1	0.090 ppb	0.067 ppb	0.072 ppb	0.269 ppb	95.433 %	0.035 ppb	0.030 ppb	97.208 %	0.002 ppb
Concentration per Run 2	0.092 ppb	0.086 ppb	0.080 ppb	0.433 ppb	89.246 %	0.044 ppb	0.024 ppb	86.943 %	0.204 ppb
Concentration per Run 3	0.052 ppb	0.252 ppb	0.060 ppb	0.458 ppb	85.904 %	0.030 ppb	0.037 ppb	86.594 %	0.161 ppb
Recovery Percentage 1	15.638 %	2.705 %	0.707 %	19.322 %		9.078 %	15.236 %		4.073 %
Concentration RSD	28.7 %	75.3 %	13.9 %	26.6 %	5.4 %	19.7 %	20.1 %	6.7 %	87.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.091 ppb	0.000 ppb	94.396 %	94.641 %	0.644 ppb	0.651 ppb	0.039 ppb	95.577 %
Concentration per Run 1	0.074 ppb	0.010 ppb	98.686 %	100.947 %	0.477 ppb	0.446 ppb	0.038 ppb	98.327 %
Concentration per Run 2	0.102 ppb	-0.017 ppb	92.680 %	92.390 %	0.654 ppb	0.791 ppb	0.043 ppb	93.877 %
Concentration per Run 3	0.098 ppb	0.006 ppb	91.823 %	90.587 %	0.800 ppb	0.716 ppb	0.037 ppb	94.526 %
Recovery Percentage 1	2.283 %	-0.092 %			32.194 %	65.092 %	3.935 %	
Concentration RSD	17.0 %	3,165.0 %	4.0 %	5.8 %	25.1 %	27.9 %	7.2 %	2.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	13	User name	ALPHALAB\a2-icpmsq2	Comment	ICB
Analysis label:	ICB	Rack	0		
Analysis started at:	8/21/2024 5:59:14 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.131 %	88.982 %	0.031 ppb	9.936 ppb	7.948 ppb	-0.203 ppb	-0.501 ppb	8.033 ppb	89.735 %
Concentration per Run 1	90.624 %	84.927 %	0.041 ppb	-15.647 ppb	-1.595 ppb	-0.395 ppb	-2.847 ppb	-12.189 ppb	88.549 %
Concentration per Run 2	91.517 %	86.304 %	0.032 ppb	-15.190 ppb	0.913 ppb	-0.232 ppb	-12.223 ppb	-16.610 ppb	90.430 %
Concentration per Run 3	91.252 %	95.715 %	0.022 ppb	60.647 ppb	24.526 ppb	0.017 ppb	13.566 ppb	52.899 ppb	90.226 %
Recovery Percentage 1			6.267 %	9.936 %	11.354 %	-2.032 %	-0.501 %	8.033 %	
Concentration RSD	0.5 %	6.6 %	30.3 %	442.0 %	181.3 %	102.1 %	2,604.2 %	484.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.026 ppb	0.059 ppb	0.077 ppb	9.636 ppb	0.084 ppb	0.083 ppb	0.103 ppb	0.046 ppb	85.899 %
Concentration per Run 1	-0.077 ppb	0.034 ppb	-0.037 ppb	3.714 ppb	0.031 ppb	0.041 ppb	0.012 ppb	0.004 ppb	88.177 %
Concentration per Run 2	-0.036 ppb	-0.003 ppb	-0.070 ppb	3.343 ppb	0.029 ppb	0.051 ppb	0.085 ppb	0.001 ppb	83.273 %
Concentration per Run 3	0.035 ppb	0.148 ppb	0.336 ppb	21.852 ppb	0.192 ppb	0.156 ppb	0.212 ppb	0.132 ppb	86.246 %
Recovery Percentage 1	-0.520 %	5.947 %	7.669 %	19.273 %	16.755 %	4.135 %	10.273 %	0.914 %	
Concentration RSD	217.0 %	132.5 %	294.2 %	109.8 %	111.8 %	76.9 %	98.4 %	163.8 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.080 ppb	0.025 ppb	0.141 ppb	0.124 ppb	91.206 %	0.058 ppb	0.070 ppb	89.578 %	0.131 ppb
Concentration per Run 1	0.028 ppb	0.067 ppb	0.039 ppb	0.082 ppb	92.125 %	0.025 ppb	0.019 ppb	92.511 %	0.032 ppb
Concentration per Run 2	0.020 ppb	0.029 ppb	0.032 ppb	0.101 ppb	89.069 %	0.013 ppb	0.017 ppb	87.618 %	0.155 ppb
Concentration per Run 3	0.193 ppb	-0.023 ppb	0.352 ppb	0.190 ppb	92.423 %	0.135 ppb	0.174 ppb	88.604 %	0.207 ppb
Recovery Percentage 1	16.033 %	0.492 %	1.408 %	6.205 %		14.432 %	35.008 %		4.382 %
Concentration RSD	121.6 %	184.1 %	129.8 %	46.3 %	2.0 %	116.1 %	128.8 %	2.9 %	68.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.071 ppb	0.089 ppb	95.674 %	95.491 %	0.233 ppb	0.243 ppb	0.062 ppb	96.573 %
Concentration per Run 1	0.017 ppb	0.026 ppb	96.322 %	97.053 %	0.134 ppb	0.110 ppb	0.018 ppb	97.840 %
Concentration per Run 2	0.034 ppb	0.036 ppb	93.872 %	94.344 %	0.190 ppb	0.233 ppb	0.011 ppb	95.280 %
Concentration per Run 3	0.161 ppb	0.205 ppb	96.828 %	95.076 %	0.375 ppb	0.387 ppb	0.157 ppb	96.599 %
Recovery Percentage 1	1.774 %	17.809 %			11.643 %	24.320 %	6.221 %	
Concentration RSD	110.9 %	113.3 %	1.7 %	1.5 %	54.1 %	57.1 %	132.7 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	14	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	ICSA	Rack	4		
Analysis started at:	8/21/2024 6:08:42 AM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	76.727 %	78.959 %	0.028 ppb	**209,139.738 ppb**	**79,607.058 ppb**	99,740.555 ppb	97,458.331 ppb	295,813.071 ppb	78.617 %
Concentration per Run 1	76.973 %	77.812 %	0.027 ppb	204,902.041 ppb	77,038.100 ppb	97,275.844 ppb	96,167.569 ppb	289,997.126 ppb	78.626 %
Concentration per Run 2	76.566 %	82.632 %	0.028 ppb	200,657.897 ppb	80,066.738 ppb	95,272.189 ppb	93,518.838 ppb	285,607.373 ppb	78.503 %
Concentration per Run 3	76.641 %	76.434 %	0.029 ppb	221,859.276 ppb	81,716.336 ppb	106,673.634 ppb	102,688.585 ppb	311,834.715 ppb	78.722 %
Recovery Percentage 1			2.784 %	83.656 %	79.607 %	99.741 %	97.458 %	98.604 %	
Concentration RSD	0.3 %	4.1 %	3.5 %	5.4 %	3.0 %	6.1 %	4.8 %	4.7 %	0.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.044 ppb	1.620 ppb	4.390 ppb	**219,011.504 ppb**	2.295 ppb	2.978 ppb	0.953 ppb	2.590 ppb	81.530 %
Concentration per Run 1	0.041 ppb	1.472 ppb	4.285 ppb	202,362.543 ppb	2.266 ppb	2.697 ppb	0.728 ppb	2.332 ppb	81.937 %
Concentration per Run 2	0.009 ppb	1.616 ppb	4.174 ppb	230,932.728 ppb	2.236 ppb	3.040 ppb	1.143 ppb	2.714 ppb	80.440 %
Concentration per Run 3	0.083 ppb	1.772 ppb	4.711 ppb	223,739.241 ppb	2.384 ppb	3.197 ppb	0.988 ppb	2.724 ppb	82.214 %
Recovery Percentage 1	0.885 %	49.093 %	77.021 %	87.605 %	79.971 %	48.817 %	116.225 %	22.717 %	
Concentration RSD	84.6 %	9.3 %	6.5 %	6.8 %	3.4 %	8.6 %	22.0 %	8.6 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.471 ppb	3.474 ppb	2.413 ppb	**2,153.916 ppb**	75.186 %	0.032 ppb	0.601 ppb	77.332 %	-0.189 ppb
Concentration per Run 1	0.420 ppb	3.088 ppb	2.305 ppb	2,121.955 ppb	78.082 %	0.026 ppb	0.588 ppb	79.921 %	-0.194 ppb
Concentration per Run 2	0.449 ppb	3.867 ppb	2.451 ppb	2,100.309 ppb	70.954 %	0.038 ppb	0.654 ppb	73.365 %	-0.209 ppb
Concentration per Run 3	0.544 ppb	3.466 ppb	2.483 ppb	2,239.486 ppb	76.522 %	0.032 ppb	0.561 ppb	78.709 %	-0.165 ppb
Recovery Percentage 1	28.886 %	26.930 %	482.586 %	107.696 %		4.018 %	150.195 %		-3.158 %
Concentration RSD	13.7 %	11.2 %	3.9 %	3.5 %	5.0 %	18.8 %	8.0 %	4.5 %	11.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.199 ppb	1.207 ppb	85.821 %	85.537 %	0.546 ppb	0.102 ppb	1.630 ppb	80.221 %
Concentration per Run 1	0.196 ppb	1.227 ppb	89.737 %	90.737 %	0.475 ppb	0.047 ppb	1.562 ppb	83.812 %
Concentration per Run 2	0.206 ppb	1.214 ppb	81.535 %	80.774 %	0.577 ppb	0.124 ppb	1.684 ppb	77.132 %
Concentration per Run 3	0.194 ppb	1.180 ppb	86.190 %	85.098 %	0.586 ppb	0.135 ppb	1.644 ppb	79.719 %
Recovery Percentage 1	2.486 %	64.199 %			13.651 %	5.086 %	52.577 %	
Concentration RSD	3.1 %	2.0 %	4.8 %	5.8 %	11.2 %	47.2 %	3.8 %	4.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	15	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Check	Rack	4		
Analysis started at:	8/21/2024 6:13:13 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.101 %	92.731 %	0.026 ppb	297.985 ppb	120.577 ppb	121.590 ppb	142.619 ppb	348.434 ppb	90.023 %
Concentration per Run 1	91.103 %	90.895 %	0.019 ppb	313.572 ppb	126.164 ppb	128.233 ppb	155.445 ppb	348.493 ppb	90.025 %
Concentration per Run 2	91.137 %	95.945 %	0.031 ppb	366.833 ppb	147.292 ppb	152.037 ppb	174.776 ppb	457.513 ppb	90.702 %
Concentration per Run 3	91.062 %	91.354 %	0.029 ppb	213.549 ppb	88.275 ppb	84.502 ppb	97.638 ppb	239.296 ppb	89.343 %
Concentration RSD	0.0 %	3.0 %	23.7 %	26.1 %	24.8 %	28.2 %	28.1 %	31.3 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.056 ppb	0.089 ppb	8,108.189 ppb	347.319 ppb	0.053 ppb	8,356.895 ppb	8,656.140 ppb	8,797.095 ppb	88.236 %
Concentration per Run 1	-0.033 ppb	0.109 ppb	7,769.685 ppb	353.039 ppb	0.060 ppb	7,913.364 ppb	8,028.635 ppb	8,218.085 ppb	92.008 %
Concentration per Run 2	-0.078 ppb	0.088 ppb	8,065.834 ppb	431.752 ppb	0.050 ppb	8,427.083 ppb	8,804.611 ppb	8,835.320 ppb	87.473 %
Concentration per Run 3	-0.058 ppb	0.069 ppb	8,489.047 ppb	257.164 ppb	0.049 ppb	8,730.237 ppb	9,135.173 ppb	9,337.881 ppb	85.227 %
Concentration RSD	40.2 %	22.0 %	4.5 %	25.2 %	11.5 %	4.9 %	6.6 %	6.4 %	3.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	921.835 ppb	1.044 ppb	0.231 ppb	6.336 ppb	90.821 %	0.166 ppb	0.095 ppb	87.890 %	0.641 ppb
Concentration per Run 1	863.817 ppb	0.997 ppb	0.211 ppb	5.483 ppb	93.565 %	0.161 ppb	0.081 ppb	90.558 %	0.577 ppb
Concentration per Run 2	938.193 ppb	0.941 ppb	0.232 ppb	6.605 ppb	90.869 %	0.170 ppb	0.109 ppb	87.956 %	0.720 ppb
Concentration per Run 3	963.493 ppb	1.194 ppb	0.252 ppb	6.921 ppb	88.031 %	0.165 ppb	0.094 ppb	85.157 %	0.626 ppb
Concentration RSD	5.6 %	12.7 %	8.7 %	11.9 %	3.0 %	2.7 %	14.7 %	3.1 %	11.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.161 ppb	8,798.193 ppb	93.633 %	92.090 %	0.034 ppb	0.087 ppb	9,551.337 ppb	92.734 %
Concentration per Run 1	1.091 ppb	8,270.918 ppb	95.324 %	93.134 %	0.009 ppb	0.043 ppb	9,046.157 ppb	95.105 %
Concentration per Run 2	1.186 ppb	8,795.045 ppb	92.333 %	91.220 %	0.033 ppb	0.104 ppb	9,707.139 ppb	91.476 %
Concentration per Run 3	1.206 ppb	9,328.617 ppb	93.240 %	91.916 %	0.060 ppb	0.114 ppb	9,900.714 ppb	91.621 %
Concentration RSD	5.3 %	6.0 %	1.6 %	1.1 %	74.3 %	43.9 %	4.7 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	16	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/21/2024 6:17:43 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.365 %	87.988 %	0.013 ppb	54.659 ppb	24.886 ppb	27.241 ppb	39.070 ppb	66.828 ppb	87.167 %
Concentration per Run 1	90.002 %	89.059 %	0.015 ppb	47.334 ppb	25.653 ppb	24.081 ppb	38.960 ppb	84.484 ppb	85.095 %
Concentration per Run 2	91.039 %	86.534 %	0.011 ppb	56.011 ppb	27.934 ppb	29.315 ppb	35.136 ppb	49.373 ppb	88.534 %
Concentration per Run 3	90.053 %	88.370 %	0.014 ppb	60.633 ppb	21.071 ppb	28.326 ppb	43.114 ppb	66.628 ppb	87.872 %
Concentration RSD	0.6 %	1.5 %	15.5 %	12.4 %	14.0 %	10.2 %	10.2 %	26.3 %	2.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.052 ppb	-0.001 ppb	6.993 ppb	80.045 ppb	0.009 ppb	6.873 ppb	6.798 ppb	10.321 ppb	89.110 %
Concentration per Run 1	-0.002 ppb	-0.003 ppb	6.567 ppb	79.264 ppb	-0.002 ppb	6.572 ppb	6.589 ppb	10.667 ppb	88.932 %
Concentration per Run 2	-0.067 ppb	0.007 ppb	7.319 ppb	84.708 ppb	0.019 ppb	7.449 ppb	7.403 ppb	10.697 ppb	87.252 %
Concentration per Run 3	-0.088 ppb	-0.007 ppb	7.092 ppb	76.164 ppb	0.009 ppb	6.596 ppb	6.402 ppb	9.601 ppb	91.147 %
Concentration RSD	85.1 %	598.7 %	5.5 %	5.4 %	122.4 %	7.3 %	7.8 %	6.0 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	2.310 ppb	-0.028 ppb	0.000 ppb	1.296 ppb	89.303 %	0.002 ppb	0.003 ppb	88.217 %	-0.095 ppb
Concentration per Run 1	2.133 ppb	-0.032 ppb	0.000 ppb	1.050 ppb	91.836 %	0.004 ppb	0.003 ppb	87.560 %	-0.206 ppb
Concentration per Run 2	2.451 ppb	0.015 ppb	0.001 ppb	1.247 ppb	86.907 %	0.001 ppb	0.003 ppb	84.738 %	0.014 ppb
Concentration per Run 3	2.348 ppb	-0.068 ppb	0.000 ppb	1.590 ppb	89.164 %	0.002 ppb	0.001 ppb	92.354 %	-0.092 ppb
Concentration RSD	7.0 %	149.1 %	554.2 %	21.1 %	2.8 %	79.1 %	56.1 %	4.4 %	116.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.051 ppb	6.488 ppb	93.974 %	93.276 %	0.031 ppb	0.042 ppb	7.491 ppb	94.304 %
Concentration per Run 1	0.043 ppb	5.850 ppb	95.297 %	94.667 %	0.015 ppb	0.002 ppb	7.366 ppb	95.589 %
Concentration per Run 2	0.047 ppb	7.361 ppb	92.266 %	90.408 %	0.024 ppb	0.062 ppb	8.205 ppb	92.426 %
Concentration per Run 3	0.063 ppb	6.253 ppb	94.359 %	94.753 %	0.052 ppb	0.060 ppb	6.903 ppb	94.896 %
Concentration RSD	20.4 %	12.1 %	1.7 %	2.7 %	63.3 %	81.8 %	8.8 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index: 17 User name ALPHALAB\a2-icpmsq2 Comment CCV/MCCV
Analysis label: CCV Rack 0
Analysis started at: 8/21/2024 6:22:09 AM Vial 9

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	88.782 %	92.502 %	63.279 ppb	5,646.982 ppb	5,585.998 ppb	66.264 ppb	5,515.265 ppb	5,503.068 ppb	89.703 %
Concentration per Run 1	88.181 %	94.109 %	63.240 ppb	5,423.676 ppb	5,394.606 ppb	65.080 ppb	5,323.701 ppb	5,217.619 ppb	89.549 %
Concentration per Run 2	89.001 %	95.256 %	63.228 ppb	5,534.315 ppb	5,424.985 ppb	67.601 ppb	5,491.961 ppb	5,457.701 ppb	90.028 %
Concentration per Run 3	89.163 %	88.141 %	63.370 ppb	5,982.954 ppb	5,938.403 ppb	66.111 ppb	5,730.134 ppb	5,833.884 ppb	89.532 %
Recovery Percentage 1			105.465 %	94.116 %	93.100 %	110.440 %	91.921 %	91.718 %	
Concentration RSD	0.6 %	4.1 %	0.1 %	5.2 %	5.5 %	1.9 %	3.7 %	5.6 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.173 ppb	58.406 ppb	59.946 ppb	5,864.889 ppb	59.773 ppb	62.241 ppb	63.861 ppb	64.908 ppb	88.391 %
Concentration per Run 1	55.158 ppb	54.926 ppb	56.986 ppb	5,539.136 ppb	57.278 ppb	59.861 ppb	60.334 ppb	62.602 ppb	91.219 %
Concentration per Run 2	59.711 ppb	60.118 ppb	62.287 ppb	6,011.528 ppb	61.053 ppb	63.575 ppb	66.102 ppb	65.889 ppb	85.749 %
Concentration per Run 3	59.649 ppb	60.175 ppb	60.566 ppb	6,044.003 ppb	60.988 ppb	63.287 ppb	65.148 ppb	66.232 ppb	88.206 %
Recovery Percentage 1	96.954 %	97.344 %	99.911 %	97.748 %	99.622 %	103.735 %	106.436 %	108.180 %	
Concentration RSD	4.5 %	5.2 %	4.5 %	4.8 %	3.6 %	3.3 %	4.8 %	3.1 %	3.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	60.661 ppb	60.322 ppb	56.728 ppb	58.789 ppb	87.768 %	57.174 ppb	60.884 ppb	86.164 %	58.456 ppb
Concentration per Run 1	56.899 ppb	56.544 ppb	53.555 ppb	55.170 ppb	92.810 %	53.286 ppb	56.551 ppb	92.232 %	54.154 ppb
Concentration per Run 2	62.760 ppb	60.285 ppb	58.936 ppb	60.908 ppb	87.475 %	59.282 ppb	62.802 ppb	85.442 %	61.308 ppb
Concentration per Run 3	62.323 ppb	64.138 ppb	57.693 ppb	60.288 ppb	83.020 %	58.954 ppb	63.299 ppb	80.817 %	59.905 ppb
Recovery Percentage 1	101.101 %	100.537 %	94.546 %	97.981 %		95.290 %	101.474 %		97.426 %
Concentration RSD	5.4 %	6.3 %	5.0 %	5.4 %	5.6 %	5.9 %	6.2 %	6.7 %	6.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.247 ppb	61.240 ppb	94.020 %	93.369 %	60.254 ppb	58.512 ppb	62.105 ppb	93.704 %
Concentration per Run 1	54.449 ppb	57.523 ppb	99.242 %	96.995 %	55.324 ppb	52.801 ppb	58.254 ppb	99.131 %
Concentration per Run 2	60.101 ppb	63.522 ppb	93.327 %	93.722 %	62.044 ppb	61.345 ppb	64.516 ppb	92.371 %
Concentration per Run 3	60.191 ppb	62.676 ppb	89.492 %	89.391 %	63.395 ppb	61.389 ppb	63.545 ppb	89.609 %
Recovery Percentage 1	97.079 %	102.067 %			100.424 %	97.519 %	103.509 %	
Concentration RSD	5.6 %	5.3 %	5.2 %	4.1 %	7.2 %	8.5 %	5.4 %	5.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	18	User name	ALPHALAB\a2-icpmsq2	Comment	CCB
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 6:26:39 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.126 %	86.763 %	0.033 ppb	5.213 ppb	9.151 ppb	6.602 ppb	12.168 ppb	7.050 ppb	89.032 %
Concentration per Run 1	90.237 %	89.747 %	0.033 ppb	3.025 ppb	9.508 ppb	6.440 ppb	20.622 ppb	1.394 ppb	89.178 %
Concentration per Run 2	90.183 %	83.550 %	0.035 ppb	14.436 ppb	9.029 ppb	7.428 ppb	8.605 ppb	14.973 ppb	88.950 %
Concentration per Run 3	89.959 %	86.993 %	0.031 ppb	-1.823 ppb	8.916 ppb	5.939 ppb	7.277 ppb	4.782 ppb	88.968 %
Recovery Percentage 1			6.596 %	5.213 %	13.073 %	66.022 %	12.168 %	7.050 %	
Concentration RSD	0.2 %	3.6 %	6.1 %	160.1 %	3.4 %	11.5 %	60.4 %	100.3 %	0.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.019 ppb	0.028 ppb	2.089 ppb	25.951 ppb	0.033 ppb	2.419 ppb	2.424 ppb	2.579 ppb	83.979 %
Concentration per Run 1	-0.049 ppb	0.023 ppb	2.193 ppb	27.484 ppb	0.036 ppb	2.253 ppb	2.372 ppb	2.584 ppb	88.605 %
Concentration per Run 2	-0.034 ppb	0.026 ppb	2.028 ppb	27.719 ppb	0.036 ppb	2.479 ppb	2.574 ppb	2.557 ppb	82.144 %
Concentration per Run 3	0.026 ppb	0.035 ppb	2.047 ppb	22.650 ppb	0.026 ppb	2.526 ppb	2.327 ppb	2.595 ppb	81.188 %
Recovery Percentage 1	-0.385 %	2.816 %	208.909 %	51.902 %	6.531 %	120.969 %	242.429 %	51.571 %	
Concentration RSD	206.8 %	22.6 %	4.3 %	11.0 %	16.7 %	6.0 %	5.4 %	0.8 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.650 ppb	0.087 ppb	0.024 ppb	0.768 ppb	87.414 %	0.028 ppb	0.032 ppb	86.367 %	0.737 ppb
Concentration per Run 1	0.474 ppb	0.076 ppb	0.020 ppb	0.627 ppb	89.965 %	0.030 ppb	0.019 ppb	89.979 %	0.250 ppb
Concentration per Run 2	0.751 ppb	0.083 ppb	0.031 ppb	0.786 ppb	86.188 %	0.028 ppb	0.042 ppb	83.994 %	0.454 ppb
Concentration per Run 3	0.726 ppb	0.101 ppb	0.022 ppb	0.890 ppb	86.089 %	0.025 ppb	0.035 ppb	85.127 %	1.507 ppb
Recovery Percentage 1	130.036 %	1.731 %	0.244 %	38.386 %		6.918 %	15.990 %		24.566 %
Concentration RSD	23.6 %	15.2 %	24.3 %	17.2 %	2.5 %	8.5 %	36.7 %	3.7 %	91.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.316 ppb	2.288 ppb	93.232 %	92.545 %	0.654 ppb	0.606 ppb	2.637 ppb	92.301 %
Concentration per Run 1	0.309 ppb	2.290 ppb	96.405 %	95.161 %	0.502 ppb	0.421 ppb	2.521 ppb	96.693 %
Concentration per Run 2	0.297 ppb	2.217 ppb	90.674 %	92.019 %	0.679 ppb	0.739 ppb	2.883 ppb	91.395 %
Concentration per Run 3	0.342 ppb	2.357 ppb	92.617 %	90.455 %	0.780 ppb	0.659 ppb	2.508 ppb	88.814 %
Recovery Percentage 1	7.902 %	457.644 %			32.690 %	60.620 %	263.729 %	
Concentration RSD	7.4 %	3.0 %	3.1 %	2.6 %	21.5 %	27.3 %	8.1 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	19	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 6:53:59 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.748 %	90.053 %	-0.001 ppb	-20.152 ppb	-3.772 ppb	-0.350 ppb	-3.589 ppb	-14.967 ppb	87.282 %
Concentration per Run 1	93.153 %	94.797 %	-0.003 ppb	-23.876 ppb	-3.671 ppb	-0.380 ppb	1.493 ppb	-17.017 ppb	87.206 %
Concentration per Run 2	92.609 %	79.648 %	0.001 ppb	-10.071 ppb	-3.522 ppb	-0.197 ppb	-4.315 ppb	-14.125 ppb	87.535 %
Concentration per Run 3	92.483 %	95.715 %	-0.002 ppb	-26.509 ppb	-4.124 ppb	-0.475 ppb	-7.943 ppb	-13.758 ppb	87.105 %
Recovery Percentage 1			-0.274 %	-20.152 %	-5.389 %	-3.505 %	-3.589 %	-14.967 %	
Concentration RSD	0.4 %	10.0 %	179.6 %	43.8 %	8.3 %	40.4 %	132.6 %	11.9 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.051 ppb	-0.013 ppb	-0.105 ppb	1.169 ppb	-0.003 ppb	-0.065 ppb	-0.044 ppb	-0.032 ppb	86.173 %
Concentration per Run 1	-0.070 ppb	-0.005 ppb	-0.094 ppb	1.245 ppb	0.001 ppb	-0.072 ppb	-0.046 ppb	-0.062 ppb	90.367 %
Concentration per Run 2	-0.054 ppb	-0.008 ppb	-0.120 ppb	1.199 ppb	-0.005 ppb	-0.046 ppb	0.012 ppb	-0.040 ppb	82.667 %
Concentration per Run 3	-0.031 ppb	-0.027 ppb	-0.102 ppb	1.062 ppb	-0.005 ppb	-0.077 ppb	-0.097 ppb	0.005 ppb	85.485 %
Recovery Percentage 1	-1.027 %	-1.323 %	-10.532 %	2.338 %	-0.650 %	-3.247 %	-4.387 %	-0.648 %	
Concentration RSD	38.4 %	88.9 %	12.8 %	8.2 %	101.0 %	26.1 %	124.3 %	105.8 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.089 ppb	0.063 ppb	-0.020 ppb	0.015 ppb	88.839 %	-0.003 ppb	0.001 ppb	87.708 %	-0.395 ppb
Concentration per Run 1	0.082 ppb	0.068 ppb	-0.019 ppb	0.007 ppb	90.880 %	-0.004 ppb	0.003 ppb	93.145 %	-0.390 ppb
Concentration per Run 2	0.099 ppb	0.140 ppb	-0.022 ppb	-0.009 ppb	87.173 %	-0.004 ppb	-0.001 ppb	84.009 %	-0.351 ppb
Concentration per Run 3	0.087 ppb	-0.019 ppb	-0.018 ppb	0.048 ppb	88.464 %	-0.001 ppb	0.001 ppb	85.970 %	-0.443 ppb
Recovery Percentage 1	17.865 %	1.258 %	-0.199 %	0.761 %		-0.739 %	0.458 %		-13.153 %
Concentration RSD	10.0 %	127.0 %	10.6 %	195.6 %	2.1 %	56.7 %	242.4 %	5.5 %	11.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	-0.010 ppb	0.007 ppb	96.252 %	98.263 %	0.016 ppb	0.039 ppb	0.144 ppb	95.222 %
Concentration per Run 1	-0.016 ppb	0.018 ppb	98.811 %	101.273 %	-0.005 ppb	0.009 ppb	0.179 ppb	100.379 %
Concentration per Run 2	-0.010 ppb	0.014 ppb	94.570 %	96.466 %	0.019 ppb	0.044 ppb	0.145 ppb	92.765 %
Concentration per Run 3	-0.003 ppb	-0.010 ppb	95.377 %	97.051 %	0.033 ppb	0.064 ppb	0.108 ppb	92.523 %
Recovery Percentage 1	-0.238 %	1.454 %			0.795 %	3.898 %	14.387 %	
Concentration RSD	69.2 %	204.3 %	2.3 %	2.7 %	122.2 %	71.4 %	24.7 %	4.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	20	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1960360-1d2 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:00:59 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.610 %	94.338 %	-0.001 ppb	-30.691 ppb	-1.198 ppb	0.942 ppb	-6.378 ppb	-10.171 ppb	93.396 %
Concentration per Run 1	94.808 %	83.320 %	0.001 ppb	-19.691 ppb	-1.507 ppb	1.154 ppb	-4.015 ppb	-3.057 ppb	93.518 %
Concentration per Run 2	94.742 %	103.290 %	-0.004 ppb	-38.496 ppb	-2.020 ppb	0.650 ppb	-3.213 ppb	-13.233 ppb	93.135 %
Concentration per Run 3	94.281 %	96.404 %	0.001 ppb	-33.886 ppb	-0.068 ppb	1.021 ppb	-11.905 ppb	-14.222 ppb	93.534 %
Concentration RSD	0.3 %	10.8 %	393.0 %	31.9 %	84.4 %	27.7 %	75.3 %	60.8 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.024 ppb	0.055 ppb	-0.004 ppb	2.329 ppb	0.005 ppb	0.036 ppb	-0.017 ppb	0.280 ppb	87.935 %
Concentration per Run 1	-0.005 ppb	0.085 ppb	-0.001 ppb	2.549 ppb	-0.002 ppb	0.042 ppb	0.001 ppb	0.320 ppb	83.317 %
Concentration per Run 2	-0.054 ppb	0.037 ppb	0.021 ppb	1.929 ppb	0.006 ppb	0.086 ppb	-0.091 ppb	0.171 ppb	90.800 %
Concentration per Run 3	-0.015 ppb	0.043 ppb	-0.033 ppb	2.509 ppb	0.012 ppb	-0.020 ppb	0.040 ppb	0.349 ppb	89.687 %
Concentration RSD	105.6 %	47.6 %	610.4 %	14.9 %	132.5 %	148.8 %	404.9 %	34.1 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.126 ppb	-0.050 ppb	-0.004 ppb	0.099 ppb	90.013 %	-0.002 ppb	-0.001 ppb	88.390 %	0.575 ppb
Concentration per Run 1	0.064 ppb	-0.018 ppb	-0.006 ppb	0.126 ppb	89.925 %	-0.002 ppb	-0.001 ppb	87.789 %	0.307 ppb
Concentration per Run 2	0.148 ppb	-0.029 ppb	-0.004 ppb	0.033 ppb	89.567 %	-0.003 ppb	-0.001 ppb	89.253 %	0.639 ppb
Concentration per Run 3	0.166 ppb	-0.105 ppb	-0.003 ppb	0.140 ppb	90.546 %	-0.003 ppb	-0.001 ppb	88.126 %	0.778 ppb
Concentration RSD	43.2 %	94.4 %	37.1 %	58.6 %	0.6 %	18.7 %	0.0 %	0.9 %	42.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.019 ppb	0.035 ppb	96.496 %	96.760 %	0.151 ppb	0.034 ppb	0.120 ppb	98.530 %
Concentration per Run 1	0.019 ppb	0.042 ppb	95.999 %	95.404 %	0.133 ppb	0.006 ppb	0.127 ppb	98.306 %
Concentration per Run 2	0.020 ppb	0.042 ppb	96.500 %	96.530 %	0.140 ppb	0.040 ppb	0.116 ppb	99.165 %
Concentration per Run 3	0.020 ppb	0.020 ppb	96.990 %	98.346 %	0.180 ppb	0.056 ppb	0.116 ppb	98.120 %
Concentration RSD	2.9 %	37.5 %	0.5 %	1.5 %	16.8 %	74.9 %	5.1 %	0.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	21	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1960360-2d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:05:25 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.922 %	90.819 %	10.079 ppb	1,961.869 ppb	1,882.851 ppb	379.674 ppb	1,835.193 ppb	1,769.753 ppb	93.531 %
Concentration per Run 1	94.567 %	95.715 %	9.955 ppb	1,855.996 ppb	1,764.243 ppb	360.750 ppb	1,754.660 ppb	1,647.708 ppb	93.451 %
Concentration per Run 2	93.714 %	92.961 %	10.083 ppb	2,002.929 ppb	1,939.373 ppb	388.950 ppb	1,882.155 ppb	1,950.334 ppb	93.928 %
Concentration per Run 3	93.485 %	83.779 %	10.199 ppb	2,026.680 ppb	1,944.936 ppb	389.324 ppb	1,868.764 ppb	1,711.217 ppb	93.214 %
Concentration RSD	0.6 %	6.9 %	1.2 %	4.7 %	5.5 %	4.3 %	3.8 %	9.0 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	94.239 ppb	38.506 ppb	97.935 ppb	201.277 ppb	99.025 ppb	99.553 ppb	50.884 ppb	98.731 ppb	92.063 %
Concentration per Run 1	86.789 ppb	35.740 ppb	93.454 ppb	182.948 ppb	94.184 ppb	93.197 ppb	46.839 ppb	92.061 ppb	97.213 %
Concentration per Run 2	99.292 ppb	40.398 ppb	102.396 ppb	209.012 ppb	100.849 ppb	101.963 ppb	52.788 ppb	102.869 ppb	89.999 %
Concentration per Run 3	96.635 ppb	39.380 ppb	97.956 ppb	211.871 ppb	102.042 ppb	103.500 ppb	53.024 ppb	101.263 ppb	88.977 %
Concentration RSD	7.0 %	6.4 %	4.6 %	7.9 %	4.3 %	5.6 %	6.9 %	5.9 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	23.366 ppb	22.098 ppb	181.617 ppb	199.430 ppb	92.976 %	10.383 ppb	10.636 ppb	89.839 %	188.650 ppb
Concentration per Run 1	21.699 ppb	20.717 ppb	169.258 ppb	185.987 ppb	96.666 %	9.948 ppb	10.401 ppb	90.712 %	184.609 ppb
Concentration per Run 2	25.006 ppb	22.701 ppb	185.937 ppb	206.515 ppb	91.390 %	10.745 ppb	10.771 ppb	89.199 %	189.293 ppb
Concentration per Run 3	23.392 ppb	22.876 ppb	189.657 ppb	205.789 ppb	90.870 %	10.457 ppb	10.736 ppb	89.605 %	192.049 ppb
Concentration RSD	7.1 %	5.4 %	6.0 %	5.8 %	3.4 %	3.9 %	1.9 %	0.9 %	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.190 ppb	395.754 ppb	98.695 %	98.070 %	0.046 ppb	23.472 ppb	106.337 ppb	96.879 %
Concentration per Run 1	95.973 ppb	390.403 ppb	98.794 %	98.926 %	0.026 ppb	21.846 ppb	100.369 ppb	100.598 %
Concentration per Run 2	99.250 ppb	397.792 ppb	98.275 %	97.561 %	0.050 ppb	24.102 ppb	109.179 ppb	96.013 %
Concentration per Run 3	99.348 ppb	399.066 ppb	99.015 %	97.724 %	0.062 ppb	24.467 ppb	109.462 ppb	94.028 %
Concentration RSD	2.0 %	1.2 %	0.4 %	0.8 %	40.4 %	6.0 %	4.9 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	22	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1960360-3d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:09:52 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.106 %	95.027 %	9.857 ppb	1,841.728 ppb	1,782.941 ppb	366.344 ppb	1,784.663 ppb	1,704.329 ppb	92.005 %
Concentration per Run 1	93.196 %	93.879 %	9.813 ppb	1,863.496 ppb	1,817.274 ppb	373.067 ppb	1,850.983 ppb	1,875.815 ppb	92.262 %
Concentration per Run 2	93.531 %	91.125 %	9.917 ppb	1,875.540 ppb	1,807.648 ppb	370.565 ppb	1,767.753 ppb	1,652.310 ppb	92.502 %
Concentration per Run 3	92.592 %	100.076 %	9.839 ppb	1,786.150 ppb	1,723.902 ppb	355.401 ppb	1,735.252 ppb	1,584.861 ppb	91.252 %
Concentration RSD	0.5 %	4.8 %	0.5 %	2.6 %	2.9 %	2.6 %	3.3 %	8.9 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	89.668 ppb	36.666 ppb	93.241 ppb	193.152 ppb	93.804 ppb	92.953 ppb	47.857 ppb	93.431 ppb	92.593 %
Concentration per Run 1	86.200 ppb	35.802 ppb	93.392 ppb	186.197 ppb	90.548 ppb	88.294 ppb	45.792 ppb	88.618 ppb	97.718 %
Concentration per Run 2	91.965 ppb	37.481 ppb	93.929 ppb	201.576 ppb	96.520 ppb	96.401 ppb	49.492 ppb	97.411 ppb	90.805 %
Concentration per Run 3	90.840 ppb	36.714 ppb	92.403 ppb	191.683 ppb	94.343 ppb	94.165 ppb	48.286 ppb	94.264 ppb	89.257 %
Concentration RSD	3.4 %	2.3 %	0.8 %	4.0 %	3.2 %	4.5 %	3.9 %	4.8 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	22.633 ppb	22.134 ppb	175.530 ppb	188.133 ppb	92.333 %	9.922 ppb	10.060 ppb	92.361 %	178.674 ppb
Concentration per Run 1	21.928 ppb	21.400 ppb	172.711 ppb	175.216 ppb	97.314 %	9.347 ppb	9.298 ppb	101.220 %	167.853 ppb
Concentration per Run 2	22.746 ppb	22.695 ppb	175.293 ppb	195.195 ppb	89.747 %	10.309 ppb	10.635 ppb	87.289 %	184.934 ppb
Concentration per Run 3	23.225 ppb	22.307 ppb	178.586 ppb	193.988 ppb	89.939 %	10.112 ppb	10.247 ppb	88.576 %	183.234 ppb
Concentration RSD	2.9 %	3.0 %	1.7 %	6.0 %	4.7 %	5.1 %	6.8 %	8.3 %	5.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.373 ppb	376.150 ppb	98.767 %	98.669 %	0.038 ppb	22.306 ppb	100.928 ppb	98.050 %
Concentration per Run 1	86.821 ppb	356.935 ppb	104.022 %	104.915 %	0.025 ppb	20.716 ppb	94.984 ppb	102.815 %
Concentration per Run 2	97.236 ppb	384.110 ppb	95.900 %	95.228 %	0.039 ppb	22.850 ppb	103.292 ppb	95.579 %
Concentration per Run 3	96.061 ppb	387.403 ppb	96.378 %	95.864 %	0.049 ppb	23.351 ppb	104.508 ppb	95.754 %
Concentration RSD	6.1 %	4.4 %	4.6 %	5.5 %	32.4 %	6.3 %	5.1 %	4.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	23	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2444395-02d2 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:14:20 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.064 %	101.071 %	0.010 ppb	135.868 ppb	90.268 ppb	7.337 ppb	17.363 ppb	523.583 ppb	95.314 %
Concentration per Run 1	95.634 %	106.733 %	0.007 ppb	118.979 ppb	71.730 ppb	5.806 ppb	11.711 ppb	468.181 ppb	94.906 %
Concentration per Run 2	94.750 %	100.076 %	0.011 ppb	135.945 ppb	98.986 ppb	7.278 ppb	17.739 ppb	503.286 ppb	95.594 %
Concentration per Run 3	94.809 %	96.404 %	0.011 ppb	152.679 ppb	100.087 ppb	8.928 ppb	22.640 ppb	599.283 ppb	95.442 %
Concentration RSD	0.5 %	5.2 %	23.6 %	12.4 %	17.8 %	21.3 %	31.5 %	13.0 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.102 ppb	0.360 ppb	0.663 ppb	26.410 ppb	0.101 ppb	0.236 ppb	1.226 ppb	5.096 ppb	94.123 %
Concentration per Run 1	0.084 ppb	0.348 ppb	0.575 ppb	27.476 ppb	0.118 ppb	0.200 ppb	1.064 ppb	4.937 ppb	91.675 %
Concentration per Run 2	0.070 ppb	0.361 ppb	0.730 ppb	27.125 ppb	0.092 ppb	0.284 ppb	1.181 ppb	5.163 ppb	92.192 %
Concentration per Run 3	0.151 ppb	0.372 ppb	0.684 ppb	24.629 ppb	0.093 ppb	0.225 ppb	1.432 ppb	5.190 ppb	98.502 %
Concentration RSD	42.2 %	3.3 %	12.0 %	5.9 %	14.7 %	18.3 %	15.3 %	2.7 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.171 ppb	0.041 ppb	1.844 ppb	1.228 ppb	93.917 %	0.005 ppb	0.014 ppb	93.527 %	1.681 ppb
Concentration per Run 1	0.135 ppb	0.139 ppb	1.786 ppb	1.142 ppb	95.676 %	0.001 ppb	0.012 ppb	93.485 %	1.563 ppb
Concentration per Run 2	0.209 ppb	-0.049 ppb	1.808 ppb	1.125 ppb	92.672 %	0.009 ppb	0.017 ppb	90.705 %	1.876 ppb
Concentration per Run 3	0.170 ppb	0.032 ppb	1.937 ppb	1.416 ppb	93.403 %	0.004 ppb	0.014 ppb	96.391 %	1.603 ppb
Concentration RSD	21.8 %	231.8 %	4.4 %	13.3 %	1.7 %	86.6 %	17.6 %	3.0 %	10.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.258 ppb	1.628 ppb	99.307 %	99.365 %	0.145 ppb	0.420 ppb	0.254 ppb	99.681 %
Concentration per Run 1	0.242 ppb	1.640 ppb	98.593 %	98.822 %	0.114 ppb	0.284 ppb	0.272 ppb	101.213 %
Concentration per Run 2	0.274 ppb	1.586 ppb	98.454 %	97.990 %	0.163 ppb	0.536 ppb	0.255 ppb	97.542 %
Concentration per Run 3	0.258 ppb	1.659 ppb	100.875 %	101.283 %	0.159 ppb	0.441 ppb	0.235 ppb	100.287 %
Concentration RSD	6.2 %	2.3 %	1.4 %	1.7 %	18.6 %	30.2 %	7.3 %	1.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	24	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2444462-01d2 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:18:47 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.309 %	95.792 %	0.004 ppb	173.990 ppb	110.054 ppb	15.550 ppb	14.430 ppb	522.773 ppb	97.762 %
Concentration per Run 1	95.806 %	95.715 %	0.006 ppb	158.837 ppb	104.679 ppb	14.711 ppb	8.927 ppb	522.822 ppb	97.032 %
Concentration per Run 2	96.409 %	89.977 %	0.004 ppb	182.585 ppb	112.319 ppb	16.452 ppb	14.801 ppb	506.394 ppb	98.189 %
Concentration per Run 3	96.711 %	101.683 %	0.004 ppb	180.548 ppb	113.164 ppb	15.487 ppb	19.561 ppb	539.105 ppb	98.064 %
Concentration RSD	0.5 %	6.1 %	24.0 %	7.6 %	4.2 %	5.6 %	36.9 %	3.1 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.139 ppb	2.159 ppb	1.273 ppb	28.320 ppb	0.189 ppb	0.384 ppb	0.581 ppb	6.524 ppb	93.839 %
Concentration per Run 1	0.011 ppb	2.091 ppb	0.890 ppb	26.577 ppb	0.090 ppb	0.230 ppb	0.448 ppb	6.381 ppb	91.669 %
Concentration per Run 2	0.132 ppb	2.260 ppb	1.073 ppb	30.824 ppb	0.049 ppb	0.171 ppb	0.497 ppb	6.646 ppb	92.531 %
Concentration per Run 3	0.275 ppb	2.127 ppb	1.855 ppb	27.561 ppb	0.428 ppb	0.749 ppb	0.798 ppb	6.546 ppb	97.318 %
Concentration RSD	95.0 %	4.1 %	40.3 %	7.8 %	110.2 %	82.9 %	32.6 %	2.1 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.155 ppb	-0.004 ppb	0.942 ppb	0.996 ppb	92.252 %	0.015 ppb	0.018 ppb	90.845 %	1.036 ppb
Concentration per Run 1	0.140 ppb	-0.068 ppb	0.689 ppb	0.601 ppb	92.433 %	0.000 ppb	0.008 ppb	89.783 %	0.736 ppb
Concentration per Run 2	0.128 ppb	0.032 ppb	0.734 ppb	0.775 ppb	91.162 %	0.002 ppb	0.006 ppb	87.783 %	0.799 ppb
Concentration per Run 3	0.198 ppb	0.025 ppb	1.402 ppb	1.613 ppb	93.161 %	0.042 ppb	0.042 ppb	94.970 %	1.572 ppb
Concentration RSD	24.1 %	1,554.1 %	42.4 %	54.3 %	1.1 %	160.9 %	111.1 %	4.1 %	44.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.234 ppb	1.544 ppb	97.343 %	97.155 %	0.556 ppb	0.174 ppb	0.276 ppb	98.146 %
Concentration per Run 1	0.098 ppb	1.047 ppb	95.376 %	94.722 %	0.451 ppb	0.063 ppb	0.147 ppb	97.080 %
Concentration per Run 2	0.156 ppb	1.138 ppb	95.903 %	94.722 %	0.574 ppb	0.184 ppb	0.148 ppb	97.171 %
Concentration per Run 3	0.447 ppb	2.447 ppb	100.750 %	102.022 %	0.644 ppb	0.275 ppb	0.533 ppb	100.188 %
Concentration RSD	80.1 %	50.7 %	3.0 %	4.3 %	17.6 %	61.0 %	80.6 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	25	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441542-01d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:23:15 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.396 %	98.929 %	0.240 ppb	51.446 ppb	3,474.709 ppb	7,204.364 ppb	1,580.352 ppb	1,744.600 ppb	104.639 %
Concentration per Run 1	101.620 %	101.224 %	0.224 ppb	43.067 ppb	3,156.795 ppb	6,564.041 ppb	1,450.270 ppb	1,589.146 ppb	103.803 %
Concentration per Run 2	101.317 %	91.813 %	0.243 ppb	61.098 ppb	3,604.325 ppb	7,440.686 ppb	1,658.320 ppb	1,829.307 ppb	104.712 %
Concentration per Run 3	101.251 %	103.749 %	0.253 ppb	50.173 ppb	3,663.006 ppb	7,608.365 ppb	1,632.465 ppb	1,815.348 ppb	105.403 %
Concentration RSD	0.2 %	6.4 %	6.0 %	17.7 %	8.0 %	7.8 %	7.2 %	7.7 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	18.212 ppb	21.128 ppb	356.831 ppb	11,886.757 ppb	5.061 ppb	18.383 ppb	14.834 ppb	62.635 ppb	95.495 %
Concentration per Run 1	17.227 ppb	19.633 ppb	328.855 ppb	11,116.288 ppb	4.747 ppb	17.517 ppb	14.348 ppb	58.613 ppb	97.192 %
Concentration per Run 2	18.629 ppb	21.887 ppb	366.996 ppb	12,307.757 ppb	5.336 ppb	18.771 ppb	15.481 ppb	64.178 ppb	92.350 %
Concentration per Run 3	18.782 ppb	21.865 ppb	374.642 ppb	12,236.227 ppb	5.102 ppb	18.862 ppb	14.673 ppb	65.113 ppb	96.944 %
Concentration RSD	4.7 %	6.1 %	6.9 %	5.6 %	5.9 %	4.1 %	3.9 %	5.6 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	9.311 ppb	0.759 ppb	6.374 ppb	0.509 ppb	93.860 %	0.149 ppb	0.349 ppb	93.300 %	0.882 ppb
Concentration per Run 1	8.886 ppb	0.733 ppb	5.949 ppb	0.499 ppb	95.226 %	0.136 ppb	0.327 ppb	93.776 %	0.676 ppb
Concentration per Run 2	9.695 ppb	0.814 ppb	6.434 ppb	0.459 ppb	92.084 %	0.159 ppb	0.351 ppb	89.854 %	0.972 ppb
Concentration per Run 3	9.353 ppb	0.729 ppb	6.737 ppb	0.570 ppb	94.270 %	0.153 ppb	0.369 ppb	96.270 %	0.999 ppb
Concentration RSD	4.4 %	6.3 %	6.2 %	11.0 %	1.7 %	8.0 %	6.1 %	3.5 %	20.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.474 ppb	40.576 ppb	100.030 %	100.404 %	0.171 ppb	0.178 ppb	16.886 ppb	98.480 %
Concentration per Run 1	0.424 ppb	38.120 ppb	101.230 %	101.302 %	0.152 ppb	0.120 ppb	16.130 ppb	98.874 %
Concentration per Run 2	0.507 ppb	41.533 ppb	97.776 %	97.919 %	0.182 ppb	0.195 ppb	17.335 ppb	96.692 %
Concentration per Run 3	0.492 ppb	42.075 ppb	101.084 %	101.991 %	0.179 ppb	0.217 ppb	17.194 ppb	99.873 %
Concentration RSD	9.3 %	5.3 %	2.0 %	2.2 %	9.5 %	28.7 %	3.9 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	26	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441542-02d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:27:43 AM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.698 %	99.082 %	0.244 ppb	63.785 ppb	2,901.709 ppb	5,904.562 ppb	1,340.681 ppb	1,210.550 ppb	101.973 %
Concentration per Run 1	101.400 %	94.109 %	0.251 ppb	67.831 ppb	2,952.937 ppb	5,931.499 ppb	1,346.187 ppb	1,188.076 ppb	101.366 %
Concentration per Run 2	102.483 %	102.142 %	0.247 ppb	60.571 ppb	2,843.014 ppb	5,779.391 ppb	1,331.040 ppb	1,222.954 ppb	102.436 %
Concentration per Run 3	101.210 %	100.995 %	0.233 ppb	62.954 ppb	2,909.177 ppb	6,002.797 ppb	1,344.817 ppb	1,220.620 ppb	102.119 %
Concentration RSD	0.7 %	4.4 %	3.9 %	5.8 %	1.9 %	1.9 %	0.6 %	1.6 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	16.942 ppb	20.344 ppb	323.422 ppb	12,746.539 ppb	5.834 ppb	13.535 ppb	10.206 ppb	52.927 ppb	94.052 %
Concentration per Run 1	16.439 ppb	19.933 ppb	313.607 ppb	12,333.340 ppb	5.745 ppb	12.997 ppb	9.519 ppb	51.312 ppb	97.262 %
Concentration per Run 2	17.024 ppb	20.129 ppb	321.122 ppb	12,657.577 ppb	5.944 ppb	13.484 ppb	10.457 ppb	53.135 ppb	94.041 %
Concentration per Run 3	17.362 ppb	20.970 ppb	335.538 ppb	13,248.700 ppb	5.812 ppb	14.124 ppb	10.641 ppb	54.333 ppb	90.852 %
Concentration RSD	2.8 %	2.7 %	3.4 %	3.6 %	1.7 %	4.2 %	5.9 %	2.9 %	3.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	4.873 ppb	0.826 ppb	6.600 ppb	0.284 ppb	94.014 %	0.037 ppb	0.213 ppb	91.189 %	0.984 ppb
Concentration per Run 1	4.845 ppb	0.763 ppb	6.331 ppb	0.277 ppb	95.398 %	0.047 ppb	0.236 ppb	90.852 %	0.959 ppb
Concentration per Run 2	4.800 ppb	1.034 ppb	6.632 ppb	0.287 ppb	93.044 %	0.030 ppb	0.206 ppb	89.932 %	0.941 ppb
Concentration per Run 3	4.975 ppb	0.680 ppb	6.837 ppb	0.288 ppb	93.601 %	0.035 ppb	0.197 ppb	92.783 %	1.052 ppb
Concentration RSD	1.9 %	22.4 %	3.9 %	2.2 %	1.3 %	23.4 %	9.6 %	1.6 %	6.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	4.314 ppb	39.358 ppb	98.815 %	98.342 %	0.164 ppb	0.160 ppb	33.945 ppb	95.031 %
Concentration per Run 1	4.224 ppb	39.076 ppb	98.928 %	98.484 %	0.139 ppb	0.113 ppb	32.670 ppb	96.358 %
Concentration per Run 2	4.428 ppb	40.055 ppb	98.557 %	97.380 %	0.170 ppb	0.183 ppb	34.939 ppb	93.849 %
Concentration per Run 3	4.289 ppb	38.942 ppb	98.959 %	99.162 %	0.184 ppb	0.185 ppb	34.225 ppb	94.886 %
Concentration RSD	2.4 %	1.5 %	0.2 %	0.9 %	14.2 %	25.8 %	3.4 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	27	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441542-03d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 7:32:11 AM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.298 %	101.071 %	0.241 ppb	51.655 ppb	2,403.567 ppb	5,415.127 ppb	826.697 ppb	1,159.227 ppb	104.303 %
Concentration per Run 1	102.983 %	109.028 %	0.250 ppb	36.691 ppb	2,203.833 ppb	4,901.655 ppb	750.289 ppb	1,142.946 ppb	105.194 %
Concentration per Run 2	102.662 %	86.993 %	0.242 ppb	76.603 ppb	2,691.221 ppb	6,075.407 ppb	917.695 ppb	1,248.354 ppb	105.246 %
Concentration per Run 3	101.250 %	107.192 %	0.232 ppb	41.670 ppb	2,315.648 ppb	5,268.319 ppb	812.107 ppb	1,086.382 ppb	102.470 %
Concentration RSD	0.9 %	12.1 %	3.7 %	42.1 %	10.6 %	11.1 %	10.2 %	7.1 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	13.351 ppb	16.616 ppb	302.248 ppb	10,572.707 ppb	5.320 ppb	11.569 ppb	10.763 ppb	56.710 ppb	95.396 %
Concentration per Run 1	12.216 ppb	15.596 ppb	282.453 ppb	10,081.287 ppb	4.965 ppb	10.822 ppb	10.428 ppb	54.185 ppb	96.708 %
Concentration per Run 2	14.238 ppb	18.055 ppb	321.149 ppb	11,075.299 ppb	5.730 ppb	12.322 ppb	11.424 ppb	58.404 ppb	94.538 %
Concentration per Run 3	13.599 ppb	16.198 ppb	303.142 ppb	10,561.535 ppb	5.264 ppb	11.563 ppb	10.437 ppb	57.541 ppb	94.941 %
Concentration RSD	7.7 %	7.7 %	6.4 %	4.7 %	7.3 %	6.5 %	5.3 %	3.9 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	3.794 ppb	0.636 ppb	5.863 ppb	0.316 ppb	94.644 %	0.036 ppb	0.240 ppb	91.639 %	1.060 ppb
Concentration per Run 1	3.479 ppb	0.534 ppb	5.541 ppb	0.237 ppb	97.564 %	0.038 ppb	0.196 ppb	94.330 %	0.994 ppb
Concentration per Run 2	4.136 ppb	0.592 ppb	5.978 ppb	0.343 ppb	92.594 %	0.032 ppb	0.269 ppb	89.182 %	1.110 ppb
Concentration per Run 3	3.769 ppb	0.782 ppb	6.069 ppb	0.369 ppb	93.775 %	0.039 ppb	0.254 ppb	91.405 %	1.076 ppb
Concentration RSD	8.7 %	20.4 %	4.8 %	22.1 %	2.7 %	11.4 %	16.0 %	2.8 %	5.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.128 ppb	38.783 ppb	99.527 %	98.921 %	0.162 ppb	0.123 ppb	29.427 ppb	98.691 %
Concentration per Run 1	0.115 ppb	36.067 ppb	102.167 %	100.468 %	0.145 ppb	0.085 ppb	28.174 ppb	100.284 %
Concentration per Run 2	0.143 ppb	39.814 ppb	98.124 %	98.203 %	0.163 ppb	0.134 ppb	30.015 ppb	98.076 %
Concentration per Run 3	0.125 ppb	40.469 ppb	98.291 %	98.093 %	0.176 ppb	0.151 ppb	30.093 ppb	97.713 %
Concentration RSD	11.2 %	6.1 %	2.3 %	1.4 %	9.6 %	27.8 %	3.7 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	28	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Check (5/.5ppm)	Rack	4		
Analysis started at:	8/21/2024 7:36:40 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.771 %	100.383 %	0.012 ppb	-35.370 ppb	8.234 ppb	22.480 ppb	2.785 ppb	-0.774 ppb	109.424 %
Concentration per Run 1	106.080 %	96.633 %	0.013 ppb	-40.301 ppb	1.310 ppb	9.059 ppb	-0.754 ppb	-11.714 ppb	108.707 %
Concentration per Run 2	107.595 %	98.699 %	0.010 ppb	-35.915 ppb	4.225 ppb	16.946 ppb	1.874 ppb	-1.384 ppb	110.350 %
Concentration per Run 3	106.639 %	105.815 %	0.012 ppb	-29.894 ppb	19.168 ppb	41.434 ppb	7.234 ppb	10.776 ppb	109.214 %
Concentration RSD	0.7 %	4.8 %	11.1 %	14.8 %	116.3 %	75.1 %	146.2 %	1,454.2 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.057 ppb	0.091 ppb	4,045.449 ppb	50.669 ppb	0.071 ppb	4,031.751 ppb	4,155.275 ppb	4,837.528 ppb	102.142 %
Concentration per Run 1	0.053 ppb	0.045 ppb	3,865.208 ppb	23.160 ppb	0.023 ppb	3,899.086 ppb	4,025.681 ppb	4,667.960 ppb	101.308 %
Concentration per Run 2	0.001 ppb	0.049 ppb	4,163.311 ppb	36.494 ppb	0.052 ppb	4,125.870 ppb	4,248.673 ppb	4,973.291 ppb	101.490 %
Concentration per Run 3	0.118 ppb	0.180 ppb	4,107.829 ppb	92.353 ppb	0.140 ppb	4,070.296 ppb	4,191.470 ppb	4,871.333 ppb	103.629 %
Concentration RSD	101.7 %	83.9 %	3.9 %	72.5 %	84.8 %	2.9 %	2.8 %	3.2 %	1.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	435.093 ppb	0.444 ppb	0.192 ppb	0.080 ppb	102.985 %	0.081 ppb	0.040 ppb	97.963 %	0.213 ppb
Concentration per Run 1	422.044 ppb	0.421 ppb	0.101 ppb	-0.020 ppb	104.994 %	0.070 ppb	0.039 ppb	98.445 %	-0.019 ppb
Concentration per Run 2	439.489 ppb	0.306 ppb	0.160 ppb	0.084 ppb	100.771 %	0.076 ppb	0.030 ppb	97.199 %	0.261 ppb
Concentration per Run 3	443.746 ppb	0.606 ppb	0.314 ppb	0.175 ppb	103.190 %	0.097 ppb	0.052 ppb	98.245 %	0.398 ppb
Concentration RSD	2.6 %	34.1 %	57.5 %	122.1 %	2.1 %	17.7 %	27.4 %	0.7 %	99.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.600 ppb	4,718.056 ppb	103.540 %	103.074 %	-0.012 ppb	0.049 ppb	4,569.927 ppb	102.803 %
Concentration per Run 1	0.504 ppb	4,418.278 ppb	106.717 %	106.231 %	-0.027 ppb	0.007 ppb	4,280.861 ppb	105.753 %
Concentration per Run 2	0.648 ppb	4,878.364 ppb	101.166 %	100.876 %	-0.007 ppb	0.056 ppb	4,736.213 ppb	101.023 %
Concentration per Run 3	0.648 ppb	4,857.526 ppb	102.738 %	102.115 %	-0.001 ppb	0.084 ppb	4,692.707 ppb	101.633 %
Concentration RSD	13.8 %	5.5 %	2.8 %	2.7 %	117.4 %	80.2 %	5.5 %	2.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	30	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 7:45:53 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.200 %	101.836 %	63.067 ppb	5,747.340 ppb	5,703.630 ppb	61.168 ppb	5,634.800 ppb	5,705.867 ppb	94.272 %
Concentration per Run 1	93.590 %	100.995 %	62.507 ppb	5,803.312 ppb	5,731.437 ppb	62.974 ppb	5,711.247 ppb	5,645.359 ppb	93.597 %
Concentration per Run 2	93.364 %	103.060 %	63.411 ppb	5,656.682 ppb	5,671.999 ppb	59.923 ppb	5,506.328 ppb	5,721.133 ppb	95.103 %
Concentration per Run 3	92.647 %	101.454 %	63.284 ppb	5,782.027 ppb	5,707.454 ppb	60.607 ppb	5,686.824 ppb	5,751.108 ppb	94.115 %
Recovery Percentage 1			105.112 %	95.789 %	95.061 %	101.947 %	93.913 %	95.098 %	
Concentration RSD	0.5 %	1.1 %	0.8 %	1.4 %	0.5 %	2.6 %	2.0 %	1.0 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.748 ppb	60.393 ppb	61.439 ppb	6,010.546 ppb	61.690 ppb	63.372 ppb	63.386 ppb	64.105 ppb	93.948 %
Concentration per Run 1	57.504 ppb	58.937 ppb	60.307 ppb	5,833.296 ppb	60.226 ppb	60.756 ppb	61.880 ppb	61.423 ppb	100.619 %
Concentration per Run 2	59.629 ppb	61.284 ppb	61.928 ppb	6,073.378 ppb	61.937 ppb	64.427 ppb	63.489 ppb	64.818 ppb	92.422 %
Concentration per Run 3	62.111 ppb	60.960 ppb	62.083 ppb	6,124.965 ppb	62.907 ppb	64.932 ppb	64.789 ppb	66.074 ppb	88.804 %
Recovery Percentage 1	99.580 %	100.656 %	102.399 %	100.176 %	102.817 %	105.619 %	105.644 %	106.842 %	
Concentration RSD	3.9 %	2.1 %	1.6 %	2.6 %	2.2 %	3.6 %	2.3 %	3.8 %	6.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	62.139 ppb	61.704 ppb	57.798 ppb	59.542 ppb	96.072 %	57.177 ppb	60.628 ppb	95.073 %	58.459 ppb
Concentration per Run 1	58.813 ppb	59.696 ppb	54.748 ppb	55.906 ppb	102.683 %	54.662 ppb	57.285 ppb	101.110 %	56.096 ppb
Concentration per Run 2	63.172 ppb	61.061 ppb	58.964 ppb	61.160 ppb	94.135 %	57.945 ppb	61.693 ppb	93.368 %	59.199 ppb
Concentration per Run 3	64.432 ppb	64.356 ppb	59.682 ppb	61.560 ppb	91.398 %	58.924 ppb	62.906 ppb	90.740 %	60.083 ppb
Recovery Percentage 1	103.565 %	102.840 %	96.330 %	99.237 %		95.295 %	101.047 %		97.432 %
Concentration RSD	4.7 %	3.9 %	4.6 %	5.3 %	6.1 %	3.9 %	4.9 %	5.7 %	3.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.538 ppb	60.441 ppb	102.532 %	103.216 %	59.542 ppb	58.161 ppb	59.994 ppb	104.352 %
Concentration per Run 1	56.417 ppb	57.150 ppb	109.326 %	109.703 %	56.815 ppb	54.276 ppb	56.622 ppb	112.908 %
Concentration per Run 2	59.076 ppb	62.073 ppb	99.988 %	99.843 %	61.269 ppb	59.397 ppb	61.391 ppb	101.363 %
Concentration per Run 3	60.120 ppb	62.100 ppb	98.283 %	100.102 %	60.540 ppb	60.809 ppb	61.967 ppb	98.783 %
Recovery Percentage 1	97.563 %	100.735 %			99.236 %	96.934 %	99.989 %	
Concentration RSD	3.3 %	4.7 %	5.8 %	5.4 %	4.0 %	5.9 %	4.9 %	7.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	31	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 7:50:24 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.329 %	94.338 %	0.028 ppb	-44.316 ppb	-0.094 ppb	0.177 ppb	-4.199 ppb	-15.445 ppb	93.194 %
Concentration per Run 1	94.197 %	95.945 %	0.028 ppb	-46.041 ppb	0.575 ppb	0.284 ppb	2.543 ppb	-17.555 ppb	92.259 %
Concentration per Run 2	94.253 %	84.468 %	0.025 ppb	-39.177 ppb	-0.575 ppb	0.143 ppb	-4.850 ppb	-18.311 ppb	94.295 %
Concentration per Run 3	94.538 %	102.601 %	0.030 ppb	-47.729 ppb	-0.282 ppb	0.105 ppb	-10.290 ppb	-10.467 ppb	93.028 %
Recovery Percentage 1			5.535 %	-44.316 %	-0.135 %	1.774 %	-4.199 %	-15.445 %	
Concentration RSD	0.2 %	9.7 %	7.8 %	10.2 %	634.0 %	53.3 %	153.4 %	28.0 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.001 ppb	0.022 ppb	0.642 ppb	13.925 ppb	0.044 ppb	0.659 ppb	0.511 ppb	0.884 ppb	90.354 %
Concentration per Run 1	-0.044 ppb	0.010 ppb	0.638 ppb	12.958 ppb	0.053 ppb	0.853 ppb	0.568 ppb	0.928 ppb	93.342 %
Concentration per Run 2	0.069 ppb	0.019 ppb	0.621 ppb	13.046 ppb	0.031 ppb	0.550 ppb	0.436 ppb	0.942 ppb	87.473 %
Concentration per Run 3	-0.027 ppb	0.038 ppb	0.665 ppb	15.770 ppb	0.048 ppb	0.572 ppb	0.528 ppb	0.782 ppb	90.247 %
Recovery Percentage 1	-0.012 %	2.226 %	64.150 %	27.849 %	8.778 %	32.926 %	51.070 %	17.679 %	
Concentration RSD	10,510.7 %	63.0 %	3.5 %	11.5 %	26.5 %	25.6 %	13.3 %	10.0 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.351 ppb	0.134 ppb	0.022 ppb	0.447 ppb	92.780 %	0.039 ppb	0.050 ppb	90.325 %	0.016 ppb
Concentration per Run 1	0.305 ppb	0.124 ppb	0.025 ppb	0.356 ppb	94.501 %	0.046 ppb	0.052 ppb	91.413 %	-0.023 ppb
Concentration per Run 2	0.290 ppb	0.228 ppb	0.023 ppb	0.433 ppb	91.130 %	0.044 ppb	0.042 ppb	88.567 %	-0.036 ppb
Concentration per Run 3	0.458 ppb	0.050 ppb	0.019 ppb	0.553 ppb	92.708 %	0.027 ppb	0.055 ppb	90.996 %	0.109 ppb
Recovery Percentage 1	70.149 %	2.675 %	0.223 %	22.366 %		9.699 %	24.769 %		0.550 %
Concentration RSD	26.5 %	66.9 %	13.5 %	22.2 %	1.8 %	26.9 %	13.2 %	1.7 %	485.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.305 ppb	0.694 ppb	98.285 %	98.058 %	0.631 ppb	0.618 ppb	0.862 ppb	99.163 %
Concentration per Run 1	0.286 ppb	0.687 ppb	102.142 %	101.173 %	0.503 ppb	0.478 ppb	0.903 ppb	102.212 %
Concentration per Run 2	0.320 ppb	0.770 ppb	96.911 %	96.487 %	0.615 ppb	0.729 ppb	0.846 ppb	97.885 %
Concentration per Run 3	0.310 ppb	0.624 ppb	95.802 %	96.515 %	0.774 ppb	0.646 ppb	0.836 ppb	97.392 %
Recovery Percentage 1	7.629 %	138.782 %			31.540 %	61.780 %	86.169 %	
Concentration RSD	5.8 %	10.6 %	3.4 %	2.8 %	21.6 %	20.7 %	4.2 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	32	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 7:58:18 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.779 %	94.262 %	0.006 ppb	-49.076 ppb	-2.292 ppb	-0.362 ppb	-6.132 ppb	-16.071 ppb	94.725 %
Concentration per Run 1	96.488 %	96.863 %	0.005 ppb	-50.831 ppb	-2.567 ppb	-0.388 ppb	-6.794 ppb	-15.768 ppb	94.921 %
Concentration per Run 2	97.060 %	92.731 %	0.007 ppb	-47.949 ppb	-2.254 ppb	-0.271 ppb	-8.421 ppb	-15.393 ppb	94.347 %
Concentration per Run 3	96.790 %	93.190 %	0.006 ppb	-48.447 ppb	-2.054 ppb	-0.427 ppb	-3.181 ppb	-17.053 ppb	94.906 %
Recovery Percentage 1			1.165 %	-49.076 %	-3.274 %	-3.619 %	-6.132 %	-16.071 %	
Concentration RSD	0.3 %	2.4 %	16.1 %	3.1 %	11.3 %	22.3 %	43.7 %	5.4 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.057 ppb	-0.016 ppb	0.048 ppb	3.088 ppb	0.005 ppb	0.081 ppb	0.012 ppb	0.196 ppb	90.664 %
Concentration per Run 1	-0.061 ppb	-0.012 ppb	0.061 ppb	3.711 ppb	0.009 ppb	0.140 ppb	0.015 ppb	0.219 ppb	91.122 %
Concentration per Run 2	-0.041 ppb	-0.013 ppb	0.020 ppb	3.078 ppb	0.004 ppb	0.066 ppb	0.000 ppb	0.147 ppb	88.863 %
Concentration per Run 3	-0.070 ppb	-0.022 ppb	0.062 ppb	2.475 ppb	0.003 ppb	0.038 ppb	0.021 ppb	0.221 ppb	92.008 %
Recovery Percentage 1	-1.149 %	-1.560 %	4.776 %	6.176 %	1.050 %	4.073 %	1.234 %	3.913 %	
Concentration RSD	26.0 %	38.4 %	50.3 %	20.0 %	60.4 %	64.3 %	88.4 %	21.7 %	1.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.172 ppb	0.118 ppb	-0.013 ppb	0.060 ppb	92.696 %	0.001 ppb	0.005 ppb	90.777 %	-0.282 ppb
Concentration per Run 1	0.166 ppb	0.076 ppb	-0.009 ppb	-0.009 ppb	96.242 %	0.001 ppb	0.009 ppb	94.227 %	-0.327 ppb
Concentration per Run 2	0.174 ppb	0.007 ppb	-0.012 ppb	0.053 ppb	88.681 %	0.001 ppb	0.001 ppb	85.391 %	-0.267 ppb
Concentration per Run 3	0.174 ppb	0.271 ppb	-0.018 ppb	0.134 ppb	93.165 %	0.002 ppb	0.003 ppb	92.713 %	-0.253 ppb
Recovery Percentage 1	34.326 %	2.353 %	-0.127 %	2.981 %		0.359 %	2.255 %		-9.409 %
Concentration RSD	2.6 %	116.4 %	35.5 %	120.4 %	4.1 %	9.7 %	97.5 %	5.2 %	14.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.057 ppb	0.102 ppb	98.530 %	99.449 %	0.084 ppb	0.112 ppb	0.276 ppb	100.422 %
Concentration per Run 1	0.035 ppb	0.107 ppb	103.482 %	103.713 %	0.041 ppb	0.048 ppb	0.283 ppb	106.357 %
Concentration per Run 2	0.061 ppb	0.053 ppb	91.951 %	93.789 %	0.088 ppb	0.142 ppb	0.280 ppb	94.683 %
Concentration per Run 3	0.074 ppb	0.146 ppb	100.157 %	100.845 %	0.122 ppb	0.144 ppb	0.266 ppb	100.227 %
Recovery Percentage 1	1.416 %	20.408 %			4.180 %	11.152 %	27.615 %	
Concentration RSD	35.7 %	45.9 %	6.0 %	5.1 %	48.7 %	49.0 %	3.2 %	5.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	33	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Check (2/.2ppm)	Rack	4		
Analysis started at:	8/21/2024 8:03:49 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.666 %	102.984 %	0.008 ppb	-48.053 ppb	-2.406 ppb	0.821 ppb	-5.610 ppb	-18.513 ppb	100.833 %
Concentration per Run 1	102.479 %	102.372 %	0.002 ppb	-53.403 ppb	-3.310 ppb	0.500 ppb	-4.876 ppb	-20.776 ppb	102.256 %
Concentration per Run 2	102.417 %	106.274 %	0.010 ppb	-46.728 ppb	-1.905 ppb	1.172 ppb	-8.547 ppb	-20.916 ppb	103.392 %
Concentration per Run 3	100.102 %	100.306 %	0.012 ppb	-44.027 ppb	-2.004 ppb	0.792 ppb	-3.406 ppb	-13.847 ppb	96.852 %
Concentration RSD	1.3 %	2.9 %	64.6 %	10.0 %	32.6 %	41.0 %	47.2 %	21.8 %	3.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.070 ppb	-0.012 ppb	1,914.767 ppb	3.148 ppb	0.013 ppb	1,913.397 ppb	1,973.272 ppb	1,960.971 ppb	96.352 %
Concentration per Run 1	-0.056 ppb	0.005 ppb	1,822.105 ppb	2.539 ppb	0.011 ppb	1,833.103 ppb	1,893.114 ppb	1,870.545 ppb	95.853 %
Concentration per Run 2	-0.099 ppb	-0.025 ppb	1,934.797 ppb	3.190 ppb	0.016 ppb	1,934.908 ppb	1,989.097 ppb	1,987.979 ppb	96.462 %
Concentration per Run 3	-0.055 ppb	-0.014 ppb	1,987.399 ppb	3.714 ppb	0.011 ppb	1,972.179 ppb	2,037.605 ppb	2,024.390 ppb	96.739 %
Concentration RSD	35.6 %	129.6 %	4.4 %	18.7 %	23.3 %	3.8 %	3.7 %	4.1 %	0.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	175.251 ppb	0.179 ppb	0.040 ppb	-0.005 ppb	98.035 %	0.032 ppb	0.021 ppb	94.737 %	-0.167 ppb
Concentration per Run 1	168.596 ppb	0.172 ppb	0.036 ppb	-0.034 ppb	99.476 %	0.027 ppb	0.026 ppb	94.110 %	-0.239 ppb
Concentration per Run 2	177.282 ppb	0.108 ppb	0.042 ppb	0.008 ppb	96.655 %	0.033 ppb	0.020 ppb	95.397 %	-0.218 ppb
Concentration per Run 3	179.874 ppb	0.258 ppb	0.041 ppb	0.013 ppb	97.975 %	0.037 ppb	0.016 ppb	94.704 %	-0.044 ppb
Concentration RSD	3.4 %	41.8 %	8.5 %	573.8 %	1.4 %	16.1 %	25.9 %	0.7 %	64.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.248 ppb	1,900.735 ppb	101.370 %	101.319 %	0.036 ppb	0.064 ppb	1,905.669 ppb	101.417 %
Concentration per Run 1	0.215 ppb	1,773.615 ppb	99.858 %	99.069 %	0.018 ppb	0.030 ppb	1,813.389 ppb	100.636 %
Concentration per Run 2	0.265 ppb	1,941.585 ppb	102.172 %	102.452 %	0.034 ppb	0.083 ppb	1,948.317 ppb	101.225 %
Concentration per Run 3	0.266 ppb	1,987.004 ppb	102.080 %	102.435 %	0.057 ppb	0.081 ppb	1,955.301 ppb	102.390 %
Concentration RSD	11.8 %	5.9 %	1.3 %	1.9 %	53.2 %	47.0 %	4.2 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	34	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961515-1d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 8:18:44 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.833 %	95.486 %	-0.002 ppb	-45.640 ppb	-2.177 ppb	0.635 ppb	-4.503 ppb	-11.635 ppb	98.846 %
Concentration per Run 1	100.389 %	91.584 %	0.000 ppb	-43.662 ppb	-1.550 ppb	0.428 ppb	-0.491 ppb	-18.508 ppb	96.733 %
Concentration per Run 2	102.286 %	97.552 %	-0.004 ppb	-46.698 ppb	-1.947 ppb	0.590 ppb	-6.359 ppb	-9.022 ppb	99.415 %
Concentration per Run 3	102.824 %	97.322 %	-0.004 ppb	-46.559 ppb	-3.033 ppb	0.888 ppb	-6.658 ppb	-7.375 ppb	100.389 %
Concentration RSD	1.3 %	3.5 %	97.0 %	3.8 %	35.3 %	36.7 %	77.2 %	51.6 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.048 ppb	0.007 ppb	0.586 ppb	4.589 ppb	0.004 ppb	0.553 ppb	0.580 ppb	0.905 ppb	93.942 %
Concentration per Run 1	-0.060 ppb	-0.005 ppb	0.504 ppb	3.765 ppb	0.003 ppb	0.543 ppb	0.743 ppb	1.005 ppb	91.404 %
Concentration per Run 2	-0.011 ppb	0.024 ppb	0.788 ppb	5.427 ppb	-0.002 ppb	0.571 ppb	0.552 ppb	0.921 ppb	96.375 %
Concentration per Run 3	-0.071 ppb	0.001 ppb	0.466 ppb	4.574 ppb	0.011 ppb	0.547 ppb	0.446 ppb	0.789 ppb	94.047 %
Concentration RSD	67.0 %	228.6 %	30.0 %	18.1 %	169.6 %	2.7 %	26.0 %	12.1 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.276 ppb	0.004 ppb	-0.011 ppb	0.002 ppb	93.662 %	-0.001 ppb	0.002 ppb	91.725 %	-0.314 ppb
Concentration per Run 1	0.308 ppb	0.000 ppb	-0.010 ppb	-0.009 ppb	96.862 %	-0.002 ppb	0.001 ppb	94.053 %	-0.410 ppb
Concentration per Run 2	0.303 ppb	0.044 ppb	-0.013 ppb	-0.050 ppb	89.441 %	0.000 ppb	-0.001 ppb	87.327 %	-0.273 ppb
Concentration per Run 3	0.218 ppb	-0.032 ppb	-0.009 ppb	0.064 ppb	94.682 %	0.000 ppb	0.005 ppb	93.794 %	-0.258 ppb
Concentration RSD	18.3 %	956.7 %	16.9 %	3,831.9 %	4.1 %	234.8 %	215.2 %	4.2 %	26.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.016 ppb	0.633 ppb	99.869 %	100.385 %	0.006 ppb	0.028 ppb	0.806 ppb	101.766 %
Concentration per Run 1	0.023 ppb	0.703 ppb	102.768 %	103.848 %	-0.006 ppb	0.006 ppb	0.908 ppb	105.414 %
Concentration per Run 2	0.011 ppb	0.715 ppb	97.167 %	97.451 %	0.004 ppb	0.034 ppb	0.876 ppb	98.803 %
Concentration per Run 3	0.013 ppb	0.481 ppb	99.670 %	99.856 %	0.020 ppb	0.045 ppb	0.634 ppb	101.080 %
Concentration RSD	41.5 %	20.9 %	2.8 %	3.2 %	226.9 %	71.3 %	18.6 %	3.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	35	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961515-2d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 8:23:13 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.082 %	95.103 %	9.675 ppb	1,877.543 ppb	1,848.114 ppb	352.057 ppb	1,788.979 ppb	1,748.236 ppb	96.467 %
Concentration per Run 1	98.143 %	96.633 %	9.720 ppb	1,866.746 ppb	1,816.685 ppb	348.813 ppb	1,764.218 ppb	1,805.495 ppb	97.693 %
Concentration per Run 2	97.165 %	90.895 %	9.695 ppb	1,900.411 ppb	1,883.637 ppb	346.817 ppb	1,828.360 ppb	1,757.227 ppb	96.689 %
Concentration per Run 3	95.939 %	97.781 %	9.610 ppb	1,865.472 ppb	1,844.021 ppb	360.540 ppb	1,774.359 ppb	1,681.984 ppb	95.018 %
Concentration RSD	1.1 %	3.9 %	0.6 %	1.1 %	1.8 %	2.1 %	1.9 %	3.6 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	90.024 ppb	36.975 ppb	93.407 ppb	193.011 ppb	95.971 ppb	94.999 ppb	48.591 ppb	96.354 ppb	91.500 %
Concentration per Run 1	88.566 ppb	36.552 ppb	93.823 ppb	201.141 ppb	95.672 ppb	94.236 ppb	47.822 ppb	96.485 ppb	92.578 %
Concentration per Run 2	90.671 ppb	37.608 ppb	94.378 ppb	197.199 ppb	97.794 ppb	98.032 ppb	50.086 ppb	97.347 ppb	87.351 %
Concentration per Run 3	90.836 ppb	36.765 ppb	92.021 ppb	180.692 ppb	94.447 ppb	92.728 ppb	47.866 ppb	95.229 ppb	94.572 %
Concentration RSD	1.4 %	1.5 %	1.3 %	5.6 %	1.8 %	2.9 %	2.7 %	1.1 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	21.396 ppb	20.373 ppb	180.079 ppb	193.263 ppb	92.956 %	9.630 ppb	10.201 ppb	90.321 %	186.611 ppb
Concentration per Run 1	21.056 ppb	21.041 ppb	176.690 ppb	187.454 ppb	93.984 %	9.432 ppb	9.988 ppb	89.763 %	185.150 ppb
Concentration per Run 2	21.781 ppb	20.226 ppb	183.174 ppb	198.691 ppb	92.850 %	9.772 ppb	10.247 ppb	89.246 %	189.755 ppb
Concentration per Run 3	21.349 ppb	19.851 ppb	180.373 ppb	193.644 ppb	92.034 %	9.687 ppb	10.368 ppb	91.956 %	184.927 ppb
Concentration RSD	1.7 %	3.0 %	1.8 %	2.9 %	1.1 %	1.8 %	1.9 %	1.6 %	1.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	93.412 ppb	378.191 ppb	98.901 %	98.136 %	0.025 ppb	20.609 ppb	101.341 ppb	98.983 %
Concentration per Run 1	93.252 ppb	382.953 ppb	98.550 %	96.809 %	0.010 ppb	20.230 ppb	101.445 ppb	97.964 %
Concentration per Run 2	94.615 ppb	380.855 ppb	99.485 %	98.564 %	0.024 ppb	21.292 ppb	104.960 ppb	96.606 %
Concentration per Run 3	92.369 ppb	370.765 ppb	98.668 %	99.036 %	0.041 ppb	20.304 ppb	97.618 ppb	102.380 %
Concentration RSD	1.2 %	1.7 %	0.5 %	1.2 %	61.1 %	2.9 %	3.6 %	3.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	36	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446114-21d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 8:27:43 AM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.314 %	106.197 %	0.625 ppb	367.350 ppb	5,253.354 ppb	15,624.580 ppb	2,725.186 ppb	952.070 ppb	123.219 %
Concentration per Run 1	107.732 %	106.733 %	0.617 ppb	340.898 ppb	4,934.333 ppb	14,678.633 ppb	2,559.701 ppb	950.317 ppb	123.877 %
Concentration per Run 2	106.311 %	102.372 %	0.611 ppb	382.683 ppb	5,462.452 ppb	16,375.733 ppb	2,858.866 ppb	972.826 ppb	124.123 %
Concentration per Run 3	104.899 %	109.487 %	0.646 ppb	378.469 ppb	5,363.278 ppb	15,819.374 ppb	2,756.991 ppb	933.067 ppb	121.658 %
Concentration RSD	1.3 %	3.4 %	3.0 %	6.3 %	5.3 %	5.5 %	5.6 %	2.1 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	54.550 ppb	59.772 ppb	283.848 ppb	56,058.184 ppb	8.673 ppb	27.351 ppb	342.019 ppb	94.282 ppb	96.499 %
Concentration per Run 1	52.059 ppb	56.817 ppb	267.368 ppb	53,025.453 ppb	8.160 ppb	26.434 ppb	324.009 ppb	90.761 ppb	96.868 %
Concentration per Run 2	55.031 ppb	61.649 ppb	293.656 ppb	58,137.078 ppb	9.098 ppb	28.320 ppb	354.025 ppb	97.005 ppb	95.321 %
Concentration per Run 3	56.559 ppb	60.851 ppb	290.520 ppb	57,012.021 ppb	8.762 ppb	27.299 ppb	348.022 ppb	95.080 ppb	97.309 %
Concentration RSD	4.2 %	4.3 %	5.1 %	4.8 %	5.5 %	3.5 %	4.6 %	3.4 %	1.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	56.037 ppb	6.209 ppb	17.429 ppb	3.710 ppb	93.673 %	2.460 ppb	0.227 ppb	92.169 %	29.593 ppb
Concentration per Run 1	53.298 ppb	5.754 ppb	16.682 ppb	3.384 ppb	95.914 %	2.333 ppb	0.211 ppb	93.640 %	27.696 ppb
Concentration per Run 2	57.783 ppb	5.981 ppb	17.880 ppb	3.773 ppb	91.911 %	2.530 ppb	0.245 ppb	91.061 %	30.558 ppb
Concentration per Run 3	57.030 ppb	6.893 ppb	17.724 ppb	3.974 ppb	93.195 %	2.516 ppb	0.225 ppb	91.805 %	30.525 ppb
Concentration RSD	4.3 %	9.7 %	3.7 %	8.1 %	2.2 %	4.5 %	7.5 %	1.4 %	5.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	13.123 ppb	61.479 ppb	100.099 %	99.376 %	0.196 ppb	0.448 ppb	100.644 ppb	101.181 %
Concentration per Run 1	12.544 ppb	58.375 ppb	102.657 %	101.158 %	0.170 ppb	0.368 ppb	94.692 ppb	103.712 %
Concentration per Run 2	13.552 ppb	63.024 ppb	99.028 %	98.750 %	0.199 ppb	0.498 ppb	103.323 ppb	100.239 %
Concentration per Run 3	13.274 ppb	63.039 ppb	98.610 %	98.221 %	0.221 ppb	0.480 ppb	103.917 ppb	99.592 %
Concentration RSD	4.0 %	4.4 %	2.2 %	1.6 %	13.0 %	15.7 %	5.1 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	37	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961515-3d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 8:32:12 AM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.840 %	105.432 %	9.103 ppb	2,124.738 ppb	7,170.718 ppb	17,369.894 ppb	4,542.735 ppb	2,614.158 ppb	120.144 %
Concentration per Run 1	107.191 %	110.176 %	9.004 ppb	1,976.211 ppb	6,632.227 ppb	15,827.615 ppb	4,205.268 ppb	2,564.519 ppb	120.818 %
Concentration per Run 2	107.871 %	106.044 %	9.062 ppb	2,173.798 ppb	7,398.278 ppb	18,186.579 ppb	4,730.049 ppb	2,622.660 ppb	119.632 %
Concentration per Run 3	105.458 %	100.076 %	9.243 ppb	2,224.206 ppb	7,481.649 ppb	18,095.486 ppb	4,692.886 ppb	2,655.296 ppb	119.981 %
Concentration RSD	1.2 %	4.8 %	1.4 %	6.2 %	6.5 %	7.7 %	6.4 %	1.8 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	145.089 ppb	93.580 ppb	394.078 ppb	55,827.781 ppb	98.068 ppb	116.640 ppb	394.740 ppb	185.549 ppb	94.666 %
Concentration per Run 1	133.498 ppb	87.290 ppb	365.756 ppb	52,371.034 ppb	92.285 ppb	109.542 ppb	373.812 ppb	175.150 ppb	96.330 %
Concentration per Run 2	146.655 ppb	94.975 ppb	404.616 ppb	56,116.612 ppb	97.586 ppb	115.634 ppb	391.120 ppb	186.179 ppb	97.962 %
Concentration per Run 3	155.115 ppb	98.474 ppb	411.861 ppb	58,995.696 ppb	104.331 ppb	124.745 ppb	419.287 ppb	195.316 ppb	89.704 %
Concentration RSD	7.5 %	6.1 %	6.3 %	6.0 %	6.2 %	6.6 %	5.8 %	5.4 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	82.909 ppb	25.587 ppb	193.123 ppb	184.229 ppb	94.440 %	11.267 ppb	9.792 ppb	93.829 %	203.464 ppb
Concentration per Run 1	78.722 ppb	23.907 ppb	178.724 ppb	172.256 ppb	97.291 %	10.781 ppb	9.253 ppb	94.857 %	192.127 ppb
Concentration per Run 2	83.553 ppb	26.920 ppb	204.726 ppb	187.651 ppb	93.345 %	11.439 ppb	10.013 ppb	96.832 %	207.849 ppb
Concentration per Run 3	86.453 ppb	25.935 ppb	195.920 ppb	192.779 ppb	92.684 %	11.582 ppb	10.110 ppb	89.800 %	210.417 ppb
Concentration RSD	4.7 %	6.0 %	6.8 %	5.8 %	2.6 %	3.8 %	4.8 %	3.9 %	4.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.699 ppb	410.083 ppb	103.139 %	102.010 %	0.248 ppb	19.203 ppb	192.239 ppb	101.270 %
Concentration per Run 1	93.852 ppb	385.397 ppb	105.519 %	102.780 %	0.217 ppb	17.598 ppb	182.535 ppb	104.508 %
Concentration per Run 2	101.627 ppb	425.817 ppb	102.820 %	103.269 %	0.255 ppb	19.906 ppb	198.492 ppb	99.878 %
Concentration per Run 3	103.617 ppb	419.036 ppb	101.077 %	99.981 %	0.272 ppb	20.104 ppb	195.690 ppb	99.424 %
Concentration RSD	5.2 %	5.3 %	2.2 %	1.7 %	11.3 %	7.3 %	4.4 %	2.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	38	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961515-4d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 8:36:42 AM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.007 %	109.870 %	0.621 ppb	362.108 ppb	5,338.588 ppb	15,798.503 ppb	2,804.087 ppb	939.399 ppb	119.570 %
Concentration per Run 1	107.573 %	109.487 %	0.608 ppb	328.259 ppb	5,076.514 ppb	14,758.699 ppb	2,666.402 ppb	862.434 ppb	119.239 %
Concentration per Run 2	106.576 %	111.553 %	0.633 ppb	378.852 ppb	5,529.925 ppb	16,621.594 ppb	2,958.821 ppb	980.478 ppb	119.808 %
Concentration per Run 3	106.870 %	108.569 %	0.623 ppb	379.213 ppb	5,409.325 ppb	16,015.216 ppb	2,787.039 ppb	975.286 ppb	119.664 %
Concentration RSD	0.5 %	1.4 %	2.1 %	8.1 %	4.4 %	6.0 %	5.2 %	7.1 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.402 ppb	61.300 ppb	300.841 ppb	59,195.601 ppb	8.560 ppb	30.541 ppb	354.104 ppb	99.142 ppb	96.558 %
Concentration per Run 1	59.308 ppb	58.929 ppb	286.801 ppb	56,813.165 ppb	8.389 ppb	29.774 ppb	347.052 ppb	95.820 ppb	96.279 %
Concentration per Run 2	62.382 ppb	62.496 ppb	312.575 ppb	61,047.953 ppb	8.781 ppb	30.159 ppb	356.228 ppb	102.454 ppb	97.434 %
Concentration per Run 3	62.516 ppb	62.477 ppb	303.148 ppb	59,725.685 ppb	8.509 ppb	31.690 ppb	359.033 ppb	99.153 ppb	95.962 %
Concentration RSD	3.0 %	3.4 %	4.3 %	3.7 %	2.3 %	3.3 %	1.8 %	3.3 %	0.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	69.682 ppb	7.301 ppb	19.489 ppb	3.898 ppb	95.625 %	2.635 ppb	0.258 ppb	95.879 %	33.462 ppb
Concentration per Run 1	66.984 ppb	6.861 ppb	18.514 ppb	3.590 ppb	95.568 %	2.521 ppb	0.258 ppb	95.836 %	32.025 ppb
Concentration per Run 2	72.157 ppb	7.884 ppb	20.471 ppb	4.105 ppb	95.867 %	2.627 ppb	0.243 ppb	97.895 %	34.338 ppb
Concentration per Run 3	69.904 ppb	7.157 ppb	19.481 ppb	3.999 ppb	95.442 %	2.756 ppb	0.272 ppb	93.906 %	34.024 ppb
Concentration RSD	3.7 %	7.2 %	5.0 %	7.0 %	0.2 %	4.5 %	5.6 %	2.1 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	15.345 ppb	58.938 ppb	102.553 %	101.842 %	0.209 ppb	0.415 ppb	108.247 ppb	101.924 %
Concentration per Run 1	14.757 ppb	56.515 ppb	103.034 %	101.223 %	0.193 ppb	0.329 ppb	104.496 ppb	102.806 %
Concentration per Run 2	15.794 ppb	60.371 ppb	103.403 %	104.687 %	0.209 ppb	0.480 ppb	110.343 ppb	101.444 %
Concentration per Run 3	15.484 ppb	59.929 ppb	101.222 %	99.617 %	0.224 ppb	0.437 ppb	109.903 ppb	101.522 %
Concentration RSD	3.5 %	3.6 %	1.1 %	2.5 %	7.4 %	18.7 %	3.0 %	0.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	39	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961515-5d10 6020TS	Rack	1		
Analysis started at:	8/21/2024 8:41:08 AM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.440 %	106.963 %	48.124 ppb	4,984.369 ppb	9,985.197 ppb	16,305.670 ppb	7,203.050 ppb	5,518.285 ppb	115.250 %
Concentration per Run 1	103.713 %	93.649 %	46.780 ppb	5,241.842 ppb	10,487.621 ppb	16,759.326 ppb	7,270.247 ppb	5,500.739 ppb	118.201 %
Concentration per Run 2	101.130 %	103.520 %	48.240 ppb	5,013.237 ppb	9,990.251 ppb	16,383.892 ppb	7,277.048 ppb	5,564.139 ppb	115.256 %
Concentration per Run 3	99.476 %	123.719 %	49.352 ppb	4,698.029 ppb	9,477.719 ppb	15,773.792 ppb	7,061.856 ppb	5,489.979 ppb	112.294 %
Concentration RSD	2.1 %	14.3 %	2.7 %	5.5 %	5.1 %	3.1 %	1.7 %	0.7 %	2.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	102.460 ppb	107.853 ppb	339.945 ppb	62,461.244 ppb	57.572 ppb	76.513 ppb	395.932 ppb	145.321 ppb	95.088 %
Concentration per Run 1	101.800 ppb	109.029 ppb	337.047 ppb	62,686.907 ppb	56.304 ppb	75.912 ppb	388.197 ppb	139.870 ppb	97.190 %
Concentration per Run 2	105.267 ppb	110.590 ppb	347.367 ppb	63,544.769 ppb	59.891 ppb	79.597 ppb	414.166 ppb	150.575 ppb	90.639 %
Concentration per Run 3	100.312 ppb	103.942 ppb	335.420 ppb	61,152.055 ppb	56.522 ppb	74.030 ppb	385.434 ppb	145.519 ppb	97.436 %
Concentration RSD	2.5 %	3.2 %	1.9 %	1.9 %	3.5 %	3.7 %	4.0 %	3.7 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	106.656 ppb	52.895 ppb	65.904 ppb	53.161 ppb	94.380 %	7.225 ppb	49.776 ppb	94.141 %	77.438 ppb
Concentration per Run 1	101.761 ppb	48.564 ppb	60.845 ppb	50.571 ppb	96.990 %	7.026 ppb	47.762 ppb	95.969 %	72.846 ppb
Concentration per Run 2	110.377 ppb	54.557 ppb	66.091 ppb	54.476 ppb	92.671 %	7.564 ppb	51.247 ppb	89.459 %	79.960 ppb
Concentration per Run 3	107.830 ppb	55.563 ppb	70.775 ppb	54.438 ppb	93.480 %	7.087 ppb	50.317 ppb	96.996 %	79.507 ppb
Concentration RSD	4.2 %	7.2 %	7.5 %	4.2 %	2.4 %	4.1 %	3.6 %	4.3 %	5.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.114 ppb	110.506 ppb	102.436 %	102.072 %	46.848 ppb	48.438 ppb	149.724 ppb	102.392 %
Concentration per Run 1	58.469 ppb	104.279 ppb	103.674 %	102.293 %	45.319 ppb	46.051 ppb	142.724 ppb	105.268 %
Concentration per Run 2	64.612 ppb	113.922 ppb	100.022 %	98.862 %	48.870 ppb	49.811 ppb	153.548 ppb	99.671 %
Concentration per Run 3	63.259 ppb	113.318 ppb	103.611 %	105.062 %	46.357 ppb	49.453 ppb	152.900 ppb	102.236 %
Concentration RSD	5.2 %	4.9 %	2.0 %	3.0 %	3.9 %	4.3 %	4.1 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	40	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961515-6d50 6020TS	Rack	1		
Analysis started at:	8/21/2024 8:45:34 AM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.468 %	104.132 %	0.175 ppb	42.335 ppb	1,172.007 ppb	3,526.886 ppb	612.959 ppb	203.661 ppb	104.947 %
Concentration per Run 1	105.058 %	107.651 %	0.183 ppb	31.586 ppb	1,097.314 ppb	3,269.559 ppb	587.042 ppb	200.629 ppb	103.717 %
Concentration per Run 2	103.664 %	96.863 %	0.170 ppb	49.572 ppb	1,244.338 ppb	3,635.865 ppb	628.573 ppb	186.650 ppb	105.423 %
Concentration per Run 3	104.681 %	107.881 %	0.172 ppb	45.847 ppb	1,174.368 ppb	3,675.233 ppb	623.261 ppb	223.703 ppb	105.702 %
Concentration RSD	0.7 %	6.0 %	4.2 %	22.4 %	6.3 %	6.3 %	3.7 %	9.2 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	11.826 ppb	12.953 ppb	62.445 ppb	12,052.671 ppb	1.930 ppb	5.951 ppb	72.615 ppb	20.609 ppb	99.524 %
Concentration per Run 1	11.523 ppb	12.853 ppb	59.145 ppb	11,671.604 ppb	1.928 ppb	5.776 ppb	72.605 ppb	19.819 ppb	96.456 %
Concentration per Run 2	12.414 ppb	13.201 ppb	63.573 ppb	12,380.449 ppb	1.940 ppb	6.217 ppb	74.039 ppb	21.098 ppb	98.081 %
Concentration per Run 3	11.542 ppb	12.804 ppb	64.616 ppb	12,105.961 ppb	1.923 ppb	5.859 ppb	71.202 ppb	20.909 ppb	104.034 %
Concentration RSD	4.3 %	1.7 %	4.7 %	3.0 %	0.5 %	3.9 %	2.0 %	3.3 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.114 ppb	1.676 ppb	3.719 ppb	1.033 ppb	98.571 %	0.525 ppb	0.089 ppb	96.335 %	6.163 ppb
Concentration per Run 1	11.992 ppb	1.522 ppb	3.636 ppb	0.888 ppb	98.729 %	0.471 ppb	0.091 ppb	96.562 %	5.673 ppb
Concentration per Run 2	12.197 ppb	1.634 ppb	3.693 ppb	1.085 ppb	97.548 %	0.583 ppb	0.091 ppb	93.705 %	6.456 ppb
Concentration per Run 3	12.153 ppb	1.872 ppb	3.828 ppb	1.125 ppb	99.436 %	0.520 ppb	0.084 ppb	98.737 %	6.361 ppb
Concentration RSD	0.9 %	10.7 %	2.6 %	12.3 %	1.0 %	10.7 %	5.1 %	2.6 %	6.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	2.803 ppb	13.413 ppb	103.222 %	102.433 %	0.429 ppb	0.477 ppb	21.572 ppb	100.941 %
Concentration per Run 1	2.693 ppb	12.895 ppb	102.509 %	101.190 %	0.354 ppb	0.346 ppb	20.785 ppb	101.581 %
Concentration per Run 2	2.832 ppb	13.605 ppb	102.795 %	101.179 %	0.439 ppb	0.582 ppb	22.114 ppb	99.458 %
Concentration per Run 3	2.884 ppb	13.739 ppb	104.362 %	104.928 %	0.493 ppb	0.504 ppb	21.817 ppb	101.785 %
Concentration RSD	3.5 %	3.4 %	1.0 %	2.1 %	16.4 %	25.1 %	3.2 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	41	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 8:59:11 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.401 %	104.132 %	62.063 ppb	5,456.884 ppb	5,480.505 ppb	61.454 ppb	5,493.421 ppb	5,512.868 ppb	94.283 %
Concentration per Run 1	95.180 %	101.224 %	62.482 ppb	5,355.007 ppb	5,332.165 ppb	59.582 ppb	5,318.139 ppb	5,413.124 ppb	93.950 %
Concentration per Run 2	93.872 %	102.142 %	61.107 ppb	5,544.776 ppb	5,546.183 ppb	63.428 ppb	5,440.764 ppb	5,441.039 ppb	94.267 %
Concentration per Run 3	94.151 %	109.028 %	62.600 ppb	5,470.869 ppb	5,563.167 ppb	61.353 ppb	5,721.361 ppb	5,684.442 ppb	94.632 %
Recovery Percentage 1			103.438 %	90.948 %	91.342 %	102.424 %	91.557 %	91.881 %	
Concentration RSD	0.7 %	4.1 %	1.3 %	1.8 %	2.3 %	3.1 %	3.8 %	2.7 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.126 ppb	57.187 ppb	57.148 ppb	5,777.508 ppb	58.639 ppb	58.443 ppb	60.326 ppb	60.379 ppb	95.013 %
Concentration per Run 1	55.908 ppb	54.609 ppb	52.982 ppb	5,473.665 ppb	55.900 ppb	56.848 ppb	56.530 ppb	55.955 ppb	100.317 %
Concentration per Run 2	59.497 ppb	58.617 ppb	60.155 ppb	5,970.093 ppb	60.364 ppb	60.580 ppb	63.898 ppb	62.985 ppb	89.519 %
Concentration per Run 3	58.974 ppb	58.335 ppb	58.306 ppb	5,888.764 ppb	59.653 ppb	57.902 ppb	60.552 ppb	62.196 ppb	95.202 %
Recovery Percentage 1	96.877 %	95.311 %	95.246 %	96.292 %	97.732 %	97.405 %	100.544 %	100.631 %	
Concentration RSD	3.3 %	3.9 %	6.5 %	4.6 %	4.1 %	3.3 %	6.1 %	6.4 %	5.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	59.490 ppb	59.540 ppb	57.284 ppb	57.891 ppb	95.528 %	56.636 ppb	60.381 ppb	93.541 %	58.505 ppb
Concentration per Run 1	54.938 ppb	54.080 ppb	52.084 ppb	52.288 ppb	101.585 %	53.386 ppb	56.533 ppb	97.727 %	54.036 ppb
Concentration per Run 2	62.251 ppb	60.439 ppb	58.897 ppb	60.757 ppb	91.850 %	59.041 ppb	62.423 ppb	88.848 %	60.953 ppb
Concentration per Run 3	61.282 ppb	64.100 ppb	60.870 ppb	60.627 ppb	93.151 %	57.480 ppb	62.185 ppb	94.047 %	60.524 ppb
Recovery Percentage 1	99.150 %	99.233 %	95.473 %	96.485 %		94.393 %	100.634 %		97.508 %
Concentration RSD	6.7 %	8.5 %	8.0 %	8.4 %	5.5 %	5.2 %	5.5 %	4.8 %	6.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.165 ppb	57.686 ppb	105.233 %	107.192 %	58.694 ppb	59.258 ppb	59.006 ppb	105.140 %
Concentration per Run 1	53.728 ppb	52.792 ppb	110.554 %	112.220 %	55.330 ppb	54.565 ppb	54.902 ppb	110.563 %
Concentration per Run 2	60.902 ppb	59.350 ppb	102.436 %	102.841 %	61.225 ppb	60.811 ppb	60.846 ppb	102.291 %
Concentration per Run 3	59.865 ppb	60.916 ppb	102.707 %	106.514 %	59.528 ppb	62.398 ppb	61.269 ppb	102.567 %
Recovery Percentage 1	96.942 %	96.144 %			97.824 %	98.763 %	98.343 %	
Concentration RSD	6.7 %	7.5 %	4.4 %	4.4 %	5.2 %	7.0 %	6.0 %	4.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	42	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 9:03:42 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.894 %	97.016 %	0.045 ppb	-45.425 ppb	11.173 ppb	14.196 ppb	10.247 ppb	-0.172 ppb	92.601 %
Concentration per Run 1	96.411 %	98.470 %	0.043 ppb	-47.846 ppb	10.867 ppb	12.298 ppb	5.489 ppb	-8.461 ppb	93.095 %
Concentration per Run 2	95.041 %	94.568 %	0.043 ppb	-41.752 ppb	16.371 ppb	21.025 ppb	19.946 ppb	7.139 ppb	91.764 %
Concentration per Run 3	96.231 %	98.011 %	0.050 ppb	-46.676 ppb	6.281 ppb	9.265 ppb	5.307 ppb	0.804 ppb	92.944 %
Recovery Percentage 1			9.018 %	-45.425 %	15.961 %	141.960 %	10.247 %	-0.172 %	
Concentration RSD	0.8 %	2.2 %	8.5 %	7.1 %	45.2 %	43.0 %	82.0 %	4,553.2 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.157 ppb	0.145 ppb	0.295 ppb	62.417 ppb	0.151 ppb	0.236 ppb	0.400 ppb	0.254 ppb	90.551 %
Concentration per Run 1	0.134 ppb	0.140 ppb	0.165 ppb	58.740 ppb	0.189 ppb	0.105 ppb	0.276 ppb	0.184 ppb	92.122 %
Concentration per Run 2	0.257 ppb	0.248 ppb	0.518 ppb	87.547 ppb	0.172 ppb	0.436 ppb	0.700 ppb	0.429 ppb	87.800 %
Concentration per Run 3	0.081 ppb	0.046 ppb	0.202 ppb	40.966 ppb	0.093 ppb	0.167 ppb	0.223 ppb	0.149 ppb	91.732 %
Recovery Percentage 1	3.148 %	14.461 %	29.485 %	124.835 %	30.279 %	11.807 %	39.967 %	5.080 %	
Concentration RSD	57.4 %	69.6 %	65.9 %	37.7 %	34.1 %	74.3 %	65.5 %	60.0 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.304 ppb	0.228 ppb	0.143 ppb	0.548 ppb	92.199 %	0.088 ppb	0.117 ppb	90.891 %	0.119 ppb
Concentration per Run 1	0.290 ppb	0.218 ppb	0.151 ppb	0.431 ppb	94.518 %	0.114 ppb	0.137 ppb	92.498 %	0.022 ppb
Concentration per Run 2	0.421 ppb	0.156 ppb	0.194 ppb	0.494 ppb	88.730 %	0.111 ppb	0.145 ppb	87.565 %	0.232 ppb
Concentration per Run 3	0.200 ppb	0.310 ppb	0.084 ppb	0.720 ppb	93.349 %	0.041 ppb	0.067 ppb	92.611 %	0.104 ppb
Recovery Percentage 1	60.758 %	4.559 %	1.427 %	27.408 %		22.091 %	58.275 %		3.973 %
Concentration RSD	36.5 %	34.0 %	38.9 %	27.7 %	3.3 %	46.7 %	36.9 %	3.2 %	88.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.422 ppb	0.317 ppb	99.354 %	99.614 %	0.702 ppb	0.618 ppb	0.397 ppb	99.630 %
Concentration per Run 1	0.413 ppb	0.359 ppb	101.336 %	100.524 %	0.611 ppb	0.493 ppb	0.409 ppb	101.040 %
Concentration per Run 2	0.497 ppb	0.389 ppb	95.795 %	95.945 %	0.746 ppb	0.765 ppb	0.512 ppb	96.787 %
Concentration per Run 3	0.357 ppb	0.203 ppb	100.931 %	102.373 %	0.751 ppb	0.595 ppb	0.270 ppb	101.063 %
Recovery Percentage 1	10.561 %	63.324 %			35.125 %	61.753 %	39.701 %	
Concentration RSD	16.7 %	31.6 %	3.1 %	3.3 %	11.3 %	22.2 %	30.7 %	2.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	43	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 9:16:57 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.215 %	95.868 %	0.007 ppb	-51.850 ppb	-2.627 ppb	0.743 ppb	-1.168 ppb	-14.692 ppb	95.181 %
Concentration per Run 1	96.460 %	95.945 %	0.010 ppb	-56.733 ppb	-2.553 ppb	0.680 ppb	-3.214 ppb	-12.817 ppb	94.055 %
Concentration per Run 2	97.584 %	89.059 %	0.007 ppb	-45.613 ppb	-2.903 ppb	0.464 ppb	-1.350 ppb	-16.776 ppb	95.410 %
Concentration per Run 3	97.599 %	102.601 %	0.003 ppb	-53.203 ppb	-2.426 ppb	1.084 ppb	1.059 ppb	-14.481 ppb	96.078 %
Recovery Percentage 1			1.308 %	-51.850 %	-3.753 %	7.427 %	-1.168 %	-14.692 %	
Concentration RSD	0.7 %	7.1 %	59.7 %	11.0 %	9.4 %	42.4 %	183.3 %	13.5 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.027 ppb	0.001 ppb	-0.098 ppb	7.146 ppb	0.014 ppb	-0.037 ppb	-0.116 ppb	-0.081 ppb	89.574 %
Concentration per Run 1	-0.016 ppb	-0.011 ppb	-0.095 ppb	5.470 ppb	0.012 ppb	-0.012 ppb	-0.132 ppb	-0.032 ppb	91.103 %
Concentration per Run 2	-0.011 ppb	-0.003 ppb	-0.128 ppb	6.757 ppb	0.009 ppb	-0.015 ppb	-0.129 ppb	-0.128 ppb	88.681 %
Concentration per Run 3	-0.053 ppb	0.019 ppb	-0.071 ppb	9.209 ppb	0.020 ppb	-0.083 ppb	-0.088 ppb	-0.082 ppb	88.938 %
Recovery Percentage 1	-0.533 %	0.143 %	-9.796 %	14.291 %	2.769 %	-1.843 %	-11.649 %	-1.612 %	
Concentration RSD	84.7 %	1,096.6 %	28.9 %	26.6 %	41.1 %	108.4 %	20.9 %	59.2 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.073 ppb	-0.083 ppb	-0.006 ppb	0.027 ppb	91.601 %	0.008 ppb	0.018 ppb	90.139 %	-0.281 ppb
Concentration per Run 1	0.055 ppb	-0.127 ppb	-0.005 ppb	-0.019 ppb	92.335 %	0.005 ppb	0.019 ppb	92.467 %	-0.329 ppb
Concentration per Run 2	0.096 ppb	-0.113 ppb	-0.006 ppb	0.044 ppb	91.638 %	0.010 ppb	0.015 ppb	89.247 %	-0.255 ppb
Concentration per Run 3	0.069 ppb	-0.009 ppb	-0.006 ppb	0.058 ppb	90.830 %	0.008 ppb	0.022 ppb	88.702 %	-0.260 ppb
Recovery Percentage 1	14.629 %	-1.661 %	-0.056 %	1.375 %		1.925 %	9.124 %		-9.375 %
Concentration RSD	28.5 %	77.6 %	11.5 %	149.7 %	0.8 %	36.7 %	19.2 %	2.3 %	14.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.053 ppb	0.008 ppb	99.941 %	100.721 %	0.050 ppb	0.074 ppb	0.077 ppb	103.889 %
Concentration per Run 1	0.041 ppb	0.017 ppb	101.940 %	103.361 %	0.022 ppb	0.039 ppb	0.083 ppb	107.514 %
Concentration per Run 2	0.055 ppb	0.004 ppb	99.642 %	100.712 %	0.056 ppb	0.088 ppb	0.067 ppb	101.936 %
Concentration per Run 3	0.064 ppb	0.004 ppb	98.243 %	98.090 %	0.073 ppb	0.095 ppb	0.080 ppb	102.216 %
Recovery Percentage 1	1.333 %	1.694 %			2.521 %	7.381 %	7.663 %	
Concentration RSD	22.1 %	88.3 %	1.9 %	2.6 %	52.2 %	41.7 %	11.1 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	44	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961474-1 6020SL	Rack	1		
Analysis started at:	8/21/2024 9:38:59 AM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.354 %	98.470 %	0.000 ppb	-24.318 ppb	-1.515 ppb	4.222 ppb	-0.206 ppb	-0.645 ppb	95.933 %
Concentration per Run 1	99.146 %	92.961 %	-0.003 ppb	-22.050 ppb	-2.030 ppb	4.303 ppb	-7.296 ppb	2.437 ppb	95.577 %
Concentration per Run 2	99.507 %	99.617 %	-0.001 ppb	-22.336 ppb	-2.212 ppb	4.166 ppb	-1.037 ppb	-6.639 ppb	96.339 %
Concentration per Run 3	99.408 %	102.831 %	0.003 ppb	-28.567 ppb	-0.303 ppb	4.196 ppb	7.716 ppb	2.268 ppb	95.884 %
Concentration RSD	0.2 %	5.1 %	1,633.4 %	15.1 %	69.5 %	1.7 %	3,666.6 %	805.2 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.048 ppb	0.026 ppb	-0.116 ppb	3.978 ppb	0.013 ppb	-0.002 ppb	0.022 ppb	1.290 ppb	92.835 %
Concentration per Run 1	-0.051 ppb	0.047 ppb	-0.080 ppb	4.331 ppb	0.012 ppb	0.013 ppb	-0.008 ppb	1.408 ppb	89.467 %
Concentration per Run 2	-0.039 ppb	0.025 ppb	-0.136 ppb	2.753 ppb	0.016 ppb	-0.014 ppb	0.014 ppb	1.240 ppb	97.621 %
Concentration per Run 3	-0.054 ppb	0.004 ppb	-0.133 ppb	4.852 ppb	0.011 ppb	-0.006 ppb	0.061 ppb	1.222 ppb	91.418 %
Concentration RSD	16.8 %	85.3 %	27.1 %	27.5 %	18.8 %	574.1 %	159.7 %	8.0 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.082 ppb	-0.030 ppb	0.003 ppb	0.052 ppb	95.206 %	-0.005 ppb	0.002 ppb	92.228 %	-0.699 ppb
Concentration per Run 1	0.120 ppb	-0.065 ppb	0.005 ppb	0.023 ppb	94.001 %	-0.002 ppb	0.005 ppb	90.680 %	-0.716 ppb
Concentration per Run 2	0.053 ppb	0.006 ppb	0.002 ppb	0.073 ppb	96.401 %	-0.006 ppb	0.001 ppb	93.707 %	-0.690 ppb
Concentration per Run 3	0.074 ppb	-0.030 ppb	0.003 ppb	0.058 ppb	95.215 %	-0.006 ppb	-0.001 ppb	92.299 %	-0.690 ppb
Concentration RSD	41.1 %	119.3 %	41.6 %	49.3 %	1.3 %	46.7 %	213.0 %	1.6 %	2.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.326 ppb	0.020 ppb	101.402 %	103.696 %	0.030 ppb	0.025 ppb	0.038 ppb	101.716 %
Concentration per Run 1	0.296 ppb	0.039 ppb	100.861 %	102.560 %	0.028 ppb	-0.004 ppb	0.039 ppb	104.305 %
Concentration per Run 2	0.306 ppb	0.017 ppb	102.415 %	105.078 %	0.022 ppb	0.041 ppb	0.038 ppb	100.548 %
Concentration per Run 3	0.375 ppb	0.003 ppb	100.929 %	103.451 %	0.041 ppb	0.038 ppb	0.036 ppb	100.293 %
Concentration RSD	13.1 %	92.9 %	0.9 %	1.2 %	31.9 %	102.3 %	4.0 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	45	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961474-2d10 6020SL	Rack	1		
Analysis started at:	8/21/2024 9:43:25 AM	Vial	17		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.098 %	101.836 %	5.446 ppb	941.841 ppb	923.683 ppb	196.594 ppb	941.411 ppb	879.247 ppb	97.442 %
Concentration per Run 1	99.142 %	102.601 %	5.373 ppb	904.650 ppb	898.494 ppb	190.146 ppb	915.352 ppb	879.999 ppb	97.366 %
Concentration per Run 2	98.813 %	100.995 %	5.486 ppb	925.459 ppb	894.432 ppb	191.618 ppb	877.361 ppb	830.105 ppb	96.991 %
Concentration per Run 3	99.339 %	101.913 %	5.481 ppb	995.413 ppb	978.123 ppb	208.018 ppb	1,031.521 ppb	927.637 ppb	97.970 %
Concentration RSD	0.3 %	0.8 %	1.2 %	5.0 %	5.1 %	5.0 %	8.5 %	5.5 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	48.709 ppb	19.991 ppb	51.228 ppb	100.474 ppb	51.640 ppb	50.631 ppb	26.204 ppb	51.884 ppb	98.350 %
Concentration per Run 1	46.879 ppb	19.576 ppb	50.061 ppb	97.059 ppb	50.735 ppb	50.773 ppb	25.451 ppb	51.424 ppb	96.132 %
Concentration per Run 2	48.573 ppb	20.422 ppb	49.912 ppb	103.155 ppb	52.196 ppb	50.900 ppb	26.686 ppb	51.983 ppb	97.007 %
Concentration per Run 3	50.675 ppb	19.975 ppb	53.710 ppb	101.207 ppb	51.988 ppb	50.219 ppb	26.476 ppb	52.245 ppb	101.909 %
Concentration RSD	3.9 %	2.1 %	4.2 %	3.1 %	1.5 %	0.7 %	2.5 %	0.8 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.195 ppb	11.195 ppb	92.792 ppb	97.542 ppb	96.717 %	5.232 ppb	5.427 ppb	96.433 %	93.348 ppb
Concentration per Run 1	12.318 ppb	10.896 ppb	89.099 ppb	93.671 ppb	96.270 %	5.222 ppb	5.396 ppb	94.125 %	92.567 ppb
Concentration per Run 2	11.833 ppb	11.184 ppb	91.492 ppb	98.159 ppb	95.618 %	5.280 ppb	5.438 ppb	94.084 %	94.032 ppb
Concentration per Run 3	12.433 ppb	11.505 ppb	97.786 ppb	100.795 ppb	98.262 %	5.192 ppb	5.448 ppb	101.091 %	93.446 ppb
Concentration RSD	2.6 %	2.7 %	4.8 %	3.7 %	1.4 %	0.9 %	0.5 %	4.2 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	43.802 ppb	202.537 ppb	103.212 %	103.524 %	0.002 ppb	12.369 ppb	52.755 ppb	103.455 %
Concentration per Run 1	42.149 ppb	199.595 ppb	101.997 %	100.527 %	-0.007 ppb	12.171 ppb	51.428 ppb	102.815 %
Concentration per Run 2	44.575 ppb	202.770 ppb	101.966 %	101.983 %	0.002 ppb	12.330 ppb	52.781 ppb	104.566 %
Concentration per Run 3	44.683 ppb	205.247 ppb	105.673 %	108.061 %	0.011 ppb	12.605 ppb	54.054 ppb	102.984 %
Concentration RSD	3.3 %	1.4 %	2.1 %	3.9 %	522.8 %	1.8 %	2.5 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	46	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446445-04 6020SL	Rack	1		
Analysis started at:	8/21/2024 9:47:52 AM	Vial	18		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.495 %	105.891 %	0.003 ppb	69,897.590 ppb	24,489.860 ppb	3.460 ppb	8,393.687 ppb	137,549.801 ppb	106.733 %
Concentration per Run 1	101.674 %	99.388 %	0.007 ppb	69,943.258 ppb	24,072.439 ppb	3.443 ppb	8,294.801 ppb	138,005.726 ppb	107.093 %
Concentration per Run 2	102.205 %	102.142 %	0.004 ppb	70,945.394 ppb	25,127.094 ppb	3.134 ppb	8,310.937 ppb	134,317.472 ppb	106.568 %
Concentration per Run 3	100.607 %	116.144 %	-0.003 ppb	68,804.119 ppb	24,270.046 ppb	3.803 ppb	8,575.324 ppb	140,326.205 ppb	106.539 %
Concentration RSD	0.8 %	8.5 %	181.5 %	1.5 %	2.3 %	9.7 %	1.9 %	2.2 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.160 ppb	3.346 ppb	58.293 ppb	5.566 ppb	0.183 ppb	33.156 ppb	0.289 ppb	4.470 ppb	95.091 %
Concentration per Run 1	0.113 ppb	3.277 ppb	56.959 ppb	6.027 ppb	0.206 ppb	32.001 ppb	0.311 ppb	4.475 ppb	93.438 %
Concentration per Run 2	0.120 ppb	3.381 ppb	57.934 ppb	4.058 ppb	0.178 ppb	34.237 ppb	0.378 ppb	4.544 ppb	93.225 %
Concentration per Run 3	0.246 ppb	3.381 ppb	59.985 ppb	6.613 ppb	0.165 ppb	33.231 ppb	0.179 ppb	4.390 ppb	98.610 %
Concentration RSD	46.8 %	1.8 %	2.6 %	24.0 %	11.5 %	3.4 %	34.9 %	1.7 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.204 ppb	11.210 ppb	411.821 ppb	1.012 ppb	91.586 %	-0.001 ppb	0.019 ppb	90.875 %	-0.162 ppb
Concentration per Run 1	0.170 ppb	11.548 ppb	393.952 ppb	0.897 ppb	90.374 %	-0.002 ppb	0.012 ppb	89.073 %	-0.250 ppb
Concentration per Run 2	0.176 ppb	10.425 ppb	407.361 ppb	1.060 ppb	90.509 %	0.002 ppb	0.020 ppb	87.249 %	-0.148 ppb
Concentration per Run 3	0.265 ppb	11.656 ppb	434.150 ppb	1.080 ppb	93.875 %	-0.003 ppb	0.024 ppb	96.303 %	-0.088 ppb
Concentration RSD	25.9 %	6.1 %	5.0 %	9.9 %	2.2 %	258.8 %	32.2 %	5.3 %	50.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.983 ppb	36.385 ppb	100.850 %	101.168 %	0.070 ppb	0.046 ppb	0.096 ppb	90.751 %
Concentration per Run 1	0.931 ppb	35.558 ppb	98.711 %	99.162 %	0.051 ppb	0.013 ppb	0.087 ppb	91.619 %
Concentration per Run 2	1.024 ppb	36.660 ppb	99.906 %	99.658 %	0.067 ppb	0.062 ppb	0.101 ppb	88.976 %
Concentration per Run 3	0.994 ppb	36.938 ppb	103.934 %	104.685 %	0.092 ppb	0.064 ppb	0.101 ppb	91.658 %
Concentration RSD	4.8 %	2.0 %	2.7 %	3.0 %	29.3 %	62.6 %	8.4 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	47	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961474-3d10 6020SL	Rack	1		
Analysis started at:	8/21/2024 9:52:20 AM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.717 %	108.952 %	5.299 ppb	10,118.037 ppb	3,601.926 ppb	200.048 ppb	1,839.846 ppb	14,939.144 ppb	113.097 %
Concentration per Run 1	111.374 %	114.996 %	5.199 ppb	9,464.193 ppb	3,376.202 ppb	185.749 ppb	1,733.154 ppb	14,207.295 ppb	112.931 %
Concentration per Run 2	110.947 %	103.290 %	5.328 ppb	10,328.535 ppb	3,659.679 ppb	199.765 ppb	1,834.706 ppb	14,838.204 ppb	114.303 %
Concentration per Run 3	109.831 %	108.569 %	5.369 ppb	10,561.382 ppb	3,769.898 ppb	214.629 ppb	1,951.677 ppb	15,771.932 ppb	112.057 %
Concentration RSD	0.7 %	5.4 %	1.7 %	5.7 %	5.6 %	7.2 %	5.9 %	5.3 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.309 ppb	20.303 ppb	56.944 ppb	106.328 ppb	51.738 ppb	55.639 ppb	26.012 ppb	51.839 ppb	104.321 %
Concentration per Run 1	45.180 ppb	19.997 ppb	54.756 ppb	108.291 ppb	50.915 ppb	55.714 ppb	25.679 ppb	50.364 ppb	102.807 %
Concentration per Run 2	46.786 ppb	20.409 ppb	57.408 ppb	103.946 ppb	53.078 ppb	55.211 ppb	26.840 ppb	52.738 ppb	103.178 %
Concentration per Run 3	49.961 ppb	20.504 ppb	58.668 ppb	106.747 ppb	51.221 ppb	55.993 ppb	25.517 ppb	52.415 ppb	106.980 %
Concentration RSD	5.1 %	1.3 %	3.5 %	2.1 %	2.3 %	0.7 %	2.8 %	2.5 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.274 ppb	13.054 ppb	131.295 ppb	98.393 ppb	103.470 %	5.180 ppb	5.237 ppb	100.712 %	93.581 ppb
Concentration per Run 1	12.013 ppb	12.930 ppb	124.000 ppb	92.808 ppb	106.271 %	4.831 ppb	5.051 ppb	100.422 %	89.983 ppb
Concentration per Run 2	12.304 ppb	13.235 ppb	130.577 ppb	101.595 ppb	102.054 %	5.459 ppb	5.321 ppb	98.484 %	95.636 ppb
Concentration per Run 3	12.505 ppb	12.998 ppb	139.308 ppb	100.775 ppb	102.087 %	5.249 ppb	5.340 ppb	103.230 %	95.125 ppb
Concentration RSD	2.0 %	1.2 %	5.8 %	4.9 %	2.3 %	6.2 %	3.1 %	2.4 %	3.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	42.493 ppb	204.127 ppb	107.627 %	108.080 %	0.025 ppb	12.281 ppb	52.312 ppb	105.027 %
Concentration per Run 1	39.261 ppb	193.661 ppb	108.661 %	108.139 %	0.037 ppb	11.529 ppb	49.363 ppb	108.566 %
Concentration per Run 2	43.273 ppb	206.287 ppb	106.424 %	105.293 %	0.009 ppb	12.764 ppb	53.952 ppb	101.806 %
Concentration per Run 3	44.944 ppb	212.431 ppb	107.795 %	110.808 %	0.029 ppb	12.549 ppb	53.622 ppb	104.709 %
Concentration RSD	6.9 %	4.7 %	1.0 %	2.6 %	56.9 %	5.4 %	4.9 %	3.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	48	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961474-4d10 6020SL	Rack	1		
Analysis started at:	8/21/2024 9:56:47 AM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.103 %	108.263 %	5.372 ppb	10,154.003 ppb	3,628.637 ppb	197.290 ppb	1,843.031 ppb	15,450.827 ppb	110.104 %
Concentration per Run 1	111.118 %	109.028 %	5.428 ppb	10,003.094 ppb	3,536.377 ppb	194.964 ppb	1,837.701 ppb	15,412.269 ppb	108.366 %
Concentration per Run 2	110.960 %	103.290 %	5.339 ppb	10,461.522 ppb	3,725.094 ppb	200.972 ppb	1,855.537 ppb	15,499.436 ppb	111.504 %
Concentration per Run 3	111.232 %	112.471 %	5.350 ppb	9,997.394 ppb	3,624.440 ppb	195.934 ppb	1,835.856 ppb	15,440.774 ppb	110.441 %
Concentration RSD	0.1 %	4.3 %	0.9 %	2.6 %	2.6 %	1.6 %	0.6 %	0.3 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	50.681 ppb	20.969 ppb	58.823 ppb	110.501 ppb	53.507 ppb	57.477 ppb	27.500 ppb	53.681 ppb	100.204 %
Concentration per Run 1	48.769 ppb	20.784 ppb	57.795 ppb	100.604 ppb	53.231 ppb	56.220 ppb	26.789 ppb	53.169 ppb	101.254 %
Concentration per Run 2	52.080 ppb	21.132 ppb	59.682 ppb	119.152 ppb	53.637 ppb	57.806 ppb	27.416 ppb	53.300 ppb	100.591 %
Concentration per Run 3	51.194 ppb	20.990 ppb	58.994 ppb	111.747 ppb	53.654 ppb	58.404 ppb	28.294 ppb	54.573 ppb	98.767 %
Concentration RSD	3.4 %	0.8 %	1.6 %	8.4 %	0.4 %	2.0 %	2.7 %	1.4 %	1.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.855 ppb	12.950 ppb	134.556 ppb	102.575 ppb	99.920 %	5.501 ppb	5.704 ppb	95.716 %	99.887 ppb
Concentration per Run 1	12.603 ppb	13.321 ppb	131.710 ppb	99.954 ppb	101.512 %	5.451 ppb	5.611 ppb	96.361 %	98.642 ppb
Concentration per Run 2	12.813 ppb	12.469 ppb	134.281 ppb	103.300 ppb	99.518 %	5.541 ppb	5.903 ppb	93.919 %	102.803 ppb
Concentration per Run 3	13.150 ppb	13.058 ppb	137.678 ppb	104.471 ppb	98.729 %	5.510 ppb	5.598 ppb	96.866 %	98.215 ppb
Concentration RSD	2.1 %	3.4 %	2.2 %	2.3 %	1.4 %	0.8 %	3.0 %	1.6 %	2.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	46.240 ppb	213.128 ppb	104.956 %	103.916 %	0.005 ppb	13.125 ppb	56.758 ppb	99.304 %
Concentration per Run 1	43.721 ppb	209.092 ppb	105.233 %	104.541 %	-0.009 ppb	12.574 ppb	54.449 ppb	101.422 %
Concentration per Run 2	47.692 ppb	214.461 ppb	104.587 %	103.225 %	0.001 ppb	13.426 ppb	58.195 ppb	97.508 %
Concentration per Run 3	47.306 ppb	215.832 ppb	105.048 %	103.981 %	0.023 ppb	13.374 ppb	57.631 ppb	98.982 %
Concentration RSD	4.7 %	1.7 %	0.3 %	0.6 %	298.9 %	3.6 %	3.6 %	2.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	49	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961474-5d10 6020SL	Rack	1		
Analysis started at:	8/21/2024 10:01:15 AM	Vial	21		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.764 %	110.482 %	50.018 ppb	12,494.220 ppb	6,811.305 ppb	44.797 ppb	5,154.162 ppb	17,383.877 ppb	102.170 %
Concentration per Run 1	104.386 %	114.537 %	49.589 ppb	11,863.969 ppb	6,446.099 ppb	40.704 ppb	4,960.679 ppb	16,424.309 ppb	104.734 %
Concentration per Run 2	102.499 %	106.963 %	50.364 ppb	12,822.046 ppb	7,053.374 ppb	47.226 ppb	5,273.598 ppb	17,813.959 ppb	100.816 %
Concentration per Run 3	101.406 %	109.947 %	50.102 ppb	12,796.645 ppb	6,934.444 ppb	46.462 ppb	5,228.210 ppb	17,913.362 ppb	100.959 %
Concentration RSD	1.5 %	3.5 %	0.8 %	4.4 %	4.7 %	8.0 %	3.3 %	4.8 %	2.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	45.957 ppb	47.053 ppb	52.407 ppb	4,726.999 ppb	48.133 ppb	51.719 ppb	48.071 ppb	49.742 ppb	97.526 %
Concentration per Run 1	42.819 ppb	44.328 ppb	48.847 ppb	4,426.294 ppb	45.844 ppb	49.322 ppb	45.135 ppb	46.050 ppb	103.279 %
Concentration per Run 2	47.057 ppb	48.303 ppb	54.172 ppb	4,888.833 ppb	49.478 ppb	53.539 ppb	49.743 ppb	52.130 ppb	96.063 %
Concentration per Run 3	47.995 ppb	48.528 ppb	54.201 ppb	4,865.869 ppb	49.078 ppb	52.296 ppb	49.334 ppb	51.045 ppb	93.236 %
Concentration RSD	6.0 %	5.0 %	5.9 %	5.5 %	4.1 %	4.2 %	5.3 %	6.5 %	5.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	49.934 ppb	46.506 ppb	82.841 ppb	50.297 ppb	95.792 %	5.239 ppb	49.358 ppb	92.663 %	47.618 ppb
Concentration per Run 1	46.676 ppb	40.970 ppb	73.661 ppb	46.516 ppb	98.649 %	4.931 ppb	46.022 ppb	93.865 %	44.111 ppb
Concentration per Run 2	51.809 ppb	49.002 ppb	87.887 ppb	52.098 ppb	93.709 %	5.387 ppb	51.027 ppb	92.430 %	49.601 ppb
Concentration per Run 3	51.317 ppb	49.546 ppb	86.974 ppb	52.278 ppb	95.019 %	5.398 ppb	51.024 ppb	91.692 %	49.143 ppb
Concentration RSD	5.7 %	10.3 %	9.6 %	6.5 %	2.7 %	5.1 %	5.9 %	1.2 %	6.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	51.325 ppb	51.594 ppb	102.712 %	102.007 %	48.166 ppb	48.874 ppb	49.949 ppb	101.709 %
Concentration per Run 1	48.717 ppb	48.700 ppb	106.565 %	103.651 %	45.286 ppb	45.141 ppb	46.363 ppb	106.460 %
Concentration per Run 2	53.044 ppb	52.875 ppb	101.658 %	101.298 %	49.662 ppb	50.177 ppb	51.605 ppb	100.017 %
Concentration per Run 3	52.213 ppb	53.208 ppb	99.912 %	101.071 %	49.549 ppb	51.303 ppb	51.881 ppb	98.651 %
Concentration RSD	4.5 %	4.9 %	3.4 %	1.4 %	5.2 %	6.7 %	6.2 %	4.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	50	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961474-6d5 6020SL	Rack	1		
Analysis started at:	8/21/2024 10:05:44 AM	Vial	22		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.148 %	101.454 %	0.033 ppb	17,464.638 ppb	5,062.648 ppb	1.055 ppb	1,644.623 ppb	27,399.047 ppb	104.894 %
Concentration per Run 1	106.728 %	95.486 %	0.032 ppb	17,572.065 ppb	5,141.774 ppb	0.839 ppb	1,618.819 ppb	27,647.923 ppb	104.671 %
Concentration per Run 2	105.872 %	101.683 %	0.035 ppb	17,542.940 ppb	5,033.454 ppb	0.808 ppb	1,678.573 ppb	27,196.799 ppb	105.048 %
Concentration per Run 3	105.844 %	107.192 %	0.031 ppb	17,278.908 ppb	5,012.715 ppb	1.519 ppb	1,636.477 ppb	27,352.419 ppb	104.962 %
Concentration RSD	0.5 %	5.8 %	6.8 %	0.9 %	1.4 %	38.1 %	1.9 %	0.8 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.153 ppb	0.735 ppb	11.619 ppb	9.660 ppb	0.086 ppb	6.969 ppb	0.018 ppb	0.988 ppb	97.783 %
Concentration per Run 1	0.143 ppb	0.688 ppb	11.087 ppb	9.371 ppb	0.093 ppb	7.041 ppb	0.000 ppb	0.950 ppb	98.439 %
Concentration per Run 2	0.127 ppb	0.813 ppb	12.194 ppb	9.129 ppb	0.078 ppb	7.110 ppb	-0.023 ppb	1.011 ppb	99.552 %
Concentration per Run 3	0.189 ppb	0.702 ppb	11.577 ppb	10.479 ppb	0.088 ppb	6.756 ppb	0.076 ppb	1.004 ppb	95.357 %
Concentration RSD	20.8 %	9.3 %	4.8 %	7.5 %	8.9 %	2.7 %	293.1 %	3.4 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.148 ppb	2.678 ppb	77.212 ppb	0.544 ppb	95.274 %	0.002 ppb	0.037 ppb	91.397 %	0.084 ppb
Concentration per Run 1	0.109 ppb	2.193 ppb	75.051 ppb	0.416 ppb	97.677 %	0.001 ppb	0.037 ppb	93.737 %	-0.022 ppb
Concentration per Run 2	0.210 ppb	3.078 ppb	75.793 ppb	0.475 ppb	92.856 %	0.003 ppb	0.028 ppb	87.431 %	0.071 ppb
Concentration per Run 3	0.126 ppb	2.763 ppb	80.791 ppb	0.742 ppb	95.290 %	0.001 ppb	0.045 ppb	93.022 %	0.204 ppb
Concentration RSD	36.6 %	16.8 %	4.0 %	31.9 %	2.5 %	77.8 %	21.8 %	3.8 %	134.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.680 ppb	7.176 ppb	101.363 %	100.472 %	0.531 ppb	0.529 ppb	0.092 ppb	100.397 %
Concentration per Run 1	0.509 ppb	7.022 ppb	100.956 %	101.811 %	0.428 ppb	0.403 ppb	0.099 ppb	102.851 %
Concentration per Run 2	0.538 ppb	7.338 ppb	99.853 %	97.420 %	0.547 ppb	0.638 ppb	0.096 ppb	98.815 %
Concentration per Run 3	0.992 ppb	7.168 ppb	103.280 %	102.186 %	0.618 ppb	0.546 ppb	0.081 ppb	99.524 %
Concentration RSD	39.8 %	2.2 %	1.7 %	2.6 %	18.1 %	22.4 %	10.5 %	2.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	51	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446229-01 6020SL	Rack	1		
Analysis started at:	8/21/2024 10:10:12 AM	Vial	23		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.101 %	103.520 %	0.042 ppb	186,667.324 ppb	968.276 ppb	41.078 ppb	2,261.171 ppb	13,598.249 ppb	107.553 %
Concentration per Run 1	102.516 %	107.881 %	0.051 ppb	176,309.297 ppb	915.157 ppb	40.338 ppb	2,137.277 ppb	13,136.299 ppb	106.538 %
Concentration per Run 2	120.605 %	98.699 %	0.031 ppb	191,913.069 ppb	1,012.501 ppb	41.238 ppb	2,296.994 ppb	13,888.724 ppb	117.899 %
Concentration per Run 3	101.184 %	103.979 %	0.043 ppb	191,779.606 ppb	977.171 ppb	41.657 ppb	2,349.244 ppb	13,769.725 ppb	98.221 %
Concentration RSD	10.0 %	4.5 %	23.6 %	4.8 %	5.1 %	1.6 %	4.9 %	3.0 %	9.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.909 ppb	0.796 ppb	40.020 ppb	52.488 ppb	1.185 ppb	0.712 ppb	13.622 ppb	0.857 ppb	98.200 %
Concentration per Run 1	0.834 ppb	0.741 ppb	37.453 ppb	50.372 ppb	1.182 ppb	0.802 ppb	13.355 ppb	0.799 ppb	99.805 %
Concentration per Run 2	0.969 ppb	0.841 ppb	41.607 ppb	51.791 ppb	1.261 ppb	0.556 ppb	13.902 ppb	0.929 ppb	96.861 %
Concentration per Run 3	0.925 ppb	0.806 ppb	40.999 ppb	55.302 ppb	1.113 ppb	0.778 ppb	13.610 ppb	0.843 ppb	97.936 %
Concentration RSD	7.6 %	6.4 %	5.6 %	4.8 %	6.3 %	19.0 %	2.0 %	7.7 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.711 ppb	3.122 ppb	79.377 ppb	3.078 ppb	92.929 %	0.006 ppb	0.016 ppb	90.678 %	-0.263 ppb
Concentration per Run 1	0.680 ppb	3.016 ppb	76.275 ppb	2.782 ppb	95.914 %	0.004 ppb	0.014 ppb	93.641 %	-0.343 ppb
Concentration per Run 2	0.753 ppb	3.236 ppb	79.745 ppb	2.975 ppb	88.807 %	0.009 ppb	0.018 ppb	84.046 %	-0.239 ppb
Concentration per Run 3	0.700 ppb	3.115 ppb	82.112 ppb	3.476 ppb	94.066 %	0.005 ppb	0.016 ppb	94.346 %	-0.207 ppb
Concentration RSD	5.3 %	3.5 %	3.7 %	11.6 %	4.0 %	49.5 %	12.4 %	6.3 %	27.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.662 ppb	19.874 ppb	100.722 %	98.939 %	0.211 ppb	0.220 ppb	0.085 ppb	91.757 %
Concentration per Run 1	0.589 ppb	19.496 ppb	102.219 %	101.674 %	0.145 ppb	0.144 ppb	0.094 ppb	94.186 %
Concentration per Run 2	0.685 ppb	19.792 ppb	97.549 %	94.117 %	0.218 ppb	0.265 ppb	0.084 ppb	88.304 %
Concentration per Run 3	0.711 ppb	20.334 ppb	102.398 %	101.025 %	0.269 ppb	0.250 ppb	0.076 ppb	92.780 %
Concentration RSD	9.7 %	2.1 %	2.7 %	4.2 %	29.6 %	30.1 %	10.8 %	3.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	52	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446229-02 6020SL	Rack	1		
Analysis started at:	8/21/2024 10:14:41 AM	Vial	24		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.809 %	107.422 %	0.040 ppb	54,419.623 ppb	263.447 ppb	2.546 ppb	1,240.546 ppb	4,952.720 ppb	111.630 %
Concentration per Run 1	106.963 %	113.390 %	0.019 ppb	49,883.445 ppb	243.002 ppb	2.067 ppb	1,199.633 ppb	4,607.577 ppb	112.134 %
Concentration per Run 2	106.935 %	106.733 %	0.062 ppb	55,632.817 ppb	266.186 ppb	3.069 ppb	1,240.620 ppb	5,002.979 ppb	111.222 %
Concentration per Run 3	106.530 %	102.142 %	0.040 ppb	57,742.606 ppb	281.155 ppb	2.502 ppb	1,281.384 ppb	5,247.602 ppb	111.533 %
Concentration RSD	0.2 %	5.3 %	54.3 %	7.5 %	7.3 %	19.7 %	3.3 %	6.5 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.040 ppb	0.019 ppb	107.871 ppb	31.703 ppb	2.432 ppb	2.325 ppb	8.747 ppb	1.725 ppb	100.458 %
Concentration per Run 1	0.048 ppb	0.032 ppb	98.410 ppb	26.549 ppb	2.276 ppb	2.105 ppb	8.369 ppb	1.695 ppb	105.019 %
Concentration per Run 2	0.024 ppb	0.020 ppb	110.995 ppb	37.815 ppb	2.460 ppb	2.388 ppb	8.845 ppb	1.716 ppb	99.778 %
Concentration per Run 3	0.047 ppb	0.004 ppb	114.206 ppb	30.746 ppb	2.559 ppb	2.481 ppb	9.028 ppb	1.764 ppb	96.576 %
Concentration RSD	33.6 %	75.0 %	7.7 %	18.0 %	5.9 %	8.4 %	3.9 %	2.1 %	4.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.144 ppb	0.537 ppb	39.371 ppb	1.697 ppb	99.813 %	0.004 ppb	0.022 ppb	96.337 %	-0.426 ppb
Concentration per Run 1	0.126 ppb	0.289 ppb	36.720 ppb	1.511 ppb	104.569 %	0.003 ppb	0.011 ppb	98.677 %	-0.446 ppb
Concentration per Run 2	0.101 ppb	0.719 ppb	40.317 ppb	1.704 ppb	96.644 %	0.006 ppb	0.020 ppb	94.691 %	-0.468 ppb
Concentration per Run 3	0.204 ppb	0.602 ppb	41.076 ppb	1.875 ppb	98.227 %	0.003 ppb	0.035 ppb	95.643 %	-0.364 ppb
Concentration RSD	37.3 %	41.3 %	5.9 %	10.7 %	4.2 %	47.6 %	54.9 %	2.2 %	12.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.559 ppb	24.888 ppb	104.428 %	102.699 %	0.095 ppb	0.135 ppb	0.041 ppb	101.304 %
Concentration per Run 1	0.517 ppb	24.486 ppb	107.983 %	105.732 %	0.066 ppb	0.076 ppb	0.042 ppb	104.824 %
Concentration per Run 2	0.540 ppb	24.931 ppb	101.816 %	100.463 %	0.097 ppb	0.160 ppb	0.041 ppb	99.670 %
Concentration per Run 3	0.619 ppb	25.247 ppb	103.484 %	101.902 %	0.121 ppb	0.168 ppb	0.041 ppb	99.418 %
Concentration RSD	9.5 %	1.5 %	3.1 %	2.7 %	29.2 %	37.8 %	2.1 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	53	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446229-03 6020SL	Rack	1		
Analysis started at:	8/21/2024 10:19:10 AM	Vial	25		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.641 %	103.366 %	0.005 ppb	122,598.728 ppb	2,002.991 ppb	8.836 ppb	5,980.266 ppb	36,925.342 ppb	111.361 %
Concentration per Run 1	105.865 %	103.520 %	0.003 ppb	116,029.070 ppb	1,873.025 ppb	8.464 ppb	5,675.233 ppb	34,124.673 ppb	111.746 %
Concentration per Run 2	106.592 %	101.454 %	0.005 ppb	129,551.878 ppb	2,141.169 ppb	10.084 ppb	6,432.972 ppb	39,545.372 ppb	111.747 %
Concentration per Run 3	104.467 %	105.126 %	0.006 ppb	122,215.237 ppb	1,994.780 ppb	7.961 ppb	5,832.593 ppb	37,105.982 ppb	110.589 %
Concentration RSD	1.0 %	1.8 %	26.8 %	5.5 %	6.7 %	12.6 %	6.7 %	7.4 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.215 ppb	0.409 ppb	560.950 ppb	11.413 ppb	1.864 ppb	2.397 ppb	11.109 ppb	1.731 ppb	102.321 %
Concentration per Run 1	0.234 ppb	0.410 ppb	533.704 ppb	11.065 ppb	1.786 ppb	2.330 ppb	10.853 ppb	1.708 ppb	103.075 %
Concentration per Run 2	0.151 ppb	0.418 ppb	588.221 ppb	13.127 ppb	1.921 ppb	2.447 ppb	11.040 ppb	1.686 ppb	105.455 %
Concentration per Run 3	0.260 ppb	0.399 ppb	560.923 ppb	10.048 ppb	1.886 ppb	2.415 ppb	11.435 ppb	1.798 ppb	98.433 %
Concentration RSD	26.5 %	2.4 %	4.9 %	13.7 %	3.8 %	2.5 %	2.7 %	3.4 %	3.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.313 ppb	1.927 ppb	159.063 ppb	12.723 ppb	97.869 %	0.008 ppb	0.035 ppb	96.858 %	-0.385 ppb
Concentration per Run 1	0.298 ppb	1.961 ppb	149.203 ppb	11.975 ppb	99.453 %	0.009 ppb	0.034 ppb	97.757 %	-0.478 ppb
Concentration per Run 2	0.351 ppb	1.881 ppb	168.286 ppb	13.080 ppb	97.065 %	0.009 ppb	0.021 ppb	100.002 %	-0.279 ppb
Concentration per Run 3	0.289 ppb	1.940 ppb	159.700 ppb	13.115 ppb	97.088 %	0.007 ppb	0.049 ppb	92.813 %	-0.398 ppb
Concentration RSD	10.8 %	2.1 %	6.0 %	5.1 %	1.4 %	11.9 %	39.3 %	3.8 %	26.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.399 ppb	80.313 ppb	104.132 %	103.838 %	0.068 ppb	0.161 ppb	0.036 ppb	98.930 %
Concentration per Run 1	0.355 ppb	74.864 ppb	105.953 %	105.707 %	0.038 ppb	0.117 ppb	0.036 ppb	102.294 %
Concentration per Run 2	0.423 ppb	82.635 ppb	104.988 %	105.539 %	0.067 ppb	0.180 ppb	0.039 ppb	98.542 %
Concentration per Run 3	0.418 ppb	83.439 ppb	101.454 %	100.269 %	0.098 ppb	0.186 ppb	0.033 ppb	95.955 %
Concentration RSD	9.5 %	5.9 %	2.3 %	3.0 %	44.1 %	23.8 %	7.9 %	3.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index: 54
Analysis label: CCV
Analysis started at: 8/21/2024 10:23:36 AM
User name ALPHALAB\a2-icpmsq2
Rack 0
Vial 9
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.175 %	106.121 %	62.161 ppb	6,159.840 ppb	5,937.664 ppb	58.474 ppb	5,751.871 ppb	5,604.124 ppb	108.276 %
Concentration per Run 1	107.415 %	113.619 %	62.078 ppb	5,656.197 ppb	5,372.132 ppb	55.070 ppb	5,334.114 ppb	5,189.511 ppb	108.063 %
Concentration per Run 2	107.064 %	104.438 %	62.136 ppb	6,344.477 ppb	6,195.973 ppb	58.490 ppb	5,946.492 ppb	5,797.740 ppb	108.940 %
Concentration per Run 3	107.045 %	100.306 %	62.270 ppb	6,478.846 ppb	6,244.888 ppb	61.862 ppb	5,975.007 ppb	5,825.122 ppb	107.827 %
Recovery Percentage 1			103.602 %	102.664 %	98.961 %	97.457 %	95.865 %	93.402 %	
Concentration RSD	0.2 %	6.4 %	0.2 %	7.2 %	8.3 %	5.8 %	6.3 %	6.4 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	56.758 ppb	59.344 ppb	59.226 ppb	5,890.408 ppb	60.595 ppb	59.996 ppb	62.382 ppb	61.966 ppb	99.048 %
Concentration per Run 1	52.889 ppb	56.529 ppb	57.037 ppb	5,636.064 ppb	58.734 ppb	57.705 ppb	61.160 ppb	58.938 ppb	101.344 %
Concentration per Run 2	57.554 ppb	59.174 ppb	59.330 ppb	5,807.454 ppb	58.790 ppb	59.223 ppb	60.406 ppb	60.695 ppb	104.135 %
Concentration per Run 3	59.831 ppb	62.329 ppb	61.311 ppb	6,227.706 ppb	64.263 ppb	63.061 ppb	65.582 ppb	66.266 ppb	91.665 %
Recovery Percentage 1	94.597 %	98.907 %	98.710 %	98.173 %	100.992 %	99.994 %	103.971 %	103.277 %	
Concentration RSD	6.2 %	4.9 %	3.6 %	5.2 %	5.2 %	4.6 %	4.5 %	6.2 %	6.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	60.792 ppb	59.826 ppb	56.890 ppb	58.895 ppb	99.584 %	57.272 ppb	60.709 ppb	97.259 %	58.432 ppb
Concentration per Run 1	58.828 ppb	56.412 ppb	53.326 ppb	55.240 ppb	102.710 %	55.733 ppb	58.459 ppb	98.093 %	55.749 ppb
Concentration per Run 2	60.146 ppb	59.358 ppb	59.481 ppb	59.480 ppb	99.182 %	58.630 ppb	62.883 ppb	98.928 %	60.208 ppb
Concentration per Run 3	63.403 ppb	63.709 ppb	57.863 ppb	61.965 ppb	96.859 %	57.453 ppb	60.784 ppb	94.755 %	59.339 ppb
Recovery Percentage 1	101.321 %	99.710 %	94.816 %	98.158 %		95.453 %	101.181 %		97.387 %
Concentration RSD	3.9 %	6.1 %	5.6 %	5.8 %	3.0 %	2.5 %	3.6 %	2.3 %	4.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.375 ppb	59.069 ppb	104.912 %	103.968 %	60.342 ppb	60.279 ppb	59.698 ppb	103.583 %
Concentration per Run 1	55.785 ppb	56.518 ppb	105.556 %	103.641 %	58.932 ppb	58.491 ppb	57.979 ppb	103.265 %
Concentration per Run 2	60.269 ppb	61.189 ppb	106.543 %	106.733 %	61.007 ppb	62.854 ppb	62.079 ppb	100.589 %
Concentration per Run 3	59.071 ppb	59.501 ppb	102.637 %	101.530 %	61.087 ppb	59.492 ppb	59.036 ppb	106.897 %
Recovery Percentage 1	97.292 %	98.449 %			100.570 %	100.465 %	99.496 %	
Concentration RSD	4.0 %	4.0 %	1.9 %	2.5 %	2.0 %	3.8 %	3.6 %	3.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	55	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 10:28:07 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.858 %	106.503 %	0.031 ppb	21.110 ppb	0.901 ppb	-0.201 ppb	-0.961 ppb	-1.209 ppb	105.977 %
Concentration per Run 1	107.032 %	106.274 %	0.032 ppb	20.725 ppb	1.985 ppb	-0.115 ppb	2.384 ppb	0.316 ppb	105.800 %
Concentration per Run 2	106.863 %	110.176 %	0.030 ppb	19.194 ppb	0.632 ppb	-0.259 ppb	-5.052 ppb	-3.945 ppb	107.353 %
Concentration per Run 3	106.680 %	103.060 %	0.031 ppb	23.410 ppb	0.087 ppb	-0.228 ppb	-0.214 ppb	0.001 ppb	104.777 %
Recovery Percentage 1			6.197 %	21.110 %	1.288 %	-2.007 %	-0.961 %	-1.209 %	
Concentration RSD	0.2 %	3.3 %	4.1 %	10.1 %	108.4 %	37.7 %	392.8 %	196.3 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.044 ppb	0.017 ppb	0.077 ppb	8.493 ppb	0.038 ppb	-0.022 ppb	-0.133 ppb	-0.061 ppb	96.027 %
Concentration per Run 1	0.009 ppb	0.026 ppb	0.074 ppb	8.213 ppb	0.034 ppb	0.030 ppb	-0.178 ppb	-0.053 ppb	97.948 %
Concentration per Run 2	0.109 ppb	0.010 ppb	0.119 ppb	8.932 ppb	0.047 ppb	-0.026 ppb	-0.099 ppb	-0.065 ppb	96.262 %
Concentration per Run 3	0.014 ppb	0.013 ppb	0.039 ppb	8.335 ppb	0.033 ppb	-0.069 ppb	-0.122 ppb	-0.064 ppb	93.871 %
Recovery Percentage 1	0.885 %	1.659 %	7.698 %	16.987 %	7.591 %	-1.080 %	-13.272 %	-1.214 %	
Concentration RSD	126.7 %	50.0 %	51.9 %	4.5 %	21.1 %	227.7 %	30.7 %	10.9 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.139 ppb	0.163 ppb	0.071 ppb	0.462 ppb	100.305 %	0.029 ppb	0.036 ppb	98.018 %	0.016 ppb
Concentration per Run 1	0.171 ppb	0.128 ppb	0.070 ppb	0.351 ppb	103.856 %	0.032 ppb	0.041 ppb	100.392 %	-0.171 ppb
Concentration per Run 2	0.133 ppb	0.128 ppb	0.081 ppb	0.488 ppb	99.616 %	0.033 ppb	0.029 ppb	100.608 %	0.063 ppb
Concentration per Run 3	0.114 ppb	0.234 ppb	0.063 ppb	0.548 ppb	97.444 %	0.022 ppb	0.038 ppb	93.053 %	0.155 ppb
Recovery Percentage 1	27.848 %	3.268 %	0.713 %	23.112 %		7.262 %	17.998 %		0.523 %
Concentration RSD	20.8 %	37.5 %	13.1 %	21.9 %	3.3 %	21.8 %	16.8 %	4.4 %	1,071.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.359 ppb	0.058 ppb	104.610 %	104.375 %	0.628 ppb	0.466 ppb	0.050 ppb	104.775 %
Concentration per Run 1	0.294 ppb	0.054 ppb	106.094 %	105.525 %	0.493 ppb	0.340 ppb	0.053 ppb	108.584 %
Concentration per Run 2	0.374 ppb	0.088 ppb	105.008 %	106.030 %	0.623 ppb	0.578 ppb	0.056 ppb	103.372 %
Concentration per Run 3	0.409 ppb	0.031 ppb	102.728 %	101.569 %	0.769 ppb	0.480 ppb	0.042 ppb	102.368 %
Recovery Percentage 1	8.977 %	11.553 %			31.419 %	46.598 %	5.042 %	
Concentration RSD	16.3 %	49.9 %	1.6 %	2.3 %	21.9 %	25.7 %	14.4 %	3.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	56	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1951958-1 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 10:35:17 AM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.029 %	100.076 %	0.018 ppb	5.287 ppb	2.147 ppb	5.079 ppb	-2.365 ppb	7.418 ppb	110.055 %
Concentration per Run 1	110.039 %	105.356 %	0.025 ppb	1.230 ppb	1.147 ppb	5.320 ppb	1.758 ppb	7.847 ppb	109.049 %
Concentration per Run 2	109.571 %	101.224 %	0.017 ppb	9.038 ppb	3.259 ppb	5.170 ppb	-7.349 ppb	11.688 ppb	109.819 %
Concentration per Run 3	110.475 %	93.650 %	0.013 ppb	5.591 ppb	2.036 ppb	4.747 ppb	-1.503 ppb	2.719 ppb	111.297 %
Concentration RSD	0.4 %	5.9 %	31.5 %	74.0 %	49.4 %	5.8 %	195.1 %	60.7 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.209 ppb	0.242 ppb	0.281 ppb	20.405 ppb	0.028 ppb	0.091 ppb	0.607 ppb	1.092 ppb	98.223 %
Concentration per Run 1	0.154 ppb	0.224 ppb	0.273 ppb	20.345 ppb	0.035 ppb	0.032 ppb	0.553 ppb	1.025 ppb	101.647 %
Concentration per Run 2	0.220 ppb	0.242 ppb	0.152 ppb	20.199 ppb	0.023 ppb	0.104 ppb	0.572 ppb	1.228 ppb	99.583 %
Concentration per Run 3	0.252 ppb	0.261 ppb	0.417 ppb	20.672 ppb	0.025 ppb	0.135 ppb	0.695 ppb	1.024 ppb	93.438 %
Concentration RSD	24.1 %	7.6 %	47.1 %	1.2 %	22.8 %	58.2 %	12.7 %	10.8 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.244 ppb	-0.011 ppb	0.059 ppb	0.138 ppb	98.594 %	0.018 ppb	0.021 ppb	96.016 %	1.287 ppb
Concentration per Run 1	0.166 ppb	0.013 ppb	0.067 ppb	0.134 ppb	101.304 %	0.025 ppb	0.019 ppb	98.021 %	1.119 ppb
Concentration per Run 2	0.219 ppb	0.032 ppb	0.055 ppb	0.154 ppb	96.465 %	0.015 ppb	0.023 ppb	93.188 %	1.362 ppb
Concentration per Run 3	0.349 ppb	-0.078 ppb	0.057 ppb	0.126 ppb	98.011 %	0.015 ppb	0.020 ppb	96.840 %	1.381 ppb
Concentration RSD	38.5 %	534.5 %	11.3 %	10.5 %	2.5 %	33.9 %	8.6 %	2.6 %	11.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.273 ppb	0.159 ppb	105.369 %	105.077 %	0.163 ppb	0.099 ppb	0.255 ppb	109.449 %
Concentration per Run 1	0.232 ppb	0.149 ppb	106.942 %	107.672 %	0.116 ppb	0.060 ppb	0.249 ppb	114.455 %
Concentration per Run 2	0.306 ppb	0.170 ppb	103.838 %	102.999 %	0.170 ppb	0.123 ppb	0.252 ppb	107.246 %
Concentration per Run 3	0.281 ppb	0.158 ppb	105.326 %	104.560 %	0.204 ppb	0.113 ppb	0.263 ppb	106.647 %
Concentration RSD	13.8 %	6.7 %	1.5 %	2.3 %	27.0 %	34.5 %	2.9 %	4.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	57	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1951958-2d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 10:39:43 AM	Vial	27		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.248 %	102.831 %	10.201 ppb	2,001.040 ppb	1,888.386 ppb	366.351 ppb	1,827.640 ppb	1,747.196 ppb	106.368 %
Concentration per Run 1	106.759 %	111.553 %	10.182 ppb	1,886.696 ppb	1,791.177 ppb	366.256 ppb	1,849.547 ppb	1,674.864 ppb	106.863 %
Concentration per Run 2	106.385 %	101.683 %	10.241 ppb	1,970.843 ppb	1,855.425 ppb	356.973 ppb	1,802.198 ppb	1,723.496 ppb	106.066 %
Concentration per Run 3	105.602 %	95.256 %	10.180 ppb	2,145.583 ppb	2,018.557 ppb	375.824 ppb	1,831.175 ppb	1,843.229 ppb	106.176 %
Concentration RSD	0.6 %	8.0 %	0.3 %	6.6 %	6.2 %	2.6 %	1.3 %	5.0 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	88.991 ppb	37.217 ppb	95.578 ppb	201.236 ppb	96.536 ppb	96.432 ppb	48.857 ppb	98.941 ppb	98.543 %
Concentration per Run 1	84.998 ppb	36.091 ppb	94.519 ppb	211.360 ppb	93.520 ppb	93.346 ppb	47.346 ppb	97.336 ppb	103.035 %
Concentration per Run 2	89.690 ppb	36.698 ppb	92.271 ppb	193.946 ppb	94.457 ppb	94.056 ppb	47.182 ppb	95.382 ppb	103.241 %
Concentration per Run 3	92.285 ppb	38.860 ppb	99.945 ppb	198.401 ppb	101.631 ppb	101.893 ppb	52.044 ppb	104.106 ppb	89.354 %
Concentration RSD	4.2 %	3.9 %	4.1 %	4.5 %	4.6 %	4.9 %	5.7 %	4.6 %	8.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	23.134 ppb	23.002 ppb	177.113 ppb	194.969 ppb	98.329 %	9.899 ppb	10.620 ppb	95.941 %	189.371 ppb
Concentration per Run 1	23.198 ppb	24.474 ppb	181.696 ppb	187.596 ppb	100.898 %	9.470 ppb	10.342 ppb	102.372 %	183.265 ppb
Concentration per Run 2	22.370 ppb	21.278 ppb	170.288 ppb	192.241 ppb	98.294 %	10.045 ppb	10.775 ppb	93.689 %	189.464 ppb
Concentration per Run 3	23.834 ppb	23.254 ppb	179.356 ppb	205.069 ppb	95.794 %	10.181 ppb	10.742 ppb	91.762 %	195.384 ppb
Concentration RSD	3.2 %	7.0 %	3.4 %	4.6 %	2.6 %	3.8 %	2.3 %	5.9 %	3.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.470 ppb	391.772 ppb	104.735 %	104.466 %	0.087 ppb	22.756 ppb	102.567 ppb	104.129 %
Concentration per Run 1	96.898 ppb	387.987 ppb	106.740 %	108.269 %	0.059 ppb	21.605 ppb	98.941 ppb	107.282 %
Concentration per Run 2	99.529 ppb	391.383 ppb	105.716 %	104.638 %	0.076 ppb	23.173 ppb	103.636 ppb	102.984 %
Concentration per Run 3	101.985 ppb	395.946 ppb	101.750 %	100.491 %	0.128 ppb	23.490 ppb	105.126 ppb	102.120 %
Concentration RSD	2.6 %	1.0 %	2.5 %	3.7 %	41.0 %	4.4 %	3.1 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	58	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2440939-07d2 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 10:44:10 AM	Vial	28		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	147.334 %	153.329 %	3.032 ppb	**35,711.170 ppb**	**32,395.289 ppb**	68,925.848 ppb	23,045.061 ppb	59,870.445 ppb	183.059 %
Concentration per Run 1	149.937 %	157.002 %	2.965 ppb	34,344.461 ppb	28,395.495 ppb	66,634.539 ppb	22,328.007 ppb	57,733.947 ppb	186.031 %
Concentration per Run 2	146.989 %	147.591 %	3.039 ppb	37,185.722 ppb	38,610.250 ppb	70,836.797 ppb	23,413.602 ppb	61,151.942 ppb	182.877 %
Concentration per Run 3	145.076 %	155.395 %	3.091 ppb	35,603.326 ppb	30,180.121 ppb	69,306.208 ppb	23,393.574 ppb	60,725.445 ppb	180.268 %
Concentration RSD	1.7 %	3.3 %	2.1 %	4.0 %	16.8 %	3.1 %	2.7 %	3.1 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	**224.686 ppb**	**231.106 ppb**	1,589.808 ppb	**175,087.197 ppb**	53.314 ppb	148.530 ppb	813.119 ppb	2,769.934 ppb	103.348 %
Concentration per Run 1	206.439 ppb	210.705 ppb	1,490.150 ppb	159,824.861 ppb	47.876 ppb	134.080 ppb	721.228 ppb	2,504.532 ppb	115.664 %
Concentration per Run 2	236.558 ppb	244.667 ppb	1,672.480 ppb	186,411.202 ppb	56.786 ppb	156.942 ppb	861.848 ppb	2,916.216 ppb	96.254 %
Concentration per Run 3	231.063 ppb	237.946 ppb	1,606.795 ppb	179,025.526 ppb	55.279 ppb	154.568 ppb	856.282 ppb	2,889.054 ppb	98.126 %
Concentration RSD	7.1 %	7.8 %	5.8 %	7.8 %	8.9 %	8.5 %	9.8 %	8.3 %	10.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	125.467 ppb	15.043 ppb	**527.882 ppb**	37.005 ppb	94.871 %	5.812 ppb	8.645 ppb	95.426 %	**474.133 ppb**
Concentration per Run 1	112.998 ppb	12.440 ppb	505.016 ppb	34.158 ppb	99.160 %	5.478 ppb	8.243 ppb	102.882 %	443.226 ppb
Concentration per Run 2	131.412 ppb	15.489 ppb	541.822 ppb	38.119 ppb	92.695 %	6.092 ppb	8.953 ppb	90.551 %	493.454 ppb
Concentration per Run 3	131.990 ppb	17.202 ppb	536.809 ppb	38.738 ppb	92.760 %	5.864 ppb	8.737 ppb	92.846 %	485.719 ppb
Concentration RSD	8.6 %	16.0 %	3.8 %	6.7 %	3.9 %	5.3 %	4.2 %	6.9 %	5.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	4.913 ppb	457.637 ppb	110.965 %	104.866 %	1.503 ppb	2.670 ppb	2,776.236 ppb	117.822 %
Concentration per Run 1	4.619 ppb	439.912 ppb	116.001 %	110.509 %	1.342 ppb	2.421 ppb	2,652.239 ppb	121.422 %
Concentration per Run 2	5.118 ppb	466.908 ppb	107.266 %	102.482 %	1.573 ppb	2.782 ppb	2,848.836 ppb	117.135 %
Concentration per Run 3	5.001 ppb	466.090 ppb	109.628 %	101.607 %	1.595 ppb	2.807 ppb	2,827.633 ppb	114.908 %
Concentration RSD	5.3 %	3.4 %	4.1 %	4.7 %	9.4 %	8.1 %	3.9 %	2.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	59	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1951958-3d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 10:48:37 AM	Vial	29		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	114.159 %	126.167 %	9.573 ppb	10,750.949 ppb	9,845.889 ppb	15,553.819 ppb	6,149.599 ppb	13,493.816 ppb	125.608 %
Concentration per Run 1	115.558 %	118.898 %	9.565 ppb	10,738.712 ppb	9,794.600 ppb	15,426.170 ppb	6,059.689 ppb	13,270.213 ppb	127.329 %
Concentration per Run 2	114.080 %	126.932 %	9.531 ppb	10,751.078 ppb	9,906.285 ppb	15,634.410 ppb	6,246.115 ppb	13,735.304 ppb	125.057 %
Concentration per Run 3	112.838 %	132.671 %	9.623 ppb	10,763.056 ppb	9,836.783 ppb	15,600.877 ppb	6,142.994 ppb	13,475.931 ppb	124.438 %
Concentration RSD	1.2 %	5.5 %	0.5 %	0.1 %	0.6 %	0.7 %	1.5 %	1.7 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	126.386 ppb	85.012 ppb	477.923 ppb	67,848.890 ppb	100.651 ppb	120.864 ppb	222.554 ppb	886.263 ppb	101.423 %
Concentration per Run 1	122.557 ppb	84.151 ppb	467.457 ppb	69,667.653 ppb	98.837 ppb	117.755 ppb	215.759 ppb	856.310 ppb	106.635 %
Concentration per Run 2	130.351 ppb	86.872 ppb	486.985 ppb	73,451.606 ppb	102.211 ppb	124.059 ppb	227.929 ppb	913.848 ppb	99.622 %
Concentration per Run 3	126.251 ppb	84.012 ppb	479.327 ppb	60,427.412 ppb	100.907 ppb	120.777 ppb	223.974 ppb	888.632 ppb	98.013 %
Concentration RSD	3.1 %	1.9 %	2.1 %	9.9 %	1.7 %	2.6 %	2.8 %	3.3 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	45.248 ppb	21.670 ppb	244.579 ppb	189.111 ppb	100.289 %	10.641 ppb	11.884 ppb	95.526 %	269.249 ppb
Concentration per Run 1	42.893 ppb	20.882 ppb	230.988 ppb	176.516 ppb	104.247 %	10.013 ppb	11.480 ppb	98.618 %	253.581 ppb
Concentration per Run 2	47.336 ppb	22.245 ppb	253.031 ppb	192.876 ppb	98.248 %	10.941 ppb	12.097 ppb	94.826 %	274.458 ppb
Concentration per Run 3	45.514 ppb	21.884 ppb	249.718 ppb	197.940 ppb	98.372 %	10.970 ppb	12.076 ppb	93.133 %	279.709 ppb
Concentration RSD	4.9 %	3.3 %	4.9 %	5.9 %	3.4 %	5.1 %	2.9 %	2.9 %	5.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	56.790 ppb	370.658 ppb	106.467 %	103.656 %	0.721 ppb	21.797 ppb	778.898 ppb	103.801 %
Concentration per Run 1	54.026 ppb	350.737 ppb	109.367 %	107.137 %	0.667 ppb	20.214 ppb	738.537 ppb	106.849 %
Concentration per Run 2	57.927 ppb	380.346 ppb	104.294 %	101.468 %	0.739 ppb	22.125 ppb	793.387 ppb	102.556 %
Concentration per Run 3	58.416 ppb	380.889 ppb	105.740 %	102.364 %	0.757 ppb	23.052 ppb	804.770 ppb	101.999 %
Concentration RSD	4.2 %	4.7 %	2.5 %	2.9 %	6.6 %	6.6 %	4.5 %	2.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	60	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1951958-4d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 10:53:04 AM	Vial	30		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.422 %	118.898 %	9.714 ppb	9,681.740 ppb	9,500.526 ppb	16,036.972 ppb	6,402.311 ppb	22,990.023 ppb	116.662 %
Concentration per Run 1	110.704 %	120.276 %	9.680 ppb	9,699.885 ppb	9,566.208 ppb	16,413.498 ppb	6,561.644 ppb	23,377.858 ppb	116.852 %
Concentration per Run 2	109.703 %	113.849 %	9.552 ppb	9,877.625 ppb	9,719.100 ppb	16,233.901 ppb	6,385.444 ppb	23,010.691 ppb	118.241 %
Concentration per Run 3	107.860 %	122.571 %	9.910 ppb	9,467.708 ppb	9,216.269 ppb	15,463.517 ppb	6,259.845 ppb	22,581.519 ppb	114.892 %
Concentration RSD	1.3 %	3.8 %	1.9 %	2.1 %	2.7 %	3.1 %	2.4 %	1.7 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	130.560 ppb	75.739 ppb	376.467 ppb	28,269.712 ppb	98.269 ppb	113.894 ppb	101.572 ppb	271.236 ppb	101.127 %
Concentration per Run 1	126.996 ppb	73.632 ppb	374.007 ppb	27,627.132 ppb	95.146 ppb	109.226 ppb	98.009 ppb	265.945 ppb	105.116 %
Concentration per Run 2	132.665 ppb	76.795 ppb	376.519 ppb	28,531.084 ppb	100.056 ppb	115.711 ppb	101.859 ppb	270.125 ppb	101.248 %
Concentration per Run 3	132.019 ppb	76.791 ppb	378.874 ppb	28,650.920 ppb	99.605 ppb	116.744 ppb	104.847 ppb	277.637 ppb	97.016 %
Concentration RSD	2.4 %	2.4 %	0.6 %	2.0 %	2.8 %	3.6 %	3.4 %	2.2 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	35.917 ppb	23.205 ppb	291.090 ppb	194.645 ppb	95.561 %	10.138 ppb	11.174 ppb	92.173 %	211.746 ppb
Concentration per Run 1	35.290 ppb	23.742 ppb	293.263 ppb	189.792 ppb	98.553 %	9.751 ppb	10.773 ppb	97.834 %	203.466 ppb
Concentration per Run 2	35.508 ppb	22.484 ppb	286.841 ppb	196.421 ppb	94.636 %	10.209 ppb	11.436 ppb	90.538 %	215.491 ppb
Concentration per Run 3	36.953 ppb	23.388 ppb	293.166 ppb	197.724 ppb	93.492 %	10.453 ppb	11.313 ppb	88.148 %	216.282 ppb
Concentration RSD	2.5 %	2.8 %	1.3 %	2.2 %	2.8 %	3.5 %	3.2 %	5.5 %	3.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.230 ppb	462.824 ppb	104.672 %	102.856 %	0.259 ppb	23.437 ppb	262.988 ppb	99.094 %
Concentration per Run 1	56.075 ppb	453.976 ppb	105.777 %	106.838 %	0.234 ppb	22.509 ppb	255.165 ppb	101.075 %
Concentration per Run 2	59.460 ppb	468.429 ppb	104.302 %	100.562 %	0.260 ppb	24.013 ppb	270.209 ppb	96.650 %
Concentration per Run 3	59.155 ppb	466.066 ppb	103.938 %	101.169 %	0.284 ppb	23.787 ppb	263.590 ppb	99.559 %
Concentration RSD	3.2 %	1.7 %	0.9 %	3.4 %	9.7 %	3.5 %	2.9 %	2.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	61	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1951958-5d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 10:57:32 AM	Vial	31		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.811 %	121.882 %	45.664 ppb	14,246.680 ppb	12,851.827 ppb	15,677.460 ppb	9,098.405 ppb	16,937.150 ppb	121.931 %
Concentration per Run 1	112.451 %	121.194 %	45.625 ppb	13,275.846 ppb	11,869.810 ppb	14,399.215 ppb	8,567.994 ppb	15,801.545 ppb	122.402 %
Concentration per Run 2	111.990 %	119.128 %	46.024 ppb	15,235.282 ppb	13,890.920 ppb	17,235.389 ppb	9,834.736 ppb	18,335.640 ppb	122.070 %
Concentration per Run 3	110.992 %	125.326 %	45.343 ppb	14,228.913 ppb	12,794.750 ppb	15,397.776 ppb	8,892.484 ppb	16,674.265 ppb	121.320 %
Concentration RSD	0.7 %	2.6 %	0.7 %	6.9 %	7.9 %	9.2 %	7.2 %	7.6 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	90.943 ppb	93.409 ppb	378.015 ppb	48,052.617 ppb	58.308 ppb	77.088 ppb	213.527 ppb	628.547 ppb	106.180 %
Concentration per Run 1	86.115 ppb	88.181 ppb	353.174 ppb	45,197.358 ppb	55.969 ppb	73.354 ppb	205.278 ppb	593.229 ppb	109.167 %
Concentration per Run 2	93.312 ppb	96.266 ppb	397.727 ppb	49,506.886 ppb	58.267 ppb	76.748 ppb	213.922 ppb	641.842 ppb	108.558 %
Concentration per Run 3	93.402 ppb	95.782 ppb	383.145 ppb	49,453.606 ppb	60.690 ppb	81.161 ppb	221.382 ppb	650.571 ppb	100.814 %
Concentration RSD	4.6 %	4.9 %	6.0 %	5.1 %	4.0 %	5.1 %	3.8 %	4.9 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	71.958 ppb	48.238 ppb	140.446 ppb	57.574 ppb	99.557 %	5.579 ppb	51.367 ppb	96.609 %	139.349 ppb
Concentration per Run 1	67.077 ppb	45.851 ppb	129.579 ppb	53.499 ppb	101.237 %	5.367 ppb	48.263 ppb	97.742 %	131.710 ppb
Concentration per Run 2	72.600 ppb	50.013 ppb	147.735 ppb	59.135 ppb	99.068 %	5.724 ppb	52.761 ppb	97.870 %	141.364 ppb
Concentration per Run 3	76.198 ppb	48.850 ppb	144.025 ppb	60.089 ppb	98.366 %	5.644 ppb	53.076 ppb	94.215 %	144.973 ppb
Concentration RSD	6.4 %	4.5 %	6.8 %	6.2 %	1.5 %	3.4 %	5.2 %	2.1 %	4.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	50.876 ppb	138.211 ppb	107.051 %	105.761 %	47.561 ppb	49.048 ppb	664.119 ppb	105.210 %
Concentration per Run 1	48.511 ppb	133.332 ppb	107.782 %	105.669 %	45.459 ppb	45.720 ppb	633.273 ppb	107.375 %
Concentration per Run 2	51.689 ppb	141.501 ppb	107.694 %	107.224 %	47.999 ppb	50.243 ppb	678.031 ppb	104.480 %
Concentration per Run 3	52.429 ppb	139.801 ppb	105.676 %	104.390 %	49.226 ppb	51.181 ppb	681.052 ppb	103.774 %
Concentration RSD	4.1 %	3.1 %	1.1 %	1.3 %	4.0 %	6.0 %	4.0 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	62	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1951958-6d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 11:02:00 AM	Vial	32		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	113.647 %	119.052 %	0.921 ppb	10,502.408 ppb	9,061.095 ppb	16,582.093 ppb	5,295.415 ppb	13,692.705 ppb	122.466 %
Concentration per Run 1	114.726 %	121.882 %	0.930 ppb	9,781.172 ppb	8,476.848 ppb	15,611.283 ppb	5,033.551 ppb	13,073.741 ppb	123.273 %
Concentration per Run 2	113.564 %	117.292 %	0.938 ppb	10,735.430 ppb	9,324.496 ppb	17,030.259 ppb	5,326.218 ppb	13,672.536 ppb	122.641 %
Concentration per Run 3	112.652 %	117.980 %	0.896 ppb	10,990.621 ppb	9,381.942 ppb	17,104.737 ppb	5,526.475 ppb	14,331.837 ppb	121.485 %
Concentration RSD	0.9 %	2.1 %	2.4 %	6.1 %	5.6 %	5.1 %	4.7 %	4.6 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	52.571 ppb	53.869 ppb	360.128 ppb	47,750.335 ppb	12.446 ppb	35.497 ppb	190.211 ppb	653.875 ppb	100.631 %
Concentration per Run 1	47.094 ppb	49.758 ppb	330.171 ppb	43,868.013 ppb	11.619 ppb	33.101 ppb	175.623 ppb	601.860 ppb	105.722 %
Concentration per Run 2	53.411 ppb	54.040 ppb	368.388 ppb	48,294.234 ppb	12.438 ppb	35.537 ppb	192.467 ppb	656.422 ppb	101.361 %
Concentration per Run 3	57.207 ppb	57.807 ppb	381.824 ppb	51,088.757 ppb	13.282 ppb	37.852 ppb	202.543 ppb	703.344 ppb	94.810 %
Concentration RSD	9.7 %	7.5 %	7.4 %	7.6 %	6.7 %	6.7 %	7.2 %	7.8 %	5.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	27.279 ppb	2.834 ppb	103.226 ppb	7.473 ppb	100.250 %	1.241 ppb	1.855 ppb	94.186 %	97.166 ppb
Concentration per Run 1	24.852 ppb	2.362 ppb	93.130 ppb	6.625 ppb	105.162 %	1.144 ppb	1.687 ppb	97.597 %	88.830 ppb
Concentration per Run 2	27.373 ppb	2.908 ppb	102.937 ppb	7.209 ppb	99.819 %	1.250 ppb	1.862 ppb	94.607 %	97.883 ppb
Concentration per Run 3	29.614 ppb	3.231 ppb	113.612 ppb	8.585 ppb	95.769 %	1.329 ppb	2.015 ppb	90.353 %	104.787 ppb
Concentration RSD	8.7 %	15.5 %	9.9 %	13.5 %	4.7 %	7.5 %	8.9 %	3.9 %	8.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.109 ppb	95.347 ppb	105.513 %	102.612 %	0.769 ppb	1.080 ppb	650.696 ppb	104.482 %
Concentration per Run 1	1.001 ppb	88.602 ppb	111.780 %	107.985 %	0.623 ppb	0.859 ppb	594.179 ppb	111.893 %
Concentration per Run 2	1.134 ppb	95.669 ppb	106.525 %	103.373 %	0.786 ppb	1.202 ppb	658.058 ppb	105.688 %
Concentration per Run 3	1.192 ppb	101.769 ppb	98.234 %	96.478 %	0.899 ppb	1.179 ppb	699.852 ppb	95.864 %
Concentration RSD	8.8 %	6.9 %	6.5 %	5.6 %	18.0 %	17.7 %	8.2 %	7.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	63	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2440939-07d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 11:06:28 AM	Vial	38		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	113.434 %	113.772 %	0.888 ppb	10,645.263 ppb	9,205.465 ppb	16,742.098 ppb	5,297.846 ppb	13,697.685 ppb	122.261 %
Concentration per Run 1	114.317 %	114.996 %	0.870 ppb	10,216.235 ppb	8,880.948 ppb	16,208.937 ppb	5,255.373 ppb	13,356.878 ppb	123.161 %
Concentration per Run 2	112.577 %	106.274 %	0.894 ppb	11,276.388 ppb	9,796.990 ppb	17,586.886 ppb	5,516.401 ppb	14,272.185 ppb	121.722 %
Concentration per Run 3	113.407 %	120.046 %	0.899 ppb	10,443.165 ppb	8,938.456 ppb	16,430.469 ppb	5,121.763 ppb	13,463.994 ppb	121.902 %
Concentration RSD	0.8 %	6.1 %	1.7 %	5.2 %	5.6 %	4.4 %	3.8 %	3.7 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	50.954 ppb	52.352 ppb	349.568 ppb	45,827.289 ppb	11.816 ppb	33.065 ppb	179.407 ppb	623.769 ppb	102.393 %
Concentration per Run 1	48.778 ppb	49.794 ppb	335.573 ppb	44,190.400 ppb	11.326 ppb	30.739 ppb	170.534 ppb	597.006 ppb	106.371 %
Concentration per Run 2	53.071 ppb	55.508 ppb	368.008 ppb	47,711.589 ppb	12.491 ppb	35.570 ppb	188.965 ppb	650.729 ppb	97.547 %
Concentration per Run 3	51.014 ppb	51.753 ppb	345.122 ppb	45,579.880 ppb	11.633 ppb	32.887 ppb	178.720 ppb	623.571 ppb	103.260 %
Concentration RSD	4.2 %	5.5 %	4.8 %	3.9 %	5.1 %	7.3 %	5.1 %	4.3 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	25.888 ppb	3.408 ppb	97.346 ppb	6.870 ppb	100.068 %	1.179 ppb	1.803 ppb	96.270 %	91.422 ppb
Concentration per Run 1	24.825 ppb	3.262 ppb	94.011 ppb	6.328 ppb	100.538 %	1.120 ppb	1.606 ppb	98.459 %	88.520 ppb
Concentration per Run 2	27.397 ppb	3.589 ppb	99.957 ppb	7.116 ppb	99.992 %	1.227 ppb	1.883 ppb	96.276 %	93.251 ppb
Concentration per Run 3	25.441 ppb	3.374 ppb	98.069 ppb	7.168 ppb	99.675 %	1.190 ppb	1.919 ppb	94.073 %	92.494 ppb
Concentration RSD	5.2 %	4.9 %	3.1 %	6.8 %	0.4 %	4.6 %	9.5 %	2.3 %	2.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.042 ppb	90.006 ppb	107.819 %	104.390 %	0.412 ppb	0.723 ppb	621.160 ppb	106.485 %
Concentration per Run 1	1.036 ppb	88.537 ppb	109.258 %	106.228 %	0.385 ppb	0.619 ppb	596.964 ppb	107.982 %
Concentration per Run 2	1.028 ppb	90.147 ppb	106.306 %	102.701 %	0.417 ppb	0.762 ppb	633.261 ppb	106.576 %
Concentration per Run 3	1.062 ppb	91.333 ppb	107.894 %	104.240 %	0.435 ppb	0.786 ppb	633.254 ppb	104.898 %
Concentration RSD	1.7 %	1.6 %	1.4 %	1.7 %	6.2 %	12.5 %	3.4 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	64	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1951958-6d50 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 11:10:54 AM	Vial	39		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.426 %	107.422 %	0.225 ppb	2,272.760 ppb	1,994.750 ppb	3,628.673 ppb	1,145.318 ppb	2,890.606 ppb	111.185 %
Concentration per Run 1	109.220 %	107.881 %	0.224 ppb	2,216.108 ppb	1,941.924 ppb	3,557.694 ppb	1,123.510 ppb	2,855.361 ppb	110.909 %
Concentration per Run 2	109.997 %	106.733 %	0.230 ppb	2,254.578 ppb	1,987.497 ppb	3,618.220 ppb	1,113.505 ppb	2,796.961 ppb	111.786 %
Concentration per Run 3	109.062 %	107.651 %	0.220 ppb	2,347.595 ppb	2,054.830 ppb	3,710.105 ppb	1,198.938 ppb	3,019.495 ppb	110.860 %
Concentration RSD	0.5 %	0.6 %	2.1 %	3.0 %	2.8 %	2.1 %	4.1 %	4.0 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	10.956 ppb	11.419 ppb	75.158 ppb	9,850.324 ppb	2.690 ppb	7.147 ppb	38.123 ppb	134.661 ppb	101.606 %
Concentration per Run 1	10.708 ppb	11.085 ppb	73.198 ppb	9,581.587 ppb	2.720 ppb	6.820 ppb	37.651 ppb	132.526 ppb	102.466 %
Concentration per Run 2	10.995 ppb	11.284 ppb	74.653 ppb	9,828.084 ppb	2.656 ppb	7.127 ppb	37.832 ppb	132.358 ppb	103.095 %
Concentration per Run 3	11.164 ppb	11.890 ppb	77.624 ppb	10,141.300 ppb	2.694 ppb	7.493 ppb	38.887 ppb	139.099 ppb	99.257 %
Concentration RSD	2.1 %	3.7 %	3.0 %	2.8 %	1.2 %	4.7 %	1.8 %	2.9 %	2.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	5.528 ppb	0.708 ppb	20.223 ppb	1.530 ppb	102.766 %	0.231 ppb	0.391 ppb	98.711 %	19.054 ppb
Concentration per Run 1	5.247 ppb	0.673 ppb	19.779 ppb	1.422 ppb	105.740 %	0.212 ppb	0.388 ppb	100.911 %	18.177 ppb
Concentration per Run 2	5.677 ppb	0.842 ppb	20.227 ppb	1.528 ppb	100.327 %	0.243 ppb	0.392 ppb	96.830 %	19.271 ppb
Concentration per Run 3	5.659 ppb	0.609 ppb	20.663 ppb	1.642 ppb	102.232 %	0.238 ppb	0.393 ppb	98.392 %	19.713 ppb
Concentration RSD	4.4 %	17.0 %	2.2 %	7.2 %	2.7 %	7.2 %	0.6 %	2.1 %	4.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.239 ppb	18.946 ppb	106.441 %	104.531 %	0.130 ppb	0.251 ppb	139.041 ppb	102.917 %
Concentration per Run 1	0.229 ppb	18.046 ppb	108.680 %	106.565 %	0.101 ppb	0.177 ppb	133.451 ppb	105.121 %
Concentration per Run 2	0.226 ppb	18.972 ppb	105.672 %	104.402 %	0.135 ppb	0.283 ppb	141.556 ppb	101.790 %
Concentration per Run 3	0.261 ppb	19.821 ppb	104.971 %	102.627 %	0.153 ppb	0.295 ppb	142.117 ppb	101.842 %
Concentration RSD	8.1 %	4.7 %	1.9 %	1.9 %	20.2 %	25.8 %	3.5 %	1.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	65	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441738-01d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 11:15:21 AM	Vial	33		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.884 %	112.012 %	0.508 ppb	187.726 ppb	1,968.695 ppb	5,792.922 ppb	1,220.170 ppb	1,284.959 ppb	118.113 %
Concentration per Run 1	112.124 %	119.817 %	0.500 ppb	166.833 ppb	1,789.636 ppb	5,314.370 ppb	1,159.893 ppb	1,202.590 ppb	116.576 %
Concentration per Run 2	113.805 %	103.520 %	0.515 ppb	208.115 ppb	2,131.940 ppb	6,197.395 ppb	1,278.397 ppb	1,374.741 ppb	119.208 %
Concentration per Run 3	112.722 %	112.701 %	0.509 ppb	188.230 ppb	1,984.509 ppb	5,867.001 ppb	1,222.220 ppb	1,277.545 ppb	118.556 %
Concentration RSD	0.8 %	7.3 %	1.5 %	11.0 %	8.7 %	7.7 %	4.9 %	6.7 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	12.537 ppb	12.550 ppb	142.559 ppb	10,281.910 ppb	4.156 ppb	7.952 ppb	8.294 ppb	57.794 ppb	103.721 %
Concentration per Run 1	11.681 ppb	11.624 ppb	135.362 ppb	9,749.340 ppb	3.963 ppb	7.917 ppb	7.813 ppb	55.008 ppb	107.783 %
Concentration per Run 2	12.996 ppb	13.126 ppb	150.366 ppb	10,618.030 ppb	4.345 ppb	7.686 ppb	8.593 ppb	59.400 ppb	100.806 %
Concentration per Run 3	12.935 ppb	12.900 ppb	141.948 ppb	10,478.361 ppb	4.159 ppb	8.253 ppb	8.477 ppb	58.975 ppb	102.575 %
Concentration RSD	5.9 %	6.5 %	5.3 %	4.5 %	4.6 %	3.6 %	5.1 %	4.2 %	3.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	3.928 ppb	1.051 ppb	4.707 ppb	0.492 ppb	104.229 %	0.130 ppb	0.314 ppb	98.954 %	4.574 ppb
Concentration per Run 1	3.639 ppb	1.121 ppb	4.432 ppb	0.432 ppb	110.419 %	0.120 ppb	0.308 ppb	103.603 %	4.272 ppb
Concentration per Run 2	4.044 ppb	0.768 ppb	4.822 ppb	0.480 ppb	101.175 %	0.128 ppb	0.320 ppb	98.706 %	4.559 ppb
Concentration per Run 3	4.102 ppb	1.262 ppb	4.866 ppb	0.563 ppb	101.092 %	0.143 ppb	0.314 ppb	94.551 %	4.892 ppb
Concentration RSD	6.4 %	24.3 %	5.1 %	13.4 %	5.1 %	9.0 %	1.8 %	4.6 %	6.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.158 ppb	31.754 ppb	108.682 %	106.994 %	0.617 ppb	0.217 ppb	11.966 ppb	106.301 %
Concentration per Run 1	0.127 ppb	29.879 ppb	112.912 %	110.265 %	0.588 ppb	0.155 ppb	11.390 ppb	110.882 %
Concentration per Run 2	0.154 ppb	32.136 ppb	105.404 %	105.553 %	0.610 ppb	0.233 ppb	12.213 ppb	104.932 %
Concentration per Run 3	0.193 ppb	33.247 ppb	107.729 %	105.163 %	0.654 ppb	0.262 ppb	12.295 ppb	103.089 %
Concentration RSD	21.0 %	5.4 %	3.5 %	2.7 %	5.5 %	25.5 %	4.2 %	3.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	66	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 11:19:49 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.185 %	104.820 %	62.259 ppb	5,924.308 ppb	5,829.515 ppb	96.654 ppb	5,527.950 ppb	5,465.283 ppb	104.616 %
Concentration per Run 1	103.772 %	112.242 %	62.174 ppb	5,482.711 ppb	5,281.618 ppb	72.317 ppb	5,241.122 ppb	5,010.856 ppb	104.107 %
Concentration per Run 2	103.629 %	99.847 %	62.002 ppb	6,205.434 ppb	6,186.822 ppb	76.225 ppb	5,734.651 ppb	5,644.279 ppb	105.587 %
Concentration per Run 3	102.154 %	102.372 %	62.600 ppb	6,084.779 ppb	6,020.103 ppb	141.419 ppb	5,608.077 ppb	5,740.714 ppb	104.153 %
Recovery Percentage 1			103.765 %	98.738 %	97.159 %	161.089 %	92.132 %	91.088 %	
Concentration RSD	0.9 %	6.2 %	0.5 %	6.5 %	8.3 %	40.2 %	4.6 %	7.3 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	56.735 ppb	59.009 ppb	58.853 ppb	5,989.304 ppb	61.272 ppb	60.637 ppb	61.717 ppb	62.262 ppb	101.936 %
Concentration per Run 1	52.075 ppb	54.513 ppb	54.973 ppb	5,643.511 ppb	57.955 ppb	57.778 ppb	58.280 ppb	57.789 ppb	106.196 %
Concentration per Run 2	59.744 ppb	62.390 ppb	61.446 ppb	6,176.698 ppb	63.742 ppb	63.509 ppb	64.575 ppb	64.340 ppb	100.143 %
Concentration per Run 3	58.386 ppb	60.123 ppb	60.140 ppb	6,147.702 ppb	62.121 ppb	60.623 ppb	62.297 ppb	64.655 ppb	99.468 %
Recovery Percentage 1	94.558 %	98.348 %	98.088 %	99.822 %	102.121 %	101.061 %	102.862 %	103.769 %	
Concentration RSD	7.2 %	6.9 %	5.8 %	5.0 %	4.9 %	4.7 %	5.2 %	6.2 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	59.936 ppb	58.898 ppb	54.204 ppb	58.166 ppb	102.109 %	57.566 ppb	61.201 ppb	97.619 %	58.596 ppb
Concentration per Run 1	56.288 ppb	56.748 ppb	50.882 ppb	54.461 ppb	106.963 %	54.679 ppb	57.755 ppb	102.038 %	54.958 ppb
Concentration per Run 2	62.210 ppb	61.264 ppb	55.916 ppb	59.838 ppb	100.019 %	59.309 ppb	62.906 ppb	95.868 %	60.733 ppb
Concentration per Run 3	61.309 ppb	58.680 ppb	55.814 ppb	60.198 ppb	99.344 %	58.710 ppb	62.942 ppb	94.951 %	60.098 ppb
Recovery Percentage 1	99.893 %	98.163 %	90.340 %	96.943 %		95.943 %	102.001 %		97.660 %
Concentration RSD	5.3 %	3.8 %	5.3 %	5.5 %	4.1 %	4.4 %	4.9 %	3.9 %	5.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	58.696 ppb	57.699 ppb	107.260 %	105.292 %	60.986 ppb	59.742 ppb	60.685 ppb	104.376 %
Concentration per Run 1	54.945 ppb	54.890 ppb	111.750 %	108.886 %	56.655 ppb	54.629 ppb	56.057 ppb	109.843 %
Concentration per Run 2	60.548 ppb	58.866 ppb	105.340 %	103.109 %	63.829 ppb	62.282 ppb	62.337 ppb	102.316 %
Concentration per Run 3	60.594 ppb	59.342 ppb	104.690 %	103.880 %	62.475 ppb	62.314 ppb	63.663 ppb	100.970 %
Recovery Percentage 1	97.826 %	96.166 %			101.644 %	99.570 %	101.142 %	
Concentration RSD	5.5 %	4.2 %	3.6 %	3.0 %	6.3 %	7.4 %	6.7 %	4.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	67	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 11:24:20 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.691 %	102.295 %	0.039 ppb	-44.425 ppb	4.039 ppb	7.562 ppb	5.681 ppb	-12.524 ppb	106.206 %
Concentration per Run 1	107.468 %	105.126 %	0.028 ppb	-46.786 ppb	3.128 ppb	7.167 ppb	5.791 ppb	-10.937 ppb	107.937 %
Concentration per Run 2	105.737 %	101.224 %	0.051 ppb	-42.728 ppb	4.567 ppb	8.025 ppb	5.223 ppb	-18.219 ppb	106.669 %
Concentration per Run 3	103.867 %	100.536 %	0.038 ppb	-43.761 ppb	4.420 ppb	7.494 ppb	6.028 ppb	-8.415 ppb	104.012 %
Recovery Percentage 1			7.798 %	-44.425 %	5.770 %	75.619 %	5.681 %	-12.524 %	
Concentration RSD	1.7 %	2.4 %	29.8 %	4.7 %	19.6 %	5.7 %	7.3 %	40.7 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.053 ppb	0.037 ppb	0.099 ppb	28.843 ppb	0.053 ppb	0.019 ppb	-0.086 ppb	0.144 ppb	100.294 %
Concentration per Run 1	0.076 ppb	0.061 ppb	0.049 ppb	26.962 ppb	0.042 ppb	0.096 ppb	-0.120 ppb	0.174 ppb	105.649 %
Concentration per Run 2	-0.031 ppb	0.012 ppb	0.168 ppb	28.602 ppb	0.066 ppb	-0.044 ppb	-0.086 ppb	0.230 ppb	98.048 %
Concentration per Run 3	0.115 ppb	0.039 ppb	0.080 ppb	30.963 ppb	0.051 ppb	0.005 ppb	-0.052 ppb	0.029 ppb	97.186 %
Recovery Percentage 1	1.065 %	3.729 %	9.878 %	57.685 %	10.540 %	0.958 %	-8.574 %	2.886 %	
Concentration RSD	141.6 %	66.9 %	62.5 %	7.0 %	23.3 %	372.2 %	39.6 %	71.8 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.134 ppb	0.202 ppb	0.054 ppb	0.426 ppb	102.194 %	0.038 ppb	0.054 ppb	97.964 %	0.117 ppb
Concentration per Run 1	0.063 ppb	0.196 ppb	0.057 ppb	0.290 ppb	107.309 %	0.038 ppb	0.054 ppb	100.553 %	-0.047 ppb
Concentration per Run 2	0.100 ppb	0.257 ppb	0.056 ppb	0.482 ppb	98.862 %	0.043 ppb	0.049 ppb	96.853 %	0.193 ppb
Concentration per Run 3	0.240 ppb	0.152 ppb	0.048 ppb	0.506 ppb	100.412 %	0.034 ppb	0.059 ppb	96.486 %	0.203 ppb
Recovery Percentage 1	26.893 %	4.034 %	0.537 %	21.302 %		9.562 %	27.155 %		3.884 %
Concentration RSD	69.6 %	26.2 %	8.7 %	27.8 %	4.4 %	12.7 %	9.5 %	2.3 %	121.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.269 ppb	0.076 ppb	105.137 %	103.377 %	0.649 ppb	0.561 ppb	0.360 ppb	104.479 %
Concentration per Run 1	0.241 ppb	0.099 ppb	109.320 %	107.442 %	0.507 ppb	0.392 ppb	0.359 ppb	109.620 %
Concentration per Run 2	0.268 ppb	0.071 ppb	102.952 %	100.195 %	0.669 ppb	0.664 ppb	0.374 ppb	102.591 %
Concentration per Run 3	0.300 ppb	0.057 ppb	103.140 %	102.494 %	0.770 ppb	0.627 ppb	0.348 ppb	101.224 %
Recovery Percentage 1	6.737 %	15.140 %			32.437 %	56.125 %	36.013 %	
Concentration RSD	11.0 %	28.0 %	3.4 %	3.6 %	20.4 %	26.3 %	3.7 %	4.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	68	User name	ALPHALAB\a2-icpmsq2	Comment	CCV/MCCV
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 11:31:13 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.302 %	109.640 %	62.135 ppb	5,809.648 ppb	5,728.713 ppb	60.575 ppb	5,528.989 ppb	5,583.639 ppb	107.535 %
Concentration per Run 1	103.730 %	104.438 %	61.830 ppb	5,836.741 ppb	5,724.378 ppb	60.996 ppb	5,594.641 ppb	5,639.515 ppb	107.845 %
Concentration per Run 2	104.506 %	113.160 %	61.821 ppb	5,761.420 ppb	5,675.393 ppb	60.407 ppb	5,472.531 ppb	5,497.934 ppb	109.081 %
Concentration per Run 3	101.669 %	111.324 %	62.754 ppb	5,830.784 ppb	5,786.368 ppb	60.321 ppb	5,519.795 ppb	5,613.468 ppb	105.679 %
Recovery Percentage 1			103.559 %	96.827 %	95.479 %	100.958 %	92.150 %	93.061 %	
Concentration RSD	1.4 %	4.2 %	0.9 %	0.7 %	1.0 %	0.6 %	1.1 %	1.3 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.832 ppb	59.644 ppb	59.291 ppb	5,947.319 ppb	60.724 ppb	59.530 ppb	61.924 ppb	60.826 ppb	102.413 %
Concentration per Run 1	55.780 ppb	57.180 ppb	57.299 ppb	5,623.220 ppb	57.277 ppb	56.245 ppb	56.819 ppb	57.267 ppb	107.678 %
Concentration per Run 2	58.075 ppb	60.521 ppb	60.147 ppb	5,999.560 ppb	61.459 ppb	59.365 ppb	63.355 ppb	62.048 ppb	100.383 %
Concentration per Run 3	59.642 ppb	61.232 ppb	60.427 ppb	6,219.177 ppb	63.436 ppb	62.980 ppb	65.598 ppb	63.163 ppb	99.177 %
Recovery Percentage 1	96.387 %	99.407 %	98.818 %	99.122 %	101.206 %	99.217 %	103.207 %	101.377 %	
Concentration RSD	3.4 %	3.6 %	2.9 %	5.1 %	5.2 %	5.7 %	7.4 %	5.1 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	60.052 ppb	57.781 ppb	55.646 ppb	60.299 ppb	100.429 %	58.967 ppb	61.298 ppb	98.210 %	59.787 ppb
Concentration per Run 1	56.268 ppb	53.478 ppb	51.672 ppb	54.156 ppb	101.784 %	55.002 ppb	56.375 ppb	101.146 %	55.169 ppb
Concentration per Run 2	62.036 ppb	62.479 ppb	57.524 ppb	63.405 ppb	100.580 %	61.329 ppb	64.236 ppb	96.665 %	62.510 ppb
Concentration per Run 3	61.853 ppb	57.385 ppb	57.743 ppb	63.335 ppb	98.923 %	60.569 ppb	63.284 ppb	96.820 %	61.681 ppb
Recovery Percentage 1	100.087 %	96.301 %	92.744 %	100.498 %		98.278 %	102.164 %		99.645 %
Concentration RSD	5.5 %	7.8 %	6.2 %	8.8 %	1.4 %	5.9 %	7.0 %	2.6 %	6.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.053 ppb	59.473 ppb	108.218 %	107.111 %	61.284 ppb	58.348 ppb	58.888 ppb	111.860 %
Concentration per Run 1	56.037 ppb	54.701 ppb	111.418 %	108.869 %	56.700 ppb	49.239 ppb	50.907 ppb	124.490 %
Concentration per Run 2	63.665 ppb	61.660 ppb	107.261 %	107.065 %	63.230 ppb	61.250 ppb	62.100 ppb	107.640 %
Concentration per Run 3	63.458 ppb	62.058 ppb	105.976 %	105.400 %	63.921 ppb	64.556 ppb	63.658 ppb	103.450 %
Recovery Percentage 1	101.756 %	99.121 %			102.140 %	97.247 %	98.147 %	
Concentration RSD	7.1 %	7.0 %	2.6 %	1.6 %	6.5 %	13.8 %	11.8 %	10.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	69	User name	ALPHALAB\a2-icpmsq2	Comment	CCB
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 11:35:44 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.232 %	108.952 %	0.049 ppb	-50.946 ppb	0.741 ppb	0.675 ppb	1.907 ppb	-15.542 ppb	103.098 %
Concentration per Run 1	104.336 %	110.176 %	0.050 ppb	-53.947 ppb	1.238 ppb	0.908 ppb	6.464 ppb	-12.981 ppb	105.079 %
Concentration per Run 2	102.800 %	104.897 %	0.043 ppb	-46.915 ppb	0.798 ppb	0.867 ppb	2.197 ppb	-14.143 ppb	103.904 %
Concentration per Run 3	102.559 %	111.783 %	0.055 ppb	-51.975 ppb	0.188 ppb	0.250 ppb	-2.941 ppb	-19.503 ppb	100.312 %
Recovery Percentage 1			9.786 %	-50.946 %	1.058 %	6.748 %	1.907 %	-15.542 %	
Concentration RSD	0.9 %	3.3 %	12.2 %	7.1 %	71.2 %	54.6 %	247.0 %	22.4 %	2.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.015 ppb	0.009 ppb	-0.060 ppb	14.167 ppb	0.060 ppb	-0.058 ppb	-0.090 ppb	-0.021 ppb	96.663 %
Concentration per Run 1	0.043 ppb	0.005 ppb	-0.048 ppb	14.737 ppb	0.073 ppb	-0.063 ppb	-0.098 ppb	0.029 ppb	96.006 %
Concentration per Run 2	-0.024 ppb	0.018 ppb	-0.071 ppb	15.337 ppb	0.068 ppb	0.010 ppb	-0.107 ppb	-0.047 ppb	98.551 %
Concentration per Run 3	0.026 ppb	0.003 ppb	-0.059 ppb	12.427 ppb	0.039 ppb	-0.120 ppb	-0.065 ppb	-0.044 ppb	95.431 %
Recovery Percentage 1	0.299 %	0.878 %	-5.958 %	28.334 %	12.038 %	-2.888 %	-8.992 %	-0.414 %	
Concentration RSD	231.2 %	95.0 %	19.2 %	10.8 %	30.2 %	113.3 %	24.6 %	206.2 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.132 ppb	0.193 ppb	0.029 ppb	0.346 ppb	102.355 %	0.050 ppb	0.053 ppb	98.030 %	-0.061 ppb
Concentration per Run 1	0.075 ppb	0.209 ppb	0.040 ppb	0.328 ppb	106.700 %	0.061 ppb	0.064 ppb	101.878 %	-0.129 ppb
Concentration per Run 2	0.132 ppb	0.077 ppb	0.032 ppb	0.333 ppb	99.930 %	0.050 ppb	0.053 ppb	96.045 %	-0.054 ppb
Concentration per Run 3	0.188 ppb	0.294 ppb	0.017 ppb	0.376 ppb	100.436 %	0.039 ppb	0.041 ppb	96.166 %	0.000 ppb
Recovery Percentage 1	26.326 %	3.866 %	0.295 %	17.290 %		12.496 %	26.334 %		-2.028 %
Concentration RSD	43.1 %	56.5 %	38.2 %	7.6 %	3.7 %	22.7 %	22.2 %	3.4 %	105.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.122 ppb	0.035 ppb	105.780 %	105.590 %	0.545 ppb	0.639 ppb	0.171 ppb	104.857 %
Concentration per Run 1	0.100 ppb	0.066 ppb	108.512 %	109.996 %	0.425 ppb	0.455 ppb	0.196 ppb	108.920 %
Concentration per Run 2	0.132 ppb	0.029 ppb	105.222 %	103.225 %	0.571 ppb	0.778 ppb	0.175 ppb	102.475 %
Concentration per Run 3	0.134 ppb	0.009 ppb	103.605 %	103.548 %	0.638 ppb	0.685 ppb	0.141 ppb	103.175 %
Recovery Percentage 1	3.046 %	6.918 %			27.227 %	63.914 %	17.063 %	
Concentration RSD	15.6 %	83.4 %	2.4 %	3.6 %	20.0 %	26.0 %	16.4 %	3.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	70	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961492-1 6020TL	Rack	1		
Analysis started at:	8/21/2024 11:42:02 AM	Vial	42		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.224 %	113.313 %	0.122 ppb	-56.252 ppb	-1.128 ppb	3.428 ppb	-5.783 ppb	-11.670 ppb	107.286 %
Concentration per Run 1	105.463 %	112.242 %	0.204 ppb	-57.591 ppb	-1.487 ppb	3.124 ppb	-12.928 ppb	-8.439 ppb	106.713 %
Concentration per Run 2	106.074 %	109.947 %	0.093 ppb	-55.325 ppb	-1.980 ppb	3.486 ppb	1.578 ppb	-12.839 ppb	107.211 %
Concentration per Run 3	104.134 %	117.751 %	0.069 ppb	-55.840 ppb	0.084 ppb	3.675 ppb	-5.999 ppb	-13.732 ppb	107.935 %
Concentration RSD	0.9 %	3.5 %	58.9 %	2.1 %	95.6 %	8.2 %	125.5 %	24.3 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.062 ppb	-0.001 ppb	-0.005 ppb	5.283 ppb	0.009 ppb	0.281 ppb	-0.015 ppb	0.531 ppb	102.669 %
Concentration per Run 1	-0.053 ppb	-0.001 ppb	0.013 ppb	4.614 ppb	0.017 ppb	0.322 ppb	0.013 ppb	0.561 ppb	105.240 %
Concentration per Run 2	-0.049 ppb	0.000 ppb	-0.017 ppb	5.410 ppb	0.008 ppb	0.309 ppb	-0.022 ppb	0.532 ppb	97.570 %
Concentration per Run 3	-0.085 ppb	0.000 ppb	-0.010 ppb	5.823 ppb	0.002 ppb	0.212 ppb	-0.036 ppb	0.499 ppb	105.196 %
Concentration RSD	31.1 %	122.4 %	341.7 %	11.6 %	83.3 %	21.4 %	171.9 %	5.9 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.015 ppb	-0.024 ppb	0.007 ppb	0.070 ppb	103.898 %	0.011 ppb	0.024 ppb	102.242 %	-0.159 ppb
Concentration per Run 1	0.037 ppb	-0.078 ppb	0.007 ppb	0.011 ppb	107.443 %	0.016 ppb	0.024 ppb	104.958 %	-0.264 ppb
Concentration per Run 2	-0.009 ppb	0.031 ppb	0.008 ppb	0.084 ppb	101.997 %	0.007 ppb	0.015 ppb	97.132 %	-0.108 ppb
Concentration per Run 3	0.015 ppb	-0.025 ppb	0.006 ppb	0.114 ppb	102.253 %	0.010 ppb	0.032 ppb	104.638 %	-0.106 ppb
Concentration RSD	157.1 %	229.3 %	18.0 %	75.8 %	3.0 %	42.2 %	35.7 %	4.3 %	56.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.040 ppb	0.028 ppb	108.399 %	109.698 %	0.105 ppb	0.166 ppb	0.104 ppb	108.972 %
Concentration per Run 1	0.028 ppb	0.031 ppb	110.417 %	112.049 %	0.065 ppb	0.091 ppb	0.110 ppb	112.764 %
Concentration per Run 2	0.052 ppb	0.015 ppb	105.435 %	107.281 %	0.103 ppb	0.200 ppb	0.102 ppb	106.546 %
Concentration per Run 3	0.040 ppb	0.038 ppb	109.346 %	109.765 %	0.147 ppb	0.206 ppb	0.100 ppb	107.605 %
Concentration RSD	29.2 %	42.2 %	2.4 %	2.2 %	39.2 %	38.9 %	4.9 %	3.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	71	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961492-2d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 11:46:30 AM	Vial	43		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.970 %	104.897 %	5.073 ppb	950.977 ppb	941.878 ppb	188.408 ppb	902.204 ppb	897.121 ppb	102.296 %
Concentration per Run 1	103.195 %	111.783 %	5.132 ppb	870.487 ppb	872.087 ppb	172.903 ppb	832.065 ppb	854.098 ppb	102.781 %
Concentration per Run 2	103.085 %	96.633 %	5.047 ppb	1,039.897 ppb	1,026.506 ppb	203.780 ppb	979.546 ppb	962.363 ppb	102.255 %
Concentration per Run 3	102.631 %	106.274 %	5.039 ppb	942.547 ppb	927.041 ppb	188.540 ppb	895.002 ppb	874.902 ppb	101.852 %
Concentration RSD	0.3 %	7.3 %	1.0 %	8.9 %	8.3 %	8.2 %	8.2 %	6.4 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.007 ppb	19.313 ppb	49.034 ppb	102.710 ppb	50.281 ppb	50.181 ppb	25.023 ppb	49.794 ppb	100.760 %
Concentration per Run 1	43.121 ppb	17.676 ppb	44.652 ppb	91.575 ppb	46.605 ppb	46.293 ppb	22.788 ppb	45.871 ppb	106.469 %
Concentration per Run 2	50.181 ppb	20.492 ppb	54.007 ppb	108.369 ppb	53.566 ppb	53.567 ppb	27.104 ppb	53.400 ppb	95.596 %
Concentration per Run 3	47.717 ppb	19.772 ppb	48.444 ppb	108.185 ppb	50.672 ppb	50.683 ppb	25.176 ppb	50.110 ppb	100.214 %
Concentration RSD	7.6 %	7.6 %	9.6 %	9.4 %	7.0 %	7.3 %	8.6 %	7.6 %	5.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	11.907 ppb	11.385 ppb	88.214 ppb	98.238 ppb	100.692 %	4.993 ppb	5.389 ppb	98.047 %	93.840 ppb
Concentration per Run 1	11.321 ppb	10.828 ppb	81.916 ppb	90.470 ppb	106.508 %	4.759 ppb	5.030 ppb	102.716 %	88.423 ppb
Concentration per Run 2	12.872 ppb	11.589 ppb	93.799 ppb	104.855 ppb	96.191 %	5.265 ppb	5.723 ppb	92.956 %	100.090 ppb
Concentration per Run 3	11.528 ppb	11.737 ppb	88.926 ppb	99.387 ppb	99.379 %	4.955 ppb	5.413 ppb	98.470 %	93.006 ppb
Concentration RSD	7.1 %	4.3 %	6.8 %	7.4 %	5.2 %	5.1 %	6.4 %	5.0 %	6.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	43.852 ppb	197.035 ppb	105.087 %	104.699 %	0.079 ppb	12.682 ppb	53.421 ppb	104.341 %
Concentration per Run 1	40.522 ppb	186.510 ppb	109.508 %	108.761 %	0.034 ppb	11.966 ppb	50.376 ppb	108.481 %
Concentration per Run 2	46.505 ppb	209.793 ppb	100.559 %	100.551 %	0.093 ppb	13.258 ppb	55.721 ppb	102.271 %
Concentration per Run 3	44.530 ppb	194.803 ppb	105.192 %	104.783 %	0.110 ppb	12.822 ppb	54.165 ppb	102.271 %
Concentration RSD	7.0 %	6.0 %	4.3 %	3.9 %	50.7 %	5.2 %	5.1 %	3.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	72	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446521-01 6020TL	Rack	1		
Analysis started at:	8/21/2024 11:50:57 AM	Vial	44		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.232 %	101.760 %	0.013 ppb	831,078.856 ppb	57,142.056 ppb	46.909 ppb	26,523.144 ppb	164,324.334 ppb	94.341 %
Concentration per Run 1	88.595 %	100.076 %	0.015 ppb	815,139.393 ppb	55,402.887 ppb	45.645 ppb	26,250.577 ppb	162,336.385 ppb	95.836 %
Concentration per Run 2	86.568 %	109.028 %	0.012 ppb	798,053.863 ppb	55,319.792 ppb	45.431 ppb	25,551.113 ppb	159,623.457 ppb	94.631 %
Concentration per Run 3	86.532 %	96.174 %	0.011 ppb	880,043.312 ppb	60,703.489 ppb	49.651 ppb	27,767.741 ppb	171,013.162 ppb	92.555 %
Concentration RSD	1.4 %	6.5 %	17.2 %	5.2 %	5.4 %	5.1 %	4.3 %	3.6 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.033 ppb	0.472 ppb	142.260 ppb	4,578.733 ppb	0.262 ppb	0.679 ppb	0.530 ppb	4.443 ppb	92.311 %
Concentration per Run 1	0.899 ppb	0.439 ppb	141.419 ppb	4,492.554 ppb	0.254 ppb	0.681 ppb	0.541 ppb	4.480 ppb	92.626 %
Concentration per Run 2	1.080 ppb	0.468 ppb	139.934 ppb	4,640.199 ppb	0.262 ppb	0.749 ppb	0.497 ppb	4.263 ppb	91.656 %
Concentration per Run 3	1.118 ppb	0.510 ppb	145.426 ppb	4,603.444 ppb	0.270 ppb	0.608 ppb	0.552 ppb	4.588 ppb	92.651 %
Concentration RSD	11.4 %	7.5 %	2.0 %	1.7 %	3.1 %	10.4 %	5.5 %	3.7 %	0.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	5.812 ppb	0.160 ppb	721.051 ppb	3.242 ppb	86.648 %	0.009 ppb	0.012 ppb	85.563 %	-0.011 ppb
Concentration per Run 1	5.726 ppb	0.173 ppb	706.444 ppb	3.289 ppb	86.211 %	0.009 ppb	0.011 ppb	85.413 %	-0.084 ppb
Concentration per Run 2	6.048 ppb	0.206 ppb	729.916 ppb	2.868 ppb	87.317 %	0.007 ppb	0.011 ppb	85.368 %	0.003 ppb
Concentration per Run 3	5.664 ppb	0.100 ppb	726.794 ppb	3.569 ppb	86.415 %	0.012 ppb	0.015 ppb	85.909 %	0.050 ppb
Concentration RSD	3.5 %	34.0 %	1.8 %	10.9 %	0.7 %	26.8 %	22.5 %	0.4 %	644.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.132 ppb	340.632 ppb	96.451 %	95.372 %	0.091 ppb	0.108 ppb	0.743 ppb	80.390 %
Concentration per Run 1	1.109 ppb	337.877 ppb	96.628 %	96.478 %	0.071 ppb	0.057 ppb	0.700 ppb	82.427 %
Concentration per Run 2	1.175 ppb	345.920 ppb	96.321 %	94.497 %	0.090 ppb	0.129 ppb	0.758 ppb	79.500 %
Concentration per Run 3	1.111 ppb	338.099 ppb	96.404 %	95.142 %	0.113 ppb	0.138 ppb	0.771 ppb	79.242 %
Concentration RSD	3.3 %	1.3 %	0.2 %	1.1 %	23.0 %	41.2 %	5.1 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	73	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2445935-01 6020TL	Rack	1		
Analysis started at:	8/21/2024 11:55:25 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.415 %	134.966 %	0.338 ppb	40,152.065 ppb	329,872.985 ppb	5,051.241 ppb	21,151.398 ppb	1,410,934.804 ppb	91.097 %
Concentration per Run 1	107.677 %	139.098 %	0.335 ppb	39,793.150 ppb	320,879.389 ppb	4,850.134 ppb	20,883.059 ppb	1,371,701.880 ppb	90.864 %
Concentration per Run 2	107.408 %	131.523 %	0.347 ppb	40,879.150 ppb	339,004.875 ppb	5,251.194 ppb	21,793.671 ppb	1,447,920.233 ppb	90.647 %
Concentration per Run 3	107.161 %	134.277 %	0.333 ppb	39,783.896 ppb	329,734.692 ppb	5,052.396 ppb	20,777.464 ppb	1,413,182.300 ppb	91.780 %
Concentration RSD	0.2 %	2.8 %	2.2 %	1.6 %	2.7 %	4.0 %	2.6 %	2.7 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	10.049 ppb	15.292 ppb	27,989.919 ppb	20,686.051 ppb	134.409 ppb	58.028 ppb	673.681 ppb	460.782 ppb	89.386 %
Concentration per Run 1	9.682 ppb	14.768 ppb	27,083.831 ppb	20,210.499 ppb	129.377 ppb	55.373 ppb	653.956 ppb	445.176 ppb	93.955 %
Concentration per Run 2	9.960 ppb	15.515 ppb	28,794.719 ppb	21,053.853 ppb	137.097 ppb	60.849 ppb	689.292 ppb	469.968 ppb	88.099 %
Concentration per Run 3	10.507 ppb	15.593 ppb	28,091.206 ppb	20,793.803 ppb	136.754 ppb	57.861 ppb	677.795 ppb	467.204 ppb	86.105 %
Concentration RSD	4.2 %	3.0 %	3.1 %	2.1 %	3.2 %	4.7 %	2.7 %	2.9 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	10.290 ppb	3.652 ppb	11,357.053 ppb	1.755 ppb	81.897 %	2.622 ppb	3.939 ppb	82.101 %	1.785 ppb
Concentration per Run 1	9.947 ppb	3.481 ppb	10,742.846 ppb	1.645 ppb	85.959 %	2.500 ppb	3.733 ppb	86.322 %	1.454 ppb
Concentration per Run 2	10.215 ppb	3.578 ppb	11,587.750 ppb	1.724 ppb	81.536 %	2.664 ppb	4.111 ppb	79.799 %	2.004 ppb
Concentration per Run 3	10.709 ppb	3.898 ppb	11,740.562 ppb	1.897 ppb	78.195 %	2.701 ppb	3.972 ppb	80.181 %	1.899 ppb
Concentration RSD	3.8 %	6.0 %	4.7 %	7.3 %	4.8 %	4.1 %	4.8 %	4.5 %	16.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.729 ppb	2,217.032 ppb	92.345 %	89.948 %	6.821 ppb	0.776 ppb	18.131 ppb	78.254 %
Concentration per Run 1	0.685 ppb	2,119.096 ppb	95.774 %	93.857 %	6.432 ppb	0.716 ppb	17.390 ppb	81.831 %
Concentration per Run 2	0.728 ppb	2,272.887 ppb	91.482 %	88.668 %	7.001 ppb	0.807 ppb	18.481 ppb	77.130 %
Concentration per Run 3	0.775 ppb	2,259.113 ppb	89.779 %	87.319 %	7.029 ppb	0.806 ppb	18.521 ppb	75.802 %
Concentration RSD	6.1 %	3.8 %	3.3 %	3.8 %	4.9 %	6.8 %	3.5 %	4.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	74	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441738-02d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 11:59:53 AM	Vial	34		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.730 %	102.678 %	0.667 ppb	448.543 ppb	2,659.403 ppb	5,764.012 ppb	1,263.614 ppb	2,441.340 ppb	104.214 %
Concentration per Run 1	103.293 %	96.633 %	0.656 ppb	512.893 ppb	2,764.514 ppb	5,847.433 ppb	1,300.663 ppb	2,756.981 ppb	104.959 %
Concentration per Run 2	103.002 %	97.781 %	0.670 ppb	472.129 ppb	2,732.243 ppb	5,978.126 ppb	1,288.649 ppb	2,524.999 ppb	104.018 %
Concentration per Run 3	101.896 %	113.619 %	0.675 ppb	360.606 ppb	2,481.450 ppb	5,466.476 ppb	1,201.529 ppb	2,042.041 ppb	103.666 %
Concentration RSD	0.7 %	9.2 %	1.5 %	17.6 %	5.8 %	4.6 %	4.3 %	14.9 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	12.852 ppb	21.303 ppb	166.055 ppb	14,007.597 ppb	4.684 ppb	10.799 ppb	6.730 ppb	55.699 ppb	90.816 %
Concentration per Run 1	12.284 ppb	21.088 ppb	168.705 ppb	13,848.917 ppb	4.510 ppb	10.620 ppb	6.997 ppb	54.966 ppb	91.563 %
Concentration per Run 2	13.256 ppb	21.663 ppb	170.326 ppb	14,224.662 ppb	4.666 ppb	10.592 ppb	6.777 ppb	55.736 ppb	90.688 %
Concentration per Run 3	13.015 ppb	21.157 ppb	159.134 ppb	13,949.211 ppb	4.877 ppb	11.184 ppb	6.416 ppb	56.394 ppb	90.198 %
Concentration RSD	3.9 %	1.5 %	3.6 %	1.4 %	3.9 %	3.1 %	4.4 %	1.3 %	0.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	9.005 ppb	0.601 ppb	13.099 ppb	1.286 ppb	92.569 %	0.369 ppb	0.121 ppb	90.328 %	0.770 ppb
Concentration per Run 1	8.626 ppb	0.647 ppb	13.976 ppb	1.112 ppb	94.274 %	0.370 ppb	0.129 ppb	92.385 %	0.706 ppb
Concentration per Run 2	9.158 ppb	0.540 ppb	12.863 ppb	1.356 ppb	91.402 %	0.355 ppb	0.124 ppb	89.115 %	0.860 ppb
Concentration per Run 3	9.230 ppb	0.617 ppb	12.458 ppb	1.388 ppb	92.033 %	0.383 ppb	0.110 ppb	89.484 %	0.743 ppb
Concentration RSD	3.7 %	9.1 %	6.0 %	11.7 %	1.6 %	3.8 %	8.1 %	2.0 %	10.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.247 ppb	27.084 ppb	96.390 %	94.519 %	3.734 ppb	0.174 ppb	9.404 ppb	94.875 %
Concentration per Run 1	0.217 ppb	26.379 ppb	96.792 %	94.713 %	3.561 ppb	0.132 ppb	9.041 ppb	94.935 %
Concentration per Run 2	0.254 ppb	27.324 ppb	95.747 %	93.237 %	3.838 ppb	0.196 ppb	9.648 ppb	93.435 %
Concentration per Run 3	0.269 ppb	27.548 ppb	96.632 %	95.608 %	3.805 ppb	0.194 ppb	9.523 ppb	96.255 %
Concentration RSD	10.8 %	2.3 %	0.6 %	1.3 %	4.0 %	20.7 %	3.4 %	1.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	75	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441738-03d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 12:04:21 PM	Vial	35		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.881 %	99.770 %	0.401 ppb	310.479 ppb	3,947.817 ppb	7,379.042 ppb	1,910.382 ppb	2,441.063 ppb	108.184 %
Concentration per Run 1	107.222 %	101.224 %	0.414 ppb	304.005 ppb	3,751.234 ppb	6,982.094 ppb	1,858.258 ppb	2,409.707 ppb	107.433 %
Concentration per Run 2	107.700 %	95.027 %	0.384 ppb	339.805 ppb	4,150.622 ppb	7,651.680 ppb	1,949.522 ppb	2,581.487 ppb	109.738 %
Concentration per Run 3	105.719 %	103.060 %	0.405 ppb	287.629 ppb	3,941.596 ppb	7,503.352 ppb	1,923.366 ppb	2,331.996 ppb	107.382 %
Concentration RSD	1.0 %	4.2 %	3.8 %	8.6 %	5.1 %	4.8 %	2.5 %	5.2 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	18.030 ppb	26.878 ppb	151.747 ppb	15,747.250 ppb	5.640 ppb	22.250 ppb	31.062 ppb	39.929 ppb	92.346 %
Concentration per Run 1	17.271 ppb	25.211 ppb	145.186 ppb	14,898.012 ppb	5.498 ppb	21.454 ppb	29.463 ppb	37.609 ppb	93.961 %
Concentration per Run 2	18.639 ppb	28.219 ppb	158.920 ppb	16,365.937 ppb	5.897 ppb	23.223 ppb	32.271 ppb	41.432 ppb	90.430 %
Concentration per Run 3	18.181 ppb	27.205 ppb	151.134 ppb	15,977.800 ppb	5.526 ppb	22.072 ppb	31.452 ppb	40.746 ppb	92.646 %
Concentration RSD	3.9 %	5.7 %	4.5 %	4.8 %	3.9 %	4.0 %	4.6 %	5.1 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	13.598 ppb	1.116 ppb	11.424 ppb	1.227 ppb	93.909 %	8.855 ppb	0.070 ppb	91.826 %	0.614 ppb
Concentration per Run 1	13.053 ppb	1.117 ppb	11.498 ppb	1.074 ppb	95.628 %	8.500 ppb	0.064 ppb	93.227 %	0.452 ppb
Concentration per Run 2	13.802 ppb	1.302 ppb	11.669 ppb	1.297 ppb	92.307 %	8.960 ppb	0.075 ppb	90.693 %	0.555 ppb
Concentration per Run 3	13.940 ppb	0.927 ppb	11.105 ppb	1.309 ppb	93.791 %	9.104 ppb	0.072 ppb	91.557 %	0.836 ppb
Concentration RSD	3.5 %	16.8 %	2.5 %	10.8 %	1.8 %	3.6 %	8.1 %	1.4 %	32.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.249 ppb	37.132 ppb	100.039 %	99.115 %	69.912 ppb	0.167 ppb	8.273 ppb	98.183 %
Concentration per Run 1	0.209 ppb	36.093 ppb	100.186 %	99.975 %	66.921 ppb	0.123 ppb	7.862 ppb	99.932 %
Concentration per Run 2	0.249 ppb	37.547 ppb	99.021 %	98.443 %	71.642 ppb	0.183 ppb	8.488 ppb	96.275 %
Concentration per Run 3	0.290 ppb	37.756 ppb	100.909 %	98.928 %	71.173 ppb	0.194 ppb	8.468 ppb	98.343 %
Concentration RSD	16.2 %	2.4 %	1.0 %	0.8 %	3.7 %	22.8 %	4.3 %	1.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	76	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441738-04d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 12:08:50 PM	Vial	36		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.446 %	109.258 %	0.871 ppb	319.620 ppb	3,767.924 ppb	8,605.805 ppb	1,951.300 ppb	2,940.256 ppb	111.467 %
Concentration per Run 1	110.076 %	117.521 %	0.872 ppb	518.850 ppb	3,745.123 ppb	7,618.781 ppb	1,778.197 ppb	3,920.543 ppb	110.077 %
Concentration per Run 2	110.793 %	109.258 %	0.874 ppb	226.971 ppb	3,655.027 ppb	8,734.814 ppb	1,968.204 ppb	2,397.709 ppb	112.540 %
Concentration per Run 3	110.467 %	100.995 %	0.867 ppb	213.038 ppb	3,903.623 ppb	9,463.820 ppb	2,107.498 ppb	2,502.515 ppb	111.783 %
Concentration RSD	0.3 %	7.6 %	0.4 %	54.0 %	3.3 %	10.8 %	8.5 %	28.9 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	20.683 ppb	37.247 ppb	225.456 ppb	21,376.721 ppb	6.620 ppb	14.624 ppb	144.319 ppb	279.519 ppb	95.835 %
Concentration per Run 1	19.302 ppb	34.446 ppb	233.176 ppb	19,606.814 ppb	6.456 ppb	13.370 ppb	134.350 ppb	256.110 ppb	99.943 %
Concentration per Run 2	21.607 ppb	38.310 ppb	220.141 ppb	22,138.600 ppb	6.829 ppb	15.373 ppb	151.323 ppb	291.443 ppb	93.439 %
Concentration per Run 3	21.142 ppb	38.984 ppb	223.053 ppb	22,384.751 ppb	6.576 ppb	15.129 ppb	147.283 ppb	291.005 ppb	94.124 %
Concentration RSD	5.9 %	6.6 %	3.0 %	7.2 %	2.9 %	7.5 %	6.1 %	7.3 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	15.222 ppb	1.585 ppb	17.483 ppb	2.793 ppb	95.797 %	1.689 ppb	0.181 ppb	93.615 %	1.452 ppb
Concentration per Run 1	14.229 ppb	1.336 ppb	23.984 ppb	2.455 ppb	97.884 %	1.547 ppb	0.172 ppb	94.899 %	1.274 ppb
Concentration per Run 2	15.533 ppb	1.736 ppb	14.680 ppb	2.823 ppb	93.730 %	1.719 ppb	0.181 ppb	93.389 %	1.553 ppb
Concentration per Run 3	15.905 ppb	1.683 ppb	13.784 ppb	3.103 ppb	95.776 %	1.801 ppb	0.191 ppb	92.556 %	1.528 ppb
Concentration RSD	5.8 %	13.7 %	32.3 %	11.6 %	2.2 %	7.7 %	5.4 %	1.3 %	10.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.322 ppb	40.058 ppb	102.938 %	101.664 %	14.782 ppb	0.185 ppb	64.097 ppb	99.762 %
Concentration per Run 1	0.297 ppb	38.709 ppb	103.819 %	101.272 %	13.838 ppb	0.127 ppb	57.981 ppb	103.025 %
Concentration per Run 2	0.337 ppb	41.106 ppb	101.493 %	100.291 %	15.233 ppb	0.209 ppb	67.682 ppb	97.820 %
Concentration per Run 3	0.331 ppb	40.360 ppb	103.502 %	103.430 %	15.275 ppb	0.217 ppb	66.630 ppb	98.442 %
Concentration RSD	6.7 %	3.1 %	1.2 %	1.6 %	5.5 %	26.9 %	8.3 %	2.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	77	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441738-06d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 12:13:20 PM	Vial	37		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.854 %	111.630 %	0.512 ppb	181.305 ppb	1,994.257 ppb	5,840.347 ppb	1,205.445 ppb	1,494.661 ppb	111.314 %
Concentration per Run 1	111.074 %	115.685 %	0.487 ppb	176.852 ppb	1,900.033 ppb	5,626.815 ppb	1,148.689 ppb	1,424.709 ppb	111.989 %
Concentration per Run 2	111.907 %	107.192 %	0.525 ppb	187.648 ppb	2,061.423 ppb	5,994.467 ppb	1,218.394 ppb	1,518.422 ppb	111.120 %
Concentration per Run 3	109.582 %	112.012 %	0.523 ppb	179.414 ppb	2,021.314 ppb	5,899.759 ppb	1,249.253 ppb	1,540.851 ppb	110.832 %
Concentration RSD	1.1 %	3.8 %	4.2 %	3.1 %	4.2 %	3.3 %	4.3 %	4.1 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	12.577 ppb	41.453 ppb	131.162 ppb	10,397.351 ppb	4.163 ppb	7.829 ppb	15.797 ppb	59.723 ppb	93.395 %
Concentration per Run 1	11.604 ppb	39.517 ppb	124.918 ppb	9,873.727 ppb	4.096 ppb	7.286 ppb	15.260 ppb	57.017 ppb	92.484 %
Concentration per Run 2	13.265 ppb	42.939 ppb	136.298 ppb	10,717.049 ppb	4.025 ppb	8.089 ppb	15.867 ppb	61.866 ppb	93.369 %
Concentration per Run 3	12.862 ppb	41.903 ppb	132.271 ppb	10,601.277 ppb	4.369 ppb	8.112 ppb	16.264 ppb	60.286 ppb	94.331 %
Concentration RSD	6.9 %	4.2 %	4.4 %	4.4 %	4.4 %	6.0 %	3.2 %	4.1 %	1.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	8.950 ppb	0.941 ppb	6.369 ppb	0.471 ppb	97.188 %	0.172 ppb	0.409 ppb	95.357 %	3.118 ppb
Concentration per Run 1	8.497 ppb	1.001 ppb	6.231 ppb	0.467 ppb	99.039 %	0.165 ppb	0.379 ppb	95.106 %	3.096 ppb
Concentration per Run 2	9.059 ppb	0.849 ppb	6.541 ppb	0.483 ppb	96.164 %	0.174 ppb	0.416 ppb	94.811 %	3.047 ppb
Concentration per Run 3	9.294 ppb	0.972 ppb	6.334 ppb	0.463 ppb	96.361 %	0.175 ppb	0.433 ppb	96.155 %	3.210 ppb
Concentration RSD	4.6 %	8.6 %	2.5 %	2.3 %	1.7 %	3.1 %	6.7 %	0.7 %	2.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.122 ppb	35.594 ppb	104.145 %	103.234 %	1.156 ppb	0.153 ppb	17.689 ppb	103.439 %
Concentration per Run 1	0.111 ppb	34.303 ppb	106.986 %	105.553 %	1.228 ppb	0.115 ppb	16.932 ppb	105.383 %
Concentration per Run 2	0.120 ppb	37.413 ppb	102.254 %	102.292 %	1.089 ppb	0.165 ppb	18.107 ppb	102.590 %
Concentration per Run 3	0.133 ppb	35.065 ppb	103.196 %	101.856 %	1.151 ppb	0.179 ppb	18.028 ppb	102.345 %
Concentration RSD	8.9 %	4.6 %	2.4 %	2.0 %	6.0 %	22.2 %	3.7 %	1.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	78	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	zL2440939-07d10 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 12:17:47 PM	Vial	40		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.327 %	111.630 %	0.444 ppb	4,922.360 ppb	4,331.734 ppb	7,743.811 ppb	2,481.675 ppb	6,508.407 ppb	107.586 %
Concentration per Run 1	108.105 %	108.340 %	0.442 ppb	4,813.739 ppb	4,215.588 ppb	7,466.119 ppb	2,437.410 ppb	6,266.403 ppb	107.712 %
Concentration per Run 2	107.320 %	116.374 %	0.427 ppb	4,884.013 ppb	4,338.764 ppb	7,763.678 ppb	2,434.024 ppb	6,489.757 ppb	107.672 %
Concentration per Run 3	106.554 %	110.176 %	0.463 ppb	5,069.328 ppb	4,440.851 ppb	8,001.635 ppb	2,573.591 ppb	6,769.063 ppb	107.374 %
Concentration RSD	0.7 %	3.8 %	4.1 %	2.7 %	2.6 %	3.5 %	3.2 %	3.9 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	24.720 ppb	24.596 ppb	168.270 ppb	21,858.459 ppb	5.700 ppb	16.008 ppb	85.840 ppb	306.840 ppb	93.341 %
Concentration per Run 1	23.813 ppb	24.600 ppb	166.903 ppb	21,753.376 ppb	5.780 ppb	15.192 ppb	85.668 ppb	304.354 ppb	92.034 %
Concentration per Run 2	24.746 ppb	24.310 ppb	169.455 ppb	22,155.768 ppb	5.656 ppb	16.364 ppb	87.494 ppb	311.254 ppb	92.149 %
Concentration per Run 3	25.603 ppb	24.879 ppb	168.453 ppb	21,666.234 ppb	5.664 ppb	16.467 ppb	84.359 ppb	304.912 ppb	95.841 %
Concentration RSD	3.6 %	1.2 %	0.8 %	1.2 %	1.2 %	4.4 %	1.8 %	1.2 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.545 ppb	1.505 ppb	49.178 ppb	3.029 ppb	93.214 %	0.560 ppb	0.858 ppb	91.814 %	43.363 ppb
Concentration per Run 1	12.428 ppb	1.482 ppb	49.051 ppb	2.860 ppb	92.874 %	0.561 ppb	0.865 ppb	89.730 %	41.484 ppb
Concentration per Run 2	12.744 ppb	1.466 ppb	49.865 ppb	3.161 ppb	93.182 %	0.547 ppb	0.875 ppb	92.270 %	44.905 ppb
Concentration per Run 3	12.463 ppb	1.568 ppb	48.617 ppb	3.067 ppb	93.587 %	0.572 ppb	0.834 ppb	93.443 %	43.701 ppb
Concentration RSD	1.4 %	3.6 %	1.3 %	5.1 %	0.4 %	2.2 %	2.5 %	2.1 %	4.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.460 ppb	43.371 ppb	101.439 %	101.110 %	0.282 ppb	0.272 ppb	311.666 ppb	101.075 %
Concentration per Run 1	0.424 ppb	41.762 ppb	98.041 %	98.423 %	0.236 ppb	0.238 ppb	295.538 ppb	100.638 %
Concentration per Run 2	0.446 ppb	44.599 ppb	102.925 %	102.687 %	0.289 ppb	0.286 ppb	317.807 ppb	101.452 %
Concentration per Run 3	0.511 ppb	43.752 ppb	103.352 %	102.221 %	0.323 ppb	0.293 ppb	321.652 ppb	101.135 %
Concentration RSD	9.8 %	3.4 %	2.9 %	2.3 %	15.5 %	10.9 %	4.5 %	0.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	79	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	zWG1951958-6d50 A2-6020T	Rack	1		
Analysis started at:	8/21/2024 12:22:14 PM	Vial	41		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.295 %	109.028 %	0.094 ppb	1,036.970 ppb	950.134 ppb	1,702.061 ppb	518.014 ppb	1,404.358 ppb	104.530 %
Concentration per Run 1	106.202 %	117.292 %	0.096 ppb	931.783 ppb	867.305 ppb	1,550.155 ppb	495.705 ppb	1,324.612 ppb	104.268 %
Concentration per Run 2	106.669 %	107.422 %	0.096 ppb	1,046.120 ppb	951.615 ppb	1,727.577 ppb	516.660 ppb	1,425.365 ppb	104.688 %
Concentration per Run 3	106.013 %	102.372 %	0.090 ppb	1,133.007 ppb	1,031.481 ppb	1,828.451 ppb	541.679 ppb	1,463.096 ppb	104.635 %
Concentration RSD	0.3 %	7.0 %	3.8 %	9.7 %	8.6 %	8.3 %	4.4 %	5.1 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	5.382 ppb	5.280 ppb	36.062 ppb	4,686.483 ppb	1.231 ppb	3.261 ppb	18.590 ppb	66.474 ppb	94.670 %
Concentration per Run 1	4.804 ppb	4.939 ppb	33.447 ppb	4,382.444 ppb	1.130 ppb	2.849 ppb	17.091 ppb	63.472 ppb	97.533 %
Concentration per Run 2	5.459 ppb	5.277 ppb	38.187 ppb	4,809.308 ppb	1.249 ppb	3.293 ppb	19.458 ppb	67.430 ppb	92.953 %
Concentration per Run 3	5.884 ppb	5.625 ppb	36.550 ppb	4,867.698 ppb	1.315 ppb	3.640 ppb	19.220 ppb	68.521 ppb	93.525 %
Concentration RSD	10.1 %	6.5 %	6.7 %	5.7 %	7.6 %	12.2 %	7.0 %	4.0 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	2.726 ppb	0.253 ppb	10.227 ppb	0.728 ppb	96.566 %	0.103 ppb	0.198 ppb	94.650 %	9.065 ppb
Concentration per Run 1	2.623 ppb	0.119 ppb	9.602 ppb	0.546 ppb	99.041 %	0.100 ppb	0.168 ppb	97.061 %	8.449 ppb
Concentration per Run 2	2.746 ppb	0.442 ppb	10.422 ppb	0.831 ppb	95.412 %	0.102 ppb	0.190 ppb	93.455 %	9.581 ppb
Concentration per Run 3	2.809 ppb	0.199 ppb	10.657 ppb	0.807 ppb	95.246 %	0.107 ppb	0.236 ppb	93.435 %	9.164 ppb
Concentration RSD	3.5 %	66.4 %	5.4 %	21.7 %	2.2 %	3.2 %	17.4 %	2.2 %	6.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.107 ppb	9.467 ppb	102.983 %	102.897 %	0.097 ppb	0.074 ppb	67.813 ppb	102.964 %
Concentration per Run 1	0.096 ppb	8.896 ppb	105.279 %	104.136 %	0.063 ppb	0.046 ppb	63.605 ppb	106.223 %
Concentration per Run 2	0.120 ppb	9.704 ppb	101.729 %	101.691 %	0.108 ppb	0.085 ppb	69.890 ppb	101.593 %
Concentration per Run 3	0.104 ppb	9.800 ppb	101.941 %	102.866 %	0.121 ppb	0.090 ppb	69.942 ppb	101.076 %
Concentration RSD	11.0 %	5.2 %	1.9 %	1.2 %	30.9 %	32.3 %	5.4 %	2.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	80	User name	ALPHALAB\a2-icpmsq2	Comment	CCV/MCCV
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 12:26:41 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.143 %	104.973 %	62.170 ppb	5,876.260 ppb	5,869.443 ppb	64.063 ppb	5,718.493 ppb	5,734.652 ppb	96.826 %
Concentration per Run 1	99.764 %	106.274 %	61.954 ppb	5,351.227 ppb	5,322.520 ppb	59.484 ppb	5,134.670 ppb	5,037.888 ppb	98.332 %
Concentration per Run 2	99.454 %	90.436 %	62.009 ppb	6,683.408 ppb	6,679.627 ppb	75.252 ppb	6,349.006 ppb	6,295.104 ppb	96.770 %
Concentration per Run 3	98.211 %	118.210 %	62.546 ppb	5,594.145 ppb	5,606.183 ppb	57.453 ppb	5,671.803 ppb	5,870.962 ppb	95.375 %
Recovery Percentage 1			103.616 %	97.938 %	97.824 %	106.771 %	95.308 %	95.578 %	
Concentration RSD	0.8 %	13.3 %	0.5 %	12.1 %	12.2 %	15.2 %	10.6 %	11.2 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.023 ppb	57.973 ppb	60.051 ppb	5,954.948 ppb	60.202 ppb	59.767 ppb	61.298 ppb	62.960 ppb	92.138 %
Concentration per Run 1	52.337 ppb	52.173 ppb	53.551 ppb	5,488.686 ppb	55.217 ppb	55.621 ppb	56.650 ppb	57.075 ppb	97.948 %
Concentration per Run 2	62.532 ppb	64.260 ppb	64.860 ppb	6,456.046 ppb	65.546 ppb	65.486 ppb	65.873 ppb	68.196 ppb	87.013 %
Concentration per Run 3	59.200 ppb	57.486 ppb	61.743 ppb	5,920.113 ppb	59.843 ppb	58.193 ppb	61.371 ppb	63.609 ppb	91.453 %
Recovery Percentage 1	96.705 %	96.621 %	100.085 %	99.249 %	100.336 %	99.611 %	102.163 %	104.933 %	
Concentration RSD	9.0 %	10.4 %	9.7 %	8.1 %	8.6 %	8.6 %	7.5 %	8.9 %	6.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	60.824 ppb	61.502 ppb	58.779 ppb	61.297 ppb	94.218 %	58.385 ppb	62.275 ppb	94.718 %	59.848 ppb
Concentration per Run 1	55.398 ppb	52.140 ppb	52.295 ppb	56.328 ppb	98.305 %	55.300 ppb	58.050 ppb	97.155 %	54.713 ppb
Concentration per Run 2	63.602 ppb	62.286 ppb	61.001 ppb	64.478 ppb	90.163 %	61.326 ppb	66.054 ppb	88.401 %	63.213 ppb
Concentration per Run 3	63.472 ppb	70.081 ppb	63.042 ppb	63.086 ppb	94.184 %	58.530 ppb	62.721 ppb	98.598 %	61.618 ppb
Recovery Percentage 1	101.374 %	102.504 %	97.965 %	102.162 %		97.309 %	103.792 %		99.747 %
Concentration RSD	7.7 %	14.6 %	9.7 %	7.1 %	4.3 %	5.2 %	6.5 %	5.8 %	7.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.292 ppb	60.083 ppb	102.664 %	103.992 %	61.712 ppb	61.578 ppb	61.575 ppb	101.581 %
Concentration per Run 1	56.611 ppb	54.903 ppb	105.741 %	107.049 %	57.345 ppb	55.737 ppb	56.466 ppb	105.957 %
Concentration per Run 2	64.962 ppb	64.159 ppb	97.358 %	98.363 %	66.746 ppb	65.707 ppb	65.843 ppb	96.940 %
Concentration per Run 3	62.304 ppb	61.187 ppb	104.894 %	106.563 %	61.045 ppb	63.291 ppb	62.417 ppb	101.846 %
Recovery Percentage 1	102.154 %	100.138 %			102.853 %	102.631 %	102.626 %	
Concentration RSD	7.0 %	7.9 %	4.5 %	4.7 %	7.7 %	8.4 %	7.7 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	81	User name	ALPHALAB\a2-icpmsq2	Comment	CCB
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 12:31:13 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.094 %	101.607 %	0.037 ppb	-36.193 ppb	1.461 ppb	1.350 ppb	-5.941 ppb	-11.751 ppb	98.181 %
Concentration per Run 1	101.407 %	104.897 %	0.030 ppb	-40.440 ppb	2.173 ppb	1.243 ppb	-6.810 ppb	-8.106 ppb	98.057 %
Concentration per Run 2	101.021 %	94.109 %	0.039 ppb	-29.799 ppb	1.394 ppb	1.625 ppb	-3.279 ppb	-13.064 ppb	98.428 %
Concentration per Run 3	100.854 %	105.815 %	0.042 ppb	-38.339 ppb	0.816 ppb	1.182 ppb	-7.734 ppb	-14.083 ppb	98.057 %
Recovery Percentage 1			7.356 %	-36.193 %	2.087 %	13.500 %	-5.941 %	-11.751 %	
Concentration RSD	0.3 %	6.4 %	17.3 %	15.6 %	46.6 %	17.8 %	39.6 %	27.2 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.004 ppb	0.021 ppb	0.071 ppb	14.983 ppb	0.040 ppb	-0.099 ppb	-0.083 ppb	0.001 ppb	91.702 %
Concentration per Run 1	-0.001 ppb	0.017 ppb	0.114 ppb	12.904 ppb	0.031 ppb	-0.116 ppb	-0.105 ppb	-0.015 ppb	90.845 %
Concentration per Run 2	-0.023 ppb	0.018 ppb	0.018 ppb	16.500 ppb	0.055 ppb	-0.092 ppb	-0.073 ppb	0.003 ppb	89.592 %
Concentration per Run 3	0.012 ppb	0.028 ppb	0.081 ppb	15.543 ppb	0.035 ppb	-0.090 ppb	-0.069 ppb	0.016 ppb	94.670 %
Recovery Percentage 1	-0.081 %	2.116 %	7.085 %	29.965 %	8.058 %	-4.947 %	-8.254 %	0.030 %	
Concentration RSD	443.7 %	28.6 %	69.1 %	12.4 %	32.2 %	14.6 %	23.9 %	1,031.6 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.117 ppb	0.187 ppb	0.055 ppb	0.250 ppb	94.589 %	0.039 ppb	0.039 ppb	93.469 %	-0.107 ppb
Concentration per Run 1	0.106 ppb	0.308 ppb	0.049 ppb	0.149 ppb	99.320 %	0.044 ppb	0.047 ppb	96.325 %	-0.228 ppb
Concentration per Run 2	0.099 ppb	0.082 ppb	0.060 ppb	0.284 ppb	91.153 %	0.032 ppb	0.041 ppb	91.811 %	-0.072 ppb
Concentration per Run 3	0.147 ppb	0.171 ppb	0.056 ppb	0.316 ppb	93.293 %	0.039 ppb	0.030 ppb	92.272 %	-0.020 ppb
Recovery Percentage 1	23.443 %	3.738 %	0.549 %	12.489 %		9.637 %	19.641 %		-3.554 %
Concentration RSD	22.2 %	60.8 %	9.4 %	35.4 %	4.5 %	14.9 %	22.6 %	2.7 %	101.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.081 ppb	0.035 ppb	101.569 %	101.451 %	0.504 ppb	0.574 ppb	0.120 ppb	101.296 %
Concentration per Run 1	0.071 ppb	0.056 ppb	105.875 %	105.294 %	0.395 ppb	0.432 ppb	0.125 ppb	104.780 %
Concentration per Run 2	0.076 ppb	0.025 ppb	100.466 %	99.498 %	0.516 ppb	0.712 ppb	0.117 ppb	99.870 %
Concentration per Run 3	0.097 ppb	0.025 ppb	98.367 %	99.562 %	0.602 ppb	0.578 ppb	0.118 ppb	99.239 %
Recovery Percentage 1	2.032 %	7.085 %			25.209 %	57.429 %	11.994 %	
Concentration RSD	17.2 %	50.6 %	3.8 %	3.3 %	20.5 %	24.4 %	3.4 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	82	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Fe 100,000 FAIL	Rack	1		
Analysis started at:	8/21/2024 12:48:44 PM	Vial	50		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.272 %	109.641 %	0.002 ppb	-43.351 ppb	-0.660 ppb	1.431 ppb	-2.833 ppb	-12.019 ppb	113.959 %
Concentration per Run 1	109.321 %	112.471 %	0.000 ppb	-46.300 ppb	0.288 ppb	1.273 ppb	-3.961 ppb	-17.193 ppb	113.845 %
Concentration per Run 2	109.254 %	107.422 %	0.002 ppb	-44.060 ppb	-1.510 ppb	0.942 ppb	-5.098 ppb	-7.246 ppb	114.602 %
Concentration per Run 3	109.242 %	109.028 %	0.005 ppb	-39.692 ppb	-0.758 ppb	2.079 ppb	0.559 ppb	-11.616 ppb	113.428 %
Concentration RSD	0.0 %	2.4 %	128.4 %	7.8 %	136.8 %	40.9 %	105.6 %	41.5 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.044 ppb	0.282 ppb	-0.025 ppb	88,581.716 ppb	0.128 ppb	0.096 ppb	0.006 ppb	0.136 ppb	98.405 %
Concentration per Run 1	-0.036 ppb	0.247 ppb	-0.013 ppb	82,336.051 ppb	0.122 ppb	0.065 ppb	0.058 ppb	0.151 ppb	101.716 %
Concentration per Run 2	-0.040 ppb	0.279 ppb	0.010 ppb	89,102.051 ppb	0.125 ppb	0.120 ppb	-0.004 ppb	0.157 ppb	95.502 %
Concentration per Run 3	-0.058 ppb	0.320 ppb	-0.072 ppb	94,307.047 ppb	0.137 ppb	0.103 ppb	-0.035 ppb	0.098 ppb	97.998 %
Concentration RSD	26.4 %	12.9 %	169.0 %	6.8 %	6.3 %	29.2 %	775.1 %	23.8 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.079 ppb	0.062 ppb	0.024 ppb	0.030 ppb	100.977 %	0.021 ppb	0.073 ppb	101.580 %	-0.205 ppb
Concentration per Run 1	0.065 ppb	-0.024 ppb	0.019 ppb	0.014 ppb	103.341 %	0.019 ppb	0.086 ppb	102.709 %	-0.289 ppb
Concentration per Run 2	0.076 ppb	0.121 ppb	0.026 ppb	0.059 ppb	99.332 %	0.021 ppb	0.068 ppb	101.845 %	-0.168 ppb
Concentration per Run 3	0.095 ppb	0.088 ppb	0.026 ppb	0.017 ppb	100.259 %	0.023 ppb	0.064 ppb	100.186 %	-0.159 ppb
Concentration RSD	19.4 %	123.5 %	16.5 %	83.3 %	2.1 %	10.3 %	16.4 %	1.3 %	35.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.030 ppb	-0.013 ppb	110.698 %	113.149 %	0.049 ppb	0.062 ppb	0.035 ppb	109.629 %
Concentration per Run 1	0.027 ppb	-0.014 ppb	115.022 %	116.640 %	0.030 ppb	0.029 ppb	0.044 ppb	115.590 %
Concentration per Run 2	0.028 ppb	-0.006 ppb	108.862 %	112.793 %	0.050 ppb	0.074 ppb	0.032 ppb	107.656 %
Concentration per Run 3	0.036 ppb	-0.019 ppb	108.212 %	110.013 %	0.069 ppb	0.084 ppb	0.029 ppb	105.642 %
Concentration RSD	15.6 %	49.6 %	3.4 %	2.9 %	39.1 %	47.6 %	21.9 %	4.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	83	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961492-3d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 12:53:11 PM	Vial	45		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.283 %	90.666 %	5.039 ppb	82,639.353 ppb	6,609.206 ppb	203.509 ppb	3,687.032 ppb	18,707.686 ppb	93.961 %
Concentration per Run 1	95.027 %	99.847 %	5.017 ppb	72,955.611 ppb	5,805.181 ppb	181.504 ppb	3,365.210 ppb	17,252.907 ppb	93.171 %
Concentration per Run 2	95.210 %	89.059 %	5.061 ppb	81,071.490 ppb	6,525.890 ppb	197.490 ppb	3,630.858 ppb	18,354.987 ppb	93.133 %
Concentration per Run 3	95.614 %	83.091 %	5.039 ppb	93,890.958 ppb	7,496.548 ppb	231.532 ppb	4,065.029 ppb	20,515.165 ppb	95.579 %
Concentration RSD	0.3 %	9.4 %	0.4 %	12.8 %	12.8 %	12.6 %	9.6 %	8.9 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.088 ppb	19.609 ppb	63.230 ppb	629.492 ppb	49.729 ppb	48.979 ppb	24.651 ppb	49.536 ppb	89.267 %
Concentration per Run 1	45.300 ppb	18.147 ppb	57.981 ppb	569.068 ppb	45.760 ppb	44.849 ppb	22.633 ppb	45.713 ppb	92.569 %
Concentration per Run 2	49.181 ppb	19.599 ppb	63.392 ppb	663.868 ppb	51.061 ppb	51.213 ppb	25.894 ppb	50.834 ppb	87.658 %
Concentration per Run 3	52.784 ppb	21.082 ppb	68.319 ppb	655.539 ppb	52.367 ppb	50.875 ppb	25.425 ppb	52.062 ppb	87.575 %
Concentration RSD	7.6 %	7.5 %	8.2 %	8.3 %	7.0 %	7.3 %	7.2 %	6.8 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.811 ppb	11.094 ppb	164.463 ppb	101.469 ppb	87.732 %	4.930 ppb	5.285 ppb	87.757 %	96.499 ppb
Concentration per Run 1	12.211 ppb	10.943 ppb	152.775 ppb	94.975 ppb	90.912 %	4.701 ppb	4.998 ppb	90.041 %	92.558 ppb
Concentration per Run 2	12.577 ppb	11.230 ppb	168.518 ppb	103.556 ppb	84.119 %	5.070 ppb	5.519 ppb	82.217 %	98.398 ppb
Concentration per Run 3	13.646 ppb	11.109 ppb	172.096 ppb	105.876 ppb	88.164 %	5.017 ppb	5.339 ppb	91.012 %	98.542 ppb
Concentration RSD	5.8 %	1.3 %	6.3 %	5.7 %	3.9 %	4.0 %	5.0 %	5.5 %	3.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	49.702 ppb	229.448 ppb	99.258 %	99.051 %	0.032 ppb	12.903 ppb	55.360 ppb	93.598 %
Concentration per Run 1	47.285 ppb	220.045 ppb	103.436 %	102.562 %	0.010 ppb	11.991 ppb	51.461 ppb	98.648 %
Concentration per Run 2	51.425 ppb	231.573 ppb	93.965 %	93.445 %	0.035 ppb	13.267 ppb	57.252 ppb	89.955 %
Concentration per Run 3	50.395 ppb	236.727 ppb	100.373 %	101.146 %	0.051 ppb	13.451 ppb	57.366 ppb	92.192 %
Concentration RSD	4.3 %	3.7 %	4.9 %	5.0 %	65.3 %	6.2 %	6.1 %	4.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	84	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961492-4d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 12:57:40 PM	Vial	46		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.459 %	107.881 %	4.873 ppb	78,234.947 ppb	6,174.323 ppb	187.550 ppb	3,519.379 ppb	17,839.031 ppb	97.386 %
Concentration per Run 1	98.385 %	105.815 %	4.899 ppb	76,302.894 ppb	6,007.725 ppb	183.575 ppb	3,370.651 ppb	17,192.467 ppb	97.761 %
Concentration per Run 2	98.944 %	109.028 %	4.829 ppb	78,540.372 ppb	6,179.976 ppb	186.368 ppb	3,578.680 ppb	18,073.611 ppb	97.635 %
Concentration per Run 3	98.048 %	108.799 %	4.890 ppb	79,861.575 ppb	6,335.266 ppb	192.708 ppb	3,608.808 ppb	18,251.014 ppb	96.763 %
Concentration RSD	0.5 %	1.7 %	0.8 %	2.3 %	2.7 %	2.5 %	3.7 %	3.2 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	43.651 ppb	18.212 ppb	61.193 ppb	566.146 ppb	47.526 ppb	47.650 ppb	24.313 ppb	47.467 ppb	96.978 %
Concentration per Run 1	42.124 ppb	17.211 ppb	58.014 ppb	562.272 ppb	44.864 ppb	44.121 ppb	23.474 ppb	45.083 ppb	99.748 %
Concentration per Run 2	44.736 ppb	18.547 ppb	63.141 ppb	579.698 ppb	49.109 ppb	49.653 ppb	25.455 ppb	48.819 ppb	94.727 %
Concentration per Run 3	44.093 ppb	18.879 ppb	62.424 ppb	556.468 ppb	48.605 ppb	49.174 ppb	24.009 ppb	48.499 ppb	96.459 %
Concentration RSD	3.1 %	4.8 %	4.5 %	2.1 %	4.9 %	6.4 %	4.2 %	4.4 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.866 ppb	10.908 ppb	160.165 ppb	100.718 ppb	94.674 %	4.829 ppb	5.141 ppb	93.938 %	95.097 ppb
Concentration per Run 1	11.919 ppb	10.319 ppb	151.094 ppb	94.830 ppb	96.436 %	4.626 ppb	5.028 ppb	95.512 %	91.242 ppb
Concentration per Run 2	13.194 ppb	11.108 ppb	164.225 ppb	102.537 ppb	93.902 %	4.878 ppb	5.337 ppb	92.912 %	96.885 ppb
Concentration per Run 3	13.486 ppb	11.296 ppb	165.176 ppb	104.788 ppb	93.685 %	4.984 ppb	5.057 ppb	93.388 %	97.163 ppb
Concentration RSD	6.5 %	4.8 %	4.9 %	5.2 %	1.6 %	3.8 %	3.3 %	1.5 %	3.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	48.163 ppb	225.870 ppb	103.634 %	103.493 %	0.024 ppb	12.604 ppb	54.473 ppb	95.338 %
Concentration per Run 1	45.961 ppb	219.726 ppb	104.843 %	104.930 %	0.008 ppb	12.050 ppb	51.851 ppb	96.684 %
Concentration per Run 2	49.057 ppb	227.816 ppb	102.746 %	102.032 %	0.026 ppb	12.767 ppb	55.626 ppb	95.050 %
Concentration per Run 3	49.471 ppb	230.068 ppb	103.312 %	103.518 %	0.037 ppb	12.996 ppb	55.942 ppb	94.281 %
Concentration RSD	4.0 %	2.4 %	1.0 %	1.4 %	60.4 %	3.9 %	4.2 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	85	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961492-5d10 6020TL	Rack	1		
Analysis started at:	8/21/2024 1:02:08 PM	Vial	47		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.107 %	104.744 %	48.659 ppb	83,736.252 ppb	10,206.741 ppb	51.181 ppb	7,276.259 ppb	22,099.048 ppb	97.327 %
Concentration per Run 1	96.919 %	110.176 %	48.288 ppb	78,120.661 ppb	9,479.385 ppb	46.389 ppb	6,847.876 ppb	21,144.736 ppb	99.312 %
Concentration per Run 2	95.829 %	97.322 %	48.919 ppb	90,535.123 ppb	11,130.439 ppb	55.370 ppb	7,815.788 ppb	23,817.436 ppb	97.166 %
Concentration per Run 3	95.572 %	106.733 %	48.771 ppb	82,552.974 ppb	10,010.399 ppb	51.783 ppb	7,165.114 ppb	21,334.973 ppb	95.503 %
Concentration RSD	0.7 %	6.4 %	0.7 %	7.5 %	8.3 %	8.8 %	6.8 %	6.7 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	46.254 ppb	47.363 ppb	62.935 ppb	5,314.110 ppb	49.120 ppb	48.611 ppb	48.545 ppb	48.834 ppb	95.779 %
Concentration per Run 1	41.976 ppb	43.779 ppb	58.523 ppb	4,958.862 ppb	46.488 ppb	45.368 ppb	45.597 ppb	46.103 ppb	100.774 %
Concentration per Run 2	49.813 ppb	50.740 ppb	68.035 ppb	5,709.862 ppb	52.511 ppb	52.430 ppb	51.273 ppb	51.865 ppb	90.353 %
Concentration per Run 3	46.972 ppb	47.571 ppb	62.248 ppb	5,273.606 ppb	48.359 ppb	48.035 ppb	48.764 ppb	48.532 ppb	96.210 %
Concentration RSD	8.6 %	7.4 %	7.6 %	7.1 %	6.3 %	7.3 %	5.9 %	5.9 %	5.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	50.438 ppb	46.541 ppb	117.446 ppb	51.793 ppb	94.363 %	4.090 ppb	48.826 ppb	94.211 %	47.469 ppb
Concentration per Run 1	46.456 ppb	43.831 ppb	110.892 ppb	49.176 ppb	98.550 %	3.976 ppb	46.289 ppb	97.031 %	45.323 ppb
Concentration per Run 2	53.585 ppb	48.440 ppb	122.828 ppb	54.198 ppb	91.631 %	4.153 ppb	50.637 ppb	91.830 %	49.303 ppb
Concentration per Run 3	51.272 ppb	47.351 ppb	118.618 ppb	52.005 ppb	92.908 %	4.142 ppb	49.551 ppb	93.771 %	47.782 ppb
Concentration RSD	7.2 %	5.2 %	5.2 %	4.9 %	3.9 %	2.4 %	4.6 %	2.8 %	4.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	50.999 ppb	82.451 ppb	104.250 %	103.331 %	48.317 ppb	49.586 ppb	50.474 ppb	97.166 %
Concentration per Run 1	48.495 ppb	77.695 ppb	107.427 %	105.848 %	45.458 ppb	45.430 ppb	47.032 ppb	101.939 %
Concentration per Run 2	53.279 ppb	87.293 ppb	101.102 %	100.650 %	50.062 ppb	51.257 ppb	52.476 ppb	95.042 %
Concentration per Run 3	51.224 ppb	82.364 ppb	104.222 %	103.494 %	49.430 ppb	52.070 ppb	51.914 ppb	94.517 %
Concentration RSD	4.7 %	5.8 %	3.0 %	2.5 %	5.2 %	7.3 %	5.9 %	4.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	86	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961492-6d5 6020TL	Rack	1		
Analysis started at:	8/21/2024 1:06:37 PM	Vial	48		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.002 %	105.279 %	0.031 ppb	159,966.765 ppb	10,943.531 ppb	9.837 ppb	5,401.795 ppb	34,612.838 ppb	102.411 %
Concentration per Run 1	97.817 %	100.765 %	0.040 ppb	154,996.255 ppb	10,555.302 ppb	10.063 ppb	5,268.179 ppb	33,311.015 ppb	101.632 %
Concentration per Run 2	98.005 %	106.503 %	0.026 ppb	163,630.196 ppb	11,220.652 ppb	9.777 ppb	5,590.358 ppb	36,340.217 ppb	102.924 %
Concentration per Run 3	98.184 %	108.569 %	0.028 ppb	161,273.843 ppb	11,054.638 ppb	9.672 ppb	5,346.847 ppb	34,187.282 ppb	102.678 %
Concentration RSD	0.2 %	3.8 %	24.7 %	2.8 %	3.2 %	2.1 %	3.1 %	4.5 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.273 ppb	0.140 ppb	27.530 ppb	901.781 ppb	0.107 ppb	0.076 ppb	0.029 ppb	1.026 ppb	98.716 %
Concentration per Run 1	0.278 ppb	0.150 ppb	26.202 ppb	872.112 ppb	0.109 ppb	0.083 ppb	0.055 ppb	0.849 ppb	96.759 %
Concentration per Run 2	0.263 ppb	0.143 ppb	28.561 ppb	929.062 ppb	0.118 ppb	0.128 ppb	0.014 ppb	1.059 ppb	99.609 %
Concentration per Run 3	0.277 ppb	0.128 ppb	27.828 ppb	904.168 ppb	0.094 ppb	0.016 ppb	0.019 ppb	1.170 ppb	99.779 %
Concentration RSD	3.0 %	8.0 %	4.4 %	3.2 %	11.2 %	74.8 %	75.7 %	15.9 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.306 ppb	0.104 ppb	142.533 ppb	0.917 ppb	95.003 %	0.003 ppb	0.035 ppb	97.195 %	0.101 ppb
Concentration per Run 1	1.247 ppb	-0.077 ppb	132.996 ppb	0.755 ppb	96.500 %	0.003 ppb	0.043 ppb	96.688 %	0.022 ppb
Concentration per Run 2	1.285 ppb	0.228 ppb	149.033 ppb	0.951 ppb	94.538 %	0.003 ppb	0.024 ppb	97.868 %	0.191 ppb
Concentration per Run 3	1.386 ppb	0.160 ppb	145.571 ppb	1.045 ppb	93.972 %	0.002 ppb	0.037 ppb	97.030 %	0.089 ppb
Concentration RSD	5.5 %	154.2 %	5.9 %	16.1 %	1.4 %	14.1 %	28.1 %	0.6 %	84.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.278 ppb	66.897 ppb	104.533 %	105.134 %	0.500 ppb	0.513 ppb	0.175 ppb	94.673 %
Concentration per Run 1	0.227 ppb	62.585 ppb	106.500 %	105.264 %	0.387 ppb	0.364 ppb	0.164 ppb	96.874 %
Concentration per Run 2	0.278 ppb	69.441 ppb	105.148 %	107.321 %	0.509 ppb	0.614 ppb	0.175 ppb	94.398 %
Concentration per Run 3	0.327 ppb	68.666 ppb	101.952 %	102.817 %	0.605 ppb	0.562 ppb	0.185 ppb	92.747 %
Concentration RSD	18.0 %	5.6 %	2.2 %	2.1 %	21.8 %	25.7 %	5.8 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	87	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2445935-01d10 6020TL	Rack	2		
Analysis started at:	8/21/2024 1:19:25 PM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.815 %	116.374 %	0.062 ppb	5,786.199 ppb	46,980.146 ppb	583.218 ppb	2,170.667 ppb	177,545.669 ppb	117.531 %
Concentration per Run 1	109.585 %	114.078 %	0.056 ppb	5,716.046 ppb	39,426.101 ppb	569.429 ppb	2,066.357 ppb	172,619.060 ppb	116.484 %
Concentration per Run 2	108.729 %	119.587 %	0.058 ppb	5,739.807 ppb	49,860.931 ppb	583.027 ppb	2,165.191 ppb	178,348.450 ppb	118.879 %
Concentration per Run 3	108.132 %	115.455 %	0.072 ppb	5,902.744 ppb	51,653.407 ppb	597.199 ppb	2,280.452 ppb	181,669.496 ppb	117.229 %
Concentration RSD	0.7 %	2.5 %	14.8 %	1.8 %	14.1 %	2.4 %	4.9 %	2.6 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.060 ppb	1.608 ppb	3,407.829 ppb	2,157.261 ppb	14.312 ppb	6.382 ppb	74.730 ppb	55.180 ppb	108.166 %
Concentration per Run 1	1.031 ppb	1.507 ppb	3,489.563 ppb	2,058.948 ppb	13.681 ppb	6.676 ppb	71.668 ppb	52.348 ppb	110.967 %
Concentration per Run 2	1.029 ppb	1.651 ppb	3,679.912 ppb	2,200.782 ppb	14.389 ppb	6.232 ppb	76.641 ppb	56.678 ppb	107.304 %
Concentration per Run 3	1.120 ppb	1.666 ppb	3,054.012 ppb	2,212.054 ppb	14.865 ppb	6.238 ppb	75.880 ppb	56.514 ppb	106.229 %
Concentration RSD	4.9 %	5.4 %	9.4 %	4.0 %	4.2 %	4.0 %	3.6 %	4.4 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.111 ppb	0.293 ppb	1,289.879 ppb	0.443 ppb	103.605 %	0.273 ppb	0.404 ppb	105.851 %	0.253 ppb
Concentration per Run 1	1.012 ppb	0.057 ppb	1,212.444 ppb	0.487 ppb	108.318 %	0.272 ppb	0.419 ppb	112.517 %	0.107 ppb
Concentration per Run 2	1.168 ppb	0.301 ppb	1,323.319 ppb	0.359 ppb	101.272 %	0.285 ppb	0.387 ppb	103.543 %	0.234 ppb
Concentration per Run 3	1.155 ppb	0.520 ppb	1,333.874 ppb	0.483 ppb	101.225 %	0.262 ppb	0.405 ppb	101.493 %	0.417 ppb
Concentration RSD	7.8 %	79.1 %	5.2 %	16.4 %	3.9 %	4.2 %	3.9 %	5.5 %	61.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.192 ppb	220.614 ppb	114.565 %	115.297 %	0.853 ppb	0.248 ppb	1.528 ppb	129.145 %
Concentration per Run 1	0.205 ppb	203.186 ppb	121.176 %	120.913 %	0.861 ppb	0.211 ppb	1.133 ppb	166.055 %
Concentration per Run 2	0.197 ppb	227.135 ppb	112.448 %	113.553 %	0.830 ppb	0.284 ppb	1.687 ppb	114.376 %
Concentration per Run 3	0.175 ppb	231.519 ppb	110.072 %	111.426 %	0.867 ppb	0.249 ppb	1.764 ppb	107.003 %
Concentration RSD	8.0 %	6.9 %	5.1 %	4.3 %	2.4 %	14.8 %	22.5 %	24.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	88	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955086-2d10 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 1:23:52 PM	Vial	52		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.193 %	117.139 %	0.006 ppb	509.486 ppb	98.506 ppb	2.936 ppb	5.751 ppb	299.990 ppb	116.391 %
Concentration per Run 1	112.703 %	115.455 %	0.005 ppb	374.666 ppb	27.023 ppb	2.005 ppb	1.290 ppb	61.295 ppb	116.202 %
Concentration per Run 2	112.865 %	116.144 %	0.006 ppb	397.147 ppb	28.623 ppb	1.896 ppb	-3.549 ppb	85.727 ppb	117.128 %
Concentration per Run 3	111.011 %	119.817 %	0.008 ppb	756.644 ppb	239.873 ppb	4.907 ppb	19.511 ppb	752.949 ppb	115.843 %
Concentration RSD	0.9 %	2.0 %	24.6 %	42.1 %	124.3 %	58.2 %	211.4 %	130.8 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.113 ppb	0.253 ppb	5.820 ppb	15.011 ppb	0.057 ppb	49.046 ppb	52.151 ppb	259.677 ppb	106.651 %
Concentration per Run 1	0.089 ppb	0.242 ppb	1.574 ppb	10.115 ppb	0.023 ppb	48.094 ppb	49.995 ppb	250.132 ppb	108.286 %
Concentration per Run 2	0.077 ppb	0.257 ppb	1.835 ppb	8.840 ppb	0.041 ppb	49.309 ppb	54.263 ppb	265.498 ppb	105.145 %
Concentration per Run 3	0.172 ppb	0.260 ppb	14.049 ppb	26.080 ppb	0.106 ppb	49.735 ppb	52.196 ppb	263.401 ppb	106.524 %
Concentration RSD	45.6 %	3.8 %	122.5 %	64.0 %	77.2 %	1.7 %	4.1 %	3.2 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.103 ppb	0.050 ppb	2.125 ppb	0.034 ppb	108.426 %	-0.003 ppb	25.017 ppb	105.488 %	0.507 ppb
Concentration per Run 1	0.046 ppb	-0.033 ppb	0.613 ppb	-0.007 ppb	111.383 %	-0.005 ppb	23.731 ppb	108.832 %	0.331 ppb
Concentration per Run 2	0.143 ppb	0.048 ppb	0.678 ppb	0.022 ppb	107.057 %	-0.005 ppb	25.982 ppb	102.937 %	0.512 ppb
Concentration per Run 3	0.118 ppb	0.135 ppb	5.084 ppb	0.086 ppb	106.837 %	0.002 ppb	25.337 ppb	104.695 %	0.679 ppb
Concentration RSD	49.4 %	169.0 %	120.6 %	141.2 %	2.4 %	167.7 %	4.6 %	2.9 %	34.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.210 ppb	0.497 ppb	111.428 %	110.160 %	0.052 ppb	0.061 ppb	247.145 ppb	109.641 %
Concentration per Run 1	0.157 ppb	0.171 ppb	115.238 %	113.454 %	0.010 ppb	0.017 ppb	232.101 ppb	113.998 %
Concentration per Run 2	0.202 ppb	0.207 ppb	109.753 %	108.814 %	0.042 ppb	0.067 ppb	255.298 ppb	107.404 %
Concentration per Run 3	0.270 ppb	1.114 ppb	109.294 %	108.213 %	0.103 ppb	0.098 ppb	254.037 ppb	107.520 %
Concentration RSD	27.3 %	107.5 %	3.0 %	2.6 %	91.2 %	67.5 %	5.3 %	3.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	89	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441542-01d5 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 1:28:19 PM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.217 %	106.886 %	0.372 ppb	232.762 ppb	1,581.755 ppb	5,729.513 ppb	1,024.130 ppb	5,816.418 ppb	107.966 %
Concentration per Run 1	106.472 %	103.060 %	0.362 ppb	244.314 ppb	1,580.938 ppb	5,599.361 ppb	1,010.815 ppb	5,637.821 ppb	107.380 %
Concentration per Run 2	106.241 %	106.503 %	0.379 ppb	234.408 ppb	1,618.074 ppb	5,875.329 ppb	1,036.796 ppb	5,985.862 ppb	108.663 %
Concentration per Run 3	105.939 %	111.094 %	0.376 ppb	219.564 ppb	1,546.252 ppb	5,713.849 ppb	1,024.781 ppb	5,825.572 ppb	107.856 %
Concentration RSD	0.3 %	3.8 %	2.5 %	5.4 %	2.3 %	2.4 %	1.3 %	3.0 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	11.277 ppb	8.765 ppb	799.001 ppb	6,509.213 ppb	5.170 ppb	8.031 ppb	54.865 ppb	207.950 ppb	98.775 %
Concentration per Run 1	10.622 ppb	8.166 ppb	757.640 ppb	6,117.687 ppb	5.013 ppb	7.618 ppb	50.447 ppb	191.203 ppb	105.958 %
Concentration per Run 2	11.774 ppb	9.186 ppb	835.327 ppb	6,866.868 ppb	5.406 ppb	8.545 ppb	58.537 ppb	221.238 ppb	93.306 %
Concentration per Run 3	11.435 ppb	8.943 ppb	804.035 ppb	6,543.083 ppb	5.090 ppb	7.929 ppb	55.611 ppb	211.409 ppb	97.062 %
Concentration RSD	5.2 %	6.1 %	4.9 %	5.8 %	4.0 %	5.9 %	7.5 %	7.4 %	6.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.581 ppb	1.043 ppb	18.993 ppb	0.175 ppb	97.969 %	0.166 ppb	1.887 ppb	97.724 %	6.686 ppb
Concentration per Run 1	11.524 ppb	1.210 ppb	17.885 ppb	0.200 ppb	100.637 %	0.154 ppb	1.796 ppb	99.807 %	6.091 ppb
Concentration per Run 2	13.447 ppb	1.018 ppb	19.797 ppb	0.111 ppb	96.410 %	0.167 ppb	1.899 ppb	96.899 %	7.026 ppb
Concentration per Run 3	12.771 ppb	0.902 ppb	19.299 ppb	0.214 ppb	96.860 %	0.179 ppb	1.965 ppb	96.467 %	6.939 ppb
Concentration RSD	7.8 %	14.9 %	5.2 %	32.1 %	2.4 %	7.5 %	4.5 %	1.9 %	7.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.836 ppb	80.256 ppb	107.689 %	107.029 %	0.099 ppb	0.138 ppb	68.776 ppb	106.689 %
Concentration per Run 1	1.692 ppb	75.888 ppb	111.177 %	110.304 %	0.087 ppb	0.102 ppb	64.449 ppb	110.252 %
Concentration per Run 2	1.876 ppb	81.456 ppb	105.965 %	106.394 %	0.091 ppb	0.149 ppb	70.334 ppb	105.847 %
Concentration per Run 3	1.941 ppb	83.424 ppb	105.924 %	104.391 %	0.119 ppb	0.161 ppb	71.544 ppb	103.969 %
Concentration RSD	7.0 %	4.9 %	2.8 %	2.8 %	17.6 %	22.8 %	5.5 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	90	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955086-3d10 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 1:32:47 PM	Vial	54		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.566 %	108.340 %	0.216 ppb	361.913 ppb	905.842 ppb	3,343.555 ppb	560.645 ppb	2,813.067 ppb	109.999 %
Concentration per Run 1	105.510 %	115.455 %	0.211 ppb	328.413 ppb	804.840 ppb	3,047.338 ppb	517.349 ppb	2,512.676 ppb	110.034 %
Concentration per Run 2	105.840 %	99.617 %	0.213 ppb	395.475 ppb	988.142 ppb	3,599.454 ppb	602.404 ppb	3,009.924 ppb	110.343 %
Concentration per Run 3	105.348 %	109.947 %	0.225 ppb	361.852 ppb	924.546 ppb	3,383.875 ppb	562.183 ppb	2,916.601 ppb	109.620 %
Concentration RSD	0.2 %	7.4 %	3.5 %	9.3 %	10.3 %	8.3 %	7.6 %	9.4 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	6.807 ppb	5.094 ppb	467.919 ppb	3,877.644 ppb	3.238 ppb	53.855 ppb	78.201 ppb	360.702 ppb	97.821 %
Concentration per Run 1	6.111 ppb	4.688 ppb	428.240 ppb	3,592.499 ppb	2.923 ppb	49.719 ppb	73.582 ppb	332.916 ppb	103.523 %
Concentration per Run 2	7.007 ppb	5.167 ppb	496.265 ppb	4,087.156 ppb	3.451 ppb	56.956 ppb	80.338 ppb	380.071 ppb	93.469 %
Concentration per Run 3	7.302 ppb	5.428 ppb	479.252 ppb	3,953.277 ppb	3.340 ppb	54.889 ppb	80.683 ppb	369.120 ppb	96.470 %
Concentration RSD	9.1 %	7.4 %	7.6 %	6.6 %	8.6 %	6.9 %	5.1 %	6.8 %	5.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	7.231 ppb	0.514 ppb	9.982 ppb	0.083 ppb	98.262 %	0.074 ppb	26.483 ppb	96.482 %	2.759 ppb
Concentration per Run 1	6.659 ppb	0.534 ppb	9.377 ppb	0.035 ppb	97.402 %	0.073 ppb	25.918 ppb	93.635 %	2.515 ppb
Concentration per Run 2	7.507 ppb	0.662 ppb	10.243 ppb	0.049 ppb	98.521 %	0.078 ppb	26.917 ppb	97.469 %	2.911 ppb
Concentration per Run 3	7.528 ppb	0.346 ppb	10.327 ppb	0.164 ppb	98.862 %	0.071 ppb	26.613 ppb	98.340 %	2.852 ppb
Concentration RSD	6.9 %	30.9 %	5.3 %	86.0 %	0.8 %	4.7 %	1.9 %	2.6 %	7.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.157 ppb	44.996 ppb	104.668 %	105.538 %	0.049 ppb	0.078 ppb	291.306 ppb	104.807 %
Concentration per Run 1	1.098 ppb	43.749 ppb	102.081 %	103.809 %	0.032 ppb	0.046 ppb	281.887 ppb	104.000 %
Concentration per Run 2	1.204 ppb	45.431 ppb	105.456 %	105.560 %	0.052 ppb	0.092 ppb	294.304 ppb	104.713 %
Concentration per Run 3	1.168 ppb	45.809 ppb	106.467 %	107.246 %	0.063 ppb	0.094 ppb	297.727 ppb	105.710 %
Concentration RSD	4.6 %	2.4 %	2.2 %	1.6 %	32.3 %	35.0 %	2.9 %	0.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	91	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955086-4d5 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 1:37:15 PM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.366 %	107.116 %	0.736 ppb	385.482 ppb	3,583.896 ppb	11,585.971 ppb	1,984.454 ppb	8,181.561 ppb	112.615 %
Concentration per Run 1	108.719 %	106.963 %	0.755 ppb	359.742 ppb	3,384.991 ppb	10,772.014 ppb	1,931.809 ppb	7,882.271 ppb	111.061 %
Concentration per Run 2	109.337 %	107.881 %	0.730 ppb	391.155 ppb	3,693.145 ppb	12,038.143 ppb	1,992.891 ppb	8,455.494 ppb	113.573 %
Concentration per Run 3	107.041 %	106.503 %	0.723 ppb	405.550 ppb	3,673.553 ppb	11,947.757 ppb	2,028.663 ppb	8,206.918 ppb	113.210 %
Concentration RSD	1.1 %	0.7 %	2.3 %	6.1 %	4.8 %	6.1 %	2.5 %	3.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	23.432 ppb	18.676 ppb	1,164.485 ppb	13,149.369 ppb	10.376 ppb	15.261 ppb	66.049 ppb	283.337 ppb	100.014 %
Concentration per Run 1	22.462 ppb	18.056 ppb	1,107.924 ppb	12,534.373 ppb	10.070 ppb	14.745 ppb	64.624 ppb	271.208 ppb	99.700 %
Concentration per Run 2	24.248 ppb	19.035 ppb	1,209.170 ppb	13,617.686 ppb	10.635 ppb	15.269 ppb	65.309 ppb	289.620 ppb	98.127 %
Concentration per Run 3	23.584 ppb	18.937 ppb	1,176.361 ppb	13,296.047 ppb	10.423 ppb	15.771 ppb	68.213 ppb	289.183 ppb	102.215 %
Concentration RSD	3.9 %	2.9 %	4.4 %	4.2 %	2.8 %	3.4 %	2.9 %	3.7 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	16.758 ppb	2.019 ppb	27.468 ppb	0.268 ppb	99.381 %	0.221 ppb	2.413 ppb	98.341 %	7.542 ppb
Concentration per Run 1	16.146 ppb	2.190 ppb	26.738 ppb	0.242 ppb	101.677 %	0.217 ppb	2.247 ppb	100.787 %	6.869 ppb
Concentration per Run 2	17.232 ppb	2.019 ppb	28.070 ppb	0.204 ppb	98.466 %	0.219 ppb	2.479 ppb	96.760 %	7.933 ppb
Concentration per Run 3	16.897 ppb	1.849 ppb	27.597 ppb	0.358 ppb	98.000 %	0.226 ppb	2.514 ppb	97.477 %	7.824 ppb
Concentration RSD	3.3 %	8.5 %	2.5 %	29.9 %	2.0 %	2.3 %	6.0 %	2.2 %	7.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	2.677 ppb	181.283 ppb	107.760 %	107.195 %	0.133 ppb	0.178 ppb	112.872 ppb	106.063 %
Concentration per Run 1	2.590 ppb	173.884 ppb	110.351 %	108.860 %	0.104 ppb	0.139 ppb	106.457 ppb	107.532 %
Concentration per Run 2	2.738 ppb	185.088 ppb	105.630 %	105.589 %	0.139 ppb	0.203 ppb	115.592 ppb	105.720 %
Concentration per Run 3	2.703 ppb	184.876 ppb	107.299 %	107.136 %	0.156 ppb	0.191 ppb	116.567 ppb	104.939 %
Concentration RSD	2.9 %	3.5 %	2.2 %	1.5 %	19.6 %	19.3 %	4.9 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	92	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 1:41:43 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.114 %	105.738 %	61.775 ppb	5,836.863 ppb	5,796.082 ppb	63.544 ppb	5,636.460 ppb	5,593.982 ppb	104.165 %
Concentration per Run 1	100.539 %	108.569 %	61.704 ppb	5,505.215 ppb	5,402.746 ppb	60.251 ppb	5,380.124 ppb	5,351.736 ppb	104.039 %
Concentration per Run 2	99.849 %	102.831 %	62.089 ppb	6,026.599 ppb	6,055.264 ppb	65.289 ppb	5,848.826 ppb	5,821.893 ppb	104.308 %
Concentration per Run 3	99.955 %	105.815 %	61.531 ppb	5,978.774 ppb	5,930.235 ppb	65.093 ppb	5,680.429 ppb	5,608.317 ppb	104.148 %
Recovery Percentage 1			102.958 %	97.281 %	96.601 %	105.907 %	93.941 %	93.233 %	
Concentration RSD	0.4 %	2.7 %	0.5 %	4.9 %	6.0 %	4.5 %	4.2 %	4.2 %	0.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.487 ppb	59.336 ppb	60.871 ppb	5,987.646 ppb	60.945 ppb	60.715 ppb	61.547 ppb	63.154 ppb	94.857 %
Concentration per Run 1	54.595 ppb	56.373 ppb	58.499 ppb	5,814.477 ppb	58.720 ppb	58.477 ppb	59.503 ppb	60.169 ppb	97.886 %
Concentration per Run 2	58.127 ppb	60.960 ppb	61.297 ppb	5,998.429 ppb	62.161 ppb	61.980 ppb	62.295 ppb	64.231 ppb	93.112 %
Concentration per Run 3	59.739 ppb	60.674 ppb	62.818 ppb	6,150.032 ppb	61.954 ppb	61.687 ppb	62.842 ppb	65.061 ppb	93.573 %
Recovery Percentage 1	95.812 %	98.893 %	101.452 %	99.794 %	101.576 %	101.191 %	102.578 %	105.256 %	
Concentration RSD	4.6 %	4.3 %	3.6 %	2.8 %	3.2 %	3.2 %	2.9 %	4.1 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	61.263 ppb	59.584 ppb	57.960 ppb	61.839 ppb	95.108 %	59.381 ppb	62.830 ppb	94.543 %	61.191 ppb
Concentration per Run 1	59.014 ppb	56.294 ppb	53.318 ppb	57.547 ppb	95.274 %	56.950 ppb	60.153 ppb	93.324 %	58.205 ppb
Concentration per Run 2	62.592 ppb	61.935 ppb	60.086 ppb	63.145 ppb	94.890 %	60.939 ppb	64.112 ppb	95.587 %	62.612 ppb
Concentration per Run 3	62.183 ppb	60.524 ppb	60.477 ppb	64.826 ppb	95.161 %	60.255 ppb	64.224 ppb	94.717 %	62.758 ppb
Recovery Percentage 1	102.105 %	99.307 %	96.601 %	103.065 %		98.969 %	104.716 %		101.986 %
Concentration RSD	3.2 %	4.9 %	6.9 %	6.2 %	0.2 %	3.6 %	3.7 %	1.2 %	4.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.224 ppb	60.283 ppb	104.318 %	104.661 %	62.738 ppb	62.271 ppb	62.990 ppb	102.253 %
Concentration per Run 1	59.146 ppb	56.700 ppb	102.714 %	104.163 %	60.323 ppb	58.421 ppb	59.662 ppb	104.575 %
Concentration per Run 2	63.214 ppb	60.746 ppb	104.855 %	105.133 %	63.981 ppb	63.557 ppb	64.515 ppb	101.336 %
Concentration per Run 3	64.312 ppb	63.405 ppb	105.386 %	104.687 %	63.909 ppb	64.836 ppb	64.794 ppb	100.848 %
Recovery Percentage 1	103.706 %	100.472 %			104.563 %	103.786 %	104.984 %	
Concentration RSD	4.4 %	5.6 %	1.4 %	0.5 %	3.3 %	5.5 %	4.6 %	2.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	93	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 1:46:14 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.808 %	101.301 %	0.040 ppb	-41.516 ppb	1.957 ppb	4.201 ppb	-3.052 ppb	-9.633 ppb	98.304 %
Concentration per Run 1	98.779 %	102.372 %	0.037 ppb	-43.651 ppb	3.170 ppb	5.097 ppb	-1.193 ppb	-14.278 ppb	97.236 %
Concentration per Run 2	100.618 %	100.995 %	0.052 ppb	-39.673 ppb	1.250 ppb	4.191 ppb	-9.665 ppb	-10.784 ppb	99.076 %
Concentration per Run 3	100.028 %	100.536 %	0.033 ppb	-41.225 ppb	1.450 ppb	3.314 ppb	1.702 ppb	-3.838 ppb	98.601 %
Recovery Percentage 1			8.077 %	-41.516 %	2.795 %	42.006 %	-3.052 %	-9.633 %	
Concentration RSD	0.9 %	0.9 %	24.7 %	4.8 %	53.9 %	21.2 %	193.5 %	55.2 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.021 ppb	0.029 ppb	0.433 ppb	14.931 ppb	0.040 ppb	-0.017 ppb	-0.080 ppb	0.078 ppb	96.328 %
Concentration per Run 1	0.042 ppb	0.025 ppb	0.578 ppb	13.123 ppb	0.046 ppb	0.008 ppb	-0.045 ppb	0.098 ppb	100.766 %
Concentration per Run 2	0.034 ppb	0.039 ppb	0.417 ppb	16.452 ppb	0.039 ppb	-0.107 ppb	-0.121 ppb	0.089 ppb	92.990 %
Concentration per Run 3	-0.012 ppb	0.021 ppb	0.303 ppb	15.218 ppb	0.035 ppb	0.047 ppb	-0.076 ppb	0.048 ppb	95.229 %
Recovery Percentage 1	0.426 %	2.854 %	43.267 %	29.862 %	8.016 %	-0.856 %	-8.025 %	1.567 %	
Concentration RSD	135.3 %	32.1 %	31.9 %	11.3 %	14.0 %	467.2 %	47.6 %	34.0 %	4.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.076 ppb	0.169 ppb	0.038 ppb	0.278 ppb	98.014 %	0.036 ppb	0.047 ppb	97.322 %	-0.057 ppb
Concentration per Run 1	0.081 ppb	0.118 ppb	0.047 ppb	0.212 ppb	99.447 %	0.044 ppb	0.057 ppb	98.838 %	-0.196 ppb
Concentration per Run 2	0.051 ppb	0.157 ppb	0.041 ppb	0.298 ppb	97.898 %	0.038 ppb	0.041 ppb	97.191 %	-0.041 ppb
Concentration per Run 3	0.096 ppb	0.232 ppb	0.027 ppb	0.323 ppb	96.697 %	0.027 ppb	0.043 ppb	95.939 %	0.065 ppb
Recovery Percentage 1	15.218 %	3.384 %	0.383 %	13.893 %		9.050 %	23.444 %		-1.909 %
Concentration RSD	30.2 %	34.3 %	27.5 %	21.0 %	1.4 %	24.3 %	18.1 %	1.5 %	228.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.068 ppb	0.049 ppb	104.631 %	104.976 %	0.492 ppb	0.613 ppb	0.140 ppb	102.693 %
Concentration per Run 1	0.048 ppb	0.068 ppb	105.943 %	106.988 %	0.402 ppb	0.480 ppb	0.156 ppb	105.935 %
Concentration per Run 2	0.076 ppb	0.043 ppb	104.881 %	104.397 %	0.476 ppb	0.744 ppb	0.140 ppb	101.103 %
Concentration per Run 3	0.078 ppb	0.037 ppb	103.069 %	103.543 %	0.598 ppb	0.614 ppb	0.123 ppb	101.043 %
Recovery Percentage 1	1.688 %	9.849 %			24.602 %	61.265 %	13.954 %	
Concentration RSD	24.5 %	34.3 %	1.4 %	1.7 %	20.1 %	21.6 %	11.7 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	94	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955086-1d5 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 2:02:25 PM	Vial	51		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.155 %	108.722 %	0.003 ppb	34.460 ppb	1.094 ppb	5.323 ppb	-10.402 ppb	-5.546 ppb	109.101 %
Concentration per Run 1	104.645 %	111.094 %	0.002 ppb	29.714 ppb	1.133 ppb	5.235 ppb	-12.434 ppb	-11.936 ppb	109.195 %
Concentration per Run 2	103.968 %	105.356 %	0.003 ppb	34.662 ppb	0.121 ppb	4.877 ppb	-0.961 ppb	-5.020 ppb	108.907 %
Concentration per Run 3	103.853 %	109.717 %	0.003 ppb	39.003 ppb	2.030 ppb	5.858 ppb	-17.812 ppb	0.316 ppb	109.202 %
Concentration RSD	0.4 %	2.8 %	12.0 %	13.5 %	87.2 %	9.3 %	82.7 %	110.8 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.506 ppb	0.210 ppb	0.248 ppb	11.163 ppb	0.059 ppb	0.438 ppb	0.127 ppb	3.089 ppb	100.221 %
Concentration per Run 1	0.504 ppb	0.200 ppb	0.247 ppb	11.040 ppb	0.040 ppb	0.450 ppb	0.080 ppb	2.878 ppb	100.842 %
Concentration per Run 2	0.381 ppb	0.236 ppb	0.229 ppb	11.115 ppb	0.035 ppb	0.434 ppb	0.167 ppb	3.007 ppb	101.881 %
Concentration per Run 3	0.634 ppb	0.194 ppb	0.269 ppb	11.335 ppb	0.101 ppb	0.430 ppb	0.133 ppb	3.383 ppb	97.941 %
Concentration RSD	24.9 %	10.8 %	8.1 %	1.4 %	62.0 %	2.5 %	35.0 %	8.5 %	2.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.131 ppb	0.009 ppb	0.020 ppb	0.226 ppb	98.102 %	0.003 ppb	0.087 ppb	100.007 %	2.656 ppb
Concentration per Run 1	0.127 ppb	-0.017 ppb	0.024 ppb	0.522 ppb	97.967 %	0.001 ppb	0.077 ppb	103.362 %	2.534 ppb
Concentration per Run 2	0.129 ppb	0.023 ppb	0.016 ppb	0.097 ppb	98.823 %	0.003 ppb	0.100 ppb	101.569 %	2.676 ppb
Concentration per Run 3	0.138 ppb	0.020 ppb	0.020 ppb	0.060 ppb	97.517 %	0.004 ppb	0.082 ppb	95.092 %	2.759 ppb
Concentration RSD	4.7 %	259.3 %	18.6 %	113.4 %	0.7 %	58.8 %	14.1 %	4.4 %	4.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.553 ppb	0.183 ppb	108.709 %	110.548 %	0.318 ppb	0.556 ppb	0.188 ppb	129.890 %
Concentration per Run 1	0.768 ppb	0.213 ppb	110.407 %	110.620 %	0.707 ppb	0.295 ppb	0.149 ppb	157.221 %
Concentration per Run 2	0.416 ppb	0.182 ppb	110.638 %	112.763 %	0.108 ppb	1.250 ppb	0.195 ppb	121.840 %
Concentration per Run 3	0.475 ppb	0.153 ppb	105.081 %	108.263 %	0.138 ppb	0.123 ppb	0.220 ppb	110.609 %
Concentration RSD	34.1 %	16.2 %	2.9 %	2.0 %	106.2 %	109.2 %	19.1 %	18.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	95	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441542-02d5 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 2:06:51 PM	Vial	56		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.571 %	110.712 %	0.562 ppb	231.504 ppb	1,623.945 ppb	5,321.556 ppb	990.476 ppb	3,316.518 ppb	109.979 %
Concentration per Run 1	109.986 %	106.274 %	0.544 ppb	236.810 ppb	1,654.985 ppb	5,367.256 ppb	1,013.985 ppb	3,408.404 ppb	110.740 %
Concentration per Run 2	110.465 %	105.815 %	0.570 ppb	236.916 ppb	1,659.664 ppb	5,488.411 ppb	1,006.362 ppb	3,314.998 ppb	111.021 %
Concentration per Run 3	108.261 %	120.046 %	0.572 ppb	220.786 ppb	1,557.188 ppb	5,109.000 ppb	951.080 ppb	3,226.153 ppb	108.175 %
Concentration RSD	1.1 %	7.3 %	2.7 %	4.0 %	3.6 %	3.6 %	3.5 %	2.7 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	11.582 ppb	17.748 ppb	1,153.026 ppb	10,219.795 ppb	8.447 ppb	12.218 ppb	22.163 ppb	123.511 ppb	99.261 %
Concentration per Run 1	11.159 ppb	17.208 ppb	1,136.051 ppb	10,061.618 ppb	8.289 ppb	11.661 ppb	21.748 ppb	119.560 ppb	100.138 %
Concentration per Run 2	12.207 ppb	18.272 ppb	1,177.286 ppb	10,503.228 ppb	8.890 ppb	12.854 ppb	22.175 ppb	125.372 ppb	98.452 %
Concentration per Run 3	11.379 ppb	17.764 ppb	1,145.742 ppb	10,094.540 ppb	8.162 ppb	12.138 ppb	22.565 ppb	125.601 ppb	99.194 %
Concentration RSD	4.8 %	3.0 %	1.9 %	2.4 %	4.6 %	4.9 %	1.8 %	2.8 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	5.039 ppb	1.226 ppb	17.202 ppb	0.105 ppb	98.815 %	0.102 ppb	0.919 ppb	97.518 %	6.743 ppb
Concentration per Run 1	4.797 ppb	1.321 ppb	16.649 ppb	0.097 ppb	99.905 %	0.093 ppb	0.839 ppb	98.191 %	6.685 ppb
Concentration per Run 2	5.028 ppb	1.413 ppb	17.380 ppb	0.129 ppb	97.893 %	0.101 ppb	0.947 ppb	97.825 %	6.798 ppb
Concentration per Run 3	5.290 ppb	0.945 ppb	17.577 ppb	0.087 ppb	98.646 %	0.111 ppb	0.972 ppb	96.537 %	6.744 ppb
Concentration RSD	4.9 %	20.2 %	2.8 %	21.1 %	1.0 %	8.8 %	7.7 %	0.9 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.571 ppb	87.319 ppb	107.362 %	107.046 %	0.089 ppb	0.183 ppb	579.389 ppb	105.232 %
Concentration per Run 1	0.539 ppb	84.120 ppb	107.900 %	107.122 %	0.064 ppb	0.145 ppb	561.744 ppb	107.669 %
Concentration per Run 2	0.608 ppb	87.996 ppb	107.020 %	106.217 %	0.097 ppb	0.208 ppb	590.296 ppb	104.388 %
Concentration per Run 3	0.565 ppb	89.841 ppb	107.166 %	107.798 %	0.105 ppb	0.197 ppb	586.129 ppb	103.638 %
Concentration RSD	6.1 %	3.3 %	0.4 %	0.7 %	24.4 %	18.3 %	2.7 %	2.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	96	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955086-5d10 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 2:11:19 PM	Vial	57		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.988 %	105.662 %	0.305 ppb	408.030 ppb	869.097 ppb	3,029.018 ppb	558.488 ppb	2,018.810 ppb	109.680 %
Concentration per Run 1	108.633 %	113.619 %	0.283 ppb	349.805 ppb	765.916 ppb	2,724.085 ppb	551.056 ppb	1,835.771 ppb	111.013 %
Concentration per Run 2	108.195 %	95.256 %	0.329 ppb	462.638 ppb	968.804 ppb	3,313.473 ppb	567.032 ppb	2,155.874 ppb	110.189 %
Concentration per Run 3	107.136 %	108.110 %	0.304 ppb	411.648 ppb	872.572 ppb	3,049.496 ppb	557.378 ppb	2,064.784 ppb	107.837 %
Concentration RSD	0.7 %	8.9 %	7.5 %	13.8 %	11.7 %	9.7 %	1.4 %	8.2 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	6.103 ppb	9.166 ppb	578.689 ppb	5,626.104 ppb	4.555 ppb	54.241 ppb	61.181 ppb	314.799 ppb	101.785 %
Concentration per Run 1	5.365 ppb	8.277 ppb	519.637 ppb	4,967.019 ppb	4.128 ppb	49.081 ppb	54.446 ppb	283.384 ppb	110.847 %
Concentration per Run 2	6.529 ppb	9.599 ppb	613.003 ppb	6,029.079 ppb	4.691 ppb	56.597 ppb	65.030 ppb	332.416 ppb	97.898 %
Concentration per Run 3	6.414 ppb	9.620 ppb	603.428 ppb	5,882.213 ppb	4.845 ppb	57.043 ppb	64.066 ppb	328.598 ppb	96.609 %
Concentration RSD	10.5 %	8.4 %	8.9 %	10.2 %	8.3 %	8.2 %	9.6 %	8.7 %	7.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	2.805 ppb	0.847 ppb	8.138 ppb	0.052 ppb	99.705 %	0.033 ppb	25.972 ppb	98.779 %	1.299 ppb
Concentration per Run 1	2.563 ppb	0.856 ppb	7.505 ppb	0.018 ppb	103.010 %	0.023 ppb	24.170 ppb	103.587 %	1.183 ppb
Concentration per Run 2	3.102 ppb	0.913 ppb	8.406 ppb	0.029 ppb	99.129 %	0.039 ppb	26.809 ppb	96.745 %	1.415 ppb
Concentration per Run 3	2.751 ppb	0.770 ppb	8.504 ppb	0.108 ppb	96.977 %	0.038 ppb	26.938 ppb	96.005 %	1.298 ppb
Concentration RSD	9.8 %	8.5 %	6.8 %	94.8 %	3.1 %	26.7 %	6.0 %	4.2 %	8.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.161 ppb	44.861 ppb	107.192 %	107.445 %	0.038 ppb	0.100 ppb	319.018 ppb	106.108 %
Concentration per Run 1	0.142 ppb	42.473 ppb	109.595 %	109.525 %	0.019 ppb	0.067 ppb	299.039 ppb	110.614 %
Concentration per Run 2	0.171 ppb	46.069 ppb	107.238 %	106.599 %	0.040 ppb	0.121 ppb	329.289 ppb	104.559 %
Concentration per Run 3	0.168 ppb	46.041 ppb	104.744 %	106.211 %	0.055 ppb	0.113 ppb	328.725 ppb	103.151 %
Concentration RSD	9.8 %	4.6 %	2.3 %	1.7 %	47.6 %	29.4 %	5.4 %	3.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	97	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955086-6d5 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 2:15:48 PM	Vial	58		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.997 %	110.788 %	0.746 ppb	240.703 ppb	1,497.730 ppb	7,984.527 ppb	972.782 ppb	4,492.641 ppb	111.352 %
Concentration per Run 1	108.395 %	115.685 %	0.720 ppb	218.127 ppb	1,386.755 ppb	7,397.463 ppb	912.893 ppb	4,110.169 ppb	109.035 %
Concentration per Run 2	109.459 %	107.192 %	0.749 ppb	252.906 ppb	1,580.126 ppb	8,328.499 ppb	1,015.442 ppb	4,723.677 ppb	112.143 %
Concentration per Run 3	109.137 %	109.487 %	0.768 ppb	251.075 ppb	1,526.308 ppb	8,227.619 ppb	990.011 ppb	4,644.078 ppb	112.878 %
Concentration RSD	0.5 %	4.0 %	3.2 %	8.1 %	6.7 %	6.4 %	5.5 %	7.4 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	11.128 ppb	17.860 ppb	1,089.780 ppb	10,760.163 ppb	9.299 ppb	13.703 ppb	22.832 ppb	120.489 ppb	104.116 %
Concentration per Run 1	10.057 ppb	16.353 ppb	1,003.725 ppb	9,906.891 ppb	8.765 ppb	12.789 ppb	21.328 ppb	111.483 ppb	109.440 %
Concentration per Run 2	11.623 ppb	18.207 ppb	1,134.251 ppb	11,186.900 ppb	9.526 ppb	14.245 ppb	23.664 ppb	124.755 ppb	101.020 %
Concentration per Run 3	11.704 ppb	19.019 ppb	1,131.365 ppb	11,186.697 ppb	9.606 ppb	14.074 ppb	23.506 ppb	125.229 ppb	101.888 %
Concentration RSD	8.3 %	7.7 %	6.8 %	6.9 %	5.0 %	5.8 %	5.7 %	6.5 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	6.762 ppb	1.444 ppb	17.275 ppb	0.083 ppb	99.986 %	0.071 ppb	0.902 ppb	97.996 %	3.109 ppb
Concentration per Run 1	6.485 ppb	0.985 ppb	15.995 ppb	0.044 ppb	105.044 %	0.065 ppb	0.960 ppb	101.910 %	2.791 ppb
Concentration per Run 2	6.878 ppb	1.785 ppb	17.894 ppb	0.077 ppb	96.871 %	0.073 ppb	0.915 ppb	96.131 %	3.214 ppb
Concentration per Run 3	6.922 ppb	1.563 ppb	17.937 ppb	0.127 ppb	98.043 %	0.076 ppb	0.832 ppb	95.947 %	3.320 ppb
Concentration RSD	3.6 %	28.6 %	6.4 %	50.7 %	4.4 %	8.3 %	7.2 %	3.5 %	9.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.341 ppb	91.556 ppb	109.814 %	109.231 %	0.070 ppb	0.145 ppb	164.037 ppb	106.420 %
Concentration per Run 1	0.314 ppb	85.725 ppb	112.474 %	111.908 %	0.048 ppb	0.111 ppb	154.169 ppb	110.623 %
Concentration per Run 2	0.354 ppb	94.837 ppb	108.193 %	107.740 %	0.077 ppb	0.162 ppb	168.805 ppb	104.348 %
Concentration per Run 3	0.356 ppb	94.105 ppb	108.775 %	108.046 %	0.085 ppb	0.163 ppb	169.139 ppb	104.288 %
Concentration RSD	6.9 %	5.5 %	2.1 %	2.1 %	28.0 %	20.5 %	5.2 %	3.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	98	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441542-03d5 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 2:20:17 PM	Vial	59		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.102 %	111.553 %	0.448 ppb	419.657 ppb	1,062.155 ppb	4,035.790 ppb	611.205 ppb	2,708.463 ppb	111.050 %
Concentration per Run 1	110.463 %	118.899 %	0.428 ppb	357.391 ppb	939.956 ppb	3,595.853 ppb	539.369 ppb	2,348.122 ppb	112.781 %
Concentration per Run 2	108.436 %	114.537 %	0.446 ppb	414.758 ppb	1,054.024 ppb	4,026.401 ppb	607.508 ppb	2,744.001 ppb	110.453 %
Concentration per Run 3	108.406 %	101.224 %	0.469 ppb	486.824 ppb	1,192.486 ppb	4,485.117 ppb	686.737 ppb	3,033.267 ppb	109.917 %
Concentration RSD	1.1 %	8.3 %	4.5 %	15.5 %	11.9 %	11.0 %	12.1 %	12.7 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	8.327 ppb	13.464 ppb	823.338 ppb	7,153.668 ppb	6.299 ppb	8.424 ppb	19.102 ppb	97.345 ppb	102.369 %
Concentration per Run 1	7.306 ppb	11.928 ppb	720.434 ppb	6,287.679 ppb	5.435 ppb	7.699 ppb	16.916 ppb	86.062 ppb	113.196 %
Concentration per Run 2	8.248 ppb	13.736 ppb	844.008 ppb	7,305.209 ppb	6.660 ppb	8.461 ppb	19.701 ppb	99.882 ppb	99.616 %
Concentration per Run 3	9.429 ppb	14.728 ppb	905.571 ppb	7,868.116 ppb	6.802 ppb	9.112 ppb	20.690 ppb	106.092 ppb	94.294 %
Concentration RSD	12.8 %	10.5 %	11.5 %	11.2 %	11.9 %	8.4 %	10.2 %	10.5 %	9.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	4.241 ppb	0.864 ppb	13.940 ppb	0.056 ppb	98.342 %	0.053 ppb	0.872 ppb	96.395 %	3.726 ppb
Concentration per Run 1	3.822 ppb	0.770 ppb	12.740 ppb	0.024 ppb	101.259 %	0.055 ppb	0.806 ppb	98.217 %	3.427 ppb
Concentration per Run 2	4.303 ppb	0.849 ppb	14.193 ppb	0.100 ppb	97.191 %	0.053 ppb	0.893 ppb	96.100 %	3.894 ppb
Concentration per Run 3	4.599 ppb	0.972 ppb	14.887 ppb	0.044 ppb	96.575 %	0.051 ppb	0.918 ppb	94.869 %	3.859 ppb
Concentration RSD	9.2 %	11.8 %	7.9 %	70.6 %	2.6 %	4.2 %	6.7 %	1.8 %	7.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.328 ppb	73.222 ppb	105.548 %	104.561 %	0.045 ppb	0.126 ppb	160.973 ppb	104.686 %
Concentration per Run 1	0.293 ppb	70.034 ppb	108.761 %	106.530 %	0.026 ppb	0.094 ppb	150.550 ppb	107.688 %
Concentration per Run 2	0.330 ppb	74.131 ppb	104.085 %	103.356 %	0.048 ppb	0.135 ppb	164.528 ppb	104.081 %
Concentration per Run 3	0.360 ppb	75.499 ppb	103.798 %	103.795 %	0.061 ppb	0.149 ppb	167.840 ppb	102.288 %
Concentration RSD	10.2 %	3.9 %	2.6 %	1.6 %	39.9 %	23.0 %	5.7 %	2.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	99	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2441795-04d5 A2-SEM	Rack	1		
Analysis started at:	8/21/2024 2:24:46 PM	Vial	60		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.238 %	111.324 %	1.137 ppb	1,601.867 ppb	1,495.865 ppb	6,543.048 ppb	756.543 ppb	3,253.710 ppb	108.129 %
Concentration per Run 1	109.202 %	115.226 %	1.145 ppb	1,495.144 ppb	1,422.632 ppb	6,123.053 ppb	726.830 ppb	3,040.971 ppb	107.443 %
Concentration per Run 2	107.856 %	108.569 %	1.140 ppb	1,670.655 ppb	1,515.644 ppb	6,766.417 ppb	764.473 ppb	3,359.235 ppb	108.711 %
Concentration per Run 3	107.657 %	110.176 %	1.125 ppb	1,639.803 ppb	1,549.320 ppb	6,739.675 ppb	778.325 ppb	3,360.924 ppb	108.231 %
Concentration RSD	0.8 %	3.1 %	0.9 %	5.8 %	4.4 %	5.6 %	3.5 %	5.7 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	17.061 ppb	721.710 ppb	325.001 ppb	10,756.522 ppb	2.440 ppb	400.987 ppb	673.364 ppb	308.249 ppb	101.995 %
Concentration per Run 1	15.068 ppb	665.986 ppb	301.520 ppb	9,893.324 ppb	2.313 ppb	376.119 ppb	625.604 ppb	285.205 ppb	107.948 %
Concentration per Run 2	17.770 ppb	751.883 ppb	336.905 ppb	11,238.931 ppb	2.532 ppb	416.738 ppb	697.593 ppb	320.613 ppb	98.704 %
Concentration per Run 3	18.346 ppb	747.261 ppb	336.578 ppb	11,137.312 ppb	2.476 ppb	410.102 ppb	696.896 ppb	318.929 ppb	99.333 %
Concentration RSD	10.3 %	6.7 %	6.3 %	7.0 %	4.7 %	5.4 %	6.1 %	6.5 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	6.087 ppb	0.946 ppb	26.121 ppb	0.132 ppb	97.104 %	1.340 ppb	20.157 ppb	95.182 %	4.797 ppb
Concentration per Run 1	5.844 ppb	1.046 ppb	24.385 ppb	0.149 ppb	100.454 %	1.278 ppb	18.748 ppb	97.941 %	4.334 ppb
Concentration per Run 2	6.332 ppb	1.201 ppb	26.907 ppb	0.139 ppb	95.391 %	1.370 ppb	21.006 ppb	92.910 %	4.985 ppb
Concentration per Run 3	6.086 ppb	0.589 ppb	27.072 ppb	0.109 ppb	95.468 %	1.371 ppb	20.718 ppb	94.694 %	5.073 ppb
Concentration RSD	4.0 %	33.6 %	5.8 %	15.7 %	3.0 %	4.0 %	6.1 %	2.7 %	8.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.378 ppb	104.221 ppb	107.187 %	106.895 %	0.022 ppb	0.102 ppb	143.074 ppb	104.474 %
Concentration per Run 1	0.357 ppb	98.263 ppb	108.922 %	109.195 %	0.013 ppb	0.072 ppb	134.649 ppb	107.524 %
Concentration per Run 2	0.374 ppb	108.414 ppb	105.160 %	104.263 %	0.023 ppb	0.112 ppb	146.905 ppb	102.920 %
Concentration per Run 3	0.403 ppb	105.988 ppb	107.479 %	107.226 %	0.031 ppb	0.120 ppb	147.669 ppb	102.978 %
Concentration RSD	6.1 %	5.1 %	1.8 %	2.3 %	41.3 %	25.6 %	5.1 %	2.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	100	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 2:38:06 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.930 %	102.754 %	61.904 ppb	5,940.359 ppb	5,892.077 ppb	61.244 ppb	5,593.584 ppb	5,605.428 ppb	100.722 %
Concentration per Run 1	97.550 %	104.897 %	61.675 ppb	5,601.142 ppb	5,539.720 ppb	57.559 ppb	5,322.280 ppb	5,395.942 ppb	100.916 %
Concentration per Run 2	96.876 %	104.897 %	62.150 ppb	5,877.502 ppb	5,852.218 ppb	59.965 ppb	5,524.892 ppb	5,556.872 ppb	100.786 %
Concentration per Run 3	96.363 %	98.470 %	61.888 ppb	6,342.432 ppb	6,284.294 ppb	66.209 ppb	5,933.579 ppb	5,863.470 ppb	100.464 %
Recovery Percentage 1			103.174 %	99.006 %	98.201 %	102.074 %	93.226 %	93.424 %	
Concentration RSD	0.6 %	3.6 %	0.4 %	6.3 %	6.3 %	7.3 %	5.6 %	4.2 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.610 ppb	59.162 ppb	58.854 ppb	5,928.376 ppb	60.197 ppb	59.778 ppb	62.082 ppb	62.780 ppb	94.314 %
Concentration per Run 1	54.397 ppb	55.836 ppb	55.399 ppb	5,566.629 ppb	56.238 ppb	56.043 ppb	59.030 ppb	58.486 ppb	97.848 %
Concentration per Run 2	58.141 ppb	60.400 ppb	60.080 ppb	6,092.156 ppb	62.170 ppb	62.147 ppb	62.816 ppb	64.917 ppb	91.495 %
Concentration per Run 3	60.292 ppb	61.250 ppb	61.083 ppb	6,126.344 ppb	62.184 ppb	61.143 ppb	64.400 ppb	64.937 ppb	93.598 %
Recovery Percentage 1	96.017 %	98.604 %	98.090 %	98.806 %	100.329 %	99.629 %	103.470 %	104.634 %	
Concentration RSD	5.2 %	4.9 %	5.2 %	5.3 %	5.7 %	5.5 %	4.4 %	5.9 %	3.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	61.230 ppb	60.516 ppb	58.999 ppb	61.589 ppb	96.267 %	59.048 ppb	62.963 ppb	95.340 %	60.392 ppb
Concentration per Run 1	56.599 ppb	56.234 ppb	55.473 ppb	57.694 ppb	100.241 %	55.748 ppb	59.621 ppb	98.710 %	58.229 ppb
Concentration per Run 2	64.355 ppb	64.129 ppb	60.325 ppb	63.305 ppb	94.941 %	60.436 ppb	64.067 ppb	93.053 %	60.220 ppb
Concentration per Run 3	62.735 ppb	61.186 ppb	61.197 ppb	63.769 ppb	93.618 %	60.960 ppb	65.202 ppb	94.258 %	62.729 ppb
Recovery Percentage 1	102.049 %	100.860 %	98.331 %	102.648 %		98.413 %	104.939 %		100.654 %
Concentration RSD	6.7 %	6.6 %	5.2 %	5.5 %	3.6 %	4.9 %	4.7 %	3.1 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.274 ppb	60.622 ppb	108.023 %	110.976 %	61.925 ppb	62.004 ppb	62.144 ppb	108.544 %
Concentration per Run 1	59.116 ppb	57.553 ppb	112.416 %	115.505 %	58.733 ppb	57.142 ppb	58.051 ppb	114.577 %
Concentration per Run 2	63.808 ppb	61.545 ppb	106.227 %	108.924 %	63.825 ppb	64.031 ppb	63.966 ppb	105.667 %
Concentration per Run 3	63.897 ppb	62.770 ppb	105.427 %	108.499 %	63.217 ppb	64.838 ppb	64.416 ppb	105.387 %
Recovery Percentage 1	103.790 %	101.037 %			103.209 %	103.339 %	103.574 %	
Concentration RSD	4.4 %	4.5 %	3.5 %	3.5 %	4.5 %	6.8 %	5.7 %	4.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	101	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 2:42:37 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.620 %	104.285 %	0.052 ppb	-48.514 ppb	2.387 ppb	2.237 ppb	-2.483 ppb	-13.009 ppb	98.456 %
Concentration per Run 1	97.870 %	100.306 %	0.058 ppb	-47.443 ppb	2.544 ppb	2.376 ppb	4.233 ppb	-13.802 ppb	98.399 %
Concentration per Run 2	97.487 %	111.324 %	0.039 ppb	-53.486 ppb	2.055 ppb	2.087 ppb	-14.509 ppb	-5.962 ppb	99.284 %
Concentration per Run 3	97.505 %	101.224 %	0.058 ppb	-44.615 ppb	2.562 ppb	2.250 ppb	2.826 ppb	-19.261 ppb	97.684 %
Recovery Percentage 1			10.304 %	-48.514 %	3.410 %	22.375 %	-2.483 %	-13.009 %	
Concentration RSD	0.2 %	5.9 %	21.7 %	9.3 %	12.0 %	6.5 %	420.3 %	51.4 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.052 ppb	0.193 ppb	0.212 ppb	14.978 ppb	0.066 ppb	0.014 ppb	0.030 ppb	0.043 ppb	92.839 %
Concentration per Run 1	0.084 ppb	0.183 ppb	0.143 ppb	14.535 ppb	0.065 ppb	0.087 ppb	0.012 ppb	0.025 ppb	95.028 %
Concentration per Run 2	0.055 ppb	0.166 ppb	0.140 ppb	13.514 ppb	0.062 ppb	-0.079 ppb	0.015 ppb	0.079 ppb	91.933 %
Concentration per Run 3	0.017 ppb	0.230 ppb	0.352 ppb	16.884 ppb	0.070 ppb	0.035 ppb	0.061 ppb	0.026 ppb	91.556 %
Recovery Percentage 1	1.041 %	19.283 %	21.154 %	29.955 %	13.145 %	0.724 %	2.975 %	0.867 %	
Concentration RSD	64.1 %	17.0 %	57.7 %	11.5 %	5.7 %	584.5 %	92.3 %	72.0 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.139 ppb	0.085 ppb	0.049 ppb	0.304 ppb	94.895 %	0.059 ppb	0.074 ppb	94.440 %	-0.127 ppb
Concentration per Run 1	0.121 ppb	0.021 ppb	0.050 ppb	0.277 ppb	100.794 %	0.053 ppb	0.069 ppb	99.065 %	-0.245 ppb
Concentration per Run 2	0.149 ppb	-0.083 ppb	0.046 ppb	0.324 ppb	95.709 %	0.069 ppb	0.066 ppb	93.932 %	-0.070 ppb
Concentration per Run 3	0.146 ppb	0.316 ppb	0.051 ppb	0.310 ppb	88.182 %	0.056 ppb	0.088 ppb	90.323 %	-0.067 ppb
Recovery Percentage 1	27.714 %	1.691 %	0.491 %	15.181 %		14.861 %	37.038 %		-4.242 %
Concentration RSD	11.1 %	245.1 %	5.0 %	7.9 %	6.7 %	14.6 %	16.2 %	4.7 %	80.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.099 ppb	0.114 ppb	102.490 %	103.766 %	0.526 ppb	0.634 ppb	0.157 ppb	102.031 %
Concentration per Run 1	0.075 ppb	0.134 ppb	108.542 %	108.494 %	0.415 ppb	0.469 ppb	0.139 ppb	108.292 %
Concentration per Run 2	0.106 ppb	0.101 ppb	102.316 %	104.108 %	0.515 ppb	0.773 ppb	0.153 ppb	100.628 %
Concentration per Run 3	0.117 ppb	0.108 ppb	96.611 %	98.697 %	0.647 ppb	0.659 ppb	0.178 ppb	97.172 %
Recovery Percentage 1	2.475 %	22.805 %			26.291 %	63.391 %	15.670 %	
Concentration RSD	22.0 %	15.1 %	5.8 %	4.7 %	22.1 %	24.2 %	12.8 %	5.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	102	User name	ALPHALAB\a2-icpmsq2	Comment	MDLs, Day 1
Analysis label:	WG1958897-1D10 6020TS	Rack	2		
Analysis started at:	8/21/2024 3:00:48 PM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.366 %	98.699 %	0.004 ppb	-48.299 ppb	-0.541 ppb	0.803 ppb	-6.291 ppb	-9.963 ppb	114.684 %
Concentration per Run 1	103.907 %	105.356 %	0.004 ppb	-51.466 ppb	-0.900 ppb	0.539 ppb	-6.258 ppb	-11.503 ppb	114.141 %
Concentration per Run 2	103.446 %	96.404 %	0.004 ppb	-48.093 ppb	-0.827 ppb	0.881 ppb	-9.991 ppb	-4.962 ppb	114.875 %
Concentration per Run 3	102.743 %	94.338 %	0.004 ppb	-45.338 ppb	0.104 ppb	0.990 ppb	-2.626 ppb	-13.425 ppb	115.035 %
Concentration RSD	0.6 %	5.9 %	4.5 %	6.4 %	103.5 %	29.3 %	58.5 %	44.5 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.352 ppb	0.127 ppb	0.017 ppb	16.761 ppb	0.065 ppb	-0.017 ppb	0.336 ppb	0.210 ppb	99.527 %
Concentration per Run 1	0.194 ppb	0.130 ppb	-0.009 ppb	37.198 ppb	0.015 ppb	-0.050 ppb	1.211 ppb	0.085 ppb	101.692 %
Concentration per Run 2	0.291 ppb	0.126 ppb	0.071 ppb	6.344 ppb	0.174 ppb	-0.071 ppb	-0.117 ppb	0.501 ppb	97.419 %
Concentration per Run 3	0.571 ppb	0.124 ppb	-0.011 ppb	6.740 ppb	0.005 ppb	0.071 ppb	-0.086 ppb	0.043 ppb	99.471 %
Concentration RSD	55.6 %	2.5 %	274.8 %	105.6 %	146.0 %	458.9 %	225.8 %	120.7 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.079 ppb	0.113 ppb	0.003 ppb	0.124 ppb	99.998 %	0.004 ppb	0.006 ppb	102.260 %	0.045 ppb
Concentration per Run 1	0.074 ppb	0.119 ppb	0.001 ppb	0.113 ppb	104.336 %	-0.001 ppb	0.001 ppb	109.048 %	-0.003 ppb
Concentration per Run 2	0.125 ppb	-0.063 ppb	0.006 ppb	0.170 ppb	98.211 %	0.007 ppb	0.007 ppb	100.229 %	0.075 ppb
Concentration per Run 3	0.036 ppb	0.283 ppb	0.003 ppb	0.089 ppb	97.446 %	0.004 ppb	0.011 ppb	97.503 %	0.061 ppb
Concentration RSD	56.7 %	153.4 %	84.7 %	33.8 %	3.8 %	116.9 %	86.3 %	5.9 %	93.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	2.177 ppb	0.028 ppb	111.980 %	113.547 %	0.471 ppb	0.305 ppb	0.032 ppb	141.981 %
Concentration per Run 1	0.059 ppb	-0.002 ppb	118.080 %	120.180 %	0.511 ppb	0.456 ppb	0.019 ppb	188.825 %
Concentration per Run 2	5.284 ppb	0.046 ppb	109.225 %	109.585 %	0.237 ppb	0.274 ppb	0.023 ppb	123.445 %
Concentration per Run 3	1.189 ppb	0.041 ppb	108.636 %	110.877 %	0.663 ppb	0.185 ppb	0.055 ppb	113.674 %
Concentration RSD	126.3 %	93.7 %	4.7 %	5.1 %	45.9 %	45.3 %	60.0 %	28.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	103	User name	ALPHALAB\a2-icpmsq2	Comment	MDLs, Day 1
Analysis label:	WG1958897-2D10 6020TS	Rack	2		
Analysis started at:	8/21/2024 3:05:15 PM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.901 %	113.007 %	0.608 ppb	224.436 ppb	177.293 ppb	177.836 ppb	162.335 ppb	881.142 ppb	100.421 %
Concentration per Run 1	100.220 %	117.062 %	0.609 ppb	201.454 ppb	165.404 ppb	167.229 ppb	148.404 ppb	818.777 ppb	100.372 %
Concentration per Run 2	100.286 %	110.635 %	0.604 ppb	233.112 ppb	179.643 ppb	184.041 ppb	169.912 ppb	898.243 ppb	100.210 %
Concentration per Run 3	99.197 %	111.324 %	0.611 ppb	238.743 ppb	186.833 ppb	182.238 ppb	168.688 ppb	926.406 ppb	100.683 %
Concentration RSD	0.6 %	3.1 %	0.6 %	9.0 %	6.2 %	5.2 %	7.4 %	6.3 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.309 ppb	3.694 ppb	3.590 ppb	388.366 ppb	0.958 ppb	1.831 ppb	3.909 ppb	19.559 ppb	98.080 %
Concentration per Run 1	2.319 ppb	3.628 ppb	3.441 ppb	349.595 ppb	0.861 ppb	1.687 ppb	3.949 ppb	17.752 ppb	103.170 %
Concentration per Run 2	2.320 ppb	3.603 ppb	3.807 ppb	398.622 ppb	0.978 ppb	1.899 ppb	3.721 ppb	20.188 ppb	97.558 %
Concentration per Run 3	2.287 ppb	3.851 ppb	3.522 ppb	416.881 ppb	1.035 ppb	1.907 ppb	4.057 ppb	20.736 ppb	93.512 %
Concentration RSD	0.8 %	3.7 %	5.3 %	9.0 %	9.3 %	6.8 %	4.4 %	8.1 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.091 ppb	3.913 ppb	1.861 ppb	1.670 ppb	96.944 %	0.612 ppb	0.414 ppb	95.814 %	2.435 ppb
Concentration per Run 1	1.060 ppb	3.551 ppb	1.787 ppb	1.609 ppb	99.676 %	0.627 ppb	0.416 ppb	96.533 %	2.201 ppb
Concentration per Run 2	1.065 ppb	3.839 ppb	1.851 ppb	1.762 ppb	94.957 %	0.578 ppb	0.388 ppb	94.438 %	2.553 ppb
Concentration per Run 3	1.149 ppb	4.348 ppb	1.944 ppb	1.640 ppb	96.199 %	0.630 ppb	0.437 ppb	96.470 %	2.550 ppb
Concentration RSD	4.5 %	10.3 %	4.2 %	4.8 %	2.5 %	4.7 %	5.8 %	1.2 %	8.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	3.318 ppb	6.027 ppb	105.761 %	105.973 %	1.631 ppb	0.841 ppb	1.240 ppb	104.214 %
Concentration per Run 1	3.230 ppb	5.681 ppb	107.907 %	108.050 %	1.527 ppb	0.750 ppb	1.162 ppb	107.449 %
Concentration per Run 2	3.352 ppb	6.231 ppb	103.494 %	103.631 %	1.664 ppb	0.880 ppb	1.281 ppb	101.981 %
Concentration per Run 3	3.372 ppb	6.169 ppb	105.882 %	106.237 %	1.701 ppb	0.892 ppb	1.279 ppb	103.212 %
Concentration RSD	2.3 %	5.0 %	2.1 %	2.1 %	5.6 %	9.4 %	5.5 %	2.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	104	User name	ALPHALAB\a2-icpmsq2	Comment	MDLs, Day 1
Analysis label:	WG1958897-3D10 6020TS	Rack	2		
Analysis started at:	8/21/2024 3:09:42 PM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.293 %	104.973 %	0.615 ppb	239.485 ppb	192.444 ppb	190.016 ppb	177.393 ppb	917.512 ppb	100.590 %
Concentration per Run 1	98.422 %	106.503 %	0.604 ppb	227.072 ppb	173.201 ppb	179.843 ppb	164.039 ppb	901.839 ppb	100.288 %
Concentration per Run 2	98.281 %	98.011 %	0.630 ppb	262.921 ppb	212.829 ppb	198.367 ppb	200.464 ppb	1,013.950 ppb	101.371 %
Concentration per Run 3	98.177 %	110.406 %	0.611 ppb	228.463 ppb	191.302 ppb	191.838 ppb	167.674 ppb	836.746 ppb	100.109 %
Concentration RSD	0.1 %	6.0 %	2.3 %	8.5 %	10.3 %	4.9 %	11.3 %	9.8 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.146 ppb	3.855 ppb	3.818 ppb	420.426 ppb	1.065 ppb	1.890 ppb	4.060 ppb	20.339 ppb	93.357 %
Concentration per Run 1	2.251 ppb	3.668 ppb	3.455 ppb	403.127 ppb	0.992 ppb	1.717 ppb	3.653 ppb	19.371 ppb	98.275 %
Concentration per Run 2	2.399 ppb	4.051 ppb	4.023 ppb	431.213 ppb	1.081 ppb	1.883 ppb	4.005 ppb	20.876 ppb	91.625 %
Concentration per Run 3	1.787 ppb	3.847 ppb	3.975 ppb	426.938 ppb	1.121 ppb	2.070 ppb	4.523 ppb	20.770 ppb	90.171 %
Concentration RSD	14.9 %	5.0 %	8.2 %	3.6 %	6.2 %	9.4 %	10.8 %	4.1 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.071 ppb	3.851 ppb	1.909 ppb	1.570 ppb	95.354 %	0.628 ppb	0.442 ppb	94.946 %	2.394 ppb
Concentration per Run 1	0.914 ppb	3.884 ppb	1.798 ppb	1.539 ppb	98.724 %	0.605 ppb	0.435 ppb	98.538 %	2.159 ppb
Concentration per Run 2	1.139 ppb	3.791 ppb	1.947 ppb	1.571 ppb	93.773 %	0.652 ppb	0.466 ppb	91.930 %	2.568 ppb
Concentration per Run 3	1.159 ppb	3.877 ppb	1.984 ppb	1.600 ppb	93.563 %	0.627 ppb	0.425 ppb	94.369 %	2.453 ppb
Concentration RSD	12.7 %	1.3 %	5.2 %	1.9 %	3.1 %	3.7 %	4.8 %	3.5 %	8.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	3.400 ppb	6.037 ppb	103.914 %	104.675 %	1.690 ppb	0.826 ppb	1.263 ppb	102.962 %
Concentration per Run 1	3.245 ppb	5.571 ppb	106.959 %	109.221 %	1.558 ppb	0.754 ppb	1.215 ppb	107.419 %
Concentration per Run 2	3.479 ppb	6.475 ppb	102.827 %	104.034 %	1.719 ppb	0.858 ppb	1.283 ppb	100.933 %
Concentration per Run 3	3.475 ppb	6.064 ppb	101.955 %	100.771 %	1.794 ppb	0.866 ppb	1.290 ppb	100.535 %
Concentration RSD	3.9 %	7.5 %	2.6 %	4.1 %	7.1 %	7.6 %	3.3 %	3.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	105	User name	ALPHALAB\a2-icpmsq2	Comment	MDLs, Day 1
Analysis label:	WG1958897-4D10 6020TS	Rack	2		
Analysis started at:	8/21/2024 3:14:10 PM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.215 %	97.858 %	0.608 ppb	263.673 ppb	193.845 ppb	195.176 ppb	190.086 ppb	944.019 ppb	96.567 %
Concentration per Run 1	96.367 %	95.945 %	0.609 ppb	262.000 ppb	191.064 ppb	193.102 ppb	200.007 ppb	948.788 ppb	97.340 %
Concentration per Run 2	96.649 %	99.847 %	0.618 ppb	255.783 ppb	190.579 ppb	189.943 ppb	170.691 ppb	924.537 ppb	96.650 %
Concentration per Run 3	95.629 %	97.781 %	0.598 ppb	273.235 ppb	199.891 ppb	202.484 ppb	199.562 ppb	958.731 ppb	95.710 %
Concentration RSD	0.5 %	2.0 %	1.7 %	3.4 %	2.7 %	3.3 %	8.8 %	1.9 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.025 ppb	4.059 ppb	4.063 ppb	405.770 ppb	0.996 ppb	2.084 ppb	3.979 ppb	20.362 ppb	92.569 %
Concentration per Run 1	2.092 ppb	4.077 ppb	4.295 ppb	398.046 ppb	0.992 ppb	2.081 ppb	3.948 ppb	20.223 ppb	92.860 %
Concentration per Run 2	1.932 ppb	3.923 ppb	3.866 ppb	409.710 ppb	1.087 ppb	2.084 ppb	3.841 ppb	20.123 ppb	93.254 %
Concentration per Run 3	2.052 ppb	4.178 ppb	4.027 ppb	409.554 ppb	0.909 ppb	2.086 ppb	4.147 ppb	20.741 ppb	91.594 %
Concentration RSD	4.1 %	3.2 %	5.3 %	1.6 %	8.9 %	0.1 %	3.9 %	1.6 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.120 ppb	3.778 ppb	1.897 ppb	1.737 ppb	94.476 %	0.632 ppb	0.442 ppb	93.619 %	2.338 ppb
Concentration per Run 1	1.183 ppb	3.874 ppb	1.858 ppb	1.592 ppb	94.109 %	0.631 ppb	0.487 ppb	92.644 %	2.525 ppb
Concentration per Run 2	1.143 ppb	3.789 ppb	1.889 ppb	1.716 ppb	94.683 %	0.633 ppb	0.401 ppb	94.687 %	2.214 ppb
Concentration per Run 3	1.033 ppb	3.671 ppb	1.943 ppb	1.903 ppb	94.635 %	0.631 ppb	0.437 ppb	93.524 %	2.274 ppb
Concentration RSD	7.0 %	2.7 %	2.3 %	9.0 %	0.3 %	0.2 %	9.8 %	1.1 %	7.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	3.383 ppb	6.209 ppb	103.542 %	103.728 %	1.663 ppb	0.831 ppb	1.284 ppb	101.699 %
Concentration per Run 1	3.376 ppb	6.349 ppb	103.579 %	102.942 %	1.617 ppb	0.786 ppb	1.272 ppb	100.652 %
Concentration per Run 2	3.366 ppb	5.955 ppb	103.150 %	104.246 %	1.682 ppb	0.840 ppb	1.279 ppb	103.316 %
Concentration per Run 3	3.406 ppb	6.324 ppb	103.896 %	103.995 %	1.690 ppb	0.868 ppb	1.299 ppb	101.130 %
Concentration RSD	0.6 %	3.6 %	0.4 %	0.7 %	2.4 %	5.0 %	1.1 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	106	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961531-2d10 2008TL	Rack	2		
Analysis started at:	8/21/2024 3:19:34 PM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.495 %	102.295 %	5.300 ppb	932.269 ppb	926.158 ppb	191.355 ppb	946.489 ppb	839.282 ppb	97.660 %
Concentration per Run 1	96.735 %	102.142 %	5.276 ppb	913.532 ppb	917.473 ppb	190.567 ppb	962.134 ppb	858.333 ppb	96.656 %
Concentration per Run 2	95.943 %	104.438 %	5.302 ppb	913.928 ppb	915.177 ppb	188.228 ppb	928.191 ppb	812.463 ppb	96.789 %
Concentration per Run 3	96.808 %	100.306 %	5.323 ppb	969.347 ppb	945.823 ppb	195.269 ppb	949.141 ppb	847.051 ppb	99.534 %
Concentration RSD	0.5 %	2.0 %	0.4 %	3.4 %	1.8 %	1.9 %	1.8 %	2.8 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.677 ppb	19.623 ppb	50.102 ppb	107.340 ppb	50.077 ppb	50.129 ppb	25.715 ppb	52.692 ppb	94.645 %
Concentration per Run 1	46.852 ppb	19.265 ppb	48.607 ppb	98.823 ppb	49.095 ppb	48.954 ppb	25.047 ppb	50.127 ppb	97.372 %
Concentration per Run 2	47.275 ppb	19.338 ppb	49.842 ppb	116.219 ppb	50.486 ppb	51.098 ppb	25.837 ppb	53.572 ppb	92.822 %
Concentration per Run 3	48.902 ppb	20.267 ppb	51.855 ppb	106.978 ppb	50.651 ppb	50.334 ppb	26.261 ppb	54.379 ppb	93.740 %
Concentration RSD	2.3 %	2.8 %	3.3 %	8.1 %	1.7 %	2.2 %	2.4 %	4.3 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.497 ppb	11.956 ppb	92.195 ppb	99.177 ppb	93.631 %	5.321 ppb	5.623 ppb	94.390 %	95.221 ppb
Concentration per Run 1	12.181 ppb	10.387 ppb	90.175 ppb	94.416 ppb	98.142 %	4.984 ppb	5.266 ppb	101.646 %	88.980 ppb
Concentration per Run 2	12.786 ppb	13.705 ppb	93.862 ppb	102.137 ppb	92.998 %	5.489 ppb	5.804 ppb	92.266 %	98.127 ppb
Concentration per Run 3	12.525 ppb	11.775 ppb	92.548 ppb	100.977 ppb	89.753 %	5.490 ppb	5.799 ppb	89.258 %	98.555 ppb
Concentration RSD	2.4 %	13.9 %	2.0 %	4.2 %	4.5 %	5.5 %	5.5 %	6.8 %	5.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	45.874 ppb	202.784 ppb	103.216 %	104.233 %	0.025 ppb	12.837 ppb	55.069 ppb	103.476 %
Concentration per Run 1	42.366 ppb	191.280 ppb	107.377 %	109.638 %	0.008 ppb	12.001 ppb	51.284 ppb	109.970 %
Concentration per Run 2	46.944 ppb	209.211 ppb	102.605 %	103.991 %	0.019 ppb	13.177 ppb	56.540 ppb	101.446 %
Concentration per Run 3	48.312 ppb	207.860 ppb	99.666 %	99.070 %	0.046 ppb	13.334 ppb	57.382 ppb	99.012 %
Concentration RSD	6.8 %	4.9 %	3.8 %	5.1 %	78.9 %	5.7 %	6.0 %	5.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	107	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-06 2008TL	Rack	2		
Analysis started at:	8/21/2024 3:24:01 PM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.703 %	103.749 %	0.067 ppb	14,366.818 ppb	4,967.379 ppb	936.064 ppb	1,685.943 ppb	24,555.773 ppb	94.118 %
Concentration per Run 1	92.763 %	106.044 %	0.057 ppb	13,942.569 ppb	4,853.516 ppb	926.721 ppb	1,661.440 ppb	24,011.184 ppb	93.566 %
Concentration per Run 2	93.608 %	106.504 %	0.062 ppb	13,983.828 ppb	4,861.631 ppb	919.408 ppb	1,650.309 ppb	24,109.623 ppb	95.393 %
Concentration per Run 3	91.737 %	98.699 %	0.082 ppb	15,174.058 ppb	5,186.991 ppb	962.064 ppb	1,746.079 ppb	25,546.513 ppb	93.396 %
Concentration RSD	1.0 %	4.2 %	19.6 %	4.9 %	3.8 %	2.4 %	3.1 %	3.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.887 ppb	1.673 ppb	122.451 ppb	1,858.407 ppb	0.938 ppb	2.351 ppb	3.323 ppb	8.793 ppb	92.519 %
Concentration per Run 1	1.725 ppb	1.466 ppb	118.934 ppb	1,759.758 ppb	0.868 ppb	2.139 ppb	3.193 ppb	8.192 ppb	99.396 %
Concentration per Run 2	1.794 ppb	1.721 ppb	123.655 ppb	1,879.014 ppb	0.974 ppb	2.308 ppb	3.407 ppb	9.119 ppb	86.983 %
Concentration per Run 3	2.141 ppb	1.832 ppb	124.763 ppb	1,936.448 ppb	0.972 ppb	2.605 ppb	3.367 ppb	9.067 ppb	91.178 %
Concentration RSD	11.8 %	11.2 %	2.5 %	4.8 %	6.4 %	10.0 %	3.4 %	5.9 %	6.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.369 ppb	0.284 ppb	157.544 ppb	0.850 ppb	91.862 %	0.011 ppb	0.036 ppb	93.405 %	-0.178 ppb
Concentration per Run 1	1.180 ppb	0.248 ppb	156.454 ppb	0.754 ppb	96.596 %	0.016 ppb	0.027 ppb	102.066 %	-0.320 ppb
Concentration per Run 2	1.585 ppb	0.185 ppb	164.641 ppb	0.846 ppb	89.501 %	0.006 ppb	0.046 ppb	91.199 %	-0.163 ppb
Concentration per Run 3	1.341 ppb	0.419 ppb	151.538 ppb	0.949 ppb	89.490 %	0.012 ppb	0.034 ppb	86.951 %	-0.051 ppb
Concentration RSD	14.9 %	42.6 %	4.2 %	11.5 %	4.5 %	46.3 %	26.9 %	8.3 %	76.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.779 ppb	32.524 ppb	103.538 %	104.294 %	0.040 ppb	0.064 ppb	2.591 ppb	100.125 %
Concentration per Run 1	0.732 ppb	32.009 ppb	109.014 %	111.239 %	0.011 ppb	0.023 ppb	2.397 ppb	106.809 %
Concentration per Run 2	0.820 ppb	32.807 ppb	101.306 %	101.756 %	0.036 ppb	0.080 ppb	2.664 ppb	97.273 %
Concentration per Run 3	0.783 ppb	32.757 ppb	100.293 %	99.886 %	0.073 ppb	0.089 ppb	2.712 ppb	96.293 %
Concentration RSD	5.7 %	1.4 %	4.6 %	5.8 %	77.9 %	56.5 %	6.5 %	5.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	108	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961531-3d10 2008TL	Rack	2		
Analysis started at:	8/21/2024 3:28:30 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.916 %	102.907 %	5.264 ppb	2,443.469 ppb	1,470.442 ppb	298.102 ppb	1,104.806 ppb	3,256.625 ppb	99.921 %
Concentration per Run 1	99.735 %	112.701 %	5.234 ppb	2,317.231 ppb	1,431.099 ppb	282.618 ppb	1,087.053 ppb	3,194.552 ppb	99.880 %
Concentration per Run 2	99.005 %	104.438 %	5.249 ppb	2,398.550 ppb	1,442.576 ppb	293.656 ppb	1,099.711 ppb	3,373.317 ppb	100.309 %
Concentration per Run 3	98.007 %	91.584 %	5.308 ppb	2,614.627 ppb	1,537.651 ppb	318.031 ppb	1,127.655 ppb	3,202.006 ppb	99.572 %
Concentration RSD	0.9 %	10.3 %	0.7 %	6.3 %	4.0 %	6.1 %	1.9 %	3.1 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.592 ppb	19.373 ppb	62.389 ppb	288.087 ppb	49.484 ppb	49.695 ppb	25.398 ppb	52.009 ppb	98.153 %
Concentration per Run 1	44.182 ppb	18.357 ppb	59.532 ppb	273.825 ppb	46.063 ppb	46.616 ppb	23.677 ppb	48.928 ppb	106.130 %
Concentration per Run 2	48.784 ppb	20.149 ppb	63.660 ppb	290.270 ppb	50.823 ppb	51.603 ppb	26.458 ppb	53.506 ppb	95.906 %
Concentration per Run 3	49.808 ppb	19.613 ppb	63.976 ppb	300.167 ppb	51.566 ppb	50.865 ppb	26.060 ppb	53.592 ppb	92.422 %
Concentration RSD	6.3 %	4.7 %	4.0 %	4.6 %	6.0 %	5.4 %	5.9 %	5.1 %	7.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	11.822 ppb	11.575 ppb	108.051 ppb	98.706 ppb	97.730 %	5.226 ppb	5.523 ppb	98.913 %	91.027 ppb
Concentration per Run 1	11.407 ppb	10.951 ppb	105.780 ppb	93.236 ppb	102.500 %	4.950 ppb	5.332 ppb	105.464 %	87.953 ppb
Concentration per Run 2	12.137 ppb	11.722 ppb	108.938 ppb	101.078 ppb	95.297 %	5.421 ppb	5.673 ppb	96.007 %	91.998 ppb
Concentration per Run 3	11.923 ppb	12.053 ppb	109.434 ppb	101.805 ppb	95.393 %	5.307 ppb	5.565 ppb	95.268 %	93.130 ppb
Concentration RSD	3.2 %	4.9 %	1.8 %	4.8 %	4.2 %	4.7 %	3.2 %	5.7 %	3.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	43.906 ppb	205.362 ppb	106.903 %	107.904 %	0.003 ppb	12.817 ppb	55.535 ppb	103.175 %
Concentration per Run 1	41.390 ppb	199.566 ppb	111.344 %	113.094 %	-0.017 ppb	11.832 ppb	51.519 ppb	108.982 %
Concentration per Run 2	44.394 ppb	205.824 ppb	104.486 %	104.511 %	0.006 ppb	13.241 ppb	57.292 ppb	100.089 %
Concentration per Run 3	45.933 ppb	210.695 ppb	104.879 %	106.106 %	0.020 ppb	13.377 ppb	57.795 ppb	100.455 %
Concentration RSD	5.3 %	2.7 %	3.6 %	4.2 %	638.2 %	6.7 %	6.3 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	109	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961531-4d10 2008TL	Rack	2		
Analysis started at:	8/21/2024 3:32:58 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.723 %	104.667 %	5.441 ppb	2,499.278 ppb	1,489.126 ppb	305.584 ppb	1,107.028 ppb	3,350.800 ppb	97.409 %
Concentration per Run 1	97.755 %	111.783 %	5.472 ppb	2,379.977 ppb	1,433.623 ppb	302.955 ppb	1,050.043 ppb	3,206.232 ppb	97.564 %
Concentration per Run 2	98.087 %	100.536 %	5.484 ppb	2,543.944 ppb	1,524.126 ppb	313.418 ppb	1,117.133 ppb	3,525.407 ppb	97.481 %
Concentration per Run 3	97.329 %	101.683 %	5.366 ppb	2,573.914 ppb	1,509.630 ppb	300.379 ppb	1,153.909 ppb	3,320.762 ppb	97.182 %
Concentration RSD	0.4 %	5.9 %	1.2 %	4.2 %	3.3 %	2.3 %	4.8 %	4.8 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	48.973 ppb	20.051 ppb	64.933 ppb	310.879 ppb	51.837 ppb	51.463 ppb	26.366 ppb	54.272 ppb	94.776 %
Concentration per Run 1	46.033 ppb	19.252 ppb	63.618 ppb	294.721 ppb	49.463 ppb	48.868 ppb	25.048 ppb	51.959 ppb	100.227 %
Concentration per Run 2	50.043 ppb	20.729 ppb	64.204 ppb	310.333 ppb	52.752 ppb	52.560 ppb	26.983 ppb	55.357 ppb	93.519 %
Concentration per Run 3	50.843 ppb	20.172 ppb	66.979 ppb	327.582 ppb	53.295 ppb	52.961 ppb	27.067 ppb	55.500 ppb	90.583 %
Concentration RSD	5.3 %	3.7 %	2.8 %	5.3 %	4.0 %	4.4 %	4.3 %	3.7 %	5.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.548 ppb	12.428 ppb	113.303 ppb	102.289 ppb	95.837 %	5.335 ppb	5.588 ppb	96.078 %	94.145 ppb
Concentration per Run 1	12.290 ppb	12.424 ppb	113.102 ppb	97.480 ppb	99.849 %	5.132 ppb	5.365 ppb	101.913 %	91.305 ppb
Concentration per Run 2	12.758 ppb	12.261 ppb	112.555 ppb	103.509 ppb	92.966 %	5.357 ppb	5.669 ppb	92.768 %	95.563 ppb
Concentration per Run 3	12.597 ppb	12.598 ppb	114.254 ppb	105.877 ppb	94.697 %	5.516 ppb	5.729 ppb	93.554 %	95.567 ppb
Concentration RSD	1.9 %	1.4 %	0.8 %	4.2 %	3.7 %	3.6 %	3.5 %	5.3 %	2.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	46.768 ppb	211.569 ppb	105.295 %	106.885 %	0.002 ppb	13.205 ppb	57.060 ppb	100.825 %
Concentration per Run 1	44.564 ppb	208.485 ppb	109.005 %	111.043 %	-0.008 ppb	12.623 ppb	54.751 ppb	105.263 %
Concentration per Run 2	47.612 ppb	214.835 ppb	103.238 %	104.423 %	0.001 ppb	13.574 ppb	58.795 ppb	97.621 %
Concentration per Run 3	48.128 ppb	211.387 ppb	103.644 %	105.189 %	0.013 ppb	13.418 ppb	57.633 ppb	99.592 %
Concentration RSD	4.1 %	1.5 %	3.1 %	3.4 %	567.8 %	3.9 %	3.6 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	110	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-10 2008TL	Rack	2		
Analysis started at:	8/21/2024 3:37:27 PM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.800 %	101.607 %	0.117 ppb	14,364.253 ppb	5,238.597 ppb	1,639.926 ppb	1,738.884 ppb	24,836.377 ppb	96.407 %
Concentration per Run 1	93.247 %	100.076 %	0.108 ppb	14,440.788 ppb	5,286.703 ppb	1,669.794 ppb	1,765.586 ppb	24,841.235 ppb	96.821 %
Concentration per Run 2	92.518 %	106.044 %	0.118 ppb	13,980.285 ppb	5,155.760 ppb	1,613.848 ppb	1,693.554 ppb	24,454.312 ppb	95.248 %
Concentration per Run 3	92.633 %	98.699 %	0.125 ppb	14,671.685 ppb	5,273.330 ppb	1,636.137 ppb	1,757.512 ppb	25,213.585 ppb	97.151 %
Concentration RSD	0.4 %	3.8 %	7.5 %	2.5 %	1.4 %	1.7 %	2.3 %	1.5 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.985 ppb	4.953 ppb	191.473 ppb	3,436.685 ppb	1.661 ppb	3.728 ppb	5.818 ppb	19.576 ppb	94.136 %
Concentration per Run 1	3.009 ppb	4.698 ppb	192.116 ppb	3,315.368 ppb	1.566 ppb	3.565 ppb	5.426 ppb	18.978 ppb	98.999 %
Concentration per Run 2	2.896 ppb	4.967 ppb	189.340 ppb	3,497.839 ppb	1.649 ppb	3.803 ppb	5.964 ppb	19.472 ppb	93.564 %
Concentration per Run 3	3.048 ppb	5.196 ppb	192.964 ppb	3,496.849 ppb	1.767 ppb	3.814 ppb	6.065 ppb	20.277 ppb	89.844 %
Concentration RSD	2.6 %	5.0 %	1.0 %	3.1 %	6.1 %	3.8 %	5.9 %	3.4 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	2.260 ppb	0.450 ppb	158.330 ppb	0.956 ppb	93.677 %	0.046 ppb	0.114 ppb	94.980 %	1.092 ppb
Concentration per Run 1	2.139 ppb	0.381 ppb	155.155 ppb	0.888 ppb	96.919 %	0.040 ppb	0.109 ppb	96.447 %	0.850 ppb
Concentration per Run 2	2.174 ppb	0.759 ppb	160.340 ppb	0.908 ppb	92.209 %	0.041 ppb	0.118 ppb	95.618 %	1.171 ppb
Concentration per Run 3	2.468 ppb	0.209 ppb	159.496 ppb	1.072 ppb	91.902 %	0.057 ppb	0.114 ppb	92.877 %	1.256 ppb
Concentration RSD	8.0 %	62.6 %	1.8 %	10.5 %	3.0 %	21.0 %	4.0 %	2.0 %	19.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.109 ppb	40.918 ppb	103.451 %	104.091 %	0.027 ppb	0.057 ppb	6.576 ppb	99.526 %
Concentration per Run 1	1.030 ppb	39.674 ppb	105.641 %	107.259 %	0.011 ppb	0.028 ppb	6.146 ppb	103.814 %
Concentration per Run 2	1.094 ppb	42.047 ppb	102.260 %	103.474 %	0.030 ppb	0.066 ppb	6.741 ppb	98.570 %
Concentration per Run 3	1.204 ppb	41.034 ppb	102.453 %	101.542 %	0.040 ppb	0.076 ppb	6.842 ppb	96.194 %
Concentration RSD	7.9 %	2.9 %	1.8 %	2.8 %	54.2 %	44.0 %	5.7 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	111	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961531-5d10 2008TL	Rack	2		
Analysis started at:	8/21/2024 3:41:57 PM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.410 %	105.662 %	5.330 ppb	2,346.542 ppb	1,457.397 ppb	365.797 ppb	1,096.886 ppb	3,233.698 ppb	98.134 %
Concentration per Run 1	96.662 %	108.340 %	5.270 ppb	2,196.582 ppb	1,369.449 ppb	331.196 ppb	1,019.032 ppb	2,888.524 ppb	97.325 %
Concentration per Run 2	96.390 %	100.765 %	5.357 ppb	2,526.028 ppb	1,557.581 ppb	409.111 ppb	1,204.269 ppb	3,605.202 ppb	97.418 %
Concentration per Run 3	96.178 %	107.881 %	5.363 ppb	2,317.017 ppb	1,445.161 ppb	357.084 ppb	1,067.356 ppb	3,207.367 ppb	99.658 %
Concentration RSD	0.3 %	4.0 %	1.0 %	7.1 %	6.5 %	10.8 %	8.8 %	11.1 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.739 ppb	19.957 ppb	70.437 ppb	462.875 ppb	49.869 ppb	50.216 ppb	25.696 ppb	54.197 ppb	95.520 %
Concentration per Run 1	44.627 ppb	18.592 ppb	65.366 ppb	430.575 ppb	46.503 ppb	47.107 ppb	24.177 ppb	50.735 ppb	98.773 %
Concentration per Run 2	49.815 ppb	20.716 ppb	73.770 ppb	479.185 ppb	51.172 ppb	51.095 ppb	26.492 ppb	55.435 ppb	96.993 %
Concentration per Run 3	48.774 ppb	20.562 ppb	72.174 ppb	478.865 ppb	51.931 ppb	52.446 ppb	26.418 ppb	56.420 ppb	90.794 %
Concentration RSD	5.7 %	5.9 %	6.3 %	6.0 %	5.9 %	5.5 %	5.1 %	5.6 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.318 ppb	11.762 ppb	109.100 ppb	97.020 ppb	95.254 %	5.220 ppb	5.516 ppb	95.951 %	88.772 ppb
Concentration per Run 1	11.353 ppb	9.973 ppb	99.340 ppb	89.293 ppb	99.267 %	5.079 ppb	5.415 ppb	97.348 %	83.589 ppb
Concentration per Run 2	12.277 ppb	12.987 ppb	116.231 ppb	99.070 ppb	94.440 %	5.166 ppb	5.515 ppb	99.660 %	89.948 ppb
Concentration per Run 3	13.324 ppb	12.325 ppb	111.729 ppb	102.697 ppb	92.054 %	5.414 ppb	5.620 ppb	90.845 %	92.780 ppb
Concentration RSD	8.0 %	13.5 %	8.0 %	7.1 %	3.9 %	3.3 %	1.9 %	4.8 %	5.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	45.583 ppb	209.172 ppb	104.534 %	105.563 %	-0.006 ppb	12.626 ppb	54.885 ppb	101.911 %
Concentration per Run 1	42.204 ppb	195.346 ppb	106.452 %	107.080 %	-0.012 ppb	11.941 ppb	50.926 ppb	105.299 %
Concentration per Run 2	46.220 ppb	215.088 ppb	107.091 %	108.031 %	-0.013 ppb	12.679 ppb	55.697 ppb	102.956 %
Concentration per Run 3	48.325 ppb	217.083 ppb	100.058 %	101.578 %	0.007 ppb	13.259 ppb	58.032 ppb	97.479 %
Concentration RSD	6.8 %	5.7 %	3.7 %	3.3 %	183.6 %	5.2 %	6.6 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	112	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 3:46:26 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.684 %	100.918 %	62.143 ppb	6,089.087 ppb	5,986.199 ppb	61.898 ppb	5,814.143 ppb	5,789.243 ppb	102.170 %
Concentration per Run 1	95.909 %	99.388 %	62.498 ppb	5,980.530 ppb	5,820.693 ppb	60.247 ppb	5,835.793 ppb	5,769.811 ppb	101.548 %
Concentration per Run 2	95.794 %	99.847 %	61.576 ppb	6,172.018 ppb	6,176.083 ppb	63.151 ppb	5,795.982 ppb	5,822.778 ppb	102.831 %
Concentration per Run 3	95.351 %	103.520 %	62.355 ppb	6,114.714 ppb	5,961.821 ppb	62.296 ppb	5,810.655 ppb	5,775.140 ppb	102.130 %
Recovery Percentage 1			103.572 %	101.485 %	99.770 %	103.164 %	96.902 %	96.487 %	
Concentration RSD	0.3 %	2.2 %	0.8 %	1.6 %	3.0 %	2.4 %	0.3 %	0.5 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.858 ppb	60.202 ppb	60.382 ppb	6,059.843 ppb	61.641 ppb	61.060 ppb	62.662 ppb	63.988 ppb	92.688 %
Concentration per Run 1	55.159 ppb	58.850 ppb	58.055 ppb	5,926.089 ppb	59.997 ppb	59.268 ppb	60.085 ppb	61.806 ppb	93.352 %
Concentration per Run 2	60.182 ppb	60.878 ppb	59.696 ppb	6,070.188 ppb	62.710 ppb	60.853 ppb	63.043 ppb	64.413 ppb	92.565 %
Concentration per Run 3	61.233 ppb	60.879 ppb	63.394 ppb	6,183.252 ppb	62.217 ppb	63.058 ppb	64.857 ppb	65.746 ppb	92.146 %
Recovery Percentage 1	98.097 %	100.337 %	100.636 %	100.997 %	102.735 %	101.766 %	104.436 %	106.647 %	
Concentration RSD	5.5 %	1.9 %	4.5 %	2.1 %	2.3 %	3.1 %	3.8 %	3.1 %	0.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	61.720 ppb	59.763 ppb	58.851 ppb	63.022 ppb	96.368 %	58.860 ppb	63.397 ppb	94.634 %	62.425 ppb
Concentration per Run 1	59.755 ppb	55.659 ppb	56.124 ppb	59.192 ppb	100.331 %	55.892 ppb	60.169 ppb	98.391 %	59.091 ppb
Concentration per Run 2	61.832 ppb	61.520 ppb	59.831 ppb	63.908 ppb	94.301 %	60.182 ppb	65.452 ppb	92.416 %	63.858 ppb
Concentration per Run 3	63.574 ppb	62.111 ppb	60.599 ppb	65.965 ppb	94.473 %	60.507 ppb	64.571 ppb	93.093 %	64.325 ppb
Recovery Percentage 1	102.867 %	99.606 %	98.085 %	105.036 %		98.101 %	105.662 %		104.041 %
Concentration RSD	3.1 %	6.0 %	4.1 %	5.5 %	3.6 %	4.4 %	4.5 %	3.5 %	4.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	63.314 ppb	60.684 ppb	104.887 %	104.641 %	62.525 ppb	62.560 ppb	62.811 ppb	102.621 %
Concentration per Run 1	59.640 ppb	57.406 ppb	108.171 %	106.485 %	59.060 ppb	57.102 ppb	57.800 ppb	108.364 %
Concentration per Run 2	65.096 ppb	61.962 ppb	104.072 %	104.907 %	63.963 ppb	64.201 ppb	65.218 ppb	100.139 %
Concentration per Run 3	65.205 ppb	62.682 ppb	102.416 %	102.533 %	64.552 ppb	66.376 ppb	65.415 ppb	99.360 %
Recovery Percentage 1	105.523 %	101.139 %			104.208 %	104.266 %	104.685 %	
Concentration RSD	5.0 %	4.7 %	2.8 %	1.9 %	4.8 %	7.8 %	6.9 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	113	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 3:50:58 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.553 %	108.952 %	0.030 ppb	-54.745 ppb	0.845 ppb	0.350 ppb	-0.125 ppb	-9.742 ppb	96.605 %
Concentration per Run 1	98.348 %	109.717 %	0.023 ppb	-56.158 ppb	0.350 ppb	-0.016 ppb	7.570 ppb	-16.159 ppb	95.709 %
Concentration per Run 2	97.936 %	106.274 %	0.026 ppb	-50.185 ppb	2.896 ppb	0.699 ppb	-1.236 ppb	-11.665 ppb	98.098 %
Concentration per Run 3	96.374 %	110.865 %	0.042 ppb	-57.891 ppb	-0.712 ppb	0.368 ppb	-6.709 ppb	-1.404 ppb	96.008 %
Recovery Percentage 1			6.090 %	-54.745 %	1.207 %	3.504 %	-0.125 %	-9.742 %	
Concentration RSD	1.1 %	2.2 %	33.5 %	7.4 %	219.5 %	102.2 %	5,755.2 %	77.6 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.006 ppb	0.035 ppb	-0.062 ppb	8.987 ppb	0.053 ppb	-0.012 ppb	-0.152 ppb	-0.055 ppb	95.159 %
Concentration per Run 1	-0.013 ppb	0.029 ppb	-0.068 ppb	6.434 ppb	0.047 ppb	-0.063 ppb	-0.156 ppb	-0.132 ppb	104.159 %
Concentration per Run 2	-0.012 ppb	0.058 ppb	0.003 ppb	9.258 ppb	0.081 ppb	-0.020 ppb	-0.156 ppb	-0.015 ppb	93.241 %
Concentration per Run 3	0.007 ppb	0.017 ppb	-0.121 ppb	11.270 ppb	0.031 ppb	0.047 ppb	-0.146 ppb	-0.016 ppb	88.077 %
Recovery Percentage 1	-0.117 %	3.481 %	-6.195 %	17.975 %	10.607 %	-0.599 %	-15.233 %	-1.091 %	
Concentration RSD	193.1 %	60.8 %	100.6 %	27.0 %	48.5 %	463.2 %	3.8 %	123.5 %	8.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.093 ppb	0.139 ppb	0.076 ppb	0.442 ppb	95.087 %	0.039 ppb	0.043 ppb	94.266 %	0.152 ppb
Concentration per Run 1	0.102 ppb	0.165 ppb	0.052 ppb	0.310 ppb	100.197 %	0.029 ppb	0.029 ppb	102.705 %	0.080 ppb
Concentration per Run 2	0.076 ppb	0.136 ppb	0.112 ppb	0.462 ppb	95.385 %	0.054 ppb	0.074 ppb	91.268 %	0.126 ppb
Concentration per Run 3	0.102 ppb	0.117 ppb	0.064 ppb	0.553 ppb	89.678 %	0.033 ppb	0.026 ppb	88.826 %	0.252 ppb
Recovery Percentage 1	18.655 %	2.786 %	0.761 %	22.083 %		9.700 %	21.484 %		5.082 %
Concentration RSD	16.2 %	17.4 %	42.0 %	27.9 %	5.5 %	35.4 %	62.3 %	7.9 %	58.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.323 ppb	0.121 ppb	102.757 %	103.891 %	0.486 ppb	0.612 ppb	0.068 ppb	98.855 %
Concentration per Run 1	0.266 ppb	0.106 ppb	105.792 %	109.339 %	0.367 ppb	0.458 ppb	0.053 ppb	105.574 %
Concentration per Run 2	0.335 ppb	0.172 ppb	104.658 %	104.743 %	0.511 ppb	0.784 ppb	0.093 ppb	97.039 %
Concentration per Run 3	0.369 ppb	0.086 ppb	97.819 %	97.592 %	0.580 ppb	0.593 ppb	0.058 ppb	93.952 %
Recovery Percentage 1	8.076 %	24.237 %			24.302 %	61.164 %	6.799 %	
Concentration RSD	16.3 %	37.0 %	4.2 %	5.7 %	22.3 %	26.8 %	32.4 %	6.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	114	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961531-1 2008TL	Rack	2		
Analysis started at:	8/21/2024 3:56:24 PM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.173 %	105.279 %	0.010 ppb	-59.342 ppb	-1.689 ppb	0.913 ppb	-3.579 ppb	-9.093 ppb	97.812 %
Concentration per Run 1	96.598 %	109.947 %	0.006 ppb	-61.699 ppb	-1.574 ppb	0.949 ppb	-3.212 ppb	-12.912 ppb	97.363 %
Concentration per Run 2	96.157 %	97.093 %	0.017 ppb	-56.036 ppb	-2.806 ppb	0.799 ppb	-7.309 ppb	-7.513 ppb	98.964 %
Concentration per Run 3	95.762 %	108.799 %	0.008 ppb	-60.292 ppb	-0.687 ppb	0.992 ppb	-0.215 ppb	-6.853 ppb	97.109 %
Concentration RSD	0.4 %	6.8 %	60.8 %	5.0 %	63.0 %	11.1 %	99.5 %	36.6 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.038 ppb	-0.011 ppb	-0.080 ppb	3.217 ppb	0.036 ppb	-0.108 ppb	-0.138 ppb	0.078 ppb	93.850 %
Concentration per Run 1	-0.024 ppb	-0.008 ppb	-0.138 ppb	2.222 ppb	0.024 ppb	-0.130 ppb	-0.132 ppb	0.053 ppb	96.840 %
Concentration per Run 2	-0.053 ppb	-0.029 ppb	-0.015 ppb	3.382 ppb	0.056 ppb	-0.086 ppb	-0.120 ppb	0.126 ppb	93.418 %
Concentration per Run 3	-0.038 ppb	0.003 ppb	-0.088 ppb	4.047 ppb	0.028 ppb	-0.107 ppb	-0.161 ppb	0.055 ppb	91.292 %
Concentration RSD	37.9 %	140.3 %	77.1 %	28.7 %	49.0 %	20.5 %	15.4 %	53.2 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.029 ppb	0.011 ppb	0.022 ppb	0.141 ppb	98.202 %	0.008 ppb	0.015 ppb	98.349 %	-0.019 ppb
Concentration per Run 1	0.006 ppb	0.028 ppb	0.026 ppb	0.154 ppb	101.159 %	0.012 ppb	0.017 ppb	103.903 %	-0.069 ppb
Concentration per Run 2	0.046 ppb	-0.025 ppb	0.020 ppb	0.086 ppb	96.621 %	0.004 ppb	0.014 ppb	95.161 %	-0.017 ppb
Concentration per Run 3	0.034 ppb	0.030 ppb	0.019 ppb	0.183 ppb	96.825 %	0.009 ppb	0.016 ppb	95.983 %	0.027 ppb
Concentration RSD	70.1 %	284.0 %	16.4 %	35.2 %	2.6 %	46.4 %	9.8 %	4.9 %	247.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.146 ppb	0.077 ppb	105.702 %	106.889 %	0.099 ppb	0.149 ppb	0.025 ppb	109.456 %
Concentration per Run 1	0.116 ppb	0.104 ppb	108.777 %	108.935 %	0.072 ppb	0.082 ppb	0.025 ppb	119.885 %
Concentration per Run 2	0.149 ppb	0.092 ppb	103.584 %	105.182 %	0.102 ppb	0.186 ppb	0.030 ppb	105.195 %
Concentration per Run 3	0.172 ppb	0.036 ppb	104.746 %	106.550 %	0.124 ppb	0.178 ppb	0.021 ppb	103.289 %
Concentration RSD	19.1 %	46.7 %	2.6 %	1.8 %	26.1 %	39.1 %	17.3 %	8.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	115	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961531-6 2008TL	Rack	2		
Analysis started at:	8/21/2024 4:00:51 PM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.040 %	103.979 %	0.127 ppb	13,545.493 ppb	4,942.679 ppb	1,521.434 ppb	1,633.837 ppb	23,098.318 ppb	98.196 %
Concentration per Run 1	94.679 %	105.126 %	0.134 ppb	13,037.068 ppb	4,767.726 ppb	1,459.788 ppb	1,577.016 ppb	21,992.096 ppb	97.372 %
Concentration per Run 2	93.834 %	96.404 %	0.124 ppb	14,490.139 ppb	5,289.290 ppb	1,628.170 ppb	1,725.173 ppb	24,634.609 ppb	99.331 %
Concentration per Run 3	93.606 %	110.406 %	0.122 ppb	13,109.273 ppb	4,771.021 ppb	1,476.344 ppb	1,599.322 ppb	22,668.248 ppb	97.884 %
Concentration RSD	0.6 %	6.8 %	5.1 %	6.0 %	6.1 %	6.1 %	4.9 %	5.9 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.803 ppb	4.258 ppb	186.324 ppb	3,277.587 ppb	1.553 ppb	3.471 ppb	5.521 ppb	18.913 ppb	94.429 %
Concentration per Run 1	2.595 ppb	4.033 ppb	176.700 ppb	3,126.896 ppb	1.398 ppb	3.176 ppb	5.153 ppb	18.158 ppb	98.778 %
Concentration per Run 2	3.116 ppb	4.689 ppb	197.180 ppb	3,454.307 ppb	1.706 ppb	3.842 ppb	5.598 ppb	19.839 ppb	90.814 %
Concentration per Run 3	2.697 ppb	4.052 ppb	185.092 ppb	3,251.559 ppb	1.556 ppb	3.395 ppb	5.812 ppb	18.743 ppb	93.694 %
Concentration RSD	9.8 %	8.8 %	5.5 %	5.0 %	9.9 %	9.8 %	6.1 %	4.5 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	2.101 ppb	0.576 ppb	149.986 ppb	0.470 ppb	94.420 %	0.049 ppb	0.127 ppb	94.567 %	-0.408 ppb
Concentration per Run 1	1.870 ppb	0.629 ppb	142.107 ppb	0.383 ppb	97.080 %	0.075 ppb	0.122 ppb	95.802 %	-0.414 ppb
Concentration per Run 2	2.154 ppb	0.625 ppb	155.254 ppb	0.540 ppb	92.520 %	0.041 ppb	0.148 ppb	91.990 %	-0.354 ppb
Concentration per Run 3	2.279 ppb	0.473 ppb	152.596 ppb	0.487 ppb	93.660 %	0.031 ppb	0.113 ppb	95.910 %	-0.455 ppb
Concentration RSD	10.0 %	15.4 %	4.6 %	17.1 %	2.5 %	46.4 %	14.1 %	2.4 %	12.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.256 ppb	39.694 ppb	105.121 %	106.366 %	0.106 ppb	0.134 ppb	6.300 ppb	101.117 %
Concentration per Run 1	0.260 ppb	38.498 ppb	107.079 %	107.630 %	0.099 ppb	0.092 ppb	5.955 ppb	104.554 %
Concentration per Run 2	0.259 ppb	40.914 ppb	104.145 %	105.451 %	0.091 ppb	0.154 ppb	6.486 ppb	99.661 %
Concentration per Run 3	0.248 ppb	39.671 ppb	104.138 %	106.016 %	0.127 ppb	0.157 ppb	6.458 ppb	99.136 %
Concentration RSD	2.6 %	3.0 %	1.6 %	1.1 %	18.2 %	27.5 %	4.7 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	116	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446712-01 2008TL	Rack	2		
Analysis started at:	8/21/2024 4:05:20 PM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.448 %	113.084 %	0.041 ppb	139,178.457 ppb	2,817.887 ppb	202.430 ppb	31,563.055 ppb	21,612.661 ppb	96.342 %
Concentration per Run 1	98.749 %	112.012 %	0.035 ppb	136,137.434 ppb	2,715.941 ppb	190.847 ppb	30,965.199 ppb	21,371.004 ppb	95.856 %
Concentration per Run 2	98.766 %	111.324 %	0.044 ppb	142,117.567 ppb	2,858.270 ppb	209.579 ppb	31,900.554 ppb	21,794.469 ppb	97.474 %
Concentration per Run 3	97.830 %	115.914 %	0.042 ppb	139,280.369 ppb	2,879.449 ppb	206.864 ppb	31,823.410 ppb	21,672.512 ppb	95.697 %
Concentration RSD	0.5 %	2.2 %	11.4 %	2.1 %	3.2 %	5.0 %	1.6 %	1.0 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.392 ppb	0.416 ppb	164.162 ppb	332.019 ppb	0.199 ppb	0.959 ppb	1.220 ppb	10.608 ppb	87.895 %
Concentration per Run 1	0.318 ppb	0.429 ppb	159.895 ppb	323.679 ppb	0.221 ppb	0.904 ppb	1.185 ppb	10.606 ppb	89.014 %
Concentration per Run 2	0.389 ppb	0.410 ppb	165.293 ppb	331.706 ppb	0.157 ppb	0.957 ppb	1.170 ppb	10.425 ppb	83.883 %
Concentration per Run 3	0.468 ppb	0.409 ppb	167.298 ppb	340.671 ppb	0.219 ppb	1.016 ppb	1.305 ppb	10.793 ppb	90.788 %
Concentration RSD	19.1 %	2.8 %	2.3 %	2.6 %	18.4 %	5.8 %	6.1 %	1.7 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.981 ppb	0.008 ppb	258.114 ppb	2.219 ppb	89.185 %	0.006 ppb	0.008 ppb	90.290 %	-0.555 ppb
Concentration per Run 1	12.854 ppb	0.004 ppb	248.823 ppb	2.196 ppb	90.697 %	0.010 ppb	0.003 ppb	90.657 %	-0.578 ppb
Concentration per Run 2	13.115 ppb	0.013 ppb	260.883 ppb	2.236 ppb	88.443 %	0.004 ppb	0.003 ppb	89.420 %	-0.517 ppb
Concentration per Run 3	12.974 ppb	0.009 ppb	264.636 ppb	2.226 ppb	88.416 %	0.002 ppb	0.017 ppb	90.795 %	-0.570 ppb
Concentration RSD	1.0 %	52.8 %	3.2 %	0.9 %	1.5 %	77.1 %	101.6 %	0.8 %	5.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.247 ppb	4.787 ppb	102.033 %	103.756 %	0.152 ppb	0.290 ppb	0.542 ppb	92.039 %
Concentration per Run 1	0.228 ppb	4.875 ppb	102.389 %	103.515 %	0.122 ppb	0.236 ppb	0.530 ppb	95.017 %
Concentration per Run 2	0.254 ppb	4.864 ppb	100.119 %	103.235 %	0.151 ppb	0.312 ppb	0.545 ppb	90.726 %
Concentration per Run 3	0.258 ppb	4.621 ppb	103.591 %	104.519 %	0.183 ppb	0.321 ppb	0.550 ppb	90.374 %
Concentration RSD	6.7 %	3.0 %	1.7 %	0.7 %	20.2 %	16.1 %	2.0 %	2.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	117	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446712-02 2008TL	Rack	2		
Analysis started at:	8/21/2024 4:09:48 PM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.165 %	126.779 %	0.078 ppb	62,087.701 ppb	2,057.711 ppb	1,613.299 ppb	48,437.908 ppb	13,333.224 ppb	103.464 %
Concentration per Run 1	115.849 %	132.900 %	0.084 ppb	58,998.100 ppb	1,920.820 ppb	1,525.396 ppb	46,468.939 ppb	12,696.477 ppb	103.509 %
Concentration per Run 2	116.395 %	120.046 %	0.071 ppb	63,207.197 ppb	2,106.714 ppb	1,652.171 ppb	48,762.029 ppb	13,488.110 ppb	103.063 %
Concentration per Run 3	116.252 %	127.391 %	0.080 ppb	64,057.806 ppb	2,145.598 ppb	1,662.330 ppb	50,082.755 ppb	13,815.085 ppb	103.822 %
Concentration RSD	0.2 %	5.1 %	8.3 %	4.4 %	5.8 %	4.7 %	3.8 %	4.3 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	19.441 ppb	12.355 ppb	80.672 ppb	3,918.123 ppb	1.579 ppb	7.342 ppb	19.483 ppb	76.856 ppb	96.249 %
Concentration per Run 1	17.649 ppb	11.440 ppb	76.369 ppb	3,726.426 ppb	1.501 ppb	6.831 ppb	18.305 ppb	72.089 ppb	101.817 %
Concentration per Run 2	20.154 ppb	12.898 ppb	82.092 ppb	3,955.738 ppb	1.613 ppb	7.791 ppb	20.105 ppb	78.693 ppb	93.367 %
Concentration per Run 3	20.521 ppb	12.727 ppb	83.554 ppb	4,072.207 ppb	1.623 ppb	7.406 ppb	20.040 ppb	79.786 ppb	93.562 %
Concentration RSD	8.0 %	6.5 %	4.7 %	4.5 %	4.3 %	6.6 %	5.2 %	5.4 %	5.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	5.909 ppb	0.909 ppb	88.027 ppb	20.181 ppb	94.359 %	0.027 ppb	0.060 ppb	93.784 %	-0.165 ppb
Concentration per Run 1	5.424 ppb	0.963 ppb	81.648 ppb	18.814 ppb	97.198 %	0.029 ppb	0.064 ppb	97.583 %	-0.284 ppb
Concentration per Run 2	6.039 ppb	0.922 ppb	91.144 ppb	20.835 ppb	93.521 %	0.030 ppb	0.059 ppb	91.045 %	-0.115 ppb
Concentration per Run 3	6.263 ppb	0.844 ppb	91.289 ppb	20.895 ppb	92.358 %	0.021 ppb	0.056 ppb	92.724 %	-0.096 ppb
Concentration RSD	7.4 %	6.7 %	6.3 %	5.9 %	2.7 %	18.2 %	6.5 %	3.6 %	62.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.410 ppb	18.961 ppb	103.541 %	102.828 %	2.085 ppb	0.155 ppb	4.087 ppb	96.333 %
Concentration per Run 1	1.367 ppb	17.999 ppb	110.109 %	106.281 %	1.955 ppb	0.120 ppb	3.762 ppb	103.019 %
Concentration per Run 2	1.454 ppb	19.391 ppb	96.853 %	97.930 %	2.174 ppb	0.177 ppb	4.256 ppb	90.308 %
Concentration per Run 3	1.409 ppb	19.493 ppb	103.661 %	104.274 %	2.125 ppb	0.168 ppb	4.244 ppb	95.670 %
Concentration RSD	3.1 %	4.4 %	6.4 %	4.2 %	5.5 %	19.9 %	6.9 %	6.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	118	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447216-01 2008TL	Rack	2		
Analysis started at:	8/21/2024 4:14:16 PM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.943 %	102.984 %	0.010 ppb	9,941.582 ppb	4,250.445 ppb	80.526 ppb	1,113.999 ppb	16,069.059 ppb	106.644 %
Concentration per Run 1	101.793 %	107.651 %	0.008 ppb	9,375.560 ppb	3,970.653 ppb	75.121 ppb	1,070.109 ppb	15,265.403 ppb	104.974 %
Concentration per Run 2	102.398 %	104.438 %	0.002 ppb	9,976.209 ppb	4,270.817 ppb	80.830 ppb	1,117.409 ppb	16,236.826 ppb	107.554 %
Concentration per Run 3	101.638 %	96.863 %	0.019 ppb	10,472.978 ppb	4,509.865 ppb	85.627 ppb	1,154.479 ppb	16,704.948 ppb	107.403 %
Concentration RSD	0.4 %	5.4 %	89.1 %	5.5 %	6.4 %	6.5 %	3.8 %	4.6 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.348 ppb	0.379 ppb	14.772 ppb	147.980 ppb	0.097 ppb	0.343 ppb	1.077 ppb	1.261 ppb	102.045 %
Concentration per Run 1	0.292 ppb	0.361 ppb	14.091 ppb	141.422 ppb	0.111 ppb	0.320 ppb	1.090 ppb	1.310 ppb	106.951 %
Concentration per Run 2	0.374 ppb	0.391 ppb	15.372 ppb	145.055 ppb	0.096 ppb	0.315 ppb	0.967 ppb	1.231 ppb	102.144 %
Concentration per Run 3	0.378 ppb	0.386 ppb	14.854 ppb	157.465 ppb	0.083 ppb	0.394 ppb	1.173 ppb	1.242 ppb	97.038 %
Concentration RSD	14.0 %	4.3 %	4.4 %	5.7 %	14.5 %	12.9 %	9.6 %	3.4 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.577 ppb	0.092 ppb	76.956 ppb	0.410 ppb	104.707 %	-0.004 ppb	0.004 ppb	102.957 %	-0.663 ppb
Concentration per Run 1	0.548 ppb	0.133 ppb	71.111 ppb	0.391 ppb	108.671 %	-0.004 ppb	0.002 ppb	106.313 %	-0.725 ppb
Concentration per Run 2	0.506 ppb	0.088 ppb	79.381 ppb	0.359 ppb	101.445 %	-0.001 ppb	0.005 ppb	100.675 %	-0.627 ppb
Concentration per Run 3	0.676 ppb	0.054 ppb	80.375 ppb	0.480 ppb	104.003 %	-0.006 ppb	0.005 ppb	101.883 %	-0.638 ppb
Concentration RSD	15.3 %	43.5 %	6.6 %	15.3 %	3.5 %	67.4 %	32.4 %	2.9 %	8.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.067 ppb	9.247 ppb	110.824 %	110.840 %	0.173 ppb	0.037 ppb	0.172 ppb	104.866 %
Concentration per Run 1	0.054 ppb	8.635 ppb	114.860 %	113.433 %	0.144 ppb	0.002 ppb	0.168 ppb	110.583 %
Concentration per Run 2	0.074 ppb	9.407 ppb	107.648 %	108.222 %	0.180 ppb	0.057 ppb	0.174 ppb	101.552 %
Concentration per Run 3	0.074 ppb	9.700 ppb	109.965 %	110.865 %	0.196 ppb	0.051 ppb	0.175 ppb	102.464 %
Concentration RSD	17.2 %	6.0 %	3.3 %	2.4 %	15.5 %	82.6 %	2.3 %	4.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index: 119
Analysis label: L2447216-02 2008TL
Analysis started at: 8/21/2024 4:18:45 PM
User name ALPHALAB\a2-icpmsq2
Rack 2
Vial 17
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.065 %	118.210 %	0.007 ppb	9,466.698 ppb	4,128.632 ppb	64.911 ppb	1,105.961 ppb	15,729.456 ppb	112.811 %
Concentration per Run 1	106.910 %	125.096 %	0.006 ppb	9,366.434 ppb	4,094.040 ppb	65.625 ppb	1,151.160 ppb	16,070.446 ppb	112.016 %
Concentration per Run 2	107.979 %	116.603 %	0.009 ppb	9,634.167 ppb	4,175.250 ppb	67.692 ppb	1,116.528 ppb	15,799.721 ppb	114.456 %
Concentration per Run 3	106.305 %	112.931 %	0.007 ppb	9,399.492 ppb	4,116.607 ppb	61.416 ppb	1,050.197 ppb	15,318.201 ppb	111.960 %
Concentration RSD	0.8 %	5.3 %	25.5 %	1.5 %	1.0 %	4.9 %	4.6 %	2.4 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.420 ppb	0.368 ppb	14.607 ppb	123.240 ppb	0.075 ppb	0.450 ppb	2.154 ppb	1.589 ppb	106.092 %
Concentration per Run 1	0.449 ppb	0.343 ppb	14.794 ppb	121.860 ppb	0.090 ppb	0.377 ppb	1.931 ppb	1.510 ppb	111.388 %
Concentration per Run 2	0.334 ppb	0.407 ppb	15.182 ppb	121.501 ppb	0.065 ppb	0.427 ppb	2.326 ppb	1.649 ppb	104.113 %
Concentration per Run 3	0.477 ppb	0.353 ppb	13.845 ppb	126.359 ppb	0.069 ppb	0.545 ppb	2.206 ppb	1.608 ppb	102.775 %
Concentration RSD	18.1 %	9.5 %	4.7 %	2.2 %	17.9 %	19.2 %	9.4 %	4.5 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.573 ppb	0.092 ppb	79.073 ppb	0.263 ppb	107.947 %	-0.005 ppb	0.004 ppb	105.542 %	-0.696 ppb
Concentration per Run 1	0.572 ppb	0.034 ppb	79.169 ppb	0.255 ppb	111.162 %	-0.006 ppb	0.004 ppb	111.908 %	-0.695 ppb
Concentration per Run 2	0.579 ppb	0.106 ppb	79.011 ppb	0.267 ppb	106.124 %	-0.005 ppb	0.007 ppb	100.755 %	-0.706 ppb
Concentration per Run 3	0.569 ppb	0.137 ppb	79.038 ppb	0.267 ppb	106.555 %	-0.003 ppb	0.003 ppb	103.964 %	-0.687 ppb
Concentration RSD	0.9 %	57.5 %	0.1 %	2.6 %	2.6 %	37.0 %	46.2 %	5.4 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.085 ppb	9.585 ppb	110.616 %	110.982 %	0.149 ppb	0.023 ppb	0.192 ppb	101.387 %
Concentration per Run 1	0.079 ppb	9.093 ppb	114.621 %	115.475 %	0.122 ppb	-0.004 ppb	0.182 ppb	106.820 %
Concentration per Run 2	0.087 ppb	9.817 ppb	107.444 %	106.954 %	0.163 ppb	0.034 ppb	0.200 ppb	97.908 %
Concentration per Run 3	0.087 ppb	9.846 ppb	109.783 %	110.517 %	0.163 ppb	0.039 ppb	0.194 ppb	99.434 %
Concentration RSD	5.4 %	4.4 %	3.3 %	3.9 %	16.0 %	102.7 %	4.8 %	4.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index: 120
Analysis label: L2447216-03 2008TL
Analysis started at: 8/21/2024 4:23:13 PM
User name ALPHALAB\a2-icpmsq2
Rack 2
Vial 18
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.077 %	124.407 %	0.004 ppb	9,403.597 ppb	4,134.571 ppb	66.287 ppb	1,081.644 ppb	15,698.686 ppb	103.965 %
Concentration per Run 1	102.983 %	130.375 %	0.006 ppb	9,072.369 ppb	3,967.592 ppb	61.617 ppb	1,088.801 ppb	15,533.222 ppb	110.702 %
Concentration per Run 2	104.679 %	128.769 %	0.001 ppb	9,032.816 ppb	3,983.028 ppb	64.000 ppb	1,048.248 ppb	15,235.483 ppb	105.070 %
Concentration per Run 3	95.567 %	114.078 %	0.006 ppb	10,105.606 ppb	4,453.094 ppb	73.246 ppb	1,107.884 ppb	16,327.353 ppb	96.122 %
Concentration RSD	4.8 %	7.2 %	75.0 %	6.5 %	6.7 %	9.3 %	2.8 %	3.6 %	7.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.386 ppb	0.408 ppb	14.689 ppb	123.854 ppb	0.084 ppb	0.429 ppb	1.003 ppb	0.750 ppb	112.990 %
Concentration per Run 1	0.375 ppb	0.355 ppb	13.817 ppb	117.463 ppb	0.076 ppb	0.303 ppb	0.860 ppb	0.551 ppb	119.481 %
Concentration per Run 2	0.351 ppb	0.436 ppb	15.407 ppb	123.452 ppb	0.079 ppb	0.514 ppb	1.081 ppb	0.829 ppb	110.922 %
Concentration per Run 3	0.432 ppb	0.433 ppb	14.842 ppb	130.647 ppb	0.099 ppb	0.470 ppb	1.069 ppb	0.871 ppb	108.568 %
Concentration RSD	10.7 %	11.3 %	5.5 %	5.3 %	15.0 %	26.0 %	12.4 %	23.1 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.540 ppb	0.095 ppb	76.600 ppb	0.266 ppb	112.824 %	-0.006 ppb	0.004 ppb	111.245 %	-0.692 ppb
Concentration per Run 1	0.597 ppb	-0.026 ppb	74.700 ppb	0.228 ppb	116.749 %	-0.006 ppb	0.004 ppb	117.622 %	-0.702 ppb
Concentration per Run 2	0.416 ppb	0.098 ppb	76.998 ppb	0.271 ppb	111.229 %	-0.006 ppb	0.002 ppb	107.832 %	-0.666 ppb
Concentration per Run 3	0.606 ppb	0.213 ppb	78.102 ppb	0.300 ppb	110.494 %	-0.005 ppb	0.004 ppb	108.281 %	-0.707 ppb
Concentration RSD	19.9 %	125.5 %	2.3 %	13.7 %	3.0 %	13.2 %	28.0 %	5.0 %	3.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.065 ppb	9.124 ppb	115.602 %	115.206 %	0.142 ppb	0.017 ppb	0.153 ppb	107.965 %
Concentration per Run 1	0.049 ppb	8.690 ppb	118.595 %	119.517 %	0.109 ppb	-0.004 ppb	0.138 ppb	114.565 %
Concentration per Run 2	0.074 ppb	9.390 ppb	113.908 %	112.408 %	0.154 ppb	0.024 ppb	0.158 ppb	104.809 %
Concentration per Run 3	0.072 ppb	9.292 ppb	114.304 %	113.692 %	0.162 ppb	0.031 ppb	0.161 ppb	104.521 %
Concentration RSD	21.0 %	4.2 %	2.2 %	3.3 %	20.3 %	106.2 %	8.1 %	5.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	121	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-01 2008TL	Rack	2		
Analysis started at:	8/21/2024 4:27:41 PM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.038 %	116.603 %	0.063 ppb	14,050.775 ppb	4,907.714 ppb	972.174 ppb	1,675.194 ppb	23,811.108 ppb	106.897 %
Concentration per Run 1	99.858 %	121.653 %	0.067 ppb	13,447.051 ppb	4,759.605 ppb	937.765 ppb	1,659.951 ppb	22,985.150 ppb	105.751 %
Concentration per Run 2	100.400 %	116.144 %	0.067 ppb	14,334.481 ppb	4,961.215 ppb	995.312 ppb	1,698.021 ppb	24,239.149 ppb	107.709 %
Concentration per Run 3	99.854 %	112.012 %	0.056 ppb	14,370.793 ppb	5,002.321 ppb	983.446 ppb	1,667.610 ppb	24,209.025 ppb	107.230 %
Concentration RSD	0.3 %	4.1 %	9.8 %	3.7 %	2.6 %	3.1 %	1.2 %	3.0 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.933 ppb	1.715 ppb	121.252 ppb	1,893.129 ppb	0.914 ppb	2.544 ppb	3.613 ppb	8.436 ppb	103.409 %
Concentration per Run 1	1.890 ppb	1.564 ppb	116.922 ppb	1,796.026 ppb	0.914 ppb	2.617 ppb	3.339 ppb	7.576 ppb	111.086 %
Concentration per Run 2	2.111 ppb	1.704 ppb	122.442 ppb	1,950.349 ppb	0.890 ppb	2.270 ppb	3.697 ppb	9.022 ppb	100.087 %
Concentration per Run 3	1.799 ppb	1.877 ppb	124.393 ppb	1,933.013 ppb	0.938 ppb	2.744 ppb	3.804 ppb	8.708 ppb	99.055 %
Concentration RSD	8.3 %	9.2 %	3.2 %	4.5 %	2.6 %	9.6 %	6.7 %	9.0 %	6.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.264 ppb	0.161 ppb	153.124 ppb	0.356 ppb	102.716 %	0.005 ppb	0.031 ppb	103.021 %	-0.700 ppb
Concentration per Run 1	1.103 ppb	0.083 ppb	146.289 ppb	0.346 ppb	108.296 %	0.003 ppb	0.034 ppb	110.708 %	-0.735 ppb
Concentration per Run 2	1.299 ppb	0.181 ppb	157.947 ppb	0.375 ppb	100.575 %	0.010 ppb	0.027 ppb	101.052 %	-0.685 ppb
Concentration per Run 3	1.389 ppb	0.220 ppb	155.136 ppb	0.346 ppb	99.279 %	0.000 ppb	0.032 ppb	97.302 %	-0.680 ppb
Concentration RSD	11.6 %	43.6 %	4.0 %	4.8 %	4.7 %	106.3 %	11.6 %	6.7 %	4.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.119 ppb	31.522 ppb	109.931 %	111.083 %	0.038 ppb	0.031 ppb	2.247 ppb	104.637 %
Concentration per Run 1	0.100 ppb	29.278 ppb	114.625 %	116.501 %	0.019 ppb	0.010 ppb	2.073 ppb	109.618 %
Concentration per Run 2	0.126 ppb	33.201 ppb	108.900 %	109.805 %	0.038 ppb	0.044 ppb	2.300 ppb	102.591 %
Concentration per Run 3	0.132 ppb	32.086 ppb	106.267 %	106.944 %	0.056 ppb	0.038 ppb	2.368 ppb	101.700 %
Concentration RSD	14.5 %	6.4 %	3.9 %	4.4 %	49.4 %	58.6 %	6.9 %	4.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	122	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-02 2008TL	Rack	2		
Analysis started at:	8/21/2024 4:32:10 PM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.734 %	111.171 %	0.029 ppb	14,307.013 ppb	4,702.883 ppb	376.967 ppb	1,590.000 ppb	23,541.360 ppb	109.951 %
Concentration per Run 1	102.472 %	113.390 %	0.032 ppb	13,726.678 ppb	4,503.114 ppb	356.032 ppb	1,528.338 ppb	22,815.124 ppb	109.267 %
Concentration per Run 2	102.860 %	110.406 %	0.030 ppb	14,176.329 ppb	4,628.007 ppb	378.123 ppb	1,625.788 ppb	23,288.945 ppb	109.739 %
Concentration per Run 3	102.870 %	109.717 %	0.026 ppb	15,018.031 ppb	4,977.528 ppb	396.747 ppb	1,615.875 ppb	24,520.010 ppb	110.847 %
Concentration RSD	0.2 %	1.8 %	9.5 %	4.6 %	5.2 %	5.4 %	3.4 %	3.7 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.082 ppb	0.871 ppb	45.563 ppb	727.796 ppb	0.332 ppb	1.011 ppb	1.955 ppb	3.741 ppb	101.639 %
Concentration per Run 1	0.893 ppb	0.866 ppb	43.092 ppb	681.756 ppb	0.313 ppb	0.981 ppb	1.737 ppb	3.689 ppb	102.930 %
Concentration per Run 2	1.100 ppb	0.846 ppb	45.067 ppb	739.193 ppb	0.325 ppb	0.949 ppb	1.950 ppb	3.644 ppb	103.233 %
Concentration per Run 3	1.252 ppb	0.900 ppb	48.531 ppb	762.439 ppb	0.357 ppb	1.103 ppb	2.178 ppb	3.890 ppb	98.753 %
Concentration RSD	16.6 %	3.2 %	6.0 %	5.7 %	6.8 %	8.0 %	11.3 %	3.5 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.926 ppb	0.115 ppb	148.723 ppb	0.384 ppb	102.144 %	0.000 ppb	0.012 ppb	101.905 %	-0.721 ppb
Concentration per Run 1	0.911 ppb	0.077 ppb	139.971 ppb	0.383 ppb	107.571 %	-0.003 ppb	0.014 ppb	105.497 %	-0.736 ppb
Concentration per Run 2	0.911 ppb	0.213 ppb	149.572 ppb	0.389 ppb	100.296 %	0.001 ppb	0.003 ppb	100.956 %	-0.688 ppb
Concentration per Run 3	0.956 ppb	0.055 ppb	156.626 ppb	0.378 ppb	98.566 %	0.001 ppb	0.019 ppb	99.262 %	-0.739 ppb
Concentration RSD	2.8 %	74.5 %	5.6 %	1.5 %	4.7 %	765.5 %	70.5 %	3.2 %	4.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.128 ppb	24.990 ppb	110.853 %	110.380 %	0.020 ppb	0.020 ppb	0.985 ppb	104.548 %
Concentration per Run 1	0.097 ppb	23.617 ppb	114.238 %	114.204 %	0.013 ppb	-0.002 ppb	0.912 ppb	110.649 %
Concentration per Run 2	0.137 ppb	25.330 ppb	109.980 %	108.940 %	0.017 ppb	0.029 ppb	1.001 ppb	101.725 %
Concentration per Run 3	0.149 ppb	26.023 ppb	108.342 %	107.995 %	0.030 ppb	0.032 ppb	1.043 ppb	101.269 %
Concentration RSD	21.0 %	5.0 %	2.7 %	3.0 %	42.6 %	94.2 %	6.8 %	5.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	123	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-03 2008TL	Rack	2		
Analysis started at:	8/21/2024 4:36:38 PM	Vial	21		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.397 %	111.706 %	0.035 ppb	14,426.916 ppb	4,802.632 ppb	572.295 ppb	1,609.344 ppb	23,676.454 ppb	108.570 %
Concentration per Run 1	101.447 %	108.340 %	0.035 ppb	14,259.208 ppb	4,757.851 ppb	547.157 ppb	1,555.467 ppb	23,058.126 ppb	109.088 %
Concentration per Run 2	101.128 %	117.521 %	0.037 ppb	14,556.638 ppb	4,838.885 ppb	586.474 ppb	1,697.713 ppb	24,398.448 ppb	108.088 %
Concentration per Run 3	101.616 %	109.258 %	0.035 ppb	14,464.902 ppb	4,811.159 ppb	583.255 ppb	1,574.851 ppb	23,572.788 ppb	108.534 %
Concentration RSD	0.2 %	4.5 %	3.0 %	1.1 %	0.9 %	3.8 %	4.8 %	2.9 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.183 ppb	1.025 ppb	62.635 ppb	1,080.389 ppb	0.497 ppb	1.168 ppb	2.378 ppb	4.625 ppb	104.232 %
Concentration per Run 1	0.967 ppb	1.036 ppb	60.148 ppb	1,034.320 ppb	0.470 ppb	1.297 ppb	2.380 ppb	4.502 ppb	106.291 %
Concentration per Run 2	1.209 ppb	1.035 ppb	65.180 ppb	1,123.354 ppb	0.547 ppb	1.079 ppb	2.294 ppb	4.801 ppb	105.543 %
Concentration per Run 3	1.373 ppb	1.004 ppb	62.578 ppb	1,083.493 ppb	0.475 ppb	1.129 ppb	2.459 ppb	4.573 ppb	100.861 %
Concentration RSD	17.3 %	1.8 %	4.0 %	4.1 %	8.7 %	9.8 %	3.5 %	3.4 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.017 ppb	0.191 ppb	149.718 ppb	0.334 ppb	103.429 %	0.001 ppb	0.017 ppb	103.607 %	-0.743 ppb
Concentration per Run 1	0.885 ppb	0.104 ppb	139.691 ppb	0.322 ppb	107.121 %	0.000 ppb	0.014 ppb	105.636 %	-0.798 ppb
Concentration per Run 2	1.158 ppb	0.225 ppb	160.830 ppb	0.298 ppb	101.960 %	-0.001 ppb	0.020 ppb	104.795 %	-0.728 ppb
Concentration per Run 3	1.007 ppb	0.243 ppb	148.633 ppb	0.384 ppb	101.205 %	0.005 ppb	0.017 ppb	100.390 %	-0.703 ppb
Concentration RSD	13.5 %	39.7 %	7.1 %	13.3 %	3.1 %	226.5 %	18.3 %	2.7 %	6.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.105 ppb	26.932 ppb	111.152 %	111.715 %	0.019 ppb	0.021 ppb	1.291 ppb	104.209 %
Concentration per Run 1	0.100 ppb	25.176 ppb	113.817 %	112.973 %	0.003 ppb	-0.003 ppb	1.206 ppb	109.191 %
Concentration per Run 2	0.122 ppb	28.283 ppb	111.346 %	113.701 %	0.022 ppb	0.033 ppb	1.329 ppb	102.469 %
Concentration per Run 3	0.093 ppb	27.337 ppb	108.294 %	108.472 %	0.031 ppb	0.032 ppb	1.340 ppb	100.968 %
Concentration RSD	14.7 %	5.9 %	2.5 %	2.5 %	76.6 %	100.6 %	5.8 %	4.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	124	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 4:41:07 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.573 %	112.548 %	62.240 ppb	5,924.384 ppb	5,860.942 ppb	60.866 ppb	5,659.923 ppb	5,525.157 ppb	109.791 %
Concentration per Run 1	102.655 %	105.585 %	61.983 ppb	5,965.716 ppb	5,918.698 ppb	60.608 ppb	5,745.294 ppb	5,488.028 ppb	108.734 %
Concentration per Run 2	102.994 %	123.719 %	62.387 ppb	5,705.894 ppb	5,650.281 ppb	60.147 ppb	5,717.544 ppb	5,561.124 ppb	110.609 %
Concentration per Run 3	102.069 %	108.340 %	62.349 ppb	6,101.543 ppb	6,013.848 ppb	61.844 ppb	5,516.930 ppb	5,526.319 ppb	110.029 %
Recovery Percentage 1			103.733 %	98.740 %	97.682 %	101.444 %	94.332 %	92.086 %	
Concentration RSD	0.5 %	8.7 %	0.4 %	3.4 %	3.2 %	1.4 %	2.2 %	0.7 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	56.781 ppb	59.050 ppb	59.712 ppb	5,892.206 ppb	60.464 ppb	59.462 ppb	61.028 ppb	62.201 ppb	100.522 %
Concentration per Run 1	57.016 ppb	58.948 ppb	59.090 ppb	5,809.149 ppb	59.945 ppb	61.105 ppb	61.393 ppb	61.780 ppb	98.591 %
Concentration per Run 2	56.004 ppb	58.586 ppb	59.563 ppb	5,960.551 ppb	60.736 ppb	57.648 ppb	60.855 ppb	62.541 ppb	101.803 %
Concentration per Run 3	57.324 ppb	59.615 ppb	60.484 ppb	5,906.917 ppb	60.710 ppb	59.633 ppb	60.837 ppb	62.282 ppb	101.172 %
Recovery Percentage 1	94.636 %	98.416 %	99.521 %	98.203 %	100.773 %	99.104 %	101.714 %	103.668 %	
Concentration RSD	1.2 %	0.9 %	1.2 %	1.3 %	0.7 %	2.9 %	0.5 %	0.6 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	61.157 ppb	59.788 ppb	58.570 ppb	61.303 ppb	102.307 %	58.589 ppb	62.527 ppb	101.218 %	60.681 ppb
Concentration per Run 1	60.263 ppb	57.128 ppb	55.722 ppb	57.792 ppb	104.520 %	56.415 ppb	59.753 ppb	102.319 %	57.025 ppb
Concentration per Run 2	62.961 ppb	62.700 ppb	62.136 ppb	62.947 ppb	102.249 %	58.852 ppb	63.332 ppb	103.587 %	61.919 ppb
Concentration per Run 3	60.246 ppb	59.537 ppb	57.852 ppb	63.170 ppb	100.153 %	60.501 ppb	64.495 ppb	97.746 %	63.099 ppb
Recovery Percentage 1	101.928 %	99.647 %	97.616 %	102.172 %		97.649 %	104.211 %		101.135 %
Concentration RSD	2.6 %	4.7 %	5.6 %	5.0 %	2.1 %	3.5 %	4.0 %	3.0 %	5.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.276 ppb	61.495 ppb	109.037 %	109.782 %	62.401 ppb	63.134 ppb	63.143 ppb	104.796 %
Concentration per Run 1	58.529 ppb	57.708 ppb	110.438 %	111.043 %	59.794 ppb	58.329 ppb	58.469 ppb	108.837 %
Concentration per Run 2	63.911 ppb	63.721 ppb	109.920 %	112.934 %	61.550 ppb	64.004 ppb	64.962 ppb	104.033 %
Concentration per Run 3	64.389 ppb	63.055 ppb	106.753 %	105.369 %	65.859 ppb	67.070 ppb	65.999 ppb	101.519 %
Recovery Percentage 1	103.794 %	102.491 %			104.002 %	105.224 %	105.239 %	
Concentration RSD	5.2 %	5.4 %	1.8 %	3.6 %	5.0 %	7.0 %	6.5 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	125	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 4:45:39 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.894 %	107.192 %	0.046 ppb	-36.645 ppb	2.259 ppb	0.528 ppb	-0.328 ppb	-5.401 ppb	106.380 %
Concentration per Run 1	102.791 %	103.520 %	0.041 ppb	-35.108 ppb	3.281 ppb	1.262 ppb	-6.016 ppb	-5.925 ppb	106.083 %
Concentration per Run 2	102.620 %	115.685 %	0.059 ppb	-39.327 ppb	1.173 ppb	0.337 ppb	2.833 ppb	-7.657 ppb	106.260 %
Concentration per Run 3	103.272 %	102.372 %	0.037 ppb	-35.498 ppb	2.324 ppb	-0.014 ppb	2.201 ppb	-2.621 ppb	106.797 %
Recovery Percentage 1			9.205 %	-36.645 %	3.228 %	5.282 %	-0.328 %	-5.401 %	
Concentration RSD	0.3 %	6.9 %	25.7 %	6.4 %	46.7 %	124.8 %	1,506.8 %	47.4 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.004 ppb	0.025 ppb	-0.070 ppb	10.331 ppb	0.038 ppb	-0.059 ppb	-0.173 ppb	-0.068 ppb	100.930 %
Concentration per Run 1	-0.017 ppb	0.009 ppb	-0.074 ppb	8.432 ppb	0.030 ppb	-0.114 ppb	-0.161 ppb	-0.097 ppb	102.371 %
Concentration per Run 2	0.021 ppb	0.028 ppb	-0.119 ppb	9.711 ppb	0.040 ppb	-0.023 ppb	-0.179 ppb	-0.071 ppb	99.206 %
Concentration per Run 3	-0.016 ppb	0.038 ppb	-0.018 ppb	12.850 ppb	0.044 ppb	-0.039 ppb	-0.179 ppb	-0.035 ppb	101.213 %
Recovery Percentage 1	-0.087 %	2.492 %	-7.038 %	20.662 %	7.609 %	-2.938 %	-17.282 %	-1.355 %	
Concentration RSD	500.2 %	59.0 %	71.9 %	22.0 %	18.1 %	82.9 %	6.1 %	46.7 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.108 ppb	0.136 ppb	0.123 ppb	0.297 ppb	101.676 %	0.037 ppb	0.040 ppb	100.894 %	-0.098 ppb
Concentration per Run 1	0.123 ppb	0.206 ppb	0.147 ppb	0.217 ppb	104.702 %	0.036 ppb	0.054 ppb	102.517 %	-0.233 ppb
Concentration per Run 2	0.130 ppb	0.093 ppb	0.122 ppb	0.307 ppb	100.866 %	0.038 ppb	0.033 ppb	101.934 %	-0.046 ppb
Concentration per Run 3	0.071 ppb	0.108 ppb	0.100 ppb	0.366 ppb	99.459 %	0.036 ppb	0.032 ppb	98.231 %	-0.016 ppb
Recovery Percentage 1	21.599 %	2.712 %	1.231 %	14.837 %		9.197 %	19.840 %		-3.279 %
Concentration RSD	30.1 %	45.2 %	19.0 %	25.3 %	2.7 %	3.6 %	31.8 %	2.3 %	119.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.081 ppb	0.035 ppb	108.706 %	108.504 %	0.497 ppb	0.598 ppb	0.041 ppb	105.597 %
Concentration per Run 1	0.087 ppb	0.058 ppb	111.608 %	109.787 %	0.407 ppb	0.457 ppb	0.051 ppb	108.883 %
Concentration per Run 2	0.075 ppb	0.007 ppb	109.058 %	111.665 %	0.490 ppb	0.718 ppb	0.036 ppb	103.766 %
Concentration per Run 3	0.081 ppb	0.042 ppb	105.454 %	104.060 %	0.593 ppb	0.618 ppb	0.036 ppb	104.140 %
Recovery Percentage 1	2.021 %	7.081 %			24.851 %	59.800 %	4.112 %	
Concentration RSD	6.9 %	73.7 %	2.8 %	3.7 %	18.7 %	22.0 %	20.0 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	126	User name	ALPHALAB\a2-icpmsq2	Comment	fb
Analysis label:	L2447220-13 2008TL	Rack	2		
Analysis started at:	8/21/2024 5:21:41 PM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.080 %	109.028 %	-0.002 ppb	-37.711 ppb	-1.596 ppb	2.403 ppb	-5.785 ppb	6.635 ppb	110.704 %
Concentration per Run 1	104.926 %	117.062 %	-0.001 ppb	-42.075 ppb	-1.153 ppb	2.261 ppb	-4.596 ppb	3.145 ppb	110.012 %
Concentration per Run 2	104.899 %	102.372 %	-0.003 ppb	-34.968 ppb	-2.691 ppb	2.514 ppb	-5.967 ppb	6.177 ppb	110.518 %
Concentration per Run 3	105.414 %	107.651 %	-0.002 ppb	-36.089 ppb	-0.944 ppb	2.435 ppb	-6.793 ppb	10.584 ppb	111.583 %
Concentration RSD	0.3 %	6.8 %	47.4 %	10.1 %	59.8 %	5.4 %	19.2 %	56.4 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.016 ppb	0.221 ppb	-0.080 ppb	2.404 ppb	0.001 ppb	0.035 ppb	0.012 ppb	2.960 ppb	99.221 %
Concentration per Run 1	0.005 ppb	0.203 ppb	-0.108 ppb	1.692 ppb	0.005 ppb	0.061 ppb	0.007 ppb	2.733 ppb	98.249 %
Concentration per Run 2	0.035 ppb	0.249 ppb	-0.015 ppb	2.223 ppb	-0.003 ppb	0.057 ppb	-0.010 ppb	3.050 ppb	99.332 %
Concentration per Run 3	0.007 ppb	0.212 ppb	-0.117 ppb	3.297 ppb	0.000 ppb	-0.012 ppb	0.038 ppb	3.096 ppb	100.081 %
Concentration RSD	106.8 %	11.2 %	70.4 %	34.0 %	478.4 %	115.9 %	208.4 %	6.7 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.021 ppb	-0.094 ppb	0.046 ppb	-0.032 ppb	101.858 %	0.002 ppb	0.003 ppb	101.193 %	-0.724 ppb
Concentration per Run 1	0.043 ppb	-0.106 ppb	0.044 ppb	-0.047 ppb	102.160 %	0.000 ppb	0.001 ppb	101.268 %	-0.734 ppb
Concentration per Run 2	0.013 ppb	-0.136 ppb	0.046 ppb	-0.041 ppb	100.419 %	0.002 ppb	0.003 ppb	97.057 %	-0.715 ppb
Concentration per Run 3	0.007 ppb	-0.041 ppb	0.048 ppb	-0.008 ppb	102.996 %	0.002 ppb	0.005 ppb	105.255 %	-0.721 ppb
Concentration RSD	89.8 %	51.5 %	4.5 %	66.5 %	1.3 %	80.9 %	72.4 %	4.1 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.010 ppb	0.030 ppb	110.902 %	113.480 %	-0.011 ppb	0.018 ppb	0.127 ppb	111.070 %
Concentration per Run 1	0.007 ppb	0.065 ppb	111.545 %	114.108 %	-0.023 ppb	0.001 ppb	0.129 ppb	114.265 %
Concentration per Run 2	0.015 ppb	0.014 ppb	109.077 %	113.117 %	-0.013 ppb	0.033 ppb	0.135 ppb	105.341 %
Concentration per Run 3	0.009 ppb	0.012 ppb	112.084 %	113.215 %	0.003 ppb	0.021 ppb	0.118 ppb	113.603 %
Concentration RSD	43.0 %	98.4 %	1.4 %	0.5 %	115.8 %	87.2 %	7.0 %	4.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	127	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-04 2008TL	Rack	2		
Analysis started at:	8/21/2024 5:26:10 PM	Vial	22		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.039 %	109.334 %	0.057 ppb	14,324.886 ppb	4,901.847 ppb	883.735 ppb	1,565.654 ppb	23,549.566 ppb	102.361 %
Concentration per Run 1	98.479 %	112.012 %	0.050 ppb	13,644.378 ppb	4,666.853 ppb	833.634 ppb	1,468.873 ppb	22,124.053 ppb	102.034 %
Concentration per Run 2	97.867 %	106.504 %	0.056 ppb	14,829.358 ppb	5,101.010 ppb	929.190 ppb	1,673.839 ppb	24,636.725 ppb	102.787 %
Concentration per Run 3	97.771 %	109.487 %	0.064 ppb	14,500.922 ppb	4,937.680 ppb	888.382 ppb	1,554.251 ppb	23,887.922 ppb	102.262 %
Concentration RSD	0.4 %	2.5 %	12.4 %	4.3 %	4.5 %	5.4 %	6.6 %	5.5 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.759 ppb	1.556 ppb	105.442 ppb	1,720.311 ppb	0.829 ppb	2.063 ppb	3.003 ppb	10.402 ppb	98.749 %
Concentration per Run 1	1.606 ppb	1.314 ppb	100.935 ppb	1,613.790 ppb	0.792 ppb	1.953 ppb	2.956 ppb	10.204 ppb	103.358 %
Concentration per Run 2	1.747 ppb	1.670 ppb	108.647 ppb	1,784.560 ppb	0.798 ppb	2.057 ppb	3.177 ppb	10.865 ppb	93.965 %
Concentration per Run 3	1.923 ppb	1.686 ppb	106.744 ppb	1,762.582 ppb	0.898 ppb	2.178 ppb	2.876 ppb	10.138 ppb	98.923 %
Concentration RSD	9.0 %	13.5 %	3.8 %	5.4 %	7.2 %	5.5 %	5.2 %	3.9 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.213 ppb	0.212 ppb	153.940 ppb	0.341 ppb	98.062 %	0.005 ppb	0.042 ppb	98.724 %	-0.733 ppb
Concentration per Run 1	1.193 ppb	0.188 ppb	144.766 ppb	0.297 ppb	100.821 %	-0.001 ppb	0.031 ppb	101.916 %	-0.803 ppb
Concentration per Run 2	1.241 ppb	0.136 ppb	160.706 ppb	0.384 ppb	96.668 %	0.006 ppb	0.058 ppb	97.448 %	-0.725 ppb
Concentration per Run 3	1.204 ppb	0.312 ppb	156.347 ppb	0.343 ppb	96.697 %	0.009 ppb	0.039 ppb	96.807 %	-0.672 ppb
Concentration RSD	2.1 %	42.6 %	5.4 %	12.7 %	2.4 %	117.0 %	32.3 %	2.8 %	9.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.107 ppb	30.877 ppb	108.518 %	110.176 %	0.016 ppb	0.021 ppb	2.221 ppb	104.928 %
Concentration per Run 1	0.105 ppb	29.363 ppb	112.156 %	113.517 %	0.000 ppb	0.001 ppb	2.054 ppb	110.827 %
Concentration per Run 2	0.117 ppb	30.790 ppb	107.386 %	108.679 %	0.019 ppb	0.029 ppb	2.277 ppb	102.577 %
Concentration per Run 3	0.098 ppb	32.478 ppb	106.011 %	108.333 %	0.028 ppb	0.032 ppb	2.331 ppb	101.378 %
Concentration RSD	9.4 %	5.1 %	3.0 %	2.6 %	89.5 %	83.1 %	6.6 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	128	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-05 2008TL	Rack	2		
Analysis started at:	8/21/2024 5:30:39 PM	Vial	23		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.446 %	107.957 %	0.064 ppb	14,591.062 ppb	4,996.310 ppb	842.768 ppb	1,655.854 ppb	23,906.258 ppb	101.215 %
Concentration per Run 1	97.325 %	118.898 %	0.063 ppb	13,002.645 ppb	4,439.647 ppb	751.103 ppb	1,450.799 ppb	21,967.280 ppb	100.554 %
Concentration per Run 2	97.862 %	95.256 %	0.068 ppb	15,835.167 ppb	5,417.028 ppb	907.948 ppb	1,820.493 ppb	24,881.850 ppb	101.756 %
Concentration per Run 3	97.149 %	109.717 %	0.062 ppb	14,935.375 ppb	5,132.254 ppb	869.253 ppb	1,696.271 ppb	24,869.644 ppb	101.334 %
Concentration RSD	0.4 %	11.0 %	4.9 %	9.9 %	10.1 %	9.7 %	11.4 %	7.0 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.701 ppb	1.391 ppb	105.066 ppb	1,610.877 ppb	0.763 ppb	1.841 ppb	2.888 ppb	7.428 ppb	98.223 %
Concentration per Run 1	1.666 ppb	1.319 ppb	94.777 ppb	1,472.438 ppb	0.684 ppb	1.788 ppb	2.518 ppb	7.133 ppb	103.635 %
Concentration per Run 2	1.762 ppb	1.385 ppb	108.297 ppb	1,664.621 ppb	0.799 ppb	1.718 ppb	2.902 ppb	7.462 ppb	99.912 %
Concentration per Run 3	1.676 ppb	1.468 ppb	112.123 ppb	1,695.572 ppb	0.805 ppb	2.016 ppb	3.244 ppb	7.690 ppb	91.121 %
Concentration RSD	3.1 %	5.4 %	8.7 %	7.5 %	8.9 %	8.5 %	12.6 %	3.8 %	6.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.140 ppb	0.197 ppb	157.146 ppb	0.324 ppb	96.918 %	0.004 ppb	0.023 ppb	97.649 %	-0.697 ppb
Concentration per Run 1	1.104 ppb	0.295 ppb	145.632 ppb	0.316 ppb	102.250 %	-0.001 ppb	0.027 ppb	103.224 %	-0.724 ppb
Concentration per Run 2	1.155 ppb	0.209 ppb	156.044 ppb	0.277 ppb	96.520 %	0.006 ppb	0.022 ppb	96.508 %	-0.730 ppb
Concentration per Run 3	1.162 ppb	0.088 ppb	169.764 ppb	0.380 ppb	91.985 %	0.007 ppb	0.021 ppb	93.215 %	-0.636 ppb
Concentration RSD	2.8 %	52.6 %	7.7 %	16.0 %	5.3 %	99.4 %	13.2 %	5.2 %	7.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.104 ppb	30.917 ppb	107.742 %	108.553 %	0.028 ppb	0.019 ppb	2.064 ppb	102.118 %
Concentration per Run 1	0.083 ppb	29.561 ppb	112.816 %	112.550 %	0.012 ppb	-0.003 ppb	1.862 ppb	109.610 %
Concentration per Run 2	0.116 ppb	31.358 ppb	107.429 %	108.113 %	0.024 ppb	0.032 ppb	2.095 ppb	101.996 %
Concentration per Run 3	0.112 ppb	31.830 ppb	102.981 %	104.997 %	0.049 ppb	0.029 ppb	2.236 ppb	94.749 %
Concentration RSD	17.3 %	3.9 %	4.6 %	3.5 %	68.0 %	101.2 %	9.2 %	7.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	129	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-11 2008TL	Rack	2		
Analysis started at:	8/21/2024 5:35:08 PM	Vial	24		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.699 %	111.094 %	0.050 ppb	13,884.775 ppb	4,792.145 ppb	793.774 ppb	1,593.355 ppb	23,580.933 ppb	103.892 %
Concentration per Run 1	98.271 %	114.767 %	0.049 ppb	13,333.919 ppb	4,581.044 ppb	744.377 ppb	1,545.051 ppb	22,819.572 ppb	103.797 %
Concentration per Run 2	97.375 %	114.537 %	0.053 ppb	13,593.671 ppb	4,711.321 ppb	779.252 ppb	1,568.253 ppb	23,536.043 ppb	104.486 %
Concentration per Run 3	97.450 %	103.979 %	0.050 ppb	14,726.734 ppb	5,084.071 ppb	857.694 ppb	1,666.760 ppb	24,387.184 ppb	103.393 %
Concentration RSD	0.5 %	5.5 %	4.4 %	5.3 %	5.4 %	7.3 %	4.1 %	3.3 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.627 ppb	1.546 ppb	103.114 ppb	1,599.165 ppb	0.759 ppb	1.946 ppb	3.055 ppb	7.314 ppb	97.405 %
Concentration per Run 1	1.686 ppb	1.451 ppb	100.602 ppb	1,530.868 ppb	0.702 ppb	1.766 ppb	2.935 ppb	7.247 ppb	99.024 %
Concentration per Run 2	1.259 ppb	1.635 ppb	101.981 ppb	1,638.839 ppb	0.724 ppb	1.950 ppb	3.176 ppb	7.319 ppb	97.357 %
Concentration per Run 3	1.936 ppb	1.551 ppb	106.760 ppb	1,627.787 ppb	0.852 ppb	2.121 ppb	3.052 ppb	7.376 ppb	95.833 %
Concentration RSD	21.0 %	6.0 %	3.1 %	3.7 %	10.6 %	9.1 %	3.9 %	0.9 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.176 ppb	0.139 ppb	153.919 ppb	0.332 ppb	97.859 %	0.004 ppb	0.030 ppb	97.386 %	-0.715 ppb
Concentration per Run 1	1.140 ppb	0.251 ppb	147.246 ppb	0.267 ppb	101.088 %	0.008 ppb	0.025 ppb	100.088 %	-0.739 ppb
Concentration per Run 2	1.153 ppb	0.141 ppb	156.206 ppb	0.346 ppb	96.258 %	0.004 ppb	0.033 ppb	95.599 %	-0.751 ppb
Concentration per Run 3	1.236 ppb	0.027 ppb	158.306 ppb	0.383 ppb	96.232 %	0.001 ppb	0.033 ppb	96.470 %	-0.656 ppb
Concentration RSD	4.4 %	80.3 %	3.8 %	17.9 %	2.9 %	73.9 %	14.5 %	2.4 %	7.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.099 ppb	30.169 ppb	107.682 %	108.150 %	0.015 ppb	0.020 ppb	2.007 ppb	102.722 %
Concentration per Run 1	0.105 ppb	28.280 ppb	109.542 %	110.053 %	-0.003 ppb	0.005 ppb	1.848 ppb	108.621 %
Concentration per Run 2	0.086 ppb	31.358 ppb	107.992 %	106.868 %	0.024 ppb	0.027 ppb	2.066 ppb	100.726 %
Concentration per Run 3	0.104 ppb	30.869 ppb	105.511 %	107.529 %	0.024 ppb	0.028 ppb	2.107 ppb	98.818 %
Concentration RSD	11.3 %	5.5 %	1.9 %	1.6 %	103.0 %	63.1 %	6.9 %	5.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	130	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447220-12 2008TL	Rack	2		
Analysis started at:	8/21/2024 5:39:38 PM	Vial	25		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.292 %	110.406 %	0.040 ppb	13,914.734 ppb	4,647.303 ppb	558.639 ppb	1,574.629 ppb	23,213.532 ppb	104.083 %
Concentration per Run 1	98.561 %	101.913 %	0.041 ppb	14,174.854 ppb	4,660.466 ppb	554.553 ppb	1,572.876 ppb	22,792.943 ppb	104.042 %
Concentration per Run 2	98.358 %	113.390 %	0.041 ppb	13,715.428 ppb	4,682.094 ppb	558.568 ppb	1,559.994 ppb	23,296.070 ppb	103.526 %
Concentration per Run 3	97.957 %	115.914 %	0.039 ppb	13,853.919 ppb	4,599.348 ppb	562.795 ppb	1,591.018 ppb	23,551.585 ppb	104.680 %
Concentration RSD	0.3 %	6.8 %	3.4 %	1.7 %	0.9 %	0.7 %	1.0 %	1.7 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.279 ppb	1.110 ppb	69.623 ppb	1,094.448 ppb	0.510 ppb	1.368 ppb	2.350 ppb	5.678 ppb	98.715 %
Concentration per Run 1	1.198 ppb	1.135 ppb	67.531 ppb	1,061.367 ppb	0.487 ppb	1.293 ppb	2.276 ppb	5.526 ppb	100.458 %
Concentration per Run 2	1.394 ppb	1.087 ppb	71.587 ppb	1,130.491 ppb	0.580 ppb	1.491 ppb	2.304 ppb	5.620 ppb	96.557 %
Concentration per Run 3	1.246 ppb	1.108 ppb	69.752 ppb	1,091.486 ppb	0.462 ppb	1.321 ppb	2.469 ppb	5.887 ppb	99.131 %
Concentration RSD	8.0 %	2.2 %	2.9 %	3.2 %	12.2 %	7.8 %	4.4 %	3.3 %	2.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.034 ppb	0.119 ppb	152.324 ppb	0.326 ppb	100.730 %	0.001 ppb	0.022 ppb	101.156 %	-0.688 ppb
Concentration per Run 1	1.052 ppb	0.058 ppb	139.421 ppb	0.297 ppb	104.405 %	-0.001 ppb	0.018 ppb	102.789 %	-0.658 ppb
Concentration per Run 2	0.998 ppb	0.162 ppb	160.661 ppb	0.338 ppb	99.104 %	0.001 ppb	0.015 ppb	101.525 %	-0.734 ppb
Concentration per Run 3	1.051 ppb	0.136 ppb	156.889 ppb	0.342 ppb	98.680 %	0.004 ppb	0.032 ppb	99.153 %	-0.672 ppb
Concentration RSD	3.0 %	45.3 %	7.4 %	7.8 %	3.2 %	226.8 %	40.9 %	1.8 %	5.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.097 ppb	27.158 ppb	109.080 %	110.570 %	0.022 ppb	0.012 ppb	1.468 ppb	104.578 %
Concentration per Run 1	0.081 ppb	25.223 ppb	111.555 %	111.571 %	0.000 ppb	-0.010 ppb	1.341 ppb	110.691 %
Concentration per Run 2	0.092 ppb	28.125 ppb	108.722 %	110.613 %	0.029 ppb	0.017 ppb	1.522 ppb	102.920 %
Concentration per Run 3	0.117 ppb	28.126 ppb	106.963 %	109.525 %	0.036 ppb	0.028 ppb	1.539 ppb	100.124 %
Concentration RSD	19.1 %	6.2 %	2.1 %	0.9 %	86.5 %	170.8 %	7.5 %	5.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	131	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 6:01:41 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.057 %	110.635 %	61.809 ppb	5,779.857 ppb	5,719.492 ppb	58.544 ppb	5,635.129 ppb	5,579.646 ppb	105.774 %
Concentration per Run 1	100.634 %	109.028 %	61.584 ppb	5,619.614 ppb	5,601.557 ppb	54.933 ppb	5,404.152 ppb	5,331.900 ppb	106.870 %
Concentration per Run 2	100.015 %	106.504 %	61.588 ppb	6,011.962 ppb	5,878.551 ppb	61.002 ppb	5,820.828 ppb	5,643.747 ppb	105.095 %
Concentration per Run 3	99.523 %	116.374 %	62.254 ppb	5,707.995 ppb	5,678.370 ppb	59.697 ppb	5,680.408 ppb	5,763.289 ppb	105.358 %
Recovery Percentage 1			103.015 %	96.331 %	95.325 %	97.574 %	93.919 %	92.994 %	
Concentration RSD	0.6 %	4.6 %	0.6 %	3.6 %	2.5 %	5.5 %	3.8 %	4.0 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.168 ppb	58.766 ppb	58.332 ppb	5,940.350 ppb	60.811 ppb	59.581 ppb	61.126 ppb	63.007 ppb	94.008 %
Concentration per Run 1	55.347 ppb	56.097 ppb	53.932 ppb	5,561.381 ppb	57.470 ppb	55.611 ppb	56.851 ppb	58.494 ppb	97.362 %
Concentration per Run 2	58.524 ppb	60.276 ppb	60.629 ppb	6,204.567 ppb	62.975 ppb	61.601 ppb	63.714 ppb	65.553 ppb	93.199 %
Concentration per Run 3	57.634 ppb	59.924 ppb	60.435 ppb	6,055.102 ppb	61.987 ppb	61.532 ppb	62.815 ppb	64.975 ppb	91.464 %
Recovery Percentage 1	95.280 %	97.943 %	97.220 %	99.006 %	101.351 %	99.302 %	101.877 %	105.012 %	
Concentration RSD	2.9 %	3.9 %	6.5 %	5.7 %	4.8 %	5.8 %	6.1 %	6.2 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	61.288 ppb	60.484 ppb	59.187 ppb	60.592 ppb	99.035 %	58.719 ppb	62.240 ppb	96.756 %	60.464 ppb
Concentration per Run 1	56.712 ppb	56.119 ppb	55.467 ppb	55.994 ppb	101.775 %	55.303 ppb	58.944 ppb	99.131 %	56.935 ppb
Concentration per Run 2	63.320 ppb	60.271 ppb	60.038 ppb	61.890 ppb	98.487 %	60.040 ppb	63.299 ppb	95.390 %	61.869 ppb
Concentration per Run 3	63.832 ppb	65.061 ppb	62.058 ppb	63.891 ppb	96.844 %	60.814 ppb	64.477 ppb	95.746 %	62.589 ppb
Recovery Percentage 1	102.147 %	100.806 %	98.646 %	100.986 %		97.865 %	103.734 %		100.774 %
Concentration RSD	6.5 %	7.4 %	5.7 %	6.8 %	2.5 %	5.1 %	4.7 %	2.1 %	5.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.502 ppb	59.716 ppb	112.185 %	113.991 %	62.188 ppb	62.993 ppb	63.319 ppb	109.812 %
Concentration per Run 1	58.909 ppb	56.045 ppb	116.221 %	118.395 %	58.235 ppb	57.425 ppb	58.146 ppb	118.243 %
Concentration per Run 2	62.101 ppb	60.990 ppb	112.881 %	113.612 %	63.525 ppb	63.617 ppb	64.414 ppb	109.083 %
Concentration per Run 3	63.496 ppb	62.113 ppb	107.452 %	109.966 %	64.803 ppb	67.937 ppb	67.397 ppb	102.110 %
Recovery Percentage 1	102.504 %	99.526 %			103.646 %	104.988 %	105.532 %	
Concentration RSD	3.8 %	5.4 %	3.9 %	3.7 %	5.6 %	8.4 %	7.5 %	7.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	132	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 6:06:13 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.204 %	112.012 %	0.064 ppb	-50.436 ppb	2.877 ppb	-0.017 ppb	1.006 ppb	-15.215 ppb	100.116 %
Concentration per Run 1	99.882 %	117.062 %	0.068 ppb	-49.224 ppb	3.686 ppb	0.028 ppb	7.488 ppb	-12.864 ppb	100.345 %
Concentration per Run 2	98.208 %	110.176 %	0.061 ppb	-50.343 ppb	1.851 ppb	-0.085 ppb	-4.102 ppb	-18.353 ppb	99.329 %
Concentration per Run 3	99.521 %	108.799 %	0.064 ppb	-51.741 ppb	3.093 ppb	0.005 ppb	-0.370 ppb	-14.428 ppb	100.675 %
Recovery Percentage 1			12.797 %	-50.436 %	4.110 %	-0.172 %	1.006 %	-15.215 %	
Concentration RSD	0.9 %	4.0 %	5.5 %	2.5 %	32.6 %	346.5 %	588.3 %	18.6 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.045 ppb	0.044 ppb	-0.049 ppb	10.553 ppb	0.058 ppb	-0.055 ppb	-0.127 ppb	-0.069 ppb	98.930 %
Concentration per Run 1	0.031 ppb	0.063 ppb	-0.060 ppb	11.670 ppb	0.053 ppb	-0.056 ppb	-0.126 ppb	-0.081 ppb	104.209 %
Concentration per Run 2	0.069 ppb	0.037 ppb	-0.036 ppb	11.095 ppb	0.066 ppb	-0.044 ppb	-0.124 ppb	-0.035 ppb	95.324 %
Concentration per Run 3	0.034 ppb	0.033 ppb	-0.049 ppb	8.894 ppb	0.055 ppb	-0.064 ppb	-0.132 ppb	-0.090 ppb	97.256 %
Recovery Percentage 1	0.892 %	4.444 %	-4.856 %	21.106 %	11.589 %	-2.741 %	-12.737 %	-1.377 %	
Concentration RSD	46.5 %	36.4 %	24.9 %	13.9 %	12.1 %	19.2 %	3.3 %	42.8 %	4.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.124 ppb	0.108 ppb	0.059 ppb	0.301 ppb	100.020 %	0.051 ppb	0.049 ppb	98.774 %	-0.128 ppb
Concentration per Run 1	0.088 ppb	0.221 ppb	0.072 ppb	0.270 ppb	102.587 %	0.066 ppb	0.061 ppb	101.164 %	-0.191 ppb
Concentration per Run 2	0.150 ppb	-0.020 ppb	0.051 ppb	0.311 ppb	98.884 %	0.045 ppb	0.038 ppb	98.233 %	-0.095 ppb
Concentration per Run 3	0.135 ppb	0.124 ppb	0.056 ppb	0.321 ppb	98.589 %	0.043 ppb	0.049 ppb	96.925 %	-0.098 ppb
Recovery Percentage 1	24.847 %	2.165 %	0.594 %	15.034 %		12.812 %	24.738 %		-4.271 %
Concentration RSD	26.0 %	112.3 %	18.2 %	9.1 %	2.2 %	25.1 %	23.2 %	2.2 %	42.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.079 ppb	0.047 ppb	107.635 %	108.530 %	0.535 ppb	0.575 ppb	0.056 ppb	104.675 %
Concentration per Run 1	0.074 ppb	0.078 ppb	110.828 %	111.592 %	0.424 ppb	0.452 ppb	0.071 ppb	110.934 %
Concentration per Run 2	0.070 ppb	0.008 ppb	105.923 %	107.052 %	0.527 ppb	0.669 ppb	0.046 ppb	102.054 %
Concentration per Run 3	0.095 ppb	0.056 ppb	106.153 %	106.948 %	0.654 ppb	0.604 ppb	0.051 ppb	101.036 %
Recovery Percentage 1	1.987 %	9.450 %			26.734 %	57.523 %	5.638 %	
Concentration RSD	16.8 %	75.7 %	2.6 %	2.4 %	21.6 %	19.3 %	23.5 %	5.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	133	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961164-1 2008TL	Rack	2		
Analysis started at:	8/21/2024 6:26:52 PM	Vial	27		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.135 %	111.247 %	0.015 ppb	-58.147 ppb	-2.210 ppb	4.197 ppb	-10.418 ppb	-12.592 ppb	112.909 %
Concentration per Run 1	100.713 %	108.110 %	0.015 ppb	-59.280 ppb	-3.815 ppb	9.514 ppb	-14.469 ppb	-4.025 ppb	112.939 %
Concentration per Run 2	100.265 %	112.701 %	0.016 ppb	-55.845 ppb	-1.404 ppb	1.381 ppb	-8.871 ppb	-18.064 ppb	111.905 %
Concentration per Run 3	99.427 %	112.931 %	0.013 ppb	-59.315 ppb	-1.410 ppb	1.697 ppb	-7.915 ppb	-15.686 ppb	113.883 %
Concentration RSD	0.7 %	2.4 %	10.1 %	3.4 %	62.9 %	109.8 %	34.0 %	59.7 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.118 ppb	-0.007 ppb	0.255 ppb	5.967 ppb	0.026 ppb	-0.102 ppb	-0.007 ppb	0.220 ppb	89.502 %
Concentration per Run 1	0.135 ppb	-0.015 ppb	0.538 ppb	6.022 ppb	0.057 ppb	-0.112 ppb	0.031 ppb	0.210 ppb	67.775 %
Concentration per Run 2	0.140 ppb	-0.003 ppb	0.255 ppb	5.848 ppb	0.007 ppb	-0.112 ppb	-0.004 ppb	0.229 ppb	103.512 %
Concentration per Run 3	0.081 ppb	-0.003 ppb	-0.026 ppb	6.032 ppb	0.013 ppb	-0.082 ppb	-0.048 ppb	0.219 ppb	97.218 %
Concentration RSD	27.6 %	94.7 %	110.4 %	1.7 %	105.5 %	17.2 %	585.7 %	4.2 %	21.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.022 ppb	-0.020 ppb	0.008 ppb	0.300 ppb	101.880 %	0.010 ppb	0.010 ppb	104.926 %	0.023 ppb
Concentration per Run 1	0.004 ppb	-0.019 ppb	0.005 ppb	0.333 ppb	103.268 %	0.005 ppb	-0.001 ppb	107.796 %	0.217 ppb
Concentration per Run 2	0.045 ppb	0.018 ppb	0.010 ppb	0.446 ppb	102.578 %	0.009 ppb	0.016 ppb	108.200 %	-0.014 ppb
Concentration per Run 3	0.017 ppb	-0.060 ppb	0.009 ppb	0.119 ppb	99.794 %	0.015 ppb	0.015 ppb	98.783 %	-0.136 ppb
Concentration RSD	94.4 %	190.7 %	35.9 %	55.5 %	1.8 %	50.0 %	98.4 %	5.1 %	796.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	-1.766 ppb	0.080 ppb	113.292 %	115.657 %	-0.522 ppb	0.197 ppb	0.010 ppb	167.225 %
Concentration per Run 1	0.311 ppb	0.053 ppb	117.695 %	118.647 %	0.768 ppb	0.242 ppb	0.011 ppb	245.531 %
Concentration per Run 2	-5.695 ppb	0.054 ppb	113.920 %	117.482 %	-2.605 ppb	0.199 ppb	0.011 ppb	139.817 %
Concentration per Run 3	0.085 ppb	0.134 ppb	108.261 %	110.843 %	0.272 ppb	0.151 ppb	0.008 ppb	116.325 %
Concentration RSD	192.7 %	57.6 %	4.2 %	3.6 %	349.2 %	23.1 %	20.1 %	41.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	134	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961164-2d10 2008TL	Rack	2		
Analysis started at:	8/21/2024 6:31:20 PM	Vial	28		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.548 %	110.788 %	5.344 ppb	944.760 ppb	947.884 ppb	190.575 ppb	941.184 ppb	809.842 ppb	104.620 %
Concentration per Run 1	99.203 %	112.930 %	5.354 ppb	879.548 ppb	898.656 ppb	180.708 ppb	875.682 ppb	752.727 ppb	104.385 %
Concentration per Run 2	98.517 %	107.422 %	5.364 ppb	1,006.356 ppb	1,017.098 ppb	204.516 ppb	984.515 ppb	783.138 ppb	105.562 %
Concentration per Run 3	97.924 %	112.012 %	5.315 ppb	948.377 ppb	927.898 ppb	186.500 ppb	963.354 ppb	893.662 ppb	103.914 %
Concentration RSD	0.6 %	2.7 %	0.5 %	6.7 %	6.5 %	6.5 %	6.1 %	9.2 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	46.390 ppb	19.445 ppb	49.550 ppb	106.327 ppb	49.811 ppb	49.779 ppb	25.195 ppb	51.974 ppb	98.648 %
Concentration per Run 1	42.214 ppb	18.060 ppb	45.419 ppb	96.739 ppb	47.381 ppb	47.106 ppb	23.991 ppb	48.479 ppb	101.940 %
Concentration per Run 2	48.191 ppb	19.852 ppb	52.172 ppb	111.603 ppb	49.997 ppb	50.284 ppb	25.021 ppb	52.280 ppb	100.901 %
Concentration per Run 3	48.765 ppb	20.422 ppb	51.059 ppb	110.639 ppb	52.054 ppb	51.948 ppb	26.572 ppb	55.163 ppb	93.104 %
Concentration RSD	7.8 %	6.3 %	7.3 %	7.8 %	4.7 %	4.9 %	5.2 %	6.5 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.571 ppb	11.952 ppb	95.897 ppb	100.024 ppb	99.344 %	5.275 ppb	5.508 ppb	100.085 %	95.133 ppb
Concentration per Run 1	11.635 ppb	10.791 ppb	87.192 ppb	92.605 ppb	104.957 %	4.992 ppb	5.193 ppb	102.922 %	89.596 ppb
Concentration per Run 2	12.838 ppb	12.854 ppb	101.297 ppb	101.268 ppb	98.658 %	5.280 ppb	5.519 ppb	103.282 %	95.536 ppb
Concentration per Run 3	13.241 ppb	12.212 ppb	99.203 ppb	106.200 ppb	94.417 %	5.554 ppb	5.811 ppb	94.053 %	100.267 ppb
Concentration RSD	6.6 %	8.8 %	7.9 %	6.9 %	5.3 %	5.3 %	5.6 %	5.2 %	5.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	43.966 ppb	203.897 ppb	108.332 %	109.135 %	0.054 ppb	12.855 ppb	54.985 ppb	108.055 %
Concentration per Run 1	39.353 ppb	191.080 ppb	110.139 %	110.488 %	0.022 ppb	11.776 ppb	49.987 ppb	114.800 %
Concentration per Run 2	44.915 ppb	208.093 ppb	111.580 %	113.075 %	0.058 ppb	13.100 ppb	55.905 ppb	108.077 %
Concentration per Run 3	47.631 ppb	212.520 ppb	103.278 %	103.843 %	0.082 ppb	13.688 ppb	59.064 ppb	101.286 %
Concentration RSD	9.6 %	5.6 %	4.1 %	4.4 %	55.5 %	7.6 %	8.4 %	6.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	135	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961342-2d10 6020TL	Rack	2		
Analysis started at:	8/21/2024 6:35:49 PM	Vial	36		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.726 %	106.580 %	5.222 ppb	952.053 ppb	938.222 ppb	187.125 ppb	931.552 ppb	845.913 ppb	103.925 %
Concentration per Run 1	98.770 %	106.503 %	5.195 ppb	920.735 ppb	913.188 ppb	173.685 ppb	898.331 ppb	755.051 ppb	102.258 %
Concentration per Run 2	101.257 %	104.438 %	5.258 ppb	974.623 ppb	945.474 ppb	195.183 ppb	945.544 ppb	851.119 ppb	106.680 %
Concentration per Run 3	99.152 %	108.799 %	5.212 ppb	960.801 ppb	956.003 ppb	192.508 ppb	950.782 ppb	931.569 ppb	102.836 %
Concentration RSD	1.3 %	2.0 %	0.6 %	2.9 %	2.4 %	6.3 %	3.1 %	10.4 %	2.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	45.750 ppb	19.107 ppb	49.240 ppb	101.574 ppb	49.136 ppb	49.034 ppb	24.669 ppb	51.147 ppb	99.038 %
Concentration per Run 1	43.548 ppb	17.815 ppb	46.324 ppb	94.724 ppb	46.871 ppb	46.593 ppb	23.240 ppb	47.974 ppb	104.134 %
Concentration per Run 2	45.975 ppb	19.715 ppb	49.392 ppb	102.584 ppb	50.072 ppb	50.381 ppb	25.754 ppb	52.143 ppb	97.472 %
Concentration per Run 3	47.728 ppb	19.790 ppb	52.002 ppb	107.414 ppb	50.464 ppb	50.128 ppb	25.012 ppb	53.325 ppb	95.509 %
Concentration RSD	4.6 %	5.9 %	5.8 %	6.3 %	4.0 %	4.3 %	5.2 %	5.5 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	11.875 ppb	11.361 ppb	93.036 ppb	100.388 ppb	98.993 %	5.212 ppb	5.576 ppb	98.777 %	96.704 ppb
Concentration per Run 1	11.002 ppb	10.381 ppb	85.669 ppb	91.562 ppb	103.973 %	4.872 ppb	5.100 ppb	102.919 %	89.962 ppb
Concentration per Run 2	12.185 ppb	11.367 ppb	95.924 ppb	105.052 ppb	96.517 %	5.383 ppb	5.967 ppb	96.037 %	101.335 ppb
Concentration per Run 3	12.439 ppb	12.336 ppb	97.514 ppb	104.550 ppb	96.488 %	5.382 ppb	5.660 ppb	97.374 %	98.815 ppb
Concentration RSD	6.5 %	8.6 %	6.9 %	7.6 %	4.4 %	5.7 %	7.9 %	3.7 %	6.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	44.628 ppb	199.623 ppb	108.235 %	108.367 %	0.019 ppb	13.121 ppb	56.136 ppb	105.352 %
Concentration per Run 1	40.287 ppb	185.478 ppb	110.678 %	111.138 %	0.001 ppb	12.069 ppb	51.774 ppb	110.658 %
Concentration per Run 2	46.595 ppb	207.223 ppb	105.974 %	106.845 %	0.014 ppb	13.554 ppb	58.231 ppb	103.271 %
Concentration per Run 3	47.002 ppb	206.167 ppb	108.052 %	107.118 %	0.043 ppb	13.740 ppb	58.401 ppb	102.126 %
Concentration RSD	8.4 %	6.1 %	2.2 %	2.2 %	112.2 %	7.0 %	6.7 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	136	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446400-02 2008TL	Rack	2		
Analysis started at:	8/21/2024 6:40:18 PM	Vial	29		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.076 %	107.881 %	0.022 ppb	32,818.220 ppb	2,978.869 ppb	8.145 ppb	17,869.409 ppb	9,395.013 ppb	103.351 %
Concentration per Run 1	97.743 %	100.765 %	0.023 ppb	33,496.269 ppb	3,027.104 ppb	7.553 ppb	18,397.680 ppb	9,429.470 ppb	103.884 %
Concentration per Run 2	96.615 %	105.585 %	0.029 ppb	34,018.429 ppb	3,061.160 ppb	9.331 ppb	18,280.188 ppb	9,666.814 ppb	102.340 %
Concentration per Run 3	96.871 %	117.292 %	0.013 ppb	30,939.962 ppb	2,848.343 ppb	7.550 ppb	16,930.358 ppb	9,088.754 ppb	103.830 %
Concentration RSD	0.6 %	7.9 %	35.5 %	5.0 %	3.8 %	12.6 %	4.6 %	3.1 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.113 ppb	0.060 ppb	23.746 ppb	92.680 ppb	0.139 ppb	0.048 ppb	0.349 ppb	4.160 ppb	96.899 %
Concentration per Run 1	0.012 ppb	0.036 ppb	23.253 ppb	95.959 ppb	0.092 ppb	0.051 ppb	0.282 ppb	4.041 ppb	97.911 %
Concentration per Run 2	0.106 ppb	0.026 ppb	24.117 ppb	91.532 ppb	0.097 ppb	-0.051 ppb	0.347 ppb	4.358 ppb	94.620 %
Concentration per Run 3	0.221 ppb	0.120 ppb	23.868 ppb	90.550 ppb	0.228 ppb	0.143 ppb	0.417 ppb	4.081 ppb	98.168 %
Concentration RSD	92.7 %	86.0 %	1.9 %	3.1 %	55.6 %	202.3 %	19.4 %	4.1 %	2.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.177 ppb	0.147 ppb	120.239 ppb	2.363 ppb	96.024 %	0.010 ppb	0.016 ppb	95.366 %	0.096 ppb
Concentration per Run 1	0.186 ppb	0.026 ppb	117.069 ppb	2.095 ppb	96.082 %	0.006 ppb	0.005 ppb	94.918 %	-0.118 ppb
Concentration per Run 2	0.137 ppb	0.290 ppb	123.895 ppb	2.380 ppb	94.362 %	0.002 ppb	0.005 ppb	93.507 %	-0.013 ppb
Concentration per Run 3	0.209 ppb	0.126 ppb	119.754 ppb	2.613 ppb	97.627 %	0.023 ppb	0.036 ppb	97.671 %	0.420 ppb
Concentration RSD	20.7 %	90.4 %	2.9 %	11.0 %	1.7 %	108.5 %	115.9 %	2.2 %	296.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.714 ppb	4.580 ppb	106.886 %	107.693 %	0.000 ppb	0.112 ppb	0.249 ppb	99.243 %
Concentration per Run 1	1.608 ppb	4.362 ppb	106.829 %	107.345 %	-0.017 ppb	0.077 ppb	0.186 ppb	101.526 %
Concentration per Run 2	1.668 ppb	4.439 ppb	105.101 %	106.996 %	-0.003 ppb	0.100 ppb	0.199 ppb	94.744 %
Concentration per Run 3	1.866 ppb	4.938 ppb	108.728 %	108.739 %	0.020 ppb	0.160 ppb	0.363 ppb	101.459 %
Concentration RSD	7.9 %	6.8 %	1.7 %	0.9 %	28,010.5 %	38.1 %	39.6 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	137	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961164-3d10 2008TL	Rack	2		
Analysis started at:	8/21/2024 6:44:47 PM	Vial	30		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.018 %	118.286 %	5.344 ppb	4,952.524 ppb	1,216.704 ppb	183.098 ppb	2,786.400 ppb	1,806.486 ppb	104.418 %
Concentration per Run 1	102.336 %	117.062 %	5.346 ppb	4,715.003 ppb	1,186.887 ppb	175.711 ppb	2,701.521 ppb	1,747.320 ppb	104.364 %
Concentration per Run 2	102.495 %	123.030 %	5.342 ppb	4,923.613 ppb	1,198.013 ppb	180.559 ppb	2,706.968 ppb	1,809.007 ppb	103.782 %
Concentration per Run 3	101.223 %	114.767 %	5.345 ppb	5,218.958 ppb	1,265.212 ppb	193.024 ppb	2,950.711 ppb	1,863.131 ppb	105.108 %
Concentration RSD	0.7 %	3.6 %	0.0 %	5.1 %	3.5 %	4.9 %	5.1 %	3.2 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	45.085 ppb	19.211 ppb	51.579 ppb	109.887 ppb	49.573 ppb	48.972 ppb	25.602 ppb	52.492 ppb	100.593 %
Concentration per Run 1	42.057 ppb	17.612 ppb	47.857 ppb	102.018 ppb	46.260 ppb	45.018 ppb	23.958 ppb	49.363 ppb	102.063 %
Concentration per Run 2	44.590 ppb	19.453 ppb	52.101 ppb	111.362 ppb	49.773 ppb	49.624 ppb	25.521 ppb	52.629 ppb	101.743 %
Concentration per Run 3	48.609 ppb	20.567 ppb	54.781 ppb	116.282 ppb	52.687 ppb	52.273 ppb	27.326 ppb	55.485 ppb	97.974 %
Concentration RSD	7.3 %	7.8 %	6.8 %	6.6 %	6.5 %	7.5 %	6.6 %	5.8 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	12.418 ppb	12.018 ppb	106.805 ppb	101.859 ppb	102.561 %	5.322 ppb	5.541 ppb	101.261 %	97.789 ppb
Concentration per Run 1	11.589 ppb	10.875 ppb	101.320 ppb	97.893 ppb	105.091 %	5.119 ppb	5.286 ppb	104.605 %	94.554 ppb
Concentration per Run 2	12.790 ppb	12.707 ppb	108.073 ppb	102.496 ppb	101.653 %	5.340 ppb	5.669 ppb	99.759 %	99.911 ppb
Concentration per Run 3	12.874 ppb	12.474 ppb	111.021 ppb	105.189 ppb	100.939 %	5.507 ppb	5.669 ppb	99.418 %	98.903 ppb
Concentration RSD	5.8 %	8.3 %	4.7 %	3.6 %	2.2 %	3.7 %	4.0 %	2.9 %	2.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	44.891 ppb	203.103 ppb	110.636 %	110.866 %	0.006 ppb	13.140 ppb	56.439 ppb	106.559 %
Concentration per Run 1	41.339 ppb	194.765 ppb	112.409 %	112.365 %	-0.011 ppb	12.405 ppb	52.989 ppb	111.540 %
Concentration per Run 2	46.445 ppb	207.997 ppb	108.417 %	109.462 %	0.009 ppb	13.245 ppb	57.641 ppb	105.380 %
Concentration per Run 3	46.890 ppb	206.546 ppb	111.082 %	110.771 %	0.019 ppb	13.770 ppb	58.687 ppb	102.755 %
Concentration RSD	6.9 %	3.6 %	1.8 %	1.3 %	277.8 %	5.2 %	5.4 %	4.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	138	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961164-4 2008TL	Rack	2		
Analysis started at:	8/21/2024 6:49:16 PM	Vial	31		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.366 %	113.696 %	0.006 ppb	32,592.474 ppb	2,942.539 ppb	6.767 ppb	17,838.826 ppb	9,336.433 ppb	101.185 %
Concentration per Run 1	100.832 %	115.455 %	0.006 ppb	30,932.008 ppb	2,792.288 ppb	5.581 ppb	17,348.712 ppb	9,068.083 ppb	102.460 %
Concentration per Run 2	98.884 %	110.406 %	0.008 ppb	33,614.670 ppb	3,086.553 ppb	7.317 ppb	18,392.079 ppb	9,635.139 ppb	100.247 %
Concentration per Run 3	98.384 %	115.226 %	0.004 ppb	33,230.743 ppb	2,948.776 ppb	7.402 ppb	17,775.687 ppb	9,306.075 ppb	100.847 %
Concentration RSD	1.3 %	2.5 %	35.7 %	4.5 %	5.0 %	15.2 %	2.9 %	3.0 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.170 ppb	0.024 ppb	23.917 ppb	90.306 ppb	0.091 ppb	-0.062 ppb	0.414 ppb	3.032 ppb	98.967 %
Concentration per Run 1	0.108 ppb	0.022 ppb	23.399 ppb	84.001 ppb	0.105 ppb	-0.042 ppb	0.333 ppb	3.091 ppb	99.962 %
Concentration per Run 2	0.191 ppb	0.033 ppb	24.396 ppb	91.565 ppb	0.086 ppb	-0.074 ppb	0.478 ppb	2.980 ppb	96.627 %
Concentration per Run 3	0.211 ppb	0.017 ppb	23.955 ppb	95.351 ppb	0.080 ppb	-0.070 ppb	0.432 ppb	3.026 ppb	100.313 %
Concentration RSD	32.2 %	33.7 %	2.1 %	6.4 %	14.6 %	27.9 %	17.9 %	1.8 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.212 ppb	0.082 ppb	121.184 ppb	2.273 ppb	96.528 %	0.002 ppb	0.005 ppb	96.000 %	-0.059 ppb
Concentration per Run 1	0.194 ppb	0.027 ppb	115.744 ppb	1.982 ppb	96.089 %	0.001 ppb	0.003 ppb	94.665 %	-0.242 ppb
Concentration per Run 2	0.252 ppb	0.033 ppb	124.129 ppb	2.287 ppb	97.090 %	0.003 ppb	0.007 ppb	95.532 %	0.019 ppb
Concentration per Run 3	0.189 ppb	0.186 ppb	123.680 ppb	2.550 ppb	96.405 %	0.001 ppb	0.005 ppb	97.802 %	0.045 ppb
Concentration RSD	16.7 %	109.0 %	3.9 %	12.5 %	0.5 %	46.6 %	42.0 %	1.7 %	267.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.477 ppb	4.454 ppb	105.088 %	105.415 %	-0.011 ppb	0.070 ppb	0.179 ppb	97.573 %
Concentration per Run 1	1.411 ppb	4.116 ppb	102.105 %	103.248 %	-0.019 ppb	0.041 ppb	0.182 ppb	99.428 %
Concentration per Run 2	1.513 ppb	4.770 ppb	106.602 %	107.721 %	-0.016 ppb	0.085 ppb	0.179 ppb	96.005 %
Concentration per Run 3	1.507 ppb	4.475 ppb	106.558 %	105.275 %	0.004 ppb	0.084 ppb	0.177 ppb	97.287 %
Concentration RSD	3.9 %	7.4 %	2.5 %	2.1 %	118.5 %	36.3 %	1.3 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	139	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446400-01 2008TL	Rack	2		
Analysis started at:	8/21/2024 6:53:44 PM	Vial	32		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.913 %	111.247 %	0.005 ppb	34,045.625 ppb	3,025.244 ppb	7.424 ppb	18,541.085 ppb	9,784.890 ppb	101.768 %
Concentration per Run 1	100.708 %	107.651 %	0.007 ppb	33,708.989 ppb	3,035.939 ppb	7.800 ppb	18,463.527 ppb	9,551.958 ppb	102.307 %
Concentration per Run 2	99.761 %	104.667 %	0.005 ppb	35,808.012 ppb	3,169.357 ppb	6.875 ppb	18,809.767 ppb	10,111.298 ppb	101.772 %
Concentration per Run 3	99.271 %	121.423 %	0.002 ppb	32,619.874 ppb	2,870.434 ppb	7.598 ppb	18,349.962 ppb	9,691.413 ppb	101.226 %
Concentration RSD	0.7 %	8.0 %	52.6 %	4.8 %	4.9 %	6.6 %	1.3 %	3.0 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.120 ppb	0.264 ppb	26.462 ppb	92.123 ppb	0.066 ppb	-0.053 ppb	0.398 ppb	0.291 ppb	97.522 %
Concentration per Run 1	0.113 ppb	0.219 ppb	24.505 ppb	91.672 ppb	0.043 ppb	-0.059 ppb	0.405 ppb	0.271 ppb	100.716 %
Concentration per Run 2	0.136 ppb	0.280 ppb	27.966 ppb	89.542 ppb	0.104 ppb	-0.068 ppb	0.420 ppb	0.237 ppb	92.682 %
Concentration per Run 3	0.113 ppb	0.293 ppb	26.915 ppb	95.156 ppb	0.050 ppb	-0.034 ppb	0.370 ppb	0.366 ppb	99.169 %
Concentration RSD	11.3 %	15.0 %	6.7 %	3.1 %	50.8 %	32.7 %	6.4 %	23.0 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.223 ppb	0.137 ppb	127.583 ppb	1.933 ppb	98.475 %	-0.001 ppb	0.004 ppb	97.348 %	-0.434 ppb
Concentration per Run 1	0.196 ppb	0.185 ppb	116.634 ppb	1.756 ppb	104.192 %	-0.001 ppb	0.006 ppb	104.652 %	-0.527 ppb
Concentration per Run 2	0.192 ppb	0.174 ppb	137.977 ppb	1.887 ppb	93.199 %	0.000 ppb	0.005 ppb	90.585 %	-0.334 ppb
Concentration per Run 3	0.281 ppb	0.050 ppb	128.139 ppb	2.155 ppb	98.035 %	-0.002 ppb	0.001 ppb	96.807 %	-0.441 ppb
Concentration RSD	22.5 %	54.8 %	8.4 %	10.5 %	5.6 %	100.4 %	72.2 %	7.2 %	22.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.653 ppb	3.968 ppb	105.705 %	106.012 %	-0.013 ppb	0.069 ppb	0.036 ppb	97.343 %
Concentration per Run 1	0.551 ppb	3.779 ppb	112.426 %	112.605 %	-0.027 ppb	0.039 ppb	0.032 ppb	108.442 %
Concentration per Run 2	0.713 ppb	4.259 ppb	97.715 %	97.622 %	-0.008 ppb	0.093 ppb	0.038 ppb	88.017 %
Concentration per Run 3	0.695 ppb	3.865 ppb	106.975 %	107.808 %	-0.004 ppb	0.076 ppb	0.039 ppb	95.570 %
Concentration RSD	13.6 %	6.4 %	7.0 %	7.2 %	90.9 %	39.4 %	10.3 %	10.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	140	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446400-03 2008TL	Rack	2		
Analysis started at:	8/21/2024 6:58:13 PM	Vial	33		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.288 %	109.105 %	0.301 ppb	29,195.270 ppb	4,689.905 ppb	7,855.400 ppb	15,405.882 ppb	23,590.436 ppb	106.790 %
Concentration per Run 1	96.155 %	109.487 %	0.297 ppb	29,133.991 ppb	4,677.431 ppb	7,841.168 ppb	15,600.436 ppb	23,768.607 ppb	106.673 %
Concentration per Run 2	96.107 %	107.881 %	0.312 ppb	28,837.835 ppb	4,615.933 ppb	7,682.905 ppb	15,019.545 ppb	22,818.675 ppb	106.290 %
Concentration per Run 3	96.600 %	109.947 %	0.296 ppb	29,613.983 ppb	4,776.350 ppb	8,042.126 ppb	15,597.666 ppb	24,184.025 ppb	107.408 %
Concentration RSD	0.3 %	1.0 %	3.0 %	1.3 %	1.7 %	2.3 %	2.2 %	3.0 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	13.067 ppb	12.862 ppb	252.954 ppb	6,479.636 ppb	2.518 ppb	6.258 ppb	12.260 ppb	37.286 ppb	94.235 %
Concentration per Run 1	12.763 ppb	12.865 ppb	255.282 ppb	6,591.838 ppb	2.532 ppb	6.679 ppb	12.244 ppb	37.768 ppb	93.740 %
Concentration per Run 2	13.379 ppb	12.839 ppb	250.317 ppb	6,443.875 ppb	2.460 ppb	5.911 ppb	12.199 ppb	36.754 ppb	94.029 %
Concentration per Run 3	13.061 ppb	12.882 ppb	253.264 ppb	6,403.195 ppb	2.561 ppb	6.184 ppb	12.336 ppb	37.335 ppb	94.935 %
Concentration RSD	2.4 %	0.2 %	1.0 %	1.5 %	2.1 %	6.2 %	0.6 %	1.4 %	0.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	9.832 ppb	1.157 ppb	226.444 ppb	3.122 ppb	93.789 %	0.025 ppb	0.058 ppb	92.442 %	-0.566 ppb
Concentration per Run 1	9.809 ppb	1.193 ppb	220.608 ppb	3.006 ppb	95.670 %	0.020 ppb	0.046 ppb	95.380 %	-0.578 ppb
Concentration per Run 2	9.780 ppb	1.338 ppb	229.969 ppb	3.062 ppb	92.992 %	0.026 ppb	0.066 ppb	89.893 %	-0.589 ppb
Concentration per Run 3	9.905 ppb	0.940 ppb	228.757 ppb	3.299 ppb	92.704 %	0.027 ppb	0.061 ppb	92.054 %	-0.531 ppb
Concentration RSD	0.7 %	17.4 %	2.2 %	5.0 %	1.7 %	15.1 %	18.3 %	3.0 %	5.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.832 ppb	78.648 ppb	104.172 %	104.727 %	0.023 ppb	0.083 ppb	24.006 ppb	93.224 %
Concentration per Run 1	0.770 ppb	75.590 ppb	107.180 %	106.565 %	0.015 ppb	0.055 ppb	22.326 ppb	100.130 %
Concentration per Run 2	0.838 ppb	79.657 ppb	98.025 %	98.693 %	0.030 ppb	0.097 ppb	25.084 ppb	87.116 %
Concentration per Run 3	0.888 ppb	80.695 ppb	107.312 %	108.923 %	0.023 ppb	0.097 ppb	24.607 ppb	92.427 %
Concentration RSD	7.1 %	3.4 %	5.1 %	5.1 %	33.4 %	28.8 %	6.1 %	7.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	141	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446400-04 2008TL	Rack	2		
Analysis started at:	8/21/2024 7:02:42 PM	Vial	34		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.327 %	113.084 %	0.002 ppb	32,846.212 ppb	3,010.625 ppb	12.013 ppb	18,036.823 ppb	9,411.718 ppb	105.852 %
Concentration per Run 1	100.862 %	116.374 %	-0.001 ppb	30,934.568 ppb	2,830.522 ppb	12.967 ppb	17,155.997 ppb	8,759.743 ppb	105.905 %
Concentration per Run 2	100.738 %	113.390 %	0.004 ppb	32,547.045 ppb	2,969.192 ppb	11.547 ppb	18,032.574 ppb	9,410.119 ppb	106.607 %
Concentration per Run 3	99.381 %	109.487 %	0.002 ppb	35,057.023 ppb	3,232.160 ppb	11.524 ppb	18,921.898 ppb	10,065.293 ppb	105.045 %
Concentration RSD	0.8 %	3.1 %	145.8 %	6.3 %	6.8 %	6.9 %	4.9 %	6.9 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.009 ppb	0.241 ppb	24.545 ppb	96.857 ppb	0.046 ppb	0.003 ppb	0.323 ppb	5.267 ppb	98.573 %
Concentration per Run 1	0.017 ppb	0.209 ppb	21.934 ppb	94.491 ppb	0.046 ppb	-0.002 ppb	0.298 ppb	4.665 ppb	103.441 %
Concentration per Run 2	0.007 ppb	0.241 ppb	25.433 ppb	94.388 ppb	0.028 ppb	0.075 ppb	0.246 ppb	5.428 ppb	96.840 %
Concentration per Run 3	0.002 ppb	0.274 ppb	26.267 ppb	101.694 ppb	0.063 ppb	-0.063 ppb	0.426 ppb	5.709 ppb	95.438 %
Concentration RSD	87.2 %	13.5 %	9.4 %	4.3 %	38.0 %	2,059.2 %	28.8 %	10.3 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.186 ppb	0.054 ppb	119.806 ppb	1.654 ppb	97.960 %	-0.003 ppb	0.004 ppb	96.267 %	-0.584 ppb
Concentration per Run 1	0.184 ppb	0.171 ppb	111.401 ppb	1.542 ppb	102.924 %	-0.002 ppb	0.003 ppb	101.860 %	-0.647 ppb
Concentration per Run 2	0.156 ppb	-0.011 ppb	121.703 ppb	1.659 ppb	92.586 %	-0.002 ppb	0.003 ppb	90.093 %	-0.550 ppb
Concentration per Run 3	0.218 ppb	0.002 ppb	126.313 ppb	1.762 ppb	98.371 %	-0.004 ppb	0.005 ppb	96.849 %	-0.556 ppb
Concentration RSD	16.6 %	187.9 %	6.4 %	6.7 %	5.3 %	39.9 %	33.7 %	6.1 %	9.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.416 ppb	4.485 ppb	107.029 %	106.801 %	-0.017 ppb	0.054 ppb	0.273 ppb	102.190 %
Concentration per Run 1	0.400 ppb	4.296 ppb	111.599 %	109.864 %	-0.026 ppb	0.029 ppb	0.255 ppb	108.695 %
Concentration per Run 2	0.426 ppb	4.664 ppb	101.345 %	102.182 %	-0.020 ppb	0.059 ppb	0.287 ppb	97.453 %
Concentration per Run 3	0.423 ppb	4.495 ppb	108.141 %	108.358 %	-0.004 ppb	0.074 ppb	0.278 ppb	100.424 %
Concentration RSD	3.4 %	4.1 %	4.9 %	3.8 %	67.8 %	42.1 %	5.9 %	5.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	142	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961342-6d5 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:07:11 PM	Vial	41		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.647 %	116.909 %	0.001 ppb	17,965.681 ppb	7,337.362 ppb	7.741 ppb	6,193.079 ppb	46,286.011 ppb	114.064 %
Concentration per Run 1	104.600 %	111.094 %	0.000 ppb	16,947.448 ppb	7,450.588 ppb	8.095 ppb	6,304.170 ppb	46,222.175 ppb	114.439 %
Concentration per Run 2	105.262 %	121.423 %	0.000 ppb	16,286.273 ppb	7,252.124 ppb	6.352 ppb	6,087.045 ppb	45,181.247 ppb	113.783 %
Concentration per Run 3	104.078 %	118.210 %	0.002 ppb	20,663.322 ppb	7,309.376 ppb	8.777 ppb	6,188.023 ppb	47,454.611 ppb	113.969 %
Concentration RSD	0.6 %	4.5 %	190.3 %	13.1 %	1.4 %	16.2 %	1.8 %	2.5 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.228 ppb	1.364 ppb	231.899 ppb	2,526.490 ppb	0.146 ppb	0.209 ppb	0.056 ppb	1.079 ppb	102.524 %
Concentration per Run 1	0.237 ppb	1.479 ppb	224.479 ppb	2,495.257 ppb	0.154 ppb	0.280 ppb	0.069 ppb	1.063 ppb	104.944 %
Concentration per Run 2	0.241 ppb	1.371 ppb	231.173 ppb	2,492.385 ppb	0.137 ppb	0.176 ppb	0.080 ppb	1.049 ppb	101.710 %
Concentration per Run 3	0.207 ppb	1.241 ppb	240.045 ppb	2,591.828 ppb	0.149 ppb	0.171 ppb	0.020 ppb	1.123 ppb	100.917 %
Concentration RSD	8.2 %	8.8 %	3.4 %	2.2 %	5.9 %	29.4 %	56.2 %	3.6 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	3.277 ppb	0.002 ppb	271.409 ppb	0.043 ppb	102.236 %	-0.003 ppb	-0.001 ppb	100.188 %	-0.166 ppb
Concentration per Run 1	3.090 ppb	-0.074 ppb	262.787 ppb	0.001 ppb	106.160 %	-0.003 ppb	0.001 ppb	105.540 %	-0.221 ppb
Concentration per Run 2	3.362 ppb	0.154 ppb	265.705 ppb	0.029 ppb	98.116 %	-0.005 ppb	-0.001 ppb	94.687 %	-0.174 ppb
Concentration per Run 3	3.379 ppb	-0.074 ppb	285.736 ppb	0.099 ppb	102.433 %	-0.002 ppb	-0.001 ppb	100.337 %	-0.103 ppb
Concentration RSD	4.9 %	7,660.0 %	4.6 %	117.2 %	3.9 %	39.6 %	158.9 %	5.4 %	35.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.118 ppb	135.517 ppb	110.863 %	110.607 %	-0.001 ppb	-0.003 ppb	0.030 ppb	103.111 %
Concentration per Run 1	0.088 ppb	128.101 ppb	114.170 %	113.643 %	-0.006 ppb	-0.020 ppb	0.035 ppb	107.224 %
Concentration per Run 2	0.131 ppb	138.738 ppb	107.425 %	106.306 %	-0.002 ppb	0.005 ppb	0.030 ppb	101.613 %
Concentration per Run 3	0.135 ppb	139.711 ppb	110.994 %	111.872 %	0.005 ppb	0.006 ppb	0.026 ppb	100.497 %
Concentration RSD	21.9 %	4.8 %	3.0 %	3.5 %	663.4 %	518.6 %	15.3 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	143	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 7:11:40 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.734 %	113.313 %	62.480 ppb	5,940.940 ppb	5,788.675 ppb	57.829 ppb	5,570.843 ppb	5,563.589 ppb	113.778 %
Concentration per Run 1	103.447 %	120.735 %	62.134 ppb	5,606.835 ppb	5,494.904 ppb	54.273 ppb	5,369.123 ppb	5,306.534 ppb	114.458 %
Concentration per Run 2	102.608 %	112.242 %	62.279 ppb	6,071.868 ppb	5,917.459 ppb	58.946 ppb	5,637.899 ppb	5,479.628 ppb	112.102 %
Concentration per Run 3	102.148 %	106.963 %	63.028 ppb	6,144.117 ppb	5,953.662 ppb	60.268 ppb	5,705.506 ppb	5,904.606 ppb	114.773 %
Recovery Percentage 1			104.134 %	99.016 %	96.478 %	96.381 %	92.847 %	92.726 %	
Concentration RSD	0.6 %	6.1 %	0.8 %	4.9 %	4.4 %	5.4 %	3.2 %	5.5 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	54.991 ppb	58.297 ppb	59.402 ppb	5,902.314 ppb	60.627 ppb	59.793 ppb	61.792 ppb	61.329 ppb	102.143 %
Concentration per Run 1	51.235 ppb	55.267 ppb	57.196 ppb	5,595.852 ppb	57.407 ppb	56.391 ppb	58.205 ppb	58.024 ppb	108.295 %
Concentration per Run 2	55.000 ppb	58.005 ppb	59.873 ppb	5,940.406 ppb	60.061 ppb	60.451 ppb	62.179 ppb	61.733 ppb	104.396 %
Concentration per Run 3	58.739 ppb	61.620 ppb	61.138 ppb	6,170.686 ppb	64.411 ppb	62.537 ppb	64.994 ppb	64.230 ppb	93.738 %
Recovery Percentage 1	91.652 %	97.162 %	99.004 %	98.372 %	101.044 %	99.655 %	102.987 %	102.215 %	
Concentration RSD	6.8 %	5.5 %	3.4 %	4.9 %	5.8 %	5.2 %	5.5 %	5.1 %	7.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	60.071 ppb	57.923 ppb	57.645 ppb	62.433 ppb	103.757 %	59.299 ppb	63.073 ppb	100.989 %	60.773 ppb
Concentration per Run 1	56.447 ppb	56.357 ppb	53.975 ppb	57.227 ppb	108.953 %	56.583 ppb	60.076 ppb	104.538 %	57.168 ppb
Concentration per Run 2	60.821 ppb	58.622 ppb	57.783 ppb	64.140 ppb	102.555 %	60.520 ppb	64.450 ppb	99.296 %	61.868 ppb
Concentration per Run 3	62.944 ppb	58.789 ppb	61.178 ppb	65.932 ppb	99.763 %	60.794 ppb	64.692 ppb	99.132 %	63.283 ppb
Recovery Percentage 1	100.118 %	96.538 %	96.076 %	104.055 %		98.832 %	105.121 %		101.288 %
Concentration RSD	5.5 %	2.3 %	6.3 %	7.4 %	4.5 %	4.0 %	4.1 %	3.0 %	5.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.847 ppb	60.765 ppb	111.348 %	110.303 %	63.629 ppb	63.822 ppb	64.508 ppb	105.054 %
Concentration per Run 1	58.322 ppb	57.212 ppb	116.126 %	115.371 %	58.990 ppb	58.104 ppb	59.205 ppb	111.017 %
Concentration per Run 2	63.148 ppb	62.191 ppb	110.087 %	108.636 %	65.480 ppb	65.825 ppb	66.588 ppb	102.593 %
Concentration per Run 3	64.070 ppb	62.891 ppb	107.833 %	106.903 %	66.418 ppb	67.536 ppb	67.730 ppb	101.551 %
Recovery Percentage 1	103.078 %	101.274 %			106.049 %	106.370 %	107.513 %	
Concentration RSD	5.0 %	5.1 %	3.9 %	4.1 %	6.4 %	7.9 %	7.2 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	144	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 7:16:12 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.062 %	114.843 %	0.043 ppb	-29.430 ppb	1.862 ppb	0.368 ppb	12.229 ppb	3.182 ppb	102.734 %
Concentration per Run 1	101.928 %	115.685 %	0.038 ppb	-25.358 ppb	3.561 ppb	0.319 ppb	15.936 ppb	11.325 ppb	102.363 %
Concentration per Run 2	102.245 %	119.358 %	0.045 ppb	-33.832 ppb	0.860 ppb	0.718 ppb	12.273 ppb	-5.569 ppb	102.660 %
Concentration per Run 3	102.012 %	109.487 %	0.047 ppb	-29.099 ppb	1.165 ppb	0.066 ppb	8.478 ppb	3.789 ppb	103.181 %
Recovery Percentage 1			8.665 %	-29.430 %	2.660 %	3.676 %	12.229 %	3.182 %	
Concentration RSD	0.2 %	4.3 %	11.4 %	14.4 %	79.5 %	89.4 %	30.5 %	266.0 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.027 ppb	0.019 ppb	-0.020 ppb	7.432 ppb	0.026 ppb	-0.080 ppb	-0.149 ppb	-0.060 ppb	97.375 %
Concentration per Run 1	-0.015 ppb	0.013 ppb	-0.040 ppb	8.020 ppb	0.029 ppb	-0.092 ppb	-0.132 ppb	-0.060 ppb	104.744 %
Concentration per Run 2	-0.020 ppb	0.017 ppb	0.041 ppb	7.455 ppb	0.020 ppb	-0.023 ppb	-0.147 ppb	-0.082 ppb	98.420 %
Concentration per Run 3	-0.045 ppb	0.028 ppb	-0.062 ppb	6.821 ppb	0.028 ppb	-0.125 ppb	-0.167 ppb	-0.039 ppb	88.960 %
Recovery Percentage 1	-0.535 %	1.927 %	-2.035 %	14.864 %	5.138 %	-3.998 %	-14.885 %	-1.208 %	
Concentration RSD	61.3 %	40.8 %	267.5 %	8.1 %	19.0 %	65.1 %	11.8 %	35.2 %	8.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.067 ppb	0.067 ppb	0.149 ppb	0.308 ppb	102.747 %	0.027 ppb	0.026 ppb	98.451 %	0.000 ppb
Concentration per Run 1	0.087 ppb	0.062 ppb	0.176 ppb	0.260 ppb	106.491 %	0.026 ppb	0.046 ppb	103.875 %	-0.144 ppb
Concentration per Run 2	0.047 ppb	0.060 ppb	0.157 ppb	0.293 ppb	102.208 %	0.030 ppb	0.021 ppb	98.325 %	0.015 ppb
Concentration per Run 3	0.068 ppb	0.079 ppb	0.115 ppb	0.369 ppb	99.543 %	0.025 ppb	0.012 ppb	93.152 %	0.130 ppb
Recovery Percentage 1	13.480 %	1.338 %	1.494 %	15.376 %		6.728 %	13.070 %		-0.001 %
Concentration RSD	29.4 %	15.3 %	20.9 %	18.2 %	3.4 %	10.3 %	67.1 %	5.4 %	795,105.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.117 ppb	0.054 ppb	108.969 %	108.208 %	0.510 ppb	0.647 ppb	0.033 ppb	102.519 %
Concentration per Run 1	0.085 ppb	0.044 ppb	111.378 %	111.337 %	0.396 ppb	0.486 ppb	0.035 ppb	109.308 %
Concentration per Run 2	0.127 ppb	0.067 ppb	109.141 %	107.960 %	0.529 ppb	0.801 ppb	0.037 ppb	100.491 %
Concentration per Run 3	0.140 ppb	0.050 ppb	106.389 %	105.328 %	0.605 ppb	0.653 ppb	0.028 ppb	97.758 %
Recovery Percentage 1	2.937 %	10.791 %			25.501 %	64.673 %	3.328 %	
Concentration RSD	24.4 %	21.9 %	2.3 %	2.8 %	20.7 %	24.4 %	14.5 %	5.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	145	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961342-1 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:20:44 PM	Vial	35		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.907 %	119.205 %	0.011 ppb	-44.284 ppb	2.106 ppb	1.610 ppb	6.020 ppb	2.699 ppb	105.063 %
Concentration per Run 1	101.202 %	125.785 %	0.015 ppb	-38.120 ppb	4.166 ppb	1.785 ppb	13.380 ppb	2.066 ppb	104.650 %
Concentration per Run 2	102.342 %	114.308 %	0.007 ppb	-46.576 ppb	1.511 ppb	1.519 ppb	4.338 ppb	1.006 ppb	104.929 %
Concentration per Run 3	102.177 %	117.521 %	0.010 ppb	-48.157 ppb	0.642 ppb	1.524 ppb	0.343 ppb	5.025 ppb	105.610 %
Concentration RSD	0.6 %	5.0 %	38.5 %	12.2 %	87.2 %	9.4 %	110.9 %	77.2 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.046 ppb	0.001 ppb	0.022 ppb	4.662 ppb	0.021 ppb	-0.046 ppb	-0.083 ppb	0.067 ppb	101.946 %
Concentration per Run 1	-0.046 ppb	0.012 ppb	0.072 ppb	4.093 ppb	0.034 ppb	-0.040 ppb	-0.097 ppb	0.081 ppb	109.696 %
Concentration per Run 2	-0.057 ppb	-0.005 ppb	-0.013 ppb	6.117 ppb	0.012 ppb	-0.069 ppb	-0.034 ppb	0.020 ppb	100.181 %
Concentration per Run 3	-0.036 ppb	-0.005 ppb	0.008 ppb	3.777 ppb	0.015 ppb	-0.028 ppb	-0.119 ppb	0.102 ppb	95.959 %
Concentration RSD	21.9 %	1,024.2 %	199.2 %	27.2 %	56.2 %	46.3 %	53.1 %	63.4 %	6.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.029 ppb	-0.022 ppb	0.102 ppb	0.072 ppb	102.576 %	0.014 ppb	0.016 ppb	100.705 %	-0.406 ppb
Concentration per Run 1	0.006 ppb	-0.018 ppb	0.127 ppb	0.046 ppb	109.844 %	0.018 ppb	0.019 ppb	111.674 %	-0.464 ppb
Concentration per Run 2	0.031 ppb	-0.013 ppb	0.084 ppb	0.072 ppb	101.611 %	0.010 ppb	0.017 ppb	98.514 %	-0.367 ppb
Concentration per Run 3	0.051 ppb	-0.035 ppb	0.094 ppb	0.097 ppb	96.274 %	0.015 ppb	0.012 ppb	91.927 %	-0.387 ppb
Concentration RSD	77.8 %	52.7 %	22.2 %	36.2 %	6.7 %	28.2 %	23.2 %	10.0 %	12.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.056 ppb	0.054 ppb	108.128 %	107.627 %	0.120 ppb	0.186 ppb	0.018 ppb	104.670 %
Concentration per Run 1	0.044 ppb	0.047 ppb	114.969 %	116.499 %	0.070 ppb	0.094 ppb	0.021 ppb	113.691 %
Concentration per Run 2	0.050 ppb	0.048 ppb	107.128 %	105.897 %	0.116 ppb	0.222 ppb	0.015 ppb	104.263 %
Concentration per Run 3	0.074 ppb	0.067 ppb	102.286 %	100.484 %	0.172 ppb	0.242 ppb	0.020 ppb	96.058 %
Concentration RSD	28.3 %	21.1 %	5.9 %	7.6 %	42.7 %	43.1 %	17.9 %	8.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	146	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961612-1 CT-6020SL	Rack	2		
Analysis started at:	8/21/2024 7:25:13 PM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.295 %	115.685 %	0.010 ppb	-54.226 ppb	-1.341 ppb	0.981 ppb	-3.748 ppb	-7.641 ppb	99.737 %
Concentration per Run 1	96.772 %	116.603 %	0.011 ppb	-53.475 ppb	-1.615 ppb	1.129 ppb	-0.578 ppb	-10.790 ppb	101.106 %
Concentration per Run 2	96.561 %	116.833 %	0.006 ppb	-54.797 ppb	-0.751 ppb	1.039 ppb	-5.720 ppb	-9.427 ppb	100.306 %
Concentration per Run 3	95.553 %	113.619 %	0.013 ppb	-54.405 ppb	-1.656 ppb	0.776 ppb	-4.946 ppb	-2.706 ppb	97.799 %
Concentration RSD	0.7 %	1.5 %	36.0 %	1.3 %	38.1 %	18.7 %	74.0 %	56.6 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.011 ppb	-0.008 ppb	-0.054 ppb	4.470 ppb	0.006 ppb	-0.078 ppb	-0.018 ppb	0.127 ppb	101.897 %
Concentration per Run 1	-0.004 ppb	-0.032 ppb	-0.057 ppb	4.760 ppb	0.004 ppb	-0.055 ppb	-0.085 ppb	0.053 ppb	111.124 %
Concentration per Run 2	-0.034 ppb	-0.004 ppb	-0.063 ppb	4.441 ppb	0.005 ppb	-0.047 ppb	0.088 ppb	0.134 ppb	96.652 %
Concentration per Run 3	0.007 ppb	0.011 ppb	-0.041 ppb	4.208 ppb	0.010 ppb	-0.131 ppb	-0.056 ppb	0.195 ppb	97.916 %
Concentration RSD	199.9 %	269.4 %	21.0 %	6.2 %	50.6 %	59.4 %	529.8 %	56.0 %	7.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.012 ppb	0.020 ppb	0.034 ppb	0.027 ppb	103.086 %	0.002 ppb	0.007 ppb	99.955 %	-0.154 ppb
Concentration per Run 1	0.004 ppb	0.152 ppb	0.053 ppb	-0.033 ppb	110.754 %	0.006 ppb	0.010 ppb	107.558 %	-0.205 ppb
Concentration per Run 2	0.035 ppb	0.057 ppb	0.031 ppb	0.021 ppb	103.173 %	0.003 ppb	0.001 ppb	98.133 %	-0.136 ppb
Concentration per Run 3	-0.004 ppb	-0.148 ppb	0.020 ppb	0.092 ppb	95.329 %	-0.002 ppb	0.009 ppb	94.175 %	-0.120 ppb
Concentration RSD	174.1 %	758.5 %	49.2 %	235.0 %	7.5 %	154.4 %	77.6 %	6.9 %	29.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.038 ppb	0.019 ppb	108.172 %	107.733 %	0.047 ppb	0.097 ppb	0.004 ppb	103.307 %
Concentration per Run 1	0.045 ppb	-0.008 ppb	115.678 %	116.712 %	0.013 ppb	0.034 ppb	0.003 ppb	112.082 %
Concentration per Run 2	0.037 ppb	0.028 ppb	107.245 %	106.418 %	0.050 ppb	0.121 ppb	0.004 ppb	101.158 %
Concentration per Run 3	0.030 ppb	0.038 ppb	101.593 %	100.070 %	0.079 ppb	0.137 ppb	0.004 ppb	96.681 %
Concentration RSD	20.4 %	124.4 %	6.6 %	7.8 %	69.0 %	56.9 %	8.7 %	7.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	147	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446490-02 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:29:43 PM	Vial	37		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.477 %	110.176 %	0.014 ppb	86,431.845 ppb	37,805.902 ppb	25.242 ppb	32,805.311 ppb	242,613.941 ppb	111.297 %
Concentration per Run 1	97.117 %	106.963 %	0.016 ppb	87,098.302 ppb	38,215.680 ppb	26.188 ppb	33,891.991 ppb	246,516.677 ppb	111.996 %
Concentration per Run 2	96.377 %	108.340 %	0.014 ppb	87,608.198 ppb	38,212.804 ppb	25.677 ppb	32,802.849 ppb	244,690.146 ppb	111.251 %
Concentration per Run 3	95.937 %	115.226 %	0.013 ppb	84,589.036 ppb	36,989.221 ppb	23.861 ppb	31,721.094 ppb	236,635.000 ppb	110.645 %
Concentration RSD	0.6 %	4.0 %	10.3 %	1.9 %	1.9 %	4.8 %	3.3 %	2.2 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.147 ppb	6.947 ppb	1,184.341 ppb	12,838.736 ppb	0.766 ppb	0.759 ppb	0.682 ppb	4.985 ppb	98.695 %
Concentration per Run 1	1.162 ppb	6.745 ppb	1,169.518 ppb	12,363.273 ppb	0.731 ppb	0.770 ppb	0.597 ppb	4.944 ppb	104.183 %
Concentration per Run 2	1.133 ppb	7.235 ppb	1,209.522 ppb	13,166.724 ppb	0.800 ppb	0.803 ppb	0.662 ppb	4.979 ppb	96.004 %
Concentration per Run 3	1.146 ppb	6.862 ppb	1,173.983 ppb	12,986.212 ppb	0.768 ppb	0.705 ppb	0.786 ppb	5.032 ppb	95.897 %
Concentration RSD	1.3 %	3.7 %	1.9 %	3.3 %	4.5 %	6.6 %	14.0 %	0.9 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	15.997 ppb	0.286 ppb	1,447.258 ppb	0.053 ppb	95.349 %	-0.001 ppb	0.006 ppb	96.621 %	-0.650 ppb
Concentration per Run 1	15.457 ppb	0.336 ppb	1,432.061 ppb	0.000 ppb	98.119 %	-0.003 ppb	0.005 ppb	101.338 %	-0.645 ppb
Concentration per Run 2	16.539 ppb	0.221 ppb	1,454.725 ppb	0.076 ppb	94.047 %	0.001 ppb	0.005 ppb	94.829 %	-0.626 ppb
Concentration per Run 3	15.994 ppb	0.302 ppb	1,454.989 ppb	0.082 ppb	93.882 %	-0.001 ppb	0.007 ppb	93.697 %	-0.679 ppb
Concentration RSD	3.4 %	20.6 %	0.9 %	87.4 %	2.5 %	247.2 %	24.5 %	4.3 %	4.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.064 ppb	687.647 ppb	107.632 %	107.469 %	0.146 ppb	0.059 ppb	0.118 ppb	95.186 %
Concentration per Run 1	0.058 ppb	669.487 ppb	112.440 %	113.239 %	0.111 ppb	0.010 ppb	0.106 ppb	101.195 %
Concentration per Run 2	0.051 ppb	696.193 ppb	104.743 %	104.134 %	0.150 ppb	0.086 ppb	0.122 ppb	92.821 %
Concentration per Run 3	0.084 ppb	697.260 ppb	105.715 %	105.034 %	0.177 ppb	0.081 ppb	0.125 ppb	91.542 %
Concentration RSD	26.9 %	2.3 %	3.9 %	4.7 %	22.7 %	72.4 %	8.6 %	5.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	148	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961342-3d10 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:34:11 PM	Vial	38		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.963 %	114.920 %	5.342 ppb	11,564.189 ppb	4,738.477 ppb	195.164 ppb	4,195.271 ppb	24,792.546 ppb	107.202 %
Concentration per Run 1	103.005 %	114.767 %	5.315 ppb	10,875.930 ppb	4,468.703 ppb	183.738 ppb	3,899.674 ppb	23,266.921 ppb	107.055 %
Concentration per Run 2	102.007 %	116.603 %	5.314 ppb	12,140.686 ppb	4,936.630 ppb	202.424 ppb	4,548.411 ppb	26,258.235 ppb	108.112 %
Concentration per Run 3	100.876 %	113.390 %	5.396 ppb	11,675.950 ppb	4,810.097 ppb	199.329 ppb	4,137.727 ppb	24,852.483 ppb	106.439 %
Concentration RSD	1.0 %	1.4 %	0.9 %	5.5 %	5.1 %	5.1 %	7.8 %	6.0 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.184 ppb	20.058 ppb	168.232 ppb	1,390.797 ppb	50.497 ppb	49.154 ppb	25.241 ppb	51.184 ppb	104.047 %
Concentration per Run 1	45.420 ppb	19.456 ppb	161.229 ppb	1,317.492 ppb	49.478 ppb	48.039 ppb	23.978 ppb	50.125 ppb	103.637 %
Concentration per Run 2	47.418 ppb	20.285 ppb	173.636 ppb	1,429.890 ppb	50.712 ppb	48.321 ppb	25.240 ppb	51.308 ppb	107.975 %
Concentration per Run 3	48.714 ppb	20.434 ppb	169.831 ppb	1,425.010 ppb	51.303 ppb	51.103 ppb	26.506 ppb	52.120 ppb	100.529 %
Concentration RSD	3.5 %	2.6 %	3.8 %	4.6 %	1.8 %	3.4 %	5.0 %	2.0 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	13.716 ppb	12.503 ppb	235.193 ppb	101.871 ppb	102.882 %	5.174 ppb	5.573 ppb	101.431 %	97.186 ppb
Concentration per Run 1	13.458 ppb	11.201 ppb	221.007 ppb	97.335 ppb	105.234 %	5.090 ppb	5.392 ppb	101.209 %	95.106 ppb
Concentration per Run 2	13.815 ppb	12.852 ppb	247.753 ppb	102.551 ppb	102.557 %	5.118 ppb	5.572 ppb	103.683 %	97.981 ppb
Concentration per Run 3	13.874 ppb	13.456 ppb	236.818 ppb	105.726 ppb	100.855 %	5.314 ppb	5.755 ppb	99.401 %	98.470 ppb
Concentration RSD	1.6 %	9.3 %	5.7 %	4.2 %	2.1 %	2.4 %	3.3 %	2.1 %	1.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	51.085 ppb	273.039 ppb	111.332 %	110.425 %	0.037 ppb	13.346 ppb	56.698 ppb	103.311 %
Concentration per Run 1	49.642 ppb	261.246 ppb	112.387 %	110.758 %	0.022 ppb	12.634 ppb	53.454 ppb	106.799 %
Concentration per Run 2	52.195 ppb	280.220 ppb	112.795 %	112.822 %	0.039 ppb	13.497 ppb	57.643 ppb	102.847 %
Concentration per Run 3	51.417 ppb	277.652 ppb	108.814 %	107.693 %	0.049 ppb	13.907 ppb	58.996 ppb	100.288 %
Concentration RSD	2.6 %	3.8 %	2.0 %	2.3 %	36.8 %	4.9 %	5.1 %	3.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	149	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961342-4 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:38:40 PM	Vial	39		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.404 %	115.685 %	0.018 ppb	85,425.866 ppb	37,626.072 ppb	24.343 ppb	33,068.596 ppb	246,040.434 ppb	107.160 %
Concentration per Run 1	96.476 %	116.603 %	0.013 ppb	81,115.537 ppb	35,765.113 ppb	24.201 ppb	31,180.273 ppb	232,067.666 ppb	107.643 %
Concentration per Run 2	95.575 %	108.110 %	0.022 ppb	93,303.421 ppb	41,424.996 ppb	26.690 ppb	36,432.595 ppb	268,239.402 ppb	107.647 %
Concentration per Run 3	94.161 %	122.342 %	0.018 ppb	81,858.641 ppb	35,688.108 ppb	22.139 ppb	31,592.920 ppb	237,814.234 ppb	106.189 %
Concentration RSD	1.2 %	6.2 %	26.1 %	8.0 %	8.7 %	9.4 %	8.8 %	7.9 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.215 ppb	6.795 ppb	1,201.095 ppb	12,990.946 ppb	0.772 ppb	0.556 ppb	0.455 ppb	5.239 ppb	98.129 %
Concentration per Run 1	1.174 ppb	6.628 ppb	1,153.424 ppb	12,532.925 ppb	0.719 ppb	0.555 ppb	0.504 ppb	5.021 ppb	98.659 %
Concentration per Run 2	1.190 ppb	7.196 ppb	1,274.505 ppb	13,678.345 ppb	0.780 ppb	0.559 ppb	0.363 ppb	5.553 ppb	100.189 %
Concentration per Run 3	1.280 ppb	6.560 ppb	1,175.357 ppb	12,761.568 ppb	0.817 ppb	0.555 ppb	0.499 ppb	5.142 ppb	95.539 %
Concentration RSD	4.7 %	5.1 %	5.4 %	4.7 %	6.4 %	0.4 %	17.6 %	5.3 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	16.184 ppb	0.198 ppb	1,481.729 ppb	0.587 ppb	95.172 %	0.001 ppb	0.003 ppb	94.494 %	-0.220 ppb
Concentration per Run 1	15.929 ppb	0.152 ppb	1,398.551 ppb	0.475 ppb	95.964 %	0.007 ppb	0.005 ppb	92.702 %	-0.357 ppb
Concentration per Run 2	16.717 ppb	0.210 ppb	1,563.050 ppb	0.498 ppb	95.629 %	-0.004 ppb	0.005 ppb	97.921 %	-0.212 ppb
Concentration per Run 3	15.906 ppb	0.231 ppb	1,483.586 ppb	0.786 ppb	93.924 %	-0.001 ppb	-0.001 ppb	92.859 %	-0.091 ppb
Concentration RSD	2.9 %	20.7 %	5.6 %	29.5 %	1.1 %	773.5 %	126.4 %	3.1 %	60.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.137 ppb	713.453 ppb	105.665 %	105.734 %	0.136 ppb	0.053 ppb	0.167 ppb	90.651 %
Concentration per Run 1	0.104 ppb	690.998 ppb	106.072 %	105.124 %	0.123 ppb	0.029 ppb	0.169 ppb	93.350 %
Concentration per Run 2	0.141 ppb	733.246 ppb	106.899 %	109.191 %	0.127 ppb	0.065 ppb	0.165 ppb	89.816 %
Concentration per Run 3	0.166 ppb	716.116 ppb	104.023 %	102.886 %	0.157 ppb	0.065 ppb	0.167 ppb	88.788 %
Concentration RSD	22.8 %	3.0 %	1.4 %	3.0 %	13.6 %	39.2 %	1.1 %	2.6 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	150	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961342-5d10 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:43:09 PM	Vial	40		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.220 %	115.532 %	47.082 ppb	14,560.226 ppb	8,010.111 ppb	45.041 ppb	7,473.422 ppb	27,729.975 ppb	105.037 %
Concentration per Run 1	100.982 %	113.160 %	47.059 ppb	14,193.243 ppb	7,763.056 ppb	41.258 ppb	7,241.366 ppb	26,687.119 ppb	105.628 %
Concentration per Run 2	100.353 %	123.030 %	47.506 ppb	14,351.922 ppb	7,994.727 ppb	46.469 ppb	7,622.451 ppb	28,154.565 ppb	104.769 %
Concentration per Run 3	99.324 %	110.406 %	46.680 ppb	15,135.512 ppb	8,272.548 ppb	47.396 ppb	7,556.451 ppb	28,348.241 ppb	104.715 %
Concentration RSD	0.8 %	5.7 %	0.9 %	3.5 %	3.2 %	7.3 %	2.7 %	3.3 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	42.267 ppb	44.233 ppb	159.489 ppb	5,749.222 ppb	45.473 ppb	44.856 ppb	46.214 ppb	46.626 ppb	99.387 %
Concentration per Run 1	41.455 ppb	43.024 ppb	154.594 ppb	5,582.354 ppb	44.533 ppb	44.294 ppb	46.356 ppb	45.625 ppb	98.465 %
Concentration per Run 2	42.339 ppb	43.683 ppb	160.527 ppb	5,712.761 ppb	45.133 ppb	43.513 ppb	45.331 ppb	46.425 ppb	102.088 %
Concentration per Run 3	43.007 ppb	45.993 ppb	163.346 ppb	5,952.552 ppb	46.752 ppb	46.761 ppb	46.954 ppb	47.829 ppb	97.609 %
Concentration RSD	1.8 %	3.5 %	2.8 %	3.3 %	2.5 %	3.8 %	1.8 %	2.4 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	48.375 ppb	45.117 ppb	184.311 ppb	48.897 ppb	99.548 %	3.295 ppb	47.344 ppb	97.091 %	46.346 ppb
Concentration per Run 1	46.459 ppb	42.291 ppb	176.314 ppb	46.779 ppb	100.400 %	3.233 ppb	45.281 ppb	97.642 %	44.540 ppb
Concentration per Run 2	49.783 ppb	47.785 ppb	191.962 ppb	50.553 ppb	99.218 %	3.318 ppb	48.460 ppb	98.090 %	47.515 ppb
Concentration per Run 3	48.883 ppb	45.275 ppb	184.657 ppb	49.358 ppb	99.026 %	3.336 ppb	48.290 ppb	95.541 %	46.982 ppb
Concentration RSD	3.6 %	6.1 %	4.2 %	3.9 %	0.7 %	1.7 %	3.8 %	1.4 %	3.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	47.589 ppb	115.688 ppb	107.137 %	106.473 %	46.623 ppb	49.626 ppb	50.797 ppb	98.283 %
Concentration per Run 1	45.176 ppb	109.814 ppb	107.900 %	105.925 %	44.867 ppb	46.143 ppb	47.326 ppb	102.517 %
Concentration per Run 2	49.276 ppb	120.829 ppb	107.073 %	107.833 %	47.180 ppb	51.209 ppb	52.714 ppb	96.059 %
Concentration per Run 3	48.315 ppb	116.421 ppb	106.439 %	105.660 %	47.822 ppb	51.527 ppb	52.353 ppb	96.274 %
Concentration RSD	4.5 %	4.8 %	0.7 %	1.1 %	3.3 %	6.1 %	5.9 %	3.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	151	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446490-03 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:47:38 PM	Vial	42		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.703 %	113.619 %	0.041 ppb	49,976.976 ppb	9,999.745 ppb	262.315 ppb	5,714.331 ppb	41,696.033 ppb	112.111 %
Concentration per Run 1	106.270 %	108.569 %	0.044 ppb	49,352.873 ppb	9,814.348 ppb	247.827 ppb	5,522.154 ppb	40,364.454 ppb	112.040 %
Concentration per Run 2	105.879 %	120.735 %	0.035 ppb	47,900.462 ppb	9,582.822 ppb	254.737 ppb	5,524.482 ppb	40,492.594 ppb	113.464 %
Concentration per Run 3	101.959 %	111.553 %	0.044 ppb	52,677.592 ppb	10,602.066 ppb	284.380 ppb	6,096.356 ppb	44,231.052 ppb	110.830 %
Concentration RSD	2.3 %	5.6 %	12.6 %	4.9 %	5.3 %	7.4 %	5.8 %	5.3 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.585 ppb	0.668 ppb	21.330 ppb	438.696 ppb	0.352 ppb	0.964 ppb	1.143 ppb	6.401 ppb	105.236 %
Concentration per Run 1	0.500 ppb	0.619 ppb	20.639 ppb	436.356 ppb	0.351 ppb	1.034 ppb	1.102 ppb	6.181 ppb	105.145 %
Concentration per Run 2	0.604 ppb	0.697 ppb	21.400 ppb	427.368 ppb	0.326 ppb	0.846 ppb	1.215 ppb	6.384 ppb	105.637 %
Concentration per Run 3	0.652 ppb	0.687 ppb	21.950 ppb	452.365 ppb	0.378 ppb	1.012 ppb	1.112 ppb	6.637 ppb	104.926 %
Concentration RSD	13.2 %	6.3 %	3.1 %	2.9 %	7.4 %	10.7 %	5.5 %	3.6 %	0.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	2.077 ppb	0.298 ppb	135.334 ppb	0.754 ppb	101.709 %	0.008 ppb	0.060 ppb	101.683 %	-0.484 ppb
Concentration per Run 1	1.958 ppb	0.312 ppb	126.504 ppb	0.610 ppb	104.268 %	0.008 ppb	0.074 ppb	101.957 %	-0.481 ppb
Concentration per Run 2	2.265 ppb	0.446 ppb	137.532 ppb	0.747 ppb	100.185 %	0.011 ppb	0.046 ppb	99.485 %	-0.486 ppb
Concentration per Run 3	2.009 ppb	0.135 ppb	141.965 ppb	0.903 ppb	100.673 %	0.006 ppb	0.059 ppb	103.608 %	-0.485 ppb
Concentration RSD	7.9 %	52.5 %	5.9 %	19.5 %	2.2 %	31.3 %	24.0 %	2.0 %	0.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.183 ppb	36.312 ppb	111.610 %	111.080 %	0.460 ppb	0.468 ppb	1.848 ppb	101.306 %
Concentration per Run 1	0.179 ppb	34.818 ppb	113.467 %	112.099 %	0.367 ppb	0.339 ppb	1.745 ppb	104.903 %
Concentration per Run 2	0.182 ppb	37.539 ppb	110.634 %	110.792 %	0.471 ppb	0.572 ppb	1.867 ppb	100.261 %
Concentration per Run 3	0.187 ppb	36.580 ppb	110.730 %	110.347 %	0.543 ppb	0.492 ppb	1.932 ppb	98.754 %
Concentration RSD	2.2 %	3.8 %	1.4 %	0.8 %	19.3 %	25.3 %	5.2 %	3.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	152	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446490-04 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:52:07 PM	Vial	43		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.209 %	108.952 %	0.018 ppb	86,779.449 ppb	38,444.085 ppb	28.073 ppb	33,615.487 ppb	250,038.234 ppb	106.118 %
Concentration per Run 1	95.158 %	114.308 %	0.016 ppb	79,169.148 ppb	34,838.457 ppb	25.075 ppb	30,774.779 ppb	228,593.113 ppb	106.866 %
Concentration per Run 2	93.966 %	99.847 %	0.017 ppb	92,922.673 ppb	41,117.448 ppb	29.926 ppb	34,856.273 ppb	258,564.954 ppb	105.481 %
Concentration per Run 3	93.501 %	112.701 %	0.020 ppb	88,246.525 ppb	39,376.352 ppb	29.216 ppb	35,215.411 ppb	262,956.636 ppb	106.008 %
Concentration RSD	0.9 %	7.3 %	13.0 %	8.1 %	8.4 %	9.3 %	7.3 %	7.5 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.335 ppb	7.065 ppb	1,200.185 ppb	15,997.107 ppb	0.887 ppb	0.605 ppb	0.555 ppb	5.901 ppb	97.492 %
Concentration per Run 1	1.344 ppb	6.526 ppb	1,124.737 ppb	15,024.649 ppb	0.775 ppb	0.598 ppb	0.424 ppb	5.572 ppb	99.653 %
Concentration per Run 2	1.295 ppb	7.400 ppb	1,242.241 ppb	16,770.592 ppb	1.020 ppb	0.584 ppb	0.704 ppb	6.328 ppb	93.745 %
Concentration per Run 3	1.365 ppb	7.268 ppb	1,233.578 ppb	16,196.080 ppb	0.865 ppb	0.632 ppb	0.537 ppb	5.805 ppb	99.080 %
Concentration RSD	2.7 %	6.7 %	5.5 %	5.6 %	13.9 %	4.1 %	25.4 %	6.6 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	17.209 ppb	0.277 ppb	1,457.645 ppb	0.165 ppb	95.042 %	-0.004 ppb	0.013 ppb	94.345 %	-0.040 ppb
Concentration per Run 1	15.949 ppb	0.183 ppb	1,351.175 ppb	0.083 ppb	97.353 %	-0.004 ppb	0.009 ppb	93.244 %	-0.613 ppb
Concentration per Run 2	18.033 ppb	0.328 ppb	1,468.876 ppb	0.139 ppb	93.276 %	-0.004 ppb	0.019 ppb	91.778 %	-0.563 ppb
Concentration per Run 3	17.645 ppb	0.320 ppb	1,552.885 ppb	0.272 ppb	94.498 %	-0.005 ppb	0.011 ppb	98.011 %	1.057 ppb
Concentration RSD	6.4 %	29.4 %	7.0 %	58.9 %	2.2 %	20.7 %	36.8 %	3.5 %	2,370.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.071 ppb	713.834 ppb	107.141 %	107.504 %	0.238 ppb	0.145 ppb	0.173 ppb	92.294 %
Concentration per Run 1	0.058 ppb	686.052 ppb	106.997 %	107.254 %	0.196 ppb	0.066 ppb	0.167 ppb	96.603 %
Concentration per Run 2	0.059 ppb	727.171 ppb	105.942 %	105.846 %	0.254 ppb	0.192 ppb	0.176 ppb	90.619 %
Concentration per Run 3	0.097 ppb	728.279 ppb	108.485 %	109.412 %	0.263 ppb	0.177 ppb	0.176 ppb	89.658 %
Concentration RSD	30.7 %	3.4 %	1.2 %	1.7 %	15.4 %	47.6 %	2.9 %	4.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	153	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446490-05 6020TL	Rack	2		
Analysis started at:	8/21/2024 7:56:36 PM	Vial	44		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.796 %	111.630 %	0.009 ppb	73,980.610 ppb	16,535.597 ppb	5.093 ppb	4,380.201 ppb	152,250.249 ppb	106.311 %
Concentration per Run 1	95.837 %	112.242 %	0.006 ppb	69,148.341 ppb	15,407.927 ppb	4.721 ppb	4,096.358 ppb	141,390.962 ppb	106.993 %
Concentration per Run 2	96.251 %	109.717 %	0.012 ppb	75,579.061 ppb	16,811.541 ppb	5.556 ppb	4,356.142 ppb	151,901.159 ppb	106.475 %
Concentration per Run 3	95.300 %	112.930 %	0.009 ppb	77,214.428 ppb	17,387.322 ppb	5.003 ppb	4,688.103 ppb	163,458.625 ppb	105.466 %
Concentration RSD	0.5 %	1.5 %	30.6 %	5.8 %	6.2 %	8.3 %	6.8 %	7.2 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.044 ppb	0.238 ppb	2,544.807 ppb	9,616.736 ppb	6.558 ppb	3.580 ppb	0.012 ppb	4.314 ppb	97.526 %
Concentration per Run 1	-0.067 ppb	0.229 ppb	2,337.174 ppb	8,867.268 ppb	5.854 ppb	3.261 ppb	-0.016 ppb	3.845 ppb	101.345 %
Concentration per Run 2	-0.014 ppb	0.236 ppb	2,580.632 ppb	9,821.361 ppb	6.930 ppb	3.684 ppb	0.000 ppb	4.436 ppb	93.286 %
Concentration per Run 3	-0.050 ppb	0.250 ppb	2,716.615 ppb	10,161.578 ppb	6.890 ppb	3.794 ppb	0.054 ppb	4.660 ppb	97.948 %
Concentration RSD	62.9 %	4.5 %	7.6 %	7.0 %	9.3 %	7.9 %	297.7 %	9.8 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	17.911 ppb	0.195 ppb	225.212 ppb	0.121 ppb	96.413 %	-0.001 ppb	0.072 ppb	96.957 %	-0.557 ppb
Concentration per Run 1	16.202 ppb	0.289 ppb	202.889 ppb	0.090 ppb	100.346 %	-0.001 ppb	0.060 ppb	99.884 %	-0.633 ppb
Concentration per Run 2	18.705 ppb	0.204 ppb	226.660 ppb	0.108 ppb	93.594 %	0.000 ppb	0.074 ppb	91.680 %	-0.497 ppb
Concentration per Run 3	18.827 ppb	0.091 ppb	246.088 ppb	0.163 ppb	95.299 %	-0.001 ppb	0.082 ppb	99.306 %	-0.541 ppb
Concentration RSD	8.3 %	51.0 %	9.6 %	31.6 %	3.6 %	100.3 %	15.6 %	4.7 %	12.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.066 ppb	59.212 ppb	107.633 %	106.665 %	0.052 ppb	0.166 ppb	0.050 ppb	94.845 %
Concentration per Run 1	0.058 ppb	54.779 ppb	110.527 %	106.999 %	0.021 ppb	0.115 ppb	0.042 ppb	100.164 %
Concentration per Run 2	0.081 ppb	61.386 ppb	104.650 %	103.585 %	0.055 ppb	0.196 ppb	0.048 ppb	91.510 %
Concentration per Run 3	0.059 ppb	61.470 ppb	107.722 %	109.410 %	0.080 ppb	0.188 ppb	0.060 ppb	92.860 %
Concentration RSD	19.8 %	6.5 %	2.7 %	2.7 %	56.5 %	26.7 %	18.8 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	154	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446583-03 CT-6020SL	Rack	2		
Analysis started at:	8/21/2024 8:01:05 PM	Vial	52		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.536 %	109.105 %	0.045 ppb	222,960.318 ppb	27,658.556 ppb	726.817 ppb	5,910.001 ppb	117,195.593 ppb	107.188 %
Concentration per Run 1	94.833 %	112.242 %	0.048 ppb	204,561.138 ppb	25,222.273 ppb	654.687 ppb	5,501.020 ppb	106,923.173 ppb	107.762 %
Concentration per Run 2	94.759 %	110.635 %	0.044 ppb	219,976.800 ppb	27,483.901 ppb	719.209 ppb	5,851.665 ppb	117,542.277 ppb	106.673 %
Concentration per Run 3	94.016 %	104.438 %	0.042 ppb	244,343.016 ppb	30,269.493 ppb	806.555 ppb	6,377.317 ppb	127,121.330 ppb	107.129 %
Concentration RSD	0.5 %	3.8 %	5.9 %	9.0 %	9.1 %	10.5 %	7.5 %	8.6 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	4.497 ppb	2.038 ppb	511.313 ppb	1,189.816 ppb	1.099 ppb	6.972 ppb	3.700 ppb	9.449 ppb	96.042 %
Concentration per Run 1	4.005 ppb	1.897 ppb	469.839 ppb	1,097.055 ppb	1.069 ppb	6.406 ppb	3.640 ppb	8.819 ppb	98.954 %
Concentration per Run 2	4.592 ppb	2.164 ppb	515.260 ppb	1,220.046 ppb	1.078 ppb	6.974 ppb	3.767 ppb	9.901 ppb	92.689 %
Concentration per Run 3	4.894 ppb	2.054 ppb	548.840 ppb	1,252.347 ppb	1.151 ppb	7.536 ppb	3.693 ppb	9.625 ppb	96.482 %
Concentration RSD	10.0 %	6.6 %	7.8 %	6.9 %	4.1 %	8.1 %	1.7 %	5.9 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.574 ppb	0.156 ppb	339.580 ppb	0.326 ppb	93.607 %	0.007 ppb	0.054 ppb	95.114 %	-0.613 ppb
Concentration per Run 1	0.513 ppb	0.053 ppb	312.339 ppb	0.252 ppb	95.263 %	0.005 ppb	0.063 ppb	94.836 %	-0.659 ppb
Concentration per Run 2	0.629 ppb	0.159 ppb	339.404 ppb	0.312 ppb	93.373 %	0.011 ppb	0.054 ppb	91.183 %	-0.616 ppb
Concentration per Run 3	0.582 ppb	0.256 ppb	366.998 ppb	0.415 ppb	92.184 %	0.004 ppb	0.045 ppb	99.322 %	-0.564 ppb
Concentration RSD	10.2 %	64.9 %	8.0 %	25.3 %	1.7 %	51.4 %	16.8 %	4.3 %	7.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.083 ppb	234.940 ppb	106.145 %	105.772 %	0.071 ppb	0.065 ppb	0.522 ppb	92.151 %
Concentration per Run 1	0.074 ppb	222.994 ppb	107.138 %	105.181 %	0.052 ppb	0.033 ppb	0.482 ppb	96.438 %
Concentration per Run 2	0.082 ppb	242.441 ppb	105.483 %	104.848 %	0.073 ppb	0.074 ppb	0.542 ppb	90.596 %
Concentration per Run 3	0.093 ppb	239.386 ppb	105.815 %	107.286 %	0.087 ppb	0.087 ppb	0.543 ppb	89.418 %
Concentration RSD	11.6 %	4.5 %	0.8 %	1.2 %	24.5 %	43.2 %	6.7 %	4.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	155	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 8:05:34 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.025 %	117.598 %	62.676 ppb	6,181.079 ppb	5,837.204 ppb	55.002 ppb	5,566.668 ppb	5,692.348 ppb	110.951 %
Concentration per Run 1	103.387 %	123.489 %	61.974 ppb	5,808.959 ppb	5,431.287 ppb	49.247 ppb	5,262.955 ppb	5,436.131 ppb	112.165 %
Concentration per Run 2	103.498 %	117.292 %	63.258 ppb	6,196.171 ppb	5,855.952 ppb	57.613 ppb	5,535.909 ppb	5,572.290 ppb	110.696 %
Concentration per Run 3	102.189 %	112.012 %	62.795 ppb	6,538.106 ppb	6,224.372 ppb	58.147 ppb	5,901.140 ppb	6,068.624 ppb	109.994 %
Recovery Percentage 1			104.459 %	103.018 %	97.287 %	91.671 %	92.778 %	94.872 %	
Concentration RSD	0.7 %	4.9 %	1.0 %	5.9 %	6.8 %	9.1 %	5.8 %	5.8 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.312 ppb	59.948 ppb	61.357 ppb	5,973.921 ppb	60.950 ppb	61.260 ppb	63.077 ppb	63.430 ppb	100.559 %
Concentration per Run 1	53.506 ppb	55.249 ppb	57.312 ppb	5,609.401 ppb	57.397 ppb	57.176 ppb	59.718 ppb	59.115 ppb	105.835 %
Concentration per Run 2	57.860 ppb	62.195 ppb	63.201 ppb	6,127.006 ppb	62.675 ppb	64.543 ppb	63.590 ppb	64.658 ppb	98.418 %
Concentration per Run 3	60.569 ppb	62.400 ppb	63.556 ppb	6,185.357 ppb	62.778 ppb	62.061 ppb	65.925 ppb	66.517 ppb	97.425 %
Recovery Percentage 1	95.520 %	99.913 %	102.261 %	99.565 %	101.583 %	102.099 %	105.129 %	105.717 %	
Concentration RSD	6.2 %	6.8 %	5.7 %	5.3 %	5.0 %	6.1 %	5.0 %	6.1 %	4.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	62.245 ppb	57.403 ppb	58.910 ppb	61.480 ppb	103.380 %	59.801 ppb	62.554 ppb	100.013 %	61.366 ppb
Concentration per Run 1	58.176 ppb	53.882 ppb	55.869 ppb	56.640 ppb	106.944 %	56.903 ppb	59.157 ppb	104.141 %	57.685 ppb
Concentration per Run 2	64.221 ppb	58.257 ppb	59.901 ppb	63.728 ppb	102.260 %	61.155 ppb	64.027 ppb	99.632 %	61.408 ppb
Concentration per Run 3	64.339 ppb	60.071 ppb	60.960 ppb	64.072 ppb	100.934 %	61.344 ppb	64.479 ppb	96.265 %	65.005 ppb
Recovery Percentage 1	103.742 %	95.672 %	98.184 %	102.467 %		99.668 %	104.257 %		102.276 %
Concentration RSD	5.7 %	5.5 %	4.6 %	6.8 %	3.1 %	4.2 %	4.7 %	4.0 %	6.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.997 ppb	59.810 ppb	109.672 %	107.278 %	64.680 ppb	64.938 ppb	64.507 ppb	103.088 %
Concentration per Run 1	58.687 ppb	56.546 ppb	111.718 %	108.399 %	61.167 ppb	59.517 ppb	59.985 ppb	107.646 %
Concentration per Run 2	62.616 ppb	60.966 ppb	108.741 %	106.112 %	67.278 ppb	67.420 ppb	66.399 ppb	100.391 %
Concentration per Run 3	64.687 ppb	61.917 ppb	108.555 %	107.323 %	65.594 ppb	67.878 ppb	67.138 ppb	101.227 %
Recovery Percentage 1	103.328 %	99.683 %			107.800 %	108.230 %	107.512 %	
Concentration RSD	4.9 %	4.8 %	1.6 %	1.1 %	4.9 %	7.2 %	6.1 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	156	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 8:10:06 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.334 %	111.783 %	0.035 ppb	95.247 ppb	17.222 ppb	0.102 ppb	5.045 ppb	79.305 ppb	105.364 %
Concentration per Run 1	102.671 %	106.044 %	0.050 ppb	124.553 ppb	21.117 ppb	0.273 ppb	12.378 ppb	89.986 ppb	104.546 %
Concentration per Run 2	102.550 %	112.701 %	0.023 ppb	87.268 ppb	18.437 ppb	0.027 ppb	1.775 ppb	89.825 ppb	106.048 %
Concentration per Run 3	101.782 %	116.603 %	0.031 ppb	73.920 ppb	12.114 ppb	0.007 ppb	0.981 ppb	58.104 ppb	105.500 %
Recovery Percentage 1			6.918 %	95.247 %	24.603 %	1.023 %	5.045 %	79.305 %	
Concentration RSD	0.5 %	4.8 %	39.7 %	27.6 %	26.8 %	144.6 %	126.1 %	23.2 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.002 ppb	0.003 ppb	0.677 ppb	13.058 ppb	0.026 ppb	-0.042 ppb	-0.140 ppb	-0.097 ppb	98.287 %
Concentration per Run 1	-0.001 ppb	-0.004 ppb	0.916 ppb	12.512 ppb	0.028 ppb	0.006 ppb	-0.135 ppb	-0.054 ppb	101.118 %
Concentration per Run 2	0.024 ppb	0.002 ppb	0.642 ppb	13.598 ppb	0.031 ppb	-0.037 ppb	-0.132 ppb	-0.122 ppb	97.136 %
Concentration per Run 3	-0.018 ppb	0.011 ppb	0.472 ppb	13.063 ppb	0.018 ppb	-0.094 ppb	-0.152 ppb	-0.114 ppb	96.608 %
Recovery Percentage 1	0.032 %	0.315 %	67.655 %	26.115 %	5.128 %	-2.096 %	-13.973 %	-1.939 %	
Concentration RSD	1,331.8 %	239.9 %	33.1 %	4.2 %	26.5 %	119.0 %	7.6 %	38.3 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.134 ppb	0.119 ppb	0.368 ppb	0.327 ppb	101.209 %	0.040 ppb	0.046 ppb	98.919 %	-0.094 ppb
Concentration per Run 1	0.117 ppb	0.081 ppb	0.397 ppb	0.258 ppb	104.174 %	0.043 ppb	0.045 ppb	99.983 %	-0.153 ppb
Concentration per Run 2	0.121 ppb	0.130 ppb	0.331 ppb	0.317 ppb	98.179 %	0.032 ppb	0.051 ppb	98.852 %	-0.045 ppb
Concentration per Run 3	0.165 ppb	0.145 ppb	0.376 ppb	0.406 ppb	101.275 %	0.044 ppb	0.042 ppb	97.923 %	-0.084 ppb
Recovery Percentage 1	26.869 %	2.375 %	3.679 %	16.343 %		9.985 %	22.968 %		-3.127 %
Concentration RSD	20.1 %	28.1 %	9.2 %	22.9 %	3.0 %	16.3 %	9.4 %	1.0 %	58.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.076 ppb	0.202 ppb	106.732 %	105.782 %	0.525 ppb	0.603 ppb	0.036 ppb	103.335 %
Concentration per Run 1	0.070 ppb	0.270 ppb	109.393 %	107.724 %	0.423 ppb	0.428 ppb	0.037 ppb	108.571 %
Concentration per Run 2	0.067 ppb	0.177 ppb	104.775 %	103.894 %	0.548 ppb	0.760 ppb	0.033 ppb	100.923 %
Concentration per Run 3	0.091 ppb	0.157 ppb	106.029 %	105.727 %	0.602 ppb	0.621 ppb	0.039 ppb	100.511 %
Recovery Percentage 1	1.903 %	40.302 %			26.231 %	60.310 %	3.649 %	
Concentration RSD	16.7 %	30.0 %	2.2 %	1.8 %	17.5 %	27.7 %	8.0 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	157	User name	ALPHALAB\a2-icpmsq2	Comment	fb
Analysis label:	L2446445-07 6020SL	Rack	2		
Analysis started at:	8/21/2024 8:14:38 PM	Vial	59		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.647 %	114.384 %	0.025 ppb	110.479 ppb	14.653 ppb	1.820 ppb	2.488 ppb	74.271 ppb	106.479 %
Concentration per Run 1	100.926 %	118.898 %	0.019 ppb	120.305 ppb	18.012 ppb	1.738 ppb	2.996 ppb	86.318 ppb	106.235 %
Concentration per Run 2	102.612 %	114.537 %	0.026 ppb	101.678 ppb	13.263 ppb	1.603 ppb	3.404 ppb	78.629 ppb	106.835 %
Concentration per Run 3	101.404 %	109.717 %	0.030 ppb	109.453 ppb	12.685 ppb	2.119 ppb	1.065 ppb	57.865 ppb	106.367 %
Concentration RSD	0.9 %	4.0 %	22.3 %	8.5 %	19.9 %	14.7 %	50.2 %	19.8 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.006 ppb	0.023 ppb	0.456 ppb	6.896 ppb	0.018 ppb	-0.011 ppb	-0.079 ppb	0.060 ppb	99.353 %
Concentration per Run 1	0.004 ppb	0.012 ppb	0.502 ppb	6.800 ppb	0.023 ppb	0.032 ppb	-0.026 ppb	0.125 ppb	98.344 %
Concentration per Run 2	-0.010 ppb	0.034 ppb	0.404 ppb	5.778 ppb	0.015 ppb	-0.048 ppb	-0.069 ppb	0.031 ppb	97.891 %
Concentration per Run 3	-0.011 ppb	0.023 ppb	0.460 ppb	8.109 ppb	0.015 ppb	-0.015 ppb	-0.142 ppb	0.024 ppb	101.823 %
Concentration RSD	149.9 %	46.4 %	10.8 %	17.0 %	24.6 %	384.5 %	74.6 %	94.4 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.106 ppb	0.028 ppb	0.436 ppb	0.068 ppb	103.036 %	0.016 ppb	0.019 ppb	99.747 %	4.833 ppb
Concentration per Run 1	0.080 ppb	0.064 ppb	0.472 ppb	0.014 ppb	104.557 %	0.025 ppb	0.021 ppb	101.731 %	4.683 ppb
Concentration per Run 2	0.114 ppb	0.025 ppb	0.422 ppb	0.037 ppb	104.168 %	0.010 ppb	0.015 ppb	100.574 %	4.788 ppb
Concentration per Run 3	0.124 ppb	-0.005 ppb	0.413 ppb	0.152 ppb	100.383 %	0.012 ppb	0.022 ppb	96.936 %	5.027 ppb
Concentration RSD	21.8 %	123.6 %	7.3 %	109.0 %	2.2 %	52.7 %	19.5 %	2.5 %	3.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.023 ppb	0.302 ppb	109.264 %	107.865 %	0.135 ppb	0.182 ppb	0.016 ppb	105.112 %
Concentration per Run 1	0.018 ppb	0.320 ppb	109.586 %	108.680 %	0.090 ppb	0.109 ppb	0.023 ppb	107.503 %
Concentration per Run 2	0.016 ppb	0.248 ppb	110.565 %	109.309 %	0.133 ppb	0.218 ppb	0.014 ppb	105.249 %
Concentration per Run 3	0.034 ppb	0.338 ppb	107.643 %	105.606 %	0.182 ppb	0.220 ppb	0.012 ppb	102.583 %
Concentration RSD	44.4 %	15.7 %	1.4 %	1.8 %	33.9 %	34.8 %	37.1 %	2.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	158	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961612-2d10 CT-6020SL	Rack	2		
Analysis started at:	8/21/2024 8:19:08 PM	Vial	50		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.368 %	112.318 %	5.191 ppb	974.343 ppb	923.800 ppb	182.164 ppb	889.424 ppb	795.601 ppb	108.068 %
Concentration per Run 1	101.153 %	116.374 %	5.329 ppb	910.797 ppb	867.152 ppb	166.514 ppb	850.684 ppb	778.607 ppb	105.550 %
Concentration per Run 2	102.097 %	109.028 %	5.115 ppb	998.853 ppb	941.139 ppb	186.120 ppb	922.500 ppb	795.378 ppb	108.184 %
Concentration per Run 3	103.853 %	111.553 %	5.128 ppb	1,013.381 ppb	963.108 ppb	193.857 ppb	895.089 ppb	812.819 ppb	110.469 %
Concentration RSD	1.3 %	3.3 %	2.3 %	5.7 %	5.4 %	7.7 %	4.1 %	2.2 %	2.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	44.795 ppb	18.713 ppb	48.696 ppb	100.879 ppb	49.142 ppb	49.418 ppb	25.224 ppb	50.915 ppb	100.266 %
Concentration per Run 1	41.414 ppb	17.555 ppb	46.611 ppb	95.136 ppb	46.091 ppb	46.122 ppb	23.653 ppb	47.168 ppb	106.008 %
Concentration per Run 2	45.829 ppb	18.973 ppb	50.650 ppb	106.686 ppb	50.299 ppb	50.550 ppb	25.895 ppb	52.472 ppb	98.899 %
Concentration per Run 3	47.143 ppb	19.613 ppb	48.827 ppb	100.815 ppb	51.037 ppb	51.583 ppb	26.126 ppb	53.106 ppb	95.891 %
Concentration RSD	6.7 %	5.6 %	4.2 %	5.7 %	5.4 %	5.9 %	5.4 %	6.4 %	5.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	11.861 ppb	11.440 ppb	88.667 ppb	96.846 ppb	102.656 %	5.134 ppb	5.460 ppb	98.445 %	93.418 ppb
Concentration per Run 1	11.015 ppb	10.290 ppb	82.179 ppb	90.910 ppb	107.524 %	4.871 ppb	5.243 ppb	101.619 %	89.112 ppb
Concentration per Run 2	12.019 ppb	11.264 ppb	90.724 ppb	99.362 ppb	100.790 %	5.292 ppb	5.740 ppb	97.267 %	94.415 ppb
Concentration per Run 3	12.551 ppb	12.766 ppb	93.098 ppb	100.267 ppb	99.653 %	5.238 ppb	5.397 ppb	96.449 %	96.727 ppb
Concentration RSD	6.6 %	10.9 %	6.5 %	5.3 %	4.1 %	4.5 %	4.7 %	2.8 %	4.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	44.587 ppb	194.768 ppb	109.676 %	109.139 %	0.070 ppb	12.868 ppb	55.129 ppb	104.474 %
Concentration per Run 1	41.333 ppb	185.242 ppb	112.222 %	111.919 %	0.044 ppb	11.737 ppb	50.228 ppb	111.298 %
Concentration per Run 2	45.594 ppb	196.936 ppb	108.818 %	108.600 %	0.074 ppb	13.408 ppb	57.111 ppb	100.854 %
Concentration per Run 3	46.832 ppb	202.127 ppb	107.987 %	106.897 %	0.092 ppb	13.458 ppb	58.047 ppb	101.271 %
Concentration RSD	6.5 %	4.4 %	2.0 %	2.3 %	34.7 %	7.6 %	7.7 %	5.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	159	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1961612-3d10 CT-6020SL	Rack	2		
Analysis started at:	8/21/2024 8:23:37 PM	Vial	51		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.159 %	115.073 %	5.154 ppb	914.970 ppb	908.289 ppb	178.891 ppb	875.703 ppb	816.347 ppb	108.790 %
Concentration per Run 1	104.131 %	119.128 %	5.134 ppb	867.311 ppb	843.923 ppb	164.553 ppb	846.750 ppb	774.881 ppb	108.843 %
Concentration per Run 2	102.951 %	112.242 %	5.174 ppb	943.831 ppb	934.308 ppb	184.599 ppb	904.886 ppb	886.950 ppb	109.018 %
Concentration per Run 3	102.394 %	113.849 %	5.154 ppb	933.769 ppb	946.635 ppb	187.520 ppb	875.473 ppb	787.209 ppb	108.507 %
Concentration RSD	0.9 %	3.1 %	0.4 %	4.5 %	6.2 %	7.0 %	3.3 %	7.5 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	44.122 ppb	18.286 ppb	47.449 ppb	104.352 ppb	48.001 ppb	47.113 ppb	24.306 ppb	48.925 ppb	102.677 %
Concentration per Run 1	42.666 ppb	17.806 ppb	45.252 ppb	107.336 ppb	45.838 ppb	45.690 ppb	23.310 ppb	46.851 ppb	104.098 %
Concentration per Run 2	44.892 ppb	18.241 ppb	48.669 ppb	105.496 ppb	48.821 ppb	47.295 ppb	24.825 ppb	49.916 ppb	101.944 %
Concentration per Run 3	44.807 ppb	18.809 ppb	48.425 ppb	100.225 ppb	49.345 ppb	48.353 ppb	24.783 ppb	50.007 ppb	101.989 %
Concentration RSD	2.9 %	2.7 %	4.0 %	3.5 %	3.9 %	2.8 %	3.6 %	3.7 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	11.501 ppb	10.695 ppb	87.569 ppb	96.393 ppb	102.647 %	5.147 ppb	5.375 ppb	98.871 %	94.081 ppb
Concentration per Run 1	10.967 ppb	10.516 ppb	84.277 ppb	91.225 ppb	105.897 %	4.880 ppb	5.172 ppb	102.352 %	87.886 ppb
Concentration per Run 2	11.756 ppb	11.115 ppb	89.000 ppb	99.509 ppb	100.642 %	5.296 ppb	5.472 ppb	97.387 %	96.422 ppb
Concentration per Run 3	11.780 ppb	10.453 ppb	89.431 ppb	98.445 ppb	101.403 %	5.265 ppb	5.481 ppb	96.872 %	97.936 ppb
Concentration RSD	4.0 %	3.4 %	3.3 %	4.7 %	2.8 %	4.5 %	3.3 %	3.1 %	5.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	46.076 ppb	194.749 ppb	109.853 %	109.873 %	0.046 ppb	12.950 ppb	54.964 ppb	105.089 %
Concentration per Run 1	43.150 ppb	185.493 ppb	112.901 %	112.152 %	0.024 ppb	11.990 ppb	50.815 ppb	111.127 %
Concentration per Run 2	46.657 ppb	198.627 ppb	107.838 %	108.176 %	0.046 ppb	13.500 ppb	56.926 ppb	102.097 %
Concentration per Run 3	48.421 ppb	200.127 ppb	108.821 %	109.292 %	0.068 ppb	13.360 ppb	57.151 ppb	102.042 %
Concentration RSD	5.8 %	4.1 %	2.4 %	1.9 %	48.3 %	6.4 %	6.5 %	5.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	160	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446583-04 CT-6020SL	Rack	2		
Analysis started at:	8/21/2024 8:28:06 PM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	88.216 %	110.406 %	0.022 ppb	369,833.785 ppb	1,574.036 ppb	1,989.715 ppb	1,371.507 ppb	4,244.489 ppb	98.703 %
Concentration per Run 1	88.093 %	104.897 %	0.016 ppb	367,137.597 ppb	1,561.510 ppb	1,955.493 ppb	1,374.556 ppb	4,160.044 ppb	98.983 %
Concentration per Run 2	87.792 %	107.422 %	0.027 ppb	379,492.088 ppb	1,631.103 ppb	2,055.377 ppb	1,406.060 ppb	4,376.205 ppb	97.531 %
Concentration per Run 3	88.764 %	118.898 %	0.024 ppb	362,871.671 ppb	1,529.496 ppb	1,958.274 ppb	1,333.904 ppb	4,197.216 ppb	99.594 %
Concentration RSD	0.6 %	6.8 %	24.1 %	2.3 %	3.3 %	2.9 %	2.6 %	2.7 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	54.848 ppb	9.036 ppb	777.503 ppb	460.964 ppb	0.313 ppb	1.469 ppb	24.920 ppb	7.195 ppb	94.767 %
Concentration per Run 1	53.117 ppb	8.928 ppb	753.744 ppb	435.063 ppb	0.316 ppb	1.491 ppb	23.667 ppb	6.981 ppb	95.992 %
Concentration per Run 2	56.501 ppb	9.195 ppb	797.616 ppb	479.871 ppb	0.268 ppb	1.457 ppb	25.618 ppb	7.378 ppb	92.858 %
Concentration per Run 3	54.926 ppb	8.987 ppb	781.150 ppb	467.957 ppb	0.354 ppb	1.459 ppb	25.476 ppb	7.226 ppb	95.450 %
Concentration RSD	3.1 %	1.6 %	2.9 %	5.0 %	13.8 %	1.3 %	4.4 %	2.8 %	1.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	17.942 ppb	0.771 ppb	11.723 ppb	8.707 ppb	90.628 %	0.021 ppb	0.045 ppb	90.419 %	0.015 ppb
Concentration per Run 1	16.895 ppb	0.829 ppb	10.878 ppb	7.766 ppb	90.828 %	0.020 ppb	0.037 ppb	89.973 %	-0.165 ppb
Concentration per Run 2	18.163 ppb	0.689 ppb	12.204 ppb	9.270 ppb	89.799 %	0.022 ppb	0.040 ppb	89.844 %	0.100 ppb
Concentration per Run 3	18.767 ppb	0.797 ppb	12.086 ppb	9.085 ppb	91.258 %	0.021 ppb	0.057 ppb	91.441 %	0.110 ppb
Concentration RSD	5.3 %	9.5 %	6.3 %	9.4 %	0.8 %	6.1 %	24.1 %	1.0 %	1,015.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.157 ppb	7.114 ppb	106.065 %	103.250 %	0.584 ppb	0.082 ppb	0.684 ppb	92.859 %
Concentration per Run 1	1.051 ppb	6.686 ppb	105.856 %	102.965 %	0.545 ppb	0.041 ppb	0.637 ppb	96.038 %
Concentration per Run 2	1.193 ppb	7.123 ppb	106.732 %	102.822 %	0.587 ppb	0.092 ppb	0.701 ppb	91.257 %
Concentration per Run 3	1.228 ppb	7.533 ppb	105.609 %	103.964 %	0.618 ppb	0.112 ppb	0.715 ppb	91.283 %
Concentration RSD	8.1 %	6.0 %	0.6 %	0.6 %	6.3 %	44.4 %	6.1 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	161	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446583-05 CT-6020SL	Rack	2		
Analysis started at:	8/21/2024 8:32:36 PM	Vial	54		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.178 %	111.247 %	0.002 ppb	713,067.789 ppb	31,760.800 ppb	6.494 ppb	6,636.426 ppb	153,777.626 ppb	102.396 %
Concentration per Run 1	91.049 %	109.947 %	0.001 ppb	698,751.387 ppb	30,895.881 ppb	6.235 ppb	6,579.784 ppb	152,015.116 ppb	101.784 %
Concentration per Run 2	91.305 %	111.094 %	0.001 ppb	718,454.790 ppb	32,253.436 ppb	6.468 ppb	6,666.631 ppb	155,259.405 ppb	103.220 %
Concentration per Run 3	91.180 %	112.701 %	0.004 ppb	721,997.190 ppb	32,133.082 ppb	6.779 ppb	6,662.864 ppb	154,058.356 ppb	102.183 %
Concentration RSD	0.1 %	1.2 %	90.4 %	1.8 %	2.4 %	4.2 %	0.7 %	1.1 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	7.176 ppb	0.752 ppb	923.796 ppb	6.390 ppb	0.131 ppb	0.638 ppb	1.444 ppb	1.931 ppb	92.158 %
Concentration per Run 1	6.850 ppb	0.763 ppb	915.644 ppb	7.851 ppb	0.133 ppb	0.561 ppb	1.615 ppb	1.916 ppb	91.632 %
Concentration per Run 2	7.370 ppb	0.777 ppb	920.987 ppb	7.665 ppb	0.137 ppb	0.804 ppb	1.362 ppb	2.044 ppb	90.442 %
Concentration per Run 3	7.310 ppb	0.717 ppb	934.757 ppb	3.653 ppb	0.122 ppb	0.549 ppb	1.356 ppb	1.834 ppb	94.399 %
Concentration RSD	4.0 %	4.2 %	1.1 %	37.1 %	6.2 %	22.6 %	10.2 %	5.5 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	1.393 ppb	0.521 ppb	265.543 ppb	2.842 ppb	87.560 %	0.000 ppb	0.091 ppb	84.081 %	-0.458 ppb
Concentration per Run 1	1.377 ppb	0.492 ppb	263.249 ppb	2.612 ppb	85.135 %	-0.001 ppb	0.066 ppb	81.356 %	-0.439 ppb
Concentration per Run 2	1.512 ppb	0.464 ppb	267.539 ppb	2.855 ppb	89.376 %	0.002 ppb	0.096 ppb	85.055 %	-0.472 ppb
Concentration per Run 3	1.289 ppb	0.605 ppb	265.842 ppb	3.059 ppb	88.168 %	-0.001 ppb	0.112 ppb	85.833 %	-0.464 ppb
Concentration RSD	8.1 %	14.3 %	0.8 %	7.9 %	2.5 %	1,619.4 %	25.9 %	2.8 %	3.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.315 ppb	17.571 ppb	99.209 %	96.448 %	0.422 ppb	0.086 ppb	0.053 ppb	79.600 %
Concentration per Run 1	0.272 ppb	17.211 ppb	96.696 %	92.440 %	0.324 ppb	0.051 ppb	0.053 ppb	81.162 %
Concentration per Run 2	0.308 ppb	17.664 ppb	100.210 %	98.437 %	0.386 ppb	0.103 ppb	0.056 ppb	78.933 %
Concentration per Run 3	0.364 ppb	17.838 ppb	100.721 %	98.467 %	0.556 ppb	0.103 ppb	0.049 ppb	78.705 %
Concentration RSD	14.8 %	1.8 %	2.2 %	3.6 %	28.5 %	34.7 %	6.8 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	162	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446583-06 CT-6020SL	Rack	2		
Analysis started at:	8/21/2024 8:37:05 PM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.655 %	113.543 %	0.004 ppb	143,787.026 ppb	6,810.855 ppb	16.856 ppb	2,988.535 ppb	39,128.386 ppb	114.232 %
Concentration per Run 1	101.417 %	113.849 %	0.004 ppb	133,285.271 ppb	6,296.591 ppb	14.382 ppb	2,883.765 ppb	37,139.071 ppb	115.409 %
Concentration per Run 2	98.921 %	117.521 %	-0.002 ppb	144,371.482 ppb	6,858.810 ppb	16.313 ppb	2,980.875 ppb	39,758.120 ppb	113.542 %
Concentration per Run 3	98.626 %	109.258 %	0.010 ppb	153,704.323 ppb	7,277.164 ppb	19.873 ppb	3,100.964 ppb	40,487.968 ppb	113.745 %
Concentration RSD	1.5 %	3.6 %	150.2 %	7.1 %	7.2 %	16.5 %	3.6 %	4.5 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	4.475 ppb	0.975 ppb	3.381 ppb	24.257 ppb	0.855 ppb	2.990 ppb	5.165 ppb	5.810 ppb	99.580 %
Concentration per Run 1	4.209 ppb	0.937 ppb	3.699 ppb	23.199 ppb	0.789 ppb	3.099 ppb	5.191 ppb	5.809 ppb	96.628 %
Concentration per Run 2	4.827 ppb	1.001 ppb	3.096 ppb	23.109 ppb	0.910 ppb	3.149 ppb	5.141 ppb	5.938 ppb	99.773 %
Concentration per Run 3	4.390 ppb	0.986 ppb	3.346 ppb	26.463 ppb	0.865 ppb	2.722 ppb	5.163 ppb	5.682 ppb	102.340 %
Concentration RSD	7.1 %	3.5 %	9.0 %	7.9 %	7.1 %	7.8 %	0.5 %	2.2 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.343 ppb	0.410 ppb	104.138 ppb	1.245 ppb	100.648 %	-0.001 ppb	0.060 ppb	97.919 %	-0.490 ppb
Concentration per Run 1	0.415 ppb	0.368 ppb	100.700 ppb	1.037 ppb	103.274 %	-0.005 ppb	0.064 ppb	99.758 %	-0.536 ppb
Concentration per Run 2	0.260 ppb	0.384 ppb	106.606 ppb	1.196 ppb	98.900 %	-0.001 ppb	0.062 ppb	96.460 %	-0.492 ppb
Concentration per Run 3	0.355 ppb	0.477 ppb	105.107 ppb	1.504 ppb	99.770 %	0.004 ppb	0.055 ppb	97.538 %	-0.443 ppb
Concentration RSD	22.8 %	14.3 %	2.9 %	19.0 %	2.3 %	701.3 %	7.6 %	1.7 %	9.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.175 ppb	48.145 ppb	108.468 %	107.357 %	1.195 ppb	0.026 ppb	0.091 ppb	95.954 %
Concentration per Run 1	0.142 ppb	45.813 ppb	110.003 %	106.277 %	0.864 ppb	0.000 ppb	0.079 ppb	98.870 %
Concentration per Run 2	0.199 ppb	49.549 ppb	106.972 %	108.082 %	1.132 ppb	0.036 ppb	0.103 ppb	95.574 %
Concentration per Run 3	0.182 ppb	49.073 ppb	108.429 %	107.712 %	1.589 ppb	0.041 ppb	0.089 ppb	93.417 %
Concentration RSD	16.9 %	4.2 %	1.4 %	0.9 %	30.7 %	86.7 %	13.6 %	2.9 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	163	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446445-03 6020SL	Rack	2		
Analysis started at:	8/21/2024 8:41:34 PM	Vial	56		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.080 %	112.778 %	0.003 ppb	102,522.112 ppb	18,227.272 ppb	3.212 ppb	21,956.053 ppb	233,076.128 ppb	113.340 %
Concentration per Run 1	99.916 %	116.833 %	0.006 ppb	98,988.722 ppb	17,661.114 ppb	2.853 ppb	21,265.515 ppb	225,760.368 ppb	114.764 %
Concentration per Run 2	99.238 %	107.422 %	0.001 ppb	102,998.258 ppb	18,218.606 ppb	3.683 ppb	21,626.284 ppb	230,059.743 ppb	112.102 %
Concentration per Run 3	98.087 %	114.078 %	0.003 ppb	105,579.355 ppb	18,802.096 ppb	3.101 ppb	22,976.361 ppb	243,408.274 ppb	113.154 %
Concentration RSD	0.9 %	4.3 %	66.7 %	3.2 %	3.1 %	13.3 %	4.1 %	3.9 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.154 ppb	0.223 ppb	194.137 ppb	10.923 ppb	0.286 ppb	1.313 ppb	1.093 ppb	4.247 ppb	100.882 %
Concentration per Run 1	0.154 ppb	0.218 ppb	184.733 ppb	9.037 ppb	0.258 ppb	1.311 ppb	1.149 ppb	4.256 ppb	105.160 %
Concentration per Run 2	0.142 ppb	0.216 ppb	197.108 ppb	8.409 ppb	0.327 ppb	1.285 ppb	1.056 ppb	4.103 ppb	98.070 %
Concentration per Run 3	0.166 ppb	0.234 ppb	200.570 ppb	15.323 ppb	0.273 ppb	1.341 ppb	1.075 ppb	4.383 ppb	99.417 %
Concentration RSD	7.9 %	4.4 %	4.3 %	35.0 %	12.7 %	2.1 %	4.5 %	3.3 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.157 ppb	12.225 ppb	720.405 ppb	1.391 ppb	100.408 %	0.001 ppb	0.047 ppb	98.549 %	-0.623 ppb
Concentration per Run 1	0.086 ppb	11.241 ppb	685.343 ppb	1.146 ppb	102.410 %	0.000 ppb	0.058 ppb	99.559 %	-0.706 ppb
Concentration per Run 2	0.185 ppb	12.269 ppb	735.629 ppb	1.267 ppb	99.291 %	0.003 ppb	0.051 ppb	96.372 %	-0.615 ppb
Concentration per Run 3	0.200 ppb	13.164 ppb	740.243 ppb	1.761 ppb	99.524 %	0.000 ppb	0.032 ppb	99.717 %	-0.547 ppb
Concentration RSD	39.4 %	7.9 %	4.2 %	23.4 %	1.7 %	206.1 %	29.1 %	1.9 %	12.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.166 ppb	50.469 ppb	109.296 %	106.538 %	0.282 ppb	0.031 ppb	0.047 ppb	95.182 %
Concentration per Run 1	0.136 ppb	48.331 ppb	109.880 %	107.520 %	0.207 ppb	0.004 ppb	0.045 ppb	98.039 %
Concentration per Run 2	0.177 ppb	53.390 ppb	107.330 %	105.231 %	0.289 ppb	0.043 ppb	0.052 ppb	90.701 %
Concentration per Run 3	0.185 ppb	49.687 ppb	110.679 %	106.864 %	0.349 ppb	0.045 ppb	0.044 ppb	96.807 %
Concentration RSD	15.8 %	5.2 %	1.6 %	1.1 %	25.2 %	74.3 %	10.1 %	4.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	164	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446445-05 6020SL	Rack	2		
Analysis started at:	8/21/2024 8:46:04 PM	Vial	57		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.069 %	116.450 %	0.008 ppb	69,912.951 ppb	13,082.405 ppb	2.717 ppb	8,365.089 ppb	78,825.520 ppb	116.822 %
Concentration per Run 1	101.900 %	126.703 %	0.007 ppb	63,551.864 ppb	11,823.093 ppb	2.619 ppb	7,600.960 ppb	71,604.284 ppb	117.170 %
Concentration per Run 2	102.784 %	108.110 %	0.007 ppb	73,843.415 ppb	13,995.459 ppb	2.594 ppb	8,879.466 ppb	83,422.193 ppb	117.410 %
Concentration per Run 3	101.522 %	114.537 %	0.009 ppb	72,343.572 ppb	13,428.663 ppb	2.938 ppb	8,614.842 ppb	81,450.083 ppb	115.885 %
Concentration RSD	0.6 %	8.1 %	18.6 %	8.0 %	8.6 %	7.1 %	8.1 %	8.0 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.095 ppb	5,343.971 ppb	68.290 ppb	3.570 ppb	0.491 ppb	1,822.688 ppb	0.189 ppb	0.510 ppb	102.170 %
Concentration per Run 1	0.068 ppb	4,873.665 ppb	61.663 ppb	4.138 ppb	0.419 ppb	1,698.891 ppb	0.156 ppb	0.406 ppb	108.009 %
Concentration per Run 2	0.113 ppb	5,563.442 ppb	71.569 ppb	3.056 ppb	0.521 ppb	1,896.864 ppb	0.215 ppb	0.526 ppb	100.477 %
Concentration per Run 3	0.103 ppb	5,594.806 ppb	71.637 ppb	3.516 ppb	0.534 ppb	1,872.308 ppb	0.195 ppb	0.599 ppb	98.024 %
Concentration RSD	24.8 %	7.6 %	8.4 %	15.2 %	12.9 %	5.9 %	15.9 %	19.1 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.115 ppb	3.341 ppb	213.426 ppb	0.408 ppb	101.427 %	0.001 ppb	0.040 ppb	97.818 %	-0.534 ppb
Concentration per Run 1	0.111 ppb	3.448 ppb	197.635 ppb	0.395 ppb	105.431 %	-0.001 ppb	0.031 ppb	101.488 %	-0.707 ppb
Concentration per Run 2	0.086 ppb	2.820 ppb	219.257 ppb	0.395 ppb	99.817 %	0.000 ppb	0.056 ppb	95.744 %	-0.568 ppb
Concentration per Run 3	0.148 ppb	3.755 ppb	223.388 ppb	0.435 ppb	99.033 %	0.005 ppb	0.032 ppb	96.221 %	-0.326 ppb
Concentration RSD	27.0 %	14.3 %	6.5 %	5.7 %	3.4 %	327.3 %	35.4 %	3.3 %	36.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.115 ppb	23.406 ppb	110.126 %	108.184 %	0.064 ppb	0.043 ppb	0.009 ppb	99.040 %
Concentration per Run 1	0.117 ppb	22.687 ppb	113.269 %	110.906 %	0.033 ppb	0.007 ppb	0.004 ppb	103.643 %
Concentration per Run 2	0.112 ppb	23.922 ppb	108.407 %	106.812 %	0.065 ppb	0.061 ppb	0.012 ppb	97.259 %
Concentration per Run 3	0.115 ppb	23.609 ppb	108.702 %	106.834 %	0.095 ppb	0.059 ppb	0.012 ppb	96.219 %
Concentration RSD	2.1 %	2.7 %	2.5 %	2.2 %	47.9 %	71.8 %	52.4 %	4.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	165	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446445-06 6020SL	Rack	2		
Analysis started at:	8/21/2024 8:50:33 PM	Vial	58		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.835 %	119.740 %	0.004 ppb	68,669.123 ppb	12,873.251 ppb	2.323 ppb	8,183.964 ppb	78,161.696 ppb	117.747 %
Concentration per Run 1	103.514 %	121.194 %	0.002 ppb	65,461.143 ppb	12,184.757 ppb	1.893 ppb	7,867.608 ppb	74,947.600 ppb	117.816 %
Concentration per Run 2	102.618 %	116.833 %	0.004 ppb	70,798.661 ppb	13,169.933 ppb	2.948 ppb	8,387.542 ppb	79,047.976 ppb	117.168 %
Concentration per Run 3	102.373 %	121.194 %	0.007 ppb	69,747.564 ppb	13,265.063 ppb	2.126 ppb	8,296.741 ppb	80,489.511 ppb	118.257 %
Concentration RSD	0.6 %	2.1 %	60.6 %	4.1 %	4.6 %	23.9 %	3.4 %	3.7 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.113 ppb	5,161.241 ppb	66.815 ppb	3.064 ppb	0.507 ppb	1,800.135 ppb	0.085 ppb	0.788 ppb	103.592 %
Concentration per Run 1	0.112 ppb	4,883.481 ppb	62.995 ppb	3.708 ppb	0.446 ppb	1,697.600 ppb	0.099 ppb	0.663 ppb	110.545 %
Concentration per Run 2	0.139 ppb	5,306.635 ppb	69.317 ppb	2.109 ppb	0.544 ppb	1,866.517 ppb	0.086 ppb	0.898 ppb	99.786 %
Concentration per Run 3	0.088 ppb	5,293.606 ppb	68.134 ppb	3.374 ppb	0.529 ppb	1,836.288 ppb	0.070 ppb	0.804 ppb	100.446 %
Concentration RSD	22.7 %	4.7 %	5.0 %	27.5 %	10.5 %	5.0 %	17.0 %	15.0 %	5.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.124 ppb	2.871 ppb	210.981 ppb	0.274 ppb	101.157 %	0.000 ppb	0.040 ppb	99.445 %	-0.645 ppb
Concentration per Run 1	0.110 ppb	2.539 ppb	195.837 ppb	0.202 ppb	106.370 %	-0.002 ppb	0.044 ppb	102.508 %	-0.675 ppb
Concentration per Run 2	0.125 ppb	2.920 ppb	217.063 ppb	0.284 ppb	98.439 %	-0.002 ppb	0.036 ppb	97.681 %	-0.641 ppb
Concentration per Run 3	0.137 ppb	3.153 ppb	220.041 ppb	0.335 ppb	98.663 %	0.003 ppb	0.038 ppb	98.145 %	-0.620 ppb
Concentration RSD	10.7 %	10.8 %	6.3 %	24.4 %	4.5 %	1,438.6 %	10.2 %	2.7 %	4.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.039 ppb	22.778 ppb	110.812 %	108.983 %	0.020 ppb	0.035 ppb	0.000 ppb	100.626 %
Concentration per Run 1	0.033 ppb	21.983 ppb	115.171 %	111.754 %	0.009 ppb	0.008 ppb	0.000 ppb	107.858 %
Concentration per Run 2	0.028 ppb	22.841 ppb	108.755 %	107.960 %	0.020 ppb	0.038 ppb	-0.002 ppb	97.777 %
Concentration per Run 3	0.057 ppb	23.511 ppb	108.509 %	107.235 %	0.031 ppb	0.059 ppb	0.000 ppb	96.243 %
Concentration RSD	39.2 %	3.4 %	3.4 %	2.2 %	55.7 %	73.7 %	244.2 %	6.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	166	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446592-01 6020SL	Rack	2		
Analysis started at:	8/21/2024 8:55:02 PM	Vial	60		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.409 %	125.096 %	0.039 ppb	14,531.000 ppb	1,772.228 ppb	5.100 ppb	1,476.410 ppb	8,067.009 ppb	115.231 %
Concentration per Run 1	106.242 %	130.146 %	0.036 ppb	13,801.430 ppb	1,683.917 ppb	4.920 ppb	1,418.236 ppb	7,787.255 ppb	115.220 %
Concentration per Run 2	106.264 %	114.537 %	0.044 ppb	15,616.199 ppb	1,778.206 ppb	5.188 ppb	1,481.546 ppb	8,121.061 ppb	113.569 %
Concentration per Run 3	106.721 %	130.605 %	0.038 ppb	14,175.372 ppb	1,854.561 ppb	5.191 ppb	1,529.448 ppb	8,292.711 ppb	116.905 %
Concentration RSD	0.3 %	7.3 %	9.5 %	6.6 %	4.8 %	3.1 %	3.8 %	3.2 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.029 ppb	8.959 ppb	1,220.654 ppb	170.961 ppb	2.561 ppb	6.410 ppb	3.650 ppb	1.734 ppb	105.823 %
Concentration per Run 1	0.001 ppb	8.908 ppb	1,161.047 ppb	161.252 ppb	2.527 ppb	6.565 ppb	3.323 ppb	1.833 ppb	109.091 %
Concentration per Run 2	0.070 ppb	9.185 ppb	1,245.563 ppb	168.774 ppb	2.718 ppb	6.633 ppb	3.742 ppb	1.832 ppb	104.994 %
Concentration per Run 3	0.015 ppb	8.785 ppb	1,255.352 ppb	182.857 ppb	2.440 ppb	6.032 ppb	3.884 ppb	1.538 ppb	103.383 %
Concentration RSD	127.1 %	2.3 %	4.2 %	6.4 %	5.6 %	5.1 %	8.0 %	9.8 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.086 ppb	0.097 ppb	45.922 ppb	0.465 ppb	107.806 %	-0.005 ppb	0.149 ppb	103.546 %	-0.594 ppb
Concentration per Run 1	0.079 ppb	0.072 ppb	43.731 ppb	0.446 ppb	111.856 %	-0.006 ppb	0.157 ppb	107.394 %	-0.667 ppb
Concentration per Run 2	0.104 ppb	0.134 ppb	46.464 ppb	0.475 ppb	106.846 %	-0.006 ppb	0.145 ppb	102.155 %	-0.567 ppb
Concentration per Run 3	0.076 ppb	0.085 ppb	47.573 ppb	0.474 ppb	104.715 %	-0.003 ppb	0.145 ppb	101.090 %	-0.548 ppb
Concentration RSD	17.9 %	33.8 %	4.3 %	3.5 %	3.4 %	28.7 %	4.6 %	3.3 %	10.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.096 ppb	42.011 ppb	112.388 %	110.679 %	0.031 ppb	0.063 ppb	-0.008 ppb	107.013 %
Concentration per Run 1	0.094 ppb	41.217 ppb	114.956 %	111.934 %	0.015 ppb	0.033 ppb	-0.009 ppb	112.040 %
Concentration per Run 2	0.091 ppb	42.483 ppb	110.292 %	109.825 %	0.035 ppb	0.080 ppb	-0.007 ppb	104.826 %
Concentration per Run 3	0.103 ppb	42.333 ppb	111.915 %	110.278 %	0.043 ppb	0.078 ppb	-0.009 ppb	104.173 %
Concentration RSD	6.5 %	1.6 %	2.1 %	1.0 %	46.4 %	41.9 %	14.8 %	4.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	167	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 8:59:32 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.306 %	115.914 %	62.608 ppb	6,351.164 ppb	6,049.751 ppb	60.929 ppb	5,828.939 ppb	5,925.543 ppb	114.941 %
Concentration per Run 1	106.322 %	109.947 %	62.685 ppb	6,490.760 ppb	6,152.727 ppb	63.775 ppb	5,949.856 ppb	6,008.305 ppb	115.391 %
Concentration per Run 2	106.636 %	113.160 %	62.493 ppb	6,448.326 ppb	6,137.818 ppb	61.407 ppb	5,929.971 ppb	5,968.282 ppb	114.509 %
Concentration per Run 3	105.961 %	124.637 %	62.646 ppb	6,114.405 ppb	5,858.708 ppb	57.605 ppb	5,606.990 ppb	5,800.042 ppb	114.924 %
Recovery Percentage 1			104.346 %	105.853 %	100.829 %	101.548 %	97.149 %	98.759 %	
Concentration RSD	0.3 %	6.7 %	0.2 %	3.2 %	2.7 %	5.1 %	3.3 %	1.9 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.583 ppb	60.393 ppb	61.979 ppb	6,146.367 ppb	63.448 ppb	64.303 ppb	63.626 ppb	64.157 ppb	101.726 %
Concentration per Run 1	57.793 ppb	61.912 ppb	61.910 ppb	6,124.847 ppb	64.102 ppb	63.488 ppb	64.324 ppb	64.171 ppb	102.885 %
Concentration per Run 2	58.425 ppb	62.220 ppb	62.758 ppb	6,263.600 ppb	64.063 ppb	64.848 ppb	63.460 ppb	63.863 ppb	102.786 %
Concentration per Run 3	56.530 ppb	57.048 ppb	61.270 ppb	6,050.653 ppb	62.178 ppb	64.573 ppb	63.094 ppb	64.436 ppb	99.508 %
Recovery Percentage 1	95.971 %	100.655 %	103.299 %	102.439 %	105.746 %	107.172 %	106.043 %	106.928 %	
Concentration RSD	1.7 %	4.8 %	1.2 %	1.8 %	1.7 %	1.1 %	1.0 %	0.4 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	62.586 ppb	58.958 ppb	57.989 ppb	60.991 ppb	103.997 %	60.413 ppb	63.393 ppb	99.305 %	61.610 ppb
Concentration per Run 1	61.709 ppb	56.747 ppb	55.904 ppb	58.918 ppb	107.925 %	58.905 ppb	61.016 ppb	102.406 %	59.074 ppb
Concentration per Run 2	61.913 ppb	59.841 ppb	58.119 ppb	61.943 ppb	103.105 %	61.028 ppb	65.001 ppb	98.146 %	63.013 ppb
Concentration per Run 3	64.136 ppb	60.288 ppb	59.944 ppb	62.112 ppb	100.962 %	61.306 ppb	64.162 ppb	97.364 %	62.742 ppb
Recovery Percentage 1	104.310 %	98.264 %	96.649 %	101.652 %		100.689 %	105.656 %		102.683 %
Concentration RSD	2.2 %	3.3 %	3.5 %	2.9 %	3.4 %	2.2 %	3.3 %	2.7 %	3.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.721 ppb	60.918 ppb	110.245 %	108.418 %	64.826 ppb	63.996 ppb	64.537 ppb	103.524 %
Concentration per Run 1	59.719 ppb	58.821 ppb	112.671 %	111.058 %	61.580 ppb	59.282 ppb	60.143 ppb	108.445 %
Concentration per Run 2	64.216 ppb	61.786 ppb	109.613 %	106.278 %	66.542 ppb	65.559 ppb	66.398 ppb	102.194 %
Concentration per Run 3	64.229 ppb	62.148 ppb	108.452 %	107.917 %	66.356 ppb	67.146 ppb	67.070 ppb	99.935 %
Recovery Percentage 1	104.535 %	101.530 %			108.043 %	106.659 %	107.562 %	
Concentration RSD	4.1 %	3.0 %	2.0 %	2.2 %	4.3 %	6.5 %	5.9 %	4.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	168	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 9:04:04 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.696 %	119.511 %	0.058 ppb	82.979 ppb	15.680 ppb	0.308 ppb	15.258 ppb	72.030 ppb	112.741 %
Concentration per Run 1	107.580 %	127.621 %	0.043 ppb	81.564 ppb	17.370 ppb	0.301 ppb	19.808 ppb	94.441 ppb	113.144 %
Concentration per Run 2	106.806 %	105.585 %	0.081 ppb	99.834 ppb	16.052 ppb	0.261 ppb	13.216 ppb	60.432 ppb	112.962 %
Concentration per Run 3	105.702 %	125.325 %	0.051 ppb	67.539 ppb	13.619 ppb	0.363 ppb	12.750 ppb	61.216 ppb	112.117 %
Recovery Percentage 1			11.635 %	82.979 %	22.400 %	3.082 %	15.258 %	72.030 %	
Concentration RSD	0.9 %	10.1 %	34.4 %	19.5 %	12.1 %	16.8 %	25.9 %	27.0 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.038 ppb	4.512 ppb	0.777 ppb	13.188 ppb	0.080 ppb	1.081 ppb	-0.082 ppb	-0.007 ppb	104.510 %
Concentration per Run 1	0.024 ppb	4.468 ppb	0.638 ppb	10.962 ppb	0.096 ppb	1.187 ppb	-0.097 ppb	-0.038 ppb	109.342 %
Concentration per Run 2	0.054 ppb	4.727 ppb	0.913 ppb	12.846 ppb	0.077 ppb	1.287 ppb	-0.057 ppb	0.012 ppb	104.692 %
Concentration per Run 3	0.038 ppb	4.340 ppb	0.779 ppb	15.757 ppb	0.066 ppb	0.769 ppb	-0.092 ppb	0.006 ppb	99.496 %
Recovery Percentage 1	0.769 %	451.171 %	77.675 %	26.377 %	15.918 %	54.064 %	-8.188 %	-0.132 %	
Concentration RSD	39.7 %	4.4 %	17.6 %	18.3 %	18.6 %	25.4 %	26.2 %	415.3 %	4.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.120 ppb	0.269 ppb	0.271 ppb	0.399 ppb	105.226 %	0.064 ppb	0.060 ppb	100.340 %	0.013 ppb
Concentration per Run 1	0.138 ppb	0.149 ppb	0.303 ppb	0.389 ppb	108.390 %	0.070 ppb	0.071 ppb	102.970 %	-0.127 ppb
Concentration per Run 2	0.056 ppb	0.413 ppb	0.278 ppb	0.439 ppb	104.838 %	0.065 ppb	0.065 ppb	99.761 %	-0.002 ppb
Concentration per Run 3	0.167 ppb	0.245 ppb	0.231 ppb	0.370 ppb	102.450 %	0.058 ppb	0.044 ppb	98.290 %	0.170 ppb
Recovery Percentage 1	24.056 %	5.379 %	2.706 %	19.972 %		16.046 %	30.028 %		0.450 %
Concentration RSD	48.0 %	49.7 %	13.5 %	8.9 %	2.8 %	8.6 %	23.8 %	2.4 %	1,106.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.096 ppb	0.101 ppb	109.889 %	108.149 %	0.535 ppb	0.656 ppb	0.068 ppb	104.287 %
Concentration per Run 1	0.081 ppb	0.095 ppb	113.854 %	112.199 %	0.462 ppb	0.524 ppb	0.078 ppb	109.329 %
Concentration per Run 2	0.085 ppb	0.133 ppb	109.003 %	106.067 %	0.535 ppb	0.798 ppb	0.065 ppb	103.025 %
Concentration per Run 3	0.122 ppb	0.075 ppb	106.808 %	106.182 %	0.606 ppb	0.647 ppb	0.062 ppb	100.507 %
Recovery Percentage 1	2.391 %	20.151 %			26.730 %	65.624 %	6.838 %	
Concentration RSD	23.7 %	29.0 %	3.3 %	3.2 %	13.5 %	20.9 %	12.4 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	169	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961551-1d2 A2-6020T	Rack	3		
Analysis started at:	8/21/2024 9:08:37 PM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.521 %	123.642 %	0.017 ppb	-3.273 ppb	2.441 ppb	0.745 ppb	-2.947 ppb	1.637 ppb	117.766 %
Concentration per Run 1	110.043 %	121.882 %	0.022 ppb	-5.950 ppb	3.722 ppb	0.500 ppb	-1.827 ppb	8.181 ppb	118.261 %
Concentration per Run 2	109.911 %	123.030 %	0.020 ppb	1.277 ppb	1.201 ppb	0.932 ppb	-1.696 ppb	3.649 ppb	117.772 %
Concentration per Run 3	108.610 %	126.014 %	0.009 ppb	-5.145 ppb	2.402 ppb	0.804 ppb	-5.318 ppb	-6.918 ppb	117.266 %
Concentration RSD	0.7 %	1.7 %	42.4 %	121.0 %	51.6 %	29.8 %	69.7 %	473.2 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.076 ppb	1.380 ppb	0.265 ppb	5.416 ppb	0.019 ppb	0.269 ppb	-0.091 ppb	0.065 ppb	104.554 %
Concentration per Run 1	0.070 ppb	1.339 ppb	0.212 ppb	5.001 ppb	0.018 ppb	0.317 ppb	-0.077 ppb	0.022 ppb	108.436 %
Concentration per Run 2	0.089 ppb	1.444 ppb	0.292 ppb	5.765 ppb	0.035 ppb	0.287 ppb	-0.139 ppb	0.093 ppb	104.717 %
Concentration per Run 3	0.069 ppb	1.357 ppb	0.292 ppb	5.482 ppb	0.005 ppb	0.202 ppb	-0.056 ppb	0.079 ppb	100.508 %
Concentration RSD	14.6 %	4.1 %	17.5 %	7.1 %	79.5 %	22.2 %	47.7 %	58.7 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.118 ppb	-0.043 ppb	0.070 ppb	0.152 ppb	105.773 %	0.017 ppb	0.028 ppb	101.523 %	0.315 ppb
Concentration per Run 1	0.097 ppb	-0.105 ppb	0.059 ppb	0.120 ppb	109.486 %	0.017 ppb	0.035 ppb	104.923 %	0.211 ppb
Concentration per Run 2	0.087 ppb	-0.076 ppb	0.087 ppb	0.152 ppb	102.967 %	0.021 ppb	0.025 ppb	99.580 %	0.387 ppb
Concentration per Run 3	0.169 ppb	0.053 ppb	0.065 ppb	0.185 ppb	104.867 %	0.015 ppb	0.023 ppb	100.066 %	0.348 ppb
Concentration RSD	37.8 %	196.5 %	20.6 %	21.5 %	3.2 %	17.2 %	23.8 %	2.9 %	29.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.040 ppb	0.054 ppb	111.918 %	109.697 %	0.216 ppb	0.186 ppb	0.011 ppb	106.949 %
Concentration per Run 1	0.035 ppb	0.024 ppb	114.959 %	110.811 %	0.156 ppb	0.108 ppb	0.008 ppb	113.064 %
Concentration per Run 2	0.046 ppb	0.086 ppb	110.025 %	107.814 %	0.223 ppb	0.222 ppb	0.018 ppb	105.312 %
Concentration per Run 3	0.041 ppb	0.052 ppb	110.771 %	110.466 %	0.270 ppb	0.227 ppb	0.005 ppb	102.471 %
Concentration RSD	13.7 %	57.3 %	2.4 %	1.5 %	26.5 %	36.5 %	65.3 %	5.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	170	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961551-2d10 A2-6020T	Rack	3		
Analysis started at:	8/21/2024 9:13:07 PM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.670 %	114.920 %	10.143 ppb	1,974.015 ppb	1,855.250 ppb	357.747 ppb	1,835.890 ppb	1,690.090 ppb	113.472 %
Concentration per Run 1	105.616 %	109.028 %	10.067 ppb	2,025.054 ppb	1,896.376 ppb	361.037 ppb	1,867.919 ppb	1,690.893 ppb	113.391 %
Concentration per Run 2	105.412 %	121.423 %	10.218 ppb	1,873.700 ppb	1,741.508 ppb	343.699 ppb	1,768.012 ppb	1,771.782 ppb	112.946 %
Concentration per Run 3	105.981 %	114.308 %	10.143 ppb	2,023.290 ppb	1,927.865 ppb	368.507 ppb	1,871.740 ppb	1,607.594 ppb	114.079 %
Concentration RSD	0.3 %	5.4 %	0.7 %	4.4 %	5.4 %	3.6 %	3.2 %	4.9 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	86.238 ppb	37.424 ppb	94.765 ppb	200.307 ppb	96.602 ppb	94.903 ppb	48.930 ppb	96.568 ppb	103.202 %
Concentration per Run 1	85.371 ppb	37.333 ppb	92.701 ppb	200.673 ppb	96.605 ppb	94.249 ppb	47.960 ppb	95.671 ppb	105.672 %
Concentration per Run 2	86.050 ppb	37.064 ppb	94.332 ppb	198.829 ppb	95.527 ppb	94.334 ppb	48.842 ppb	95.760 ppb	101.155 %
Concentration per Run 3	87.293 ppb	37.877 ppb	97.263 ppb	201.421 ppb	97.673 ppb	96.125 ppb	49.989 ppb	98.273 ppb	102.778 %
Concentration RSD	1.1 %	1.1 %	2.4 %	0.7 %	1.1 %	1.1 %	2.1 %	1.5 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	23.634 ppb	21.139 ppb	175.524 ppb	193.267 ppb	103.686 %	9.758 ppb	10.480 ppb	99.539 %	188.369 ppb
Concentration per Run 1	23.198 ppb	20.453 ppb	172.884 ppb	188.976 ppb	104.102 %	9.621 ppb	10.504 ppb	98.043 %	190.316 ppb
Concentration per Run 2	23.940 ppb	21.710 ppb	176.128 ppb	192.258 ppb	103.000 %	9.729 ppb	10.342 ppb	100.791 %	186.252 ppb
Concentration per Run 3	23.765 ppb	21.255 ppb	177.559 ppb	198.566 ppb	103.955 %	9.922 ppb	10.595 ppb	99.782 %	188.539 ppb
Concentration RSD	1.6 %	3.0 %	1.4 %	2.5 %	0.6 %	1.6 %	1.2 %	1.4 %	1.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	96.332 ppb	380.967 ppb	111.277 %	109.455 %	0.106 ppb	24.369 ppb	110.652 ppb	104.708 %
Concentration per Run 1	97.440 ppb	385.045 ppb	110.240 %	109.547 %	0.081 ppb	23.451 ppb	108.275 ppb	105.876 %
Concentration per Run 2	94.961 ppb	375.113 ppb	112.256 %	110.096 %	0.110 ppb	24.417 ppb	110.398 ppb	104.676 %
Concentration per Run 3	96.595 ppb	382.742 ppb	111.335 %	108.723 %	0.127 ppb	25.239 ppb	113.284 ppb	103.574 %
Concentration RSD	1.3 %	1.4 %	0.9 %	0.6 %	21.8 %	3.7 %	2.3 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	171	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1961551-3d10 A2-6020T	Rack	3		
Analysis started at:	8/21/2024 9:17:36 PM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.241 %	118.898 %	9.875 ppb	1,917.984 ppb	1,808.107 ppb	351.986 ppb	1,756.127 ppb	1,650.915 ppb	111.542 %
Concentration per Run 1	108.835 %	122.571 %	9.835 ppb	1,853.231 ppb	1,729.732 ppb	338.417 ppb	1,704.597 ppb	1,592.679 ppb	112.672 %
Concentration per Run 2	108.638 %	112.701 %	9.852 ppb	1,998.516 ppb	1,879.516 ppb	368.323 ppb	1,775.749 ppb	1,660.772 ppb	111.281 %
Concentration per Run 3	107.251 %	121.423 %	9.938 ppb	1,902.205 ppb	1,815.075 ppb	349.218 ppb	1,788.033 ppb	1,699.293 ppb	110.672 %
Concentration RSD	0.8 %	4.5 %	0.6 %	3.9 %	4.2 %	4.3 %	2.6 %	3.3 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	84.956 ppb	37.324 ppb	94.088 ppb	196.527 ppb	94.749 ppb	94.890 ppb	48.290 ppb	96.315 ppb	103.598 %
Concentration per Run 1	80.610 ppb	36.694 ppb	91.790 ppb	192.786 ppb	93.409 ppb	94.554 ppb	48.020 ppb	95.123 ppb	103.607 %
Concentration per Run 2	88.134 ppb	37.924 ppb	95.232 ppb	197.121 ppb	95.958 ppb	95.866 ppb	48.298 ppb	97.766 ppb	102.181 %
Concentration per Run 3	86.125 ppb	37.356 ppb	95.243 ppb	199.674 ppb	94.880 ppb	94.251 ppb	48.552 ppb	96.057 ppb	105.006 %
Concentration RSD	4.6 %	1.6 %	2.1 %	1.8 %	1.4 %	0.9 %	0.6 %	1.4 %	1.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	23.843 ppb	22.477 ppb	176.408 ppb	196.193 ppb	103.592 %	10.006 ppb	10.750 ppb	98.676 %	190.912 ppb
Concentration per Run 1	23.986 ppb	21.190 ppb	171.850 ppb	189.153 ppb	104.356 %	9.856 ppb	10.563 ppb	100.249 %	185.577 ppb
Concentration per Run 2	24.282 ppb	23.300 ppb	179.350 ppb	199.671 ppb	102.225 %	10.167 ppb	10.783 ppb	97.117 %	192.103 ppb
Concentration per Run 3	23.260 ppb	22.940 ppb	178.024 ppb	199.755 ppb	104.194 %	9.995 ppb	10.904 ppb	98.662 %	195.056 ppb
Concentration RSD	2.2 %	5.0 %	2.3 %	3.1 %	1.1 %	1.6 %	1.6 %	1.6 %	2.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	98.857 ppb	387.768 ppb	109.116 %	107.377 %	0.071 ppb	25.737 ppb	115.094 ppb	100.600 %
Concentration per Run 1	96.575 ppb	380.433 ppb	108.802 %	106.945 %	0.060 ppb	24.314 ppb	109.579 ppb	104.277 %
Concentration per Run 2	100.030 ppb	391.819 ppb	108.920 %	108.042 %	0.063 ppb	26.218 ppb	117.287 ppb	99.107 %
Concentration per Run 3	99.965 ppb	391.051 ppb	109.625 %	107.143 %	0.090 ppb	26.678 ppb	118.417 ppb	98.416 %
Concentration RSD	2.0 %	1.6 %	0.4 %	0.5 %	23.4 %	4.9 %	4.2 %	3.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	172	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2445067-02d2 A2-6020T	Rack	3		
Analysis started at:	8/21/2024 9:22:06 PM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.765 %	122.418 %	0.013 ppb	184.845 ppb	103.917 ppb	13.437 ppb	23.963 ppb	414.547 ppb	118.039 %
Concentration per Run 1	111.553 %	124.866 %	0.013 ppb	157.710 ppb	98.071 ppb	12.232 ppb	13.378 ppb	419.006 ppb	119.242 %
Concentration per Run 2	111.264 %	123.489 %	0.013 ppb	209.032 ppb	110.555 ppb	14.946 ppb	30.584 ppb	440.040 ppb	119.166 %
Concentration per Run 3	109.477 %	118.898 %	0.012 ppb	187.792 ppb	103.124 ppb	13.133 ppb	27.927 ppb	384.595 ppb	115.709 %
Concentration RSD	1.0 %	2.6 %	4.4 %	14.0 %	6.0 %	10.3 %	38.7 %	6.8 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.419 ppb	2.625 ppb	1.312 ppb	25.290 ppb	0.364 ppb	0.580 ppb	1.964 ppb	6.011 ppb	104.676 %
Concentration per Run 1	0.213 ppb	2.174 ppb	0.746 ppb	23.570 ppb	0.127 ppb	0.246 ppb	1.958 ppb	5.645 ppb	106.051 %
Concentration per Run 2	0.763 ppb	3.249 ppb	2.146 ppb	27.817 ppb	0.779 ppb	1.134 ppb	2.233 ppb	6.655 ppb	102.843 %
Concentration per Run 3	0.282 ppb	2.452 ppb	1.043 ppb	24.483 ppb	0.187 ppb	0.359 ppb	1.701 ppb	5.734 ppb	105.133 %
Concentration RSD	71.5 %	21.3 %	56.2 %	8.8 %	98.9 %	83.4 %	13.6 %	9.3 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.199 ppb	0.176 ppb	1.326 ppb	1.834 ppb	106.120 %	0.081 ppb	0.053 ppb	100.647 %	2.103 ppb
Concentration per Run 1	0.154 ppb	0.134 ppb	0.754 ppb	0.932 ppb	107.284 %	0.049 ppb	0.026 ppb	101.629 %	1.358 ppb
Concentration per Run 2	0.280 ppb	0.285 ppb	2.243 ppb	2.953 ppb	106.296 %	0.136 ppb	0.102 ppb	100.770 %	3.244 ppb
Concentration per Run 3	0.161 ppb	0.108 ppb	0.981 ppb	1.618 ppb	104.779 %	0.058 ppb	0.029 ppb	99.543 %	1.708 ppb
Concentration RSD	35.5 %	54.3 %	60.5 %	56.0 %	1.2 %	59.2 %	82.1 %	1.0 %	47.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.876 ppb	2.204 ppb	111.425 %	110.062 %	0.232 ppb	0.587 ppb	0.543 ppb	106.066 %
Concentration per Run 1	0.564 ppb	0.947 ppb	110.891 %	109.774 %	0.180 ppb	0.406 ppb	0.197 ppb	107.376 %
Concentration per Run 2	1.404 ppb	4.199 ppb	113.037 %	111.706 %	0.252 ppb	0.774 ppb	1.125 ppb	106.432 %
Concentration per Run 3	0.662 ppb	1.465 ppb	110.347 %	108.707 %	0.264 ppb	0.581 ppb	0.306 ppb	104.389 %
Concentration RSD	52.4 %	79.3 %	1.3 %	1.4 %	19.6 %	31.4 %	93.5 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	173	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 9:26:36 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.751 %	117.827 %	63.001 ppb	5,994.044 ppb	6,721.688 ppb	66.741 ppb	6,242.679 ppb	6,026.539 ppb	116.220 %
Concentration per Run 1	106.633 %	127.621 %	62.370 ppb	5,456.290 ppb	6,424.231 ppb	65.566 ppb	6,018.776 ppb	5,631.824 ppb	116.320 %
Concentration per Run 2	105.988 %	112.471 %	62.776 ppb	6,236.889 ppb	6,773.988 ppb	66.566 ppb	6,255.873 ppb	5,970.652 ppb	116.774 %
Concentration per Run 3	104.631 %	113.390 %	63.855 ppb	6,288.955 ppb	6,966.845 ppb	68.091 ppb	6,453.388 ppb	6,477.141 ppb	115.568 %
Recovery Percentage 1			105.001 %	99.901 %	112.028 %	111.235 %	104.045 %	100.442 %	
Concentration RSD	1.0 %	7.2 %	1.2 %	7.8 %	4.1 %	1.9 %	3.5 %	7.1 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.453 ppb	62.785 ppb	62.151 ppb	6,043.596 ppb	62.243 ppb	61.102 ppb	63.559 ppb	63.333 ppb	101.900 %
Concentration per Run 1	55.034 ppb	59.893 ppb	59.698 ppb	5,665.460 ppb	58.735 ppb	58.389 ppb	60.342 ppb	59.759 ppb	104.981 %
Concentration per Run 2	59.428 ppb	62.792 ppb	62.225 ppb	6,098.796 ppb	62.870 ppb	60.206 ppb	64.303 ppb	63.932 ppb	101.346 %
Concentration per Run 3	63.896 ppb	65.671 ppb	64.531 ppb	6,366.532 ppb	65.123 ppb	64.709 ppb	66.033 ppb	66.309 ppb	99.373 %
Recovery Percentage 1	99.088 %	104.642 %	103.586 %	100.727 %	103.738 %	101.836 %	105.932 %	105.556 %	
Concentration RSD	7.5 %	4.6 %	3.9 %	5.9 %	5.2 %	5.3 %	4.6 %	5.2 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	61.620 ppb	58.827 ppb	58.275 ppb	61.934 ppb	104.772 %	59.847 ppb	63.110 ppb	100.796 %	61.184 ppb
Concentration per Run 1	59.438 ppb	56.314 ppb	55.002 ppb	57.535 ppb	108.380 %	56.977 ppb	59.373 ppb	104.650 %	58.319 ppb
Concentration per Run 2	61.483 ppb	58.071 ppb	59.248 ppb	63.397 ppb	103.678 %	60.745 ppb	65.125 ppb	98.840 %	62.979 ppb
Concentration per Run 3	63.938 ppb	62.095 ppb	60.575 ppb	64.869 ppb	102.259 %	61.819 ppb	64.830 ppb	98.897 %	62.256 ppb
Recovery Percentage 1	102.699 %	98.045 %	97.125 %	103.223 %		99.745 %	105.183 %		101.974 %
Concentration RSD	3.7 %	5.0 %	5.0 %	6.3 %	3.1 %	4.2 %	5.1 %	3.3 %	4.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.266 ppb	60.961 ppb	110.688 %	109.306 %	64.910 ppb	64.511 ppb	64.885 ppb	104.797 %
Concentration per Run 1	59.343 ppb	57.646 ppb	113.179 %	111.713 %	61.765 ppb	59.232 ppb	60.213 ppb	110.292 %
Concentration per Run 2	63.520 ppb	62.201 ppb	110.199 %	108.370 %	65.976 ppb	65.384 ppb	66.409 ppb	103.116 %
Concentration per Run 3	63.937 ppb	63.037 ppb	108.686 %	107.834 %	66.990 ppb	68.918 ppb	68.032 ppb	100.983 %
Recovery Percentage 1	103.777 %	101.602 %			108.184 %	107.519 %	108.141 %	
Concentration RSD	4.1 %	4.8 %	2.1 %	1.9 %	4.3 %	7.6 %	6.4 %	4.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	174	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 9:31:08 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.650 %	116.221 %	0.044 ppb	-36.908 ppb	1.135 ppb	0.078 ppb	0.393 ppb	-16.025 ppb	113.735 %
Concentration per Run 1	106.610 %	120.276 %	0.049 ppb	-38.806 ppb	2.008 ppb	-0.230 ppb	1.961 ppb	-15.560 ppb	111.700 %
Concentration per Run 2	106.154 %	112.701 %	0.038 ppb	-34.655 ppb	0.832 ppb	0.301 ppb	-5.205 ppb	-17.570 ppb	113.540 %
Concentration per Run 3	107.188 %	115.685 %	0.045 ppb	-37.263 ppb	0.565 ppb	0.164 ppb	4.424 ppb	-14.947 ppb	115.966 %
Recovery Percentage 1			8.752 %	-36.908 %	1.622 %	0.783 %	0.393 %	-16.025 %	
Concentration RSD	0.5 %	3.3 %	12.8 %	5.7 %	67.6 %	351.6 %	1,271.9 %	8.6 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.017 ppb	0.116 ppb	-0.016 ppb	10.262 ppb	0.049 ppb	0.043 ppb	-0.132 ppb	-0.033 ppb	104.237 %
Concentration per Run 1	-0.040 ppb	0.128 ppb	0.027 ppb	10.114 ppb	0.054 ppb	0.077 ppb	-0.134 ppb	-0.063 ppb	106.681 %
Concentration per Run 2	-0.014 ppb	0.118 ppb	-0.006 ppb	10.283 ppb	0.056 ppb	0.025 ppb	-0.138 ppb	-0.061 ppb	104.183 %
Concentration per Run 3	0.105 ppb	0.102 ppb	-0.068 ppb	10.389 ppb	0.037 ppb	0.027 ppb	-0.124 ppb	0.024 ppb	101.848 %
Recovery Percentage 1	0.344 %	11.608 %	-1.582 %	20.524 %	9.809 %	2.146 %	-13.198 %	-0.665 %	
Concentration RSD	449.5 %	11.2 %	303.5 %	1.3 %	21.4 %	68.9 %	5.4 %	150.4 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.138 ppb	0.159 ppb	0.052 ppb	0.426 ppb	106.696 %	0.040 ppb	0.034 ppb	102.180 %	0.054 ppb
Concentration per Run 1	0.131 ppb	0.219 ppb	0.060 ppb	0.350 ppb	110.117 %	0.047 ppb	0.033 ppb	105.571 %	-0.014 ppb
Concentration per Run 2	0.150 ppb	0.112 ppb	0.053 ppb	0.338 ppb	105.965 %	0.042 ppb	0.039 ppb	99.075 %	0.095 ppb
Concentration per Run 3	0.133 ppb	0.148 ppb	0.042 ppb	0.590 ppb	104.007 %	0.031 ppb	0.031 ppb	101.894 %	0.082 ppb
Recovery Percentage 1	27.622 %	3.185 %	0.515 %	21.299 %		9.993 %	17.127 %		1.809 %
Concentration RSD	7.6 %	34.2 %	17.3 %	33.3 %	2.9 %	19.9 %	12.7 %	3.2 %	109.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.149 ppb	0.079 ppb	111.952 %	111.059 %	0.520 ppb	0.761 ppb	0.071 ppb	106.874 %
Concentration per Run 1	0.133 ppb	0.087 ppb	114.139 %	114.220 %	0.421 ppb	0.545 ppb	0.078 ppb	113.634 %
Concentration per Run 2	0.154 ppb	0.073 ppb	110.769 %	109.417 %	0.530 ppb	0.923 ppb	0.079 ppb	103.351 %
Concentration per Run 3	0.160 ppb	0.078 ppb	110.948 %	109.540 %	0.610 ppb	0.814 ppb	0.055 ppb	103.637 %
Recovery Percentage 1	3.728 %	15.793 %			26.001 %	76.060 %	7.083 %	
Concentration RSD	9.4 %	9.1 %	1.7 %	2.5 %	18.2 %	25.5 %	18.8 %	5.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	175	User name	ALPHALAB\a2-icpmsq2	Comment	8/23
Analysis label:	L2446853-01 6020SL	Rack	3		
Analysis started at:	8/21/2024 9:35:40 PM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.405 %	111.094 %	0.025 ppb	65,058.880 ppb	911.472 ppb	42.078 ppb	1,754.813 ppb	8,493.731 ppb	111.019 %
Concentration per Run 1	100.957 %	107.651 %	0.035 ppb	65,356.247 ppb	909.232 ppb	42.252 ppb	1,762.035 ppb	8,282.060 ppb	111.704 %
Concentration per Run 2	100.490 %	110.865 %	0.022 ppb	64,843.822 ppb	913.335 ppb	42.230 ppb	1,762.760 ppb	8,736.839 ppb	110.971 %
Concentration per Run 3	99.768 %	114.767 %	0.017 ppb	64,976.571 ppb	911.849 ppb	41.753 ppb	1,739.642 ppb	8,462.294 ppb	110.382 %
Concentration RSD	0.6 %	3.2 %	37.7 %	0.4 %	0.2 %	0.7 %	0.7 %	2.7 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.093 ppb	0.305 ppb	267.072 ppb	83.397 ppb	1.877 ppb	3.337 ppb	10.579 ppb	1.084 ppb	101.457 %
Concentration per Run 1	0.037 ppb	0.255 ppb	259.348 ppb	80.827 ppb	1.958 ppb	3.348 ppb	10.838 ppb	1.104 ppb	102.679 %
Concentration per Run 2	0.129 ppb	0.320 ppb	273.887 ppb	85.722 ppb	1.784 ppb	3.470 ppb	10.940 ppb	1.092 ppb	99.093 %
Concentration per Run 3	0.113 ppb	0.341 ppb	267.981 ppb	83.644 ppb	1.891 ppb	3.193 ppb	9.958 ppb	1.057 ppb	102.598 %
Concentration RSD	52.5 %	14.7 %	2.7 %	2.9 %	4.7 %	4.2 %	5.1 %	2.3 %	2.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.224 ppb	0.812 ppb	47.399 ppb	5.489 ppb	99.412 %	0.017 ppb	0.034 ppb	97.018 %	-0.483 ppb
Concentration per Run 1	0.186 ppb	1.004 ppb	44.836 ppb	4.892 ppb	103.377 %	0.017 ppb	0.033 ppb	100.739 %	-0.558 ppb
Concentration per Run 2	0.281 ppb	0.760 ppb	49.413 ppb	5.762 ppb	96.233 %	0.017 ppb	0.038 ppb	93.692 %	-0.458 ppb
Concentration per Run 3	0.205 ppb	0.673 ppb	47.947 ppb	5.811 ppb	98.627 %	0.017 ppb	0.032 ppb	96.624 %	-0.432 ppb
Concentration RSD	22.6 %	21.1 %	4.9 %	9.4 %	3.7 %	1.1 %	8.5 %	3.6 %	13.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.212 ppb	31.795 ppb	109.673 %	107.876 %	0.177 ppb	0.298 ppb	0.095 ppb	100.199 %
Concentration per Run 1	0.183 ppb	29.696 ppb	113.300 %	109.731 %	0.124 ppb	0.173 ppb	0.089 ppb	107.443 %
Concentration per Run 2	0.214 ppb	32.876 ppb	107.135 %	105.443 %	0.186 ppb	0.363 ppb	0.098 ppb	95.986 %
Concentration per Run 3	0.239 ppb	32.813 ppb	108.583 %	108.455 %	0.222 ppb	0.359 ppb	0.097 ppb	97.169 %
Concentration RSD	13.3 %	5.7 %	2.9 %	2.0 %	27.9 %	36.5 %	5.5 %	6.3 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	176	User name	ALPHALAB\a2-icpmsq2	Comment	8/23
Analysis label:	xL2446922-03 6020TL	Rack	2		
Analysis started at:	8/21/2024 9:40:10 PM	Vial	45		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.871 %	109.870 %	0.087 ppb	70,101.280 ppb	25,717.879 ppb	529.347 ppb	28,184.010 ppb	133,005.645 ppb	114.394 %
Concentration per Run 1	104.084 %	119.358 %	0.102 ppb	63,892.216 ppb	23,224.573 ppb	483.513 ppb	26,254.774 ppb	124,647.806 ppb	115.990 %
Concentration per Run 2	102.749 %	105.126 %	0.079 ppb	73,123.641 ppb	26,921.244 ppb	541.560 ppb	28,950.637 ppb	136,611.430 ppb	113.366 %
Concentration per Run 3	101.779 %	105.126 %	0.079 ppb	73,287.985 ppb	27,007.821 ppb	562.969 ppb	29,346.620 ppb	137,757.701 ppb	113.825 %
Concentration RSD	1.1 %	7.5 %	15.6 %	7.7 %	8.4 %	7.8 %	6.0 %	5.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.308 ppb	6.145 ppb	979.858 ppb	35,738.961 ppb	1.027 ppb	11.206 ppb	4.591 ppb	6,739.176 ppb	97.138 %
Concentration per Run 1	2.063 ppb	5.613 ppb	921.900 ppb	33,599.558 ppb	1.040 ppb	11.021 ppb	4.517 ppb	6,385.614 ppb	99.602 %
Concentration per Run 2	2.364 ppb	6.416 ppb	1,011.766 ppb	36,754.764 ppb	1.095 ppb	10.887 ppb	4.455 ppb	6,943.817 ppb	95.073 %
Concentration per Run 3	2.497 ppb	6.408 ppb	1,005.908 ppb	36,862.561 ppb	0.946 ppb	11.710 ppb	4.801 ppb	6,888.097 ppb	96.739 %
Concentration RSD	9.6 %	7.5 %	5.1 %	5.2 %	7.3 %	3.9 %	4.0 %	4.6 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.810 ppb	0.136 ppb	873.982 ppb	2.308 ppb	96.493 %	0.041 ppb	0.707 ppb	95.161 %	1.911 ppb
Concentration per Run 1	0.741 ppb	0.053 ppb	825.925 ppb	2.069 ppb	99.969 %	0.034 ppb	0.723 ppb	97.634 %	1.674 ppb
Concentration per Run 2	0.757 ppb	0.101 ppb	898.420 ppb	2.397 ppb	94.927 %	0.044 ppb	0.734 ppb	93.807 %	2.060 ppb
Concentration per Run 3	0.931 ppb	0.256 ppb	897.601 ppb	2.457 ppb	94.584 %	0.045 ppb	0.664 ppb	94.043 %	1.998 ppb
Concentration RSD	13.0 %	77.6 %	4.8 %	9.0 %	3.1 %	15.9 %	5.3 %	2.3 %	10.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.353 ppb	184.865 ppb	108.041 %	107.111 %	0.920 ppb	0.151 ppb	2.254 ppb	95.496 %
Concentration per Run 1	0.334 ppb	177.133 ppb	110.347 %	109.834 %	0.850 ppb	0.070 ppb	2.075 ppb	100.304 %
Concentration per Run 2	0.344 ppb	189.953 ppb	106.103 %	104.592 %	0.957 ppb	0.194 ppb	2.338 ppb	93.834 %
Concentration per Run 3	0.381 ppb	187.509 ppb	107.674 %	106.908 %	0.953 ppb	0.188 ppb	2.350 ppb	92.350 %
Concentration RSD	7.0 %	3.7 %	2.0 %	2.5 %	6.6 %	46.3 %	6.9 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	177	User name	ALPHALAB\a2-icpmsq2	Comment	8/23
Analysis label:	xL2446922-04d5 6020TL	Rack	2		
Analysis started at:	8/21/2024 9:44:39 PM	Vial	46		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.184 %	111.018 %	0.031 ppb	91,960.006 ppb	19,573.538 ppb	20.653 ppb	10,783.282 ppb	63,956.988 ppb	104.360 %
Concentration per Run 1	92.737 %	114.767 %	0.032 ppb	85,940.523 ppb	18,414.703 ppb	19.247 ppb	10,119.618 ppb	60,707.415 ppb	103.899 %
Concentration per Run 2	92.061 %	105.585 %	0.034 ppb	96,704.301 ppb	20,462.019 ppb	21.160 ppb	11,381.915 ppb	66,970.246 ppb	105.262 %
Concentration per Run 3	91.756 %	112.701 %	0.028 ppb	93,235.193 ppb	19,843.891 ppb	21.551 ppb	10,848.311 ppb	64,193.304 ppb	103.920 %
Concentration RSD	0.5 %	4.3 %	9.3 %	6.0 %	5.4 %	6.0 %	5.9 %	4.9 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.038 ppb	0.187 ppb	383.815 ppb	196,235.574 ppb	0.298 ppb	0.649 ppb	0.119 ppb	17.973 ppb	97.121 %
Concentration per Run 1	-0.059 ppb	0.150 ppb	357.742 ppb	184,764.856 ppb	0.293 ppb	0.608 ppb	0.063 ppb	16.193 ppb	99.351 %
Concentration per Run 2	-0.004 ppb	0.218 ppb	403.642 ppb	207,221.965 ppb	0.365 ppb	0.702 ppb	0.190 ppb	18.053 ppb	93.619 %
Concentration per Run 3	-0.050 ppb	0.193 ppb	390.061 ppb	196,719.901 ppb	0.235 ppb	0.636 ppb	0.105 ppb	19.673 ppb	98.394 %
Concentration RSD	78.9 %	18.4 %	6.1 %	5.7 %	21.8 %	7.4 %	54.4 %	9.7 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.142 ppb	-0.009 ppb	709.901 ppb	0.109 ppb	96.404 %	-0.004 ppb	0.057 ppb	97.110 %	0.482 ppb
Concentration per Run 1	0.121 ppb	0.018 ppb	665.513 ppb	0.091 ppb	100.166 %	-0.005 ppb	0.049 ppb	101.869 %	0.145 ppb
Concentration per Run 2	0.145 ppb	0.034 ppb	738.327 ppb	0.059 ppb	94.094 %	-0.004 ppb	0.062 ppb	93.831 %	0.376 ppb
Concentration per Run 3	0.161 ppb	-0.079 ppb	725.864 ppb	0.176 ppb	94.951 %	-0.002 ppb	0.059 ppb	95.628 %	0.925 ppb
Concentration RSD	14.3 %	673.2 %	5.5 %	55.6 %	3.4 %	52.4 %	11.7 %	4.3 %	83.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.064 ppb	97.555 ppb	105.027 %	103.899 %	0.130 ppb	0.090 ppb	0.042 ppb	93.479 %
Concentration per Run 1	0.041 ppb	89.908 ppb	108.559 %	106.513 %	0.066 ppb	0.032 ppb	0.038 ppb	99.335 %
Concentration per Run 2	0.077 ppb	101.557 ppb	102.687 %	102.277 %	0.134 ppb	0.112 ppb	0.042 ppb	90.125 %
Concentration per Run 3	0.075 ppb	101.202 ppb	103.834 %	102.908 %	0.190 ppb	0.126 ppb	0.046 ppb	90.977 %
Concentration RSD	32.0 %	6.8 %	3.0 %	2.2 %	47.9 %	56.2 %	9.1 %	5.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	178	User name	ALPHALAB\a2-icpmsq2	Comment	8/23
Analysis label:	xL2446922-05d5 6020TL	Rack	2		
Analysis started at:	8/21/2024 9:49:09 PM	Vial	47		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	89.894 %	106.963 %	0.030 ppb	105,267.890 ppb	14,278.947 ppb	195.304 ppb	11,154.023 ppb	67,040.041 ppb	100.093 %
Concentration per Run 1	90.196 %	117.062 %	0.023 ppb	95,387.040 ppb	12,963.624 ppb	179.695 ppb	10,449.104 ppb	62,728.597 ppb	99.270 %
Concentration per Run 2	89.837 %	106.733 %	0.038 ppb	104,718.380 ppb	14,229.716 ppb	194.279 ppb	10,965.656 ppb	66,129.638 ppb	100.809 %
Concentration per Run 3	89.650 %	97.092 %	0.030 ppb	115,698.249 ppb	15,643.502 ppb	211.939 ppb	12,047.309 ppb	72,261.889 ppb	100.200 %
Concentration RSD	0.3 %	9.3 %	24.6 %	9.7 %	9.4 %	8.3 %	7.3 %	7.2 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.693 ppb	1.582 ppb	139.541 ppb	190,357.607 ppb	0.437 ppb	1.338 ppb	0.444 ppb	76.328 ppb	94.244 %
Concentration per Run 1	2.336 ppb	1.484 ppb	128.403 ppb	179,464.721 ppb	0.393 ppb	1.264 ppb	0.447 ppb	72.194 ppb	97.388 %
Concentration per Run 2	2.560 ppb	1.575 ppb	139.784 ppb	190,259.047 ppb	0.434 ppb	1.392 ppb	0.442 ppb	76.767 ppb	94.248 %
Concentration per Run 3	3.182 ppb	1.687 ppb	150.436 ppb	201,349.053 ppb	0.484 ppb	1.358 ppb	0.443 ppb	80.024 ppb	91.096 %
Concentration RSD	16.3 %	6.4 %	7.9 %	5.7 %	10.4 %	5.0 %	0.6 %	5.2 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.257 ppb	0.065 ppb	480.709 ppb	0.537 ppb	93.845 %	-0.002 ppb	0.032 ppb	93.728 %	0.069 ppb
Concentration per Run 1	0.240 ppb	0.158 ppb	465.002 ppb	0.483 ppb	94.594 %	-0.004 ppb	0.031 ppb	94.895 %	0.038 ppb
Concentration per Run 2	0.247 ppb	0.035 ppb	483.049 ppb	0.549 ppb	93.229 %	-0.001 ppb	0.036 ppb	93.592 %	-0.005 ppb
Concentration per Run 3	0.284 ppb	0.001 ppb	494.076 ppb	0.577 ppb	93.711 %	-0.003 ppb	0.029 ppb	92.697 %	0.173 ppb
Concentration RSD	9.2 %	127.2 %	3.1 %	9.0 %	0.7 %	64.4 %	10.4 %	1.2 %	135.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.074 ppb	83.016 ppb	101.568 %	101.701 %	1.100 ppb	0.073 ppb	0.410 ppb	90.822 %
Concentration per Run 1	0.055 ppb	81.343 ppb	102.250 %	102.979 %	1.061 ppb	0.027 ppb	0.373 ppb	94.387 %
Concentration per Run 2	0.083 ppb	82.945 ppb	100.914 %	100.988 %	1.112 ppb	0.094 ppb	0.420 ppb	90.261 %
Concentration per Run 3	0.084 ppb	84.762 ppb	101.540 %	101.135 %	1.126 ppb	0.097 ppb	0.436 ppb	87.818 %
Concentration RSD	22.2 %	2.1 %	0.7 %	1.1 %	3.1 %	54.6 %	7.9 %	3.7 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	179	User name	ALPHALAB\a2-icpmsq2	Comment	8/23
Analysis label:	xL2446922-06 6020TL	Rack	2		
Analysis started at:	8/21/2024 9:53:39 PM	Vial	48		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	84.809 %	105.279 %	0.109 ppb	255,435.588 ppb	32,849.098 ppb	125.950 ppb	34,157.318 ppb	119,993.951 ppb	97.287 %
Concentration per Run 1	85.344 %	109.028 %	0.119 ppb	243,595.417 ppb	31,479.854 ppb	119.302 ppb	33,735.312 ppb	117,907.799 ppb	98.228 %
Concentration per Run 2	85.250 %	99.388 %	0.095 ppb	268,933.944 ppb	34,539.466 ppb	130.383 ppb	34,558.435 ppb	120,733.341 ppb	97.260 %
Concentration per Run 3	83.835 %	107.422 %	0.113 ppb	253,777.402 ppb	32,527.973 ppb	128.165 ppb	34,178.208 ppb	121,340.715 ppb	96.375 %
Concentration RSD	1.0 %	4.9 %	11.6 %	5.0 %	4.7 %	4.7 %	1.2 %	1.5 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.741 ppb	1.586 ppb	822.813 ppb	250,008.468 ppb	0.503 ppb	2.272 ppb	0.983 ppb	536.312 ppb	89.907 %
Concentration per Run 1	0.686 ppb	1.459 ppb	787.972 ppb	240,969.303 ppb	0.454 ppb	2.315 ppb	1.027 ppb	526.942 ppb	89.769 %
Concentration per Run 2	0.759 ppb	1.615 ppb	842.814 ppb	253,232.958 ppb	0.550 ppb	2.347 ppb	0.985 ppb	541.989 ppb	91.278 %
Concentration per Run 3	0.776 ppb	1.683 ppb	837.654 ppb	255,823.141 ppb	0.504 ppb	2.155 ppb	0.937 ppb	540.004 ppb	88.675 %
Concentration RSD	6.5 %	7.2 %	3.7 %	3.2 %	9.6 %	4.5 %	4.6 %	1.5 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.901 ppb	0.051 ppb	1,845.016 ppb	0.701 ppb	90.340 %	0.008 ppb	0.222 ppb	91.823 %	0.803 ppb
Concentration per Run 1	0.710 ppb	0.076 ppb	1,792.277 ppb	0.677 ppb	90.775 %	0.011 ppb	0.190 ppb	91.023 %	0.769 ppb
Concentration per Run 2	0.855 ppb	0.038 ppb	1,843.201 ppb	0.666 ppb	91.107 %	0.006 ppb	0.216 ppb	93.198 %	0.786 ppb
Concentration per Run 3	1.140 ppb	0.038 ppb	1,899.570 ppb	0.761 ppb	89.138 %	0.007 ppb	0.259 ppb	91.248 %	0.854 ppb
Concentration RSD	24.3 %	42.8 %	2.9 %	7.4 %	1.2 %	33.5 %	15.7 %	1.3 %	5.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.201 ppb	276.874 ppb	99.007 %	97.696 %	1.366 ppb	0.075 ppb	0.443 ppb	82.881 %
Concentration per Run 1	0.205 ppb	271.255 ppb	98.417 %	97.832 %	1.282 ppb	0.026 ppb	0.430 ppb	86.192 %
Concentration per Run 2	0.202 ppb	277.447 ppb	99.152 %	97.585 %	1.392 ppb	0.097 ppb	0.468 ppb	80.770 %
Concentration per Run 3	0.195 ppb	281.920 ppb	99.451 %	97.671 %	1.424 ppb	0.101 ppb	0.433 ppb	81.682 %
Concentration RSD	2.4 %	1.9 %	0.5 %	0.1 %	5.4 %	56.1 %	4.8 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	180	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 9:58:09 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.122 %	109.794 %	63.819 ppb	6,267.251 ppb	5,953.219 ppb	59.258 ppb	5,713.565 ppb	5,726.771 ppb	107.424 %
Concentration per Run 1	96.382 %	110.176 %	63.624 ppb	5,891.188 ppb	5,604.200 ppb	54.554 ppb	5,412.060 ppb	5,397.464 ppb	105.721 %
Concentration per Run 2	96.709 %	103.979 %	63.991 ppb	6,586.623 ppb	6,252.973 ppb	61.387 ppb	5,916.815 ppb	6,030.573 ppb	109.278 %
Concentration per Run 3	95.274 %	115.226 %	63.843 ppb	6,323.944 ppb	6,002.483 ppb	61.832 ppb	5,811.820 ppb	5,752.276 ppb	107.273 %
Recovery Percentage 1			106.365 %	104.454 %	99.220 %	98.763 %	95.226 %	95.446 %	
Concentration RSD	0.8 %	5.1 %	0.3 %	5.6 %	5.5 %	6.9 %	4.7 %	5.5 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	57.070 ppb	59.654 ppb	60.804 ppb	6,390.294 ppb	62.329 ppb	61.933 ppb	63.344 ppb	65.204 ppb	98.800 %
Concentration per Run 1	54.520 ppb	56.169 ppb	58.703 ppb	6,021.936 ppb	59.010 ppb	58.054 ppb	59.508 ppb	61.482 ppb	100.071 %
Concentration per Run 2	59.198 ppb	62.812 ppb	62.734 ppb	6,602.584 ppb	64.394 ppb	64.896 ppb	65.908 ppb	67.278 ppb	97.278 %
Concentration per Run 3	57.492 ppb	59.982 ppb	60.975 ppb	6,546.363 ppb	63.583 ppb	62.849 ppb	64.615 ppb	66.850 ppb	99.051 %
Recovery Percentage 1	95.116 %	99.424 %	101.340 %	106.505 %	103.882 %	103.222 %	105.573 %	108.673 %	
Concentration RSD	4.1 %	5.6 %	3.3 %	5.0 %	4.7 %	5.7 %	5.3 %	5.0 %	1.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	62.433 ppb	59.272 ppb	58.809 ppb	61.460 ppb	102.063 %	59.769 ppb	62.388 ppb	97.444 %	61.301 ppb
Concentration per Run 1	60.231 ppb	56.819 ppb	55.175 ppb	56.468 ppb	104.458 %	56.990 ppb	59.132 ppb	97.135 %	58.968 ppb
Concentration per Run 2	64.190 ppb	59.745 ppb	60.410 ppb	63.511 ppb	100.283 %	61.098 ppb	63.519 ppb	97.254 %	62.349 ppb
Concentration per Run 3	62.880 ppb	61.252 ppb	60.841 ppb	64.401 ppb	101.448 %	61.219 ppb	64.513 ppb	97.942 %	62.586 ppb
Recovery Percentage 1	104.056 %	98.787 %	98.015 %	102.433 %		99.615 %	103.980 %		102.169 %
Concentration RSD	3.2 %	3.8 %	5.4 %	7.1 %	2.1 %	4.0 %	4.6 %	0.4 %	3.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.312 ppb	59.575 ppb	105.357 %	103.372 %	65.017 ppb	64.540 ppb	64.780 ppb	98.336 %
Concentration per Run 1	59.825 ppb	55.636 ppb	106.513 %	104.888 %	60.893 ppb	58.321 ppb	59.478 ppb	100.816 %
Concentration per Run 2	63.325 ppb	61.104 ppb	103.686 %	101.411 %	66.609 ppb	66.861 ppb	67.102 ppb	96.821 %
Concentration per Run 3	63.785 ppb	61.985 ppb	105.872 %	103.818 %	67.548 ppb	68.438 ppb	67.760 ppb	97.370 %
Recovery Percentage 1	103.853 %	99.292 %			108.361 %	107.567 %	107.967 %	
Concentration RSD	3.5 %	5.8 %	1.4 %	1.7 %	5.5 %	8.4 %	7.1 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	181	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/21/2024 10:02:41 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.858 %	110.865 %	0.105 ppb	508.362 ppb	70.156 ppb	0.440 ppb	71.764 ppb	235.827 ppb	104.053 %
Concentration per Run 1	96.586 %	111.553 %	0.123 ppb	124.064 ppb	16.562 ppb	0.062 ppb	34.086 ppb	66.114 ppb	103.309 %
Concentration per Run 2	96.640 %	106.274 %	0.121 ppb	710.655 ppb	98.976 ppb	0.672 ppb	90.007 ppb	296.597 ppb	104.104 %
Concentration per Run 3	97.349 %	114.767 %	0.072 ppb	690.368 ppb	94.932 ppb	0.584 ppb	91.199 ppb	344.771 ppb	104.747 %
Recovery Percentage 1			21.038 %	508.362 %	100.223 %	4.397 %	71.764 %	235.827 %	
Concentration RSD	0.4 %	3.9 %	27.7 %	65.5 %	66.2 %	75.0 %	45.5 %	63.2 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.059 ppb	0.141 ppb	1.396 ppb	590.045 ppb	0.141 ppb	0.074 ppb	-0.055 ppb	2.390 ppb	100.976 %
Concentration per Run 1	0.012 ppb	0.049 ppb	0.220 ppb	195.913 ppb	0.057 ppb	-0.026 ppb	-0.161 ppb	1.017 ppb	102.340 %
Concentration per Run 2	0.066 ppb	0.184 ppb	1.934 ppb	790.988 ppb	0.168 ppb	0.158 ppb	-0.011 ppb	2.950 ppb	99.225 %
Concentration per Run 3	0.099 ppb	0.189 ppb	2.034 ppb	783.234 ppb	0.199 ppb	0.092 ppb	0.008 ppb	3.203 ppb	101.364 %
Recovery Percentage 1	1.178 %	14.095 %	139.600 %	1,180.090 %	28.251 %	3.724 %	-5.473 %	47.804 %	
Concentration RSD	74.3 %	56.3 %	73.0 %	57.9 %	52.8 %	124.6 %	169.4 %	50.0 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.200 ppb	0.331 ppb	2.811 ppb	0.408 ppb	103.125 %	0.129 ppb	0.128 ppb	98.703 %	0.012 ppb
Concentration per Run 1	0.109 ppb	0.163 ppb	0.721 ppb	0.302 ppb	107.996 %	0.040 ppb	0.047 ppb	104.542 %	-0.146 ppb
Concentration per Run 2	0.252 ppb	0.376 ppb	4.204 ppb	0.505 ppb	99.918 %	0.175 ppb	0.179 ppb	94.653 %	0.119 ppb
Concentration per Run 3	0.240 ppb	0.454 ppb	3.508 ppb	0.416 ppb	101.462 %	0.171 ppb	0.159 ppb	96.914 %	0.064 ppb
Recovery Percentage 1	40.099 %	6.620 %	28.109 %	20.385 %		32.212 %	64.223 %		0.409 %
Concentration RSD	39.6 %	45.6 %	65.6 %	25.0 %	4.2 %	59.4 %	55.4 %	5.2 %	1,141.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.221 ppb	0.618 ppb	107.077 %	104.256 %	0.595 ppb	0.751 ppb	0.136 ppb	101.021 %
Concentration per Run 1	0.104 ppb	0.089 ppb	110.546 %	107.909 %	0.418 ppb	0.482 ppb	0.035 ppb	107.275 %
Concentration per Run 2	0.290 ppb	0.769 ppb	104.988 %	102.134 %	0.652 ppb	0.959 ppb	0.199 ppb	97.110 %
Concentration per Run 3	0.269 ppb	0.995 ppb	105.697 %	102.725 %	0.716 ppb	0.812 ppb	0.175 ppb	98.677 %
Recovery Percentage 1	5.527 %	123.534 %			29.772 %	75.093 %	13.619 %	
Concentration RSD	46.0 %	76.3 %	2.8 %	3.0 %	26.4 %	32.5 %	65.2 %	5.4 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index:	182	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/21/2024 10:07:13 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.430 %	113.466 %	63.385 ppb	6,029.690 ppb	5,794.387 ppb	57.291 ppb	5,606.223 ppb	5,537.627 ppb	109.534 %
Concentration per Run 1	98.036 %	109.028 %	63.568 ppb	5,968.257 ppb	5,739.823 ppb	55.477 ppb	5,559.429 ppb	5,445.058 ppb	108.749 %
Concentration per Run 2	98.649 %	112.242 %	62.964 ppb	6,113.056 ppb	5,939.682 ppb	61.102 ppb	5,715.743 ppb	5,541.782 ppb	108.967 %
Concentration per Run 3	98.605 %	119.128 %	63.623 ppb	6,007.758 ppb	5,703.655 ppb	55.296 ppb	5,543.498 ppb	5,626.042 ppb	110.887 %
Recovery Percentage 1			105.642 %	100.495 %	96.573 %	95.486 %	93.437 %	92.294 %	
Concentration RSD	0.3 %	4.5 %	0.6 %	1.2 %	2.2 %	5.8 %	1.7 %	1.6 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	56.272 ppb	59.322 ppb	59.932 ppb	6,197.095 ppb	61.962 ppb	61.494 ppb	63.140 ppb	64.365 ppb	100.458 %
Concentration per Run 1	53.936 ppb	57.499 ppb	57.833 ppb	5,836.761 ppb	59.458 ppb	57.491 ppb	60.923 ppb	60.794 ppb	104.583 %
Concentration per Run 2	56.923 ppb	60.462 ppb	60.598 ppb	6,300.025 ppb	63.461 ppb	63.967 ppb	63.367 ppb	65.818 ppb	99.185 %
Concentration per Run 3	57.959 ppb	60.003 ppb	61.367 ppb	6,454.498 ppb	62.965 ppb	63.024 ppb	65.130 ppb	66.484 ppb	97.606 %
Recovery Percentage 1	93.787 %	98.870 %	99.887 %	103.285 %	103.269 %	102.490 %	105.233 %	107.276 %	
Concentration RSD	3.7 %	2.7 %	3.1 %	5.2 %	3.5 %	5.7 %	3.3 %	4.8 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	62.532 ppb	58.989 ppb	58.268 ppb	61.727 ppb	103.308 %	59.469 ppb	63.219 ppb	98.660 %	60.363 ppb
Concentration per Run 1	58.660 ppb	55.544 ppb	55.058 ppb	58.432 ppb	106.121 %	57.138 ppb	60.307 ppb	100.197 %	57.993 ppb
Concentration per Run 2	64.473 ppb	59.764 ppb	59.229 ppb	63.410 ppb	101.377 %	60.564 ppb	64.294 ppb	97.808 %	61.971 ppb
Concentration per Run 3	64.462 ppb	61.659 ppb	60.517 ppb	63.339 ppb	102.425 %	60.705 ppb	65.055 ppb	97.973 %	61.123 ppb
Recovery Percentage 1	104.219 %	98.314 %	97.113 %	102.878 %		99.115 %	105.365 %		100.604 %
Concentration RSD	5.4 %	5.3 %	4.9 %	4.6 %	2.4 %	3.4 %	4.0 %	1.4 %	3.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.686 ppb	60.313 ppb	108.925 %	106.746 %	65.032 ppb	64.274 ppb	64.269 ppb	102.114 %
Concentration per Run 1	60.218 ppb	57.791 ppb	111.921 %	109.677 %	60.643 ppb	58.125 ppb	59.059 ppb	108.004 %
Concentration per Run 2	64.168 ppb	61.760 ppb	107.598 %	105.104 %	67.081 ppb	66.769 ppb	66.658 ppb	99.171 %
Concentration per Run 3	63.671 ppb	61.389 ppb	107.257 %	105.458 %	67.371 ppb	67.929 ppb	67.090 ppb	99.167 %
Recovery Percentage 1	104.477 %	100.522 %			108.386 %	107.124 %	107.115 %	
Concentration RSD	3.4 %	3.6 %	2.4 %	2.4 %	5.8 %	8.3 %	7.0 %	5.0 %

Alpha ICPMSQ2 Data with SRD

8/22/2024 5:55:30 AM

Analysis index: 183 User name ALPHALAB\a2-icpmsq2 Comment <Comment>
Analysis label: CCB Rack 0
Analysis started at: 8/21/2024 10:11:45 PM Vial 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.769 %	115.608 %	0.050 ppb	34.824 ppb	10.351 ppb	-0.138 ppb	9.696 ppb	20.635 ppb	109.480 %
Concentration per Run 1	100.469 %	117.062 %	0.051 ppb	56.324 ppb	13.077 ppb	-0.093 ppb	15.275 ppb	36.330 ppb	109.906 %
Concentration per Run 2	99.411 %	117.292 %	0.057 ppb	37.060 ppb	11.911 ppb	-0.208 ppb	13.196 ppb	20.463 ppb	108.825 %
Concentration per Run 3	99.426 %	112.471 %	0.040 ppb	11.088 ppb	6.065 ppb	-0.114 ppb	0.616 ppb	5.112 ppb	109.710 %
Recovery Percentage 1			9.908 %	34.824 %	14.787 %	-1.384 %	9.696 %	20.635 %	
Concentration RSD	0.6 %	2.4 %	17.8 %	65.2 %	36.3 %	44.1 %	81.8 %	75.6 %	0.5 %

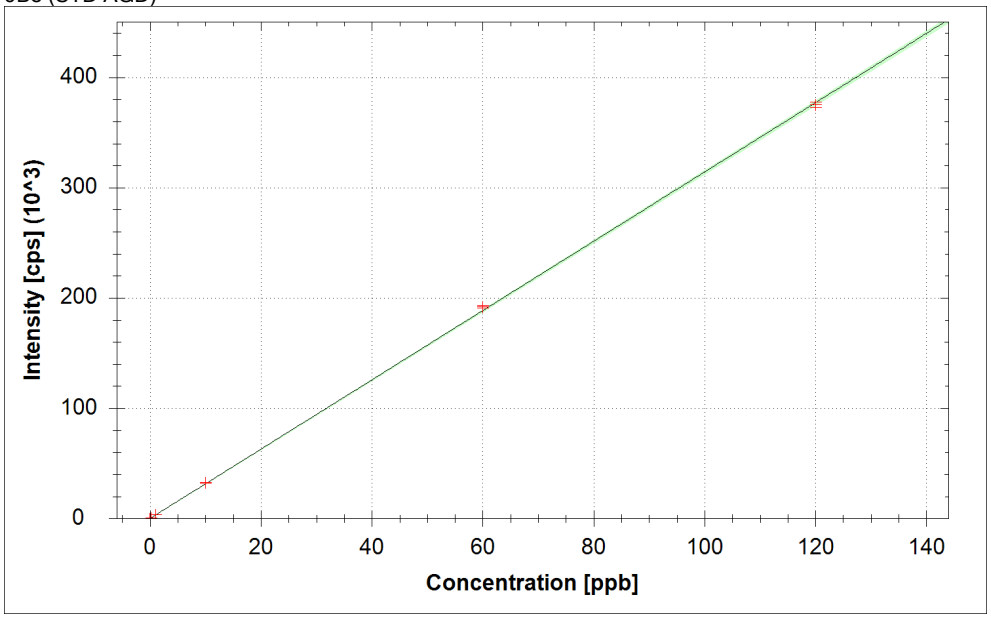
Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.021 ppb	0.112 ppb	0.123 ppb	94.388 ppb	0.094 ppb	-0.008 ppb	-0.114 ppb	0.332 ppb	102.891 %
Concentration per Run 1	-0.015 ppb	0.113 ppb	0.260 ppb	131.203 ppb	0.118 ppb	0.066 ppb	-0.059 ppb	0.441 ppb	104.398 %
Concentration per Run 2	-0.012 ppb	0.135 ppb	0.136 ppb	92.978 ppb	0.118 ppb	-0.061 ppb	-0.091 ppb	0.376 ppb	99.860 %
Concentration per Run 3	-0.037 ppb	0.086 ppb	-0.027 ppb	58.985 ppb	0.046 ppb	-0.029 ppb	-0.193 ppb	0.179 ppb	104.415 %
Recovery Percentage 1	-0.429 %	11.172 %	12.273 %	188.777 %	18.821 %	-0.390 %	-11.436 %	6.645 %	
Concentration RSD	63.4 %	22.0 %	117.3 %	38.3 %	44.1 %	845.2 %	61.1 %	41.1 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	118Sn (KED AGD)
Concentration average	0.161 ppb	0.286 ppb	0.433 ppb	0.343 ppb	105.671 %	0.075 ppb	0.073 ppb	100.609 %	-0.005 ppb
Concentration per Run 1	0.172 ppb	0.393 ppb	0.638 ppb	0.250 ppb	109.022 %	0.102 ppb	0.104 ppb	103.680 %	-0.080 ppb
Concentration per Run 2	0.170 ppb	0.186 ppb	0.423 ppb	0.382 ppb	103.901 %	0.085 ppb	0.080 ppb	98.446 %	0.058 ppb
Concentration per Run 3	0.141 ppb	0.279 ppb	0.238 ppb	0.398 ppb	104.090 %	0.038 ppb	0.035 ppb	99.700 %	0.007 ppb
Recovery Percentage 1	32.198 %	5.717 %	4.327 %	17.159 %		18.660 %	36.509 %		-0.180 %
Concentration RSD	10.8 %	36.4 %	46.2 %	23.7 %	2.7 %	44.4 %	47.7 %	2.7 %	1,294.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	183W (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.136 ppb	0.159 ppb	110.006 %	107.437 %	0.589 ppb	0.744 ppb	0.084 ppb	103.992 %
Concentration per Run 1	0.140 ppb	0.203 ppb	112.921 %	109.936 %	0.519 ppb	0.572 ppb	0.121 ppb	110.882 %
Concentration per Run 2	0.165 ppb	0.201 ppb	107.828 %	106.223 %	0.589 ppb	0.912 ppb	0.083 ppb	100.173 %
Concentration per Run 3	0.104 ppb	0.073 ppb	109.269 %	106.152 %	0.658 ppb	0.748 ppb	0.047 ppb	100.921 %
Recovery Percentage 1	3.411 %	31.831 %			29.437 %	74.412 %	8.378 %	
Concentration RSD	22.5 %	46.9 %	2.4 %	2.0 %	11.8 %	22.8 %	44.0 %	5.7 %

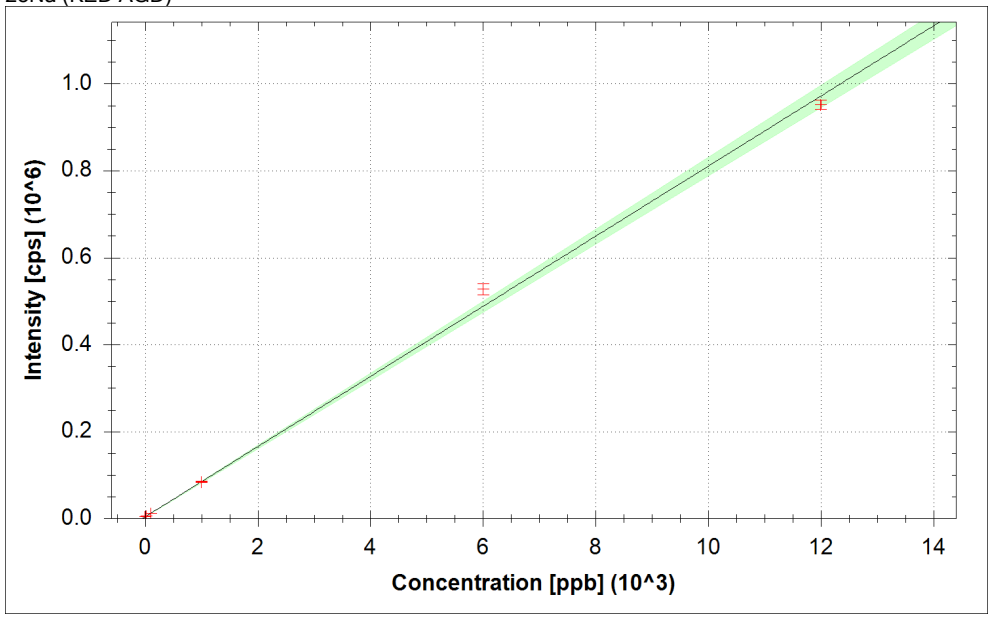
Calibration Curves:

9Be (STD AGD)



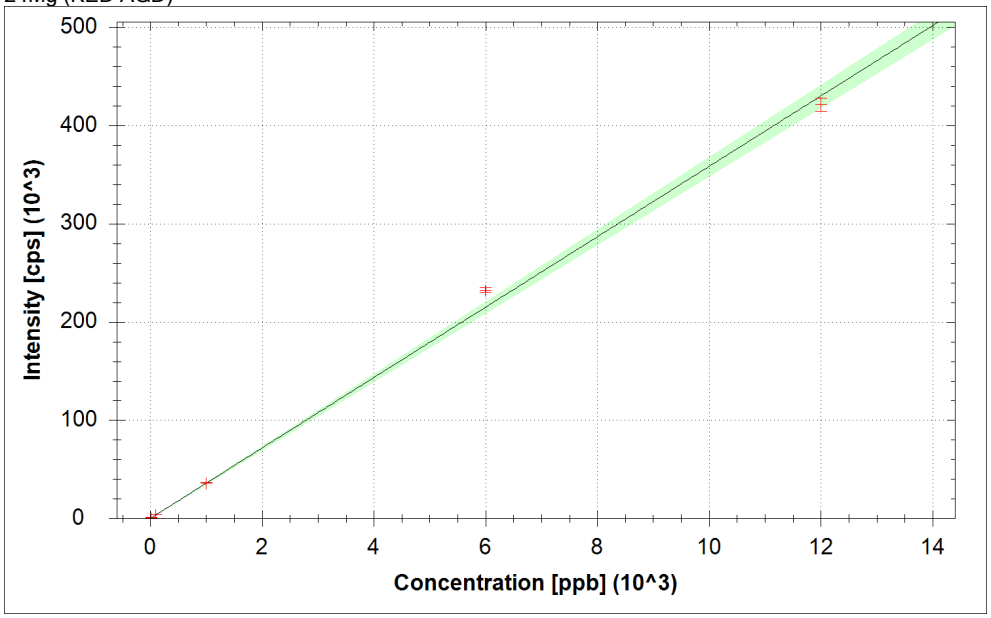
f(x) = 3140.5777*x + 32.0130
R² = 0.9999
BEC = 0.010 ppb
LoD = 0.0078 ppb

23Na (KED AGD)



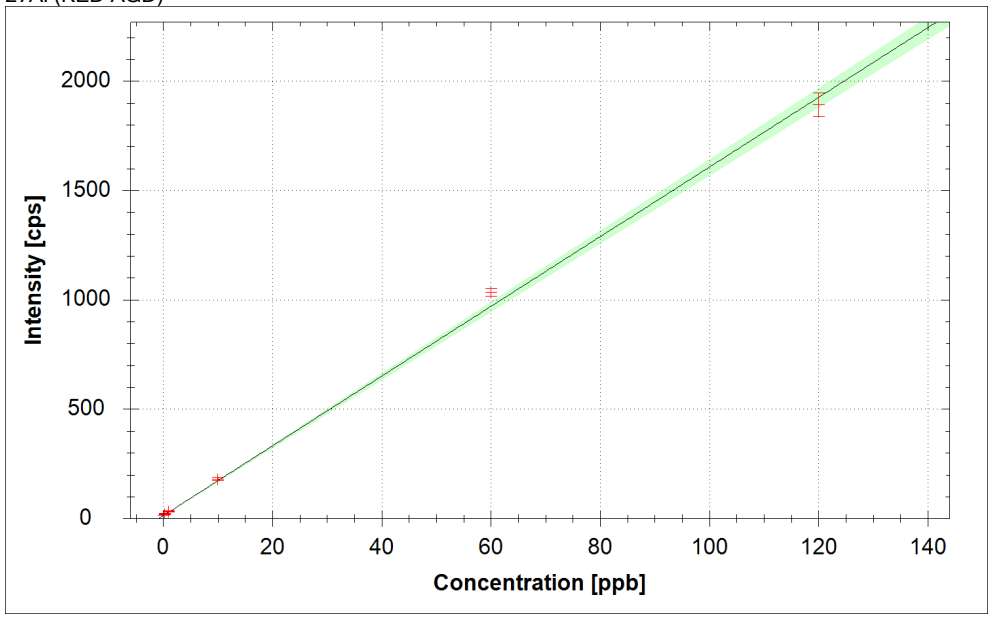
f(x) = 80.6228*x + 3937.1239
R² = 0.9975
BEC = 48.834 ppb
LoD = 8.1598 ppb

24Mg (KED AGD)



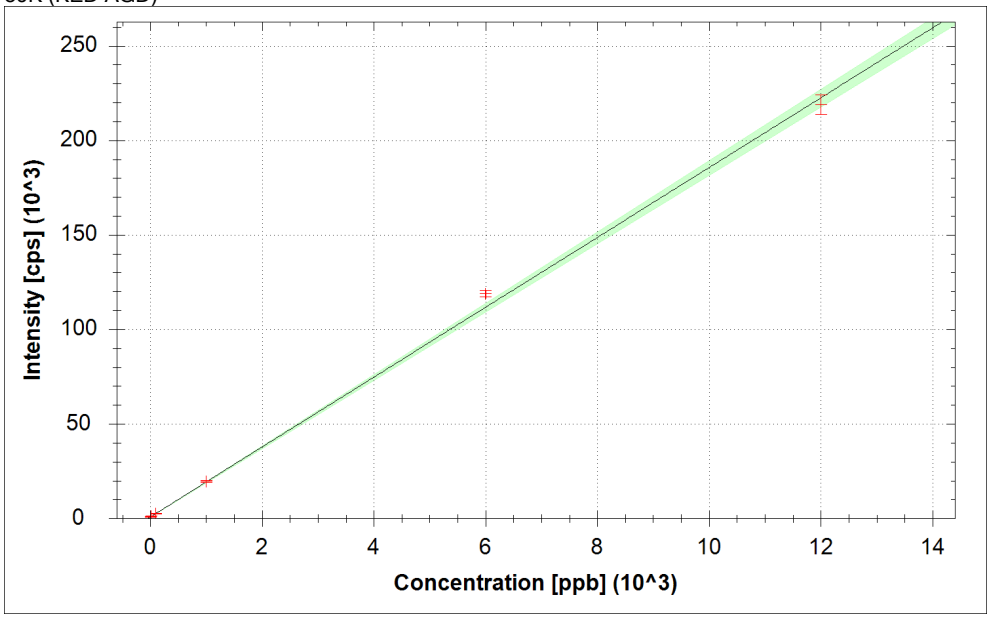
f(x) = 35.8204*x + 60.1471
R² = 0.9975
BEC = 1.679 ppb
LoD = 0.6849 ppb

27Al (KED AGD)



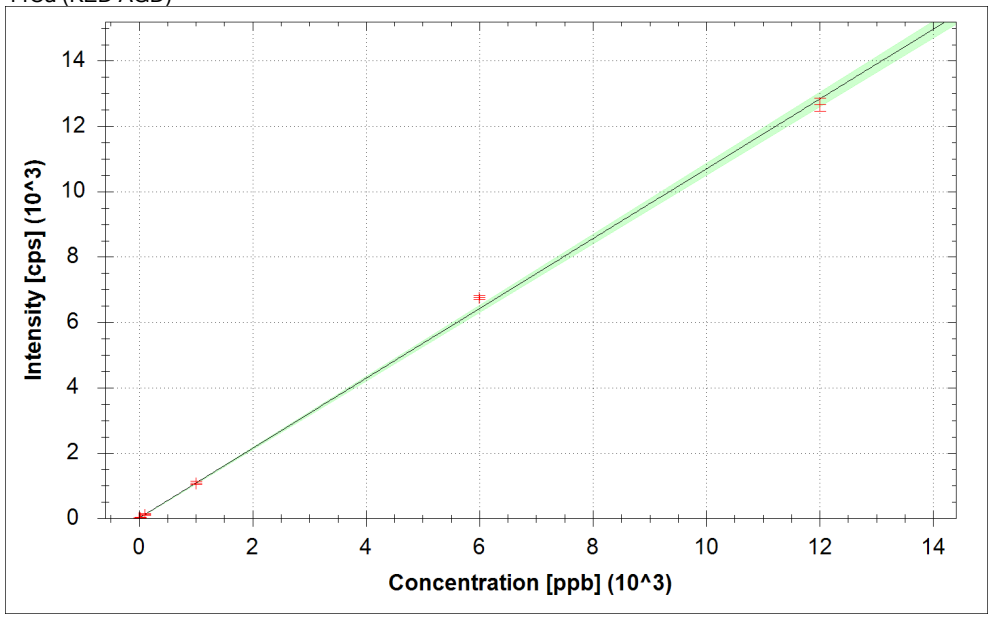
f(x) = 15.9300*x + 13.3404
R² = 0.9982
BEC = 0.837 ppb
LoD = 0.0701 ppb

39K (KED AGD)



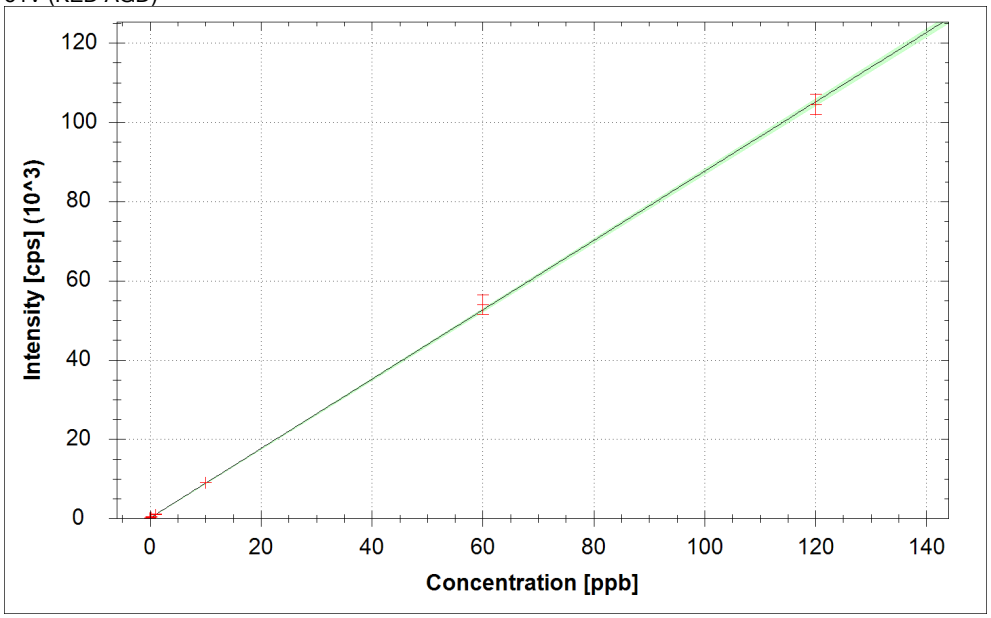
f(x) = 18.4713*x + 819.2955
R² = 0.9984
BEC = 44.355 ppb
LoD = 8.6884 ppb

44Ca (KED AGD)



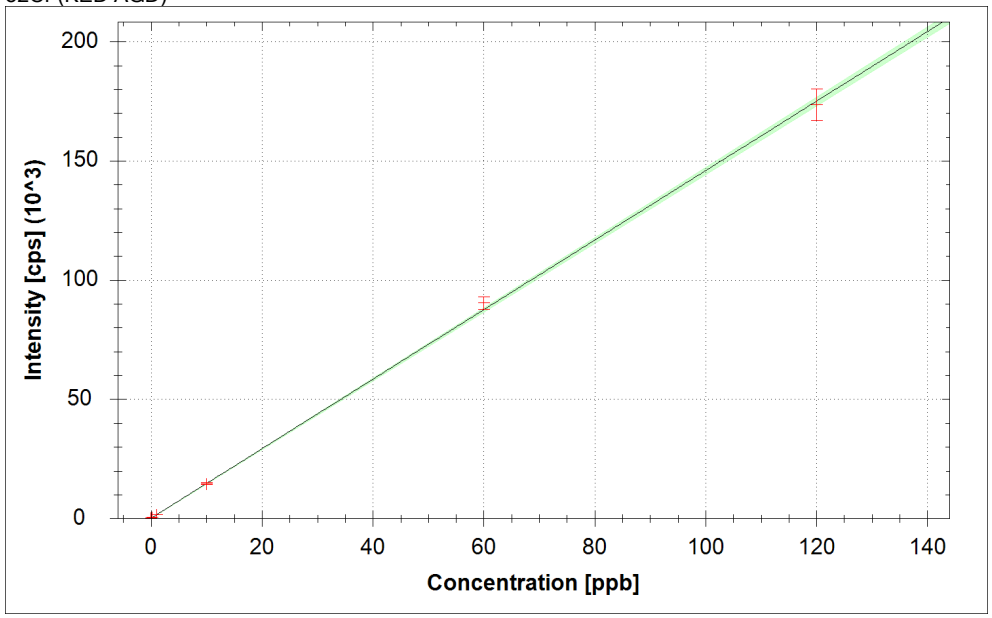
f(x) = 1.0681*x + 10.4660
R² = 0.9990
BEC = 9.799 ppb
LoD = 3.6568 ppb

51V (KED AGD)



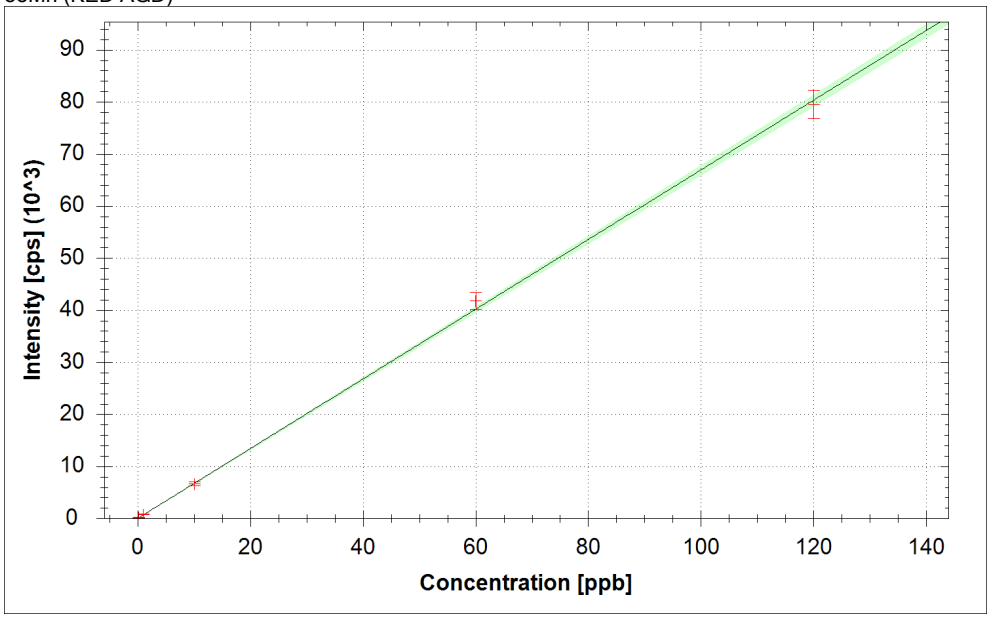
f(x) = 874.7599*x + 132.7451
R² = 0.9998
BEC = 0.152 ppb
LoD = 0.1522 ppb

52Cr (KED AGD)



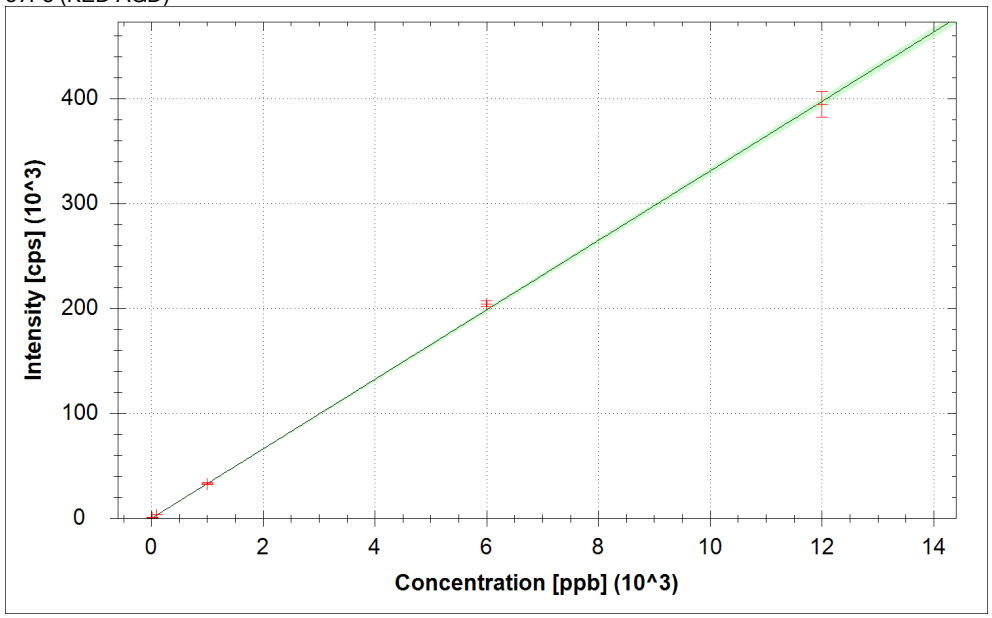
f(x) = 1457.5307*x + 94.1731
R² = 0.9996
BEC = 0.065 ppb
LoD = 0.0411 ppb

55Mn (KED AGD)



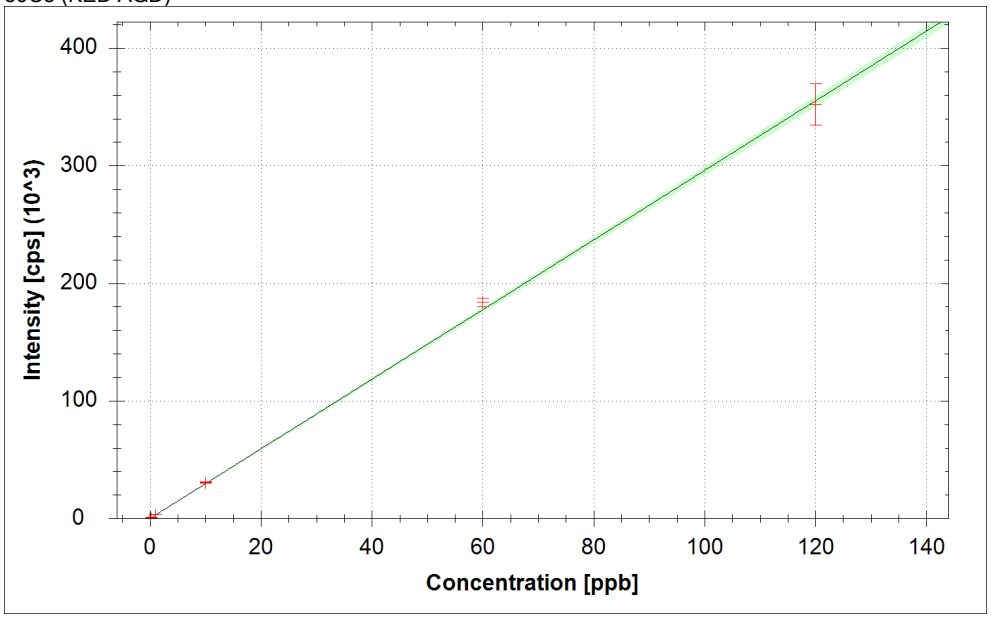
f(x) = 668.7954*x + 40.0339
R² = 0.9994
BEC = 0.060 ppb
LoD = 0.1040 ppb

57Fe (KED AGD)



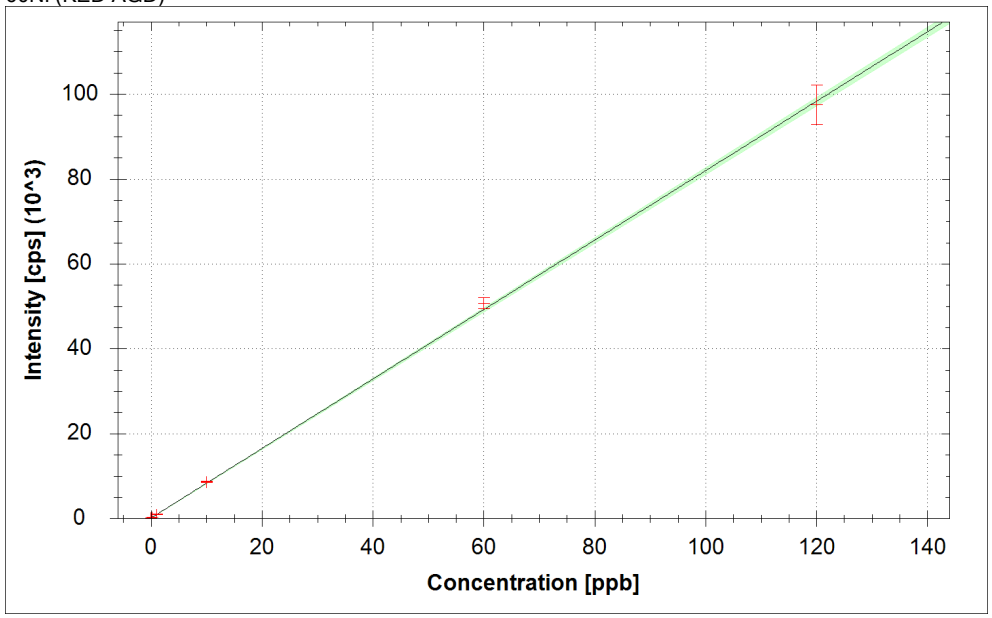
f(x) = 33.0915*x + 35.6669
R² = 0.9997
BEC = 1.078 ppb
LoD = 1.8882 ppb

59Co (KED AGD)



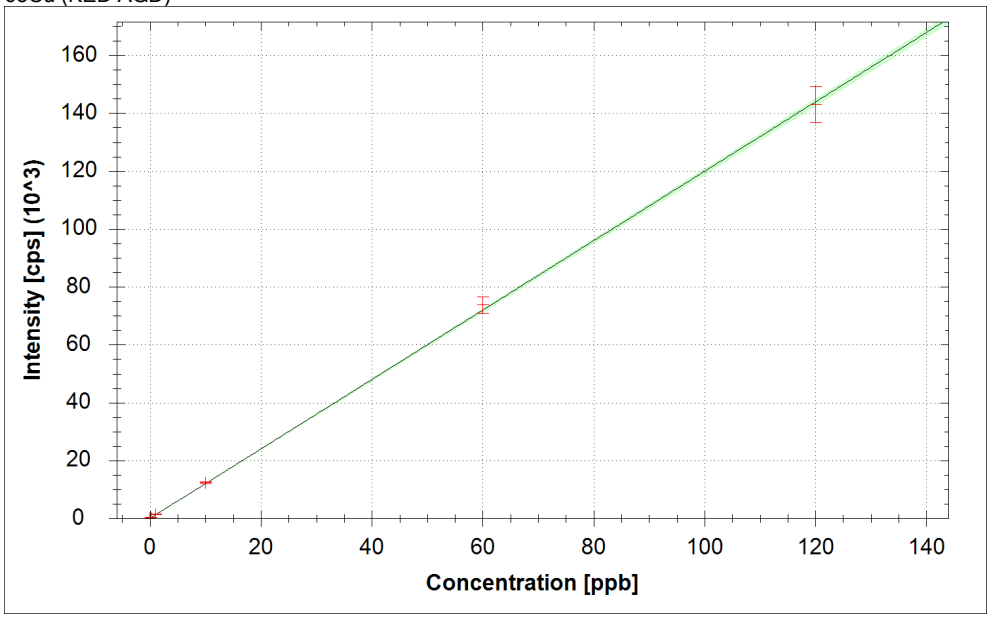
f(x) = 2958.6179*x + 11.1656
R² = 0.9995
BEC = 0.004 ppb
LoD = 0.0041 ppb

60Ni (KED AGD)



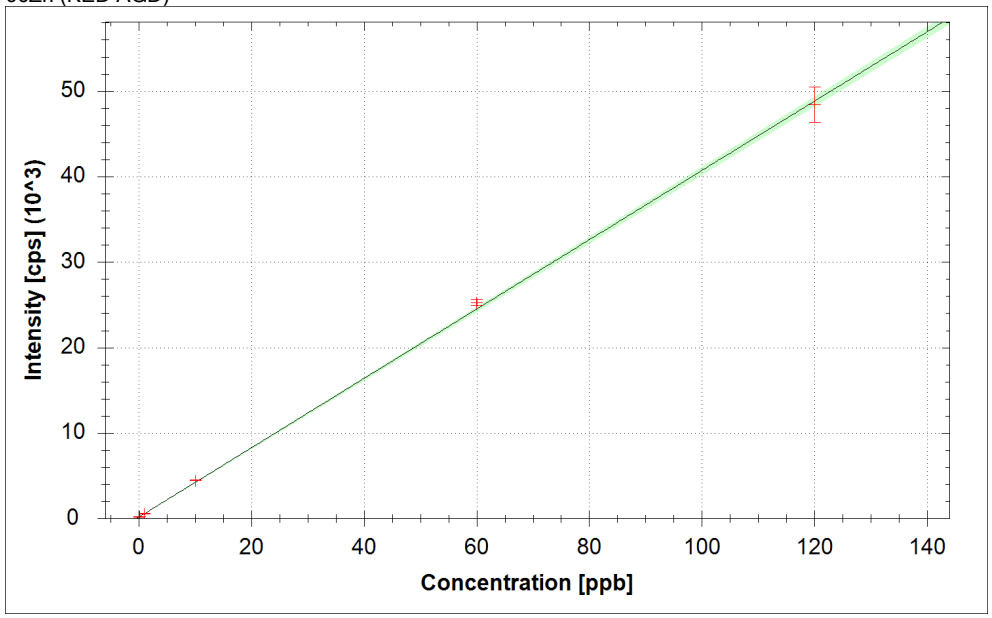
f(x) = 817.9874*x + 122.3741
R² = 0.9996
BEC = 0.150 ppb
LoD = 0.0456 ppb

65Cu (KED AGD)



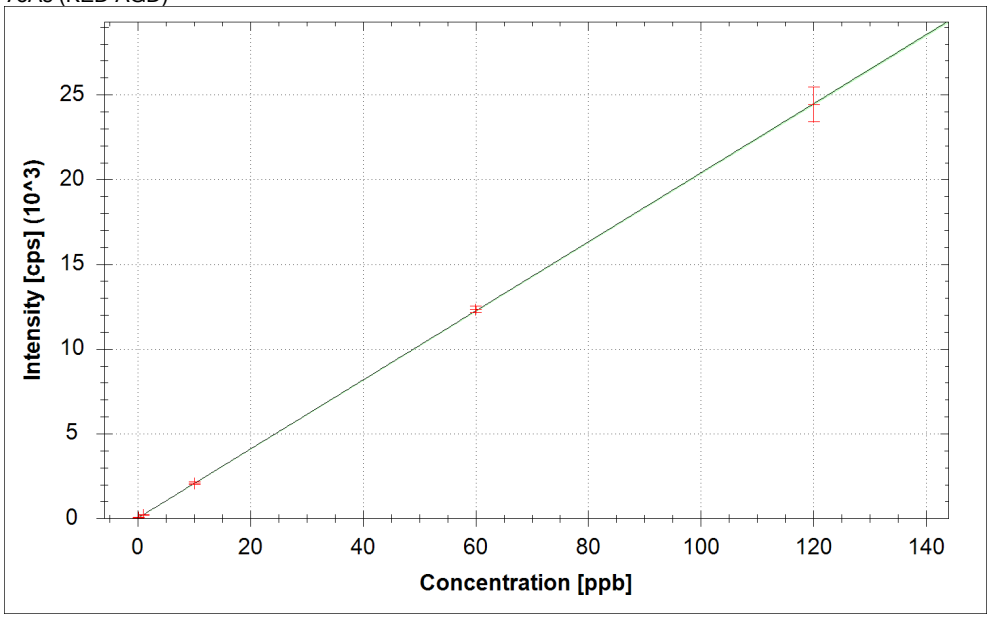
f(x) = 1198.5927*x + 57.6802
R² = 0.9998
BEC = 0.048 ppb
LoD = 0.0234 ppb

66Zn (KED AGD)



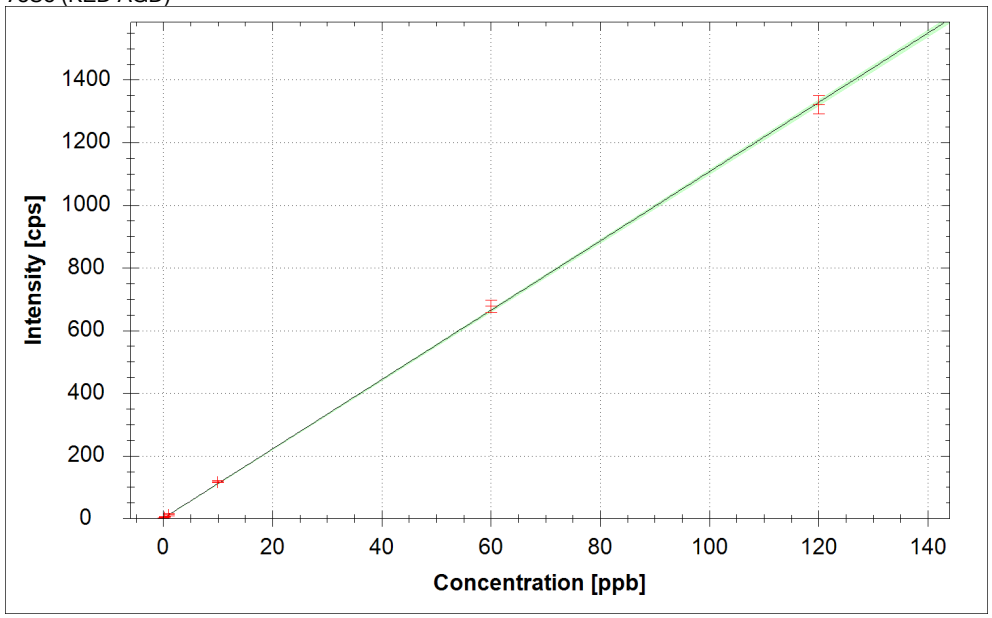
f(x) = 405.4430*x + 163.6416
R² = 0.9996
BEC = 0.404 ppb
LoD = 0.0839 ppb

75As (KED AGD)



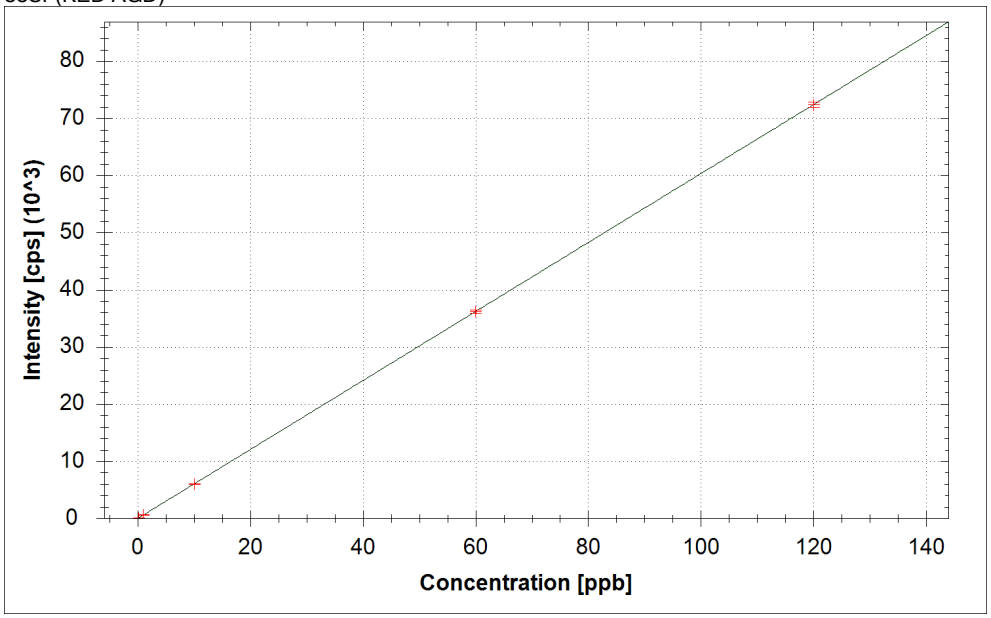
f(x) = 203.6239*x + 23.0380
R² = 1.0000
BEC = 0.113 ppb
LoD = 0.0708 ppb

78Se (KED AGD)



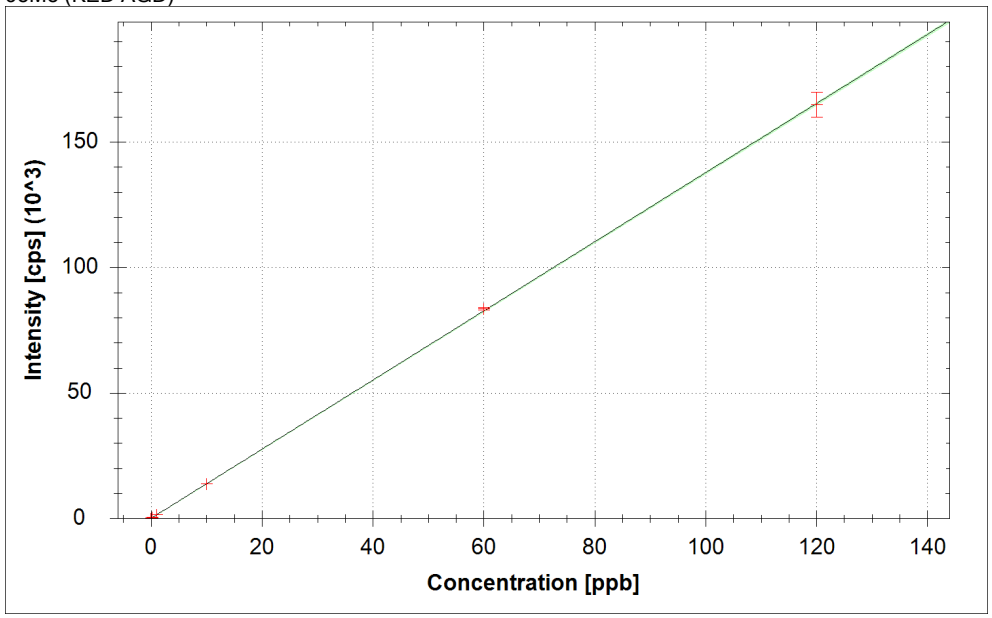
f(x) = 11.0596*x + 0.5196
R² = 0.9998
BEC = 0.047 ppb
LoD = 0.1942 ppb

88Sr (KED AGD)



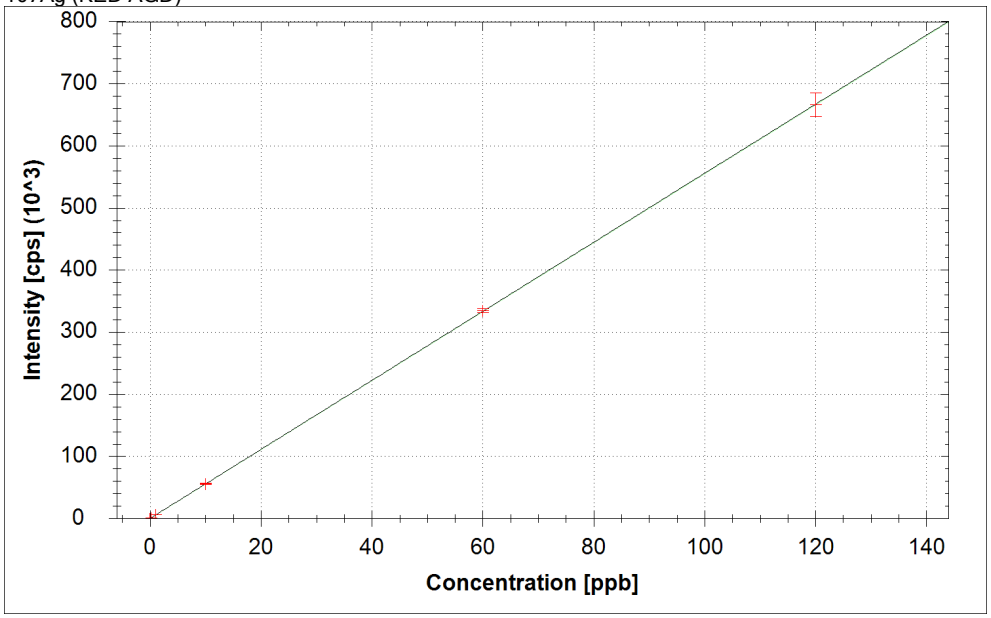
f(x) = 603.0707*x + 16.5372
R² = 1.0000
BEC = 0.027 ppb
LoD = 0.0029 ppb

95Mo (KED AGD)



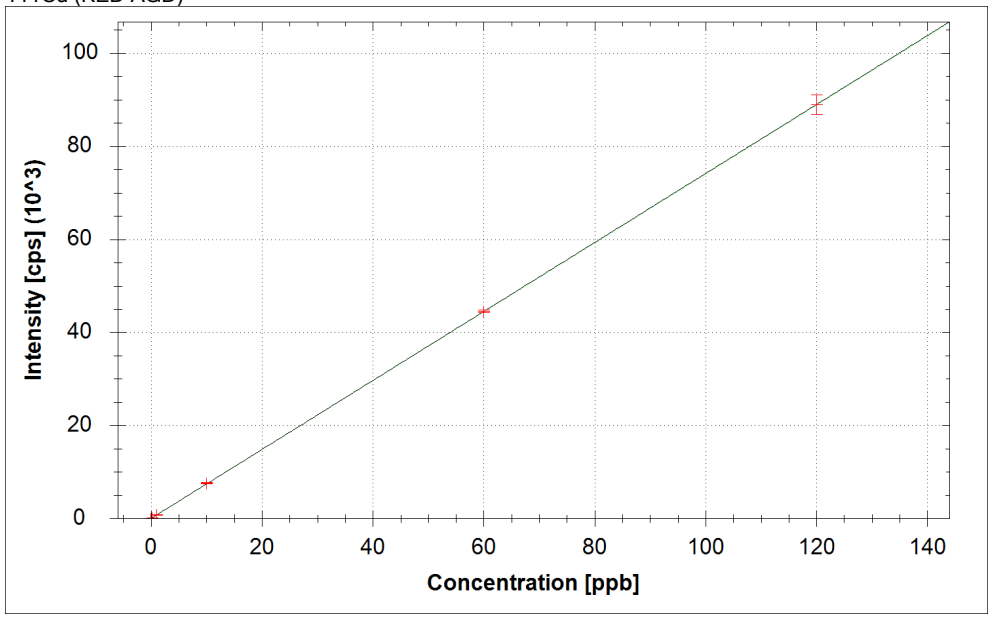
f(x) = 1376.7092*x + 48.9969
R² = 1.0000
BEC = 0.036 ppb
LoD = 0.0186 ppb

107Ag (KED AGD)



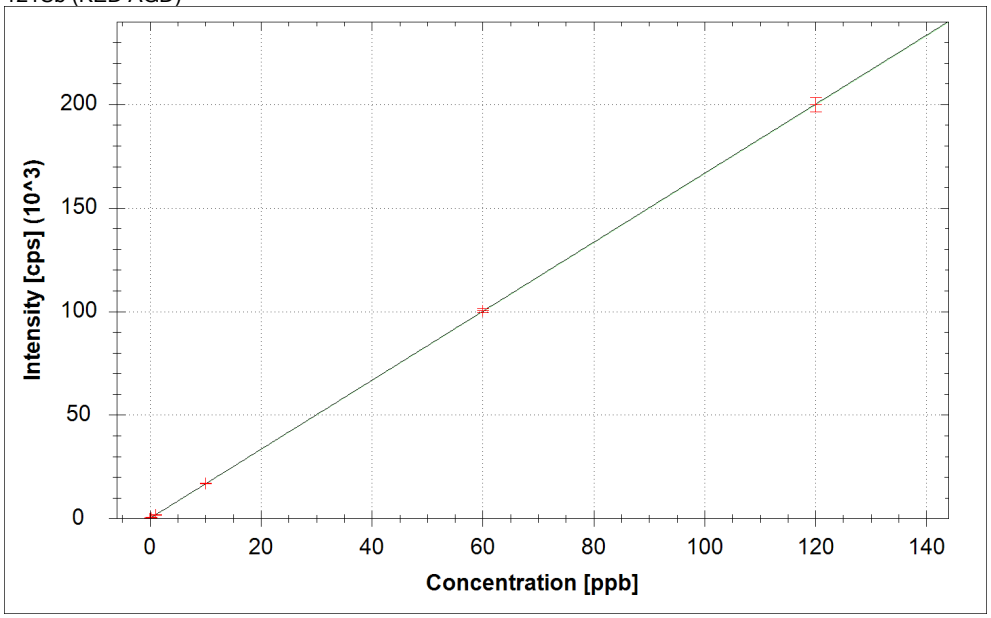
f(x) = 5554.8081*x + 8.9428
R² = 1.0000
BEC = 0.002 ppb
LoD = 0.0022 ppb

111Cd (KED AGD)



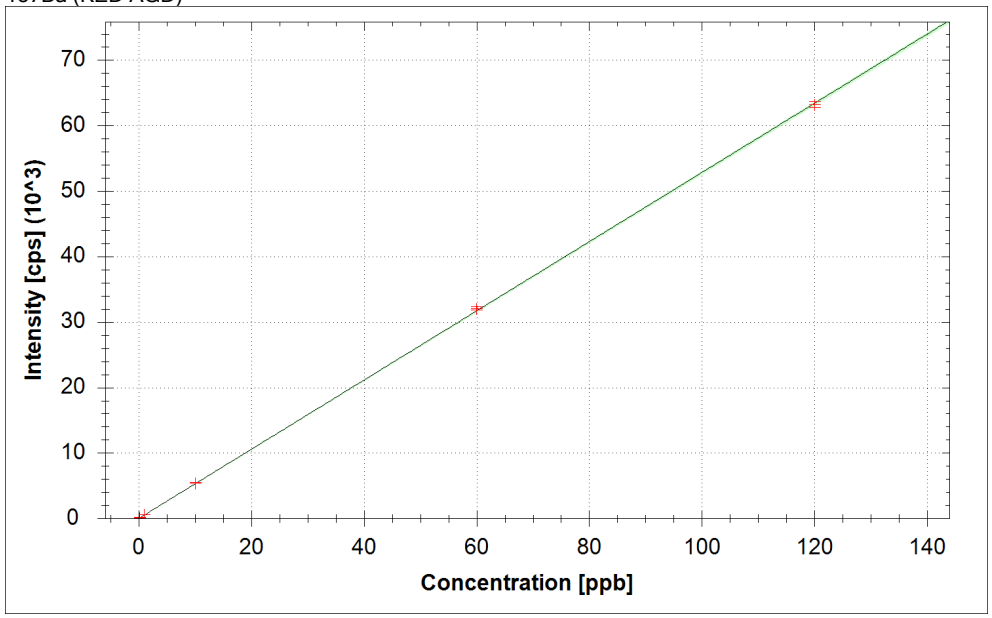
f(x) = 741.3130*x + 0.4451
R² = 1.0000
BEC = 0.001 ppb
LoD = 0.0031 ppb

121Sb (KED AGD)



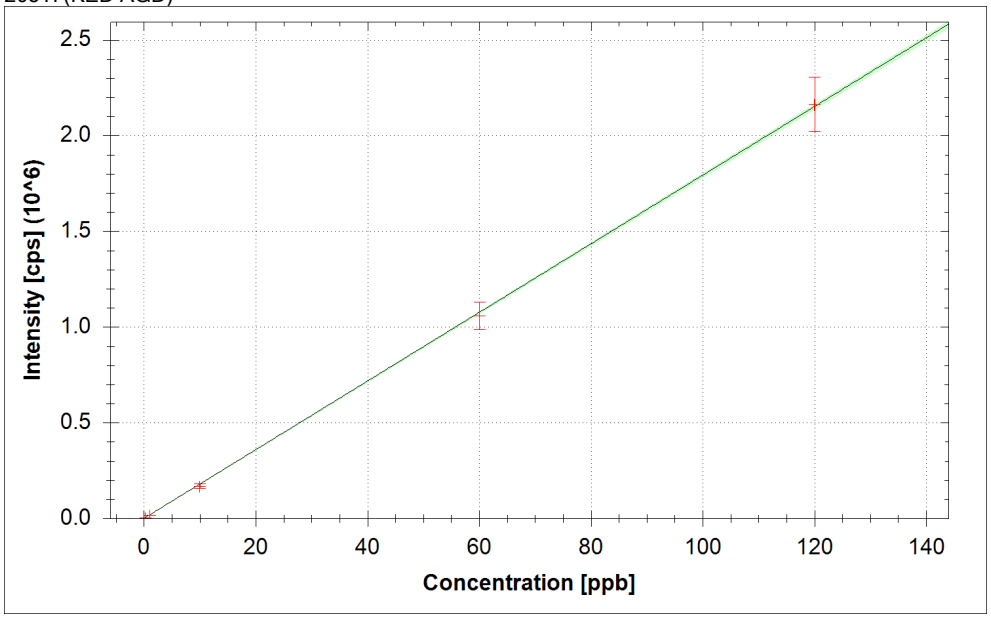
f(x) = 1666.4135*x + 66.4139
R² = 1.0000
BEC = 0.040 ppb
LoD = 0.0244 ppb

137Ba (KED AGD)



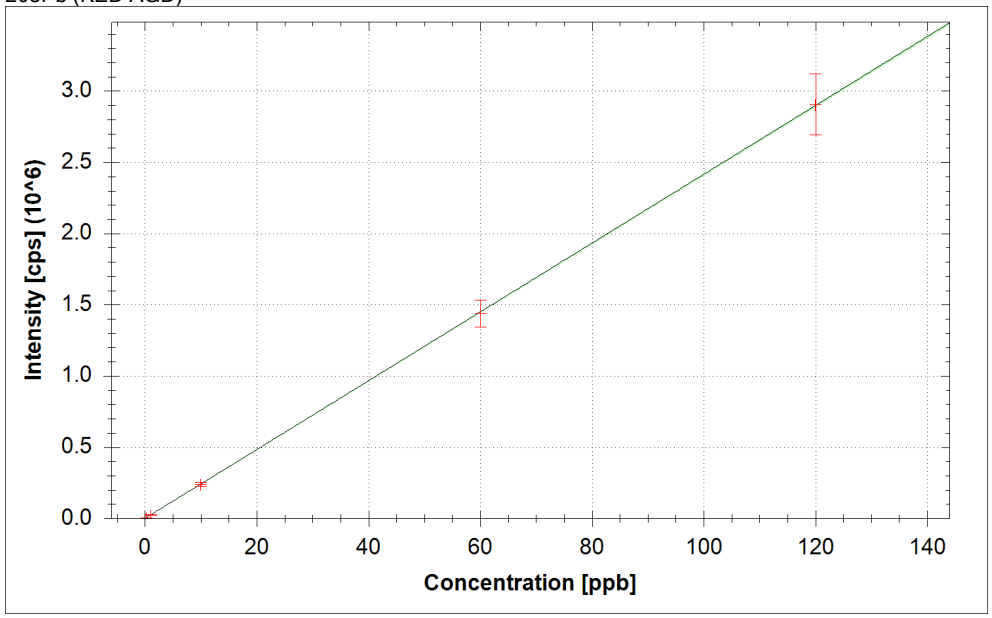
f(x) = 528.1759*x + 12.3241
R² = 0.9999
BEC = 0.023 ppb
LoD = 0.0308 ppb

205Tl (KED AGD)



f(x) = 17926.1546*x + 438.4913
R² = 0.9999
BEC = 0.024 ppb
LoD = 0.0274 ppb

208Pb (KED AGD)



f(x) = 24143.8110*x + 312.5696
R² = 1.0000
BEC = 0.013 ppb
LoD = 0.0037 ppb

Standards:

Analysis Index: 4
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 8/23/2024 5:04:19 AM
Total Dilution Factor 50000
Rack 0
Vial 2

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	100.443 %	0.9 %		0.000 %
6Li (KED AGD)	102.418 %	4.9 %		0.000 %
9Be (STD AGD)	0.197 ppb	2.4 %	0.200 ppb	1.423 %
23Na (KED AGD)	21.600 ppb	8.4 %	20.000 ppb	8.002 %
24Mg (KED AGD)	20.173 ppb	9.4 %	20.000 ppb	0.866 %
27Al (KED AGD)	0.462 ppb	45.2 %	0.200 ppb	130.922 %
39K (KED AGD)	22.487 ppb	22.9 %	20.000 ppb	12.437 %
44Ca (KED AGD)	12.414 ppb	52.1 %	20.000 ppb	37.932 %
45Sc (STD AGD)	99.177 %	1.1 %		0.000 %
51V (KED AGD)	0.184 ppb	53.0 %	0.200 ppb	7.888 %
52Cr (KED AGD)	0.184 ppb	4.9 %	0.200 ppb	8.241 %
55Mn (KED AGD)	0.187 ppb	62.1 %	0.200 ppb	6.384 %
57Fe (KED AGD)	22.702 ppb	12.8 %	20.000 ppb	13.509 %
59Co (KED AGD)	0.204 ppb	11.2 %	0.200 ppb	1.871 %
60Ni (KED AGD)	0.151 ppb	28.6 %	0.200 ppb	24.738 %
65Cu (KED AGD)	0.258 ppb	21.2 %	0.200 ppb	29.090 %
66Zn (KED AGD)	0.040 ppb	47.3 %	0.200 ppb	80.211 %
74Ge (KED AGD)	100.311 %	4.1 %		0.000 %
75As (KED AGD)	0.225 ppb	16.9 %	0.200 ppb	12.388 %
78Se (KED AGD)	0.195 ppb	104.0 %	0.200 ppb	2.486 %
88Sr (KED AGD)	0.191 ppb	2.2 %	0.200 ppb	4.440 %
95Mo (KED AGD)	0.226 ppb	20.6 %	0.200 ppb	13.176 %
103Rh (KED AGD)	98.489 %	3.8 %		0.000 %
107Ag (KED AGD)	0.202 ppb	9.2 %	0.200 ppb	0.935 %
111Cd (KED AGD)	0.208 ppb	8.1 %	0.200 ppb	3.836 %
115In (KED AGD)	100.168 %	6.4 %		0.000 %
121Sb (KED AGD)	0.188 ppb	12.8 %	0.200 ppb	6.060 %
137Ba (KED AGD)	0.201 ppb	19.5 %	0.200 ppb	0.323 %
159Tb (KED AGD)	101.121 %	2.4 %		0.000 %
175Lu (KED AGD)	101.907 %	5.4 %		0.000 %
205Tl (KED AGD)	0.171 ppb	17.5 %	0.200 ppb	14.335 %
208Pb (KED AGD)	0.190 ppb	3.4 %	0.200 ppb	5.130 %
209Bi (KED AGD)	99.665 %	5.4 %		0.000 %

Standards:

Analysis Index: 5
Analysis Name: 1/100 Cal
Analysis Type: STD
Analysis Started at: 8/23/2024 5:08:46 AM
Total Dilution Factor 10000
Rack 0
Vial 3

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	98.164 %	1.4 %		0.000 %
6Li (KED AGD)	99.085 %	4.0 %		0.000 %
9Be (STD AGD)	1.034 ppb	0.8 %	1.000 ppb	3.431 %
23Na (KED AGD)	100.787 ppb	1.7 %	100.000 ppb	0.787 %
24Mg (KED AGD)	101.550 ppb	5.9 %	100.000 ppb	1.550 %
27Al (KED AGD)	1.200 ppb	14.3 %	1.000 ppb	20.025 %
39K (KED AGD)	99.855 ppb	8.9 %	100.000 ppb	0.145 %
44Ca (KED AGD)	104.534 ppb	20.7 %	100.000 ppb	4.534 %
45Sc (STD AGD)	97.673 %	1.3 %		0.000 %
51V (KED AGD)	0.981 ppb	14.3 %	1.000 ppb	1.949 %
52Cr (KED AGD)	0.989 ppb	3.2 %	1.000 ppb	1.110 %
55Mn (KED AGD)	1.110 ppb	14.0 %	1.000 ppb	10.982 %
57Fe (KED AGD)	99.461 ppb	2.0 %	100.000 ppb	0.539 %
59Co (KED AGD)	1.024 ppb	0.7 %	1.000 ppb	2.353 %
60Ni (KED AGD)	1.014 ppb	16.8 %	1.000 ppb	1.395 %
65Cu (KED AGD)	1.155 ppb	10.1 %	1.000 ppb	15.502 %
66Zn (KED AGD)	0.928 ppb	12.6 %	1.000 ppb	7.209 %
74Ge (KED AGD)	99.080 %	4.9 %		0.000 %
75As (KED AGD)	0.928 ppb	10.3 %	1.000 ppb	7.213 %
78Se (KED AGD)	1.047 ppb	29.3 %	1.000 ppb	4.665 %
88Sr (KED AGD)	0.986 ppb	3.4 %	1.000 ppb	1.399 %
95Mo (KED AGD)	1.038 ppb	4.0 %	1.000 ppb	3.814 %
103Rh (KED AGD)	99.474 %	1.0 %		0.000 %
107Ag (KED AGD)	1.002 ppb	0.8 %	1.000 ppb	0.208 %
111Cd (KED AGD)	1.011 ppb	6.4 %	1.000 ppb	1.090 %
115In (KED AGD)	102.120 %	3.7 %		0.000 %
121Sb (KED AGD)	0.962 ppb	2.6 %	1.000 ppb	3.786 %
137Ba (KED AGD)	0.992 ppb	1.3 %	1.000 ppb	0.822 %
159Tb (KED AGD)	103.417 %	2.0 %		0.000 %
175Lu (KED AGD)	103.231 %	3.2 %		0.000 %
205Tl (KED AGD)	0.874 ppb	7.5 %	1.000 ppb	12.588 %
208Pb (KED AGD)	0.959 ppb	5.8 %	1.000 ppb	4.115 %
209Bi (KED AGD)	97.691 %	6.1 %		0.000 %

Standards:

Analysis Index: 6
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 8/23/2024 5:13:13 AM
Total Dilution Factor 1000
Rack 0
Vial 4

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	96.840 %	0.9 %		0.000 %
6Li (KED AGD)	104.118 %	3.1 %		0.000 %
9Be (STD AGD)	10.286 ppb	0.9 %	10.000 ppb	2.862 %
23Na (KED AGD)	995.400 ppb	1.1 %	1,000.000 ppb	0.460 %
24Mg (KED AGD)	1,002.834 ppb	0.9 %	1,000.000 ppb	0.283 %
27Al (KED AGD)	10.458 ppb	4.2 %	10.000 ppb	4.581 %
39K (KED AGD)	1,015.780 ppb	2.9 %	1,000.000 ppb	1.578 %
44Ca (KED AGD)	1,007.670 ppb	5.4 %	1,000.000 ppb	0.767 %
45Sc (STD AGD)	97.053 %	0.6 %		0.000 %
51V (KED AGD)	10.225 ppb	0.5 %	10.000 ppb	2.252 %
52Cr (KED AGD)	9.954 ppb	2.4 %	10.000 ppb	0.460 %
55Mn (KED AGD)	9.904 ppb	5.4 %	10.000 ppb	0.959 %
57Fe (KED AGD)	996.690 ppb	3.1 %	1,000.000 ppb	0.331 %
59Co (KED AGD)	10.337 ppb	1.5 %	10.000 ppb	3.365 %
60Ni (KED AGD)	10.364 ppb	1.1 %	10.000 ppb	3.641 %
65Cu (KED AGD)	10.224 ppb	3.1 %	10.000 ppb	2.242 %
66Zn (KED AGD)	10.612 ppb	0.6 %	10.000 ppb	6.123 %
74Ge (KED AGD)	98.734 %	5.2 %		0.000 %
75As (KED AGD)	10.057 ppb	3.9 %	10.000 ppb	0.571 %
78Se (KED AGD)	10.571 ppb	2.9 %	10.000 ppb	5.707 %
88Sr (KED AGD)	9.935 ppb	0.8 %	10.000 ppb	0.651 %
95Mo (KED AGD)	9.976 ppb	0.8 %	10.000 ppb	0.243 %
103Rh (KED AGD)	98.236 %	2.4 %		0.000 %
107Ag (KED AGD)	10.065 ppb	2.1 %	10.000 ppb	0.652 %
111Cd (KED AGD)	10.209 ppb	1.0 %	10.000 ppb	2.090 %
115In (KED AGD)	98.747 %	3.5 %		0.000 %
121Sb (KED AGD)	10.093 ppb	1.1 %	10.000 ppb	0.932 %
137Ba (KED AGD)	10.245 ppb	1.2 %	10.000 ppb	2.446 %
159Tb (KED AGD)	101.443 %	2.8 %		0.000 %
175Lu (KED AGD)	101.616 %	3.6 %		0.000 %
205Tl (KED AGD)	9.351 ppb	6.8 %	10.000 ppb	6.490 %
208Pb (KED AGD)	9.808 ppb	5.8 %	10.000 ppb	1.924 %
209Bi (KED AGD)	95.819 %	7.7 %		0.000 %

Standards:

Analysis Index: 7
Analysis Name: 60/6000 Cal
Analysis Type: STD
Analysis Started at: 8/23/2024 5:17:41 AM
Total Dilution Factor 166.6666666
Rack 0
Vial 5

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	92.991 %	1.5 %		0.000 %
6Li (KED AGD)	91.569 %	2.7 %		0.000 %
9Be (STD AGD)	61.037 ppb	0.6 %	60.000 ppb	1.728 %
23Na (KED AGD)	6,486.398 ppb	2.4 %	6,000.000 ppb	8.107 %
24Mg (KED AGD)	6,486.557 ppb	1.0 %	6,000.000 ppb	8.109 %
27Al (KED AGD)	64.037 ppb	1.7 %	60.000 ppb	6.728 %
39K (KED AGD)	6,387.351 ppb	1.5 %	6,000.000 ppb	6.456 %
44Ca (KED AGD)	6,315.778 ppb	1.0 %	6,000.000 ppb	5.263 %
45Sc (STD AGD)	96.280 %	1.1 %		0.000 %
51V (KED AGD)	61.510 ppb	4.7 %	60.000 ppb	2.517 %
52Cr (KED AGD)	61.956 ppb	2.9 %	60.000 ppb	3.260 %
55Mn (KED AGD)	62.480 ppb	4.0 %	60.000 ppb	4.133 %
57Fe (KED AGD)	6,176.215 ppb	1.4 %	6,000.000 ppb	2.937 %
59Co (KED AGD)	62.098 ppb	2.0 %	60.000 ppb	3.497 %
60Ni (KED AGD)	61.850 ppb	2.6 %	60.000 ppb	3.084 %
65Cu (KED AGD)	61.506 ppb	3.8 %	60.000 ppb	2.510 %
66Zn (KED AGD)	61.878 ppb	1.4 %	60.000 ppb	3.130 %
74Ge (KED AGD)	96.090 %	2.2 %		0.000 %
75As (KED AGD)	60.439 ppb	1.6 %	60.000 ppb	0.731 %
78Se (KED AGD)	61.146 ppb	2.9 %	60.000 ppb	1.911 %
88Sr (KED AGD)	60.014 ppb	0.8 %	60.000 ppb	0.023 %
95Mo (KED AGD)	60.612 ppb	0.5 %	60.000 ppb	1.021 %
103Rh (KED AGD)	95.253 %	0.7 %		0.000 %
107Ag (KED AGD)	60.190 ppb	1.0 %	60.000 ppb	0.317 %
111Cd (KED AGD)	60.010 ppb	0.7 %	60.000 ppb	0.016 %
115In (KED AGD)	97.201 %	2.5 %		0.000 %
121Sb (KED AGD)	60.192 ppb	1.0 %	60.000 ppb	0.320 %
137Ba (KED AGD)	60.689 ppb	0.7 %	60.000 ppb	1.149 %
159Tb (KED AGD)	101.052 %	0.6 %		0.000 %
175Lu (KED AGD)	101.307 %	1.1 %		0.000 %
205Tl (KED AGD)	59.000 ppb	6.8 %	60.000 ppb	1.667 %
208Pb (KED AGD)	59.511 ppb	6.5 %	60.000 ppb	0.815 %
209Bi (KED AGD)	93.503 %	6.3 %		0.000 %

Standards:

Analysis Index: 8
Analysis Name: 120/12000 Cal
Analysis Type: STD
Analysis Started at: 8/23/2024 5:22:09 AM
Total Dilution Factor 83.33333333
Rack 0
Vial 6

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	90.885 %	0.9 %		0.000 %
6Li (KED AGD)	98.824 %	3.2 %		0.000 %
9Be (STD AGD)	119.457 ppb	0.6 %	120.000 ppb	0.452 %
23Na (KED AGD)	11,757.175 ppb	1.1 %	12,000.000 ppb	2.024 %
24Mg (KED AGD)	11,756.472 ppb	1.6 %	12,000.000 ppb	2.029 %
27Al (KED AGD)	117.941 ppb	2.9 %	120.000 ppb	1.716 %
39K (KED AGD)	11,805.006 ppb	2.4 %	12,000.000 ppb	1.625 %
44Ca (KED AGD)	11,841.447 ppb	1.6 %	12,000.000 ppb	1.321 %
45Sc (STD AGD)	97.082 %	0.3 %		0.000 %
51V (KED AGD)	119.226 ppb	2.5 %	120.000 ppb	0.645 %
52Cr (KED AGD)	119.026 ppb	3.8 %	120.000 ppb	0.812 %
55Mn (KED AGD)	118.767 ppb	3.4 %	120.000 ppb	1.027 %
57Fe (KED AGD)	11,912.168 ppb	3.1 %	12,000.000 ppb	0.732 %
59Co (KED AGD)	118.923 ppb	5.0 %	120.000 ppb	0.898 %
60Ni (KED AGD)	119.044 ppb	4.7 %	120.000 ppb	0.796 %
65Cu (KED AGD)	119.227 ppb	4.4 %	120.000 ppb	0.644 %
66Zn (KED AGD)	119.011 ppb	4.3 %	120.000 ppb	0.824 %
74Ge (KED AGD)	93.106 %	6.4 %		0.000 %
75As (KED AGD)	119.776 ppb	4.2 %	120.000 ppb	0.186 %
78Se (KED AGD)	119.379 ppb	2.2 %	120.000 ppb	0.518 %
88Sr (KED AGD)	119.999 ppb	0.6 %	120.000 ppb	0.001 %
95Mo (KED AGD)	119.695 ppb	3.1 %	120.000 ppb	0.254 %
103Rh (KED AGD)	92.059 %	1.8 %		0.000 %
107Ag (KED AGD)	119.899 ppb	2.9 %	120.000 ppb	0.084 %
111Cd (KED AGD)	119.978 ppb	2.4 %	120.000 ppb	0.019 %
115In (KED AGD)	93.702 %	4.4 %		0.000 %
121Sb (KED AGD)	119.896 ppb	1.7 %	120.000 ppb	0.086 %
137Ba (KED AGD)	119.635 ppb	0.7 %	120.000 ppb	0.304 %
159Tb (KED AGD)	100.493 %	2.8 %		0.000 %
175Lu (KED AGD)	100.692 %	4.8 %		0.000 %
205Tl (KED AGD)	120.555 ppb	6.6 %	120.000 ppb	0.463 %
208Pb (KED AGD)	120.261 ppb	7.4 %	120.000 ppb	0.217 %
209Bi (KED AGD)	90.683 %	6.4 %		0.000 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	1	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/23/2024 4:50:56 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.161 %	107.320 %	0.007 ppb	5.959 ppb	1.756 ppb	1.133 ppb	-3.878 ppb	5.266 ppb	102.166 %
Concentration per Run 1	104.181 %	106.275 %	0.009 ppb	7.721 ppb	2.253 ppb	1.502 ppb	0.443 ppb	-0.224 ppb	104.135 %
Concentration per Run 2	102.927 %	104.902 %	0.005 ppb	7.087 ppb	2.286 ppb	0.951 ppb	-6.806 ppb	4.734 ppb	101.232 %
Concentration per Run 3	102.375 %	110.784 %	0.009 ppb	3.067 ppb	0.727 ppb	0.947 ppb	-5.270 ppb	11.287 ppb	101.131 %
Concentration RSD	0.9 %	2.9 %	31.8 %	42.4 %	50.7 %	28.2 %	98.5 %	109.7 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.035 ppb	-0.012 ppb	0.531 ppb	7.607 ppb	0.008 ppb	0.356 ppb	0.792 ppb	1.286 ppb	99.386 %
Concentration per Run 1	0.045 ppb	-0.019 ppb	0.456 ppb	8.174 ppb	0.001 ppb	0.373 ppb	0.782 ppb	1.359 ppb	98.132 %
Concentration per Run 2	0.060 ppb	-0.017 ppb	0.486 ppb	7.564 ppb	0.007 ppb	0.323 ppb	0.639 ppb	1.217 ppb	98.694 %
Concentration per Run 3	0.001 ppb	-0.001 ppb	0.650 ppb	7.082 ppb	0.016 ppb	0.371 ppb	0.955 ppb	1.282 ppb	101.334 %
Concentration RSD	86.0 %	79.6 %	19.6 %	7.2 %	94.3 %	7.9 %	20.0 %	5.5 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.001 ppb	0.020 ppb	0.008 ppb	0.007 ppb	99.084 %	0.009 ppb	0.001 ppb	99.993 %	0.014 ppb
Concentration per Run 1	-0.017 ppb	0.046 ppb	0.009 ppb	-0.001 ppb	98.557 %	0.007 ppb	0.001 ppb	100.191 %	0.001 ppb
Concentration per Run 2	0.028 ppb	-0.001 ppb	0.008 ppb	0.013 ppb	100.022 %	0.004 ppb	-0.001 ppb	98.598 %	0.016 ppb
Concentration per Run 3	-0.008 ppb	0.015 ppb	0.006 ppb	0.008 ppb	98.674 %	0.014 ppb	0.003 ppb	101.191 %	0.024 ppb
Concentration RSD	2,845.5 %	118.0 %	26.1 %	107.5 %	0.8 %	57.0 %	149.8 %	1.3 %	83.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.026 ppb	103.698 %	104.618 %	0.004 ppb	0.026 ppb	110.931 %
Concentration per Run 1	0.013 ppb	106.176 %	108.016 %	-0.004 ppb	0.024 ppb	118.300 %
Concentration per Run 2	0.039 ppb	103.032 %	102.552 %	0.007 ppb	0.027 ppb	108.639 %
Concentration per Run 3	0.026 ppb	101.886 %	103.286 %	0.010 ppb	0.026 ppb	105.853 %
Concentration RSD	49.2 %	2.1 %	2.8 %	163.1 %	4.0 %	5.9 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	2	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CAL LOT #M23-1225	Rack	0		
Analysis started at:	8/23/2024 4:55:22 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.048 %	101.438 %	0.009 ppb	5.408 ppb	1.765 ppb	1.328 ppb	-7.351 ppb	1.503 ppb	101.875 %
Concentration per Run 1	102.603 %	96.667 %	0.010 ppb	7.752 ppb	2.292 ppb	1.621 ppb	1.889 ppb	-2.587 ppb	102.835 %
Concentration per Run 2	102.421 %	100.588 %	0.009 ppb	6.582 ppb	1.660 ppb	1.875 ppb	-12.274 ppb	1.212 ppb	101.113 %
Concentration per Run 3	101.121 %	107.059 %	0.008 ppb	1.889 ppb	1.343 ppb	0.487 ppb	-11.668 ppb	5.886 ppb	101.678 %
Concentration RSD	0.8 %	5.2 %	14.3 %	57.4 %	27.4 %	55.7 %	108.9 %	282.3 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.020 ppb	0.005 ppb	0.578 ppb	8.196 ppb	0.004 ppb	0.307 ppb	0.807 ppb	1.204 ppb	100.346 %
Concentration per Run 1	0.014 ppb	0.008 ppb	0.471 ppb	8.434 ppb	0.003 ppb	0.314 ppb	0.739 ppb	1.023 ppb	103.338 %
Concentration per Run 2	-0.015 ppb	0.004 ppb	0.579 ppb	6.789 ppb	0.008 ppb	0.324 ppb	0.744 ppb	1.377 ppb	99.641 %
Concentration per Run 3	0.059 ppb	0.003 ppb	0.684 ppb	9.366 ppb	0.001 ppb	0.283 ppb	0.938 ppb	1.212 ppb	98.058 %
Concentration RSD	189.5 %	46.8 %	18.4 %	15.9 %	93.7 %	7.0 %	14.1 %	14.7 %	2.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.008 ppb	0.022 ppb	0.007 ppb	0.004 ppb	98.702 %	0.005 ppb	0.000 ppb	98.726 %	0.002 ppb
Concentration per Run 1	-0.006 ppb	-0.010 ppb	0.009 ppb	-0.007 ppb	100.658 %	0.003 ppb	-0.001 ppb	101.447 %	0.001 ppb
Concentration per Run 2	0.002 ppb	0.075 ppb	0.005 ppb	-0.011 ppb	99.692 %	0.004 ppb	-0.001 ppb	99.656 %	0.000 ppb
Concentration per Run 3	0.029 ppb	0.000 ppb	0.007 ppb	0.030 ppb	95.756 %	0.007 ppb	0.001 ppb	95.075 %	0.004 ppb
Concentration RSD	223.5 %	215.1 %	28.4 %	588.5 %	2.6 %	49.4 %	3,793.7 %	3.3 %	110.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.046 ppb	100.603 %	99.897 %	0.003 ppb	0.021 ppb	103.510 %
Concentration per Run 1	0.039 ppb	101.956 %	101.232 %	-0.007 ppb	0.021 ppb	109.305 %
Concentration per Run 2	0.064 ppb	102.162 %	100.859 %	0.012 ppb	0.019 ppb	102.584 %
Concentration per Run 3	0.036 ppb	97.691 %	97.600 %	0.006 ppb	0.023 ppb	98.641 %
Concentration RSD	34.0 %	2.5 %	2.0 %	286.2 %	9.8 %	5.2 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	3	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Blank EJF ICPMSQ	Rack	4		
Analysis started at:	8/23/2024 4:59:48 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.0 %	0.0 %	0.3 %	0.1 %	0.1 %	0.0 %	0.1 %	0.1 %	0.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.3 %	0.2 %	0.6 %	0.6 %	0.4 %	0.1 %	0.2 %	0.1 %	0.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration RSD	0.2 %	1.4 %	0.0 %	0.2 %	0.0 %	0.5 %	1.7 %	0.0 %	0.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.4 %	0.0 %	0.0 %	0.4 %	0.1 %	0.1 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	4	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	0.2/20 Cal	Rack	0		
Analysis started at:	8/23/2024 5:04:19 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.443 %	102.418 %	0.197 ppb	21.600 ppb	20.173 ppb	0.462 ppb	22.487 ppb	12.414 ppb	99.177 %
Concentration per Run 1	101.331 %	107.843 %	0.193 ppb	21.760 ppb	18.133 ppb	0.532 ppb	20.397 ppb	19.262 ppb	99.642 %
Concentration per Run 2	100.487 %	101.373 %	0.196 ppb	19.707 ppb	21.902 ppb	0.627 ppb	28.347 ppb	6.419 ppb	99.984 %
Concentration per Run 3	99.510 %	98.039 %	0.202 ppb	23.335 ppb	20.485 ppb	0.227 ppb	18.718 ppb	11.560 ppb	97.905 %
Concentration RSD	0.9 %	4.9 %	2.4 %	8.4 %	9.4 %	45.2 %	22.9 %	52.1 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.184 ppb	0.184 ppb	0.187 ppb	22.702 ppb	0.204 ppb	0.151 ppb	0.258 ppb	0.040 ppb	100.311 %
Concentration per Run 1	0.122 ppb	0.192 ppb	0.317 ppb	19.695 ppb	0.220 ppb	0.121 ppb	0.321 ppb	0.058 ppb	105.007 %
Concentration per Run 2	0.134 ppb	0.184 ppb	0.092 ppb	22.936 ppb	0.178 ppb	0.200 ppb	0.225 ppb	0.021 ppb	97.086 %
Concentration per Run 3	0.297 ppb	0.174 ppb	0.152 ppb	25.474 ppb	0.213 ppb	0.131 ppb	0.228 ppb	0.039 ppb	98.840 %
Concentration RSD	53.0 %	4.9 %	62.1 %	12.8 %	11.2 %	28.6 %	21.2 %	47.3 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.225 ppb	0.195 ppb	0.191 ppb	0.226 ppb	98.489 %	0.202 ppb	0.208 ppb	100.168 %	0.188 ppb
Concentration per Run 1	0.199 ppb	0.040 ppb	0.196 ppb	0.260 ppb	102.586 %	0.187 ppb	0.223 ppb	107.038 %	0.163 ppb
Concentration per Run 2	0.207 ppb	0.120 ppb	0.188 ppb	0.173 ppb	97.536 %	0.196 ppb	0.211 ppb	99.068 %	0.211 ppb
Concentration per Run 3	0.268 ppb	0.425 ppb	0.190 ppb	0.246 ppb	95.346 %	0.223 ppb	0.189 ppb	94.397 %	0.190 ppb
Concentration RSD	16.9 %	104.0 %	2.2 %	20.6 %	3.8 %	9.2 %	8.1 %	6.4 %	12.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.201 ppb	101.121 %	101.907 %	0.171 ppb	0.190 ppb	99.665 %
Concentration per Run 1	0.204 ppb	103.735 %	108.169 %	0.138 ppb	0.184 ppb	105.818 %
Concentration per Run 2	0.160 ppb	100.656 %	99.895 %	0.179 ppb	0.188 ppb	97.289 %
Concentration per Run 3	0.238 ppb	98.973 %	97.659 %	0.197 ppb	0.197 ppb	95.889 %
Concentration RSD	19.5 %	2.4 %	5.4 %	17.5 %	3.4 %	5.4 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	5	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	1/100 Cal	Rack	0		
Analysis started at:	8/23/2024 5:08:46 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.164 %	99.085 %	1.034 ppb	100.787 ppb	101.550 ppb	1.200 ppb	99.855 ppb	104.534 ppb	97.673 %
Concentration per Run 1	99.027 %	100.980 %	1.027 ppb	101.755 ppb	98.852 ppb	1.214 ppb	110.166 ppb	115.446 ppb	98.316 %
Concentration per Run 2	98.903 %	101.765 %	1.033 ppb	98.765 ppb	97.423 ppb	1.365 ppb	94.459 ppb	118.512 ppb	98.450 %
Concentration per Run 3	96.563 %	94.510 %	1.044 ppb	101.842 ppb	108.373 ppb	1.021 ppb	94.939 ppb	79.643 ppb	96.255 %
Concentration RSD	1.4 %	4.0 %	0.8 %	1.7 %	5.9 %	14.3 %	8.9 %	20.7 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.981 ppb	0.989 ppb	1.110 ppb	99.461 ppb	1.024 ppb	1.014 ppb	1.155 ppb	0.928 ppb	99.080 %
Concentration per Run 1	1.105 ppb	0.957 ppb	1.204 ppb	97.905 ppb	1.028 ppb	1.078 ppb	1.034 ppb	1.037 ppb	104.218 %
Concentration per Run 2	0.829 ppb	0.989 ppb	1.195 ppb	101.688 ppb	1.015 ppb	0.821 ppb	1.162 ppb	0.805 ppb	98.357 %
Concentration per Run 3	1.008 ppb	1.021 ppb	0.930 ppb	98.789 ppb	1.027 ppb	1.142 ppb	1.268 ppb	0.941 ppb	94.663 %
Concentration RSD	14.3 %	3.2 %	14.0 %	2.0 %	0.7 %	16.8 %	10.1 %	12.6 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.928 ppb	1.047 ppb	0.986 ppb	1.038 ppb	99.474 %	1.002 ppb	1.011 ppb	102.120 %	0.962 ppb
Concentration per Run 1	0.823 ppb	1.397 ppb	1.025 ppb	1.028 ppb	100.489 %	0.992 ppb	1.017 ppb	106.443 %	0.974 ppb
Concentration per Run 2	0.952 ppb	0.825 ppb	0.967 ppb	1.083 ppb	99.389 %	1.008 ppb	1.072 ppb	99.470 %	0.934 ppb
Concentration per Run 3	1.009 ppb	0.917 ppb	0.966 ppb	1.003 ppb	98.545 %	1.006 ppb	0.944 ppb	100.447 %	0.979 ppb
Concentration RSD	10.3 %	29.3 %	3.4 %	4.0 %	1.0 %	0.8 %	6.4 %	3.7 %	2.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.992 ppb	103.417 %	103.231 %	0.874 ppb	0.959 ppb	97.691 %
Concentration per Run 1	1.006 ppb	105.681 %	107.042 %	0.807 ppb	0.896 ppb	104.317 %
Concentration per Run 2	0.988 ppb	102.782 %	101.104 %	0.876 ppb	0.983 ppb	96.106 %
Concentration per Run 3	0.982 ppb	101.787 %	101.548 %	0.939 ppb	0.998 ppb	92.649 %
Concentration RSD	1.3 %	2.0 %	3.2 %	7.5 %	5.8 %	6.1 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	6	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	10/1000 Cal	Rack	0		
Analysis started at:	8/23/2024 5:13:13 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.840 %	104.118 %	10.286 ppb	995.400 ppb	1,002.834 ppb	10.458 ppb	1,015.780 ppb	1,007.670 ppb	97.053 %
Concentration per Run 1	97.724 %	107.843 %	10.184 ppb	991.245 ppb	996.245 ppb	10.088 ppb	1,049.016 ppb	1,047.697 ppb	97.394 %
Concentration per Run 2	96.812 %	102.353 %	10.332 ppb	986.827 ppb	1,013.027 ppb	10.346 ppb	1,006.298 ppb	1,029.329 ppb	96.337 %
Concentration per Run 3	95.984 %	102.157 %	10.342 ppb	1,008.129 ppb	999.231 ppb	10.941 ppb	992.027 ppb	945.984 ppb	97.428 %
Concentration RSD	0.9 %	3.1 %	0.9 %	1.1 %	0.9 %	4.2 %	2.9 %	5.4 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	10.225 ppb	9.954 ppb	9.904 ppb	996.690 ppb	10.337 ppb	10.364 ppb	10.224 ppb	10.612 ppb	98.734 %
Concentration per Run 1	10.229 ppb	9.719 ppb	10.518 ppb	961.431 ppb	10.164 ppb	10.499 ppb	10.471 ppb	10.575 ppb	104.703 %
Concentration per Run 2	10.272 ppb	10.196 ppb	9.661 ppb	1,012.248 ppb	10.374 ppb	10.284 ppb	9.864 ppb	10.576 ppb	95.677 %
Concentration per Run 3	10.175 ppb	9.947 ppb	9.534 ppb	1,016.391 ppb	10.471 ppb	10.309 ppb	10.338 ppb	10.686 ppb	95.822 %
Concentration RSD	0.5 %	2.4 %	5.4 %	3.1 %	1.5 %	1.1 %	3.1 %	0.6 %	5.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	10.057 ppb	10.571 ppb	9.935 ppb	9.976 ppb	98.236 %	10.065 ppb	10.209 ppb	98.747 %	10.093 ppb
Concentration per Run 1	9.640 ppb	10.896 ppb	10.025 ppb	9.886 ppb	100.930 %	9.829 ppb	10.177 ppb	102.699 %	10.215 ppb
Concentration per Run 2	10.418 ppb	10.516 ppb	9.897 ppb	10.008 ppb	97.049 %	10.129 ppb	10.124 ppb	96.343 %	10.080 ppb
Concentration per Run 3	10.113 ppb	10.300 ppb	9.882 ppb	10.033 ppb	96.730 %	10.238 ppb	10.326 ppb	97.200 %	9.984 ppb
Concentration RSD	3.9 %	2.9 %	0.8 %	0.8 %	2.4 %	2.1 %	1.0 %	3.5 %	1.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	10.245 ppb	101.443 %	101.616 %	9.351 ppb	9.808 ppb	95.819 %
Concentration per Run 1	10.159 ppb	104.232 %	105.653 %	8.642 ppb	9.174 ppb	104.285 %
Concentration per Run 2	10.391 ppb	101.628 %	100.818 %	9.550 ppb	9.967 ppb	92.439 %
Concentration per Run 3	10.184 ppb	98.468 %	98.379 %	9.861 ppb	10.282 ppb	90.733 %
Concentration RSD	1.2 %	2.8 %	3.6 %	6.8 %	5.8 %	7.7 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	7	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	60/6000 Cal	Rack	0		
Analysis started at:	8/23/2024 5:17:41 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.991 %	91.569 %	61.037 ppb	6,486.398 ppb	6,486.557 ppb	64.037 ppb	6,387.351 ppb	6,315.778 ppb	96.280 %
Concentration per Run 1	94.377 %	93.725 %	60.873 ppb	6,306.572 ppb	6,419.545 ppb	62.988 ppb	6,279.072 ppb	6,287.156 ppb	97.457 %
Concentration per Run 2	92.984 %	92.157 %	60.801 ppb	6,573.653 ppb	6,497.322 ppb	65.146 ppb	6,434.976 ppb	6,384.941 ppb	96.111 %
Concentration per Run 3	91.611 %	88.823 %	61.437 ppb	6,578.967 ppb	6,542.805 ppb	63.976 ppb	6,448.006 ppb	6,275.237 ppb	95.271 %
Concentration RSD	1.5 %	2.7 %	0.6 %	2.4 %	1.0 %	1.7 %	1.5 %	1.0 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.510 ppb	61.956 ppb	62.480 ppb	6,176.215 ppb	62.098 ppb	61.850 ppb	61.506 ppb	61.878 ppb	96.090 %
Concentration per Run 1	59.715 ppb	60.113 ppb	60.186 ppb	6,104.545 ppb	61.141 ppb	60.553 ppb	59.507 ppb	61.136 ppb	96.836 %
Concentration per Run 2	59.965 ppb	62.046 ppb	62.145 ppb	6,151.433 ppb	61.631 ppb	61.336 ppb	60.927 ppb	61.711 ppb	97.711 %
Concentration per Run 3	64.850 ppb	63.708 ppb	65.108 ppb	6,272.667 ppb	63.522 ppb	63.662 ppb	64.084 ppb	62.786 ppb	93.724 %
Concentration RSD	4.7 %	2.9 %	4.0 %	1.4 %	2.0 %	2.6 %	3.8 %	1.4 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	60.439 ppb	61.146 ppb	60.014 ppb	60.612 ppb	95.253 %	60.190 ppb	60.010 ppb	97.201 %	60.192 ppb
Concentration per Run 1	59.374 ppb	62.595 ppb	59.913 ppb	60.916 ppb	96.052 %	60.107 ppb	59.633 ppb	99.183 %	59.571 ppb
Concentration per Run 2	61.207 ppb	61.690 ppb	60.525 ppb	60.290 ppb	94.754 %	59.649 ppb	59.905 ppb	97.913 %	60.181 ppb
Concentration per Run 3	60.736 ppb	59.153 ppb	59.603 ppb	60.632 ppb	94.954 %	60.814 ppb	60.491 ppb	94.507 %	60.825 ppb
Concentration RSD	1.6 %	2.9 %	0.8 %	0.5 %	0.7 %	1.0 %	0.7 %	2.5 %	1.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.689 ppb	101.052 %	101.307 %	59.000 ppb	59.511 ppb	93.503 %
Concentration per Run 1	60.197 ppb	101.599 %	101.888 %	54.650 ppb	55.149 ppb	100.033 %
Concentration per Run 2	60.950 ppb	101.217 %	102.048 %	59.732 ppb	61.007 ppb	91.950 %
Concentration per Run 3	60.920 ppb	100.341 %	99.987 %	62.618 ppb	62.377 ppb	88.526 %
Concentration RSD	0.7 %	0.6 %	1.1 %	6.8 %	6.5 %	6.3 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	8	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	120/12000 Cal	Rack	0		
Analysis started at:	8/23/2024 5:22:09 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.885 %	98.824 %	119.457 ppb	11,757.175 ppb	11,756.472 ppb	117.941 ppb	11,805.006 ppb	11,841.447 ppb	97.082 %
Concentration per Run 1	91.866 %	95.294 %	118.667 ppb	11,742.451 ppb	11,819.708 ppb	114.426 ppb	12,004.993 ppb	11,883.262 ppb	97.188 %
Concentration per Run 2	90.426 %	99.804 %	119.540 ppb	11,894.204 ppb	11,907.686 ppb	121.171 ppb	11,924.091 ppb	12,001.531 ppb	97.307 %
Concentration per Run 3	90.363 %	101.373 %	120.165 ppb	11,634.871 ppb	11,542.022 ppb	118.228 ppb	11,485.936 ppb	11,639.547 ppb	96.752 %
Concentration RSD	0.9 %	3.2 %	0.6 %	1.1 %	1.6 %	2.9 %	2.4 %	1.6 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	119.226 ppb	119.026 ppb	118.767 ppb	11,912.168 ppb	118.923 ppb	119.044 ppb	119.227 ppb	119.011 ppb	93.106 %
Concentration per Run 1	121.102 ppb	122.900 ppb	122.917 ppb	12,252.912 ppb	122.996 ppb	123.121 ppb	123.274 ppb	122.840 ppb	88.541 %
Concentration per Run 2	115.843 ppb	114.044 ppb	114.793 ppb	11,525.786 ppb	112.068 ppb	112.599 ppb	113.336 ppb	113.168 ppb	99.867 %
Concentration per Run 3	120.734 ppb	120.134 ppb	118.592 ppb	11,957.807 ppb	121.705 ppb	121.413 ppb	121.071 ppb	121.025 ppb	90.910 %
Concentration RSD	2.5 %	3.8 %	3.4 %	3.1 %	5.0 %	4.7 %	4.4 %	4.3 %	6.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	119.776 ppb	119.379 ppb	119.999 ppb	119.695 ppb	92.059 %	119.899 ppb	119.978 ppb	93.702 %	119.896 ppb
Concentration per Run 1	123.657 ppb	121.528 ppb	119.171 ppb	120.903 ppb	91.184 %	122.089 ppb	121.323 ppb	90.933 %	119.285 ppb
Concentration per Run 2	114.058 ppb	116.439 ppb	120.523 ppb	115.584 ppb	93.986 %	115.932 ppb	116.689 ppb	98.457 %	118.240 ppb
Concentration per Run 3	121.614 ppb	120.169 ppb	120.302 ppb	122.600 ppb	91.008 %	121.677 ppb	121.920 ppb	91.716 %	122.165 ppb
Concentration RSD	4.2 %	2.2 %	0.6 %	3.1 %	1.8 %	2.9 %	2.4 %	4.4 %	1.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	119.635 ppb	100.493 %	100.692 %	120.555 ppb	120.261 ppb	90.683 %
Concentration per Run 1	119.246 ppb	98.883 %	97.251 %	113.170 ppb	111.023 ppb	96.784 %
Concentration per Run 2	119.065 ppb	103.686 %	106.259 %	119.524 ppb	121.027 ppb	90.062 %
Concentration per Run 3	120.595 ppb	98.911 %	98.565 %	128.972 ppb	128.733 ppb	85.203 %
Concentration RSD	0.7 %	2.8 %	4.8 %	6.6 %	7.4 %	6.4 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	9	User name	ALPHALAB\a2-icpmsq2	Comment	Sr Inteference Check
Analysis label:	Sr 200ppb	Rack	4		
Analysis started at:	8/23/2024 5:27:36 AM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.993 %	99.216 %	0.075 ppb	1.383 ppb	2.634 ppb	0.320 ppb	-3.331 ppb	-0.097 ppb	93.367 %
Concentration per Run 1	96.585 %	97.451 %	0.087 ppb	1.082 ppb	3.087 ppb	0.491 ppb	2.524 ppb	-45.246 ppb	92.974 %
Concentration per Run 2	96.000 %	100.392 %	0.061 ppb	-1.446 ppb	0.599 ppb	0.320 ppb	-9.030 ppb	45.818 ppb	92.723 %
Concentration per Run 3	95.396 %	99.804 %	0.077 ppb	4.512 ppb	4.216 ppb	0.149 ppb	-3.487 ppb	-0.863 ppb	94.404 %
Concentration RSD	0.6 %	1.6 %	17.6 %	216.3 %	70.2 %	53.4 %	173.5 %	46,865.8 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.091 ppb	0.254 ppb	0.163 ppb	10.274 ppb	0.022 ppb	0.025 ppb	0.089 ppb	0.327 ppb	94.023 %
Concentration per Run 1	-0.097 ppb	-0.002 ppb	0.154 ppb	8.794 ppb	0.017 ppb	-0.017 ppb	0.071 ppb	0.301 ppb	98.132 %
Concentration per Run 2	-0.103 ppb	0.001 ppb	0.142 ppb	6.235 ppb	0.018 ppb	0.034 ppb	0.072 ppb	0.343 ppb	91.428 %
Concentration per Run 3	-0.072 ppb	0.763 ppb	0.193 ppb	15.794 ppb	0.032 ppb	0.058 ppb	0.124 ppb	0.336 ppb	92.510 %
Concentration RSD	18.6 %	173.4 %	16.5 %	48.2 %	38.1 %	151.3 %	34.3 %	7.0 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.031 ppb	0.138 ppb	193.935 ppb	0.313 ppb	95.196 %	0.029 ppb	0.029 ppb	96.181 %	0.044 ppb
Concentration per Run 1	-0.013 ppb	0.244 ppb	197.506 ppb	0.205 ppb	96.272 %	0.019 ppb	0.009 ppb	99.452 %	0.018 ppb
Concentration per Run 2	0.021 ppb	0.033 ppb	192.104 ppb	0.263 ppb	95.021 %	0.017 ppb	0.018 ppb	95.098 %	0.034 ppb
Concentration per Run 3	0.086 ppb	0.136 ppb	192.193 ppb	0.470 ppb	94.295 %	0.050 ppb	0.059 ppb	93.992 %	0.078 ppb
Concentration RSD	160.6 %	76.4 %	1.6 %	44.7 %	1.1 %	64.5 %	93.2 %	3.0 %	71.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.184 ppb	100.972 %	101.869 %	0.345 ppb	0.216 ppb	92.708 %
Concentration per Run 1	0.152 ppb	102.503 %	104.431 %	0.233 ppb	0.185 ppb	102.596 %
Concentration per Run 2	0.208 ppb	100.928 %	102.008 %	0.402 ppb	0.220 ppb	88.503 %
Concentration per Run 3	0.192 ppb	99.485 %	99.169 %	0.399 ppb	0.244 ppb	87.026 %
Concentration RSD	15.9 %	1.5 %	2.6 %	28.1 %	13.7 %	9.3 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index: 10
Analysis label: ICV
Analysis started at: 8/23/2024 5:32:07 AM
User name ALPHALAB\a2-icpmsq2
Rack 0
Vial 7
Comment ICV

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.300 %	97.778 %	51.475 ppb	4,892.574 ppb	4,900.885 ppb	49.497 ppb	4,857.531 ppb	4,998.489 ppb	92.479 %
Concentration per Run 1	92.044 %	100.196 %	51.427 ppb	4,607.267 ppb	4,665.499 ppb	48.345 ppb	4,626.679 ppb	4,897.190 ppb	92.576 %
Concentration per Run 2	92.731 %	94.902 %	51.294 ppb	5,096.320 ppb	5,090.588 ppb	52.366 ppb	5,000.701 ppb	5,067.936 ppb	92.694 %
Concentration per Run 3	92.126 %	98.235 %	51.702 ppb	4,974.137 ppb	4,946.567 ppb	47.780 ppb	4,945.212 ppb	5,030.340 ppb	92.166 %
Recovery Percentage 1			102.949 %	97.851 %	98.018 %	98.994 %	97.151 %	99.970 %	
Concentration RSD	0.4 %	2.7 %	0.4 %	5.2 %	4.4 %	5.1 %	4.2 %	1.8 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	51.016 ppb	50.642 ppb	50.161 ppb	5,083.345 ppb	51.865 ppb	51.339 ppb	52.215 ppb	52.648 ppb	91.625 %
Concentration per Run 1	49.472 ppb	49.569 ppb	48.844 ppb	4,984.923 ppb	50.347 ppb	51.293 ppb	52.301 ppb	51.636 ppb	91.796 %
Concentration per Run 2	50.665 ppb	50.476 ppb	50.101 ppb	5,058.827 ppb	52.174 ppb	50.958 ppb	51.213 ppb	52.061 ppb	93.258 %
Concentration per Run 3	52.911 ppb	51.880 ppb	51.538 ppb	5,206.285 ppb	53.073 ppb	51.767 ppb	53.130 ppb	54.247 ppb	89.821 %
Recovery Percentage 1	102.032 %	101.284 %	100.322 %	101.667 %	103.729 %	102.679 %	104.430 %	105.296 %	
Concentration RSD	3.4 %	2.3 %	2.7 %	2.2 %	2.7 %	0.8 %	1.8 %	2.7 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	51.849 ppb	50.107 ppb	50.993 ppb	51.235 ppb	93.434 %	50.537 ppb	51.347 ppb	94.252 %	50.677 ppb
Concentration per Run 1	51.384 ppb	49.241 ppb	51.438 ppb	49.562 ppb	92.849 %	49.729 ppb	50.239 ppb	95.014 %	50.550 ppb
Concentration per Run 2	51.148 ppb	50.483 ppb	50.232 ppb	51.066 ppb	94.503 %	50.643 ppb	51.886 ppb	94.270 %	51.194 ppb
Concentration per Run 3	53.016 ppb	50.596 ppb	51.309 ppb	53.078 ppb	92.950 %	51.240 ppb	51.917 ppb	93.471 %	50.288 ppb
Recovery Percentage 1	103.699 %	100.213 %	101.986 %	102.470 %		101.075 %	102.695 %		101.354 %
Concentration RSD	2.0 %	1.5 %	1.3 %	3.4 %	1.0 %	1.5 %	1.9 %	0.8 %	0.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	50.838 ppb	99.675 %	100.328 %	51.577 ppb	52.519 ppb	89.525 %
Concentration per Run 1	51.561 ppb	99.232 %	100.527 %	47.308 ppb	48.315 ppb	96.688 %
Concentration per Run 2	50.591 ppb	100.274 %	100.822 %	53.588 ppb	54.471 ppb	86.699 %
Concentration per Run 3	50.363 ppb	99.520 %	99.634 %	53.834 ppb	54.769 ppb	85.188 %
Recovery Percentage 1	101.677 %			103.154 %	105.037 %	
Concentration RSD	1.3 %	0.5 %	0.6 %	7.2 %	6.9 %	7.0 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	11	User name	ALPHALAB\a2-icpmsq2	Comment	ICB
Analysis label:	ICB	Rack	0		
Analysis started at:	8/23/2024 5:36:37 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.775 %	96.405 %	0.053 ppb	1.712 ppb	3.749 ppb	-0.100 ppb	0.518 ppb	1.431 ppb	91.483 %
Concentration per Run 1	94.902 %	92.549 %	0.049 ppb	4.765 ppb	5.387 ppb	0.162 ppb	2.780 ppb	1.558 ppb	92.525 %
Concentration per Run 2	93.339 %	98.235 %	0.067 ppb	1.779 ppb	2.564 ppb	-0.359 ppb	-4.871 ppb	1.435 ppb	90.252 %
Concentration per Run 3	93.085 %	98.431 %	0.042 ppb	-1.408 ppb	3.297 ppb	-0.104 ppb	3.647 ppb	1.300 ppb	91.673 %
Recovery Percentage 1			10.574 %	1.712 %	5.356 %	-1.005 %	0.518 %	1.431 %	
Concentration RSD	1.0 %	3.5 %	23.9 %	180.3 %	39.1 %	259.3 %	904.2 %	9.0 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.032 ppb	0.012 ppb	0.051 ppb	8.440 ppb	0.046 ppb	0.016 ppb	0.030 ppb	-0.189 ppb	92.275 %
Concentration per Run 1	-0.002 ppb	0.020 ppb	0.082 ppb	10.368 ppb	0.068 ppb	-0.007 ppb	0.037 ppb	-0.184 ppb	91.190 %
Concentration per Run 2	-0.054 ppb	0.016 ppb	0.025 ppb	7.340 ppb	0.040 ppb	0.008 ppb	0.030 ppb	-0.197 ppb	91.709 %
Concentration per Run 3	-0.040 ppb	0.000 ppb	0.045 ppb	7.612 ppb	0.032 ppb	0.048 ppb	0.022 ppb	-0.184 ppb	93.927 %
Recovery Percentage 1	-0.643 %	1.207 %	5.064 %	16.880 %	9.284 %	0.817 %	2.986 %	-3.771 %	
Concentration RSD	84.1 %	87.6 %	56.4 %	19.8 %	40.5 %	174.1 %	24.5 %	4.0 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.075 ppb	0.263 ppb	0.078 ppb	0.297 ppb	93.708 %	0.049 ppb	0.053 ppb	93.771 %	0.082 ppb
Concentration per Run 1	0.093 ppb	0.223 ppb	0.100 ppb	0.206 ppb	95.451 %	0.058 ppb	0.054 ppb	95.270 %	0.085 ppb
Concentration per Run 2	0.056 ppb	0.287 ppb	0.071 ppb	0.304 ppb	90.926 %	0.047 ppb	0.047 ppb	89.684 %	0.076 ppb
Concentration per Run 3	0.074 ppb	0.280 ppb	0.064 ppb	0.379 ppb	94.748 %	0.044 ppb	0.058 ppb	96.358 %	0.085 ppb
Recovery Percentage 1	14.908 %	5.265 %	0.785 %	14.828 %		12.337 %	26.502 %		2.053 %
Concentration RSD	24.5 %	13.4 %	24.5 %	29.4 %	2.6 %	14.7 %	9.9 %	3.8 %	6.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.047 ppb	98.112 %	98.562 %	0.395 ppb	0.064 ppb	88.425 %
Concentration per Run 1	0.042 ppb	99.211 %	100.420 %	0.302 ppb	0.071 ppb	97.476 %
Concentration per Run 2	0.065 ppb	95.460 %	95.708 %	0.471 ppb	0.066 ppb	83.809 %
Concentration per Run 3	0.035 ppb	99.665 %	99.558 %	0.412 ppb	0.056 ppb	83.991 %
Recovery Percentage 1	9.432 %			39.497 %	6.402 %	
Concentration RSD	34.1 %	2.4 %	2.5 %	21.8 %	11.8 %	8.9 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	12	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	ICSA	Rack	4		
Analysis started at:	8/23/2024 5:44:43 AM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	83.090 %	84.379 %	0.040 ppb	**208,142.665 ppb**	**80,117.320 ppb**	**100,888.133 ppb**	97,700.853 ppb	289,968.012 ppb	85.125 %
Concentration per Run 1	83.794 %	77.451 %	0.045 ppb	221,127.849 ppb	84,855.933 ppb	105,959.723 ppb	101,896.225 ppb	305,087.370 ppb	85.656 %
Concentration per Run 2	83.447 %	88.431 %	0.040 ppb	196,010.160 ppb	74,998.852 ppb	96,082.860 ppb	94,375.857 ppb	282,257.942 ppb	84.916 %
Concentration per Run 3	82.031 %	87.255 %	0.034 ppb	207,289.986 ppb	80,497.176 ppb	100,621.816 ppb	96,830.476 ppb	282,558.725 ppb	84.804 %
Recovery Percentage 1			3.975 %	83.257 %	80.117 %	100.888 %	97.701 %	96.656 %	
Concentration RSD	1.1 %	7.1 %	14.8 %	6.0 %	6.2 %	4.9 %	3.9 %	4.5 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.006 ppb	1.567 ppb	4.412 ppb	**215,637.940 ppb**	2.222 ppb	2.684 ppb	1.047 ppb	2.074 ppb	86.640 %
Concentration per Run 1	0.026 ppb	1.494 ppb	4.495 ppb	218,809.537 ppb	2.310 ppb	3.069 ppb	1.128 ppb	2.070 ppb	83.564 %
Concentration per Run 2	0.014 ppb	1.563 ppb	3.904 ppb	211,288.122 ppb	2.120 ppb	2.487 ppb	1.029 ppb	2.070 ppb	86.461 %
Concentration per Run 3	-0.023 ppb	1.644 ppb	4.838 ppb	216,816.159 ppb	2.235 ppb	2.496 ppb	0.983 ppb	2.082 ppb	89.894 %
Recovery Percentage 1	0.114 %	47.486 %	77.411 %	86.255 %	77.410 %	43.999 %	127.667 %	18.190 %	
Concentration RSD	452.7 %	4.8 %	10.7 %	1.8 %	4.3 %	12.4 %	7.1 %	0.3 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.396 ppb	3.352 ppb	2.407 ppb	**2,216.139 ppb**	78.648 %	0.036 ppb	0.563 ppb	83.246 %	0.189 ppb
Concentration per Run 1	0.398 ppb	3.279 ppb	2.469 ppb	2,272.386 ppb	76.499 %	0.041 ppb	0.656 ppb	81.334 %	0.170 ppb
Concentration per Run 2	0.399 ppb	3.004 ppb	2.388 ppb	2,168.135 ppb	79.574 %	0.032 ppb	0.491 ppb	83.813 %	0.177 ppb
Concentration per Run 3	0.390 ppb	3.772 ppb	2.365 ppb	2,207.895 ppb	79.870 %	0.034 ppb	0.541 ppb	84.592 %	0.218 ppb
Recovery Percentage 1	24.269 %	25.983 %	481.481 %	110.807 %		4.485 %	140.626 %		2.360 %
Concentration RSD	1.3 %	11.6 %	2.3 %	2.4 %	2.4 %	13.5 %	15.1 %	2.0 %	13.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.282 ppb	92.288 %	92.612 %	0.105 ppb	1.740 ppb	73.458 %
Concentration per Run 1	1.338 ppb	90.233 %	90.726 %	0.060 ppb	1.578 ppb	81.131 %
Concentration per Run 2	1.368 ppb	93.086 %	93.883 %	0.121 ppb	1.816 ppb	69.782 %
Concentration per Run 3	1.139 ppb	93.544 %	93.228 %	0.132 ppb	1.826 ppb	69.462 %
Recovery Percentage 1	68.167 %			5.231 %	56.135 %	
Concentration RSD	9.7 %	1.9 %	1.8 %	37.0 %	8.1 %	9.0 %

Analysis index:	13	User name	ALPHALAB\a2-icpmsq2	Comment	wrong spot
Analysis label:	xLDR	Rack	4		
Analysis started at:	8/23/2024 5:49:14 AM	Vial	2		

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	14	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/23/2024 5:53:44 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.319 %	100.719 %	0.014 ppb	38.614 ppb	2.739 ppb	1.079 ppb	-1.551 ppb	1.305 ppb	102.746 %
Concentration per Run 1	100.112 %	96.274 %	0.016 ppb	50.019 ppb	1.968 ppb	1.059 ppb	-1.433 ppb	2.755 ppb	103.017 %
Concentration per Run 2	99.104 %	96.667 %	0.010 ppb	36.757 ppb	2.693 ppb	1.125 ppb	-1.671 ppb	6.361 ppb	102.663 %
Concentration per Run 3	98.741 %	109.216 %	0.015 ppb	29.066 ppb	3.555 ppb	1.053 ppb	-1.549 ppb	-5.201 ppb	102.558 %
Concentration RSD	0.7 %	7.3 %	23.9 %	27.4 %	29.0 %	3.7 %	7.7 %	453.2 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.098 ppb	0.008 ppb	0.624 ppb	19.439 ppb	0.011 ppb	0.338 ppb	0.820 ppb	1.179 ppb	99.948 %
Concentration per Run 1	-0.097 ppb	-0.002 ppb	0.681 ppb	18.405 ppb	0.008 ppb	0.273 ppb	0.714 ppb	1.114 ppb	98.895 %
Concentration per Run 2	-0.098 ppb	0.022 ppb	0.588 ppb	20.845 ppb	0.012 ppb	0.346 ppb	0.902 ppb	1.156 ppb	101.339 %
Concentration per Run 3	-0.100 ppb	0.002 ppb	0.603 ppb	19.066 ppb	0.014 ppb	0.396 ppb	0.845 ppb	1.268 ppb	99.611 %
Concentration RSD	1.3 %	168.8 %	8.1 %	6.5 %	28.6 %	18.3 %	11.8 %	6.7 %	1.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.009 ppb	0.044 ppb	0.003 ppb	0.789 ppb	99.574 %	0.010 ppb	0.001 ppb	98.047 %	-0.007 ppb
Concentration per Run 1	-0.006 ppb	0.051 ppb	0.004 ppb	0.635 ppb	99.004 %	0.007 ppb	-0.001 ppb	99.197 %	-0.012 ppb
Concentration per Run 2	-0.008 ppb	0.056 ppb	0.000 ppb	0.758 ppb	100.461 %	0.009 ppb	0.005 ppb	98.908 %	-0.008 ppb
Concentration per Run 3	-0.015 ppb	0.025 ppb	0.005 ppb	0.973 ppb	99.258 %	0.014 ppb	-0.001 ppb	96.034 %	-0.002 ppb
Concentration RSD	49.2 %	37.0 %	101.2 %	21.7 %	0.8 %	33.3 %	259.2 %	1.8 %	68.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.021 ppb	102.160 %	99.950 %	0.046 ppb	0.033 ppb	91.249 %
Concentration per Run 1	0.039 ppb	102.337 %	99.349 %	0.018 ppb	0.030 ppb	101.366 %
Concentration per Run 2	0.021 ppb	102.585 %	101.155 %	0.056 ppb	0.036 ppb	88.354 %
Concentration per Run 3	0.002 ppb	101.557 %	99.345 %	0.066 ppb	0.031 ppb	84.026 %
Concentration RSD	89.7 %	0.5 %	1.0 %	54.8 %	9.8 %	9.9 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	15	User name	ALPHALAB\a2-icpmsq2	Comment	CCV/MCCV
Analysis label:	CCV	Rack	0		
Analysis started at:	8/23/2024 5:58:10 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.776 %	103.007 %	64.089 ppb	6,152.117 ppb	6,083.061 ppb	63.505 ppb	6,075.304 ppb	5,939.241 ppb	104.067 %
Concentration per Run 1	99.080 %	100.588 %	64.320 ppb	6,249.262 ppb	6,165.675 ppb	65.179 ppb	6,200.768 ppb	6,105.344 ppb	103.460 %
Concentration per Run 2	98.722 %	102.157 %	64.197 ppb	6,161.034 ppb	6,124.418 ppb	62.658 ppb	6,088.567 ppb	5,895.111 ppb	103.890 %
Concentration per Run 3	98.527 %	106.275 %	63.751 ppb	6,046.055 ppb	5,959.089 ppb	62.678 ppb	5,936.578 ppb	5,817.267 ppb	104.852 %
Recovery Percentage 1			106.816 %	102.535 %	101.384 %	105.841 %	101.255 %	98.987 %	
Concentration RSD	0.3 %	2.9 %	0.5 %	1.7 %	1.8 %	2.3 %	2.2 %	2.5 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.704 ppb	62.902 ppb	61.934 ppb	6,253.926 ppb	64.533 ppb	64.524 ppb	64.283 ppb	64.608 ppb	98.393 %
Concentration per Run 1	61.624 ppb	63.921 ppb	61.692 ppb	6,330.813 ppb	65.093 ppb	64.565 ppb	64.068 ppb	63.942 ppb	97.577 %
Concentration per Run 2	60.209 ppb	62.392 ppb	62.296 ppb	6,233.786 ppb	64.622 ppb	64.103 ppb	65.029 ppb	63.418 ppb	99.406 %
Concentration per Run 3	60.279 ppb	62.393 ppb	61.814 ppb	6,197.180 ppb	63.884 ppb	64.905 ppb	63.753 ppb	66.464 ppb	98.196 %
Recovery Percentage 1	101.173 %	104.837 %	103.224 %	104.232 %	107.555 %	107.541 %	107.139 %	107.680 %	
Concentration RSD	1.3 %	1.4 %	0.5 %	1.1 %	0.9 %	0.6 %	1.0 %	2.5 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	62.683 ppb	63.036 ppb	58.102 ppb	59.912 ppb	100.078 %	59.205 ppb	62.636 ppb	97.549 %	61.360 ppb
Concentration per Run 1	63.925 ppb	64.211 ppb	58.049 ppb	59.327 ppb	100.608 %	59.801 ppb	63.485 ppb	96.917 %	61.588 ppb
Concentration per Run 2	62.027 ppb	61.563 ppb	57.313 ppb	58.913 ppb	100.914 %	58.624 ppb	61.985 ppb	98.251 %	60.956 ppb
Concentration per Run 3	62.097 ppb	63.335 ppb	58.943 ppb	61.495 ppb	98.713 %	59.192 ppb	62.438 ppb	97.480 %	61.535 ppb
Recovery Percentage 1	104.471 %	105.061 %	96.836 %	99.853 %		98.676 %	104.393 %		102.266 %
Concentration RSD	1.7 %	2.1 %	1.4 %	2.3 %	1.2 %	1.0 %	1.2 %	0.7 %	0.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.215 ppb	103.299 %	103.142 %	65.837 ppb	61.664 ppb	86.646 %
Concentration per Run 1	63.239 ppb	102.570 %	103.086 %	60.890 ppb	61.102 ppb	94.267 %
Concentration per Run 2	61.790 ppb	104.523 %	103.653 %	66.881 ppb	61.389 ppb	83.847 %
Concentration per Run 3	61.617 ppb	102.803 %	102.686 %	69.740 ppb	62.500 ppb	81.822 %
Recovery Percentage 1	103.692 %			109.728 %	102.773 %	
Concentration RSD	1.4 %	1.0 %	0.5 %	6.9 %	1.2 %	7.7 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	16	User name	ALPHALAB\a2-icpmsq2	Comment	CCB
Analysis label:	CCB	Rack	0		
Analysis started at:	8/23/2024 6:02:41 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.636 %	105.098 %	0.047 ppb	15.326 ppb	2.639 ppb	0.679 ppb	-3.458 ppb	1.340 ppb	103.756 %
Concentration per Run 1	101.233 %	107.647 %	0.039 ppb	16.872 ppb	2.928 ppb	0.403 ppb	-2.249 ppb	-1.629 ppb	104.228 %
Concentration per Run 2	101.095 %	102.745 %	0.043 ppb	16.267 ppb	3.414 ppb	0.922 ppb	-0.112 ppb	3.341 ppb	103.208 %
Concentration per Run 3	99.579 %	104.902 %	0.058 ppb	12.839 ppb	1.575 ppb	0.712 ppb	-8.012 ppb	2.308 ppb	103.833 %
Recovery Percentage 1			9.336 %	15.326 %	3.770 %	6.792 %	-3.458 %	1.340 %	
Concentration RSD	0.9 %	2.3 %	21.0 %	14.2 %	36.1 %	38.5 %	118.2 %	195.8 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.066 ppb	0.016 ppb	0.032 ppb	11.955 ppb	0.033 ppb	-0.047 ppb	0.063 ppb	-0.209 ppb	98.808 %
Concentration per Run 1	-0.076 ppb	0.019 ppb	0.059 ppb	10.778 ppb	0.037 ppb	-0.060 ppb	0.047 ppb	-0.188 ppb	97.789 %
Concentration per Run 2	-0.092 ppb	0.034 ppb	0.058 ppb	14.198 ppb	0.032 ppb	-0.013 ppb	0.089 ppb	-0.202 ppb	101.157 %
Concentration per Run 3	-0.030 ppb	-0.005 ppb	-0.020 ppb	10.888 ppb	0.030 ppb	-0.067 ppb	0.054 ppb	-0.236 ppb	97.477 %
Recovery Percentage 1	-1.320 %	1.616 %	3.239 %	23.910 %	6.591 %	-2.336 %	6.330 %	-4.176 %	
Concentration RSD	48.9 %	123.1 %	139.6 %	16.3 %	10.3 %	62.9 %	35.6 %	12.0 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.066 ppb	0.217 ppb	0.023 ppb	0.517 ppb	102.374 %	0.034 ppb	0.026 ppb	100.496 %	0.041 ppb
Concentration per Run 1	0.067 ppb	0.143 ppb	0.030 ppb	0.357 ppb	102.490 %	0.037 ppb	0.035 ppb	99.687 %	0.049 ppb
Concentration per Run 2	0.040 ppb	0.228 ppb	0.023 ppb	0.488 ppb	103.121 %	0.036 ppb	0.021 ppb	101.612 %	0.031 ppb
Concentration per Run 3	0.092 ppb	0.278 ppb	0.015 ppb	0.707 ppb	101.513 %	0.029 ppb	0.023 ppb	100.189 %	0.043 ppb
Recovery Percentage 1	13.287 %	4.331 %	0.226 %	25.875 %		8.490 %	13.053 %		1.023 %
Concentration RSD	39.0 %	31.5 %	34.6 %	34.2 %	0.8 %	13.7 %	30.3 %	1.0 %	22.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.016 ppb	104.855 %	102.524 %	0.392 ppb	0.049 ppb	87.696 %
Concentration per Run 1	0.020 ppb	104.144 %	101.943 %	0.288 ppb	0.048 ppb	96.527 %
Concentration per Run 2	0.025 ppb	105.430 %	103.105 %	0.476 ppb	0.049 ppb	84.169 %
Concentration per Run 3	0.001 ppb	104.992 %	102.522 %	0.413 ppb	0.048 ppb	82.391 %
Recovery Percentage 1	3.115 %			39.229 %	4.868 %	
Concentration RSD	81.4 %	0.6 %	0.6 %	24.4 %	1.1 %	8.8 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	17	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR	Rack	4		
Analysis started at:	8/23/2024 6:12:28 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.466 %	110.784 %	0.029 ppb	29.669 ppb	1.891 ppb	1.653 ppb	3.510 ppb	11.652 ppb	113.744 %
Concentration per Run 1	110.667 %	106.275 %	0.032 ppb	31.126 ppb	2.448 ppb	1.630 ppb	-0.656 ppb	10.128 ppb	113.407 %
Concentration per Run 2	111.026 %	110.981 %	0.026 ppb	29.345 ppb	1.186 ppb	1.514 ppb	2.912 ppb	12.498 ppb	113.928 %
Concentration per Run 3	109.705 %	115.098 %	0.028 ppb	28.537 ppb	2.038 ppb	1.815 ppb	8.274 ppb	12.331 ppb	113.897 %
Concentration RSD	0.6 %	4.0 %	10.4 %	4.5 %	34.0 %	9.2 %	128.1 %	11.4 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.081 ppb	0.029 ppb	8,543.025 ppb	3.332 ppb	0.040 ppb	8,637.670 ppb	9,271.665 ppb	9,173.534 ppb	112.622 %
Concentration per Run 1	-0.076 ppb	0.032 ppb	8,100.818 ppb	2.886 ppb	0.038 ppb	8,363.373 ppb	9,251.313 ppb	9,065.125 ppb	113.649 %
Concentration per Run 2	-0.082 ppb	0.027 ppb	8,460.947 ppb	2.421 ppb	0.037 ppb	8,656.615 ppb	9,435.346 ppb	9,259.386 ppb	108.876 %
Concentration per Run 3	-0.086 ppb	0.027 ppb	9,067.311 ppb	4.689 ppb	0.043 ppb	8,893.023 ppb	9,128.336 ppb	9,196.092 ppb	115.342 %
Concentration RSD	5.8 %	10.2 %	5.7 %	36.0 %	7.6 %	3.1 %	1.7 %	1.1 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	959.621 ppb	1.137 ppb	0.210 ppb	0.160 ppb	110.755 %	0.176 ppb	0.077 ppb	109.168 %	1.130 ppb
Concentration per Run 1	919.411 ppb	1.027 ppb	0.197 ppb	0.129 ppb	111.238 %	0.166 ppb	0.088 ppb	107.986 %	1.110 ppb
Concentration per Run 2	976.870 ppb	0.976 ppb	0.206 ppb	0.142 ppb	109.297 %	0.188 ppb	0.073 ppb	106.196 %	1.174 ppb
Concentration per Run 3	982.581 ppb	1.407 ppb	0.227 ppb	0.209 ppb	111.731 %	0.175 ppb	0.070 ppb	113.322 %	1.104 ppb
Concentration RSD	3.6 %	20.7 %	7.1 %	27.0 %	1.2 %	6.2 %	13.0 %	3.4 %	3.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	9,337.412 ppb	111.482 %	112.649 %	0.063 ppb	10,956.736 ppb	93.073 %
Concentration per Run 1	9,207.630 ppb	111.907 %	112.252 %	0.032 ppb	9,758.789 ppb	104.455 %
Concentration per Run 2	9,270.703 ppb	108.966 %	109.945 %	0.076 ppb	11,570.377 ppb	88.122 %
Concentration per Run 3	9,533.903 ppb	113.572 %	115.751 %	0.082 ppb	11,541.040 ppb	86.641 %
Concentration RSD	1.9 %	2.1 %	2.6 %	43.3 %	9.5 %	10.6 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	18	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Check (5x ICSA)	Rack	4		
Analysis started at:	8/23/2024 6:16:58 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.258 %	95.752 %	0.016 ppb	40,250.298 ppb	19,801.515 ppb	19,461.201 ppb	19,410.199 ppb	58,384.521 ppb	90.582 %
Concentration per Run 1	87.915 %	90.588 %	0.016 ppb	41,217.897 ppb	20,350.073 ppb	19,655.695 ppb	19,645.580 ppb	58,695.206 ppb	90.417 %
Concentration per Run 2	87.304 %	102.745 %	0.012 ppb	37,382.298 ppb	18,093.639 ppb	17,824.570 ppb	18,052.228 ppb	55,067.072 ppb	90.477 %
Concentration per Run 3	86.557 %	93.921 %	0.021 ppb	42,150.698 ppb	20,960.834 ppb	20,903.337 ppb	20,532.790 ppb	61,391.285 ppb	90.852 %
Concentration RSD	0.8 %	6.6 %	27.6 %	6.3 %	7.6 %	8.0 %	6.5 %	5.4 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.074 ppb	0.309 ppb	7.536 ppb	50,016.138 ppb	0.429 ppb	6.679 ppb	6.600 ppb	8.607 ppb	89.406 %
Concentration per Run 1	-0.059 ppb	0.298 ppb	8.071 ppb	50,663.506 ppb	0.453 ppb	7.486 ppb	7.479 ppb	9.803 ppb	90.115 %
Concentration per Run 2	-0.086 ppb	0.340 ppb	7.417 ppb	49,370.148 ppb	0.402 ppb	6.287 ppb	6.340 ppb	8.202 ppb	86.918 %
Concentration per Run 3	-0.077 ppb	0.288 ppb	7.118 ppb	50,014.759 ppb	0.431 ppb	6.265 ppb	5.981 ppb	7.817 ppb	91.184 %
Concentration RSD	18.5 %	9.0 %	6.5 %	1.3 %	5.9 %	10.5 %	11.9 %	12.2 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.987 ppb	0.851 ppb	0.466 ppb	419.529 ppb	87.091 %	0.008 ppb	0.110 ppb	89.442 %	0.099 ppb
Concentration per Run 1	2.079 ppb	0.905 ppb	0.447 ppb	409.444 ppb	86.805 %	0.011 ppb	0.106 ppb	87.757 %	0.085 ppb
Concentration per Run 2	2.100 ppb	0.879 ppb	0.469 ppb	419.761 ppb	86.595 %	0.004 ppb	0.111 ppb	87.179 %	0.106 ppb
Concentration per Run 3	1.783 ppb	0.769 ppb	0.483 ppb	429.381 ppb	87.874 %	0.010 ppb	0.113 ppb	93.389 %	0.105 ppb
Concentration RSD	8.9 %	8.5 %	3.9 %	2.4 %	0.8 %	46.1 %	3.2 %	3.8 %	11.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	6.368 ppb	97.432 %	98.313 %	0.043 ppb	8.839 ppb	76.730 %
Concentration per Run 1	7.655 ppb	96.886 %	97.261 %	0.017 ppb	9.578 ppb	85.386 %
Concentration per Run 2	5.884 ppb	96.586 %	96.382 %	0.051 ppb	8.542 ppb	72.904 %
Concentration per Run 3	5.566 ppb	98.824 %	101.297 %	0.062 ppb	8.396 ppb	71.901 %
Concentration RSD	17.7 %	1.2 %	2.7 %	53.8 %	7.3 %	9.8 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	19	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Check (5/.5ppm)	Rack	4		
Analysis started at:	8/23/2024 6:24:11 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.503 %	105.817 %	0.017 ppb	34.088 ppb	8.893 ppb	8.078 ppb	5.561 ppb	37.997 ppb	111.180 %
Concentration per Run 1	107.661 %	102.353 %	0.017 ppb	31.792 ppb	6.353 ppb	6.269 ppb	2.888 ppb	33.543 ppb	111.038 %
Concentration per Run 2	107.680 %	112.549 %	0.018 ppb	35.769 ppb	11.083 ppb	10.490 ppb	8.718 ppb	45.116 ppb	110.491 %
Concentration per Run 3	107.169 %	102.549 %	0.017 ppb	34.704 ppb	9.241 ppb	7.476 ppb	5.078 ppb	35.332 ppb	112.011 %
Concentration RSD	0.3 %	5.5 %	4.6 %	6.0 %	26.8 %	26.9 %	53.0 %	16.4 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.090 ppb	-0.003 ppb	4,208.874 ppb	23.601 ppb	0.028 ppb	4,353.917 ppb	4,561.864 ppb	5,277.662 ppb	101.251 %
Concentration per Run 1	-0.077 ppb	-0.001 ppb	4,090.772 ppb	20.819 ppb	0.034 ppb	4,336.686 ppb	4,499.614 ppb	5,224.525 ppb	100.826 %
Concentration per Run 2	-0.099 ppb	0.001 ppb	4,375.497 ppb	26.483 ppb	0.021 ppb	4,362.272 ppb	4,647.355 ppb	5,350.051 ppb	95.036 %
Concentration per Run 3	-0.094 ppb	-0.009 ppb	4,160.353 ppb	23.502 ppb	0.028 ppb	4,362.792 ppb	4,538.623 ppb	5,258.409 ppb	107.891 %
Concentration RSD	13.1 %	174.4 %	3.5 %	12.0 %	23.1 %	0.3 %	1.7 %	1.2 %	6.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	473.598 ppb	0.660 ppb	0.116 ppb	0.494 ppb	103.653 %	0.089 ppb	0.039 ppb	100.514 %	0.585 ppb
Concentration per Run 1	471.485 ppb	0.732 ppb	0.111 ppb	0.452 ppb	101.408 %	0.096 ppb	0.039 ppb	99.019 %	0.578 ppb
Concentration per Run 2	489.413 ppb	0.562 ppb	0.119 ppb	0.408 ppb	104.076 %	0.091 ppb	0.044 ppb	100.522 %	0.595 ppb
Concentration per Run 3	459.897 ppb	0.686 ppb	0.118 ppb	0.621 ppb	105.475 %	0.080 ppb	0.034 ppb	102.000 %	0.581 ppb
Concentration RSD	3.1 %	13.3 %	4.1 %	22.8 %	2.0 %	8.9 %	12.0 %	1.5 %	1.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	4,584.877 ppb	105.417 %	104.894 %	0.032 ppb	5,133.033 ppb	85.418 %
Concentration per Run 1	4,582.539 ppb	104.479 %	102.763 %	0.003 ppb	5,258.751 ppb	95.359 %
Concentration per Run 2	4,506.667 ppb	104.664 %	105.696 %	0.043 ppb	5,109.450 ppb	81.137 %
Concentration per Run 3	4,665.425 ppb	107.108 %	106.222 %	0.049 ppb	5,030.898 ppb	79.757 %
Concentration RSD	1.7 %	1.4 %	1.8 %	78.4 %	2.3 %	10.1 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	20	User name	ALPHALAB\a2-icpmsq2	Comment	CCV/MCCV
Analysis label:	CCV	Rack	0		
Analysis started at:	8/23/2024 6:31:06 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.773 %	102.811 %	64.169 ppb	6,260.423 ppb	6,211.466 ppb	64.007 ppb	6,234.695 ppb	6,067.028 ppb	99.018 %
Concentration per Run 1	97.919 %	98.039 %	63.357 ppb	6,439.809 ppb	6,296.536 ppb	64.938 ppb	6,269.262 ppb	6,137.345 ppb	99.866 %
Concentration per Run 2	95.776 %	101.765 %	64.392 ppb	6,212.052 ppb	6,145.148 ppb	63.595 ppb	6,138.148 ppb	5,932.370 ppb	99.088 %
Concentration per Run 3	93.624 %	108.628 %	64.759 ppb	6,129.407 ppb	6,192.714 ppb	63.489 ppb	6,296.676 ppb	6,131.367 ppb	98.099 %
Recovery Percentage 1			106.949 %	104.340 %	103.524 %	106.679 %	103.912 %	101.117 %	
Concentration RSD	2.2 %	5.2 %	1.1 %	2.6 %	1.2 %	1.3 %	1.4 %	1.9 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.583 ppb	62.211 ppb	62.965 ppb	6,187.622 ppb	63.368 ppb	62.878 ppb	63.849 ppb	65.922 ppb	101.436 %
Concentration per Run 1	60.293 ppb	63.341 ppb	63.562 ppb	6,300.264 ppb	64.972 ppb	65.855 ppb	65.017 ppb	66.901 ppb	101.990 %
Concentration per Run 2	60.179 ppb	62.593 ppb	63.935 ppb	6,237.793 ppb	64.615 ppb	64.643 ppb	65.332 ppb	66.345 ppb	98.667 %
Concentration per Run 3	61.277 ppb	60.699 ppb	61.398 ppb	6,024.809 ppb	60.516 ppb	58.136 ppb	61.199 ppb	64.520 ppb	103.652 %
Recovery Percentage 1	100.971 %	103.685 %	104.942 %	103.127 %	105.613 %	104.797 %	106.415 %	109.870 %	
Concentration RSD	1.0 %	2.2 %	2.2 %	2.3 %	3.9 %	6.6 %	3.6 %	1.9 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	63.131 ppb	63.286 ppb	58.776 ppb	60.211 ppb	101.297 %	58.865 ppb	62.046 ppb	99.943 %	61.373 ppb
Concentration per Run 1	63.210 ppb	60.055 ppb	56.869 ppb	60.293 ppb	103.932 %	59.019 ppb	62.695 ppb	99.275 %	61.179 ppb
Concentration per Run 2	62.677 ppb	62.875 ppb	57.764 ppb	60.693 ppb	100.654 %	59.460 ppb	62.313 ppb	97.170 %	61.586 ppb
Concentration per Run 3	63.506 ppb	66.928 ppb	61.694 ppb	59.647 ppb	99.304 %	58.115 ppb	61.132 ppb	103.383 %	61.353 ppb
Recovery Percentage 1	105.219 %	105.476 %	97.960 %	100.351 %		98.108 %	103.411 %		102.288 %
Concentration RSD	0.7 %	5.5 %	4.4 %	0.9 %	2.3 %	1.2 %	1.3 %	3.2 %	0.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.088 ppb	106.924 %	106.458 %	61.287 ppb	62.460 ppb	83.833 %
Concentration per Run 1	61.628 ppb	107.666 %	105.119 %	62.404 ppb	63.820 ppb	93.159 %
Concentration per Run 2	61.438 ppb	105.817 %	104.613 %	61.911 ppb	62.947 ppb	79.729 %
Concentration per Run 3	63.199 ppb	107.288 %	109.641 %	59.546 ppb	60.614 ppb	78.610 %
Recovery Percentage 1	103.480 %			102.145 %	104.101 %	
Concentration RSD	1.6 %	0.9 %	2.6 %	2.5 %	2.7 %	9.7 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	21	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/23/2024 6:35:37 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.578 %	96.993 %	0.014 ppb	7.484 ppb	2.615 ppb	-0.423 ppb	3.806 ppb	-0.593 ppb	97.430 %
Concentration per Run 1	98.032 %	90.392 %	0.014 ppb	15.592 ppb	5.936 ppb	-0.467 ppb	13.102 ppb	3.405 ppb	98.467 %
Concentration per Run 2	96.389 %	95.294 %	0.011 ppb	4.872 ppb	3.057 ppb	-0.482 ppb	-1.504 ppb	-4.786 ppb	97.961 %
Concentration per Run 3	95.313 %	105.294 %	0.018 ppb	1.989 ppb	-1.147 ppb	-0.319 ppb	-0.181 ppb	-0.397 ppb	95.863 %
Recovery Percentage 1			2.856 %	7.484 %	3.736 %	-4.225 %	3.806 %	-0.593 %	
Concentration RSD	1.4 %	7.8 %	26.1 %	95.8 %	136.2 %	21.4 %	212.3 %	691.3 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.087 ppb	0.015 ppb	0.114 ppb	8.139 ppb	0.026 ppb	0.014 ppb	0.106 ppb	0.227 ppb	95.317 %
Concentration per Run 1	-0.059 ppb	0.062 ppb	0.205 ppb	8.940 ppb	0.066 ppb	0.085 ppb	0.198 ppb	0.385 ppb	90.530 %
Concentration per Run 2	-0.094 ppb	0.014 ppb	0.091 ppb	9.593 ppb	0.016 ppb	0.053 ppb	0.109 ppb	0.229 ppb	91.587 %
Concentration per Run 3	-0.108 ppb	-0.032 ppb	0.045 ppb	5.883 ppb	-0.004 ppb	-0.095 ppb	0.011 ppb	0.068 ppb	103.833 %
Recovery Percentage 1	-1.742 %	1.477 %	11.355 %	16.277 %	5.194 %	0.718 %	10.577 %	4.542 %	
Concentration RSD	28.9 %	316.5 %	72.2 %	24.3 %	138.5 %	667.1 %	88.4 %	69.9 %	7.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.352 ppb	0.186 ppb	0.025 ppb	0.374 ppb	98.864 %	0.031 ppb	0.033 ppb	98.037 %	0.051 ppb
Concentration per Run 1	0.455 ppb	0.164 ppb	0.057 ppb	0.340 ppb	97.335 %	0.064 ppb	0.055 ppb	96.264 %	0.065 ppb
Concentration per Run 2	0.288 ppb	0.294 ppb	0.022 ppb	0.366 ppb	98.362 %	0.025 ppb	0.039 ppb	94.946 %	0.042 ppb
Concentration per Run 3	0.313 ppb	0.101 ppb	-0.004 ppb	0.417 ppb	100.894 %	0.004 ppb	0.006 ppb	102.901 %	0.046 ppb
Recovery Percentage 1	70.396 %	3.723 %	0.251 %	18.708 %		7.718 %	16.732 %		1.275 %
Concentration RSD	25.6 %	52.7 %	121.6 %	10.5 %	1.9 %	99.0 %	74.2 %	4.3 %	24.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.055 ppb	103.098 %	102.960 %	0.426 ppb	0.518 ppb	82.210 %
Concentration per Run 1	0.106 ppb	98.644 %	99.318 %	0.340 ppb	0.582 ppb	90.949 %
Concentration per Run 2	0.034 ppb	103.437 %	101.838 %	0.525 ppb	0.544 ppb	77.908 %
Concentration per Run 3	0.025 ppb	107.212 %	107.726 %	0.412 ppb	0.429 ppb	77.772 %
Recovery Percentage 1	10.989 %			42.554 %	51.825 %	
Concentration RSD	81.2 %	4.2 %	4.2 %	21.9 %	15.4 %	9.2 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	22	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446922-03d20 6020TL	Rack	1		
Analysis started at:	8/23/2024 6:44:10 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.383 %	98.824 %	0.035 ppb	4,321.861 ppb	1,328.709 ppb	29.775 ppb	1,470.021 ppb	6,998.155 ppb	95.355 %
Concentration per Run 1	95.199 %	96.078 %	0.020 ppb	4,277.237 ppb	1,332.374 ppb	29.717 ppb	1,464.386 ppb	6,827.244 ppb	94.736 %
Concentration per Run 2	96.900 %	98.235 %	0.037 ppb	4,274.181 ppb	1,308.176 ppb	27.660 ppb	1,414.007 ppb	6,908.427 ppb	95.926 %
Concentration per Run 3	94.050 %	102.157 %	0.047 ppb	4,414.165 ppb	1,345.577 ppb	31.947 ppb	1,531.671 ppb	7,258.794 ppb	95.404 %
Concentration RSD	1.5 %	3.1 %	39.2 %	1.8 %	1.4 %	7.2 %	4.0 %	3.3 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.020 ppb	0.315 ppb	50.866 ppb	1,837.767 ppb	0.068 ppb	0.708 ppb	0.498 ppb	366.212 ppb	94.822 %
Concentration per Run 1	0.026 ppb	0.324 ppb	50.336 ppb	1,860.433 ppb	0.051 ppb	0.711 ppb	0.528 ppb	363.246 ppb	93.213 %
Concentration per Run 2	0.026 ppb	0.290 ppb	50.743 ppb	1,823.792 ppb	0.064 ppb	0.697 ppb	0.473 ppb	367.347 ppb	92.094 %
Concentration per Run 3	0.008 ppb	0.331 ppb	51.519 ppb	1,829.077 ppb	0.089 ppb	0.716 ppb	0.494 ppb	368.043 ppb	99.159 %
Concentration RSD	52.2 %	6.9 %	1.2 %	1.1 %	28.0 %	1.4 %	5.6 %	0.7 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.270 ppb	0.058 ppb	44.061 ppb	0.204 ppb	95.315 %	0.019 ppb	0.044 ppb	96.867 %	0.021 ppb
Concentration per Run 1	0.194 ppb	0.028 ppb	42.714 ppb	0.174 ppb	95.064 %	0.019 ppb	0.045 ppb	95.247 %	0.016 ppb
Concentration per Run 2	0.304 ppb	0.057 ppb	44.453 ppb	0.240 ppb	95.901 %	0.020 ppb	0.050 ppb	97.368 %	0.027 ppb
Concentration per Run 3	0.313 ppb	0.087 ppb	45.015 ppb	0.196 ppb	94.978 %	0.018 ppb	0.036 ppb	97.985 %	0.021 ppb
Concentration RSD	24.5 %	51.3 %	2.7 %	16.4 %	0.5 %	6.4 %	15.1 %	1.5 %	26.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	9.450 ppb	103.856 %	105.893 %	0.078 ppb	0.640 ppb	82.402 %
Concentration per Run 1	9.145 ppb	102.074 %	103.437 %	0.039 ppb	0.598 ppb	93.069 %
Concentration per Run 2	9.572 ppb	104.078 %	105.455 %	0.095 ppb	0.676 ppb	77.226 %
Concentration per Run 3	9.635 ppb	105.416 %	108.786 %	0.101 ppb	0.646 ppb	76.912 %
Concentration RSD	2.8 %	1.6 %	2.6 %	43.6 %	6.1 %	11.2 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	23	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446922-04d20 6020TL	Rack	1		
Analysis started at:	8/23/2024 6:48:36 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.243 %	93.660 %	0.013 ppb	24,908.896 ppb	5,417.333 ppb	5.881 ppb	2,993.132 ppb	17,646.321 ppb	95.943 %
Concentration per Run 1	92.811 %	93.921 %	0.015 ppb	24,177.649 ppb	5,270.351 ppb	5.693 ppb	2,989.367 ppb	17,585.746 ppb	96.088 %
Concentration per Run 2	92.644 %	92.745 %	0.012 ppb	24,667.906 ppb	5,407.276 ppb	5.803 ppb	2,881.022 ppb	17,087.042 ppb	96.713 %
Concentration per Run 3	91.273 %	94.314 %	0.011 ppb	25,881.133 ppb	5,574.371 ppb	6.148 ppb	3,109.007 ppb	18,266.175 ppb	95.028 %
Concentration RSD	0.9 %	0.9 %	18.8 %	3.5 %	2.8 %	4.0 %	3.8 %	3.4 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.109 ppb	0.029 ppb	103.305 ppb	58,850.806 ppb	0.066 ppb	0.129 ppb	0.065 ppb	4.073 ppb	94.103 %
Concentration per Run 1	-0.101 ppb	0.021 ppb	102.654 ppb	63,463.023 ppb	0.077 ppb	0.187 ppb	0.070 ppb	4.125 ppb	88.630 %
Concentration per Run 2	-0.127 ppb	0.029 ppb	102.117 ppb	62,125.850 ppb	0.050 ppb	0.080 ppb	0.090 ppb	4.128 ppb	92.412 %
Concentration per Run 3	-0.098 ppb	0.037 ppb	105.145 ppb	50,963.546 ppb	0.073 ppb	0.120 ppb	0.035 ppb	3.964 ppb	101.267 %
Concentration RSD	14.7 %	26.6 %	1.6 %	11.7 %	21.8 %	42.0 %	42.9 %	2.3 %	6.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.325 ppb	0.072 ppb	179.600 ppb	0.084 ppb	92.100 %	0.001 ppb	0.008 ppb	95.649 %	0.004 ppb
Concentration per Run 1	0.348 ppb	0.102 ppb	178.663 ppb	0.050 ppb	90.652 %	0.000 ppb	0.007 ppb	92.668 %	-0.005 ppb
Concentration per Run 2	0.285 ppb	0.062 ppb	175.929 ppb	0.074 ppb	92.691 %	0.003 ppb	0.011 ppb	92.784 %	0.001 ppb
Concentration per Run 3	0.341 ppb	0.051 ppb	184.207 ppb	0.127 ppb	92.956 %	0.000 ppb	0.005 ppb	101.495 %	0.014 ppb
Concentration RSD	10.6 %	37.2 %	2.3 %	46.8 %	1.4 %	178.0 %	40.4 %	5.3 %	276.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	25.855 ppb	101.010 %	100.987 %	0.045 ppb	0.227 ppb	77.747 %
Concentration per Run 1	25.776 ppb	98.484 %	98.792 %	0.012 ppb	0.224 ppb	85.748 %
Concentration per Run 2	25.748 ppb	102.203 %	100.148 %	0.051 ppb	0.237 ppb	73.315 %
Concentration per Run 3	26.042 ppb	102.342 %	104.020 %	0.071 ppb	0.219 ppb	74.177 %
Concentration RSD	0.6 %	2.2 %	2.7 %	66.5 %	4.0 %	8.9 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	24	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446922-05d20 6020TL	Rack	1		
Analysis started at:	8/23/2024 6:53:03 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	91.231 %	90.980 %	0.013 ppb	28,376.262 ppb	3,977.310 ppb	55.019 ppb	3,048.436 ppb	18,711.556 ppb	94.821 %
Concentration per Run 1	91.427 %	86.274 %	0.011 ppb	27,875.962 ppb	3,932.271 ppb	53.410 ppb	3,017.738 ppb	18,795.760 ppb	94.724 %
Concentration per Run 2	91.869 %	90.196 %	0.013 ppb	29,012.240 ppb	4,091.402 ppb	55.724 ppb	3,054.384 ppb	18,722.677 ppb	94.747 %
Concentration per Run 3	90.398 %	96.471 %	0.014 ppb	28,240.585 ppb	3,908.257 ppb	55.925 ppb	3,073.187 ppb	18,616.230 ppb	94.991 %
Concentration RSD	0.8 %	5.7 %	12.0 %	2.0 %	2.5 %	2.5 %	0.9 %	0.5 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.580 ppb	0.391 ppb	37.212 ppb	60,545.875 ppb	0.110 ppb	0.360 ppb	0.160 ppb	20.214 ppb	91.365 %
Concentration per Run 1	0.551 ppb	0.414 ppb	36.607 ppb	60,462.937 ppb	0.101 ppb	0.396 ppb	0.210 ppb	20.323 ppb	88.703 %
Concentration per Run 2	0.610 ppb	0.395 ppb	37.366 ppb	60,637.254 ppb	0.109 ppb	0.364 ppb	0.147 ppb	19.459 ppb	94.514 %
Concentration per Run 3	0.579 ppb	0.365 ppb	37.663 ppb	60,537.435 ppb	0.119 ppb	0.320 ppb	0.122 ppb	20.861 ppb	90.878 %
Concentration RSD	5.1 %	6.4 %	1.5 %	0.1 %	8.0 %	10.6 %	28.4 %	3.5 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.357 ppb	0.073 ppb	122.776 ppb	0.156 ppb	90.918 %	0.001 ppb	0.011 ppb	91.797 %	0.009 ppb
Concentration per Run 1	0.362 ppb	0.060 ppb	122.612 ppb	0.115 ppb	90.838 %	0.002 ppb	0.009 ppb	91.922 %	0.000 ppb
Concentration per Run 2	0.364 ppb	0.194 ppb	123.632 ppb	0.144 ppb	90.751 %	0.000 ppb	0.017 ppb	91.506 %	0.003 ppb
Concentration per Run 3	0.346 ppb	-0.034 ppb	122.085 ppb	0.209 ppb	91.164 %	0.000 ppb	0.007 ppb	91.964 %	0.024 ppb
Concentration RSD	2.7 %	156.6 %	0.6 %	31.0 %	0.2 %	94.7 %	46.7 %	0.3 %	144.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	21.988 ppb	98.767 %	98.608 %	0.036 ppb	0.268 ppb	74.507 %
Concentration per Run 1	21.806 ppb	97.531 %	96.580 %	0.012 ppb	0.247 ppb	80.917 %
Concentration per Run 2	22.567 ppb	100.286 %	100.536 %	0.041 ppb	0.293 ppb	72.254 %
Concentration per Run 3	21.592 ppb	98.485 %	98.708 %	0.053 ppb	0.263 ppb	70.350 %
Concentration RSD	2.3 %	1.4 %	2.0 %	58.6 %	8.7 %	7.6 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	25	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446922-06d20 6020TL	Rack	1		
Analysis started at:	8/23/2024 6:57:30 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.710 %	97.451 %	0.010 ppb	14,882.673 ppb	1,712.550 ppb	6.678 ppb	1,774.269 ppb	6,189.326 ppb	94.212 %
Concentration per Run 1	93.936 %	94.902 %	0.006 ppb	13,054.228 ppb	1,772.527 ppb	7.207 ppb	1,833.922 ppb	6,522.105 ppb	94.679 %
Concentration per Run 2	93.286 %	90.392 %	0.011 ppb	16,350.991 ppb	1,722.165 ppb	6.421 ppb	1,725.019 ppb	6,132.219 ppb	95.234 %
Concentration per Run 3	90.907 %	107.059 %	0.012 ppb	15,242.799 ppb	1,642.957 ppb	6.408 ppb	1,763.867 ppb	5,913.655 ppb	92.724 %
Concentration RSD	1.7 %	8.8 %	36.3 %	11.3 %	3.8 %	6.9 %	3.1 %	5.0 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.034 ppb	0.049 ppb	43.014 ppb	15,120.232 ppb	0.030 ppb	0.095 ppb	0.083 ppb	29.335 ppb	92.219 %
Concentration per Run 1	-0.029 ppb	0.031 ppb	43.014 ppb	15,435.914 ppb	0.028 ppb	0.034 ppb	0.084 ppb	30.008 ppb	92.510 %
Concentration per Run 2	0.008 ppb	0.056 ppb	42.672 ppb	15,039.663 ppb	0.048 ppb	0.120 ppb	0.044 ppb	28.867 ppb	90.826 %
Concentration per Run 3	-0.082 ppb	0.059 ppb	43.355 ppb	14,885.120 ppb	0.013 ppb	0.130 ppb	0.121 ppb	29.129 ppb	93.322 %
Concentration RSD	131.2 %	31.9 %	0.8 %	1.9 %	60.8 %	55.4 %	46.8 %	2.0 %	1.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.264 ppb	0.011 ppb	86.281 ppb	0.041 ppb	93.426 %	0.000 ppb	0.008 ppb	92.690 %	0.011 ppb
Concentration per Run 1	0.267 ppb	-0.004 ppb	85.409 ppb	0.022 ppb	93.429 %	0.000 ppb	0.005 ppb	92.238 %	0.003 ppb
Concentration per Run 2	0.269 ppb	-0.028 ppb	86.054 ppb	0.042 ppb	93.915 %	0.000 ppb	0.009 ppb	92.938 %	0.015 ppb
Concentration per Run 3	0.255 ppb	0.065 ppb	87.380 ppb	0.058 ppb	92.933 %	-0.002 ppb	0.011 ppb	92.895 %	0.017 ppb
Concentration RSD	2.9 %	438.3 %	1.2 %	45.0 %	0.5 %	344.1 %	34.9 %	0.4 %	63.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	13.825 ppb	99.084 %	98.292 %	0.026 ppb	0.143 ppb	75.429 %
Concentration per Run 1	13.346 ppb	98.151 %	96.646 %	0.001 ppb	0.127 ppb	83.889 %
Concentration per Run 2	13.967 ppb	100.913 %	99.992 %	0.034 ppb	0.151 ppb	71.914 %
Concentration per Run 3	14.163 ppb	98.190 %	98.239 %	0.043 ppb	0.152 ppb	70.485 %
Concentration RSD	3.1 %	1.6 %	1.7 %	86.7 %	9.8 %	9.8 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	26	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Check (2x ICSA)	Rack	4		
Analysis started at:	8/23/2024 7:01:58 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	82.623 %	81.111 %	0.015 ppb	103,164.511 ppb	50,607.170 ppb	48,983.173 ppb	47,758.896 ppb	142,754.020 ppb	86.417 %
Concentration per Run 1	82.723 %	80.980 %	0.016 ppb	103,843.759 ppb	50,013.400 ppb	48,581.653 ppb	48,484.916 ppb	144,114.350 ppb	85.426 %
Concentration per Run 2	82.888 %	80.000 %	0.017 ppb	101,385.672 ppb	49,926.536 ppb	47,830.740 ppb	45,937.147 ppb	140,863.966 ppb	87.472 %
Concentration per Run 3	82.257 %	82.353 %	0.012 ppb	104,264.102 ppb	51,881.575 ppb	50,537.125 ppb	48,854.626 ppb	143,283.743 ppb	86.353 %
Concentration RSD	0.4 %	1.5 %	15.4 %	1.5 %	2.2 %	2.9 %	3.3 %	1.2 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.051 ppb	0.779 ppb	2.404 ppb	100,855.406 ppb	1.128 ppb	1.451 ppb	0.591 ppb	1.238 ppb	85.140 %
Concentration per Run 1	-0.071 ppb	0.706 ppb	2.608 ppb	100,332.404 ppb	1.153 ppb	1.364 ppb	0.553 ppb	1.361 ppb	86.809 %
Concentration per Run 2	-0.028 ppb	0.803 ppb	2.054 ppb	101,139.650 ppb	1.166 ppb	1.558 ppb	0.632 ppb	1.179 ppb	80.212 %
Concentration per Run 3	-0.055 ppb	0.827 ppb	2.550 ppb	101,094.166 ppb	1.065 ppb	1.431 ppb	0.587 ppb	1.175 ppb	88.398 %
Concentration RSD	42.2 %	8.3 %	12.7 %	0.4 %	4.8 %	6.8 %	6.7 %	8.5 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.435 ppb	1.638 ppb	1.209 ppb	1,062.483 ppb	81.695 %	0.010 ppb	0.279 ppb	83.224 %	0.089 ppb
Concentration per Run 1	0.383 ppb	1.613 ppb	1.181 ppb	1,054.238 ppb	82.092 %	0.012 ppb	0.297 ppb	82.042 %	0.071 ppb
Concentration per Run 2	0.484 ppb	1.816 ppb	1.256 ppb	1,081.280 ppb	80.988 %	0.005 ppb	0.283 ppb	83.386 %	0.092 ppb
Concentration per Run 3	0.439 ppb	1.486 ppb	1.189 ppb	1,051.931 ppb	82.005 %	0.013 ppb	0.258 ppb	84.244 %	0.102 ppb
Concentration RSD	11.6 %	10.1 %	3.4 %	1.5 %	0.8 %	43.1 %	7.2 %	1.3 %	17.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.623 ppb	93.258 %	93.180 %	0.029 ppb	1.133 ppb	66.849 %
Concentration per Run 1	0.588 ppb	93.375 %	93.664 %	0.001 ppb	0.959 ppb	76.480 %
Concentration per Run 2	0.622 ppb	92.552 %	93.511 %	0.041 ppb	1.191 ppb	62.764 %
Concentration per Run 3	0.657 ppb	93.848 %	92.364 %	0.045 ppb	1.247 ppb	61.304 %
Concentration RSD	5.5 %	0.7 %	0.8 %	84.2 %	13.5 %	12.5 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	27	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446863-02 6020SL	Rack	1		
Analysis started at:	8/23/2024 7:08:01 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.678 %	101.830 %	0.012 ppb	129,150.185 ppb	21,785.687 ppb	34.284 ppb	16,532.920 ppb	96,008.113 ppb	105.854 %
Concentration per Run 1	100.288 %	93.137 %	0.016 ppb	132,669.469 ppb	22,466.820 ppb	42.536 ppb	17,033.283 ppb	98,735.700 ppb	106.163 %
Concentration per Run 2	99.466 %	103.922 %	0.012 ppb	125,220.315 ppb	21,023.780 ppb	31.694 ppb	15,938.107 ppb	92,962.592 ppb	105.629 %
Concentration per Run 3	99.280 %	108.431 %	0.008 ppb	129,560.772 ppb	21,866.461 ppb	28.622 ppb	16,627.371 ppb	96,326.047 ppb	105.771 %
Concentration RSD	0.5 %	7.7 %	33.5 %	2.9 %	3.3 %	21.3 %	3.3 %	3.0 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.792 ppb	0.737 ppb	372.427 ppb	3,458.805 ppb	0.169 ppb	0.217 ppb	0.197 ppb	1.068 ppb	92.194 %
Concentration per Run 1	1.745 ppb	0.786 ppb	368.120 ppb	3,467.607 ppb	0.145 ppb	0.209 ppb	0.253 ppb	1.132 ppb	90.243 %
Concentration per Run 2	1.680 ppb	0.716 ppb	375.421 ppb	3,425.724 ppb	0.200 ppb	0.271 ppb	0.147 ppb	0.998 ppb	92.754 %
Concentration per Run 3	1.951 ppb	0.709 ppb	373.741 ppb	3,483.083 ppb	0.164 ppb	0.171 ppb	0.191 ppb	1.073 ppb	93.585 %
Concentration RSD	7.9 %	5.7 %	1.0 %	0.9 %	16.4 %	23.2 %	27.1 %	6.3 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.243 ppb	0.102 ppb	624.880 ppb	1.681 ppb	87.356 %	-0.001 ppb	0.003 ppb	88.336 %	0.112 ppb
Concentration per Run 1	0.255 ppb	0.211 ppb	620.020 ppb	1.640 ppb	87.340 %	-0.002 ppb	0.001 ppb	90.242 %	0.102 ppb
Concentration per Run 2	0.276 ppb	-0.009 ppb	617.896 ppb	1.505 ppb	84.453 %	0.001 ppb	0.006 ppb	83.380 %	0.117 ppb
Concentration per Run 3	0.198 ppb	0.105 ppb	636.724 ppb	1.898 ppb	90.274 %	-0.001 ppb	0.001 ppb	91.387 %	0.117 ppb
Concentration RSD	16.7 %	107.7 %	1.7 %	11.9 %	3.3 %	162.2 %	89.2 %	4.9 %	7.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.166 ppb	97.346 %	96.517 %	0.014 ppb	0.130 ppb	68.219 %
Concentration per Run 1	1.186 ppb	97.618 %	97.203 %	-0.001 ppb	0.119 ppb	77.510 %
Concentration per Run 2	1.126 ppb	95.617 %	94.465 %	0.011 ppb	0.131 ppb	62.989 %
Concentration per Run 3	1.185 ppb	98.802 %	97.884 %	0.031 ppb	0.139 ppb	64.159 %
Concentration RSD	2.9 %	1.7 %	1.9 %	118.1 %	7.6 %	11.8 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	28	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446863-03 6020SL	Rack	1		
Analysis started at:	8/23/2024 7:12:29 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	86.000 %	97.843 %	0.029 ppb	637,547.215 ppb	36,123.975 ppb	47.259 ppb	33,314.608 ppb	31,631.340 ppb	94.175 %
Concentration per Run 1	86.504 %	97.059 %	0.033 ppb	635,829.422 ppb	36,202.507 ppb	48.157 ppb	33,705.340 ppb	31,778.563 ppb	94.904 %
Concentration per Run 2	85.624 %	100.784 %	0.027 ppb	618,804.010 ppb	35,064.607 ppb	45.934 ppb	32,174.302 ppb	30,127.628 ppb	94.100 %
Concentration per Run 3	85.871 %	95.686 %	0.028 ppb	658,008.213 ppb	37,104.811 ppb	47.685 ppb	34,064.182 ppb	32,987.830 ppb	93.522 %
Concentration RSD	0.5 %	2.7 %	10.9 %	3.1 %	2.8 %	2.5 %	3.0 %	4.5 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	6.183 ppb	2.307 ppb	65.475 ppb	1,112.810 ppb	0.513 ppb	0.803 ppb	0.264 ppb	0.900 ppb	92.744 %
Concentration per Run 1	5.823 ppb	2.361 ppb	65.040 ppb	1,108.643 ppb	0.523 ppb	0.698 ppb	0.281 ppb	0.918 ppb	92.284 %
Concentration per Run 2	6.189 ppb	2.172 ppb	64.315 ppb	1,098.676 ppb	0.534 ppb	0.872 ppb	0.252 ppb	0.852 ppb	93.444 %
Concentration per Run 3	6.536 ppb	2.388 ppb	67.070 ppb	1,131.109 ppb	0.482 ppb	0.839 ppb	0.257 ppb	0.931 ppb	92.504 %
Concentration RSD	5.8 %	5.1 %	2.2 %	1.5 %	5.3 %	11.5 %	5.9 %	4.7 %	0.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.421 ppb	0.119 ppb	330.974 ppb	0.949 ppb	86.470 %	0.003 ppb	0.007 ppb	85.881 %	0.036 ppb
Concentration per Run 1	0.469 ppb	0.059 ppb	328.697 ppb	0.893 ppb	87.312 %	0.005 ppb	0.008 ppb	87.305 %	0.043 ppb
Concentration per Run 2	0.357 ppb	0.064 ppb	330.521 ppb	0.846 ppb	85.036 %	0.003 ppb	0.008 ppb	84.807 %	0.028 ppb
Concentration per Run 3	0.437 ppb	0.235 ppb	333.705 ppb	1.107 ppb	87.062 %	0.002 ppb	0.006 ppb	85.533 %	0.038 ppb
Concentration RSD	13.7 %	84.2 %	0.8 %	14.7 %	1.4 %	41.8 %	17.1 %	1.5 %	20.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	3.726 ppb	93.540 %	90.252 %	0.020 ppb	0.252 ppb	59.849 %
Concentration per Run 1	3.405 ppb	94.973 %	91.157 %	0.001 ppb	0.217 ppb	69.033 %
Concentration per Run 2	3.761 ppb	92.334 %	89.586 %	0.025 ppb	0.276 ppb	56.415 %
Concentration per Run 3	4.014 ppb	93.313 %	90.012 %	0.035 ppb	0.264 ppb	54.099 %
Concentration RSD	8.2 %	1.4 %	0.9 %	84.3 %	12.4 %	13.4 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	29	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446863-04 6020SL	Rack	1		
Analysis started at:	8/23/2024 7:16:57 AM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.777 %	108.431 %	0.011 ppb	121,005.239 ppb	6,395.864 ppb	11.119 ppb	8,027.121 ppb	50,212.202 ppb	111.651 %
Concentration per Run 1	103.275 %	104.118 %	0.015 ppb	120,344.652 ppb	6,406.970 ppb	14.417 ppb	7,984.898 ppb	50,493.762 ppb	110.940 %
Concentration per Run 2	102.275 %	109.216 %	0.010 ppb	123,818.881 ppb	6,541.457 ppb	10.871 ppb	8,379.929 ppb	51,603.014 ppb	111.258 %
Concentration per Run 3	102.781 %	111.961 %	0.008 ppb	118,852.184 ppb	6,239.165 ppb	8.068 ppb	7,716.534 ppb	48,539.830 ppb	112.754 %
Concentration RSD	0.5 %	3.7 %	30.5 %	2.1 %	2.4 %	28.6 %	4.2 %	3.1 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.634 ppb	0.725 ppb	0.494 ppb	315.206 ppb	2.013 ppb	1.455 ppb	0.896 ppb	0.906 ppb	105.883 %
Concentration per Run 1	0.550 ppb	0.729 ppb	0.539 ppb	323.597 ppb	1.940 ppb	1.495 ppb	0.849 ppb	0.909 ppb	102.776 %
Concentration per Run 2	0.691 ppb	0.737 ppb	0.608 ppb	308.533 ppb	2.058 ppb	1.369 ppb	0.872 ppb	0.892 ppb	110.892 %
Concentration per Run 3	0.663 ppb	0.708 ppb	0.334 ppb	313.487 ppb	2.040 ppb	1.502 ppb	0.969 ppb	0.916 ppb	103.981 %
Concentration RSD	11.8 %	2.1 %	28.8 %	2.4 %	3.2 %	5.1 %	7.1 %	1.4 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.031 ppb	0.496 ppb	367.531 ppb	1.232 ppb	100.264 %	0.001 ppb	0.009 ppb	98.963 %	0.051 ppb
Concentration per Run 1	1.059 ppb	0.523 ppb	354.907 ppb	1.205 ppb	98.865 %	0.001 ppb	0.012 ppb	96.032 %	0.053 ppb
Concentration per Run 2	1.015 ppb	0.333 ppb	381.314 ppb	1.194 ppb	102.459 %	0.000 ppb	0.006 ppb	103.282 %	0.042 ppb
Concentration per Run 3	1.018 ppb	0.633 ppb	366.371 ppb	1.296 ppb	99.469 %	0.003 ppb	0.009 ppb	97.574 %	0.059 ppb
Concentration RSD	2.4 %	30.6 %	3.6 %	4.6 %	1.9 %	106.7 %	33.3 %	3.9 %	17.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.049 ppb	103.846 %	101.456 %	0.029 ppb	0.077 ppb	71.684 %
Concentration per Run 1	1.038 ppb	101.376 %	98.604 %	0.014 ppb	0.071 ppb	80.682 %
Concentration per Run 2	1.214 ppb	105.920 %	105.469 %	0.032 ppb	0.074 ppb	68.668 %
Concentration per Run 3	0.896 ppb	104.243 %	100.297 %	0.042 ppb	0.086 ppb	65.701 %
Concentration RSD	15.2 %	2.2 %	3.5 %	49.3 %	10.2 %	11.1 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	30	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446863-05 6020SL	Rack	1		
Analysis started at:	8/23/2024 7:21:25 AM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.443 %	103.529 %	0.019 ppb	355,459.199 ppb	24,747.495 ppb	19.170 ppb	22,454.104 ppb	47,729.780 ppb	103.078 %
Concentration per Run 1	95.750 %	102.941 %	0.018 ppb	349,602.956 ppb	24,460.863 ppb	20.608 ppb	22,257.229 ppb	47,686.270 ppb	102.762 %
Concentration per Run 2	95.454 %	103.529 %	0.019 ppb	360,077.895 ppb	25,021.541 ppb	17.746 ppb	22,602.672 ppb	47,979.724 ppb	103.254 %
Concentration per Run 3	95.124 %	104.118 %	0.019 ppb	356,696.746 ppb	24,760.082 ppb	19.154 ppb	22,502.411 ppb	47,523.347 ppb	103.218 %
Concentration RSD	0.3 %	0.6 %	0.4 %	1.5 %	1.1 %	7.5 %	0.8 %	0.5 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	3.750 ppb	1.384 ppb	128.077 ppb	2,091.593 ppb	0.652 ppb	0.359 ppb	0.213 ppb	1.070 ppb	97.027 %
Concentration per Run 1	3.476 ppb	1.332 ppb	128.424 ppb	2,076.516 ppb	0.660 ppb	0.259 ppb	0.227 ppb	1.168 ppb	96.298 %
Concentration per Run 2	3.945 ppb	1.372 ppb	130.416 ppb	2,139.710 ppb	0.652 ppb	0.474 ppb	0.166 ppb	0.977 ppb	94.984 %
Concentration per Run 3	3.830 ppb	1.447 ppb	125.393 ppb	2,058.553 ppb	0.645 ppb	0.344 ppb	0.246 ppb	1.065 ppb	99.800 %
Concentration RSD	6.5 %	4.2 %	2.0 %	2.0 %	1.2 %	30.1 %	19.5 %	8.9 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.236 ppb	0.215 ppb	383.546 ppb	0.366 ppb	92.093 %	0.002 ppb	-0.001 ppb	89.328 %	0.061 ppb
Concentration per Run 1	0.253 ppb	0.187 ppb	379.293 ppb	0.383 ppb	92.720 %	0.002 ppb	-0.001 ppb	89.562 %	0.063 ppb
Concentration per Run 2	0.210 ppb	0.185 ppb	387.829 ppb	0.301 ppb	91.131 %	0.004 ppb	-0.001 ppb	89.019 %	0.056 ppb
Concentration per Run 3	0.245 ppb	0.274 ppb	383.515 ppb	0.416 ppb	92.428 %	0.001 ppb	-0.001 ppb	89.405 %	0.063 ppb
Concentration RSD	9.5 %	23.5 %	1.1 %	16.2 %	0.9 %	75.6 %	0.0 %	0.3 %	6.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	2.677 ppb	98.255 %	95.169 %	0.011 ppb	0.089 ppb	65.410 %
Concentration per Run 1	2.778 ppb	97.878 %	93.971 %	-0.005 ppb	0.080 ppb	75.076 %
Concentration per Run 2	2.551 ppb	97.316 %	94.690 %	0.016 ppb	0.097 ppb	61.708 %
Concentration per Run 3	2.702 ppb	99.571 %	96.845 %	0.023 ppb	0.091 ppb	59.446 %
Concentration RSD	4.3 %	1.2 %	1.6 %	133.0 %	9.6 %	12.9 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	31	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446863-06 6020SL	Rack	1		
Analysis started at:	8/23/2024 7:25:54 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.698 %	107.190 %	0.008 ppb	123,690.216 ppb	6,793.845 ppb	4.903 ppb	8,296.228 ppb	54,640.822 ppb	112.025 %
Concentration per Run 1	104.408 %	104.314 %	0.008 ppb	121,278.124 ppb	6,608.481 ppb	5.303 ppb	8,063.077 ppb	53,419.247 ppb	112.126 %
Concentration per Run 2	103.007 %	111.373 %	0.007 ppb	122,387.431 ppb	6,840.942 ppb	5.106 ppb	8,579.486 ppb	55,749.331 ppb	111.507 %
Concentration per Run 3	103.679 %	105.882 %	0.008 ppb	127,405.092 ppb	6,932.113 ppb	4.300 ppb	8,246.120 ppb	54,753.890 ppb	112.442 %
Concentration RSD	0.7 %	3.5 %	12.0 %	2.6 %	2.5 %	10.8 %	3.2 %	2.1 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.761 ppb	0.762 ppb	0.388 ppb	335.852 ppb	2.078 ppb	1.313 ppb	0.838 ppb	1.307 ppb	106.178 %
Concentration per Run 1	0.799 ppb	0.762 ppb	0.361 ppb	316.788 ppb	2.048 ppb	1.328 ppb	0.891 ppb	1.335 ppb	104.218 %
Concentration per Run 2	0.802 ppb	0.746 ppb	0.335 ppb	338.385 ppb	2.141 ppb	1.347 ppb	0.758 ppb	1.228 ppb	111.003 %
Concentration per Run 3	0.682 ppb	0.776 ppb	0.467 ppb	352.384 ppb	2.044 ppb	1.263 ppb	0.864 ppb	1.358 ppb	103.314 %
Concentration RSD	8.9 %	2.0 %	18.1 %	5.3 %	2.6 %	3.4 %	8.4 %	5.3 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.942 ppb	0.494 ppb	384.978 ppb	0.937 ppb	101.431 %	0.003 ppb	0.009 ppb	99.509 %	23.193 ppb
Concentration per Run 1	0.893 ppb	0.539 ppb	368.919 ppb	1.024 ppb	101.734 %	0.003 ppb	0.007 ppb	96.299 %	69.507 ppb
Concentration per Run 2	0.859 ppb	0.259 ppb	399.801 ppb	0.940 ppb	102.363 %	0.002 ppb	0.001 ppb	104.845 %	0.038 ppb
Concentration per Run 3	1.073 ppb	0.683 ppb	386.215 ppb	0.846 ppb	100.196 %	0.003 ppb	0.018 ppb	97.382 %	0.035 ppb
Concentration RSD	12.2 %	43.6 %	4.0 %	9.5 %	1.1 %	26.3 %	98.9 %	4.7 %	172.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1.141 ppb	105.794 %	102.584 %	0.030 ppb	0.038 ppb	72.346 %
Concentration per Run 1	1.137 ppb	105.022 %	100.065 %	0.011 ppb	0.034 ppb	82.136 %
Concentration per Run 2	1.102 ppb	108.319 %	107.213 %	0.038 ppb	0.038 ppb	68.662 %
Concentration per Run 3	1.186 ppb	104.040 %	100.473 %	0.041 ppb	0.041 ppb	66.242 %
Concentration RSD	3.7 %	2.1 %	3.9 %	54.4 %	10.2 %	11.8 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	32	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/23/2024 7:34:02 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.780 %	104.967 %	65.097 ppb	6,237.952 ppb	6,185.407 ppb	61.641 ppb	6,091.162 ppb	6,044.473 ppb	107.580 %
Concentration per Run 1	104.887 %	105.490 %	64.211 ppb	6,281.424 ppb	6,310.192 ppb	61.476 ppb	6,049.680 ppb	5,968.256 ppb	108.381 %
Concentration per Run 2	103.756 %	104.510 %	65.420 ppb	6,388.942 ppb	6,266.077 ppb	63.718 ppb	6,240.941 ppb	6,144.332 ppb	107.731 %
Concentration per Run 3	102.698 %	104.902 %	65.659 ppb	6,043.491 ppb	5,979.953 ppb	59.728 ppb	5,982.867 ppb	6,020.830 ppb	106.628 %
Recovery Percentage 1			108.494 %	103.966 %	103.090 %	102.735 %	101.519 %	100.741 %	
Concentration RSD	1.1 %	0.5 %	1.2 %	2.8 %	2.9 %	3.2 %	2.2 %	1.5 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.703 ppb	62.397 ppb	61.228 ppb	6,263.216 ppb	65.176 ppb	64.577 ppb	65.736 ppb	65.560 ppb	98.883 %
Concentration per Run 1	59.700 ppb	62.083 ppb	61.650 ppb	6,319.478 ppb	65.897 ppb	64.967 ppb	67.565 ppb	65.436 ppb	103.822 %
Concentration per Run 2	60.914 ppb	64.214 ppb	62.512 ppb	6,441.690 ppb	66.948 ppb	66.058 ppb	66.268 ppb	67.094 ppb	97.569 %
Concentration per Run 3	58.494 ppb	60.895 ppb	59.521 ppb	6,028.479 ppb	62.683 ppb	62.706 ppb	63.375 ppb	64.149 ppb	95.257 %
Recovery Percentage 1	99.505 %	103.995 %	102.046 %	104.387 %	108.627 %	107.628 %	109.560 %	109.266 %	
Concentration RSD	2.0 %	2.7 %	2.5 %	3.4 %	3.4 %	2.6 %	3.3 %	2.3 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	64.129 ppb	61.529 ppb	57.242 ppb	59.582 ppb	103.168 %	59.210 ppb	61.650 ppb	100.308 %	60.928 ppb
Concentration per Run 1	63.379 ppb	60.068 ppb	57.125 ppb	59.644 ppb	103.906 %	59.800 ppb	61.851 ppb	101.535 %	61.437 ppb
Concentration per Run 2	65.565 ppb	62.108 ppb	57.476 ppb	59.552 ppb	104.035 %	59.075 ppb	61.309 ppb	101.308 %	60.052 ppb
Concentration per Run 3	63.441 ppb	62.411 ppb	57.126 ppb	59.551 ppb	101.564 %	58.754 ppb	61.791 ppb	98.083 %	61.296 ppb
Recovery Percentage 1	106.881 %	102.549 %	95.403 %	99.304 %		98.683 %	102.750 %		101.547 %
Concentration RSD	1.9 %	2.1 %	0.4 %	0.1 %	1.3 %	0.9 %	0.5 %	1.9 %	1.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	61.436 ppb	107.844 %	106.261 %	62.434 ppb	62.502 ppb	78.221 %
Concentration per Run 1	62.044 ppb	108.891 %	107.173 %	63.383 ppb	63.056 ppb	89.899 %
Concentration per Run 2	61.725 ppb	107.746 %	106.214 %	62.141 ppb	62.558 ppb	73.889 %
Concentration per Run 3	60.539 ppb	106.894 %	105.397 %	61.779 ppb	61.891 ppb	70.876 %
Recovery Percentage 1	102.394 %			104.057 %	104.169 %	
Concentration RSD	1.3 %	0.9 %	0.8 %	1.3 %	0.9 %	13.1 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	33	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/23/2024 7:38:33 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.375 %	103.072 %	0.007 ppb	32.133 ppb	-1.008 ppb	-0.493 ppb	-1.795 ppb	-3.738 ppb	106.990 %
Concentration per Run 1	105.564 %	104.118 %	0.007 ppb	37.003 ppb	-0.778 ppb	-0.391 ppb	-2.494 ppb	-1.406 ppb	107.355 %
Concentration per Run 2	105.909 %	103.922 %	0.007 ppb	28.488 ppb	-1.313 ppb	-0.672 ppb	1.943 ppb	-4.938 ppb	107.590 %
Concentration per Run 3	104.651 %	101.177 %	0.007 ppb	30.908 ppb	-0.933 ppb	-0.417 ppb	-4.834 ppb	-4.870 ppb	106.026 %
Recovery Percentage 1			1.449 %	32.133 %	-1.440 %	-4.935 %	-1.795 %	-3.738 %	
Concentration RSD	0.6 %	1.6 %	3.2 %	13.7 %	27.3 %	31.5 %	191.8 %	54.0 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.073 ppb	-0.017 ppb	0.001 ppb	6.061 ppb	-0.001 ppb	-0.020 ppb	0.039 ppb	-0.212 ppb	97.443 %
Concentration per Run 1	-0.070 ppb	0.000 ppb	-0.021 ppb	5.652 ppb	0.005 ppb	-0.037 ppb	0.051 ppb	-0.193 ppb	100.997 %
Concentration per Run 2	-0.074 ppb	-0.025 ppb	0.001 ppb	6.772 ppb	-0.004 ppb	-0.007 ppb	0.061 ppb	-0.223 ppb	95.400 %
Concentration per Run 3	-0.074 ppb	-0.027 ppb	0.022 ppb	5.759 ppb	-0.004 ppb	-0.015 ppb	0.004 ppb	-0.220 ppb	95.933 %
Recovery Percentage 1	-1.450 %	-1.724 %	0.087 %	12.122 %	-0.164 %	-0.992 %	3.855 %	-4.235 %	
Concentration RSD	3.5 %	88.9 %	2,462.8 %	10.2 %	624.6 %	79.1 %	79.6 %	7.8 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.129 ppb	0.099 ppb	-0.004 ppb	0.380 ppb	102.042 %	0.005 ppb	0.004 ppb	99.243 %	0.014 ppb
Concentration per Run 1	0.085 ppb	0.077 ppb	-0.006 ppb	0.269 ppb	102.126 %	0.005 ppb	0.001 ppb	102.457 %	0.008 ppb
Concentration per Run 2	0.182 ppb	0.100 ppb	-0.002 ppb	0.420 ppb	101.693 %	0.006 ppb	0.005 ppb	97.735 %	0.004 ppb
Concentration per Run 3	0.121 ppb	0.119 ppb	-0.005 ppb	0.451 ppb	102.309 %	0.004 ppb	0.005 ppb	97.538 %	0.029 ppb
Recovery Percentage 1	25.899 %	1.971 %	-0.043 %	18.991 %		1.229 %	1.808 %		0.338 %
Concentration RSD	37.8 %	21.5 %	56.5 %	25.6 %	0.3 %	20.6 %	58.9 %	2.8 %	100.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	-0.007 ppb	105.324 %	104.450 %	0.302 ppb	0.023 ppb	76.823 %
Concentration per Run 1	0.007 ppb	106.265 %	106.276 %	0.233 ppb	0.021 ppb	89.619 %
Concentration per Run 2	-0.017 ppb	103.400 %	102.979 %	0.379 ppb	0.030 ppb	72.467 %
Concentration per Run 3	-0.011 ppb	106.307 %	104.096 %	0.293 ppb	0.018 ppb	68.381 %
Recovery Percentage 1	-1.407 %			30.164 %	2.293 %	
Concentration RSD	177.0 %	1.6 %	1.6 %	24.2 %	27.5 %	14.7 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	34	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR Check (1/.1ppm)	Rack	4		
Analysis started at:	8/23/2024 7:44:25 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.682 %	105.490 %	0.011 ppb	29.628 ppb	-0.199 ppb	0.472 ppb	5.655 ppb	-3.192 ppb	110.264 %
Concentration per Run 1	107.041 %	105.098 %	0.010 ppb	26.251 ppb	-0.237 ppb	0.627 ppb	3.576 ppb	-5.208 ppb	109.398 %
Concentration per Run 2	108.603 %	100.784 %	0.006 ppb	34.435 ppb	-0.750 ppb	0.460 ppb	9.287 ppb	-2.577 ppb	111.005 %
Concentration per Run 3	107.403 %	110.588 %	0.017 ppb	28.197 ppb	0.390 ppb	0.330 ppb	4.102 ppb	-1.790 ppb	110.391 %
Concentration RSD	0.8 %	4.7 %	50.0 %	14.4 %	286.8 %	31.5 %	55.8 %	56.1 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.044 ppb	-0.007 ppb	1,072.856 ppb	1.790 ppb	0.005 ppb	1,073.475 ppb	1,116.373 ppb	1,096.574 ppb	98.991 %
Concentration per Run 1	-0.045 ppb	0.006 ppb	1,074.281 ppb	1.345 ppb	-0.002 ppb	1,079.245 ppb	1,115.955 ppb	1,083.439 ppb	98.009 %
Concentration per Run 2	-0.036 ppb	-0.028 ppb	1,082.420 ppb	1.977 ppb	0.010 ppb	1,081.346 ppb	1,125.606 ppb	1,114.871 ppb	98.309 %
Concentration per Run 3	-0.049 ppb	0.001 ppb	1,061.868 ppb	2.047 ppb	0.007 ppb	1,059.834 ppb	1,107.559 ppb	1,091.412 ppb	100.655 %
Concentration RSD	15.0 %	272.1 %	1.0 %	21.6 %	114.8 %	1.1 %	0.8 %	1.5 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	95.490 ppb	0.194 ppb	0.021 ppb	0.081 ppb	102.191 %	0.016 ppb	0.005 ppb	97.141 %	0.100 ppb
Concentration per Run 1	95.512 ppb	0.234 ppb	0.023 ppb	0.021 ppb	104.698 %	0.017 ppb	0.005 ppb	98.944 %	0.076 ppb
Concentration per Run 2	95.995 ppb	0.181 ppb	0.019 ppb	0.068 ppb	98.558 %	0.014 ppb	0.005 ppb	91.542 %	0.115 ppb
Concentration per Run 3	94.963 ppb	0.168 ppb	0.020 ppb	0.153 ppb	103.316 %	0.017 ppb	0.006 ppb	100.937 %	0.107 ppb
Concentration RSD	0.5 %	17.8 %	11.5 %	83.3 %	3.2 %	11.2 %	16.5 %	5.1 %	20.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	1,032.568 ppb	104.966 %	102.315 %	0.076 ppb	1,285.104 ppb	77.255 %
Concentration per Run 1	1,028.385 ppb	105.836 %	104.052 %	0.034 ppb	1,123.572 ppb	88.446 %
Concentration per Run 2	1,027.604 ppb	102.790 %	99.185 %	0.097 ppb	1,351.051 ppb	71.634 %
Concentration per Run 3	1,041.716 ppb	106.272 %	103.707 %	0.098 ppb	1,380.690 ppb	71.684 %
Concentration RSD	0.8 %	1.8 %	2.7 %	47.5 %	10.9 %	12.5 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	35	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	xL2446713-02 6020TL	Rack	1		
Analysis started at:	8/23/2024 7:52:58 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.169 %	109.020 %	0.012 ppb	137,861.647 ppb	41,209.171 ppb	343.617 ppb	2,256.956 ppb	118,127.412 ppb	108.951 %
Concentration per Run 1	100.959 %	109.412 %	0.011 ppb	139,234.689 ppb	41,897.341 ppb	354.032 ppb	2,375.780 ppb	123,649.655 ppb	108.447 %
Concentration per Run 2	102.152 %	103.922 %	0.014 ppb	142,217.062 ppb	42,052.149 ppb	348.328 ppb	2,219.020 ppb	117,520.501 ppb	109.889 %
Concentration per Run 3	100.396 %	113.726 %	0.013 ppb	132,133.189 ppb	39,678.021 ppb	328.489 ppb	2,176.068 ppb	113,212.081 ppb	108.515 %
Concentration RSD	0.9 %	4.5 %	12.7 %	3.8 %	3.2 %	3.9 %	4.7 %	4.4 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	3.083 ppb	0.330 ppb	215.300 ppb	592.651 ppb	0.350 ppb	1.733 ppb	1.567 ppb	2.919 ppb	99.939 %
Concentration per Run 1	3.153 ppb	0.301 ppb	216.238 ppb	592.014 ppb	0.337 ppb	1.618 ppb	1.529 ppb	2.839 ppb	104.048 %
Concentration per Run 2	2.984 ppb	0.331 ppb	216.714 ppb	605.658 ppb	0.363 ppb	2.098 ppb	1.509 ppb	2.923 ppb	98.193 %
Concentration per Run 3	3.110 ppb	0.358 ppb	212.949 ppb	580.279 ppb	0.350 ppb	1.482 ppb	1.664 ppb	2.995 ppb	97.575 %
Concentration RSD	2.8 %	8.7 %	1.0 %	2.1 %	3.8 %	18.7 %	5.4 %	2.7 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.234 ppb	0.325 ppb	443.664 ppb	1.051 ppb	93.620 %	0.010 ppb	0.040 ppb	93.388 %	0.051 ppb
Concentration per Run 1	1.181 ppb	0.424 ppb	454.547 ppb	0.972 ppb	95.778 %	0.006 ppb	0.051 ppb	98.048 %	0.057 ppb
Concentration per Run 2	1.210 ppb	0.235 ppb	441.558 ppb	1.032 ppb	94.196 %	0.012 ppb	0.032 ppb	94.715 %	0.049 ppb
Concentration per Run 3	1.312 ppb	0.314 ppb	434.887 ppb	1.150 ppb	90.885 %	0.011 ppb	0.036 ppb	87.401 %	0.047 ppb
Concentration RSD	5.6 %	29.2 %	2.3 %	8.6 %	2.7 %	35.4 %	25.8 %	5.8 %	10.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	323.034 ppb	103.164 %	102.807 %	0.046 ppb	0.579 ppb	68.468 %
Concentration per Run 1	327.646 ppb	108.140 %	111.005 %	0.016 ppb	0.505 ppb	81.257 %
Concentration per Run 2	319.951 ppb	103.511 %	102.871 %	0.048 ppb	0.618 ppb	64.702 %
Concentration per Run 3	321.504 ppb	97.839 %	94.544 %	0.073 ppb	0.613 ppb	59.443 %
Concentration RSD	1.3 %	5.0 %	8.0 %	62.1 %	11.0 %	16.6 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	36	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	xL2446713-03 6020TL	Rack	1		
Analysis started at:	8/23/2024 7:57:28 AM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	89.727 %	102.157 %	0.028 ppb	413,555.474 ppb	52,219.986 ppb	283.373 ppb	4,641.825 ppb	292,345.124 ppb	98.566 %
Concentration per Run 1	91.325 %	108.039 %	0.026 ppb	406,193.005 ppb	43,006.521 ppb	283.043 ppb	4,699.659 ppb	295,335.038 ppb	99.345 %
Concentration per Run 2	88.971 %	101.961 %	0.031 ppb	403,384.296 ppb	55,068.456 ppb	278.480 ppb	4,554.712 ppb	284,929.731 ppb	98.170 %
Concentration per Run 3	88.884 %	96.471 %	0.025 ppb	431,089.120 ppb	58,584.982 ppb	288.594 ppb	4,671.103 ppb	296,770.604 ppb	98.182 %
Concentration RSD	1.5 %	5.7 %	12.4 %	3.7 %	15.6 %	1.8 %	1.7 %	2.2 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.020 ppb	1.196 ppb	3,494.583 ppb	533.827 ppb	0.576 ppb	3.105 ppb	2.908 ppb	9.459 ppb	94.483 %
Concentration per Run 1	1.846 ppb	1.134 ppb	3,490.281 ppb	537.608 ppb	0.612 ppb	3.022 ppb	2.836 ppb	9.280 ppb	97.570 %
Concentration per Run 2	2.276 ppb	1.219 ppb	3,439.927 ppb	526.370 ppb	0.573 ppb	3.016 ppb	3.026 ppb	9.720 ppb	93.518 %
Concentration per Run 3	1.938 ppb	1.236 ppb	3,553.541 ppb	537.505 ppb	0.542 ppb	3.278 ppb	2.862 ppb	9.377 ppb	92.363 %
Concentration RSD	11.2 %	4.6 %	1.6 %	1.2 %	6.1 %	4.8 %	3.6 %	2.4 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.699 ppb	0.271 ppb	828.181 ppb	0.443 ppb	88.279 %	0.029 ppb	0.606 ppb	91.218 %	0.185 ppb
Concentration per Run 1	0.656 ppb	0.163 ppb	849.022 ppb	0.381 ppb	91.303 %	0.030 ppb	0.561 ppb	96.551 %	0.192 ppb
Concentration per Run 2	0.725 ppb	0.304 ppb	812.729 ppb	0.467 ppb	86.891 %	0.029 ppb	0.632 ppb	87.549 %	0.168 ppb
Concentration per Run 3	0.717 ppb	0.347 ppb	822.790 ppb	0.480 ppb	86.644 %	0.027 ppb	0.627 ppb	89.556 %	0.196 ppb
Concentration RSD	5.4 %	35.6 %	2.3 %	12.2 %	3.0 %	5.2 %	6.5 %	5.2 %	8.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	279.941 ppb	98.484 %	96.458 %	0.034 ppb	1.326 ppb	61.622 %
Concentration per Run 1	280.045 ppb	101.967 %	100.832 %	0.011 ppb	1.123 ppb	72.050 %
Concentration per Run 2	281.252 ppb	97.118 %	93.637 %	0.039 ppb	1.401 ppb	57.828 %
Concentration per Run 3	278.526 ppb	96.367 %	94.905 %	0.051 ppb	1.455 ppb	54.988 %
Concentration RSD	0.5 %	3.1 %	4.0 %	60.6 %	13.4 %	14.8 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	37	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	xL2446713-04 6020TL	Rack	1		
Analysis started at:	8/23/2024 8:01:57 AM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.804 %	106.013 %	0.012 ppb	51,343.923 ppb	33,393.005 ppb	49.493 ppb	1,891.383 ppb	117,966.247 ppb	113.416 %
Concentration per Run 1	104.898 %	103.529 %	0.010 ppb	52,421.642 ppb	34,199.343 ppb	51.144 ppb	1,935.672 ppb	121,421.834 ppb	114.136 %
Concentration per Run 2	105.079 %	104.118 %	0.011 ppb	51,792.235 ppb	33,507.738 ppb	51.742 ppb	1,823.129 ppb	115,276.017 ppb	113.513 %
Concentration per Run 3	104.436 %	110.392 %	0.015 ppb	49,817.891 ppb	32,471.933 ppb	45.593 ppb	1,915.348 ppb	117,200.889 ppb	112.599 %
Concentration RSD	0.3 %	3.6 %	21.8 %	2.6 %	2.6 %	6.9 %	3.2 %	2.7 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	4.471 ppb	0.779 ppb	46.422 ppb	240.184 ppb	0.277 ppb	0.276 ppb	0.713 ppb	1.101 ppb	98.292 %
Concentration per Run 1	4.628 ppb	0.814 ppb	46.700 ppb	245.091 ppb	0.305 ppb	0.351 ppb	0.667 ppb	1.059 ppb	96.255 %
Concentration per Run 2	4.420 ppb	0.740 ppb	46.518 ppb	235.353 ppb	0.284 ppb	0.282 ppb	0.789 ppb	1.057 ppb	98.944 %
Concentration per Run 3	4.364 ppb	0.782 ppb	46.047 ppb	240.108 ppb	0.241 ppb	0.194 ppb	0.684 ppb	1.186 ppb	99.677 %
Concentration RSD	3.1 %	4.8 %	0.7 %	2.0 %	11.7 %	28.4 %	9.3 %	6.7 %	1.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.913 ppb	0.917 ppb	366.895 ppb	0.088 ppb	96.131 %	0.007 ppb	0.006 ppb	95.908 %	0.033 ppb
Concentration per Run 1	1.924 ppb	1.116 ppb	372.382 ppb	0.045 ppb	95.453 %	0.005 ppb	0.007 ppb	94.815 %	0.029 ppb
Concentration per Run 2	1.888 ppb	0.732 ppb	366.827 ppb	0.117 ppb	94.209 %	0.008 ppb	0.005 ppb	95.478 %	0.039 ppb
Concentration per Run 3	1.928 ppb	0.903 ppb	361.476 ppb	0.101 ppb	98.733 %	0.007 ppb	0.007 ppb	97.431 %	0.031 ppb
Concentration RSD	1.2 %	21.0 %	1.5 %	42.7 %	2.4 %	25.3 %	16.5 %	1.4 %	16.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	259.396 ppb	101.395 %	98.777 %	0.021 ppb	0.203 ppb	66.622 %
Concentration per Run 1	257.663 ppb	100.683 %	98.149 %	0.000 ppb	0.178 ppb	76.525 %
Concentration per Run 2	260.174 ppb	100.143 %	98.641 %	0.029 ppb	0.216 ppb	62.570 %
Concentration per Run 3	260.349 ppb	103.360 %	99.542 %	0.033 ppb	0.215 ppb	60.771 %
Concentration RSD	0.6 %	1.7 %	0.7 %	89.2 %	10.8 %	12.9 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	38	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1962103-1 MCP-6020SL-10	Rack	1		
Analysis started at:	8/23/2024 8:14:17 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.887 %	108.824 %	0.004 ppb	121.511 ppb	-0.008 ppb	1.452 ppb	3.690 ppb	12.772 ppb	115.365 %
Concentration per Run 1	112.548 %	112.941 %	0.004 ppb	118.151 ppb	0.506 ppb	1.286 ppb	1.705 ppb	15.257 ppb	115.076 %
Concentration per Run 2	113.679 %	103.922 %	0.003 ppb	123.640 ppb	-0.250 ppb	1.893 ppb	6.806 ppb	8.943 ppb	115.911 %
Concentration per Run 3	112.436 %	109.608 %	0.006 ppb	122.741 ppb	-0.281 ppb	1.177 ppb	2.558 ppb	14.116 ppb	115.109 %
Concentration RSD	0.6 %	4.2 %	40.2 %	2.4 %	5,274.2 %	26.6 %	74.1 %	26.3 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.011 ppb	0.063 ppb	0.087 ppb	2.226 ppb	0.008 ppb	-0.032 ppb	0.201 ppb	0.212 ppb	102.455 %
Concentration per Run 1	0.011 ppb	0.072 ppb	0.071 ppb	2.509 ppb	0.011 ppb	-0.027 ppb	0.262 ppb	0.169 ppb	104.658 %
Concentration per Run 2	-0.013 ppb	0.045 ppb	0.093 ppb	0.847 ppb	0.013 ppb	-0.025 ppb	0.175 ppb	0.268 ppb	104.933 %
Concentration per Run 3	0.035 ppb	0.073 ppb	0.098 ppb	3.322 ppb	0.001 ppb	-0.044 ppb	0.165 ppb	0.200 ppb	97.774 %
Concentration RSD	218.2 %	25.2 %	16.6 %	56.7 %	80.5 %	32.3 %	26.7 %	23.8 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.054 ppb	0.110 ppb	0.022 ppb	0.010 ppb	107.245 %	0.002 ppb	0.000 ppb	104.899 %	0.409 ppb
Concentration per Run 1	0.020 ppb	0.050 ppb	0.017 ppb	0.000 ppb	109.177 %	0.003 ppb	0.001 ppb	108.976 %	0.387 ppb
Concentration per Run 2	0.051 ppb	0.163 ppb	0.027 ppb	0.001 ppb	106.918 %	0.001 ppb	-0.001 ppb	104.773 %	0.403 ppb
Concentration per Run 3	0.091 ppb	0.117 ppb	0.021 ppb	0.030 ppb	105.640 %	0.002 ppb	-0.001 ppb	100.949 %	0.436 ppb
Concentration RSD	66.8 %	51.6 %	22.2 %	163.7 %	1.7 %	40.6 %	1,883.7 %	3.8 %	6.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.040 ppb	108.686 %	108.719 %	0.012 ppb	0.025 ppb	78.612 %
Concentration per Run 1	0.051 ppb	112.867 %	114.487 %	-0.008 ppb	0.022 ppb	91.842 %
Concentration per Run 2	0.012 ppb	107.239 %	106.549 %	0.021 ppb	0.025 ppb	72.895 %
Concentration per Run 3	0.056 ppb	105.952 %	105.123 %	0.023 ppb	0.027 ppb	71.100 %
Concentration RSD	59.9 %	3.4 %	4.6 %	143.7 %	10.1 %	14.6 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	39	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1962103-2d10 MCP-6020SL-10	Rack	1		
Analysis started at:	8/23/2024 8:18:46 AM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.776 %	111.569 %	5.306 ppb	1,101.930 ppb	1,005.600 ppb	200.965 ppb	1,010.583 ppb	1,013.843 ppb	109.932 %
Concentration per Run 1	110.001 %	111.569 %	5.237 ppb	1,145.347 ppb	1,061.291 ppb	218.760 ppb	1,080.672 ppb	1,067.352 ppb	109.279 %
Concentration per Run 2	109.993 %	111.765 %	5.342 ppb	1,094.989 ppb	987.998 ppb	198.660 ppb	978.791 ppb	1,024.847 ppb	110.137 %
Concentration per Run 3	109.333 %	111.373 %	5.338 ppb	1,065.453 ppb	967.510 ppb	185.476 ppb	972.285 ppb	949.329 ppb	110.379 %
Concentration RSD	0.3 %	0.2 %	1.1 %	3.7 %	4.9 %	8.3 %	6.0 %	5.9 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.820 ppb	20.222 ppb	51.842 ppb	108.725 ppb	52.403 ppb	52.086 ppb	26.963 ppb	51.682 ppb	102.313 %
Concentration per Run 1	49.077 ppb	20.557 ppb	53.480 ppb	108.078 ppb	52.512 ppb	51.985 ppb	26.818 ppb	51.976 ppb	107.038 %
Concentration per Run 2	48.289 ppb	20.296 ppb	52.364 ppb	116.156 ppb	52.974 ppb	52.546 ppb	27.500 ppb	52.394 ppb	101.159 %
Concentration per Run 3	46.094 ppb	19.812 ppb	49.682 ppb	101.941 ppb	51.723 ppb	51.727 ppb	26.570 ppb	50.676 ppb	98.741 %
Concentration RSD	3.2 %	1.9 %	3.8 %	6.6 %	1.2 %	0.8 %	1.8 %	1.7 %	4.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.651 ppb	12.227 ppb	91.619 ppb	98.632 ppb	103.636 %	5.138 ppb	5.523 ppb	101.226 %	45.753 ppb
Concentration per Run 1	12.581 ppb	13.727 ppb	94.896 ppb	97.272 ppb	106.446 %	5.063 ppb	5.457 ppb	106.483 %	45.141 ppb
Concentration per Run 2	12.879 ppb	11.799 ppb	90.998 ppb	100.038 ppb	102.847 %	5.139 ppb	5.578 ppb	99.395 %	45.802 ppb
Concentration per Run 3	12.492 ppb	11.155 ppb	88.962 ppb	98.586 ppb	101.614 %	5.213 ppb	5.534 ppb	97.800 %	46.317 ppb
Concentration RSD	1.6 %	10.9 %	3.3 %	1.4 %	2.4 %	1.5 %	1.1 %	4.6 %	1.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	204.297 ppb	107.281 %	105.636 %	15.353 ppb	55.106 ppb	74.907 %
Concentration per Run 1	203.003 ppb	109.461 %	108.770 %	13.348 ppb	53.750 ppb	87.518 %
Concentration per Run 2	203.411 ppb	107.208 %	105.152 %	16.062 ppb	54.899 ppb	69.373 %
Concentration per Run 3	206.479 ppb	105.175 %	102.985 %	16.650 ppb	56.670 ppb	67.830 %
Concentration RSD	0.9 %	2.0 %	2.8 %	11.5 %	2.7 %	14.6 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	40	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1962103-3d10 MCP-6020SL-10	Rack	1		
Analysis started at:	8/23/2024 8:23:16 AM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.334 %	111.438 %	5.216 ppb	1,063.574 ppb	989.340 ppb	197.358 ppb	970.940 ppb	1,003.258 ppb	106.960 %
Concentration per Run 1	107.526 %	111.569 %	5.093 ppb	1,079.429 ppb	1,027.430 ppb	204.290 ppb	1,039.260 ppb	1,021.129 ppb	106.508 %
Concentration per Run 2	107.657 %	115.490 %	5.216 ppb	1,019.017 ppb	942.547 ppb	185.526 ppb	907.172 ppb	1,073.324 ppb	107.910 %
Concentration per Run 3	106.819 %	107.255 %	5.338 ppb	1,092.276 ppb	998.043 ppb	202.258 ppb	966.387 ppb	915.321 ppb	106.464 %
Concentration RSD	0.4 %	3.7 %	2.3 %	3.7 %	4.4 %	5.2 %	6.8 %	8.0 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	45.334 ppb	19.766 ppb	51.518 ppb	104.769 ppb	51.640 ppb	51.731 ppb	26.039 ppb	51.319 ppb	102.020 %
Concentration per Run 1	45.278 ppb	19.720 ppb	52.145 ppb	102.509 ppb	50.808 ppb	50.460 ppb	24.965 ppb	50.919 ppb	106.232 %
Concentration per Run 2	43.758 ppb	19.390 ppb	49.941 ppb	109.164 ppb	51.405 ppb	50.916 ppb	26.269 ppb	50.771 ppb	101.140 %
Concentration per Run 3	46.965 ppb	20.187 ppb	52.467 ppb	102.633 ppb	52.706 ppb	53.818 ppb	26.882 ppb	52.266 ppb	98.689 %
Concentration RSD	3.5 %	2.0 %	2.7 %	3.6 %	1.9 %	3.5 %	3.8 %	1.6 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.708 ppb	12.333 ppb	90.918 ppb	98.551 ppb	102.065 %	5.051 ppb	5.452 ppb	99.948 %	46.983 ppb
Concentration per Run 1	12.470 ppb	12.277 ppb	92.696 ppb	96.874 ppb	104.393 %	5.032 ppb	5.407 ppb	105.292 %	46.288 ppb
Concentration per Run 2	12.462 ppb	11.990 ppb	88.932 ppb	98.678 ppb	101.680 %	5.006 ppb	5.590 ppb	96.940 %	47.454 ppb
Concentration per Run 3	13.193 ppb	12.732 ppb	91.124 ppb	100.100 ppb	100.122 %	5.115 ppb	5.359 ppb	97.612 %	47.207 ppb
Concentration RSD	3.3 %	3.0 %	2.1 %	1.6 %	2.1 %	1.1 %	2.2 %	4.6 %	1.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	204.793 ppb	105.769 %	103.761 %	15.510 ppb	54.432 ppb	73.241 %
Concentration per Run 1	206.169 ppb	109.186 %	107.081 %	13.450 ppb	53.809 ppb	86.716 %
Concentration per Run 2	203.855 ppb	103.655 %	102.175 %	16.531 ppb	54.757 ppb	67.347 %
Concentration per Run 3	204.355 ppb	104.467 %	102.029 %	16.549 ppb	54.729 ppb	65.661 %
Concentration RSD	0.6 %	2.8 %	2.8 %	11.5 %	1.0 %	16.0 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	41	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2446755-01 MCP-6020SL-10	Rack	1		
Analysis started at:	8/23/2024 8:27:46 AM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.955 %	96.928 %	0.016 ppb	329,565.512 ppb	4,786.541 ppb	4.286 ppb	5,051.805 ppb	33,535.282 ppb	102.409 %
Concentration per Run 1	94.637 %	91.372 %	0.014 ppb	339,078.499 ppb	4,950.879 ppb	5.383 ppb	5,136.496 ppb	34,163.195 ppb	103.306 %
Concentration per Run 2	93.345 %	100.784 %	0.011 ppb	324,318.918 ppb	4,730.309 ppb	3.230 ppb	5,071.593 ppb	33,762.118 ppb	101.592 %
Concentration per Run 3	93.884 %	98.627 %	0.023 ppb	325,299.119 ppb	4,678.435 ppb	4.244 ppb	4,947.326 ppb	32,680.533 ppb	102.328 %
Concentration RSD	0.7 %	5.1 %	36.6 %	2.5 %	3.0 %	25.1 %	1.9 %	2.3 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.091 ppb	0.065 ppb	3,054.103 ppb	939.696 ppb	0.252 ppb	0.620 ppb	1.056 ppb	2.400 ppb	92.441 %
Concentration per Run 1	0.098 ppb	0.075 ppb	3,501.953 ppb	944.990 ppb	0.225 ppb	0.721 ppb	1.031 ppb	2.575 ppb	91.801 %
Concentration per Run 2	0.117 ppb	0.061 ppb	2,801.875 ppb	948.611 ppb	0.274 ppb	0.498 ppb	1.092 ppb	2.223 ppb	94.264 %
Concentration per Run 3	0.060 ppb	0.060 ppb	2,858.479 ppb	925.488 ppb	0.258 ppb	0.641 ppb	1.043 ppb	2.402 ppb	91.257 %
Concentration RSD	31.9 %	12.9 %	12.7 %	1.3 %	10.0 %	18.2 %	3.1 %	7.3 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	5.422 ppb	0.149 ppb	243.106 ppb	5.094 ppb	89.440 %	0.001 ppb	0.003 ppb	92.275 %	0.937 ppb
Concentration per Run 1	5.569 ppb	0.128 ppb	242.791 ppb	4.161 ppb	90.768 %	0.002 ppb	0.003 ppb	93.694 %	0.860 ppb
Concentration per Run 2	5.595 ppb	0.091 ppb	245.768 ppb	5.014 ppb	88.595 %	0.002 ppb	0.005 ppb	92.943 %	0.936 ppb
Concentration per Run 3	5.103 ppb	0.227 ppb	240.760 ppb	6.106 ppb	88.957 %	0.001 ppb	-0.001 ppb	90.189 %	1.016 ppb
Concentration RSD	5.1 %	47.4 %	1.0 %	19.1 %	1.3 %	24.0 %	112.7 %	2.0 %	8.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	70.492 ppb	98.329 %	97.510 %	0.022 ppb	0.041 ppb	63.298 %
Concentration per Run 1	70.523 ppb	99.447 %	98.873 %	0.003 ppb	0.046 ppb	73.442 %
Concentration per Run 2	70.734 ppb	98.582 %	98.382 %	0.032 ppb	0.041 ppb	59.731 %
Concentration per Run 3	70.218 ppb	96.957 %	95.274 %	0.031 ppb	0.037 ppb	56.721 %
Concentration RSD	0.4 %	1.3 %	2.0 %	74.8 %	11.0 %	14.1 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	42	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446632-01 CT-6020TL	Rack	1		
Analysis started at:	8/23/2024 8:32:12 AM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.146 %	104.314 %	0.007 ppb	93,267.829 ppb	22,833.386 ppb	2.638 ppb	8,920.667 ppb	60,875.363 ppb	108.552 %
Concentration per Run 1	101.741 %	103.922 %	0.004 ppb	90,540.764 ppb	22,148.673 ppb	2.590 ppb	8,537.897 ppb	58,334.976 ppb	108.284 %
Concentration per Run 2	101.003 %	106.667 %	0.011 ppb	94,391.418 ppb	23,449.049 ppb	2.291 ppb	9,328.006 ppb	62,928.183 ppb	108.662 %
Concentration per Run 3	100.695 %	102.353 %	0.007 ppb	94,871.305 ppb	22,902.436 ppb	3.033 ppb	8,896.099 ppb	61,362.930 ppb	108.710 %
Concentration RSD	0.5 %	2.1 %	52.9 %	2.5 %	2.9 %	14.2 %	4.4 %	3.8 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.119 ppb	52.668 ppb	0.455 ppb	5.376 ppb	0.059 ppb	1.118 ppb	5.373 ppb	12.734 ppb	98.543 %
Concentration per Run 1	0.096 ppb	52.279 ppb	0.408 ppb	5.522 ppb	0.068 ppb	1.031 ppb	5.372 ppb	12.481 ppb	95.595 %
Concentration per Run 2	0.118 ppb	52.647 ppb	0.561 ppb	5.105 ppb	0.061 ppb	1.087 ppb	5.467 ppb	12.801 ppb	103.479 %
Concentration per Run 3	0.142 ppb	53.078 ppb	0.397 ppb	5.500 ppb	0.047 ppb	1.235 ppb	5.280 ppb	12.921 ppb	96.556 %
Concentration RSD	19.4 %	0.8 %	20.1 %	4.4 %	18.3 %	9.4 %	1.7 %	1.8 %	4.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.174 ppb	1.234 ppb	289.754 ppb	0.796 ppb	94.031 %	0.109 ppb	0.174 ppb	94.824 %	0.434 ppb
Concentration per Run 1	0.140 ppb	1.097 ppb	284.616 ppb	0.800 ppb	91.638 %	0.112 ppb	0.163 ppb	90.912 %	0.387 ppb
Concentration per Run 2	0.164 ppb	1.485 ppb	298.343 ppb	0.782 ppb	95.525 %	0.122 ppb	0.144 ppb	98.242 %	0.429 ppb
Concentration per Run 3	0.218 ppb	1.119 ppb	286.303 ppb	0.807 ppb	94.929 %	0.092 ppb	0.215 ppb	95.318 %	0.487 ppb
Concentration RSD	22.9 %	17.6 %	2.6 %	1.6 %	2.2 %	13.7 %	21.2 %	3.9 %	11.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	82.524 ppb	99.937 %	98.425 %	0.035 ppb	0.039 ppb	63.508 %
Concentration per Run 1	83.137 ppb	96.756 %	94.481 %	0.019 ppb	0.034 ppb	71.774 %
Concentration per Run 2	83.651 ppb	101.898 %	102.471 %	0.031 ppb	0.042 ppb	60.520 %
Concentration per Run 3	80.783 ppb	101.156 %	98.323 %	0.054 ppb	0.041 ppb	58.231 %
Concentration RSD	1.9 %	2.8 %	4.1 %	51.5 %	10.3 %	11.4 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	43	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446632-02 CT-6020TL	Rack	1		
Analysis started at:	8/23/2024 8:36:38 AM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.669 %	103.922 %	0.009 ppb	94,375.514 ppb	23,305.234 ppb	1.904 ppb	8,856.531 ppb	59,775.701 ppb	109.230 %
Concentration per Run 1	102.600 %	101.373 %	0.008 ppb	94,367.082 ppb	23,067.742 ppb	2.000 ppb	8,674.661 ppb	58,753.113 ppb	109.428 %
Concentration per Run 2	101.901 %	103.137 %	0.007 ppb	96,246.877 ppb	23,936.569 ppb	1.813 ppb	9,204.215 ppb	61,751.692 ppb	109.739 %
Concentration per Run 3	100.507 %	107.255 %	0.011 ppb	92,512.582 ppb	22,911.393 ppb	1.899 ppb	8,690.716 ppb	58,822.297 ppb	108.523 %
Concentration RSD	1.0 %	2.9 %	23.4 %	2.0 %	2.4 %	4.9 %	3.4 %	2.9 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.118 ppb	51.911 ppb	0.382 ppb	4.560 ppb	0.058 ppb	1.084 ppb	5.175 ppb	12.417 ppb	103.657 %
Concentration per Run 1	0.139 ppb	51.630 ppb	0.408 ppb	4.238 ppb	0.060 ppb	1.052 ppb	5.137 ppb	12.398 ppb	102.642 %
Concentration per Run 2	0.101 ppb	52.125 ppb	0.374 ppb	3.874 ppb	0.058 ppb	1.081 ppb	5.301 ppb	12.169 ppb	106.664 %
Concentration per Run 3	0.113 ppb	51.978 ppb	0.365 ppb	5.568 ppb	0.055 ppb	1.119 ppb	5.086 ppb	12.683 ppb	101.664 %
Concentration RSD	16.4 %	0.5 %	5.9 %	19.6 %	4.1 %	3.1 %	2.2 %	2.1 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.199 ppb	1.451 ppb	282.725 ppb	0.550 ppb	97.457 %	0.108 ppb	0.164 ppb	98.312 %	0.235 ppb
Concentration per Run 1	0.190 ppb	2.005 ppb	273.858 ppb	0.486 ppb	96.751 %	0.113 ppb	0.161 ppb	95.284 %	0.214 ppb
Concentration per Run 2	0.233 ppb	1.072 ppb	290.068 ppb	0.579 ppb	98.756 %	0.091 ppb	0.183 ppb	102.311 %	0.223 ppb
Concentration per Run 3	0.173 ppb	1.276 ppb	284.249 ppb	0.586 ppb	96.865 %	0.121 ppb	0.147 ppb	97.343 %	0.269 ppb
Concentration RSD	15.5 %	33.8 %	2.9 %	10.1 %	1.2 %	14.0 %	10.8 %	3.7 %	12.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	81.982 ppb	103.283 %	101.673 %	0.033 ppb	0.018 ppb	66.183 %
Concentration per Run 1	81.234 ppb	101.753 %	98.706 %	0.015 ppb	0.012 ppb	75.915 %
Concentration per Run 2	83.234 ppb	104.981 %	105.189 %	0.048 ppb	0.023 ppb	62.239 %
Concentration per Run 3	81.477 ppb	103.114 %	101.123 %	0.037 ppb	0.019 ppb	60.394 %
Concentration RSD	1.3 %	1.6 %	3.2 %	51.3 %	29.1 %	12.8 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	44	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/23/2024 8:41:04 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.986 %	100.654 %	67.751 ppb	6,588.447 ppb	6,553.752 ppb	65.976 ppb	6,393.262 ppb	6,251.043 ppb	104.935 %
Concentration per Run 1	105.742 %	94.314 %	65.132 ppb	6,901.757 ppb	6,840.930 ppb	68.976 ppb	6,570.902 ppb	6,382.814 ppb	107.838 %
Concentration per Run 2	104.380 %	101.176 %	66.872 ppb	6,281.081 ppb	6,258.476 ppb	61.804 ppb	6,100.683 ppb	5,976.950 ppb	106.954 %
Concentration per Run 3	98.835 %	106.471 %	71.248 ppb	6,582.505 ppb	6,561.849 ppb	67.149 ppb	6,508.200 ppb	6,393.364 ppb	100.014 %
Recovery Percentage 1			112.918 %	109.807 %	109.229 %	109.960 %	106.554 %	104.184 %	
Concentration RSD	3.6 %	6.1 %	4.7 %	4.7 %	4.4 %	5.6 %	4.0 %	3.8 %	4.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.738 ppb	63.903 ppb	64.232 ppb	6,408.828 ppb	65.179 ppb	64.591 ppb	64.670 ppb	65.109 ppb	97.608 %
Concentration per Run 1	62.127 ppb	65.980 ppb	64.731 ppb	6,673.223 ppb	69.099 ppb	69.106 ppb	64.935 ppb	65.716 ppb	94.846 %
Concentration per Run 2	59.271 ppb	62.790 ppb	62.623 ppb	6,200.244 ppb	63.609 ppb	63.020 ppb	64.229 ppb	63.619 ppb	97.202 %
Concentration per Run 3	60.817 ppb	62.938 ppb	65.340 ppb	6,353.017 ppb	62.830 ppb	61.646 ppb	64.847 ppb	65.993 ppb	100.776 %
Recovery Percentage 1	101.230 %	106.504 %	107.053 %	106.814 %	108.632 %	107.651 %	107.784 %	108.515 %	
Concentration RSD	2.4 %	2.8 %	2.2 %	3.8 %	5.2 %	6.1 %	0.6 %	2.0 %	3.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	64.763 ppb	64.257 ppb	59.056 ppb	60.778 ppb	99.258 %	59.658 ppb	63.320 ppb	98.147 %	61.768 ppb
Concentration per Run 1	65.652 ppb	64.886 ppb	58.066 ppb	61.739 ppb	99.604 %	59.797 ppb	63.823 ppb	95.134 %	62.304 ppb
Concentration per Run 2	62.675 ppb	60.447 ppb	56.882 ppb	59.307 ppb	98.055 %	59.769 ppb	63.851 ppb	95.185 %	62.024 ppb
Concentration per Run 3	65.962 ppb	67.438 ppb	62.220 ppb	61.287 ppb	100.114 %	59.409 ppb	62.286 ppb	104.121 %	60.978 ppb
Recovery Percentage 1	107.938 %	107.095 %	98.427 %	101.296 %		99.430 %	105.533 %		102.947 %
Concentration RSD	2.8 %	5.5 %	4.7 %	2.1 %	1.1 %	0.4 %	1.4 %	5.3 %	1.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	62.588 ppb	102.564 %	101.131 %	62.309 ppb	62.445 ppb	69.828 %
Concentration per Run 1	61.955 ppb	101.525 %	98.036 %	62.444 ppb	63.734 ppb	80.341 %
Concentration per Run 2	61.833 ppb	100.183 %	99.044 %	63.403 ppb	63.244 ppb	64.117 %
Concentration per Run 3	63.977 ppb	105.984 %	106.312 %	61.082 ppb	60.357 ppb	65.025 %
Recovery Percentage 1	104.314 %			103.849 %	104.075 %	
Concentration RSD	1.9 %	3.0 %	4.5 %	1.9 %	2.9 %	13.1 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	45	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/23/2024 8:45:35 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.950 %	101.699 %	0.045 ppb	51.960 ppb	2.885 ppb	-0.331 ppb	4.395 ppb	4.158 ppb	104.956 %
Concentration per Run 1	107.997 %	100.196 %	0.049 ppb	52.794 ppb	2.294 ppb	-0.197 ppb	0.728 ppb	6.660 ppb	104.726 %
Concentration per Run 2	106.997 %	96.667 %	0.036 ppb	52.249 ppb	3.163 ppb	-0.271 ppb	3.200 ppb	4.187 ppb	105.207 %
Concentration per Run 3	105.857 %	108.235 %	0.052 ppb	50.836 ppb	3.198 ppb	-0.523 ppb	9.258 ppb	1.628 ppb	104.935 %
Recovery Percentage 1			9.068 %	51.960 %	4.121 %	-3.305 %	4.395 %	4.158 %	
Concentration RSD	1.0 %	5.8 %	18.4 %	1.9 %	17.8 %	51.7 %	99.9 %	60.5 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.015 ppb	0.021 ppb	0.083 ppb	7.510 ppb	0.027 ppb	-0.055 ppb	0.031 ppb	-0.198 ppb	96.960 %
Concentration per Run 1	-0.040 ppb	0.024 ppb	0.087 ppb	8.035 ppb	0.022 ppb	-0.003 ppb	0.003 ppb	-0.234 ppb	93.347 %
Concentration per Run 2	0.056 ppb	0.029 ppb	0.097 ppb	5.916 ppb	0.032 ppb	-0.090 ppb	0.060 ppb	-0.184 ppb	94.533 %
Concentration per Run 3	0.030 ppb	0.010 ppb	0.064 ppb	8.579 ppb	0.027 ppb	-0.071 ppb	0.029 ppb	-0.177 ppb	103.002 %
Recovery Percentage 1	0.308 %	2.088 %	8.272 %	15.020 %	5.378 %	-2.737 %	3.099 %	-3.965 %	
Concentration RSD	324.3 %	48.1 %	20.4 %	18.7 %	17.6 %	82.9 %	91.6 %	15.7 %	5.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.155 ppb	0.169 ppb	0.033 ppb	0.373 ppb	97.717 %	0.027 ppb	0.022 ppb	96.312 %	0.121 ppb
Concentration per Run 1	0.176 ppb	0.154 ppb	0.029 ppb	0.247 ppb	96.730 %	0.032 ppb	0.015 ppb	92.373 %	0.086 ppb
Concentration per Run 2	0.112 ppb	0.158 ppb	0.031 ppb	0.393 ppb	96.669 %	0.025 ppb	0.028 ppb	93.864 %	0.127 ppb
Concentration per Run 3	0.177 ppb	0.194 ppb	0.038 ppb	0.479 ppb	99.753 %	0.023 ppb	0.022 ppb	102.700 %	0.149 ppb
Recovery Percentage 1	30.992 %	3.379 %	0.327 %	18.659 %		6.661 %	10.830 %		3.014 %
Concentration RSD	24.1 %	13.0 %	13.7 %	31.4 %	1.8 %	19.1 %	30.4 %	5.8 %	26.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.009 ppb	101.379 %	100.453 %	0.367 ppb	0.041 ppb	69.234 %
Concentration per Run 1	0.016 ppb	98.236 %	96.722 %	0.303 ppb	0.041 ppb	79.160 %
Concentration per Run 2	0.003 ppb	101.254 %	100.084 %	0.445 ppb	0.037 ppb	63.771 %
Concentration per Run 3	0.007 ppb	104.648 %	104.552 %	0.352 ppb	0.043 ppb	64.770 %
Recovery Percentage 1	1.736 %			36.691 %	4.062 %	
Concentration RSD	81.3 %	3.2 %	3.9 %	19.6 %	7.4 %	12.4 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	46	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/23/2024 8:55:09 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.342 %	101.176 %	63.466 ppb	6,215.715 ppb	6,162.456 ppb	62.246 ppb	6,031.741 ppb	5,915.490 ppb	105.977 %
Concentration per Run 1	102.513 %	102.157 %	63.578 ppb	5,903.206 ppb	5,867.785 ppb	59.525 ppb	5,751.002 ppb	5,653.788 ppb	106.651 %
Concentration per Run 2	103.090 %	100.588 %	63.707 ppb	6,118.875 ppb	6,033.517 ppb	59.145 ppb	5,791.260 ppb	5,716.391 ppb	105.262 %
Concentration per Run 3	101.424 %	100.784 %	63.114 ppb	6,625.064 ppb	6,586.064 ppb	68.066 ppb	6,552.961 ppb	6,376.293 ppb	106.019 %
Recovery Percentage 1			105.777 %	103.595 %	102.708 %	103.743 %	100.529 %	98.592 %	
Concentration RSD	0.8 %	0.8 %	0.5 %	6.0 %	6.1 %	8.1 %	7.5 %	6.8 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.034 ppb	61.205 ppb	62.464 ppb	6,215.113 ppb	62.421 ppb	62.530 ppb	62.983 ppb	63.211 ppb	95.809 %
Concentration per Run 1	59.301 ppb	60.203 ppb	61.432 ppb	6,173.795 ppb	62.040 ppb	62.909 ppb	62.602 ppb	62.758 ppb	93.978 %
Concentration per Run 2	59.048 ppb	60.146 ppb	59.719 ppb	6,120.444 ppb	61.497 ppb	61.052 ppb	63.721 ppb	61.650 ppb	97.048 %
Concentration per Run 3	61.753 ppb	63.268 ppb	66.241 ppb	6,351.099 ppb	63.726 ppb	63.629 ppb	62.625 ppb	65.224 ppb	96.401 %
Recovery Percentage 1	100.057 %	102.009 %	104.106 %	103.585 %	104.035 %	104.216 %	104.972 %	105.351 %	
Concentration RSD	2.5 %	2.9 %	5.4 %	1.9 %	1.9 %	2.1 %	1.0 %	2.9 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	62.974 ppb	63.183 ppb	57.996 ppb	59.788 ppb	96.231 %	61.326 ppb	61.666 ppb	98.125 %	60.558 ppb
Concentration per Run 1	62.533 ppb	61.794 ppb	56.427 ppb	59.035 ppb	96.451 %	61.609 ppb	62.210 ppb	97.073 %	61.167 ppb
Concentration per Run 2	61.754 ppb	61.015 ppb	56.110 ppb	59.717 ppb	95.765 %	62.038 ppb	61.738 ppb	95.632 %	60.681 ppb
Concentration per Run 3	64.634 ppb	66.740 ppb	61.452 ppb	60.610 ppb	96.477 %	60.330 ppb	61.051 ppb	101.669 %	59.827 ppb
Recovery Percentage 1	104.956 %	105.305 %	96.661 %	99.646 %		102.209 %	102.777 %		100.931 %
Concentration RSD	2.4 %	4.9 %	5.2 %	1.3 %	0.4 %	1.4 %	0.9 %	3.2 %	1.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.987 ppb	103.793 %	104.160 %	61.669 ppb	62.923 ppb	76.107 %
Concentration per Run 1	60.094 ppb	104.790 %	103.809 %	61.958 ppb	63.269 ppb	92.585 %
Concentration per Run 2	61.248 ppb	103.793 %	102.740 %	62.118 ppb	63.738 ppb	70.137 %
Concentration per Run 3	61.620 ppb	102.795 %	105.933 %	60.930 ppb	61.760 ppb	65.597 %
Recovery Percentage 1	101.645 %			102.781 %	104.871 %	
Concentration RSD	1.3 %	1.0 %	1.6 %	1.0 %	1.6 %	19.0 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	47	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/23/2024 8:59:40 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.745 %	98.105 %	0.052 ppb	43.439 ppb	4.506 ppb	-0.212 ppb	6.274 ppb	5.980 ppb	102.104 %
Concentration per Run 1	104.015 %	104.706 %	0.052 ppb	36.930 ppb	3.461 ppb	-0.173 ppb	9.076 ppb	5.019 ppb	102.526 %
Concentration per Run 2	104.062 %	88.431 %	0.053 ppb	52.064 ppb	4.809 ppb	-0.132 ppb	10.997 ppb	6.467 ppb	102.482 %
Concentration per Run 3	103.156 %	101.176 %	0.050 ppb	41.322 ppb	5.247 ppb	-0.331 ppb	-1.251 ppb	6.453 ppb	101.304 %
Recovery Percentage 1			10.334 %	43.439 %	6.436 %	-2.121 %	6.274 %	5.980 %	
Concentration RSD	0.5 %	8.7 %	2.3 %	17.9 %	20.7 %	49.4 %	105.0 %	13.9 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.008 ppb	0.019 ppb	0.061 ppb	10.605 ppb	0.044 ppb	0.008 ppb	0.057 ppb	-0.158 ppb	92.344 %
Concentration per Run 1	-0.025 ppb	0.023 ppb	0.065 ppb	11.182 ppb	0.046 ppb	-0.038 ppb	0.053 ppb	-0.091 ppb	92.173 %
Concentration per Run 2	0.027 ppb	0.012 ppb	0.073 ppb	11.034 ppb	0.044 ppb	0.041 ppb	0.045 ppb	-0.177 ppb	90.291 %
Concentration per Run 3	0.021 ppb	0.021 ppb	0.044 ppb	9.600 ppb	0.041 ppb	0.020 ppb	0.074 ppb	-0.207 ppb	94.569 %
Recovery Percentage 1	0.153 %	1.858 %	6.069 %	21.211 %	8.716 %	0.388 %	5.715 %	-3.169 %	
Concentration RSD	374.7 %	32.1 %	25.4 %	8.2 %	6.1 %	524.9 %	26.9 %	38.0 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.140 ppb	0.156 ppb	0.041 ppb	0.384 ppb	96.345 %	0.050 ppb	0.044 ppb	94.208 %	0.085 ppb
Concentration per Run 1	0.175 ppb	0.027 ppb	0.051 ppb	0.260 ppb	96.075 %	0.059 ppb	0.047 ppb	93.731 %	0.069 ppb
Concentration per Run 2	0.158 ppb	0.262 ppb	0.040 ppb	0.390 ppb	96.162 %	0.052 ppb	0.045 ppb	94.446 %	0.085 ppb
Concentration per Run 3	0.086 ppb	0.180 ppb	0.032 ppb	0.503 ppb	96.799 %	0.039 ppb	0.039 ppb	94.448 %	0.101 ppb
Recovery Percentage 1	27.934 %	3.124 %	0.409 %	19.212 %		12.572 %	21.811 %		2.133 %
Concentration RSD	34.0 %	76.4 %	23.7 %	31.7 %	0.4 %	20.7 %	9.4 %	0.4 %	18.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	0.029 ppb	99.947 %	98.454 %	0.363 ppb	0.056 ppb	68.602 %
Concentration per Run 1	0.035 ppb	99.697 %	98.240 %	0.292 ppb	0.067 ppb	78.877 %
Concentration per Run 2	0.016 ppb	99.708 %	97.576 %	0.427 ppb	0.052 ppb	63.717 %
Concentration per Run 3	0.035 ppb	100.436 %	99.545 %	0.369 ppb	0.049 ppb	63.211 %
Recovery Percentage 1	5.735 %			36.272 %	5.592 %	
Concentration RSD	39.3 %	0.4 %	1.0 %	18.6 %	17.6 %	13.0 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	48	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446632-03 CT-6020TL	Rack	1		
Analysis started at:	8/23/2024 9:07:36 AM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.722 %	106.144 %	0.036 ppb	107,985.117 ppb	27,675.926 ppb	2.835 ppb	9,033.263 ppb	67,476.127 ppb	102.996 %
Concentration per Run 1	99.548 %	105.882 %	0.037 ppb	106,818.585 ppb	27,375.362 ppb	2.904 ppb	9,206.472 ppb	68,153.061 ppb	103.134 %
Concentration per Run 2	99.534 %	103.726 %	0.043 ppb	109,699.085 ppb	28,186.651 ppb	3.212 ppb	9,000.313 ppb	67,130.752 ppb	103.874 %
Concentration per Run 3	97.082 %	108.824 %	0.027 ppb	107,437.683 ppb	27,465.766 ppb	2.390 ppb	8,893.003 ppb	67,144.569 ppb	101.981 %
Concentration RSD	1.4 %	2.4 %	22.1 %	1.4 %	1.6 %	14.7 %	1.8 %	0.9 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.528 ppb	0.234 ppb	236.692 ppb	978.512 ppb	0.126 ppb	0.892 ppb	0.870 ppb	39.742 ppb	93.862 %
Concentration per Run 1	0.563 ppb	0.247 ppb	236.207 ppb	947.366 ppb	0.121 ppb	0.851 ppb	0.907 ppb	40.001 ppb	92.589 %
Concentration per Run 2	0.545 ppb	0.271 ppb	240.332 ppb	987.369 ppb	0.139 ppb	0.874 ppb	0.846 ppb	39.765 ppb	92.436 %
Concentration per Run 3	0.476 ppb	0.183 ppb	233.537 ppb	1,000.800 ppb	0.119 ppb	0.953 ppb	0.858 ppb	39.458 ppb	96.562 %
Concentration RSD	8.6 %	19.4 %	1.4 %	2.8 %	8.6 %	6.0 %	3.7 %	0.7 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.294 ppb	0.335 ppb	331.110 ppb	0.854 ppb	90.006 %	0.013 ppb	0.020 ppb	90.756 %	0.140 ppb
Concentration per Run 1	0.276 ppb	0.357 ppb	330.869 ppb	0.792 ppb	90.838 %	0.011 ppb	0.023 ppb	92.047 %	0.121 ppb
Concentration per Run 2	0.290 ppb	0.287 ppb	335.036 ppb	0.793 ppb	90.674 %	0.017 ppb	0.025 ppb	90.827 %	0.126 ppb
Concentration per Run 3	0.316 ppb	0.360 ppb	327.424 ppb	0.979 ppb	88.507 %	0.013 ppb	0.012 ppb	89.395 %	0.172 ppb
Concentration RSD	6.9 %	12.5 %	1.2 %	12.6 %	1.4 %	23.1 %	36.9 %	1.5 %	20.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	99.474 ppb	99.708 %	99.603 %	0.117 ppb	0.040 ppb	63.429 %
Concentration per Run 1	99.641 ppb	101.447 %	101.243 %	0.065 ppb	0.031 ppb	74.786 %
Concentration per Run 2	99.937 ppb	99.939 %	100.144 %	0.145 ppb	0.042 ppb	59.254 %
Concentration per Run 3	98.843 ppb	97.737 %	97.421 %	0.142 ppb	0.047 ppb	56.246 %
Concentration RSD	0.6 %	1.9 %	2.0 %	38.4 %	21.2 %	15.7 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	49	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446632-04 CT-6020TL	Rack	1		
Analysis started at:	8/23/2024 9:12:03 AM	Vial	17		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.512 %	97.516 %	0.018 ppb	8,441.818 ppb	19,797.715 ppb	8.587 ppb	5,164.790 ppb	55,292.488 ppb	102.838 %
Concentration per Run 1	98.514 %	101.765 %	0.019 ppb	8,422.365 ppb	19,878.655 ppb	8.278 ppb	5,475.027 ppb	56,984.502 ppb	102.999 %
Concentration per Run 2	97.304 %	96.078 %	0.020 ppb	8,456.606 ppb	19,818.256 ppb	7.840 ppb	5,133.685 ppb	54,628.390 ppb	103.073 %
Concentration per Run 3	96.718 %	94.706 %	0.014 ppb	8,446.482 ppb	19,696.232 ppb	9.642 ppb	4,885.657 ppb	54,264.573 ppb	102.442 %
Concentration RSD	0.9 %	3.8 %	18.9 %	0.2 %	0.5 %	10.9 %	5.7 %	2.7 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.109 ppb	0.626 ppb	2,766.366 ppb	36,548.285 ppb	0.093 ppb	0.359 ppb	0.194 ppb	2.774 ppb	94.184 %
Concentration per Run 1	1.013 ppb	0.623 ppb	2,924.123 ppb	35,718.706 ppb	0.068 ppb	0.275 ppb	0.164 ppb	2.872 ppb	99.305 %
Concentration per Run 2	1.173 ppb	0.587 ppb	2,947.280 ppb	36,791.312 ppb	0.105 ppb	0.427 ppb	0.209 ppb	2.718 ppb	92.613 %
Concentration per Run 3	1.140 ppb	0.667 ppb	2,427.695 ppb	37,134.837 ppb	0.107 ppb	0.376 ppb	0.208 ppb	2.733 ppb	90.634 %
Concentration RSD	7.6 %	6.4 %	10.6 %	2.0 %	23.2 %	21.5 %	13.3 %	3.1 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.863 ppb	0.225 ppb	161.472 ppb	0.763 ppb	92.276 %	0.008 ppb	0.007 ppb	93.168 %	0.058 ppb
Concentration per Run 1	1.728 ppb	0.164 ppb	159.746 ppb	0.742 ppb	93.730 %	0.007 ppb	0.005 ppb	95.777 %	0.052 ppb
Concentration per Run 2	1.952 ppb	0.257 ppb	159.710 ppb	0.684 ppb	91.081 %	0.010 ppb	0.009 ppb	91.083 %	0.057 ppb
Concentration per Run 3	1.909 ppb	0.253 ppb	164.960 ppb	0.863 ppb	92.017 %	0.009 ppb	0.005 ppb	92.644 %	0.066 ppb
Concentration RSD	6.4 %	23.3 %	1.9 %	11.9 %	1.5 %	18.2 %	36.4 %	2.6 %	12.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.344 ppb	97.712 %	97.014 %	0.065 ppb	0.177 ppb	64.992 %
Concentration per Run 1	59.624 ppb	99.678 %	100.769 %	0.023 ppb	0.148 ppb	77.222 %
Concentration per Run 2	61.717 ppb	98.626 %	97.475 %	0.090 ppb	0.193 ppb	60.459 %
Concentration per Run 3	59.689 ppb	94.831 %	92.797 %	0.081 ppb	0.189 ppb	57.294 %
Concentration RSD	2.0 %	2.6 %	4.1 %	55.6 %	14.3 %	16.5 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	50	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446632-05 CT-6020TL	Rack	1		
Analysis started at:	8/23/2024 9:17:37 AM	Vial	18		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.628 %	100.000 %	0.014 ppb	12,077.704 ppb	28,471.813 ppb	9.687 ppb	9,144.753 ppb	212,232.653 ppb	108.636 %
Concentration per Run 1	100.185 %	101.373 %	0.013 ppb	11,434.578 ppb	26,990.881 ppb	9.511 ppb	8,756.352 ppb	206,486.973 ppb	108.680 %
Concentration per Run 2	99.821 %	97.451 %	0.015 ppb	12,521.440 ppb	29,548.659 ppb	9.840 ppb	9,549.071 ppb	218,865.803 ppb	109.115 %
Concentration per Run 3	98.877 %	101.176 %	0.015 ppb	12,277.093 ppb	28,875.899 ppb	9.708 ppb	9,128.837 ppb	211,345.183 ppb	108.112 %
Concentration RSD	0.7 %	2.2 %	11.0 %	4.7 %	4.7 %	1.7 %	4.3 %	2.9 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.059 ppb	0.142 ppb	5,721.385 ppb	9,219.000 ppb	11.465 ppb	29.767 ppb	0.465 ppb	3.824 ppb	92.152 %
Concentration per Run 1	0.829 ppb	0.132 ppb	5,491.055 ppb	8,812.687 ppb	11.012 ppb	28.418 ppb	0.474 ppb	3.786 ppb	92.626 %
Concentration per Run 2	1.246 ppb	0.158 ppb	5,845.250 ppb	9,388.900 ppb	11.794 ppb	30.386 ppb	0.464 ppb	3.970 ppb	90.293 %
Concentration per Run 3	1.101 ppb	0.135 ppb	5,827.849 ppb	9,455.414 ppb	11.588 ppb	30.497 ppb	0.458 ppb	3.716 ppb	93.536 %
Concentration RSD	20.0 %	9.9 %	3.5 %	3.8 %	3.5 %	3.9 %	1.7 %	3.4 %	1.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.783 ppb	0.107 ppb	726.382 ppb	3.964 ppb	90.327 %	0.005 ppb	0.012 ppb	90.206 %	0.102 ppb
Concentration per Run 1	0.741 ppb	0.160 ppb	726.221 ppb	3.963 ppb	89.172 %	0.004 ppb	0.009 ppb	89.252 %	0.099 ppb
Concentration per Run 2	0.762 ppb	0.066 ppb	707.474 ppb	3.940 ppb	90.449 %	0.003 ppb	0.016 ppb	88.796 %	0.099 ppb
Concentration per Run 3	0.846 ppb	0.095 ppb	745.452 ppb	3.988 ppb	91.360 %	0.008 ppb	0.011 ppb	92.570 %	0.108 ppb
Concentration RSD	7.1 %	44.9 %	2.6 %	0.6 %	1.2 %	50.3 %	25.9 %	2.3 %	5.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	137.047 ppb	99.863 %	98.687 %	0.050 ppb	0.045 ppb	63.760 %
Concentration per Run 1	134.299 ppb	98.172 %	98.187 %	0.014 ppb	0.034 ppb	73.709 %
Concentration per Run 2	138.144 ppb	100.679 %	98.131 %	0.064 ppb	0.046 ppb	59.411 %
Concentration per Run 3	138.699 ppb	100.739 %	99.742 %	0.071 ppb	0.053 ppb	58.158 %
Concentration RSD	1.7 %	1.5 %	0.9 %	61.8 %	21.5 %	13.6 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	51	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446632-06 CT-6020TL	Rack	1		
Analysis started at:	8/23/2024 9:22:04 AM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.584 %	102.157 %	0.008 ppb	68,217.355 ppb	16,991.211 ppb	2.394 ppb	5,754.919 ppb	40,669.514 ppb	110.789 %
Concentration per Run 1	103.123 %	96.667 %	0.008 ppb	68,430.477 ppb	17,137.625 ppb	3.048 ppb	5,817.719 ppb	41,285.245 ppb	109.090 %
Concentration per Run 2	104.458 %	96.274 %	0.008 ppb	69,470.350 ppb	17,317.504 ppb	2.158 ppb	5,788.847 ppb	41,066.498 ppb	112.398 %
Concentration per Run 3	103.172 %	113.530 %	0.009 ppb	66,751.237 ppb	16,518.504 ppb	1.975 ppb	5,658.191 ppb	39,656.799 ppb	110.879 %
Concentration RSD	0.7 %	9.6 %	6.8 %	2.0 %	2.5 %	24.0 %	1.5 %	2.2 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.067 ppb	28.323 ppb	0.349 ppb	9.069 ppb	0.029 ppb	0.473 ppb	4.870 ppb	16.894 ppb	100.525 %
Concentration per Run 1	0.013 ppb	28.540 ppb	0.350 ppb	6.580 ppb	0.036 ppb	0.420 ppb	4.828 ppb	16.861 ppb	97.564 %
Concentration per Run 2	0.117 ppb	29.087 ppb	0.374 ppb	10.605 ppb	0.017 ppb	0.525 ppb	5.077 ppb	17.102 ppb	96.671 %
Concentration per Run 3	0.071 ppb	27.340 ppb	0.324 ppb	10.023 ppb	0.036 ppb	0.473 ppb	4.705 ppb	16.718 ppb	107.342 %
Concentration RSD	77.9 %	3.2 %	7.1 %	24.0 %	36.0 %	11.2 %	3.9 %	1.1 %	5.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.136 ppb	0.767 ppb	205.339 ppb	0.890 ppb	95.257 %	0.158 ppb	0.142 ppb	96.106 %	0.036 ppb
Concentration per Run 1	0.147 ppb	0.740 ppb	202.801 ppb	0.763 ppb	95.087 %	0.155 ppb	0.130 ppb	95.223 %	0.030 ppb
Concentration per Run 2	0.146 ppb	0.732 ppb	205.461 ppb	0.912 ppb	88.845 %	0.168 ppb	0.139 ppb	89.259 %	0.029 ppb
Concentration per Run 3	0.116 ppb	0.829 ppb	207.755 ppb	0.995 ppb	101.838 %	0.152 ppb	0.156 ppb	103.835 %	0.050 ppb
Concentration RSD	12.9 %	7.0 %	1.2 %	13.2 %	6.8 %	5.6 %	9.5 %	7.6 %	31.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	66.619 ppb	101.602 %	99.357 %	0.034 ppb	0.022 ppb	64.746 %
Concentration per Run 1	66.603 ppb	100.976 %	98.674 %	0.005 ppb	0.018 ppb	74.840 %
Concentration per Run 2	66.728 ppb	95.247 %	93.685 %	0.042 ppb	0.026 ppb	58.284 %
Concentration per Run 3	66.527 ppb	108.583 %	105.711 %	0.057 ppb	0.022 ppb	61.114 %
Concentration RSD	0.2 %	6.6 %	6.1 %	78.4 %	18.6 %	13.7 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	52	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/23/2024 9:26:32 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.699 %	105.556 %	63.617 ppb	6,196.025 ppb	6,098.826 ppb	61.282 ppb	5,977.165 ppb	5,718.609 ppb	105.758 %
Concentration per Run 1	104.501 %	104.902 %	63.358 ppb	6,328.049 ppb	6,253.753 ppb	62.288 ppb	6,065.218 ppb	5,739.963 ppb	105.732 %
Concentration per Run 2	104.693 %	110.784 %	63.935 ppb	5,878.265 ppb	5,766.759 ppb	59.268 ppb	5,705.427 ppb	5,534.468 ppb	105.798 %
Concentration per Run 3	104.904 %	100.980 %	63.559 ppb	6,381.761 ppb	6,275.965 ppb	62.290 ppb	6,160.850 ppb	5,881.396 ppb	105.743 %
Recovery Percentage 1			106.028 %	103.267 %	101.647 %	102.137 %	99.619 %	95.310 %	
Concentration RSD	0.2 %	4.7 %	0.5 %	4.5 %	4.7 %	2.8 %	4.0 %	3.1 %	0.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.267 ppb	61.648 ppb	61.778 ppb	6,205.926 ppb	62.757 ppb	63.126 ppb	64.077 ppb	62.920 ppb	98.204 %
Concentration per Run 1	57.563 ppb	62.655 ppb	64.330 ppb	6,368.670 ppb	64.273 ppb	64.295 ppb	66.308 ppb	64.296 ppb	96.256 %
Concentration per Run 2	56.539 ppb	59.286 ppb	59.123 ppb	5,980.950 ppb	60.694 ppb	61.340 ppb	61.620 ppb	61.012 ppb	100.630 %
Concentration per Run 3	60.698 ppb	63.004 ppb	61.881 ppb	6,268.158 ppb	63.303 ppb	63.744 ppb	64.304 ppb	63.453 ppb	97.725 %
Recovery Percentage 1	97.111 %	102.747 %	102.964 %	103.432 %	104.595 %	105.211 %	106.795 %	104.867 %	
Concentration RSD	3.7 %	3.3 %	4.2 %	3.2 %	2.9 %	2.5 %	3.7 %	2.7 %	2.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	62.613 ppb	61.096 ppb	54.576 ppb	59.894 ppb	97.397 %	62.145 ppb	62.431 ppb	94.359 %	60.940 ppb
Concentration per Run 1	64.013 ppb	63.173 ppb	55.651 ppb	60.108 ppb	99.033 %	62.206 ppb	62.414 ppb	95.531 %	60.701 ppb
Concentration per Run 2	60.558 ppb	56.231 ppb	51.593 ppb	59.114 ppb	96.942 %	62.196 ppb	62.598 ppb	92.067 %	61.158 ppb
Concentration per Run 3	63.268 ppb	63.884 ppb	56.484 ppb	60.460 ppb	96.216 %	62.031 ppb	62.282 ppb	95.479 %	60.960 ppb
Recovery Percentage 1	104.355 %	101.827 %	90.960 %	99.823 %		103.574 %	104.052 %		101.566 %
Concentration RSD	2.9 %	6.9 %	4.8 %	1.2 %	1.5 %	0.2 %	0.3 %	2.1 %	0.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	60.747 ppb	100.837 %	98.873 %	61.887 ppb	63.458 ppb	67.615 %
Concentration per Run 1	60.321 ppb	100.015 %	98.553 %	62.133 ppb	63.100 ppb	78.091 %
Concentration per Run 2	60.500 ppb	99.996 %	98.274 %	62.164 ppb	63.843 ppb	62.676 %
Concentration per Run 3	61.421 ppb	102.499 %	99.791 %	61.365 ppb	63.429 ppb	62.078 %
Recovery Percentage 1	101.246 %			103.145 %	105.763 %	
Concentration RSD	1.0 %	1.4 %	0.8 %	0.7 %	0.6 %	13.4 %

Alpha ICPMSQ2 Data with SRD

8/23/2024 9:37:14 AM

Analysis index:	53	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/23/2024 9:31:03 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.128 %	98.954 %	0.009 ppb	34.393 ppb	-1.170 ppb	-0.422 ppb	-0.994 ppb	-6.354 ppb	106.072 %
Concentration per Run 1	107.896 %	91.765 %	0.007 ppb	39.222 ppb	-1.276 ppb	-0.429 ppb	11.374 ppb	-1.830 ppb	105.907 %
Concentration per Run 2	107.362 %	106.079 %	0.013 ppb	29.969 ppb	-1.316 ppb	-0.386 ppb	-8.505 ppb	-9.926 ppb	106.983 %
Concentration per Run 3	106.126 %	99.020 %	0.008 ppb	33.989 ppb	-0.917 ppb	-0.451 ppb	-5.851 ppb	-7.308 ppb	105.326 %
Recovery Percentage 1			1.874 %	34.393 %	-1.671 %	-4.221 %	-0.994 %	-6.354 %	
Concentration RSD	0.8 %	7.2 %	35.1 %	13.5 %	18.8 %	7.8 %	1,085.9 %	65.0 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.064 ppb	-0.024 ppb	0.042 ppb	5.217 ppb	-0.001 ppb	-0.055 ppb	0.029 ppb	-0.242 ppb	93.440 %
Concentration per Run 1	-0.070 ppb	-0.013 ppb	0.047 ppb	4.117 ppb	0.003 ppb	-0.053 ppb	0.000 ppb	-0.241 ppb	93.518 %
Concentration per Run 2	-0.081 ppb	-0.034 ppb	0.064 ppb	5.207 ppb	-0.004 ppb	-0.039 ppb	0.058 ppb	-0.257 ppb	92.871 %
Concentration per Run 3	-0.040 ppb	-0.024 ppb	0.013 ppb	6.329 ppb	-0.001 ppb	-0.072 ppb	0.028 ppb	-0.226 ppb	93.933 %
Recovery Percentage 1	-1.275 %	-2.363 %	4.154 %	10.435 %	-0.113 %	-2.742 %	2.852 %	-4.833 %	
Concentration RSD	33.2 %	44.6 %	62.2 %	21.2 %	656.0 %	30.7 %	101.9 %	6.4 %	0.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.104 ppb	0.106 ppb	-0.011 ppb	0.288 ppb	95.507 %	0.005 ppb	0.001 ppb	92.272 %	0.022 ppb
Concentration per Run 1	0.097 ppb	0.076 ppb	-0.012 ppb	0.244 ppb	96.096 %	0.005 ppb	-0.001 ppb	91.719 %	0.006 ppb
Concentration per Run 2	0.151 ppb	0.089 ppb	-0.008 ppb	0.298 ppb	96.820 %	0.005 ppb	0.003 ppb	94.206 %	0.016 ppb
Concentration per Run 3	0.066 ppb	0.152 ppb	-0.012 ppb	0.321 ppb	93.604 %	0.005 ppb	0.001 ppb	90.891 %	0.043 ppb
Recovery Percentage 1	20.874 %	2.117 %	-0.106 %	14.382 %		1.187 %	0.657 %		0.542 %
Concentration RSD	41.4 %	38.5 %	20.6 %	13.8 %	1.8 %	2.3 %	144.0 %	1.9 %	88.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)	209Bi (KED AGD)
Concentration average	-0.010 ppb	97.033 %	96.029 %	0.321 ppb	0.010 ppb	65.954 %
Concentration per Run 1	-0.003 ppb	96.640 %	96.609 %	0.257 ppb	0.013 ppb	76.014 %
Concentration per Run 2	-0.010 ppb	99.224 %	98.094 %	0.370 ppb	0.009 ppb	61.491 %
Concentration per Run 3	-0.017 ppb	95.235 %	93.384 %	0.335 ppb	0.007 ppb	60.356 %
Recovery Percentage 1	-2.004 %			32.063 %	0.984 %	
Concentration RSD	66.5 %	2.1 %	2.5 %	18.1 %	28.1 %	13.2 %

Interference Check Solutions
(ICP-MS)

Solution Component	Solution A Concentration (ug/L)	Solution AB Concentration (ug/L)
Al	20,000	20,000
Ca	60,000	60,000
Fe	50,000	50,000
Mg	20,000	20,000
Na	50,000	50,000
K	20,000	20,000
Mo	400	400
As	0.0	20
Cd	0.0	20
Cr	0.0	40
Co	0.0	40
Cu	0.0	40
Mn	0.0	40
Ni	0.0	40
Se	0.0	20
Ag	0.0	10
V	0.0	40
Zn	0.0	20

LCS & MS Concentrations
(ICP-MS)

Element	Liquid Concentration (mg/L)
Aluminum	2.00
Antimony	0.5
Arsenic	0.12
Barium	2.00
Beryllium	0.05
Cadmium	0.051
Calcium	10.0
Chromium	0.20
Cobalt	0.50
Copper	0.25
Iron	1.00
Lead	0.51
Magnesium	10.0
Manganese	0.50
Molybdenum	1.00
Nickel	0.50
Potassium	10.0
Selenium	0.12
Silver	0.05
Sodium	10.0
Thallium	0.12
Vanadium	0.50
Zinc	0.50

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D102-540
Certificate Issue Date: June 22, 2018
Expiration Date: January 31, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8160	6.36	3960 - 12400	4080 - 12200
Antimony	120	60.9	9.42	0.822 - 121	12.0 - 166
Arsenic	144	135	5.08	112 - 158	94.6 - 176
Barium	469	443	6.77	366 - 521	332 - 554
Beryllium	207	197	5.86	164 - 229	148 - 246
Boron	213	174	12.6	127 - 221	105 - 244
Cadmium	224	204	6.65	169 - 240	153 - 256
Calcium	5190	4830	9.12	3950 - 5700	3510 - 6150
Chromium	138	132	8.56	109 - 155	92.2 - 171
Cobalt	182	179	7.93	151 - 207	134 - 224
Copper	191	184	6.72	155 - 213	138 - 230
Iron	15000	14400	10.7	8770 - 20000	5120 - 23600
Lead	225	216	7.72	178 - 254	159 - 274
Magnesium	2570	2340	6.13	1780 - 2900	1460 - 3230
Manganese	331	323	6.71	266 - 380	242 - 404
Mercury	16.8	13.2	16.0	8.64 - 17.7	7.89 - 18.5
Molybdenum	193	175	2.39	141 - 209	125 - 226
Nickel	163	152	5.95	126 - 178	106 - 197
Potassium	2420	2050	6.31	1440 - 2660	1210 - 2890
Selenium	81.9	74.9	4.13	59.3 - 90.5	47.0 - 103
Silver	57.6	53.9	9.00	43.0 - 64.8	37.8 - 70.0
Sodium	161	149	12.1	111 - 188	57.7 - 241
Strontium	100	96.2	4.04	78.1 - 114	69.0 - 123
Thallium	253	232	3.54	188 - 276	168 - 296

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Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	146	134	10.8	106 - 163	79.5 - 189
Titanium	449	340	7.20	70.2 - 609	44.9 - 711
Uranium	114	113	7.10	85.5 - 140	71.9 - 153
Vanadium	180	172	8.85	137 - 207	126 - 218
Zinc	217	211	6.58	171 - 250	147 - 274

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8160	80.8	138	-	-
Antimony	120	60.9	50.8	135	-	-
Arsenic	144	135	93.8	184	-	-
Barium	469	443	94.5	158	-	-
Beryllium	207	197	95.0	148	-	-
Boron	213	174	81.8	107	-	-
Cadmium	224	204	91.3	199	-	-
Calcium	5190	4830	93.0	122	-	-
Chromium	138	132	95.5	172	-	-
Cobalt	182	179	98.4	140	-	-
Copper	191	184	96.3	183	-	-
Iron	15000	14400	95.6	133	-	-
Lead	225	216	96.2	204	-	-
Magnesium	2570	2340	91.2	122	-	-
Manganese	331	323	97.6	147	-	-
Mercury	16.8	13.2	78.3	128	-	-
Molybdenum	193	175	90.8	143	-	-
Nickel	163	152	93.1	185	-	-
Potassium	2420	2050	84.7	121	-	-
Selenium	81.9	74.9	91.5	163	-	-

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Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	57.6	53.9	93.6	150	-	-
Sodium	161	149	92.8	105	-	-
Strontium	100	96.2	96.2	90	-	-
Thallium	253	232	91.6	147	-	-
Tin	146	134	92.0	100	-	-
Titanium	449	340	75.6	93	-	-
Uranium	114	113	98.8	35	-	-
Vanadium	180	172	95.4	139	-	-
Zinc	217	211	97.0	180	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

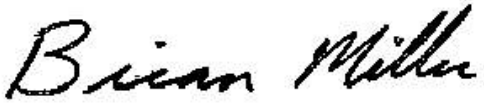
5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck

ISO/IEC GUIDE 34:2009 ACCREDITED REFERENCE MATERIAL PRODUCER CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED CHEMICAL TESTING LABORATORY CERTIFICATE NO. 1539.02

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ERA
A Waters Company

Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D105-540
Certificate Issue Date: March 19, 2019
Expiration Date: October 12, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8800	8.32	4600 - 13000	4470 - 13100
Antimony	282	147	7.70	6.17 - 289	28.2 - 366
Arsenic	155	143	6.34	119 - 168	100 - 186
Barium	439	415	5.37	343 - 488	311 - 519
Beryllium	192	179	2.78	149 - 210	134 - 224
Boron	216	160	7.08	113 - 208	96.1 - 238
Cadmium	61.5	56.2	0.528	46.6 - 65.9	42.2 - 70.3
Calcium	5190	4960	6.64	4090 - 5840	3610 - 6310
Chromium	104	101	4.75	83.2 - 118	70.5 - 131
Cobalt	196	189	0.500	158 - 219	141 - 236
Copper	65.0	63.1	2.65	53.1 - 73.1	47.3 - 78.9
Iron	15000	15700	8.94	10100 - 21300	6000 - 25400
Lead	126	125	4.77	103 - 146	89.3 - 160
Magnesium	2570	2410	6.26	1860 - 2970	1520 - 3310
Manganese	387	382	5.37	315 - 449	290 - 474
Mercury	7.76	7.61	13.7	5.53 - 9.69	4.57 - 10.7
Molybdenum	120	107	0.500	86.0 - 128	75.5 - 139
Nickel	117	108	0.514	89.5 - 127	75.7 - 141
Potassium	2420	2110	5.62	1500 - 2720	1260 - 2960
Selenium	84.6	77.9	7.10	61.8 - 94.0	49.2 - 107
Silver	34.6	34.3	8.34	27.8 - 40.9	23.6 - 45.1
Sodium	161	145	6.72	106 - 183	54.3 - 235
Strontium	104	104	3.95	85.1 - 123	74.8 - 133
Thallium	123	113	0.500	91.3 - 134	77.1 - 149

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	118	107	0.500	83.5 - 130	61.2 - 152
Titanium	512	421	5.80	114 - 728	0.00 - 854
Uranium	103	104	6.18	79.1 - 128	71.9 - 135
Vanadium	87.3	83.7	8.55	66.8 - 101	54.2 - 113
Zinc	251	240	3.98	194 - 285	168 - 312

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8800	87.1	193	-	-
Antimony	282	147	52.3	216	-	-
Arsenic	155	143	92.5	240	-	-
Barium	439	415	94.6	222	-	-
Beryllium	192	179	93.4	220	-	-
Boron	216	160	74.2	152	-	-
Cadmium	61.5	56.2	91.5	239	-	-
Calcium	5190	4960	95.6	175	-	-
Chromium	104	101	96.8	237	-	-
Cobalt	196	189	96.2	215	-	-
Copper	65.0	63.1	97.1	237	-	-
Iron	15000	15700	105	195	-	-
Lead	126	125	99.0	243	-	-
Magnesium	2570	2410	93.9	177	-	-
Manganese	387	382	98.7	215	-	-
Mercury	7.76	7.61	98.0	157	-	-
Molybdenum	120	107	89.4	216	-	-
Nickel	117	108	92.5	235	-	-
Potassium	2420	2110	87.2	181	-	-
Selenium	84.6	77.9	92.1	231	-	-

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Reference Material

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Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	34.6	34.3	99.3	216	-	-
Sodium	161	145	89.8	166	-	-
Strontium	104	104	99.9	148	-	-
Thallium	123	113	91.8	215	-	-
Tin	118	107	90.4	164	-	-
Titanium	512	421	82.2	157	-	-
Uranium	103	104	101	61	-	-
Vanadium	87.3	83.7	95.9	214	-	-
Zinc	251	240	95.5	234	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Brian Miller

Quality Officer

Matthew Seebeck

ACCREDITED ACCREDITED

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Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D109-540
Certificate Issue Date: March 24, 2020
Expiration Date: October 03, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8130	2.54	3920 - 12300	4060 - 12200
Antimony	259	134	5.03	4.56 - 264	25.9 - 335
Arsenic	171	156	3.38	129 - 183	109 - 203
Barium	253	239	4.81	197 - 280	179 - 298
Beryllium	179	169	6.59	141 - 198	127 - 212
Boron	114	87.5	10.3	62.5 - 113	52.5 - 125
Cadmium	149	137	5.43	113 - 160	103 - 171
Calcium	5190	4760	3.48	3890 - 5640	3460 - 6070
Chromium	163	154	3.79	126 - 181	108 - 200
Cobalt	127	121	5.07	101 - 141	90.8 - 151
Copper	57.0	54.9	4.13	46.1 - 63.6	41.1 - 68.6
Iron	15000	14100	6.27	8470 - 19700	4920 - 23200
Lead	133	130	3.00	107 - 152	93.3 - 167
Magnesium	2570	2320	3.32	1760 - 2880	1440 - 3200
Manganese	277	269	2.67	221 - 317	199 - 340
Mercury	21.6	20.5	7.72	14.7 - 26.3	12.3 - 28.6
Molybdenum	108	95.4	2.61	76.4 - 114	66.9 - 124
Nickel	58.7	53.9	4.97	44.5 - 63.3	37.7 - 70.0
Potassium	2420	2020	3.06	1410 - 2630	1190 - 2850
Selenium	181	167	5.63	132 - 201	113 - 221
Silver	35.5	33.6	5.20	26.8 - 40.3	23.0 - 44.1
Sodium	161	133	2.76	95.1 - 171	46.5 - 220
Strontium	89.7	87.9	4.59	71.7 - 104	62.8 - 113
Thallium	121	112	5.19	90.3 - 133	76.1 - 147

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	83.5	74.0	5.42	57.6 - 90.4	39.7 - 108
Titanium	474	333	7.17	48.6 - 617	46.3 - 620
Uranium	51.9	51.9	3.36	39.6 - 64.3	35.9 - 68.0
Vanadium	68.1	62.6	6.00	49.4 - 75.8	37.0 - 88.3
Zinc	165	158	2.34	128 - 188	111 - 205

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ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8130	80.5	196	-	-
Antimony	259	134	51.8	217	-	-
Arsenic	171	156	91.3	243	-	-
Barium	253	239	94.3	230	-	-
Beryllium	179	169	94.6	223	-	-
Boron	114	87.5	76.7	150	-	-
Cadmium	149	137	91.8	249	-	-
Calcium	5190	4760	91.8	184	-	-
Chromium	163	154	94.4	245	-	-
Cobalt	127	121	95.3	221	-	-
Copper	57.0	54.9	96.2	243	-	-
Iron	15000	14100	93.9	199	-	-
Lead	133	130	97.7	251	-	-
Magnesium	2570	2320	90.1	182	-	-
Manganese	277	269	97.2	220	-	-
Mercury	21.6	20.5	94.7	172	-	-
Molybdenum	108	95.4	88.3	218	-	-
Nickel	58.7	53.9	91.8	242	-	-
Potassium	2420	2020	83.5	187	-	-
Selenium	181	167	92.2	235	-	-
Silver	35.5	33.6	94.5	222	-	-
Sodium	161	133	82.7	177	-	-
Strontium	89.7	87.9	98.0	151	-	-
Thallium	121	112	92.2	219	-	-
Tin	83.5	74.0	88.6	170	-	-
Titanium	474	333	70.3	157	-	-
Uranium	51.9	51.9	100	60	-	-
Vanadium	68.1	62.6	91.9	213	-	-
Zinc	165	158	95.8	238	-	-

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▪ Certificate of Analysis ▪

1. The **Certified Values** are the actual gravimetric/volumetric "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

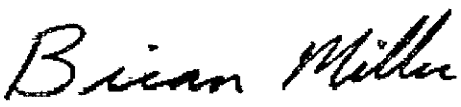
8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck

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Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D113-540
Certificate Issue Date: March 23, 2021
Expiration Date: October 13, 2024
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8630	12.0	4420 - 12800	4370 - 12900
Antimony	256	129	16.8	0.742 - 257	25.6 - 323
Arsenic	91.6	84.5	15.1	70.0 - 99.0	59.2 - 110
Barium	259	249	9.94	206 - 292	187 - 311
Beryllium	175	163	3.89	135 - 191	122 - 204
Boron	95.7	76.7	12.8	55.7 - 97.7	48.0 - 107
Cadmium	107	99.0	11.5	82.2 - 116	74.2 - 124
Calcium	5190	4760	11.8	3890 - 5640	3460 - 6070
Chromium	129	122	14.6	101 - 144	85.7 - 159
Cobalt	63.6	61.7	11.5	51.9 - 71.6	46.3 - 77.2
Copper	62.3	61.5	12.3	51.9 - 71.0	46.1 - 76.8
Iron	15000	14500	15.7	8860 - 20100	5190 - 23800
Lead	122	123	13.9	103 - 144	88.3 - 158
Lithium	6.42	7.30	18.7	5.13 - 9.48	3.20 - 11.4
Magnesium	2570	2360	8.87	1810 - 2920	1480 - 3250
Manganese	470	456	13.4	375 - 538	350 - 563
Mercury	22.1	18.9	14.5	13.0 - 24.8	11.3 - 26.4
Molybdenum	80.1	72.8	11.0	58.7 - 87.0	50.5 - 95.2
Nickel	143	135	14.2	112 - 158	94.7 - 176
Potassium	2420	2090	8.21	1480 - 2700	1240 - 2940
Selenium	128	121	11.7	96.9 - 146	80.4 - 162
Silver	45.4	44.1	6.69	35.5 - 52.8	30.7 - 57.6
Sodium	161	136	9.34	97.4 - 174	48.1 - 223
Strontium	82.2	82.3	8.42	67.4 - 97.1	58.6 - 106

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Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Thallium	154	144	7.54	117 - 171	101 - 187
Tin	89.7	79.8	14.0	62.2 - 97.4	43.5 - 116
Titanium	705	546	10.3	123 - 969	118 - 974
Uranium	29.5	30.9	3.38	23.9 - 37.9	21.3 - 40.5
Vanadium	196	186	14.2	148 - 224	138 - 235
Zinc	307	295	10.4	240 - 351	207 - 384

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Calculation of Method 6020 Metals

Aqueous Samples

The instrument will calculate the concentration (µg/L). This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, mg/L} = C_s \times (1\text{mg}/1000\mu\text{g}) \times (DF)$$

Where:

C_s = Concentration of sample (µg/L)

DF = Dilution Factor

Alpha ICPMSQ2 Seq

8/22/2024 5:59:54 AM

Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
1	Rinse	0	1	3	1	8/21/2024 4:57:42 AM
2	CAL LOT #M24-1045	0	1	3	1	8/21/2024 5:02:08 AM
3	Blank EJF ICPMSQ2	4	49	3	1	8/21/2024 5:06:34 AM
4	x0.2/20 Cal	0	2	3	1	8/21/2024 5:11:05 AM
5	0.2/20 Cal	0	3	3	1	8/21/2024 5:15:31 AM
6	1/100 Cal	0	3	3	1	8/21/2024 5:21:42 AM
7	10/1000 Cal	0	4	3	1	8/21/2024 5:26:09 AM
8	60/6000 Cal	0	5	3	1	8/21/2024 5:30:37 AM
9	120/12000 Cal	0	6	3	1	8/21/2024 5:35:05 AM
10	Sr 200ppb	4	55	3	1	8/21/2024 5:44:47 AM
11	ICV	0	7	3	1	8/21/2024 5:49:18 AM
12	ICB	0	10	3	1	8/21/2024 5:53:48 AM
13	ICB	0	10	3	1	8/21/2024 5:59:14 AM
14	ICSA	4	53	3	1	8/21/2024 6:08:42 AM
15	LDR Check	4	1	3	1	8/21/2024 6:13:13 AM
16	Rinse	0	1	3	1	8/21/2024 6:17:43 AM
17	CCV	0	9	3	1	8/21/2024 6:22:09 AM
18	CCB	0	10	3	1	8/21/2024 6:26:39 AM
19	CCB	0	10	3	1	8/21/2024 6:53:59 AM
20	WG1960360-1d2 A2-6020T	1	1	3	1	8/21/2024 7:00:59 AM
21	WG1960360-2d10 A2-6020T	1	2	3	1	8/21/2024 7:05:25 AM
22	WG1960360-3d10 A2-6020T	1	3	3	1	8/21/2024 7:09:52 AM
23	I2444395-02d2 A2-6020T	1	4	3	1	8/21/2024 7:14:20 AM
24	I2444462-01d2 A2-6020T	1	5	3	1	8/21/2024 7:18:47 AM
25	L2441542-01d10 A2-6020T	1	6	3	1	8/21/2024 7:23:15 AM
26	L2441542-02d10 A2-6020T	1	7	3	1	8/21/2024 7:27:43 AM
27	L2441542-03d10 A2-6020T	1	8	3	1	8/21/2024 7:32:11 AM
28	LDR Check (5/.5ppm)	4	3	3	1	8/21/2024 7:36:40 AM
29	xLDR Check (2/.2ppm)	1	9	3	1	8/21/2024 7:43:42 AM
30	CCV	0	9	3	1	8/21/2024 7:45:53 AM
31	CCB	0	10	3	1	8/21/2024 7:50:24 AM
32	CCB	0	10	3	1	8/21/2024 7:58:18 AM
33	LDR Check (2/.2ppm)	4	4	3	1	8/21/2024 8:03:49 AM
34	WG1961515-1d10 6020TS	1	9	3	1	8/21/2024 8:18:44 AM
35	WG1961515-2d10 6020TS	1	10	3	1	8/21/2024 8:23:13 AM
36	L2446114-21d10 6020TS	1	11	3	1	8/21/2024 8:27:43 AM
37	WG1961515-3d10 6020TS	1	12	3	1	8/21/2024 8:32:12 AM
38	WG1961515-4d10 6020TS	1	13	3	1	8/21/2024 8:36:42 AM
39	WG1961515-5d10 6020TS	1	14	3	1	8/21/2024 8:41:08 AM
40	WG1961515-6d50 6020TS	1	15	3	1	8/21/2024 8:45:34 AM
41	CCV	0	9	3	1	8/21/2024 8:59:11 AM
42	CCB	0	10	3	1	8/21/2024 9:03:42 AM
43	CCB	0	10	3	1	8/21/2024 9:16:57 AM
44	wg1961474-1 6020SL	1	16	3	1	8/21/2024 9:38:59 AM
45	wg1961474-2d10 6020SL	1	17	3	1	8/21/2024 9:43:25 AM
46	L2446445-04 6020SL	1	18	3	1	8/21/2024 9:47:52 AM
47	wg1961474-3d10 6020SL	1	19	3	1	8/21/2024 9:52:20 AM
48	wg1961474-4d10 6020SL	1	20	3	1	8/21/2024 9:56:47 AM
49	wg1961474-5d10 6020SL	1	21	3	1	8/21/2024 10:01:15 AM
50	wg1961474-6d5 6020SL	1	22	3	1	8/21/2024 10:05:44 AM
51	L2446229-01 6020SL	1	23	3	1	8/21/2024 10:10:12 AM

Alpha ICPMSQ2 Seq

8/22/2024 5:59:54 AM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
52	L2446229-02 6020SL	1	24	3	1	8/21/2024 10:14:41 AM
53	L2446229-03 6020SL	1	25	3	1	8/21/2024 10:19:10 AM
54	CCV	0	9	3	1	8/21/2024 10:23:36 AM
55	CCB	0	10	3	1	8/21/2024 10:28:07 AM
56	WG1951958-1 A2-6020T	1	26	3	1	8/21/2024 10:35:17 AM
57	WG1951958-2d10 A2-6020T	1	27	3	1	8/21/2024 10:39:43 AM
58	L2440939-07d2 A2-6020T	1	28	3	1	8/21/2024 10:44:10 AM
59	WG1951958-3d10 A2-6020T	1	29	3	1	8/21/2024 10:48:37 AM
60	WG1951958-4d10 A2-6020T	1	30	3	1	8/21/2024 10:53:04 AM
61	WG1951958-5d10 A2-6020T	1	31	3	1	8/21/2024 10:57:32 AM
62	WG1951958-6d10 A2-6020T	1	32	3	1	8/21/2024 11:02:00 AM
63	L2440939-07d10 A2-6020T	1	38	3	1	8/21/2024 11:06:28 AM
64	WG1951958-6d50 A2-6020T	1	39	3	1	8/21/2024 11:10:54 AM
65	L2441738-01d10 A2-6020T	1	33	3	1	8/21/2024 11:15:21 AM
66	CCV	0	9	3	1	8/21/2024 11:19:49 AM
67	CCB	0	10	3	1	8/21/2024 11:24:20 AM
68	CCV	0	9	3	1	8/21/2024 11:31:13 AM
69	CCB	0	10	3	1	8/21/2024 11:35:44 AM
70	wg1961492-1 6020TL	1	42	3	1	8/21/2024 11:42:02 AM
71	wg1961492-2d10 6020TL	1	43	3	1	8/21/2024 11:46:30 AM
72	L2446521-01 6020TL	1	44	3	1	8/21/2024 11:50:57 AM
73	L2445935-01 6020TL	1	49	3	1	8/21/2024 11:55:25 AM
74	L2441738-02d10 A2-6020T	1	34	3	1	8/21/2024 11:59:53 AM
75	L2441738-03d10 A2-6020T	1	35	3	1	8/21/2024 12:04:21 PM
76	L2441738-04d10 A2-6020T	1	36	3	1	8/21/2024 12:08:50 PM
77	L2441738-06d10 A2-6020T	1	37	3	1	8/21/2024 12:13:20 PM
78	zL2440939-07d10 A2-6020T	1	40	3	1	8/21/2024 12:17:47 PM
79	zWG1951958-6d50 A2-6020T	1	41	3	1	8/21/2024 12:22:14 PM
80	CCV	0	9	3	1	8/21/2024 12:26:41 PM
81	CCB	0	10	3	1	8/21/2024 12:31:13 PM
82	LDR Fe 100,000 FAIL	1	50	3	1	8/21/2024 12:48:44 PM
83	wg1961492-3d10 6020TL	1	45	3	1	8/21/2024 12:53:11 PM
84	wg1961492-4d10 6020TL	1	46	3	1	8/21/2024 12:57:40 PM
85	wg1961492-5d10 6020TL	1	47	3	1	8/21/2024 1:02:08 PM
86	wg1961492-6d5 6020TL	1	48	3	1	8/21/2024 1:06:37 PM
87	L2445935-01d10 6020TL	2	1	3	1	8/21/2024 1:19:25 PM
88	WG1955086-2d10 A2-SEM	1	52	3	1	8/21/2024 1:23:52 PM
89	L2441542-01d5 A2-SEM	1	53	3	1	8/21/2024 1:28:19 PM
90	WG1955086-3d10 A2-SEM	1	54	3	1	8/21/2024 1:32:47 PM
91	WG1955086-4d5 A2-SEM	1	55	3	1	8/21/2024 1:37:15 PM
92	CCV	0	9	3	1	8/21/2024 1:41:43 PM
93	CCB	0	10	3	1	8/21/2024 1:46:14 PM
94	WG1955086-1d5 A2-SEM	1	51	3	1	8/21/2024 2:02:25 PM
95	L2441542-02d5 A2-SEM	1	56	3	1	8/21/2024 2:06:51 PM
96	WG1955086-5d10 A2-SEM	1	57	3	1	8/21/2024 2:11:19 PM
97	WG1955086-6d5 A2-SEM	1	58	3	1	8/21/2024 2:15:48 PM
98	L2441542-03d5 A2-SEM	1	59	3	1	8/21/2024 2:20:17 PM
99	L2441795-04d5 A2-SEM	1	60	3	1	8/21/2024 2:24:46 PM
100	CCV	0	9	3	1	8/21/2024 2:38:06 PM
101	CCB	0	10	3	1	8/21/2024 2:42:37 PM
102	WG1958897-1D10 6020TS	2	2	3	1	8/21/2024 3:00:48 PM
103	WG1958897-2D10 6020TS	2	3	3	1	8/21/2024 3:05:15 PM
104	WG1958897-3D10 6020TS	2	4	3	1	8/21/2024 3:09:42 PM
105	WG1958897-4D10 6020TS	2	5	3	1	8/21/2024 3:14:10 PM
106	wg1961531-2d10 2008TL	2	7	3	1	8/21/2024 3:19:34 PM
107	L2447220-06 2008TL	2	8	3	1	8/21/2024 3:24:01 PM

Alpha ICPMSQ2 Seq

8/22/2024 5:59:54 AM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
108	wg1961531-3d10 2008TL	2	9	3	1	8/21/2024 3:28:30 PM
109	wg1961531-4d10 2008TL	2	10	3	1	8/21/2024 3:32:58 PM
110	L2447220-10 2008TL	2	11	3	1	8/21/2024 3:37:27 PM
111	wg1961531-5d10 2008TL	2	12	3	1	8/21/2024 3:41:57 PM
112	CCV	0	9	3	1	8/21/2024 3:46:26 PM
113	CCB	0	10	3	1	8/21/2024 3:50:58 PM
114	wg1961531-1 2008TL	2	6	3	1	8/21/2024 3:56:24 PM
115	wg1961531-6 2008TL	2	13	3	1	8/21/2024 4:00:51 PM
116	L2446712-01 2008TL	2	14	3	1	8/21/2024 4:05:20 PM
117	L2446712-02 2008TL	2	15	3	1	8/21/2024 4:09:48 PM
118	L2447216-01 2008TL	2	16	3	1	8/21/2024 4:14:16 PM
119	L2447216-02 2008TL	2	17	3	1	8/21/2024 4:18:45 PM
120	L2447216-03 2008TL	2	18	3	1	8/21/2024 4:23:13 PM
121	L2447220-01 2008TL	2	19	3	1	8/21/2024 4:27:41 PM
122	L2447220-02 2008TL	2	20	3	1	8/21/2024 4:32:10 PM
123	L2447220-03 2008TL	2	21	3	1	8/21/2024 4:36:38 PM
124	CCV	0	9	3	1	8/21/2024 4:41:07 PM
125	CCB	0	10	3	1	8/21/2024 4:45:39 PM
126	L2447220-13 2008TL	2	26	3	1	8/21/2024 5:21:41 PM
127	L2447220-04 2008TL	2	22	3	1	8/21/2024 5:26:10 PM
128	L2447220-05 2008TL	2	23	3	1	8/21/2024 5:30:39 PM
129	L2447220-11 2008TL	2	24	3	1	8/21/2024 5:35:08 PM
130	L2447220-12 2008TL	2	25	3	1	8/21/2024 5:39:38 PM
131	CCV	0	9	3	1	8/21/2024 6:01:41 PM
132	CCB	0	10	3	1	8/21/2024 6:06:13 PM
133	WG1961164-1 2008TL	2	27	3	1	8/21/2024 6:26:52 PM
134	WG1961164-2d10 2008TL	2	28	3	1	8/21/2024 6:31:20 PM
135	wg1961342-2d10 6020TL	2	36	3	1	8/21/2024 6:35:49 PM
136	I2446400-02 2008TL	2	29	3	1	8/21/2024 6:40:18 PM
137	WG1961164-3d10 2008TL	2	30	3	1	8/21/2024 6:44:47 PM
138	WG1961164-4 2008TL	2	31	3	1	8/21/2024 6:49:16 PM
139	I2446400-01 2008TL	2	32	3	1	8/21/2024 6:53:44 PM
140	I2446400-03 2008TL	2	33	3	1	8/21/2024 6:58:13 PM
141	I2446400-04 2008TL	2	34	3	1	8/21/2024 7:02:42 PM
142	wg1961342-6d5 6020TL	2	41	3	1	8/21/2024 7:07:11 PM
143	CCV	0	9	3	1	8/21/2024 7:11:40 PM
144	CCB	0	10	3	1	8/21/2024 7:16:12 PM
145	wg1961342-1 6020TL	2	35	3	1	8/21/2024 7:20:44 PM
146	wg1961612-1 CT-6020SL	2	49	3	1	8/21/2024 7:25:13 PM
147	L2446490-02 6020TL	2	37	3	1	8/21/2024 7:29:43 PM
148	wg1961342-3d10 6020TL	2	38	3	1	8/21/2024 7:34:11 PM
149	wg1961342-4 6020TL	2	39	3	1	8/21/2024 7:38:40 PM
150	wg1961342-5d10 6020TL	2	40	3	1	8/21/2024 7:43:09 PM
151	L2446490-03 6020TL	2	42	3	1	8/21/2024 7:47:38 PM
152	L2446490-04 6020TL	2	43	3	1	8/21/2024 7:52:07 PM
153	L2446490-05 6020TL	2	44	3	1	8/21/2024 7:56:36 PM
154	L2446583-03 CT-6020SL	2	52	3	1	8/21/2024 8:01:05 PM
155	CCV	0	9	3	1	8/21/2024 8:05:34 PM
156	CCB	0	10	3	1	8/21/2024 8:10:06 PM
157	L2446445-07 6020SL	2	59	3	1	8/21/2024 8:14:38 PM
158	wg1961612-2d10 CT-6020SL	2	50	3	1	8/21/2024 8:19:08 PM
159	wg1961612-3d10 CT-6020SL	2	51	3	1	8/21/2024 8:23:37 PM
160	L2446583-04 CT-6020SL	2	53	3	1	8/21/2024 8:28:06 PM
161	L2446583-05 CT-6020SL	2	54	3	1	8/21/2024 8:32:36 PM
162	L2446583-06 CT-6020SL	2	55	3	1	8/21/2024 8:37:05 PM
163	L2446445-03 6020SL	2	56	3	1	8/21/2024 8:41:34 PM

Alpha ICPMSQ2 Seq

8/22/2024 5:59:54 AM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
164	L2446445-05 6020SL	2	57	3	1	8/21/2024 8:46:04 PM
165	L2446445-06 6020SL	2	58	3	1	8/21/2024 8:50:33 PM
166	L2446592-01 6020SL	2	60	3	1	8/21/2024 8:55:02 PM
167	CCV	0	9	3	1	8/21/2024 8:59:32 PM
168	CCB	0	10	3	1	8/21/2024 9:04:04 PM
169	WG1961551-1d2 A2-6020T	3	2	3	1	8/21/2024 9:08:37 PM
170	WG1961551-2d10 A2-6020T	3	3	3	1	8/21/2024 9:13:07 PM
171	WG1961551-3d10 A2-6020T	3	4	3	1	8/21/2024 9:17:36 PM
172	L2445067-02d2 A2-6020T	3	5	3	1	8/21/2024 9:22:06 PM
173	CCV	0	9	3	1	8/21/2024 9:26:36 PM
174	CCB	0	10	3	1	8/21/2024 9:31:08 PM
175	L2446853-01 6020SL	3	1	3	1	8/21/2024 9:35:40 PM
176	xL2446922-03 6020TL	2	45	3	1	8/21/2024 9:40:10 PM
177	xL2446922-04d5 6020TL	2	46	3	1	8/21/2024 9:44:39 PM
178	xL2446922-05d5 6020TL	2	47	3	1	8/21/2024 9:49:09 PM
179	xL2446922-06 6020TL	2	48	3	1	8/21/2024 9:53:39 PM
180	CCV	0	9	3	1	8/21/2024 9:58:09 PM
181	CCB	0	10	3	1	8/21/2024 10:02:41 PM
182	CCV	0	9	3	1	8/21/2024 10:07:13 PM
183	CCB	0	10	3	1	8/21/2024 10:11:45 PM

Alpha ICPMSQ2 Seq

8/23/2024 9:37:40 AM

Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
1	Rinse	0	1	3	1	8/23/2024 4:50:56 AM
2	CAL LOT #M23-1225	0	1	3	1	8/23/2024 4:55:22 AM
3	Blank EJF ICPMSQ	4	49	3	1	8/23/2024 4:59:48 AM
4	0.2/20 Cal	0	2	3	1	8/23/2024 5:04:19 AM
5	1/100 Cal	0	3	3	1	8/23/2024 5:08:46 AM
6	10/1000 Cal	0	4	3	1	8/23/2024 5:13:13 AM
7	60/6000 Cal	0	5	3	1	8/23/2024 5:17:41 AM
8	120/12000 Cal	0	6	3	1	8/23/2024 5:22:09 AM
9	Sr 200ppb	4	55	3	1	8/23/2024 5:27:36 AM
10	ICV	0	7	3	1	8/23/2024 5:32:07 AM
11	ICB	0	10	3	1	8/23/2024 5:36:37 AM
12	ICSA	4	53	3	1	8/23/2024 5:44:43 AM
13	xLDR	4	2	3	1	8/23/2024 5:49:14 AM
14	Rinse	0	1	3	1	8/23/2024 5:53:44 AM
15	CCV	0	9	3	1	8/23/2024 5:58:10 AM
16	CCB	0	10	3	1	8/23/2024 6:02:41 AM
17	LDR	4	1	3	1	8/23/2024 6:12:28 AM
18	LDR Check (5x ICSA)	4	2	3	1	8/23/2024 6:16:58 AM
19	LDR Check (5/.5ppm)	4	3	3	1	8/23/2024 6:24:11 AM
20	CCV	0	9	3	1	8/23/2024 6:31:06 AM
21	CCB	0	10	3	1	8/23/2024 6:35:37 AM
22	L2446922-03d20 6020TL	1	1	3	1	8/23/2024 6:44:10 AM
23	L2446922-04d20 6020TL	1	2	3	1	8/23/2024 6:48:36 AM
24	L2446922-05d20 6020TL	1	3	3	1	8/23/2024 6:53:03 AM
25	L2446922-06d20 6020TL	1	4	3	1	8/23/2024 6:57:30 AM
26	LDR Check (2x ICSA)	4	4	3	1	8/23/2024 7:01:58 AM
27	I2446863-02 6020SL	1	5	3	1	8/23/2024 7:08:01 AM
28	I2446863-03 6020SL	1	6	3	1	8/23/2024 7:12:29 AM
29	I2446863-04 6020SL	1	7	3	1	8/23/2024 7:16:57 AM
30	I2446863-05 6020SL	1	8	3	1	8/23/2024 7:21:25 AM
31	I2446863-06 6020SL	1	9	3	1	8/23/2024 7:25:54 AM
32	CCV	0	9	3	1	8/23/2024 7:34:02 AM
33	CCB	0	10	3	1	8/23/2024 7:38:33 AM
34	LDR Check (1/.1ppm)	4	5	3	1	8/23/2024 7:44:25 AM
35	xL2446713-02 6020TL	1	10	3	1	8/23/2024 7:52:58 AM
36	xL2446713-03 6020TL	1	11	3	1	8/23/2024 7:57:28 AM
37	xL2446713-04 6020TL	1	12	3	1	8/23/2024 8:01:57 AM
38	WG1962103-1 MCP-6020SL-10	1	10	3	1	8/23/2024 8:14:17 AM
39	WG1962103-2d10 MCP-6020SL-10	1	11	3	1	8/23/2024 8:18:46 AM
40	WG1962103-3d10 MCP-6020SL-10	1	12	3	1	8/23/2024 8:23:16 AM
41	L2446755-01 MCP-6020SL-10	1	13	3	1	8/23/2024 8:27:46 AM
42	I2446632-01 CT-6020TL	1	14	3	1	8/23/2024 8:32:12 AM
43	I2446632-02 CT-6020TL	1	15	3	1	8/23/2024 8:36:38 AM
44	CCV	0	9	3	1	8/23/2024 8:41:04 AM
45	CCB	0	10	3	1	8/23/2024 8:45:35 AM
46	CCV	0	9	3	1	8/23/2024 8:55:09 AM
47	CCB	0	10	3	1	8/23/2024 8:59:40 AM
48	I2446632-03 CT-6020TL	1	16	3	1	8/23/2024 9:07:36 AM
49	I2446632-04 CT-6020TL	1	17	3	1	8/23/2024 9:12:03 AM
50	I2446632-05 CT-6020TL	1	18	3	1	8/23/2024 9:17:37 AM
51	I2446632-06 CT-6020TL	1	19	3	1	8/23/2024 9:22:04 AM

Alpha ICPMSQ2 Seq

8/23/2024 9:37:40 AM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
52	CCV	0	9	3	1	8/23/2024 9:26:32 AM
53	CCB	0	10	3	1	8/23/2024 9:31:03 AM
54	I2446709-01 2008TL	1	20	3	1	
55	I2446709-02 2008TL	1	21	3	1	
56	I2446711-01 2008TL	1	22	3	1	
57	I2446711-02 2008TL	1	23	3	1	
58	I2446860-01d10 2008TL	1	24	3	1	
59	I2446860-02d10 2008TL	1	25	3	1	
60	I2446915-01 2008TL	1	26	3	1	
61	Unknown	1	27	3	1	
62	Unknown	1	28	3	1	
63	Unknown	1	29	3	1	
64	Unknown	1	30	3	1	
65	Unknown	1	31	3	1	
66	Unknown	1	32	3	1	
67	Unknown	1	33	3	1	
68	Unknown	1	34	3	1	
69	Unknown	1	35	3	1	
70	Unknown	1	36	3	1	
71	Unknown	1	37	3	1	
72	CCV	0	9	3	1	
73	CCB	0	10	3	1	
74	Unknown	1	38	3	1	
75	Unknown	1	39	3	1	
76	Unknown	1	40	3	1	
77	Unknown	1	41	3	1	
78	Unknown	1	42	3	1	
79	Unknown	1	43	3	1	
80	Unknown	1	44	3	1	
81	Unknown	1	45	3	1	
82	Unknown	1	46	3	1	
83	Unknown	1	47	3	1	
84	CCV	0	9	3	1	
85	CCB	0	10	3	1	
86	Unknown	1	48	3	1	
87	Unknown	1	49	3	1	
88	Unknown	1	50	3	1	
89	Unknown	1	51	3	1	
90	Unknown	1	52	3	1	
91	Unknown	1	53	3	1	
92	Unknown	1	54	3	1	
93	Unknown	1	55	3	1	
94	Unknown	1	56	3	1	
95	Unknown	1	57	3	1	
96	CCV	0	9	3	1	
97	CCB	0	10	3	1	
98	CCV	0	9	3	1	
99	CCB	0	10	3	1	

METALS ELN REPORT

Workgroup: WG1961342

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 3005A	1:1 HNO3	tHNO3243311850CLH	1:1 HCl	tHCL2427060520FAC	METALS	METSPIKE2	IPS,FPS,MIX	METPSMS	IPS,FPS,MIX	140, 326

Additional Reagent/Std

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2446490-02 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
L2446490-03 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
L2446490-04 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
L2446490-05 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
L2446922-03 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
L2446922-04 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
L2446922-05 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
L2446922-06 SAMP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	
WG1961342-1 BLANK	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	eln: ADG
WG1961342-2 LCS	08/20/24 08:37	Cristy Estevez	50	<2	0.5	08/20/24 08:03	9	94.9	08/20/24 11:37	50	
WG1961342-3 MS	08/20/24 08:37	Cristy Estevez	50	<2	0.5	08/20/24 08:03	9	94.9	08/20/24 11:37	50	FM2433121954CLH
WG1961342-4 DUP	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	IPS2426271354ADG
WG1961342-5 PS	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	

Reported: 23-AUG-24 10:15 AM

METALS ELN REPORT

Workgroup: WG1961342

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
WG1961342-6 SERDIL	08/20/24 08:37	Cristy Estevez	50	<2		08/20/24 08:03	9	94.9	08/20/24 11:37	50	

Reagent	Actual Volume	Units
1:1 Hydrochloric Acid (H	.5	ml
1:1 Nitric Acid (HNO3)	1	ml

Reported: 23-AUG-24 10:15 AM

Wet Chemistry

Nitrate and Nitrite Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-03	**Date Collected**	: 08/16/24 10:30
Client ID	: LMW-10R-S_24.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/17/24 06:23
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	0.040	0.100	0.022	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-04	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/17/24 06:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	0.089	0.100	0.022	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-05	**Date Collected**	: 08/16/24 13:00
Client ID	: LMW-9R-S_13.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/17/24 06:25
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	0.060	0.100	0.022	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-06	**Date Collected**	: 08/16/24 15:30
Client ID	: LMW-7R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/17/24 06:26
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	0.100	0.100	0.022	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960427-1	**Date Collected**	: NA
Client ID	: WG1960427-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/17/24 04:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	ND	0.100	0.022	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1960427-3	**Date Collected**	: 08/16/24 08:15
Client ID	: WG1960427-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/17/24 06:04
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NO3-F	**Analyst**	: KAF
Lab File ID	: NO3240817-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14797-55-8	Nitrogen, Nitrate	ND	0.100	0.023	U

Sample Raw Data

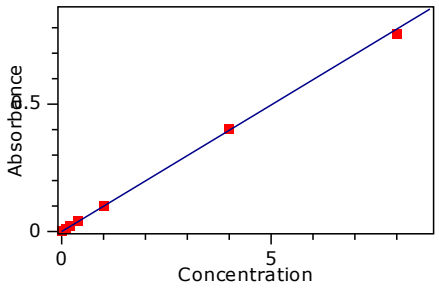
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-17 07:59:35
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-17-075915.dat

Dataset Notes:

Analyst	

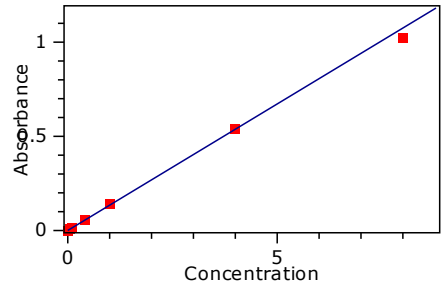
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00012
B: 0.09935
R^2: 0.99962
RSE(%): 1.59179
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
2	NOx 8.0ppm	0.77530	8.00000	7.80430	2.45	2024-08-17T03:54:15
3	NOx 4.0ppm	0.40390	4.00000	4.06680	1.67	2024-08-17T03:55:25
4	NOx 1.0ppm	0.09930	1.00000	1.00030	0.03	2024-08-17T03:56:33
5	NOx 0.4ppm	0.04000	0.40000	0.40410	1.02	2024-08-17T03:57:41
6	NOx 0.2ppm	0.01980	0.20000	0.20070	0.37	2024-08-17T03:58:51
7	NOx 0.1ppm	0.00980	0.10000	0.09960	0.43	2024-08-17T04:00:01
8	NOx 0.0ppm	0.00010	0.00000	0.00210	NA	2024-08-17T04:01:08



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00028
B: 0.13433
R^2: 0.99940
RSE(%): 3.30325
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
9	Nitrite 8.0ppm	1.02180	8.00000	7.60420	4.95	2024-08-17T04:02:10
10	Nitrite 4.0ppm	0.53740	4.00000	3.99830	0.04	2024-08-17T04:03:19
11	Nitrite 1.0ppm	0.13830	1.00000	1.02780	2.78	2024-08-17T04:04:25
12	Nitrite 0.4ppm	0.05550	0.40000	0.41140	2.85	2024-08-17T04:05:36
13	Nitrite 0.1ppm	0.01390	0.10000	0.10140	1.41	2024-08-17T04:06:45
14	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.16	2024-08-17T04:07:55
15	Nitrite 0.0ppm	0.00010	0.00000	-0.00160	NA	2024-08-17T04:09:11

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	0.0026		2024-08-17T03:53:05
NOx 8.0ppm	2	Standard	8	0.7753	1	1	1	7.8043		2024-08-17T03:54:15
NOx 4.0ppm	3	Standard	4	0.4039	1	1	1	4.0668		2024-08-17T03:55:25
NOx 1.0ppm	4	Standard	1	0.0993	1	1	1	1.0003		2024-08-17T03:56:33
NOx 0.4ppm	5	Standard	0.4	0.0400	1	1	1	0.4041		2024-08-17T03:57:41
NOx 0.2ppm	6	Standard	0.2	0.0198	1	1	1	0.2007		2024-08-17T03:58:51
NOx 0.1ppm	7	Standard	0.1	0.0098	1	1	1	0.0996		2024-08-17T04:00:01
NOx 0.0ppm	8	Standard	0	0.0001	1	1	1	0.0021		2024-08-17T04:01:08
Nitrite 8.0ppm	9	Standard	?	0.7756	1	1	1	7.8079	OVR	2024-08-17T04:02:21
Nitrite 4.0ppm	10	Standard	?	0.3920	1	1	1	3.9466		2024-08-17T04:03:31
Nitrite 1.0ppm	11	Standard	?	0.0988	1	1	1	0.9956		2024-08-17T04:04:39
Nitrite 0.4ppm	12	Standard	?	0.0390	1	1	1	0.3940		2024-08-17T04:05:47
Nitrite 0.1ppm	13	Standard	?	0.0095	1	1	1	0.0966		2024-08-17T04:06:57
Nitrite 0.05ppm	14	Standard	?	0.0048	1	1	1	0.0491		2024-08-17T04:08:07
Nitrite 0.0ppm	15	Standard	?	0.0001	1	1	1	0.0021		2024-08-17T04:09:19
CCV NO3	16	QC	1	0.0998	1	1	1	1.0062		2024-08-17T04:10:25
CCV NO2	17	QC	?	0.0995	1	1	1	1.0022		2024-08-17T04:11:31
CCB	18	QC	0	0.0000	1	1	1	0.0011		2024-08-17T04:12:16
ICV NO3 5.0	19	QC	5	0.5062	1	1	1	5.0957		2024-08-17T04:13:49
ICV NO2 5.0	20	QC	?	0.4945	1	1	1	4.9789		2024-08-17T04:14:57
ICV NO3 0.5	21	QC	0.5	0.0489	1	1	1	0.4935		2024-08-17T04:16:05
ICV NO2 0.5	22	QC	?	0.0491	1	1	1	0.4955		2024-08-17T04:17:13
ICB	23	QC	0	0.0001	1	1	1	0.0018		2024-08-17T04:18:40
Diluter CHK 8PPM	24	Unknown	?	0.0733	1	10	1	7.3885		2024-08-17T04:19:31
BLANK NO3	25	Unknown	?	0.0000	1	1	1	0.0008		2024-08-17T04:20:11
LCS NO3	26	Unknown	?	0.5049	1	1	1	5.0835		2024-08-17T04:21:45
BLANK NO2	27	Unknown	?	-0.0001	1	1	1	0.0000		2024-08-17T04:22:24
LCS NO2	28	Unknown	?	0.4961	1	1	1	4.9944		2024-08-17T04:23:58
CCV NO3	29	QC	1	0.0994	1	1	1	1.0021		2024-08-17T04:25:04
CCV NO2	30	QC	?	0.0995	1	1	1	1.0022		2024-08-17T04:26:09
CCB	31	QC	0	0.0000	1	1	1	0.0010		2024-08-17T04:26:55
WG1960424-1	32	Unknown	?	0.0001	1	1	1	0.0018		2024-08-17T04:28:29

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1960424-2	33	Unknown	?	0.4945	1	1	1	4.9789		2024-08-17T04:29:36
WG1960425-1	34	Unknown	?	-0.0001	1	1	1	-0.0002		2024-08-17T04:30:14
WG1960425-2	35	Unknown	?	0.4949	1	1	1	4.9820		2024-08-17T04:31:47
WG1960426-1	36	Unknown	?	-0.0001	1	1	1	0.0000		2024-08-17T04:32:26
WG1960426-2	37	Unknown	?	0.5081	1	1	1	5.1150		2024-08-17T04:33:59
WG1960427-1	38	Unknown	?	-0.0002	1	1	1	-0.0007		2024-08-17T04:34:41
WG1960427-2	39	Unknown	?	0.5079	1	1	1	5.1133		2024-08-17T04:36:14
WG1960428-1	40	Unknown	?	-0.0001	1	1	1	0.0003		2024-08-17T04:36:54
WG1960428-2	41	Unknown	?	0.5073	1	1	1	5.1074		2024-08-17T04:38:28
CCV NO3	42	QC	1	0.0984	1	1	1	0.9920		2024-08-17T04:39:33
CCV NO2	43	QC	?	0.0992	1	1	1	0.9994		2024-08-17T04:40:39
CCB	44	QC	0	0.0000	1	1	1	0.0012		2024-08-17T04:41:46
WG1960429-1	45	Unknown	?	0.0001	1	1	1	0.0020		2024-08-17T04:43:08
WG1960429-2	46	Unknown	?	0.5089	1	1	1	5.1236		2024-08-17T04:44:07
L2446647-01	47	Unknown	?	-0.0001	1	1	1	0.0000		2024-08-17T04:44:46
WG1960426-3	48	Unknown	?	0.0009	1	1	1	0.0100		2024-08-17T04:46:18
WG1960426-4	49	Unknown	?	0.3934	1	1	1	3.9612		2024-08-17T04:47:24
WG1960424-3	50	Unknown	?	0.0000	1	1	1	0.0010		2024-08-17T04:48:30
WG1960424-4	51	Unknown	?	0.4358	1	1	1	4.3871		2024-08-17T04:49:35
L2446647-03	52	Unknown	?	0.6196	1	1	1	6.2372		2024-08-17T04:50:40
L2446688-01	53	Unknown	?	0.0589	1	1	1	0.5941		2024-08-17T04:51:44
WG1960426-5	54	Unknown	?	0.0600	1	1	1	0.6049		2024-08-17T04:52:49
CCV NO3	55	QC	1	0.0993	1	1	1	1.0005		2024-08-17T04:53:54
CCV NO2	56	QC	?	0.0994	1	1	1	1.0015		2024-08-17T04:54:59
CCB	57	QC	0	0.0000	1	1	1	0.0010		2024-08-17T04:56:08
WG1960426-6	58	Unknown	?	0.4542	1	1	1	4.5727		2024-08-17T04:57:19
WG1960424-5	59	Unknown	?	0.0596	1	1	1	0.6011		2024-08-17T04:58:27
WG1960424-6	60	Unknown	?	0.4903	1	1	1	4.9362		2024-08-17T04:59:34
L2446752-01	61	Unknown	?	0.0322	1	1	1	0.3256		2024-08-17T05:00:41
L2446752-03	62	Unknown	?	0.0015	1	1	1	0.0160		2024-08-17T05:01:48
L2446752-05	63	Unknown	?	0.0829	1	1	1	0.8356		2024-08-17T05:02:54
L2446752-08	64	Unknown	?	0.0028	1	1	1	0.0296		2024-08-17T05:04:01
L2446752-09	65	Unknown	?	0.0007	1	1	1	0.0086		2024-08-17T05:05:07

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446752-11	66	Unknown	?	0.0055	1	1	1	0.0570		2024-08-17T05:06:12
L2446752-13	67	Unknown	?	0.0014	1	1	1	0.0154		2024-08-17T05:07:19
CCV NO3	68	QC	1	0.0995	1	1	1	1.0025		2024-08-17T05:08:23
CCV NO2	69	QC	?	0.0987	1	1	1	0.9945		2024-08-17T05:09:28
CCB	70	QC	0	0.0000	1	1	1	0.0011		2024-08-17T05:10:15
L2446752-17	71	Unknown	?	0.0830	1	1	1	0.8361		2024-08-17T05:11:48
L2446752-20	72	Unknown	?	0.0055	1	1	1	0.0567		2024-08-17T05:12:56
L2446779-01	73	Unknown	?	0.0017	1	1	1	0.0184		2024-08-17T05:14:01
L2446779-02	74	Unknown	?	0.0007	1	1	1	0.0085		2024-08-17T05:15:04
L2446801-01	75	Unknown	?	1.3655	1	1	1	13.7457	OVR	2024-08-17T05:16:15
L2446805-01	76	Unknown	?	1.3528	1	1	1	13.6169	OVR	2024-08-17T05:17:26
L2446860-01	77	Unknown	?	-0.0005	1	1	1	-0.0037		2024-08-17T05:18:22
L2446860-02	78	Unknown	?	0.0504	1	1	1	0.5084		2024-08-17T05:19:29
L2446609-01	79	Unknown	?	0.1969	1	1	1	1.9829		2024-08-17T05:20:36
L2446439-03	80	Unknown	?	0.0020	1	1	1	0.0216		2024-08-17T05:21:44
CCV NO3	81	QC	1	0.0991	1	1	1	0.9982		2024-08-17T05:22:48
CCV NO2	82	QC	?	0.0997	1	1	1	1.0044		2024-08-17T05:23:54
CCB	83	QC	0	0.0000	1	1	1	0.0016		2024-08-17T05:25:04
WG1960429-3	84	Unknown	?	0.0018	1	1	1	0.0191		2024-08-17T05:26:15
WG1960429-4	85	Unknown	?	0.3970	1	1	1	3.9973		2024-08-17T05:27:22
WG1960425-3	86	Unknown	?	0.0010	1	1	1	0.0111		2024-08-17T05:28:28
WG1960425-4	87	Unknown	?	0.4417	1	1	1	4.4465		2024-08-17T05:29:34
L2446439-04	88	Unknown	?	0.0024	1	1	1	0.0253		2024-08-17T05:30:38
L2446439-18	89	Unknown	?	0.0072	1	1	1	0.0738		2024-08-17T05:31:44
L2446439-20	90	Unknown	?	0.0011	1	1	1	0.0123		2024-08-17T05:32:50
L2446584-01	91	Unknown	?	0.0009	1	1	1	0.0105		2024-08-17T05:33:54
L2446584-02	92	Unknown	?	0.0008	1	1	1	0.0094		2024-08-17T05:34:58
L2446584-03	93	Unknown	?	0.0209	1	1	1	0.2117		2024-08-17T05:36:03
CCV NO3	94	QC	1	0.1006	1	1	1	1.0133		2024-08-17T05:37:08
CCV NO2	95	QC	?	0.0997	1	1	1	1.0051		2024-08-17T05:38:13
CCB	96	QC	0	0.0000	1	1	1	0.0013		2024-08-17T05:38:58
L2446584-04	97	Unknown	?	0.0083	1	1	1	0.0842		2024-08-17T05:40:31
L2446951-06	98	Unknown	?	0.3913	1	1	1	3.9392		2024-08-17T05:41:38

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1960428-3	99	Unknown	?	0.3916	1	1	1	3.9430		2024-08-17T05:42:45
WG1960428-4	100	Unknown	?	0.7444	1	1	1	7.4940		2024-08-17T05:43:52
L2446951-07	101	Unknown	?	0.3911	1	1	1	3.9378		2024-08-17T05:44:58
L2446951-11	102	Unknown	?	0.4701	1	1	1	4.7330		2024-08-17T05:46:04
L2446951-12	103	Unknown	?	0.2060	1	1	1	2.0751		2024-08-17T05:47:11
L2446951-13	104	Unknown	?	0.3087	1	1	1	3.1085		2024-08-17T05:48:17
L2446951-14	105	Unknown	?	0.0028	1	1	1	0.0291		2024-08-17T05:49:23
L2445937-01	106	Unknown	?	0.0967	1	1	1	0.9740		2024-08-17T05:50:28
CCV NO3	107	QC	1	0.0941	1	1	1	0.9487		2024-08-17T05:51:34
CCV NO2	108	QC	?	0.0952	1	1	1	0.9595		2024-08-17T05:52:39
CCB	109	QC	0	0.0000	1	1	1	0.0012		2024-08-17T05:53:23
L2445937-02	110	Unknown	?	0.0017	1	1	1	0.0181		2024-08-17T05:54:56
L2445937-03	111	Unknown	?	0.0007	1	1	1	0.0080		2024-08-17T05:56:02
L2445937-04	112	Unknown	?	0.0006	1	1	1	0.0074		2024-08-17T05:57:09
L2445937-05	113	Unknown	?	0.0006	1	1	1	0.0073		2024-08-17T05:58:14
L2445950-01	114	Unknown	?	0.0079	1	1	1	0.0812		2024-08-17T05:59:19
L2445950-02	115	Unknown	?	0.0133	1	1	1	0.1349		2024-08-17T06:00:24
L2446555-04	116	Unknown	?	0.0105	1	1	1	0.1073		2024-08-17T06:01:32
L2446555-06	117	Unknown	?	0.0007	1	1	1	0.0083		2024-08-17T06:02:39
L2446638-01	118	Unknown	?	0.0008	1	1	1	0.0094		2024-08-17T06:03:45
WG1960427-3	119	Unknown	?	0.0001	1	1	1	0.0022		2024-08-17T06:04:55
CCV NO3	120	QC	1	0.0951	1	1	1	0.9585		2024-08-17T06:05:58
CCV NO2	121	QC	?	0.0949	1	1	1	0.9564		2024-08-17T06:07:04
CCB	122	QC	0	0.0000	1	1	1	0.0014		2024-08-17T06:08:28
WG1960427-4	123	Unknown	?	0.3791	1	1	1	3.8168		2024-08-17T06:09:24
L2446638-02	124	Unknown	?	0.0000	1	1	1	0.0014		2024-08-17T06:10:32
L2446872-01	125	Unknown	?	0.0364	1	1	1	0.3678		2024-08-17T06:11:38
L2446872-02	126	Unknown	?	0.0013	1	1	1	0.0141		2024-08-17T06:12:44
L2446872-03	127	Unknown	?	0.0483	1	1	1	0.4877		2024-08-17T06:13:49
L2446872-04	128	Unknown	?	0.1663	1	1	1	1.6747		2024-08-17T06:14:55
WG1960445-1; WG1960448-1	129	Unknown	?	-0.0001	1	1	1	0.0004		2024-08-17T06:15:31
WG1960445-2;	130	Unknown	?	0.4922	1	1	1	4.9554		2024-08-17T06:17:05

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1960448-2										
L2446786-01	131	Unknown	?	0.0817	1	1	1	0.8234		2024-08-17T06:18:10
L2446792-17	132	Unknown	?	0.0548	1	1	1	0.5529		2024-08-17T06:19:16
CCV NO3	133	QC	1	0.0951	1	1	1	0.9587		2024-08-17T06:20:21
CCV NO2	134	QC	?	0.0947	1	1	1	0.9548		2024-08-17T06:21:26
CCB	135	QC	0	0.0000	1	1	1	0.0014		2024-08-17T06:22:17
L2446922-03	136	Unknown	?	0.0039	1	1	1	0.0407		2024-08-17T06:23:48
L2446922-04	137	Unknown	?	0.0087	1	1	1	0.0890		2024-08-17T06:24:56
L2446922-05	138	Unknown	?	0.0058	1	1	1	0.0600		2024-08-17T06:26:03
L2446922-06	139	Unknown	?	0.0098	1	1	1	0.1000		2024-08-17T06:27:09
L2446693-01	140	Unknown	?	0.0157	1	1	1	0.1596		2024-08-17T06:28:16
WG1960444-3	141	Unknown	?	0.0149	1	1	1	0.1509		2024-08-17T06:29:22
WG1960444-4	142	Unknown	?	0.4310	1	1	1	4.3397		2024-08-17T06:30:28
L2446860-01	143	Unknown	?	0.0062	1	1	1	0.0636		2024-08-17T06:31:35
L2445263-03; 0.5 UP TO 250	144	Unknown	?	0.1388	500	1	1	699.1828		2024-08-17T06:32:42
L2445417-01	145	Unknown	?	0.1522	1	1	1	1.5333		2024-08-17T06:33:47
CCV NO3	146	QC	1	0.0949	1	1	1	0.9560		2024-08-17T06:34:52
CCV NO2	147	QC	?	0.0952	1	1	1	0.9595		2024-08-17T06:35:58
CCB	148	QC	0	0.0000	1	1	1	0.0014		2024-08-17T06:36:46
WG1960445-3	149	Unknown	?	0.1508	1	1	1	1.5195		2024-08-17T06:38:18
WG1960445-4	150	Unknown	?	0.5250	1	1	1	5.2851		2024-08-17T06:39:26
L2445418-01	151	Unknown	?	0.1377	1	1	1	1.3875		2024-08-17T06:40:32
L2445604-01	152	Unknown	?	0.0095	1	1	1	0.0972		2024-08-17T06:41:38
L2445604-02	153	Unknown	?	0.0953	1	1	1	0.9606		2024-08-17T06:42:43
L2445606-02	154	Unknown	?	0.2861	1	1	1	2.8810		2024-08-17T06:43:49
L2445645-02	155	Unknown	?	0.0029	1	1	1	0.0306		2024-08-17T06:44:56
L2445677-01	156	Unknown	?	0.2872	1	1	1	2.8923		2024-08-17T06:46:02
L2445677-02	157	Unknown	?	0.2913	1	1	1	2.9332		2024-08-17T06:47:10
L2445811-01	158	Unknown	?	0.0013	1	1	1	0.0147		2024-08-17T06:48:16
CCV NO3	159	QC	1	0.0952	1	1	1	0.9593		2024-08-17T06:49:22
CCV NO2	160	QC	?	0.0948	1	1	1	0.9552		2024-08-17T06:50:27
CCB	161	QC	0	0.0000	1	1	1	0.0010		2024-08-17T06:51:12
L2445556-01	162	Unknown	?	0.0028	1	1	1	0.0296		2024-08-17T06:52:46

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2445556-02	163	Unknown	?	0.0281	1	1	1	0.2841		2024-08-17T06:53:52
L2445556-03	164	Unknown	?	0.0035	1	1	1	0.0364		2024-08-17T06:54:59
L2445556-04	165	Unknown	?	0.0033	1	1	1	0.0342		2024-08-17T06:56:05
CCV NO3	166	QC	1	0.0946	1	1	1	0.9534		2024-08-17T06:57:09
CCV NO2	167	QC	?	0.0948	1	1	1	0.9556		2024-08-17T06:58:16
CCB	168	QC	0	0.0000	1	1	1	0.0012		2024-08-17T06:59:03
L2446712-01	169	Unknown	?	0.0010	1	1	1	0.0109		2024-08-17T07:00:38
WG1960448-3	170	Unknown	?	0.0002	1	1	1	0.0030		2024-08-17T07:01:50
WG1960448-4	171	Unknown	?	0.3787	1	1	1	3.8134		2024-08-17T07:02:50
L2446712-02	172	Unknown	?	0.0757	1	1	1	0.7629		2024-08-17T07:03:56
CCV NO3	173	QC	1	0.0953	1	1	1	0.9599		2024-08-17T07:05:01
CCV NO2	174	QC	?	0.0949	1	1	1	0.9568		2024-08-17T07:06:07
CCB	175	QC	0	0.0000	1	1	1	0.0011		2024-08-17T07:06:50
spacer	176	Unknown	?	0.0001	1	1	1	0.0018		2024-08-17T07:16:36
spacer	177	Unknown	?	0.0004	1	1	1	0.0056		2024-08-17T07:17:22
L2446801-01	178	Unknown	?	0.3063	1	10	1	30.8402		2024-08-17T07:18:24
L2446805-01	179	Unknown	?	0.5140	1	10	1	51.7428		2024-08-17T07:19:33
Diluter CHK 8PPM	180	Unknown	?	0.0707	1	10	1	7.1304		2024-08-17T07:20:42
CCV NO3	181	QC	1	0.0946	1	1	1	0.9536		2024-08-17T07:21:49
CCV NO2	182	QC	?	0.0953	1	1	1	0.9608		2024-08-17T07:22:55
CCB	183	QC	0	0.0000	1	1	1	0.0008		2024-08-17T07:23:35

Channel: 2-NO2

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T03:52:58
NOx 8.0ppm	2	Standard	?	0.0001	1	1	1	-0.0015		2024-08-17T03:54:07
NOx 4.0ppm	3	Standard	?	0.0001	1	1	1	-0.0016		2024-08-17T03:55:21
NOx 1.0ppm	4	Standard	?	0.0001	1	1	1	-0.0016		2024-08-17T03:56:18
NOx 0.4ppm	5	Standard	?	0.0001	1	1	1	-0.0016		2024-08-17T03:57:28
NOx 0.2ppm	6	Standard	?	0.0001	1	1	1	-0.0017		2024-08-17T03:58:46
NOx 0.1ppm	7	Standard	?	0.0001	1	1	1	-0.0017		2024-08-17T03:59:55
NOx 0.0ppm	8	Standard	?	0.0001	1	1	1	-0.0017		2024-08-17T04:01:14
Nitrite 8.0ppm	9	Standard	8	1.0218	1	1	1	7.6042		2024-08-17T04:02:10
Nitrite	10	Standard	4	0.5374	1	1	1	3.9983		2024-08-

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
4.0ppm										17T04:03:19
Nitrite 1.0ppm	11	Standard	1	0.1383	1	1	1	1.0278		2024-08-17T04:04:25
Nitrite 0.4ppm	12	Standard	0.4	0.0555	1	1	1	0.4114		2024-08-17T04:05:36
Nitrite 0.1ppm	13	Standard	0.1	0.0139	1	1	1	0.1014		2024-08-17T04:06:45
Nitrite 0.05ppm	14	Standard	0.05	0.0069	1	1	1	0.0494		2024-08-17T04:07:55
Nitrite 0.0ppm	15	Standard	0	0.0001	1	1	1	-0.0016		2024-08-17T04:09:11
CCV NO3	16	QC	?	0.0001	1	1	1	-0.0010		2024-08-17T04:10:15
CCV NO2	17	QC	1	0.1386	1	1	1	1.0295		2024-08-17T04:11:18
CCB	18	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T04:12:27
ICV NO3 5.0	19	QC	?	0.0001	1	1	1	-0.0013		2024-08-17T04:13:38
ICV NO2 5.0	20	QC	5	0.6699	1	1	1	4.9846		2024-08-17T04:14:45
ICV NO3 0.5	21	QC	?	0.0000	1	1	1	-0.0019		2024-08-17T04:15:52
ICV NO2 0.5	22	QC	0.5	0.0700	1	1	1	0.5188		2024-08-17T04:17:01
ICB	23	QC	0	0.0001	1	1	1	-0.0013		2024-08-17T04:18:15
Diluter CHK 8PPM	24	Unknown	?	0.0001	1	10	1	-0.0165		2024-08-17T04:19:24
BLANK NO3	25	Unknown	?	0.0001	1	1	1	-0.0014		2024-08-17T04:20:20
LCS NO3	26	Unknown	?	0.0001	1	1	1	-0.0013		2024-08-17T04:21:36
BLANK NO2	27	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T04:22:51
LCS NO2	28	Unknown	?	0.6786	1	1	1	5.0496		2024-08-17T04:23:44
CCV NO3	29	QC	?	0.0000	1	1	1	-0.0018		2024-08-17T04:24:52
CCV NO2	30	QC	1	0.1385	1	1	1	1.0291		2024-08-17T04:25:56
CCB	31	QC	0	0.0001	1	1	1	-0.0014		2024-08-17T04:27:14
WG1960424-1	32	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T04:28:17
WG1960424-2	33	Unknown	?	0.6714	1	1	1	4.9961		2024-08-17T04:29:23
WG1960425-1	34	Unknown	?	0.0000	1	1	1	-0.0023		2024-08-17T04:30:14
WG1960425-2	35	Unknown	?	0.6729	1	1	1	5.0071		2024-08-17T04:31:34
WG1960426-1	36	Unknown	?	0.0000	1	1	1	-0.0021		2024-08-17T04:32:26
WG1960426-2	37	Unknown	?	0.0001	1	1	1	-0.0016		2024-08-17T04:33:50
WG1960427-1	38	Unknown	?	0.0001	1	1	1	-0.0016		2024-08-17T04:35:02
WG1960427-2	39	Unknown	?	0.0001	1	1	1	-0.0013		2024-08-17T04:36:04
WG1960428-1	40	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T04:37:17
WG1960428-2	41	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T04:38:55
CCV NO3	42	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T04:39:20

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
CCV NO2	43	QC	1	0.1376	1	1	1	1.0222		2024-08-17T04:40:25
CCB	44	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T04:41:44
WG1960429-1	45	Unknown	?	0.0000	1	1	1	-0.0018		2024-08-17T04:42:49
WG1960429-2	46	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T04:43:58
L2446647-01	47	Unknown	?	0.0011	1	1	1	0.0061		2024-08-17T04:45:00
WG1960426-3	48	Unknown	?	0.0012	1	1	1	0.0071		2024-08-17T04:46:05
WG1960426-4	49	Unknown	?	0.0011	1	1	1	0.0061		2024-08-17T04:47:10
WG1960424-3	50	Unknown	?	0.0013	1	1	1	0.0072		2024-08-17T04:48:16
WG1960424-4	51	Unknown	?	0.5909	1	1	1	4.3970		2024-08-17T04:49:21
L2446647-03	52	Unknown	?	0.0209	1	1	1	0.1536		2024-08-17T04:50:25
L2446688-01	53	Unknown	?	0.0097	1	1	1	0.0699		2024-08-17T04:51:30
WG1960426-5	54	Unknown	?	0.0090	1	1	1	0.0650		2024-08-17T04:52:34
CCV NO3	55	QC	?	0.0001	1	1	1	-0.0012		2024-08-17T04:53:36
CCV NO2	56	QC	1	0.1381	1	1	1	1.0262		2024-08-17T04:54:46
CCB	57	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T04:55:55
WG1960426-6	58	Unknown	?	0.0129	1	1	1	0.0941		2024-08-17T04:57:06
WG1960424-5	59	Unknown	?	0.0090	1	1	1	0.0650		2024-08-17T04:58:14
WG1960424-6	60	Unknown	?	0.5984	1	1	1	4.4528		2024-08-17T04:59:21
L2446752-01	61	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:00:28
L2446752-03	62	Unknown	?	0.0011	1	1	1	0.0060		2024-08-17T05:01:34
L2446752-05	63	Unknown	?	0.0008	1	1	1	0.0035		2024-08-17T05:02:40
L2446752-08	64	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:03:47
L2446752-09	65	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T05:04:52
L2446752-11	66	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T05:05:58
L2446752-13	67	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:07:04
CCV NO3	68	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T05:08:14
CCV NO2	69	QC	1	0.1366	1	1	1	1.0145		2024-08-17T05:09:15
CCB	70	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T05:10:29
L2446752-17	71	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T05:11:35
L2446752-20	72	Unknown	?	0.0008	1	1	1	0.0036		2024-08-17T05:12:41
L2446779-01	73	Unknown	?	0.0012	1	1	1	0.0071		2024-08-17T05:13:47
L2446779-02	74	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:14:51
L2446801-01	75	Unknown	?	0.0031	1	1	1	0.0213		2024-08-17T05:15:54

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446805-01	76	Unknown	?	0.0168	1	1	1	0.1227		2024-08-17T05:17:02
L2446860-01	77	Unknown	?	0.0071	1	1	1	0.0506		2024-08-17T05:18:09
L2446860-02	78	Unknown	?	0.0140	1	1	1	0.1020		2024-08-17T05:19:16
L2446609-01	79	Unknown	?	0.0874	1	1	1	0.6482		2024-08-17T05:20:22
L2446439-03	80	Unknown	?	0.0014	1	1	1	0.0084		2024-08-17T05:21:29
CCV NO3	81	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T05:22:38
CCV NO2	82	QC	1	0.1368	1	1	1	1.0163		2024-08-17T05:23:40
CCB	83	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T05:24:51
WG1960429-3	84	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T05:26:00
WG1960429-4	85	Unknown	?	0.0040	1	1	1	0.0274		2024-08-17T05:27:08
WG1960425-3	86	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T05:28:13
WG1960425-4	87	Unknown	?	0.5925	1	1	1	4.4086		2024-08-17T05:29:19
L2446439-04	88	Unknown	?	0.0012	1	1	1	0.0072		2024-08-17T05:30:25
L2446439-18	89	Unknown	?	0.0022	1	1	1	0.0140		2024-08-17T05:31:29
L2446439-20	90	Unknown	?	0.0006	1	1	1	0.0027		2024-08-17T05:32:35
L2446584-01	91	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T05:33:40
L2446584-02	92	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T05:34:43
L2446584-03	93	Unknown	?	0.0008	1	1	1	0.0039		2024-08-17T05:35:49
CCV NO3	94	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T05:36:58
CCV NO2	95	QC	1	0.1389	1	1	1	1.0320		2024-08-17T05:38:00
CCB	96	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T05:39:14
L2446584-04	97	Unknown	?	0.0008	1	1	1	0.0037		2024-08-17T05:40:17
L2446951-06	98	Unknown	?	0.0528	1	1	1	0.3909		2024-08-17T05:41:25
WG1960428-3	99	Unknown	?	0.0528	1	1	1	0.3911		2024-08-17T05:42:32
WG1960428-4	100	Unknown	?	0.0551	1	1	1	0.4082		2024-08-17T05:43:38
L2446951-07	101	Unknown	?	0.0537	1	1	1	0.3975		2024-08-17T05:44:44
L2446951-11	102	Unknown	?	0.0645	1	1	1	0.4782		2024-08-17T05:45:51
L2446951-12	103	Unknown	?	0.0241	1	1	1	0.1770		2024-08-17T05:46:57
L2446951-13	104	Unknown	?	0.0338	1	1	1	0.2498		2024-08-17T05:48:02
L2446951-14	105	Unknown	?	0.0036	1	1	1	0.0247		2024-08-17T05:49:08
L2445937-01	106	Unknown	?	0.0047	1	1	1	0.0326		2024-08-17T05:50:13
CCV NO3	107	QC	?	0.0001	1	1	1	-0.0015		2024-08-17T05:51:17
CCV NO2	108	QC	1	0.1358	1	1	1	1.0086		2024-08-17T05:52:24

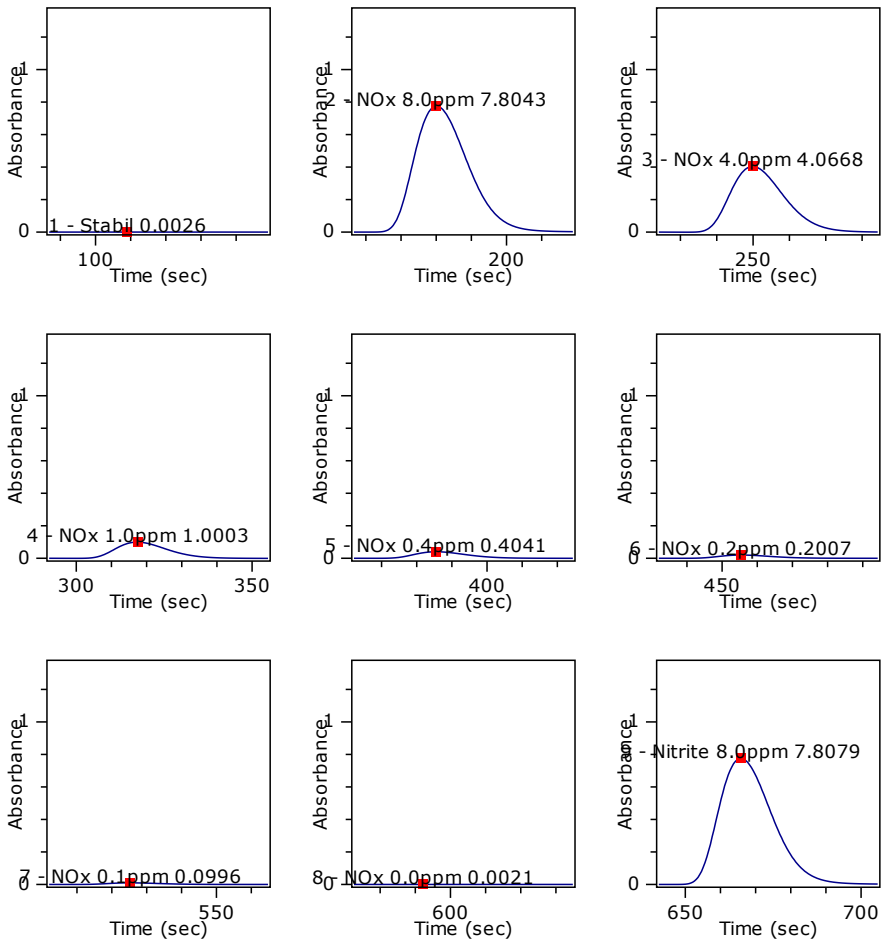
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
CCB	109	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T05:53:39
L2445937-02	110	Unknown	?	0.0008	1	1	1	0.0040		2024-08-17T05:54:42
L2445937-03	111	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T05:55:49
L2445937-04	112	Unknown	?	0.0006	1	1	1	0.0026		2024-08-17T05:56:54
L2445937-05	113	Unknown	?	0.0007	1	1	1	0.0028		2024-08-17T05:57:58
L2445950-01	114	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T05:59:04
L2445950-02	115	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T06:00:11
L2446555-04	116	Unknown	?	0.0023	1	1	1	0.0149		2024-08-17T06:01:18
L2446555-06	117	Unknown	?	0.0006	1	1	1	0.0025		2024-08-17T06:02:25
L2446638-01	118	Unknown	?	0.0009	1	1	1	0.0044		2024-08-17T06:03:31
WG1960427-3	119	Unknown	?	0.0001	1	1	1	-0.0015		2024-08-17T06:04:35
CCV NO3	120	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T06:05:43
CCV NO2	121	QC	1	0.1347	1	1	1	1.0005		2024-08-17T06:06:49
CCB	122	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T06:08:02
WG1960427-4	123	Unknown	?	0.0005	1	1	1	0.0019		2024-08-17T06:09:09
L2446638-02	124	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T06:10:17
L2446872-01	125	Unknown	?	0.0008	1	1	1	0.0035		2024-08-17T06:11:24
L2446872-02	126	Unknown	?	0.0007	1	1	1	0.0030		2024-08-17T06:12:29
L2446872-03	127	Unknown	?	0.0011	1	1	1	0.0063		2024-08-17T06:13:34
L2446872-04	128	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T06:14:40
WG1960445-1; WG1960448-1	129	Unknown	?	0.0000	1	1	1	-0.0018		2024-08-17T06:16:10
WG1960445-2; WG1960448-2	130	Unknown	?	0.0001	1	1	1	-0.0016		2024-08-17T06:16:50
L2446786-01	131	Unknown	?	0.0009	1	1	1	0.0045		2024-08-17T06:17:55
L2446792-17	132	Unknown	?	0.0013	1	1	1	0.0079		2024-08-17T06:19:00
CCV NO3	133	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T06:20:06
CCV NO2	134	QC	1	0.1355	1	1	1	1.0063		2024-08-17T06:21:12
CCB	135	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T06:22:26
L2446922-03	136	Unknown	?	0.0032	1	1	1	0.0219		2024-08-17T06:23:34
L2446922-04	137	Unknown	?	0.0064	1	1	1	0.0455		2024-08-17T06:24:41
L2446922-05	138	Unknown	?	0.0047	1	1	1	0.0331		2024-08-17T06:25:49
L2446922-06	139	Unknown	?	0.0083	1	1	1	0.0594		2024-08-17T06:26:55

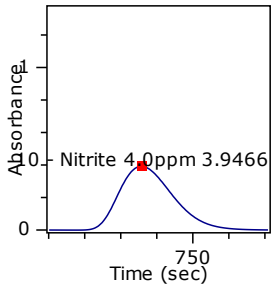
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446693-01	140	Unknown	?	0.0078	1	1	1	0.0561		2024-08-17T06:28:02
WG1960444-3	141	Unknown	?	0.0070	1	1	1	0.0502		2024-08-17T06:29:08
WG1960444-4	142	Unknown	?	0.5881	1	1	1	4.3758		2024-08-17T06:30:14
L2446860-01	143	Unknown	?	0.0070	1	1	1	0.0501		2024-08-17T06:31:21
L2445263-03; 0.5 UP TO 250	144	Unknown	?	0.0004	500	1	1	0.5061		2024-08-17T06:32:44
L2445417-01	145	Unknown	?	0.0009	1	1	1	0.0047		2024-08-17T06:33:32
CCV NO3	146	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T06:34:37
CCV NO2	147	QC	1	0.1360	1	1	1	1.0106		2024-08-17T06:35:44
CCB	148	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T06:36:56
WG1960445-3	149	Unknown	?	0.0002	1	1	1	-0.0009		2024-08-17T06:38:05
WG1960445-4	150	Unknown	?	0.0020	1	1	1	0.0130		2024-08-17T06:39:11
L2445418-01	151	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T06:40:16
L2445604-01	152	Unknown	?	0.0010	1	1	1	0.0050		2024-08-17T06:41:23
L2445604-02	153	Unknown	?	0.0008	1	1	1	0.0038		2024-08-17T06:42:28
L2445606-02	154	Unknown	?	0.1743	1	1	1	1.2951		2024-08-17T06:43:34
L2445645-02	155	Unknown	?	0.0008	1	1	1	0.0041		2024-08-17T06:44:41
L2445677-01	156	Unknown	?	0.0056	1	1	1	0.0396		2024-08-17T06:45:48
L2445677-02	157	Unknown	?	0.0021	1	1	1	0.0132		2024-08-17T06:46:55
L2445811-01	158	Unknown	?	0.0009	1	1	1	0.0045		2024-08-17T06:48:02
CCV NO3	159	QC	?	0.0001	1	1	1	-0.0016		2024-08-17T06:49:08
CCV NO2	160	QC	1	0.1370	1	1	1	1.0181		2024-08-17T06:50:13
CCB	161	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T06:51:26
L2445556-01	162	Unknown	?	0.0009	1	1	1	0.0046		2024-08-17T06:52:31
L2445556-02	163	Unknown	?	0.0009	1	1	1	0.0048		2024-08-17T06:53:38
L2445556-03	164	Unknown	?	0.0011	1	1	1	0.0063		2024-08-17T06:54:44
L2445556-04	165	Unknown	?	0.0007	1	1	1	0.0029		2024-08-17T06:55:50
CCV NO3	166	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T06:56:59
CCV NO2	167	QC	1	0.1356	1	1	1	1.0074		2024-08-17T06:58:01
CCB	168	QC	0	0.0001	1	1	1	-0.0014		2024-08-17T06:59:14
L2446712-01	169	Unknown	?	0.0010	1	1	1	0.0052		2024-08-17T07:00:22
WG1960448-3	170	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T07:01:32
WG1960448-4	171	Unknown	?	0.0001	1	1	1	-0.0010		2024-08-17T07:02:37
L2446712-	172	Unknown	?	0.1091	1	1	1	0.8100		2024-08-

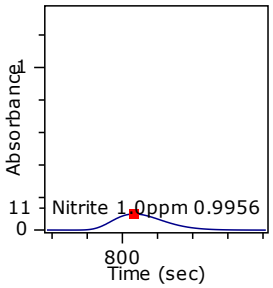
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
02										17T07:03:41
CCV NO3	173	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T07:04:47
CCV NO2	174	QC	1	0.1353	1	1	1	1.0052		2024-08-17T07:05:53
CCB	175	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T07:07:07
spacer	176	Unknown	?	0.0000	1	1	1	-0.0018		2024-08-17T07:16:20
spacer	177	Unknown	?	0.0010	1	1	1	0.0054		2024-08-17T07:17:03
L2446801-01	178	Unknown	?	0.0003	1	10	1	0.0047		2024-08-17T07:18:12
L2446805-01	179	Unknown	?	0.0016	1	10	1	0.1017		2024-08-17T07:19:20
Diluter CHK 8PPM	180	Unknown	?	0.0001	1	10	1	-0.0161		2024-08-17T07:20:24
CCV NO3	181	QC	?	0.0001	1	1	1	-0.0013		2024-08-17T07:21:34
CCV NO2	182	QC	1	0.1380	1	1	1	1.0251		2024-08-17T07:22:40
CCB	183	QC	0	0.0001	1	1	1	-0.0017		2024-08-17T07:23:54

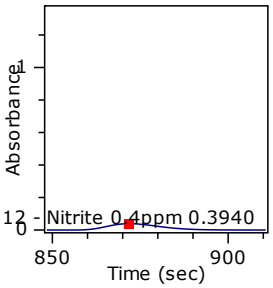
Peaks:

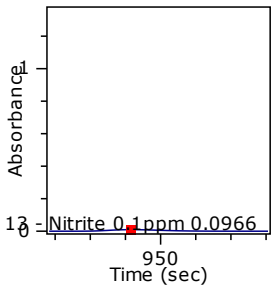
Channel: 1-NOx

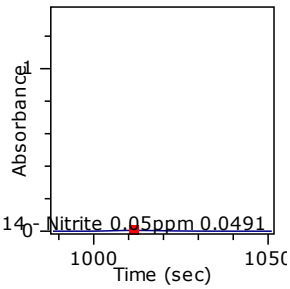


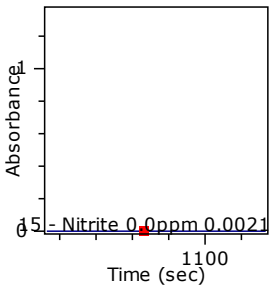

Absorbance
10 - Nitrite 4.0ppm 3.9466
Time (sec)

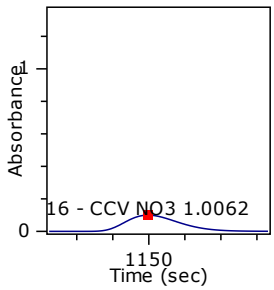

Absorbance
11 - Nitrite 1.0ppm 0.9956
Time (sec)

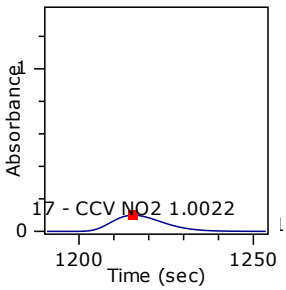

Absorbance
12 - Nitrite 0.4ppm 0.3940
Time (sec)


Absorbance
13 - Nitrite 0.1ppm 0.0966
Time (sec)


Absorbance
14 - Nitrite 0.05ppm 0.0491
Time (sec)


Absorbance
15 - Nitrite 0.0ppm 0.0021
Time (sec)


Absorbance
16 - CCV NO3 1.0062
Time (sec)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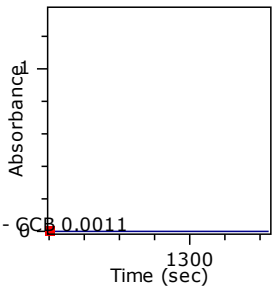
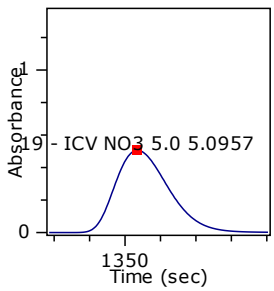
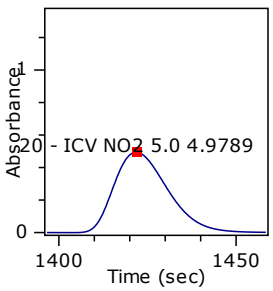
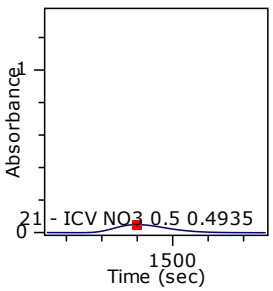
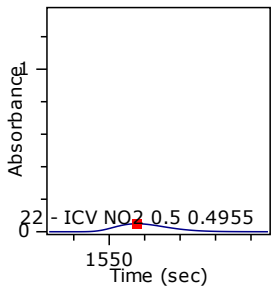
17 - CCV NO2 1.0022
Time (sec)

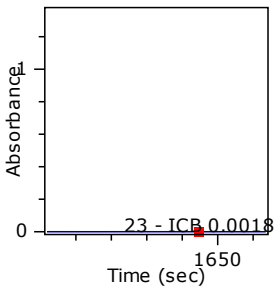

Absorbance
18 - CCB 0.0011
Time (sec)

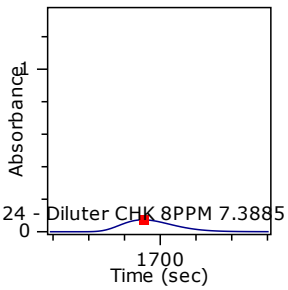

Absorbance
19 - ICV NO3 5.0 5.0957
Time (sec)

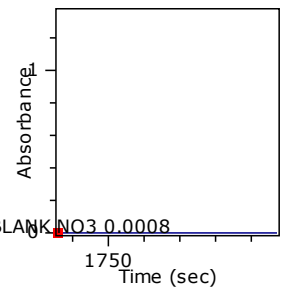

Absorbance
20 - ICV NO2 5.0 4.9789
Time (sec)

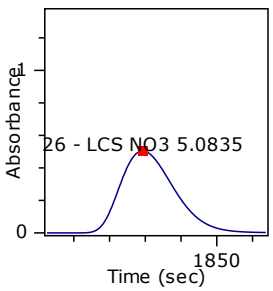

Absorbance
21 - ICV NO3 0.5 0.4935
Time (sec)

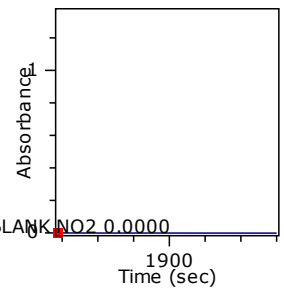

Absorbance
22 - ICV NO2 0.5 0.4955
Time (sec)

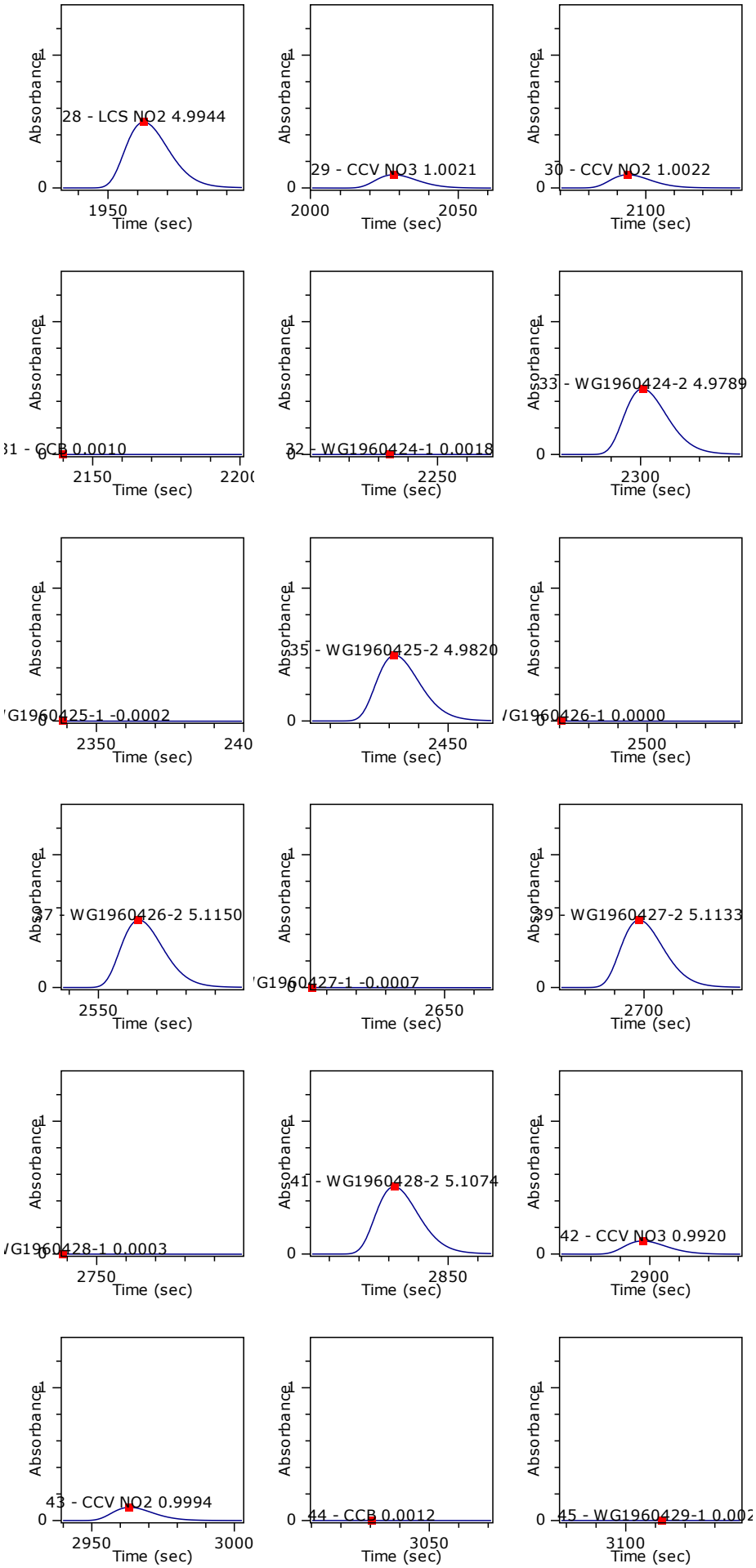

Absorbance
23 - ICB 0.0018
Time (sec)

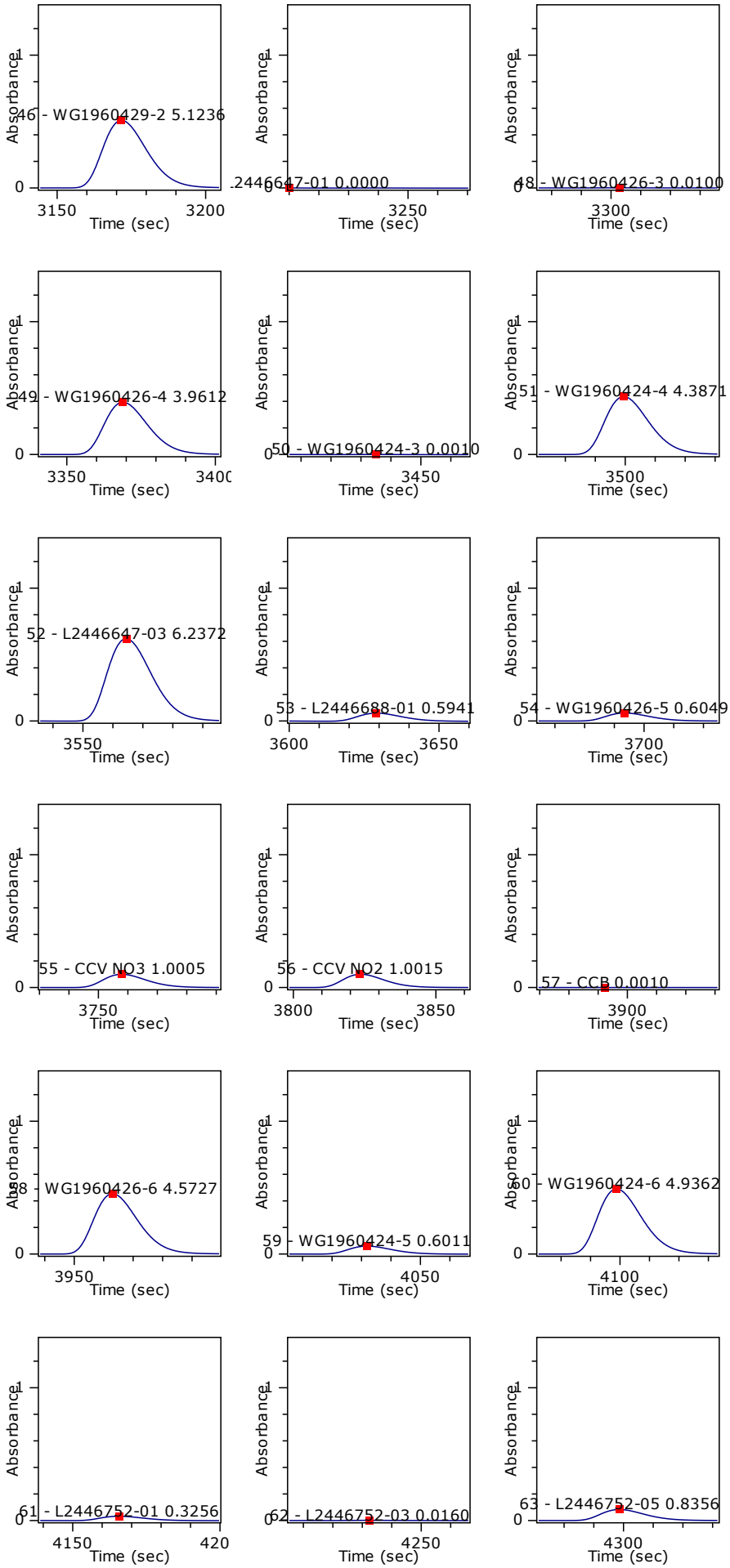

Absorbance
24 - Diluter CHK 8PPM 7.3885
Time (sec)

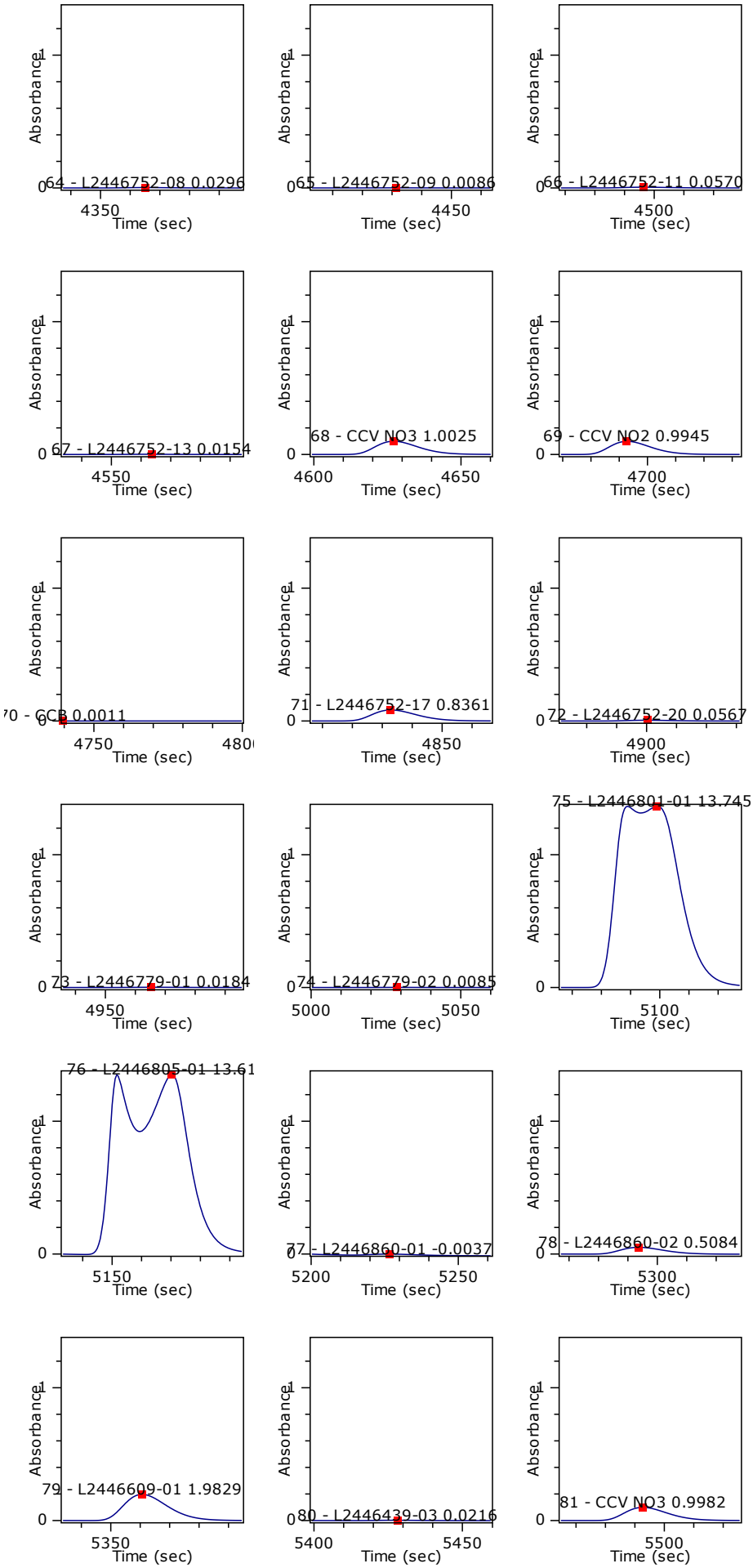

Absorbance
BLANK NO3 0.0008
Time (sec)

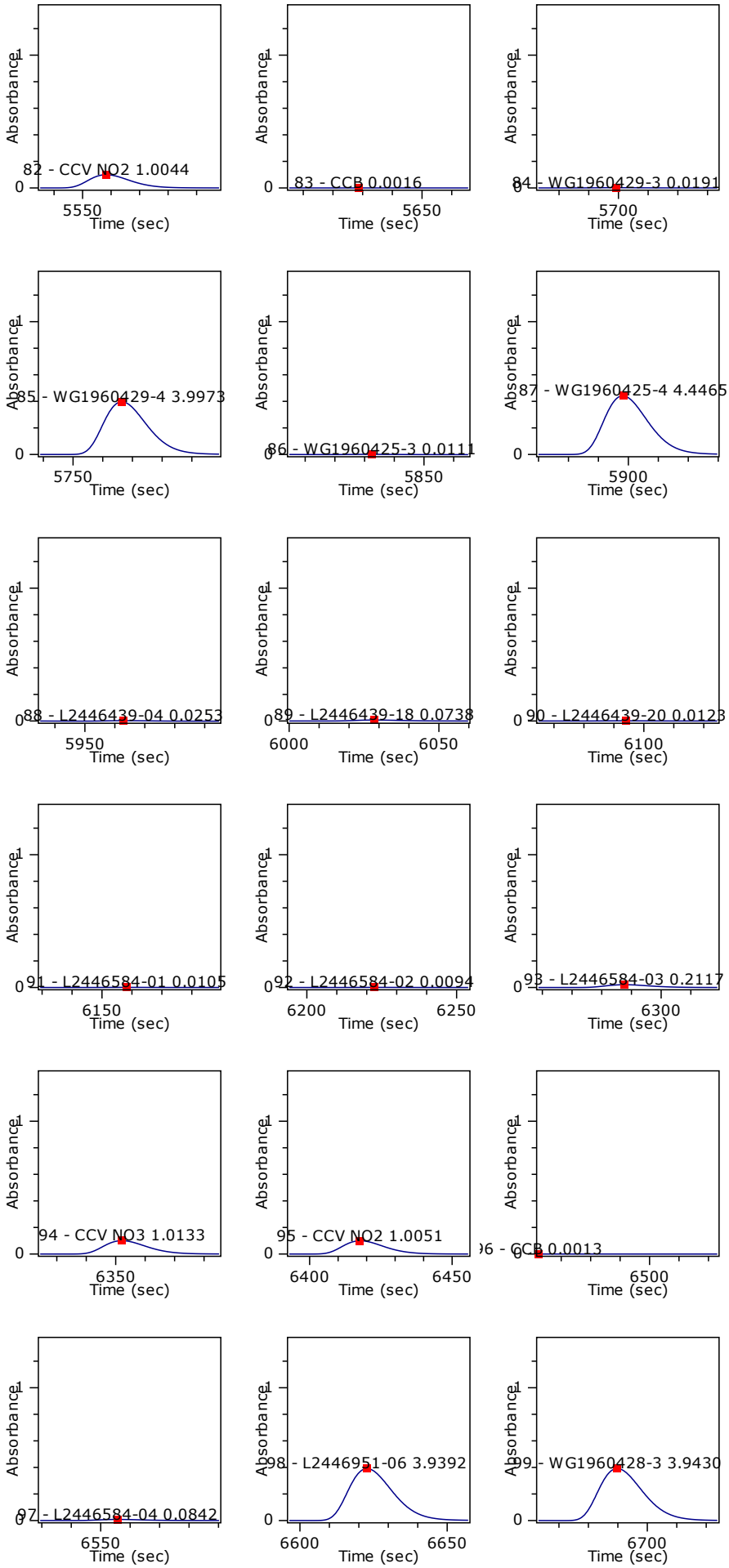

Absorbance
26 - LCS NO3 5.0835
Time (sec)


Absorbance
BLANK NO2 0.0000
Time (sec)


28 - LCS NO2 4.9944
29 - CCV NO3 1.0021
30 - CCV NO2 1.0022
31 - CCB 0.0010
32 - WG1960424-1 0.0018
33 - WG1960424-2 4.9789
G1960425-1 -0.0002
35 - WG1960425-2 4.9820
/G1960426-1 0.0000
37 - WG1960426-2 5.1150
G1960427-1 -0.0007
39 - WG1960427-2 5.1133
/G1960428-1 0.0003
41 - WG1960428-2 5.1074
42 - CCV NO3 0.9920
43 - CCV NO2 0.9994
44 - CCB 0.0012
45 - WG1960429-1 0.002
Absorbance
Time (sec)


46 - WG1960429-2 5.1236
.2446647-01 0.0000
48 - WG1960426-3 0.0100
49 - WG1960426-4 3.9612
50 - WG1960424-3 0.0010
51 - WG1960424-4 4.3871
52 - L2446647-03 6.2372
53 - L2446688-01 0.5941
54 - WG1960426-5 0.6049
55 - CCV NO3 1.0005
56 - CCV NO2 1.0015
57 - CCB 0.0010
58 - WG1960426-6 4.5727
59 - WG1960424-5 0.6011
60 - WG1960424-6 4.9362
61 - L2446752-01 0.3256
62 - L2446752-03 0.0160
63 - L2446752-05 0.8356
Absorbance
Time (sec)


Absorbance
Time (sec)
64 - L2446752-08 0.0296
65 - L2446752-09 0.0086
66 - L2446752-11 0.0570
67 - L2446752-13 0.0154
68 - CCV NO3 1.0025
69 - CCV NO2 0.9945
70 - GCB 0.0011
71 - L2446752-17 0.8361
72 - L2446752-20 0.0567
73 - L2446779-01 0.0184
74 - L2446779-02 0.0085
75 - L2446801-01 13.745
76 - L2446805-01 13.61
77 - L2446860-01 -0.0037
78 - L2446860-02 0.5084
79 - L2446609-01 1.9829
80 - L2446439-03 0.0216
81 - CCV NO3 0.9982


Absorbance
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82 - CCV NO2 1.0044
5550
Time (sec)
83 - CCB 0.0016
5650
Time (sec)
84 - WG1960429-3 0.0191
5700
Time (sec)
85 - WG1960429-4 3.9973
5750
Time (sec)
86 - WG1960425-3 0.0111
5850
Time (sec)
87 - WG1960425-4 4.4465
5900
Time (sec)
88 - L2446439-04 0.0253
5950
Time (sec)
89 - L2446439-18 0.0738
6000
6050
Time (sec)
90 - L2446439-20 0.0123
6100
Time (sec)
91 - L2446584-01 0.0105
6150
Time (sec)
92 - L2446584-02 0.0094
6200
6250
Time (sec)
93 - L2446584-03 0.2117
6300
Time (sec)
94 - CCV NO3 1.0133
6350
Time (sec)
95 - CCV NO2 1.0051
6400
6450
Time (sec)
96 - CCB 0.0013
6500
Time (sec)
97 - L2446584-04 0.0842
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98 - L2446951-06 3.9392
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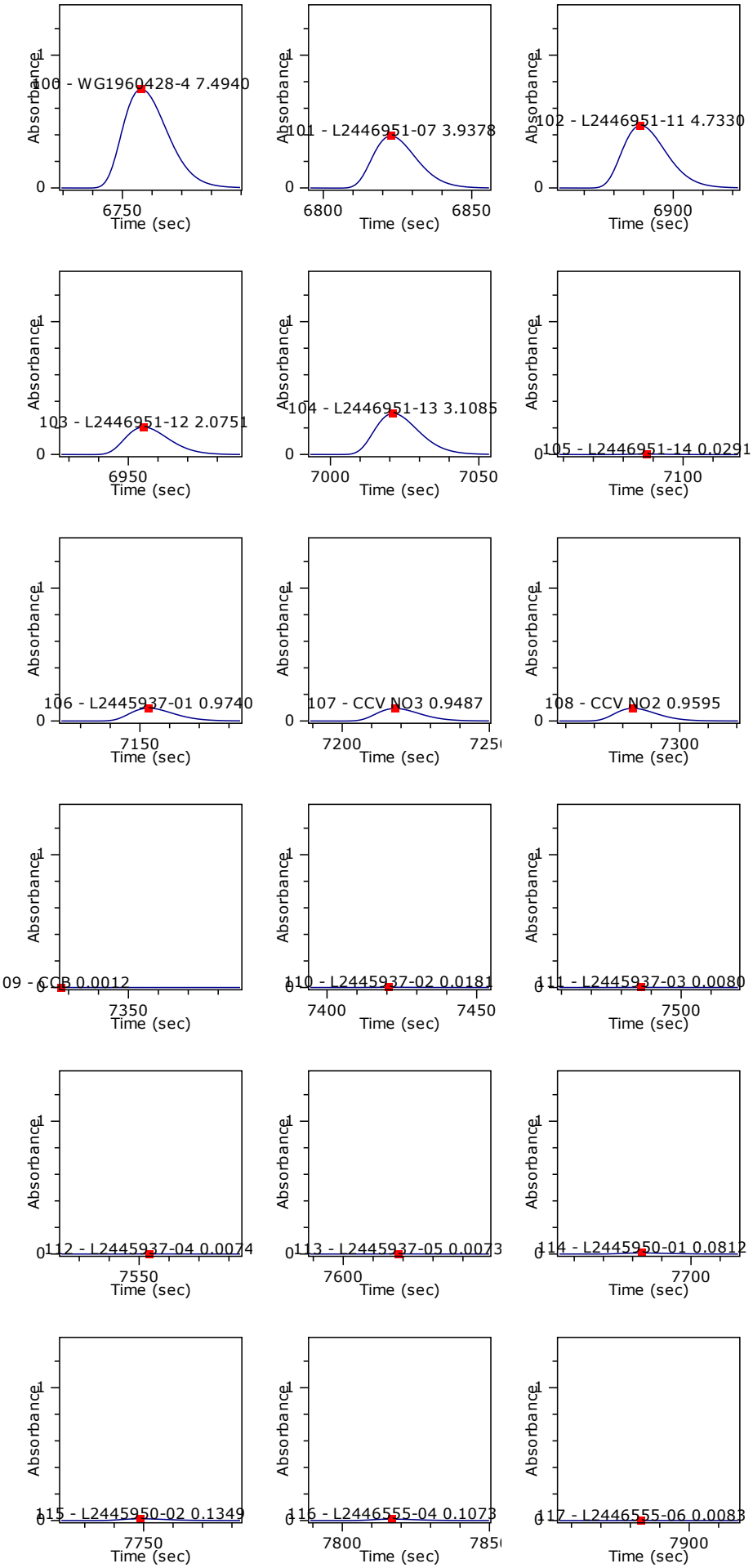
99 - WG1960428-3 3.9430
6700
Time (sec)


100 - WG1960428-4 7.4940
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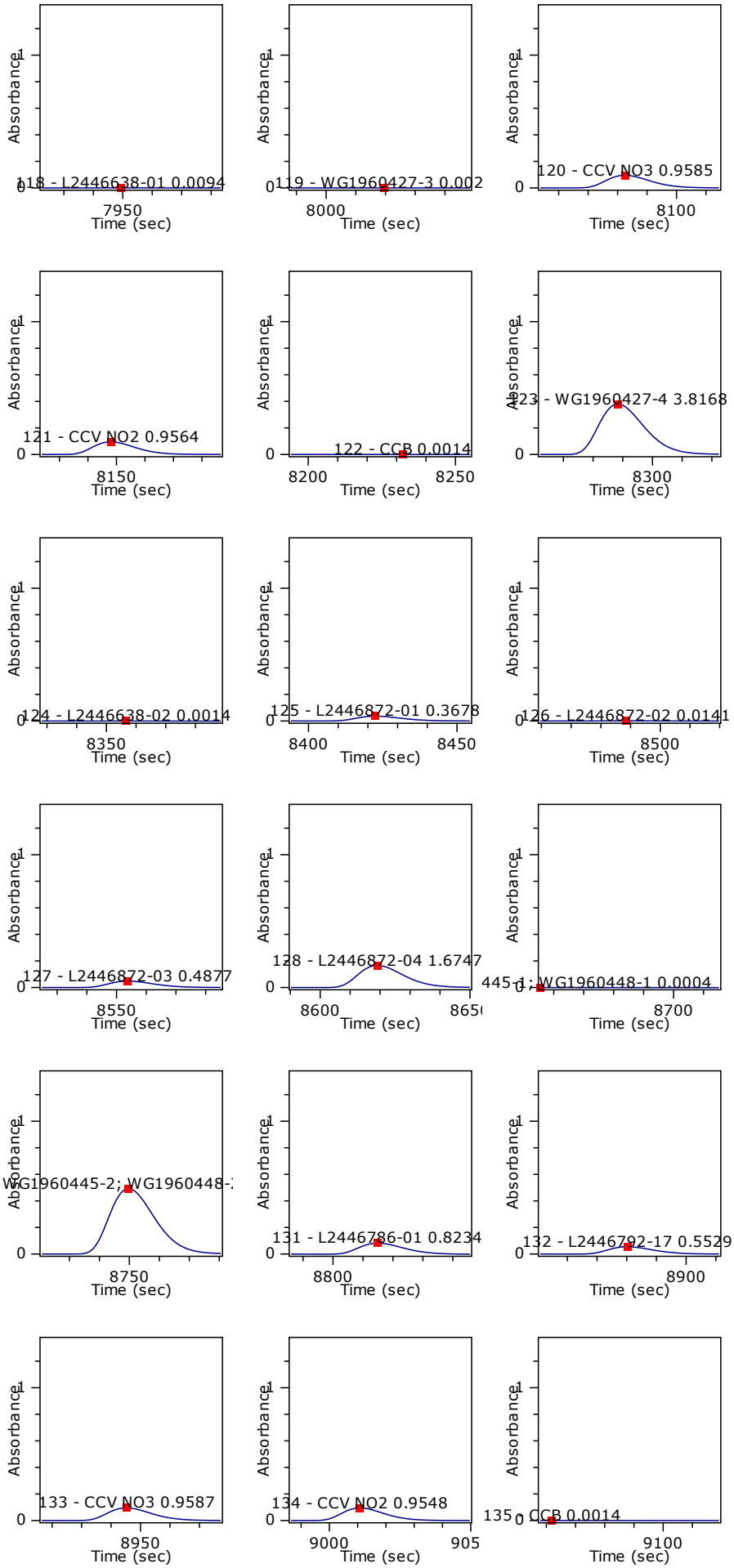
102 - L2446951-11 4.7330
103 - L2446951-12 2.0751
104 - L2446951-13 3.1085
105 - L2446951-14 0.0291
106 - L2445937-01 0.9740
107 - CCV NO3 0.9487
108 - CCV NO2 0.9595
109 - CCB 0.0012
110 - L2445937-02 0.0181
111 - L2445937-03 0.0080
112 - L2445937-04 0.0074
113 - L2445937-05 0.0073
114 - L2445950-01 0.0812
115 - L2445950-02 0.1349
116 - L2446555-04 0.1073
117 - L2446555-06 0.0083
Absorbance
Time (sec)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118 - L2446638-01 0.0094
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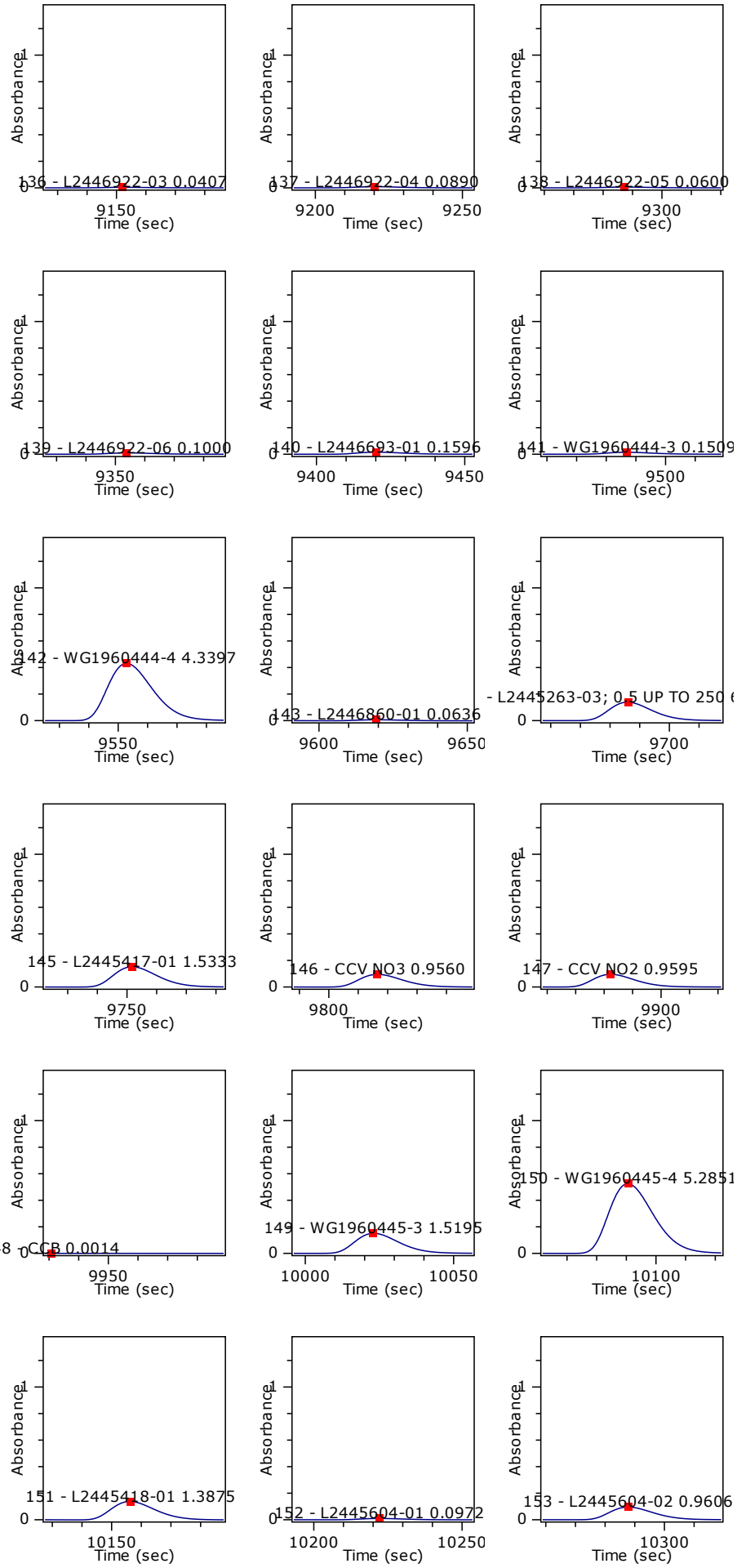
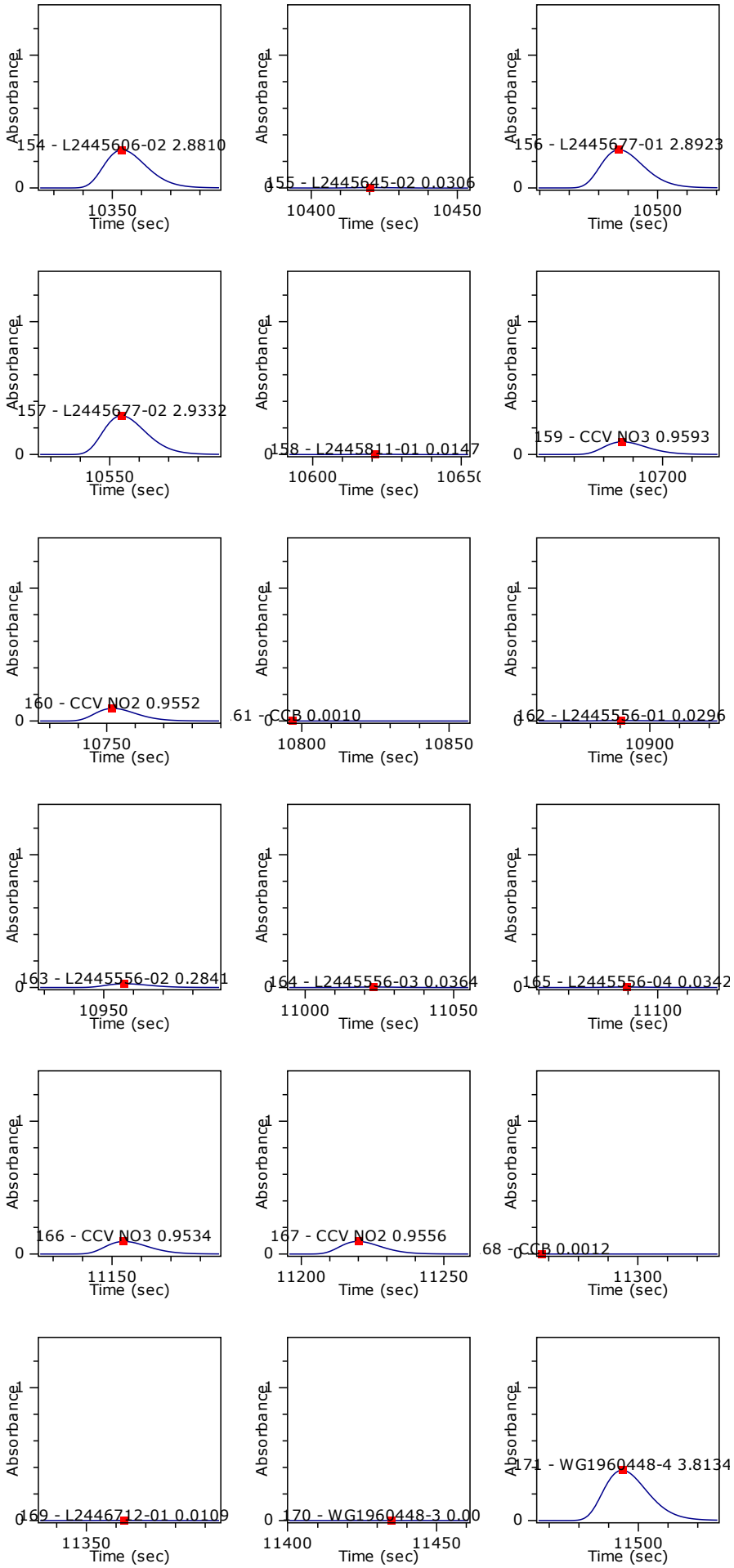
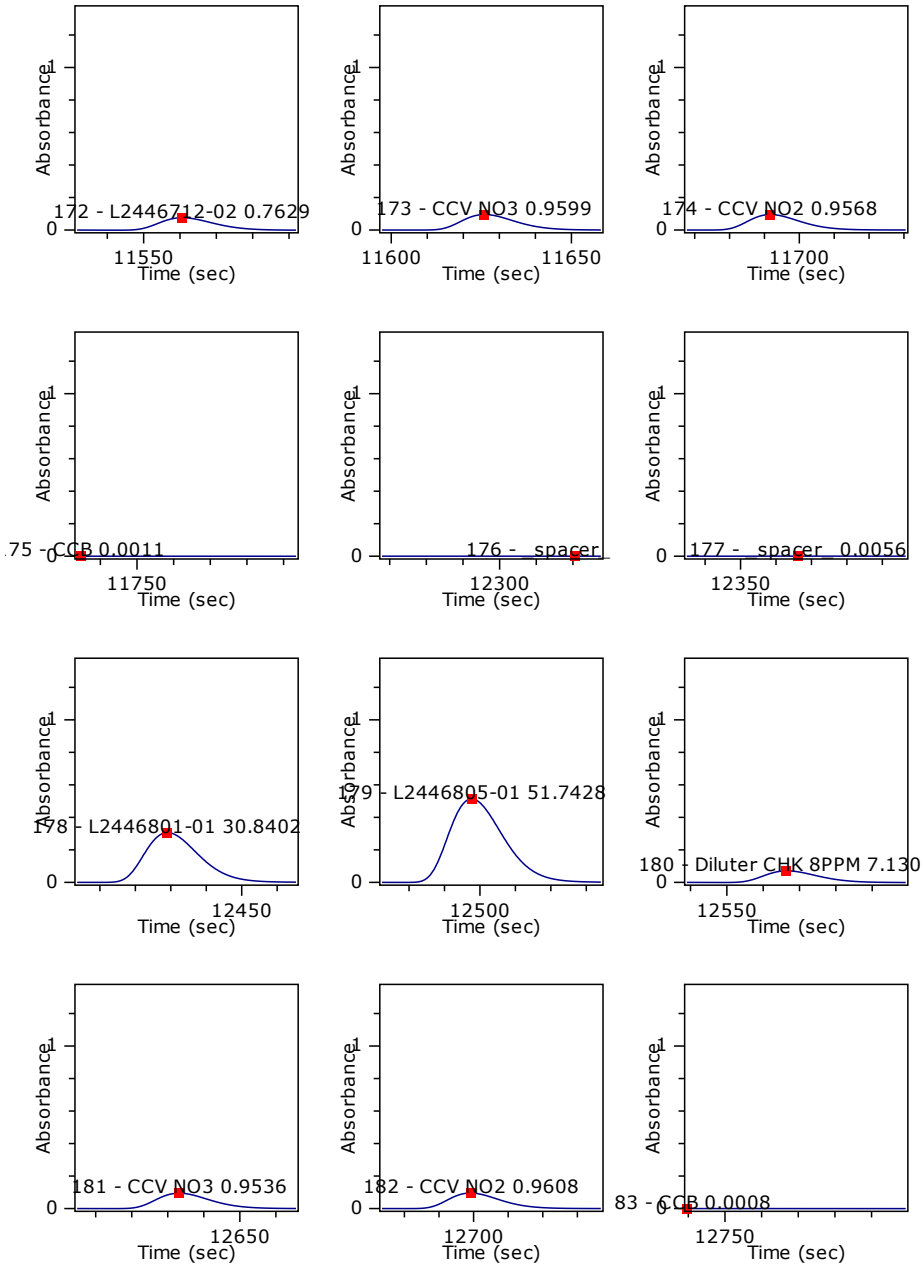
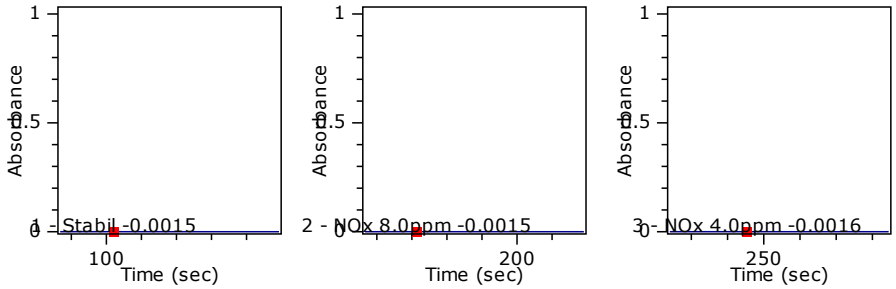
Time (sec)
119 - WG1960427-3 0.002
8000
Time (sec)
120 - CCV NO3 0.9585
8100
Time (sec)
121 - CCV NO2 0.9564
8150
Time (sec)
122 - CCB 0.0014
8200
8250
Time (sec)
123 - WG1960427-4 3.8168
8300
Time (sec)
124 - L2446638-02 0.0014
8350
Time (sec)
125 - L2446872-01 0.3678
8400
8450
Time (sec)
126 - L2446872-02 0.0141
8500
Time (sec)
127 - L2446872-03 0.4877
8550
Time (sec)
128 - L2446872-04 1.6747
8600
Time (sec)
445-1 - WG1960448-1 0.0004
8700
Time (sec)
- WG1960445-2; WG1960448-
8750
Time (sec)
131 - L2446786-01 0.8234
8800
Time (sec)
132 - L2446792-17 0.5529
8900
Time (sec)
133 - CCV NO3 0.9587
8950
Time (sec)
134 - CCV NO2 0.9548
9000
Time (sec)
135 - CCB 0.0014
9100
Time (sec)

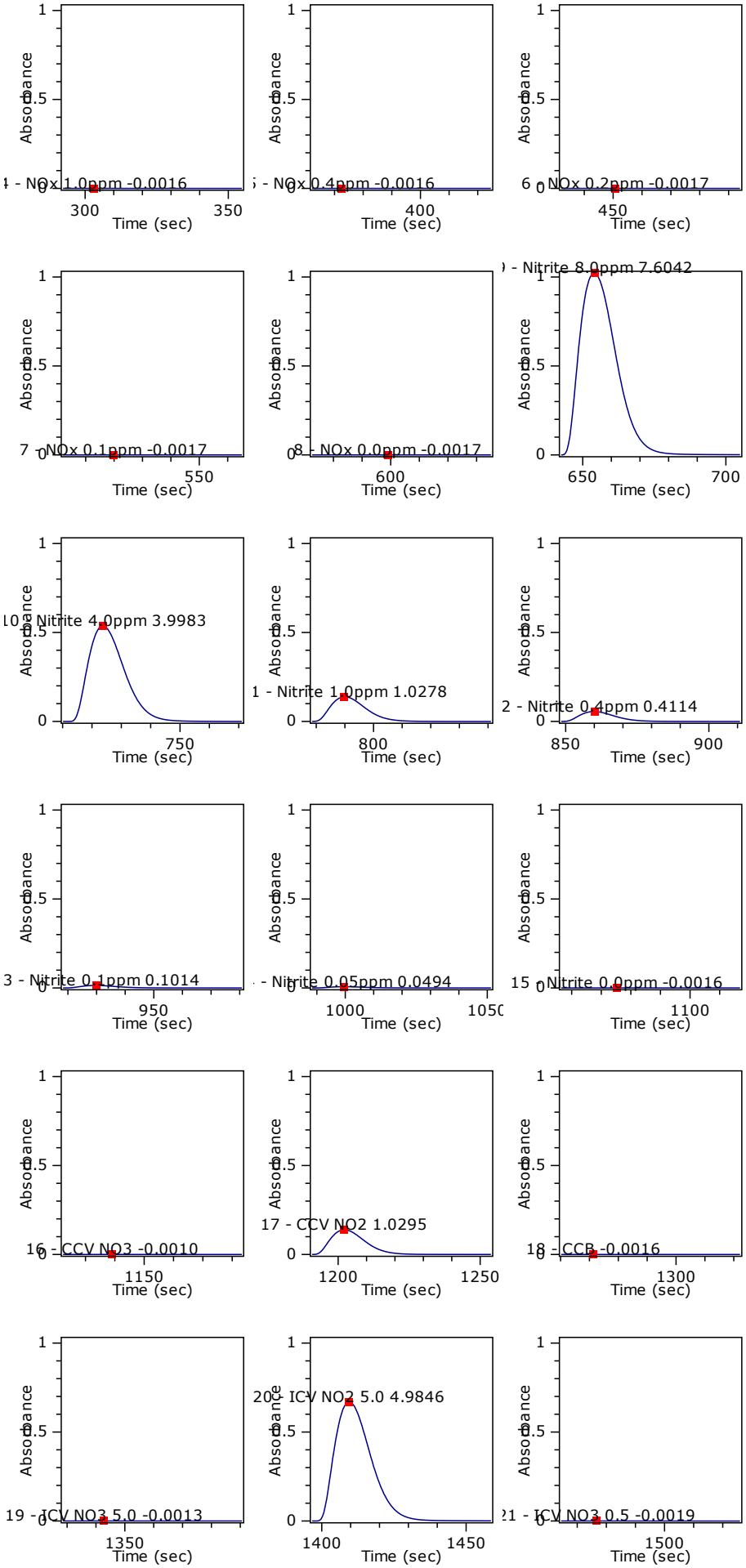

Absorbance
136 - L2446922-03 0.0407
Time (sec)
9150
137 - L2446922-04 0.0890
9200
9250
138 - L2446922-05 0.0600
9300
139 - L2446922-06 0.1000
9350
140 - L2446693-01 0.1596
9400
9450
141 - WG1960444-3 0.1509
9500
142 - WG1960444-4 4.3397
9550
143 - L2446860-01 0.0636
9600
9650
- L2445263-03; 0.5 UP TO 250
9700
145 - L2445417-01 1.5333
9750
146 - CCV NO3 0.9560
9800
147 - CCV NO2 0.9595
9900
148 - CCB 0.0014
9950
149 - WG1960445-3 1.5195
10000
10050
150 - WG1960445-4 5.2851
10100
151 - L2445418-01 1.3875
10150
152 - L2445604-01 0.0972
10200
10250
153 - L2445604-02 0.9606
10300

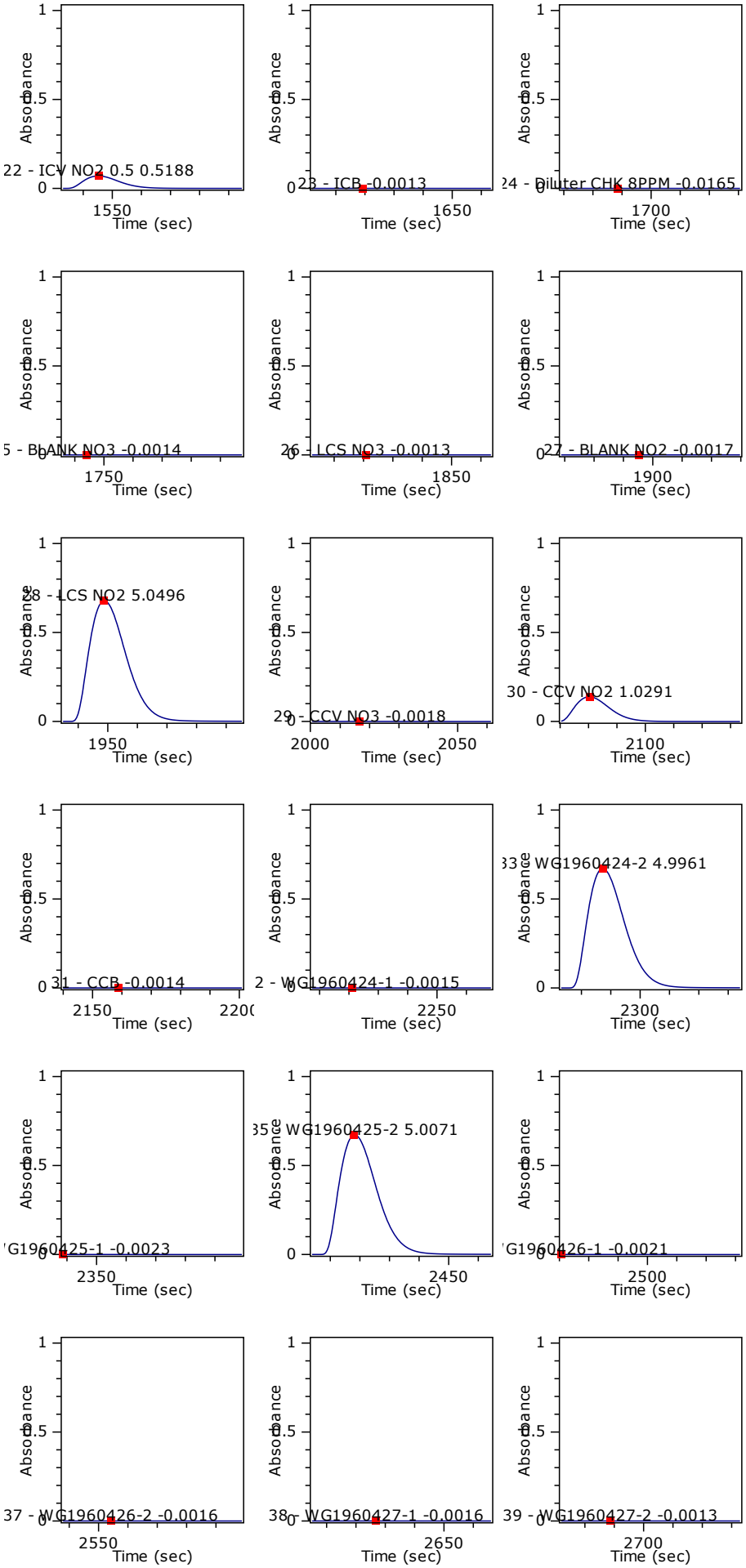

Absorbance
1
0
154 - L2445606-02 2.8810
10350
Time (sec)
155 - L2445645-02 0.0306
10400
10450
Time (sec)
156 - L2445677-01 2.8923
10500
Time (sec)
157 - L2445677-02 2.9332
10550
Time (sec)
158 - L2445811-01 0.0147
10600
Time (sec)
159 - CCV NO3 0.9593
10700
Time (sec)
160 - CCV NO2 0.9552
10750
Time (sec)
161 - CCB 0.0010
10800
10850
Time (sec)
162 - L2445556-01 0.0296
10900
Time (sec)
163 - L2445556-02 0.2841
10950
Time (sec)
164 - L2445556-03 0.0364
11000
11050
Time (sec)
165 - L2445556-04 0.0342
11100
Time (sec)
166 - CCV NO3 0.9534
11150
Time (sec)
167 - CCV NO2 0.9556
11200
11250
Time (sec)
168 - CCB 0.0012
11300
Time (sec)
169 - L2446712-01 0.0109
11350
Time (sec)
170 - WG1960448-3 0.00
11400
11450
Time (sec)
171 - WG1960448-4 3.8134
11500
Time (sec)

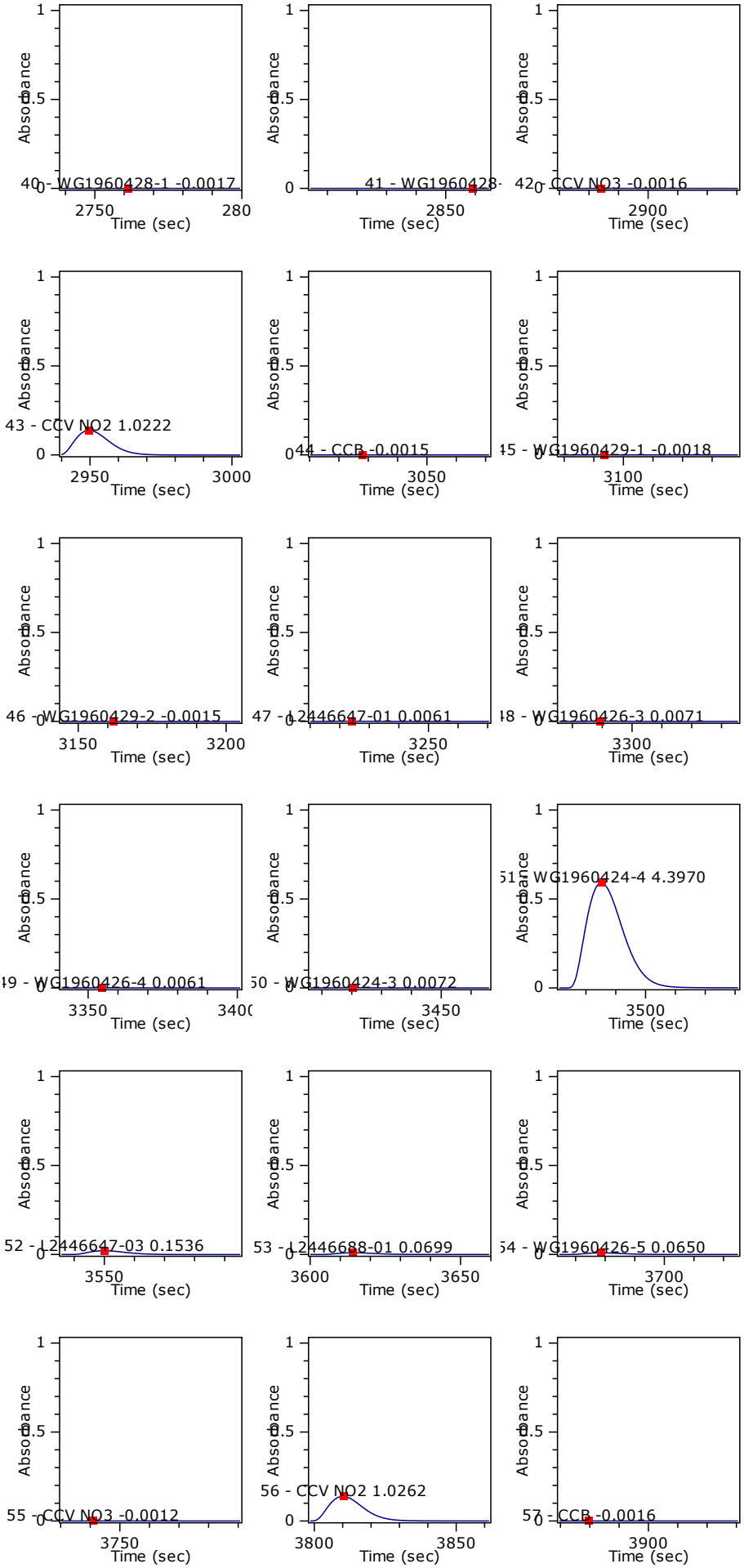


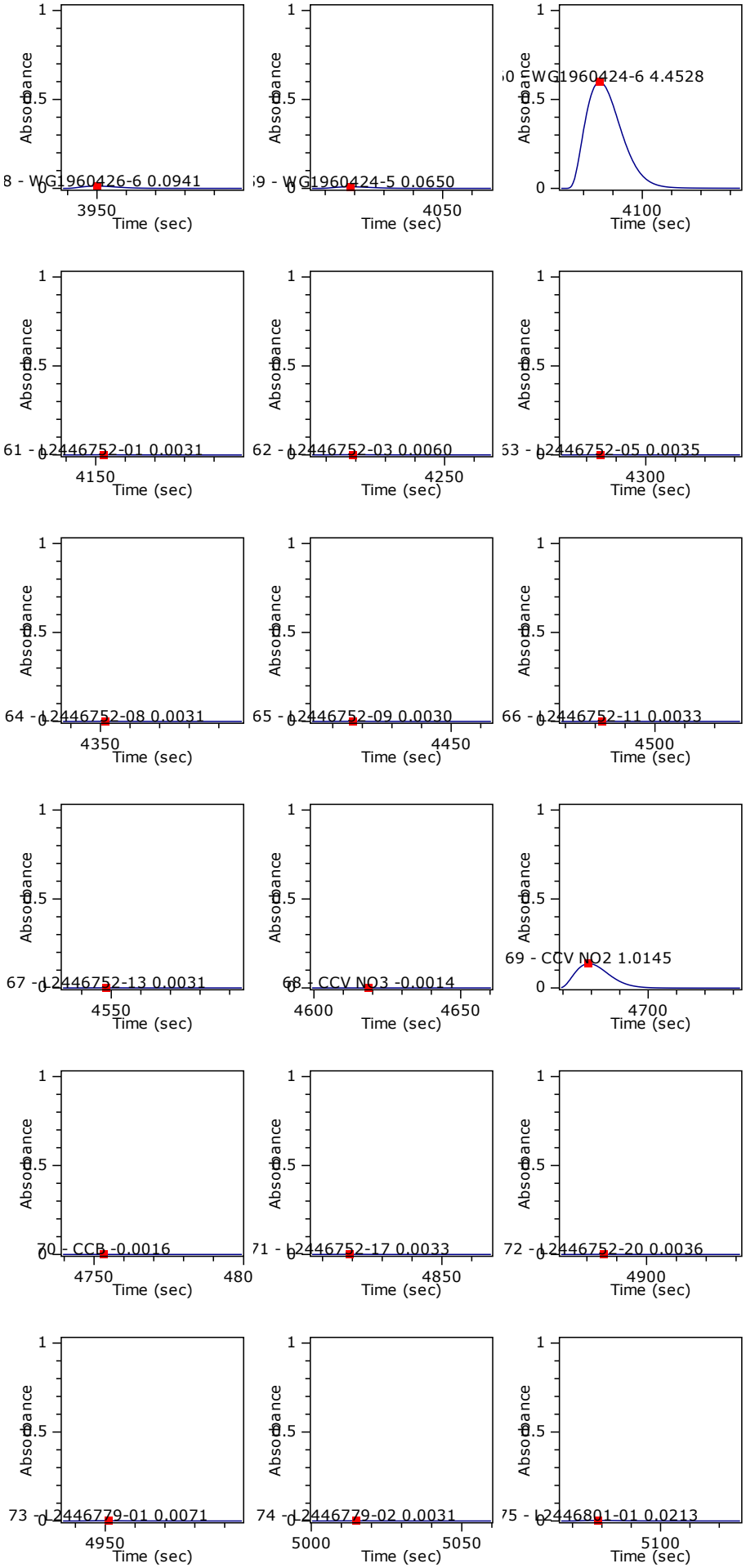
Channel: 2-NO2

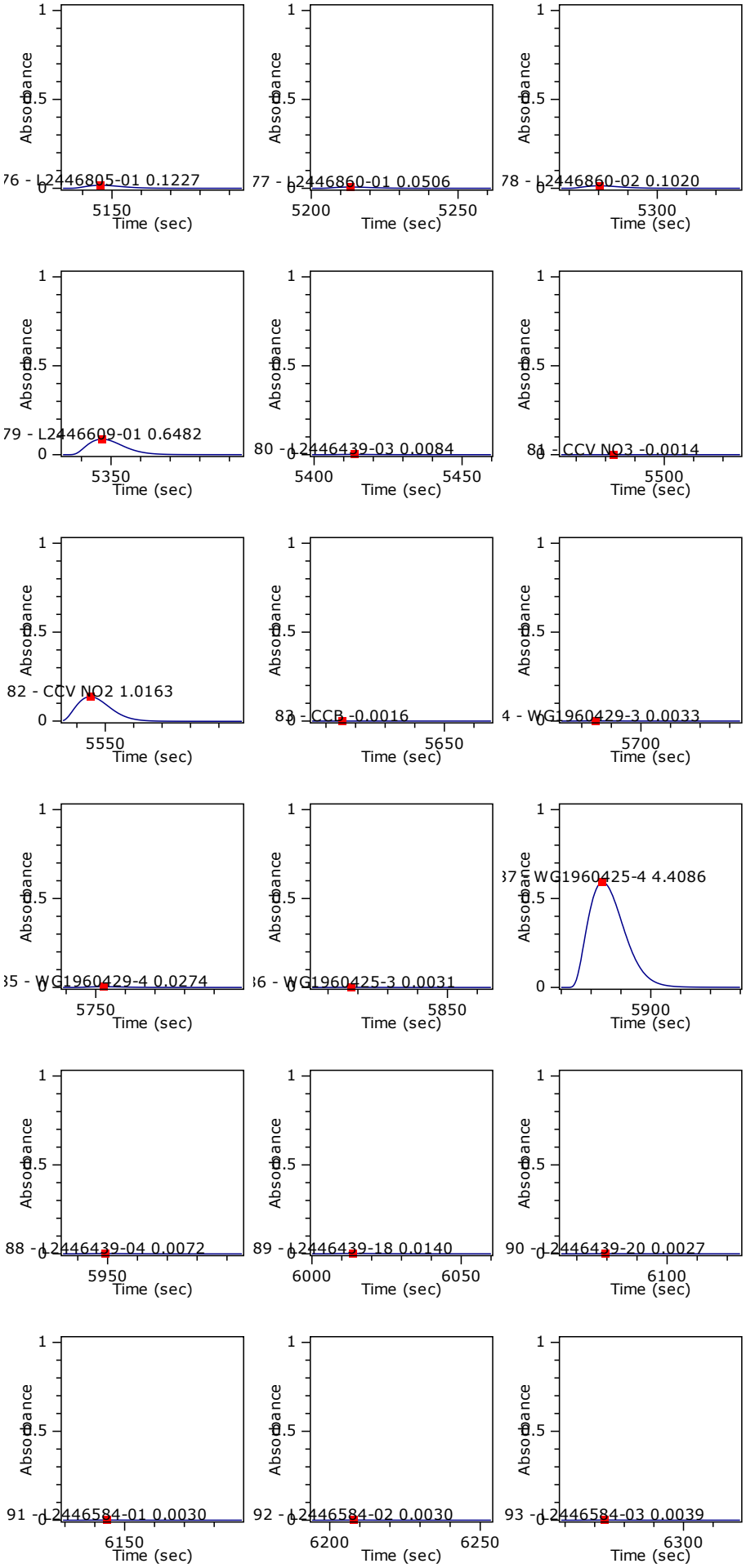


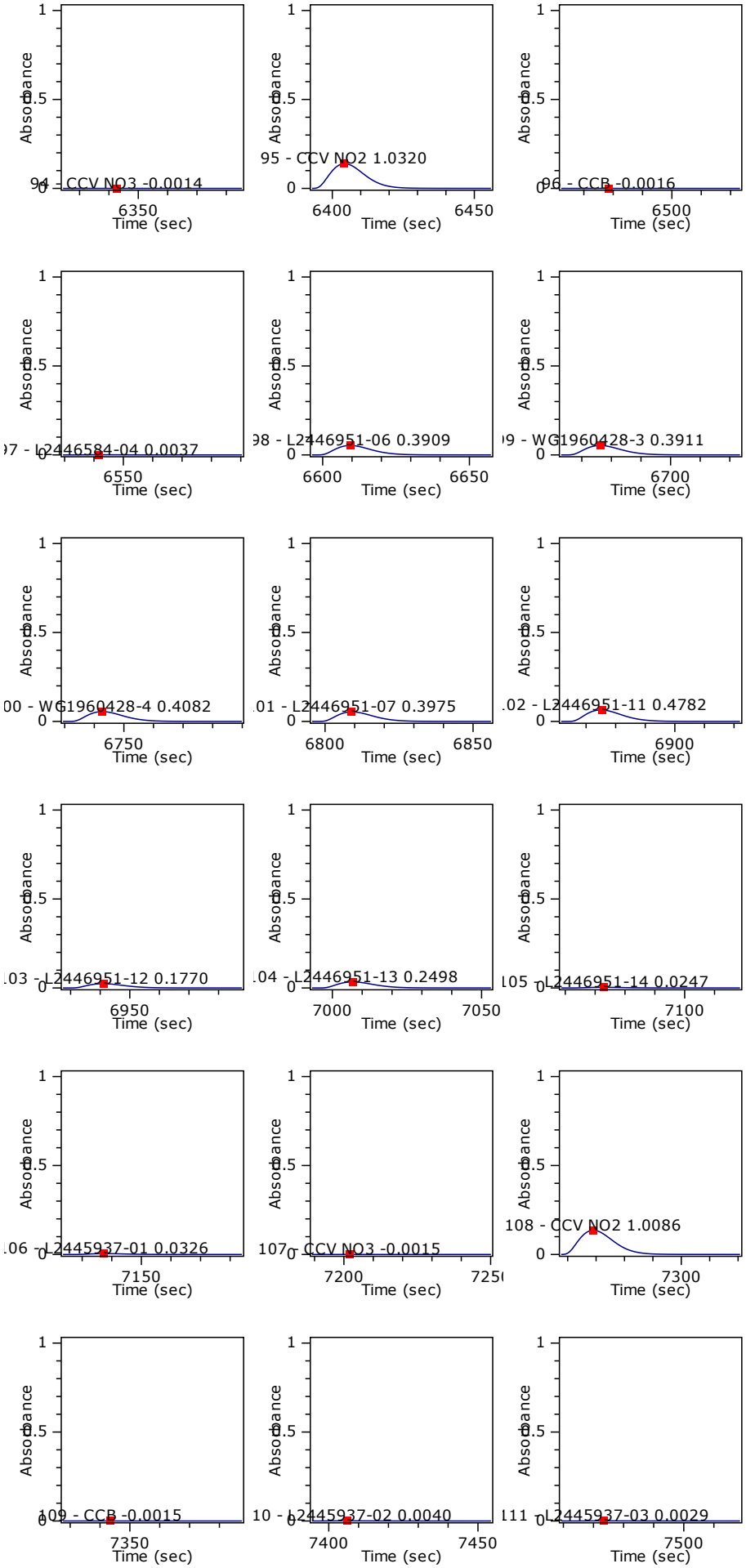

4 - NOx 1.0ppm -0.0016
5 - NOx 0.4ppm -0.0016
6 - NOx 0.2ppm -0.0017
7 - NOx 0.1ppm -0.0017
8 - NOx 0.0ppm -0.0017
9 - Nitrite 8.0ppm 7.6042
10 - Nitrite 4.0ppm 3.9983
11 - Nitrite 1.0ppm 1.0278
12 - Nitrite 0.4ppm 0.4114
13 - Nitrite 0.1ppm 0.1014
14 - Nitrite 0.05ppm 0.0494
15 - Nitrite 0.0ppm -0.0016
16 - CCV NO3 -0.0010
17 - CCV NO2 1.0295
18 - CCB -0.0016
19 - ICV NO3 5.0 -0.0013
20 - ICV NO2 5.0 4.9846
21 - ICV NO3 0.5 -0.0019
Absorbance
Time (sec)

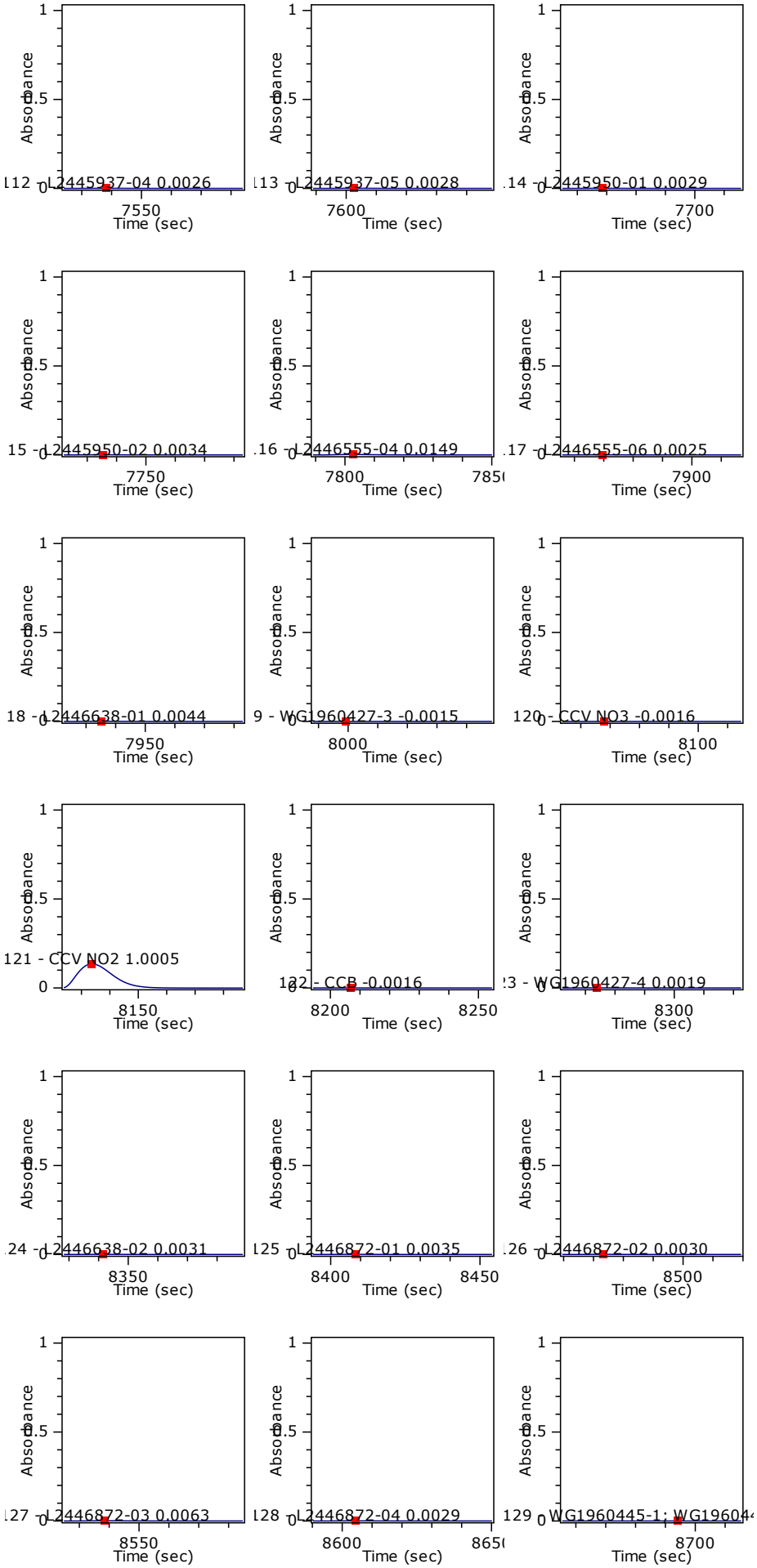

22 - ICV NO2 0.5 0.5188
23 - ICB -0.0013
24 - Diluter CHK 8PPM -0.0165
5 - BLANK NO3 -0.0014
26 - LCS NO3 -0.0013
27 - BLANK NO2 -0.0017
28 - LCS NO2 5.0496
29 - CCV NO3 -0.0018
30 - CCV NO2 1.0291
31 - CCB -0.0014
2 - WG1960424-1 -0.0015
33 WG1960424-2 4.9961
G1960425-1 -0.0023
35 WG1960425-2 5.0071
G1960426-1 -0.0021
37 - WG1960426-2 -0.0016
38 - WG1960427-1 -0.0016
39 - WG1960427-2 -0.0013
Absorbance
Time (sec)

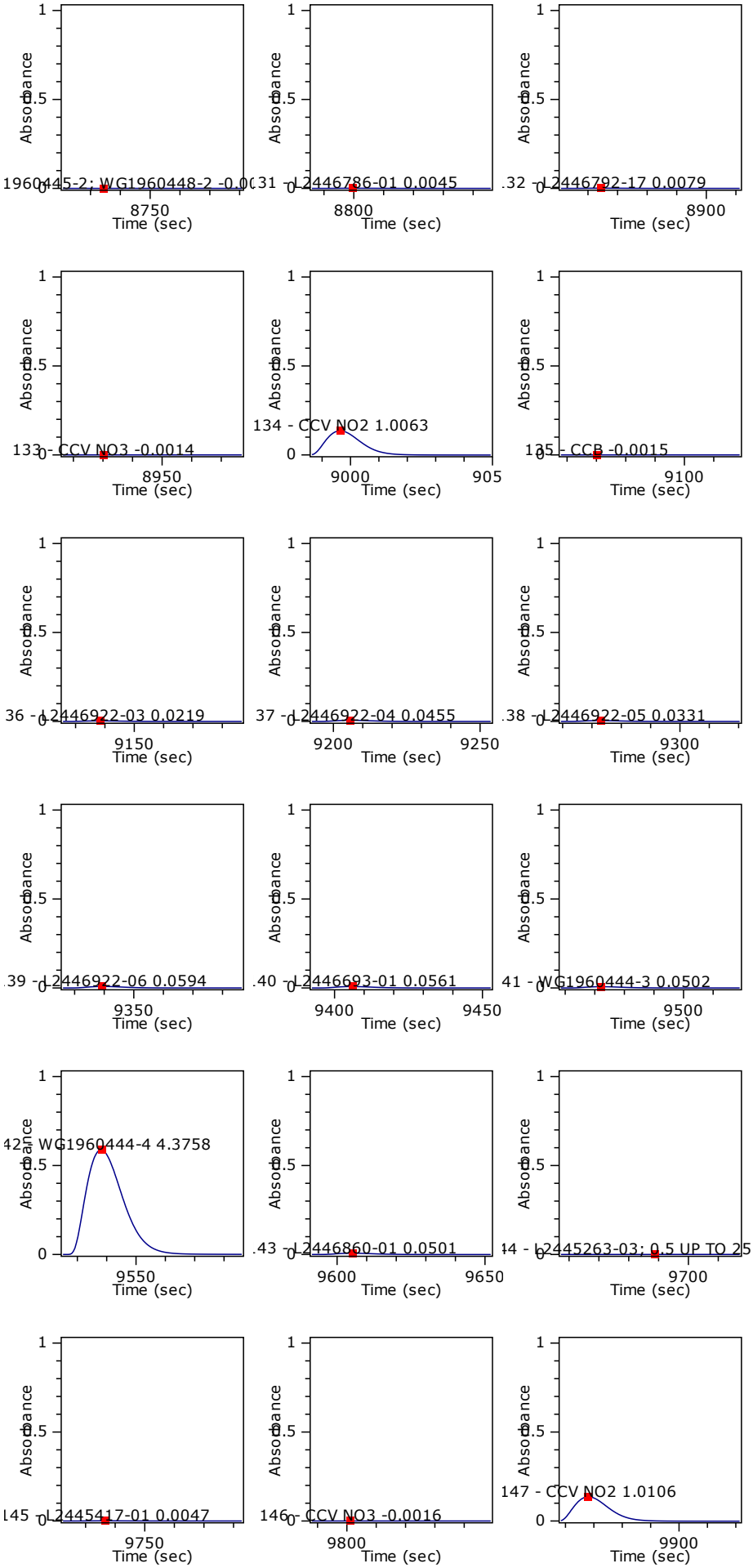

40 - WG1960428-1 -0.0017
41 - WG1960428
42 - CCV NO3 -0.0016
43 - CCV NO2 1.0222
44 - CCB -0.0015
45 - WG1960429-1 -0.0018
46 - WG1960429-2 -0.0015
47 - L2446647-01 0.0061
48 - WG1960426-3 0.0071
49 - WG1960426-4 0.0061
50 - WG1960424-3 0.0072
51 - WG1960424-4 4.3970
52 - L2446647-03 0.1536
53 - L2446688-01 0.0699
54 - WG1960426-5 0.0650
55 - CCV NO3 -0.0012
56 - CCV NO2 1.0262
57 - CCB -0.0016
Absorbance
Time (sec)

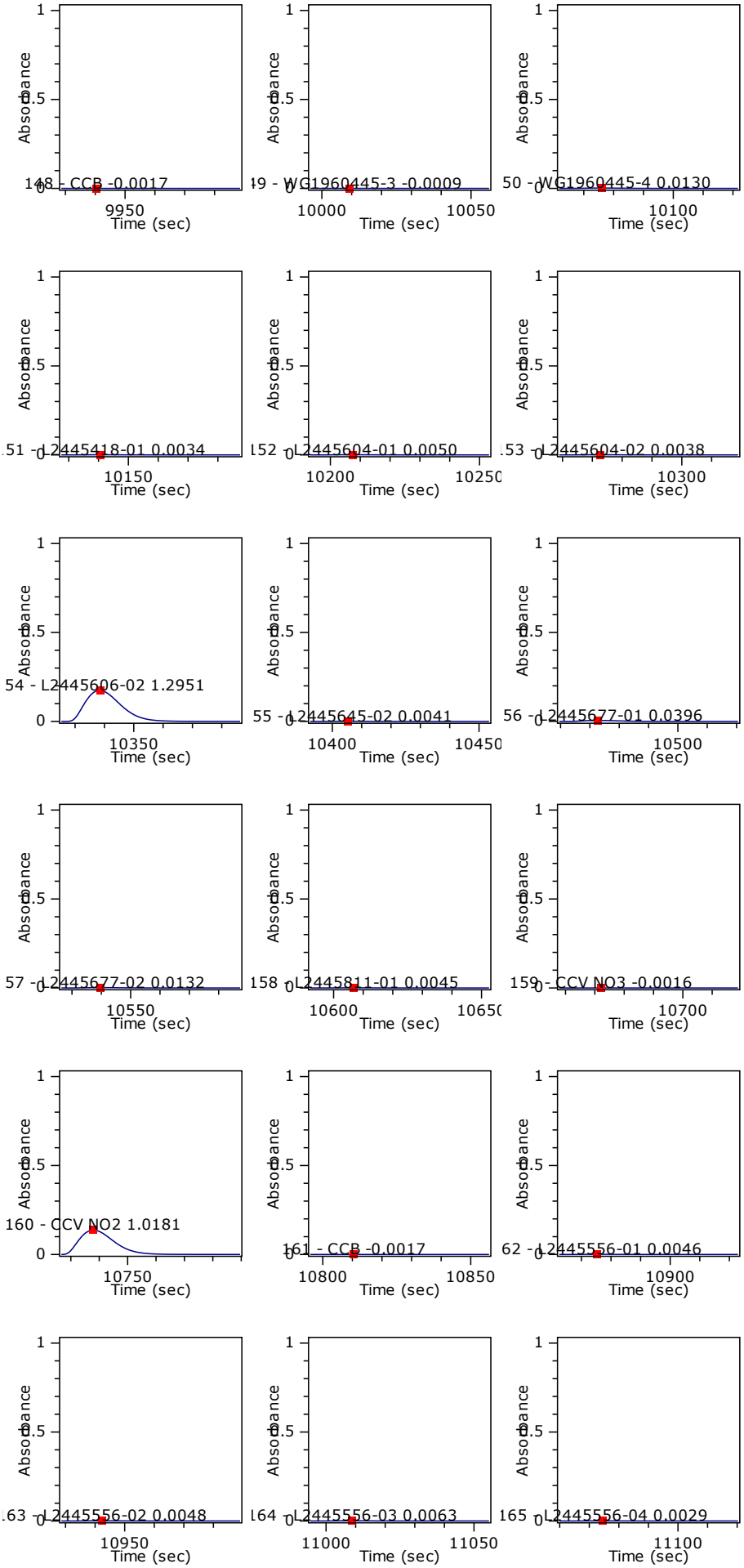

8 - WG1960426-6 0.0941
9 - WG1960424-5 0.0650
0 WG1960424-6 4.4528
61 - L2446752-01 0.0031
62 - L2446752-03 0.0060
63 - L2446752-05 0.0035
64 - L2446752-08 0.0031
65 - L2446752-09 0.0030
66 - L2446752-11 0.0033
67 - L2446752-13 0.0031
68 - CCV NO3 -0.0014
69 - CCV NO2 1.0145
70 - CCB -0.0016
71 - L2446752-17 0.0033
72 - L2446752-20 0.0036
73 - L2446779-01 0.0071
74 - L2446779-02 0.0031
75 - L2446801-01 0.0213
Absorbance
Time (sec)

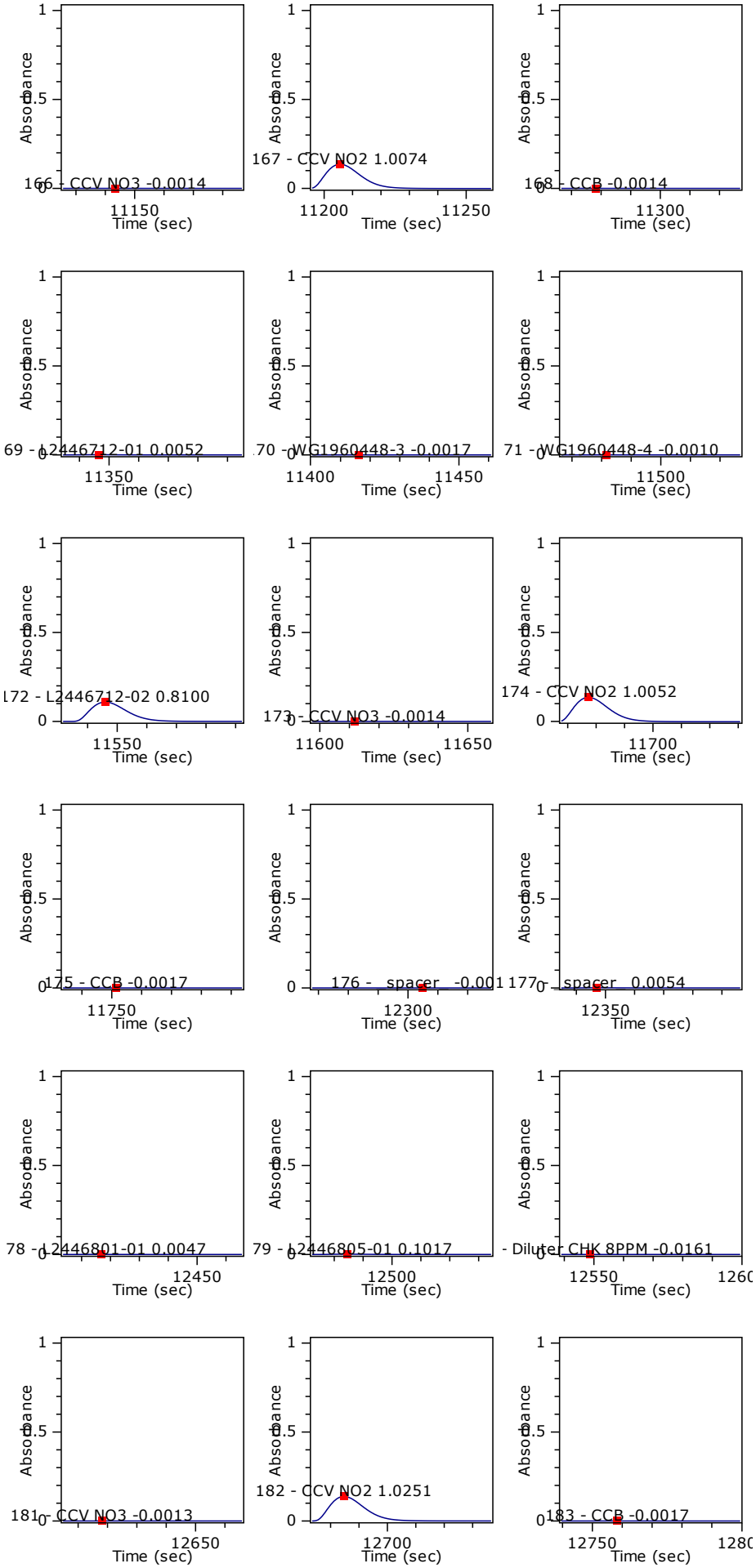

76 - L2446805-01 0.1227
77 - L2446860-01 0.0506
78 - L2446860-02 0.1020
79 - L2446609-01 0.6482
80 - L2446439-03 0.0084
81 - CCV NO3 -0.0014
82 - CCV NO2 1.0163
83 - CCB -0.0016
4 - WG1960429-3 0.0033
35 - WG1960429-4 0.0274
6 - WG1960425-3 0.0031
37 WG1960425-4 4.4086
88 - L2446439-04 0.0072
89 - L2446439-18 0.0140
90 - L2446439-20 0.0027
91 - L2446584-01 0.0030
92 - L2446584-02 0.0030
93 - L2446584-03 0.0039
Absorbance
Time (sec)


94 - CCV NO3 -0.0014
95 - CCV NO2 1.0320
96 - CCB -0.0016
97 - L2446584-04 0.0037
98 - L2446951-06 0.3909
99 - WG1960428-3 0.3911
100 - WG1960428-4 0.4082
101 - L2446951-07 0.3975
102 - L2446951-11 0.4782
103 - L2446951-12 0.1770
104 - L2446951-13 0.2498
105 - L2446951-14 0.0247
106 - L2445937-01 0.0326
107 - CCV NO3 -0.0015
108 - CCV NO2 1.0086
109 - CCB -0.0015
110 - L2445937-02 0.0040
111 - L2445937-03 0.0029
Absorbance
Time (sec)


112 - L2445937-04 0.0026
113 - L2445937-05 0.0028
114 - L2445950-01 0.0029
115 - L2445950-02 0.0034
116 - L2446555-04 0.0149
117 - L2446555-06 0.0025
118 - L2446638-01 0.0044
119 - WG1960427-3 -0.0015
120 - CCV NO3 -0.0016
121 - CCV NO2 1.0005
122 - CCB -0.0016
123 - WG1960427-4 0.0019
124 - L2446638-02 0.0031
125 - L2446872-01 0.0035
126 - L2446872-02 0.0030
127 - L2446872-03 0.0063
128 - L2446872-04 0.0029
129 - WG1960445-1; WG19604
Absorbance
Time (sec)


1960445-2: WG1960448-2 -0.0
8750
Time (sec)
131 - L2446786-01 0.0045
8800
Time (sec)
132 - L2446792-17 0.0079
8900
Time (sec)
133 - CCV NO3 -0.0014
8950
Time (sec)
134 - CCV NO2 1.0063
9000
905
Time (sec)
135 - CCB -0.0015
9100
Time (sec)
136 - L2446922-03 0.0219
9150
Time (sec)
137 - L2446922-04 0.0455
9200
9250
Time (sec)
138 - L2446922-05 0.0331
9300
Time (sec)
139 - L2446922-06 0.0594
9350
Time (sec)
140 - L2446693-01 0.0561
9400
9450
Time (sec)
141 - WG1960444-3 0.0502
9500
Time (sec)
142 - WG1960444-4 4.3758
9550
Time (sec)
143 - L2446860-01 0.0501
9600
9650
Time (sec)
144 - L2445263-03: 0.5 UP TO 25
9700
Time (sec)
145 - L2445417-01 0.0047
9750
Time (sec)
146 - CCV NO3 -0.0016
9800
Time (sec)
147 - CCV NO2 1.0106
9900
Time (sec)


148 - CCB -0.0017
149 - WG1960445-3 -0.0009
150 - WG1960445-4 0.0130
151 - L2445418-01 0.0034
152 - L2445604-01 0.0050
153 - L2445604-02 0.0038
154 - L2445606-02 1.2951
155 - L2445645-02 0.0041
156 - L2445677-01 0.0396
157 - L2445677-02 0.0132
158 - L2445811-01 0.0045
159 - CCV NO3 -0.0016
160 - CCV NO2 1.0181
161 - CCB -0.0017
162 - L2445556-01 0.0046
163 - L2445556-02 0.0048
164 - L2445556-03 0.0063
165 - L2445556-04 0.0029
Absorbance
Time (sec)


166 - CCV NO3 -0.0014
167 - CCV NO2 1.0074
168 - CCB -0.0014
69 - L2446712-01 0.0052
70 - WG1960448-3 -0.0017
71 - WG1960448-4 -0.0010
172 - L2446712-02 0.8100
173 - CCV NO3 -0.0014
174 - CCV NO2 1.0052
175 - CCB -0.0017
176 - spacer -0.001
177 - spacer 0.0054
78 - L2446801-01 0.0047
79 - L2446805-01 0.1017
- Diluter CHK 8PPM -0.0161
181 - CCV NO3 -0.0013
182 - CCV NO2 1.0251
183 - CCB -0.0017
Absorbance
Time (sec)

Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 11.5
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.7
Bandwidth: 2
```

```
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-17T03:51:16

Method
------------
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
   Delay (sec) 1
   Next Sample
   Autosampler Probe Force Down

   Spectrometer Reference Scan
   Spectrometer Absorbance Scanning

   Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

   FIAlab Injection Valve Sample Load

   Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.

   FIAlab1 Injection Valve Sample Inject
   Autosampler Probe Up
   Delay (sec) 5
   Autosampler Position (#) Rinse
   FIAlab2 Injection Valve Sample Inject

   Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

   Autosampler Probe Up

   Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

   Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

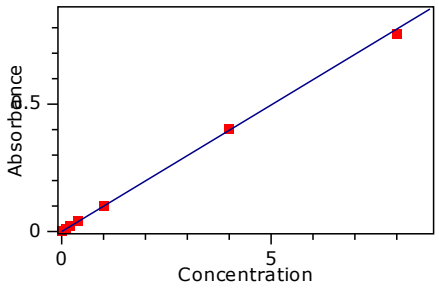
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-17 09:07:43
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-17-090728.dat

Dataset Notes:

Analyst	

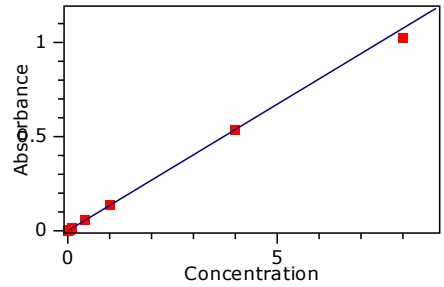
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00012
B: 0.09935
R^2: 0.99962
RSE(%): 1.59179
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	NOx 8.0ppm	0.77530	8.00000	7.80430	2.45	N/A
10002	NOx 4.0ppm	0.40390	4.00000	4.06680	1.67	N/A
10003	NOx 1.0ppm	0.09930	1.00000	1.00030	0.03	N/A
10004	NOx 0.4ppm	0.04000	0.40000	0.40410	1.02	N/A
10005	NOx 0.2ppm	0.01980	0.20000	0.20070	0.37	N/A
10006	NOx 0.1ppm	0.00980	0.10000	0.09960	0.43	N/A
10007	NOx 0.0ppm	0.00010	0.00000	0.00210	NA	N/A



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00028
B: 0.13433
R^2: 0.99940
RSE(%): 3.30325
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	Nitrite 8.0ppm	1.02180	8.00000	7.60420	4.95	N/A
10002	Nitrite 4.0ppm	0.53740	4.00000	3.99830	0.04	N/A
10003	Nitrite 1.0ppm	0.13830	1.00000	1.02780	2.78	N/A
10004	Nitrite 0.4ppm	0.05550	0.40000	0.41140	2.85	N/A
10005	Nitrite 0.1ppm	0.01390	0.10000	0.10140	1.41	N/A
10006	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.16	N/A
10007	Nitrite 0.0ppm	0.00010	0.00000	-0.00160	NA	N/A

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0002	1	1	1	0.0028		2024-08-17T08:09:47
CCV NO3	2	QC	1	0.0961	1	1	1	0.9681		2024-08-17T08:11:15
CCV NO2	3	QC	?	0.0956	1	1	1	0.9633		2024-08-17T08:12:21
CCB	4	QC	0	0.0000	1	1	1	0.0008		2024-08-17T08:13:05

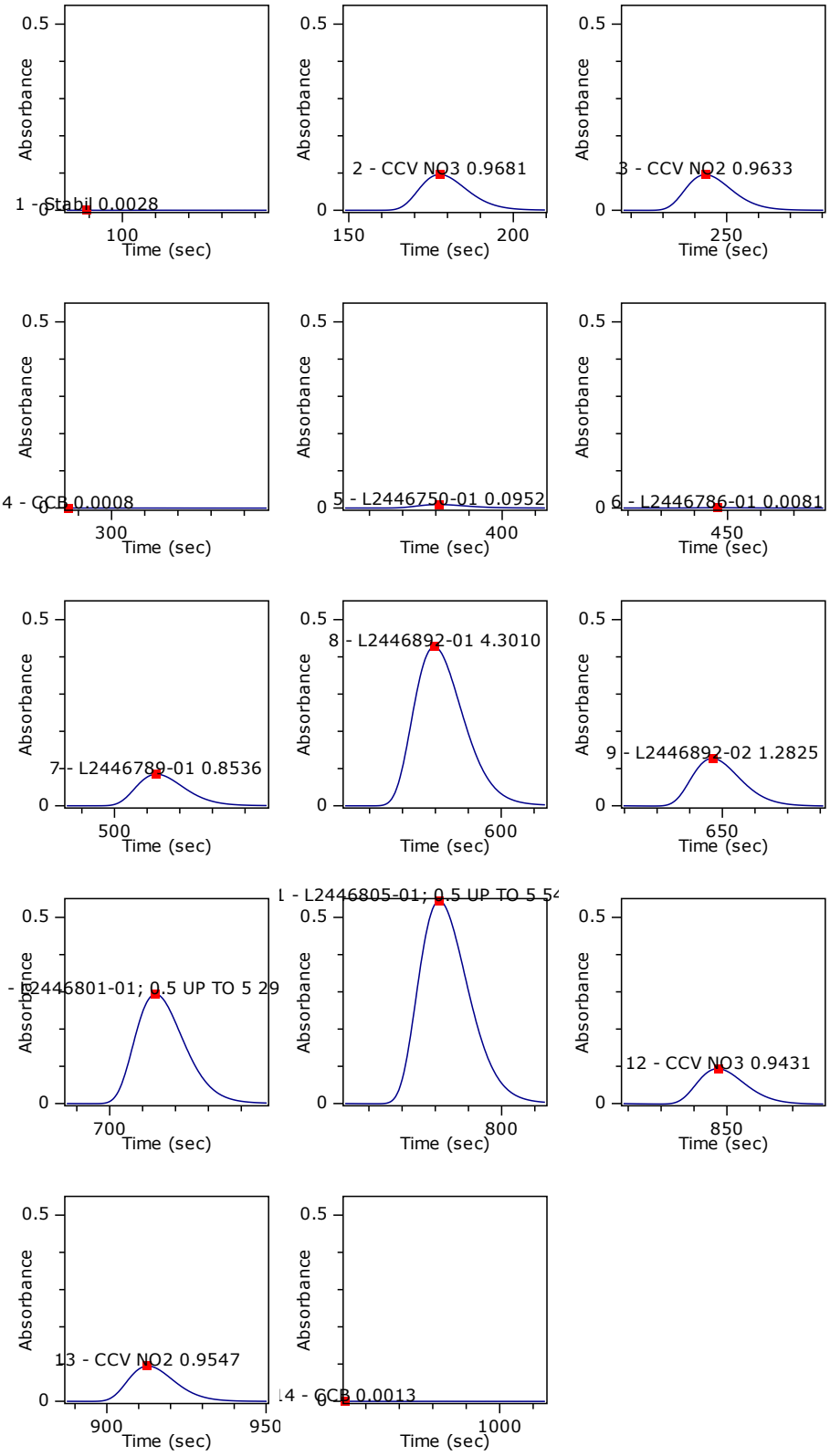
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446750-01	5	Unknown	?	0.0093	1	1	1	0.0952		2024-08-17T08:14:39
L2446786-01	6	Unknown	?	0.0007	1	1	1	0.0081		2024-08-17T08:15:44
L2446789-01	7	Unknown	?	0.0847	1	1	1	0.8536		2024-08-17T08:16:50
L2446892-01	8	Unknown	?	0.4272	1	1	1	4.3010		2024-08-17T08:17:57
L2446892-02	9	Unknown	?	0.1273	1	1	1	1.2825		2024-08-17T08:19:05
L2446801-01; 0.5 UP TO 5	10	Unknown	?	0.2939	10	1	1	29.5983		2024-08-17T08:20:11
L2446805-01; 0.5 UP TO 5	11	Unknown	?	0.5450	10	1	1	54.8648		2024-08-17T08:21:19
CCV NO3	12	QC	1	0.0936	1	1	1	0.9431		2024-08-17T08:22:25
CCV NO2	13	QC	?	0.0947	1	1	1	0.9547		2024-08-17T08:23:30
CCB	14	QC	0	0.0000	1	1	1	0.0013		2024-08-17T08:24:11

Channel: 2-NO2

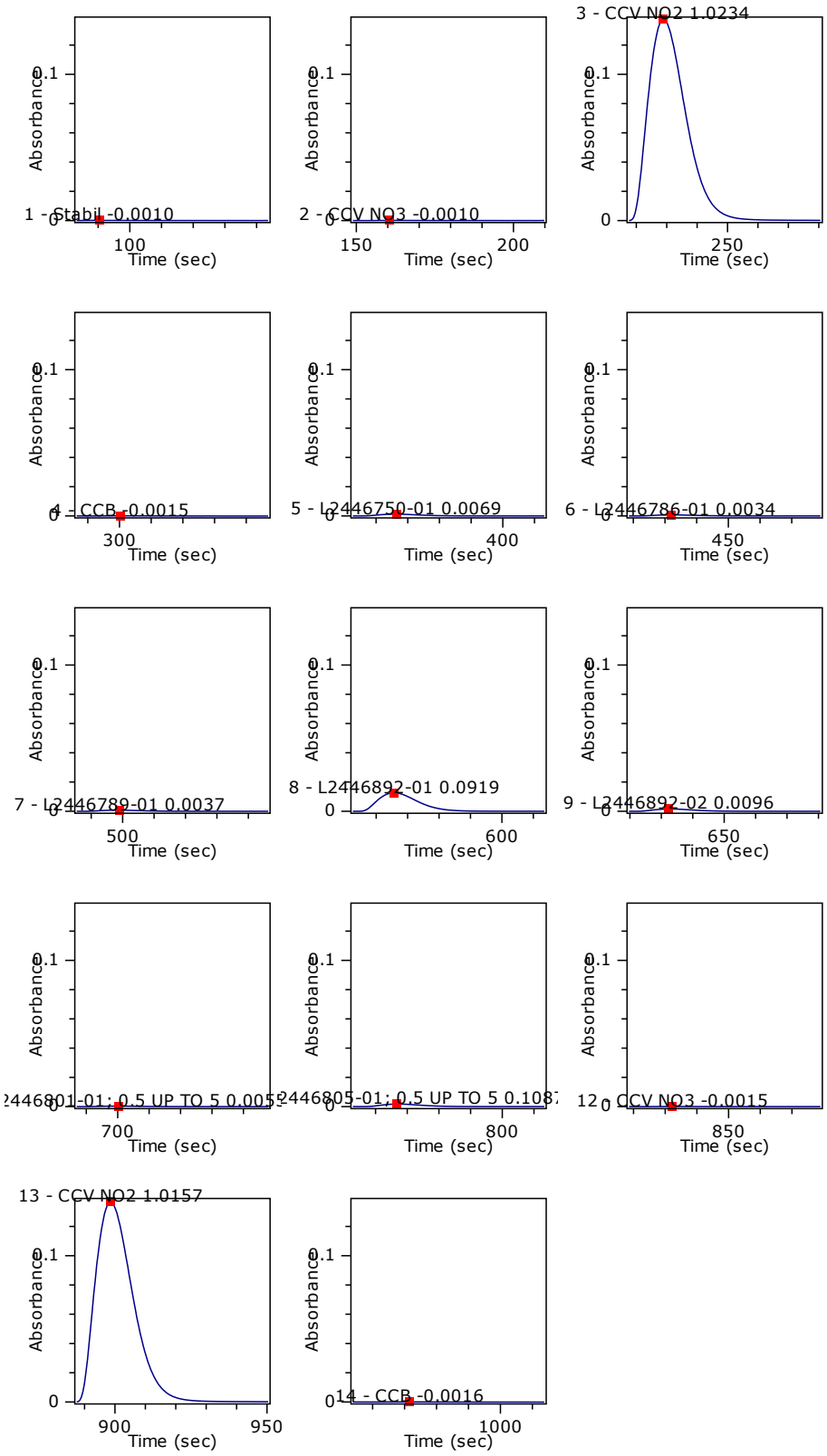
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	-0.0010		2024-08-17T08:09:48
CCV NO3	2	QC	?	0.0001	1	1	1	-0.0010		2024-08-17T08:10:58
CCV NO2	3	QC	1	0.1378	1	1	1	1.0234		2024-08-17T08:12:06
CCB	4	QC	0	0.0001	1	1	1	-0.0015		2024-08-17T08:13:18
L2446750-01	5	Unknown	?	0.0012	1	1	1	0.0069		2024-08-17T08:14:24
L2446786-01	6	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T08:15:29
L2446789-01	7	Unknown	?	0.0008	1	1	1	0.0037		2024-08-17T08:16:37
L2446892-01	8	Unknown	?	0.0126	1	1	1	0.0919		2024-08-17T08:17:43
L2446892-02	9	Unknown	?	0.0016	1	1	1	0.0096		2024-08-17T08:18:50
L2446801-01; 0.5 UP TO 5	10	Unknown	?	0.0004	10	1	1	0.0055		2024-08-17T08:19:58
L2446805-01; 0.5 UP TO 5	11	Unknown	?	0.0017	10	1	1	0.1087		2024-08-17T08:21:04
CCV NO3	12	QC	?	0.0001	1	1	1	-0.0015		2024-08-17T08:22:10
CCV NO2	13	QC	1	0.1367	1	1	1	1.0157		2024-08-17T08:23:16
CCB	14	QC	0	0.0001	1	1	1	-0.0016		2024-08-17T08:24:29

Peaks:

Channel: 1-NOx



Channel: 2-NO2



Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0

Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 11.5
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.7
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-17T08:08:18

Method
------------
```

```
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
   Delay (sec) 1
   Next Sample
   Autosampler Probe Force Down

   Spectrometer Reference Scan
   Spectrometer Absorbance Scanning

   Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

   FIAlab Injection Valve Sample Load

   Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.

   FIAlab1 Injection Valve Sample Inject
   Autosampler Probe Up
   Delay (sec) 5
   Autosampler Position (#) Rinse
   FIAlab2 Injection Valve Sample Inject

   Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

   Autosampler Probe Up

   Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

   Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

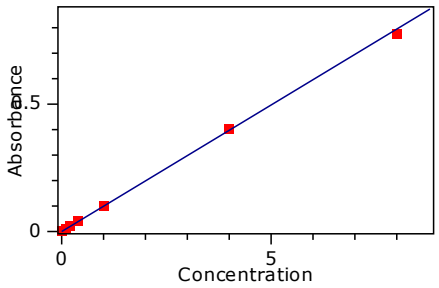
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-17 09:26:55
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-17-092629.dat

Dataset Notes:

Analyst	

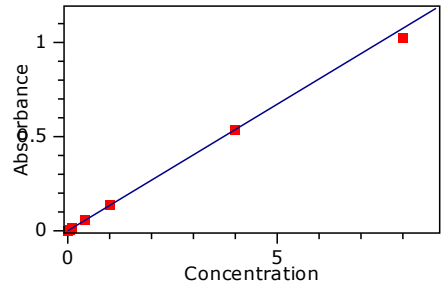
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00012
B: 0.09935
R^2: 0.99962
RSE(%): 1.59179
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	NOx 8.0ppm	0.77530	8.00000	7.80430	2.45	N/A
10002	NOx 4.0ppm	0.40390	4.00000	4.06680	1.67	N/A
10003	NOx 1.0ppm	0.09930	1.00000	1.00030	0.03	N/A
10004	NOx 0.4ppm	0.04000	0.40000	0.40410	1.02	N/A
10005	NOx 0.2ppm	0.01980	0.20000	0.20070	0.37	N/A
10006	NOx 0.1ppm	0.00980	0.10000	0.09960	0.43	N/A
10007	NOx 0.0ppm	0.00010	0.00000	0.00210	NA	N/A



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00028
B: 0.13433
R^2: 0.99940
RSE(%): 3.30325
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	Nitrite 8.0ppm	1.02180	8.00000	7.60420	4.95	N/A
10002	Nitrite 4.0ppm	0.53740	4.00000	3.99830	0.04	N/A
10003	Nitrite 1.0ppm	0.13830	1.00000	1.02780	2.78	N/A
10004	Nitrite 0.4ppm	0.05550	0.40000	0.41140	2.85	N/A
10005	Nitrite 0.1ppm	0.01390	0.10000	0.10140	1.41	N/A
10006	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.16	N/A
10007	Nitrite 0.0ppm	0.00010	0.00000	-0.00160	NA	N/A

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0002	1	1	1	0.0028		2024-08-17T09:12:16
CCV NO3	2	QC	1	0.0972	1	1	1	0.9792		2024-08-17T09:13:26
CCV NO2	3	QC	?	0.0968	1	1	1	0.9752		2024-08-17T09:14:32
CCB	4	QC	0	0.0000	1	1	1	0.0010		2024-08-17T09:15:16

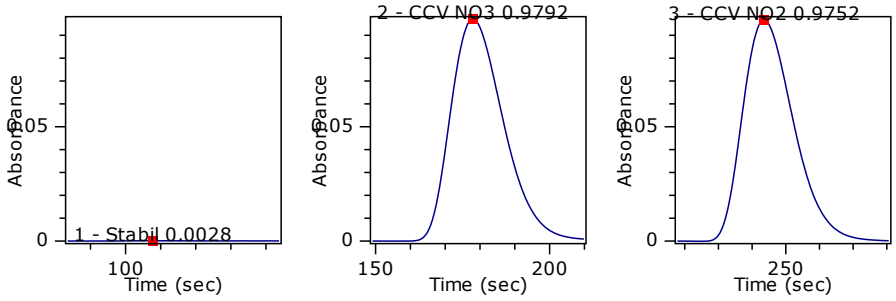
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2446863-02	5	Unknown	?	0.0009	1	1	1	0.0102		2024-08-17T09:16:49
L2446863-03	6	Unknown	?	0.0031	1	1	1	0.0325		2024-08-17T09:17:57
L2446863-04	7	Unknown	?	0.0434	1	1	1	0.4377		2024-08-17T09:19:04
L2446863-05	8	Unknown	?	0.0104	1	1	1	0.1060		2024-08-17T09:20:10
L2446863-06	9	Unknown	?	0.0285	1	1	1	0.2881		2024-08-17T09:21:16
CCV NO3	10	QC	1	0.0964	1	1	1	0.9718		2024-08-17T09:22:22
CCV NO2	11	QC	?	0.0961	1	1	1	0.9681		2024-08-17T09:23:28
CCB	12	QC	0	0.0000	1	1	1	0.0013		2024-08-17T09:24:08

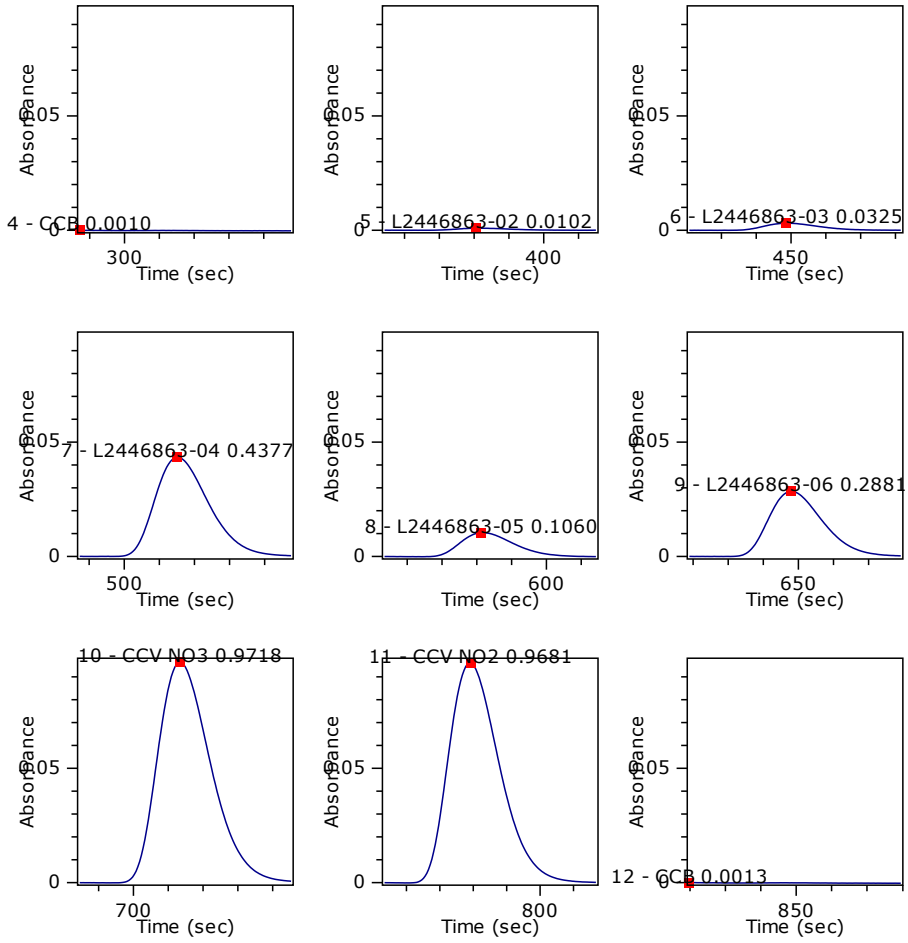
Channel: 2-NO2

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	-0.0017		2024-08-17T09:12:01
CCV NO3	2	QC	?	0.0001	1	1	1	-0.0014		2024-08-17T09:13:12
CCV NO2	3	QC	1	0.1368	1	1	1	1.0163		2024-08-17T09:14:17
CCB	4	QC	0	0.0001	1	1	1	-0.0014		2024-08-17T09:15:27
L2446863-02	5	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T09:16:35
L2446863-03	6	Unknown	?	0.0007	1	1	1	0.0033		2024-08-17T09:17:43
L2446863-04	7	Unknown	?	0.0007	1	1	1	0.0028		2024-08-17T09:18:50
L2446863-05	8	Unknown	?	0.0007	1	1	1	0.0031		2024-08-17T09:19:56
L2446863-06	9	Unknown	?	0.0007	1	1	1	0.0034		2024-08-17T09:21:03
CCV NO3	10	QC	?	0.0001	1	1	1	-0.0013		2024-08-17T09:22:08
CCV NO2	11	QC	1	0.1376	1	1	1	1.0222		2024-08-17T09:23:13
CCB	12	QC	0	0.0004	1	1	1	0.0005		2024-08-17T09:24:26

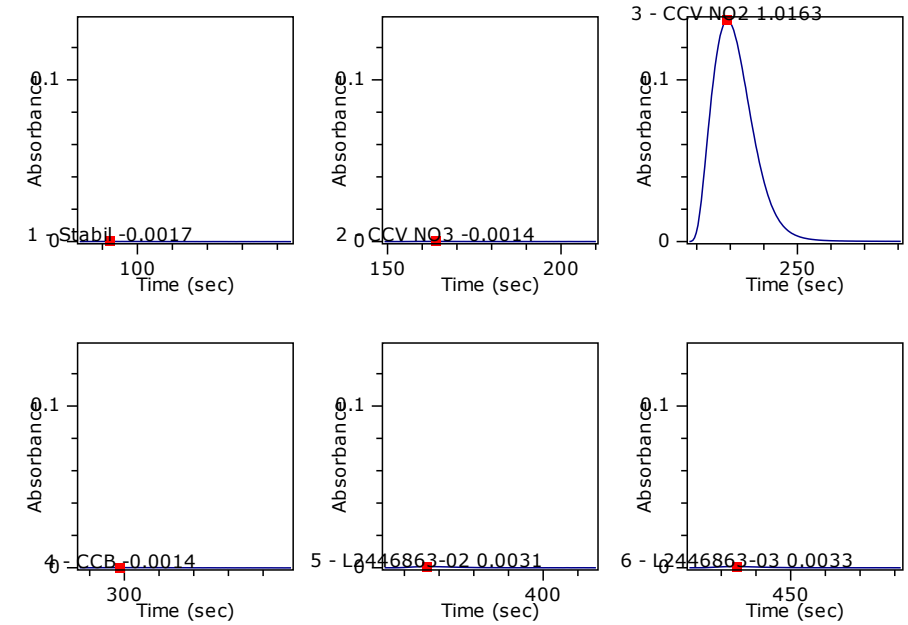
Peaks:

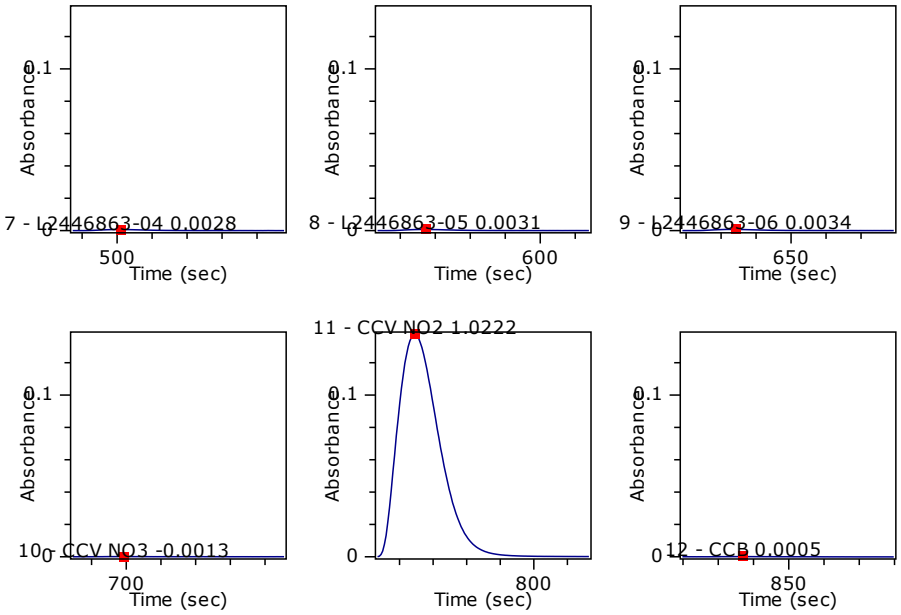
Channel: 1-NOx





Channel: 2-NO2





Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 11.5
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.7
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-17T09:10:29

Method
------------
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
   Delay (sec) 1
   Next Sample
   Autosampler Probe Force Down

   Spectrometer Reference Scan
   Spectrometer Absorbance Scanning

   Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

   FIAlab Injection Valve Sample Load

   Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.
```

```
    FIAlab1 Injection Valve Sample Inject
    Autosampler Probe Up
    Delay (sec) 5
    Autosampler Position (#) Rinse
    FIAlab2 Injection Valve Sample Inject

    Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

    Autosampler Probe Up

    Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

    Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446638-01		
Matrix Spike	: WG1960427-4	**MS Analysis Date**	: 08/17/24 06:09
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Nitrate	ND	4	3.82	96					83-113	17

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/17/24 06:03
Dup Sample ID	: WG1960427-3	**DUP Analysis Date**	: 08/17/24 06:04

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Nitrate	ND	ND	NC	17

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1960427-2	**LCS Analysis Date**	: 08/17/24 04:36
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Nitrogen, Nitrate	**5.00**	**5.11**	**102.**					**90-110**	**17**

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Nitrogen, Nitrate	14797-55-8	0.1	0.0228	mg/l	90-110		83-113	6	6	353.2	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrate	14797-55-8	0.1	0.0228	mg/l	90-110		83-113	17	17	4500NO3-F	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrite	NONE	0.05	0.0143	mg/l	90-110	20	80-120	20	20	353.2	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrite	NONE	0.05	0.0143	mg/l	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Plastic 250ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Nitrogen, Nitrate	14797-55-8	1	0.261	mg/kg	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Glass 250ml/8oz unpreserved
Nitrogen, Nitrite	NONE	1	0.282	mg/kg	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Nitrogen, Nitrate

Aqueous Samples:
Compute sample N in NO3 concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 1 (NO3+NO2) and Channel 2 (NO2)

$$NO3\ mg/I = (NO3+NO2)\ mg/L - (NO2)\ mg/L$$

To compute final results for aqueous samples, multiply the direct reading by the dilution factor (also done using software)

$$(NO3)\text{-}N\ mg/L = mg/L\ direct\ reading \times dilution\ factor$$

Calculations of Nitrogen, Nitrite

Aqueous Samples:
Compute sample N in NO2 concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 2 (NO2)

To compute final results for aqueous samples, multiply the direct reading by the dilution factor (also done using software)

$$(NO2)\text{-}N\ mg/L = mg/L\ direct\ reading \times dilution\ factor$$

Sequence Logs

Date:	Initals:	Syringe Lot:	Syringe Lot: 20230620
081724	KAF	Filter Lot:	Filter Lot: 18048470A

Injection #	Rack #	Sample ID:	Comments:
19	RA1	ICV NO3 5	*Buffer: NO3NO2_081524_BUFFER*
20	RA2	ICV NO2 5	*Color: NO3NO2_081524_COLOR*
21	RA3	ICV NO3 0.5	*NO3 MS: NO3_080224_200PPM_CAL*
22	RA4	ICV NO2 0.5	*NO2 MS: NO2_062024_200PPM_CAL*
23	RA5	ICB	*ICV NO3 5: NO3_081624_5PPM_ICV*
24	RA6	5X DILUTER CHECK	*ICV NO2 5: NO2_081424_5PPM_ICV*
25	RA7	BLANK NO3	*ICV NO3 0.5: NO3_081724_0.5PPM_ICV*
26	RA8	LCS NO3	*ICV NO2 0.5: NO2_081724_0.5PPM_ICV*
27	RA9	BLANK NO2	
28	RA10	LCS NO2	
32	RA11	WG1960424-1; NO2	*OOH*
33	RA12	WG1960424-2; NO2	*DW*
34	RA13	WG1960425-1; NO2/444	GOING OOH
35	RA14	WG1960425-2; NO2/444	FIELD BLANK
36	RA15	WG1960426-1; NO3	
37	RA16	WG1960426-2; NO3	
38	RA17	WG1960427-1; NO3	
39	RA18	WG1960427-2; NO3	
40	RA19	WG1960428-1; NO3	
41	RA20	WG1960428-2; NO3	
45	RA21	WG1960429-1; NO3	
46	RA22	WG1960429-2; NO3	
47	RA23	L2446647-01	
48	RA24	WG1960426-3; NO3	
49	RA25	WG1960426-4; NO3	
50	RA26	WG1960424-3; NO2	
51	RA27	WG1960424-4; NO2	
52	RA28	L2446647-03	
53	RA29	L2446688-01	
54	RA30	WG1960426-5; NO3	
58	RA31	WG1960426-6; NO3	
59	RA32	WG1960424-5; NO2	
60	RA33	WG1960424-6; NO2	
61	RA34	L2446752-01	
62	RA35	L2446752-03	
63	RA36	L2446752-05	
64	RA37	L2446752-08	
65	RA38	L2446752-09	
66	RA39	L2446752-11	
67	RA40	L2446752-13	
71	RA41	L2446752-17	
72	RA42	L2446752-20	
73	RA43	L2446779-01	

Injection #	Rack #	Sample ID:	Comments:
74	RA44	L2446779-02	
75	RA45	L2446801-01	
76	RA46	L2446805-01	
77; 143	RA47	L2446860-01	
78	RA48	L2446860-02	
79	RA49	L2446609-01	
80	RA50	L2446439-03	
84	RA51	WG1960429-3; NO3	
85	RA52	WG1960429-4; NO3	
86	RA53	WG1960425-3; NO2	
87	RA54	WG1960425-4; NO2	
88	RA55	L2446439-04	
89	RA56	L2446439-18	
90	RA57	L2446439-20	
91	RA58	L2446584-01	
92	RA59	L2446584-02	
93	RA60	L2446584-03	
97	RA61	L2446584-04	
98	RA62	L2446951-06	
99	RA63	WG1960428-3; NO3	
100	RA64	WG1960428-4; NO3	
101	RA65	L2446951-07	
102	RA66	L2446951-11	
103	RA67	L2446951-12	
104	RA68	L2446951-13	
105	RA69	L2446951-14	
106	RA70	L2445937-01	
110	RA71	L2445937-02	
111	RA72	L2445937-03	
112	RA73	L2445937-04	
113	RA74	L2445937-05	
114	RA75	L2445950-01	
115	RA76	L2445950-02	
116	RA77	L2446555-04	
117	RA78	L2446555-06	
118	RA79	L2446638-01	
119	RA80	WG1960427-3; NO3	
123	RA81	WG1960427-4; NO3	
124	RA82	L2446638-02	
125	RA83	L2446872-01	
126	RA84	L2446872-02	
127	RA85	L2446872-03	
128	RA86	L2446872-04	
129	RA87	WG1960445/448-1; CNO3	
130	RA88	WG1960445/448-2; CNO3	
131	RA89	L2446786-01A	

Injection #	Rack #	Sample ID:	Comments:
132	RA90	L2446792-17A	
136	RB1	L2446922-03H	
137	RB2	L2446922-04G,R1A	
138	RB3	L2446922-05F	
139	RB4	L2446922-06F,R1A	
140	RB5	L2446693-01A	
141	RB6	WG1960444-3; NO2	
142	RB7	WG1960444-4; NO2	
144	RB8	L2445263-03	
145	RB9	L2445417-01	
149	RB10	WG1960445-3; CNO3	
150	RB11	WG1960445-4; CNO3	
151	RB12	L2445418-01	
152	RB13	L2445604-01	
153	RB14	L2445604-02	
154	RB15	L2445606-02	
155	RB16	L2445645-02	
156	RB17	L2445677-01	
157	RB18	L2445677-02	
158	RB19	L2445811-01	
162	RB20	L2445556-01	
163	RB21	L2445556-02	
164	RB22	L2445556-03	
165	RB23	L2445556-04	
169	RB24	L2446712-01	
170	RB25	WG1960448-3; CNO3	
171	RB26	WG1960448-4; CNO3	
172	RB27	L2446712-02	
5	RB28	L2446750-01A	TRAY 2
6	RB29	L2446786-01A	
7	RB30	L2446789-01A	
8	RB31	L2446892-01I	
9	RB32	L2446892-02I	
10	RC1	L2446801-01	
11	RC2	L2446805-01	
5	RB33	L2446863-02K	TRAY 3
6	RB34	L2446863-03K	
7	RB35	L2446863-04K	
8	RB36	L2446863-05K	
9	RB37	L2446863-06K	

Total Organic Carbon Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-03	**Date Collected**	: 08/16/24 10:30
Client ID	: LMW-10R-S_24.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/21/24 02:33
Sample Matrix	: WATER	**Dilution Factor**	: 80
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961842.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	120	80	3.4	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-04	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/25/24 12:28
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963587	**Instrument ID**	: TOCVWS5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	5400	1600	69.	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-05	**Date Collected**	: 08/16/24 13:00
Client ID	: LMW-9R-S_13.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/25/24 12:56
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963587	**Instrument ID**	: TOCVWS5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	9200	1600	69.	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-06	**Date Collected**	: 08/16/24 15:30
Client ID	: LMW-7R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/25/24 13:21
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963587	**Instrument ID**	: TOCVWS5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	3500	1600	69.	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961842-1	**Date Collected**	: NA
Client ID	: WG1961842-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 02:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961842.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	ND	1.0	0.04	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961842-3	**Date Collected**	: 08/15/24 09:17
Client ID	: WG1961842-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/21/24 02:33
Sample Matrix	: WATER	**Dilution Factor**	: 40
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961842.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	210	40	1.7	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1963587-1	**Date Collected**	: NA
Client ID	: WG1963587-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/25/24 10:50
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963587	**Instrument ID**	: TOCVWS5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	0.05	1.0	0.04	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1963587-3	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/25/24 13:54
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963587	**Instrument ID**	: TOCVWS5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Dissolved Organic Carbon	5400	1600	69.	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-03	**Date Collected**	: 08/16/24 10:30
Client ID	: LMW-10R-S_24.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/21/24 04:18
Sample Matrix	: WATER	**Dilution Factor**	: 100
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961844	**Instrument ID**	: TOCVWP6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	120	50	9.7	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-04	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/25/24 11:56
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963586	**Instrument ID**	: TOC-VW4
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	2800	800	160	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-05	**Date Collected**	: 08/16/24 13:00
Client ID	: LMW-9R-S_13.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/25/24 12:22
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963586	**Instrument ID**	: TOC-VW4
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	8600	800	160	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-06	**Date Collected**	: 08/16/24 15:30
Client ID	: LMW-7R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/25/24 12:47
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963586	**Instrument ID**	: TOC-VW4
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	3500	800	160	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961844-1	**Date Collected**	: NA
Client ID	: WG1961844-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 03:25
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961844	**Instrument ID**	: TOCVWP6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	ND	0.50	0.10	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961844-3	**Date Collected**	: 08/16/24 10:05
Client ID	: WG1961844-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/21/24 09:48
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1961844	**Instrument ID**	: TOCVWP6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	0.55	0.50	0.10	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1963586-1	**Date Collected**	: NA
Client ID	: WG1963586-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/25/24 10:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963586	**Instrument ID**	: TOC-VW4
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	ND	0.50	0.10	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1963586-3	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/25/24 13:28
Sample Matrix	: WATER	**Dilution Factor**	: 1600
Analytical Method	: 1,9060A	**Analyst**	: DEW
Lab File ID	: WG1963586	**Instrument ID**	: TOC-VW4
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/17/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-44-0	Total Organic Carbon	2900	800	160	

Cal. Curve

Sample Name: 07222024 TOC3 CURVE
Sample ID:
Cal. Curve: 07222024 TOC3 CURVE.2024_07_22_02_23_17.cal
Status Completed

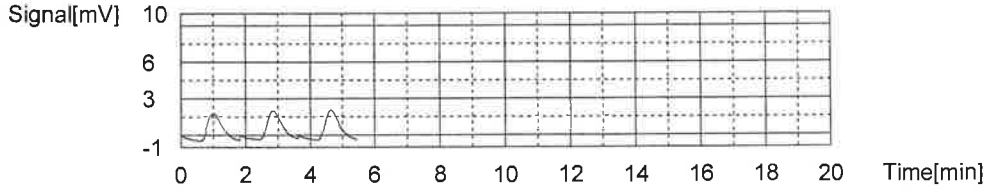
TOC 3
07222024
DEW

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.962	2500uL	1	*******		7/22/2024 2:33:54 AM
2	7.194	2500uL	1	*******		7/22/2024 2:38:10 AM
3	7.487	2500uL	1	*******		7/22/2024 2:43:03 AM

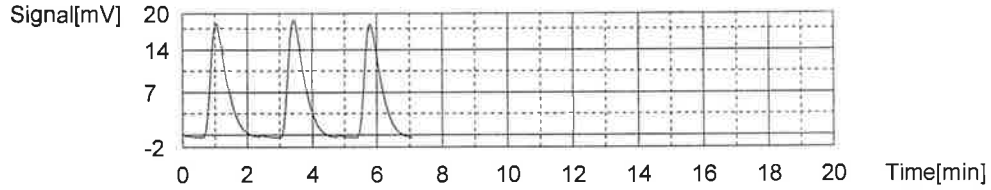
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 7.214



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	67.33	2500uL	1	*******		7/22/2024 2:54:15 AM
2	68.94	2500uL	1	*******		7/22/2024 2:58:43 AM
3	65.93	2500uL	1	*******		7/22/2024 3:03:10 AM

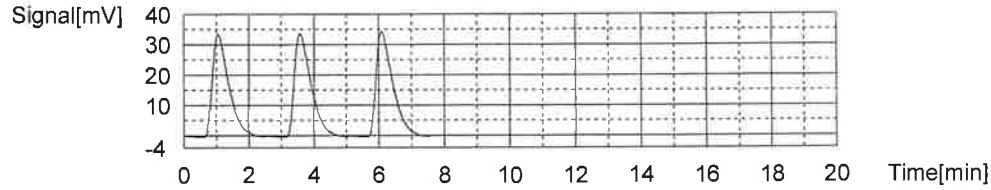
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 67.40



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	123.2	2500uL	1	*******		7/22/2024 3:14:29 AM
2	125.5	2500uL	1	*******		7/22/2024 3:19:06 AM
3	126.8	2500uL	1	*******		7/22/2024 3:23:43 AM

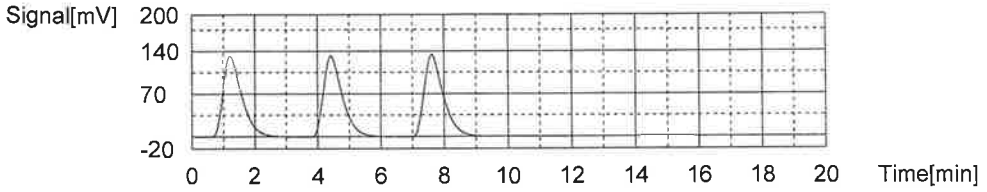
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 125.2



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	561.4	2500uL	1	*******		7/22/2024 3:35:44 AM
2	568.8	2500uL	1	*******		7/22/2024 3:41:00 AM
3	579.6	2500uL	1	*******		7/22/2024 3:46:16 AM

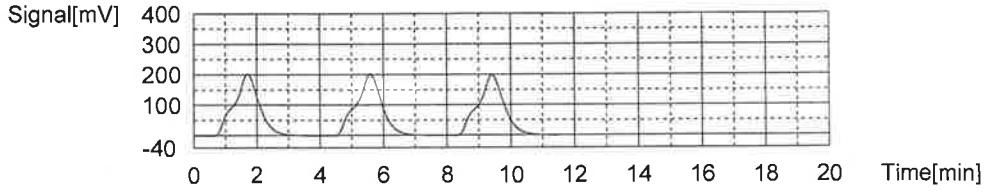
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 569.9



Conc: 10.00mg/L

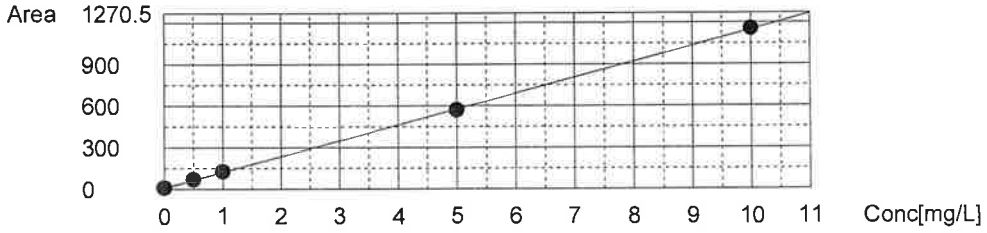
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1152	2500uL	1	*******		7/22/2024 3:58:54 AM
2	1166	2500uL	1	*******		7/22/2024 4:04:51 AM
3	1147	2500uL	1	*******		7/22/2024 4:10:46 AM

Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 1155



Slope: 114.3
Intercept 7.742
r^2 0.999871
r 0.999935
Zero Shift No

M
y



Conc	A	A-yint	%
y	7.214		
0.5	67.40	0.522	104
1.0	125.20	1.028	103
5.0	569.9	4.918	98
10.0	1155	10.04	100

✓ DOM

Instr.Information

System	TOC-VW
Instrument Options	TOC/ASI/

TOC4
08232024
DEW

Cal. Curve

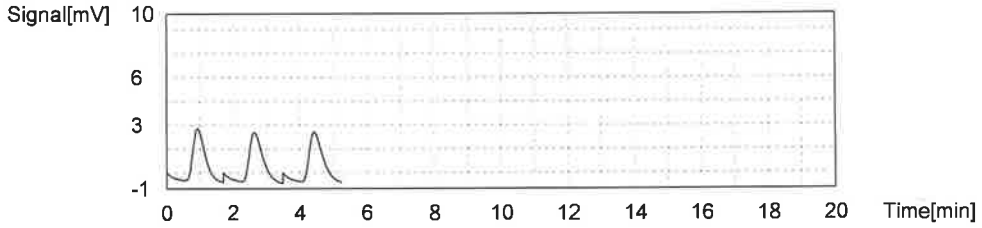
Sample Name:	08232024 TOC4 CURVE
Sample ID:	
Cal. Curve:	08232024 TOC4 CURVE.2024_08_23_01_42_07.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.600	2500uL	1	*******		8/23/2024 1:52:51 AM
2	8.892	2500uL	1	*******		8/23/2024 1:58:10 AM
3	8.961	2500uL	1	*******		8/23/2024 2:02:27 AM

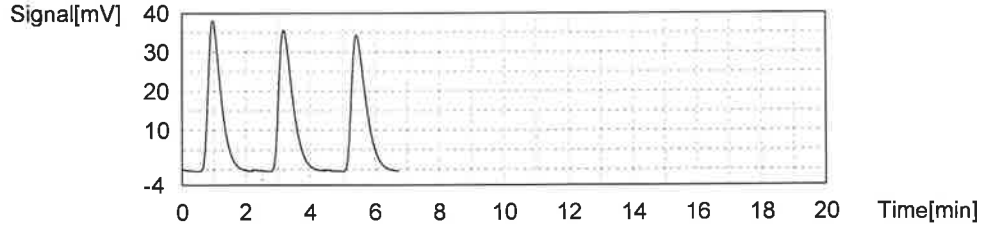
Acid Add. 5.000%
Sp. Time 180.0sec
Mean Area 8.818



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	112.9	2500uL	1	*******		8/23/2024 2:13:41 AM
2	114.1	2500uL	1	*******		8/23/2024 2:18:03 AM
3	113.8	2500uL	1	*******		8/23/2024 2:22:26 AM

Acid Add. 5.000%
Sp. Time 180.0sec
Mean Area 113.6



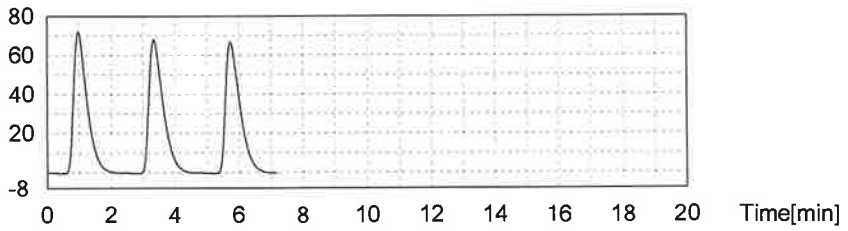
Conc: 1.000mg/L

conc	A	A-y Im	%
0	8.818	—	
0.5	113.6	0527	105
1.0	221.5	1.105 1/2	105
5.0	1005	4.82	96
10.0	2100	10.09	101

✓ DONW

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	219.5	2500uL	1	*******		8/23/2024 2:33:49 AM
2	222.7	2500uL	1	*******		8/23/2024 2:38:20 AM
3	222.3	2500uL	1	*******		8/23/2024 2:42:51 AM

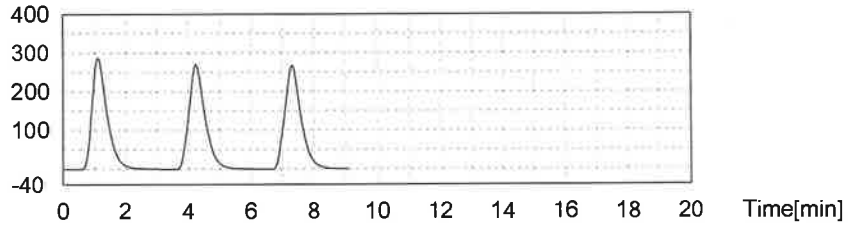
Acid Add. 5.000%
Sp. Time 180.0sec
Mean Area 221.5



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	998.5	2500uL	1	*******		8/23/2024 2:54:55 AM
2	1010	2500uL	1	*******		8/23/2024 3:00:06 AM
3	1007	2500uL	1	*******		8/23/2024 3:05:14 AM

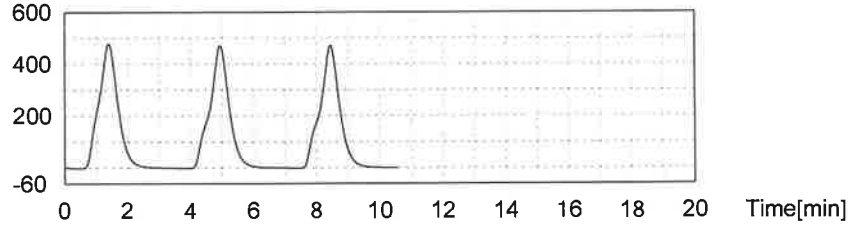
Acid Add. 5.000%
Sp. Time 180.0sec
Mean Area 1005



Conc: 10.00mg/L

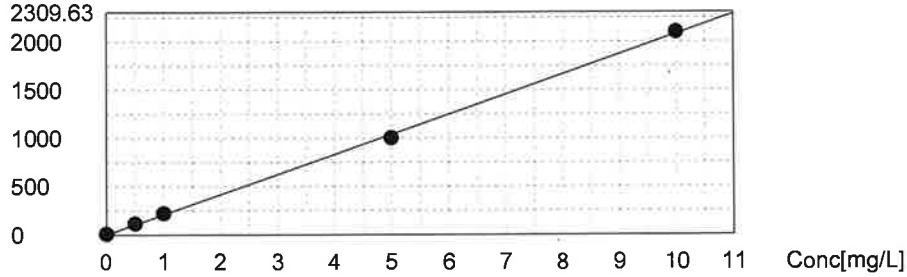
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2089	2500uL	1	*******		8/23/2024 3:17:42 AM
2	2105	2500uL	1	*******		8/23/2024 3:23:22 AM
3	2105	2500uL	1	*******		8/23/2024 3:29:09 AM

Acid Add. 5.000%
Sp. Time 180.0sec
Mean Area 2100



Slope: 207.8
Intercept 4.016
r^2 0.9994
r 0.9997
Zero Shift No

M
y



Instr.Information

System TOCVws
Instrument Options TOC/ASI/

TOC 5
08202024
DEW

Cal. Curve

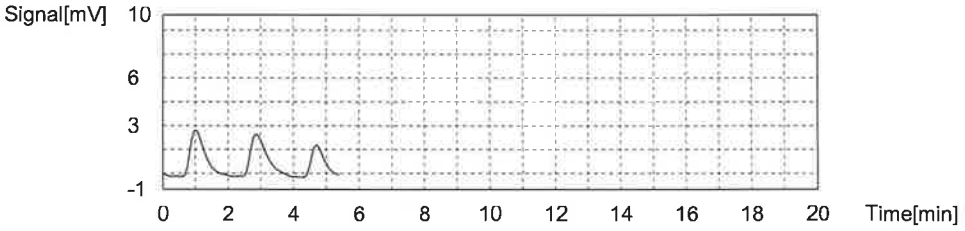
Sample Name: 08202024 TOC5 CURVE
Sample ID:
Cal. Curve: 08202024 TOC5 CURVE.2024_08_20_02_35_48.cal
Status Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.879	2500uL	1	*******		8/20/2024 2:46:06 AM
2	8.564	2500uL	1	*******		8/20/2024 2:50:42 AM
3	5.311	2500uL	1	*******		8/20/2024 2:54:52 AM

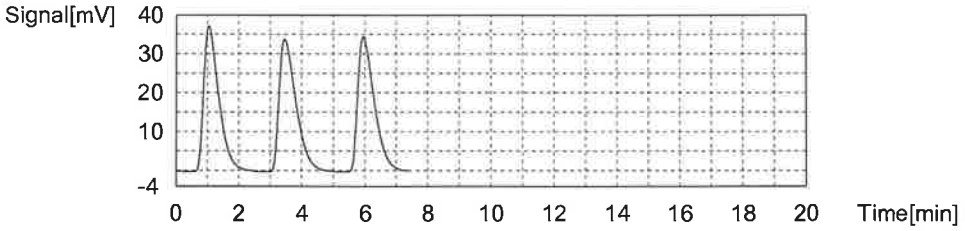
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 7.585



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	127.9	2500uL	1	*******		8/20/2024 3:05:43 AM
2	128.7	2500uL	1	*******		8/20/2024 3:10:18 AM
3	129.6	2500uL	1	*******		8/20/2024 3:14:52 AM

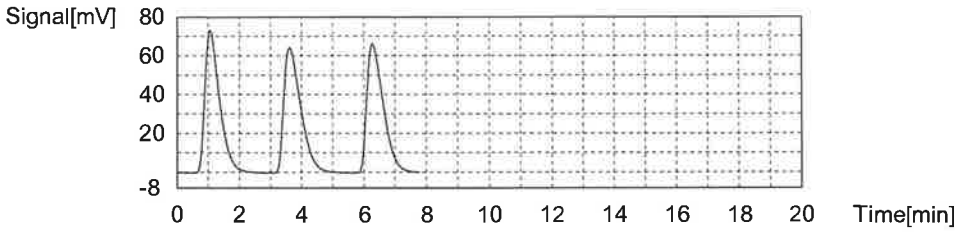
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 128.7



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	249.0	2500uL	1	*******		8/20/2024 3:25:50 AM
2	250.3	2500uL	1	*******		8/20/2024 3:30:37 AM
3	249.3	2500uL	1	*******		8/20/2024 3:35:17 AM

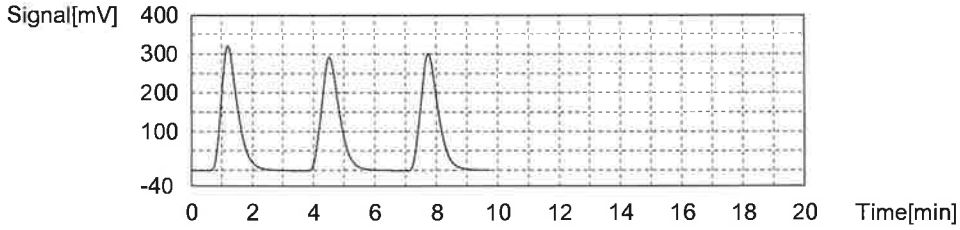
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 249.5



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1217	2500uL	1	*******		8/20/2024 3:46:56 AM
2	1218	2500uL	1	*******		8/20/2024 3:52:20 AM
3	1224	2500uL	1	*******		8/20/2024 3:57:43 AM

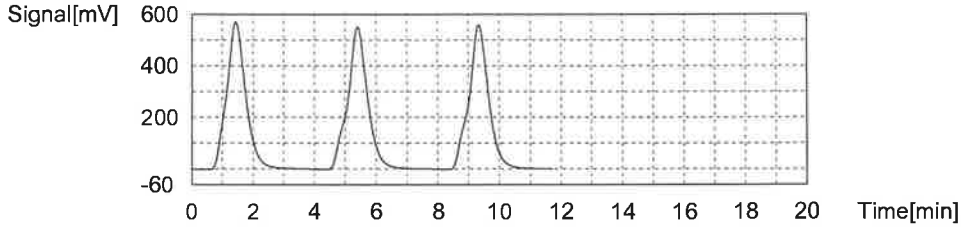
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 1220



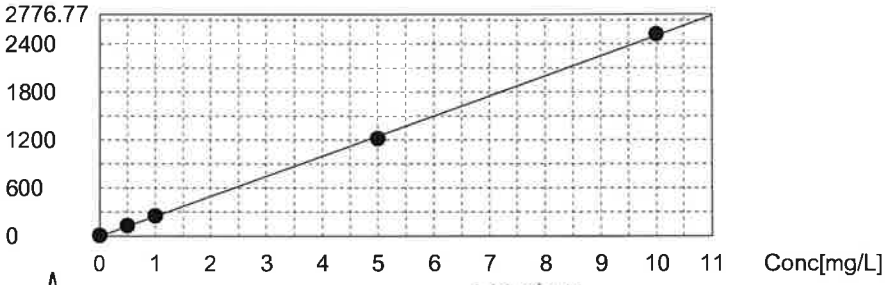
Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2515	2500uL	1	*******		8/20/2024 4:09:59 AM
2	2523	2500uL	1	*******		8/20/2024 4:16:07 AM
3	2535	2500uL	1	*******		8/20/2024 4:22:10 AM

Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 2524



Slope: 251.1
Intercept -2.571
r^2 0.9997
r 0.9998
Zero Shift ~~No~~



Conc.	A	A-y/m
0	7.585	
0.5	128.7	0.523
1.0	249.5	1.004
5.0	1220	4.87
10.0	2524	10.06

Instr.Information

System	TOCVwp 6
Instrument Options	TOC/ASI/

Cal. Curve

TOC6
072224
DEW

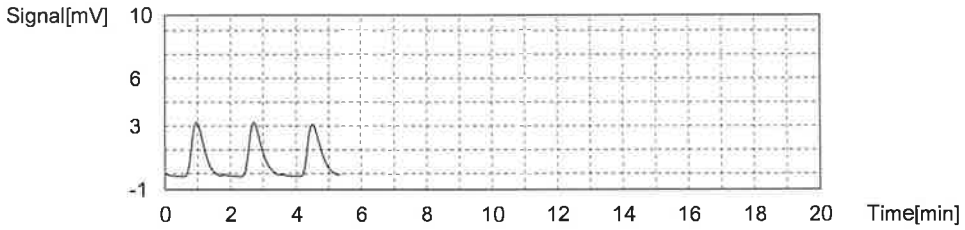
Sample Name:	07222024 TOC6 CURVE
Sample ID:	
Cal. Curve:	07222024 TOC6 CURVE.2024_07_22_02_16_07.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.067	2500uL	1	*******		7/22/2024 2:26:26 AM
2	9.342	2500uL	1	*******		7/22/2024 2:30:50 AM
3	9.231	2500uL	1	*******		7/22/2024 2:35:13 AM

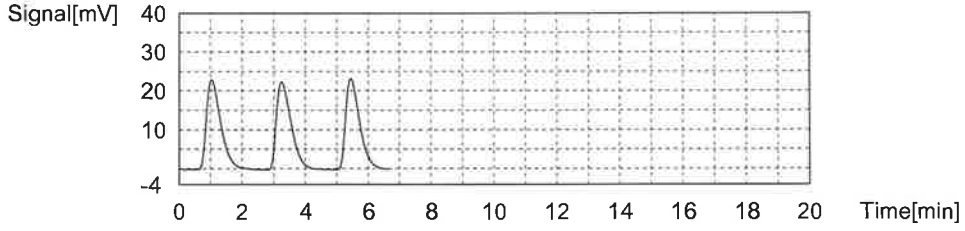
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 9.213



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	74.20	2500uL	1	*******		7/22/2024 2:46:00 AM
2	74.16	2500uL	1	*******		7/22/2024 2:50:18 AM
3	74.24	2500uL	1	*******		7/22/2024 2:54:36 AM

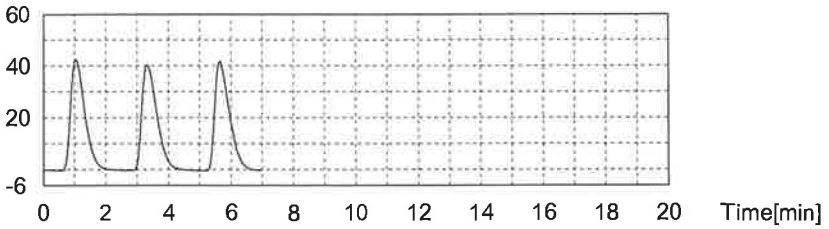
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 74.20



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	138.2	2500uL	1	*******		7/22/2024 3:05:27 AM
2	138.7	2500uL	1	*******		7/22/2024 3:09:53 AM
3	139.5	2500uL	1	*******		7/22/2024 3:14:19 AM

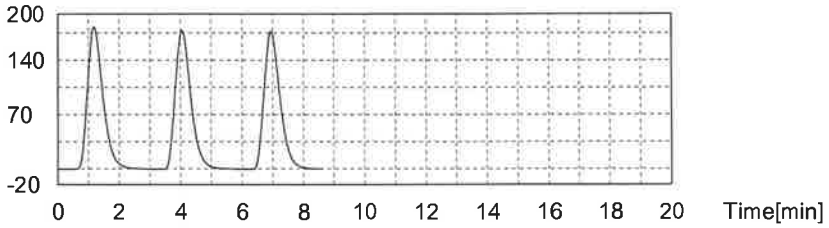
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 138.8



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	654.6	2500uL	1	*******		7/22/2024 3:25:44 AM
2	655.7	2500uL	1	*******		7/22/2024 3:30:43 AM
3	657.5	2500uL	1	*******		7/22/2024 3:35:43 AM

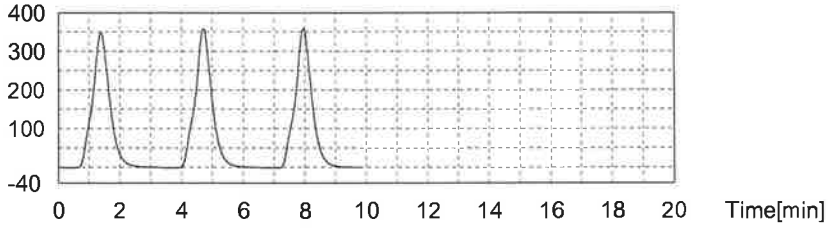
Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 655.9



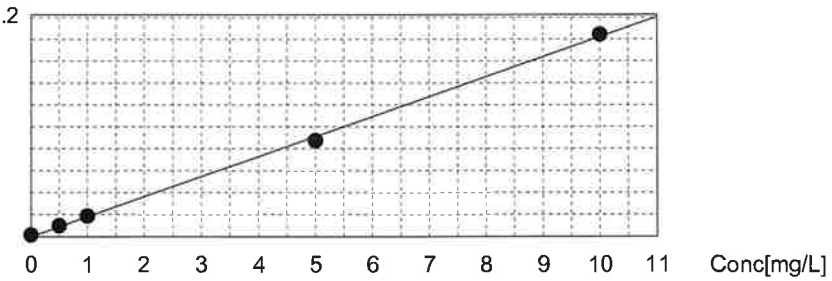
Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1374	2500uL	1	*******		7/22/2024 3:47:36 AM
2	1384	2500uL	1	*******		7/22/2024 3:52:56 AM
3	1388	2500uL	1	*******		7/22/2024 3:58:24 AM

Acid Add. 3.000%
Sp. Time 180.0sec
Mean Area 1382



Slope: 136.7
Intercept 0.8264
r^2 0.9992
r 0.9996
Zero Shift No



Conc.	A	A-y int	%
0	9.213		
0.5	74.20	0.537	107
1.0	138.8	1.099	101
5.0	655.9	4.79	96
10.0	1382	10.10	101

✓ DEW

Sample Raw Data

Instr.Information

System TOC-VW
Instrument Options TOC/ASI/

8/25

Sample

Sample Name: DI
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

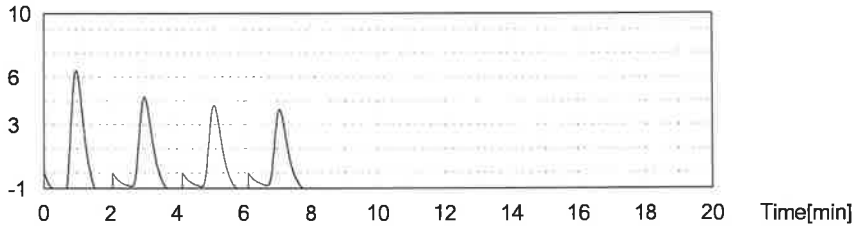
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06634mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.27	0.09747mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024 8:41:28 AM	
2	17.43	0.06455mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024 8:45:48 AM	
3	15.41	0.05483mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024 8:50:00 AM	
4	14.09	0.04848mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024 8:54:15 AM	

Mean Area 17.80
Mean Conc. 0.06634mg/L



Sample

Sample Name: IC CHCK
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

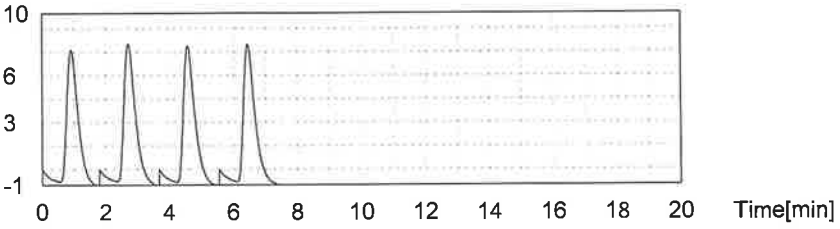
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08838mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.39	0.08361mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:05:04 AM
2	22.71	0.08996mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:10:39 AM
3	22.63	0.08958mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:15:03 AM
4	22.79	0.09035mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:19:25 AM

Mean Area 22.38
Mean Conc. 0.08838mg/L



Sample

Sample Name: ICV
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

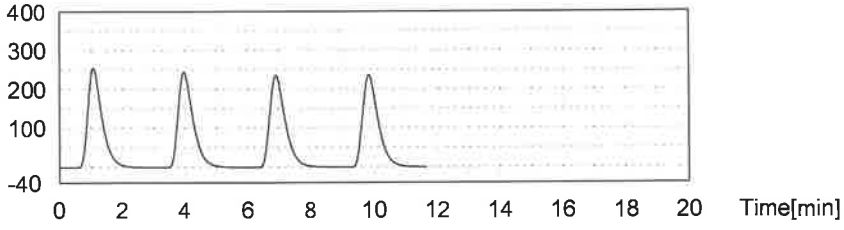
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.056mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	841.7	4.031mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:31:19 AM
2	849.7	4.070mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:36:23 AM
3	846.6	4.055mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:41:28 AM
4	849.4	4.068mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:46:34 AM

Mean Area 846.9
Mean Conc. 4.056mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

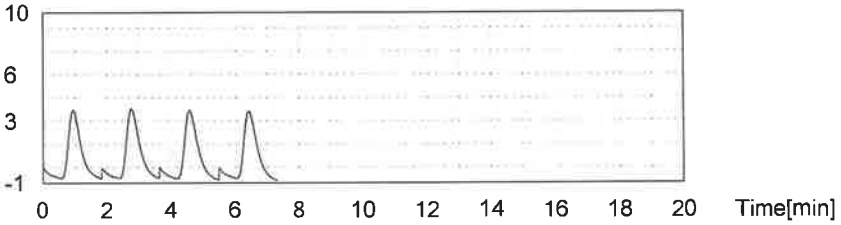
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04106mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.03	0.03857mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 9:57:25 AM
2	12.69	0.04174mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 10:01:52 AM
3	12.82	0.04237mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 10:06:13 AM
4	12.65	0.04155mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 10:10:31 AM

Mean Area 12.55
Mean Conc. 0.04106mg/L



Sample

Sample Name: MB
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

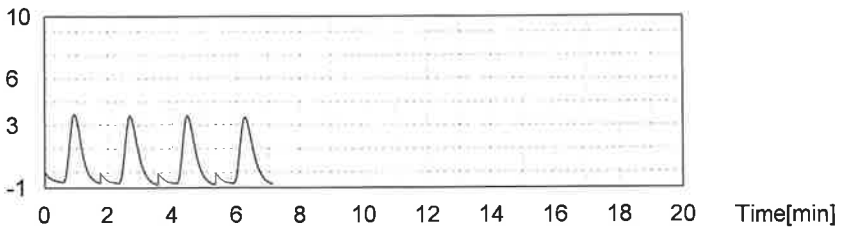
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03934mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.76	0.03727mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 10:21:18 AM
2	12.34	0.04006mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 10:25:54 AM
3	12.26	0.03967mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 10:30:16 AM
4	12.40	0.04035mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 10:34:36 AM

Mean Area 12.19
Mean Conc. 0.03934mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

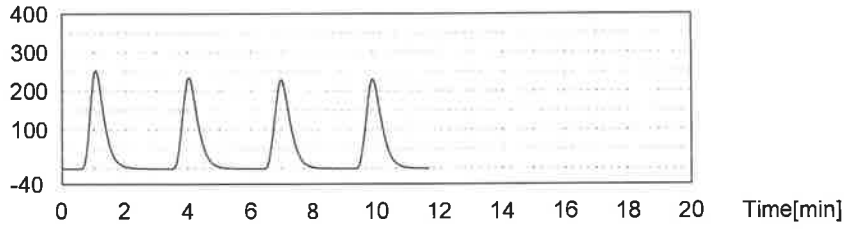
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.025mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	835.7	4.002mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024	10:46:32 AM
2	843.0	4.037mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024	10:51:35 AM
3	842.2	4.034mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024	10:56:38 AM
4	841.0	4.028mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23_8/25/2024	11:01:41 AM

Mean Area 840.5
Mean Conc. 4.025mg/L



Sample

Sample Name: L2446922-04; 1600X
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

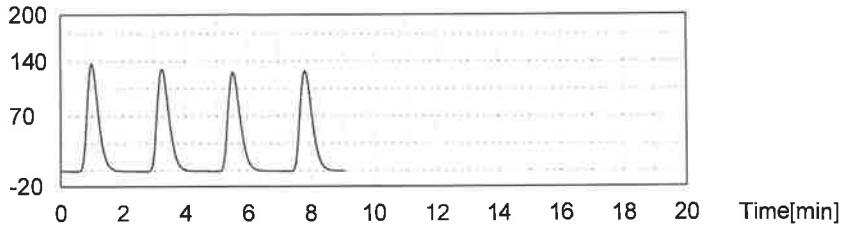
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.743mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	358.8	1.707mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 11:43:20 AM
2	369.4	1.758mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 11:47:42 AM
3	366.7	1.745mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 11:52:08 AM
4	369.9	1.761mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 11:56:31 AM

Mean Area 366.2
Mean Conc. 1.743mg/L



Sample

Sample Name: L2446922-05; 1600X
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

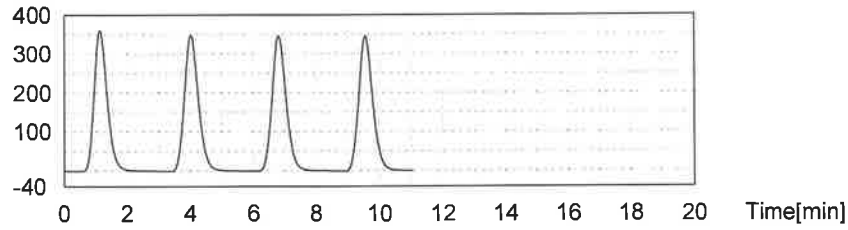
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.356mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1087	5.212mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:08:22 PM
2	1124	5.390mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:13:14 PM
3	1132	5.428mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:18:08 PM
4	1125	5.395mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:22:58 PM

Mean Area 1117
Mean Conc. 5.356mg/L



Sample

Sample Name: L2446922-06; 1600X
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

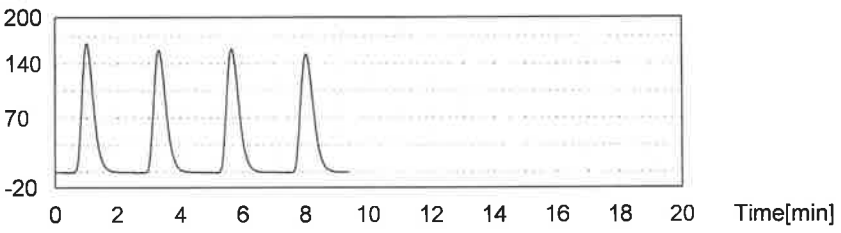
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.176mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	445.5	2.125mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:34:16 PM
2	457.7	2.183mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:38:44 PM
3	461.0	2.199mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:43:11 PM
4	460.6	2.197mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 12:47:39 PM

Mean Area 456.2
Mean Conc. 2.176mg/L



Sample

Sample Name: L2446922-04 DUP 1600X
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

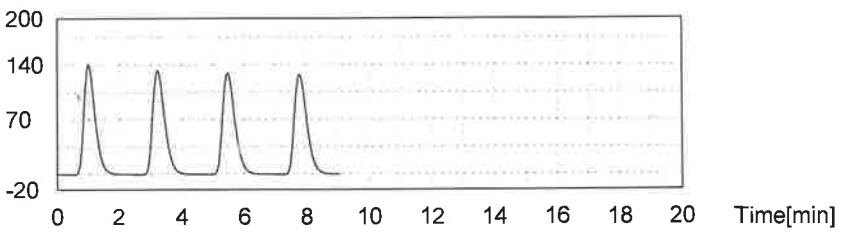
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.788mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	371.2	1.767mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:15:26 PM
2	377.3	1.796mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:19:48 PM
3	378.9	1.804mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:24:13 PM
4	374.8	1.784mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:28:38 PM

Mean Area 375.6
Mean Conc. 1.788mg/L



Sample

Sample Name: L2446922-04 SPK 6400X
Sample ID: X
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.140mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	870.3	4.169mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:40:27 PM
2	877.6	4.204mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:45:40 PM
3	877.9	4.205mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:50:41 PM
4	0.000	-0.01932mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 1:54:43 PM

Mean Area 656.5
Mean Conc. 3.140mg/L

Sample

Sample Name: FB 8/23 23:20 D
Sample ID:
Origin: TOC4 3 REPS METHOD.met
Status Completed
Chk. Result

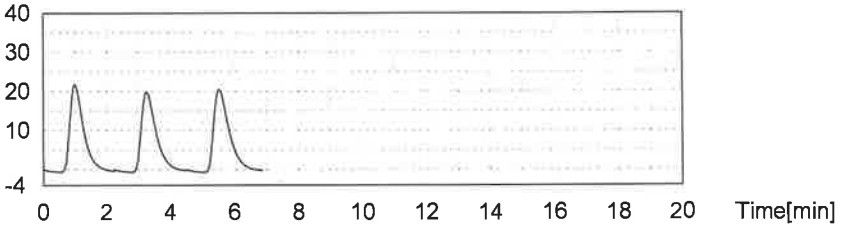
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3234mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.72	0.3162mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:12:08 PM
2	69.34	0.3144mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:16:30 PM
3	74.60	0.3397mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:20:59 PM

Mean Area 71.22
Mean Conc. 0.3234mg/L



Sample

Sample Name: L2447990-01 D; 20X
Sample ID:
Origin: TOC4 3 REPS METHOD.met
Status Completed
Chk. Result

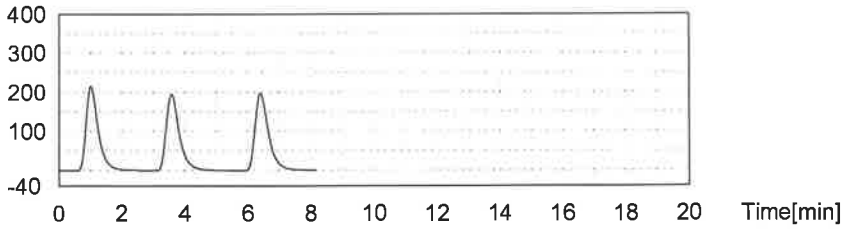
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.883mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	597.3	2.855mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:32:32 PM
2	600.0	2.868mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:37:40 PM
3	611.9	2.925mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:42:35 PM

Mean Area 603.1
Mean Conc. 2.883mg/L



Sample

Sample Name: L2447990-01 DUP 20X D
Sample ID:
Origin: TOC4 3 REPS METHOD.met
Status Completed
Chk. Result

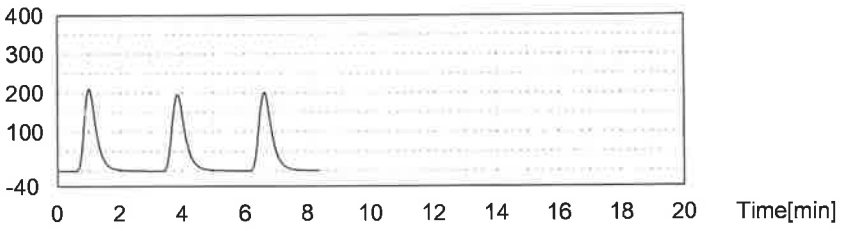
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.913mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	598.4	2.860mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:54:24 PM
2	607.2	2.903mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 2:59:20 PM
3	622.1	2.974mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:04:16 PM

Mean Area 609.2
Mean Conc. 2.913mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

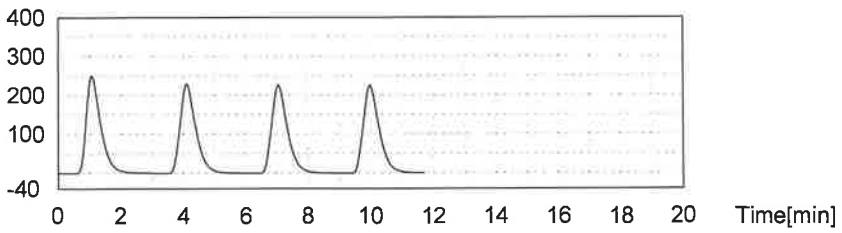
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.989mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	831.4	3.982mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:18:36 PM
2	833.8	3.993mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:23:40 PM
3	831.9	3.984mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:28:43 PM
4	834.4	3.996mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:33:44 PM

Mean Area 832.9
Mean Conc. 3.989mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: toc doc 4 reps method.met
Status Completed
Chk. Result

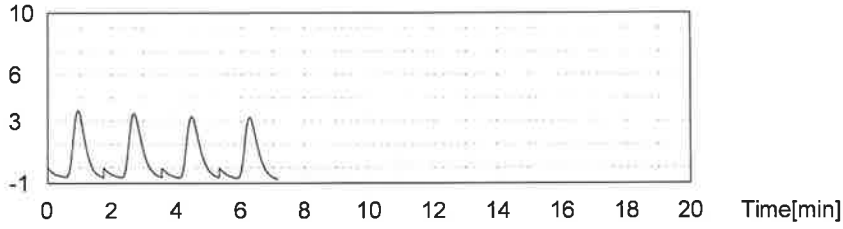
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03668mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.57	0.03635mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:44:30 PM
2	11.93	0.03809mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:48:53 PM
3	11.50	0.03602mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:53:12 PM
4	11.55	0.03626mg/L	2500uL	1		08232024 TOC4 CURVE.2024_08_23	8/25/2024 3:57:32 PM

Mean Area 11.64
Mean Conc. 0.03668mg/L



Instr.Information

System TOCVws
Instrument Options TOC/ASI/

8/26

Sample

Sample Name: DI
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

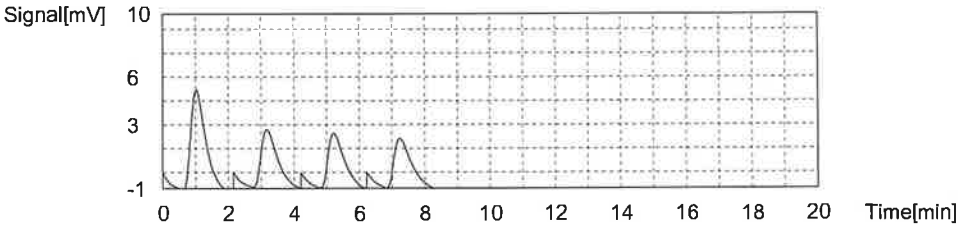
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06769mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.84	0.09325mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:04:14 AM
2	12.77	0.06110mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:08:26 AM
3	12.27	0.05911mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:12:42 AM
4	11.82	0.05732mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:17:05 AM

Mean Area 14.43
Mean Conc. 0.06769mg/L



Sample

Sample Name: IC CK STD
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

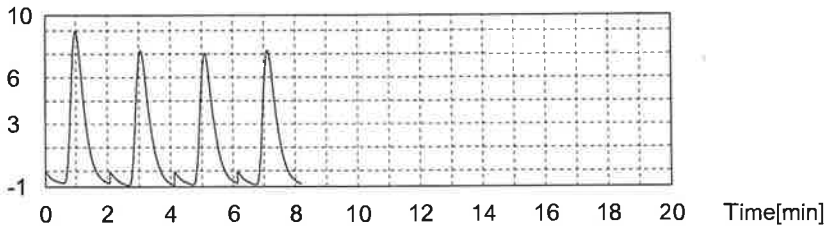
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1175mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.11	0.1262mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:27:43 AM
2	26.61	0.1162mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:32:00 AM
3	25.71	0.1126mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:36:16 AM
4	26.26	0.1148mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:40:36 AM

Mean Area 26.92
Mean Conc. 0.1175mg/L



Sample

Sample Name: ICV
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

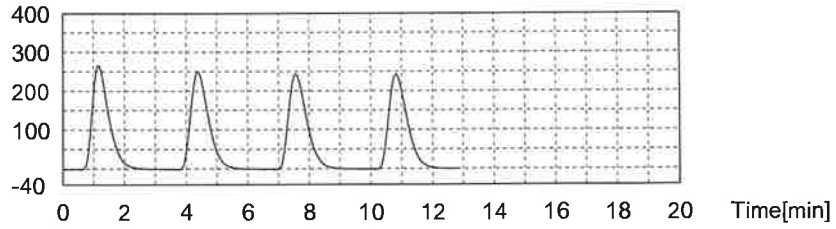
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.133mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1029	4.109mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:52:19 AM
2	1036	4.137mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 2:57:39 AM
3	1037	4.141mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:03:01 AM
4	1038	4.144mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:08:22 AM

Mean Area 1035
Mean Conc. 4.133mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

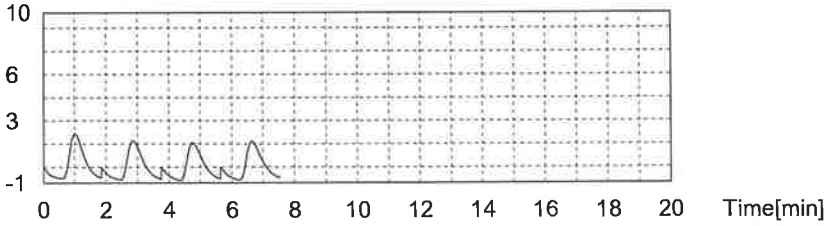
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04385mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.986	0.04603mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:18:42 AM
2	8.376	0.04360mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:23:29 AM
3	8.112	0.04255mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:27:53 AM
4	8.278	0.04321mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:32:18 AM

Mean Area 8.438
Mean Conc. 0.04385mg/L



Sample

Sample Name: MB
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

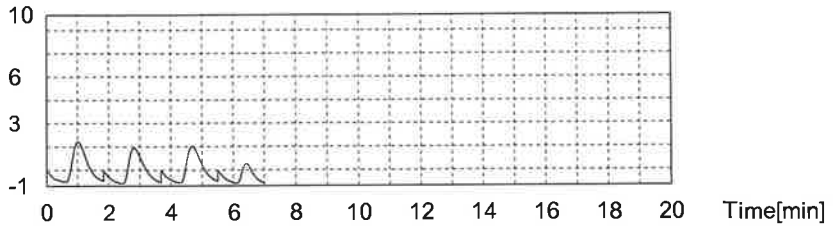
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03600mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.080	0.04242mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:42:41 AM
2	7.484	0.04005mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:47:24 AM
3	7.445	0.03989mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:51:44 AM
4	2.859	0.02163mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 3:55:44 AM

Mean Area 6.467
Mean Conc. 0.03600mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

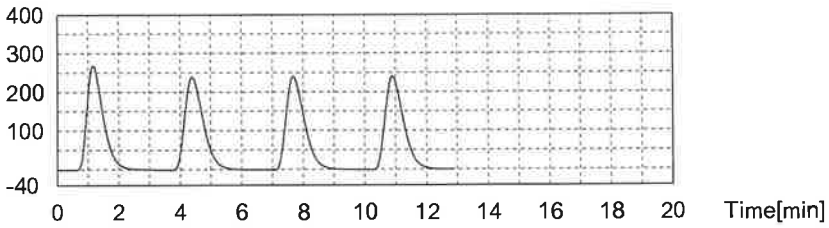
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.102mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1024	4.089mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 4:07:24 AM
2	1031	4.117mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 4:12:49 AM
3	1028	4.105mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 4:18:09 AM
4	1026	4.097mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 4:23:29 AM

Mean Area 1027
Mean Conc. 4.102mg/L



Sample

Sample Name: L2447990-01 40X SPK DOC QC 8/25
Sample ID:
Origin: TOC5 METHOD 3 REPS.met
Status Completed
Chk. Result

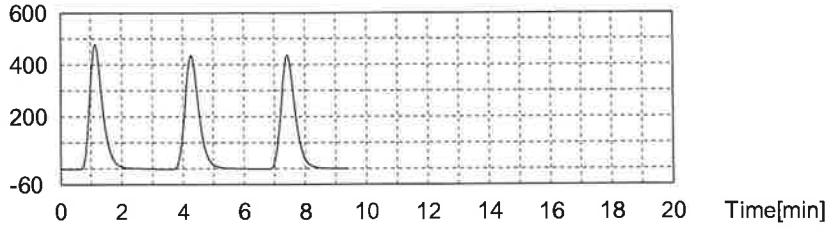
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.711mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1428	5.698mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 5:21:58 AM
2	1431	5.710mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 5:27:18 AM
3	1435	5.726mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 5:32:43 AM

Mean Area 1431
Mean Conc. 5.711mg/L



Sample

Sample Name: L2446922-04 SPK 6400X QC 8/25
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

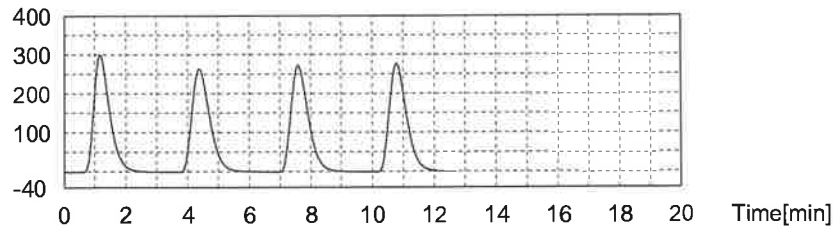
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.407mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1099	4.387mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 5:44:25 AM
2	1100	4.391mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 5:49:46 AM
3	1110	4.431mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 5:55:06 AM
4	1107	4.419mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:00:20 AM

Mean Area 1104
Mean Conc. 4.407mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

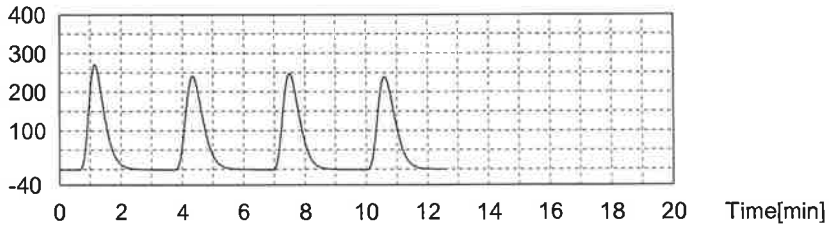
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.991mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	998.8	3.988mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:23:53 AM
2	1002	4.001mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:29:12 AM
3	992.2	3.962mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:34:24 AM
4	1005	4.013mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:39:46 AM

Mean Area 999.5
Mean Conc. 3.991mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

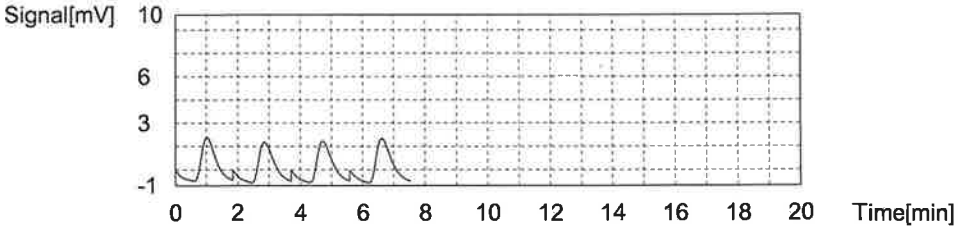
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04520mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.573	0.04439mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:50:08 AM
2	8.454	0.04391mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:54:50 AM
3	8.622	0.04458mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 6:59:14 AM
4	9.461	0.04792mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/26/2024 7:03:40 AM

Mean Area	8.777
Mean Conc.	0.04520mg/L



Instr.Information

System TOCVws
Instrument Options TOC/ASI/

Sample

Sample Name: DI
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

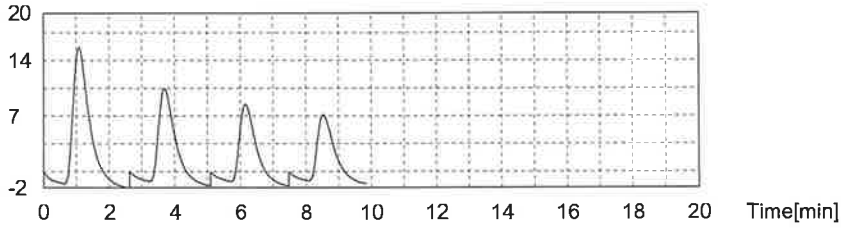
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1790mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.20	0.2540mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 8:58:09 AM
2	42.10	0.1779mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:02:45 AM
3	35.05	0.1498mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:07:19 AM
4	31.16	0.1343mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:11:48 AM

Mean Area 42.38
Mean Conc. 0.1790mg/L



Sample

Sample Name: IC CHCK
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

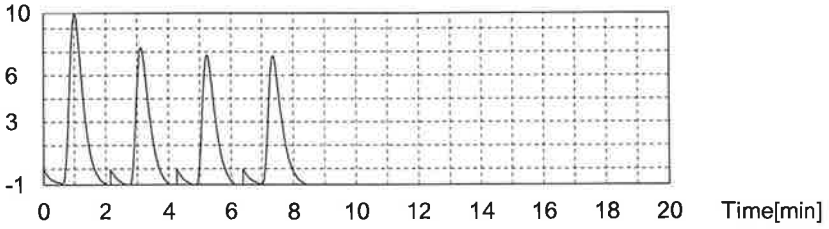
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1215mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.75	0.1447mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:22:30 AM
2	27.48	0.1197mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:26:47 AM
3	25.48	0.1117mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:31:05 AM
4	24.98	0.1097mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:35:20 AM

Mean Area 27.92
Mean Conc. 0.1215mg/L



Sample

Sample Name: ICV
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

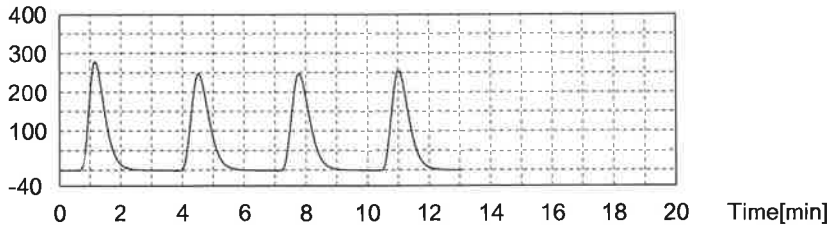
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.187mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1046	4.176mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:47:11 AM
2	1044	4.168mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:52:34 AM
3	1052	4.200mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 9:57:58 AM
4	1053	4.204mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:03:22 AM

Mean Area 1049
Mean Conc. 4.187mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

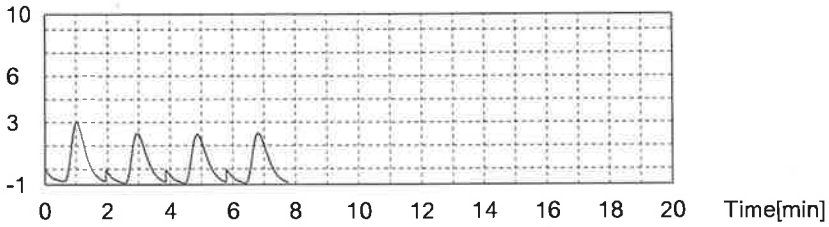
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05457mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.15	0.05863mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:13:52 AM
2	10.69	0.05282mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:18:34 AM
3	10.57	0.05234mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:23:01 AM
4	11.11	0.05449mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:27:22 AM

Mean Area 11.13
Mean Conc. 0.05457mg/L



Sample

Sample Name: MB
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

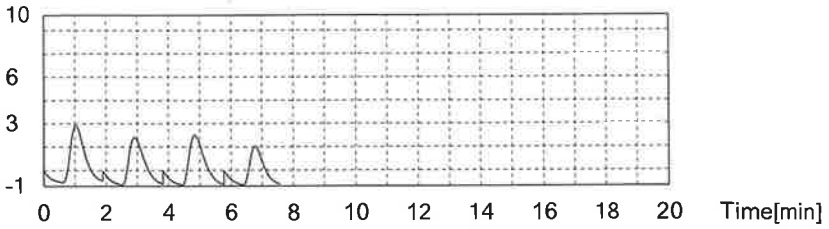
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05027mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.44	0.05581mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:37:49 AM
2	10.40	0.05166mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:42:30 AM
3	10.90	0.05366mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:46:49 AM
4	7.457	0.03994mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 10:50:57 AM

Mean Area 10.05
Mean Conc. 0.05027mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

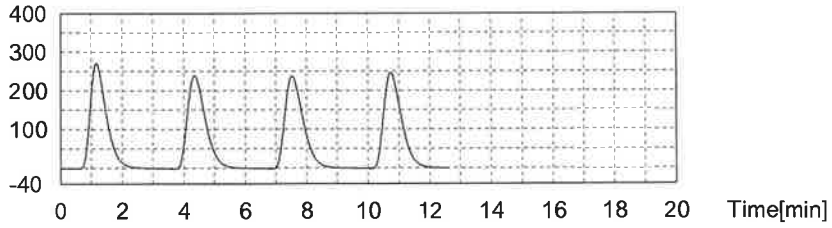
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.049mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1014	4.049mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 11:02:40 AM
2	1014	4.049mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 11:08:01 AM
3	1012	4.041mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 11:13:23 AM
4	1016	4.057mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 11:18:36 AM

Mean Area 1014
Mean Conc. 4.049mg/L



Sample

Sample Name: L2446922-04 D; 1600X
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

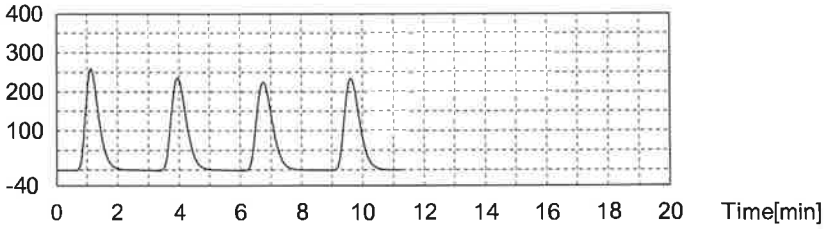
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.355mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	814.6	3.255mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:13:40 PM
2	849.0	3.392mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:18:35 PM
3	850.6	3.398mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:23:42 PM
4	845.4	3.377mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:28:42 PM

Mean Area 839.9
Mean Conc. 3.355mg/L



Sample

Sample Name: L2446922-05 D; 1600X
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

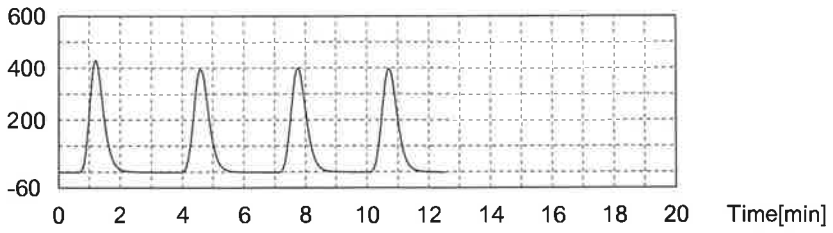
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.720mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1418	5.658mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:40:35 PM
2	1431	5.710mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:45:52 PM
3	1441	5.750mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:50:56 PM
4	1444	5.762mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 12:56:10 PM

Mean Area 1434
Mean Conc. 5.720mg/L



Sample

Sample Name: L2446922-06 D; 1600X
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

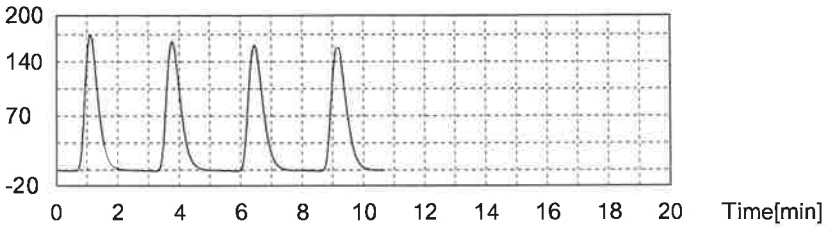
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.207mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	537.5	2.151mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:07:24 PM
2	553.9	2.216mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:12:12 PM
3	557.9	2.232mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:17:02 PM
4	556.6	2.227mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:21:48 PM

Mean Area 551.5
Mean Conc. 2.207mg/L



Sample

Sample Name: L2446922-04 DUP 1600X D
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

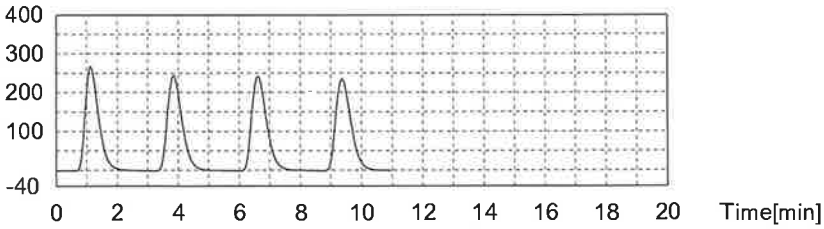
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.364mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	829.3	3.313mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:39:46 PM
2	843.5	3.370mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:44:41 PM
3	851.9	3.403mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:49:32 PM
4	843.6	3.370mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 1:54:27 PM

Mean Area 842.1
Mean Conc. 3.364mg/L



Sample

Sample Name: L2446922-04 SPK 6400X D
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

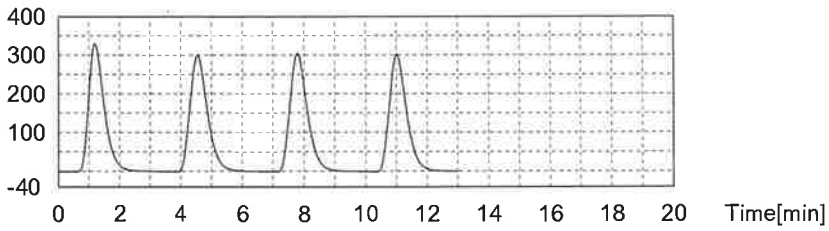
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.849mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1200	4.790mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 2:06:14 PM
2	1216	4.853mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 2:11:37 PM
3	1223	4.881mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 2:17:00 PM
4	1221	4.873mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 2:22:21 PM

Mean Area 1215
Mean Conc. 4.849mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

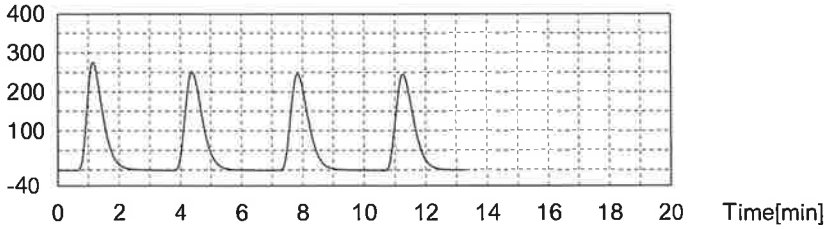
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.100mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1023	4.085mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 2:52:49 PM
2	1028	4.105mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 2:58:24 PM
3	1030	4.113mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 3:03:56 PM
4	1026	4.097mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 3:09:17 PM

Mean Area 1027
Mean Conc. 4.100mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC 5 METHOD 4 REPS.met
Status Completed
Chk. Result

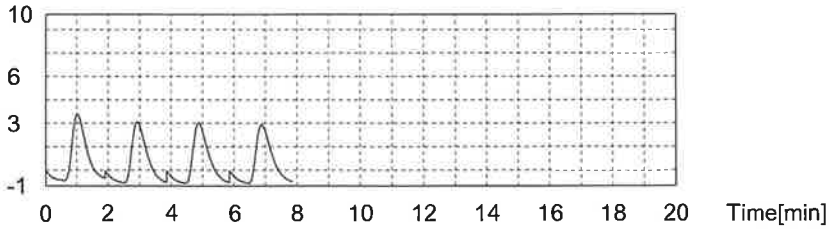
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06103mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.92	0.06170mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 3:19:45 PM
2	12.69	0.06078mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 3:24:26 PM
3	12.84	0.06138mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 3:28:47 PM
4	12.56	0.06027mg/L	2500uL	1		08202024 TOC5 CURVE.2024_08_20	8/25/2024 3:33:04 PM

Mean Area 12.75
Mean Conc. 0.06103mg/L



Instr.Information

System TOCVwp 6
Instrument Options TOC/ASI/

Sample

Sample Name: DI
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

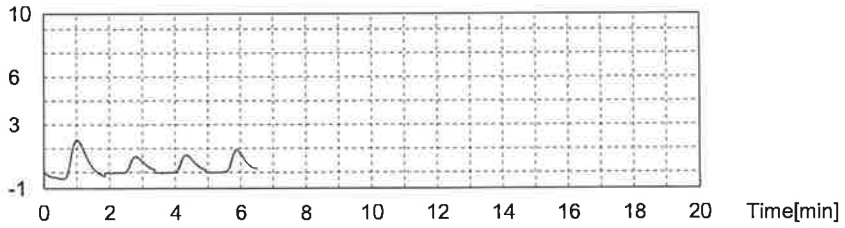
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02473mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.929	0.05195mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 1:35:02 AM
2	2.593	0.01292mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 1:39:41 AM
3	2.862	0.01489mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 1:44:10 AM
4	3.449	0.01918mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 1:48:29 AM

Mean Area 4.208
Mean Conc. 0.02473mg/L



Sample

Sample Name: IC CK STD
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

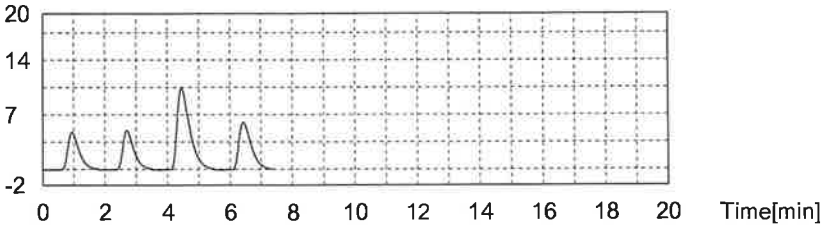
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1243mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.13	0.08267mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 1:58:49 AM
2	12.35	0.08428mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:03:30 AM
3	29.73	0.2114mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:08:43 AM
4	17.07	0.1188mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:12:55 AM

Mean Area 17.82
Mean Conc. 0.1243mg/L



Sample

Sample Name: ICV
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

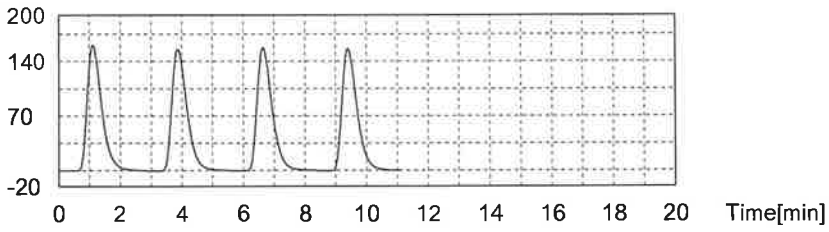
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.969mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	541.8	3.957mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:24:13 AM
2	544.0	3.973mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:29:06 AM
3	544.1	3.973mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:33:57 AM
4	544.0	3.973mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:38:53 AM

Mean Area 543.5
Mean Conc. 3.969mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

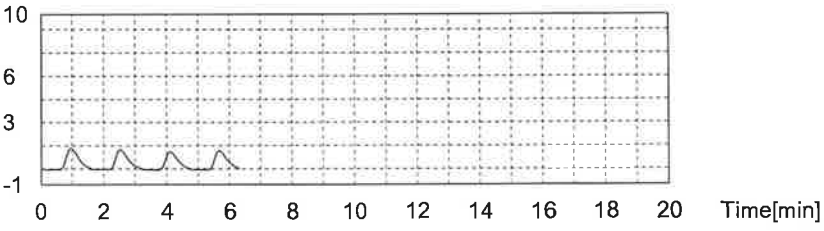
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01757mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.514	0.01966mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:49:02 AM
2	3.201	0.01737mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:53:27 AM
3	3.061	0.01634mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 2:57:44 AM
4	3.139	0.01691mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:02:02 AM

Mean Area 3.229
Mean Conc. 0.01757mg/L



Sample

Sample Name: MB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

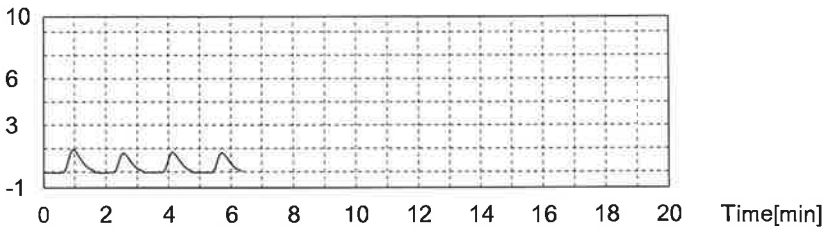
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01894mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.955	0.02288mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:12:13 AM
2	3.168	0.01713mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:16:36 AM
3	3.324	0.01827mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:20:55 AM
4	3.218	0.01749mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:25:12 AM

Mean Area 3.416
Mean Conc. 0.01894mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

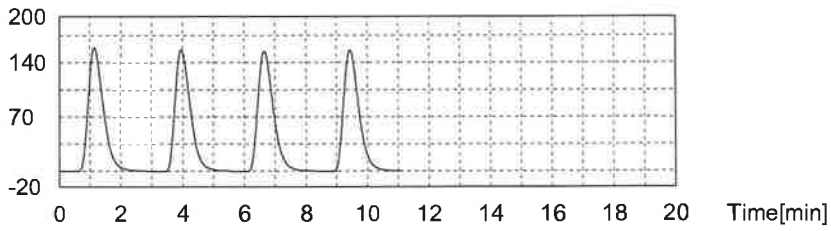
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.022mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	550.1	4.017mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:36:35 AM
2	550.1	4.017mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:41:22 AM
3	551.8	4.030mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:46:23 AM
4	551.0	4.024mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 3:51:16 AM

Mean Area 550.8
Mean Conc. 4.022mg/L



Sample

Sample Name: L2446922-03; 100X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

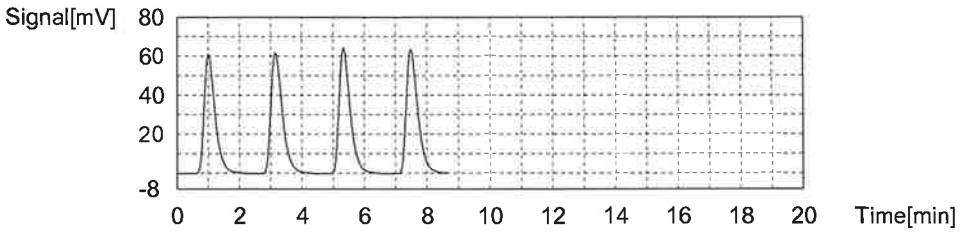
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.169mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	151.4	1.101mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:05:03 AM
2	161.0	1.171mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:09:24 AM
3	164.4	1.196mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:13:40 AM
4	165.7	1.206mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:18:00 AM

Mean Area 160.6
Mean Conc. 1.169mg/L



Sample

Sample Name: L2446922-04; 1000X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

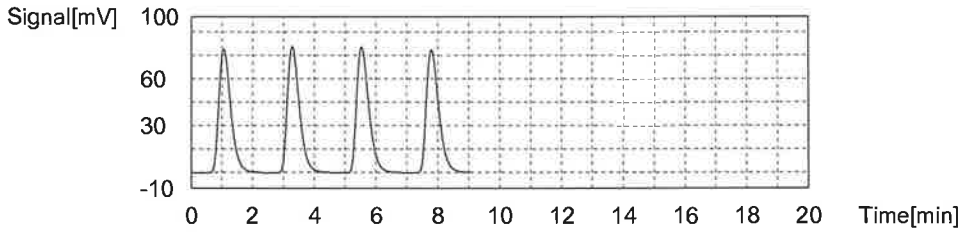
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.635mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	217.8	1.587mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:28:48 AM
2	225.0	1.640mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:33:09 AM
3	228.2	1.663mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:37:30 AM
4	226.7	1.652mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:41:54 AM

Mean Area 224.4
Mean Conc. 1.635mg/L



Sample

Sample Name: L2446922-05; 1000X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

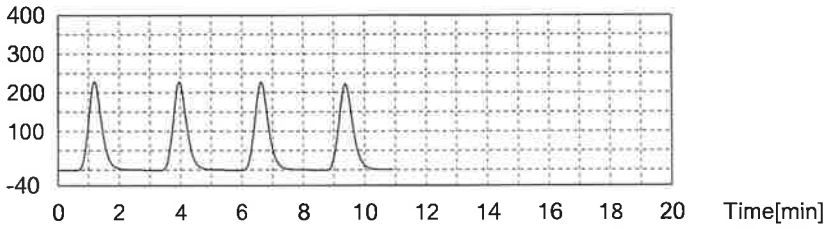
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.214mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	698.8	5.105mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:53:13 AM
2	710.6	5.191mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 4:57:58 AM
3	722.1	5.275mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:02:55 AM
4	723.2	5.283mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:07:48 AM

Mean Area 713.7
Mean Conc. 5.214mg/L



Sample

Sample Name: L2446922-06; 1000X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

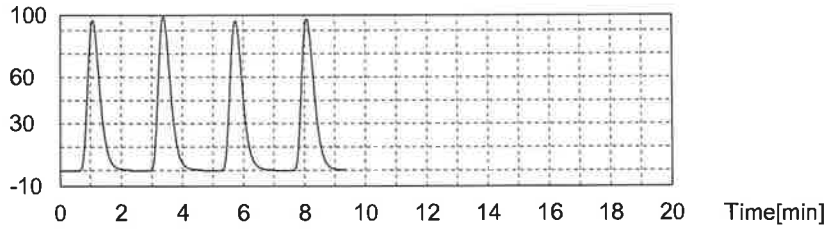
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.066mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	276.0	2.013mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:18:41 AM
2	284.3	2.073mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:23:07 AM
3	286.8	2.092mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:27:35 AM
4	286.3	2.088mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:32:01 AM

Mean Area 283.3
Mean Conc. 2.066mg/L



Sample

Sample Name: L2446855-01
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

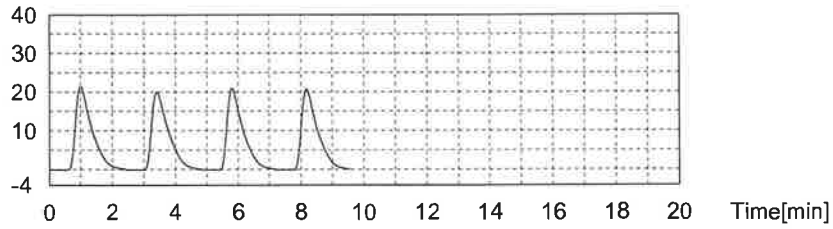
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5471mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.68	0.5621mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:42:59 AM
2	74.83	0.5412mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:47:29 AM
3	74.96	0.5422mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:51:57 AM
4	75.03	0.5427mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 5:56:25 AM

Mean Area 75.63
Mean Conc. 0.5471mg/L



Sample

Sample Name: L2446855-02
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

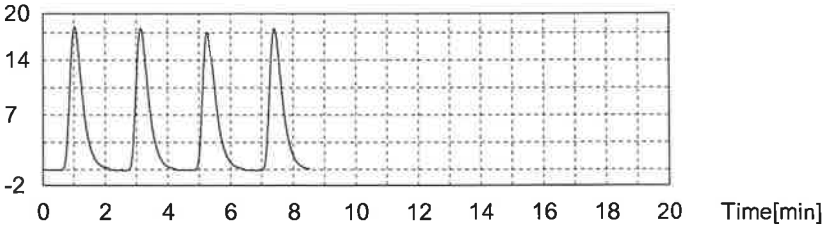
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3811mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.46	0.3850mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:07:06 AM
2	52.77	0.3799mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:11:25 AM
3	52.48	0.3778mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:15:43 AM
4	53.02	0.3817mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:20:01 AM

Mean Area 52.93
Mean Conc. 0.3811mg/L



Sample

Sample Name: L2446855-03
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

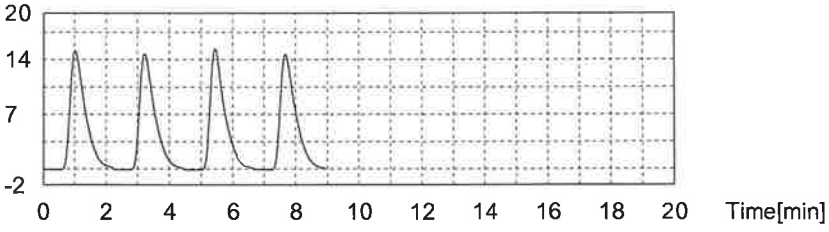
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3609mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.74	0.3651mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:30:47 AM
2	49.58	0.3566mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:35:07 AM
3	49.88	0.3588mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:39:26 AM
4	50.48	0.3632mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:43:47 AM

Mean Area 50.17
Mean Conc. 0.3609mg/L



Sample

Sample Name: L2446855-04
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

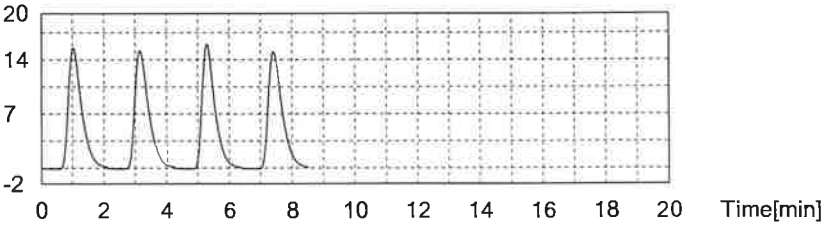
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3366mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.17	0.3389mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:54:28 AM
2	46.92	0.3371mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 6:58:48 AM
3	46.25	0.3322mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 7:03:04 AM
4	47.05	0.3381mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 7:07:24 AM

Mean Area 46.85
Mean Conc. 0.3366mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

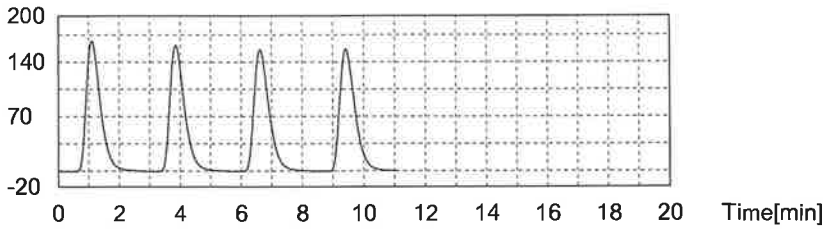
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.010mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	549.3	4.011mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 7:41:42 AM
2	548.3	4.004mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 7:46:49 AM
3	549.0	4.009mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 7:51:43 AM
4	550.0	4.017mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 7:56:38 AM

Mean Area 549.2
Mean Conc. 4.010mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

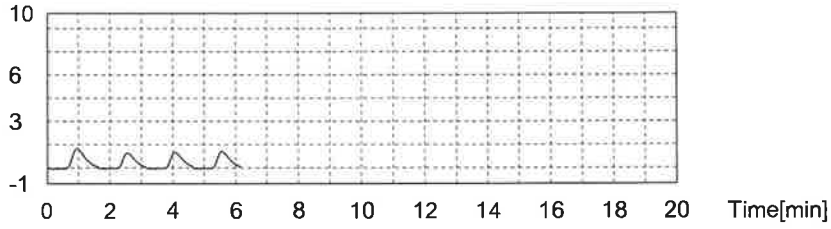
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01406mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.452	0.01920mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:06:49 AM
2	2.382	0.01138mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:11:11 AM
3	2.499	0.01223mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:15:31 AM
4	2.660	0.01341mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:19:54 AM

Mean Area 2.748
Mean Conc. 0.01406mg/L



Sample

Sample Name: L2446855-05
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

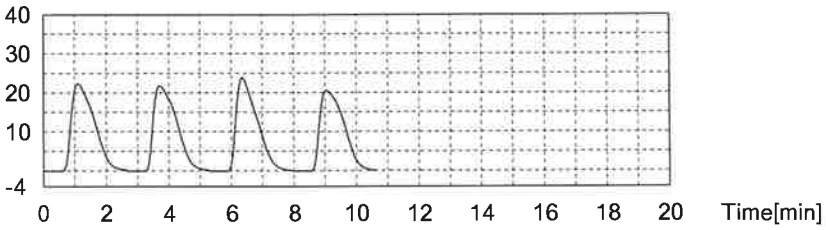
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8248mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	114.0	0.8277mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:31:04 AM
2	114.0	0.8277mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:35:49 AM
3	114.3	0.8299mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:40:35 AM
4	112.1	0.8138mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:45:20 AM

Mean Area 113.6
Mean Conc. 0.8248mg/L



Sample

Sample Name: L2446855-06
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

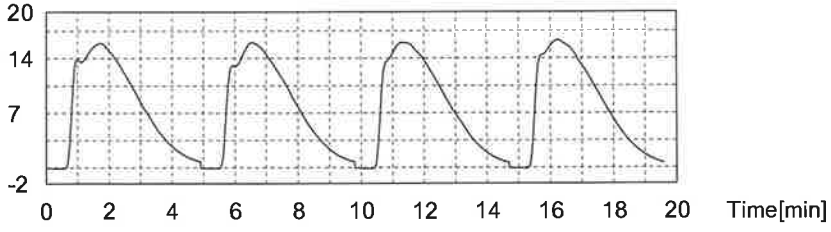
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.570mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	214.6	1.563mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 8:58:48 AM
2	213.0	1.552mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:05:59 AM
3	215.0	1.566mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:13:10 AM
4	219.6	1.600mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:20:18 AM

Mean Area 215.6
Mean Conc. 1.570mg/L



Sample

Sample Name: L2446855-01 DUP
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

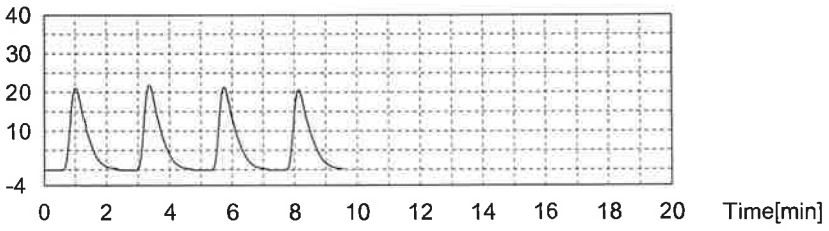
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5527mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.27	0.5445mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:35:04 AM
2	77.66	0.5619mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:39:32 AM
3	76.67	0.5547mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:44:01 AM
4	75.97	0.5496mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:48:32 AM

Mean Area 76.39
Mean Conc. 0.5527mg/L



Sample

Sample Name: L2446855-01 SPKI 4X
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

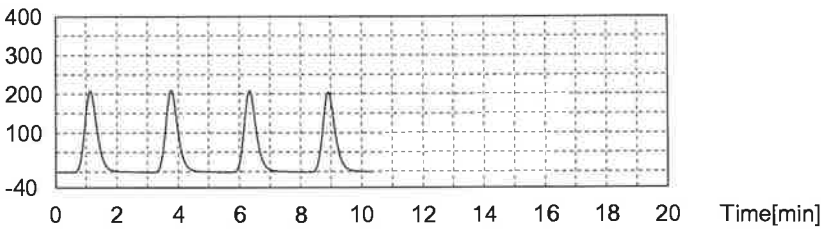
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.317mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	591.0	4.316mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 9:59:44 AM
2	591.9	4.323mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 10:04:25 AM
3	590.4	4.312mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 10:09:05 AM
4	591.1	4.317mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 10:13:44 AM

Mean Area 591.1
Mean Conc. 4.317mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

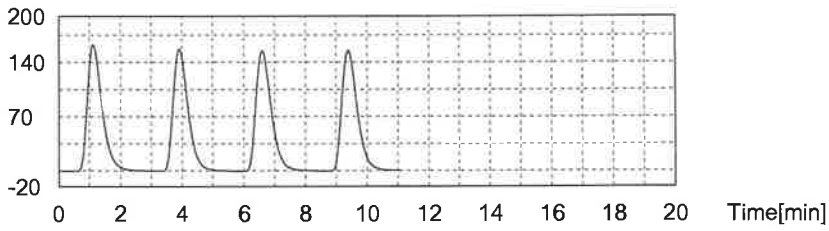
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.007mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	548.8	4.008mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 10:35:51 AM
2	541.1	3.951mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 10:40:37 AM
3	551.9	4.030mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 10:45:36 AM
4	552.8	4.037mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 10:50:31 AM

Mean Area 548.7
Mean Conc. 4.007mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC 6 METHOD 4 REPS.met
Status Completed
Chk. Result

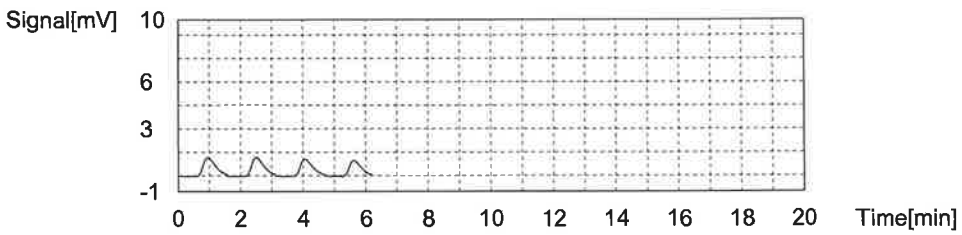
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01485mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.039	0.01618mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 11:00:38 AM
2	3.113	0.01672mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 11:05:03 AM
3	2.752	0.01408mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 11:09:26 AM
4	2.523	0.01241mg/L	2500uL	1		07222024 TOC6 CURVE.2024_07_22	8/21/2024 11:13:45 AM

Mean Area 2.857
Mean Conc. 0.01485mg/L



Instr.Information

System TOC-VW
Detector Wet Chemical

Sample

Sample Name: DI
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

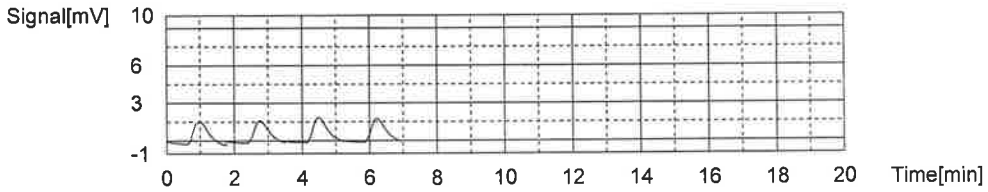
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02024mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.411	-0.02039mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:38:40 AM
2	5.231	-0.02197mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:43:39 AM
3	5.697	-0.01789mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:48:27 AM
4	5.374	-0.02072mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:53:13 AM

Mean Area 5.428
Mean Conc. -0.02024mg/L



Sample

Sample Name: IC CK STD
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

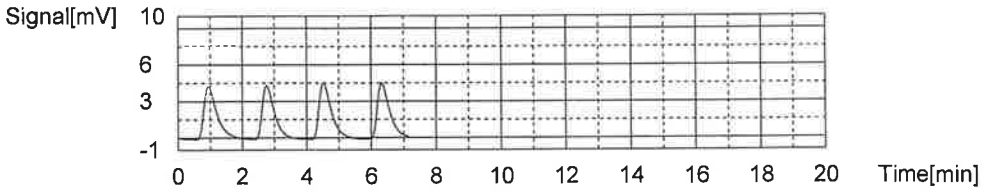
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03740mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.86	0.03603mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:03:58 AM
2	11.65	0.03419mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:09:36 AM
3	12.43	0.04101mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:15:31 AM
4	12.13	0.03839mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:21:21 AM

Mean Area 12.02
Mean Conc. 0.03740mg/L



Sample

Sample Name: ICV
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

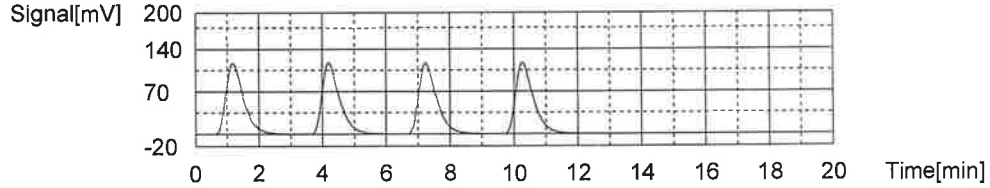
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.997mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	464.4	3.995mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:33:39 AM
2	464.9	4.000mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:38:47 AM
3	463.5	3.987mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:43:55 AM
4	465.7	4.007mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:49:01 AM

Mean Area 464.6
Mean Conc. 3.997mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

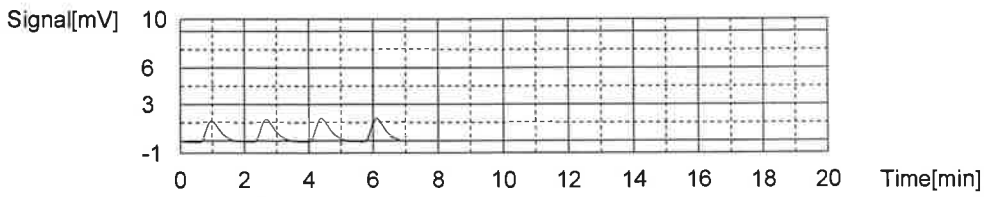
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02325mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.714	-0.02649mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:59:36 AM
2	5.087	-0.02323mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:04:21 AM
3	5.339	-0.02102mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:09:06 AM
4	5.196	-0.02227mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:13:49 AM

Mean Area 5.084
Mean Conc. -0.02325mg/L



Sample

Sample Name: MB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

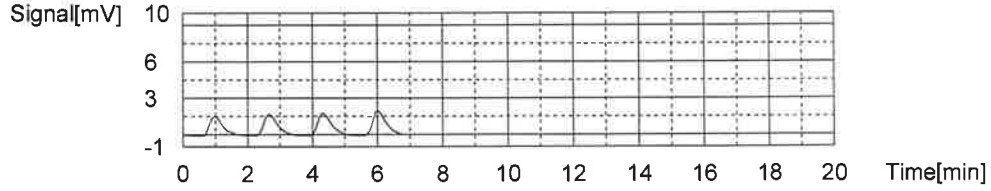
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02414mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.411	-0.02914mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:25:03 AM
2	4.774	-0.02597mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:29:46 AM
3	5.060	-0.02346mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:34:29 AM
4	5.687	-0.01798mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:39:15 AM

Mean Area 4.983
Mean Conc. -0.02414mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

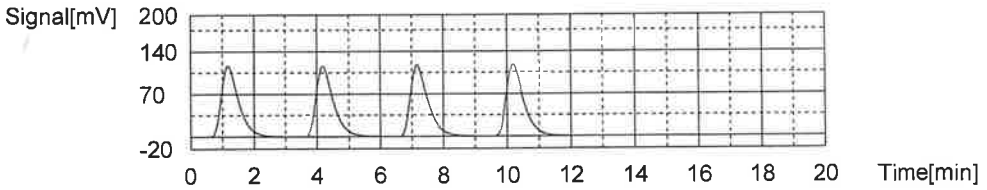
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.940mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	453.5	3.900mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:51:32 AM
2	455.0	3.913mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:56:37 AM
3	464.0	3.992mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:01:44 AM
4	460.0	3.957mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:06:50 AM

Mean Area 458.1
Mean Conc. 3.940mg/L



Sample

Sample Name: FB 8/17 830 46922 ALL DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

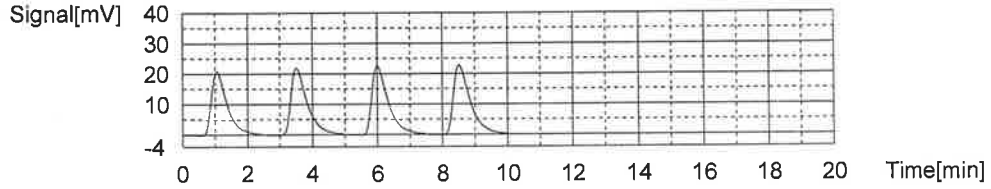
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6151mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.04	0.5625mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:26:57 AM
2	77.40	0.6094mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:31:32 AM
3	79.99	0.6321mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:36:09 AM
4	82.79	0.6566mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:40:48 AM

Mean Area 78.06
Mean Conc. 0.6151mg/L



Sample

Sample Name: FB 8/16 720 46555
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

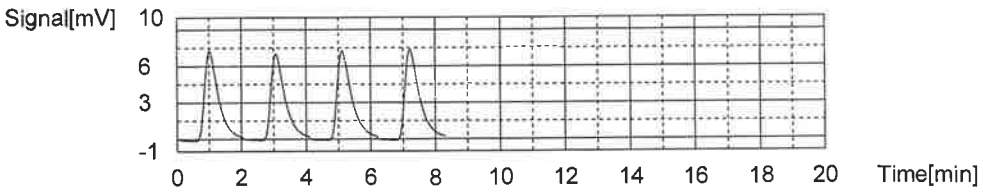
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1301mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.35	0.1278mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:51:47 AM
2	21.80	0.1230mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 5:56:04 AM
3	22.95	0.1330mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:00:24 AM
4	23.34	0.1365mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:04:41 AM

Mean Area 22.61
Mean Conc. 0.1301mg/L



Sample

Sample Name: 46555-06 FB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

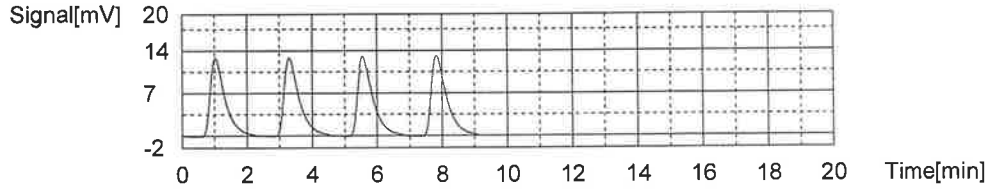
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3049mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.89	0.2987mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:16:11 AM
2	42.17	0.3012mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:20:33 AM
3	42.56	0.3046mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:24:55 AM
4	43.76	0.3151mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:29:18 AM

Mean Area 42.59
Mean Conc. 0.3049mg/L



Sample

Sample Name: 46555-04 1600X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.461mg/L

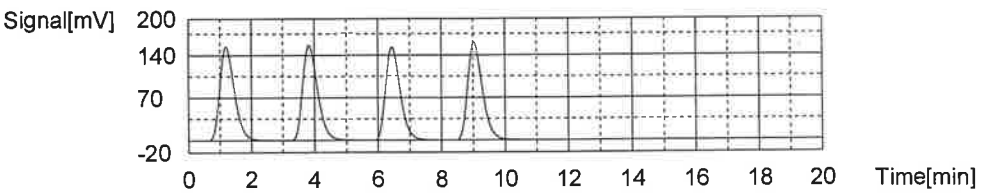
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	513.5	4.425mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:40:56 AM
2	523.3	4.510mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:45:39 AM
3	501.7	4.321mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:50:20 AM
4	532.1	4.587mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 6:55:03 AM

7138
1600 x

Mean Area 517.7
Mean Conc. 4.461mg/L



Sample

Sample Name: 46886-11 40X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:7.884mg/L

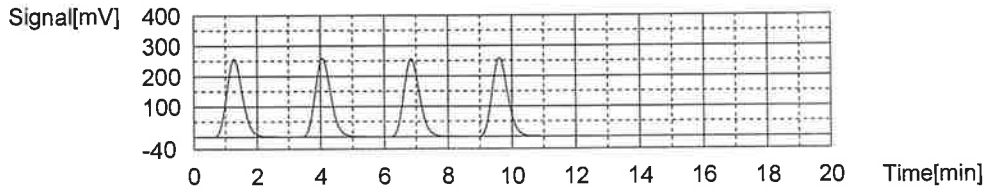
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	907.5	7.872mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:07:04 AM
2	906.4	7.862mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:11:57 AM
3	905.6	7.855mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:16:49 AM
4	916.3	7.949mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:21:41 AM

316
40F

Mean Area 909.0
Mean Conc. 7.884mg/L



Sample

Sample Name: 46886-14 400X
Sample ID: X
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4915mg/L

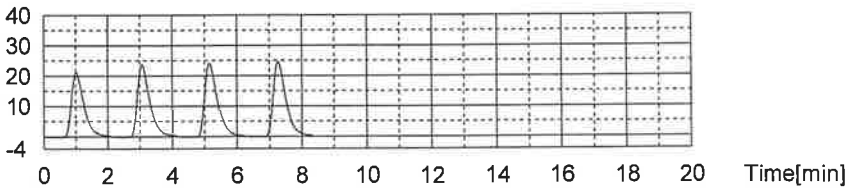
X

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.13	0.4408mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:32:57 AM
2	64.25	0.4944mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:37:16 AM
3	66.29	0.5122mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:41:35 AM
4	67.01	0.5185mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:45:49 AM

Mean Area 63.92
Mean Conc. 0.4915mg/L



Sample

Sample Name: 46886-16 400X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.014mg/L

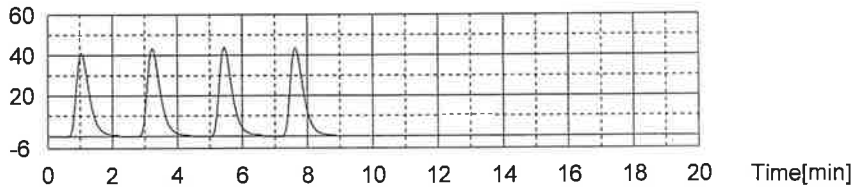
406
400x

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	117.8	0.9629mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 7:57:15 AM
2	124.2	1.019mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:01:43 AM
3	125.1	1.027mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:06:00 AM
4	127.3	1.046mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:10:23 AM

Mean Area 123.6
Mean Conc. 1.014mg/L



Sample

Sample Name: 46886-14 160X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.194mg/L

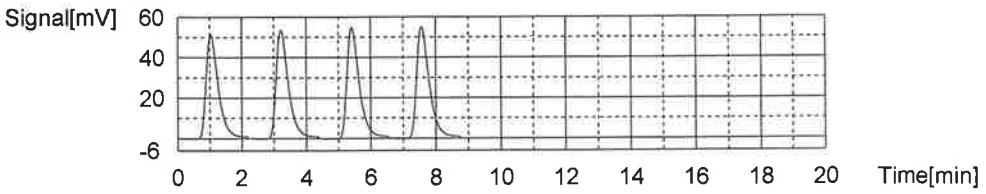
191
160x

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	137.5	1.135mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:25:54 AM
2	142.7	1.181mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:30:12 AM
3	147.0	1.218mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:34:32 AM
4	149.6	1.241mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 8:38:53 AM

Mean Area 144.2
Mean Conc. 1.194mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

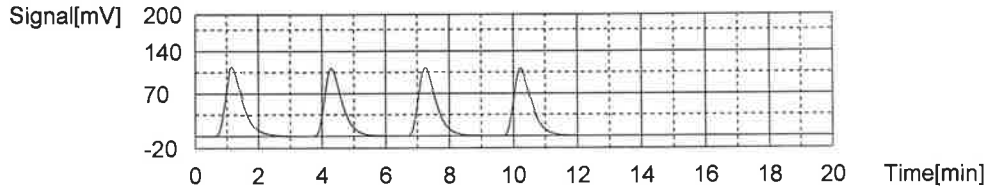
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.793mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	455.0	3.913mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:00:49 AM
2	436.7	3.753mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:05:52 AM
3	439.2	3.775mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:10:57 AM
4	434.4	3.733mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:16:04 AM

Mean Area 441.3
Mean Conc. 3.793mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

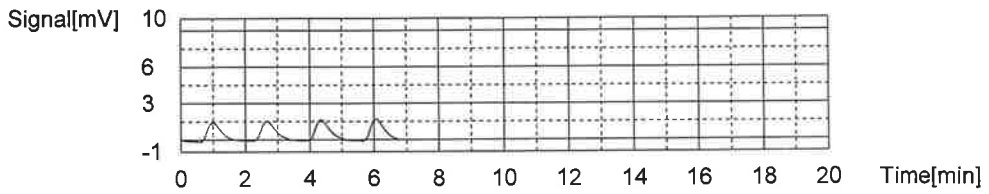
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02661mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.380	-0.02941mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:26:41 AM
2	4.481	-0.02853mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:31:24 AM
3	4.895	-0.02491mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:36:08 AM
4	5.047	-0.02358mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:40:52 AM

Mean Area 4.701
Mean Conc. -0.02661mg/L



Sample

Sample Name: 46886-11 DUP 40X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.359mg/L

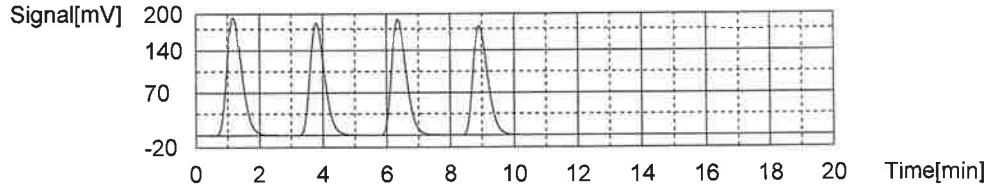
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	647.7	5.599mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:53:03 AM
2	610.2	5.271mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 9:57:43 AM
3	629.7	5.441mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:02:23 AM
4	593.6	5.125mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:07:03 AM

214
40X

Mean Area 620.3
Mean Conc. 5.359mg/L



Sample

Sample Name: 46886-11 SPK 160X
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.729mg/L

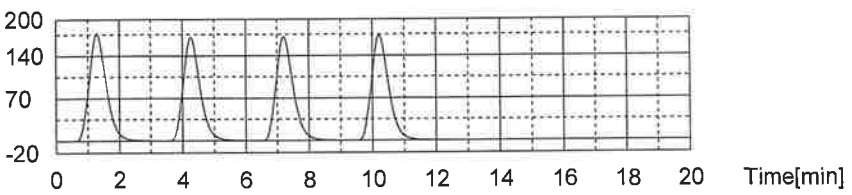
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	677.6	5.860mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:19:34 AM
2	650.9	5.627mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:24:37 AM
3	656.6	5.677mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:29:43 AM
4	665.4	5.754mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 10:34:48 AM

917
160X

Mean Area 662.6
Mean Conc. 5.729mg/L



Sample

Sample Name: FB 8/21 640 DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

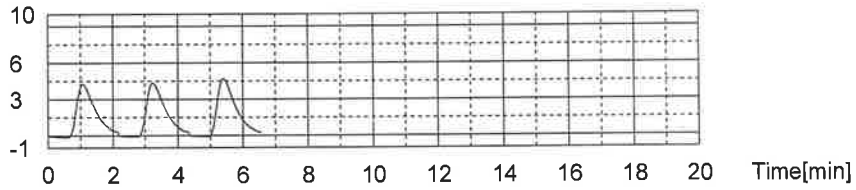
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.08254mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.47	0.07636mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 11:53:25 AM
2	16.70	0.07837mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 11:57:42 AM
3	18.36	0.09289mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:02:02 PM

Mean Area 17.18
Mean Conc. 0.08254mg/L



Sample

Sample Name: 47378-01 20X DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.135mg/L

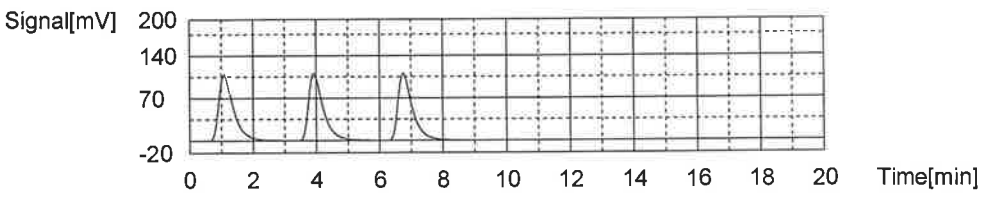
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	368.0	3.152mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:13:50 PM
2	366.4	3.138mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:18:46 PM
3	363.7	3.114mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:23:41 PM

62X
not

Mean Area 366.0
Mean Conc. 3.135mg/L



Sample

Sample Name: 47378-01 DUP 20X DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.095mg/L

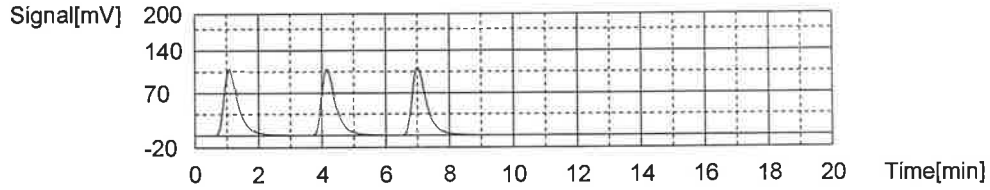
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	365.9	3.133mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:35:58 PM
2	354.2	3.031mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:40:55 PM
3	364.4	3.120mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:45:52 PM

61.9 not

Mean Area 361.5
Mean Conc. 3.095mg/L



Sample

Sample Name: 47378-01 SPK 40X DOC
Sample ID:
Origin: TOC3 3 REPS METHOD.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.315mg/L

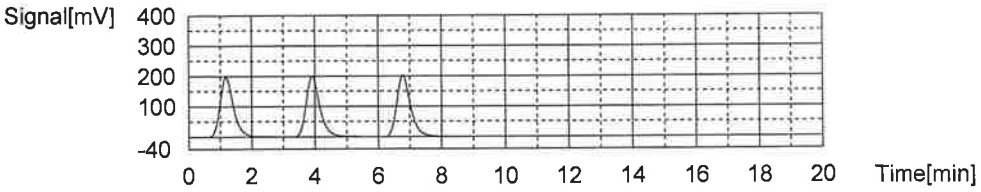
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	599.5	5.177mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 12:57:51 PM
2	618.8	5.346mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:03:04 PM
3	627.6	5.423mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:07:59 PM

213 not

Mean Area 615.3
Mean Conc. 5.315mg/L



Sample

Sample Name: 46922-03; 80X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.553mg/L

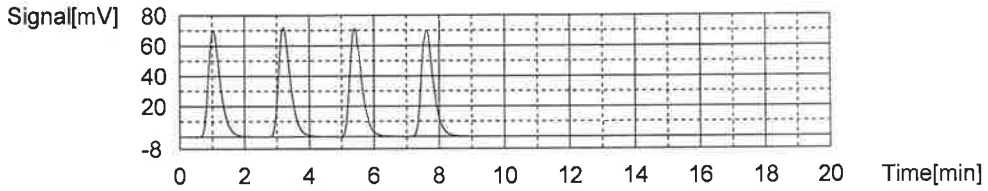
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.9	1.541mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:39:29 PM
2	186.9	1.567mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:43:48 PM
3	185.8	1.558mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:48:06 PM
4	184.2	1.544mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 1:52:24 PM

124
80X

Mean Area 185.2
Mean Conc. 1.553mg/L



Sample

Sample Name: 46922-04; 1600X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.698mg/L

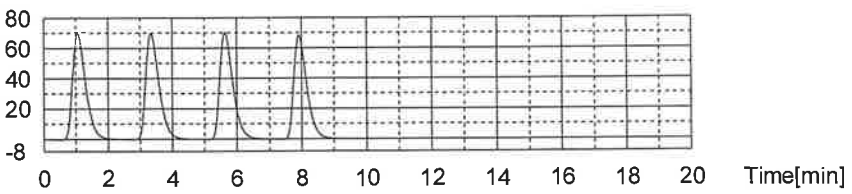
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	200.8	1.689mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:04:12 PM
2	205.7	1.732mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:08:36 PM
3	203.1	1.709mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:12:59 PM
4	197.6	1.661mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:17:21 PM

2717
1600X

Mean Area 201.8
Mean Conc. 1.698mg/L



Sample

Sample Name: 46922-05; 1600X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.341mg/L

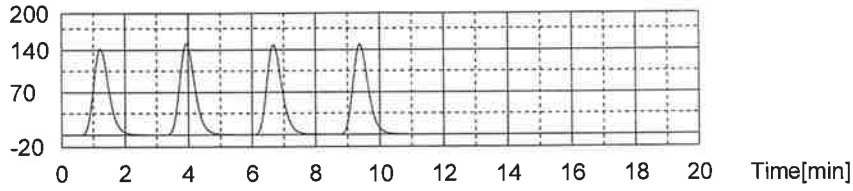
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	484.7	4.173mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:29:05 PM
2	514.7	4.435mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:33:56 PM
3	507.2	4.370mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:38:44 PM
4	509.2	4.387mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:43:34 PM

6946
1600X

Mean Area 504.0
Mean Conc. 4.341mg/L



Sample

Sample Name: 46922-06; 1600X DOC
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.207mg/L

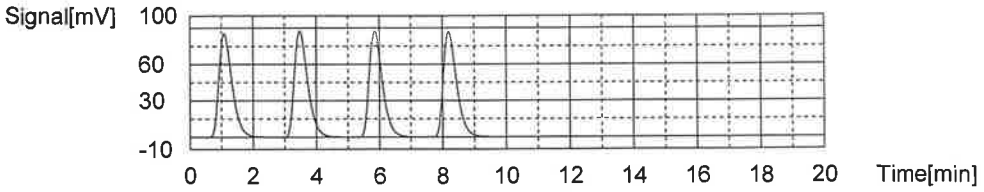
3531
1600X

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	254.7	2.161mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:55:10 PM
2	264.4	2.245mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 2:59:38 PM
3	262.2	2.226mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:04:05 PM
4	258.9	2.197mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:08:32 PM

Mean Area 260.1
Mean Conc. 2.207mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

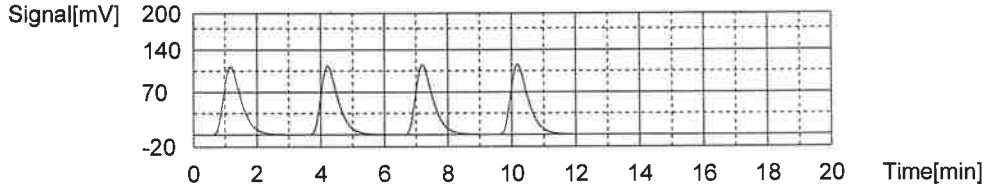
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.848mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	440.7	3.788mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:37:38 PM
2	443.4	3.811mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:42:43 PM
3	452.8	3.894mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:47:48 PM
4	453.3	3.898mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 3:52:56 PM

Mean Area 447.6
Mean Conc. 3.848mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: toc-3 4 reps method.met
Status Completed
Chk. Result

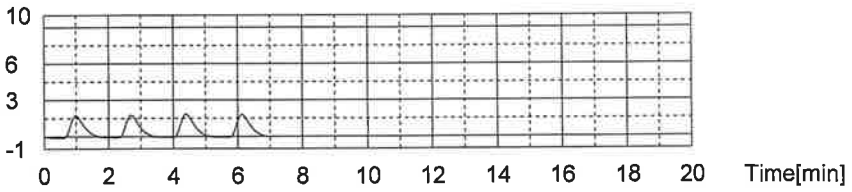
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	!!Failed!! NPOC:-0.02205mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.043	-0.02361mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:03:55 PM
2	5.133	-0.02283mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:08:38 PM
3	5.437	-0.02017mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:13:25 PM
4	5.275	-0.02158mg/L	2500uL	1		07222024 TOC3 CURVE.2024_07_22_02_23	8/21/2024 4:18:10 PM

Mean Area	5.222
Mean Conc.	-0.02205mg/L



Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446886-11		
Matrix Spike	: WG1961842-4	**MS Analysis Date**	: 08/21/24 02:33
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Dissolved Organic Carbon	320	640	920	93					80-120	20

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-8R-S_6.75	**Matrix**	: WATER
Lab Sample ID	: L2446922-04		
Matrix Spike	: WG1963587-4	**MS Analysis Date**	: 08/25/24 14:22
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Dissolved Organic Carbon	5400	25600	31000	100					80-120	20

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446855-01		
Matrix Spike	: WG1961844-4	**MS Analysis Date**	: 08/21/24 10:13
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Total Organic Carbon	0.55	16	17	104					80-120	20

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-8R-S_6.75	**Matrix**	: WATER
Lab Sample ID	: L2446922-04		
Matrix Spike	: WG1963586-4	**MS Analysis Date**	: 08/26/24 06:00
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	**Sample Conc. (mg/l)**	**Spike Added (mg/l)**	**Spike Conc. (mg/l)**	**%R**	**Spike Added (mg/l)**	**Spike Conc. (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Total Organic Carbon	2800	25600	28000	99					80-120	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/21/24 02:33
Dup Sample ID	: WG1961842-3	**DUP Analysis Date**	: 08/21/24 02:33

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Dissolved Organic Carbon	320	210	42 Q	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-8R-S_6.75	**Matrix**	: WATER
Lab Sample ID	: L2446922-04	**Analysis Date**	: 08/25/24 12:28
Dup Sample ID	: WG1963587-3	**DUP Analysis Date**	: 08/25/24 13:54

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Dissolved Organic Carbon	5400	5400	0	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/21/24 05:56
Dup Sample ID	: WG1961844-3	**DUP Analysis Date**	: 08/21/24 09:48

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Total Organic Carbon	0.55	0.55	0	20

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-8R-S_6.75	**Matrix**	: WATER
Lab Sample ID	: L2446922-04	**Analysis Date**	: 08/25/24 11:56
Dup Sample ID	: WG1963586-3	**DUP Analysis Date**	: 08/25/24 13:28

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Total Organic Carbon	2800	2900	4	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1961842-2	**LCS Analysis Date**	: 08/21/24 02:33
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg/l)	(mg/l)		(mg/l)	(mg/l)			Limits	Limit
Dissolved Organic Carbon	4.00	3.90	98.					90-110	20

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1963587-2	**LCS Analysis Date**	: 08/25/24 11:18
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Dissolved Organic Carbon	**4.00**	**4.00**	**100.**					**90-110**	**20**

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1961844-2	**LCS Analysis Date**	: 08/21/24 03:51
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Total Organic Carbon	**4.00**	**4.00**	**100.**					**90-110**	**20**

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1963586-2	**LCS Analysis Date**	: 08/25/24 11:01
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Total Organic Carbon	4.00	4.00	100.					90-110	20

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Total Organic Carbon	7440-44-0	0.5	0.114	mg/l	90-110		80-120	20	20	9060A	28 days	3 - Vial H2SO4 preserved
Total Organic Carbon	7440-44-0	0.5	0.114	mg/l	90-110		80-120	20	20	5310C	28 days	2 - Vial H2SO4 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of TOC

Aqueous samples:

The TOC Talk Software calculates the area of the peaks produced by the analyzer, compares them to the peak area of the calibration standard stored in its memory, and calculates a mean TOC value from two injections in mg/L.

If the sample was manually diluted prior to analysis, the calculated mean must be manually multiplied by the dilution factor. The Reported Detection Limit is also multiplied by the same dilution factor.

$$\text{Result, mg/L} = \frac{\text{area - y-intercept}}{\text{slope}} \times \text{Dilution Factor}$$

Sequence Logs

DATE: Wed 082124	CURVE ID: 403 072224	WORKING STDS ID:	
ANALYST: DMW	STOCK STDS ID:	4 PPM ICV: TW 082124-TW	
	2000 PPM CURVE SLN: TW 072424-C	4 PPM LCS: TW 082124-LCS	
	2000 PPM ICV/LCS/SPK SLN: TW 072424-W	4 PPM SPK: TW 072424-W	
	400 PPM IC CK STD SLN: TW 073024-1 4W	10 PPM IC CK STD: TW 082124-TCCV	

POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI			
2	TCCV(LCS)			—
3	ICV			—
4	MB			—
5	MB3			—
6	LCS (4W 100)			— JOB #
7	RM 8/17 730			— 416922
8	RM 8/14 720			— 46555
9	46555.6 RM3	1	2	—
10	4	1600	2	—
11	46836.11	40	2	—
12	14	400	2	X 10W
13	16	400	2	—
14	14	160	2	—
15	CCV			—
16	LCS			—
17	46836.11 dup	40	2	—
18	11 spk	160	2	—
19	RM 8/21 640	1	2	—
20	473781 TOC	20	2	—
21	.1 dup	20	2	—
22	.1 spk TP	40	2	—
23	22-3	80		—
24	-4	1600		—
25	-5	1600		—
26	-6	1600		—

POSITION	SAMPLE	DIL X	PH	COMMENTS
27	CCV			—
28	CCB			—
29				
30				
31				
32				
33				
34				
35				
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51				
52				

DATE: Wed 082124	CURVE ID: TOC 072224	WORKING STDS ID:	
ANALYST: DMW	STOCK STDS ID:	4 PPM ICV:	DI 082124-ICV
	2000 PPM CURVE SLN: DI 072424-C	4 PPM LCS :	DI 082124-LCS
	2000 PPM ICV/LCS/SPK SLN: DI 072424-W	4 PPM SPK:	DI 072424-W
	400 PPM IC CK STD SLN: DI 073024-	10 PPM IC CK STD:	DI 082124-MCK

DMW

POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI2			—
2	DI CK STD			—
3	DIW			—
4	ICV			—
5	LCS			—
6	LCSD			—
7	46922.3	100	2	—
8	4	1000	2	—
9	5	1000	2	—
10	6	1000	2	—
11	46855.1	1	2	—
12	2	1	2	—
13	3	1	2	—
14	4	1	2	—
15	MW			—
16	MW			—
17	46855.5	1	2	—
18	6	1	2	—
19	46855.1 DUP	1	2	—
20	1 MS	4	2	—
21	MW			—
22	MW			—
23				
24				
25				
26				

POSITION	SAMPLE	DIL X	PH	COMMENTS
27				
28				
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52				

DMW

1963586 3589

DMO 8/26/24

082324

DATE: Sun 082524	CURVE ID: TOC4 ~~082524~~	WORKING STDS ID:	
ANALYST: MRW	STOCK STDS ID:	4 PPM ICV:	TOC-082524-ICV
	2000 PPM CURVE SLN: TOC 071924-C	4 PPM LCS:	↓ -LCS
	2000 PPM ICV/LCS/SPK SLN: ↓ -W	4 PPM SPK:	TOC-071924-W
	400 PPM IC CK STD SLN: TOC 073024-IC400	10 PPM IC CK STD:	TOC-082324-IC Check

POSITION	SAMPLE	DIL X	PH	COMMENTS	POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI			—	27				
2	IC Check			—	28				
3	ICV			—	29				
4	ICB			—	30				
5	MB			—	31				
6	LCS			—	32				
7	~~MB~~ 46922-4	1600x		—	33				
8	-5	1600		—	34				
9	-6	1600		—	35				
10	-4 DP	1600		—	36				
11	-4 SPK	6400		X	37				
12	FB 4/23 23:20	1		—	38				
13	47990-1	20		—	39				
14	-1 DP	20		—	40				
15	CCV			—	41				
16	CCB			—	42				
17					43				
18					44				
19					45				
20					46				
21					47				
22					48				
23					49				
24					50				
25					51				
26					52				

MB 8/25

DATE: MON 082624	CURVE ID: TC5 082024	WORKING STDS ID:	
ANALYST: DDW	STOCK STDS ID:	4 PPM ICV: TV- 082624-DEV	
	2000 PPM CURVE SLN: TV- 072424-C	4 PPM LCS: TV- 082624-LCS	
	2000 PPM ICV/LCS/SPK SLN: TV- 072424-W	4 PPM SPK: TV- 072924-W	
	400 PPM IC CK STD SLN: TV- 073024-IC GW	10 PPM IC CK STD: TV- 082624-DECK	

POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI			
2	DI ICV/SPK			—
3	GW			—
4	GW			—
5	GW			—
6	LCS	40X		—
7	47990.1 GW	~~20~~	2	—
8	46922.4 GW	40X	2	—
9	GW			—
10	GW			—
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

POSITION	SAMPLE	DIL X	PH	COMMENTS
27				
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DATE Sun 082524	CURVE ID: TOC 5 082024	WORKING STDS ID:	
ANALYST: MRW	STOCK STDS ID:	4 PPM ICV:	TOC-082524-ICV
	2000 PPM CURVE SLN: TOC-071924-C	4 PPM LCS:	TOC-082524-LCS
	2000 PPM ICV/LCS/SPK SLN: ↓ -W	4 PPM SPK:	TOC-071924-W
	400 PPM IC CK STD SLN: TOC-073024-IC 400	10 PPM IC CK STD:	TOC-082324-IC Check

POSITION	SAMPLE	DIL X	PH	COMMENTS	POSITION	SAMPLE	DIL X	PH	COMMENTS
1	DI			—	27				
2	IC Check			-	28				
3	ICV			-	29				
4	ICB			-	30				
5	MB			-	31				
6	LCS			-	32				
7	408922-4	1600		- TOC	33				
8	-5	1600		-	34				
9	-6	1600		-	35				
10	-4 DP	1600		-	36				
11	-4 SPK	1600		—	37				
12	CCV			—	38				
13	CCB			—	39				
14					40				
15					41				
16					42				
17					43				
18					44				
19					45				
20					46				
21					47				
22					48				
23					49				
24					50				
25					51				
26					52				

Sulfate Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-03	**Date Collected**	: 08/16/24 10:30
Client ID	: LMW-10R-S_24.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/22/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962577.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/22/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	2.0	10	1.4	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-04	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/22/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962577.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/22/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	5.9	10	1.4	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-05	**Date Collected**	: 08/16/24 13:00
Client ID	: LMW-9R-S_13.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/22/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962577.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/22/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	34.	10	1.4	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-06	**Date Collected**	: 08/16/24 15:30
Client ID	: LMW-7R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/22/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962577.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/22/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	7.8	10	1.4	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962577-1	**Date Collected**	: NA
Client ID	: WG1962577-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/22/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962577.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/22/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	2.1	10	1.4	J

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962577-3	**Date Collected**	: 08/16/24 13:40
Client ID	: WG1962577-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/22/24 15:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,9038	**Analyst**	: MRW
Lab File ID	: WG1962577.csv	**Instrument ID**	: SPEC6
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/22/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	31.	10	1.4	

Sample Raw Data

ALPHA ANALYTICAL LABS

WET CHEMISTRY DEPARTMENT

S U L F A T E

Last Change 3/5/13
File SO4-L.xlt
Curve/spike/ccv;wc3437
LCS;wc3373

Sample Number: _____ **Product:** **SO4-9038** **Reagent;lot A4117**
Curve Calibration Date : 08/22/24 Pippette/s: 322, 424
Client: _____ **Curve Identifier:** 8/22/2024 Acrodisk: FJ5503
Analysis: **Sulfate, SO4** **Analysis Analyte:** **Sulfate** **Syringe: 2125536**
Method: **EPA 9038** **Analysis Date:** 8/22/2024 15:00
Instrument: **SPEC6** **Preparation Date:** 8/22/2024 15:00
Wavelength: **420 nm** **Technician:** MRW
Spike Volume(ml): **0.5** **Work group:** WG1962577
Spike Concentration (mg/l): **1000** **RL:** **10 mg/l**
Cell: **2.5 cm**

Standard ID	Mean signal (pk area) abs	Dilution	Calc-ed Result
0	0.001	1.0	1.76
10	0.159	1.0	8.28
20	0.420	1.0	19.1
40	0.949	1.0	40.9

Calibration Curve
Volume: 25 ml

Slope	y-intercept
0.024220	-0.0416

Correlation Coefficient
0.995606

ICV/LCS Concentration (mg/l) = 20.0000

	Sample number	Sample Volume (ml)	Final Volume (ml)	Bkgd. Abs.	Gross Abs.	Net Absorbance	RESULT (mg/l)	Dilution Factor	RL Multiplier	FINAL RESULT (mg/l)	
	ICB	25	25	0	0.007	0.007	2.142	1	1.0	2.1	Recovery
	ICV	25	25	0	0.411	0.411	18.677	1	1.0	18.7	93%
SAMP	L2446855-06	25	25	0.022	0.708	0.686	29.931	1	1.0	29.9	
SAMP	L2446872-01	25	25	0.004	0.383	0.379	17.367	1	1.0	17.4	
SAMP	L2446872-02	25	25	0.003	0.081	0.078	5.048	1	1.0	5.0	
SAMP	L2446872-03	25	25	0.008	0.008	0.000	1.856	1	1.0	1.9	
SAMP	L2446872-04	25	25	0.008	0.377	0.369	16.958	1	1.0	17.0	
SAMP	L2446922-03	25	25	0.007	0.01	0.003	1.979	1	1.0	2.0	
SAMP	L2446922-04	25	25	0.005	0.104	0.099	5.908	1	1.0	5.9	
SAMP	L2446922-05	25	25	0.011	0.809	0.798	34.515	1	1.0	34.5	
	CCV1	25	25	0	0.409	0.409	18.595	1	1.0	18.6	
	CCB1	25	25	0	0.008	0.008	2.183	1	1.0	2.2	
SAMP	L2446922-06	25	25	0.091	0.237	0.146	7.831	1	1.0	7.8	
	CCV2	25	25	0	0.398	0.398	18.145	1	1.0	18.1	
	CCB2	25	25	0	0.003	0.003	1.979	1	1.0	2.0	
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
		25	25					1	1.0		
BLANK	WG1962577-1	25	25	0.000	0.007	0.007	2.142	1	1.0	2.1	
DUP	WG1962577-3	25	25	0.048	0.754	0.706	30.750	1	1.0	30.7	L2446855-06

	Sample number	sample volume	Final volume (ml)	Bkgd. Abs.	Gross Abs.	Absorbance	Sample Result mg/l	Spiked Volume	Spike conc. mg/l	Spike Result mg/l	Recovery %
MS	WG1962577-4	12.5	25	0.044	0.841	0.797	29.900	12.5	40.0000	69	98
											L2446855-06
LCS	WG1962577-2	25	25	0	0.411	0.411		1	20.0000	19	93

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446855-06		
Matrix Spike	: WG1962577-4	**MS Analysis Date**	: 08/22/24 15:00
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Sulfate	30.	40	69.	98					55-147	14

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/22/24 15:00
Dup Sample ID	: WG1962577-3	**DUP Analysis Date**	: 08/22/24 15:00

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Sulfate	30	31.	3	14

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1962577-2	**LCS Analysis Date**	: 08/22/24 15:00
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Sulfate	**20.0**	**19.0**	**95.**					**90-110**	**14**

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
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WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Sulfate	14808-79-8	10	1.37	mg/l	90-110		55-147	14	14	4500SO4-E	28 days	1 - Plastic 500ml unpreserved
Sulfate	14808-79-8	10	1.37	mg/l	90-110		55-147	14	14	9038	28 days	1 - Plastic 500ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Sulfate	14808-79-8	100	13.6	mg/kg	80-121	12	22-183	12	12	9038	28 days	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Sulfate

Aqueous samples:

Calculate the concentration value of the sample directly from the standard curve.

$$mgSO_4/L = \frac{\text{absorbance - y-intercept}}{\text{slope}} \times \text{Dilution Factor}$$

If sample has a background absorbance, it has to be subtracted before calculation.

Alkalinity Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-03	**Date Collected**	: 08/16/24 10:30
Client ID	: LMW-10R-S_24.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/21/24 14:58
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	477.	4.00	NA	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-04	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/21/24 16:08
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	1840	100	NA	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-05	**Date Collected**	: 08/16/24 13:00
Client ID	: LMW-9R-S_13.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/21/24 16:10
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	3140	100	NA	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-06	**Date Collected**	: 08/16/24 15:30
Client ID	: LMW-7R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/21/24 16:13
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	2060	100	NA	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962110-1	**Date Collected**	: NA
Client ID	: WG1962110-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/21/24 16:30
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	ND	2.00	NA	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1962110-3	**Date Collected**	: 08/16/24 09:00
Client ID	: WG1962110-3 DUP	**Date Received**	: 08/16/24
Sample Location	:	**Date Analyzed**	: 08/21/24 13:37
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MRW
Lab File ID	: 240821_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	17.5	2.00	NA	

Sample Raw Data

Titration report

LabX

Method

Method ID	Alk Total (2)	**Release state**	Released
Name	EP/EP	**Modified by**	SystemInternal
Modified on	10/14/2023 11:44:43 AM		

Summary

Samples

	Sample ID	Name	Result	State
1	Rinse,MRW	Sample size	50 mL	
		Potential R4	7.54 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.935 mL	OK
		Consumption 4.2 R3	0.942 mL	OK
		Content R5	18.700 mg/L	OK
		ALK LOW R6	18.560 mg/L	OK
2	Rinse,MRW	Sample size	50 mL	
		Potential R4	5.46 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.082 mL	OK
		Consumption 4.2 R3	0.088 mL	OK
		Content R5	1.640 mg/L	OK
		ALK LOW R6	1.520 mg/L	OK
3	BLANK	Sample size	50 mL	
		Potential R4	5.34 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.063 mL	OK
		Consumption 4.2 R3	0.070 mL	OK
		Content R5	1.260 mg/L	OK
		ALK LOW R6	1.120 mg/L	OK
4	LCS	Sample size	50 mL	
		Potential R4	11.22 pH	OK
		Consumption 8.3 R1	4.896 mL	OK
		Consumption 4.5 R2	5.223 mL	OK
		Consumption 4.2 R3	5.231 mL	OK
		Content R5	104.460 mg/L	OK
		ALK LOW R6	104.300 mg/L	OK
5	I2446208-09 2x+30	Sample size	50 mL	
		Potential R4	5.30 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	7.271 mL	OK
		Consumption 4.2 R3	8.155 mL	OK
		Content R5	145.420 mg/L	OK
		ALK LOW R6	127.740 mg/L	OK
6	WG1962102-3 2x+30	Sample size	50 mL	

Titration report

		Potential R4	5.37 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	6.676 mL	OK
		Consumption 4.2 R3	7.575 mL	OK
		Content R5	133.520 mg/L	OK
		ALK LOW R6	115.540 mg/L	OK
7	I2446555-06 CONF	Sample size	50 mL	
		Potential R4	5.33 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.109 mL	OK
		Consumption 4.2 R3	0.119 mL	OK
		Content R5	2.180 mg/L	OK
		ALK LOW R6	1.980 mg/L	OK
8	I2446583-04	Sample size	50 mL	
		Potential R4	8.62 pH	OK
		Consumption 8.3 R1	1.057 mL	OK
		Consumption 4.5 R2	9.755 mL	OK
		Consumption 4.2 R3	9.868 mL	OK
		Content R5	195.100 mg/L	OK
		ALK LOW R6	192.840 mg/L	OK
9	WG1962107-3	Sample size	50 mL	
		Potential R4	8.23 pH	OK
		Consumption 8.3 R1	0.772 mL	OK
		Consumption 4.5 R2	9.838 mL	OK
		Consumption 4.2 R3	9.965 mL	OK
		Content R5	196.760 mg/L	OK
		ALK LOW R6	194.220 mg/L	OK
10	WG1962107-4	Sample size	50 mL	
		Potential R4	9.62 pH	OK
		Consumption 8.3 R1	6.066 mL	OK
		Consumption 4.5 R2	15.082 mL	OK
		Consumption 4.2 R3	15.208 mL	OK
		Content R5	301.640 mg/L	OK
		ALK LOW R6	299.120 mg/L	OK
11	I2446583-05	Sample size	50 mL	
		Potential R4	5.98 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	14.895 mL	OK
		Consumption 4.2 R3	15.069 mL	OK
		Content R5	297.900 mg/L	OK
		ALK LOW R6	294.420 mg/L	OK
12	I2446583-06	Sample size	50 mL	
		Potential R4	5.88 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	6.979 mL	OK
		Consumption 4.2 R3	7.029 mL	OK
		Content R5	139.580 mg/L	OK

Titration report

		ALK LOW R6	138.580 mg/L	OK
13	I2446588-01	Sample size	50 mL	
		Potential R4	5.28 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.429 mL	OK
		Consumption 4.2 R3	0.440 mL	OK
		Content R5	8.580 mg/L	OK
		ALK LOW R6	8.360 mg/L	OK
14	I2446588-02	Sample size	50 mL	
		Potential R4	5.12 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.381 mL	OK
		Consumption 4.2 R3	0.390 mL	OK
		Content R5	7.620 mg/L	OK
		ALK LOW R6	7.440 mg/L	OK
15	I2446588-03	Sample size	50 mL	
		Potential R4	5.28 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.910 mL	OK
		Consumption 4.2 R3	0.919 mL	OK
		Content R5	18.200 mg/L	OK
		ALK LOW R6	18.020 mg/L	OK
16	I2446588-05	Sample size	50 mL	
		Potential R4	5.17 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.443 mL	OK
		Consumption 4.2 R3	0.454 mL	OK
		Content R5	8.860 mg/L	OK
		ALK LOW R6	8.640 mg/L	OK
17	I2446588-06	Sample size	50 mL	
		Potential R4	5.18 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.432 mL	OK
		Consumption 4.2 R3	0.440 mL	OK
		Content R5	8.640 mg/L	OK
		ALK LOW R6	8.480 mg/L	OK
18	I2446588-07	Sample size	50 mL	
		Potential R4	5.34 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.283 mL	OK
		Consumption 4.2 R3	1.295 mL	OK
		Content R5	25.660 mg/L	OK
		ALK LOW R6	25.420 mg/L	OK
19	I2446588-08	Sample size	50 mL	
		Potential R4	5.32 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.978 mL	OK

Titration report

		Consumption 4.2 R3	0.990 mL	OK
		Content R5	19.560 mg/L	OK
		ALK LOW R6	19.320 mg/L	OK
20	I2446647-04	Sample size	50 mL	
		Potential R4	6.95 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	17.292 mL	OK
		Consumption 4.2 R3	17.468 mL	OK
		Content R5	345.840 mg/L	OK
		ALK LOW R6	342.320 mg/L	OK
21	I2446855-01	Sample size	50 mL	
		Potential R4	5.78 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	7.469 mL	OK
		Consumption 4.2 R3	7.541 mL	OK
		Content R5	149.380 mg/L	OK
		ALK LOW R6	147.940 mg/L	OK
22	I2446855-02	Sample size	50 mL	
		Potential R4	5.25 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.475 mL	OK
		Consumption 4.2 R3	0.484 mL	OK
		Content R5	9.500 mg/L	OK
		ALK LOW R6	9.320 mg/L	OK
23	I2446855-03	Sample size	50 mL	
		Potential R4	5.55 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	4.739 mL	OK
		Consumption 4.2 R3	4.803 mL	OK
		Content R5	94.780 mg/L	OK
		ALK LOW R6	93.500 mg/L	OK
24	I2446855-04	Sample size	50 mL	
		Potential R4	5.03 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.269 mL	OK
		Consumption 4.2 R3	0.280 mL	OK
		Content R5	5.380 mg/L	OK
		ALK LOW R6	5.160 mg/L	OK
25	I2446855-05	Sample size	50 mL	
		Potential R4	5.10 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.737 mL	OK
		Consumption 4.2 R3	0.769 mL	OK
		Content R5	14.740 mg/L	OK
		ALK LOW R6	14.100 mg/L	OK
26	I2446855-06	Sample size	50 mL	
		Potential R4	6.26 pH	OK

Titration report

LabX

		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	9.169 mL	OK
		Consumption 4.2 R3	9.240 mL	OK
		Content R5	183.380 mg/L	OK
		ALK LOW R6	181.960 mg/L	OK
27	I2446886-11	Sample size	50 mL	
		Potential R4	6.58 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
28	I2446886-14	Sample size	50 mL	
		Potential R4	6.07 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
29	I2446886-16 2x+10	Sample size	50 mL	
		Potential R4	6.50 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
30	WG1962107-2	Sample size	50 mL	
		Potential R4	10.85 pH	OK
		Consumption 8.3 R1	4.903 mL	OK
		Consumption 4.5 R2	5.287 mL	OK
		Consumption 4.2 R3	5.291 mL	OK
		Content R5	105.740 mg/L	OK
		ALK LOW R6	105.660 mg/L	OK
31	WG1962107-1	Sample size	50 mL	
		Potential R4	5.37 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.076 mL	OK
		Consumption 4.2 R3	0.095 mL	OK
		Content R5	1.520 mg/L	OK
		ALK LOW R6	1.140 mg/L	OK
32	I2446990-01	Sample size	50 mL	
		Potential R4	5.42 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.921 mL	OK
		Consumption 4.2 R3	0.928 mL	OK
		Content R5	18.420 mg/L	OK
		ALK LOW R6	18.280 mg/L	OK

Titration report

33	WG1962110-3	Sample size	50 mL	
		Potential R4	5.35 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.880 mL	OK
		Consumption 4.2 R3	0.884 mL	OK
		Content R5	17.600 mg/L	OK
		ALK LOW R6	17.520 mg/L	OK
34	WG1962110-4	Sample size	50 mL	
		Potential R4	10.50 pH	OK
		Consumption 8.3 R1	5.953 mL	OK
		Consumption 4.5 R2	6.539 mL	OK
		Consumption 4.2 R3	6.543 mL	OK
		Content R5	130.780 mg/L	OK
		ALK LOW R6	130.700 mg/L	OK
35	I2446990-02	Sample size	50 mL	
		Potential R4	5.25 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.819 mL	OK
		Consumption 4.2 R3	0.829 mL	OK
		Content R5	16.380 mg/L	OK
		ALK LOW R6	16.180 mg/L	OK
36	I2446990-03	Sample size	50 mL	
		Potential R4	5.48 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.294 mL	OK
		Consumption 4.2 R3	1.301 mL	OK
		Content R5	25.880 mg/L	OK
		ALK LOW R6	25.740 mg/L	OK
37	I2446990-04	Sample size	50 mL	
		Potential R4	5.39 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.730 mL	OK
		Consumption 4.2 R3	0.742 mL	OK
		Content R5	14.600 mg/L	OK
		ALK LOW R6	14.360 mg/L	OK
38	I2446990-05	Sample size	50 mL	
		Potential R4	5.17 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.264 mL	OK
		Consumption 4.2 R3	0.269 mL	OK
		Content R5	5.280 mg/L	OK
		ALK LOW R6	5.180 mg/L	OK
39	I2446990-06	Sample size	50 mL	
		Potential R4	5.13 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.374 mL	OK
		Consumption 4.2 R3	0.381 mL	OK

Titration report

		Content R5	7.480 mg/L	OK
		ALK LOW R6	7.340 mg/L	OK
40	I2446990-07	Sample size	50 mL	
		Potential R4	5.38 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.514 mL	OK
		Consumption 4.2 R3	1.527 mL	OK
		Content R5	30.280 mg/L	OK
		ALK LOW R6	30.020 mg/L	OK
41	I2446990-08	Sample size	50 mL	
		Potential R4	5.34 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.397 mL	OK
		Consumption 4.2 R3	0.406 mL	OK
		Content R5	7.940 mg/L	OK
		ALK LOW R6	7.760 mg/L	OK
42	I2446922-03	Sample size	50 mL	
		Potential R4	5.91 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
43	I2446922-04	Sample size	50 mL	
		Potential R4	5.47 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
44	I2446922-05	Sample size	50 mL	
		Potential R4	5.72 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
45	I2446555-04 5x+30	Sample size	50 mL	
		Potential R4	5.13 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
46	I2446555-04 5x+30	Sample size	50 mL	
		Potential R4	4.53 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK

Titration report

		Consumption 4.5 R2	1.027 mL	OK
		Consumption 4.2 R3	12.111 mL	OK
		Content R5	20.540 mg/L	OK
		ALK LOW R6	-201.140 mg/L	OK
47	L2446886-11 2x+20	Sample size	50 mL	
		Potential R4	2.62 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
48	L2446886-14 5x+30	Sample size	50 mL	
		Potential R4	1.74 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
49	L2446886-16 2x+30	Sample size	50 mL	
		Potential R4	5.80 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
50	L2446922-03 2x+10	Sample size	50 mL	
		Potential R4	5.39 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.930 mL	OK
		Consumption 4.2 R3	2.255 mL	OK
		Content R5	38.600 mg/L	OK
		ALK LOW R6	32.100 mg/L	OK
51	L2446922-04 2x+10	Sample size	50 mL	
		Potential R4	5.12 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
52	L2446922-05 2x+10	Sample size	50 mL	
		Potential R4	5.42 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
53	L2446922-06 2x+10	Sample size	50 mL	

Titration report

		Potential R4	4.96 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
54	l2446886-11 1x+5	Sample size	50 mL	
		Potential R4	6.13 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	19.188 mL	OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	383.760 mg/L	OK
		ALK LOW R6	NaN mg/L	Not OK
55	l2446886-14 1x+10	Sample size	50 mL	
		Potential R4	5.83 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
56	L2446886-14 50x	Sample size	50 mL	
		Potential R4	6.41 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.012 mL	OK
		Consumption 4.2 R3	1.020 mL	OK
		Content R5	20.240 mg/L	OK
		ALK LOW R6	20.080 mg/L	OK
57	L2446886-16 50x	Sample size	50 mL	
		Potential R4	5.61 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.372 mL	OK
		Consumption 4.2 R3	3.397 mL	OK
		Content R5	67.440 mg/L	OK
		ALK LOW R6	66.940 mg/L	OK
58	L2446922-04 50x	Sample size	50 mL	
		Potential R4	5.36 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.842 mL	OK
		Consumption 4.2 R3	2.440 mL	OK
		Content R5	36.840 mg/L	OK
		ALK LOW R6	24.880 mg/L	OK
59	L2446922-05 50x	Sample size	50 mL	
		Potential R4	5.57 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.142 mL	OK
		Consumption 4.2 R3	4.019 mL	OK
		Content R5	62.840 mg/L	OK

Titration report

		ALK LOW R6	45.300 mg/L	OK
60	L2446922-06 50x	Sample size	50 mL	
		Potential R4	5.10 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	2.062 mL	OK
		Consumption 4.2 R3	2.977 mL	OK
		Content R5	41.240 mg/L	OK
		ALK LOW R6	22.940 mg/L	OK
61	WG1962110-2	Sample size	50 mL	
		Potential R4	10.51 pH	OK
		Consumption 8.3 R1	4.944 mL	OK
		Consumption 4.5 R2	5.276 mL	OK
		Consumption 4.2 R3	5.282 mL	OK
		Content R5	105.520 mg/L	OK
		ALK LOW R6	105.400 mg/L	OK
62	WG1962110-1	Sample size	50 mL	
		Potential R4	4.83 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.081 mL	OK
		Consumption 4.2 R3	0.112 mL	OK
		Content R5	1.620 mg/L	OK
		ALK LOW R6	1.000 mg/L	OK
63	--	Sample size	50 mL	
		Potential R4	4.95 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.104 mL	OK
		Consumption 4.2 R3	0.118 mL	OK
		Content R5	2.080 mg/L	OK
		ALK LOW R6	1.800 mg/L	OK

Statistics

R1

Mean	NaN mL		
Maximum	6.066 mL	**Minimum**	0.772 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R2

Mean	NaN mL		
Maximum	19.188 mL	**Minimum**	0.063 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R3

Titration report

Mean	NaN mL		
Maximum	17.468 mL	**Minimum**	0.070 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R4

Mean	5.91 pH		
Maximum	11.22 pH	**Minimum**	1.74 pH
Standard deviation	1.67 pH	**Rel. standard deviation**	28.242 %
Total samples	63	**Samples excluded**	0

R5

Mean	NaN mg/L		
Maximum	383.760 mg/L	**Minimum**	1.260 mg/L
Standard deviation	NaN mg/L	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

R6

Mean	NaN mg/L		
Maximum	342.320 mg/L	**Minimum**	-201.140 mg/L
Standard deviation	NaN mg/L	**Rel. standard deviation**	NaN %
Total samples	63	**Samples excluded**	0

Used Instruments

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/21/2024 10:43:38 AM	SystemInternal	System internal account

Titration report

Method

Method ID	pH Cal. 7 4 10	**Release state**	Released
Name	Calibration	**Modified by**	SystemInternal
Modified on	10/3/2023 12:47:09 PM		

Summary

Samples

	Sample ID	Name	Result	State
1	METTLER TOLEDO (Ref. 25°C) pH	pH	7.00	
2	METTLER TOLEDO (Ref. 25°C) pH	pH	4.01	
3	METTLER TOLEDO (Ref. 25°C) pH	pH	10.00	

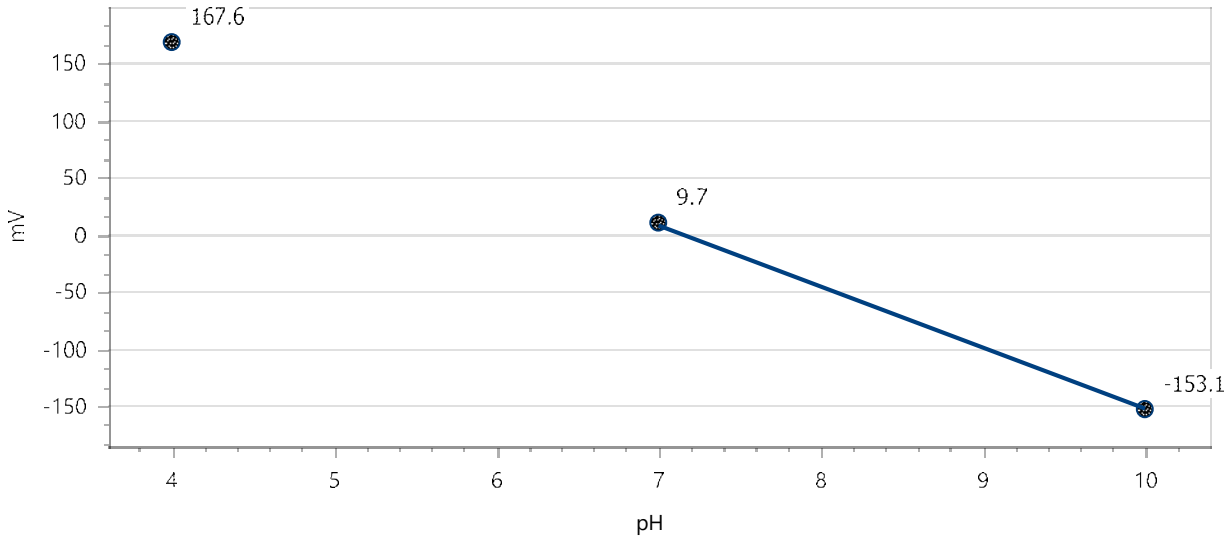
Results

Zero point 1 Cal1.Z1	7.154 pH
Slope 1 Cal1.S1	-53.54 mV/pH

Calibration

Sensor	Sensor DG111-SC
Creation time	8/21/2024 8:34:49 AM
Overall state	OK
Successful	Yes
Calib. temperature	25.0 °C
SLOPECal	-53.54 mV/pH
ZEROCal	7.154 pH

Calibration Curve



Used Instruments

Titration report

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/21/2024 8:30:12 AM	SystemInternal	System internal account

Titration report

Method

Method ID	pH Measure	**Release state**	Released
Name	Measure	**Modified by**	SystemInternal
Modified on	2/23/2024 9:31:05 AM		

Summary

Samples

	Sample ID	Name	Result	State
1	--	Sample size	0 mL	
		Potential R1	7.04 pH	OK

Used Instruments

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/21/2024 8:30:19 AM	SystemInternal	System internal account

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446990-01		
Matrix Spike	: WG1962110-4	**MS Analysis Date**	: 08/21/24 13:38
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
	Sample Conc.	Spike Added	Spike Conc.	%R	Spike Added	Spike Conc.	%R	RPD	Recovery Limits	RPD Limit
Parameter	(mg CaCO3/L)	(mg CaCO3/L)	(mg CaCO3/L)		(mg CaCO3/L)	(mg CaCO3/L)				
Alkalinity, Total	18.3	100	131.	112					86-116	10

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/21/24 13:27
Dup Sample ID	: WG1962110-3	**DUP Analysis Date**	: 08/21/24 13:37

Parameter	Sample Concentration (mg CaCO3/L)	Duplicate Concentration (mg CaCO3/L)	RPD	RPD Limit
Alkalinity, Total	18.3	17.5	4	10

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1962110-2	**LCS Analysis Date**	: 08/21/24 16:16
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg CaCO3/L)	(mg CaCO3/L)		(mg CaCO3/L)	(mg CaCO3/L)			Limits	Limit
Alkalinity, Total	100.	106.	106.					90-110	10

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Alkalinity, Total	471-34-1	2		mg CaCO3/L	90-110	10	86-116	10	10	2320B	14 days	1 - Plastic 250ml unpreserved/No Headspace

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Alkalinity

$$\text{Alkalinity, mg } CaCO_3/L = \frac{A \times N \times 50{,}000}{\text{mL Sample}}$$

Where:

A = mL of the standard acid titrated

N = normality of the standard acid

Results are calculated using Mettler Toledo software.

Standard sample size is 50mL, 0.02N Sulfuric acid for titration

Sequence Logs

CAL	240821	LCS 7.04	7.04	INT:	mrw
pH 4	3295	Titrant:	4193		
pH 7	3386	LCS:	3257		
pH 10	3298	MS:	3255		
LCS	3409				

1	Rinse	42	l2446922-03
2	Rinse	43	l2446922-04
3	blank	44	l2446922-05
4	lcs	45	l2446555-04 5x+30
5	l2446208-09 2x+30	46	l2446555-04 5x+30
6	dup 2x+30	47	L2446886-11 2x+20
7	l2446555-06 CONF	48	L2446886-14 5x+30
8	l2446583-04	49	L2446886-16 2x+30
9	dup	50	L2446922-03 2x+10
10	ms	51	L2446922-04 2x+10
11	l2446583-05	52	L2446922-05 2x+10
12	l2446583-06	53	L2446922-06 2x+10
13	l2446588-01	54	l2446886-11 1x+5
14	l2446588-02	55	l2446886-14 1x+10
15	l2446588-03	56	L2446886-14 50x
16	l2446588-05	57	L2446886-16 50x
17	l2446588-06	58	L2446922-04 50x
18	l2446588-07	59	L2446922-05 50x
19	l2446588-08	60	L2446922-06 50x
20	l2446647-04	61	ccv
21	l2446855-01	62	ccb
22	l2446855-02		
23	l2446855-03		
24	l2446855-04		
25	l2446855-05		
26	l2446855-06		
27	l2446886-11		
28	l2446886-14		
29	l2446886-16 2x+10		
30	ccv		
31	ccb		
32	l2446990-01		
33	dup		
34	ms		
35	l2446990-02		
36	l2446990-03		
37	l2446990-04		
38	l2446990-05		
39	l2446990-06		
40	l2446990-07		
41	l2446990-08		

Chloride Analysis

Results

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-03	**Date Collected**	: 08/16/24 10:30
Client ID	: LMW-10R-S_24.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/20/24 22:41
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A3	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	130	10	8.9	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-04	**Date Collected**	: 08/15/24 17:40
Client ID	: LMW-8R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/20/24 23:54
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A2	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	88.	1.0	0.89	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-05	**Date Collected**	: 08/16/24 13:00
Client ID	: LMW-9R-S_13.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/20/24 22:45
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A3	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	460	10	8.9	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2446922-06	**Date Collected**	: 08/16/24 15:30
Client ID	: LMW-7R-S_6.75	**Date Received**	: 08/16/24
Sample Location	: 1487 FIRST AVE NY, NY	**Date Analyzed**	: 08/20/24 22:47
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A3	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	100	10	8.9	

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961689-1	**Date Collected**	: NA
Client ID	: WG1961689-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/20/24 20:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	ND	1.0	0.89	U

Form 1
WETCHEM

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG1961689-3	**Date Collected**	: 08/14/24 12:42
Client ID	: WG1961689-3 DUP	**Date Received**	: 08/14/24
Sample Location	:	**Date Analyzed**	: 08/20/24 20:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500CL-E	**Analyst**	: TLH
Lab File ID	: CL240820-A	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
16887-00-6	Chloride	23.	1.0	0.89	

Sample Raw Data

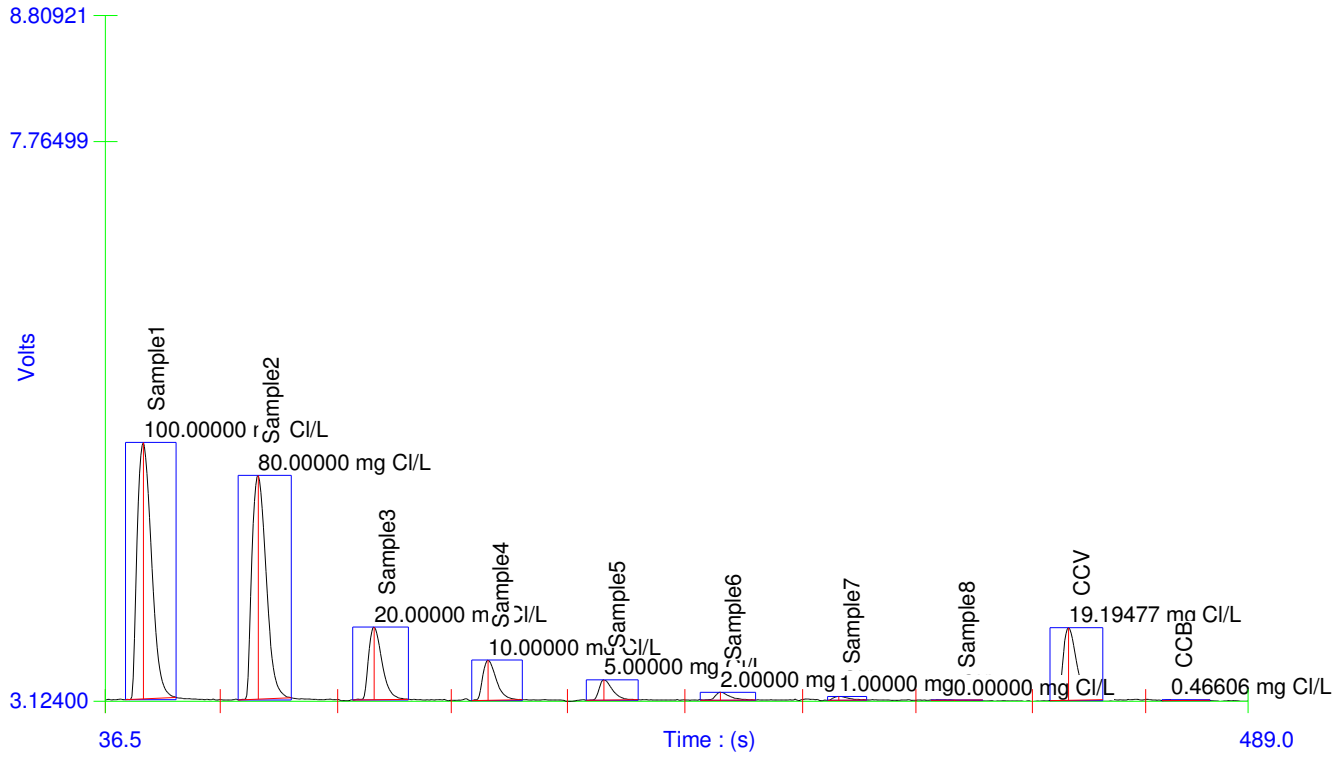
Author: Date : 8/20/2024

Original Run Filename: OM_8-20-2024_08-18-25PM.OMN Created: 8/20/2024 8:18:25 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_08-18-25PM.OMN Last Modified: 8/20/2024 9:14:53 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight	
Sample1	1	S1	100.00000				
Sample2	1	S2	80.00000				
Sample3	1	S3	20.00000				
Sample4	1	S4	10.00000				
Sample5	1	S5	5.00000				
Sample6	1	S6	2.00000				
Sample7	1	S7	1.00000				
Sample8	1	S9	0.00000				
CCV	1	S3	19.19477				
	Known Conc:		20.00000				
	Calibration:		Table/Fig. : 1				
CCB	1	S9	0.46606				
	Known Conc:		0.00000				
ICV 5.0	1	1	4.99329				100%
ICV 30.0	1	2	30.65394				102%
ICV 80.0	1	3	81.00838				101%
ICB	1	4	0.58438				
100 PPM	1	5	106.52272	10.00			
WG1961688-1; BLK	1	6	5.53697			0.10030 g	
WG1961688-2; LCS	1	7	390.87180			0.10160 g	
WG1961689/87-1; BLK	1	8	0.35341				99%
WG1961689/87-2; LCS	1	9	28.28891				
WG1961691-1; BLK	1	10	0.68363				
CCV	1	S3	19.15119				94%
	Known Conc:		20.00000				
CCB	1	S9	0.19625				
	Known Conc:		0.00000				
WG1961691-2; LCS	1	11	29.20292				
WG1961690-1; BLK	1	12	0.23434				97%
WG1961690-2; LCS	1	13	28.45318				
L2446256-01	1	14	757.39618			0.10170 g	
WG1961688-3; DUP	1	15	714.92529			0.10080 g	95%
WG1961688-4; MS	1	16	1105.46960			0.10010 g	
L2446040-01	1	17	23.56223				
WG1961689-3; DUP	1	18	23.26660				
WG1961689-4; MS	1	19	42.52200				
L2446275-01	1	20	2935.56152	10.00			
CCV	1	S3	19.31617				
	Known Conc:		20.00000				
CCB	1	S9	0.49020				
	Known Conc:		0.00000				
L2446319-01	1	21	26.99453				
L2446335-01	1	22	4.83490				
L2446555-04	1	23	293.24564				
L2446555-06	1	24	1.26141				
L2446922-03	1	25	123.20585				
L2446922-04	1	26	82.56910				
L2446922-05	1	27	293.63052				
L2446922-06	1	28	105.48059				
L2445935-01	1	29	670.86920				
L2446420-01	1	30	25.18591	10.00			
CCV	1	S3	18.78512				
	Known Conc:		20.00000				
CCB	1	S9	0.51542				
	Known Conc:		0.00000				
WG1961687-3; DUP	1	31	16.92969				
WG1961687-4; MS	1	32	36.44855				
L2446420-02	1	33	280.11588				

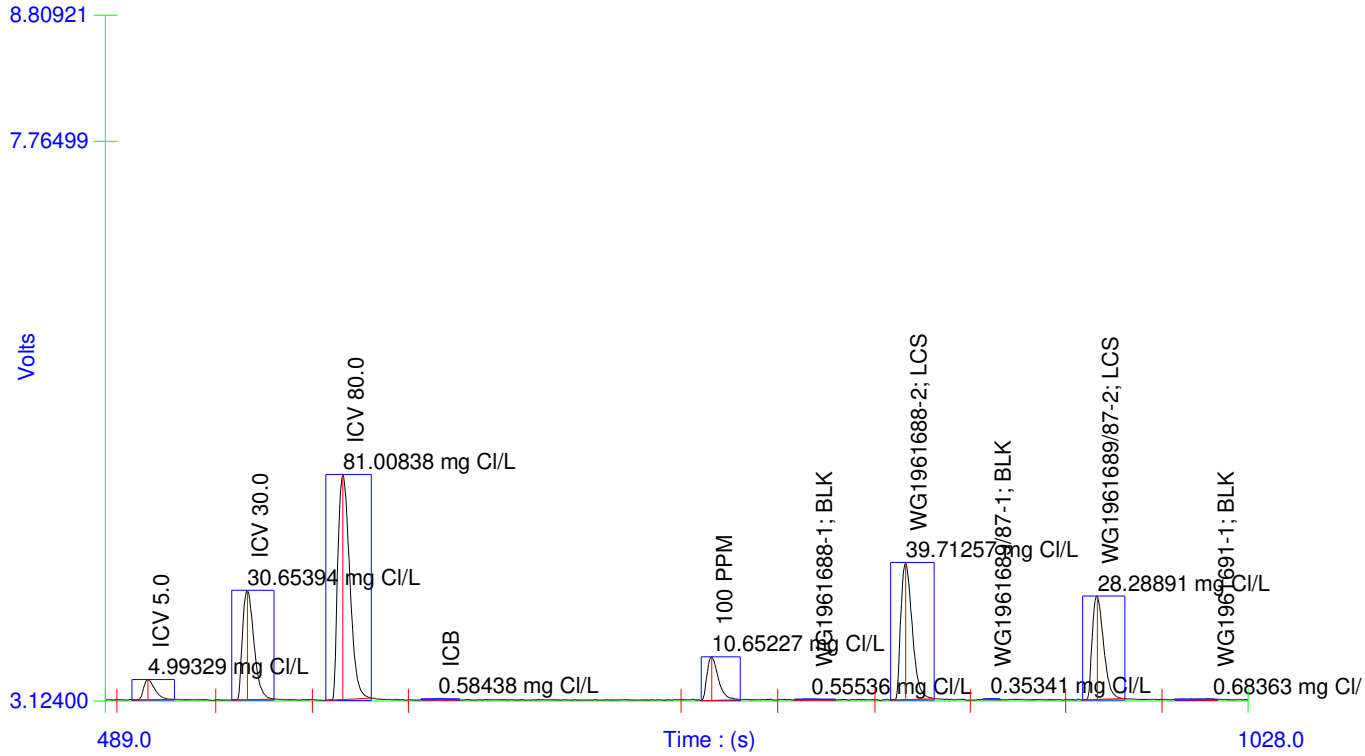
L2446420-03	1	34	8.49181			
L2446420-04	1	35	11.47057			
L2446872-01	1	36	5.56648			
L2446872-02	1	37	0.68514			
L2446872-03	1	38	2.73443			
L2446872-04	1	39	104.18729			
L2446447-01	1	40	3664.30591	50.00		
CCV	1	S3	18.89644			
	Known Conc:		20.00000			
CCB	1	S9	0.35886			
	Known Conc:		0.00000			
L2446447-02	1	41	501.71414	10.00		
L2446490-02	1	42	123.55730			
WG1961691-3; DUP	1	43	125.70085			
WG1961691-4; MS	1	44	137.20547			
L2446490-03	1	45	96.99566			
L2446490-04	1	46	124.30988			

Channel 1 (Chloride) - Set: 1 / 7

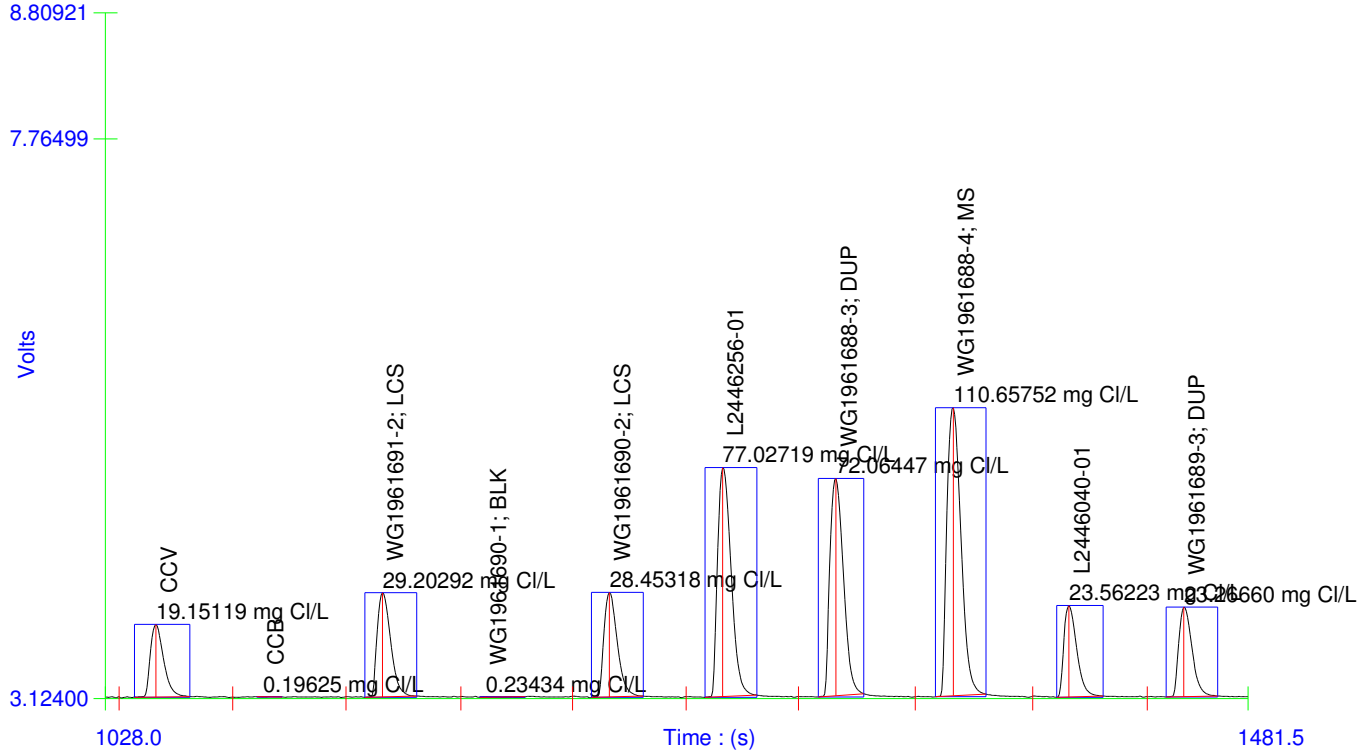


Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 2 / 7

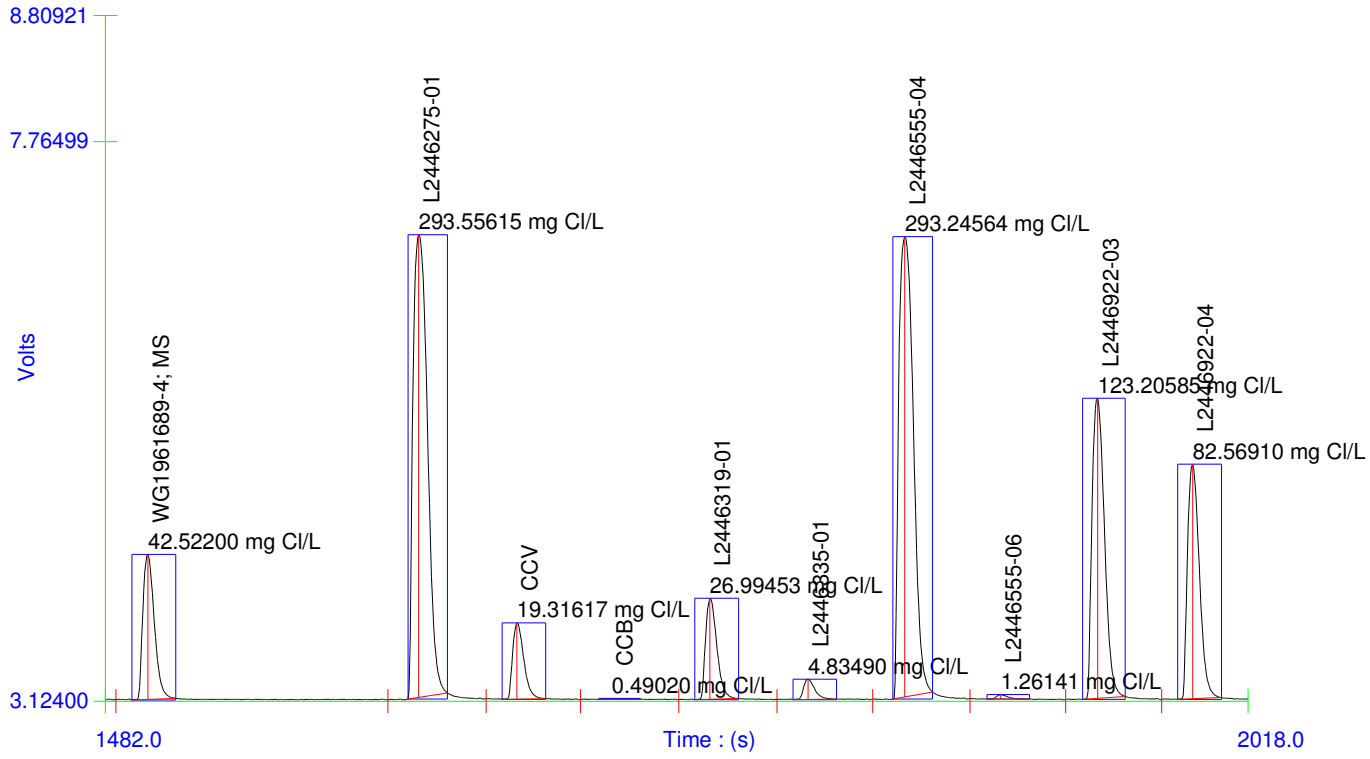


Channel 1 (Chloride) - Set: 3 / 7



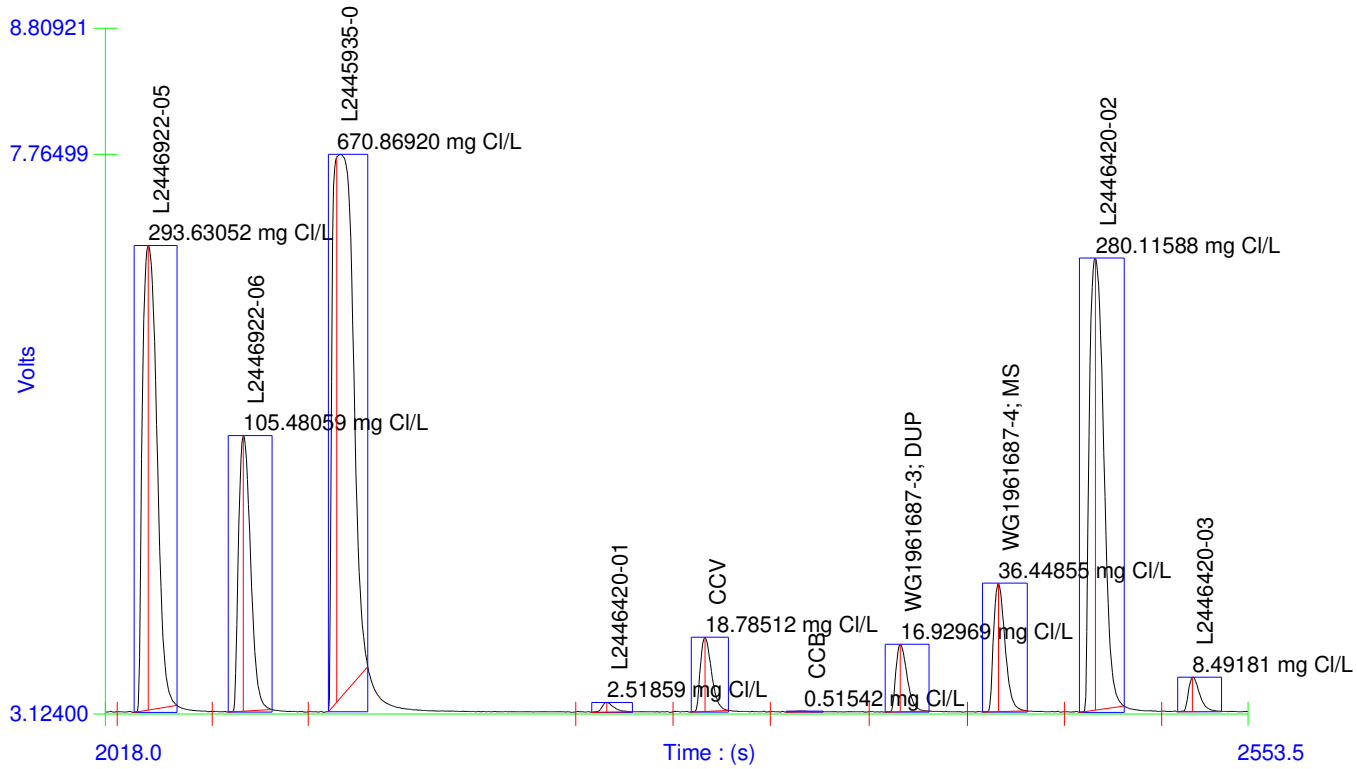
Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 4 / 7

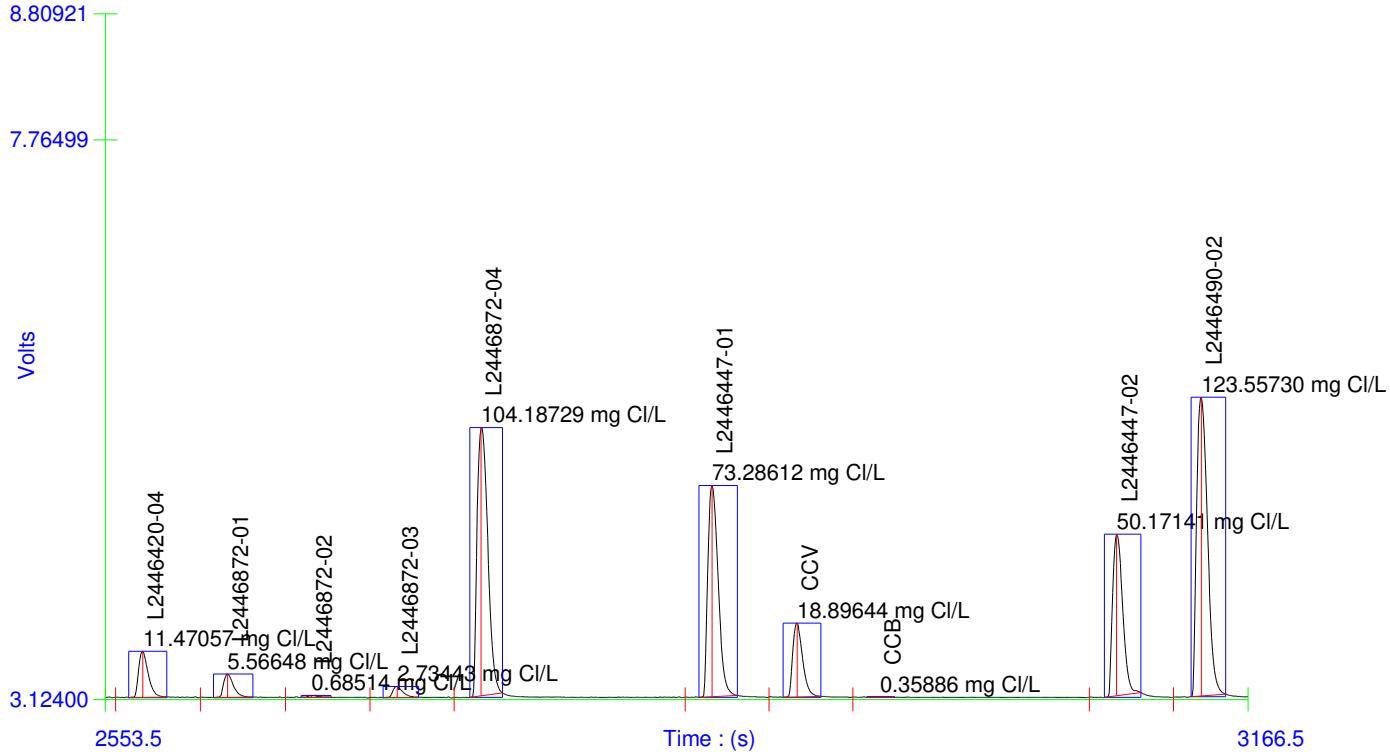


Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 5 / 7



Channel 1 (Chloride) - Set: 6 / 7



Channel 1 (Chloride) - Set: 7 / 7

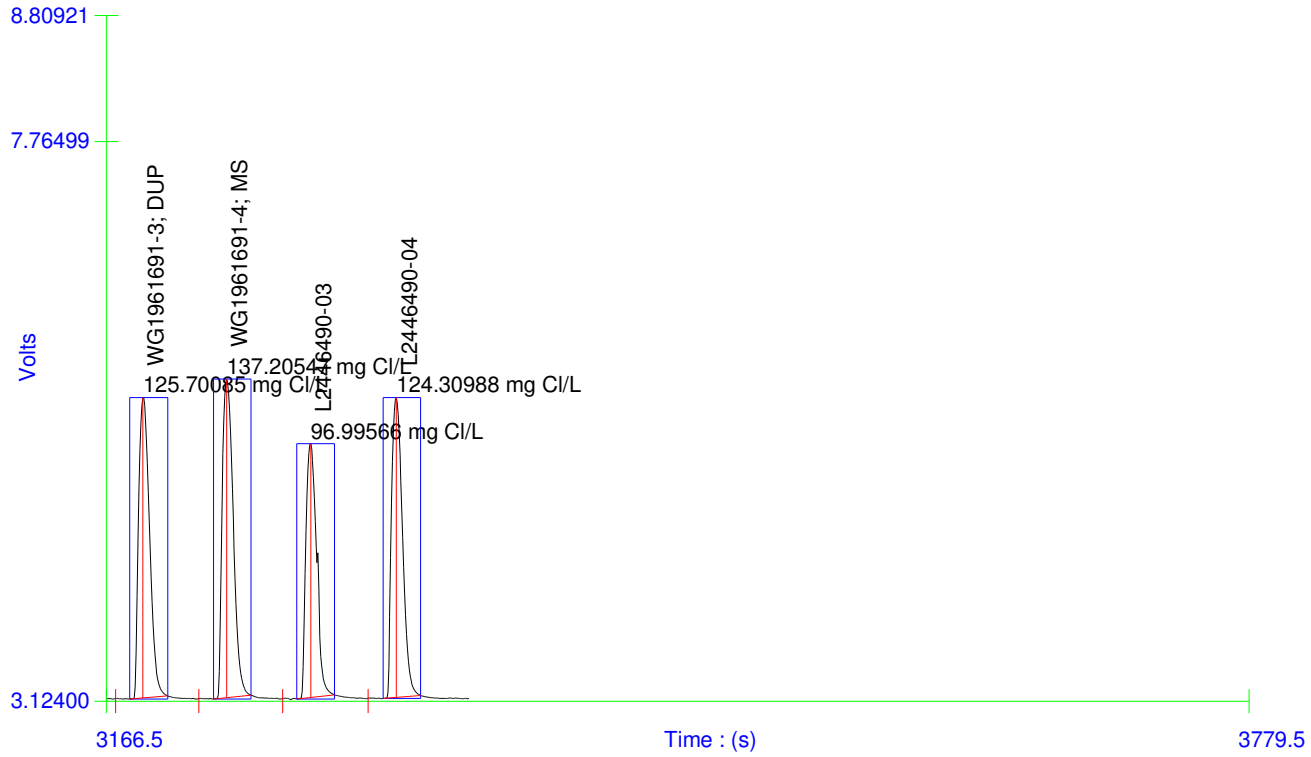
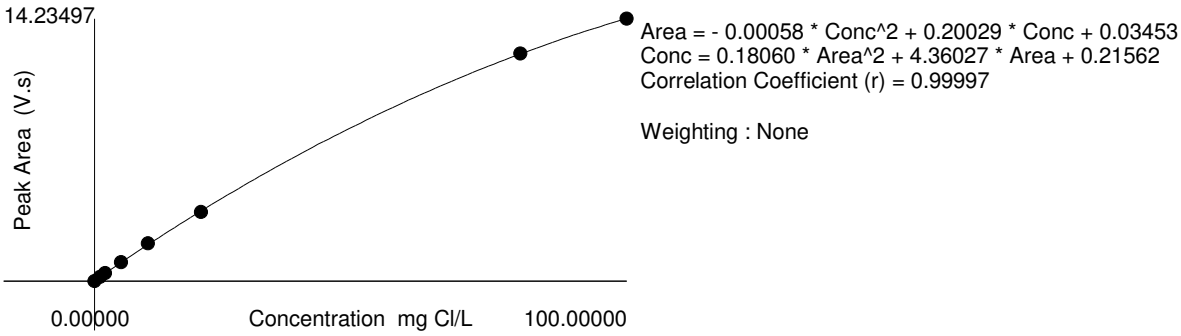


Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



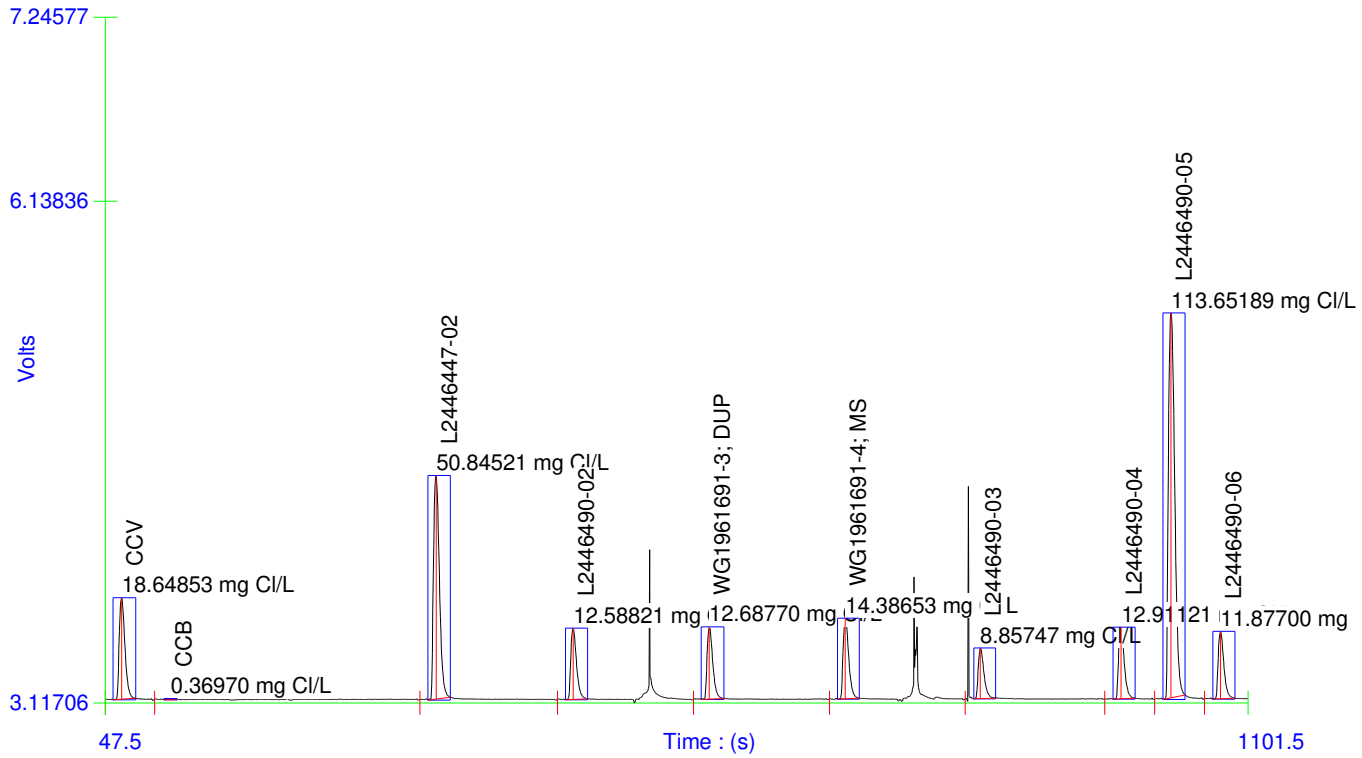
Author: Date : 8/20/2024

Original Run Filename: OM_8-20-2024_09-26-47PM.OMN Created: 8/20/2024 9:26:47 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_09-26-47PM.OMN Last Modified: 8/20/2024 10:01:04 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

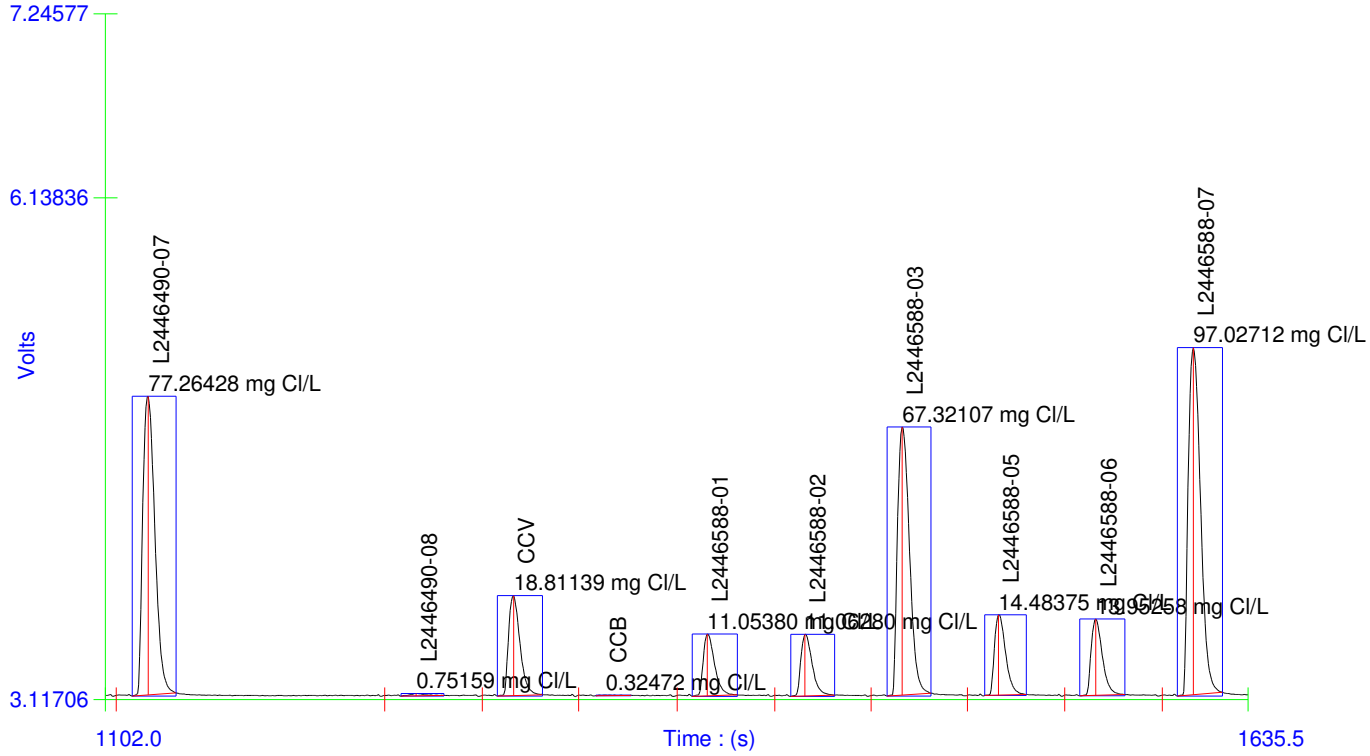
Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight
CCV	1	S3	18.64853			
	Known Conc:		20.00000			
	Calibration:		Table/Fig. : 1			
CCB	1	S9	0.36970			
	Known Conc:		0.00000			
L2446447-02	1	41	508.45209	10.00		
L2446490-02	1	42	125.88207	10.00		
WG1961691-3; DUP	1	43	126.87697	10.00		
WG1961691-4; MS	1	44	143.86533	10.00		
L2446490-03	1	45	88.57471	10.00		
L2446490-04	1	46	129.11211	10.00		
L2446490-05	1	47	113.65189			
L2446490-06	1	48	11.87700			
L2446490-07	1	49	77.26428			
L2446490-08	1	50	18.78975	25.00		
CCV	1	S3	18.81139			
	Known Conc:		20.00000			
CCB	1	S9	0.32472			
	Known Conc:		0.00000			
L2446588-01	1	51	11.05380			
L2446588-02	1	52	11.06280			
L2446588-03	1	53	67.32107			
L2446588-05	1	54	14.48375			
L2446588-06	1	55	13.95258			
L2446588-07	1	56	97.02712			
L2446588-08	1	57	19.98302			
L2446287-01	1	58	57.95541			
L2446478-01	1	59	161.44287			
WG1961690-3; DUP	1	60	182.47542	10.00		
CCV	1	S3	18.81705			
	Known Conc:		20.00000			
CCB	1	S9	0.41721			
	Known Conc:		0.00000			
WG1961690-4; MS	1	61	172.39600			

Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 1 / 3



Channel 1 (Chloride) - Set: 2 / 3



Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 3 / 3

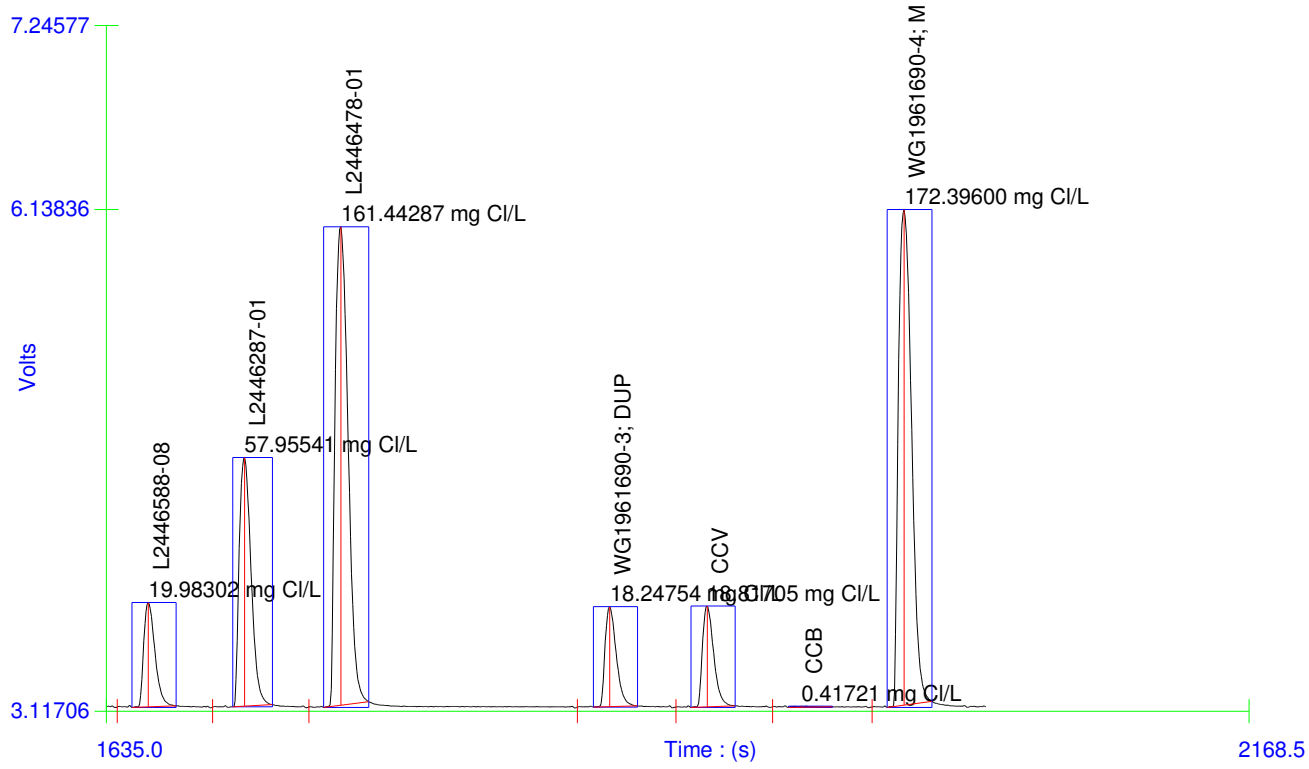
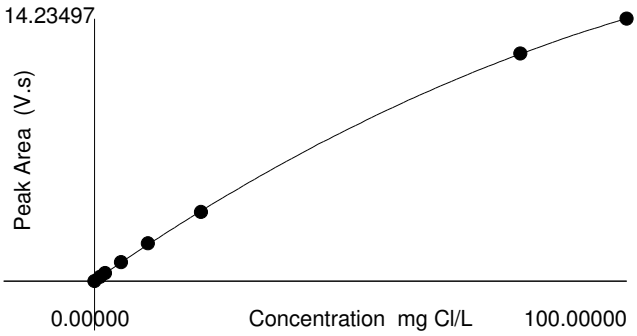


Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



Area = - 0.00058 * Conc^2 + 0.20029 * Conc + 0.03453
Conc = 0.18060 * Area^2 + 4.36027 * Area + 0.21562
Correlation Coefficient (r) = 0.99997

Weighting : None

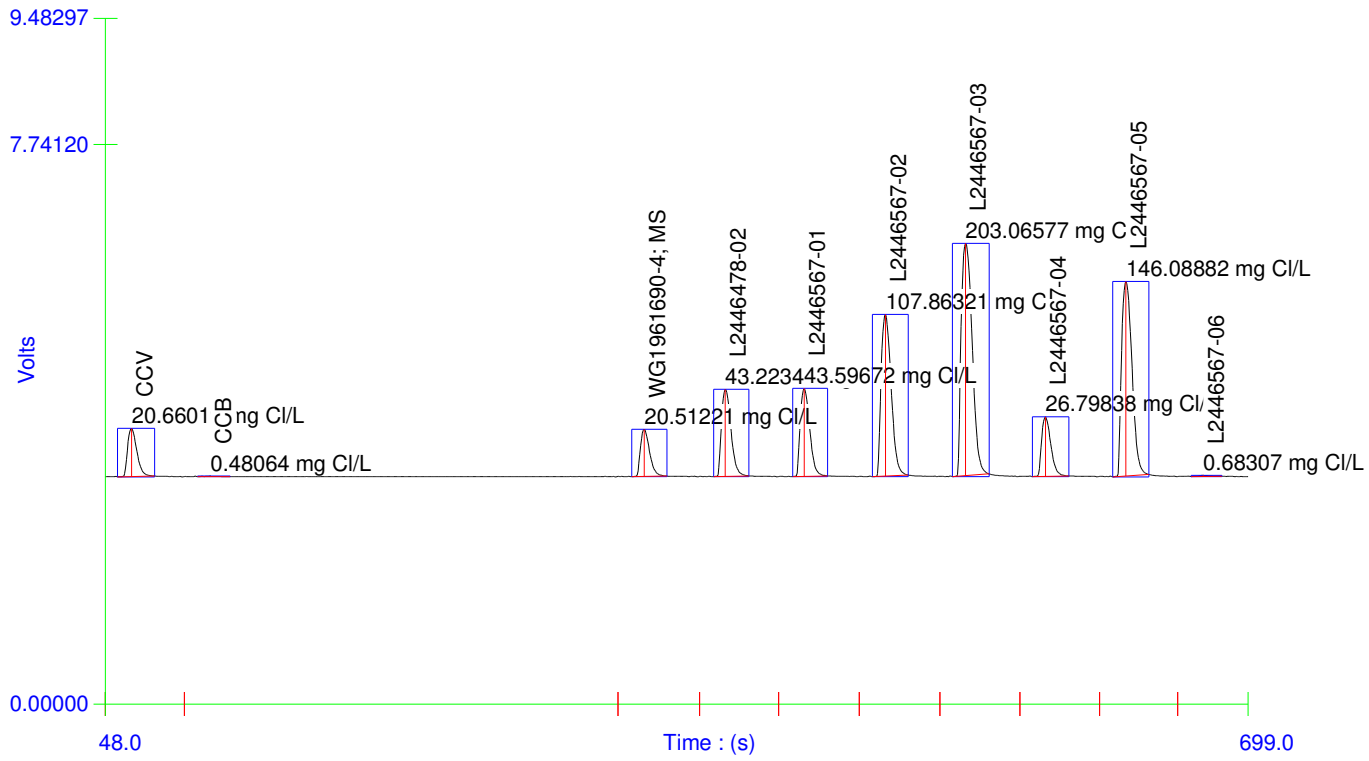
Author: Date : 8/20/2024

Original Run Filename: OM_8-20-2024_10-13-26PM.OMN Created: 8/20/2024 10:13:26 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_10-13-26PM.OMN Last Modified: 8/20/2024 11:33:01 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight
CCV	1	S3	20.66019			
	Known Conc:		20.00000			
	Calibration:		Table/Fig. : 1			
CCB	1	S9	0.48064			
	Known Conc:		0.00000			
WG1961690-4; MS	1	61	205.12215	10.00		
L2446478-02	1	62	43.22342			
L2446567-01	1	63	43.59672			
L2446567-02	1	64	107.86321			
L2446567-03	1	65	203.06577			
L2446567-04	1	66	26.79838			
L2446567-05	1	67	146.08882			
L2446567-06	1	68	0.68307			
L2446967-01	1	69	97.42790			
L2447184-01	1	70	54.66431	10.00		
CCV	1	S3	18.74009			
	Known Conc:		20.00000			
CCB	1	S9	0.38965			
	Known Conc:		0.00000			
L2447184-02	1	71	404.54883			
L2447184-03	1	72	446.62735			
L2447184-04	1	73	557.14966			
L2447184-05	1	74	6.31486			
WG1961688-4; MS	1	16	1185.76843	10.00		0.10010 g
L2446040-01	1	17	24.07281			
L2446275-01	1	20	4432.42627	100.00		
L2446555-04	1	23	487.18692	10.00		
L2446555-06	1	24	0.49231			
L2446922-03	1	25	126.44619	10.00		
CCV	1	S3	19.06727			
	Known Conc:		20.00000			
CCB	1	S9	0.39497			
	Known Conc:		0.00000			
L2446922-05	1	27	465.06641	10.00		
L2446922-06	1	28	103.75815	10.00		
L2445935-01	1	29	2982.69287	10.00		
L2446420-01	1	30	17.96617			
L2446420-02	1	33	405.90070	10.00		
L2446872-04	1	39	103.99273	10.00		
L2446490-05	1	47	115.80214	10.00		
L2446490-06	1	48	11.76477			
L2446490-08	1	50	10.98292			
L2446588-07	1	56	89.78046	10.00		
CCV	1	S3	18.40871			
	Known Conc:		20.00000			
CCB	1	S9	0.49379			
	Known Conc:		0.00000			
L2446478-01	1	59	184.97131	10.00		
L2446567-02	1	64	104.36871	10.00		
L2446567-03	1	65	240.40428	10.00		
L2446567-04	1	66	24.92300			
L2446567-05	1	67	156.11406	10.00		
L2446567-06	1	68	0.46718			
L2446967-01	1	69	93.95580	10.00		
L2447184-01	1	70	62.53096			
L2447184-02	1	71	847.30377	10.00		
L2447184-03	1	72	976.08435	10.00		
CCV	1	S3	18.42833			

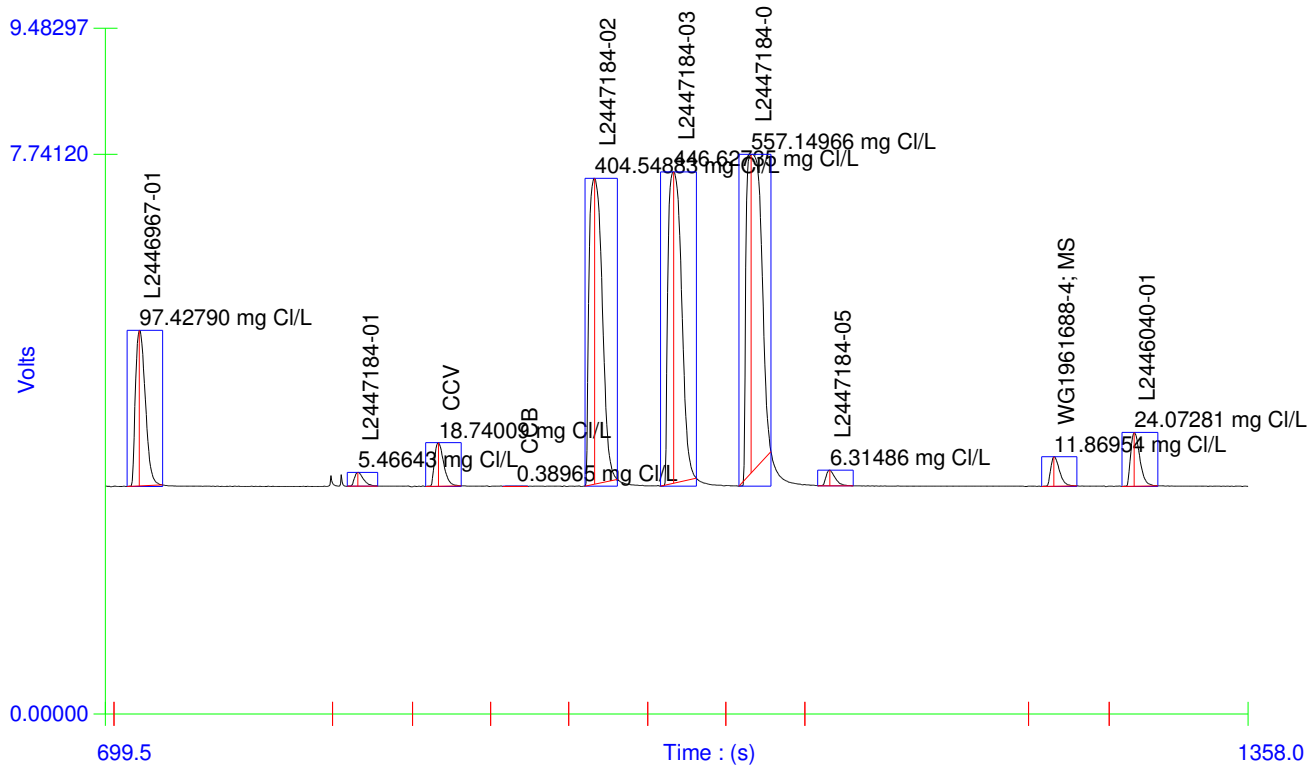
		Known Conc:	20.00000			
CCB	1	S9	0.33943			
		Known Conc:	0.00000			
L2447184-04	1	73	2248.58105	10.00		
L2447184-05	1	74	1.05313			
L2445935-01	1	29	4390.98340	100.00		
L2446420-01	1	30	17.32295			
L2447184-04	1	73	2714.23022	100.00		
L2447184-05	1	74	0.70503			
CCV	1	S3	18.51015			
		Known Conc:	20.00000			
CCB	1	S9	0.37028			
		Known Conc:	0.00000			

Channel 1 (Chloride) - Set: 1 / 6

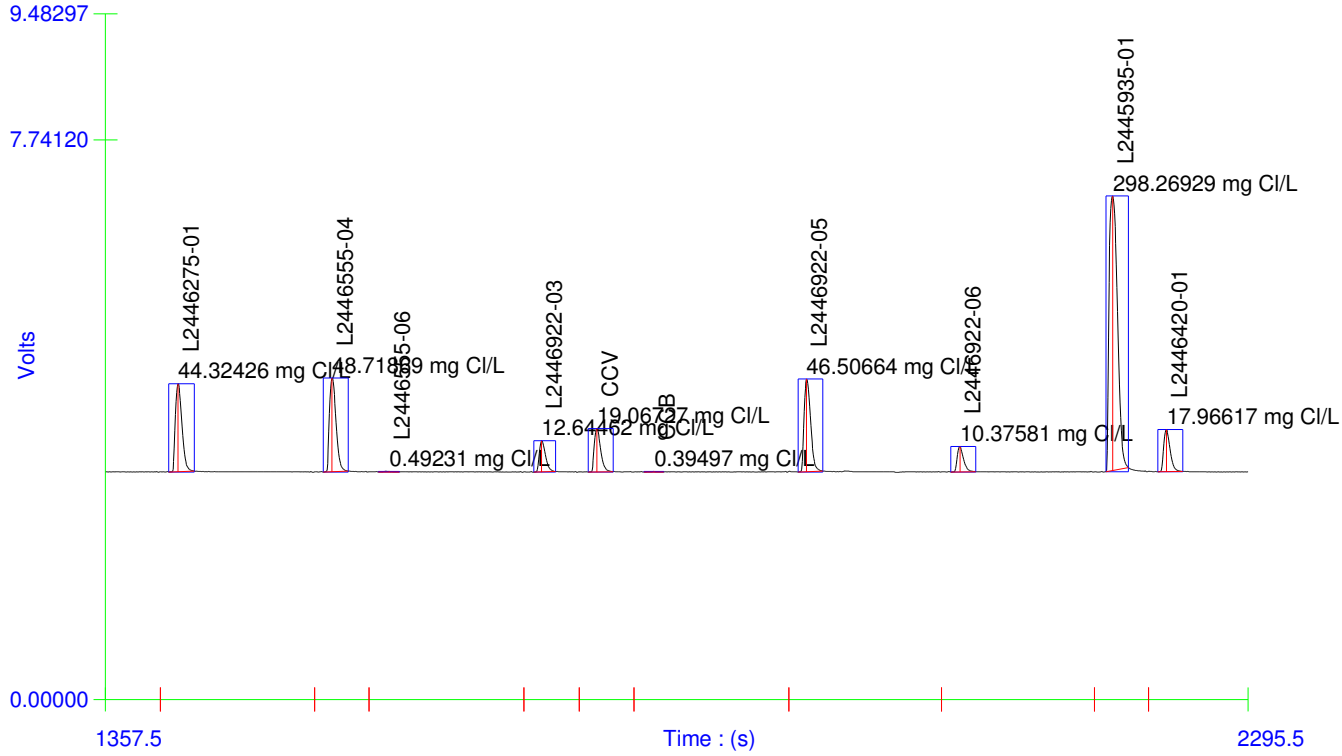


Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 2 / 6

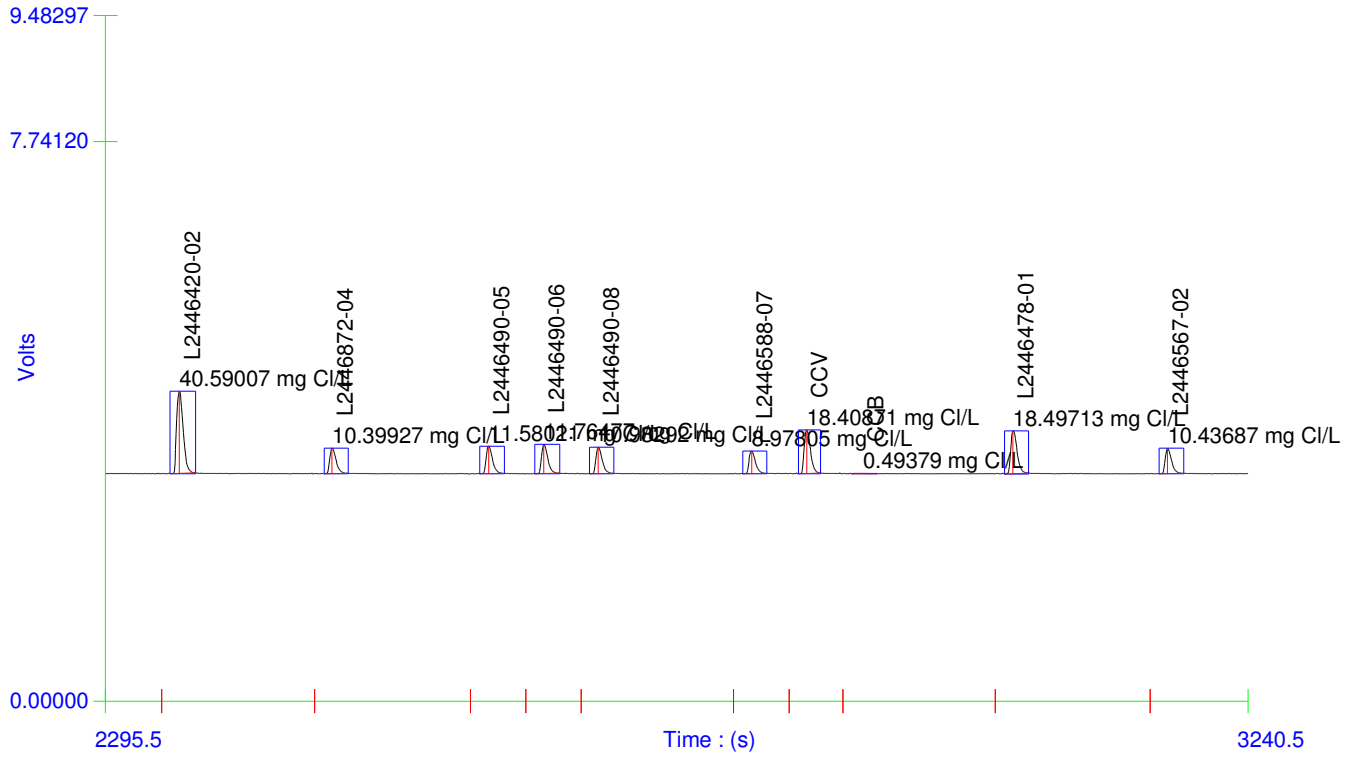


Channel 1 (Chloride) - Set: 3 / 6



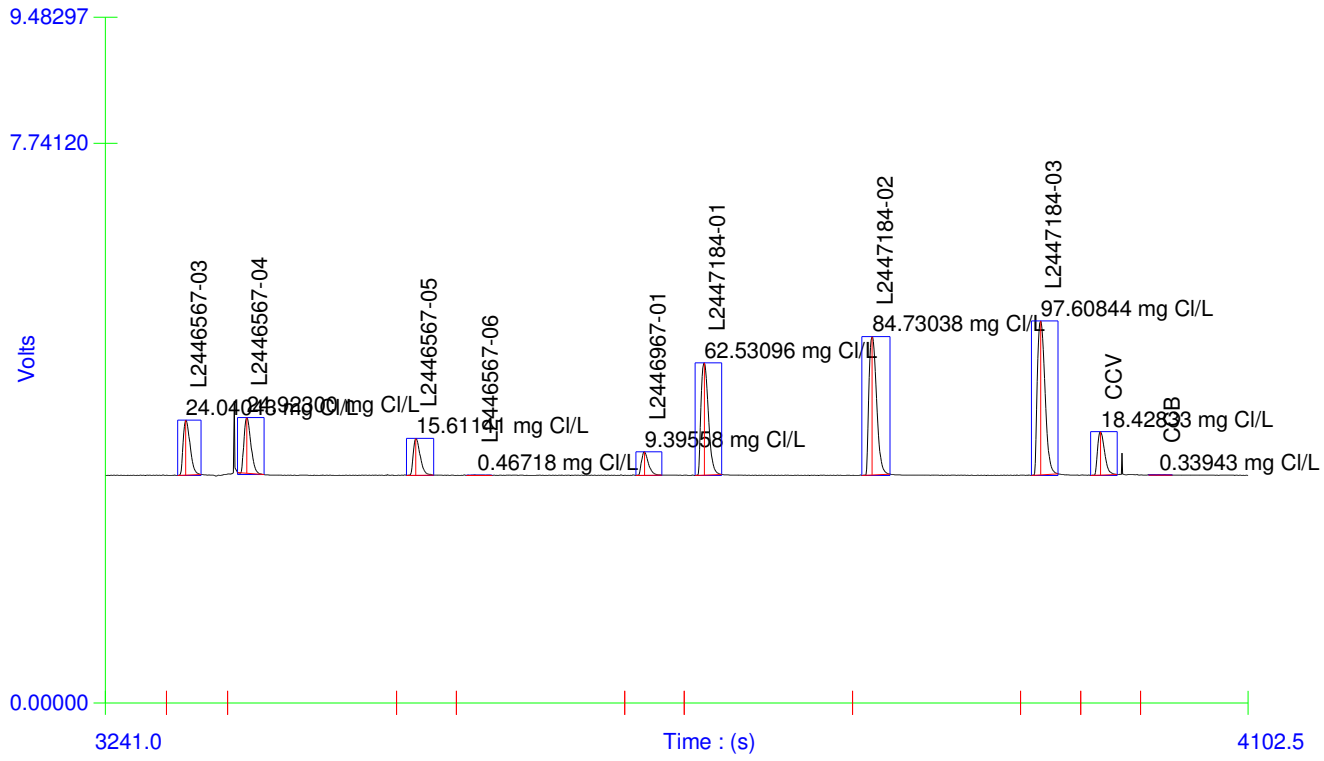
Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 4 / 6



Author: Date : 8/20/2024

Channel 1 (Chloride) - Set: 5 / 6



Channel 1 (Chloride) - Set: 6 / 6

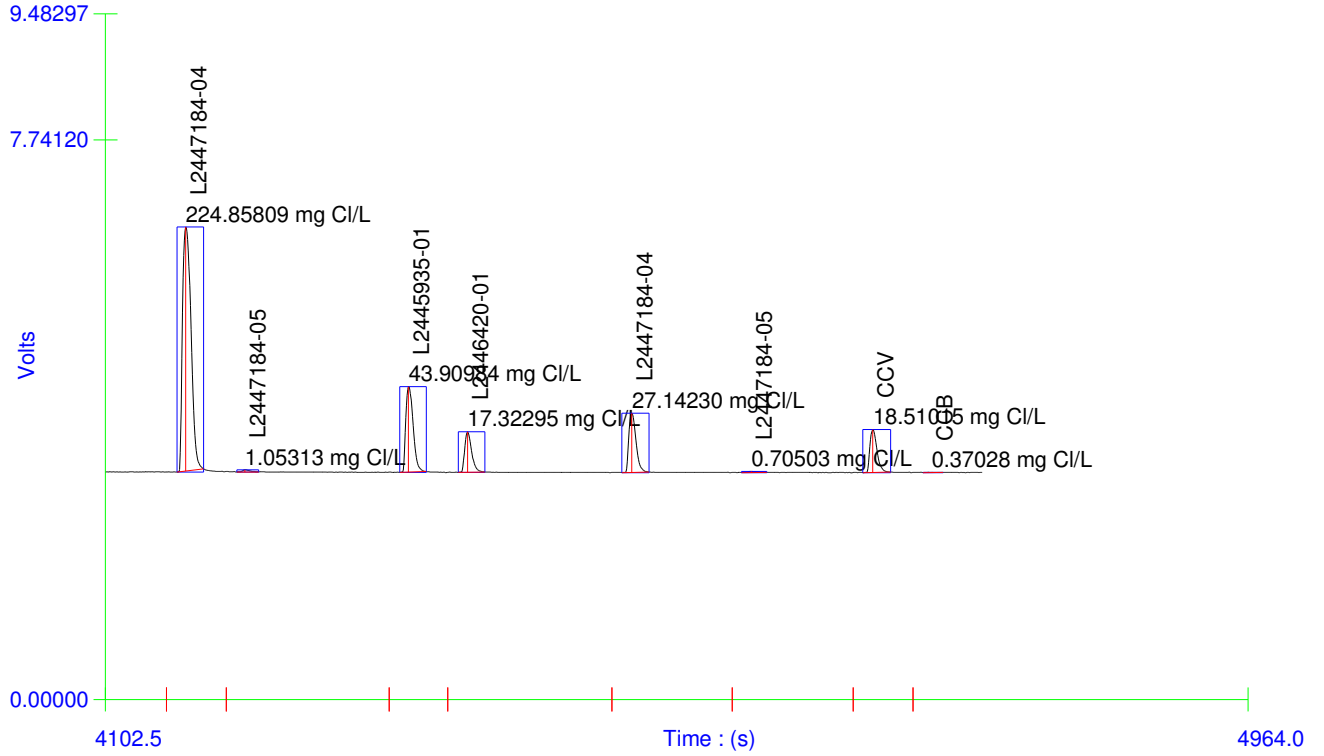
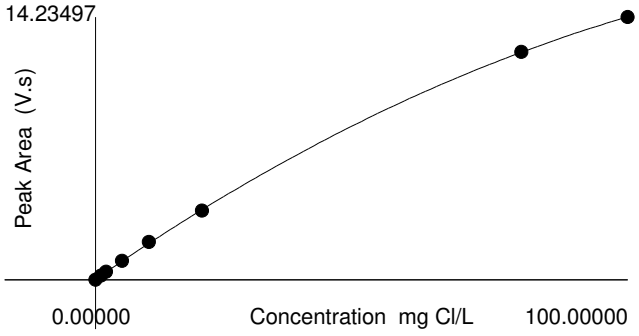


Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



Area = - 0.00058 * Conc^2 + 0.20029 * Conc + 0.03453
Conc = 0.18060 * Area^2 + 4.36027 * Area + 0.21562
Correlation Coefficient (r) = 0.99997

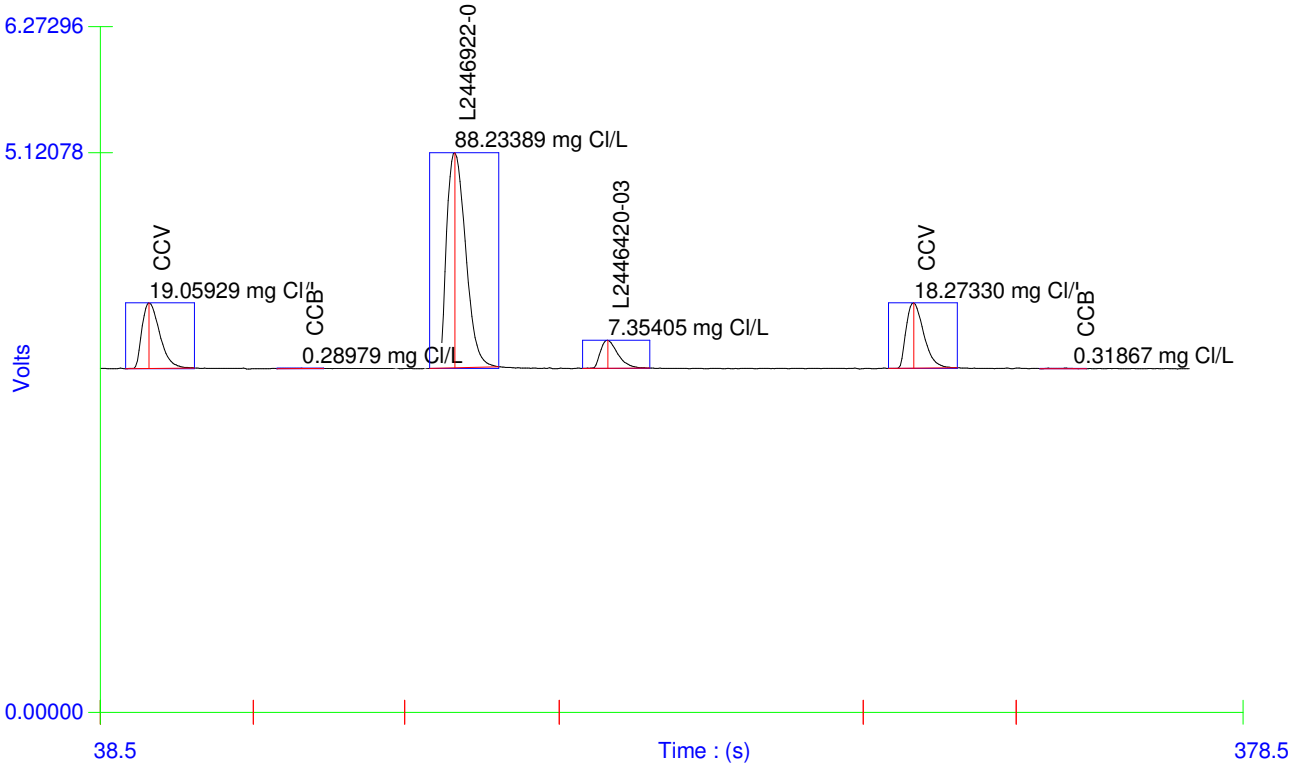
Weighting : None

Author: Date : 8/20/2024

Original Run Filename: OM_8-20-2024_11-51-49PM.OMN Created: 8/20/2024 11:51:49 PM
Original Run Author's Signature: [a1wetcheminstrument]
Current Run Filename: OM_8-20-2024_11-51-49PM.OMN Last Modified: 8/20/2024 11:58:09 PM
Current Run Author's Signature: [a1wetcheminstrument]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 Chloride-CH3 (mg Cl/L)	ADF	MDF	Weight
CCV	1	S3	19.05929			
	Known Conc:		20.00000			
CCB	1	S9	0.28979			
	Known Conc:		0.00000			
	Calibration:		Table/Fig. : 1			
L2446922-04	1	26	88.23389			
L2446420-03	1	34	7.35405			
CCV	1	S3	18.27330			
	Known Conc:		20.00000			
CCB	1	S9	0.31867			
	Known Conc:		0.00000			

Channel 1 (Chloride) - Set: 1 / 1

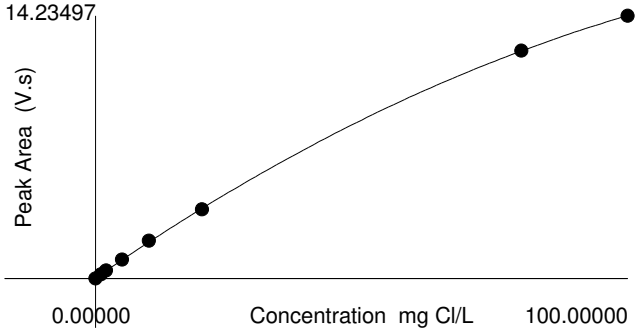


Author: Date : 8/20/2024

Table : 1 (Chloride-CH3)

	Known Conc. (mg Cl/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg Cl/L)	Detection Date	Detection Time
1	100.00000	1	14.23497	2.12653	0.0	0.1	98.88044	8/20/2024	8:19:19 PM
2	80.00000	1	12.34582	1.85384	0.0	-0.1	81.57422	8/20/2024	8:20:04 PM
3	20.00000	1	3.74601	0.60385	0.0	1.6	19.08356	8/20/2024	8:20:51 PM
4	10.00000	1	2.06007	0.33266	0.0	-4.1	9.96454	8/20/2024	8:21:36 PM
5	5.00000	1	1.02969	0.16831	0.0	-0.8	4.89684	8/20/2024	8:22:22 PM
6	2.00000	1	0.43648	0.06625	0.0	-0.9	2.15318	8/20/2024	8:23:09 PM
7	1.00000	1	0.22446	0.03244	0.0	4.2	1.20341	8/20/2024	8:23:55 PM
8	0.00000	1	0.00646	-0.00149			0.24380	8/20/2024	8:24:40 PM

Figure : 1 (Chloride-CH3)



Area = - 0.00058 * Conc^2 + 0.20029 * Conc + 0.03453
Conc = 0.18060 * Area^2 + 4.36027 * Area + 0.21562
Correlation Coefficient (r) = 0.99997

Weighting : None

Quality Control

Form 5a
Matrix Spike

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2446040-01		
Matrix Spike	: WG1961689-4	**MS Analysis Date**	: 08/20/24 20:43
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
	Sample Conc.	Spike Added	Spike Conc.	%R	Spike Added	Spike Conc.	%R	RPD	Recovery Limits	RPD Limit
Parameter	(mg/l)	(mg/l)	(mg/l)		(mg/l)	(mg/l)				
Chloride	24.	20	42.	90					58-140	7

Form 6
Lab Duplicates

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/20/24 22:34
Dup Sample ID	: WG1961689-3	**DUP Analysis Date**	: 08/20/24 20:42

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Chloride	24	23.	4	7

Form 7
Laboratory Control Sample

Client	: Langan Engineering & Environmental	**Lab Number**	: L2446922
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1961689-2	**LCS Analysis Date**	: 08/20/24 20:34
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg/l)	(mg/l)		(mg/l)	(mg/l)			Limits	Limit
Chloride	30.0	28.0	93.					90-110	7

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Chloride	16887-00-6	1	0.2	mg/l	90-110		58-140	7	7	4500CL-E	28 days	1 - Plastic 250ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Chloride	16887-00-6	10	3.73	mg/kg	89-109	35	62-129	35	35	9251	28 days	1 - Glass 250ml/8oz unpreserved
Chloride	16887-00-6	10	3.73	mg/kg	90-110	35	62-129	35	35	4500CL-E	28 days	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Chloride

Aqueous samples:

Compute sample Chloride concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 2 (Chloride)

To compute the final results for aqueous samples, multiply the direct reading by the dilution factor. (also done using software)

Cl mg/L = mg/L direct reading x dilution factor

Sequence Logs

From Page No. ____

1 IVC 5
2 30
3 80
4 ICB
5 1005pm 10+
6 WG1961688-1 MK 5.0193 0.1003
7 -2 ms 5.0817 0.1016
8 WG1961689/87-1 MK
9 -2 ms
10 WG1961691-1 MK
11 -2 ms
12 WG1961690-1 MK
13 -2 ms
14 46256-1 5.0848 0.1017
15 WG1961688-3 dp 5.0415 0.1008
16 -4 ms 5.0074 0.1001
17 46040-1
18 WG1961689-3 dp
19 -4 ms
20 46275-1
21 46319-1
22 46335-1
23 46555-4
24 6
25 46922-3
26 4
27 5
28 6
29 45935-1
30 46420-1
31 WG1961687-3 dp
32 -4 ms
33 2
34 3
35 4
36 46872-1
37 2
38 46872-3
39 4
40 46447-1
41 -2
42 46490-2
43 WG1961691-3 dp
44 -4 ms
45 3
46 4
47 5
48 6
49 7
50 8
51 46588-1
52 2
53 3
54 5
55 6
56 7
57 8
58 46287-1
59 46478-1
60 WG1961690-3 dp
61 -4 ms
62 2
63 46567-1
64 2
65 3
66 4
67 5
68 6
69 46967-1
70 47184-1
71 2
72 3
73 4
74 5

To Page N

Witnessed & Understood by me, Date

Invented by: Date

Recorded by:

Subcontracted Data

10515 Research Dr.
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

ACCREDITED
CERTIFICATE #7157.01

Client: Ben Rao
Pace Analytical (Formerly AlphaLab)
8 Walkup Dr
Westborough, MA 01581

Phone: 201-812-2633

Fax:

Identifier: 057VH **Date Rec:** 08/19/2024 **Report Date:** 08/23/2024

Client Project #: 100963701 **Client Project Name:** 1487 First Ave

Purchase Order #: L2446922

Test Results Provided For: CENSUS

Reviewed By: Sarah Keys

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.
10515 Research Dr., Knoxville TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Pace Analytical (Formerly AlphaLab)** **MI Project Number:** **057VH**

Project: 1487 First Ave Date Received: 08/19/2024

Sample Information

Client Sample ID:		**LMW-7R-S_6.75**	**LMW-9R-S_13.75**	**LMW-10R-S_24.75**
Sample Date:		08/16/2024	08/16/2024	08/16/2024
Units:		cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		AR/SK	AR/SK	AR/SK
Dechlorinating Bacteria				
Dehalococcoides	*DHC*	**4.50E+01**	**1.40E+02**	**1.20E+01**
Phylogenetic Group				
Total Eubacteria	EBAC	**1.31E+08**	**2.26E+08**	**2.65E+07**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received: **08/19/2024**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	08/19/2024	08/22/2024	24°C	104%	non-detect	non-detect
EBAC	08/19/2024	08/22/2024	24°C	101%	non-detect	non-detect

APPENDIX F

Data Usability Summary Reports

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

1 University Square Drive Princeton, NJ 08540 T: 609.282.8000
Mailing Address: 1 University Square Drive Princeton, NJ 08540

To: Ashley Sandve - Langan Project Engineer

From: Joe Conboy - Langan Project Chemist

Date: September 4, 2024

Re: Data Usability Summary Report
For 1487 First Avenue Development
August 2024 Groundwater Samples
Langan Project No.: 100963701

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in August 2024 by Langan Engineering and Environmental Services at 1487 First Avenue Development. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs), total and dissolved metals, sulfate (as SO4), total organic carbon (TOC), dissolved organic carbon (DOC), total alkalinity, chloride (as Cl), and nitrate (as N) by the methods specified below.

- VOCs by SW-846 Method 8260D
- Total and Dissolved Metals by SW-846 Method 6020B
- Sulfate (as SO4) by SW-846 Method 9038
- TOC and DOC by SW-846 Method 9060A
- Total Alkalinity by Standard Method 2320B
- Chloride (as Cl) by Standard Method 4500-CL E
- Nitrate (as N) by Standard Method 4500-NO3 F

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, level of data validation, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedures (SOPs) for Data Validation
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020)
- USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. All five SDGs underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and our best professional judgment:

- **R –** The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned, these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified because of minor data-quality anomalies are usable, as qualified in Table 2 (attached).

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2445487

The LCS/LCSD for batch WG1959725 exhibited RPDs above the control limit for 1,2-dibromo-3-chloropropane (21%), and 1,4-dioxane (24%), methyl isobutyl ketone (23%), acrylonitrile (23%), naphthalene (25%), and trans-1,4-dichloro-2-butene (22%). The associated results in sample LMW7RS_6.75 (dilution 2) are qualified as UJ because of potential indeterminate bias.

The LCS for batch WG1959725 exhibited a percent recovery below the LCL for naphthalene (64%). The associated results in sample LMW7RS_6.75 (dilution 2) are qualified as UJ because of potential low bias.

The laboratory case narrative noted that the VOC vial used in the dilution 2 analysis of sample LMW7RS_6.75 was compromised. The associated results are qualified as J or UJ because of potential indeterminate bias.

L2446104

The LCS for batch WG1961176 exhibited a percent recovery below the LCL for chloroethane (54%). The associated results in sample LMW-6RS_18.75 (dilution 2) are qualified as UJ because of potential low bias.

The LCS/LCSD for batch WG1961176 exhibited RPDs above the control limit for 1,1-dichloroethene (26%), carbon disulfide (30%), chloroethane (24%), diethyl ether (38%), and trichlorofluoromethane (23%). The associated results in sample LMW-6RS_18.75 (dilution 2) are qualified as UJ because of potential indeterminate bias.

The case narrative noted headspace in the VOC vial used in the dilution 2 analysis of sample LMW-6RS_18.75. The associated results are qualified as J or UJ because of potential indeterminate bias.

L2446555

The LCS for batch WG1960231 exhibited a percent recovery below the LCL for naphthalene (69%). The associated results in sample LMW-6R-D_42.75 are qualified as UJ because of potential low bias.

The LCS/LCSD for batch WG1960231 exhibited a RPD above the control limit for 1,4-dioxane (23%). The associated results in sample LMW-6R-D_42.75 are qualified as UJ because of potential indeterminate bias.

Total Metals by SW-846 Method 6020B

L2446555

The laboratory case narrative noted that the total metals volume for sample LMW-7R-S_16.75 was received at a pH greater than 2, and that the proper pH range was not achieved prior to analysis (final pH 4). Using professional judgement, the associated results are qualified as J because of potential indeterminate bias.

L2446922

The laboratory case narrative noted that the total metals volume for sample LMW-10R-S_24.75 was received at a pH greater than 2, and that the proper pH range was not achieved prior to analysis (final pH 4). Using professional judgment, the associated results are qualified as J because of potential indeterminate bias.

Total Sulfate by SW-846 Method 9038

L2446555

The FB (FIELD BLANK 08152024) exhibited a detection of sulfate (as SO4) (1.8 mg/l). The associated trace detected results in samples LMW-8R-S_6.75, LMW-9R-S_13.75, LMW-6R-D_42.75, and LMW-7R-S_16.75 are qualified as U at the reporting limit because of potential blank contamination.

The MB for batch WG1962209 exhibited a detection of sulfate (as SO4) (2.1 mg/l). The associated results in sample LMW-7R-S_16.75 are qualified as U at the reporting limit because of potential blank contamination.

L2446922

The MB for batch WG1962577 exhibited a detection of sulfate (as SO4) (2.1 mg/l). The associated trace detected results in samples LMW-10R-S_24.75, LMW-8R-S_6.75, LMW-9R-S_13.75, and LMW-7R-S_6.75 are qualified as U at the reporting limit because of potential blank contamination.

TOC and DOC by SW-846 Method 9060A

L2446922

The laboratory case narrative noted that the dissolved organic carbon result exceeded the total organic carbon result in sample LMW-8R-S_6.75 and that dissolved organic carbon was filtered outside of holding time. Using professional judgment, the associated results are qualified as J because of potential indeterminate bias.

Total Alkalinity by Standard Method 2320B

L2446555

The MS performed on sample LMW-7R-S_16.75 exhibited a percent recovery below the LCL for total alkalinity (60%). The associated results in sample LMW-7R-S_16.75 are qualified as J because of potential low bias.

The laboratory case narrative noted that the total alkalinity vials for samples LMW-10R-S_24.75, LMW-8R-S_6.75, LMW-9R-S_13.75, and LMW-7R-S_6.75 were received with headspace. Using professional judgement, the associated sample results are qualified as J because of potential low bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2445487

The LCSD for batch WG1959725 exhibited a percent recovery above the UCL for vinyl acetate (140%). The associated results are non-detect. No qualification is necessary.

L2446104

The LCSD for batch WG1959746 exhibited a percent recovery above the UCL for bromomethane (140%). The associated results are non-detect. No qualification is necessary.

L2446555

The LCSD for batch WG1960231 exhibited a percent recovery above the UCL for vinyl acetate (140%). The associated results are non-detect. No qualification is necessary.

The LCS/LCSD for batch WG1960272 exhibited a percent recovery above the UCL for bromomethane (150%, 140%). The associated results are non-detect. No qualification is necessary.

L2446922

The LCSD for batch WG1960966 exhibited a percent recovery above the UCL for bromomethane (150%). The associated results are non-detect. No qualification is necessary.

TOC and DOC by SW-846 Method 9060A

L2446555

The FB (FIELD BLANK 08152024) exhibited detections of dissolved organic carbon (0.30 mg/l) and total organic carbon (0.28 mg/l). The associated results are >10X the contamination. No qualification is necessary.

L2446922

The MB for batch WG1963587 exhibited a detection of dissolved organic carbon (0.05 mg/l). The associated results are >10X the contamination. No qualification is necessary.

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Joe Conboy
Project Chemist

GROUNDWATER PERFORMANCE MONITORING REPORT

for

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No. C231152

Prepared For:

CP VII 78th Street Owner, LLC
510 Madison Avenue, Suite 801
New York, New York 10022

Prepared By:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, New Jersey 07054

7 March 2025
Langan Project No. 100963701

CERTIFICATION

I, Steven Ciambruschini, certify that I am currently a Qualified Environmental Professional as defined in 6 New York Codes, Rules, and Regulations Part 375 and that this Groundwater Performance Monitoring Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

Steven Ciambruschini, P.G.

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Appendix A Laboratory Reports
Appendix B Data Usability Summary Reports

1.0 BACKGROUND

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this Groundwater Performance Monitoring Report & Injection Design for the 1487 1st Avenue Redevelopment Site, New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231152. The Site is an approximately 10,050-square-foot parcel identified as Block 1452, Lot 27 in the Upper East Side neighborhood of Manhattan, New York (the "Site"). A site location plan is provided as Figure 1. A Certificate of Completion for remediation through the BCP was issued on 26 December 2023 and the site is currently undergoing construction for redevelopment as a 35-story mixed-use residential and commercial building with an affordable housing component that will occupy the entirety of the Site footprint. Ongoing groundwater monitoring and remediation has been implemented under the 22 December 2023 NYSDEC-approved Site Management Plan (SMP) and groundwater monitoring will continue to be implemented under the forthcoming revised and NYSDEC-approved SMP.

March/April 2023 Injections

Chlorinated volatile organic compounds (CVOCs), including the contaminants of concern (COCs) tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride (VC), and chloroform were detected at concentrations exceeding the NYSDEC Ambient Water Quality Standards and Guidance Values (SGVs) in groundwater samples collected from the eastern portion of the Site during the completion of the Remedial Investigation. The concentrations of PCE and associated breakdown compounds detected in groundwater were indicative of a release that had migrated into bedrock at the site from a former solvent storage tank. Analytical results from the initial and baseline sampling events are presented in Tables 1 and 2, respectively, and CVOC analytical results from these events are summarized on Figures 2B, 3B, and 3C.

To address these exceedances, an emulsified zero valent iron (EZVI) injection was proposed in the NYSDEC-approved January 2023 Interim Remedial Measures Work Plan (IRMWP) to achieve reduction in groundwater concentrations of the chlorinated solvents, such that natural attenuation would be supported. The EZVI remedy objectives were to:

- Both chemically reduce and anaerobically degrade the CVOCs;
- Further promote monitored natural attenuation (MNA); and,
- Mitigate potential for off-Site migration of on-Site CVOC-impacted groundwater.

The EZVI injection scope was presented in Langan's 6 March 2023 EZVI Remedial Design, the draft of which was approved by NYSDEC via email correspondence on 27 February 2023. Completion of the EZVI injections in March and April 2023 was documented in the 29 September 2023 EZVI Remedial Injection Report, which was included in the 18 December 2023 Final Engineering Report as Appendix E. A Certificate of Completion was issued for the Site on 26 December 2023.

Post construction bedrock well re-installation was completed between November 2023 and February 2024 and performance monitoring groundwater samples were collected in February 2024, approximately 10 months following the EZVI injections. Performance monitoring groundwater sample analytical results revealed the successful reduction of PCE and TCE by one order of magnitude in the wells that had previously contained the highest concentrations of these compounds during the initial and baseline sampling events, and elimination of PCE and TCE concentrations above the SGVs across the remainder of the treatment area. Concentrations of breakdown products including cis-1,2-DCE and VC were detected during performance monitoring, confirming the ongoing degradation of PCE and TCE.

May 2024 Injections

Based on the February 2024 performance monitoring analytical results, an additional focused injection was proposed in the April 2024 Groundwater Performance Monitoring Report and Injection Design to further address the highest concentrations of PCE and breakdown products remaining in groundwater. The additional injection was conducted at the four well intervals where COC concentrations greater than one order of magnitude above the SGV were detected during the February 2024 event. As shown in Figures 2A and 2B, these locations included:

- LMW-7R-S at el 8 to 3 NAVD88 and el -2 to -7 NAVD88 intervals,
- LMW-7R-D at el -9 to -14 NAVD88 interval, and
- LMW-8R-S at el 8 to 3 NAVD88 interval.

EZVI was also injected into LMW-9R-S, at injection interval el 1 to -5 NAVD88, to treat impacts in LMW-7R-S, as communication was observed between these two wells during the 2023 injection event.

In addition to EZVI injections, additional emulsified vegetable oil (EVO) was added at these five intervals (prior to and/or following the EZVI injection) and at the following well intervals where only cis-1,2-DCE and/or VC remained above the SGVs:

- LMW-6R-S at el -4 to -9 NAVD88, and
- LMW-8R-D at el -43 to -50 NAVD88.

August 2024 Groundwater Monitoring

Performance monitoring groundwater samples were collected in August 2024. The analytical results revealed the elimination of PCE and TCE concentrations above the SGVs across the treatment area. Concentrations of breakdown products including cis-1,2-DCE and VC were detected during performance monitoring, confirming the continued degradation of PCE and TCE. Based on observations of reagent in some wells during the performance monitoring event, a small volume of reagent and groundwater was purged from LMW-7R-S at el 8 to 3 NAVD88 and additional anaerobic chase water was injected into LMW-7R-S at el 8 to 3 NAVD88 and el -2 to -7 NAVD88 in September 2024 in accordance with the April 2024 Groundwater Performance Monitoring Report and Injection Design.

November 2024 Groundwater Monitoring

Sixteen performance monitoring groundwater samples were collected on 20, 21, 22 and 25 November 2024. The analytical results revealed that CVOCs were not detected at concentrations above the SGVs across the treatment area. CVOCs were either not detected or at the following seven intervals/locations, were detected below the SGVs: all three intervals at LMW-6R-D, the only interval at LMW-9R-D, the only interval at LMW-10R-S, and both at LMW-10R-D. Elevated reporting limits were reported by the laboratory for PCE and/or breakdown products at nine well intervals in six of the monitoring wells (the only interval at LMW-6R-S, the two intervals at LMW-7R-S, the only interval at LMW-7R-D, both intervals at LMW-8R-S, both intervals at LMW-8R-D, and the only interval at LMW-9R-S).

Elevated concentrations of fermentation byproducts (acetone and methyl ethyl ketone) remain above the SGVs in nine well intervals at six of the monitoring wells (LMW-6R-D, LMW-7R-S/D, LMW-8R-S/D, and LMW-9R-S) although the concentrations of one or both byproducts decreased in November 2024 from peak concentrations detected in either February or August 2024 at LMW-6R-S/D, one of the intervals at LMW-8R-D, LMW-9R-D, and LMW-10R-S/D.

Based on these results, the elimination of all sampling intervals in LMW-9R-D and LMW-10R-D and two of the intervals at LMW-6R-D from the sampling program has been approved for all future sampling events. This revision to the Groundwater Sampling Plan (GSP) will be reflected in the forthcoming, revised SMP and the modified sampling plan will be implemented starting with the fourth quarterly performance monitoring sampling event in March 2025.

The performance monitoring groundwater sample collection and analytical results and the proposed next steps are discussed in detail below.

2.0 POST-INJECTION PERFORMANCE MONITORING AND BEDROCK WELL SAMPLING METHDOLOGY

A post-injection groundwater monitoring event was conducted in November 2024, six months after the completion of the second round of EZVI injections. Sixteen groundwater samples were collected from the same monitoring intervals that were sampled during the February 2024 performance monitoring event (with the exception of the lower interval at LMW-7R-D). Quality assurance/quality control samples, including one duplicate sample and three trip blanks, were also collected during this sampling event. As discussed in the April 2024 Groundwater Performance Monitoring Report & Injection Design, during the monitoring well re-installation activities, LMW-7R-S and LMW-7R-D were evaluated for the presence of groundwater-producing fractures in the four performance monitoring sampling intervals that had been installed. A water-producing fracture was not detected in the deeper interval in LMW-7R-D and, as such, a sample was not collected from this interval during the November 2024 sampling.

Groundwater samples were collected in accordance with the NYSDEC-approved October 2023 GSP on 20 through 25 November 2024. Performance monitoring samples for VOC analysis were collected by lowering between one and four proprietary Westbay System 250 milliliter (ml) sample containers through the central access casing to the designated sampling zone. The number of sample containers lowered at one time depended on the length of the specific sampling zone. The sealed sample container(s) was then pulled to the surface and the collected sample placed in laboratory-provided bottleware, sealed, labeled, and placed in an ice-chilled cooler (to maintain a temperature of about 4° C) for delivery to Alpha Analytical of Westborough, Massachusetts, a NYSDOH ELAP-certified laboratory. All groundwater samples were analyzed for VOCs.

Water pressure measurements and groundwater quality parameters (e.g., pH, temperature, ORP, DO, turbidity, and conductivity) were collected during the groundwater monitoring event. Purging is not required with the Westbay System due to the isolated nature of each monitoring zone. Valved ports within each monitoring zone provided access to each sampling interval for discrete groundwater sample collection. Discrete groundwater samples were collected at each designated sampling zone in a container that was sealed before being brought to the surface.

Low sample recovery was encountered at three locations (LMW-7R-D, LMW-8R-S, and LMW-9R-S). The potential for these fractures to produce the necessary sample volume will continue to be evaluated during future sampling events. Due to a significant malfunction of the specialty Westbay sampler equipment that occurred following collection of all VOC samples, additional analytical parameters (metals, anions, total and dissolved organic carbon, alkalinity, hardness, and microbial genes) were unable to be collected after collection of the VOC samples.

No notable field observations of impacts were identified during sample collection. However, the presence of ZVI and EVO was observed at one interval in each LMW-6R-D, LMW-7R-D, LMW-8R-S, and LMW-9R-S, and the presence of EVO was observed at one interval at LMW-7R-S and one interval at LMW-8R-D.

3.0 PERFORMANCE MONITORING RESULTS

Groundwater analytical results were compared to the NYSDEC SGVs and are summarized in Table 2 and on Figures 3A through 3C. The laboratory data reports and data summary usability reports are provided in Appendix A and Appendix B, respectively.

Sixteen performance monitoring groundwater samples were collected on 20, 21, 22 and 25 November 2024. Analytical results revealed no CVOCs above the SGVs in any of the wells sampled. CVOCs were detected below the SGVs at seven intervals across the site (all three at LMW-6R-D, the only interval at LMW-9R-D, the only interval at LMW-10R-S, and both at LMW-10R-D) and below elevated laboratory reporting limits above the SGVs for cis-1,2-DCE, PCE, TCE, VC, trans-1,2-DCE at nine well intervals in six of the wells sampled (the only interval at LMW-6R-S, the two intervals at LMW-7R-S, the only interval at LMW-7R-D, both intervals at LMW-8R-S, both intervals at LMW-8R-D, and the only interval at LMW-9R-S).

Elevated concentrations of acetone and methyl ethyl ketone were detected above the SGVs in nine well intervals at six of the monitoring wells (LMW-6R-D, LMW-7R-S/D, LMW-8R-S/D, and LMW-9R-S). In November 2024, elevated concentrations (1,000 to 6,100 µg/l) or reporting limits (10,000 µg/l) of methyl ethyl ketone were reported at the four well locations where SRS-ZVI® was injected in May 2024: LMW-7R-S, LMW-7R-D, LMW-8R-S, and LMW-9R-S, the last of which likely has communication with LMW-7R-S. Elevated concentrations of acetone (54 to 1,200 µg/l) were also reported at these four well locations, at LMW-8R-D (where EVO was injected in May 2024), and at LMW-6R-D. Although still elevated at some intervals, concentrations of acetone and/or methyl ethyl ketone decreased in November 2024 from peak concentrations detected in either February or August 2024 at all but one interval at LMW-6R-S/D, in one of the intervals at LMW-8R-D, in the one interval at LMW-9R-D, and all intervals at LMW-10R-S/D.

Concentrations of 2-hexanone, benzene, and/or toluene were detected above the SGVs in all samples except one interval in LMW-6R-S and two of the intervals at LMW-10R-D.

Data Usability Summary Reports and Quality Assurance/Quality Control

DUSRs were prepared for data collected during the performance monitoring groundwater sampling event. The DUSRs were prepared in accordance with DER-10 and reviewed by Langan's in-house validator before issuance. The DUSRs present the results of data validation, including a

summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of deficiencies for each analytical method. DUSRs are provided in Appendix B. All data are considered usable, as qualified. Some data qualifiers were appended to the reported results, which have been included in the respective data summary tables (Tables 3 and 4).

Elevated reporting limits were reported by the laboratory for PCE and/or breakdown products in nine well intervals at six of the monitoring wells. Based on correspondence with the laboratory, elevated reporting limits are attributed to sample matrix interference or interferences from the elevated concentrations of methyl ethyl ketone and acetone.

4.0 PERFORMANCE MONITORING CONCLUSIONS/RECOMMENDATIONS

CVOCs were not detected at concentrations above the SGVs during the November 2024 performance monitoring groundwater sampling event, revealing a sustained reduction from the maximum concentrations of the COCs, PCE, TCE, cis-1,2-DCE, VC, and chloroform detected during the baseline concentrations and the February 2024 initial performance monitoring event.

The maximum concentrations of PCE, TCE, Cis-1,2-DCE, VC, and chloroform detected during the initial September 2022 sampling event and December 2022 baseline sampling event were 900 µg/l (LMW-8R-S), 390 µg/l (LMW-8R-S), 710 µg/l (LMW-7R-S), 6.7 µg/l (LMW-8R-D), and 56 µg/l (LMW-6R-D), respectively. Maximum concentrations of PCE and TCE decreased by an order of magnitude following the 2023 EZVI injections and were not detected above laboratory reporting limits during either the August or November 2024 performance monitoring events following the May 2024 EZVI targeted injections. Breakdown products, including cis-1,2-DCE, VC, and chloroform, were detected at concentrations above the SGVs during the February and August 2024 performance monitoring events but were not detected above laboratory reporting limits during the November 2024 performance monitoring event.

Elevated reporting limits were reported by the laboratory for CVOCs at several well locations; based on correspondence with the laboratory, elevated reporting limits are attributed to sample matrix interference and/or interferences from the elevated concentrations of methyl ethyl ketone and acetone.

Concentrations of acetone and methyl ethyl ketone were detected below the SGVs at all well locations during the initial September 2022 sampling event and December 2022 baseline sampling event. Elevated concentrations of these compounds were detected above the SGVs during the initial performance monitoring sampling event in February 2024, and as of the November 2024 sampling event, are present in nine well intervals at six of the monitoring wells (LMW-6R-D, LMW-7R-S/D, LMW-8R-S/D, and LMW-9R-S). As noted above, elevated

concentrations of these compounds were most recently detected at the five well locations where SRS-ZVI® and EVO were injected in May. These compounds are fermentation byproducts that are typically formed as a result of the introduction of electron donors, including the soybean oil and sodium lactate components of SRS-ZVI® and EVO. While a bioaugmentation culture was also introduced into the subsurface in May for the degradation of PCE and TCE, the presence of other microbial communities capable of fermenting carbon substrate and those microorganisms' specific metabolic processes may result in conversion of some of the organic matter to ketones including acetone and methyl ethyl ketone. Increases in concentrations of these byproducts are typically observed to be temporary and limited to the treatment area. Decreases from previously detected peak concentrations were detected in November 2024 at LMW-6R-S/D, one of the intervals at LMW-8R-D, LMW-9R-D, and LMW-10R-S/D. As noted, the presence of these compounds is the result of fermentation byproducts, and concentrations are expected to continue to reduce over time.

As discussed in detail below, groundwater sampling is proposed to continue for at least one additional quarterly round to monitor for continued reductions in CVOC concentration in two well intervals and to monitor for continued reductions in acetone and methyl ethyl ketone concentrations at three well intervals. Groundwater sampling is proposed to continue for at least two additional quarterly round to monitor for continued reductions in CVOC concentrations in six well intervals and to monitor for continued reductions in acetone and methyl ethyl ketone concentrations at three well intervals.

Based on these results, which were submitted to NYSDEC on 14 December 2024 and discussed during a meeting with NYSDEC on 10 January 2025, the elimination of the following five sampling intervals from the sampling program has been approved for all future sampling events:

- LMW-9R-D (el -40.5 to -48.5), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024);
- LMW-10R-D (el -12 to -21 and el -26 to -31), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024); and,
- LMW-6R-D (el -18 to -23 and el -28 to -33), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024).

Sampling downgradient monitoring well LMW-10R-D is no longer required due to the reduction of PCE and breakdown products within the source area, the limited lateral extents of impacts at the Site, the limited impacts at this well during the baseline event, and the lack of CVOC impacts detected above the SGVs during the August and November 2024 event. Two intervals at LMW-6R-D and the only interval at LMW-9R-D are also no longer included in the monitoring plan as PCE, breakdown products, and chloroform were not detected above the SGVs in the February, August, or November 2024 performance monitoring events.

Continued monitoring is proposed for the remaining eleven intervals at the remaining monitoring wells as follows:

- LMW-6R-S (el -4 to -9), due to elevated concentrations of acetone and methyl ethyl ketone detected in August 2024 and elevated reporting limits for CVOCs in November 2024; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in CVOC, acetone, and methyl ethyl ketone concentrations.
- LMW-6R-D (el -38 to -45), due to elevated concentrations of acetone in November 2024; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in the acetone concentrations.
- LMW-7R-S (el 8 to 3), due to elevated concentrations of CVOCs in August 2024 followed by elevated reporting limits for CVOCs in November 2024 and elevated concentrations of acetone and methyl ethyl ketone detected in August and November 2024; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in the CVOC, acetone, and methyl ethyl ketone concentrations.
- LMW-7R-S (el -2 to -7), due to elevated concentrations of PCE and breakdown products in February 2024, elevated reporting limits for CVOCs in August and November 2024, and an elevated concentration of acetone in November 2024 following an elevated reporting limit for acetone in August 2024; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in CVOC and acetone concentrations.
- LMW-7R-D (el -9 to -14), LMW-8R-S (el 8 to 3), LMW-8R-D (el -43 to -50), and LMW-9R-S (el 1 to -5) due to elevated concentrations of acetone and methyl ethyl ketone detected in August and November 2024, and elevated reporting limits for CVOCs in November 2024; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in the CVOC, acetone, and methyl ethyl ketone concentrations.
- LMW-8R-S (el -2 to -9), due to an elevated concentration of methyl ethyl ketone in November 2024; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in methyl ethyl ketone concentrations.

- LMW-8R-D (el -13 to -20), due to elevated reporting limits for CVOCs in November 2024; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in CVOC concentrations.
- LMW-10R-S (el -9 to -15), due to elevated concentrations of acetone and methyl ethyl ketone detected in August 2024; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in acetone and methyl ethyl ketone concentrations.

TABLES

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-S	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S
			Sample Name	LMW-6R-D_46	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-S_21.5	LMW-6R-S_31	LMW-7R-D_48	LMW-7R-D_68.5	LMW-7R-D_75	LMW-7R-S_21.5	LMW-7R-S_27	LMW-7R-S_39	LMW-7R-S_42.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46	70	75	21.5	31	48	68.5	75	21.5	27	39	42.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<7.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	0.53 J	0.69 J	0.88 J	1.2 J
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<2 U	<1 U	<2 U	<2.5 U	<5 U	<5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 UJ	<250 U	<250 U	<250 UJ	<500 U	<500 UJ	<250 U	<500 U	<620 UJ	<1,200 U	<1,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Acetone	67-64-1	**50**	ug/l	19	17	33	8.8	6.7	31	23	19	34	25	26	30
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	0.16 J	<0.5 U	**1.1**	**1.1**	0.34 J	0.63 J	0.46 J	<2.5 U	<2.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroform	67-66-3	**7**	ug/l	**55**	**56**	**55**	**24**	**25**	<5 U	<5 U	1.8 J	2.9 J	2.5 J	<12 U	<12 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	4.3	4	3.8	**17**	**16**	**170**	**180**	**100**	**330**	**390**	**480**	**710**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	1 J	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	2.7 J	<5 UJ	<5 U	<5 U	<5 UJ	<10 U	<10 UJ	<5 U	<10 U	<12 UJ	<25 U	<25 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Methylene Chloride	75-09-2	**5**	ug/l	3.9	4	3.6	2.6	2.9	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.19 J	0.18 J	<0.5 U	**25**	**24**	**12**	**9.4**	2.1	**11**	**23**	**31**	**26**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	4.3	4	3.8	17	16	170	180	100	330	390	480	710
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.29 J	0.34 J	0.18 J	**10**	**9.7**	**20**	**20**	**8.2**	**50**	**90**	**110**	**86**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	0.09 J	0.12 J	0.31 J	0.34 J	1 J	1 J	1	1.1 J	1.1 J	1.2 J	1.6 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-S_15	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46.5	48.5	58	73	77	15	17.5	22.5	27	43.5	46.5	60.5	63.5	76
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<7.5 U	<7.5 U	<7.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 U	<5 U	<5 U	<5 U	<5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 U	<1,200 U	<1,200 UJ	<1,200 U	<1,200 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	8.5	10	11	28	17	17 J	27	17 J	26	8.4	6.8	20	6.2	13
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	**31**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.6	0.56	0.65	**1.6**	0.19 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	1 J
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	1.5 J	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	1.2 J	1.2 J	<2.5 U	3.8	**34**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	0.8 J	0.85 J	1 J	0.86 J	**200**	**200**	**190**	**190**	**180**	**9.6**	**8.8**	**9.6**	**11**	2.3 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	<5 U	<10 U	<25 U	<25 UJ	<25 U	<25 UJ	2 J	<5 U	1.9 J	<5 UJ	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.25 J	<0.5 U	0.41 J	**540**	**600**	**640**	**570**	2.7	2.5	2.4	2.1	0.34 J
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	0.8 J	0.85 J	1 J	0.86 J	200	200	190	190	180	9.6	8.8	9.6	11	2.3 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	<0.5 U	0.18 J	<0.5 U	0.39 J	**380**	**390**	**390**	**350**	0.75	0.68	0.65	0.65	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	<1 U	<1 U	**6.7**	<5 U	0.42 J	<5 U	0.41 J	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-10R-D	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S
			Sample Name	LMW-9R-S_15	LMW-9R-S_22	LMW-9R-S_30.5	LMW-10R-D_49	LMW-10R-D_63	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	15	22	30.5	49	63	21.5	26.5	28.5	34	36
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<500 UJ	<620 UJ	<250 UJ	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	12	16	26	**100**	**91**	**91**	**84**	**88**	**100**	**160**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8**	**8.5**	**7.4**	<0.5 U	<0.5 U	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**8.9**	**7.9**	**7.5**	**52**	**47**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	**28**	5	4.3	**100**	**110**	**90**	**91**	**92**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<10 UJ	<12 UJ	23 J	21	21	17 J	21	24	35
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<5 U	<6.2 U	3	2.5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**140**	**190**	**250**	0.78	0.74	2.7	2.6	2	2	2.1
Toluene	108-88-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	28	5	4.3	100	110	90	91	92
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**58**	**56**	**58**	1.6	1.6	**5.4**	**5.5**	4.9	4.8	4.7
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1	1 J	0.96 J	<1 U	<1 U	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-11R-D	LMW-11R-D	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S
			Sample Name	LMW-11R-D_57.5	LMW-11R-D_76	LMW-11R-S_20.5	LMW-11R-S_23	LMW-11R-S_26.5	LMW-11R-S_29.5	LMW-11R-S_40.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	57.5	76	20.5	23	26.5	29.5	40.5
			Unit	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	14	25	11	10	12	9.2	8.9
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**15**	**13**	0.6	0.63	0.79	0.64	0.61
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	**20**	**7.2**	**7.4**	**8.4**	6.9	6.7
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**15**	**28**	**29**	**35**	**28**	**28**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	0.94 J	0.99 J	1.2 J	0.97 J	0.91 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	3.6	2.9	**12**	**12**	**14**	**12**	**12**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	15	28	29	35	28	28
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	1.9	1.6	**11**	**12**	**14**	**11**	**11**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.17 J	0.13 J	0.2 J	0.24 J	0.32 J	0.2 J	0.2 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-12R-D	LMW-12R-D	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-13R-D	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-12R-D_53	LMW-12R-D_67	LMW-12R-S_17	LMW-12R-S_20.5	LMW-12R-S_24.5	LMW-12R-S_28.5	LMW-12R-S_36	LMW-13R-D_55.5	LMW-13R-D_75	LMW-13R-S_26
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	53	67	17	20.5	24.5	28.5	36	55.5	75	26
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 UJ	<250 UJ	<250 UJ
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	10	**170**	11	26	26	12	22	11	14	8.2
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.21 J	0.16 J	0.28 J	0.31 J	0.2 J	0.24 J	0.23 J	**28**	**27**	0.39 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	6.3	**18**	**18**	**16**	**20**	**8.8**	**30**	**29**	**19**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**23**	**27**	**29**	**27**	**32**	**35**	**9.6**	**9.6**	**33**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	41	<5 U	2.2 J	<5 U	<5 UJ	2.4 J	<5 UJ	<5 UJ	<5 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	**9.4**	**8.1**	2.3 J	2.4 J	3.5	4.1	1.8 J	<2.5 U	<2.5 U	2.6
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	1	0.97	3.3	3.6	1.4	2.5	3	3.9	3.7	1.7
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	23	27	29	27	32	35	9.6	9.6	33
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.66	0.54	3.7	3.8	3.7	4.2	4.9	1.3	1.3	3.3
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	**3.8**	**2.7**	0.08 J	0.07 J	0.17 J	0.23 J	0.2 J	0.25 J	0.29 J	0.1 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Notes:

CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

Table 2
Groundwater Performance Monitoring Report
Baseline Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-6R-D_47.75	LMW-6R-S_20.5	LMW-7R-D_42	LMW-7R-D_66	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_38	LMW-8R-D_47.25	LMW-8R-D_56.75	LMW-8R-D_76	LMW-8R-S_14.5	LMW-8R-S_24.75	LMW-10R-D_40.5	LMW-10R-S_13	LMW-10R-S_18.25	LMW-13R-D_45.25	LMW-13R-S_25.75
			Sample Date	12/28/2022	12/28/2022	12/21/2022	12/21/2022	12/19/2022	12/20/2022	12/21/2022	12/27/2022	12/27/2022	12/27/2022	12/22/2022	12/22/2022	12/23/2022	12/22/2022	12/23/2022	12/28/2022	12/28/2022
			Pump Intake Depth	47.75	20.5	42	66	20	25.5	38	47.25	56.75	76	14.5	24.75	40.5	13	18.25	45.25	25.75
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<15 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	0.42 J	0.31 J	0.34 J	0.47 J	0.75 J	<0.5 U	<0.5 U	<0.5 U	<5 U	0.74 J	<0.5 U	<0.5 U	0.23 J	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 UJ	<2.5 UJ	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<2 U	<1 U	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<10 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<500 U	<250 U	<250 U	<500 U	<620 U	<250 U	<250 U	<250 U	<2,500 U	<620 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<10 U	<5 U	<5 UJ	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	4.4 J	10 J	9.5 J	6	<5 U	6 J	26	24 J	29 J	5.5 J	<50 U	<12 U	2.3 J	<5 U	2.1 J	12 J	4.5 J
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	0.72	0.77 J	0.52	0.52	0.47 J	0.51 J	0.16 J	**2**	**5.5**	<5 U	<1.2 U	0.2 J	<0.5 U	0.25 J	**8.5**	0.45 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	1.4 J	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	2.6	<2.5 U	<2.5 U	2.2 J	1.7 J
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	3.1	**29**	**220**	**160**	**120**	**340**	**400**	**8.2**	**7.7**	**47**	**270**	**390**	**18**	**16**	**140**	**10**	**47**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	1 J
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<10 U	2 J	<5 U	<10 U	<12 U	8.7	4.6 J	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	1.5 J	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	1.6 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.57	**10**	**18**	2.5	**20**	**43**	**50**	0.18 J	0.54	0.21 J	**900**	**63**	2.1	**10**	**26**	**7.2**	**35**
Toluene	108-88-3	**5**	ug/l	1.5 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	**9**	2 J	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	3.1	29	220	160	120	340 J	400 J	8.2	7.7	47	270	390 J	18	16	140	10	47
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	1.9 J	2 J	<2.5 U	<2.5 U	<2.5 U	<25 U	1.8 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.33 J	**6.3**	**22**	**16**	**18**	**58**	**61**	0.37 J	0.24 J	0.24 J	**360**	**52**	1.1	**8.8**	**33**	2.2	**9.7**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	0.62 J	**4.4**	0.44 J	0.64 J	0.71 J	<1 U	1	**6.4**	2 J	1.2 J	0.11 J	<1 U	0.37 J	0.18 J	0.27 J
Metals																				
Calcium	7440-70-2	NS	ug/l	90,800	220,000	205,000	146,000	200,000	234,000	236,000	54,400	58,500	95,000	289,000	234,000	97,700	264,000	184,000	136,000	178,000
Hardness (As CaCO3)	HARDNESS	NS	ug/l	235,400	788,400	995,100	547,900	800,300	864,600	1,048,000	174,600	185,100	303,800	1,146,000	868,600	362,800	891,400	693,900	508,600	641,300
Iron	7439-89-6	**300**	ug/l	**7,230**	**14,900**	**98,500**	**25,600**	**17,700**	**29,500**	**76,300**	**5,660**	**9,480**	**6,650**	**31,300**	**34,200**	**12,600**	**17,500**	**33,000**	**17,500**	**12,600**
Magnesium	7439-95-4	**35000**	ug/l	2,140	**58,100**	**117,000**	**44,200**	**73,100**	**67,700**	**111,000**	9,420	9,450	16,200	**103,000**	**68,700**	28,800	**56,600**	**57,100**	**40,800**	**47,800**
Manganese	7439-96-5	**300**	ug/l	108	**2,978**	**7,510**	**2,320**	**5,733**	**4,074**	**8,344**	235.1	**363.8**	**448.3**	**9,421**	**6,069**	**1,638**	**4,386**	**2,861**	**2,363**	**2,307**
General Chemistry - Total																				
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	193,000 J	158,000	119,000	187,000	158,000	128,000	129,000	85,800 J	116,000	141,000	163,000	155,000	177,000	220,000	156,000	220,000	185,000
Chloride (As Cl)	16887-00-6	**250000**	ug/l	25,000	110,000	**340,000**	190,000	**520,000**	**600,000**	**600,000**	54,000	48,000	83,000	110,000	**340,000**	66,000	88,000	97,000	45,000	85,000
Dissolved Organic Carbon	DOC	NS	ug/l	8,000 J	8,200	3,700	8,900 J	2,400 J	1,100	2,500	6,900	8,700	4,000 J	6,100 J	4,400 J	5,300	7,800	5,600	14,000	7,000
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	<100 U	93 J	429	89 J	261	212	175	27 J	104	44 J	120	116	47 J	153	79 J	<100 U	<100 U
Sulfate (As SO4)	14808-79-8	**250000**	ug/l	55,000	**580,000**	**610,000**	**670,000**	**520,000**	**510,000**	**510,000**	140,000	130,000	130,000	**1,100,000**	**600,000**	190,000	**630,000**	**530,000**	**540,000**	**560,000**
Total Organic Carbon	TOC	NS	ug/l	7,600	8,400	3,100	9,200 J	2,200	920	2,300	7,100	8,500	3,500	6,200	3,800	5,700	7,800	5,500	14,000	7,100

Table 2
Groundwater Performance Monitoring Report
Baseline Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Notes:

CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

Table 3
Groundwater Performance Monitoring Report
Groundwater Sample Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-S	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-8R-D	LMW-8R-D
			Sample Name	LMW-6R-D_32.75_112024	LMW-6R-D_42.75_112024	LMW-6R-D_54.75_112024	LMW-6R-S_18.75_112224	LMW-7R-D_23.75_112224	LMW-7R-S_16.75_112124	LMW-7R-S_6.75_112224	LMW-8R-D_27.75_112224	LMW-8R-D_59.75_112224
			Sample Date	11/20/2024	11/20/2024	11/20/2024	11/22/2024	11/22/2024	11/21/2024	11/22/2024	11/22/2024	11/22/2024
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<15 U	<380 U	<7.5 U	<60 U	<7.5 U	<30 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<20 U	<500 U	<10 U	<80 U	<10 U	<40 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<20 U	<500 U	<10 U	<80 U	<10 U	<40 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	0.27 J	<0.5 U	0.28 J	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<10 U	<250 U	<5 U	<40 U	<5 U	<20 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<20 U	<500 U	<10 U	<80 U	<10 U	<40 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<250 U	<250 U	<250 U	<2,500 U	<62,000 U	<1,200 U	<10,000 U	<1,200 U	<5,000 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
2-Hexanone (MBK)	591-78-6	**50**	ug/l	<5 U	<5 U	<5 U	<50 U	<1,200 U	<25 U	<200 U	<25 U	<100 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<20 U	<500 U	<10 U	<80 U	<10 U	<40 U
Acetone	67-64-1	**50**	ug/l	15	13	**54**	<50 U	**480 J**	**64**	**170 J**	<25 U	**920**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<50 U	<1,200 U	<25 U	<200 U	<25 U	<100 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	**1.2 J**	<10 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<20 U	<500 U	<10 U	<80 U	<10 U	<40 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	2.3 J	<50 U	<1,200 U	<25 U	<200 U	<25 U	<100 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Chloroform	67-66-3	7	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	3.8 J	<100 U	<12 U	<50 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<50 U	<1,200 U	<25 U	<200 U	<25 U	<100 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<50 U	<1,200 U	<25 U	<200 U	<25 U	<100 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	8.3	7.6	9.7	<50 U	**6,100**	42	**640**	<25 U	**760**
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<50 U	<1,200 U	<25 U	<200 U	<25 U	<100 U
Methylene Chloride	75-09-2	5	ug/l	1.7 J	0.73 J	1.6 J	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	1.1	0.67	0.63	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Toluene	108-88-3	**5**	ug/l	**7.6**	**7.6**	**5.8**	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Trichloroethene (TCE)	79-01-6	5	ug/l	0.35 J	0.18 J	0.23 J	<5 U	<120 U	<2.5 U	<20 U	<2.5 U	<10 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<25 U	<620 U	<12 U	<100 U	<12 U	<50 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<50 U	<1,200 U	<25 U	<200 U	<25 U	<100 U
Vinyl Chloride	75-01-4	2	ug/l	0.46 J	0.5 J	0.33 J	<10 U	<250 U	<5 U	<40 U	<5 U	<20 U
Total CVOCs	TOTALCVOC	NS	ug/l	1.91	1.35	1.19	ND	ND	ND	ND	ND	ND

Table 3
Groundwater Performance Monitoring Report
Groundwater Sample Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-S	LMW-8R-S	LMW-9R-D	LMW-9R-D	LMW-9R-S	LMW-10R-D	LMW-10R-D	LMW-10R-S
			Sample Name	LMW-8R-S_18.75_112224	LMW-8R-S_6.75_112224	LMW-9R-D_58.25_112224	DUP_11222024	LMW-9R-S_13.75_112224	LMW-10R-D-30.75_112524	LMW-10R-D-40.75_112524	LMW-10R-S-24.75_112224
			Sample Date	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/22/2024	11/25/2024	11/25/2024	11/22/2024
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<38 U	<15 U	<1.5 U	<1.5 U	<75 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 UJ	<120 U	<2.5 UJ	<2.5 UJ	<2.5 UJ
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<50 U	<20 U	<2 U	<2 U	<100 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<50 U	<20 U	<2 U	<2 U	<100 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<25 U	<10 U	<1 U	<1 U	<50 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<50 U	<20 U	<2 U	<2 U	<100 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<6,200 U	<2,500 U	<250 U	<250 U	<12,000 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	**50**	ug/l	<120 U	25 J	<5 U	<5 U	**62 J**	<5 U	<5 U	1.4 J
4-Chlorotoluene	106-43-4	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<50 U	<20 U	<2 U	<2 U	<100 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	43 J	**140**	2 J	3 J	**1,200**	<5 U	2.9 J	2.7 J
Acrylonitrile	107-13-1	5	ug/l	<120 U	<50 U	<5 U	<5 U	<250 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<12 U	<5 U	**3.2**	**3**	<25 U	0.42 J	0.31 J	0.24 J
Bromobenzene	108-86-1	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<12 U	<5 U	<0.5 U	0.33 J	<25 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<50 U	<20 U	<2 U	<2 U	<100 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<62 U	<25 U	<2.5 UJ	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<120 U	<50 U	<5 U	<5 U	<250 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	1.5 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<12 U	<5 U	<0.5 U	0.43 J	<25 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<120 U	<50 U	<5 U	<5 U	<250 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<120 U	<50 U	<5 U	<5 U	<250 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	0.71 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	**210**	**1,000**	6.5 J	18 J	**6,000**	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<120 U	<50 U	<5 U	<5 U	<250 U	<5 U	<5 U	1.7 J
Methylene Chloride	75-09-2	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<62 U	<25 U	<2.5 UJ	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<62 U	<25 U	0.52 J	0.7 J	<120 U	<2.5 U	0.29 J	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<12 U	<5 U	0.27 J	0.22 J	<25 U	0.48 J	0.23 J	0.34 J
Toluene	108-88-3	**5**	ug/l	<62 U	<25 U	0.77 J	0.77 J	<120 U	1.7 J	2.7	**6.9**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	1.5 J
Total Xylenes	1330-20-7	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	0.71 J
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<12 U	<5 U	<0.5 U	<0.5 U	<25 U	<0.5 U	<0.5 U	0.21 J
Trichlorofluoromethane	75-69-4	5	ug/l	<62 U	<25 U	<2.5 U	<2.5 U	<120 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<120 U	<50 U	<5 U	<5 UJ	<250 U	<5 UJ	<5 UJ	<5 UJ
Vinyl Chloride	75-01-4	2	ug/l	<25 U	<10 U	0.15 J	0.19 J	<50 U	<1 U	0.16 J	0.69 J
Total CVOCs	TOTALCVOC	NS	ug/l	ND	ND	0.42	0.41	ND	0.48	0.39	2.74

Table 3
Groundwater Performance Monitoring Report
Groundwater Sample Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Notes:

CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6R-S_21.5	LMW-6R-S_20.5	LMW-6R-S_31	LMW-6R-S_18.75	LMW-6R-S_18.75	LMW-6R-S_18.75	LMW-6R-D_46	LMW-6R-D_47.75	LMW-6R-D_32.75	LMW-6R-D_32.75	LMW-6R-D_32.75
			Sample Date	09/29/2022	12/28/2022	09/29/2022	02/14/2024	8/13/2024	11/22/2024	09/29/2022	12/28/2022	02/13/2024	08/12/2024	11/20/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	21.5	20.5	31	18.75-23.75	18.75-23.75	18.75-23.75	46	47.75	32.75-37.75	32.75-37.75	32.75-37.75
			Sample El.	9.77 - 7.77	10.77 - 5.77	0.27 - -1.73	-4 - -9	-4 - -9	-4 - -9	-14.43 - -16.43	-16.18 - -21.18	-18 - -23	-18 - -23	-18 - -23
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 UJ	<15 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	0.55 J	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	1 J	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.27 J
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 UJ	<10 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	0.79 J	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 UJ	<2,500 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	1.2 J	2.3 J	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	8.8	10 J	6.7	22	**390**	<50 U	19	4.4 J	**59**	6.5	15
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	0.72	<0.5 U	0.23 J	0.44 J	<5 U	<0.5 U	<0.5 U	0.17 J	0.17 J	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	1.4 J	**25**	<2.5 U	<5 UJ	<25 U	**55**	**7.4**	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**29**	**16**	3.3	<5 UJ	<25 U	4.3	3.1	1.2 J	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	1 J	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1 J	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	4.8 J	**420**	<50 U	2.7 J	<5 U	**57**	3.2 J	8.3
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	2.1 J	<50 U	<5 U	<5 U	<5 U	<5 UJ	1 J	<5 U
Methylene Chloride	75-09-2	5	ug/l	2.6	<2.5 U	2.9	<2.5 U	<5 UJ	<25 U	3.9	1.6 J	<2.5 U	<2.5 U	1.7 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.87 J	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**25**	**10**	**24**	0.28 J	<1 UJ	<5 U	0.19 J	0.57	<0.5 U	<0.5 U	1.1
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	**8.3**	3.4 J	<25 U	<2.5 U	1.5 J	**13**	3.4	**7.6**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	29	16	3.3	<5 UJ	<25 U	4.3	3.1	1.2 J	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1.9 J	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**10**	**6.3**	**9.7**	0.31 J	<1 UJ	<5 U	0.29 J	0.33 J	<0.5 U	<0.5 U	0.35 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.31 J	<1 U	0.34 J	**2.8**	0.14 J	<10 U	<1 U	<1 U	1.2	0.36 J	0.46 J
Metals														
Calcium	7440-70-2	NS	ug/l	NA	220,000	NA	133,000	NA	NA	NA	90,800	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	788,400	NA	411,500	NA	NA	NA	235,400	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**14,900**	NA	**25,700**	NA	NA	NA	**7,230**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**58,100**	NA	19,200	NA	NA	NA	2,140	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**2,978**	NA	**666**	NA	NA	NA	108	NA	NA	NA
General Chemistry														
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	NA	494,000	NA	NA	NA	193,000 J	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	110,000	NA	180,000	NA	NA	NA	25,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	8,200	NA	14,000	NA	NA	NA	8,000 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	93 J	NA	100	NA	NA	NA	<100 U	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**580,000**	NA	3,500 J	NA	NA	NA	55,000	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	8,400	NA	15,000	NA	NA	NA	7,600	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6R-D_42.75	LMW-6R-D_42.75	LMW-6R-D_42.75	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-D_54.75	LMW-6R-D_54.75	LMW-6R-D_54.75
			Sample Date	02/13/2024	08/15/2024	11/20/2024	09/29/2022	09/29/2022	02/13/2024	08/14/2024	11/20/2024
			Sample Event	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	42.75-47.75	42.75-47.75	42.75-47.75	70	75	52.75-59.75	42.75-47.75	42.75-47.75
			Sample El.	-28 - -33	-28 - -33	-28 - -33	-38.43 - 40.43	-43.43 - -45.43	-38 - -45	-38 - -45	-38 - -45
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.21 J	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	0.95 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.74 J	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.28 J
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 UJ	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	**51**	15	13	17	33	44	6.1	**54**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2.3 J
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	**56**	**55**	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	1.2 J	<2.5 U	<2.5 U	4	3.8	0.8 J	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	**53**	6.3	7.6	<5 UJ	<5 U	**55**	3.3 J	9.7
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	0.73 J	4	3.6	0.81 J	<2.5 U	1.6 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.67	0.18 J	<0.5 U	<0.5 U	<0.5 U	0.63
Toluene	108-88-3	**5**	ug/l	**12**	3.1	**7.6**	<2.5 U	<2.5 U	**7.8**	<2.5 U	**5.8**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	1.2 J	<2.5 U	<2.5 U	4	3.8	0.8 J	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	0.18 J	0.18 J	0.34 J	0.18 J	<0.5 U	<0.5 U	0.23 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1	0.38 J	0.5 J	0.09 J	0.12 J	0.61 J	<1 U	0.33 J
Metals											
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry											
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S
			Sample Name	LMW-7R-S_21.5	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_27	LMW-7R-S_6.75	LMW-7R-S_6.75	LMW-7R-S_6.75	LMW-7R-S_39	LMW-7R-S_38	LMW-7R-S_16.75	LMW-7R-S_16.75	LMW-7R-S_16.75
			Sample Date	09/29/2022	12/19/2022	12/20/2022	09/29/2022	02/13/2024	08/12/2024	11/22/2024	09/29/2022	12/21/2022	02/13/2024	8/13/2024	11/21/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	21.5	20	25.5	27	6.75-11.75	6.75-11.75	6.75-11.75	39	38	16.75-21.75	16.75-21.75	16.75-21.75
			Sample El.	12.67 - 10.67	14.17 - 9.17	8.67 - 3.67	7.17 - 5.17	8 - 3	8 - 3	8 - 3	-4.83 - -6.83	-3.83 - -8.83	-2 - -7	-2 - -7	-2 - -7
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<15 UJ	<60 U	<7.5 U	<3.8 U	<7.5 U	<3,000 U	<7.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.53 J	0.34 J	0.47 J	0.69 J	<2.5 U	<5 UJ	<20 U	0.88 J	0.75 J	<2.5 U	<1,000 U	<2.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<1 U	<2 U	<2.5 U	<5 U	<10 UJ	<40 U	<5 U	<2.5 U	<5 U	<2,000 U	<5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 U	<250 U	<500 U	<620 UJ	<1,200 U	<2,500 UJ	<10,000 U	<1,200 U	<620 U	<1,200 U	<500,000 U	<1,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<5 UJ	<10 U	<12 U	<25 U	12 J	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
Acetone	67-64-1	50	ug/l	34	<5 U	6 J	25	9.1 J	**220 J**	**170 J**	26	26	<25 U	<10,000 U	**64**
Acrylonitrile	107-13-1	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Benzene	71-43-2	**1**	ug/l	0.63 J	0.52	0.47 J	0.46 J	<2.5 U	<5 UJ	<20 U	<2.5 U	0.51 J	<2.5 U	<1,000 U	<2.5 U
Bromobenzene	108-86-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Bromoform	75-25-2	50	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
Bromomethane	74-83-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Chloroethane	75-00-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Chloroform	67-66-3	**7**	ug/l	2.9 J	<2.5 U	<5 U	2.5 J	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	3.8 J
Chloromethane	74-87-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**330**	**120**	**340**	**390**	**500**	**42 J**	<100 U	**480**	**400**	**560**	<5,000 U	<12 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Cymene	99-87-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Dibromomethane	74-95-3	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 U	<5 U	<10 U	<12 UJ	<25 U	**3,400**	**640**	<25 U	<12 U	<25 U	<10,000 U	42
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	**9.1 J**	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Naphthalene	91-20-3	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Styrene	100-42-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**11**	**20**	**43**	**23**	**21**	<5 UJ	<20 U	**31**	**50**	**25**	<1,000 U	<2.5 U
Toluene	108-88-3	**5**	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	**5.3 J**	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	330	120	340 J	390	500 J	42 J	<100 U	480	400 J	570 J	<5,000 U	<12 U
Total Xylenes	1330-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<2.5 U	1.9 J	<6.2 U	4 J	<25 UJ	<100 U	<12 U	2 J	**5.1 J**	<5,000 U	<12 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**50**	**18**	**56**	**90**	**21**	<5 UJ	<20 U	**110**	**61**	**25**	<1,000 U	<2.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1 J	0.44 J	0.64 J	1.1 J	**46**	**4 J**	<40 U	1.2 J	0.71 J	**70**	<2,000 U	<5 U
Metals															
Calcium	7440-70-2	NS	ug/l	NA	200,000	234,000	NA	NA	124,000	NA	NA	236,000	371,000	660,000 J	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	800,300	864,600	NA	NA	450,100	NA	NA	1,048,000	1,413,000	2,566,000	NA
Iron	7439-89-6	**300**	ug/l	NA	**17,700**	**29,500**	NA	NA	**302,000**	NA	NA	**76,300**	**88,200**	**1,860,000 J**	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**73,100**	**67,700**	NA	NA	34,200	NA	NA	**111,000**	**118,000**	**223,000 J**	NA
Manganese	7439-96-5	**300**	ug/l	NA	**5,733**	**4,074**	NA	NA	**860.3**	NA	NA	**8,344**	**6,149**	**9,277 J**	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	128,000	NA	NA	2,060,000 J	NA	NA	129,000	166,000	3,260,000 J	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	**520,000**	**600,000**	NA	NA	100,000	NA	NA	**600,000**	**1,200,000**	**490,000**	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	2,400 J	1,100	NA	NA	3,500,000	NA	NA	2,500	<2,000 U	7,100,000	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	261	212	NA	NA	100	NA	NA	175	117	107	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**520,000**	**510,000**	NA	NA	<10,000 U	NA	NA	**510,000**	150,000	<100,000 U	NA
Total Organic Carbon	TOC	NS	ug/l	NA	2,200	920	NA	NA	3,500,000	NA	NA	2,300	<1,000 U	7,700,000	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-7R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D
			Sample Name	LMW-7R-S_42.5	LMW-7R-D_42	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_48	LMW-7R-D_66	LMW-7R-D_68.5	LMW-7R-D_49.75	LMW-7R-D_75
			Sample Date	09/29/2022	12/21/2022	02/13/2024	8/13/2024	11/22/2024	09/29/2022	12/21/2022	09/29/2022	02/13/2024	09/29/2022
			Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections
			Sample Depth	42.5	42	23.75-28.75	23.75-28.75	23.75-28.75	48	66	68.5	49.75-54.75	75
			Sample El.	-8.33 - -10.33	-8.66 - -13.66	-9 - -14	-9 - -14	-9 - -14	-13.83 - -15.83	-32.66 - -37.66	-35.16 - -37.16	-35 - -40	-41.66 - -43.66
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<7.5 U	<3 U	<6 U	<15 U	<380 U	<3 U	<1.5 U	<3 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	1.2 J	0.42 J	<2 U	<5 U	<120 U	<1 U	0.31 J	<1 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<10 U	<4 U	<8 U	<20 U	<500 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<10 U	<4 U	<8 U	<20 U	<500 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<5 U	<2 U	<4 U	<10 U	<250 U	<2 U	<1 U	<2 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<10 U	<4 U	<8 U	<20 U	<500 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<1,200 U	<500 U	<1,000 U	<2,500 U	<62,000 U	<500 U	<250 U	<500 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<25 U	<10 U	<20 U	<50 U	<1,200 U	<10 U	<5 U	<10 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<10 U	<4 U	<8 U	<20 U	<500 U	<4 U	<2 U	<4 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	30	9.5 J	**54**	**140**	**480 J**	31	6	23	**53**	19
Acrylonitrile	107-13-1	5	ug/l	<25 U	<10 U	<20 U	<50 U	<1,200 U	<10 U	<5 UJ	<10 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<2.5 U	0.77 J	<2 U	<5 U	<120 U	**1.1**	0.52	**1.1**	0.29 J	0.34 J
Bromobenzene	108-86-1	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<10 U	<4 U	<8 U	<20 U	<500 U	<4 U	<2 U	<4 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<25 U	<10 U	<20 U	<50 U	<1,200 U	<10 U	<5 U	<10 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	1.8 J
Chloromethane	74-87-3	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**710**	**220**	**29**	<25 U	<620 U	**170**	**160**	**180**	**20**	**100**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<25 U	<10 U	<20 U	<50 U	<1,200 U	<10 U	<5 U	<10 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<25 U	<10 U	<20 U	<50 U	<1,200 U	<10 U	<5 U	<10 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<25 U	<10 U	**410**	**4,000**	**6,100**	<10 U	2 J	<10 UJ	**420**	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<25 U	<10 U	<20 UJ	<50 U	<1,200 U	<10 U	<5 UJ	<10 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**26**	**18**	1.2 J	<5 U	<120 U	**12**	2.5	**9.4**	0.28 J	2.1
Toluene	108-88-3	**5**	ug/l	<12 U	<5 U	4.2 J	<25 U	<620 U	<5 U	<2.5 U	<5 U	4.2	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	710	220	29	<25 U	<620 U	170	160	180	20	100
Total Xylenes	1330-20-7	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<2.5 U	<1 U	<2 U	<5 U	<120 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**86**	**22**	1 J	<5 U	<120 U	**20**	**16**	**20**	0.21 J	**8.2**
Trichlorofluoromethane	75-69-4	5	ug/l	<12 U	<5 U	<10 U	<25 U	<620 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<25 U	<10 U	<20 U	<50 U	<1,200 U	<10 U	<5 U	<10 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.6 J	0.62 J	**17**	<10 U	<250 U	1 J	**4.4**	1 J	**27**	1
Metals													
Calcium	7440-70-2	NS	ug/l	NA	205,000	NA	NA	NA	NA	146,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	995,100	NA	NA	NA	NA	547,900	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**98,500**	NA	NA	NA	NA	**25,600**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**117,000**	NA	NA	NA	NA	**44,200**	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**7,510**	NA	NA	NA	NA	**2,320**	NA	NA	NA
General Chemistry													
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	119,000	NA	NA	NA	NA	187,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	**340,000**	NA	NA	NA	NA	190,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	3,700	NA	NA	NA	NA	8,900 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	429	NA	NA	NA	NA	89 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**610,000**	NA	NA	NA	NA	**670,000**	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	3,100	NA	NA	NA	NA	9,200 J	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S
			Sample Name	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-8R-S_24.75	LMW-8R-S_6.75	DUP01_021424	LMW-8R-S_6.75	LMW-8R-S_6.75	LMW-8R-S_18.75	LMW-8R-S_18.75	LMW-8R-S_18.75
			Sample Date	09/29/2022	09/29/2022	09/29/2022	12/22/2022	02/14/2024	02/14/2024	8/15/2024	11/22/2024	02/14/2024	8/12/2024	11/22/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	17.5	22.5	27	24.75	6.75-11.75	6.75-11.75	6.75-11.75	6.75-11.75	16.75-23.75	16.75-23.75	16.75-23.75
			Sample El.	14.68 - 12.68	9.68 - 7.68	5.18 - 3.18	7.43 - 2.43	8 - 3	8 - 3	8 - 3	8 - 3	-2 - -9	-2 - -9	-2 - -9
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<7.5 U	<7.5 U	<7.5 U	<3.8 U	<1.5 U	<1.5 U	<3.8 U	<15 U	<1.5 U	<1.5 U	<38 U
1,1-Dichloroethane	75-34-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,1-Dichloroethene	75-35-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.74 J	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
1,1-Dichloropropene	563-58-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<2 U	<2 U	<50 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<2 U	<2 U	<50 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
1,2-Dichloropropane	78-87-5	1	ug/l	<5 U	<5 U	<5 U	<2.5 U	<1 U	<1 U	<2.5 U	<10 U	<1 U	<1 U	<25 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,3-Dichloropropane	142-28-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<2 U	<2 U	<50 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<1,200 UJ	<1,200 U	<1,200 UJ	<620 U	<250 U	<250 U	<620 U	<2,500 U	<250 U	<250 U	<6,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
2-Chlorotoluene	95-49-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	25 J	<5 U	<5 U	<120 U
4-Chlorotoluene	106-43-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
4-Ethyltoluene	622-96-8	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<2 U	<2 U	<50 U
Acetone	67-64-1	50	ug/l	27	17 J	26	<12 U	13	14	**120**	**140**	3.5 J	17	43 J
Acrylonitrile	107-13-1	5	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<50 U	<5 U	<5 U	<120 U
Benzene	71-43-2	**1**	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	0.31 J	0.29 J	0.48 J	<5 U	0.18 J	0.2 J	<12 U
Bromobenzene	108-86-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Bromochloromethane	74-97-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Bromodichloromethane	75-27-4	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Bromoform	75-25-2	50	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<2 U	<2 U	<50 U
Bromomethane	74-83-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Carbon Disulfide	75-15-0	60	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<5 U	<5 U	<120 U
Carbon Tetrachloride	56-23-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Chlorobenzene	108-90-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Chloroethane	75-00-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Chloroform	67-66-3	**7**	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Chloromethane	74-87-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**190**	**190**	**180**	**390**	**14**	**17**	<6.2 U	<25 U	2.9	0.88 J	<62 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Cymene	99-87-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Dibromochloromethane	124-48-1	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Dibromomethane	74-95-3	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<5 U	<5 U	<120 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<5 U	<5 U	<120 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Ethylbenzene	100-41-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
M,P-Xylene	179601-23-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1.2 J	1.4 J	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<25 UJ	<25 U	<25 UJ	<12 UJ	2 J	<5 U	**360**	**1,000**	7.1	12	**210**
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<50 U	<5 U	<5 U	<120 U
Methylene Chloride	75-09-2	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Naphthalene	91-20-3	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
n-Butylbenzene	104-51-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
n-Propylbenzene	103-65-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1 J	1.2 J	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Sec-Butylbenzene	135-98-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Styrene	100-42-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
T-Butylbenzene	98-06-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**600**	**640**	**570**	**63**	0.54	0.64	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Toluene	108-88-3	**5**	ug/l	<12 U	<12 U	<12 U	<6.2 U	**8.7**	**10**	<6.2 U	<25 U	2.3 J	3.5	<62 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	190	190	180	390 J	14	17	<6.2 U	<25 U	2.9	0.88 J	<62 U
Total Xylenes	1330-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	2.2 J	2.6 J	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<12 U	<12 U	<12 U	1.8 J	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**390**	**390**	**350**	**52**	0.56	0.7	<1.2 U	<5 U	<0.5 U	<0.5 U	<12 U
Trichlorofluoromethane	75-69-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U	<62 U
Vinyl Acetate	108-05-4	NS	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<5 U	<5 U	<120 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.42 J	<5 U	0.41 J	1.2 J	**4.4**	**5.2**	0.2 J	<10 U	1.6	1.3	<25 U
Metals														
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	234,000	127,000	NA	353,000	NA	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	868,600	398,900	NA	1,327,000	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**34,200**	**8,330**	NA	**1,180,000**	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	**68,700**	19,900	NA	**108,000**	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**6,069**	**662.1**	NA	**2,066**	NA	NA	NA	NA
General Chemistry														
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	155,000	260,000	NA	1,840,000 J	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	**340,000**	**410,000**	NA	88,000	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	4,400 J	6,600	NA	5,400,000 J	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	116	164	NA	89 J	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	**600,000**	30,000	NA	<10,000 U	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	3,800	6,700	NA	2,800,000 J	NA	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D
			Sample Name	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_47.25	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_56.75	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-D_76	LMW-8R-D_59.75	LMW-8R-D_59.75	LMW-8R-D_59.75
			Sample Date	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024	11/22/2024	12/27/2022	09/29/2022	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024	11/22/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	46.5	48.5	47.25	27.75-34.75	27.75-34.75	27.75-34.75	56.75	58	73	77	76	57.75-64.75	57.75-64.75	57.75-64.75
			Sample El.	-15.19 - -17.19	-17.19 - -19.19	-15.94 - -20.94	-13 - -20	-13 - -20	-13 - -20	-20.44 - -25.44	-26.69 - -28.69	-41.69 - -43.69	-45.69 - -47.69	-44.69 - -49.69	-43 - -50	-43 - -50	-43 - -50
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<6 U	<30 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<5 U	<1 U	<1 U	<1 U	<2 U	<1 U	<1 U	<4 U	<20 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 U	<250 U	<250 U	<1,200 U	<250 U	<250 UJ	<250 U	<500 U	<250 U	<250 U	<1,000 U	<5,000 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	7.4 J	<100 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U
Acetone	67-64-1	50	ug/l	8.5	10	24 J	**69**	1.6 J	<25 U	29 J	11	28	17	5.5 J	**52**	**300**	**920**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	0.16 J	**3.8**	0.95	**1.2 J**	**2**	<0.5 U	<0.5 U	**31**	**5.5**	**8.1**	0.8 J	<10 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.94 J	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Chloroform	67-66-3	**7**	ug/l	1.5 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	0.8 J	0.85 J	**8.2**	1.3 J	1.2 J	<12 U	**7.7**	1 J	0.86 J	**200**	**47**	2.3 J	<10 U	<50 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	8.7	**82**	<5 U	<25 U	4.6 J	<5 UJ	<5 U	<10 U	<5 U	**120**	**470**	**760**
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	1.5 J	<5 UJ	1.7 J	<25 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 UJ	<20 U	<100 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	3 J	<50 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.18 J	<0.5 U	<0.5 U	<2.5 U	0.54	0.25 J	<0.5 U	0.41 J	0.21 J	<0.5 U	<2 U	<10 U
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	1.3 J	<2.5 U	<12 U	**9**	<2.5 U	<2.5 U	<5 U	2 J	<2.5 U	<10 U	<50 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	0.8 J	0.85 J	8.2	1.3 J	1.2 J	<12 U	7.7	1 J	0.86 J	200	47	2.3 J	<10 U	<50 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	<0.5 U	0.37 J	<0.5 U	<0.5 U	<2.5 U	0.24 J	0.18 J	<0.5 U	0.39 J	0.24 J	<0.5 U	<2 U	<10 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	<1 U	0.94 J	0.18 J	<5 U	1	<1 U	<1 U	**6.7**	**6.4**	**2.7**	<4 U	<20 U
Metals																	
Calcium	7440-70-2	NS	ug/l	NA	NA	54,400	NA	NA	NA	58,500	NA	NA	NA	95,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	174,600	NA	NA	NA	185,100	NA	NA	NA	303,800	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	**5,660**	NA	NA	NA	**9,480**	NA	NA	NA	**6,650**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	9,420	NA	NA	NA	9,450	NA	NA	NA	16,200	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	235.1	NA	NA	NA	**363.8**	NA	NA	NA	**448.3**	NA	NA	NA
General Chemistry																	
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	85,800 J	NA	NA	NA	116,000	NA	NA	NA	141,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	54,000	NA	NA	NA	48,000	NA	NA	NA	83,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	6,900	NA	NA	NA	8,700	NA	NA	NA	4,000 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	27 J	NA	NA	NA	104	NA	NA	NA	44 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	140,000	NA	NA	NA	130,000	NA	NA	NA	130,000	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	7,100	NA	NA	NA	8,500	NA	NA	NA	3,500	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-9R-S_22	LMW-9R-S_30.5	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76	LMW-9R-D_58.25	LMW-9R-D_58.25	LMW-9R-D_58.25	DUP_11222024
			Sample Date	09/29/2022	09/29/2022	02/13/2024	8/15/2024	11/22/2024	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	02/14/2024	8/14/2024	11/22/2024	11/22/2024
			Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	22	30.5	13.75-19.75	13.75-19.75	13.75-19.75	43.5	46.5	60.5	63.5	76	55.25-63.25	55.25-63.25	55.25-63.25	55.25-63.25
			Sample El.	11.34 - 9.34	2.84 - 0.84	1 - -5	1 - -5	1 - -5	-10.16 - -12.16	-13.16 - -15.16	-26.6 - -28.6	-29.6 - -31.6	-42.1 - -44.1	-40.5 - -48.5	-40.5 - -48.5	-40.5 - -48.5	-40.5 - -48.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<1.2 U	0.18 J	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<3.8 U	<1.5 U	<38 U	<75 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<2.5 U	<1 U	<25 U	<50 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 UJ	<620 UJ	<250 U	<6,200 U	<12,000 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<12 U	1.2 J	<120 U	**62 J**	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	16	26	**100**	**650**	**1,200**	8.4	6.8	20	6.2	13	9.7	2.2 J	2 J	3 J
Acrylonitrile	107-13-1	5	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8.5**	**7.4**	**1.3**	<12 U	<25 U	0.6	0.56	0.65	**1.6**	0.19 J	**5.7**	**3.9**	**3.2**	**3**
Bromobenzene	108-86-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.33 J
Bromoform	75-25-2	50	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.9**	**7.5**	<2.5 U	<62 U	<120 U	1.2 J	1.2 J	<2.5 U	3.8	**34**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	<2.5 U	<62 U	<120 U	**9.6**	**8.8**	**9.6**	**11**	2.3 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.43 J
Dibromomethane	74-95-3	5	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 UJ	<12 UJ	**82**	**3,600**	**6,000**	2 J	<5 U	1.9 J	<5 UJ	<5 U	16	<5 U	6.5 J	18 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<12 U	4.3 J	<120 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.75 J	0.65 J	0.52 J	0.7 J
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**190**	**250**	0.2 J	<12 U	<25 U	2.7	2.5	2.4	2.1	0.34 J	<0.5 U	<0.5 U	0.27 J	0.22 J
Toluene	108-88-3	**5**	ug/l	<5 U	<6.2 U	**85**	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.77 J	0.77 J
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	<2.5 U	<62 U	<120 U	9.6	8.8	9.6	11	2.3 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**56**	**58**	<0.5 U	<12 U	<25 U	0.75	0.68	0.65	0.75	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ
Vinyl Chloride	75-01-4	**2**	ug/l	1 J	0.96 J	**4.6**	<25 U	<50 U	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J	0.24 J	0.27 J	0.15 J	0.19 J
Metals																	
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	374,000	NA	NA	NA	NA	NA	NA	148,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	1,262,000	NA	NA	NA	NA	NA	NA	478,100	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**1,210,000**	NA	NA	NA	NA	NA	NA	**16,700**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	**79,500**	NA	NA	NA	NA	NA	NA	26,400	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**744.2**	NA	NA	NA	NA	NA	NA	**785.9**	NA	NA	NA
General Chemistry																	
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	3,140,000 J	NA	NA	NA	NA	NA	NA	272,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	**460,000**	NA	NA	NA	NA	NA	NA	230,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	9,200,000	NA	NA	NA	NA	NA	NA	3,900	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	60 J	NA	NA	NA	NA	NA	NA	<100 U	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	34,000	NA	NA	NA	NA	NA	NA	<10,000 U	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	8,600,000	NA	NA	NA	NA	NA	NA	2,100	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-S
			Sample Name	LMW-10R-S_18.25	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36	LMW-10R-D_40.5	LMW-10R-S_24.75	LMW-10R-S_24.75	LMW-10R-S_24.75
			Sample Date	12/23/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	12/23/2022	02/13/2024	8/14/2024	11/22/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	18.25	21.5	26.5	28.5	34	36	40.5	23.75-29.75	23.75-29.75	23.75-29.75
			Sample El.	12.67 - 7.67	9.42 - 7.42	4.42 - 2.42	2.42 - 0.42	-3.08 - -5.08	-5.08 - -7.08	-11.93 - -16.93	-9 - -15	-9 - -15	-9 - -15
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.17 J	<1 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.23 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 UJ
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<500 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	1.4 J
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U
Acetone	67-64-1	50	ug/l	2.1 J	**91**	**84**	**88**	**100**	**160**	2.3 J	30	**160**	2.7 J
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.25 J	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J	0.2 J	<0.5 U	<1 U	0.24 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.81	<1 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.6	**13**	<5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**140**	**100**	**110**	**90**	**91**	**92**	**18**	**7.5**	<5 U	1.5 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	0.71 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	21	17 J	21	24	35	<5 U	5.6	**100**	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2.4 J	1.7 J
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.82 J	<5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**26**	2.7	2.6	2	2	2.1	2.1	0.41 J	<1 U	0.34 J
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	4.2 J	**6.9**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	140	100	110	90	91	92	18	7.5	<5 U	1.5 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	0.71 J
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**33**	**5.4**	**5.5**	4.9	4.8	4.7	1.1	0.33 J	<1 U	0.21 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 UJ
Vinyl Chloride	75-01-4	**2**	ug/l	0.37 J	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J	0.11 J	1.8	<2 U	0.69 J
Metals													
Calcium	7440-70-2	NS	ug/l	184,000	NA	NA	NA	NA	NA	97,700	NA	140,000 J	NA
Hardness (As CaCO3)	HARD	NS	ug/l	693,900	NA	NA	NA	NA	NA	362,800	NA	458,900	NA
Iron	7439-89-6	**300**	ug/l	**33,000**	NA	NA	NA	NA	NA	**12,600**	NA	**36,800 J**	NA
Magnesium	7439-95-4	**35,000**	ug/l	**57,100**	NA	NA	NA	NA	NA	28,800	NA	26,600 J	NA
Manganese	7439-96-5	**300**	ug/l	**2,861**	NA	NA	NA	NA	NA	**1,638**	NA	**1,017 J**	NA
General Chemistry													
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	156,000	NA	NA	NA	NA	NA	177,000	NA	477,000 J	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	97,000	NA	NA	NA	NA	NA	66,000	NA	130,000	NA
Dissolved Organic Carbon	DOC	NS	ug/l	5,600	NA	NA	NA	NA	NA	5,300	NA	120,000	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	79 J	NA	NA	NA	NA	NA	47 J	NA	40 J	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	**530,000**	NA	NA	NA	NA	NA	190,000	NA	<10,000 U	NA
Total Organic Carbon	TOC	NS	ug/l	5,500	NA	NA	NA	NA	NA	5,700	NA	120,000	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D
			Sample Name	LMW-10R-D_49	LMW-10R-D_30.75	LMW-10R-D_30.75	LMW-10R-D_30.75	LMW-10R-D_40.75	LMW-10R-D_40.75	LMW-10R-D_40.75	LMW-10R-D_63
			Sample Date	09/29/2022	02/13/2024	8/14/2024	11/25/2024	02/13/2024	8/14/2024	11/25/2024	09/29/2022
			Sample Event	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections
			Sample Depth	49	26.75-35.75	26.75-35.75	26.75-35.75	40.75-45.75	40.75-45.75	40.75-45.75	63
			Sample El.	-20.43 - -22.43	-12 - -21	-12 - -21	-12 - -21	-26 - -31	-26 - -31	-26 - -31	-34.43 - -36.43
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	**100**	4.3 J	7.6	<5 U	5.1	7.8	2.9 J	**91**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	0.76	0.55	0.42 J	0.66	0.53	0.31 J	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	0.44 J	<0.5 U	<0.5 U	0.42 J	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**52**	7	<2.5 U	<2.5 U	6.4	<2.5 U	<2.5 U	**47**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	23 J	<5 U	27	<5 U	<5 U	19	<5 U	21
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	3	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.5
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.29 J	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.78	<0.5 U	<0.5 U	0.48 J	<0.5 U	<0.5 U	0.23 J	0.74
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	1.4 J	1.7 J	<2.5 U	3.4	2.7	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	1.6	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.6
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	0.63 J	<1 U	<1 U	0.75 J	0.18 J	0.16 J	<1 U
Metals											
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	153,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	NA	493,800	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	**15,200**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	NA	27,200	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	**702.8**	NA	NA	NA
General Chemistry											
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	335,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	NA	160,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	3,400	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	NA	63 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	NA	11,000	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	3,200	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

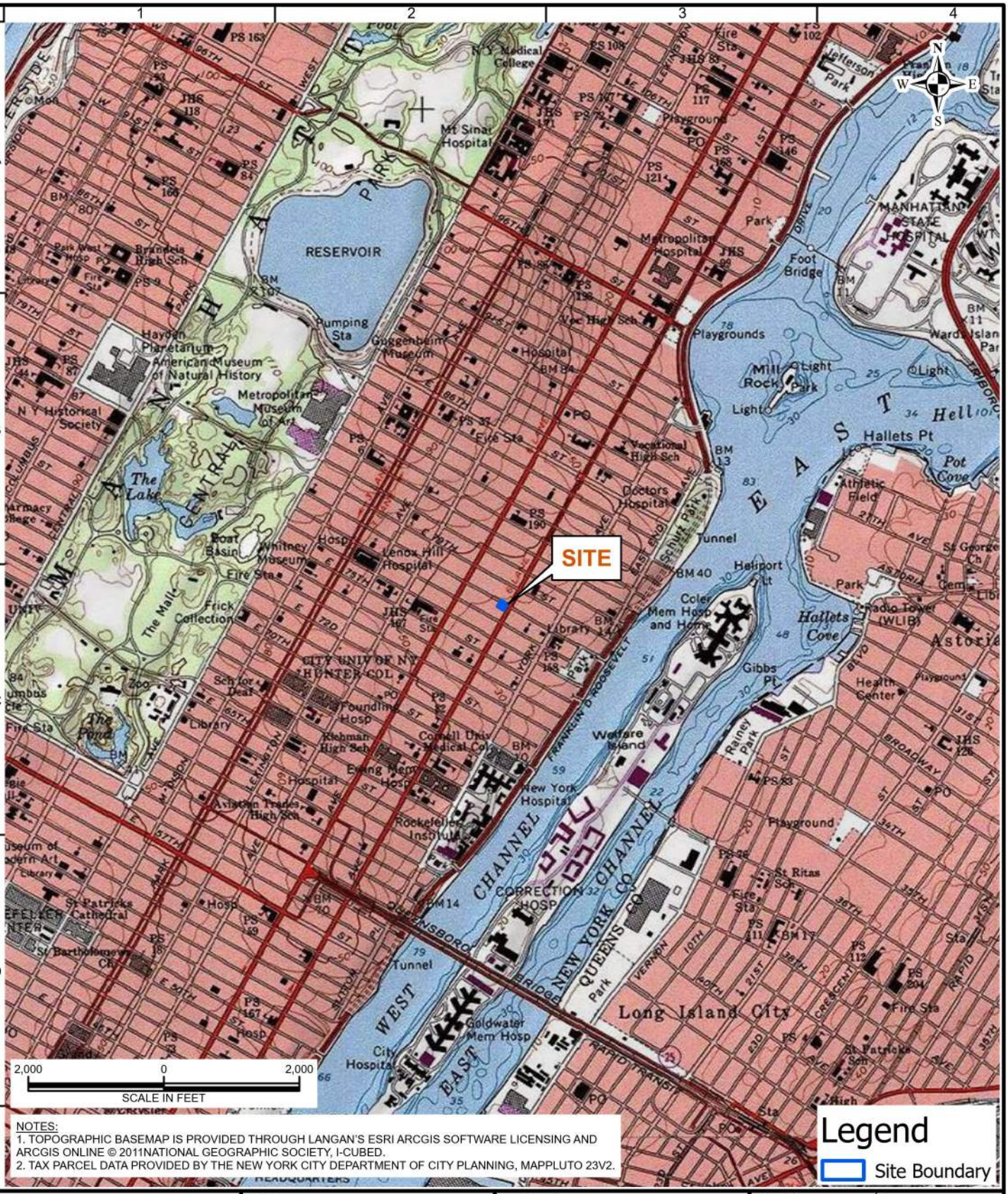
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected
The following groundwater samples and groundwater monitoring wells are not shown on Table 5 due to excavation for the basement construction: LMW-8R-S_14.5, LMW-8R-S_15, LMW-9R-S_15, LMW-10R-S_13, LMW-11R-S, LMW-11R-D, LMW-12R-S, LMW-12R-D, LMW-13R-S, and LMW-13R-D and overburden wells LMW-6, LMW-7, LMW-8, LMW-9, and LMW-10.
Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectivelv referenced as "NYSDEC SGVs").

Qualifiers:
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

FIGURES



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Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

Project

1487 1ST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No.27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

SITE LOCATION MAP

Project No.	100963701
Date	9/28/2023
Scale	1"=2,000'
Drawn By	JF
Submission Date	

Figure 1

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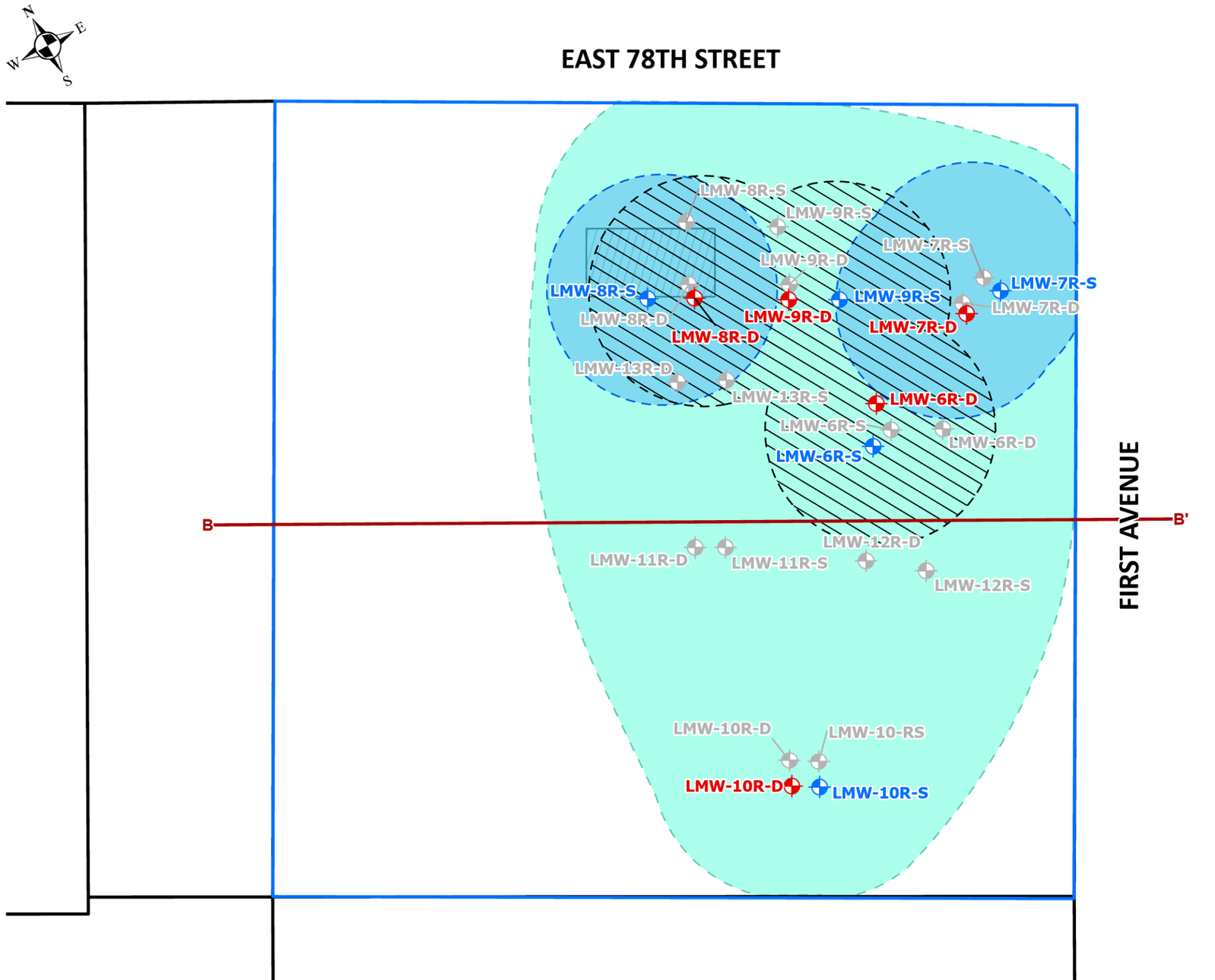

LEGEND

- SITE BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- TAX LOT BOUNDARY
- CROSS SECTION
- 2023 TREATMENT ZONE
- 2024 EZVI TREATMENT ZONE
- 2024 EVO INJECTION ZONE
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
4. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.
3. 2023 TREATMENT ZONE IS SHOWN AS PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN.

15 0 15
SCALE IN FEET

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 FIRST AVENUE REDEVELOPMENT SITE
BLOCK No. 1452, LOT No. 27
MANHATTAN
NEW YORK NEW YORK

Drawing Title
SITE AND INJECTION LOCATION PLAN

Project No.	100963701
Date	2/25/2025
Scale	1"=15'
Drawn By	IHB
Figure	2A

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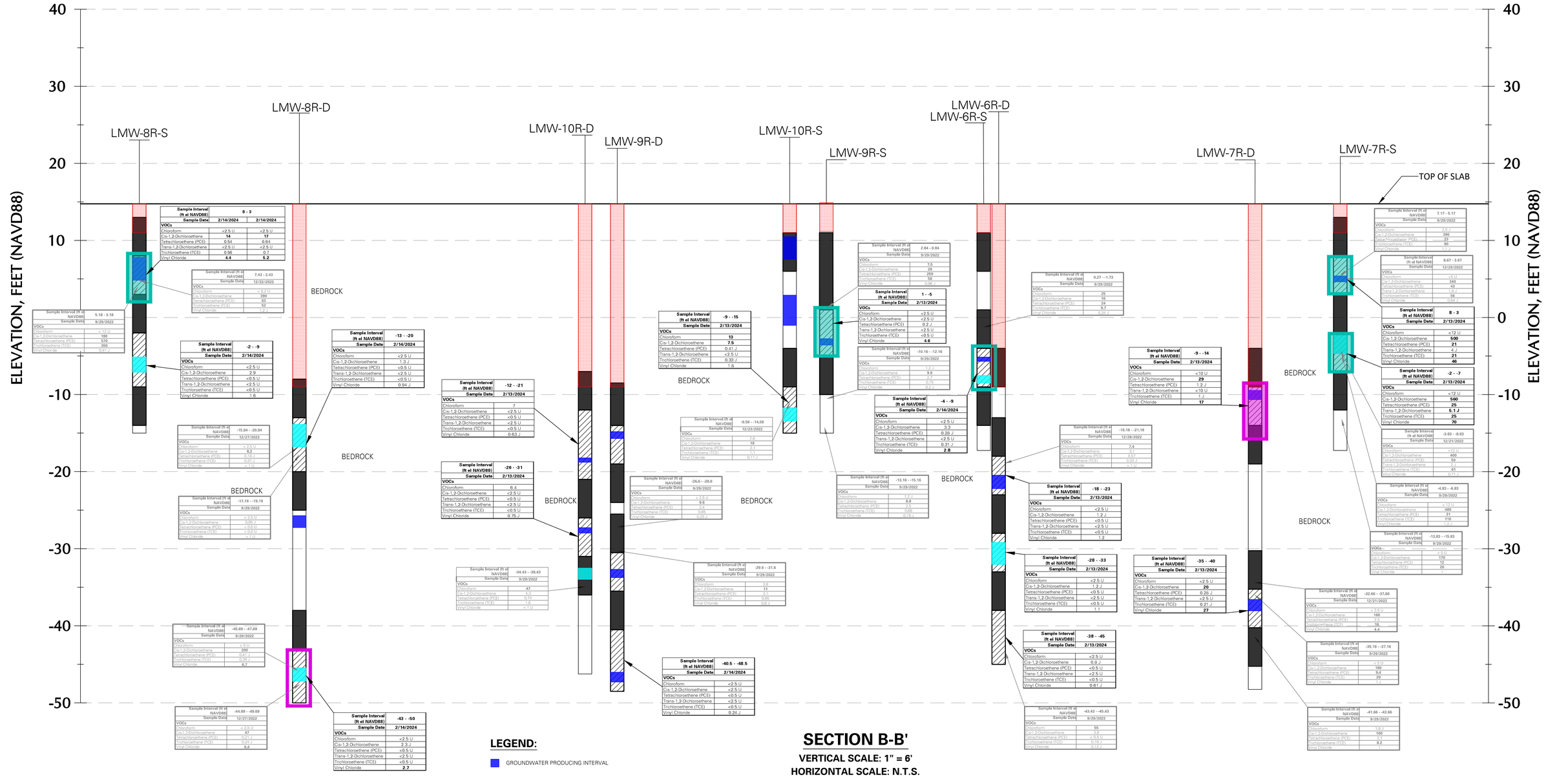
Path: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\APRX\2024-03 - Monitoring Report\Monitoring Report_2025.aprx Date: 2/25/2025 User: aruane Time: 11:15 AM



WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY 2024 PERFORMANCE GROUNDWATER MONITORING EVENT.

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

VERTICAL SCALE: 1 INCH = 6 FEET

SECTION B-B'

VERTICAL SCALE: 1" = 6'
HORIZONTAL SCALE: N.T.S.

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400
MANHATTAN NEW YORK

Project: 1487 1ST AVENUE REDEVELOPMENT SITE

Drawing Title: BEDROCK TREATMENT INJECTION INTERVALS

Project No.	Drawing No.
100963701	2B
Date: 10/11/2024	
Drawn By: AR	
Checked By: CR	

PROJECT NO. 100963701

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Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Injection_and_Groundwater_Monitoring_Report_2024.dwg Date: 10/11/2024 Time: 14:55 User: aruane Style Table: Langan.stb Layout: Figure 2B - Bedrock Treatment Injection Intervals

EAST 78TH STREET

Location	LMW-8R-D	LMW-8R-D
Sample Name	LMW-8R-D_27.75_112224	LMW-8R-D_59.75_112224
Sample Date	11/22/2024	11/22/2024
Sample Interval (ft el NAVD88)	-13 - -20	-43 - -50
VOCs		
Acetone	<25 U	**920**
Chloroform	<12 U	<50 U
Cis-1,2-Dichloroethene	<12 U	<50 U
Tetrachloroethene (PCE)	<2.5 U	<10 U
Trichloroethene (TCE)	<2.5 U	<10 U
Vinyl Chloride	<5 U	<20 U
Benzene	**1.2 J**	<10 U
Methyl Ethyl Ketone (2-Butanone)	<25 U	**760**
Toluene	<12 U	<50 U

Location	LMW-8R-S	LMW-8R-S
Sample Name	LMW-8R-S_6.75_112224	LMW-8R-S_18.75_112224
Sample Date	11/22/2024	11/22/2024
Sample Interval (ft el NAVD88)	8 - 3	-2 - -9
VOCs		
Acetone	**140**	43 J
Chloroform	<25 U	<62 U
Cis-1,2-Dichloroethene	<25 U	<62 U
Tetrachloroethene (PCE)	<5 U	<12 U
Trichloroethene (TCE)	<5 U	<12 U
Vinyl Chloride	<10 U	<25 U
Benzene	<5 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	**1,000**	**210**
Toluene	<25 U	<62 U

Location	LMW-9R-D	LMW-9R-D
Sample Name	LMW-9R-D_58.25_112224	DUP_11222024
Sample Date	11/22/2024	11/22/2024
Sample Interval (ft el NAVD88)	-40.5 - -48.5	-40.5 - -48.5
VOCs		
Acetone	2 J	3 J
Chloroform	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	0.27 J	0.22 J
Trichloroethene (TCE)	<0.5 U	<0.5 U
Vinyl Chloride	0.15 J	0.19 J
Benzene	**3.2**	**3**
Methyl Ethyl Ketone (2-Butanone)	6.5 J	18 J
Toluene	0.77 J	0.77 J

Location	LMW-7R-S	LMW-7R-S
Sample Name	LMW-7R-S_6.75_112224	LMW-7R-S_16.75_112124
Sample Date	11/22/2024	11/21/2024
Sample Interval (ft el NAVD88)	8 - 3	-2 - -7
VOCs		
Acetone	**170 J**	**64**
Chloroform	<100 U	3.8 J
Cis-1,2-Dichloroethene	<100 U	<12 U
Tetrachloroethene (PCE)	<20 U	<2.5 U
Trichloroethene (TCE)	<20 U	<2.5 U
Vinyl Chloride	<40 U	<5 U
Benzene	<20 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	**640**	42
Toluene	<100 U	<12 U

Location	LMW-9R-S
Sample Name	LMW-9R-S_13.75_112224
Sample Date	11/22/2024
Sample Interval (ft el NAVD88)	1 - -5
VOCs	
Acetone	**1,200**
Chloroform	<120 U
Cis-1,2-Dichloroethene	<120 U
Tetrachloroethene (PCE)	<25 U
Trichloroethene (TCE)	<25 U
Vinyl Chloride	<50 U
Benzene	<25 U
Methyl Ethyl Ketone (2-Butanone)	**6,000**
Toluene	<120 U

Location	LMW-6R-D	LMW-6R-D	LMW-6R-D
Sample Name	LMW-6R-D_32.75_112024	LMW-6R-D_42.75_112024	LMW-6R-D_54.75_112024
Sample Date	11/20/2024	11/20/2024	11/20/2024
Sample Interval (ft el NAVD88)	-18 - -23	-28 - -33	-38 - -45
VOCs			
Acetone	15	13	**54**
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	1.1	0.67	0.63
Trichloroethene (TCE)	0.35 J	0.18 J	0.23 J
Vinyl Chloride	0.46 J	0.5 J	0.33 J
Benzene	<0.5 U	<0.5 U	<0.5 U
Methyl Ethyl Ketone (2-Butanone)	8.3	7.6	9.7
Toluene	**7.6**	**7.6**	**5.8**

Location	LMW-7R-D
Sample Name	LMW-7R-D_23.75_112224
Sample Date	11/22/2024
Sample Interval (ft el NAVD88)	-9 - -14
VOCs	
Acetone	**480 J**
Chloroform	<620 U
Cis-1,2-Dichloroethene	<620 U
Tetrachloroethene (PCE)	<120 U
Trichloroethene (TCE)	<120 U
Vinyl Chloride	<250 U
Benzene	<120 U
Methyl Ethyl Ketone (2-Butanone)	**6,100**
Toluene	<620 U

Location	LMW-6R-S
Sample Name	LMW-6R-S_18.75_112224
Sample Date	11/22/2024
Sample Interval (ft el NAVD88)	-4 - -9
VOCs	
Acetone	<50 U
Chloroform	<25 U
Cis-1,2-Dichloroethene	<25 U
Tetrachloroethene (PCE)	<5 U
Trichloroethene (TCE)	<5 U
Vinyl Chloride	<10 U
Benzene	<5 U
Methyl Ethyl Ketone (2-Butanone)	<50 U
Toluene	<25 U

Location	LMW-10R-D	LMW-10R-D
Sample Name	LMW-10R-D-30.75_112524	LMW-10R-D-40.75_112524
Sample Date	11/25/2024	11/25/2024
Sample Interval (ft el NAVD88)	-12 - -21	-26 - -31
VOCs		
Acetone	<5 U	2.9 J
Chloroform	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	0.48 J	0.23 J
Trichloroethene (TCE)	<0.5 U	<0.5 U
Vinyl Chloride	<1 U	0.16 J
Benzene	0.42 J	0.31 J
Methyl Ethyl Ketone (2-Butanone)	<5 U	<5 U
Toluene	1.7 J	2.7

Location	LMW-10R-S
Sample Name	LMW-10R-S-24.75_112224
Sample Date	11/22/2024
Sample Interval (ft el NAVD88)	-9 - -15
VOCs	
Acetone	2.7 J
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	1.5 J
Tetrachloroethene (PCE)	0.34 J
Trichloroethene (TCE)	0.21 J
Vinyl Chloride	0.69 J
Benzene	0.24 J
Methyl Ethyl Ketone (2-Butanone)	<5 U
Toluene	**6.9**

Analyte	NYSDEC SGVs
VOCs	
Acetone	50
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trichloroethene (TCE)	5
Vinyl Chloride	2
Benzene	1
Methyl Ethyl Ketone (2-Butanone)	50
Toluene	5

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

LMW-8R-S
LMW-9R-S
LMW-9R-D
LMW-7R-S
LMW-7R-D
LMW-8R-D
LMW-13R-D
LMW-13R-S
LMW-6R-D
LMW-6R-S
LMW-11R-D
LMW-11R-S
LMW-12R-D
LMW-12R-S
LMW-10R-D
LMW-10-RS
LMW-10R-S

B
B'

B: 1452
L: 32

B: 1452
L: 31

B: 1452
L: 27

FIRST AVENUE

15 0 15
SCALE IN FEET

LEGEND

- SITE BOUNDARY
- TAX LOT BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- CROSS SECTION
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI
- PROPOSED PERFORMANCE MONITORING WELLS

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
3. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.

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Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

1487 FIRST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No. 27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

GROUNDWATER ANALYTICAL RESULTS

Project No. 100963701	Figure 3A
Date 3/4/2025	
Scale 1"=15'	
Drawn By IHB	

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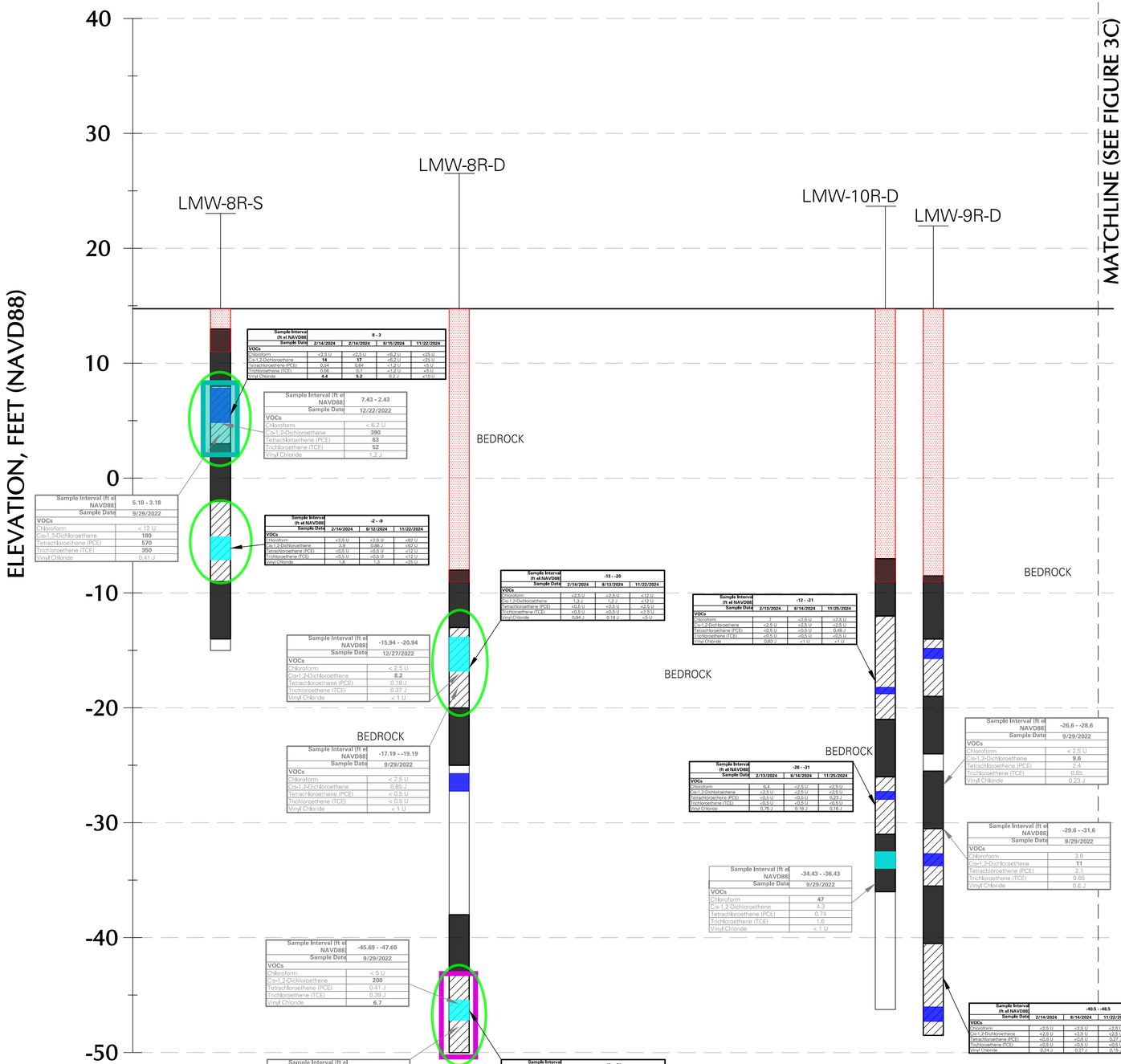

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
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SECTION B-B' WEST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400
MANHATTAN NEW YORK

Project
1487 1ST AVENUE REDEVELOPMENT SITE

Drawing Title
CHLORINATED VOC ANALYTICAL RESULTS (SECTION B-B' WEST)

Project No. 100963701
Date 03/03/2025
Drawn By AR
Checked By CR
Drawing No. 3B

LANGAN
PROJECT NO. 100963701

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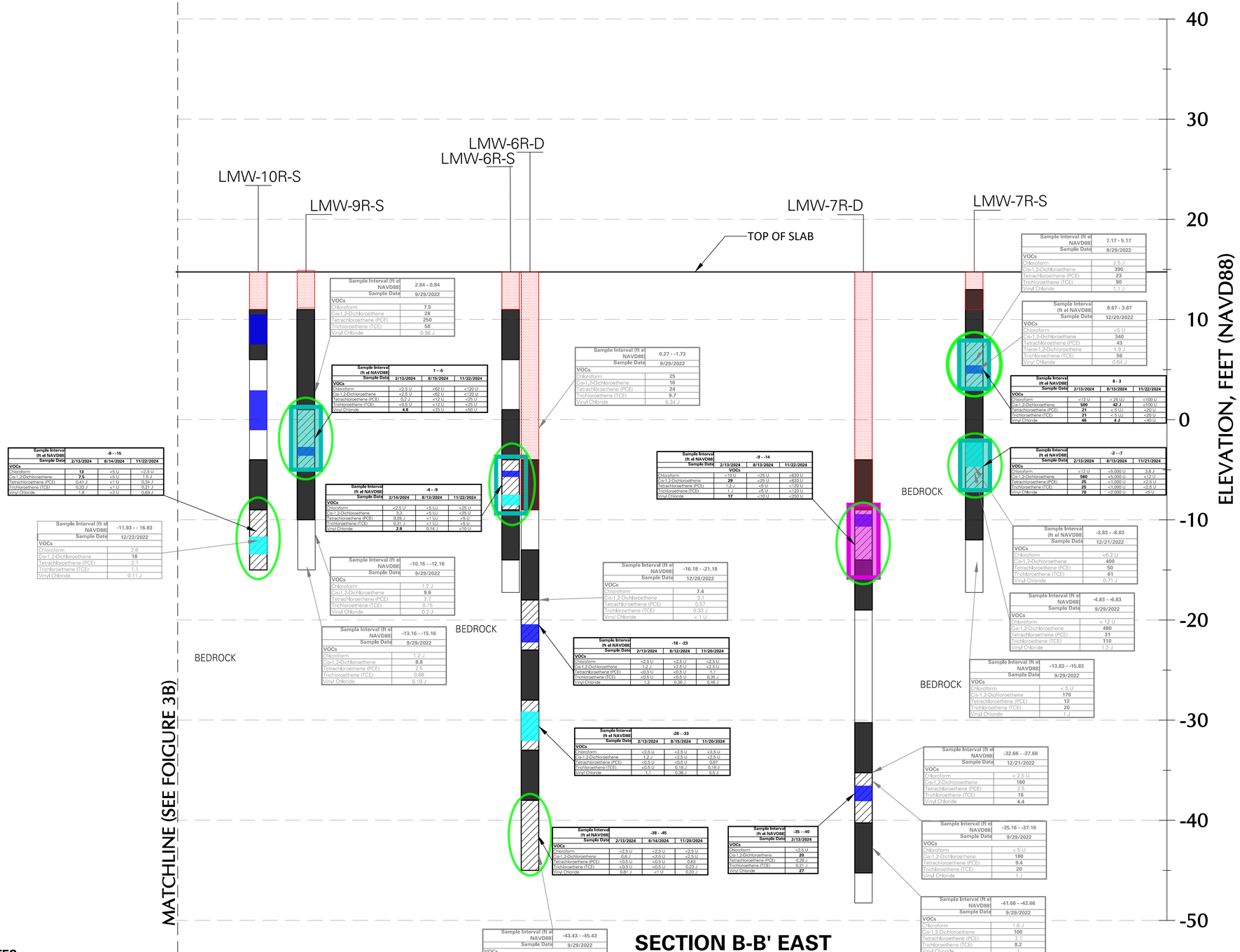
Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Injection_and_Groundwater_Monitoring_Report_2025.dwg Date: 3/3/2025 Time: 14:30 User: aruane Style Table: Langan.stb Layout: Figure 3B - Chlorinated VOC Analytical Results



LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY, AUGUST, AND NOVEMBER 2024 PERFORMANCE GROUNDWATER MONITORING EVENTS.

SECTION B-B' EAST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

VERTICAL SCALE: 1 INCH = 6 FEET

LANGAN
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Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Injection_and_Groundwater_Monitoring_Report_2025.dwg Date: 3/3/2025 Time: 14:33 User: aruane Style Table: Langan.stb Layout: Figure 3C - Chlorinated VOC Analytical Results

APPENDIX A

Laboratory Reports

www.alphalab.com

Alpha Analytical

Laboratory Code: 11148

SDG Number: L2468376

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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ICAL Sequence for ELAINE on 15-NOV-2024 00:00 ICAL21711 472
Instrument ELAINE Run Date 11/22/24 Run ID R1903920 473

Project Name: 1487 FIRST AVENUE
Project Number: 100963701

Lab Number: L2468376
Report Date: 11/25/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2468376-01	LMW_6R_D_32.75	WATER	NEW YORK, NY	11/20/24 12:00	11/20/24
L2468376-02	LMW_6R_D_42.75	WATER	NEW YORK, NY	11/20/24 13:00	11/20/24
L2468376-03	LMW_6R_D_54.75	WATER	NEW YORK, NY	11/20/24 14:15	11/20/24
L2468376-04	TB_11202024	WATER	NEW YORK, NY	11/20/24 00:00	11/20/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristen Walker Report Date: 11/25/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

TYPICAL INSTRUMENT PARAMETERS

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD	
	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2468376

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVENUE

Received : 20-NOV-2024
Reviewer : Chris Tebeau

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.0	

Condition Information

1) All samples on COC received?	**YES**
2) Extra samples received?	**NO**
3) Are there any sample container discrepancies?	**NO**
4) Are there any discrepancies between COC & sample labels?	**NO**
5) Are samples in appropriate containers for requested analysis?	**YES**
6) Are samples properly preserved for requested analysis? Following containers were received with headspace: -03B	**NO**
7) Are samples within holding time for requested analysis?	**YES**
8) All sampling equipment returned?	**NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	**NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 25 2024, 01:16 pm

Login Number: L2468376
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 20NOV24 Due Date: 25NOV24

Sample #	Client ID	Mat	PR	Collected
L2468376-01	LMW_6R_D_32.75	1	1B	20NOV24 12:00

Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 11/25/24

ASP-B,NYTCL-8260

Sample #	Client ID	Mat	PR	Collected
L2468376-02	LMW_6R_D_42.75	1	1B	20NOV24 13:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24

NYTCL-8260

Sample #	Client ID	Mat	PR	Collected
L2468376-03	LMW_6R_D_54.75	1	1B	20NOV24 14:15

Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24

NYTCL-8260

Sample #	Client ID	Mat	PR	Collected
L2468376-04	TB_11202024	1	1B	20NOV24 00:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24

NYTCL-8260

Logged By: Ben Rao

NEW YORK CHAIN OF CUSTODY

L2468376 27NOV24
LANGAN – NJ

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 11/21/24

Client Information
Client: LANGAN
Address: 300 Kimball Dr
Parsippany, NJ 07054
Phone: 973-560-4900
Fax:
Email: jfriscia@langan.com

Project Information
Project Name: 1487 First Avenue
Project Location: New York, NY
Project #: 100963701
(Use Project name as Project #)
Project Manager: Jessica Friscia
ALPHAQuote #:

Turn-Around Time
Standard: X — Due Date:
Rush (only if pre approved): — # of Days:

Deliverables
ASP-A: — ASP-B: X
EQuIS (1 File): — EQuIS (4 File):
Other:

Billing Information
Same as Client Info
PO #

Regulatory Requirement
NY TOGS: — NY Part 375:
AWQ Standards: — NY CP-51:
NY Restricted Use: — Other:
NY Unrestricted Use:
NYC Sewer Discharge:

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
NJ: — NY:
Other:

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS
VOCs

Sample Filtration
Done
Lab to do
Preservation
Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Total Bottle	Sample Specific Comments
68376-01	CMW-6R_D-32.75	11/20	1200	GW	DH	X	3	
02	CMW_6R_D-42.75	11/20	1300	GW	DH	X	3	
03	CMW_6R_D_54.75	11/20	1415	GW	DH	X	3	
04	TB-11202024					X	2	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	VOA							
Preservative	HCl							

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Horvath (LANGAN)	11/20 1610	REPACE 16:00	11.20.24
REPACE 14:30	11.20.24	Anthony Green	NOV 20 2024 1550
Anthony Green	11/21/24 0130		11/21/24 0130
	11/21/24 0330		11/21/24 0330

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVENUE

Lab Number: L2468376
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
LMW_6R_D_32.75 (L2468376-01)	111	104	101	99	0
LMW_6R_D_42.75 (L2468376-02)	107	103	103	101	0
LMW_6R_D_54.75 (L2468376-03)	108	102	104	102	0
TB_11202024 (L2468376-04)	109	102	102	102	0
WG2001424-3LCS	109	103	102	101	0
WG2001424-4LCSD	113	102	103	99	0
WG2001424-5BLANK	110	103	101	99	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001424-3 **Analysis Date** : 11/22/24 21:20	**File ID**	: VE241122N02
LCSD Sample ID	: WG2001424-4 **Analysis Date** : 11/22/24 21:45	**File ID**	: VE241122N03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.8	98	10	9.9	99	1	70-130	20
1,1-Dichloroethane	10	10	100	10	10	100	0	70-130	20
Chloroform	10	10	100	10	10	100	0	70-130	20
Carbon tetrachloride	10	9.2	92	10	9.1	91	1	63-132	20
1,2-Dichloropropane	10	11	110	10	11	110	0	70-130	20
Dibromochloromethane	10	9.3	93	10	9.3	93	0	63-130	20
1,1,2-Trichloroethane	10	10	100	10	10	100	0	70-130	20
Tetrachloroethene	10	9.4	94	10	9.4	94	0	70-130	20
Chlorobenzene	10	10	100	10	9.9	99	1	75-130	20
Trichlorofluoromethane	10	9.9	99	10	9.9	99	0	62-150	20
1,2-Dichloroethane	10	10	100	10	10	100	0	70-130	20
1,1,1-Trichloroethane	10	9.8	98	10	9.8	98	0	67-130	20
Bromodichloromethane	10	9.8	98	10	10	100	2	67-130	20
trans-1,3-Dichloropropene	10	9.9	99	10	9.8	98	1	70-130	20
cis-1,3-Dichloropropene	10	9.6	96	10	9.8	98	2	70-130	20
1,1-Dichloropropene	10	9.9	99	10	9.9	99	0	70-130	20
Bromoform	10	9.0	90	10	8.8	88	2	54-136	20
1,1,2,2-Tetrachloroethane	10	11	110	10	10	100	10	67-130	20
Benzene	10	10	100	10	10	100	0	70-130	20
Toluene	10	10	100	10	10	100	0	70-130	20
Ethylbenzene	10	10	100	10	10	100	0	70-130	20
Chloromethane	10	8.6	86	10	8.6	86	0	64-130	20
Bromomethane	10	4.6	46	10	5.1	51	10	39-139	20
Vinyl chloride	10	11	110	10	10	100	10	55-140	20
Chloroethane	10	11	110	10	11	110	0	55-138	20
1,1-Dichloroethene	10	10	100	10	10	100	0	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001424-3 **Analysis Date** : 11/22/24 21:20	**File ID**	: VE241122N02
LCSD Sample ID	: WG2001424-4 **Analysis Date** : 11/22/24 21:45	**File ID**	: VE241122N03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	9.5	95	10	9.6	96	1	70-130	20
Trichloroethene	10	10	100	10	10	100	0	70-130	20
1,2-Dichlorobenzene	10	9.9	99	10	9.7	97	2	70-130	20
1,3-Dichlorobenzene	10	10	100	10	9.7	97	3	70-130	20
1,4-Dichlorobenzene	10	10	100	10	9.8	98	2	70-130	20
Methyl tert butyl ether	10	9.5	95	10	9.4	94	1	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Dibromomethane	10	9.8	98	10	10	100	2	70-130	20
1,2,3-Trichloropropane	10	11	110	10	10	100	10	64-130	20
Acrylonitrile	10	10	100	10	9.7	97	3	70-130	20
Styrene	20	20	100	20	19	95	5	70-130	20
Dichlorodifluoromethane	10	10	100	10	11	110	10	36-147	20
Acetone	10	9.3	93	10	10	100	7	58-148	20
Carbon disulfide	10	10	100	10	11	110	10	51-130	20
2-Butanone	10	9.1	91	10	10	100	9	63-138	20
Vinyl acetate	10	9.3	93	10	9.6	96	3	70-130	20
4-Methyl-2-pentanone	10	9.7	97	10	9.2	92	5	59-130	20
2-Hexanone	10	9.1	91	10	8.6	86	6	57-130	20
Bromochloromethane	10	9.9	99	10	9.6	96	3	70-130	20
2,2-Dichloropropane	10	8.9	89	10	9.1	91	2	63-133	20
1,2-Dibromoethane	10	9.8	98	10	9.5	95	3	70-130	20
1,3-Dichloropropane	10	10	100	10	10	100	0	70-130	20
1,1,1,2-Tetrachloroethane	10	9.8	98	10	9.9	99	1	64-130	20
Bromobenzene	10	10	100	10	10	100	0	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001424-3 **Analysis Date** : 11/22/24 21:20	**File ID**	: VE241122N02
LCSD Sample ID	: WG2001424-4 **Analysis Date** : 11/22/24 21:45	**File ID**	: VE241122N03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	10	100	10	9.9	99	1	53-136	20
sec-Butylbenzene	10	10	100	10	9.8	98	2	70-130	20
tert-Butylbenzene	10	10	100	10	9.6	96	4	70-130	20
o-Chlorotoluene	10	10	100	10	10	100	0	70-130	20
p-Chlorotoluene	10	10	100	10	10	100	0	70-130	20
1,2-Dibromo-3-chloropropane	10	9.2	92	10	9.1	91	1	41-144	20
Hexachlorobutadiene	10	8.8	88	10	8.5	85	3	63-130	20
Isopropylbenzene	10	10	100	10	9.9	99	1	70-130	20
p-Isopropyltoluene	10	10	100	10	9.7	97	3	70-130	20
Naphthalene	10	9.5	95	10	9.3	93	2	70-130	20
n-Propylbenzene	10	10	100	10	10	100	0	69-130	20
1,2,3-Trichlorobenzene	10	9.5	95	10	9.2	92	3	70-130	20
1,2,4-Trichlorobenzene	10	9.5	95	10	9.3	93	2	70-130	20
1,3,5-Trimethylbenzene	10	10	100	10	10	100	0	64-130	20
1,2,4-Trimethylbenzene	10	10	100	10	10	100	0	70-130	20
1,4-Dioxane	500	470	94	500	490	98	4	56-162	20
p-Diethylbenzene	10	10	100	10	9.7	97	3	70-130	20
p-Ethyltoluene	10	10	100	10	10	100	0	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.7	97	10	9.4	94	3	70-130	20
Ethyl ether	10	11	110	10	11	110	0	59-134	20
trans-1,4-Dichloro-2-butene	10	9.8	98	10	9.7	97	1	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab Sample ID	: WG2001424-5	**Lab File ID**	: VE241122N05
Instrument ID	: ELAINE		
Matrix	: WATER	**Analysis Date**	: 11/22/24 22:34

Client Sample No.	Lab Sample ID	Analysis Date
WG2001424-3LCS	WG2001424-3	11/22/24 21:20
WG2001424-4LCSD	WG2001424-4	11/22/24 21:45
LMW_6R_D_32.75	L2468376-01	11/23/24 01:49
LMW_6R_D_42.75	L2468376-02	11/23/24 02:14
LMW_6R_D_54.75	L2468376-03	11/23/24 02:38
TB_11202024	L2468376-04	11/23/24 03:03

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/15/24 01:44
Tune Standard	: WG1998028-1	**Tune File ID**	: VE241115ABF3_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 80.0% of mass 95	51.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.4 (.4)1
174	Greater than 50.0% of mass 95	80.3
175	5.0 - 9.0% of mass 174	6.5 (8.1)1
176	Greater than 95.0% but less than 101% of mass	77.6 (96.6)1
177	5.0 - 9.0% of mass 176	5.8 (7.4)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1900740-1	VE241115A03	11/15/24 02:52
STD0.5PPB	R1900740-2	VE241115A05	11/15/24 03:41
STD2PPB	R1900740-3	VE241115A07	11/15/24 04:30
STD10PPB	R1900740-4	VE241115A09	11/15/24 05:18
STD30PPB	R1900740-5	VE241115A10	11/15/24 05:43
STD80PPB	R1900740-6	VE241115A11	11/15/24 06:07
STD120PPB	R1900740-7	VE241115A12	11/15/24 06:32
STD200PPB	R1900740-8	VE241115A13	11/15/24 06:56
ICV Quant Report	R1900740-9	VE241115A18	11/15/24 08:59

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/22/24 20:47
Tune Standard	: WG2001424-1	**Tune File ID**	: VE241122NBF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	22.6
75	30.0 - 80.0% of mass 95	52.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.2 (.3)1
174	Greater than 50.0% of mass 95	72.2
175	5.0 - 9.0% of mass 174	5.2 (7.2)1
176	Greater than 95.0% but less than 101% of mass	71.6 (99.2)1
177	5.0 - 9.0% of mass 176	4.7 (6.5)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG2001424-2CCAL	WG2001424-2	VE241122N02	11/22/24 21:20
WG2001424-3LCS	WG2001424-3	VE241122N02	11/22/24 21:20
WG2001424-4LCSD	WG2001424-4	VE241122N03	11/22/24 21:45
WG2001424-5BLANK	WG2001424-5	VE241122N05	11/22/24 22:34
LMW_6R_D_32.75	L2468376-01	VE241122N13	11/23/24 01:49
LMW_6R_D_42.75	L2468376-02	VE241122N14	11/23/24 02:14
LMW_6R_D_54.75	L2468376-03	VE241122N15	11/23/24 02:38
TB_11202024	L2468376-04	VE241122N16	11/23/24 03:03

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/22/24 21:20:00
Sample No	: WG2001424-2	**Lab File ID**	: VE241122N02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG2001424-2	199076	5.94	141631	9.47	72502	12.19
Upper Limit	398152	6.44	283262	9.97	145004	12.69
Lower Limit	99538	5.44	70816	8.97	36251	11.69
Sample ID						
WG2001424-3 LCS	199076	5.94	141631	9.47	72502	12.19
WG2001424-4 LCSD	199114	5.94	142663	9.47	73673	12.18
WG2001424-5 BLANK	188840	5.94	137053	9.47	69831	12.19
LMW_6R_D_32.75	190896	5.94	134747	9.47	69623	12.19
LMW_6R_D_42.75	189732	5.94	135434	9.47	68284	12.19
LMW_6R_D_54.75	192323	5.94	138671	9.47	68105	12.19
TB_11202024	190939	5.94	136461	9.47	67922	12.19

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14094-1
Page: 1

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

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Date Created: 03/15/23
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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
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Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-01	**Date Collected**	: 11/20/24 12:00
Client ID	: LMW_6R_D_32.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 01:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N13	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	1.7	2.5	0.70	J
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	1.1	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	0.27	0.50	0.13	J
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	7.6	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.46	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-01	**Date Collected**	: 11/20/24 12:00
Client ID	: LMW_6R_D_32.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 01:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N13	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.35	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	15	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	8.3	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-01	**Date Collected**	: 11/20/24 12:00
Client ID	: LMW_6R_D_32.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 01:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N13	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-01	**Date Collected**	: 11/20/24 12:00
Client ID	: LMW_6R_D_32.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 01:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N13	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-02	**Date Collected**	: 11/20/24 13:00
Client ID	: LMW_6R_D_42.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:14
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N14	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	0.73	2.5	0.70	J
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.67	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	7.6	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.50	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-02	**Date Collected**	: 11/20/24 13:00
Client ID	: LMW_6R_D_42.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:14
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N14	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.18	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	13	5.0	1.5	
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	7.6	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-02	**Date Collected**	: 11/20/24 13:00
Client ID	: LMW_6R_D_42.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:14
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N14	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-02	**Date Collected**	: 11/20/24 13:00
Client ID	: LMW_6R_D_42.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:14
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N14	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-03	**Date Collected**	: 11/20/24 14:15
Client ID	: LMW_6R_D_54.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:38
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N15	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	1.6	2.5	0.70	J
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.63	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	0.28	0.50	0.13	J
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	5.8	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.33	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-03	**Date Collected**	: 11/20/24 14:15
Client ID	: LMW_6R_D_54.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:38
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N15	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.23	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	54	5.0	1.5	
75-15-0	Carbon disulfide	2.3	5.0	1.0	J
78-93-3	2-Butanone	9.7	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-03	**Date Collected**	: 11/20/24 14:15
Client ID	: LMW_6R_D_54.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:38
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N15	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-03	**Date Collected**	: 11/20/24 14:15
Client ID	: LMW_6R_D_54.75	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 02:38
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N15	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-04	**Date Collected**	: 11/20/24 00:00
Client ID	: TB_11202024	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 03:03
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N16	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-04	**Date Collected**	: 11/20/24 00:00
Client ID	: TB_11202024	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 03:03
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N16	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-04	**Date Collected**	: 11/20/24 00:00
Client ID	: TB_11202024	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 03:03
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N16	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: L2468376-04	**Date Collected**	: 11/20/24 00:00
Client ID	: TB_11202024	**Date Received**	: 11/20/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 03:03
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N16	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: WG2001424-5	**Date Collected**	: NA
Client ID	: WG2001424-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/22/24 22:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: WG2001424-5	**Date Collected**	: NA
Client ID	: WG2001424-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/22/24 22:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: WG2001424-5	**Date Collected**	: NA
Client ID	: WG2001424-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/22/24 22:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701
Lab ID	: WG2001424-5	**Date Collected**	: NA
Client ID	: WG2001424-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/22/24 22:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241122N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Acq On : 23 Nov 2024 1:49 am
Operator : ELAINE:MJV
Sample : l2468376-01,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 23 11:25:25 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	190896	10.000 ug/L	0.00
Standard Area 1 = 199076			Recovery = 95.89%		
63) Chlorobenzene-d5	9.472	117	134747	10.000 ug/L	0.00
Standard Area 1 = 141631			Recovery = 95.14%		
84) 1,4-Dichlorobenzene-d4	12.185	152	69623	10.000 ug/L	0.00
Standard Area 1 = 72502			Recovery = 96.03%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.141	113	43487	9.935 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.35%		
47) 1,2-Dichloroethane-d4	5.654	65	57254	11.055 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.55%		
64) Toluene-d8	7.632	98	191370	10.414 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.14%		
88) 4-Bromofluorobenzene	10.972	95	64768	10.125 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.25%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.444	85	25	N.D.	
3) Chloromethane	1.767	50	215	N.D.	
4) Vinyl chloride	1.848	62	2086	0.465 ug/L #	1
5) Bromomethane	2.199	94	32	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	2.718	74	27	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.924	76	2888	0.288 ug/L #	79
15) Methylene chloride	3.438	84	7183M1	1.725 ug/L	
17) Acetone	3.479	43	12059	14.711 ug/L	95
18) trans-1,2-Dichloroethene	3.460	96	31	N.D.	
21) Methyl tert-butyl ether	3.677	73	25	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D. d	
27) Acrylonitrile	4.207	53	29	N.D.	
29) Vinyl acetate	4.405	43	26	N.D.	
30) cis-1,2-Dichloroethene	4.706	96	2554	0.602 ug/L #	41
31) 2,2-Dichloropropane	0.000		0	N.D. d	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	5.108	83	26	N.D.	

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Acq On : 23 Nov 2024 1:49 am
Operator : ELAINE:MJV
Sample : l2468376-01,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 23 11:25:25 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	5.127	117	26	N.D.	
40) 1,1,1-Trichloroethane	5.150	97	3329M1	0.541 ug/L	
42) 2-Butanone	5.247	43	9736M3	8.329 ug/L	
43) 1,1-Dichloropropene	5.253	75	31	N.D.	
45) Benzene	5.515	78	2437M1	0.144 ug/L	
48) 1,2-Dichloroethane	5.730	62	1482M3	0.274 ug/L	
52) Trichloroethene	6.120	95	1426M3	0.354 ug/L	
54) Dibromomethane	6.446	93	28	N.D.	
55) 1,2-Dichloropropane	6.773	63	25	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
61) 1,4-Dioxane	0.000		0	N.D.	
62) cis-1,3-Dichloropropene	7.498	75	33	N.D.	
65) Toluene	7.690	92	80489	7.601 ug/L	92
66) 4-Methyl-2-pentanone	8.125	58	147	0.132 ug/L #	1
67) Tetrachloroethene	8.134	166	4828	1.134 ug/L	75
69) trans-1,3-Dichloropropene	8.167	75	26	N.D.	
72) 1,1,2-Trichloroethane	8.220	83	33	N.D.	
73) Chlorodibromomethane	8.658	129	32	N.D.	
74) 1,3-Dichloropropane	0.000		0	N.D.	
75) 1,2-Dibromoethane	8.649	107	27	N.D.	
77) 2-Hexanone	9.129	43	1233M1	0.690 ug/L	
78) Chlorobenzene	9.489	112	2257M1	0.201 ug/L	
79) Ethylbenzene	9.531	91	2530M1	0.125 ug/L	
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	9.723	106	1794M3	0.230 ug/L	
82) o Xylene	10.259	106	172	N.D.	
83) Styrene	10.331	104	108	N.D.	
85) Bromoform	0.000		0	N.D.	
87) Isopropylbenzene	10.646	105	187	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	0.000		0	N.D. d	
92) 1,1,2,2-Tetrachloroethane	11.218	83	510M2	0.128 ug/L	
93) 4-Ethyltoluene	11.232	105	520	N.D.	
94) 2-Chlorotoluene	0.000		0	N.D. d	
95) 1,3,5-Trimethylbenzene	0.000		0	N.D. d	
96) 1,2,3-Trichloropropane	11.341	75	28	N.D.	
97) trans-1,4-Dichloro-2-b...	11.371	53	28	N.D.	
98) 4-Chlorotoluene	11.427	91	29	N.D.	
99) tert-Butylbenzene	11.776	119	155	N.D.	

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Acq On : 23 Nov 2024 1:49 am
Operator : ELAINE:MJV
Sample : l2468376-01,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 23 11:25:25 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	3806	0.222	ug/L	96
103) sec-Butylbenzene	0.000		0	N.D.	d	
104) p-Isopropyltoluene	12.043	119	149	N.D.		
105) 1,3-Dichlorobenzene	12.177	146	26	N.D.		
106) 1,4-Dichlorobenzene	12.205	146	771	0.084	ug/L #	45
107) p-Diethylbenzene	12.417	119	116	N.D.		
108) n-Butylbenzene	12.475	91	172	N.D.		
109) 1,2-Dichlorobenzene	12.629	146	429	N.D.		
110) 1,2,4,5-Tetramethylben...	13.217	119	1579	0.094	ug/L #	81
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
115) Naphthalene	14.336	128	1221	0.095	ug/L	100
116) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

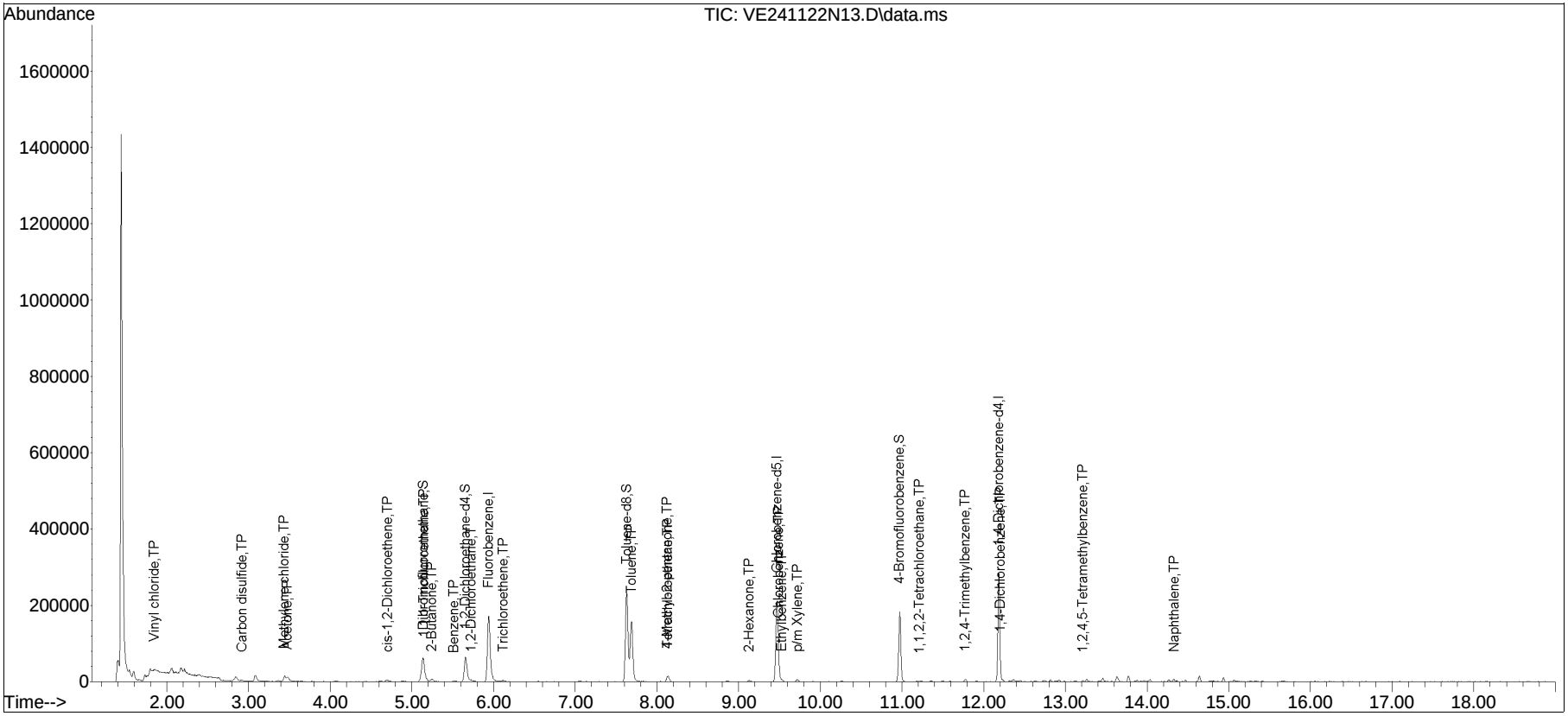
(#) = qualifier out of range (m) = manual integration (+) = signals summed

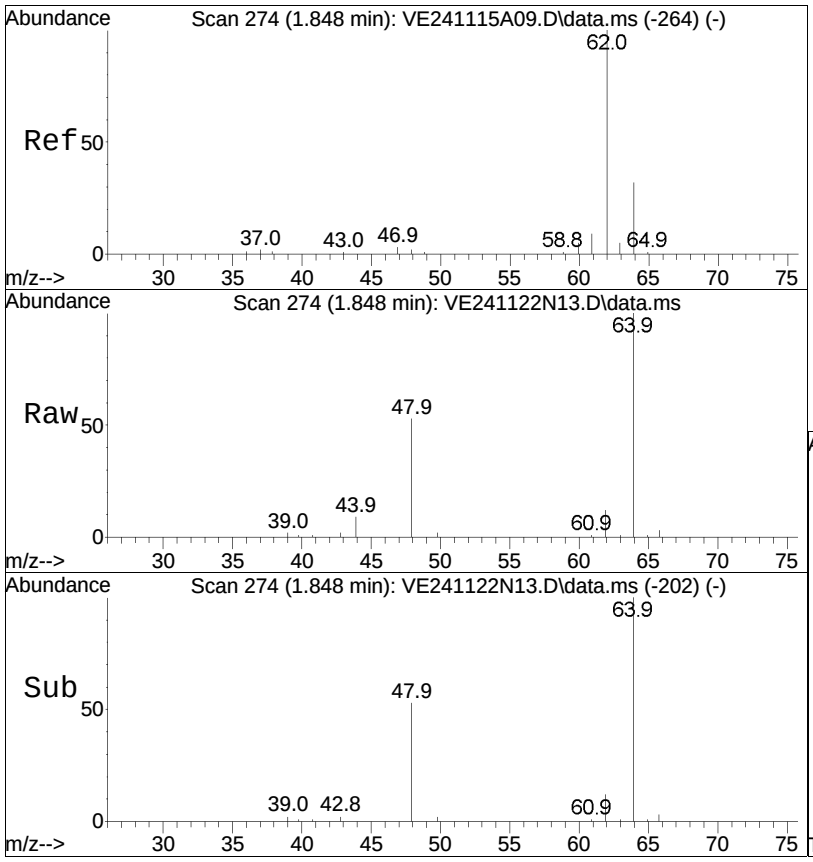
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Acq On : 23 Nov 2024 1:49 am
Operator : ELAINE:MJV
Sample : l2468376-01,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 23 11:25:25 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41122N02.D•

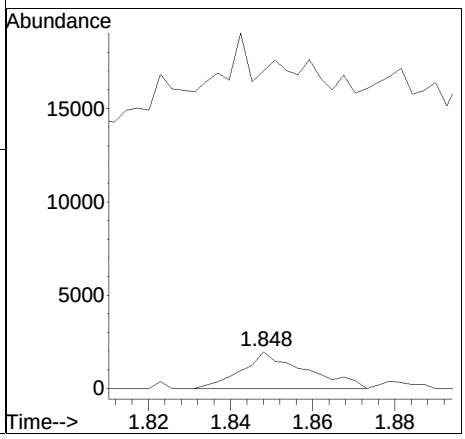


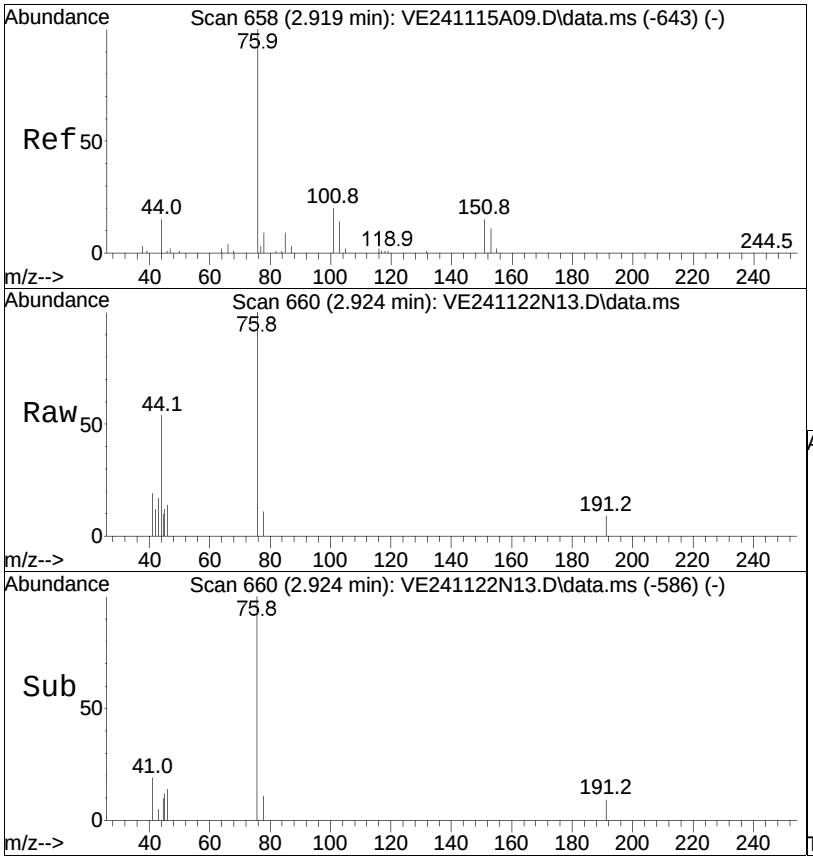


#4
Vinyl chloride
Concen: 0.46 ug/L
RT: 1.848 min Scan# 274
Delta R.T. -0.000 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 62 Resp: 2086

Ion	Ratio	Lower	Upper
62	100		
64	731.9	8.1	48.1#

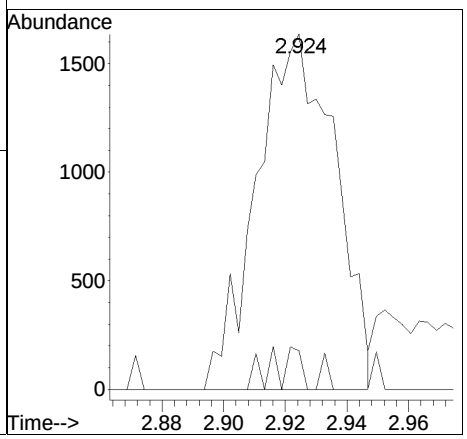


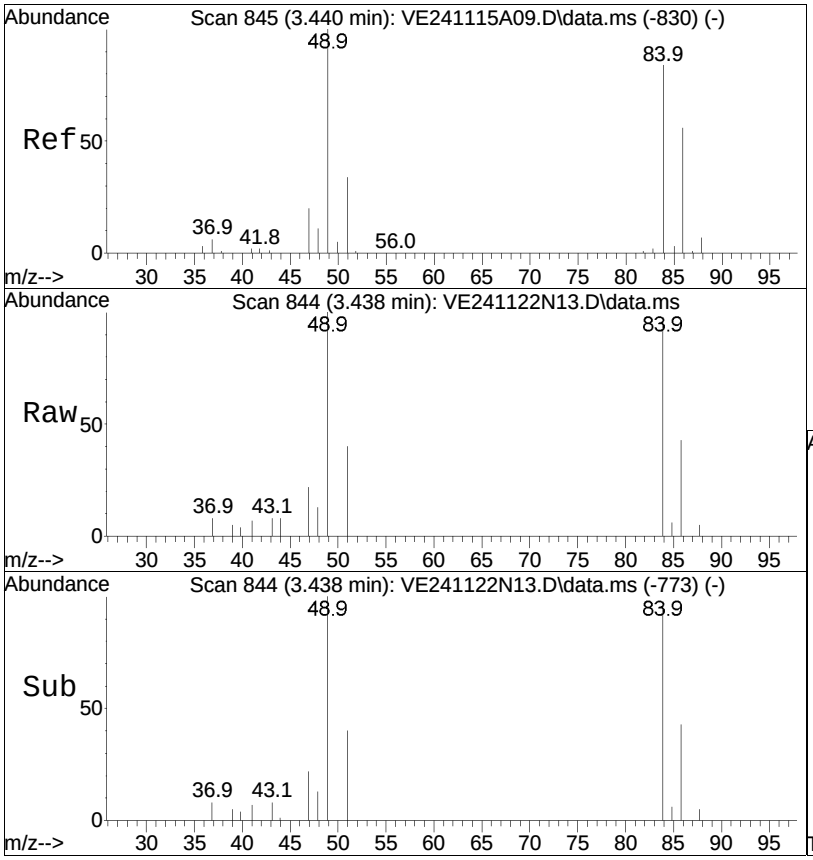


#11
Carbon disulfide
Concen: 0.29 ug/L
RT: 2.924 min Scan# 660
Delta R.T. 0.005 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 76 Resp: 2888

Ion	Ratio	Lower	Upper
76	100		
78	1.0	5.5	11.3#

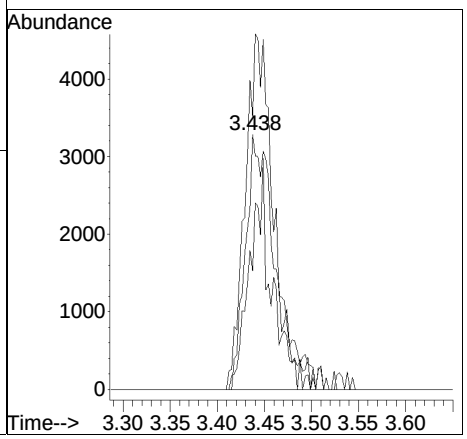


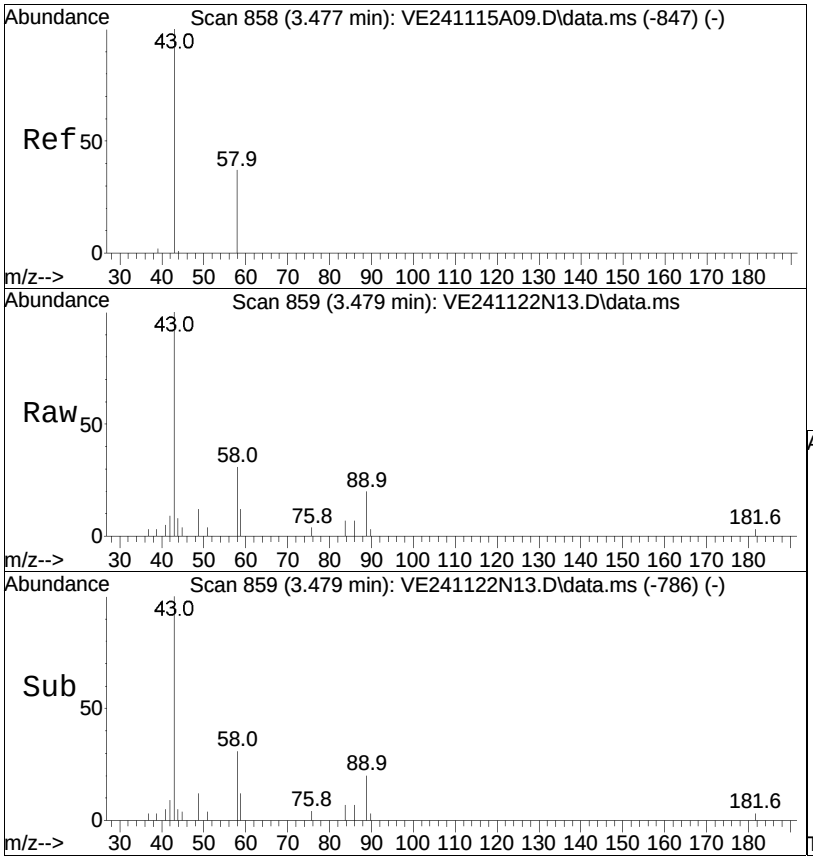


#15
Methylene chloride
Concen: 1.72 ug/L M1
RT: 3.438 min Scan# 844
Delta R.T. -0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 84 Resp: 7183

Ion	Ratio	Lower	Upper
84	100		
86	65.0	40.2	83.6
49	133.1	103.2	214.4

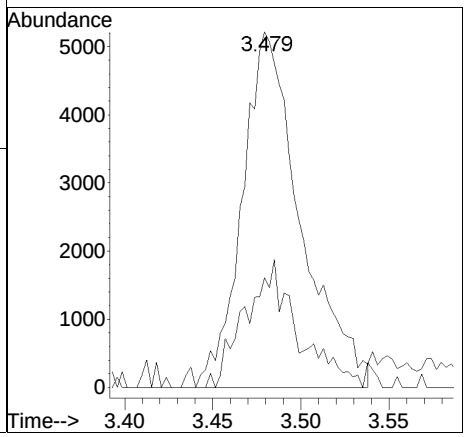


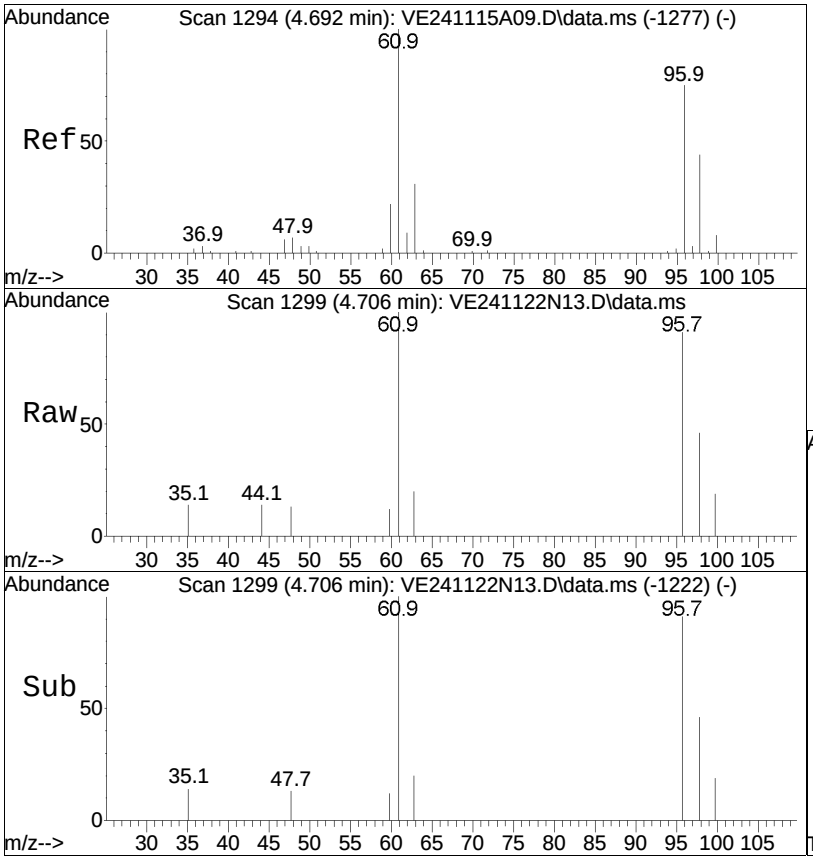


#17
Acetone
Concen: 14.71 ug/L
RT: 3.479 min Scan# 859
Delta R.T. 0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 43 Resp: 12059

Ion	Ratio	Lower	Upper
43	100		
58	26.4	23.4	35.0

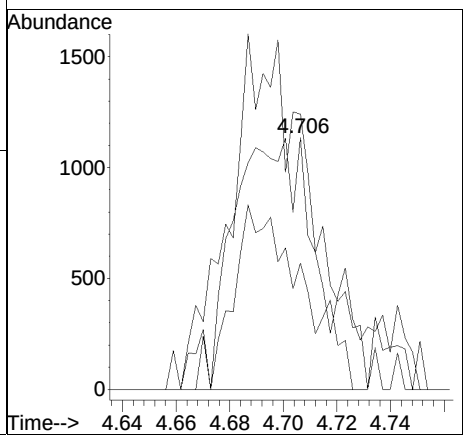


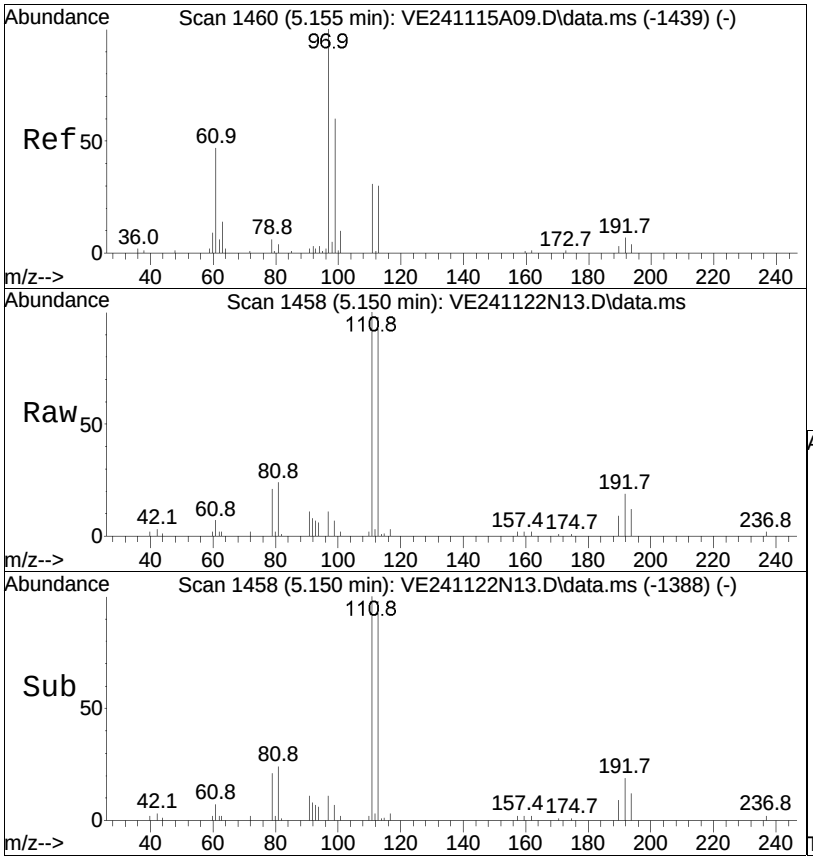


#30
cis-1,2-Dichloroethene
Concen: 0.60 ug/L
RT: 4.706 min Scan# 1299
Delta R.T. 0.014 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 96 Resp: 2554

Ion	Ratio	Lower	Upper
96	100		
61	48.9	120.3	180.5#
98	56.8	50.2	75.4

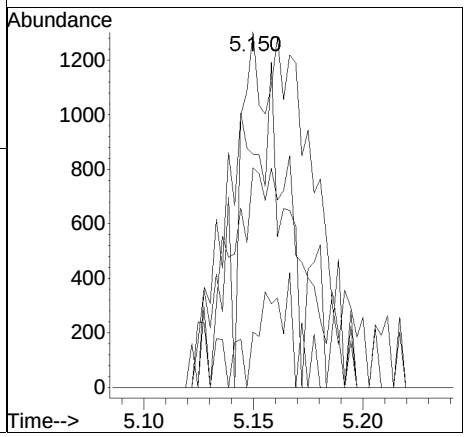


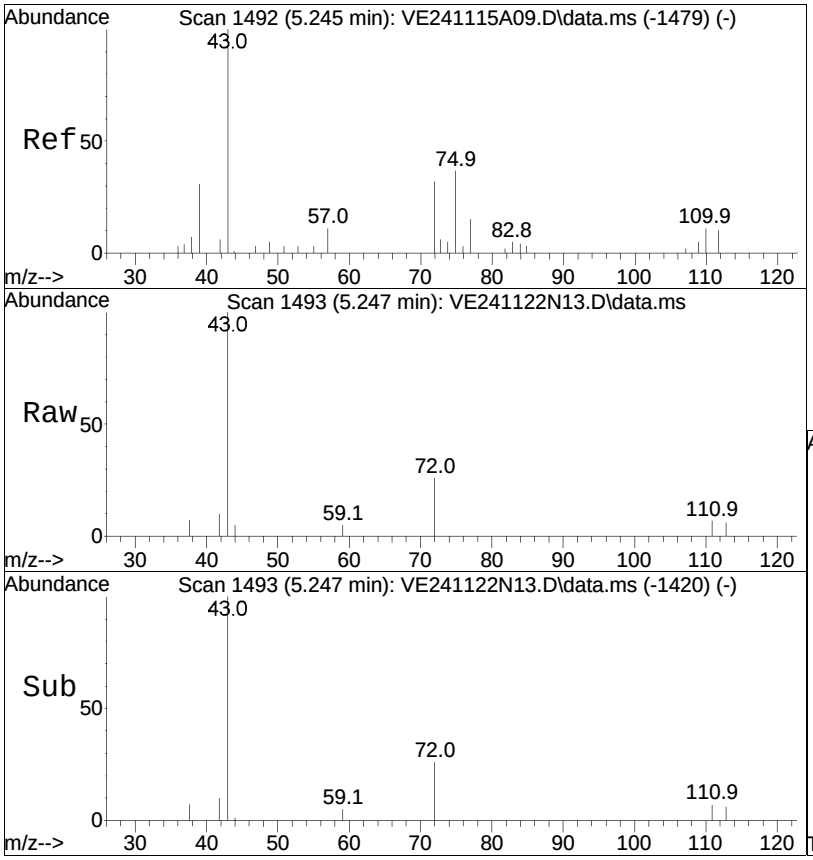


#40
1,1,1-Trichloroethane
Concen: 0.54 ug/L M1
RT: 5.150 min Scan# 1458
Delta R.T. -0.006 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 97 Resp: 3329

Ion	Ratio	Lower	Upper
97	100		
99	28.8	40.2	83.4#
61	29.0	36.9	76.5#
63	1.7	8.3	17.3#

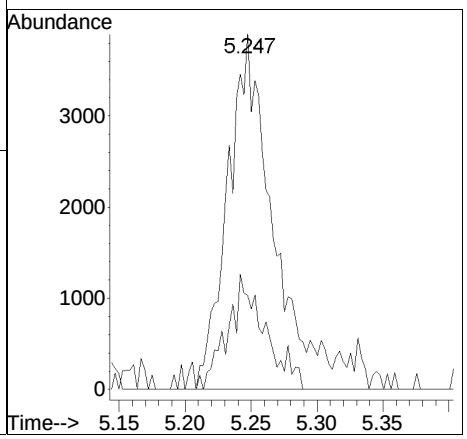


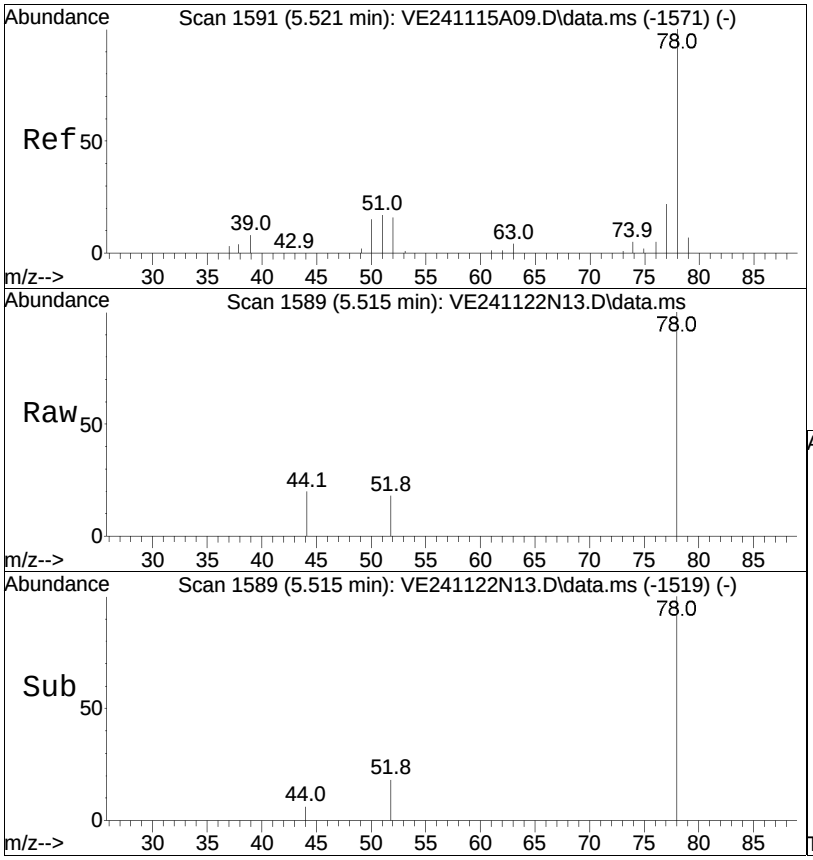


#42
2-Butanone
Concen: 8.33 ug/L M3
RT: 5.247 min Scan# 1493
Delta R.T. 0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 43 Resp: 9736

Ion	Ratio	Lower	Upper
43	100		
72	1.2	15.7	23.5#

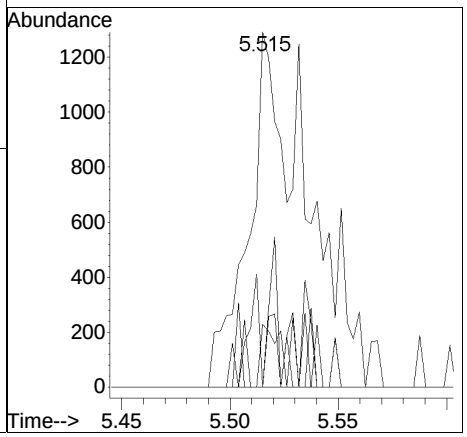


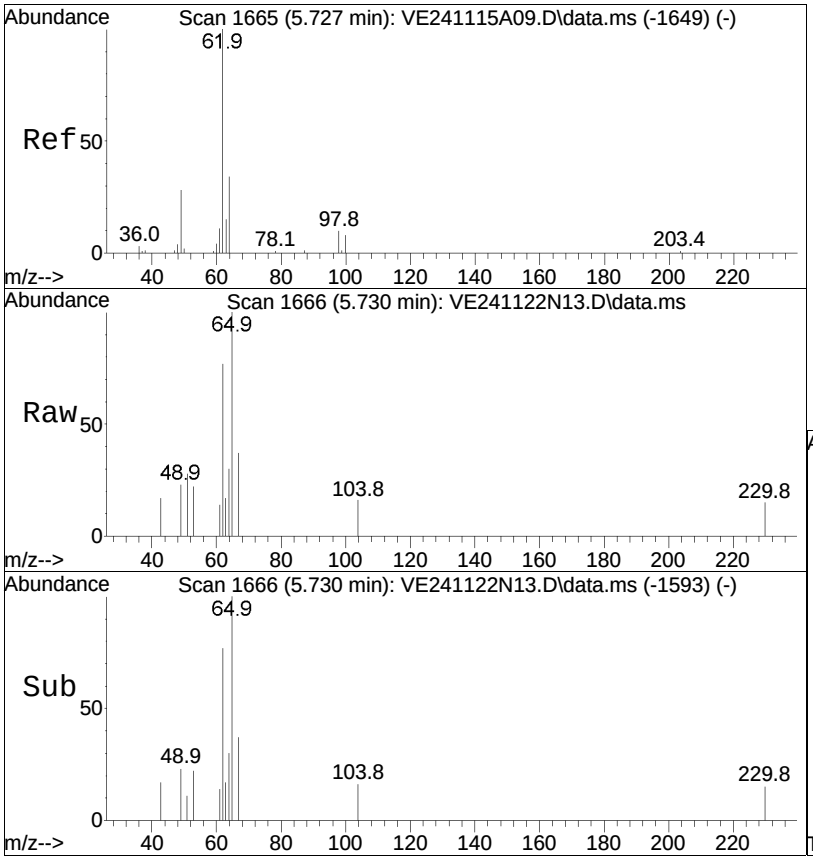


#45
Benzene
Concen: 0.14 ug/L M1
RT: 5.515 min Scan# 1589
Delta R.T. -0.006 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 78 Resp: 2437

Ion	Ratio	Lower	Upper
78	100		
77	6.5	12.8	26.6#
51	0.0	13.5	27.9#
52	5.5	12.0	25.0#

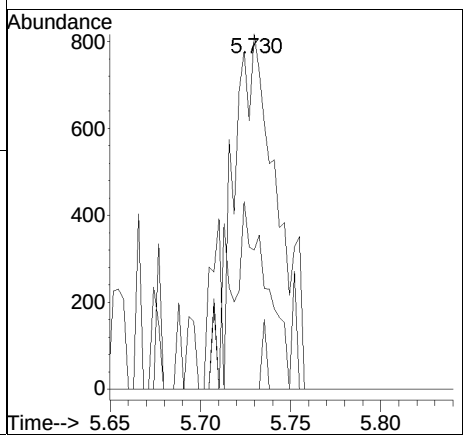


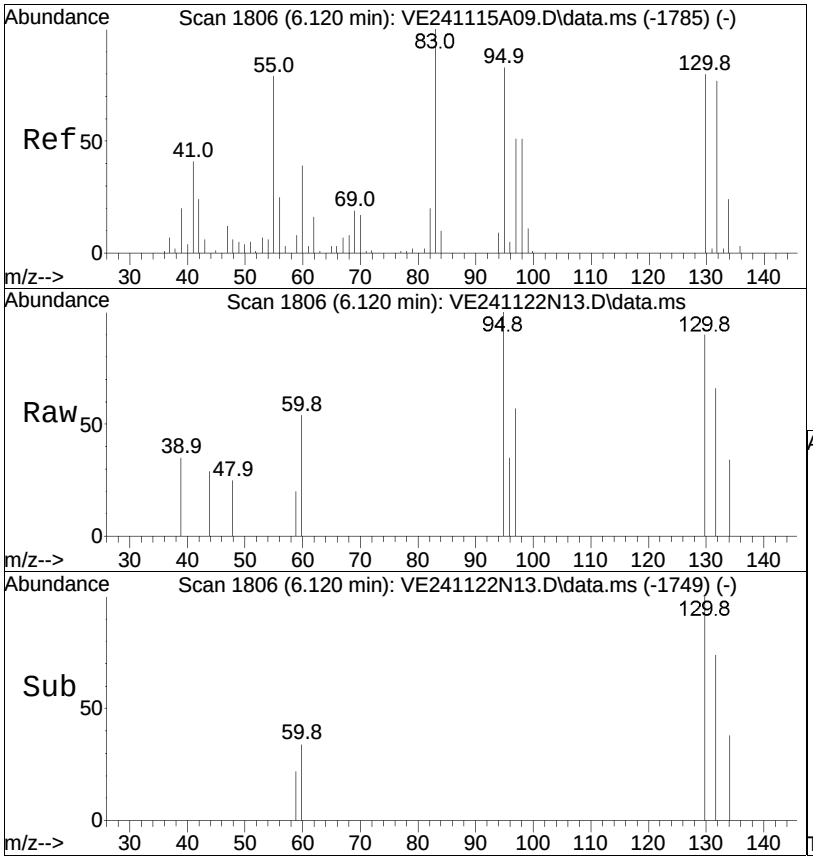


#48
1,2-Dichloroethane
Concen: 0.27 ug/L M3
RT: 5.730 min Scan# 1666
Delta R.T. 0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 62 Resp: 1482

Ion	Ratio	Lower	Upper
62	100		
64	29.6	12.0	52.0
98	1.8	0.0	29.1

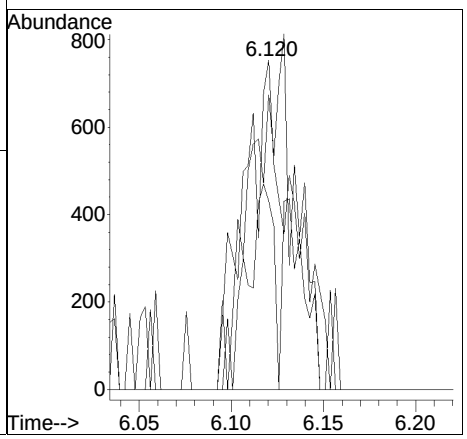


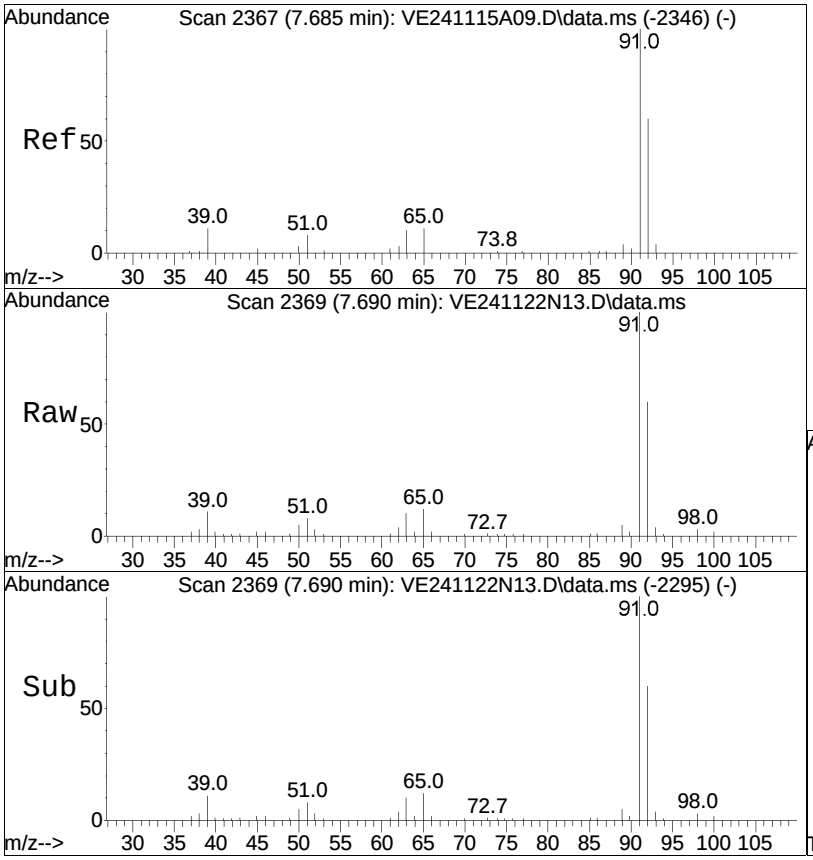


#52
Trichloroethene
Concen: 0.35 ug/L M3
RT: 6.120 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 95 Resp: 1426

Ion	Ratio	Lower	Upper
95	100		
97	20.0	50.2	75.2#
130	32.5	78.2	117.4#

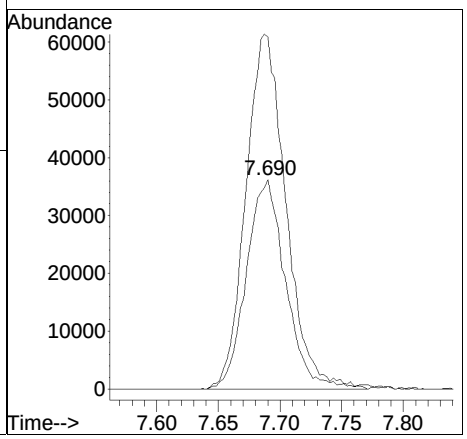


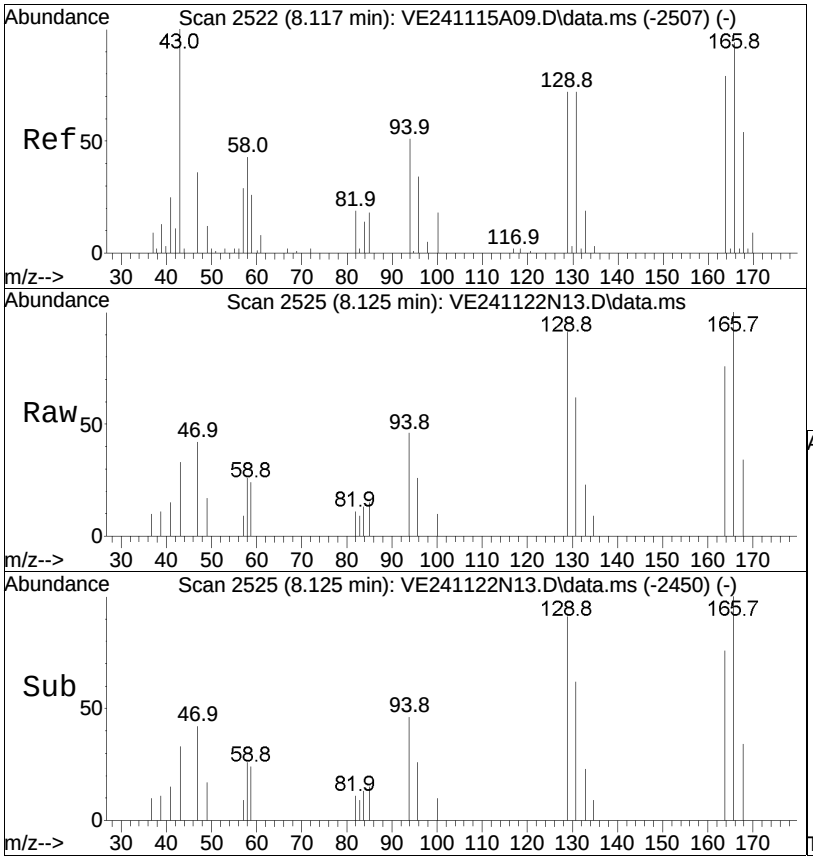


#65
Toluene
Concen: 7.60 ug/L
RT: 7.690 min Scan# 2369
Delta R.T. 0.005 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 92 Resp: 80489

Ion	Ratio	Lower	Upper
92	100		
91	172.2	129.1	193.7

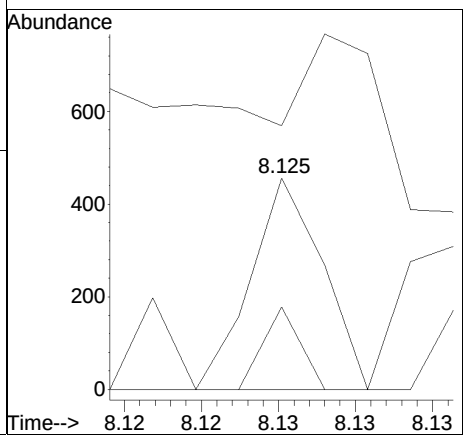


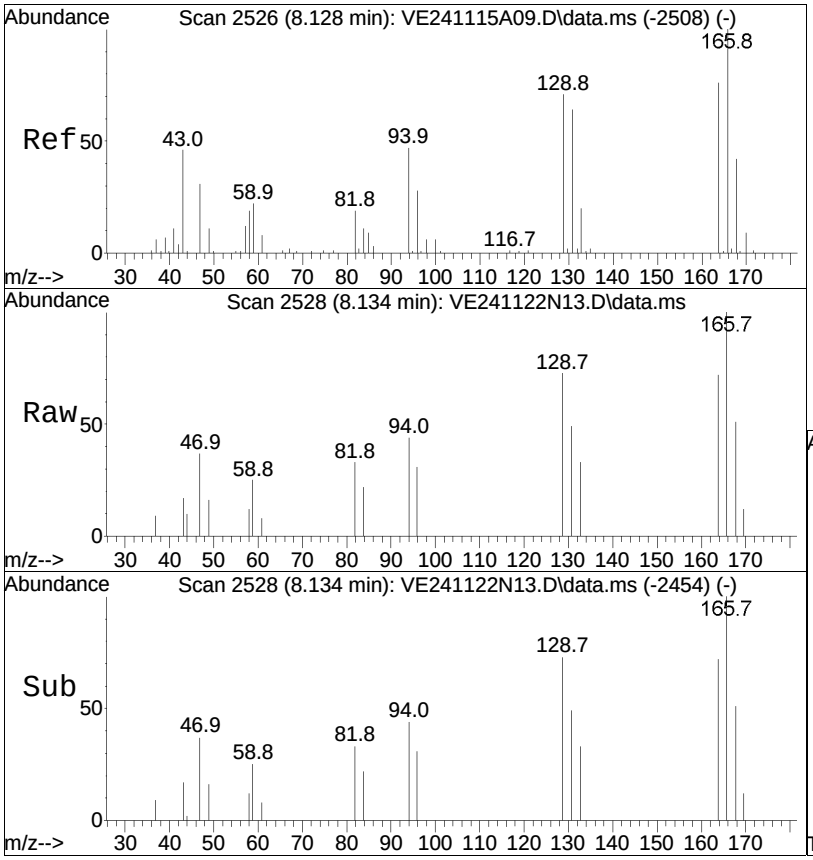


#66
4-Methyl-2-pentanone
Concen: 0.13 ug/L
RT: 8.125 min Scan# 2525
Delta R.T. 0.008 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 58 Resp: 147

Ion	Ratio	Lower	Upper
58	100		
100	20.4	27.9	41.9#
43	0.0	225.7	338.5#

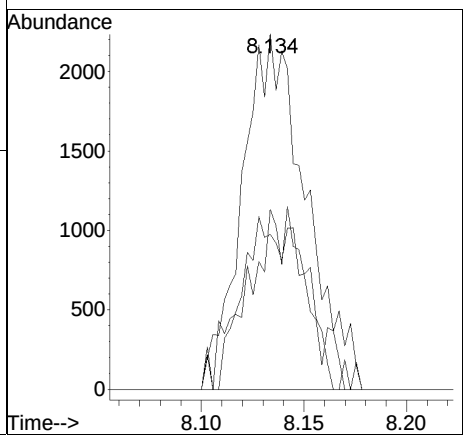


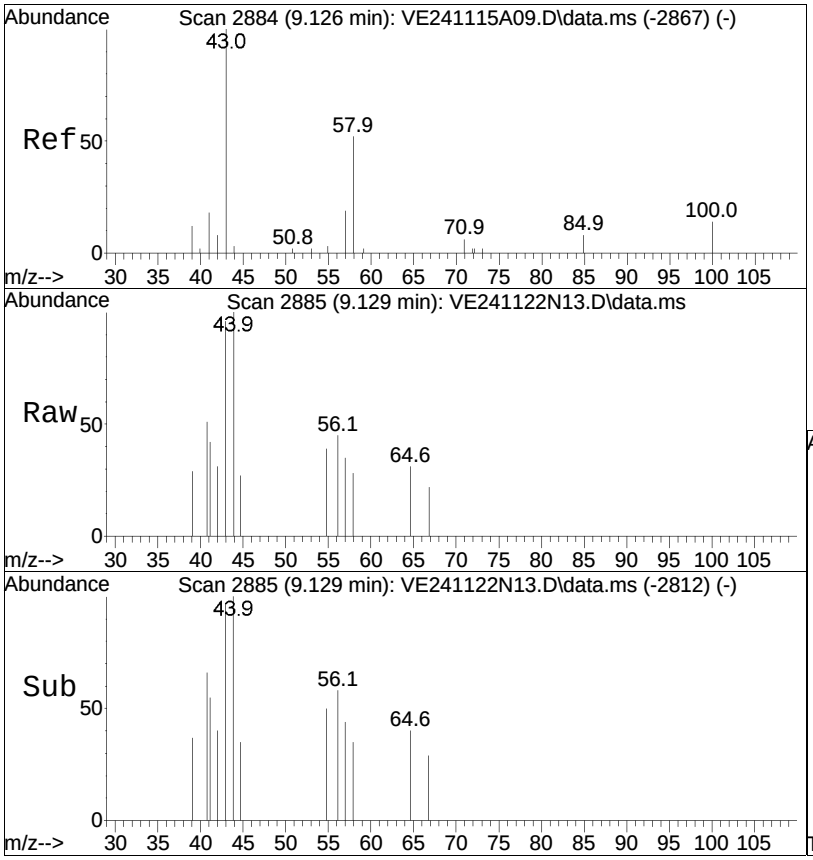


#67
Tetrachloroethene
Concen: 1.13 ug/L
RT: 8.134 min Scan# 2528
Delta R.T. 0.005 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion:166 Resp: 4828

Ion	Ratio	Lower	Upper
166	100		
168	28.5	25.8	65.8
94	28.4	24.3	64.3

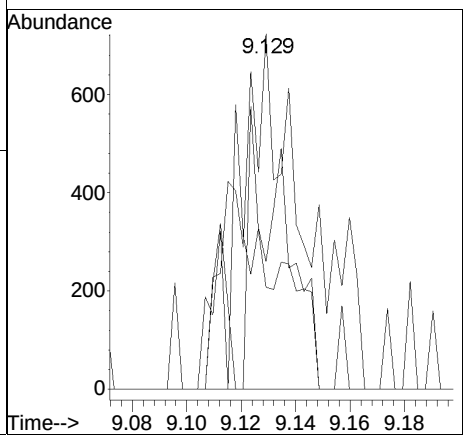


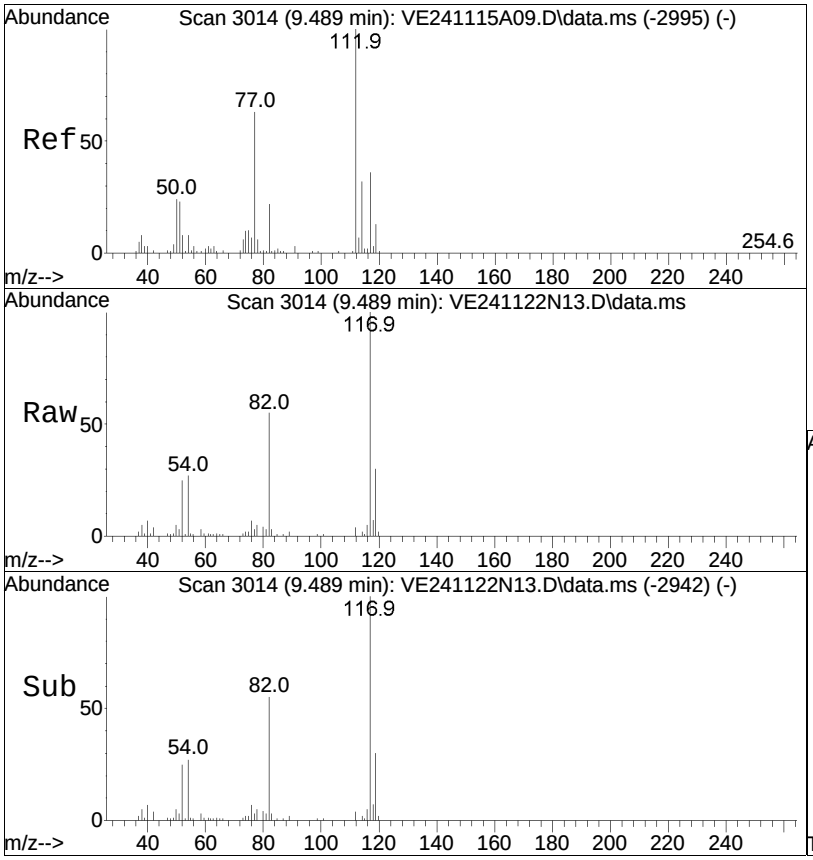


#77
2-Hexanone
Concen: 0.69 ug/L M1
RT: 9.129 min Scan# 2885
Delta R.T. 0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 43 Resp: 1233

Ion	Ratio	Lower	Upper
43	100		
58	0.0	42.5	63.7#
57	24.2	13.9	20.9#

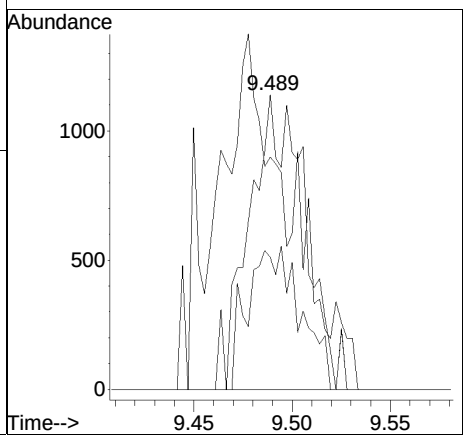


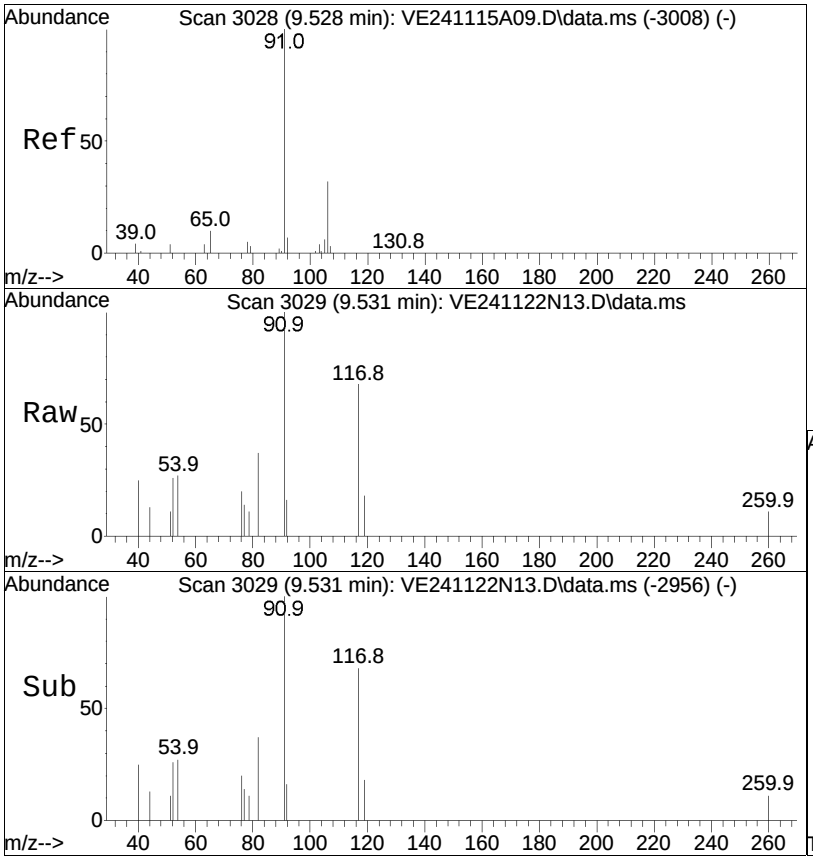


#78
Chlorobenzene
Concen: 0.20 ug/L M1
RT: 9.489 min Scan# 3014
Delta R.T. -0.000 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion:112 Resp: 2257

Ion	Ratio	Lower	Upper
112	100		
77	72.1	46.9	70.3#
114	45.6	23.8	35.6#

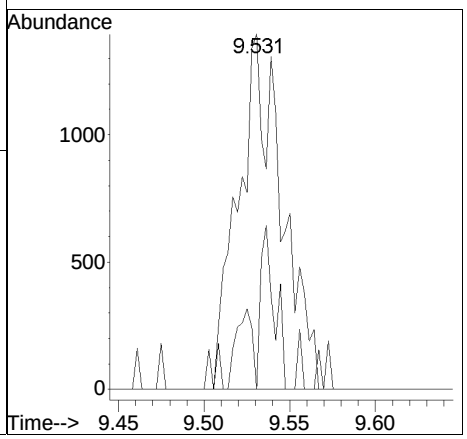


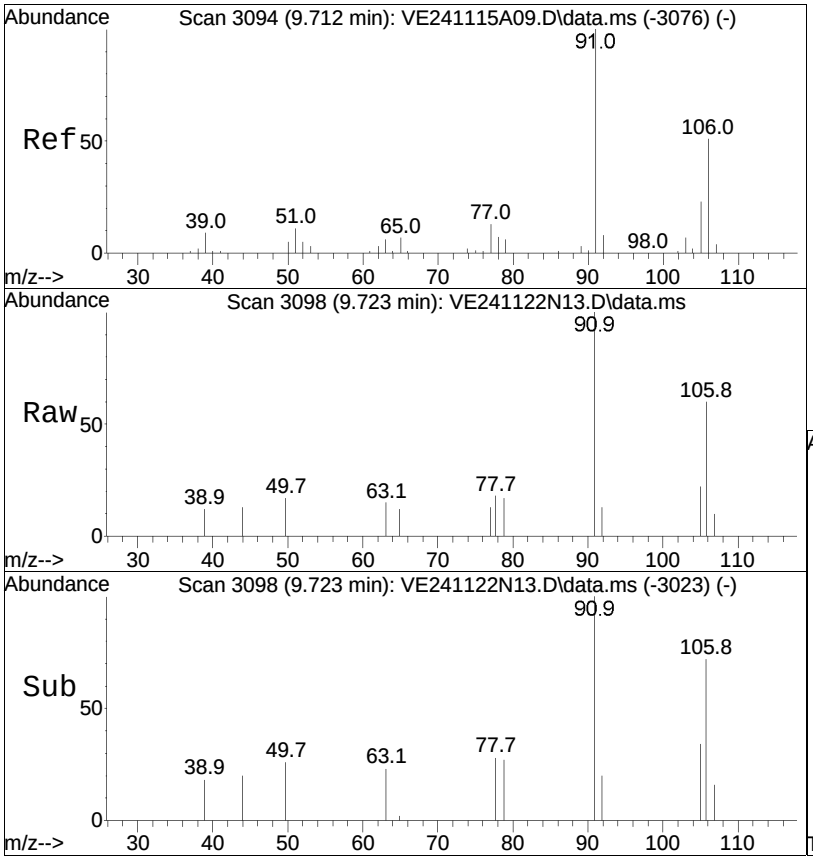


#79
Ethylbenzene
Concen: 0.13 ug/L M1
RT: 9.531 min Scan# 3029
Delta R.T. 0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 91 Resp: 2530

Ion	Ratio	Lower	Upper
91	100		
106	14.2	25.3	37.9#

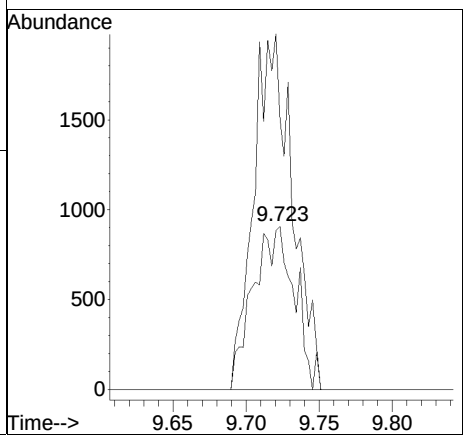


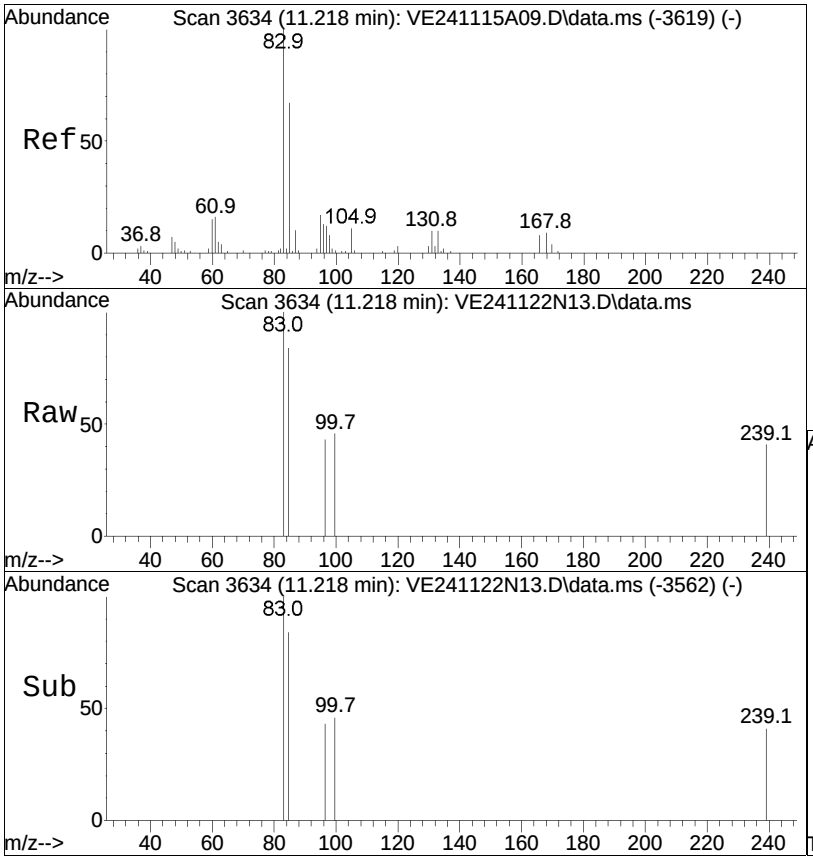


#81
p/m Xylene
Concen: 0.23 ug/L M3
RT: 9.723 min Scan# 3098
Delta R.T. 0.011 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion:106 Resp: 1794

Ion	Ratio	Lower	Upper
106	100		
91	203.2	163.3	244.9

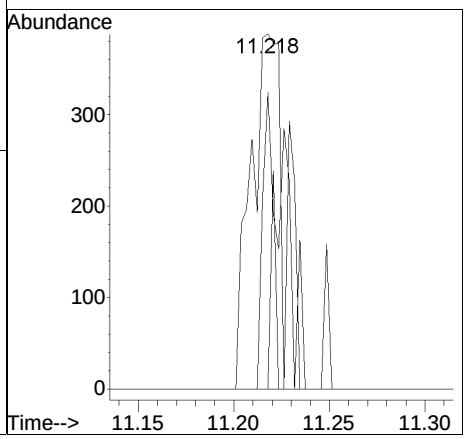


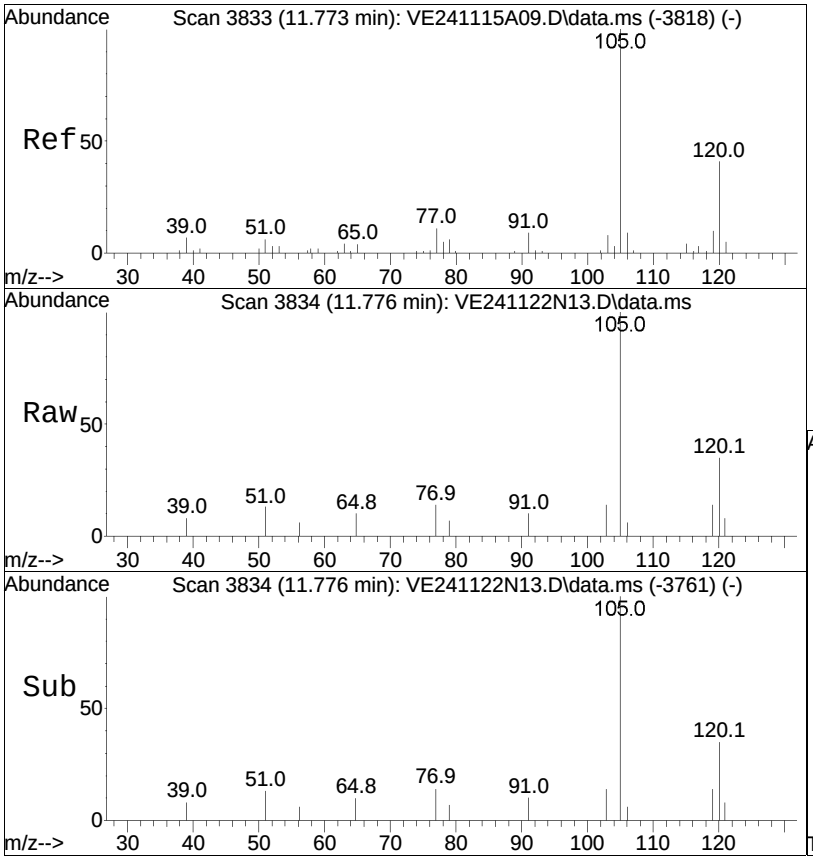


#92
1,1,2,2-Tetrachloroethane
Concen: 0.13 ug/L M2
RT: 11.218 min Scan# 3634
Delta R.T. -0.000 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion: 83 Resp: 510

Ion	Ratio	Lower	Upper
83	100		
131	0.0	0.0	28.6
85	0.0	47.4	87.4#

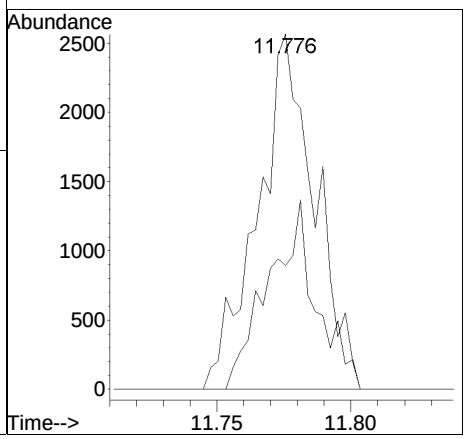


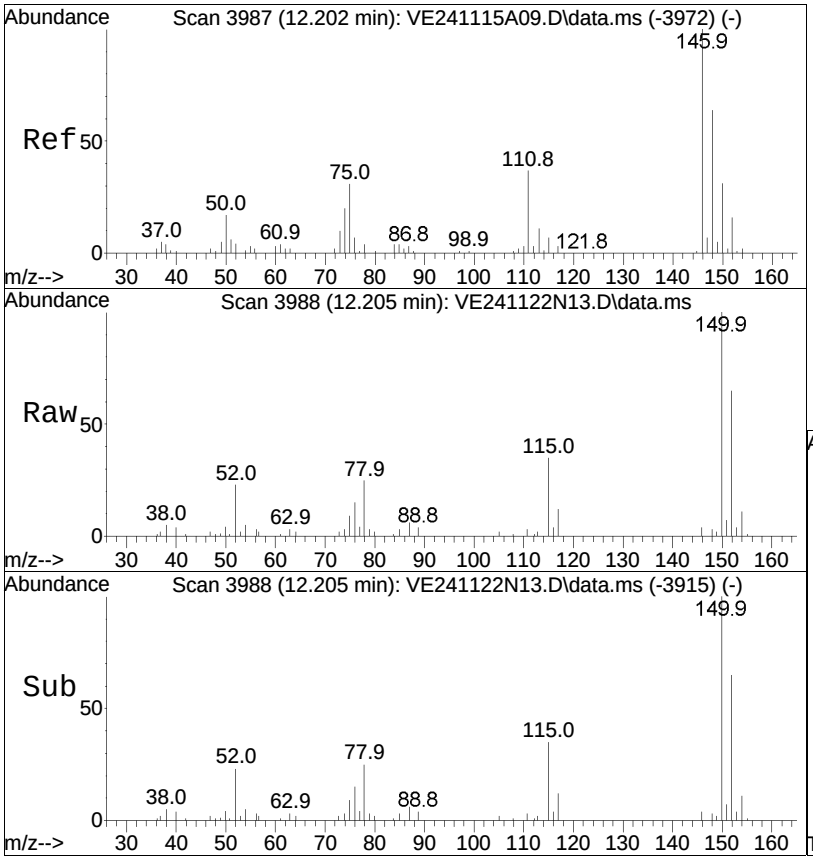


#102
1,2,4-Trimethylbenzene
Concen: 0.22 ug/L
RT: 11.776 min Scan# 3834
Delta R.T. 0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion:105 Resp: 3806

Ion	Ratio	Lower	Upper
105	100		
120	44.5	33.6	50.4

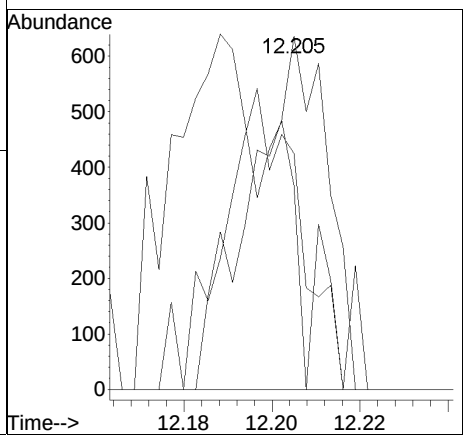


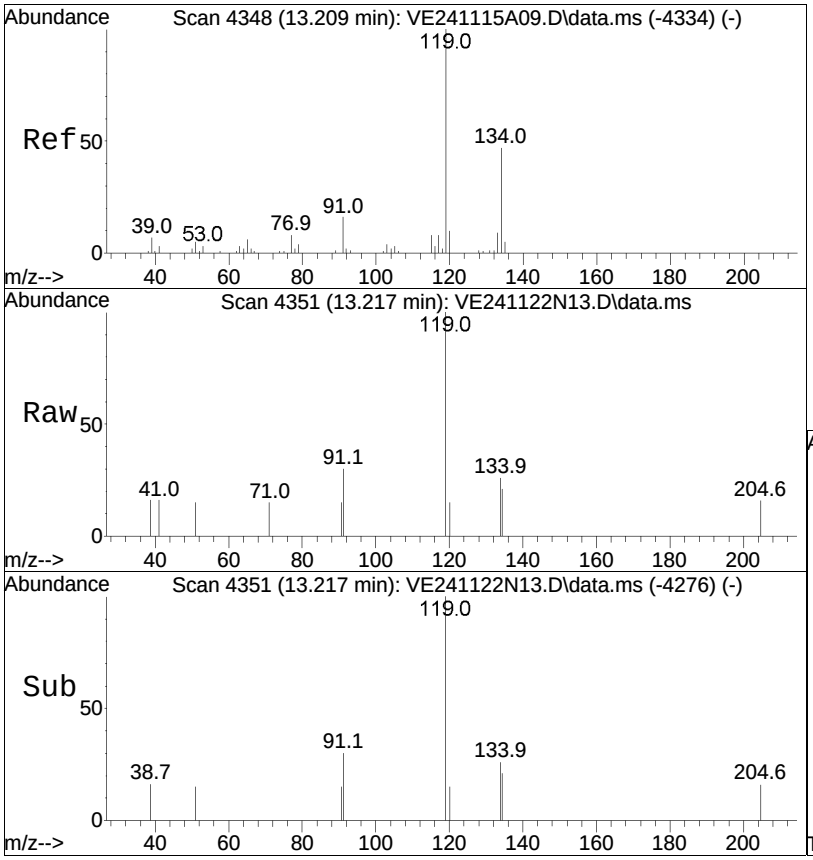


#106
1,4-Dichlorobenzene
Concen: 0.08 ug/L
RT: 12.205 min Scan# 3988
Delta R.T. 0.003 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion:146 Resp: 771

Ion	Ratio	Lower	Upper
146	100		
111	101.7	31.4	47.0#
148	81.8	49.8	74.8#

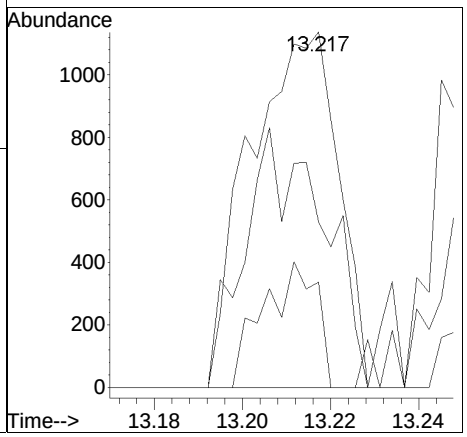


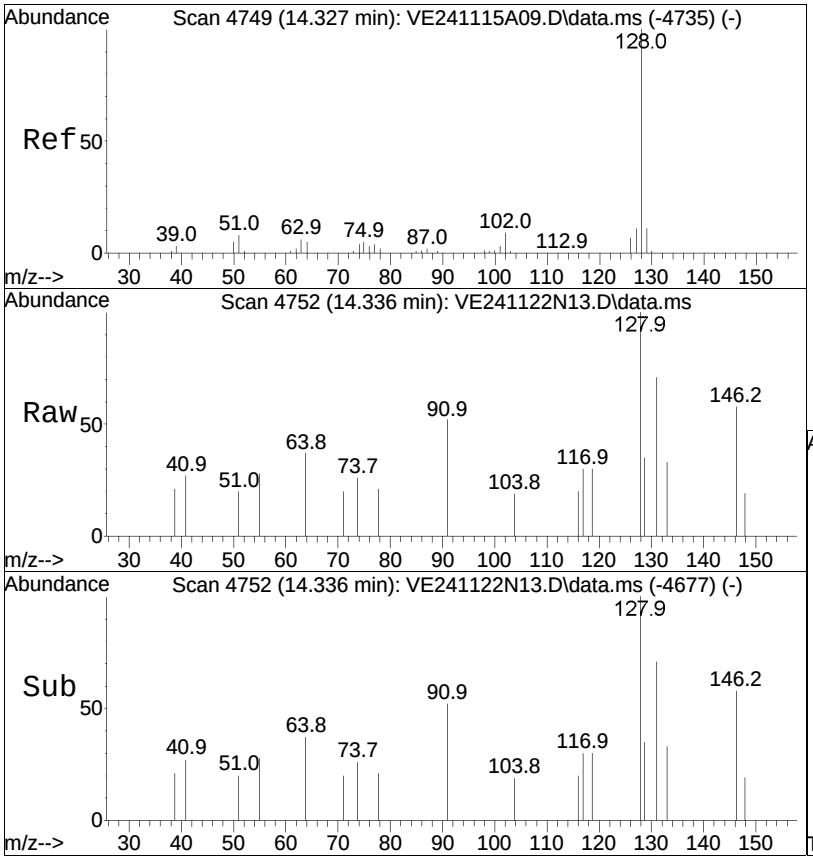


#110
1,2,4,5-Tetramethylbenzene
Concen: 0.09 ug/L
RT: 13.217 min Scan# 4351
Delta R.T. 0.008 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion:119 Resp: 1579

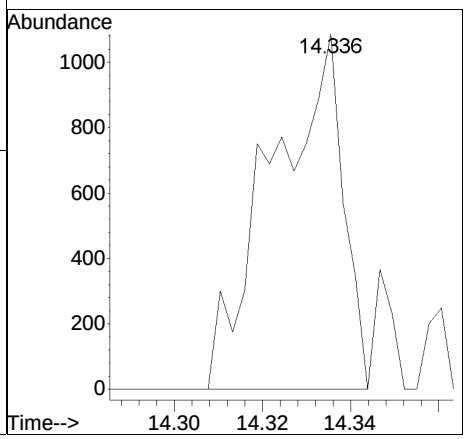
Ion	Ratio	Lower	Upper
119	100		
134	32.4	29.6	61.4
91	21.4	9.8	20.3#





#115
Naphthalene
Concen: 0.10 ug/L
RT: 14.336 min Scan# 4752
Delta R.T. 0.008 min
Lab File: VE241122N13.D
Acq: 23 Nov 2024 1:49 am

Tgt Ion:128 Resp: 1221

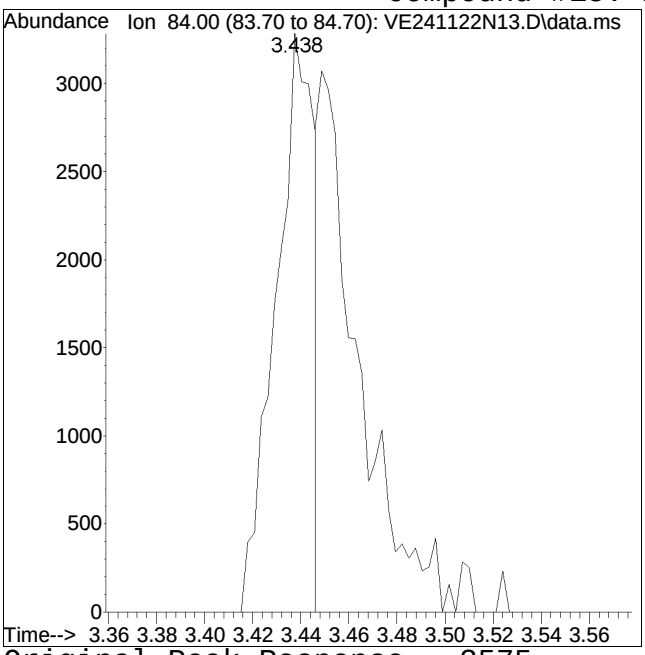


Manual Integration Report

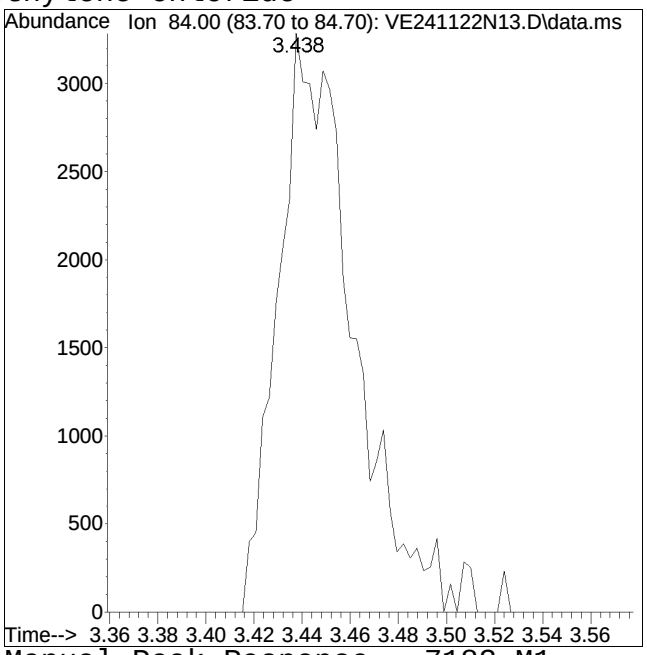
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Date Inj'd : 11/23/2024 1:49 am
Sample : l2468376-01,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #15: Methylene chloride



Original Peak Response = 3575



Manual Peak Response = 7183 M1

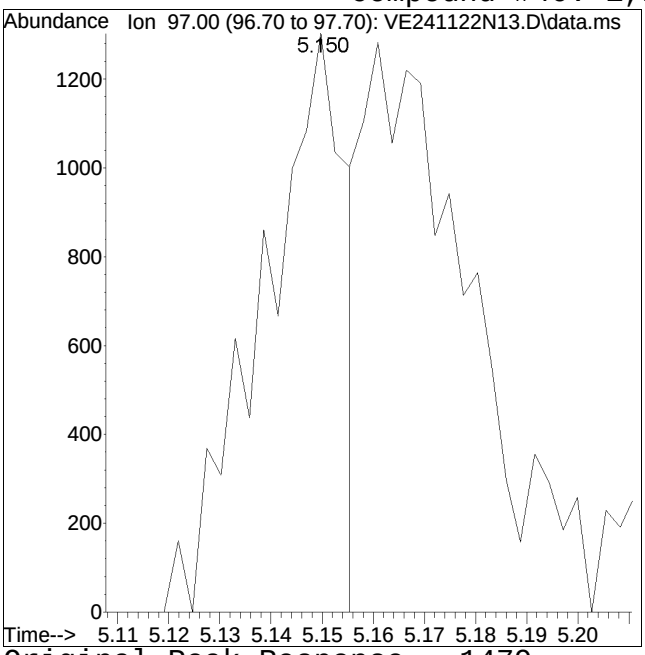
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

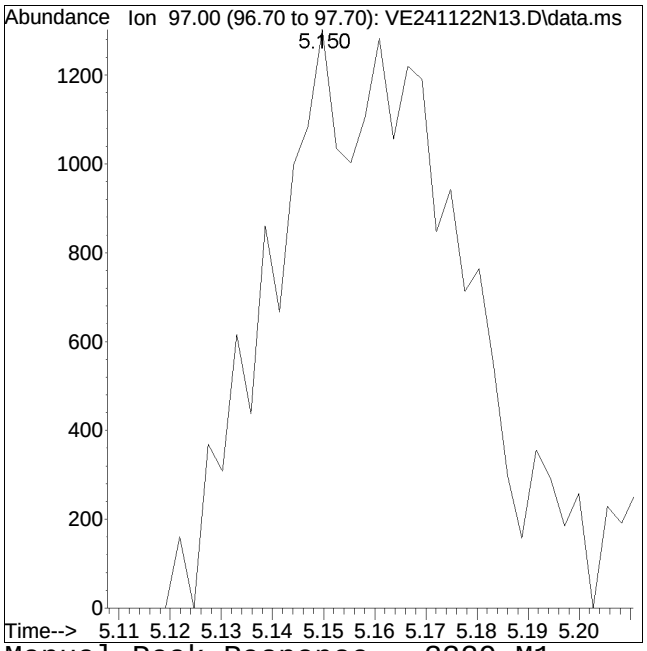
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Date Inj'd : 11/23/2024 1:49 am
Sample : l2468376-01,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 1479



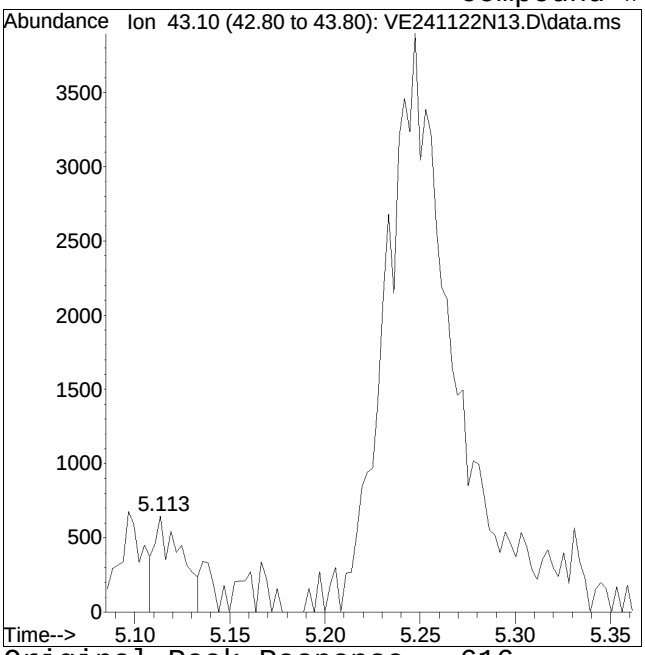
Manual Peak Response = 3329 M1

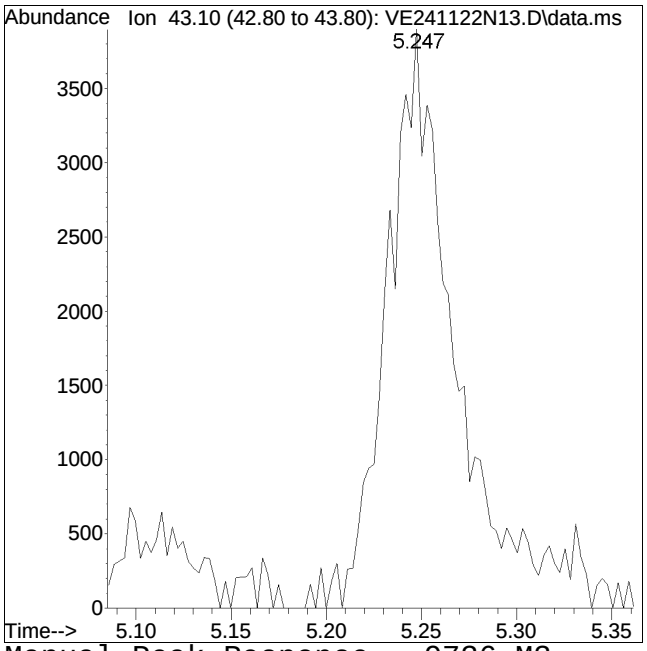
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N13.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 1:49 am Instrument : Elaine
Sample : l2468376-01,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #42: 2-Butanone





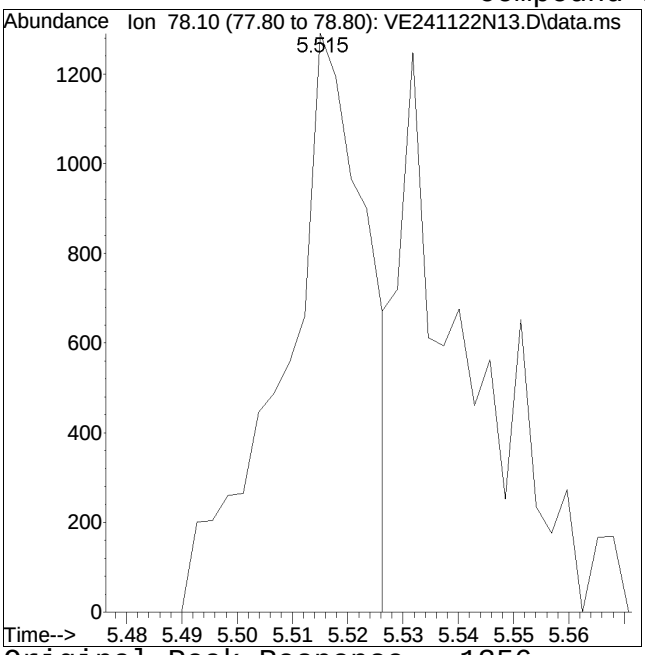
Original Peak Response = 616 Manual Peak Response = 9736 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

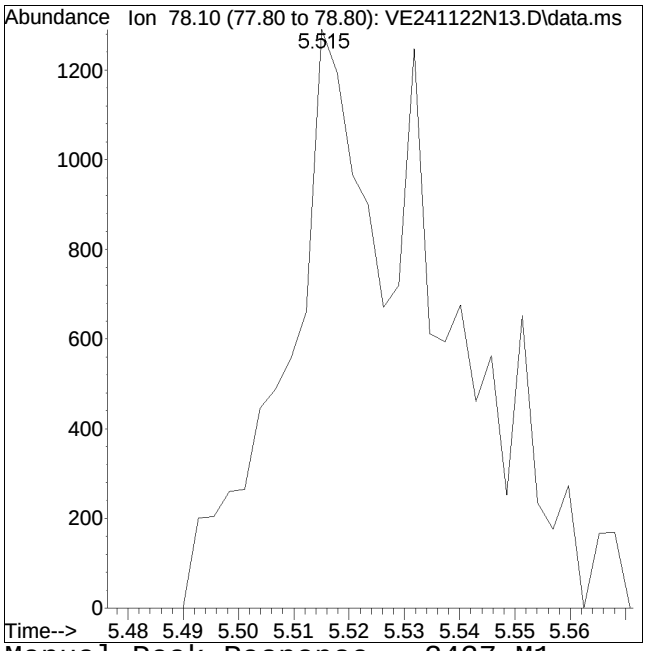
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Date Inj'd : 11/23/2024 1:49 am
Sample : l2468376-01,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #45: Benzene



Original Peak Response = 1356



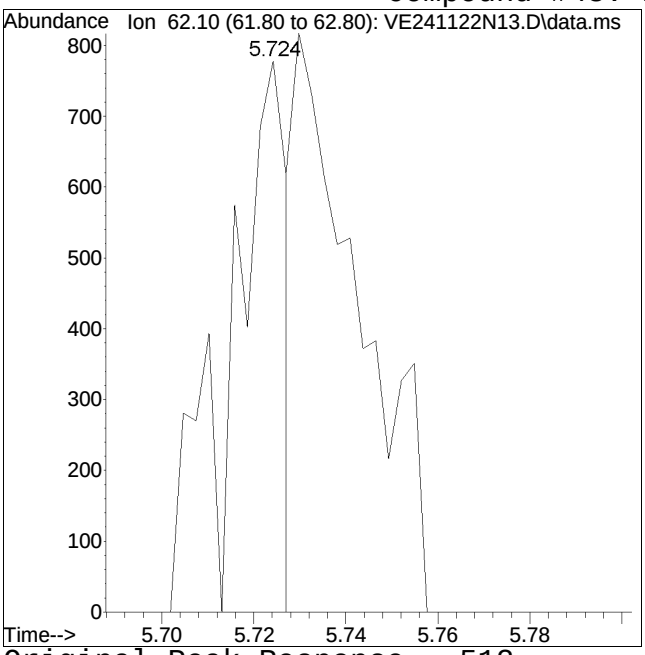
Manual Peak Response = 2437 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

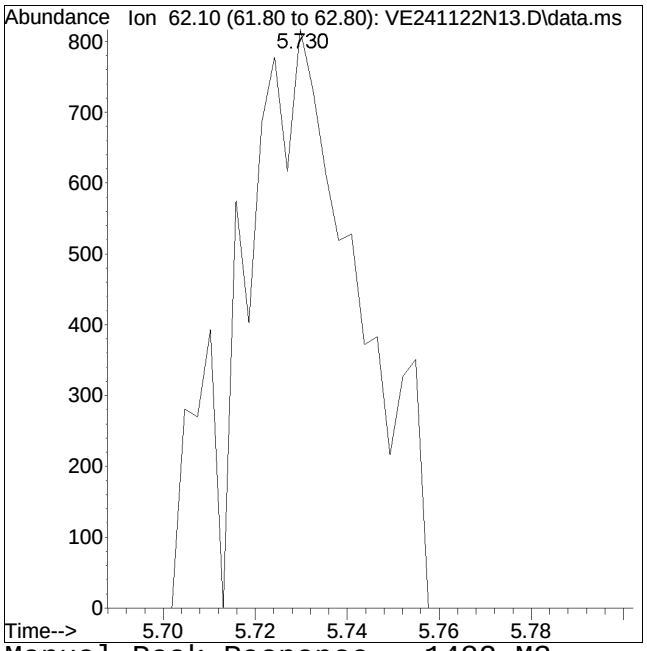
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N13.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 1:49 am Instrument : Elaine
Sample : l2468376-01,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #48: 1,2-Dichloroethane



Original Peak Response = 512



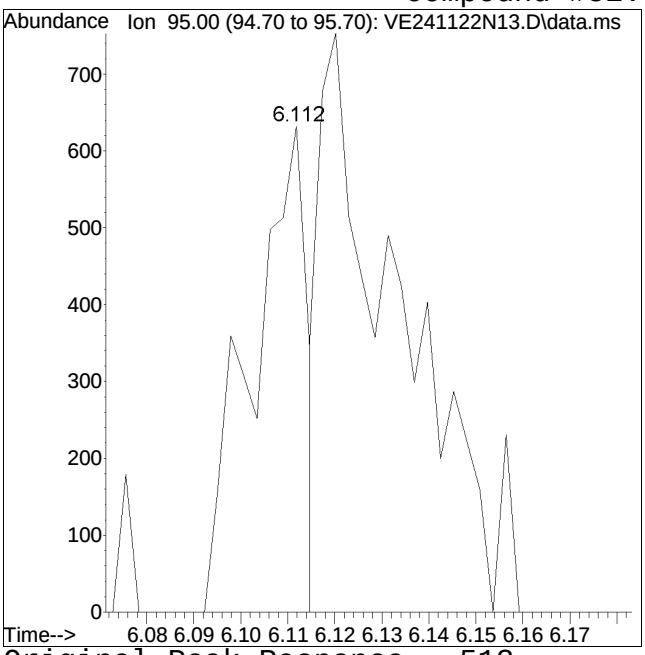
Manual Peak Response = 1482 M3

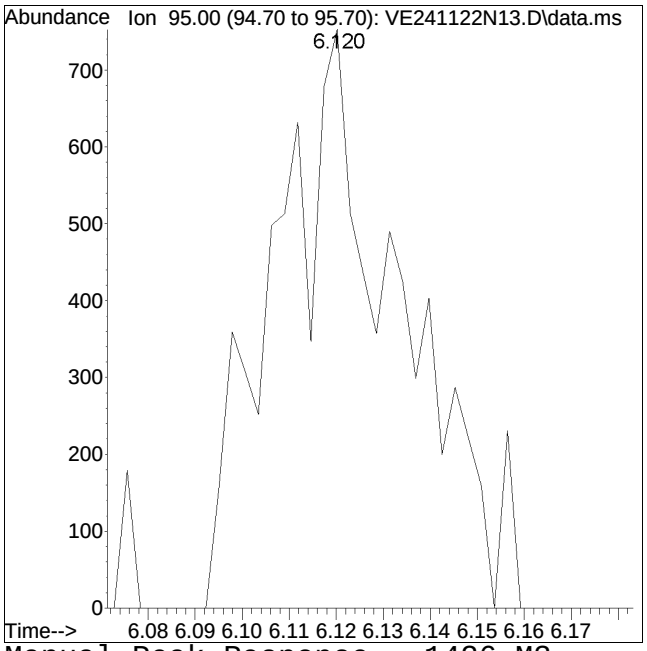
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N13.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 1:49 am Instrument : Elaine
Sample : l2468376-01,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #52: Trichloroethene





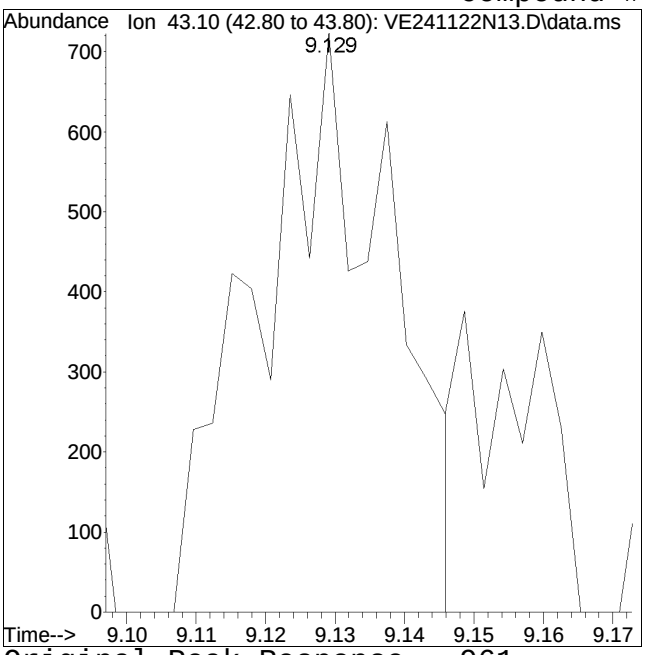
Original Peak Response = 513 Manual Peak Response = 1426 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

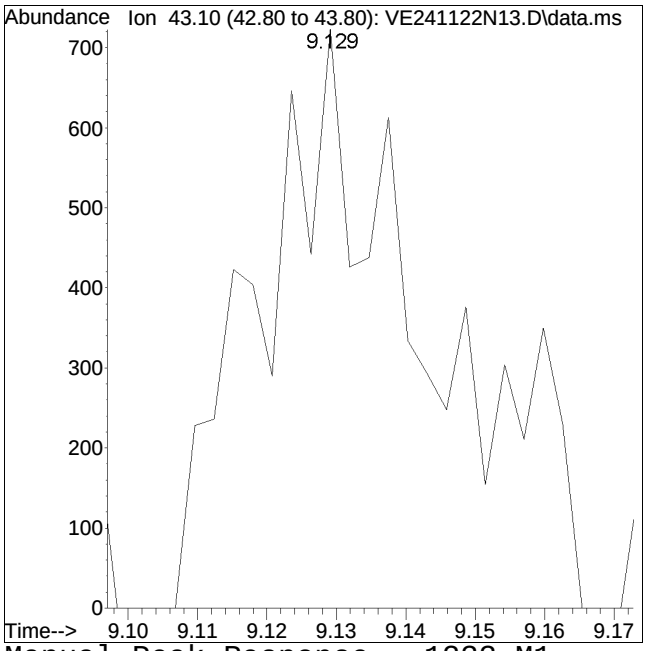
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N13.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 1:49 am Instrument : Elaine
Sample : l2468376-01,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #77: 2-Hexanone



Original Peak Response = 961



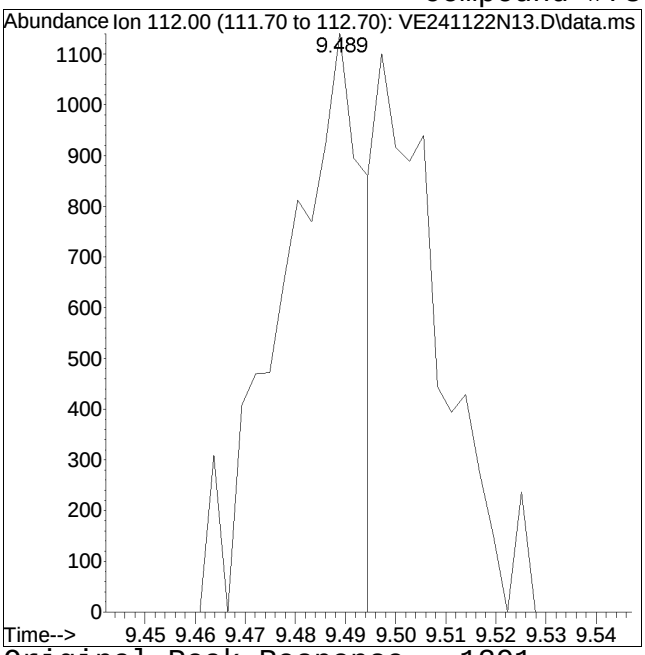
Manual Peak Response = 1233 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

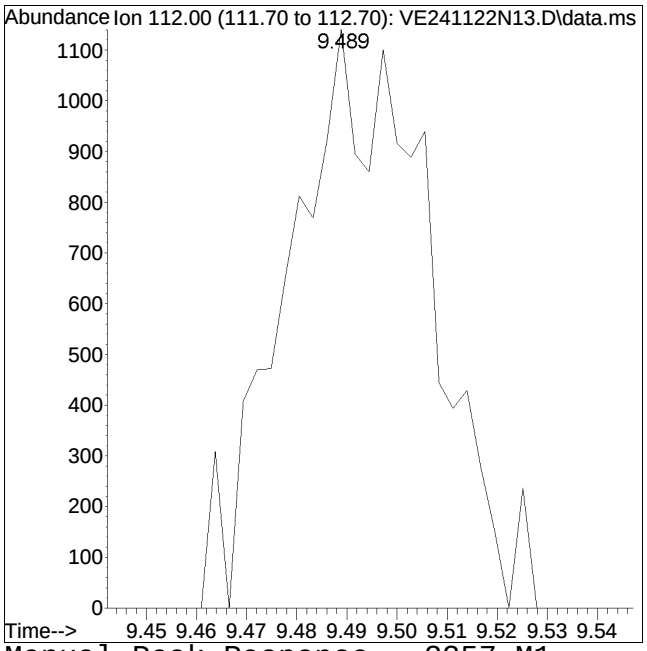
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N13.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 1:49 am Instrument : Elaine
Sample : l2468376-01,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #78: Chlorobenzene



Original Peak Response = 1291



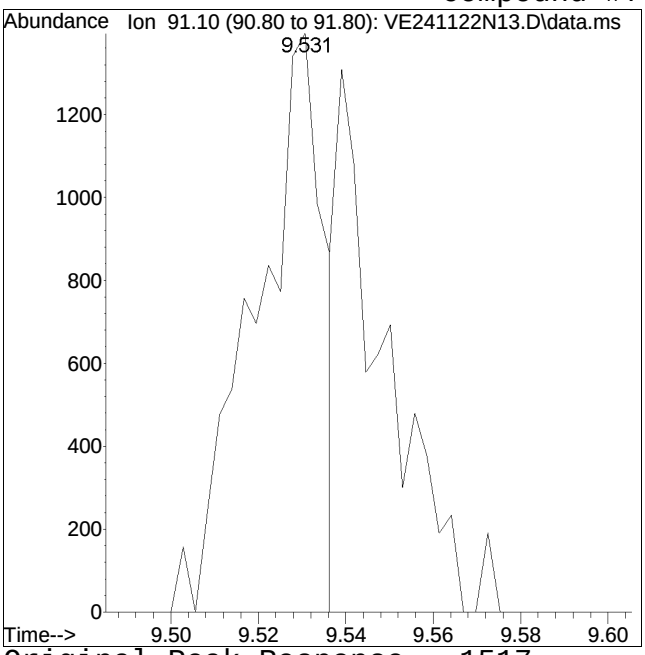
Manual Peak Response = 2257 M1

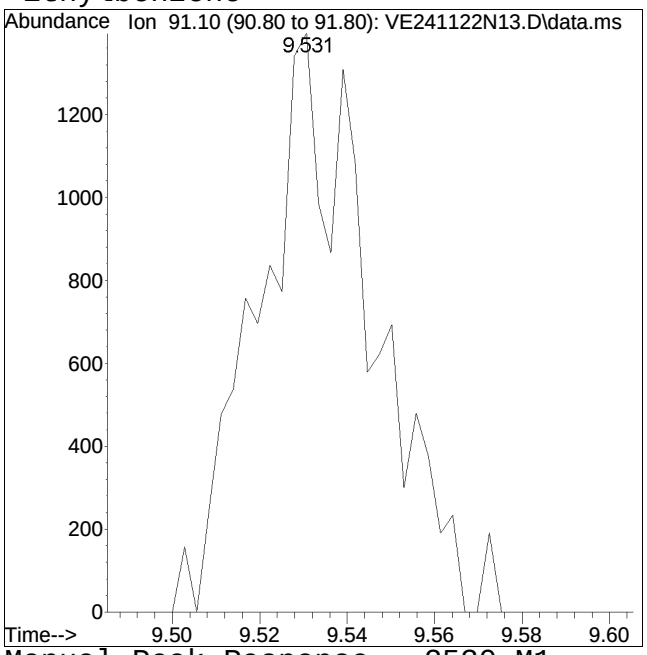
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N13.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 1:49 am Instrument : Elaine
Sample : l2468376-01,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #79: Ethylbenzene



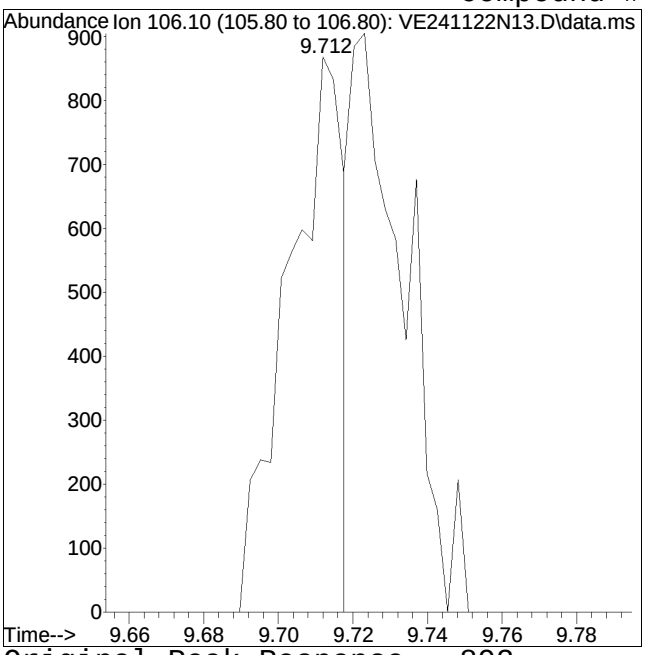


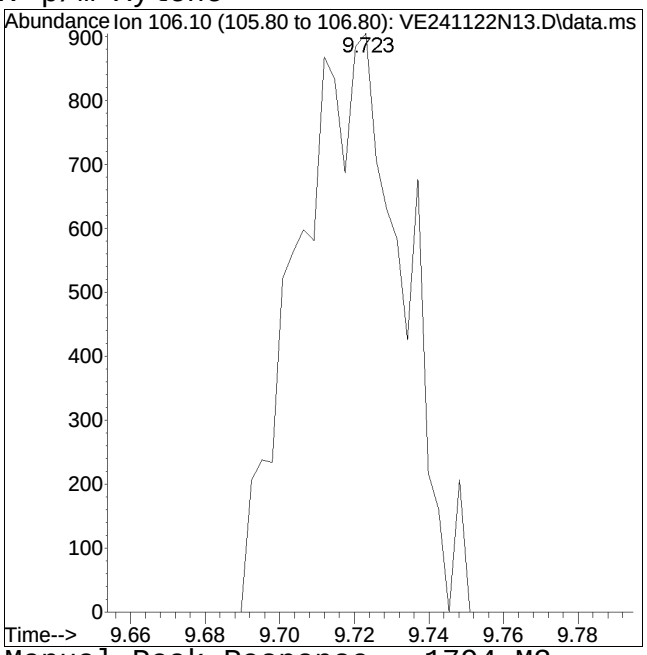
Original Peak Response = 1517 Manual Peak Response = 2530 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N13.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 1:49 am Instrument : Elaine
Sample : l2468376-01,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #81: p/m Xylene





Original Peak Response = 892 Manual Peak Response = 1794 M3

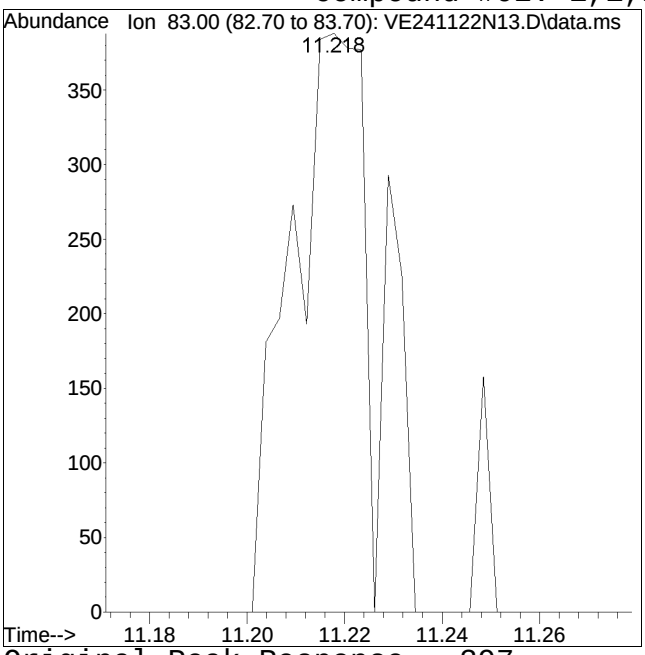
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

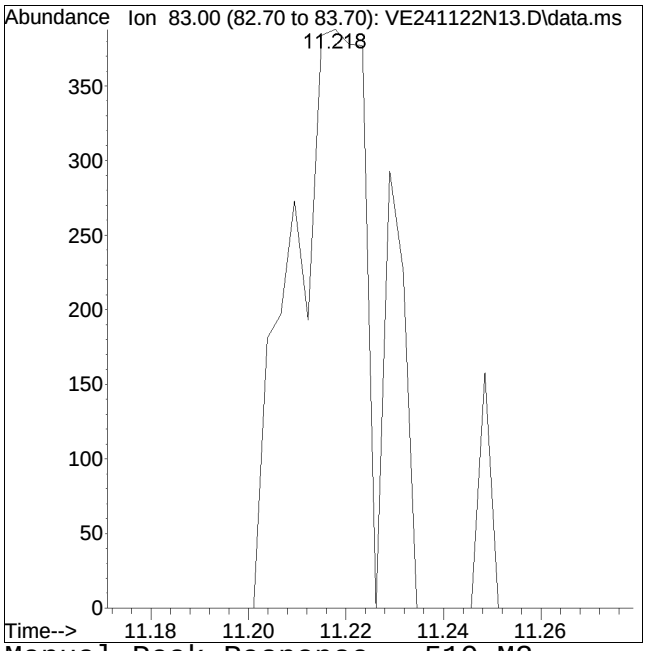
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N13.D
Date Inj'd : 11/23/2024 1:49 am
Sample : l2468376-01,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #92: 1,1,2,2-Tetrachloroethane





Original Peak Response = 397
Manual Peak Response = 510 M2
M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Acq On : 23 Nov 2024 2:14 am
Operator : ELAINE:MJV
Sample : l2468376-02,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 23 11:27:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	189732	10.000 ug/L	0.00
Standard Area 1 = 199076			Recovery = 95.31%		
63) Chlorobenzene-d5	9.472	117	135434	10.000 ug/L	0.00
Standard Area 1 = 141631			Recovery = 95.62%		
84) 1,4-Dichlorobenzene-d4	12.186	152	68284	10.000 ug/L	0.00
Standard Area 1 = 72502			Recovery = 94.18%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.136	113	44026	10.120 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.20%		
47) 1,2-Dichloroethane-d4	5.657	65	55181	10.720 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.20%		
64) Toluene-d8	7.632	98	189363	10.253 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.53%		
88) 4-Bromofluorobenzene	10.975	95	64912	10.347 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.47%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.416	85	235	N.D.	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl chloride	1.848	62	2216	0.497 ug/L #	47
5) Bromomethane	2.169	94	27	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.913	76	2906M1	0.292 ug/L	
15) Methylene chloride	3.446	84	3033	0.733 ug/L #	75
17) Acetone	3.482	43	10712	13.148 ug/L	94
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	4.182	63	30	N.D.	
27) Acrylonitrile	4.333	53	46	N.D.	
29) Vinyl acetate	4.450	43	27	N.D.	
30) cis-1,2-Dichloroethene	4.695	96	2365	0.561 ug/L	93
31) 2,2-Dichloropropane	4.893	77	34	N.D.	
33) Bromochloromethane	4.994	128	51	N.D.	
35) Chloroform	4.971	83	26	N.D.	

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Acq On : 23 Nov 2024 2:14 am
Operator : ELAINE:MJV
Sample : l2468376-02,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 23 11:27:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	5.147	117	56	N.D.	
40) 1,1,1-Trichloroethane	5.158	97	1987M3	0.325 ug/L	
42) 2-Butanone	5.247	43	8857	7.624 ug/L #	88
43) 1,1-Dichloropropene	5.292	75	34	N.D.	
45) Benzene	5.515	78	905	N.D.	
48) 1,2-Dichloroethane	5.738	62	173	N.D.	
52) Trichloroethene	6.120	95	735M1	0.184 ug/L	
54) Dibromomethane	0.000		0	N.D.	
55) 1,2-Dichloropropane	0.000		0	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
61) 1,4-Dioxane	0.000		0	N.D.	
62) cis-1,3-Dichloropropene	7.476	75	34	N.D.	
65) Toluene	7.690	92	80599	7.573 ug/L	94
66) 4-Methyl-2-pentanone	8.125	58	616M1	0.551 ug/L	
67) Tetrachloroethene	8.136	166	2881	0.673 ug/L #	56
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	8.429	83	25	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	8.770	76	41	N.D.	
75) 1,2-Dibromoethane	0.000		0	N.D.	
77) 2-Hexanone	9.132	43	1261M1	0.702 ug/L	
78) Chlorobenzene	0.000		0	N.D. d	
79) Ethylbenzene	9.525	91	1345	N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	9.712	106	1629M1	0.208 ug/L	
82) o Xylene	10.250	106	245	N.D.	
83) Styrene	10.337	104	265	N.D.	
85) Bromoform	0.000		0	N.D.	
87) Isopropylbenzene	10.643	105	225	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	11.137	91	62	N.D.	
92) 1,1,2,2-Tetrachloroethane	11.210	83	73	N.D.	
93) 4-Ethyltoluene	11.243	105	727	N.D.	
94) 2-Chlorotoluene	11.240	91	109	N.D.	
95) 1,3,5-Trimethylbenzene	11.363	105	1723	0.103 ug/L	86
96) 1,2,3-Trichloropropane	11.324	75	32	N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d	
98) 4-Chlorotoluene	11.578	91	35	N.D.	
99) tert-Butylbenzene	11.756	119	25	N.D.	

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Acq On : 23 Nov 2024 2:14 am
Operator : ELAINE:MJV
Sample : l2468376-02,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 23 11:27:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	3958	0.235	ug/L	99
103) sec-Butylbenzene	0.000		0	N.D.	d	
104) p-Isopropyltoluene	12.046	119	179	N.D.		
105) 1,3-Dichlorobenzene	12.174	146	26	N.D.		
106) 1,4-Dichlorobenzene	12.202	146	763	0.084	ug/L #	68
107) p-Diethylbenzene	0.000		0	N.D.	d	
108) n-Butylbenzene	12.484	91	175	N.D.		
109) 1,2-Dichlorobenzene	12.643	146	68	N.D.		
110) 1,2,4,5-Tetramethylben...	13.215	119	1976	0.120	ug/L #	44
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	13.870	225	28	N.D.		
114) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
115) Naphthalene	14.330	128	1031	0.082	ug/L	100
116) 1,2,3-Trichlorobenzene	14.592	180	33	N.D.		

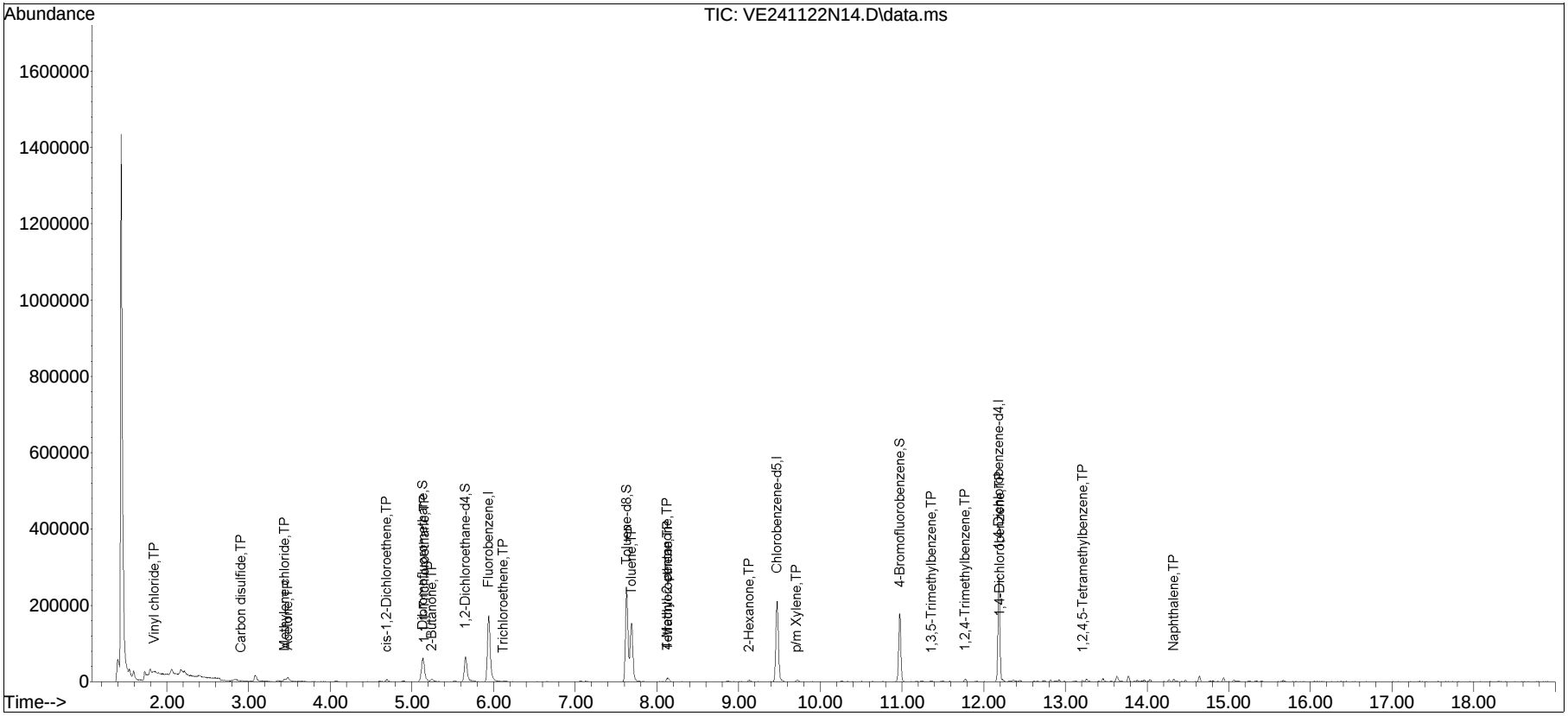
(#) = qualifier out of range (m) = manual integration (+) = signals summed

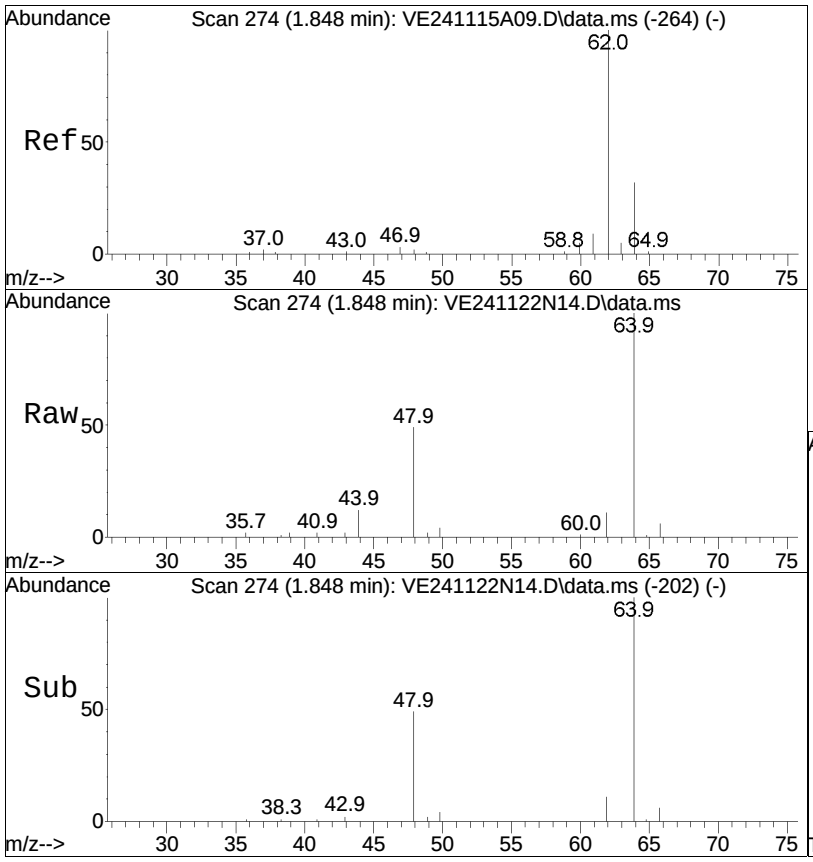
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Acq On : 23 Nov 2024 2:14 am
Operator : ELAINE:MJV
Sample : l2468376-02,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 23 11:27:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41122N02.D•

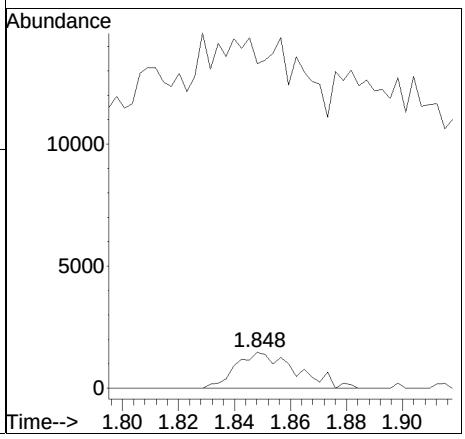


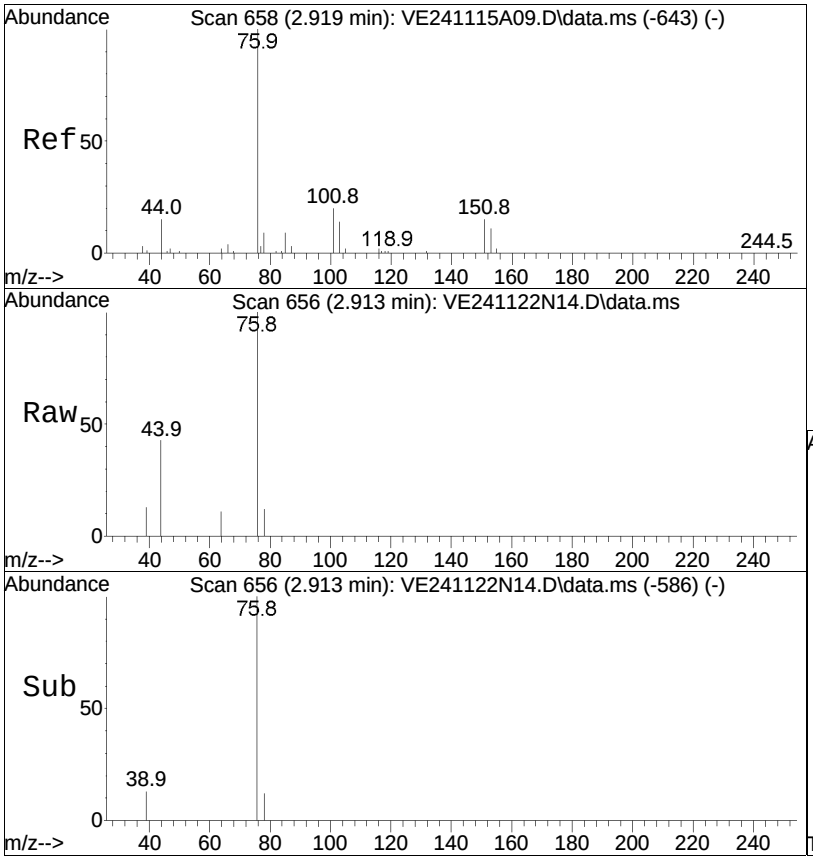


#4
Vinyl chloride
Concen: 0.50 ug/L
RT: 1.848 min Scan# 274
Delta R.T. 0.000 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 62 Resp: 2216

Ion	Ratio	Lower	Upper
62	100		
64	0.0	8.1	48.1#

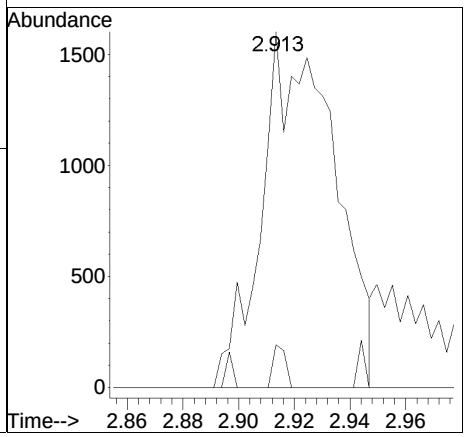


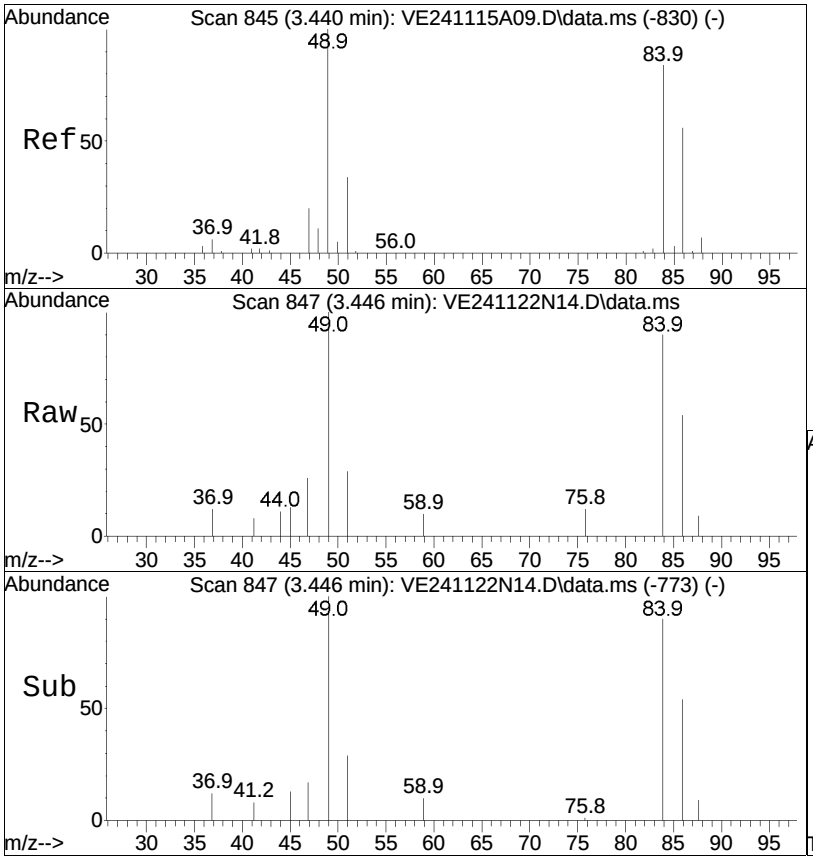


#11
Carbon disulfide
Concen: 0.29 ug/L M1
RT: 2.913 min Scan# 656
Delta R.T. -0.006 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 76 Resp: 2906

Ion	Ratio	Lower	Upper
76	100		
78	2.1	5.5	11.3#

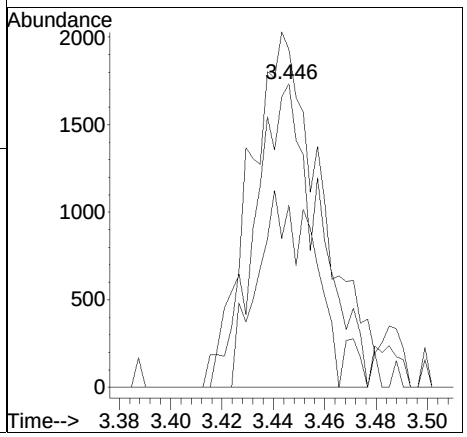


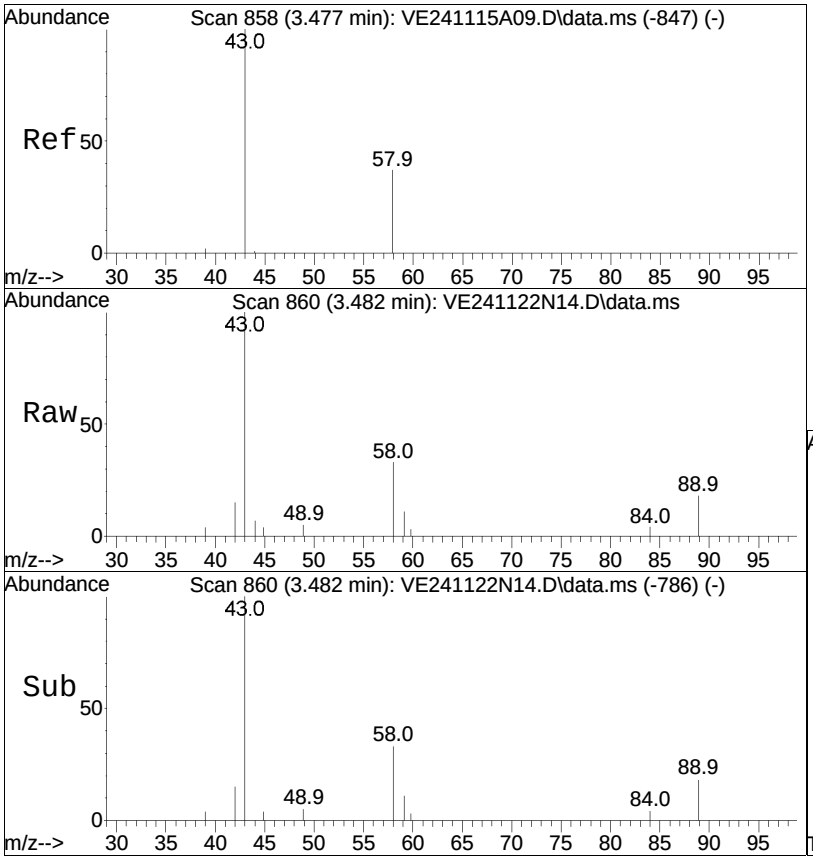


#15
Methylene chloride
Concen: 0.73 ug/L
RT: 3.446 min Scan# 847
Delta R.T. 0.006 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 84 Resp: 3033

Ion	Ratio	Lower	Upper
84	100		
86	36.4	40.2	83.6#
49	129.9	103.2	214.4

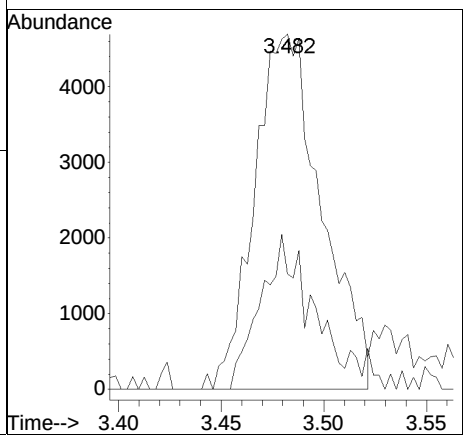


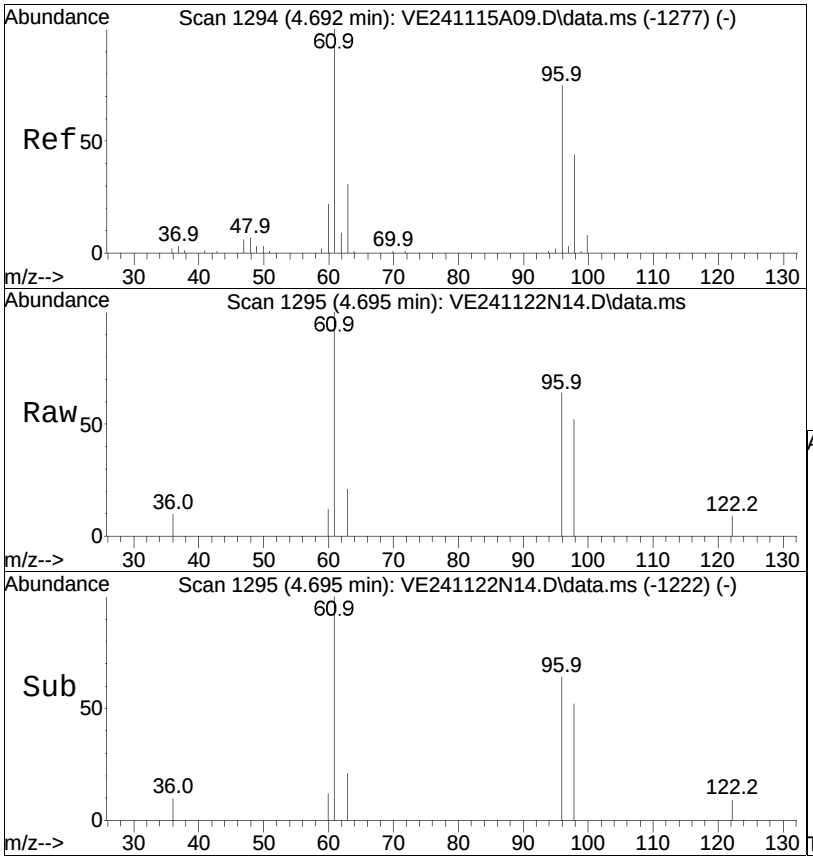


#17
Acetone
Concen: 13.15 ug/L
RT: 3.482 min Scan# 860
Delta R.T. 0.006 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 43 Resp: 10712

Ion	Ratio	Lower	Upper
43	100		
58	32.4	23.4	35.0

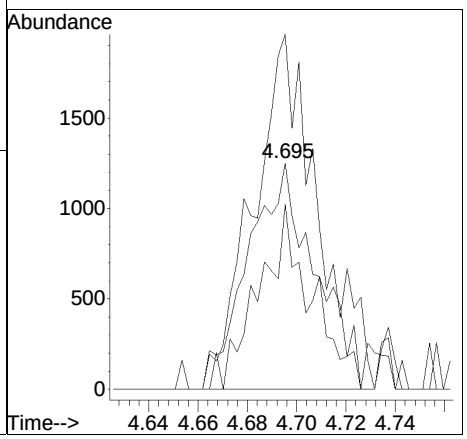


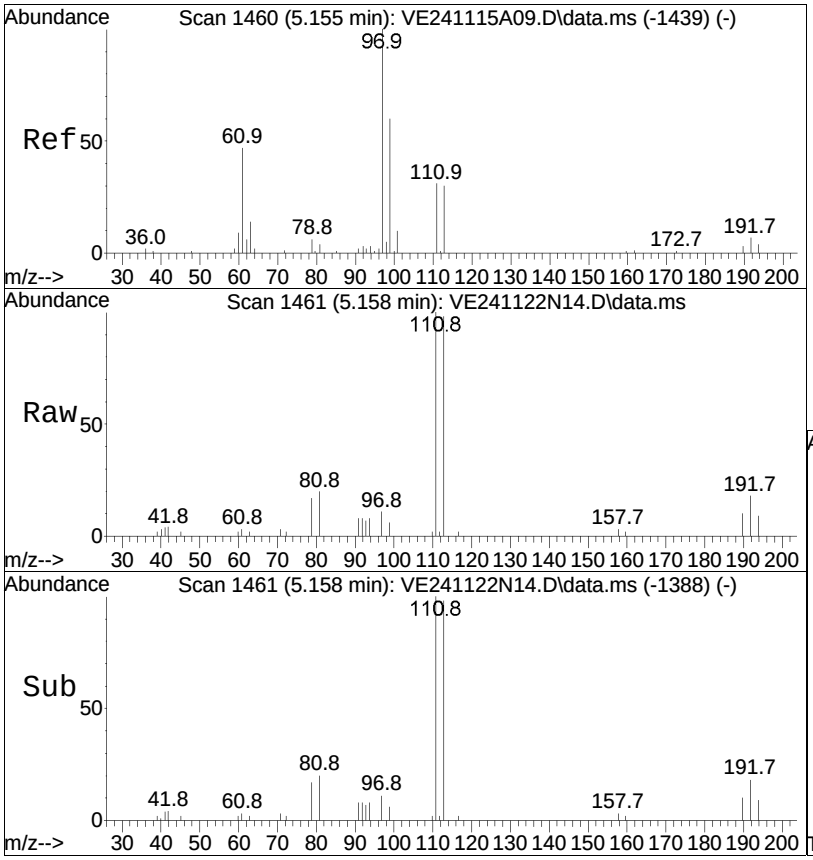


#30
cis-1,2-Dichloroethene
Concen: 0.56 ug/L
RT: 4.695 min Scan# 1295
Delta R.T. 0.003 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 96 Resp: 2365

Ion	Ratio	Lower	Upper
96	100		
61	138.9	120.3	180.5
98	64.3	50.2	75.4

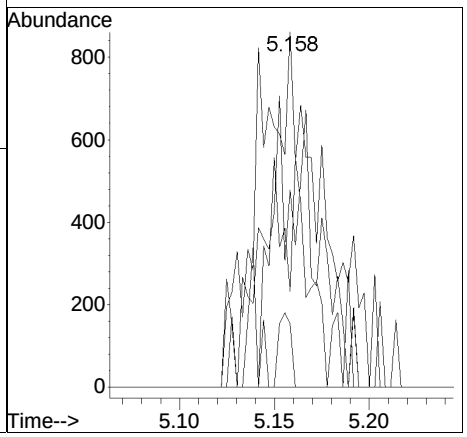


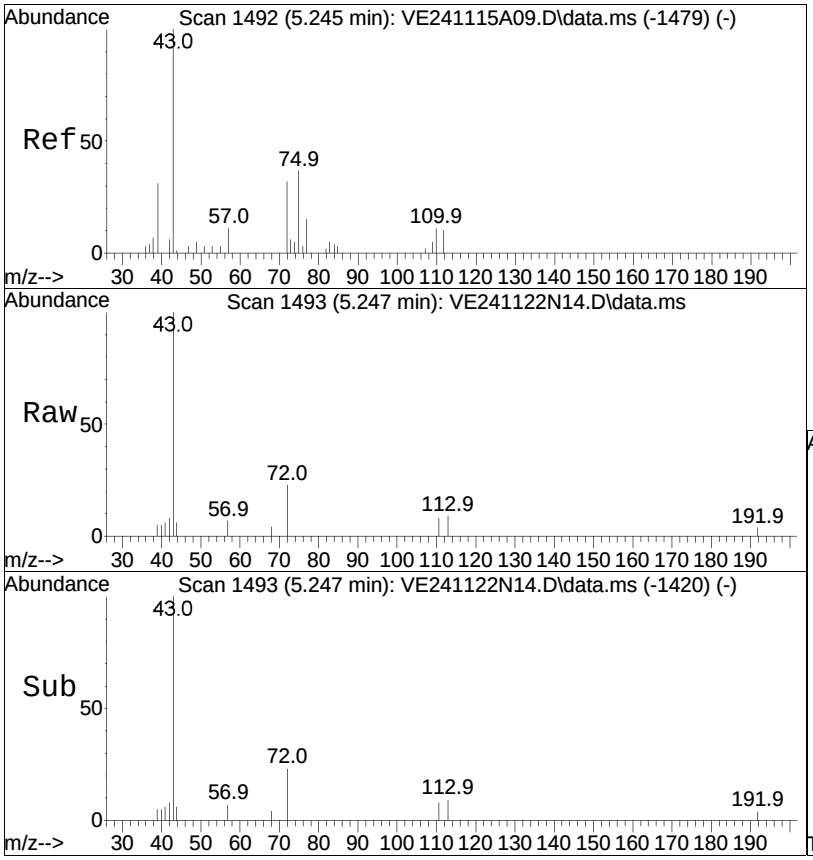


#40
1,1,1-Trichloroethane
Concen: 0.32 ug/L M3
RT: 5.158 min Scan# 1461
Delta R.T. 0.003 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 97 Resp: 1987

Ion	Ratio	Lower	Upper
97	100		
99	0.0	40.2	83.4#
61	4.2	36.9	76.5#
63	1.4	8.3	17.3#

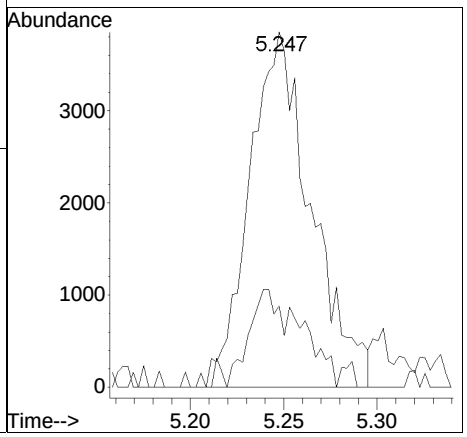


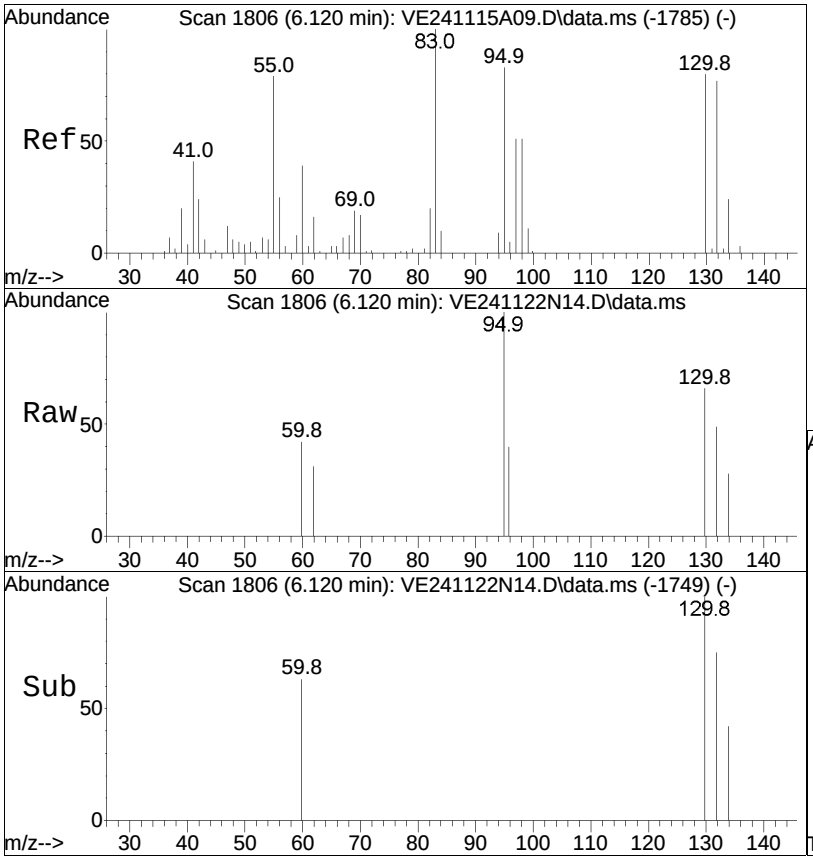


#42
2-Butanone
Concen: 7.62 ug/L
RT: 5.247 min Scan# 1493
Delta R.T. 0.003 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 43 Resp: 8857

Ion	Ratio	Lower	Upper
43	100		
72	13.9	15.7	23.5#

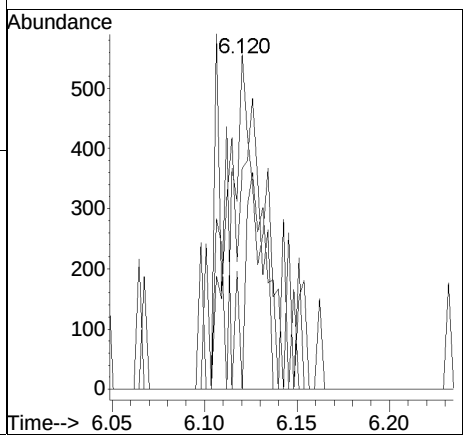


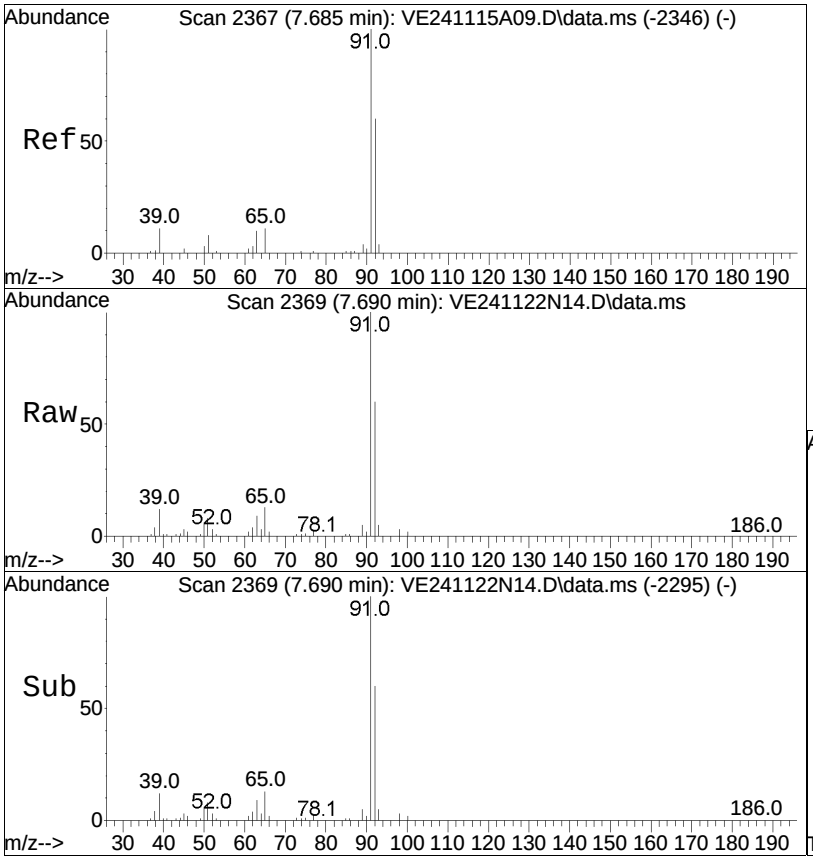


#52
Trichloroethene
Concen: 0.18 ug/L M1
RT: 6.120 min Scan# 1806
Delta R.T. 0.000 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 95 Resp: 735

Ion	Ratio	Lower	Upper
95	100		
97	36.2	50.2	75.2#
130	46.3	78.2	117.4#

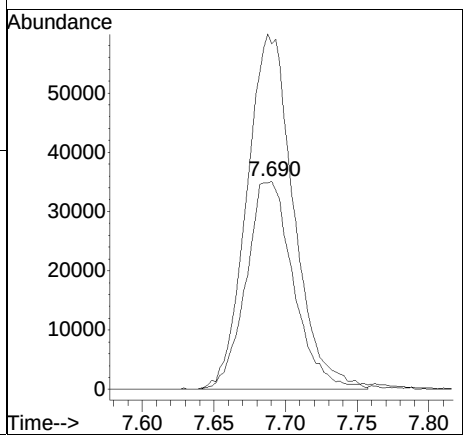


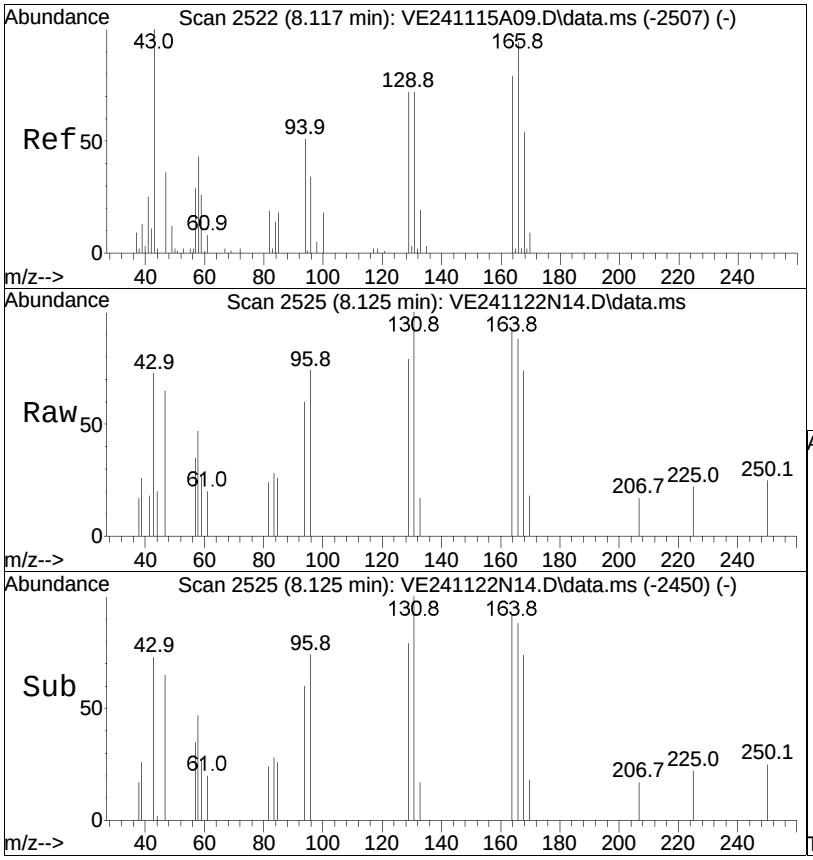


#65
Toluene
Concen: 7.57 ug/L
RT: 7.690 min Scan# 2369
Delta R.T. 0.006 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 92 Resp: 80599

Ion	Ratio	Lower	Upper
92	100		
91	169.3	129.1	193.7

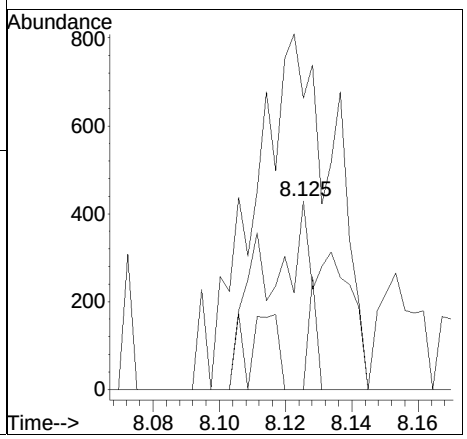


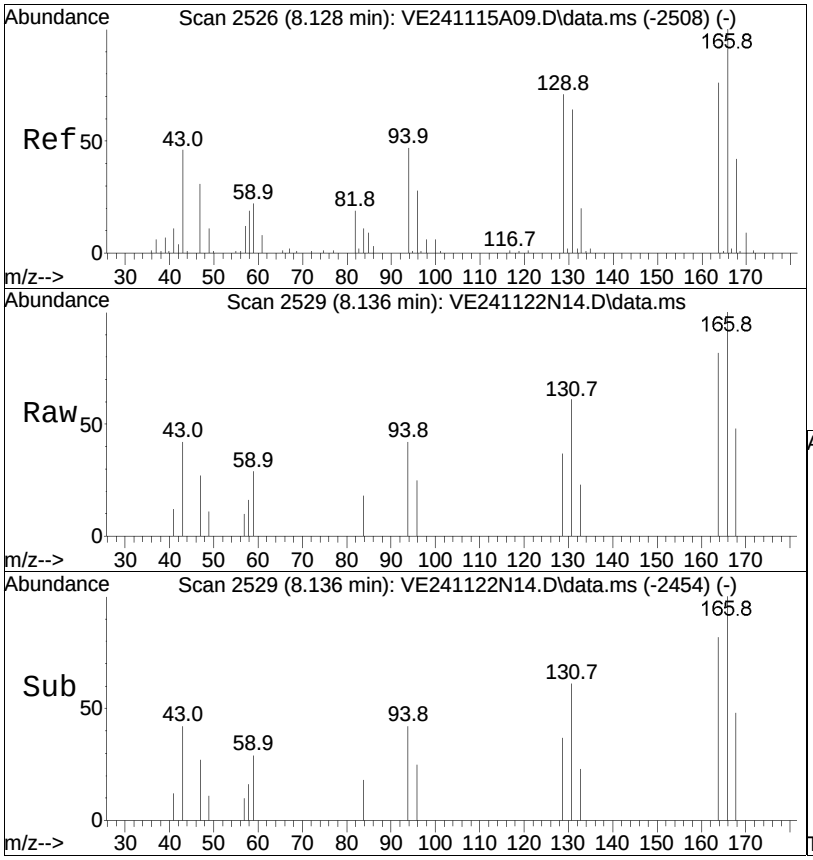


#66
4-Methyl-2-pentanone
Concen: 0.55 ug/L M1
RT: 8.125 min Scan# 2525
Delta R.T. 0.008 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 58 Resp: 616

Ion	Ratio	Lower	Upper
58	100		
100	7.0	27.9	41.9#
43	222.7	225.7	338.5#

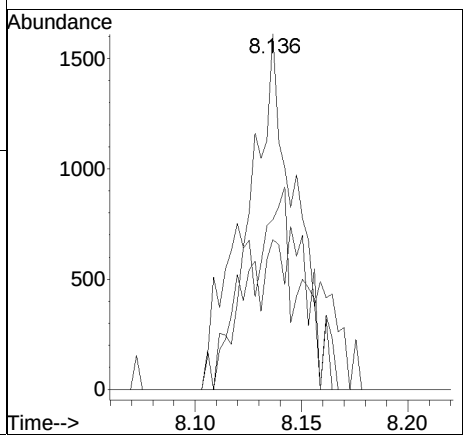


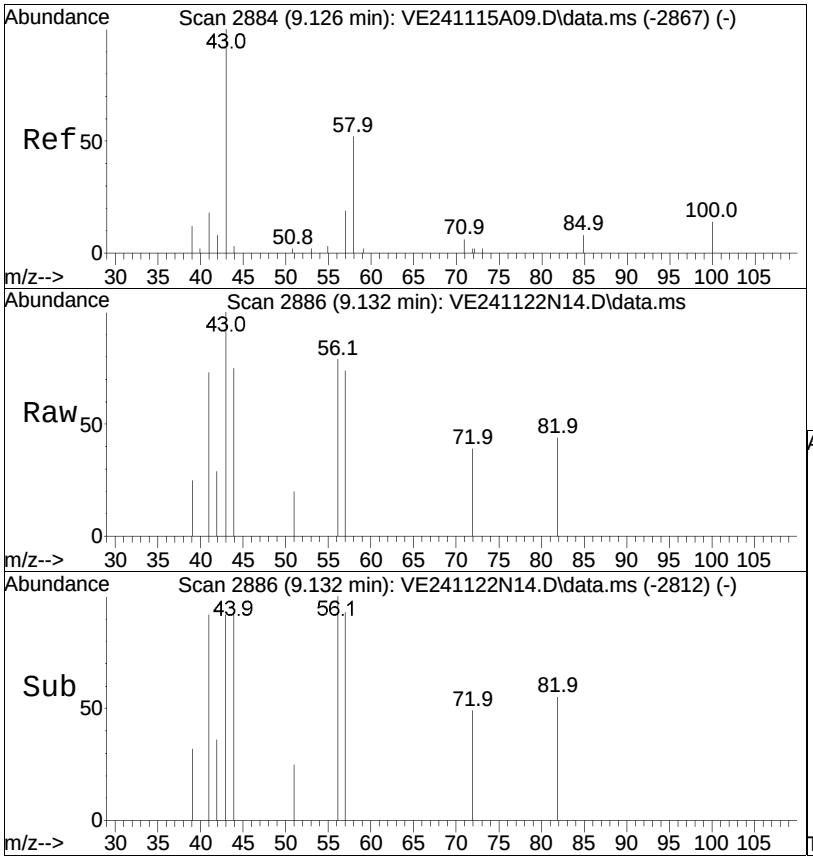


#67
Tetrachloroethene
Concen: 0.67 ug/L
RT: 8.136 min Scan# 2529
Delta R.T. 0.008 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion:166 Resp: 2881

Ion	Ratio	Lower	Upper
166	100		
168	26.5	25.8	65.8
94	6.0	24.3	64.3#

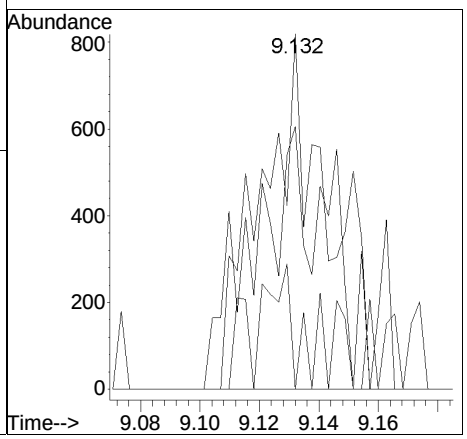


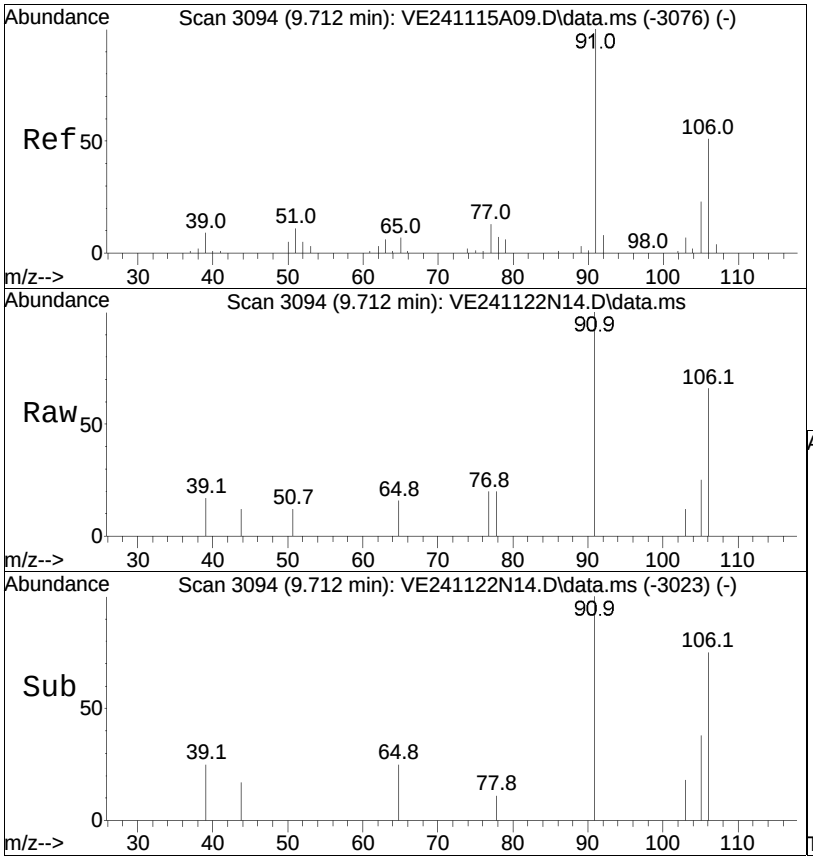


#77
2-Hexanone
Concen: 0.70 ug/L M1
RT: 9.132 min Scan# 2886
Delta R.T. 0.006 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion: 43 Resp: 1261

Ion	Ratio	Lower	Upper
43	100		
58	15.0	42.5	63.7#
57	46.1	13.9	20.9#

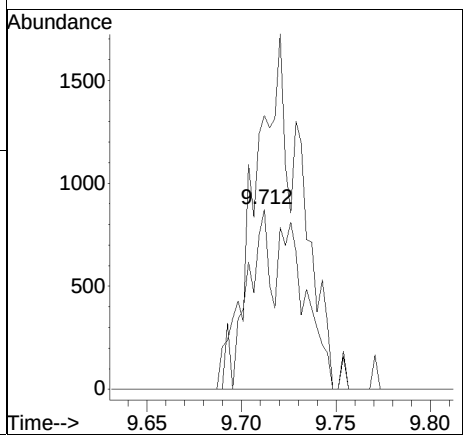


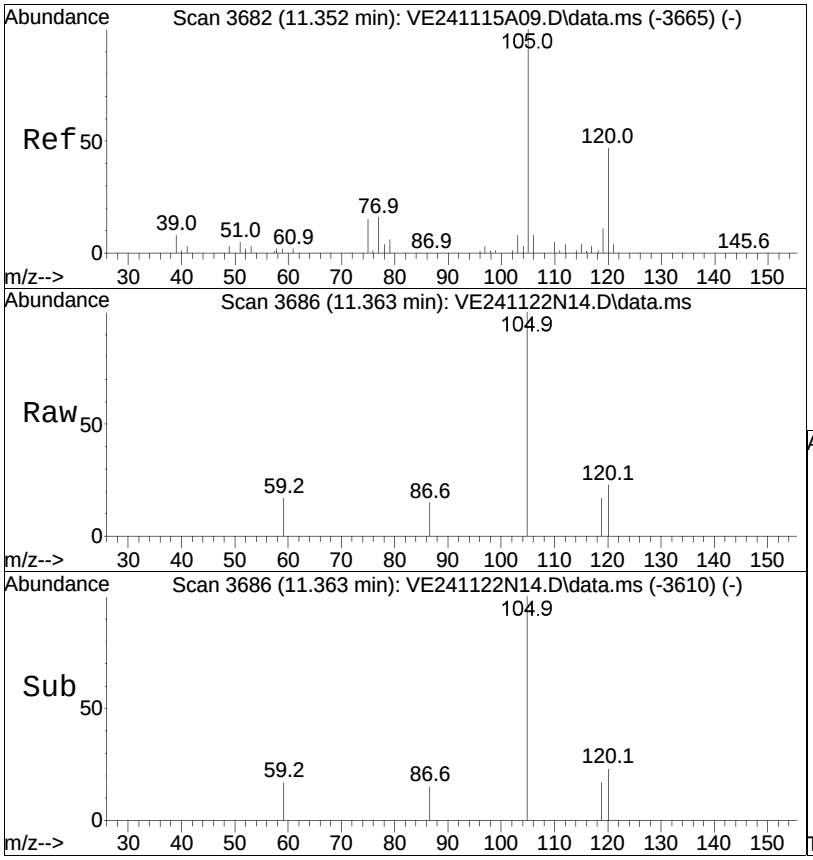


#81
p/m Xylene
Concen: 0.21 ug/L M1
RT: 9.712 min Scan# 3094
Delta R.T. 0.000 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion:106 Resp: 1629

Ion	Ratio	Lower	Upper
106	100		
91	0.0	163.3	244.9#

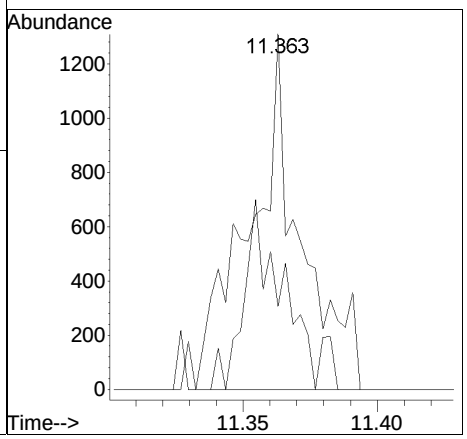


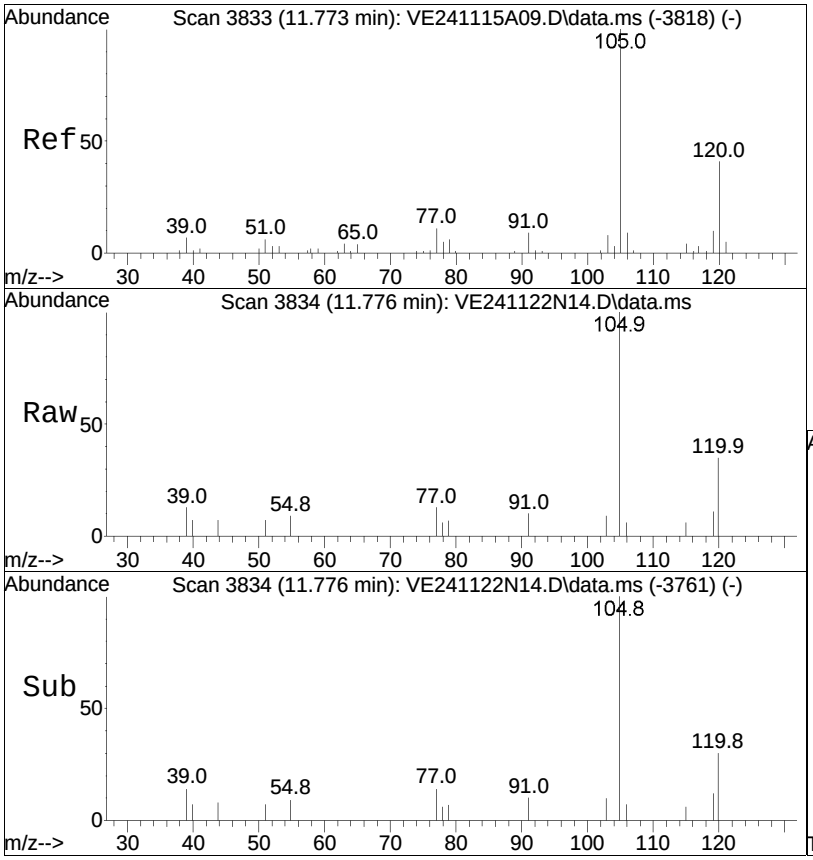


#95
1,3,5-Trimethylbenzene
Concen: 0.10 ug/L
RT: 11.363 min Scan# 3686
Delta R.T. 0.011 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion:105 Resp: 1723

Ion	Ratio	Lower	Upper
105	100		
120	39.5	39.3	58.9

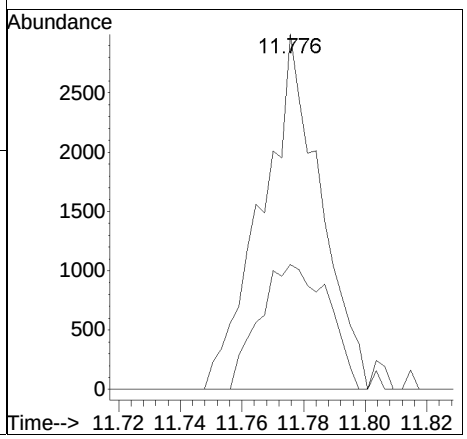


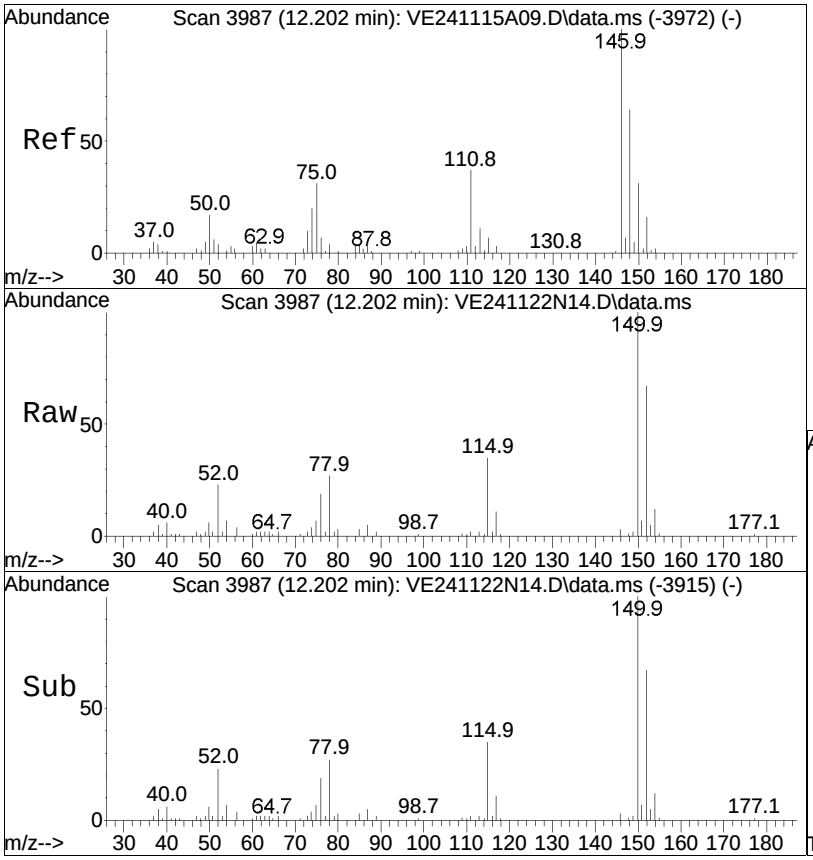


#102
1,2,4-Trimethylbenzene
Concen: 0.23 ug/L
RT: 11.776 min Scan# 3834
Delta R.T. 0.003 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion:105 Resp: 3958

Ion	Ratio	Lower	Upper
105	100		
120	41.4	33.6	50.4

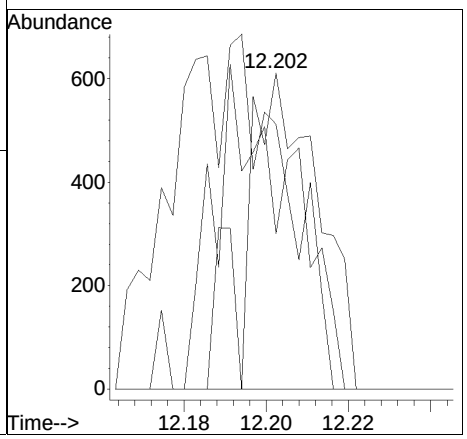


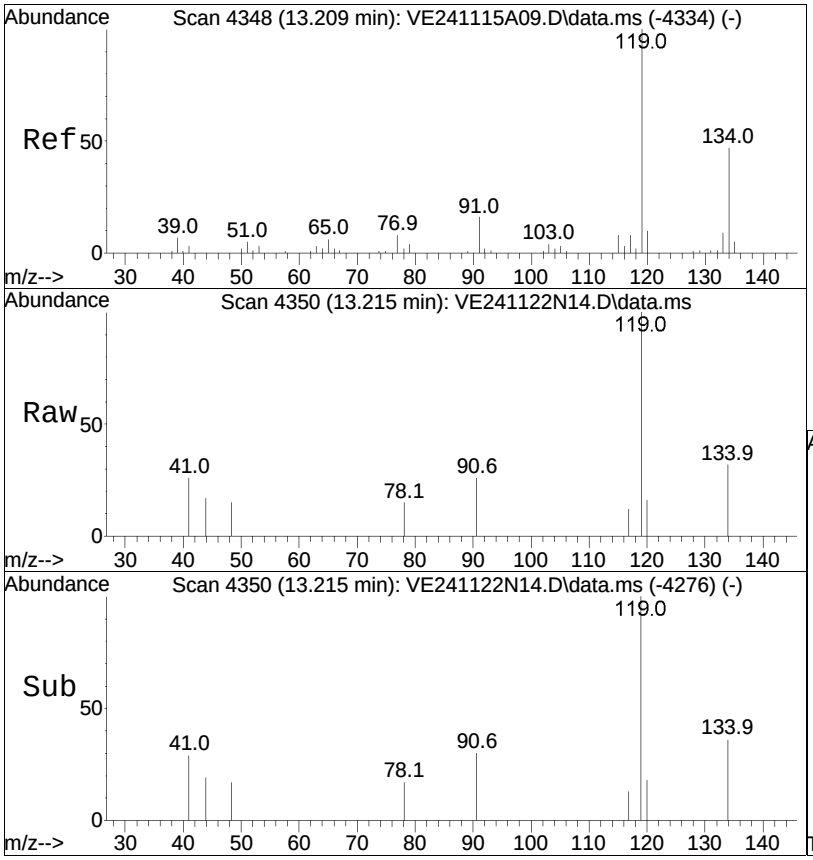


#106
1,4-Dichlorobenzene
Concen: 0.08 ug/L
RT: 12.202 min Scan# 3987
Delta R.T. 0.000 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion:146 Resp: 763

Ion	Ratio	Lower	Upper
146	100		
111	80.1	31.4	47.0#
148	69.7	49.8	74.8

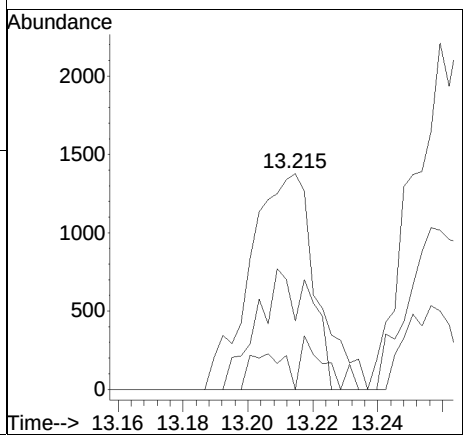


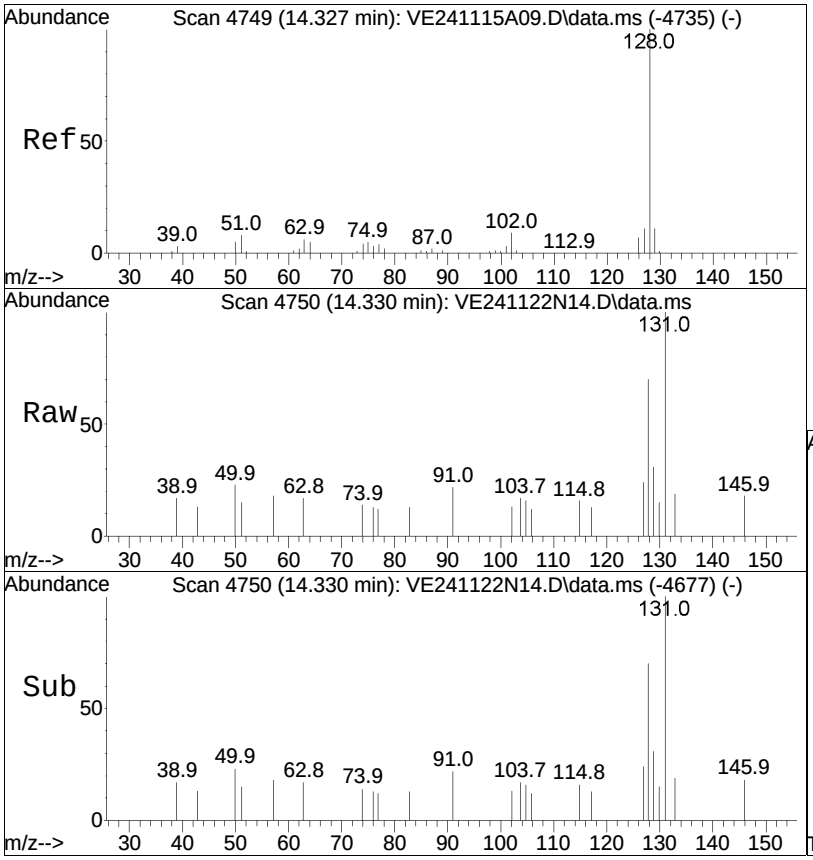


#110
1,2,4,5-Tetramethylbenzene
Concen: 0.12 ug/L
RT: 13.215 min Scan# 4350
Delta R.T. 0.006 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion:119 Resp: 1976

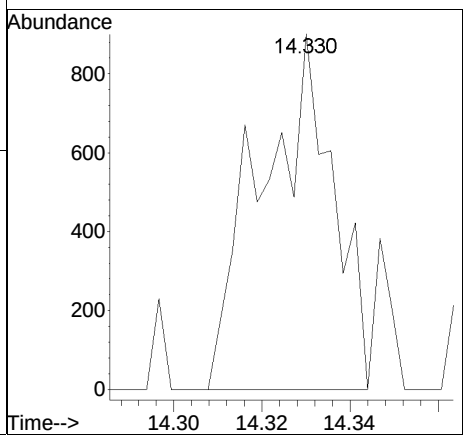
Ion	Ratio	Lower	Upper
119	100		
134	0.0	29.6	61.4#
91	7.6	9.8	20.3#





#115
Naphthalene
Concen: 0.08 ug/L
RT: 14.330 min Scan# 4750
Delta R.T. 0.003 min
Lab File: VE241122N14.D
Acq: 23 Nov 2024 2:14 am

Tgt Ion:128 Resp: 1031

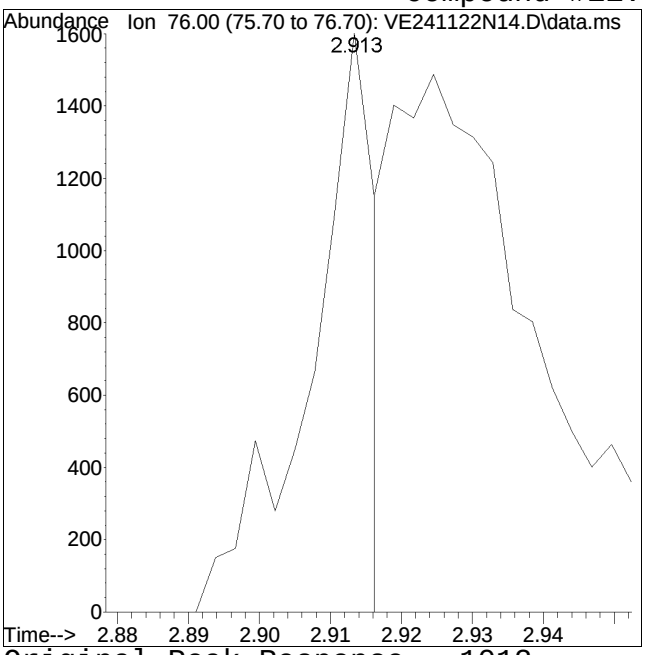


Manual Integration Report

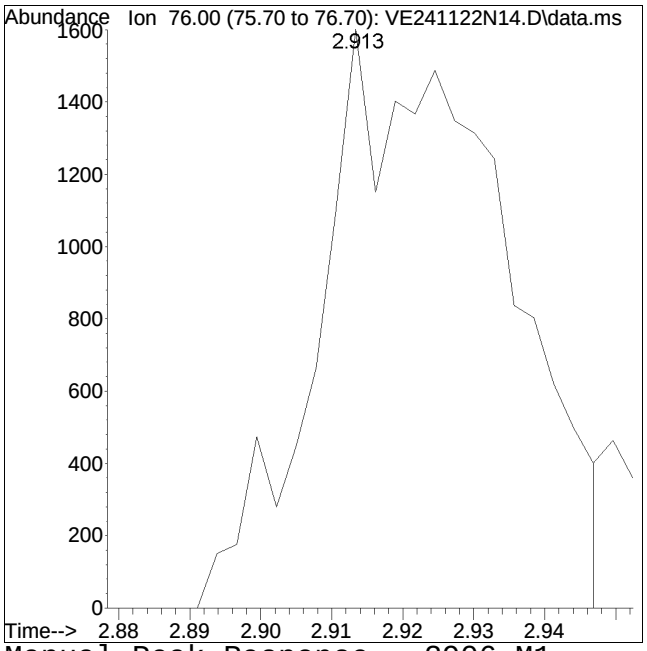
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Date Inj'd : 11/23/2024 2:14 am
Sample : l2468376-02,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #11: Carbon disulfide



Original Peak Response = 1012



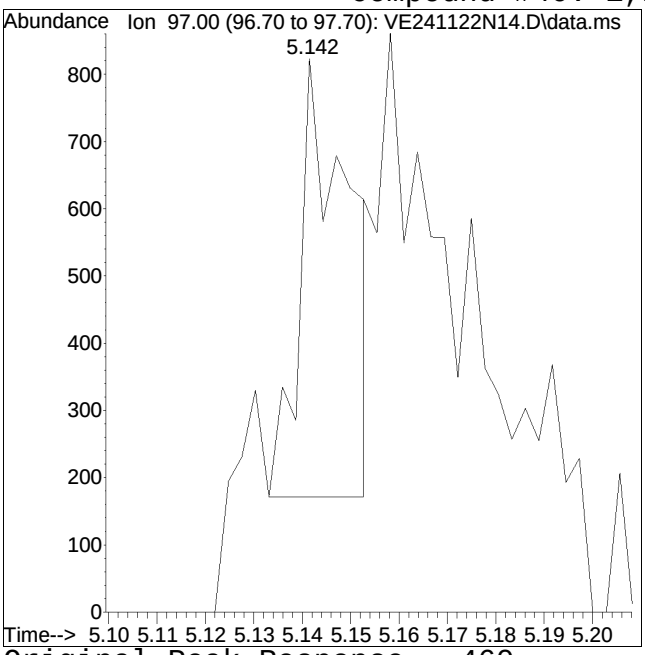
Manual Peak Response = 2906 M1

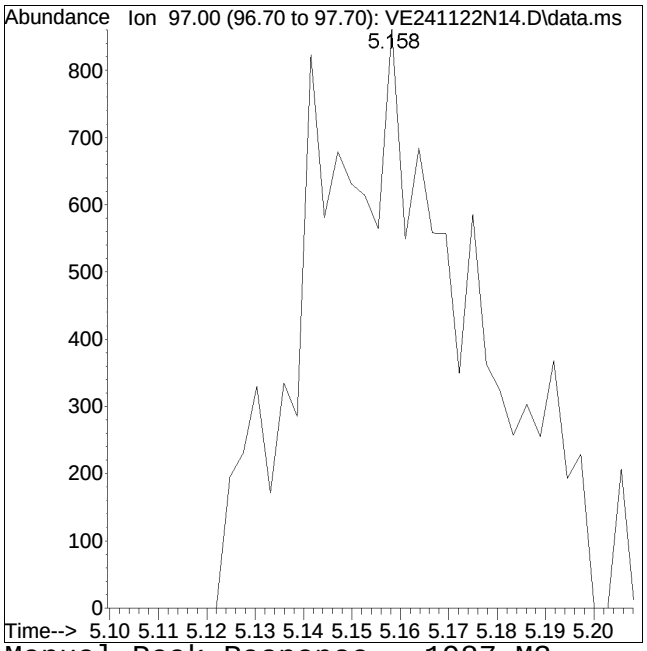
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N14.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 2:14 am Instrument : Elaine
Sample : l2468376-02,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #40: 1,1,1-Trichloroethane





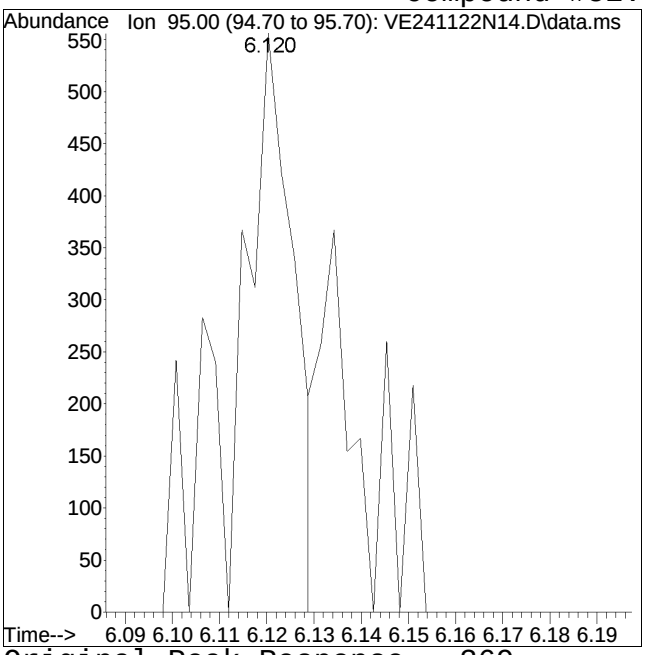
Original Peak Response = 460 Manual Peak Response = 1987 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

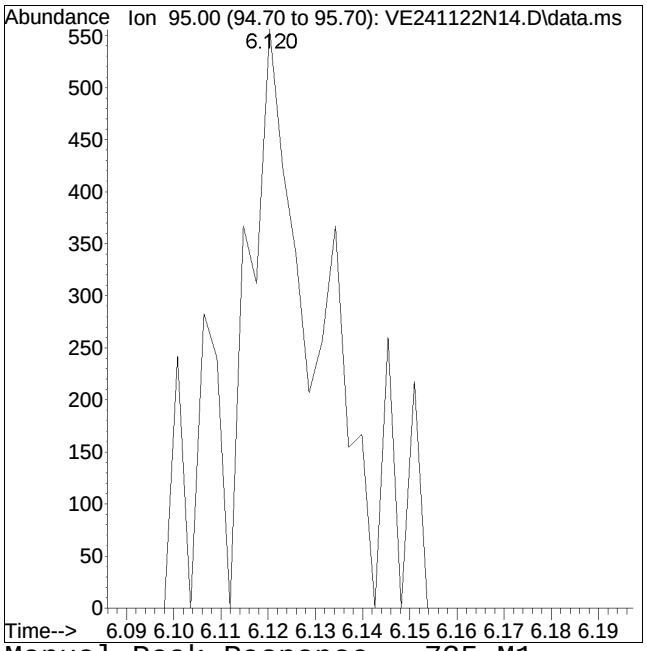
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Date Inj'd : 11/23/2024 2:14 am
Sample : l2468376-02,31,10,10,,a
QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #52: Trichloroethene



Original Peak Response = 369



Manual Peak Response = 735 M1

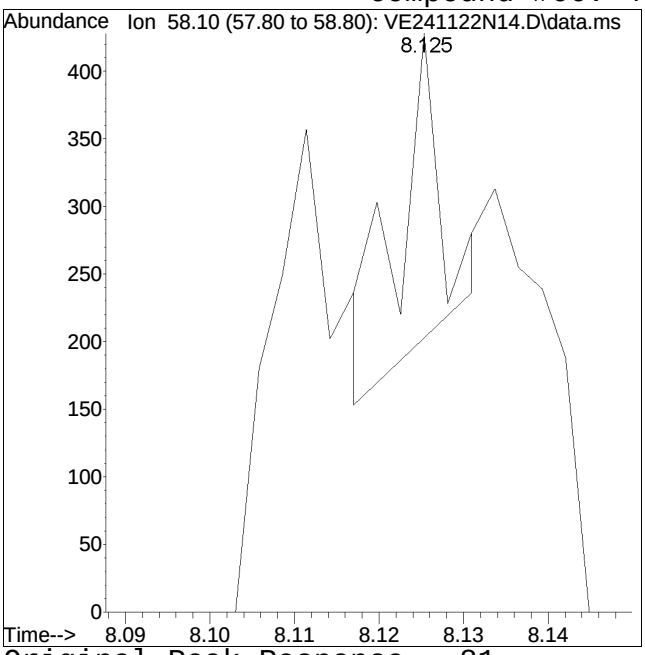
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

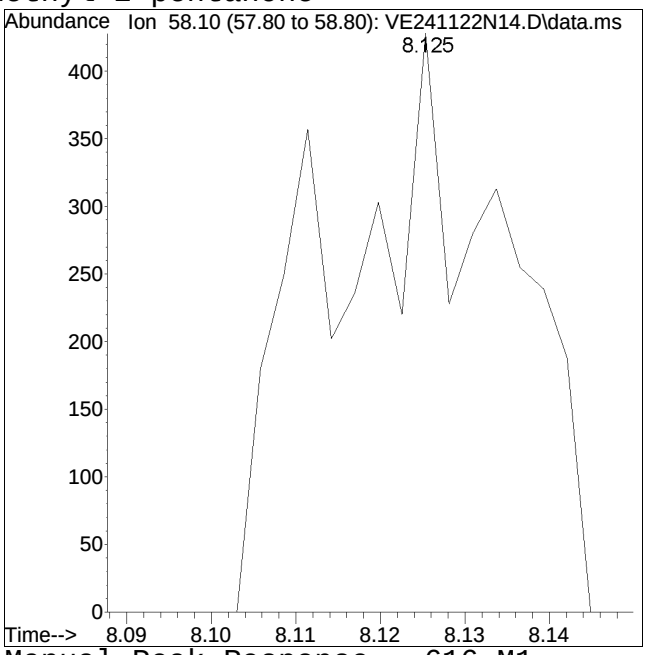
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Date Inj'd : 11/23/2024 2:14 am
Sample : l2468376-02,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 81



Manual Peak Response = 616 M1

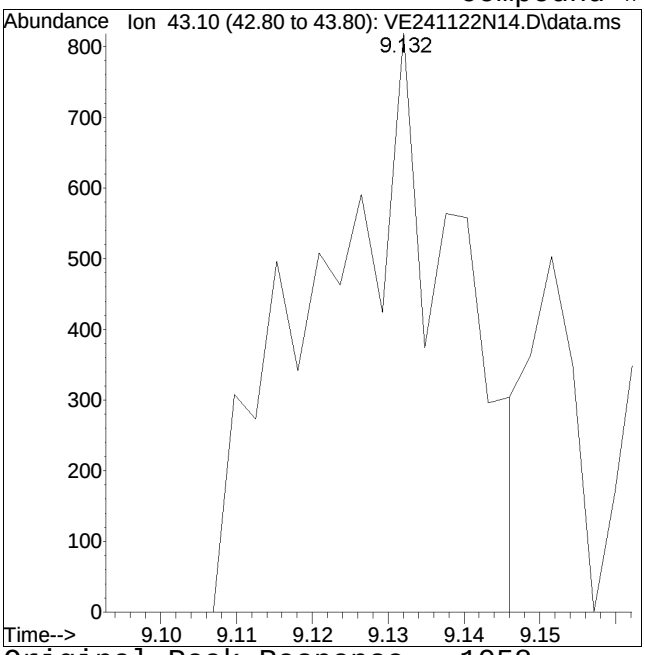
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

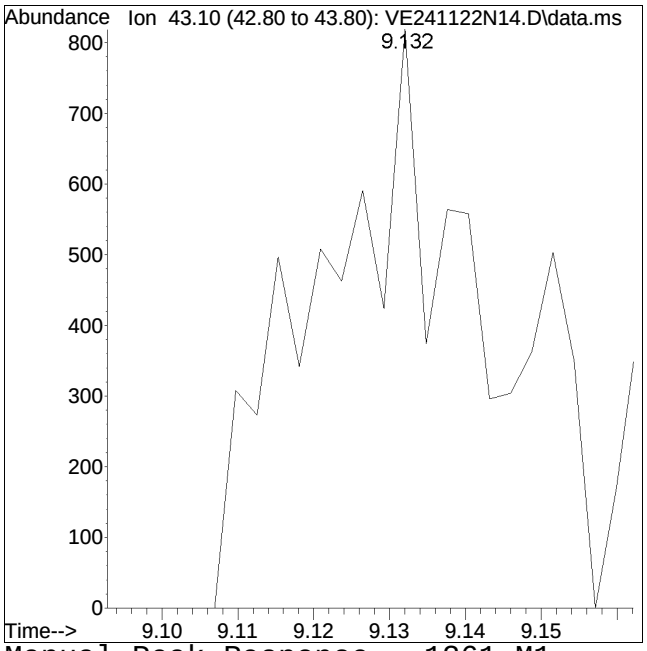
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N14.D
Date Inj'd : 11/23/2024 2:14 am
Sample : l2468376-02,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #77: 2-Hexanone



Original Peak Response = 1058



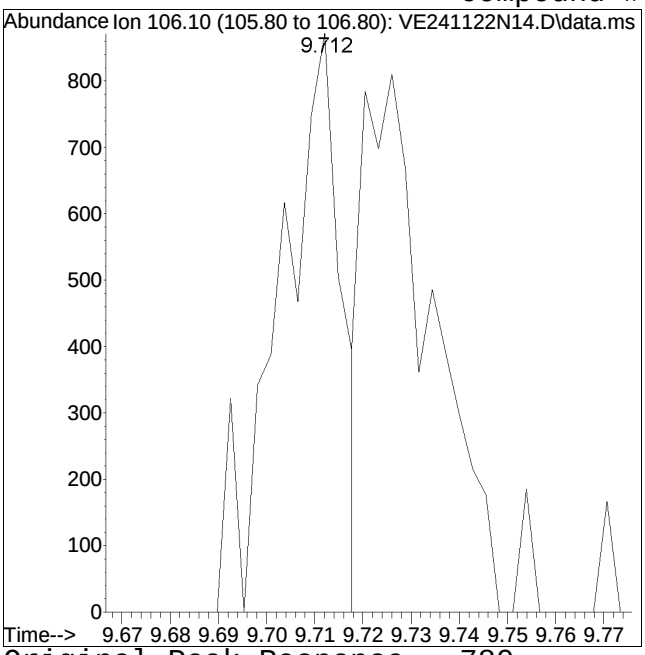
Manual Peak Response = 1261 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

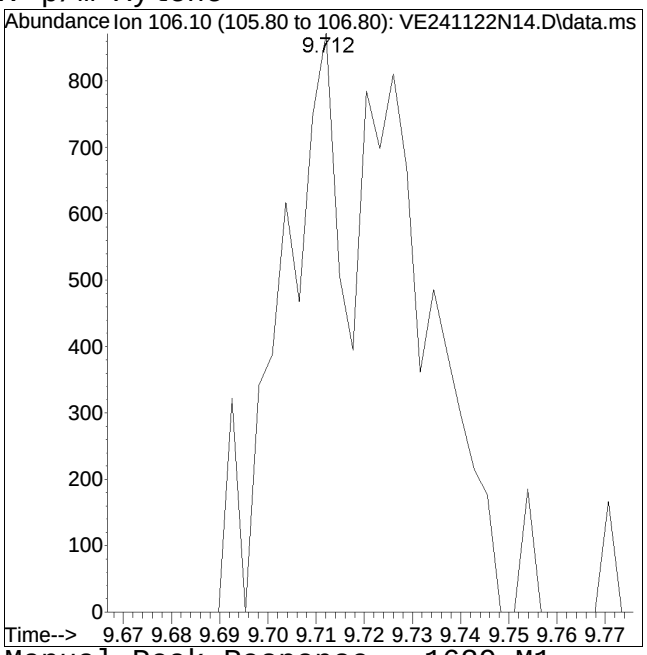
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N14.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 2:14 am Instrument : Elaine
Sample : l2468376-02,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #81: p/m Xylene



Original Peak Response = 780



Manual Peak Response = 1629 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Acq On : 23 Nov 2024 2:38 am
Operator : ELAINE:MJV
Sample : l2468376-03,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 23 11:28:56 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	192323	10.000	ug/L	0.00
Standard Area 1 = 199076			Recovery = 96.61%			
63) Chlorobenzene-d5	9.469	117	138671	10.000	ug/L	0.00
Standard Area 1 = 141631			Recovery = 97.91%			
84) 1,4-Dichlorobenzene-d4	12.185	152	68105	10.000	ug/L	0.00
Standard Area 1 = 72502			Recovery = 93.94%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	44841	10.169	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.69%			
47) 1,2-Dichloroethane-d4	5.660	65	56388	10.807	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.07%			
64) Toluene-d8	7.629	98	193053	10.208	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.08%			
88) 4-Bromofluorobenzene	10.972	95	64961	10.382	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.82%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.446	85	28	N.D.		
3) Chloromethane	1.773	50	216	N.D.		
4) Vinyl chloride	1.851	62	1480	0.327	ug/L #	47
5) Bromomethane	2.188	94	32	N.D.		
6) Chloroethane	0.000		0	N.D. d		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.919	76	23000	2.278	ug/L	99
15) Methylene chloride	3.443	84	6525	1.555	ug/L	84
17) Acetone	3.482	43	44952	54.431	ug/L	92
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	3.610	73	44	N.D.		
25) 1,1-Dichloroethane	4.185	63	31	N.D.		
27) Acrylonitrile	4.218	53	25	N.D.		
29) Vinyl acetate	4.422	43	105	N.D.		
30) cis-1,2-Dichloroethene	4.698	96	239	N.D.		
31) 2,2-Dichloropropane	4.676	77	29	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	4.888	83	27	N.D.		

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Acq On : 23 Nov 2024 2:38 am
Operator : ELAINE:MJV
Sample : l2468376-03,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 23 11:28:56 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	5.161	117	59	N.D.	
40) 1,1,1-Trichloroethane	5.150	97	2350M1	0.379 ug/L	
42) 2-Butanone	5.247	43	11418M3	9.696 ug/L	
43) 1,1-Dichloropropene	5.339	75	31	N.D.	
45) Benzene	5.526	78	2112M1	0.123 ug/L	
48) 1,2-Dichloroethane	5.730	62	1502M1	0.276 ug/L	
52) Trichloroethene	6.126	95	918M1	0.226 ug/L	
54) Dibromomethane	6.639	93	26	N.D.	
55) 1,2-Dichloropropane	6.776	63	26	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
61) 1,4-Dioxane	0.000		0	N.D. d	
62) cis-1,3-Dichloropropene	7.607	75	58	N.D.	
65) Toluene	7.687	92	62917	5.774 ug/L	93
66) 4-Methyl-2-pentanone	8.125	58	419	0.366 ug/L #	65
67) Tetrachloroethene	8.134	166	2779M1	0.634 ug/L	
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	8.502	83	25	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	8.705	76	26	N.D.	
75) 1,2-Dibromoethane	8.725	107	30	N.D.	
77) 2-Hexanone	0.000		0	N.D. d	
78) Chlorobenzene	9.489	112	1821	0.157 ug/L #	38
79) Ethylbenzene	9.531	91	850	N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	9.723	106	1773M3	0.221 ug/L	
82) o Xylene	0.000		0	N.D. d	
83) Styrene	10.339	104	126	N.D.	
85) Bromoform	10.245	173	27	N.D.	
87) Isopropylbenzene	10.638	105	91	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	0.000		0	N.D. d	
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D. d	
93) 4-Ethyltoluene	11.246	105	251	N.D.	
94) 2-Chlorotoluene	11.299	91	30	N.D.	
95) 1,3,5-Trimethylbenzene	11.357	105	889	N.D.	
96) 1,2,3-Trichloropropane	11.357	75	26	N.D.	
97) trans-1,4-Dichloro-2-b...	11.354	53	30	N.D.	
98) 4-Chlorotoluene	11.580	91	73	N.D.	
99) tert-Butylbenzene	11.703	119	36	N.D.	

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Acq On : 23 Nov 2024 2:38 am
Operator : ELAINE:MJV
Sample : l2468376-03,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 23 11:28:56 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102)	1,2,4-Trimethylbenzene	11.776	105	4276	0.254	ug/L		100
103)	sec-Butylbenzene	0.000		0	N.D.	d		
104)	p-Isopropyltoluene	12.043	119	494	N.D.			
105)	1,3-Dichlorobenzene	12.177	146	27	N.D.			
106)	1,4-Dichlorobenzene	12.205	146	378	N.D.			
107)	p-Diethylbenzene	12.442	119	2954	0.289	ug/L	#	54
108)	n-Butylbenzene	12.467	91	121	N.D.			
109)	1,2-Dichlorobenzene	12.629	146	416	N.D.			
110)	1,2,4,5-Tetramethylben...	13.209	119	3000M3	0.183	ug/L		
111)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.			
113)	Hexachlorobutadiene	0.000		0	N.D.			
114)	1,2,4-Trichlorobenzene	0.000		0	N.D.			
115)	Naphthalene	14.319	128	1686	0.135	ug/L		100
116)	1,2,3-Trichlorobenzene	14.528	180	26	N.D.			

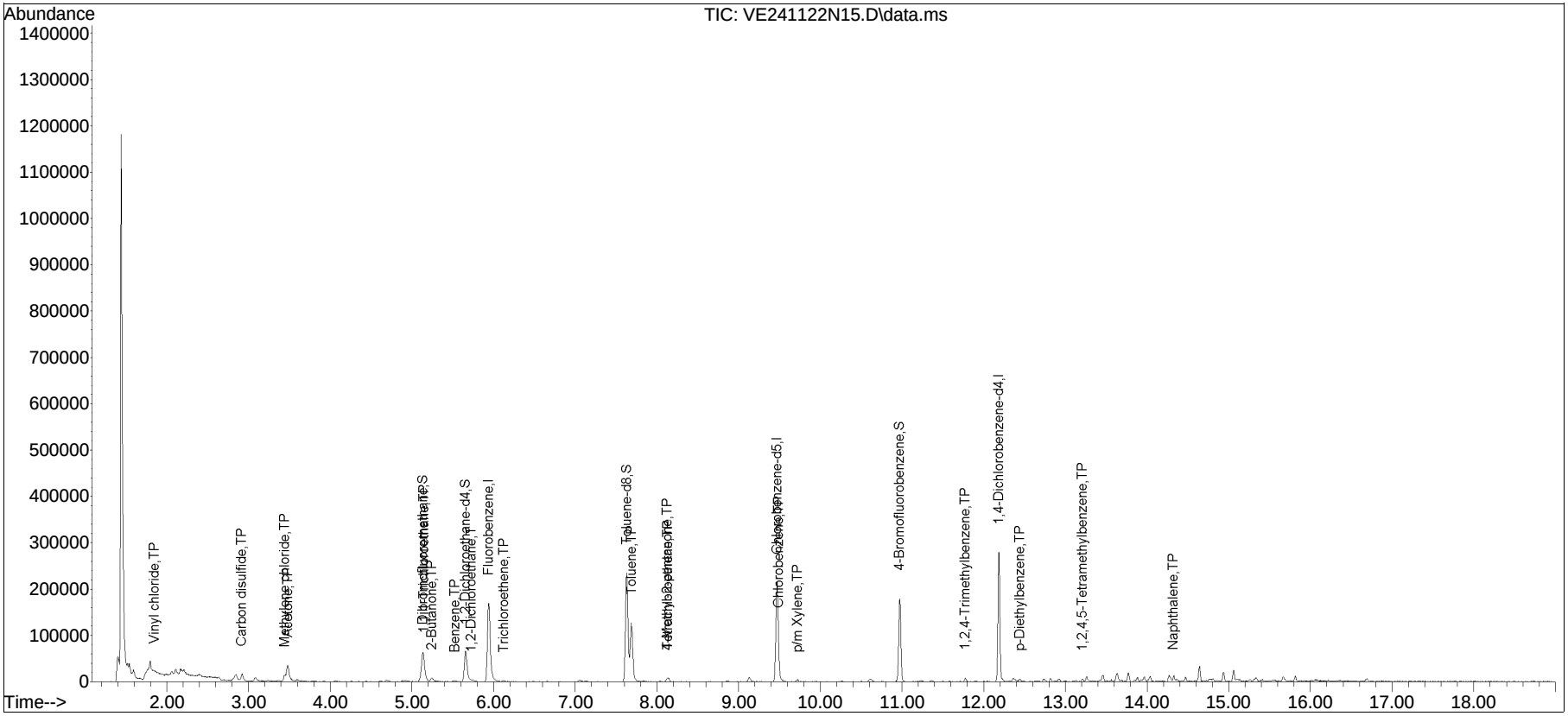
(#) = qualifier out of range (m) = manual integration (+) = signals summed

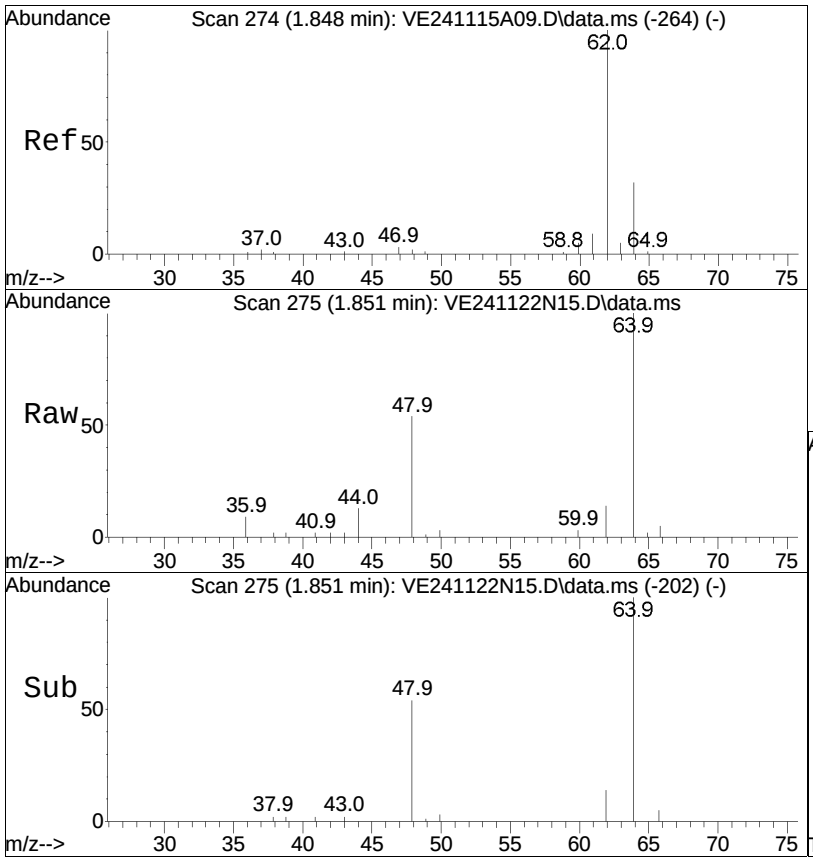
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Acq On : 23 Nov 2024 2:38 am
Operator : ELAINE:MJV
Sample : l2468376-03,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 23 11:28:56 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41122N02.D•

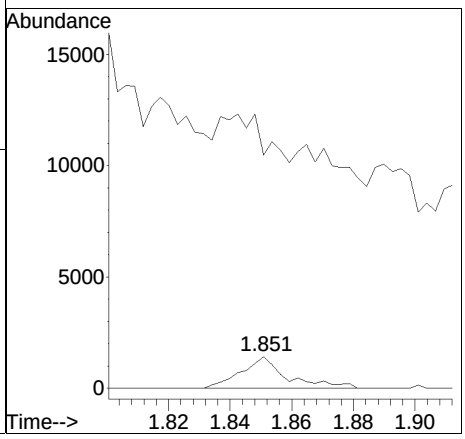


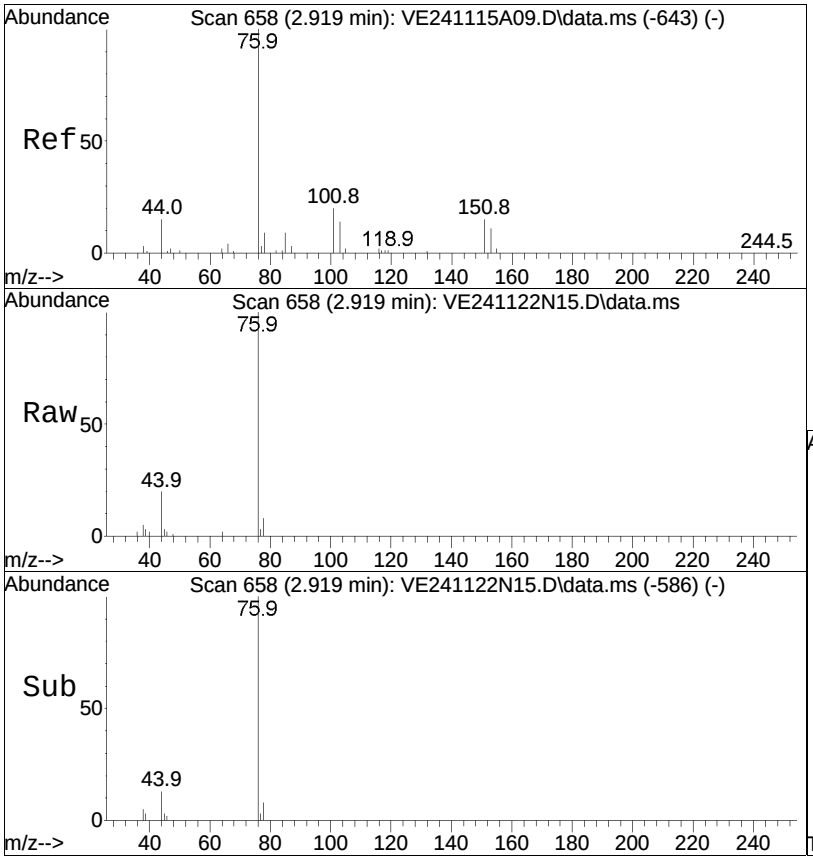


#4
Vinyl chloride
Concen: 0.33 ug/L
RT: 1.851 min Scan# 275
Delta R.T. 0.003 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 62 Resp: 1480

Ion	Ratio	Lower	Upper
62	100		
64	0.0	8.1	48.1#

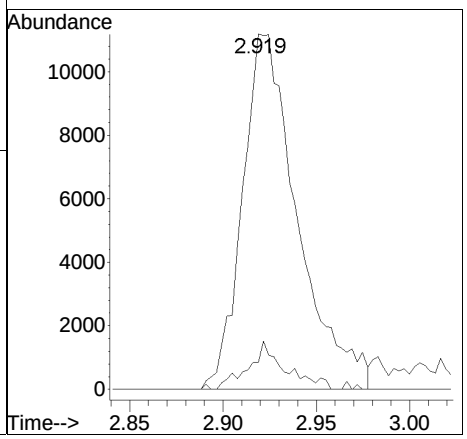


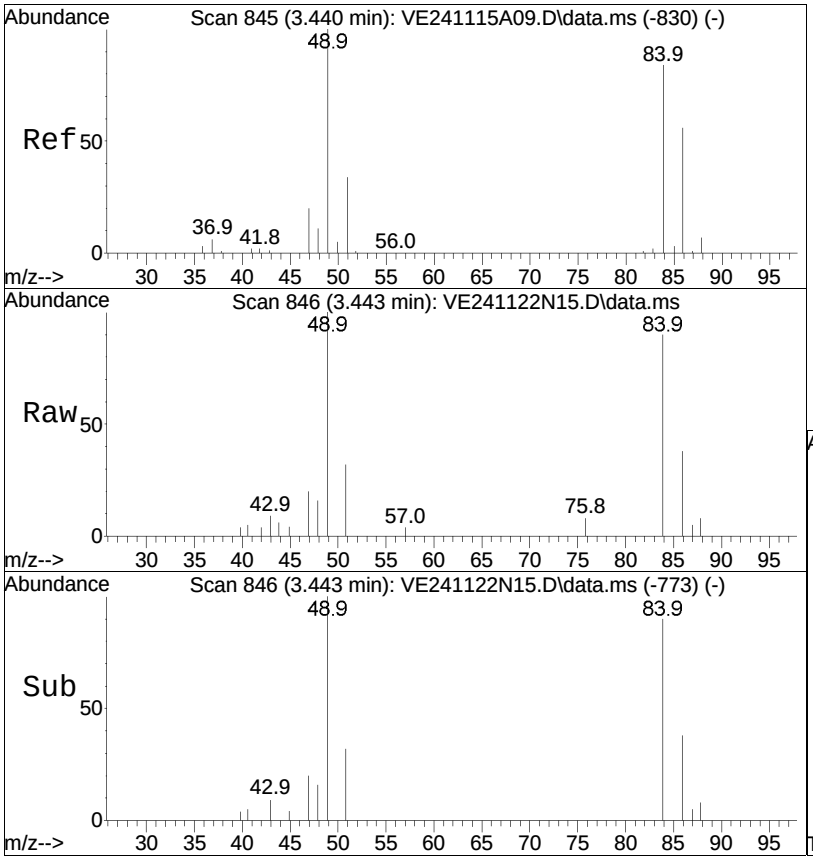


#11
Carbon disulfide
Concen: 2.28 ug/L
RT: 2.919 min Scan# 658
Delta R.T. -0.000 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 76 Resp: 23000

Ion	Ratio	Lower	Upper
76	100		
78	8.9	5.5	11.3

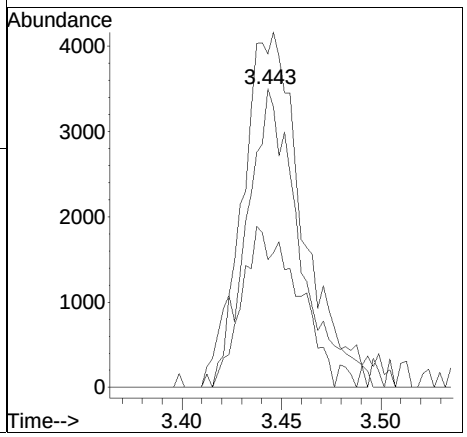


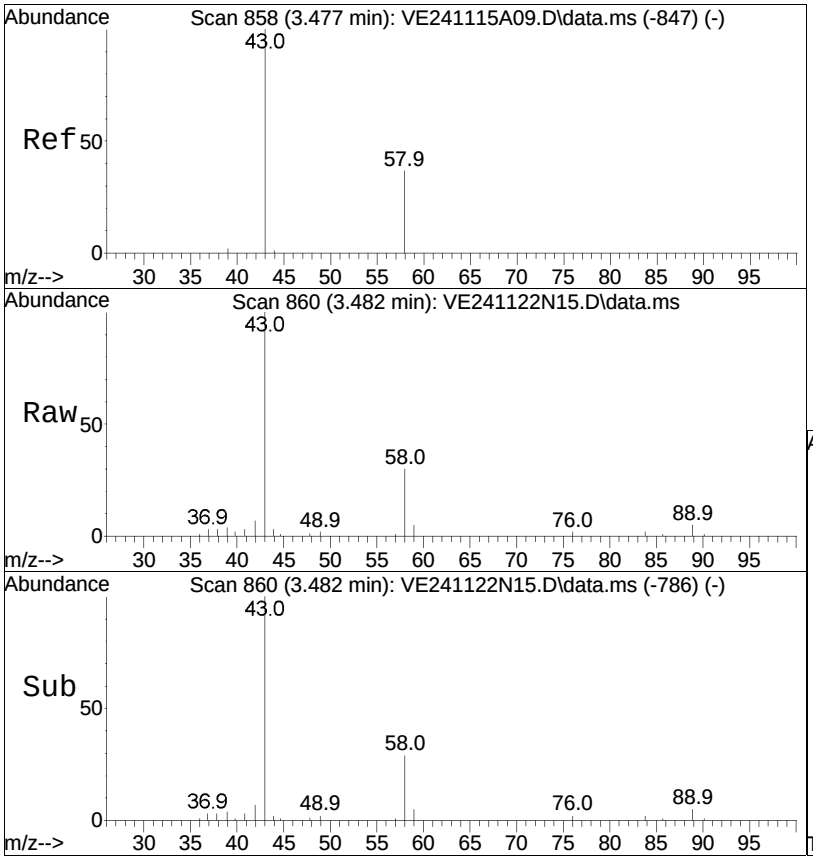


#15
Methylene chloride
Concen: 1.55 ug/L
RT: 3.443 min Scan# 846
Delta R.T. 0.003 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 84 Resp: 6525

Ion	Ratio	Lower	Upper
84	100		
86	56.4	40.2	83.6
49	134.1	103.2	214.4

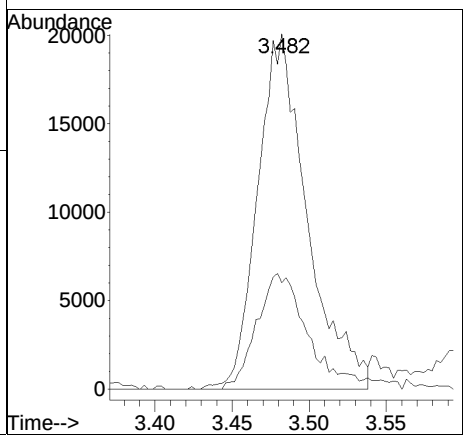


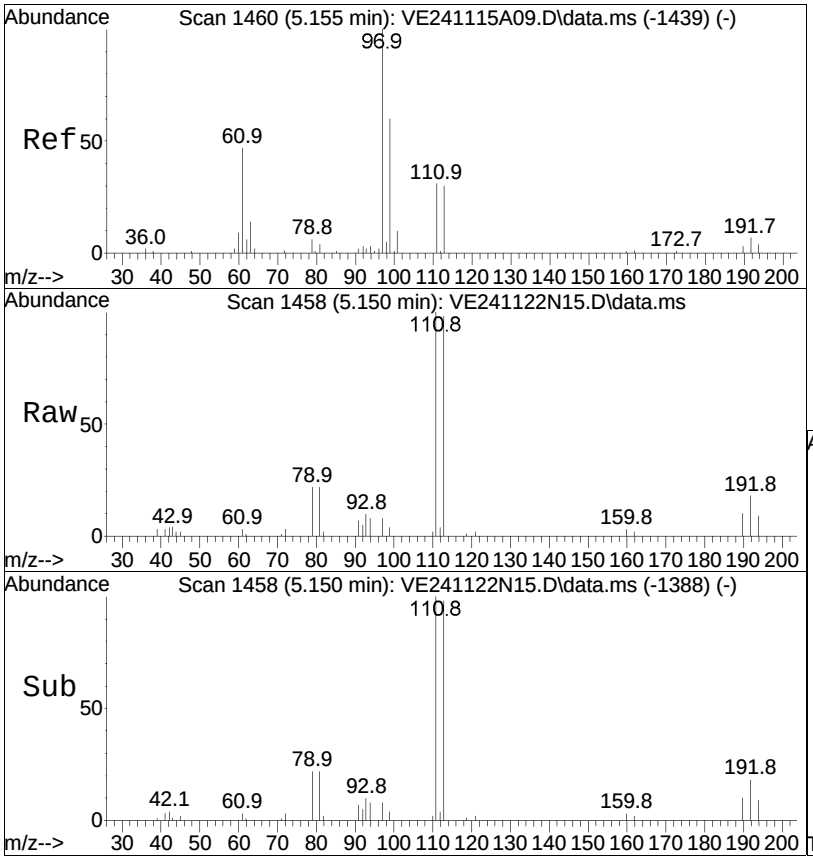


#17
Acetone
Concen: 54.43 ug/L
RT: 3.482 min Scan# 860
Delta R.T. 0.006 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 43 Resp: 44952

Ion	Ratio	Lower	Upper
43	100		
58	33.3	23.4	35.0

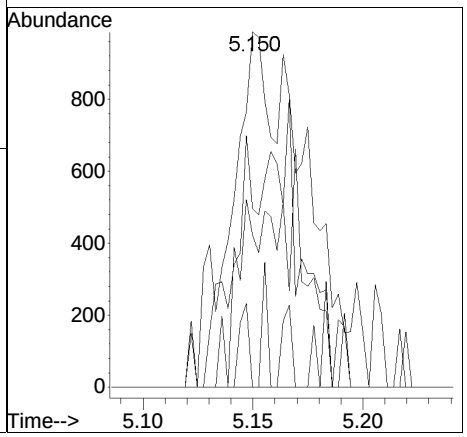


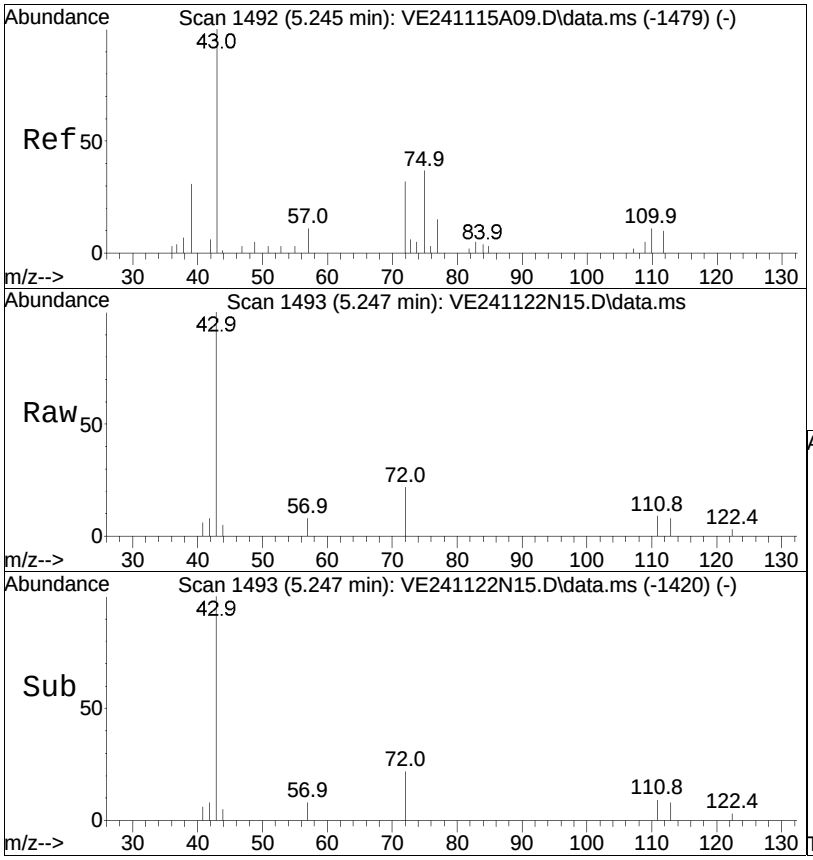


#40
1,1,1-Trichloroethane
Concen: 0.38 ug/L M1
RT: 5.150 min Scan# 1458
Delta R.T. -0.006 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 97 Resp: 2350

Ion	Ratio	Lower	Upper
97	100		
99	23.8	40.2	83.4#
61	15.7	36.9	76.5#
63	2.9	8.3	17.3#

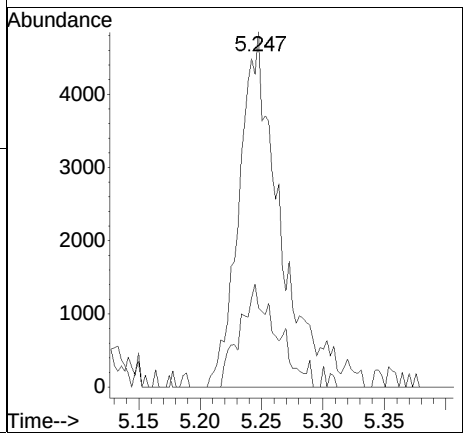


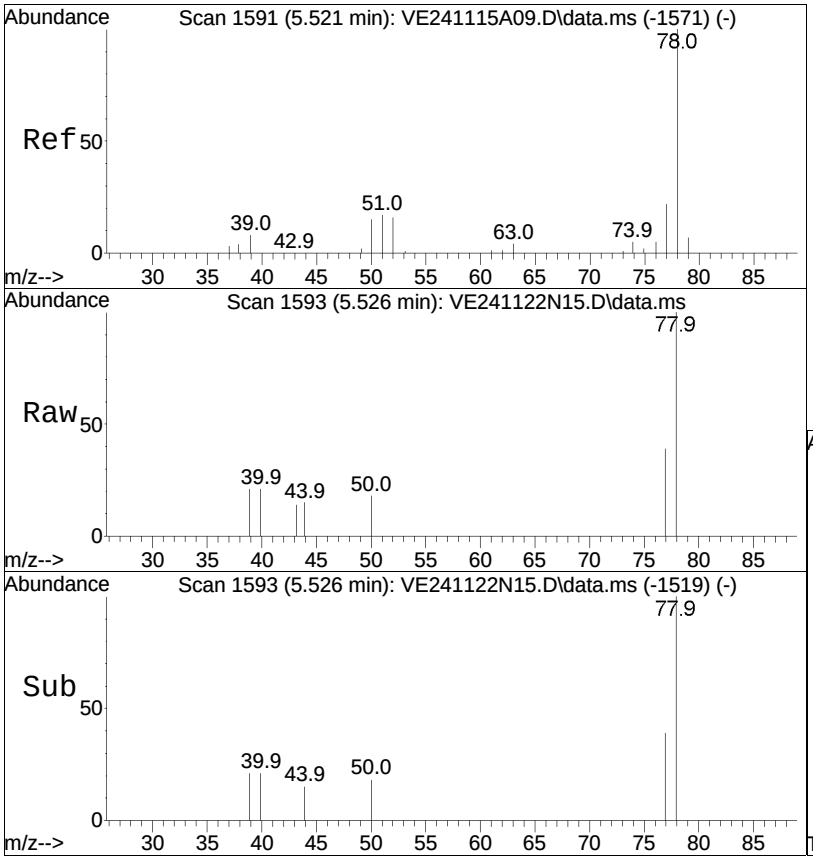


#42
2-Butanone
Concen: 9.70 ug/L M3
RT: 5.247 min Scan# 1493
Delta R.T. 0.003 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 43 Resp: 11418

Ion	Ratio	Lower	Upper
43	100		
72	0.8	15.7	23.5#

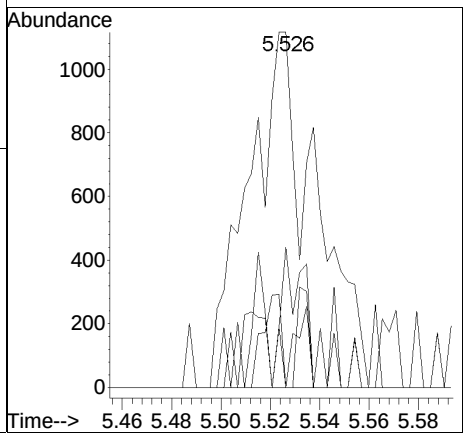


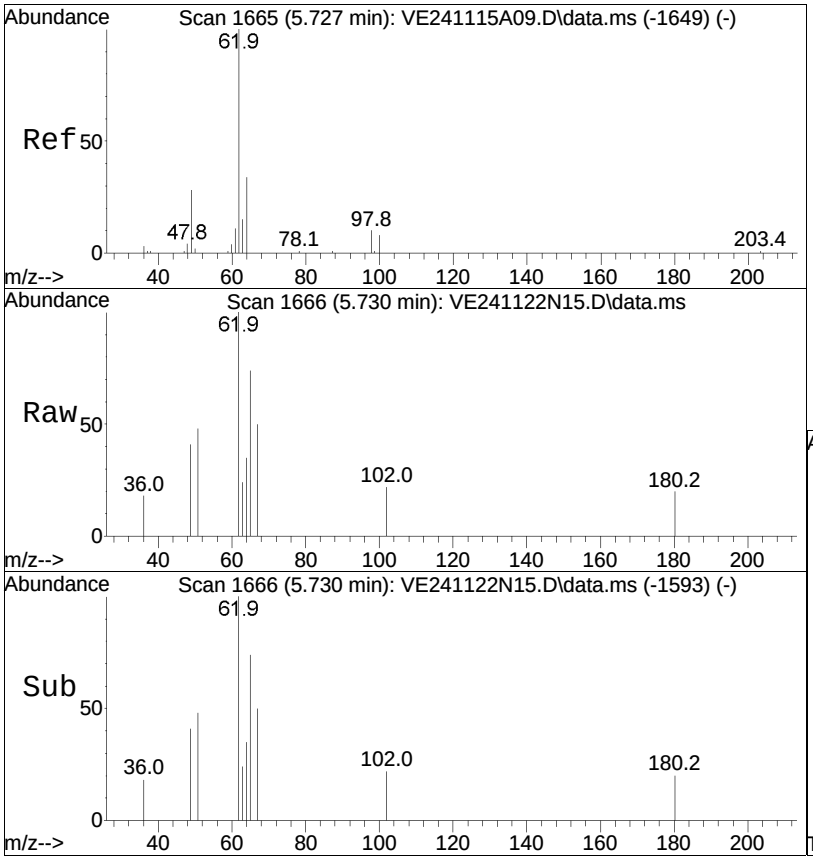


#45
Benzene
Concen: 0.12 ug/L M1
RT: 5.526 min Scan# 1593
Delta R.T. 0.006 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 78 Resp: 2112

Ion	Ratio	Lower	Upper
78	100		
77	15.5	12.8	26.6
51	0.0	13.5	27.9#
52	7.3	12.0	25.0#

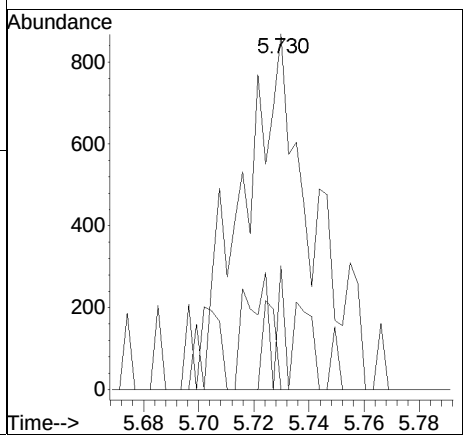


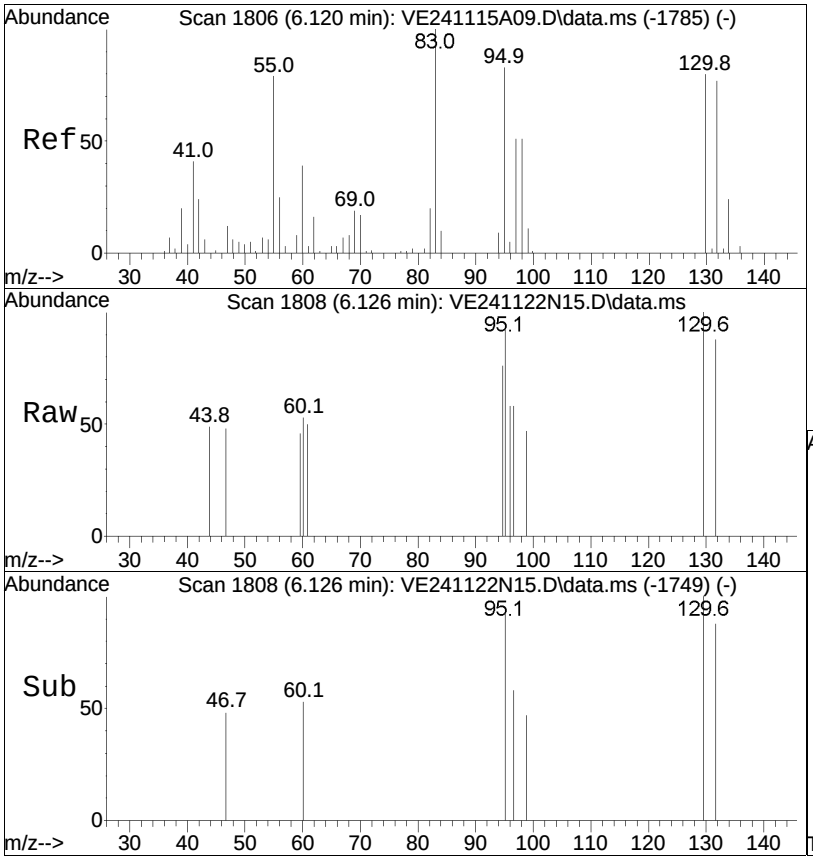


#48
1,2-Dichloroethane
Concen: 0.28 ug/L M1
RT: 5.730 min Scan# 1666
Delta R.T. 0.003 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 62 Resp: 1502

Ion	Ratio	Lower	Upper
62	100		
64	10.1	12.0	52.0#
98	4.6	0.0	29.1

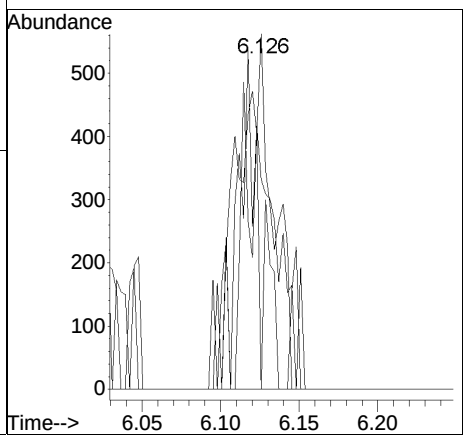


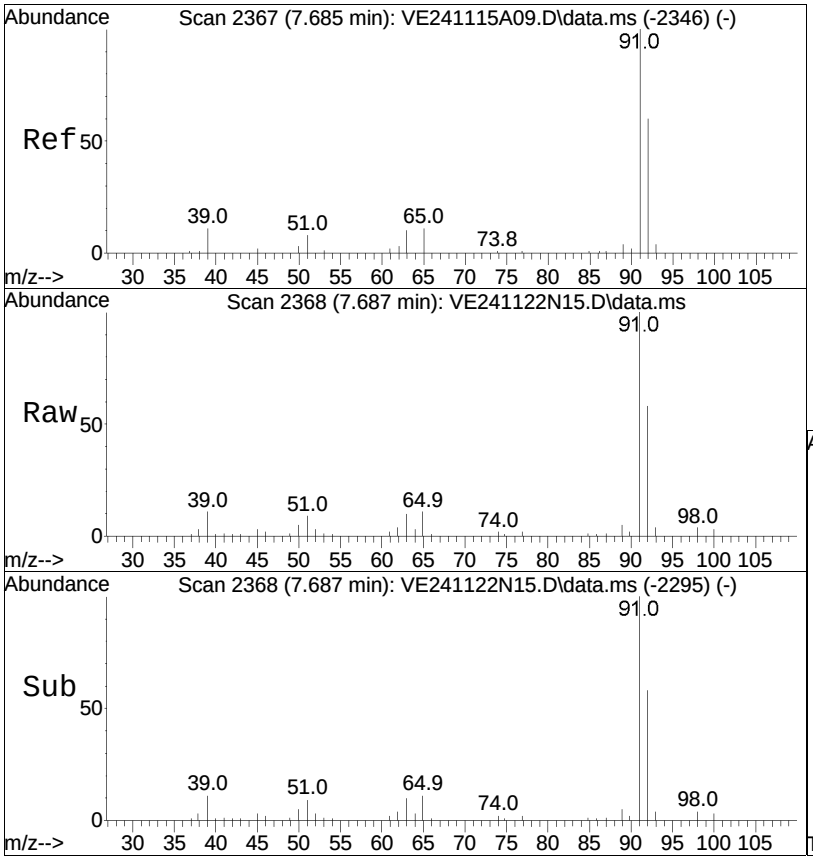


#52
Trichloroethene
Concen: 0.23 ug/L M1
RT: 6.126 min Scan# 1808
Delta R.T. 0.006 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 95 Resp: 918

Ion	Ratio	Lower	Upper
95	100		
97	12.4	50.2	75.2#
130	0.0	78.2	117.4#

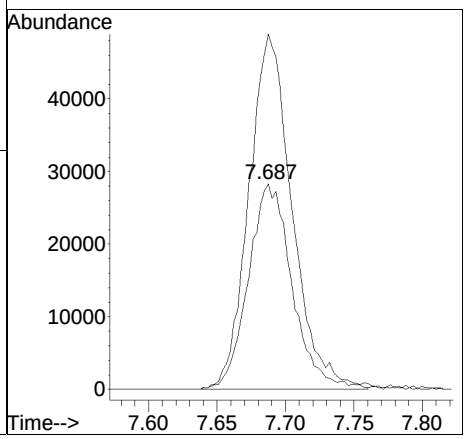


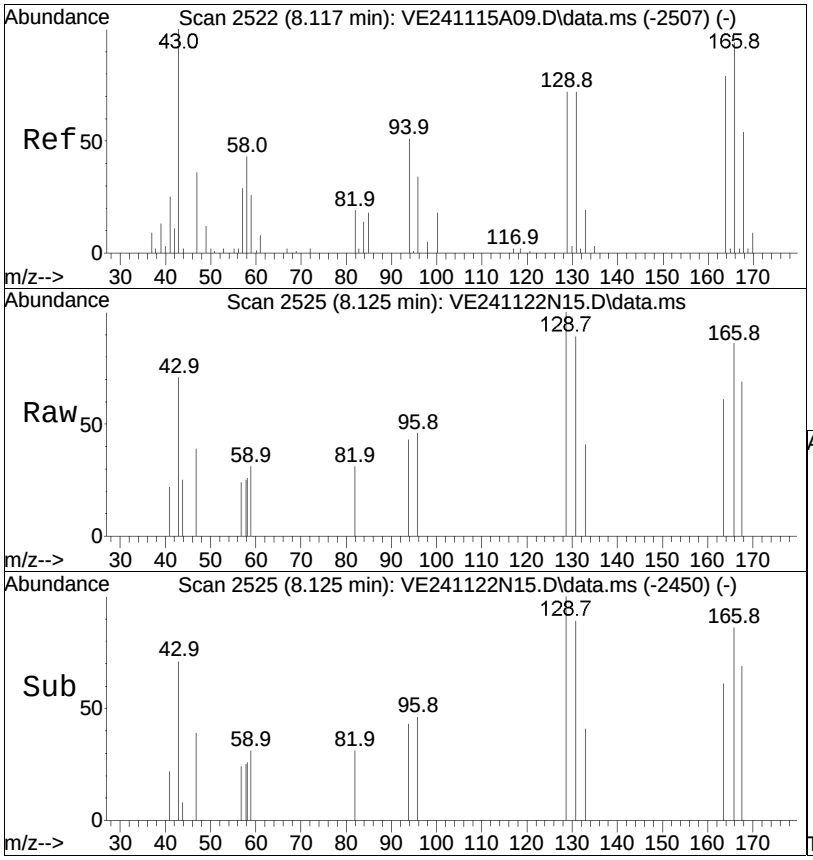


#65
Toluene
Concen: 5.77 ug/L
RT: 7.687 min Scan# 2368
Delta R.T. 0.003 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 92 Resp: 62917

Ion	Ratio	Lower	Upper
92	100		
91	170.3	129.1	193.7

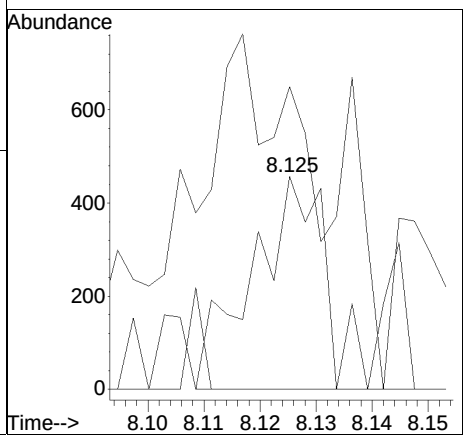


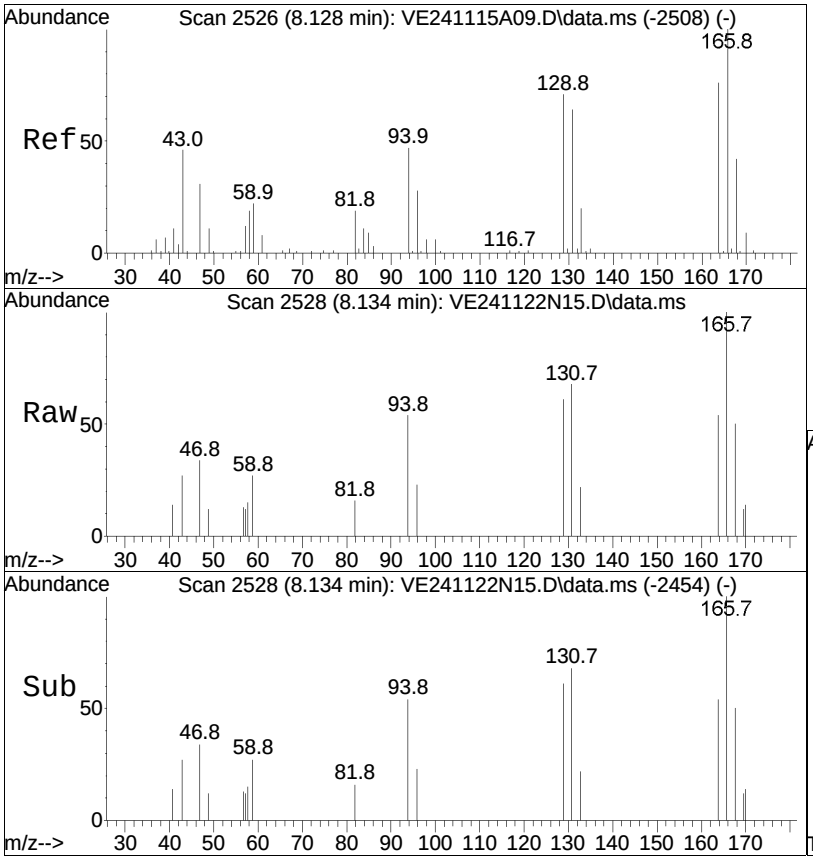


#66
4-Methyl-2-pentanone
Concen: 0.37 ug/L
RT: 8.125 min Scan# 2525
Delta R.T. 0.008 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion: 58 Resp: 419

Ion	Ratio	Lower	Upper
58	100		
100	0.0	27.9	41.9#
43	222.2	225.7	338.5#

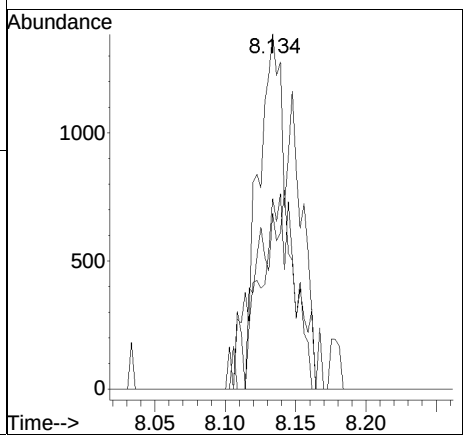


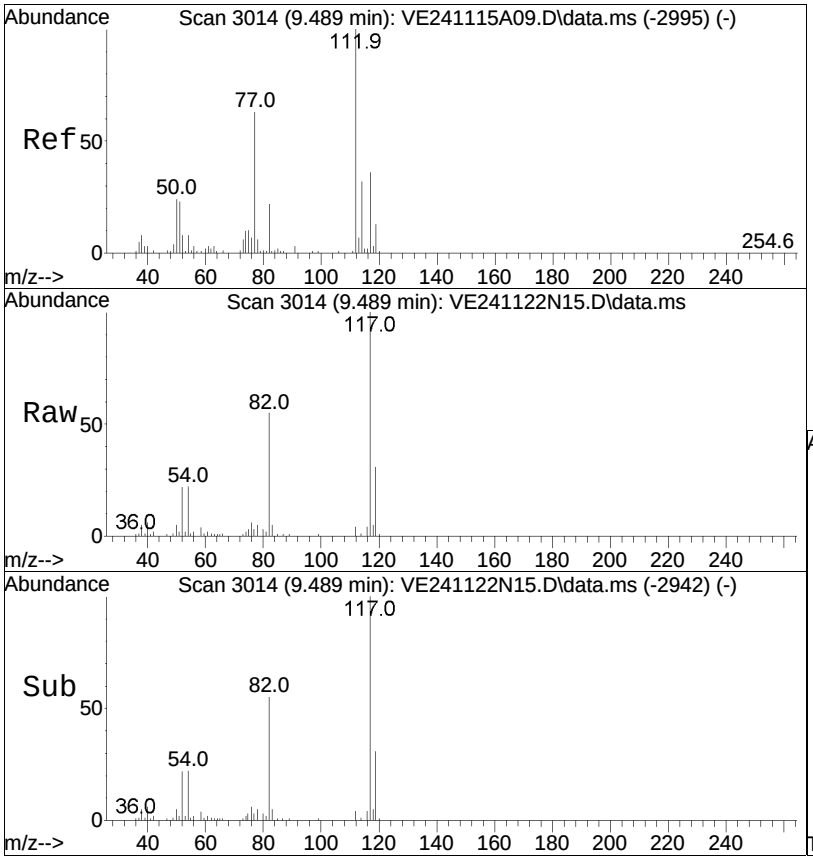


#67
Tetrachloroethene
Concen: 0.63 ug/L M1
RT: 8.134 min Scan# 2528
Delta R.T. 0.006 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion:166 Resp: 2779

Ion	Ratio	Lower	Upper
166	100		
168	28.8	25.8	65.8
94	46.9	24.3	64.3

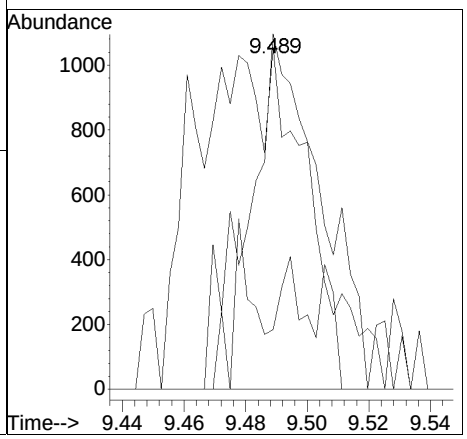


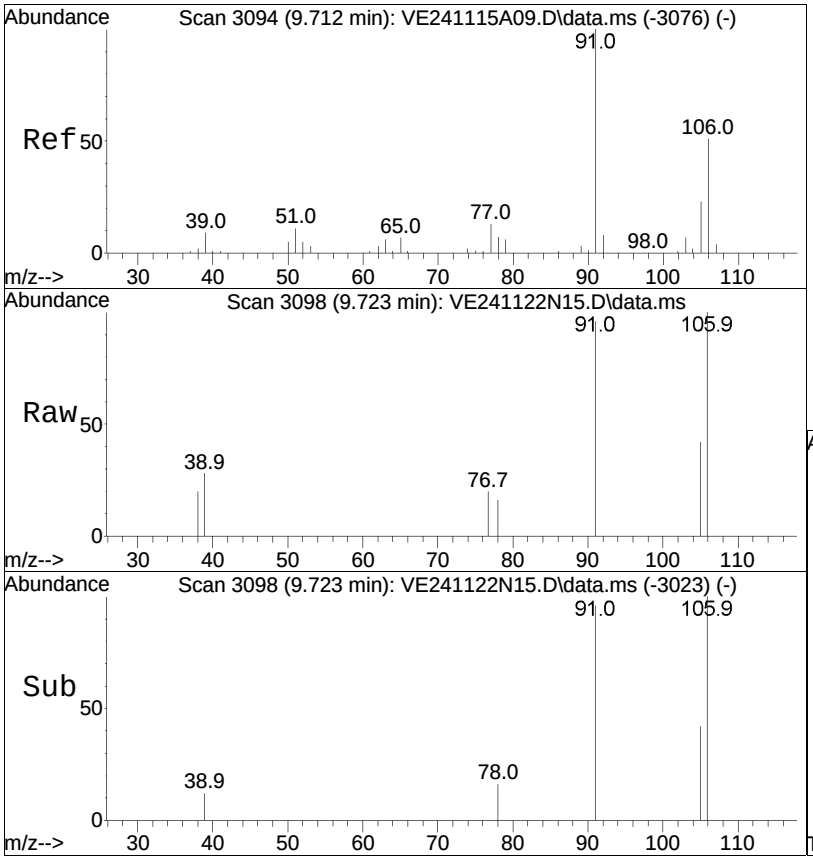


#78
Chlorobenzene
Concen: 0.16 ug/L
RT: 9.489 min Scan# 3014
Delta R.T. -0.000 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion:112 Resp: 1821

Ion	Ratio	Lower	Upper
112	100		
77	0.0	46.9	70.3#
114	13.9	23.8	35.6#

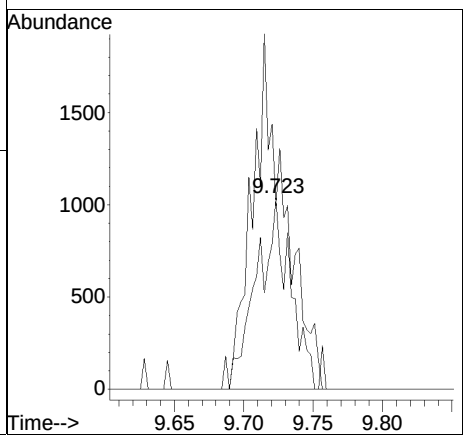


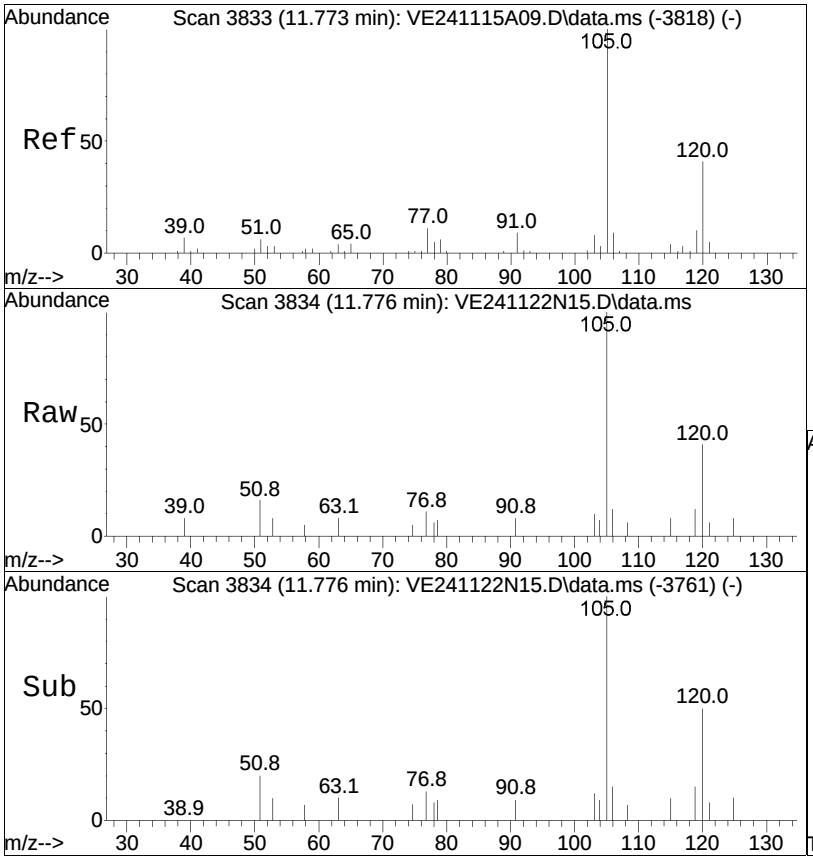


#81
p/m Xylene
Concen: 0.22 ug/L M3
RT: 9.723 min Scan# 3098
Delta R.T. 0.011 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion:106 Resp: 1773

Ion	Ratio	Lower	Upper
106	100		
91	177.0	163.3	244.9

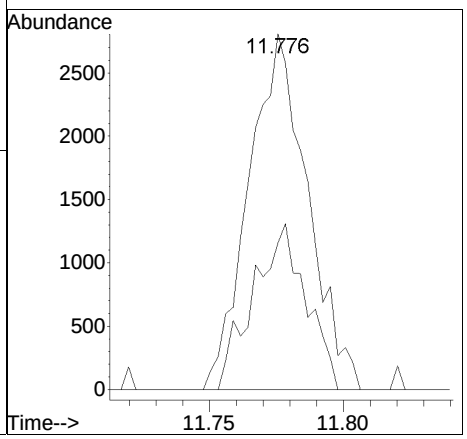


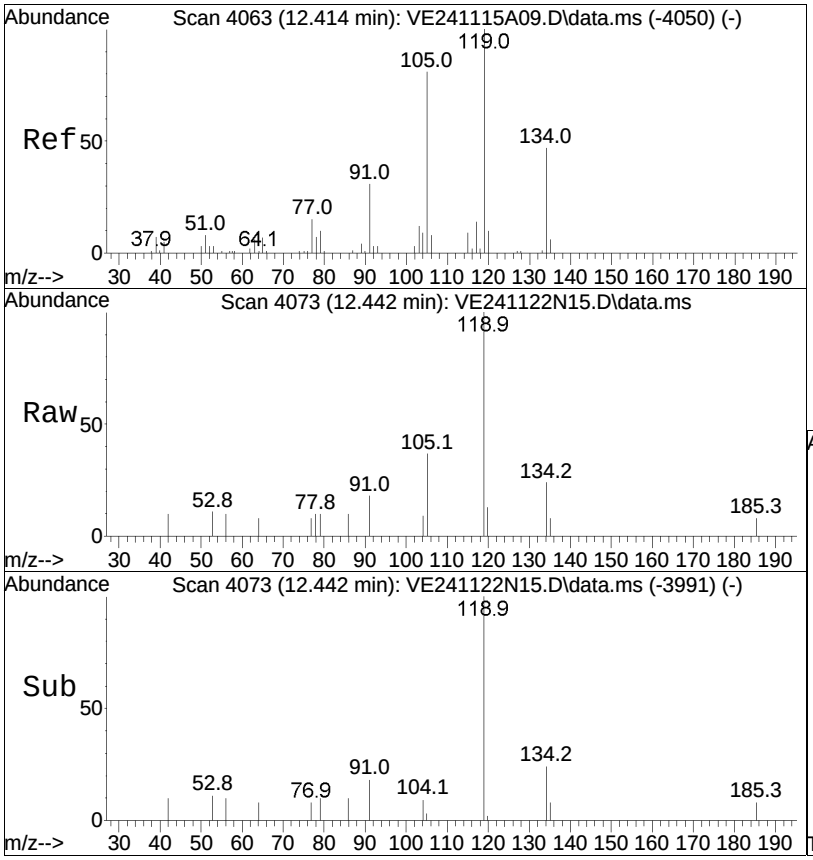


#102
1,2,4-Trimethylbenzene
Concen: 0.25 ug/L
RT: 11.776 min Scan# 3834
Delta R.T. 0.003 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion:105 Resp: 4276

Ion	Ratio	Lower	Upper
105	100		
120	41.8	33.6	50.4

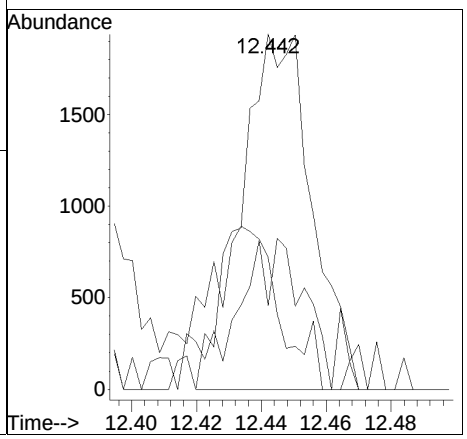


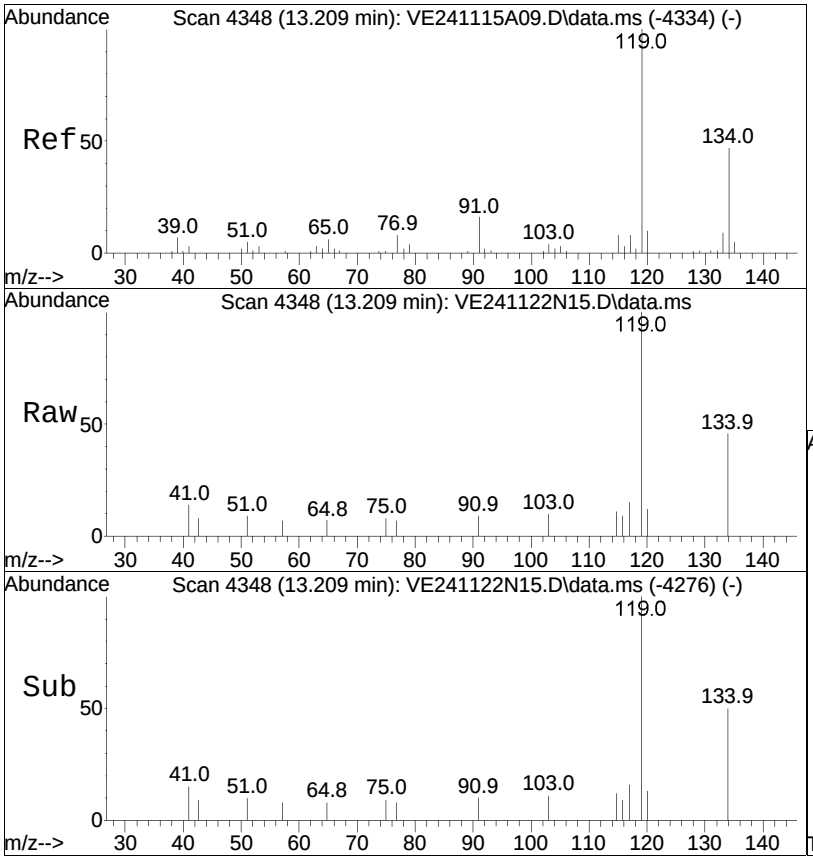


#107
p-Diethylbenzene
Concen: 0.29 ug/L
RT: 12.442 min Scan# 4073
Delta R.T. 0.028 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion:119 Resp: 2954

Ion	Ratio	Lower	Upper
119	100		
105	44.7	55.4	115.2#
134	11.3	28.4	59.0#

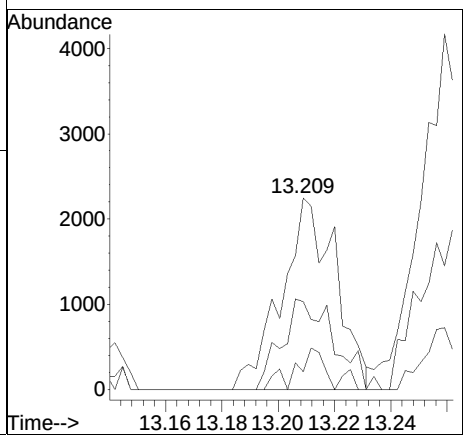


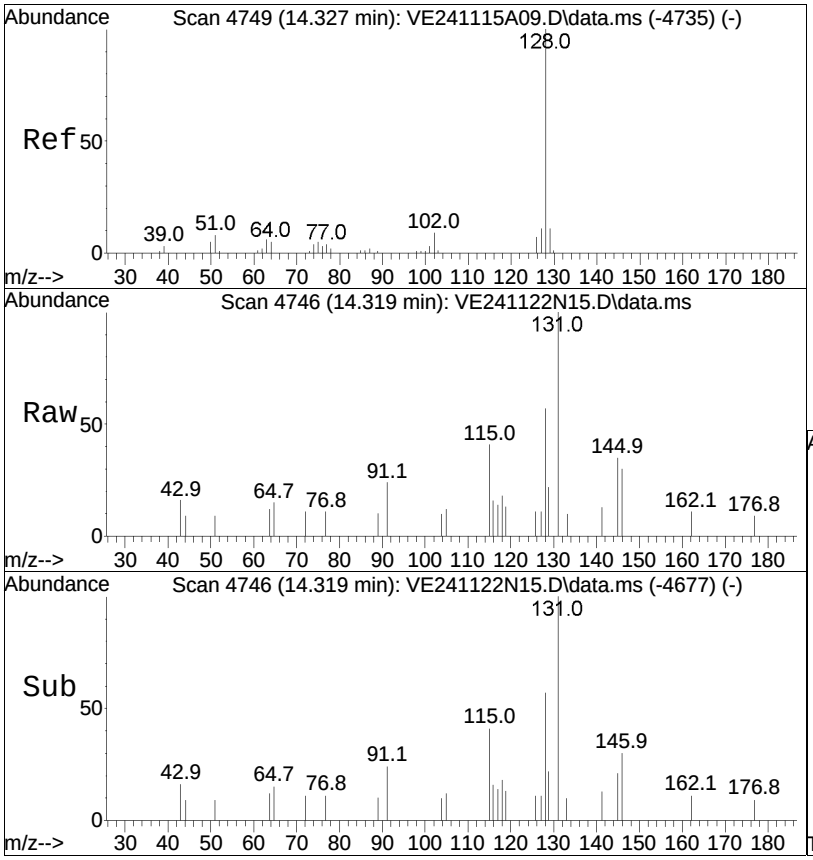


#110
1,2,4,5-Tetramethylbenzene
Concen: 0.18 ug/L M3
RT: 13.209 min Scan# 4348
Delta R.T. -0.000 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion:119 Resp: 3000

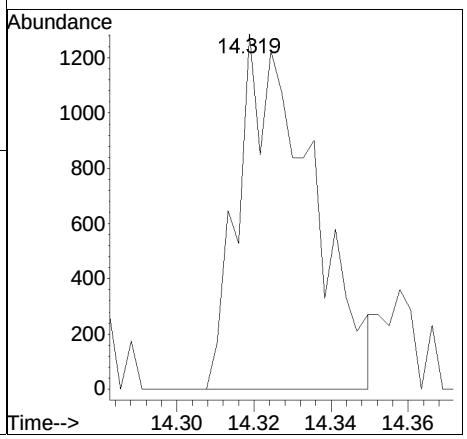
Ion	Ratio	Lower	Upper
119	100		
134	89.3	29.6	61.4#
91	29.7	9.8	20.3#





#115
Naphthalene
Concen: 0.13 ug/L
RT: 14.319 min Scan# 4746
Delta R.T. -0.008 min
Lab File: VE241122N15.D
Acq: 23 Nov 2024 2:38 am

Tgt Ion:128 Resp: 1686

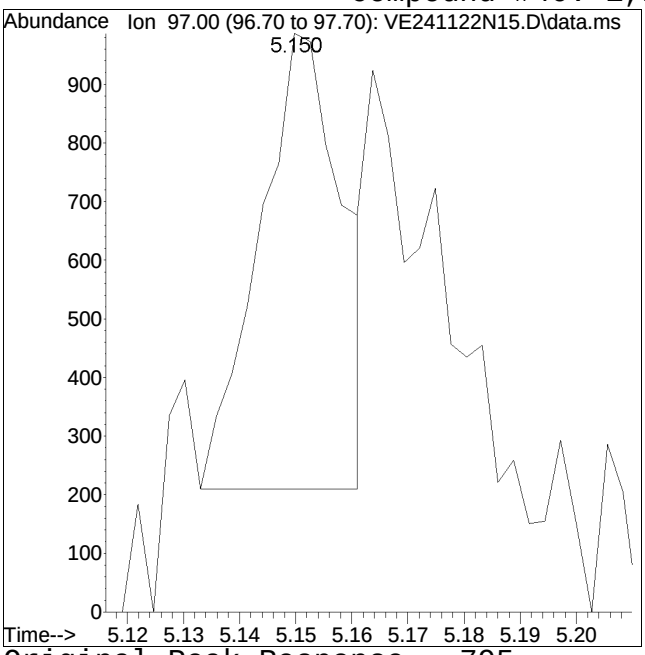


Manual Integration Report

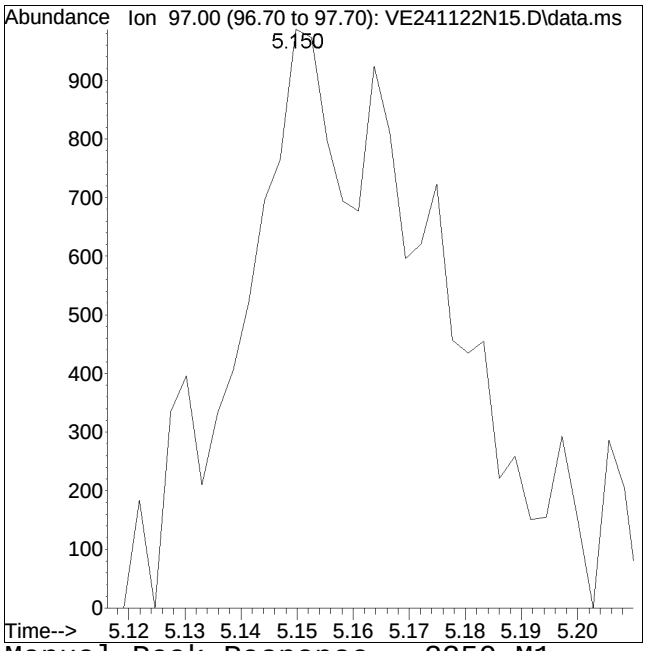
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Date Inj'd : 11/23/2024 2:38 am
Sample : l2468376-03,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 795



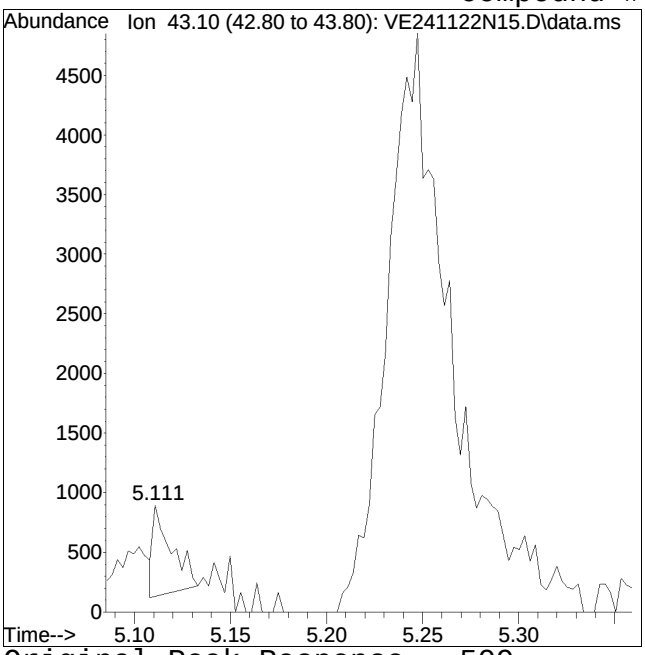
Manual Peak Response = 2350 M1

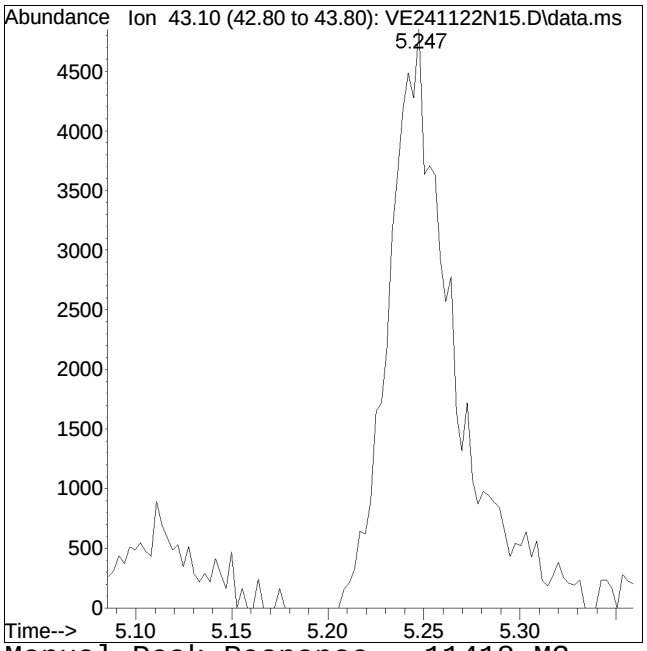
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N15.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 2:38 am Instrument : Elaine
Sample : l2468376-03,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #42: 2-Butanone





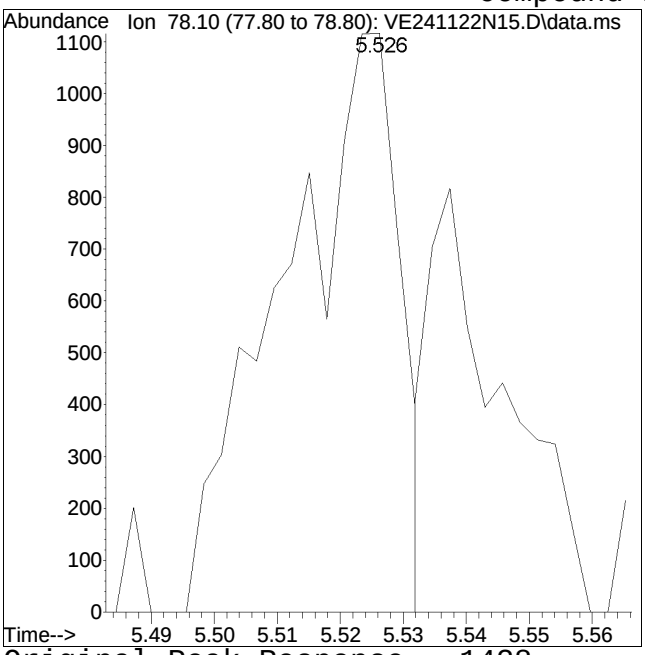
Original Peak Response = 509 Manual Peak Response = 11418 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

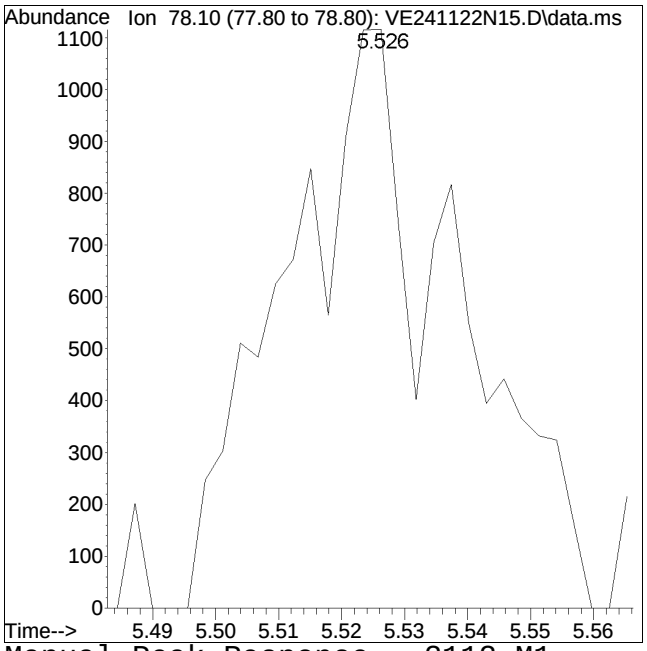
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Date Inj'd : 11/23/2024 2:38 am
Sample : l2468376-03,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #45: Benzene



Original Peak Response = 1428



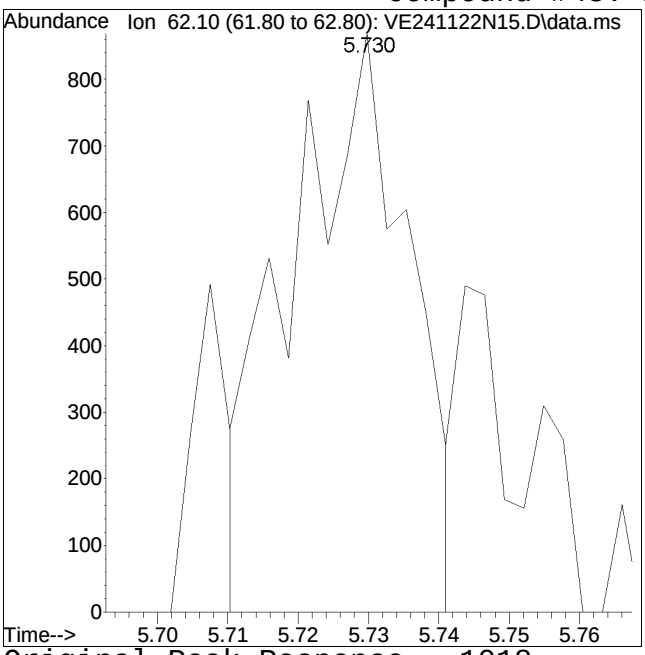
Manual Peak Response = 2112 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

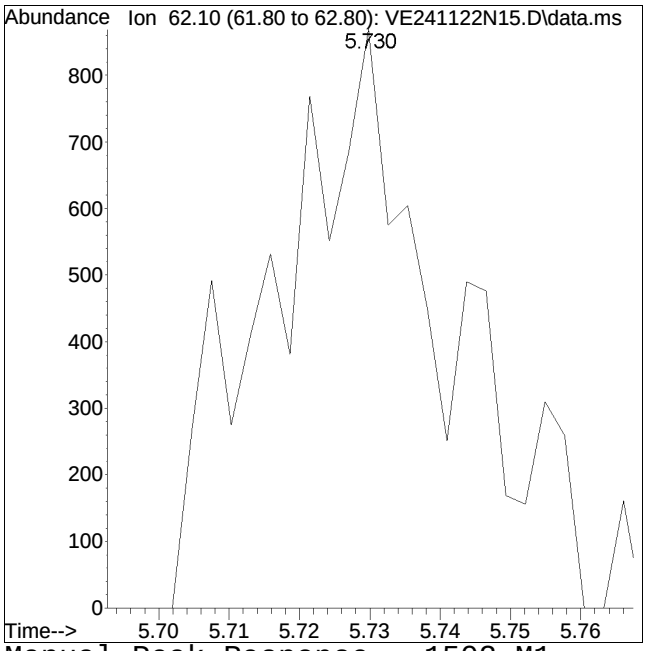
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N15.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 2:38 am Instrument : Elaine
Sample : l2468376-03,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #48: 1,2-Dichloroethane



Original Peak Response = 1018



Manual Peak Response = 1502 M1

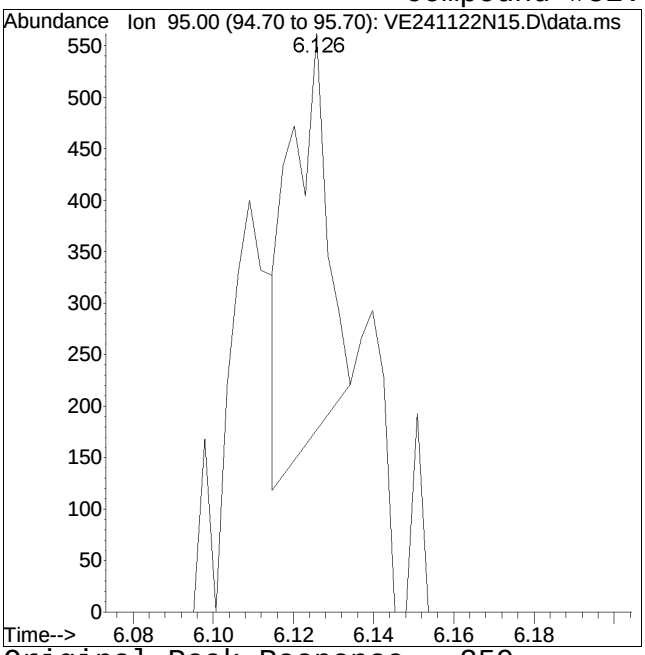
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

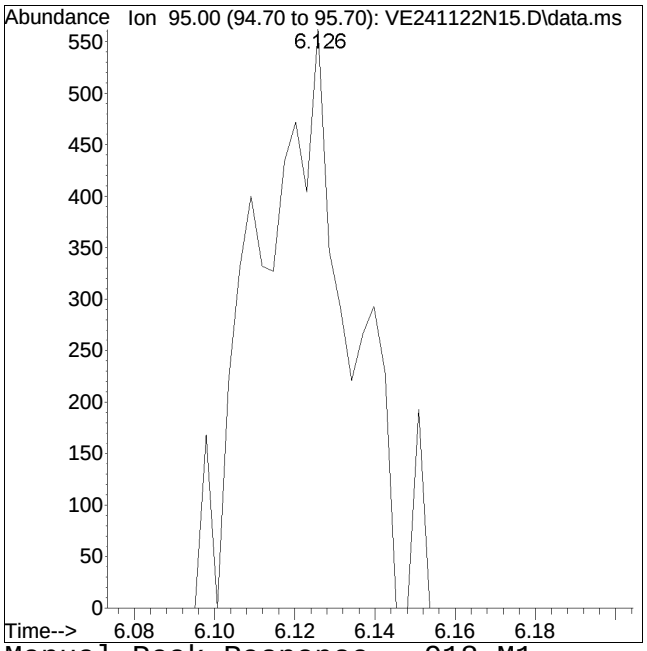
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Date Inj'd : 11/23/2024 2:38 am
Sample : l2468376-03,31,10,10,,a

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #52: Trichloroethene



Original Peak Response = 259



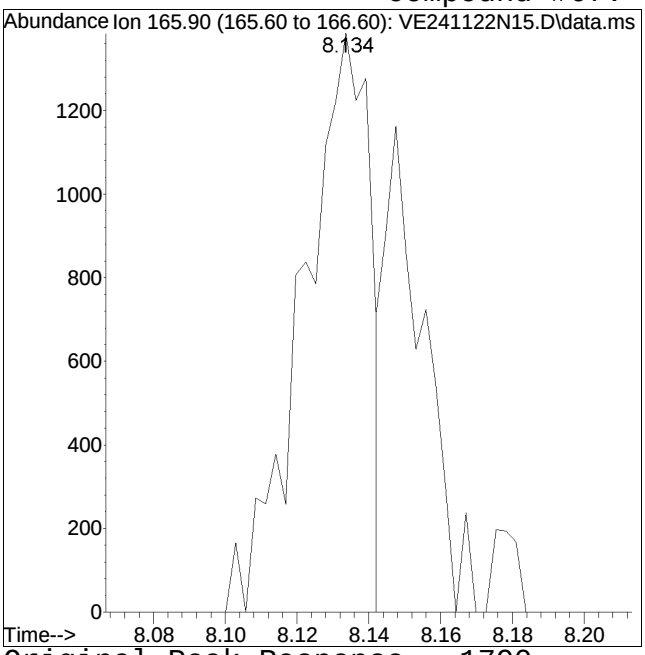
Manual Peak Response = 918 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

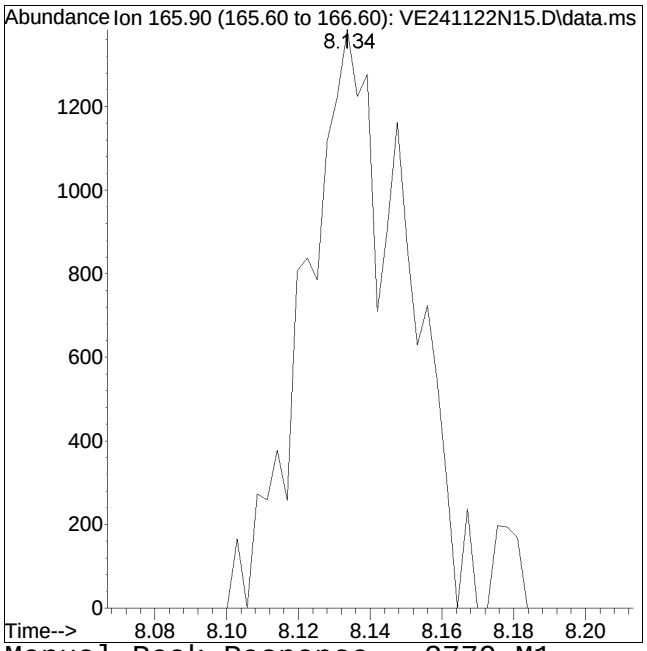
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N15.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 2:38 am Instrument : Elaine
Sample : l2468376-03,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #67: Tetrachloroethene



Original Peak Response = 1790



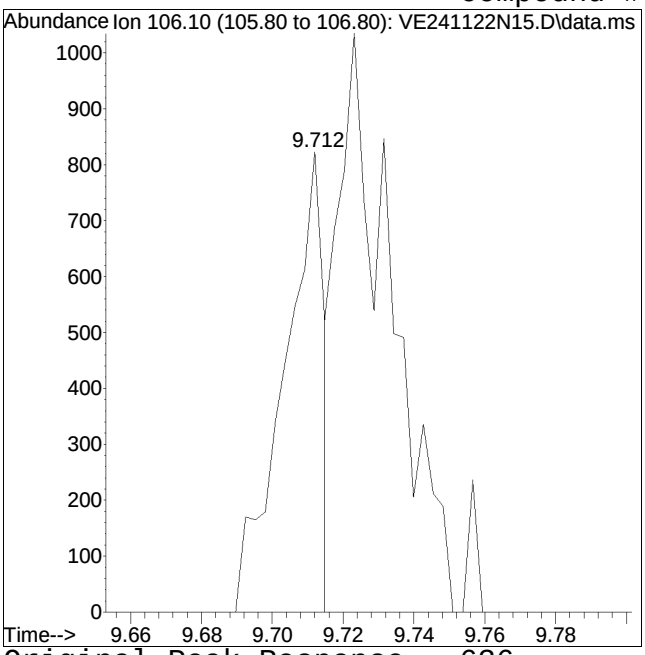
Manual Peak Response = 2779 M1

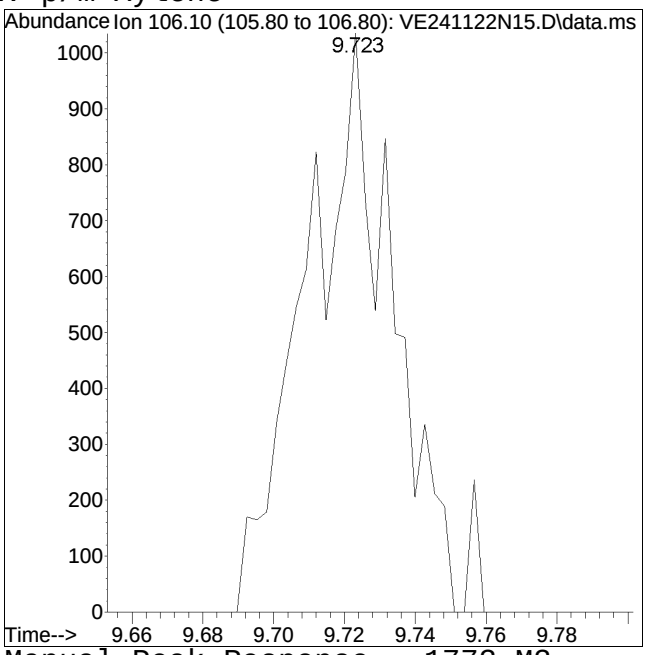
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241122N\ QMethod : Elaine_241115A_8260.m
Data File : VE241122N15.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 2:38 am Instrument : Elaine
Sample : l2468376-03,31,10,10,,a Quant Date : 11/23/2024 11:02 am

Compound #81: p/m Xylene





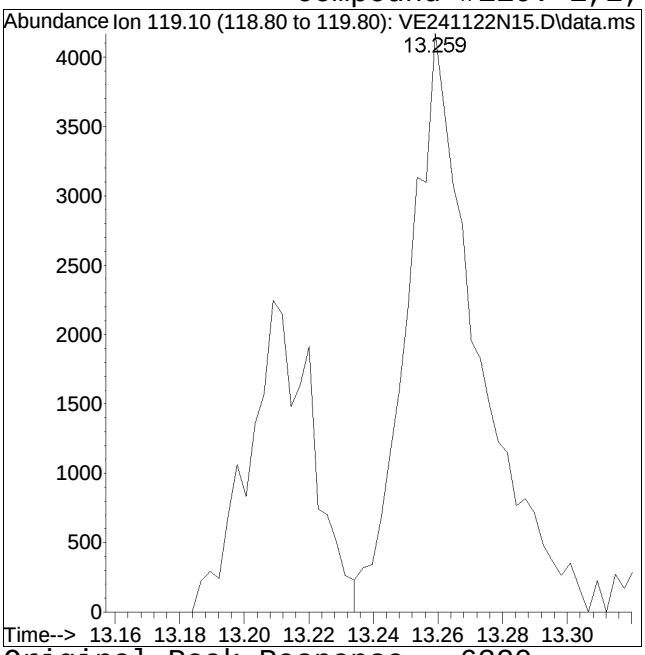
Original Peak Response = 636 Manual Peak Response = 1773 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

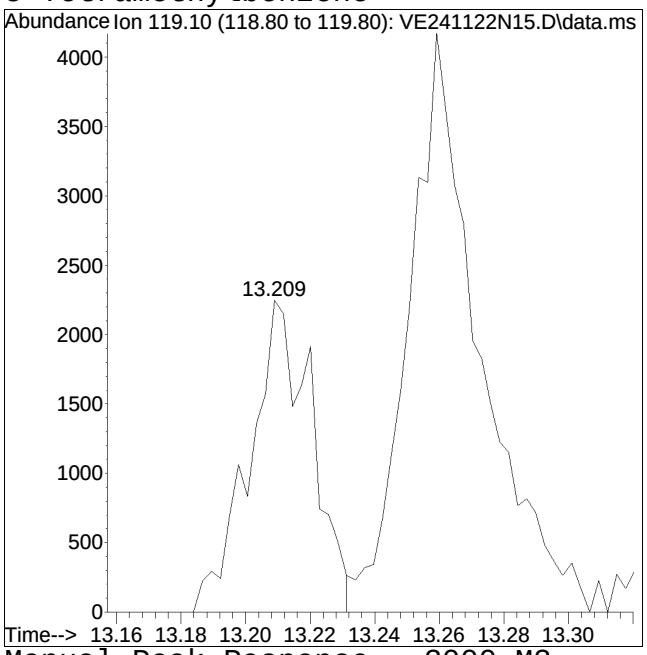
Manual Integration Report

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N15.D
Date Inj'd : 11/23/2024 2:38 am
Sample : l2468376-03,31,10,10,,a
QMethod : Elaine_241115A_8260.m
Operator : ELAINE:MJV
Instrument : Elaine
Quant Date : 11/23/2024 11:02 am

Compound #110: 1,2,4,5-Tetramethylbenzene



Original Peak Response = 6320



Manual Peak Response = 3000 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N16.D
Acq On : 23 Nov 2024 3:03 am
Operator : ELAINE:MJV
Sample : l2468376-04,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 23 11:29:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	190939	10.000	ug/L	0.00
Standard Area 1 = 199076			Recovery = 95.91%			
63) Chlorobenzene-d5	9.472	117	136461	10.000	ug/L	0.00
Standard Area 1 = 141631			Recovery = 96.35%			
84) 1,4-Dichlorobenzene-d4	12.186	152	67922	10.000	ug/L	0.00
Standard Area 1 = 72502			Recovery = 93.68%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.130	113	44536	10.173	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.73%			
47) 1,2-Dichloroethane-d4	5.660	65	56496	10.906	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.06%			
64) Toluene-d8	7.632	98	189685	10.193	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.93%			
88) 4-Bromofluorobenzene	10.973	95	63629	10.196	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.96%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.611	85	28	N.D.		
3) Chloromethane	1.784	50	33	N.D.		
4) Vinyl chloride	2.018	62	28	N.D.		
5) Bromomethane	2.194	94	35	N.D.		
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	2.520	101	29	N.D.		
8) Ethyl ether	2.693	74	34	N.D.		
10) 1,1-Dichloroethene	2.969	96	32	N.D.		
11) Carbon disulfide	2.916	76	502	N.D.		
15) Methylene chloride	3.262	84	27	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	3.664	73	28	N.D.		
25) 1,1-Dichloroethane	4.093	63	25	N.D.		
27) Acrylonitrile	4.152	53	33	N.D.		
29) Vinyl acetate	4.400	43	26	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	4.693	77	26	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	5.038	83	33	N.D.		

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N16.D
Acq On : 23 Nov 2024 3:03 am
Operator : ELAINE:MJV
Sample : l2468376-04,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 23 11:29:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	5.083	117	26	N.D.		
40) 1,1,1-Trichloroethane	5.270	97	31	N.D.		
42) 2-Butanone	5.239	43	52	N.D.		
43) 1,1-Dichloropropene	5.150	75	27	N.D.		
45) Benzene	5.518	78	26	N.D.		
48) 1,2-Dichloroethane	5.638	62	138	N.D.		
52) Trichloroethene	0.000		0	N.D.		
54) Dibromomethane	0.000		0	N.D.		
55) 1,2-Dichloropropane	6.734	63	26	N.D.		
58) Bromodichloromethane	0.000		0	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.	d	
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	7.682	92	89	N.D.		
66) 4-Methyl-2-pentanone	8.014	58	29	N.D.		
67) Tetrachloroethene	0.000		0	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	8.413	83	29	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	8.817	76	26	N.D.		
75) 1,2-Dibromoethane	8.803	107	28	N.D.		
77) 2-Hexanone	9.166	43	71	N.D.		
78) Chlorobenzene	0.000		0	N.D.		
79) Ethylbenzene	9.486	91	94	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.729	106	29	N.D.		
82) o Xylene	10.264	106	35	N.D.		
83) Styrene	10.337	104	65	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	0.000		0	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.132	91	29	N.D.		
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
93) 4-Ethyltoluene	11.254	105	27	N.D.		
94) 2-Chlorotoluene	11.132	91	29	N.D.		
95) 1,3,5-Trimethylbenzene	11.357	105	31	N.D.		
96) 1,2,3-Trichloropropane	11.458	75	33	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
98) 4-Chlorotoluene	0.000		0	N.D.		
99) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N16.D
Acq On : 23 Nov 2024 3:03 am
Operator : ELAINE:MJV
Sample : l2468376-04,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 23 11:29:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.779	105	28	N.D.		
103) sec-Butylbenzene	11.937	105	27	N.D.		
104) p-Isopropyltoluene	12.035	119	30	N.D.		
105) 1,3-Dichlorobenzene	12.208	146	28	N.D.		
106) 1,4-Dichlorobenzene	12.208	146	28	N.D.		
107) p-Diethylbenzene	12.356	119	52	N.D.		
108) n-Butylbenzene	12.478	91	86	N.D.		
109) 1,2-Dichlorobenzene	12.484	146	28	N.D.		
110) 1,2,4,5-Tetramethylben...	13.226	119	44	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	d	
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
115) Naphthalene	14.333	128	97	N.D.		
116) 1,2,3-Trichlorobenzene	14.380	180	28	N.D.		

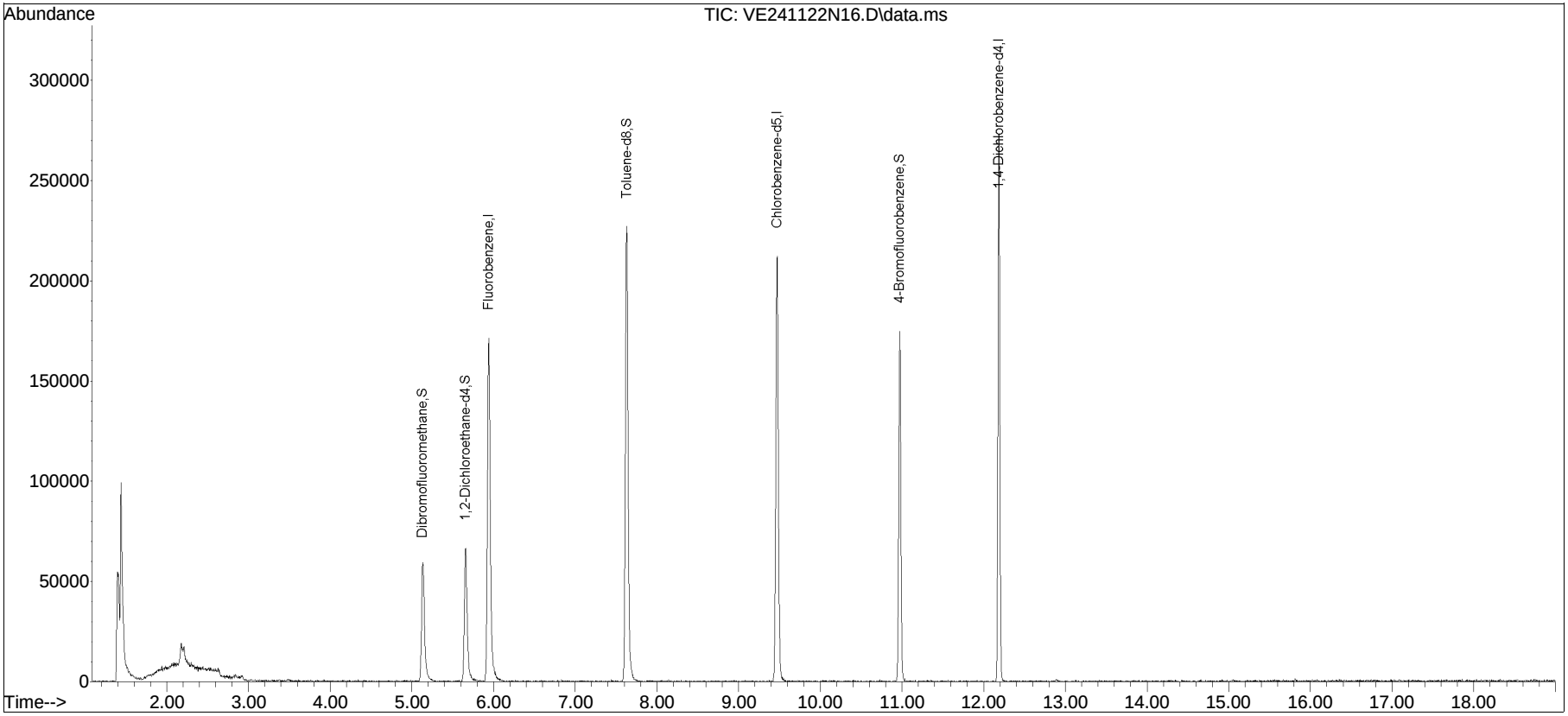
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N16.D
Acq On : 23 Nov 2024 3:03 am
Operator : ELAINE:MJV
Sample : l2468376-04,31,10,10,,a
Misc : WG2001424,ICAL21711
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 23 11:29:21 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41122N02.D•



Manual Integration Report

Data Path	: K:\Elaine\2024\241122N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241122N16.D	Operator	: ELAINE:MJV
Date Inj'd	: 11/23/2024 3:03 am	Instrument	: Elaine
Sample	: l2468376-04,31,10,10,,a	Quant Date	: 11/23/2024 11:02 am

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2468376**
Project Name	**: 1487 FIRST AVENUE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21711**
Calibration dates	**: 11/15/24 02:52 11/15/24 06:56**		

Calibration Files

L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D

L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.150	0.216	0.248	0.243	0.242	0.232	0.232	0.223	15.17
3)	TP	Chloromethane		0.217	0.231	0.234	0.227	0.219	0.211	0.206	0.221	4.71
4)	TP	Vinyl chloride	0.167	0.205	0.243	0.259	0.261	0.252	0.245	0.249	0.235	13.82
5)	TP	Bromomethane		0.175	0.183	0.165	0.156	0.159	0.158	0.160	0.165	6.07
6)	TP	Chloroethane		0.126	0.175	0.182	0.178	0.179	0.175	0.177	0.170	11.66
7)	TP	Trichlorofluor		0.229	0.339	0.381	0.366	0.373	0.358	0.357	0.343	15.19
8)	TP	Ethyl ether		0.090	0.099	0.107	0.112	0.111	0.111	0.112	0.106	7.88
10)	TP	1,1-Dichloroet		0.144	0.170	0.180	0.185	0.183	0.181	0.180	0.175	8.12
11)	TP	Carbon disulfide		0.415	0.516	0.559	0.550	0.551	0.542	0.541	0.525	9.58
12)	TP	Freon-113		0.134	0.191	0.204	0.195	0.192	0.188	0.187	0.184	12.33
13)	TP	Iodomethane		0.156	0.130	0.146	0.160	0.178	0.175	0.177	0.160	11.19
14)	TP	Acrolein			0.021	0.022	0.021	0.021	0.022	0.022	0.021	3.08
15)	TP	Methylene chlo		0.216	0.230	0.221	0.218	0.215	0.214	0.213	0.218	2.75
17)	TP	Acetone		0.058	0.049	0.041	0.036	0.039	0.039	0.039	0.043	17.71
18)	TP	trans-1,2-Dich		0.162	0.190	0.206	0.206	0.202	0.199	0.197	0.195	8.00
19)	TP	Methyl acetate		0.100	0.099	0.095	0.095	0.094	0.094	0.094	0.096	2.74
21)	TP	Methyl tert butyl ether		0.438	0.498	0.532	0.543	0.548	0.539	0.544	0.520	7.72
22)	TP	tert-Butyl alc		0.010	0.013	0.014	0.013	0.014	0.014	0.014	0.013	11.92
24)	TP	Diisopropyl ether		0.563	0.632	0.667	0.663	0.681	0.677	0.687	0.653	6.68
25)	TP	1,1-Dichloroet		0.329	0.390	0.406	0.400	0.404	0.395	0.399	0.389	6.92
26)	TP	Halothane		0.124	0.146	0.158	0.157	0.158	0.154	0.155	0.150	8.24
27)	TP	Acrylonitrile			0.054	0.054	0.052	0.052	0.051	0.053	0.053	1.69
28)	TP	Ethyl tert-but		0.610	0.653	0.683	0.697	0.709	0.712	0.723	0.684	5.81
29)	TP	Vinyl acetate		0.393	0.403	0.450	0.468	0.478	0.480	0.492	0.452	8.67
30)	TP	cis-1,2-Dichlo		0.178	0.226	0.232	0.232	0.229	0.226	0.233	0.222	8.84
31)	TP	2,2-Dichloropr		0.253	0.298	0.325	0.327	0.321	0.314	0.311	0.307	8.37
33)	TP	Bromochloromet		0.101	0.103	0.107	0.102	0.102	0.097	0.097	0.101	3.52
34)	TP	Cyclohexane		0.319	0.387	0.428	0.417	0.413	0.402	0.402	0.395	9.15
35)	TP	Chloroform		0.354	0.368	0.359	0.373	0.369	0.374	0.359	0.365	2.16
36)	TP	Ethyl acetate			0.143	0.158	0.155	0.150	0.154	0.154	0.152	3.47
37)	TP	Carbon tetrachloride	0.242	0.202	0.250	0.282	0.285	0.290	0.280	0.288	0.265	11.77
38)	TP	Tetrahydrofuran			0.043	0.042	0.043	0.042	0.043	0.041	0.042	1.83
39)	S	Dibromofluoromethane	0.240	0.230	0.233	0.236	0.225	0.228	0.222	0.220	0.229	2.94
40)	TP	1,1,1-Trichlor		0.262	0.314	0.346	0.339	0.336	0.329	0.330	0.322	8.75
42)	TP	2-Butanone			0.066	0.054	0.057	0.062	0.064	0.063	0.061	7.35

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2468376**
Project Name	**: 1487 FIRST AVENUE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21711**
Calibration dates	**: 11/15/24 02:52 11/15/24 06:56**		

Calibration Files

L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D

L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
43) TP	1,1-Dichloropr		0.244	0.274	0.300	0.291	0.294	0.285	0.288	0.282	6.60
45) TP	Benzene	0.900	0.753	0.888	0.917	0.922	0.923	0.906	0.904	0.889	6.32
46) TP	Tertiary-Amyl Methyl Ether		0.498	0.546	0.573	0.584	0.597	0.602	0.607	0.572	6.81
47) S	1,2-Dichloroethane-d4	0.275	0.276	0.276	0.271	0.265	0.269	0.266	0.272	0.271	1.61
48) T	1,2-Dichloroet		0.278	0.284	0.284	0.289	0.283	0.280	0.281	0.283	1.29
51) TP	Methyl cyclohe		0.300	0.386	0.416	0.424	0.421	0.410	0.416	0.396	11.09
52) TP	Trichloroethene	0.190	0.168	0.219	0.225	0.224	0.222	0.218	0.221	0.211	9.71
54) TP	Dibromomethane		0.096	0.124	0.125	0.124	0.125	0.125	0.125	0.121	9.00
55) TP	1,2-Dichloropr		0.185	0.228	0.233	0.237	0.235	0.232	0.230	0.226	8.02
57) TP	2-Chloroethyl		0.099	0.133	0.136	0.141	0.142	0.140	0.140	0.133	11.55
58) TP	Bromodichlorom		0.242	0.282	0.306	0.302	0.309	0.305	0.306	0.293#	8.32
61) TP	1,4-Dioxane		0.001	0.001	0.002	0.002	0.001	0.002	0.001	0.001#	8.59
62) TP	cis-1,3-Dichloropropene	0.278	0.286	0.327	0.356	0.364	0.369	0.365	0.363	0.338	11.01
63) I	Chlorobenzene-d5	----------ISTD----------									
64) S	Toluene-d8	1.361	1.371	1.369	1.378	1.371	1.359	1.339	1.362	1.364	0.86
65) TP	Toluene		0.692	0.795	0.821	0.802	0.803	0.787	0.802	0.786	5.43
66) TP	4-Methyl-2-pen		0.078	0.073	0.079	0.085	0.086	0.088	0.089	0.083	7.26
67) TP	Tetrachloroethene		0.262	0.318	0.340	0.329	0.325	0.316	0.321	0.316	7.90
69) TP	trans-1,3-Dichloropropene	0.263	0.304	0.384	0.417	0.434	0.435	0.437	0.439	0.389	17.55
71) TP	Ethyl methacry		0.242	0.277	0.306	0.312	0.310	0.312	0.318	0.297	9.33
72) TP	1,1,2-Trichlor		0.191	0.207	0.212	0.211	0.208	0.207	0.211	0.207	3.48
73) TP	Chlorodibromom		0.212	0.250	0.277	0.291	0.302	0.302	0.305	0.277	12.44
74) TP	1,3-Dichloropr		0.391	0.421	0.437	0.436	0.437	0.431	0.432	0.426	3.86
75) TP	1,2-Dibromoethane		0.225	0.246	0.248	0.248	0.247	0.249	0.250	0.245	3.58
77) TP	2-Hexanone		0.124	0.121	0.132	0.136	0.137	0.138	0.140	0.133	5.62
78) TP	Chlorobenzene		0.766	0.844	0.862	0.856	0.849	0.834	0.837	0.835	3.87
79) TP	Ethylbenzene		1.264	1.483	1.576	1.562	1.562	1.528	1.535	1.502	7.27
80) TP	1,1,1,2-Tetrac		0.213	0.269	0.290	0.293	0.296	0.290	0.291	0.277	10.74
81) TP	p/m Xylene		0.462	0.570	0.599	0.596	0.599	0.596	0.625	0.578	9.27
82) TP	o Xylene		0.454	0.548	0.582	0.575	0.585	0.591	0.609	0.564	9.19
83) TP	Styrene		0.786	0.903	0.956	0.973	1.006	1.008	1.030	0.952	8.85
84) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85) TP	Bromoform		0.193	0.255	0.292	0.312	0.336	0.344	0.337	0.296	18.61
87) TP	Isopropylbenzene		2.460	2.964	3.019	3.035	3.090	3.098	3.012	2.954	7.53
88) S	4-Bromofluorobenzene	0.926	0.931	0.925	0.912	0.906	0.909	0.933	0.907	0.919	1.23
89) TP	Bromobenzene		0.589	0.650	0.686	0.671	0.684	0.685	0.650	0.659	5.25

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2468376**
Project Name	**: 1487 FIRST AVENUE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21711**
Calibration dates	**: 11/15/24 02:52 11/15/24 06:56**		

Calibration Files
L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D
L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP	n-Propylbenzene		2.800	3.311	3.446	3.464	3.520	3.517	3.395	3.351	7.56
91) TP	1,4-Dichlorobu		0.707	0.796	0.805	0.787	0.804	0.818	0.776	0.785	4.70
92) TP	1,1,2,2-Tetrac		0.553	0.577	0.569	0.579	0.576	0.586	0.553	0.570	2.25
93) TP	4-Ethyltoluene		2.443	2.795	2.894	2.863	2.868	2.849	2.750	2.780	5.63
94) TP	2-Chlorotoluene		1.679	2.053	1.999	1.987	1.963	1.998	1.944	1.946	6.31
95) TP	1,3,5-Trimethy		2.131	2.501	2.530	2.521	2.533	2.524	2.481	2.460	5.94
96) TP	1,2,3-Trichlor		0.433	0.485	0.448	0.443	0.443	0.461	0.439	0.450	3.93
97) TP	trans-1,4-Dich		0.130	0.157	0.156	0.170	0.174	0.181	0.173	0.163	10.59
98) TP	4-Chlorotoluene		1.768	2.040	2.065	2.038	2.064	2.088	2.031	2.013	5.46
99) TP	tert-Butylbenzene		1.744	2.059	2.106	2.080	2.103	2.089	2.031	2.030	6.35
102) TP	1,2,4-Trimethy		2.164	2.443	2.530	2.518	2.565	2.556	2.495	2.467	5.66
103) TP	sec-Butylbenzene		2.631	3.066	3.196	3.204	3.248	3.200	3.154	3.100	6.92
104) TP	p-Isopropyltol		2.097	2.520	2.648	2.672	2.713	2.656	2.673	2.568	8.42
105) TP	1,3-Dichlorobe		1.223	1.355	1.333	1.332	1.353	1.329	1.313	1.320	3.41
106) TP	1,4-Dichlorobe		1.272	1.384	1.328	1.315	1.331	1.321	1.317	1.324	2.49
107) TP	p-Diethylbenzene		1.189	1.433	1.559	1.587	1.594	1.554	1.604	1.503	9.96
108) TP	n-Butylbenzene		1.847	2.213	2.309	2.337	2.350	2.282	2.342	2.240	8.02
109) TP	1,2-Dichlorobe		1.221	1.290	1.245	1.266	1.262	1.252	1.254	1.256	1.67
110) TP	1,2,4,5-Tetram		2.024	2.276	2.393	2.491	2.501	2.604	2.565	2.408	8.37
111) TP	1,2-Dibromo-3-		0.054	0.063	0.073	0.081	0.083	0.091	0.088	0.076	18.03
112) TP	1,3,5-Trichlor		0.781	0.888	0.912	0.935	0.915	0.939	0.901	0.896	5.97
113) TP	Hexachlorobuta		0.190	0.249	0.254	0.260	0.243	0.246	0.232	0.239	9.71
114) TP	1,2,4-Trichlor		0.716	0.792	0.793	0.800	0.809	0.800	0.765	0.782	4.09
115) TP	Naphthalene		1.572	1.696	1.819	1.882	1.965	2.008	1.916	1.837	8.44
116) TP	1,2,3-Trichlor		0.612	0.683	0.699	0.722	0.733	0.732	0.707	0.698	6.06

Response Factor Report Elaine

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D
L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------	ISTD	----------							
2)	TP	Dichlorodifluo...		0.150	0.216	0.248	0.243	0.242	0.232	0.232	0.223	15.17
3)	TP	Chloromethane		0.217	0.231	0.234	0.227	0.219	0.211	0.206	0.221	4.71
4)	TP	Vinyl chloride	0.167	0.205	0.243	0.259	0.261	0.252	0.245	0.249	0.235	13.82
5)	TP	Bromomethane		0.175	0.183	0.165	0.156	0.159	0.158	0.160	0.165	6.07
6)	TP	Chloroethane		0.126	0.175	0.182	0.178	0.179	0.175	0.177	0.170	11.66
7)	TP	Trichlorofluor...		0.229	0.339	0.381	0.366	0.373	0.358	0.357	0.343	15.19
8)	TP	Ethyl ether		0.090	0.099	0.107	0.112	0.111	0.111	0.112	0.106	7.88
10)	TP	1,1-Dichloroet...		0.144	0.170	0.180	0.185	0.183	0.181	0.180	0.175	8.12
11)	TP	Carbon disulfide		0.415	0.516	0.559	0.550	0.551	0.542	0.541	0.525	9.58
12)	TP	Freon-113		0.134	0.191	0.204	0.195	0.192	0.188	0.187	0.184	12.33
13)	TP	Iodomethane		0.156	0.130	0.146	0.160	0.178	0.175	0.177	0.160	11.19
14)	TP	Acrolein			0.021	0.022	0.021	0.021	0.022	0.022	0.021	3.08
15)	TP	Methylene chlo...		0.216	0.230	0.221	0.218	0.215	0.214	0.213	0.218	2.75
17)	TP	Acetone		0.058	0.049	0.041	0.036	0.039	0.039	0.039	0.043	17.71
18)	TP	trans-1,2-Dich...		0.162	0.190	0.206	0.206	0.202	0.199	0.197	0.195	8.00
19)	TP	Methyl acetate		0.100	0.099	0.095	0.095	0.094	0.094	0.094	0.096	2.74
21)	TP	Methyl tert-bu...		0.438	0.498	0.532	0.543	0.548	0.539	0.544	0.520	7.72
22)	TP	tert-Butyl alc...		0.010	0.013	0.014	0.013	0.014	0.014	0.014	0.013	11.92
24)	TP	Diisopropyl ether		0.563	0.632	0.667	0.663	0.681	0.677	0.687	0.653	6.68
25)	TP	1,1-Dichloroet...		0.329	0.390	0.406	0.400	0.404	0.395	0.399	0.389	6.92
26)	TP	Halothane		0.124	0.146	0.158	0.157	0.158	0.154	0.155	0.150	8.24
27)	TP	Acrylonitrile			0.054	0.054	0.052	0.052	0.051	0.053	0.053	1.69
28)	TP	Ethyl tert-but...		0.610	0.653	0.683	0.697	0.709	0.712	0.723	0.684	5.81
29)	TP	Vinyl acetate		0.393	0.403	0.450	0.468	0.478	0.480	0.492	0.452	8.67
30)	TP	cis-1,2-Dichlo...		0.178	0.226	0.232	0.232	0.229	0.226	0.233	0.222	8.84
31)	TP	2,2-Dichloropr...		0.253	0.298	0.325	0.327	0.321	0.314	0.311	0.307	8.37
33)	TP	Bromochloromet...		0.101	0.103	0.107	0.102	0.102	0.097	0.097	0.101	3.52
34)	TP	Cyclohexane		0.319	0.387	0.428	0.417	0.413	0.402	0.402	0.395	9.15
35)	TP	Chloroform		0.354	0.368	0.359	0.373	0.369	0.374	0.359	0.365	2.16
36)	TP	Ethyl acetate			0.143	0.158	0.155	0.150	0.154	0.154	0.152	3.47

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
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		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
37)	TP	Carbon tetrach...	0.242	0.202	0.250	0.282	0.285	0.290	0.280	0.288	0.265	11.77
38)	TP	Tetrahydrofuran			0.043	0.042	0.043	0.042	0.043	0.041	0.042	1.83
39)	S	Dibromofluorom...	0.240	0.230	0.233	0.236	0.225	0.228	0.222	0.220	0.229	2.94
40)	TP	1,1,1-Trichlor...		0.262	0.314	0.346	0.339	0.336	0.329	0.330	0.322	8.75
42)	TP	2-Butanone			0.066	0.054	0.057	0.062	0.064	0.063	0.061	7.35
43)	TP	1,1-Dichloropr...		0.244	0.274	0.300	0.291	0.294	0.285	0.288	0.282	6.60
45)	TP	Benzene	0.900	0.753	0.888	0.917	0.922	0.923	0.906	0.904	0.889	6.32
46)	TP	tert-Amyl meth...		0.498	0.546	0.573	0.584	0.597	0.602	0.607	0.572	6.81
47)	S	1,2-Dichloroet...	0.275	0.276	0.276	0.271	0.265	0.269	0.266	0.272	0.271	1.61
48)	T	1,2-Dichloroet...		0.278	0.284	0.284	0.289	0.283	0.280	0.281	0.283	1.29
51)	TP	Methyl cyclohe...		0.300	0.386	0.416	0.424	0.421	0.410	0.416	0.396	11.09
52)	TP	Trichloroethene	0.190	0.168	0.219	0.225	0.224	0.222	0.218	0.221	0.211	9.71
54)	TP	Dibromomethane		0.096	0.124	0.125	0.124	0.125	0.125	0.125	0.121	9.00
55)	TP	1,2-Dichloropr...		0.185	0.228	0.233	0.237	0.235	0.232	0.230	0.226	8.02
57)	TP	2-Chloroethyl ...		0.099	0.133	0.136	0.141	0.142	0.140	0.140	0.133	11.55
58)	TP	Bromodichlorom...		0.242	0.282	0.306	0.302	0.309	0.305	0.306	0.293#	8.32
61)	TP	1,4-Dioxane		0.001	0.001	0.002	0.002	0.001	0.002	0.001	0.001#	8.59
62)	TP	cis-1,3-Dichlo...	0.278	0.286	0.327	0.356	0.364	0.369	0.365	0.363	0.338	11.01
63)	I	Chlorobenzene-d5	----------ISTD----------									
64)	S	Toluene-d8	1.361	1.371	1.369	1.378	1.371	1.359	1.339	1.362	1.364	0.86
65)	TP	Toluene		0.692	0.795	0.821	0.802	0.803	0.787	0.802	0.786	5.43
66)	TP	4-Methyl-2-pen...		0.078	0.073	0.079	0.085	0.086	0.088	0.089	0.083	7.26
67)	TP	Tetrachloroethene		0.262	0.318	0.340	0.329	0.325	0.316	0.321	0.316	7.90
69)	TP	trans-1,3-Dich...	0.263	0.304	0.384	0.417	0.434	0.435	0.437	0.439	0.389	17.55
71)	TP	Ethyl methacry...		0.242	0.277	0.306	0.312	0.310	0.312	0.318	0.297	9.33
72)	TP	1,1,2-Trichlor...		0.191	0.207	0.212	0.211	0.208	0.207	0.211	0.207	3.48
73)	TP	Chlorodibromom...		0.212	0.250	0.277	0.291	0.302	0.302	0.305	0.277	12.44
74)	TP	1,3-Dichloropr...		0.391	0.421	0.437	0.436	0.437	0.431	0.432	0.426	3.86
75)	TP	1,2-Dibromoethane		0.225	0.246	0.248	0.248	0.247	0.249	0.250	0.245	3.58
77)	TP	2-Hexanone		0.124	0.121	0.132	0.136	0.137	0.138	0.140	0.133	5.62
78)	TP	Chlorobenzene		0.766	0.844	0.862	0.856	0.849	0.834	0.837	0.835	3.87

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
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Response Via : Initial Calibration

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L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79)	TP	Ethylbenzene		1.264	1.483	1.576	1.562	1.562	1.528	1.535	1.502	7.27
80)	TP	1,1,1,2-Tetrac...		0.213	0.269	0.290	0.293	0.296	0.290	0.291	0.277	10.74
81)	TP	p/m Xylene		0.462	0.570	0.599	0.596	0.599	0.596	0.625	0.578	9.27
82)	TP	o Xylene		0.454	0.548	0.582	0.575	0.585	0.591	0.609	0.564	9.19
83)	TP	Styrene		0.786	0.903	0.956	0.973	1.006	1.008	1.030	0.952	8.85
84)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85)	TP	Bromoform		0.193	0.255	0.292	0.312	0.336	0.344	0.337	0.296	18.61
87)	TP	Isopropylbenzene		2.460	2.964	3.019	3.035	3.090	3.098	3.012	2.954	7.53
88)	S	4-Bromofluorob...	0.926	0.931	0.925	0.912	0.906	0.909	0.933	0.907	0.919	1.23
89)	TP	Bromobenzene		0.589	0.650	0.686	0.671	0.684	0.685	0.650	0.659	5.25
90)	TP	n-Propylbenzene		2.800	3.311	3.446	3.464	3.520	3.517	3.395	3.351	7.56
91)	TP	1,4-Dichlorobu...		0.707	0.796	0.805	0.787	0.804	0.818	0.776	0.785	4.70
92)	TP	1,1,2,2-Tetrac...		0.553	0.577	0.569	0.579	0.576	0.586	0.553	0.570	2.25
93)	TP	4-Ethyltoluene		2.443	2.795	2.894	2.863	2.868	2.849	2.750	2.780	5.63
94)	TP	2-Chlorotoluene		1.679	2.053	1.999	1.987	1.963	1.998	1.944	1.946	6.31
95)	TP	1,3,5-Trimethy...		2.131	2.501	2.530	2.521	2.533	2.524	2.481	2.460	5.94
96)	TP	1,2,3-Trichlor...		0.433	0.485	0.448	0.443	0.443	0.461	0.439	0.450	3.93
97)	TP	trans-1,4-Dich...		0.130	0.157	0.156	0.170	0.174	0.181	0.173	0.163	10.59
98)	TP	4-Chlorotoluene		1.768	2.040	2.065	2.038	2.064	2.088	2.031	2.013	5.46
99)	TP	tert-Butylbenzene		1.744	2.059	2.106	2.080	2.103	2.089	2.031	2.030	6.35
102)	TP	1,2,4-Trimethy...		2.164	2.443	2.530	2.518	2.565	2.556	2.495	2.467	5.66
103)	TP	sec-Butylbenzene		2.631	3.066	3.196	3.204	3.248	3.200	3.154	3.100	6.92
104)	TP	p-Isopropyltol...		2.097	2.520	2.648	2.672	2.713	2.656	2.673	2.568	8.42
105)	TP	1,3-Dichlorobe...		1.223	1.355	1.333	1.332	1.353	1.329	1.313	1.320	3.41
106)	TP	1,4-Dichlorobe...		1.272	1.384	1.328	1.315	1.331	1.321	1.317	1.324	2.49
107)	TP	p-Diethylbenzene		1.189	1.433	1.559	1.587	1.594	1.554	1.604	1.503	9.96
108)	TP	n-Butylbenzene		1.847	2.213	2.309	2.337	2.350	2.282	2.342	2.240	8.02
109)	TP	1,2-Dichlorobe...		1.221	1.290	1.245	1.266	1.262	1.252	1.254	1.256	1.67
110)	TP	1,2,4,5-Tetram...		2.024	2.276	2.393	2.491	2.501	2.604	2.565	2.408	8.37
111)	TP	1,2-Dibromo-3-...		0.054	0.063	0.073	0.081	0.083	0.091	0.088	0.076	18.03
112)	TP	1,3,5-Trichlor...		0.781	0.888	0.912	0.935	0.915	0.939	0.901	0.896	5.97

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D
L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

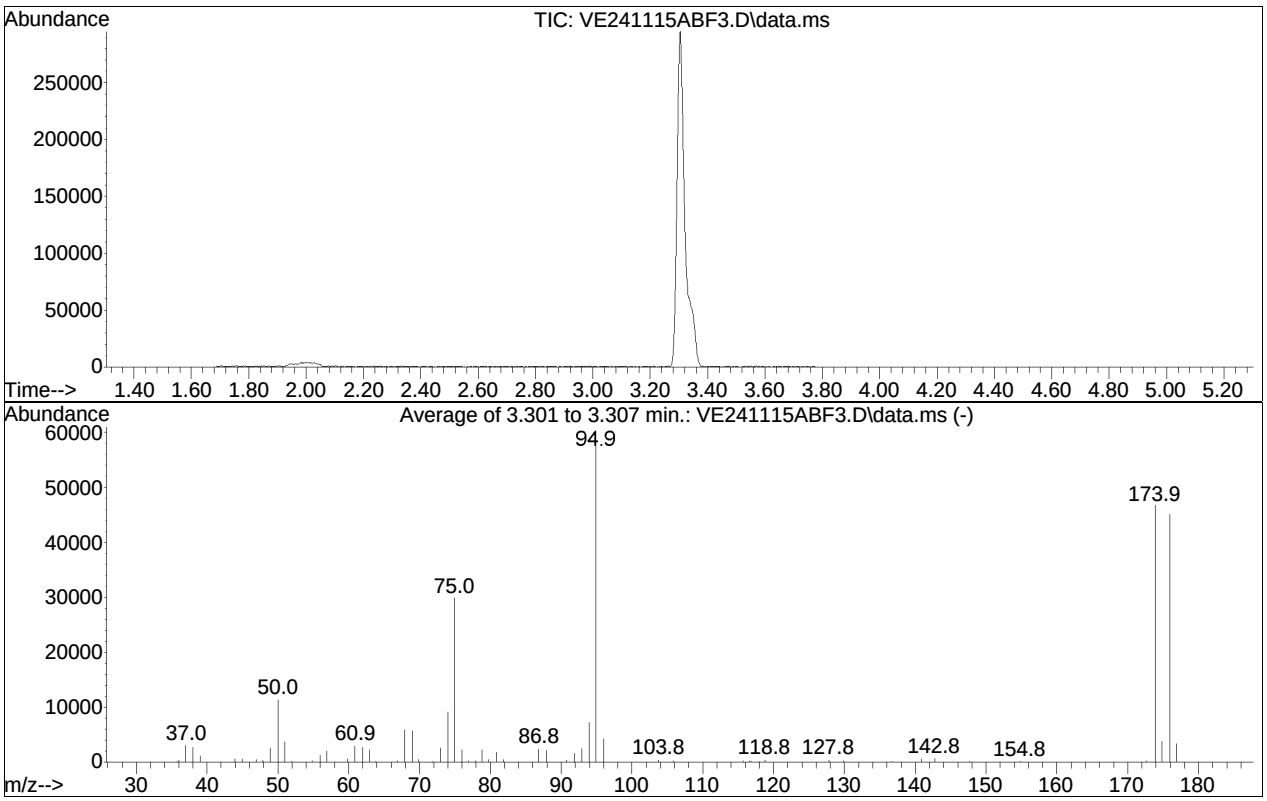
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
113)	TP Hexachlorobuta...	0.190	0.249	0.254	0.260	0.243	0.246	0.232	0.239		9.71
114)	TP 1,2,4-Trichlor...	0.716	0.792	0.793	0.800	0.809	0.800	0.765	0.782		4.09
115)	TP Naphthalene	1.572	1.696	1.819	1.882	1.965	2.008	1.916	1.837		8.44
116)	TP 1,2,3-Trichlor...	0.612	0.683	0.699	0.722	0.733	0.732	0.707	0.698		6.06

(#) = Out of Range

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115ABF3.D
Acq On : 15 Nov 2024 1:44 am
Operator : ELAINE:TMS
Sample : WG1998028-1
Misc : WG1998028
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024



AutoFind: Scans 580, 581, 582; Background Corrected with Scan 566

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	11338	PASS
75	95	30	60	51.3	29848	PASS
95	95	100	100	100.0	58141	PASS
96	95	5	9	7.2	4192	PASS
173	174	0.00	2	0.4	209	PASS
174	95	50	100	80.3	46715	PASS
175	174	5	9	8.1	3791	PASS
176	174	95	101	96.6	45128	PASS
177	176	5	9	7.4	3344	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A03.D
Acq On : 15 Nov 2024 2:52 am
Operator : ELAINE:PID
Sample : I8260STD0.19PPB
Misc : WG1998028,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 11:45:03 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	258893	10.000 ug/L	0.00
Standard Area 1 = 258108			Recovery = 100.30%		
63) Chlorobenzene-d5	9.469	117	194016	10.000 ug/L	0.00
Standard Area 1 = 187202			Recovery = 103.64%		
84) 1,4-Dichlorobenzene-d4	12.185	152	99361	10.000 ug/L	0.00
Standard Area 1 = 99398			Recovery = 99.96%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.136	113	62008	10.446 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.46%		
47) 1,2-Dichloroethane-d4	5.657	65	71296	10.151 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.51%		
64) Toluene-d8	7.629	98	264145	9.983 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.83%		
88) 4-Bromofluorobenzene	10.970	95	92049	10.083 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.83%		
Target Compounds					Qvalue
4) Vinyl chloride	1.851	62	822	0.135 ug/L	86
37) Carbon tetrachloride	5.094	117	1189M3	0.173 ug/L	
45) Benzene	5.526	78	4429M3	0.192 ug/L	
52) Trichloroethene	6.109	95	936M1	0.171 ug/L	
62) cis-1,3-Dichloropropene	7.420	75	1369M1	0.156 ug/L	
69) trans-1,3-Dichloropropene	8.175	75	971M1	0.129 ug/L	

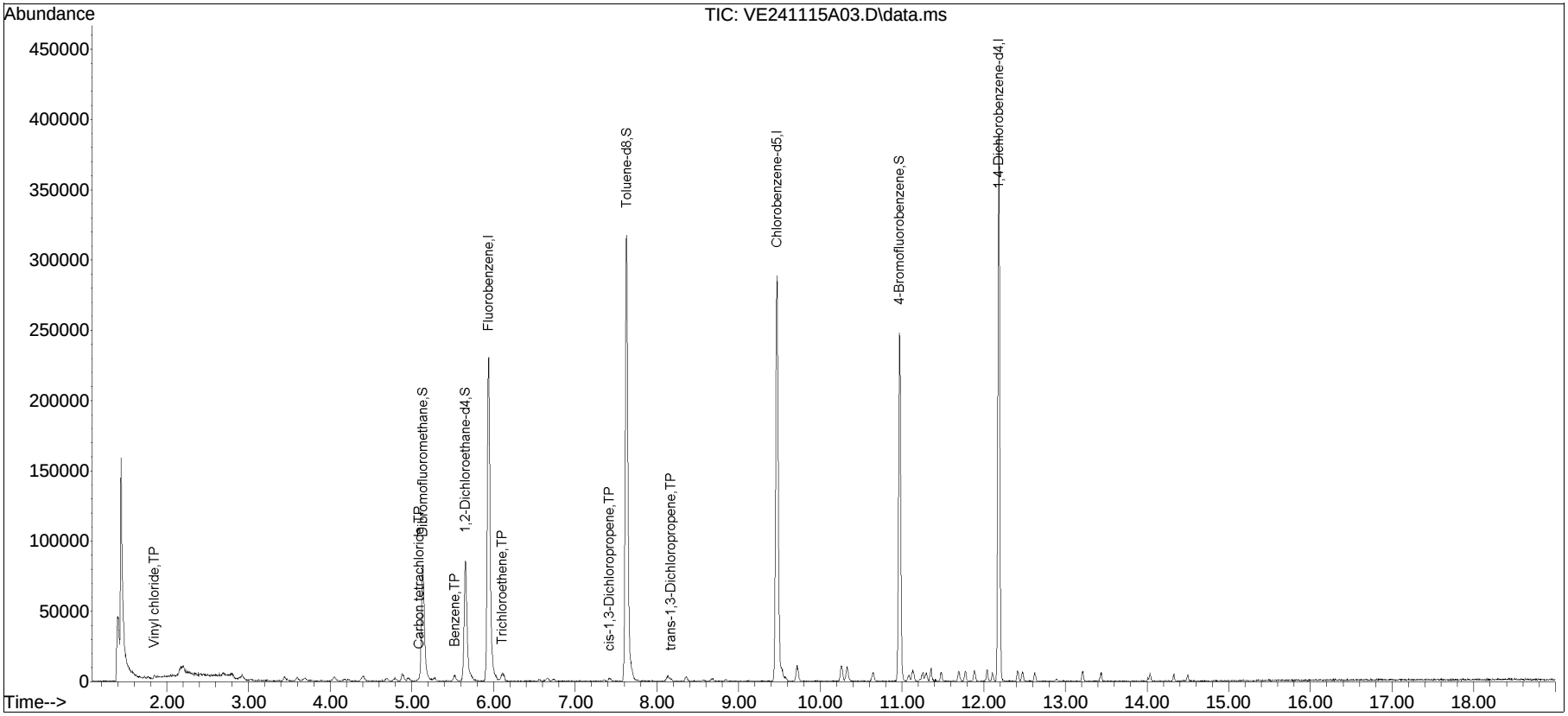
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A03.D
Acq On : 15 Nov 2024 2:52 am
Operator : ELAINE:PID
Sample : I8260STD0.19PPB
Misc : WG1998028,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 11:45:03 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

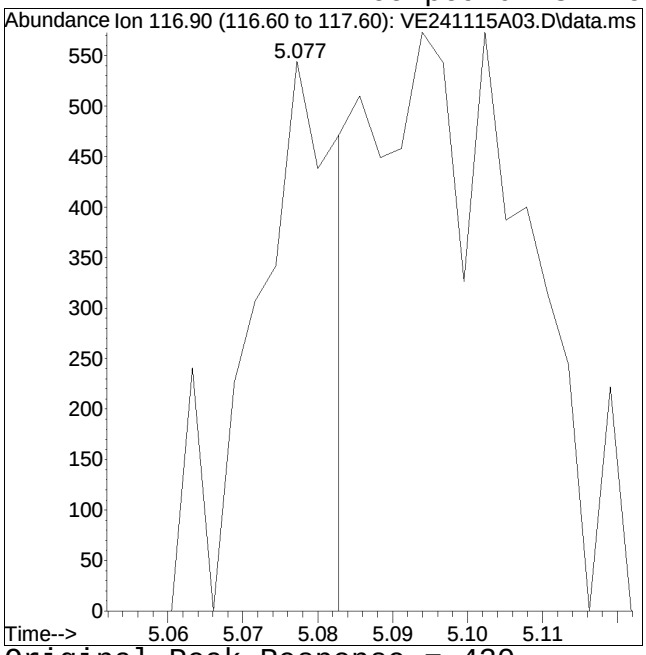
Sub List : 8260-L11_MCP - L11 MCP115AICAL\VE241115A09.D•

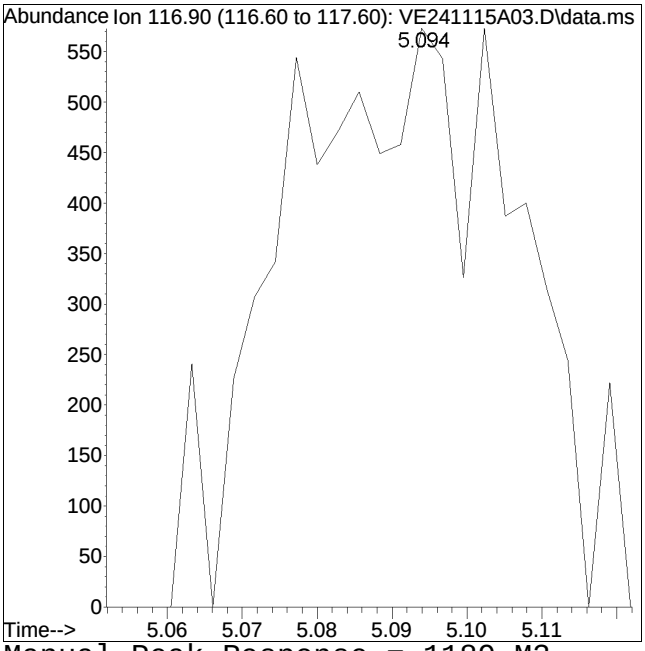


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #37: Carbon tetrachloride





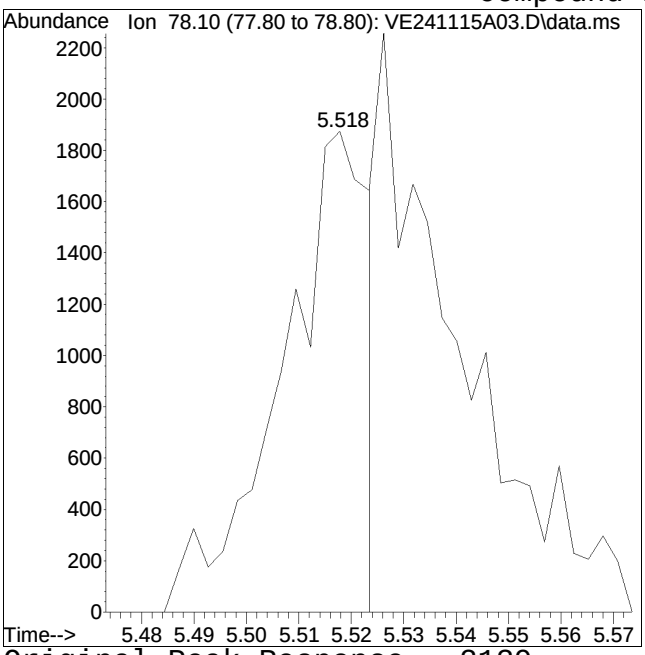
Original Peak Response = 430 Manual Peak Response = 1189 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

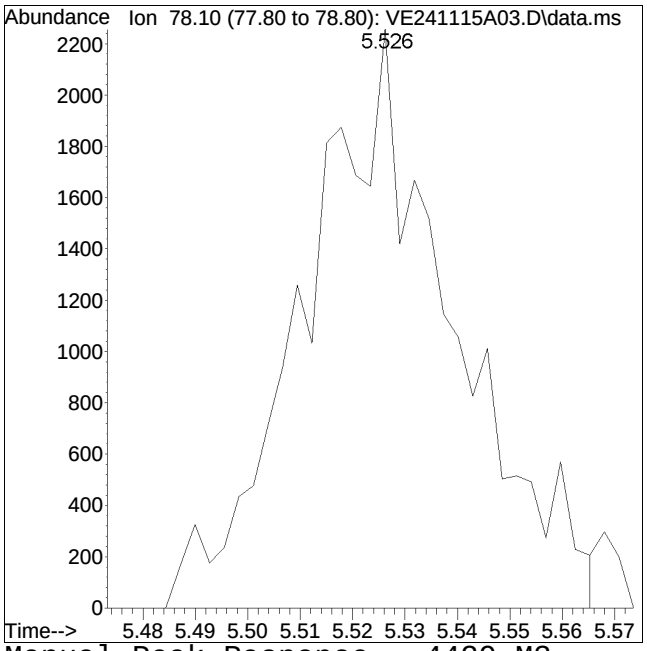
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #45: Benzene



Original Peak Response = 2139



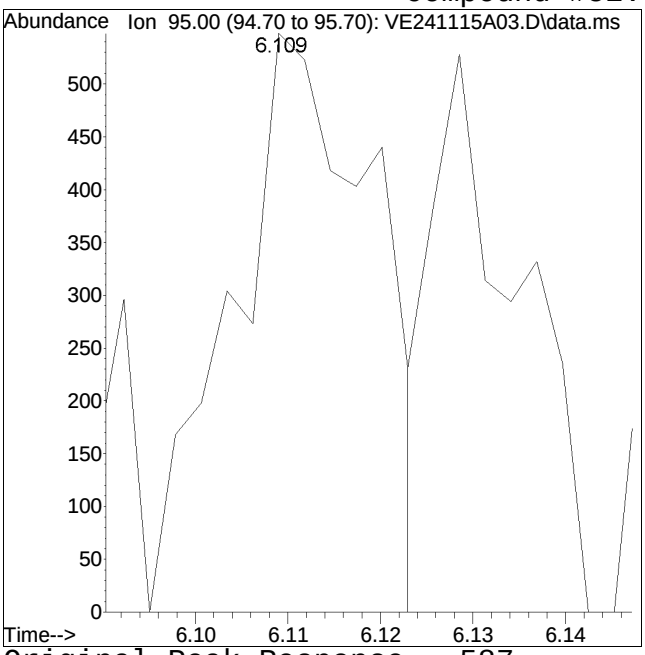
Manual Peak Response = 4429 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

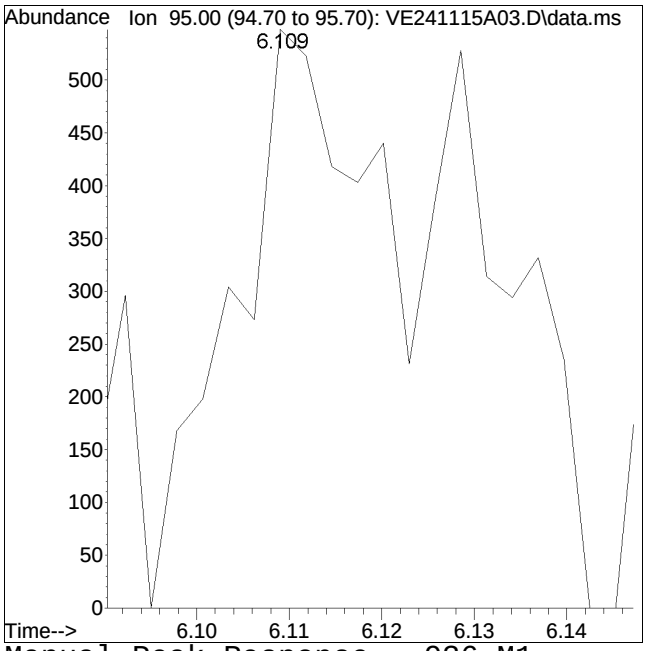
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #52: Trichloroethene



Original Peak Response = 587



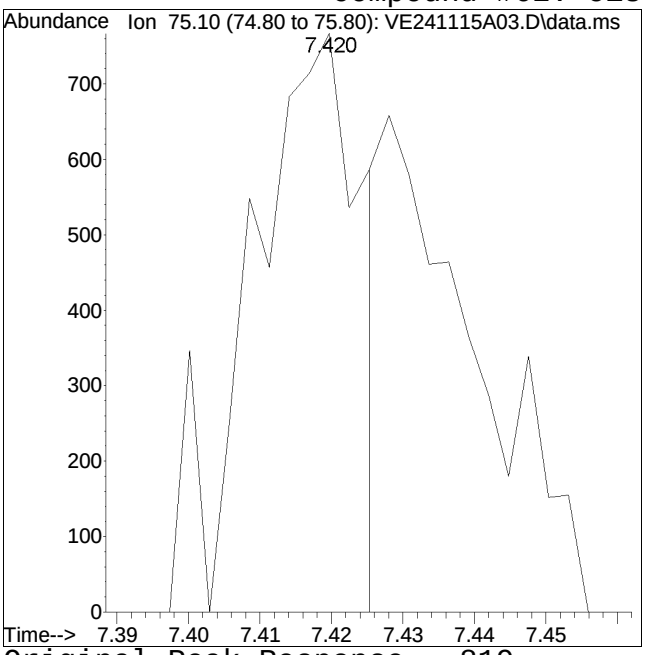
Manual Peak Response = 936 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

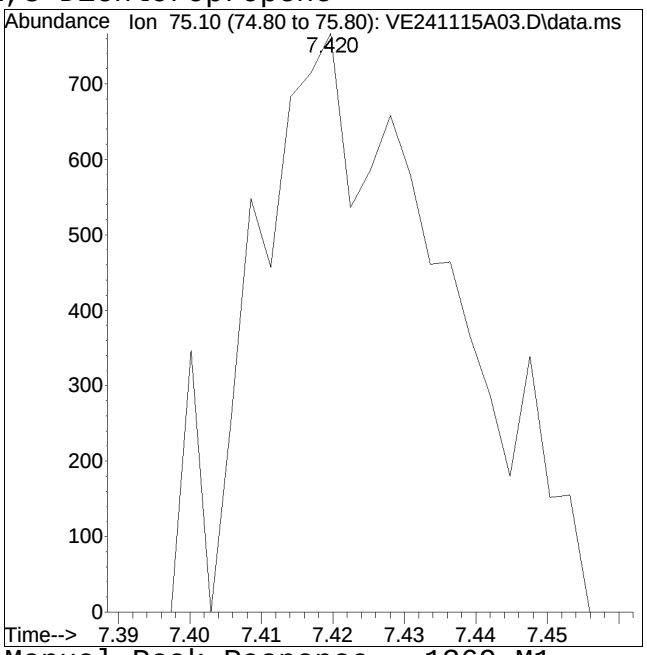
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #62: cis-1,3-Dichloropropene



Original Peak Response = 819



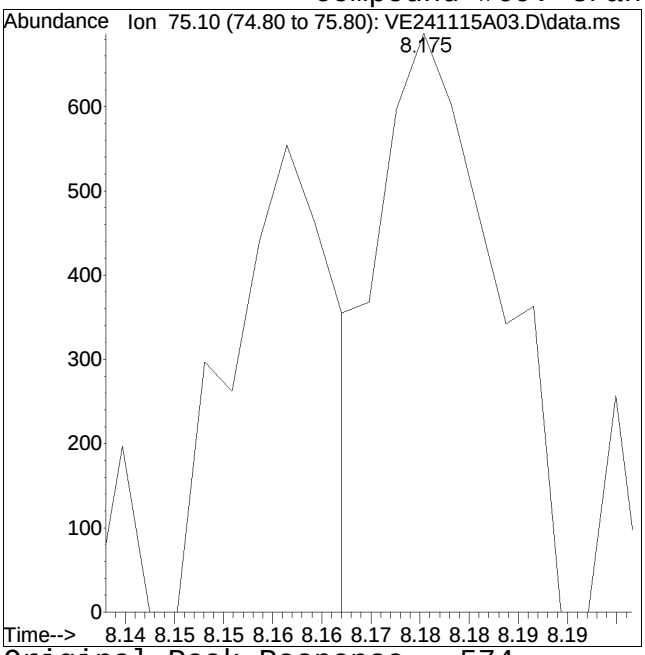
Manual Peak Response = 1369 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

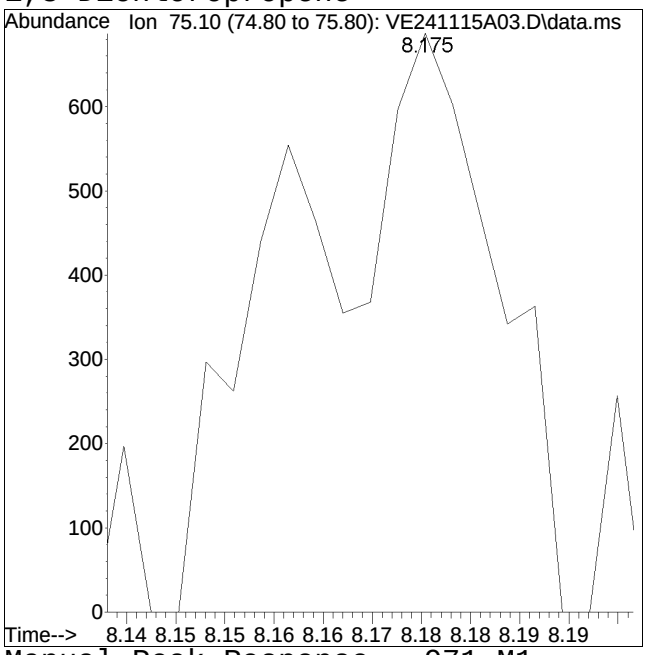
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #69: trans-1,3-Dichloropropene



Original Peak Response = 574



Manual Peak Response = 971 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	256483	10.000 ug/L	0.00
Standard Area 1 = 258108			Recovery = 99.37%		
63) Chlorobenzene-d5	9.470	117	190246	10.000 ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.63%		
84) 1,4-Dichlorobenzene-d4	12.186	152	97348	10.000 ug/L	0.00
Standard Area 1 = 99398			Recovery = 97.94%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.130	113	59050	10.041 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.41%		
47) 1,2-Dichloroethane-d4	5.652	65	70685	10.158 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.58%		
64) Toluene-d8	7.629	98	260761	10.051 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.51%		
88) 4-Bromofluorobenzene	10.970	95	90656	10.136 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.36%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.583	85	1927	0.336 ug/L #	88
3) Chloromethane	1.770	50	2789	0.493 ug/L	93
4) Vinyl chloride	1.845	62	2633M1	0.436 ug/L	
5) Bromomethane	2.155	94	2240	0.529 ug/L	92
6) Chloroethane	2.269	64	1611	0.369 ug/L	93
7) Trichlorofluoromethane	2.409	101	2934	0.333 ug/L #	63
8) Ethyl ether	2.693	74	1158M1	0.425 ug/L	
10) 1,1-Dichloroethene	2.894	96	1853M1	0.413 ug/L	
11) Carbon disulfide	2.919	76	5323	0.395 ug/L	98
12) Freon-113	2.930	101	1724M3	0.365 ug/L	
13) Iodomethane	3.028	142	2005	0.487 ug/L #	60
14) Acrolein	0.000		0	N.D. d	
15) Methylene chloride	3.440	84	2764	0.494 ug/L	90
17) Acetone	3.488	43	740M3	0.672 ug/L	
18) trans-1,2-Dichloroethene	3.594	96	2072M1	0.415 ug/L	
19) Methyl acetate	3.599	43	1285M1	0.522 ug/L	
21) Methyl tert-butyl ether	3.691	73	5611M1	0.420 ug/L	
22) tert-Butyl alcohol	3.795	59	621M3	1.846 ug/L	
24) Diisopropyl ether	4.051	45	7214	0.431 ug/L #	41
25) 1,1-Dichloroethane	4.177	63	4222M4	0.423 ug/L	
26) Halothane	4.235	117	1586M3	0.412 ug/L	

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	0.000		0	N.D.	d		
28) Ethyl tert-butyl ether	4.394	59	7829M1	0.446	ug/L		
29) Vinyl acetate	4.419	43	5041	0.435	ug/L	#	79
30) cis-1,2-Dichloroethene	4.684	96	2285M1	0.401	ug/L		
31) 2,2-Dichloropropane	4.793	77	3248M1	0.412	ug/L		
33) Bromochloromethane	4.882	128	1300M1	0.501	ug/L		
34) Cyclohexane	4.891	56	4093	0.403	ug/L		97
35) Chloroform	4.960	83	4537M3	0.485	ug/L		
36) Ethyl acetate	0.000		0	N.D.	d		
37) Carbon tetrachloride	5.083	117	2590M3	0.381	ug/L		
38) Tetrahydrofuran	0.000		0	N.D.	d		
40) 1,1,1-Trichloroethane	5.153	97	3364M3	0.407	ug/L		
42) 2-Butanone	0.000		0	N.D.	d		
43) 1,1-Dichloropropene	5.281	75	3132M3	0.432	ug/L		
45) Benzene	5.526	78	9661M1	0.424	ug/L		
46) tert-Amyl methyl ether	5.632	73	6381M1	0.435	ug/L		
48) 1,2-Dichloroethane	5.727	62	3565M1	0.491	ug/L		
51) Methyl cyclohexane	6.095	83	3853M1	0.379	ug/L		
52) Trichloroethene	6.126	95	2159M1	0.399	ug/L		
54) Dibromomethane	6.561	93	1230	0.398	ug/L	#	75
55) 1,2-Dichloropropane	6.653	63	2378M6	0.410	ug/L		
57) 2-Chloroethyl vinyl ether	7.361	63	1268M3	0.372	ug/L		
58) Bromodichloromethane	6.731	83	3100	0.412	ug/L	#	66
61) 1,4-Dioxane	6.937	88	3107	82.048	ug/L	#	58
62) cis-1,3-Dichloropropene	7.425	75	3665M3	0.422	ug/L		
65) Toluene	7.685	92	6582	0.440	ug/L		96
66) 4-Methyl-2-pentanone	8.114	58	746M1	0.475	ug/L		
67) Tetrachloroethene	8.137	166	2495	0.415	ug/L	#	44
69) trans-1,3-Dichloropropene	8.170	75	2895	0.391	ug/L	#	72
71) Ethyl methacrylate	8.365	69	2299M3	0.407	ug/L		
72) 1,1,2-Trichloroethane	8.354	83	1816	0.462	ug/L	#	76
73) Chlorodibromomethane	8.574	129	2018	0.383	ug/L	#	63
74) 1,3-Dichloropropane	8.678	76	3724	0.459	ug/L	#	57
75) 1,2-Dibromoethane	8.842	107	2141	0.460	ug/L	#	67
77) 2-Hexanone	9.132	43	1182M1	0.468	ug/L		
78) Chlorobenzene	9.486	112	7282	0.458	ug/L	#	51
79) Ethylbenzene	9.528	91	12024	0.421	ug/L	#	69
80) 1,1,1,2-Tetrachloroethane	9.578	131	2024	0.384	ug/L	#	68
81) p/m Xylene	9.715	106	8790	0.799	ug/L		97
82) o Xylene	10.259	106	8633	0.805	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83)	Styrene	10.323	104	14947	0.826	ug/L		92
85)	Bromoform	10.356	173	940M1	0.327	ug/L		
87)	Isopropylbenzene	10.644	105	11976	0.416	ug/L		93
89)	Bromobenzene	11.079	156	2869	0.447	ug/L		88
90)	n-Propylbenzene	11.132	91	13631	0.418	ug/L		93
91)	1,4-Dichlorobutane	11.143	55	3441M1	0.450	ug/L		
92)	1,1,2,2-Tetrachloroethane	11.218	83	2693	0.485	ug/L	#	69
93)	4-Ethyltoluene	11.257	105	11892M3	0.439	ug/L		
94)	2-Chlorotoluene	11.293	91	8170	0.431	ug/L		90
95)	1,3,5-Trimethylbenzene	11.352	105	10373	0.433	ug/L		98
96)	1,2,3-Trichloropropane	11.352	75	2107	0.481	ug/L	#	85
97)	trans-1,4-Dichloro-2-b...	11.416	53	632M3	0.398	ug/L		
98)	4-Chlorotoluene	11.480	91	8606	0.439	ug/L		97
99)	tert-Butylbenzene	11.698	119	8488	0.429	ug/L	#	30
102)	1,2,4-Trimethylbenzene	11.770	105	10534	0.439	ug/L		100
103)	sec-Butylbenzene	11.884	105	12805	0.424	ug/L		100
104)	p-Isopropyltoluene	12.041	119	10208	0.408	ug/L		98
105)	1,3-Dichlorobenzene	12.108	146	5953	0.463	ug/L		98
106)	1,4-Dichlorobenzene	12.202	146	6189M3	0.480	ug/L		
107)	p-Diethylbenzene	12.414	119	5789	0.396	ug/L		90
108)	n-Butylbenzene	12.473	91	8988	0.412	ug/L		97
109)	1,2-Dichlorobenzene	12.623	146	5945	0.486	ug/L		98
110)	1,2,4,5-Tetramethylben...	13.209	119	9851	0.420	ug/L	#	96
111)	1,2-Dibromo-3-chloropr...	13.407	155	262M6	0.353	ug/L		
112)	1,3,5-Trichlorobenzene	13.438	180	3803	0.436	ug/L		89
113)	Hexachlorobutadiene	14.009	225	927M6	0.398	ug/L		
114)	1,2,4-Trichlorobenzene	14.040	180	3487	0.458	ug/L		94
115)	Naphthalene	14.330	128	7650	0.428	ug/L		100
116)	1,2,3-Trichlorobenzene	14.500	180	2977	0.438	ug/L	#	85

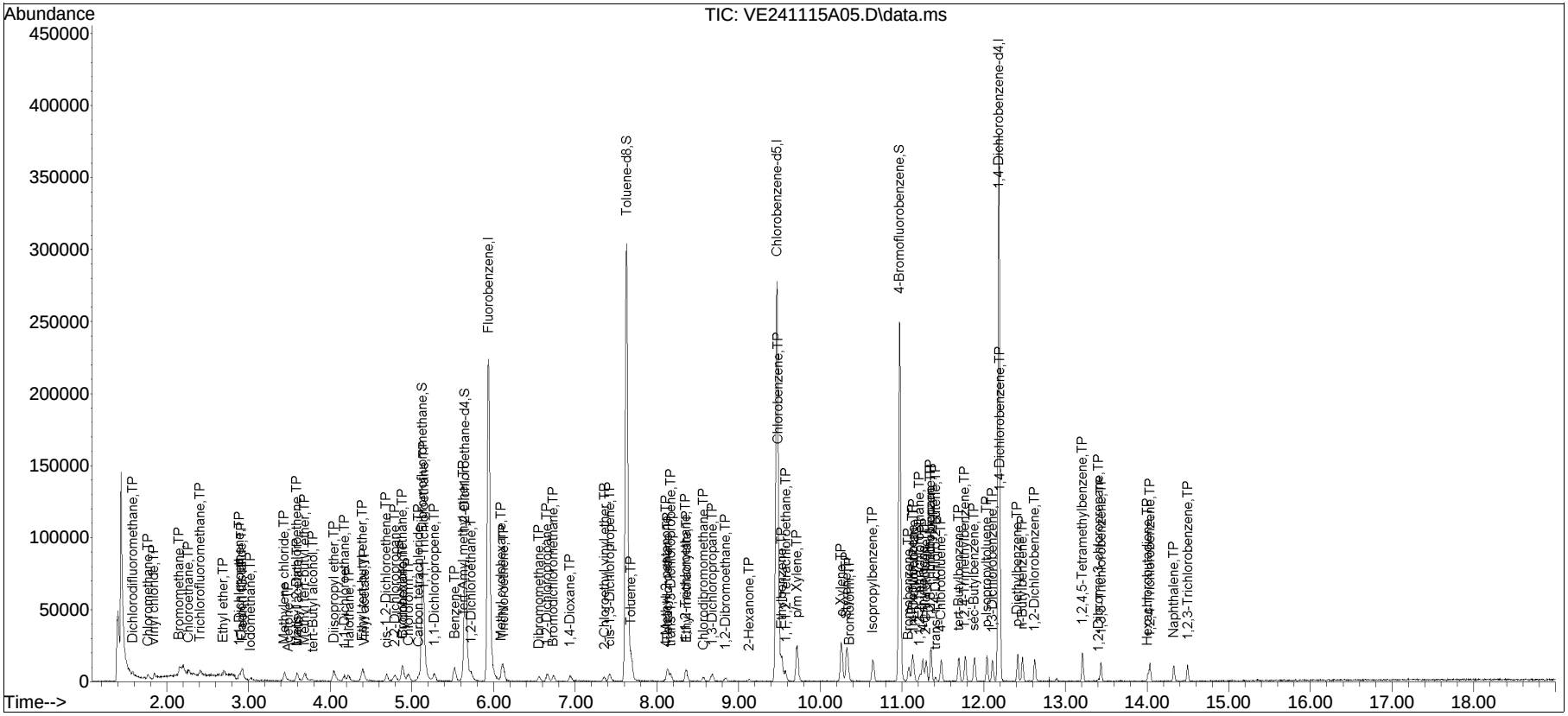
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

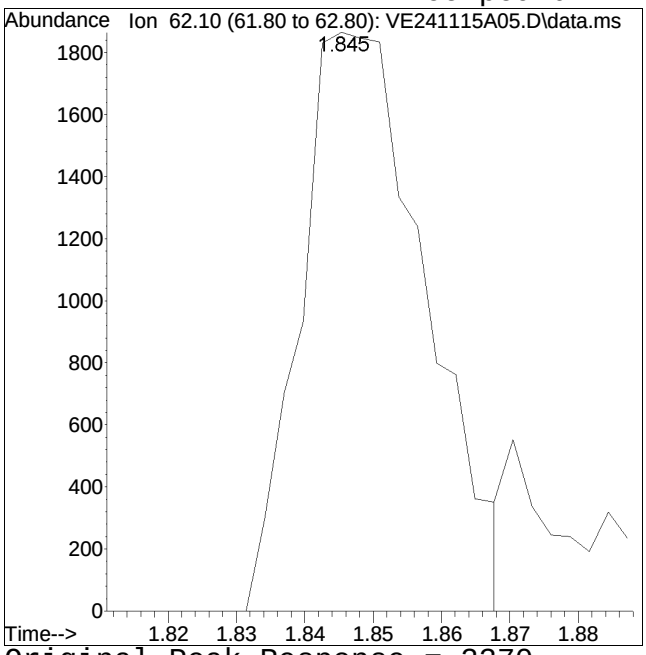
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

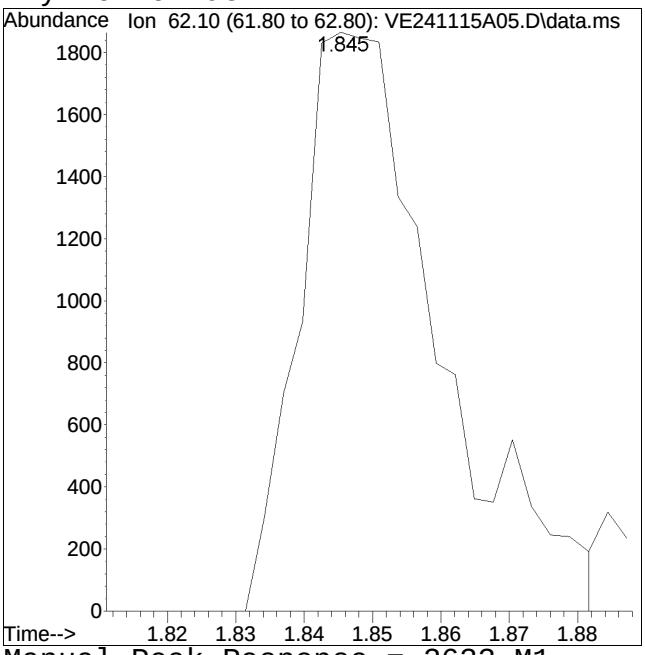


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #4: Vinyl chloride



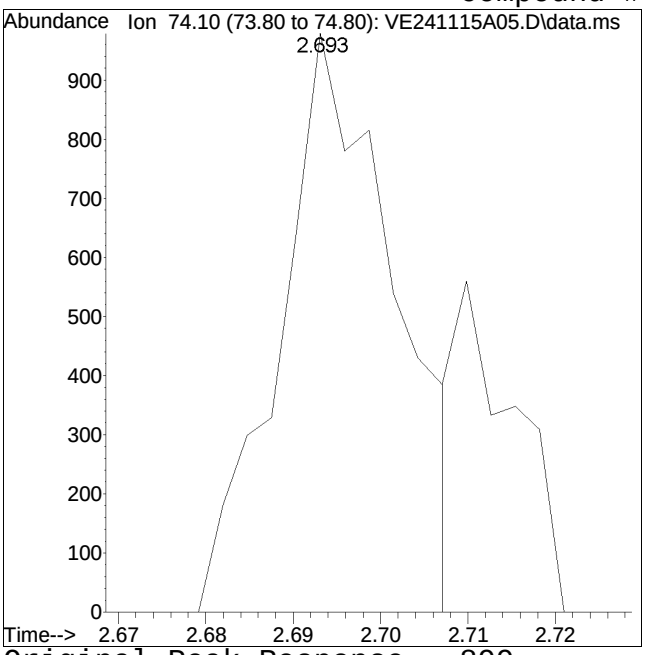


Original Peak Response = 2370 Manual Peak Response = 2633 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

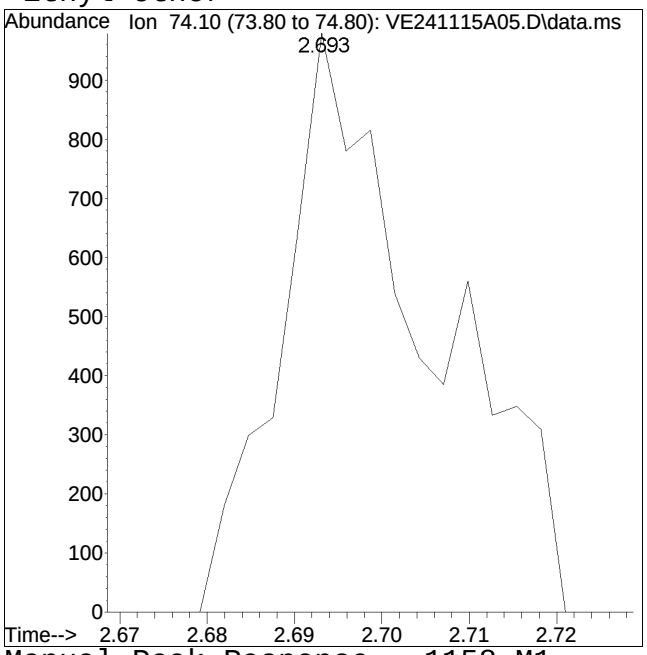
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #8: Ethyl ether



Original Peak Response = 899



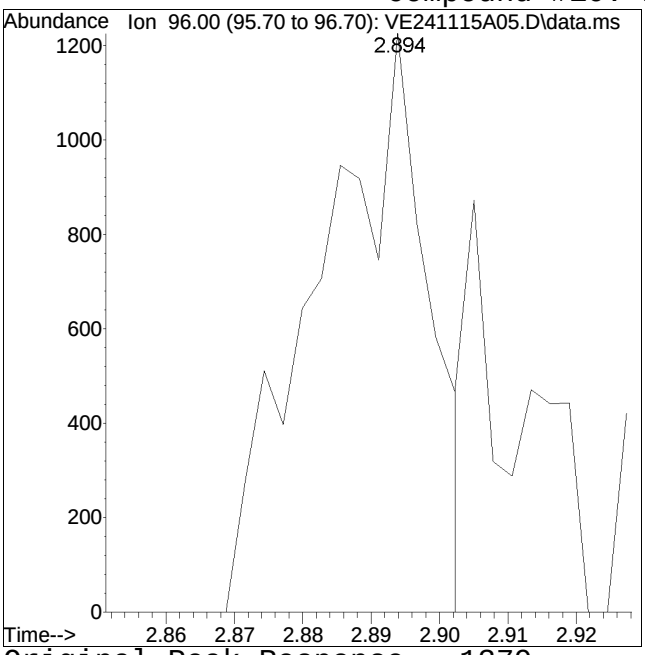
Manual Peak Response = 1158 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

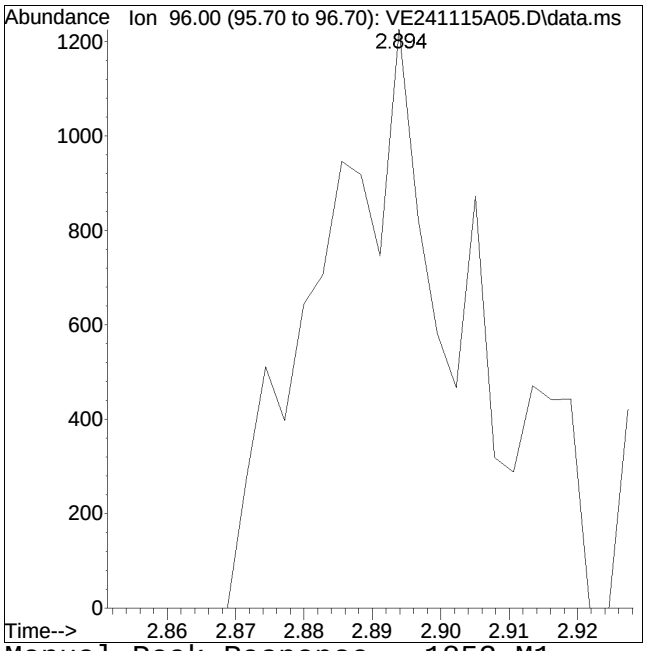
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #10: 1,1-Dichloroethene



Original Peak Response = 1379



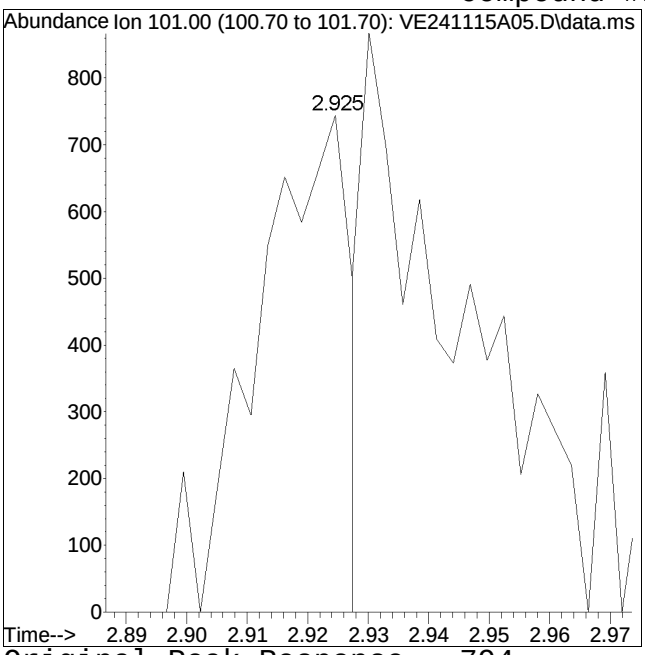
Manual Peak Response = 1853 M1

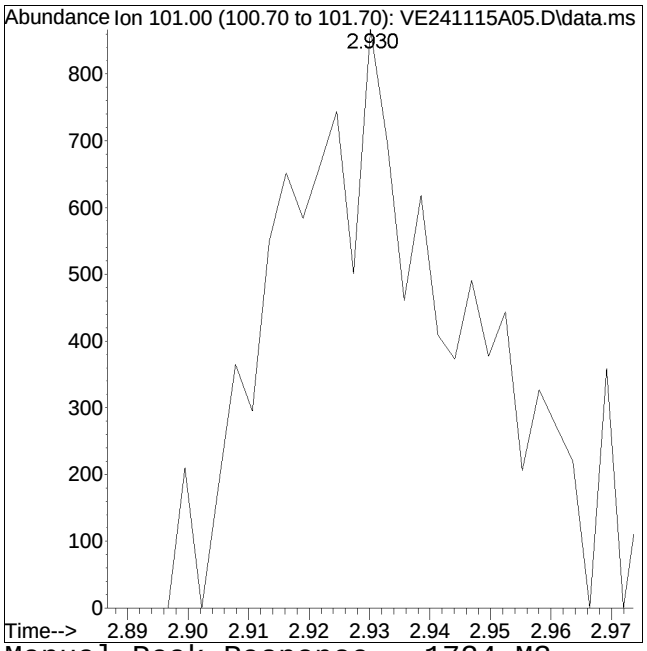
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #12: Freon-113





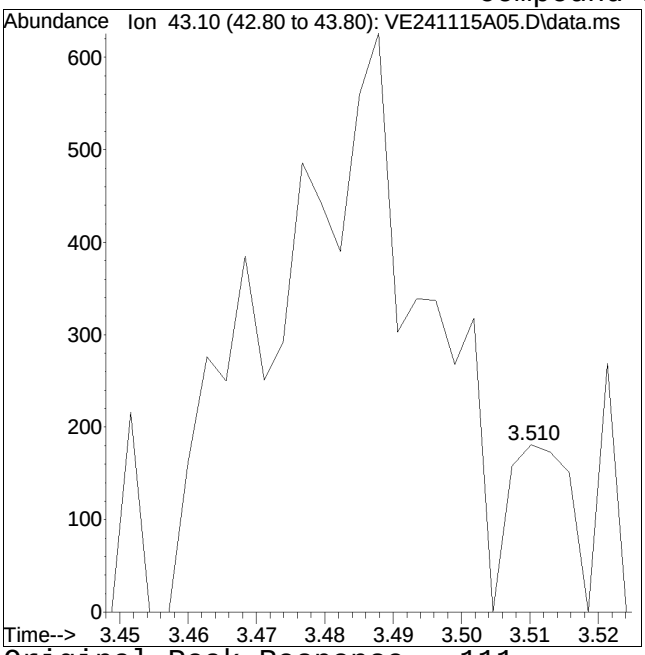
Original Peak Response = 794 Manual Peak Response = 1724 M3

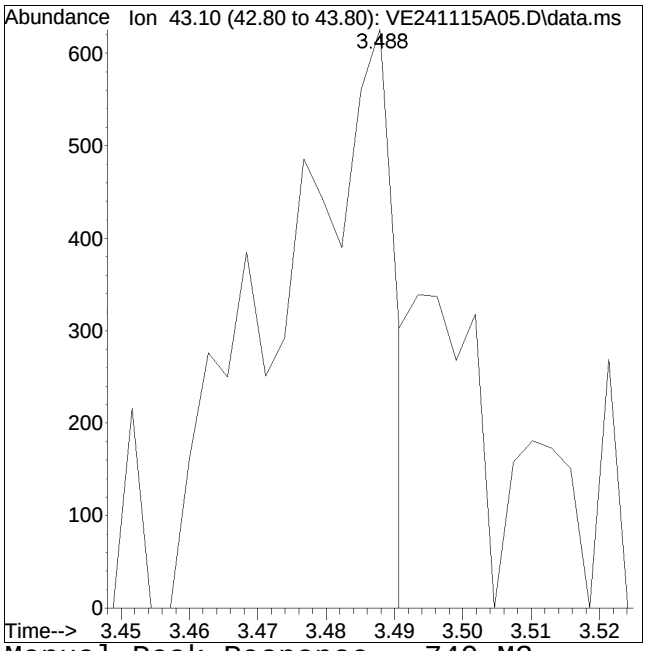
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #17: Acetone





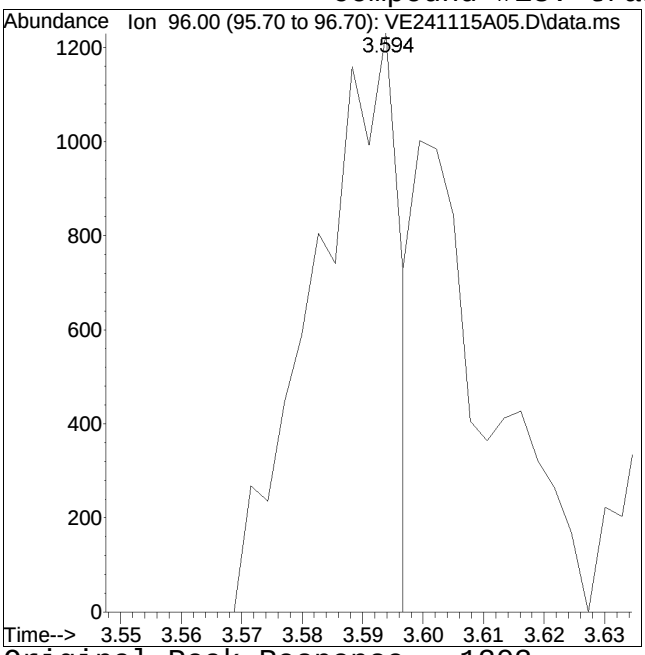
Original Peak Response = 111 Manual Peak Response = 740 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

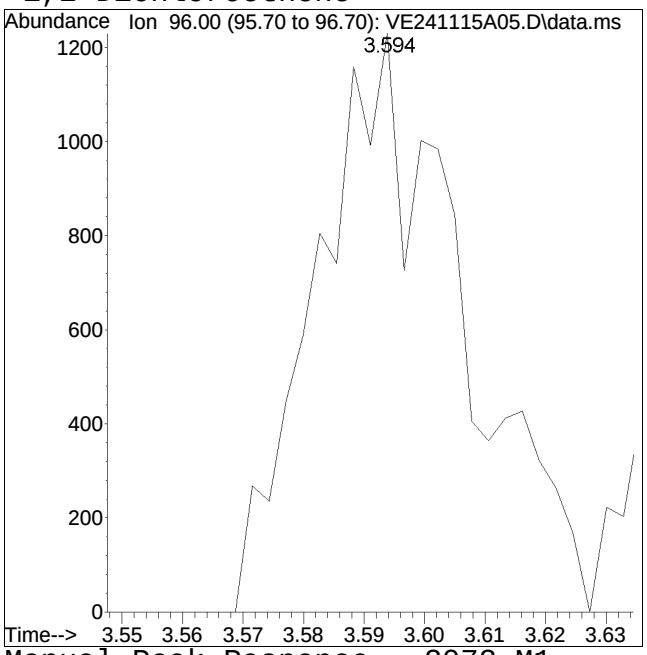
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #18: trans-1,2-Dichloroethene



Original Peak Response = 1203



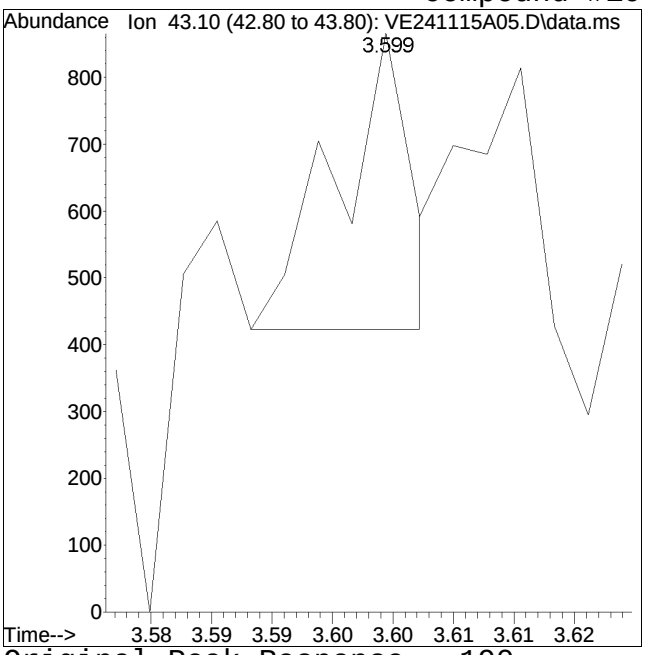
Manual Peak Response = 2072 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

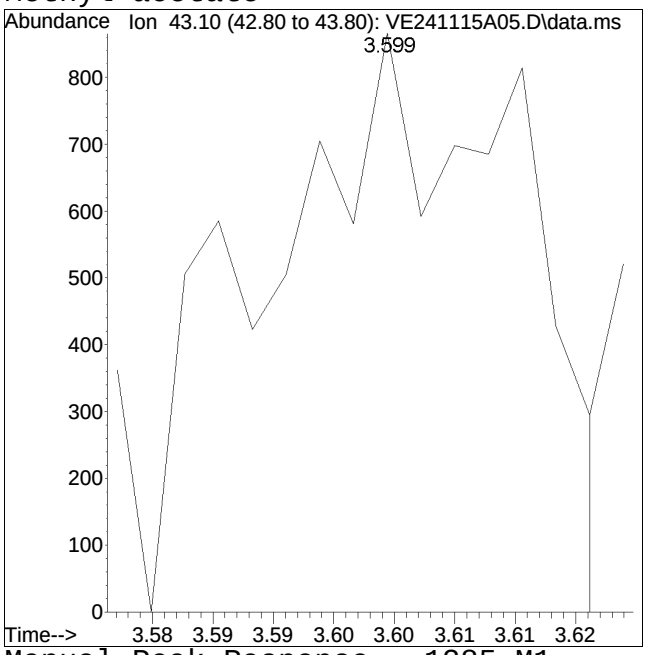
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #19: Methyl acetate



Original Peak Response = 190



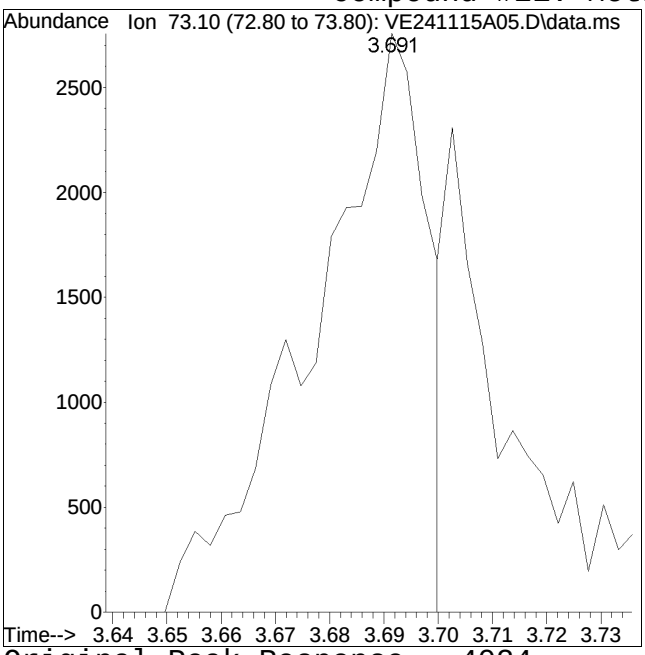
Manual Peak Response = 1285 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

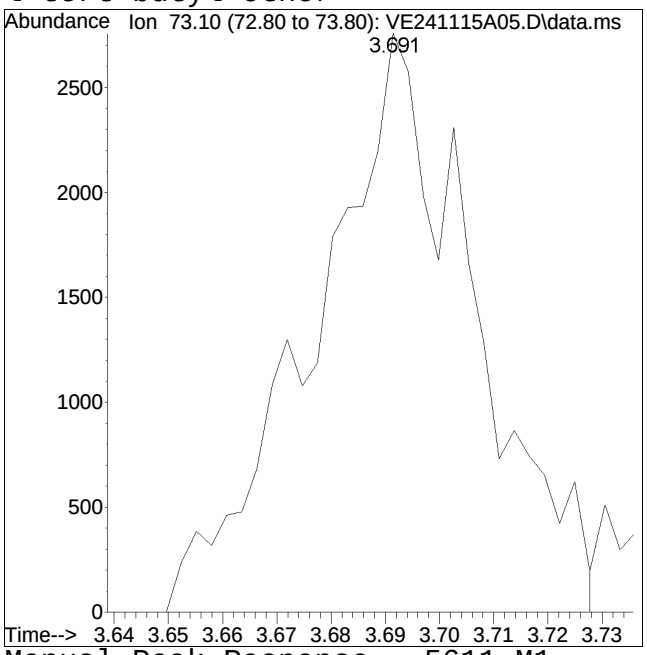
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 4024



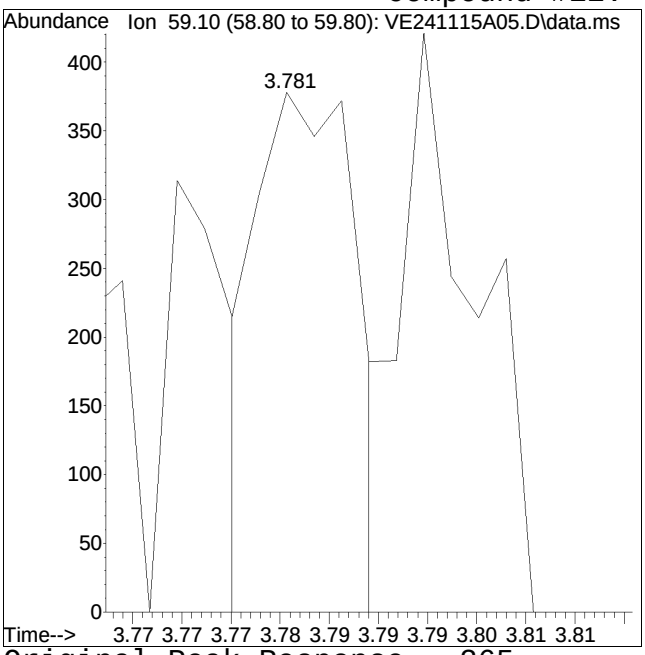
Manual Peak Response = 5611 M1

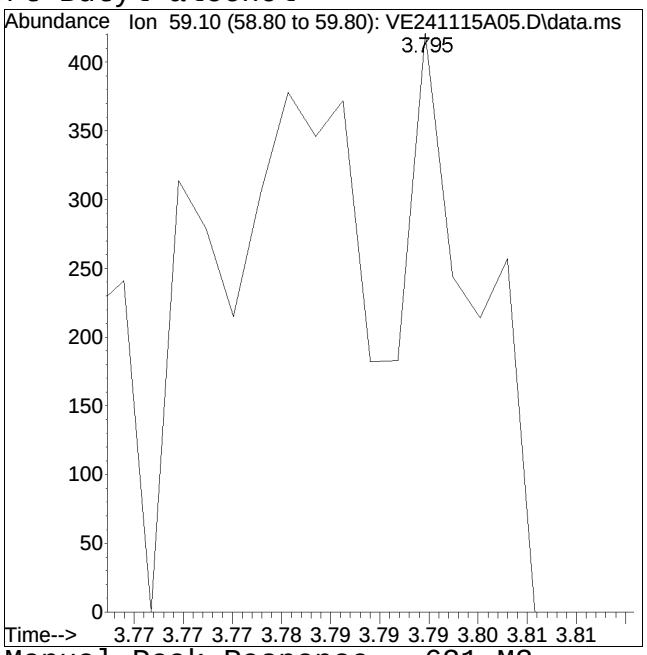
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #22: tert-Butyl alcohol





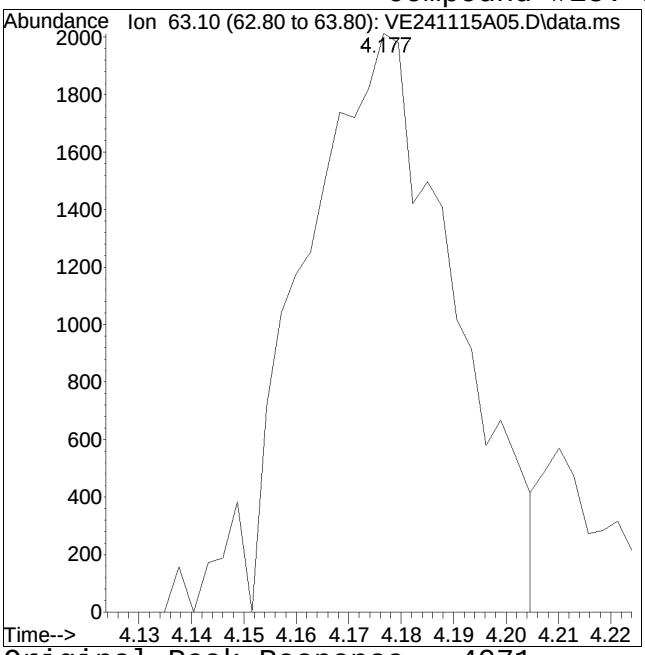
Original Peak Response = 265 Manual Peak Response = 621 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

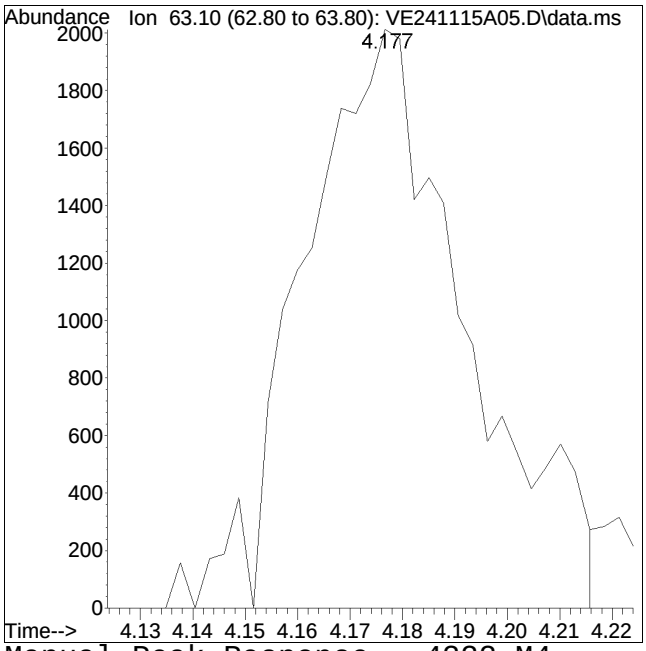
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #25: 1,1-Dichloroethane



Original Peak Response = 4071



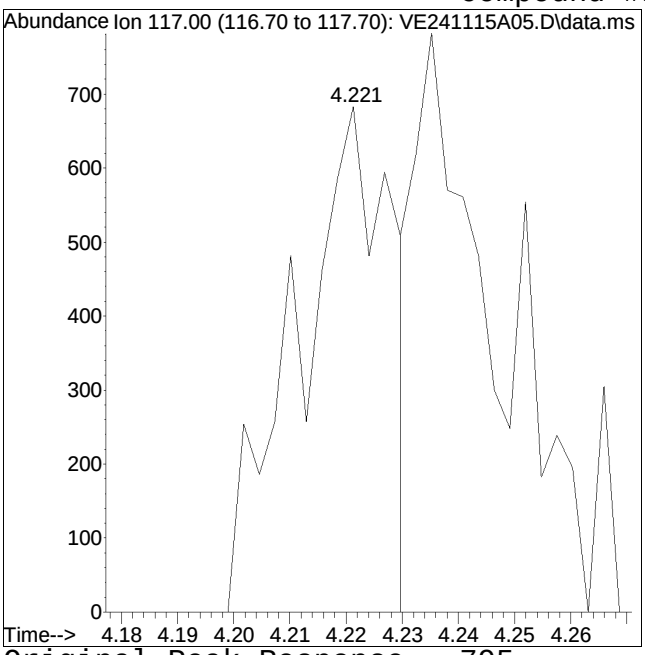
Manual Peak Response = 4222 M4

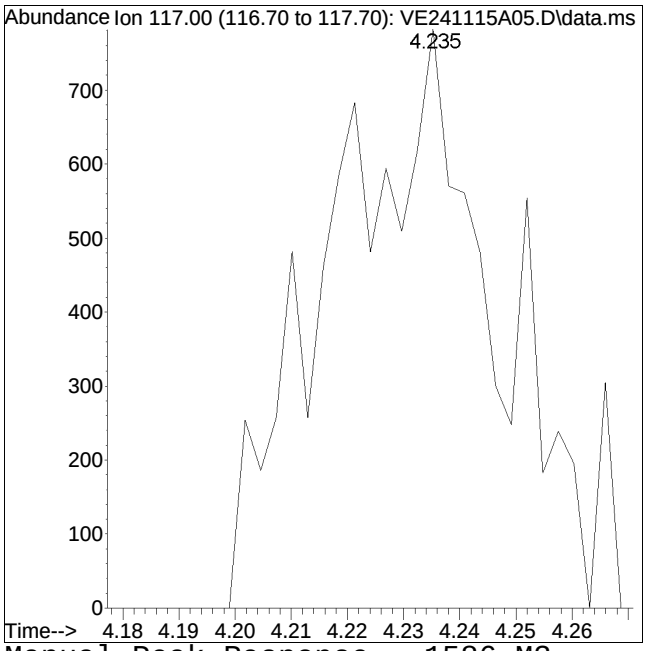
M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #26: Halothane





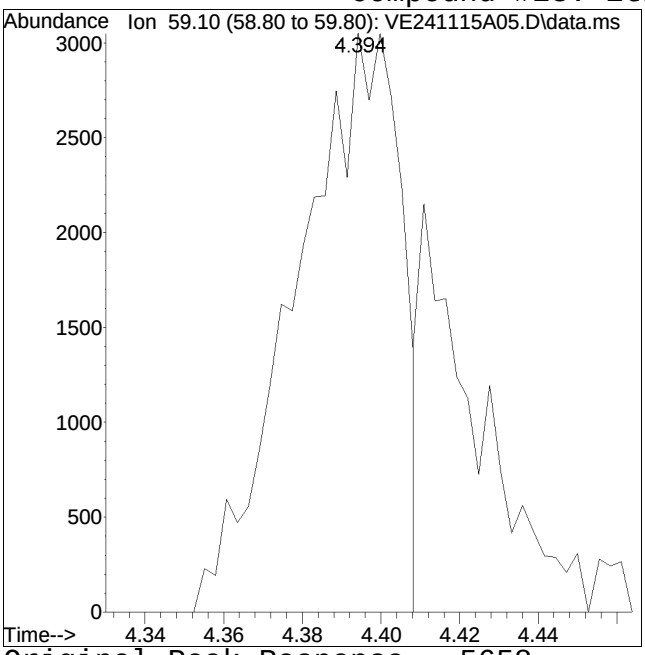
Original Peak Response = 795 Manual Peak Response = 1586 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

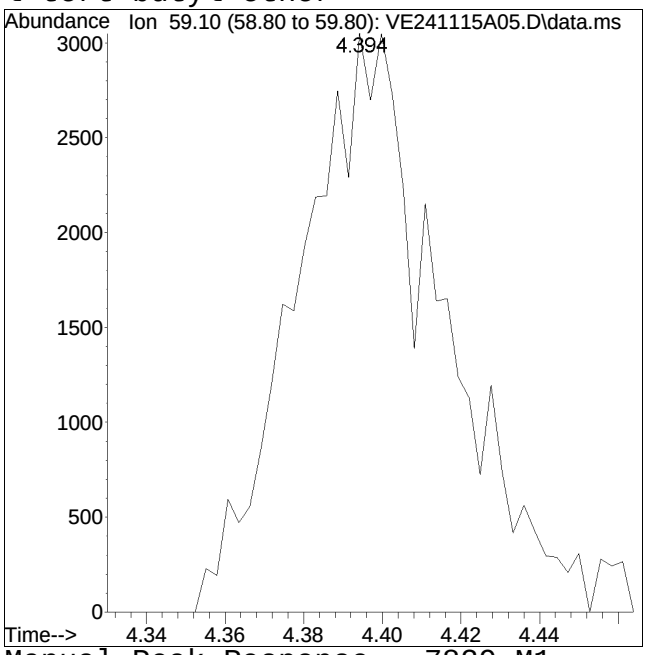
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #28: Ethyl tert-butyl ether



Original Peak Response = 5658



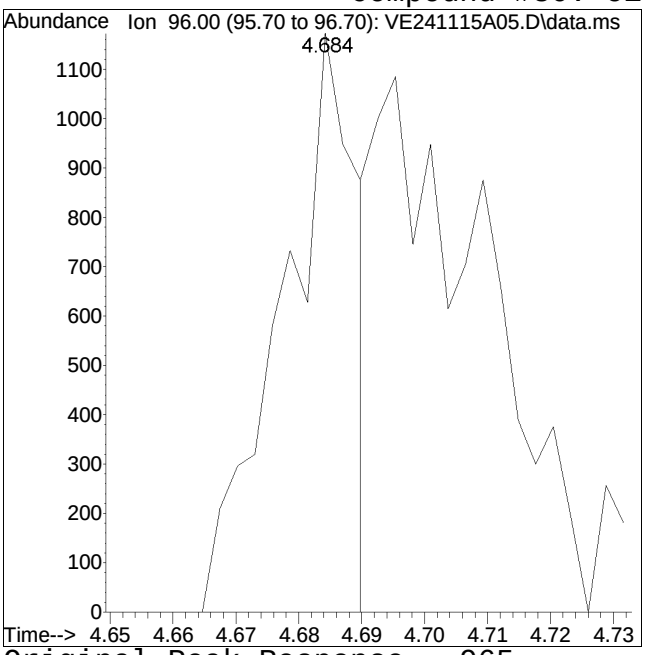
Manual Peak Response = 7829 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

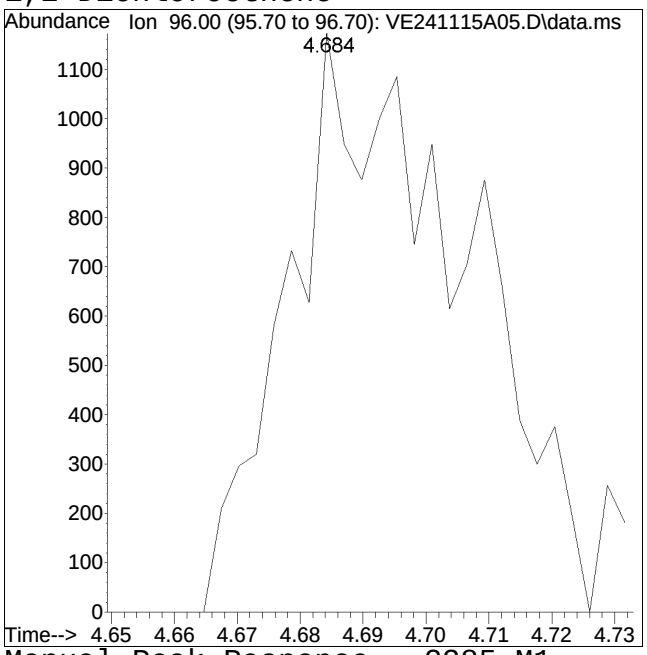
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 965



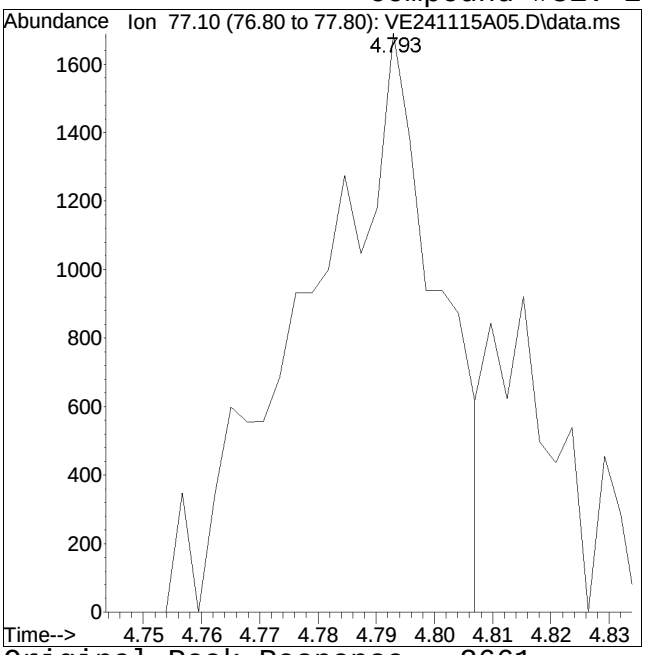
Manual Peak Response = 2285 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

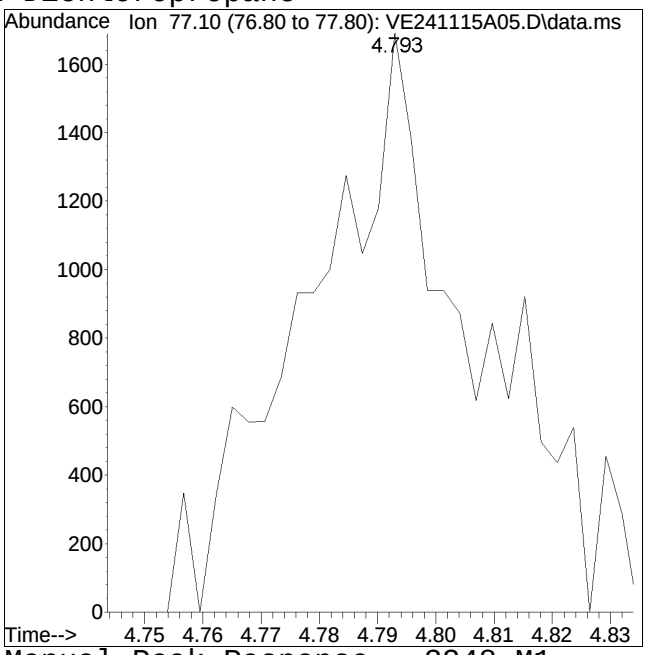
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #31: 2,2-Dichloropropane



Original Peak Response = 2661



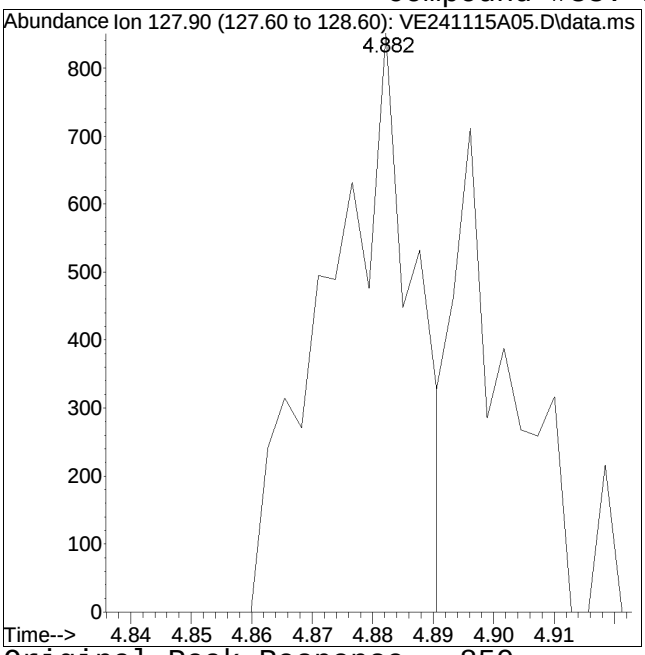
Manual Peak Response = 3248 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

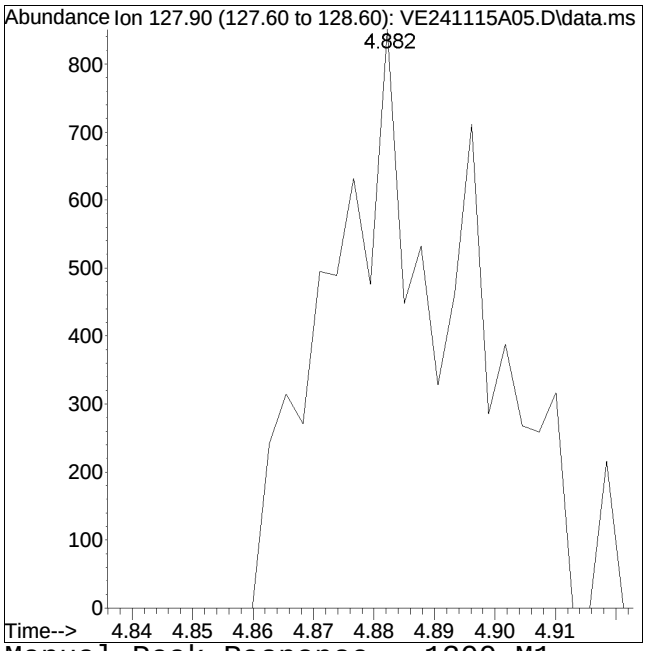
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #33: Bromochloromethane



Original Peak Response = 850



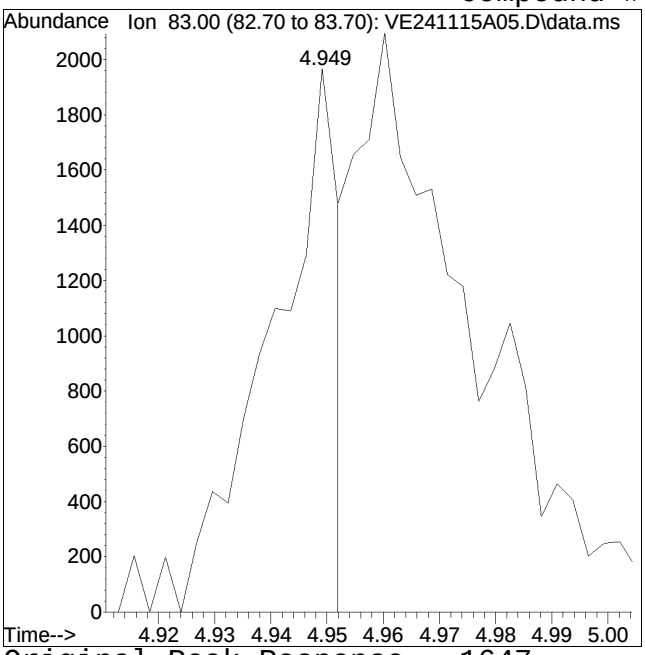
Manual Peak Response = 1300 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

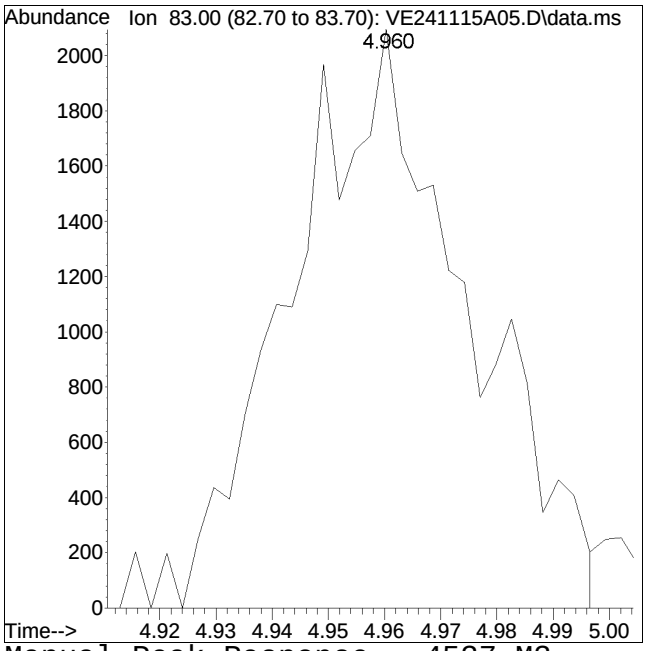
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #35: Chloroform



Original Peak Response = 1647



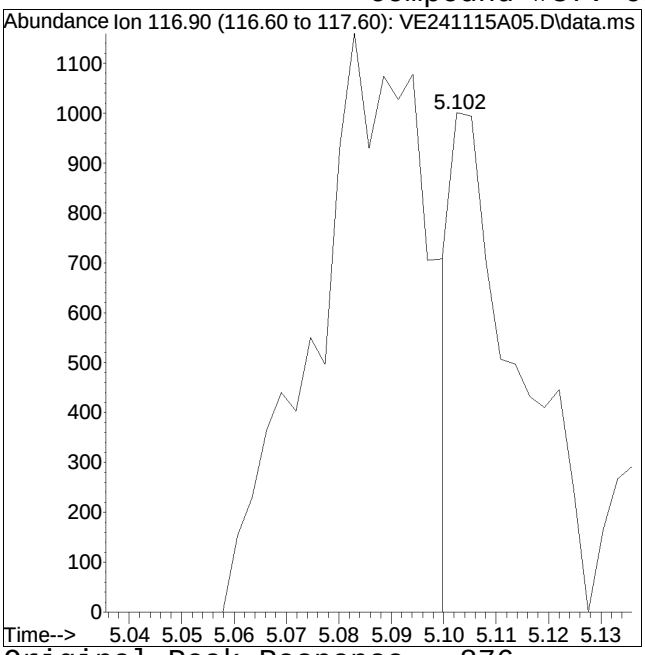
Manual Peak Response = 4537 M3

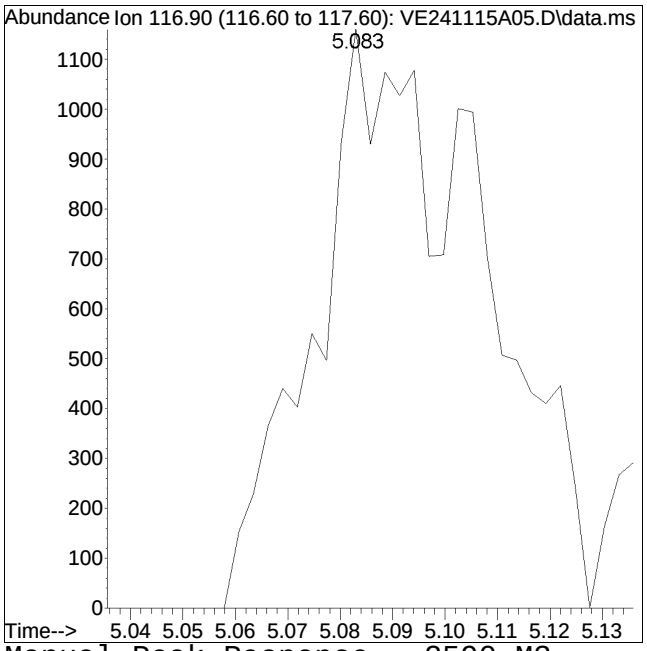
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #37: Carbon tetrachloride





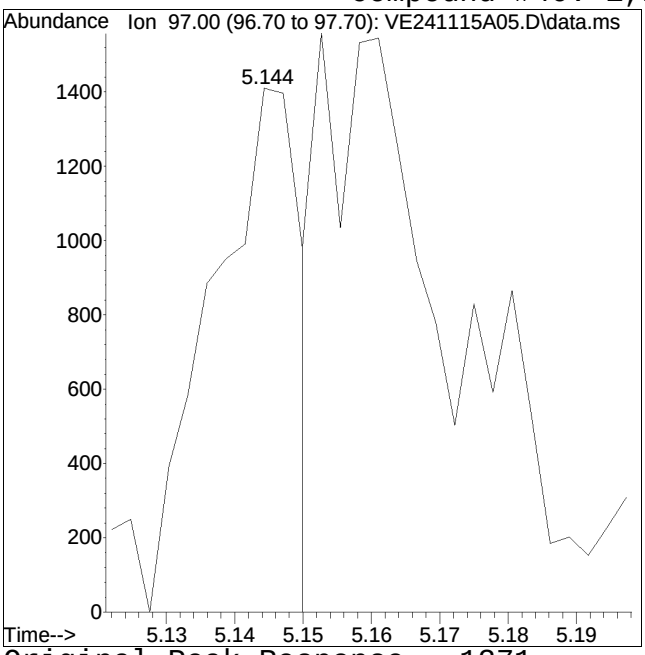
Original Peak Response = 876 Manual Peak Response = 2590 M3

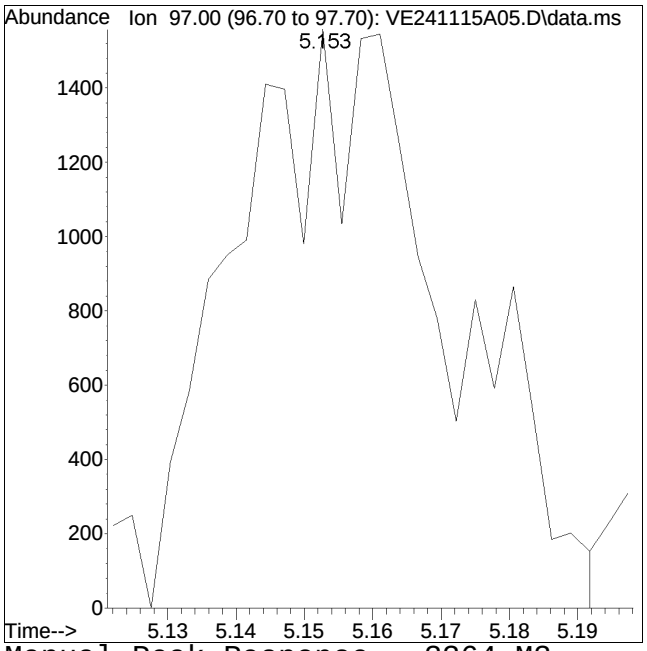
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #40: 1,1,1-Trichloroethane





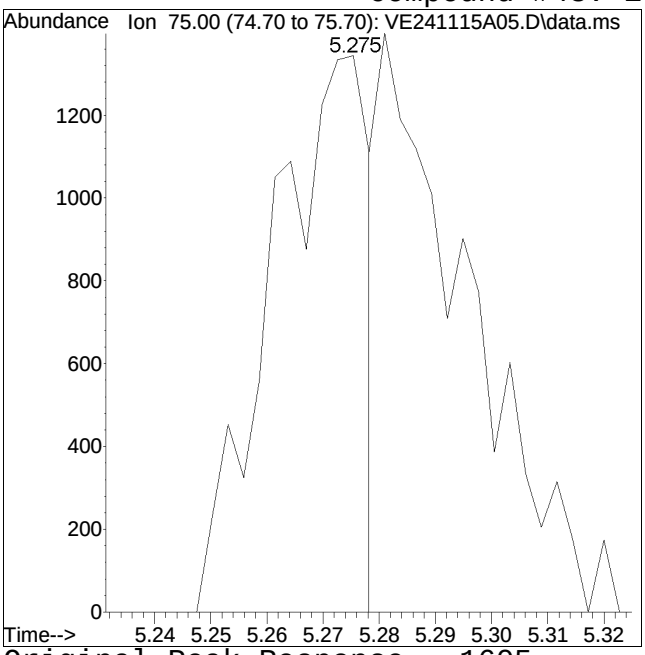
Original Peak Response = 1271 Manual Peak Response = 3364 M3

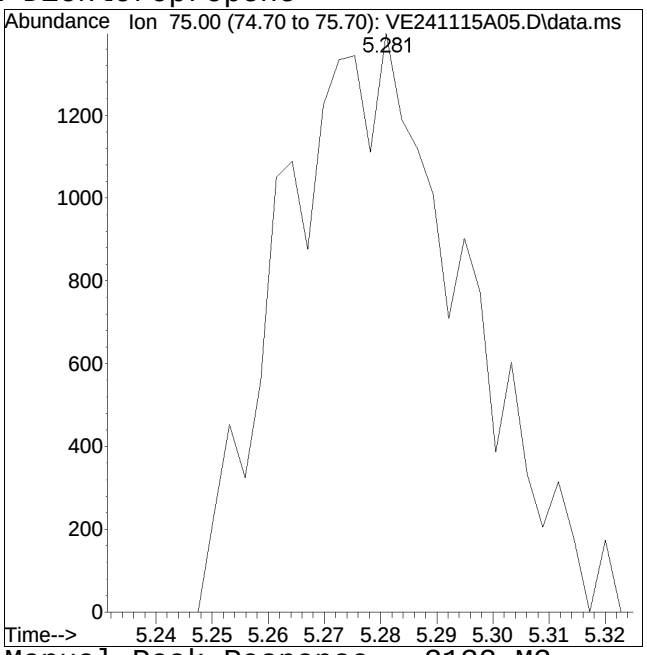
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #43: 1,1-Dichloropropene





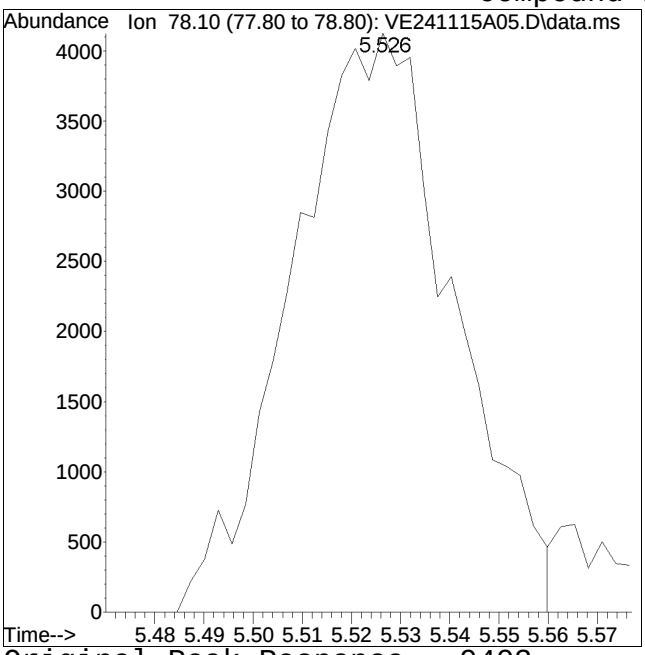
Original Peak Response = 1605 Manual Peak Response = 3132 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

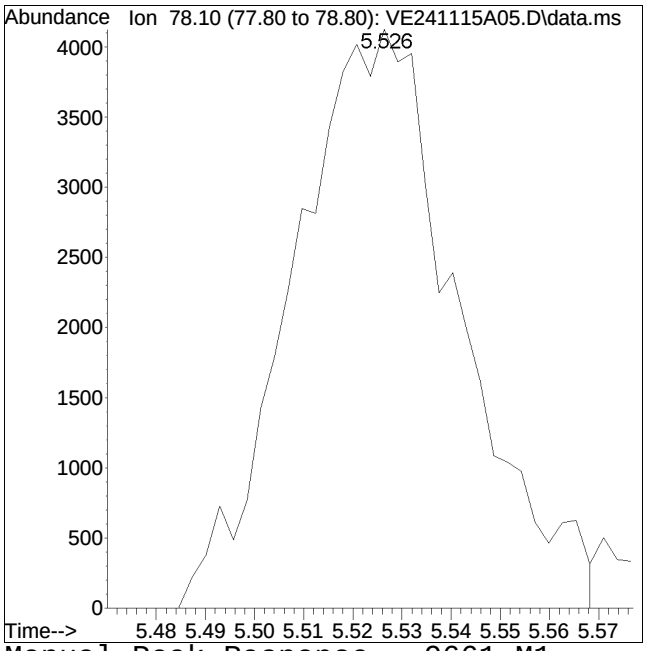
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #45: Benzene



Original Peak Response = 9403



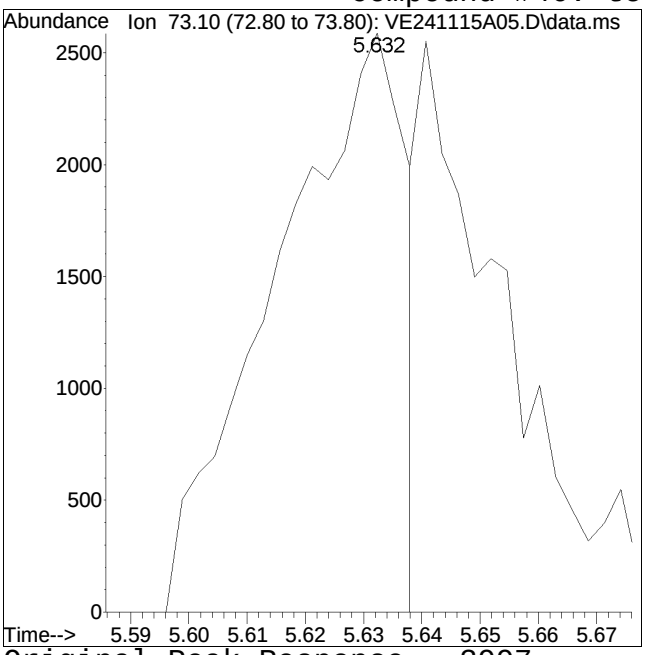
Manual Peak Response = 9661 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

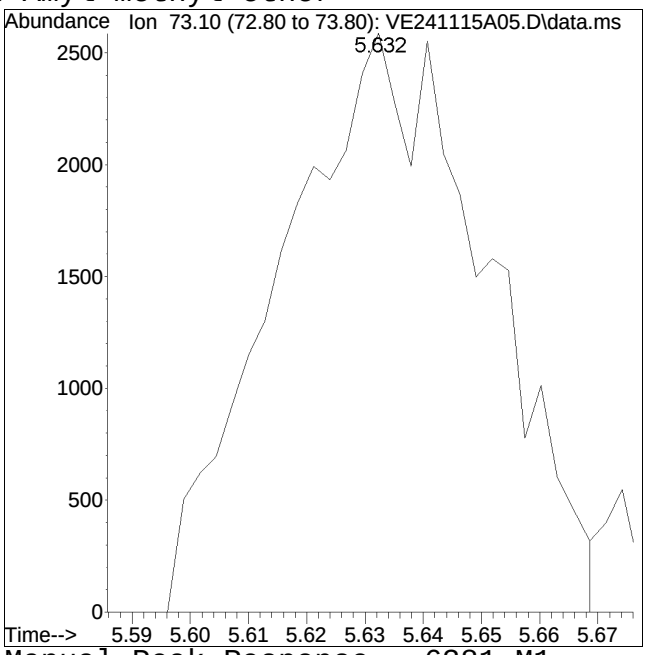
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #46: tert-Amyl methyl ether



Original Peak Response = 3997



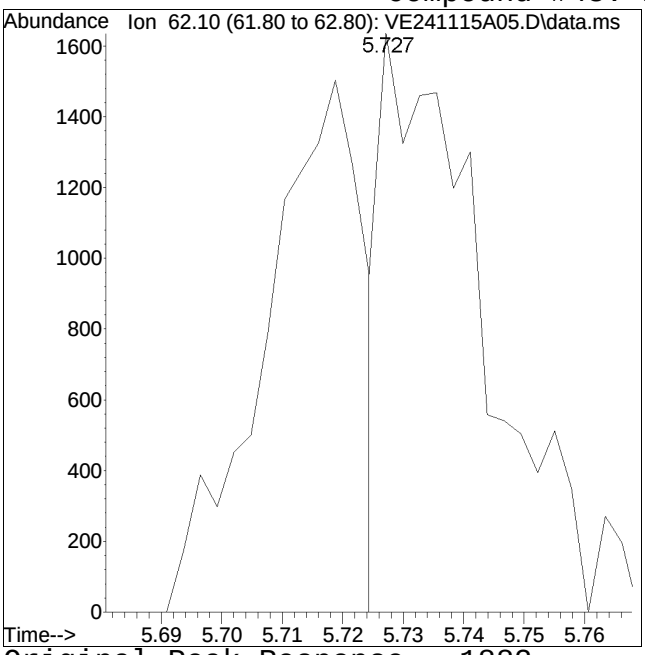
Manual Peak Response = 6381 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

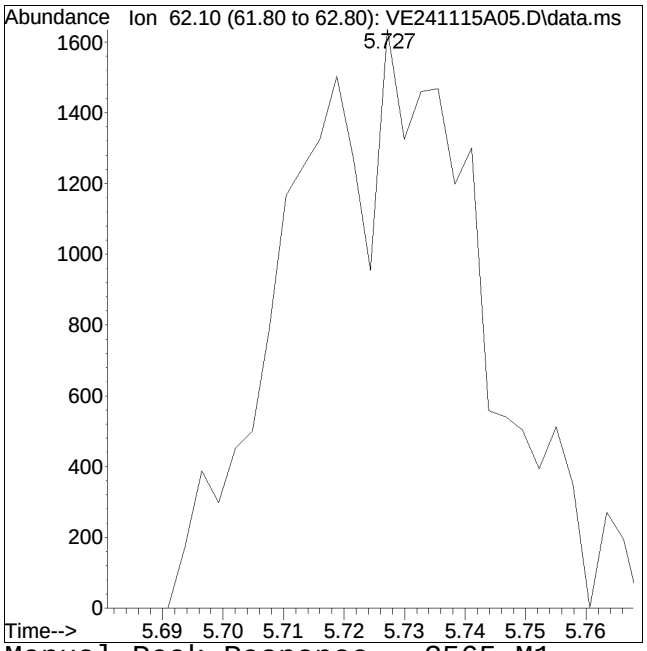
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #48: 1,2-Dichloroethane



Original Peak Response = 1882



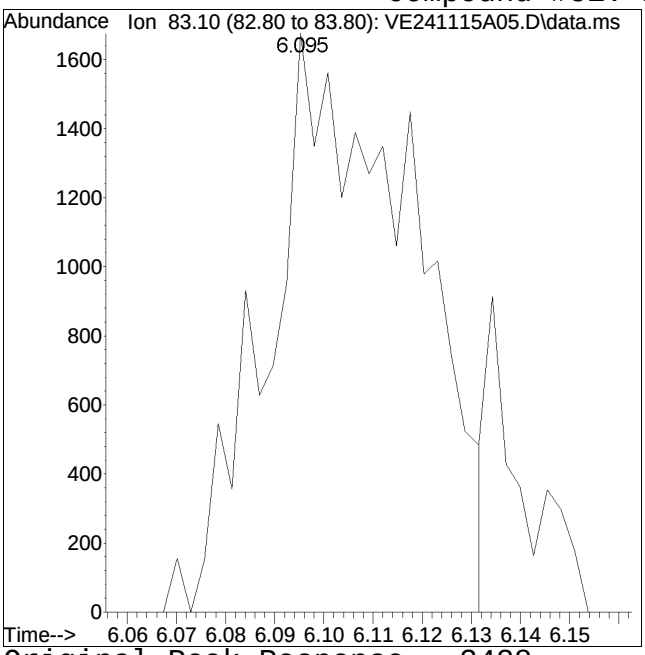
Manual Peak Response = 3565 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

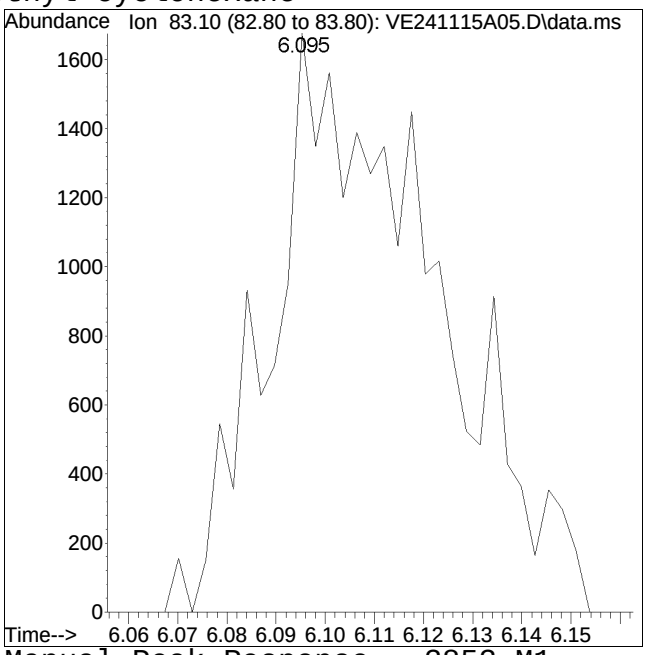
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #51: Methyl cyclohexane



Original Peak Response = 3428



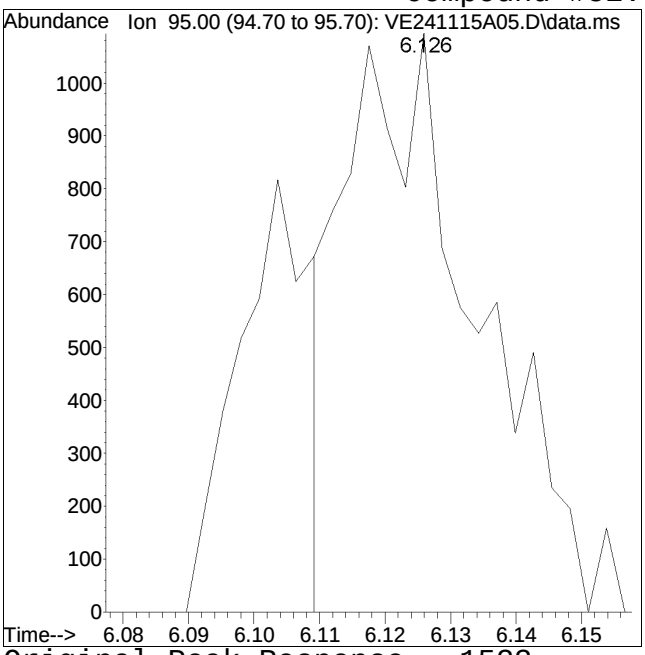
Manual Peak Response = 3853 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

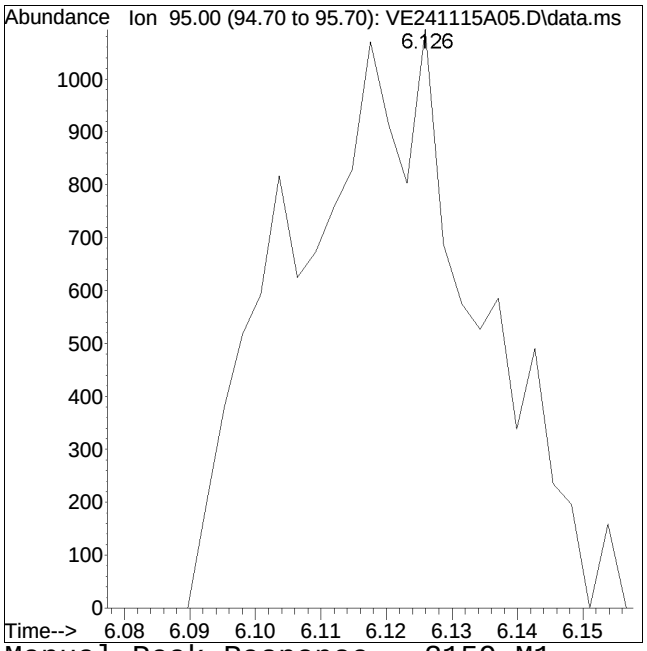
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #52: Trichloroethene



Original Peak Response = 1523



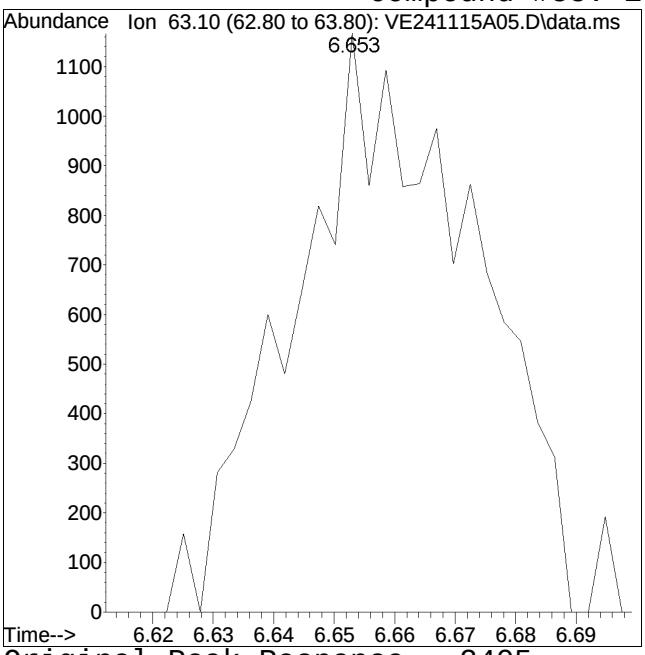
Manual Peak Response = 2159 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

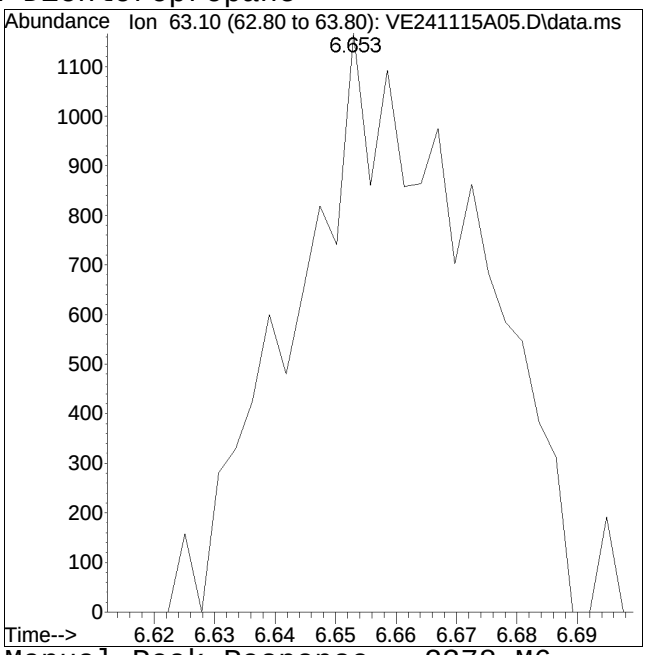
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #55: 1,2-Dichloropropane



Original Peak Response = 2405



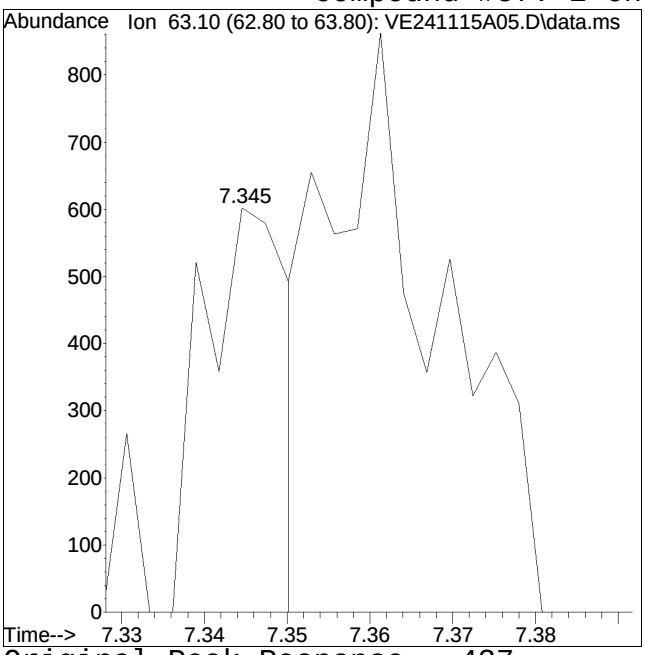
Manual Peak Response = 2378 M6

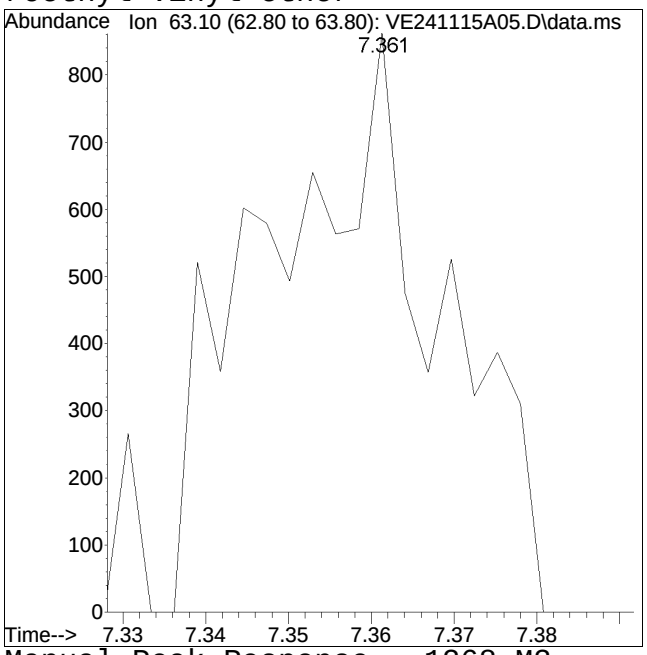
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #57: 2-Chloroethyl vinyl ether





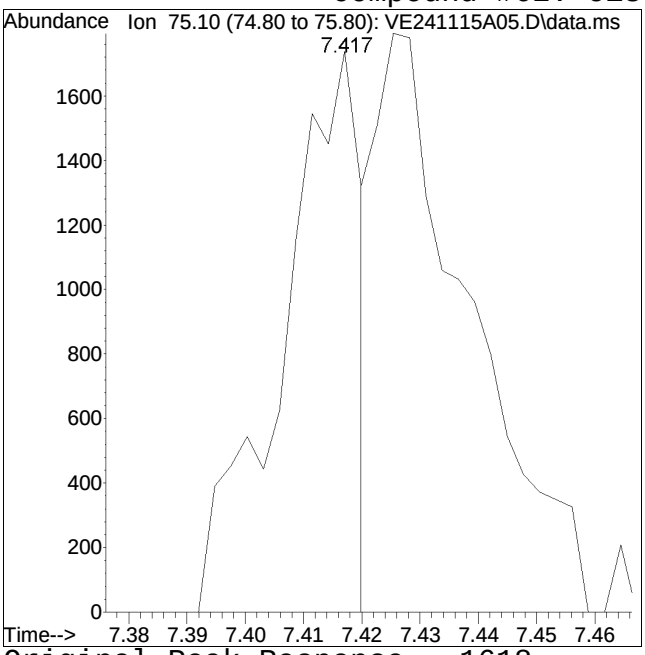
Original Peak Response = 427 Manual Peak Response = 1268 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

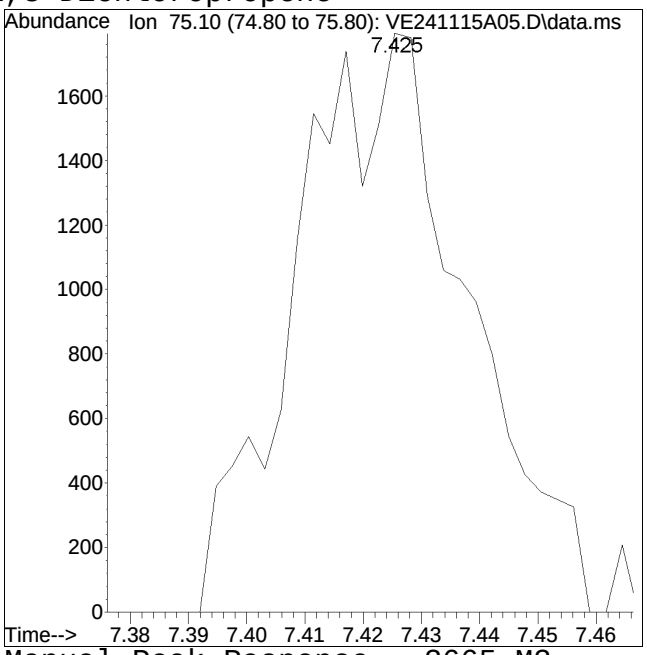
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #62: cis-1,3-Dichloropropene



Original Peak Response = 1618



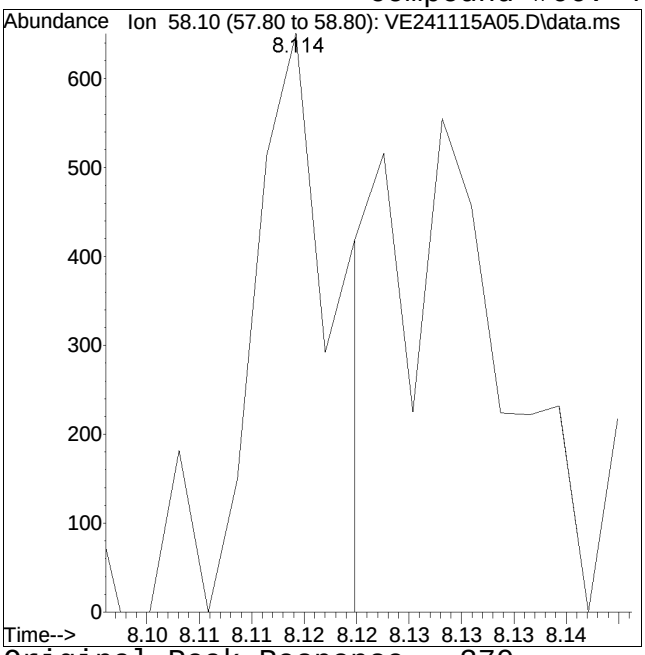
Manual Peak Response = 3665 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

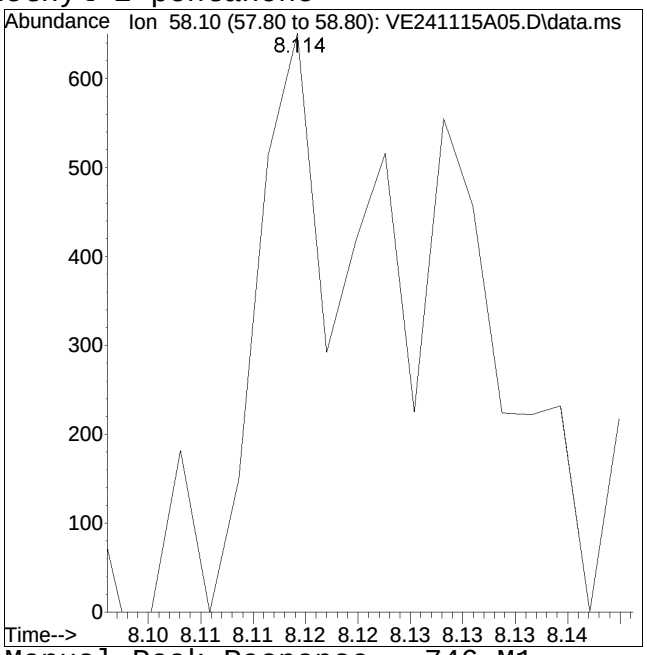
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 370



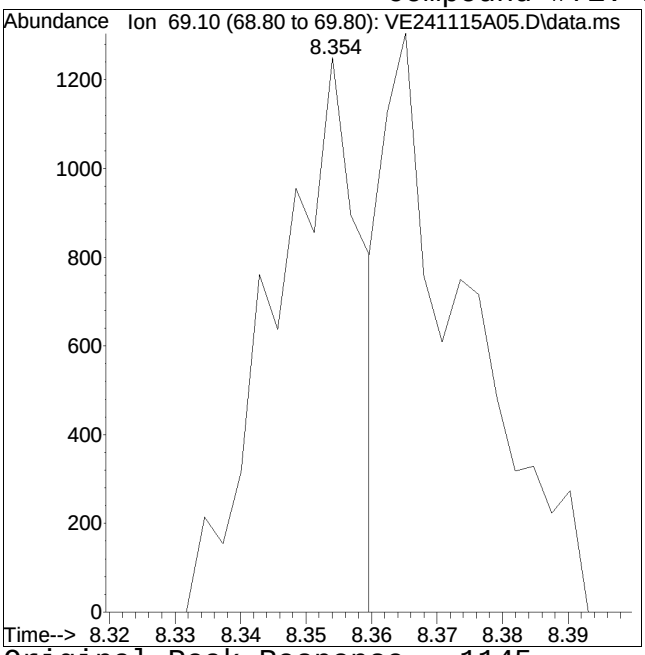
Manual Peak Response = 746 M1

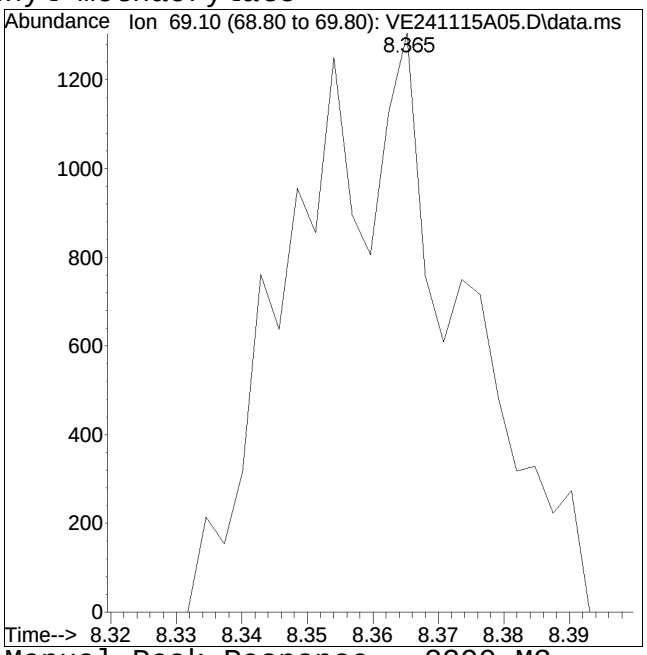
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #71: Ethyl methacrylate





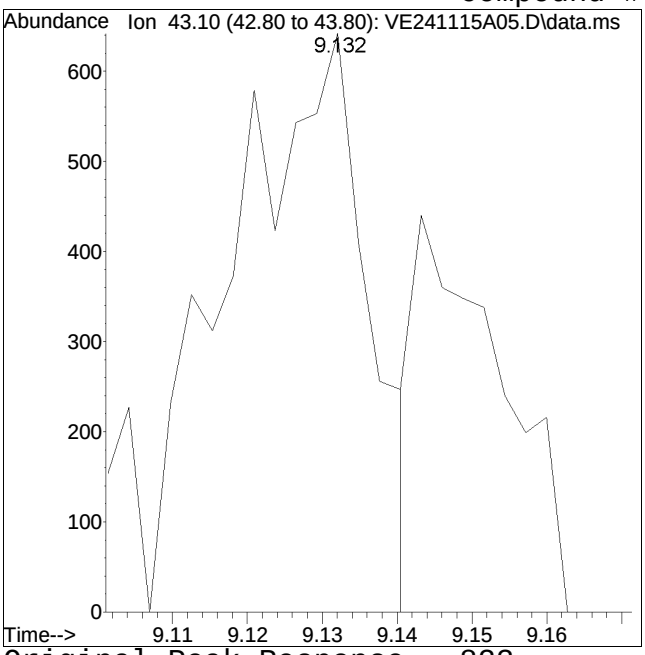
Original Peak Response = 1145 Manual Peak Response = 2299 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

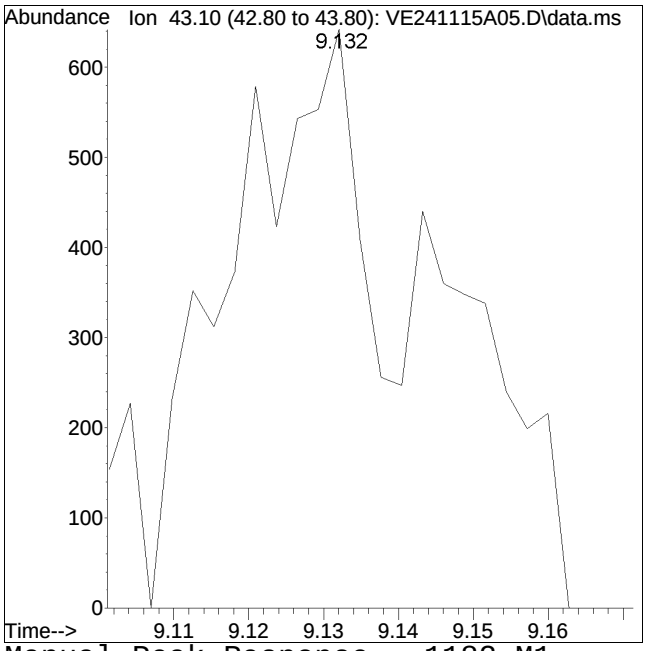
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #77: 2-Hexanone



Original Peak Response = 823



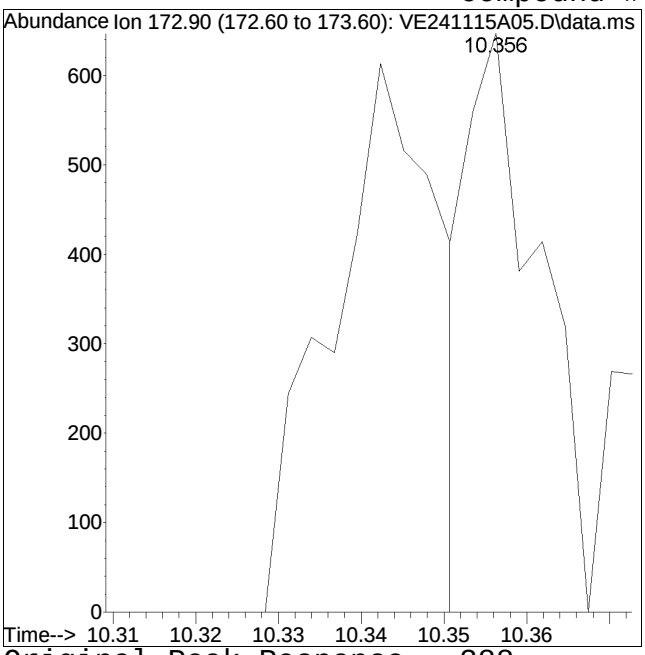
Manual Peak Response = 1182 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

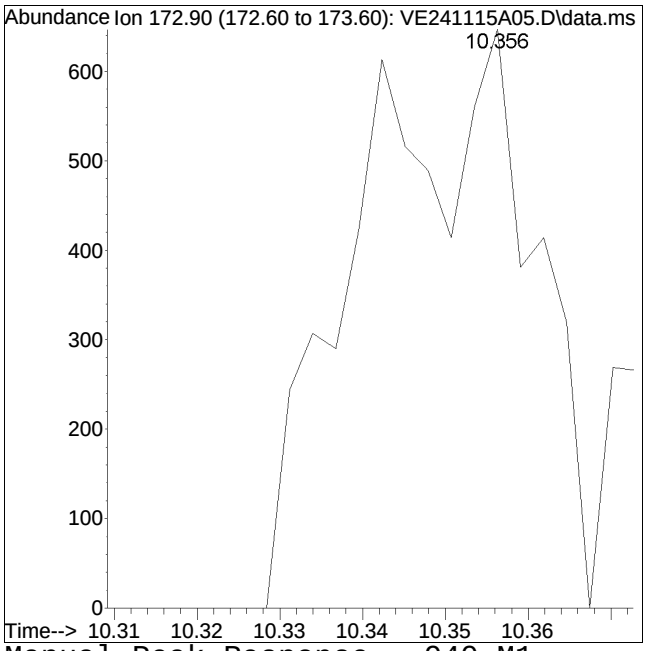
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #85: Bromoform



Original Peak Response = 388



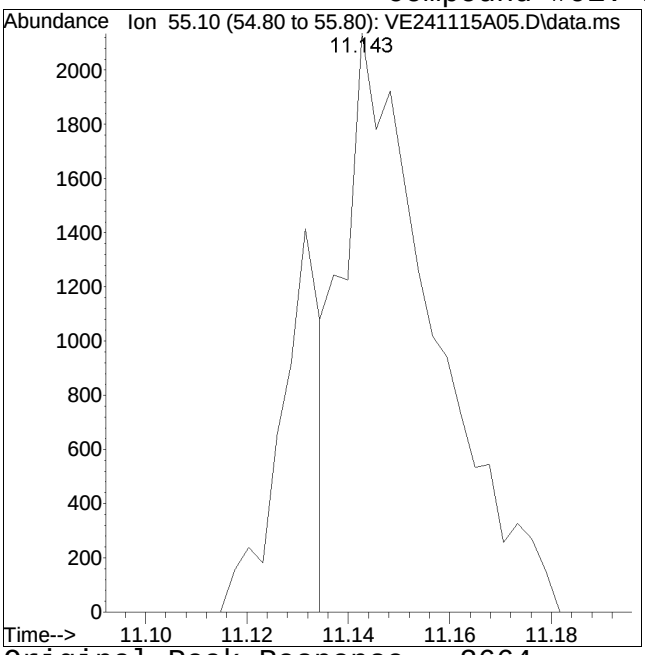
Manual Peak Response = 940 M1

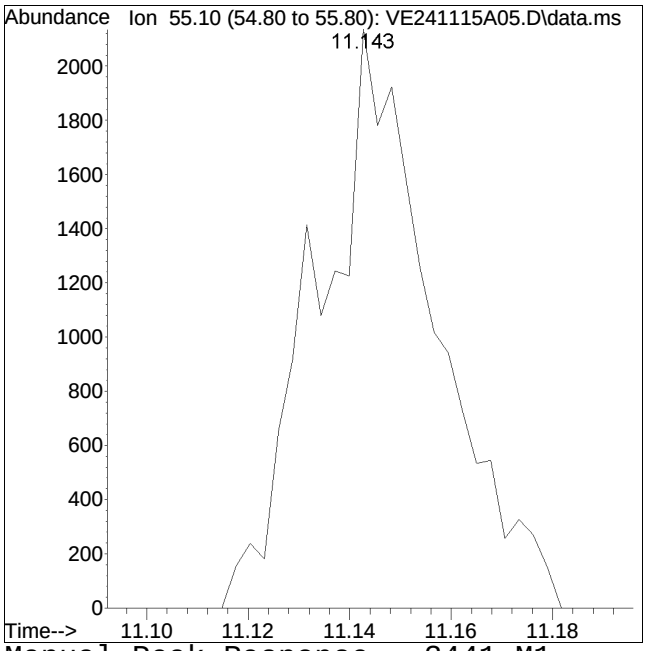
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #91: 1,4-Dichlorobutane



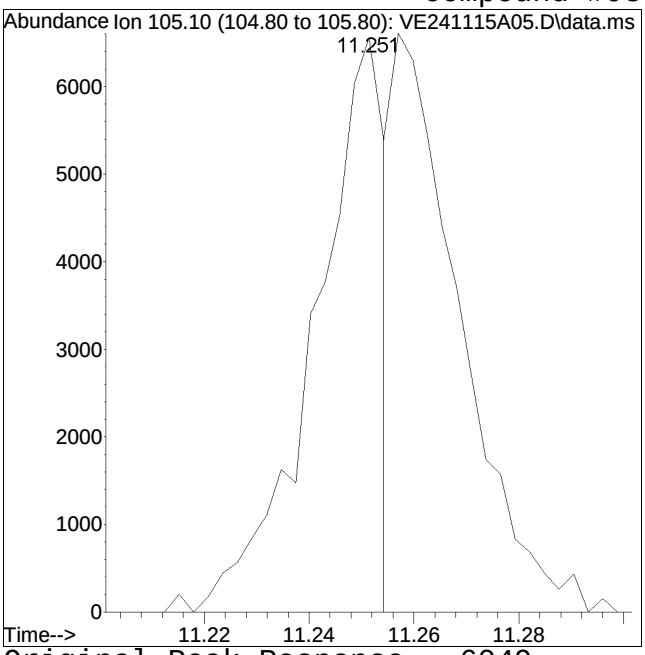


Original Peak Response = 2664 Manual Peak Response = 3441 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

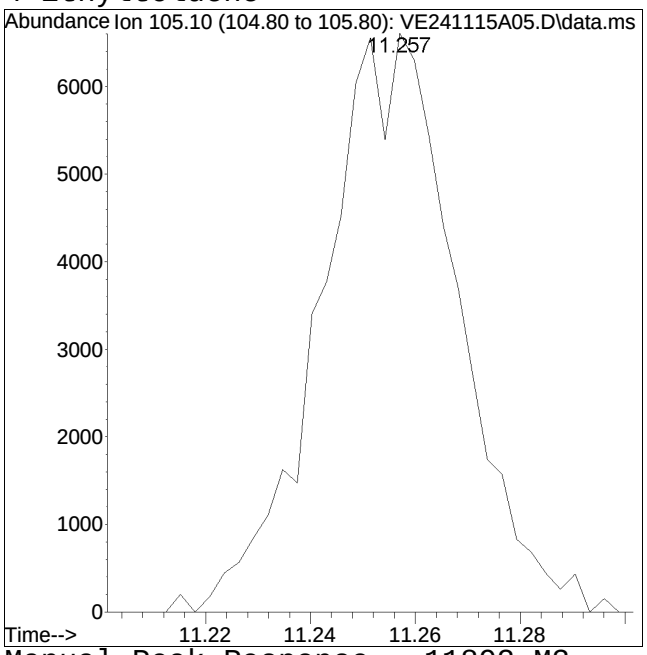
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #93: 4-Ethyltoluene



Original Peak Response = 6049



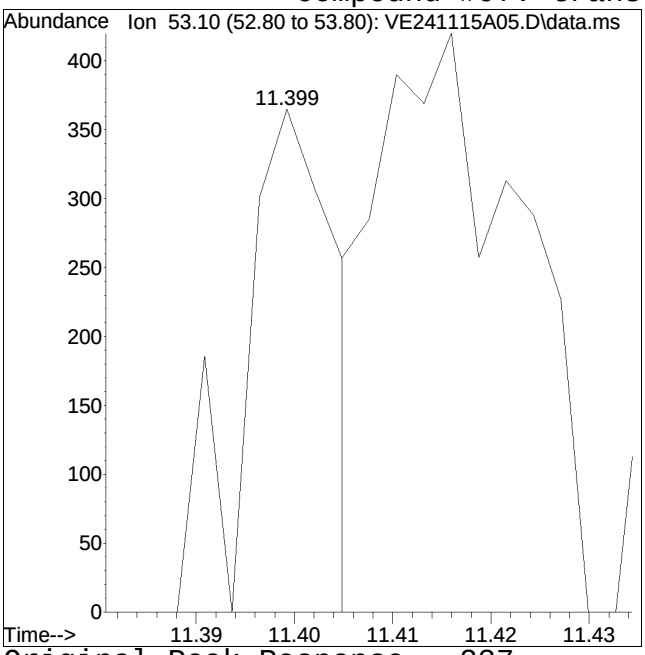
Manual Peak Response = 11892 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

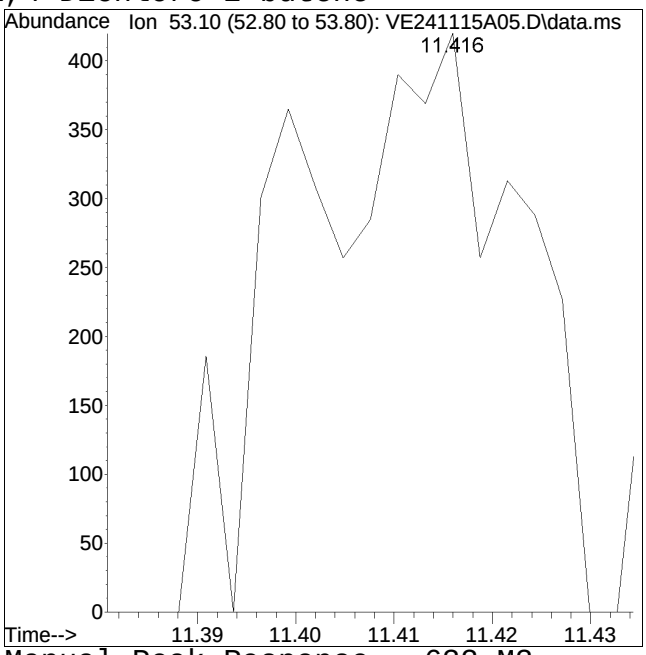
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #97: trans-1,4-Dichloro-2-butene



Original Peak Response = 237



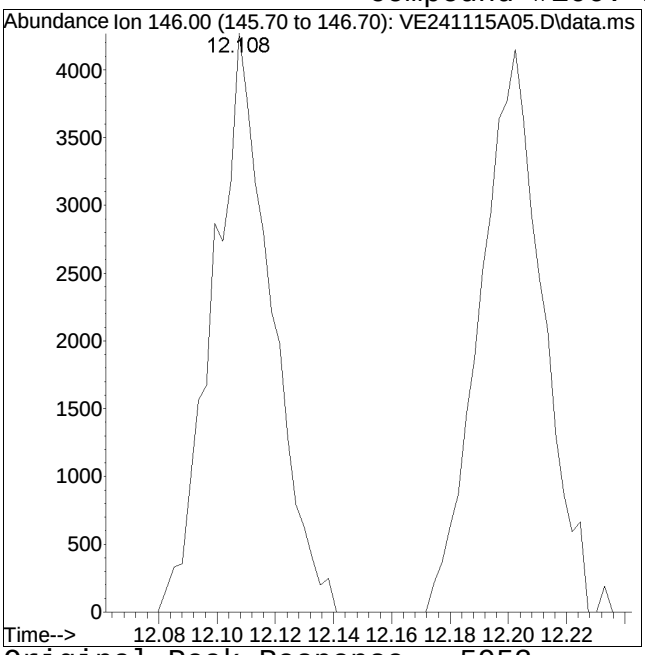
Manual Peak Response = 632 M3

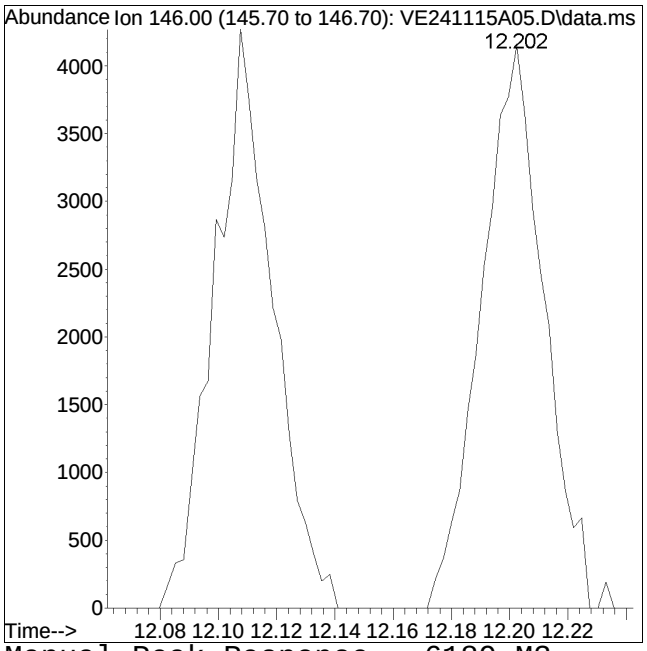
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #106: 1,4-Dichlorobenzene





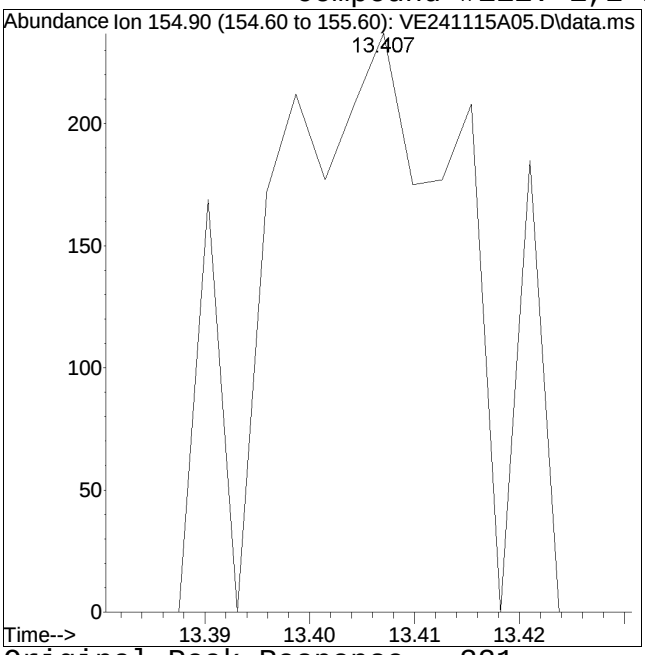
Original Peak Response = 5953 Manual Peak Response = 6189 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

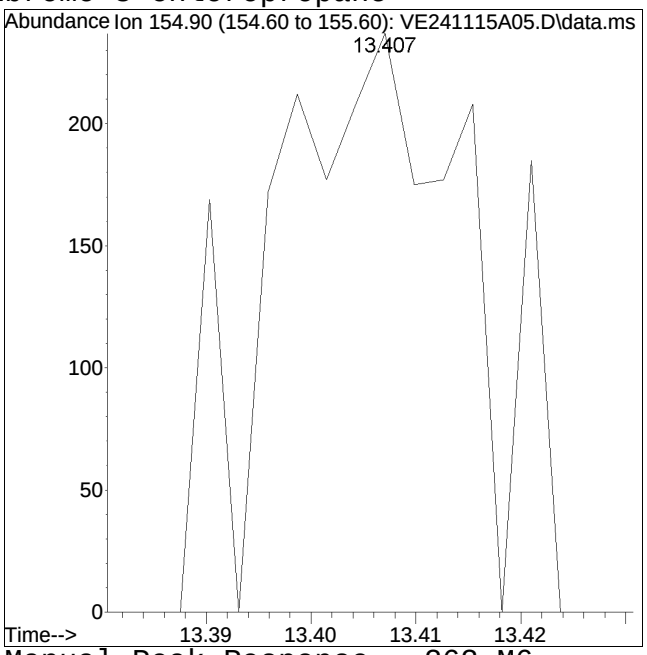
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #111: 1,2-Dibromo-3-chloropropane



Original Peak Response = 321



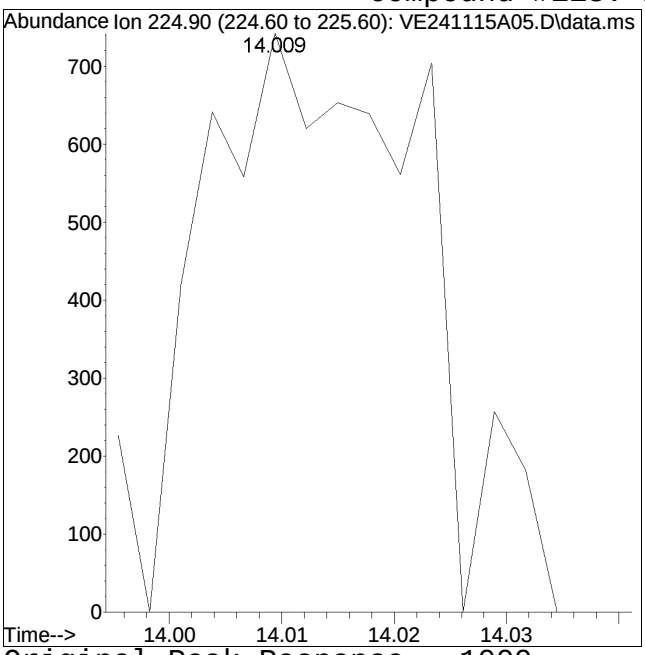
Manual Peak Response = 262 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

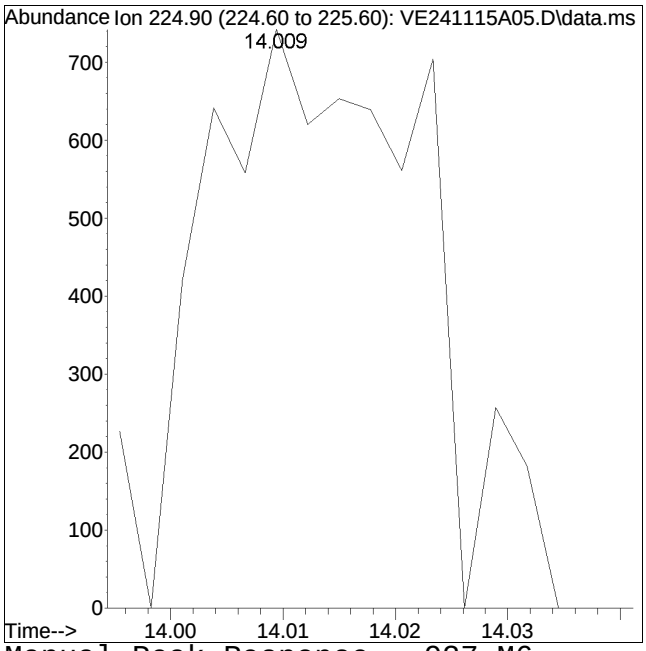
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #113: Hexachlorobutadiene



Original Peak Response = 1000



Manual Peak Response = 927 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	256026	10.000 ug/L	0.00
Standard Area 1 = 258108			Recovery = 99.19%		
63) Chlorobenzene-d5	9.472	117	185763	10.000 ug/L	0.00
Standard Area 1 = 187202			Recovery = 99.23%		
84) 1,4-Dichlorobenzene-d4	12.185	152	96026	10.000 ug/L	0.00
Standard Area 1 = 99398			Recovery = 96.61%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.130	113	59695	10.169 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.69%		
47) 1,2-Dichloroethane-d4	5.657	65	70752	10.186 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.86%		
64) Toluene-d8	7.626	98	254300	10.038 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%		
88) 4-Bromofluorobenzene	10.972	95	88843	10.070 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.70%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.586	85	11074M1	1.936 ug/L	
3) Chloromethane	1.773	50	11816	2.091 ug/L	98
4) Vinyl chloride	1.848	62	12457	2.068 ug/L	98
5) Bromomethane	2.155	94	9363	2.215 ug/L	99
6) Chloroethane	2.277	64	8982	2.060 ug/L	94
7) Trichlorofluoromethane	2.408	101	17374M1	1.977 ug/L	
8) Ethyl ether	2.696	74	5084	1.871 ug/L #	85
10) 1,1-Dichloroethene	2.894	96	8698	1.944 ug/L	98
11) Carbon disulfide	2.922	76	26426	1.966 ug/L	96
12) Freon-113	2.936	101	9774M3	2.071 ug/L	
13) Iodomethane	3.028	142	6670	1.623 ug/L #	71
14) Acrolein	3.209	56	1060M3	1.940 ug/L	
15) Methylene chloride	3.443	84	11789	2.110 ug/L	81
17) Acetone	3.474	43	2497M1	2.271 ug/L	
18) trans-1,2-Dichloroethene	3.594	96	9751	1.957 ug/L	95
19) Methyl acetate	3.599	43	5071	2.065 ug/L #	89
21) Methyl tert-butyl ether	3.694	73	25513M3	1.915 ug/L	
22) tert-Butyl alcohol	3.780	59	3342M3	9.954 ug/L	
24) Diisopropyl ether	4.054	45	32368	1.937 ug/L #	47
25) 1,1-Dichloroethane	4.176	63	19984M1	2.006 ug/L	
26) Halothane	4.229	117	7472M3	1.944 ug/L	

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.227	53	2753M1	2.043	ug/L		
28) Ethyl tert-butyl ether	4.397	59	33443M3	1.910	ug/L		
29) Vinyl acetate	4.405	43	20622M4	1.783	ug/L		
30) cis-1,2-Dichloroethene	4.695	96	11552M1	2.031	ug/L		
31) 2,2-Dichloropropane	4.801	77	15245M3	1.940	ug/L		
33) Bromochloromethane	4.888	128	5263M1	2.031	ug/L		
34) Cyclohexane	4.885	56	19799	1.955	ug/L		84
35) Chloroform	4.955	83	18840M1	2.016	ug/L		
36) Ethyl acetate	5.063	43	7327	1.877	ug/L	#	83
37) Carbon tetrachloride	5.094	117	12781	1.886	ug/L	#	88
38) Tetrahydrofuran	5.105	42	2201M4	2.034	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	16092M1	1.950	ug/L		
42) 2-Butanone	5.247	43	3359M1	2.143	ug/L		
43) 1,1-Dichloropropene	5.272	75	14047	1.943	ug/L		93
45) Benzene	5.523	78	45474	1.997	ug/L		94
46) tert-Amyl methyl ether	5.635	73	27949	1.907	ug/L		94
48) 1,2-Dichloroethane	5.727	62	14546	2.009	ug/L		98
51) Methyl cyclohexane	6.109	83	19776	1.950	ug/L		85
52) Trichloroethene	6.117	95	11194	2.073	ug/L	#	66
54) Dibromomethane	6.561	93	6367	2.064	ug/L		88
55) 1,2-Dichloropropane	6.658	63	11698	2.022	ug/L		92
57) 2-Chloroethyl vinyl ether	7.353	63	6799	1.998	ug/L	#	50
58) Bromodichloromethane	6.736	83	14455M3	1.925	ug/L		
61) 1,4-Dioxane	6.940	88	14952	395.551	ug/L	#	48
62) cis-1,3-Dichloropropene	7.422	75	16731	1.931	ug/L		93
65) Toluene	7.685	92	29523	2.022	ug/L		96
66) 4-Methyl-2-pentanone	8.117	58	2699	1.759	ug/L	#	86
67) Tetrachloroethene	8.134	166	11806	2.012	ug/L		96
69) trans-1,3-Dichloropropene	8.175	75	14271	1.974	ug/L		81
71) Ethyl methacrylate	8.359	69	10301	1.868	ug/L	#	31
72) 1,1,2-Trichloroethane	8.357	83	7675	2.000	ug/L	#	68
73) Chlorodibromomethane	8.569	129	9302	1.807	ug/L		91
74) 1,3-Dichloropropane	8.680	76	15628	1.973	ug/L		99
75) 1,2-Dibromoethane	8.839	107	9122	2.007	ug/L		91
77) 2-Hexanone	9.121	43	4482M1	1.819	ug/L		
78) Chlorobenzene	9.489	112	31340	2.020	ug/L	#	72
79) Ethylbenzene	9.528	91	55099	1.975	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.567	131	9997	1.941	ug/L		97
81) p/m Xylene	9.720	106	42351	3.944	ug/L		96
82) o Xylene	10.261	106	40753	3.892	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.325	104	67127	3.797	ug/L		95
85) Bromoform	10.353	173	4894	1.724	ug/L		92
87) Isopropylbenzene	10.646	105	56921	2.007	ug/L		98
89) Bromobenzene	11.078	156	12488	1.972	ug/L		93
90) n-Propylbenzene	11.129	91	63590	1.976	ug/L		95
91) 1,4-Dichlorobutane	11.148	55	15291	2.029	ug/L		95
92) 1,1,2,2-Tetrachloroethane	11.221	83	11075	2.022	ug/L		91
93) 4-Ethyltoluene	11.254	105	53675	2.010	ug/L		99
94) 2-Chlorotoluene	11.293	91	39435M1	2.110	ug/L		
95) 1,3,5-Trimethylbenzene	11.352	105	48038	2.033	ug/L		99
96) 1,2,3-Trichloropropane	11.354	75	9313	2.154	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.407	53	3006	1.921	ug/L	#	76
98) 4-Chlorotoluene	11.480	91	39181	2.027	ug/L		96
99) tert-Butylbenzene	11.697	119	39544	2.028	ug/L		95
102) 1,2,4-Trimethylbenzene	11.776	105	46922	1.981	ug/L		93
103) sec-Butylbenzene	11.884	105	58883	1.978	ug/L		99
104) p-Isopropyltoluene	12.043	119	48404	1.963	ug/L		96
105) 1,3-Dichlorobenzene	12.110	146	26025	2.053	ug/L		98
106) 1,4-Dichlorobenzene	12.199	146	26571	2.090	ug/L		98
107) p-Diethylbenzene	12.417	119	27521	1.907	ug/L		93
108) n-Butylbenzene	12.475	91	42501	1.976	ug/L		99
109) 1,2-Dichlorobenzene	12.626	146	24778	2.055	ug/L		100
110) 1,2,4,5-Tetramethylben...	13.212	119	43702	1.890	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.410	155	1208	1.649	ug/L		81
112) 1,3,5-Trichlorobenzene	13.438	180	17051	1.982	ug/L		93
113) Hexachlorobutadiene	14.015	225	4783	2.083	ug/L		88
114) 1,2,4-Trichlorobenzene	14.034	180	15202	2.024	ug/L		99
115) Naphthalene	14.327	128	32576	1.847	ug/L		100
116) 1,2,3-Trichlorobenzene	14.492	180	13117	1.957	ug/L		92

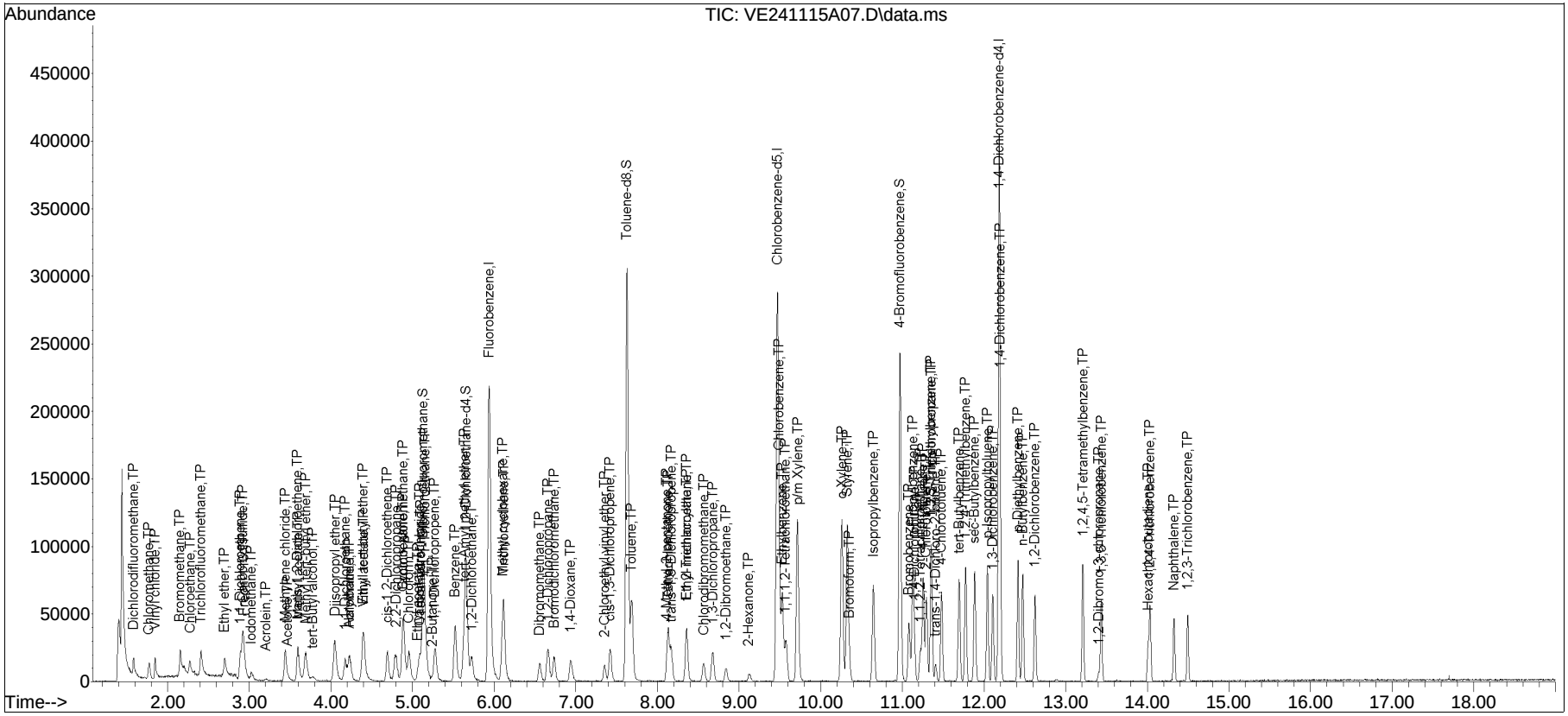
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

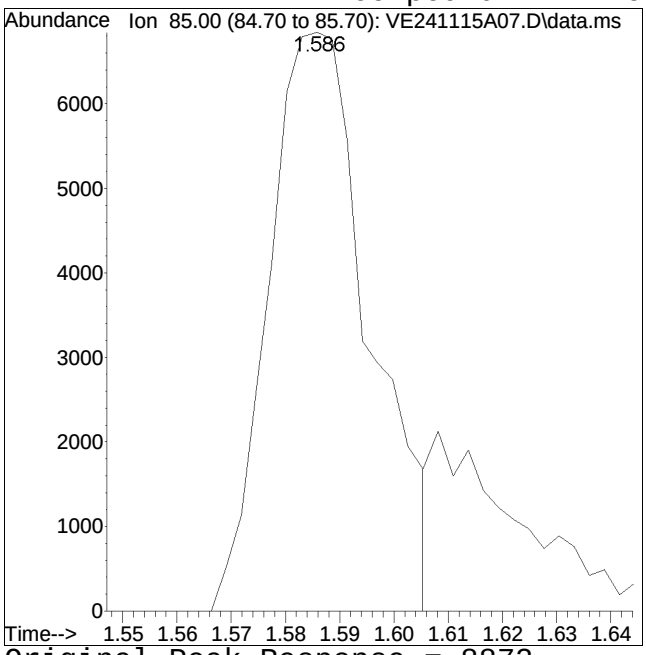
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

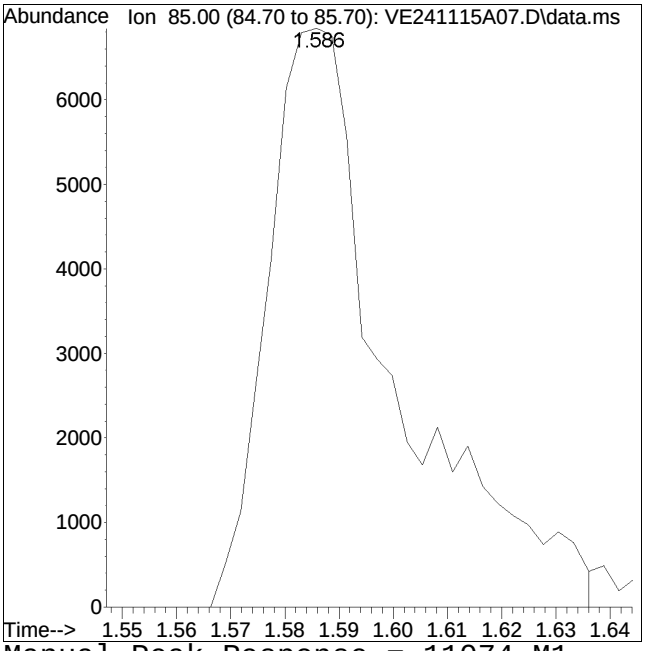


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #2: Dichlorodifluoromethane



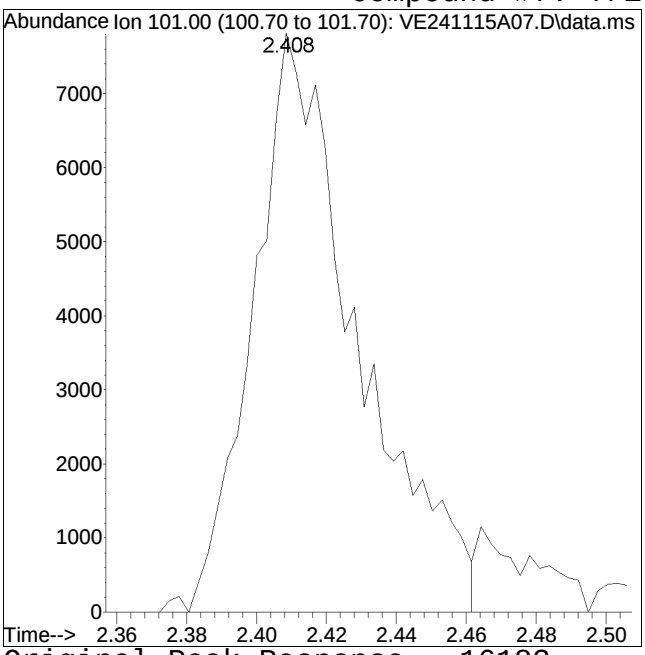


Original Peak Response = 8872 Manual Peak Response = 11074 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

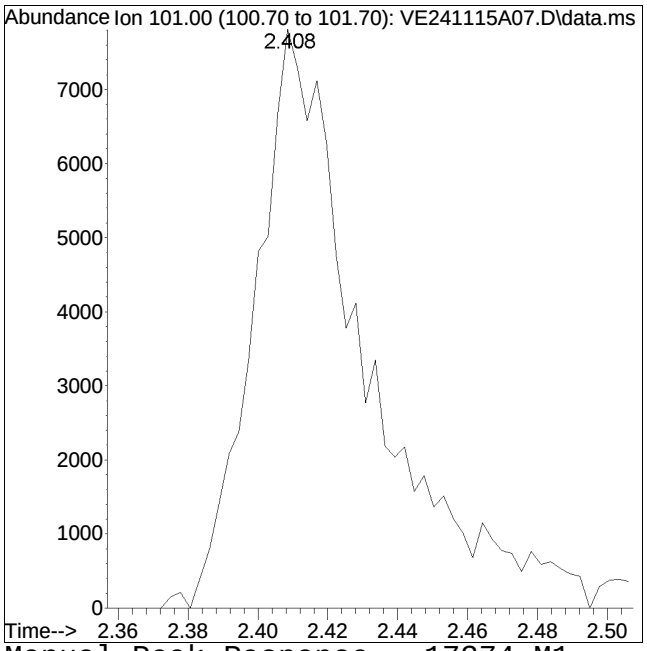
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #7: Trichlorofluoromethane



Original Peak Response = 16183



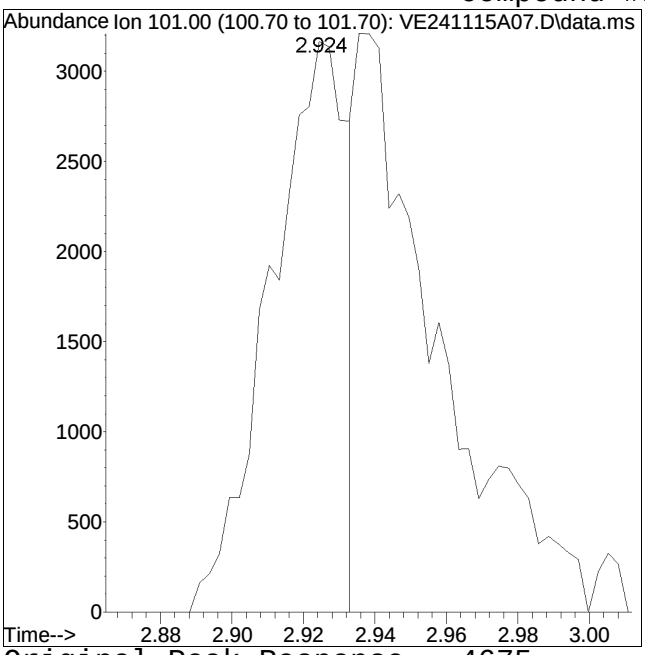
Manual Peak Response = 17374 M1

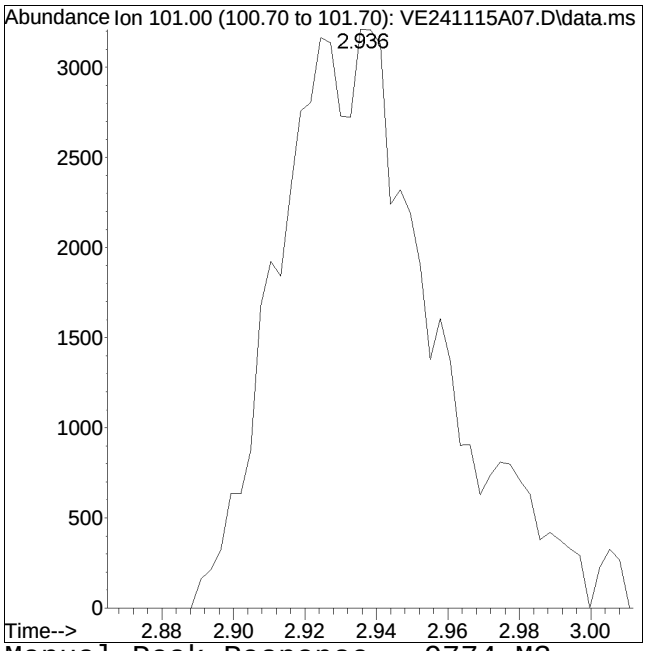
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #12: Freon-113





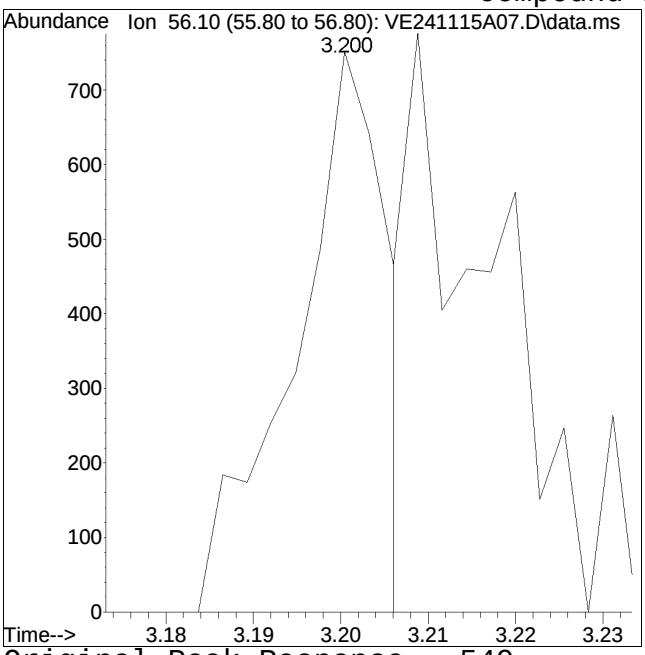
Original Peak Response = 4675 Manual Peak Response = 9774 M3

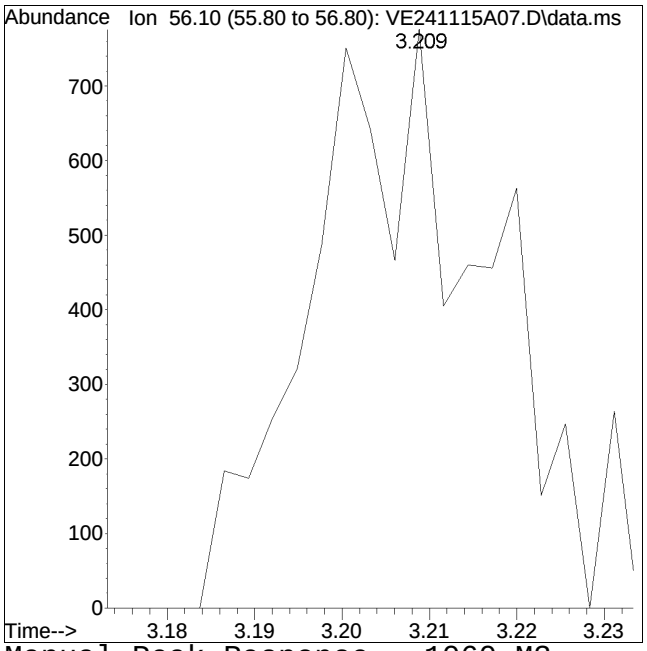
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #14: Acrolein





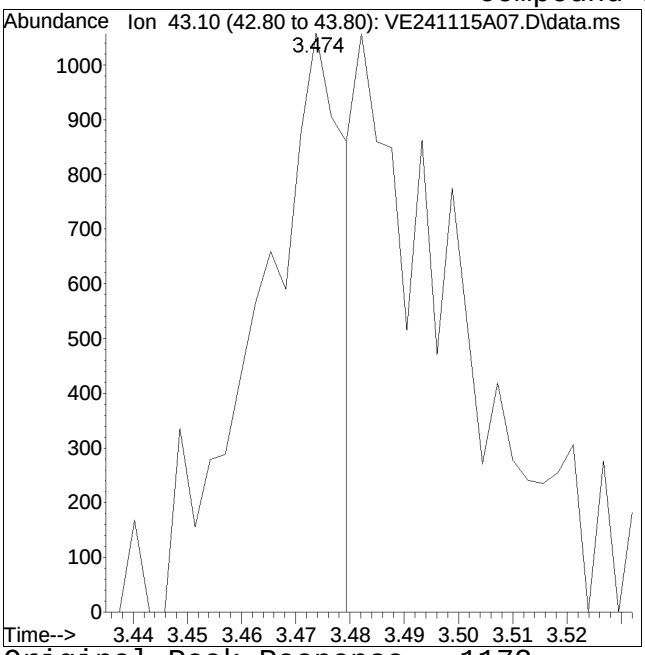
Original Peak Response = 549 Manual Peak Response = 1060 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

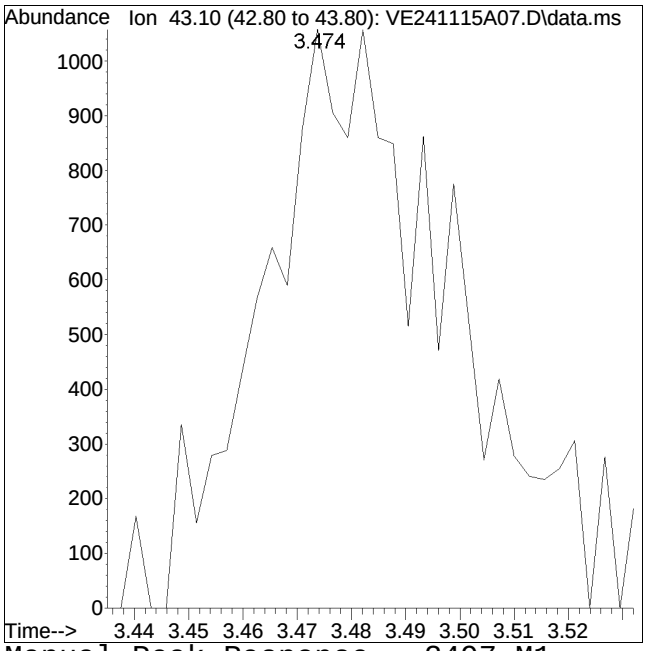
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #17: Acetone



Original Peak Response = 1172



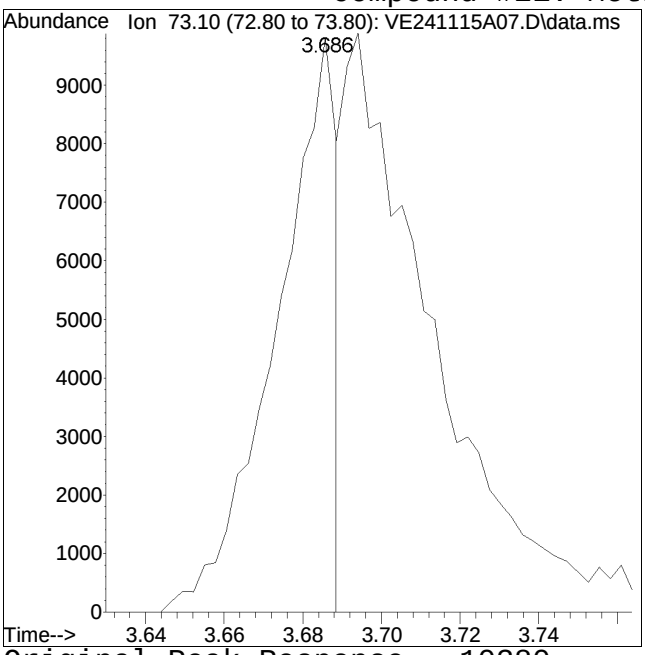
Manual Peak Response = 2497 M1

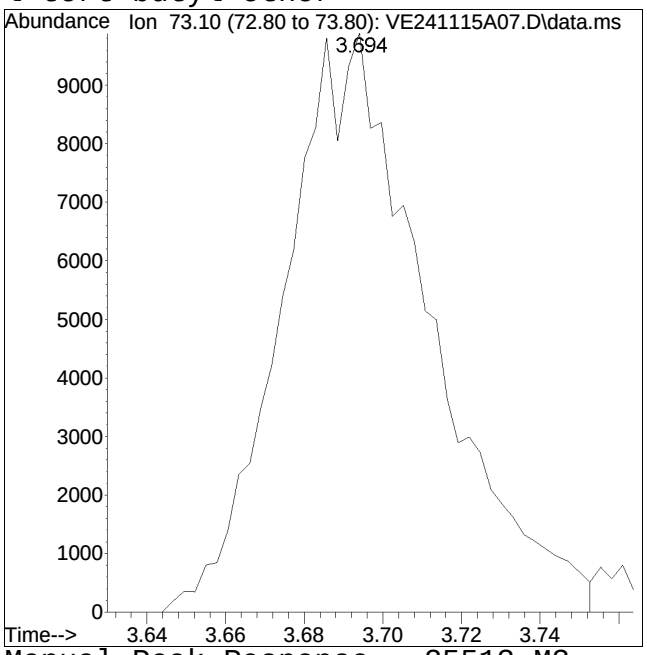
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #21: Methyl tert-butyl ether



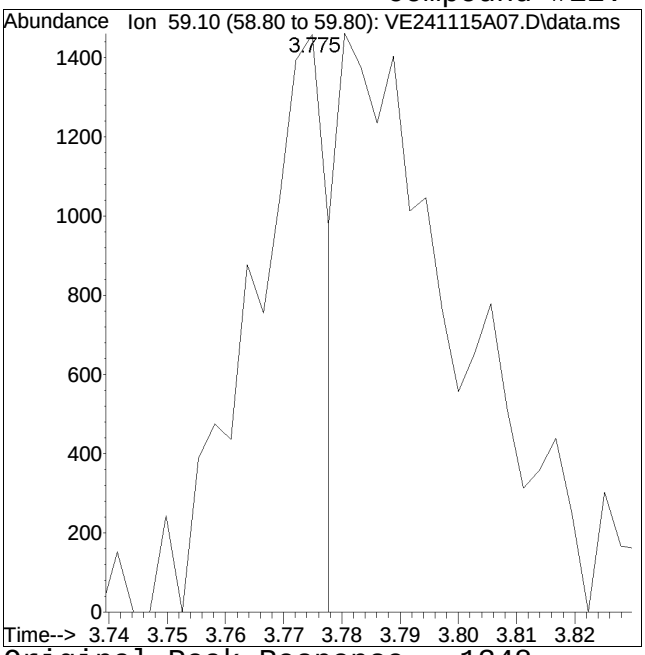


Original Peak Response = 10380 Manual Peak Response = 25513 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

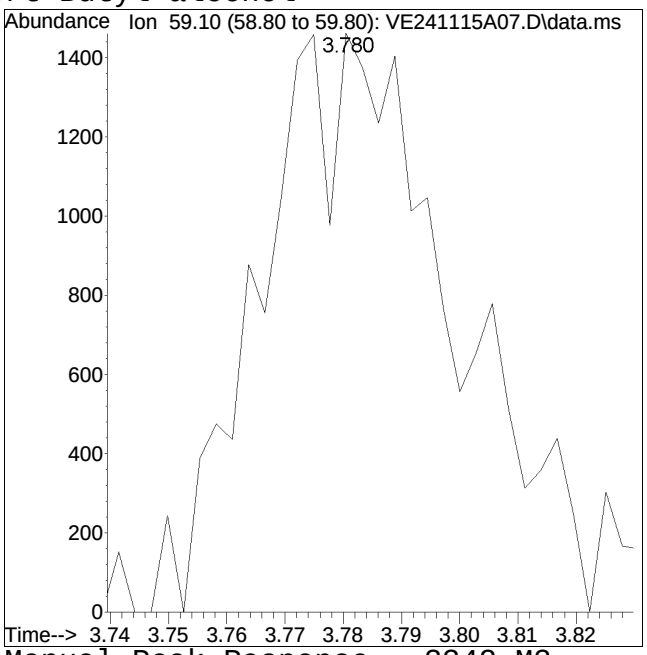
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #22: tert-Butyl alcohol



Original Peak Response = 1348



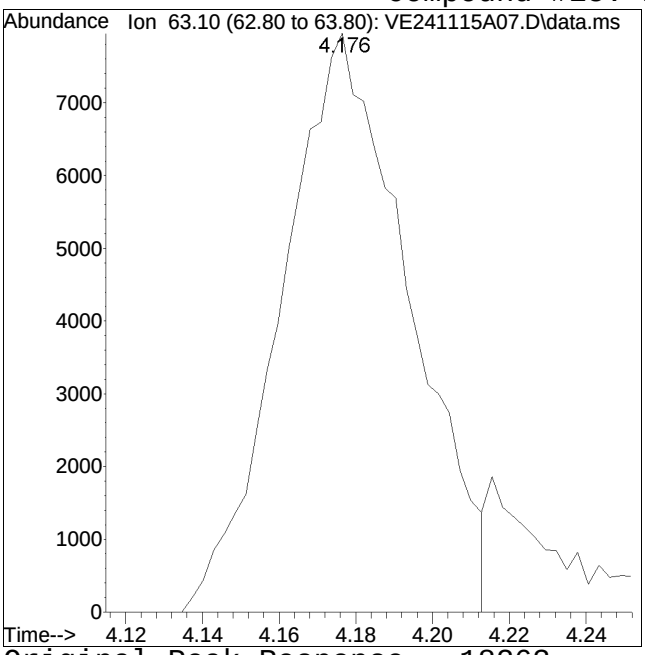
Manual Peak Response = 3342 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

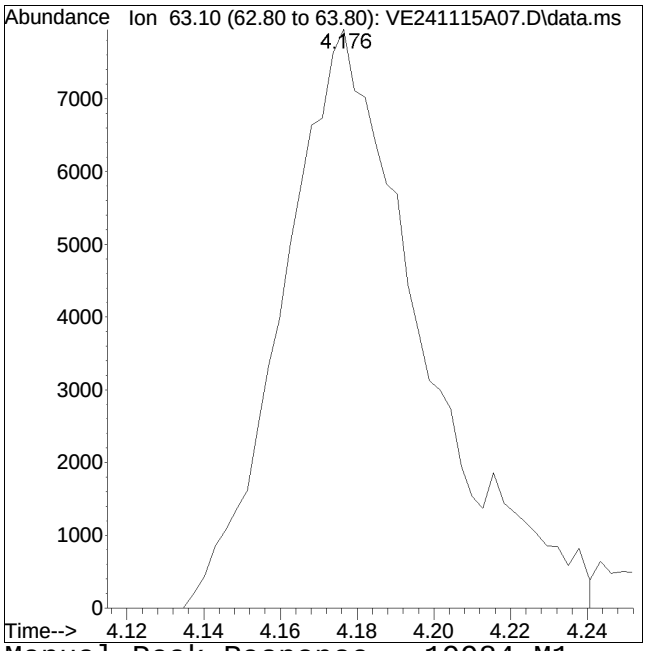
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #25: 1,1-Dichloroethane



Original Peak Response = 18263



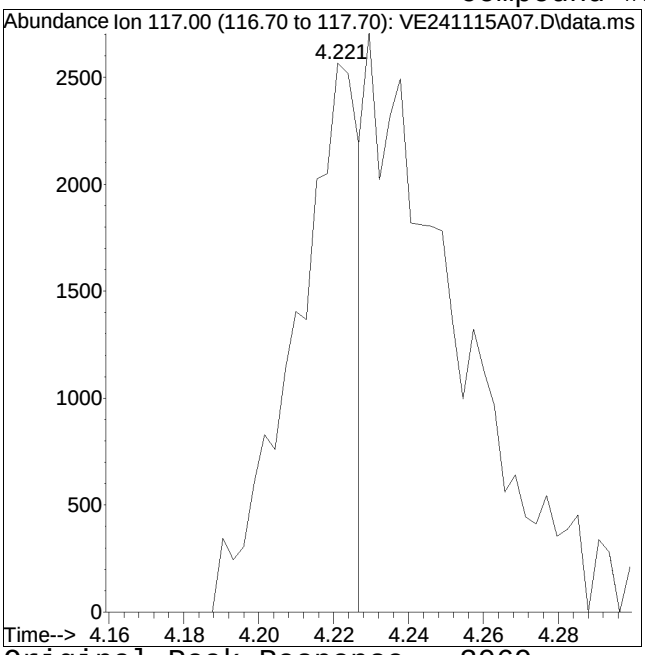
Manual Peak Response = 19984 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

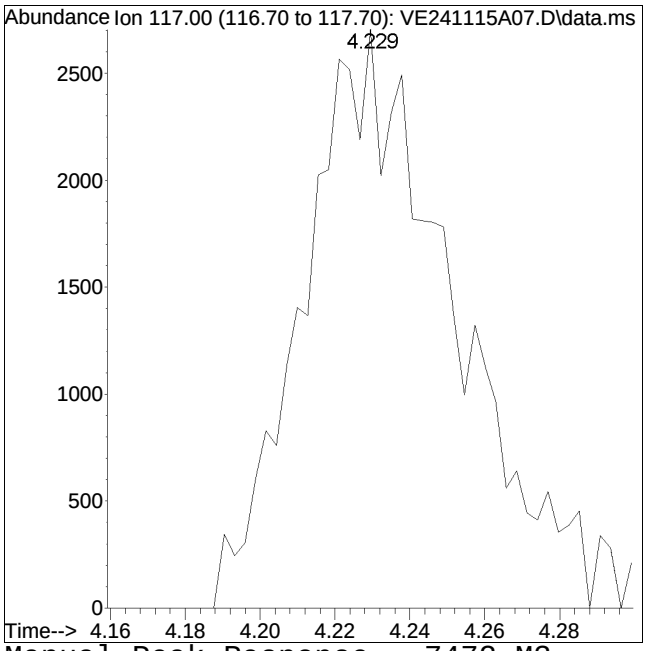
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #26: Halothane



Original Peak Response = 3069



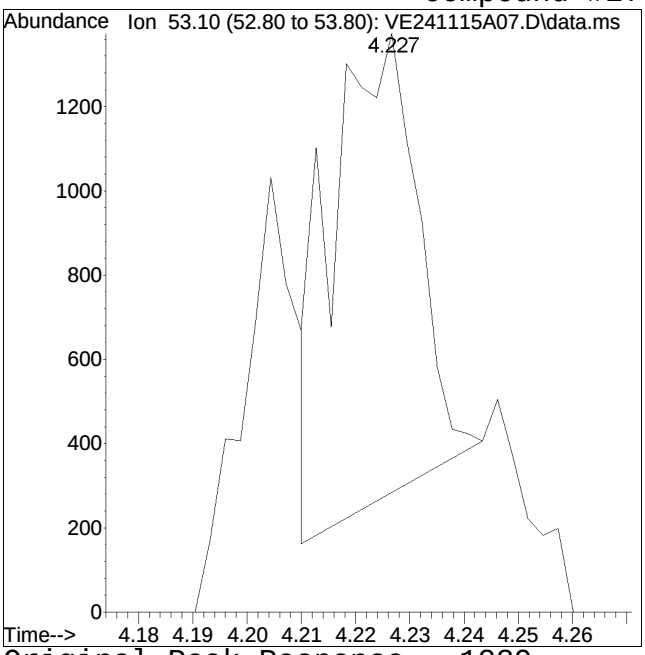
Manual Peak Response = 7472 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

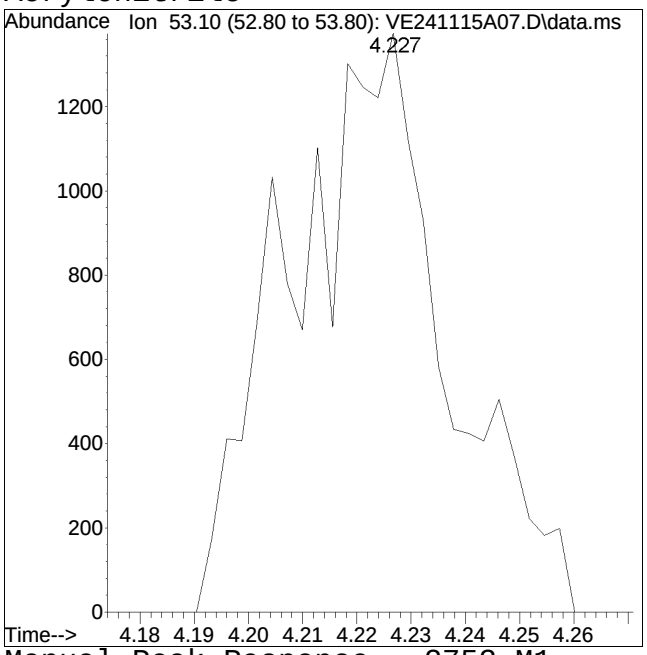
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #27: Acrylonitrile



Original Peak Response = 1239



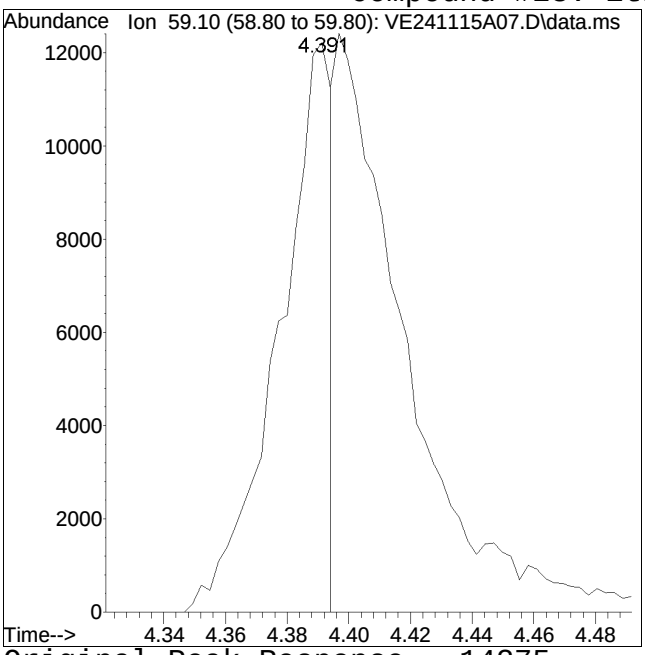
Manual Peak Response = 2753 M1

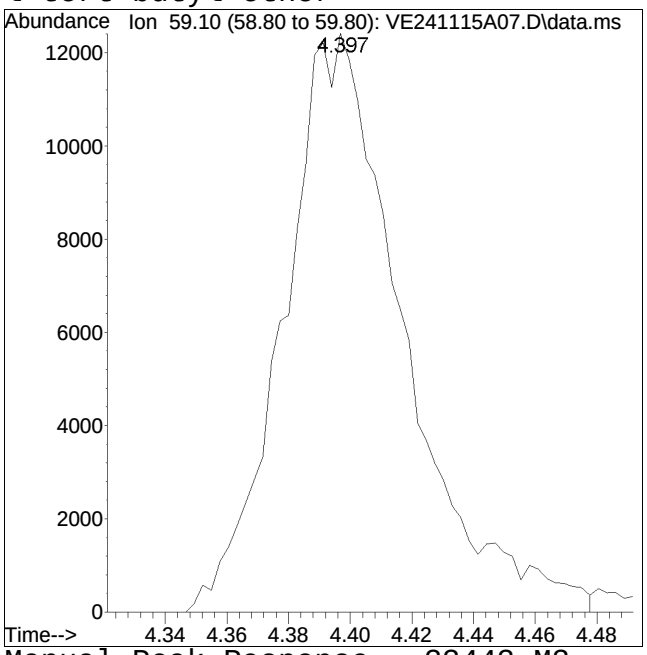
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #28: Ethyl tert-butyl ether





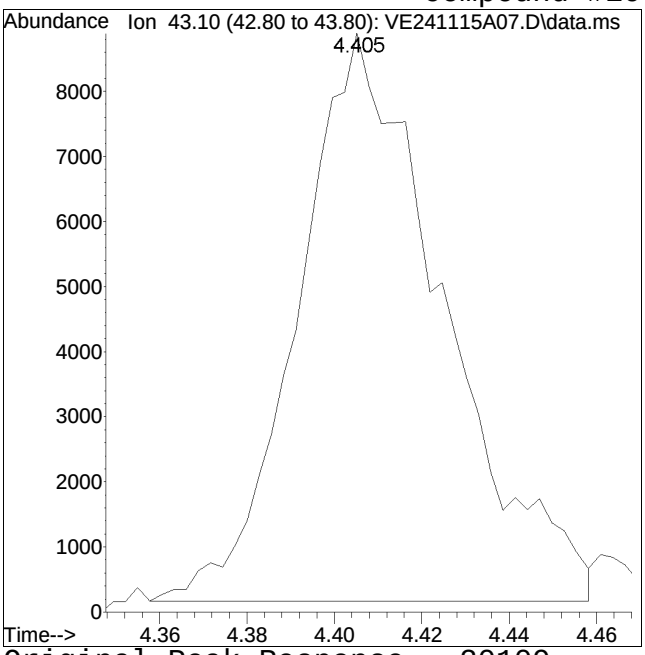
Original Peak Response = 14275 Manual Peak Response = 33443 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

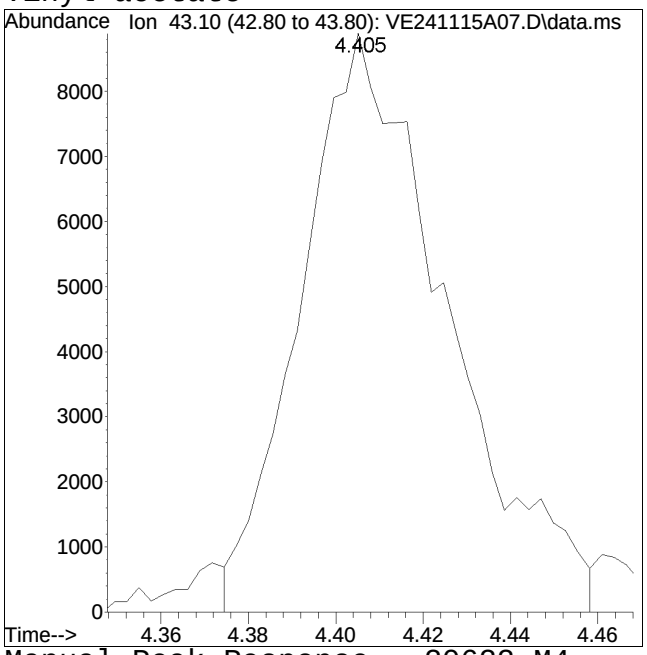
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #29: Vinyl acetate



Original Peak Response = 20109



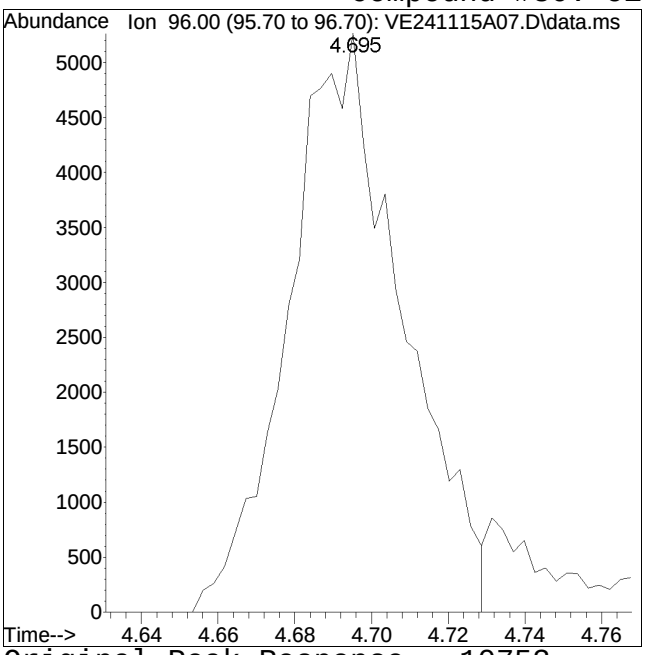
Manual Peak Response = 20622 M4

M4 = Poor automated baseline construction.

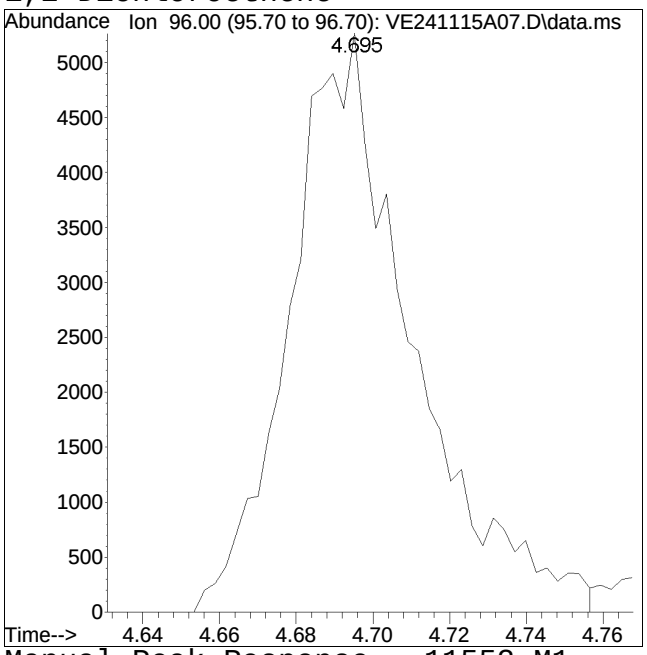
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 10753



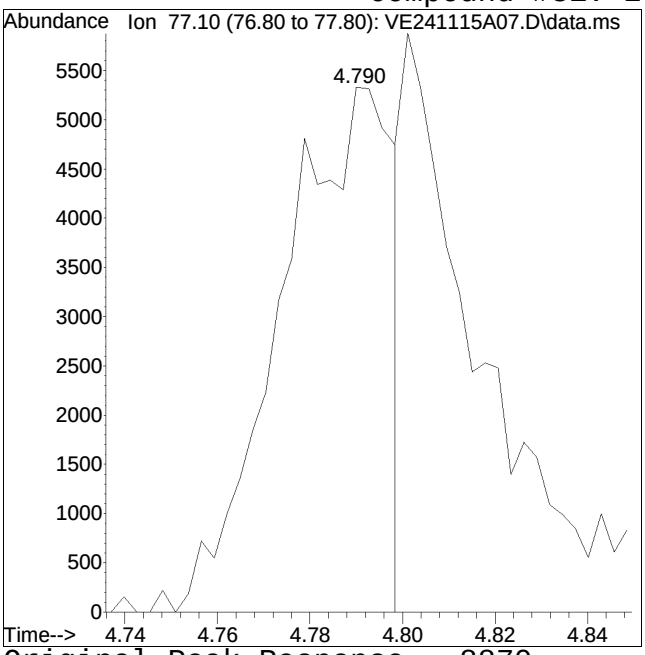
Manual Peak Response = 11552 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

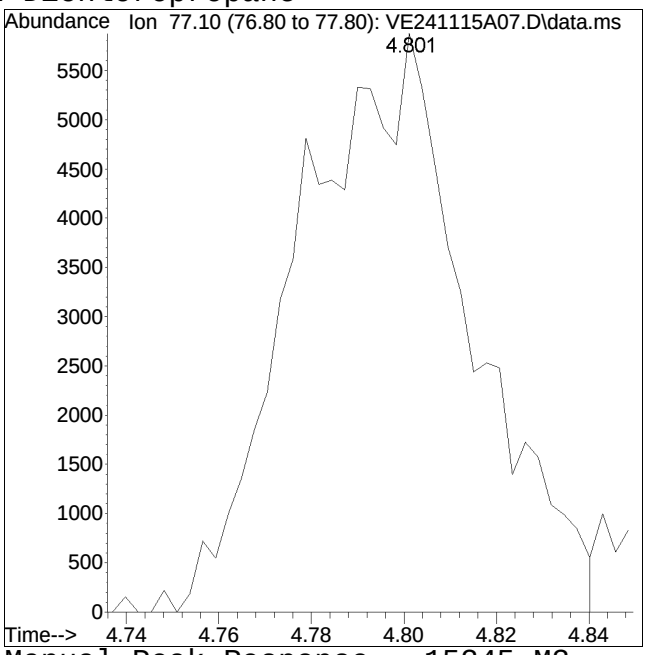
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #31: 2,2-Dichloropropane



Original Peak Response = 8870



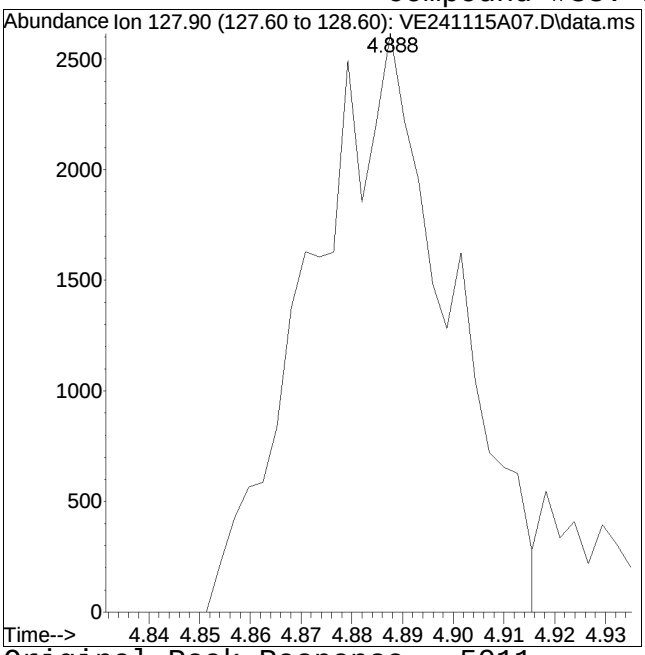
Manual Peak Response = 15245 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

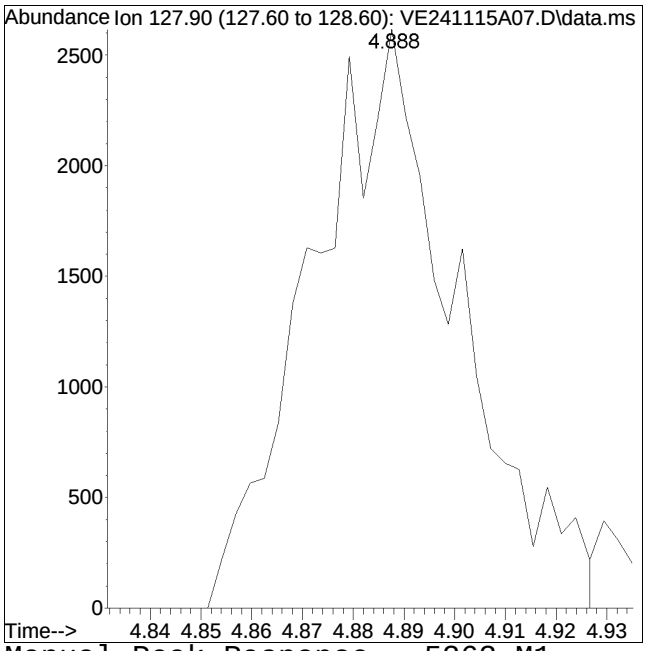
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #33: Bromochloromethane



Original Peak Response = 5011



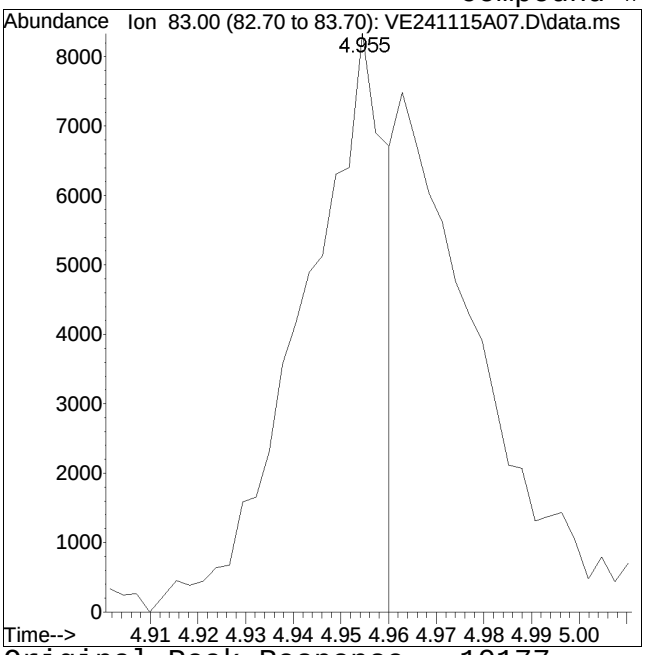
Manual Peak Response = 5263 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

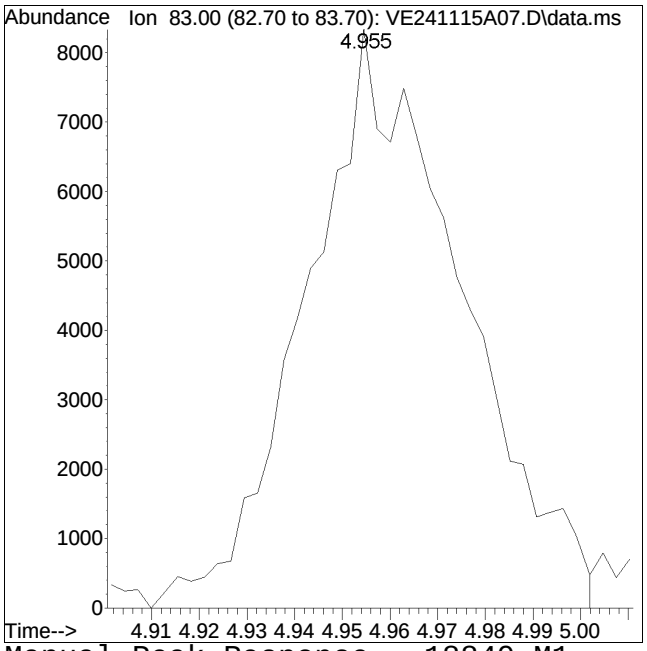
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #35: Chloroform



Original Peak Response = 10177



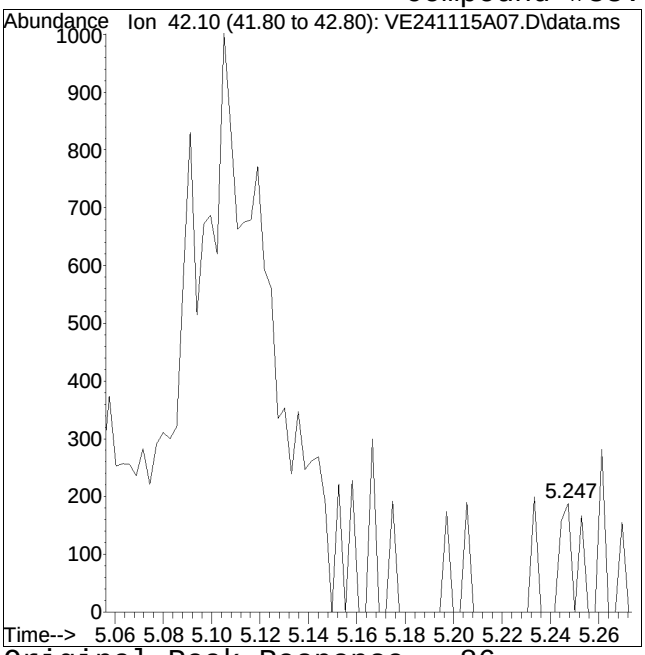
Manual Peak Response = 18840 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

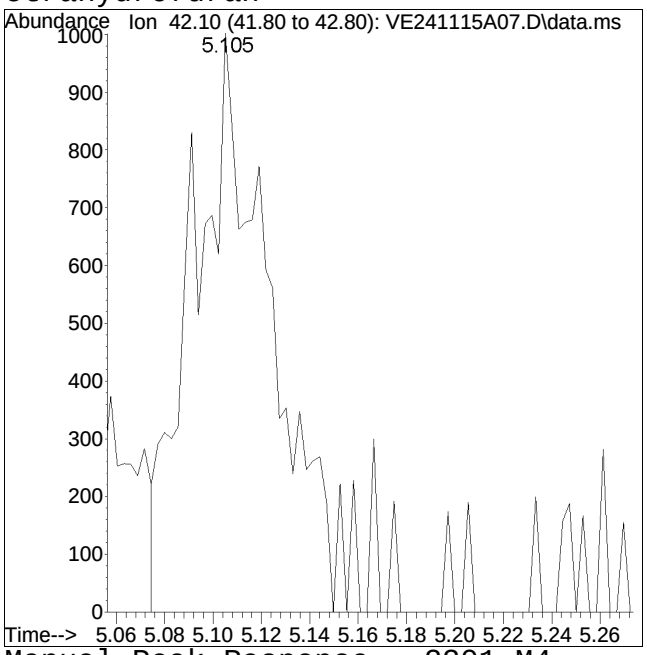
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



Original Peak Response = 86



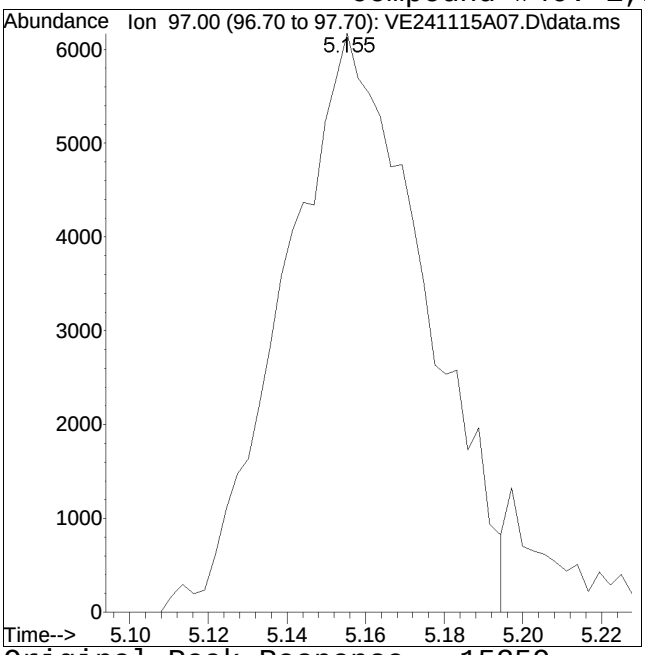
Manual Peak Response = 2201 M4

M4 = Poor automated baseline construction.

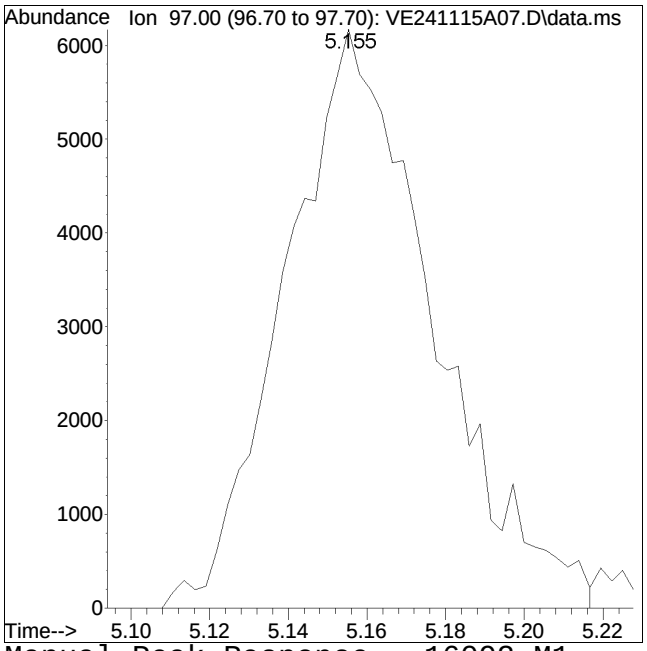
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 15259



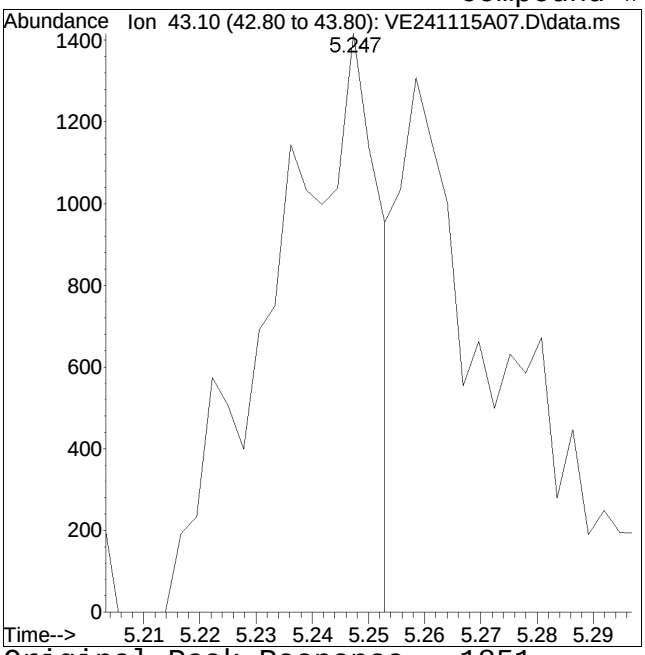
Manual Peak Response = 16092 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

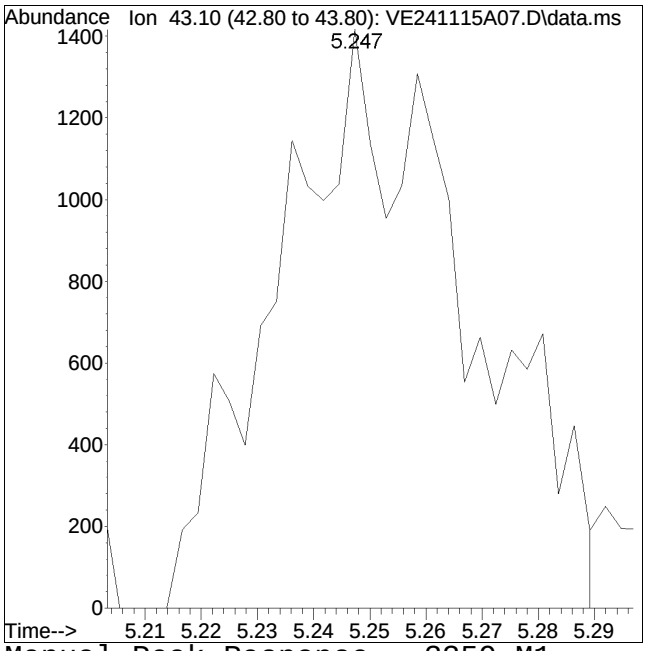
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone



Original Peak Response = 1851



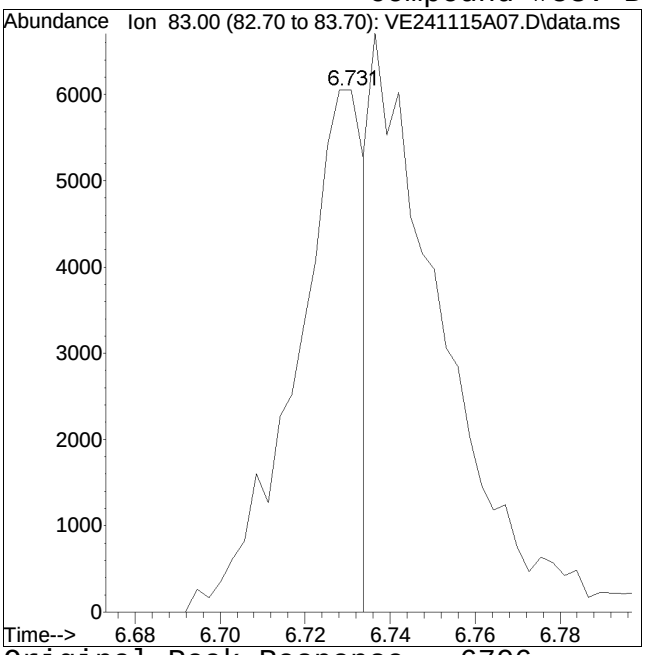
Manual Peak Response = 3359 M1

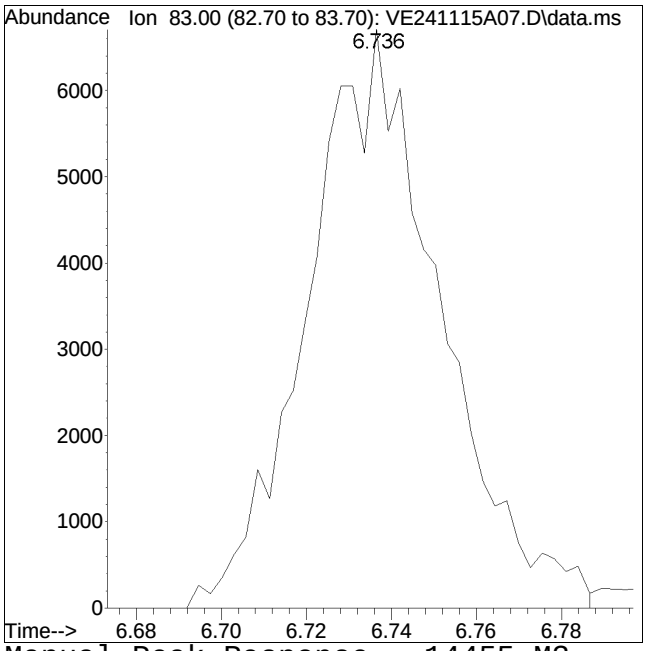
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #58: Bromodichloromethane



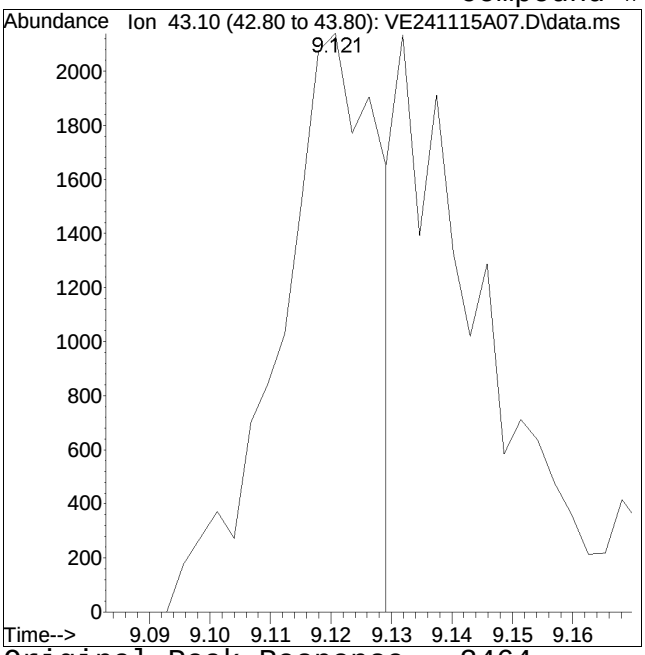


Original Peak Response = 6706 Manual Peak Response = 14455 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

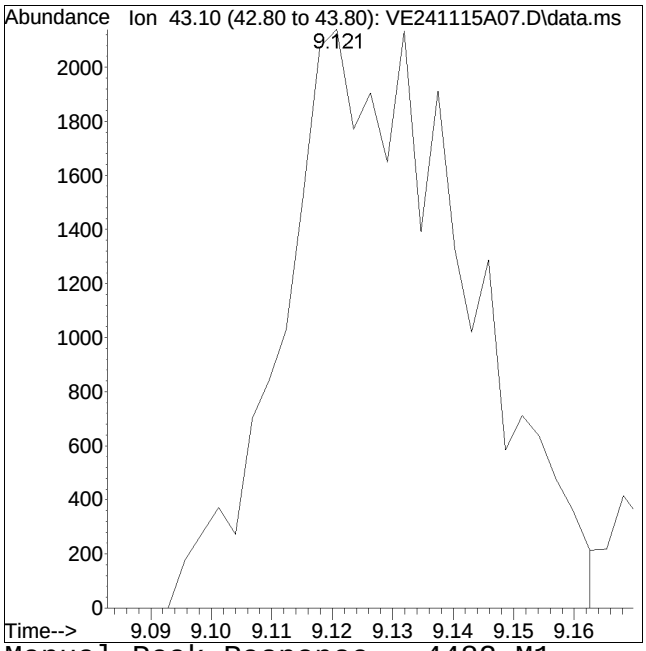
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #77: 2-Hexanone



Original Peak Response = 2464



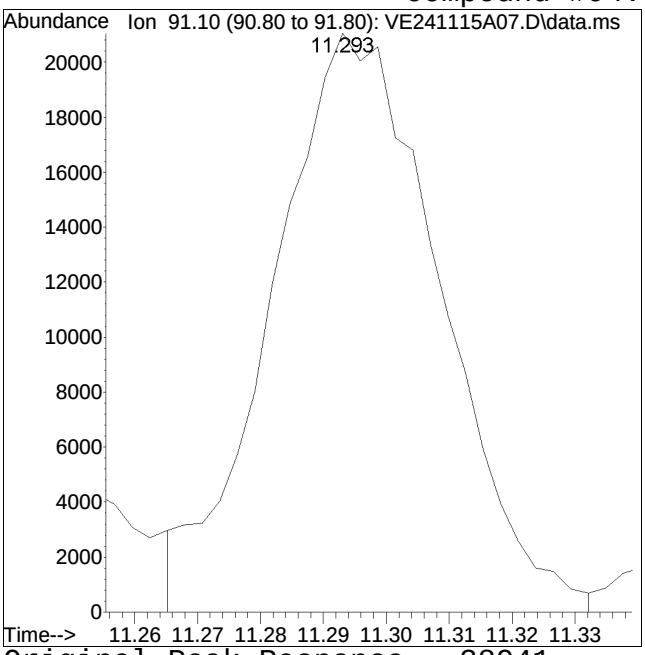
Manual Peak Response = 4482 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

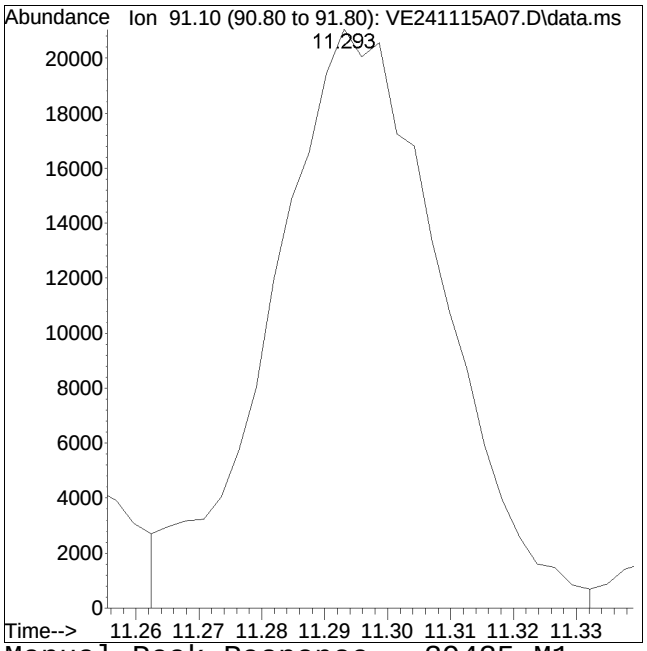
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 38941



Manual Peak Response = 39435 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	258108	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	187202	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.186	152	99398	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	60835	10.279	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.79%			
47) 1,2-Dichloroethane-d4	5.657	65	70004	9.997	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.97%			
64) Toluene-d8	7.632	98	258031	10.107	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.07%			
88) 4-Bromofluorobenzene	10.970	95	90652	9.927	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.27%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	64019	11.101	ug/L	93
3) Chloromethane	1.773	50	60439	10.607	ug/L	96
4) Vinyl chloride	1.848	62	66772	10.997	ug/L	95
5) Bromomethane	2.155	94	42650	10.008	ug/L	93
6) Chloroethane	2.272	64	47018	10.695	ug/L	99
7) Trichlorofluoromethane	2.409	101	98234	11.089	ug/L	98
8) Ethyl ether	2.701	74	27581	10.068	ug/L	88
10) 1,1-Dichloroethene	2.894	96	46566	10.322	ug/L	91
11) Carbon disulfide	2.919	76	144250	10.647	ug/L	95
12) Freon-113	2.930	101	52530M1	11.041	ug/L	
13) Iodomethane	3.025	142	37708	9.104	ug/L #	92
14) Acrolein	3.206	56	5696	10.340	ug/L	91
15) Methylene chloride	3.440	84	57108	10.140	ug/L	81
17) Acetone	3.477	43	10464M1	9.441	ug/L	
18) trans-1,2-Dichloroethene	3.594	96	53278	10.605	ug/L	96
19) Methyl acetate	3.597	43	24558	9.918	ug/L #	82
21) Methyl tert-butyl ether	3.694	73	137376M1	10.230	ug/L	
22) tert-Butyl alcohol	3.778	59	17924	52.958	ug/L #	61
24) Diisopropyl ether	4.051	45	172170	10.218	ug/L #	93
25) 1,1-Dichloroethane	4.177	63	104920	10.448	ug/L	99
26) Halothane	4.227	117	40749	10.518	ug/L	97

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	13811M3	10.166	ug/L		
28) Ethyl tert-butyl ether	4.394	59	176280	9.985	ug/L		97
29) Vinyl acetate	4.402	43	116027	9.948	ug/L	#	95
30) cis-1,2-Dichloroethene	4.692	96	59779	10.424	ug/L		91
31) 2,2-Dichloropropane	4.793	77	83984	10.599	ug/L		87
33) Bromochloromethane	4.882	128	27679	10.594	ug/L	#	80
34) Cyclohexane	4.891	56	110576	10.832	ug/L		82
35) Chloroform	4.960	83	92551	9.823	ug/L		95
36) Ethyl acetate	5.061	43	40904	10.396	ug/L	#	95
37) Carbon tetrachloride	5.091	117	72830	10.659	ug/L	#	90
38) Tetrahydrofuran	5.100	42	10865M1	9.958	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	89281	10.733	ug/L		91
42) 2-Butanone	5.245	43	13986	8.849	ug/L	#	90
43) 1,1-Dichloropropene	5.278	75	77501	10.633	ug/L		94
45) Benzene	5.521	78	236758	10.314	ug/L		94
46) tert-Amyl methyl ether	5.632	73	147912	10.012	ug/L		92
48) 1,2-Dichloroethane	5.727	62	73423	10.057	ug/L		99
51) Methyl cyclohexane	6.109	83	107391	10.505	ug/L		85
52) Trichloroethene	6.120	95	58124	10.679	ug/L		95
54) Dibromomethane	6.555	93	32136	10.331	ug/L		91
55) 1,2-Dichloropropane	6.658	63	60189	10.321	ug/L		96
57) 2-Chloroethyl vinyl ether	7.350	63	35068	10.223	ug/L		90
58) Bromodichloromethane	6.734	83	78987	10.437	ug/L		94
61) 1,4-Dioxane	6.940	88	20444	536.478	ug/L	#	81
62) cis-1,3-Dichloropropene	7.423	75	91786	10.507	ug/L		90
65) Toluene	7.685	92	153656	10.445	ug/L		94
66) 4-Methyl-2-pentanone	8.117	58	14783	9.562	ug/L		85
67) Tetrachloroethene	8.128	166	63558	10.746	ug/L		96
69) trans-1,3-Dichloropropene	8.170	75	77996	10.707	ug/L		85
71) Ethyl methacrylate	8.357	69	57283	10.310	ug/L		94
72) 1,1,2-Trichloroethane	8.357	83	39609	10.245	ug/L		98
73) Chlorodibromomethane	8.566	129	51913	10.008	ug/L		98
74) 1,3-Dichloropropane	8.677	76	81868	10.256	ug/L		98
75) 1,2-Dibromoethane	8.839	107	46445	10.139	ug/L		87
77) 2-Hexanone	9.126	43	24765	9.971	ug/L	#	93
78) Chlorobenzene	9.489	112	161435	10.325	ug/L	#	82
79) Ethylbenzene	9.528	91	295070	10.497	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.575	131	54217	10.444	ug/L		96
81) p/m Xylene	9.712	106	224264	20.724	ug/L		95
82) o Xylene	10.259	106	218078	20.667	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.326	104	357909	20.091	ug/L		95
85) Bromoform	10.356	173	28988	9.867	ug/L		92
87) Isopropylbenzene	10.643	105	300081	10.220	ug/L		97
89) Bromobenzene	11.081	156	68169	10.400	ug/L		99
90) n-Propylbenzene	11.129	91	342490	10.284	ug/L		95
91) 1,4-Dichlorobutane	11.145	55	80033	10.260	ug/L		100
92) 1,1,2,2-Tetrachloroethane	11.218	83	56522	9.971	ug/L		98
93) 4-Ethyltoluene	11.254	105	287656	10.409	ug/L		100
94) 2-Chlorotoluene	11.296	91	198672M1	10.271	ug/L		
95) 1,3,5-Trimethylbenzene	11.352	105	251462	10.283	ug/L		98
96) 1,2,3-Trichloropropane	11.355	75	44509	9.946	ug/L		91
97) trans-1,4-Dichloro-2-b...	11.408	53	15538	9.591	ug/L	#	67
98) 4-Chlorotoluene	11.480	91	205242	10.256	ug/L		98
99) tert-Butylbenzene	11.695	119	209364	10.375	ug/L		94
102) 1,2,4-Trimethylbenzene	11.773	105	251489	10.255	ug/L		96
103) sec-Butylbenzene	11.887	105	317704	10.311	ug/L		100
104) p-Isopropyltoluene	12.041	119	263190	10.309	ug/L		96
105) 1,3-Dichlorobenzene	12.107	146	132538	10.102	ug/L		96
106) 1,4-Dichlorobenzene	12.202	146	132040	10.035	ug/L		99
107) p-Diethylbenzene	12.414	119	154927	10.372	ug/L		97
108) n-Butylbenzene	12.473	91	229472	10.307	ug/L		98
109) 1,2-Dichlorobenzene	12.623	146	123739	9.913	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.209	119	237836	9.939	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.407	155	7272	9.592	ug/L		94
112) 1,3,5-Trichlorobenzene	13.438	180	90630	10.179	ug/L		93
113) Hexachlorobutadiene	14.012	225	25243	10.620	ug/L		93
114) 1,2,4-Trichlorobenzene	14.032	180	78820	10.139	ug/L		98
115) Naphthalene	14.327	128	180798	9.903	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	69443	10.007	ug/L		94

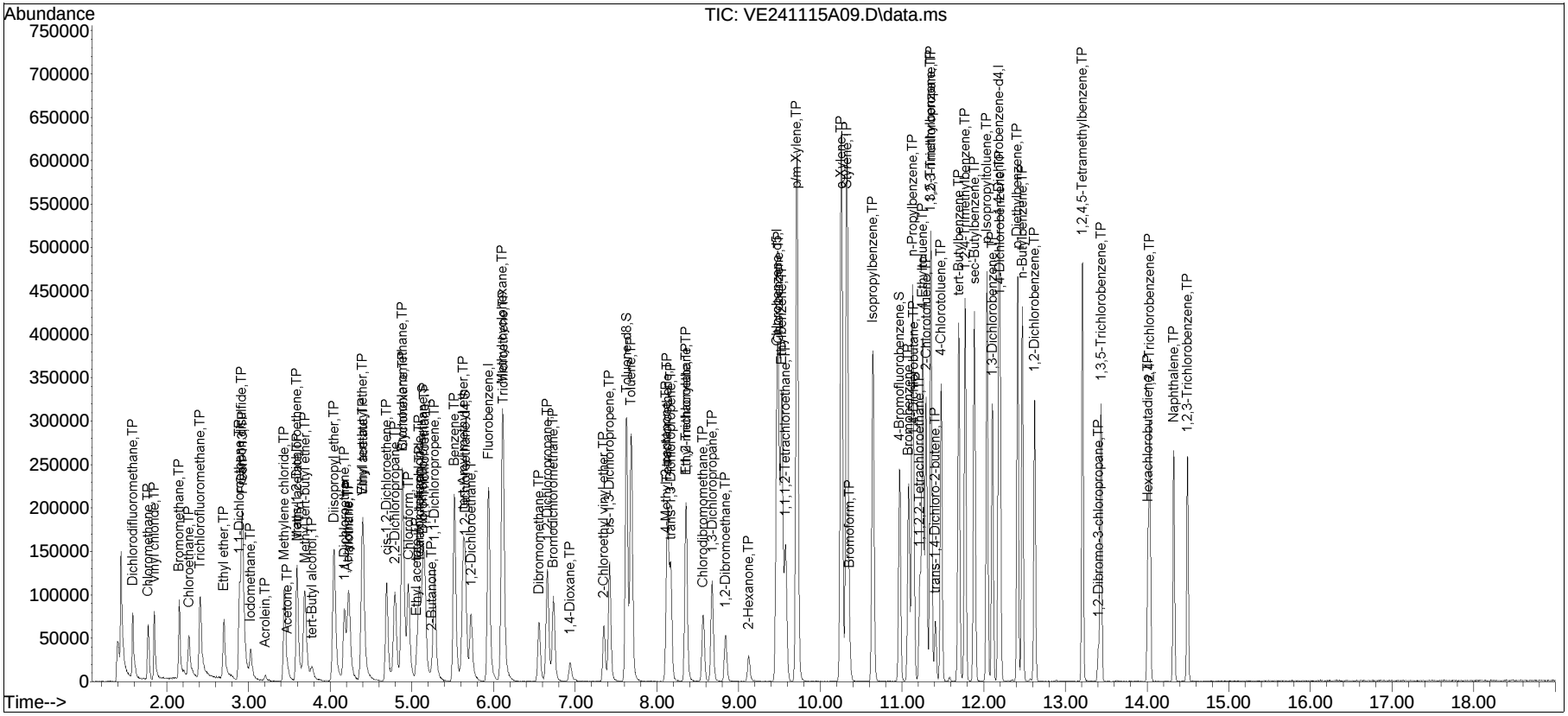
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

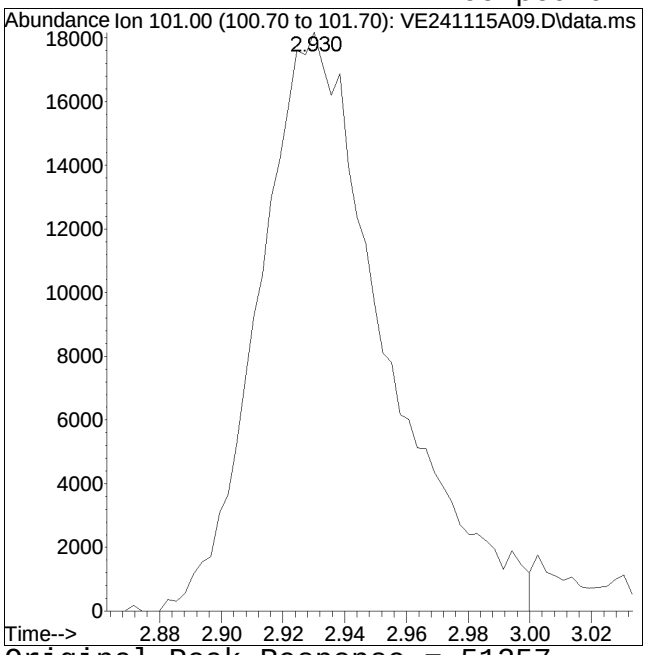
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

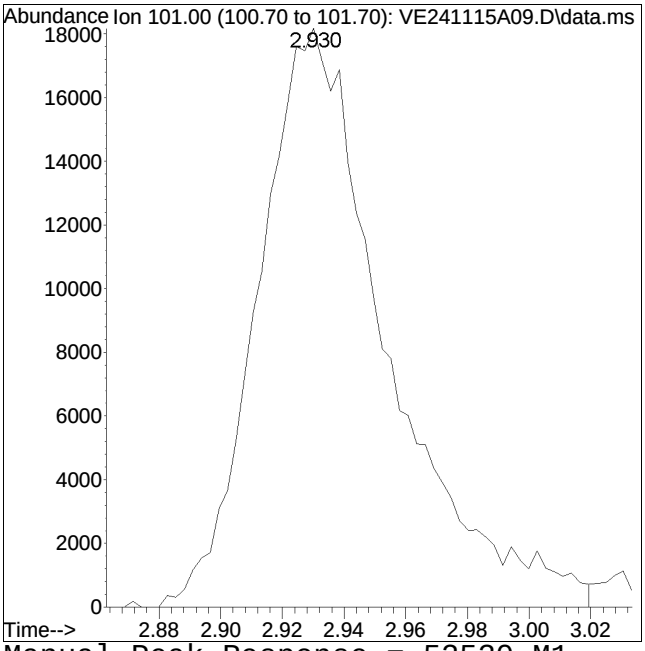


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #12: Freon-113



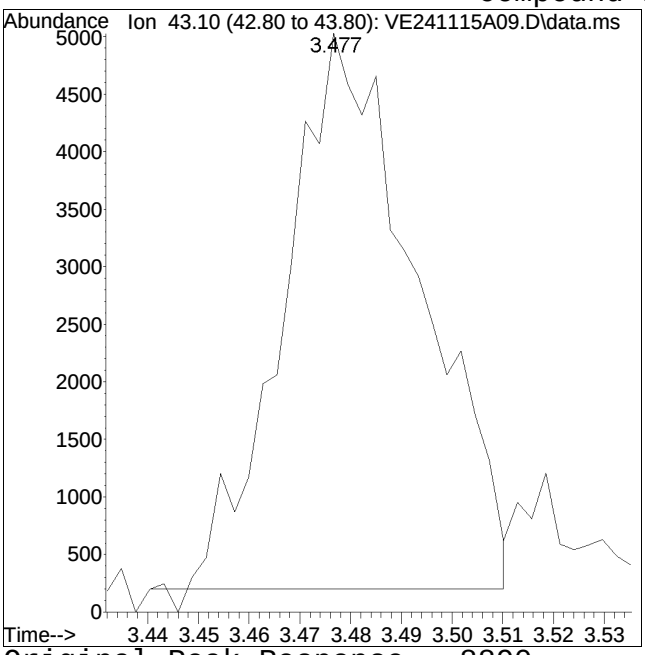


Original Peak Response = 51257 Manual Peak Response = 52530 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

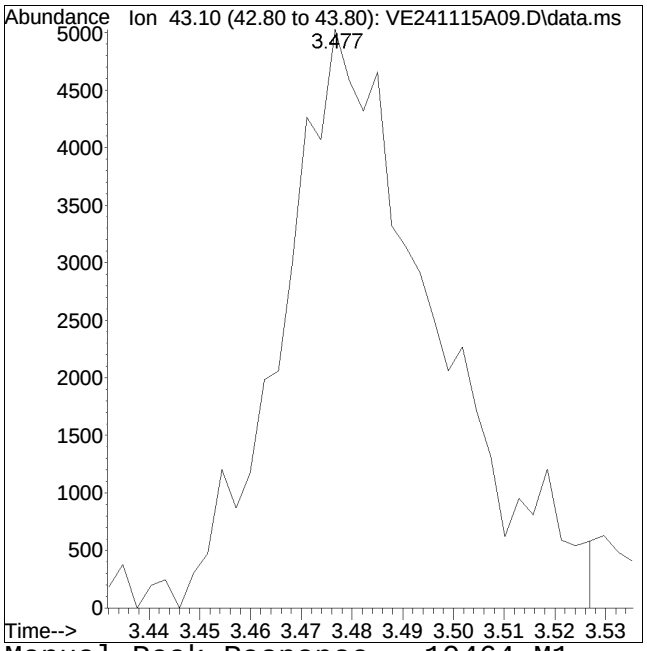
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #17: Acetone



Original Peak Response = 8890



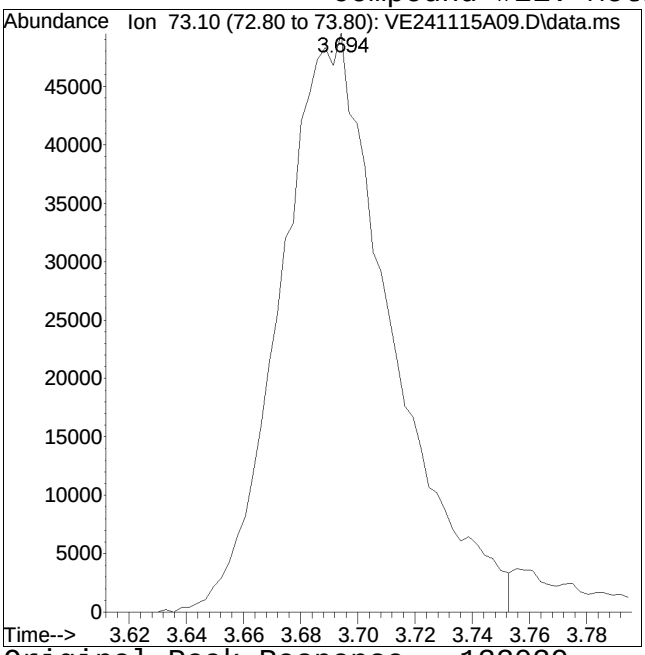
Manual Peak Response = 10464 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

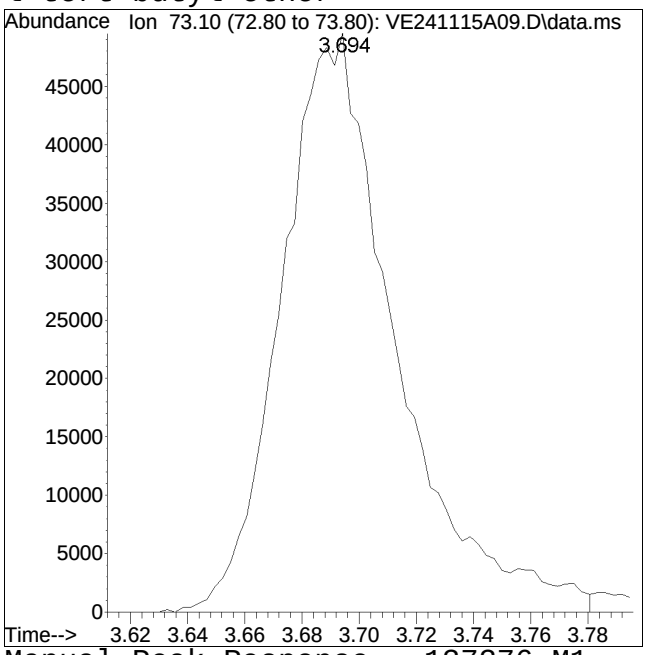
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 133039



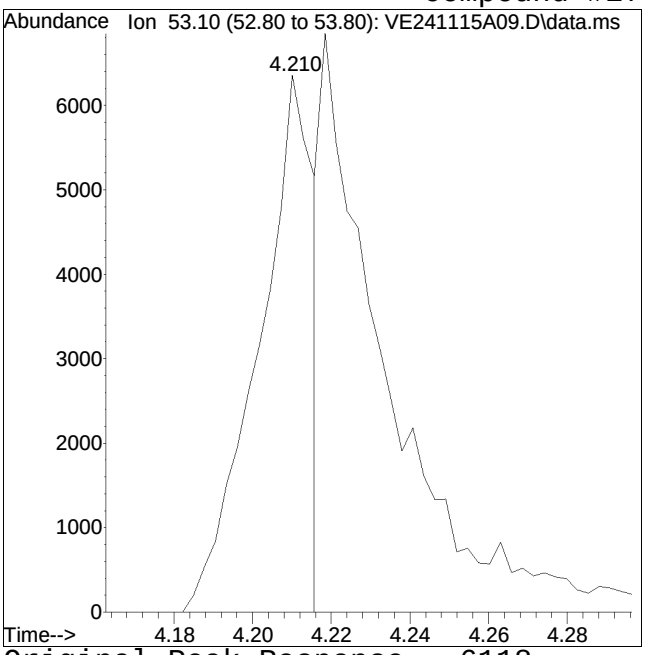
Manual Peak Response = 137376 M1

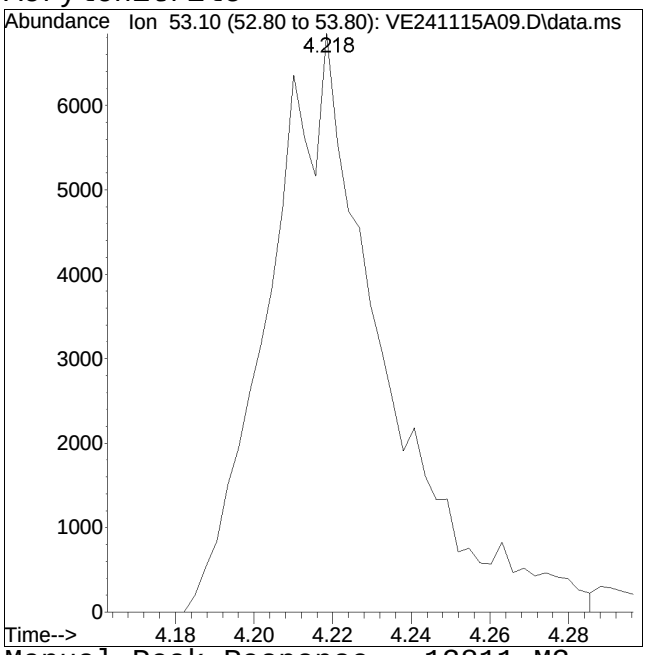
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #27: Acrylonitrile





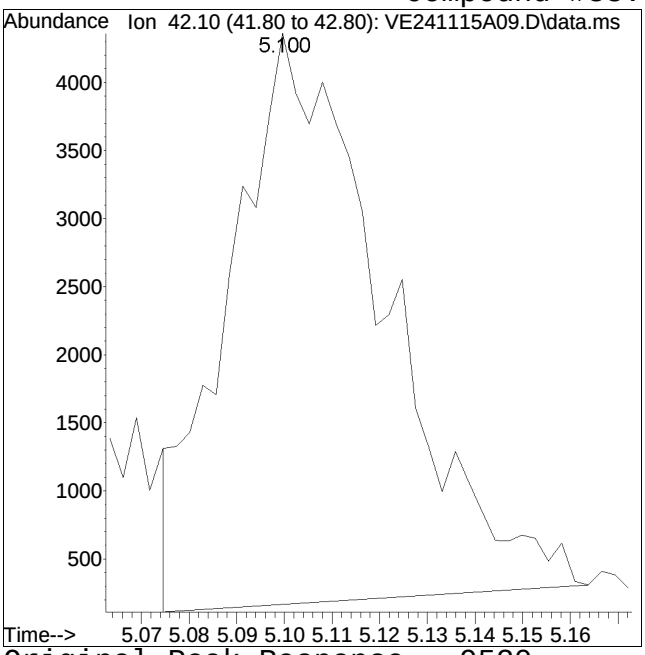
Original Peak Response = 6118 Manual Peak Response = 13811 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

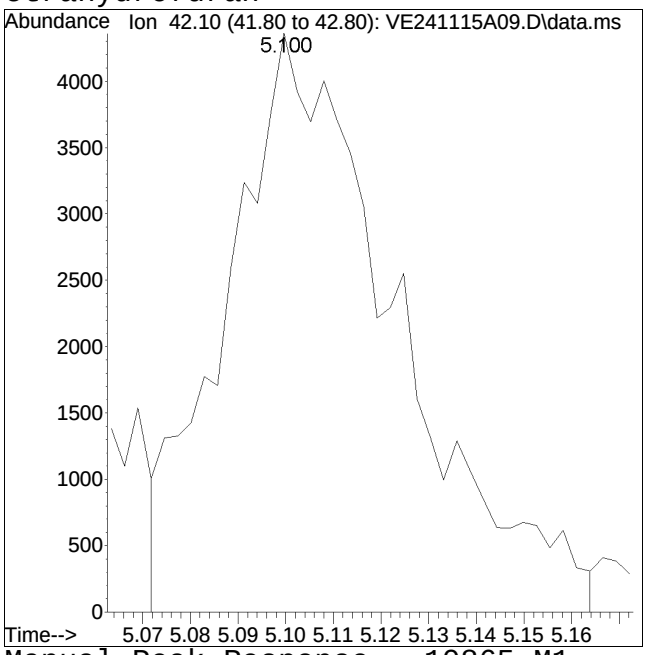
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



Original Peak Response = 9520



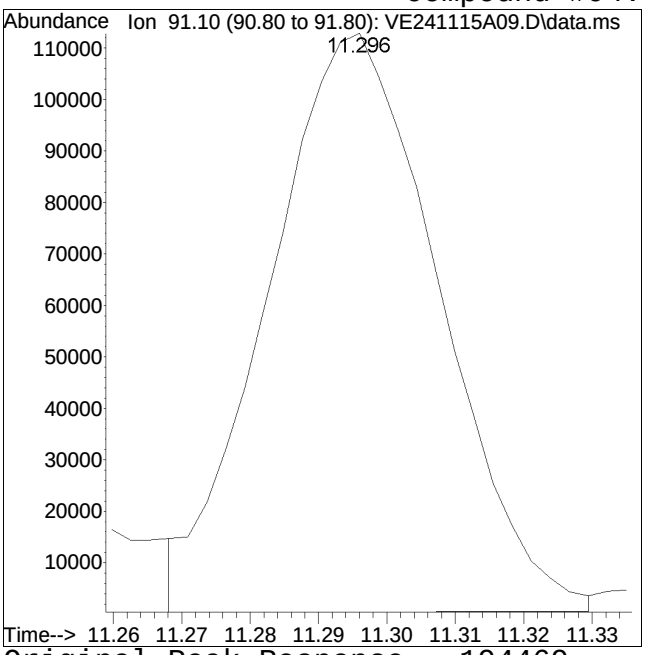
Manual Peak Response = 10865 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

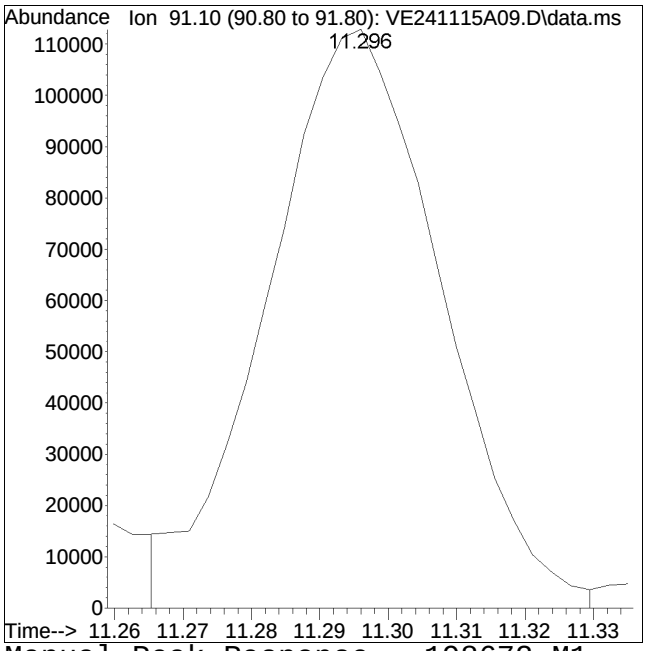
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 194469



Manual Peak Response = 198672 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	263012	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 101.90%			
63) Chlorobenzene-d5	9.469	117	190470	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.75%			
84) 1,4-Dichlorobenzene-d4	12.186	152	102497	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 103.12%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	59245	9.824	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 98.24%		
47) 1,2-Dichloroethane-d4	5.657	65	69659	9.762	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 97.62%		
64) Toluene-d8	7.629	98	261063	10.050	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 100.50%		
88) 4-Bromofluorobenzene	10.967	95	92894	9.865	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 98.65%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	191482	32.584	ug/L	95
3) Chloromethane	1.773	50	179019	30.832	ug/L	97
4) Vinyl chloride	1.848	62	205852	33.271	ug/L	97
5) Bromomethane	2.155	94	123191	28.368	ug/L	94
6) Chloroethane	2.269	64	140161	31.289	ug/L	99
7) Trichlorofluoromethane	2.411	101	288395	31.948	ug/L	96
8) Ethyl ether	2.699	74	88301	31.633	ug/L	89
10) 1,1-Dichloroethene	2.891	96	146183	31.800	ug/L	97
11) Carbon disulfide	2.922	76	433868	31.426	ug/L	96
12) Freon-113	2.930	101	154185	31.804	ug/L	97
13) Iodomethane	3.028	142	126576	29.989	ug/L #	92
14) Acrolein	3.203	56	16516	29.424	ug/L #	68
15) Methylene chloride	3.443	84	172240	30.014	ug/L	83
17) Acetone	3.479	43	28526	25.258	ug/L	92
18) trans-1,2-Dichloroethene	3.594	96	162196	31.682	ug/L	97
19) Methyl acetate	3.599	43	75308	29.848	ug/L #	87
21) Methyl tert-butyl ether	3.691	73	428275	31.296	ug/L	87
22) tert-Butyl alcohol	3.783	59	52357	151.808	ug/L #	74
24) Diisopropyl ether	4.048	45	523475	30.488	ug/L #	93
25) 1,1-Dichloroethane	4.174	63	315299	30.813	ug/L	99
26) Halothane	4.227	117	123993	31.408	ug/L	93

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.216	53	41142	29.720	ug/L	#	80
28) Ethyl tert-butyl ether	4.397	59	550000	30.573	ug/L		96
29) Vinyl acetate	4.405	43	369146	31.061	ug/L		96
30) cis-1,2-Dichloroethene	4.692	96	183245	31.357	ug/L		90
31) 2,2-Dichloropropane	4.796	77	258010	31.954	ug/L		86
33) Bromochloromethane	4.885	128	80194	30.121	ug/L		84
34) Cyclohexane	4.890	56	329047	31.633	ug/L		76
35) Chloroform	4.955	83	294662	30.692	ug/L		94
36) Ethyl acetate	5.061	43	122246	30.490	ug/L	#	85
37) Carbon tetrachloride	5.088	117	224693	32.271	ug/L		94
38) Tetrahydrofuran	5.102	42	33786M1	30.389	ug/L		
40) 1,1,1-Trichloroethane	5.158	97	267093	31.509	ug/L		91
42) 2-Butanone	5.245	43	45160	28.041	ug/L		97
43) 1,1-Dichloropropene	5.275	75	229327	30.876	ug/L		92
45) Benzene	5.521	78	727735	31.111	ug/L		94
46) tert-Amyl methyl ether	5.632	73	461123	30.631	ug/L		91
48) 1,2-Dichloroethane	5.727	62	228290	30.685	ug/L		100
51) Methyl cyclohexane	6.106	83	334316	32.094	ug/L		85
52) Trichloroethene	6.117	95	176353	31.798	ug/L		95
54) Dibromomethane	6.555	93	98072	30.941	ug/L		90
55) 1,2-Dichloropropane	6.658	63	187311	31.521	ug/L		95
57) 2-Chloroethyl vinyl ether	7.353	63	111073	31.775	ug/L		89
58) Bromodichloromethane	6.734	83	238680	30.949	ug/L		93
61) 1,4-Dioxane	6.943	88	24915M1	641.612	ug/L		
62) cis-1,3-Dichloropropene	7.420	75	287342	32.279	ug/L		90
65) Toluene	7.685	92	458170	30.611	ug/L		94
66) 4-Methyl-2-pentanone	8.114	58	48600	30.897	ug/L		78
67) Tetrachloroethene	8.131	166	188239	31.281	ug/L		98
69) trans-1,3-Dichloropropene	8.170	75	247914	33.448	ug/L		84
71) Ethyl methacrylate	8.357	69	178550	31.585	ug/L		97
72) 1,1,2-Trichloroethane	8.354	83	120623	30.663	ug/L		98
73) Chlorodibromomethane	8.566	129	166443	31.536	ug/L		98
74) 1,3-Dichloropropane	8.675	76	249398	30.706	ug/L		98
75) 1,2-Dibromoethane	8.839	107	141920	30.449	ug/L		87
77) 2-Hexanone	9.121	43	77771	30.776	ug/L		92
78) Chlorobenzene	9.489	112	489189	30.751	ug/L	#	83
79) Ethylbenzene	9.528	91	892601	31.208	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.575	131	167451	31.702	ug/L		95
81) p/m Xylene	9.715	106	681211	61.871	ug/L		96
82) o Xylene	10.259	106	657337	61.227	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.326	104	1111760	61.337	ug/L		96
85) Bromoform	10.353	173	96041	31.701	ug/L		93
87) Isopropylbenzene	10.643	105	933244	30.822	ug/L		98
89) Bromobenzene	11.081	156	206282	30.520	ug/L		97
90) n-Propylbenzene	11.129	91	1065150	31.016	ug/L		96
91) 1,4-Dichlorobutane	11.145	55	242025	30.090	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.221	83	178162	30.478	ug/L		97
93) 4-Ethyltoluene	11.254	105	880214	30.887	ug/L		100
94) 2-Chlorotoluene	11.296	91	611032M1	30.633	ug/L		
95) 1,3,5-Trimethylbenzene	11.352	105	775199	30.742	ug/L		98
96) 1,2,3-Trichloropropane	11.355	75	136118	29.498	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.408	53	52342	31.330	ug/L	#	63
98) 4-Chlorotoluene	11.480	91	626572	30.362	ug/L		99
99) tert-Butylbenzene	11.692	119	639463	30.729	ug/L		95
102) 1,2,4-Trimethylbenzene	11.773	105	774215	30.615	ug/L		96
103) sec-Butylbenzene	11.887	105	985196	31.007	ug/L		98
104) p-Isopropyltoluene	12.043	119	821699	31.212	ug/L		96
105) 1,3-Dichlorobenzene	12.110	146	409714	30.285	ug/L		96
106) 1,4-Dichlorobenzene	12.199	146	404259	29.793	ug/L		98
107) p-Diethylbenzene	12.414	119	487942	31.680	ug/L		96
108) n-Butylbenzene	12.473	91	718542	31.298	ug/L		98
109) 1,2-Dichlorobenzene	12.623	146	389286	30.243	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.209	119	766052	31.044	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.407	155	24992	31.970	ug/L		91
112) 1,3,5-Trichlorobenzene	13.435	180	287411	31.305	ug/L		93
113) Hexachlorobutadiene	14.012	225	79871	32.587	ug/L		92
114) 1,2,4-Trichlorobenzene	14.034	180	245938	30.679	ug/L		99
115) Naphthalene	14.327	128	578701	30.739	ug/L		100
116) 1,2,3-Trichlorobenzene	14.495	180	221887	31.007	ug/L		94

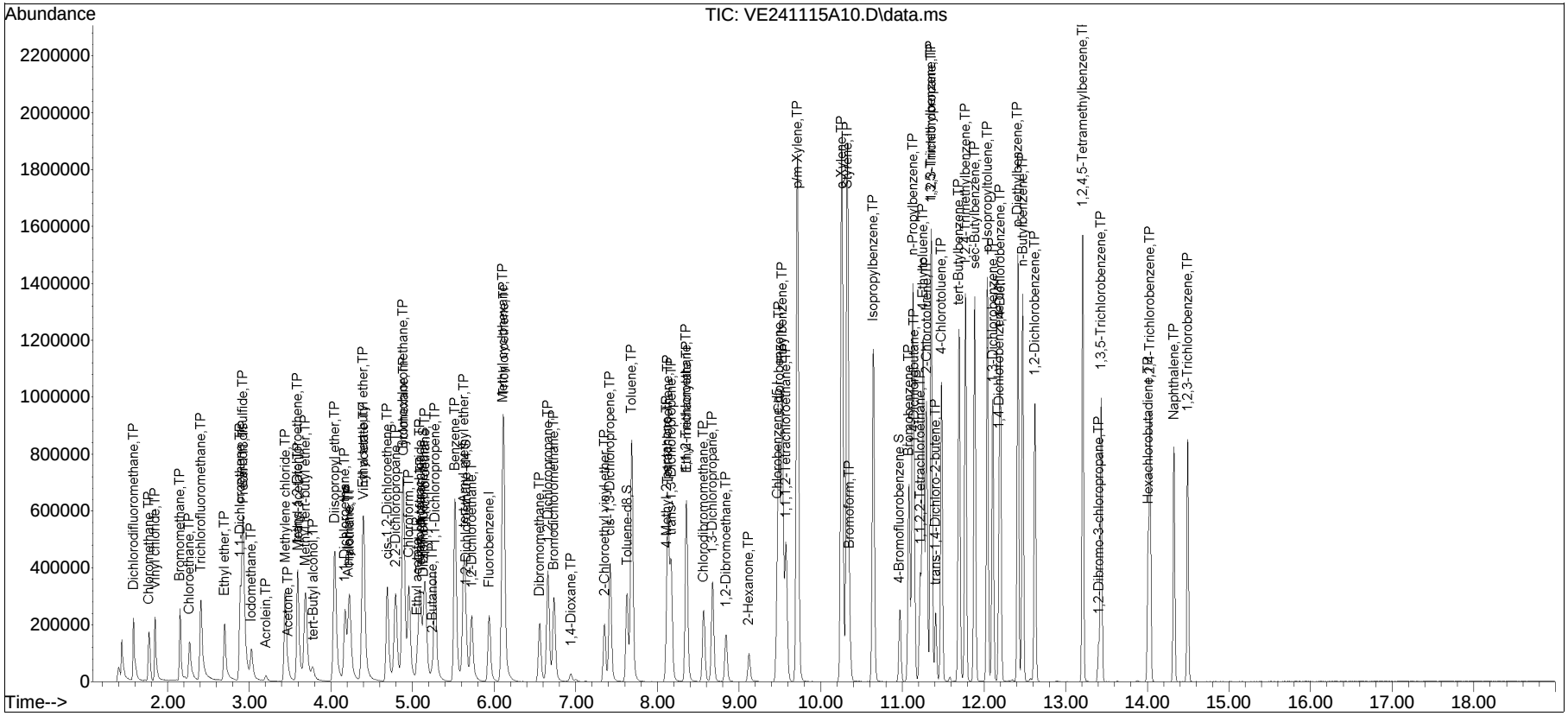
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

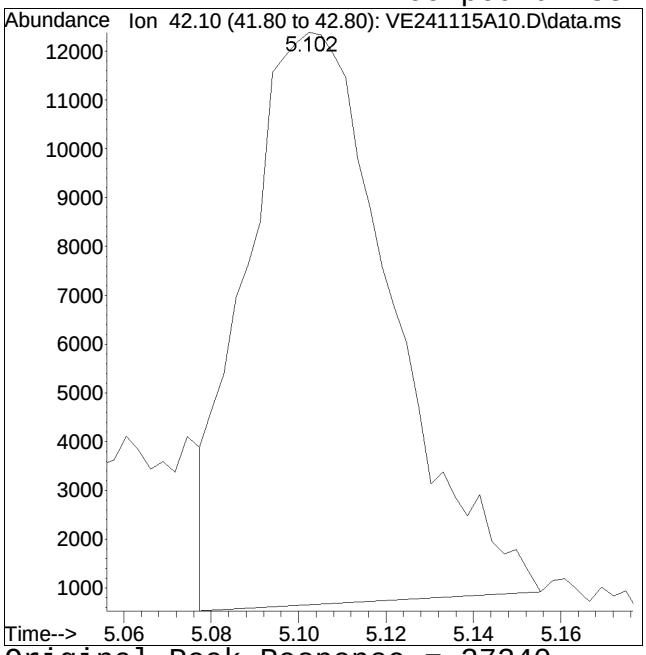
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

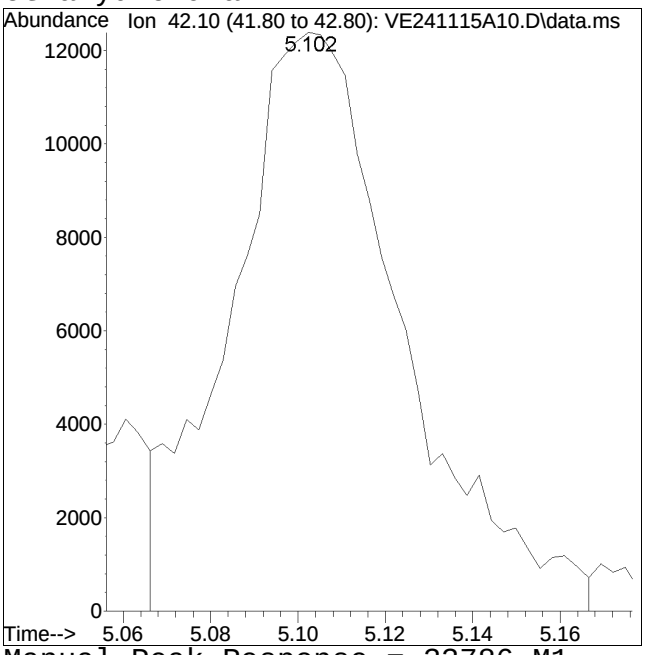


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A10.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:43 am Instrument : Elaine
Sample : I8260STD30PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



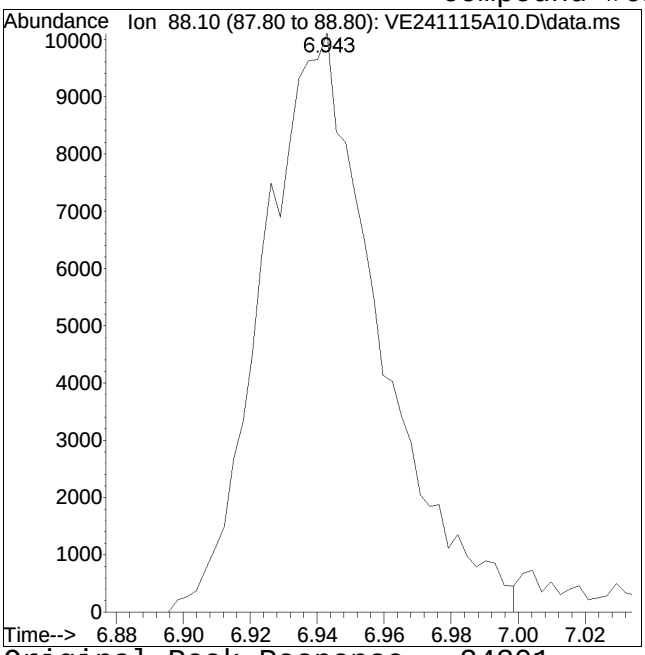


Original Peak Response = 27240 Manual Peak Response = 33786 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

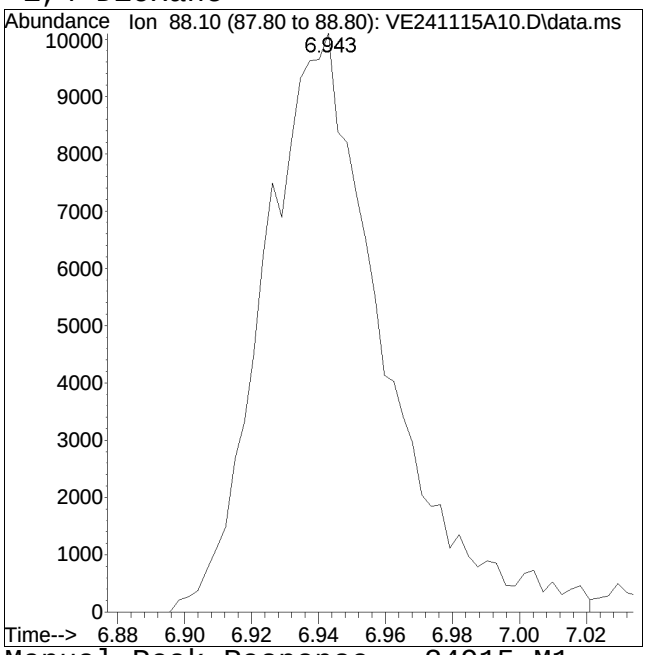
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A10.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:43 am Instrument : Elaine
Sample : I8260STD30PPB Quant Date : 11/15/2024 11:45 am

Compound #61: 1,4-Dioxane



Original Peak Response = 24301



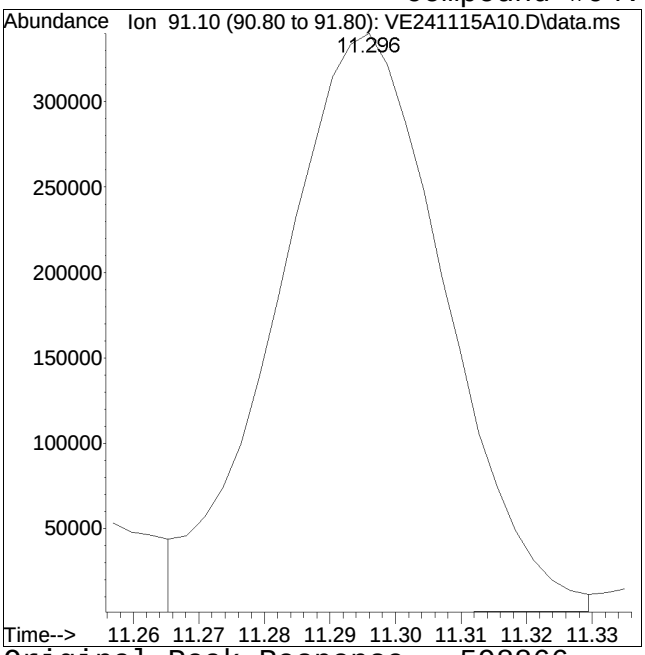
Manual Peak Response = 24915 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

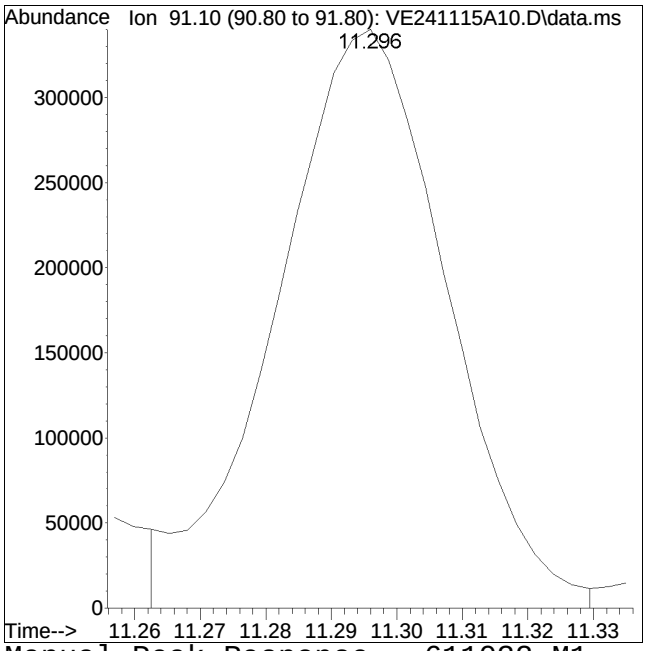
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A10.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:43 am Instrument : Elaine
Sample : I8260STD30PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 598866



Manual Peak Response = 611032 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	262160	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 101.57%			
63) Chlorobenzene-d5	9.472	117	190412	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.71%			
84) 1,4-Dichlorobenzene-d4	12.185	152	102157	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 102.78%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.130	113	59891	9.964	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.64%			
47) 1,2-Dichloroethane-d4	5.655	65	70551	9.919	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.19%			
64) Toluene-d8	7.626	98	258700	9.962	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.62%			
88) 4-Bromofluorobenzene	10.972	95	92872	9.895	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.95%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	508422	86.797	ug/L	94
3) Chloromethane	1.773	50	459431	79.383	ug/L	98
4) Vinyl chloride	1.848	62	529547	85.868	ug/L	93
5) Bromomethane	2.152	94	333208	76.979	ug/L	95
6) Chloroethane	2.269	64	376069	84.224	ug/L	100
7) Trichlorofluoromethane	2.409	101	781736	86.882	ug/L	94
8) Ethyl ether	2.699	74	232555	83.582	ug/L	87
10) 1,1-Dichloroethene	2.894	96	383570	83.710	ug/L	96
11) Carbon disulfide	2.922	76	1156091	84.010	ug/L	96
12) Freon-113	2.930	101	402561	83.307	ug/L	96
13) Iodomethane	3.028	142	373981	88.893	ug/L	92
14) Acrolein	3.209	56	43334	77.452	ug/L #	70
15) Methylene chloride	3.440	84	450600	78.775	ug/L	82
17) Acetone	3.477	43	82285	73.095	ug/L	95
18) trans-1,2-Dichloroethene	3.594	96	424683	83.223	ug/L	96
19) Methyl acetate	3.596	43	196562	78.160	ug/L #	83
21) Methyl tert-butyl ether	3.691	73	1149255	84.255	ug/L	86
22) tert-Butyl alcohol	3.778	59	144563	420.519	ug/L #	72
24) Diisopropyl ether	4.048	45	1427601	83.417	ug/L #	92
25) 1,1-Dichloroethane	4.174	63	846856	83.029	ug/L	100
26) Halothane	4.230	117	331091	84.138	ug/L	96

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	109538	79.386	ug/L		89
28) Ethyl tert-butyl ether	4.397	59	1486942	82.925	ug/L		95
29) Vinyl acetate	4.405	43	1002664	84.641	ug/L		97
30) cis-1,2-Dichloroethene	4.692	96	479355	82.294	ug/L		90
31) 2,2-Dichloropropane	4.793	77	672681	83.581	ug/L		86
33) Bromochloromethane	4.882	128	213306	80.379	ug/L	#	82
34) Cyclohexane	4.888	56	866958	83.616	ug/L		76
35) Chloroform	4.957	83	773364	80.815	ug/L		94
36) Ethyl acetate	5.063	43	314987	78.817	ug/L	#	91
37) Carbon tetrachloride	5.094	117	607355	87.512	ug/L		96
38) Tetrahydrofuran	5.105	42	87057M1	78.559	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	704151	83.340	ug/L		91
42) 2-Butanone	5.242	43	131043M3	81.633	ug/L		
43) 1,1-Dichloropropene	5.278	75	616627	83.290	ug/L		94
45) Benzene	5.523	78	1935306	83.005	ug/L		93
46) tert-Amyl methyl ether	5.629	73	1251657	83.413	ug/L		91
48) 1,2-Dichloroethane	5.724	62	593345	80.013	ug/L		100
51) Methyl cyclohexane	6.106	83	882808	85.024	ug/L		86
52) Trichloroethene	6.117	95	466538	84.394	ug/L		96
54) Dibromomethane	6.558	93	262432	83.065	ug/L		90
55) 1,2-Dichloropropane	6.661	63	493190	83.264	ug/L		96
57) 2-Chloroethyl vinyl ether	7.353	63	298334	85.623	ug/L		88
58) Bromodichloromethane	6.734	83	648872	84.411	ug/L		94
61) 1,4-Dioxane	6.940	88	30863	797.369	ug/L	#	78
62) cis-1,3-Dichloropropene	7.423	75	773606	87.188	ug/L		89
65) Toluene	7.685	92	1222831	81.724	ug/L		94
66) 4-Methyl-2-pentanone	8.114	58	131453	83.595	ug/L		77
67) Tetrachloroethene	8.131	166	495654	82.391	ug/L		98
69) trans-1,3-Dichloropropene	8.170	75	662436	89.402	ug/L		86
71) Ethyl methacrylate	8.357	69	472755	83.653	ug/L		97
72) 1,1,2-Trichloroethane	8.357	83	317085	80.630	ug/L		99
73) Chlorodibromomethane	8.569	129	459405	87.069	ug/L		98
74) 1,3-Dichloropropane	8.675	76	664977	81.897	ug/L		98
75) 1,2-Dibromoethane	8.839	107	376668	80.838	ug/L		87
77) 2-Hexanone	9.121	43	208752	82.634	ug/L		92
78) Chlorobenzene	9.492	112	1292677	81.284	ug/L	#	83
79) Ethylbenzene	9.531	91	2380120	83.243	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.575	131	451033	85.417	ug/L		95
81) p/m Xylene	9.715	106	1824131	165.727	ug/L		97
82) o Xylene	10.261	106	1783478	166.171	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.328	104	3064593	169.129	ug/L		97
85) Bromoform	10.353	173	274464	90.897	ug/L		93
87) Isopropylbenzene	10.643	105	2525019	83.672	ug/L		98
89) Bromobenzene	11.084	156	559181	83.009	ug/L		97
90) n-Propylbenzene	11.129	91	2877120	84.057	ug/L		96
91) 1,4-Dichlorobutane	11.145	55	657189	81.976	ug/L		100
92) 1,1,2,2-Tetrachloroethane	11.218	83	470491	80.755	ug/L		97
93) 4-Ethyltoluene	11.257	105	2344175	82.532	ug/L		100
94) 2-Chlorotoluene	11.296	91	1604553M1	80.710	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	2069891	82.359	ug/L		97
96) 1,2,3-Trichloropropane	11.357	75	362199	78.752	ug/L		91
97) trans-1,4-Dichloro-2-b...	11.407	53	142272	85.443	ug/L	#	57
98) 4-Chlorotoluene	11.483	91	1686491	81.996	ug/L		99
99) tert-Butylbenzene	11.698	119	1718883	82.876	ug/L		96
102) 1,2,4-Trimethylbenzene	11.776	105	2096164	83.166	ug/L		97
103) sec-Butylbenzene	11.887	105	2654684	83.828	ug/L		98
104) p-Isopropyltoluene	12.041	119	2217494	84.512	ug/L		97
105) 1,3-Dichlorobenzene	12.107	146	1105764	82.008	ug/L		96
106) 1,4-Dichlorobenzene	12.202	146	1087963	80.448	ug/L		98
107) p-Diethylbenzene	12.417	119	1302511	84.848	ug/L		96
108) n-Butylbenzene	12.476	91	1920150	83.917	ug/L		98
109) 1,2-Dichlorobenzene	12.623	146	1031447	80.397	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.212	119	2043681	83.095	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.404	155	67978	87.247	ug/L		92
112) 1,3,5-Trichlorobenzene	13.438	180	747936	81.737	ug/L		94
113) Hexachlorobutadiene	14.012	225	198264	81.160	ug/L		92
114) 1,2,4-Trichlorobenzene	14.037	180	661029	82.733	ug/L		99
115) Naphthalene	14.327	128	1606060	85.593	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	599108	83.998	ug/L		94

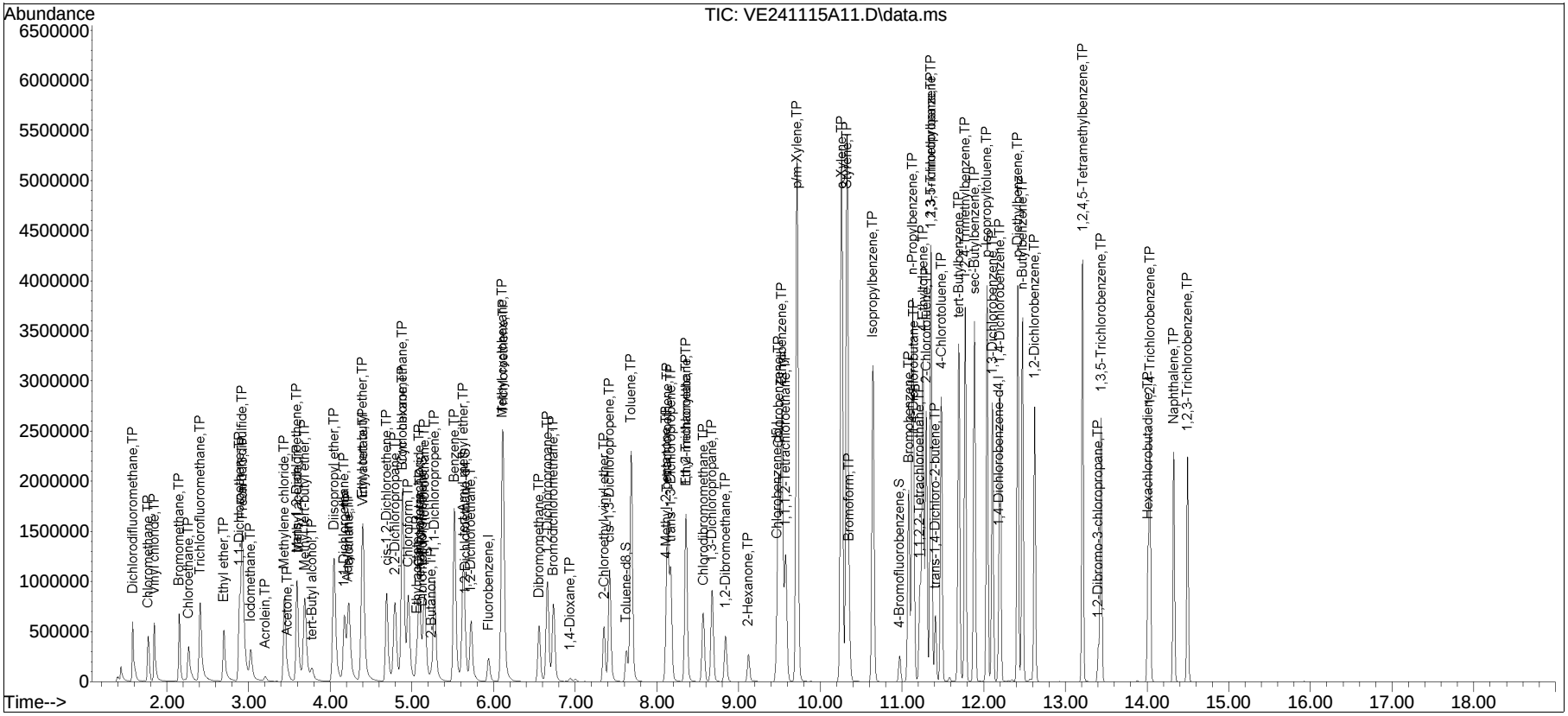
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

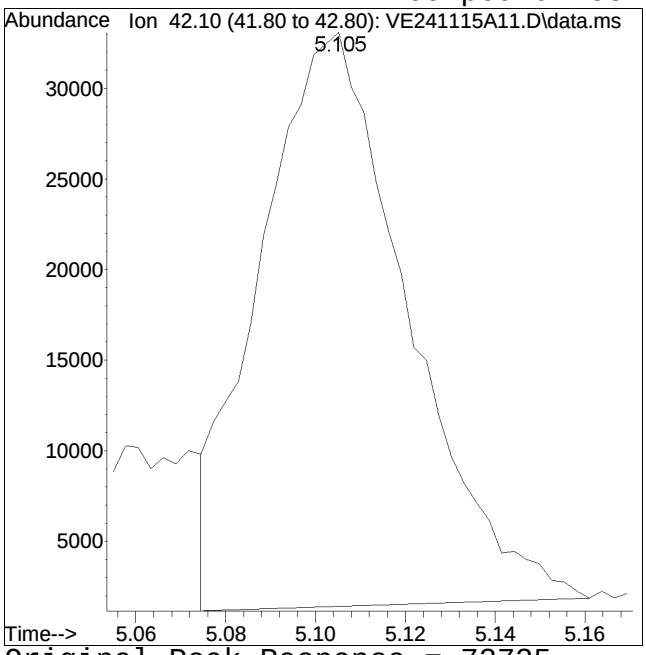
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

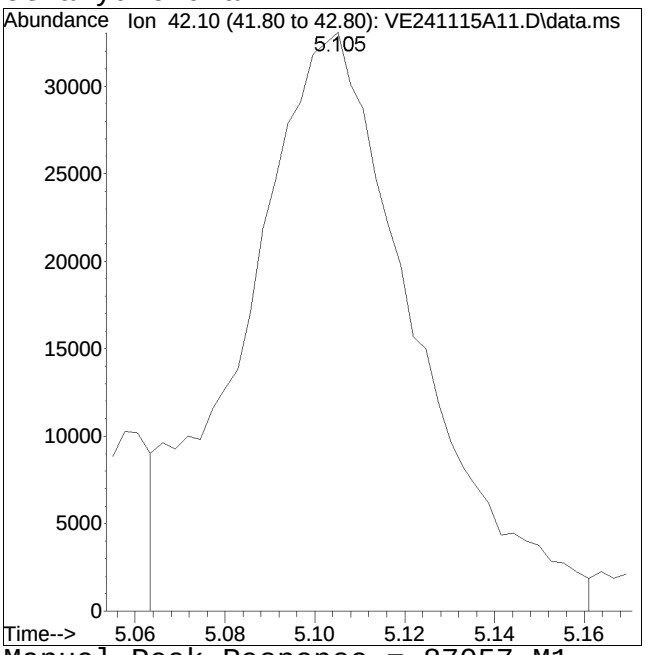


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A11.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:07 am Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



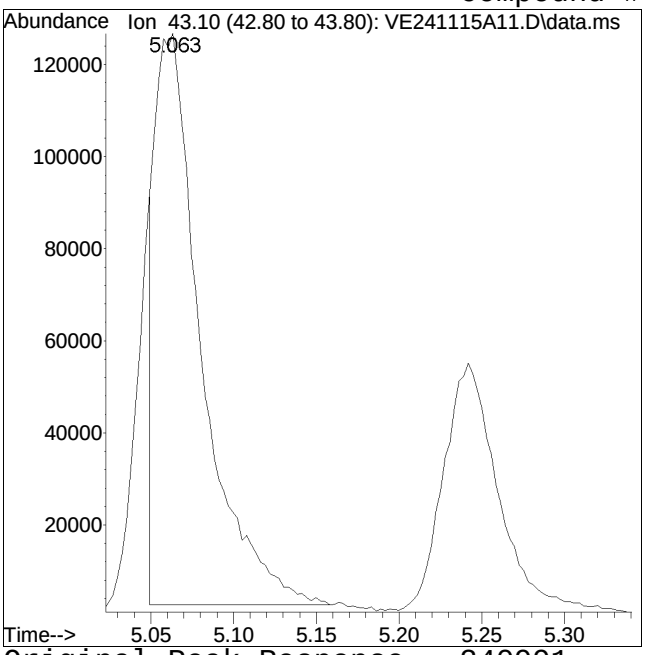


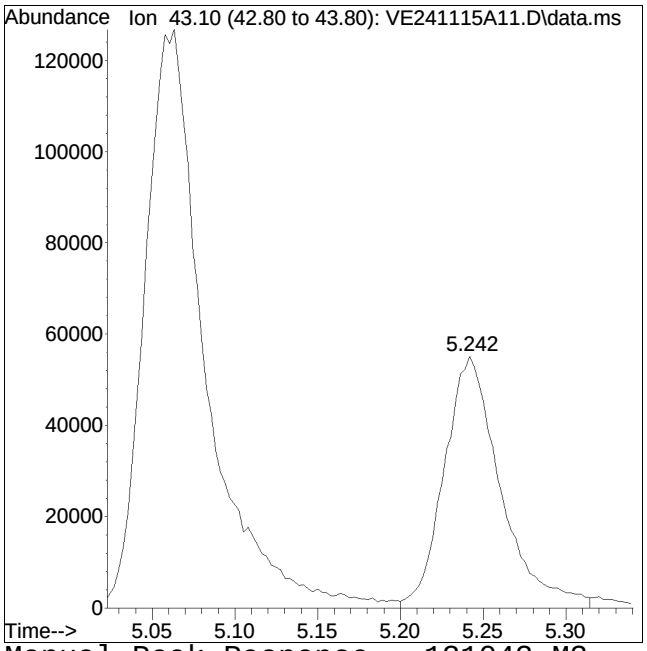
Original Peak Response = 72725 Manual Peak Response = 87057 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A11.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:07 am Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone





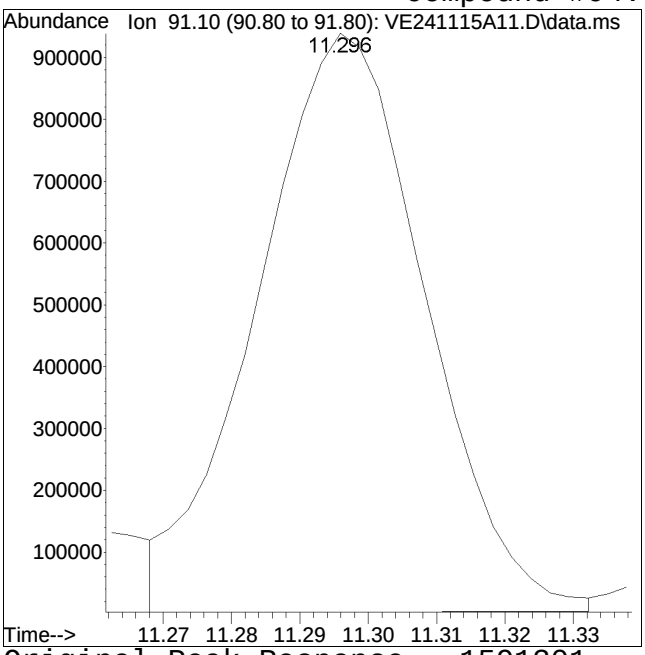
Original Peak Response = 240991 Manual Peak Response = 131043 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

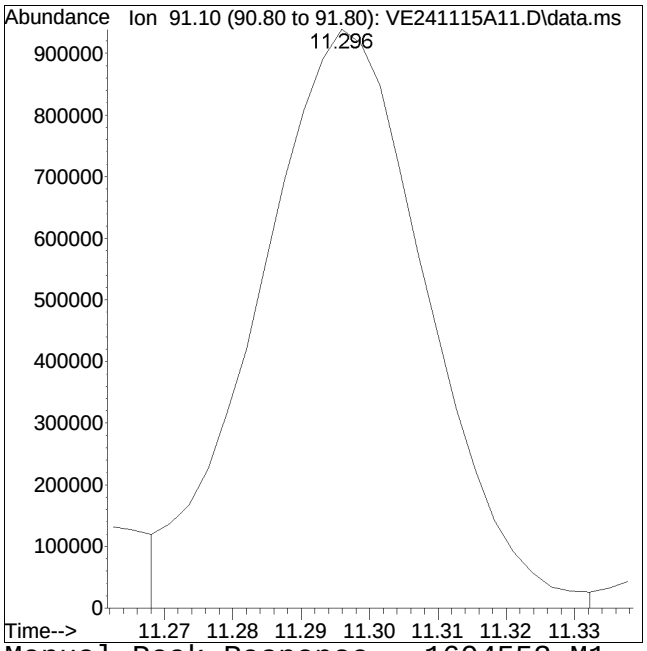
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A11.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:07 am Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 1591301



Manual Peak Response = 1604553 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	271467	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 105.18%			
63) Chlorobenzene-d5	9.467	117	195889	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 104.64%			
84) 1,4-Dichlorobenzene-d4	12.188	152	102518	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 103.14%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	60301	9.688	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.88%			
47) 1,2-Dichloroethane-d4	5.652	65	72241	9.809	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.09%			
64) Toluene-d8	7.632	98	262391	9.822	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.22%			
88) 4-Bromofluorobenzene	10.975	95	95646	10.155	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.55%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	756754	124.763	ug/L	95
3) Chloromethane	1.773	50	688689	114.916	ug/L	97
4) Vinyl chloride	1.845	62	798886	125.101	ug/L	94
5) Bromomethane	2.152	94	515128	114.927	ug/L	93
6) Chloroethane	2.264	64	570275	123.340	ug/L	99
7) Trichlorofluoromethane	2.411	101	1166902	125.243	ug/L	94
8) Ethyl ether	2.699	74	362414	125.789	ug/L	88
10) 1,1-Dichloroethene	2.894	96	588882	124.111	ug/L	96
11) Carbon disulfide	2.919	76	1765108	123.868	ug/L	97
12) Freon-113	2.930	101	611015	122.110	ug/L	96
13) Iodomethane	3.028	142	571309	131.141	ug/L #	93
14) Acrolein	3.206	56	70450M1	121.600	ug/L	
15) Methylene chloride	3.443	84	697991	117.841	ug/L	82
17) Acetone	3.479	43	127794	109.629	ug/L	94
18) trans-1,2-Dichloroethene	3.594	96	648162	122.662	ug/L	96
19) Methyl acetate	3.596	43	307533	118.094	ug/L #	85
21) Methyl tert-butyl ether	3.689	73	1756860	124.385	ug/L	87
22) tert-Butyl alcohol	3.778	59	226034	634.967	ug/L #	70
24) Diisopropyl ether	4.048	45	2205292	124.441	ug/L #	92
25) 1,1-Dichloroethane	4.177	63	1288338	121.983	ug/L	99
26) Halothane	4.230	117	500656	122.867	ug/L	94

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	167494	117.227	ug/L		88
28) Ethyl tert-butyl ether	4.394	59	2320375	124.967	ug/L		95
29) Vinyl acetate	4.405	43	1562954	127.415	ug/L		96
30) cis-1,2-Dichloroethene	4.690	96	735508	121.941	ug/L		89
31) 2,2-Dichloropropane	4.796	77	1022862	122.734	ug/L		85
33) Bromochloromethane	4.882	128	316313	115.108	ug/L		84
34) Cyclohexane	4.888	56	1309264	121.946	ug/L		78
35) Chloroform	4.957	83	1217459	122.860	ug/L		94
36) Ethyl acetate	5.058	43	500765	121.006	ug/L	#	92
37) Carbon tetrachloride	5.094	117	912976	127.038	ug/L		94
38) Tetrahydrofuran	5.102	42	140027M1	122.026	ug/L		
40) 1,1,1-Trichloroethane	5.158	97	1072192	122.549	ug/L		92
42) 2-Butanone	5.242	43	209793M3	126.210	ug/L		
43) 1,1-Dichloropropene	5.278	75	929932	121.303	ug/L		94
45) Benzene	5.521	78	2952887	122.307	ug/L		93
46) tert-Amyl methyl ether	5.629	73	1959797	126.128	ug/L		90
48) 1,2-Dichloroethane	5.724	62	913337	118.941	ug/L		100
51) Methyl cyclohexane	6.109	83	1334084	124.082	ug/L		85
52) Trichloroethene	6.117	95	710299	124.083	ug/L		96
54) Dibromomethane	6.558	93	406208	124.165	ug/L		90
55) 1,2-Dichloropropane	6.661	63	755932	123.247	ug/L		95
57) 2-Chloroethyl vinyl ether	7.350	63	455028	126.117	ug/L		90
58) Bromodichloromethane	6.734	83	993255	124.781	ug/L		94
61) 1,4-Dioxane	6.940	88	50027	1248.173	ug/L	#	82
62) cis-1,3-Dichloropropene	7.423	75	1190163	129.536	ug/L		90
65) Toluene	7.687	92	1850300	120.201	ug/L		94
66) 4-Methyl-2-pentanone	8.117	58	207019	127.969	ug/L		76
67) Tetrachloroethene	8.131	166	743008	120.055	ug/L		97
69) trans-1,3-Dichloropropene	8.170	75	1026729	134.693	ug/L		86
71) Ethyl methacrylate	8.357	69	733868	126.226	ug/L		98
72) 1,1,2-Trichloroethane	8.357	83	485735	120.062	ug/L		99
73) Chlorodibromomethane	8.566	129	710886	130.964	ug/L		98
74) 1,3-Dichloropropane	8.677	76	1012473	121.208	ug/L		97
75) 1,2-Dibromoethane	8.839	107	584212	121.875	ug/L		88
77) 2-Hexanone	9.124	43	325029	125.064	ug/L		90
78) Chlorobenzene	9.489	112	1959286	119.757	ug/L	#	82
79) Ethylbenzene	9.531	91	3592512	122.132	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.575	131	681613	125.475	ug/L		96
81) p/m Xylene	9.718	106	2800134	247.287	ug/L		97
82) o Xylene	10.261	106	2778031	251.598	ug/L		91

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.328	104	4736981	254.115	ug/L		98
85) Bromoform	10.356	173	423668	139.817	ug/L		94
87) Isopropylbenzene	10.646	105	3811609	125.861	ug/L		98
89) Bromobenzene	11.084	156	843235	124.735	ug/L		97
90) n-Propylbenzene	11.131	91	4326746	125.964	ug/L		97
91) 1,4-Dichlorobutane	11.145	55	1005989	125.043	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.221	83	720544	123.239	ug/L		98
93) 4-Ethyltoluene	11.257	105	3505438	122.983	ug/L		100
94) 2-Chlorotoluene	11.299	91	2457698M4	123.188	ug/L		
95) 1,3,5-Trimethylbenzene	11.357	105	3105458	123.128	ug/L		97
96) 1,2,3-Trichloropropane	11.357	75	567743	123.008	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.410	53	222856	133.368	ug/L	#	58
98) 4-Chlorotoluene	11.483	91	2569030	124.464	ug/L		100
99) tert-Butylbenzene	11.697	119	2570138	123.483	ug/L		97
102) 1,2,4-Trimethylbenzene	11.776	105	3144051	124.302	ug/L		97
103) sec-Butylbenzene	11.887	105	3936872	123.878	ug/L		98
104) p-Isopropyltoluene	12.043	119	3267030	124.074	ug/L		97
105) 1,3-Dichlorobenzene	12.107	146	1634894	120.823	ug/L		97
106) 1,4-Dichlorobenzene	12.202	146	1624728	119.716	ug/L		99
107) p-Diethylbenzene	12.417	119	1911310	124.068	ug/L		96
108) n-Butylbenzene	12.476	91	2807328	122.257	ug/L		98
109) 1,2-Dichlorobenzene	12.626	146	1540726	119.671	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.212	119	3203373	129.788	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.404	155	112496	143.875	ug/L		91
112) 1,3,5-Trichlorobenzene	13.438	180	1154650	125.740	ug/L		93
113) Hexachlorobutadiene	14.012	225	303187	123.674	ug/L		93
114) 1,2,4-Trichlorobenzene	14.037	180	983952	122.715	ug/L		99
115) Naphthalene	14.327	128	2469864	131.165	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	900770	125.849	ug/L		94

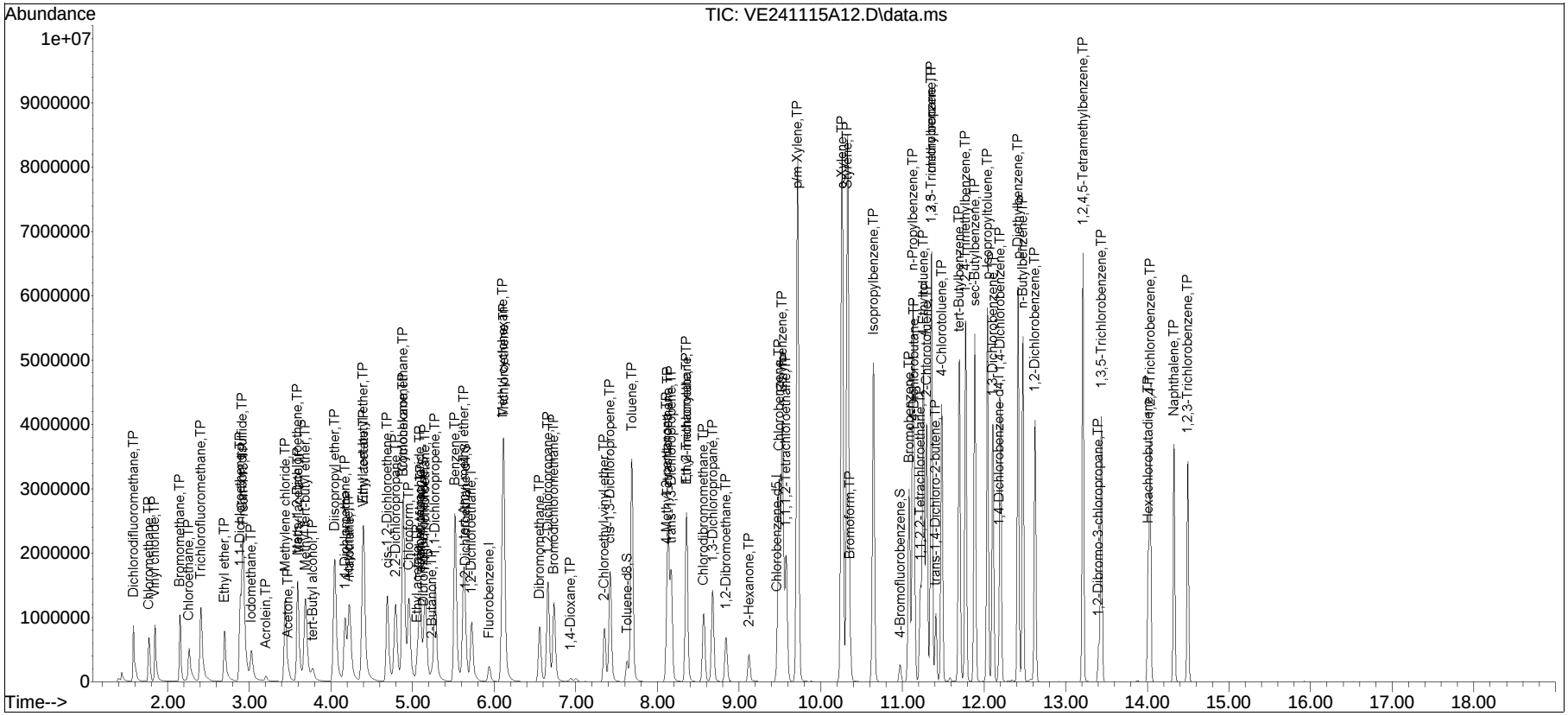
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

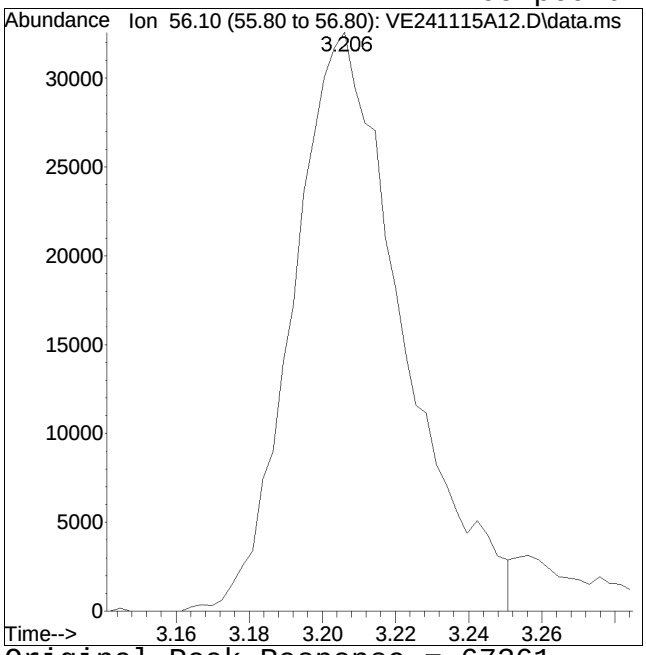
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•



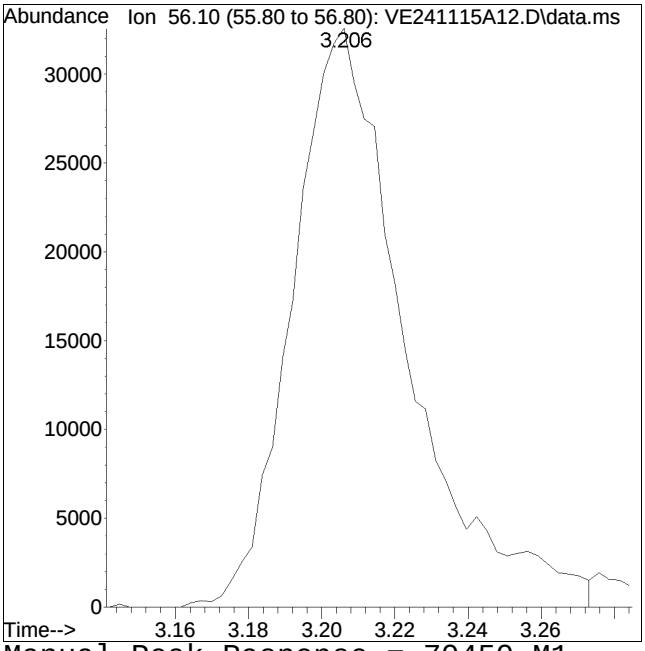
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A12.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:32 am Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 11/15/2024 11:45 am

Compound #14: Acrolein



Original Peak Response = 67361



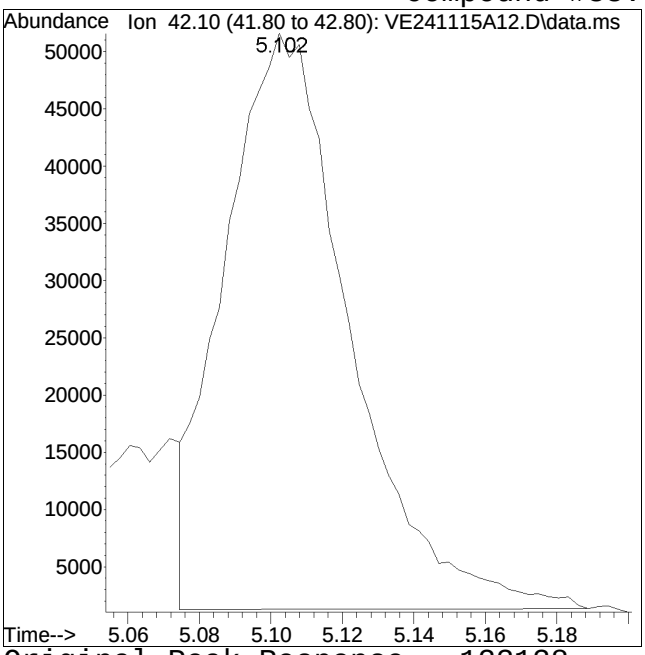
Manual Peak Response = 70450 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

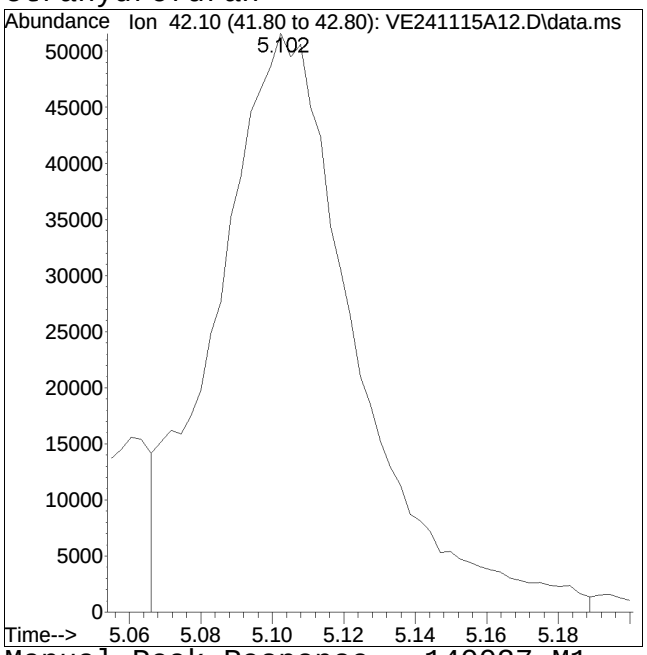
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A12.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:32 am Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



Original Peak Response = 123138



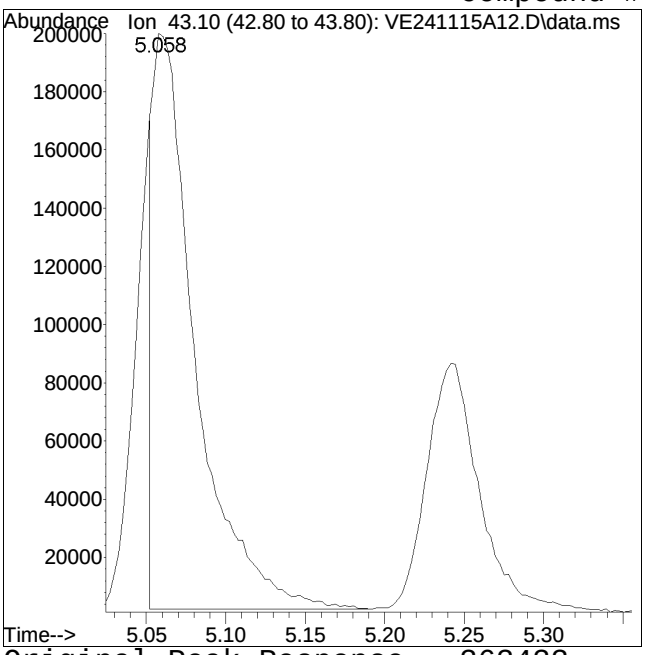
Manual Peak Response = 140027 M1

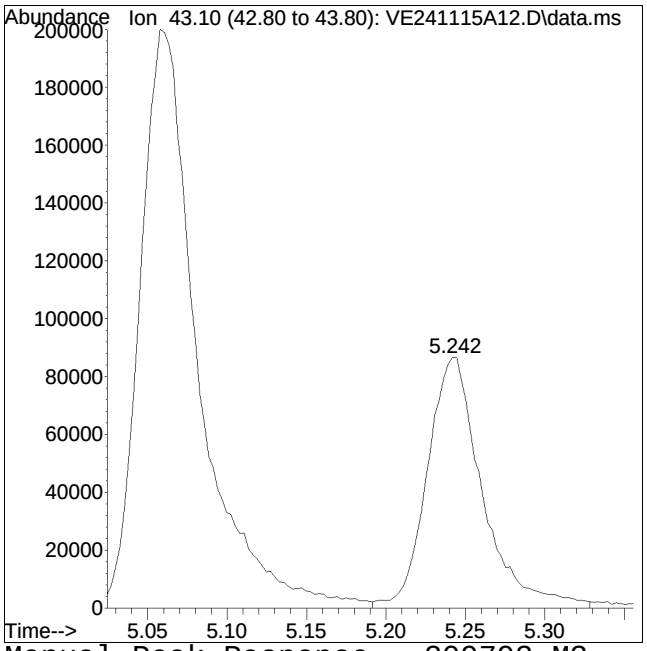
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A12.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:32 am Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone



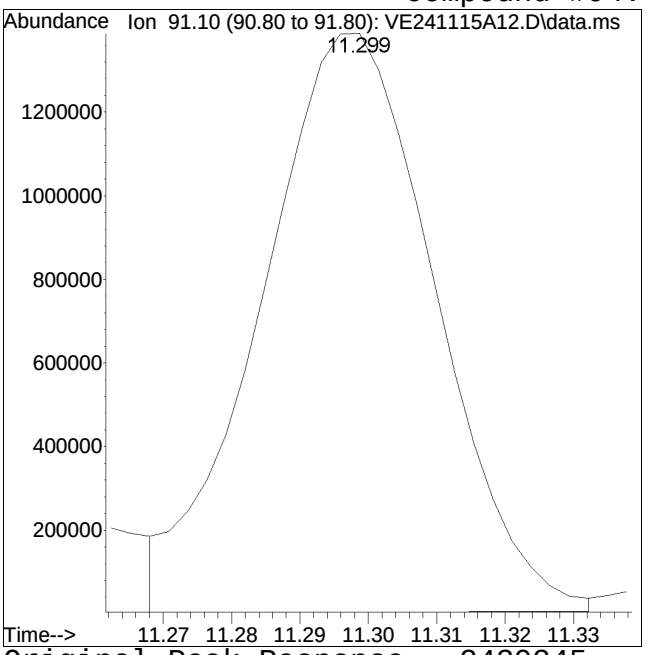


Original Peak Response = 363433 Manual Peak Response = 209793 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

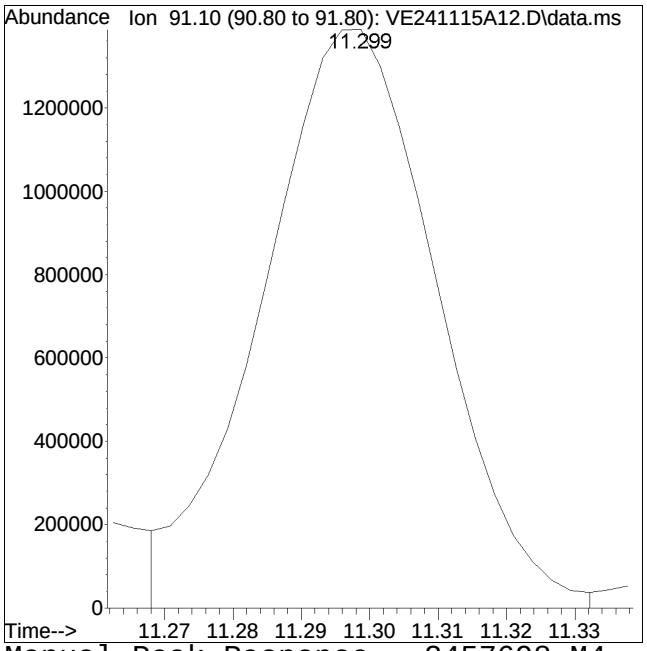
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A12.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:32 am Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 2439245



Manual Peak Response = 2457698 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	281809	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 109.18%			
63) Chlorobenzene-d5	9.472	117	200657	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 107.19%			
84) 1,4-Dichlorobenzene-d4	12.188	152	109443	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 110.11%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	61963	9.589	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.89%			
47) 1,2-Dichloroethane-d4	5.655	65	76590	10.018	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.18%			
64) Toluene-d8	7.626	98	273276	9.986	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.86%			
88) 4-Bromofluorobenzene	10.973	95	99235	9.869	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.69%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	1308064	207.741	ug/L	94
3) Chloromethane	1.773	50	1158680	186.245	ug/L	98
4) Vinyl chloride	1.845	62	1402789	211.607	ug/L	95
5) Bromomethane	2.152	94	901071	193.656	ug/L	94
6) Chloroethane	2.258	64	997751	207.876	ug/L	100
7) Trichlorofluoromethane	2.409	101	2014174	208.246	ug/L	94
8) Ethyl ether	2.699	74	633683	211.872	ug/L	89
10) 1,1-Dichloroethene	2.891	96	1013284	205.720	ug/L	95
11) Carbon disulfide	2.919	76	3051924	206.311	ug/L	96
12) Freon-113	2.927	101	1051263	202.383	ug/L	98
13) Iodomethane	3.028	142	994965	220.008	ug/L	93
14) Acrolein	3.203	56	124341	206.742	ug/L #	71
15) Methylene chloride	3.440	84	1200027	195.164	ug/L	82
17) Acetone	3.477	43	219577	181.453	ug/L	93
18) trans-1,2-Dichloroethene	3.594	96	1110974	202.532	ug/L	94
19) Methyl acetate	3.597	43	527254	195.037	ug/L #	83
21) Methyl tert-butyl ether	3.689	73	3066117	209.113	ug/L #	86
22) tert-Butyl alcohol	3.781	59	401030	1085.217	ug/L #	71
24) Diisopropyl ether	4.046	45	3871308	210.434	ug/L	92
25) 1,1-Dichloroethane	4.174	63	2246240	204.874	ug/L	99
26) Halothane	4.227	117	871041	205.919	ug/L	94

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.216	53	297228	200.392	ug/L		90
28) Ethyl tert-butyl ether	4.394	59	4074726	211.397	ug/L		95
29) Vinyl acetate	4.405	43	2772979	217.763	ug/L		97
30) cis-1,2-Dichloroethene	4.690	96	1315192	210.046	ug/L		87
31) 2,2-Dichloropropane	4.793	77	1752196	202.531	ug/L		86
33) Bromochloromethane	4.885	128	545333	191.166	ug/L		84
34) Cyclohexane	4.888	56	2265418	203.259	ug/L		76
35) Chloroform	4.957	83	2023349	196.693	ug/L		93
36) Ethyl acetate	5.058	43	869393	202.373	ug/L	#	91
37) Carbon tetrachloride	5.089	117	1622027	217.418	ug/L		95
38) Tetrahydrofuran	5.103	42	232404M1	195.095	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	1860812	204.881	ug/L		91
42) 2-Butanone	5.239	43	357848M3	207.378	ug/L		
43) 1,1-Dichloropropene	5.278	75	1622390	203.862	ug/L		94
45) Benzene	5.521	78	5096565	203.350	ug/L		93
46) tert-Amyl methyl ether	5.630	73	3423253	212.227	ug/L		90
48) 1,2-Dichloroethane	5.724	62	1583341	198.627	ug/L		100
51) Methyl cyclohexane	6.109	83	2341916	209.825	ug/L		86
52) Trichloroethene	6.118	95	1242807	209.141	ug/L		97
54) Dibromomethane	6.555	93	702879	206.963	ug/L		91
55) 1,2-Dichloropropane	6.659	63	1295661	203.493	ug/L		95
57) 2-Chloroethyl vinyl ether	7.353	63	789790	210.867	ug/L		89
58) Bromodichloromethane	6.737	83	1723047	208.520	ug/L		93
61) 1,4-Dioxane	6.937	88	84169M1	2022.948	ug/L		
62) cis-1,3-Dichloropropene	7.423	75	2044724	214.379	ug/L		91
65) Toluene	7.688	92	3217073	204.025	ug/L		95
66) 4-Methyl-2-pentanone	8.117	58	355693	214.647	ug/L		77
67) Tetrachloroethene	8.134	166	1288602	203.265	ug/L		97
69) trans-1,3-Dichloropropene	8.170	75	1761992	225.657	ug/L		86
71) Ethyl methacrylate	8.357	69	1274607	214.025	ug/L		99
72) 1,1,2-Trichloroethane	8.354	83	845729	204.077	ug/L		98
73) Chlorodibromomethane	8.566	129	1222353	219.839	ug/L		98
74) 1,3-Dichloropropane	8.678	76	1732855	202.519	ug/L		98
75) 1,2-Dibromoethane	8.842	107	1003585	204.387	ug/L		88
77) 2-Hexanone	9.121	43	562247	211.200	ug/L		92
78) Chlorobenzene	9.492	112	3357852	200.364	ug/L	#	82
79) Ethylbenzene	9.531	91	6160677	204.463	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.575	131	1166248	209.588	ug/L		96
81) p/m Xylene	9.720	106	5016119	432.460	ug/L		95
82) o Xylene	10.264	106	4891567	432.488	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.334	104	8267009	432.945	ug/L		98
85) Bromoform	10.356	173	737369	227.946	ug/L		94
87) Isopropylbenzene	10.646	105	6593001	203.928	ug/L		98
89) Bromobenzene	11.084	156	1422596	197.121	ug/L		98
90) n-Propylbenzene	11.132	91	7431252	202.656	ug/L		97
91) 1,4-Dichlorobutane	11.145	55	1698519	197.765	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.221	83	1209963	193.853	ug/L		97
93) 4-Ethyltoluene	11.260	105	6019443	197.820	ug/L		99
94) 2-Chlorotoluene	11.299	91	4254282M1	199.747	ug/L		
95) 1,3,5-Trimethylbenzene	11.357	105	5430535	201.690	ug/L		96
96) 1,2,3-Trichloropropane	11.360	75	959908	194.816	ug/L		91
97) trans-1,4-Dichloro-2-b...	11.413	53	378271	212.052	ug/L	#	57
98) 4-Chlorotoluene	11.483	91	4445506	201.748	ug/L		100
99) tert-Butylbenzene	11.698	119	4444587	200.029	ug/L		98
102) 1,2,4-Trimethylbenzene	11.776	105	5460752	202.233	ug/L		97
103) sec-Butylbenzene	11.890	105	6904336	203.506	ug/L		98
104) p-Isopropyltoluene	12.046	119	5849865	208.106	ug/L		98
105) 1,3-Dichlorobenzene	12.110	146	2874599	198.999	ug/L		97
106) 1,4-Dichlorobenzene	12.205	146	2881966	198.917	ug/L		99
107) p-Diethylbenzene	12.420	119	3510124	213.434	ug/L		96
108) n-Butylbenzene	12.478	91	5127270	209.161	ug/L		98
109) 1,2-Dichlorobenzene	12.626	146	2744800	199.704	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.212	119	5613733	213.055	ug/L		98
111) 1,2-Dibromo-3-chloropr...	13.407	155	192838	231.022	ug/L		92
112) 1,3,5-Trichlorobenzene	13.441	180	1971478	201.108	ug/L		94
113) Hexachlorobutadiene	14.012	225	507039	193.741	ug/L		93
114) 1,2,4-Trichlorobenzene	14.037	180	1675473	195.737	ug/L		99
115) Naphthalene	14.327	128	4193145	208.592	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	1547760	202.558	ug/L		95

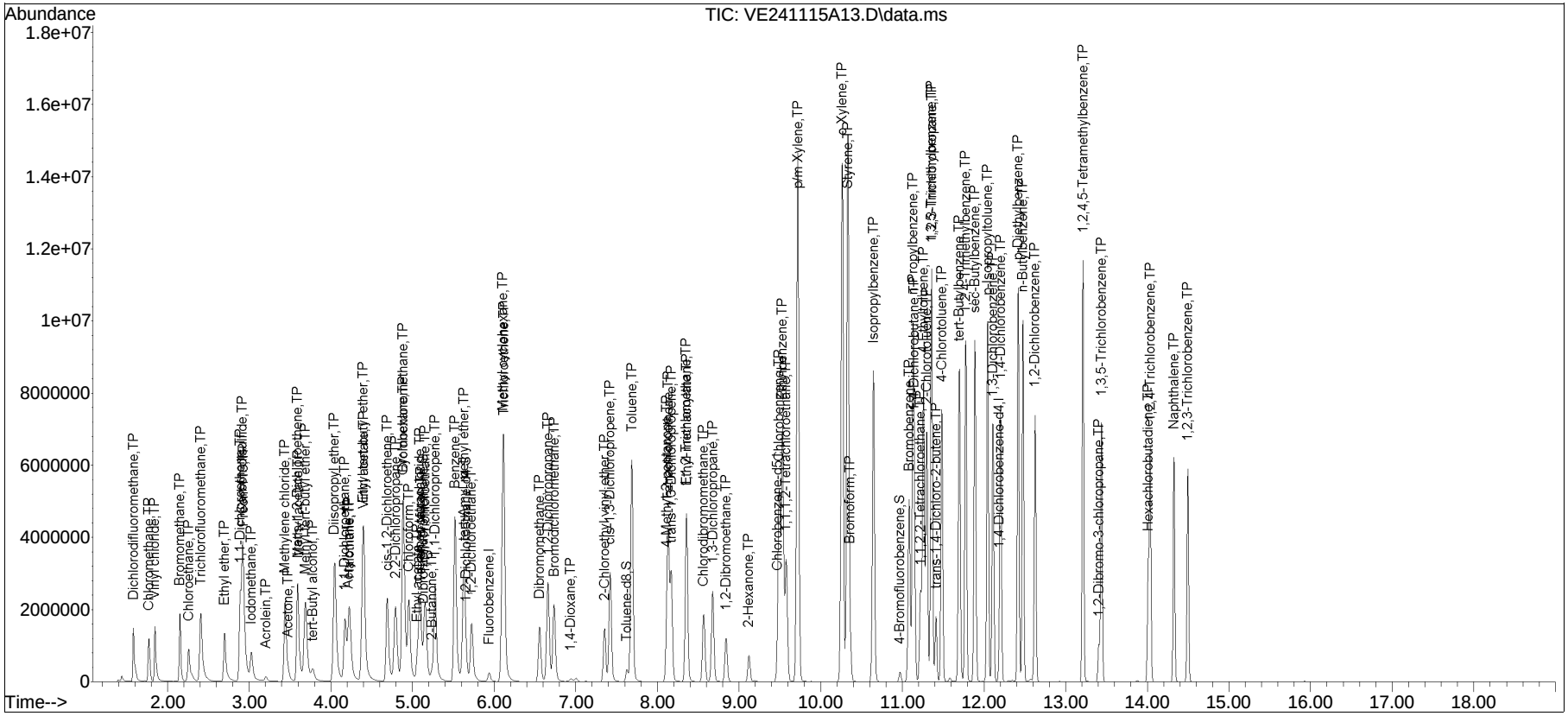
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

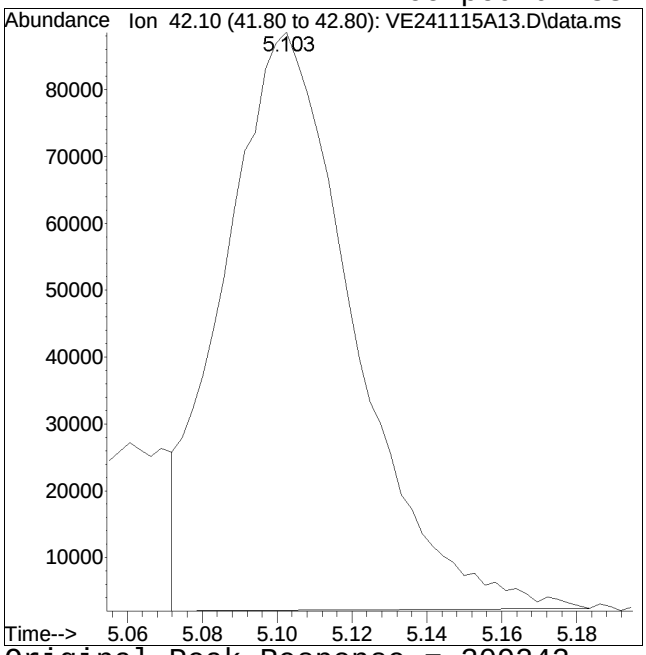
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

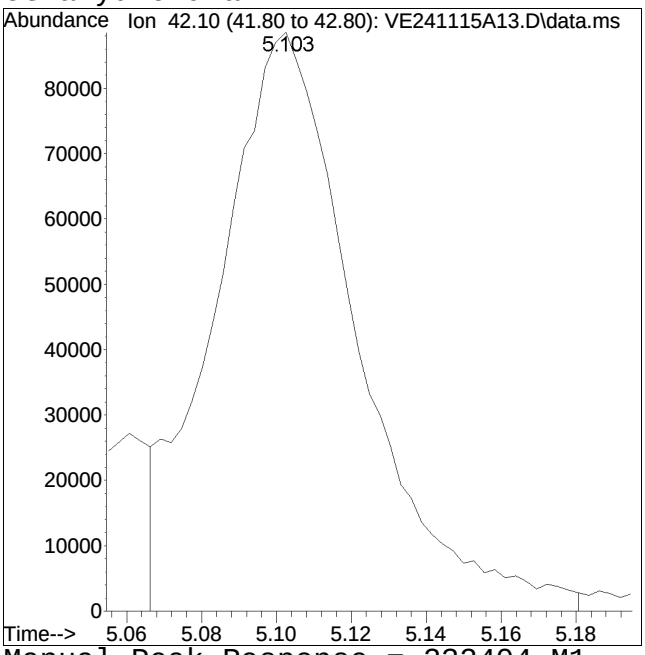


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



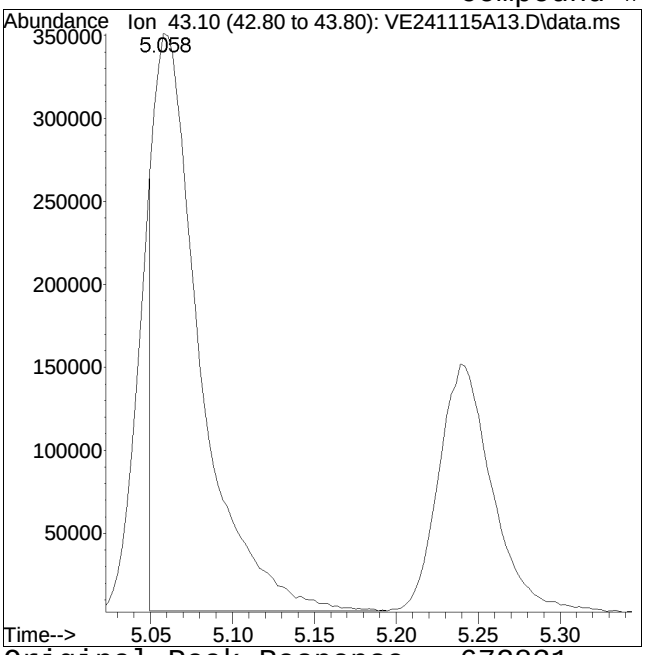


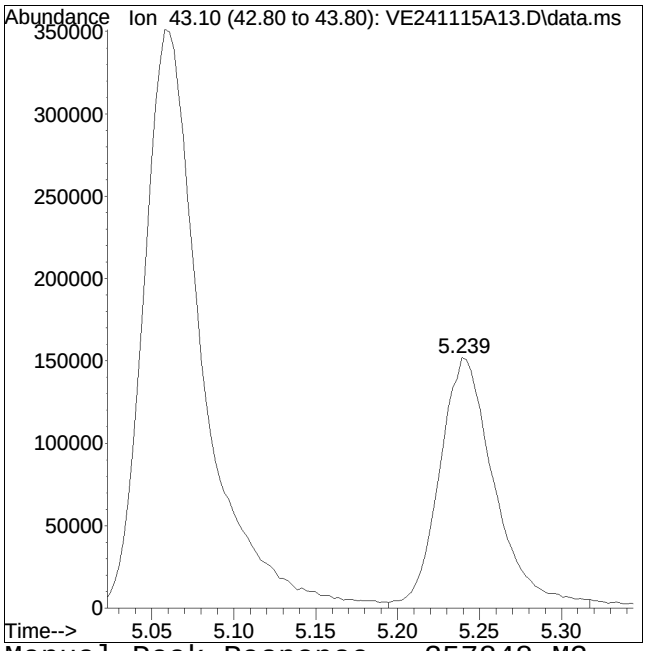
Original Peak Response = 209242 Manual Peak Response = 232404 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone



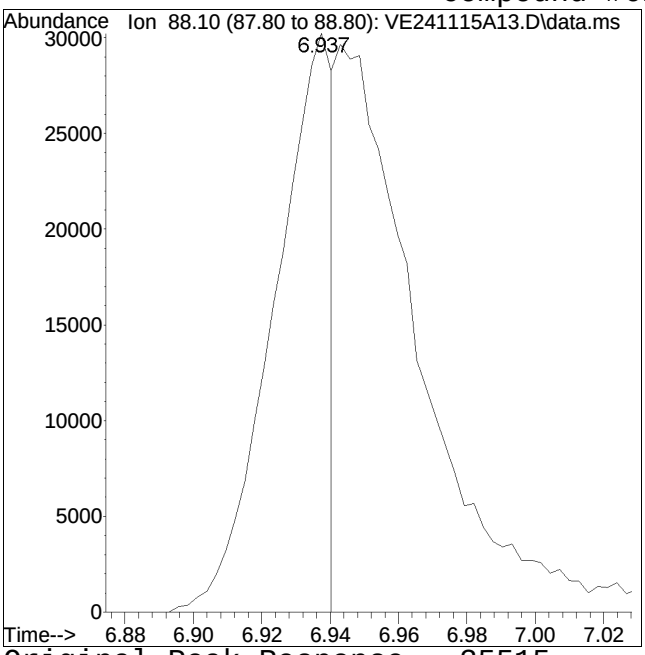


Original Peak Response = 672831 Manual Peak Response = 357848 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

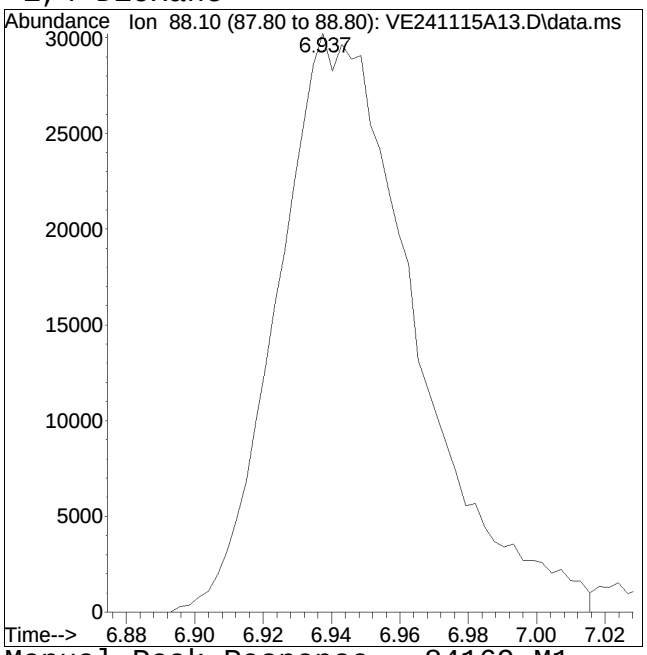
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #61: 1,4-Dioxane



Original Peak Response = 35515



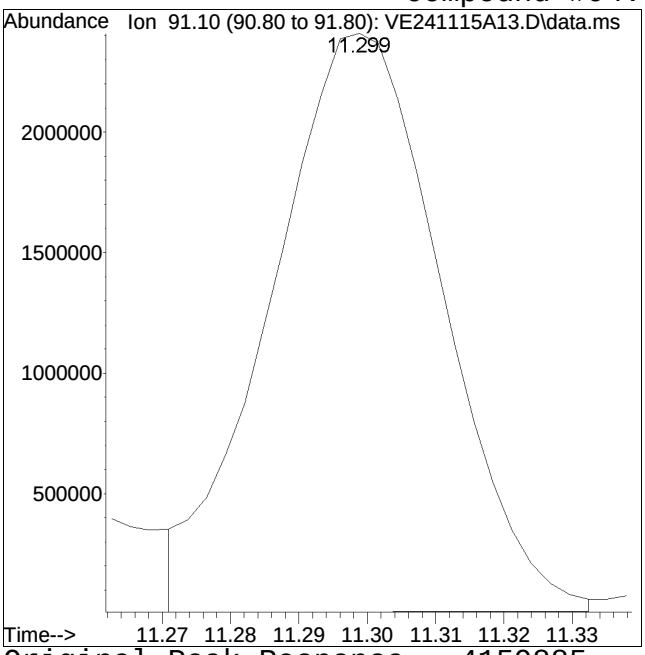
Manual Peak Response = 84169 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

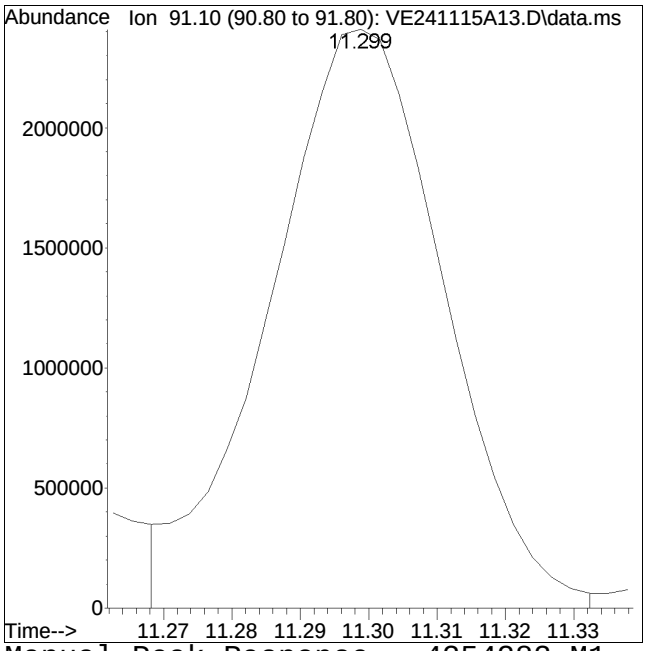
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 4159885



Manual Peak Response = 4254282 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	100	0.00
2	TP	Dichlorodifluoromethane	0.223	0.182	18.4	73	0.00
3	TP	Chloromethane	0.221	0.223	-0.9	95	0.00
4	TP	Vinyl chloride	0.235	0.245	-4.3	95	0.00
5	TP	Bromomethane	0.165	0.182	-10.3	110	0.00
6	TP	Chloroethane	0.170	0.172	-1.2	95	0.00
7	TP	Trichlorofluoromethane	0.343	0.371	-8.2	97	0.00
8	TP	Ethyl ether	0.106	0.129	-21.7#	121	0.00
10	TP	1,1-Dichloroethene	0.175	0.171	2.3	95	0.00
11	TP	Carbon disulfide	0.525	0.527	-0.4	94	0.00
12	TP	Freon-113	0.184	0.204	-10.9	100	0.00
13	TP	Iodomethane	0.160	0.214	-33.8#	147	0.00
14	TP	Acrolein	0.021	0.030	-42.9#	135	0.00
15	TP	Methylene chloride	0.218	0.204	6.4	92	0.00
17	TP	Acetone	0.043	0.046	-7.0	113	0.00
18	TP	trans-1,2-Dichloroethene	0.195	0.187	4.1	91	0.00
19	TP	Methyl acetate	0.096	0.097	-1.0	102	0.00
21	TP	Methyl tert-butyl ether	0.520	0.546	-5.0	103	0.00
22	TP	tert-Butyl alcohol	0.013	0.015	-15.4	109	0.00
24	TP	Diisopropyl ether	0.653	0.662	-1.4	99	0.00
25	TP	1,1-Dichloroethane	0.389	0.401	-3.1	99	0.00
26	TP	Halothane	0.150	0.158	-5.3	100	0.00
27	TP	Acrylonitrile	0.053	0.056	-5.7	105	0.00
28	TP	Ethyl tert-butyl ether	0.684	0.716	-4.7	105	0.00
29	TP	Vinyl acetate	0.452	0.432	4.4	96	0.00
30	TP	cis-1,2-Dichloroethene	0.222	0.231	-4.1	100	0.00
31	TP	2,2-Dichloropropane	0.307	0.298	2.9	91	0.00
33	TP	Bromochloromethane	0.101	0.103	-2.0	96	0.00
34	TP	Cyclohexane	0.395	0.406	-2.8	95	0.00
35	TP	Chloroform	0.365	0.371	-1.6	103	0.00
36	TP	Ethyl acetate	0.152	0.156	-2.6	99	0.00
37	TP	Carbon tetrachloride	0.265	0.279	-5.3	99	0.00
38	TP	Tetrahydrofuran	0.042	0.045	-7.1	108	0.00
39	S	Dibromofluoromethane	0.229	0.229	0.0	97	0.00
40	TP	1,1,1-Trichloroethane	0.322	0.341	-5.9	99	0.00
42	TP	2-Butanone	0.061	0.060	1.6	111	0.00
43	TP	1,1-Dichloropropene	0.282	0.301	-6.7	100	0.00
45	TP	Benzene	0.889	0.892	-0.3	97	0.00
46	TP	tert-Amyl methyl ether	0.572	0.588	-2.8	103	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.271	0.272	-0.4	100	0.00
48	T	1,2-Dichloroethane	0.283	0.291	-2.8	102	0.00
51	TP	Methyl cyclohexane	0.396	0.411	-3.8	99	0.00
52	TP	Trichloroethene	0.211	0.224	-6.2	100	0.00
54	TP	Dibromomethane	0.121	0.124	-2.5	99	0.00
55	TP	1,2-Dichloropropane	0.226	0.234	-3.5	100	0.00
57	TP	2-Chloroethyl vinyl ether	0.133	0.133	0.0	98	0.00
58	TP	Bromodichloromethane	0.293	0.289#	1.4	95	0.00
61	TP	1,4-Dioxane	0.00148	0.00166#	-12.2	105	0.00
62	TP	cis-1,3-Dichloropropene	0.338	0.354	-4.7	99	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
64	S	Toluene-d8	1.364	1.375	-0.8	101	0.00
65	TP	Toluene	0.786	0.799	-1.7	98	0.00
66	TP	4-Methyl-2-pentanone	0.083	0.090	-8.4	115	0.00
67	TP	Tetrachloroethene	0.316	0.336	-6.3	100	0.00
69	TP	trans-1,3-Dichloropropene	0.389	0.417	-7.2	101	0.00
71	TP	Ethyl methacrylate	0.297	0.350	-17.8	116	0.00
72	TP	1,1,2-Trichloroethane	0.207	0.208	-0.5	99	0.00
73	TP	Chlorodibromomethane	0.277	0.275	0.7	100	0.00
74	TP	1,3-Dichloropropane	0.426	0.432	-1.4	100	0.00
75	TP	1,2-Dibromoethane	0.245	0.249	-1.6	102	0.00
77	TP	2-Hexanone	0.133	0.139	-4.5	107	0.00
78	TP	Chlorobenzene	0.835	0.861	-3.1	101	0.00
79	TP	Ethylbenzene	1.502	1.545	-2.9	99	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.277	0.288	-4.0	100	0.00
81	TP	p/m Xylene	0.578	0.590	-2.1	100	0.00
82	TP	o Xylene	0.564	0.580	-2.8	101	0.00
83	TP	Styrene	0.952	0.967	-1.6	102	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
85	TP	Bromoform	0.296	0.307	-3.7	102	0.00
87	TP	Isopropylbenzene	2.954	3.097	-4.8	100	0.00
88	S	4-Bromofluorobenzene	0.919	0.952	-3.6	102	0.00
89	TP	Bromobenzene	0.659	0.704	-6.8	100	0.00
90	TP	n-Propylbenzene	3.351	3.567	-6.4	101	0.00
91	TP	1,4-Dichlorobutane	0.785	0.906	-15.4	109	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.570	0.584	-2.5	100	0.00
93	TP	4-Ethyltoluene	2.780	3.095	-11.3	104	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94 TP	2-Chlorotoluene	1.946	2.040	-4.8	99	0.00
95 TP	1,3,5-Trimethylbenzene	2.460	2.565	-4.3	99	0.00
96 TP	1,2,3-Trichloropropane	0.450	0.489	-8.7	106	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.163	0.179	-9.8	112	0.00
98 TP	4-Chlorotoluene	2.013	2.138	-6.2	101	0.00
99 TP	tert-Butylbenzene	2.030	2.161	-6.5	100	0.00
102 TP	1,2,4-Trimethylbenzene	2.467	2.651	-7.5	102	0.00
103 TP	sec-Butylbenzene	3.100	3.235	-4.4	98	0.00
104 TP	p-Isopropyltoluene	2.568	2.692	-4.8	99	0.00
105 TP	1,3-Dichlorobenzene	1.320	1.380	-4.5	101	0.00
106 TP	1,4-Dichlorobenzene	1.324	1.397	-5.5	102	0.00
107 TP	p-Diethylbenzene	1.503	1.569	-4.4	98	0.00
108 TP	n-Butylbenzene	2.240	2.414	-7.8	102	0.00
109 TP	1,2-Dichlorobenzene	1.256	1.323	-5.3	103	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.408	2.478	-2.9	101	0.00
111 TP	1,2-Dibromo-3-chloropropane	0.076	0.083	-9.2	110	0.00
112 TP	1,3,5-Trichlorobenzene	0.896	0.921	-2.8	98	0.00
113 TP	Hexachlorobutadiene	0.239	0.251	-5.0	96	0.00
114 TP	1,2,4-Trichlorobenzene	0.782	0.823	-5.2	101	0.00
115 TP	Naphthalene	1.837	1.922	-4.6	103	0.00
116 TP	1,2,3-Trichlorobenzene	0.698	0.732	-4.9	102	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 2 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	258201	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 100.04%			
63) Chlorobenzene-d5	9.467	117	189435	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.19%			
84) 1,4-Dichlorobenzene-d4	12.188	152	96658	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 97.24%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	59232	10.005	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.05%			
47) 1,2-Dichloroethane-d4	5.660	65	70160	10.016	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.16%			
64) Toluene-d8	7.626	98	260441	10.081	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.81%			
88) 4-Bromofluorobenzene	10.973	95	92060	10.367	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.67%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	47006	8.148	ug/L #	93
3) Chloromethane	1.776	50	57511	10.089	ug/L	96
4) Vinyl chloride	1.848	62	63197	10.405	ug/L	92
5) Bromomethane	2.152	94	47110	11.050	ug/L	92
6) Chloroethane	2.269	64	44518M1	10.123	ug/L	
7) Trichlorofluoromethane	2.409	101	95692	10.798	ug/L	98
8) Ethyl ether	2.704	74	33320	12.159	ug/L	87
10) 1,1-Dichloroethene	2.897	96	44178	9.789	ug/L	100
11) Carbon disulfide	2.922	76	136172	10.047	ug/L	99
12) Freon-113	2.936	101	52753	11.084	ug/L	94
13) Iodomethane	3.028	142	55371	13.363	ug/L #	91
14) Acrolein	3.203	56	7715	14.001	ug/L #	74
15) Methylene chloride	3.443	84	52724	9.359	ug/L	85
17) Acetone	3.479	43	11779	10.624	ug/L #	74
18) trans-1,2-Dichloroethene	3.594	96	48272	9.605	ug/L	92
19) Methyl acetate	3.605	43	24990M3	10.089	ug/L	
21) Methyl tert-butyl ether	3.694	73	140945	10.492	ug/L	89
22) tert-Butyl alcohol	3.783	59	19581	57.832	ug/L #	66
24) Diisopropyl ether	4.051	45	170945	10.142	ug/L #	93
25) 1,1-Dichloroethane	4.179	63	103413	10.294	ug/L	99
26) Halothane	4.232	117	40826	10.534	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	14486	10.659	ug/L	#	77
28) Ethyl tert-butyl ether	4.391	59	184970	10.474	ug/L		96
29) Vinyl acetate	4.405	43	111599	9.565	ug/L	#	95
30) cis-1,2-Dichloroethene	4.690	96	59751	10.415	ug/L		89
31) 2,2-Dichloropropane	4.796	77	76845	9.694	ug/L		87
33) Bromochloromethane	4.885	128	26493	10.136	ug/L	#	81
34) Cyclohexane	4.891	56	104798	10.262	ug/L		71
35) Chloroform	4.957	83	95734	10.157	ug/L		95
36) Ethyl acetate	5.061	43	40325	10.245	ug/L	#	93
37) Carbon tetrachloride	5.097	117	72087	10.546	ug/L		96
38) Tetrahydrofuran	5.100	42	11700M6	10.720	ug/L		
40) 1,1,1-Trichloroethane	5.161	97	88068	10.583	ug/L		91
42) 2-Butanone	5.242	43	15459	9.778	ug/L		99
43) 1,1-Dichloropropene	5.278	75	77658	10.650	ug/L		94
45) Benzene	5.524	78	230255	10.027	ug/L		93
46) tert-Amyl methyl ether	5.635	73	151708	10.265	ug/L		92
48) 1,2-Dichloroethane	5.727	62	75026	10.272	ug/L		100
51) Methyl cyclohexane	6.106	83	106042	10.370	ug/L		85
52) Trichloroethene	6.115	95	57922	10.638	ug/L		91
54) Dibromomethane	6.561	93	31946	10.267	ug/L		91
55) 1,2-Dichloropropane	6.659	63	60421	10.357	ug/L		96
57) 2-Chloroethyl vinyl ether	7.353	63	34243	9.979	ug/L		90
58) Bromodichloromethane	6.734	83	74704	9.867	ug/L		91
61) 1,4-Dioxane	6.935	88	21427M1	562.071	ug/L		
62) cis-1,3-Dichloropropene	7.423	75	91278	10.445	ug/L		90
65) Toluene	7.688	92	151299	10.164	ug/L		93
66) 4-Methyl-2-pentanone	8.114	58	17052	10.900	ug/L		77
67) Tetrachloroethene	8.136	166	63628	10.631	ug/L		98
69) trans-1,3-Dichloropropene	8.164	75	78967	10.712	ug/L		83
71) Ethyl methacrylate	8.360	69	66371	11.805	ug/L		98
72) 1,1,2-Trichloroethane	8.354	83	39389	10.068	ug/L		98
73) Chlorodibromomethane	8.569	129	52067	9.919	ug/L		99
74) 1,3-Dichloropropane	8.680	76	81810	10.128	ug/L		99
75) 1,2-Dibromoethane	8.845	107	47142	10.170	ug/L		89
77) 2-Hexanone	9.126	43	26381	10.497	ug/L		92
78) Chlorobenzene	9.492	112	163138	10.311	ug/L	#	83
79) Ethylbenzene	9.528	91	292732	10.291	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.578	131	54488	10.372	ug/L		96
81) p/m Xylene	9.718	106	223646	20.424	ug/L		96
82) o Xylene	10.261	106	219895	20.594	ug/L		89

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.326	104	366490	20.330	ug/L		95
85) Bromoform	10.348	173	29631	10.372	ug/L		93
87) Isopropylbenzene	10.643	105	299346	10.484	ug/L		98
89) Bromobenzene	11.081	156	68064	10.679	ug/L		98
90) n-Propylbenzene	11.129	91	344768	10.646	ug/L		94
91) 1,4-Dichlorobutane	11.145	55	87586	11.547	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.215	83	56484	10.247	ug/L		97
93) 4-Ethyltoluene	11.257	105	299120	11.130	ug/L		100
94) 2-Chlorotoluene	11.296	91	197219M1	10.485	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	247954	10.427	ug/L		98
96) 1,2,3-Trichloropropane	11.355	75	47286	10.866	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.408	53	17339	11.006	ug/L	#	70
98) 4-Chlorotoluene	11.480	91	206675	10.620	ug/L		100
99) tert-Butylbenzene	11.695	119	208880	10.644	ug/L		95
102) 1,2,4-Trimethylbenzene	11.773	105	256207	10.743	ug/L		97
103) sec-Butylbenzene	11.887	105	312677	10.435	ug/L		100
104) p-Isopropyltoluene	12.041	119	260237	10.482	ug/L		96
105) 1,3-Dichlorobenzene	12.108	146	133373	10.454	ug/L		98
106) 1,4-Dichlorobenzene	12.202	146	135076	10.556	ug/L		98
107) p-Diethylbenzene	12.417	119	151639	10.440	ug/L		97
108) n-Butylbenzene	12.476	91	233327	10.777	ug/L		97
109) 1,2-Dichlorobenzene	12.626	146	127838	10.531	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.209	119	239535	10.293	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.404	155	8026	10.887	ug/L	#	48
112) 1,3,5-Trichlorobenzene	13.435	180	89065	10.287	ug/L		91
113) Hexachlorobutadiene	14.012	225	24249	10.491	ug/L		94
114) 1,2,4-Trichlorobenzene	14.034	180	79559	10.524	ug/L		98
115) Naphthalene	14.327	128	185804	10.466	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	70739	10.482	ug/L		95

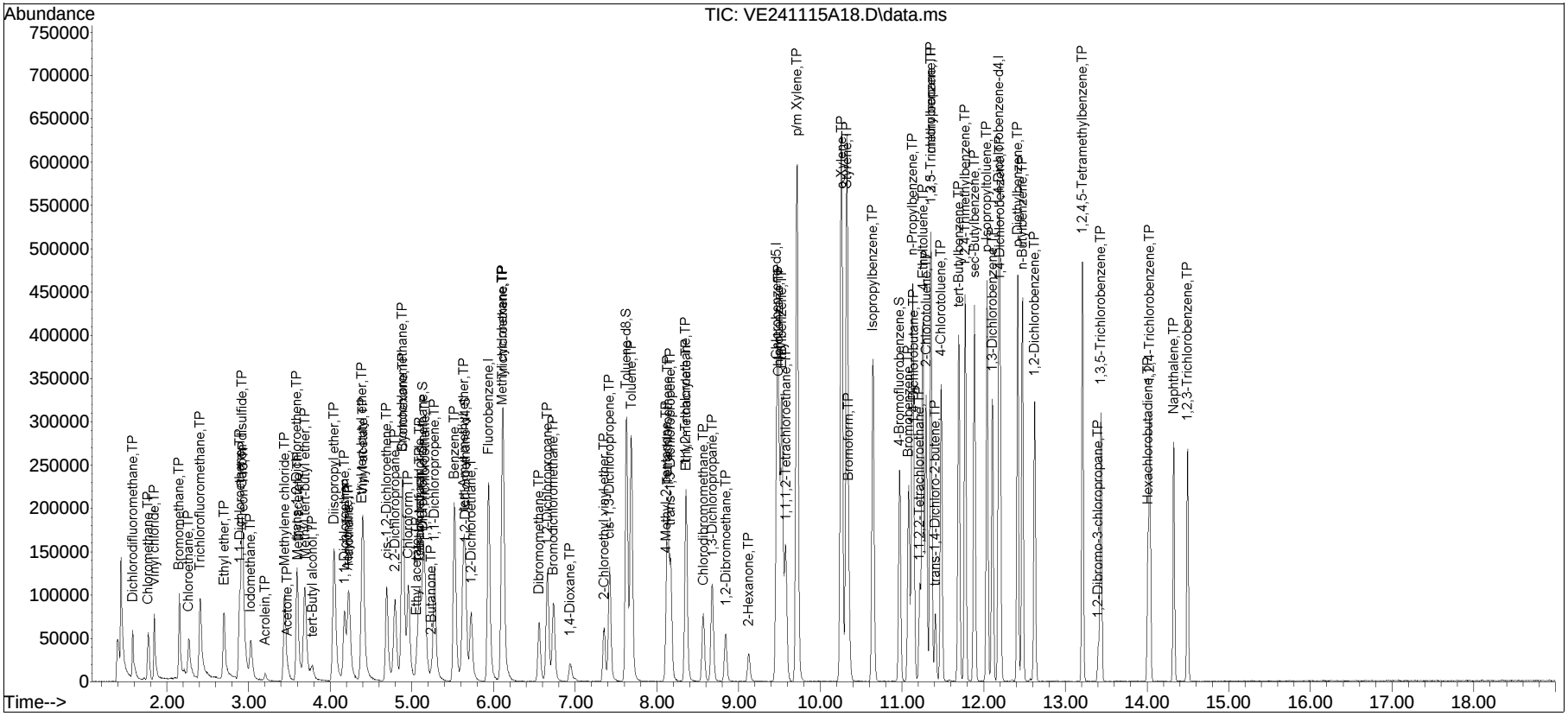
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

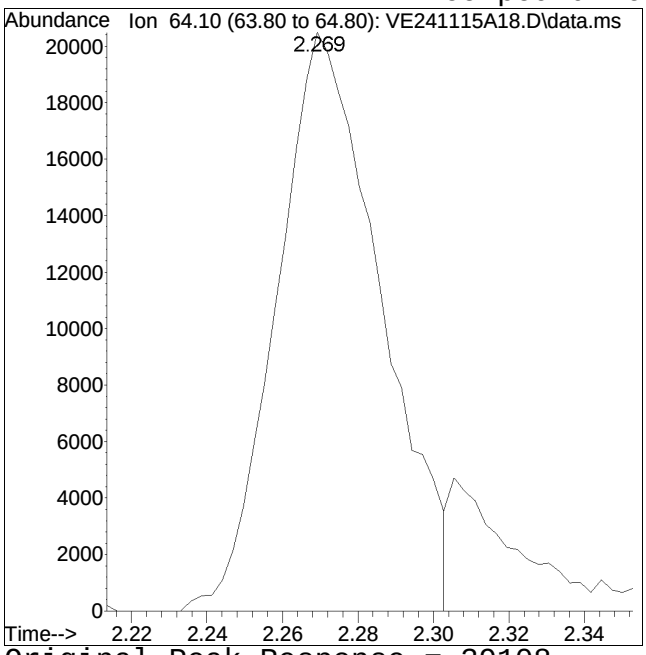
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•



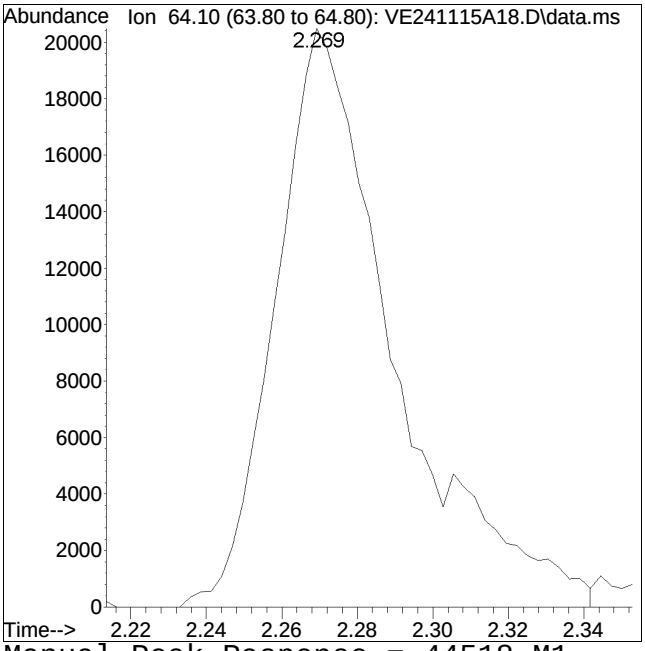
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #6: Chloroethane



Original Peak Response = 39108



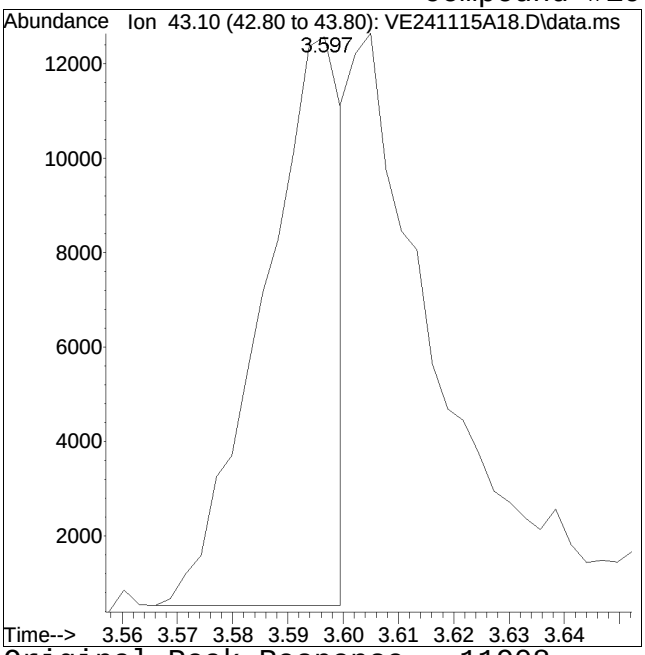
Manual Peak Response = 44518 M1

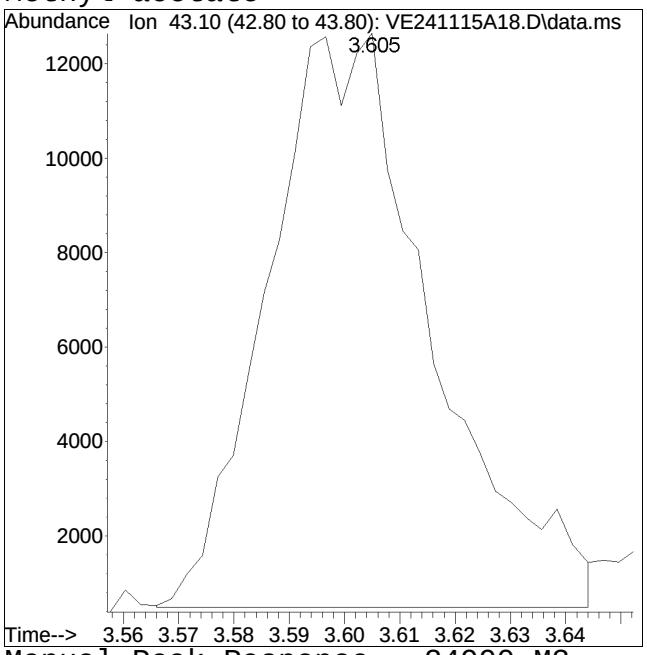
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #19: Methyl acetate





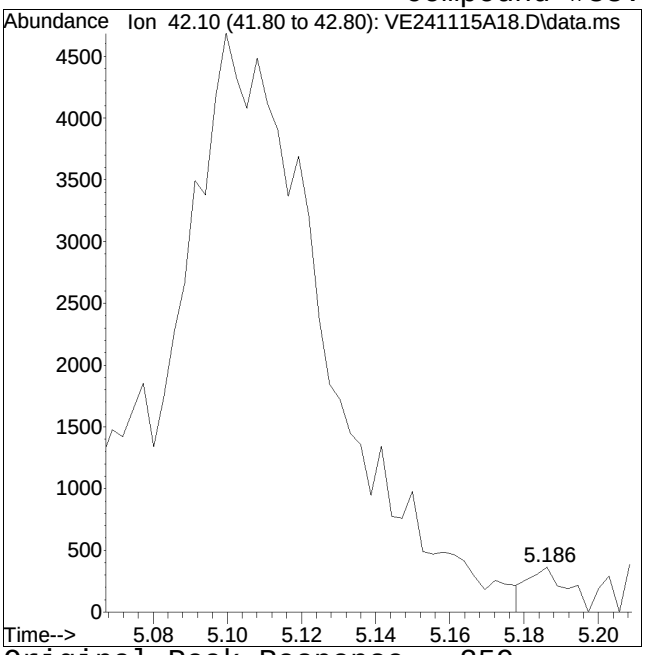
Original Peak Response = 11908 Manual Peak Response = 24990 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

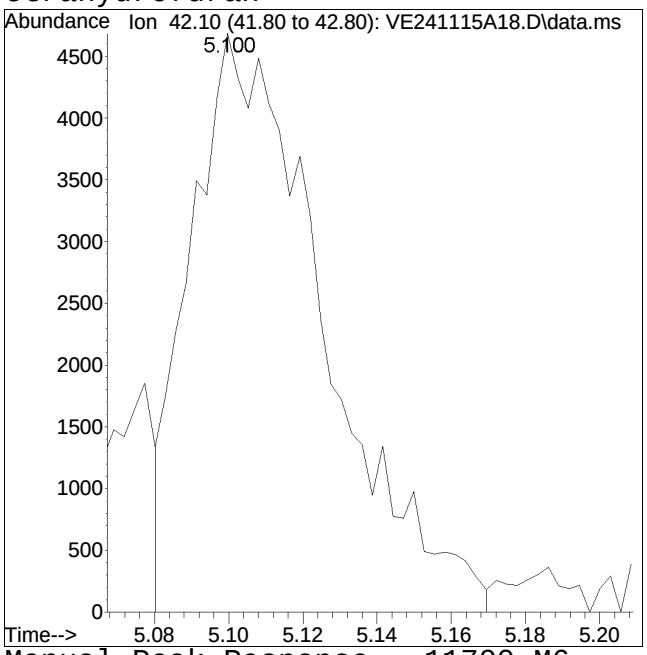
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #38: Tetrahydrofuran



Original Peak Response = 259



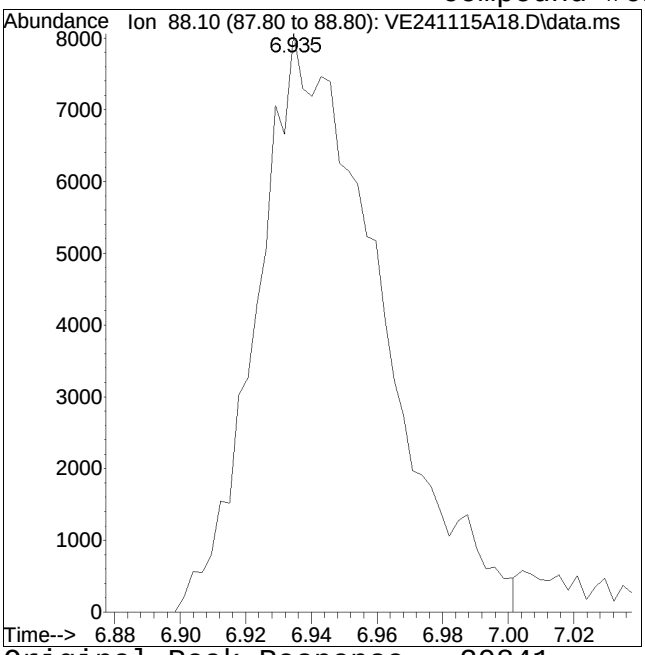
Manual Peak Response = 11700 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

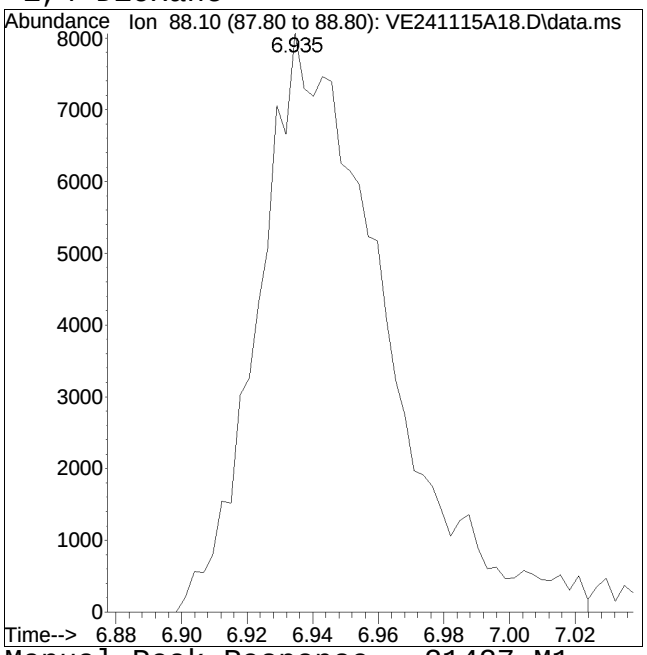
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #61: 1,4-Dioxane



Original Peak Response = 20841



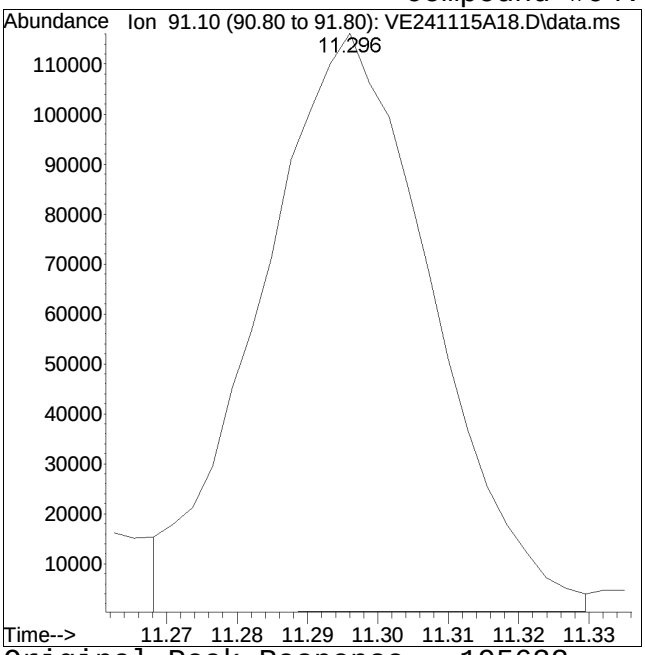
Manual Peak Response = 21427 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

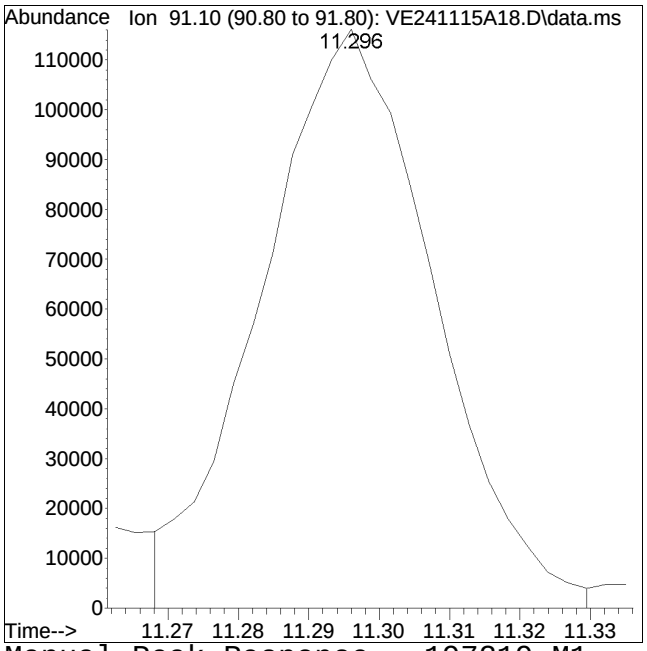
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 195632



Manual Peak Response = 197219 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376	
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 11/22/24 21:20	
Lab File ID	: VE241122N02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24
Sample No	: WG2001424-2	**Init. Calib. Times**	: 02:52	06:56
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	77	0
Dichlorodifluoromethane	0.223	0.233	-	-4.5	20	73	0
Chloromethane	0.221	0.189	-	14.5	20	62	0
Vinyl chloride	0.235	0.252	-	-7.2	20	75	0
Bromomethane	0.165	0.076	-	53.9*	20	36	0
Chloroethane	0.17	0.184	-	-8.2	20	78	0
Trichlorofluoromethane	0.343	0.339	-	1.2	20	69	0
Ethyl ether	0.106	0.117	-	-10.4	20	84	0
1,1-Dichloroethene	0.175	0.178	-	-1.7	20	76	0
Carbon disulfide	0.525	0.526	-	-0.2	20	73	0
Freon-113	0.184	0.178	-	3.3	20	68	0
Iodomethane	0.16	0.057	-	64.4*	20	30	0
Acrolein	0.021	0.033	-	-57.1*	20	114	0
Methylene chloride	0.218	0.215	-	1.4	20	75	0
Acetone	0.043	0.04	-	7	20	76	0
trans-1,2-Dichloroethene	0.195	0.185	-	5.1	20	69	0
Methyl acetate	0.096	0.097	-	-1	20	78	0
Methyl tert-butyl ether	0.52	0.497	-	4.4	20	72	0
tert-Butyl alcohol	0.013	0.012	-	7.7	20	66	0
Diisopropyl ether	0.653	0.672	-	-2.9	20	78	0
1,1-Dichloroethane	0.389	0.4	-	-2.8	20	76	0
Halothane	0.15	0.142	-	5.3	20	69	.01
Acrylonitrile	0.053	0.054	-	-1.9	20	77	0
Ethyl tert-butyl ether	0.684	0.661	-	3.4	20	75	0
Vinyl acetate	0.452	0.419	-	7.3	20	72	0
cis-1,2-Dichloroethene	0.222	0.226	-	-1.8	20	75	0
2,2-Dichloropropane	0.307	0.275	-	10.4	20	65	0
Bromochloromethane	0.101	0.1*	-	1	20	72	0
Cyclohexane	0.395	0.391	-	1	20	70	0
Chloroform	0.365	0.371	-	-1.6	20	80	0
Ethyl acetate	0.152	0.151	-	0.7	20	73	0
Carbon tetrachloride	0.265	0.244	-	7.9	20	67	0
Tetrahydrofuran	0.042	0.043	-	-2.4	20	79	0
Dibromofluoromethane	0.229	0.231	-	-0.9	20	75	0
1,1,1-Trichloroethane	0.322	0.315	-	2.2	20	70	0
2-Butanone	0.061	0.056	-	8.2	20	79	0
1,1-Dichloropropene	0.282	0.279	-	1.1	20	72	0
Benzene	0.889	0.902	-	-1.5	20	76	0
tert-Amyl methyl ether	0.572	0.515	-	10	20	69	0
1,2-Dichloroethane-d4	0.271	0.296	-	-9.2	20	84	0
1,2-Dichloroethane	0.283	0.293	-	-3.5	20	80	0
Methyl cyclohexane	0.396	0.37	-	6.6	20	69	0
Trichloroethene	0.211	0.213	-	-0.9	20	73	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376		
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 11/22/24 21:20		
Lab File ID	: VE241122N02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24	
Sample No	: WG2001424-2	**Init. Calib. Times**	: 02:52	06:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.121	0.118	-	2.5	20	73	0
1,2-Dichloropropane	0.226	0.241	-	-6.6	20	80	0
Bromodichloromethane	0.293	0.288*	-	1.7	20	73	0
1,4-Dioxane	0.00148	0.00139*	-	6.1	20	67	0
cis-1,3-Dichloropropene	0.338	0.325	-	3.8	20	70	0
Chlorobenzene-d5	1	1	-	0	20	76	0
Toluene-d8	1.364	1.409	-	-3.3	20	77	0
Toluene	0.786	0.792	-	-0.8	20	73	0
4-Methyl-2-pentanone	0.083	0.08	-	3.6	20	77	0
Tetrachloroethene	0.316	0.298	-	5.7	20	66	0
trans-1,3-Dichloropropene	0.389	0.387	-	0.5	20	70	0
Ethyl methacrylate	0.297	0.279	-	6.1	20	69	0
1,1,2-Trichloroethane	0.207	0.211	-	-1.9	20	75	0
Chlorodibromomethane	0.277	0.257	-	7.2	20	70	0
1,3-Dichloropropane	0.426	0.451	-	-5.9	20	78	0
1,2-Dibromoethane	0.245	0.24	-	2	20	73	0
2-Hexanone	0.133	0.121	-	9	20	69	0
Chlorobenzene	0.835	0.847	-	-1.4	20	74	0
Ethylbenzene	1.502	1.528	-	-1.7	20	73	0
1,1,1,2-Tetrachloroethane	0.277	0.273	-	1.4	20	71	0
p/m Xylene	0.578	0.584	-	-1	20	74	0
o Xylene	0.564	0.559	-	0.9	20	73	0
Styrene	0.952	0.935	-	1.8	20	74	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	73	0
Bromoform	0.296	0.266	-	10.1	20	66	0
Isopropylbenzene	2.954	2.974	-	-0.7	20	72	0
4-Bromofluorobenzene	0.919	0.935	-	-1.7	20	75	0
Bromobenzene	0.659	0.658	-	0.2	20	70	0
n-Propylbenzene	3.351	3.474	-	-3.7	20	74	0
1,4-Dichlorobutane	0.785	0.853	-	-8.7	20	77	0
1,1,2,2-Tetrachloroethane	0.57	0.607	-	-6.5	20	78	0
4-Ethyltoluene	2.78	2.897	-	-4.2	20	73	0
2-Chlorotoluene	1.946	2.039	-	-4.8	20	74	0
1,3,5-Trimethylbenzene	2.46	2.529	-	-2.8	20	73	0
1,2,3-Trichloropropane	0.45	0.478	-	-6.2	20	78	0
trans-1,4-Dichloro-2-buten	0.163	0.16	-	1.8	20	75	0
4-Chlorotoluene	2.013	2.093	-	-4	20	74	0
tert-Butylbenzene	2.03	2.024	-	0.3	20	70	0
1,2,4-Trimethylbenzene	2.467	2.576	-	-4.4	20	74	0
sec-Butylbenzene	3.1	3.139	-	-1.3	20	72	0
p-Isopropyltoluene	2.568	2.592	-	-0.9	20	71	0
1,3-Dichlorobenzene	1.32	1.335	-	-1.1	20	73	0
1,4-Dichlorobenzene	1.324	1.34	-	-1.2	20	74	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2468376		
Project Name	: 1487 FIRST AVENUE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 11/22/24 21:20		
Lab File ID	: VE241122N02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24	
Sample No	: WG2001424-2	**Init. Calib. Times**	: 02:52	06:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.503	1.499	-	0.3	20	70	0
n-Butylbenzene	2.24	2.3	-	-2.7	20	73	0
1,2-Dichlorobenzene	1.256	1.244	-	1	20	73	0
1,2,4,5-Tetramethylbenzene	2.408	2.331	-	3.2	20	71	0
1,2-Dibromo-3-chloropropan	0.076	0.071	-	6.6	20	70	0
1,3,5-Trichlorobenzene	0.896	0.865	-	3.5	20	69	0
Hexachlorobutadiene	0.239	0.21	-	12.1	20	60	0
1,2,4-Trichlorobenzene	0.782	0.745	-	4.7	20	69	0
Naphthalene	1.837	1.741	-	5.2	20	70	0
1,2,3-Trichlorobenzene	0.698	0.665	-	4.7	20	69	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-2
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	77	0.00
2	TP	Dichlorodifluoromethane	0.223	0.233	-4.5	73	0.00
3	TP	Chloromethane	0.221	0.189	14.5	62	0.00
4	TP	Vinyl chloride	0.235	0.252	-7.2	75	0.00
5	TP	Bromomethane	0.165	0.076	53.9#	36#	0.00
6	TP	Chloroethane	0.170	0.184	-8.2	78	0.00
7	TP	Trichlorofluoromethane	0.343	0.339	1.2	69	0.00
8	TP	Ethyl ether	0.106	0.117	-10.4	84	0.00
10	TP	1,1-Dichloroethene	0.175	0.178	-1.7	76	0.00
11	TP	Carbon disulfide	0.525	0.526	-0.2	73	0.00
12	TP	Freon-113	0.184	0.178	3.3	68	0.00
13	TP	Iodomethane	0.160	0.057	64.4#	30#	0.00
14	TP	Acrolein	0.021	0.033	-57.1#	114	0.00
15	TP	Methylene chloride	0.218	0.215	1.4	75	0.00
17	TP	Acetone	0.043	0.040	7.0	76	0.00
18	TP	trans-1,2-Dichloroethene	0.195	0.185	5.1	69	0.00
19	TP	Methyl acetate	0.096	0.097	-1.0	78	0.00
21	TP	Methyl tert-butyl ether	0.520	0.497	4.4	72	0.00
22	TP	tert-Butyl alcohol	0.013	0.012	7.7	66	0.00
24	TP	Diisopropyl ether	0.653	0.672	-2.9	78	0.00
25	TP	1,1-Dichloroethane	0.389	0.400	-2.8	76	0.00
26	TP	Halothane	0.150	0.142	5.3	69	0.01
27	TP	Acrylonitrile	0.053	0.054	-1.9	77	0.00
28	TP	Ethyl tert-butyl ether	0.684	0.661	3.4	75	0.00
29	TP	Vinyl acetate	0.452	0.419	7.3	72	0.00
30	TP	cis-1,2-Dichloroethene	0.222	0.226	-1.8	75	0.00
31	TP	2,2-Dichloropropane	0.307	0.275	10.4	65	0.00
33	TP	Bromochloromethane	0.101	0.100#	1.0	72	0.00
34	TP	Cyclohexane	0.395	0.391	1.0	70	0.00
35	TP	Chloroform	0.365	0.371	-1.6	80	0.00
36	TP	Ethyl acetate	0.152	0.151	0.7	73	0.00
37	TP	Carbon tetrachloride	0.265	0.244	7.9	67	0.00
38	TP	Tetrahydrofuran	0.042	0.043	-2.4	79	0.00
39	S	Dibromofluoromethane	0.229	0.231	-0.9	75	0.00
40	TP	1,1,1-Trichloroethane	0.322	0.315	2.2	70	0.00
42	TP	2-Butanone	0.061	0.056	8.2	79	0.00
43	TP	1,1-Dichloropropene	0.282	0.279	1.1	72	0.00
45	TP	Benzene	0.889	0.902	-1.5	76	0.00
46	TP	tert-Amyl methyl ether	0.572	0.515	10.0	69	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-2
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.271	0.296	-9.2	84	0.00
48	T	1,2-Dichloroethane	0.283	0.293	-3.5	80	0.00
51	TP	Methyl cyclohexane	0.396	0.370	6.6	69	0.00
52	TP	Trichloroethene	0.211	0.213	-0.9	73	0.00
54	TP	Dibromomethane	0.121	0.118	2.5	73	0.00
55	TP	1,2-Dichloropropane	0.226	0.241	-6.6	80	0.00
58	TP	Bromodichloromethane	0.293	0.288#	1.7	73	0.00
61	TP	1,4-Dioxane	0.00148	0.00139#	6.1	67	0.00
62	TP	cis-1,3-Dichloropropene	0.338	0.325	3.8	70	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	76	0.00
64	S	Toluene-d8	1.364	1.409	-3.3	77	0.00
65	TP	Toluene	0.786	0.792	-0.8	73	0.00
66	TP	4-Methyl-2-pentanone	0.083	0.080	3.6	77	0.00
67	TP	Tetrachloroethene	0.316	0.298	5.7	66	0.00
69	TP	trans-1,3-Dichloropropene	0.389	0.387	0.5	70	0.00
71	TP	Ethyl methacrylate	0.297	0.279	6.1	69	0.00
72	TP	1,1,2-Trichloroethane	0.207	0.211	-1.9	75	0.00
73	TP	Chlorodibromomethane	0.277	0.257	7.2	70	0.00
74	TP	1,3-Dichloropropane	0.426	0.451	-5.9	78	0.00
75	TP	1,2-Dibromoethane	0.245	0.240	2.0	73	0.00
77	TP	2-Hexanone	0.133	0.121	9.0	69	0.00
78	TP	Chlorobenzene	0.835	0.847	-1.4	74	0.00
79	TP	Ethylbenzene	1.502	1.528	-1.7	73	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.277	0.273	1.4	71	0.00
81	TP	p/m Xylene	0.578	0.584	-1.0	74	0.00
82	TP	o Xylene	0.564	0.559	0.9	73	0.00
83	TP	Styrene	0.952	0.935	1.8	74	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00
85	TP	Bromoform	0.296	0.266	10.1	66	0.00
87	TP	Isopropylbenzene	2.954	2.974	-0.7	72	0.00
88	S	4-Bromofluorobenzene	0.919	0.935	-1.7	75	0.00
89	TP	Bromobenzene	0.659	0.658	0.2	70	0.00
90	TP	n-Propylbenzene	3.351	3.474	-3.7	74	0.00
91	TP	1,4-Dichlorobutane	0.785	0.853	-8.7	77	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.570	0.607	-6.5	78	0.00
93	TP	4-Ethyltoluene	2.780	2.897	-4.2	73	0.00
94	TP	2-Chlorotoluene	1.946	2.039	-4.8	74	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-2
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
95 TP	1,3,5-Trimethylbenzene	2.460	2.529	-2.8	73	0.00
96 TP	1,2,3-Trichloropropane	0.450	0.478	-6.2	78	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.163	0.160	1.8	75	0.00
98 TP	4-Chlorotoluene	2.013	2.093	-4.0	74	0.00
99 TP	tert-Butylbenzene	2.030	2.024	0.3	70	0.00
102 TP	1,2,4-Trimethylbenzene	2.467	2.576	-4.4	74	0.00
103 TP	sec-Butylbenzene	3.100	3.139	-1.3	72	0.00
104 TP	p-Isopropyltoluene	2.568	2.592	-0.9	71	0.00
105 TP	1,3-Dichlorobenzene	1.320	1.335	-1.1	73	0.00
106 TP	1,4-Dichlorobenzene	1.324	1.340	-1.2	74	0.00
107 TP	p-Diethylbenzene	1.503	1.499	0.3	70	0.00
108 TP	n-Butylbenzene	2.240	2.300	-2.7	73	0.00
109 TP	1,2-Dichlorobenzene	1.256	1.244	1.0	73	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.408	2.331	3.2	71	0.00
111 TP	1,2-Dibromo-3-chloropropane	0.076	0.071	6.6	70	0.00
112 TP	1,3,5-Trichlorobenzene	0.896	0.865	3.5	69	0.00
113 TP	Hexachlorobutadiene	0.239	0.210	12.1	60	0.00
114 TP	1,2,4-Trichlorobenzene	0.782	0.745	4.7	69	0.00
115 TP	Naphthalene	1.837	1.741	5.2	70	0.00
116 TP	1,2,3-Trichlorobenzene	0.698	0.665	4.7	69	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 3 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-2
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	199076	10.000	ug/L	0.00
Standard Area 1 = 199076			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	141631	10.000	ug/L	0.00
Standard Area 1 = 141631			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.188	152	72502	10.000	ug/L	0.00
Standard Area 1 = 72502			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	45920	10.060	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.60%			
47) 1,2-Dichloroethane-d4	5.660	65	58855	10.897	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.97%			
64) Toluene-d8	7.629	98	199489	10.328	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.28%			
88) 4-Bromofluorobenzene	10.972	95	67802	10.179	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	46454	10.444	ug/L	95
3) Chloromethane	1.773	50	37650	8.567	ug/L	98
4) Vinyl chloride	1.848	62	50119	10.702	ug/L	95
5) Bromomethane	2.152	94	15222	4.631	ug/L	96
6) Chloroethane	2.269	64	36616	10.799	ug/L	96
7) Trichlorofluoromethane	2.411	101	67526	9.883	ug/L	97
8) Ethyl ether	2.701	74	23227	10.993	ug/L	88
10) 1,1-Dichloroethene	2.891	96	35466	10.193	ug/L #	77
11) Carbon disulfide	2.924	76	104708	10.020	ug/L	95
12) Freon-113	2.927	101	35460	9.664	ug/L	94
13) Iodomethane	3.025	142	11393M1	3.566	ug/L	
14) Acrolein	3.203	56	6515M3	15.334	ug/L	
15) Methylene chloride	3.443	84	42766	9.846	ug/L	89
17) Acetone	3.482	43	7965	9.317	ug/L	98
18) trans-1,2-Dichloroethene	3.594	96	36910	9.525	ug/L	89
19) Methyl acetate	3.596	43	19219	10.064	ug/L #	83
21) Methyl tert-butyl ether	3.689	73	98850	9.543	ug/L	93
22) tert-Butyl alcohol	3.772	59	11830M1	45.317	ug/L	
24) Diisopropyl ether	4.051	45	133745	10.291	ug/L	95
25) 1,1-Dichloroethane	4.179	63	79653	10.284	ug/L	98
26) Halothane	4.238	117	28251	9.454	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-2
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	10681	10.194	ug/L	#	78
28) Ethyl tert-butyl ether	4.400	59	131604	9.665	ug/L		98
29) Vinyl acetate	4.408	43	83428	9.274	ug/L	#	87
30) cis-1,2-Dichloroethene	4.695	96	45076	10.191	ug/L		93
31) 2,2-Dichloropropane	4.796	77	54681	8.947	ug/L		95
33) Bromochloromethane	4.885	128	19890	9.870	ug/L		94
34) Cyclohexane	4.893	56	77898	9.894	ug/L		87
35) Chloroform	4.957	83	73845	10.162	ug/L		95
36) Ethyl acetate	5.063	43	30008	9.888	ug/L		97
37) Carbon tetrachloride	5.094	117	48605	9.223	ug/L		94
38) Tetrahydrofuran	5.105	42	8622M1	10.246	ug/L		
40) 1,1,1-Trichloroethane	5.161	97	62780	9.785	ug/L	#	89
42) 2-Butanone	5.245	43	11067	9.079	ug/L	#	89
43) 1,1-Dichloropropene	5.275	75	55638	9.897	ug/L		96
45) Benzene	5.521	78	179551	10.141	ug/L		95
46) tert-Amyl methyl ether	5.632	73	102498	8.995	ug/L		96
48) 1,2-Dichloroethane	5.724	62	58425	10.375	ug/L		99
51) Methyl cyclohexane	6.106	83	73734	9.352	ug/L		90
52) Trichloroethene	6.120	95	42467	10.116	ug/L		96
54) Dibromomethane	6.552	93	23455	9.777	ug/L		95
55) 1,2-Dichloropropane	6.658	63	48017	10.675	ug/L		95
58) Bromodichloromethane	6.737	83	57282	9.813	ug/L		95
61) 1,4-Dioxane	6.940	88	13787	469.071	ug/L	#	81
62) cis-1,3-Dichloropropene	7.420	75	64620	9.591	ug/L		92
65) Toluene	7.687	92	112174	10.079	ug/L		92
66) 4-Methyl-2-pentanone	8.125	58	11350	9.704	ug/L	#	76
67) Tetrachloroethene	8.134	166	42241	9.440	ug/L		93
69) trans-1,3-Dichloropropene	8.173	75	54771	9.938	ug/L		87
71) Ethyl methacrylate	8.354	69	39462	9.388	ug/L		92
72) 1,1,2-Trichloroethane	8.354	83	29848	10.204	ug/L		99
73) Chlorodibromomethane	8.566	129	36449	9.287	ug/L		99
74) 1,3-Dichloropropane	8.675	76	63831	10.569	ug/L		97
75) 1,2-Dibromoethane	8.839	107	34028	9.818	ug/L		86
77) 2-Hexanone	9.124	43	17072	9.085	ug/L	#	91
78) Chlorobenzene	9.492	112	120027	10.147	ug/L		92
79) Ethylbenzene	9.531	91	216352	10.173	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.578	131	38637	9.837	ug/L		96
81) p/m Xylene	9.718	106	165303	20.191	ug/L		96
82) o Xylene	10.261	106	158230	19.820	ug/L		90
83) Styrene	10.328	104	264860	19.652	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-2
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
85) Bromoform	10.353	173	19267	8.991	ug/L		95
87) Isopropylbenzene	10.646	105	215628	10.068	ug/L		98
89) Bromobenzene	11.084	156	47687	9.974	ug/L		98
90) n-Propylbenzene	11.129	91	251874	10.369	ug/L		98
91) 1,4-Dichlorobutane	11.148	55	61842	10.869	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.221	83	44015	10.645	ug/L		98
93) 4-Ethyltoluene	11.254	105	210062	10.421	ug/L		99
94) 2-Chlorotoluene	11.299	91	147808M1	10.476	ug/L		
95) 1,3,5-Trimethylbenzene	11.354	105	183331	10.278	ug/L		97
96) 1,2,3-Trichloropropane	11.357	75	34621M4	10.606	ug/L		
97) trans-1,4-Dichloro-2-b...	11.405	53	11582	9.801	ug/L	#	84
98) 4-Chlorotoluene	11.480	91	151711	10.393	ug/L		99
99) tert-Butylbenzene	11.697	119	146774	9.971	ug/L		97
102) 1,2,4-Trimethylbenzene	11.776	105	186744	10.440	ug/L		99
103) sec-Butylbenzene	11.887	105	227602	10.127	ug/L		98
104) p-Isopropyltoluene	12.040	119	187944	10.093	ug/L		97
105) 1,3-Dichlorobenzene	12.107	146	96808	10.116	ug/L		98
106) 1,4-Dichlorobenzene	12.205	146	97147	10.122	ug/L		99
107) p-Diethylbenzene	12.417	119	108684	9.976	ug/L		95
108) n-Butylbenzene	12.476	91	166720	10.266	ug/L		97
109) 1,2-Dichlorobenzene	12.623	146	90181	9.904	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.209	119	169017	9.683	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.404	155	5112	9.245	ug/L		94
112) 1,3,5-Trichlorobenzene	13.438	180	62685	9.652	ug/L		94
113) Hexachlorobutadiene	14.012	225	15207	8.771	ug/L		92
114) 1,2,4-Trichlorobenzene	14.034	180	54024	9.527	ug/L		98
115) Naphthalene	14.330	128	126248	9.480	ug/L		100
116) 1,2,3-Trichlorobenzene	14.500	180	48236	9.529	ug/L		95

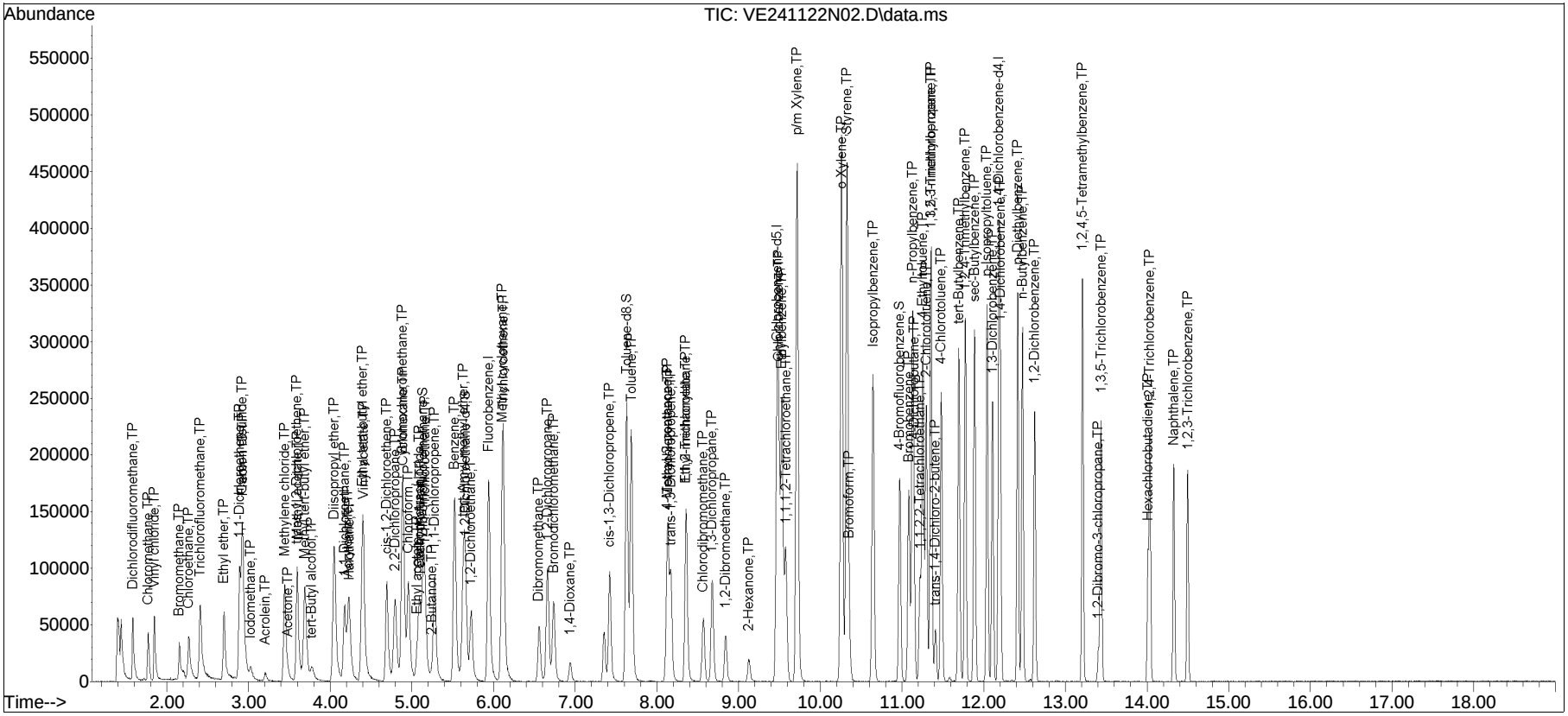
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-2
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

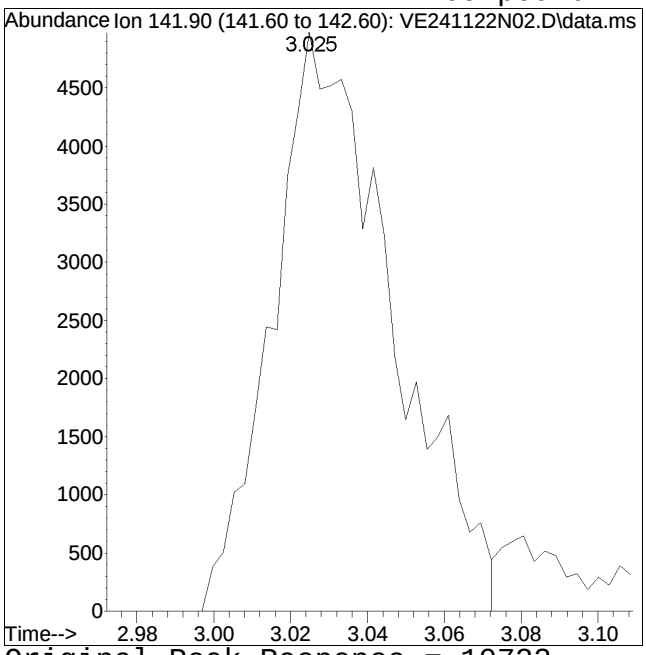
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE2.D•

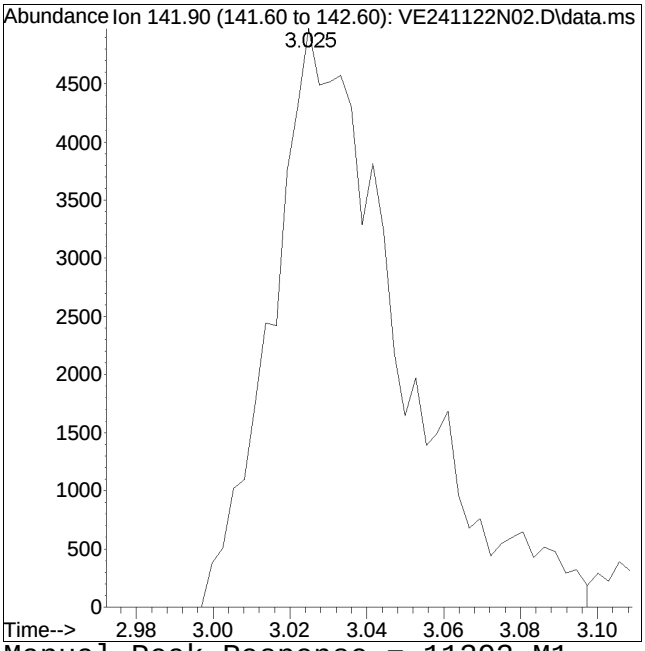


Manual Integration Report

Data Path	: K:\Elaine\2024\241122N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241122N02.D	Operator	: ELAINE:PID
Date Inj'd	: 11/22/2024 9:20 pm	Instrument	: Elaine
Sample	: WG2001424-2	Quant Date	: 11/22/2024 9:49 pm

Compound #13: Iodomethane





Original Peak Response = 10722 Manual Peak Response = 11393 M1

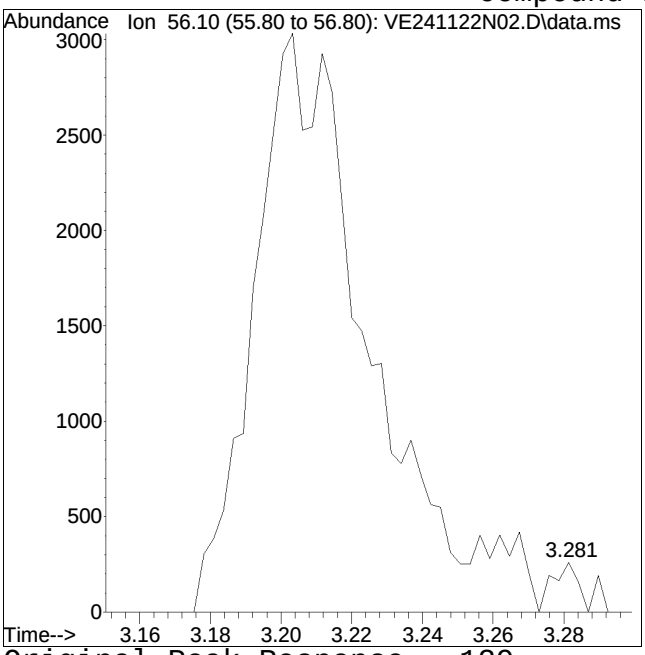
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

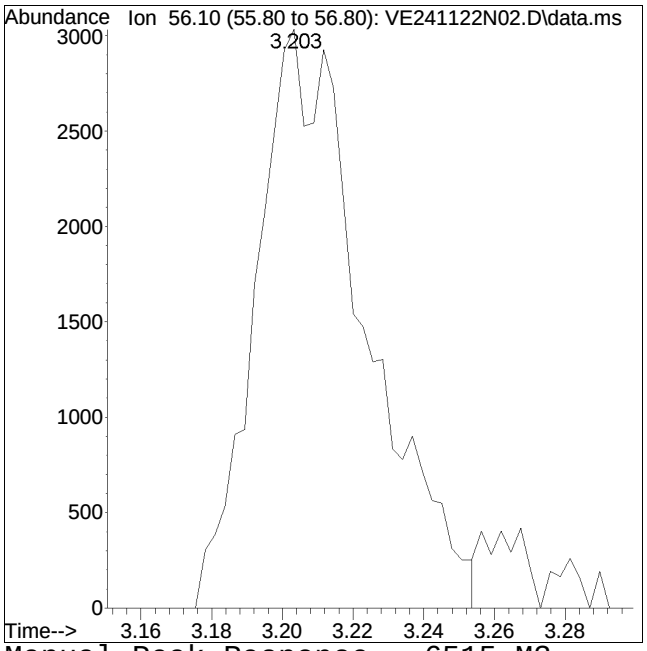
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Date Inj'd : 11/22/2024 9:20 pm
Sample : WG2001424-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 9:49 pm

Compound #14: Acrolein



Original Peak Response = 129



Manual Peak Response = 6515 M3

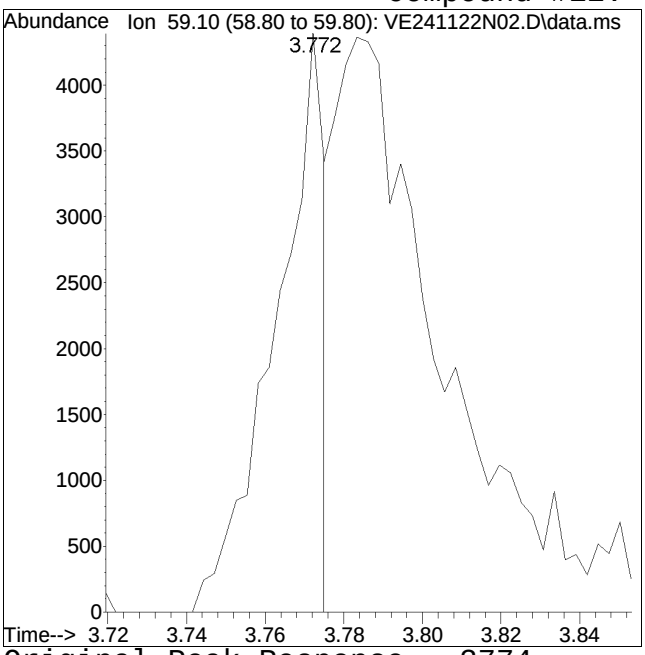
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

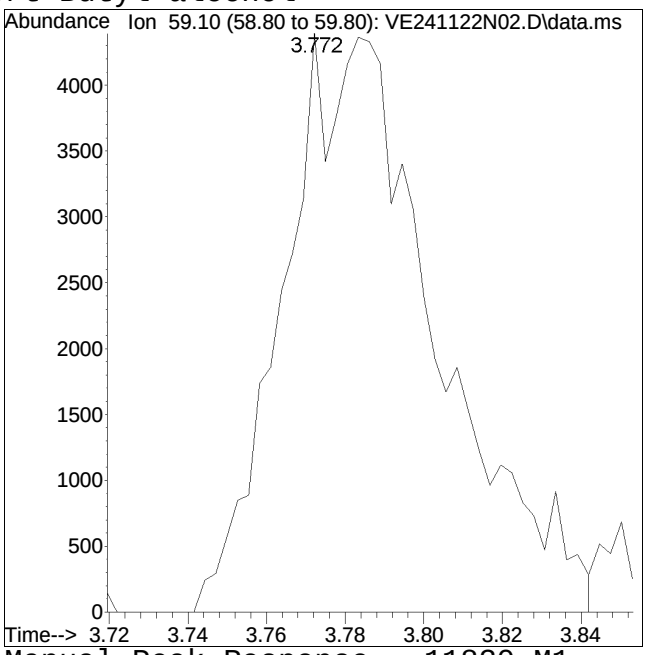
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Date Inj'd : 11/22/2024 9:20 pm
Sample : WG2001424-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 9:49 pm

Compound #22: tert-Butyl alcohol



Original Peak Response = 3774



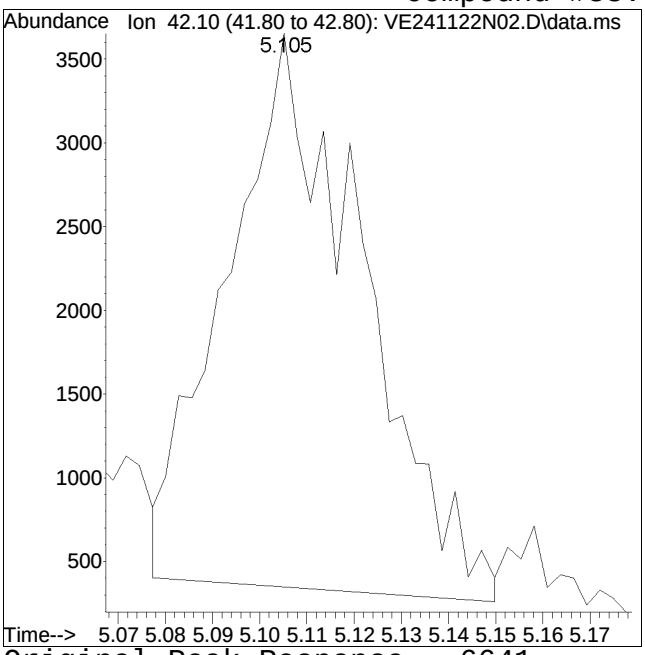
Manual Peak Response = 11830 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

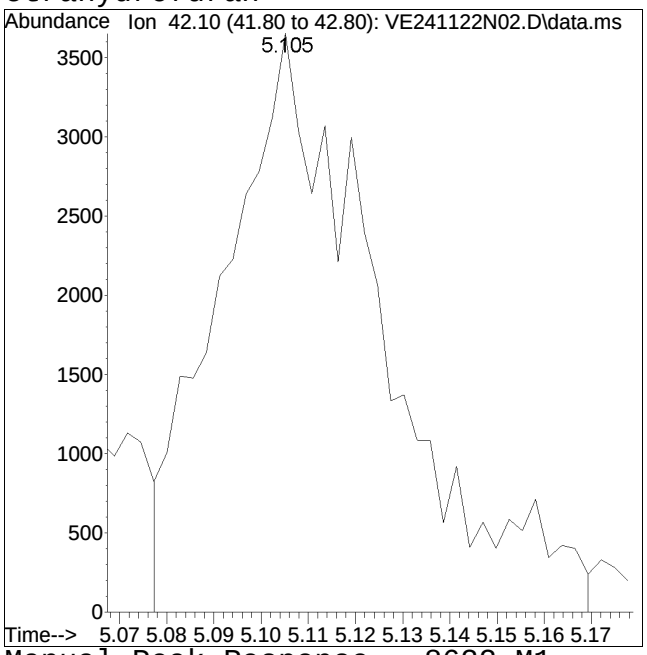
Manual Integration Report

Data Path	: K:\Elaine\2024\241122N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241122N02.D	Operator	: ELAINE:PID
Date Inj'd	: 11/22/2024 9:20 pm	Instrument	: Elaine
Sample	: WG2001424-2	Quant Date	: 11/22/2024 9:49 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 6641



Manual Peak Response = 8622 M1

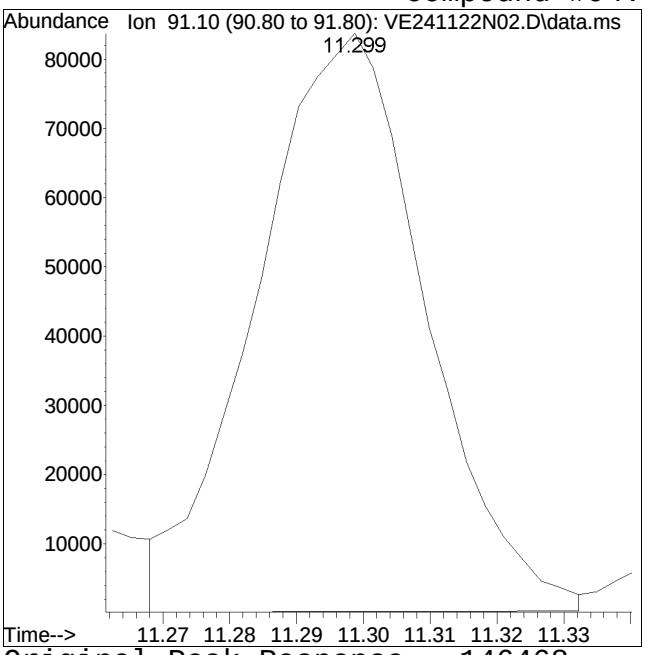
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

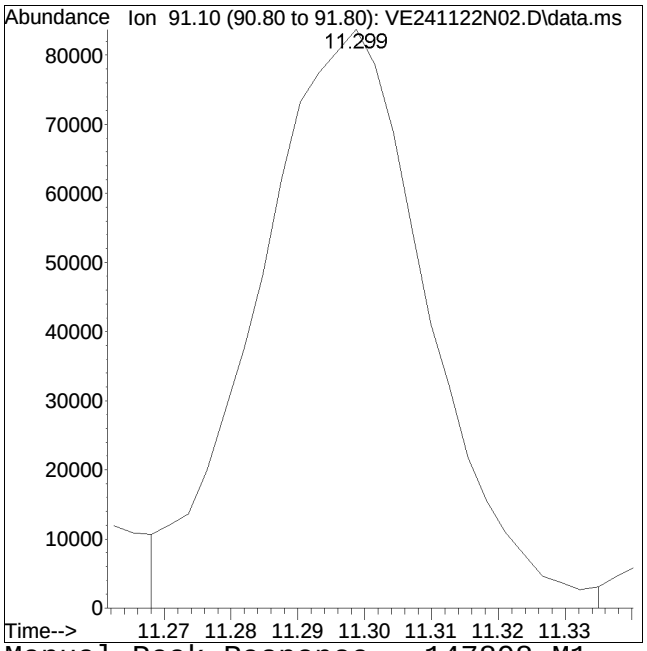
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Date Inj'd : 11/22/2024 9:20 pm
Sample : WG2001424-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 9:49 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 146468



Manual Peak Response = 147808 M1

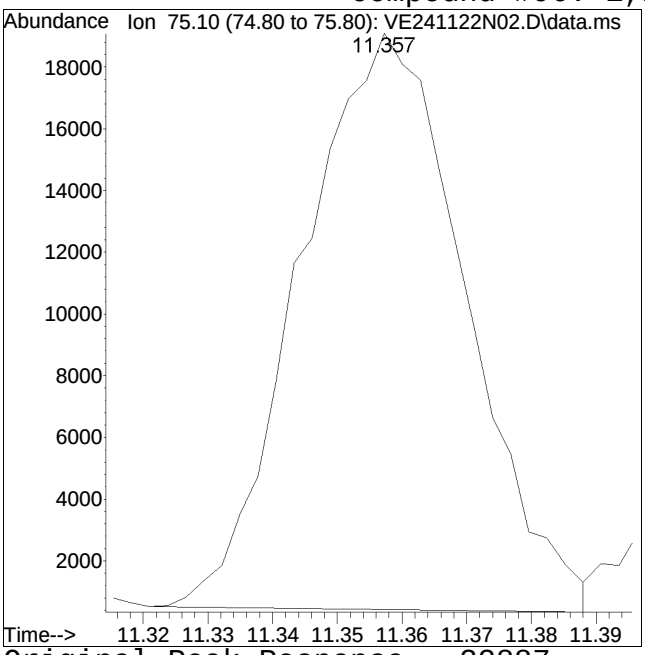
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

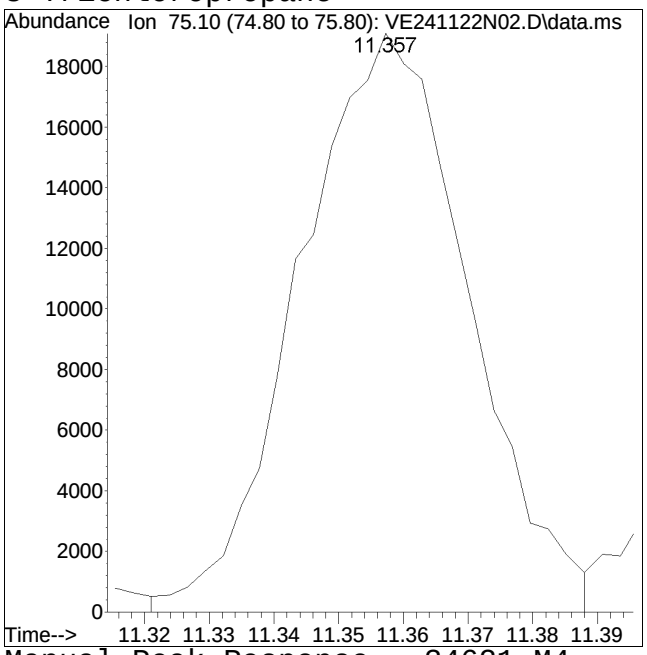
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Date Inj'd : 11/22/2024 9:20 pm
Sample : WG2001424-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 9:49 pm

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 32887



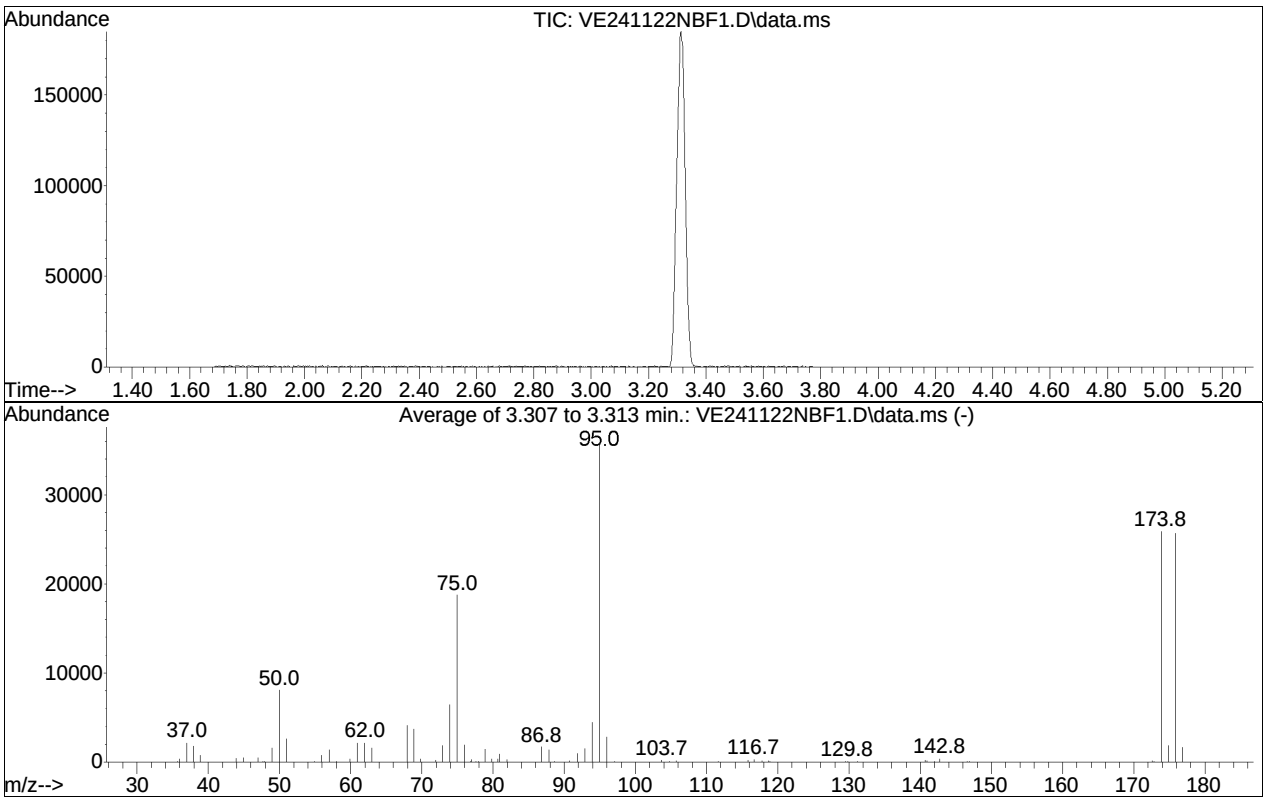
Manual Peak Response = 34621 M4

M4 = Poor automated baseline construction.

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122NBF1.D
Acq On : 22 Nov 2024 8:47 pm
Operator : ELAINE:PID
Sample : WG2001424-1
Misc : WG2001424,ICAL21711
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024



Spectrum Information: Average of 3.307 to 3.313 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.6	8085	PASS
75	95	30	60	52.3	18744	PASS
95	95	100	100	100.0	35843	PASS
96	95	5	9	7.9	2840	PASS
173	174	0.00	2	0.3	65	PASS
174	95	50	100	72.2	25867	PASS
175	174	5	9	7.2	1864	PASS
176	174	95	101	99.2	25661	PASS
177	176	5	9	6.5	1672	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N05.D
Acq On : 22 Nov 2024 10:34 pm
Operator : ELAINE:MJV
Sample : WG2001424-5,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 11:16:39 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	188840	10.000 ug/L	0.00
Standard Area 1 = 199076			Recovery = 94.86%		
63) Chlorobenzene-d5	9.470	117	137053	10.000 ug/L	0.00
Standard Area 1 = 141631			Recovery = 96.77%		
84) 1,4-Dichlorobenzene-d4	12.186	152	69831	10.000 ug/L	0.00
Standard Area 1 = 72502			Recovery = 96.32%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.136	113	42798	9.884 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.84%		
47) 1,2-Dichloroethane-d4	5.660	65	56551	11.038 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.38%		
64) Toluene-d8	7.626	98	193432	10.349 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.49%		
88) 4-Bromofluorobenzene	10.973	95	64903	10.116 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.16%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.452	85	27	N.D.	
3) Chloromethane	1.784	50	78	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	2.188	64	26	N.D.	
7) Trichlorofluoromethane	2.241	101	26	N.D.	
8) Ethyl ether	2.718	74	36	N.D.	
10) 1,1-Dichloroethene	2.986	96	25	N.D.	
11) Carbon disulfide	2.925	76	99	N.D.	
15) Methylene chloride	0.000		0	N.D.	
17) Acetone	0.000		0	N.D.	d
18) trans-1,2-Dichloroethene	3.733	96	26	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	4.113	63	27	N.D.	
27) Acrylonitrile	4.369	53	27	N.D.	
29) Vinyl acetate	4.408	43	27	N.D.	
30) cis-1,2-Dichloroethene	4.698	96	25	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N05.D
Acq On : 22 Nov 2024 10:34 pm
Operator : ELAINE:MJV
Sample : WG2001424-5,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 11:16:39 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.		
42) 2-Butanone	5.248	43	26	N.D.		
43) 1,1-Dichloropropene	0.000		0	N.D.		
45) Benzene	5.554	78	31	N.D.		
48) 1,2-Dichloroethane	5.716	62	32	N.D.		
52) Trichloroethene	6.028	95	87	N.D.		
54) Dibromomethane	0.000		0	N.D.		
55) 1,2-Dichloropropane	6.614	63	26	N.D.		
58) Bromodichloromethane	6.767	83	27	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.	d	
62) cis-1,3-Dichloropropene	7.386	75	26	N.D.		
65) Toluene	7.548	92	27	N.D.		
66) 4-Methyl-2-pentanone	0.000		0	N.D.		
67) Tetrachloroethene	8.134	166	25	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.	d	
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.	d	
74) 1,3-Dichloropropane	8.717	76	27	N.D.		
75) 1,2-Dibromoethane	8.719	107	36	N.D.		
77) 2-Hexanone	9.071	43	27	N.D.		
78) Chlorobenzene	9.481	112	26	N.D.		
79) Ethylbenzene	9.534	91	218	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.715	106	26	N.D.		
82) o Xylene	10.275	106	28	N.D.		
83) Styrene	10.345	104	25	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.666	105	36	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.132	91	165	N.D.		
92) 1,1,2,2-Tetrachloroethane	11.070	83	29	N.D.		
93) 4-Ethyltoluene	11.254	105	64	N.D.		
94) 2-Chlorotoluene	11.299	91	28	N.D.		
95) 1,3,5-Trimethylbenzene	11.254	105	64	N.D.		
96) 1,2,3-Trichloropropane	11.475	75	26	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
98) 4-Chlorotoluene	11.486	91	54	N.D.		
99) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N05.D
Acq On : 22 Nov 2024 10:34 pm
Operator : ELAINE:MJV
Sample : WG2001424-5,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 11:16:39 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.784	105	164	N.D.		
103)	sec-Butylbenzene	11.893	105	27	N.D.		
104)	p-Isopropyltoluene	12.041	119	45	N.D.		
105)	1,3-Dichlorobenzene	12.113	146	32	N.D.		
106)	1,4-Dichlorobenzene	12.205	146	118	N.D.		
107)	p-Diethylbenzene	12.412	119	29	N.D.		
108)	n-Butylbenzene	12.473	91	115	N.D.		
109)	1,2-Dichlorobenzene	12.621	146	28	N.D.		
110)	1,2,4,5-Tetramethylben...	13.215	119	173	N.D.		
111)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113)	Hexachlorobutadiene	0.000		0	N.D.		
114)	1,2,4-Trichlorobenzene	14.032	180	141	N.D.		
115)	Naphthalene	14.336	128	528	N.D.		
116)	1,2,3-Trichlorobenzene	14.489	180	70	N.D.		

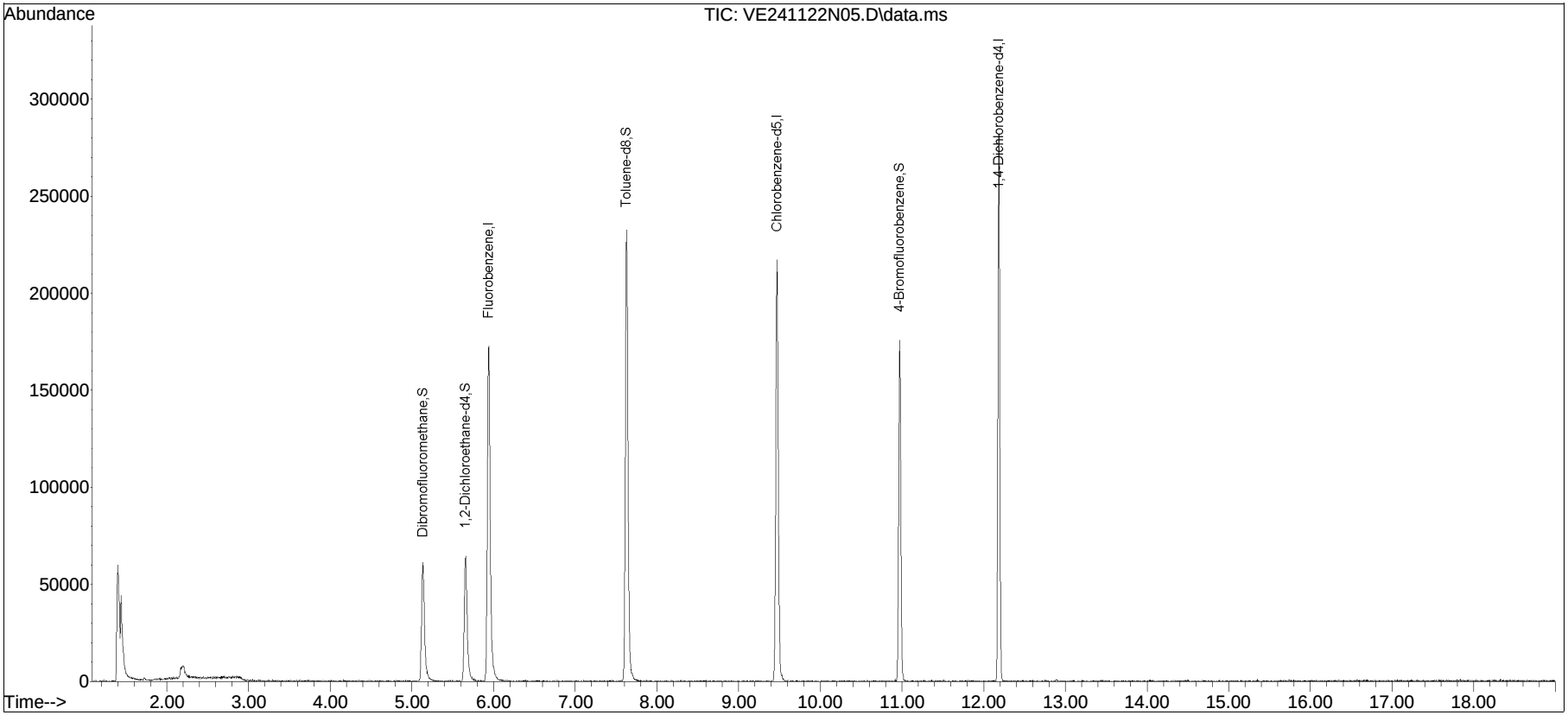
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N05.D
Acq On : 22 Nov 2024 10:34 pm
Operator : ELAINE:MJV
Sample : WG2001424-5,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 11:16:39 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE-IODO - Curve-2CEVE-IODO•



Manual Integration Report

Data Path	: K:\Elaine\2024\241122N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241122N05.D	Operator	: ELAINE:MJV
Date Inj'd	: 11/22/2024 10:34 pm	Instrument	: Elaine
Sample	: WG2001424-5,31,10,10	Quant Date	: 11/23/2024 11:01 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-3,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	199076	10.000	ug/L	0.00
Standard Area 1 = 199076			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	141631	10.000	ug/L	0.00
Standard Area 1 = 141631			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.188	152	72502	10.000	ug/L	0.00
Standard Area 1 = 72502			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	45920	10.060	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.60%			
47) 1,2-Dichloroethane-d4	5.660	65	58855	10.897	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.97%			
64) Toluene-d8	7.629	98	199489	10.328	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.28%			
88) 4-Bromofluorobenzene	10.972	95	67802	10.179	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.79%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	46454	10.444	ug/L	95
3) Chloromethane	1.773	50	37650	8.567	ug/L	98
4) Vinyl chloride	1.848	62	50119	10.702	ug/L	95
5) Bromomethane	2.152	94	15222	4.631	ug/L	96
6) Chloroethane	2.269	64	36616	10.799	ug/L	96
7) Trichlorofluoromethane	2.411	101	67526	9.883	ug/L	97
8) Ethyl ether	2.701	74	23227	10.993	ug/L	88
10) 1,1-Dichloroethene	2.891	96	35466	10.193	ug/L #	77
11) Carbon disulfide	2.924	76	104708	10.020	ug/L	95
15) Methylene chloride	3.443	84	42766	9.846	ug/L	89
17) Acetone	3.482	43	7965	9.317	ug/L	98
18) trans-1,2-Dichloroethene	3.594	96	36910	9.525	ug/L	89
21) Methyl tert-butyl ether	3.689	73	98850	9.543	ug/L	93
25) 1,1-Dichloroethane	4.179	63	79653	10.284	ug/L	98
27) Acrylonitrile	4.218	53	10681	10.194	ug/L #	78
29) Vinyl acetate	4.408	43	83428	9.274	ug/L #	87
30) cis-1,2-Dichloroethene	4.695	96	45076	10.191	ug/L	93
31) 2,2-Dichloropropane	4.796	77	54681	8.947	ug/L	95
33) Bromochloromethane	4.885	128	19890	9.870	ug/L	94
35) Chloroform	4.957	83	73845	10.162	ug/L	95

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-3,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.094	117	48605	9.223	ug/L		94
40) 1,1,1-Trichloroethane	5.161	97	62780	9.785	ug/L	#	89
42) 2-Butanone	5.245	43	11067	9.079	ug/L	#	89
43) 1,1-Dichloropropene	5.275	75	55638	9.897	ug/L		96
45) Benzene	5.521	78	179551	10.141	ug/L		95
48) 1,2-Dichloroethane	5.724	62	58425	10.375	ug/L		99
52) Trichloroethene	6.120	95	42467	10.116	ug/L		96
54) Dibromomethane	6.552	93	23455	9.777	ug/L		95
55) 1,2-Dichloropropane	6.658	63	48017	10.675	ug/L		95
58) Bromodichloromethane	6.737	83	57282	9.813	ug/L		95
61) 1,4-Dioxane	6.940	88	13787	469.071	ug/L	#	81
62) cis-1,3-Dichloropropene	7.420	75	64620	9.591	ug/L		92
65) Toluene	7.687	92	112174	10.079	ug/L		92
66) 4-Methyl-2-pentanone	8.125	58	11350	9.704	ug/L	#	76
67) Tetrachloroethene	8.134	166	42241	9.440	ug/L		93
69) trans-1,3-Dichloropropene	8.173	75	54771	9.938	ug/L		87
72) 1,1,2-Trichloroethane	8.354	83	29848	10.204	ug/L		99
73) Chlorodibromomethane	8.566	129	36449	9.287	ug/L		99
74) 1,3-Dichloropropane	8.675	76	63831	10.569	ug/L		97
75) 1,2-Dibromoethane	8.839	107	34028	9.818	ug/L		86
77) 2-Hexanone	9.124	43	17072	9.085	ug/L	#	91
78) Chlorobenzene	9.492	112	120027	10.147	ug/L		92
79) Ethylbenzene	9.531	91	216352	10.173	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.578	131	38637	9.837	ug/L		96
81) p/m Xylene	9.718	106	165303	20.191	ug/L		96
82) o Xylene	10.261	106	158230	19.820	ug/L		90
83) Styrene	10.328	104	264860	19.652	ug/L		95
85) Bromoform	10.353	173	19267	8.991	ug/L		95
87) Isopropylbenzene	10.646	105	215628	10.068	ug/L		98
89) Bromobenzene	11.084	156	47687	9.974	ug/L		98
90) n-Propylbenzene	11.129	91	251874	10.369	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.221	83	44015	10.645	ug/L		98
93) 4-Ethyltoluene	11.254	105	210062	10.421	ug/L		99
94) 2-Chlorotoluene	11.299	91	147808M1	10.476	ug/L		
95) 1,3,5-Trimethylbenzene	11.354	105	183331	10.278	ug/L		97
96) 1,2,3-Trichloropropane	11.357	75	34621M4	10.606	ug/L		
97) trans-1,4-Dichloro-2-b...	11.405	53	11582	9.801	ug/L	#	84
98) 4-Chlorotoluene	11.480	91	151711	10.393	ug/L		99
99) tert-Butylbenzene	11.697	119	146774	9.971	ug/L		97

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-3,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.776	105	186744	10.440	ug/L	99
103)	sec-Butylbenzene	11.887	105	227602	10.127	ug/L	98
104)	p-Isopropyltoluene	12.040	119	187944	10.093	ug/L	97
105)	1,3-Dichlorobenzene	12.107	146	96808	10.116	ug/L	98
106)	1,4-Dichlorobenzene	12.205	146	97147	10.122	ug/L	99
107)	p-Diethylbenzene	12.417	119	108684	9.976	ug/L	95
108)	n-Butylbenzene	12.476	91	166720	10.266	ug/L	97
109)	1,2-Dichlorobenzene	12.623	146	90181	9.904	ug/L	99
110)	1,2,4,5-Tetramethylben...	13.209	119	169017	9.683	ug/L	97
111)	1,2-Dibromo-3-chloropr...	13.404	155	5112	9.245	ug/L	94
113)	Hexachlorobutadiene	14.012	225	15207	8.771	ug/L	92
114)	1,2,4-Trichlorobenzene	14.034	180	54024	9.527	ug/L	98
115)	Naphthalene	14.330	128	126248	9.480	ug/L	100
116)	1,2,3-Trichlorobenzene	14.500	180	48236	9.529	ug/L	95

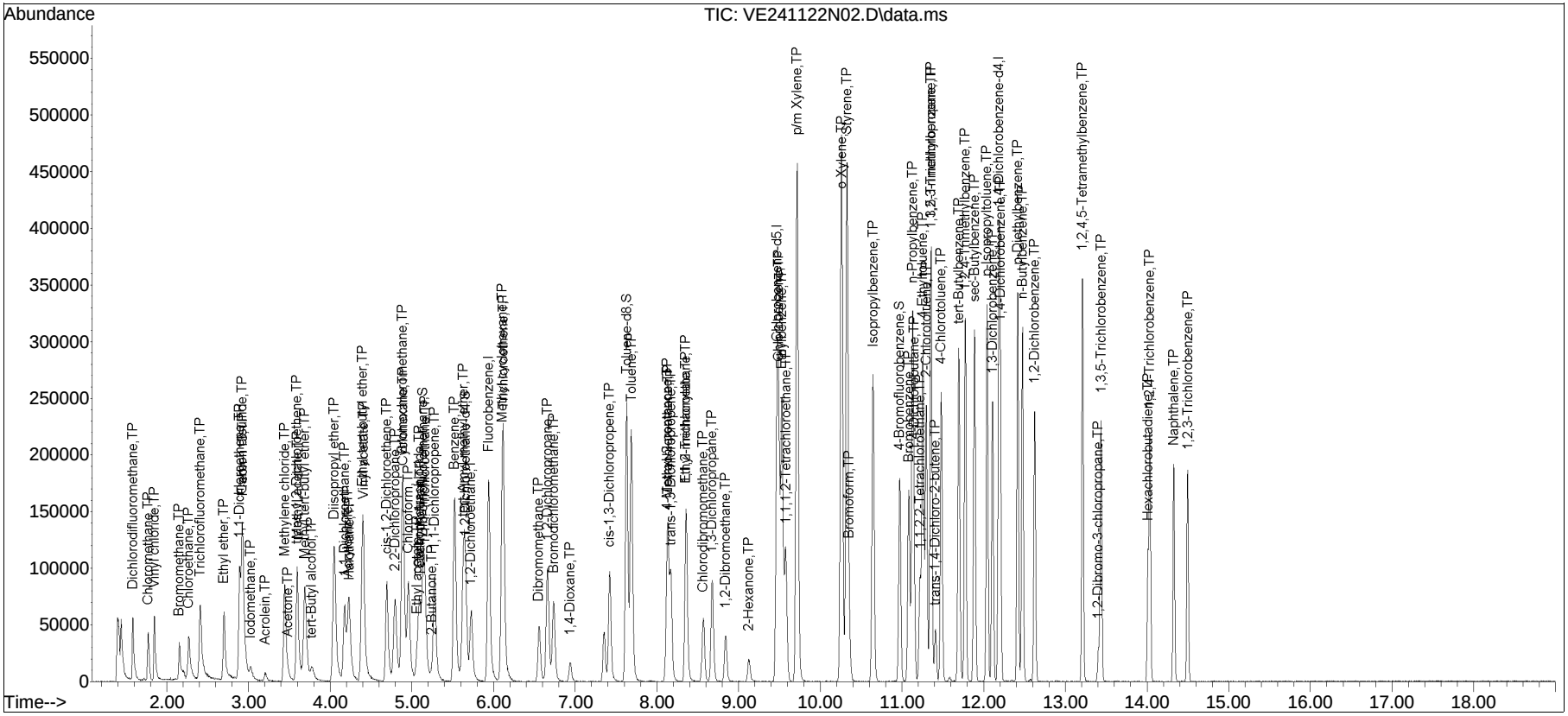
(#) = qualifier out of range (m) = manual integration (+) = signals summed

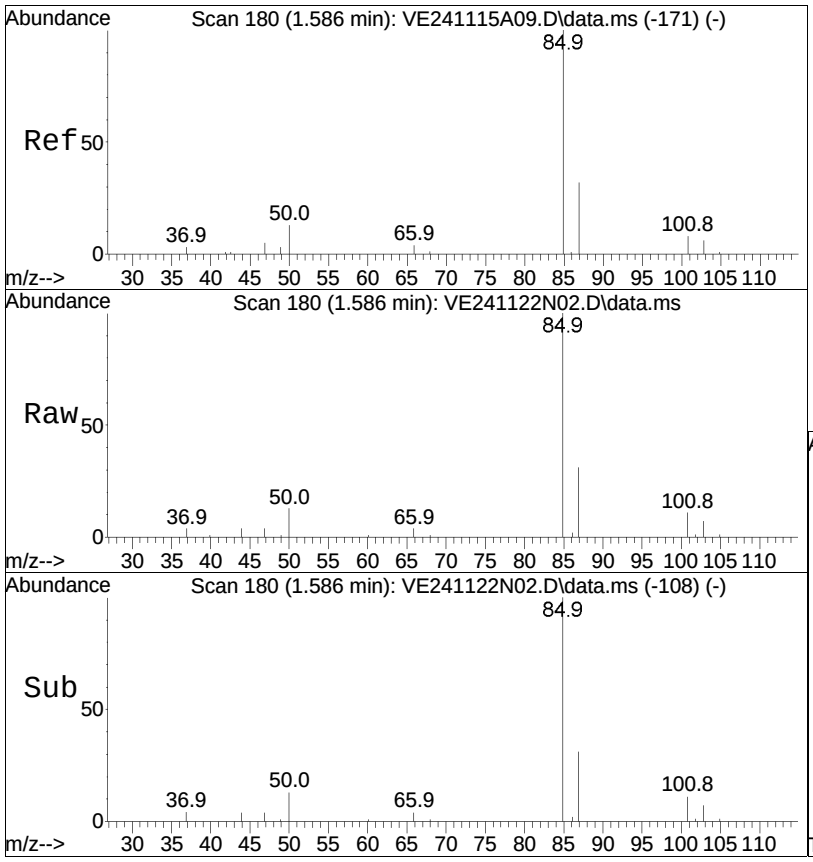
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Acq On : 22 Nov 2024 9:20 pm
Operator : ELAINE:PID
Sample : WG2001424-3,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 22 21:54:01 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE2.D•

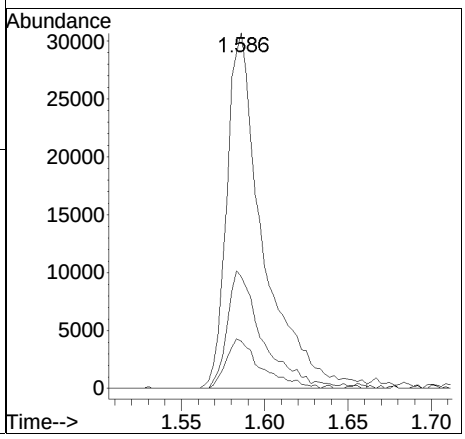


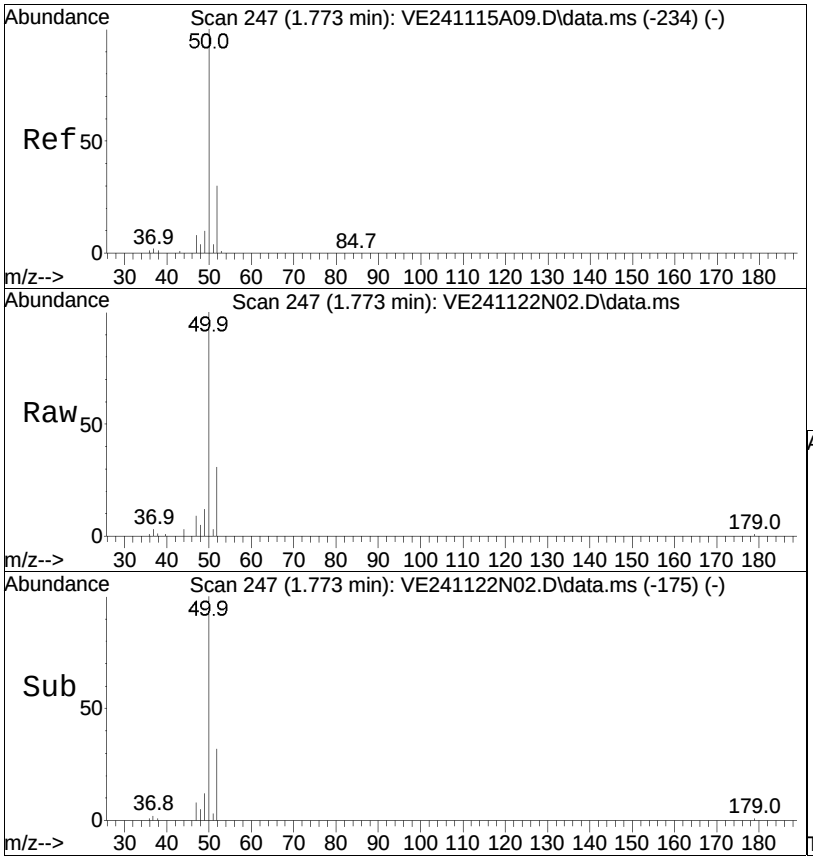


#2
Dichlorodifluoromethane
Concen: 10.44 ug/L
RT: 1.586 min Scan# 180
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 85 Resp: 46454

Ion	Ratio	Lower	Upper
85	100		
87	32.3	21.7	45.1
50	13.5	11.8	24.4

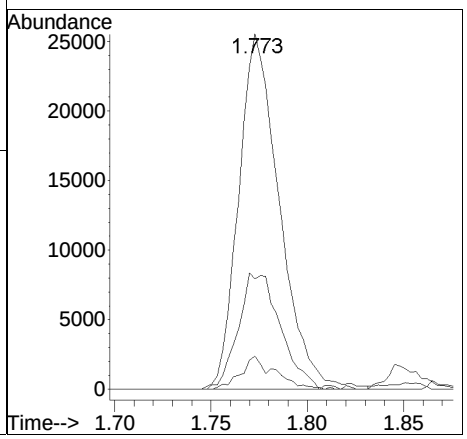


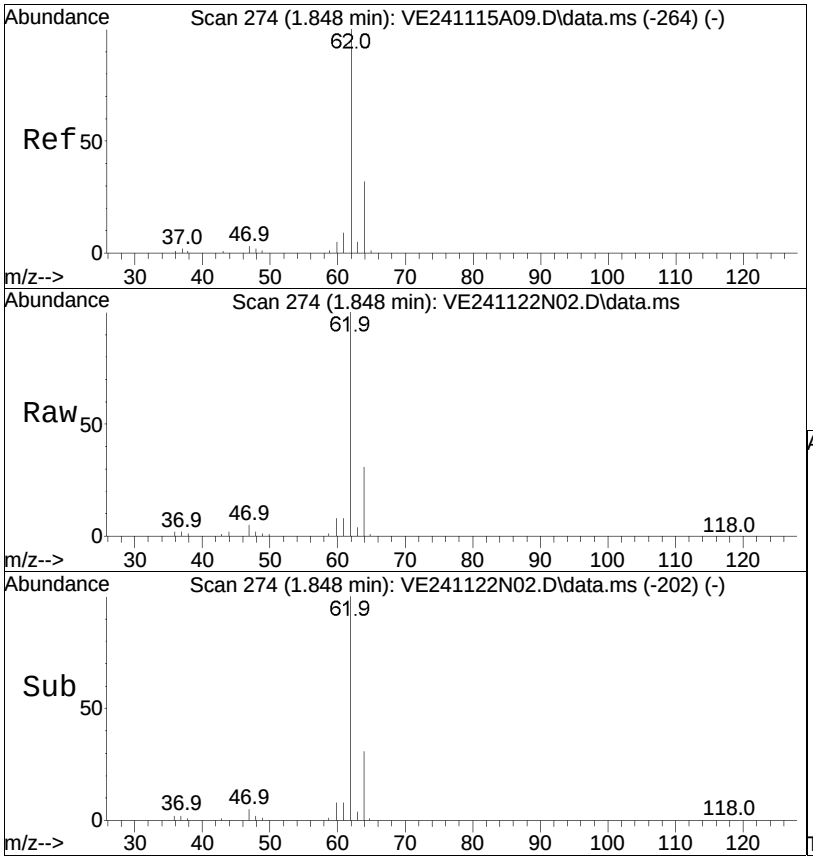


#3
Chloromethane
Concen: 8.57 ug/L
RT: 1.773 min Scan# 247
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 50 Resp: 37650

Ion	Ratio	Lower	Upper
50	100		
52	33.6	14.9	54.9
47	8.0	0.0	28.0

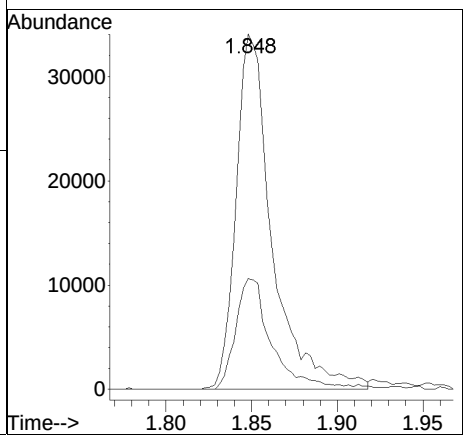


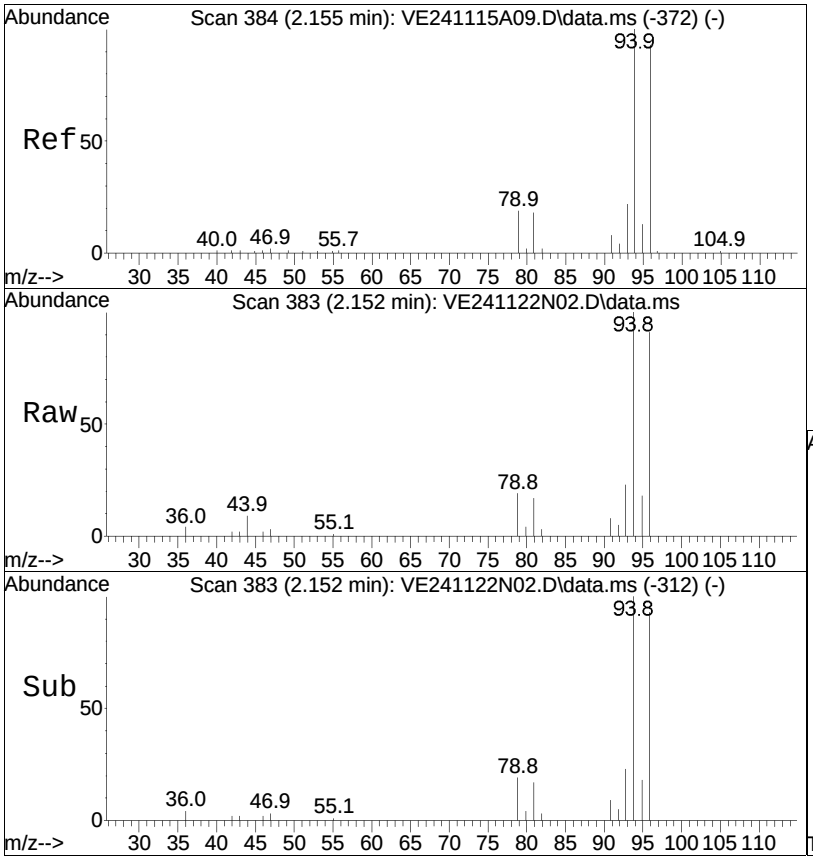


#4
Vinyl chloride
Concen: 10.70 ug/L
RT: 1.848 min Scan# 274
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 62 Resp: 50119

Ion	Ratio	Lower	Upper
62	100		
64	30.7	8.1	48.1

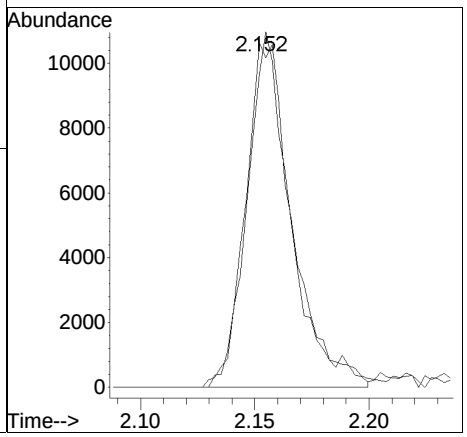


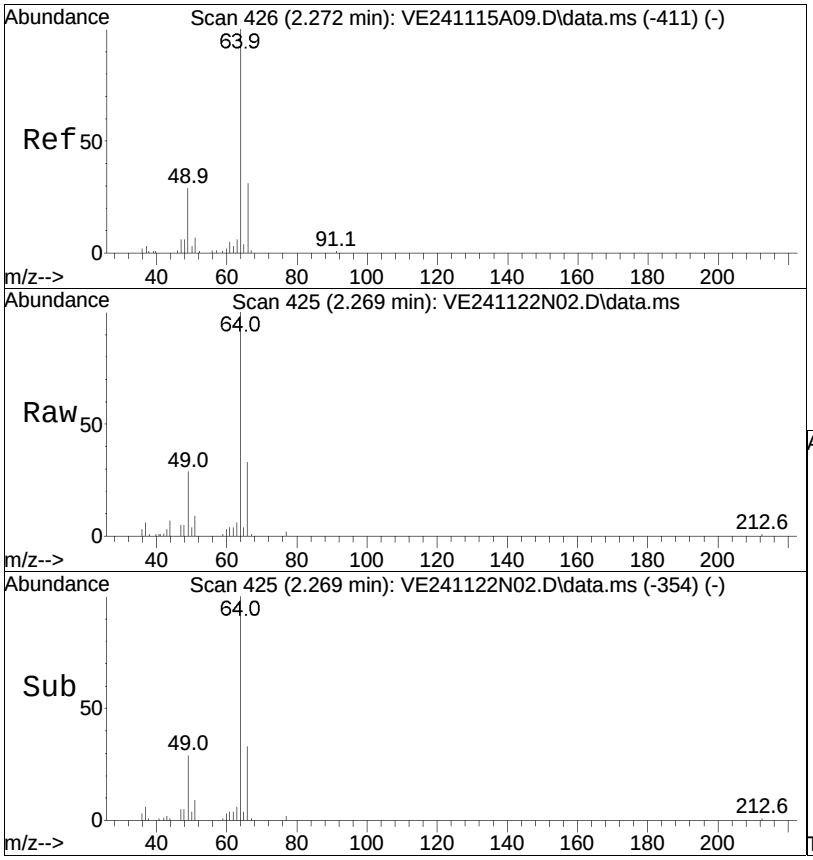


#5
Bromomethane
Concen: 4.63 ug/L
RT: 2.152 min Scan# 383
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 94 Resp: 15222

Ion	Ratio	Lower	Upper
94	100		
96	92.0	68.2	108.2

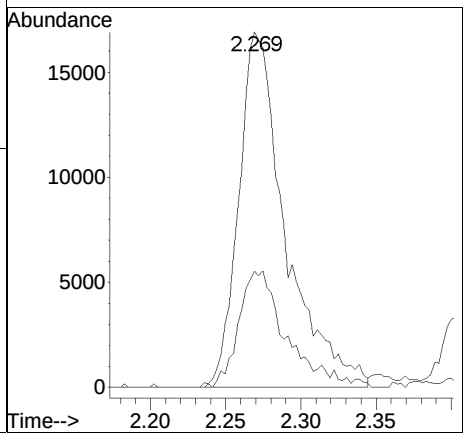


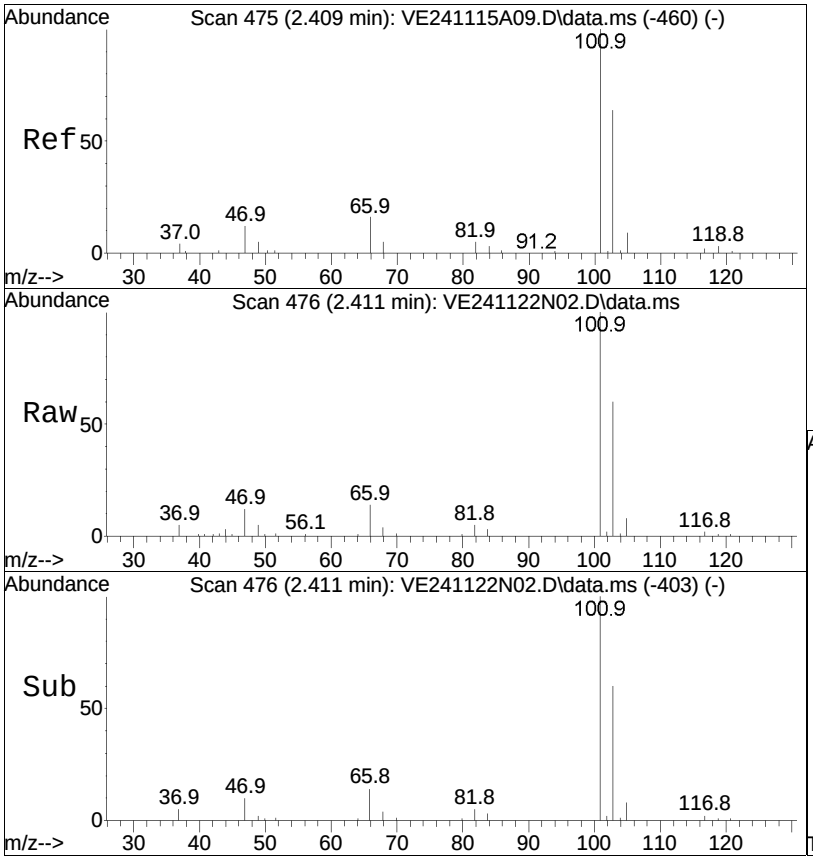


#6
Chloroethane
Concen: 10.80 ug/L
RT: 2.269 min Scan# 425
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 64 Resp: 36616

Ion	Ratio	Lower	Upper
64	100		
66	32.7	10.7	50.7

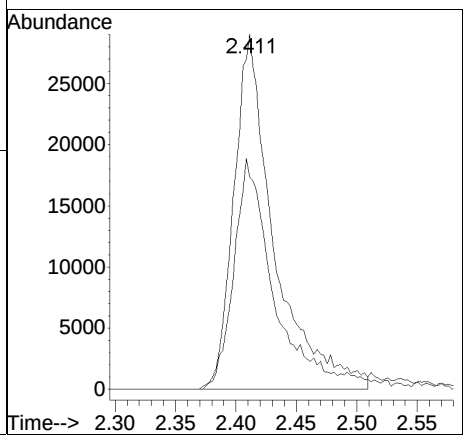


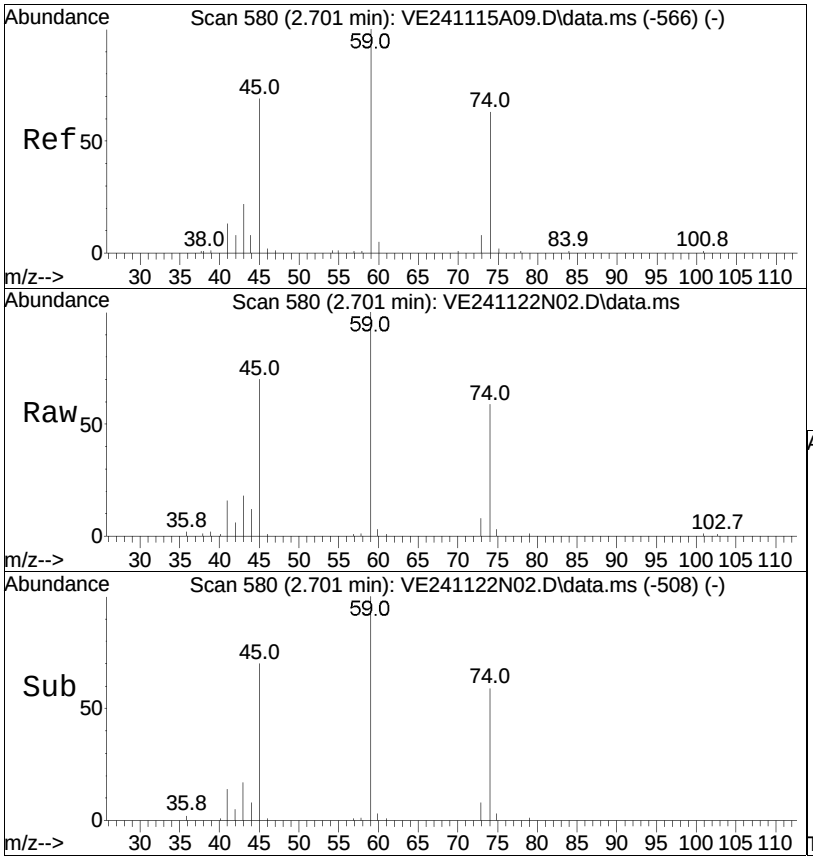


#7
Trichlorofluoromethane
Concen: 9.88 ug/L
RT: 2.411 min Scan# 476
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:101 Resp: 67526

Ion	Ratio	Lower	Upper
101	100		
103	62.7	48.2	72.2

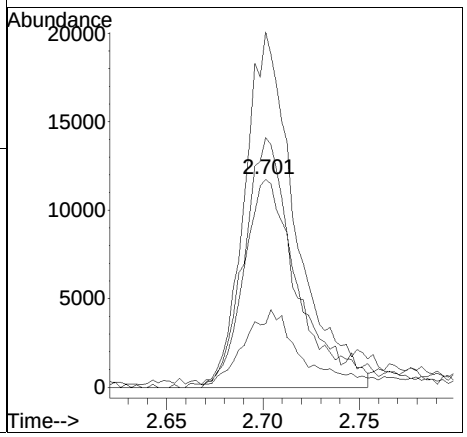


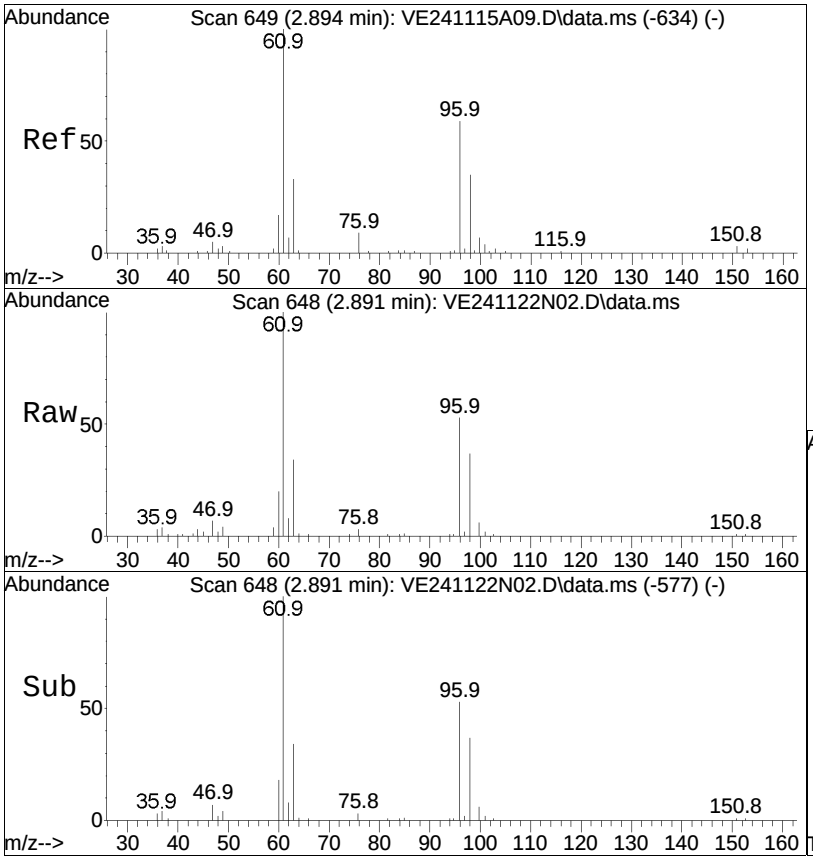


#8
Ethyl ether
Concen: 10.99 ug/L
RT: 2.701 min Scan# 580
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 74 Resp: 23227

Ion	Ratio	Lower	Upper
74	100		
59	164.9	91.7	190.5
45	111.5	77.4	160.8
43	35.9	24.6	51.2

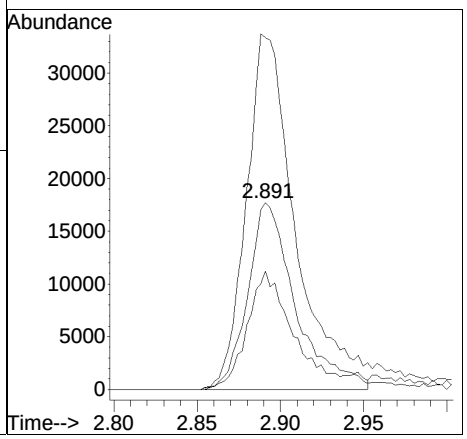


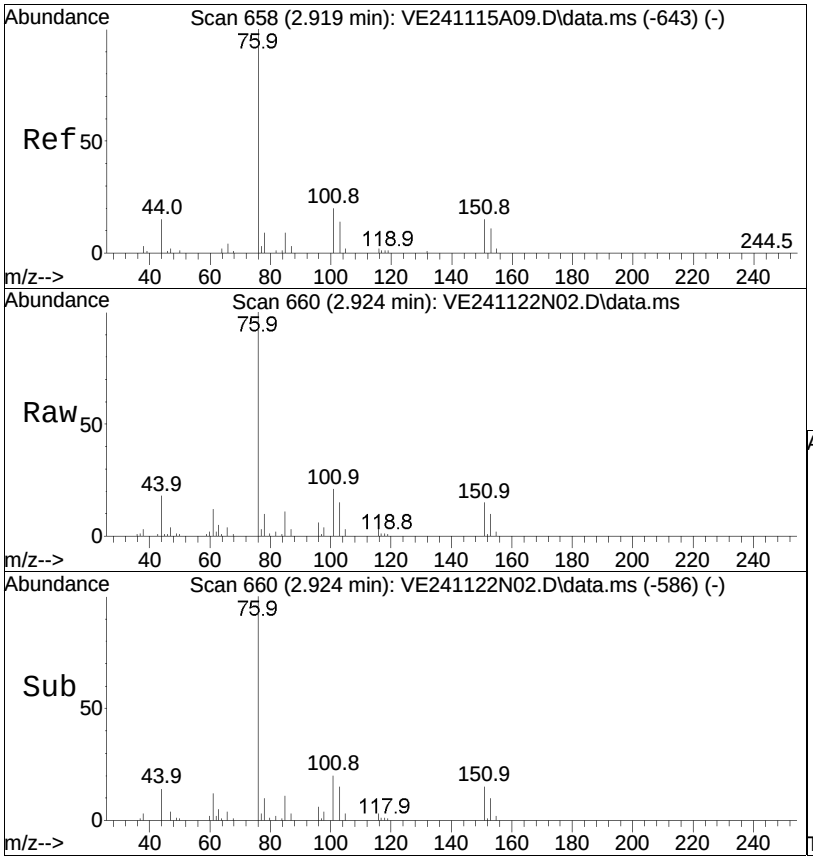


#10
1,1-Dichloroethene
Concen: 10.19 ug/L
RT: 2.891 min Scan# 648
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 96 Resp: 35466

Ion	Ratio	Lower	Upper
96	100		
61	205.9	135.4	203.0#
63	61.2	42.6	63.8

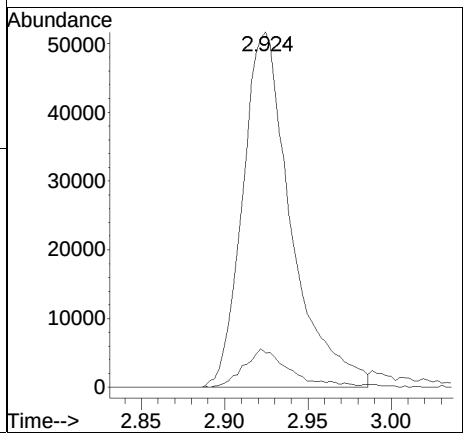


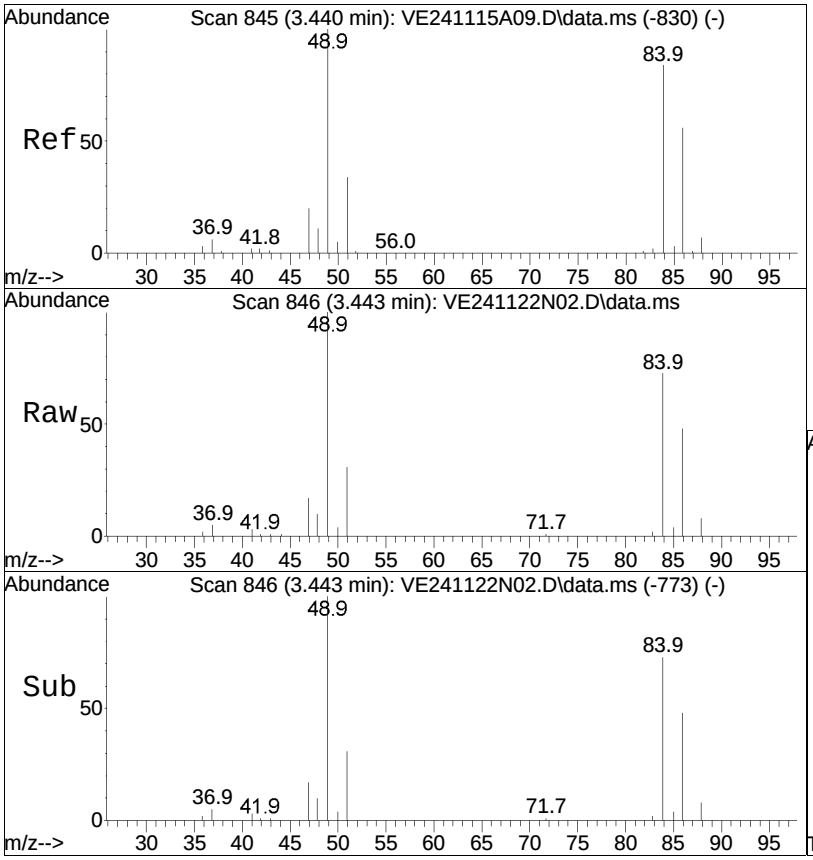


#11
Carbon disulfide
Concen: 10.02 ug/L
RT: 2.924 min Scan# 660
Delta R.T. 0.006 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 76 Resp: 104708

Ion	Ratio	Lower	Upper
76	100		
78	10.3	5.5	11.3

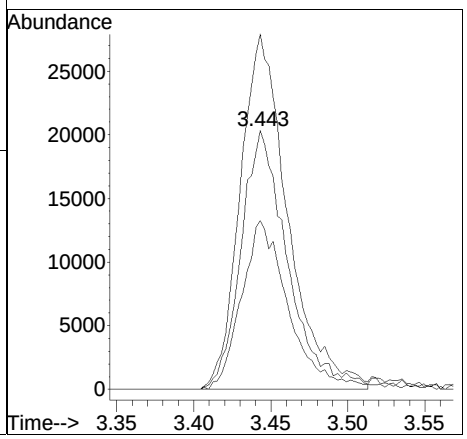


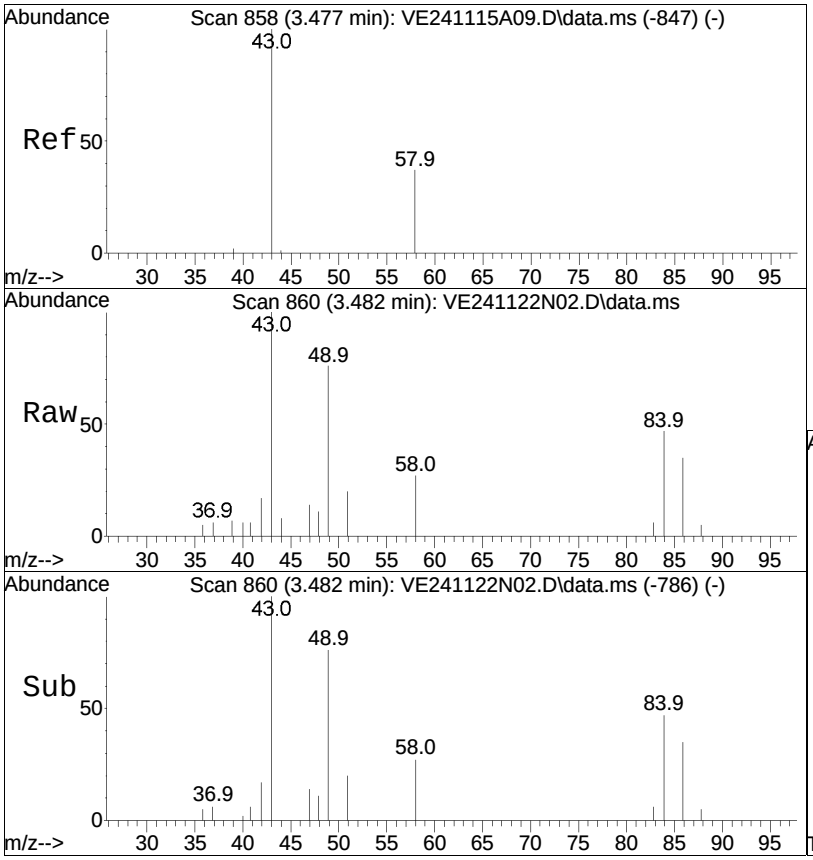


#15
Methylene chloride
Concen: 9.85 ug/L
RT: 3.443 min Scan# 846
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 84 Resp: 42766

Ion	Ratio	Lower	Upper
84	100		
86	66.1	40.2	83.6
49	140.7	103.2	214.4

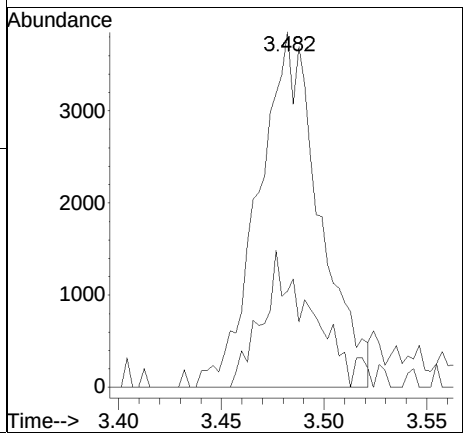


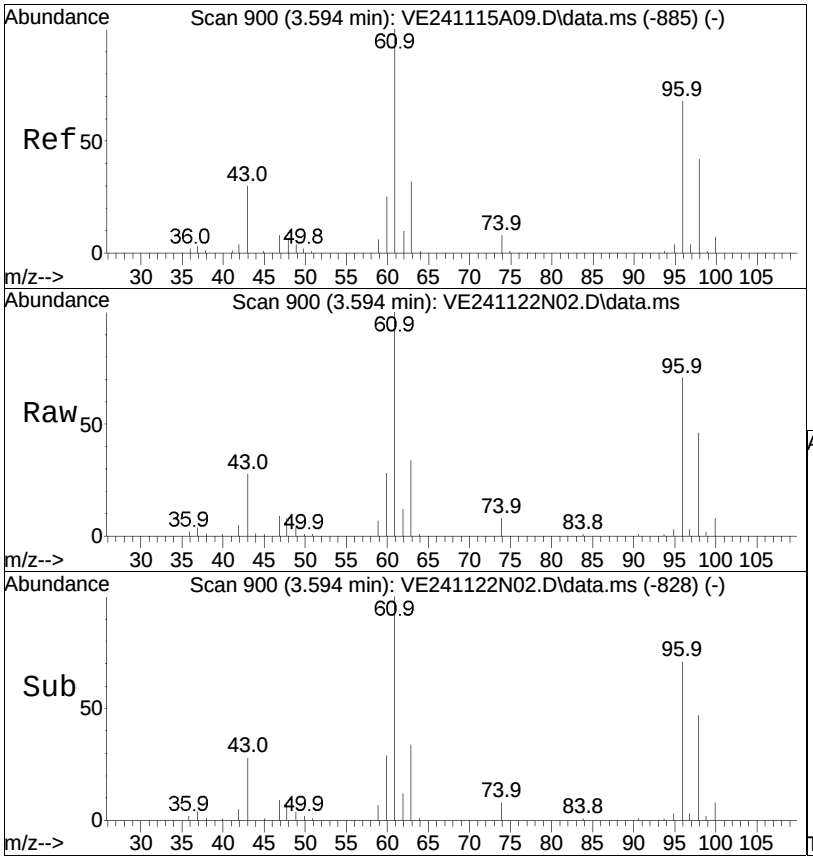


#17
Acetone
Concen: 9.32 ug/L
RT: 3.482 min Scan# 860
Delta R.T. 0.006 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 43 Resp: 7965

Ion	Ratio	Lower	Upper
43	100		
58	30.0	23.4	35.0

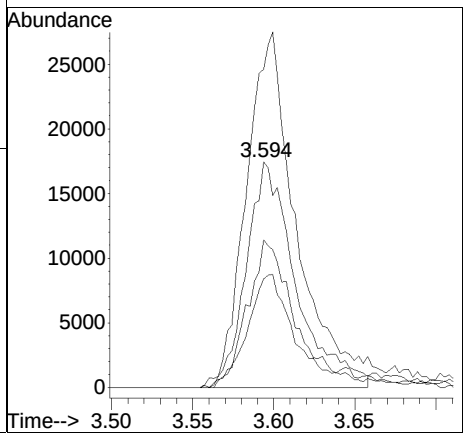


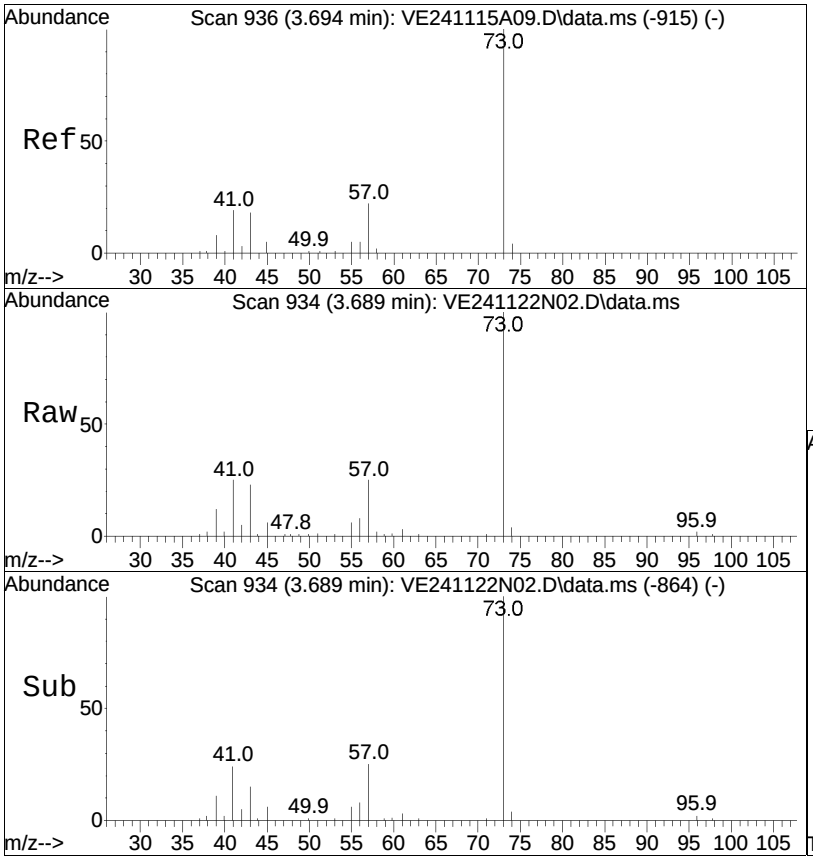


#18
trans-1,2-Dichloroethene
Concen: 9.53 ug/L
RT: 3.594 min Scan# 900
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 96 Resp: 36910

Ion	Ratio	Lower	Upper
96	100		
61	162.7	93.5	194.1
98	61.0	37.8	78.6
63	48.9	29.7	61.7

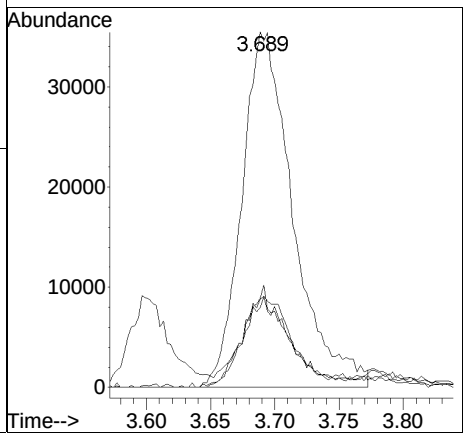


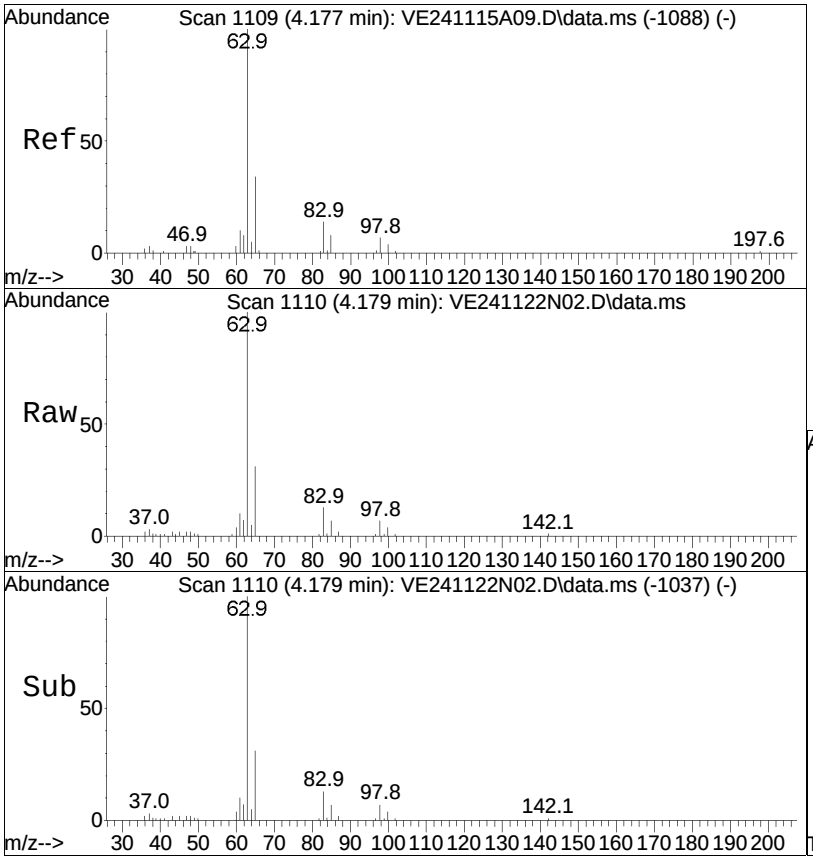


#21
Methyl tert-butyl ether
Concen: 9.54 ug/L
RT: 3.689 min Scan# 934
Delta R.T. -0.006 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 73 Resp: 98850

Ion	Ratio	Lower	Upper
73	100		
57	24.5	16.1	33.3
43	19.5	17.0	35.2
41	24.2	18.7	38.9

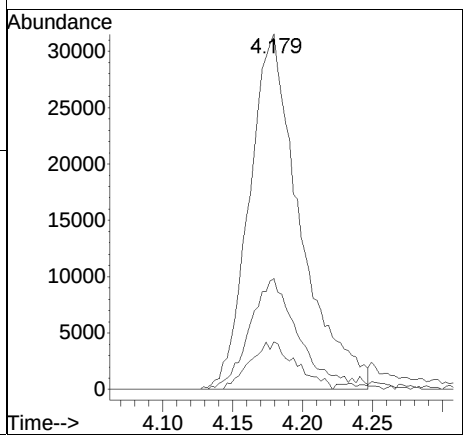


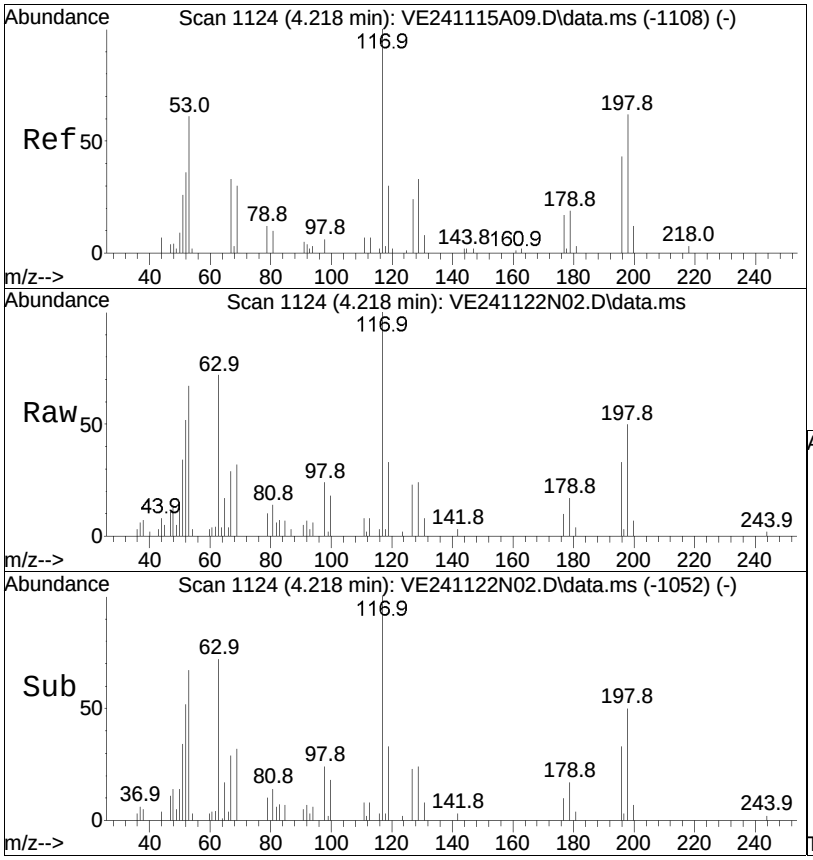


#25
1,1-Dichloroethane
Concen: 10.28 ug/L
RT: 4.179 min Scan# 1110
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 63 Resp: 79653

Ion	Ratio	Lower	Upper
63	100		
65	29.7	10.3	50.3
83	12.2	0.0	33.1

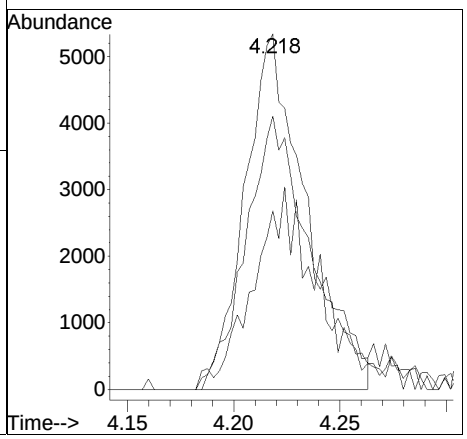


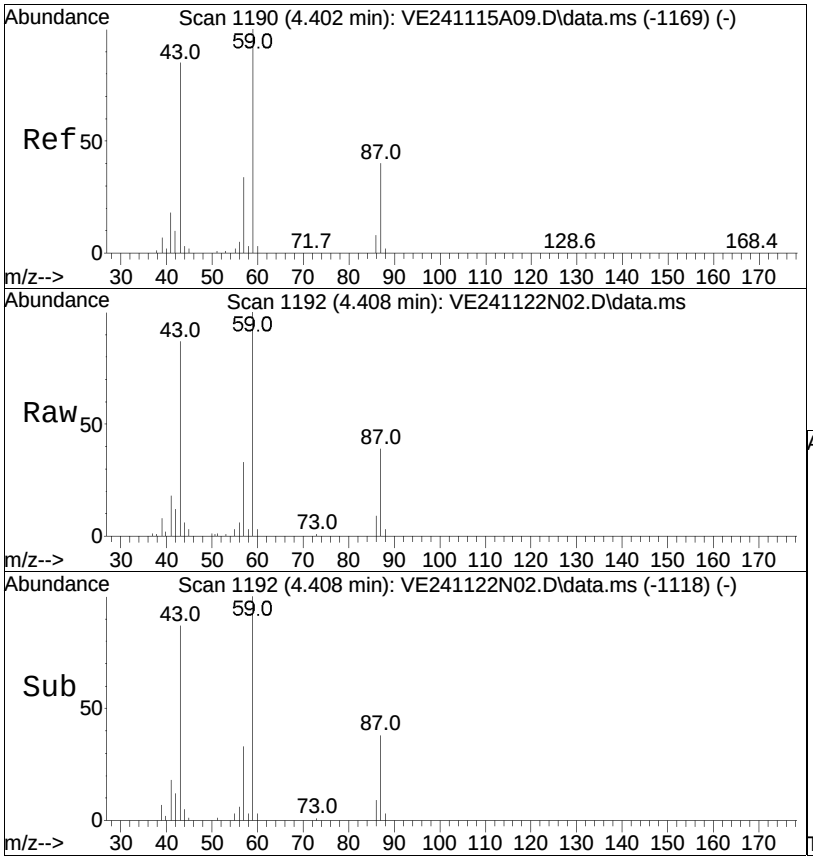


#27
Acrylonitrile
Concen: 10.19 ug/L
RT: 4.218 min Scan# 1124
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 53 Resp: 10681

Ion	Ratio	Lower	Upper
53	100		
52	81.3	58.9	88.3
51	21.8	40.2	60.2#

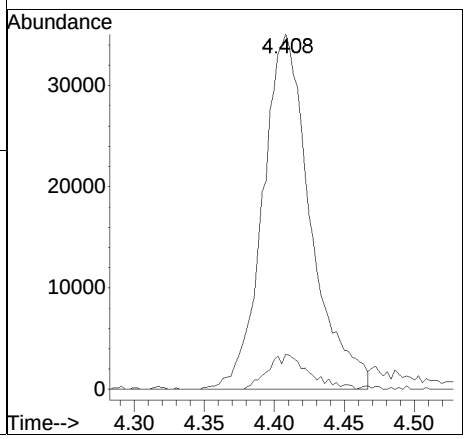


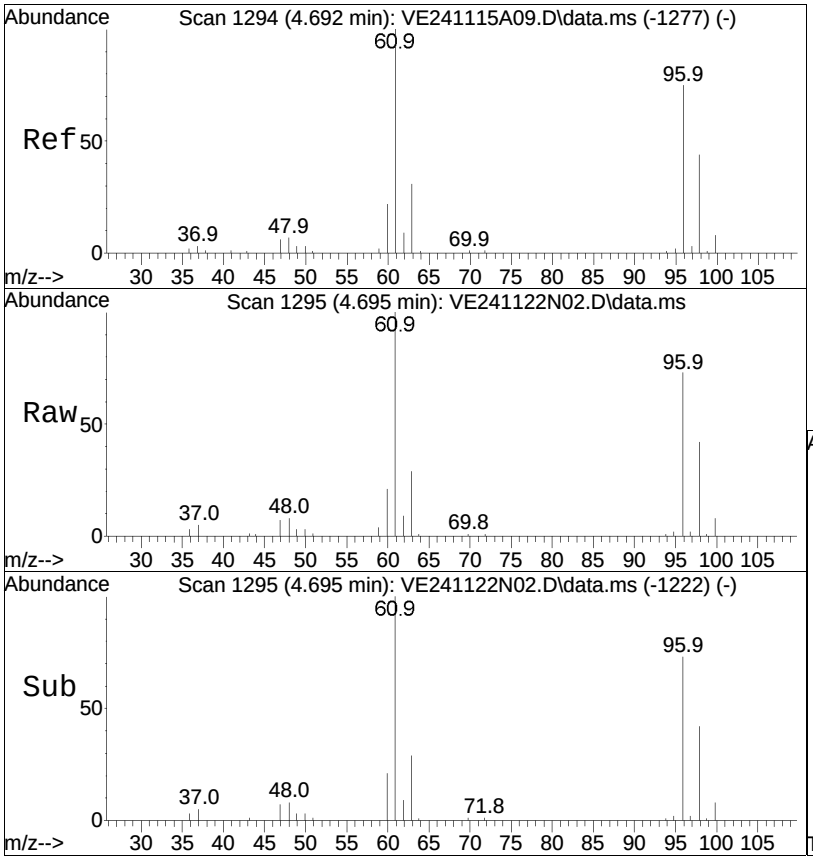


#29
Vinyl acetate
Concen: 9.27 ug/L
RT: 4.408 min Scan# 1192
Delta R.T. 0.005 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 43 Resp: 83428

Ion	Ratio	Lower	Upper
43	100		
86	3.3	6.2	9.4#

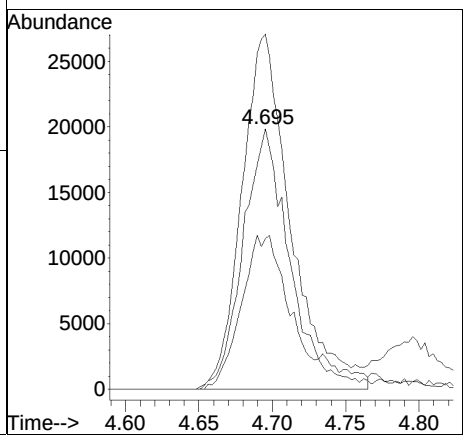


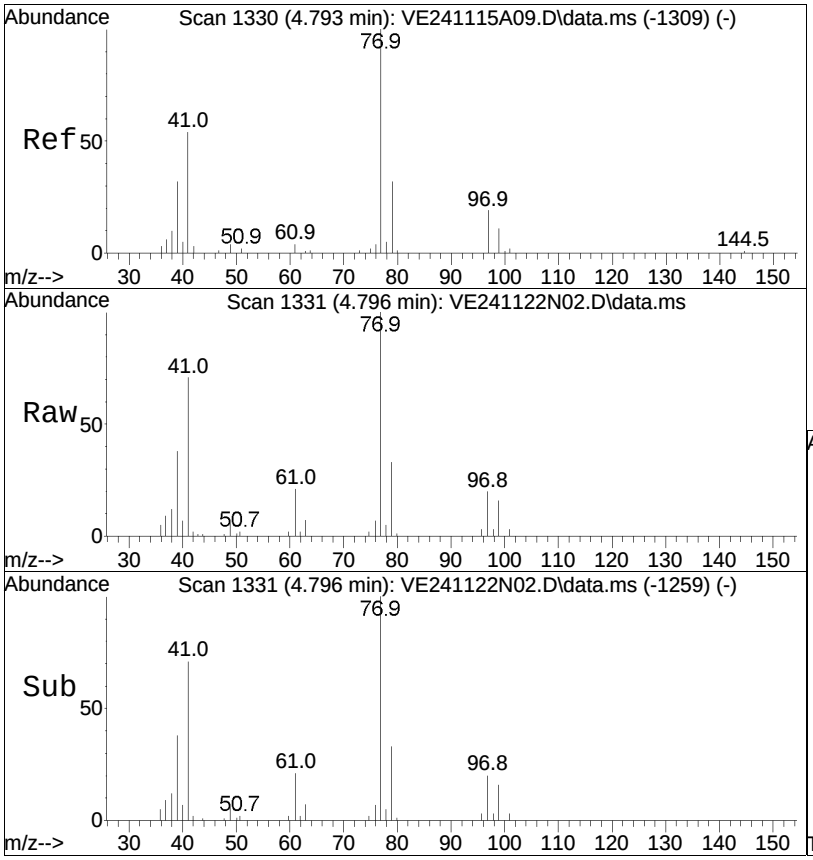


#30
cis-1,2-Dichloroethene
Concen: 10.19 ug/L
RT: 4.695 min Scan# 1295
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 96 Resp: 45076

Ion	Ratio	Lower	Upper
96	100		
61	137.7	120.3	180.5
98	63.3	50.2	75.4

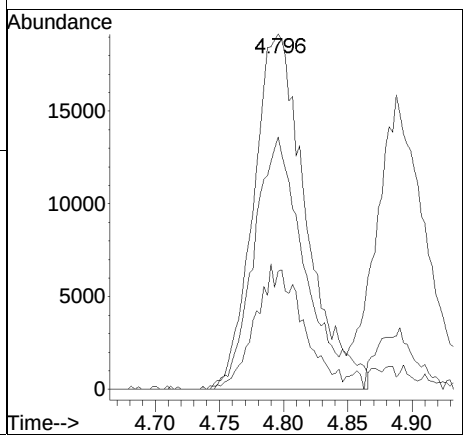


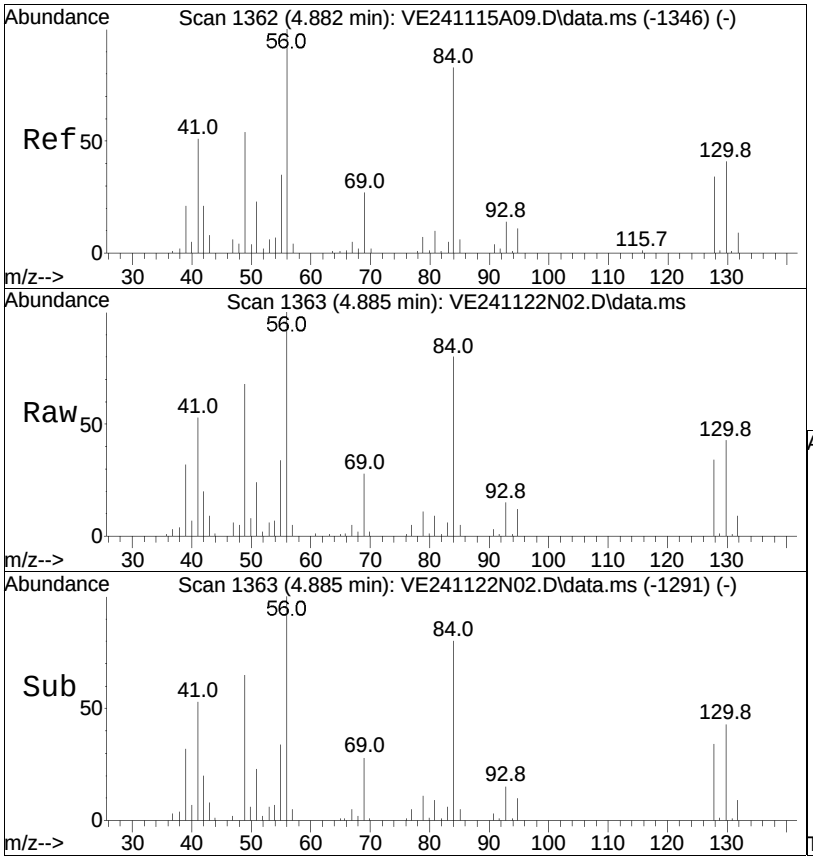


#31
2,2-Dichloropropane
Concen: 8.95 ug/L
RT: 4.796 min Scan# 1331
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 77 Resp: 54681

Ion	Ratio	Lower	Upper
77	100		
41	66.3	46.5	96.5
79	31.8	21.6	45.0

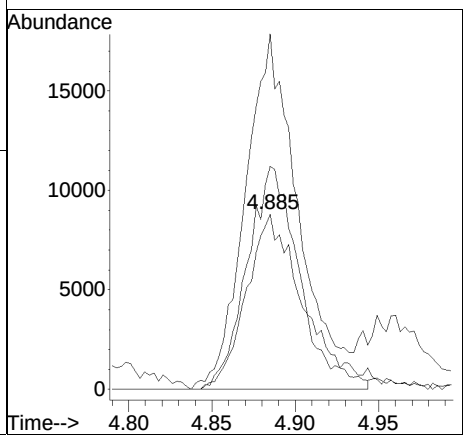


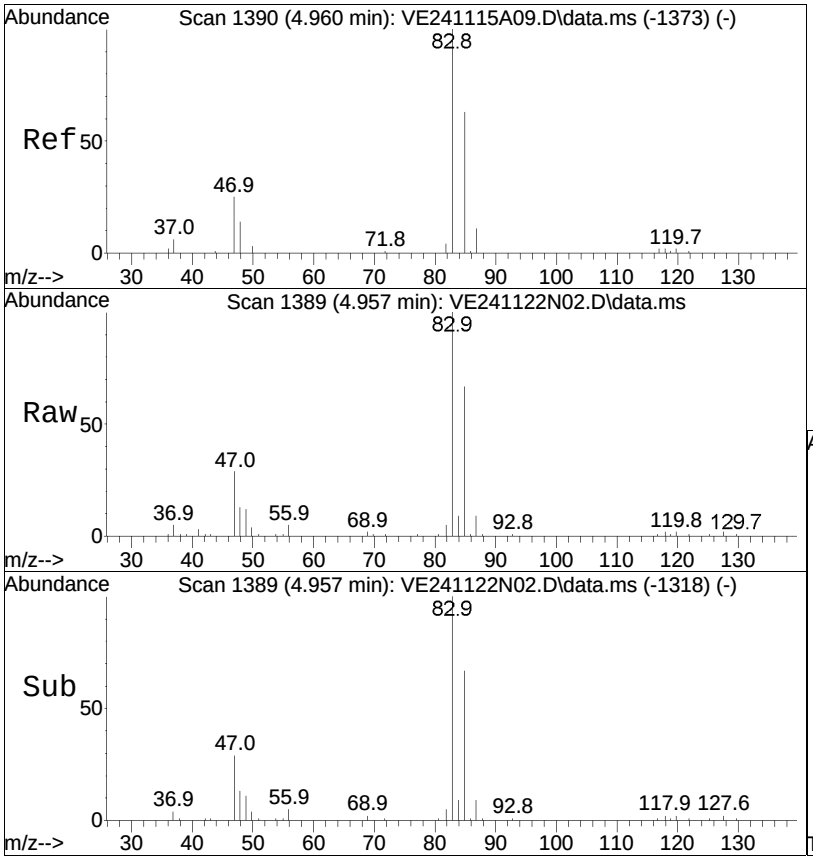


#33
Bromochloromethane
Concen: 9.87 ug/L
RT: 4.885 min Scan# 1363
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:128 Resp: 19890

Ion	Ratio	Lower	Upper
128	100		
49	199.4	170.2	255.2
130	127.5	103.7	155.5

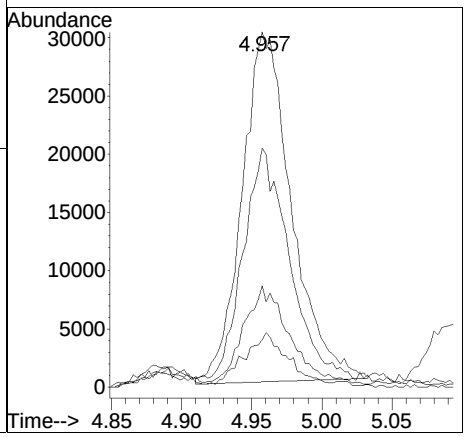


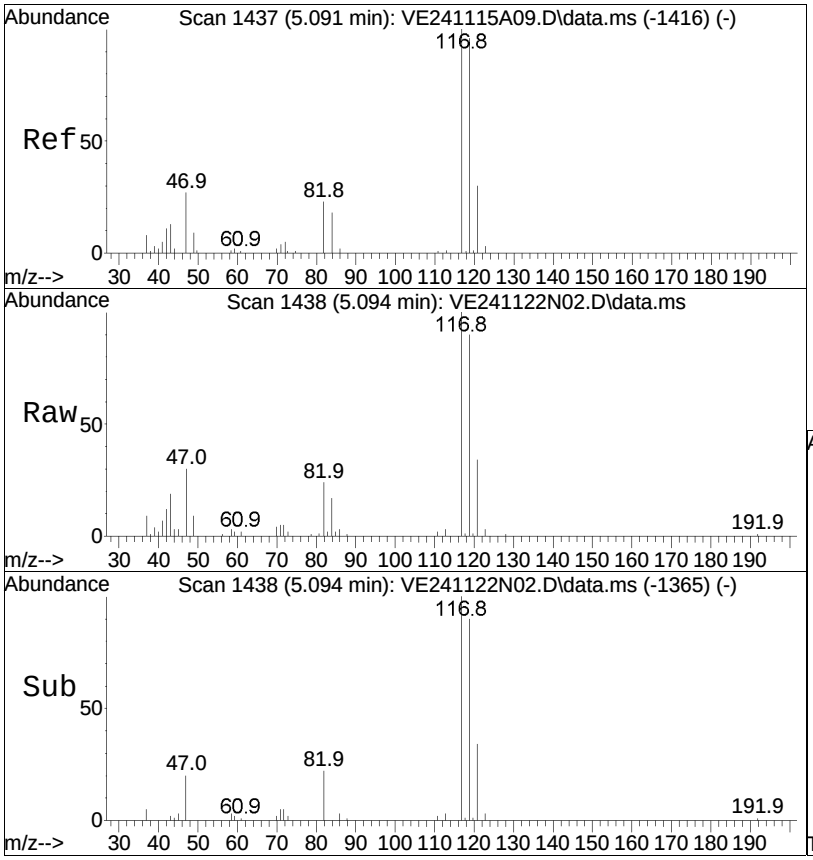


#35
Chloroform
Concen: 10.16 ug/L
RT: 4.957 min Scan# 1389
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 83 Resp: 73845

Ion	Ratio	Lower	Upper
83	100		
85	61.9	41.3	85.9
47	25.9	20.9	43.3
48	12.8	10.3	21.5

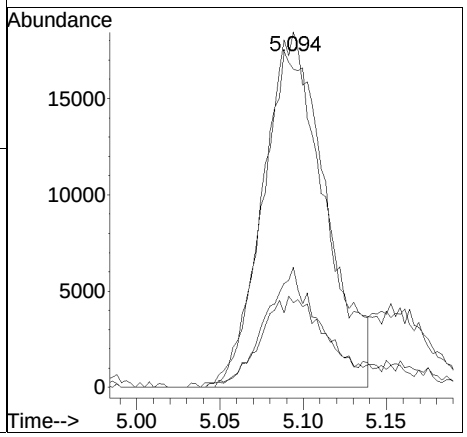


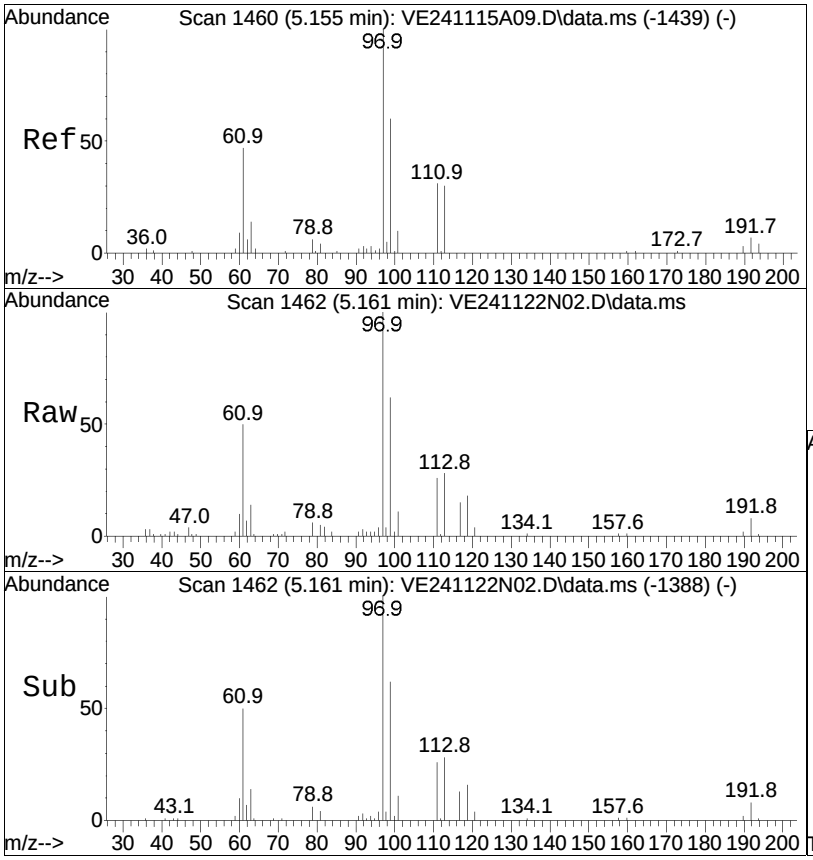


#37
Carbon tetrachloride
Concen: 9.22 ug/L
RT: 5.094 min Scan# 1438
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:117 Resp: 48605

Ion	Ratio	Lower	Upper
117	100		
119	99.1	60.6	126.0
121	29.8	18.0	37.4
82	26.6	19.8	41.0

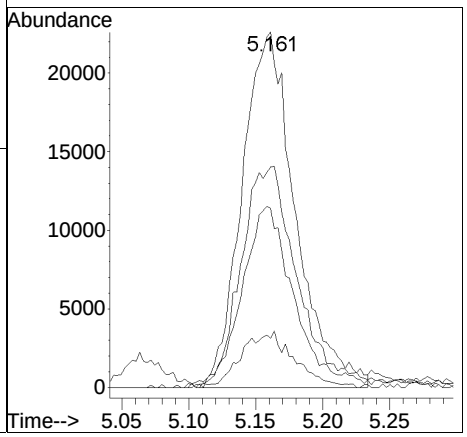


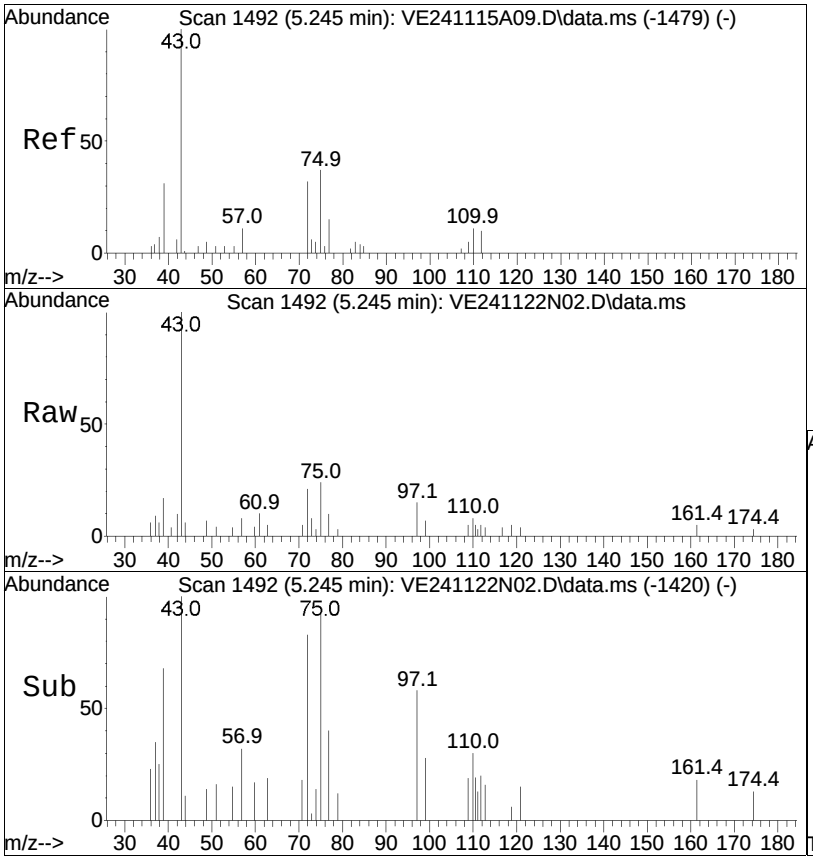


#40
1,1,1-Trichloroethane
Concen: 9.78 ug/L
RT: 5.161 min Scan# 1462
Delta R.T. 0.006 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 97 Resp: 62780

Ion	Ratio	Lower	Upper
97	100		
99	65.6	40.2	83.4
61	45.9	36.9	76.5
63	4.5	8.3	17.3#

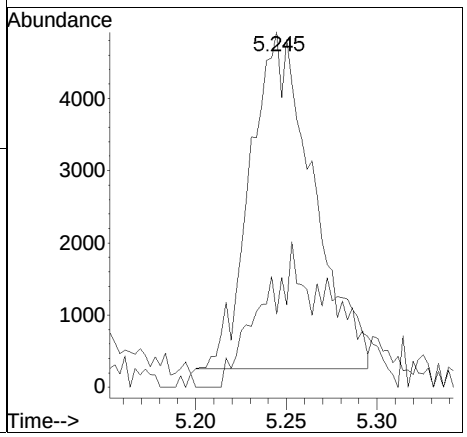


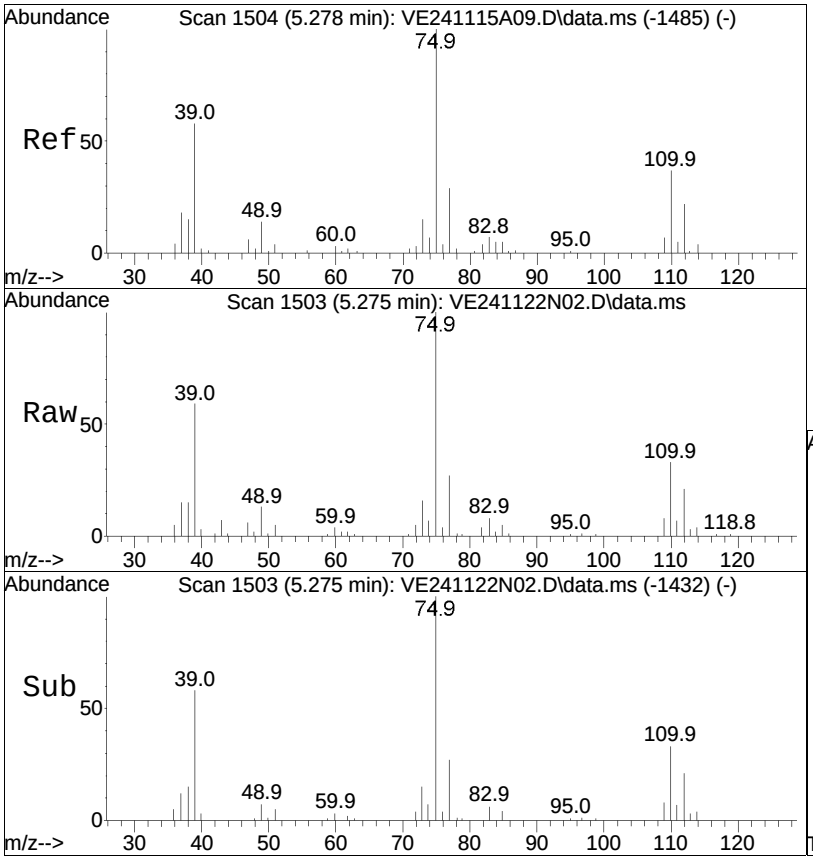


#42
2-Butanone
Concen: 9.08 ug/L
RT: 5.245 min Scan# 1492
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 43 Resp: 11067

Ion	Ratio	Lower	Upper
43	100		
72	14.4	15.7	23.5#

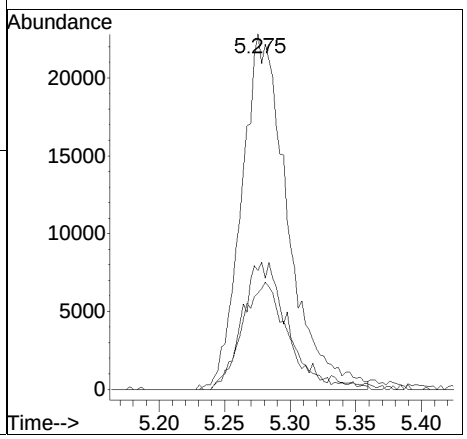


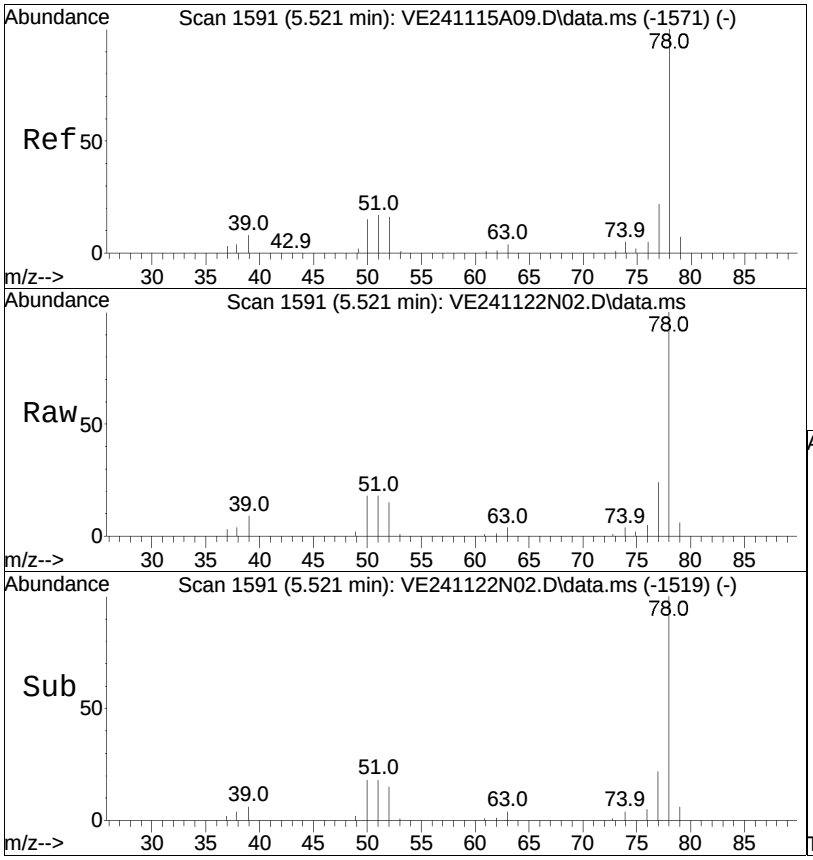


#43
1,1-Dichloropropene
Concen: 9.90 ug/L
RT: 5.275 min Scan# 1503
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 75 Resp: 55638

Ion	Ratio	Lower	Upper
75	100		
110	34.7	20.3	42.1
77	30.2	18.9	39.3

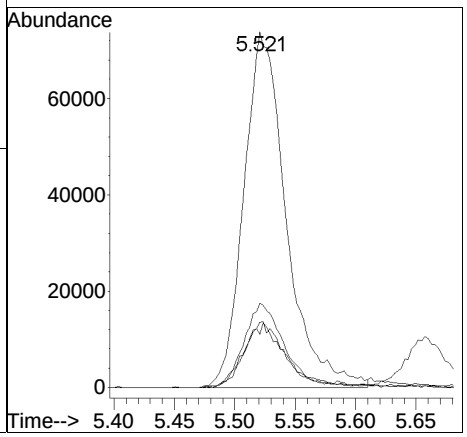


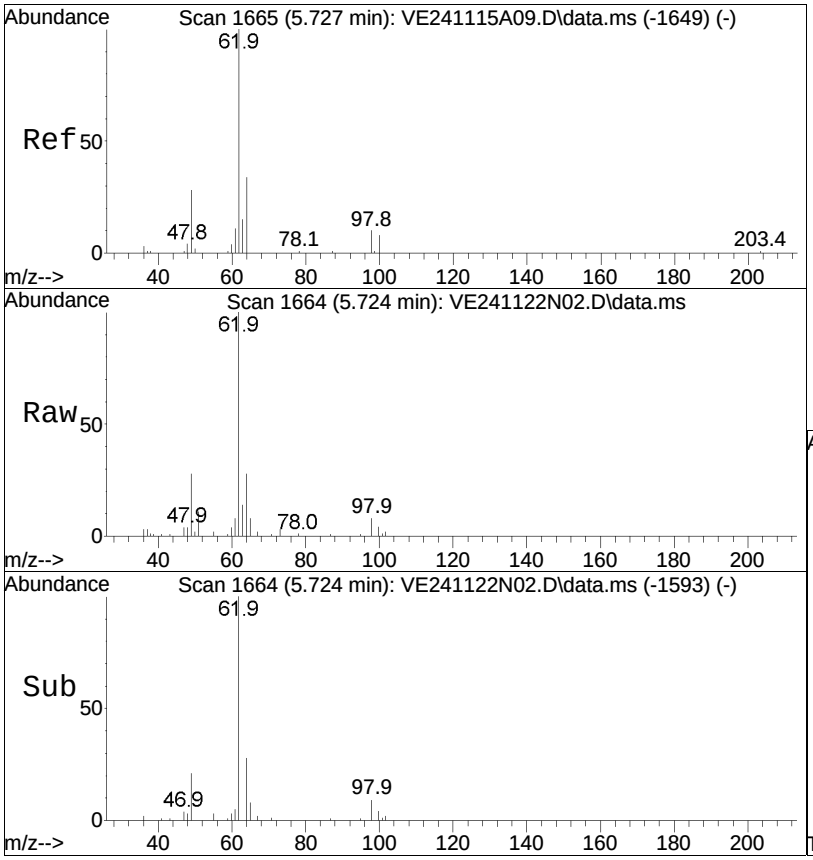


#45
Benzene
Concen: 10.14 ug/L
RT: 5.521 min Scan# 1591
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 78 Resp: 179551

Ion	Ratio	Lower	Upper
78	100		
77	22.6	12.8	26.6
51	18.1	13.5	27.9
52	17.3	12.0	25.0

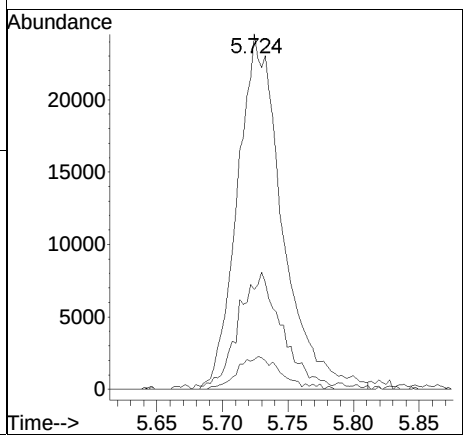


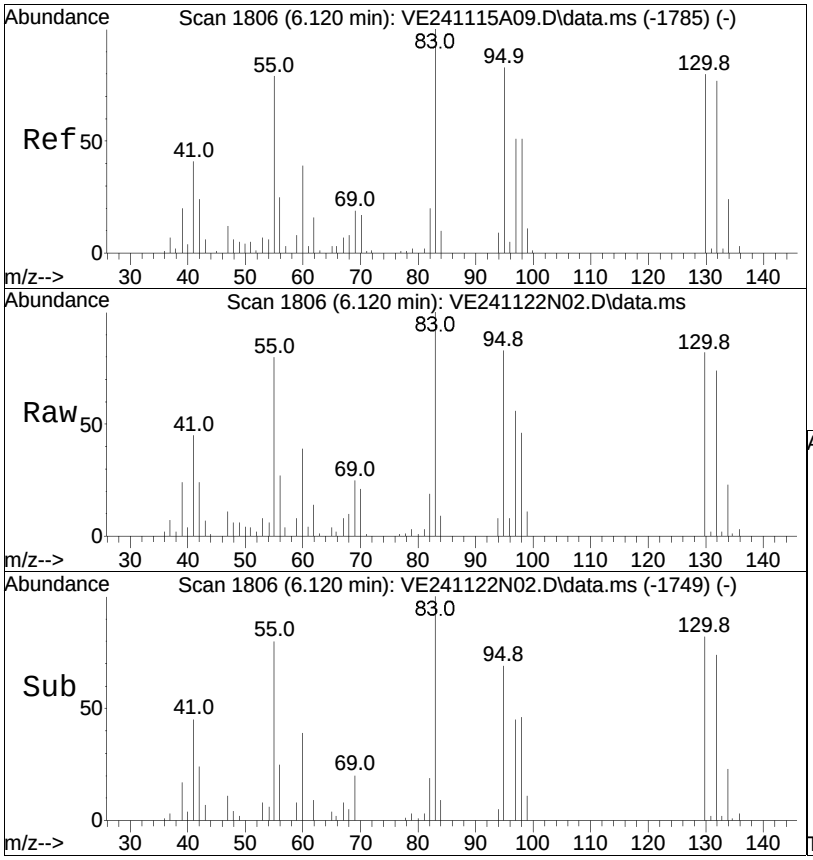


#48
1,2-Dichloroethane
Concen: 10.38 ug/L
RT: 5.724 min Scan# 1664
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 62 Resp: 58425

Ion	Ratio	Lower	Upper
62	100		
64	32.4	12.0	52.0
98	8.8	0.0	29.1

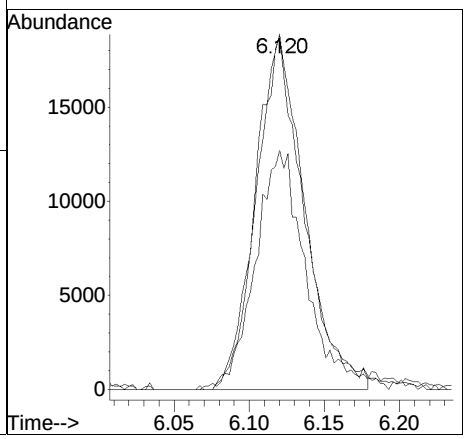


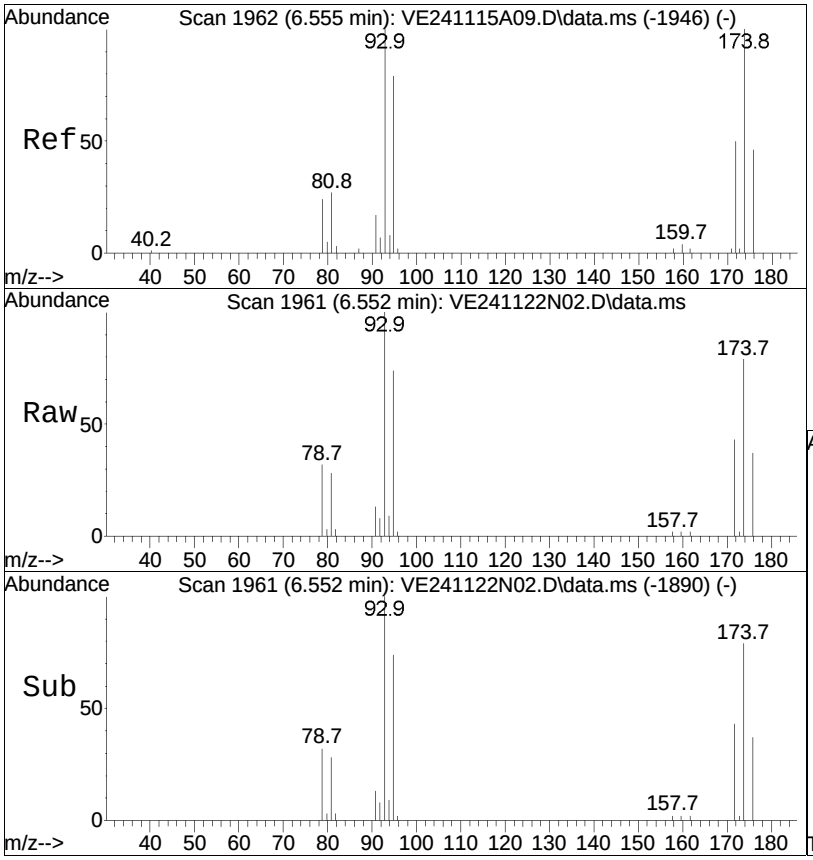


#52
Trichloroethene
Concen: 10.12 ug/L
RT: 6.120 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 95 Resp: 42467

Ion	Ratio	Lower	Upper
95	100		
97	69.8	50.2	75.2
130	98.2	78.2	117.4

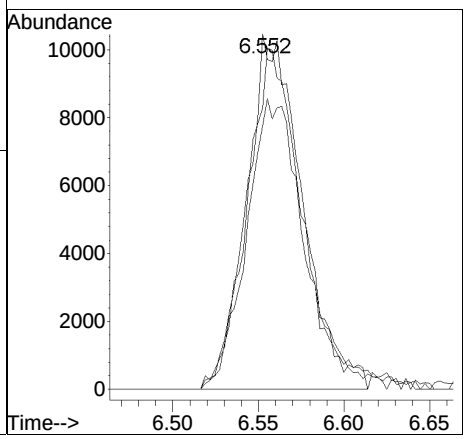


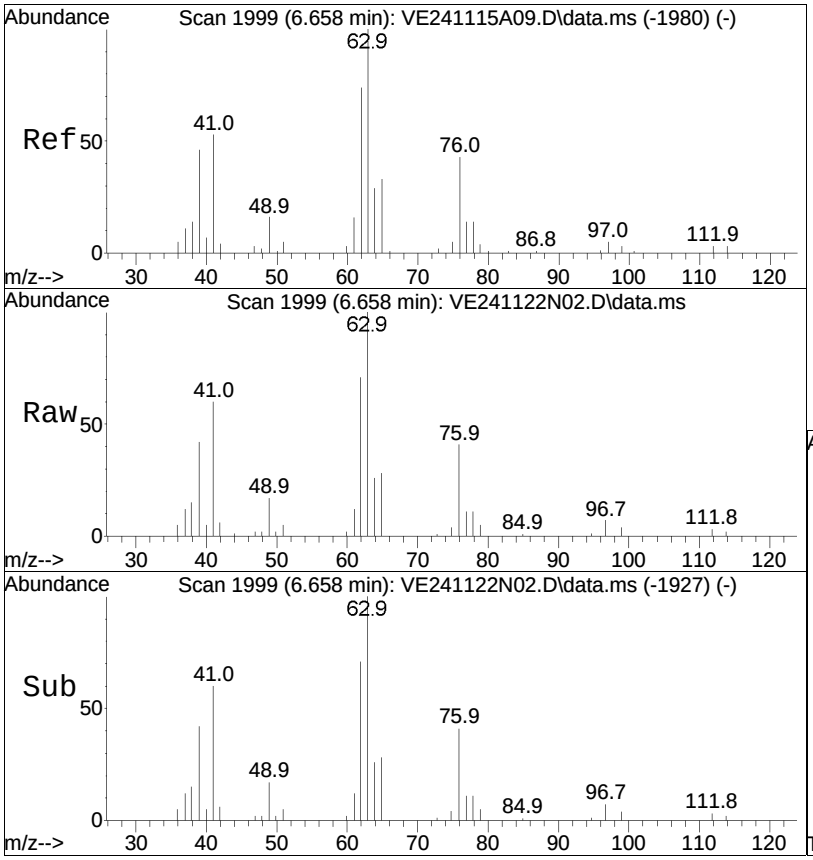


#54
Dibromomethane
Concen: 9.78 ug/L
RT: 6.552 min Scan# 1961
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 93 Resp: 23455

Ion	Ratio	Lower	Upper
93	100		
95	86.1	73.2	109.8
174	95.8	73.8	110.8

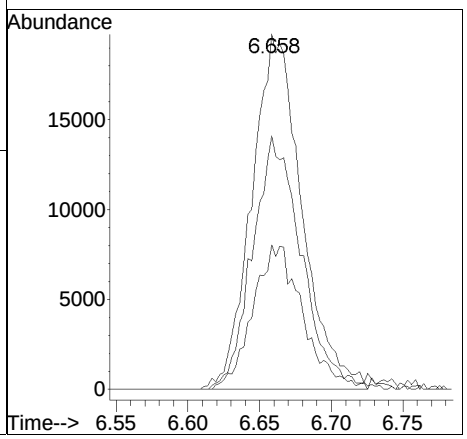


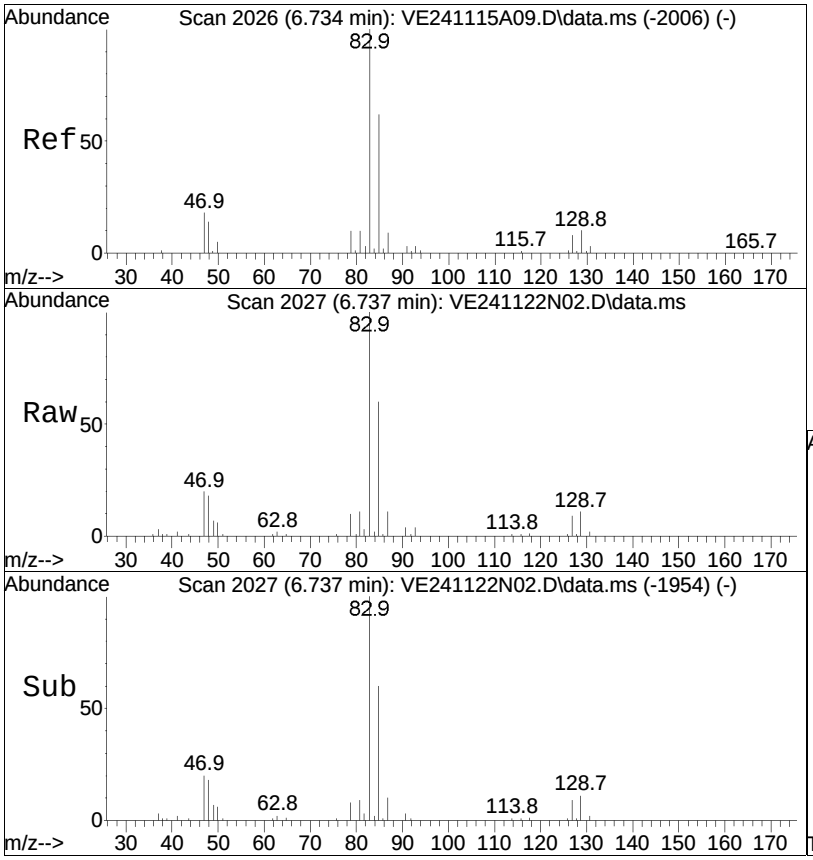


#55
1,2-Dichloropropane
Concen: 10.68 ug/L
RT: 6.658 min Scan# 1999
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 63 Resp: 48017

Ion	Ratio	Lower	Upper
63	100		
62	69.4	58.4	87.6
76	40.5	28.7	43.1

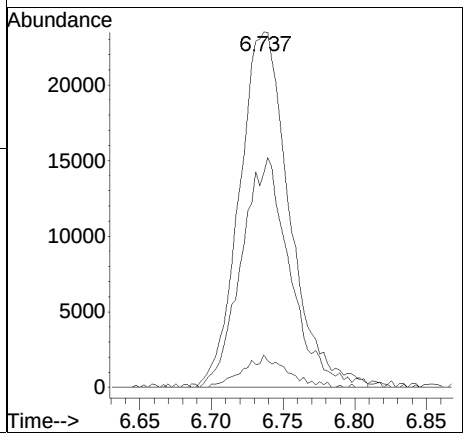


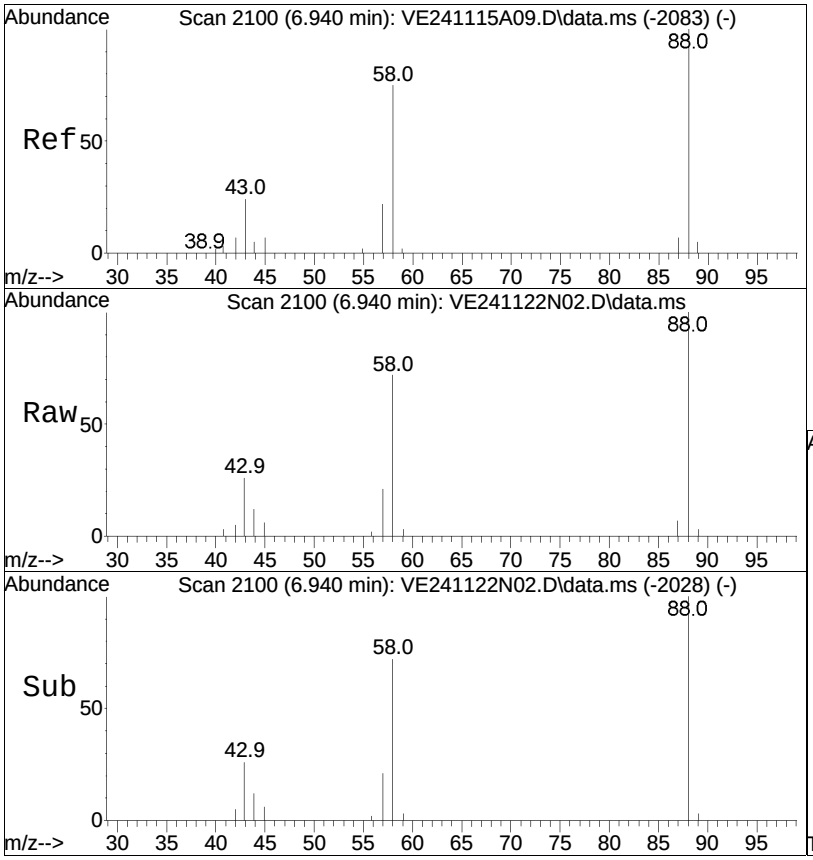


#58
Bromodichloromethane
Concen: 9.81 ug/L
RT: 6.737 min Scan# 2027
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 83 Resp: 57282

Ion	Ratio	Lower	Upper
83	100		
85	62.6	46.6	69.8
127	7.7	6.2	9.4

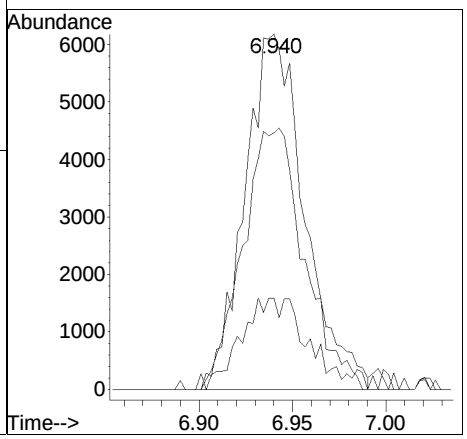


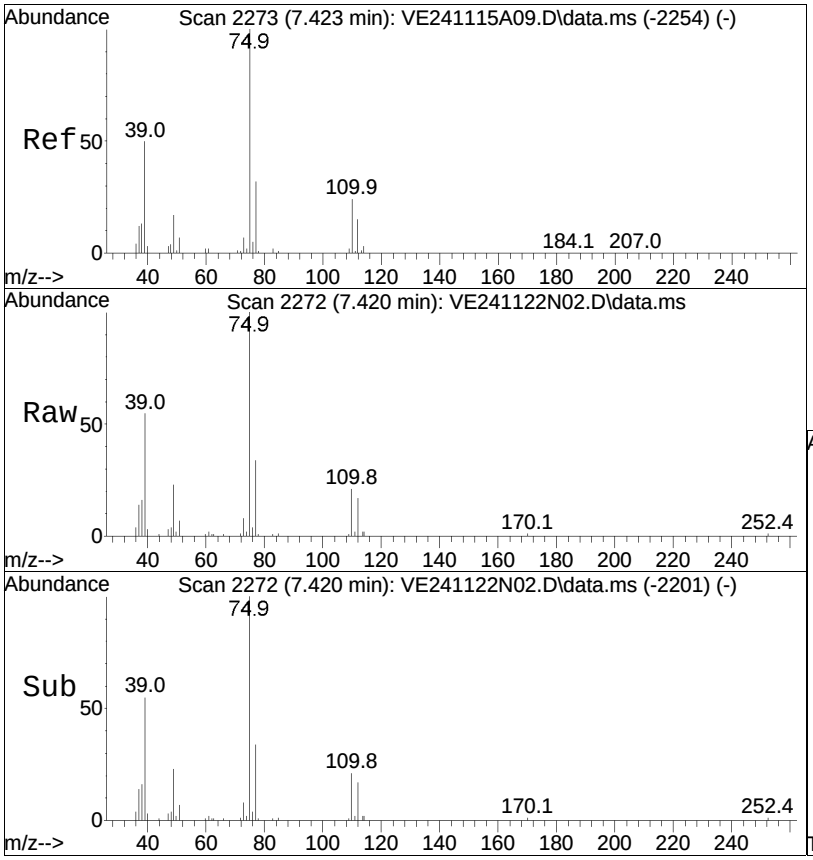


#61
1,4-Dioxane
Concen: 469.07 ug/L
RT: 6.940 min Scan# 2100
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 88 Resp: 13787

Ion	Ratio	Lower	Upper
88	100		
58	75.5	62.8	94.2
43	16.6	36.6	55.0#

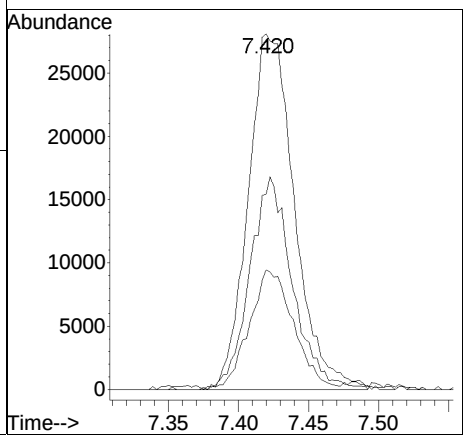


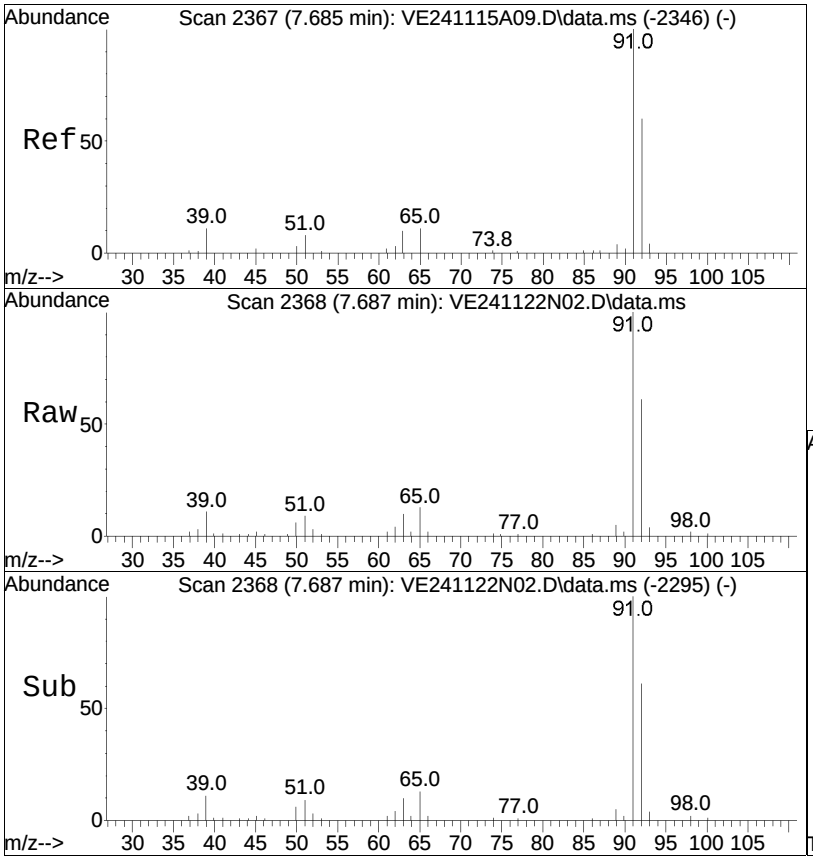


#62
cis-1,3-Dichloropropene
Concen: 9.59 ug/L
RT: 7.420 min Scan# 2272
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 75 Resp: 64620

Ion	Ratio	Lower	Upper
75	100		
77	32.2	25.1	37.7
39	54.7	50.7	76.1

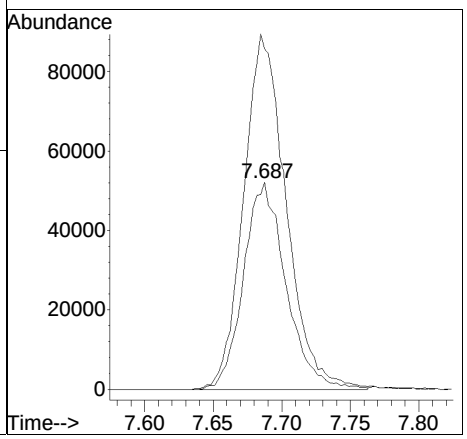


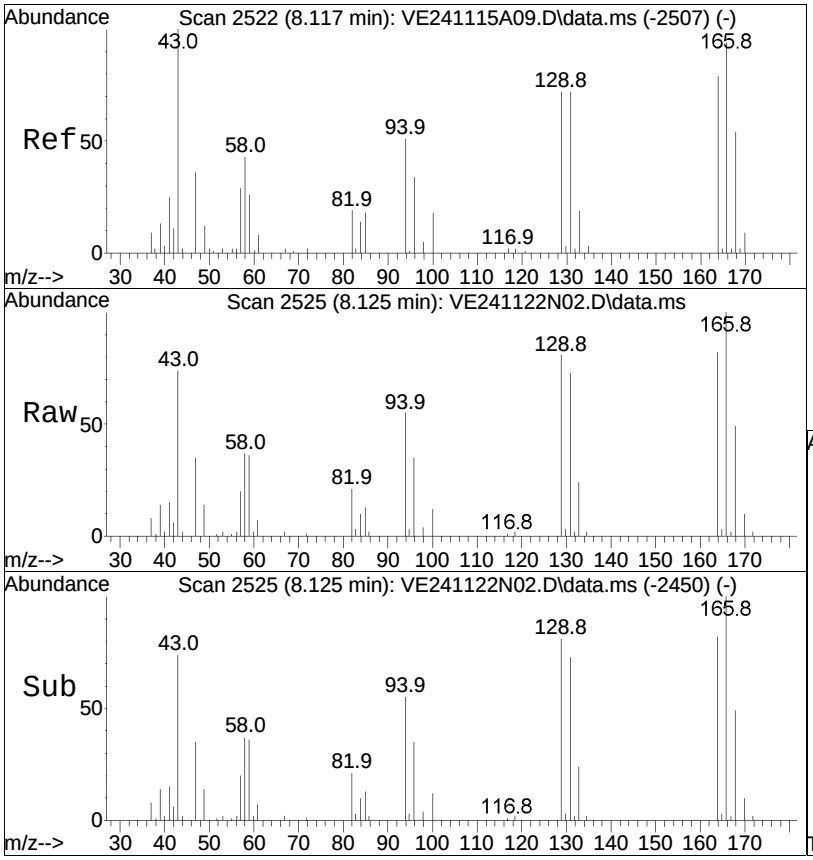


#65
Toluene
Concen: 10.08 ug/L
RT: 7.687 min Scan# 2368
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 92 Resp: 112174

Ion	Ratio	Lower	Upper
92	100		
91	172.4	129.1	193.7

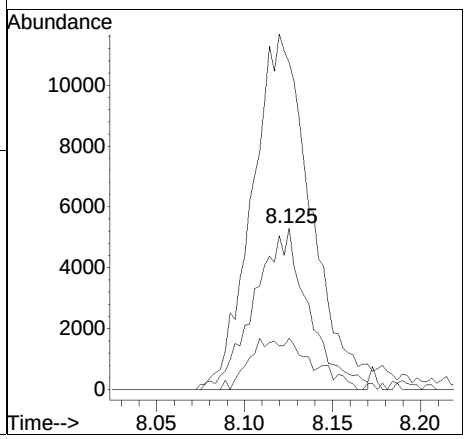


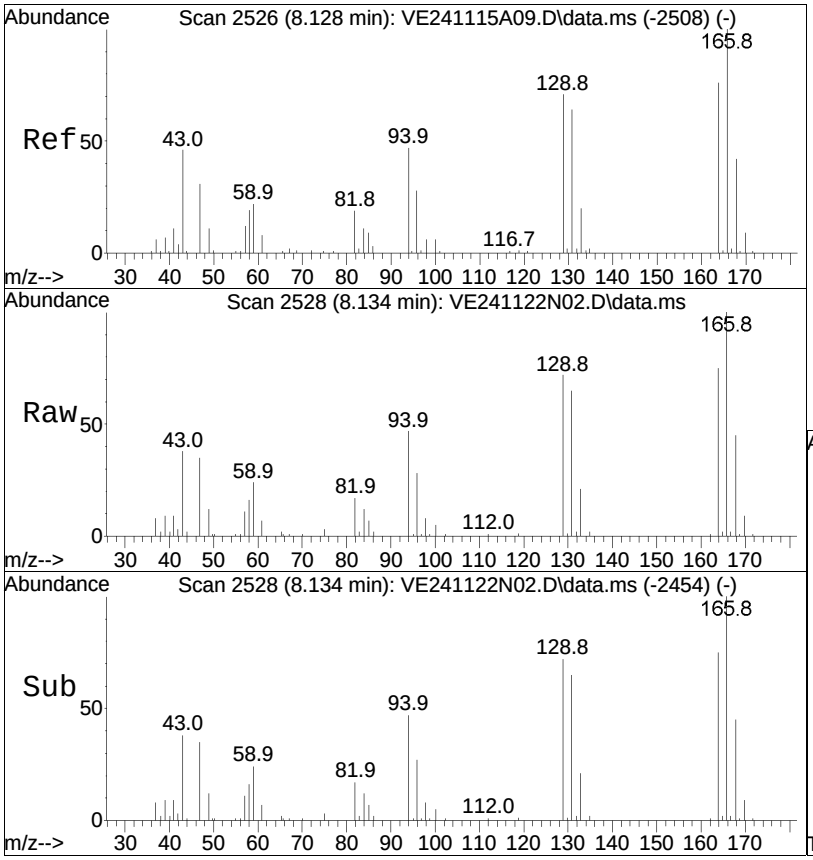


#66
4-Methyl-2-pentanone
Concen: 9.70 ug/L
RT: 8.125 min Scan# 2525
Delta R.T. 0.008 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 58 Resp: 11350

Ion	Ratio	Lower	Upper
58	100		
100	17.5	27.9	41.9#
43	238.5	225.7	338.5

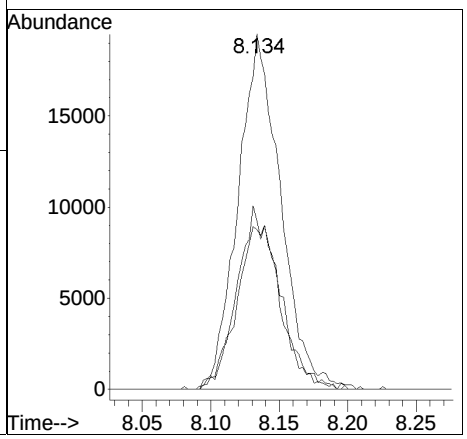


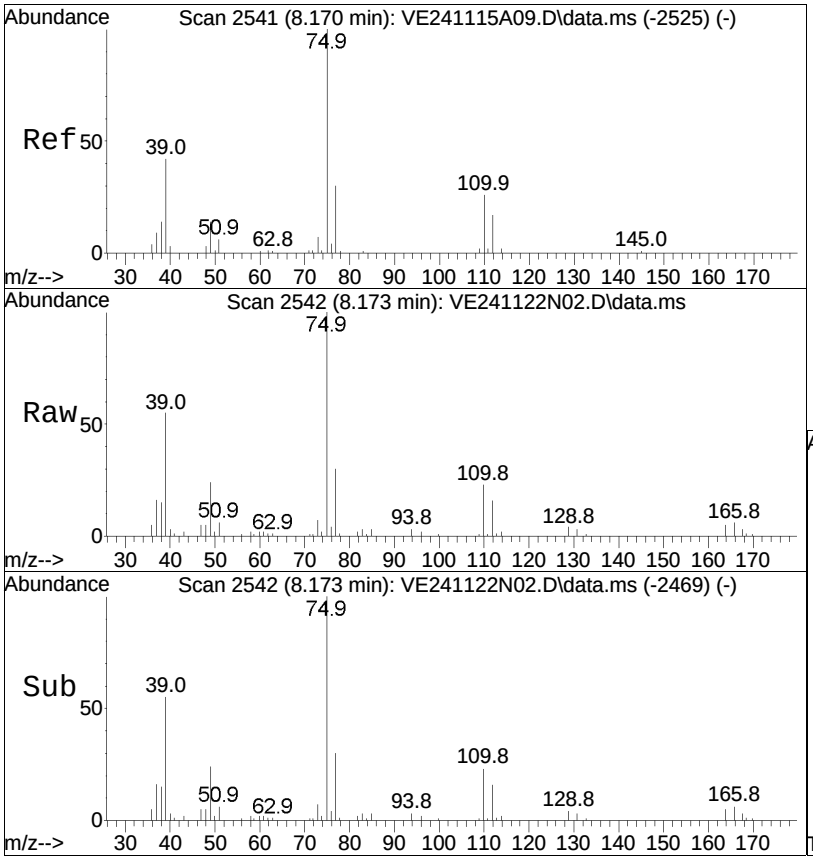


#67
Tetrachloroethene
Concen: 9.44 ug/L
RT: 8.134 min Scan# 2528
Delta R.T. 0.006 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:166 Resp: 42241

Ion	Ratio	Lower	Upper
166	100		
168	48.8	25.8	65.8
94	50.0	24.3	64.3

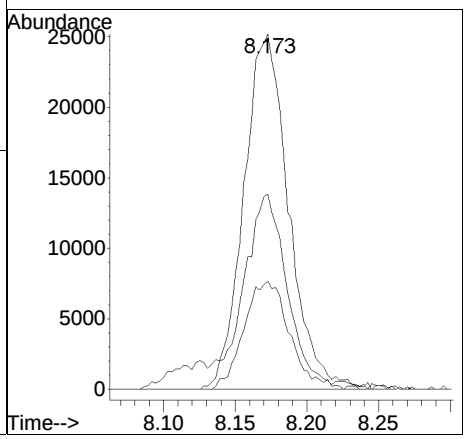


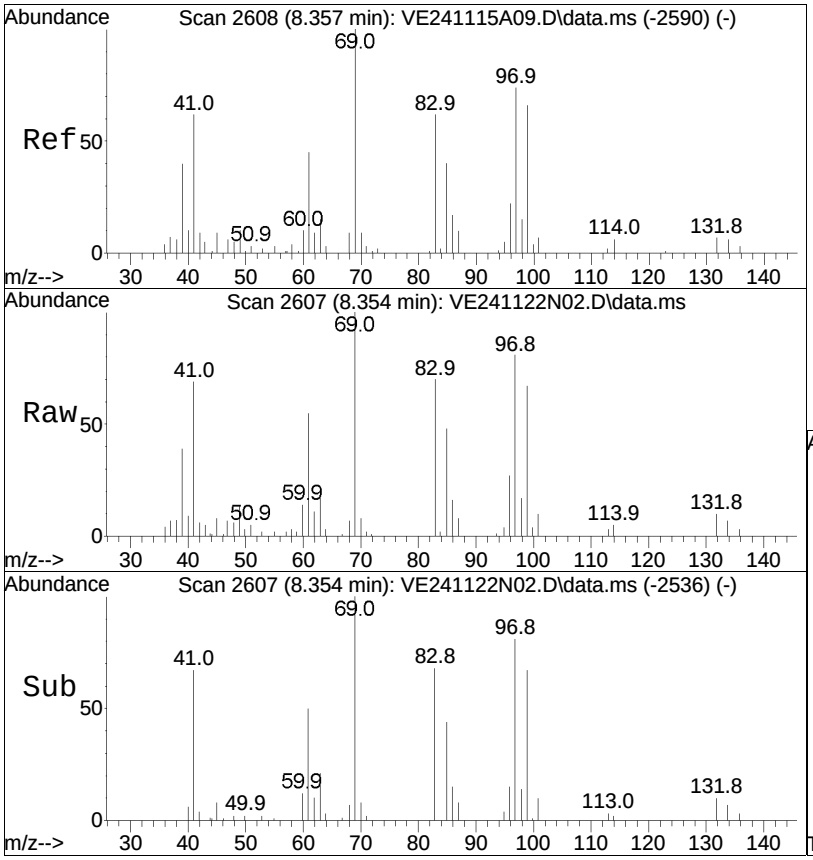


#69
trans-1,3-Dichloropropene
Concen: 9.94 ug/L
RT: 8.173 min Scan# 2542
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 75 Resp: 54771

Ion	Ratio	Lower	Upper
75	100		
77	30.9	10.2	50.2
39	51.6	45.7	85.7

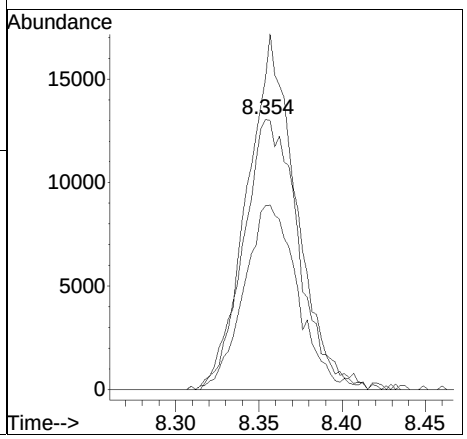


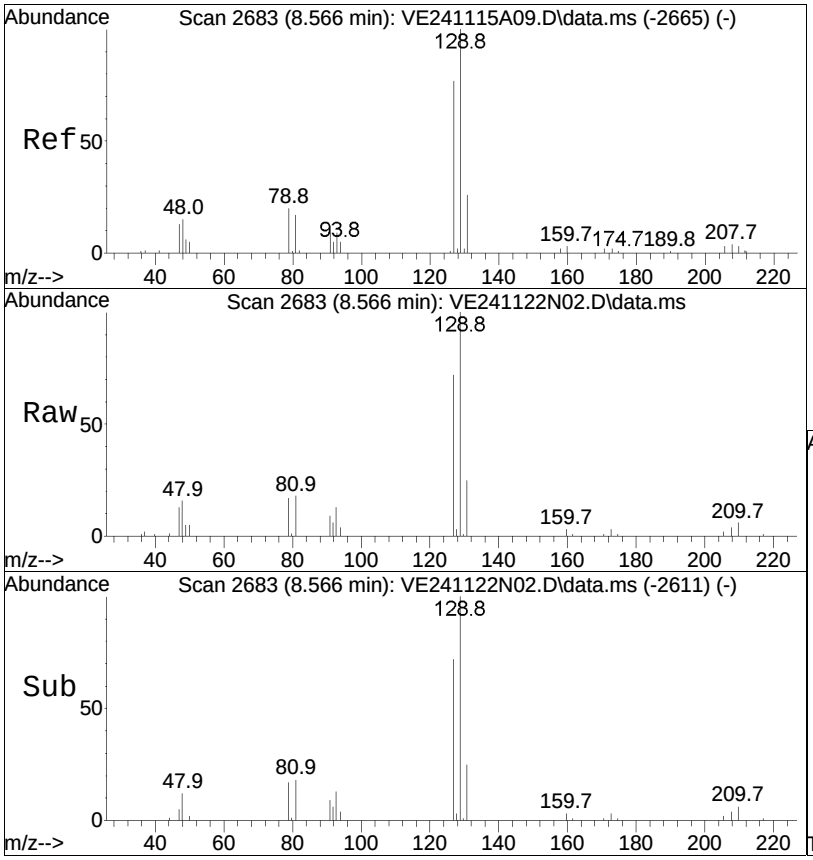


#72
1,1,2-Trichloroethane
Concen: 10.20 ug/L
RT: 8.354 min Scan# 2607
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 83 Resp: 29848

Ion	Ratio	Lower	Upper
83	100		
97	118.8	99.2	139.2
85	67.1	48.7	88.7

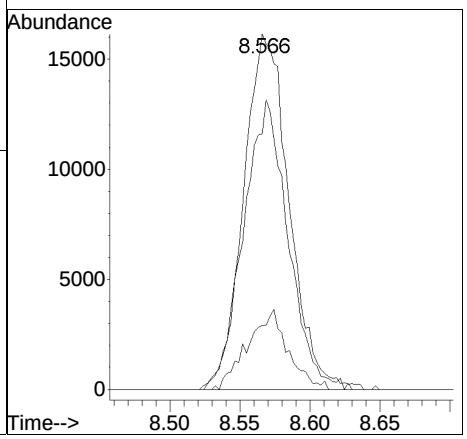


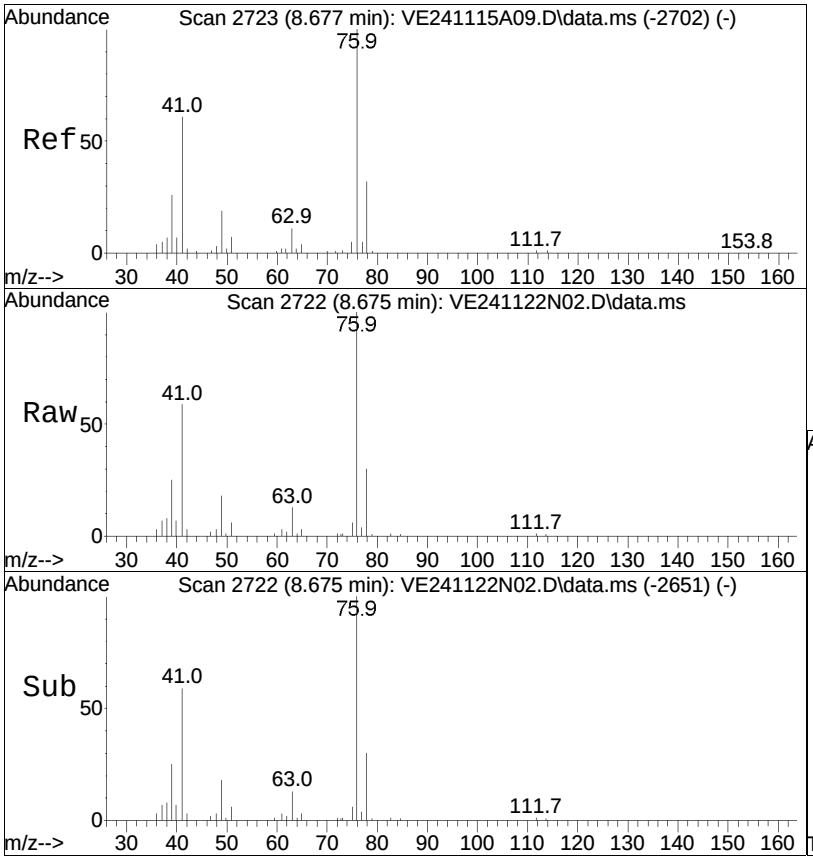


#73
Chlorodibromomethane
Concen: 9.29 ug/L
RT: 8.566 min Scan# 2683
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:129 Resp: 36449

Ion	Ratio	Lower	Upper
129	100		
81	19.8	0.0	39.5
127	79.4	58.6	98.6

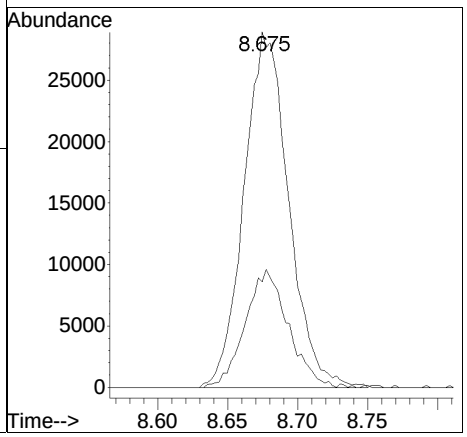


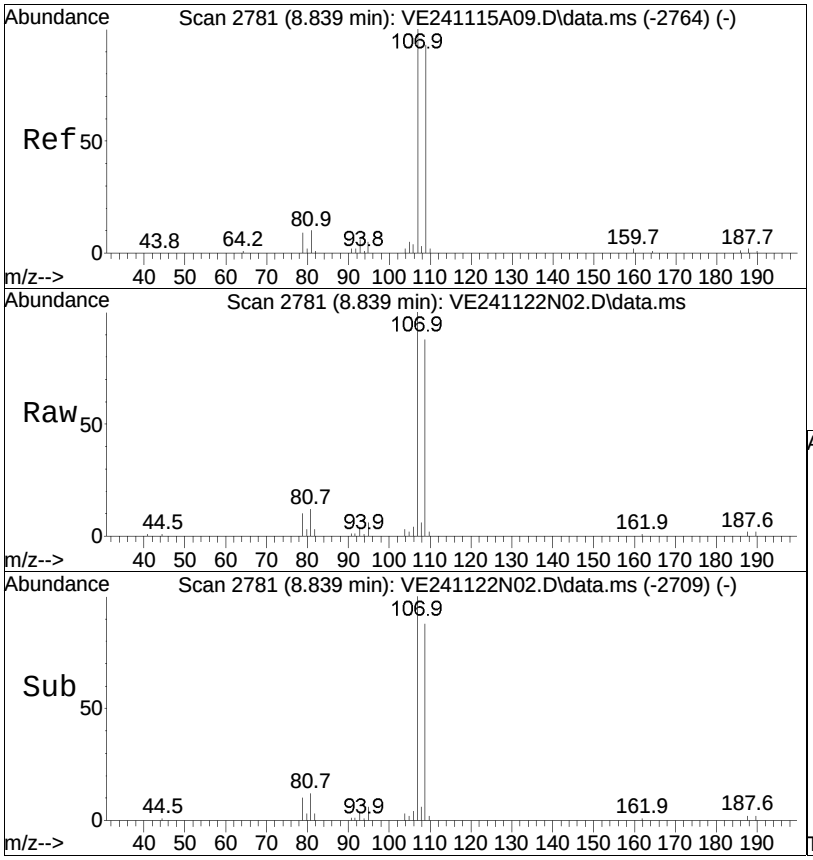


#74
1,3-Dichloropropane
Concen: 10.57 ug/L
RT: 8.675 min Scan# 2722
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 76 Resp: 63831

Ion	Ratio	Lower	Upper
76	100		
78	31.8	27.0	40.4

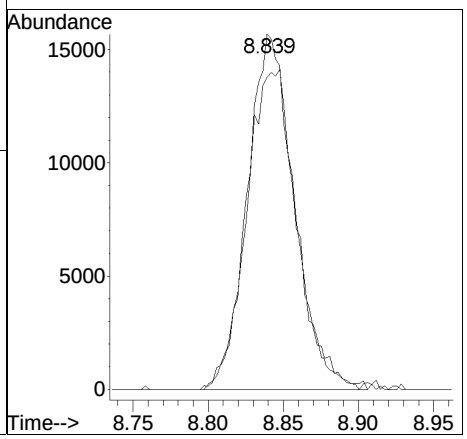


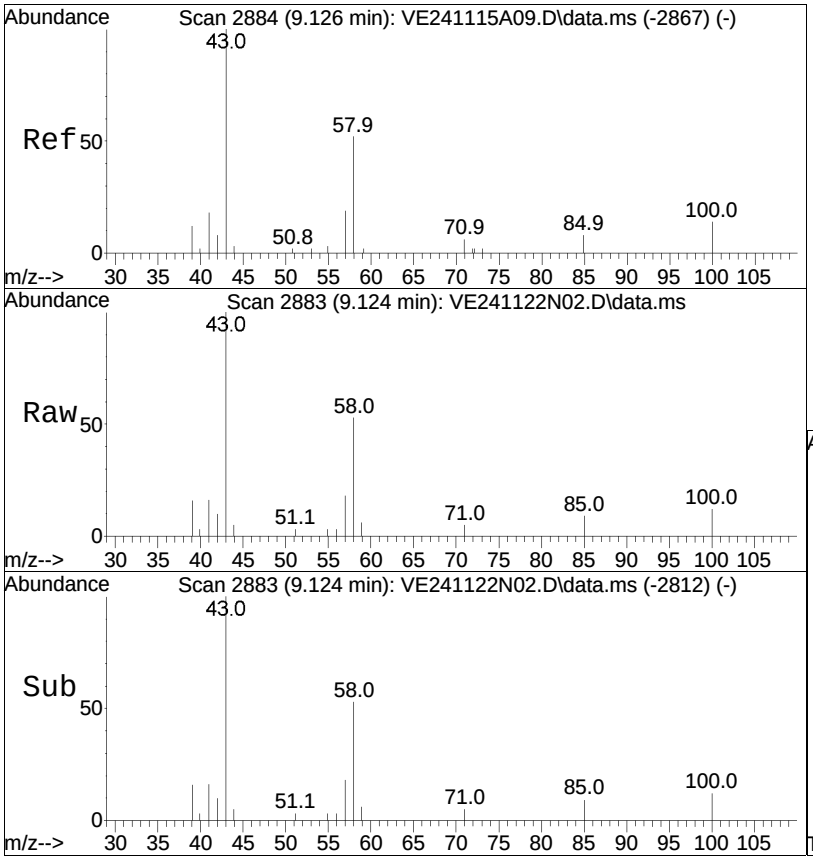


#75
1,2-Dibromoethane
Concen: 9.82 ug/L
RT: 8.839 min Scan# 2781
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:107 Resp: 34028

Ion	Ratio	Lower	Upper
107	100		
109	95.9	66.3	99.5

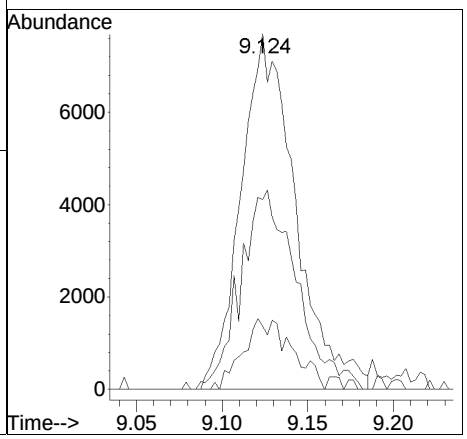


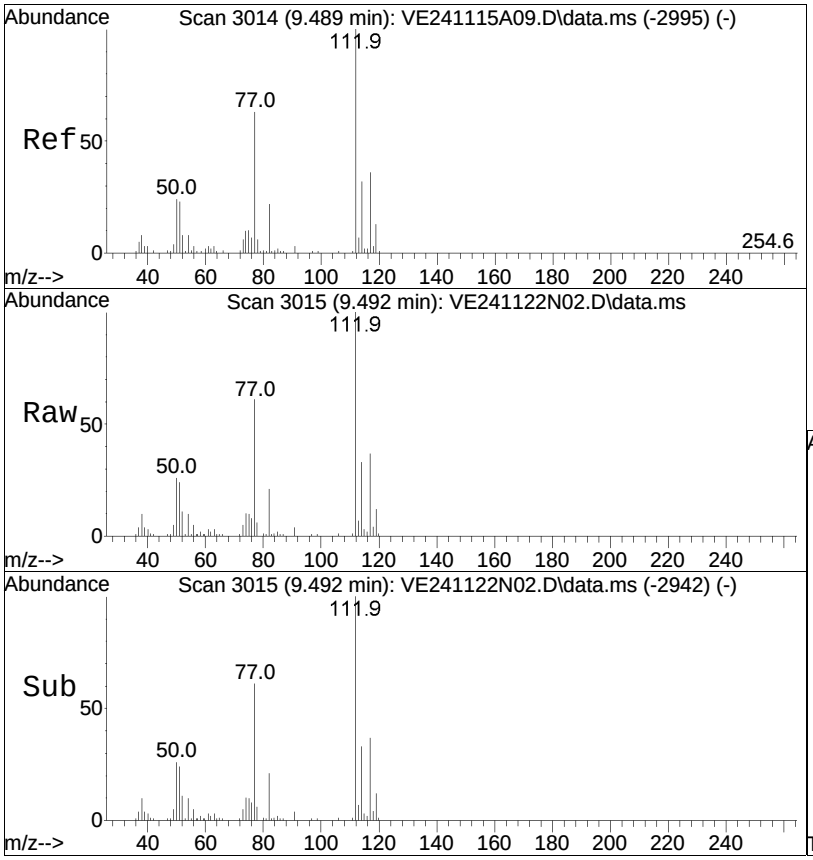


#77
2-Hexanone
Concen: 9.09 ug/L
RT: 9.124 min Scan# 2883
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 43 Resp: 17072

Ion	Ratio	Lower	Upper
43	100		
58	57.6	42.5	63.7
57	9.1	13.9	20.9#

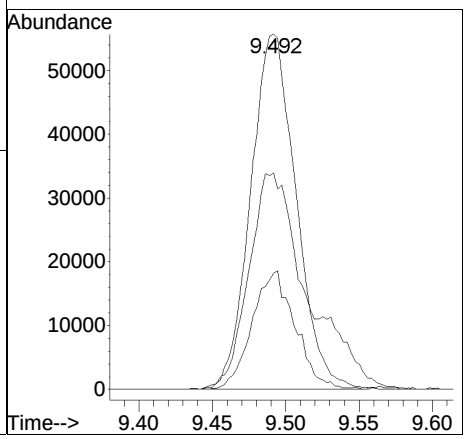


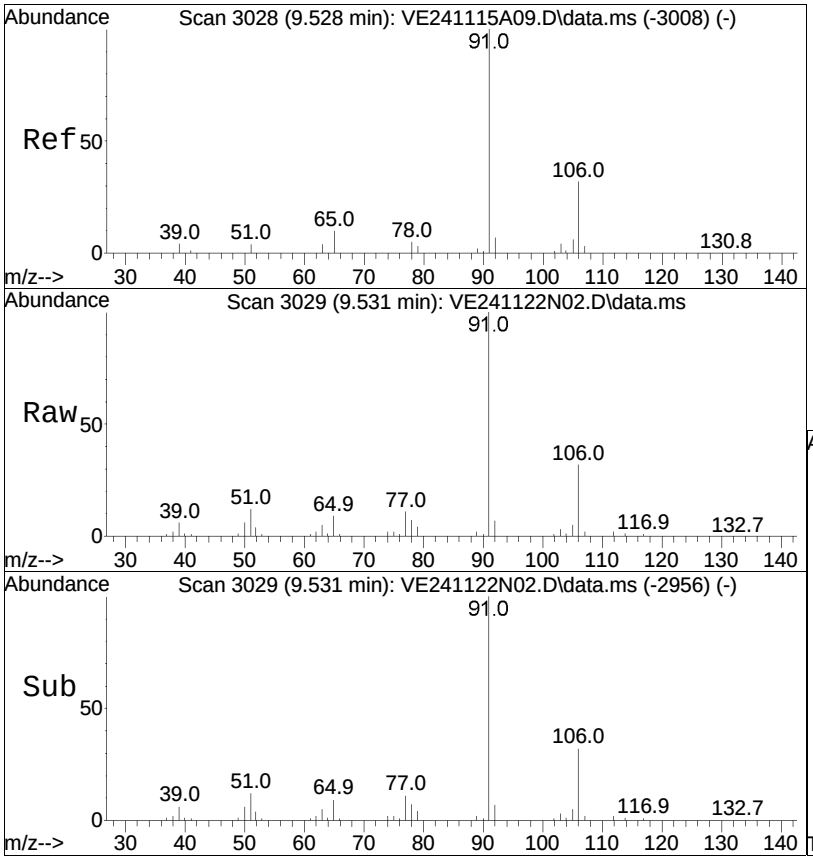


#78
Chlorobenzene
Concen: 10.15 ug/L
RT: 9.492 min Scan# 3015
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:112 Resp: 120027

Ion	Ratio	Lower	Upper
112	100		
77	65.9	46.9	70.3
114	31.5	23.8	35.6

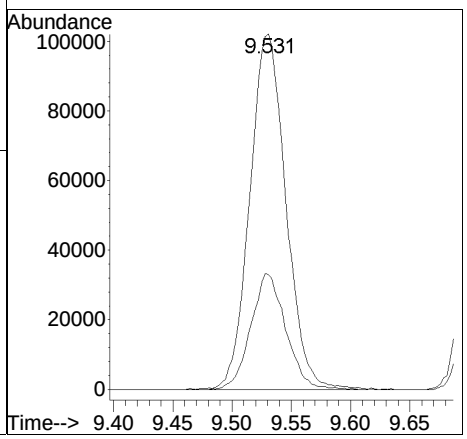


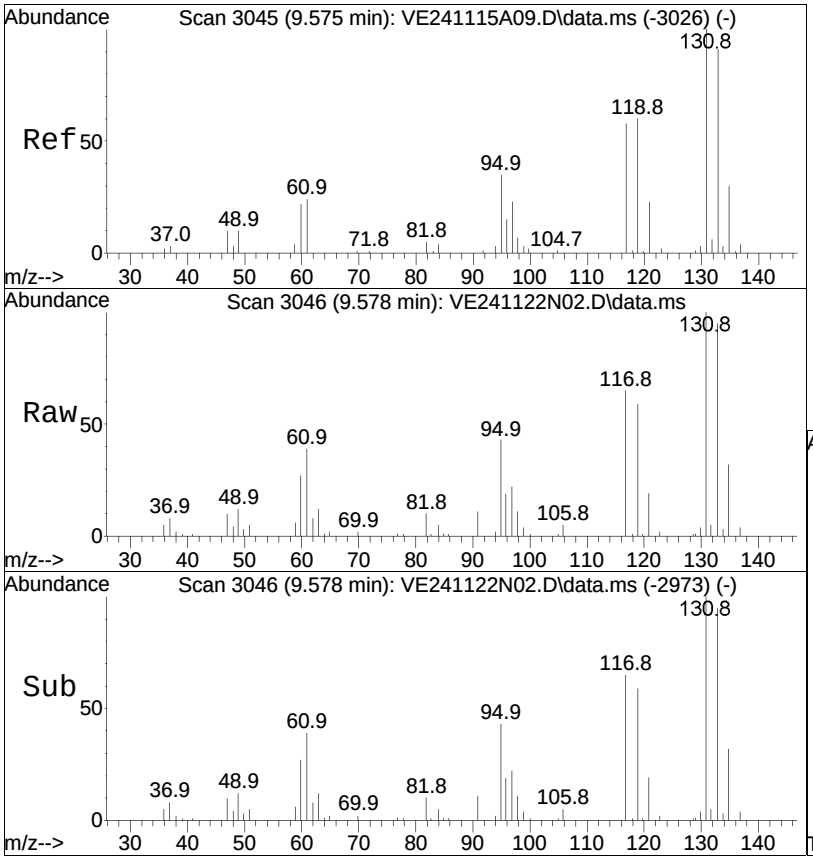


#79
Ethylbenzene
Concen: 10.17 ug/L
RT: 9.531 min Scan# 3029
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 91 Resp: 216352

Ion	Ratio	Lower	Upper
91	100		
106	31.3	25.3	37.9

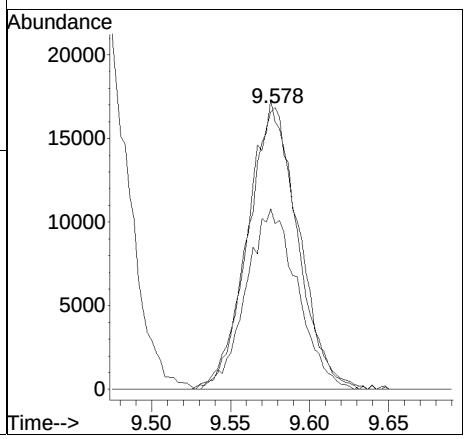


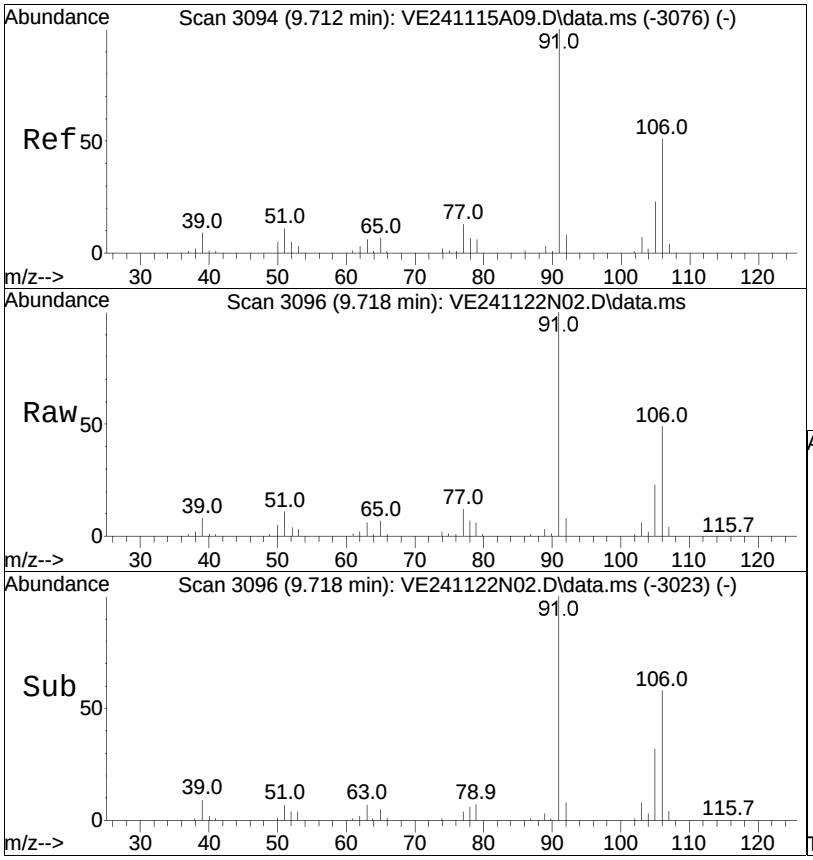


#80
1,1,1,2-Tetrachloroethane
Concen: 9.84 ug/L
RT: 9.578 min Scan# 3046
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:131 Resp: 38637

Ion	Ratio	Lower	Upper
131	100		
133	95.5	72.9	112.9
119	63.7	39.6	79.6

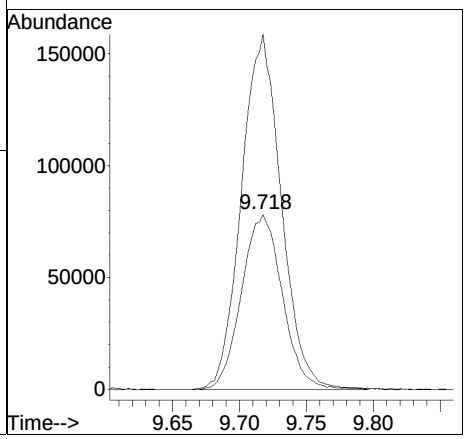


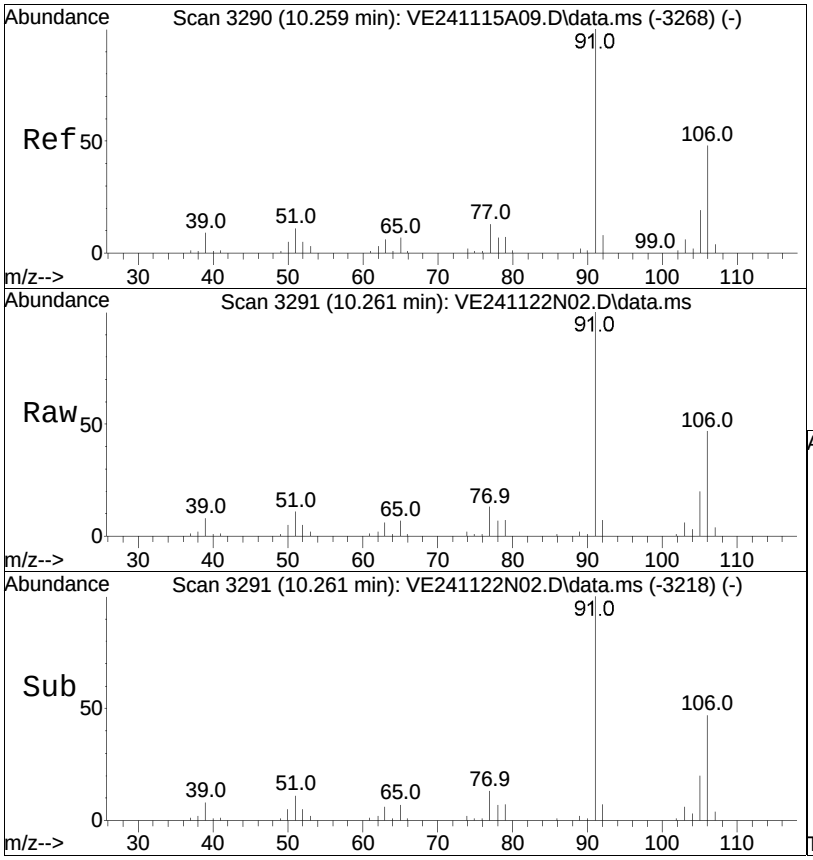


#81
p/m Xylene
Concen: 20.19 ug/L
RT: 9.718 min Scan# 3096
Delta R.T. 0.005 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:106 Resp: 165303

Ion	Ratio	Lower	Upper
106	100		
91	198.3	163.3	244.9

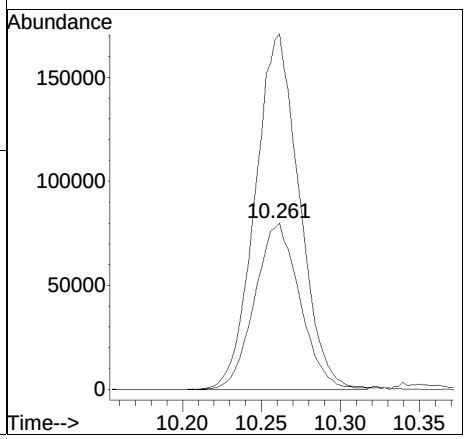


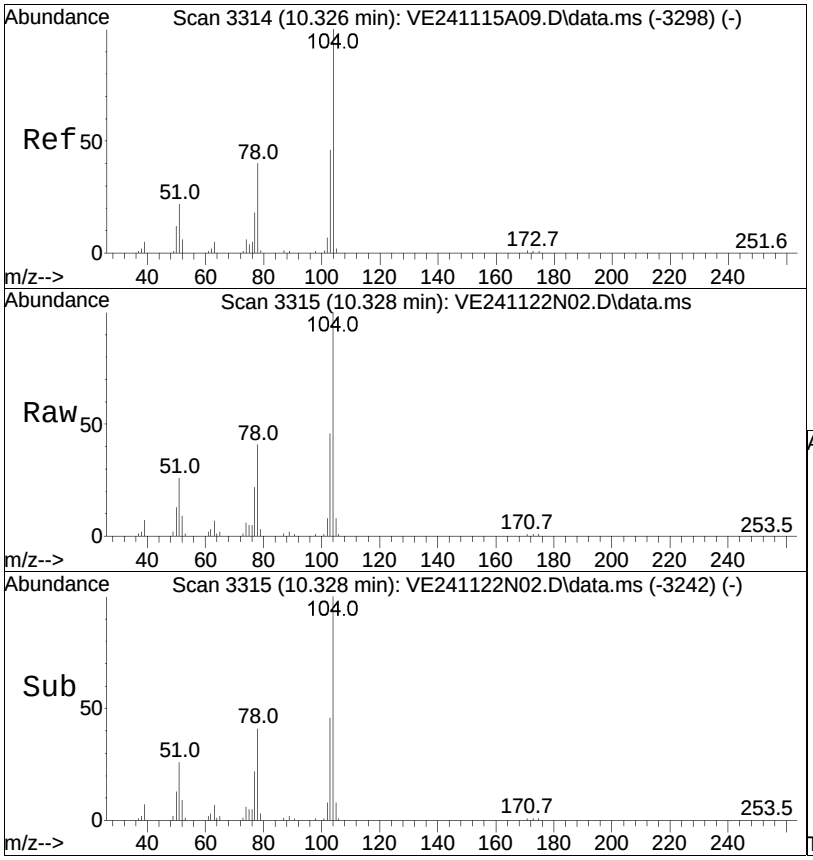


#82
o Xylene
Concen: 19.82 ug/L
RT: 10.261 min Scan# 3291
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:106 Resp: 158230

Ion	Ratio	Lower	Upper
106	100		
91	210.2	181.0	271.6

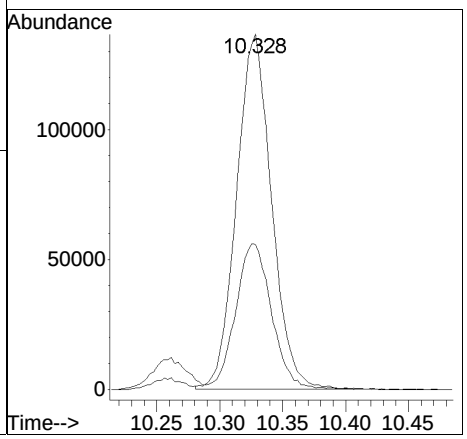


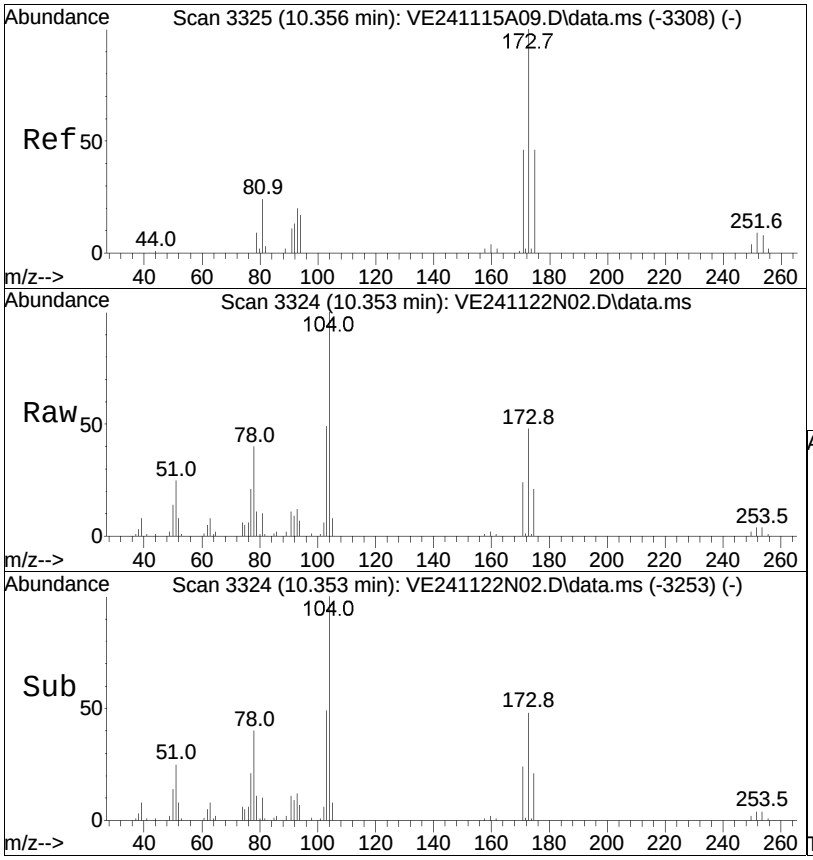


#83
Styrene
Concen: 19.65 ug/L
RT: 10.328 min Scan# 3315
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:104 Resp: 264860

Ion	Ratio	Lower	Upper
104	100		
78	41.8	35.9	53.9

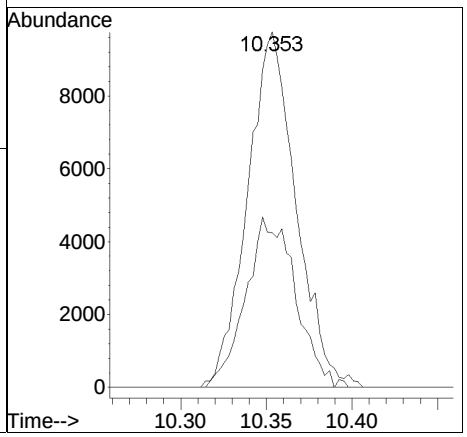


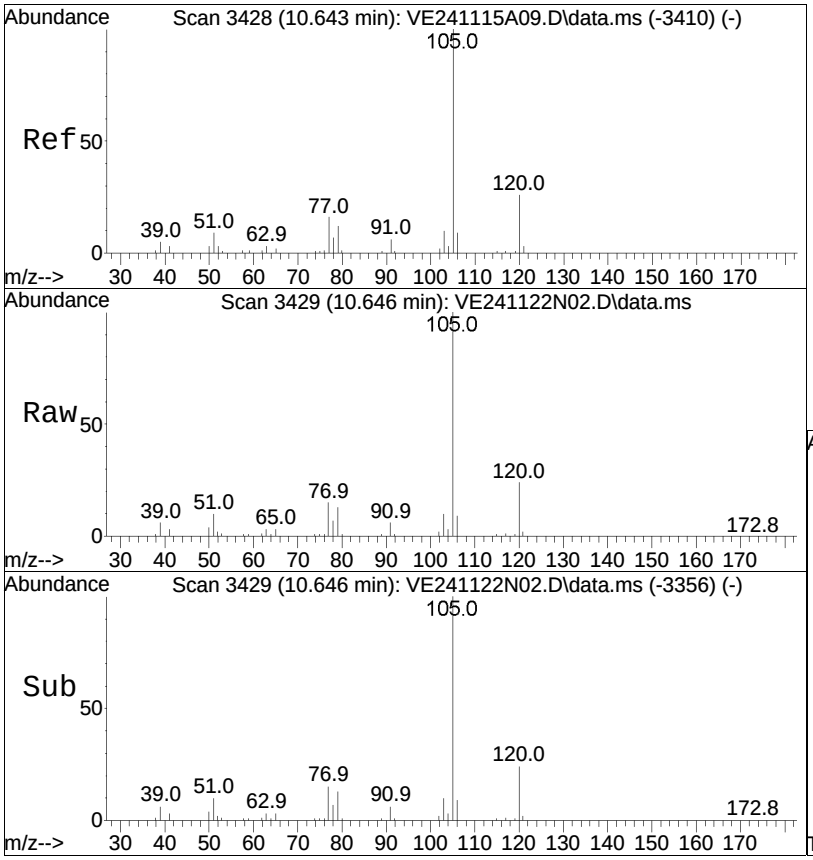


#85
Bromoform
Concen: 8.99 ug/L
RT: 10.353 min Scan# 3324
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:173 Resp: 19267

Ion	Ratio	Lower	Upper
173	100		
175	49.2	32.9	72.9

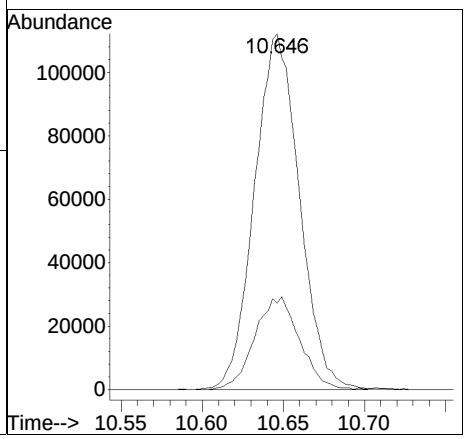


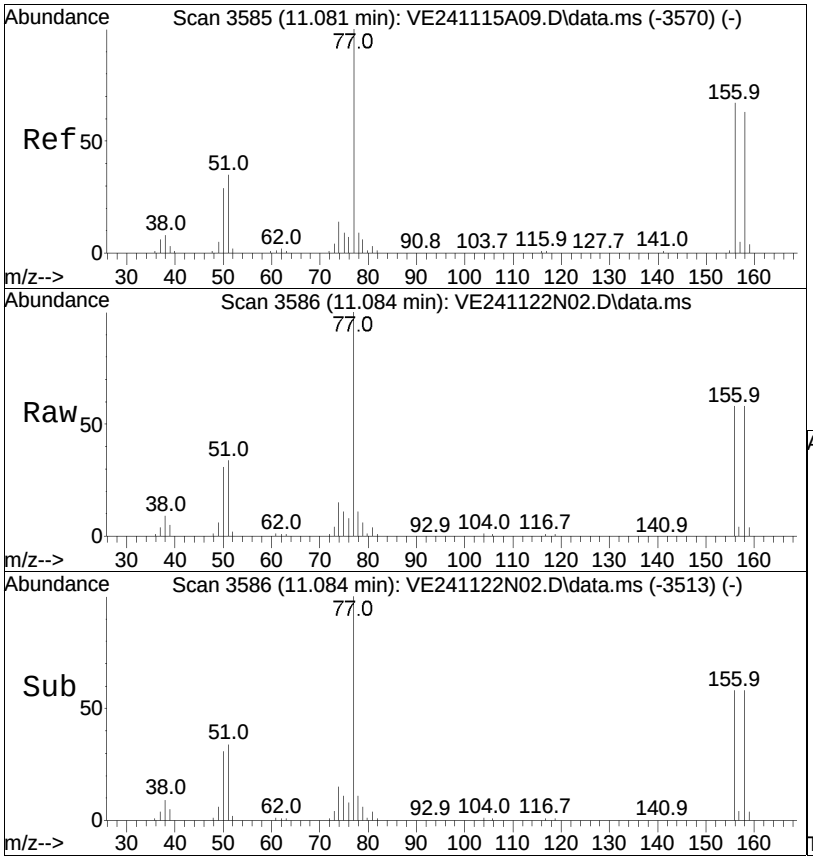


#87
Isopropylbenzene
Concen: 10.07 ug/L
RT: 10.646 min Scan# 3429
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:105 Resp: 215628

Ion	Ratio	Lower	Upper
105	100		
120	25.8	4.8	44.8

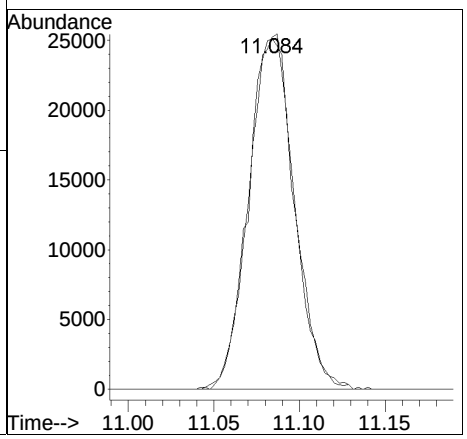


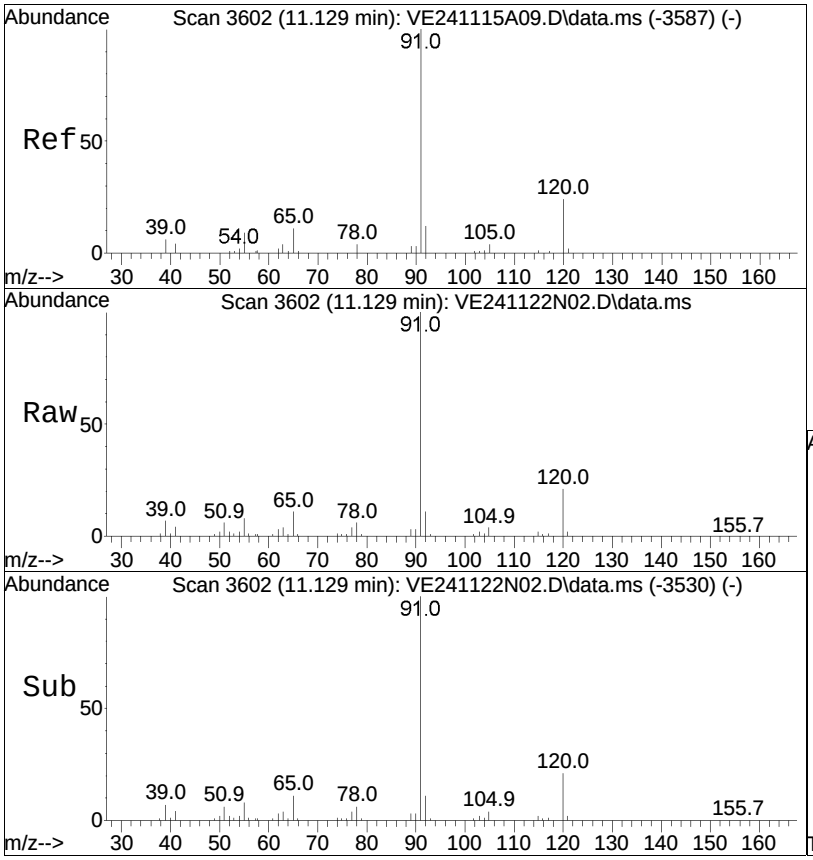


#89
Bromobenzene
Concen: 9.97 ug/L
RT: 11.084 min Scan# 3586
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:156 Resp: 47687

Ion	Ratio	Lower	Upper
156	100		
158	97.2	75.9	113.9

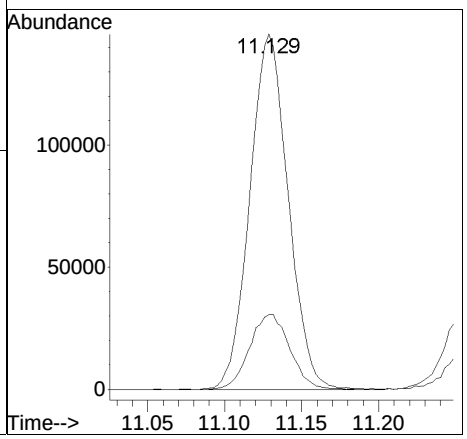


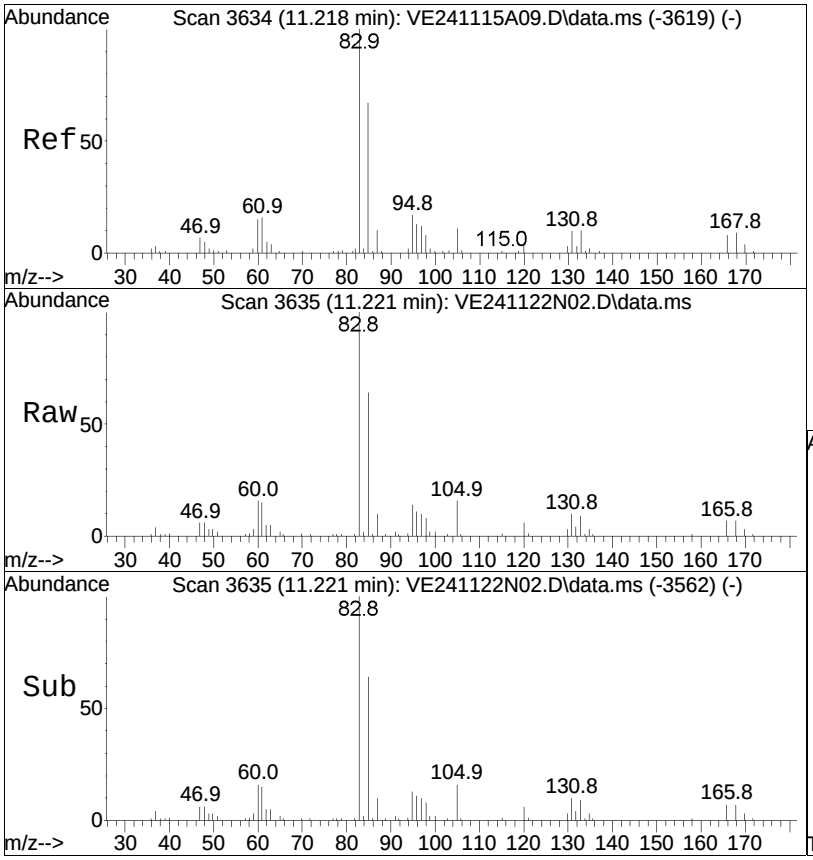


#90
n-Propylbenzene
Concen: 10.37 ug/L
RT: 11.129 min Scan# 3602
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 91 Resp: 251874

Ion	Ratio	Lower	Upper
91	100		
120	22.0	16.7	25.1

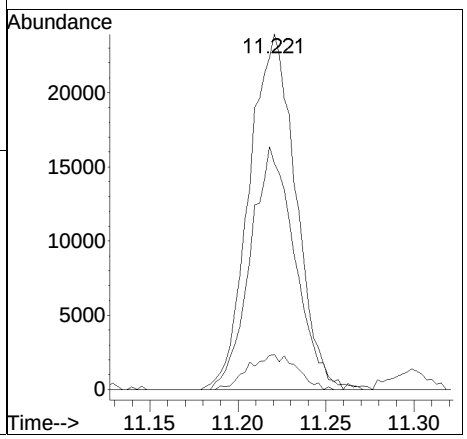


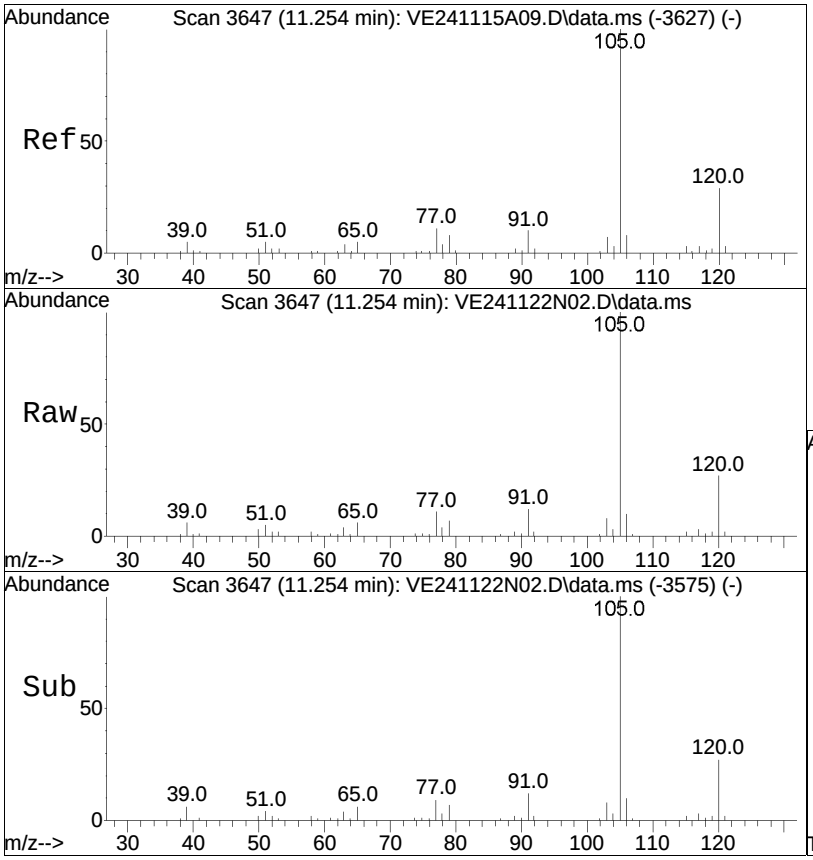


#92
1,1,2,2-Tetrachloroethane
Concen: 10.64 ug/L
RT: 11.221 min Scan# 3635
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 83 Resp: 44015

Ion	Ratio	Lower	Upper
83	100		
131	10.1	0.0	28.6
85	65.8	47.4	87.4

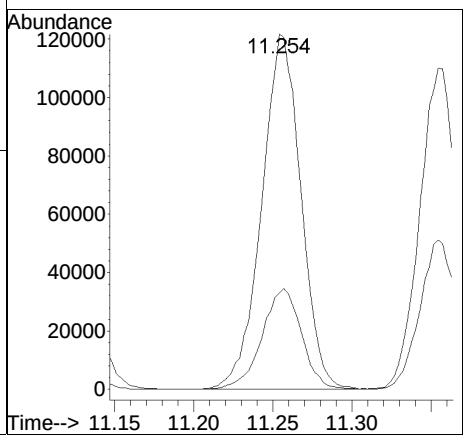


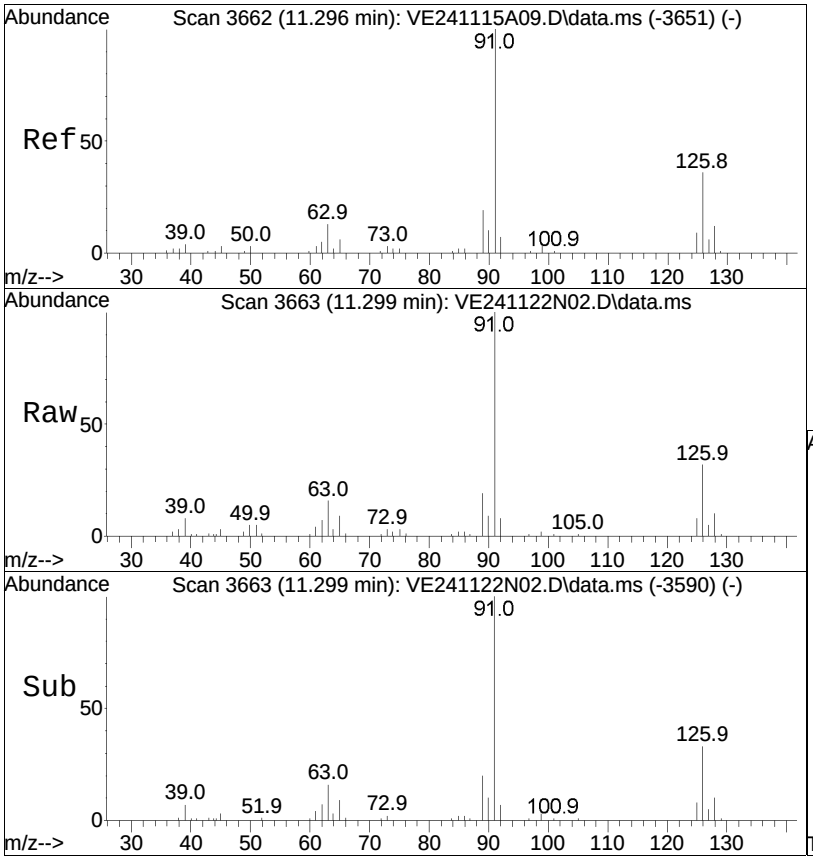


#93
4-Ethyltoluene
Concen: 10.42 ug/L
RT: 11.254 min Scan# 3647
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:105 Resp: 210062

Ion	Ratio	Lower	Upper
105	100		
120	28.6	18.9	39.3

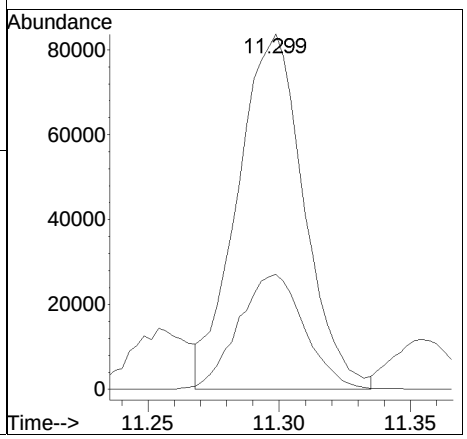


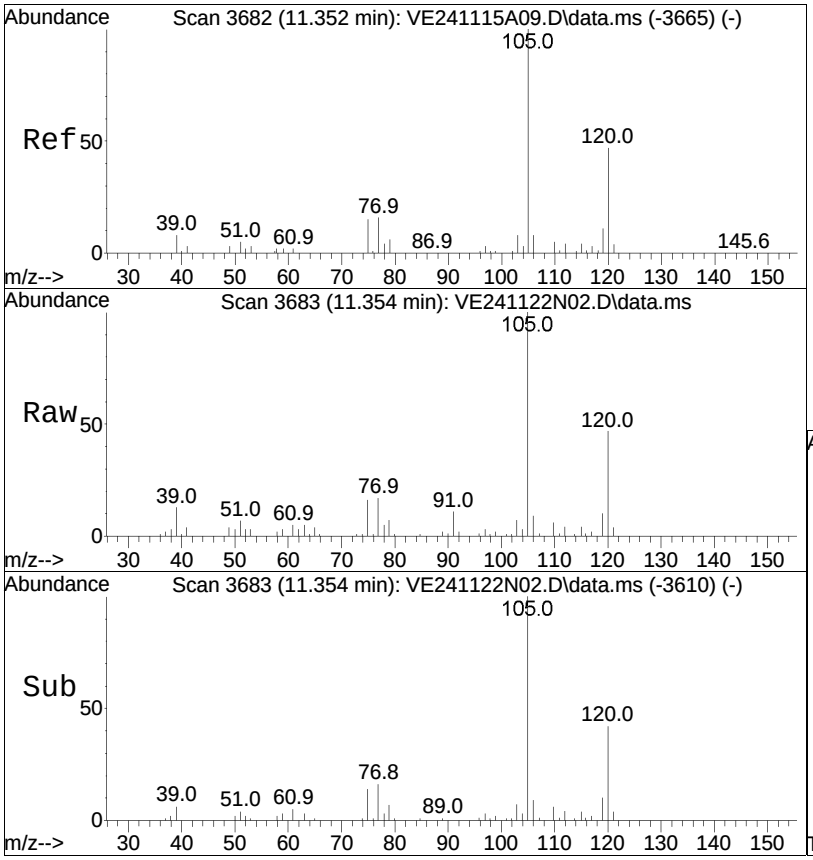


#94
2-Chlorotoluene
Concen: 10.48 ug/L M1
RT: 11.299 min Scan# 3663
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 91 Resp: 147808

Ion	Ratio	Lower	Upper
91	100		
126	32.2	24.4	36.6

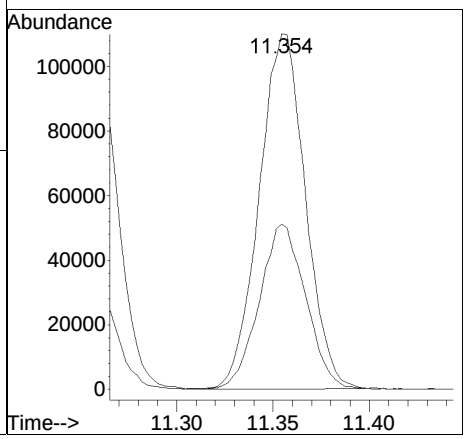


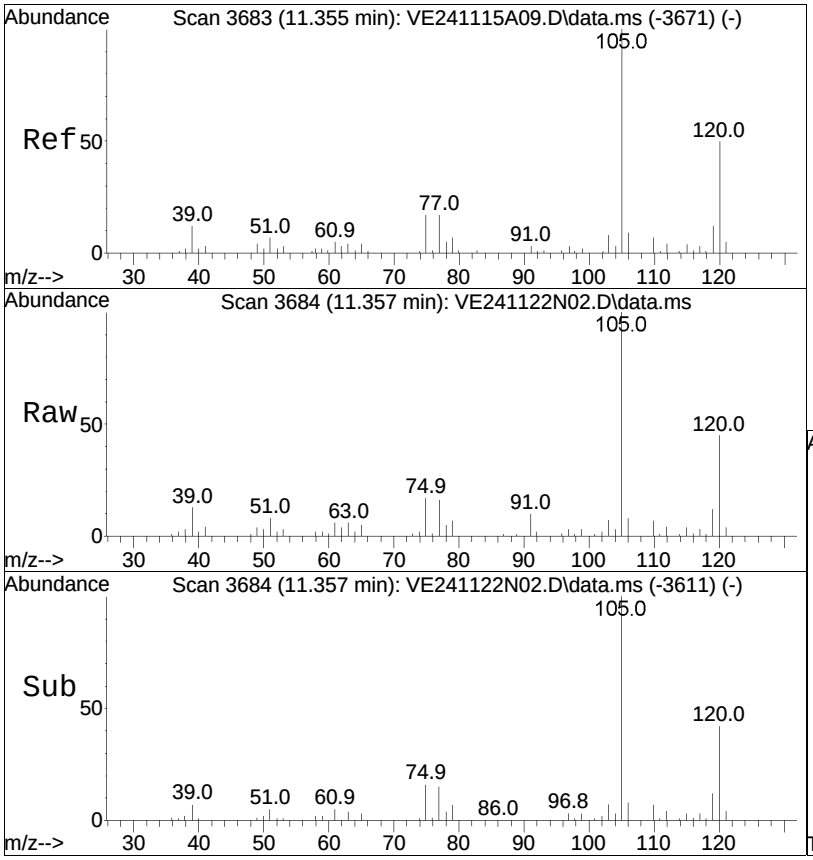


#95
1,3,5-Trimethylbenzene
Concen: 10.28 ug/L
RT: 11.354 min Scan# 3683
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:105 Resp: 183331

Ion	Ratio	Lower	Upper
105	100		
120	46.8	39.3	58.9

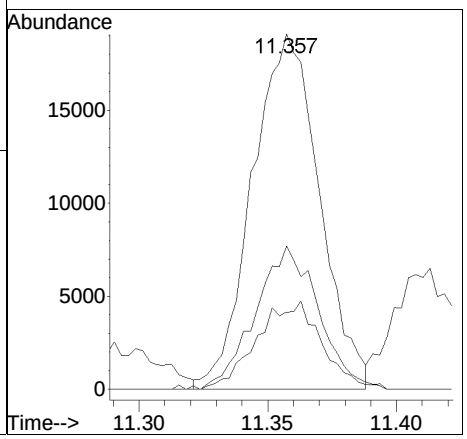


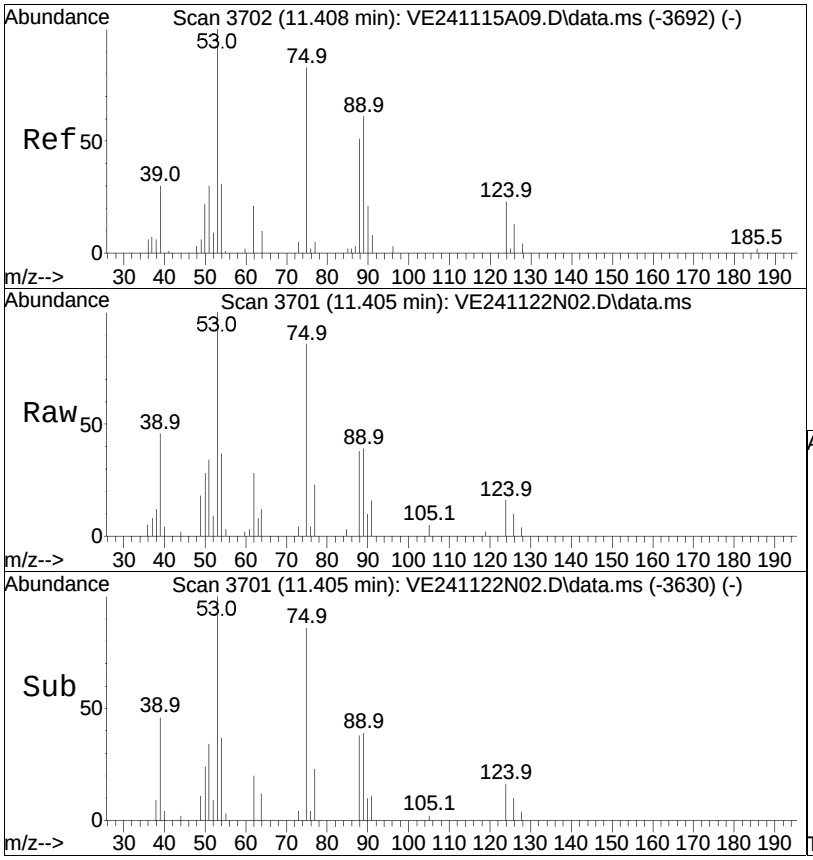


#96
1,2,3-Trichloropropane
Concen: 10.61 ug/L M4
RT: 11.357 min Scan# 3684
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 75 Resp: 34621

Ion	Ratio	Lower	Upper
75	100		
110	37.9	22.4	46.4
112	23.9	12.2	25.2

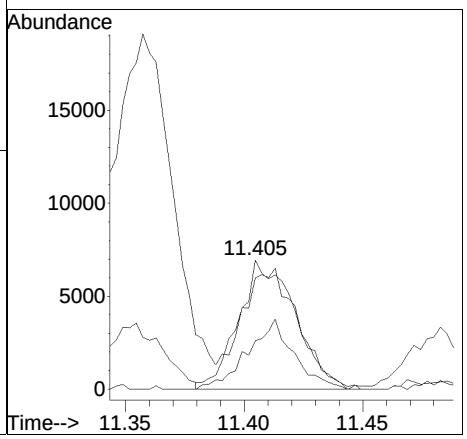


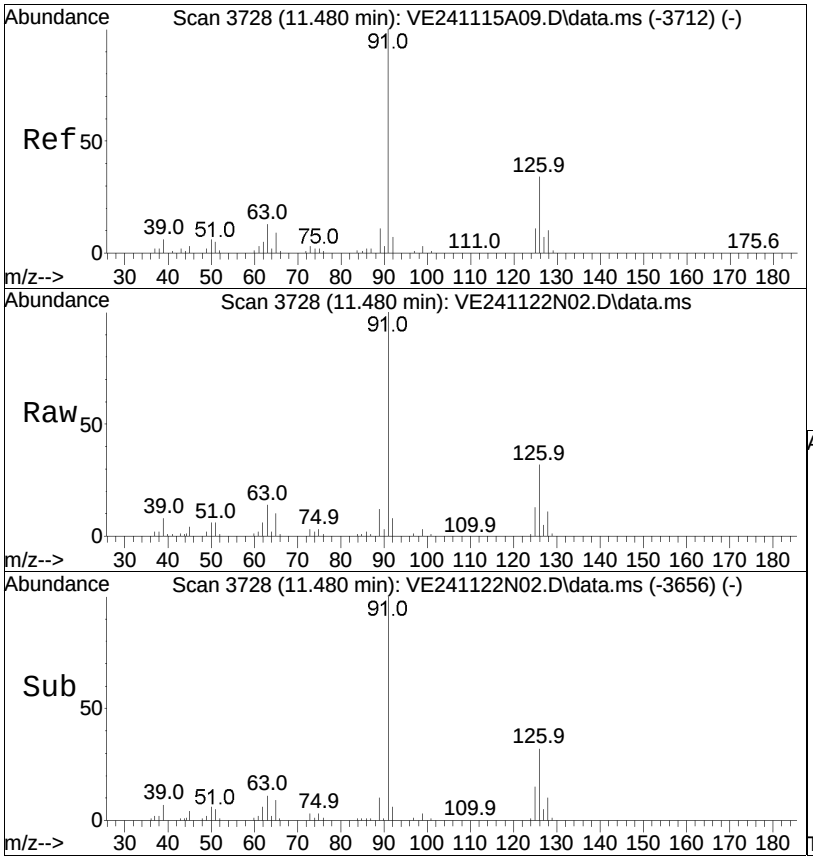


#97
trans-1,4-Dichloro-2-butene
Concen: 9.80 ug/L
RT: 11.405 min Scan# 3701
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 53 Resp: 11582

Ion	Ratio	Lower	Upper
53	100		
88	44.2	29.2	43.8#
75	92.9	62.6	94.0

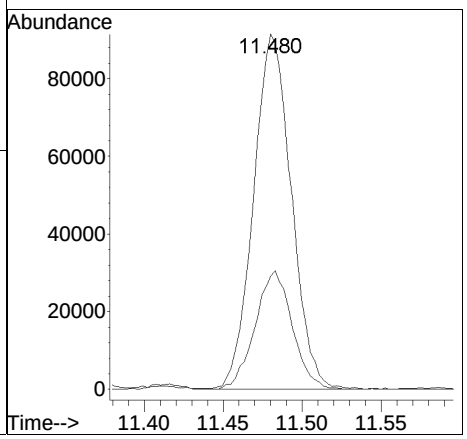


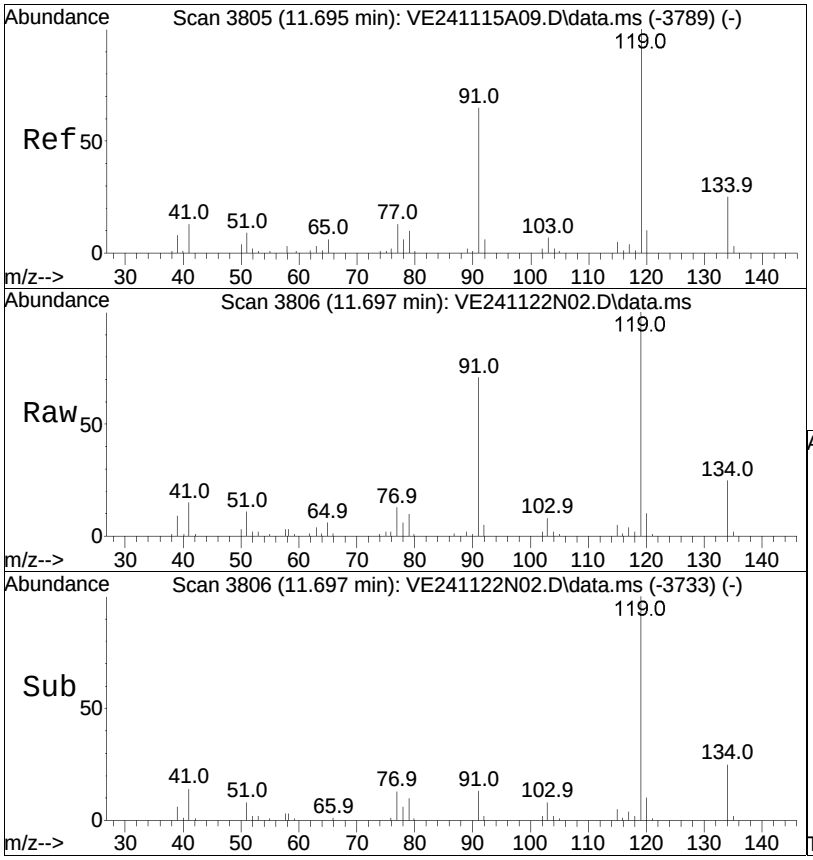


#98
4-Chlorotoluene
Concen: 10.39 ug/L
RT: 11.480 min Scan# 3728
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 91 Resp: 151711

Ion	Ratio	Lower	Upper
91	100		
126	32.9	25.8	38.8

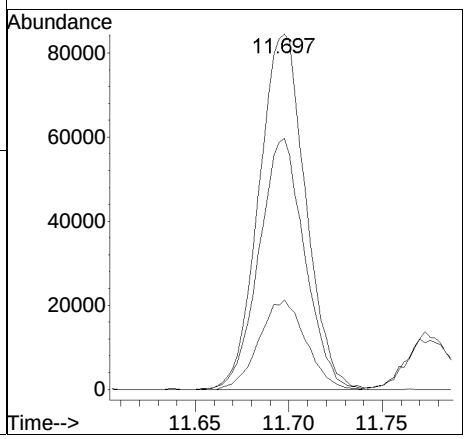


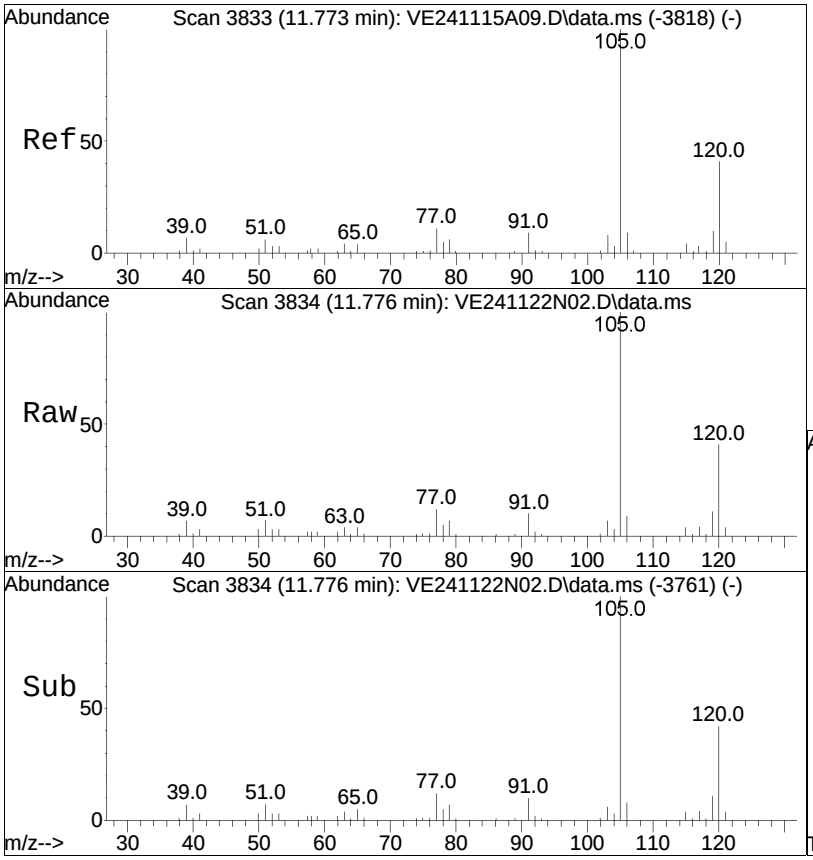


#99
tert-Butylbenzene
Concen: 9.97 ug/L
RT: 11.697 min Scan# 3806
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:119 Resp: 146774

Ion	Ratio	Lower	Upper
119	100		
91	69.2	56.6	84.8
134	25.2	17.7	26.5

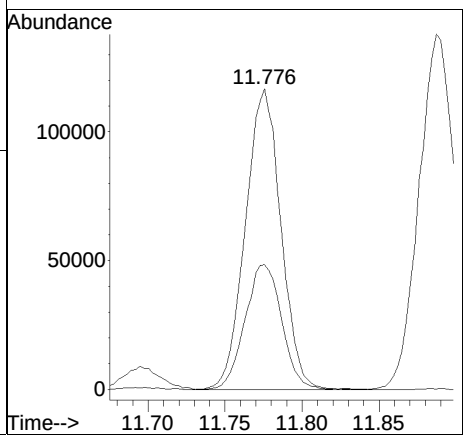


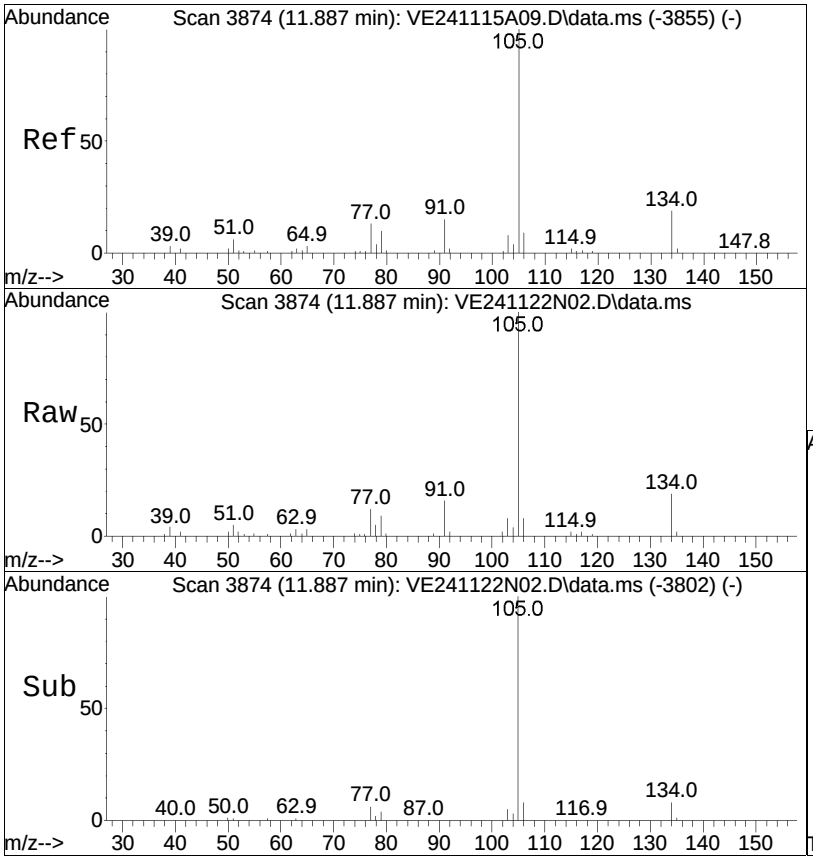


#102
1,2,4-Trimethylbenzene
Concen: 10.44 ug/L
RT: 11.776 min Scan# 3834
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:105 Resp: 186744

Ion	Ratio	Lower	Upper
105	100		
120	42.9	33.6	50.4

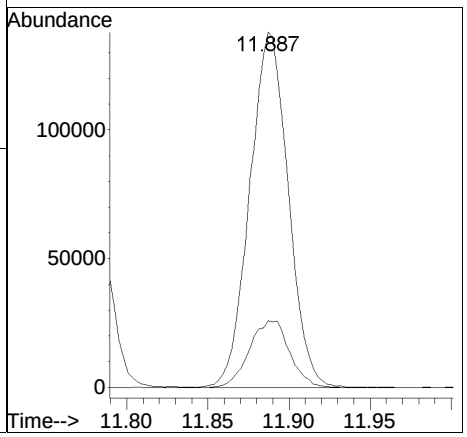


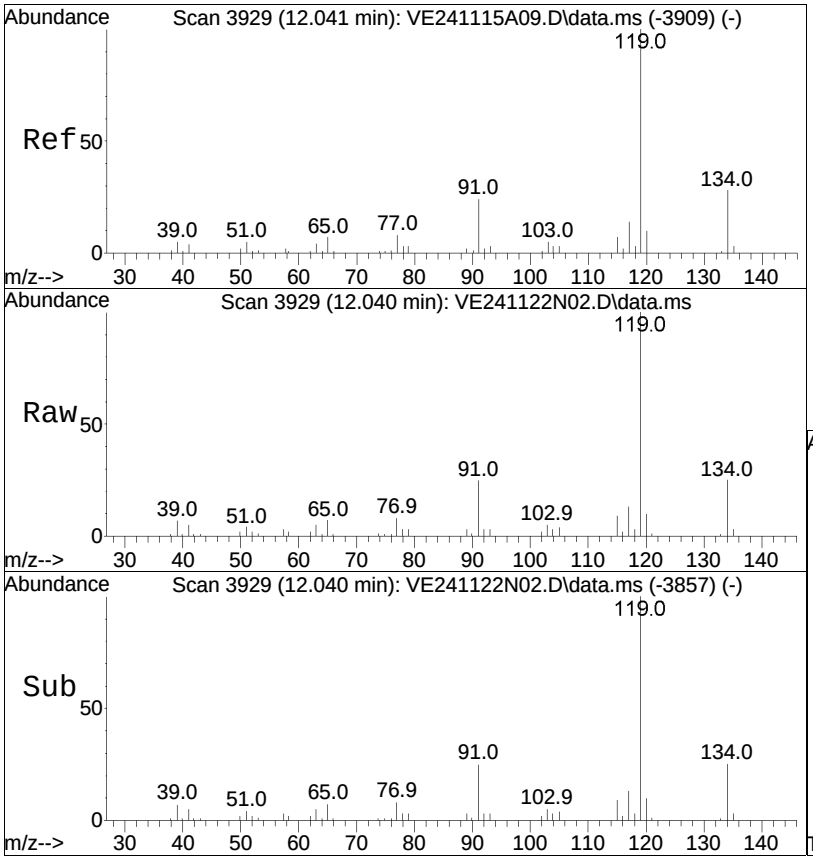


#103
sec-Butylbenzene
Concen: 10.13 ug/L
RT: 11.887 min Scan# 3874
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:105 Resp: 227602

Ion	Ratio	Lower	Upper
105	100		
134	19.6	13.3	27.5

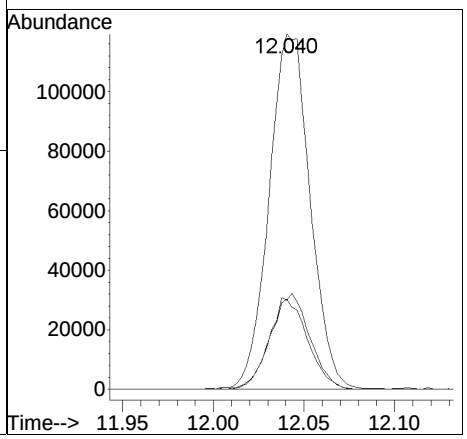


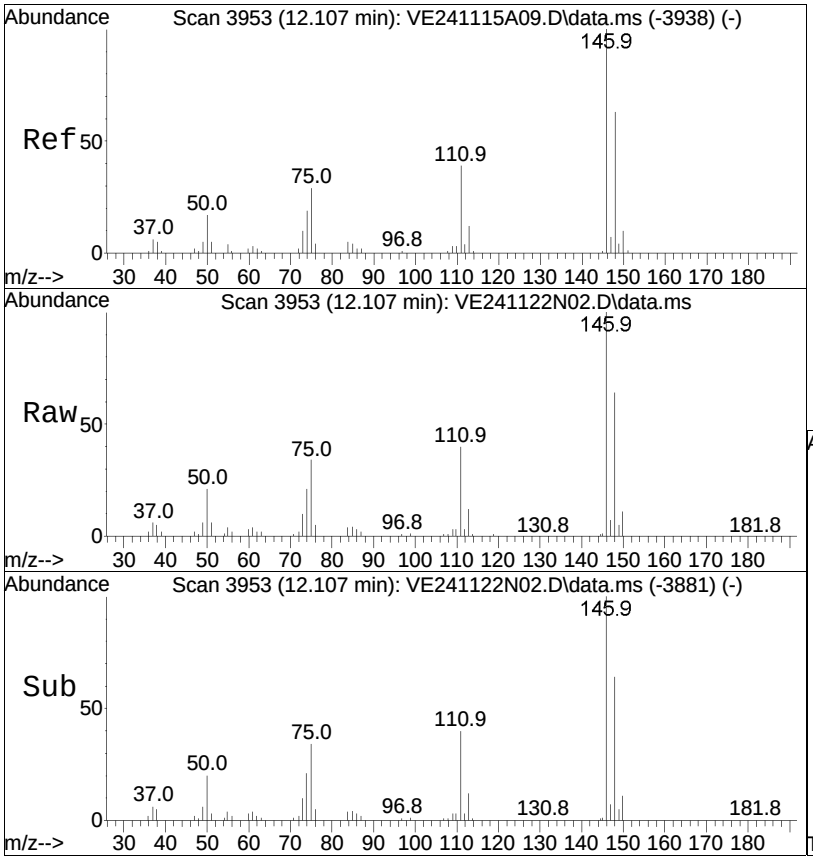


#104
p-Isopropyltoluene
Concen: 10.09 ug/L
RT: 12.040 min Scan# 3929
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:119 Resp: 187944

Ion	Ratio	Lower	Upper
119	100		
134	26.1	15.8	32.8
91	24.1	16.6	34.4

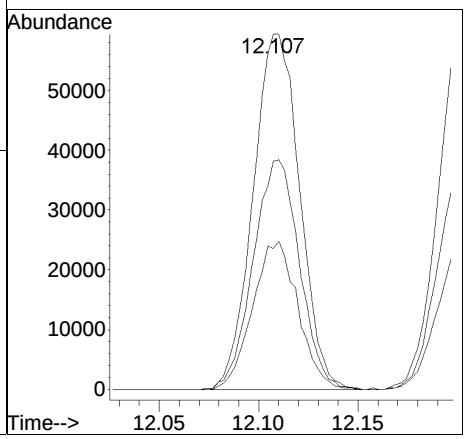


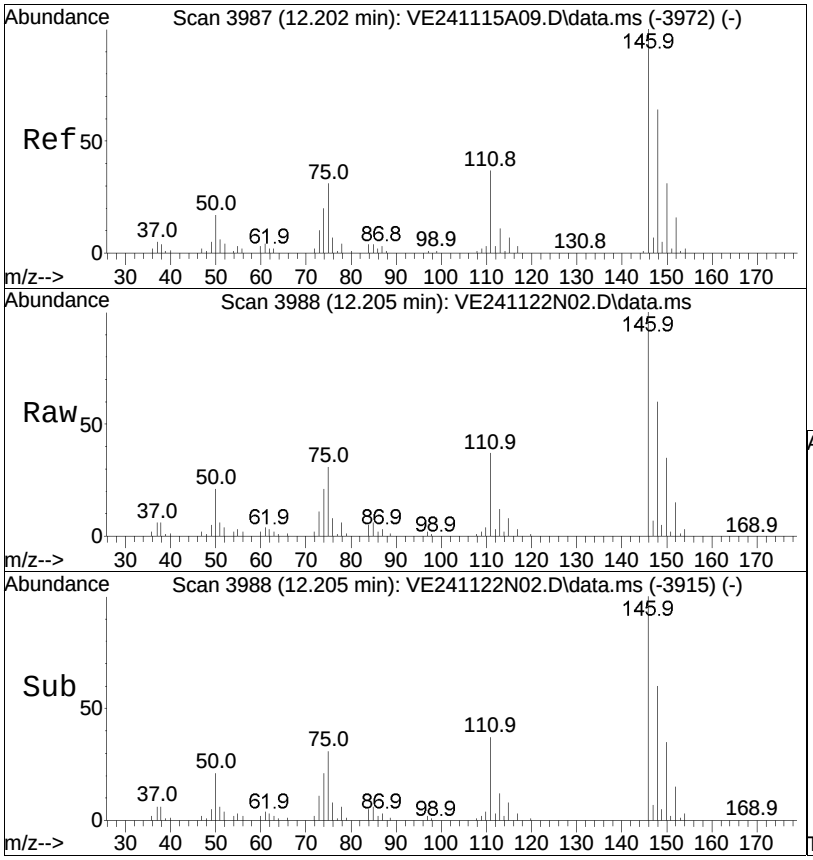


#105
1,3-Dichlorobenzene
Concen: 10.12 ug/L
RT: 12.107 min Scan# 3953
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:146 Resp: 96808

Ion	Ratio	Lower	Upper
146	100		
111	40.6	27.9	57.9
148	64.2	42.4	88.2

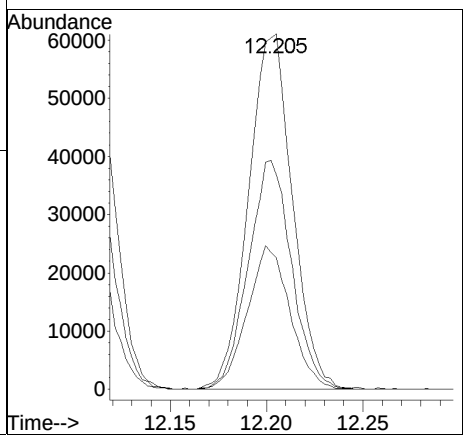


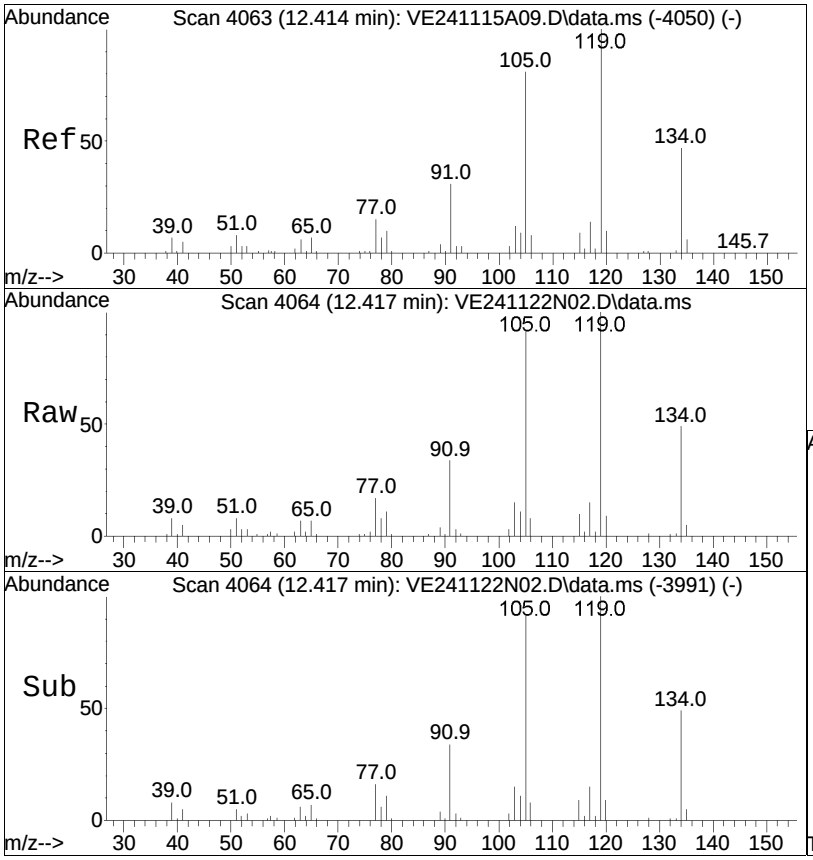


#106
1,4-Dichlorobenzene
Concen: 10.12 ug/L
RT: 12.205 min Scan# 3988
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:146 Resp: 97147

Ion	Ratio	Lower	Upper
146	100		
111	39.3	31.4	47.0
148	63.5	49.8	74.8

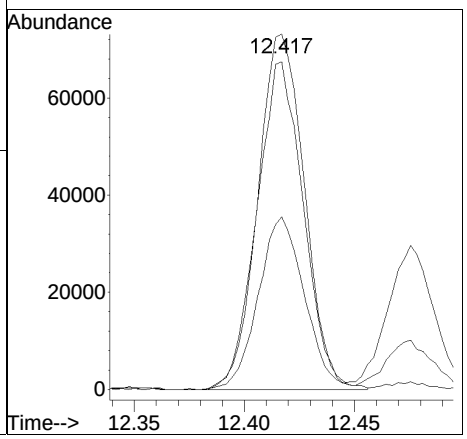


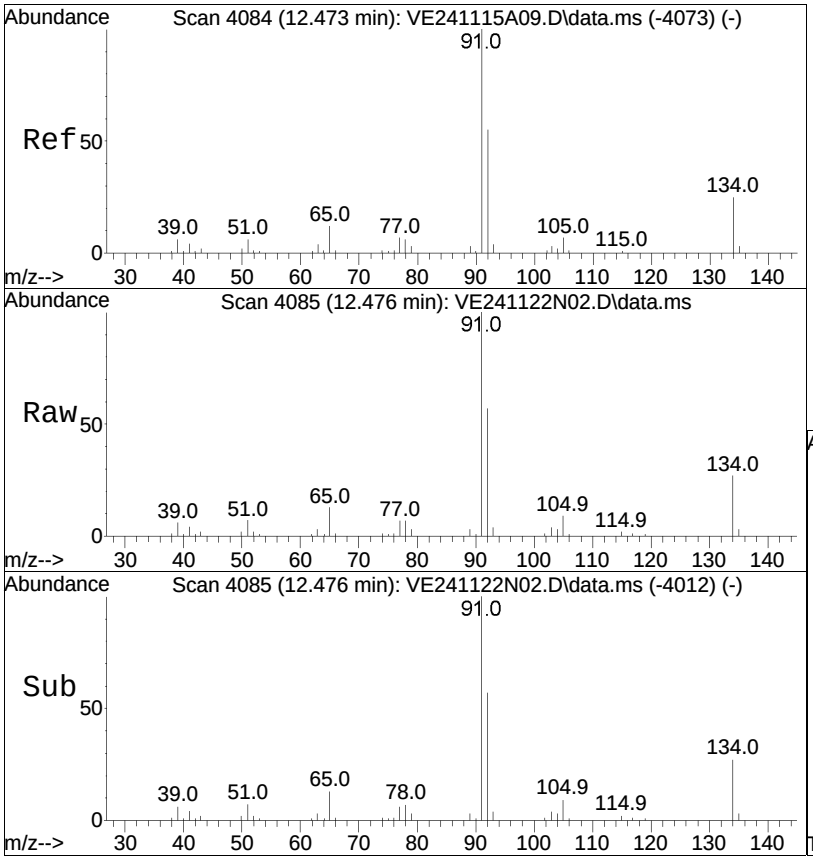


#107
p-Diethylbenzene
Concen: 9.98 ug/L
RT: 12.417 min Scan# 4064
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:119 Resp: 108684

Ion	Ratio	Lower	Upper
119	100		
105	89.9	55.4	115.2
134	47.4	28.4	59.0

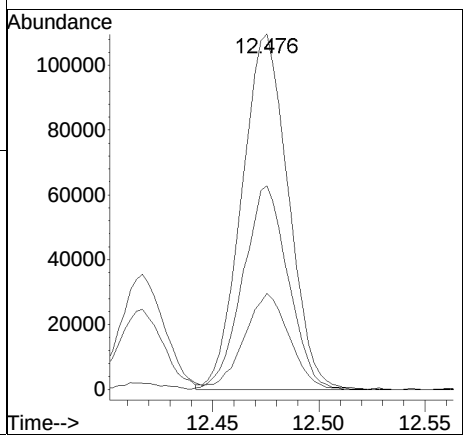


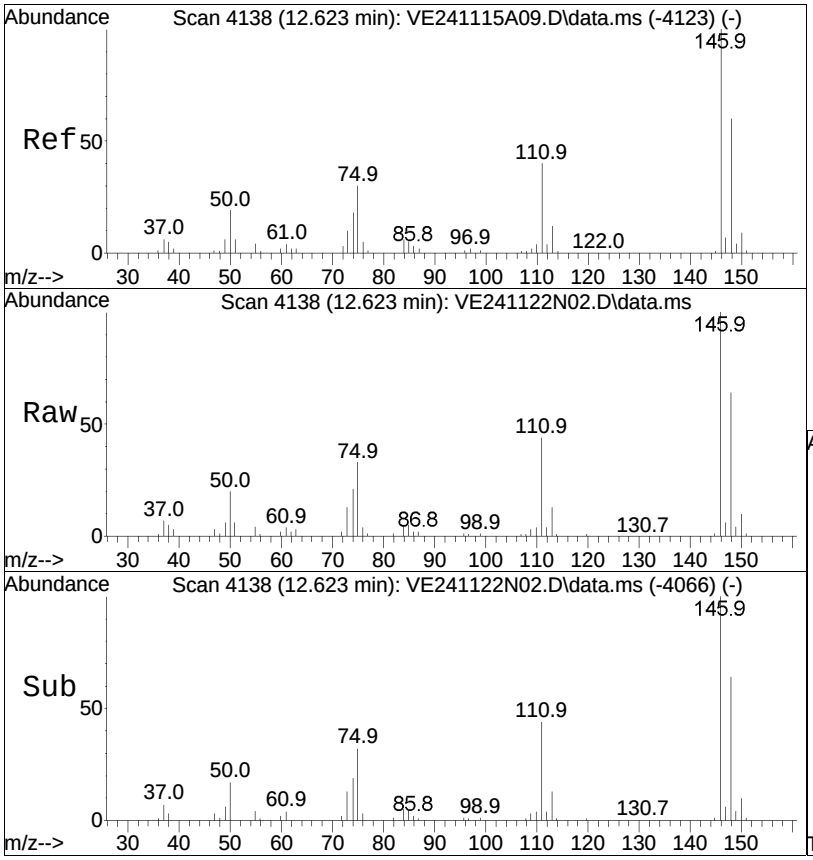


#108
n-Butylbenzene
Concen: 10.27 ug/L
RT: 12.476 min Scan# 4085
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion: 91 Resp: 166720

Ion	Ratio	Lower	Upper
91	100		
92	55.9	42.4	63.6
134	25.8	20.3	30.5

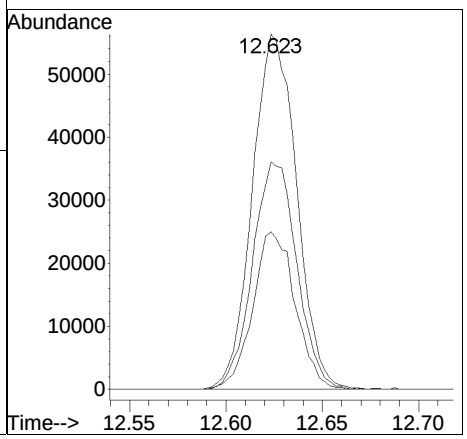


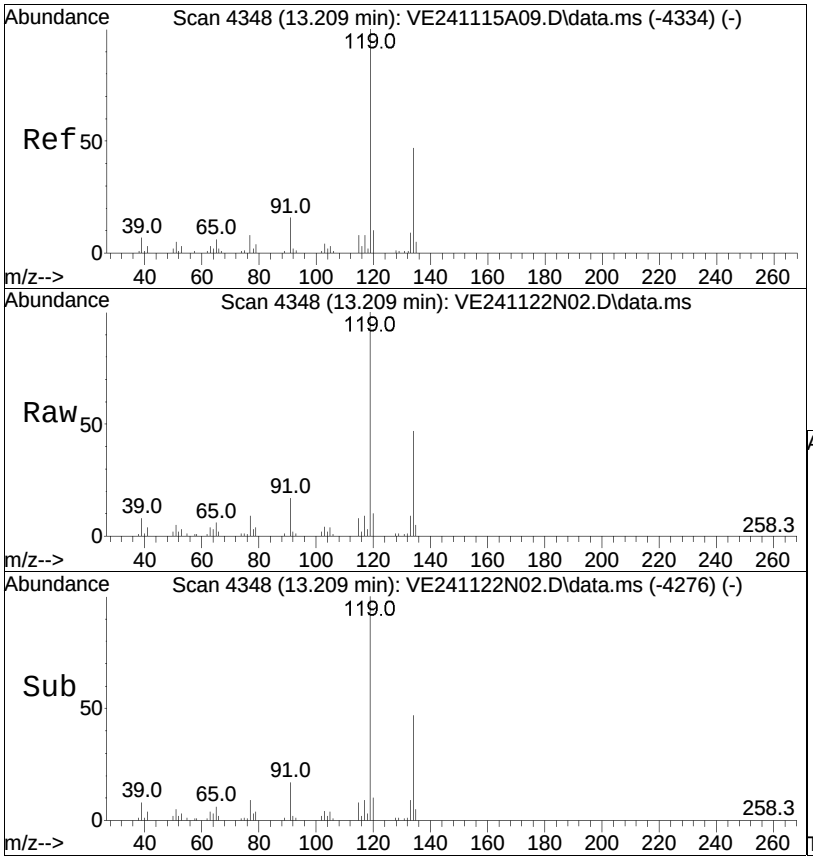


#109
1,2-Dichlorobenzene
Concen: 9.90 ug/L
RT: 12.623 min Scan# 4138
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:146 Resp: 90181

Ion	Ratio	Lower	Upper
146	100		
111	42.5	26.4	54.8
148	64.0	41.7	86.7

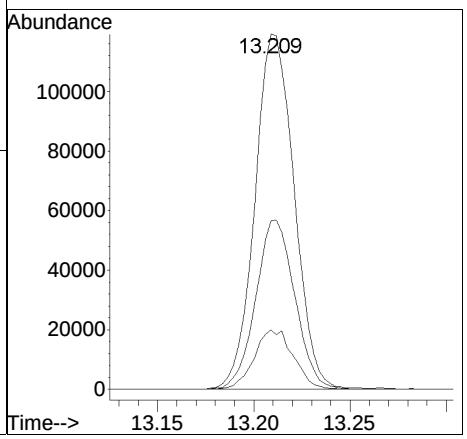


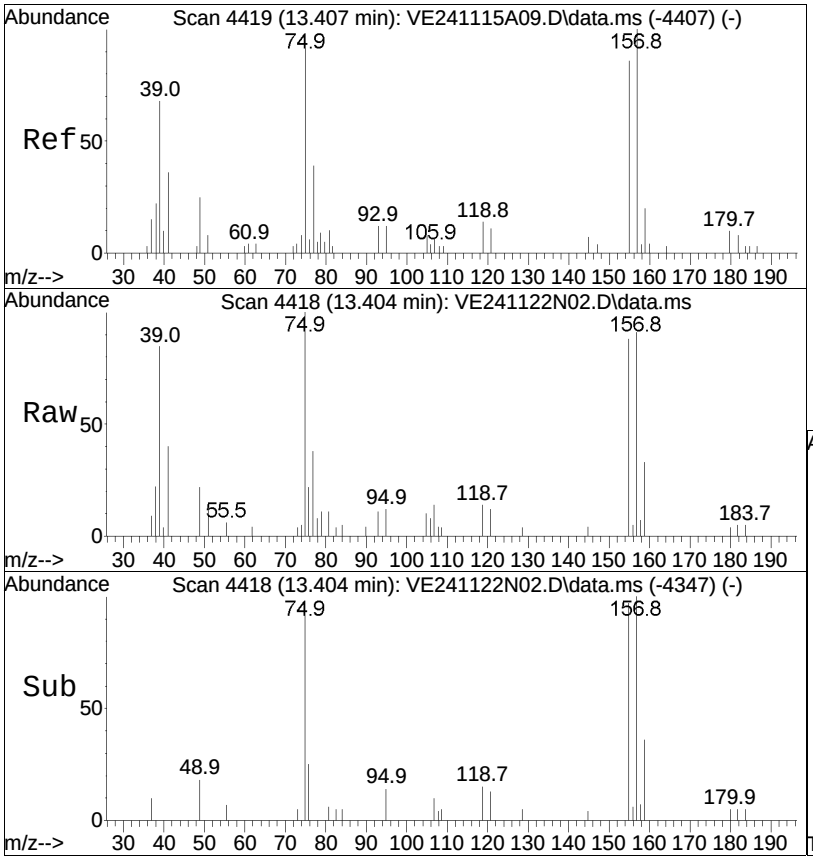


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.68 ug/L
RT: 13.209 min Scan# 4348
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:119 Resp: 169017

Ion	Ratio	Lower	Upper
119	100		
134	47.4	29.6	61.4
91	16.7	9.8	20.3

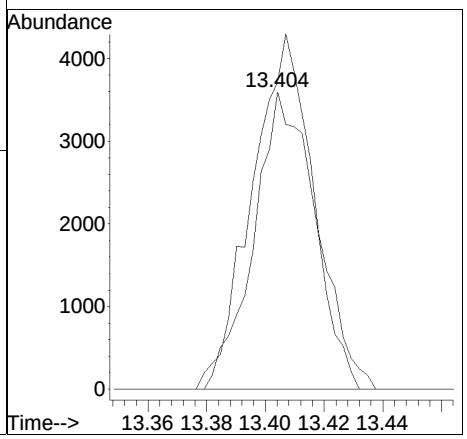


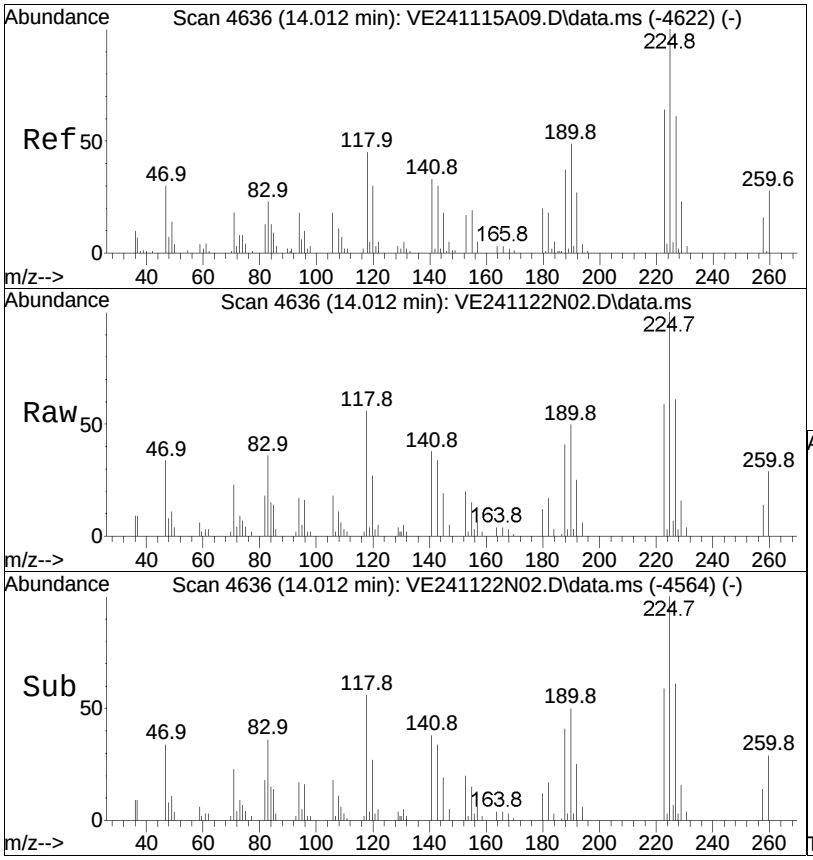


#111
1,2-Dibromo-3-chloropropane
Concen: 9.24 ug/L
RT: 13.404 min Scan# 4418
Delta R.T. -0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:155 Resp: 5112

Ion	Ratio	Lower	Upper
155	100		
157	125.2	95.1	142.7

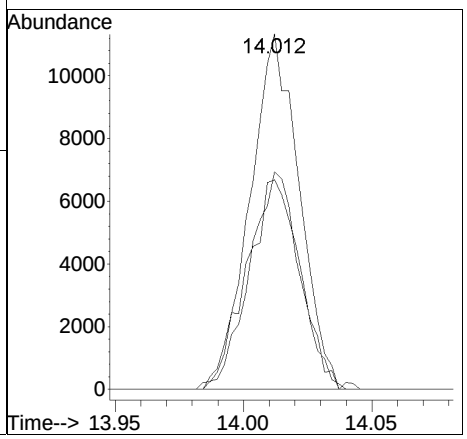


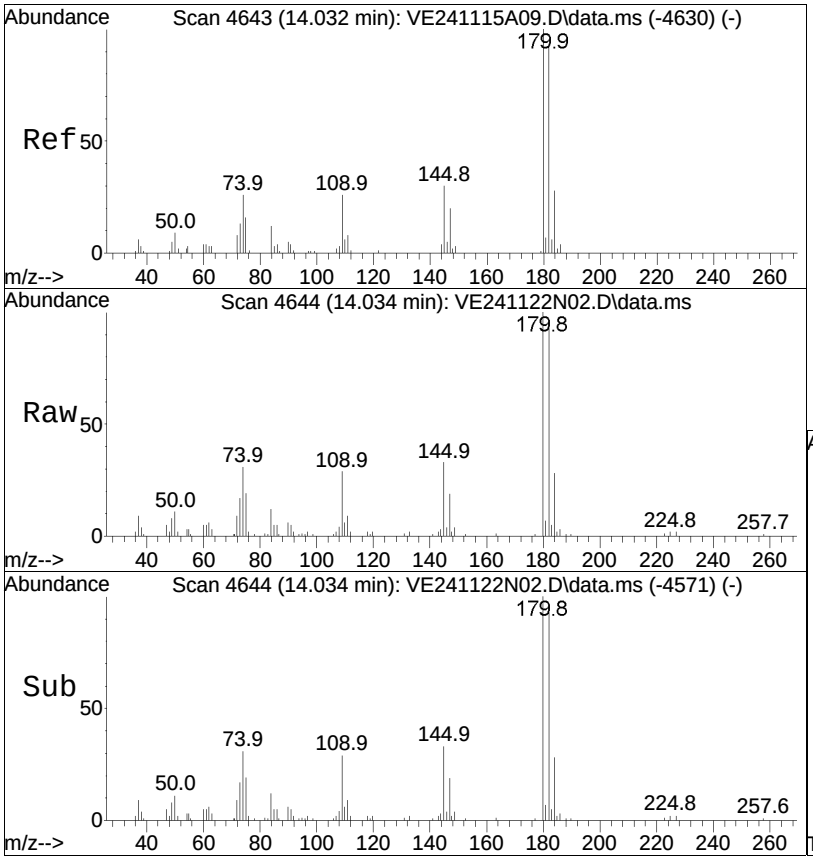


#113
Hexachlorobutadiene
Concen: 8.77 ug/L
RT: 14.012 min Scan# 4636
Delta R.T. -0.000 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:225 Resp: 15207

Ion	Ratio	Lower	Upper
225	100		
223	63.8	54.6	82.0
227	61.9	56.2	84.4

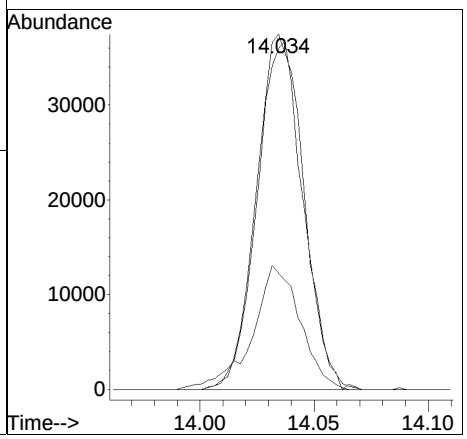


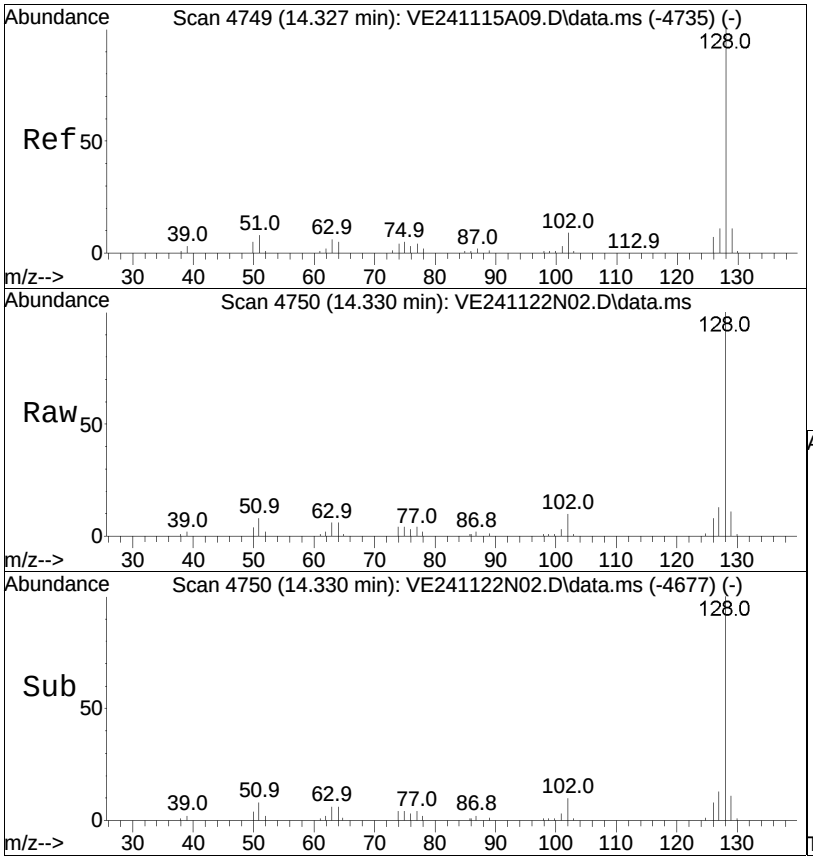


#114
1,2,4-Trichlorobenzene
Concen: 9.53 ug/L
RT: 14.034 min Scan# 4644
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:180 Resp: 54024

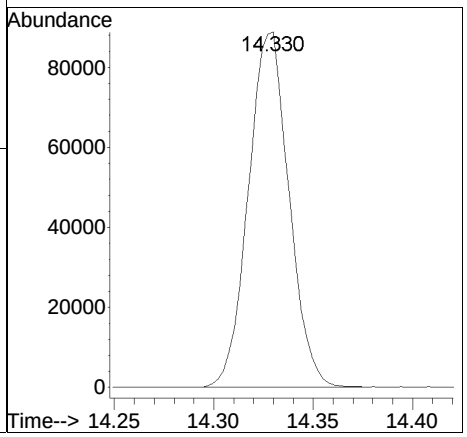
Ion	Ratio	Lower	Upper
180	100		
182	95.1	75.4	113.2
145	35.2	26.0	39.0

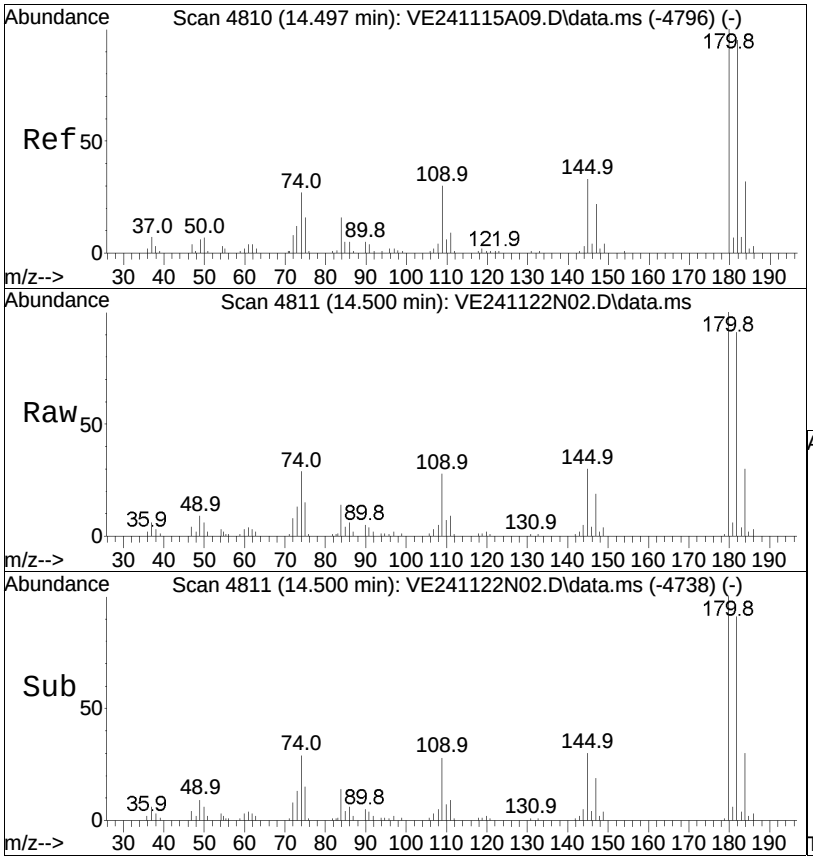




#115
Naphthalene
Concen: 9.48 ug/L
RT: 14.330 min Scan# 4750
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:128 Resp: 126248

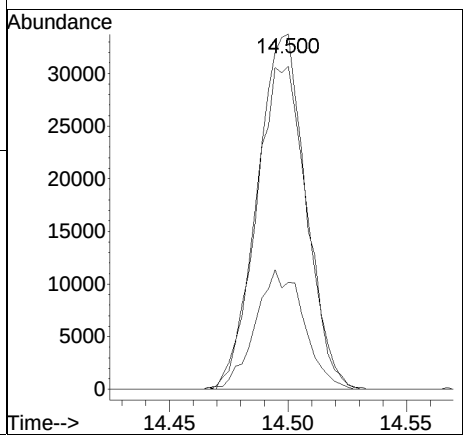




#116
1,2,3-Trichlorobenzene
Concen: 9.53 ug/L
RT: 14.500 min Scan# 4811
Delta R.T. 0.003 min
Lab File: VE241122N02.D
Acq: 22 Nov 2024 9:20 pm

Tgt Ion:180 Resp: 48236

Ion	Ratio	Lower	Upper
180	100		
182	94.8	71.6	107.4
145	33.4	25.1	37.7

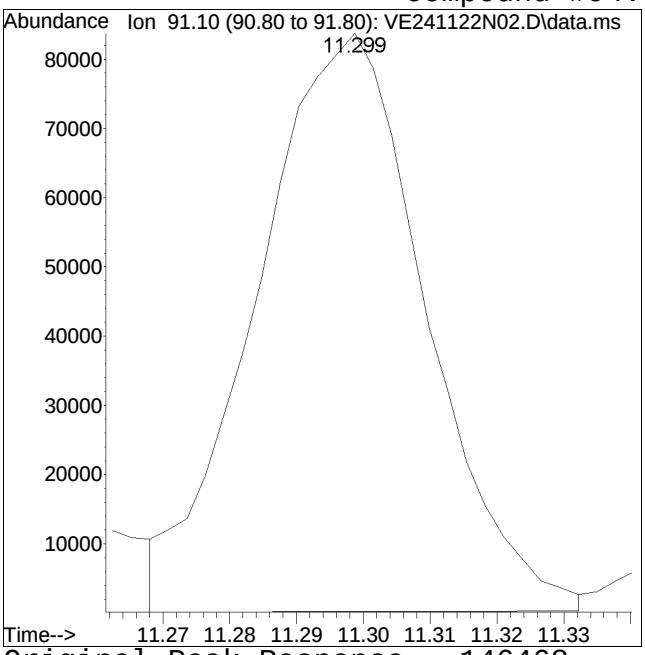


Manual Integration Report

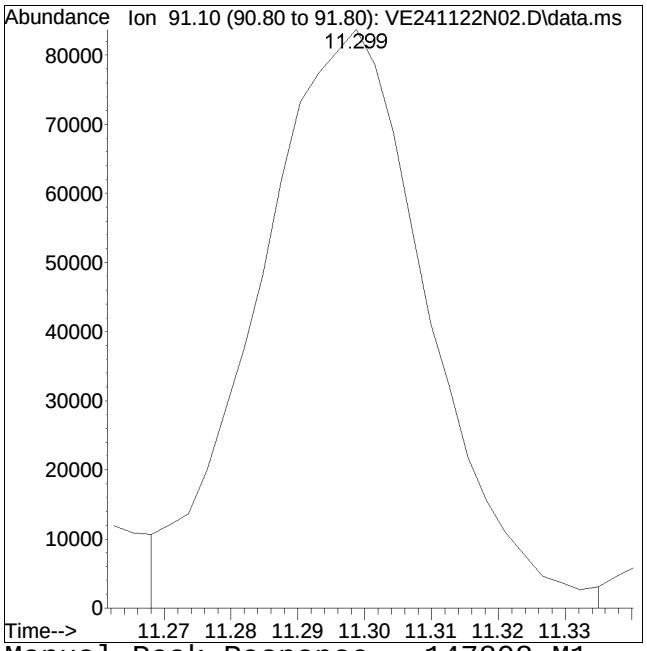
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Date Inj'd : 11/22/2024 9:20 pm
Sample : WG2001424-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 9:49 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 146468



Manual Peak Response = 147808 M1

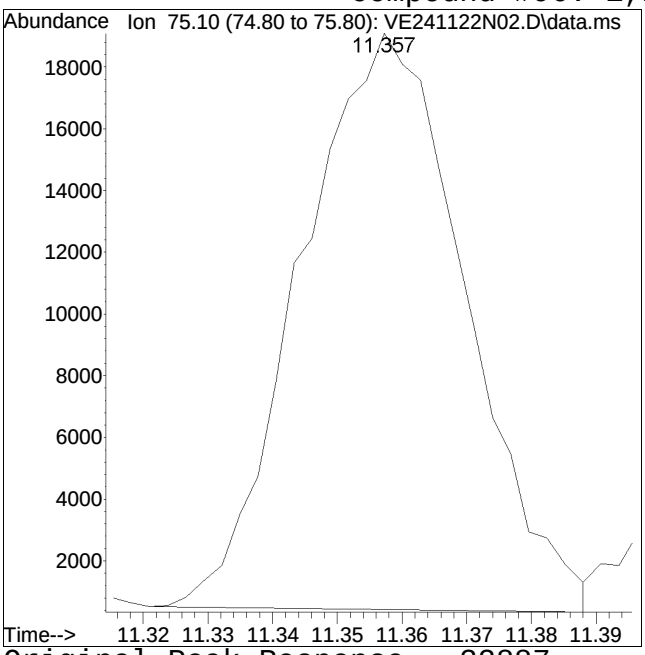
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

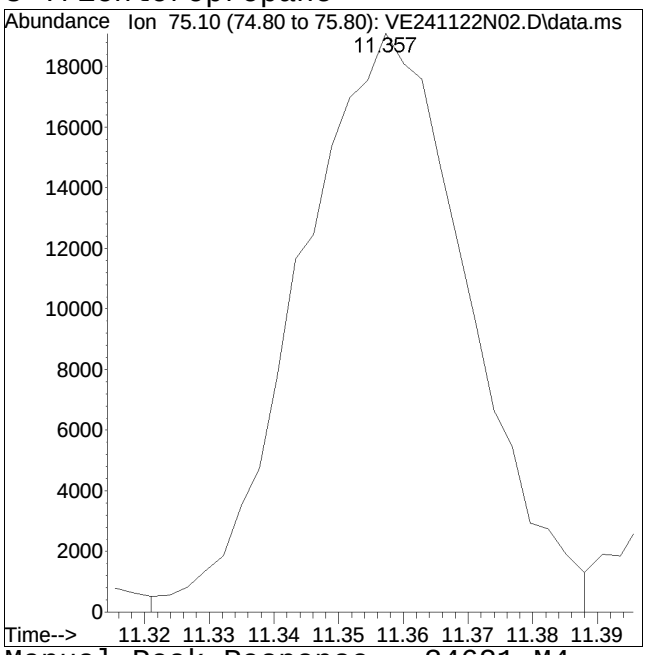
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N02.D
Date Inj'd : 11/22/2024 9:20 pm
Sample : WG2001424-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 9:49 pm

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 32887



Manual Peak Response = 34621 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N03.D
Acq On : 22 Nov 2024 9:45 pm
Operator : ELAINE:PID
Sample : WG2001424-4,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 22:09:59 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	199114	10.000	ug/L	0.00
Standard Area 1 = 199076			Recovery = 100.02%			
63) Chlorobenzene-d5	9.472	117	142663	10.000	ug/L	0.00
Standard Area 1 = 141631			Recovery = 100.73%			
84) 1,4-Dichlorobenzene-d4	12.183	152	73673	10.000	ug/L	0.00
Standard Area 1 = 72502			Recovery = 101.62%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.139	113	45209	9.902	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 99.02%		
47) 1,2-Dichloroethane-d4	5.660	65	61228	11.334	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 113.34%		
64) Toluene-d8	7.632	98	199021	10.229	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 102.29%		
88) 4-Bromofluorobenzene	10.973	95	69386	10.251	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 102.51%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	48961	11.005	ug/L	93
3) Chloromethane	1.773	50	38037	8.653	ug/L	99
4) Vinyl chloride	1.848	62	49416	10.550	ug/L	92
5) Bromomethane	2.155	94	16774	5.102	ug/L	93
6) Chloroethane	2.269	64	36460	10.751	ug/L	99
7) Trichlorofluoromethane	2.411	101	67427	9.867	ug/L	95
8) Ethyl ether	2.704	74	23935	11.326	ug/L	90
10) 1,1-Dichloroethene	2.891	96	36609	10.519	ug/L #	75
11) Carbon disulfide	2.922	76	113895	10.897	ug/L	97
15) Methylene chloride	3.440	84	42878	9.870	ug/L	90
17) Acetone	3.485	43	8552M3	10.002	ug/L	
18) trans-1,2-Dichloroethene	3.594	96	37347	9.636	ug/L	88
21) Methyl tert-butyl ether	3.691	73	97973	9.457	ug/L #	85
25) 1,1-Dichloroethane	4.177	63	77898	10.056	ug/L	97
27) Acrylonitrile	4.213	53	10198	9.731	ug/L #	72
29) Vinyl acetate	4.405	43	86491	9.613	ug/L	99
30) cis-1,2-Dichloroethene	4.695	96	44806	10.128	ug/L	97
31) 2,2-Dichloropropane	4.796	77	55672	9.107	ug/L	94
33) Bromochloromethane	4.885	128	19418	9.634	ug/L	92
35) Chloroform	4.957	83	72408	9.962	ug/L	94

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N03.D
Acq On : 22 Nov 2024 9:45 pm
Operator : ELAINE:PID
Sample : WG2001424-4,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 22:09:59 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.094	117	47896	9.086	ug/L	#	90
40) 1,1,1-Trichloroethane	5.156	97	63064	9.827	ug/L		92
42) 2-Butanone	5.245	43	12572	10.311	ug/L	#	84
43) 1,1-Dichloropropene	5.281	75	55667	9.900	ug/L		95
45) Benzene	5.524	78	178570	10.084	ug/L		95
48) 1,2-Dichloroethane	5.727	62	58735	10.428	ug/L		98
52) Trichloroethene	6.118	95	43466	10.352	ug/L		97
54) Dibromomethane	6.561	93	23983	9.995	ug/L		96
55) 1,2-Dichloropropane	6.664	63	48243	10.724	ug/L		96
58) Bromodichloromethane	6.737	83	58907	10.090	ug/L	#	91
61) 1,4-Dioxane	6.940	88	14402	489.901	ug/L	#	53
62) cis-1,3-Dichloropropene	7.423	75	66332	9.843	ug/L		90
65) Toluene	7.688	92	112935	10.074	ug/L		93
66) 4-Methyl-2-pentanone	8.120	58	10891	9.244	ug/L		80
67) Tetrachloroethene	8.137	166	42390	9.405	ug/L		93
69) trans-1,3-Dichloropropene	8.173	75	54360	9.792	ug/L		85
72) 1,1,2-Trichloroethane	8.362	83	29796	10.113	ug/L		98
73) Chlorodibromomethane	8.566	129	36817	9.313	ug/L		99
74) 1,3-Dichloropropane	8.678	76	62010	10.193	ug/L		98
75) 1,2-Dibromoethane	8.845	107	33233	9.519	ug/L		85
77) 2-Hexanone	9.129	43	16237	8.579	ug/L		93
78) Chlorobenzene	9.492	112	118416	9.938	ug/L	#	80
79) Ethylbenzene	9.531	91	217050	10.132	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.575	131	39035	9.867	ug/L		97
81) p/m Xylene	9.715	106	163560	19.833	ug/L		96
82) o Xylene	10.261	106	158708	19.736	ug/L		89
83) Styrene	10.326	104	260921	19.219	ug/L		97
85) Bromoform	10.351	173	19147	8.793	ug/L		96
87) Isopropylbenzene	10.644	105	216354	9.941	ug/L		98
89) Bromobenzene	11.084	156	48692	10.023	ug/L		99
90) n-Propylbenzene	11.126	91	249329	10.101	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.221	83	44124	10.502	ug/L		94
93) 4-Ethyltoluene	11.254	105	209450	10.225	ug/L		98
94) 2-Chlorotoluene	11.296	91	147776M1	10.307	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	184695	10.190	ug/L		95
96) 1,2,3-Trichloropropane	11.355	75	33600	10.130	ug/L	#	89
97) trans-1,4-Dichloro-2-b...	11.408	53	11685	9.731	ug/L		85
98) 4-Chlorotoluene	11.480	91	152347	10.271	ug/L		100
99) tert-Butylbenzene	11.695	119	143455	9.591	ug/L		98

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N03.D
Acq On : 22 Nov 2024 9:45 pm
Operator : ELAINE:PID
Sample : WG2001424-4,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 22:09:59 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241122N\VE241122N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	184208	10.134	ug/L	98
103) sec-Butylbenzene	11.884	105	223966	9.807	ug/L	98
104) p-Isopropyltoluene	12.041	119	183035	9.673	ug/L	96
105) 1,3-Dichlorobenzene	12.108	146	94375	9.705	ug/L	98
106) 1,4-Dichlorobenzene	12.202	146	95933	9.836	ug/L	98
107) p-Diethylbenzene	12.414	119	107267	9.689	ug/L	97
108) n-Butylbenzene	12.476	91	163682	9.919	ug/L	99
109) 1,2-Dichlorobenzene	12.626	146	89838	9.710	ug/L	99
110) 1,2,4,5-Tetramethylben...	13.212	119	166940	9.412	ug/L	98
111) 1,2-Dibromo-3-chloropr...	13.407	155	5134	9.137	ug/L	95
113) Hexachlorobutadiene	14.012	225	14967	8.496	ug/L	96
114) 1,2,4-Trichlorobenzene	14.035	180	53832	9.342	ug/L	99
115) Naphthalene	14.327	128	125685	9.288	ug/L	100
116) 1,2,3-Trichlorobenzene	14.495	180	47315	9.199	ug/L	94

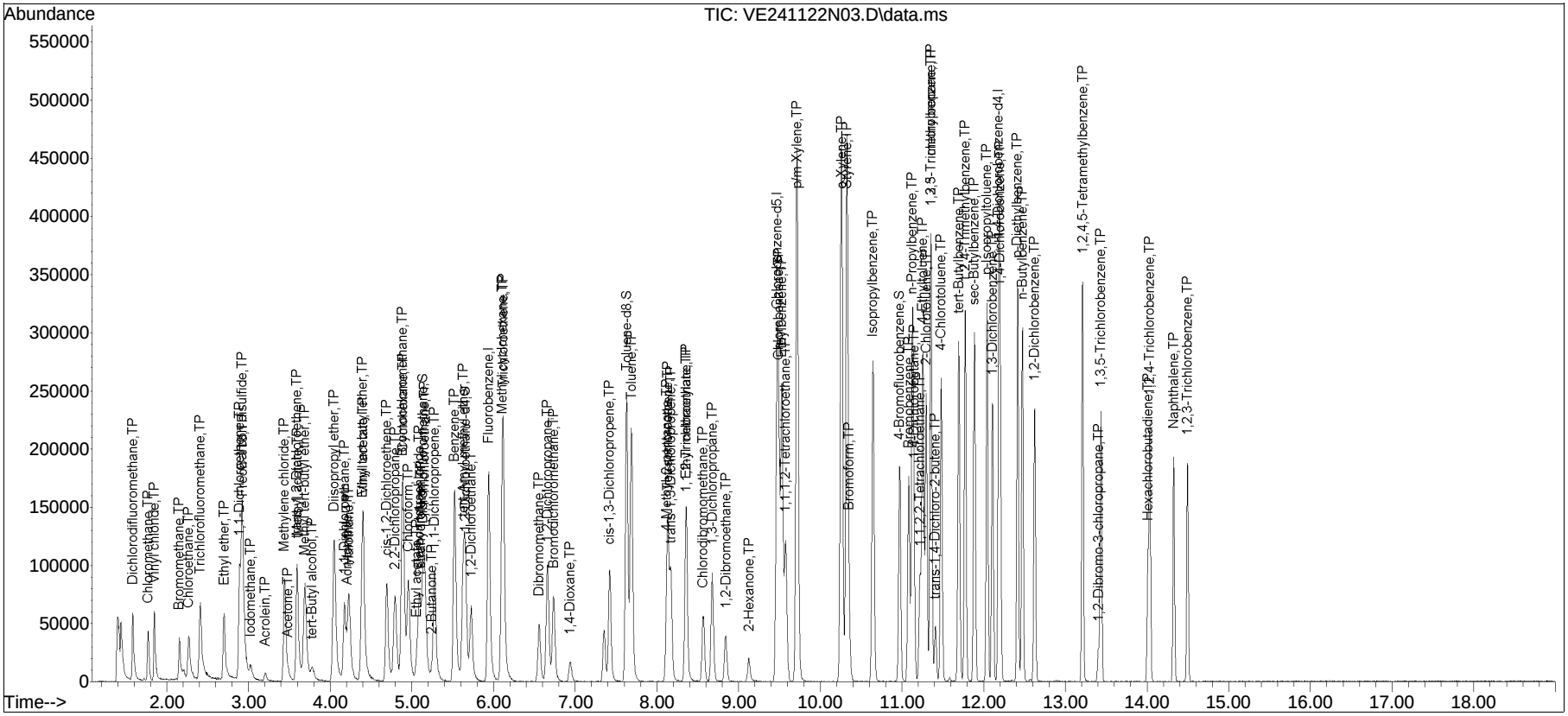
(#) = qualifier out of range (m) = manual integration (+) = signals summed

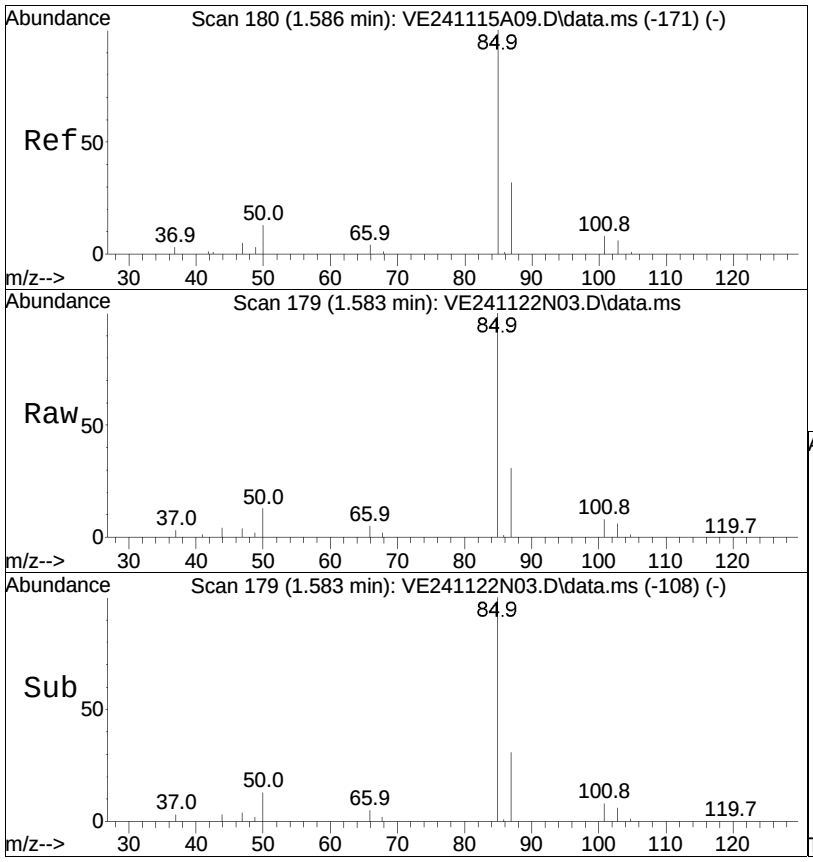
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N03.D
Acq On : 22 Nov 2024 9:45 pm
Operator : ELAINE:PID
Sample : WG2001424-4,31,10,10
Misc : WG2001424,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 22 22:09:59 2024
Quant Method : K:\Elaine\2024\241122N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE2.D•

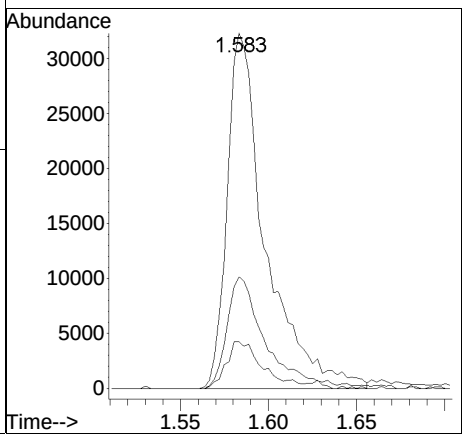


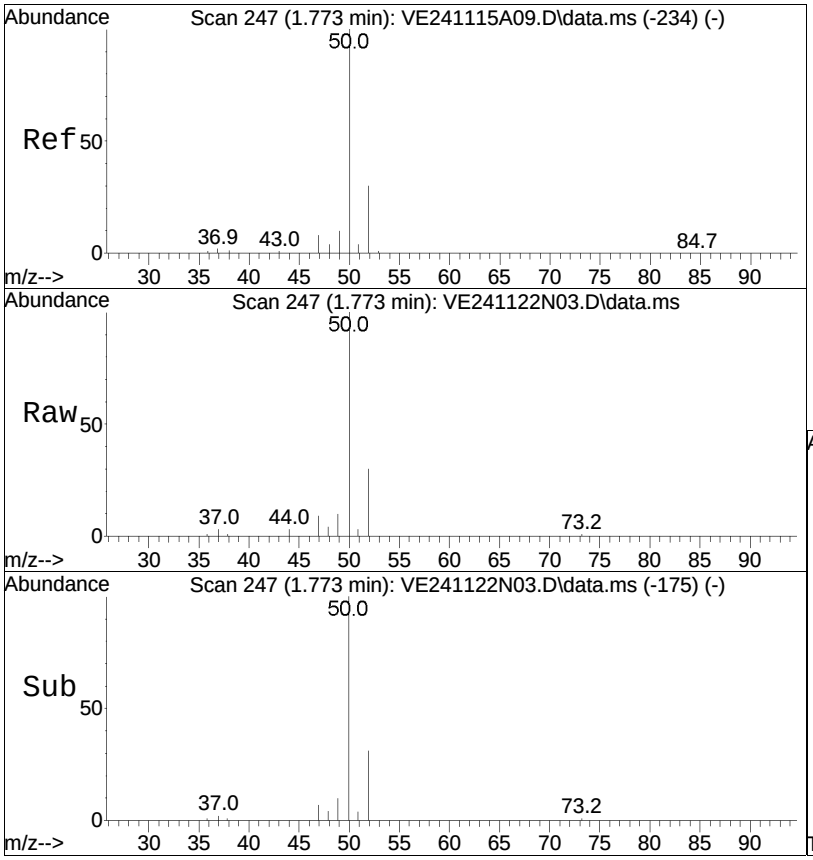


#2
Dichlorodifluoromethane
Concen: 11.01 ug/L
RT: 1.583 min Scan# 179
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 85 Resp: 48961

Ion	Ratio	Lower	Upper
85	100		
87	31.0	21.7	45.1
50	12.4	11.8	24.4

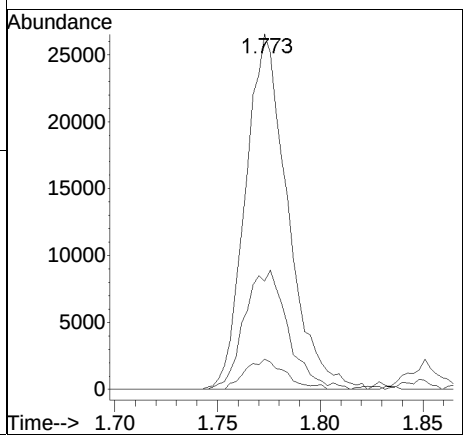


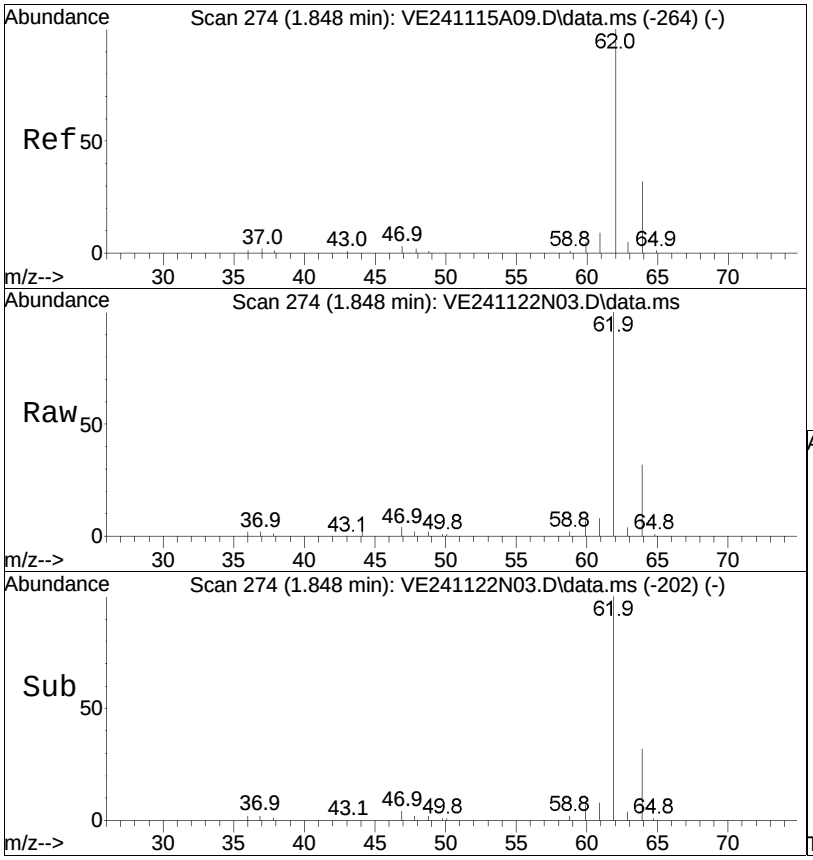


#3
Chloromethane
Concen: 8.65 ug/L
RT: 1.773 min Scan# 247
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 50 Resp: 38037

Ion	Ratio	Lower	Upper
50	100		
52	34.6	14.9	54.9
47	8.1	0.0	28.0

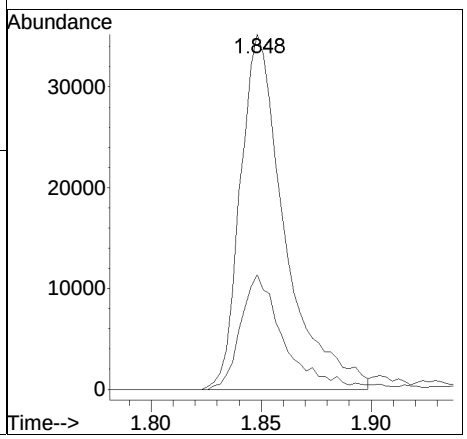


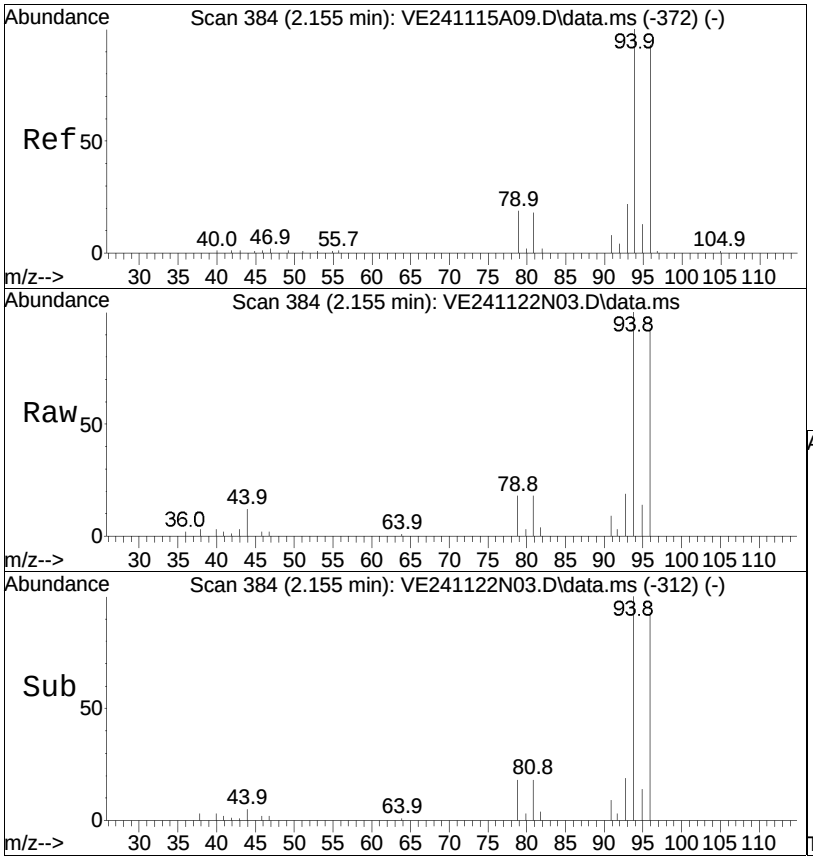


#4
Vinyl chloride
Concen: 10.55 ug/L
RT: 1.848 min Scan# 274
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 62 Resp: 49416

Ion	Ratio	Lower	Upper
62	100		
64	32.1	8.1	48.1

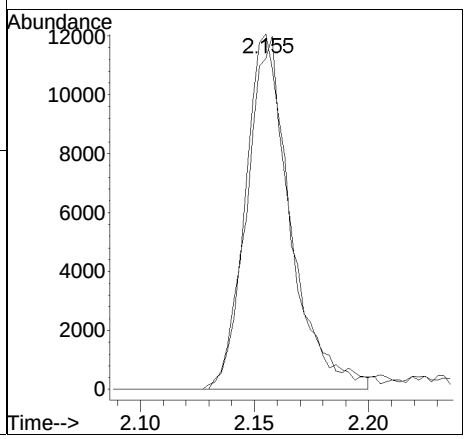


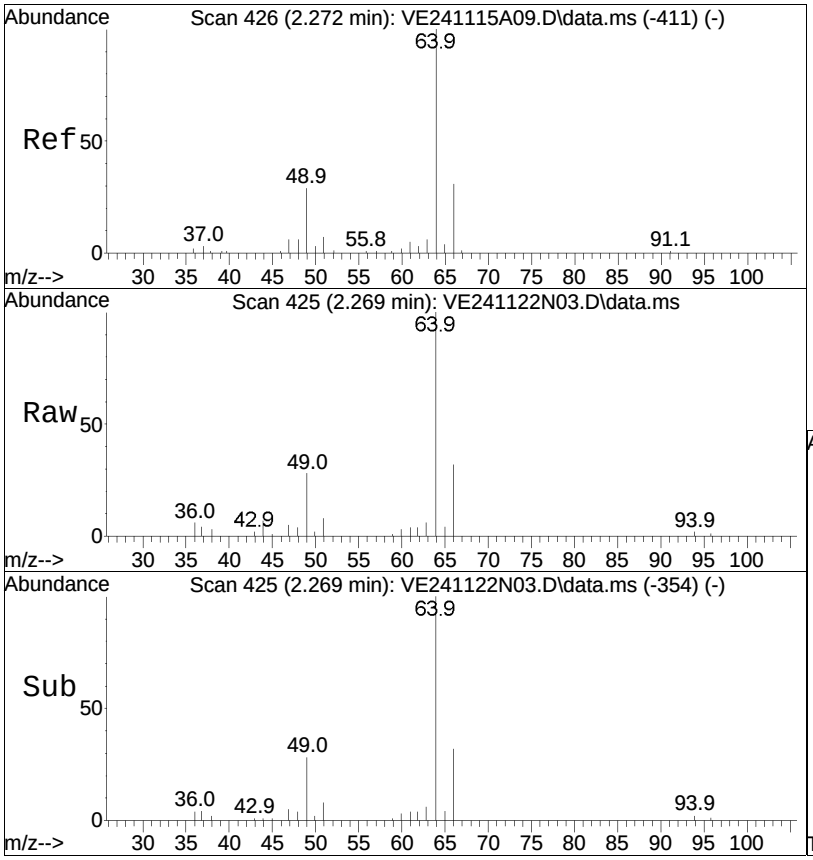


#5
Bromomethane
Concen: 5.10 ug/L
RT: 2.155 min Scan# 384
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 94 Resp: 16774

Ion	Ratio	Lower	Upper
94	100		
96	95.0	68.2	108.2

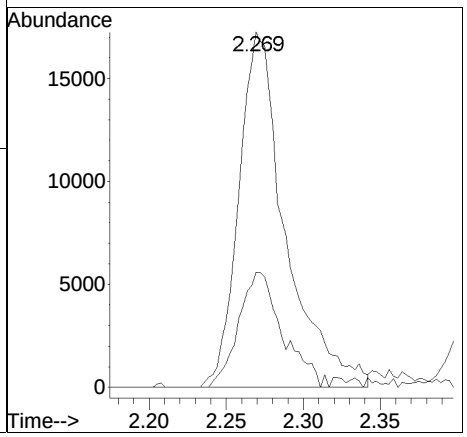


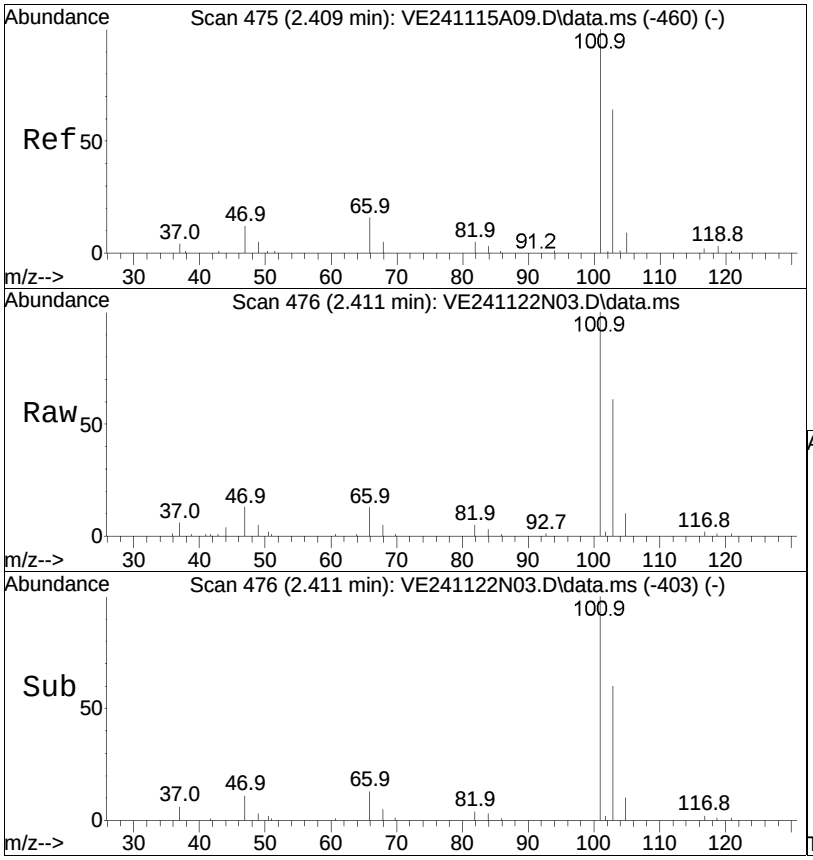


#6
Chloroethane
Concen: 10.75 ug/L
RT: 2.269 min Scan# 425
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 64 Resp: 36460

Ion	Ratio	Lower	Upper
64	100		
66	30.4	10.7	50.7

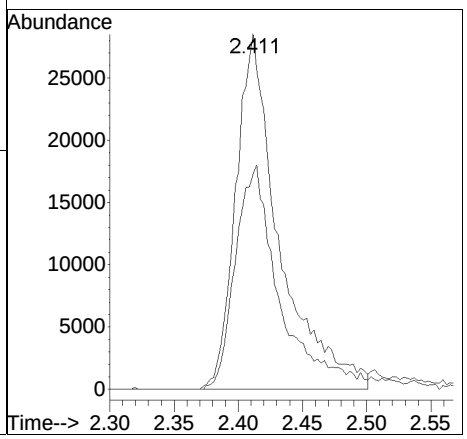


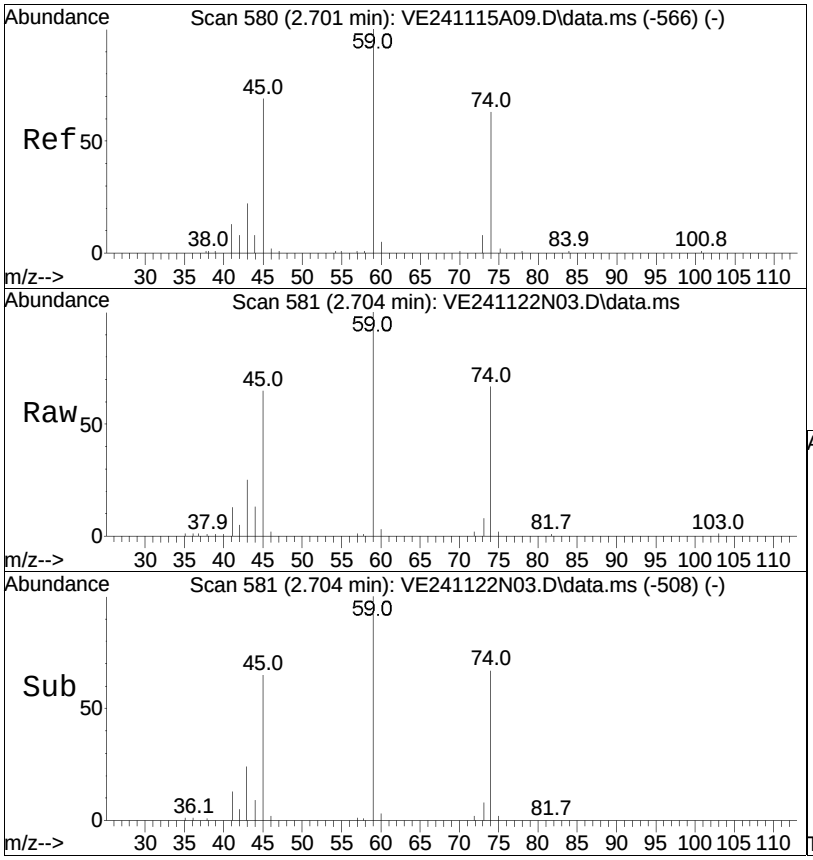


#7
Trichlorofluoromethane
Concen: 9.87 ug/L
RT: 2.411 min Scan# 476
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:101 Resp: 67427

Ion	Ratio	Lower	Upper
101	100		
103	63.7	48.2	72.2

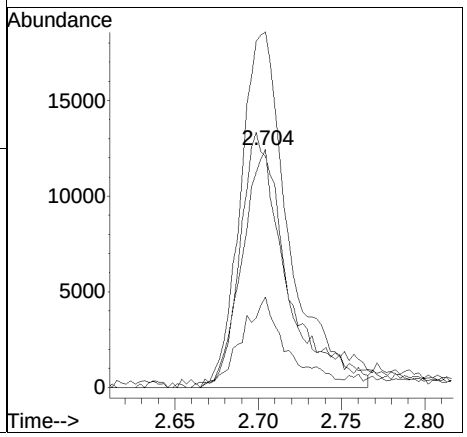


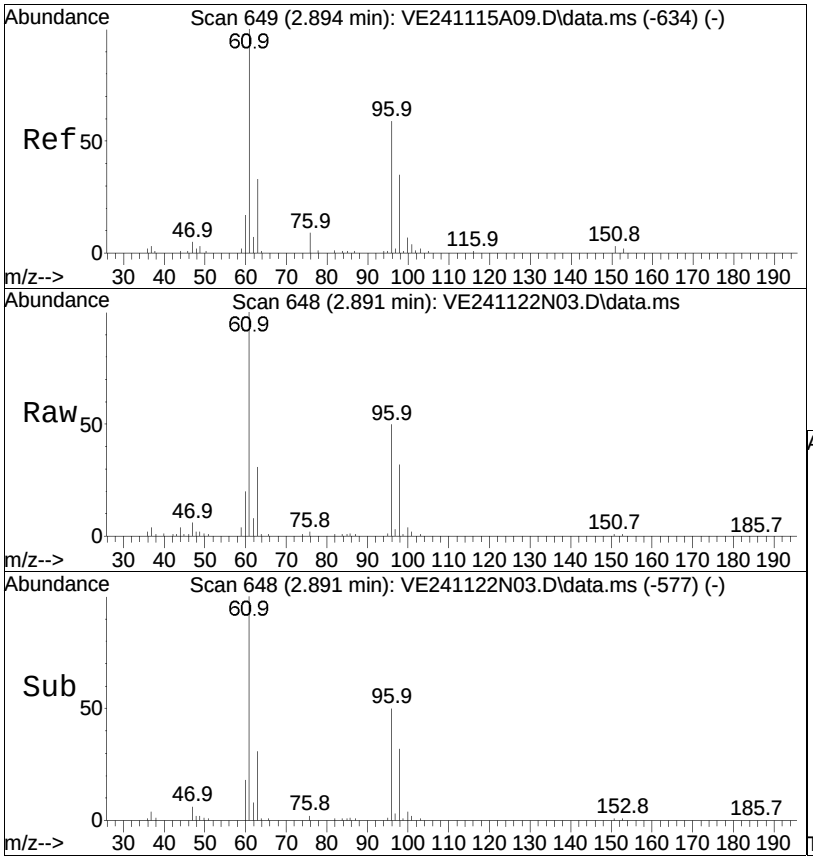


#8
Ethyl ether
Concen: 11.33 ug/L
RT: 2.704 min Scan# 581
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 74 Resp: 23935

Ion	Ratio	Lower	Upper
74	100		
59	159.3	91.7	190.5
45	113.1	77.4	160.8
43	34.4	24.6	51.2

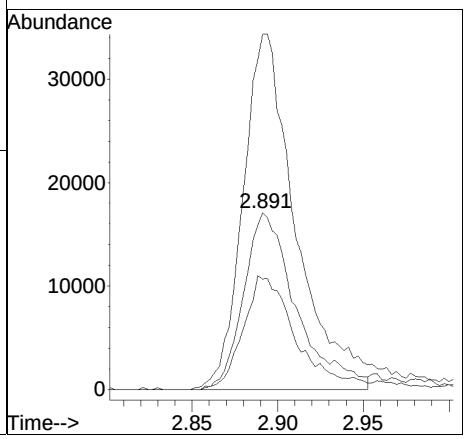


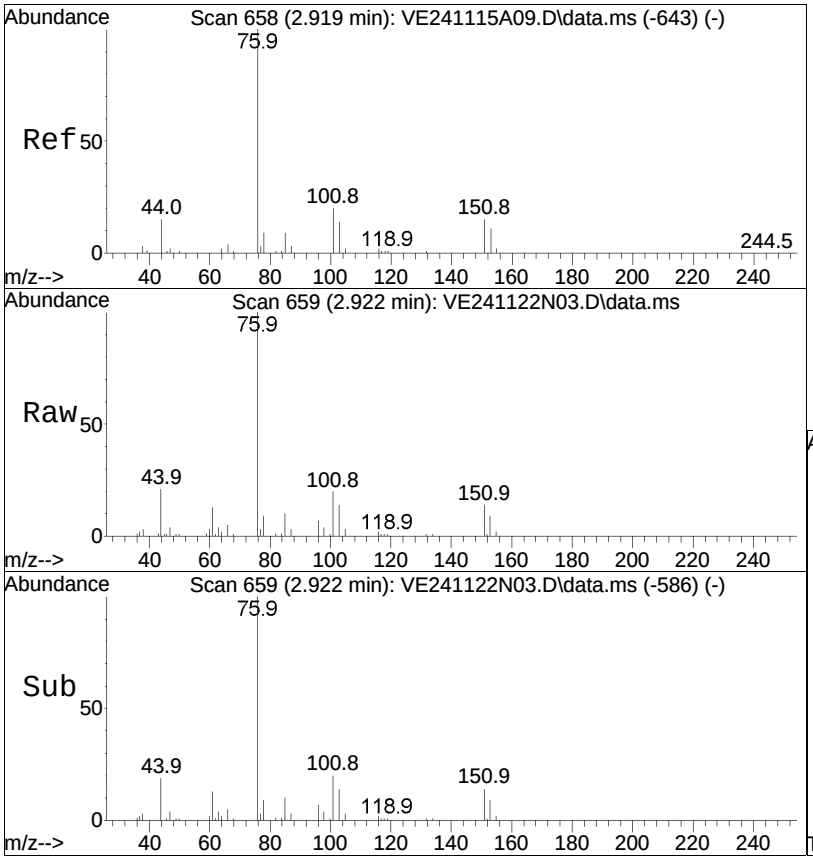


#10
1,1-Dichloroethene
Concen: 10.52 ug/L
RT: 2.891 min Scan# 648
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 96 Resp: 36609

Ion	Ratio	Lower	Upper
96	100		
61	208.2	135.4	203.0#
63	64.0	42.6	63.8#

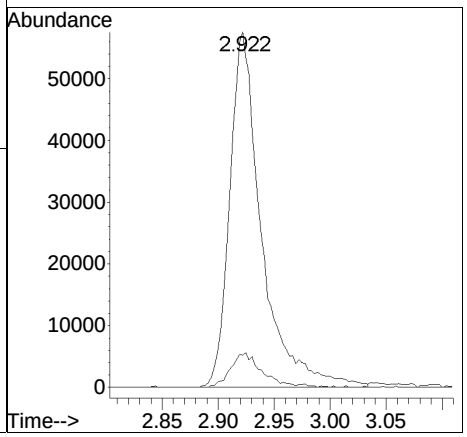


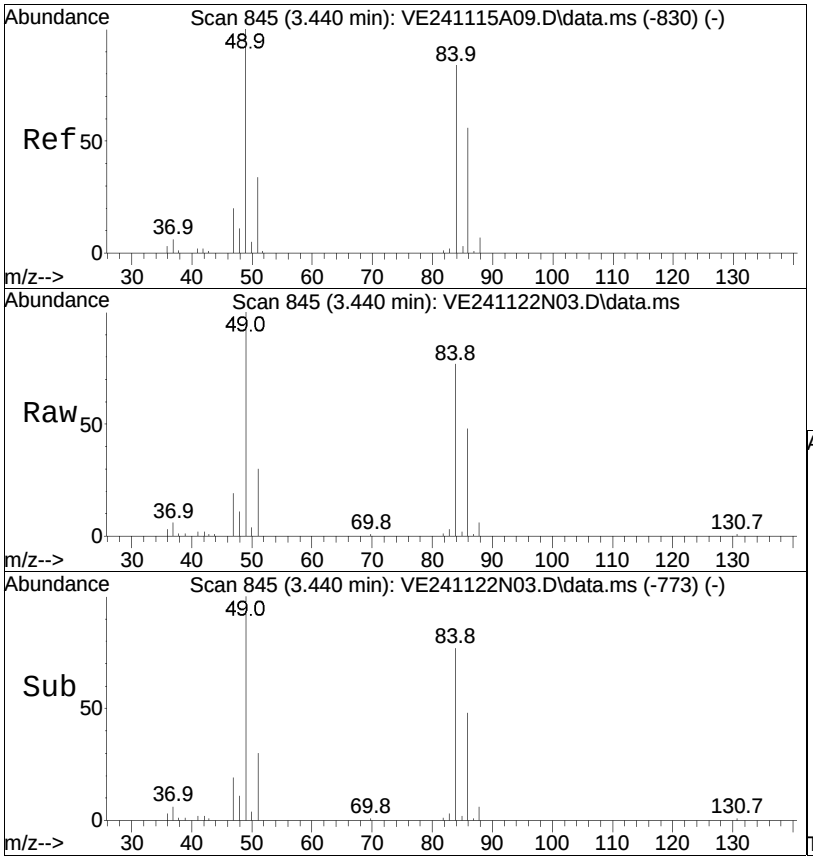


#11
Carbon disulfide
Concen: 10.90 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 76 Resp: 113895

Ion	Ratio	Lower	Upper
76	100		
78	9.4	5.5	11.3

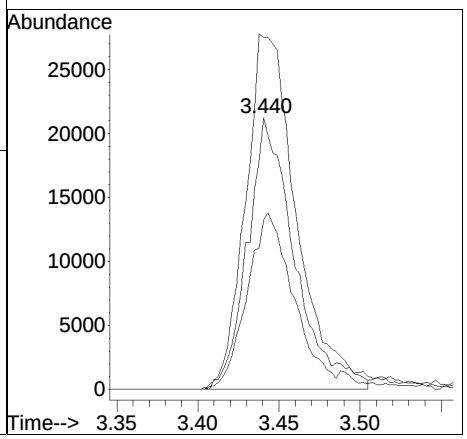


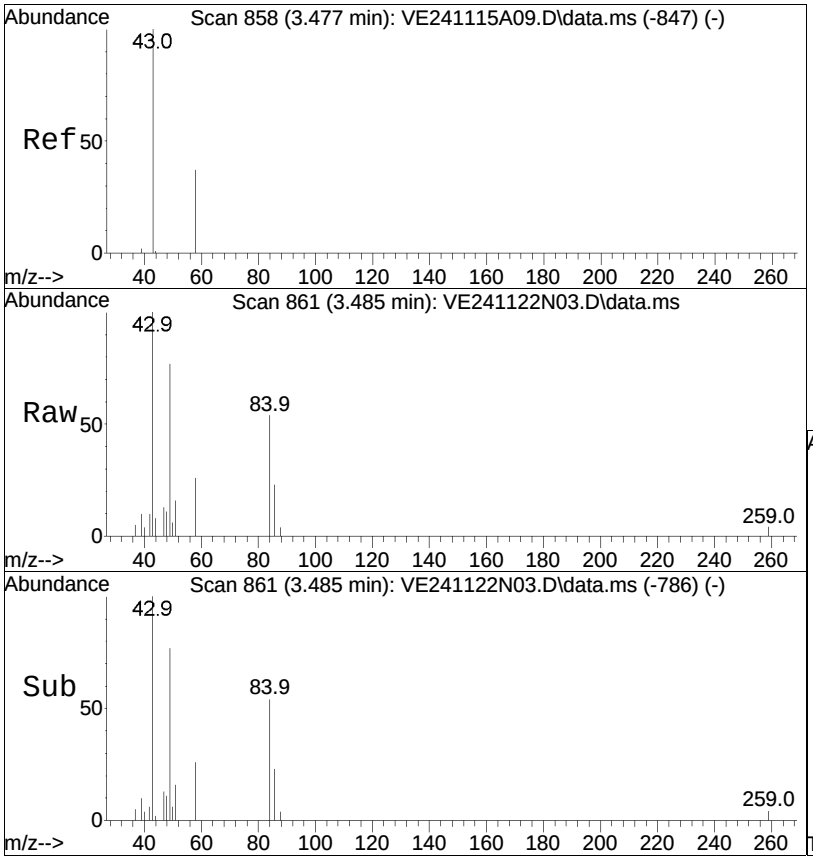


#15
Methylene chloride
Concen: 9.87 ug/L
RT: 3.440 min Scan# 845
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 84 Resp: 42878

Ion	Ratio	Lower	Upper
84	100		
86	64.4	40.2	83.6
49	142.3	103.2	214.4

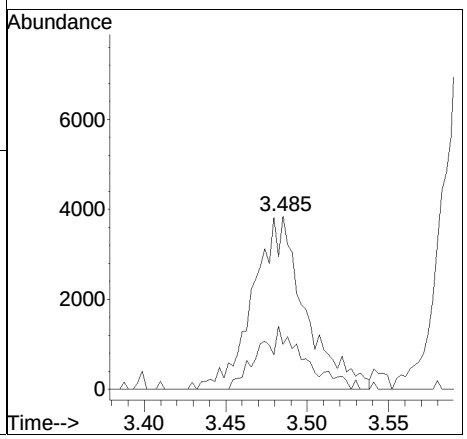


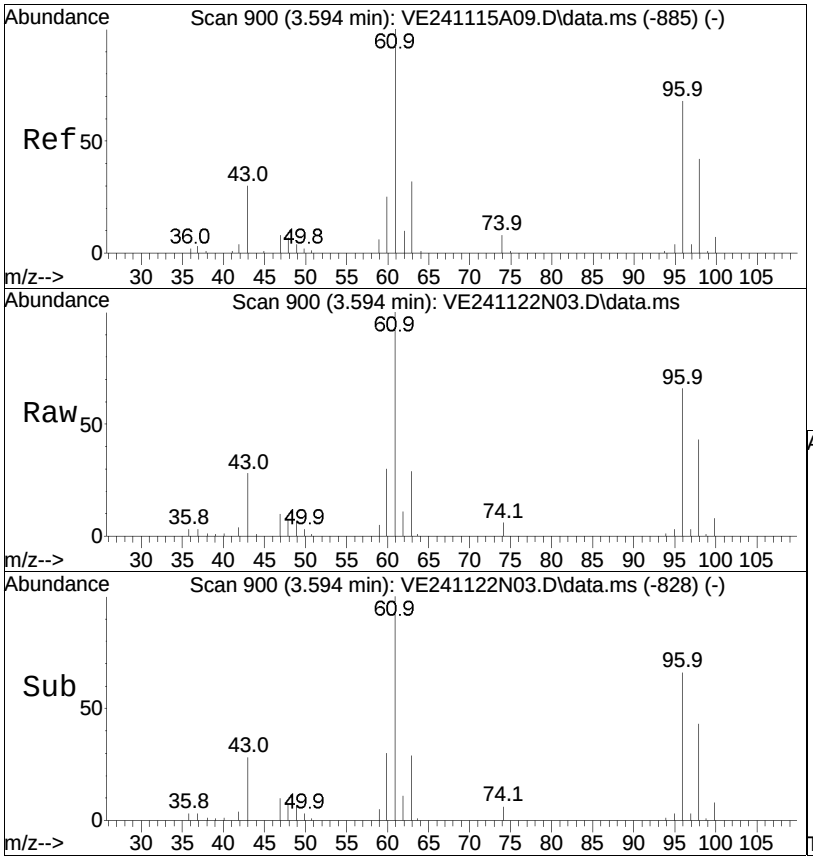


#17
Acetone
Concen: 10.00 ug/L M3
RT: 3.485 min Scan# 861
Delta R.T. 0.008 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 43 Resp: 8552

Ion	Ratio	Lower	Upper
43	100		
58	11.6	23.4	35.0#

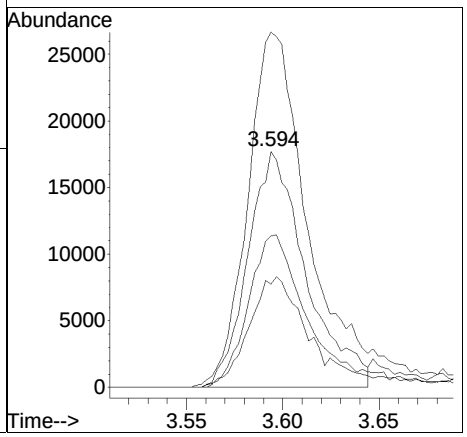


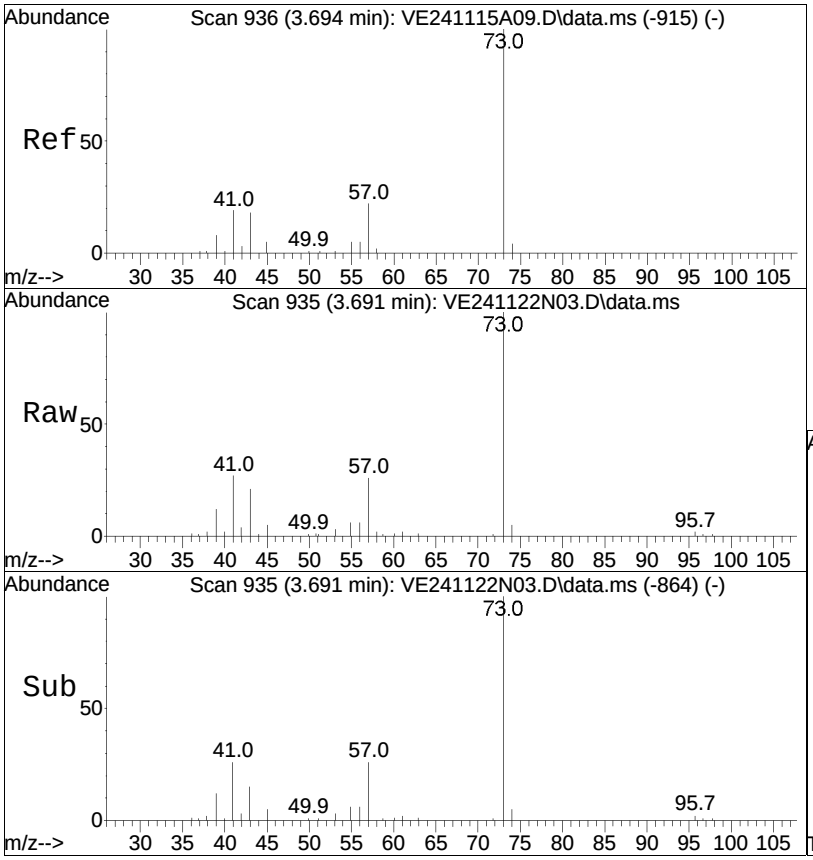


#18
trans-1,2-Dichloroethene
Concen: 9.64 ug/L
RT: 3.594 min Scan# 900
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 96 Resp: 37347

Ion	Ratio	Lower	Upper
96	100		
61	162.2	93.5	194.1
98	66.1	37.8	78.6
63	48.2	29.7	61.7

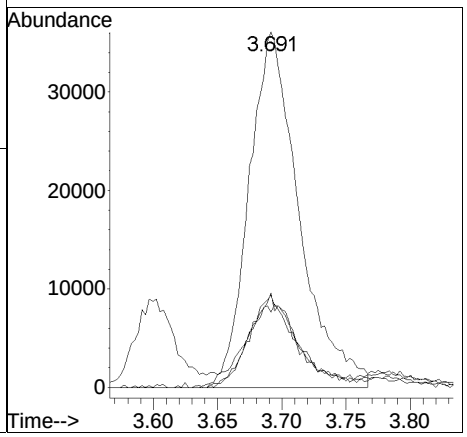


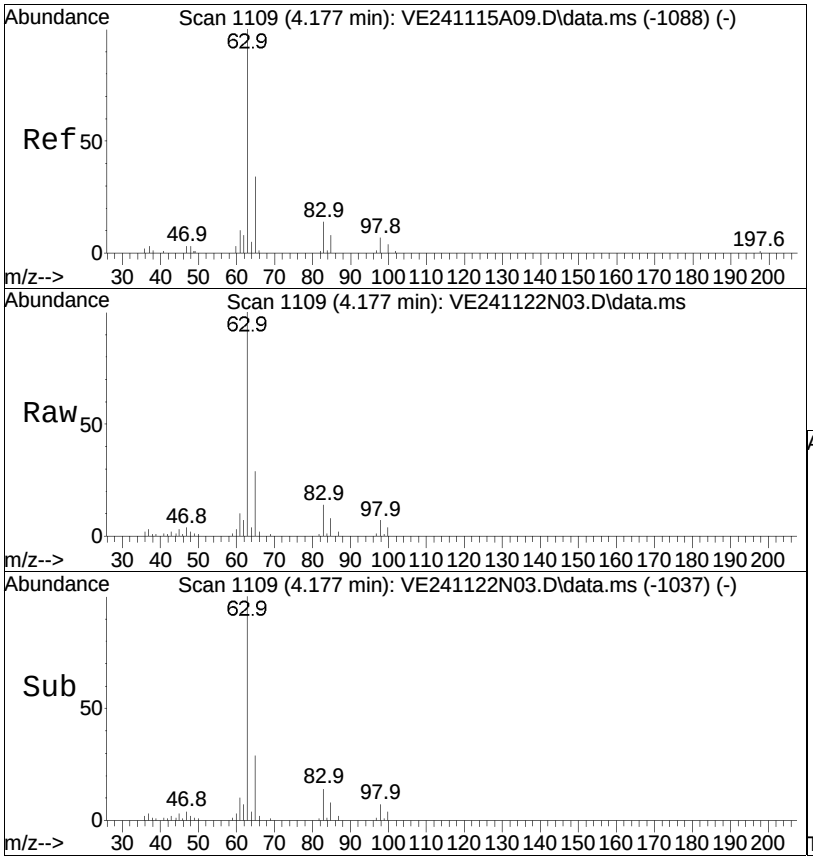


#21
Methyl tert-butyl ether
Concen: 9.46 ug/L
RT: 3.691 min Scan# 935
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 73 Resp: 97973

Ion	Ratio	Lower	Upper
73	100		
57	25.4	16.1	33.3
43	8.4	17.0	35.2#
41	24.2	18.7	38.9

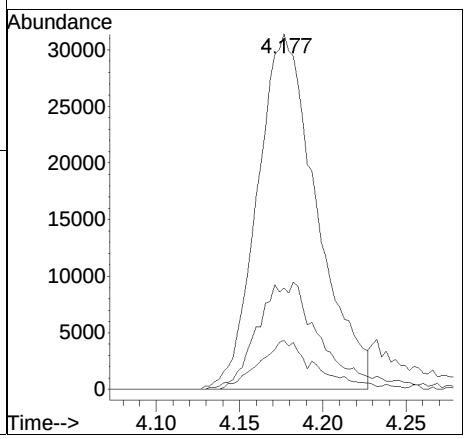


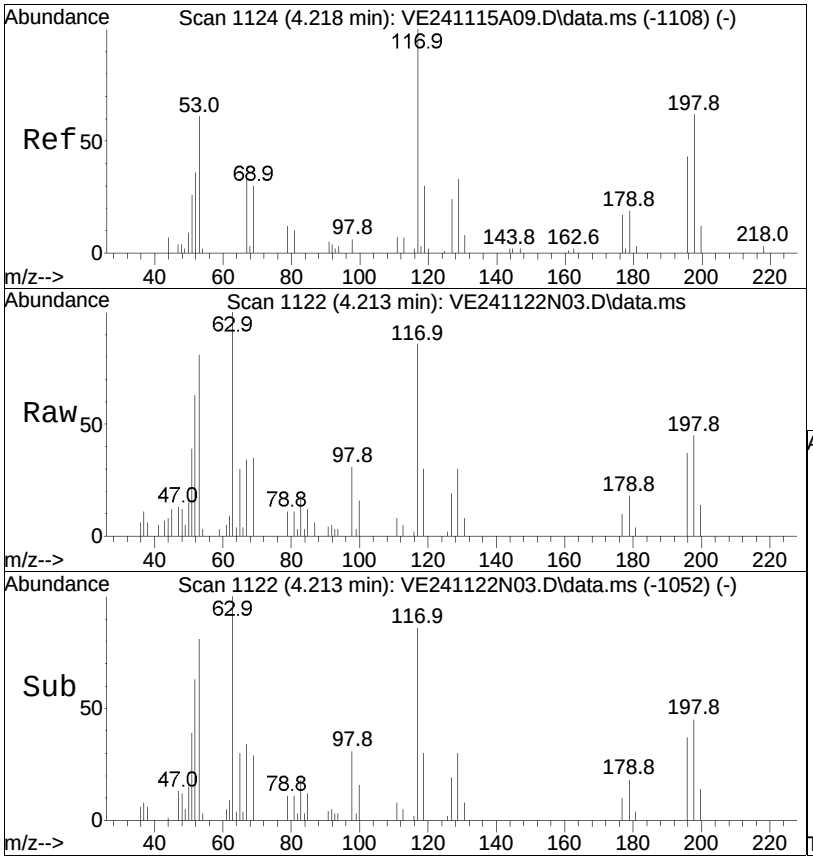


#25
1,1-Dichloroethane
Concen: 10.06 ug/L
RT: 4.177 min Scan# 1109
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 63 Resp: 77898

Ion	Ratio	Lower	Upper
63	100		
65	32.9	10.3	50.3
83	13.2	0.0	33.1

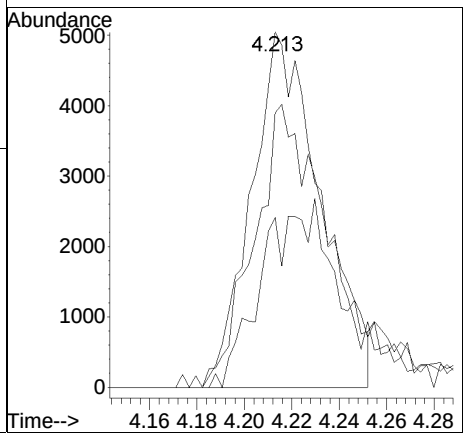


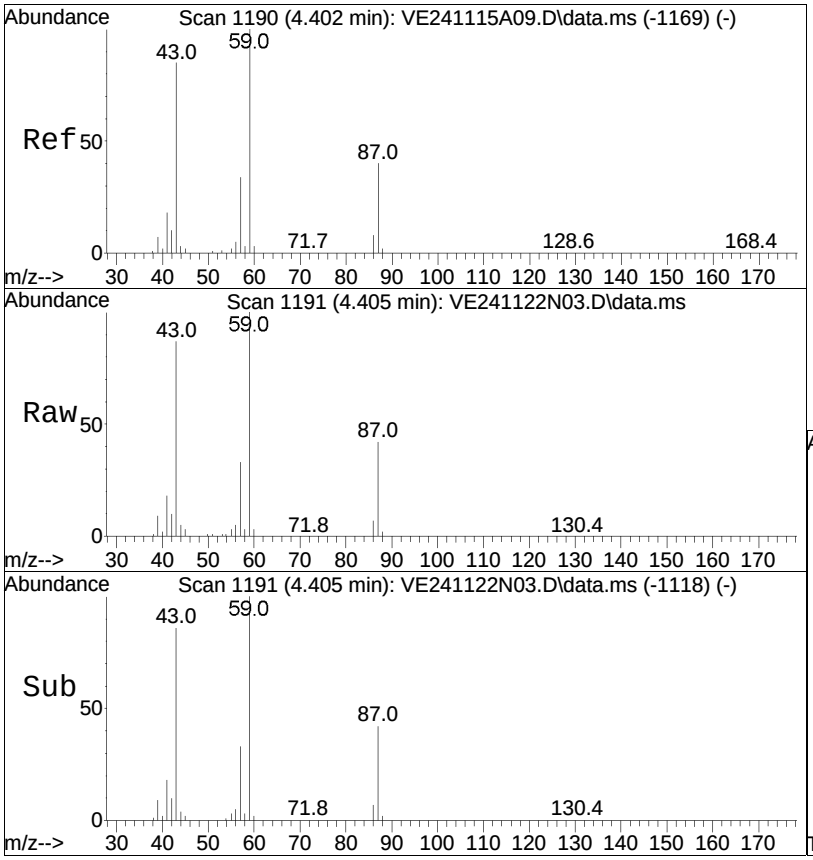


#27
Acrylonitrile
Concen: 9.73 ug/L
RT: 4.213 min Scan# 1122
Delta R.T. -0.006 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 53 Resp: 10198

Ion	Ratio	Lower	Upper
53	100		
52	88.2	58.9	88.3
51	19.8	40.2	60.2#

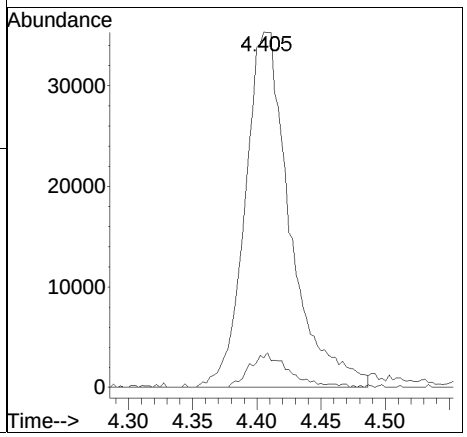


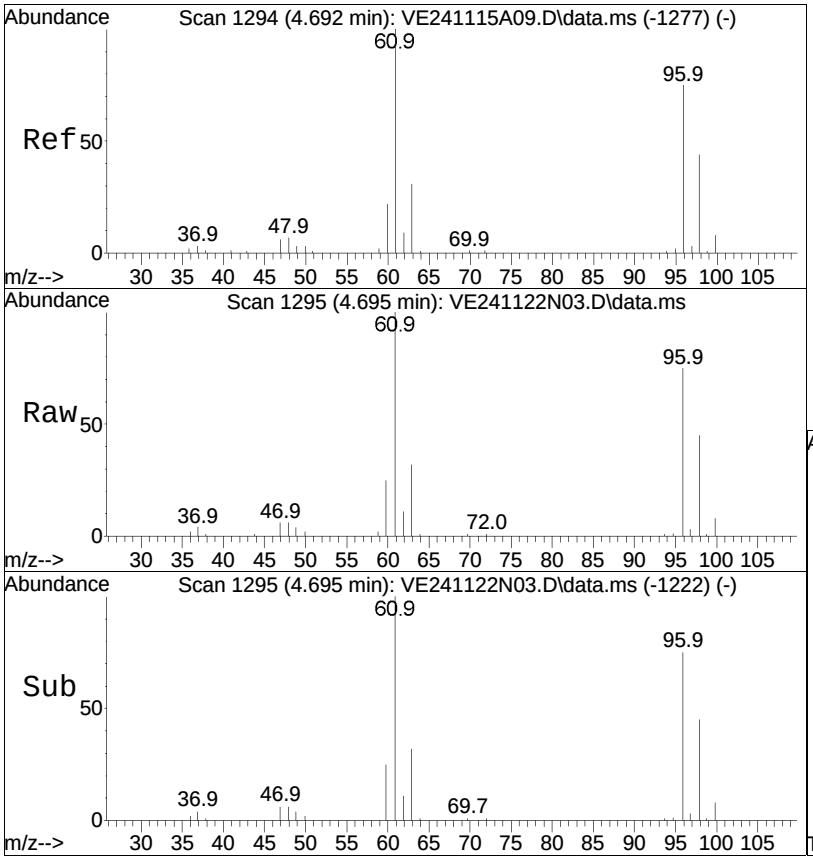


#29
Vinyl acetate
Concen: 9.61 ug/L
RT: 4.405 min Scan# 1191
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 43 Resp: 86491

Ion	Ratio	Lower	Upper
43	100		
86	8.1	6.2	9.4

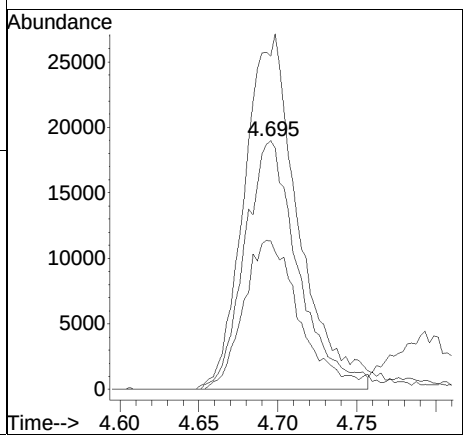


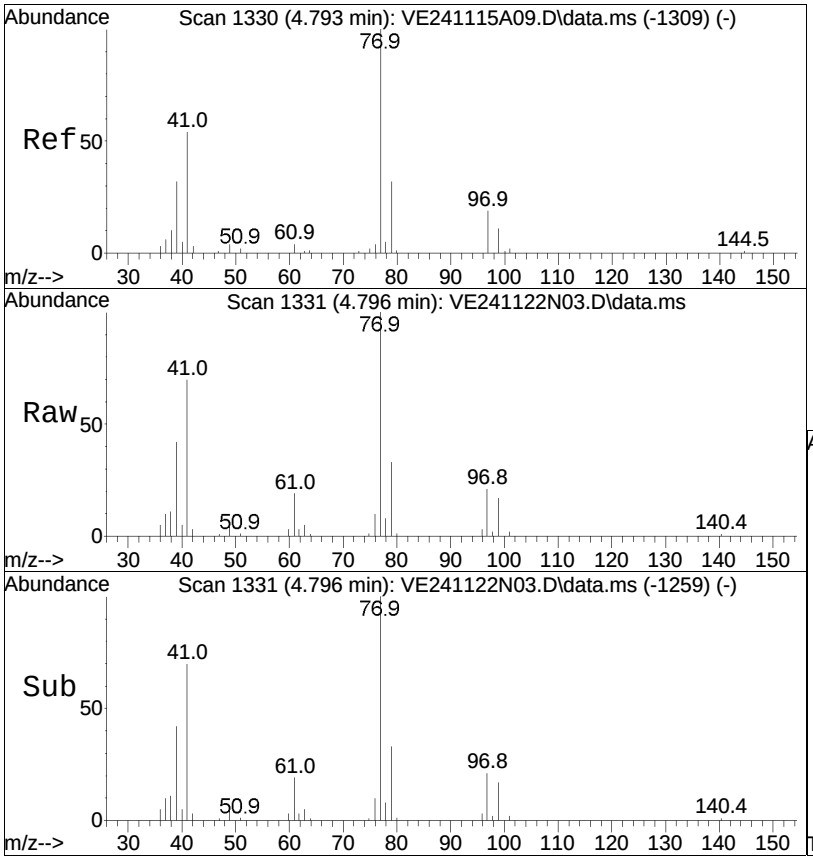


#30
cis-1,2-Dichloroethene
Concen: 10.13 ug/L
RT: 4.695 min Scan# 1295
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 96 Resp: 44806

Ion	Ratio	Lower	Upper
96	100		
61	144.6	120.3	180.5
98	62.5	50.2	75.4

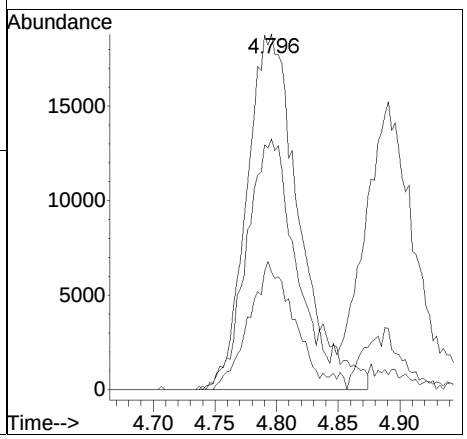


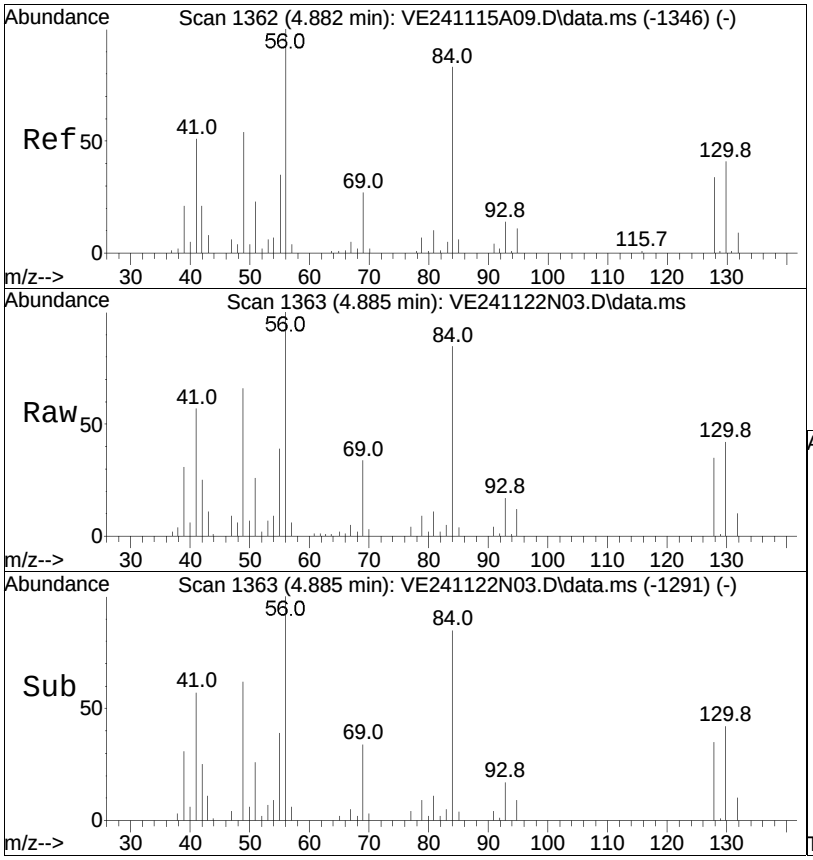


#31
2,2-Dichloropropane
Concen: 9.11 ug/L
RT: 4.796 min Scan# 1331
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 77 Resp: 55672

Ion	Ratio	Lower	Upper
77	100		
41	65.9	46.5	96.5
79	30.9	21.6	45.0

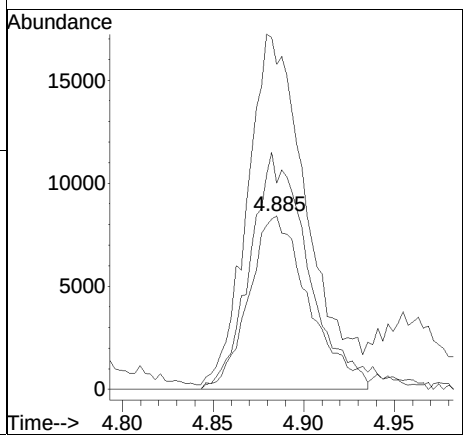


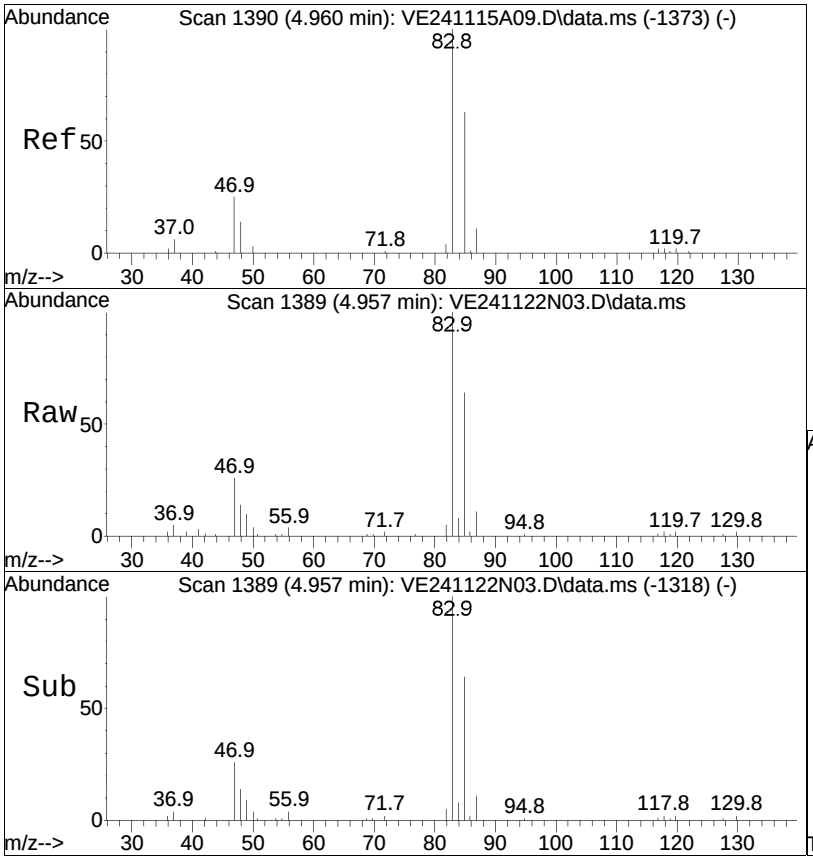


#33
Bromochloromethane
Concen: 9.63 ug/L
RT: 4.885 min Scan# 1363
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:128 Resp: 19418

Ion	Ratio	Lower	Upper
128	100		
49	198.1	170.2	255.2
130	136.9	103.7	155.5

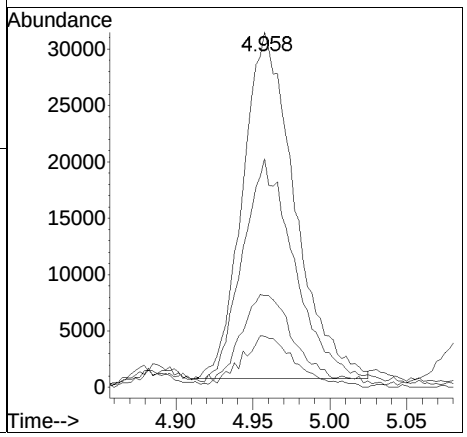


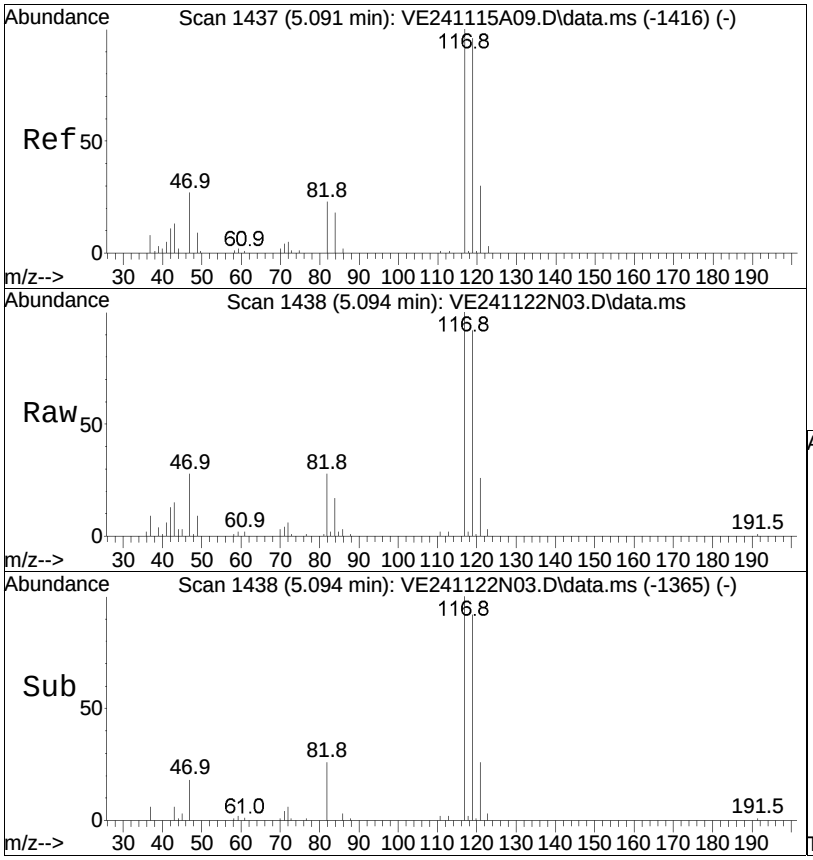


#35
Chloroform
Concen: 9.96 ug/L
RT: 4.957 min Scan# 1389
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 83 Resp: 72408

Ion	Ratio	Lower	Upper
83	100		
85	66.3	41.3	85.9
47	24.8	20.9	43.3
48	15.6	10.3	21.5

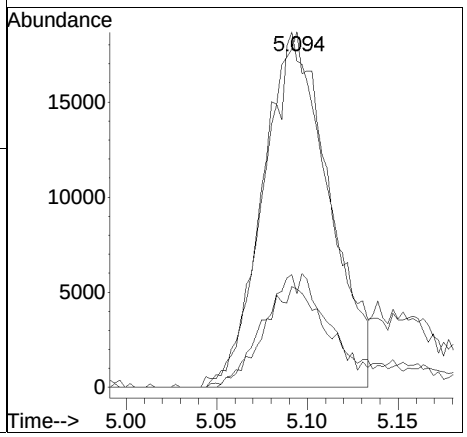


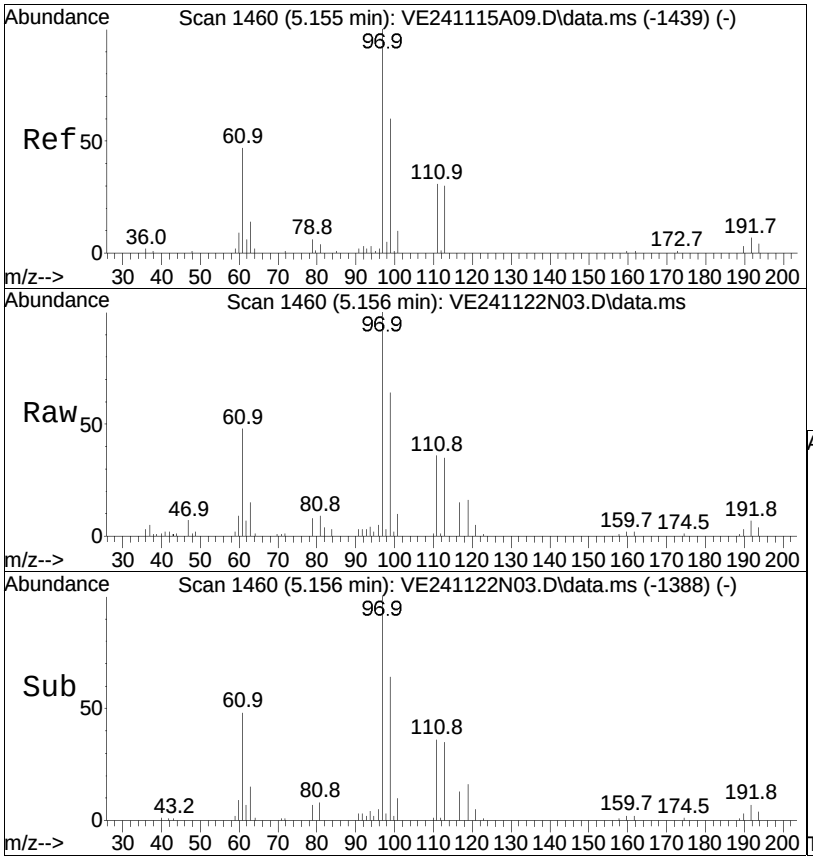


#37
Carbon tetrachloride
Concen: 9.09 ug/L
RT: 5.094 min Scan# 1438
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:117 Resp: 47896

Ion	Ratio	Lower	Upper
117	100		
119	101.9	60.6	126.0
121	16.6	18.0	37.4#
82	29.6	19.8	41.0

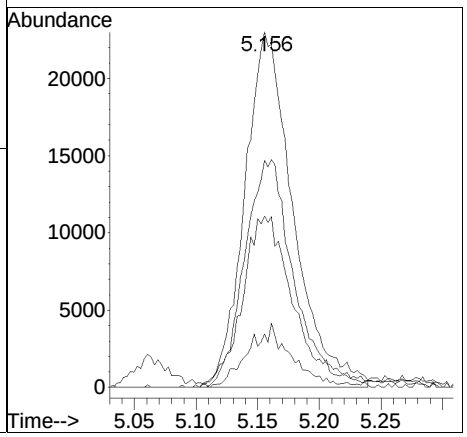


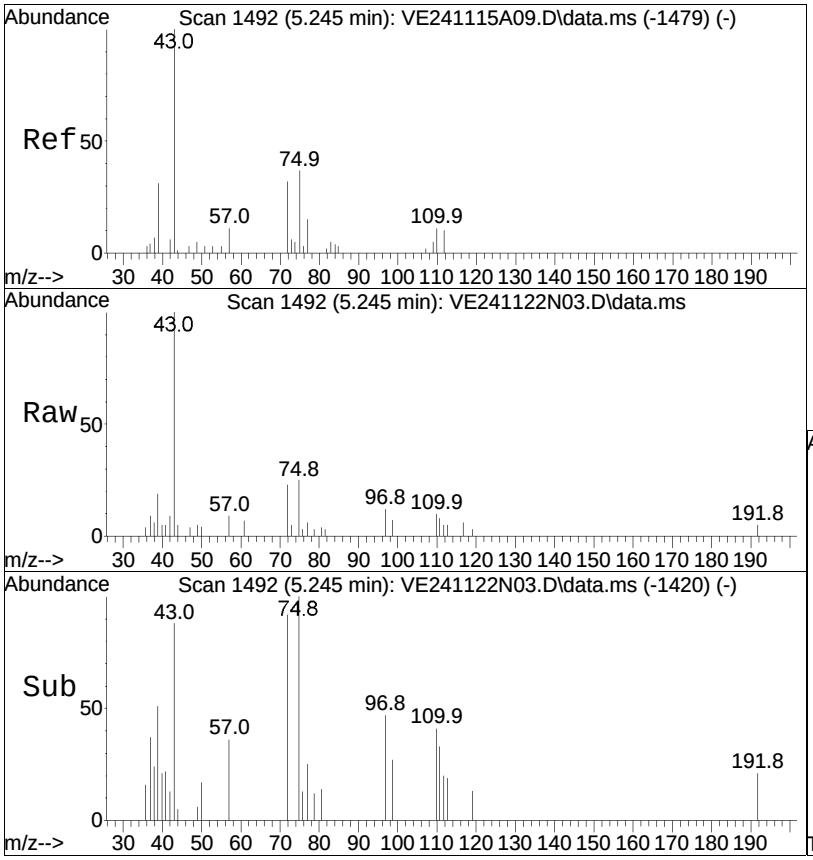


#40
1,1,1-Trichloroethane
Concen: 9.83 ug/L
RT: 5.156 min Scan# 1460
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 97 Resp: 63064

Ion	Ratio	Lower	Upper
97	100		
99	65.6	40.2	83.4
61	48.3	36.9	76.5
63	8.8	8.3	17.3

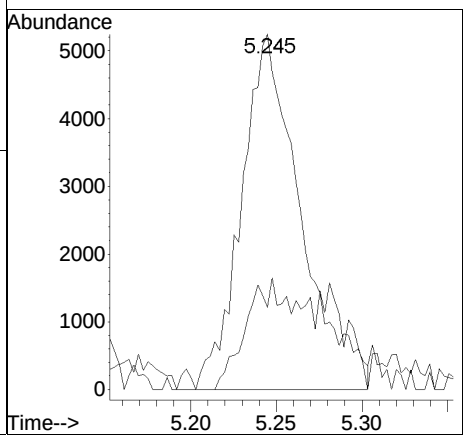


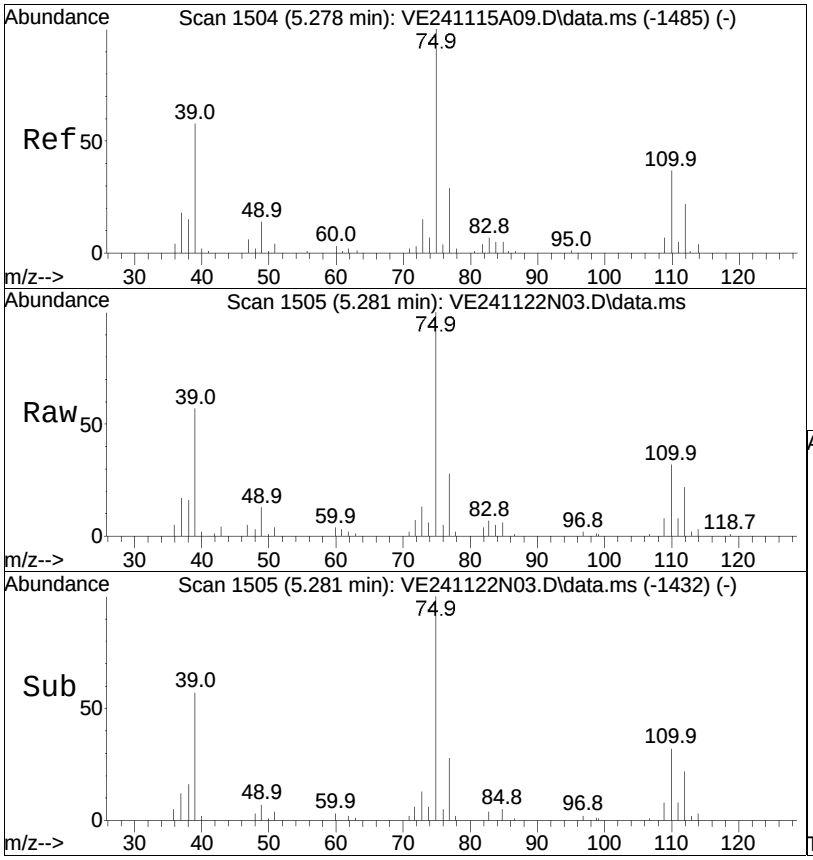


#42
2-Butanone
Concen: 10.31 ug/L
RT: 5.245 min Scan# 1492
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 43 Resp: 12572

Ion	Ratio	Lower	Upper
43	100		
72	12.3	15.7	23.5#

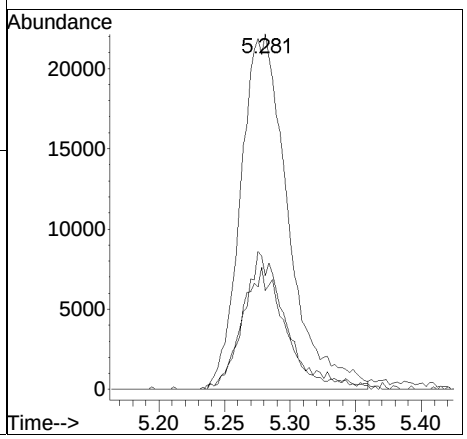


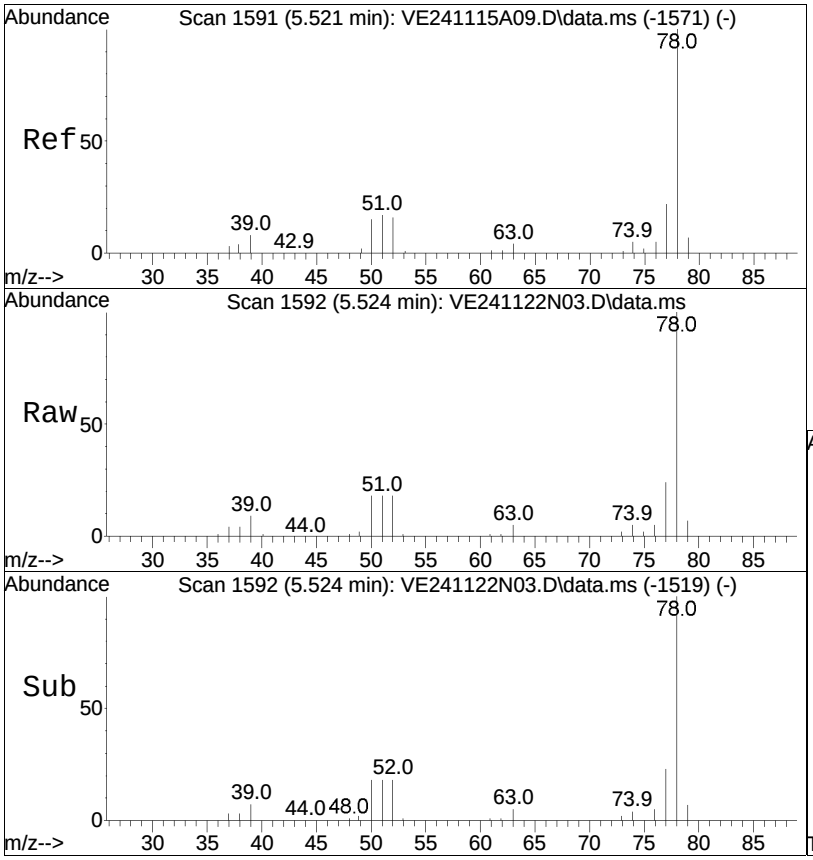


#43
1,1-Dichloropropene
Concen: 9.90 ug/L
RT: 5.281 min Scan# 1505
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 75 Resp: 55667

Ion	Ratio	Lower	Upper
75	100		
110	34.7	20.3	42.1
77	30.9	18.9	39.3

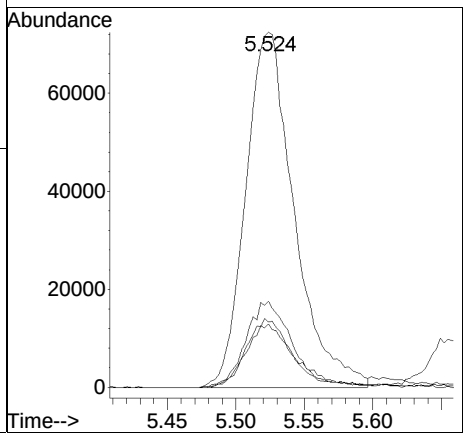


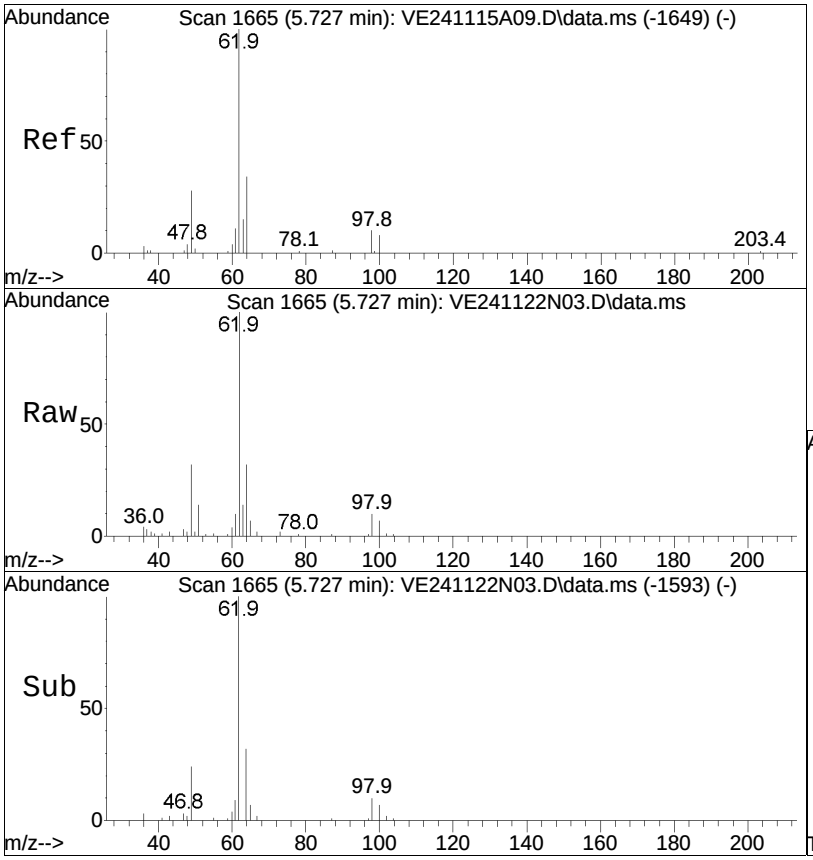


#45
Benzene
Concen: 10.08 ug/L
RT: 5.524 min Scan# 1592
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 78 Resp: 178570

Ion	Ratio	Lower	Upper
78	100		
77	23.6	12.8	26.6
51	19.0	13.5	27.9
52	17.4	12.0	25.0

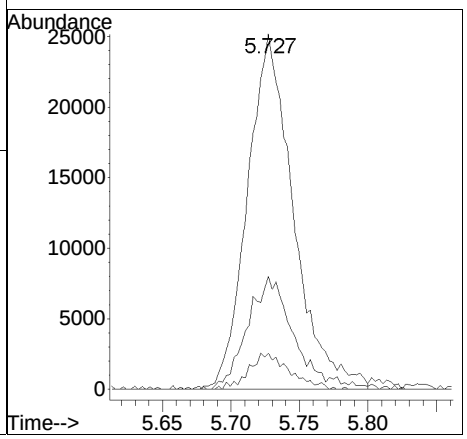


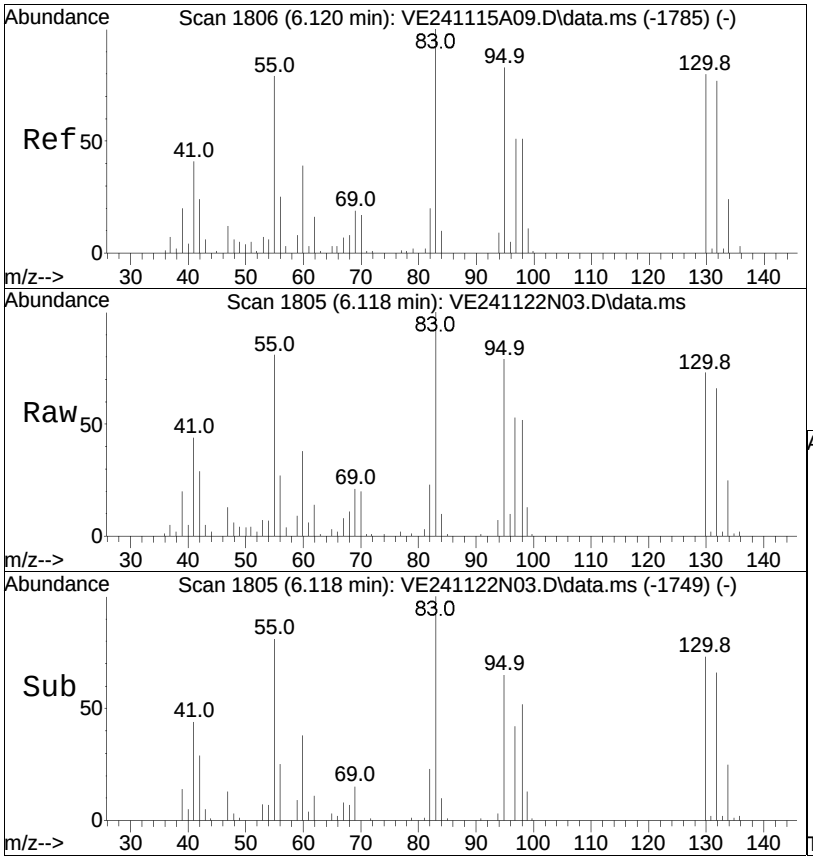


#48
1,2-Dichloroethane
Concen: 10.43 ug/L
RT: 5.727 min Scan# 1665
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 62 Resp: 58735

Ion	Ratio	Lower	Upper
62	100		
64	30.6	12.0	52.0
98	9.1	0.0	29.1

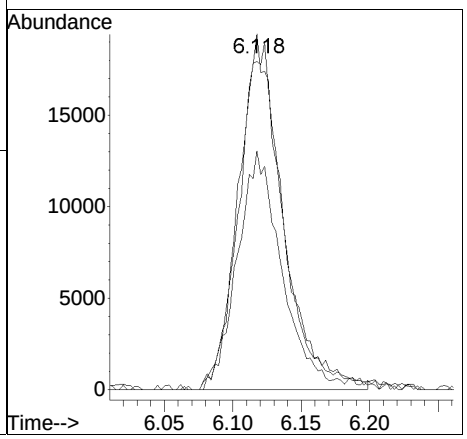


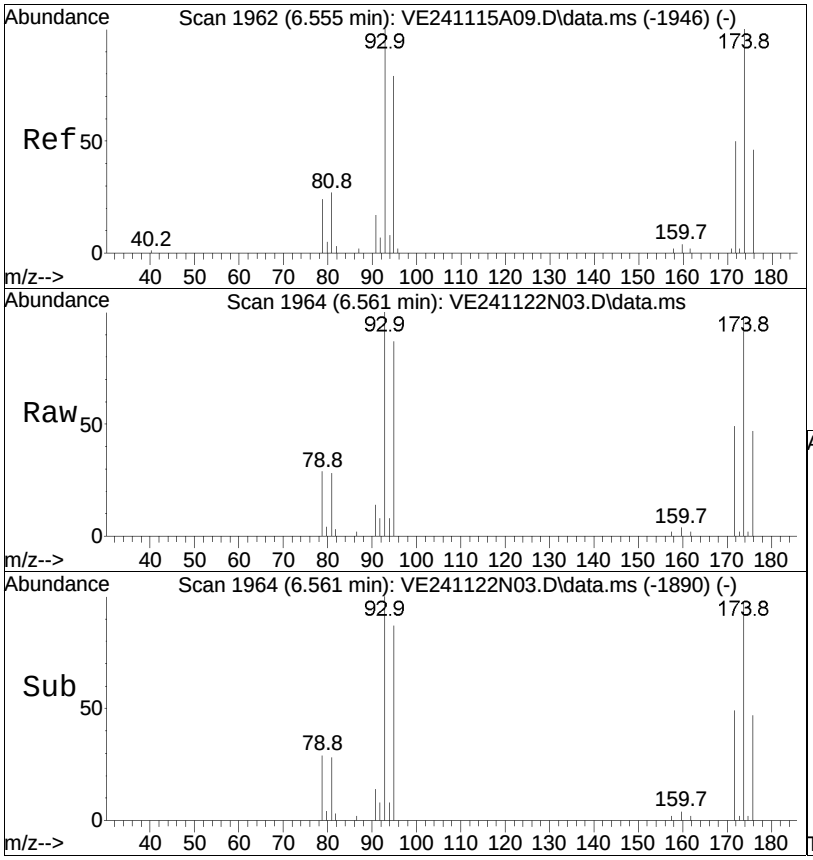


#52
Trichloroethene
Concen: 10.35 ug/L
RT: 6.118 min Scan# 1805
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 95 Resp: 43466

Ion	Ratio	Lower	Upper
95	100		
97	67.1	50.2	75.2
130	98.6	78.2	117.4

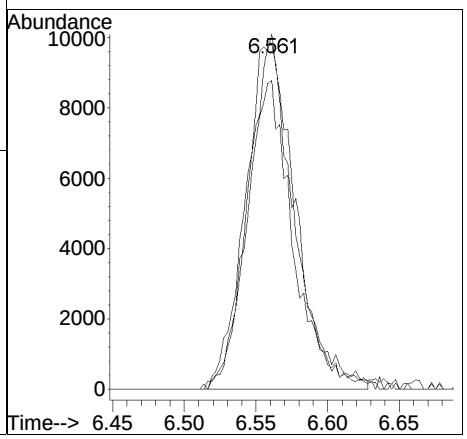


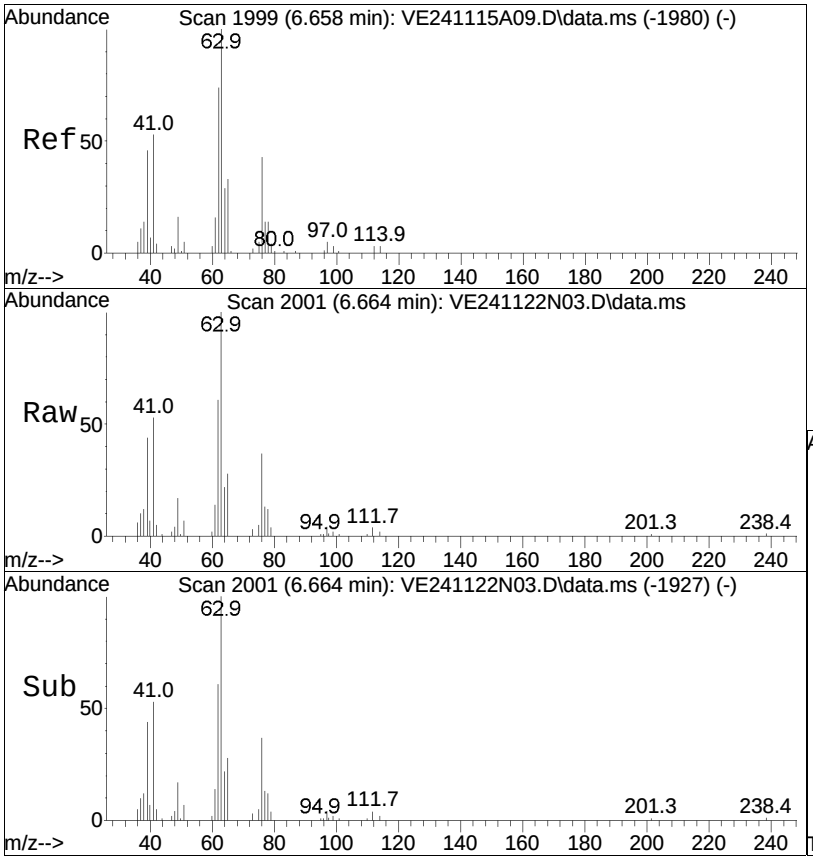


#54
Dibromomethane
Concen: 9.99 ug/L
RT: 6.561 min Scan# 1964
Delta R.T. 0.006 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 93 Resp: 23983

Ion	Ratio	Lower	Upper
93	100		
95	83.2	73.2	109.8
174	92.4	73.8	110.8

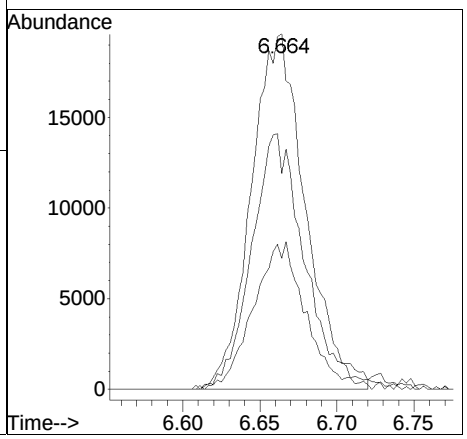


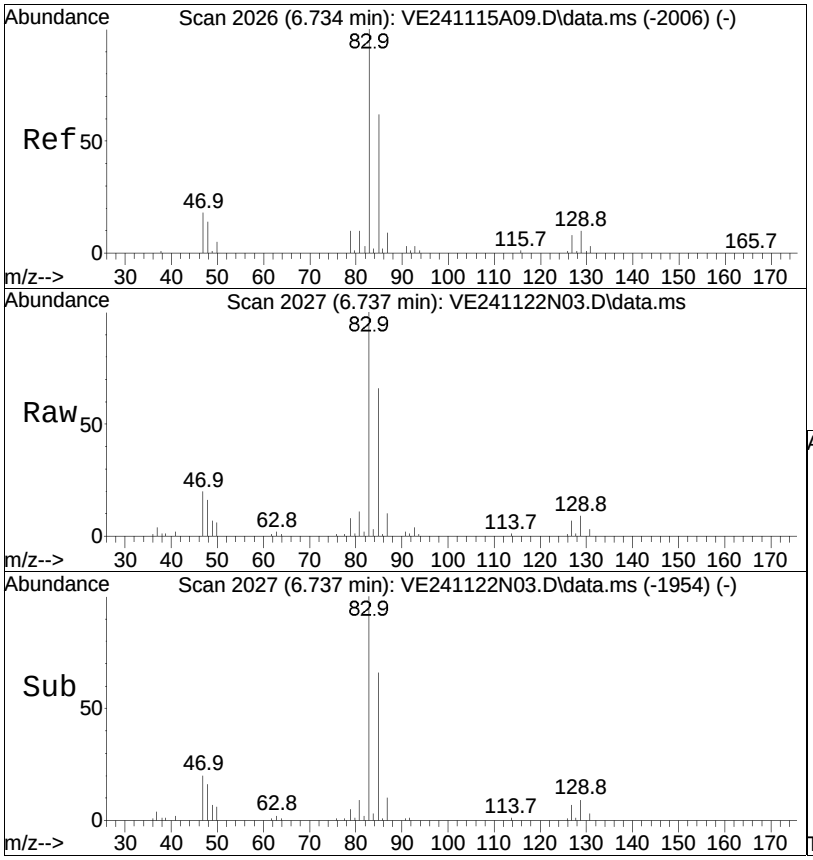


#55
1,2-Dichloropropane
Concen: 10.72 ug/L
RT: 6.664 min Scan# 2001
Delta R.T. 0.006 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 63 Resp: 48243

Ion	Ratio	Lower	Upper
63	100		
62	70.3	58.4	87.6
76	40.0	28.7	43.1

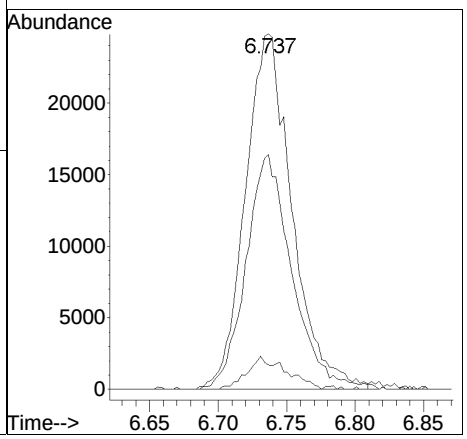


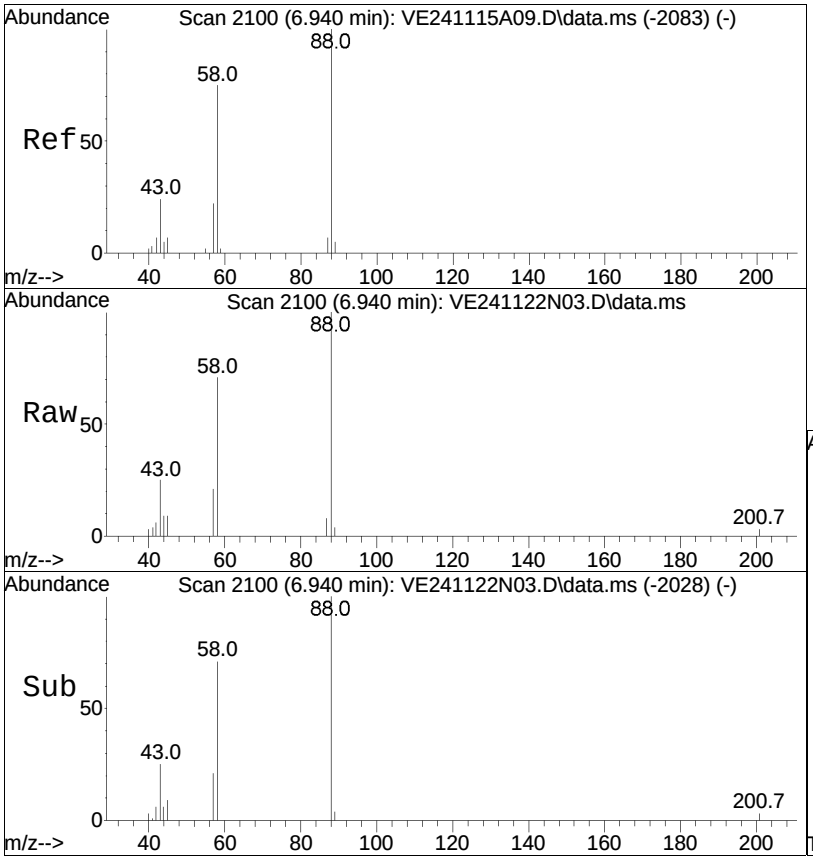


#58
Bromodichloromethane
Concen: 10.09 ug/L
RT: 6.737 min Scan# 2027
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 83 Resp: 58907

Ion	Ratio	Lower	Upper
83	100		
85	64.8	46.6	69.8
127	4.6	6.2	9.4#

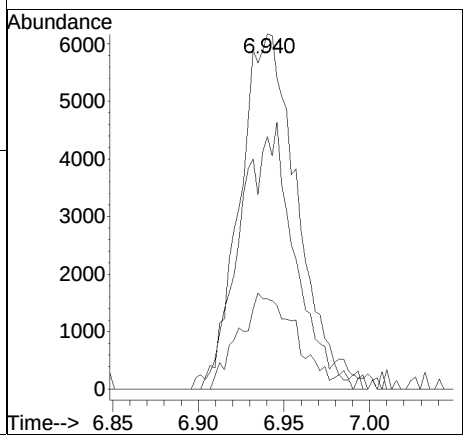


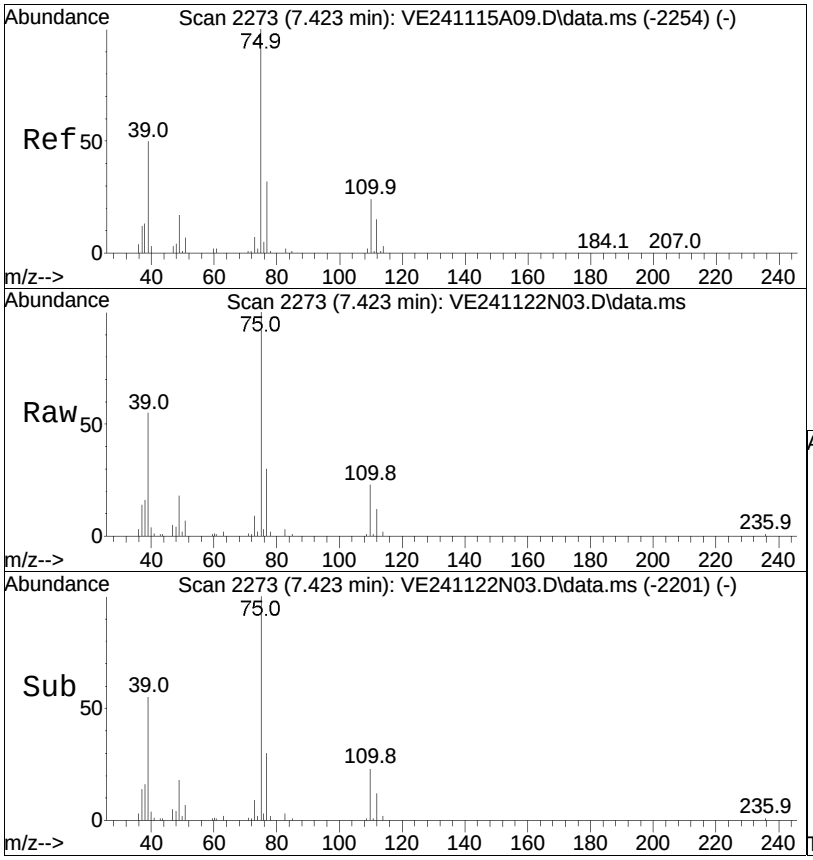


#61
1,4-Dioxane
Concen: 489.90 ug/L
RT: 6.940 min Scan# 2100
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 88 Resp: 14402

Ion	Ratio	Lower	Upper
88	100		
58	28.7	62.8	94.2#
43	26.9	36.6	55.0#

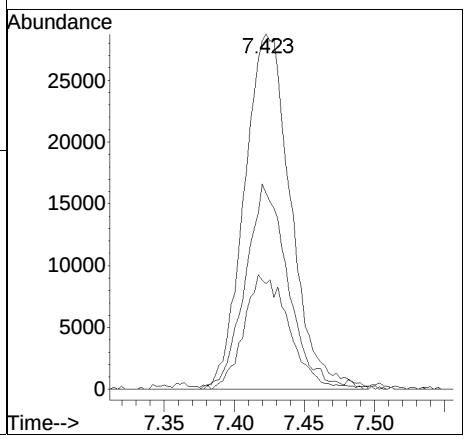


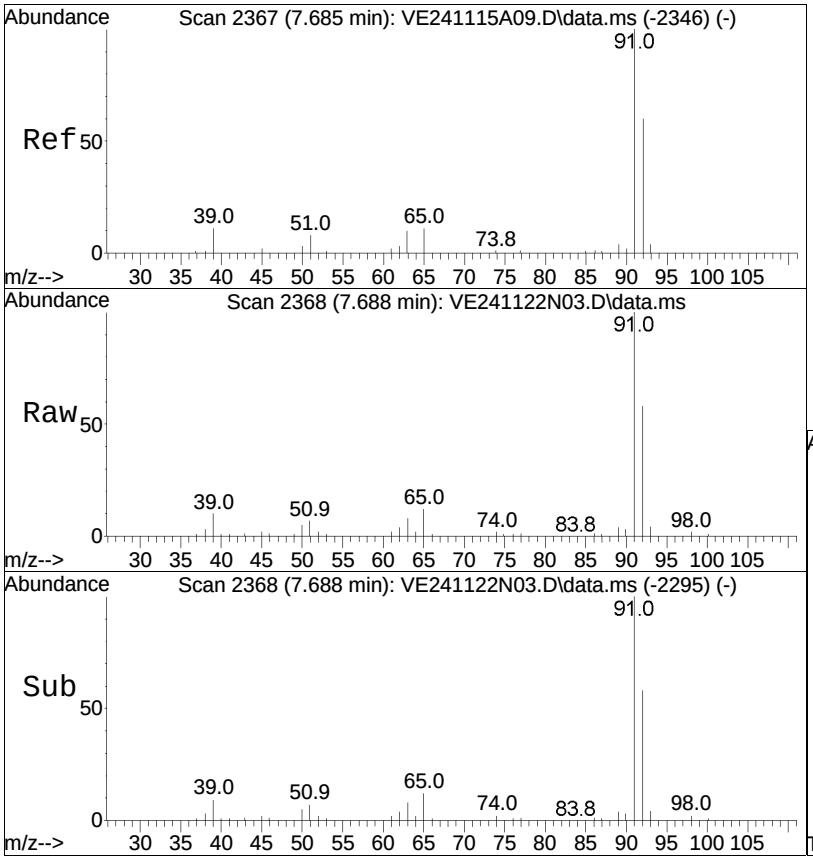


#62
cis-1,3-Dichloropropene
Concen: 9.84 ug/L
RT: 7.423 min Scan# 2273
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 75 Resp: 66332

Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.1	37.7
39	51.4	50.7	76.1

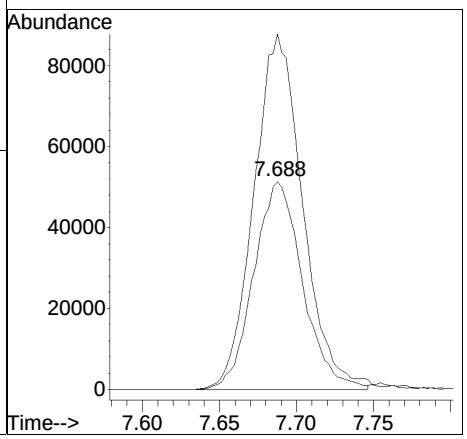


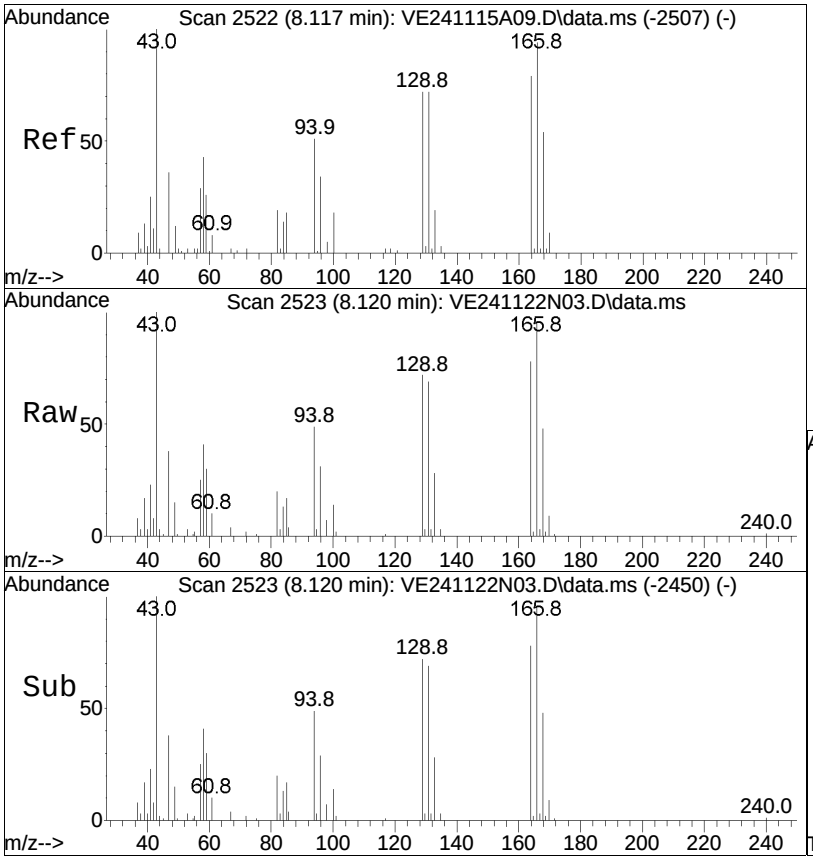


#65
Toluene
Concen: 10.07 ug/L
RT: 7.688 min Scan# 2368
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 92 Resp: 112935

Ion	Ratio	Lower	Upper
92	100		
91	171.2	129.1	193.7

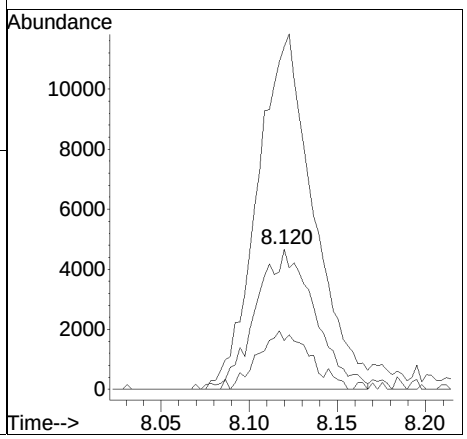


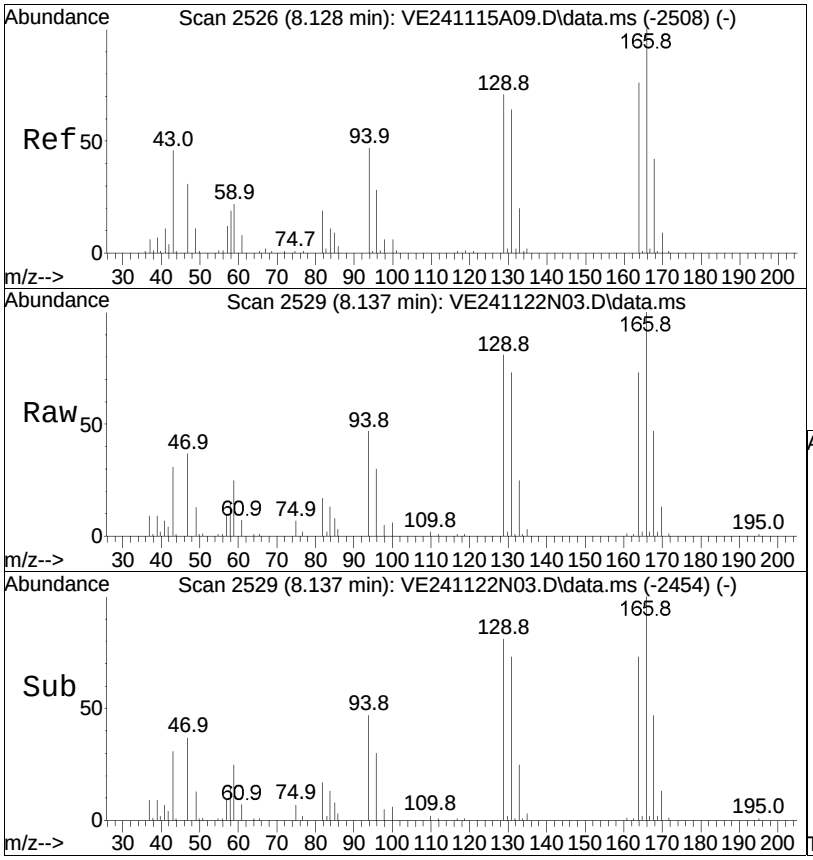


#66
4-Methyl-2-pentanone
Concen: 9.24 ug/L
RT: 8.120 min Scan# 2523
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 58 Resp: 10891

Ion	Ratio	Lower	Upper
58	100		
100	34.4	27.9	41.9
43	240.8	225.7	338.5

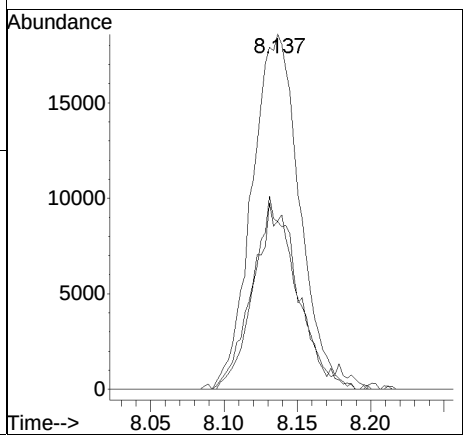


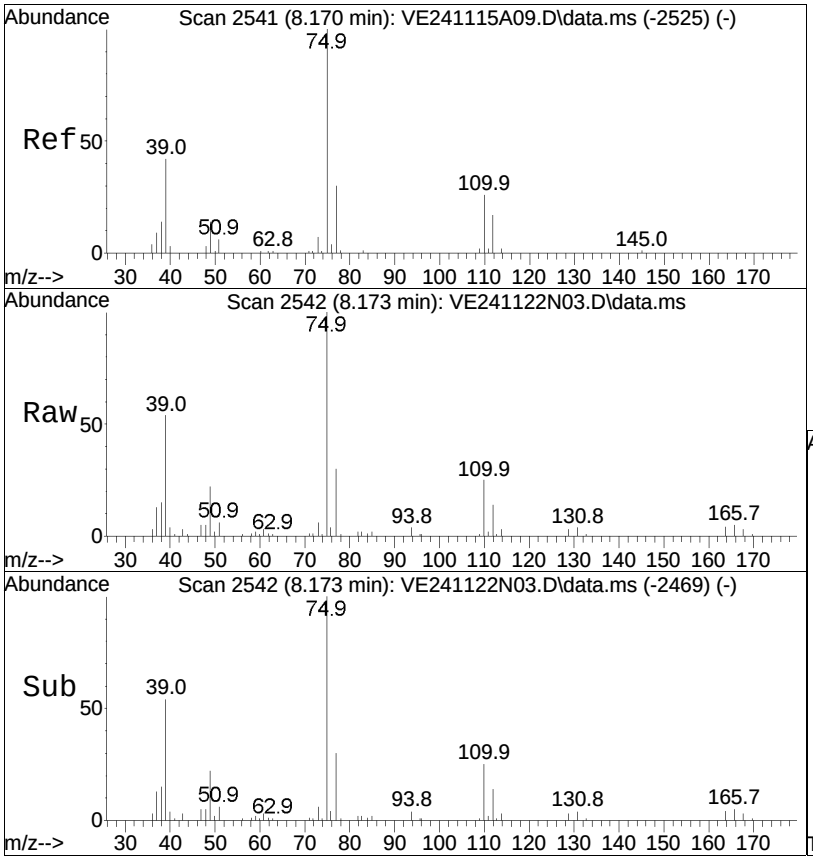


#67
Tetrachloroethene
Concen: 9.40 ug/L
RT: 8.137 min Scan# 2529
Delta R.T. 0.008 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:166 Resp: 42390

Ion	Ratio	Lower	Upper
166	100		
168	49.7	25.8	65.8
94	49.6	24.3	64.3

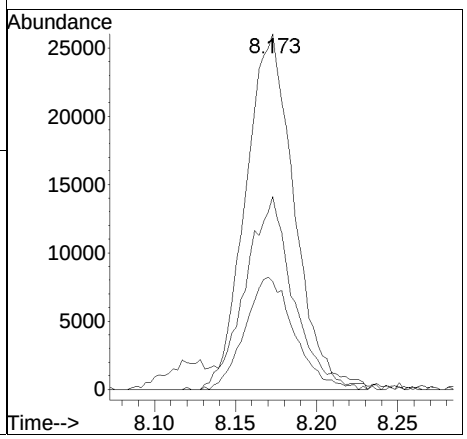


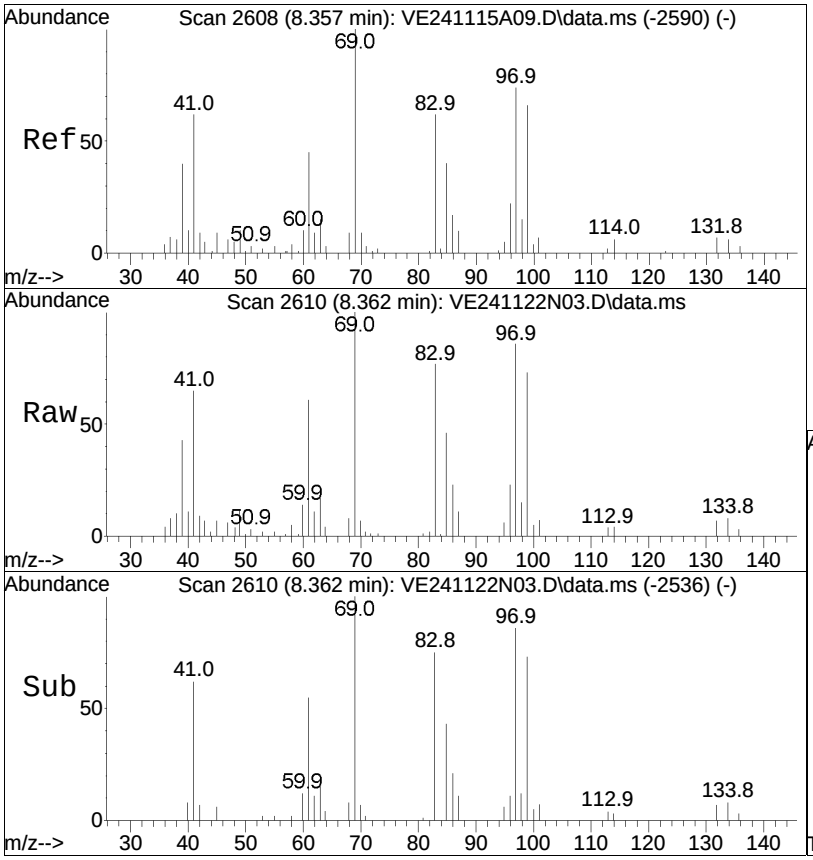


#69
trans-1,3-Dichloropropene
Concen: 9.79 ug/L
RT: 8.173 min Scan# 2542
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 75 Resp: 54360

Ion	Ratio	Lower	Upper
75	100		
77	32.1	10.2	50.2
39	49.4	45.7	85.7

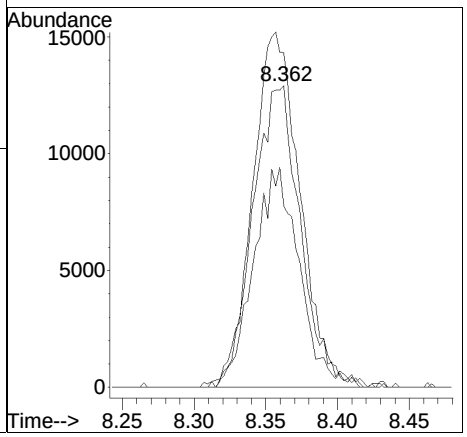


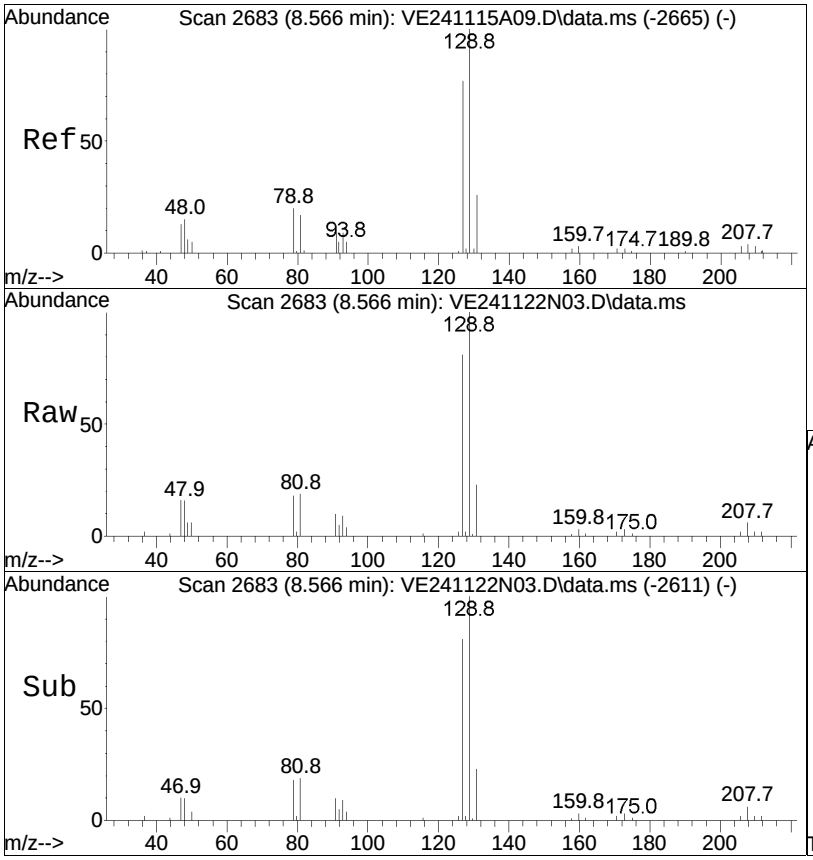


#72
1,1,2-Trichloroethane
Concen: 10.11 ug/L
RT: 8.362 min Scan# 2610
Delta R.T. 0.006 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 83 Resp: 29796

Ion	Ratio	Lower	Upper
83	100		
97	116.7	99.2	139.2
85	70.0	48.7	88.7

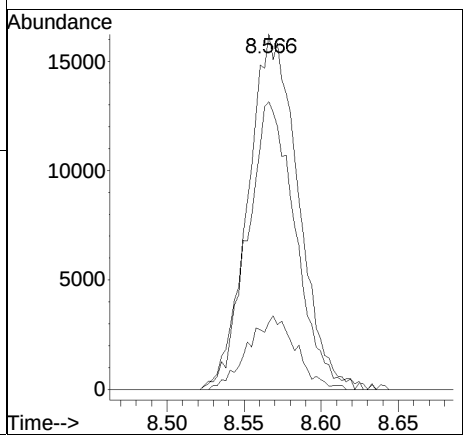


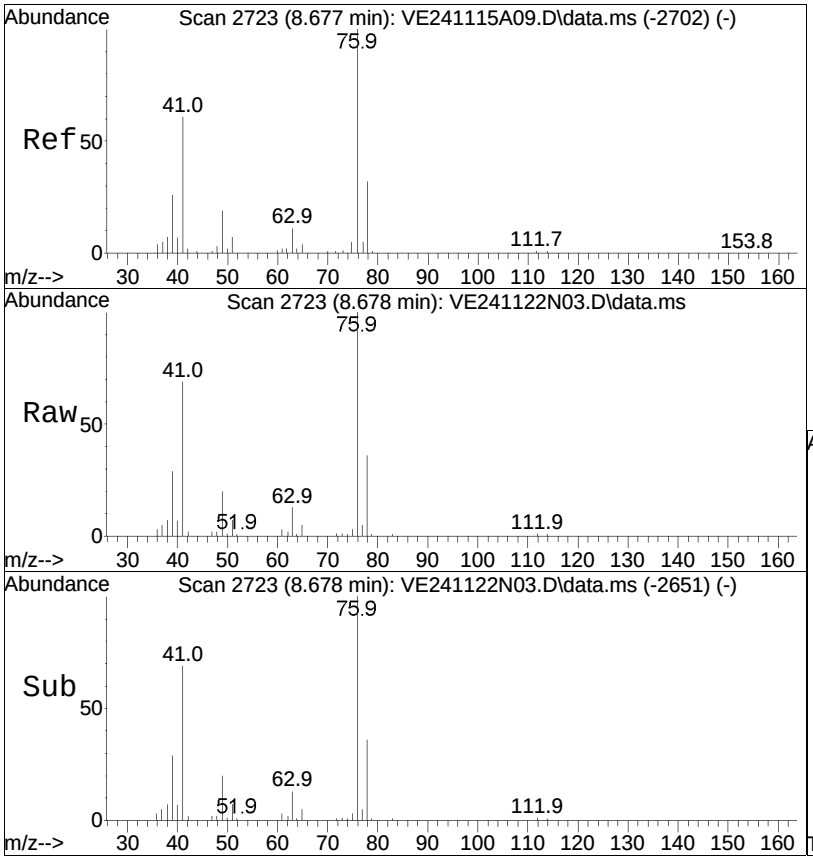


#73
Chlorodibromomethane
Concen: 9.31 ug/L
RT: 8.566 min Scan# 2683
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:129 Resp: 36817

Ion	Ratio	Lower	Upper
129	100		
81	19.8	0.0	39.5
127	77.9	58.6	98.6

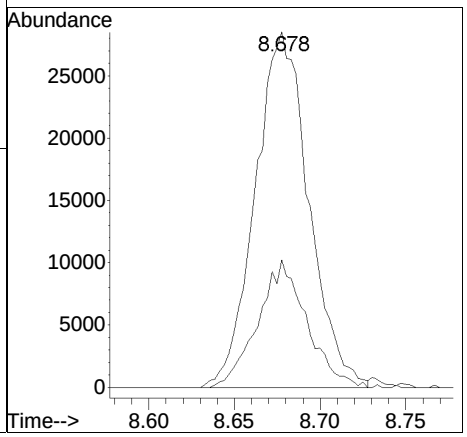


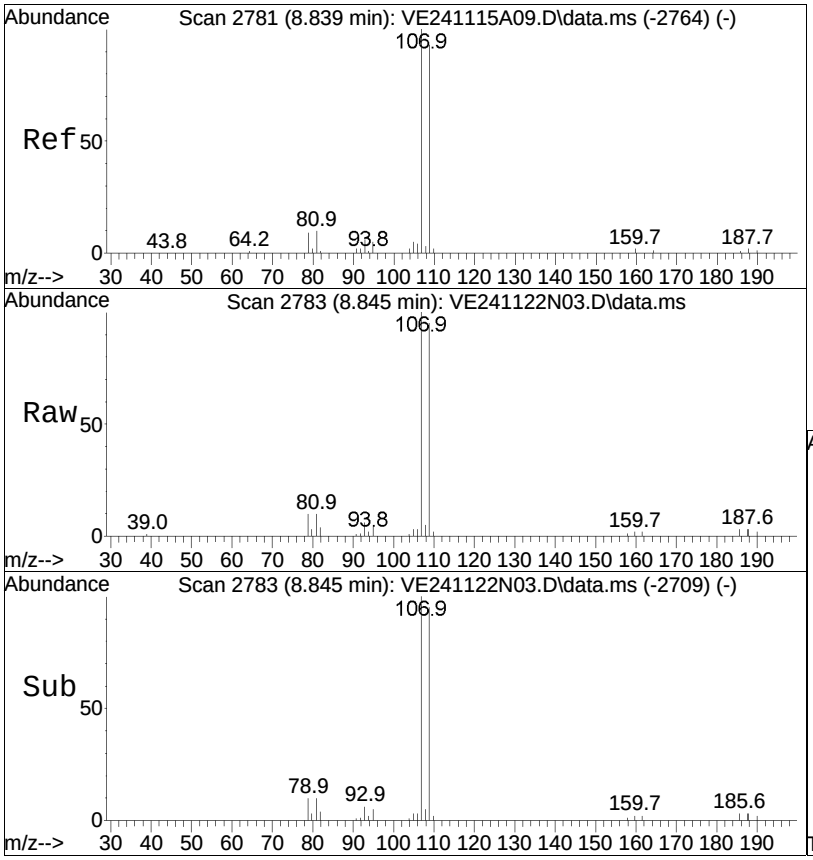


#74
1,3-Dichloropropane
Concen: 10.19 ug/L
RT: 8.678 min Scan# 2723
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 76 Resp: 62010

Ion	Ratio	Lower	Upper
76	100		
78	32.5	27.0	40.4

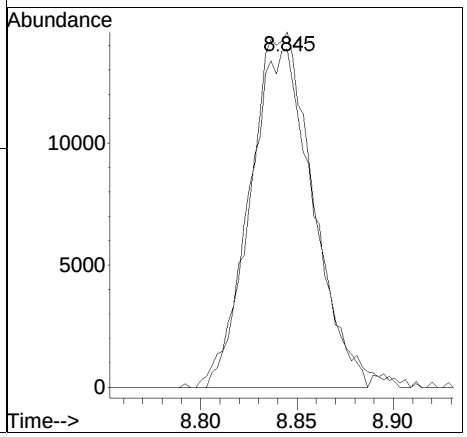


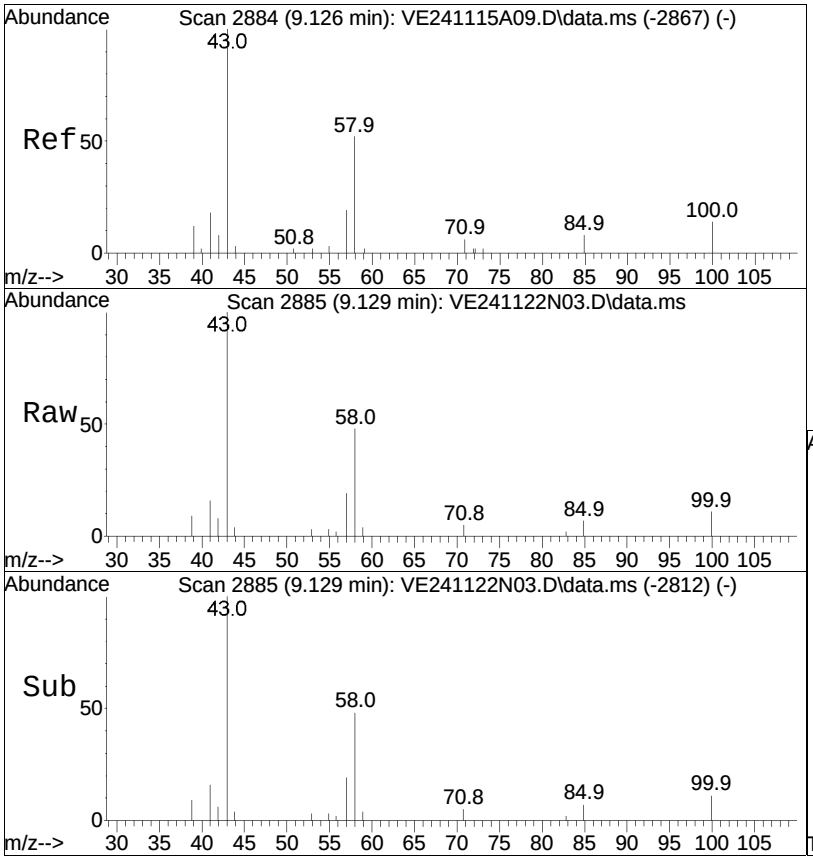


#75
1,2-Dibromoethane
Concen: 9.52 ug/L
RT: 8.845 min Scan# 2783
Delta R.T. 0.006 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:107 Resp: 33233

Ion	Ratio	Lower	Upper
107	100		
109	96.0	66.3	99.5

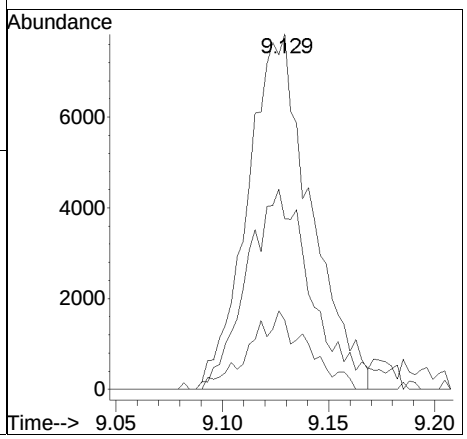


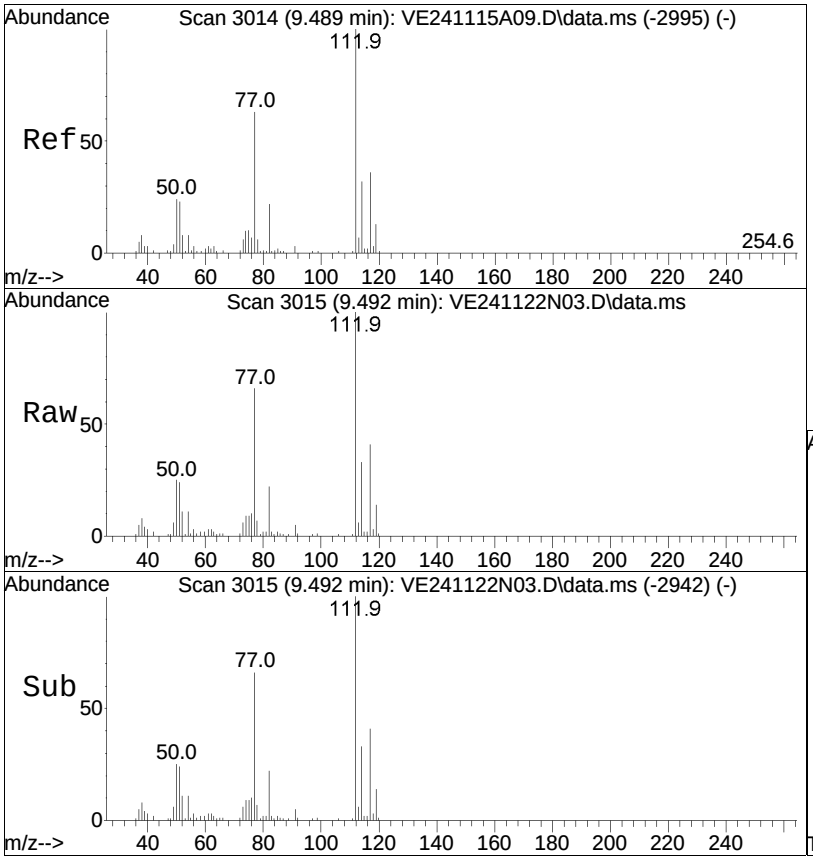


#77
2-Hexanone
Concen: 8.58 ug/L
RT: 9.129 min Scan# 2885
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 43 Resp: 16237

Ion	Ratio	Lower	Upper
43	100		
58	58.5	42.5	63.7
57	20.1	13.9	20.9

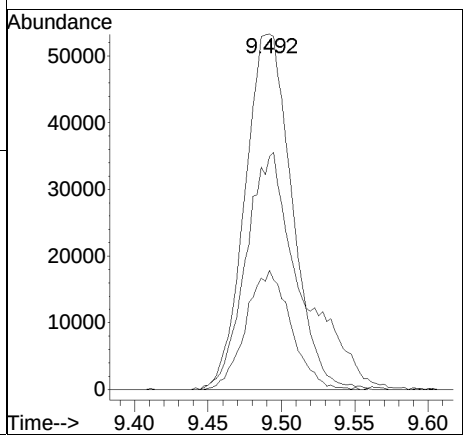


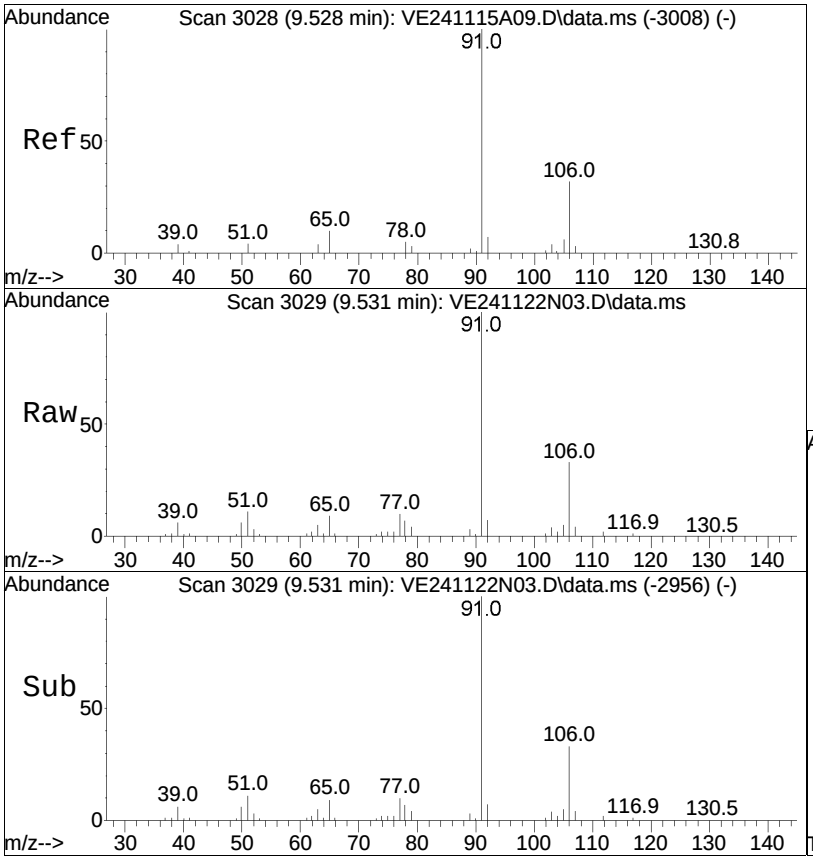


#78
Chlorobenzene
Concen: 9.94 ug/L
RT: 9.492 min Scan# 3015
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:112 Resp: 118416

Ion	Ratio	Lower	Upper
112	100		
77	79.8	46.9	70.3#
114	32.2	23.8	35.6

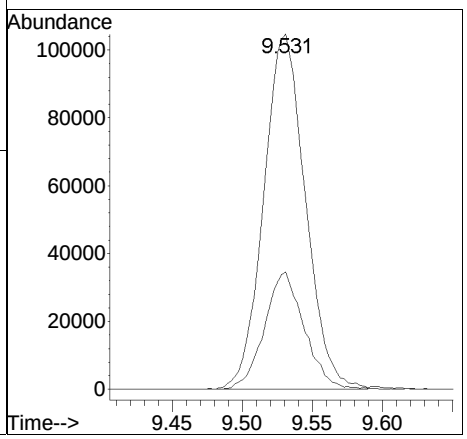


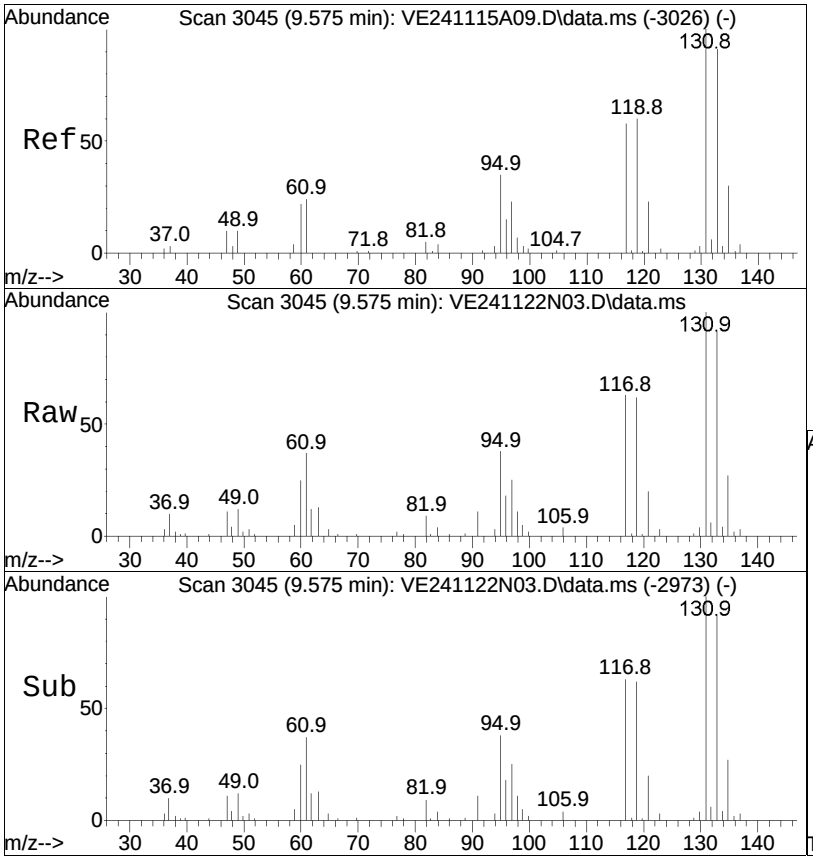


#79
Ethylbenzene
Concen: 10.13 ug/L
RT: 9.531 min Scan# 3029
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 91 Resp: 217050

Ion	Ratio	Lower	Upper
91	100		
106	31.6	25.3	37.9

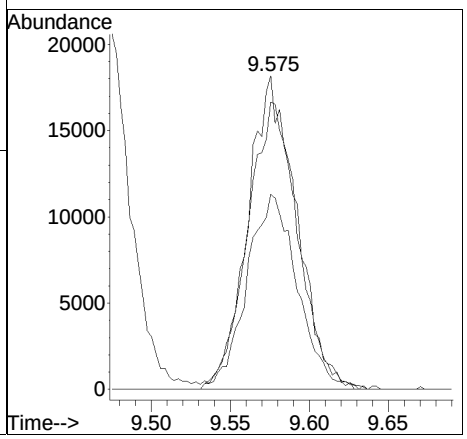


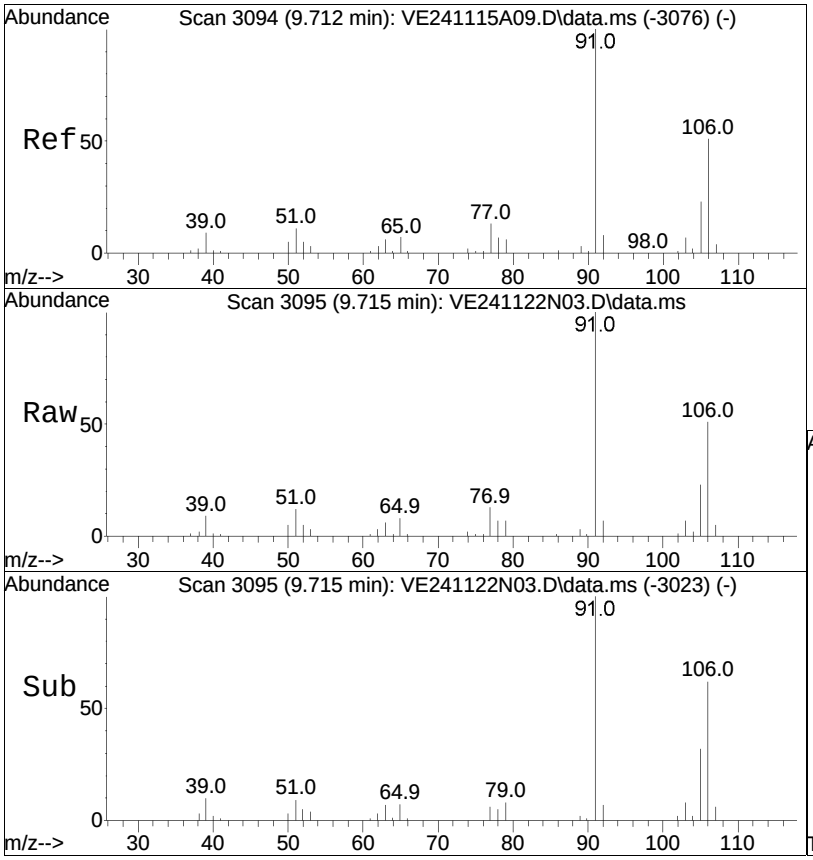


#80
1,1,1,2-Tetrachloroethane
Concen: 9.87 ug/L
RT: 9.575 min Scan# 3045
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:131 Resp: 39035

Ion	Ratio	Lower	Upper
131	100		
133	94.7	72.9	112.9
119	63.9	39.6	79.6

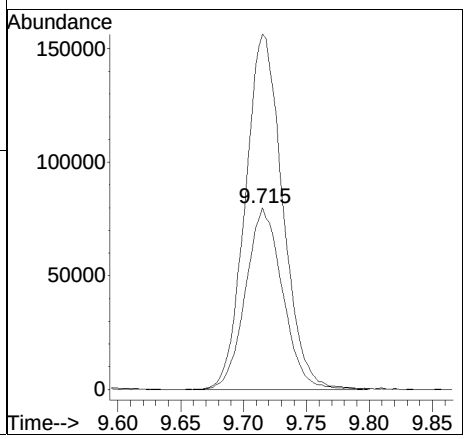


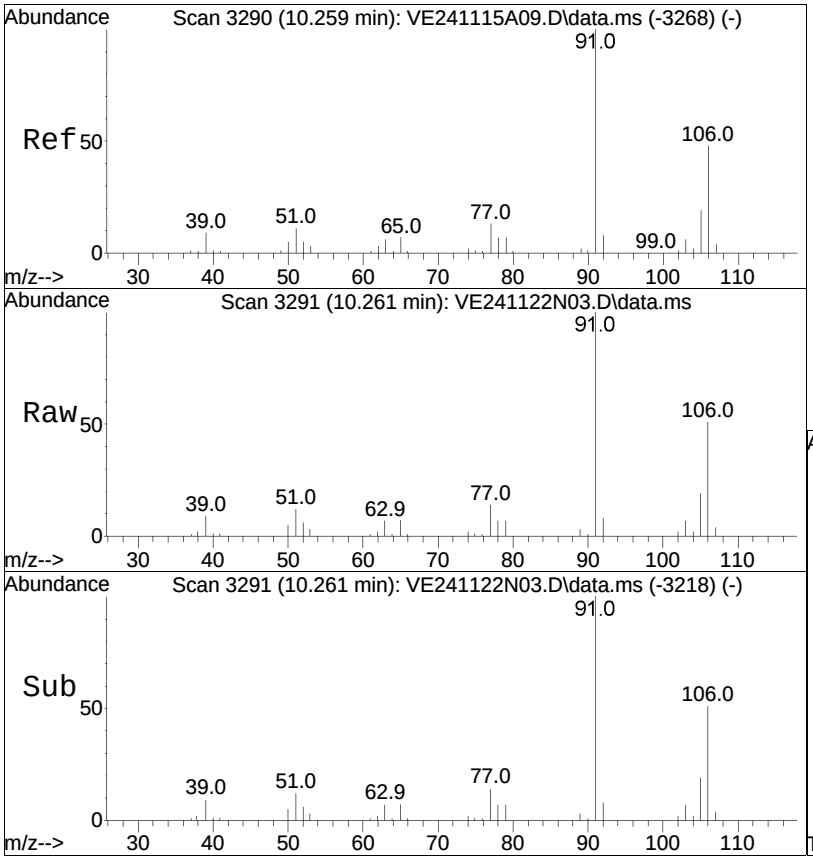


#81
p/m Xylene
Concen: 19.83 ug/L
RT: 9.715 min Scan# 3095
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:106 Resp: 163560

Ion	Ratio	Lower	Upper
106	100		
91	197.6	163.3	244.9

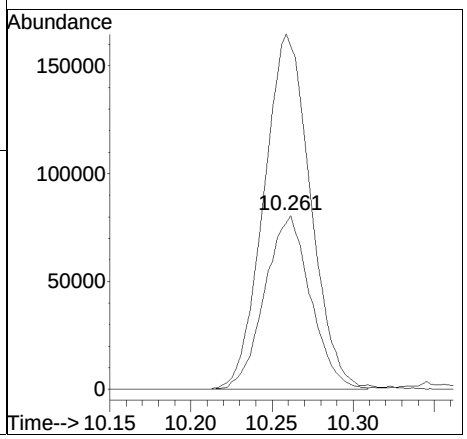


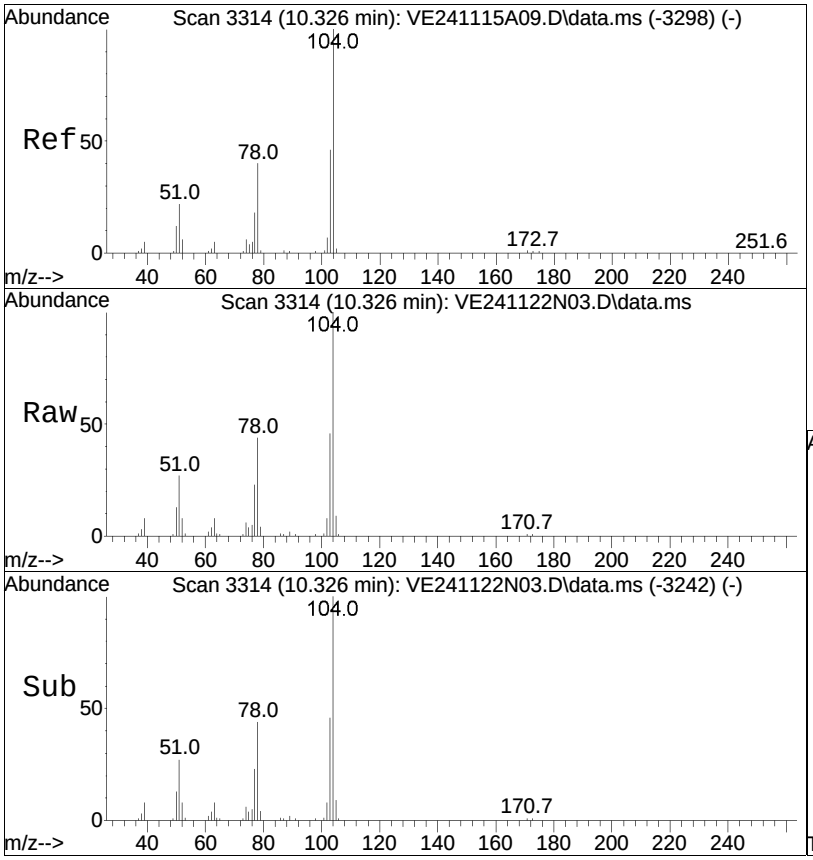


#82
o Xylene
Concen: 19.74 ug/L
RT: 10.261 min Scan# 3291
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:106 Resp: 158708

Ion	Ratio	Lower	Upper
106	100		
91	208.5	181.0	271.6

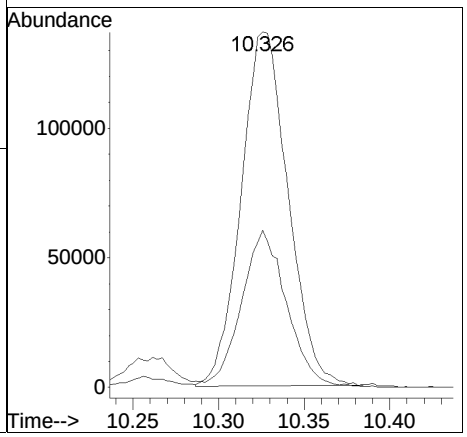


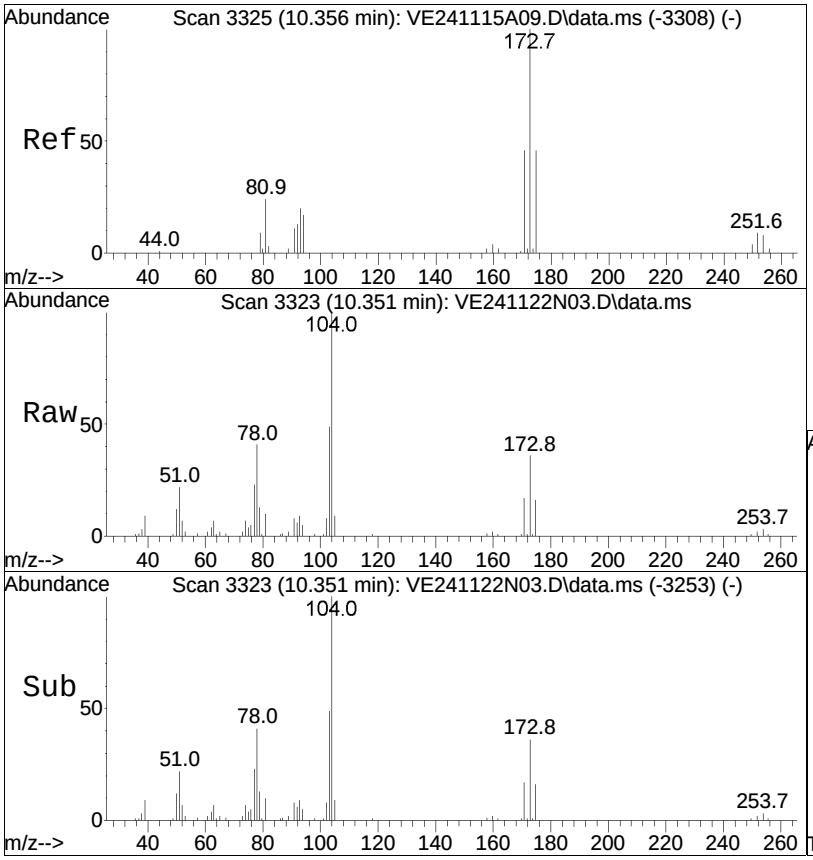


#83
Styrene
Concen: 19.22 ug/L
RT: 10.326 min Scan# 3314
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:104 Resp: 260921

Ion	Ratio	Lower	Upper
104	100		
78	42.7	35.9	53.9

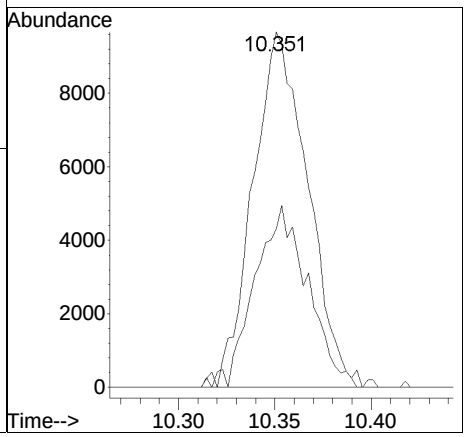


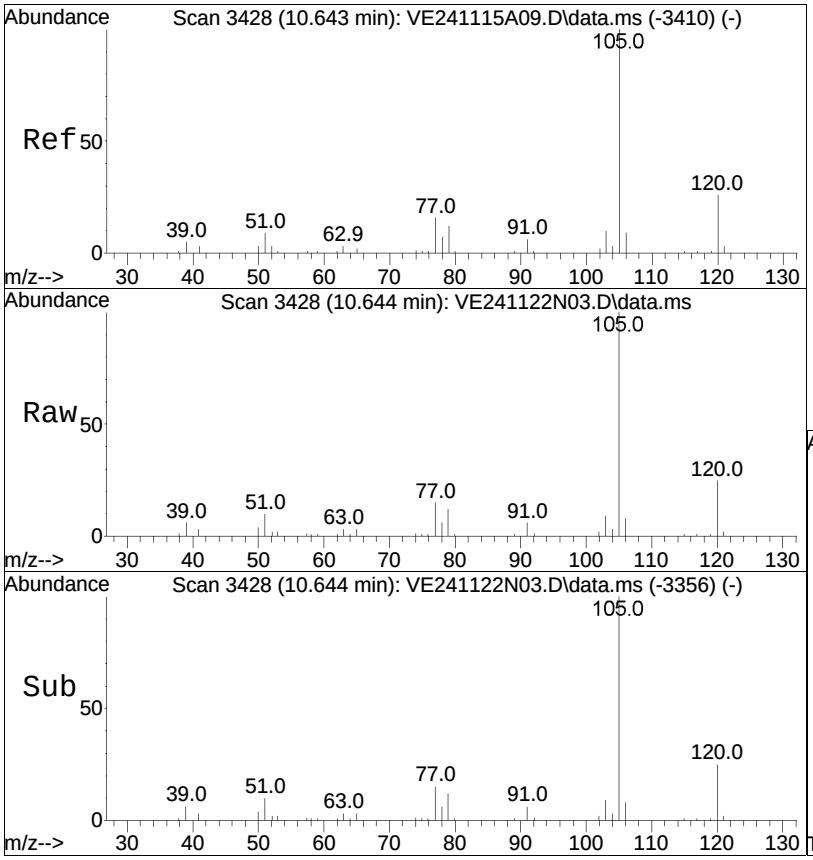


#85
Bromoform
Concen: 8.79 ug/L
RT: 10.351 min Scan# 3323
Delta R.T. -0.005 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:173 Resp: 19147

Ion	Ratio	Lower	Upper
173	100		
175	49.7	32.9	72.9

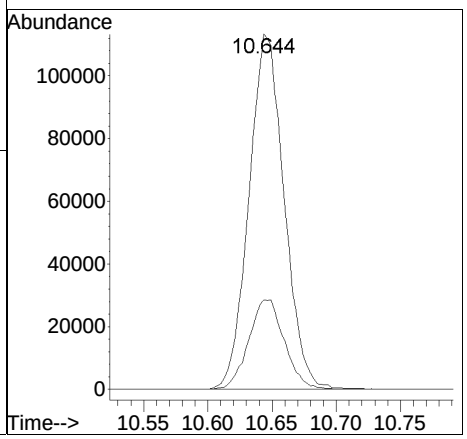


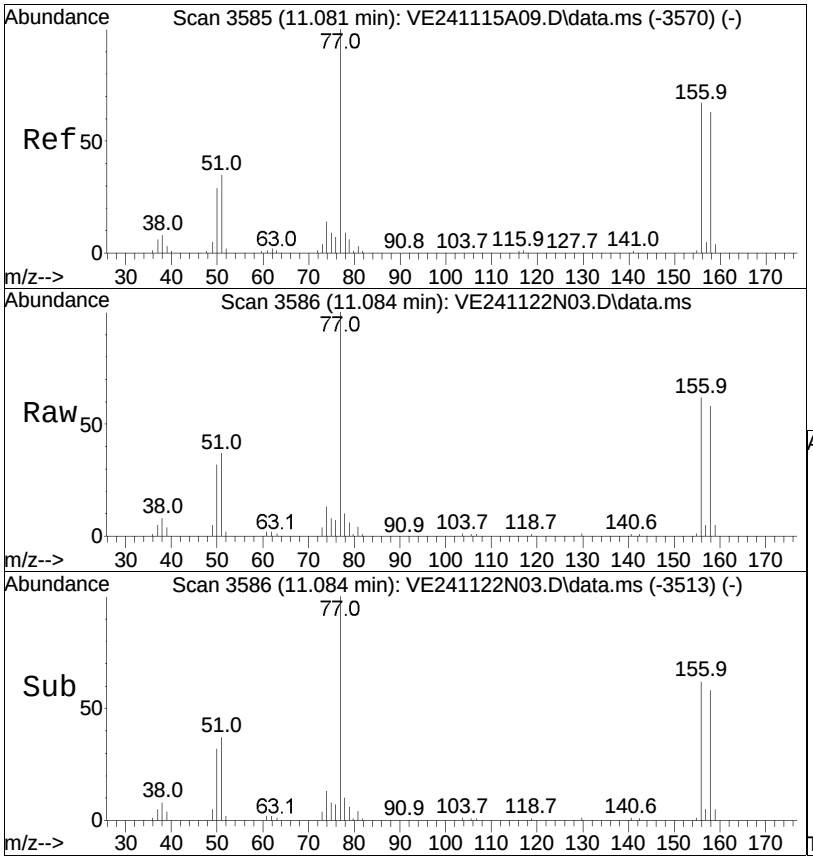


#87
Isopropylbenzene
Concen: 9.94 ug/L
RT: 10.644 min Scan# 3428
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:105 Resp: 216354

Ion	Ratio	Lower	Upper
105	100		
120	25.6	4.8	44.8

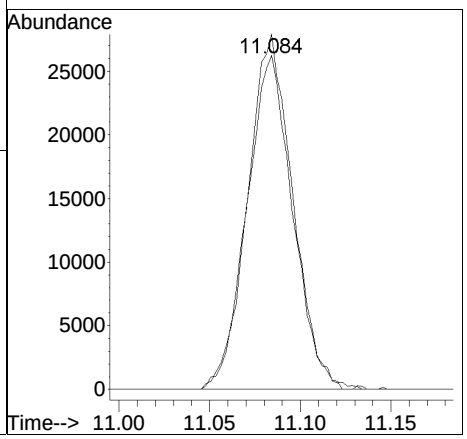


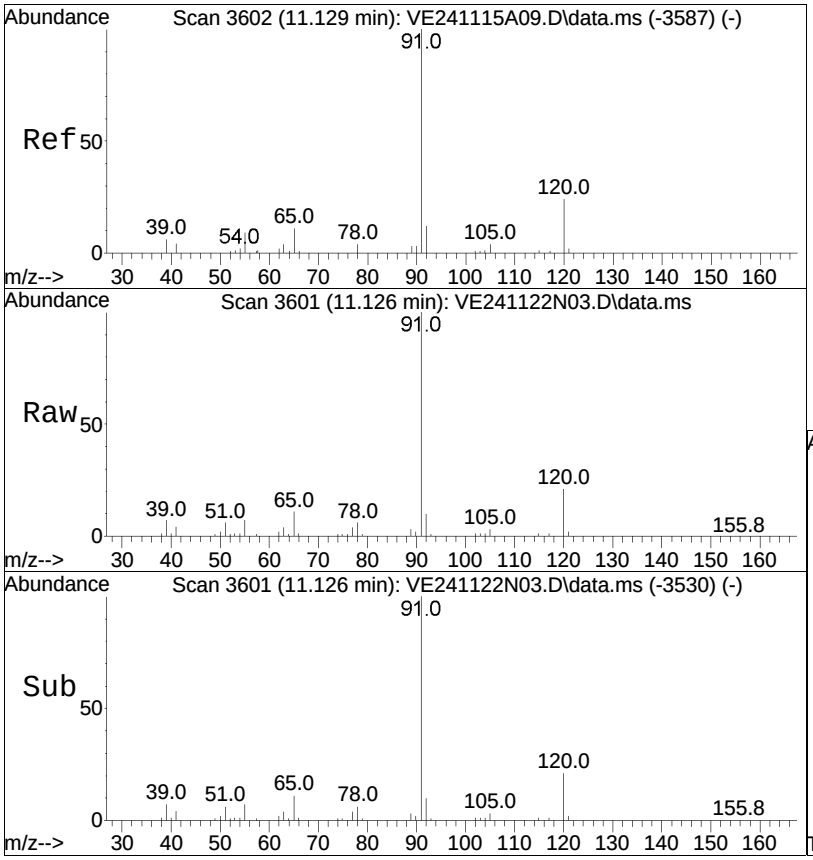


#89
Bromobenzene
Concen: 10.02 ug/L
RT: 11.084 min Scan# 3586
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:156 Resp: 48692

Ion	Ratio	Lower	Upper
156	100		
158	93.7	75.9	113.9

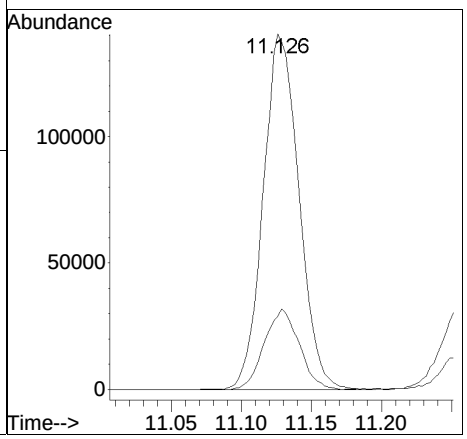


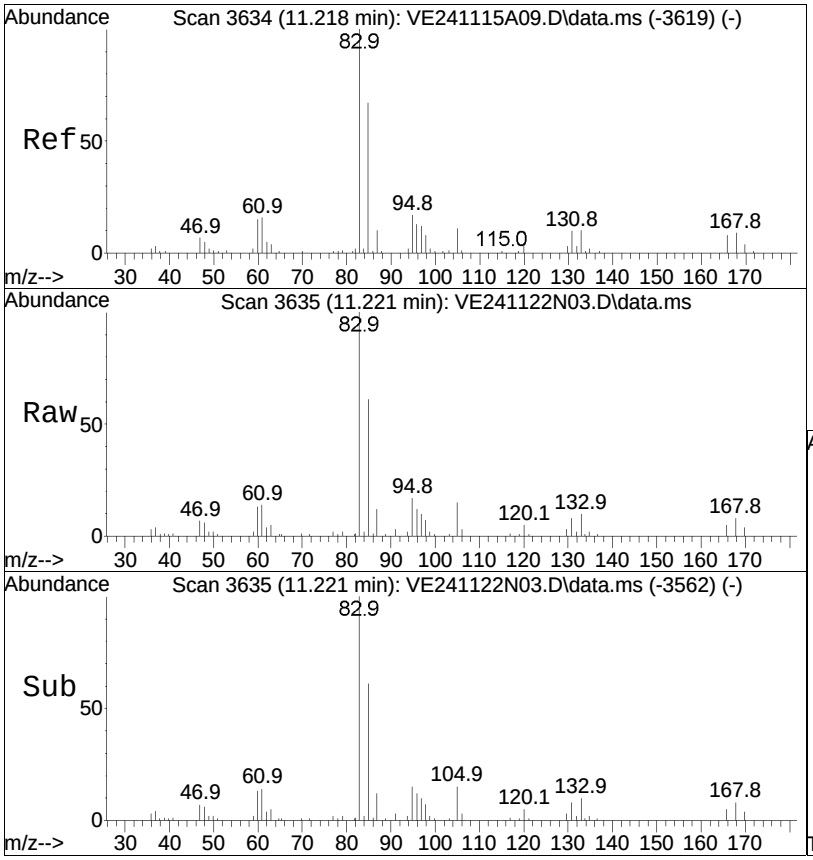


#90
n-Propylbenzene
Concen: 10.10 ug/L
RT: 11.126 min Scan# 3601
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 91 Resp: 249329

Ion	Ratio	Lower	Upper
91	100		
120	22.0	16.7	25.1

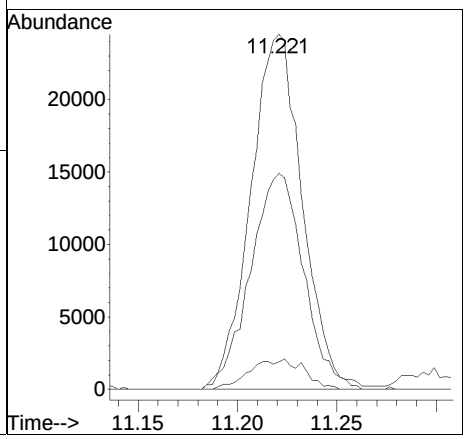


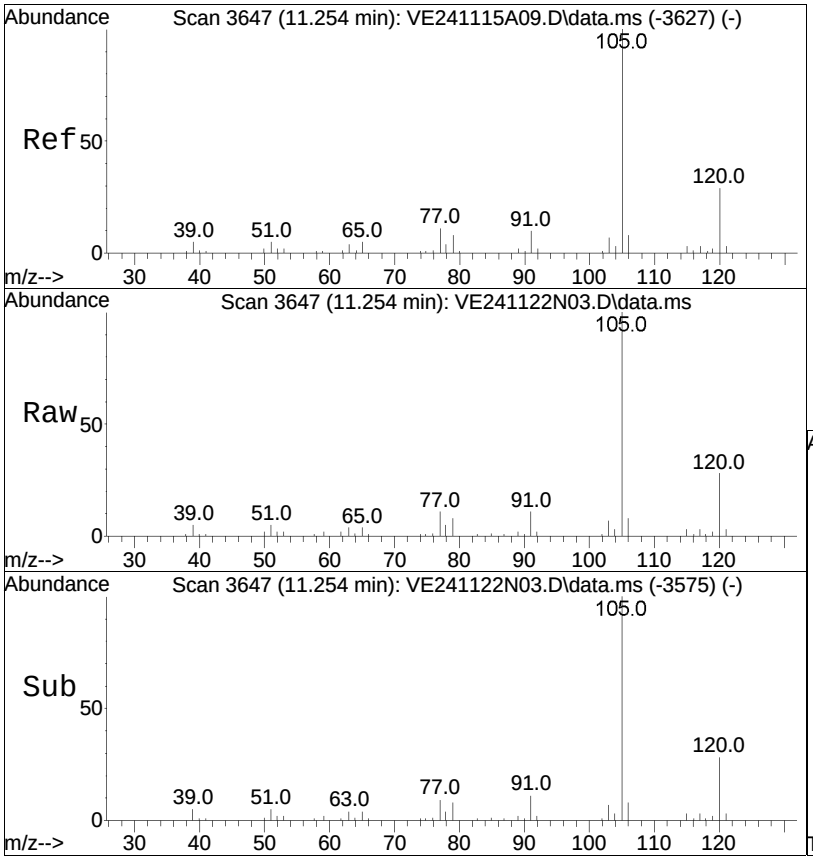


#92
1,1,2,2-Tetrachloroethane
Concen: 10.50 ug/L
RT: 11.221 min Scan# 3635
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 83 Resp: 44124

Ion	Ratio	Lower	Upper
83	100		
131	4.5	0.0	28.6
85	63.4	47.4	87.4

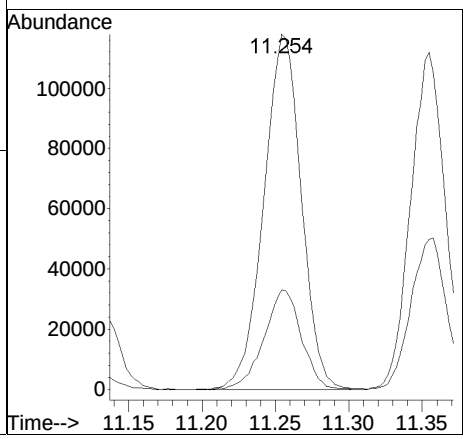


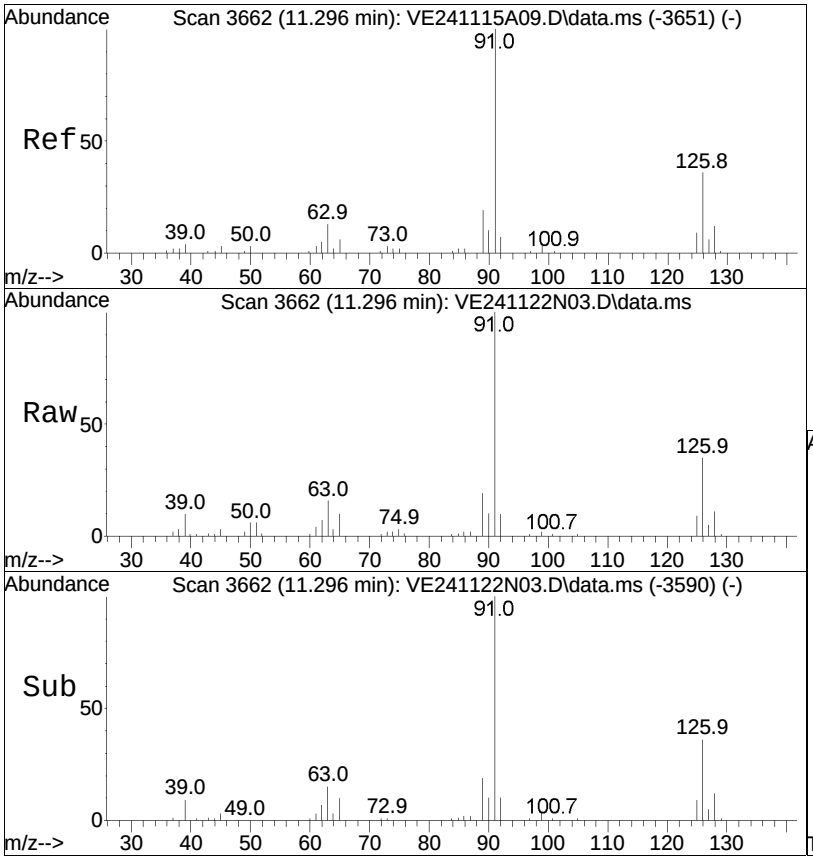


#93
4-Ethyltoluene
Concen: 10.23 ug/L
RT: 11.254 min Scan# 3647
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:105 Resp: 209450

Ion	Ratio	Lower	Upper
105	100		
120	27.9	18.9	39.3

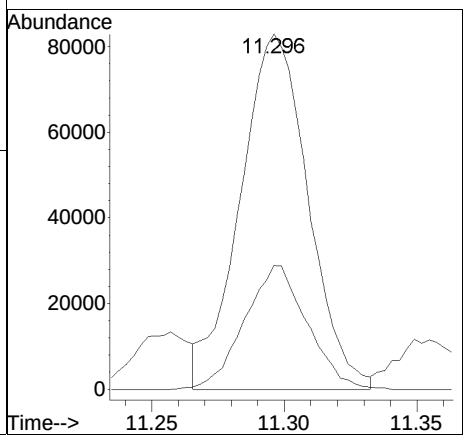


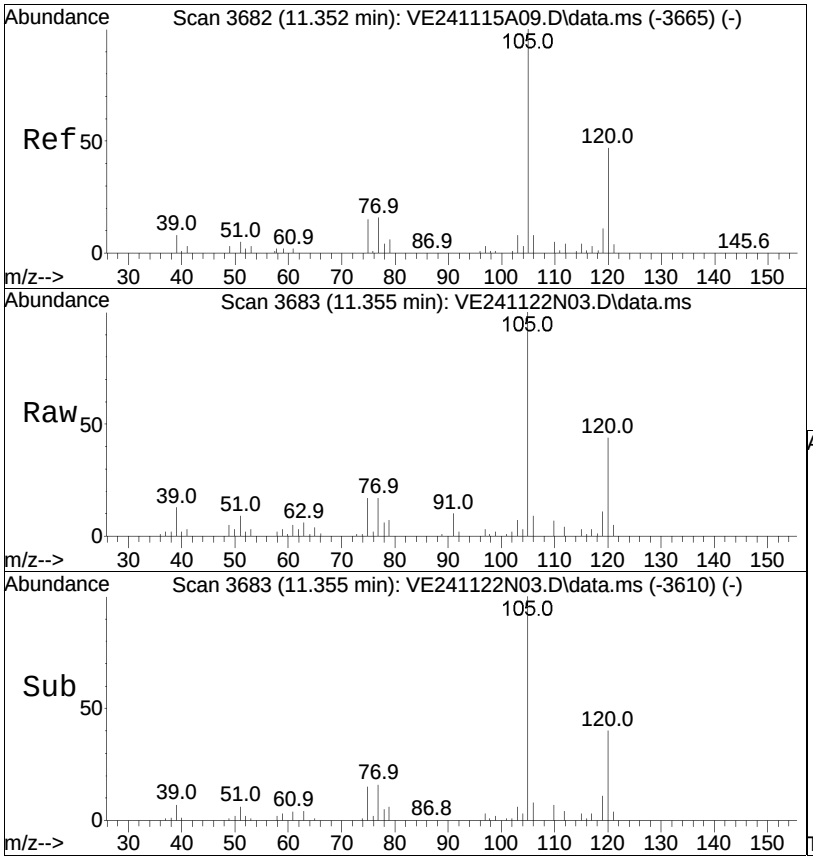


#94
2-Chlorotoluene
Concen: 10.31 ug/L M1
RT: 11.296 min Scan# 3662
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 91 Resp: 147776

Ion	Ratio	Lower	Upper
91	100		
126	32.3	24.4	36.6

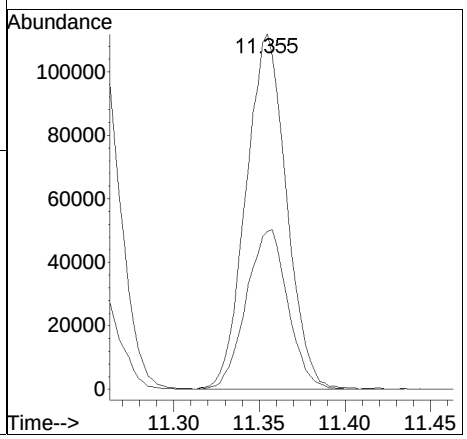


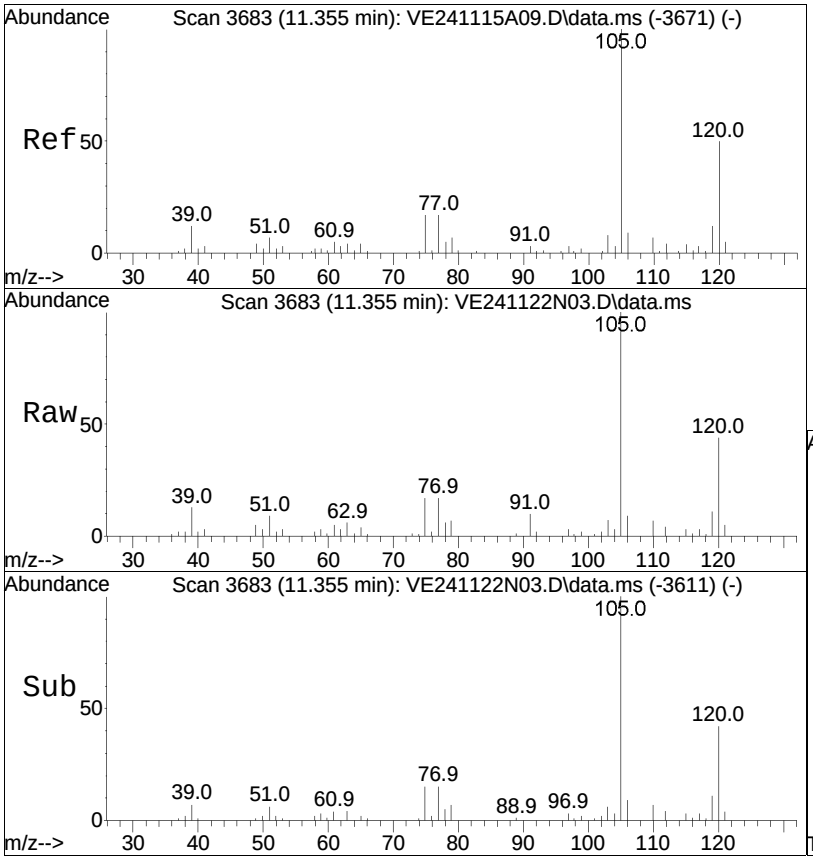


#95
1,3,5-Trimethylbenzene
Concen: 10.19 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:105 Resp: 184695

Ion	Ratio	Lower	Upper
105	100		
120	46.0	39.3	58.9

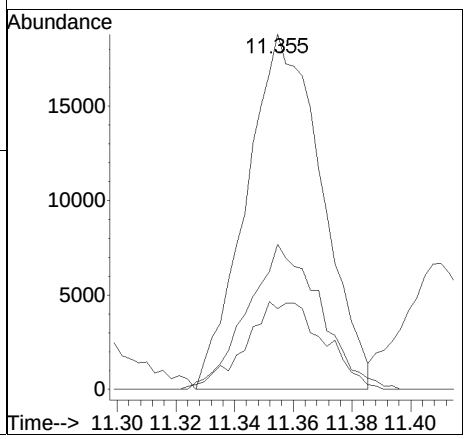


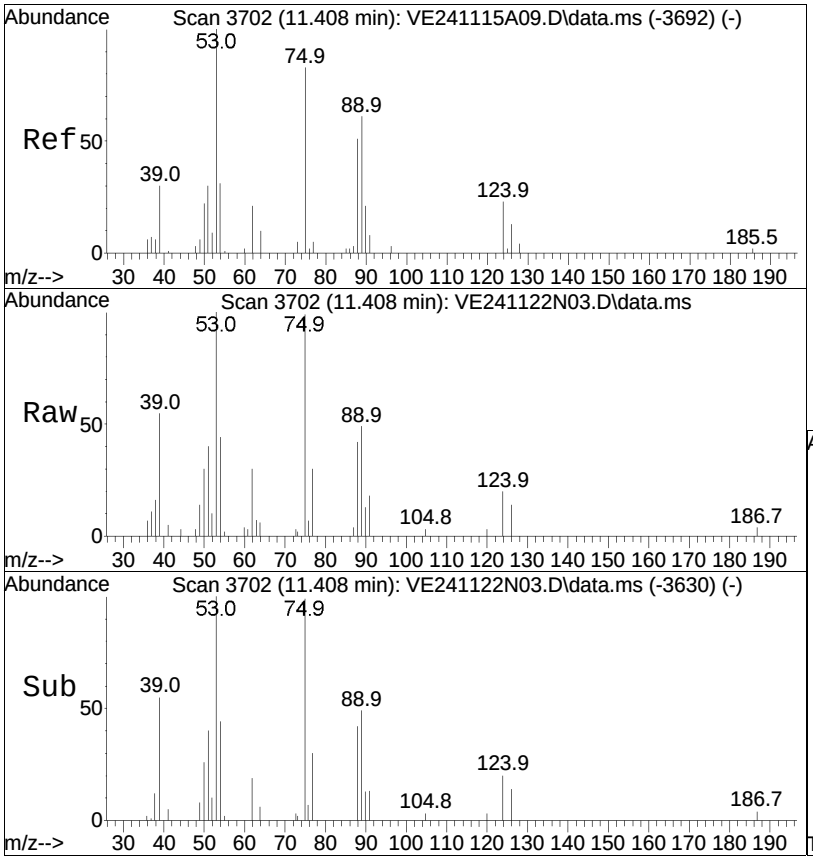


#96
1,2,3-Trichloropropane
Concen: 10.13 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 75 Resp: 33600

Ion	Ratio	Lower	Upper
75	100		
110	39.3	22.4	46.4
112	25.5	12.2	25.2#

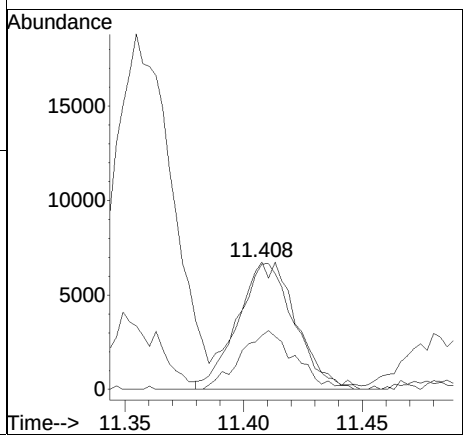


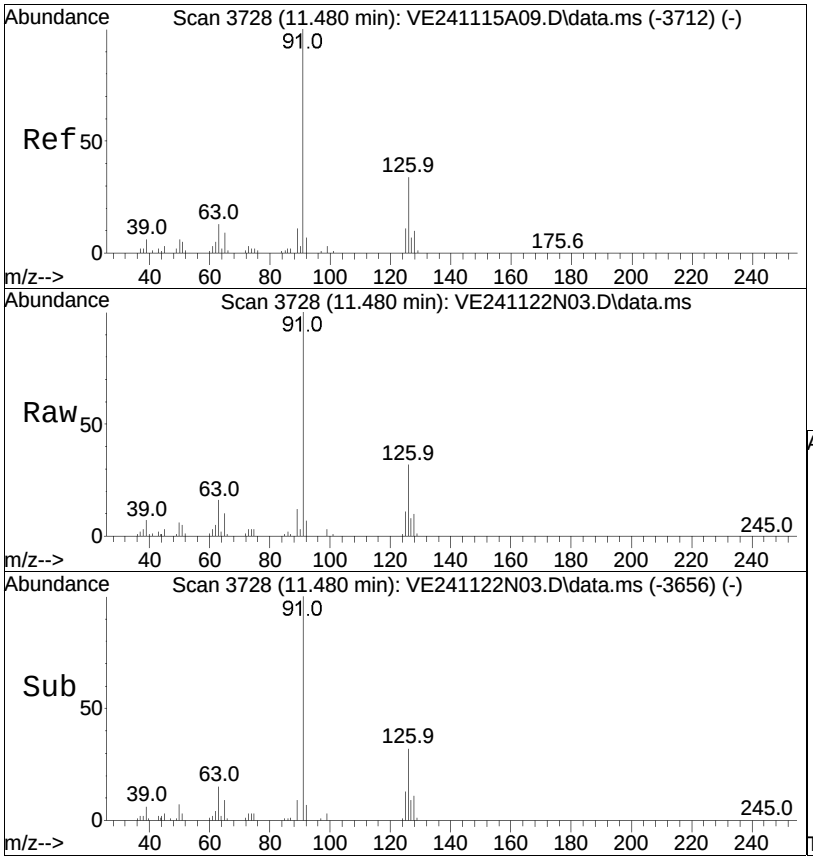


#97
trans-1,4-Dichloro-2-butene
Concen: 9.73 ug/L
RT: 11.408 min Scan# 3702
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 53 Resp: 11685

Ion	Ratio	Lower	Upper
53	100		
88	43.1	29.2	43.8
75	92.5	62.6	94.0

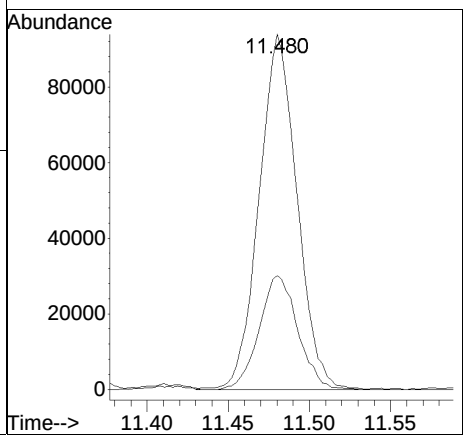


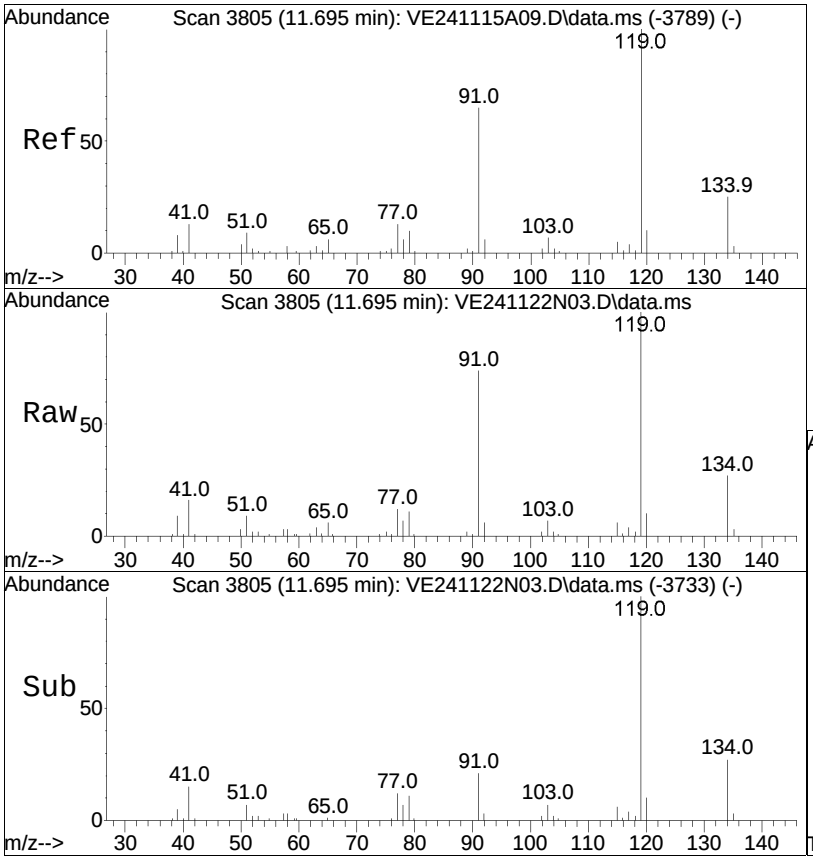


#98
4-Chlorotoluene
Concen: 10.27 ug/L
RT: 11.480 min Scan# 3728
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 91 Resp: 152347

Ion	Ratio	Lower	Upper
91	100		
126	32.5	25.8	38.8

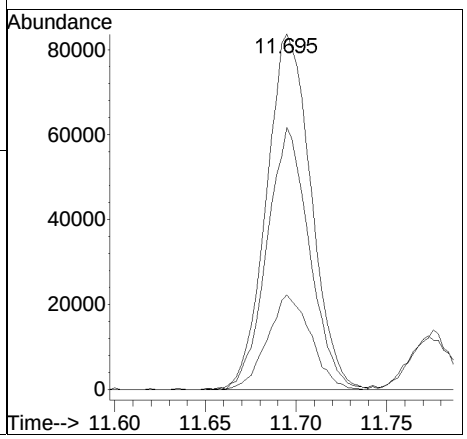


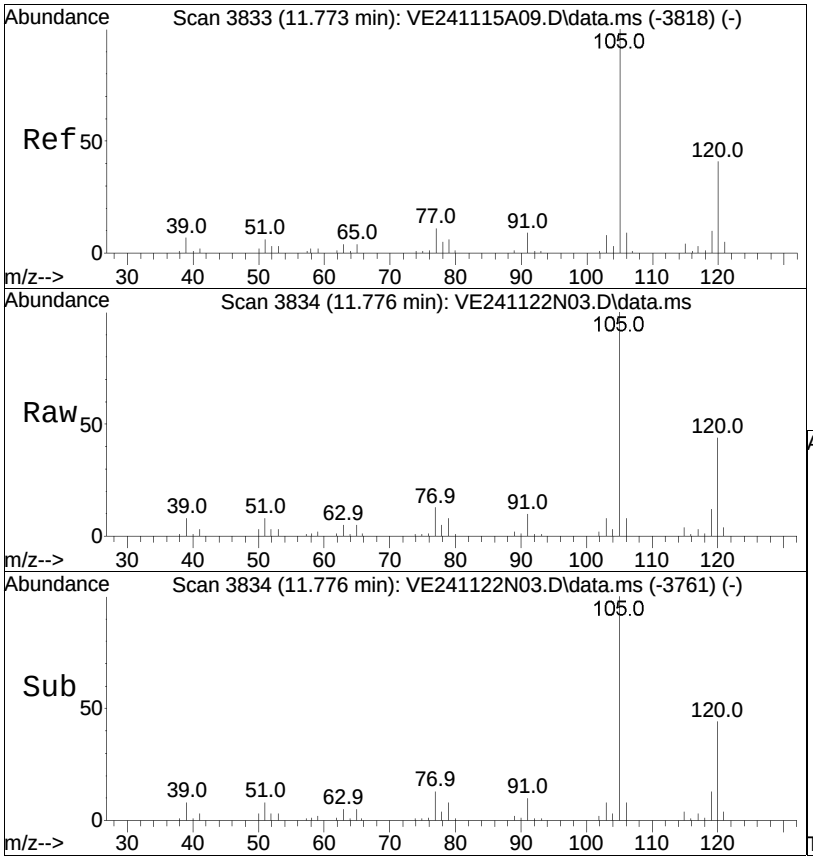


#99
tert-Butylbenzene
Concen: 9.59 ug/L
RT: 11.695 min Scan# 3805
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:119 Resp: 143455

Ion	Ratio	Lower	Upper
119	100		
91	70.2	56.6	84.8
134	25.7	17.7	26.5

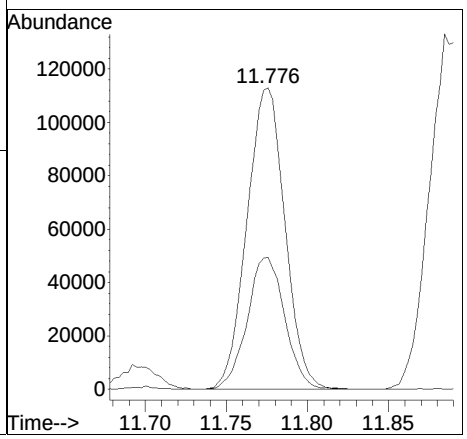


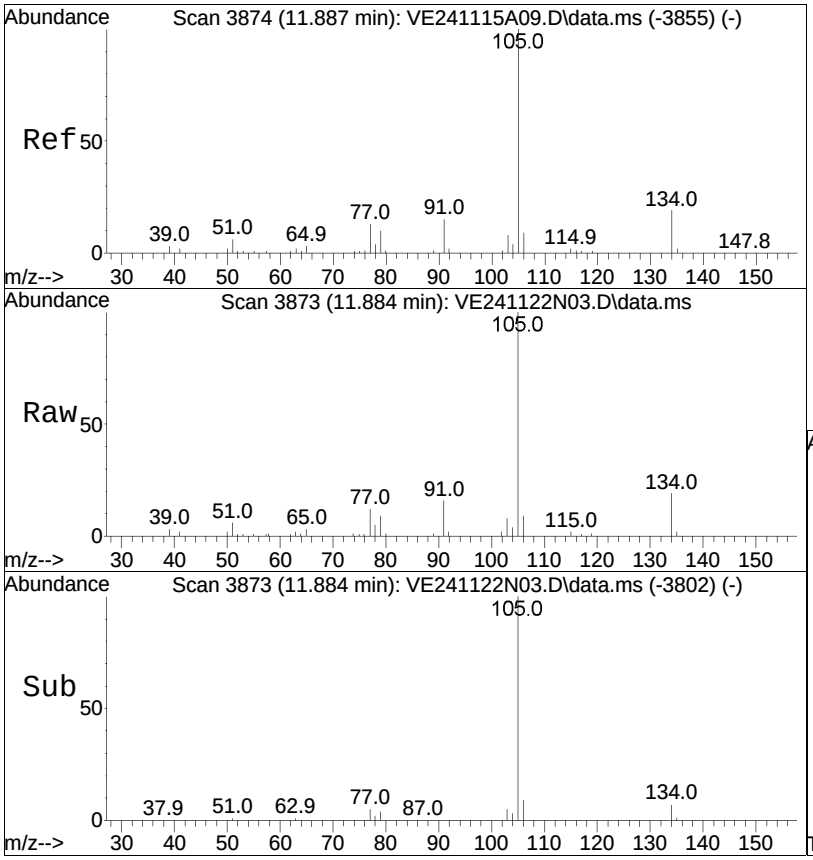


#102
1,2,4-Trimethylbenzene
Concen: 10.13 ug/L
RT: 11.776 min Scan# 3834
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:105 Resp: 184208

Ion	Ratio	Lower	Upper
105	100		
120	43.4	33.6	50.4

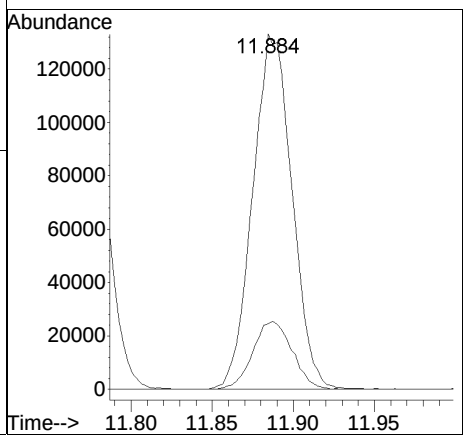


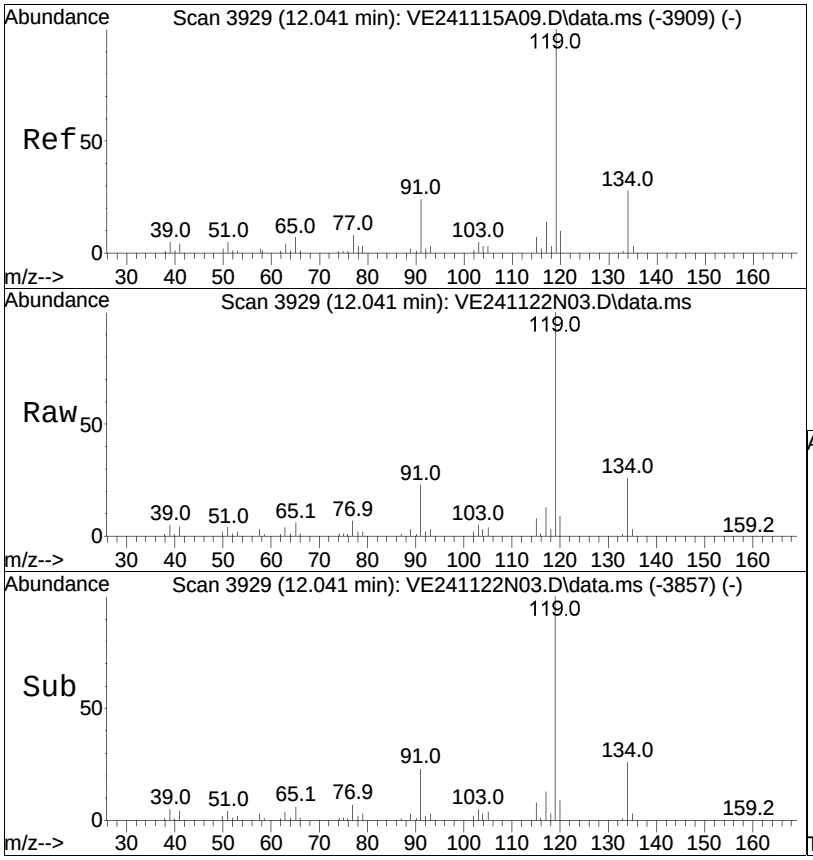


#103
sec-Butylbenzene
Concen: 9.81 ug/L
RT: 11.884 min Scan# 3873
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:105 Resp: 223966

Ion	Ratio	Lower	Upper
105	100		
134	19.3	13.3	27.5

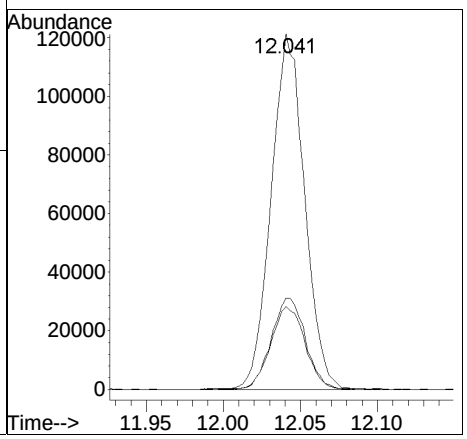


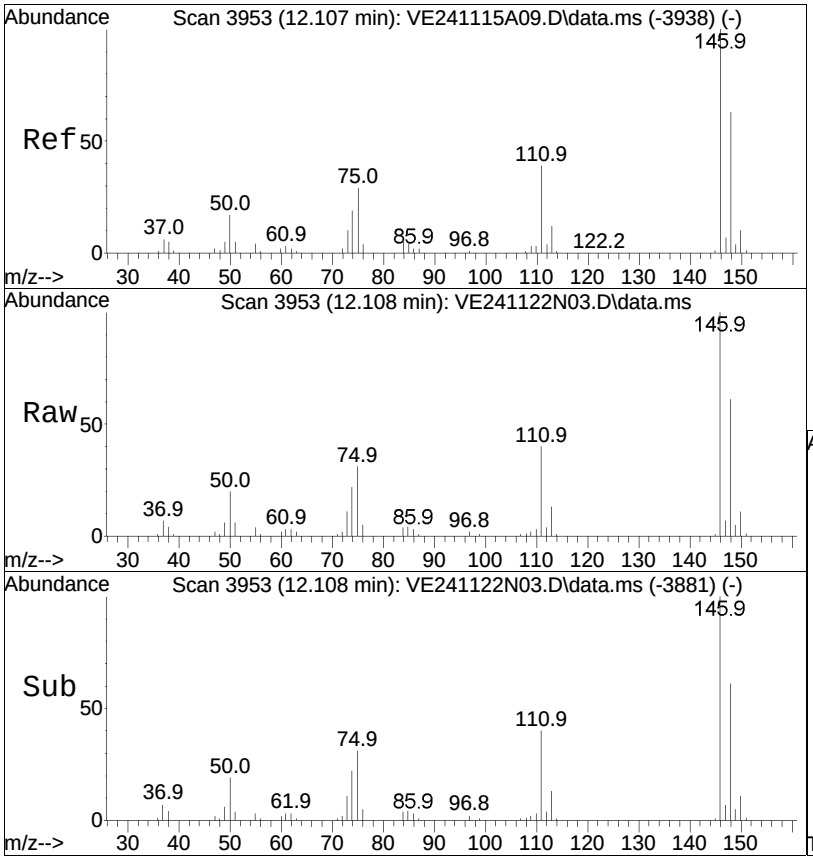


#104
p-Isopropyltoluene
Concen: 9.67 ug/L
RT: 12.041 min Scan# 3929
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:119 Resp: 183035

Ion	Ratio	Lower	Upper
119	100		
134	26.3	15.8	32.8
91	24.0	16.6	34.4

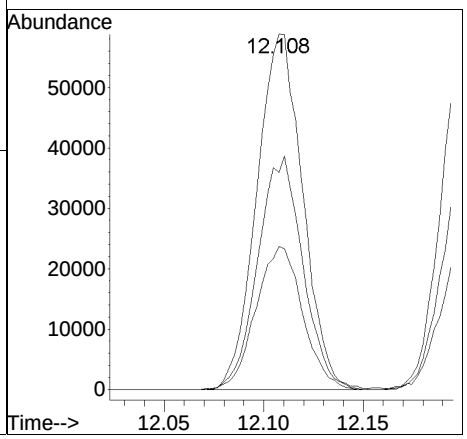


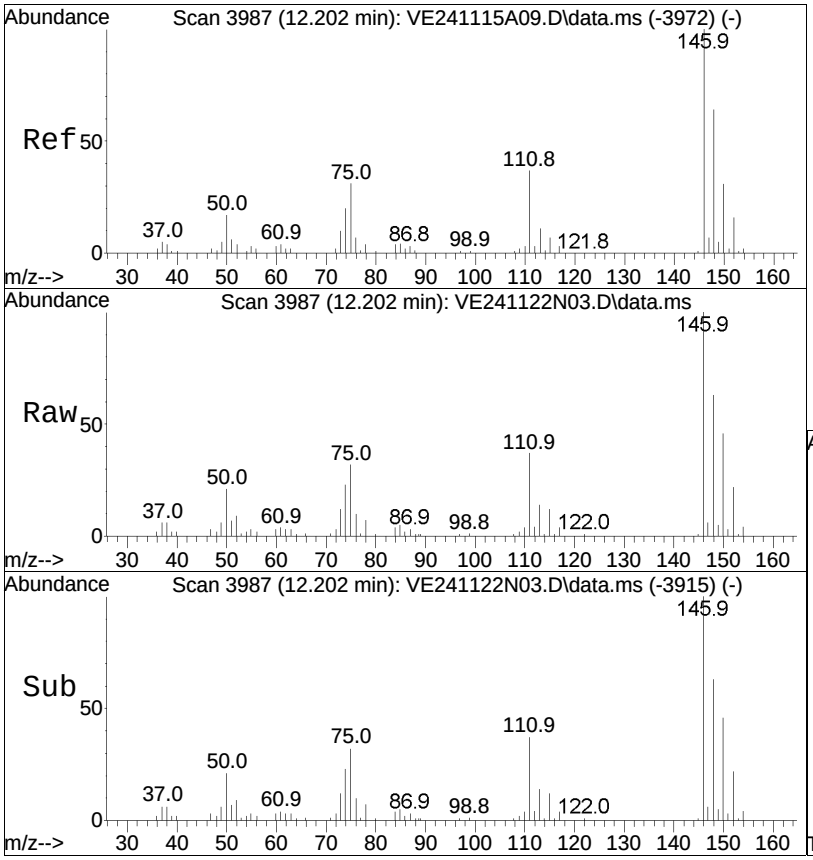


#105
1,3-Dichlorobenzene
Concen: 9.71 ug/L
RT: 12.108 min Scan# 3953
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:146 Resp: 94375

Ion	Ratio	Lower	Upper
146	100		
111	40.9	27.9	57.9
148	64.2	42.4	88.2

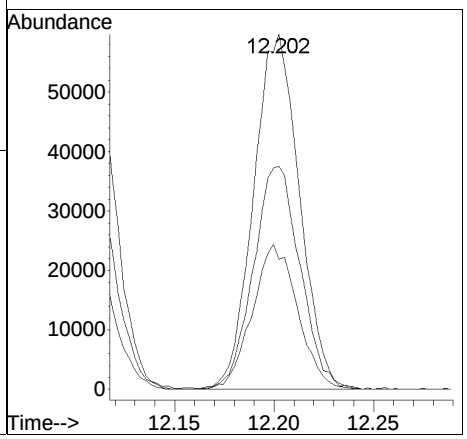


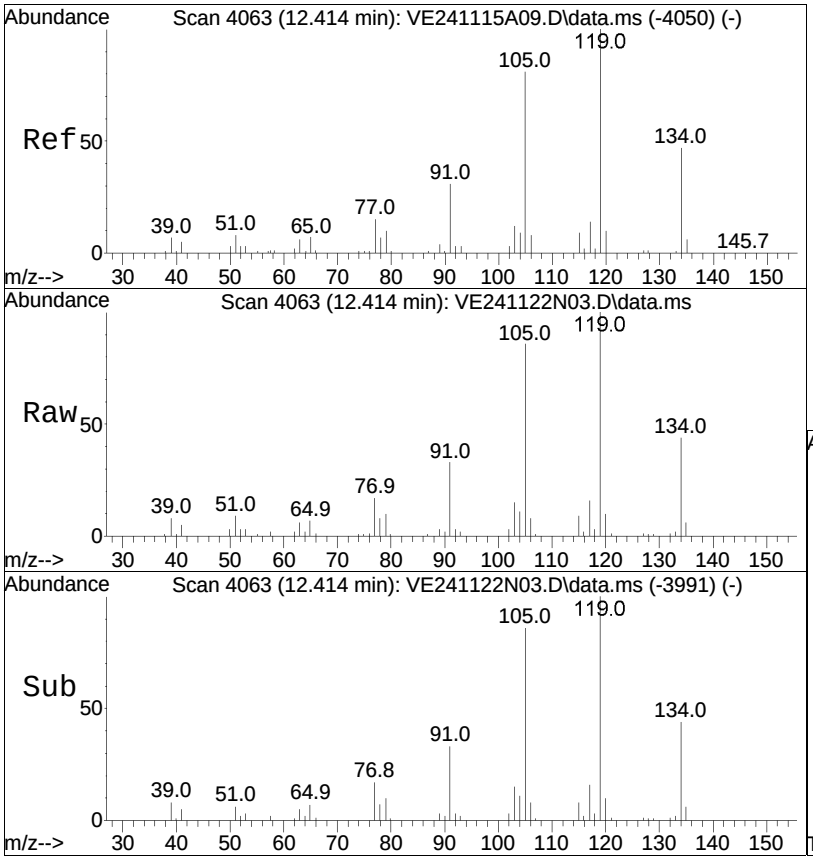


#106
1,4-Dichlorobenzene
Concen: 9.84 ug/L
RT: 12.202 min Scan# 3987
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:146 Resp: 95933

Ion	Ratio	Lower	Upper
146	100		
111	40.4	31.4	47.0
148	63.8	49.8	74.8

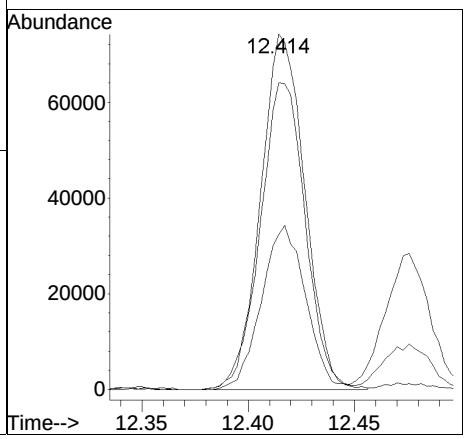


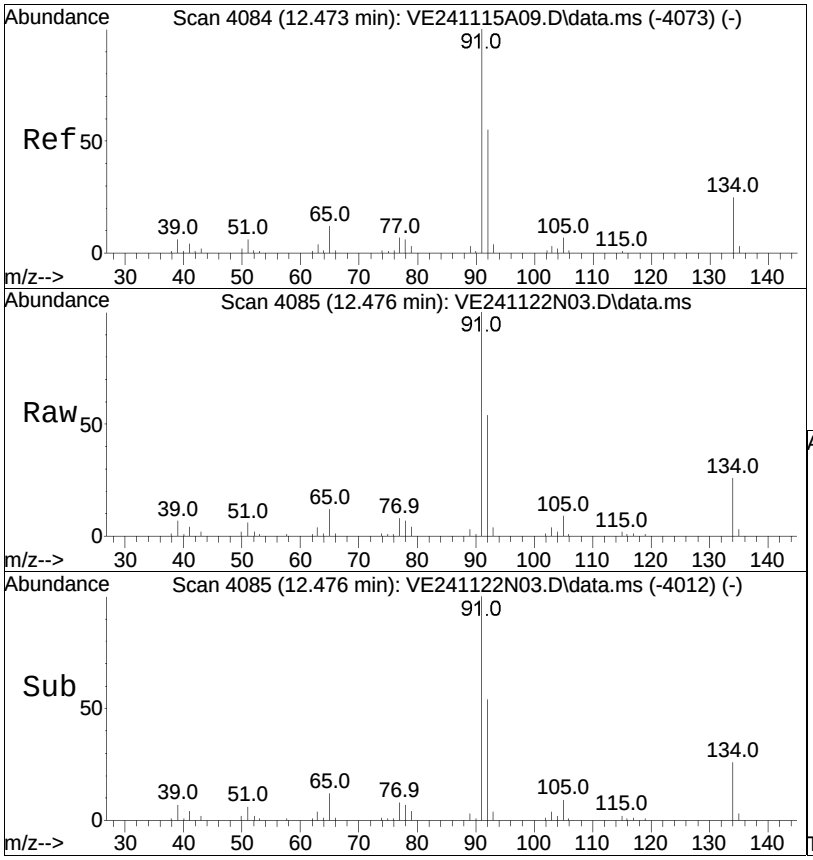


#107
p-Diethylbenzene
Concen: 9.69 ug/L
RT: 12.414 min Scan# 4063
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:119 Resp: 107267

Ion	Ratio	Lower	Upper
119	100		
105	88.0	55.4	115.2
134	46.2	28.4	59.0

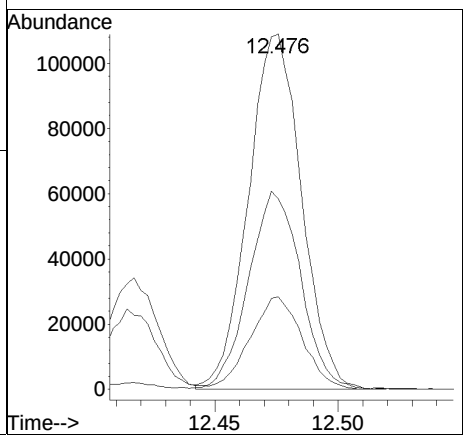


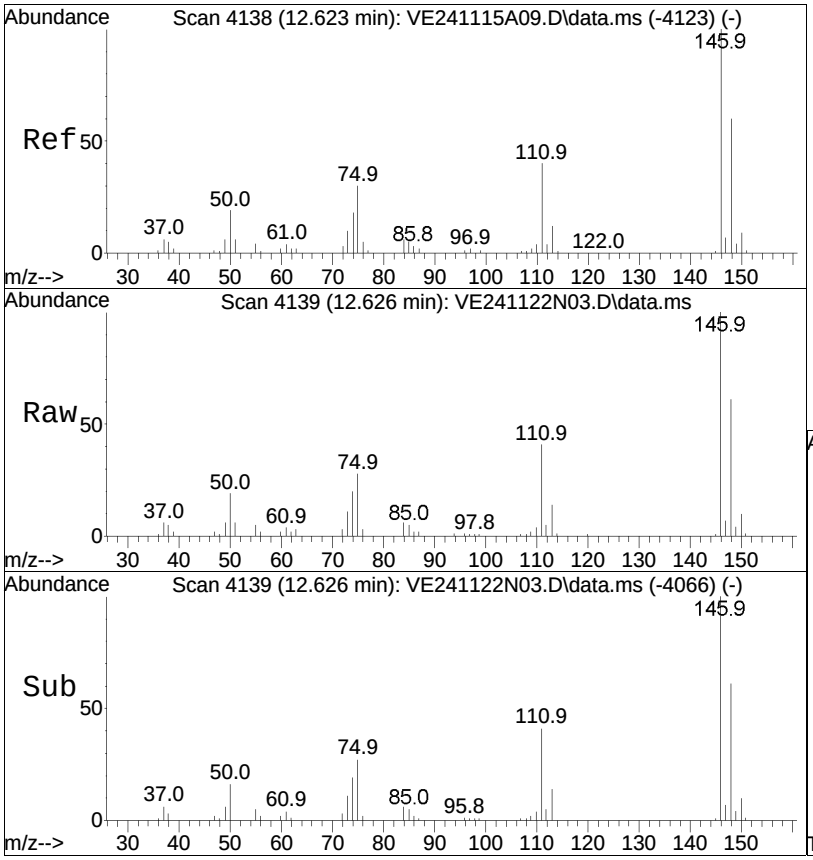


#108
n-Butylbenzene
Concen: 9.92 ug/L
RT: 12.476 min Scan# 4085
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion: 91 Resp: 163682

Ion	Ratio	Lower	Upper
91	100		
92	54.3	42.4	63.6
134	25.5	20.3	30.5

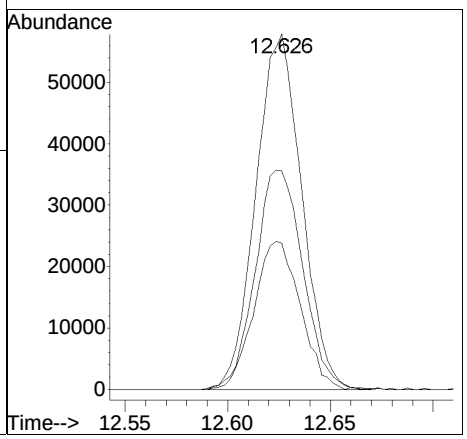


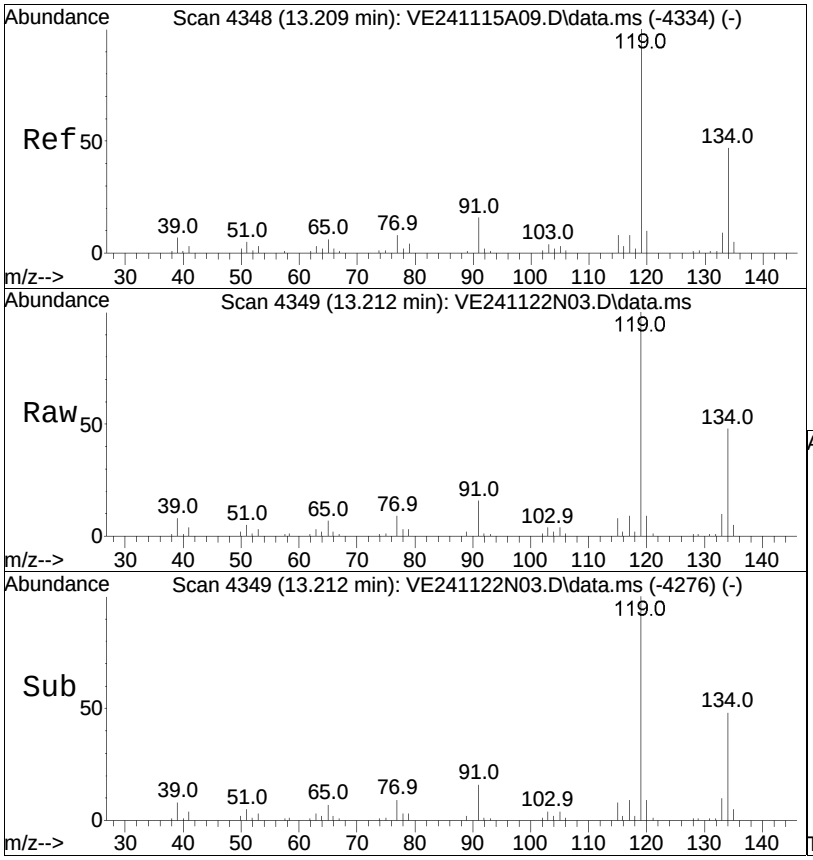


#109
1,2-Dichlorobenzene
Concen: 9.71 ug/L
RT: 12.626 min Scan# 4139
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:146 Resp: 89838

Ion	Ratio	Lower	Upper
146	100		
111	42.1	26.4	54.8
148	64.0	41.7	86.7

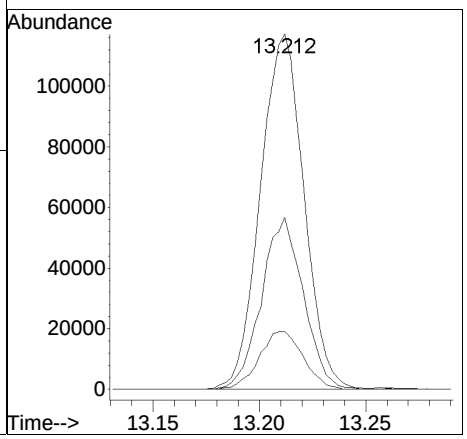


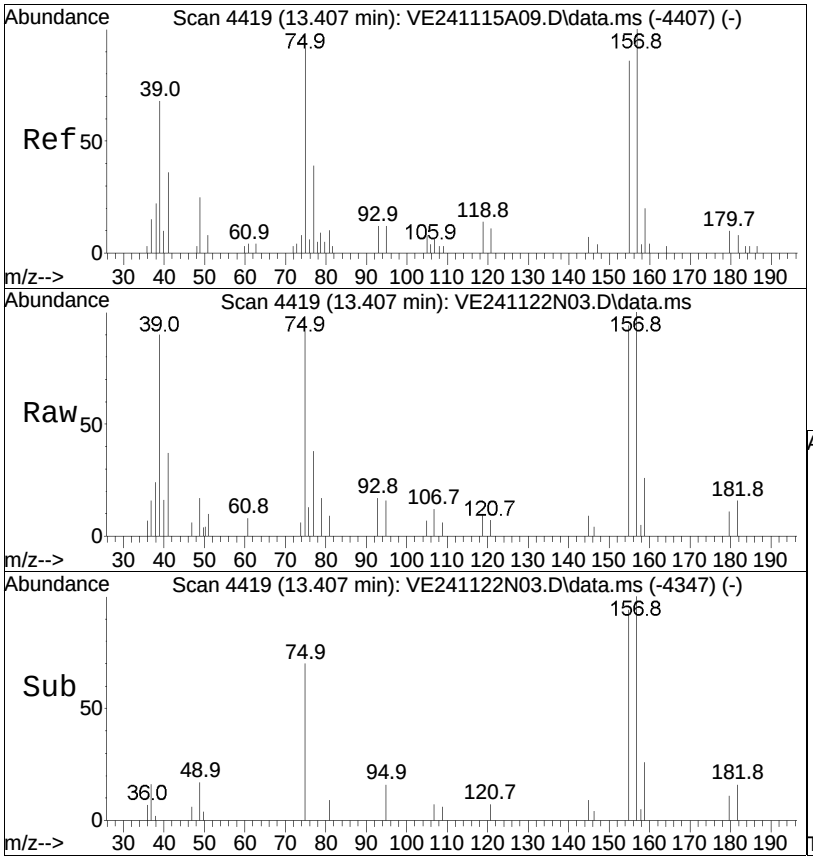


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.41 ug/L
RT: 13.212 min Scan# 4349
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:119 Resp: 166940

Ion	Ratio	Lower	Upper
119	100		
134	46.6	29.6	61.4
91	16.5	9.8	20.3

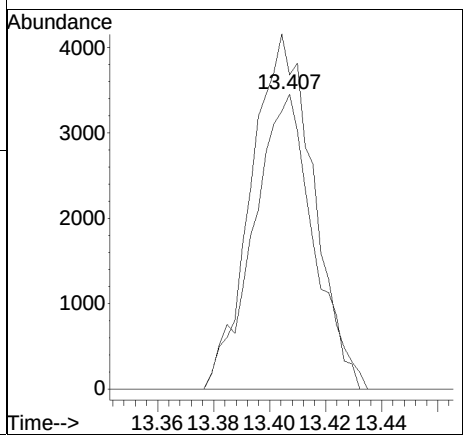


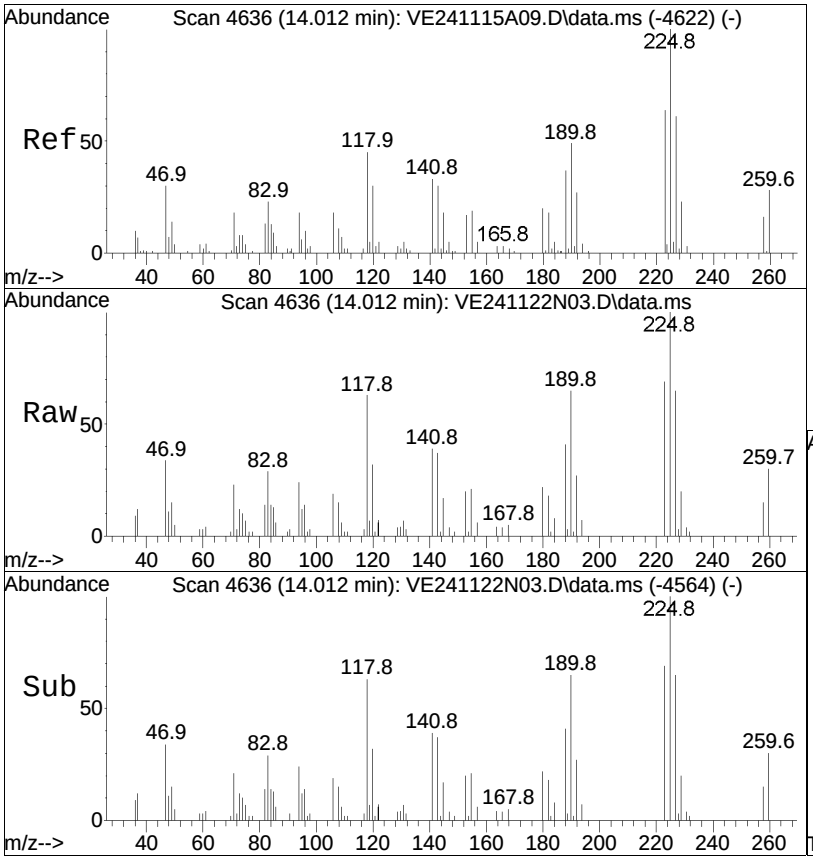


#111
1,2-Dibromo-3-chloropropane
Concen: 9.14 ug/L
RT: 13.407 min Scan# 4419
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:155 Resp: 5134

Ion	Ratio	Lower	Upper
155	100		
157	124.8	95.1	142.7

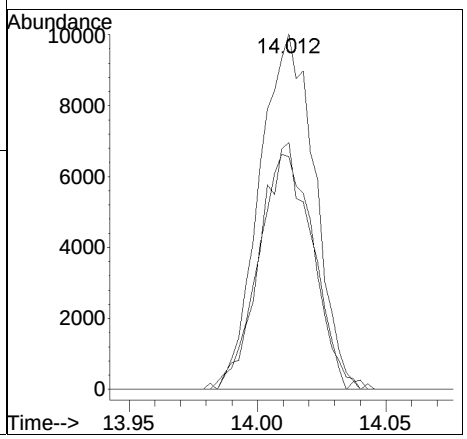


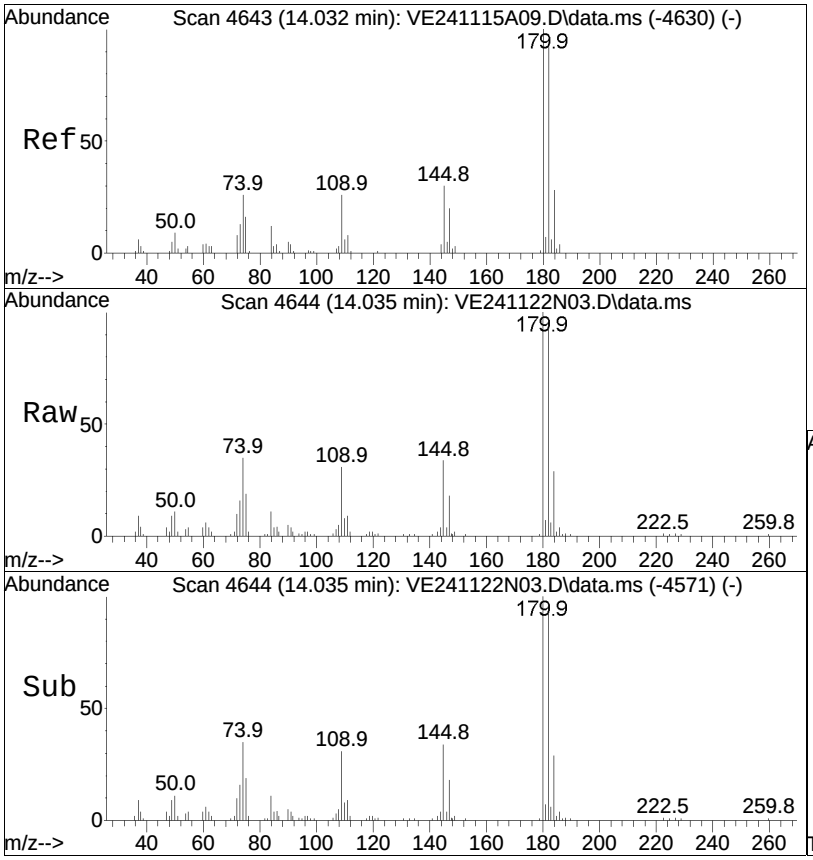


#113
Hexachlorobutadiene
Concen: 8.50 ug/L
RT: 14.012 min Scan# 4636
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:225 Resp: 14967

Ion	Ratio	Lower	Upper
225	100		
223	66.4	54.6	82.0
227	66.1	56.2	84.4

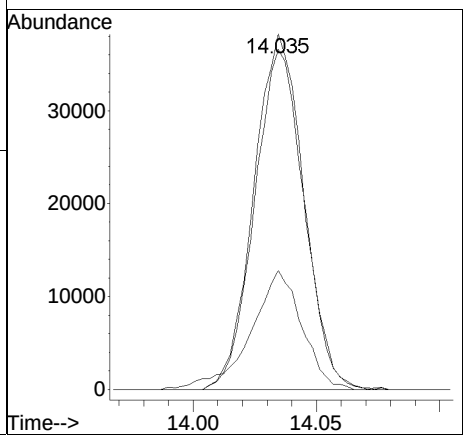


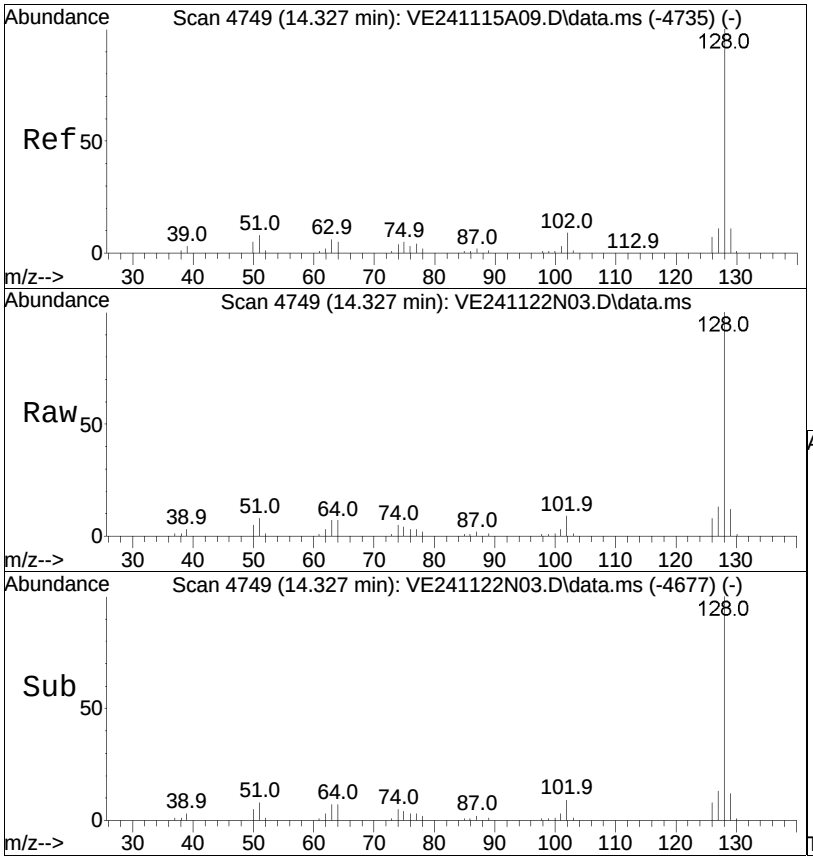


#114
1,2,4-Trichlorobenzene
Concen: 9.34 ug/L
RT: 14.035 min Scan# 4644
Delta R.T. 0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:180 Resp: 53832

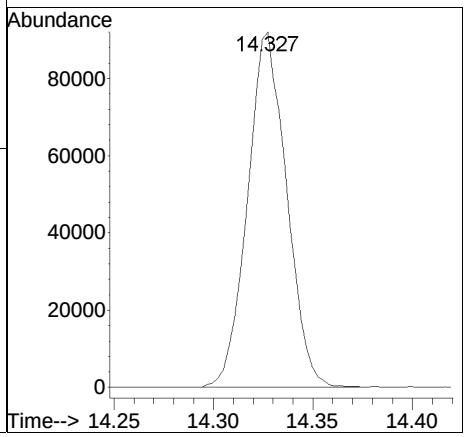
Ion	Ratio	Lower	Upper
180	100		
182	94.7	75.4	113.2
145	34.3	26.0	39.0

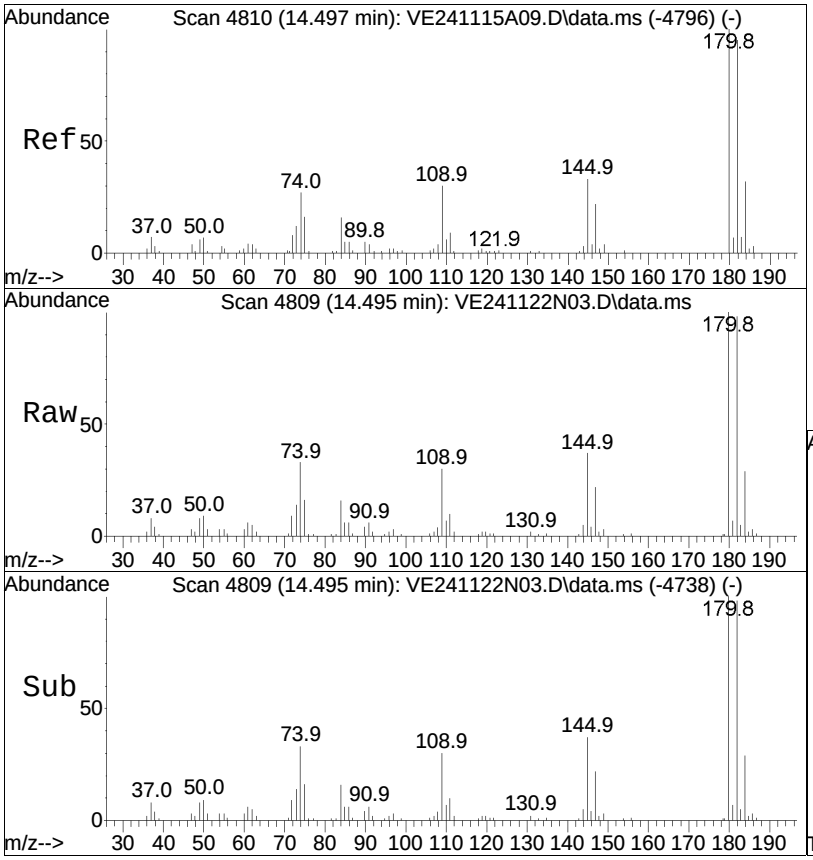




#115
Naphthalene
Concen: 9.29 ug/L
RT: 14.327 min Scan# 4749
Delta R.T. 0.000 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:128 Resp: 125685

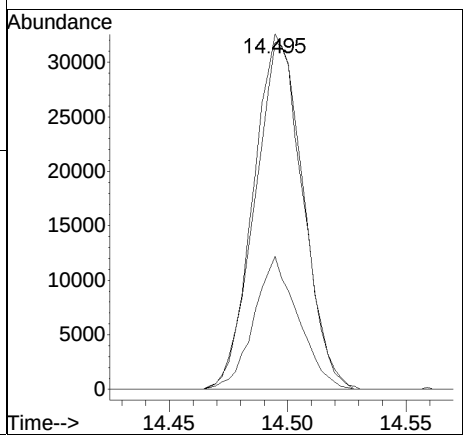




#116
1,2,3-Trichlorobenzene
Concen: 9.20 ug/L
RT: 14.495 min Scan# 4809
Delta R.T. -0.003 min
Lab File: VE241122N03.D
Acq: 22 Nov 2024 9:45 pm

Tgt Ion:180 Resp: 47315

Ion	Ratio	Lower	Upper
180	100		
182	95.3	71.6	107.4
145	33.5	25.1	37.7

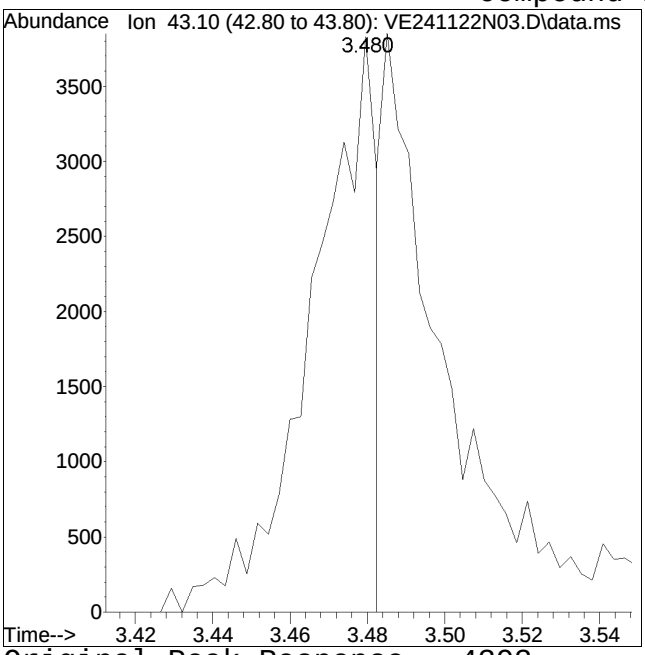


Manual Integration Report

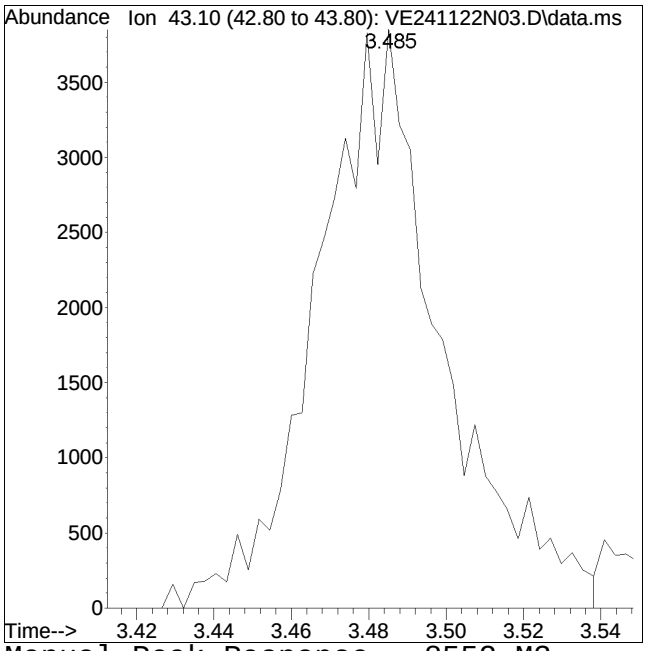
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N03.D
Date Inj'd : 11/22/2024 9:45 pm
Sample : WG2001424-4,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 10:09 pm

Compound #17: Acetone



Original Peak Response = 4393



Manual Peak Response = 8552 M3

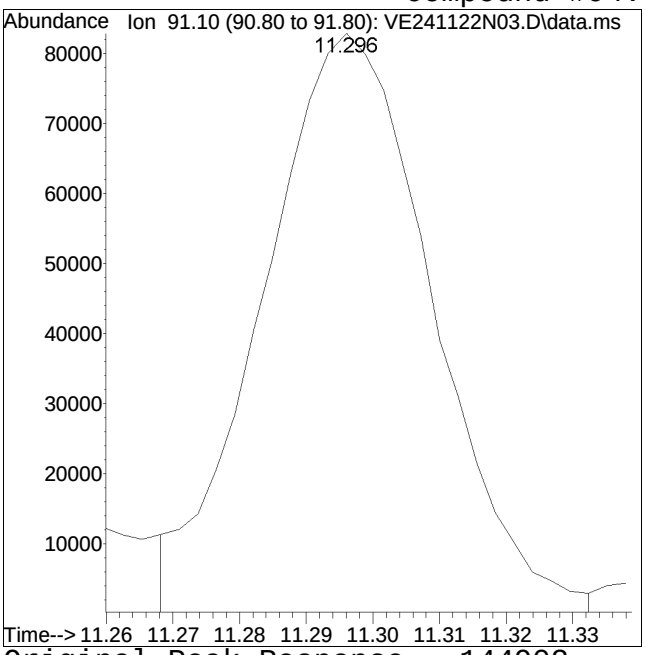
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

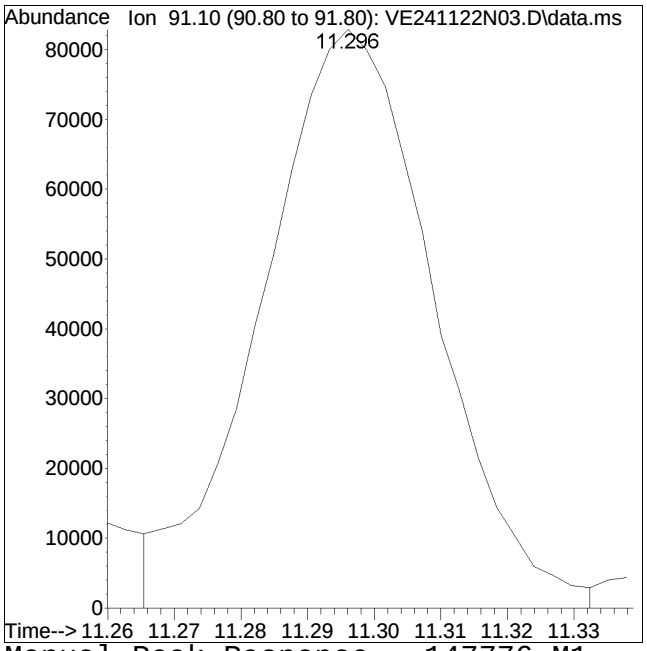
Data Path : K:\Elaine\2024\241122N\
Data File : VE241122N03.D
Date Inj'd : 11/22/2024 9:45 pm
Sample : WG2001424-4,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/22/2024 10:09 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 144902



Manual Peak Response = 147776 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 25 2024, 09:40 am

Work Group: WG2001424 for Department: 31 GC/MS - Volatiles

Created: 23-NOV-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2467461-60	WB-1	S	NYTCL-8260	WATER	SEC	U	1129	1122	S0	Vial-B
L2467461-61	WB-2	S	NYTCL-8260	WATER	SEC	U	1129	1122	S0	Vial-B
L2467461-62	WB-3	S	NYTCL-8260	WATER	SEC	U	1129	1122	S0	Vial-B
L2467461-63	WB-4	S	NYTCL-8260	WATER	SEC	U	1129	1122	S0	Vial-B
L2467461-64	WB-5	S	NYTCL-8260	WATER	SEC	U	1129	1122	S0	Vial-B
L2467461-65	WB-6	S	NYTCL-8260	WATER	SEC	U	1129	1122	S0	Vial-B
L2467461-66	WB-7	S	NYTCL-8260	WATER	SEC	U	1129	1122	S0	Vial-B
L2468376-01	LMW_6R_D_32.75	S	NYTCL-8260	WATER	DONE	U	1204	1125	1B	Vial-B
L2468376-02	LMW_6R_D_42.75	S	NYTCL-8260	WATER	DONE	U	1204	1125	1B	Vial-B
L2468376-03	LMW_6R_D_54.75	S	NYTCL-8260	WATER	DONE	U	1204	1125	1B	Vial-B
L2468376-04	TB_11202024	S	NYTCL-8260	WATER	DONE	U	1204	1125	1B	Vial-B
WG2001424-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG2001424-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG2001424-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG2001424-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG2001424-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG2001424-4 WG2001424-3

Inst: Elaine
Initials: TMS
Date: **11/15/24**
Run: **A**

BFB: V10797
IS/SS: V10782
ICAL: V10788C,V10798
ICV: V10780,V10761,V10771,V10762,V10745,V10756

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample	obs
1	VE241115ABF3	BFB TUNE 1:44	
1	VE241115A01	BLK	
2	VE241115A02	BLK	
3	VE241115A03	I8260STD0.19PPB	
4	VE241115A04	I8260STD0.19PPB	
5	VE241115A05	I8260STD0.5PPB	
6	VE241115A06	I8260STD0.5PPB	
7	VE241115A07	I8260STD2PPB	
8	VE241115A08	I8260STD2PPB	
9	VE241115A09	I8260STD10PPB	
10	VE241115A10	I8260STD30PPB	
11	VE241115A11	I8260STD80PPB	
12	VE241115A12	I8260STD120PPB	
13	VE241115A13	I8260STD200PPB	
14	VE241115A14	BLK	
15	VE241115A15	BLK	
16	VE241115A16	BLK	
17	VE241115A17	BLK	
18	VE241115A18	C8260STD10PPB	
19	VE241115A19	C8260STD10PPB	
20	VE241115A20	BLK	

Inst: Elaine
Initials: PID
Date: **11/22/24**
Run: **N**

BFB: V10797
IS/SS: V10782
ICAL: V10807A,V10806

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample			obs
1	VE241122NBF1	BFB TUNE	20:47		
1	VE241122N01	8260 CCAL	QC FAILS		
2	VE241122N02	8260 CCAL	LCS		
3	VE241122N03	8260 CCAL	LCSD		
4	VE241122N04	BLK			
5	VE241122N05	METHOD BLK			
6	VE241122N06	I2467461-60,31,10,10,,a	NYTCL		pH<2
7	VE241122N07	I2467461-61,31,10,10,,a	NYTCL		pH<2
8	VE241122N08	I2467461-62,31,10,10,,a	NYTCL		pH<2
9	VE241122N09	I2467461-63,31,10,10,,a	NYTCL		pH<2
10	VE241122N10	I2467461-64,31,10,10,,a	NYTCL		pH<2
11	VE241122N11	I2467461-65,31,10,10,,a	NYTCL		pH<2
12	VE241122N12	I2467461-66,31,10,10,,a	NYTCL		pH<2
13	VE241122N13	I2468376-01,31,10,10,,a	NYTCL		pH<2
14	VE241122N14	I2468376-02,31,10,10,,a	NYTCL		pH<2
15	VE241122N15	I2468376-03,31,10,10,,a	NYTCL		pH<2
16	VE241122N16	I2468376-04,31,10,10,,a	NYTCL	TB	pH<2
17	VE241122N17	I2467557-01,31,10,10,,a	8260CURVE/IM		pH<2
18	VE241122N18	I2467557-02,31,10,10,,a	8260CURVE/IM		pH<2
19	VE241122N19	I2467884-01,31,10,10,,a	8260CURVE/IM		pH<2
20	VE241122N20	I2467884-02,31,10,10,,a	8260CURVE/IM		pH<2
21	VE241122N21	I2467884-03,31,10,10,,a	8260CURVE/IM	TB	pH<2
22	VE241122N22	I2467888-01,31,10,10,,a	8260CURVE/IM		pH<2
23	VE241122N23	I2468588-01,31,10,10,,a,r1b	PA8260CURVE		pH<2
24	VE241122N24	I2468588-02,31,10,10,,a,r1b	PA8260CURVE		
25	VE241122N25	DSTD			

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Alpha Analytical

Laboratory Code: 11148

SDG Number: L2469254

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Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2469254
Report Date: 11/25/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2469254-01	TB_11222024	WATER	NEW YORK, NY	11/21/24 00:00	11/22/24
L2469254-02	LMW-7RD_23.75	WATER	NEW YORK, NY	11/22/24 08:30	11/22/24
L2469254-03	LMW-8RS_6.75	WATER	NEW YORK, NY	11/22/24 14:00	11/22/24
L2469254-04	LMW-8RS_18.75	WATER	NEW YORK, NY	11/22/24 13:30	11/22/24
L2469254-05	LMW-7RS_6.75	WATER	NEW YORK, NY	11/22/24 08:00	11/22/24
L2469254-06	LMW-9RD_58.25	WATER	NEW YORK, NY	11/22/24 09:45	11/22/24
L2469254-07	LMW-8RD_27.75	WATER	NEW YORK, NY	11/22/24 11:30	11/22/24
L2469254-08	LMW-8RD_59.75	WATER	NEW YORK, NY	11/22/24 12:30	11/22/24
L2469254-09	LMW-9RS_13.75	WATER	NEW YORK, NY	11/22/24 11:00	11/22/24
L2469254-10	LMW-6RS_18.75	WATER	NEW YORK, NY	11/22/24 14:50	11/22/24
L2469254-11	LMW-7RS_16.75	WATER	NEW YORK, NY	11/21/24 10:00	11/22/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2469254-02D: The sample has elevated detection limits due to the dilution required by the sample matrix (heavy foam).

L2469254-02D, -09D, and WG2001825-6/-7: The pH was greater than two; however, the sample was analyzed within the method required holding time.

L2469254-04D, -05D, -07D, -08D, -10D, and -11D: The sample has elevated detection limits due to the dilution required by the sample matrix (foam).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Report Date: 11/25/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

TYPICAL INSTRUMENT PARAMETERS

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD	
	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2469254

Received : 22-NOV-2024
Reviewer : Maile Kolton

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVE

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	2.0	

Condition Information

1) All samples on COC received? **YES**

2) Extra samples received? **NO**

3) Are there any sample container discrepancies? **NO**

4) Are there any discrepancies between COC & sample labels? **NO**

5) Are samples in appropriate containers for requested analysis? **YES**

6) Are samples properly preserved for requested analysis? **NO**
Following containers were received with headspace: -02B1, -02B2

7) Are samples within holding time for requested analysis? **YES**

8) All sampling equipment returned? **NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client? **NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 25 2024, 01:22 pm

Login Number: L2469254
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 22NOV24 Due Date: 25NOV24

Sample #	Client ID	Mat	PR	Collected
L2469254-01	TB_11222024	1	1A	21NOV24 00:00
Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 11/25/24				
ASP-B,NYTCL-8260				
L2469254-02	LMW-7RD_23.75	1	1A	22NOV24 08:30
headspace -02B1, B2 Batch Separately, Run On Same Instrument When Possible L2469254-02 MS L2469254-02 MSD Package Due Date: 11/25/24				
MS/MSD,NYTCL-8260				
L2469254-03	LMW-8RS_6.75	1	1A	22NOV24 14:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24				
NYTCL-8260				
L2469254-04	LMW-8RS_18.75	1	1A	22NOV24 13:30
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24				
NYTCL-8260				
L2469254-05	LMW-7RS_6.75	1	1A	22NOV24 08:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24				
NYTCL-8260				
L2469254-06	LMW-9RD_58.25	1	1A	22NOV24 09:45
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24				
NYTCL-8260				
L2469254-07	LMW-8RD_27.75	1	1A	22NOV24 11:30
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 25 2024, 01:22 pm

Login Number: L2469254

Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701

Received: 22NOV24 Due Date: 25NOV24

Sample #	Client ID		Mat	PR	Collected
NYTCL-8260					
L2469254-08	LMW-8RD_59.75		1	1A	22NOV24 12:30
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24					
NYTCL-8260					
L2469254-09	LMW-9RS_13.75		1	1A	22NOV24 11:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24					
NYTCL-8260					
L2469254-10	LMW-6RS_18.75		1	1A	22NOV24 14:50
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24					
NYTCL-8260					
L2469254-11	LMW-7RS_16.75		1	1A	21NOV24 10:00
Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/25/24					
NYTCL-8260					

Logged By: Ben Rao

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 11/23/24

L2469254 25NOV24
LANGAN – NJ

Project Information
Project Name: 1487 First Ave
Project Location: New York NY
Project #: 100963701
(Use Project name as Project #) ☐
Project Manager: Jessica Friscia
ALPHAQuote #:

Client Information
Client: LANGAN
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: (973-560-4900
Fax:
Email: jfriscia@langan.com

Turn-Around Time
Standard ☒ A
Rush (only if pre approved) ☐
Due Date:
# of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS
VOCs

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Sample Specific Comments	Total Bottle
69254-01	TB-112224	—	—	AQ	—	X		2
02	LMW-7RD-23.75	11/22/24	0830	GW	EK	X	MS/MSD	9
03	LMW-8RS-6.75		1400			X		3
04	LMW-8RS-18.75		~~1405~~ 1335			X		3
05	LMW-7RS-6.75		0800			X		3
06	LMW-9RD-58.75		0945			X		3
07	LMW-8RD-27.75		1130			X		3
08	LMW-8RD-59.75		1230			X		3
09	LMW-9RS-13.75		1100			X		2
10	LMW-6RS-18.75		1450					3

Container Type: VOA
Preservative: HCL

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	11/22 15:20		1520
11-22-24	20:25	11-22-24	NOV 22 2024 2030
Anthony Green	11/23/24 0330	Anthony Green	11/23/24 0330
	11/23/24 0530		11/23/24 0530

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 2 of 2

Date Rec'd in Lab: 11/23/24

ALPHA Job #: L2469254

Client Information
Client: LANGAN
Address: 300 Kimball Dr
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfiscina@langan.com

Project Information
Project Name: 1487 First Ave
Project Location: New York NY
Project #: 100963701
(Use Project name as Project #) ☐
Project Manager: Jessica Fiscina
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

VOCs

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments
69254-11	LMW-7RS-16.75	11/21/24	1000	GW	RB	

Container Type: VOA
Preservative: HCl

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Pfer 11-22-24	2024	Pfer 11-22-24	1520
		Anthony Green	NOV 22 2024 2020
Anthony Green	11/23/24 0330		11/23/24 0530
	11/23/24 0530		11/23/24 0530

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVE

Lab Number: L2469254
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
TB_11222024 (L2469254-01)	105	104	100	99	0
LMW-7RD_23.75 (L2469254-02D)	112	101	104	105	0
LMW-8RS_6.75 (L2469254-03D)	108	102	103	99	0
LMW-8RS_18.75 (L2469254-04D)	115	103	102	99	0
LMW-7RS_6.75 (L2469254-05D)	107	103	104	99	0
LMW-9RD_58.25 (L2469254-06)	109	95	96	106	0
LMW-8RD_27.75 (L2469254-07D)	111	102	104	99	0
LMW-8RD_59.75 (L2469254-08D)	107	101	100	99	0
LMW-9RS_13.75 (L2469254-09D)	108	104	103	100	0
LMW-6RS_18.75 (L2469254-10D)	112	101	104	104	0
LMW-7RS_16.75 (L2469254-11D)	110	106	104	102	0
WG2001825-3LCS	113	103	101	102	0
WG2001825-4LCSD	107	104	101	97	0
WG2001825-5BLANK	108	104	103	97	0
LMW-7RD_23.75MS	108	104	102	102	0
LMW-7RD_23.75MSD	107	104	102	105	0
WG2001843-3LCS	105	102	105	99	0
WG2001843-4LCSD	107	104	104	101	0
WG2001843-5BLANK	108	105	104	100	0
WG2001998-3LCS	110	95	95	104	0
WG2001998-4LCSD	114	96	96	105	0
WG2001998-5BLANK	111	94	96	104	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001825-3 **Analysis Date** : 11/23/24 19:58	**File ID**	: VE241123N02
LCSD Sample ID	: WG2001825-4 **Analysis Date** : 11/23/24 20:22	**File ID**	: VE241123N03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.6	96	10	9.4	94	2	70-130	20
1,1-Dichloroethane	10	10	100	10	10	100	0	70-130	20
Chloroform	10	9.3	93	10	9.3	93	0	70-130	20
Carbon tetrachloride	10	9.1	91	10	9.1	91	0	63-132	20
1,2-Dichloropropane	10	10	100	10	10	100	0	70-130	20
Dibromochloromethane	10	8.9	89	10	9.0	90	1	63-130	20
1,1,2-Trichloroethane	10	9.7	97	10	9.8	98	1	70-130	20
Tetrachloroethene	10	9.0	90	10	9.1	91	1	70-130	20
Chlorobenzene	10	9.4	94	10	9.4	94	0	75-130	20
Trichlorofluoromethane	10	9.8	98	10	9.6	96	2	62-150	20
1,2-Dichloroethane	10	10	100	10	9.8	98	2	70-130	20
1,1,1-Trichloroethane	10	9.3	93	10	9.0	90	3	67-130	20
Bromodichloromethane	10	9.2	92	10	9.3	93	1	67-130	20
trans-1,3-Dichloropropene	10	9.3	93	10	9.6	96	3	70-130	20
cis-1,3-Dichloropropene	10	9.1	91	10	9.0	90	1	70-130	20
1,1-Dichloropropene	10	9.2	92	10	9.2	92	0	70-130	20
Bromoform	10	8.3	83	10	8.2	82	1	54-136	20
1,1,2,2-Tetrachloroethane	10	9.9	99	10	9.8	98	1	67-130	20
Benzene	10	9.9	99	10	9.7	97	2	70-130	20
Toluene	10	9.4	94	10	9.8	98	4	70-130	20
Ethylbenzene	10	9.6	96	10	9.6	96	0	70-130	20
Chloromethane	10	8.2	82	10	8.2	82	0	64-130	20
Bromomethane	10	5.0	50	10	5.5	55	10	39-139	20
Vinyl chloride	10	11	110	10	10	100	10	55-140	20
Chloroethane	10	11	110	10	11	110	0	55-138	20
1,1-Dichloroethene	10	10	100	10	10	100	0	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L2469254
Project Name : 1487 FIRST AVE **Project Number** : 100963701
Matrix (Level) : WATER (LOW)
LCS Sample ID : WG2001825-3 **Analysis Date** : 11/23/24 19:58 **File ID** : VE241123N02
LCSD Sample ID : WG2001825-4 **Analysis Date** : 11/23/24 20:22 **File ID** : VE241123N03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	9.2	92	10	9.7	97	5	70-130	20
Trichloroethene	10	9.4	94	10	9.6	96	2	70-130	20
1,2-Dichlorobenzene	10	9.4	94	10	9.2	92	2	70-130	20
1,3-Dichlorobenzene	10	9.4	94	10	9.0	90	4	70-130	20
1,4-Dichlorobenzene	10	9.4	94	10	9.3	93	1	70-130	20
Methyl tert butyl ether	10	9.1	91	10	8.9	89	2	63-130	20
p/m-Xylene	20	19	95	20	19	95	0	70-130	20
o-Xylene	20	19	95	20	19	95	0	70-130	20
cis-1,2-Dichloroethene	10	9.8	98	10	9.5	95	3	70-130	20
Dibromomethane	10	9.3	93	10	9.1	91	2	70-130	20
1,2,3-Trichloropropane	10	9.7	97	10	9.8	98	1	64-130	20
Acrylonitrile	10	9.5	95	10	9.5	95	0	70-130	20
Styrene	20	18	90	20	18	90	0	70-130	20
Dichlorodifluoromethane	10	10	100	10	10	100	0	36-147	20
Acetone	10	8.9	89	10	9.5	95	7	58-148	20
Carbon disulfide	10	10	100	10	9.9	99	1	51-130	20
2-Butanone	10	9.2	92	10	9.3	93	1	63-138	20
Vinyl acetate	10	9.2	92	10	8.7	87	6	70-130	20
4-Methyl-2-pentanone	10	9.2	92	10	8.5	85	8	59-130	20
2-Hexanone	10	8.5	85	10	8.3	83	2	57-130	20
Bromochloromethane	10	9.6	96	10	9.3	93	3	70-130	20
2,2-Dichloropropane	10	8.3	83	10	8.3	83	0	63-133	20
1,2-Dibromoethane	10	9.2	92	10	9.2	92	0	70-130	20
1,3-Dichloropropane	10	9.8	98	10	9.9	99	1	70-130	20
1,1,1,2-Tetrachloroethane	10	9.2	92	10	9.4	94	2	64-130	20
Bromobenzene	10	9.4	94	10	9.1	91	3	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L2469254
Project Name : 1487 FIRST AVE **Project Number** : 100963701
Matrix (Level) : WATER (LOW)
LCS Sample ID : WG2001825-3 **Analysis Date** : 11/23/24 19:58 **File ID** : VE241123N02
LCSD Sample ID : WG2001825-4 **Analysis Date** : 11/23/24 20:22 **File ID** : VE241123N03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	9.8	98	10	9.4	94	4	53-136	20
sec-Butylbenzene	10	9.7	97	10	9.2	92	5	70-130	20
tert-Butylbenzene	10	9.6	96	10	9.1	91	5	70-130	20
o-Chlorotoluene	10	9.8	98	10	9.6	96	2	70-130	20
p-Chlorotoluene	10	10	100	10	9.6	96	4	70-130	20
1,2-Dibromo-3-chloropropane	10	8.6	86	10	8.5	85	1	41-144	20
Hexachlorobutadiene	10	8.3	83	10	7.8	78	6	63-130	20
Isopropylbenzene	10	9.6	96	10	9.2	92	4	70-130	20
p-Isopropyltoluene	10	9.6	96	10	9.2	92	4	70-130	20
Naphthalene	10	8.6	86	10	8.4	84	2	70-130	20
n-Propylbenzene	10	9.9	99	10	9.6	96	3	69-130	20
1,2,3-Trichlorobenzene	10	8.6	86	10	8.3	83	4	70-130	20
1,2,4-Trichlorobenzene	10	8.8	88	10	8.2	82	7	70-130	20
1,3,5-Trimethylbenzene	10	10	100	10	9.5	95	5	64-130	20
1,2,4-Trimethylbenzene	10	9.7	97	10	9.4	94	3	70-130	20
1,4-Dioxane	500	490	98	500	490	98	0	56-162	20
p-Diethylbenzene	10	9.4	94	10	9.0	90	4	70-130	20
p-Ethyltoluene	10	9.8	98	10	9.4	94	4	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.1	91	10	8.6	86	6	70-130	20
Ethyl ether	10	11	110	10	10	100	10	59-134	20
trans-1,4-Dichloro-2-butene	10	9.0	90	10	9.2	92	2	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001843-3 **Analysis Date** : 11/24/24 10:56	**File ID**	: VE241124A02
LCSD Sample ID	: WG2001843-4 **Analysis Date** : 11/24/24 11:21	**File ID**	: VE241124A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	9.9	99	10	9.9	99	0	70-130	20
1,1-Dichloroethane	10	11	110	10	10	100	10	70-130	20
Chloroform	10	9.8	98	10	10	100	2	70-130	20
Carbon tetrachloride	10	9.3	93	10	9.3	93	0	63-132	20
1,2-Dichloropropane	10	10	100	10	11	110	10	70-130	20
Dibromochloromethane	10	9.1	91	10	9.3	93	2	63-130	20
1,1,2-Trichloroethane	10	10	100	10	10	100	0	70-130	20
Tetrachloroethene	10	9.4	94	10	9.3	93	1	70-130	20
Chlorobenzene	10	9.6	96	10	10	100	4	75-130	20
Trichlorofluoromethane	10	9.6	96	10	9.2	92	4	62-150	20
1,2-Dichloroethane	10	10	100	10	10	100	0	70-130	20
1,1,1-Trichloroethane	10	9.3	93	10	9.6	96	3	67-130	20
Bromodichloromethane	10	9.7	97	10	9.9	99	2	67-130	20
trans-1,3-Dichloropropene	10	9.8	98	10	10	100	2	70-130	20
cis-1,3-Dichloropropene	10	9.7	97	10	9.6	96	1	70-130	20
1,1-Dichloropropene	10	9.5	95	10	9.8	98	3	70-130	20
Bromoform	10	9.1	91	10	9.2	92	1	54-136	20
1,1,2,2-Tetrachloroethane	10	10	100	10	10	100	0	67-130	20
Benzene	10	10	100	10	10	100	0	70-130	20
Toluene	10	10	100	10	10	100	0	70-130	20
Ethylbenzene	10	9.9	99	10	10	100	1	70-130	20
Chloromethane	10	9.2	92	10	9.4	94	2	64-130	20
Bromomethane	10	6.0	60	10	6.1	61	2	39-139	20
Vinyl chloride	10	10	100	10	10	100	0	55-140	20
Chloroethane	10	11	110	10	10	100	10	55-138	20
1,1-Dichloroethene	10	10	100	10	11	110	10	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001843-3 **Analysis Date** : 11/24/24 10:56	**File ID**	: VE241124A02
LCSD Sample ID	: WG2001843-4 **Analysis Date** : 11/24/24 11:21	**File ID**	: VE241124A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	9.8	98	10	9.7	97	1	70-130	20
Trichloroethene	10	9.9	99	10	10	100	1	70-130	20
1,2-Dichlorobenzene	10	9.8	98	10	10	100	2	70-130	20
1,3-Dichlorobenzene	10	9.9	99	10	10	100	1	70-130	20
1,4-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
Methyl tert butyl ether	10	9.2	92	10	9.1	91	1	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	19	95	20	20	100	5	70-130	20
cis-1,2-Dichloroethene	10	9.8	98	10	10	100	2	70-130	20
Dibromomethane	10	9.3	93	10	10	100	7	70-130	20
1,2,3-Trichloropropane	10	10	100	10	10	100	0	64-130	20
Acrylonitrile	10	9.5	95	10	10	100	5	70-130	20
Styrene	20	19	95	20	19	95	0	70-130	20
Dichlorodifluoromethane	10	9.8	98	10	10	100	2	36-147	20
Acetone	10	8.7	87	10	9.9	99	13	58-148	20
Carbon disulfide	10	11	110	10	11	110	0	51-130	20
2-Butanone	10	8.7	87	10	10	100	14	63-138	20
Vinyl acetate	10	9.4	94	10	9.5	95	1	70-130	20
4-Methyl-2-pentanone	10	9.5	95	10	9.8	98	3	59-130	20
2-Hexanone	10	8.6	86	10	9.4	94	9	57-130	20
Bromochloromethane	10	9.8	98	10	9.9	99	1	70-130	20
2,2-Dichloropropane	10	9.0	90	10	8.9	89	1	63-133	20
1,2-Dibromoethane	10	9.3	93	10	9.7	97	4	70-130	20
1,3-Dichloropropane	10	10	100	10	10	100	0	70-130	20
1,1,1,2-Tetrachloroethane	10	9.7	97	10	10	100	3	64-130	20
Bromobenzene	10	9.9	99	10	10	100	1	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001843-3 **Analysis Date** : 11/24/24 10:56	**File ID**	: VE241124A02
LCSD Sample ID	: WG2001843-4 **Analysis Date** : 11/24/24 11:21	**File ID**	: VE241124A03

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	10	100	10	10	100	0	53-136	20
sec-Butylbenzene	10	10	100	10	10	100	0	70-130	20
tert-Butylbenzene	10	9.9	99	10	10	100	1	70-130	20
o-Chlorotoluene	10	10	100	10	10	100	0	70-130	20
p-Chlorotoluene	10	10	100	10	10	100	0	70-130	20
1,2-Dibromo-3-chloropropane	10	8.9	89	10	9.3	93	4	41-144	20
Hexachlorobutadiene	10	8.9	89	10	8.7	87	2	63-130	20
Isopropylbenzene	10	10	100	10	10	100	0	70-130	20
p-Isopropyltoluene	10	10	100	10	10	100	0	70-130	20
Naphthalene	10	9.0	90	10	9.2	92	2	70-130	20
n-Propylbenzene	10	10	100	10	10	100	0	69-130	20
1,2,3-Trichlorobenzene	10	9.0	90	10	9.2	92	2	70-130	20
1,2,4-Trichlorobenzene	10	9.2	92	10	9.5	95	3	70-130	20
1,3,5-Trimethylbenzene	10	10	100	10	10	100	0	64-130	20
1,2,4-Trimethylbenzene	10	10	100	10	10	100	0	70-130	20
1,4-Dioxane	500	480	96	500	450	90	6	56-162	20
p-Diethylbenzene	10	10	100	10	10	100	0	70-130	20
p-Ethyltoluene	10	10	100	10	10	100	0	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.7	97	10	9.6	96	1	70-130	20
Ethyl ether	10	10	100	10	11	110	10	59-134	20
trans-1,4-Dichloro-2-butene	10	9.8	98	10	10	100	2	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001998-3 **Analysis Date** : 11/25/24 07:14	**File ID**	: VG241125A01
LCSD Sample ID	: WG2001998-4 **Analysis Date** : 11/25/24 07:37	**File ID**	: VG241125A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	10	100	10	10	100	0	70-130	20
1,1-Dichloroethane	10	12	120	10	12	120	0	70-130	20
Chloroform	10	11	110	10	11	110	0	70-130	20
Carbon tetrachloride	10	11	110	10	11	110	0	63-132	20
1,2-Dichloropropane	10	11	110	10	12	120	9	70-130	20
Dibromochloromethane	10	9.5	95	10	10	100	5	63-130	20
1,1,2-Trichloroethane	10	8.7	87	10	9.5	95	9	70-130	20
Tetrachloroethene	10	10	100	10	10	100	0	70-130	20
Chlorobenzene	10	10	100	10	11	110	10	75-130	20
Trichlorofluoromethane	10	10	100	10	9.9	99	1	62-150	20
1,2-Dichloroethane	10	11	110	10	12	120	9	70-130	20
1,1,1-Trichloroethane	10	11	110	10	11	110	0	67-130	20
Bromodichloromethane	10	10	100	10	10	100	0	67-130	20
trans-1,3-Dichloropropene	10	9.4	94	10	10	100	6	70-130	20
cis-1,3-Dichloropropene	10	10	100	10	11	110	10	70-130	20
1,1-Dichloropropene	10	11	110	10	11	110	0	70-130	20
Bromoform	10	8.8	88	10	9.4	94	7	54-136	20
1,1,2,2-Tetrachloroethane	10	8.3	83	10	9.2	92	10	67-130	20
Benzene	10	11	110	10	11	110	0	70-130	20
Toluene	10	10	100	10	10	100	0	70-130	20
Ethylbenzene	10	10	100	10	10	100	0	70-130	20
Chloromethane	10	10	100	10	10	100	0	64-130	20
Bromomethane	10	3.4	34 Q	10	4.0	40	16	39-139	20
Vinyl chloride	10	10	100	10	10	100	0	55-140	20
Chloroethane	10	12	120	10	11	110	9	55-138	20
1,1-Dichloroethene	10	10	100	10	9.8	98	2	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001998-3 **Analysis Date** : 11/25/24 07:14	**File ID**	: VG241125A01
LCSD Sample ID	: WG2001998-4 **Analysis Date** : 11/25/24 07:37	**File ID**	: VG241125A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Trichloroethene	10	10	100	10	10	100	0	70-130	20
1,2-Dichlorobenzene	10	9.7	97	10	10	100	3	70-130	20
1,3-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,4-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
Methyl tert butyl ether	10	7.6	76	10	8.4	84	10	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Dibromomethane	10	9.8	98	10	11	110	12	70-130	20
1,2,3-Trichloropropane	10	8.5	85	10	9.6	96	12	64-130	20
Acrylonitrile	10	8.8	88	10	10	100	13	70-130	20
Styrene	20	20	100	20	20	100	0	70-130	20
Dichlorodifluoromethane	10	7.6	76	10	7.0	70	8	36-147	20
Acetone	10	9.2	92	10	11	110	18	58-148	20
Carbon disulfide	10	10	100	10	10	100	0	51-130	20
2-Butanone	10	9.6	96	10	11	110	14	63-138	20
Vinyl acetate	10	11	110	10	12	120	9	70-130	20
4-Methyl-2-pentanone	10	7.9	79	10	9.5	95	18	59-130	20
2-Hexanone	10	8.2	82	10	9.6	96	16	57-130	20
Bromochloromethane	10	10	100	10	11	110	10	70-130	20
2,2-Dichloropropane	10	13	130	10	13	130	0	63-133	20
1,2-Dibromoethane	10	8.6	86	10	9.4	94	9	70-130	20
1,3-Dichloropropane	10	9.3	93	10	9.9	99	6	70-130	20
1,1,1,2-Tetrachloroethane	10	9.6	96	10	9.9	99	3	64-130	20
Bromobenzene	10	10	100	10	10	100	0	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2001998-3 **Analysis Date** : 11/25/24 07:14	**File ID**	: VG241125A01
LCSD Sample ID	: WG2001998-4 **Analysis Date** : 11/25/24 07:37	**File ID**	: VG241125A02

	Laboratory Control Sample				Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R		True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	9.7	97		10	9.8	98	1	53-136	20
sec-Butylbenzene	10	9.8	98		10	9.7	97	1	70-130	20
tert-Butylbenzene	10	10	100		10	10	100	0	70-130	20
o-Chlorotoluene	10	10	100		10	10	100	0	70-130	20
p-Chlorotoluene	10	10	100		10	10	100	0	70-130	20
1,2-Dibromo-3-chloropropane	10	7.2	72		10	8.6	86	18	41-144	20
Hexachlorobutadiene	10	11	110		10	11	110	0	63-130	20
Isopropylbenzene	10	9.9	99		10	9.6	96	3	70-130	20
p-Isopropyltoluene	10	9.9	99		10	10	100	1	70-130	20
Naphthalene	10	6.4	64	Q	10	8.3	83	26 Q	70-130	20
n-Propylbenzene	10	10	100		10	9.9	99	1	69-130	20
1,2,3-Trichlorobenzene	10	7.8	78		10	9.5	95	20	70-130	20
1,2,4-Trichlorobenzene	10	8.9	89		10	10	100	12	70-130	20
1,3,5-Trimethylbenzene	10	9.7	97		10	9.7	97	0	64-130	20
1,2,4-Trimethylbenzene	10	9.5	95		10	9.7	97	2	70-130	20
1,4-Dioxane	500	390	78		500	460	92	16	56-162	20
p-Diethylbenzene	10	9.8	98		10	10	100	2	70-130	20
p-Ethyltoluene	10	10	100		10	9.8	98	2	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.4	94		10	10	100	6	70-130	20
Ethyl ether	10	8.0	80		10	8.6	86	7	59-134	20
trans-1,4-Dichloro-2-butene	10	7.5	75		10	8.6	86	14	70-130	20

Matrix Spike Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-7RD_23.75	**Matrix (Level)**	: WATER (LOW)
Lab Sample ID	: L2469254-02	**Analysis Date**	: 11/23/24 22:25
Matrix Spike	: WG2001825-6	**MS Analysis Date**	: 11/24/24 05:44
Matrix Spike Dup	: WG2001825-7	**MSD Analysis Date**	: 11/24/24 06:08

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	ND	2500	2500	100	2500	2800	112	11	70-130	20
1,1-Dichloroethane	ND	2500	2900	116	2500	3100	124	7	70-130	20
Chloroform	ND	2500	2600	104	2500	2800	112	7	70-130	20
Carbon tetrachloride	ND	2500	2400	96	2500	2800	112	15	63-132	20
1,2-Dichloropropane	ND	2500	2700	108	2500	3000	120	11	70-130	20
Dibromochloromethane	ND	2500	2300	92	2500	2500	100	8	63-130	20
1,1,2-Trichloroethane	ND	2500	2500	100	2500	2700	108	8	70-130	20
Tetrachloroethene	ND	2500	2400	96	2500	2500	100	4	70-130	20
Chlorobenzene	ND	2500	2500	100	2500	2600	104	4	75-130	20
Trichlorofluoromethane	ND	2500	2800	112	2500	2900	116	4	62-150	20
1,2-Dichloroethane	ND	2500	2600	104	2500	2900	116	11	70-130	20
1,1,1-Trichloroethane	ND	2500	2600	104	2500	2800	112	7	67-130	20
Bromodichloromethane	ND	2500	2500	100	2500	2700	108	8	67-130	20
trans-1,3-Dichloropropene	ND	2500	2400	96	2500	2700	108	12	70-130	20
cis-1,3-Dichloropropene	ND	2500	2400	96	2500	2600	104	8	70-130	20
1,1-Dichloropropene	ND	2500	2700	108	2500	2800	112	4	70-130	20
Bromoform	ND	2500	2100	84	2500	2300	92	9	54-136	20
1,1,2,2-Tetrachloroethane	ND	2500	2700	108	2500	2800	112	4	67-130	20
Benzene	ND	2500	2700	108	2500	2800	112	4	70-130	20
Toluene	ND	2500	2600	104	2500	2800	112	7	70-130	20
Ethylbenzene	ND	2500	2500	100	2500	2700	108	8	70-130	20
Chloromethane	ND	2500	2500	100	2500	2800	112	11	64-130	20

Matrix Spike Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-7RD_23.75	**Matrix (Level)**	: WATER (LOW)
Lab Sample ID	: L2469254-02	**Analysis Date**	: 11/23/24 22:25
Matrix Spike	: WG2001825-6	**MS Analysis Date**	: 11/24/24 05:44
Matrix Spike Dup	: WG2001825-7	**MSD Analysis Date**	: 11/24/24 06:08

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Bromomethane	ND	2500	1400	56	2500	1700	68	19	39-139	20
Vinyl chloride	ND	2500	3200	128	2500	3400	136	6	55-140	20
Chloroethane	ND	2500	2700	108	2500	3200	128	17	55-138	20
1,1-Dichloroethene	ND	2500	2900	116	2500	3100	124	7	61-145	20
trans-1,2-Dichloroethene	ND	2500	2500	100	2500	2800	112	11	70-130	20
Trichloroethene	ND	2500	2600	104	2500	2800	112	7	70-130	20
1,2-Dichlorobenzene	ND	2500	2400	96	2500	2500	100	4	70-130	20
1,3-Dichlorobenzene	ND	2500	2400	96	2500	2500	100	4	70-130	20
1,4-Dichlorobenzene	ND	2500	2400	96	2500	2400	96	0	70-130	20
Methyl tert butyl ether	ND	2500	2300	92	2500	2600	104	12	63-130	20
p/m-Xylene	ND	5000	4900	98	5000	5200	104	6	70-130	20
o-Xylene	ND	5000	5000	100	5000	5200	104	4	70-130	20
cis-1,2-Dichloroethene	ND	2500	2600	104	2500	2700	108	4	70-130	20
Dibromomethane	ND	2500	2500	100	2500	2700	108	8	70-130	20
1,2,3-Trichloropropane	ND	2500	2600	104	2500	2800	112	7	64-130	20
Acrylonitrile	ND	2500	2600	104	2500	2900	116	11	70-130	20
Styrene	ND	5000	4700	94	5000	5000	100	6	70-130	20
Dichlorodifluoromethane	ND	2500	3000	120	2500	3200	128	6	36-147	20
Acetone	480J	2500	3200	128	2500	3100	124	3	58-148	20
Carbon disulfide	ND	2500	2700	108	2500	2900	116	7	51-130	20
2-Butanone	6100	2500	9300	128	2500	8700	104	7	63-138	20
Vinyl acetate	ND	2500	2400	96	2500	2700	108	12	70-130	20

Matrix Spike Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-7RD_23.75	**Matrix (Level)**	: WATER (LOW)
Lab Sample ID	: L2469254-02	**Analysis Date**	: 11/23/24 22:25
Matrix Spike	: WG2001825-6	**MS Analysis Date**	: 11/24/24 05:44
Matrix Spike Dup	: WG2001825-7	**MSD Analysis Date**	: 11/24/24 06:08

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
4-Methyl-2-pentanone	ND	2500	2400	96	2500	2700	108	12	59-130	20
2-Hexanone	ND	2500	2200	88	2500	2500	100	13	57-130	20
Bromochloromethane	ND	2500	2300	92	2500	2700	108	16	70-130	20
2,2-Dichloropropane	ND	2500	2100	84	2500	2200	88	5	63-133	20
1,2-Dibromoethane	ND	2500	2400	96	2500	2600	104	8	70-130	20
1,3-Dichloropropane	ND	2500	2600	104	2500	2800	112	7	70-130	20
1,1,1,2-Tetrachloroethane	ND	2500	2400	96	2500	2600	104	8	64-130	20
Bromobenzene	ND	2500	2400	96	2500	2500	100	4	70-130	20
n-Butylbenzene	ND	2500	2400	96	2500	2500	100	4	53-136	20
sec-Butylbenzene	ND	2500	2400	96	2500	2500	100	4	70-130	20
tert-Butylbenzene	ND	2500	2400	96	2500	2500	100	4	70-130	20
o-Chlorotoluene	ND	2500	2600	104	2500	2600	104	0	70-130	20
p-Chlorotoluene	ND	2500	2500	100	2500	2600	104	4	70-130	20
1,2-Dibromo-3-chloropropane	ND	2500	2400	96	2500	2400	96	0	41-144	20
Hexachlorobutadiene	ND	2500	2000	80	2500	2100	84	5	63-130	20
Isopropylbenzene	ND	2500	2500	100	2500	2600	104	4	70-130	20
p-Isopropyltoluene	ND	2500	2400	96	2500	2400	96	0	70-130	20
Naphthalene	ND	2500	2300	92	2500	2400	96	4	70-130	20
n-Propylbenzene	ND	2500	2500	100	2500	2600	104	4	69-130	20
1,2,3-Trichlorobenzene	ND	2500	2200	88	2500	2300	92	4	70-130	20
1,2,4-Trichlorobenzene	ND	2500	2200	88	2500	2300	92	4	70-130	20
1,3,5-Trimethylbenzene	ND	2500	2500	100	2500	2600	104	4	64-130	20

Matrix Spike Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Client Sample ID	: LMW-7RD_23.75	**Matrix (Level)**	: WATER (LOW)
Lab Sample ID	: L2469254-02	**Analysis Date**	: 11/23/24 22:25
Matrix Spike	: WG2001825-6	**MS Analysis Date**	: 11/24/24 05:44
Matrix Spike Dup	: WG2001825-7	**MSD Analysis Date**	: 11/24/24 06:08

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
1,2,4-Trimethylbenzene	ND	2500	2500	100	2500	2500	100	0	70-130	20
1,4-Dioxane	ND	125000	95000	76	125000	110000	88	15	56-162	20
p-Diethylbenzene	ND	2500	2400	96	2500	2400	96	0	70-130	20
p-Ethyltoluene	ND	2500	2500	100	2500	2600	104	4	70-130	20
1,2,4,5-Tetramethylbenzene	ND	2500	2300	92	2500	2300	92	0	70-130	20
Ethyl ether	ND	2500	2800	112	2500	3000	120	7	59-134	20
trans-1,4-Dichloro-2-butene	ND	2500	2300	92	2500	2600	104	12	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG2001825-5	**Lab File ID**	: VE241123N05
Instrument ID	: ELAINE		
Matrix	: WATER	**Analysis Date**	: 11/23/24 21:11

Client Sample No.	Lab Sample ID	Analysis Date
WG2001825-3LCS	WG2001825-3	11/23/24 19:58
WG2001825-4LCSD	WG2001825-4	11/23/24 20:22
TB_11222024	L2469254-01	11/23/24 21:36
LMW-6RS_18.75	L2469254-10D	11/23/24 22:00
LMW-7RD_23.75	L2469254-02D	11/23/24 22:25
LMW-8RS_18.75	L2469254-04D	11/23/24 22:49
LMW-8RD_59.75	L2469254-08D	11/23/24 23:38
LMW-7RD_23.75MS	WG2001825-6	11/24/24 05:44
LMW-7RD_23.75MSD	WG2001825-7	11/24/24 06:08

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG2001843-5	**Lab File ID**	: VE241124A05
Instrument ID	: ELAINE		
Matrix	: WATER	**Analysis Date**	: 11/24/24 12:10

Client Sample No.	Lab Sample ID	Analysis Date
WG2001843-3LCS	WG2001843-3	11/24/24 10:56
WG2001843-4LCSD	WG2001843-4	11/24/24 11:21
LMW-8RS_6.75	L2469254-03D	11/24/24 12:34
LMW-7RS_6.75	L2469254-05D	11/24/24 12:59
LMW-8RD_27.75	L2469254-07D	11/24/24 13:23
LMW-9RS_13.75	L2469254-09D	11/24/24 13:48
LMW-7RS_16.75	L2469254-11D	11/24/24 14:12

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG2001998-5	**Lab File ID**	: VG241125A05
Instrument ID	: GONZO		
Matrix	: WATER	**Analysis Date**	: 11/25/24 08:49

Client Sample No.	Lab Sample ID	Analysis Date
WG2001998-3LCS	WG2001998-3	11/25/24 07:14
WG2001998-4LCSD	WG2001998-4	11/25/24 07:37
LMW-9RD_58.25	L2469254-06	11/25/24 09:13

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 10/03/24 03:49
Tune Standard	: WG1980167-1	**Tune File ID**	: VG241003ABF2_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	20.6
75	30.0 - 80.0% of mass 95	49.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1)1
174	Greater than 50.0% of mass 95	81.3
175	5.0 - 9.0% of mass 174	5.3 (6.5)1
176	Greater than 95.0% but less than 101% of mass	78.5 (96.5)1
177	5.0 - 9.0% of mass 176	5.3 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1883860-1	VG241003A03	10/03/24 04:54
STD0.5PPB	R1883860-2	VG241003A05	10/03/24 05:42
STD2PPB	R1883860-3	VG241003A07	10/03/24 06:30
STD10PPB	R1883860-4	VG241003A09	10/03/24 07:18
STD30PPB	R1883860-5	VG241003A10	10/03/24 07:42
STD80PPB	R1883860-6	VG241003A11	10/03/24 08:06
STD120PPB	R1883860-7	VG241003A12	10/03/24 08:30
STD200PPB	R1883860-8	VG241003A13	10/03/24 08:54
ICV Quant Report	R1883860-9	VG241003A18	10/03/24 10:54

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 11/25/24 07:00
Tune Standard	: WG2001998-1	**Tune File ID**	: VG241125ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	21.6
75	30.0 - 80.0% of mass 95	48.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (.9)1
174	Greater than 50.0% of mass 95	89.7
175	5.0 - 9.0% of mass 174	6.4 (7.2)1
176	Greater than 95.0% but less than 101% of mass	89.7 (100)1
177	5.0 - 9.0% of mass 176	5.9 (6.5)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG2001998-2CCAL	WG2001998-2	VG241125A01	11/25/24 07:14
WG2001998-3LCS	WG2001998-3	VG241125A01	11/25/24 07:14
WG2001998-4LCSD	WG2001998-4	VG241125A02	11/25/24 07:37
WG2001998-5BLANK	WG2001998-5	VG241125A05	11/25/24 08:49
LMW-9RD_58.25	L2469254-06	VG241125A06	11/25/24 09:13

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/15/24 01:44
Tune Standard	: WG1998028-1	**Tune File ID**	: VE241115ABF3_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 80.0% of mass 95	51.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.4 (.4)1
174	Greater than 50.0% of mass 95	80.3
175	5.0 - 9.0% of mass 174	6.5 (8.1)1
176	Greater than 95.0% but less than 101% of mass	77.6 (96.6)1
177	5.0 - 9.0% of mass 176	5.8 (7.4)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1900740-1	VE241115A03	11/15/24 02:52
STD0.5PPB	R1900740-2	VE241115A05	11/15/24 03:41
STD2PPB	R1900740-3	VE241115A07	11/15/24 04:30
STD10PPB	R1900740-4	VE241115A09	11/15/24 05:18
STD30PPB	R1900740-5	VE241115A10	11/15/24 05:43
STD80PPB	R1900740-6	VE241115A11	11/15/24 06:07
STD120PPB	R1900740-7	VE241115A12	11/15/24 06:32
STD200PPB	R1900740-8	VE241115A13	11/15/24 06:56
ICV Quant Report	R1900740-9	VE241115A18	11/15/24 08:59

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/23/24 19:21
Tune Standard	: WG2001825-1	**Tune File ID**	: VE241123NBF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 80.0% of mass 95	50.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.3 (.4)1
174	Greater than 50.0% of mass 95	71.3
175	5.0 - 9.0% of mass 174	5.5 (7.7)1
176	Greater than 95.0% but less than 101% of mass	68.8 (96.4)1
177	5.0 - 9.0% of mass 176	5.3 (7.8)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG2001825-2CCAL	WG2001825-2	VE241123N02	11/23/24 19:58
WG2001825-3LCS	WG2001825-3	VE241123N02	11/23/24 19:58
WG2001825-4LCSD	WG2001825-4	VE241123N03	11/23/24 20:22
WG2001825-5BLANK	WG2001825-5	VE241123N05	11/23/24 21:11
TB_11222024	L2469254-01	VE241123N06	11/23/24 21:36
LMW-6RS_18.75	L2469254-10D	VE241123N07	11/23/24 22:00
LMW-7RD_23.75	L2469254-02D	VE241123N08	11/23/24 22:25
LMW-8RS_18.75	L2469254-04D	VE241123N09	11/23/24 22:49
LMW-8RD_59.75	L2469254-08D	VE241123N11	11/23/24 23:38
WG2001825-6MS	WG2001825-6	VE241123N26	11/24/24 05:44
WG2001825-7MSD	WG2001825-7	VE241123N27	11/24/24 06:08

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/24/24 10:18
Tune Standard	: WG2001843-1	**Tune File ID**	: VE241124ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	22.1
75	30.0 - 80.0% of mass 95	52.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0% of mass 95	71.1
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0% but less than 101% of mass	69.7 (98)1
177	5.0 - 9.0% of mass 176	4.6 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG2001843-2CCAL	WG2001843-2	VE241124A02	11/24/24 10:56
WG2001843-3LCS	WG2001843-3	VE241124A02	11/24/24 10:56
WG2001843-4LCSD	WG2001843-4	VE241124A03	11/24/24 11:21
WG2001843-5BLANK	WG2001843-5	VE241124A05	11/24/24 12:10
LMW-8RS_6.75	L2469254-03D	VE241124A06	11/24/24 12:34
LMW-7RS_6.75	L2469254-05D	VE241124A07	11/24/24 12:59
LMW-8RD_27.75	L2469254-07D	VE241124A08	11/24/24 13:23
LMW-9RS_13.75	L2469254-09D	VE241124A09	11/24/24 13:48
LMW-7RS_16.75	L2469254-11D	VE241124A10	11/24/24 14:12

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/23/24 19:58:00
Sample No	: WG2001825-2	**Lab File ID**	: VE241123N02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG2001825-2	198303	5.94	142748	9.47	72729	12.19
Upper Limit	396606	6.44	285496	9.97	145458	12.69
Lower Limit	99152	5.44	71374	8.97	36365	11.69
Sample ID						
WG2001825-3 LCS	198303	5.94	142748	9.47	72729	12.19
WG2001825-4 LCSD	202167	5.94	141632	9.47	73969	12.19
WG2001825-5 BLANK	193233	5.94	134029	9.47	66296	12.19
TB_11222024	183802	5.94	131122	9.47	64015	12.19
LMW-6RS_18.75	178274	5.94	131299	9.47	64368	12.19
LMW-7RD_23.75	182327	5.94	133152	9.47	64947	12.19
LMW-8RS_18.75	184937	5.94	130222	9.47	65124	12.19
LMW-8RD_59.75	184049	5.94	130456	9.47	65101	12.19
LMW-7RD_23.75 MS	199203	5.94	141375	9.47	72310	12.19
LMW-7RD_23.75 MSD	196398	5.94	140236	9.47	73296	12.19

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: ELAINE	**Analysis Date**	: 11/24/24 10:56:00
Sample No	: WG2001843-2	**Lab File ID**	: VE241124A02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG2001843-2	209590	5.94	148793	9.47	74459	12.19
Upper Limit	419180	6.44	297586	9.97	148918	12.69
Lower Limit	104795	5.44	74397	8.97	37230	11.69
Sample ID						
WG2001843-3 LCS	209590	5.94	148793	9.47	74459	12.19
WG2001843-4 LCSD	206972	5.94	146195	9.47	73699	12.19
WG2001843-5 BLANK	200946	5.94	138199	9.47	68423	12.19
LMW-8RS_6.75	195656	5.95	138291	9.47	70180	12.19
LMW-7RS_6.75	194289	5.94	137704	9.47	67489	12.19
LMW-8RD_27.75	195908	5.94	141683	9.47	68301	12.19
LMW-9RS_13.75	197731	5.94	139712	9.47	71312	12.19
LMW-7RS_16.75	194552	5.94	135069	9.47	67575	12.19

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: GONZO	**Analysis Date**	: 11/25/24 07:14:00
Sample No	: WG2001998-2	**Lab File ID**	: VG241125A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG2001998-2	566955	6.06	435387	9.59	248554	12.29
Upper Limit	1133910	6.56	870774	10.09	497108	12.79
Lower Limit	283478	5.56	217694	9.09	124277	11.79
Sample ID						
WG2001998-3 LCS	566955	6.06	435387	9.59	248554	12.29
WG2001998-4 LCSD	522490	6.06	405367	9.59	234646	12.29
WG2001998-5 BLANK	513585	6.06	394311	9.60	215403	12.29
LMW-9RD_58.25	509668	6.06	389575	9.60	216281	12.29

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14094-1
Page: 1

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14094-1
Page: 2

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
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Date Created: 03/15/23
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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
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Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-01	**Date Collected**	: 11/21/24 00:00
Client ID	: TB_11222024	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 21:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-01	**Date Collected**	: 11/21/24 00:00
Client ID	: TB_11222024	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 21:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-01	**Date Collected**	: 11/21/24 00:00
Client ID	: TB_11222024	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 21:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-01	**Date Collected**	: 11/21/24 00:00
Client ID	: TB_11222024	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 21:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N06	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-02D	**Date Collected**	: 11/22/24 08:30
Client ID	: LMW-7RD_23.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:25
Sample Matrix	: WATER	**Dilution Factor**	: 250
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N08	**Instrument ID**	: ELAINE
Sample Amount	: 0.04 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	620	180	U
75-34-3	1,1-Dichloroethane	ND	620	180	U
67-66-3	Chloroform	ND	620	180	U
56-23-5	Carbon tetrachloride	ND	120	34.	U
78-87-5	1,2-Dichloropropane	ND	250	34.	U
124-48-1	Dibromochloromethane	ND	120	37.	U
79-00-5	1,1,2-Trichloroethane	ND	380	120	U
127-18-4	Tetrachloroethene	ND	120	45.	U
108-90-7	Chlorobenzene	ND	620	180	U
75-69-4	Trichlorofluoromethane	ND	620	180	U
107-06-2	1,2-Dichloroethane	ND	120	33.	U
71-55-6	1,1,1-Trichloroethane	ND	620	180	U
75-27-4	Bromodichloromethane	ND	120	48.	U
10061-02-6	trans-1,3-Dichloropropene	ND	120	41.	U
10061-01-5	cis-1,3-Dichloropropene	ND	120	36.	U
542-75-6	1,3-Dichloropropene, Total	ND	120	36.	U
563-58-6	1,1-Dichloropropene	ND	620	180	U
75-25-2	Bromoform	ND	500	160	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	120	42.	U
71-43-2	Benzene	ND	120	40.	U
108-88-3	Toluene	ND	620	180	U
100-41-4	Ethylbenzene	ND	620	180	U
74-87-3	Chloromethane	ND	620	180	U
74-83-9	Bromomethane	ND	620	180	U
75-01-4	Vinyl chloride	ND	250	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-02D	**Date Collected**	: 11/22/24 08:30
Client ID	: LMW-7RD_23.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:25
Sample Matrix	: WATER	**Dilution Factor**	: 250
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N08	**Instrument ID**	: ELAINE
Sample Amount	: 0.04 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	620	180	U
75-35-4	1,1-Dichloroethene	ND	120	42.	U
156-60-5	trans-1,2-Dichloroethene	ND	620	180	U
79-01-6	Trichloroethene	ND	120	44.	U
95-50-1	1,2-Dichlorobenzene	ND	620	180	U
541-73-1	1,3-Dichlorobenzene	ND	620	180	U
106-46-7	1,4-Dichlorobenzene	ND	620	180	U
1634-04-4	Methyl tert butyl ether	ND	620	42.	U
179601-23-1	p/m-Xylene	ND	620	180	U
95-47-6	o-Xylene	ND	620	180	U
1330-20-7	Xylenes, Total	ND	620	180	U
156-59-2	cis-1,2-Dichloroethene	ND	620	180	U
540-59-0	1,2-Dichloroethene, Total	ND	620	180	U
74-95-3	Dibromomethane	ND	1200	250	U
96-18-4	1,2,3-Trichloropropane	ND	620	180	U
107-13-1	Acrylonitrile	ND	1200	380	U
100-42-5	Styrene	ND	620	180	U
75-71-8	Dichlorodifluoromethane	ND	1200	250	U
67-64-1	Acetone	480	1200	360	J
75-15-0	Carbon disulfide	ND	1200	250	U
78-93-3	2-Butanone	6100	1200	480	
108-05-4	Vinyl acetate	ND	1200	250	U
108-10-1	4-Methyl-2-pentanone	ND	1200	250	U
591-78-6	2-Hexanone	ND	1200	250	U
74-97-5	Bromochloromethane	ND	620	180	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-02D	**Date Collected**	: 11/22/24 08:30
Client ID	: LMW-7RD_23.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:25
Sample Matrix	: WATER	**Dilution Factor**	: 250
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N08	**Instrument ID**	: ELAINE
Sample Amount	: 0.04 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	620	180	U
106-93-4	1,2-Dibromoethane	ND	500	160	U
142-28-9	1,3-Dichloropropane	ND	620	180	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	620	180	U
108-86-1	Bromobenzene	ND	620	180	U
104-51-8	n-Butylbenzene	ND	620	180	U
135-98-8	sec-Butylbenzene	ND	620	180	U
98-06-6	tert-Butylbenzene	ND	620	180	U
95-49-8	o-Chlorotoluene	ND	620	180	U
106-43-4	p-Chlorotoluene	ND	620	180	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	620	180	U
87-68-3	Hexachlorobutadiene	ND	620	180	U
98-82-8	Isopropylbenzene	ND	620	180	U
99-87-6	p-Isopropyltoluene	ND	620	180	U
91-20-3	Naphthalene	ND	620	180	U
103-65-1	n-Propylbenzene	ND	620	180	U
87-61-6	1,2,3-Trichlorobenzene	ND	620	180	U
120-82-1	1,2,4-Trichlorobenzene	ND	620	180	U
108-67-8	1,3,5-Trimethylbenzene	ND	620	180	U
95-63-6	1,2,4-Trimethylbenzene	ND	620	180	U
123-91-1	1,4-Dioxane	ND	62000	15000	U
105-05-5	p-Diethylbenzene	ND	500	180	U
622-96-8	p-Ethyltoluene	ND	500	180	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	500	140	U
60-29-7	Ethyl ether	ND	620	180	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-02D	**Date Collected**	: 11/22/24 08:30
Client ID	: LMW-7RD_23.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:25
Sample Matrix	: WATER	**Dilution Factor**	: 250
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N08	**Instrument ID**	: ELAINE
Sample Amount	: 0.04 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	620	180	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-03D	**Date Collected**	: 11/22/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:34
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A06	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	25	7.0	U
75-34-3	1,1-Dichloroethane	ND	25	7.0	U
67-66-3	Chloroform	ND	25	7.0	U
56-23-5	Carbon tetrachloride	ND	5.0	1.3	U
78-87-5	1,2-Dichloropropane	ND	10	1.4	U
124-48-1	Dibromochloromethane	ND	5.0	1.5	U
79-00-5	1,1,2-Trichloroethane	ND	15	5.0	U
127-18-4	Tetrachloroethene	ND	5.0	1.8	U
108-90-7	Chlorobenzene	ND	25	7.0	U
75-69-4	Trichlorofluoromethane	ND	25	7.0	U
107-06-2	1,2-Dichloroethane	ND	5.0	1.3	U
71-55-6	1,1,1-Trichloroethane	ND	25	7.0	U
75-27-4	Bromodichloromethane	ND	5.0	1.9	U
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.6	U
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.4	U
542-75-6	1,3-Dichloropropene, Total	ND	5.0	1.4	U
563-58-6	1,1-Dichloropropene	ND	25	7.0	U
75-25-2	Bromoform	ND	20	6.5	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.7	U
71-43-2	Benzene	ND	5.0	1.6	U
108-88-3	Toluene	ND	25	7.0	U
100-41-4	Ethylbenzene	ND	25	7.0	U
74-87-3	Chloromethane	ND	25	7.0	U
74-83-9	Bromomethane	ND	25	7.0	U
75-01-4	Vinyl chloride	ND	10	0.71	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-03D	**Date Collected**	: 11/22/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:34
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A06	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	25	7.0	U
75-35-4	1,1-Dichloroethene	ND	5.0	1.7	U
156-60-5	trans-1,2-Dichloroethene	ND	25	7.0	U
79-01-6	Trichloroethene	ND	5.0	1.8	U
95-50-1	1,2-Dichlorobenzene	ND	25	7.0	U
541-73-1	1,3-Dichlorobenzene	ND	25	7.0	U
106-46-7	1,4-Dichlorobenzene	ND	25	7.0	U
1634-04-4	Methyl tert butyl ether	ND	25	1.7	U
179601-23-1	p/m-Xylene	ND	25	7.0	U
95-47-6	o-Xylene	ND	25	7.0	U
1330-20-7	Xylenes, Total	ND	25	7.0	U
156-59-2	cis-1,2-Dichloroethene	ND	25	7.0	U
540-59-0	1,2-Dichloroethene, Total	ND	25	7.0	U
74-95-3	Dibromomethane	ND	50	10.	U
96-18-4	1,2,3-Trichloropropane	ND	25	7.0	U
107-13-1	Acrylonitrile	ND	50	15.	U
100-42-5	Styrene	ND	25	7.0	U
75-71-8	Dichlorodifluoromethane	ND	50	10.	U
67-64-1	Acetone	140	50	15.	
75-15-0	Carbon disulfide	ND	50	10.	U
78-93-3	2-Butanone	1000	50	19.	
108-05-4	Vinyl acetate	ND	50	10.	U
108-10-1	4-Methyl-2-pentanone	ND	50	10.	U
591-78-6	2-Hexanone	25	50	10.	J
74-97-5	Bromochloromethane	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-03D	**Date Collected**	: 11/22/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:34
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A06	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	25	7.0	U
106-93-4	1,2-Dibromoethane	ND	20	6.5	U
142-28-9	1,3-Dichloropropane	ND	25	7.0	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	7.0	U
108-86-1	Bromobenzene	ND	25	7.0	U
104-51-8	n-Butylbenzene	ND	25	7.0	U
135-98-8	sec-Butylbenzene	ND	25	7.0	U
98-06-6	tert-Butylbenzene	ND	25	7.0	U
95-49-8	o-Chlorotoluene	ND	25	7.0	U
106-43-4	p-Chlorotoluene	ND	25	7.0	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	7.0	U
87-68-3	Hexachlorobutadiene	ND	25	7.0	U
98-82-8	Isopropylbenzene	ND	25	7.0	U
99-87-6	p-Isopropyltoluene	ND	25	7.0	U
91-20-3	Naphthalene	ND	25	7.0	U
103-65-1	n-Propylbenzene	ND	25	7.0	U
87-61-6	1,2,3-Trichlorobenzene	ND	25	7.0	U
120-82-1	1,2,4-Trichlorobenzene	ND	25	7.0	U
108-67-8	1,3,5-Trimethylbenzene	ND	25	7.0	U
95-63-6	1,2,4-Trimethylbenzene	ND	25	7.0	U
123-91-1	1,4-Dioxane	ND	2500	610	U
105-05-5	p-Diethylbenzene	ND	20	7.0	U
622-96-8	p-Ethyltoluene	ND	20	7.0	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	20	5.4	U
60-29-7	Ethyl ether	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-03D	**Date Collected**	: 11/22/24 14:00
Client ID	: LMW-8RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:34
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A06	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-04D	**Date Collected**	: 11/22/24 13:30
Client ID	: LMW-8RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:49
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N09	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	62	18.	U
75-34-3	1,1-Dichloroethane	ND	62	18.	U
67-66-3	Chloroform	ND	62	18.	U
56-23-5	Carbon tetrachloride	ND	12	3.4	U
78-87-5	1,2-Dichloropropane	ND	25	3.4	U
124-48-1	Dibromochloromethane	ND	12	3.7	U
79-00-5	1,1,2-Trichloroethane	ND	38	12.	U
127-18-4	Tetrachloroethene	ND	12	4.5	U
108-90-7	Chlorobenzene	ND	62	18.	U
75-69-4	Trichlorofluoromethane	ND	62	18.	U
107-06-2	1,2-Dichloroethane	ND	12	3.3	U
71-55-6	1,1,1-Trichloroethane	ND	62	18.	U
75-27-4	Bromodichloromethane	ND	12	4.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	12	4.1	U
10061-01-5	cis-1,3-Dichloropropene	ND	12	3.6	U
542-75-6	1,3-Dichloropropene, Total	ND	12	3.6	U
563-58-6	1,1-Dichloropropene	ND	62	18.	U
75-25-2	Bromoform	ND	50	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	12	4.2	U
71-43-2	Benzene	ND	12	4.0	U
108-88-3	Toluene	ND	62	18.	U
100-41-4	Ethylbenzene	ND	62	18.	U
74-87-3	Chloromethane	ND	62	18.	U
74-83-9	Bromomethane	ND	62	18.	U
75-01-4	Vinyl chloride	ND	25	1.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-04D	**Date Collected**	: 11/22/24 13:30
Client ID	: LMW-8RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:49
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N09	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	62	18.	U
75-35-4	1,1-Dichloroethene	ND	12	4.2	U
156-60-5	trans-1,2-Dichloroethene	ND	62	18.	U
79-01-6	Trichloroethene	ND	12	4.4	U
95-50-1	1,2-Dichlorobenzene	ND	62	18.	U
541-73-1	1,3-Dichlorobenzene	ND	62	18.	U
106-46-7	1,4-Dichlorobenzene	ND	62	18.	U
1634-04-4	Methyl tert butyl ether	ND	62	4.2	U
179601-23-1	p/m-Xylene	ND	62	18.	U
95-47-6	o-Xylene	ND	62	18.	U
1330-20-7	Xylenes, Total	ND	62	18.	U
156-59-2	cis-1,2-Dichloroethene	ND	62	18.	U
540-59-0	1,2-Dichloroethene, Total	ND	62	18.	U
74-95-3	Dibromomethane	ND	120	25.	U
96-18-4	1,2,3-Trichloropropane	ND	62	18.	U
107-13-1	Acrylonitrile	ND	120	38.	U
100-42-5	Styrene	ND	62	18.	U
75-71-8	Dichlorodifluoromethane	ND	120	25.	U
67-64-1	Acetone	43	120	36.	J
75-15-0	Carbon disulfide	ND	120	25.	U
78-93-3	2-Butanone	210	120	48.	
108-05-4	Vinyl acetate	ND	120	25.	U
108-10-1	4-Methyl-2-pentanone	ND	120	25.	U
591-78-6	2-Hexanone	ND	120	25.	U
74-97-5	Bromochloromethane	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-04D	**Date Collected**	: 11/22/24 13:30
Client ID	: LMW-8RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:49
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N09	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	62	18.	U
106-93-4	1,2-Dibromoethane	ND	50	16.	U
142-28-9	1,3-Dichloropropane	ND	62	18.	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	18.	U
108-86-1	Bromobenzene	ND	62	18.	U
104-51-8	n-Butylbenzene	ND	62	18.	U
135-98-8	sec-Butylbenzene	ND	62	18.	U
98-06-6	tert-Butylbenzene	ND	62	18.	U
95-49-8	o-Chlorotoluene	ND	62	18.	U
106-43-4	p-Chlorotoluene	ND	62	18.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	62	18.	U
87-68-3	Hexachlorobutadiene	ND	62	18.	U
98-82-8	Isopropylbenzene	ND	62	18.	U
99-87-6	p-Isopropyltoluene	ND	62	18.	U
91-20-3	Naphthalene	ND	62	18.	U
103-65-1	n-Propylbenzene	ND	62	18.	U
87-61-6	1,2,3-Trichlorobenzene	ND	62	18.	U
120-82-1	1,2,4-Trichlorobenzene	ND	62	18.	U
108-67-8	1,3,5-Trimethylbenzene	ND	62	18.	U
95-63-6	1,2,4-Trimethylbenzene	ND	62	18.	U
123-91-1	1,4-Dioxane	ND	6200	1500	U
105-05-5	p-Diethylbenzene	ND	50	18.	U
622-96-8	p-Ethyltoluene	ND	50	18.	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	50	14.	U
60-29-7	Ethyl ether	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-04D	**Date Collected**	: 11/22/24 13:30
Client ID	: LMW-8RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:49
Sample Matrix	: WATER	**Dilution Factor**	: 25
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N09	**Instrument ID**	: ELAINE
Sample Amount	: 0.4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	62	18.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-05D	**Date Collected**	: 11/22/24 08:00
Client ID	: LMW-7RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:59
Sample Matrix	: WATER	**Dilution Factor**	: 40
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A07	**Instrument ID**	: ELAINE
Sample Amount	: 0.25 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	100	28.	U
75-34-3	1,1-Dichloroethane	ND	100	28.	U
67-66-3	Chloroform	ND	100	28.	U
56-23-5	Carbon tetrachloride	ND	20	5.4	U
78-87-5	1,2-Dichloropropane	ND	40	5.5	U
124-48-1	Dibromochloromethane	ND	20	6.0	U
79-00-5	1,1,2-Trichloroethane	ND	60	20.	U
127-18-4	Tetrachloroethene	ND	20	7.2	U
108-90-7	Chlorobenzene	ND	100	28.	U
75-69-4	Trichlorofluoromethane	ND	100	28.	U
107-06-2	1,2-Dichloroethane	ND	20	5.3	U
71-55-6	1,1,1-Trichloroethane	ND	100	28.	U
75-27-4	Bromodichloromethane	ND	20	7.7	U
10061-02-6	trans-1,3-Dichloropropene	ND	20	6.6	U
10061-01-5	cis-1,3-Dichloropropene	ND	20	5.8	U
542-75-6	1,3-Dichloropropene, Total	ND	20	5.8	U
563-58-6	1,1-Dichloropropene	ND	100	28.	U
75-25-2	Bromoform	ND	80	26.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	6.7	U
71-43-2	Benzene	ND	20	6.4	U
108-88-3	Toluene	ND	100	28.	U
100-41-4	Ethylbenzene	ND	100	28.	U
74-87-3	Chloromethane	ND	100	28.	U
74-83-9	Bromomethane	ND	100	28.	U
75-01-4	Vinyl chloride	ND	40	2.8	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-05D	**Date Collected**	: 11/22/24 08:00
Client ID	: LMW-7RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:59
Sample Matrix	: WATER	**Dilution Factor**	: 40
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A07	**Instrument ID**	: ELAINE
Sample Amount	: 0.25 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	100	28.	U
75-35-4	1,1-Dichloroethene	ND	20	6.8	U
156-60-5	trans-1,2-Dichloroethene	ND	100	28.	U
79-01-6	Trichloroethene	ND	20	7.0	U
95-50-1	1,2-Dichlorobenzene	ND	100	28.	U
541-73-1	1,3-Dichlorobenzene	ND	100	28.	U
106-46-7	1,4-Dichlorobenzene	ND	100	28.	U
1634-04-4	Methyl tert butyl ether	ND	100	6.6	U
179601-23-1	p/m-Xylene	ND	100	28.	U
95-47-6	o-Xylene	ND	100	28.	U
1330-20-7	Xylenes, Total	ND	100	28.	U
156-59-2	cis-1,2-Dichloroethene	ND	100	28.	U
540-59-0	1,2-Dichloroethene, Total	ND	100	28.	U
74-95-3	Dibromomethane	ND	200	40.	U
96-18-4	1,2,3-Trichloropropane	ND	100	28.	U
107-13-1	Acrylonitrile	ND	200	60.	U
100-42-5	Styrene	ND	100	28.	U
75-71-8	Dichlorodifluoromethane	ND	200	40.	U
67-64-1	Acetone	170	200	58.	J
75-15-0	Carbon disulfide	ND	200	40.	U
78-93-3	2-Butanone	640	200	78.	
108-05-4	Vinyl acetate	ND	200	40.	U
108-10-1	4-Methyl-2-pentanone	ND	200	40.	U
591-78-6	2-Hexanone	ND	200	40.	U
74-97-5	Bromochloromethane	ND	100	28.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-05D	**Date Collected**	: 11/22/24 08:00
Client ID	: LMW-7RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:59
Sample Matrix	: WATER	**Dilution Factor**	: 40
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A07	**Instrument ID**	: ELAINE
Sample Amount	: 0.25 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	100	28.	U
106-93-4	1,2-Dibromoethane	ND	80	26.	U
142-28-9	1,3-Dichloropropane	ND	100	28.	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	28.	U
108-86-1	Bromobenzene	ND	100	28.	U
104-51-8	n-Butylbenzene	ND	100	28.	U
135-98-8	sec-Butylbenzene	ND	100	28.	U
98-06-6	tert-Butylbenzene	ND	100	28.	U
95-49-8	o-Chlorotoluene	ND	100	28.	U
106-43-4	p-Chlorotoluene	ND	100	28.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	28.	U
87-68-3	Hexachlorobutadiene	ND	100	28.	U
98-82-8	Isopropylbenzene	ND	100	28.	U
99-87-6	p-Isopropyltoluene	ND	100	28.	U
91-20-3	Naphthalene	ND	100	28.	U
103-65-1	n-Propylbenzene	ND	100	28.	U
87-61-6	1,2,3-Trichlorobenzene	ND	100	28.	U
120-82-1	1,2,4-Trichlorobenzene	ND	100	28.	U
108-67-8	1,3,5-Trimethylbenzene	ND	100	28.	U
95-63-6	1,2,4-Trimethylbenzene	ND	100	28.	U
123-91-1	1,4-Dioxane	ND	10000	2400	U
105-05-5	p-Diethylbenzene	ND	80	28.	U
622-96-8	p-Ethyltoluene	ND	80	28.	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	80	22.	U
60-29-7	Ethyl ether	ND	100	28.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-05D	**Date Collected**	: 11/22/24 08:00
Client ID	: LMW-7RS_6.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 12:59
Sample Matrix	: WATER	**Dilution Factor**	: 40
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A07	**Instrument ID**	: ELAINE
Sample Amount	: 0.25 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	100	28.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-06	**Date Collected**	: 11/22/24 09:45
Client ID	: LMW-9RD_58.25	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/25/24 09:13
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A06	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.27	0.50	0.18	J
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	3.2	0.50	0.16	
108-88-3	Toluene	0.77	2.5	0.70	J
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.15	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-06	**Date Collected**	: 11/22/24 09:45
Client ID	: LMW-9RD_58.25	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/25/24 09:13
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A06	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	0.52	2.5	0.17	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	2.0	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	6.5	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-06	**Date Collected**	: 11/22/24 09:45
Client ID	: LMW-9RD_58.25	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/25/24 09:13
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A06	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-06	**Date Collected**	: 11/22/24 09:45
Client ID	: LMW-9RD_58.25	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/25/24 09:13
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A06	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-07D	**Date Collected**	: 11/22/24 11:30
Client ID	: LMW-8RD_27.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:23
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A08	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	12	3.5	U
75-34-3	1,1-Dichloroethane	ND	12	3.5	U
67-66-3	Chloroform	ND	12	3.5	U
56-23-5	Carbon tetrachloride	ND	2.5	0.67	U
78-87-5	1,2-Dichloropropane	ND	5.0	0.68	U
124-48-1	Dibromochloromethane	ND	2.5	0.74	U
79-00-5	1,1,2-Trichloroethane	ND	7.5	2.5	U
127-18-4	Tetrachloroethene	ND	2.5	0.90	U
108-90-7	Chlorobenzene	ND	12	3.5	U
75-69-4	Trichlorofluoromethane	ND	12	3.5	U
107-06-2	1,2-Dichloroethane	ND	2.5	0.66	U
71-55-6	1,1,1-Trichloroethane	ND	12	3.5	U
75-27-4	Bromodichloromethane	ND	2.5	0.96	U
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.82	U
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.72	U
542-75-6	1,3-Dichloropropene, Total	ND	2.5	0.72	U
563-58-6	1,1-Dichloropropene	ND	12	3.5	U
75-25-2	Bromoform	ND	10	3.2	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.84	U
71-43-2	Benzene	1.2	2.5	0.80	J
108-88-3	Toluene	ND	12	3.5	U
100-41-4	Ethylbenzene	ND	12	3.5	U
74-87-3	Chloromethane	ND	12	3.5	U
74-83-9	Bromomethane	ND	12	3.5	U
75-01-4	Vinyl chloride	ND	5.0	0.36	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-07D	**Date Collected**	: 11/22/24 11:30
Client ID	: LMW-8RD_27.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:23
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A08	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	12	3.5	U
75-35-4	1,1-Dichloroethene	ND	2.5	0.84	U
156-60-5	trans-1,2-Dichloroethene	ND	12	3.5	U
79-01-6	Trichloroethene	ND	2.5	0.88	U
95-50-1	1,2-Dichlorobenzene	ND	12	3.5	U
541-73-1	1,3-Dichlorobenzene	ND	12	3.5	U
106-46-7	1,4-Dichlorobenzene	ND	12	3.5	U
1634-04-4	Methyl tert butyl ether	ND	12	0.83	U
179601-23-1	p/m-Xylene	ND	12	3.5	U
95-47-6	o-Xylene	ND	12	3.5	U
1330-20-7	Xylenes, Total	ND	12	3.5	U
156-59-2	cis-1,2-Dichloroethene	ND	12	3.5	U
540-59-0	1,2-Dichloroethene, Total	ND	12	3.5	U
74-95-3	Dibromomethane	ND	25	5.0	U
96-18-4	1,2,3-Trichloropropane	ND	12	3.5	U
107-13-1	Acrylonitrile	ND	25	7.5	U
100-42-5	Styrene	ND	12	3.5	U
75-71-8	Dichlorodifluoromethane	ND	25	5.0	U
67-64-1	Acetone	ND	25	7.3	U
75-15-0	Carbon disulfide	ND	25	5.0	U
78-93-3	2-Butanone	ND	25	9.7	U
108-05-4	Vinyl acetate	ND	25	5.0	U
108-10-1	4-Methyl-2-pentanone	ND	25	5.0	U
591-78-6	2-Hexanone	ND	25	5.0	U
74-97-5	Bromochloromethane	ND	12	3.5	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-07D	**Date Collected**	: 11/22/24 11:30
Client ID	: LMW-8RD_27.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:23
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A08	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	12	3.5	U
106-93-4	1,2-Dibromoethane	ND	10	3.2	U
142-28-9	1,3-Dichloropropane	ND	12	3.5	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	12	3.5	U
108-86-1	Bromobenzene	ND	12	3.5	U
104-51-8	n-Butylbenzene	ND	12	3.5	U
135-98-8	sec-Butylbenzene	ND	12	3.5	U
98-06-6	tert-Butylbenzene	ND	12	3.5	U
95-49-8	o-Chlorotoluene	ND	12	3.5	U
106-43-4	p-Chlorotoluene	ND	12	3.5	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	12	3.5	U
87-68-3	Hexachlorobutadiene	ND	12	3.5	U
98-82-8	Isopropylbenzene	ND	12	3.5	U
99-87-6	p-Isopropyltoluene	ND	12	3.5	U
91-20-3	Naphthalene	ND	12	3.5	U
103-65-1	n-Propylbenzene	ND	12	3.5	U
87-61-6	1,2,3-Trichlorobenzene	ND	12	3.5	U
120-82-1	1,2,4-Trichlorobenzene	ND	12	3.5	U
108-67-8	1,3,5-Trimethylbenzene	ND	12	3.5	U
95-63-6	1,2,4-Trimethylbenzene	ND	12	3.5	U
123-91-1	1,4-Dioxane	ND	1200	300	U
105-05-5	p-Diethylbenzene	ND	10	3.5	U
622-96-8	p-Ethyltoluene	ND	10	3.5	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	10	2.7	U
60-29-7	Ethyl ether	ND	12	3.5	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-07D	**Date Collected**	: 11/22/24 11:30
Client ID	: LMW-8RD_27.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:23
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A08	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	12	3.5	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-08D	**Date Collected**	: 11/22/24 12:30
Client ID	: LMW-8RD_59.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 23:38
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N11	**Instrument ID**	: ELAINE
Sample Amount	: 0.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	50	14.	U
75-34-3	1,1-Dichloroethane	ND	50	14.	U
67-66-3	Chloroform	ND	50	14.	U
56-23-5	Carbon tetrachloride	ND	10	2.7	U
78-87-5	1,2-Dichloropropane	ND	20	2.7	U
124-48-1	Dibromochloromethane	ND	10	3.0	U
79-00-5	1,1,2-Trichloroethane	ND	30	10.	U
127-18-4	Tetrachloroethene	ND	10	3.6	U
108-90-7	Chlorobenzene	ND	50	14.	U
75-69-4	Trichlorofluoromethane	ND	50	14.	U
107-06-2	1,2-Dichloroethane	ND	10	2.6	U
71-55-6	1,1,1-Trichloroethane	ND	50	14.	U
75-27-4	Bromodichloromethane	ND	10	3.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.3	U
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.9	U
542-75-6	1,3-Dichloropropene, Total	ND	10	2.9	U
563-58-6	1,1-Dichloropropene	ND	50	14.	U
75-25-2	Bromoform	ND	40	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	3.3	U
71-43-2	Benzene	ND	10	3.2	U
108-88-3	Toluene	ND	50	14.	U
100-41-4	Ethylbenzene	ND	50	14.	U
74-87-3	Chloromethane	ND	50	14.	U
74-83-9	Bromomethane	ND	50	14.	U
75-01-4	Vinyl chloride	ND	20	1.4	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-08D	**Date Collected**	: 11/22/24 12:30
Client ID	: LMW-8RD_59.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 23:38
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N11	**Instrument ID**	: ELAINE
Sample Amount	: 0.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	50	14.	U
75-35-4	1,1-Dichloroethene	ND	10	3.4	U
156-60-5	trans-1,2-Dichloroethene	ND	50	14.	U
79-01-6	Trichloroethene	ND	10	3.5	U
95-50-1	1,2-Dichlorobenzene	ND	50	14.	U
541-73-1	1,3-Dichlorobenzene	ND	50	14.	U
106-46-7	1,4-Dichlorobenzene	ND	50	14.	U
1634-04-4	Methyl tert butyl ether	ND	50	3.3	U
179601-23-1	p/m-Xylene	ND	50	14.	U
95-47-6	o-Xylene	ND	50	14.	U
1330-20-7	Xylenes, Total	ND	50	14.	U
156-59-2	cis-1,2-Dichloroethene	ND	50	14.	U
540-59-0	1,2-Dichloroethene, Total	ND	50	14.	U
74-95-3	Dibromomethane	ND	100	20.	U
96-18-4	1,2,3-Trichloropropane	ND	50	14.	U
107-13-1	Acrylonitrile	ND	100	30.	U
100-42-5	Styrene	ND	50	14.	U
75-71-8	Dichlorodifluoromethane	ND	100	20.	U
67-64-1	Acetone	920	100	29.	
75-15-0	Carbon disulfide	ND	100	20.	U
78-93-3	2-Butanone	760	100	39.	
108-05-4	Vinyl acetate	ND	100	20.	U
108-10-1	4-Methyl-2-pentanone	ND	100	20.	U
591-78-6	2-Hexanone	ND	100	20.	U
74-97-5	Bromochloromethane	ND	50	14.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-08D	**Date Collected**	: 11/22/24 12:30
Client ID	: LMW-8RD_59.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 23:38
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N11	**Instrument ID**	: ELAINE
Sample Amount	: 0.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	50	14.	U
106-93-4	1,2-Dibromoethane	ND	40	13.	U
142-28-9	1,3-Dichloropropane	ND	50	14.	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	14.	U
108-86-1	Bromobenzene	ND	50	14.	U
104-51-8	n-Butylbenzene	ND	50	14.	U
135-98-8	sec-Butylbenzene	ND	50	14.	U
98-06-6	tert-Butylbenzene	ND	50	14.	U
95-49-8	o-Chlorotoluene	ND	50	14.	U
106-43-4	p-Chlorotoluene	ND	50	14.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	14.	U
87-68-3	Hexachlorobutadiene	ND	50	14.	U
98-82-8	Isopropylbenzene	ND	50	14.	U
99-87-6	p-Isopropyltoluene	ND	50	14.	U
91-20-3	Naphthalene	ND	50	14.	U
103-65-1	n-Propylbenzene	ND	50	14.	U
87-61-6	1,2,3-Trichlorobenzene	ND	50	14.	U
120-82-1	1,2,4-Trichlorobenzene	ND	50	14.	U
108-67-8	1,3,5-Trimethylbenzene	ND	50	14.	U
95-63-6	1,2,4-Trimethylbenzene	ND	50	14.	U
123-91-1	1,4-Dioxane	ND	5000	1200	U
105-05-5	p-Diethylbenzene	ND	40	14.	U
622-96-8	p-Ethyltoluene	ND	40	14.	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	40	11.	U
60-29-7	Ethyl ether	ND	50	14.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-08D	**Date Collected**	: 11/22/24 12:30
Client ID	: LMW-8RD_59.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 23:38
Sample Matrix	: WATER	**Dilution Factor**	: 20
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N11	**Instrument ID**	: ELAINE
Sample Amount	: 0.5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	50	14.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-09D	**Date Collected**	: 11/22/24 11:00
Client ID	: LMW-9RS_13.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:48
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A09	**Instrument ID**	: ELAINE
Sample Amount	: 0.2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	120	35.	U
75-34-3	1,1-Dichloroethane	ND	120	35.	U
67-66-3	Chloroform	ND	120	35.	U
56-23-5	Carbon tetrachloride	ND	25	6.7	U
78-87-5	1,2-Dichloropropane	ND	50	6.8	U
124-48-1	Dibromochloromethane	ND	25	7.4	U
79-00-5	1,1,2-Trichloroethane	ND	75	25.	U
127-18-4	Tetrachloroethene	ND	25	9.0	U
108-90-7	Chlorobenzene	ND	120	35.	U
75-69-4	Trichlorofluoromethane	ND	120	35.	U
107-06-2	1,2-Dichloroethane	ND	25	6.6	U
71-55-6	1,1,1-Trichloroethane	ND	120	35.	U
75-27-4	Bromodichloromethane	ND	25	9.6	U
10061-02-6	trans-1,3-Dichloropropene	ND	25	8.2	U
10061-01-5	cis-1,3-Dichloropropene	ND	25	7.2	U
542-75-6	1,3-Dichloropropene, Total	ND	25	7.2	U
563-58-6	1,1-Dichloropropene	ND	120	35.	U
75-25-2	Bromoform	ND	100	32.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	8.4	U
71-43-2	Benzene	ND	25	8.0	U
108-88-3	Toluene	ND	120	35.	U
100-41-4	Ethylbenzene	ND	120	35.	U
74-87-3	Chloromethane	ND	120	35.	U
74-83-9	Bromomethane	ND	120	35.	U
75-01-4	Vinyl chloride	ND	50	3.6	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-09D	**Date Collected**	: 11/22/24 11:00
Client ID	: LMW-9RS_13.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:48
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A09	**Instrument ID**	: ELAINE
Sample Amount	: 0.2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	120	35.	U
75-35-4	1,1-Dichloroethene	ND	25	8.4	U
156-60-5	trans-1,2-Dichloroethene	ND	120	35.	U
79-01-6	Trichloroethene	ND	25	8.8	U
95-50-1	1,2-Dichlorobenzene	ND	120	35.	U
541-73-1	1,3-Dichlorobenzene	ND	120	35.	U
106-46-7	1,4-Dichlorobenzene	ND	120	35.	U
1634-04-4	Methyl tert butyl ether	ND	120	8.3	U
179601-23-1	p/m-Xylene	ND	120	35.	U
95-47-6	o-Xylene	ND	120	35.	U
1330-20-7	Xylenes, Total	ND	120	35.	U
156-59-2	cis-1,2-Dichloroethene	ND	120	35.	U
540-59-0	1,2-Dichloroethene, Total	ND	120	35.	U
74-95-3	Dibromomethane	ND	250	50.	U
96-18-4	1,2,3-Trichloropropane	ND	120	35.	U
107-13-1	Acrylonitrile	ND	250	75.	U
100-42-5	Styrene	ND	120	35.	U
75-71-8	Dichlorodifluoromethane	ND	250	50.	U
67-64-1	Acetone	1200	250	73.	
75-15-0	Carbon disulfide	ND	250	50.	U
78-93-3	2-Butanone	6000	250	97.	
108-05-4	Vinyl acetate	ND	250	50.	U
108-10-1	4-Methyl-2-pentanone	ND	250	50.	U
591-78-6	2-Hexanone	62	250	50.	J
74-97-5	Bromochloromethane	ND	120	35.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-09D	**Date Collected**	: 11/22/24 11:00
Client ID	: LMW-9RS_13.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:48
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A09	**Instrument ID**	: ELAINE
Sample Amount	: 0.2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	120	35.	U
106-93-4	1,2-Dibromoethane	ND	100	32.	U
142-28-9	1,3-Dichloropropane	ND	120	35.	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	120	35.	U
108-86-1	Bromobenzene	ND	120	35.	U
104-51-8	n-Butylbenzene	ND	120	35.	U
135-98-8	sec-Butylbenzene	ND	120	35.	U
98-06-6	tert-Butylbenzene	ND	120	35.	U
95-49-8	o-Chlorotoluene	ND	120	35.	U
106-43-4	p-Chlorotoluene	ND	120	35.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	120	35.	U
87-68-3	Hexachlorobutadiene	ND	120	35.	U
98-82-8	Isopropylbenzene	ND	120	35.	U
99-87-6	p-Isopropyltoluene	ND	120	35.	U
91-20-3	Naphthalene	ND	120	35.	U
103-65-1	n-Propylbenzene	ND	120	35.	U
87-61-6	1,2,3-Trichlorobenzene	ND	120	35.	U
120-82-1	1,2,4-Trichlorobenzene	ND	120	35.	U
108-67-8	1,3,5-Trimethylbenzene	ND	120	35.	U
95-63-6	1,2,4-Trimethylbenzene	ND	120	35.	U
123-91-1	1,4-Dioxane	ND	12000	3000	U
105-05-5	p-Diethylbenzene	ND	100	35.	U
622-96-8	p-Ethyltoluene	ND	100	35.	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	100	27.	U
60-29-7	Ethyl ether	ND	120	35.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-09D	**Date Collected**	: 11/22/24 11:00
Client ID	: LMW-9RS_13.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 13:48
Sample Matrix	: WATER	**Dilution Factor**	: 50
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A09	**Instrument ID**	: ELAINE
Sample Amount	: 0.2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	120	35.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-10D	**Date Collected**	: 11/22/24 14:50
Client ID	: LMW-6RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:00
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N07	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	25	7.0	U
75-34-3	1,1-Dichloroethane	ND	25	7.0	U
67-66-3	Chloroform	ND	25	7.0	U
56-23-5	Carbon tetrachloride	ND	5.0	1.3	U
78-87-5	1,2-Dichloropropane	ND	10	1.4	U
124-48-1	Dibromochloromethane	ND	5.0	1.5	U
79-00-5	1,1,2-Trichloroethane	ND	15	5.0	U
127-18-4	Tetrachloroethene	ND	5.0	1.8	U
108-90-7	Chlorobenzene	ND	25	7.0	U
75-69-4	Trichlorofluoromethane	ND	25	7.0	U
107-06-2	1,2-Dichloroethane	ND	5.0	1.3	U
71-55-6	1,1,1-Trichloroethane	ND	25	7.0	U
75-27-4	Bromodichloromethane	ND	5.0	1.9	U
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.6	U
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.4	U
542-75-6	1,3-Dichloropropene, Total	ND	5.0	1.4	U
563-58-6	1,1-Dichloropropene	ND	25	7.0	U
75-25-2	Bromoform	ND	20	6.5	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.7	U
71-43-2	Benzene	ND	5.0	1.6	U
108-88-3	Toluene	ND	25	7.0	U
100-41-4	Ethylbenzene	ND	25	7.0	U
74-87-3	Chloromethane	ND	25	7.0	U
74-83-9	Bromomethane	ND	25	7.0	U
75-01-4	Vinyl chloride	ND	10	0.71	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-10D	**Date Collected**	: 11/22/24 14:50
Client ID	: LMW-6RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:00
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N07	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	25	7.0	U
75-35-4	1,1-Dichloroethene	ND	5.0	1.7	U
156-60-5	trans-1,2-Dichloroethene	ND	25	7.0	U
79-01-6	Trichloroethene	ND	5.0	1.8	U
95-50-1	1,2-Dichlorobenzene	ND	25	7.0	U
541-73-1	1,3-Dichlorobenzene	ND	25	7.0	U
106-46-7	1,4-Dichlorobenzene	ND	25	7.0	U
1634-04-4	Methyl tert butyl ether	ND	25	1.7	U
179601-23-1	p/m-Xylene	ND	25	7.0	U
95-47-6	o-Xylene	ND	25	7.0	U
1330-20-7	Xylenes, Total	ND	25	7.0	U
156-59-2	cis-1,2-Dichloroethene	ND	25	7.0	U
540-59-0	1,2-Dichloroethene, Total	ND	25	7.0	U
74-95-3	Dibromomethane	ND	50	10.	U
96-18-4	1,2,3-Trichloropropane	ND	25	7.0	U
107-13-1	Acrylonitrile	ND	50	15.	U
100-42-5	Styrene	ND	25	7.0	U
75-71-8	Dichlorodifluoromethane	ND	50	10.	U
67-64-1	Acetone	ND	50	15.	U
75-15-0	Carbon disulfide	ND	50	10.	U
78-93-3	2-Butanone	ND	50	19.	U
108-05-4	Vinyl acetate	ND	50	10.	U
108-10-1	4-Methyl-2-pentanone	ND	50	10.	U
591-78-6	2-Hexanone	ND	50	10.	U
74-97-5	Bromochloromethane	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-10D	**Date Collected**	: 11/22/24 14:50
Client ID	: LMW-6RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:00
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N07	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	25	7.0	U
106-93-4	1,2-Dibromoethane	ND	20	6.5	U
142-28-9	1,3-Dichloropropane	ND	25	7.0	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	7.0	U
108-86-1	Bromobenzene	ND	25	7.0	U
104-51-8	n-Butylbenzene	ND	25	7.0	U
135-98-8	sec-Butylbenzene	ND	25	7.0	U
98-06-6	tert-Butylbenzene	ND	25	7.0	U
95-49-8	o-Chlorotoluene	ND	25	7.0	U
106-43-4	p-Chlorotoluene	ND	25	7.0	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	7.0	U
87-68-3	Hexachlorobutadiene	ND	25	7.0	U
98-82-8	Isopropylbenzene	ND	25	7.0	U
99-87-6	p-Isopropyltoluene	ND	25	7.0	U
91-20-3	Naphthalene	ND	25	7.0	U
103-65-1	n-Propylbenzene	ND	25	7.0	U
87-61-6	1,2,3-Trichlorobenzene	ND	25	7.0	U
120-82-1	1,2,4-Trichlorobenzene	ND	25	7.0	U
108-67-8	1,3,5-Trimethylbenzene	ND	25	7.0	U
95-63-6	1,2,4-Trimethylbenzene	ND	25	7.0	U
123-91-1	1,4-Dioxane	ND	2500	610	U
105-05-5	p-Diethylbenzene	ND	20	7.0	U
622-96-8	p-Ethyltoluene	ND	20	7.0	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	20	5.4	U
60-29-7	Ethyl ether	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-10D	**Date Collected**	: 11/22/24 14:50
Client ID	: LMW-6RS_18.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/23/24 22:00
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE241123N07	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	25	7.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-11D	**Date Collected**	: 11/21/24 10:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 14:12
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A10	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	12	3.5	U
75-34-3	1,1-Dichloroethane	ND	12	3.5	U
67-66-3	Chloroform	3.8	12	3.5	J
56-23-5	Carbon tetrachloride	ND	2.5	0.67	U
78-87-5	1,2-Dichloropropane	ND	5.0	0.68	U
124-48-1	Dibromochloromethane	ND	2.5	0.74	U
79-00-5	1,1,2-Trichloroethane	ND	7.5	2.5	U
127-18-4	Tetrachloroethene	ND	2.5	0.90	U
108-90-7	Chlorobenzene	ND	12	3.5	U
75-69-4	Trichlorofluoromethane	ND	12	3.5	U
107-06-2	1,2-Dichloroethane	ND	2.5	0.66	U
71-55-6	1,1,1-Trichloroethane	ND	12	3.5	U
75-27-4	Bromodichloromethane	ND	2.5	0.96	U
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.82	U
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.72	U
542-75-6	1,3-Dichloropropene, Total	ND	2.5	0.72	U
563-58-6	1,1-Dichloropropene	ND	12	3.5	U
75-25-2	Bromoform	ND	10	3.2	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.84	U
71-43-2	Benzene	ND	2.5	0.80	U
108-88-3	Toluene	ND	12	3.5	U
100-41-4	Ethylbenzene	ND	12	3.5	U
74-87-3	Chloromethane	ND	12	3.5	U
74-83-9	Bromomethane	ND	12	3.5	U
75-01-4	Vinyl chloride	ND	5.0	0.36	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-11D	**Date Collected**	: 11/21/24 10:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 14:12
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A10	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	12	3.5	U
75-35-4	1,1-Dichloroethene	ND	2.5	0.84	U
156-60-5	trans-1,2-Dichloroethene	ND	12	3.5	U
79-01-6	Trichloroethene	ND	2.5	0.88	U
95-50-1	1,2-Dichlorobenzene	ND	12	3.5	U
541-73-1	1,3-Dichlorobenzene	ND	12	3.5	U
106-46-7	1,4-Dichlorobenzene	ND	12	3.5	U
1634-04-4	Methyl tert butyl ether	ND	12	0.83	U
179601-23-1	p/m-Xylene	ND	12	3.5	U
95-47-6	o-Xylene	ND	12	3.5	U
1330-20-7	Xylenes, Total	ND	12	3.5	U
156-59-2	cis-1,2-Dichloroethene	ND	12	3.5	U
540-59-0	1,2-Dichloroethene, Total	ND	12	3.5	U
74-95-3	Dibromomethane	ND	25	5.0	U
96-18-4	1,2,3-Trichloropropane	ND	12	3.5	U
107-13-1	Acrylonitrile	ND	25	7.5	U
100-42-5	Styrene	ND	12	3.5	U
75-71-8	Dichlorodifluoromethane	ND	25	5.0	U
67-64-1	Acetone	64	25	7.3	
75-15-0	Carbon disulfide	ND	25	5.0	U
78-93-3	2-Butanone	42	25	9.7	
108-05-4	Vinyl acetate	ND	25	5.0	U
108-10-1	4-Methyl-2-pentanone	ND	25	5.0	U
591-78-6	2-Hexanone	ND	25	5.0	U
74-97-5	Bromochloromethane	ND	12	3.5	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-11D	**Date Collected**	: 11/21/24 10:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 14:12
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A10	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	12	3.5	U
106-93-4	1,2-Dibromoethane	ND	10	3.2	U
142-28-9	1,3-Dichloropropane	ND	12	3.5	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	12	3.5	U
108-86-1	Bromobenzene	ND	12	3.5	U
104-51-8	n-Butylbenzene	ND	12	3.5	U
135-98-8	sec-Butylbenzene	ND	12	3.5	U
98-06-6	tert-Butylbenzene	ND	12	3.5	U
95-49-8	o-Chlorotoluene	ND	12	3.5	U
106-43-4	p-Chlorotoluene	ND	12	3.5	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	12	3.5	U
87-68-3	Hexachlorobutadiene	ND	12	3.5	U
98-82-8	Isopropylbenzene	ND	12	3.5	U
99-87-6	p-Isopropyltoluene	ND	12	3.5	U
91-20-3	Naphthalene	ND	12	3.5	U
103-65-1	n-Propylbenzene	ND	12	3.5	U
87-61-6	1,2,3-Trichlorobenzene	ND	12	3.5	U
120-82-1	1,2,4-Trichlorobenzene	ND	12	3.5	U
108-67-8	1,3,5-Trimethylbenzene	ND	12	3.5	U
95-63-6	1,2,4-Trimethylbenzene	ND	12	3.5	U
123-91-1	1,4-Dioxane	ND	1200	300	U
105-05-5	p-Diethylbenzene	ND	10	3.5	U
622-96-8	p-Ethyltoluene	ND	10	3.5	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	10	2.7	U
60-29-7	Ethyl ether	ND	12	3.5	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469254-11D	**Date Collected**	: 11/21/24 10:00
Client ID	: LMW-7RS_16.75	**Date Received**	: 11/22/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/24/24 14:12
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A10	**Instrument ID**	: ELAINE
Sample Amount	: 2 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	12	3.5	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001825-5	**Date Collected**	: NA
Client ID	: WG2001825-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/23/24 21:11
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241123N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001825-5	**Date Collected**	: NA
Client ID	: WG2001825-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/23/24 21:11
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241123N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001825-5	**Date Collected**	: NA
Client ID	: WG2001825-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/23/24 21:11
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241123N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001825-5	**Date Collected**	: NA
Client ID	: WG2001825-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/23/24 21:11
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241123N05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001843-5	**Date Collected**	: NA
Client ID	: WG2001843-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/24/24 12:10
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001843-5	**Date Collected**	: NA
Client ID	: WG2001843-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/24/24 12:10
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001843-5	**Date Collected**	: NA
Client ID	: WG2001843-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/24/24 12:10
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001843-5	**Date Collected**	: NA
Client ID	: WG2001843-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/24/24 12:10
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VE241124A05	**Instrument ID**	: ELAINE
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001998-5	**Date Collected**	: NA
Client ID	: WG2001998-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/25/24 08:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001998-5	**Date Collected**	: NA
Client ID	: WG2001998-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/25/24 08:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001998-5	**Date Collected**	: NA
Client ID	: WG2001998-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/25/24 08:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2001998-5	**Date Collected**	: NA
Client ID	: WG2001998-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/25/24 08:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: VG241125A05	**Instrument ID**	: GONZO
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N06.D
Acq On : 23 Nov 2024 9:36 pm
Operator : ELAINE:MJV
Sample : l2469254-01,31,10,10,,a,r1a
Misc : WG2001825,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:17:04 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	183802	10.000 ug/L	0.00
Standard Area 1 = 198303			Recovery = 92.69%		
63) Chlorobenzene-d5	9.467	117	131122	10.000 ug/L	0.00
Standard Area 1 = 142748			Recovery = 91.86%		
84) 1,4-Dichlorobenzene-d4	12.186	152	64015	10.000 ug/L	0.00
Standard Area 1 = 72729			Recovery = 88.02%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.136	113	41548	9.859 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.59%		
47) 1,2-Dichloroethane-d4	5.660	65	52337	10.496 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.96%		
64) Toluene-d8	7.629	98	186131	10.409 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.09%		
88) 4-Bromofluorobenzene	10.975	95	59006	10.033 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.33%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.600	85	26	N.D.	
3) Chloromethane	1.776	50	33	N.D.	
4) Vinyl chloride	1.728	62	29	N.D.	
5) Bromomethane	2.158	94	37	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	2.551	101	27	N.D.	
8) Ethyl ether	2.593	74	26	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.922	76	35	N.D.	
15) Methylene chloride	0.000		0	N.D.	
17) Acetone	0.000		0	N.D.	d
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.411	43	47	N.D.	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	4.818	83	29	N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N06.D
Acq On : 23 Nov 2024 9:36 pm
Operator : ELAINE:MJV
Sample : l2469254-01,31,10,10,,a,r1a
Misc : WG2001825,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:17:04 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.	d	
42) 2-Butanone	0.000		0	N.D.	d	
43) 1,1-Dichloropropene	5.261	75	26	N.D.		
45) Benzene	5.521	78	28	N.D.		
48) 1,2-Dichloroethane	5.727	62	30	N.D.		
52) Trichloroethene	0.000		0	N.D.	d	
54) Dibromomethane	0.000		0	N.D.	d	
55) 1,2-Dichloropropane	0.000		0	N.D.		
58) Bromodichloromethane	0.000		0	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	0.000		0	N.D.	d	
66) 4-Methyl-2-pentanone	0.000		0	N.D.	d	
67) Tetrachloroethene	8.137	166	28	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	0.000		0	N.D.		
75) 1,2-Dibromoethane	8.806	107	31	N.D.		
77) 2-Hexanone	9.129	43	37	N.D.		
78) Chlorobenzene	9.489	112	40	N.D.		
79) Ethylbenzene	9.539	91	66	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	0.000		0	N.D.		
82) o Xylene	0.000		0	N.D.		
83) Styrene	10.317	104	26	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.644	105	25	N.D.		
89) Bromobenzene	11.095	156	31	N.D.		
90) n-Propylbenzene	11.140	91	85	N.D.		
92) 1,1,2,2-Tetrachloroethane	11.204	83	31	N.D.		
93) 4-Ethyltoluene	11.251	105	35	N.D.		
94) 2-Chlorotoluene	11.140	91	85	N.D.		
95) 1,3,5-Trimethylbenzene	11.371	105	57	N.D.		
96) 1,2,3-Trichloropropane	11.165	75	26	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
98) 4-Chlorotoluene	11.497	91	33	N.D.		
99) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N06.D
Acq On : 23 Nov 2024 9:36 pm
Operator : ELAINE:MJV
Sample : l2469254-01,31,10,10,,a,r1a
Misc : WG2001825,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:17:04 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.770	105	102	N.D.		
103) sec-Butylbenzene	11.882	105	58	N.D.		
104) p-Isopropyltoluene	12.041	119	65	N.D.		
105) 1,3-Dichlorobenzene	12.110	146	37	N.D.		
106) 1,4-Dichlorobenzene	12.197	146	28	N.D.		
107) p-Diethylbenzene	12.473	119	46	N.D.		
108) n-Butylbenzene	12.478	91	122	N.D.		
109) 1,2-Dichlorobenzene	12.624	146	90	N.D.		
110) 1,2,4,5-Tetramethylben...	13.206	119	38	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.037	180	60	N.D.		
115) Naphthalene	14.325	128	368	N.D.		
116) 1,2,3-Trichlorobenzene	14.662	180	28	N.D.		

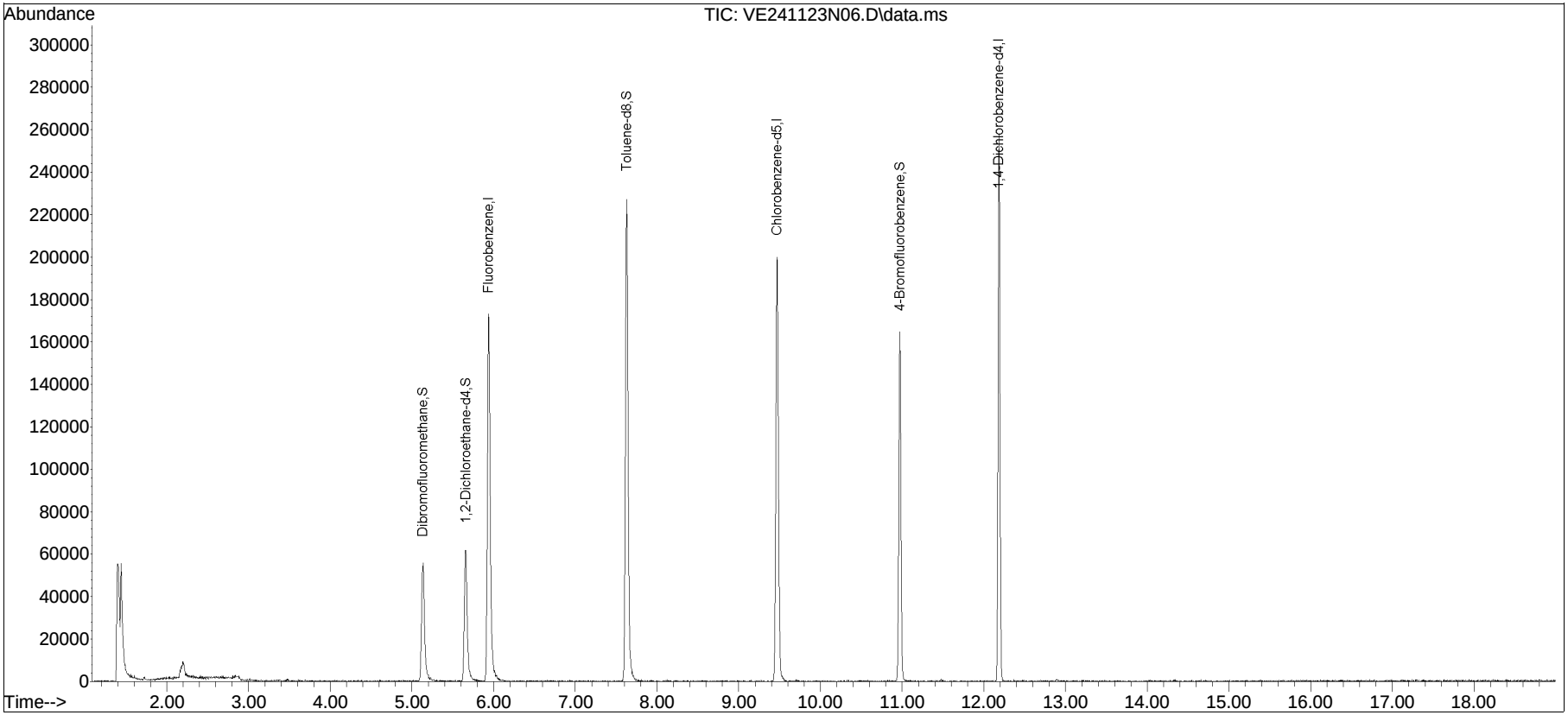
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N06.D
Acq On : 23 Nov 2024 9:36 pm
Operator : ELAINE:MJV
Sample : l2469254-01,31,10,10,,a,r1a
Misc : WG2001825,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:17:04 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41123N02.D•



Manual Integration Report

Data Path	: K:\Elaine\2024\241123N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241123N06.D	Operator	: ELAINE:MJV
Date Inj'd	: 11/23/2024 9:36 pm	Instrument	: Elaine
Sample	: l2469254-01,31,10,10,,a,r1	Quant Date	: 11/25/2024 5:59 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N07.D
Acq On : 23 Nov 2024 10:00 pm
Operator : ELAINE:MJV
Sample : L2469254-10d,31,1.0,10,,C,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:17:21 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	178274	10.000 ug/L	0.00
Standard Area 1 = 198303			Recovery = 89.90%		
63) Chlorobenzene-d5	9.472	117	131299	10.000 ug/L	0.00
Standard Area 1 = 142748			Recovery = 91.98%		
84) 1,4-Dichlorobenzene-d4	12.186	152	64368	10.000 ug/L	0.00
Standard Area 1 = 72729			Recovery = 88.50%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.133	113	42334	10.357 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.57%		
47) 1,2-Dichloroethane-d4	5.657	65	54374	11.242 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.42%		
64) Toluene-d8	7.629	98	181125	10.115 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.15%		
88) 4-Bromofluorobenzene	10.973	95	61319	10.369 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.69%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.441	85	27	N.D.	
3) Chloromethane	1.737	50	28	N.D.	
4) Vinyl chloride	1.854	62	29	N.D.	
5) Bromomethane	2.155	94	58	N.D.	
6) Chloroethane	2.213	64	26	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	2.718	96	32	N.D.	
11) Carbon disulfide	2.922	76	1074	0.115 ug/L	94
15) Methylene chloride	3.446	84	28	N.D.	
17) Acetone	0.000		0	N.D. d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	3.613	73	27	N.D.	
25) 1,1-Dichloroethane	4.179	63	31	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.391	43	80	N.D.	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	
31) 2,2-Dichloropropane	4.938	77	30	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N07.D
Acq On : 23 Nov 2024 10:00 pm
Operator : ELAINE:MJV
Sample : L2469254-10d,31,1.0,10,,C,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:17:21 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	5.264	117	29	N.D.		
40) 1,1,1-Trichloroethane	0.000		0	N.D.		
42) 2-Butanone	0.000		0	N.D.	d	
43) 1,1-Dichloropropene	5.275	75	27	N.D.		
45) Benzene	5.526	78	225	N.D.		
48) 1,2-Dichloroethane	5.713	62	44	N.D.		
52) Trichloroethene	5.986	95	115	N.D.		
54) Dibromomethane	0.000		0	N.D.		
55) 1,2-Dichloropropane	6.639	63	28	N.D.		
58) Bromodichloromethane	0.000		0	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.	d	
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	7.690	92	5672	0.550	ug/L	91
66) 4-Methyl-2-pentanone	0.000		0	N.D.	d	
67) Tetrachloroethene	8.134	166	28	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	8.432	83	35	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	8.507	76	30	N.D.		
75) 1,2-Dibromoethane	0.000		0	N.D.		
77) 2-Hexanone	9.124	43	58	N.D.		
78) Chlorobenzene	9.478	112	37	N.D.		
79) Ethylbenzene	9.539	91	749	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.712	106	124	N.D.		
82) o Xylene	10.261	106	44	N.D.		
83) Styrene	10.331	104	31	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.635	105	52	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.131	91	135	N.D.		
92) 1,1,2,2-Tetrachloroethane	11.101	83	26	N.D.		
93) 4-Ethyltoluene	11.251	105	54	N.D.		
94) 2-Chlorotoluene	11.304	91	27	N.D.		
95) 1,3,5-Trimethylbenzene	11.355	105	45	N.D.		
96) 1,2,3-Trichloropropane	11.472	75	31	N.D.		
97) trans-1,4-Dichloro-2-b...	11.422	53	29	N.D.		
98) 4-Chlorotoluene	11.304	91	27	N.D.		
99) tert-Butylbenzene	0.000		0	N.D.		

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N07.D
Acq On : 23 Nov 2024 10:00 pm
Operator : ELAINE:MJV
Sample : L2469254-10d,31,1.0,10,,C,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:17:21 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	168		N.D.	
103) sec-Butylbenzene	11.884	105	30		N.D.	
104) p-Isopropyltoluene	12.046	119	173		N.D.	
105) 1,3-Dichlorobenzene	12.183	146	41		N.D.	
106) 1,4-Dichlorobenzene	12.194	146	28		N.D.	
107) p-Diethylbenzene	12.411	119	26		N.D.	
108) n-Butylbenzene	12.473	91	109		N.D.	
109) 1,2-Dichlorobenzene	0.000		0		N.D.	
110) 1,2,4,5-Tetramethylben...	13.209	119	55		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.034	180	89		N.D.	
115) Naphthalene	14.333	128	309		N.D.	
116) 1,2,3-Trichlorobenzene	14.492	180	26		N.D.	

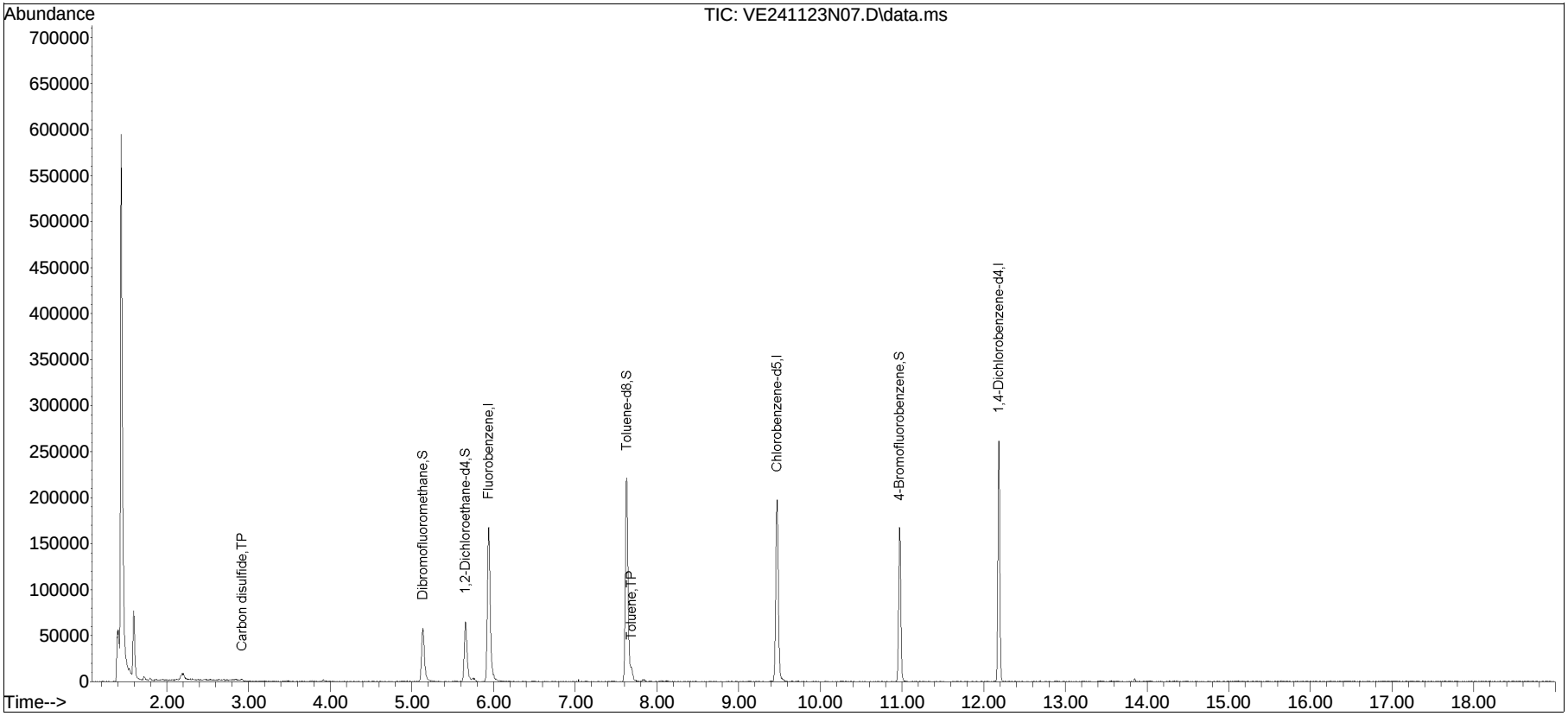
(#) = qualifier out of range (m) = manual integration (+) = signals summed

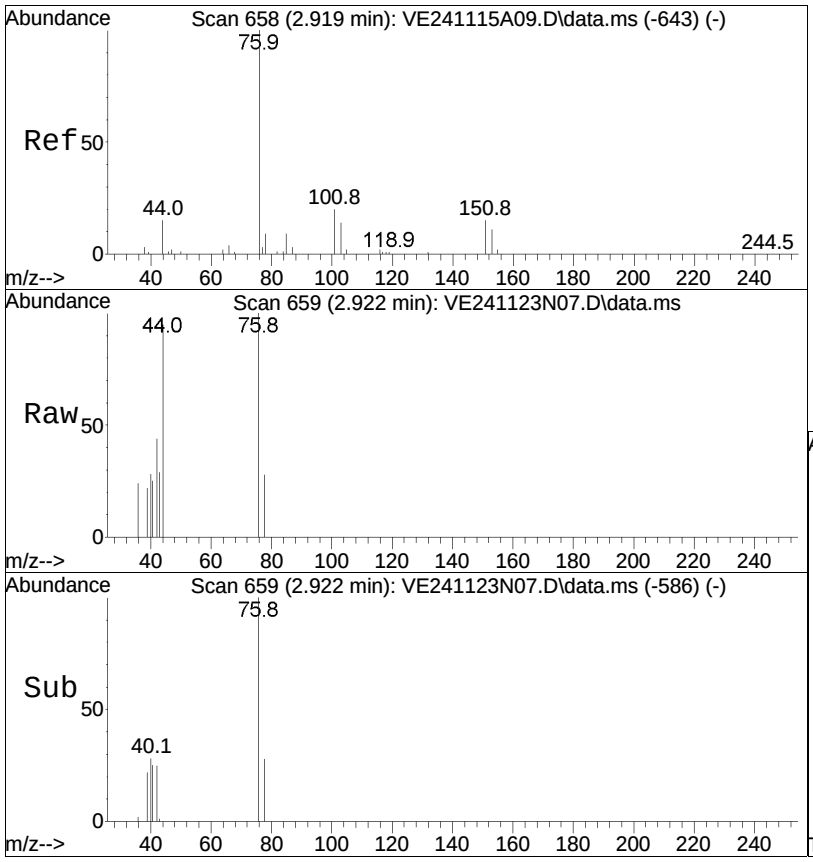
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N07.D
Acq On : 23 Nov 2024 10:00 pm
Operator : ELAINE:MJV
Sample : L2469254-10d,31,1.0,10,,C,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:17:21 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41123N02.D•

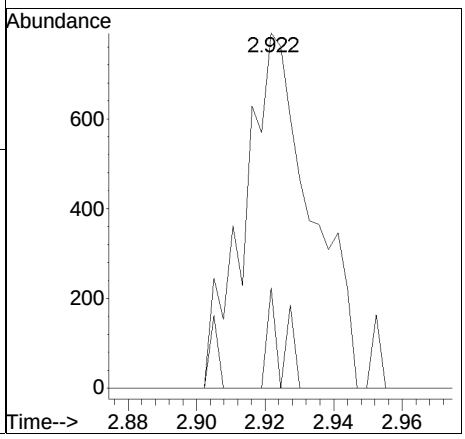


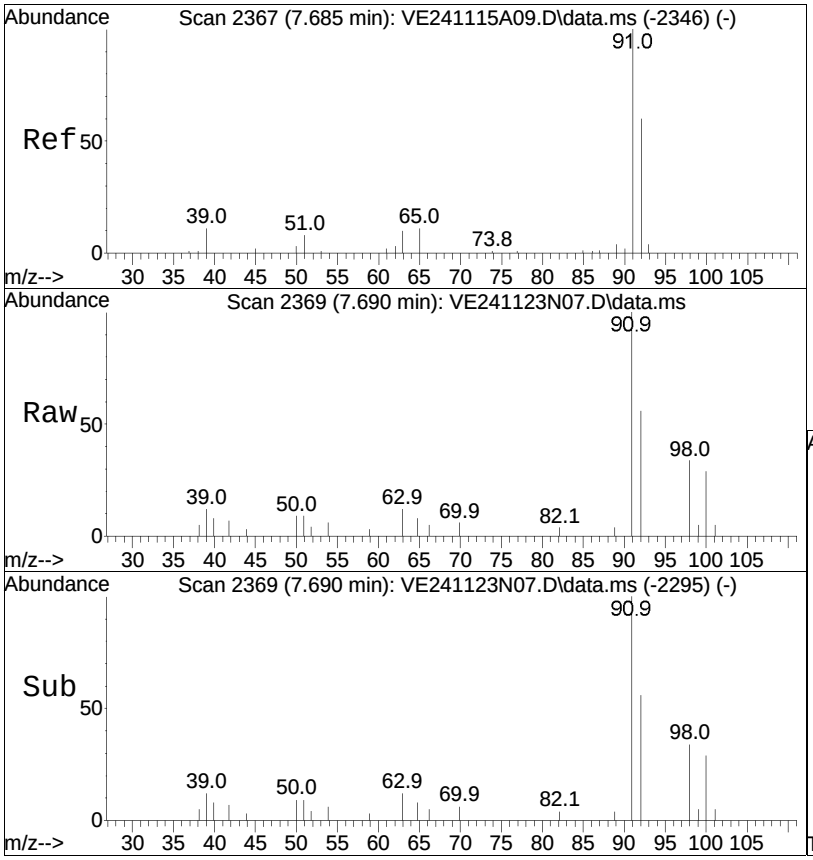


#11
Carbon disulfide
Concen: 0.11 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241123N07.D
Acq: 23 Nov 2024 10:00 pm

Tgt Ion: 76 Resp: 1074

Ion	Ratio	Lower	Upper
76	100		
78	6.4	5.5	11.3

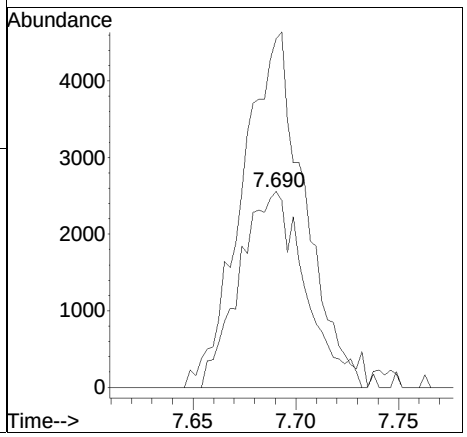




#65
Toluene
Concen: 0.55 ug/L
RT: 7.690 min Scan# 2369
Delta R.T. 0.006 min
Lab File: VE241123N07.D
Acq: 23 Nov 2024 10:00 pm

Tgt Ion: 92 Resp: 5672

Ion	Ratio	Lower	Upper
92	100		
91	173.8	129.1	193.7



Manual Integration Report

Data Path	: K:\Elaine\2024\241123N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241123N07.D	Operator	: ELAINE:MJV
Date Inj'd	: 11/23/2024 10:00 pm	Instrument	: Elaine
Sample	: L2469254-10d,31,1.0,10,,C,	Quant Date	: 11/25/2024 5:59 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N08.D
Acq On : 23 Nov 2024 10:25 pm
Operator : ELAINE:MJV
Sample : L2469254-02d,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:17:44 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	182327	10.000 ug/L	0.00
Standard Area 1 = 198303			Recovery = 91.94%		
63) Chlorobenzene-d5	9.469	117	133152	10.000 ug/L	0.00
Standard Area 1 = 142748			Recovery = 93.28%		
84) 1,4-Dichlorobenzene-d4	12.188	152	64947	10.000 ug/L	0.00
Standard Area 1 = 72729			Recovery = 89.30%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.136	113	44029	10.532 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.32%		
47) 1,2-Dichloroethane-d4	5.655	65	55520	11.224 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.24%		
64) Toluene-d8	7.629	98	183462	10.103 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.03%		
88) 4-Bromofluorobenzene	10.970	95	62074	10.403 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.03%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.491	85	26	N.D.	
3) Chloromethane	1.781	50	26	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.155	94	35	N.D.	
6) Chloroethane	2.199	64	28	N.D.	
7) Trichlorofluoromethane	2.481	101	27	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.927	76	193	N.D.	
15) Methylene chloride	3.449	84	33	N.D.	
17) Acetone	3.474	43	1496M1	1.911 ug/L	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D. d	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.408	43	26	N.D.	
30) cis-1,2-Dichloroethene	4.648	96	26	N.D.	
31) 2,2-Dichloropropane	4.612	77	26	N.D.	
33) Bromochloromethane	5.008	128	35	N.D.	
35) Chloroform	4.879	83	29	N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N08.D
Acq On : 23 Nov 2024 10:25 pm
Operator : ELAINE:MJV
Sample : L2469254-02d,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:17:44 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.			
40) 1,1,1-Trichloroethane	0.000		0	N.D.			
42) 2-Butanone	5.250	43	27314	24.465	ug/L	#	82
43) 1,1-Dichloropropene	0.000		0	N.D.			
45) Benzene	0.000		0	N.D.		d	
48) 1,2-Dichloroethane	0.000		0	N.D.			
52) Trichloroethene	0.000		0	N.D.			
54) Dibromomethane	0.000		0	N.D.			
55) 1,2-Dichloropropane	0.000		0	N.D.			
58) Bromodichloromethane	6.750	83	29	N.D.			
61) 1,4-Dioxane	0.000		0	N.D.		d	
62) cis-1,3-Dichloropropene	7.601	75	38	N.D.			
65) Toluene	7.687	92	28	N.D.			
66) 4-Methyl-2-pentanone	8.136	58	27	N.D.			
67) Tetrachloroethene	0.000		0	N.D.			
69) trans-1,3-Dichloropropene	0.000		0	N.D.			
72) 1,1,2-Trichloroethane	8.170	83	26	N.D.			
73) Chlorodibromomethane	0.000		0	N.D.			
74) 1,3-Dichloropropane	0.000		0	N.D.			
75) 1,2-Dibromoethane	0.000		0	N.D.			
77) 2-Hexanone	9.146	43	57	N.D.			
78) Chlorobenzene	9.481	112	31	N.D.			
79) Ethylbenzene	9.534	91	118	N.D.			
80) 1,1,1,2-Tetrachloroethane	9.729	131	30	N.D.			
81) p/m Xylene	0.000		0	N.D.			
82) o Xylene	0.000		0	N.D.			
83) Styrene	10.328	104	31	N.D.			
85) Bromoform	0.000		0	N.D.			
87) Isopropylbenzene	0.000		0	N.D.			
89) Bromobenzene	11.006	156	27	N.D.			
90) n-Propylbenzene	11.123	91	28	N.D.			
92) 1,1,2,2-Tetrachloroethane	11.173	83	27	N.D.			
93) 4-Ethyltoluene	11.260	105	34	N.D.			
94) 2-Chlorotoluene	11.299	91	36	N.D.			
95) 1,3,5-Trimethylbenzene	11.260	105	34	N.D.			
96) 1,2,3-Trichloropropane	11.472	75	52	N.D.			
97) trans-1,4-Dichloro-2-b...	11.416	53	29	N.D.			
98) 4-Chlorotoluene	11.299	91	36	N.D.			
99) tert-Butylbenzene	11.812	119	25	N.D.			

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N08.D
Acq On : 23 Nov 2024 10:25 pm
Operator : ELAINE:MJV
Sample : L2469254-02d,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:17:44 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.781	105	34		N.D.	
103) sec-Butylbenzene	11.792	105	26		N.D.	
104) p-Isopropyltoluene	12.043	119	31		N.D.	
105) 1,3-Dichlorobenzene	12.197	146	35		N.D.	
106) 1,4-Dichlorobenzene	12.208	146	27		N.D.	
107) p-Diethylbenzene	12.570	119	26		N.D.	
108) n-Butylbenzene	12.481	91	50		N.D.	
109) 1,2-Dichlorobenzene	0.000		0		N.D.	
110) 1,2,4,5-Tetramethylben...	13.279	119	30		N.D.	
111) 1,2-Dibromo-3-chloropr...	13.549	155	27		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.026	180	31		N.D.	
115) Naphthalene	14.333	128	111		N.D.	
116) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

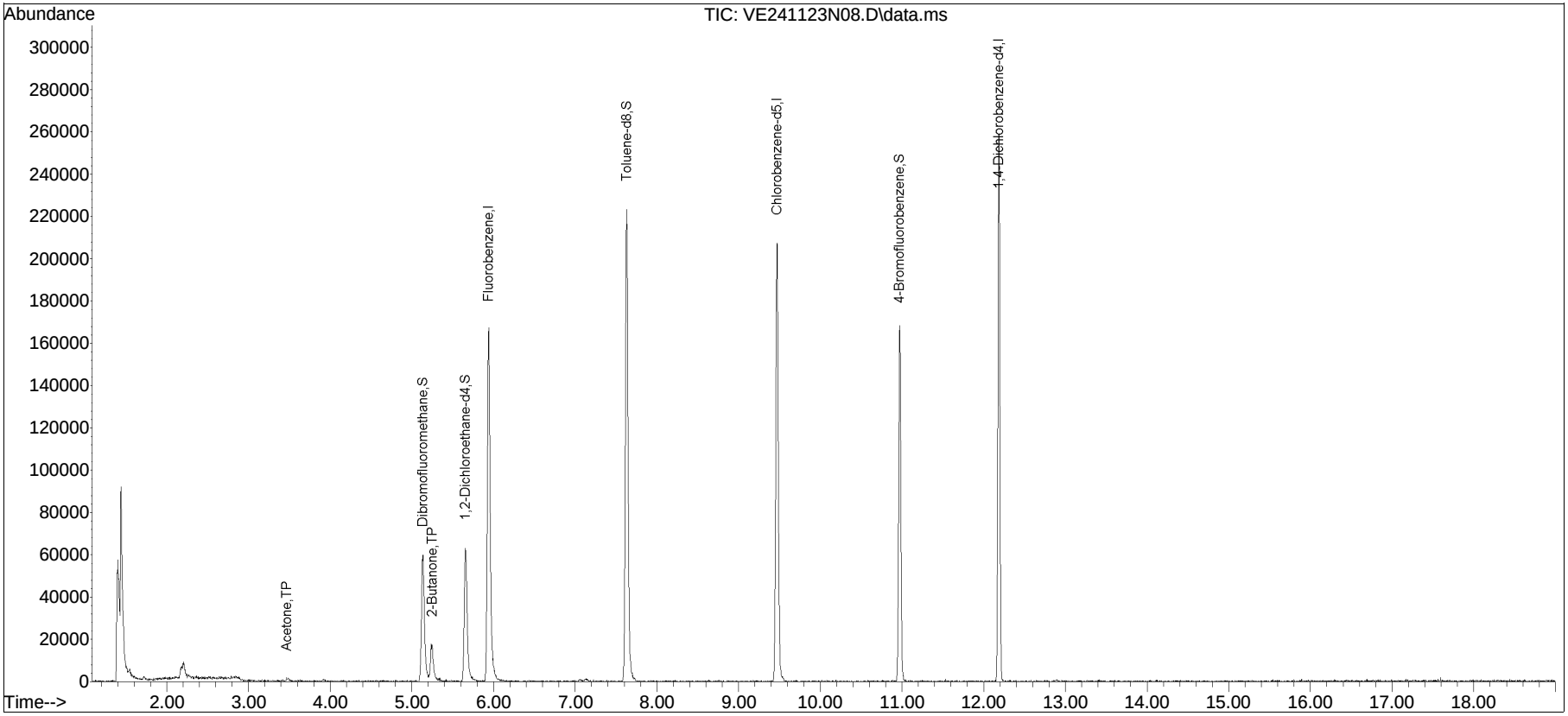
(#) = qualifier out of range (m) = manual integration (+) = signals summed

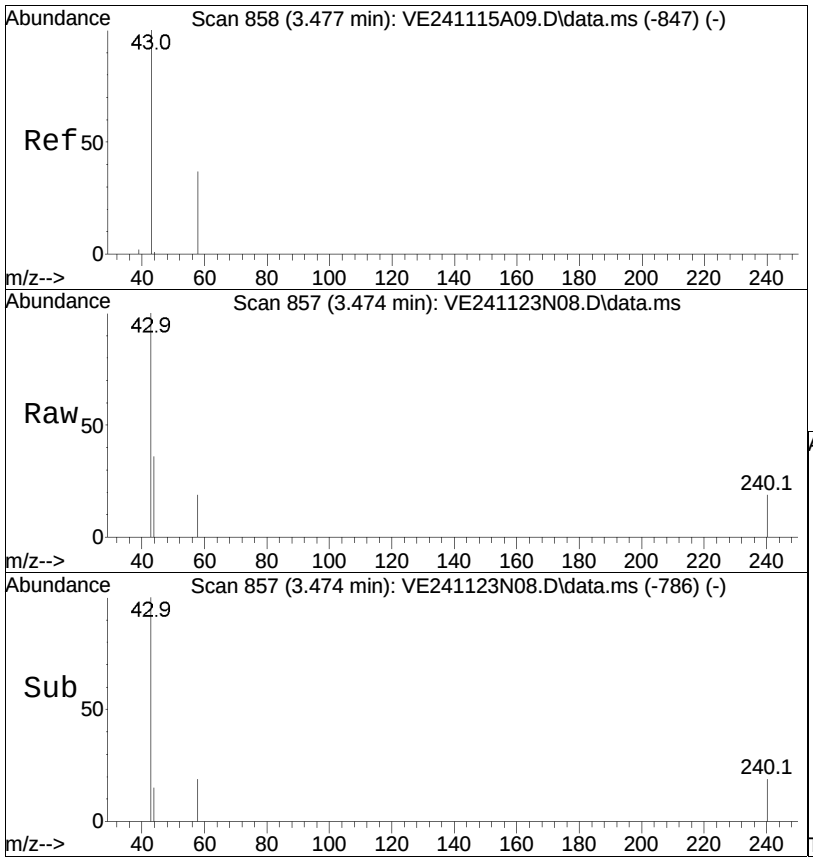
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N08.D
Acq On : 23 Nov 2024 10:25 pm
Operator : ELAINE:MJV
Sample : L2469254-02d,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:17:44 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41123N02.D•

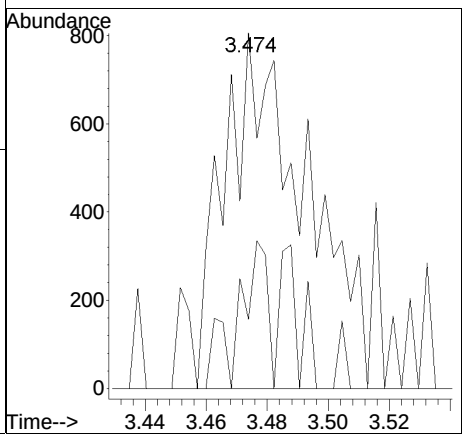


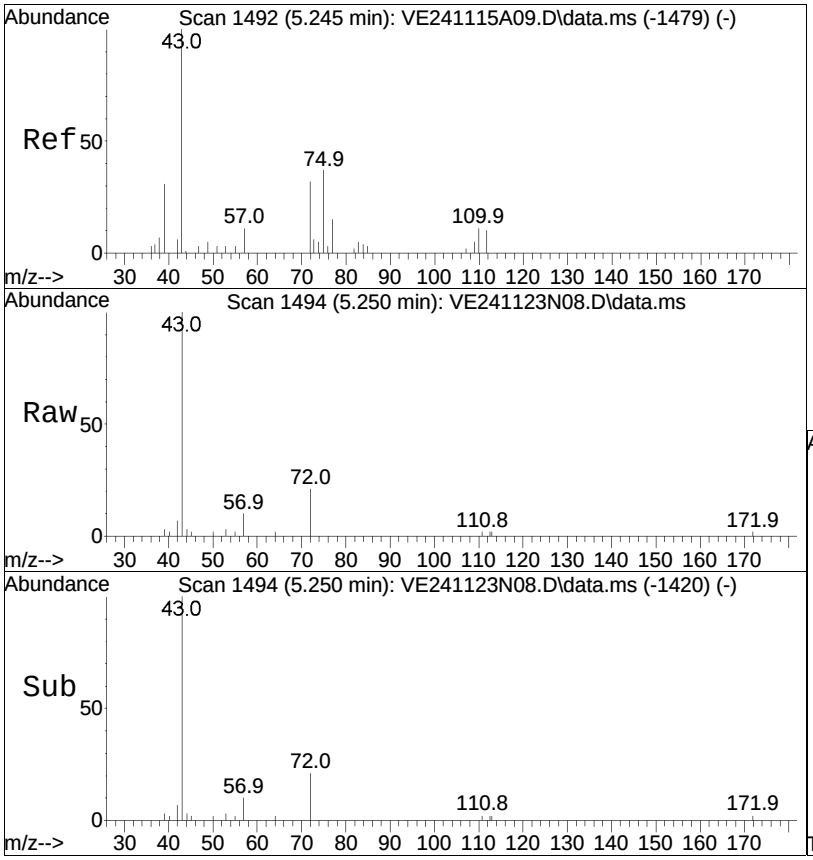


#17
Acetone
Concen: 1.91 ug/L M1
RT: 3.474 min Scan# 857
Delta R.T. -0.003 min
Lab File: VE241123N08.D
Acq: 23 Nov 2024 10:25 pm

Tgt Ion: 43 Resp: 1496

Ion	Ratio	Lower	Upper
43	100		
58	11.7	23.4	35.0#

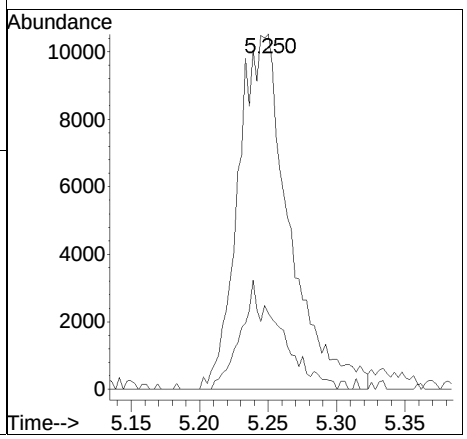




#42
2-Butanone
Concen: 24.47 ug/L
RT: 5.250 min Scan# 1494
Delta R.T. 0.006 min
Lab File: VE241123N08.D
Acq: 23 Nov 2024 10:25 pm

Tgt Ion: 43 Resp: 27314

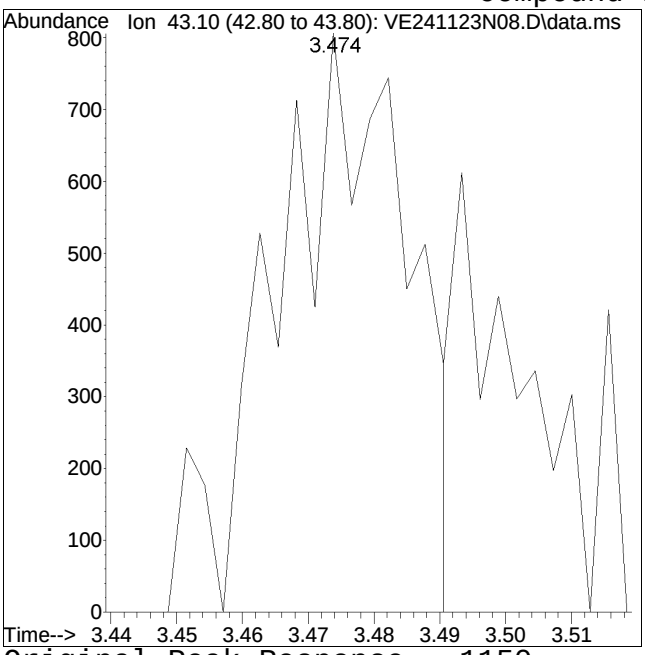
Ion	Ratio	Lower	Upper
43	100		
72	11.5	15.7	23.5#



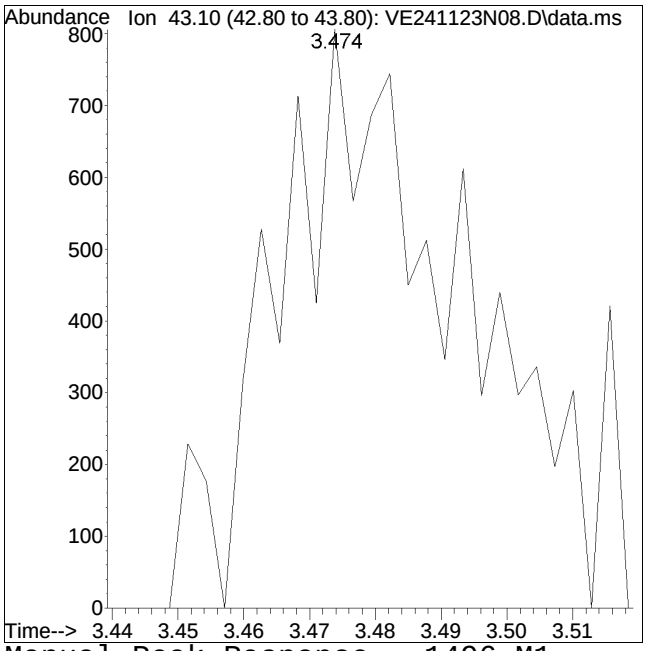
Manual Integration Report

Data Path : K:\Elaine\2024\241123N\ QMethod : Elaine_241115A_8260.m
Data File : VE241123N08.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 10:25 pm Instrument : Elaine
Sample : L2469254-02d,31,0.04,10,,A Quant Date : 11/25/2024 5:59 am

Compound #17: Acetone



Original Peak Response = 1150



Manual Peak Response = 1496 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N09.D
Acq On : 23 Nov 2024 10:49 pm
Operator : ELAINE:MJV
Sample : L2469254-04d,31,0.4,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:18:06 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	184937	10.000 ug/L	0.00
Standard Area 1 = 198303			Recovery = 93.26%		
63) Chlorobenzene-d5	9.470	117	130222	10.000 ug/L	0.00
Standard Area 1 = 142748			Recovery = 91.23%		
84) 1,4-Dichlorobenzene-d4	12.186	152	65124	10.000 ug/L	0.00
Standard Area 1 = 72729			Recovery = 89.54%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.130	113	42058	9.918 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.18%		
47) 1,2-Dichloroethane-d4	5.657	65	57834	11.527 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 115.27%		
64) Toluene-d8	7.632	98	183335	10.323 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.23%		
88) 4-Bromofluorobenzene	10.973	95	60849	10.170 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.70%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.686	85	28	N.D.	
3) Chloromethane	1.767	50	26	N.D.	
4) Vinyl chloride	1.848	62	28	N.D.	
5) Bromomethane	2.194	94	26	N.D.	
6) Chloroethane	2.425	64	29	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	2.824	96	26	N.D.	
11) Carbon disulfide	2.927	76	427	N.D.	
15) Methylene chloride	3.432	84	29	N.D.	
17) Acetone	3.488	43	1374M3	1.730 ug/L	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	4.224	53	25	N.D.	
29) Vinyl acetate	4.389	43	77	N.D.	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	
31) 2,2-Dichloropropane	4.801	77	28	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	4.941	83	31	N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N09.D
Acq On : 23 Nov 2024 10:49 pm
Operator : ELAINE:MJV
Sample : L2469254-04d,31,0.4,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:18:06 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.	
40) 1,1,1-Trichloroethane	0.000		0	N.D.	
42) 2-Butanone	5.242	43	9701M1	8.567 ug/L	
43) 1,1-Dichloropropene	5.228	75	32	N.D.	
45) Benzene	0.000		0	N.D.	d
48) 1,2-Dichloroethane	5.699	62	53	N.D.	
52) Trichloroethene	6.028	95	83	N.D.	
54) Dibromomethane	0.000		0	N.D.	
55) 1,2-Dichloropropane	6.483	63	33	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
61) 1,4-Dioxane	0.000		0	N.D.	d
62) cis-1,3-Dichloropropene	0.000		0	N.D.	
65) Toluene	7.679	92	560	N.D.	
66) 4-Methyl-2-pentanone	0.000		0	N.D.	
67) Tetrachloroethene	0.000		0	N.D.	
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	8.240	83	28	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	0.000		0	N.D.	
75) 1,2-Dibromoethane	0.000		0	N.D.	
77) 2-Hexanone	9.121	43	62	N.D.	
78) Chlorobenzene	0.000		0	N.D.	
79) Ethylbenzene	9.534	91	27	N.D.	
80) 1,1,1,2-Tetrachloroethane	9.684	131	35	N.D.	
81) p/m Xylene	9.701	106	28	N.D.	
82) o Xylene	0.000		0	N.D.	
83) Styrene	10.362	104	26	N.D.	
85) Bromoform	10.362	173	34	N.D.	
87) Isopropylbenzene	10.658	105	31	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	11.151	91	33	N.D.	
92) 1,1,2,2-Tetrachloroethane	11.051	83	38	N.D.	
93) 4-Ethyltoluene	11.257	105	30	N.D.	
94) 2-Chlorotoluene	11.249	91	31	N.D.	
95) 1,3,5-Trimethylbenzene	11.369	105	31	N.D.	
96) 1,2,3-Trichloropropane	11.486	75	30	N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
98) 4-Chlorotoluene	0.000		0	N.D.	
99) tert-Butylbenzene	0.000		0	N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N09.D
Acq On : 23 Nov 2024 10:49 pm
Operator : ELAINE:MJV
Sample : L2469254-04d,31,0.4,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:18:06 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.898	105	27		N.D.	
103) sec-Butylbenzene	11.898	105	27		N.D.	
104) p-Isopropyltoluene	12.116	119	31		N.D.	
105) 1,3-Dichlorobenzene	12.200	146	31		N.D.	
106) 1,4-Dichlorobenzene	12.200	146	31		N.D.	
107) p-Diethylbenzene	0.000		0		N.D.	
108) n-Butylbenzene	12.470	91	33		N.D.	
109) 1,2-Dichlorobenzene	0.000		0		N.D.	
110) 1,2,4,5-Tetramethylben...	13.209	119	31		N.D.	
111) 1,2-Dibromo-3-chloropr...	13.558	155	30		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.026	180	29		N.D.	
115) Naphthalene	14.322	128	86		N.D.	
116) 1,2,3-Trichlorobenzene	14.595	180	26		N.D.	

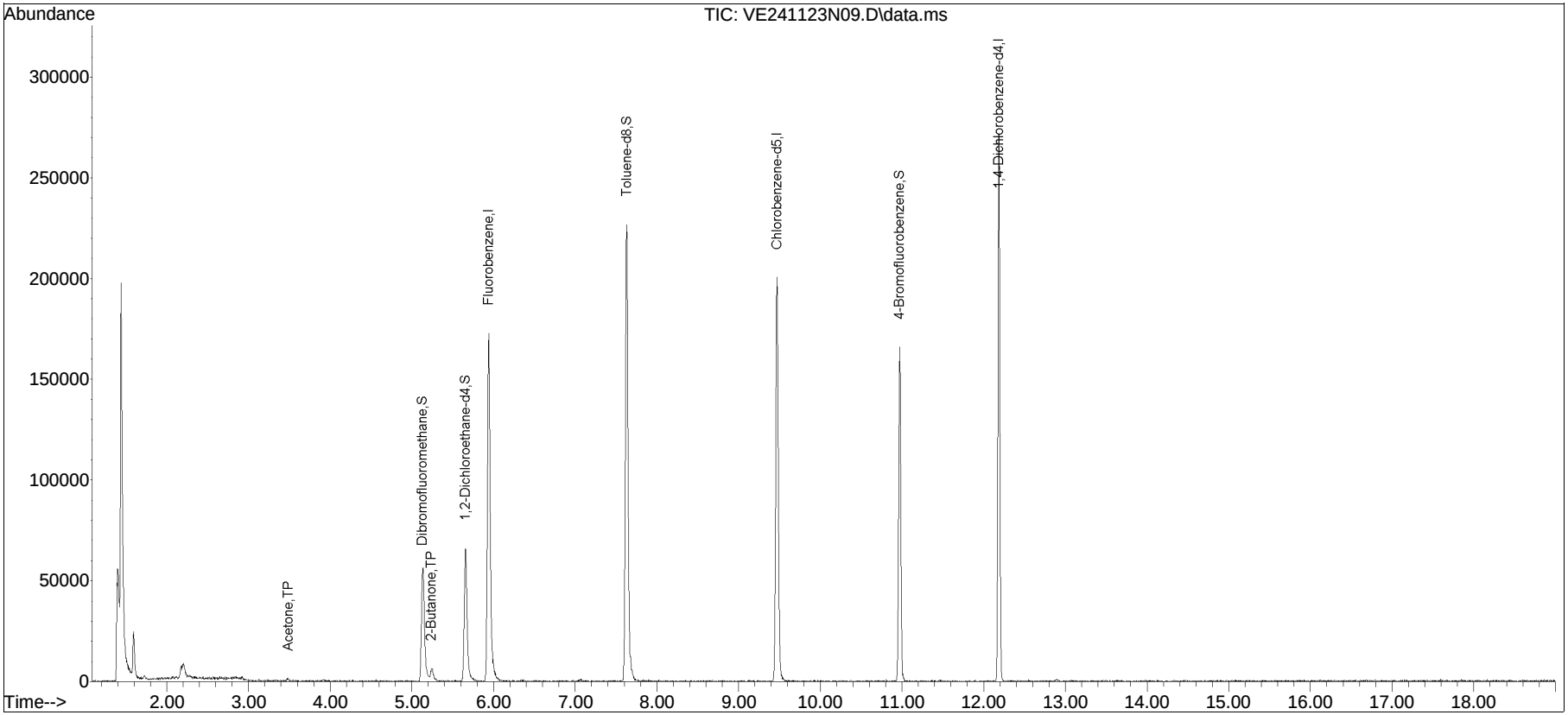
(#) = qualifier out of range (m) = manual integration (+) = signals summed

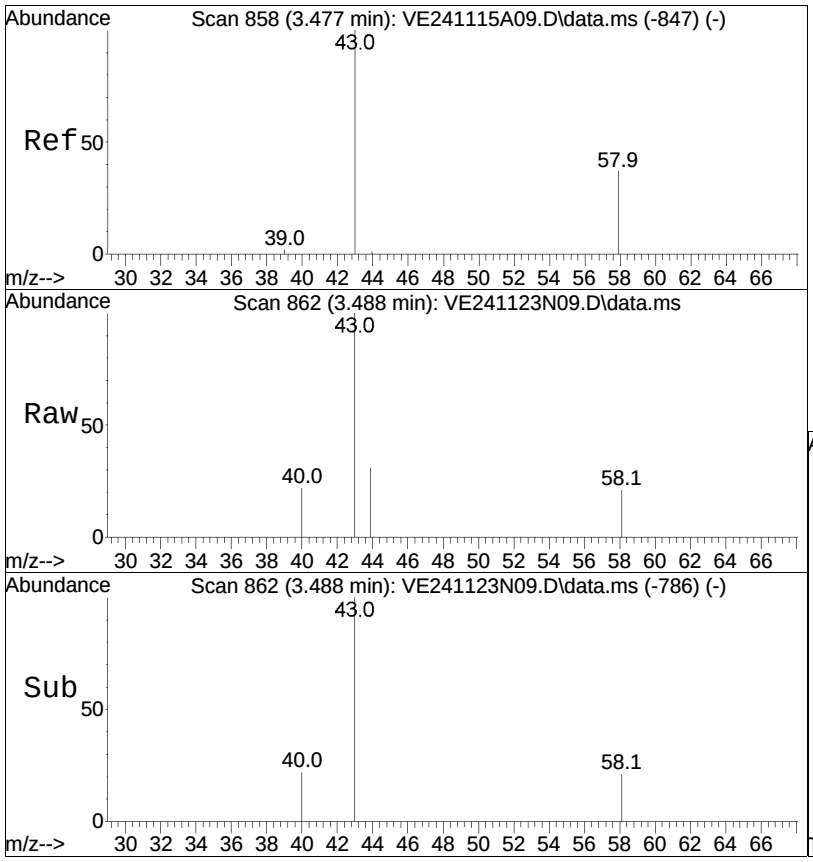
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N09.D
Acq On : 23 Nov 2024 10:49 pm
Operator : ELAINE:MJV
Sample : L2469254-04d,31,0.4,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:18:06 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41123N02.D•

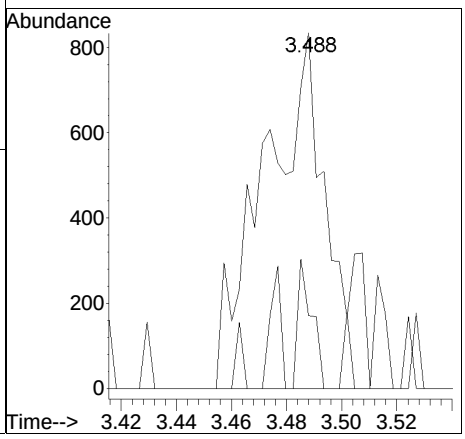


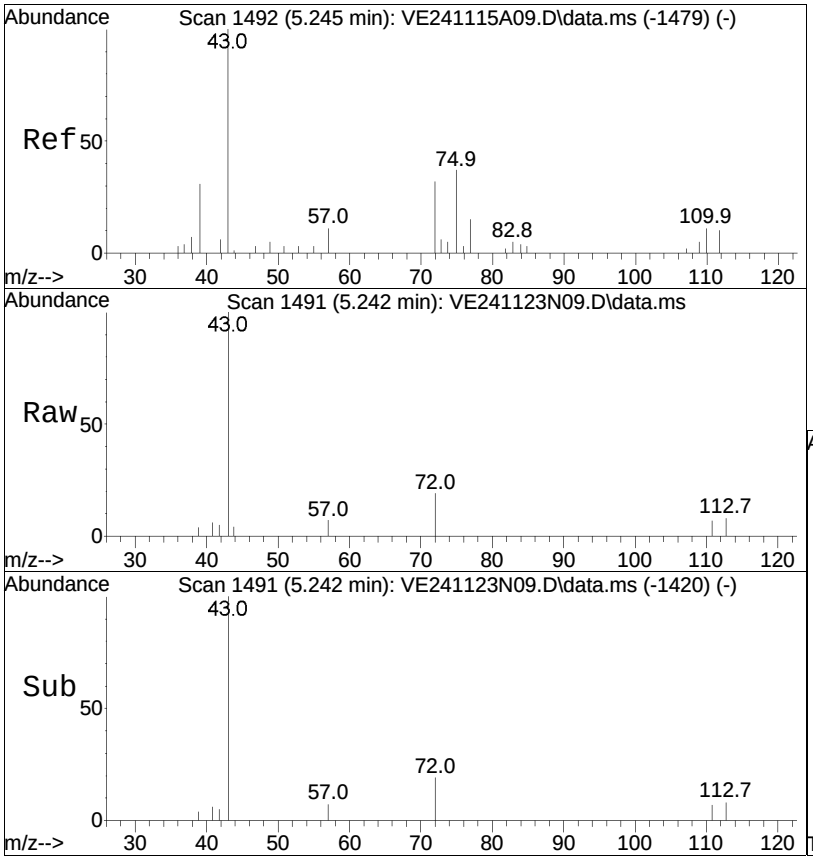


#17
Acetone
Concen: 1.73 ug/L M3
RT: 3.488 min Scan# 862
Delta R.T. 0.011 min
Lab File: VE241123N09.D
Acq: 23 Nov 2024 10:49 pm

Tgt Ion: 43 Resp: 1374

Ion	Ratio	Lower	Upper
43	100		
58	5.6	23.4	35.0#

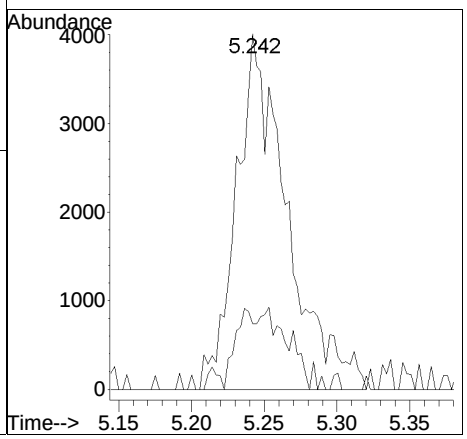




#42
2-Butanone
Concen: 8.57 ug/L M1
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241123N09.D
Acq: 23 Nov 2024 10:49 pm

Tgt Ion: 43 Resp: 9701

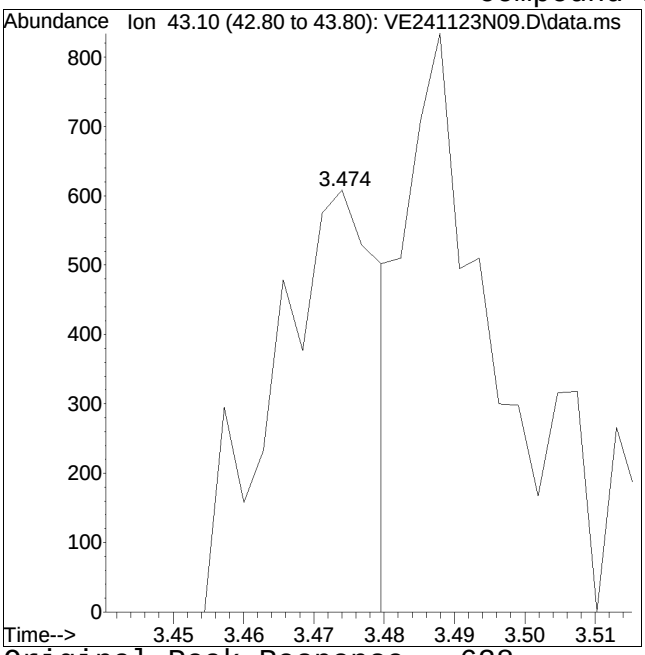
Ion	Ratio	Lower	Upper
43	100		
72	9.3	15.7	23.5#

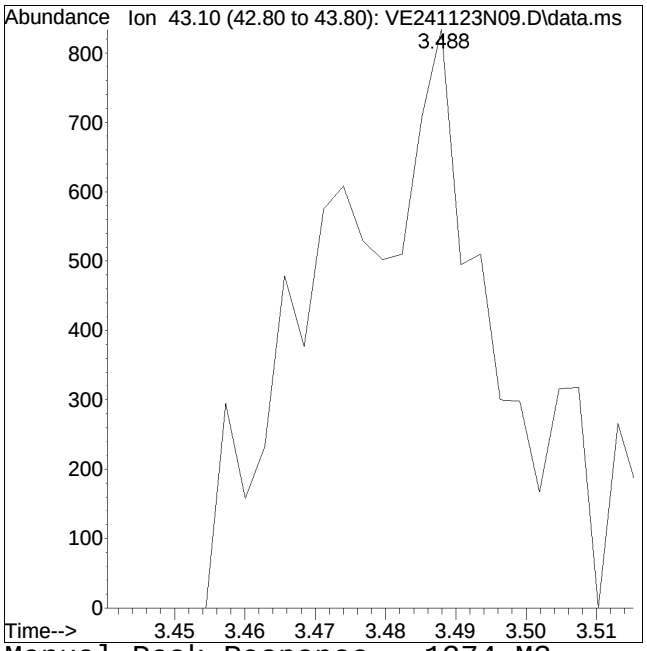


Manual Integration Report

Data Path : K:\Elaine\2024\241123N\ QMethod : Elaine_241115A_8260.m
Data File : VE241123N09.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 10:49 pm Instrument : Elaine
Sample : L2469254-04d,31,0.4,10,,A, Quant Date : 11/25/2024 5:59 am

Compound #17: Acetone





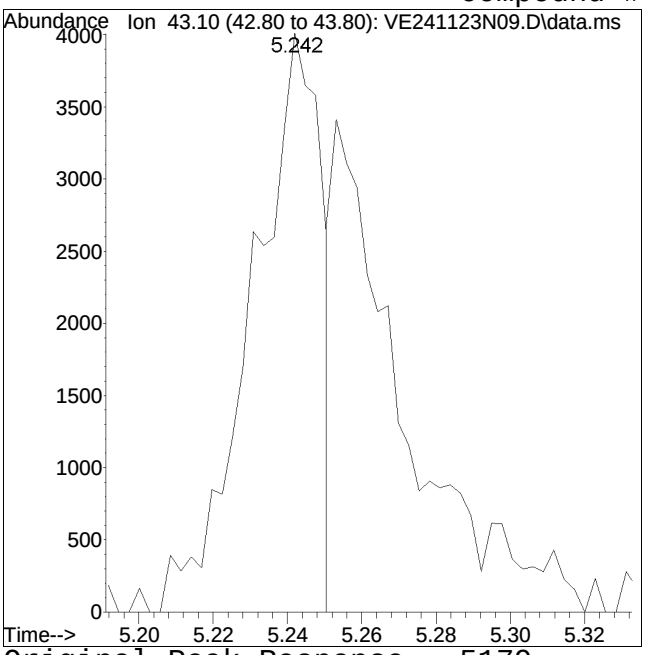
Original Peak Response = 628 Manual Peak Response = 1374 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

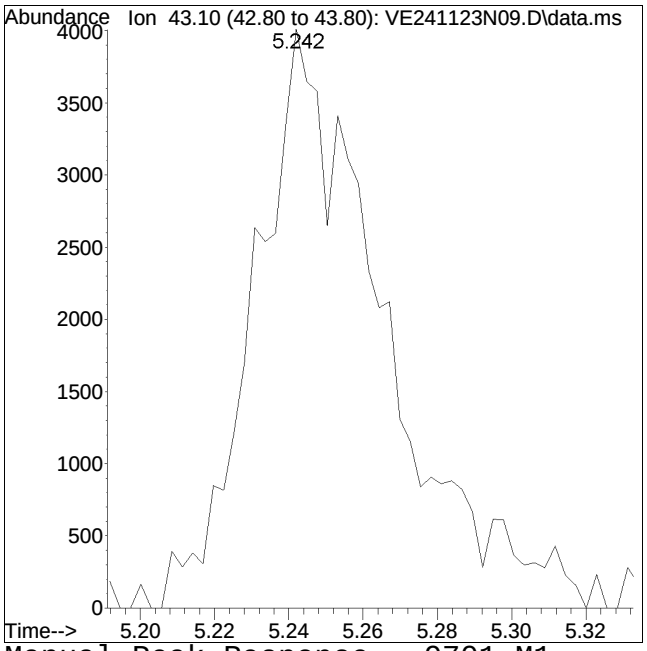
Manual Integration Report

Data Path : K:\Elaine\2024\241123N\ QMethod : Elaine_241115A_8260.m
Data File : VE241123N09.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 10:49 pm Instrument : Elaine
Sample : L2469254-04d,31,0.4,10,,A, Quant Date : 11/25/2024 5:59 am

Compound #42: 2-Butanone



Original Peak Response = 5179



Manual Peak Response = 9701 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N11.D
Acq On : 23 Nov 2024 11:38 pm
Operator : ELAINE:MJV
Sample : L2469254-08d,31,0.5,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 25 06:19:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	184049	10.000 ug/L	0.00
Standard Area 1 = 198303			Recovery = 92.81%		
63) Chlorobenzene-d5	9.469	117	130456	10.000 ug/L	0.00
Standard Area 1 = 142748			Recovery = 91.39%		
84) 1,4-Dichlorobenzene-d4	12.185	152	65101	10.000 ug/L	0.00
Standard Area 1 = 72729			Recovery = 89.51%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.136	113	41734	9.889 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 98.89%	
47) 1,2-Dichloroethane-d4	5.660	65	53543	10.723 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 107.23%	
64) Toluene-d8	7.629	98	180291	10.134 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 101.34%	
88) 4-Bromofluorobenzene	10.972	95	59748	9.989 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 99.89%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.424	85	70	N.D.	
3) Chloromethane	1.770	50	29	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.155	94	28	N.D.	
6) Chloroethane	2.191	64	31	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.922	76	83	N.D.	
15) Methylene chloride	3.440	84	39	N.D.	
17) Acetone	3.479	43	36195	45.798 ug/L	95
18) trans-1,2-Dichloroethene	3.451	96	26	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	4.282	53	28	N.D.	
29) Vinyl acetate	4.427	43	28	N.D.	
30) cis-1,2-Dichloroethene	4.843	96	26	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	4.999	128	25	N.D.	
35) Chloroform	5.033	83	27	N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N11.D
Acq On : 23 Nov 2024 11:38 pm
Operator : ELAINE:MJV
Sample : L2469254-08d,31,0.5,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 25 06:19:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.		
40) 1,1,1-Trichloroethane	5.158	97	31	N.D.		
42) 2-Butanone	5.245	43	42630	37.827	ug/L #	89
43) 1,1-Dichloropropene	5.258	75	28	N.D.		
45) Benzene	5.515	78	516	N.D.		
48) 1,2-Dichloroethane	0.000		0	N.D.		
52) Trichloroethene	6.014	95	188	N.D.		
54) Dibromomethane	0.000		0	N.D.		
55) 1,2-Dichloropropane	6.817	63	30	N.D.		
58) Bromodichloromethane	0.000		0	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	0.000		0	N.D.		
65) Toluene	7.676	92	84	N.D.		
66) 4-Methyl-2-pentanone	8.125	58	26	N.D.		
67) Tetrachloroethene	8.136	166	34	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	8.538	76	32	N.D.		
75) 1,2-Dibromoethane	8.953	107	26	N.D.		
77) 2-Hexanone	9.129	43	1003M1	0.580	ug/L	
78) Chlorobenzene	9.480	112	26	N.D.		
79) Ethylbenzene	9.536	91	30	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	0.000		0	N.D.	d	
82) o Xylene	10.069	106	31	N.D.		
83) Styrene	0.000		0	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.813	105	29	N.D.		
89) Bromobenzene	0.000		0	N.D.		
90) n-Propylbenzene	11.156	91	26	N.D.		
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
93) 4-Ethyltoluene	11.366	105	31	N.D.		
94) 2-Chlorotoluene	11.156	91	26	N.D.		
95) 1,3,5-Trimethylbenzene	11.366	105	31	N.D.		
96) 1,2,3-Trichloropropane	0.000		0	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
98) 4-Chlorotoluene	11.564	91	29	N.D.		
99) tert-Butylbenzene	11.776	119	34	N.D.		

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N11.D
Acq On : 23 Nov 2024 11:38 pm
Operator : ELAINE:MJV
Sample : L2469254-08d,31,0.5,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 25 06:19:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	0.000		0		N.D.	
103) sec-Butylbenzene	0.000		0		N.D.	
104) p-Isopropyltoluene	12.046	119	29		N.D.	
105) 1,3-Dichlorobenzene	12.202	146	44		N.D.	
106) 1,4-Dichlorobenzene	12.202	146	44		N.D.	
107) p-Diethylbenzene	0.000		0		N.D.	
108) n-Butylbenzene	12.475	91	29		N.D.	
109) 1,2-Dichlorobenzene	12.537	146	25		N.D.	
110) 1,2,4,5-Tetramethylben...	0.000		0		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.032	180	27		N.D.	
115) Naphthalene	14.327	128	144		N.D.	
116) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

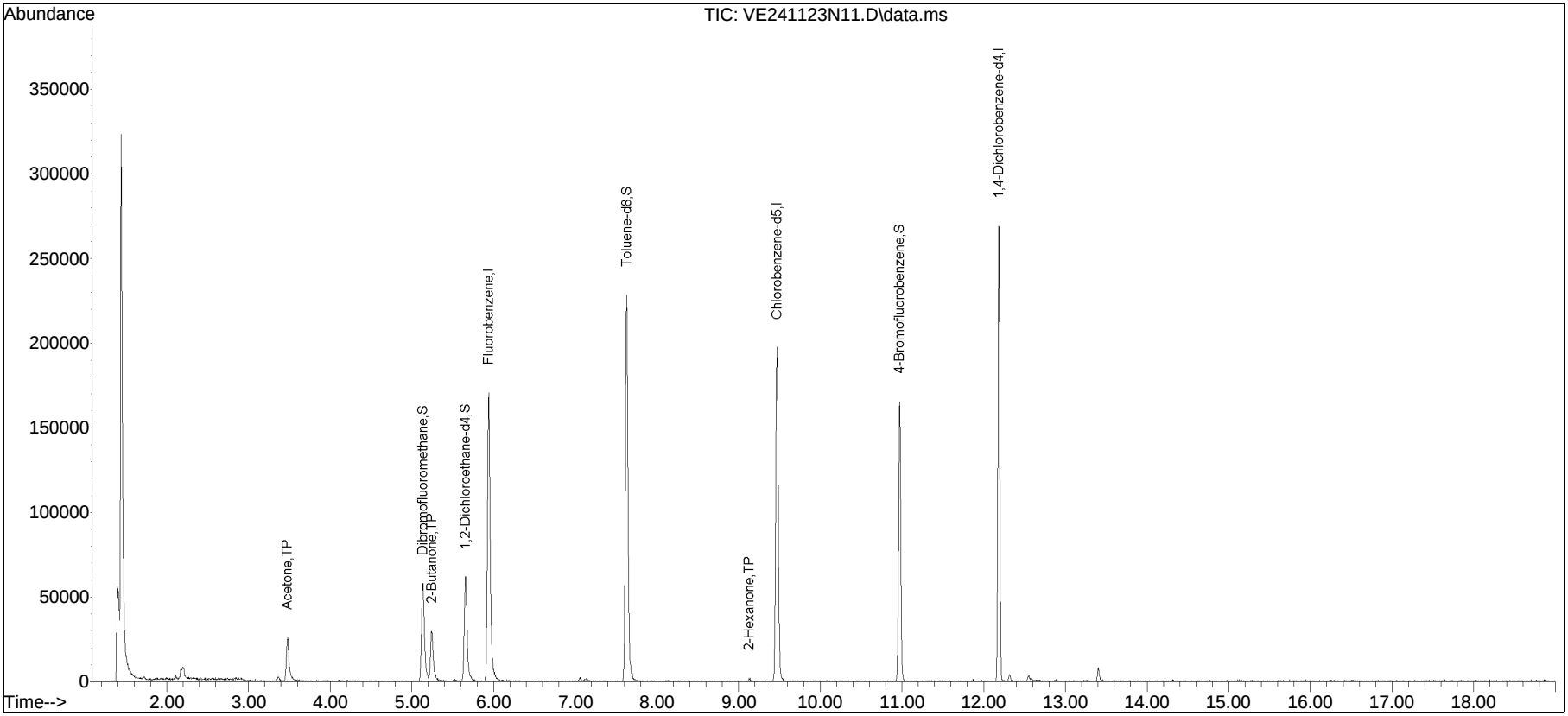
(#) = qualifier out of range (m) = manual integration (+) = signals summed

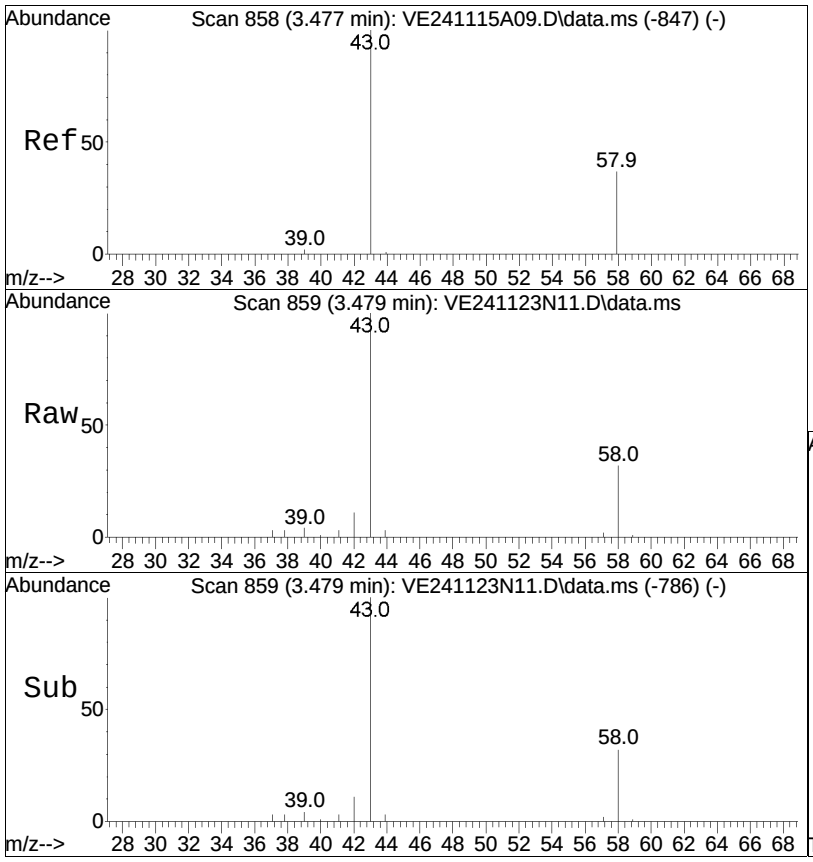
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N11.D
Acq On : 23 Nov 2024 11:38 pm
Operator : ELAINE:MJV
Sample : L2469254-08d,31,0.5,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 25 06:19:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41123N02.D•

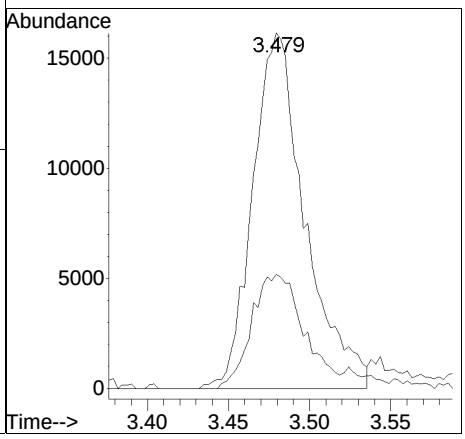


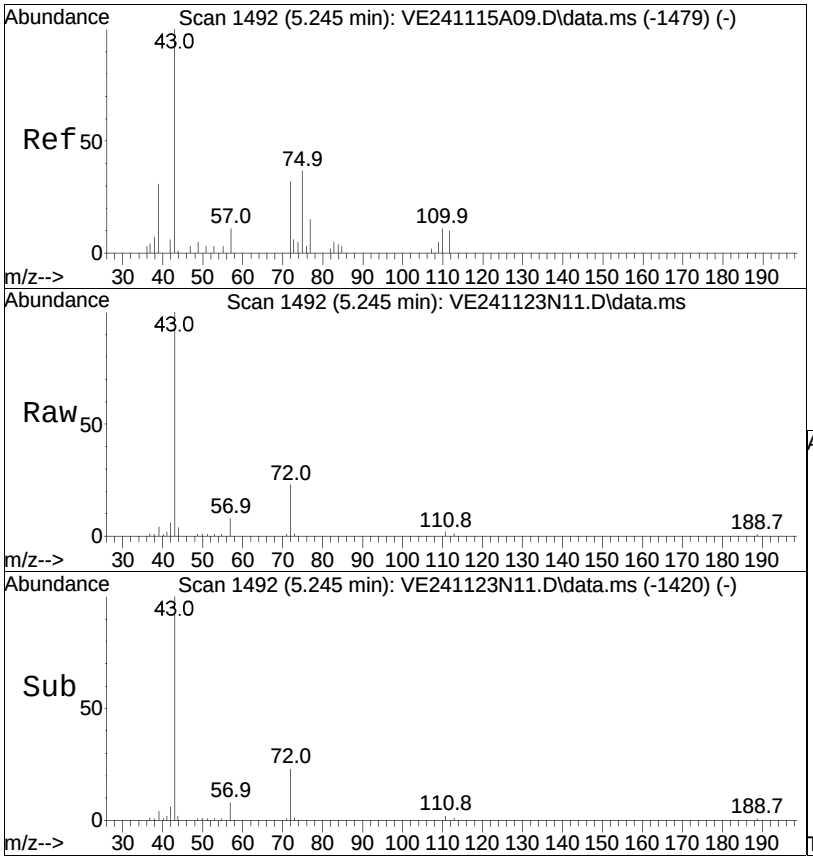


#17
Acetone
Concen: 45.80 ug/L
RT: 3.479 min Scan# 859
Delta R.T. 0.003 min
Lab File: VE241123N11.D
Acq: 23 Nov 2024 11:38 pm

Tgt Ion: 43 Resp: 36195

Ion	Ratio	Lower	Upper
43	100		
58	32.0	23.4	35.0

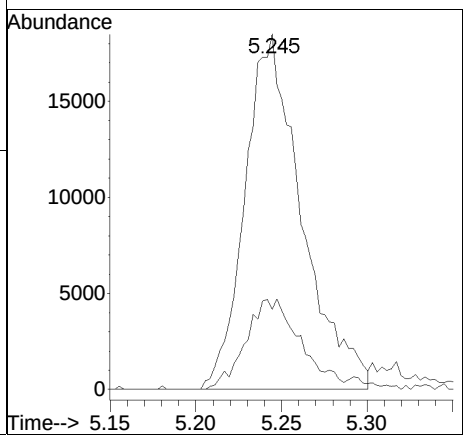


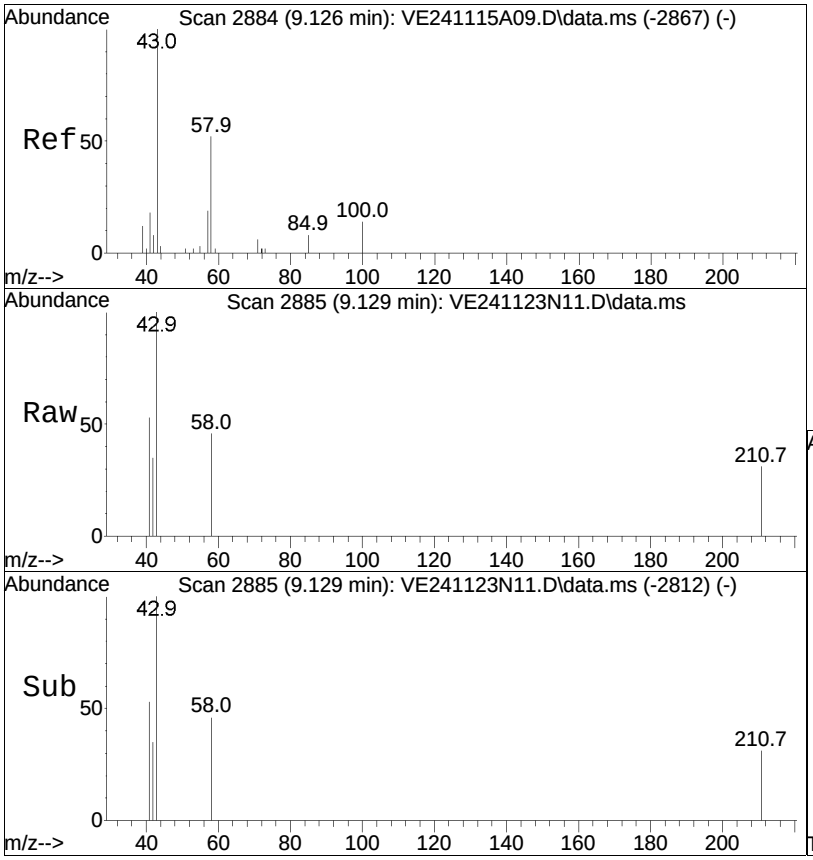


#42
2-Butanone
Concen: 37.83 ug/L
RT: 5.245 min Scan# 1492
Delta R.T. -0.000 min
Lab File: VE241123N11.D
Acq: 23 Nov 2024 11:38 pm

Tgt Ion: 43 Resp: 42630

Ion	Ratio	Lower	Upper
43	100		
72	24.5	15.7	23.5#

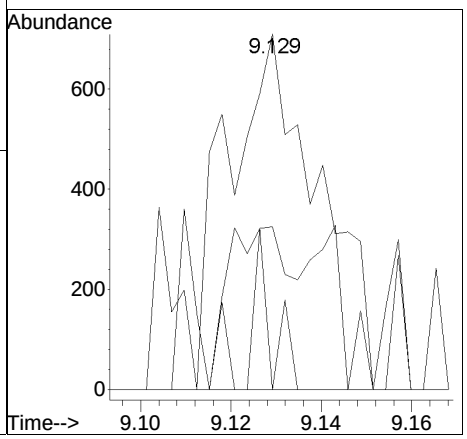




#77
2-Hexanone
Concen: 0.58 ug/L M1
RT: 9.129 min Scan# 2885
Delta R.T. 0.003 min
Lab File: VE241123N11.D
Acq: 23 Nov 2024 11:38 pm

Tgt Ion: 43 Resp: 1003

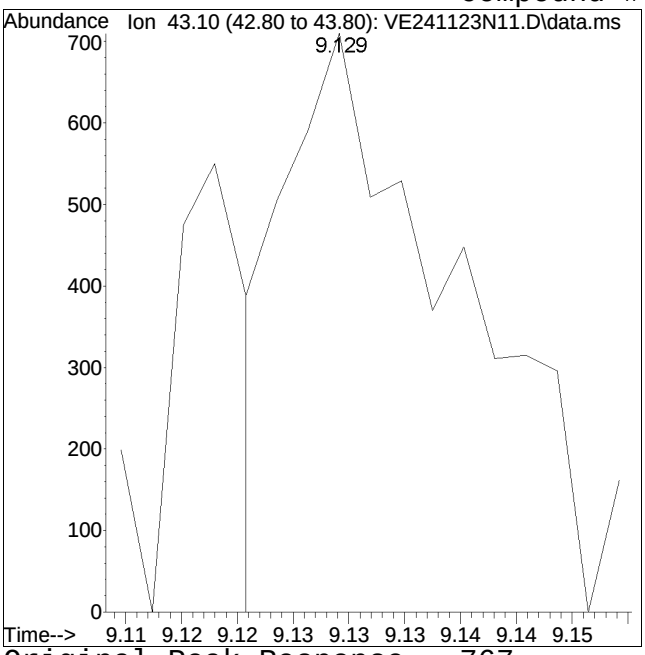
Ion	Ratio	Lower	Upper
43	100		
58	31.3	42.5	63.7#
57	8.4	13.9	20.9#



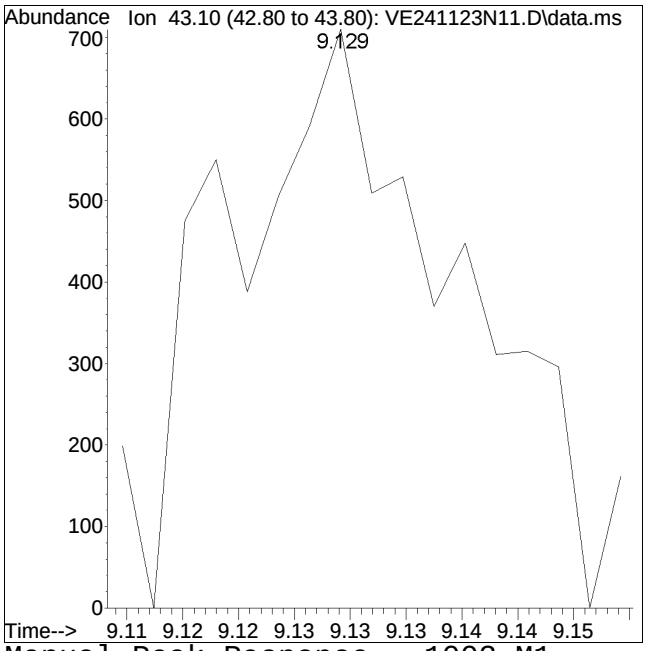
Manual Integration Report

Data Path : K:\Elaine\2024\241123N\ QMethod : Elaine_241115A_8260.m
Data File : VE241123N11.D Operator : ELAINE:MJV
Date Inj'd : 11/23/2024 11:38 pm Instrument : Elaine
Sample : L2469254-08d,31,0.5,10,,A, Quant Date : 11/25/2024 5:59 am

Compound #77: 2-Hexanone



Original Peak Response = 767



Manual Peak Response = 1003 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A06.D
Acq On : 24 Nov 2024 12:34 pm
Operator : ELAINE:PID
Sample : L2469254-03d,31,1.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:53:39 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.945	96	195656	10.000	ug/L	0.00
Standard Area 1 = 209590			Recovery = 93.35%			
63) Chlorobenzene-d5	9.469	117	138291	10.000	ug/L	0.00
Standard Area 1 = 148793			Recovery = 92.94%			
84) 1,4-Dichlorobenzene-d4	12.185	152	70180	10.000	ug/L	0.00
Standard Area 1 = 74459			Recovery = 94.25%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	44212	9.855	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.55%			
47) 1,2-Dichloroethane-d4	5.660	65	57304	10.795	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.95%			
64) Toluene-d8	7.626	98	192445	10.204	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.04%			
88) 4-Bromofluorobenzene	10.970	95	66121	10.255	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.55%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.480	85	29	N.D.		
3) Chloromethane	1.778	50	38	N.D.		
4) Vinyl chloride	1.692	62	32	N.D.		
5) Bromomethane	2.149	94	94	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	0.000		0	N.D.	d	
15) Methylene chloride	3.438	84	146	N.D.		
17) Acetone	3.479	43	12089	14.389	ug/L	97
18) trans-1,2-Dichloroethene	0.000		0	N.D.	d	
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	4.411	43	58	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.	d	
31) 2,2-Dichloropropane	4.952	77	29	N.D.		
33) Bromochloromethane	4.793	128	26	N.D.		
35) Chloroform	4.963	83	142	N.D.		

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A06.D
Acq On : 24 Nov 2024 12:34 pm
Operator : ELAINE:PID
Sample : L2469254-03d,31,1.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:53:39 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.			
40) 1,1,1-Trichloroethane	0.000		0	N.D.			
42) 2-Butanone	5.242	43	122587	102.322	ug/L	#	90
43) 1,1-Dichloropropene	0.000		0	N.D.	d		
45) Benzene	0.000		0	N.D.	d		
48) 1,2-Dichloroethane	5.713	62	34	N.D.			
52) Trichloroethene	6.084	95	60	N.D.			
54) Dibromomethane	0.000		0	N.D.			
55) 1,2-Dichloropropane	0.000		0	N.D.			
58) Bromodichloromethane	6.736	83	99	N.D.			
61) 1,4-Dioxane	0.000		0	N.D.			
62) cis-1,3-Dichloropropene	7.534	75	44	N.D.			
65) Toluene	7.685	92	882	0.081	ug/L	#	55
66) 4-Methyl-2-pentanone	0.000		0	N.D.	d		
67) Tetrachloroethene	8.142	166	30	N.D.			
69) trans-1,3-Dichloropropene	0.000		0	N.D.			
72) 1,1,2-Trichloroethane	0.000		0	N.D.			
73) Chlorodibromomethane	0.000		0	N.D.			
74) 1,3-Dichloropropane	8.672	76	26	N.D.			
75) 1,2-Dibromoethane	0.000		0	N.D.			
77) 2-Hexanone	9.135	43	4643	2.531	ug/L	#	74
78) Chlorobenzene	0.000		0	N.D.	d		
79) Ethylbenzene	9.522	91	97	N.D.			
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
81) p/m Xylene	9.542	106	70	N.D.			
82) o Xylene	10.267	106	26	N.D.			
83) Styrene	10.328	104	27	N.D.			
85) Bromoform	0.000		0	N.D.			
87) Isopropylbenzene	10.649	105	56	N.D.			
89) Bromobenzene	0.000		0	N.D.			
90) n-Propylbenzene	11.134	91	41	N.D.			
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
93) 4-Ethyltoluene	11.257	105	27	N.D.			
94) 2-Chlorotoluene	11.301	91	26	N.D.			
95) 1,3,5-Trimethylbenzene	11.257	105	27	N.D.			
96) 1,2,3-Trichloropropane	11.469	75	31	N.D.			
97) trans-1,4-Dichloro-2-b...	11.427	53	25	N.D.			
98) 4-Chlorotoluene	11.488	91	87	N.D.			
99) tert-Butylbenzene	0.000		0	N.D.			

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A06.D
Acq On : 24 Nov 2024 12:34 pm
Operator : ELAINE:PID
Sample : L2469254-03d,31,1.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:53:39 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.778	105	156	N.D.		
103) sec-Butylbenzene	11.778	105	156	N.D.		
104) p-Isopropyltoluene	12.040	119	62	N.D.		
105) 1,3-Dichlorobenzene	12.113	146	100	N.D.		
106) 1,4-Dichlorobenzene	12.205	146	42	N.D.		
107) p-Diethylbenzene	12.409	119	116	N.D.		
108) n-Butylbenzene	12.470	91	125	N.D.		
109) 1,2-Dichlorobenzene	12.623	146	116	N.D.		
110) 1,2,4,5-Tetramethylben...	13.214	119	189	N.D.		
111) 1,2-Dibromo-3-chloropr...	13.415	155	30	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.032	180	109	N.D.		
115) Naphthalene	14.330	128	497	N.D.		
116) 1,2,3-Trichlorobenzene	14.494	180	140	N.D.		

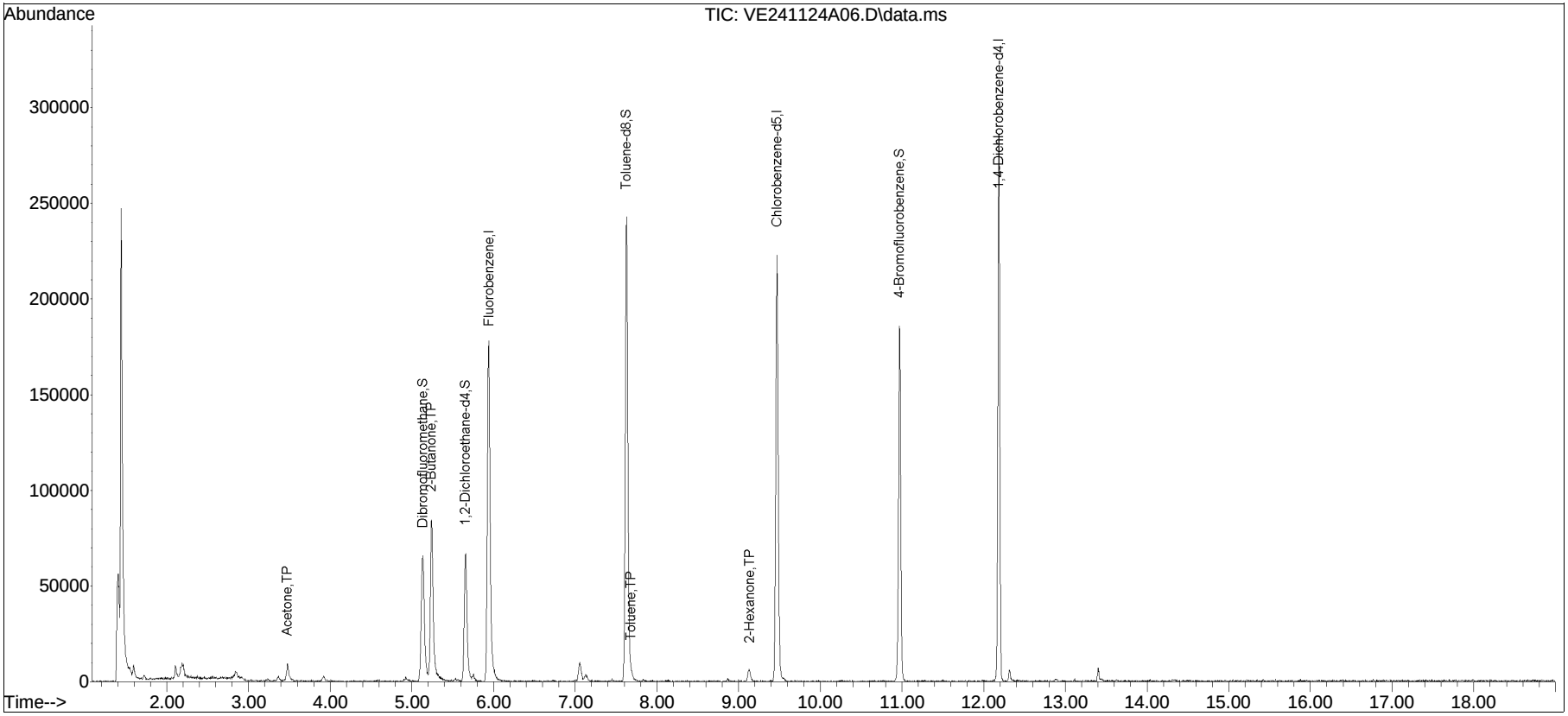
(#) = qualifier out of range (m) = manual integration (+) = signals summed

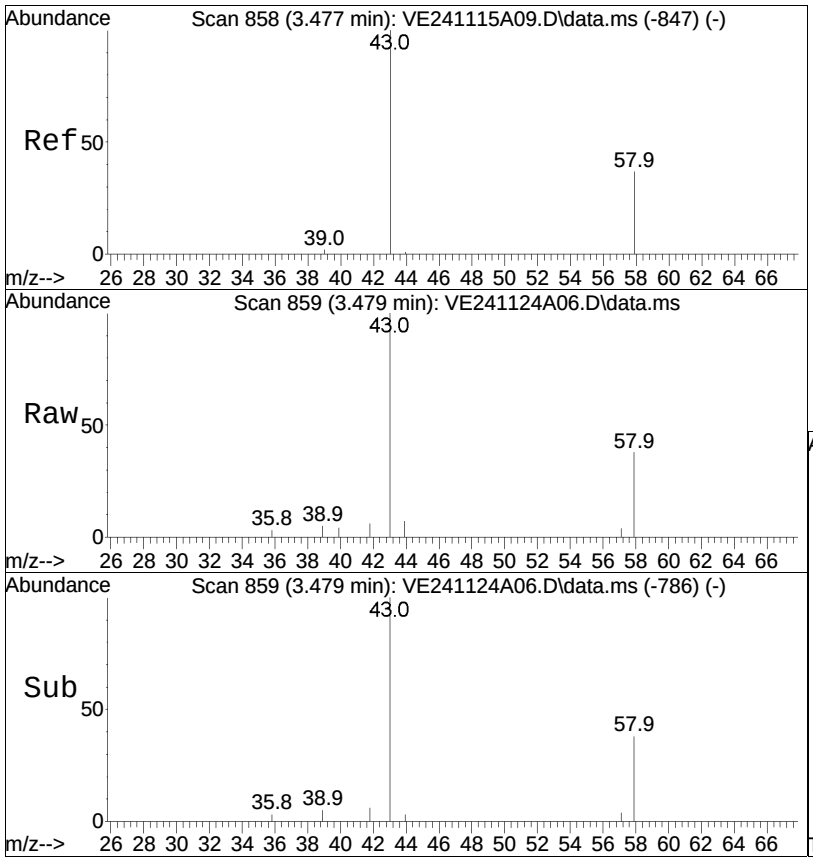
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A06.D
Acq On : 24 Nov 2024 12:34 pm
Operator : ELAINE:PID
Sample : L2469254-03d,31,1.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 06:53:39 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41124A02.D•

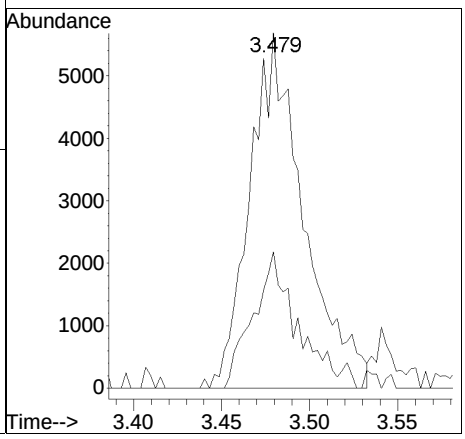


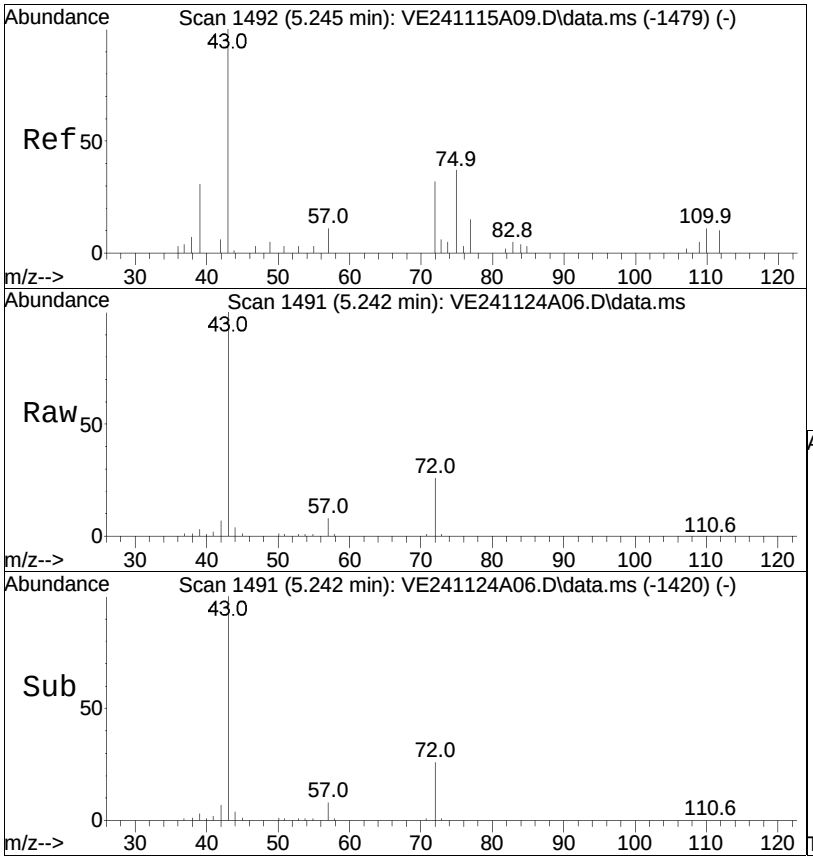


#17
Acetone
Concen: 14.39 ug/L
RT: 3.479 min Scan# 859
Delta R.T. 0.003 min
Lab File: VE241124A06.D
Acq: 24 Nov 2024 12:34 pm

Tgt Ion: 43 Resp: 12089

Ion	Ratio	Lower	Upper
43	100		
58	30.9	23.4	35.0

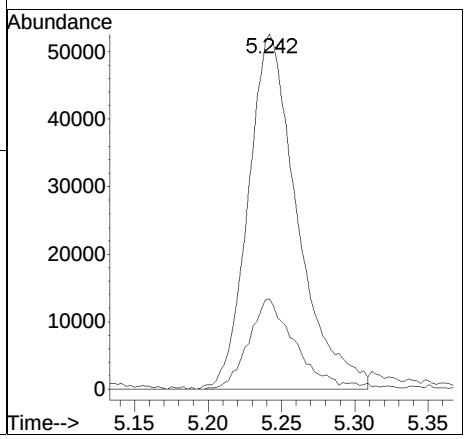


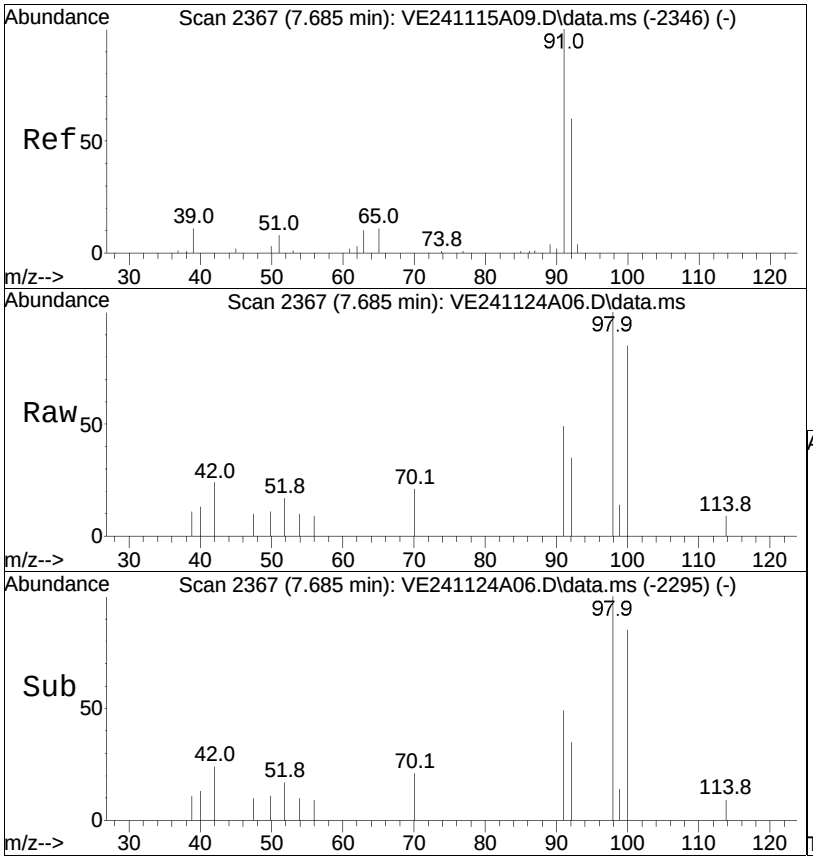


#42
2-Butanone
Concen: 102.32 ug/L
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241124A06.D
Acq: 24 Nov 2024 12:34 pm

Tgt Ion: 43 Resp: 122587

Ion	Ratio	Lower	Upper
43	100		
72	24.0	15.7	23.5#

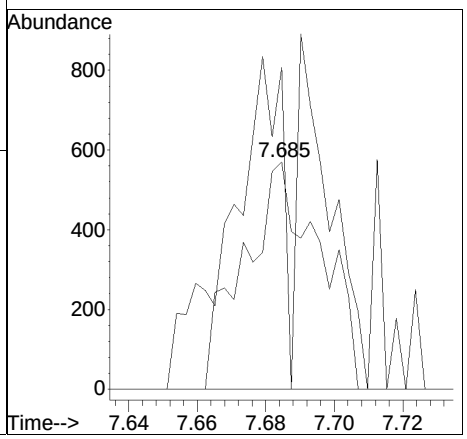


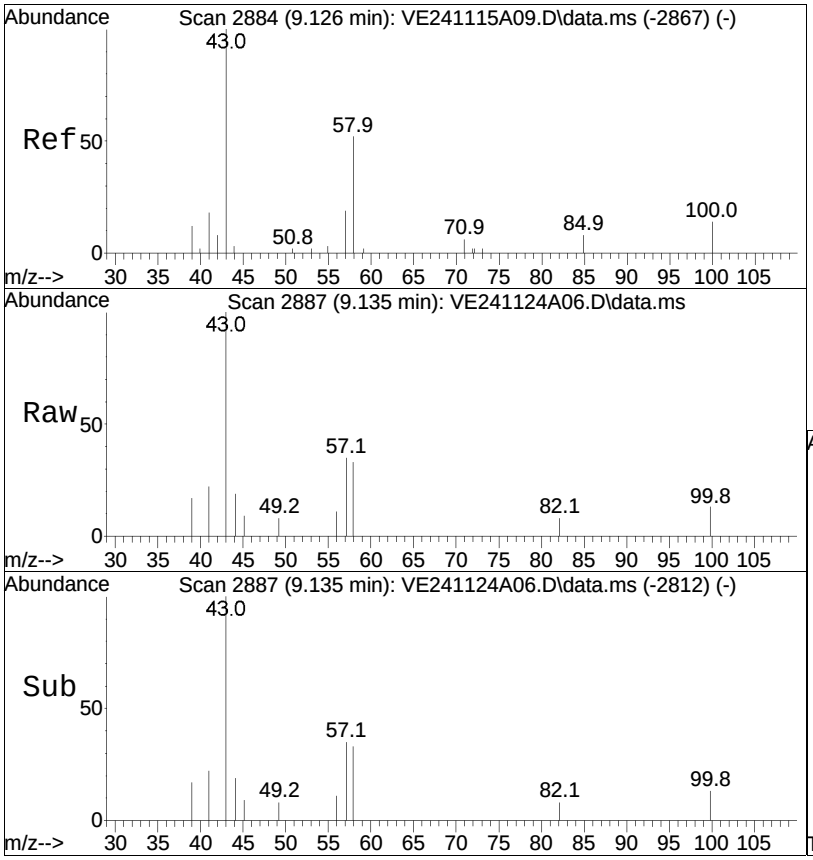


#65
Toluene
Concen: 0.08 ug/L
RT: 7.685 min Scan# 2367
Delta R.T. -0.000 min
Lab File: VE241124A06.D
Acq: 24 Nov 2024 12:34 pm

Tgt Ion: 92 Resp: 882

Ion	Ratio	Lower	Upper
92	100		
91	101.1	129.1	193.7#

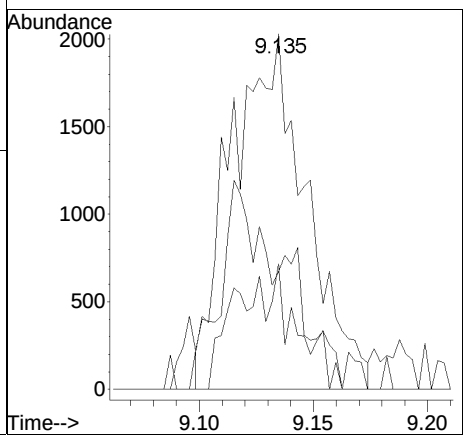




#77
2-Hexanone
Concen: 2.53 ug/L
RT: 9.135 min Scan# 2887
Delta R.T. 0.008 min
Lab File: VE241124A06.D
Acq: 24 Nov 2024 12:34 pm

Tgt Ion: 43 Resp: 4643

Ion	Ratio	Lower	Upper
43	100		
58	32.5	42.5	63.7#
57	9.5	13.9	20.9#



Manual Integration Report

Data Path	: K:\Elaine\2024\241124A\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241124A06.D	Operator	: ELAINE:PID
Date Inj'd	: 11/24/2024 12:34 pm	Instrument	: Elaine
Sample	: L2469254-03d,31,1.0,10,,A,	Quant Date	: 11/25/2024 6:10 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A07.D
Acq On : 24 Nov 2024 12:59 pm
Operator : ELAINE:PID
Sample : L2469254-05d,31,0.25,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:54:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	194289	10.000 ug/L	0.00
Standard Area 1 = 209590			Recovery = 92.70%		
63) Chlorobenzene-d5	9.470	117	137704	10.000 ug/L	0.00
Standard Area 1 = 148793			Recovery = 92.55%		
84) 1,4-Dichlorobenzene-d4	12.186	152	67489	10.000 ug/L	0.00
Standard Area 1 = 74459			Recovery = 90.64%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.130	113	44198	9.921 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.21%		
47) 1,2-Dichloroethane-d4	5.660	65	56630	10.744 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.44%		
64) Toluene-d8	7.626	98	193925	10.326 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.26%		
88) 4-Bromofluorobenzene	10.975	95	64764	10.445 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.45%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.435	85	31	N.D.	
3) Chloromethane	1.770	50	38	N.D.	
4) Vinyl chloride	1.848	62	26	N.D.	
5) Bromomethane	2.149	94	44	N.D.	
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	2.264	101	29	N.D.	
8) Ethyl ether	2.696	74	25	N.D.	
10) 1,1-Dichloroethene	3.039	96	33	N.D.	
11) Carbon disulfide	2.919	76	453	N.D.	
15) Methylene chloride	3.438	84	139	N.D.	
17) Acetone	3.480	43	3610M3	4.327 ug/L	
18) trans-1,2-Dichloroethene	3.516	96	27	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D. d	
25) 1,1-Dichloroethane	4.171	63	32	N.D.	
27) Acrylonitrile	4.219	53	28	N.D.	
29) Vinyl acetate	4.428	43	103	N.D.	
30) cis-1,2-Dichloroethene	4.693	96	2425	0.562 ug/L #	50
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	4.958	83	878	0.124 ug/L #	59

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A07.D
Acq On : 24 Nov 2024 12:59 pm
Operator : ELAINE:PID
Sample : L2469254-05d,31,0.25,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:54:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	4.938	117	38	N.D.		
40) 1,1,1-Trichloroethane	5.130	97	29	N.D.		
42) 2-Butanone	5.245	43	19168	16.112	ug/L	94
43) 1,1-Dichloropropene	0.000		0	N.D.		
45) Benzene	5.526	78	25	N.D.		
48) 1,2-Dichloroethane	5.708	62	61	N.D.		
52) Trichloroethene	6.028	95	180	N.D.		
54) Dibromomethane	0.000		0	N.D.	d	
55) 1,2-Dichloropropane	6.631	63	30	N.D.		
58) Bromodichloromethane	6.675	83	28	N.D.		
61) 1,4-Dioxane	0.000		0	N.D.		
62) cis-1,3-Dichloropropene	7.406	75	30	N.D.		
65) Toluene	7.690	92	128	N.D.		
66) 4-Methyl-2-pentanone	0.000		0	N.D.		
67) Tetrachloroethene	8.131	166	27	N.D.		
69) trans-1,3-Dichloropropene	0.000		0	N.D.		
72) 1,1,2-Trichloroethane	0.000		0	N.D.		
73) Chlorodibromomethane	0.000		0	N.D.		
74) 1,3-Dichloropropane	0.000		0	N.D.		
75) 1,2-Dibromoethane	0.000		0	N.D.		
77) 2-Hexanone	9.124	43	118	N.D.		
78) Chlorobenzene	9.486	112	62	N.D.		
79) Ethylbenzene	9.528	91	68	N.D.		
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
81) p/m Xylene	9.734	106	25	N.D.		
82) o Xylene	10.273	106	29	N.D.		
83) Styrene	10.331	104	31	N.D.		
85) Bromoform	0.000		0	N.D.		
87) Isopropylbenzene	10.655	105	37	N.D.		
89) Bromobenzene	10.961	156	27	N.D.		
90) n-Propylbenzene	11.129	91	149	N.D.		
92) 1,1,2,2-Tetrachloroethane	11.399	83	26	N.D.		
93) 4-Ethyltoluene	11.254	105	28	N.D.		
94) 2-Chlorotoluene	11.148	91	32	N.D.		
95) 1,3,5-Trimethylbenzene	11.355	105	38	N.D.		
96) 1,2,3-Trichloropropane	11.316	75	27	N.D.		
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
98) 4-Chlorotoluene	11.486	91	33	N.D.		
99) tert-Butylbenzene	11.681	119	26	N.D.		

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A07.D
Acq On : 24 Nov 2024 12:59 pm
Operator : ELAINE:PID
Sample : L2469254-05d,31,0.25,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:54:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	200	N.D.		
103) sec-Butylbenzene	11.887	105	33	N.D.		
104) p-Isopropyltoluene	12.038	119	26	N.D.		
105) 1,3-Dichlorobenzene	12.105	146	113	N.D.		
106) 1,4-Dichlorobenzene	12.208	146	73	N.D.		
107) p-Diethylbenzene	12.409	119	26	N.D.		
108) n-Butylbenzene	12.478	91	106	N.D.		
109) 1,2-Dichlorobenzene	12.621	146	53	N.D.		
110) 1,2,4,5-Tetramethylben...	13.206	119	26	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	14.009	225	58	N.D.		
114) 1,2,4-Trichlorobenzene	14.035	180	30	N.D.		
115) Naphthalene	14.327	128	140	N.D.		
116) 1,2,3-Trichlorobenzene	14.492	180	144	N.D.		

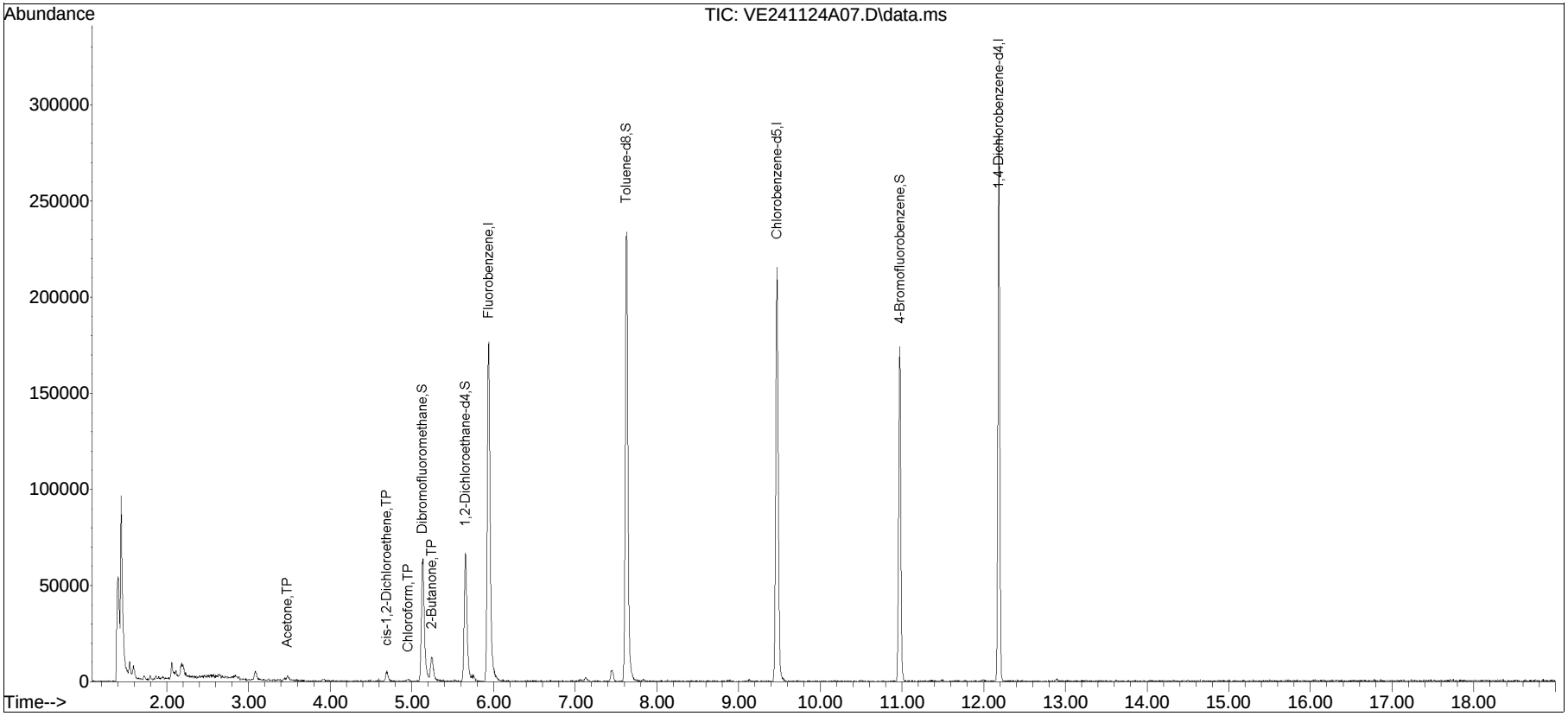
(#) = qualifier out of range (m) = manual integration (+) = signals summed

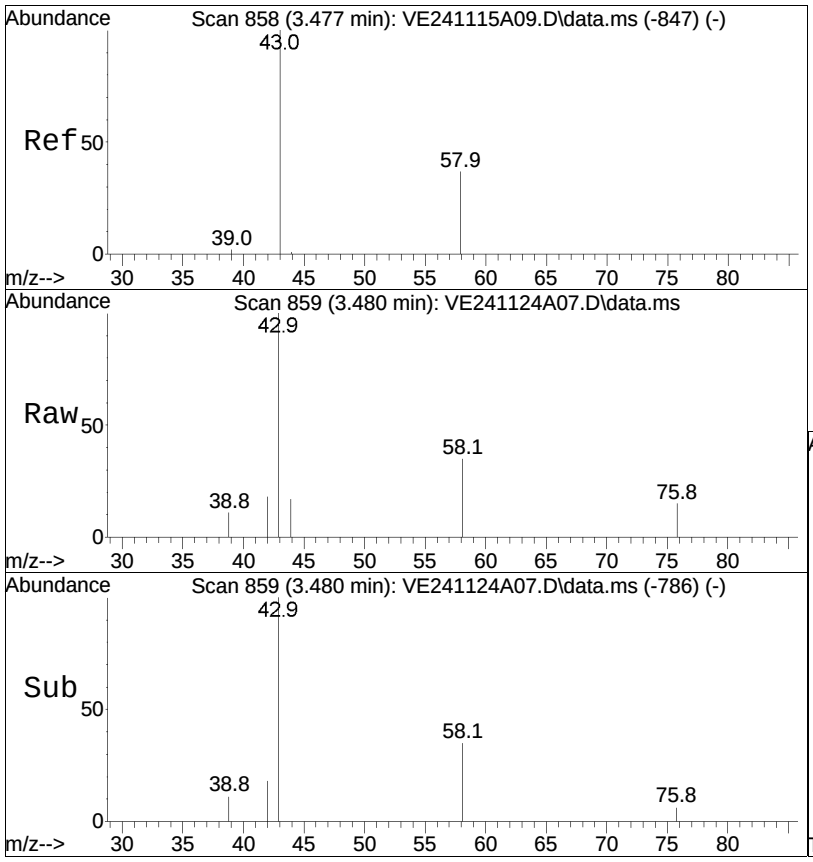
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A07.D
Acq On : 24 Nov 2024 12:59 pm
Operator : ELAINE:PID
Sample : L2469254-05d,31,0.25,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 25 06:54:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41124A02.D•

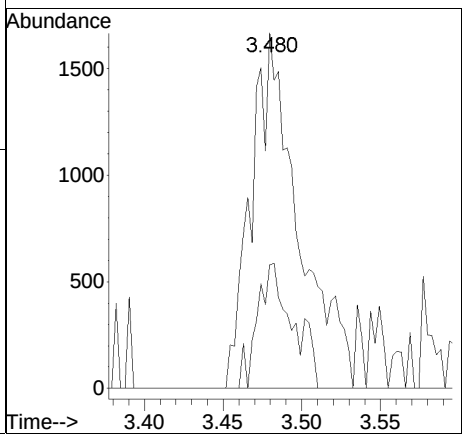


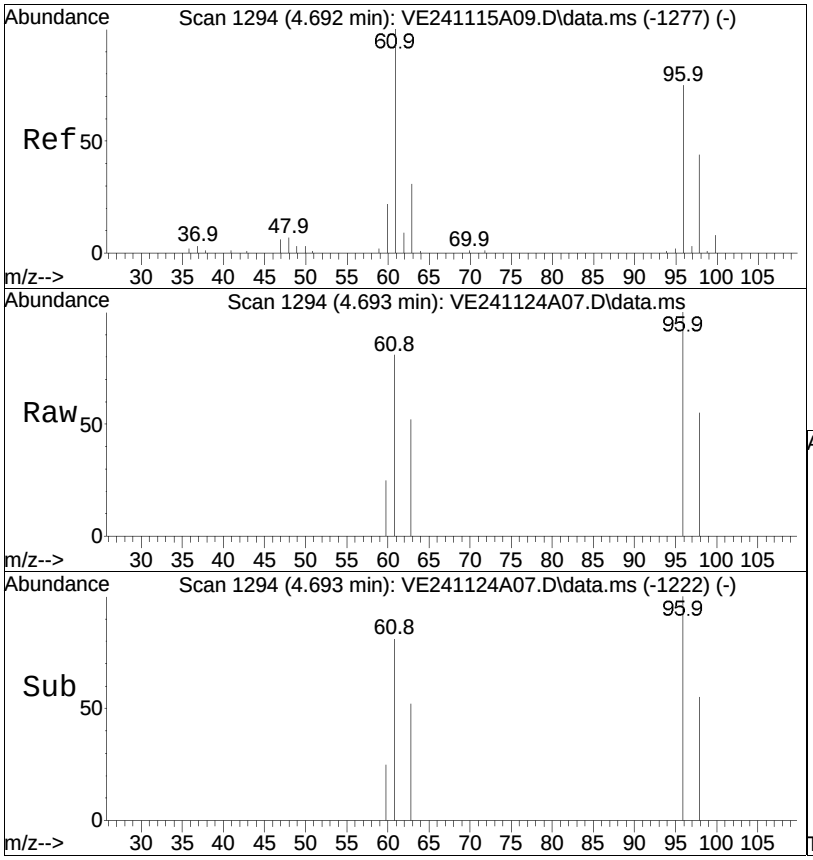


#17
Acetone
Concen: 4.33 ug/L M3
RT: 3.480 min Scan# 859
Delta R.T. 0.003 min
Lab File: VE241124A07.D
Acq: 24 Nov 2024 12:59 pm

Tgt Ion: 43 Resp: 3610

Ion	Ratio	Lower	Upper
43	100		
58	21.7	23.4	35.0#

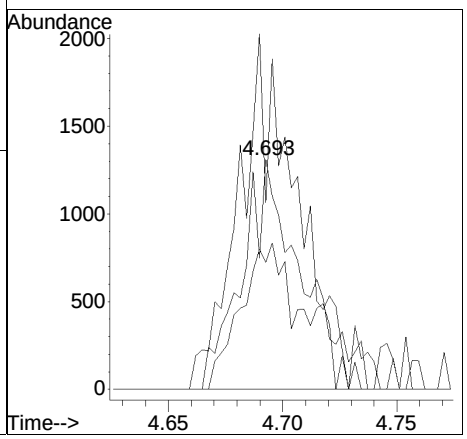


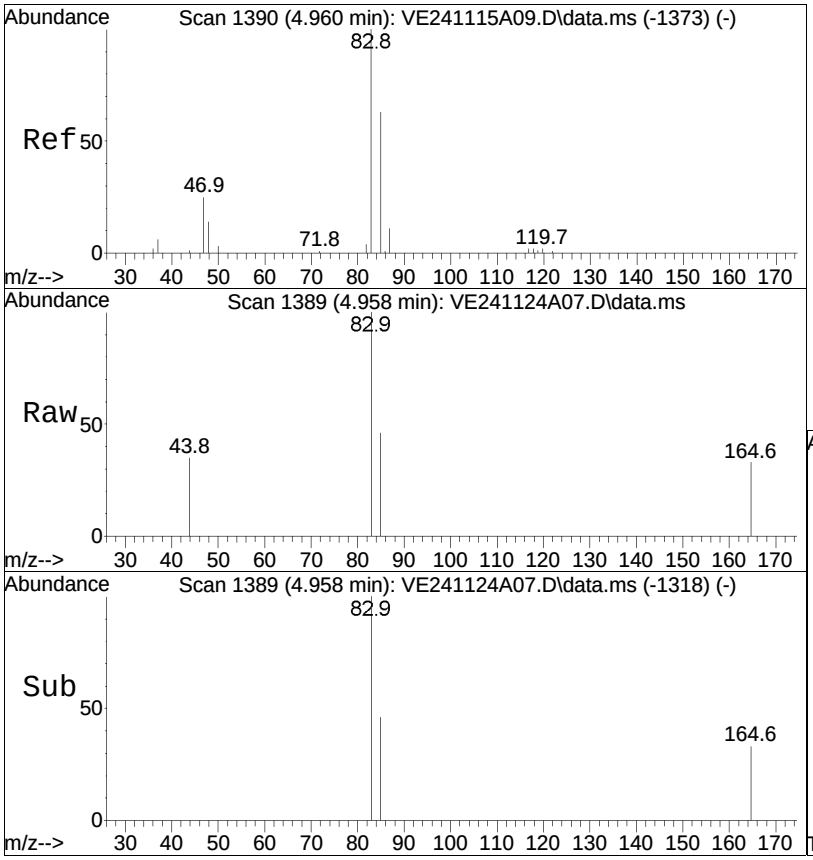


#30
cis-1,2-Dichloroethene
Concen: 0.56 ug/L
RT: 4.693 min Scan# 1294
Delta R.T. 0.000 min
Lab File: VE241124A07.D
Acq: 24 Nov 2024 12:59 pm

Tgt Ion: 96 Resp: 2425

Ion	Ratio	Lower	Upper
96	100		
61	70.0	120.3	180.5#
98	49.7	50.2	75.4#

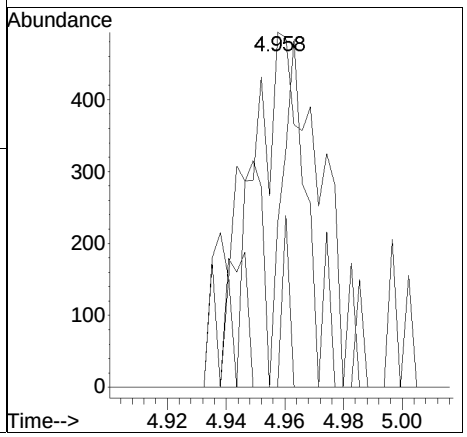


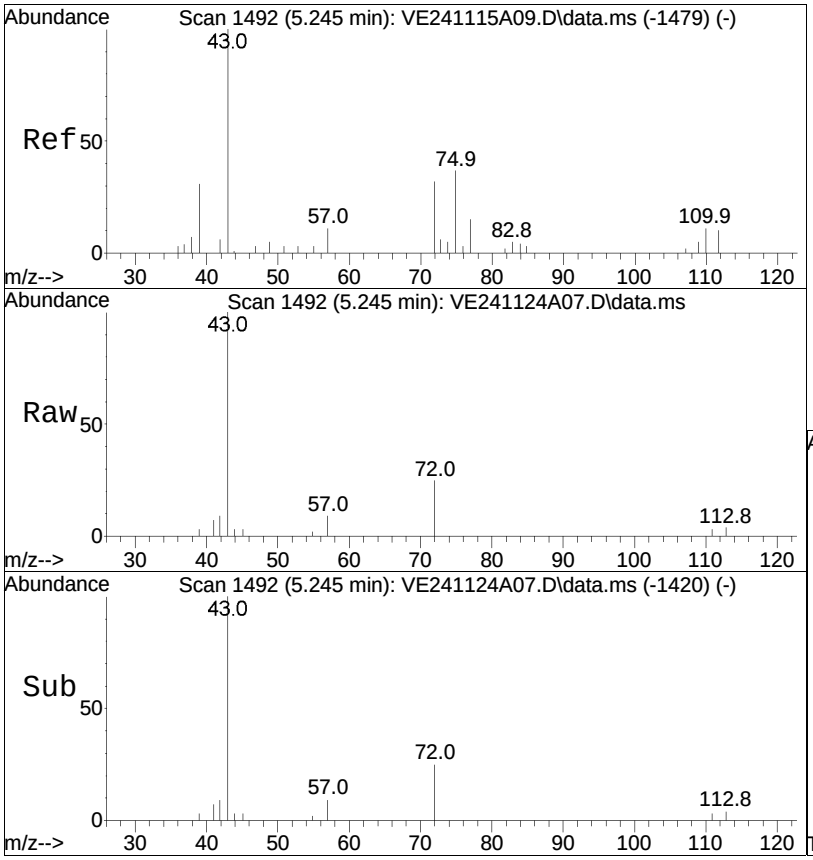


#35
Chloroform
Concen: 0.12 ug/L
RT: 4.958 min Scan# 1389
Delta R.T. -0.003 min
Lab File: VE241124A07.D
Acq: 24 Nov 2024 12:59 pm

Tgt Ion: 83 Resp: 878

Ion	Ratio	Lower	Upper
83	100		
85	34.3	41.3	85.9#
47	4.6	20.9	43.3#
48	0.0	10.3	21.5#

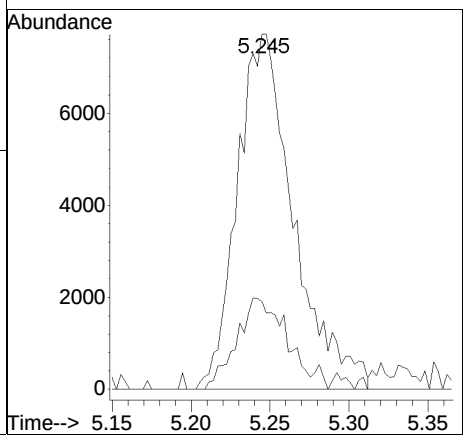




#42
2-Butanone
Concen: 16.11 ug/L
RT: 5.245 min Scan# 1492
Delta R.T. 0.000 min
Lab File: VE241124A07.D
Acq: 24 Nov 2024 12:59 pm

Tgt Ion: 43 Resp: 19168

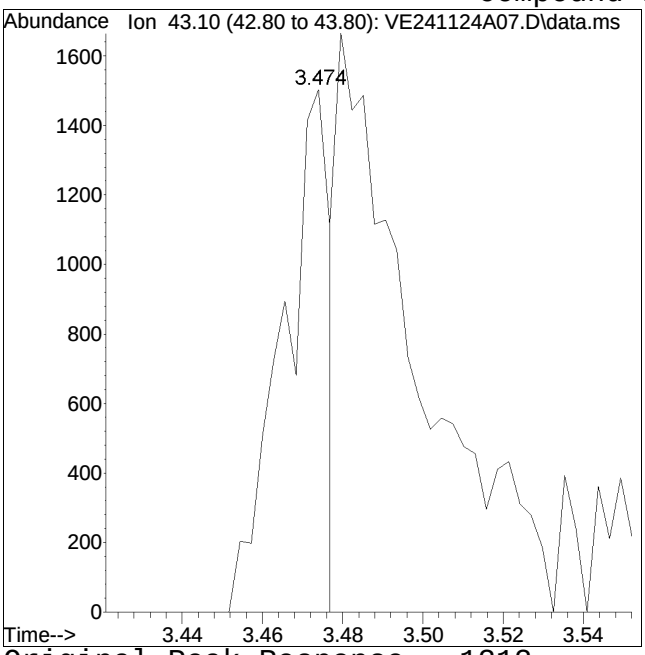
Ion	Ratio	Lower	Upper
43	100		
72	22.3	15.7	23.5

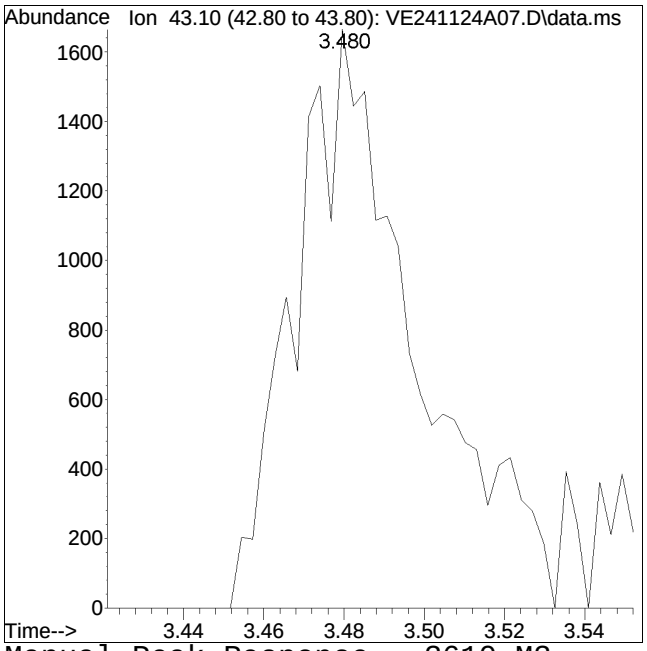


Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A07.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 12:59 pm Instrument : Elaine
Sample : L2469254-05d,31,0.25,10,,AQuant Date : 11/25/2024 6:10 am

Compound #17: Acetone





Original Peak Response = 1212 Manual Peak Response = 3610 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A08.D
Acq On : 24 Nov 2024 1:23 pm
Operator : ELAINE:PID
Sample : L2469254-07d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:54:53 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	195908	10.000 ug/L	0.00
Standard Area 1 = 209590			Recovery =	93.47%	
63) Chlorobenzene-d5	9.472	117	141683	10.000 ug/L	0.00
Standard Area 1 = 148793			Recovery =	95.22%	
84) 1,4-Dichlorobenzene-d4	12.186	152	68301	10.000 ug/L	0.00
Standard Area 1 = 74459			Recovery =	91.73%	
System Monitoring Compounds					
39) Dibromofluoromethane	5.133	113	44329	9.869 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.69%	
47) 1,2-Dichloroethane-d4	5.660	65	59031	11.106 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	111.06%	
64) Toluene-d8	7.629	98	196454	10.167 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.67%	
88) 4-Bromofluorobenzene	10.970	95	65013	10.360 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.60%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.402	85	206	N.D.	
3) Chloromethane	1.764	50	33	N.D.	
4) Vinyl chloride	1.834	62	33	N.D.	
5) Bromomethane	2.292	94	28	N.D.	
6) Chloroethane	2.356	64	27	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	2.696	74	28	N.D.	
10) 1,1-Dichloroethene	2.752	96	26	N.D.	
11) Carbon disulfide	2.925	76	1366	0.133 ug/L #	82
15) Methylene chloride	3.440	84	131	N.D.	
17) Acetone	0.000		0	N.D. d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D. d	
25) 1,1-Dichloroethane	4.073	63	29	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.389	43	32	N.D.	
30) cis-1,2-Dichloroethene	4.701	96	936M3	0.215 ug/L	
31) 2,2-Dichloropropane	4.821	77	29	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A08.D
Acq On : 24 Nov 2024 1:23 pm
Operator : ELAINE:PID
Sample : L2469254-07d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:54:53 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.	
40) 1,1,1-Trichloroethane	5.172	97	54	N.D.	
42) 2-Butanone	5.245	43	2273M1	1.895 ug/L	
43) 1,1-Dichloropropene	5.261	75	28	N.D.	
45) Benzene	5.532	78	4204M3	0.241 ug/L	
48) 1,2-Dichloroethane	0.000		0	N.D. d	
52) Trichloroethene	6.039	95	104	N.D.	
54) Dibromomethane	0.000		0	N.D.	
55) 1,2-Dichloropropane	6.553	63	29	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
61) 1,4-Dioxane	0.000		0	N.D. d	
62) cis-1,3-Dichloropropene	0.000		0	N.D.	
65) Toluene	7.685	92	1827M1	0.164 ug/L	
66) 4-Methyl-2-pentanone	8.125	58	52	N.D.	
67) Tetrachloroethene	0.000		0	N.D. d	
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	0.000		0	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	0.000		0	N.D.	
75) 1,2-Dibromoethane	0.000		0	N.D.	
77) 2-Hexanone	9.135	43	103	N.D.	
78) Chlorobenzene	9.495	112	26	N.D.	
79) Ethylbenzene	9.536	91	55	N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	9.525	106	40	N.D.	
82) o Xylene	10.261	106	64	N.D.	
83) Styrene	10.328	104	90	N.D.	
85) Bromoform	0.000		0	N.D.	
87) Isopropylbenzene	10.557	105	26	N.D.	
89) Bromobenzene	11.079	156	28	N.D.	
90) n-Propylbenzene	11.123	91	34	N.D.	
92) 1,1,2,2-Tetrachloroethane	11.293	83	28	N.D.	
93) 4-Ethyltoluene	11.235	105	95	N.D.	
94) 2-Chlorotoluene	11.293	91	35	N.D.	
95) 1,3,5-Trimethylbenzene	11.349	105	28	N.D.	
96) 1,2,3-Trichloropropane	11.402	75	27	N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
98) 4-Chlorotoluene	11.472	91	49	N.D.	
99) tert-Butylbenzene	11.756	119	32	N.D.	

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A08.D
Acq On : 24 Nov 2024 1:23 pm
Operator : ELAINE:PID
Sample : L2469254-07d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:54:53 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	1,2,4-Trimethylbenzene	11.778	105	205	N.D.		
103)	sec-Butylbenzene	11.882	105	80	N.D.		
104)	p-Isopropyltoluene	12.049	119	35	N.D.		
105)	1,3-Dichlorobenzene	12.119	146	34	N.D.		
106)	1,4-Dichlorobenzene	12.191	146	55	N.D.		
107)	p-Diethylbenzene	12.414	119	41	N.D.		
108)	n-Butylbenzene	12.478	91	69	N.D.		
109)	1,2-Dichlorobenzene	12.621	146	60	N.D.		
110)	1,2,4,5-Tetramethylben...	13.187	119	26	N.D.		
111)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113)	Hexachlorobutadiene	0.000		0	N.D.		
114)	1,2,4-Trichlorobenzene	14.037	180	29	N.D.		
115)	Naphthalene	14.327	128	554	N.D.		
116)	1,2,3-Trichlorobenzene	0.000		0	N.D.		

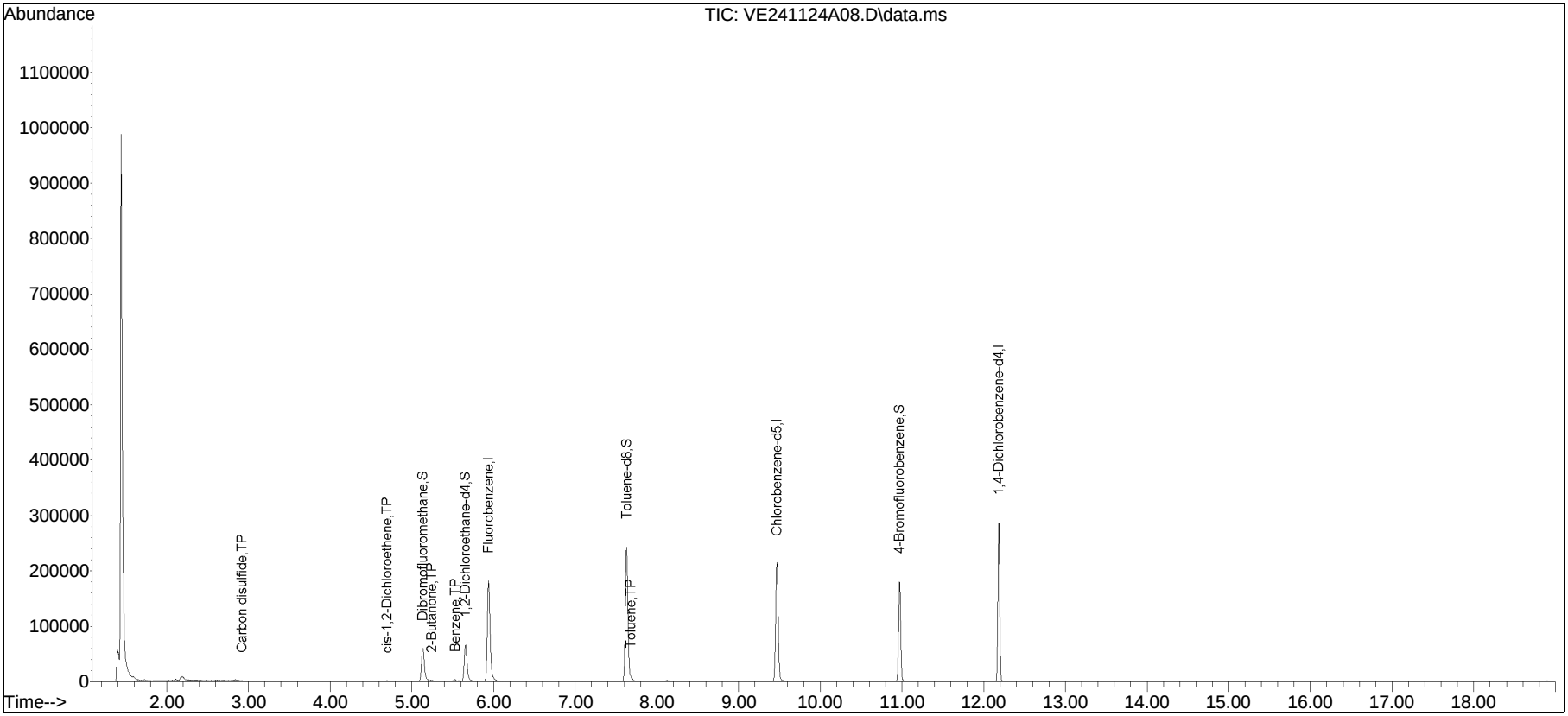
(#) = qualifier out of range (m) = manual integration (+) = signals summed

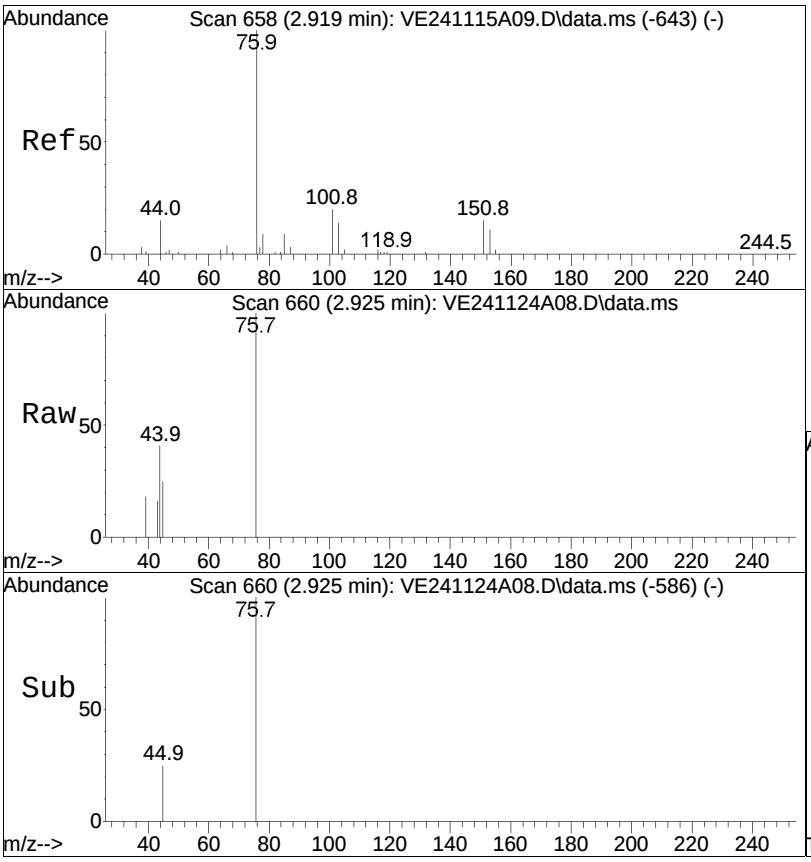
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A08.D
Acq On : 24 Nov 2024 1:23 pm
Operator : ELAINE:PID
Sample : L2469254-07d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 25 06:54:53 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41124A02.D•

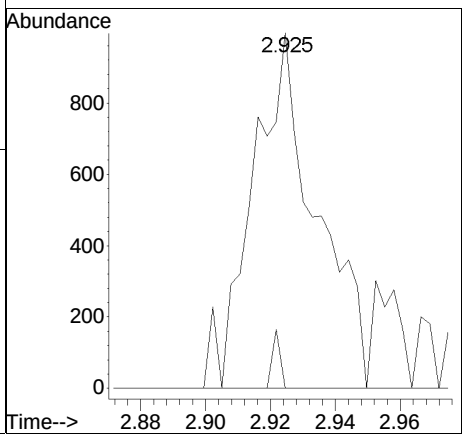


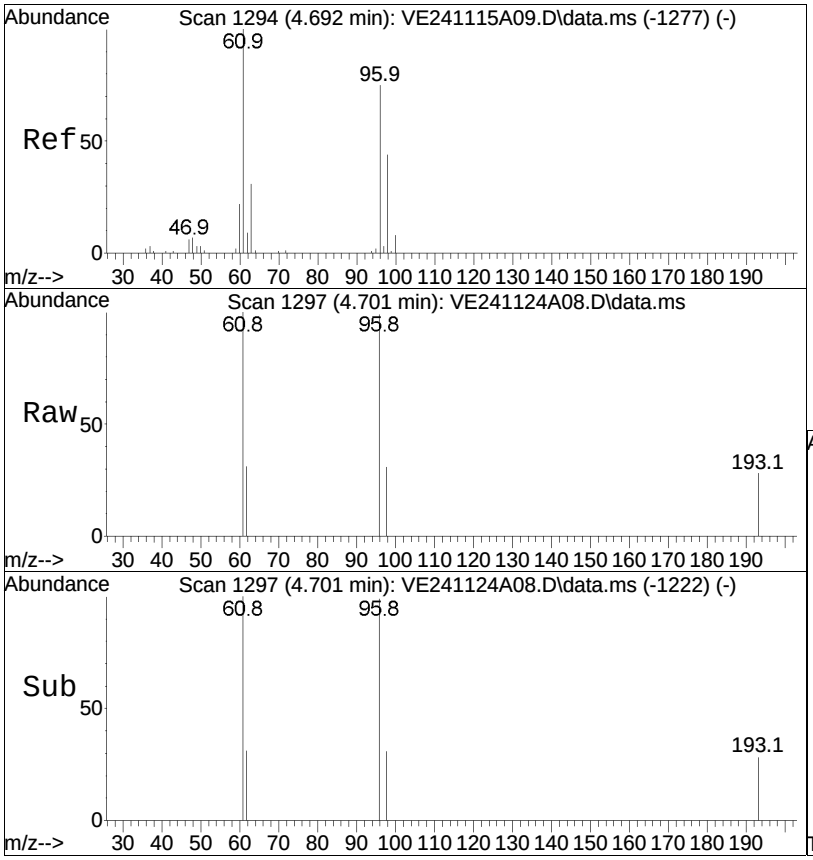


#11
Carbon disulfide
Concen: 0.13 ug/L
RT: 2.925 min Scan# 660
Delta R.T. 0.006 min
Lab File: VE241124A08.D
Acq: 24 Nov 2024 1:23 pm

Tgt Ion: 76 Resp: 1366

Ion	Ratio	Lower	Upper
76	100		
78	2.0	5.5	11.3#

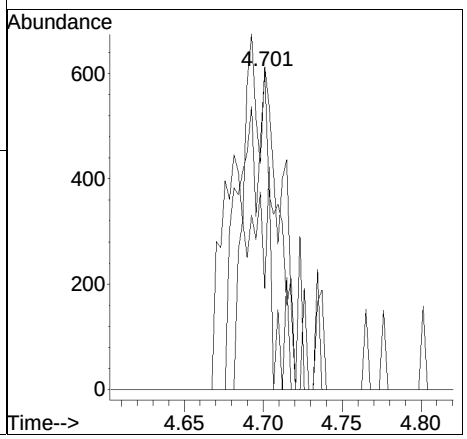


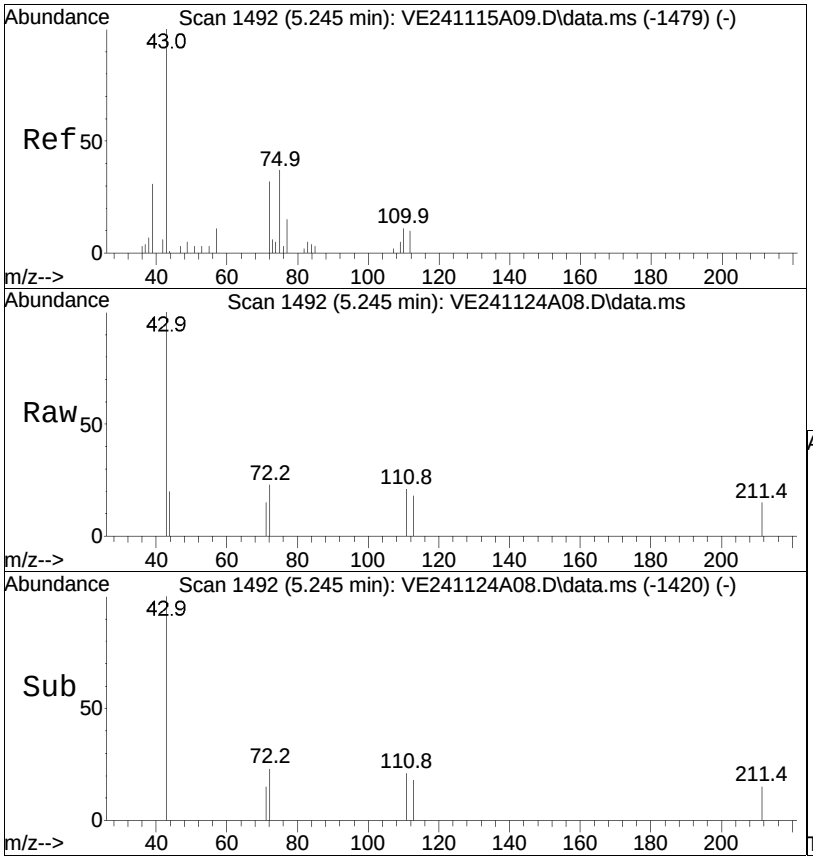


#30
cis-1,2-Dichloroethene
Concen: 0.22 ug/L M3
RT: 4.701 min Scan# 1297
Delta R.T. 0.008 min
Lab File: VE241124A08.D
Acq: 24 Nov 2024 1:23 pm

Tgt Ion: 96 Resp: 936

Ion	Ratio	Lower	Upper
96	100		
61	83.8	120.3	180.5#
98	15.0	50.2	75.4#

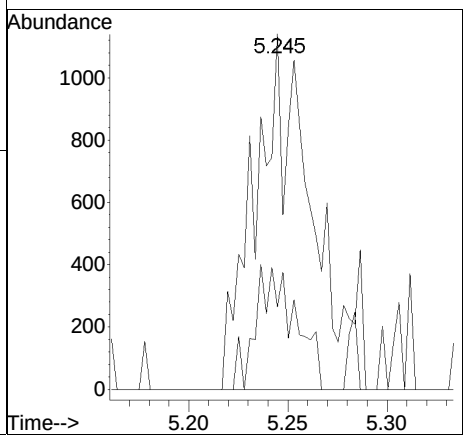


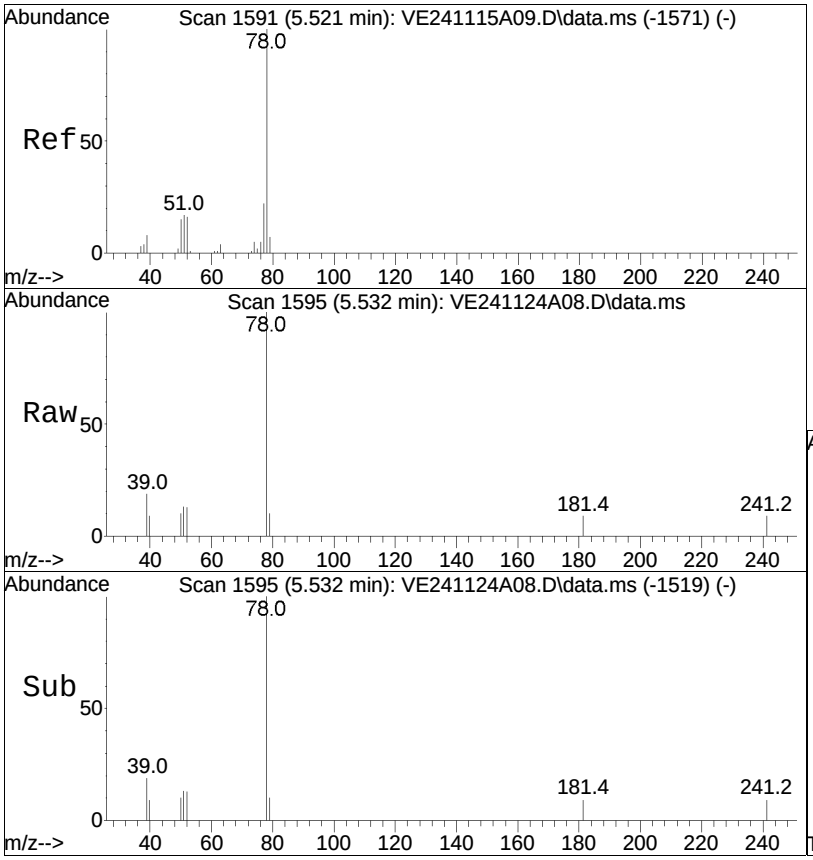


#42
2-Butanone
Concen: 1.89 ug/L M1
RT: 5.245 min Scan# 1492
Delta R.T. 0.000 min
Lab File: VE241124A08.D
Acq: 24 Nov 2024 1:23 pm

Tgt Ion: 43 Resp: 2273

Ion	Ratio	Lower	Upper
43	100		
72	24.4	15.7	23.5#

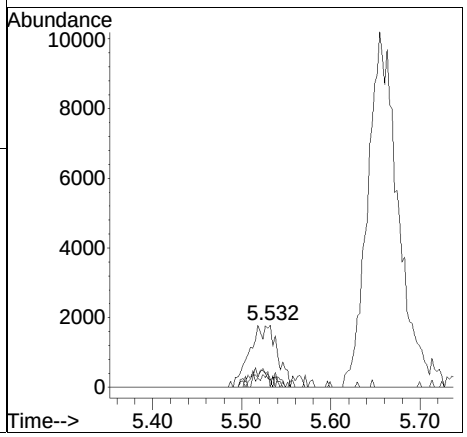


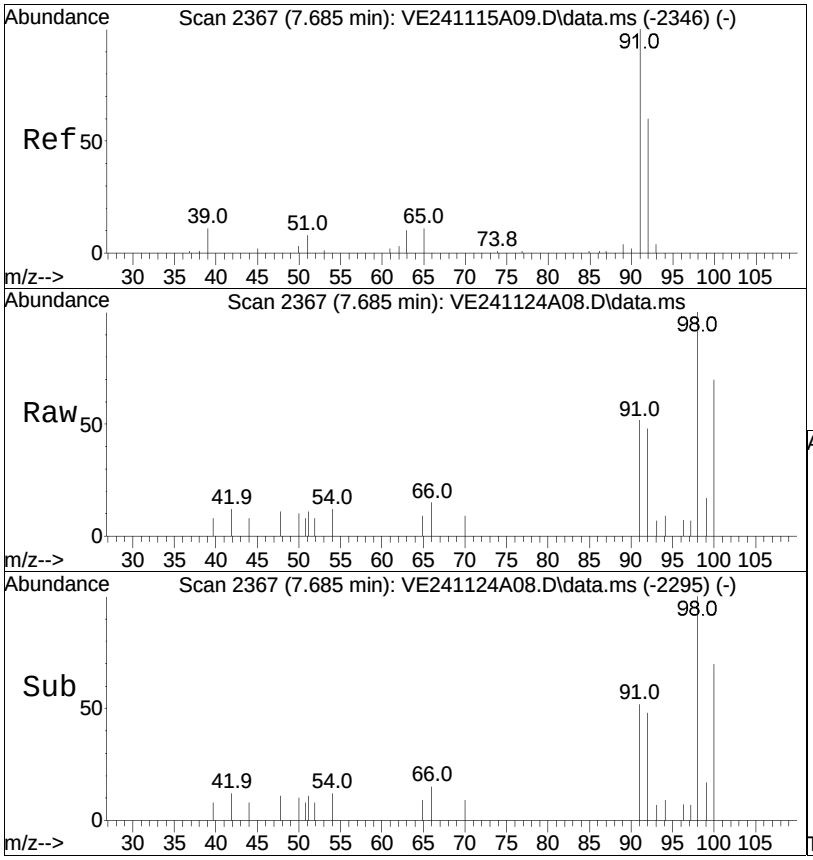


#45
Benzene
Concen: 0.24 ug/L M3
RT: 5.532 min Scan# 1595
Delta R.T. 0.011 min
Lab File: VE241124A08.D
Acq: 24 Nov 2024 1:23 pm

Tgt Ion: 78 Resp: 4204

Ion	Ratio	Lower	Upper
78	100		
77	16.3	12.8	26.6
51	0.0	13.5	27.9#
52	6.0	12.0	25.0#

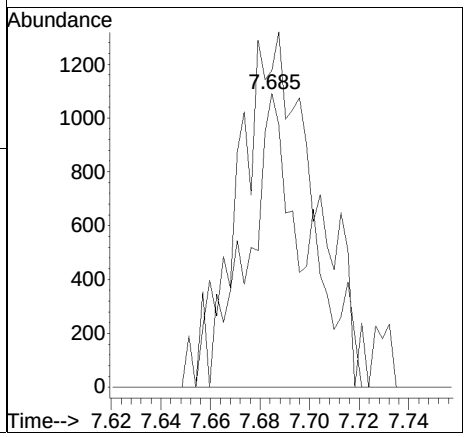




#65
Toluene
Concen: 0.16 ug/L M1
RT: 7.685 min Scan# 2367
Delta R.T. 0.000 min
Lab File: VE241124A08.D
Acq: 24 Nov 2024 1:23 pm

Tgt Ion: 92 Resp: 1827

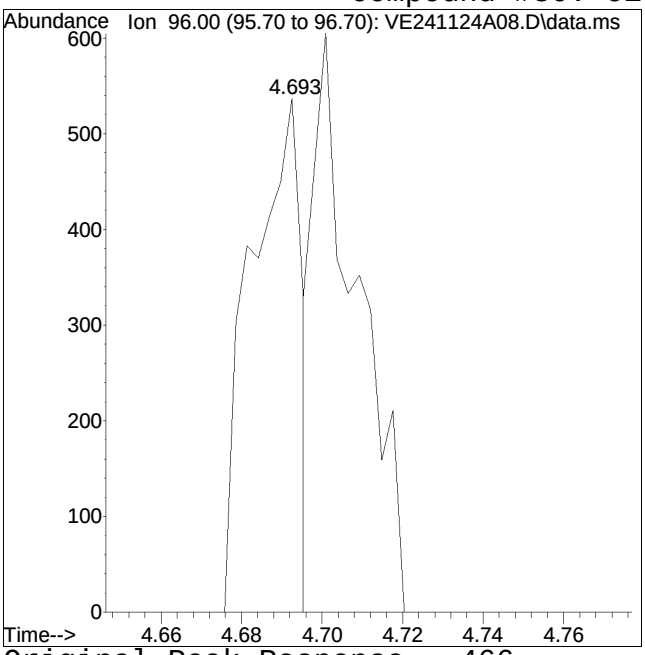
Ion	Ratio	Lower	Upper
92	100		
91	155.3	129.1	193.7



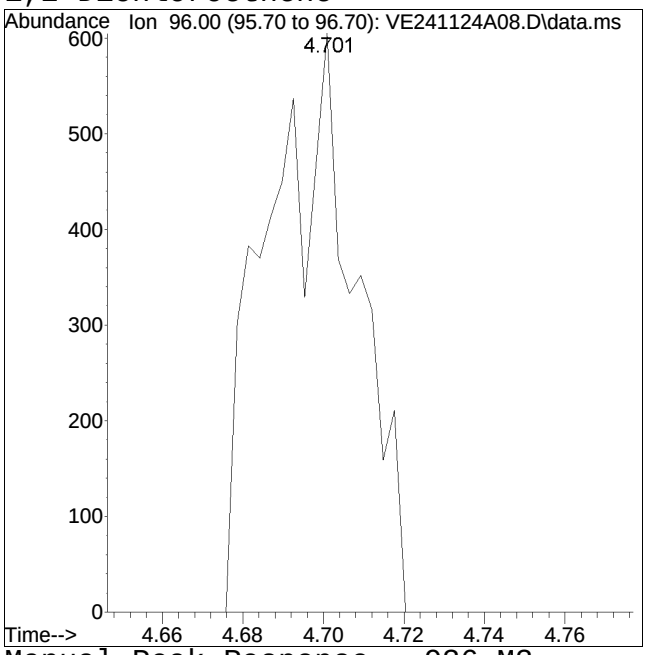
Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A08.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 1:23 pm Instrument : Elaine
Sample : L2469254-07d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 466



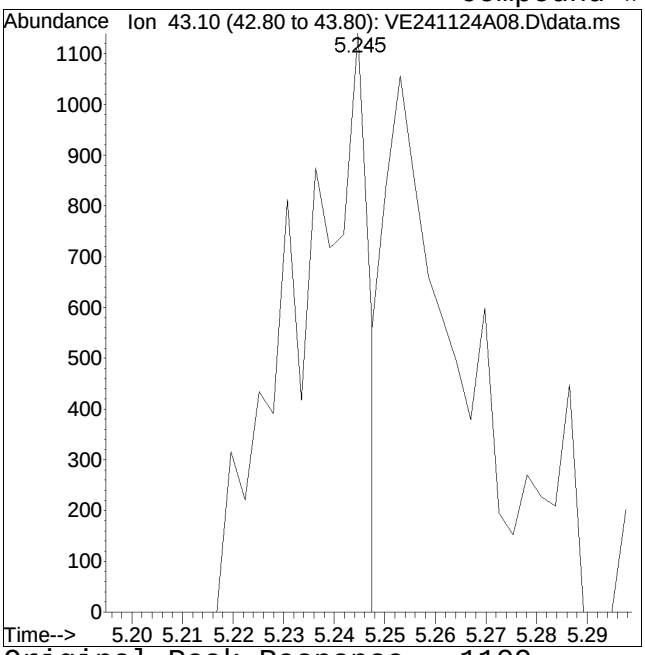
Manual Peak Response = 936 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

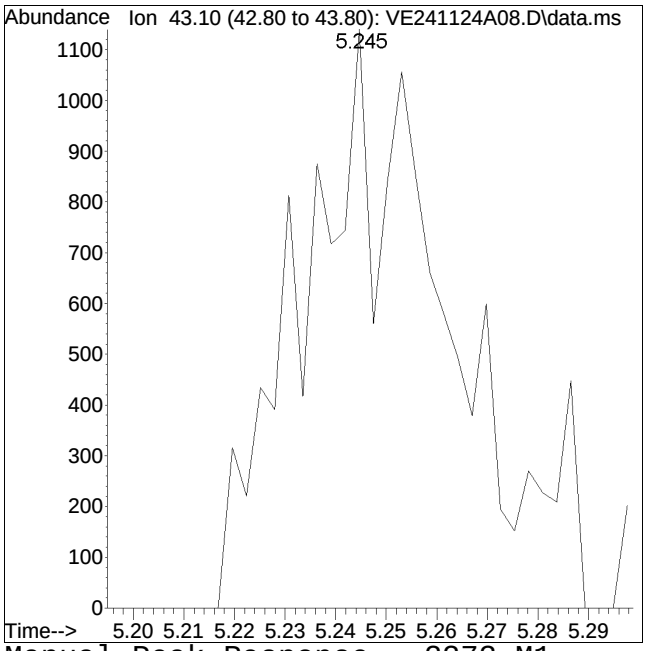
Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A08.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 1:23 pm Instrument : Elaine
Sample : L2469254-07d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #42: 2-Butanone



Original Peak Response = 1109



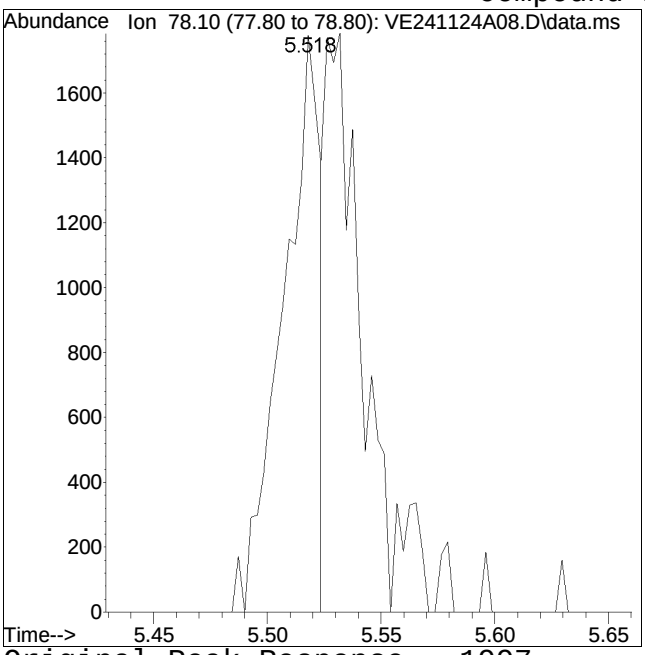
Manual Peak Response = 2273 M1

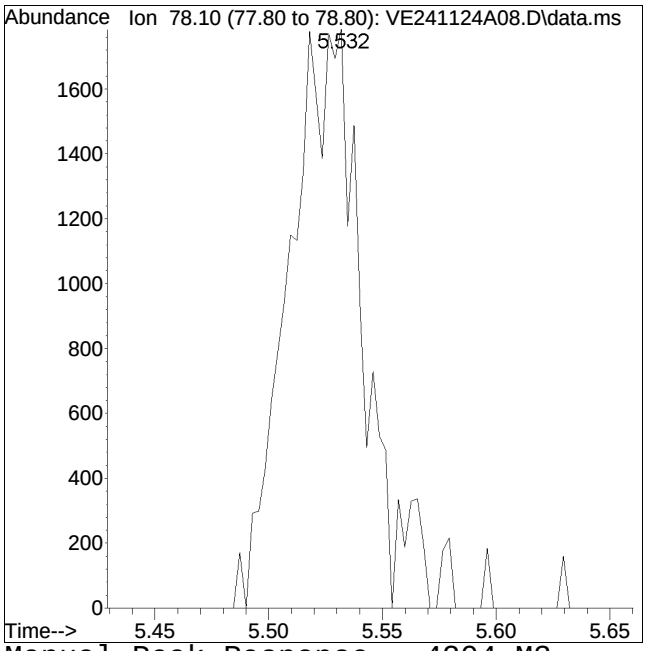
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A08.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 1:23 pm Instrument : Elaine
Sample : L2469254-07d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #45: Benzene





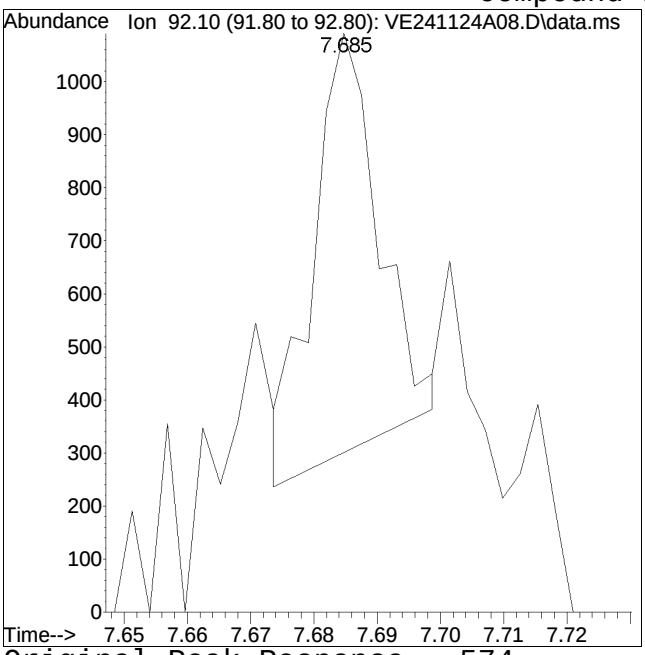
Original Peak Response = 1997 Manual Peak Response = 4204 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

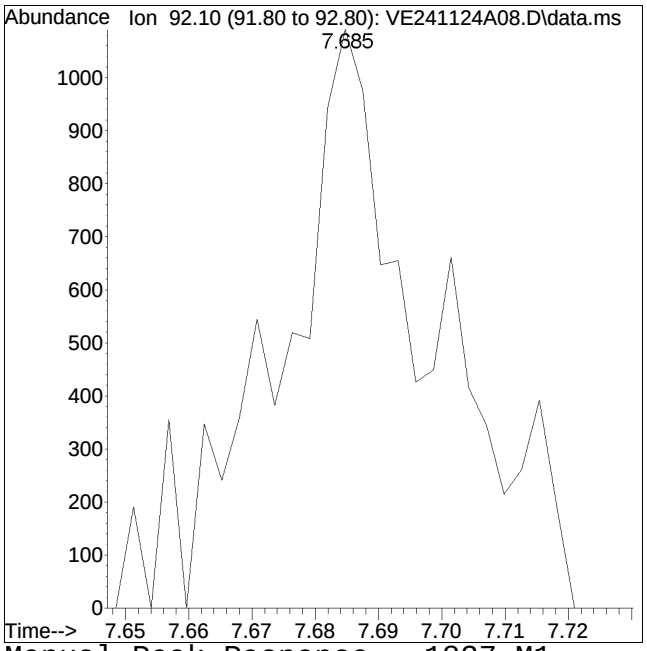
Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A08.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 1:23 pm Instrument : Elaine
Sample : L2469254-07d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #65: Toluene



Original Peak Response = 574



Manual Peak Response = 1827 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A09.D
Acq On : 24 Nov 2024 1:48 pm
Operator : ELAINE:PID
Sample : L2469254-09d,31,0.2,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:55:20 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	197731	10.000 ug/L	0.00
Standard Area 1 = 209590			Recovery = 94.34%		
63) Chlorobenzene-d5	9.472	117	139712	10.000 ug/L	0.00
Standard Area 1 = 148793			Recovery = 93.90%		
84) 1,4-Dichlorobenzene-d4	12.185	152	71312	10.000 ug/L	0.00
Standard Area 1 = 74459			Recovery = 95.77%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.139	113	45418	10.018 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.18%		
47) 1,2-Dichloroethane-d4	5.655	65	57928	10.798 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.98%		
64) Toluene-d8	7.626	98	197406	10.361 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.61%		
88) 4-Bromofluorobenzene	10.972	95	67178	10.253 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.53%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.472	85	26	N.D.	
3) Chloromethane	0.000		0	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.054	94	29	N.D.	
6) Chloroethane	2.322	64	43	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	2.712	96	25	N.D.	
11) Carbon disulfide	2.919	76	147	N.D.	
15) Methylene chloride	3.446	84	37	N.D.	
17) Acetone	3.474	43	20653	24.324 ug/L #	69
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D. d	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.402	43	30	N.D.	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	4.999	128	28	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A09.D
Acq On : 24 Nov 2024 1:48 pm
Operator : ELAINE:PID
Sample : L2469254-09d,31,0.2,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:55:20 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.069	117	25	N.D.			
40) 1,1,1-Trichloroethane	5.312	97	28	N.D.			
42) 2-Butanone	5.242	43	145484	120.160	ug/L	#	90
43) 1,1-Dichloropropene	5.245	75	25	N.D.			
45) Benzene	0.000		0	N.D.		d	
48) 1,2-Dichloroethane	5.738	62	30	N.D.			
52) Trichloroethene	0.000		0	N.D.		d	
54) Dibromomethane	0.000		0	N.D.			
55) 1,2-Dichloropropane	0.000		0	N.D.			
58) Bromodichloromethane	6.826	83	29	N.D.			
61) 1,4-Dioxane	0.000		0	N.D.		d	
62) cis-1,3-Dichloropropene	0.000		0	N.D.			
65) Toluene	7.679	92	294	N.D.			
66) 4-Methyl-2-pentanone	0.000		0	N.D.			
67) Tetrachloroethene	8.270	166	25	N.D.			
69) trans-1,3-Dichloropropene	8.092	75	31	N.D.			
72) 1,1,2-Trichloroethane	8.287	83	25	N.D.			
73) Chlorodibromomethane	0.000		0	N.D.			
74) 1,3-Dichloropropane	8.797	76	27	N.D.			
75) 1,2-Dibromoethane	0.000		0	N.D.			
77) 2-Hexanone	9.132	43	2292	1.237	ug/L	#	75
78) Chlorobenzene	0.000		0	N.D.			
79) Ethylbenzene	0.000		0	N.D.		d	
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
81) p/m Xylene	9.712	106	43	N.D.			
82) o Xylene	10.253	106	37	N.D.			
83) Styrene	10.342	104	34	N.D.			
85) Bromoform	0.000		0	N.D.			
87) Isopropylbenzene	10.641	105	60	N.D.			
89) Bromobenzene	0.000		0	N.D.			
90) n-Propylbenzene	11.123	91	35	N.D.			
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
93) 4-Ethyltoluene	11.262	105	57	N.D.			
94) 2-Chlorotoluene	11.137	91	63	N.D.			
95) 1,3,5-Trimethylbenzene	11.349	105	72	N.D.			
96) 1,2,3-Trichloropropane	0.000		0	N.D.			
97) trans-1,4-Dichloro-2-b...	11.335	53	25	N.D.			
98) 4-Chlorotoluene	11.477	91	47	N.D.			
99) tert-Butylbenzene	11.695	119	26	N.D.			

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A09.D
Acq On : 24 Nov 2024 1:48 pm
Operator : ELAINE:PID
Sample : L2469254-09d,31,0.2,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:55:20 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.773	105	33	N.D.		
103) sec-Butylbenzene	11.893	105	37	N.D.		
104) p-Isopropyltoluene	12.038	119	55	N.D.		
105) 1,3-Dichlorobenzene	12.113	146	33	N.D.		
106) 1,4-Dichlorobenzene	12.197	146	92	N.D.		
107) p-Diethylbenzene	0.000		0	N.D.		
108) n-Butylbenzene	12.464	91	30	N.D.		
109) 1,2-Dichlorobenzene	12.618	146	43	N.D.		
110) 1,2,4,5-Tetramethylben...	13.220	119	36	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.029	180	30	N.D.		
115) Naphthalene	14.324	128	98	N.D.		
116) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

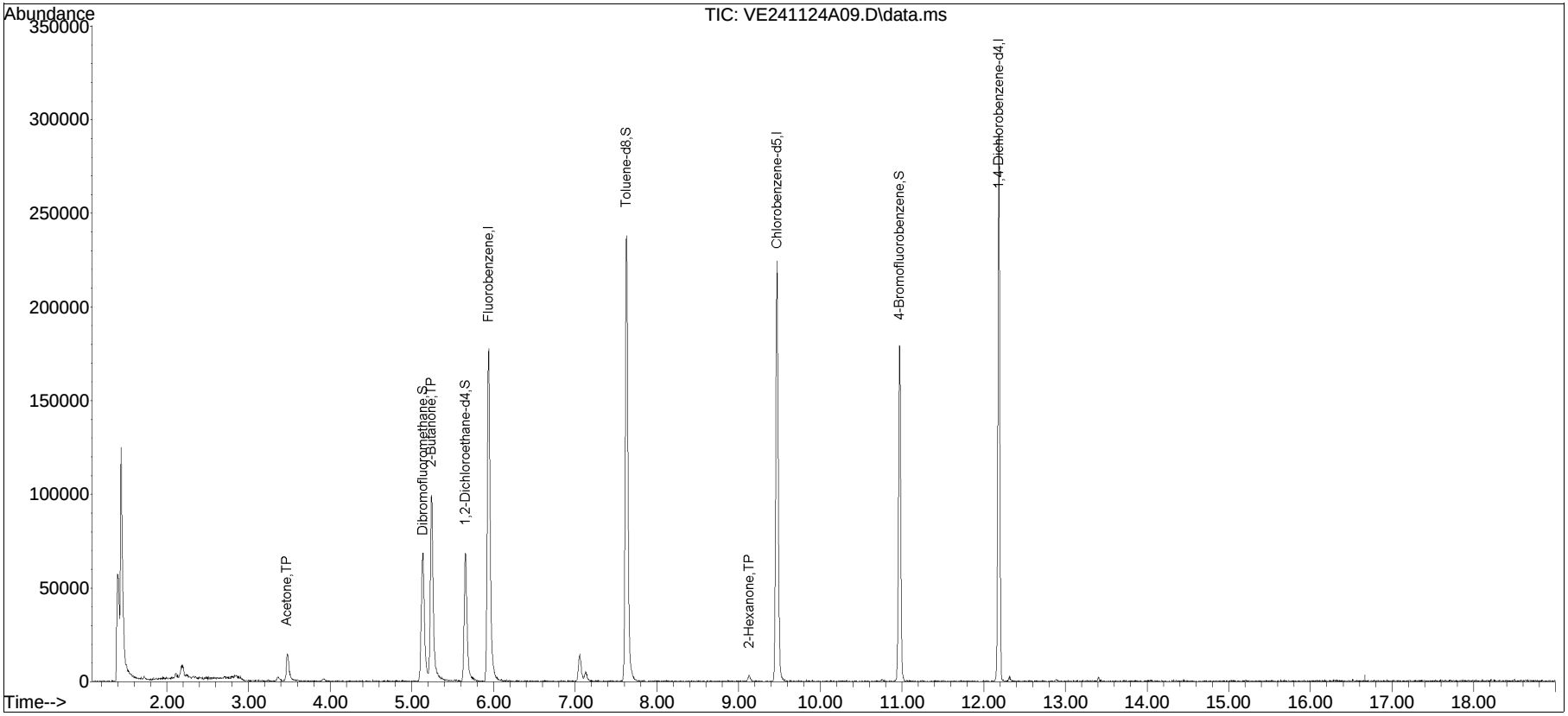
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

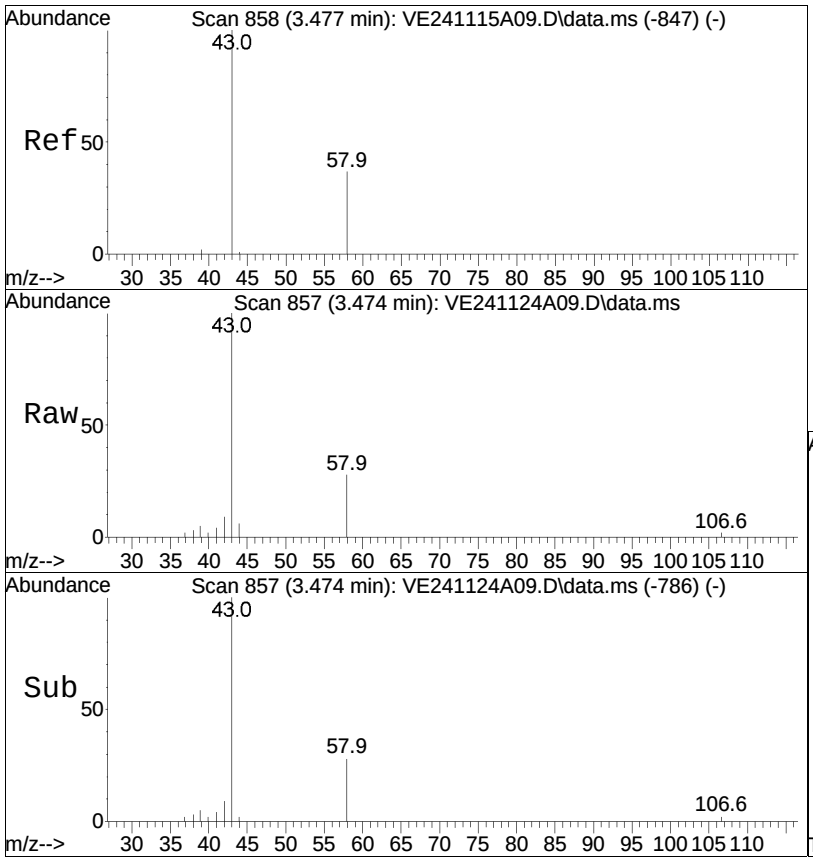
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A09.D
Acq On : 24 Nov 2024 1:48 pm
Operator : ELAINE:PID
Sample : L2469254-09d,31,0.2,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 25 06:55:20 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41124A02.D•



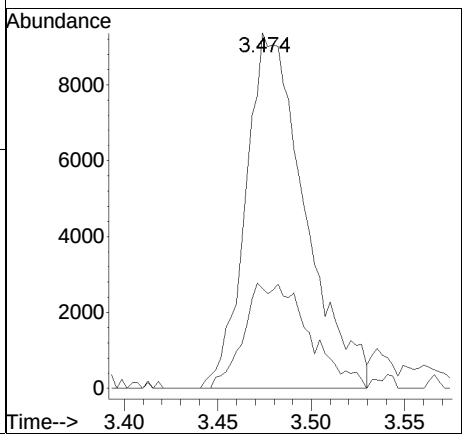
Elaine_241115A_8260.m Mon Nov 25 07:00:20 2024 Page: 4

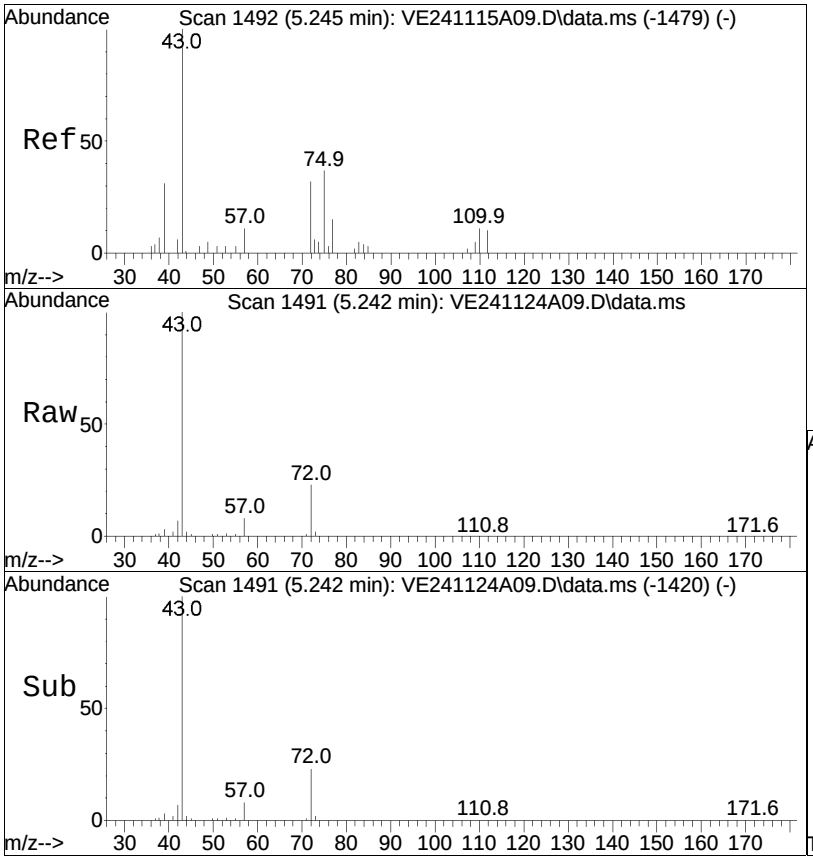


#17
Acetone
Concen: 24.32 ug/L
RT: 3.474 min Scan# 857
Delta R.T. -0.003 min
Lab File: VE241124A09.D
Acq: 24 Nov 2024 1:48 pm

Tgt Ion: 43 Resp: 20653

Ion	Ratio	Lower	Upper
43	100		
58	12.8	23.4	35.0#

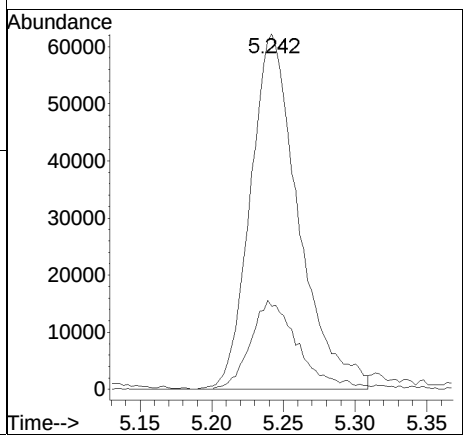


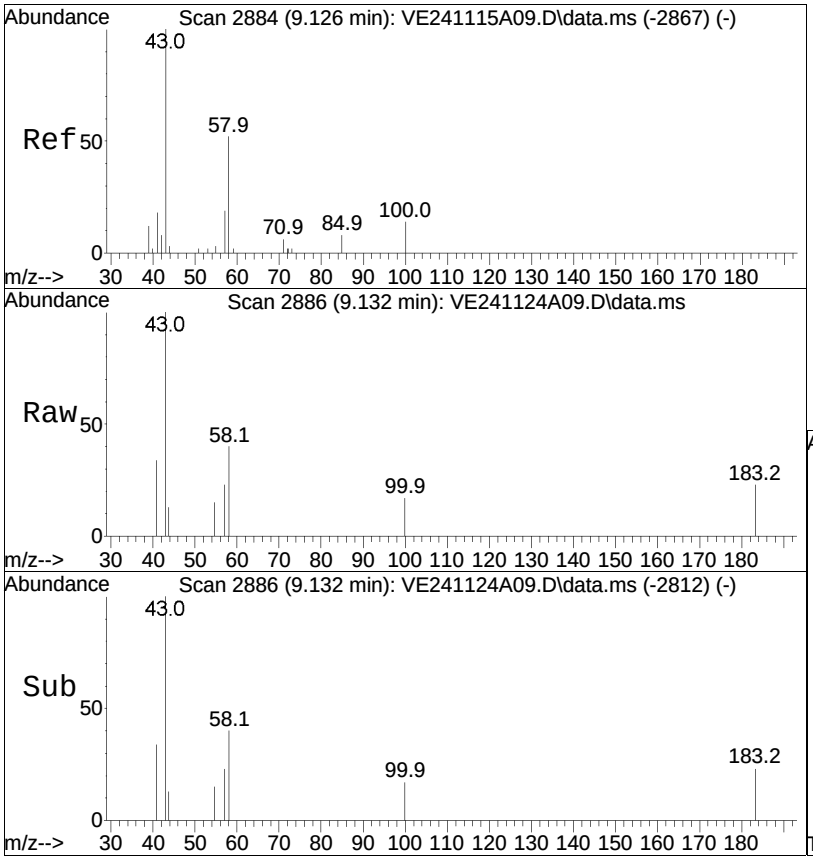


#42
2-Butanone
Concen: 120.16 ug/L
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241124A09.D
Acq: 24 Nov 2024 1:48 pm

Tgt Ion: 43 Resp: 145484

Ion	Ratio	Lower	Upper
43	100		
72	24.0	15.7	23.5#

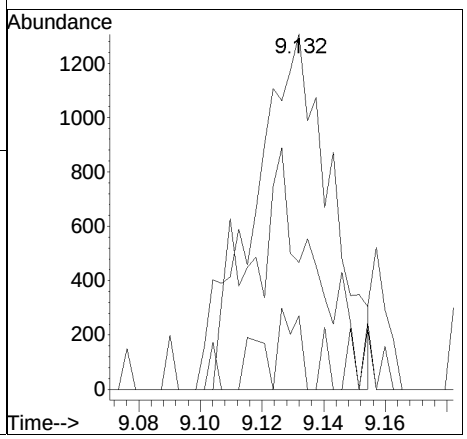




#77
2-Hexanone
Concen: 1.24 ug/L
RT: 9.132 min Scan# 2886
Delta R.T. 0.006 min
Lab File: VE241124A09.D
Acq: 24 Nov 2024 1:48 pm

Tgt Ion: 43 Resp: 2292

Ion	Ratio	Lower	Upper
43	100		
58	35.6	42.5	63.7#
57	5.6	13.9	20.9#



Manual Integration Report

Data Path	: K:\Elaine\2024\241124A\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241124A09.D	Operator	: ELAINE:PID
Date Inj'd	: 11/24/2024 1:48 pm	Instrument	: Elaine
Sample	: L2469254-09d,31,0.2,10,,A,	Quant Date	: 11/25/2024 6:10 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A10.D
Acq On : 24 Nov 2024 2:12 pm
Operator : ELAINE:PID
Sample : L2469254-11d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 25 06:56:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	194552	10.000	ug/L	0.00
Standard Area 1 = 209590			Recovery = 92.83%			
63) Chlorobenzene-d5	9.470	117	135069	10.000	ug/L	0.00
Standard Area 1 = 148793			Recovery = 90.78%			
84) 1,4-Dichlorobenzene-d4	12.188	152	67575	10.000	ug/L	0.00
Standard Area 1 = 74459			Recovery = 90.75%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	45310	10.157	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.57%			
47) 1,2-Dichloroethane-d4	5.657	65	58128	11.013	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.13%			
64) Toluene-d8	7.629	98	195047	10.589	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.89%			
88) 4-Bromofluorobenzene	10.967	95	64624	10.409	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.09%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.438	85	25	N.D.		
3) Chloromethane	1.770	50	112	N.D.		
4) Vinyl chloride	1.862	62	29	N.D.		
5) Bromomethane	2.216	94	29	N.D.		
6) Chloroethane	2.325	64	37	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	2.610	74	39	N.D.		
10) 1,1-Dichloroethene	2.922	96	28	N.D.		
11) Carbon disulfide	2.922	76	1376	0.135	ug/L #	88
15) Methylene chloride	3.441	84	1501	0.354	ug/L	98
17) Acetone	3.480	43	10715	12.826	ug/L #	73
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	4.269	63	32	N.D.		
27) Acrylonitrile	4.338	53	32	N.D.		
29) Vinyl acetate	4.411	43	29	N.D.		
30) cis-1,2-Dichloroethene	4.695	96	117	N.D.		
31) 2,2-Dichloropropane	4.695	77	30	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	4.952	83	5400M1	0.760	ug/L	

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A10.D
Acq On : 24 Nov 2024 2:12 pm
Operator : ELAINE:PID
Sample : L2469254-11d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 25 06:56:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	4.960	117	31	N.D.	
40) 1,1,1-Trichloroethane	5.150	97	25	N.D.	
42) 2-Butanone	5.245	43	9948M1	8.351 ug/L	
43) 1,1-Dichloropropene	0.000		0	N.D.	
45) Benzene	5.521	78	32	N.D.	
48) 1,2-Dichloroethane	5.727	62	50	N.D.	
52) Trichloroethene	6.040	95	95	N.D.	
54) Dibromomethane	0.000		0	N.D.	
55) 1,2-Dichloropropane	0.000		0	N.D.	
58) Bromodichloromethane	6.734	83	100	N.D.	
61) 1,4-Dioxane	0.000		0	N.D.	d
62) cis-1,3-Dichloropropene	7.570	75	37	N.D.	
65) Toluene	7.699	92	1128M3	0.106 ug/L	
66) 4-Methyl-2-pentanone	0.000		0	N.D.	d
67) Tetrachloroethene	8.128	166	60	N.D.	
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	0.000		0	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	8.655	76	29	N.D.	
75) 1,2-Dibromoethane	8.747	107	29	N.D.	
77) 2-Hexanone	9.118	43	1318M1	0.735 ug/L	
78) Chlorobenzene	9.495	112	98	N.D.	
79) Ethylbenzene	0.000		0	N.D.	d
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	0.000		0	N.D.	d
82) o Xylene	10.259	106	29	N.D.	
83) Styrene	10.270	104	29	N.D.	
85) Bromoform	0.000		0	N.D.	
87) Isopropylbenzene	10.632	105	27	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	11.134	91	161	N.D.	
92) 1,1,2,2-Tetrachloroethane	11.383	83	29	N.D.	
93) 4-Ethyltoluene	11.257	105	90	N.D.	
94) 2-Chlorotoluene	11.268	91	28	N.D.	
95) 1,3,5-Trimethylbenzene	11.352	105	25	N.D.	
96) 1,2,3-Trichloropropane	0.000		0	N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	d
98) 4-Chlorotoluene	11.486	91	52	N.D.	
99) tert-Butylbenzene	11.709	119	27	N.D.	

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A10.D
Acq On : 24 Nov 2024 2:12 pm
Operator : ELAINE:PID
Sample : L2469254-11d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 25 06:56:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.779	105	119		N.D.	
103) sec-Butylbenzene	11.898	105	29		N.D.	
104) p-Isopropyltoluene	12.043	119	41		N.D.	
105) 1,3-Dichlorobenzene	12.116	146	30		N.D.	
106) 1,4-Dichlorobenzene	12.200	146	33		N.D.	
107) p-Diethylbenzene	12.451	119	26		N.D.	
108) n-Butylbenzene	12.476	91	39		N.D.	
109) 1,2-Dichlorobenzene	12.629	146	40		N.D.	
110) 1,2,4,5-Tetramethylben...	13.212	119	57		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	14.015	225	27		N.D.	
114) 1,2,4-Trichlorobenzene	14.040	180	80		N.D.	
115) Naphthalene	14.325	128	228		N.D.	
116) 1,2,3-Trichlorobenzene	14.492	180	27		N.D.	

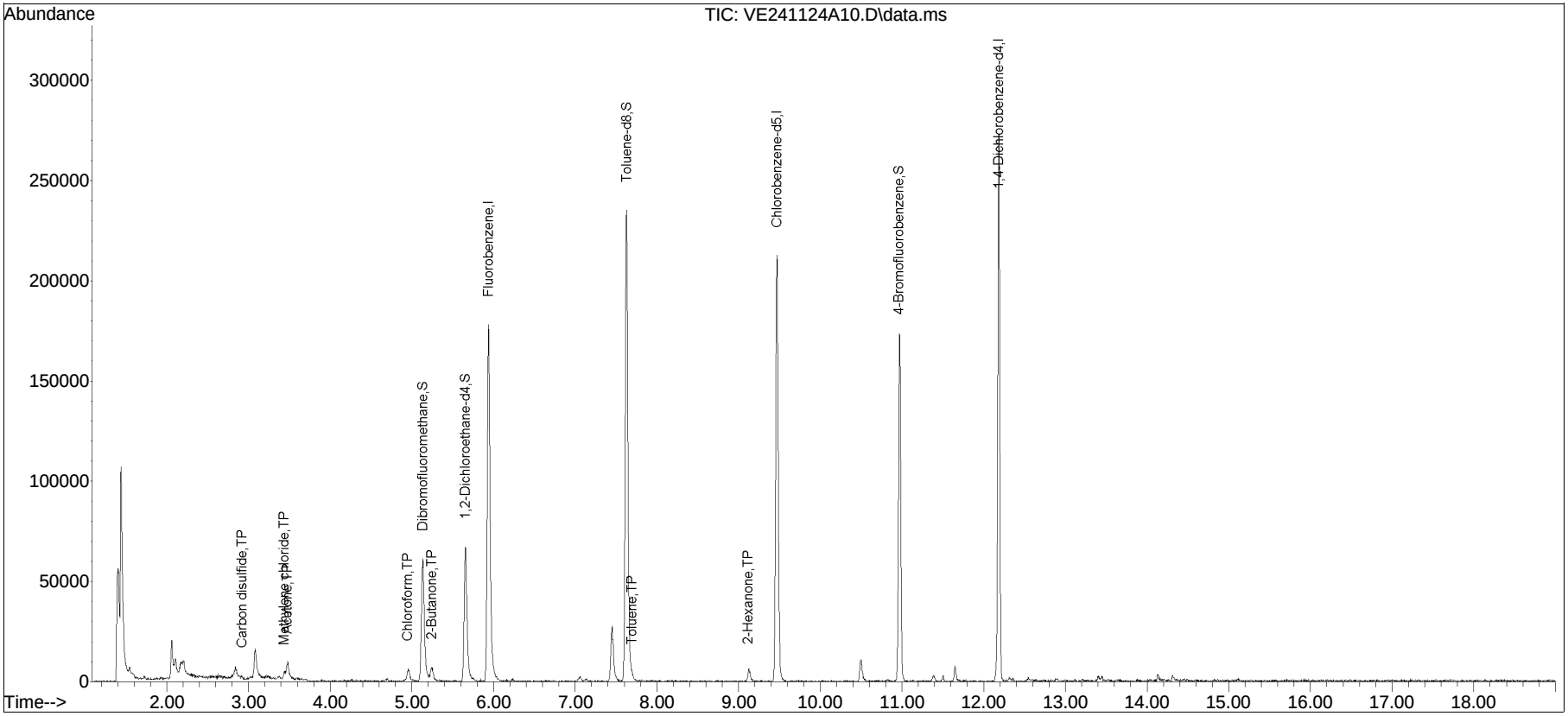
(#) = qualifier out of range (m) = manual integration (+) = signals summed

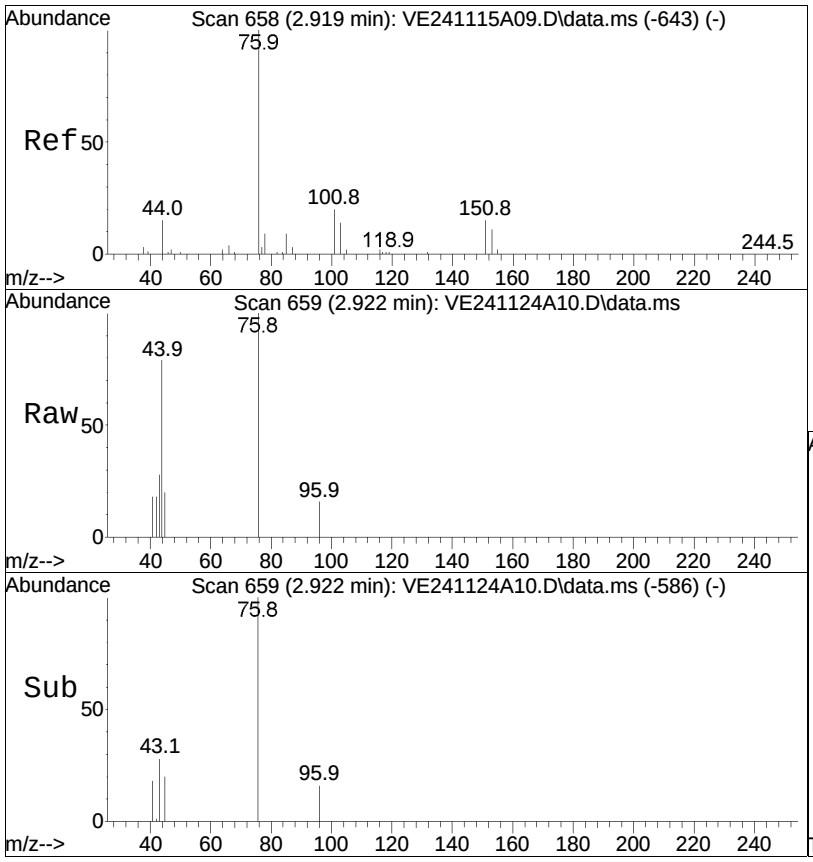
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A10.D
Acq On : 24 Nov 2024 2:12 pm
Operator : ELAINE:PID
Sample : L2469254-11d,31,2.0,10,,A,R1A
Misc : WG2001843,ICAL21711
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 25 06:56:00 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41124A02.D•

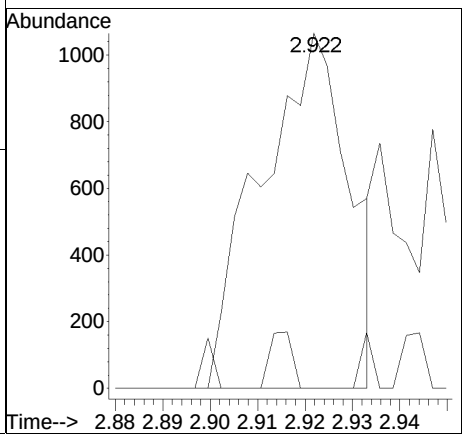


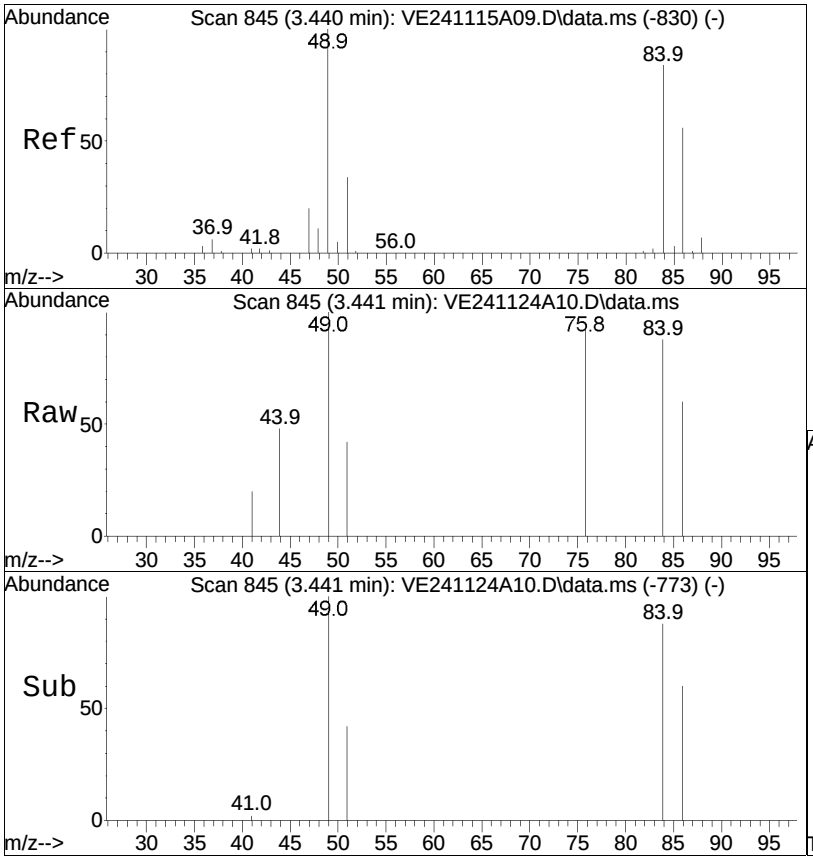


#11
Carbon disulfide
Concen: 0.13 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241124A10.D
Acq: 24 Nov 2024 2:12 pm

Tgt Ion: 76 Resp: 1376

Ion	Ratio	Lower	Upper
76	100		
78	4.1	5.5	11.3#

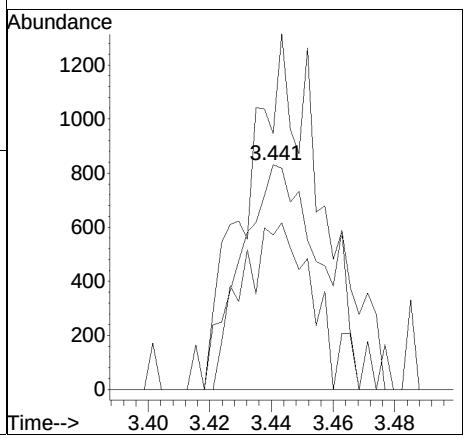


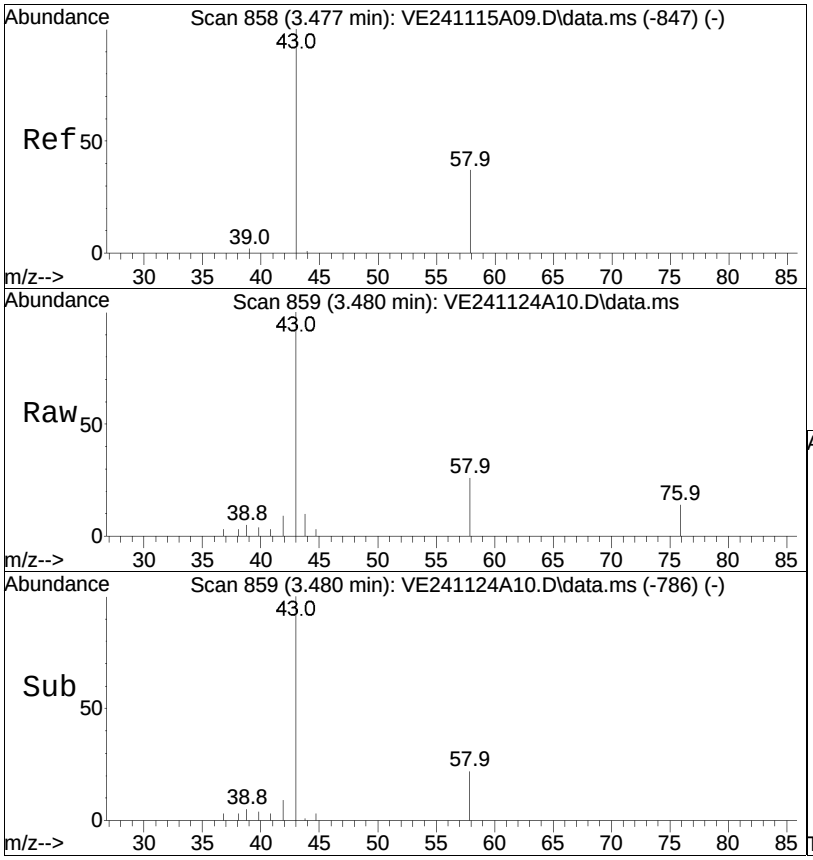


#15
Methylene chloride
Concen: 0.35 ug/L
RT: 3.441 min Scan# 845
Delta R.T. 0.000 min
Lab File: VE241124A10.D
Acq: 24 Nov 2024 2:12 pm

Tgt Ion: 84 Resp: 1501

Ion	Ratio	Lower	Upper
84	100		
86	62.3	40.2	83.6
49	155.0	103.2	214.4

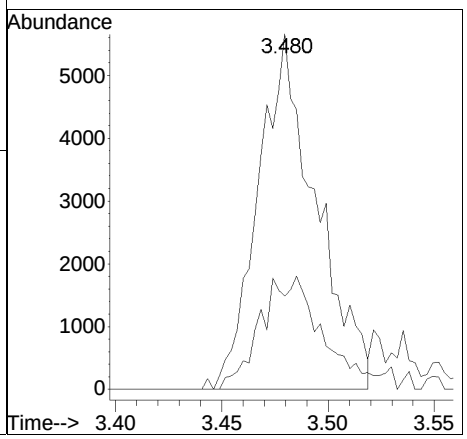


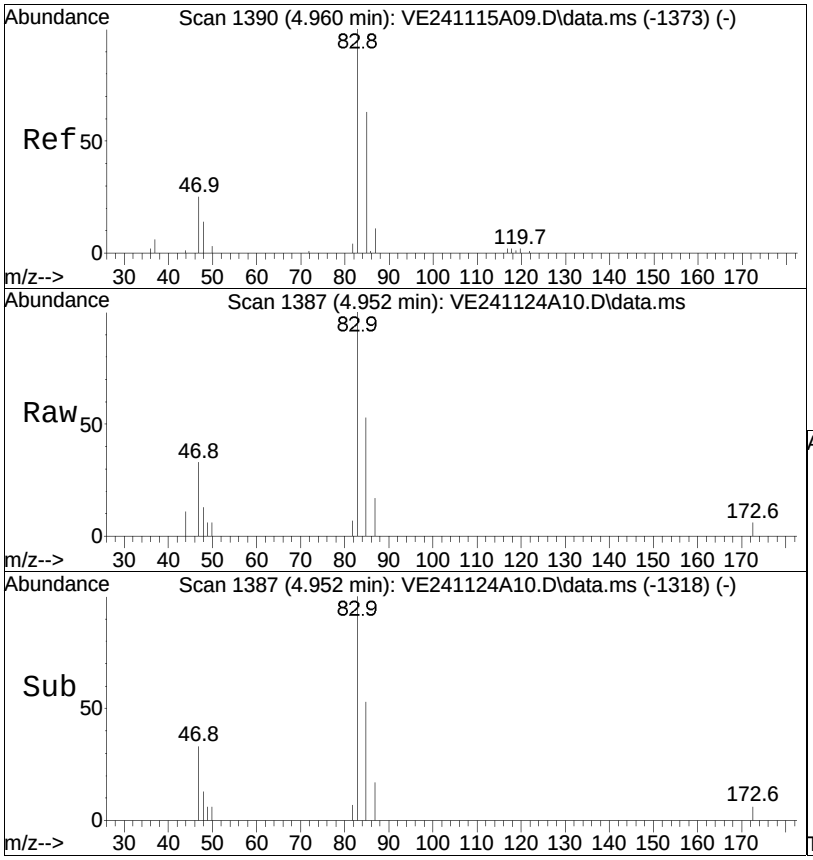


#17
Acetone
Concen: 12.83 ug/L
RT: 3.480 min Scan# 859
Delta R.T. 0.003 min
Lab File: VE241124A10.D
Acq: 24 Nov 2024 2:12 pm

Tgt Ion: 43 Resp: 10715

Ion	Ratio	Lower	Upper
43	100		
58	15.0	23.4	35.0#

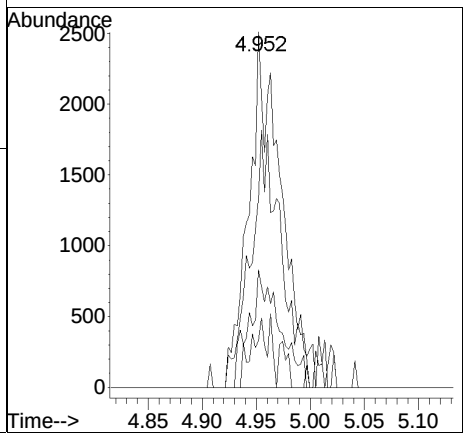


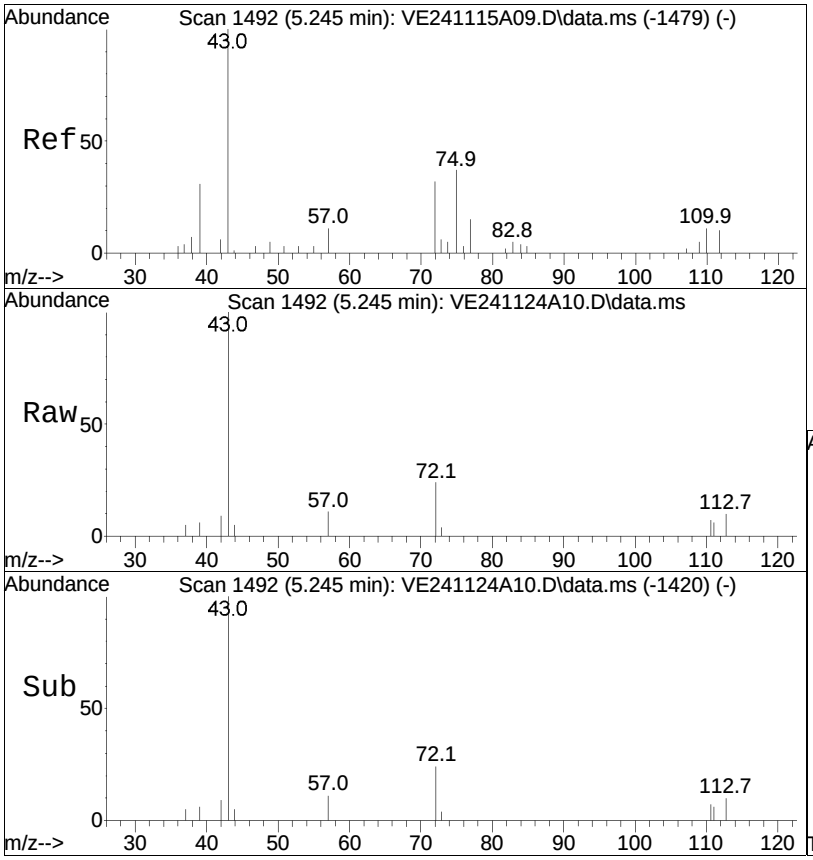


#35
Chloroform
Concen: 0.76 ug/L M1
RT: 4.952 min Scan# 1387
Delta R.T. -0.008 min
Lab File: VE241124A10.D
Acq: 24 Nov 2024 2:12 pm

Tgt Ion: 83 Resp: 5400

Ion	Ratio	Lower	Upper
83	100		
85	67.1	41.3	85.9
47	15.4	20.9	43.3#
48	8.3	10.3	21.5#

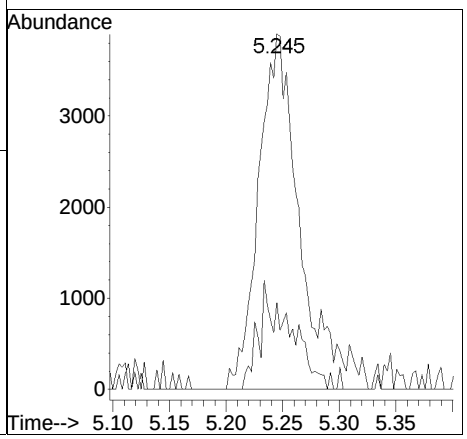


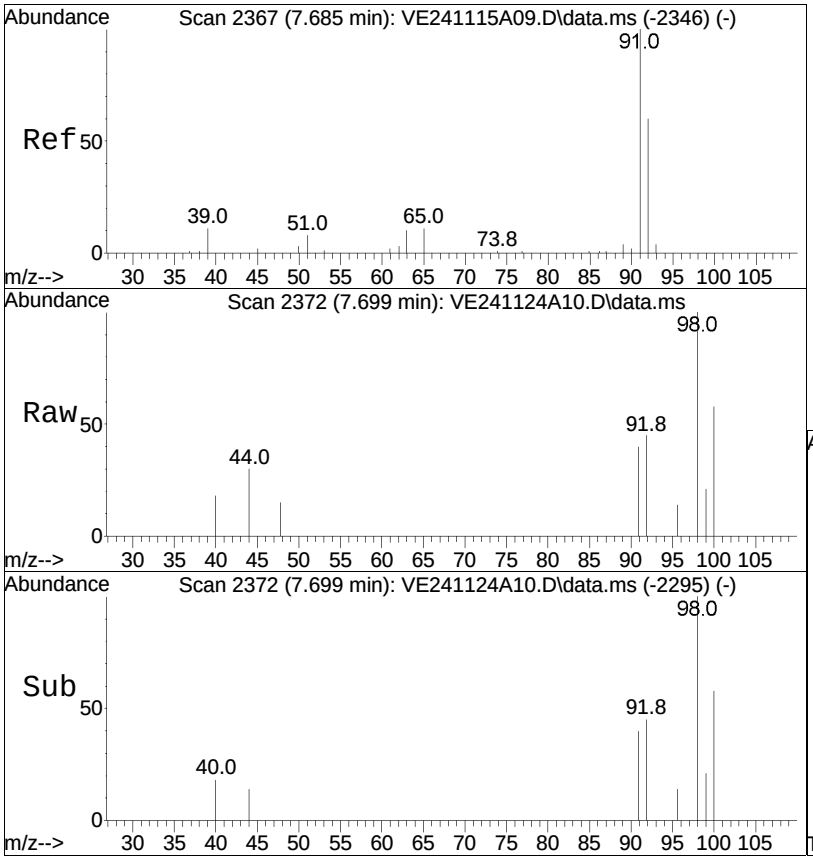


#42
2-Butanone
Concen: 8.35 ug/L M1
RT: 5.245 min Scan# 1492
Delta R.T. 0.000 min
Lab File: VE241124A10.D
Acq: 24 Nov 2024 2:12 pm

Tgt Ion: 43 Resp: 9948

Ion	Ratio	Lower	Upper
43	100		
72	9.8	15.7	23.5#

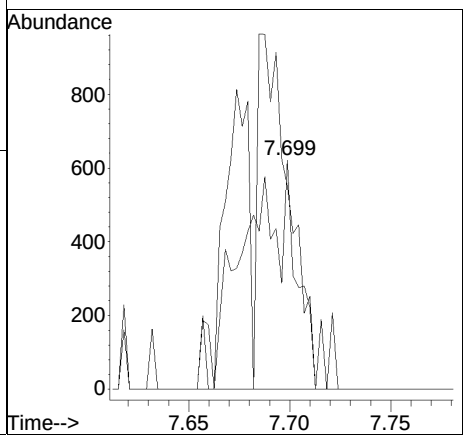


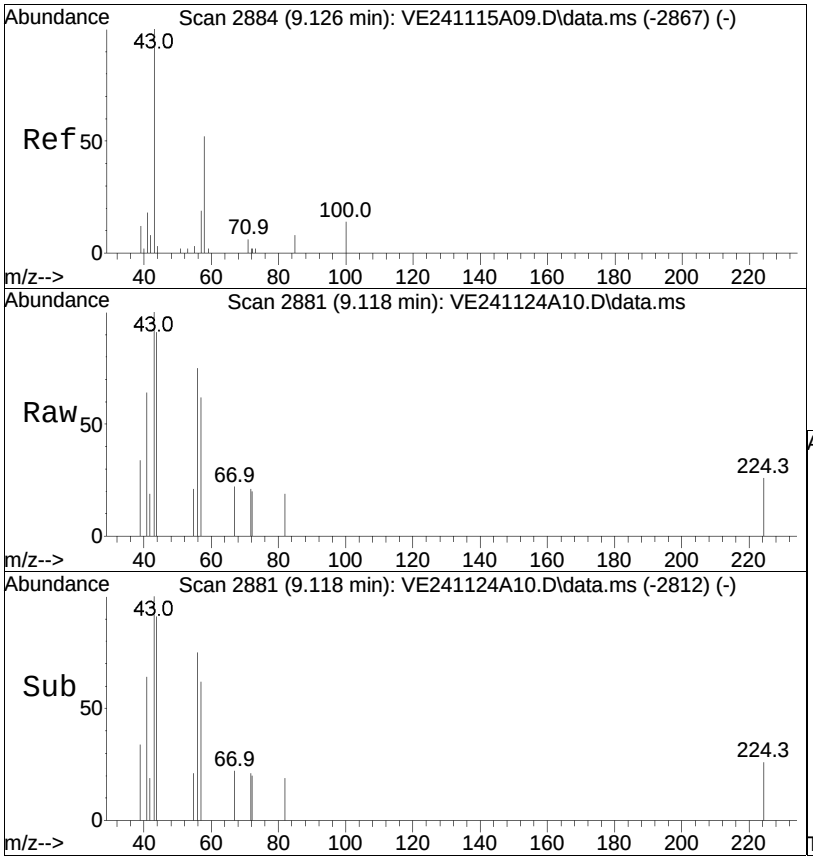


#65
Toluene
Concen: 0.11 ug/L M3
RT: 7.699 min Scan# 2372
Delta R.T. 0.014 min
Lab File: VE241124A10.D
Acq: 24 Nov 2024 2:12 pm

Tgt Ion: 92 Resp: 1128

Ion	Ratio	Lower	Upper
92	100		
91	93.6	129.1	193.7#

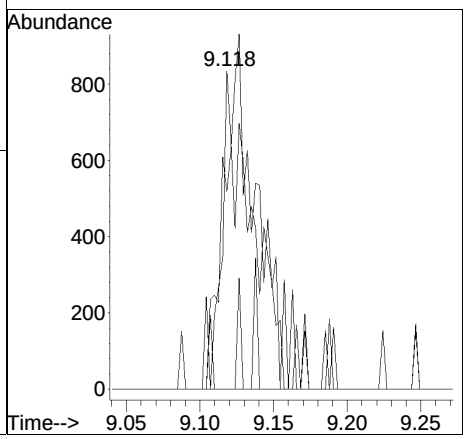




#77
2-Hexanone
Concen: 0.74 ug/L M1
RT: 9.118 min Scan# 2881
Delta R.T. -0.008 min
Lab File: VE241124A10.D
Acq: 24 Nov 2024 2:12 pm

Tgt Ion: 43 Resp: 1318

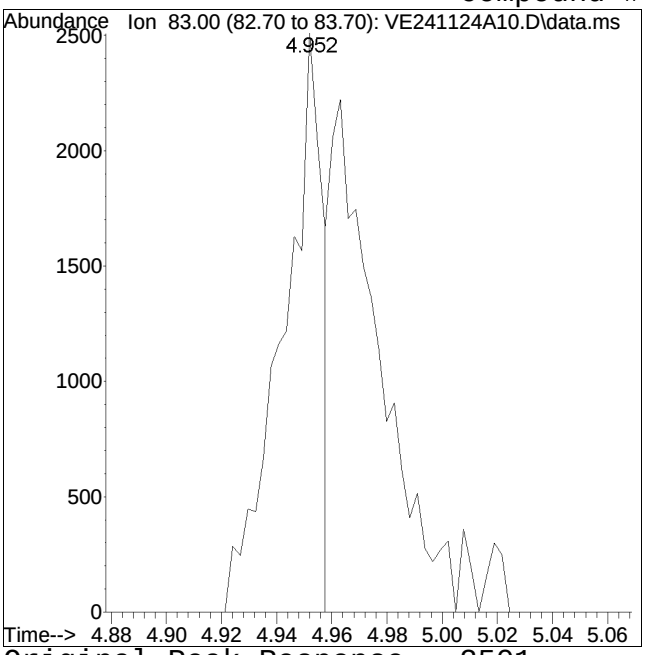
Ion	Ratio	Lower	Upper
43	100		
58	3.7	42.5	63.7#
57	107.4	13.9	20.9#



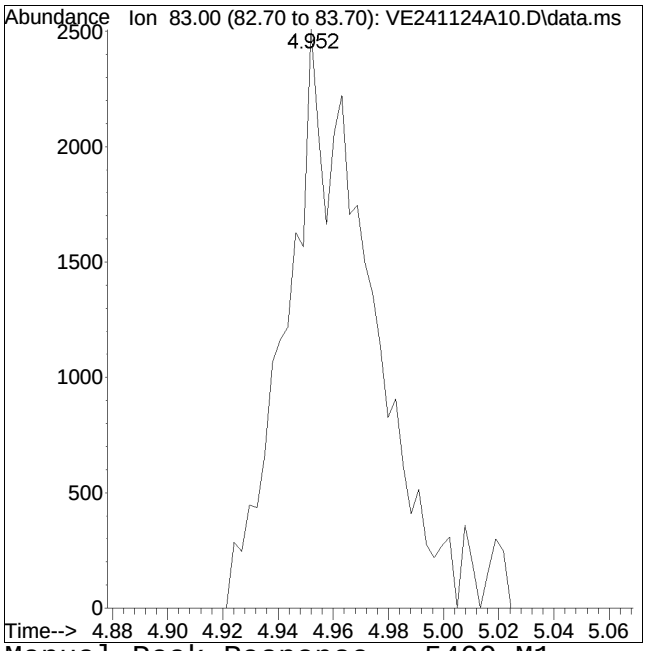
Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A10.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 2:12 pm Instrument : Elaine
Sample : L2469254-11d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #35: Chloroform



Original Peak Response = 2501



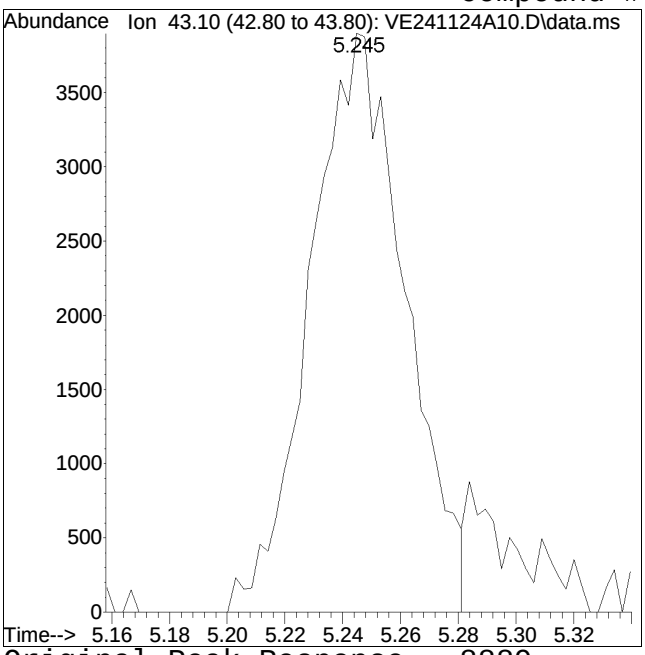
Manual Peak Response = 5400 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

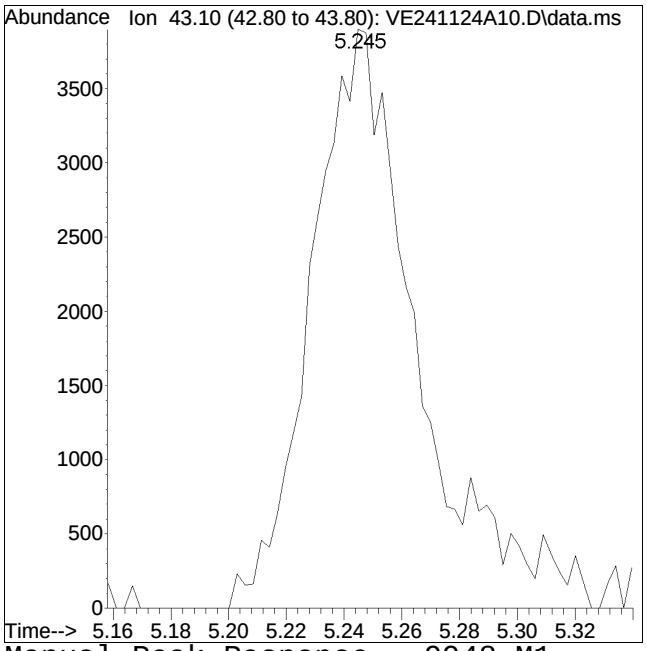
Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A10.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 2:12 pm Instrument : Elaine
Sample : L2469254-11d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #42: 2-Butanone



Original Peak Response = 8889



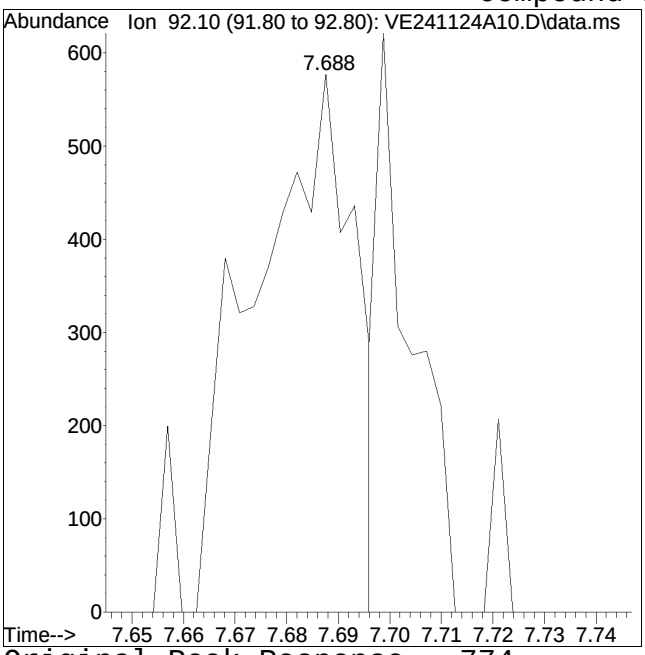
Manual Peak Response = 9948 M1

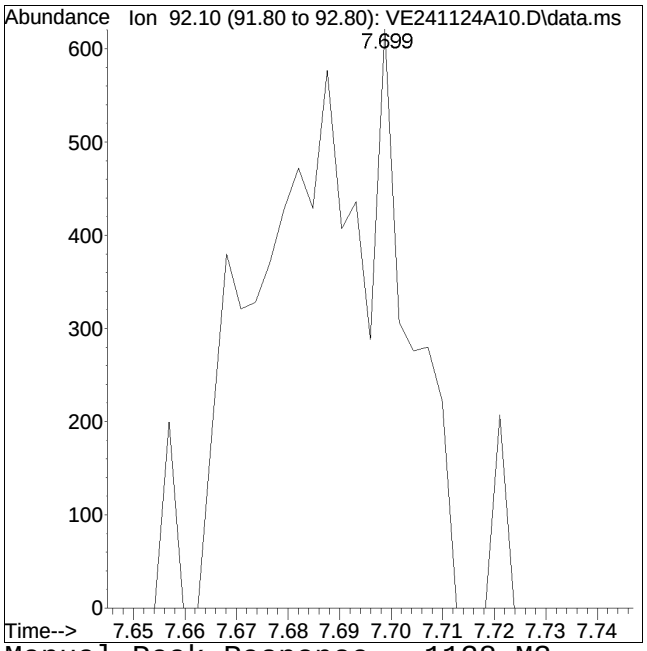
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A10.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 2:12 pm Instrument : Elaine
Sample : L2469254-11d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #65: Toluene





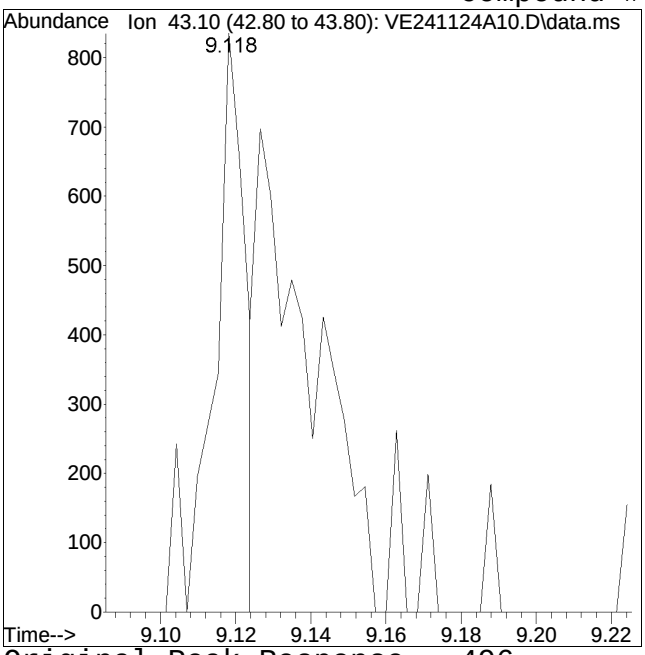
Original Peak Response = 774 Manual Peak Response = 1128 M3

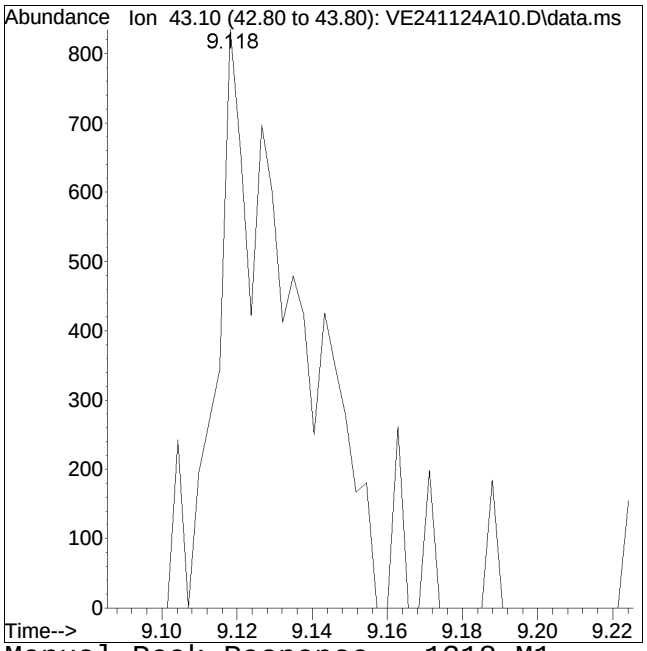
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A10.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 2:12 pm Instrument : Elaine
Sample : L2469254-11d,31,2.0,10,,A, Quant Date : 11/25/2024 6:10 am

Compound #77: 2-Hexanone





Original Peak Response = 496 Manual Peak Response = 1318 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A06.D
Acq On : 25 Nov 2024 9:13 am
Operator : GONZO:PID
Sample : l2469254-06,31,10,10,,c,r1a
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 10:05:44 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.056	96	509668	10.000	ug/L	0.00
Standard Area 1 = 566955			Recovery = 89.90%			
59) Chlorobenzene-d5	9.596	117	389575	10.000	ug/L	0.00
Standard Area 1 = 435387			Recovery = 89.48%			
79) 1,4-Dichlorobenzene-d4	12.294	152	216281	10.000	ug/L	0.00
Standard Area 1 = 248554			Recovery = 87.02%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.250	113	134966	10.620	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.20%			
43) 1,2-Dichloroethane-d4	5.775	65	159328	10.881	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.81%			
60) Toluene-d8	7.750	98	488061	9.473	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.73%			
83) 4-Bromofluorobenzene	11.085	95	182253	9.615	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.15%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.497	85	192	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	1.930	62	1805	0.154	ug/L	87
5) Bromomethane	2.242	94	935	0.139	ug/L	84
6) Chloroethane	0.000		0	N.D. d		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.024	76	11079	0.406	ug/L #	90
15) Methylene chloride	3.564	84	2073	0.192	ug/L #	62
17) Acetone	3.609	43	5704	2.043	ug/L	91
18) trans-1,2-Dichloroethene	3.708	96	81	N.D.		
20) Methyl tert-butyl ether	3.792	73	16972	0.515	ug/L #	50
23) 1,1-Dichloroethane	4.293	63	71	N.D.		
25) Acrylonitrile	4.156	53	185	N.D.		
27) Vinyl acetate	4.544	43	315	N.D.		
28) cis-1,2-Dichloroethene	4.817	96	3465	0.307	ug/L #	86
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	0.000		0	N.D.		

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A06.D
Acq On : 25 Nov 2024 9:13 am
Operator : GONZO:PID
Sample : l2469254-06,31,10,10,,c,r1a
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 10:05:44 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
34) Carbon tetrachloride	5.273	117	184	N.D.	
37) 1,1,1-Trichloroethane	5.258	97	2806	0.174 ug/L	90
39) 2-Butanone	5.379	43	27776M3	6.522 ug/L	
40) 1,1-Dichloropropene	0.000		0	N.D.	
41) Benzene	5.638	78	134629	3.203 ug/L #	90
44) 1,2-Dichloroethane	5.843	62	446	N.D.	
48) Trichloroethene	6.230	95	1577	0.140 ug/L #	28
50) Dibromomethane	0.000		0	N.D.	
51) 1,2-Dichloropropane	0.000		0	N.D.	
54) Bromodichloromethane	0.000		0	N.D.	
57) 1,4-Dioxane	0.000		0	N.D.	
58) cis-1,3-Dichloropropene	0.000		0	N.D.	
61) Toluene	7.808	92	20934	0.772 ug/L	93
62) 4-Methyl-2-pentanone	8.280	58	802	0.211 ug/L #	1
63) Tetrachloroethene	8.259	166	3190	0.272 ug/L	98
65) trans-1,3-Dichloropropene	0.000		0	N.D.	
68) 1,1,2-Trichloroethane	0.000		0	N.D.	
69) Chlorodibromomethane	0.000		0	N.D.	
70) 1,3-Dichloropropane	0.000		0	N.D.	
71) 1,2-Dibromoethane	0.000		0	N.D.	
72) 2-Hexanone	0.000		0	N.D. d	
73) Chlorobenzene	9.612	112	819	N.D.	
74) Ethylbenzene	9.662	91	1794	N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
76) p/m Xylene	9.875	106	852	N.D.	
77) o Xylene	10.410	106	196	N.D.	
78) Styrene	10.509	104	98	N.D.	
80) Bromoform	0.000		0	N.D.	
82) Isopropylbenzene	10.789	105	362	N.D.	
84) Bromobenzene	11.192	156	102	N.D.	
85) n-Propylbenzene	11.266	91	629	N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
88) 4-Ethyltoluene	11.373	105	300	N.D.	
89) 2-Chlorotoluene	11.422	91	78	N.D.	
90) 1,3,5-Trimethylbenzene	11.471	105	273	N.D.	
91) 1,2,3-Trichloropropane	11.274	75	76	N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
93) 4-Chlorotoluene	11.619	91	203	N.D.	
94) tert-Butylbenzene	11.800	119	405	N.D.	

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A06.D
Acq On : 25 Nov 2024 9:13 am
Operator : GONZO:PID
Sample : l2469254-06,31,10,10,,c,r1a
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 10:05:44 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97) 1,2,4-Trimethylbenzene	11.883	105	678	N.D.			
98) sec-Butylbenzene	11.990	105	701	N.D.			
99) p-Isopropyltoluene	12.138	119	892	N.D.			
100) 1,3-Dichlorobenzene	12.236	146	193	N.D.			
101) 1,4-Dichlorobenzene	12.302	146	2903	0.119	ug/L	#	28
102) p-Diethylbenzene	12.524	119	515	N.D.			
103) n-Butylbenzene	12.590	91	843	N.D.			
104) 1,2-Dichlorobenzene	12.755	146	898	N.D.			
105) 1,2,4,5-Tetramethylben...	13.306	119	908	N.D.			
106) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.			
108) Hexachlorobutadiene	14.104	225	469	0.102	ug/L	#	42
109) 1,2,4-Trichlorobenzene	14.153	180	522	N.D.			
110) Naphthalene	14.441	128	2114	0.082	ug/L		100
111) 1,2,3-Trichlorobenzene	14.606	180	735	0.072	ug/L	#	73

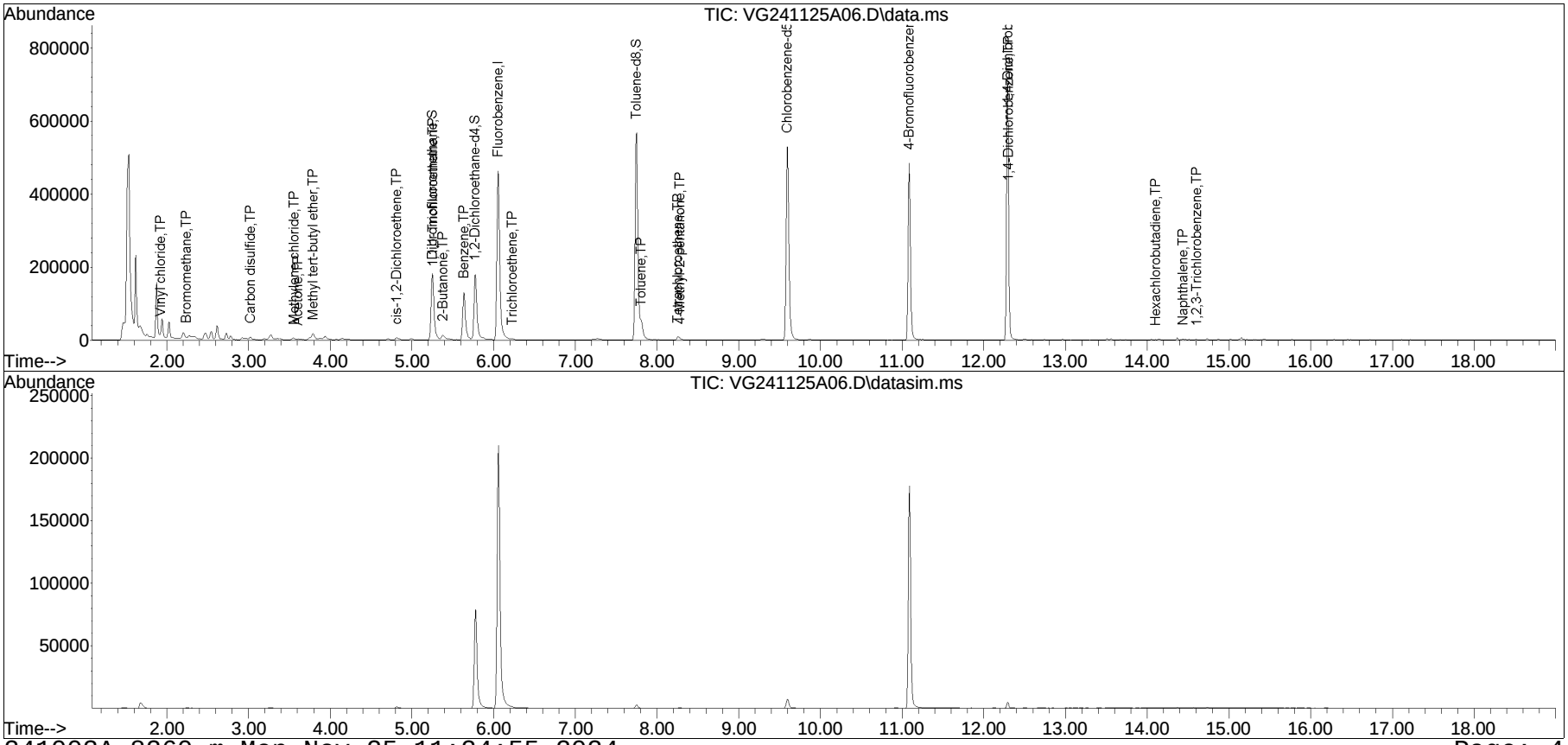
(#) = qualifier out of range (m) = manual integration (+) = signals summed

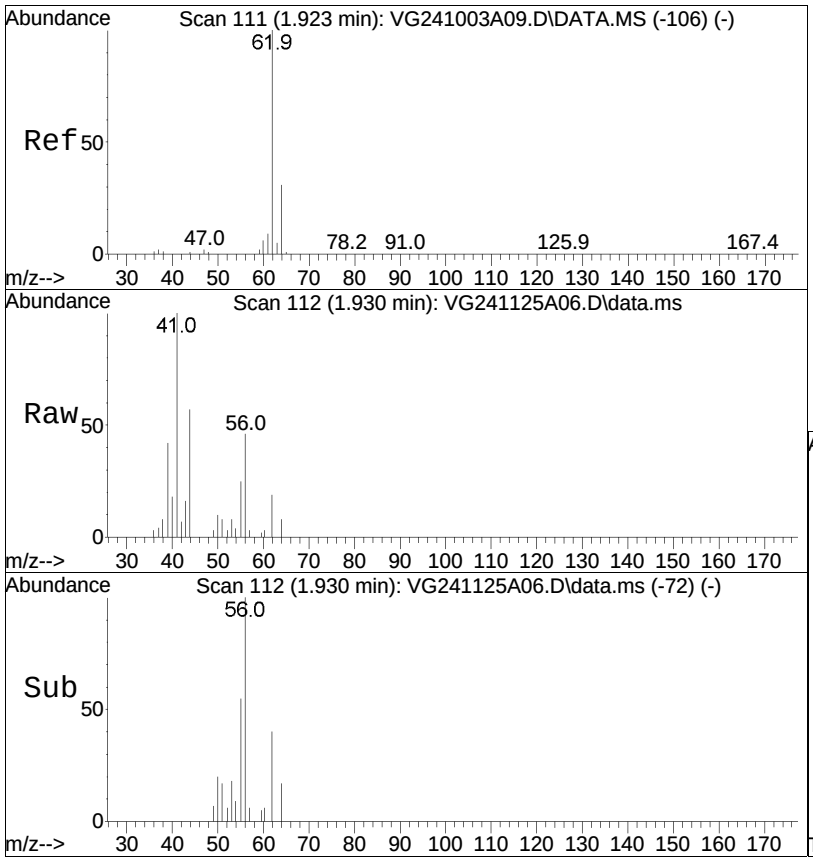
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A06.D
Acq On : 25 Nov 2024 9:13 am
Operator : GONZO:PID
Sample : l2469254-06,31,10,10,,c,r1a
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 25 10:05:44 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox1125A01.D•

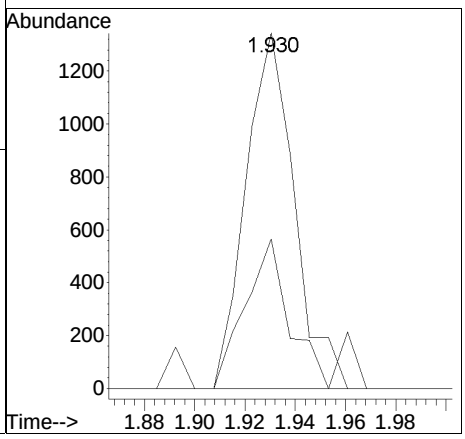


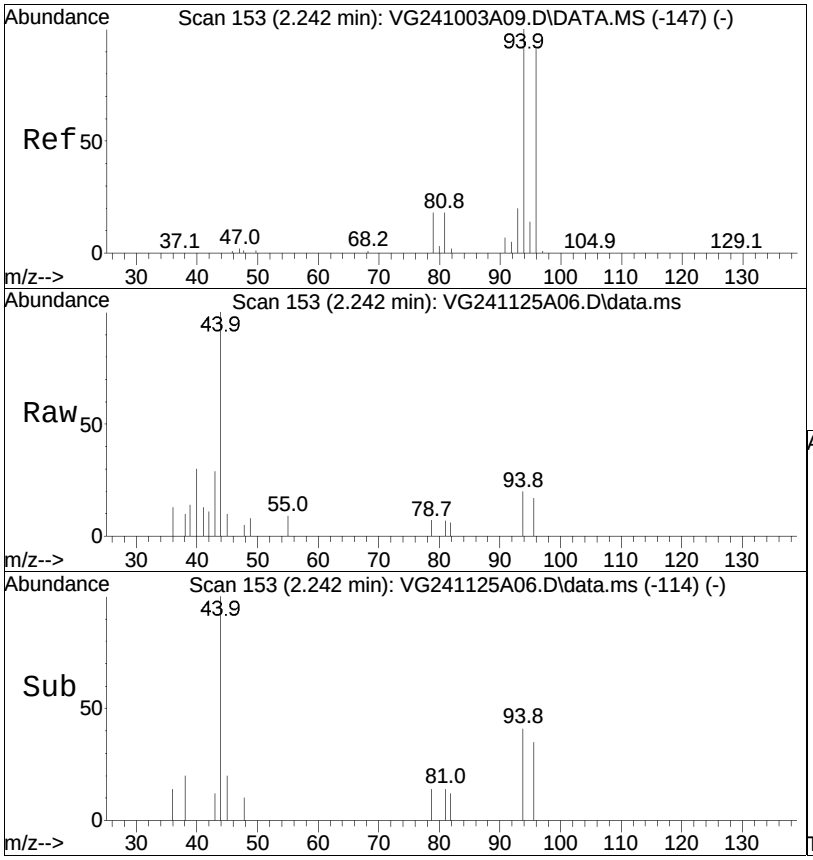


#4
Vinyl chloride
Concen: 0.15 ug/L
RT: 1.930 min Scan# 112
Delta R.T. 0.007 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 62 Resp: 1805

Ion	Ratio	Lower	Upper
62	100		
64	38.4	11.3	51.3

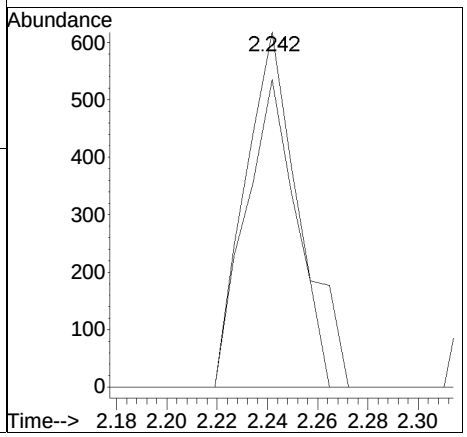


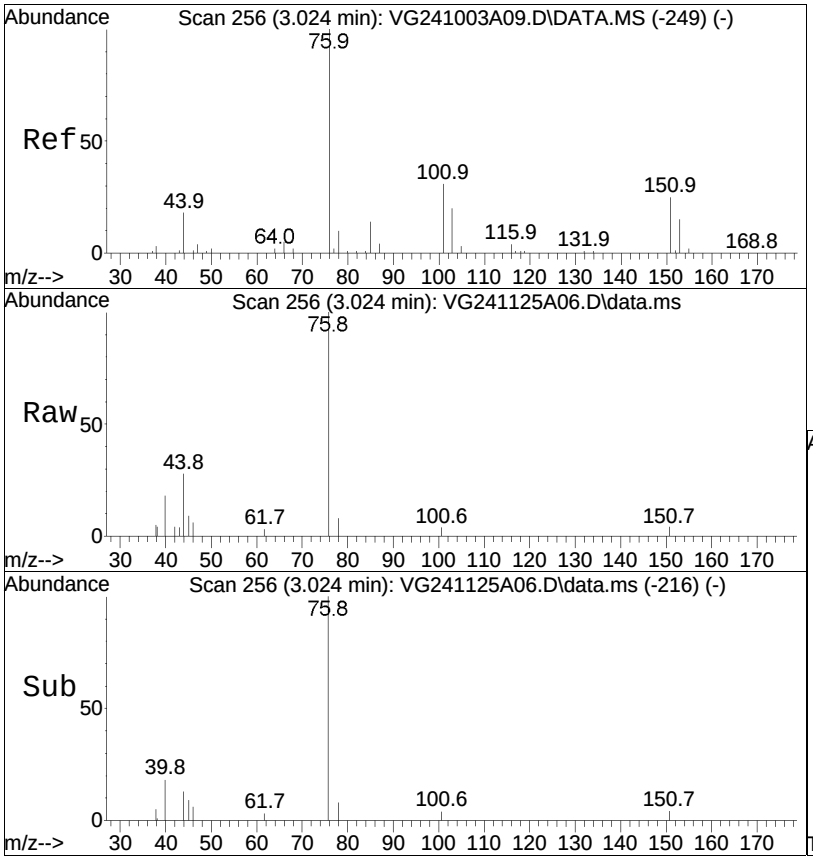


#5
Bromomethane
Concen: 0.14 ug/L
RT: 2.242 min Scan# 153
Delta R.T. -0.000 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 94 Resp: 935

Ion	Ratio	Lower	Upper
94	100		
96	80.1	75.2	115.2

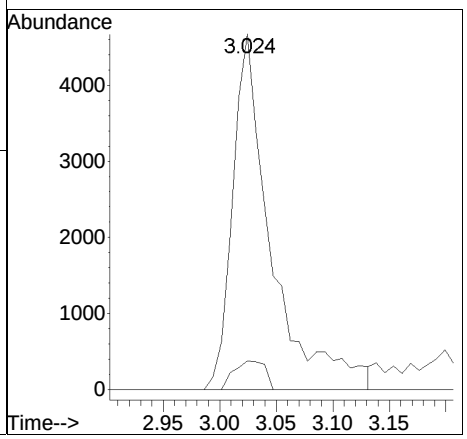


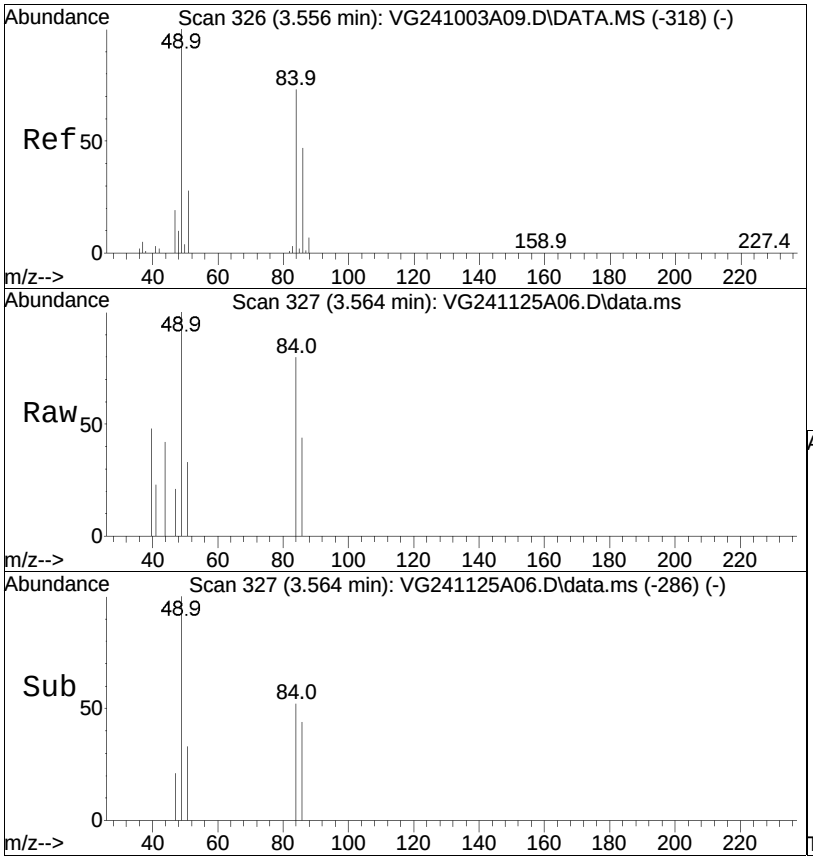


#11
Carbon disulfide
Concen: 0.41 ug/L
RT: 3.024 min Scan# 256
Delta R.T. 0.000 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 76 Resp: 11079

Ion	Ratio	Lower	Upper
76	100		
78	6.5	6.6	13.6#

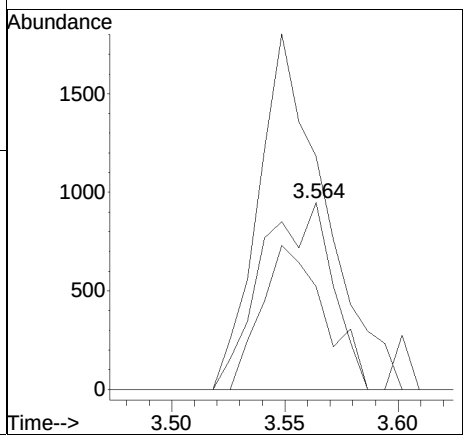


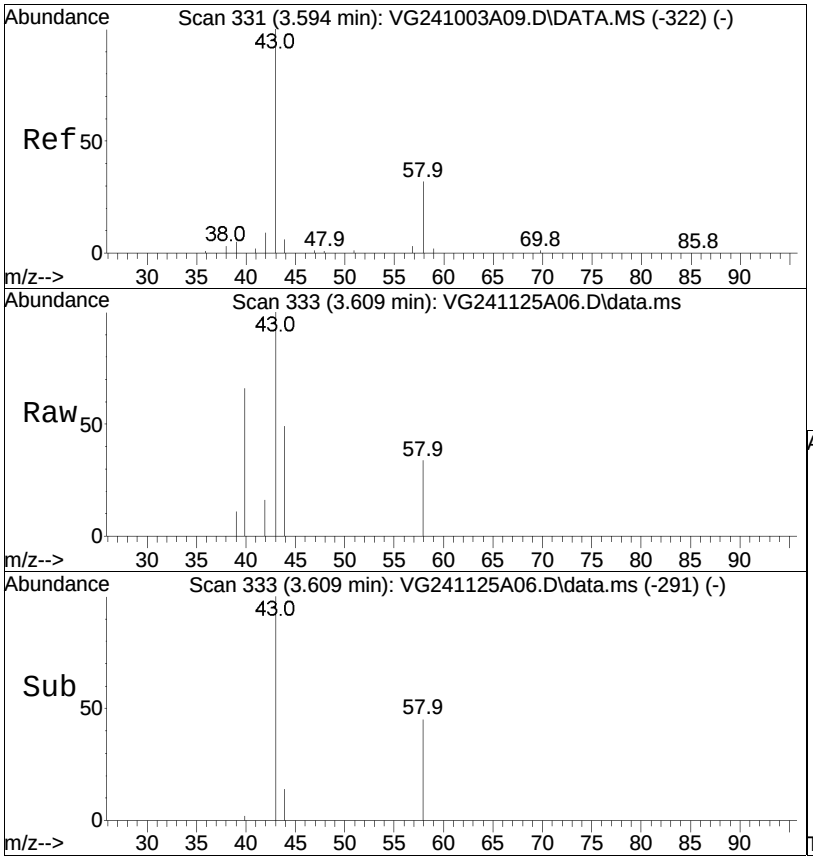


#15
Methylene chloride
Concen: 0.19 ug/L
RT: 3.564 min Scan# 327
Delta R.T. 0.008 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 84 Resp: 2073

Ion	Ratio	Lower	Upper
84	100		
86	68.5	41.1	85.5
49	177.9	76.2	158.2#

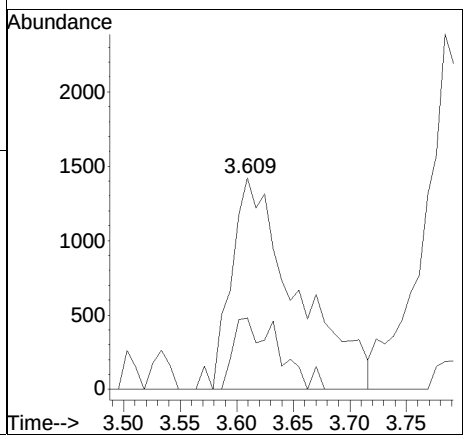


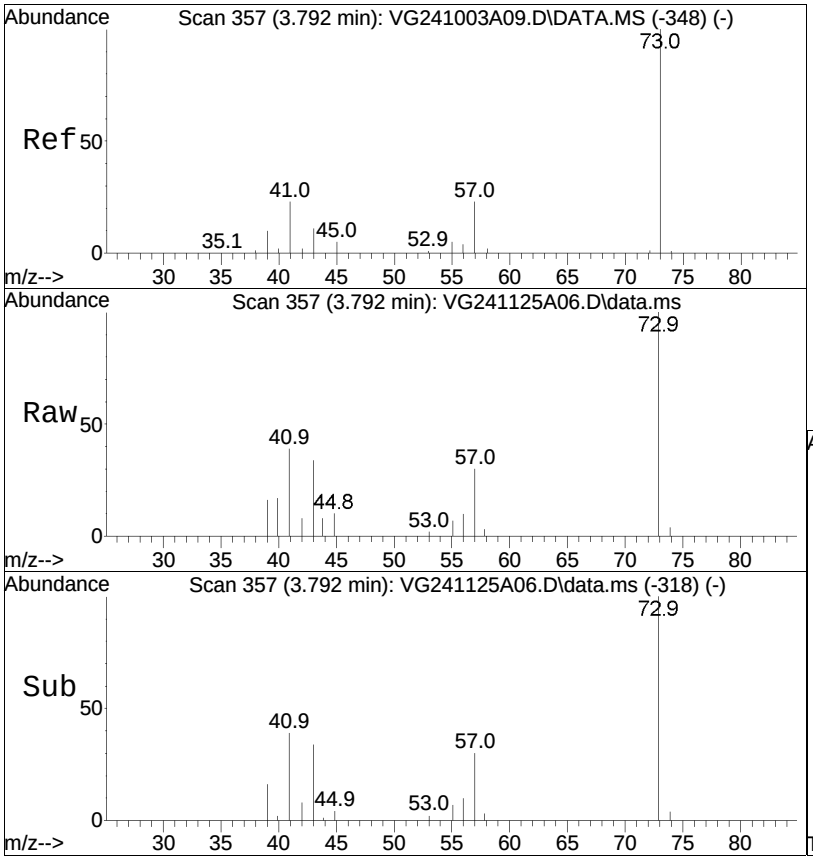


#17
Acetone
Concen: 2.04 ug/L
RT: 3.609 min Scan# 333
Delta R.T. 0.015 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 43 Resp: 5704

Ion	Ratio	Lower	Upper
43	100		
58	23.3	22.2	33.4

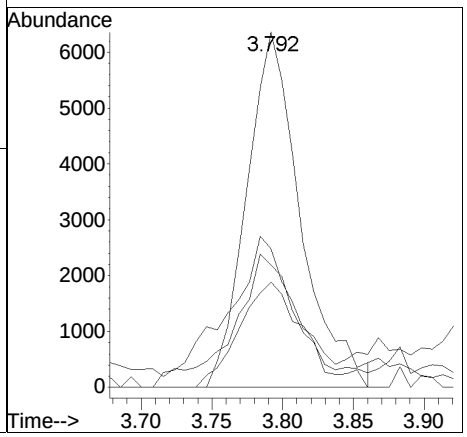


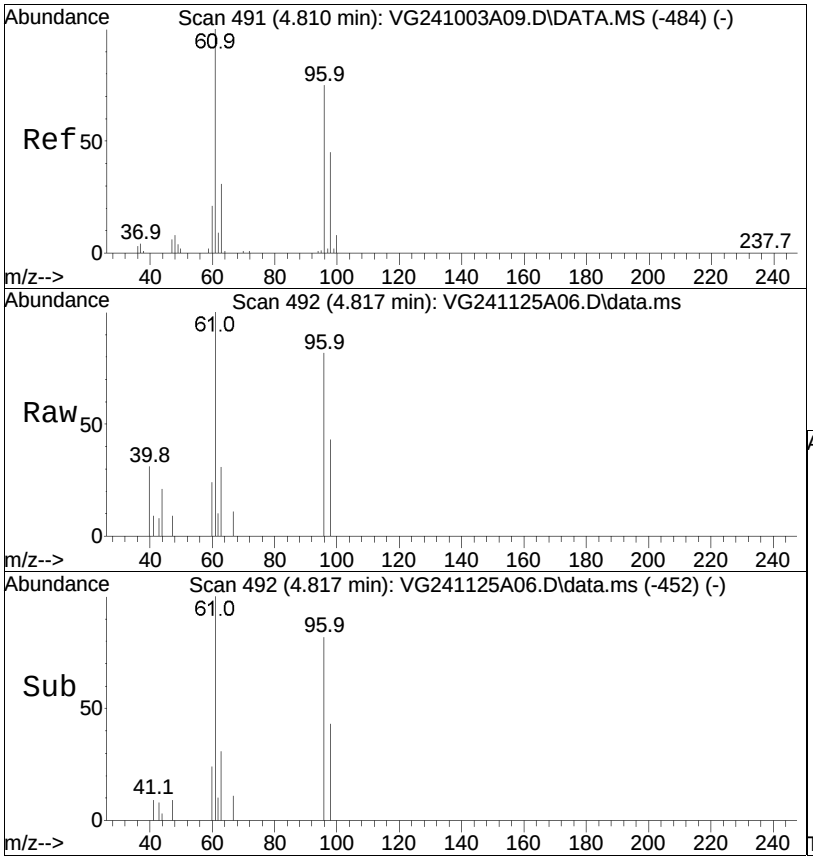


#20
Methyl tert-butyl ether
Concen: 0.52 ug/L
RT: 3.792 min Scan# 357
Delta R.T. -0.000 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 73 Resp: 16972

Ion	Ratio	Lower	Upper
73	100		
57	35.2	12.5	26.1#
43	37.5	13.0	27.0#
41	54.6	12.5	26.1#

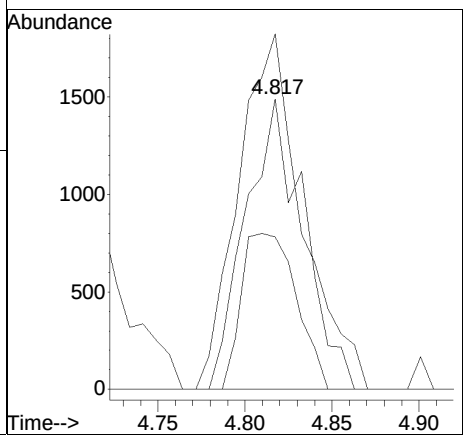


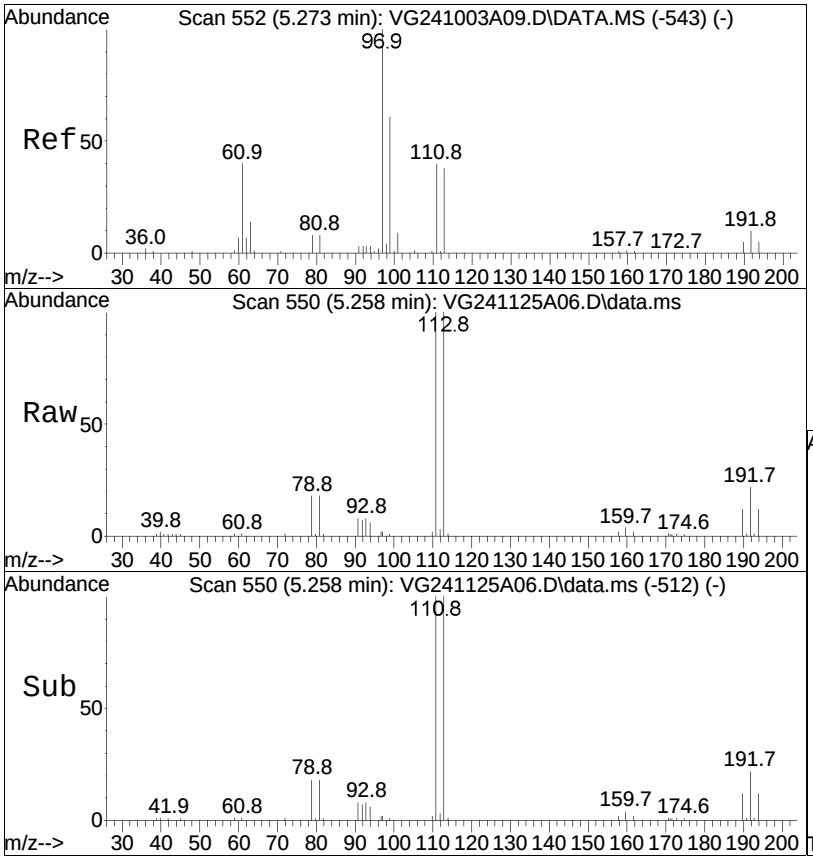


#28
cis-1,2-Dichloroethene
Concen: 0.31 ug/L
RT: 4.817 min Scan# 492
Delta R.T. 0.007 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 96 Resp: 3465

Ion	Ratio	Lower	Upper
96	100		
61	134.5	96.6	144.8
98	50.7	51.3	76.9#

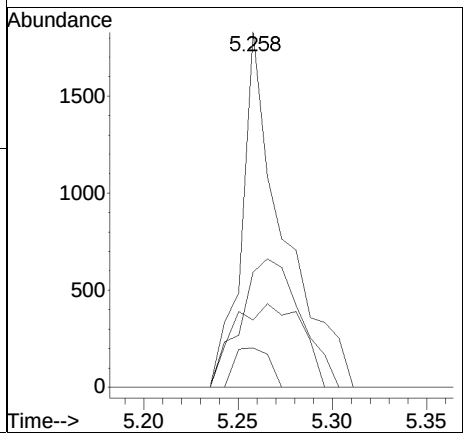


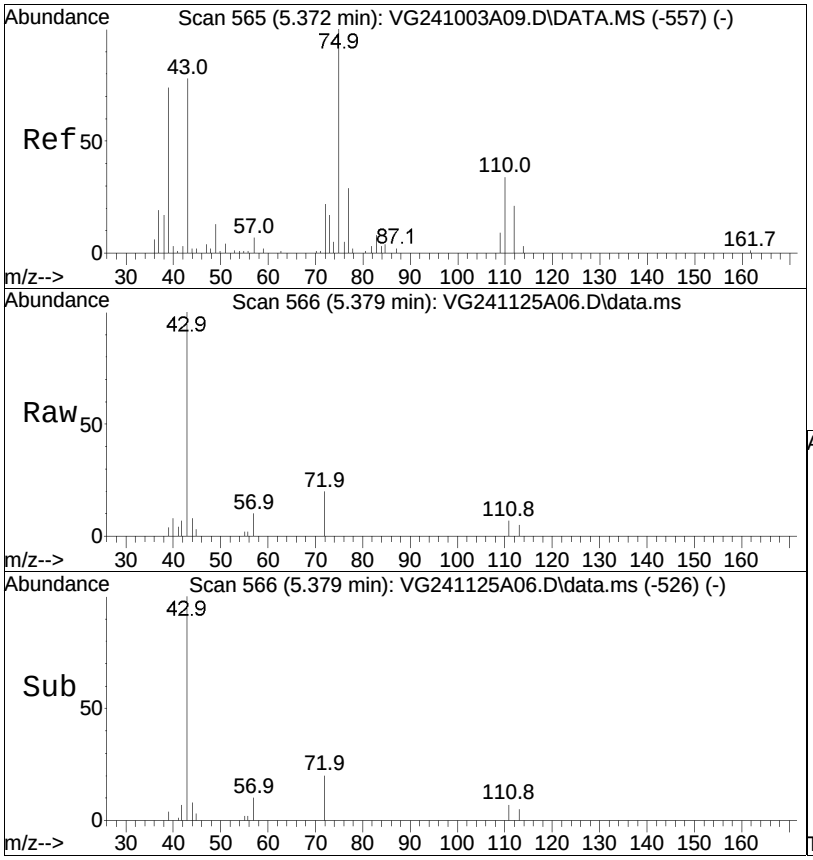


#37
1,1,1-Trichloroethane
Concen: 0.17 ug/L
RT: 5.258 min Scan# 550
Delta R.T. -0.015 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 97 Resp: 2806

Ion	Ratio	Lower	Upper
97	100		
99	52.4	41.3	85.7
61	38.7	26.0	54.0
63	9.3	8.6	18.0

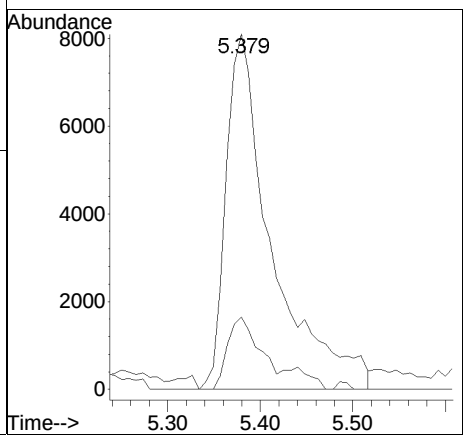


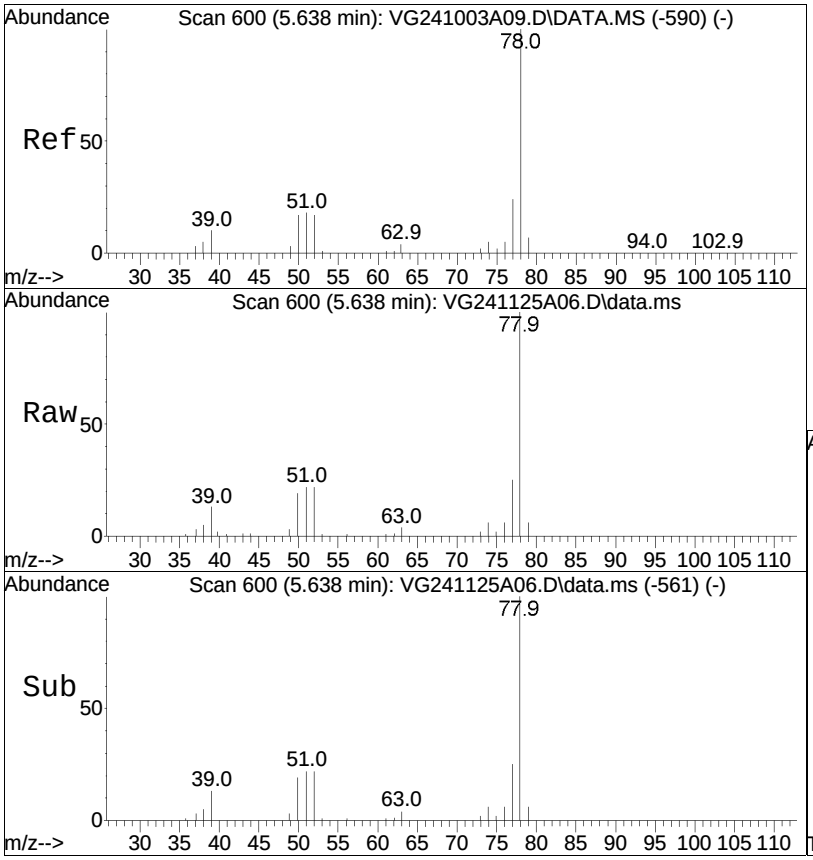


#39
2-Butanone
Concen: 6.52 ug/L M3
RT: 5.379 min Scan# 566
Delta R.T. 0.007 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 43 Resp: 27776

Ion	Ratio	Lower	Upper
43	100		
72	3.3	42.6	63.8#

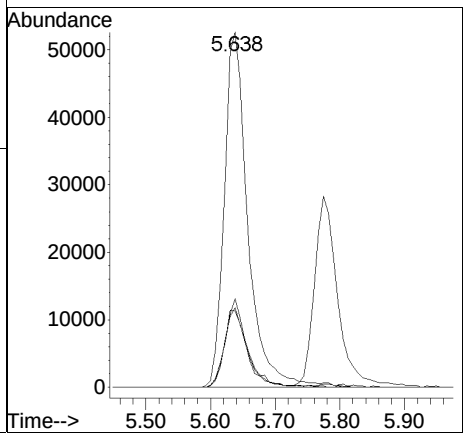


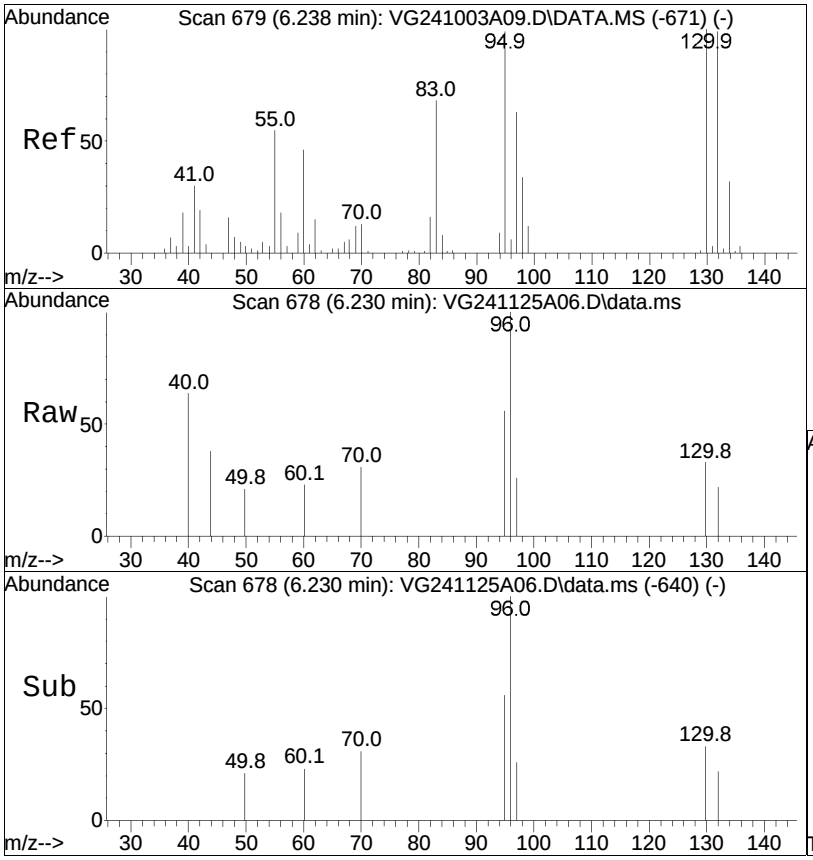


#41
Benzene
Concen: 3.20 ug/L
RT: 5.638 min Scan# 600
Delta R.T. -0.000 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 78 Resp: 134629

Ion	Ratio	Lower	Upper
78	100		
77	22.6	15.5	32.1
51	21.2	9.9	20.7#
52	21.2	9.2	19.2#

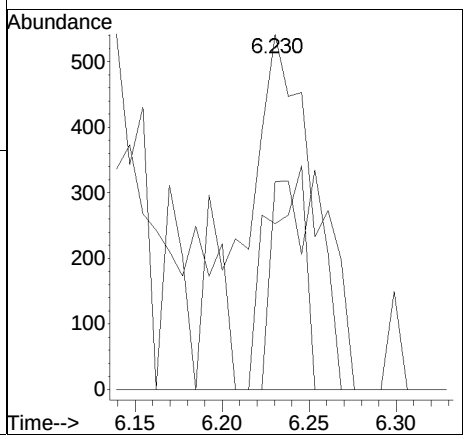


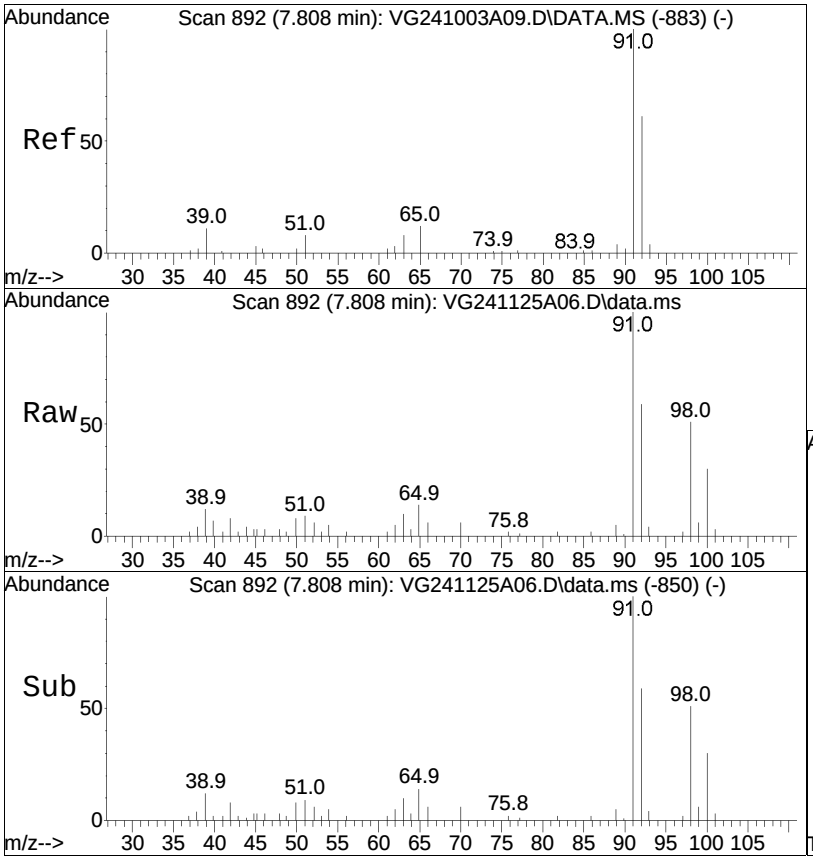


#48
Trichloroethene
Concen: 0.14 ug/L
RT: 6.230 min Scan# 678
Delta R.T. -0.008 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 95 Resp: 1577

Ion	Ratio	Lower	Upper
95	100		
97	0.0	54.0	81.0#
130	40.0	85.0	127.4#

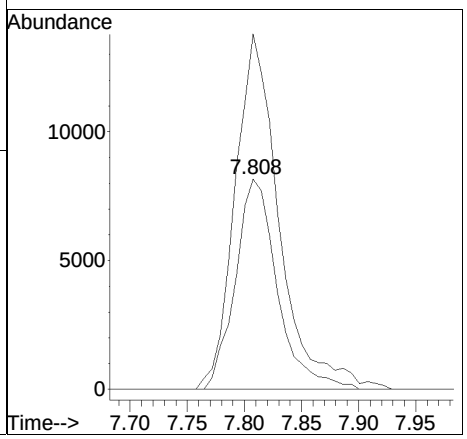


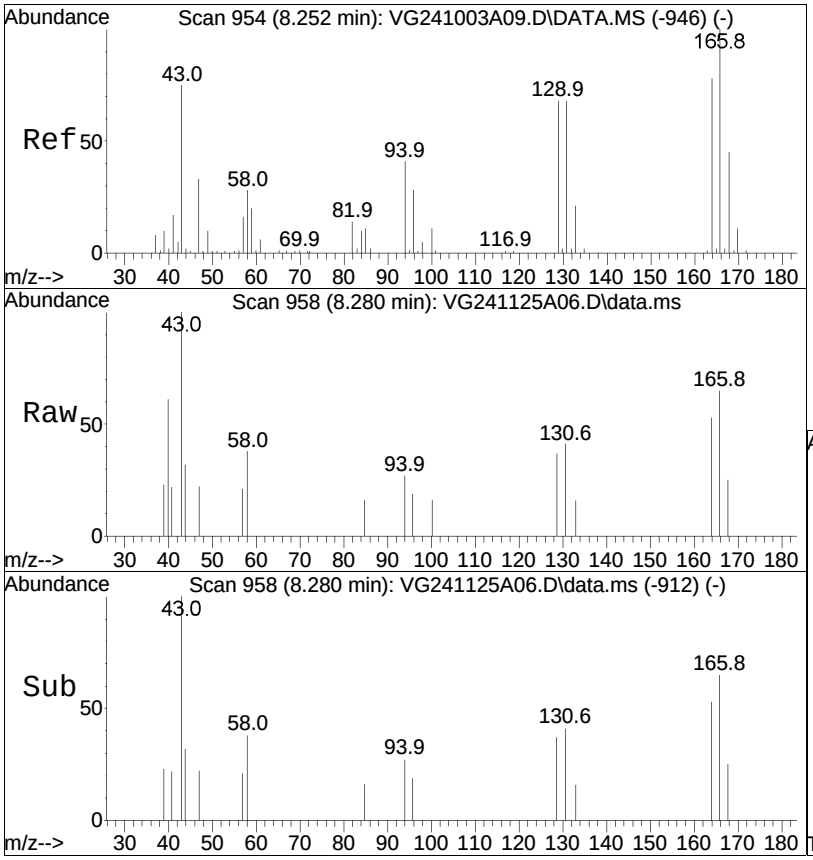


#61
Toluene
Concen: 0.77 ug/L
RT: 7.808 min Scan# 892
Delta R.T. -0.000 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 92 Resp: 20934

Ion	Ratio	Lower	Upper
92	100		
91	177.7	134.8	202.2

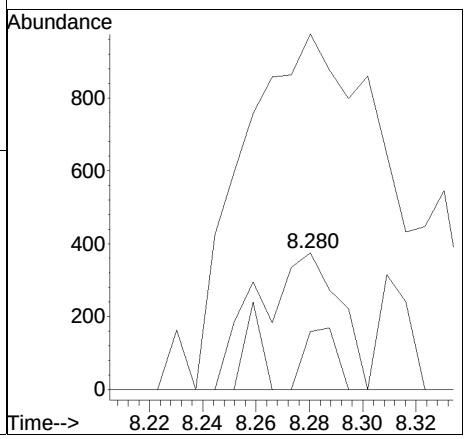


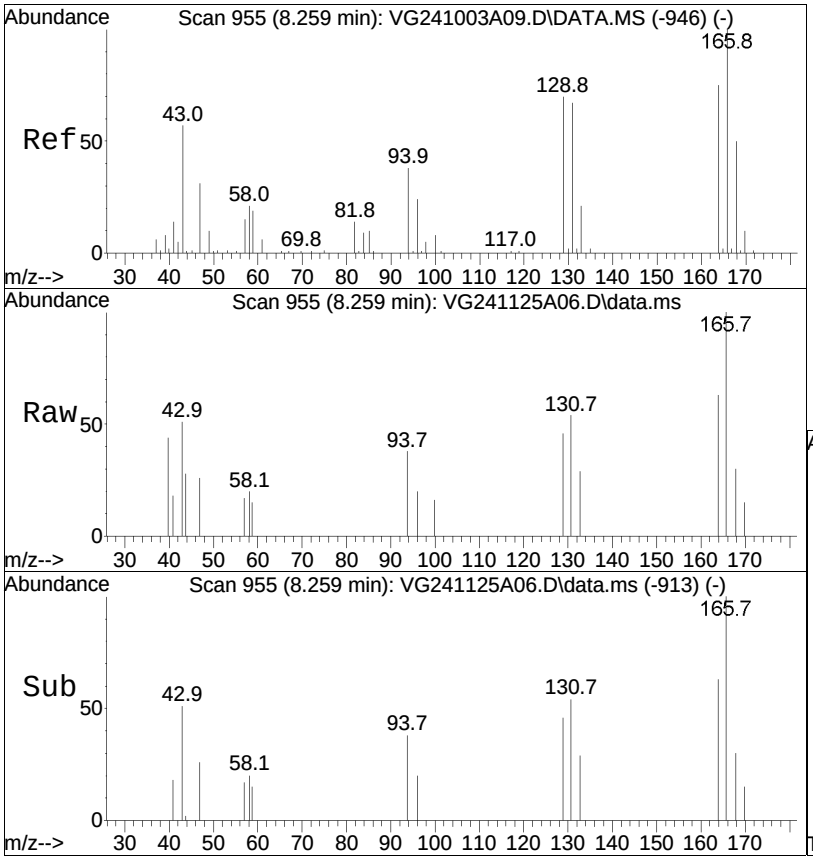


#62
4-Methyl-2-pentanone
Concen: 0.21 ug/L
RT: 8.280 min Scan# 958
Delta R.T. 0.028 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion: 58 Resp: 802

Ion	Ratio	Lower	Upper
58	100		
100	17.6	33.6	50.4#
43	572.4	204.3	306.5#

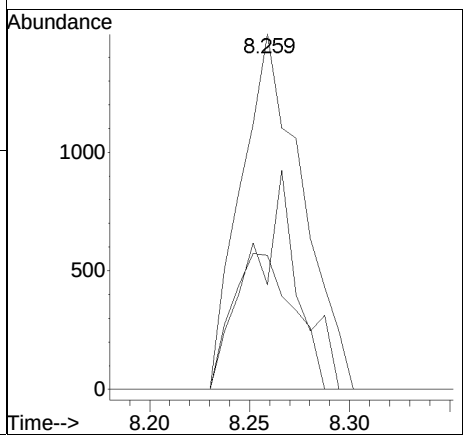


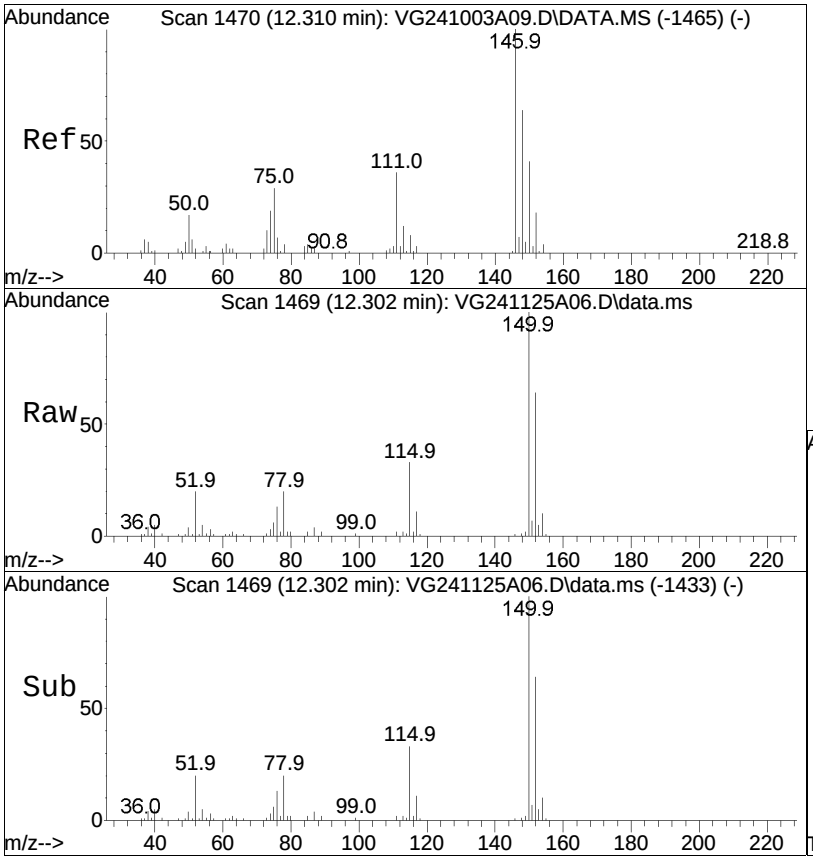


#63
Tetrachloroethene
Concen: 0.27 ug/L
RT: 8.259 min Scan# 955
Delta R.T. -0.000 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion:166 Resp: 3190

Ion	Ratio	Lower	Upper
166	100		
168	48.3	27.3	67.3
94	38.2	20.5	60.5

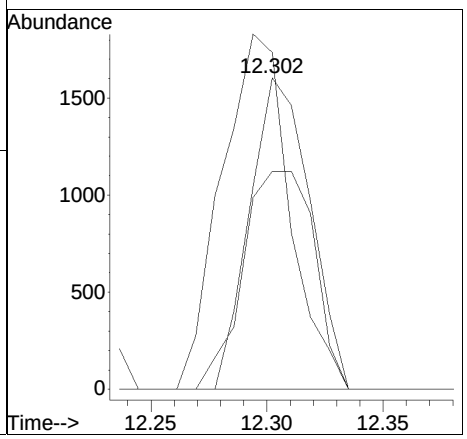


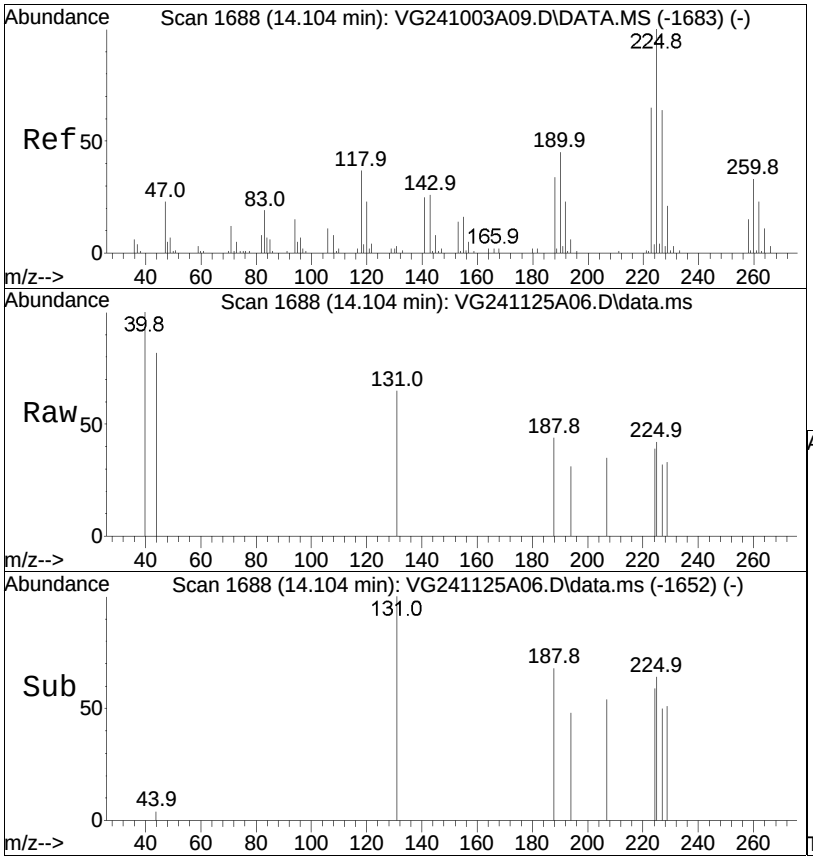


#101
1,4-Dichlorobenzene
Concen: 0.12 ug/L
RT: 12.302 min Scan# 1469
Delta R.T. -0.008 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion:146 Resp: 2903

Ion	Ratio	Lower	Upper
146	100		
111	128.7	29.3	43.9#
148	82.6	51.2	76.8#

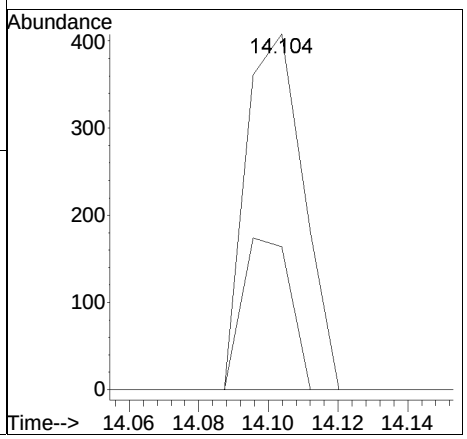


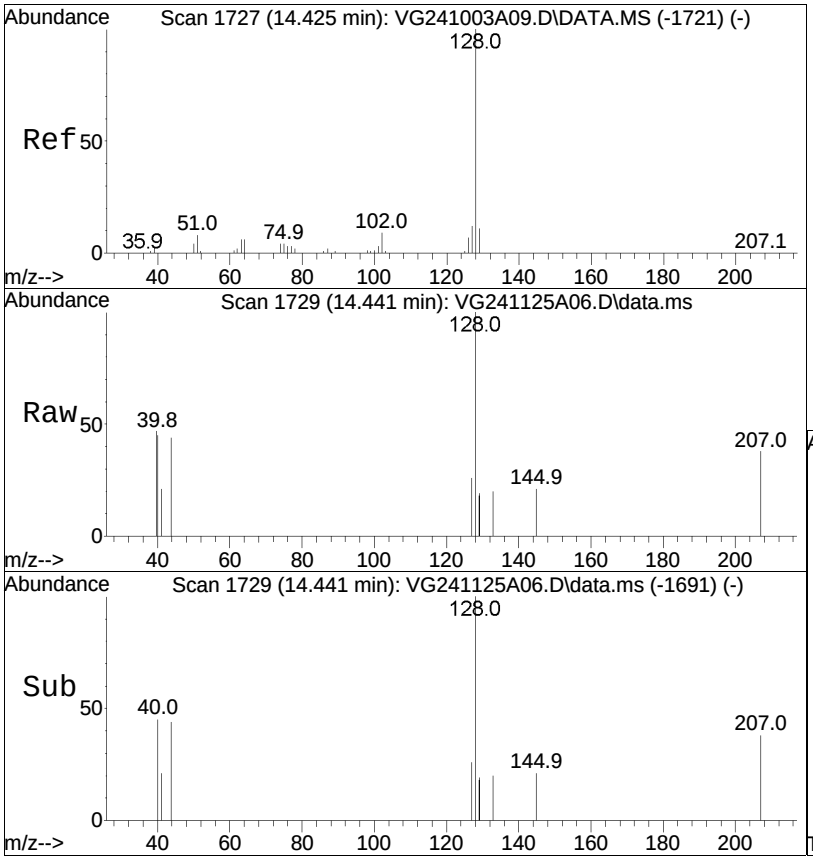


#108
Hexachlorobutadiene
Concen: 0.10 ug/L
RT: 14.104 min Scan# 1688
Delta R.T. -0.000 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion:225 Resp: 469

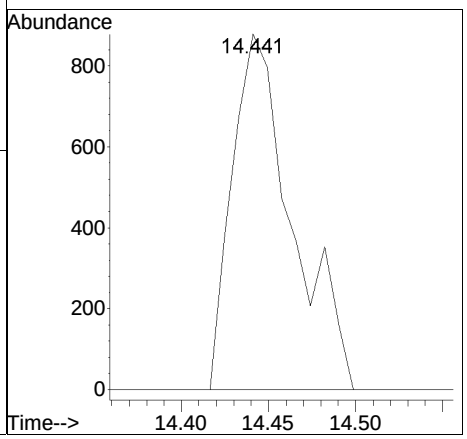
Ion	Ratio	Lower	Upper
225	100		
223	0.0	50.1	75.1#
227	35.6	50.2	75.4#

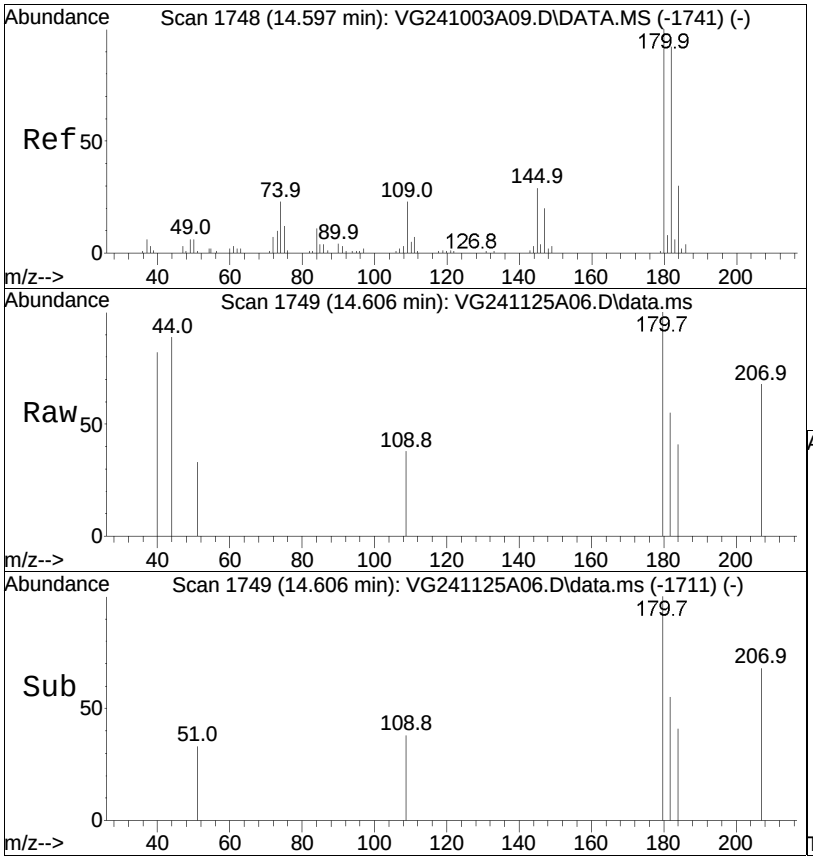




#110
Naphthalene
Concen: 0.08 ug/L
RT: 14.441 min Scan# 1729
Delta R.T. 0.016 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion:128 Resp: 2114

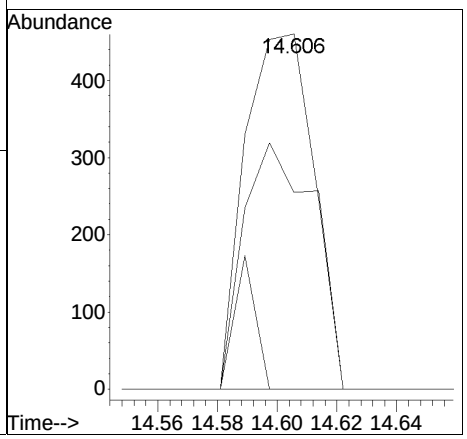




#111
1,2,3-Trichlorobenzene
Concen: 0.07 ug/L
RT: 14.606 min Scan# 1749
Delta R.T. 0.009 min
Lab File: VG241125A06.D
Acq: 25 Nov 2024 9:13 am

Tgt Ion:180 Resp: 735

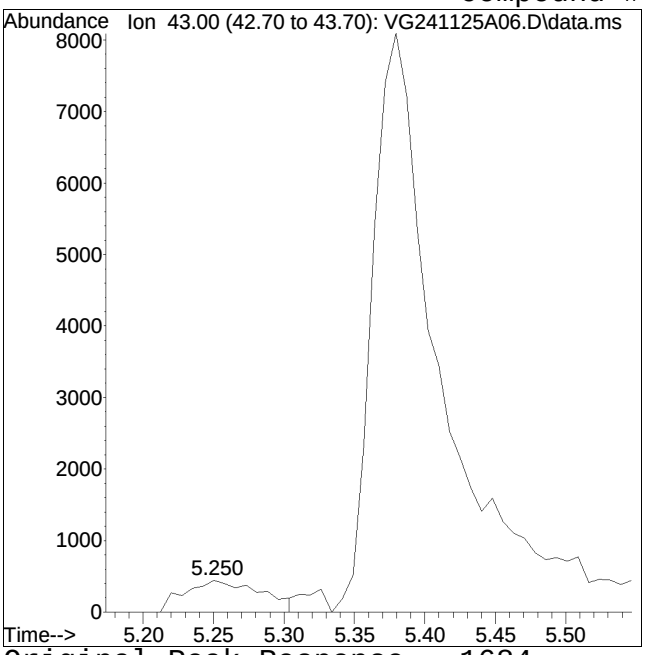
Ion	Ratio	Lower	Upper
180	100		
182	71.6	77.0	115.4#
145	11.6	24.1	36.1#

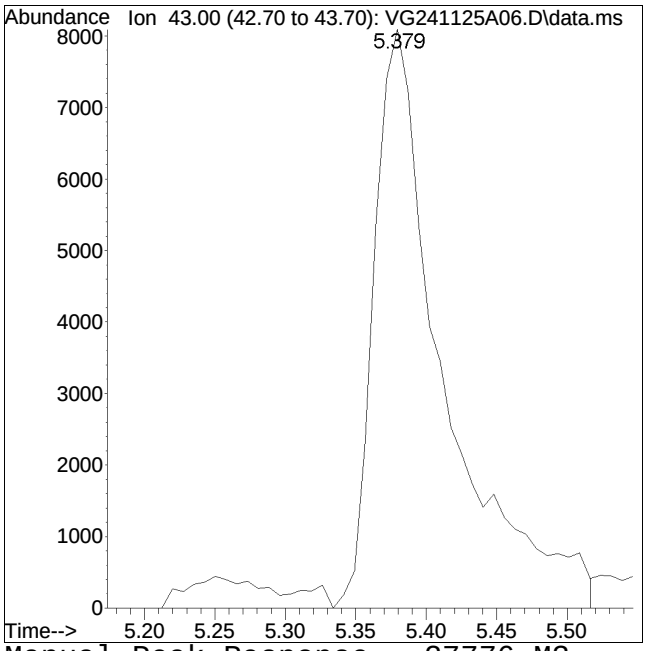


Manual Integration Report

Data Path : K:\Gonzo\2024\241125A\ QMethod : G_241003A_8260.m
Data File : VG241125A06.D Operator : GONZO:PID
Date Inj'd : 11/25/2024 9:13 am Instrument : Gonzo
Sample : l2469254-06,31,10,10,,c,r1 Quant Date : 11/25/2024 10:04 am

Compound #39: 2-Butanone





Original Peak Response = 1684 Manual Peak Response = 27776 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469254**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21571**
Calibration dates	**: 10/03/24 04:54 10/03/24 08:54**		

Calibration Files

L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D

L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.157	0.218	0.233	0.237	0.220	0.212	0.211	0.212	12.40
3)	TP	Chloromethane		0.230	0.237	0.234	0.232	0.226	0.226	0.227	0.230	1.93
4)	TP	Vinyl chloride	0.222	0.150	0.245	0.250	0.252	0.243	0.235	0.239	0.230	14.55
5)	TP	Bromomethane		0.146	0.137	0.123	0.122	0.128	0.133	0.137	0.132	6.48
6)	TP	Chloroethane		0.129	0.141	0.144	0.140	0.104	0.080	0.068	*Q	0.9905
7)	TP	Trichlorofluor		0.197	0.303	0.331	0.338	0.325	0.321	0.327	0.306	16.09
8)	TP	Ethyl ether		0.091	0.104	0.112	0.115	0.118	0.120	0.120	0.111	9.70
10)	TP	1,1-Dichloroet		0.130	0.177	0.180	0.186	0.187	0.186	0.188	0.176	11.86
11)	TP	Carbon disulfide		0.384	0.541	0.539	0.556	0.571	0.573	0.586	0.536	12.86
12)	TP	Freon-113		0.107	0.172	0.197	0.201	0.195	0.189	0.195	0.179	18.56
13)	TP	Iodomethane		0.246	0.272	0.303	0.325	0.339	0.331	0.332	0.307	11.48
14)	TP	Acrolein		0.029	0.036	0.029	0.028	0.032	0.029	0.035	0.031	10.04
15)	TP	Methylene chlo		0.203	0.218	0.208	0.209	0.215	0.216	0.215	0.212	2.51
17)	TP	Acetone			0.049	0.050	0.055	0.057	0.060	0.058	0.055	8.47
18)	TP	trans-1,2-Dich		0.130	0.197	0.196	0.200	0.205	0.205	0.206	0.191	14.32
19)	TP	Methyl acetate		0.136	0.109	0.117	0.124	0.131	0.125	0.129	0.124	7.08
20)	TP	Methyl tert butyl ether		0.555	0.636	0.627	0.654	0.684	0.683	0.686	0.646	7.28
21)	TP	tert-Butyl alc		0.019	0.020	0.019	0.020	0.021	0.021	0.021	0.020	5.39
22)	TP	Diisopropyl ether		0.581	0.689	0.726	0.750	0.774	0.777	0.794	0.727	10.11
23)	TP	1,1-Dichloroet		0.260	0.378	0.383	0.391	0.398	0.398	0.383	0.370	13.30
24)	TP	Halothane		0.105	0.145	0.158	0.165	0.164	0.164	0.164	0.152	14.38
25)	TP	Acrylonitrile		0.062	0.065	0.064	0.068	0.074	0.074	0.073	0.068	7.48
26)	TP	Ethyl tert-but		0.565	0.643	0.654	0.701	0.729	0.730	0.747	0.681	9.48
27)	TP	Vinyl acetate			0.518	0.531	0.513	0.575	0.384	0.592	0.519	14.16
28)	TP	cis-1,2-Dichlo		0.153	0.230	0.226	0.229	0.236	0.234	0.240	0.221	13.84
29)	TP	2,2-Dichloropr		0.189	0.246	0.250	0.263	0.257	0.257	0.260	0.246	10.49
30)	TP	Bromochloromet		0.089	0.111	0.103	0.103	0.103	0.099	0.098	0.101	6.75
31)	TP	Cyclohexane		0.242	0.342	0.382	0.395	0.388	0.372	0.390	0.359	15.15
32)	TP	Chloroform		0.263	0.359	0.362	0.363	0.387	0.386	0.388	0.358	12.32
33)	TP	Ethyl acetate		0.190	0.173	0.187	0.199	0.213	0.210	0.210	0.197	7.49
34)	TP	Carbon tetrachloride	0.261	0.168	0.279	0.287	0.300	0.299	0.294	0.296	0.273	16.21
35)	TP	Tetrahydrofuran		0.067	0.068	0.061	0.060	0.066	0.063	0.062	0.064	5.18
36)	S	Dibromofluoromethane	0.255	0.248	0.247	0.251	0.247	0.248	0.251	0.249	0.249	1.10
37)	TP	1,1,1-Trichlor		0.212	0.316	0.332	0.342	0.340	0.334	0.337	0.316	14.77
39)	TP	2-Butanone		0.086	0.065	0.077	0.082	0.092	0.091	0.091	0.084	11.73

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469254**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21571**
Calibration dates	**: 10/03/24 04:54 10/03/24 08:54**		

Calibration Files

L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D

L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40) TP	1,1-Dichloropr		0.166	0.253	0.284	0.290	0.290	0.286	0.288	0.265	17.20
41) TP	Benzene	0.787	0.572	0.815	0.858	0.880	0.901	0.890	0.896	0.825	13.34
42) TP	Tertiary-Amyl Methyl Ether		0.473	0.583	0.596	0.618	0.639	0.637	0.643	0.598	9.98
43) S	1,2-Dichloroethane-d4	0.287	0.281	0.283	0.297	0.281	0.281	0.287	0.302	0.287	2.80
44) TP	1,2-Dichloroet		0.244	0.287	0.277	0.284	0.287	0.286	0.290	0.279	5.74
47) TP	Methyl cyclohe		0.217	0.282	0.329	0.335	0.321	0.300	0.315	0.300	13.54
48) TP	Trichloroethene	0.271	0.156	0.221	0.218	0.227	0.224	0.234	0.220	0.221	14.27
50) TP	Dibromomethane		0.103	0.133	0.124	0.127	0.133	0.131	0.131	0.126	8.58
51) TP	1,2-Dichloropr		0.163	0.223	0.215	0.223	0.226	0.223	0.225	0.214	10.72
53) TP	2-Chloroethyl		0.099	0.129	0.126	0.132	0.141	0.139	0.139	0.129	11.23
54) TP	Bromodichlorom		0.230	0.282	0.294	0.298	0.308	0.304	0.306	0.289#	9.54
57) TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.91
58) TP	cis-1,3-Dichloropropene	0.325	0.253	0.327	0.331	0.340	0.347	0.346	0.347	0.327	9.52
59) I	Chlorobenzene-d5	----------ISTD----------									
60) S	Toluene-d8	1.314	1.332	1.318	1.309	1.324	1.310	1.332	1.342	1.323	0.91
61) TP	Toluene		0.545	0.718	0.716	0.729	0.729	0.722	0.712	0.696	9.59
62) TP	4-Methyl-2-pen		0.092	0.098	0.091	0.097	0.101	0.102	0.101	0.097	4.39
63) TP	Tetrachloroethene		0.237	0.292	0.314	0.322	0.317	0.313	0.311	0.301	9.84
65) TP	trans-1,3-Dichloropropene	0.424	0.306	0.394	0.393	0.416	0.431	0.438	0.443	0.406	10.96
67) TP	Ethyl methacry		0.274	0.357	0.351	0.369	0.387	0.390	0.392	0.360	11.46
68) TP	1,1,2-Trichlor		0.203	0.212	0.203	0.211	0.217	0.218	0.218	0.212	3.10
69) TP	Chlorodibromom		0.212	0.283	0.291	0.307	0.318	0.319	0.319	0.293	13.14
70) TP	1,3-Dichloropr		0.363	0.428	0.417	0.427	0.434	0.435	0.436	0.420	6.16
71) TP	1,2-Dibromoethane		0.210	0.250	0.251	0.256	0.262	0.263	0.262	0.250	7.43
72) TP	2-Hexanone		0.138	0.170	0.162	0.179	0.188	0.193	0.191	0.174	11.34
73) TP	Chlorobenzene		0.544	0.761	0.763	0.773	0.796	0.798	0.800	0.748	12.24
74) TP	Ethylbenzene		0.993	1.323	1.332	1.384	1.434	1.441	1.455	1.337	12.01
75) TP	1,1,1,2-Tetrac		0.212	0.277	0.287	0.300	0.309	0.309	0.311	0.287	12.36
76) TP	p/m Xylene		0.357	0.511	0.520	0.536	0.544	0.543	0.551	0.509	13.45
77) TP	o Xylene		0.339	0.493	0.505	0.523	0.528	0.531	0.531	0.493	14.07
78) TP	Styrene		0.581	0.817	0.859	0.898	0.938	0.938		0.839	16.08
79) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80) TP	Bromoform		0.246	0.325	0.343	0.386	0.410	0.408	0.398	0.359	16.63
82) TP	Isopropylbenzene		1.496	2.138	2.263	2.364	2.426	2.386	2.401	2.211	14.95
83) S	4-Bromofluorobenzene	0.890	0.884	0.867	0.856	0.865	0.885	0.880	0.885	0.876	1.38
84) TP	Bromobenzene		0.450	0.629	0.619	0.628	0.632	0.623	0.609	0.598	11.01

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469254**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: GONZO**	**Ical Ref**	**: ICAL21571**
Calibration dates	**: 10/03/24 04:54 10/03/24 08:54**		

Calibration Files
L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D
L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
85) TP	n-Propylbenzene		1.734	2.567	2.600	2.741	2.849	2.792	2.737	2.574	14.90
86) TP	1,4-Dichlorobu		0.759	0.814	0.832	0.881	0.934	0.936	0.936	0.870	8.08
87) TP	1,1,2,2-Tetrac		0.491	0.558	0.544	0.567	0.604	0.552	0.601	0.560	6.83
88) TP	4-Ethyltoluene		1.451	2.043	2.136	2.236	2.319	2.282	2.287	2.108	14.48
89) TP	2-Chlorotoluene		1.097	1.560	1.551	1.646	1.709	1.691	1.737	1.570	14.05
90) TP	1,3,5-Trimethy		1.387	1.807	1.888	1.984	2.020	1.986	1.991	1.866	12.01
91) TP	1,2,3-Trichlor		0.385	0.442	0.437	0.475	0.497	0.491	0.473	0.457	8.55
92) TP	trans-1,4-Dich		0.152	0.172	0.173	0.187	0.202	0.204	0.202	0.184	10.76
93) TP	4-Chlorotoluene		1.185	1.606	1.676	1.722	1.796	1.780	1.804	1.653	13.20
94) TP	tert-Butylbenzene		1.012	1.470	1.521	1.575	1.586	1.570	1.568	1.472	14.04
97) TP	1,2,4-Trimethy		1.310	1.783	1.824	1.912	1.971	1.963	1.984	1.821	13.07
98) TP	sec-Butylbenzene		1.410	2.016	2.190	2.310	2.335	2.303	2.298	2.123	15.70
99) TP	p-Isopropyltol		1.252	1.735	1.852	1.911	1.953	1.940	1.962	1.801	14.14
100) TP	1,3-Dichlorobe		0.838	1.090	1.087	1.145	1.166	1.145	1.158	1.090	10.59
101) TP	1,4-Dichlorobe		0.928	1.180	1.126	1.163	1.183	1.162	1.183	1.132	8.15
102) TP	p-Diethylbenzene		0.682	0.978	1.024	1.066	1.110	1.095	1.116	1.010	15.14
103) TP	n-Butylbenzene		0.998	1.315	1.475	1.522	1.613	1.594	1.633	1.450	15.65
104) TP	1,2-Dichlorobe		0.792	1.071	1.077	1.089	1.116	1.097	1.115	1.051	11.00
105) TP	1,2,4,5-Tetram		1.021	1.340	1.393	1.455	1.548	1.572	1.615	1.421	14.22
106) TP	1,2-Dibromo-3-		0.083	0.086	0.087	0.095	0.099	0.103	0.099	0.093	8.28
107) TP	1,3,5-Trichlor		0.504	0.656	0.671	0.706	0.714	0.699	0.679	0.661	10.95
108) TP	Hexachlorobuta		0.171	0.195	0.211	0.226	0.236	0.226	0.222	0.212	10.54
109) TP	1,2,4-Trichlor		0.406	0.534	0.574	0.603	0.626	0.604	0.581	0.561	13.27
110) TP	Naphthalene		0.884	1.087	1.139	1.229	1.333	1.340	1.307	1.188	13.93
111) TP	1,2,3-Trichlor		0.370	0.449	0.476	0.502	0.524	0.503	0.463	0.469	10.85

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469254**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21711**
Calibration dates	**: 11/15/24 02:52 11/15/24 06:56**		

Calibration Files

L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D

L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.150	0.216	0.248	0.243	0.242	0.232	0.232	0.223	15.17
3)	TP	Chloromethane		0.217	0.231	0.234	0.227	0.219	0.211	0.206	0.221	4.71
4)	TP	Vinyl chloride	0.167	0.205	0.243	0.259	0.261	0.252	0.245	0.249	0.235	13.82
5)	TP	Bromomethane		0.175	0.183	0.165	0.156	0.159	0.158	0.160	0.165	6.07
6)	TP	Chloroethane		0.126	0.175	0.182	0.178	0.179	0.175	0.177	0.170	11.66
7)	TP	Trichlorofluor		0.229	0.339	0.381	0.366	0.373	0.358	0.357	0.343	15.19
8)	TP	Ethyl ether		0.090	0.099	0.107	0.112	0.111	0.111	0.112	0.106	7.88
10)	TP	1,1-Dichloroet		0.144	0.170	0.180	0.185	0.183	0.181	0.180	0.175	8.12
11)	TP	Carbon disulfide		0.415	0.516	0.559	0.550	0.551	0.542	0.541	0.525	9.58
12)	TP	Freon-113		0.134	0.191	0.204	0.195	0.192	0.188	0.187	0.184	12.33
13)	TP	Iodomethane		0.156	0.130	0.146	0.160	0.178	0.175	0.177	0.160	11.19
14)	TP	Acrolein			0.021	0.022	0.021	0.021	0.022	0.022	0.021	3.08
15)	TP	Methylene chlo		0.216	0.230	0.221	0.218	0.215	0.214	0.213	0.218	2.75
17)	TP	Acetone		0.058	0.049	0.041	0.036	0.039	0.039	0.039	0.043	17.71
18)	TP	trans-1,2-Dich		0.162	0.190	0.206	0.206	0.202	0.199	0.197	0.195	8.00
19)	TP	Methyl acetate		0.100	0.099	0.095	0.095	0.094	0.094	0.094	0.096	2.74
21)	TP	Methyl tert butyl ether		0.438	0.498	0.532	0.543	0.548	0.539	0.544	0.520	7.72
22)	TP	tert-Butyl alc		0.010	0.013	0.014	0.013	0.014	0.014	0.014	0.013	11.92
24)	TP	Diisopropyl ether		0.563	0.632	0.667	0.663	0.681	0.677	0.687	0.653	6.68
25)	TP	1,1-Dichloroet		0.329	0.390	0.406	0.400	0.404	0.395	0.399	0.389	6.92
26)	TP	Halothane		0.124	0.146	0.158	0.157	0.158	0.154	0.155	0.150	8.24
27)	TP	Acrylonitrile			0.054	0.054	0.052	0.052	0.051	0.053	0.053	1.69
28)	TP	Ethyl tert-but		0.610	0.653	0.683	0.697	0.709	0.712	0.723	0.684	5.81
29)	TP	Vinyl acetate		0.393	0.403	0.450	0.468	0.478	0.480	0.492	0.452	8.67
30)	TP	cis-1,2-Dichlo		0.178	0.226	0.232	0.232	0.229	0.226	0.233	0.222	8.84
31)	TP	2,2-Dichloropr		0.253	0.298	0.325	0.327	0.321	0.314	0.311	0.307	8.37
33)	TP	Bromochloromet		0.101	0.103	0.107	0.102	0.102	0.097	0.097	0.101	3.52
34)	TP	Cyclohexane		0.319	0.387	0.428	0.417	0.413	0.402	0.402	0.395	9.15
35)	TP	Chloroform		0.354	0.368	0.359	0.373	0.369	0.374	0.359	0.365	2.16
36)	TP	Ethyl acetate			0.143	0.158	0.155	0.150	0.154	0.154	0.152	3.47
37)	TP	Carbon tetrachloride	0.242	0.202	0.250	0.282	0.285	0.290	0.280	0.288	0.265	11.77
38)	TP	Tetrahydrofuran			0.043	0.042	0.043	0.042	0.043	0.041	0.042	1.83
39)	S	Dibromofluoromethane	0.240	0.230	0.233	0.236	0.225	0.228	0.222	0.220	0.229	2.94
40)	TP	1,1,1-Trichlor		0.262	0.314	0.346	0.339	0.336	0.329	0.330	0.322	8.75
42)	TP	2-Butanone			0.066	0.054	0.057	0.062	0.064	0.063	0.061	7.35

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469254**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21711**
Calibration dates	**: 11/15/24 02:52 11/15/24 06:56**		

Calibration Files

L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D

L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
43) TP	1,1-Dichloropr		0.244	0.274	0.300	0.291	0.294	0.285	0.288	0.282	6.60
45) TP	Benzene	0.900	0.753	0.888	0.917	0.922	0.923	0.906	0.904	0.889	6.32
46) TP	Tertiary-Amyl Methyl Ether		0.498	0.546	0.573	0.584	0.597	0.602	0.607	0.572	6.81
47) S	1,2-Dichloroethane-d4	0.275	0.276	0.276	0.271	0.265	0.269	0.266	0.272	0.271	1.61
48) T	1,2-Dichloroet		0.278	0.284	0.284	0.289	0.283	0.280	0.281	0.283	1.29
51) TP	Methyl cyclohe		0.300	0.386	0.416	0.424	0.421	0.410	0.416	0.396	11.09
52) TP	Trichloroethene	0.190	0.168	0.219	0.225	0.224	0.222	0.218	0.221	0.211	9.71
54) TP	Dibromomethane		0.096	0.124	0.125	0.124	0.125	0.125	0.125	0.121	9.00
55) TP	1,2-Dichloropr		0.185	0.228	0.233	0.237	0.235	0.232	0.230	0.226	8.02
57) TP	2-Chloroethyl		0.099	0.133	0.136	0.141	0.142	0.140	0.140	0.133	11.55
58) TP	Bromodichlorom		0.242	0.282	0.306	0.302	0.309	0.305	0.306	0.293#	8.32
61) TP	1,4-Dioxane		0.001	0.001	0.002	0.002	0.001	0.002	0.001	0.001#	8.59
62) TP	cis-1,3-Dichloropropene	0.278	0.286	0.327	0.356	0.364	0.369	0.365	0.363	0.338	11.01
63) I	Chlorobenzene-d5	----------ISTD----------									
64) S	Toluene-d8	1.361	1.371	1.369	1.378	1.371	1.359	1.339	1.362	1.364	0.86
65) TP	Toluene		0.692	0.795	0.821	0.802	0.803	0.787	0.802	0.786	5.43
66) TP	4-Methyl-2-pen		0.078	0.073	0.079	0.085	0.086	0.088	0.089	0.083	7.26
67) TP	Tetrachloroethene		0.262	0.318	0.340	0.329	0.325	0.316	0.321	0.316	7.90
69) TP	trans-1,3-Dichloropropene	0.263	0.304	0.384	0.417	0.434	0.435	0.437	0.439	0.389	17.55
71) TP	Ethyl methacry		0.242	0.277	0.306	0.312	0.310	0.312	0.318	0.297	9.33
72) TP	1,1,2-Trichlor		0.191	0.207	0.212	0.211	0.208	0.207	0.211	0.207	3.48
73) TP	Chlorodibromom		0.212	0.250	0.277	0.291	0.302	0.302	0.305	0.277	12.44
74) TP	1,3-Dichloropr		0.391	0.421	0.437	0.436	0.437	0.431	0.432	0.426	3.86
75) TP	1,2-Dibromoethane		0.225	0.246	0.248	0.248	0.247	0.249	0.250	0.245	3.58
77) TP	2-Hexanone		0.124	0.121	0.132	0.136	0.137	0.138	0.140	0.133	5.62
78) TP	Chlorobenzene		0.766	0.844	0.862	0.856	0.849	0.834	0.837	0.835	3.87
79) TP	Ethylbenzene		1.264	1.483	1.576	1.562	1.562	1.528	1.535	1.502	7.27
80) TP	1,1,1,2-Tetrac		0.213	0.269	0.290	0.293	0.296	0.290	0.291	0.277	10.74
81) TP	p/m Xylene		0.462	0.570	0.599	0.596	0.599	0.596	0.625	0.578	9.27
82) TP	o Xylene		0.454	0.548	0.582	0.575	0.585	0.591	0.609	0.564	9.19
83) TP	Styrene		0.786	0.903	0.956	0.973	1.006	1.008	1.030	0.952	8.85
84) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85) TP	Bromoform		0.193	0.255	0.292	0.312	0.336	0.344	0.337	0.296	18.61
87) TP	Isopropylbenzene		2.460	2.964	3.019	3.035	3.090	3.098	3.012	2.954	7.53
88) S	4-Bromofluorobenzene	0.926	0.931	0.925	0.912	0.906	0.909	0.933	0.907	0.919	1.23
89) TP	Bromobenzene		0.589	0.650	0.686	0.671	0.684	0.685	0.650	0.659	5.25

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469254**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL21711**
Calibration dates	**: 11/15/24 02:52 11/15/24 06:56**		

Calibration Files

L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D

L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP	n-Propylbenzene		2.800	3.311	3.446	3.464	3.520	3.517	3.395	3.351	7.56
91) TP	1,4-Dichlorobu		0.707	0.796	0.805	0.787	0.804	0.818	0.776	0.785	4.70
92) TP	1,1,2,2-Tetrac		0.553	0.577	0.569	0.579	0.576	0.586	0.553	0.570	2.25
93) TP	4-Ethyltoluene		2.443	2.795	2.894	2.863	2.868	2.849	2.750	2.780	5.63
94) TP	2-Chlorotoluene		1.679	2.053	1.999	1.987	1.963	1.998	1.944	1.946	6.31
95) TP	1,3,5-Trimethy		2.131	2.501	2.530	2.521	2.533	2.524	2.481	2.460	5.94
96) TP	1,2,3-Trichlor		0.433	0.485	0.448	0.443	0.443	0.461	0.439	0.450	3.93
97) TP	trans-1,4-Dich		0.130	0.157	0.156	0.170	0.174	0.181	0.173	0.163	10.59
98) TP	4-Chlorotoluene		1.768	2.040	2.065	2.038	2.064	2.088	2.031	2.013	5.46
99) TP	tert-Butylbenzene		1.744	2.059	2.106	2.080	2.103	2.089	2.031	2.030	6.35
102) TP	1,2,4-Trimethy		2.164	2.443	2.530	2.518	2.565	2.556	2.495	2.467	5.66
103) TP	sec-Butylbenzene		2.631	3.066	3.196	3.204	3.248	3.200	3.154	3.100	6.92
104) TP	p-Isopropyltol		2.097	2.520	2.648	2.672	2.713	2.656	2.673	2.568	8.42
105) TP	1,3-Dichlorobe		1.223	1.355	1.333	1.332	1.353	1.329	1.313	1.320	3.41
106) TP	1,4-Dichlorobe		1.272	1.384	1.328	1.315	1.331	1.321	1.317	1.324	2.49
107) TP	p-Diethylbenzene		1.189	1.433	1.559	1.587	1.594	1.554	1.604	1.503	9.96
108) TP	n-Butylbenzene		1.847	2.213	2.309	2.337	2.350	2.282	2.342	2.240	8.02
109) TP	1,2-Dichlorobe		1.221	1.290	1.245	1.266	1.262	1.252	1.254	1.256	1.67
110) TP	1,2,4,5-Tetram		2.024	2.276	2.393	2.491	2.501	2.604	2.565	2.408	8.37
111) TP	1,2-Dibromo-3-		0.054	0.063	0.073	0.081	0.083	0.091	0.088	0.076	18.03
112) TP	1,3,5-Trichlor		0.781	0.888	0.912	0.935	0.915	0.939	0.901	0.896	5.97
113) TP	Hexachlorobuta		0.190	0.249	0.254	0.260	0.243	0.246	0.232	0.239	9.71
114) TP	1,2,4-Trichlor		0.716	0.792	0.793	0.800	0.809	0.800	0.765	0.782	4.09
115) TP	Naphthalene		1.572	1.696	1.819	1.882	1.965	2.008	1.916	1.837	8.44
116) TP	1,2,3-Trichlor		0.612	0.683	0.699	0.722	0.733	0.732	0.707	0.698	6.06

Response Factor Report Gonzo

Method Path : K:\Gonzo\2024\241003AICAL\
Method File : G_241003A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Oct 04 09:30:18 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D
L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I	Fluorobenzene	----------ISTD----------									
2) TP	Dichlorodifluo...		0.157	0.218	0.233	0.237	0.220	0.212	0.211	0.212	12.40
3) TP	Chloromethane		0.230	0.237	0.234	0.232	0.226	0.226	0.227	0.230	1.93
4) TP	Vinyl chloride	0.222	0.150	0.245	0.250	0.252	0.243	0.235	0.239	0.230	14.55
5) TP	Bromomethane		0.146	0.137	0.123	0.122	0.128	0.133	0.137	0.132	6.48
6) TP	Chloroethane		0.129	0.141	0.144	0.140	0.104	0.080	0.068	*Q	0.9905
7) TP	Trichlorofluor...		0.197	0.303	0.331	0.338	0.325	0.321	0.327	0.306	16.09
8) TP	Ethyl ether		0.091	0.104	0.112	0.115	0.118	0.120	0.120	0.111	9.70
10) TP	1,1-Dichloroet...		0.130	0.177	0.180	0.186	0.187	0.186	0.188	0.176	11.86
11) TP	Carbon disulfide		0.384	0.541	0.539	0.556	0.571	0.573	0.586	0.536	12.86
12) TP	Freon-113		0.107	0.172	0.197	0.201	0.195	0.189	0.195	0.179	18.56
13) TP	Iodomethane		0.246	0.272	0.303	0.325	0.339	0.331	0.332	0.307	11.48
14) TP	Acrolein		0.029	0.036	0.029	0.028	0.032	0.029	0.035	0.031	10.04
15) TP	Methylene chlo...		0.203	0.218	0.208	0.209	0.215	0.216	0.215	0.212	2.51
17) TP	Acetone			0.049	0.050	0.055	0.057	0.060	0.058	0.055	8.47
18) TP	trans-1,2-Dich...		0.130	0.197	0.196	0.200	0.205	0.205	0.206	0.191	14.32
19) TP	Methyl acetate		0.136	0.109	0.117	0.124	0.131	0.125	0.129	0.124	7.08
20) TP	Methyl tert-bu...		0.555	0.636	0.627	0.654	0.684	0.683	0.686	0.646	7.28
21) TP	tert-Butyl alc...		0.019	0.020	0.019	0.020	0.021	0.021	0.021	0.020	5.39
22) TP	Diisopropyl ether		0.581	0.689	0.726	0.750	0.774	0.777	0.794	0.727	10.11
23) TP	1,1-Dichloroet...		0.260	0.378	0.383	0.391	0.398	0.398	0.383	0.370	13.30
24) TP	Halothane		0.105	0.145	0.158	0.165	0.164	0.164	0.164	0.152	14.38
25) TP	Acrylonitrile		0.062	0.065	0.064	0.068	0.074	0.074	0.073	0.068	7.48
26) TP	Ethyl tert-but...		0.565	0.643	0.654	0.701	0.729	0.730	0.747	0.681	9.48
27) TP	Vinyl acetate			0.518	0.531	0.513	0.575	0.384	0.592	0.519	14.16
28) TP	cis-1,2-Dichlo...		0.153	0.230	0.226	0.229	0.236	0.234	0.240	0.221	13.84
29) TP	2,2-Dichloropr...		0.189	0.246	0.250	0.263	0.257	0.257	0.260	0.246	10.49
30) TP	Bromochloromet...		0.089	0.111	0.103	0.103	0.103	0.099	0.098	0.101	6.75
31) TP	Cyclohexane		0.242	0.342	0.382	0.395	0.388	0.372	0.390	0.359	15.15
32) TP	Chloroform		0.263	0.359	0.362	0.363	0.387	0.386	0.388	0.358	12.32
33) TP	Ethyl acetate		0.190	0.173	0.187	0.199	0.213	0.210	0.210	0.197	7.49

Method Path : K:\Gonzo\2024\241003AICAL\
Method File : G_241003A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Oct 04 09:30:18 2024
Response Via : Initial Calibration

Calibration Files
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L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
34)	TP	Carbon tetrach...	0.261	0.168	0.279	0.287	0.300	0.299	0.294	0.296	0.273	16.21
35)	TP	Tetrahydrofuran		0.067	0.068	0.061	0.060	0.066	0.063	0.062	0.064	5.18
36)	S	Dibromofluorom...	0.255	0.248	0.247	0.251	0.247	0.248	0.251	0.249	0.249	1.10
37)	TP	1,1,1-Trichlor...		0.212	0.316	0.332	0.342	0.340	0.334	0.337	0.316	14.77
39)	TP	2-Butanone		0.086	0.065	0.077	0.082	0.092	0.091	0.091	0.084	11.73
40)	TP	1,1-Dichloropr...		0.166	0.253	0.284	0.290	0.290	0.286	0.288	0.265	17.20
41)	TP	Benzene	0.787	0.572	0.815	0.858	0.880	0.901	0.890	0.896	0.825	13.34
42)	TP	tert-Amyl meth...		0.473	0.583	0.596	0.618	0.639	0.637	0.643	0.598	9.98
43)	S	1,2-Dichloroet...	0.287	0.281	0.283	0.297	0.281	0.281	0.287	0.302	0.287	2.80
44)	TP	1,2-Dichloroet...		0.244	0.287	0.277	0.284	0.287	0.286	0.290	0.279	5.74
47)	TP	Methyl cyclohe...		0.217	0.282	0.329	0.335	0.321	0.300	0.315	0.300	13.54
48)	TP	Trichloroethene	0.271	0.156	0.221	0.218	0.227	0.224	0.234	0.220	0.221	14.27
50)	TP	Dibromomethane		0.103	0.133	0.124	0.127	0.133	0.131	0.131	0.126	8.58
51)	TP	1,2-Dichloropr...		0.163	0.223	0.215	0.223	0.226	0.223	0.225	0.214	10.72
53)	TP	2-Chloroethyl ...		0.099	0.129	0.126	0.132	0.141	0.139	0.139	0.129	11.23
54)	TP	Bromodichlorom...		0.230	0.282	0.294	0.298	0.308	0.304	0.306	0.289#	9.54
57)	TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.91
58)	TP	cis-1,3-Dichlo...	0.325	0.253	0.327	0.331	0.340	0.347	0.346	0.347	0.327	9.52
59)	I	Chlorobenzene-d5	----------ISTD----------									
60)	S	Toluene-d8	1.314	1.332	1.318	1.309	1.324	1.310	1.332	1.342	1.323	0.91
61)	TP	Toluene		0.545	0.718	0.716	0.729	0.729	0.722	0.712	0.696	9.59
62)	TP	4-Methyl-2-pen...		0.092	0.098	0.091	0.097	0.101	0.102	0.101	0.097	4.39
63)	TP	Tetrachloroethene		0.237	0.292	0.314	0.322	0.317	0.313	0.311	0.301	9.84
65)	TP	trans-1,3-Dich...	0.424	0.306	0.394	0.393	0.416	0.431	0.438	0.443	0.406	10.96
67)	TP	Ethyl methacry...		0.274	0.357	0.351	0.369	0.387	0.390	0.392	0.360	11.46
68)	TP	1,1,2-Trichlor...		0.203	0.212	0.203	0.211	0.217	0.218	0.218	0.212	3.10
69)	TP	Chlorodibromom...		0.212	0.283	0.291	0.307	0.318	0.319	0.319	0.293	13.14
70)	TP	1,3-Dichloropr...		0.363	0.428	0.417	0.427	0.434	0.435	0.436	0.420	6.16
71)	TP	1,2-Dibromoethane		0.210	0.250	0.251	0.256	0.262	0.263	0.262	0.250	7.43
72)	TP	2-Hexanone		0.138	0.170	0.162	0.179	0.188	0.193	0.191	0.174	11.34
73)	TP	Chlorobenzene		0.544	0.761	0.763	0.773	0.796	0.798	0.800	0.748	12.24

Method Path : K:\Gonzo\2024\241003AICAL\
Method File : G_241003A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Oct 04 09:30:18 2024
Response Via : Initial Calibration

Calibration Files
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L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
74)	TP	Ethylbenzene		0.993	1.323	1.332	1.384	1.434	1.441	1.455	1.337	12.01
75)	TP	1,1,1,2-Tetrac...		0.212	0.277	0.287	0.300	0.309	0.309	0.311	0.287	12.36
76)	TP	p/m Xylene		0.357	0.511	0.520	0.536	0.544	0.543	0.551	0.509	13.45
77)	TP	o Xylene		0.339	0.493	0.505	0.523	0.528	0.531	0.531	0.493	14.07
78)	TP	Styrene		0.581	0.817	0.859	0.898	0.938	0.938		0.839	16.08
79)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80)	TP	Bromoform		0.246	0.325	0.343	0.386	0.410	0.408	0.398	0.359	16.63
82)	TP	Isopropylbenzene		1.496	2.138	2.263	2.364	2.426	2.386	2.401	2.211	14.95
83)	S	4-Bromofluorob...	0.890	0.884	0.867	0.856	0.865	0.885	0.880	0.885	0.876	1.38
84)	TP	Bromobenzene		0.450	0.629	0.619	0.628	0.632	0.623	0.609	0.598	11.01
85)	TP	n-Propylbenzene		1.734	2.567	2.600	2.741	2.849	2.792	2.737	2.574	14.90
86)	TP	1,4-Dichlorobu...		0.759	0.814	0.832	0.881	0.934	0.936	0.936	0.870	8.08
87)	TP	1,1,2,2-Tetrac...		0.491	0.558	0.544	0.567	0.604	0.552	0.601	0.560	6.83
88)	TP	4-Ethyltoluene		1.451	2.043	2.136	2.236	2.319	2.282	2.287	2.108	14.48
89)	TP	2-Chlorotoluene		1.097	1.560	1.551	1.646	1.709	1.691	1.737	1.570	14.05
90)	TP	1,3,5-Trimethy...		1.387	1.807	1.888	1.984	2.020	1.986	1.991	1.866	12.01
91)	TP	1,2,3-Trichlor...		0.385	0.442	0.437	0.475	0.497	0.491	0.473	0.457	8.55
92)	TP	trans-1,4-Dich...		0.152	0.172	0.173	0.187	0.202	0.204	0.202	0.184	10.76
93)	TP	4-Chlorotoluene		1.185	1.606	1.676	1.722	1.796	1.780	1.804	1.653	13.20
94)	TP	tert-Butylbenzene		1.012	1.470	1.521	1.575	1.586	1.570	1.568	1.472	14.04
97)	TP	1,2,4-Trimethy...		1.310	1.783	1.824	1.912	1.971	1.963	1.984	1.821	13.07
98)	TP	sec-Butylbenzene		1.410	2.016	2.190	2.310	2.335	2.303	2.298	2.123	15.70
99)	TP	p-Isopropyltol...		1.252	1.735	1.852	1.911	1.953	1.940	1.962	1.801	14.14
100)	TP	1,3-Dichlorobe...		0.838	1.090	1.087	1.145	1.166	1.145	1.158	1.090	10.59
101)	TP	1,4-Dichlorobe...		0.928	1.180	1.126	1.163	1.183	1.162	1.183	1.132	8.15
102)	TP	p-Diethylbenzene		0.682	0.978	1.024	1.066	1.110	1.095	1.116	1.010	15.14
103)	TP	n-Butylbenzene		0.998	1.315	1.475	1.522	1.613	1.594	1.633	1.450	15.65
104)	TP	1,2-Dichlorobe...		0.792	1.071	1.077	1.089	1.116	1.097	1.115	1.051	11.00
105)	TP	1,2,4,5-Tetram...		1.021	1.340	1.393	1.455	1.548	1.572	1.615	1.421	14.22
106)	TP	1,2-Dibromo-3-...		0.083	0.086	0.087	0.095	0.099	0.103	0.099	0.093	8.28
107)	TP	1,3,5-Trichlor...		0.504	0.656	0.671	0.706	0.714	0.699	0.679	0.661	10.95

Method Path : K:\Gonzo\2024\241003AICAL\
Method File : G_241003A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Oct 04 09:30:18 2024
Response Via : Initial Calibration

Calibration Files
L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D
L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

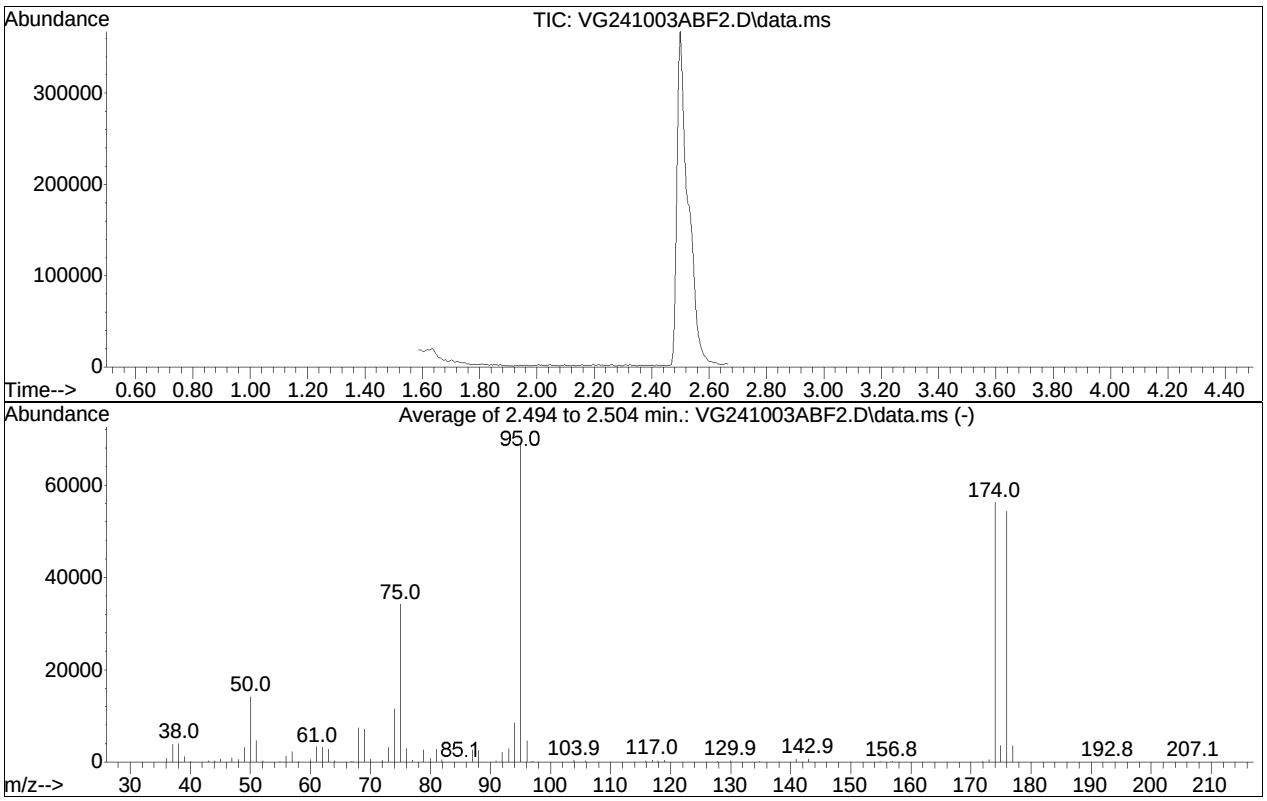
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
108) TP	Hexachlorobuta...	0.171	0.195	0.211	0.226	0.236	0.226	0.222	0.212	10.54	
109) TP	1,2,4-Trichlor...	0.406	0.534	0.574	0.603	0.626	0.604	0.581	0.561	13.27	
110) TP	Naphthalene	0.884	1.087	1.139	1.229	1.333	1.340	1.307	1.188	13.93	
111) TP	1,2,3-Trichlor...	0.370	0.449	0.476	0.502	0.524	0.503	0.463	0.469	10.85	

(#) = Out of Range

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003ABF2.D
Acq On : 3 Oct 2024 3:49 am
Operator : GONZO:TMS
Sample : WG1980167-1
Misc : WG1980167
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Oct 04 09:30:18 2024



AutoFind: Scans 174, 175, 176; Background Corrected with Scan 166

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	14227	PASS
75	95	30	60	49.5	34275	PASS
95	95	100	100	100.0	69184	PASS
96	95	5	9	6.8	4673	PASS
173	174	0.00	2	1.0	569	PASS
174	95	50	100	81.3	56267	PASS
175	174	5	9	6.5	3636	PASS
176	174	95	101	96.5	54280	PASS
177	176	5	9	6.7	3655	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A03.D
Acq On : 3 Oct 2024 4:54 am
Operator : GONZO:MKS
Sample : I8260STD0.19PPB
Misc : WG1980167
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 04 09:10:49 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.063	96	595698	10.000	ug/L	0.00
Standard Area 1 = 615193			Recovery =	96.83%		
59) Chlorobenzene-d5	9.604	117	434360	10.000	ug/L	0.00
Standard Area 1 = 451007			Recovery =	96.31%		
79) 1,4-Dichlorobenzene-d4	12.294	152	234491	10.000	ug/L	0.00
Standard Area 1 = 256709			Recovery =	91.35%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.258	113	151886	10.167	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.67%		
43) 1,2-Dichloroethane-d4	5.782	65	170887	9.653	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.53%		
60) Toluene-d8	7.750	98	570920	10.044	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.44%		
83) 4-Bromofluorobenzene	11.093	95	208648	10.393	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.93%		
Target Compounds						Qvalue
4) Vinyl chloride	1.930	62	2517	0.169	ug/L #	42
34) Carbon tetrachloride	5.205	117	2953	0.173	ug/L #	86
41) Benzene	5.645	78	8902	0.174	ug/L #	85
48) Trichloroethene	6.253	95	3068	0.237	ug/L #	81
58) cis-1,3-Dichloropropene	7.557	75	3679	0.187	ug/L #	70
65) trans-1,3-Dichloropropene	8.316	75	3498	0.205	ug/L #	67

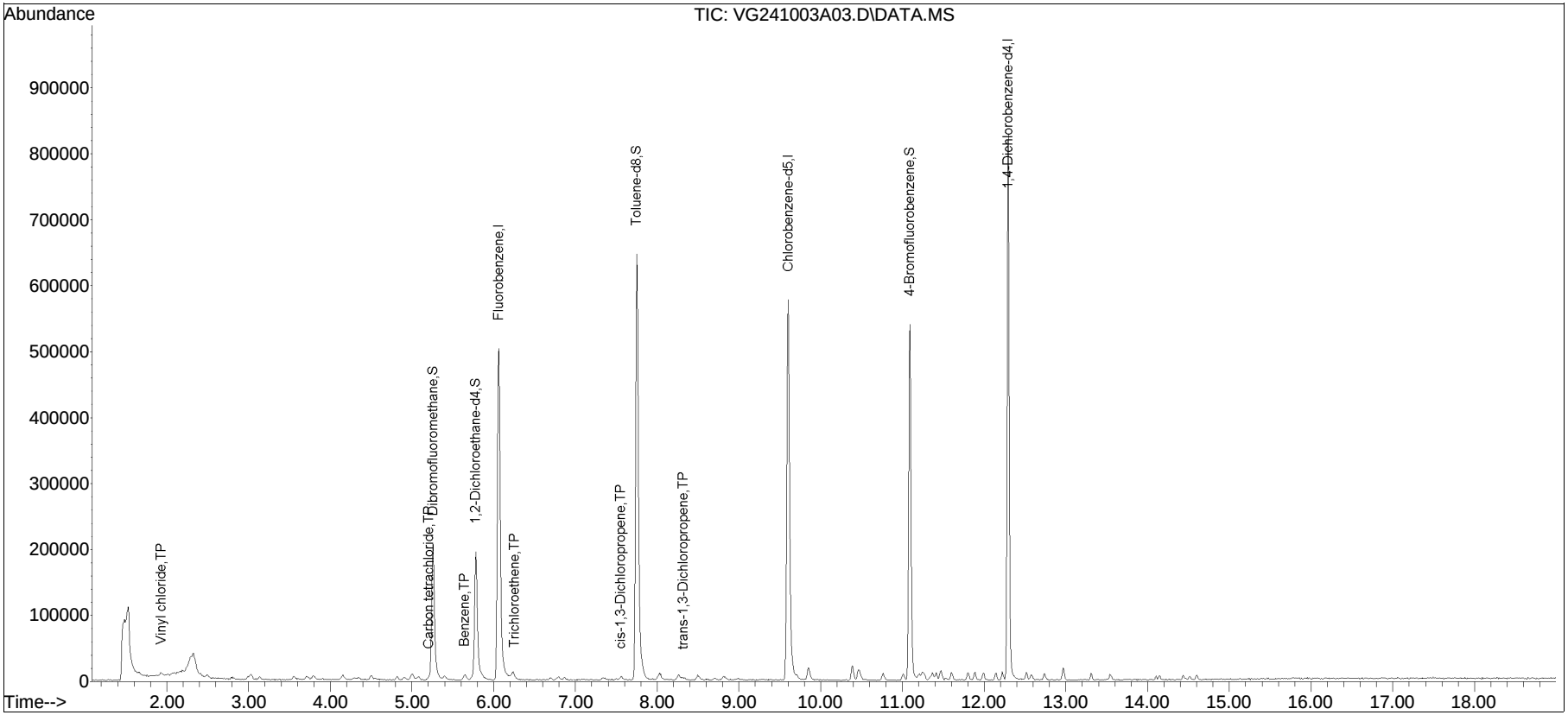
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A03.D
Acq On : 3 Oct 2024 4:54 am
Operator : GONZO:MKS
Sample : I8260STD0.19PPB
Misc : WG1980167
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 04 09:10:49 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

Sub List : 8260-L11_MCP - L11 MCP03AICAL\VG241003A09.D•



Manual Integration Report

Data Path	: K:\Gonzo\2024\241003AICAL\	QMethod	: G_241003A_8260.m
Data File	: VG241003A03.D	Operator	: GONZO:MKS
Date Inj'd	: 10/3/2024 4:54 am	Instrument	: Gonzo
Sample	: I8260STD0.19PPB	Quant Date	: 10/4/2024 9:08 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A05.D
Acq On : 3 Oct 2024 5:42 am
Operator : GONZO:MKS
Sample : I8260STD0.5PPB
Misc : WG1980167
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 04 09:16:04 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.063	96	596666	10.000	ug/L	0.00
Standard Area 1 = 615193			Recovery =	96.99%		
59) Chlorobenzene-d5	9.604	117	429554	10.000	ug/L	0.00
Standard Area 1 = 451007			Recovery =	95.24%		
79) 1,4-Dichlorobenzene-d4	12.294	152	236345	10.000	ug/L	0.00
Standard Area 1 = 256709			Recovery =	92.07%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.258	113	147709	9.871	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.71%		
43) 1,2-Dichloroethane-d4	5.782	65	167521	9.447	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	94.47%		
60) Toluene-d8	7.750	98	572236	10.180	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.80%		
83) 4-Bromofluorobenzene	11.093	95	208924	10.325	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.25%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	4686	0.338	ug/L #	89
3) Chloromethane	1.870	50	6853	0.490	ug/L	94
4) Vinyl chloride	1.930	62	4480	0.300	ug/L	69
5) Bromomethane	2.242	94	4351	0.592	ug/L	93
6) Chloroethane	2.341	64	3848	0.448	ug/L	98
7) Trichlorofluoromethane	2.493	101	5879	0.298	ug/L	98
8) Ethyl ether	2.804	74	2704	0.406	ug/L #	65
10) 1,1-Dichloroethene	2.994	96	3872	0.361	ug/L	95
11) Carbon disulfide	3.024	76	11470	0.357	ug/L	99
12) Freon-113	3.017	101	3191	0.271	ug/L #	43
13) Iodomethane	3.138	142	7353	0.407	ug/L	95
14) Acrolein	3.343	56	873M1	0.510	ug/L	
15) Methylene chloride	3.556	84	6068	0.490	ug/L	86
17) Acetone	3.609	43	4592M3	1.543	ug/L	
18) trans-1,2-Dichloroethene	3.708	96	3869	0.331	ug/L	85
19) Methyl acetate	3.716	43	4046M4	0.579	ug/L	
20) Methyl tert-butyl ether	3.792	73	16544	0.442	ug/L #	81
21) tert-Butyl alcohol	3.890	59	2835	2.528	ug/L #	80
22) Diisopropyl ether	4.149	45	17335	0.400	ug/L #	88
23) 1,1-Dichloroethane	4.293	63	7756	0.339	ug/L	96
24) Halothane	4.339	117	3141	0.333	ug/L	87

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A05.D
Acq On : 3 Oct 2024 5:42 am
Operator : GONZO:MKS
Sample : I8260STD0.5PPB
Misc : WG1980167
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 04 09:16:04 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.361	53	1836M1	0.478	ug/L		
26) Ethyl tert-butyl ether	4.506	59	16870	0.432	ug/L	#	64
27) Vinyl acetate	4.544	43	9217M4	0.291	ug/L		
28) cis-1,2-Dichloroethene	4.817	96	4552	0.337	ug/L		90
29) 2,2-Dichloropropane	4.908	77	5639	0.377	ug/L		83
30) Bromochloromethane	5.007	128	2641	0.430	ug/L	#	76
31) Cyclohexane	5.000	56	7228	0.317	ug/L		84
32) Chloroform	5.076	83	7837	0.362	ug/L		91
33) Ethyl acetate	5.197	43	5679M3	0.509	ug/L		
34) Carbon tetrachloride	5.212	117	5026M1	0.293	ug/L		
35) Tetrahydrofuran	5.243	42	2013M3	0.557	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	6324	0.320	ug/L		95
39) 2-Butanone	5.402	43	2571	0.557	ug/L	#	52
40) 1,1-Dichloropropene	5.402	75	4958	0.292	ug/L		91
41) Benzene	5.645	78	17062	0.333	ug/L		93
42) tert-Amyl methyl ether	5.744	73	14112	0.397	ug/L		91
44) 1,2-Dichloroethane	5.858	62	7287	0.441	ug/L		98
47) Methyl cyclohexane	6.223	83	6483	0.331	ug/L	#	65
48) Trichloroethene	6.246	95	4651	0.358	ug/L	#	89
50) Dibromomethane	6.694	93	3062	0.415	ug/L		95
51) 1,2-Dichloropropane	6.785	63	4849	0.378	ug/L		91
53) 2-Chloroethyl vinyl ether	7.500	63	2946	0.391	ug/L		95
54) Bromodichloromethane	6.861	83	6849	0.390	ug/L		97
57) 1,4-Dioxane	7.084	88	12840	104.991	ug/L	#	86
58) cis-1,3-Dichloropropene	7.557	75	7559	0.383	ug/L	#	82
61) Toluene	7.815	92	11712	0.381	ug/L		97
62) 4-Methyl-2-pentanone	8.266	58	1986	0.507	ug/L		90
63) Tetrachloroethene	8.266	166	5095	0.377	ug/L		97
65) trans-1,3-Dichloropropene	8.316	75	6565	0.389	ug/L		92
67) Ethyl methacrylate	8.502	69	5882	0.390	ug/L		97
68) 1,1,2-Trichloroethane	8.488	83	4365	0.501	ug/L		88
69) Chlorodibromomethane	8.703	129	4555	0.365	ug/L		88
70) 1,3-Dichloropropane	8.810	76	7807	0.436	ug/L		99
71) 1,2-Dibromoethane	8.975	107	4509	0.418	ug/L		98
72) 2-Hexanone	9.276	43	2957M4	0.425	ug/L		
73) Chlorobenzene	9.620	112	11678	0.356	ug/L	#	56
74) Ethylbenzene	9.662	91	21322	0.373	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.703	131	4548	0.368	ug/L	#	63
76) p/m Xylene	9.851	106	15331	0.687	ug/L		97
77) o Xylene	10.385	106	14558	0.671	ug/L		98

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A05.D
Acq On : 3 Oct 2024 5:42 am
Operator : GONZO:MKS
Sample : I8260STD0.5PPB
Misc : WG1980167
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 04 09:16:04 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.459	104	24938	0.676	ug/L		95
80) Bromoform	10.484	173	2906	0.359	ug/L		100
82) Isopropylbenzene	10.764	105	17678	0.331	ug/L		94
84) Bromobenzene	11.208	156	5318	0.364	ug/L		98
85) n-Propylbenzene	11.241	91	20496	0.333	ug/L		98
86) 1,4-Dichlorobutane	11.266	55	8975	0.456	ug/L		91
87) 1,1,2,2-Tetrachloroethane	11.340	83	5802	0.451	ug/L		92
88) 4-Ethyltoluene	11.364	105	17152	0.340	ug/L		95
89) 2-Chlorotoluene	11.414	91	12959M1	0.354	ug/L		
90) 1,3,5-Trimethylbenzene	11.463	105	16390	0.367	ug/L		95
91) 1,2,3-Trichloropropane	11.480	75	4552	0.441	ug/L		97
92) trans-1,4-Dichloro-2-b...	11.545	53	1792	0.439	ug/L	#	72
93) 4-Chlorotoluene	11.595	91	14005	0.354	ug/L		99
94) tert-Butylbenzene	11.800	119	11963	0.333	ug/L	#	90
97) 1,2,4-Trimethylbenzene	11.883	105	15485	0.359	ug/L		99
98) sec-Butylbenzene	11.990	105	16668	0.322	ug/L		100
99) p-Isopropyltoluene	12.146	119	14795	0.338	ug/L		94
100) 1,3-Dichlorobenzene	12.220	146	9904	0.385	ug/L		98
101) 1,4-Dichlorobenzene	12.310	146	10964	0.412	ug/L	#	77
102) p-Diethylbenzene	12.516	119	8060	0.333	ug/L		96
103) n-Butylbenzene	12.574	91	11797	0.338	ug/L		95
104) 1,2-Dichlorobenzene	12.738	146	9355	0.368	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.306	119	12068	0.367	ug/L		97
106) 1,2-Dibromo-3-chloropr...	13.520	155	984	0.478	ug/L		96
107) 1,3,5-Trichlorobenzene	13.544	180	5952	0.375	ug/L		94
108) Hexachlorobutadiene	14.104	225	2020	0.405	ug/L		91
109) 1,2,4-Trichlorobenzene	14.137	180	4795	0.353	ug/L		92
110) Naphthalene	14.433	128	10452	0.388	ug/L		100
111) 1,2,3-Trichlorobenzene	14.597	180	4371	0.389	ug/L		98

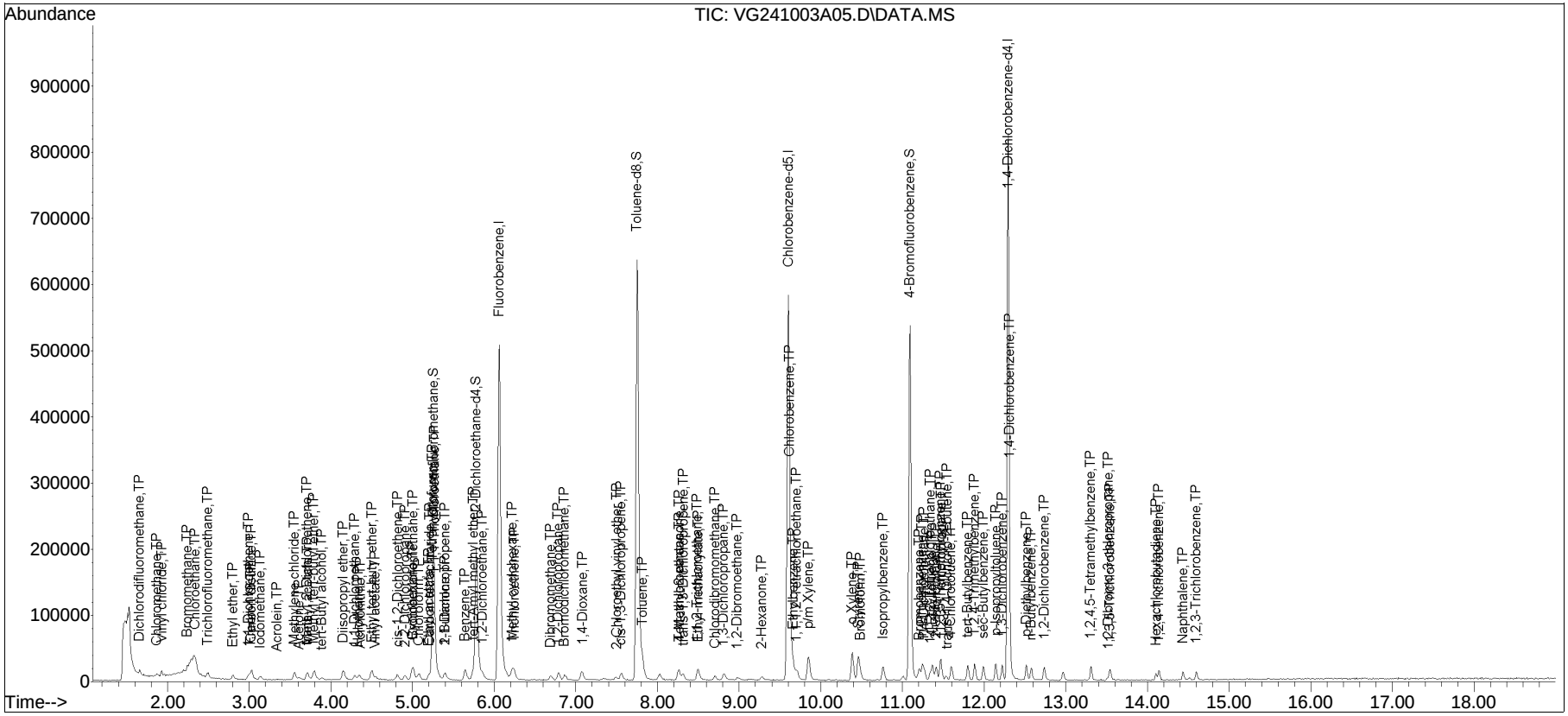
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A05.D
Acq On : 3 Oct 2024 5:42 am
Operator : GONZO:MKS
Sample : I8260STD0.5PPB
Misc : WG1980167
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 04 09:16:04 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

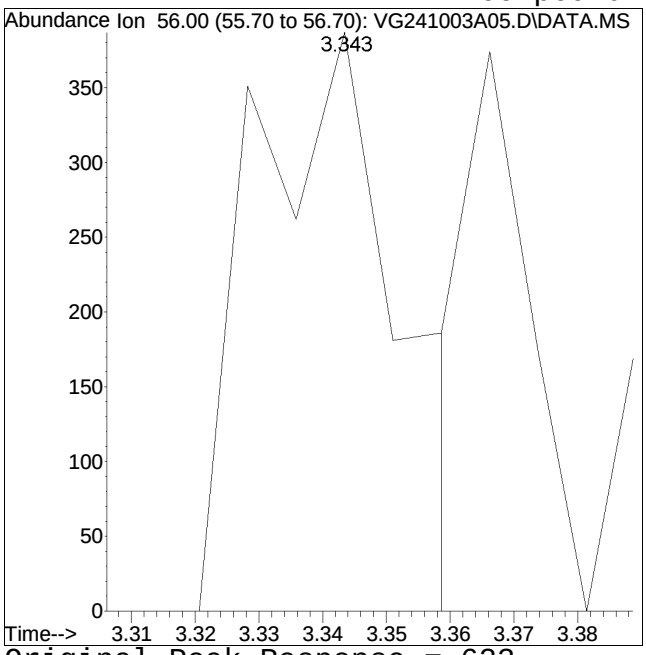
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•



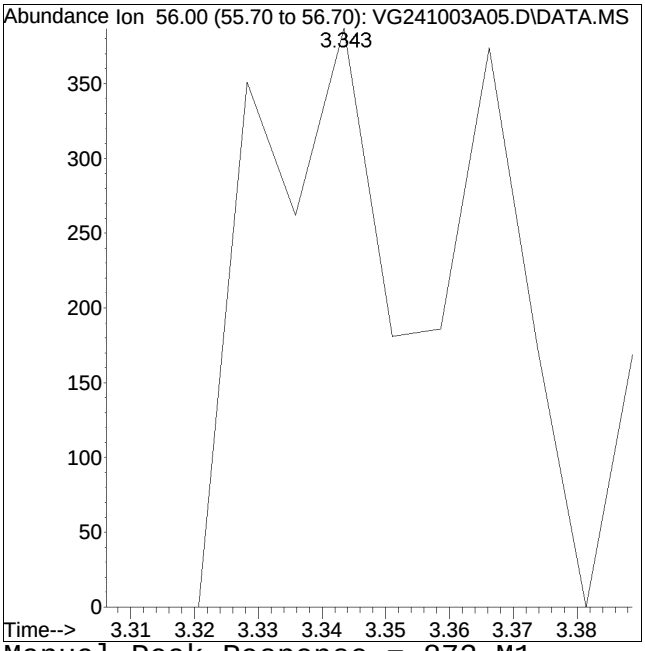
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #14: Acrolein



Original Peak Response = 623



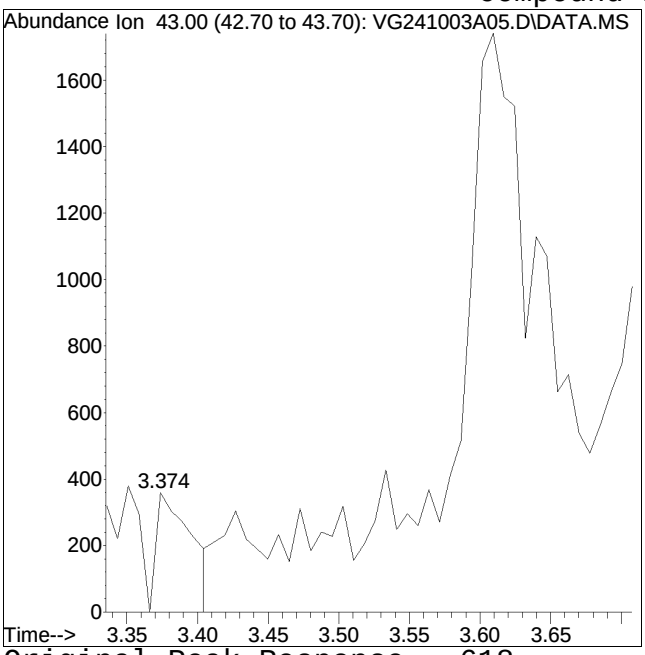
Manual Peak Response = 873 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

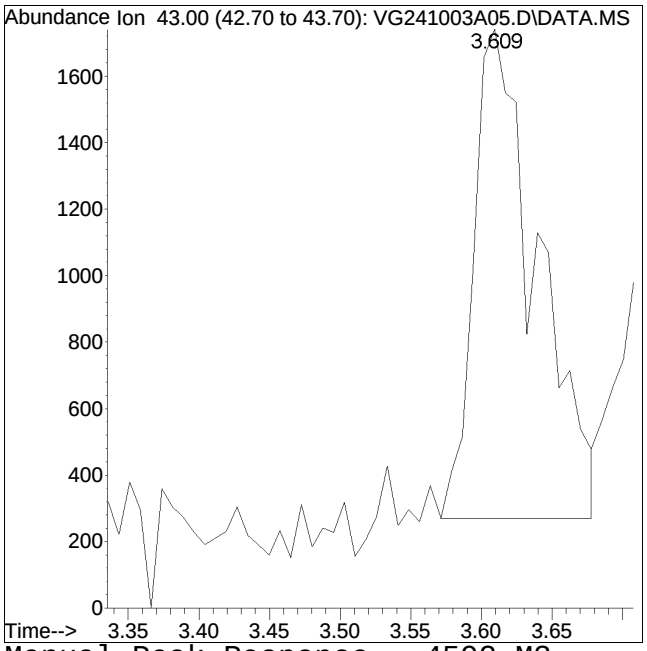
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #17: Acetone



Original Peak Response = 618



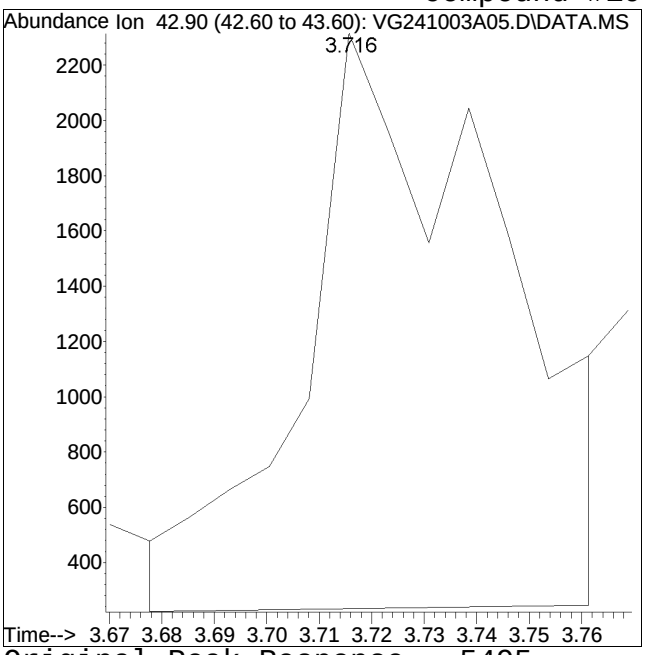
Manual Peak Response = 4592 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

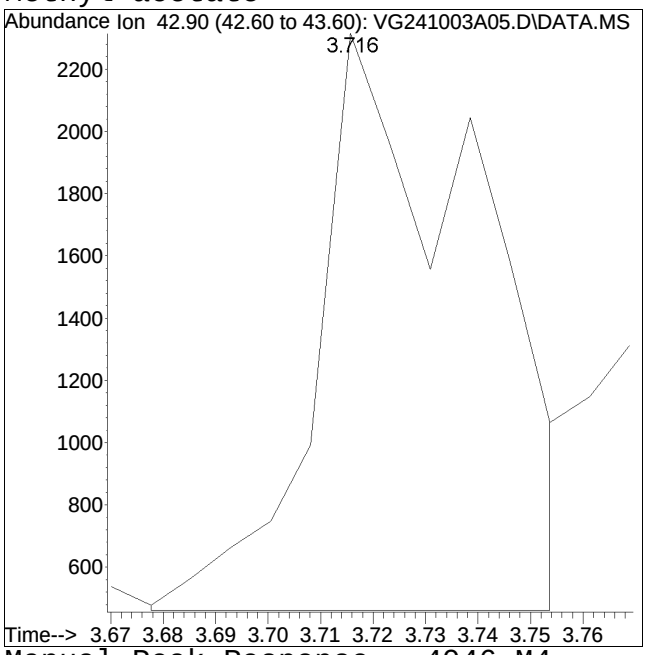
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #19: Methyl acetate



Original Peak Response = 5495



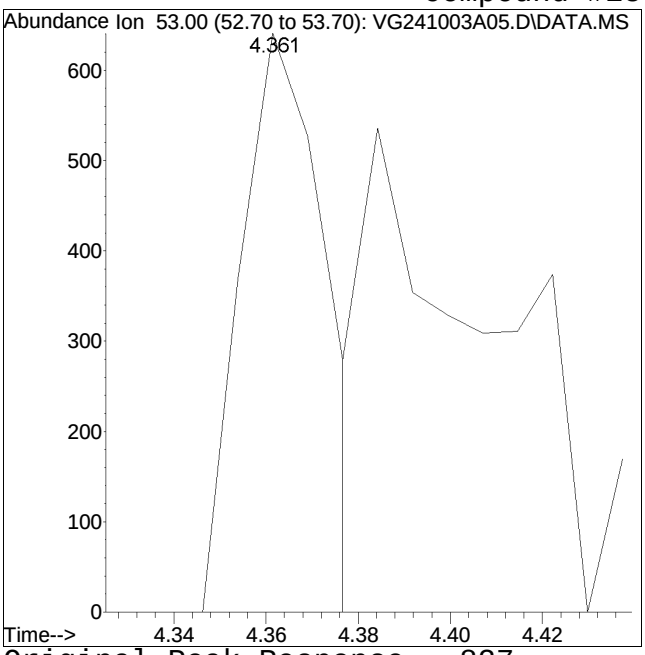
Manual Peak Response = 4046 M4

M4 = Poor automated baseline construction.

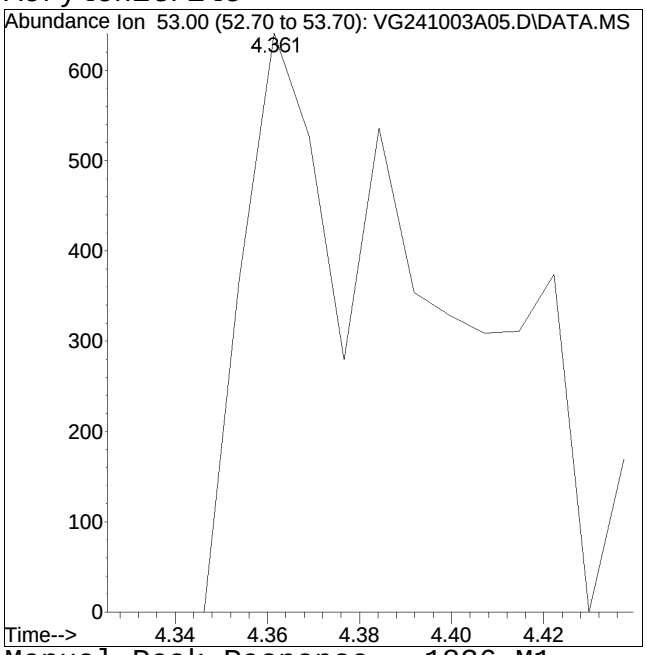
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #25: Acrylonitrile



Original Peak Response = 827



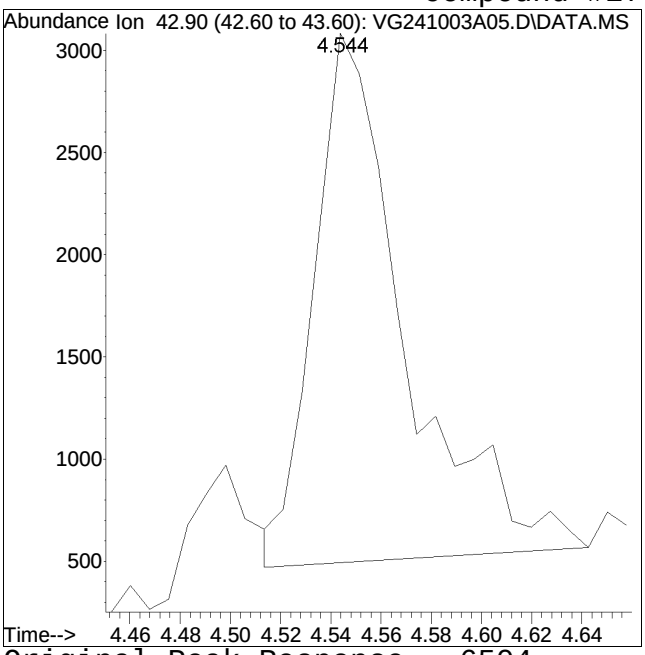
Manual Peak Response = 1836 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

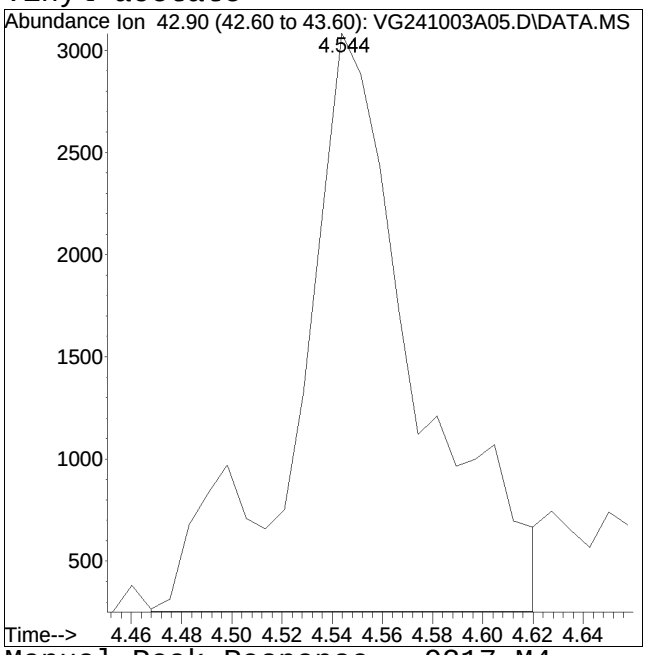
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #27: Vinyl acetate



Original Peak Response = 6504



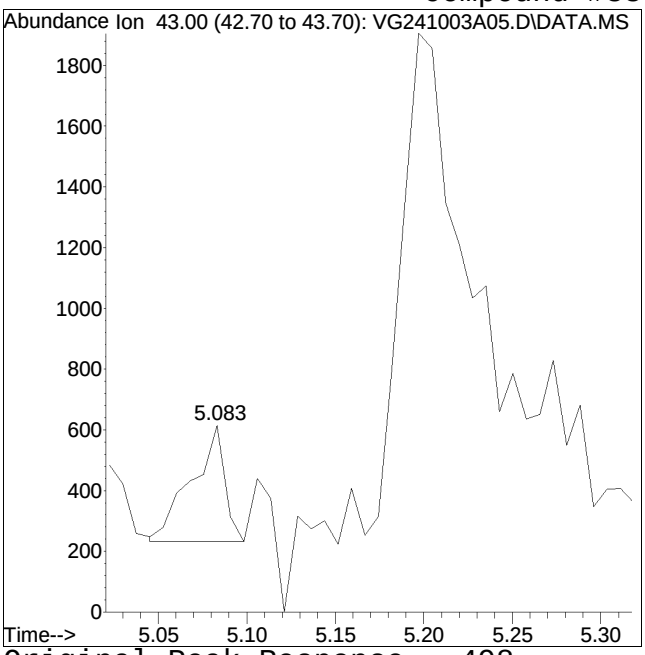
Manual Peak Response = 9217 M4

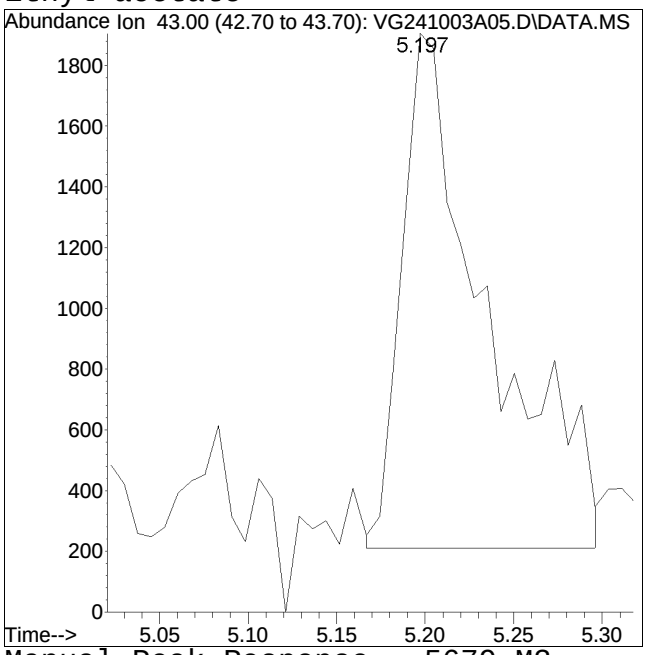
M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #33: Ethyl acetate





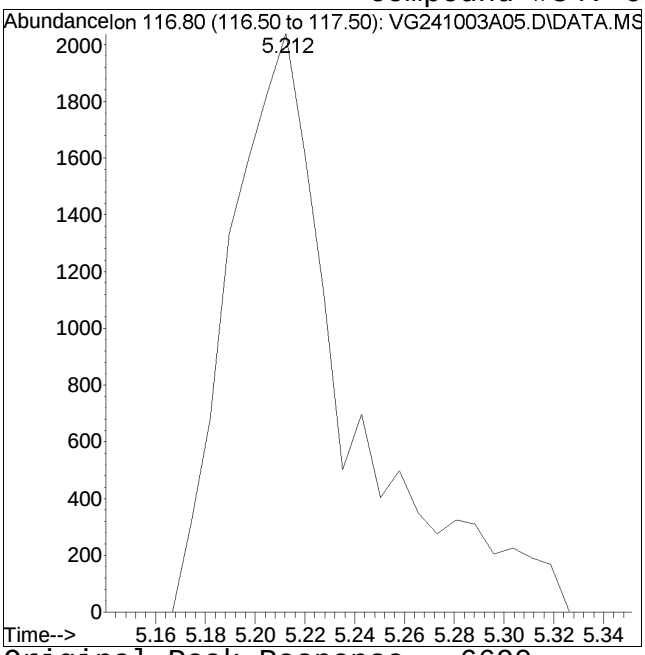
Original Peak Response = 498 Manual Peak Response = 5679 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

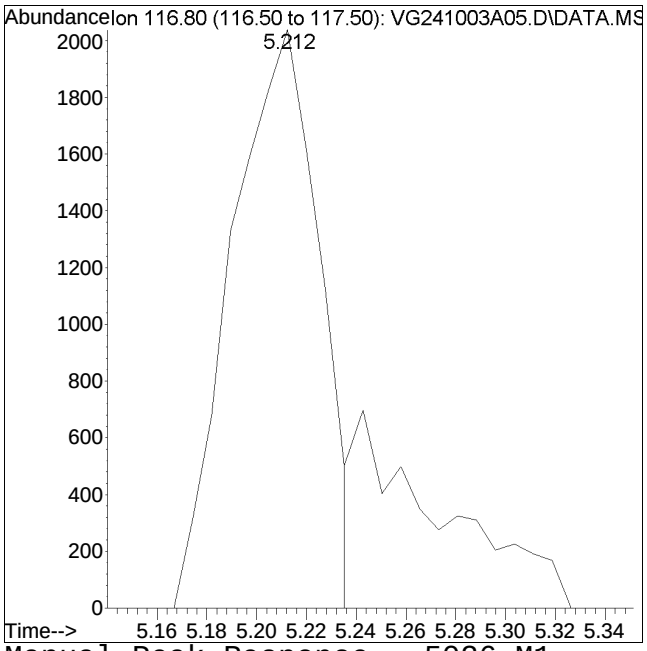
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #34: Carbon tetrachloride



Original Peak Response = 6690



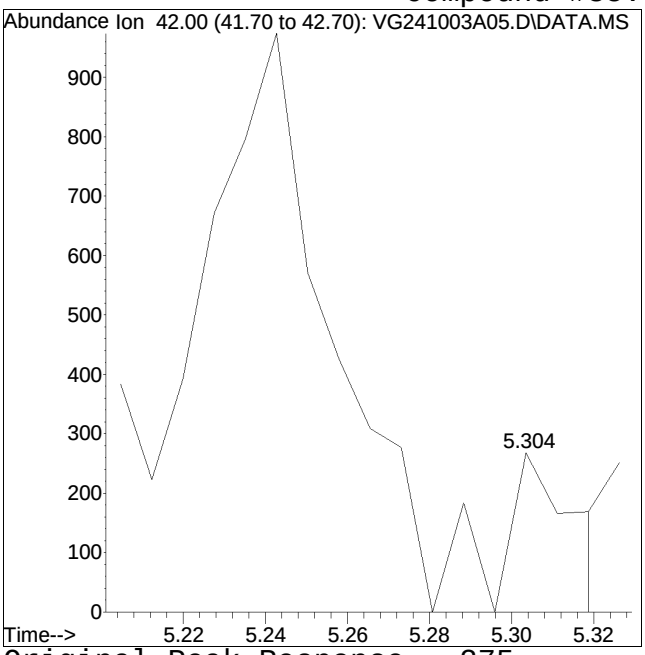
Manual Peak Response = 5026 M1

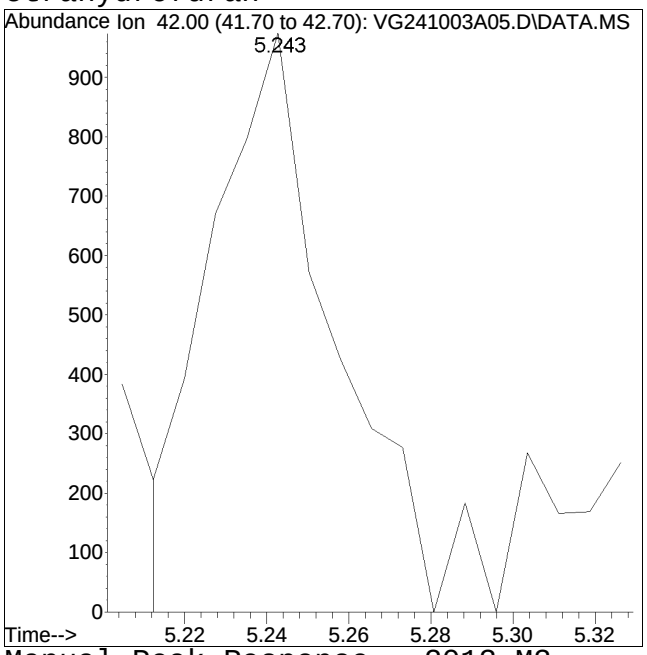
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #35: Tetrahydrofuran





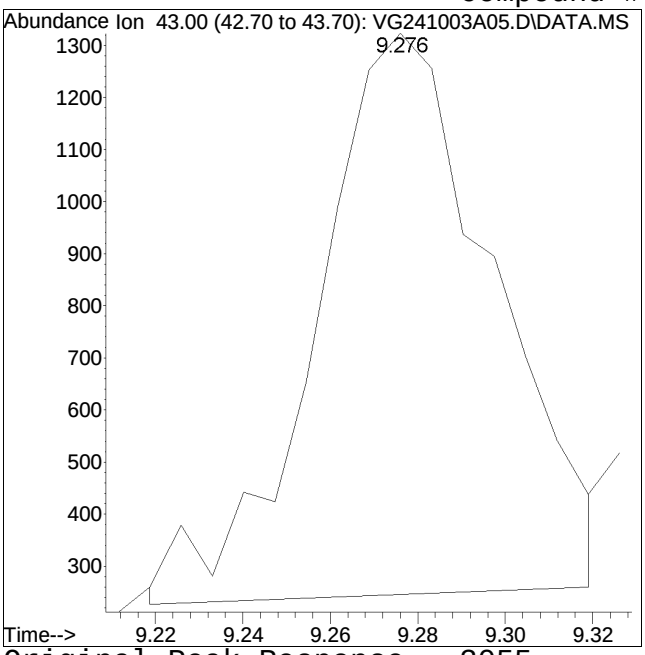
Original Peak Response = 275 Manual Peak Response = 2013 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

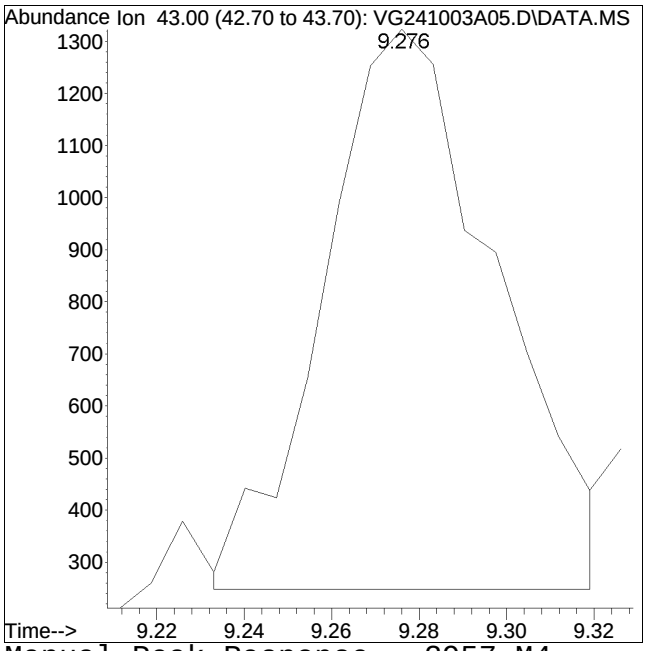
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #72: 2-Hexanone



Original Peak Response = 3055



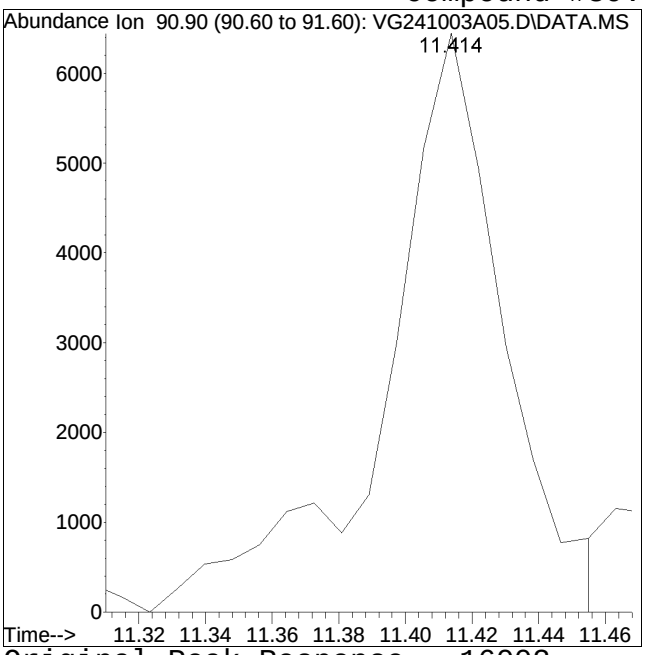
Manual Peak Response = 2957 M4

M4 = Poor automated baseline construction.

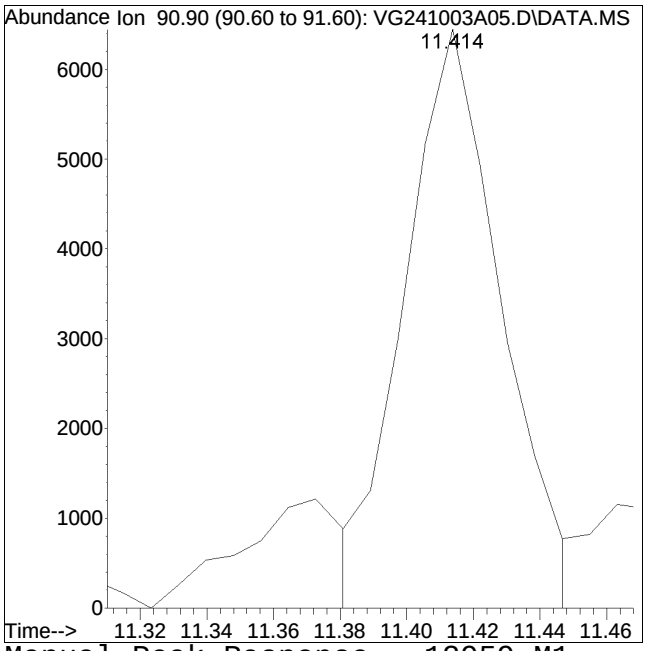
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A05.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 5:42 am Instrument : Gonzo
Sample : I8260STD0.5PPB Quant Date : 10/4/2024 9:08 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 16002



Manual Peak Response = 12959 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A07.D
Acq On : 3 Oct 2024 6:30 am
Operator : GONZO:MKS
Sample : I8260STD2PPB
Misc : WG1980167
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 04 09:17:21 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.063	96	596539	10.000 ug/L	0.00
Standard Area 1 = 615193			Recovery = 96.97%		
59) Chlorobenzene-d5	9.604	117	436643	10.000 ug/L	0.00
Standard Area 1 = 451007			Recovery = 96.82%		
79) 1,4-Dichlorobenzene-d4	12.294	152	240737	10.000 ug/L	0.00
Standard Area 1 = 256709			Recovery = 93.78%		
System Monitoring Compounds					
36) Dibromofluoromethane	5.258	113	147512	9.860 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.60%		
43) 1,2-Dichloroethane-d4	5.782	65	168950	9.530 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.30%		
60) Toluene-d8	7.750	98	575430	10.070 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.70%		
83) 4-Bromofluorobenzene	11.085	95	208719	10.126 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.26%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.665	85	26031	1.876 ug/L	94
3) Chloromethane	1.862	50	28314	2.024 ug/L	94
4) Vinyl chloride	1.931	62	29268	1.962 ug/L	94
5) Bromomethane	2.242	94	16384	2.228 ug/L	96
6) Chloroethane	2.341	64	16876	1.967 ug/L	95
7) Trichlorofluoromethane	2.493	101	36186	1.835 ug/L	100
8) Ethyl ether	2.804	74	12390	1.860 ug/L #	70
10) 1,1-Dichloroethene	2.994	96	21159	1.971 ug/L	93
11) Carbon disulfide	3.025	76	64508	2.007 ug/L	100
12) Freon-113	3.032	101	20512	1.741 ug/L #	63
13) Iodomethane	3.138	142	32462	1.795 ug/L	97
14) Acrolein	3.328	56	4310M3	2.518 ug/L	
15) Methylene chloride	3.556	84	25997	2.100 ug/L	88
17) Acetone	3.617	43	5789M4	1.946 ug/L	
18) trans-1,2-Dichloroethene	3.708	96	23514	2.010 ug/L	93
19) Methyl acetate	3.723	43	13059M4	1.868 ug/L	
20) Methyl tert-butyl ether	3.799	73	75917	2.029 ug/L	93
21) tert-Butyl alcohol	3.883	59	12211	10.893 ug/L #	74
22) Diisopropyl ether	4.149	45	82234	1.898 ug/L	97
23) 1,1-Dichloroethane	4.293	63	45043	1.971 ug/L	98
24) Halothane	4.346	117	17297	1.835 ug/L	98

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A07.D
Acq On : 3 Oct 2024 6:30 am
Operator : GONZO:MKS
Sample : I8260STD2PPB
Misc : WG1980167
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 04 09:17:21 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.362	53	7702	2.006	ug/L	#	88
26) Ethyl tert-butyl ether	4.498	59	76664	1.965	ug/L		85
27) Vinyl acetate	4.529	43	61789	1.951	ug/L		98
28) cis-1,2-Dichloroethene	4.810	96	27480	2.034	ug/L		98
29) 2,2-Dichloropropane	4.909	77	29354	1.965	ug/L		96
30) Bromochloromethane	5.007	128	13245	2.156	ug/L	#	82
31) Cyclohexane	5.000	56	40765	1.789	ug/L		88
32) Chloroform	5.083	83	42807	1.980	ug/L		95
33) Ethyl acetate	5.190	43	20625	1.847	ug/L		98
34) Carbon tetrachloride	5.205	117	33345	1.947	ug/L	#	91
35) Tetrahydrofuran	5.228	42	8150M1	2.254	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	37760	1.909	ug/L		94
39) 2-Butanone	5.380	43	7741M4	1.676	ug/L		
40) 1,1-Dichloropropene	5.395	75	30150	1.777	ug/L		95
41) Benzene	5.646	78	97237	1.899	ug/L		94
42) tert-Amyl methyl ether	5.744	73	69614	1.957	ug/L		97
44) 1,2-Dichloroethane	5.858	62	34209	2.071	ug/L		98
47) Methyl cyclohexane	6.215	83	33622	1.715	ug/L	#	77
48) Trichloroethene	6.246	95	26421	2.036	ug/L		96
50) Dibromomethane	6.694	93	15869	2.150	ug/L		99
51) 1,2-Dichloropropane	6.785	63	26623	2.074	ug/L		99
53) 2-Chloroethyl vinyl ether	7.485	63	15362	2.039	ug/L	#	88
54) Bromodichloromethane	6.861	83	33598	1.914	ug/L		99
57) 1,4-Dioxane	7.070	88	49519	404.995	ug/L	#	86
58) cis-1,3-Dichloropropene	7.550	75	38993	1.975	ug/L	#	89
61) Toluene	7.815	92	62705	2.006	ug/L		99
62) 4-Methyl-2-pentanone	8.252	58	8515	2.139	ug/L	#	87
63) Tetrachloroethene	8.259	166	25540	1.861	ug/L		95
65) trans-1,3-Dichloropropene	8.309	75	34419	2.005	ug/L		96
67) Ethyl methacrylate	8.488	69	31208	2.035	ug/L		91
68) 1,1,2-Trichloroethane	8.495	83	18539	2.095	ug/L		98
69) Chlorodibromomethane	8.703	129	24692	1.946	ug/L		97
70) 1,3-Dichloropropane	8.811	76	37390	2.053	ug/L		96
71) 1,2-Dibromoethane	8.982	107	21866	1.994	ug/L		96
72) 2-Hexanone	9.269	43	14870	2.104	ug/L		88
73) Chlorobenzene	9.621	112	66483	1.996	ug/L		92
74) Ethylbenzene	9.653	91	115540	1.986	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.711	131	24176	1.926	ug/L		96
76) p/m Xylene	9.843	106	89307	3.937	ug/L		99
77) o Xylene	10.386	106	86149	3.908	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A07.D
Acq On : 3 Oct 2024 6:30 am
Operator : GONZO:MKS
Sample : I8260STD2PPB
Misc : WG1980167
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 04 09:17:21 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.451	104	142668	3.802	ug/L		100
80) Bromoform	10.476	173	15665	1.899	ug/L		100
82) Isopropylbenzene	10.764	105	102960	1.890	ug/L		99
84) Bromobenzene	11.200	156	30281	2.033	ug/L		100
85) n-Propylbenzene	11.241	91	123573	1.974	ug/L		98
86) 1,4-Dichlorobutane	11.266	55	39198	1.957	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.340	83	26848	2.049	ug/L		98
88) 4-Ethyltoluene	11.365	105	98347	1.913	ug/L		98
89) 2-Chlorotoluene	11.406	91	75116M1	2.012	ug/L		
90) 1,3,5-Trimethylbenzene	11.463	105	87023	1.915	ug/L		98
91) 1,2,3-Trichloropropane	11.480	75	21267	2.023	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.529	53	8272	1.989	ug/L	#	91
93) 4-Chlorotoluene	11.595	91	77314	1.917	ug/L		99
94) tert-Butylbenzene	11.801	119	70791	1.933	ug/L		99
97) 1,2,4-Trimethylbenzene	11.883	105	85851	1.956	ug/L		97
98) sec-Butylbenzene	11.990	105	97058	1.841	ug/L		98
99) p-Isopropyltoluene	12.146	119	83519	1.873	ug/L		97
100) 1,3-Dichlorobenzene	12.220	146	52480	2.005	ug/L		98
101) 1,4-Dichlorobenzene	12.311	146	56809	2.095	ug/L		96
102) p-Diethylbenzene	12.516	119	47099	1.911	ug/L		99
103) n-Butylbenzene	12.574	91	63295	1.783	ug/L		97
104) 1,2-Dichlorobenzene	12.730	146	51574	1.989	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.306	119	64533	1.924	ug/L		99
106) 1,2-Dibromo-3-chloropr...	13.512	155	4134	1.972	ug/L		93
107) 1,3,5-Trichlorobenzene	13.536	180	31588	1.955	ug/L		96
108) Hexachlorobutadiene	14.104	225	9410	1.854	ug/L		98
109) 1,2,4-Trichlorobenzene	14.137	180	25689	1.858	ug/L		96
110) Naphthalene	14.433	128	52349	1.910	ug/L		100
111) 1,2,3-Trichlorobenzene	14.598	180	21602	1.886	ug/L		100

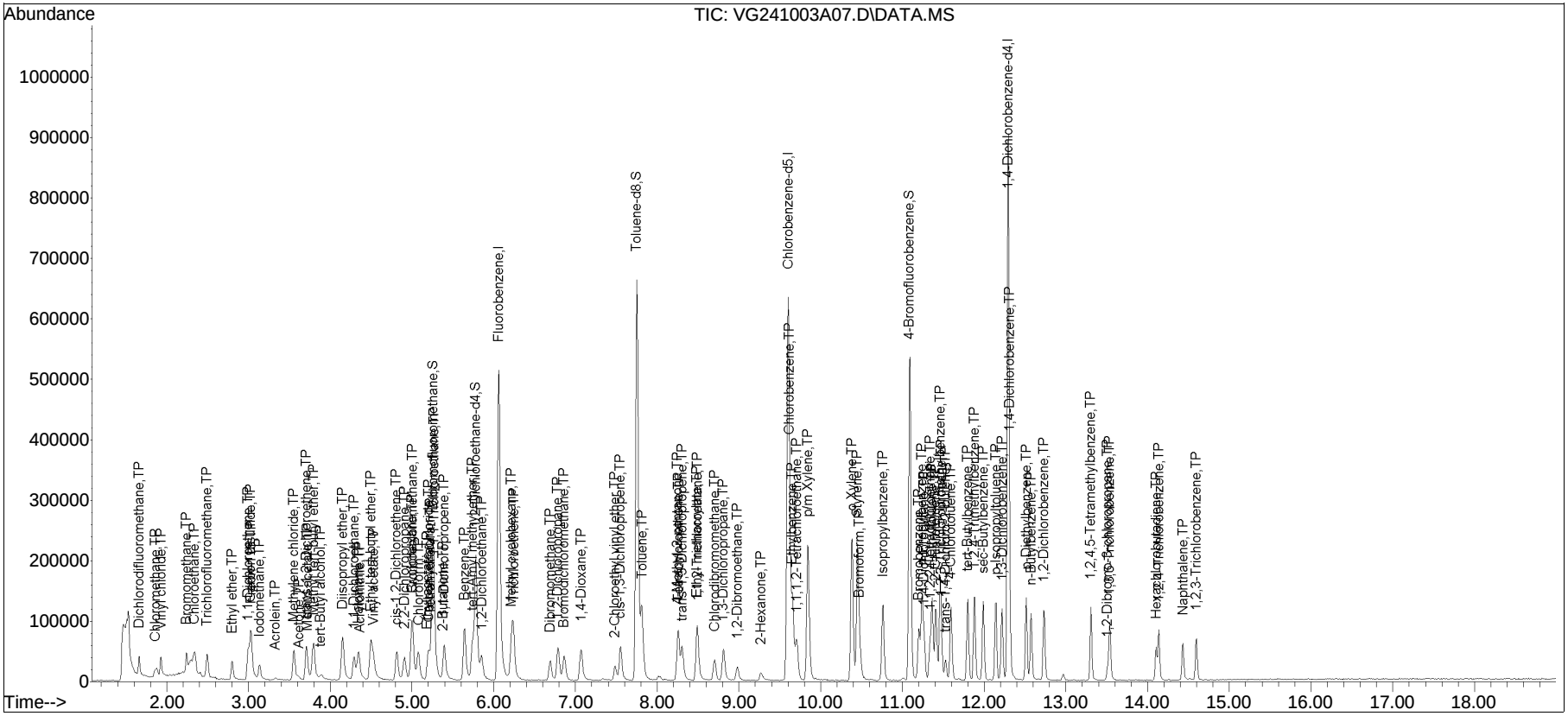
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A07.D
Acq On : 3 Oct 2024 6:30 am
Operator : GONZO:MKS
Sample : I8260STD2PPB
Misc : WG1980167
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 04 09:17:21 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

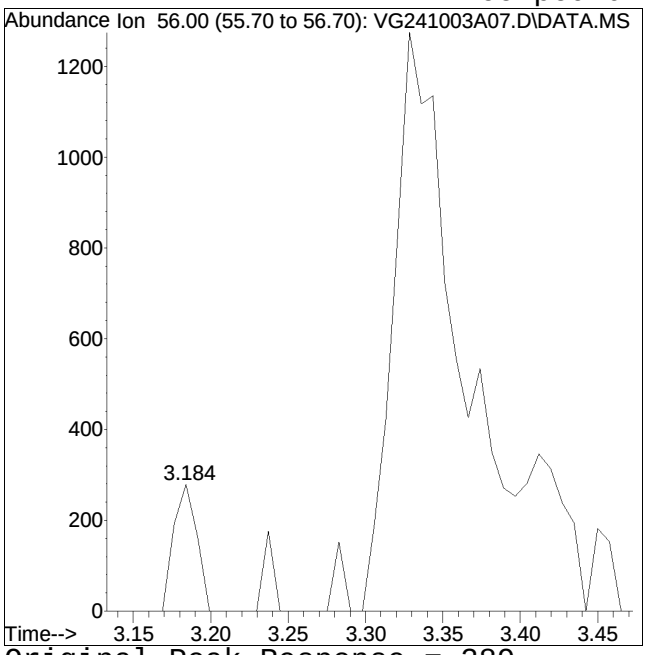
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•



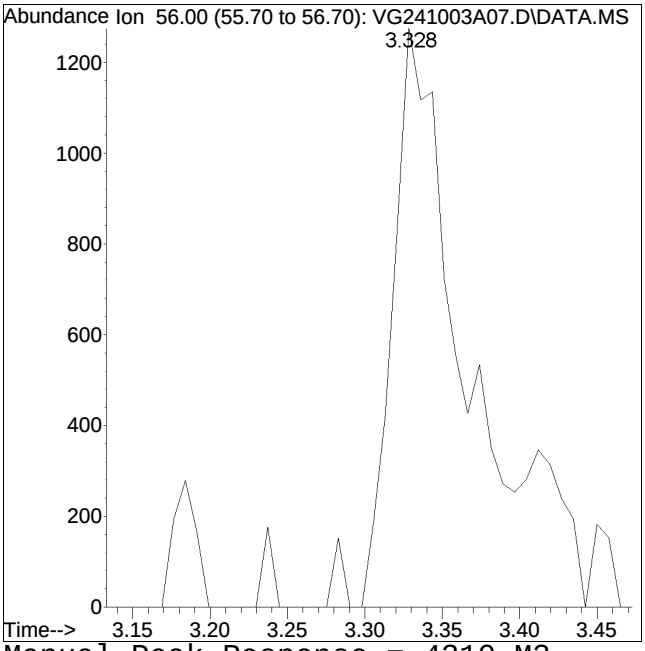
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A07.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 6:30 am Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 10/4/2024 9:08 am

Compound #14: Acrolein



Original Peak Response = 289



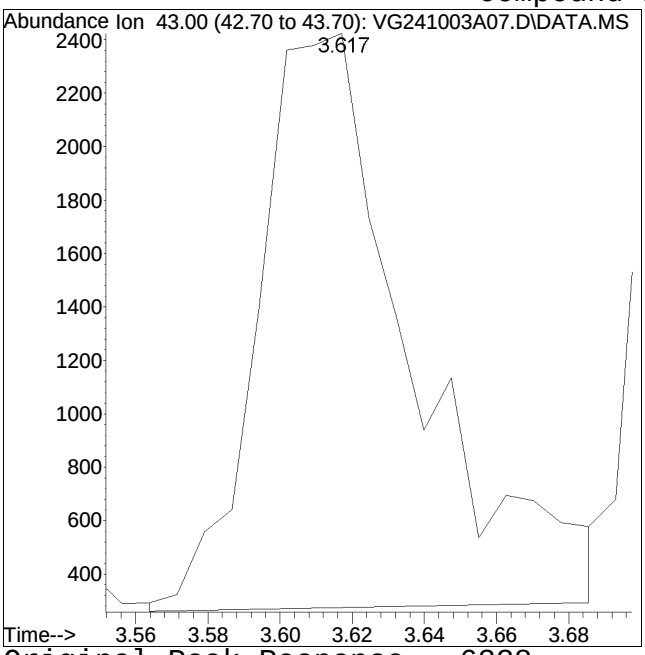
Manual Peak Response = 4310 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

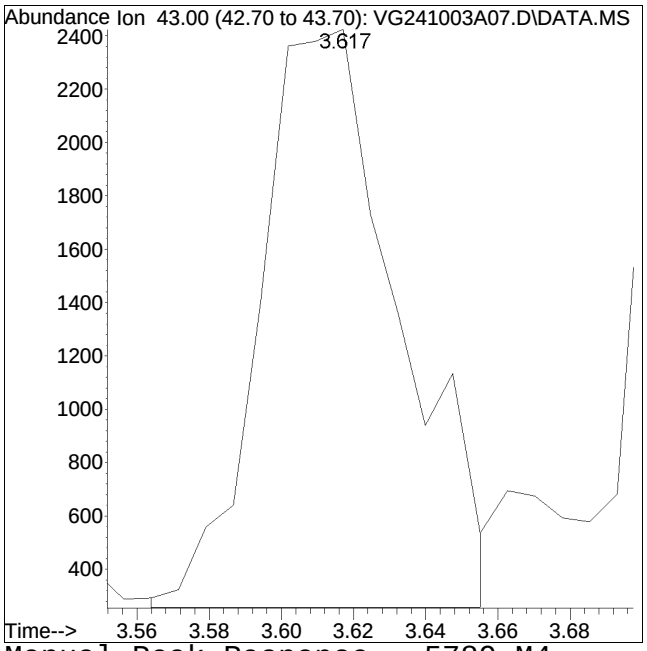
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A07.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 6:30 am Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 10/4/2024 9:08 am

Compound #17: Acetone



Original Peak Response = 6338



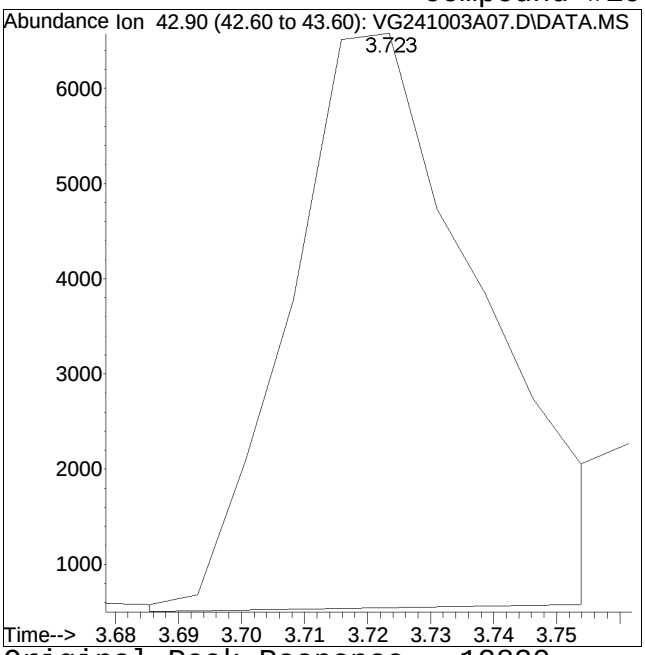
Manual Peak Response = 5789 M4

M4 = Poor automated baseline construction.

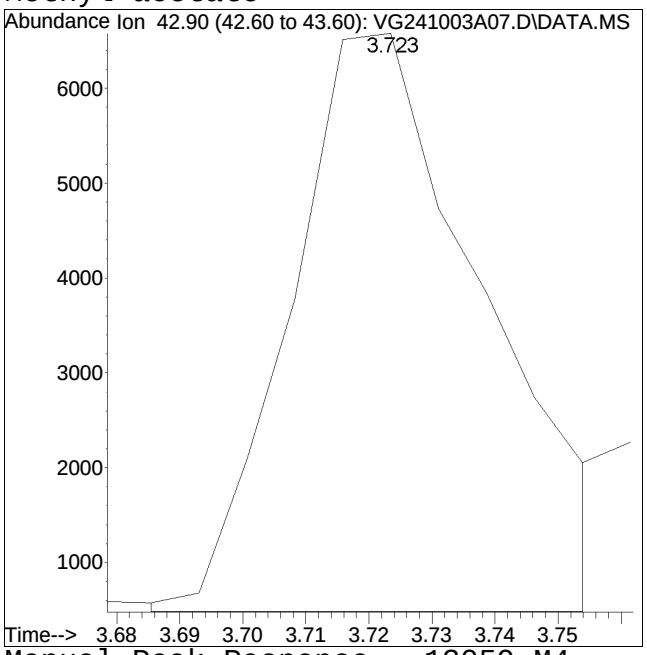
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A07.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 6:30 am Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 10/4/2024 9:08 am

Compound #19: Methyl acetate



Original Peak Response = 12830



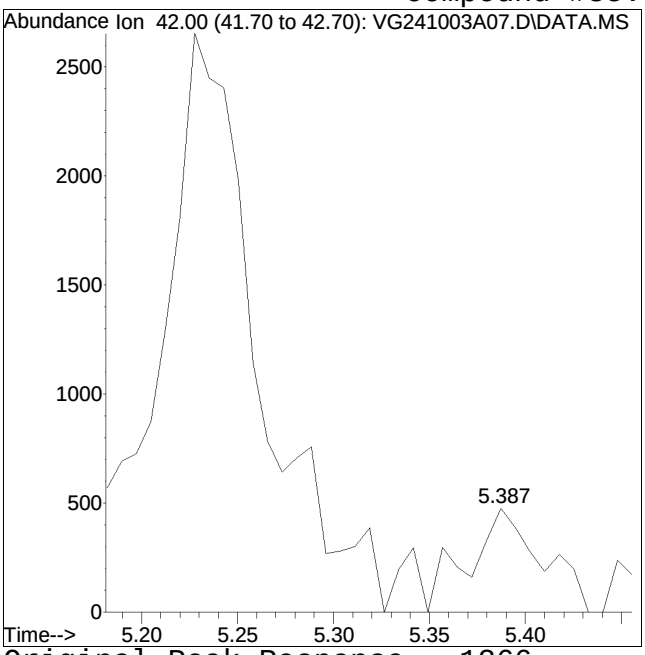
Manual Peak Response = 13059 M4

M4 = Poor automated baseline construction.

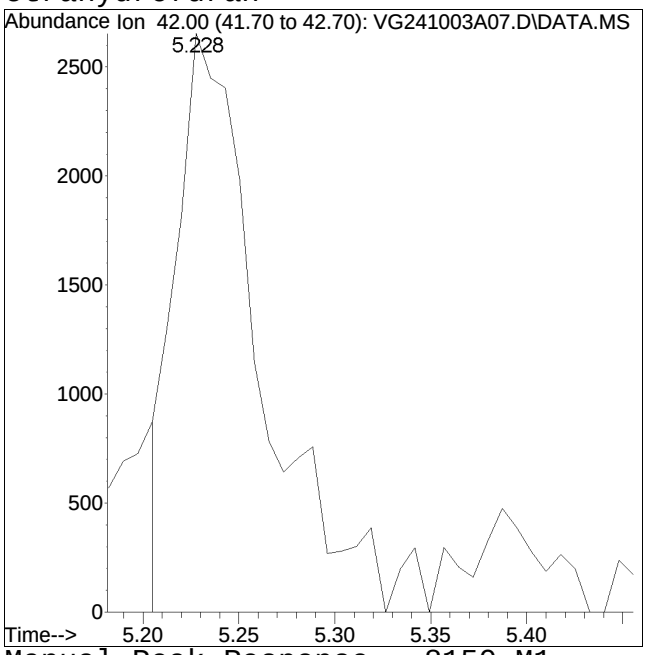
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A07.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 6:30 am Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 10/4/2024 9:08 am

Compound #35: Tetrahydrofuran



Original Peak Response = 1266



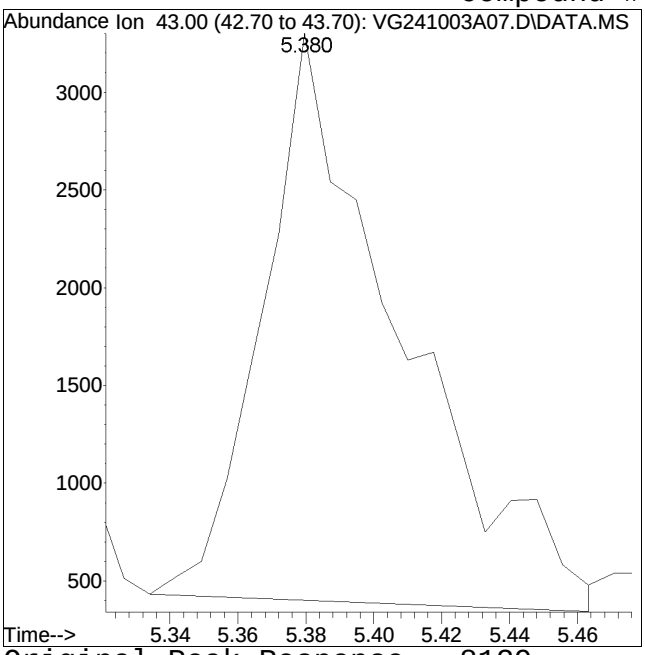
Manual Peak Response = 8150 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

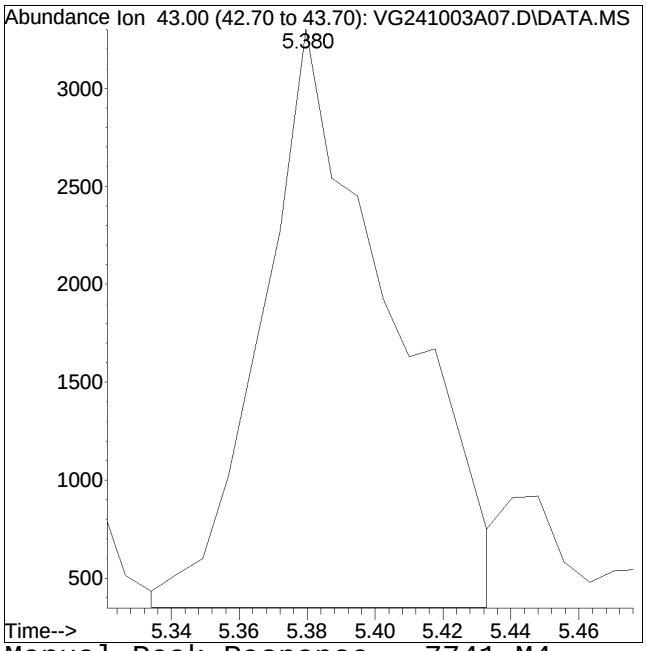
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A07.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 6:30 am Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 10/4/2024 9:08 am

Compound #39: 2-Butanone



Original Peak Response = 8129



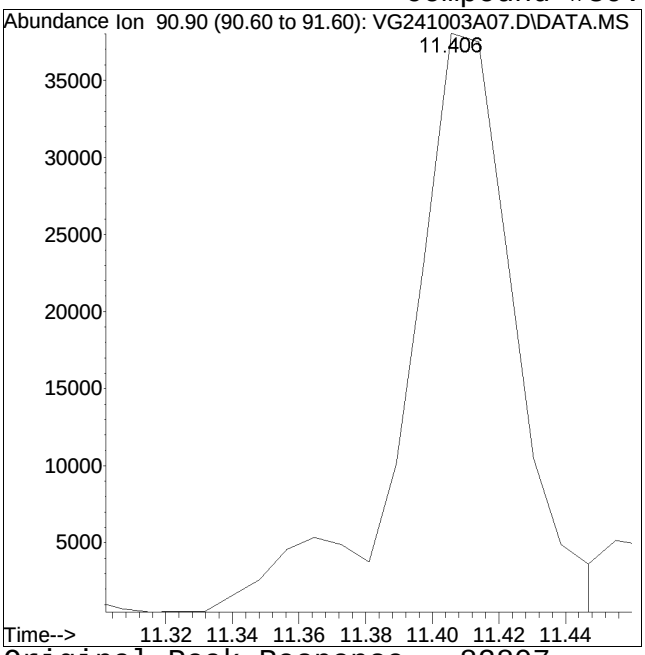
Manual Peak Response = 7741 M4

M4 = Poor automated baseline construction.

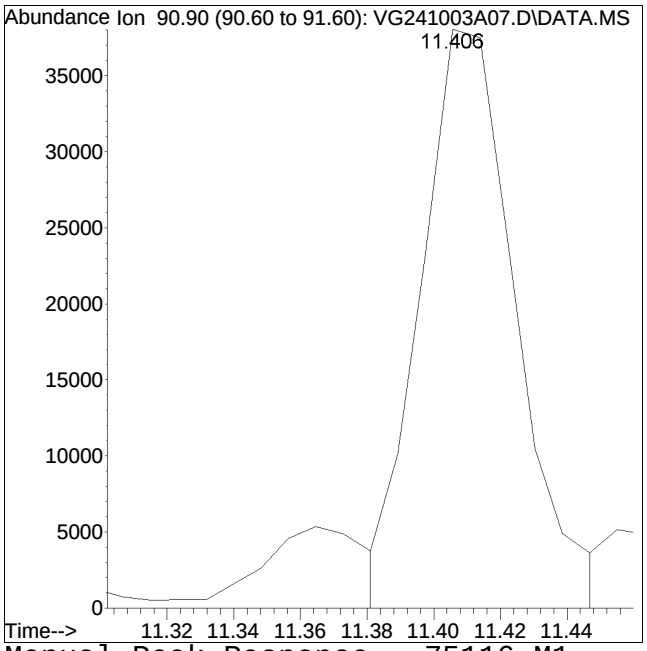
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A07.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 6:30 am Instrument : Gonzo
Sample : I8260STD2PPB Quant Date : 10/4/2024 9:08 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 82807



Manual Peak Response = 75116 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A09.D
Acq On : 3 Oct 2024 7:18 am
Operator : GONZO:MKS
Sample : I8260STD10PPB
Misc : WG1980167
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 04 09:07:29 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.063	96	615193	10.000	ug/L	-0.02
Standard Area 1 = 615193			Recovery = 100.00%			
59) Chlorobenzene-d5	9.604	117	451007	10.000	ug/L	-0.03
Standard Area 1 = 451007			Recovery = 100.00%			
79) 1,4-Dichlorobenzene-d4	12.294	152	256709	10.000	ug/L	-0.02
Standard Area 1 = 256709			Recovery = 100.00%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.258	113	154285	9.602	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.02%			
43) 1,2-Dichloroethane-d4	5.782	65	182827	10.711	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.11%			
60) Toluene-d8	7.750	98	590210	10.424	ug/L	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.24%			
83) 4-Bromofluorobenzene	11.093	95	219790	10.251	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.51%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	143119	8.762	ug/L	98
3) Chloromethane	1.870	50	144248	10.325	ug/L	99
4) Vinyl chloride	1.923	62	153809	10.626	ug/L	99
5) Bromomethane	2.242	94	75825	9.895	ug/L	94
6) Chloroethane	2.341	64	88499M1	7.998	ug/L	
7) Trichlorofluoromethane	2.493	101	203388	9.584	ug/L	99
8) Ethyl ether	2.796	74	68682	9.748	ug/L	83
10) 1,1-Dichloroethene	2.994	96	110729	9.515	ug/L	89
11) Carbon disulfide	3.024	76	331391	9.683	ug/L	100
12) Freon-113	3.032	101	121486	9.514	ug/L	81
13) Iodomethane	3.131	142	186475	8.303	ug/L	97
14) Acrolein	3.321	56	17654	8.821	ug/L	94
15) Methylene chloride	3.556	84	127691	9.280	ug/L	86
17) Acetone	3.594	43	30676	9.434	ug/L	93
18) trans-1,2-Dichloroethene	3.708	96	120623	9.476	ug/L	93
19) Methyl acetate	3.708	43	72102M1	10.188	ug/L	
20) Methyl tert-butyl ether	3.792	73	385891	9.859	ug/L	93
21) tert-Butyl alcohol	3.890	59	57804	53.224	ug/L	97
22) Diisopropyl ether	4.149	45	446851	11.178	ug/L	97
23) 1,1-Dichloroethane	4.293	63	235674	10.221	ug/L	100
24) Halothane	4.346	117	97195	9.193	ug/L	98

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A09.D
Acq On : 3 Oct 2024 7:18 am
Operator : GONZO:MKS
Sample : I8260STD10PPB
Misc : WG1980167
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 04 09:07:29 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.346	53	39586	11.009	ug/L		96
26) Ethyl tert-butyl ether	4.498	59	402259	10.228	ug/L	#	85
27) Vinyl acetate	4.521	43	326636	15.287	ug/L		100
28) cis-1,2-Dichloroethene	4.810	96	139321	9.518	ug/L		95
29) 2,2-Dichloropropane	4.908	77	154045	8.013	ug/L		97
30) Bromochloromethane	5.007	128	63368	8.849	ug/L	#	84
31) Cyclohexane	5.000	56	234965	10.743	ug/L		86
32) Chloroform	5.076	83	222932	9.445	ug/L		96
33) Ethyl acetate	5.182	43	115138	11.017	ug/L		97
34) Carbon tetrachloride	5.205	117	176650	9.234	ug/L		98
35) Tetrahydrofuran	5.228	42	37295M1	10.896	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	203945	9.368	ug/L		97
39) 2-Butanone	5.372	43	47623	10.673	ug/L	#	76
40) 1,1-Dichloropropene	5.395	75	174972	10.054	ug/L		99
41) Benzene	5.638	78	527996	10.018	ug/L		96
42) tert-Amyl methyl ether	5.744	73	366853	10.193	ug/L		99
44) 1,2-Dichloroethane	5.850	62	170366	10.143	ug/L		99
47) Methyl cyclohexane	6.223	83	202169	9.871	ug/L		85
48) Trichloroethene	6.238	95	133843	9.006	ug/L		98
50) Dibromomethane	6.686	93	76127	9.157	ug/L		96
51) 1,2-Dichloropropane	6.785	63	132369	10.293	ug/L		97
53) 2-Chloroethyl vinyl ether	7.478	63	77688	9.985	ug/L		94
54) Bromodichloromethane	6.861	83	181017	9.643	ug/L		100
57) 1,4-Dioxane	7.070	88	63047	481.984	ug/L		89
58) cis-1,3-Dichloropropene	7.550	75	203587	9.697	ug/L		92
61) Toluene	7.808	92	322884	10.301	ug/L		98
62) 4-Methyl-2-pentanone	8.252	58	41113	11.897	ug/L		91
63) Tetrachloroethene	8.259	166	141785	10.305	ug/L		99
65) trans-1,3-Dichloropropene	8.302	75	177341	10.335	ug/L		100
67) Ethyl methacrylate	8.481	69	158433	10.981	ug/L		95
68) 1,1,2-Trichloroethane	8.488	83	91404	10.627	ug/L		98
69) Chlorodibromomethane	8.703	129	131070	9.638	ug/L		97
70) 1,3-Dichloropropane	8.810	76	188114	10.974	ug/L		99
71) 1,2-Dibromoethane	8.975	107	113264	10.381	ug/L		97
72) 2-Hexanone	9.262	43	73009	11.392	ug/L		98
73) Chlorobenzene	9.620	112	343972	9.847	ug/L		96
74) Ethylbenzene	9.653	91	600847	10.040	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.703	131	129622	9.971	ug/L		100
76) p/m Xylene	9.843	106	468622	19.805	ug/L		98
77) o Xylene	10.385	106	455408	19.869	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A09.D
Acq On : 3 Oct 2024 7:18 am
Operator : GONZO:MKS
Sample : I8260STD10PPB
Misc : WG1980167
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 04 09:07:29 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.451	104	775083	19.954	ug/L		96
80) Bromoform	10.484	173	87986	9.674	ug/L		97
82) Isopropylbenzene	10.756	105	580883	10.114	ug/L		100
84) Bromobenzene	11.200	156	158817	10.003	ug/L		99
85) n-Propylbenzene	11.241	91	667541	9.978	ug/L		99
86) 1,4-Dichlorobutane	11.266	55	213564	11.592	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.331	83	139702	10.945	ug/L		99
88) 4-Ethyltoluene	11.364	105	548311	9.804	ug/L		99
89) 2-Chlorotoluene	11.406	91	398091M1	9.703	ug/L		
90) 1,3,5-Trimethylbenzene	11.463	105	484598	9.789	ug/L		97
91) 1,2,3-Trichloropropane	11.471	75	112079	10.500	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.529	53	44347	15.153	ug/L	#	93
93) 4-Chlorotoluene	11.595	91	430131	10.184	ug/L		98
94) tert-Butylbenzene	11.800	119	390570	9.761	ug/L		98
97) 1,2,4-Trimethylbenzene	11.883	105	468134	9.598	ug/L		98
98) sec-Butylbenzene	11.990	105	562122	9.876	ug/L		99
99) p-Isopropyltoluene	12.138	119	475374	9.621	ug/L		99
100) 1,3-Dichlorobenzene	12.212	146	279059	9.566	ug/L		98
101) 1,4-Dichlorobenzene	12.310	146	289136	9.624	ug/L		99
102) p-Diethylbenzene	12.516	119	262873	9.263	ug/L		98
103) n-Butylbenzene	12.574	91	378559	9.689	ug/L		100
104) 1,2-Dichlorobenzene	12.730	146	276440	9.935	ug/L		98
105) 1,2,4,5-Tetramethylben...	13.306	119	357596	8.417	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.511	155	22360	9.445	ug/L		94
107) 1,3,5-Trichlorobenzene	13.536	180	172274	9.406	ug/L		98
108) Hexachlorobutadiene	14.104	225	54109	10.544	ug/L		97
109) 1,2,4-Trichlorobenzene	14.137	180	147470	9.298	ug/L		99
110) Naphthalene	14.425	128	292309	8.210	ug/L		100
111) 1,2,3-Trichlorobenzene	14.597	180	122129	9.260	ug/L		98

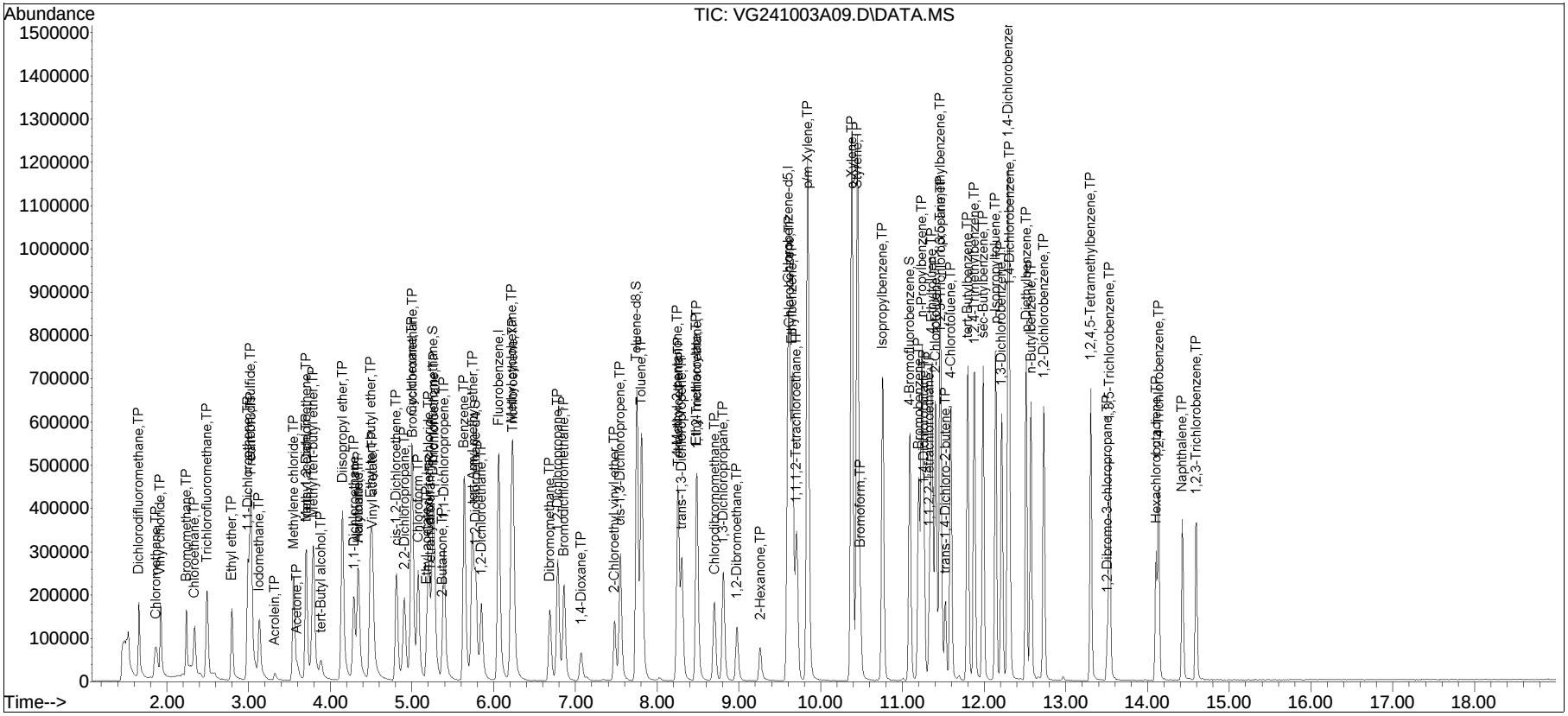
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A09.D
Acq On : 3 Oct 2024 7:18 am
Operator : GONZO:MKS
Sample : I8260STD10PPB
Misc : WG1980167
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 04 09:07:29 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Jul 15 09:43:32 2024
Response via : Initial Calibration

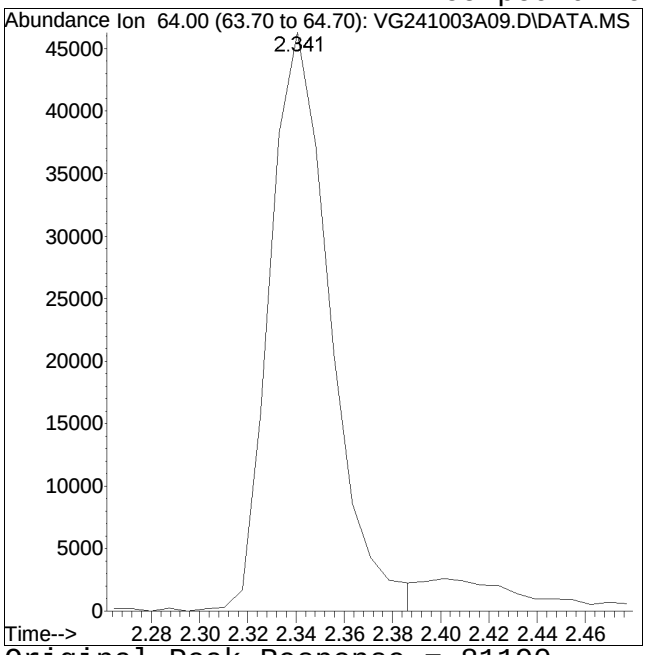
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•

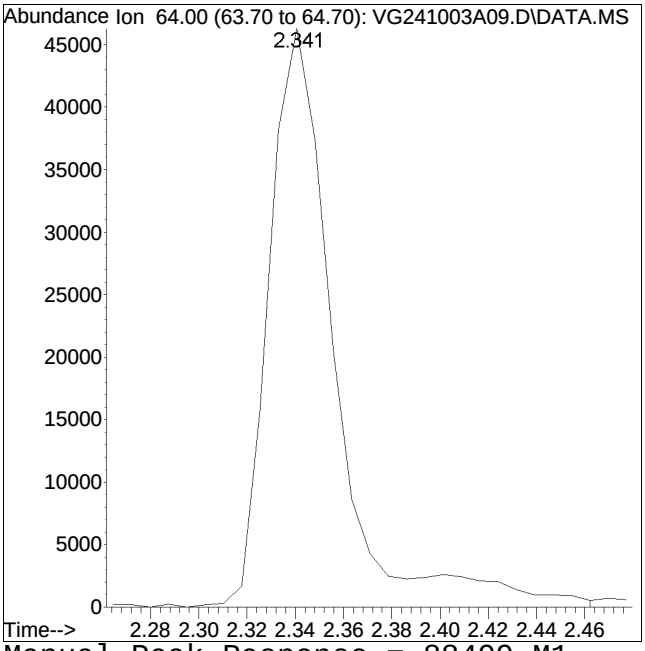


Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A09.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 7:18 am Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 10/4/2024 9:05 am

Compound #6: Chloroethane



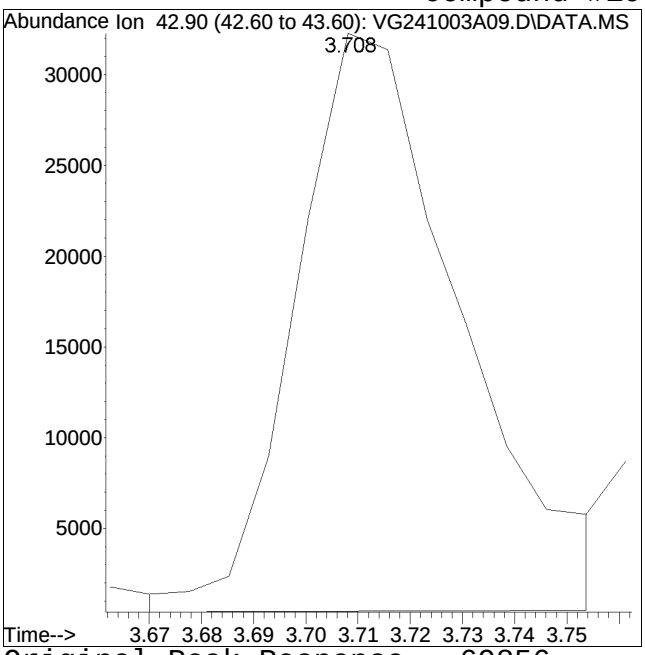


Original Peak Response = 81190 Manual Peak Response = 88499 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

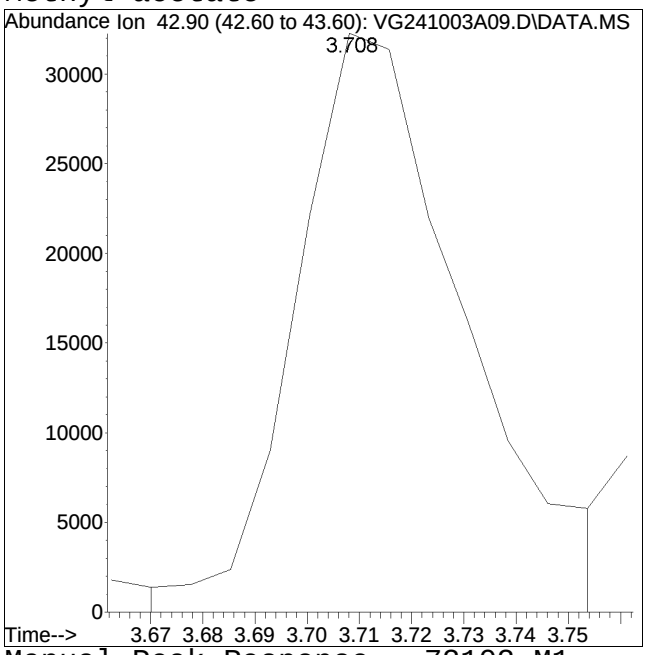
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A09.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 7:18 am Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 10/4/2024 9:05 am

Compound #19: Methyl acetate



Original Peak Response = 69856



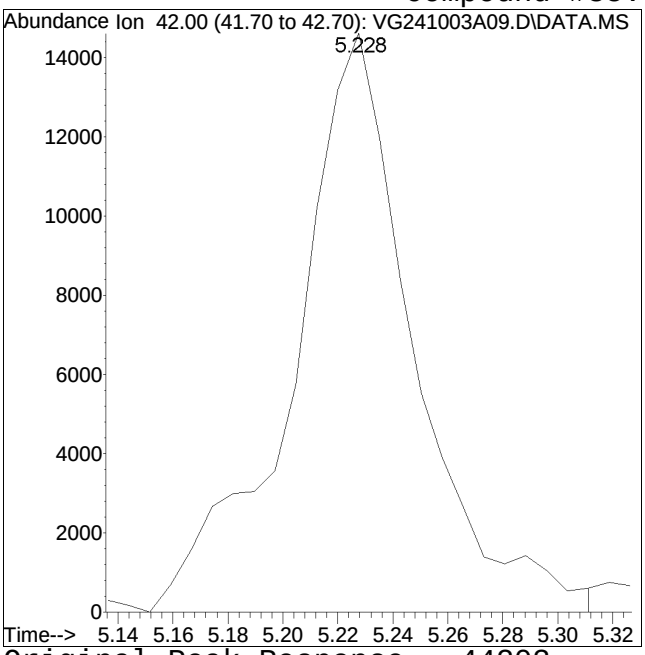
Manual Peak Response = 72102 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

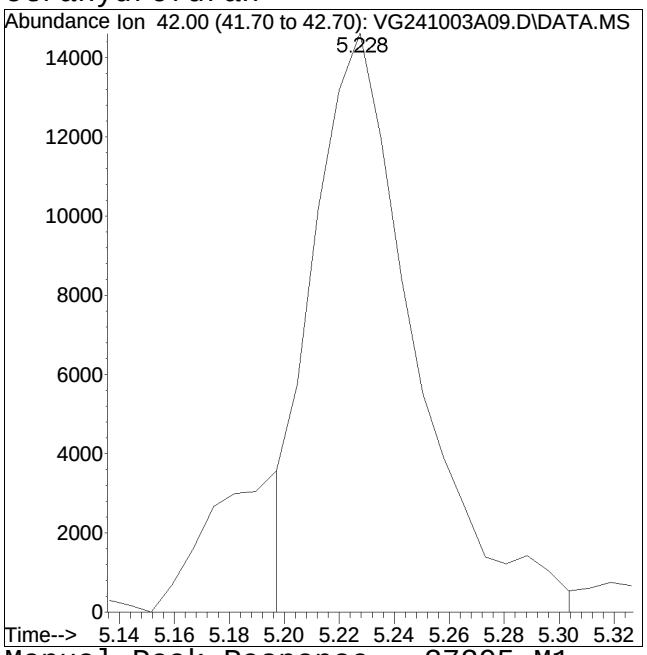
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A09.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 7:18 am Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 10/4/2024 9:05 am

Compound #35: Tetrahydrofuran



Original Peak Response = 44203



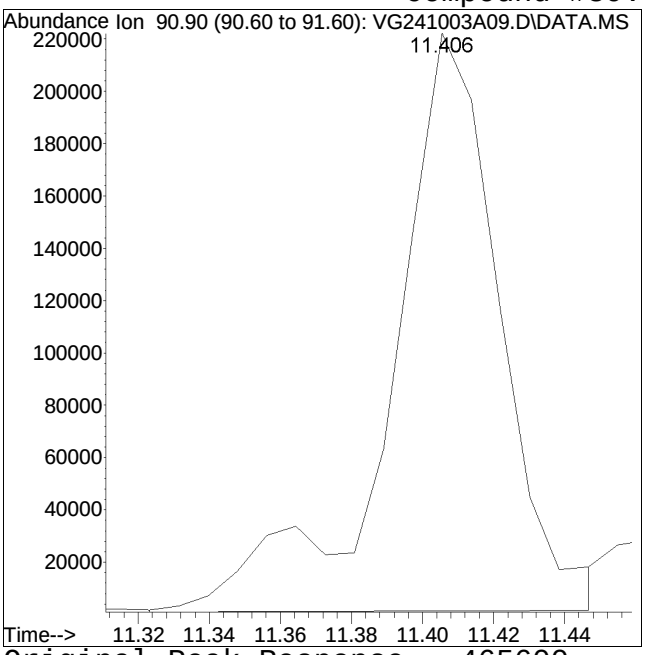
Manual Peak Response = 37295 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

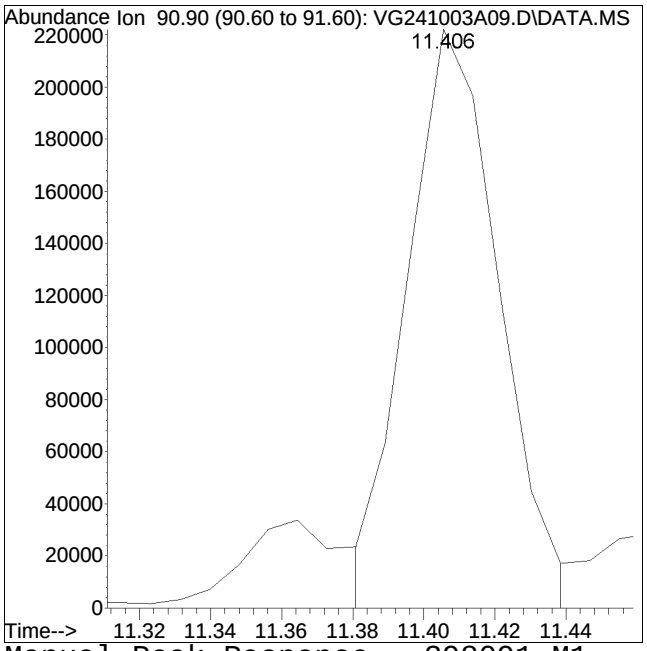
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A09.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 7:18 am Instrument : Gonzo
Sample : I8260STD10PPB Quant Date : 10/4/2024 9:05 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 465600



Manual Peak Response = 398091 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A10.D
Acq On : 3 Oct 2024 7:42 am
Operator : GONZO:MKS
Sample : I8260STD30PPB
Misc : WG1980167
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 04 09:18:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.063	96	639558	10.000	ug/L	0.00
Standard Area 1 = 615193			Recovery = 103.96%			
59) Chlorobenzene-d5	9.596	117	468000	10.000	ug/L	0.00
Standard Area 1 = 451007			Recovery = 103.77%			
79) 1,4-Dichlorobenzene-d4	12.294	152	265712	10.000	ug/L	0.00
Standard Area 1 = 256709			Recovery = 103.51%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.250	113	157688	9.831	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.31%			
43) 1,2-Dichloroethane-d4	5.782	65	179412	9.439	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.39%			
60) Toluene-d8	7.750	98	619404	10.114	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.14%			
83) 4-Bromofluorobenzene	11.093	95	229856	10.104	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.04%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	454217	30.528	ug/L	98
3) Chloromethane	1.870	50	445069	29.679	ug/L	99
4) Vinyl chloride	1.923	62	483088	30.212	ug/L	99
5) Bromomethane	2.242	94	233538	29.626	ug/L	97
6) Chloroethane	2.341	64	268985M1	29.236	ug/L	
7) Trichlorofluoromethane	2.493	101	649070	30.697	ug/L	98
8) Ethyl ether	2.796	74	221511	31.023	ug/L	86
10) 1,1-Dichloroethene	2.994	96	356513	30.970	ug/L	90
11) Carbon disulfide	3.024	76	1066521	30.957	ug/L	99
12) Freon-113	3.032	101	385114	30.493	ug/L	79
13) Iodomethane	3.138	142	623857	32.181	ug/L	97
14) Acrolein	3.321	56	54023	29.435	ug/L	92
15) Methylene chloride	3.556	84	401268	30.228	ug/L	85
17) Acetone	3.594	43	105689	33.141	ug/L	96
18) trans-1,2-Dichloroethene	3.700	96	383525	30.584	ug/L	91
19) Methyl acetate	3.708	43	237653	31.705	ug/L #	91
20) Methyl tert-butyl ether	3.792	73	1253906	31.256	ug/L	93
21) tert-Butyl alcohol	3.883	59	187126	155.696	ug/L	97
22) Diisopropyl ether	4.149	45	1438363	30.963	ug/L	97
23) 1,1-Dichloroethane	4.285	63	750326	30.625	ug/L	99
24) Halothane	4.346	117	315930	31.266	ug/L	98

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A10.D
Acq On : 3 Oct 2024 7:42 am
Operator : GONZO:MKS
Sample : I8260STD30PPB
Misc : WG1980167
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 04 09:18:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.339	53	129613	31.495	ug/L		94
26) Ethyl tert-butyl ether	4.498	59	1344909	32.160	ug/L		89
27) Vinyl acetate	4.521	43	984451	28.991	ug/L		99
28) cis-1,2-Dichloroethene	4.810	96	439611	30.352	ug/L		95
29) 2,2-Dichloropropane	4.908	77	503814	31.460	ug/L		98
30) Bromochloromethane	5.007	128	196672	29.854	ug/L	#	84
31) Cyclohexane	5.000	56	757603	31.015	ug/L		85
32) Chloroform	5.076	83	697159	30.081	ug/L		95
33) Ethyl acetate	5.174	43	381409	31.864	ug/L		97
34) Carbon tetrachloride	5.205	117	576411	31.387	ug/L		100
35) Tetrahydrofuran	5.220	42	114955M1	29.649	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	656636	30.970	ug/L		97
39) 2-Butanone	5.364	43	158236	31.961	ug/L	#	77
40) 1,1-Dichloropropene	5.395	75	556806	30.610	ug/L		98
41) Benzene	5.638	78	1688038	30.753	ug/L		95
42) tert-Amyl methyl ether	5.744	73	1185466	31.083	ug/L		99
44) 1,2-Dichloroethane	5.850	62	544681	30.753	ug/L		99
47) Methyl cyclohexane	6.223	83	643117	30.599	ug/L		84
48) Trichloroethene	6.238	95	435708	31.313	ug/L		96
50) Dibromomethane	6.686	93	244610	30.908	ug/L		99
51) 1,2-Dichloropropane	6.785	63	427417	31.060	ug/L		98
53) 2-Chloroethyl vinyl ether	7.478	63	252431	31.255	ug/L		94
54) Bromodichloromethane	6.861	83	570896	30.337	ug/L		98
57) 1,4-Dioxane	7.070	88	79622	607.393	ug/L		89
58) cis-1,3-Dichloropropene	7.550	75	651702	30.791	ug/L		93
61) Toluene	7.808	92	1023703	30.554	ug/L		98
62) 4-Methyl-2-pentanone	8.245	58	136502	31.996	ug/L		91
63) Tetrachloroethene	8.259	166	451999	30.722	ug/L		99
65) trans-1,3-Dichloropropene	8.302	75	584370	31.755	ug/L		99
67) Ethyl methacrylate	8.481	69	518254	31.524	ug/L		93
68) 1,1,2-Trichloroethane	8.488	83	295943	31.202	ug/L		98
69) Chlorodibromomethane	8.696	129	431725	31.743	ug/L		99
70) 1,3-Dichloropropane	8.810	76	599827	30.729	ug/L		100
71) 1,2-Dibromoethane	8.975	107	358852	30.532	ug/L		99
72) 2-Hexanone	9.255	43	251437	33.189	ug/L		95
73) Chlorobenzene	9.620	112	1084789	30.392	ug/L		96
74) Ethylbenzene	9.653	91	1943179	31.166	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.703	131	421722	31.353	ug/L		99
76) p/m Xylene	9.842	106	1504512	61.879	ug/L		95
77) o Xylene	10.385	106	1468136	62.135	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A10.D
Acq On : 3 Oct 2024 7:42 am
Operator : GONZO:MKS
Sample : I8260STD30PPB
Misc : WG1980167
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 04 09:18:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.451	104	2522918	62.737	ug/L		95
80) Bromoform	10.484	173	307913	33.810	ug/L		99
82) Isopropylbenzene	10.756	105	1884439	31.342	ug/L		99
84) Bromobenzene	11.200	156	500519	30.448	ug/L		99
85) n-Propylbenzene	11.241	91	2184901	31.622	ug/L		97
86) 1,4-Dichlorobutane	11.266	55	702012	31.758	ug/L		98
87) 1,1,2,2-Tetrachloroethane	11.331	83	451730	31.240	ug/L		99
88) 4-Ethyltoluene	11.364	105	1782280	31.404	ug/L		99
89) 2-Chlorotoluene	11.406	91	1312288M1	31.848	ug/L		
90) 1,3,5-Trimethylbenzene	11.463	105	1581412	31.528	ug/L		97
91) 1,2,3-Trichloropropane	11.471	75	378921	32.663	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.521	53	148851	32.428	ug/L	#	95
93) 4-Chlorotoluene	11.586	91	1372889	30.836	ug/L		98
94) tert-Butylbenzene	11.800	119	1255672	31.060	ug/L		96
97) 1,2,4-Trimethylbenzene	11.874	105	1523804	31.448	ug/L		97
98) sec-Butylbenzene	11.990	105	1841145	31.644	ug/L		100
99) p-Isopropyltoluene	12.138	119	1522961	30.952	ug/L		98
100) 1,3-Dichlorobenzene	12.212	146	912927	31.606	ug/L		99
101) 1,4-Dichlorobenzene	12.310	146	926896	30.971	ug/L		99
102) p-Diethylbenzene	12.516	119	849608	31.225	ug/L		97
103) n-Butylbenzene	12.574	91	1212866	30.953	ug/L		99
104) 1,2-Dichlorobenzene	12.730	146	868149	30.341	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.306	119	1159595	31.329	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.511	155	75820	32.760	ug/L		97
107) 1,3,5-Trichlorobenzene	13.536	180	562839	31.564	ug/L		99
108) Hexachlorobutadiene	14.104	225	179911	32.123	ug/L		99
109) 1,2,4-Trichlorobenzene	14.137	180	480889	31.504	ug/L		99
110) Naphthalene	14.425	128	979680	32.380	ug/L		100
111) 1,2,3-Trichlorobenzene	14.589	180	400297	31.666	ug/L		99

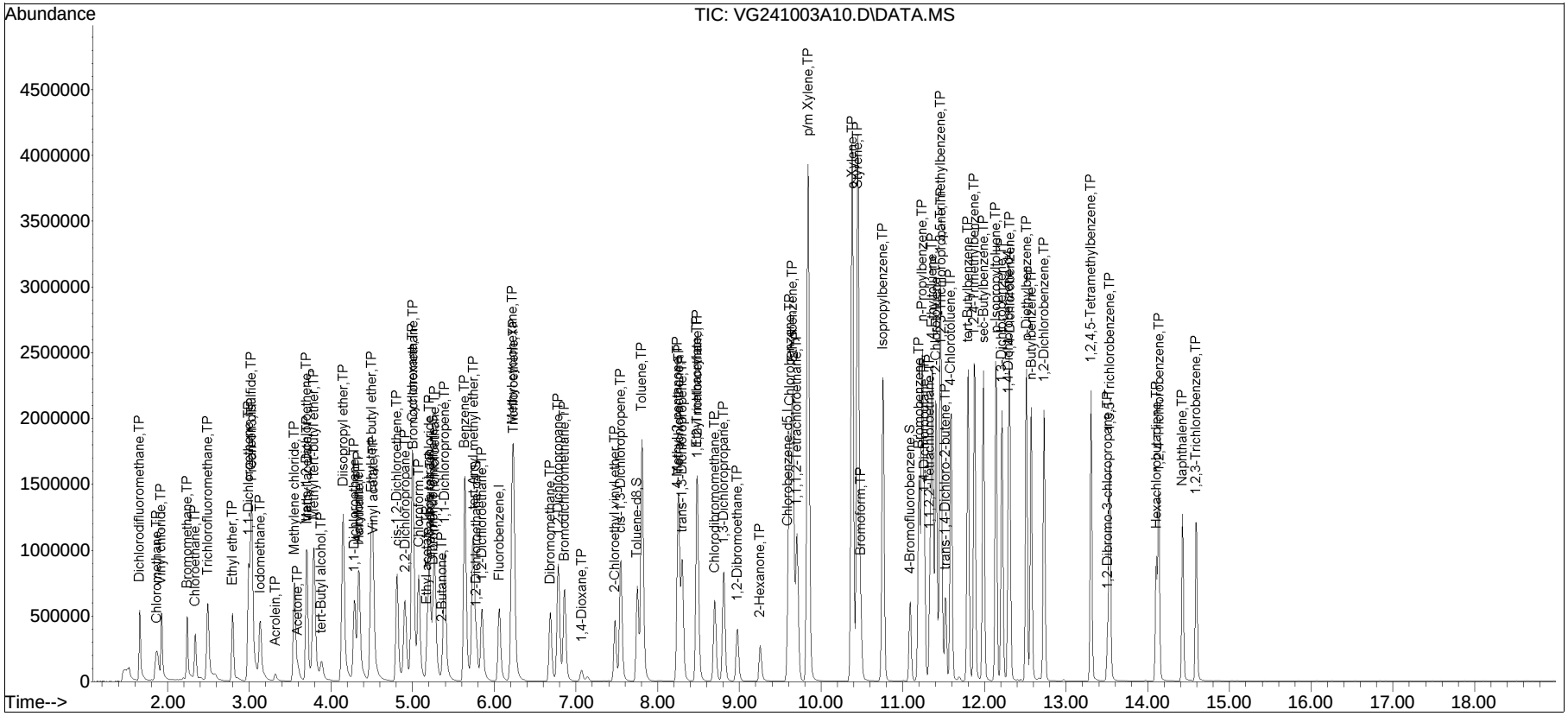
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A10.D
Acq On : 3 Oct 2024 7:42 am
Operator : GONZO:MKS
Sample : I8260STD30PPB
Misc : WG1980167
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 04 09:18:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

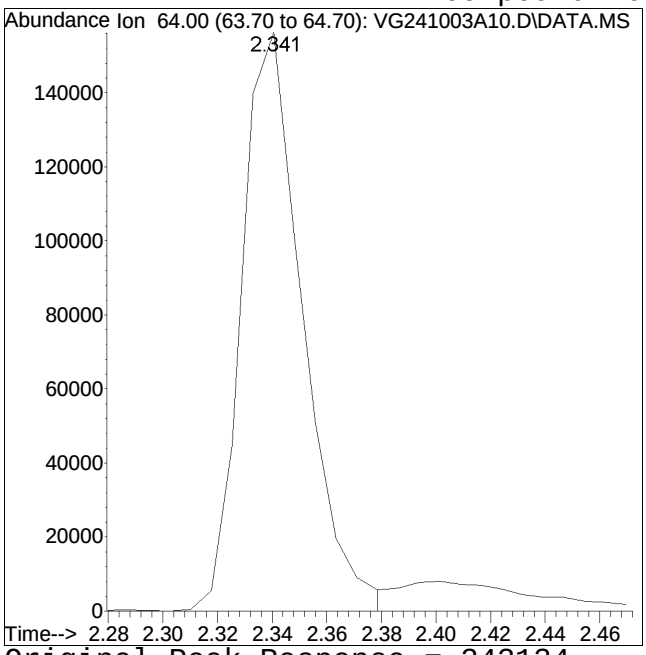
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•

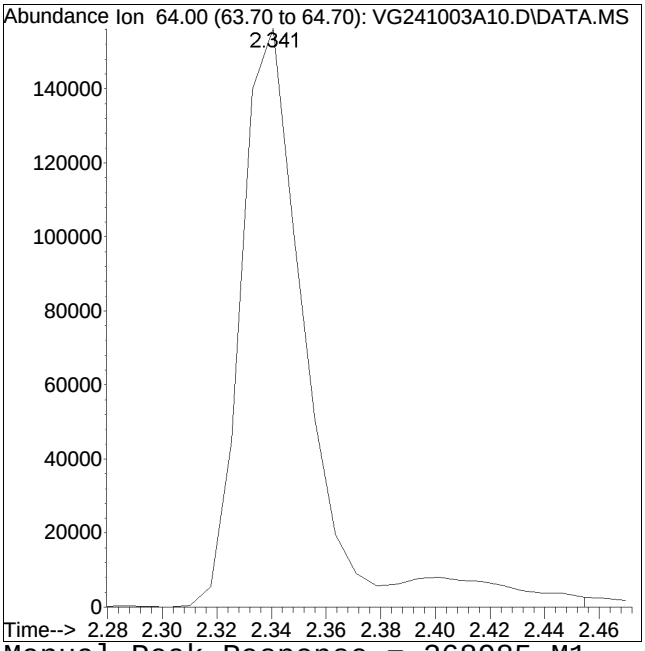


Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A10.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 7:42 am Instrument : Gonzo
Sample : I8260STD30PPB Quant Date : 10/4/2024 9:08 am

Compound #6: Chloroethane



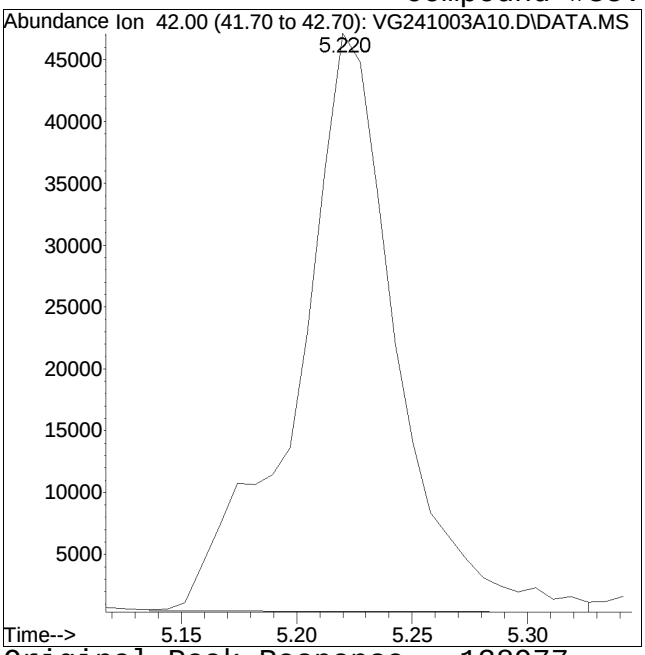


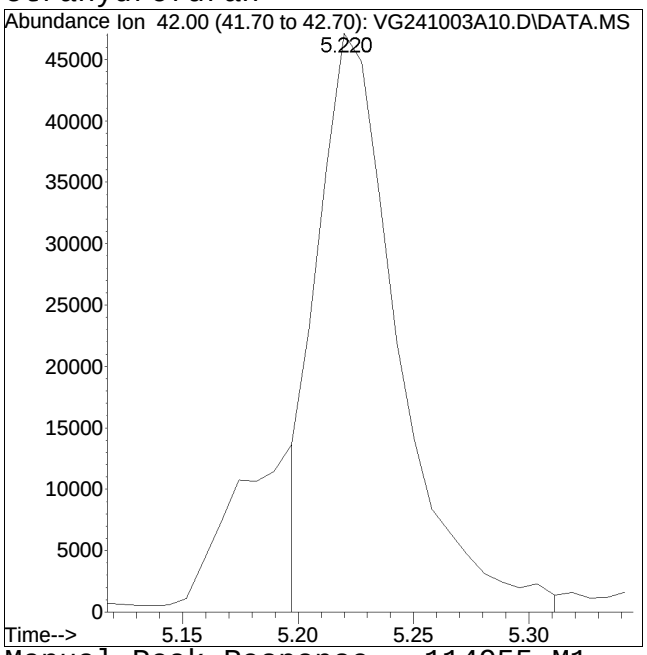
Original Peak Response = 243134 Manual Peak Response = 268985 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A10.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 7:42 am Instrument : Gonzo
Sample : I8260STD30PPB Quant Date : 10/4/2024 9:08 am

Compound #35: Tetrahydrofuran



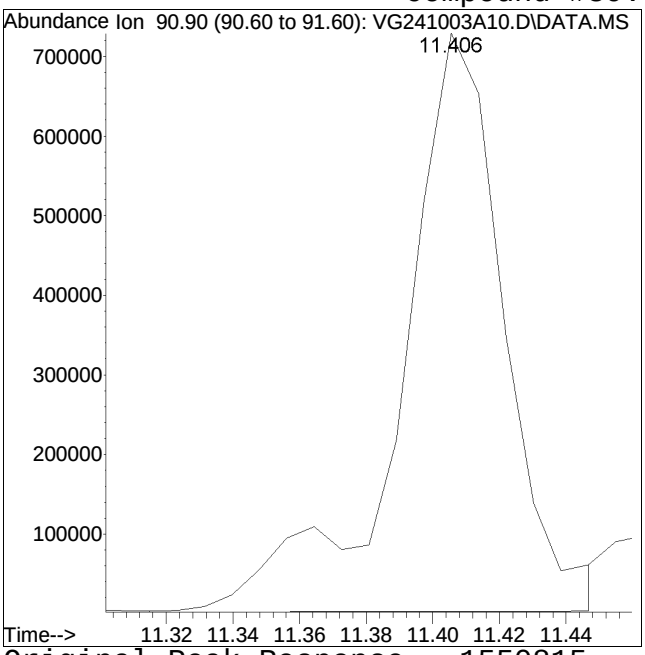


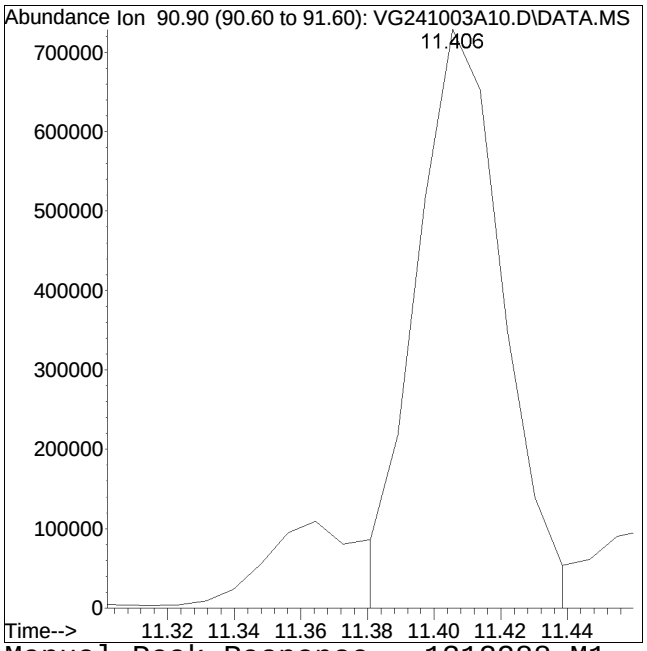
Original Peak Response = 138977 Manual Peak Response = 114955 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A10.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 7:42 am Instrument : Gonzo
Sample : I8260STD30PPB Quant Date : 10/4/2024 9:08 am

Compound #89: 2-Chlorotoluene





Original Peak Response = 1550815 Manual Peak Response = 1312288 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A11.D
Acq On : 3 Oct 2024 8:06 am
Operator : GONZO:MKS
Sample : I8260STD80PPB
Misc : WG1980167
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 04 09:25:58 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.063	96	660047	10.000	ug/L	0.00
Standard Area 1 = 615193			Recovery = 107.29%			
59) Chlorobenzene-d5	9.604	117	487281	10.000	ug/L	0.00
Standard Area 1 = 451007			Recovery = 108.04%			
79) 1,4-Dichlorobenzene-d4	12.294	152	276238	10.000	ug/L	0.00
Standard Area 1 = 256709			Recovery = 107.61%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.258	113	163975	9.906	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.06%			
43) 1,2-Dichloroethane-d4	5.782	65	185730	9.468	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.68%			
60) Toluene-d8	7.750	98	638212	10.008	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.08%			
83) 4-Bromofluorobenzene	11.093	95	244382	10.333	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.33%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	1163311	75.759	ug/L	98
3) Chloromethane	1.870	50	1191590	76.993	ug/L	99
4) Vinyl chloride	1.923	62	1282281	77.703	ug/L	100
5) Bromomethane	2.242	94	677286	83.252	ug/L	98
6) Chloroethane	2.341	64	546841M1	57.592	ug/L	
7) Trichlorofluoromethane	2.493	101	1715776	78.627	ug/L	99
8) Ethyl ether	2.797	74	624377	84.731	ug/L	85
10) 1,1-Dichloroethene	2.994	96	985522	82.955	ug/L	89
11) Carbon disulfide	3.025	76	3015604	84.815	ug/L	100
12) Freon-113	3.025	101	1027519	78.832	ug/L #	72
13) Iodomethane	3.131	142	1788285	89.383	ug/L	97
14) Acrolein	3.321	56	168510	88.965	ug/L	99
15) Methylene chloride	3.556	84	1135632	82.892	ug/L	86
17) Acetone	3.594	43	302819	92.007	ug/L	94
18) trans-1,2-Dichloroethene	3.701	96	1080996	83.528	ug/L	91
19) Methyl acetate	3.708	43	692516	89.520	ug/L	93
20) Methyl tert-butyl ether	3.792	73	3612725	87.258	ug/L	93
21) tert-Butyl alcohol	3.891	59	557128	449.163	ug/L	95
22) Diisopropyl ether	4.149	45	4088701	85.282	ug/L	97
23) 1,1-Dichloroethane	4.286	63	2101438	83.108	ug/L	99
24) Halothane	4.339	117	868473	83.282	ug/L	99

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A11.D
Acq On : 3 Oct 2024 8:06 am
Operator : GONZO:MKS
Sample : I8260STD80PPB
Misc : WG1980167
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 04 09:25:58 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.339	53	388938	91.575	ug/L		92
26) Ethyl tert-butyl ether	4.498	59	3850020	89.206	ug/L		86
27) Vinyl acetate	4.521	43	3038250	86.695	ug/L		98
28) cis-1,2-Dichloroethene	4.810	96	1245290	83.309	ug/L		95
29) 2,2-Dichloropropane	4.909	77	1359337	82.246	ug/L		99
30) Bromochloromethane	5.007	128	542106	79.735	ug/L	#	83
31) Cyclohexane	5.000	56	2049277	81.289	ug/L		84
32) Chloroform	5.076	83	2044376	85.472	ug/L		98
33) Ethyl acetate	5.175	43	1125425	91.103	ug/L	#	96
34) Carbon tetrachloride	5.205	117	1580590	83.395	ug/L		99
35) Tetrahydrofuran	5.220	42	347938M1	86.954	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	1792739	81.930	ug/L		97
39) 2-Butanone	5.364	43	484945	94.910	ug/L	#	76
40) 1,1-Dichloropropene	5.395	75	1530722	81.539	ug/L		99
41) Benzene	5.638	78	4758048	83.991	ug/L		96
42) tert-Amyl methyl ether	5.744	73	3374175	85.726	ug/L		99
44) 1,2-Dichloroethane	5.851	62	1517724	83.032	ug/L		99
47) Methyl cyclohexane	6.215	83	1695805	78.180	ug/L	#	82
48) Trichloroethene	6.238	95	1181763	82.295	ug/L		97
50) Dibromomethane	6.686	93	701005	85.826	ug/L		99
51) 1,2-Dichloropropane	6.785	63	1193096	84.009	ug/L		97
53) 2-Chloroethyl vinyl ether	7.478	63	743641	89.217	ug/L		95
54) Bromodichloromethane	6.861	83	1625195	83.680	ug/L		99
57) 1,4-Dioxane	7.070	88	118235	873.953	ug/L		92
58) cis-1,3-Dichloropropene	7.550	75	1833563	83.943	ug/L		93
61) Toluene	7.808	92	2843319	81.505	ug/L		97
62) 4-Methyl-2-pentanone	8.245	58	393905	88.678	ug/L		91
63) Tetrachloroethene	8.259	166	1236667	80.728	ug/L		98
65) trans-1,3-Dichloropropene	8.302	75	1681114	87.739	ug/L		99
67) Ethyl methacrylate	8.481	69	1506796	88.026	ug/L		92
68) 1,1,2-Trichloroethane	8.488	83	846249	85.691	ug/L		98
69) Chlorodibromomethane	8.696	129	1240343	87.588	ug/L		99
70) 1,3-Dichloropropane	8.811	76	1693180	83.308	ug/L		99
71) 1,2-Dibromoethane	8.975	107	1020654	83.405	ug/L		100
72) 2-Hexanone	9.255	43	732335	92.840	ug/L		96
73) Chlorobenzene	9.621	112	3101102	83.444	ug/L		96
74) Ethylbenzene	9.653	91	5588715	86.090	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.703	131	1206010	86.114	ug/L		100
76) p/m Xylene	9.843	106	4244351	167.657	ug/L		93
77) o Xylene	10.386	106	4113079	167.186	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A11.D
Acq On : 3 Oct 2024 8:06 am
Operator : GONZO:MKS
Sample : I8260STD80PPB
Misc : WG1980167
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 04 09:25:58 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.451	104	7315199	174.708	ug/L		94
80) Bromoform	10.484	173	905241	95.611	ug/L		99
82) Isopropylbenzene	10.756	105	5360897	85.764	ug/L		98
84) Bromobenzene	11.200	156	1395661	81.666	ug/L		100
85) n-Propylbenzene	11.241	91	6295136	87.636	ug/L		96
86) 1,4-Dichlorobutane	11.266	55	2063336	89.784	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.340	83	1334802	88.792	ug/L		99
88) 4-Ethyltoluene	11.365	105	5124183	86.847	ug/L		98
89) 2-Chlorotoluene	11.406	91	3776096M1	88.149	ug/L		
90) 1,3,5-Trimethylbenzene	11.463	105	4464680	85.618	ug/L		97
91) 1,2,3-Trichloropropane	11.471	75	1097809	91.025	ug/L		97
92) trans-1,4-Dichloro-2-b...	11.521	53	446391	93.542	ug/L	#	95
93) 4-Chlorotoluene	11.595	91	3968539	85.741	ug/L		97
94) tert-Butylbenzene	11.801	119	3505950	83.419	ug/L		94
97) 1,2,4-Trimethylbenzene	11.875	105	4355851	86.469	ug/L		96
98) sec-Butylbenzene	11.990	105	5160130	85.308	ug/L		99
99) p-Isopropyltoluene	12.138	119	4316122	84.375	ug/L		98
100) 1,3-Dichlorobenzene	12.220	146	2577481	85.834	ug/L		99
101) 1,4-Dichlorobenzene	12.311	146	2615240	84.056	ug/L		99
102) p-Diethylbenzene	12.516	119	2452620	86.705	ug/L		97
103) n-Butylbenzene	12.574	91	3563710	87.484	ug/L		99
104) 1,2-Dichlorobenzene	12.730	146	2466053	82.901	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.306	119	3419995	88.877	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.512	155	219616	91.275	ug/L		96
107) 1,3,5-Trichlorobenzene	13.536	180	1577169	85.078	ug/L		99
108) Hexachlorobutadiene	14.104	225	521163	89.508	ug/L		99
109) 1,2,4-Trichlorobenzene	14.137	180	1383188	87.164	ug/L		99
110) Naphthalene	14.425	128	2945078	93.629	ug/L		100
111) 1,2,3-Trichlorobenzene	14.598	180	1157006	88.039	ug/L		99

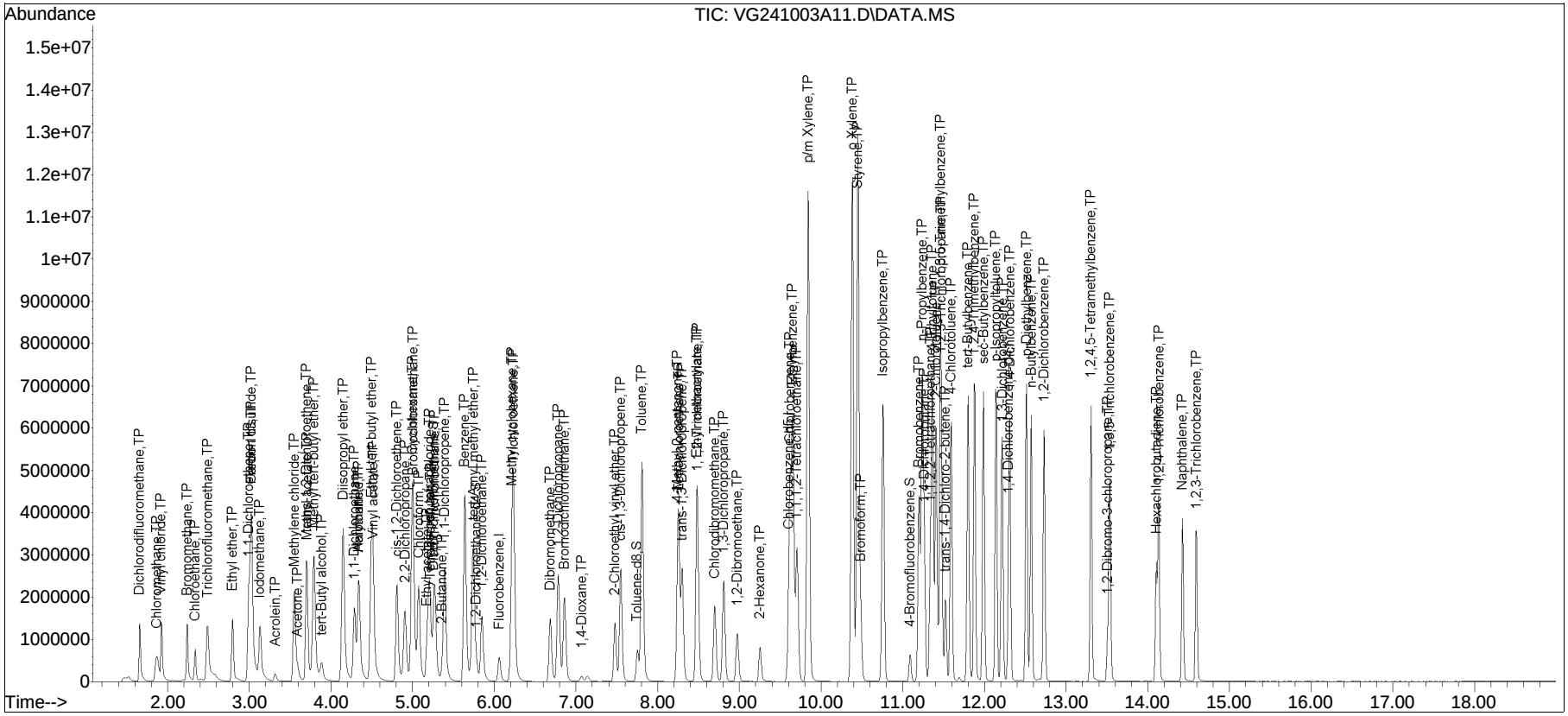
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A11.D
Acq On : 3 Oct 2024 8:06 am
Operator : GONZO:MKS
Sample : I8260STD80PPB
Misc : WG1980167
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 04 09:25:58 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

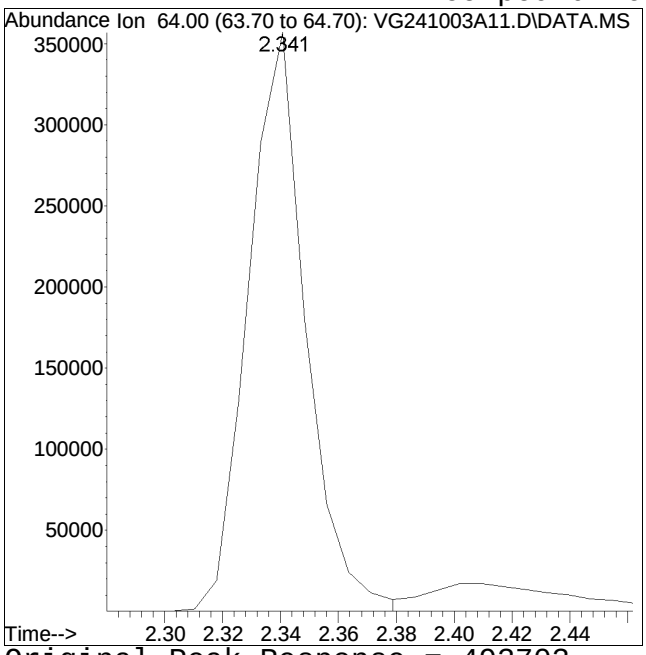
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•

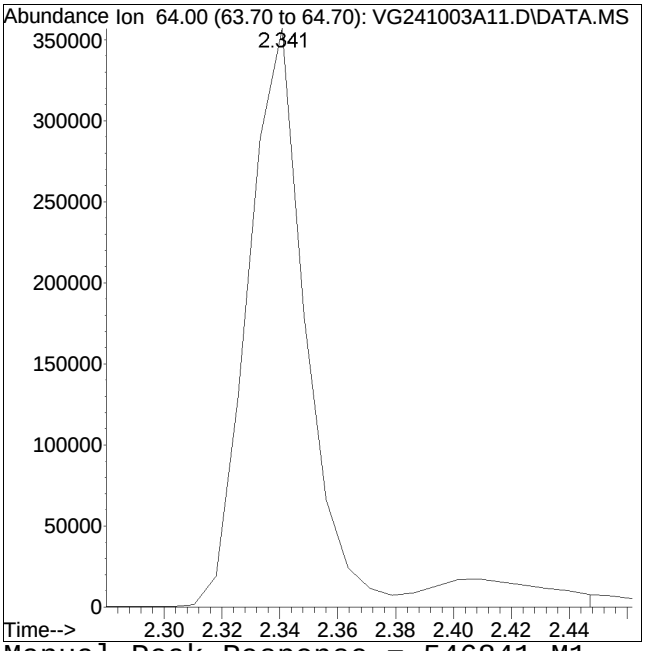


Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A11.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:06 am Instrument : Gonzo
Sample : I8260STD80PPB Quant Date : 10/4/2024 9:08 am

Compound #6: Chloroethane



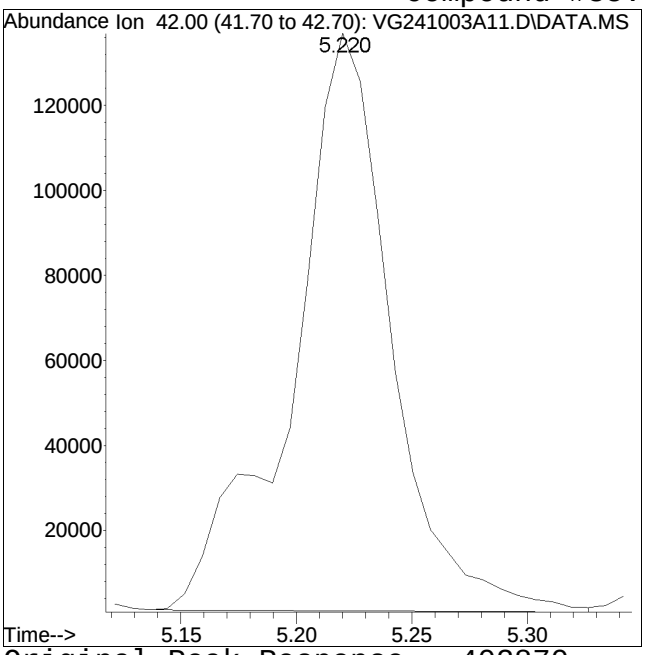


Original Peak Response = 493703 Manual Peak Response = 546841 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

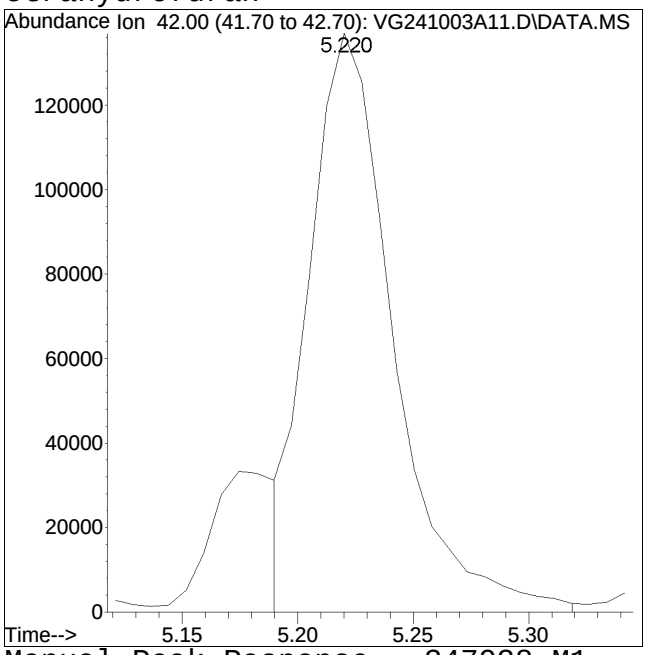
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A11.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:06 am Instrument : Gonzo
Sample : I8260STD80PPB Quant Date : 10/4/2024 9:08 am

Compound #35: Tetrahydrofuran



Original Peak Response = 402870



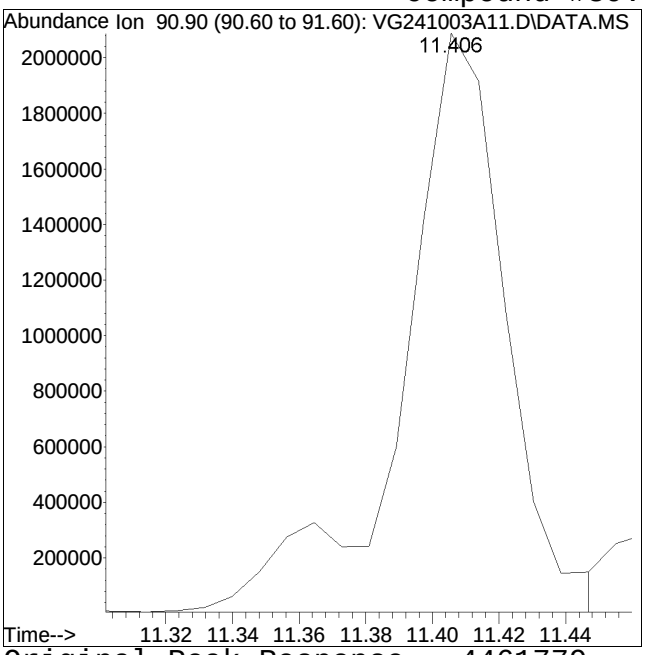
Manual Peak Response = 347938 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

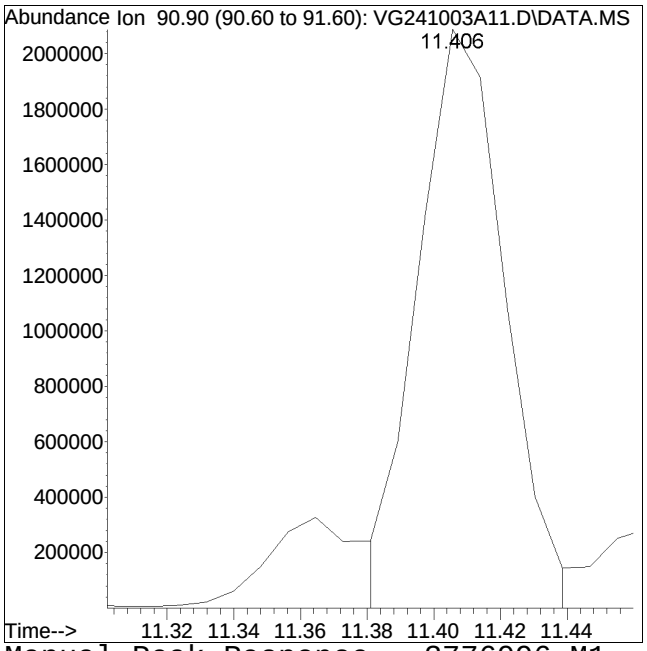
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A11.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:06 am Instrument : Gonzo
Sample : I8260STD80PPB Quant Date : 10/4/2024 9:08 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 4461779



Manual Peak Response = 3776096 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A12.D
Acq On : 3 Oct 2024 8:30 am
Operator : GONZO:MKS
Sample : I8260STD120PPB
Misc : WG1980167
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 04 09:26:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.064	96	673653	10.000	ug/L	0.00
Standard Area 1 = 615193			Recovery = 109.50%			
59) Chlorobenzene-d5	9.596	117	488575	10.000	ug/L	0.00
Standard Area 1 = 451007			Recovery = 108.33%			
79) 1,4-Dichlorobenzene-d4	12.294	152	279546	10.000	ug/L	0.00
Standard Area 1 = 256709			Recovery = 108.90%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.251	113	168950	10.000	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.00%			
43) 1,2-Dichloroethane-d4	5.782	65	193009	9.641	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.41%			
60) Toluene-d8	7.751	98	650677	10.177	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.77%			
83) 4-Bromofluorobenzene	11.085	95	245888	10.273	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.73%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	1711945	109.236	ug/L	98
3) Chloromethane	1.870	50	1830170	115.866	ug/L	99
4) Vinyl chloride	1.923	62	1900831	112.859	ug/L	99
5) Bromomethane	2.242	94	1074724	129.437	ug/L	97
6) Chloroethane	2.333	64	649275M1	66.999	ug/L	
7) Trichlorofluoromethane	2.485	101	2594262	116.483	ug/L	99
8) Ethyl ether	2.797	74	973208	129.401	ug/L	86
10) 1,1-Dichloroethene	2.994	96	1507253	124.308	ug/L	89
11) Carbon disulfide	3.025	76	4628497	127.548	ug/L	99
12) Freon-113	3.025	101	1530816	115.073	ug/L #	68
13) Iodomethane	3.131	142	2677905	131.144	ug/L	97
14) Acrolein	3.313	56	236841	122.515	ug/L	99
15) Methylene chloride	3.549	84	1744531	124.765	ug/L	87
17) Acetone	3.594	43	486024	144.689	ug/L	95
18) trans-1,2-Dichloroethene	3.701	96	1655199	125.313	ug/L	91
19) Methyl acetate	3.708	43	1012225	128.205	ug/L	94
20) Methyl tert-butyl ether	3.792	73	5520065	130.634	ug/L	93
21) tert-Butyl alcohol	3.891	59	860229	679.519	ug/L	98
22) Diisopropyl ether	4.149	45	6283566	128.416	ug/L	96
23) 1,1-Dichloroethane	4.286	63	3221344	124.825	ug/L	99
24) Halothane	4.339	117	1323534	124.356	ug/L	99

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A12.D
Acq On : 3 Oct 2024 8:30 am
Operator : GONZO:MKS
Sample : I8260STD120PPB
Misc : WG1980167
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 04 09:26:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.339	53	595928	137.476	ug/L		92
26) Ethyl tert-butyl ether	4.499	59	5903106	134.014	ug/L		92
27) Vinyl acetate	4.521	43	3102024	86.727	ug/L		97
28) cis-1,2-Dichloroethene	4.810	96	1895554	124.250	ug/L		95
29) 2,2-Dichloropropane	4.909	77	2077782	123.176	ug/L		99
30) Bromochloromethane	5.008	128	800574	115.374	ug/L	#	83
31) Cyclohexane	5.000	56	3006850	116.865	ug/L		84
32) Chloroform	5.076	83	3124241	127.982	ug/L		98
33) Ethyl acetate	5.175	43	1694964	134.436	ug/L	#	96
34) Carbon tetrachloride	5.205	117	2377868	122.928	ug/L		99
35) Tetrahydrofuran	5.220	42	510973M1	125.119	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	2700249	120.911	ug/L		97
39) 2-Butanone	5.365	43	738959	141.703	ug/L	#	76
40) 1,1-Dichloropropene	5.395	75	2309946	120.561	ug/L		99
41) Benzene	5.638	78	7194632	124.438	ug/L		95
42) tert-Amyl methyl ether	5.737	73	5149960	128.200	ug/L		99
44) 1,2-Dichloroethane	5.851	62	2310540	123.853	ug/L		99
47) Methyl cyclohexane	6.215	83	2427859	109.669	ug/L	#	83
48) Trichloroethene	6.238	95	1895130	129.306	ug/L		97
50) Dibromomethane	6.687	93	1060272	127.190	ug/L		98
51) 1,2-Dichloropropane	6.785	63	1805796	124.583	ug/L		97
53) 2-Chloroethyl vinyl ether	7.478	63	1122200	131.914	ug/L		95
54) Bromodichloromethane	6.861	83	2456686	123.938	ug/L		99
57) 1,4-Dioxane	7.070	88	180411	1306.603	ug/L		90
58) cis-1,3-Dichloropropene	7.550	75	2797657	125.493	ug/L		93
61) Toluene	7.808	92	4232061	120.992	ug/L		96
62) 4-Methyl-2-pentanone	8.245	58	597573	134.173	ug/L		92
63) Tetrachloroethene	8.259	166	1837470	119.631	ug/L		98
65) trans-1,3-Dichloropropene	8.302	75	2567389	133.639	ug/L		99
67) Ethyl methacrylate	8.481	69	2284488	133.105	ug/L		92
68) 1,1,2-Trichloroethane	8.488	83	1278366	129.105	ug/L		97
69) Chlorodibromomethane	8.696	129	1871535	131.809	ug/L		99
70) 1,3-Dichloropropane	8.811	76	2552319	125.247	ug/L		100
71) 1,2-Dibromoethane	8.975	107	1541090	125.600	ug/L		100
72) 2-Hexanone	9.255	43	1133711	143.343	ug/L		96
73) Chlorobenzene	9.621	112	4679435	125.581	ug/L		96
74) Ethylbenzene	9.654	91	8445734	129.755	ug/L		98
75) 1,1,1,2-Tetrachloroethane	9.703	131	1813432	129.144	ug/L		99
76) p/m Xylene	9.843	106	6361308	250.614	ug/L		92
77) o Xylene	10.386	106	6220876	252.193	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A12.D
Acq On : 3 Oct 2024 8:30 am
Operator : GONZO:MKS
Sample : I8260STD120PPB
Misc : WG1980167
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 04 09:26:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.452	104	11000976	262.038	ug/L		93
80) Bromoform	10.485	173	1369708	142.956	ug/L		99
82) Isopropylbenzene	10.756	105	8005601	126.559	ug/L		98
84) Bromobenzene	11.200	156	2088530	120.762	ug/L		100
85) n-Propylbenzene	11.241	91	9365737	128.840	ug/L		96
86) 1,4-Dichlorobutane	11.266	55	3141496	135.082	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.340	83	1853109	121.811	ug/L		99
88) 4-Ethyltoluene	11.365	105	7653536	128.181	ug/L		98
89) 2-Chlorotoluene	11.406	91	5671452M1	130.828	ug/L		
90) 1,3,5-Trimethylbenzene	11.463	105	6661580	126.236	ug/L		96
91) 1,2,3-Trichloropropane	11.472	75	1648671	135.082	ug/L		96
92) trans-1,4-Dichloro-2-b...	11.521	53	683476	141.529	ug/L	#	95
93) 4-Chlorotoluene	11.595	91	5969566	127.447	ug/L		96
94) tert-Butylbenzene	11.801	119	5265899	123.812	ug/L		94
97) 1,2,4-Trimethylbenzene	11.875	105	6585214	129.178	ug/L		96
98) sec-Butylbenzene	11.990	105	7723963	126.182	ug/L		99
99) p-Isopropyltoluene	12.146	119	6506872	125.697	ug/L		98
100) 1,3-Dichlorobenzene	12.220	146	3842260	126.438	ug/L		99
101) 1,4-Dichlorobenzene	12.311	146	3897765	123.794	ug/L		99
102) p-Diethylbenzene	12.516	119	3672622	128.297	ug/L		97
103) n-Butylbenzene	12.574	91	5346676	129.699	ug/L		99
104) 1,2-Dichlorobenzene	12.730	146	3679251	122.221	ug/L		99
105) 1,2,4,5-Tetramethylben...	13.306	119	5274571	135.451	ug/L		98
106) 1,2-Dibromo-3-chloropr...	13.512	155	344314	141.407	ug/L		98
107) 1,3,5-Trichlorobenzene	13.536	180	2345215	125.012	ug/L		99
108) Hexachlorobutadiene	14.104	225	757763	128.603	ug/L		99
109) 1,2,4-Trichlorobenzene	14.129	180	2025872	126.153	ug/L		99
110) Naphthalene	14.425	128	4493915	141.179	ug/L		100
111) 1,2,3-Trichlorobenzene	14.589	180	1687549	126.889	ug/L		98

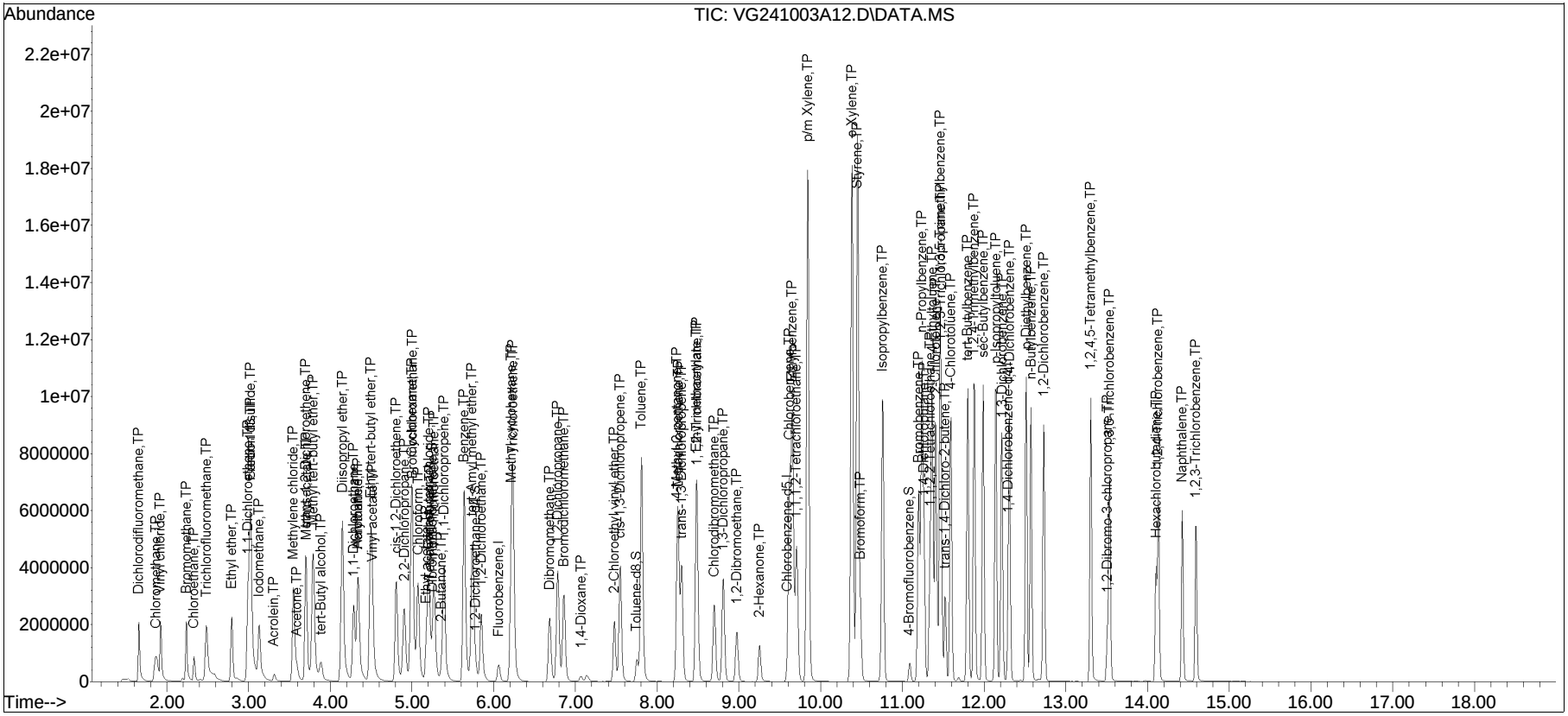
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A12.D
Acq On : 3 Oct 2024 8:30 am
Operator : GONZO:MKS
Sample : I8260STD120PPB
Misc : WG1980167
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 04 09:26:11 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

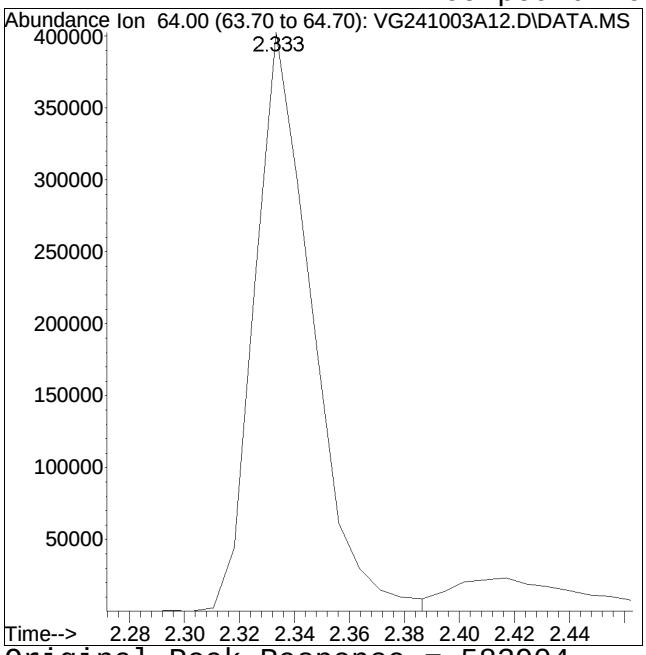
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•

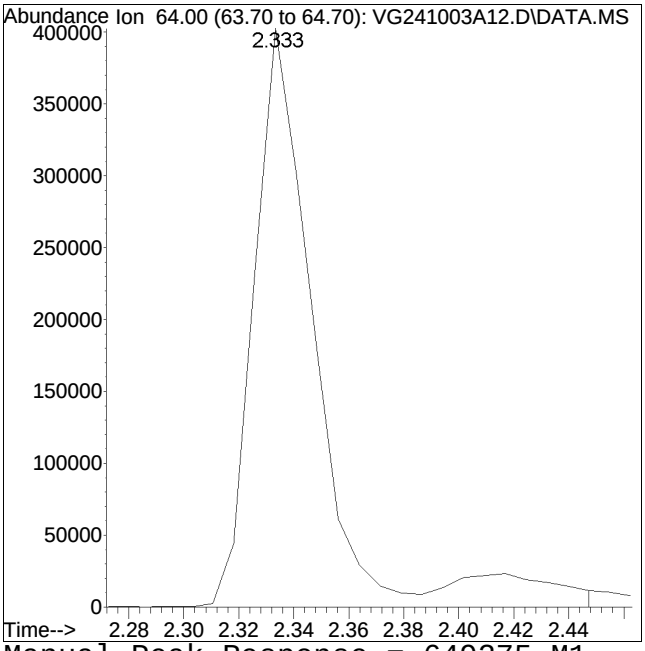


Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A12.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:30 am Instrument : Gonzo
Sample : I8260STD120PPB Quant Date : 10/4/2024 9:08 am

Compound #6: Chloroethane





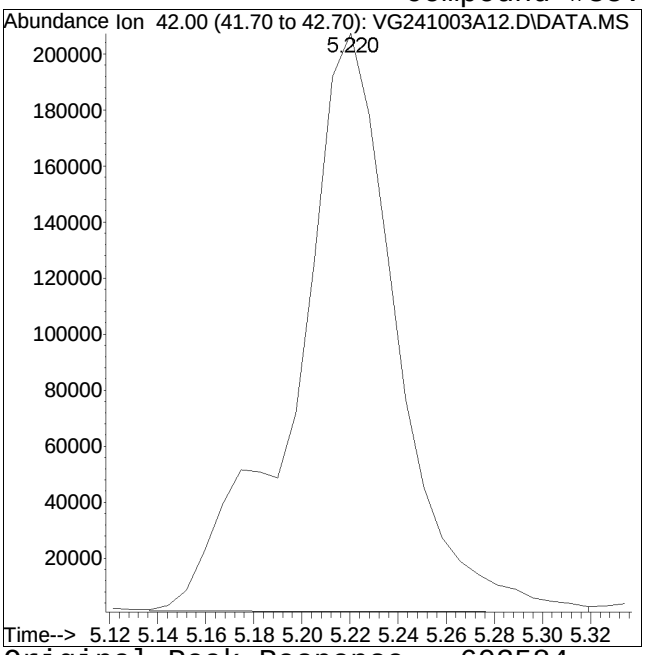
Original Peak Response = 583904 Manual Peak Response = 649275 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

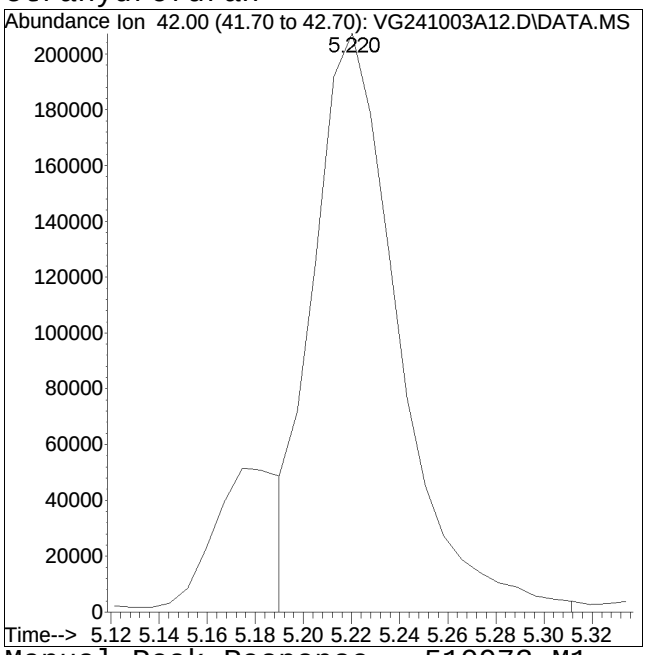
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A12.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:30 am Instrument : Gonzo
Sample : I8260STD120PPB Quant Date : 10/4/2024 9:08 am

Compound #35: Tetrahydrofuran



Original Peak Response = 603584



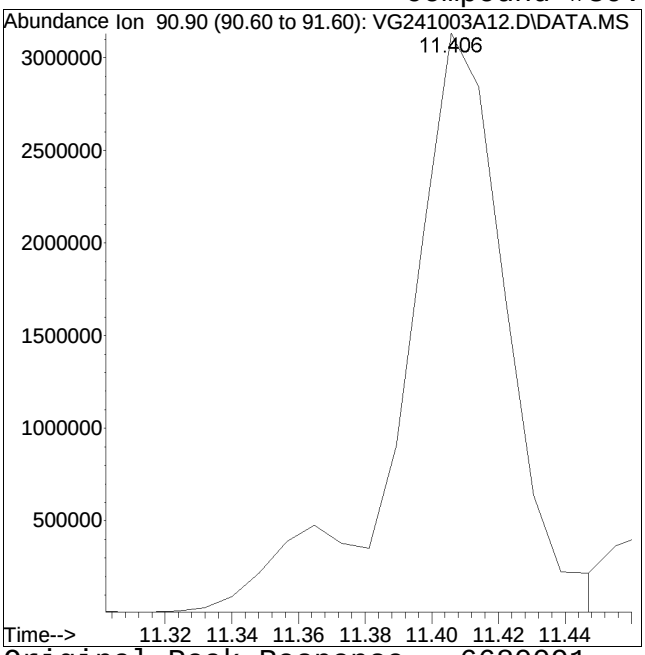
Manual Peak Response = 510973 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

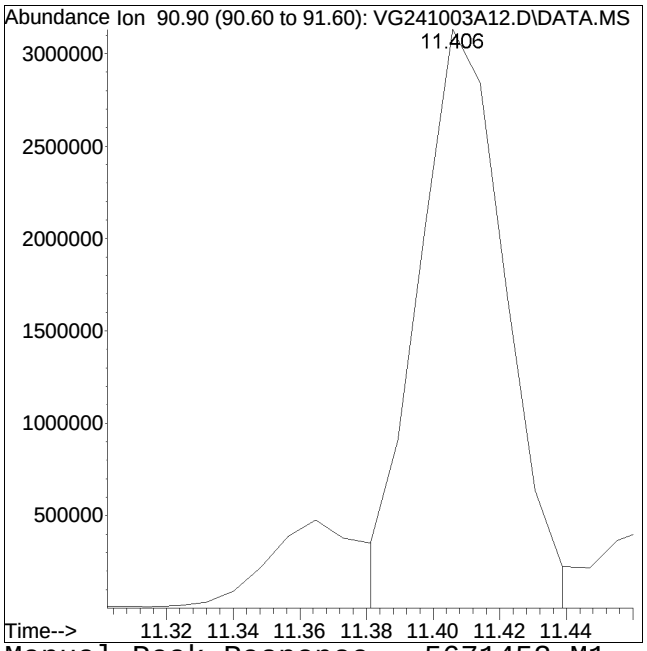
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A12.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:30 am Instrument : Gonzo
Sample : I8260STD120PPB Quant Date : 10/4/2024 9:08 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 6680091



Manual Peak Response = 5671452 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A13.D
Acq On : 3 Oct 2024 8:54 am
Operator : GONZO:MKS
Sample : I8260STD200PPB
Misc : WG1980167
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 04 09:26:30 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.063	96	691180	10.000 ug/L	0.00
Standard Area 1 = 615193			Recovery = 112.35%		
59) Chlorobenzene-d5	9.604	117	502943	10.000 ug/L	0.00
Standard Area 1 = 451007			Recovery = 111.52%		
79) 1,4-Dichlorobenzene-d4	12.294	152	289694	10.000 ug/L	0.00
Standard Area 1 = 256709			Recovery = 112.85%		
System Monitoring Compounds					
36) Dibromofluoromethane	5.258	113	171773	9.909 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.09%		
43) 1,2-Dichloroethane-d4	5.782	65	208696	10.160 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.60%		
60) Toluene-d8	7.757	98	674973	10.255 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.55%		
83) 4-Bromofluorobenzene	11.093	95	256434	10.339 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.39%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.657	85	2910090	180.979 ug/L	98
3) Chloromethane	1.870	50	3135176	193.452 ug/L	99
4) Vinyl chloride	1.923	62	3301989	191.079 ug/L	99
5) Bromomethane	2.242	94	1894692	222.406 ug/L	99
6) Chloroethane	2.333	64	942196M1	94.760 ug/L	
7) Trichlorofluoromethane	2.477	101	4523895	197.974 ug/L	99
8) Ethyl ether	2.797	74	1654141	214.363 ug/L	84
10) 1,1-Dichloroethene	2.994	96	2603198	209.250 ug/L	87
11) Carbon disulfide	3.024	76	8104461	217.673 ug/L	99
12) Freon-113	3.024	101	2691507	197.192 ug/L #	68
13) Iodomethane	3.131	142	4590087	219.089 ug/L	97
14) Acrolein	3.313	56	477277	240.629 ug/L	98
15) Methylene chloride	3.549	84	2974201	207.315 ug/L	86
17) Acetone	3.594	43	799237	231.898 ug/L	96
18) trans-1,2-Dichloroethene	3.701	96	2844373	209.883 ug/L	89
19) Methyl acetate	3.708	43	1778926	219.599 ug/L	94
20) Methyl tert-butyl ether	3.792	73	9485603	218.786 ug/L	93
21) tert-Butyl alcohol	3.890	59	1471154	1132.636 ug/L	94
22) Diisopropyl ether	4.149	45	10973277	218.572 ug/L	96
23) 1,1-Dichloroethane	4.293	63	5299557	200.147 ug/L	99
24) Halothane	4.339	117	2271907	208.050 ug/L	99

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A13.D
Acq On : 3 Oct 2024 8:54 am
Operator : GONZO:MKS
Sample : I8260STD200PPB
Misc : WG1980167
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 04 09:26:30 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.339	53	1010467	227.196	ug/L		93
26) Ethyl tert-butyl ether	4.498	59	10323259	228.419	ug/L		85
27) Vinyl acetate	4.513	43	8184503	223.022	ug/L		98
28) cis-1,2-Dichloroethene	4.810	96	3318381	211.997	ug/L		94
29) 2,2-Dichloropropane	4.909	77	3597022	207.834	ug/L		99
30) Bromochloromethane	5.007	128	1354747	190.287	ug/L	#	81
31) Cyclohexane	5.000	56	5390788	204.206	ug/L		83
32) Chloroform	5.076	83	5362986	214.119	ug/L		97
33) Ethyl acetate	5.174	43	2901541	224.301	ug/L	#	96
34) Carbon tetrachloride	5.205	117	4090333	206.094	ug/L		98
35) Tetrahydrofuran	5.220	42	861202M1	205.530	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	4662164	203.467	ug/L		97
39) 2-Butanone	5.364	43	1254580	234.478	ug/L	#	76
40) 1,1-Dichloropropene	5.395	75	3977438	202.328	ug/L		98
41) Benzene	5.638	78	12379920	208.693	ug/L		95
42) tert-Amyl methyl ether	5.744	73	8883855	215.541	ug/L		99
44) 1,2-Dichloroethane	5.851	62	4014958	209.758	ug/L		99
47) Methyl cyclohexane	6.223	83	4350407	191.529	ug/L	#	81
48) Trichloroethene	6.238	95	3037561	201.999	ug/L		96
50) Dibromomethane	6.686	93	1814110	212.102	ug/L		97
51) 1,2-Dichloropropane	6.785	63	3106694	208.897	ug/L		97
53) 2-Chloroethyl vinyl ether	7.478	63	1919556	219.921	ug/L		94
54) Bromodichloromethane	6.861	83	4229704	207.975	ug/L		99
57) 1,4-Dioxane	7.070	88	308372	2176.711	ug/L		91
58) cis-1,3-Dichloropropene	7.550	75	4798280	209.776	ug/L		92
61) Toluene	7.808	92	7161298	198.889	ug/L		94
62) 4-Methyl-2-pentanone	8.245	58	1015655	221.529	ug/L		92
63) Tetrachloroethene	8.259	166	3124083	197.586	ug/L		97
65) trans-1,3-Dichloropropene	8.302	75	4460573	225.552	ug/L		100
67) Ethyl methacrylate	8.481	69	3945388	223.310	ug/L		92
68) 1,1,2-Trichloroethane	8.488	83	2188392	214.696	ug/L		97
69) Chlorodibromomethane	8.703	129	3210973	219.684	ug/L		98
70) 1,3-Dichloropropane	8.810	76	4388123	209.181	ug/L		99
71) 1,2-Dibromoethane	8.975	107	2631778	208.364	ug/L		99
72) 2-Hexanone	9.255	43	1916772	235.428	ug/L		96
73) Chlorobenzene	9.620	112	8048731	209.831	ug/L		95
74) Ethylbenzene	9.653	91	14633337	218.396	ug/L		98
75) 1,1,1,2-Tetrachloroethane	9.711	131	3130063	216.540	ug/L		100
76) p/m Xylene	9.843	106	11085718	424.263	ug/L		96
77) o Xylene	10.386	106	10685869	420.827	ug/L		94

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A13.D
Acq On : 3 Oct 2024 8:54 am
Operator : GONZO:MKS
Sample : I8260STD200PPB
Misc : WG1980167
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 04 09:26:30 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78)	Styrene	10.451	104	17937892	415.067	ug/L		90
80)	Bromoform	10.484	173	2304719	232.116	ug/L		99
82)	Isopropylbenzene	10.764	105	13910921	212.211	ug/L		98
84)	Bromobenzene	11.200	156	3527487	196.820	ug/L		100
85)	n-Propylbenzene	11.241	91	15857253	210.500	ug/L		97
86)	1,4-Dichlorobutane	11.266	55	5420547	224.914	ug/L		100
87)	1,1,2,2-Tetrachloroethane	11.340	83	3483482	220.959	ug/L		99
88)	4-Ethyltoluene	11.364	105	13250338	214.142	ug/L		97
89)	2-Chlorotoluene	11.414	91	10064710M1	224.037	ug/L		
90)	1,3,5-Trimethylbenzene	11.463	105	11538271	210.989	ug/L		96
91)	1,2,3-Trichloropropane	11.480	75	2738280	216.499	ug/L		98
92)	trans-1,4-Dichloro-2-b...	11.529	53	1169389	233.666	ug/L	#	94
93)	4-Chlorotoluene	11.595	91	10451205	215.311	ug/L		95
94)	tert-Butylbenzene	11.800	119	9085477	206.134	ug/L		93
97)	1,2,4-Trimethylbenzene	11.883	105	11495182	217.594	ug/L		96
98)	sec-Butylbenzene	11.990	105	13316283	209.920	ug/L		99
99)	p-Isopropyltoluene	12.146	119	11369060	211.929	ug/L		98
100)	1,3-Dichlorobenzene	12.220	146	6706842	212.973	ug/L		99
101)	1,4-Dichlorobenzene	12.310	146	6852173	210.004	ug/L		98
102)	p-Diethylbenzene	12.516	119	6465591	217.953	ug/L		97
103)	n-Butylbenzene	12.574	91	9464274	221.542	ug/L		99
104)	1,2-Dichlorobenzene	12.730	146	6458480	207.029	ug/L		98
105)	1,2,4,5-Tetramethylben...	13.306	119	9359945	231.944	ug/L		98
106)	1,2-Dibromo-3-chloropr...	13.512	155	575185	227.949	ug/L		96
107)	1,3,5-Trichlorobenzene	13.536	180	3931422	202.223	ug/L		98
108)	Hexachlorobutadiene	14.104	225	1284345	210.336	ug/L		99
109)	1,2,4-Trichlorobenzene	14.137	180	3366309	202.280	ug/L		99
110)	Naphthalene	14.425	128	7571975	229.545	ug/L		100
111)	1,2,3-Trichlorobenzene	14.597	180	2681315	194.550	ug/L		99

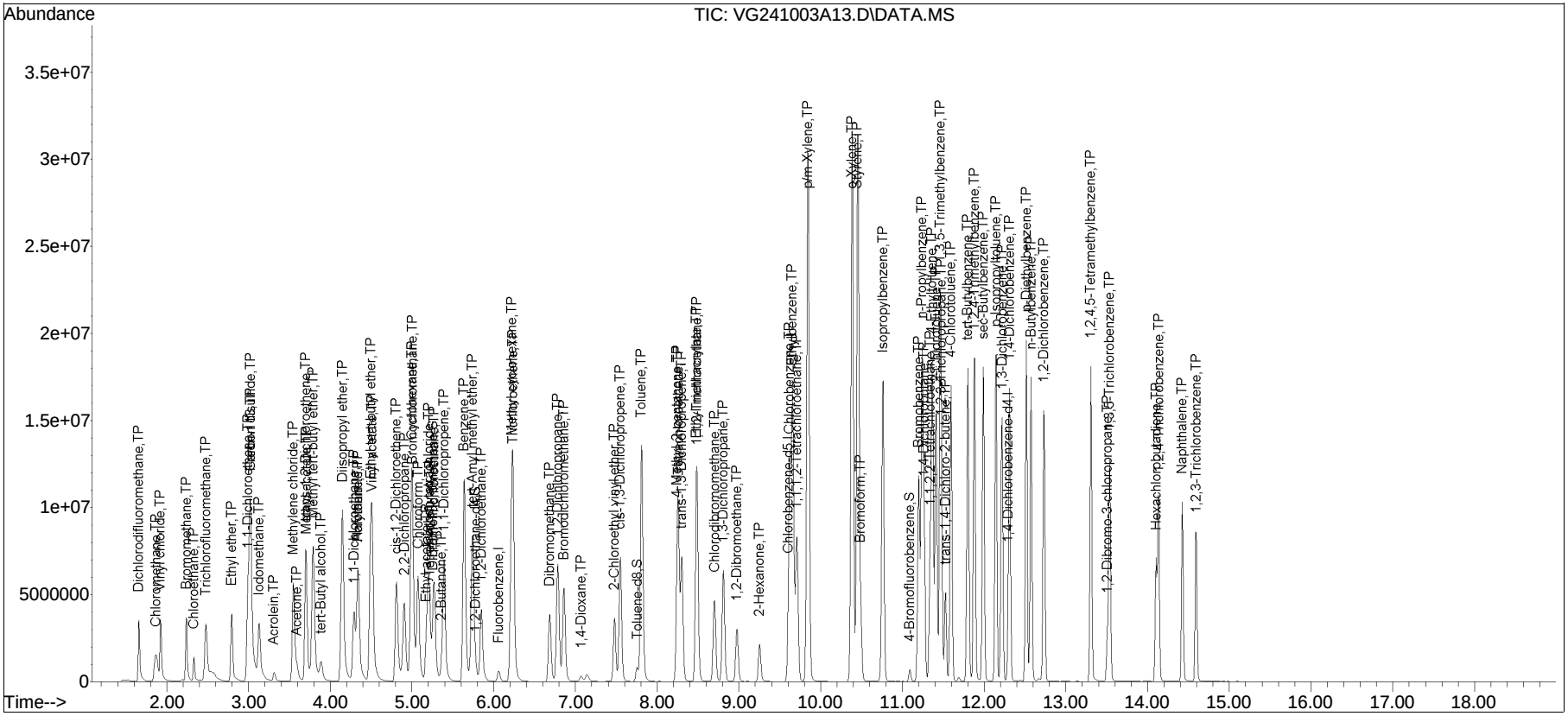
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A13.D
Acq On : 3 Oct 2024 8:54 am
Operator : GONZO:MKS
Sample : I8260STD200PPB
Misc : WG1980167
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 04 09:26:30 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:07:44 2024
Response via : Initial Calibration

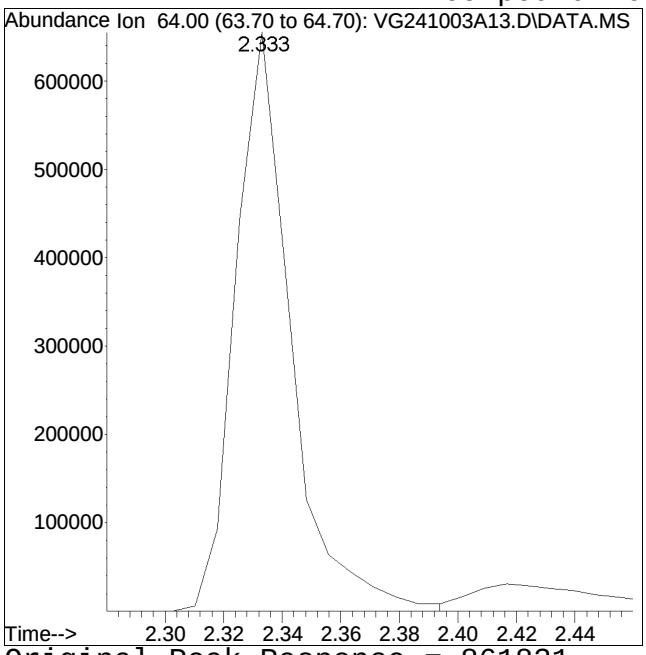
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•

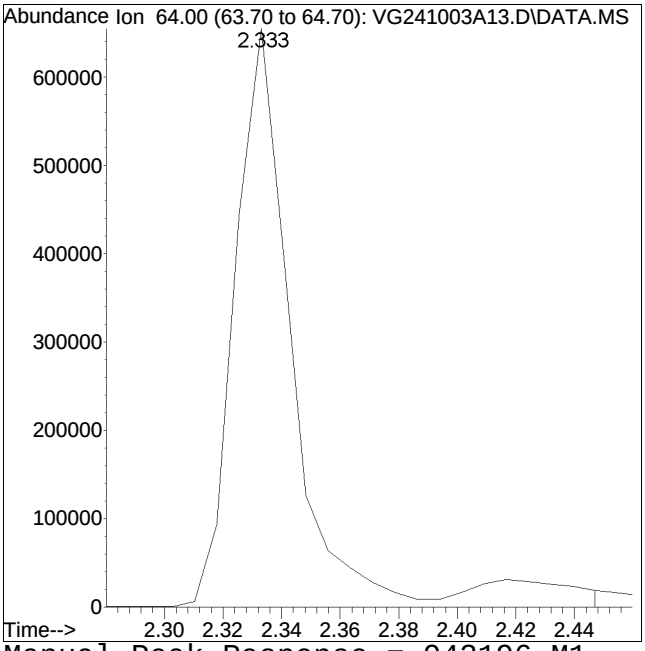


Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A13.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:54 am Instrument : Gonzo
Sample : I8260STD200PPB Quant Date : 10/4/2024 9:08 am

Compound #6: Chloroethane



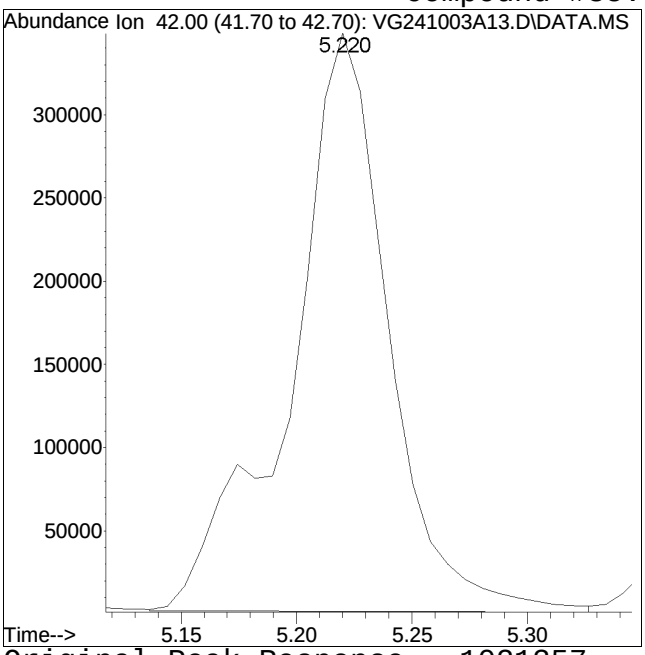


Original Peak Response = 861831 Manual Peak Response = 942196 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

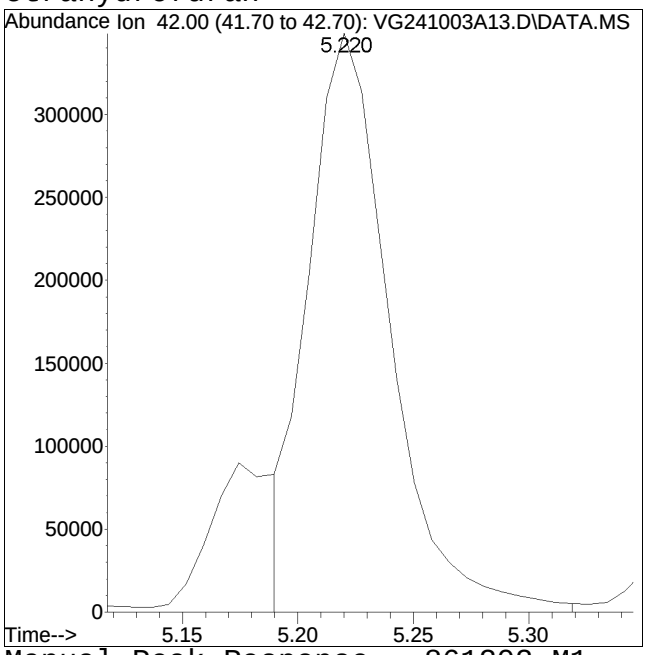
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A13.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:54 am Instrument : Gonzo
Sample : I8260STD200PPB Quant Date : 10/4/2024 9:08 am

Compound #35: Tetrahydrofuran



Original Peak Response = 1021357



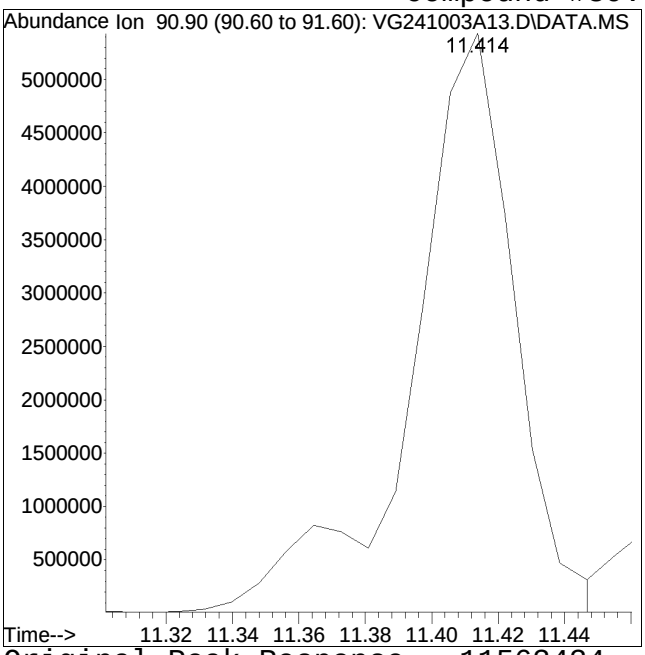
Manual Peak Response = 861202 M1

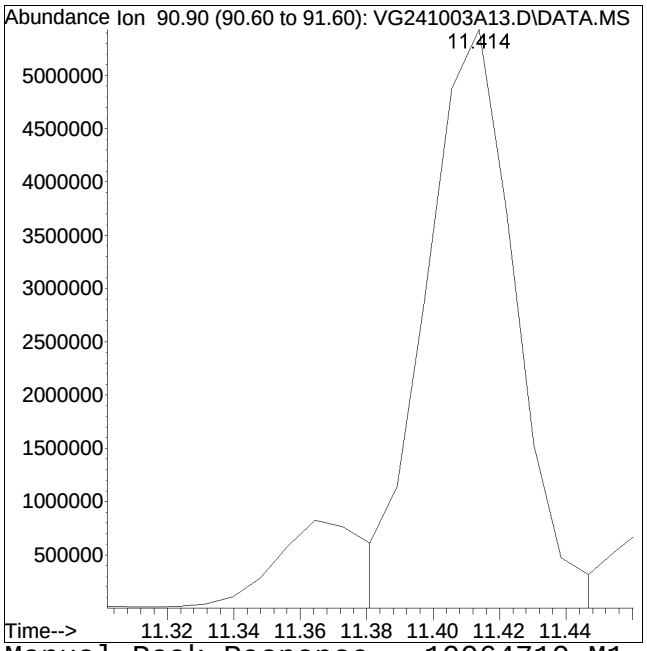
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A13.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 8:54 am Instrument : Gonzo
Sample : I8260STD200PPB Quant Date : 10/4/2024 9:08 am

Compound #89: 2-Chlorotoluene





Original Peak Response = 11563434 Manual Peak Response = 10064710 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A18.D
Acq On : 3 Oct 2024 10:54 am
Operator : GONZO:MKS
Sample : C8260STD10PPB
Misc : WG1980167
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:30:28 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	98	0.00
2	TP	Dichlorodifluoromethane	0.212	0.182	14.2	77	0.00
3	TP	Chloromethane	0.230	0.251	-9.1	105	0.00
4	TP	Vinyl chloride	0.230	0.243	-5.7	96	0.00
5	TP	Bromomethane	0.132	0.140	-6.1	112	0.00
6	TP	Chloroethane	* 10.000	10.503	-5.0	93	0.00
7	TP	Trichlorofluoromethane	0.306	0.330	-7.8	98	0.00
8	TP	Ethyl ether	0.111	0.111	0.0	98	0.00
10	TP	1,1-Dichloroethene	0.176	0.183	-4.0	100	0.00
11	TP	Carbon disulfide	0.536	0.496	7.5	91	0.00
12	TP	Freon-113	0.179	0.196	-9.5	98	0.00
13	TP	Iodomethane	0.307	0.228	25.7#	74	0.00
14	TP	Acrolein	0.031	0.025	19.4	86	0.00
15	TP	Methylene chloride	0.212	0.214	-0.9	101	0.00
17	TP	Acetone	0.055	0.052	5.5	103	0.00
18	TP	trans-1,2-Dichloroethene	0.191	0.205	-7.3	103	0.00
19	TP	Methyl acetate	0.124	0.122	1.6	102	0.00
20	TP	Methyl tert-butyl ether	0.646	0.588	9.0	92	0.00
21	TP	tert-Butyl alcohol	0.020	0.018	10.0	96	0.00
22	TP	Diisopropyl ether	0.727	0.776	-6.7	105	0.00
23	TP	1,1-Dichloroethane	0.370	0.393	-6.2	101	0.00
24	TP	Halothane	0.152	0.167	-9.9	104	0.00
25	TP	Acrylonitrile	0.068	0.060	11.8	92	0.00
26	TP	Ethyl tert-butyl ether	0.681	0.687	-0.9	103	0.00
27	TP	Vinyl acetate	0.519	0.456	12.1	84	0.00
28	TP	cis-1,2-Dichloroethene	0.221	0.225	-1.8	98	0.00
29	TP	2,2-Dichloropropane	0.246	0.228	7.3	90	0.00
30	TP	Bromochloromethane	0.101	0.104	-3.0	99	0.00
31	TP	Cyclohexane	0.359	0.381	-6.1	98	0.00
32	TP	Chloroform	0.358	0.377	-5.3	102	0.00
33	TP	Ethyl acetate	0.197	0.197	0.0	104	0.00
34	TP	Carbon tetrachloride	0.273	0.290	-6.2	99	0.00
35	TP	Tetrahydrofuran	0.064	0.059	7.8	96	0.00
36	S	Dibromofluoromethane	0.249	0.248	0.4	97	0.00
37	TP	1,1,1-Trichloroethane	0.316	0.342	-8.2	102	0.00
39	TP	2-Butanone	0.084	0.081	3.6	103	0.00
40	TP	1,1-Dichloropropene	0.265	0.286	-7.9	99	0.00
41	TP	Benzene	0.825	0.865	-4.8	99	0.00
42	TP	tert-Amyl methyl ether	0.598	0.607	-1.5	100	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A18.D
Acq On : 3 Oct 2024 10:54 am
Operator : GONZO:MKS
Sample : C8260STD10PPB
Misc : WG1980167
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:30:28 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43	S	1,2-Dichloroethane-d4	0.287	0.296	-3.1	98	0.00
44	TP	1,2-Dichloroethane	0.279	0.288	-3.2	102	0.00
47	TP	Methyl cyclohexane	0.300	0.323	-7.7	97	0.00
48	TP	Trichloroethene	0.221	0.230	-4.1	104	0.00
50	TP	Dibromomethane	0.126	0.126	0.0	100	0.00
51	TP	1,2-Dichloropropane	0.214	0.225	-5.1	103	0.00
53	TP	2-Chloroethyl vinyl ether	0.129	0.116	10.1	90	0.00
54	TP	Bromodichloromethane	0.289	0.286#	1.0	96	0.00
57	TP	1,4-Dioxane	0.00215	0.00219#	-1.9	105	0.00
58	TP	cis-1,3-Dichloropropene	0.327	0.341	-4.3	101	0.00
59	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
60	S	Toluene-d8	1.323	1.315	0.6	99	0.00
61	TP	Toluene	0.696	0.743	-6.8	102	0.00
62	TP	4-Methyl-2-pentanone	0.097	0.093	4.1	100	0.00
63	TP	Tetrachloroethene	0.301	0.320	-6.3	100	0.00
65	TP	trans-1,3-Dichloropropene	0.406	0.416	-2.5	104	0.00
67	TP	Ethyl methacrylate	0.360	0.356	1.1	100	0.00
68	TP	1,1,2-Trichloroethane	0.212	0.205	3.3	99	0.00
69	TP	Chlorodibromomethane	0.293	0.295	-0.7	99	0.00
70	TP	1,3-Dichloropropane	0.420	0.427	-1.7	100	0.00
71	TP	1,2-Dibromoethane	0.250	0.253	-1.2	99	0.00
72	TP	2-Hexanone	0.174	0.167	4.0	101	0.00
73	TP	Chlorobenzene	0.748	0.810	-8.3	104	0.00
74	TP	Ethylbenzene	1.337	1.346	-0.7	99	0.00
75	TP	1,1,1,2-Tetrachloroethane	0.287	0.285	0.7	97	0.00
76	TP	p/m Xylene	0.509	0.517	-1.6	98	0.00
77	TP	o Xylene	0.493	0.501	-1.6	97	0.00
78	TP	Styrene	0.839	0.889	-6.0	101	0.00
79	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
80	TP	Bromoform	0.359	0.360	-0.3	102	0.00
82	TP	Isopropylbenzene	2.211	2.031	8.1	87	0.00
83	S	4-Bromofluorobenzene	0.876	0.877	-0.1	99	0.00
84	TP	Bromobenzene	0.598	0.619	-3.5	97	0.00
85	TP	n-Propylbenzene	2.574	2.653	-3.1	99	0.00
86	TP	1,4-Dichlorobutane	0.870	0.857	1.5	100	0.00
87	TP	1,1,2,2-Tetrachloroethane	0.560	0.537	4.1	95	0.00
88	TP	4-Ethyltoluene	2.108	2.372	-12.5	107	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A18.D
Acq On : 3 Oct 2024 10:54 am
Operator : GONZO:MKS
Sample : C8260STD10PPB
Misc : WG1980167
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:30:28 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
89	TP	2-Chlorotoluene	1.570	1.583	-0.8	99	0.00
90	TP	1,3,5-Trimethylbenzene	1.866	1.869	-0.2	96	0.00
91	TP	1,2,3-Trichloropropane	0.457	0.416	9.0	92	0.00
92	TP	trans-1,4-Dichloro-2-butene	0.184	0.164	10.9	92	0.00
93	TP	4-Chlorotoluene	1.653	1.711	-3.5	99	0.00
94	TP	tert-Butylbenzene	1.472	1.532	-4.1	97	0.00
97	TP	1,2,4-Trimethylbenzene	1.821	1.864	-2.4	99	0.00
98	TP	sec-Butylbenzene	2.123	2.193	-3.3	97	0.00
99	TP	p-Isopropyltoluene	1.801	1.851	-2.8	97	0.00
100	TP	1,3-Dichlorobenzene	1.090	1.176	-7.9	105	0.00
101	TP	1,4-Dichlorobenzene	1.132	1.186	-4.8	102	0.00
102	TP	p-Diethylbenzene	1.010	1.070	-5.9	101	0.00
103	TP	n-Butylbenzene	1.450	1.507	-3.9	99	0.00
104	TP	1,2-Dichlorobenzene	1.051	1.161	-10.5	104	0.00
105	TP	1,2,4,5-Tetramethylbenzene	1.421	1.478	-4.0	103	0.00
106	TP	1,2-Dibromo-3-chloropropane	0.093	0.090	3.2	100	0.00
107	TP	1,3,5-Trichlorobenzene	0.661	0.695	-5.1	100	0.00
108	TP	Hexachlorobutadiene	0.212	0.227	-7.1	104	0.00
109	TP	1,2,4-Trichlorobenzene	0.561	0.590	-5.2	99	0.00
110	TP	Naphthalene	1.188	1.153	2.9	98	0.00
111	TP	1,2,3-Trichlorobenzene	0.469	0.479	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 2 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A18.D
Acq On : 3 Oct 2024 10:54 am
Operator : GONZO:MKS
Sample : C8260STD10PPB
Misc : WG1980167
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:30:28 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.056	96	604933	10.000	ug/L	0.00
Standard Area 1 = 615193			Recovery =	98.33%		
59) Chlorobenzene-d5	9.604	117	442370	10.000	ug/L	0.00
Standard Area 1 = 451007			Recovery =	98.08%		
79) 1,4-Dichlorobenzene-d4	12.294	152	248318	10.000	ug/L	0.00
Standard Area 1 = 256709			Recovery =	96.73%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.258	113	150056	9.947	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.47%		
43) 1,2-Dichloroethane-d4	5.782	65	178828	10.289	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.89%		
60) Toluene-d8	7.750	98	581642	9.942	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.42%		
83) 4-Bromofluorobenzene	11.085	95	217834	10.009	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.09%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	109961	8.556	ug/L	98
3) Chloromethane	1.862	50	152129	10.918	ug/L	99
4) Vinyl chloride	1.923	62	146903	10.578	ug/L	100
5) Bromomethane	2.242	94	84878	10.602	ug/L	99
6) Chloroethane	2.333	64	82174M1	10.503	ug/L	
7) Trichlorofluoromethane	2.493	101	199378M1	10.769	ug/L	
8) Ethyl ether	2.797	74	67210	9.972	ug/L	83
10) 1,1-Dichloroethene	2.994	96	110852	10.392	ug/L	90
11) Carbon disulfide	3.024	76	300198	9.264	ug/L	99
12) Freon-113	3.024	101	118866	10.953	ug/L	91
13) Iodomethane	3.131	142	138015	7.432	ug/L	98
14) Acrolein	3.321	56	15142	8.038	ug/L	88
15) Methylene chloride	3.556	84	129363	10.087	ug/L	87
17) Acetone	3.602	43	31748	9.578	ug/L	92
18) trans-1,2-Dichloroethene	3.701	96	124230	10.744	ug/L	93
19) Methyl acetate	3.716	43	73559	9.770	ug/L	94
20) Methyl tert-butyl ether	3.792	73	355608	9.094	ug/L	93
21) tert-Butyl alcohol	3.891	59	55463	45.375	ug/L	97
22) Diisopropyl ether	4.149	45	469536	10.671	ug/L	96
23) 1,1-Dichloroethane	4.286	63	237481	10.604	ug/L	99
24) Halothane	4.339	117	100874	10.955	ug/L	99

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A18.D
Acq On : 3 Oct 2024 10:54 am
Operator : GONZO:MKS
Sample : C8260STD10PPB
Misc : WG1980167
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:30:28 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) Acrylonitrile	4.346	53	36451	8.815	ug/L		94
26) Ethyl tert-butyl ether	4.498	59	415861	10.090	ug/L		94
27) Vinyl acetate	4.521	43	275775	8.786	ug/L		99
28) cis-1,2-Dichloroethene	4.810	96	136383	10.189	ug/L		96
29) 2,2-Dichloropropane	4.909	77	138140	9.279	ug/L		100
30) Bromochloromethane	5.000	128	62703	10.295	ug/L	#	85
31) Cyclohexane	5.000	56	230474	10.622	ug/L		85
32) Chloroform	5.076	83	228198	10.525	ug/L		97
33) Ethyl acetate	5.182	43	119186	9.980	ug/L		96
34) Carbon tetrachloride	5.205	117	175338	10.608	ug/L		96
35) Tetrahydrofuran	5.228	42	35864M1	9.269	ug/L		
37) 1,1,1-Trichloroethane	5.273	97	207017	10.825	ug/L		97
39) 2-Butanone	5.372	43	49095	9.712	ug/L	#	80
40) 1,1-Dichloropropene	5.395	75	172916	10.776	ug/L		99
41) Benzene	5.638	78	523398	10.490	ug/L		95
42) tert-Amyl methyl ether	5.737	73	367015	10.137	ug/L		99
44) 1,2-Dichloroethane	5.851	62	174093	10.302	ug/L		99
47) Methyl cyclohexane	6.223	83	195472	10.775	ug/L		84
48) Trichloroethene	6.238	95	139107	10.387	ug/L		97
50) Dibromomethane	6.686	93	76042	9.976	ug/L		99
51) 1,2-Dichloropropane	6.785	63	136374	10.537	ug/L		98
53) 2-Chloroethyl vinyl ether	7.478	63	70214	8.989	ug/L		94
54) Bromodichloromethane	6.861	83	173268	9.923	ug/L		100
57) 1,4-Dioxane	7.070	88	66100	508.108	ug/L		87
58) cis-1,3-Dichloropropene	7.550	75	206018	10.414	ug/L		93
61) Toluene	7.808	92	328605	10.674	ug/L		98
62) 4-Methyl-2-pentanone	8.245	58	41148	9.543	ug/L		93
63) Tetrachloroethene	8.259	166	141619	10.635	ug/L		99
65) trans-1,3-Dichloropropene	8.302	75	183952	10.250	ug/L		99
67) Ethyl methacrylate	8.481	69	157656	9.899	ug/L		96
68) 1,1,2-Trichloroethane	8.488	83	90893	9.707	ug/L		99
69) Chlorodibromomethane	8.703	129	130394	10.067	ug/L		99
70) 1,3-Dichloropropane	8.811	76	188756	10.153	ug/L		100
71) 1,2-Dibromoethane	8.975	107	111706	10.081	ug/L		100
72) 2-Hexanone	9.262	43	73892	9.579	ug/L		97
73) Chlorobenzene	9.621	112	358355	10.834	ug/L		98
74) Ethylbenzene	9.653	91	595448	10.065	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.703	131	126262	9.959	ug/L		99
76) p/m Xylene	9.843	106	457652	20.334	ug/L		97
77) o Xylene	10.377	106	443311	20.338	ug/L		98

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A18.D
Acq On : 3 Oct 2024 10:54 am
Operator : GONZO:MKS
Sample : C8260STD10PPB
Misc : WG1980167
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:30:28 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241003AICAL\VG241003A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) Styrene	10.451	104	786306	21.196	ug/L		98
80) Bromoform	10.484	173	89453	10.022	ug/L		99
82) Isopropylbenzene	10.756	105	504332	9.187	ug/L		99
84) Bromobenzene	11.200	156	153824	10.353	ug/L		99
85) n-Propylbenzene	11.233	91	658907	10.308	ug/L		98
86) 1,4-Dichlorobutane	11.266	55	212757	9.845	ug/L		100
87) 1,1,2,2-Tetrachloroethane	11.332	83	133306	9.593	ug/L		97
88) 4-Ethyltoluene	11.365	105	589019	11.255	ug/L		98
89) 2-Chlorotoluene	11.406	91	393088M1	10.083	ug/L		
90) 1,3,5-Trimethylbenzene	11.463	105	464033	10.013	ug/L		99
91) 1,2,3-Trichloropropane	11.471	75	103199	9.092	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.521	53	40698	8.890	ug/L	#	95
93) 4-Chlorotoluene	11.595	91	424904	10.354	ug/L		99
94) tert-Butylbenzene	11.801	119	380423	10.408	ug/L		95
97) 1,2,4-Trimethylbenzene	11.875	105	462965	10.239	ug/L		99
98) sec-Butylbenzene	11.990	105	544546	10.329	ug/L		100
99) p-Isopropyltoluene	12.138	119	459676	10.281	ug/L		98
100) 1,3-Dichlorobenzene	12.212	146	292050	10.790	ug/L		100
101) 1,4-Dichlorobenzene	12.311	146	294399	10.472	ug/L		99
102) p-Diethylbenzene	12.516	119	265812	10.597	ug/L		98
103) n-Butylbenzene	12.574	91	374313	10.397	ug/L		100
104) 1,2-Dichlorobenzene	12.730	146	288355	11.050	ug/L		98
105) 1,2,4,5-Tetramethylben...	13.306	119	367027	10.404	ug/L		99
106) 1,2-Dibromo-3-chloropr...	13.512	155	22336	9.648	ug/L		96
107) 1,3,5-Trichlorobenzene	13.536	180	172530	10.508	ug/L		98
108) Hexachlorobutadiene	14.104	225	56393	10.696	ug/L		98
109) 1,2,4-Trichlorobenzene	14.137	180	146480	10.513	ug/L		97
110) Naphthalene	14.425	128	286374	9.704	ug/L		100
111) 1,2,3-Trichlorobenzene	14.597	180	118940	10.204	ug/L		99

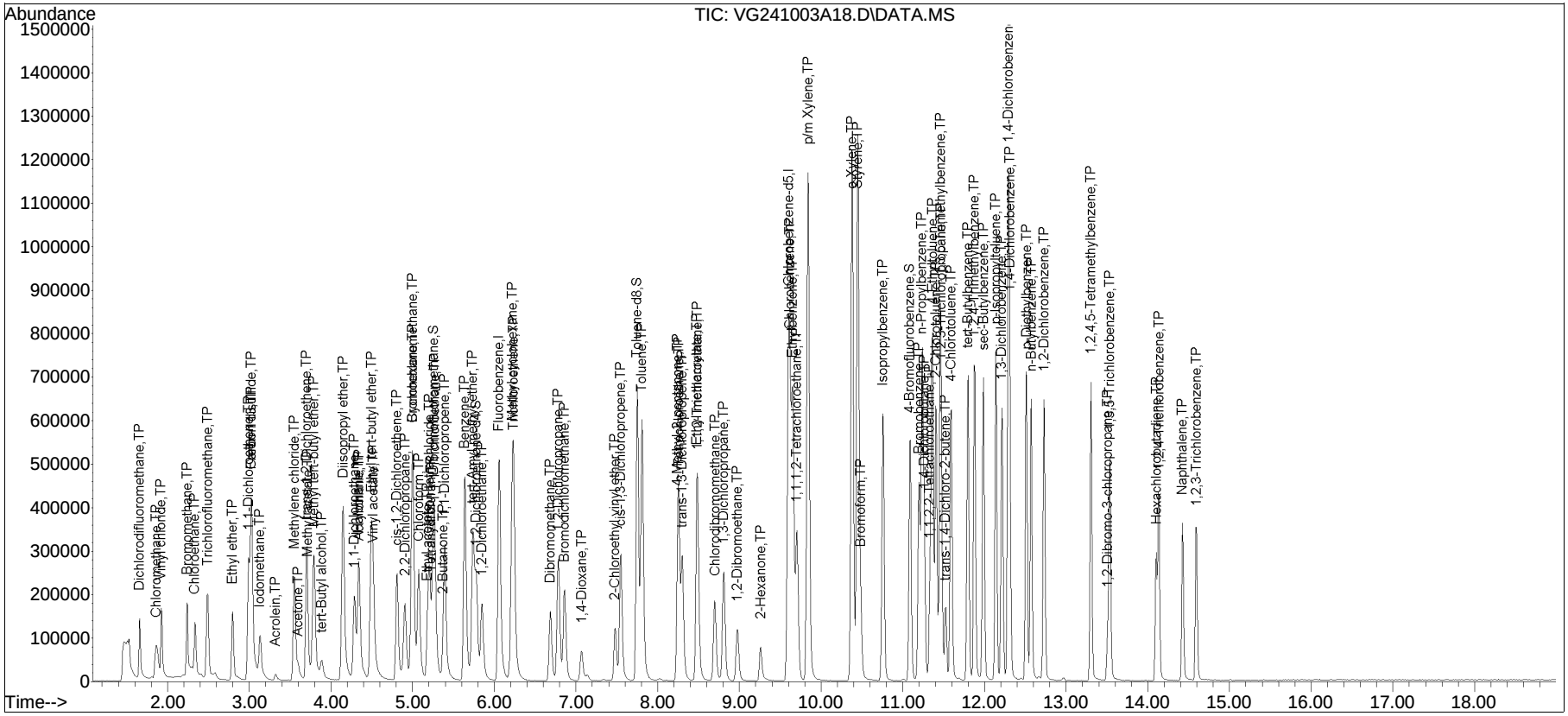
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241003AICAL\
Data File : VG241003A18.D
Acq On : 3 Oct 2024 10:54 am
Operator : GONZO:MKS
Sample : C8260STD10PPB
Misc : WG1980167
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 09:30:28 2024
Quant Method : K:\Gonzo\2024\241003AICAL\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

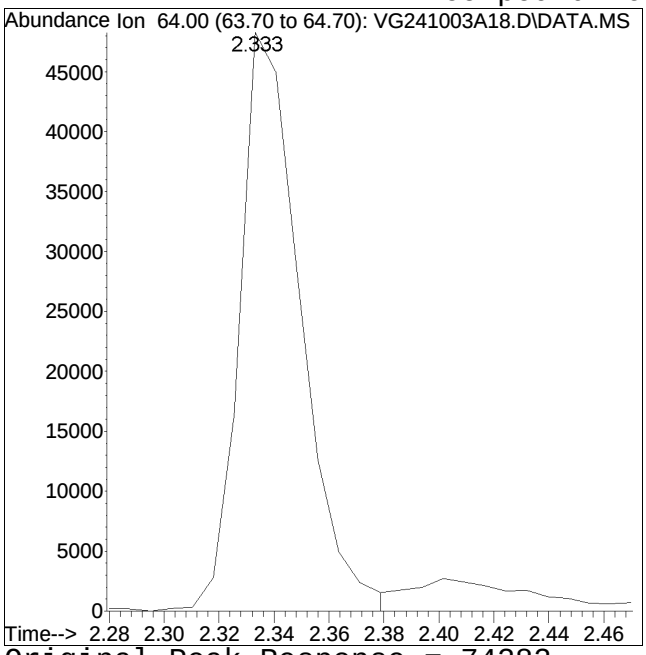
Sub List : 8260-Curve - Megamix plus DioxVG241003A09.D•

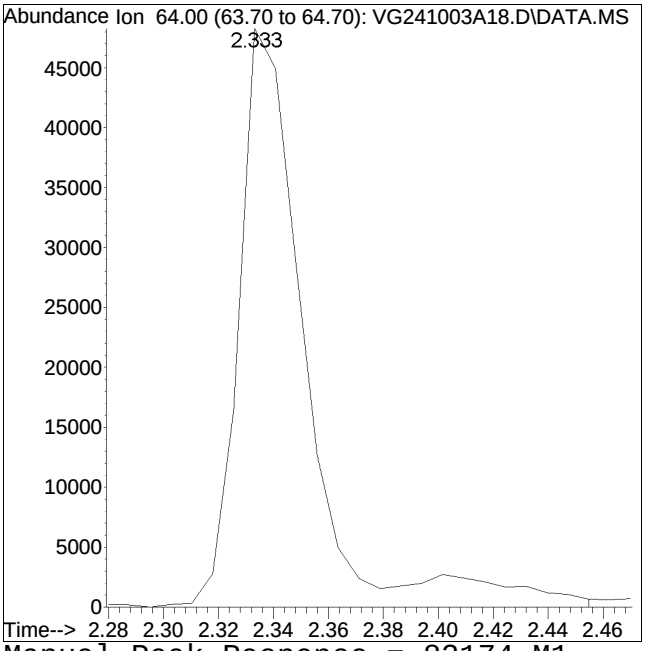


Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A18.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 10:54 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 10/4/2024 9:30 am

Compound #6: Chloroethane



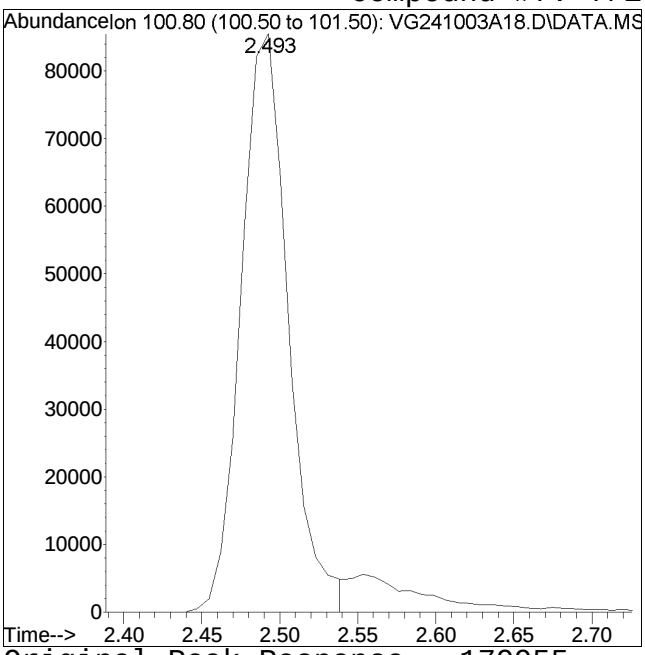


Original Peak Response = 74282 Manual Peak Response = 82174 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

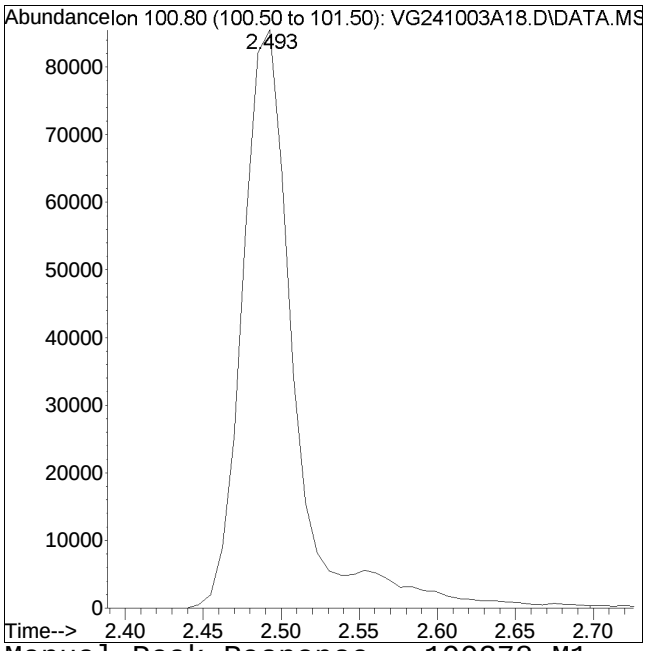
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A18.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 10:54 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 10/4/2024 9:30 am

Compound #7: Trichlorofluoromethane



Original Peak Response = 179955



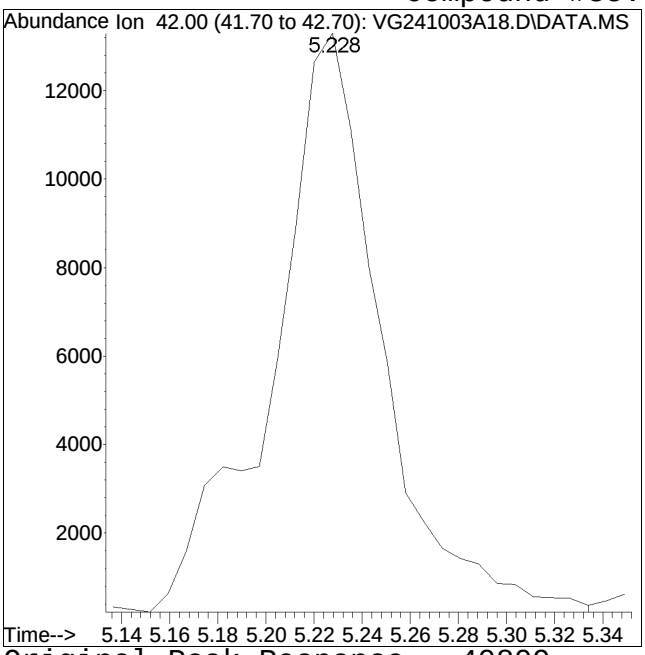
Manual Peak Response = 199378 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

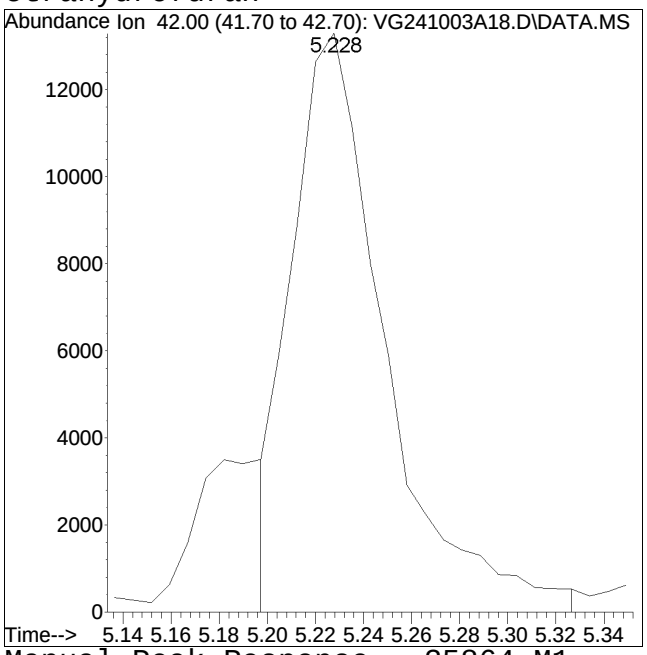
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A18.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 10:54 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 10/4/2024 9:30 am

Compound #35: Tetrahydrofuran



Original Peak Response = 40809



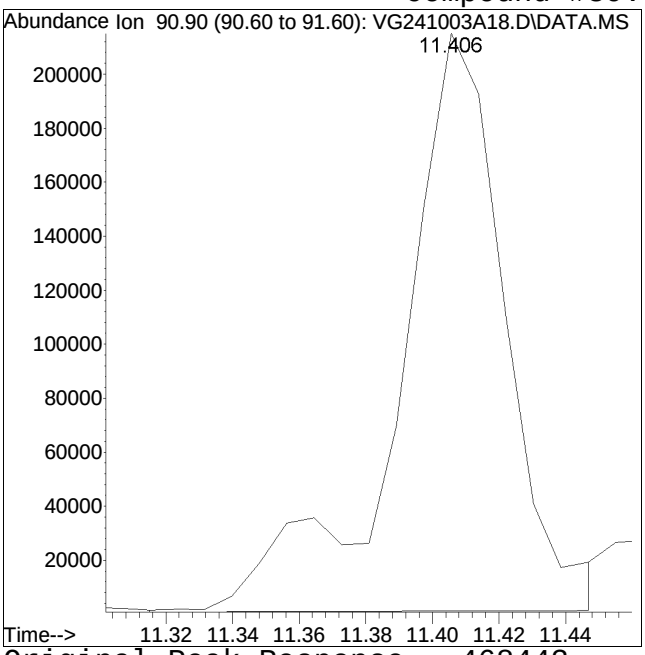
Manual Peak Response = 35864 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

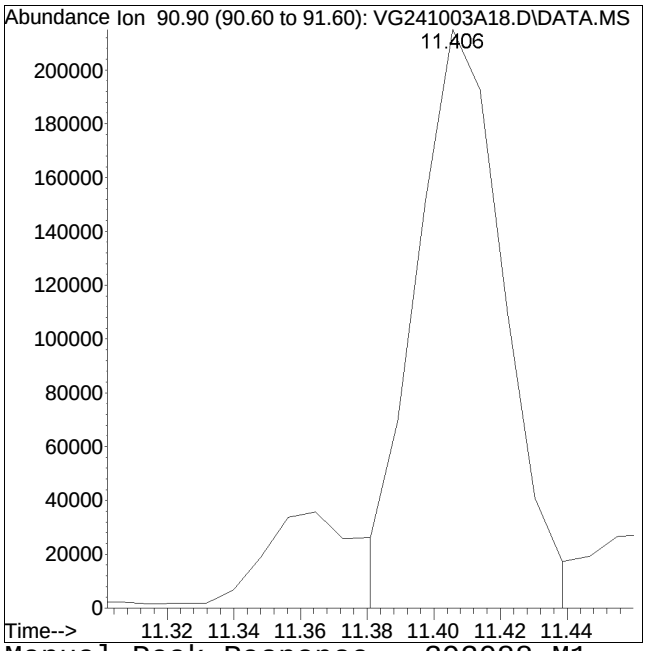
Manual Integration Report

Data Path : K:\Gonzo\2024\241003AICAL\QMethod : G_241003A_8260.m
Data File : VG241003A18.D Operator : GONZO:MKS
Date Inj'd : 10/3/2024 10:54 am Instrument : Gonzo
Sample : C8260STD10PPB Quant Date : 10/4/2024 9:30 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 468443



Manual Peak Response = 393088 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Relative Error Report Gonzo

Method Path : K:\Gonzo\2024\241003AICAL\
Method File : G_241003A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Oct 04 09:30:18 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
6	TP Chloroethane	Q	ug/L	10.0	11.148	11.5	0.50	0.394	-21.2

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
6	TP Chloroethane	Quadratic	0.990498	-0.003365	0.13165	0.00127391

Response Factor Report Elaine

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D
L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------	----------	ISTD	----------	----------	----------	----------	----------		
2)	TP	Dichlorodifluo...		0.150	0.216	0.248	0.243	0.242	0.232	0.232	0.223	15.17
3)	TP	Chloromethane		0.217	0.231	0.234	0.227	0.219	0.211	0.206	0.221	4.71
4)	TP	Vinyl chloride	0.167	0.205	0.243	0.259	0.261	0.252	0.245	0.249	0.235	13.82
5)	TP	Bromomethane		0.175	0.183	0.165	0.156	0.159	0.158	0.160	0.165	6.07
6)	TP	Chloroethane		0.126	0.175	0.182	0.178	0.179	0.175	0.177	0.170	11.66
7)	TP	Trichlorofluor...		0.229	0.339	0.381	0.366	0.373	0.358	0.357	0.343	15.19
8)	TP	Ethyl ether		0.090	0.099	0.107	0.112	0.111	0.111	0.112	0.106	7.88
10)	TP	1,1-Dichloroet...		0.144	0.170	0.180	0.185	0.183	0.181	0.180	0.175	8.12
11)	TP	Carbon disulfide		0.415	0.516	0.559	0.550	0.551	0.542	0.541	0.525	9.58
12)	TP	Freon-113		0.134	0.191	0.204	0.195	0.192	0.188	0.187	0.184	12.33
13)	TP	Iodomethane		0.156	0.130	0.146	0.160	0.178	0.175	0.177	0.160	11.19
14)	TP	Acrolein			0.021	0.022	0.021	0.021	0.022	0.022	0.021	3.08
15)	TP	Methylene chlo...		0.216	0.230	0.221	0.218	0.215	0.214	0.213	0.218	2.75
17)	TP	Acetone		0.058	0.049	0.041	0.036	0.039	0.039	0.039	0.043	17.71
18)	TP	trans-1,2-Dich...		0.162	0.190	0.206	0.206	0.202	0.199	0.197	0.195	8.00
19)	TP	Methyl acetate		0.100	0.099	0.095	0.095	0.094	0.094	0.094	0.096	2.74
21)	TP	Methyl tert-bu...		0.438	0.498	0.532	0.543	0.548	0.539	0.544	0.520	7.72
22)	TP	tert-Butyl alc...		0.010	0.013	0.014	0.013	0.014	0.014	0.014	0.013	11.92
24)	TP	Diisopropyl ether		0.563	0.632	0.667	0.663	0.681	0.677	0.687	0.653	6.68
25)	TP	1,1-Dichloroet...		0.329	0.390	0.406	0.400	0.404	0.395	0.399	0.389	6.92
26)	TP	Halothane		0.124	0.146	0.158	0.157	0.158	0.154	0.155	0.150	8.24
27)	TP	Acrylonitrile			0.054	0.054	0.052	0.052	0.051	0.053	0.053	1.69
28)	TP	Ethyl tert-but...		0.610	0.653	0.683	0.697	0.709	0.712	0.723	0.684	5.81
29)	TP	Vinyl acetate		0.393	0.403	0.450	0.468	0.478	0.480	0.492	0.452	8.67
30)	TP	cis-1,2-Dichlo...		0.178	0.226	0.232	0.232	0.229	0.226	0.233	0.222	8.84
31)	TP	2,2-Dichloropr...		0.253	0.298	0.325	0.327	0.321	0.314	0.311	0.307	8.37
33)	TP	Bromochloromet...		0.101	0.103	0.107	0.102	0.102	0.097	0.097	0.101	3.52
34)	TP	Cyclohexane		0.319	0.387	0.428	0.417	0.413	0.402	0.402	0.395	9.15
35)	TP	Chloroform		0.354	0.368	0.359	0.373	0.369	0.374	0.359	0.365	2.16
36)	TP	Ethyl acetate			0.143	0.158	0.155	0.150	0.154	0.154	0.152	3.47

Response Factor Report Elaine

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D
L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
37)	TP	Carbon tetrach...	0.242	0.202	0.250	0.282	0.285	0.290	0.280	0.288	0.265	11.77
38)	TP	Tetrahydrofuran			0.043	0.042	0.043	0.042	0.043	0.041	0.042	1.83
39)	S	Dibromofluorom...	0.240	0.230	0.233	0.236	0.225	0.228	0.222	0.220	0.229	2.94
40)	TP	1,1,1-Trichlor...		0.262	0.314	0.346	0.339	0.336	0.329	0.330	0.322	8.75
42)	TP	2-Butanone			0.066	0.054	0.057	0.062	0.064	0.063	0.061	7.35
43)	TP	1,1-Dichloropr...		0.244	0.274	0.300	0.291	0.294	0.285	0.288	0.282	6.60
45)	TP	Benzene	0.900	0.753	0.888	0.917	0.922	0.923	0.906	0.904	0.889	6.32
46)	TP	tert-Amyl meth...		0.498	0.546	0.573	0.584	0.597	0.602	0.607	0.572	6.81
47)	S	1,2-Dichloroet...	0.275	0.276	0.276	0.271	0.265	0.269	0.266	0.272	0.271	1.61
48)	T	1,2-Dichloroet...		0.278	0.284	0.284	0.289	0.283	0.280	0.281	0.283	1.29
51)	TP	Methyl cyclohe...		0.300	0.386	0.416	0.424	0.421	0.410	0.416	0.396	11.09
52)	TP	Trichloroethene	0.190	0.168	0.219	0.225	0.224	0.222	0.218	0.221	0.211	9.71
54)	TP	Dibromomethane		0.096	0.124	0.125	0.124	0.125	0.125	0.125	0.121	9.00
55)	TP	1,2-Dichloropr...		0.185	0.228	0.233	0.237	0.235	0.232	0.230	0.226	8.02
57)	TP	2-Chloroethyl ...		0.099	0.133	0.136	0.141	0.142	0.140	0.140	0.133	11.55
58)	TP	Bromodichlorom...		0.242	0.282	0.306	0.302	0.309	0.305	0.306	0.293#	8.32
61)	TP	1,4-Dioxane		0.001	0.001	0.002	0.002	0.001	0.002	0.001	0.001#	8.59
62)	TP	cis-1,3-Dichlo...	0.278	0.286	0.327	0.356	0.364	0.369	0.365	0.363	0.338	11.01
63)	I	Chlorobenzene-d5	----------ISTD----------									
64)	S	Toluene-d8	1.361	1.371	1.369	1.378	1.371	1.359	1.339	1.362	1.364	0.86
65)	TP	Toluene		0.692	0.795	0.821	0.802	0.803	0.787	0.802	0.786	5.43
66)	TP	4-Methyl-2-pen...		0.078	0.073	0.079	0.085	0.086	0.088	0.089	0.083	7.26
67)	TP	Tetrachloroethene		0.262	0.318	0.340	0.329	0.325	0.316	0.321	0.316	7.90
69)	TP	trans-1,3-Dich...	0.263	0.304	0.384	0.417	0.434	0.435	0.437	0.439	0.389	17.55
71)	TP	Ethyl methacry...		0.242	0.277	0.306	0.312	0.310	0.312	0.318	0.297	9.33
72)	TP	1,1,2-Trichlor...		0.191	0.207	0.212	0.211	0.208	0.207	0.211	0.207	3.48
73)	TP	Chlorodibromom...		0.212	0.250	0.277	0.291	0.302	0.302	0.305	0.277	12.44
74)	TP	1,3-Dichloropr...		0.391	0.421	0.437	0.436	0.437	0.431	0.432	0.426	3.86
75)	TP	1,2-Dibromoethane		0.225	0.246	0.248	0.248	0.247	0.249	0.250	0.245	3.58
77)	TP	2-Hexanone		0.124	0.121	0.132	0.136	0.137	0.138	0.140	0.133	5.62
78)	TP	Chlorobenzene		0.766	0.844	0.862	0.856	0.849	0.834	0.837	0.835	3.87

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D
L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

		Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79)	TP	Ethylbenzene		1.264	1.483	1.576	1.562	1.562	1.528	1.535	1.502	7.27	
80)	TP	1,1,1,2-Tetrac...		0.213	0.269	0.290	0.293	0.296	0.290	0.291	0.277	10.74	
81)	TP	p/m Xylene		0.462	0.570	0.599	0.596	0.599	0.596	0.625	0.578	9.27	
82)	TP	o Xylene		0.454	0.548	0.582	0.575	0.585	0.591	0.609	0.564	9.19	
83)	TP	Styrene		0.786	0.903	0.956	0.973	1.006	1.008	1.030	0.952	8.85	
84)	I	1,4-Dichlorobenzene-d4		----------ISTD----------									
85)	TP	Bromoform		0.193	0.255	0.292	0.312	0.336	0.344	0.337	0.296	18.61	
87)	TP	Isopropylbenzene		2.460	2.964	3.019	3.035	3.090	3.098	3.012	2.954	7.53	
88)	S	4-Bromofluorob...	0.926	0.931	0.925	0.912	0.906	0.909	0.933	0.907	0.919	1.23	
89)	TP	Bromobenzene		0.589	0.650	0.686	0.671	0.684	0.685	0.650	0.659	5.25	
90)	TP	n-Propylbenzene		2.800	3.311	3.446	3.464	3.520	3.517	3.395	3.351	7.56	
91)	TP	1,4-Dichlorobu...		0.707	0.796	0.805	0.787	0.804	0.818	0.776	0.785	4.70	
92)	TP	1,1,2,2-Tetrac...		0.553	0.577	0.569	0.579	0.576	0.586	0.553	0.570	2.25	
93)	TP	4-Ethyltoluene		2.443	2.795	2.894	2.863	2.868	2.849	2.750	2.780	5.63	
94)	TP	2-Chlorotoluene		1.679	2.053	1.999	1.987	1.963	1.998	1.944	1.946	6.31	
95)	TP	1,3,5-Trimethy...		2.131	2.501	2.530	2.521	2.533	2.524	2.481	2.460	5.94	
96)	TP	1,2,3-Trichlor...		0.433	0.485	0.448	0.443	0.443	0.461	0.439	0.450	3.93	
97)	TP	trans-1,4-Dich...		0.130	0.157	0.156	0.170	0.174	0.181	0.173	0.163	10.59	
98)	TP	4-Chlorotoluene		1.768	2.040	2.065	2.038	2.064	2.088	2.031	2.013	5.46	
99)	TP	tert-Butylbenzene		1.744	2.059	2.106	2.080	2.103	2.089	2.031	2.030	6.35	
102)	TP	1,2,4-Trimethy...		2.164	2.443	2.530	2.518	2.565	2.556	2.495	2.467	5.66	
103)	TP	sec-Butylbenzene		2.631	3.066	3.196	3.204	3.248	3.200	3.154	3.100	6.92	
104)	TP	p-Isopropyltol...		2.097	2.520	2.648	2.672	2.713	2.656	2.673	2.568	8.42	
105)	TP	1,3-Dichlorobe...		1.223	1.355	1.333	1.332	1.353	1.329	1.313	1.320	3.41	
106)	TP	1,4-Dichlorobe...		1.272	1.384	1.328	1.315	1.331	1.321	1.317	1.324	2.49	
107)	TP	p-Diethylbenzene		1.189	1.433	1.559	1.587	1.594	1.554	1.604	1.503	9.96	
108)	TP	n-Butylbenzene		1.847	2.213	2.309	2.337	2.350	2.282	2.342	2.240	8.02	
109)	TP	1,2-Dichlorobe...		1.221	1.290	1.245	1.266	1.262	1.252	1.254	1.256	1.67	
110)	TP	1,2,4,5-Tetram...		2.024	2.276	2.393	2.491	2.501	2.604	2.565	2.408	8.37	
111)	TP	1,2-Dibromo-3-...		0.054	0.063	0.073	0.081	0.083	0.091	0.088	0.076	18.03	
112)	TP	1,3,5-Trichlor...		0.781	0.888	0.912	0.935	0.915	0.939	0.901	0.896	5.97	

Method Path : K:\Elaine\2024\241115AICAL\
Method File : Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024
Response Via : Initial Calibration

Calibration Files
L11 =VE241115A03.D L1 =VE241115A05.D L2 =VE241115A07.D L3 =VE241115A09.D L4 =VE241115A10.D
L6 =VE241115A11.D L8 =VE241115A12.D L10 =VE241115A13.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
113)	TP Hexachlorobuta...	0.190	0.249	0.254	0.260	0.243	0.246	0.232	0.239		9.71
114)	TP 1,2,4-Trichlor...	0.716	0.792	0.793	0.800	0.809	0.800	0.765	0.782		4.09
115)	TP Naphthalene	1.572	1.696	1.819	1.882	1.965	2.008	1.916	1.837		8.44
116)	TP 1,2,3-Trichlor...	0.612	0.683	0.699	0.722	0.733	0.732	0.707	0.698		6.06

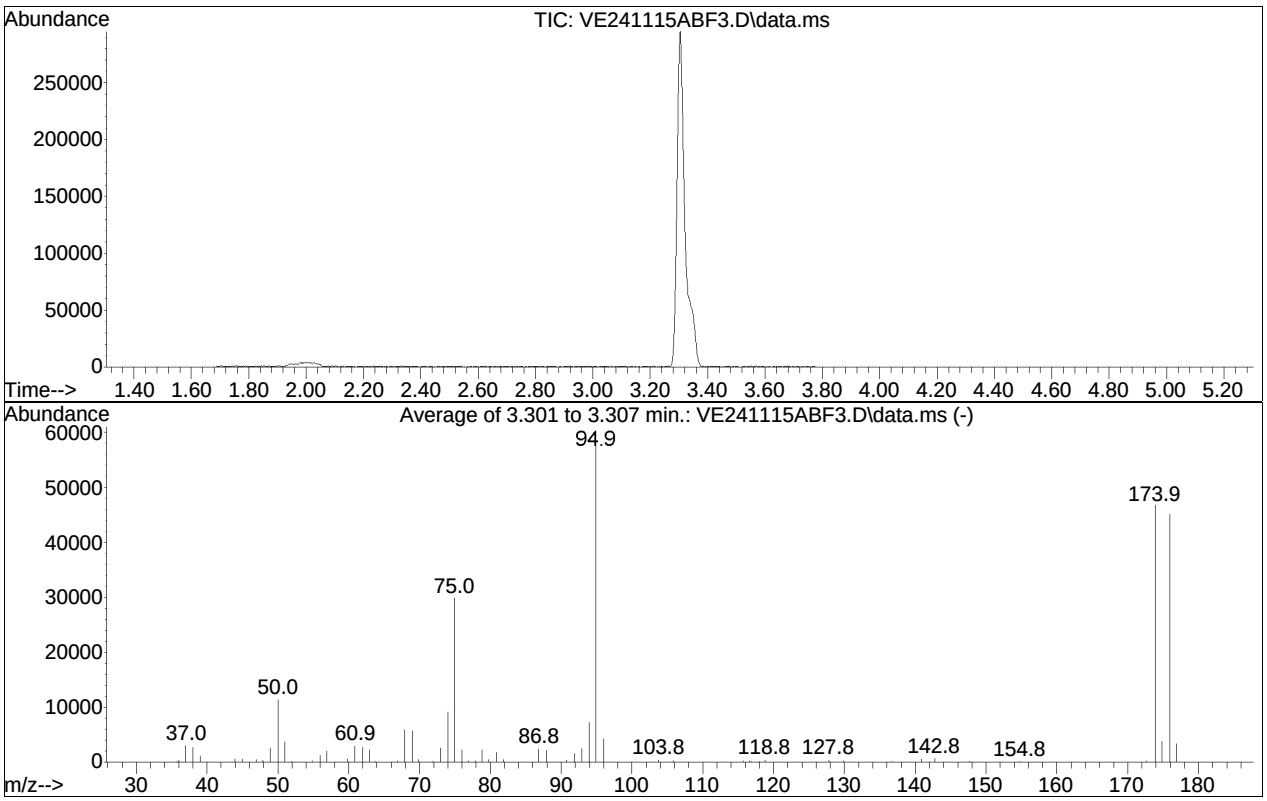
(#) = Out of Range

BFB

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115ABF3.D
Acq On : 15 Nov 2024 1:44 am
Operator : ELAINE:TMS
Sample : WG1998028-1
Misc : WG1998028
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024



AutoFind: Scans 580, 581, 582; Background Corrected with Scan 566

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	11338	PASS
75	95	30	60	51.3	29848	PASS
95	95	100	100	100.0	58141	PASS
96	95	5	9	7.2	4192	PASS
173	174	0.00	2	0.4	209	PASS
174	95	50	100	80.3	46715	PASS
175	174	5	9	8.1	3791	PASS
176	174	95	101	96.6	45128	PASS
177	176	5	9	7.4	3344	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A03.D
Acq On : 15 Nov 2024 2:52 am
Operator : ELAINE:PID
Sample : I8260STD0.19PPB
Misc : WG1998028,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 11:45:03 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	258893	10.000 ug/L	0.00
Standard Area 1 = 258108			Recovery = 100.30%		
63) Chlorobenzene-d5	9.469	117	194016	10.000 ug/L	0.00
Standard Area 1 = 187202			Recovery = 103.64%		
84) 1,4-Dichlorobenzene-d4	12.185	152	99361	10.000 ug/L	0.00
Standard Area 1 = 99398			Recovery = 99.96%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.136	113	62008	10.446 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.46%		
47) 1,2-Dichloroethane-d4	5.657	65	71296	10.151 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.51%		
64) Toluene-d8	7.629	98	264145	9.983 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.83%		
88) 4-Bromofluorobenzene	10.970	95	92049	10.083 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.83%		
Target Compounds					Qvalue
4) Vinyl chloride	1.851	62	822	0.135 ug/L	86
37) Carbon tetrachloride	5.094	117	1189M3	0.173 ug/L	
45) Benzene	5.526	78	4429M3	0.192 ug/L	
52) Trichloroethene	6.109	95	936M1	0.171 ug/L	
62) cis-1,3-Dichloropropene	7.420	75	1369M1	0.156 ug/L	
69) trans-1,3-Dichloropropene	8.175	75	971M1	0.129 ug/L	

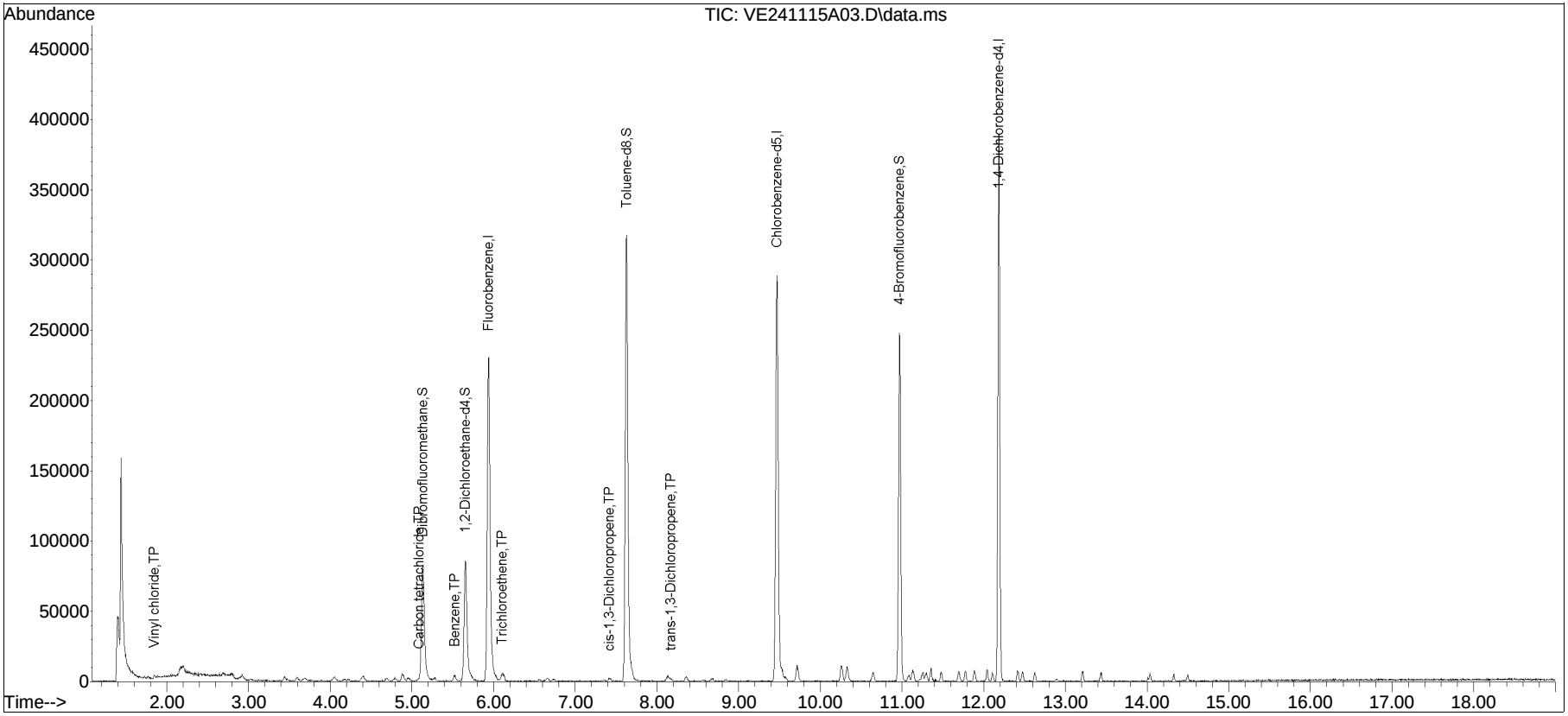
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A03.D
Acq On : 15 Nov 2024 2:52 am
Operator : ELAINE:PID
Sample : I8260STD0.19PPB
Misc : WG1998028,ICAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 11:45:03 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

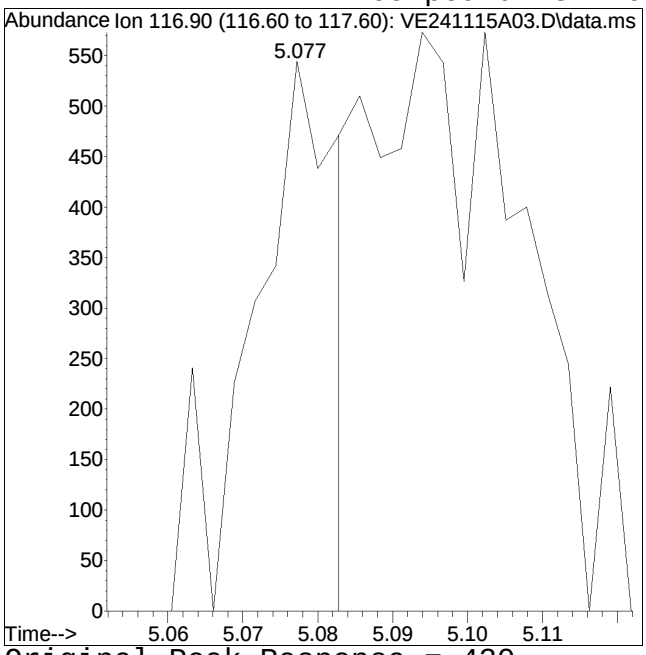
Sub List : 8260-L11_MCP - L11 MCP115AICAL\VE241115A09.D•

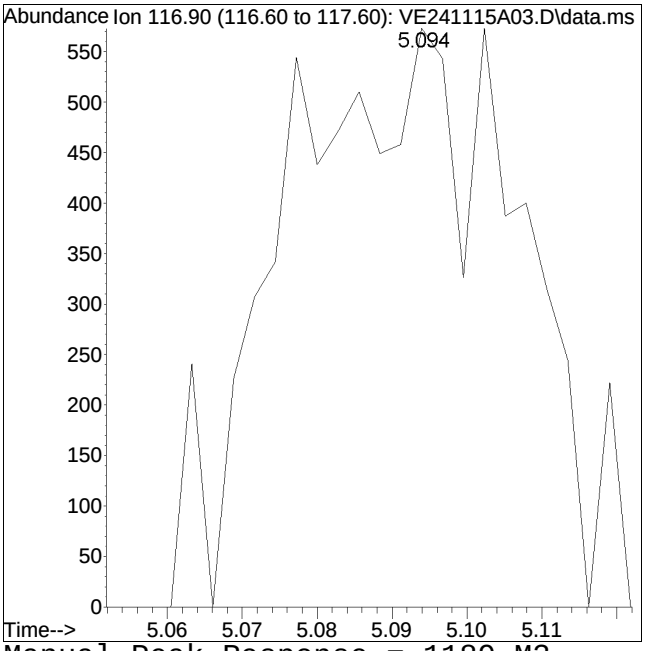


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #37: Carbon tetrachloride





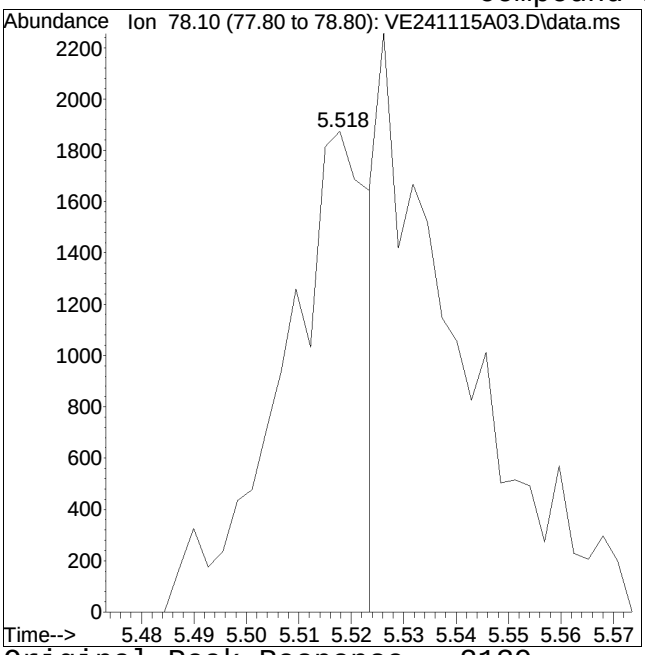
Original Peak Response = 430 Manual Peak Response = 1189 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

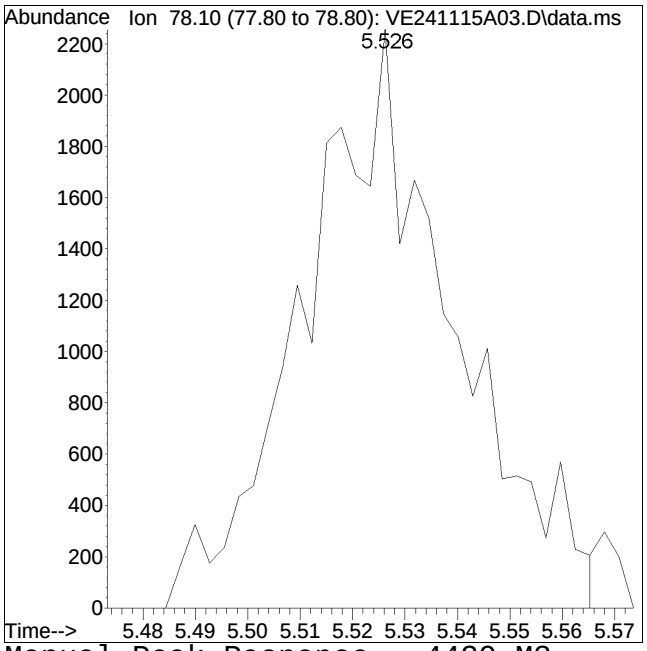
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #45: Benzene



Original Peak Response = 2139



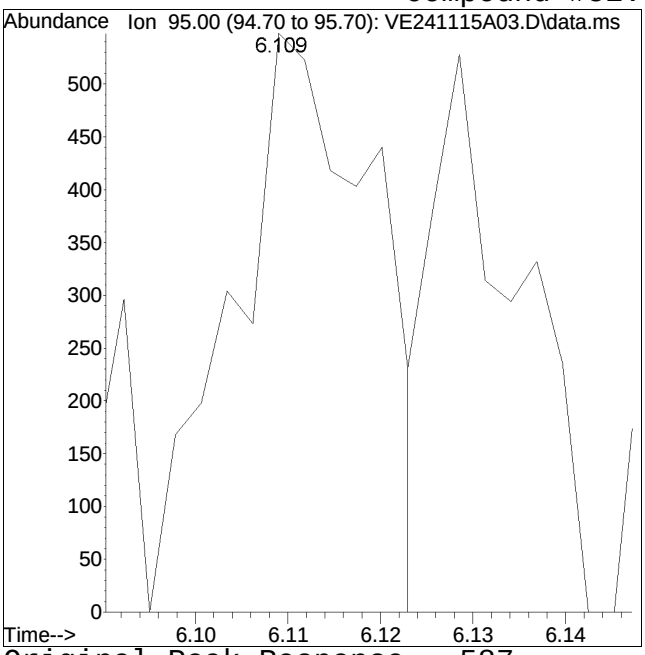
Manual Peak Response = 4429 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

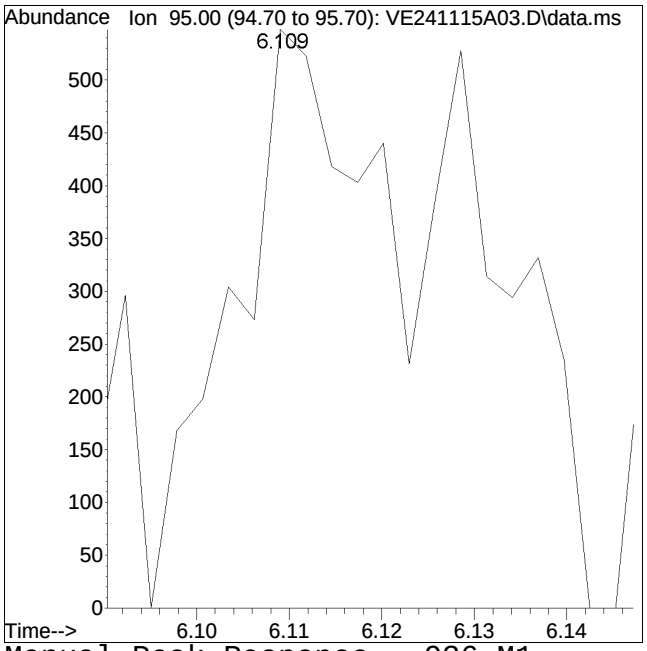
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #52: Trichloroethene



Original Peak Response = 587



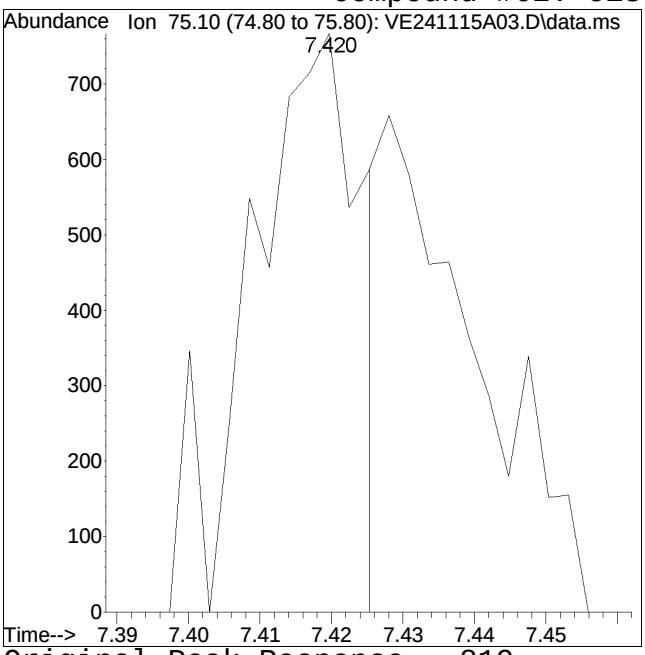
Manual Peak Response = 936 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

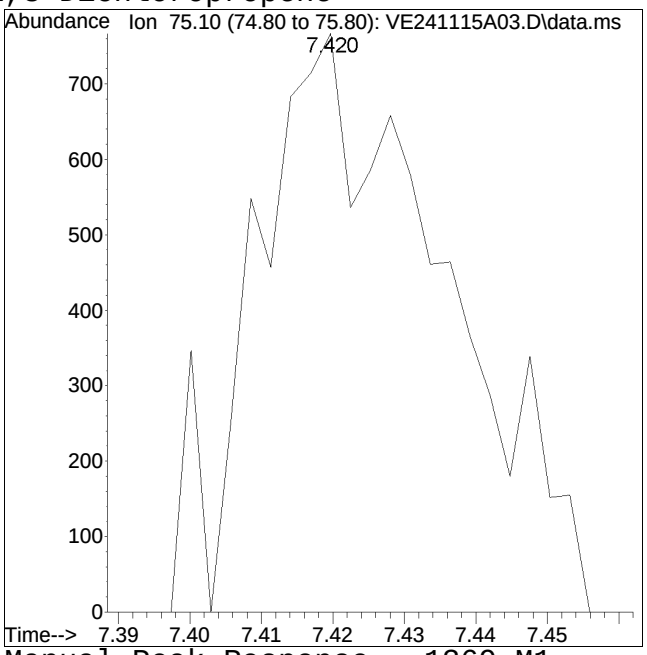
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #62: cis-1,3-Dichloropropene



Original Peak Response = 819



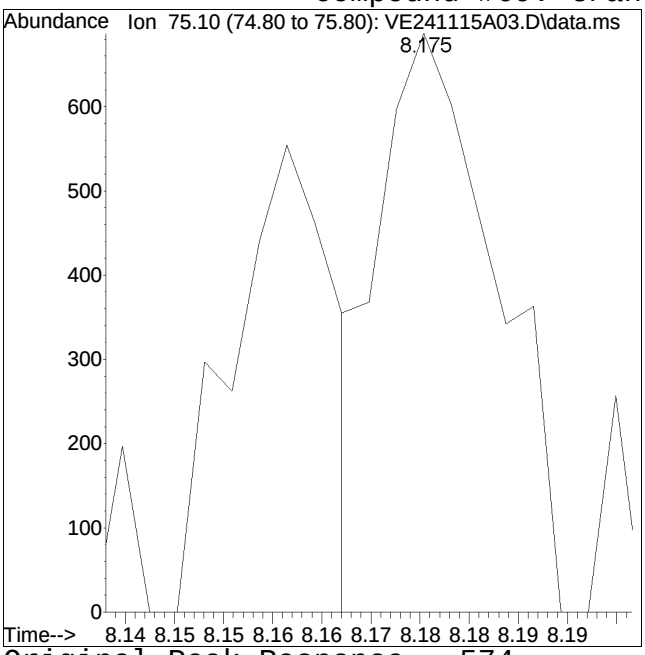
Manual Peak Response = 1369 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

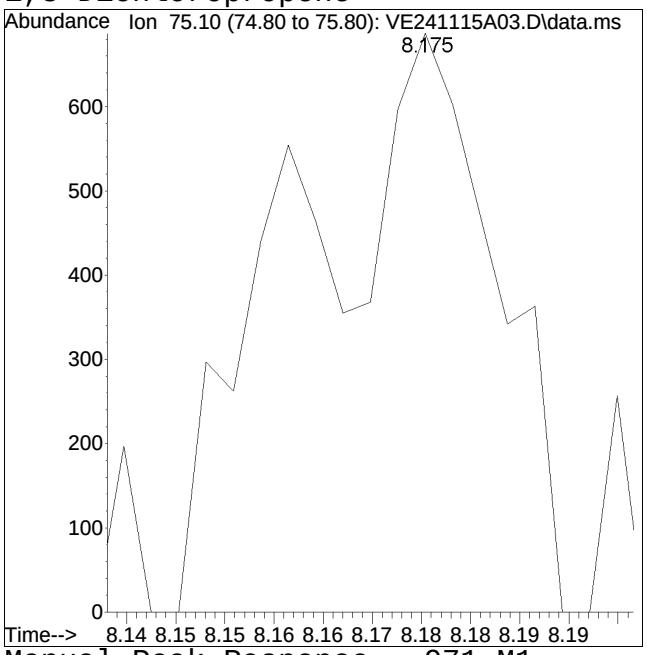
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A03.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 2:52 am Instrument : Elaine
Sample : I8260STD0.19PPB Quant Date : 11/15/2024 11:44 am

Compound #69: trans-1,3-Dichloropropene



Original Peak Response = 574



Manual Peak Response = 971 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.939	96	256483	10.000 ug/L	0.00
Standard Area 1 = 258108			Recovery = 99.37%		
63) Chlorobenzene-d5	9.470	117	190246	10.000 ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.63%		
84) 1,4-Dichlorobenzene-d4	12.186	152	97348	10.000 ug/L	0.00
Standard Area 1 = 99398			Recovery = 97.94%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.130	113	59050	10.041 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.41%		
47) 1,2-Dichloroethane-d4	5.652	65	70685	10.158 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.58%		
64) Toluene-d8	7.629	98	260761	10.051 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.51%		
88) 4-Bromofluorobenzene	10.970	95	90656	10.136 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.36%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.583	85	1927	0.336 ug/L #	88
3) Chloromethane	1.770	50	2789	0.493 ug/L	93
4) Vinyl chloride	1.845	62	2633M1	0.436 ug/L	
5) Bromomethane	2.155	94	2240	0.529 ug/L	92
6) Chloroethane	2.269	64	1611	0.369 ug/L	93
7) Trichlorofluoromethane	2.409	101	2934	0.333 ug/L #	63
8) Ethyl ether	2.693	74	1158M1	0.425 ug/L	
10) 1,1-Dichloroethene	2.894	96	1853M1	0.413 ug/L	
11) Carbon disulfide	2.919	76	5323	0.395 ug/L	98
12) Freon-113	2.930	101	1724M3	0.365 ug/L	
13) Iodomethane	3.028	142	2005	0.487 ug/L #	60
14) Acrolein	0.000		0	N.D. d	
15) Methylene chloride	3.440	84	2764	0.494 ug/L	90
17) Acetone	3.488	43	740M3	0.672 ug/L	
18) trans-1,2-Dichloroethene	3.594	96	2072M1	0.415 ug/L	
19) Methyl acetate	3.599	43	1285M1	0.522 ug/L	
21) Methyl tert-butyl ether	3.691	73	5611M1	0.420 ug/L	
22) tert-Butyl alcohol	3.795	59	621M3	1.846 ug/L	
24) Diisopropyl ether	4.051	45	7214	0.431 ug/L #	41
25) 1,1-Dichloroethane	4.177	63	4222M4	0.423 ug/L	
26) Halothane	4.235	117	1586M3	0.412 ug/L	

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	0.000		0	N.D.	d		
28) Ethyl tert-butyl ether	4.394	59	7829M1	0.446	ug/L		
29) Vinyl acetate	4.419	43	5041	0.435	ug/L	#	79
30) cis-1,2-Dichloroethene	4.684	96	2285M1	0.401	ug/L		
31) 2,2-Dichloropropane	4.793	77	3248M1	0.412	ug/L		
33) Bromochloromethane	4.882	128	1300M1	0.501	ug/L		
34) Cyclohexane	4.891	56	4093	0.403	ug/L		97
35) Chloroform	4.960	83	4537M3	0.485	ug/L		
36) Ethyl acetate	0.000		0	N.D.	d		
37) Carbon tetrachloride	5.083	117	2590M3	0.381	ug/L		
38) Tetrahydrofuran	0.000		0	N.D.	d		
40) 1,1,1-Trichloroethane	5.153	97	3364M3	0.407	ug/L		
42) 2-Butanone	0.000		0	N.D.	d		
43) 1,1-Dichloropropene	5.281	75	3132M3	0.432	ug/L		
45) Benzene	5.526	78	9661M1	0.424	ug/L		
46) tert-Amyl methyl ether	5.632	73	6381M1	0.435	ug/L		
48) 1,2-Dichloroethane	5.727	62	3565M1	0.491	ug/L		
51) Methyl cyclohexane	6.095	83	3853M1	0.379	ug/L		
52) Trichloroethene	6.126	95	2159M1	0.399	ug/L		
54) Dibromomethane	6.561	93	1230	0.398	ug/L	#	75
55) 1,2-Dichloropropane	6.653	63	2378M6	0.410	ug/L		
57) 2-Chloroethyl vinyl ether	7.361	63	1268M3	0.372	ug/L		
58) Bromodichloromethane	6.731	83	3100	0.412	ug/L	#	66
61) 1,4-Dioxane	6.937	88	3107	82.048	ug/L	#	58
62) cis-1,3-Dichloropropene	7.425	75	3665M3	0.422	ug/L		
65) Toluene	7.685	92	6582	0.440	ug/L		96
66) 4-Methyl-2-pentanone	8.114	58	746M1	0.475	ug/L		
67) Tetrachloroethene	8.137	166	2495	0.415	ug/L	#	44
69) trans-1,3-Dichloropropene	8.170	75	2895	0.391	ug/L	#	72
71) Ethyl methacrylate	8.365	69	2299M3	0.407	ug/L		
72) 1,1,2-Trichloroethane	8.354	83	1816	0.462	ug/L	#	76
73) Chlorodibromomethane	8.574	129	2018	0.383	ug/L	#	63
74) 1,3-Dichloropropane	8.678	76	3724	0.459	ug/L	#	57
75) 1,2-Dibromoethane	8.842	107	2141	0.460	ug/L	#	67
77) 2-Hexanone	9.132	43	1182M1	0.468	ug/L		
78) Chlorobenzene	9.486	112	7282	0.458	ug/L	#	51
79) Ethylbenzene	9.528	91	12024	0.421	ug/L	#	69
80) 1,1,1,2-Tetrachloroethane	9.578	131	2024	0.384	ug/L	#	68
81) p/m Xylene	9.715	106	8790	0.799	ug/L		97
82) o Xylene	10.259	106	8633	0.805	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83)	Styrene	10.323	104	14947	0.826	ug/L		92
85)	Bromoform	10.356	173	940M1	0.327	ug/L		
87)	Isopropylbenzene	10.644	105	11976	0.416	ug/L		93
89)	Bromobenzene	11.079	156	2869	0.447	ug/L		88
90)	n-Propylbenzene	11.132	91	13631	0.418	ug/L		93
91)	1,4-Dichlorobutane	11.143	55	3441M1	0.450	ug/L		
92)	1,1,2,2-Tetrachloroethane	11.218	83	2693	0.485	ug/L	#	69
93)	4-Ethyltoluene	11.257	105	11892M3	0.439	ug/L		
94)	2-Chlorotoluene	11.293	91	8170	0.431	ug/L		90
95)	1,3,5-Trimethylbenzene	11.352	105	10373	0.433	ug/L		98
96)	1,2,3-Trichloropropane	11.352	75	2107	0.481	ug/L	#	85
97)	trans-1,4-Dichloro-2-b...	11.416	53	632M3	0.398	ug/L		
98)	4-Chlorotoluene	11.480	91	8606	0.439	ug/L		97
99)	tert-Butylbenzene	11.698	119	8488	0.429	ug/L	#	30
102)	1,2,4-Trimethylbenzene	11.770	105	10534	0.439	ug/L		100
103)	sec-Butylbenzene	11.884	105	12805	0.424	ug/L		100
104)	p-Isopropyltoluene	12.041	119	10208	0.408	ug/L		98
105)	1,3-Dichlorobenzene	12.108	146	5953	0.463	ug/L		98
106)	1,4-Dichlorobenzene	12.202	146	6189M3	0.480	ug/L		
107)	p-Diethylbenzene	12.414	119	5789	0.396	ug/L		90
108)	n-Butylbenzene	12.473	91	8988	0.412	ug/L		97
109)	1,2-Dichlorobenzene	12.623	146	5945	0.486	ug/L		98
110)	1,2,4,5-Tetramethylben...	13.209	119	9851	0.420	ug/L	#	96
111)	1,2-Dibromo-3-chloropr...	13.407	155	262M6	0.353	ug/L		
112)	1,3,5-Trichlorobenzene	13.438	180	3803	0.436	ug/L		89
113)	Hexachlorobutadiene	14.009	225	927M6	0.398	ug/L		
114)	1,2,4-Trichlorobenzene	14.040	180	3487	0.458	ug/L		94
115)	Naphthalene	14.330	128	7650	0.428	ug/L		100
116)	1,2,3-Trichlorobenzene	14.500	180	2977	0.438	ug/L	#	85

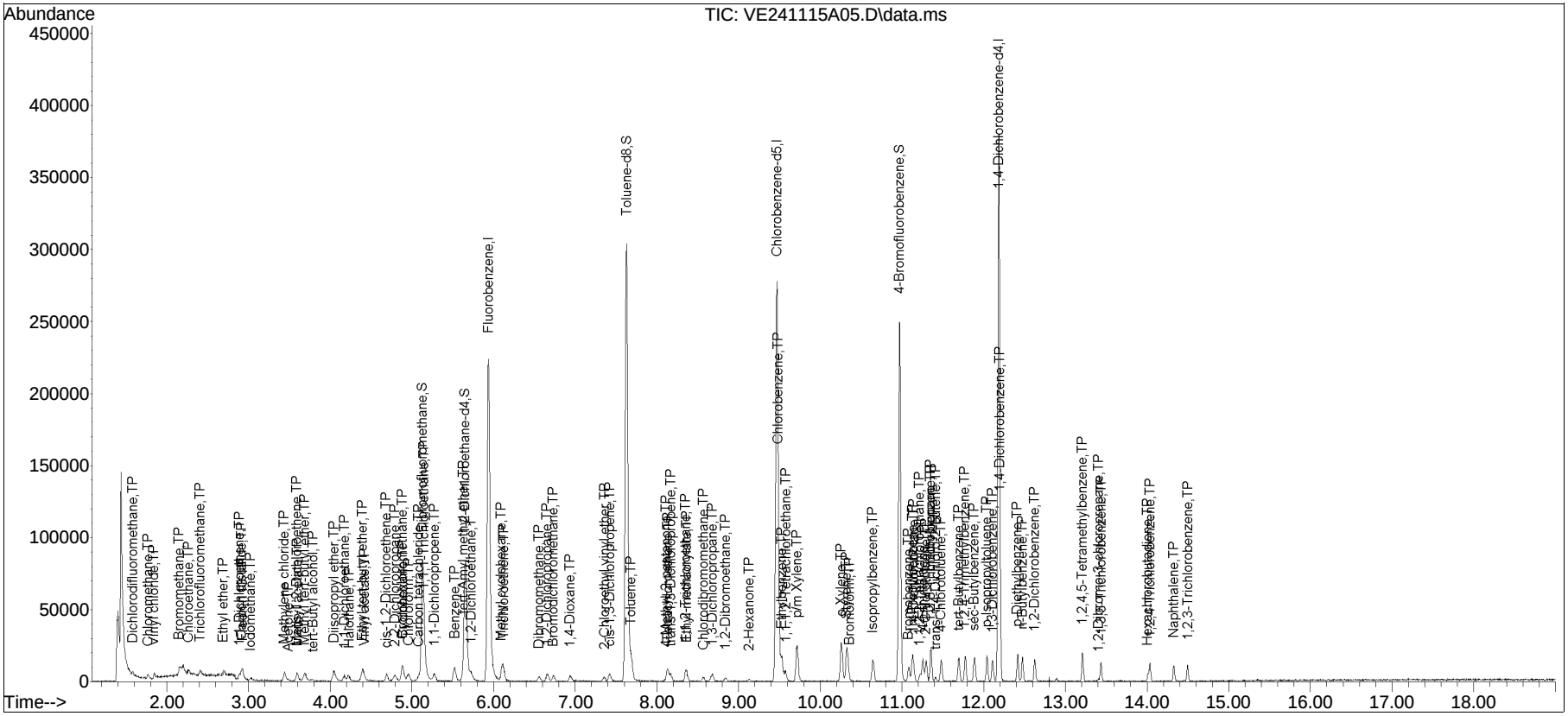
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A05.D
Acq On : 15 Nov 2024 3:41 am
Operator : ELAINE:PID
Sample : I8260STD0.5PPB
Misc : WG1998028,ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 11:45:13 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

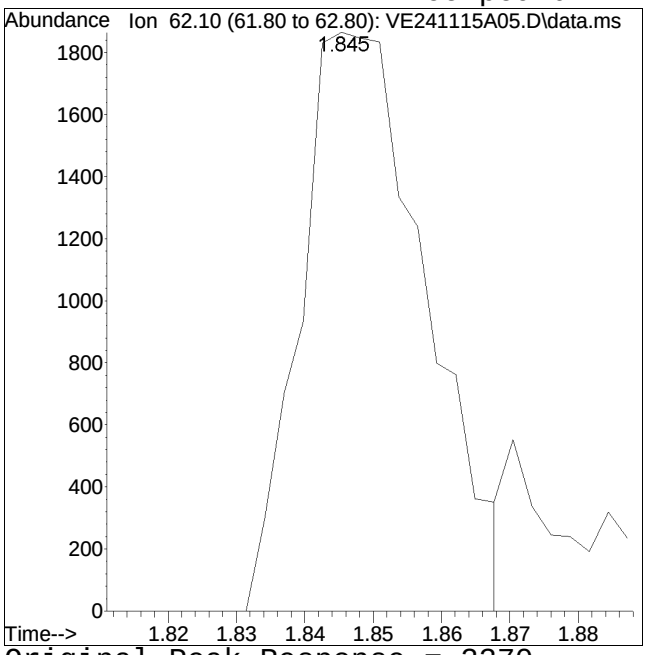
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

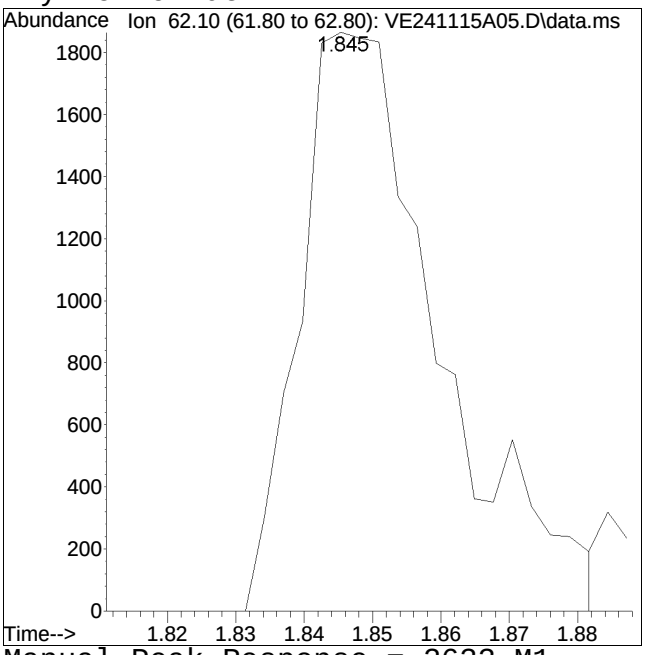


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #4: Vinyl chloride



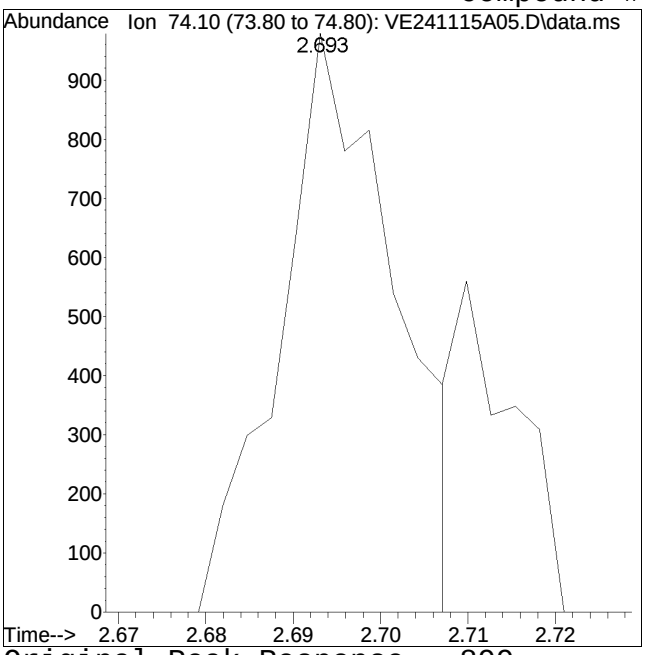


Original Peak Response = 2370 Manual Peak Response = 2633 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

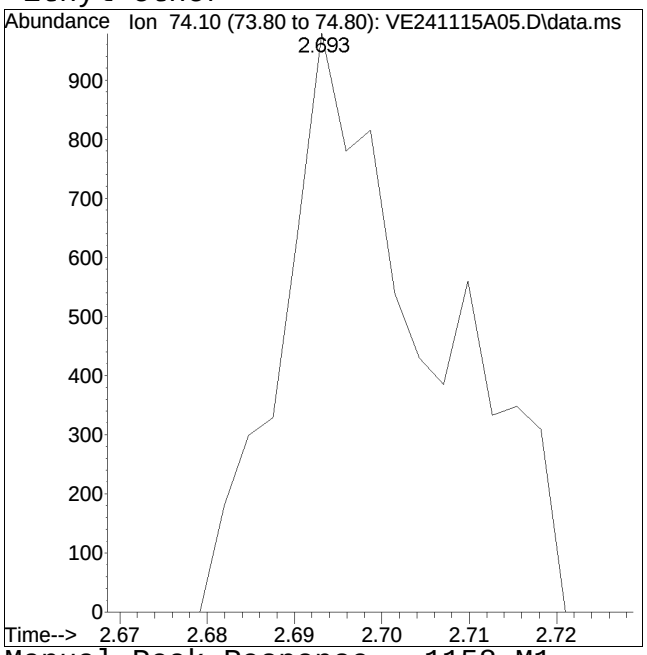
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #8: Ethyl ether



Original Peak Response = 899



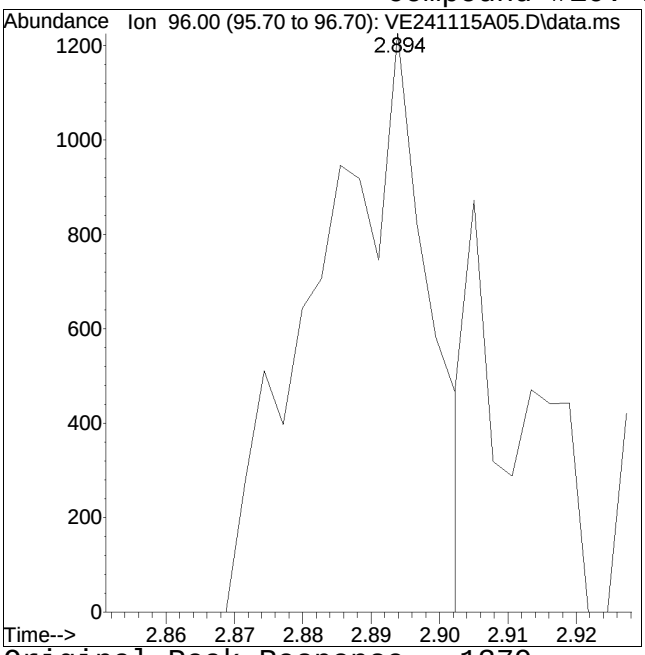
Manual Peak Response = 1158 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

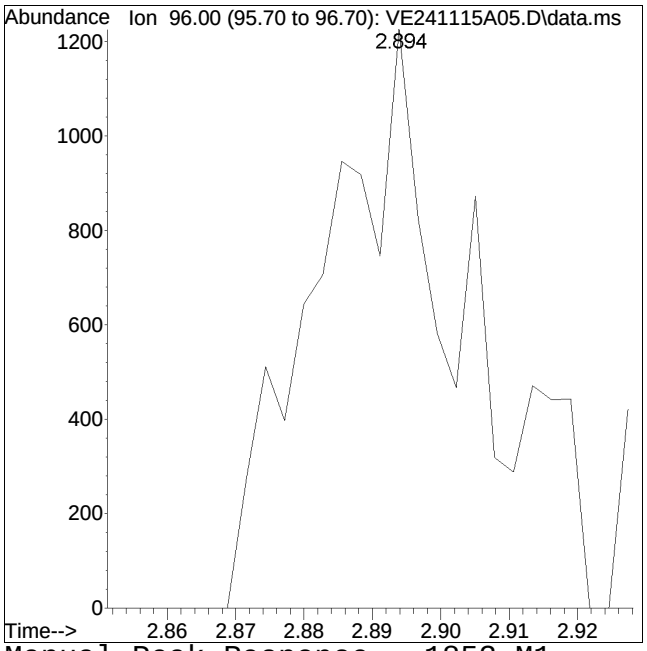
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #10: 1,1-Dichloroethene



Original Peak Response = 1379



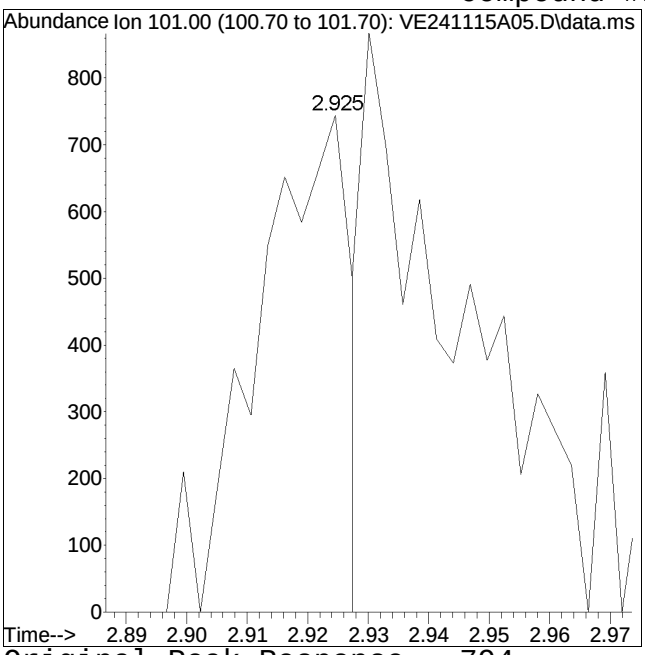
Manual Peak Response = 1853 M1

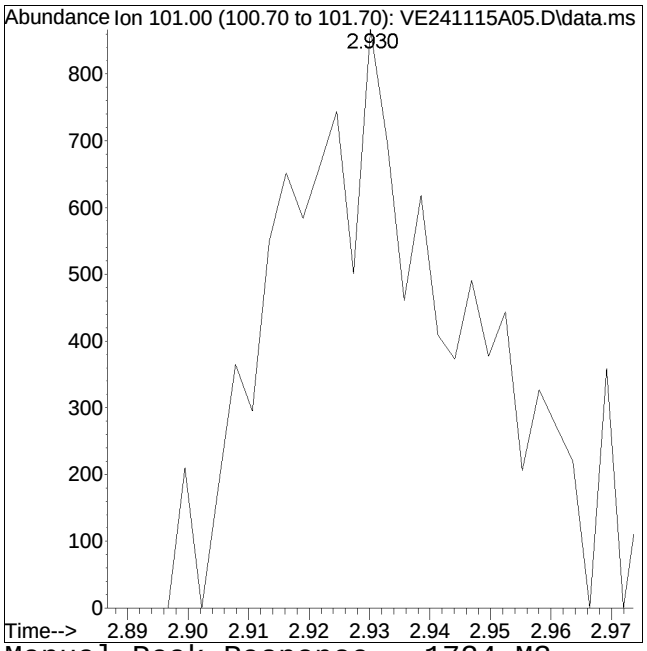
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #12: Freon-113





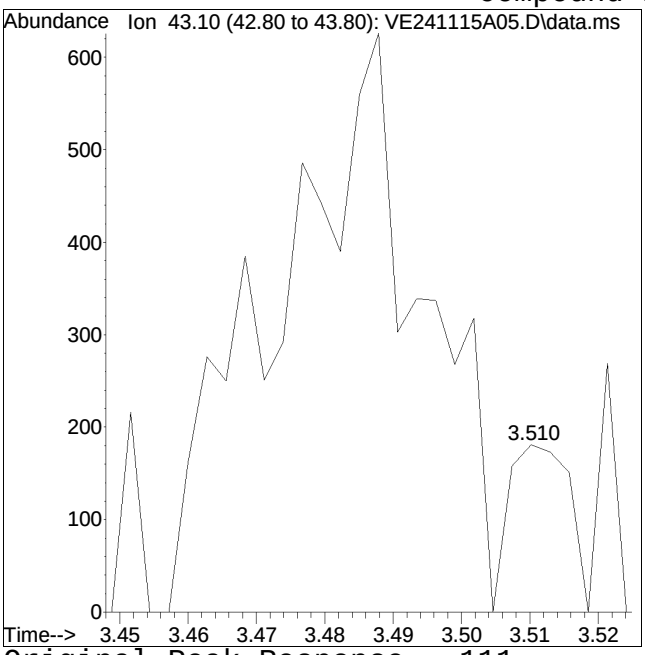
Original Peak Response = 794 Manual Peak Response = 1724 M3

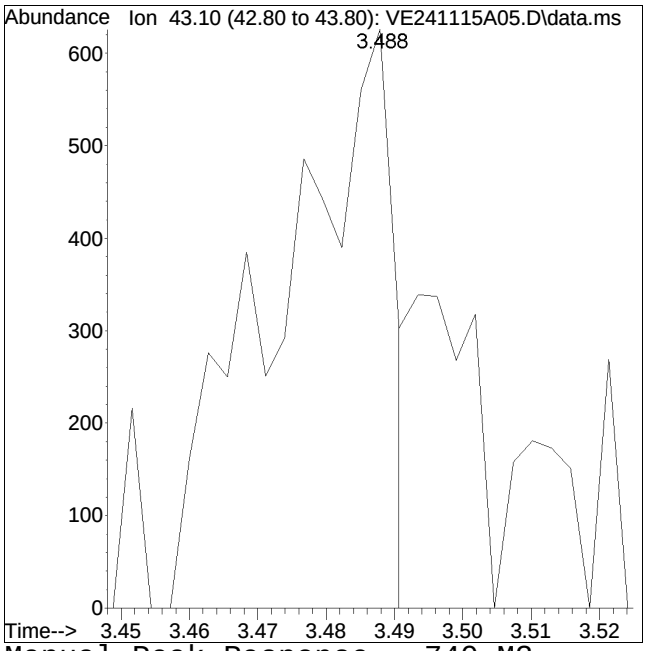
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #17: Acetone





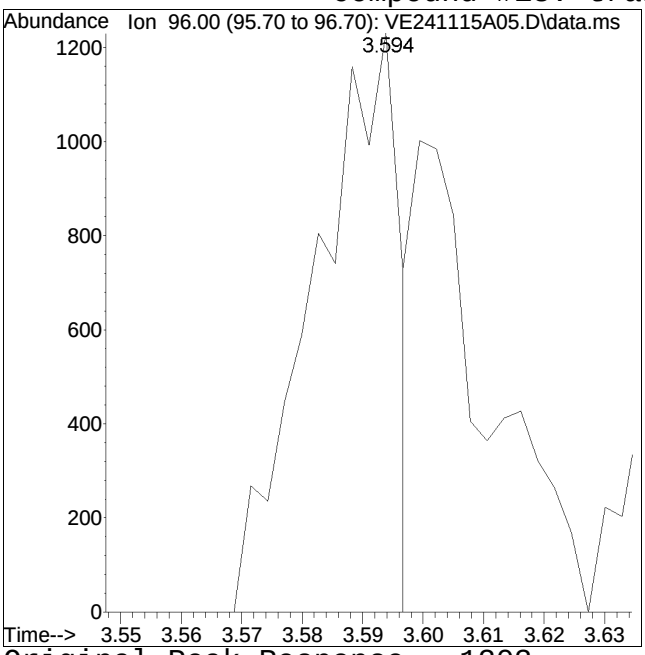
Original Peak Response = 111 Manual Peak Response = 740 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

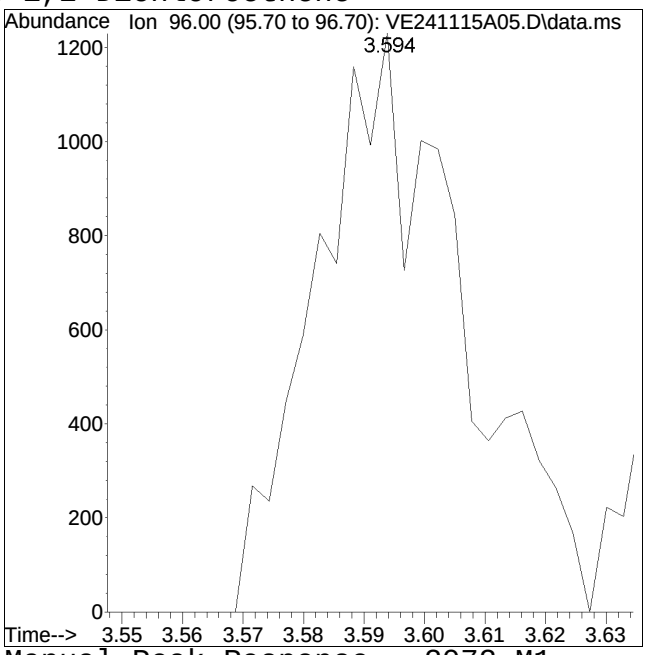
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #18: trans-1,2-Dichloroethene



Original Peak Response = 1203



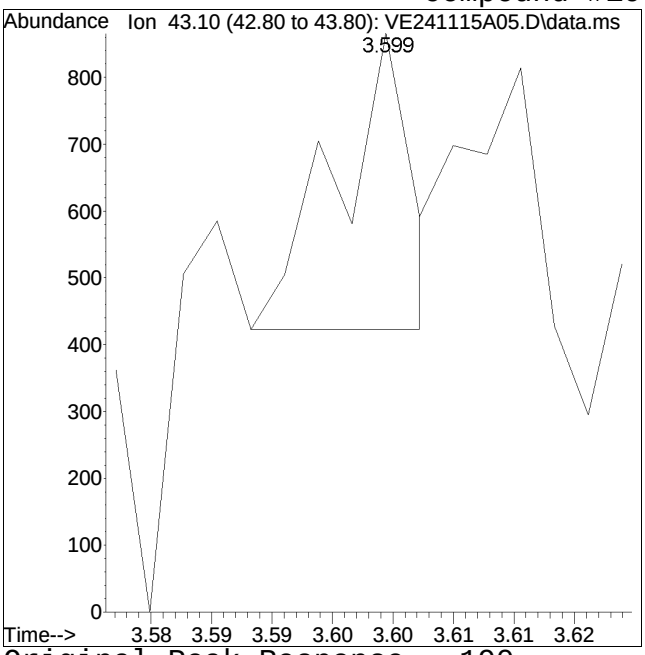
Manual Peak Response = 2072 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

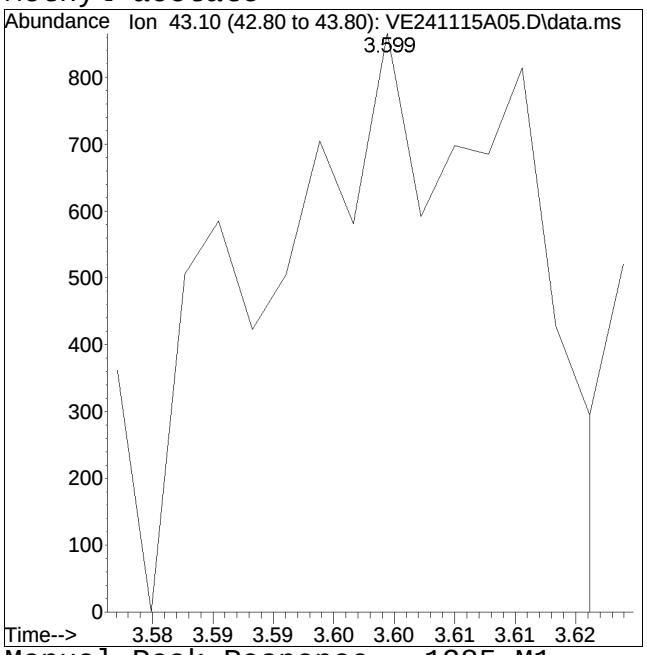
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #19: Methyl acetate



Original Peak Response = 190



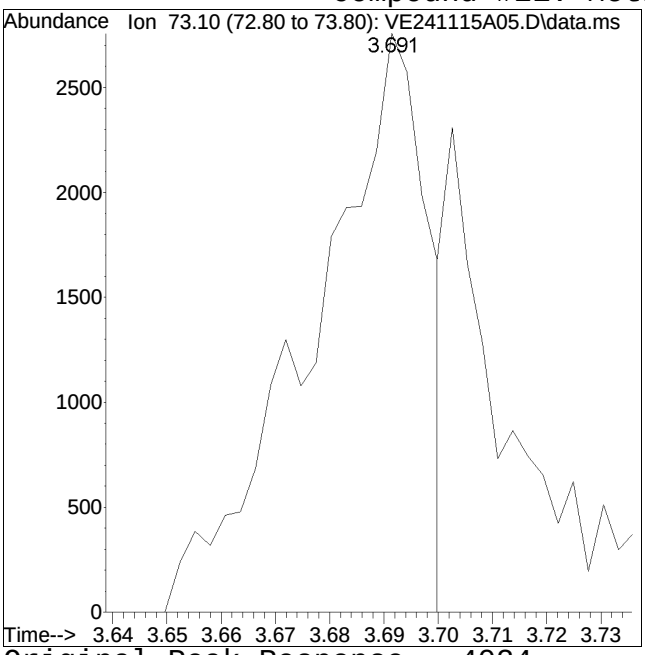
Manual Peak Response = 1285 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

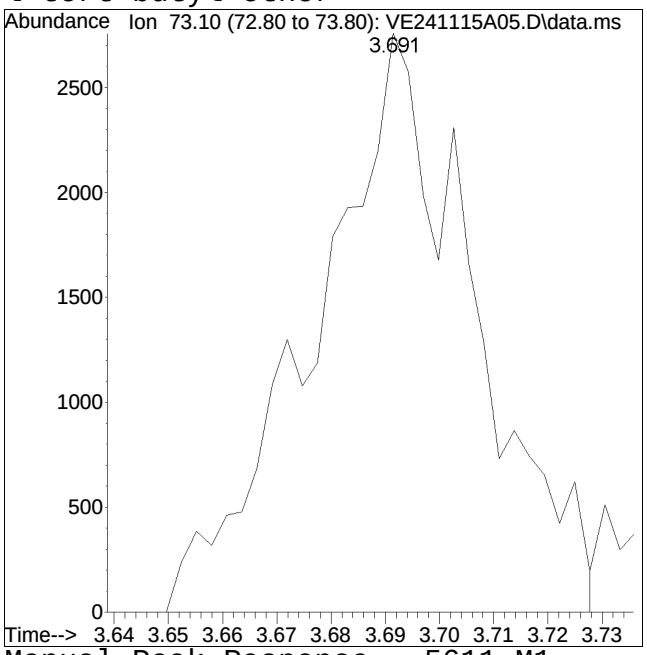
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 4024



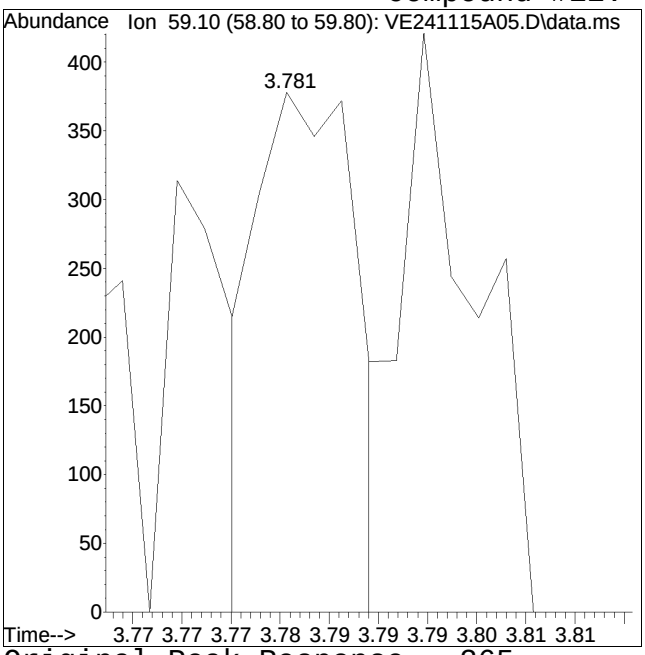
Manual Peak Response = 5611 M1

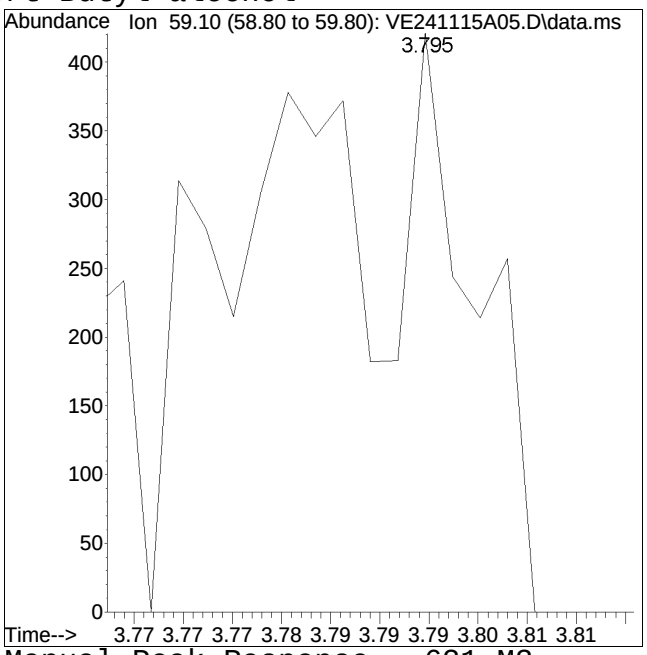
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #22: tert-Butyl alcohol





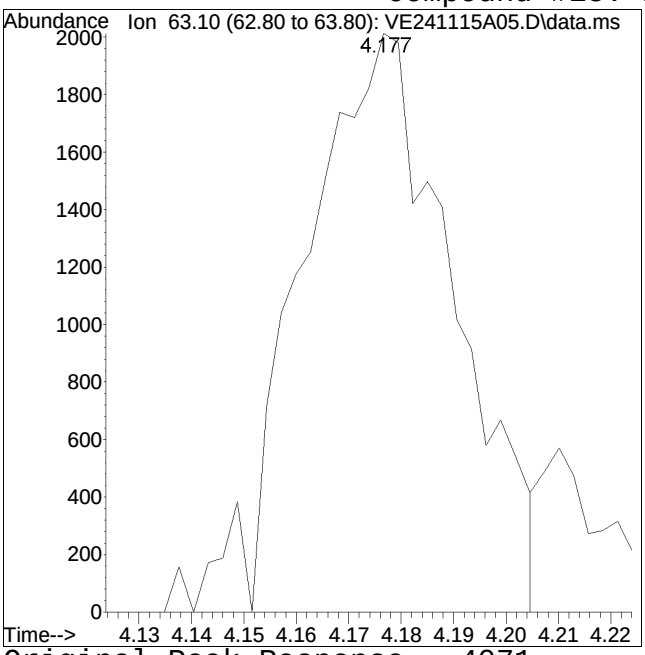
Original Peak Response = 265 Manual Peak Response = 621 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

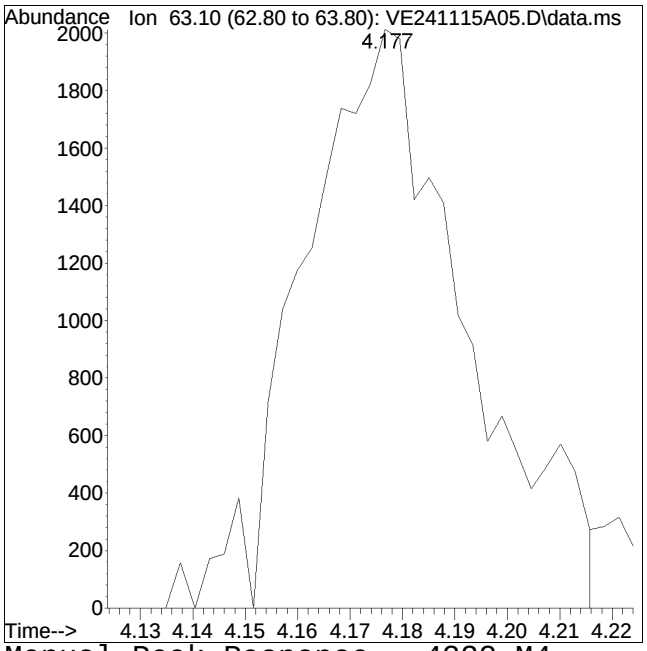
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #25: 1,1-Dichloroethane



Original Peak Response = 4071



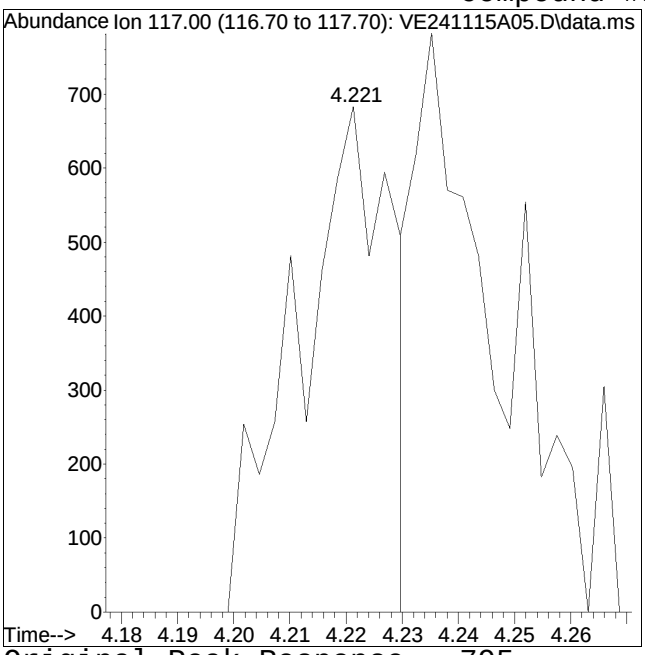
Manual Peak Response = 4222 M4

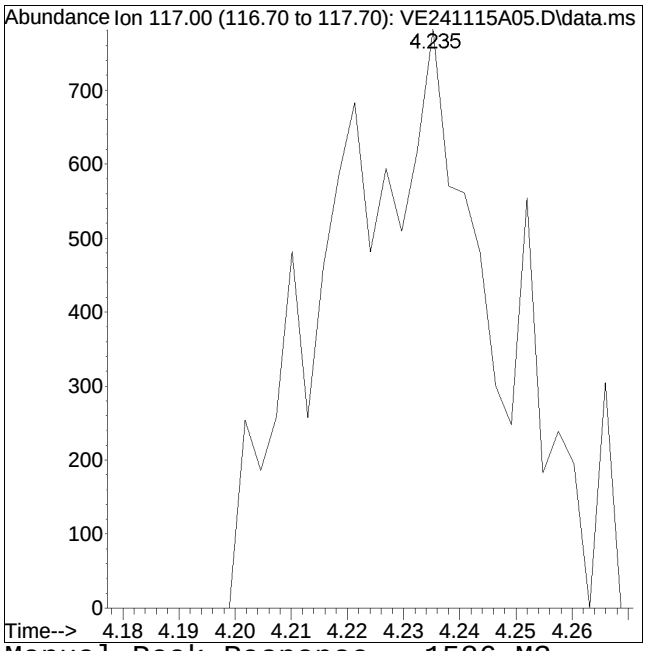
M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #26: Halothane





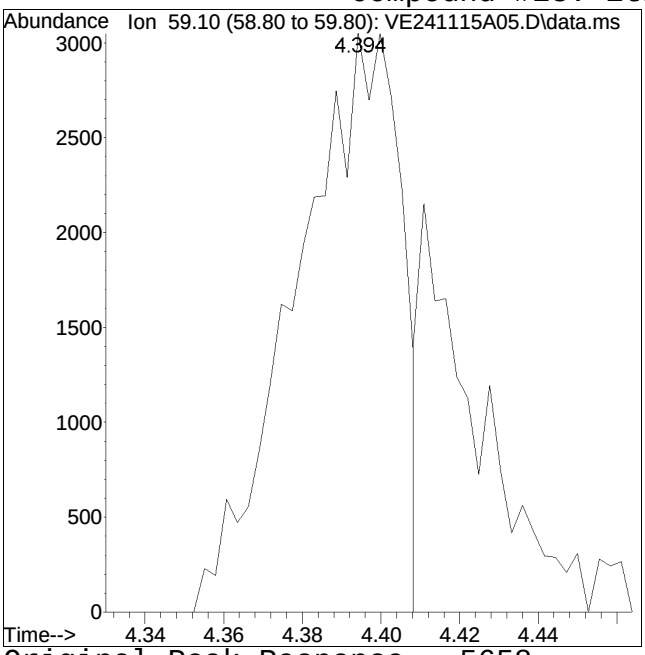
Original Peak Response = 795 Manual Peak Response = 1586 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

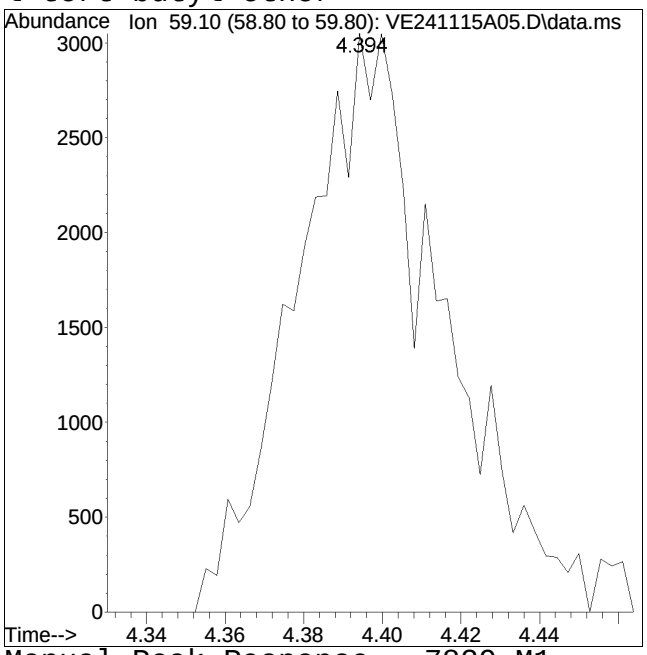
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #28: Ethyl tert-butyl ether



Original Peak Response = 5658



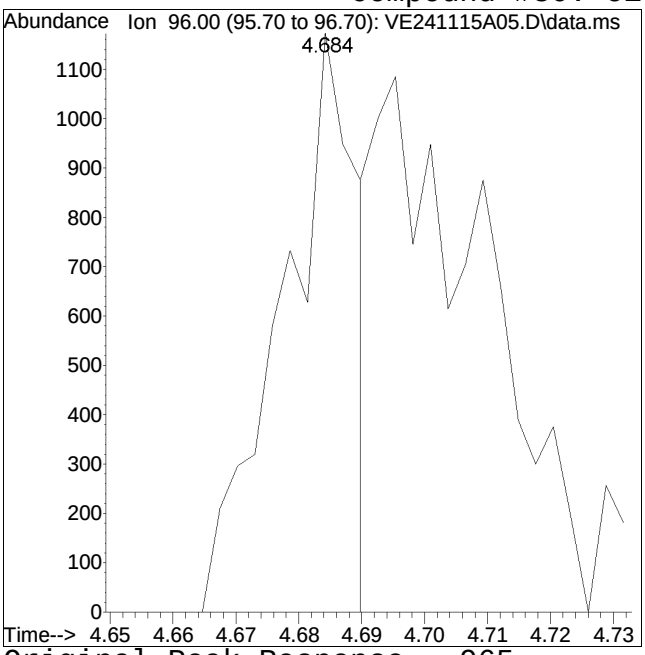
Manual Peak Response = 7829 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

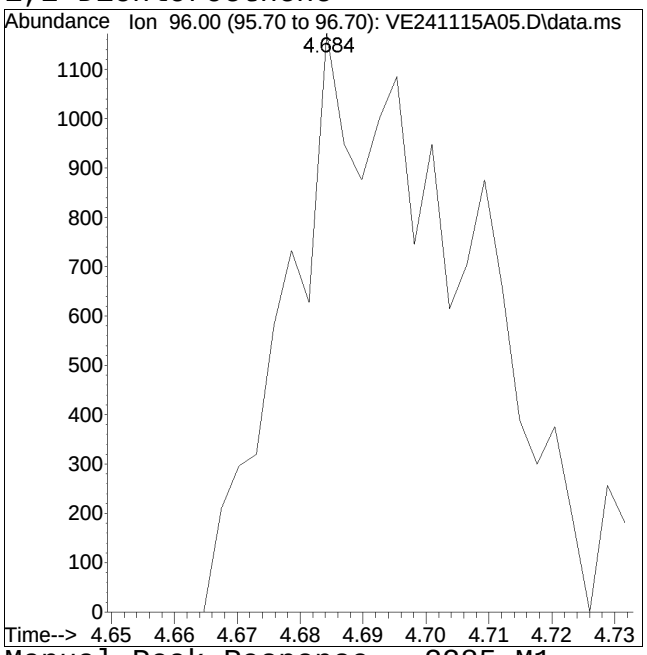
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 965



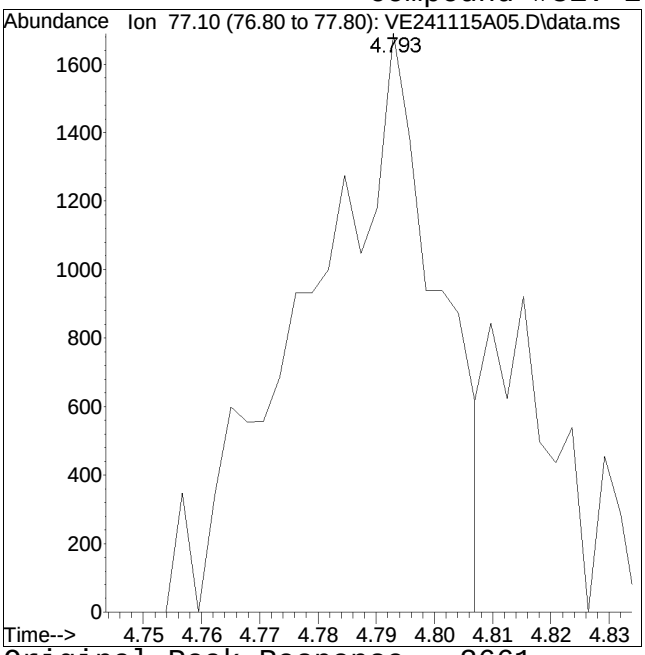
Manual Peak Response = 2285 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

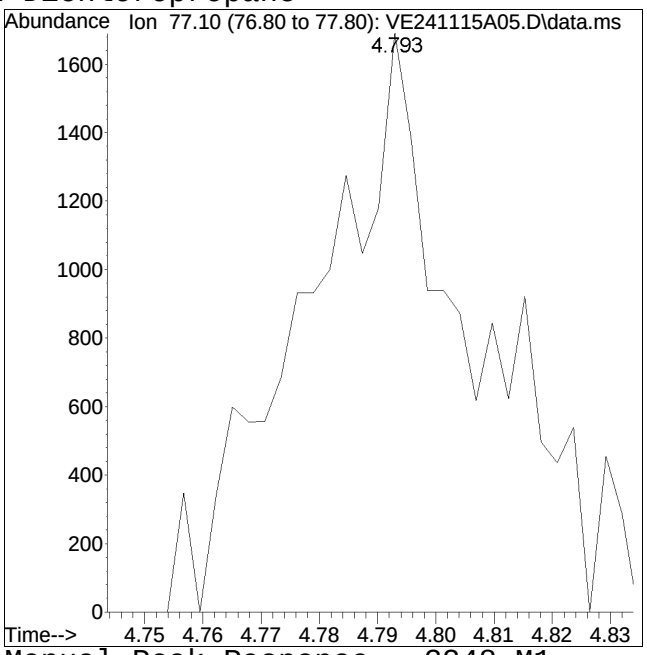
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #31: 2,2-Dichloropropane



Original Peak Response = 2661



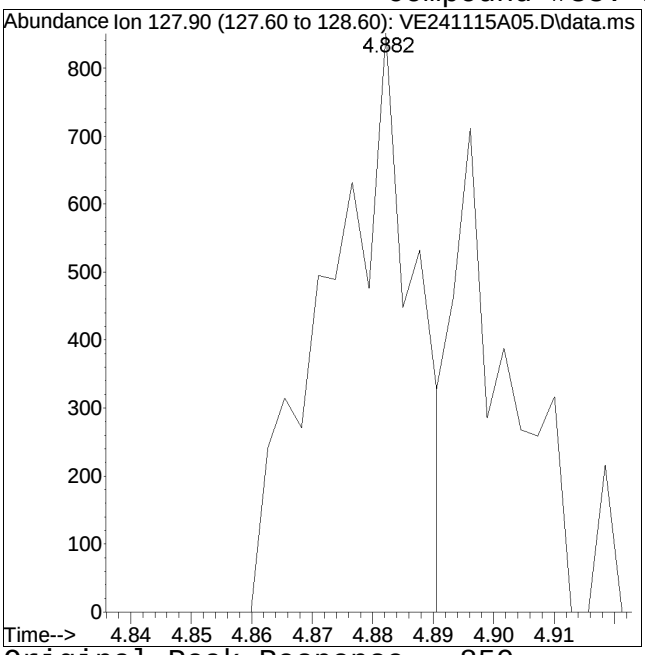
Manual Peak Response = 3248 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

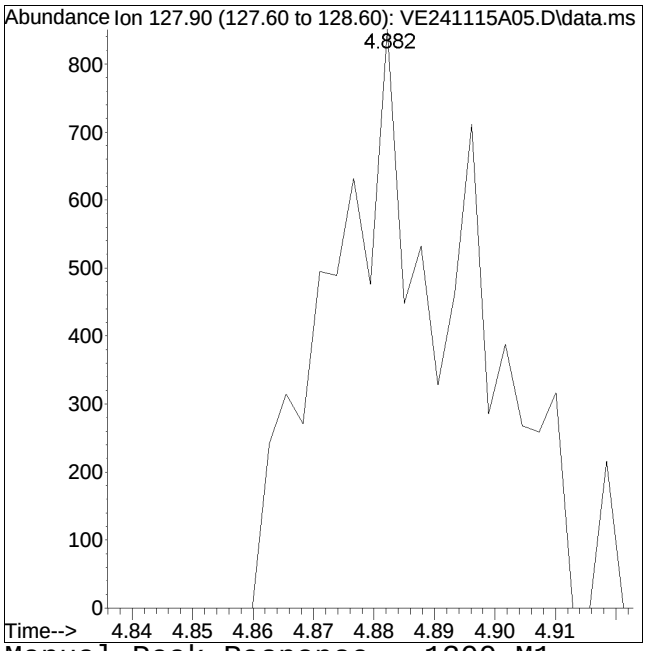
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #33: Bromochloromethane



Original Peak Response = 850



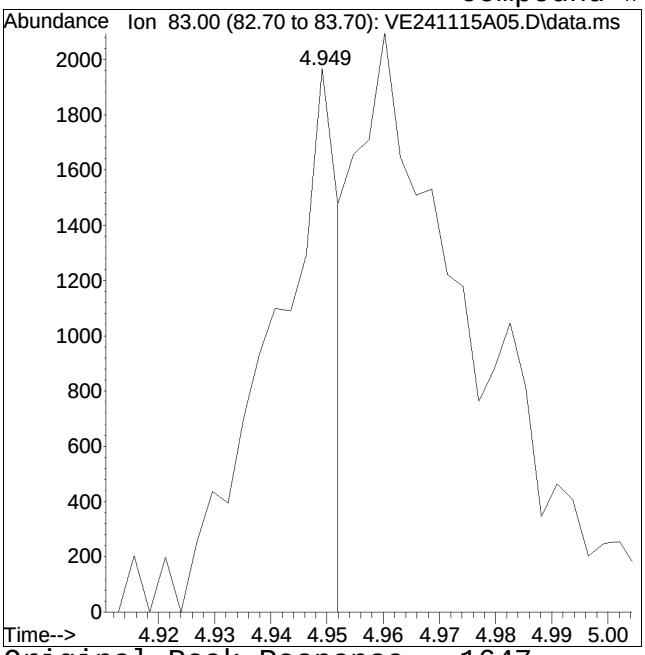
Manual Peak Response = 1300 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

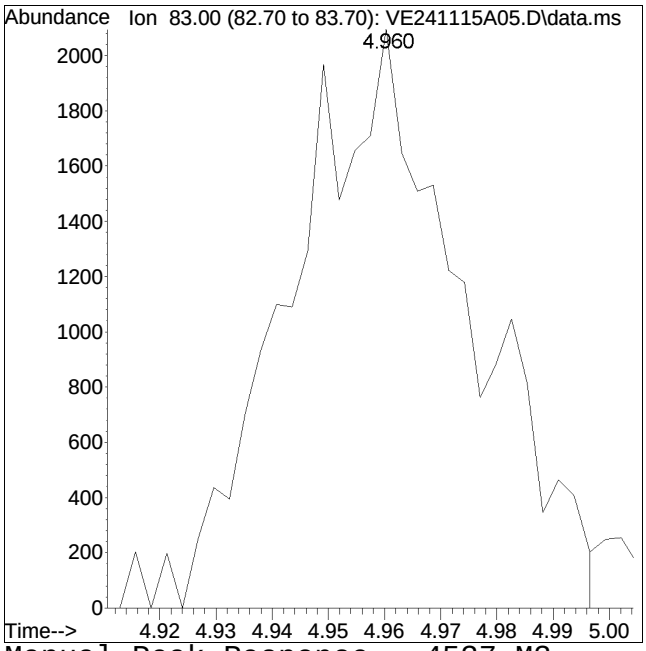
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #35: Chloroform



Original Peak Response = 1647



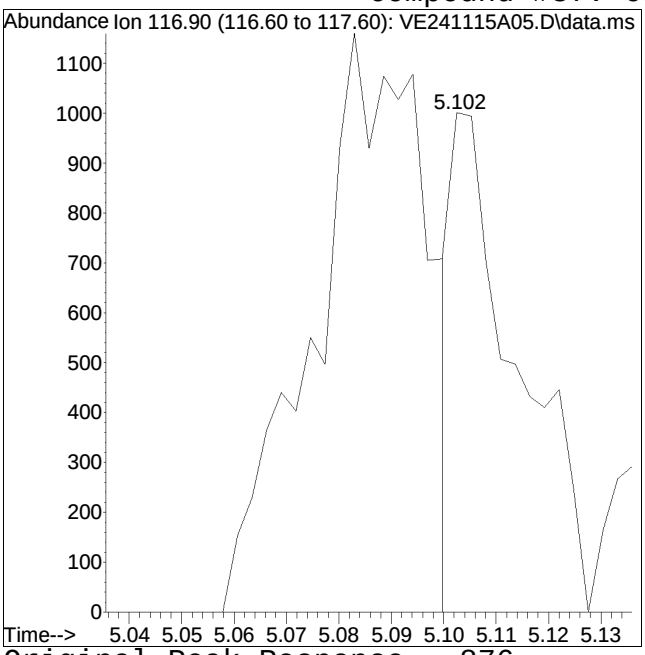
Manual Peak Response = 4537 M3

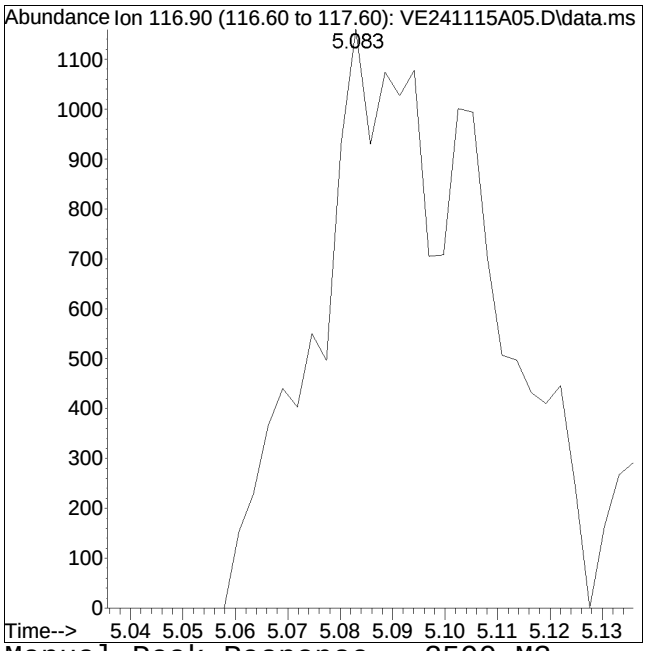
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #37: Carbon tetrachloride





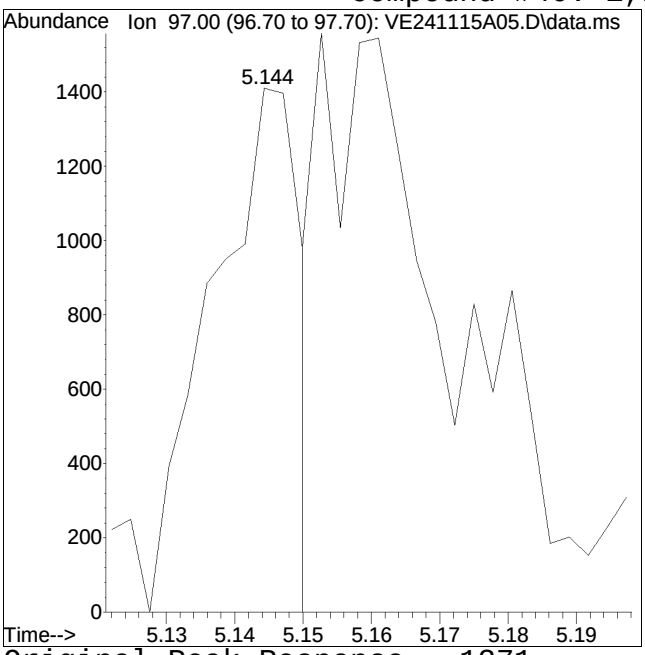
Original Peak Response = 876 Manual Peak Response = 2590 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

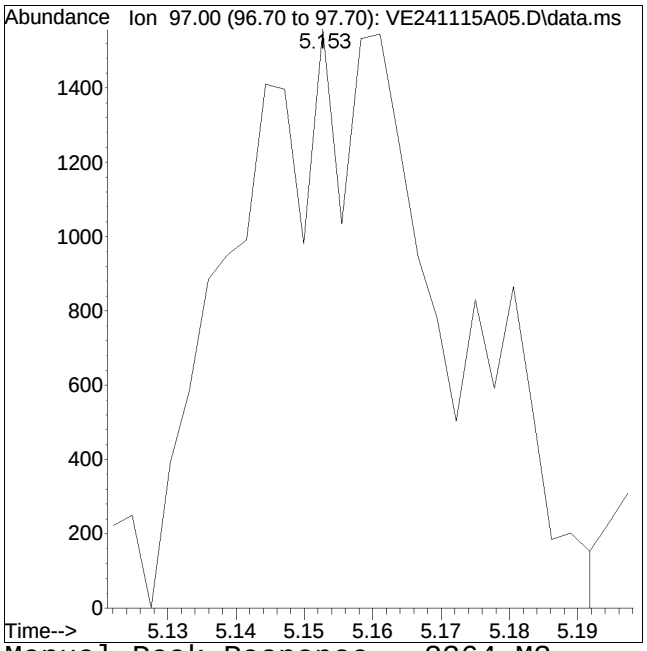
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 1271



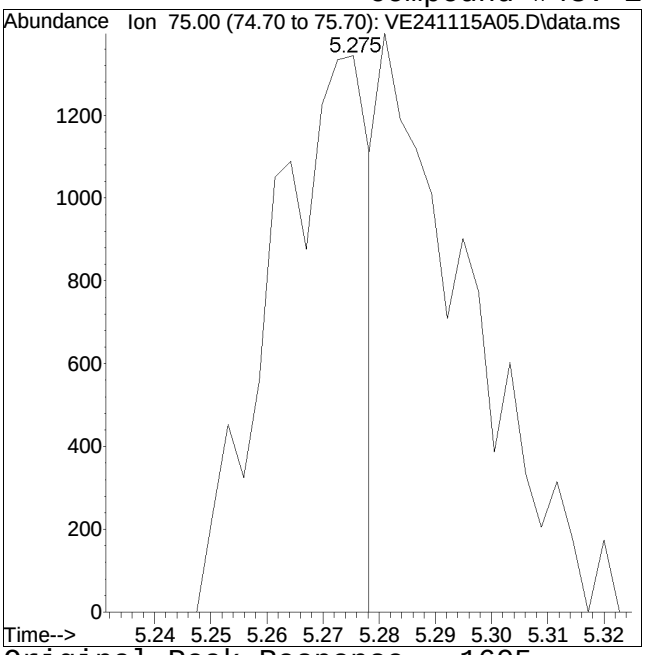
Manual Peak Response = 3364 M3

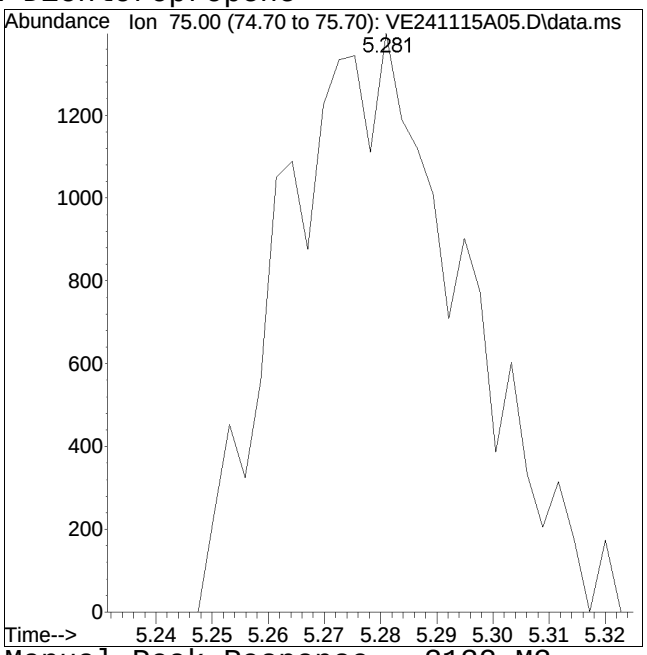
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #43: 1,1-Dichloropropene





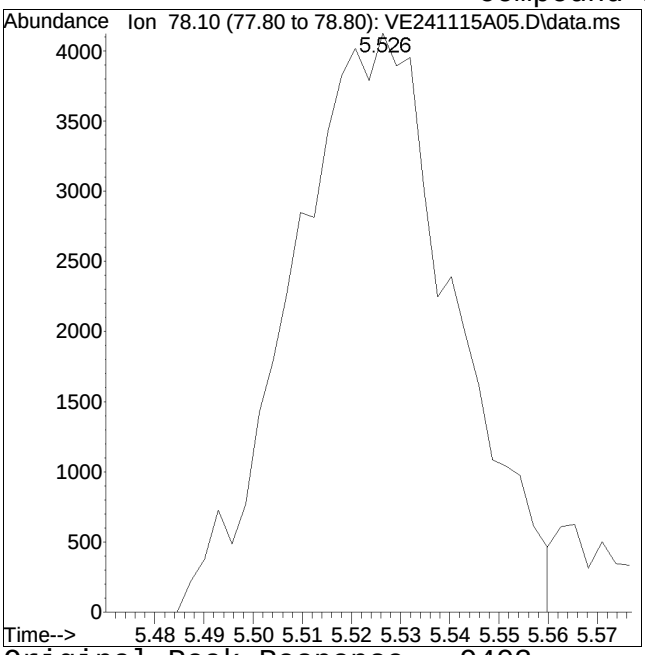
Original Peak Response = 1605 Manual Peak Response = 3132 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

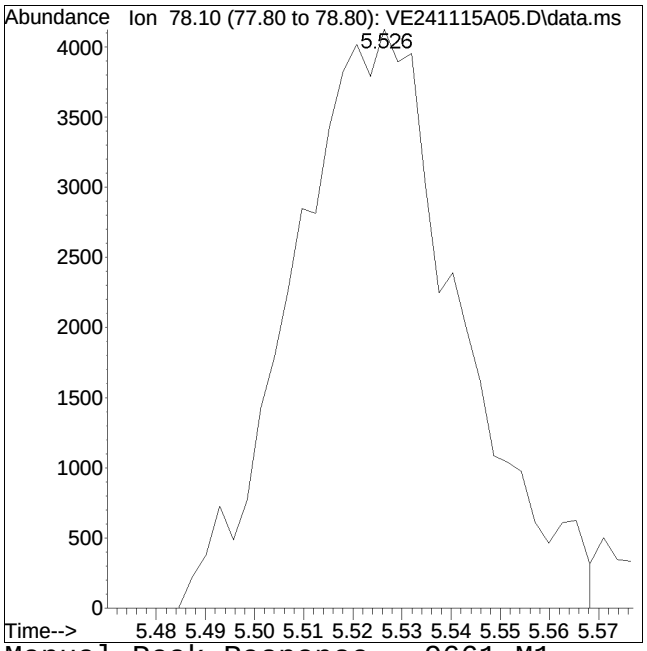
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #45: Benzene



Original Peak Response = 9403



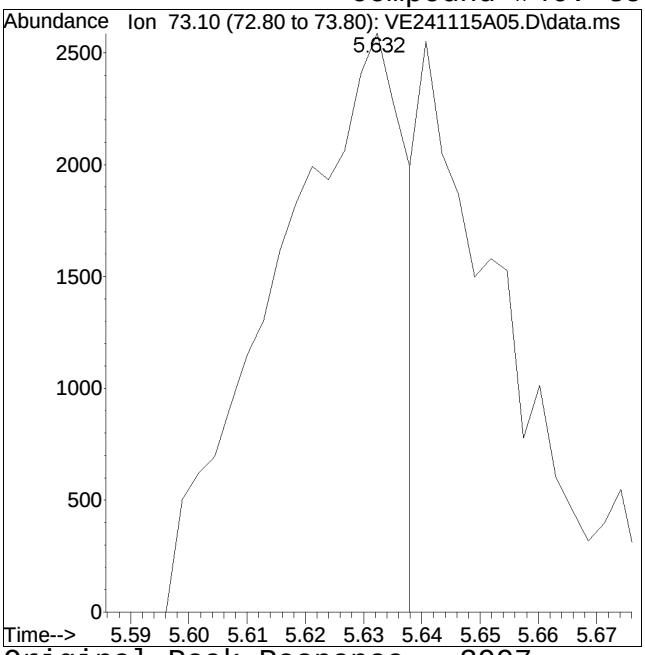
Manual Peak Response = 9661 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

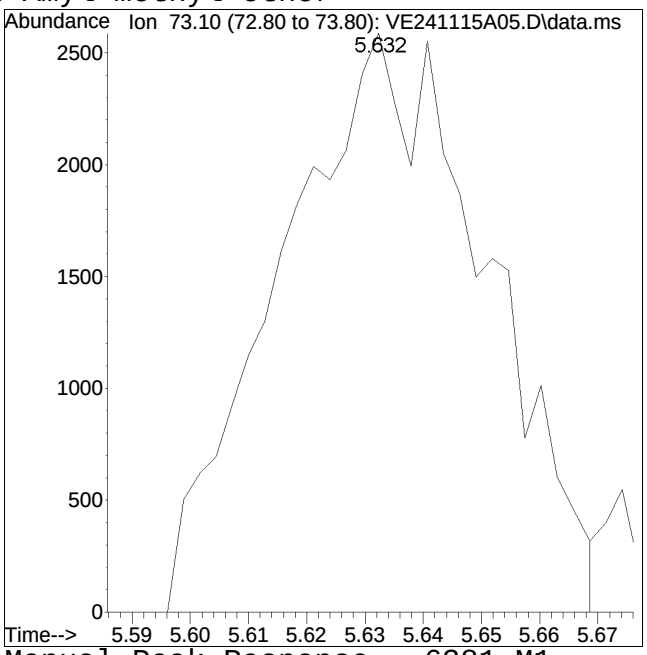
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #46: tert-Amyl methyl ether



Original Peak Response = 3997



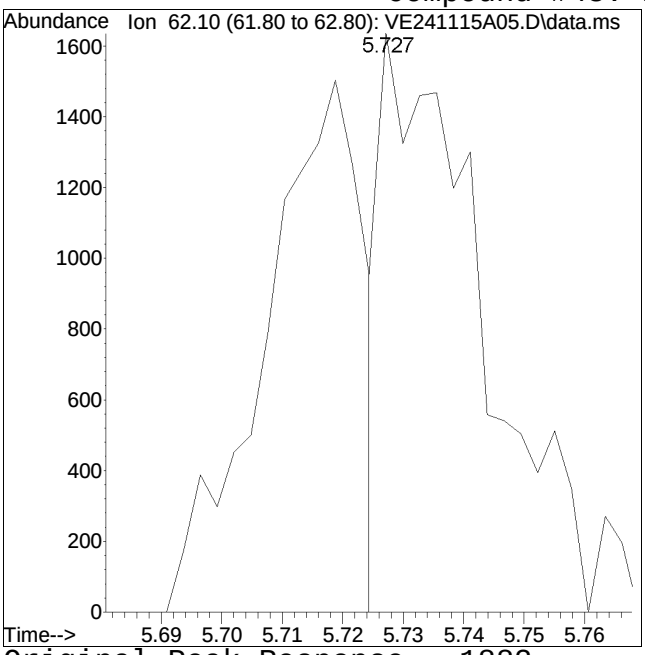
Manual Peak Response = 6381 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

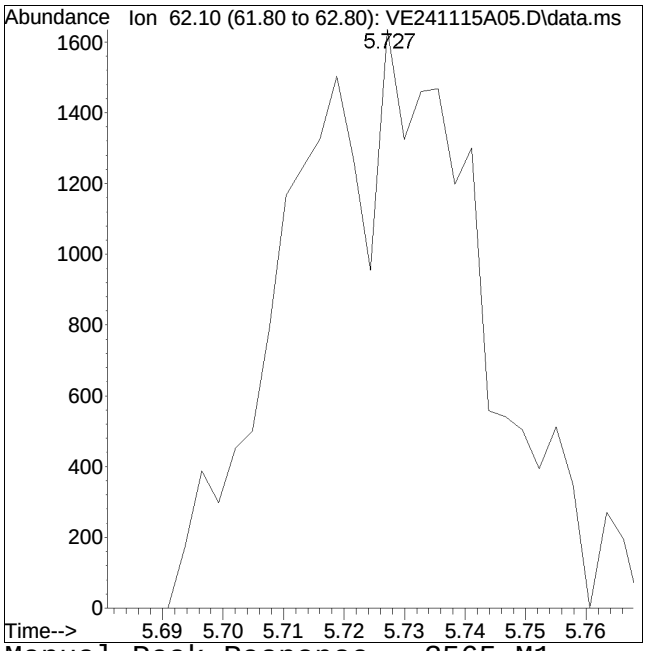
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #48: 1,2-Dichloroethane



Original Peak Response = 1882



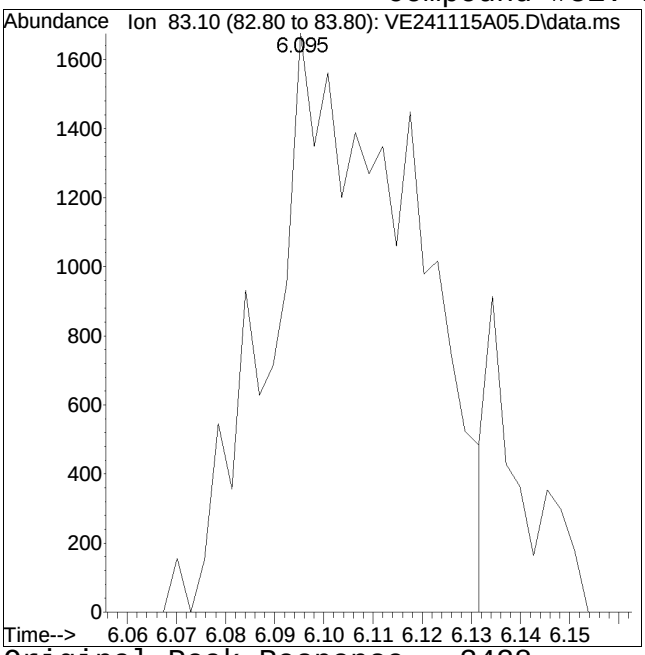
Manual Peak Response = 3565 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

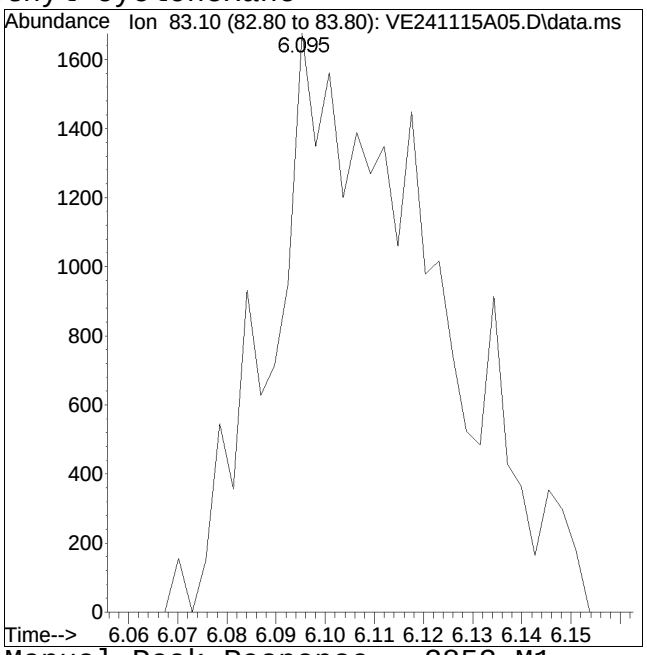
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #51: Methyl cyclohexane



Original Peak Response = 3428



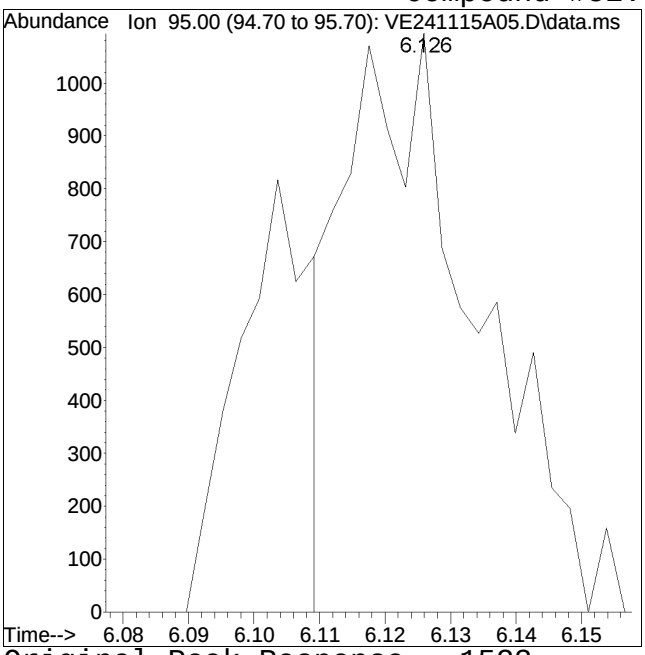
Manual Peak Response = 3853 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

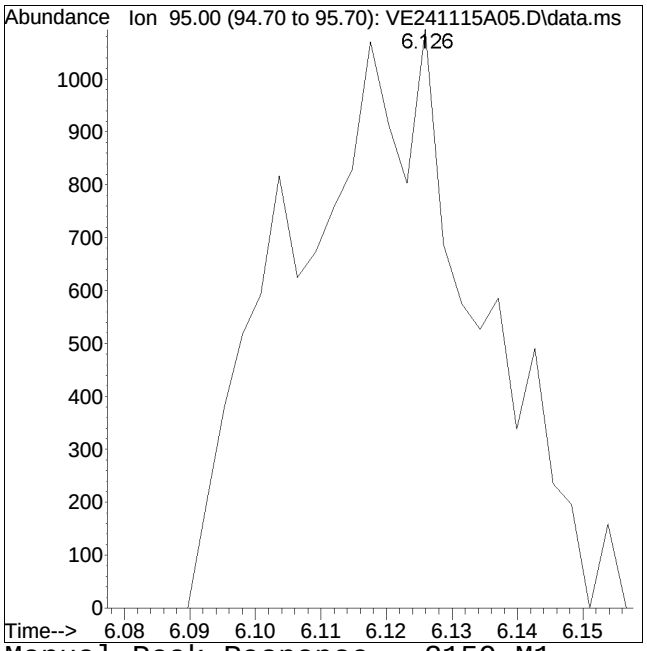
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #52: Trichloroethene



Original Peak Response = 1523



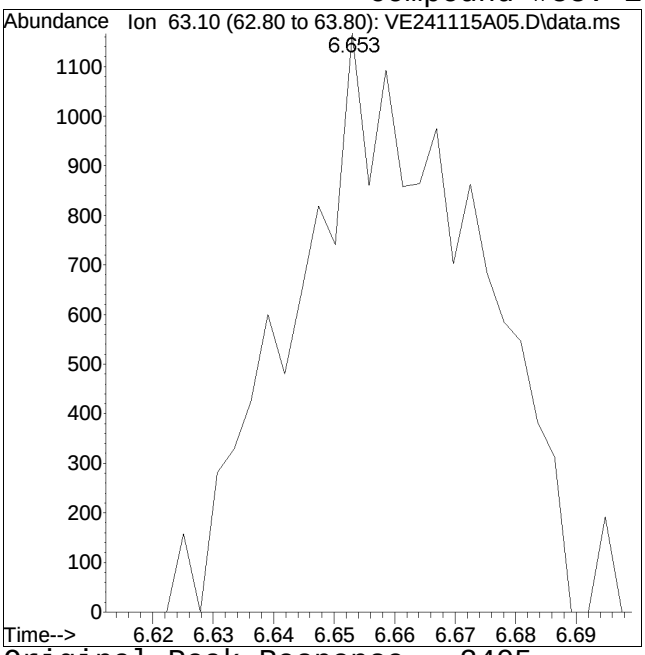
Manual Peak Response = 2159 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

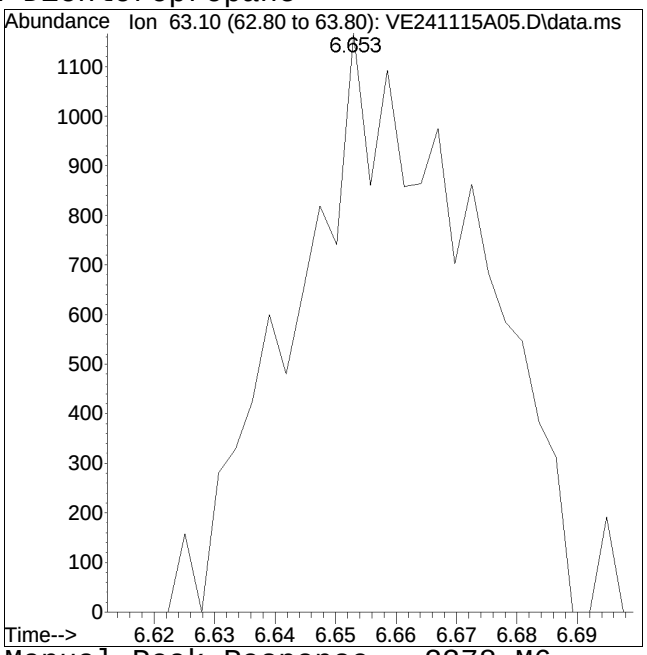
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #55: 1,2-Dichloropropane



Original Peak Response = 2405



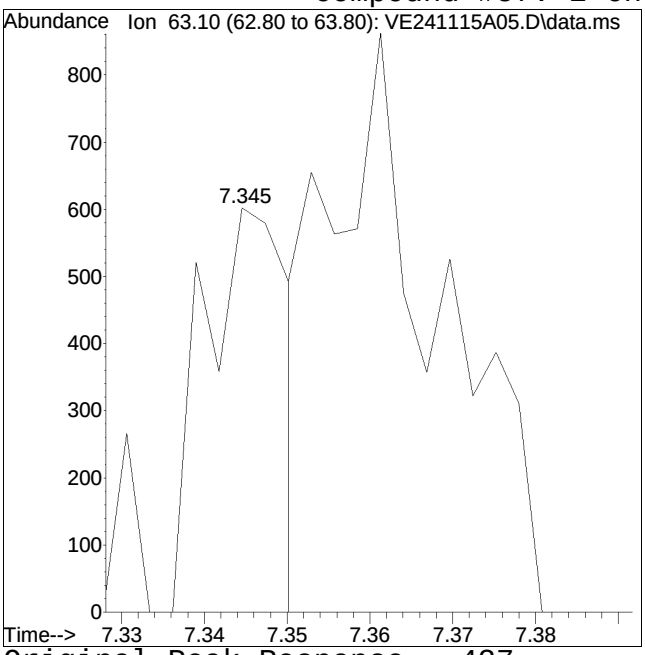
Manual Peak Response = 2378 M6

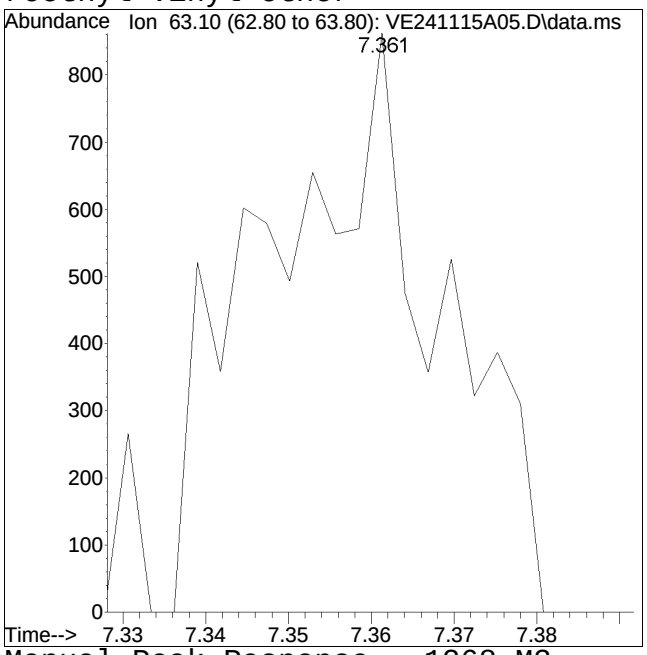
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #57: 2-Chloroethyl vinyl ether





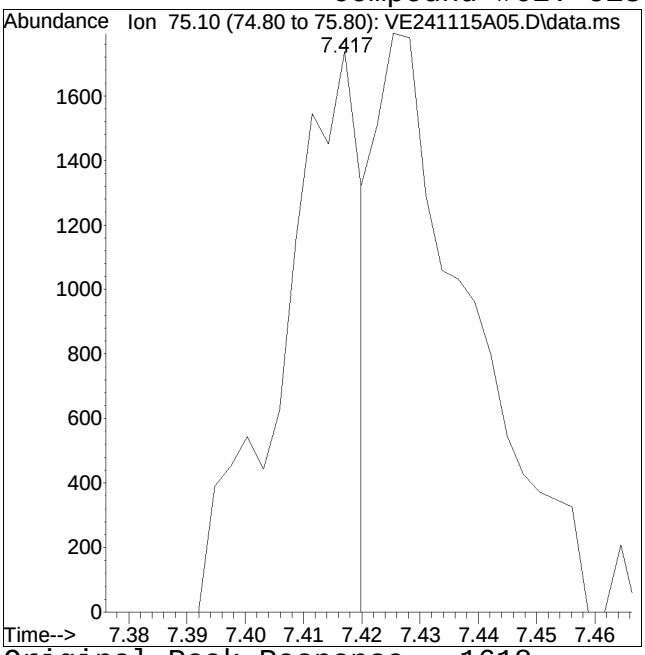
Original Peak Response = 427 Manual Peak Response = 1268 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

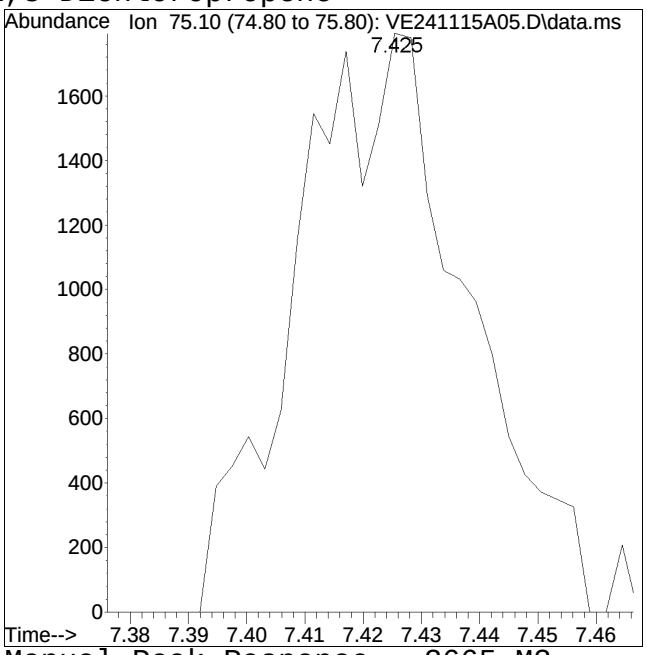
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #62: cis-1,3-Dichloropropene



Original Peak Response = 1618



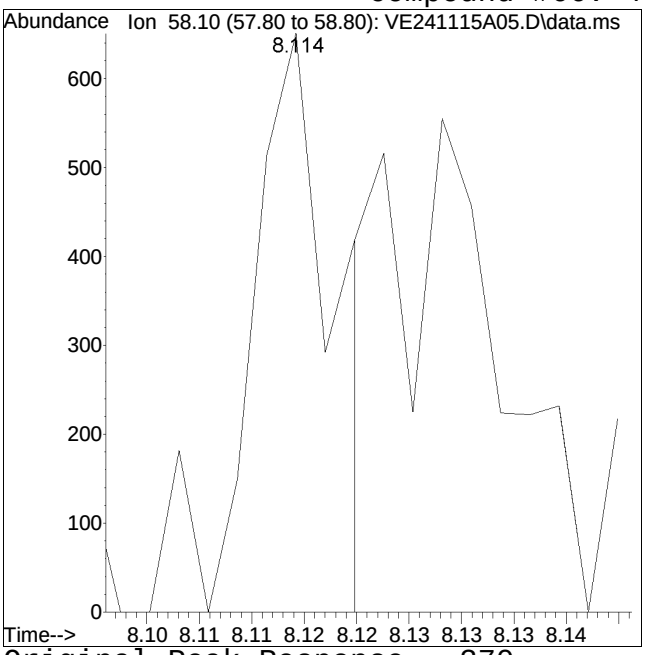
Manual Peak Response = 3665 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

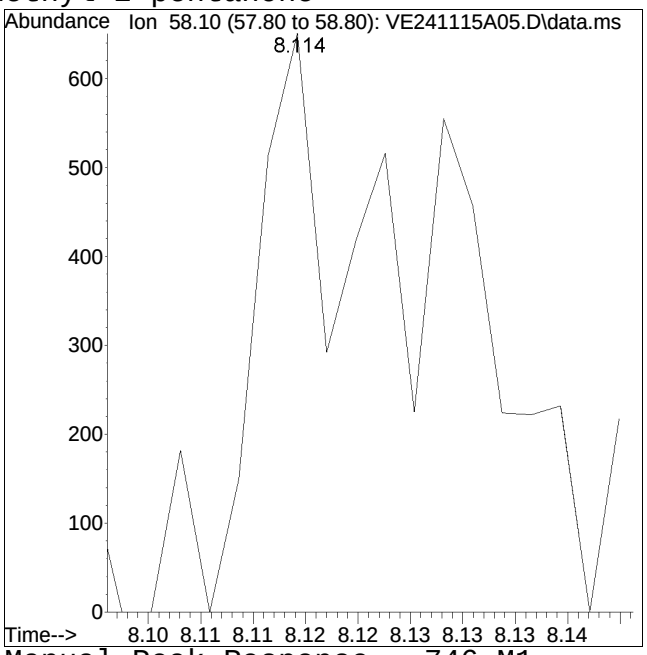
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 370



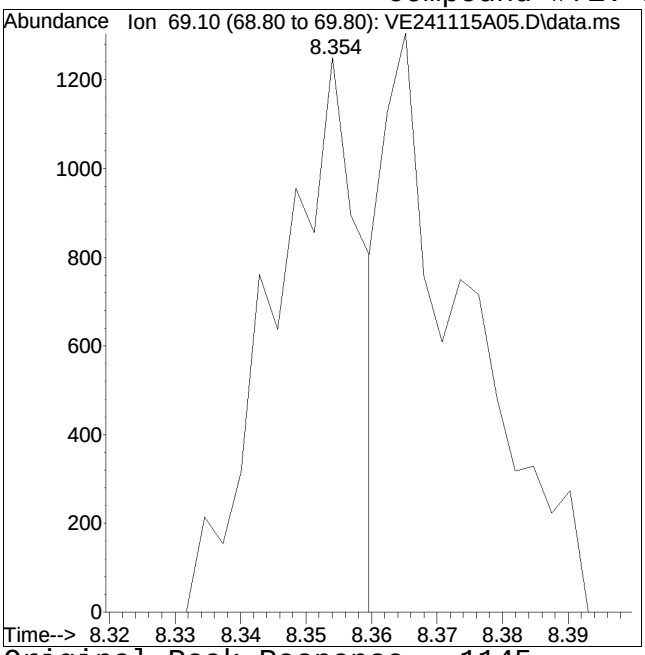
Manual Peak Response = 746 M1

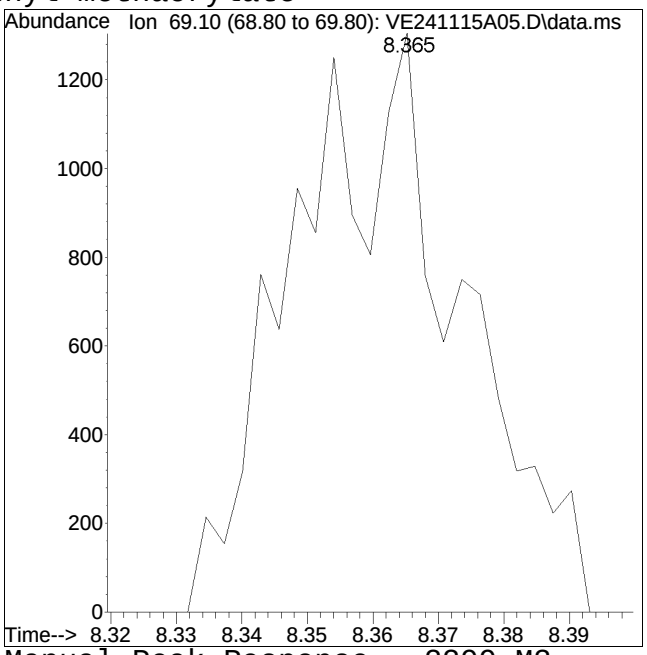
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #71: Ethyl methacrylate





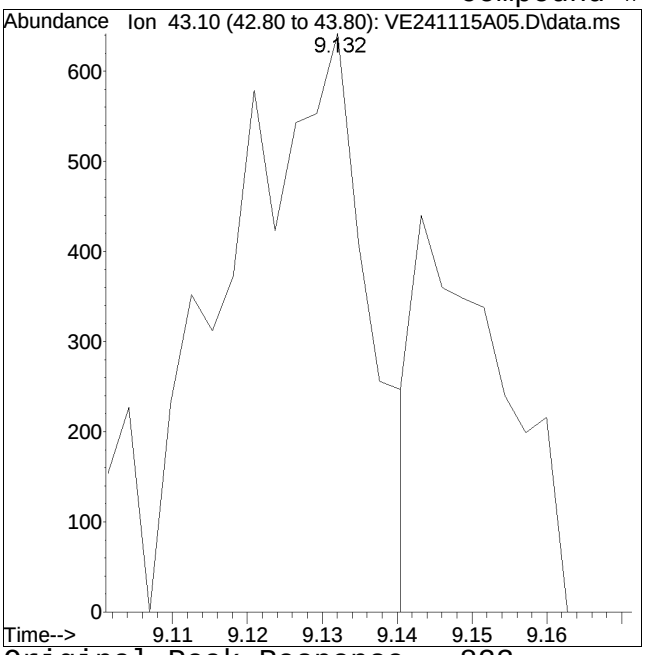
Original Peak Response = 1145 Manual Peak Response = 2299 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

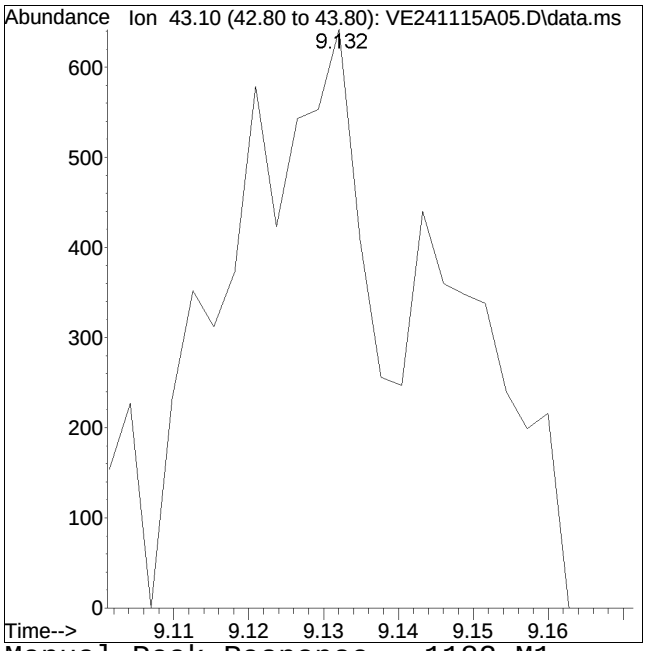
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #77: 2-Hexanone



Original Peak Response = 823



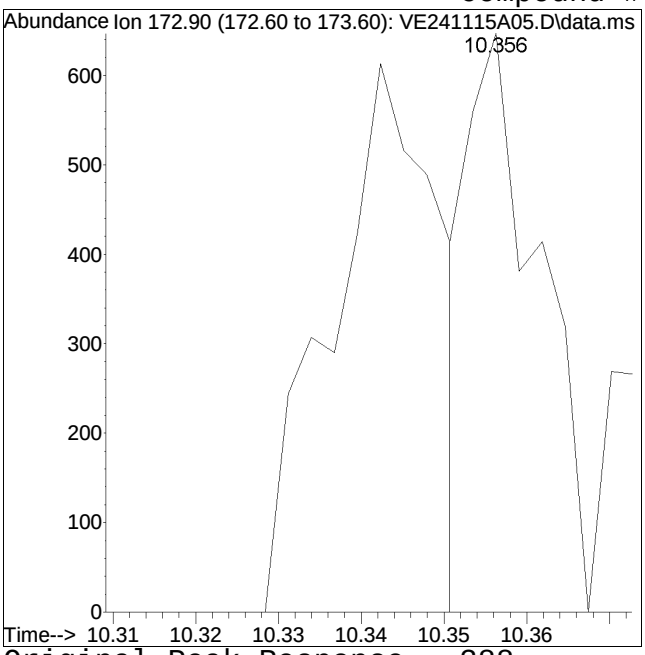
Manual Peak Response = 1182 M1

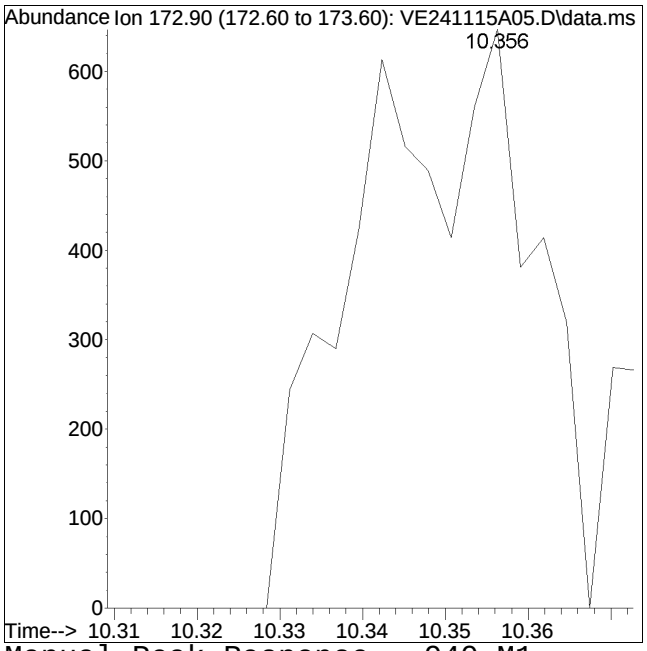
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #85: Bromoform



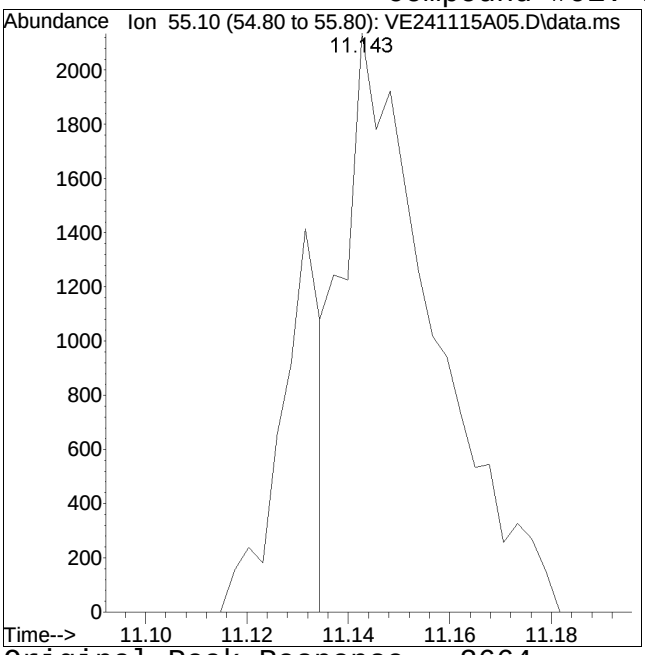


Original Peak Response = 388 Manual Peak Response = 940 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

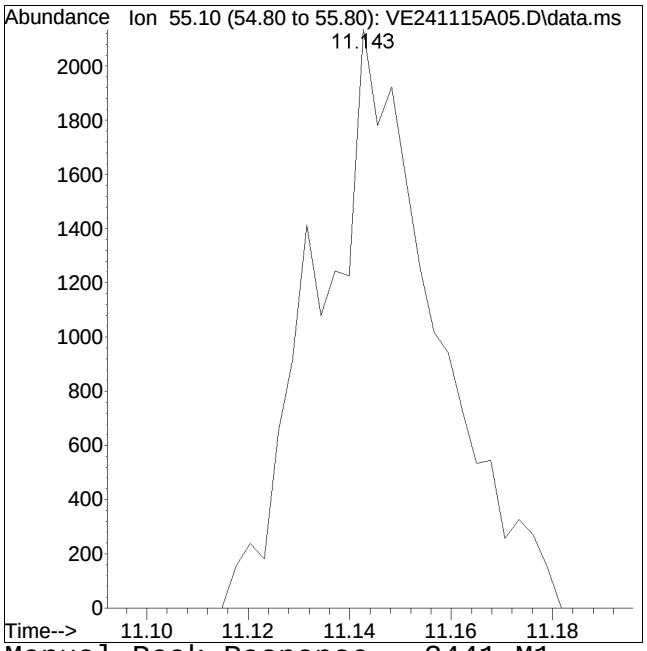
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #91: 1,4-Dichlorobutane



Original Peak Response = 2664



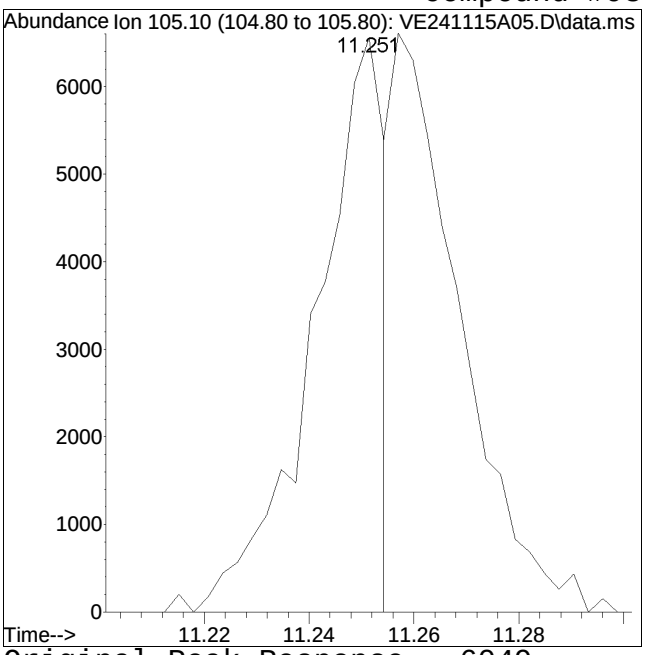
Manual Peak Response = 3441 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

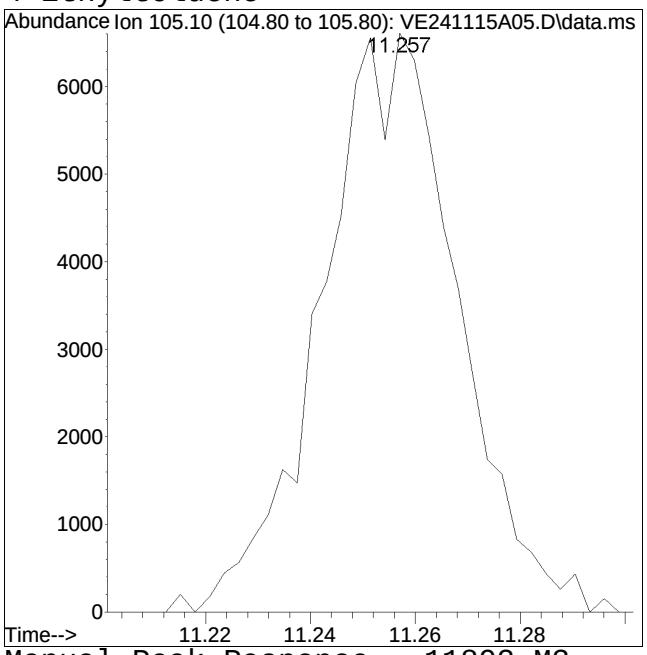
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #93: 4-Ethyltoluene



Original Peak Response = 6049



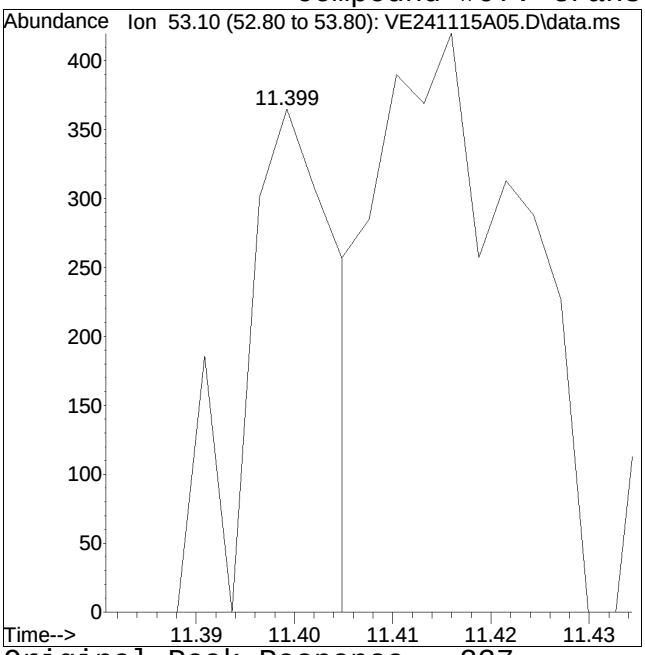
Manual Peak Response = 11892 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

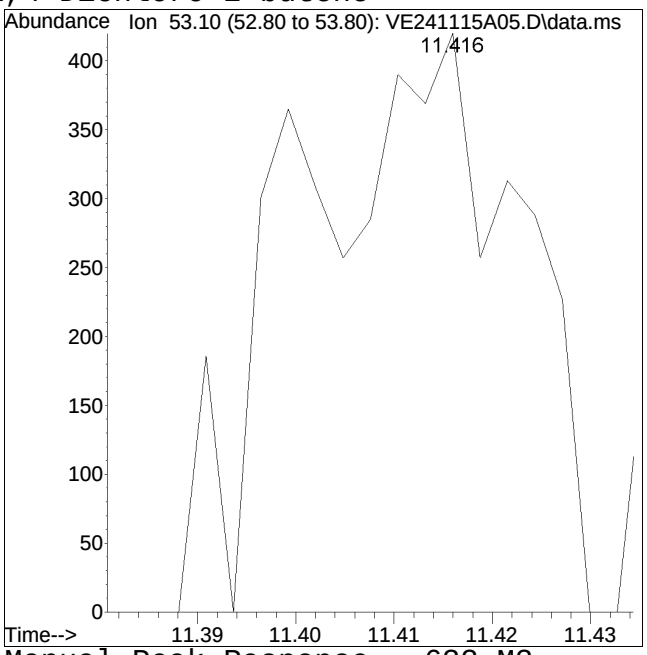
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #97: trans-1,4-Dichloro-2-butene



Original Peak Response = 237



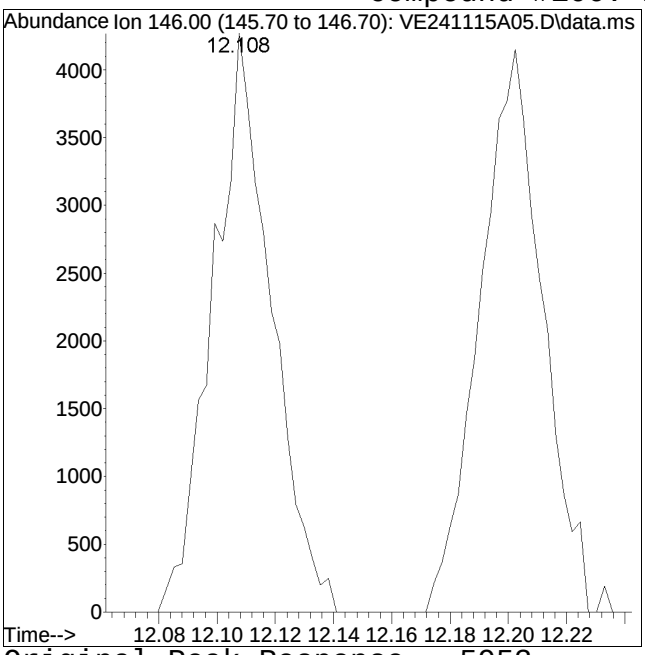
Manual Peak Response = 632 M3

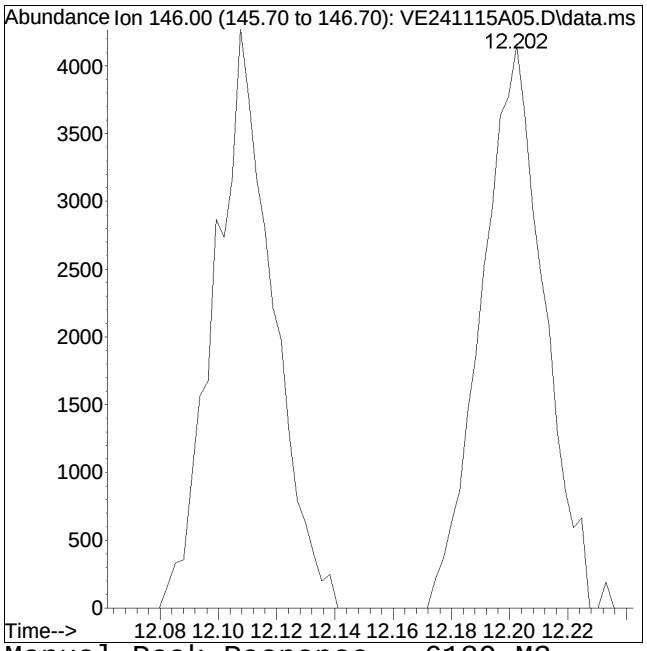
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #106: 1,4-Dichlorobenzene



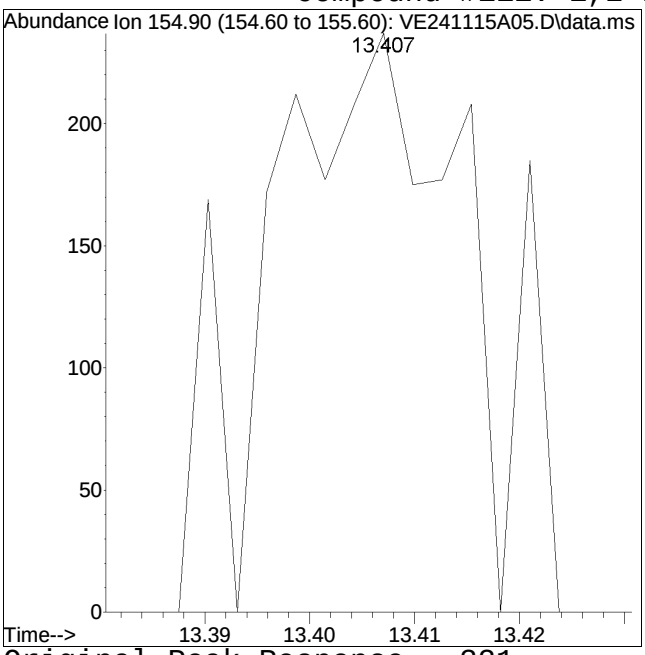


Original Peak Response = 5953 Manual Peak Response = 6189 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

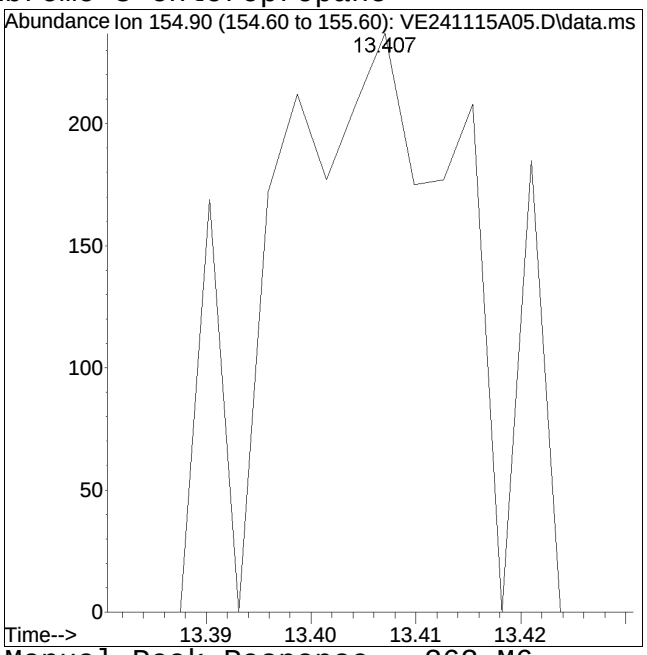
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #111: 1,2-Dibromo-3-chloropropane



Original Peak Response = 321



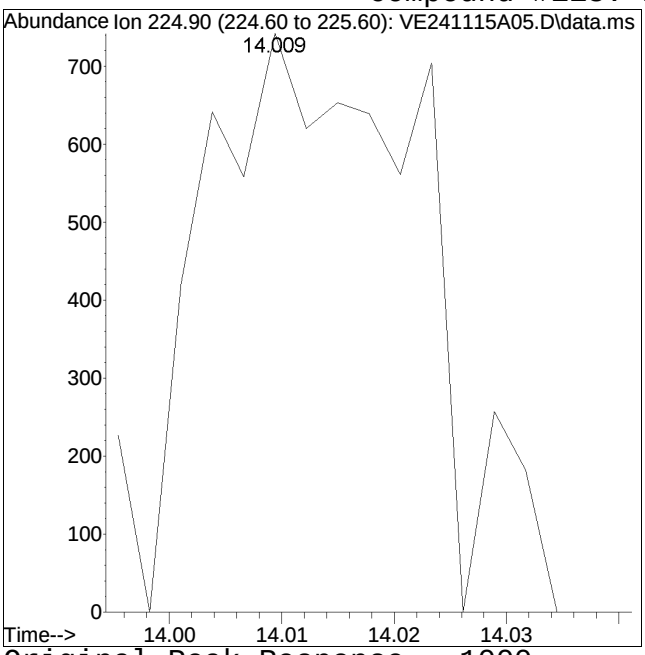
Manual Peak Response = 262 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

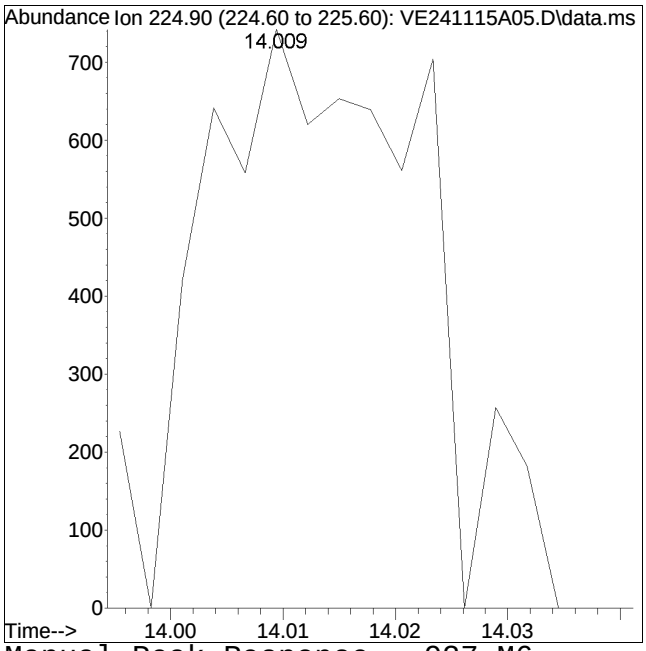
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A05.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 3:41 am Instrument : Elaine
Sample : I8260STD0.5PPB Quant Date : 11/15/2024 11:45 am

Compound #113: Hexachlorobutadiene



Original Peak Response = 1000



Manual Peak Response = 927 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	256026	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 99.19%			
63) Chlorobenzene-d5	9.472	117	185763	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 99.23%			
84) 1,4-Dichlorobenzene-d4	12.185	152	96026	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 96.61%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.130	113	59695	10.169	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.69%			
47) 1,2-Dichloroethane-d4	5.657	65	70752	10.186	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.86%			
64) Toluene-d8	7.626	98	254300	10.038	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.38%			
88) 4-Bromofluorobenzene	10.972	95	88843	10.070	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	11074M1	1.936	ug/L	
3) Chloromethane	1.773	50	11816	2.091	ug/L	98
4) Vinyl chloride	1.848	62	12457	2.068	ug/L	98
5) Bromomethane	2.155	94	9363	2.215	ug/L	99
6) Chloroethane	2.277	64	8982	2.060	ug/L	94
7) Trichlorofluoromethane	2.408	101	17374M1	1.977	ug/L	
8) Ethyl ether	2.696	74	5084	1.871	ug/L #	85
10) 1,1-Dichloroethene	2.894	96	8698	1.944	ug/L	98
11) Carbon disulfide	2.922	76	26426	1.966	ug/L	96
12) Freon-113	2.936	101	9774M3	2.071	ug/L	
13) Iodomethane	3.028	142	6670	1.623	ug/L #	71
14) Acrolein	3.209	56	1060M3	1.940	ug/L	
15) Methylene chloride	3.443	84	11789	2.110	ug/L	81
17) Acetone	3.474	43	2497M1	2.271	ug/L	
18) trans-1,2-Dichloroethene	3.594	96	9751	1.957	ug/L	95
19) Methyl acetate	3.599	43	5071	2.065	ug/L #	89
21) Methyl tert-butyl ether	3.694	73	25513M3	1.915	ug/L	
22) tert-Butyl alcohol	3.780	59	3342M3	9.954	ug/L	
24) Diisopropyl ether	4.054	45	32368	1.937	ug/L #	47
25) 1,1-Dichloroethane	4.176	63	19984M1	2.006	ug/L	
26) Halothane	4.229	117	7472M3	1.944	ug/L	

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.227	53	2753M1	2.043	ug/L		
28) Ethyl tert-butyl ether	4.397	59	33443M3	1.910	ug/L		
29) Vinyl acetate	4.405	43	20622M4	1.783	ug/L		
30) cis-1,2-Dichloroethene	4.695	96	11552M1	2.031	ug/L		
31) 2,2-Dichloropropane	4.801	77	15245M3	1.940	ug/L		
33) Bromochloromethane	4.888	128	5263M1	2.031	ug/L		
34) Cyclohexane	4.885	56	19799	1.955	ug/L		84
35) Chloroform	4.955	83	18840M1	2.016	ug/L		
36) Ethyl acetate	5.063	43	7327	1.877	ug/L	#	83
37) Carbon tetrachloride	5.094	117	12781	1.886	ug/L	#	88
38) Tetrahydrofuran	5.105	42	2201M4	2.034	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	16092M1	1.950	ug/L		
42) 2-Butanone	5.247	43	3359M1	2.143	ug/L		
43) 1,1-Dichloropropene	5.272	75	14047	1.943	ug/L		93
45) Benzene	5.523	78	45474	1.997	ug/L		94
46) tert-Amyl methyl ether	5.635	73	27949	1.907	ug/L		94
48) 1,2-Dichloroethane	5.727	62	14546	2.009	ug/L		98
51) Methyl cyclohexane	6.109	83	19776	1.950	ug/L		85
52) Trichloroethene	6.117	95	11194	2.073	ug/L	#	66
54) Dibromomethane	6.561	93	6367	2.064	ug/L		88
55) 1,2-Dichloropropane	6.658	63	11698	2.022	ug/L		92
57) 2-Chloroethyl vinyl ether	7.353	63	6799	1.998	ug/L	#	50
58) Bromodichloromethane	6.736	83	14455M3	1.925	ug/L		
61) 1,4-Dioxane	6.940	88	14952	395.551	ug/L	#	48
62) cis-1,3-Dichloropropene	7.422	75	16731	1.931	ug/L		93
65) Toluene	7.685	92	29523	2.022	ug/L		96
66) 4-Methyl-2-pentanone	8.117	58	2699	1.759	ug/L	#	86
67) Tetrachloroethene	8.134	166	11806	2.012	ug/L		96
69) trans-1,3-Dichloropropene	8.175	75	14271	1.974	ug/L		81
71) Ethyl methacrylate	8.359	69	10301	1.868	ug/L	#	31
72) 1,1,2-Trichloroethane	8.357	83	7675	2.000	ug/L	#	68
73) Chlorodibromomethane	8.569	129	9302	1.807	ug/L		91
74) 1,3-Dichloropropane	8.680	76	15628	1.973	ug/L		99
75) 1,2-Dibromoethane	8.839	107	9122	2.007	ug/L		91
77) 2-Hexanone	9.121	43	4482M1	1.819	ug/L		
78) Chlorobenzene	9.489	112	31340	2.020	ug/L	#	72
79) Ethylbenzene	9.528	91	55099	1.975	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.567	131	9997	1.941	ug/L		97
81) p/m Xylene	9.720	106	42351	3.944	ug/L		96
82) o Xylene	10.261	106	40753	3.892	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.325	104	67127	3.797	ug/L		95
85) Bromoform	10.353	173	4894	1.724	ug/L		92
87) Isopropylbenzene	10.646	105	56921	2.007	ug/L		98
89) Bromobenzene	11.078	156	12488	1.972	ug/L		93
90) n-Propylbenzene	11.129	91	63590	1.976	ug/L		95
91) 1,4-Dichlorobutane	11.148	55	15291	2.029	ug/L		95
92) 1,1,2,2-Tetrachloroethane	11.221	83	11075	2.022	ug/L		91
93) 4-Ethyltoluene	11.254	105	53675	2.010	ug/L		99
94) 2-Chlorotoluene	11.293	91	39435M1	2.110	ug/L		
95) 1,3,5-Trimethylbenzene	11.352	105	48038	2.033	ug/L		99
96) 1,2,3-Trichloropropane	11.354	75	9313	2.154	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.407	53	3006	1.921	ug/L	#	76
98) 4-Chlorotoluene	11.480	91	39181	2.027	ug/L		96
99) tert-Butylbenzene	11.697	119	39544	2.028	ug/L		95
102) 1,2,4-Trimethylbenzene	11.776	105	46922	1.981	ug/L		93
103) sec-Butylbenzene	11.884	105	58883	1.978	ug/L		99
104) p-Isopropyltoluene	12.043	119	48404	1.963	ug/L		96
105) 1,3-Dichlorobenzene	12.110	146	26025	2.053	ug/L		98
106) 1,4-Dichlorobenzene	12.199	146	26571	2.090	ug/L		98
107) p-Diethylbenzene	12.417	119	27521	1.907	ug/L		93
108) n-Butylbenzene	12.475	91	42501	1.976	ug/L		99
109) 1,2-Dichlorobenzene	12.626	146	24778	2.055	ug/L		100
110) 1,2,4,5-Tetramethylben...	13.212	119	43702	1.890	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.410	155	1208	1.649	ug/L		81
112) 1,3,5-Trichlorobenzene	13.438	180	17051	1.982	ug/L		93
113) Hexachlorobutadiene	14.015	225	4783	2.083	ug/L		88
114) 1,2,4-Trichlorobenzene	14.034	180	15202	2.024	ug/L		99
115) Naphthalene	14.327	128	32576	1.847	ug/L		100
116) 1,2,3-Trichlorobenzene	14.492	180	13117	1.957	ug/L		92

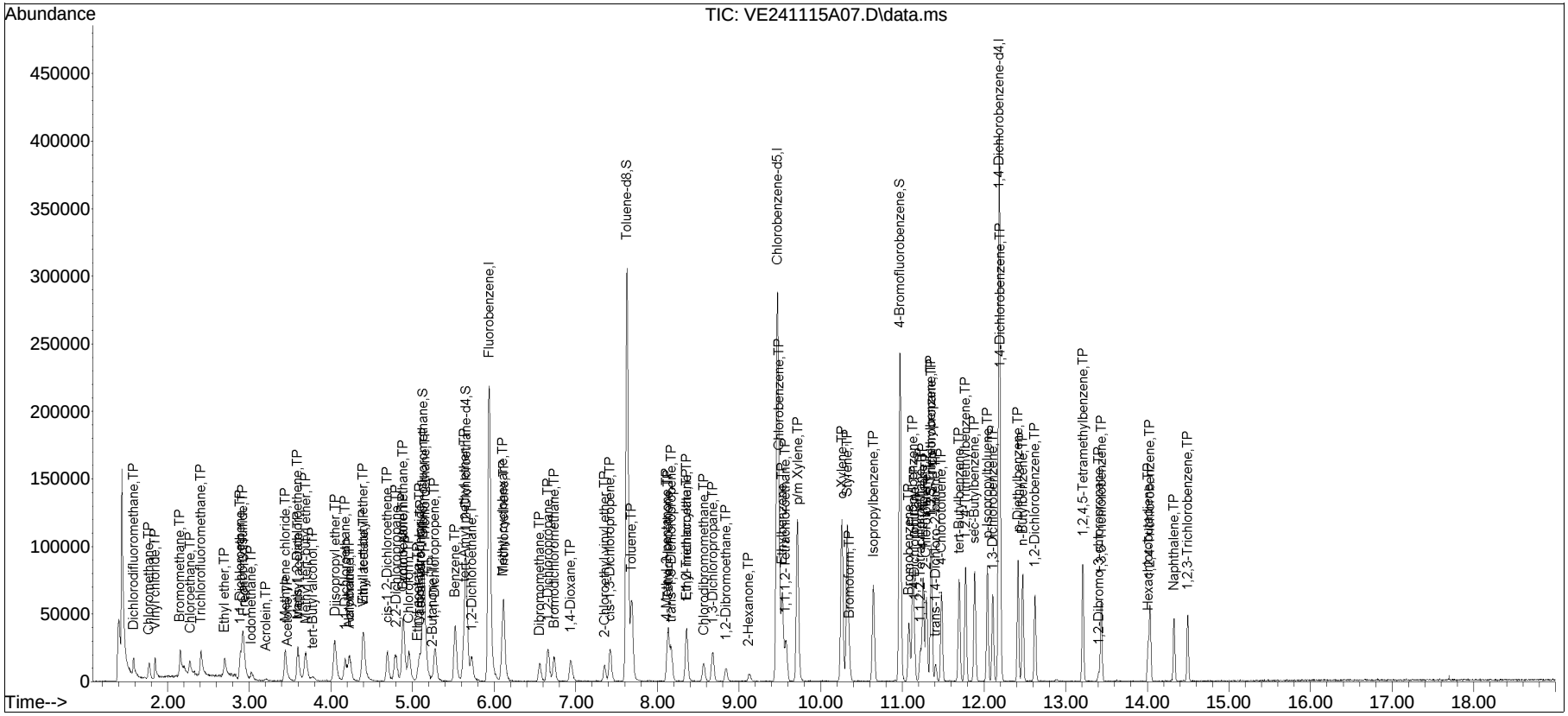
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A07.D
Acq On : 15 Nov 2024 4:30 am
Operator : ELAINE:PID
Sample : I8260STD2PPB
Misc : WG1998028,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 11:45:22 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

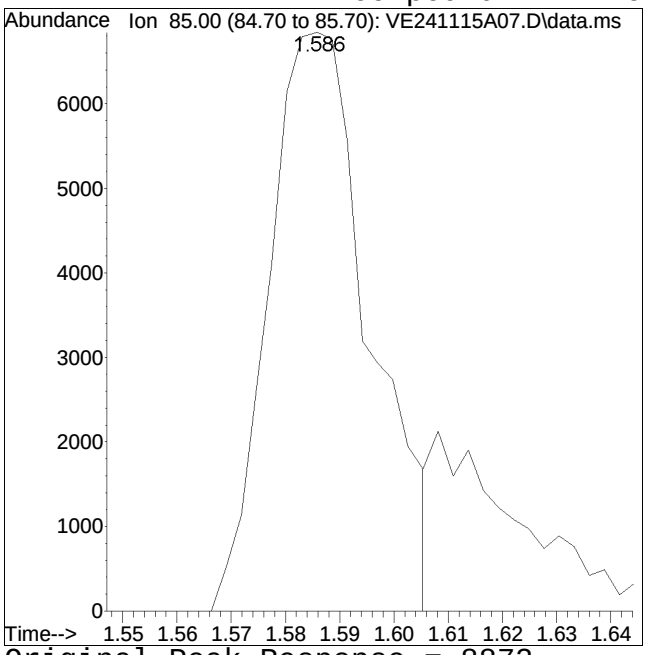
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

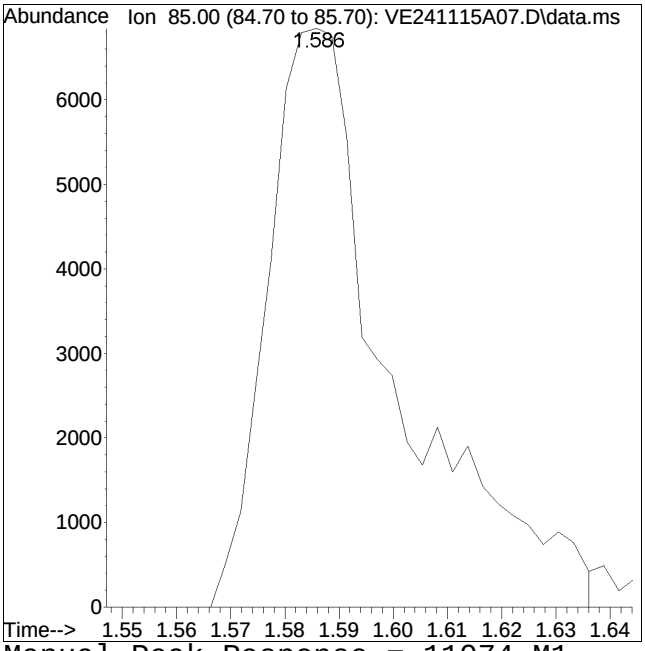


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #2: Dichlorodifluoromethane



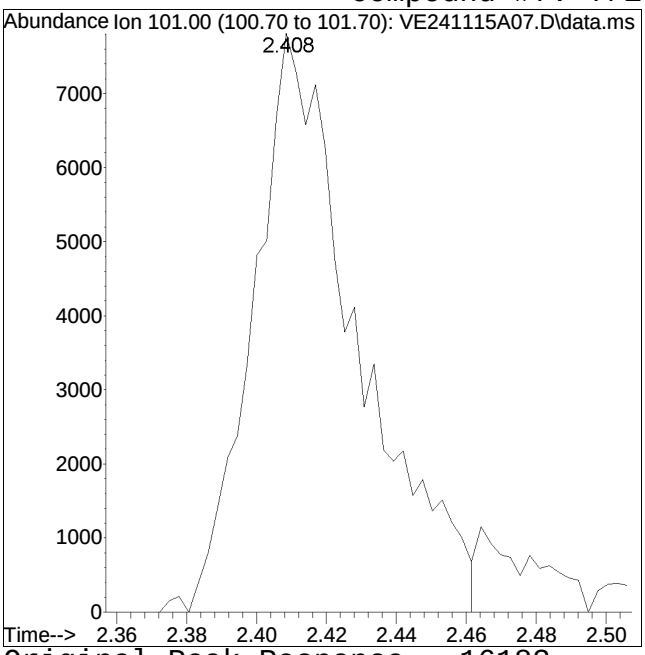


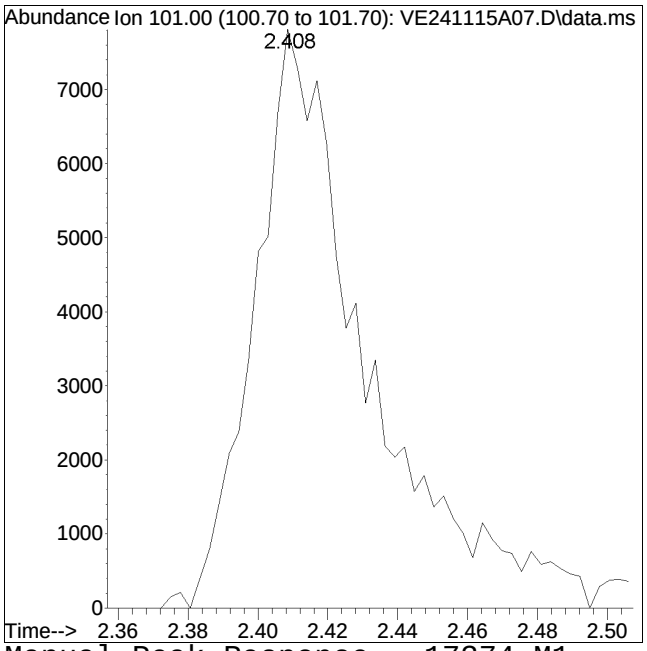
Original Peak Response = 8872 Manual Peak Response = 11074 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #7: Trichlorofluoromethane



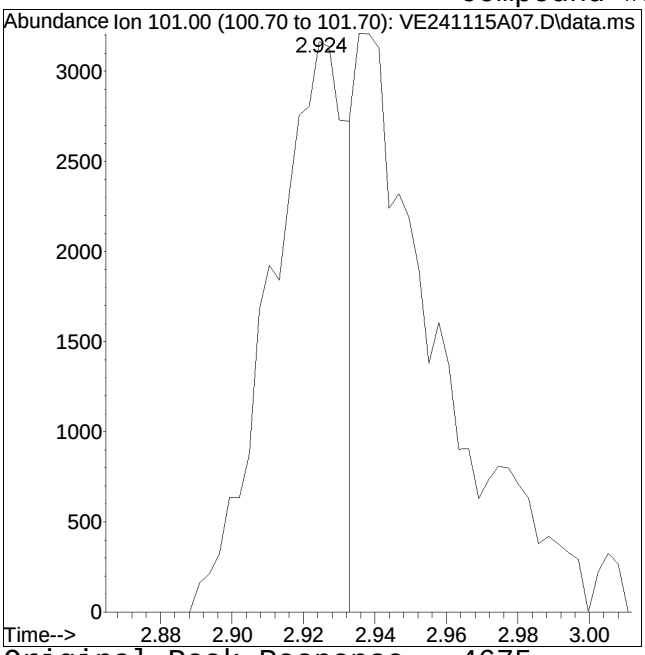


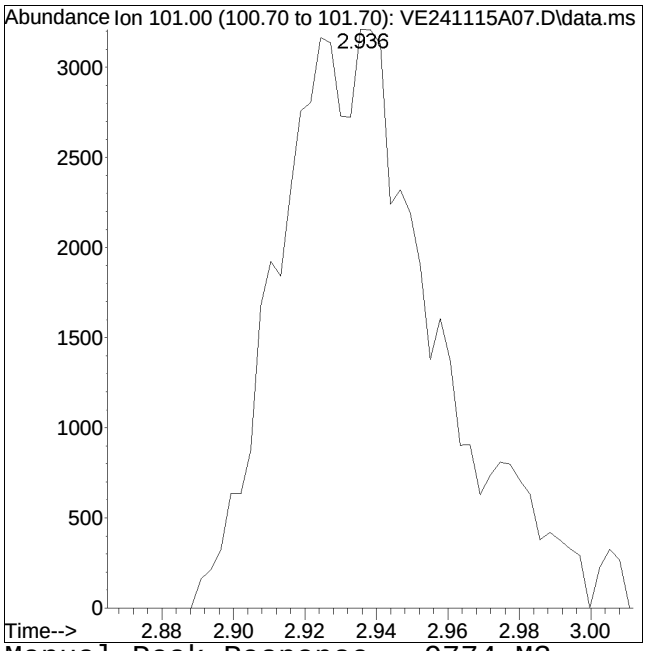
Original Peak Response = 16183 Manual Peak Response = 17374 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #12: Freon-113





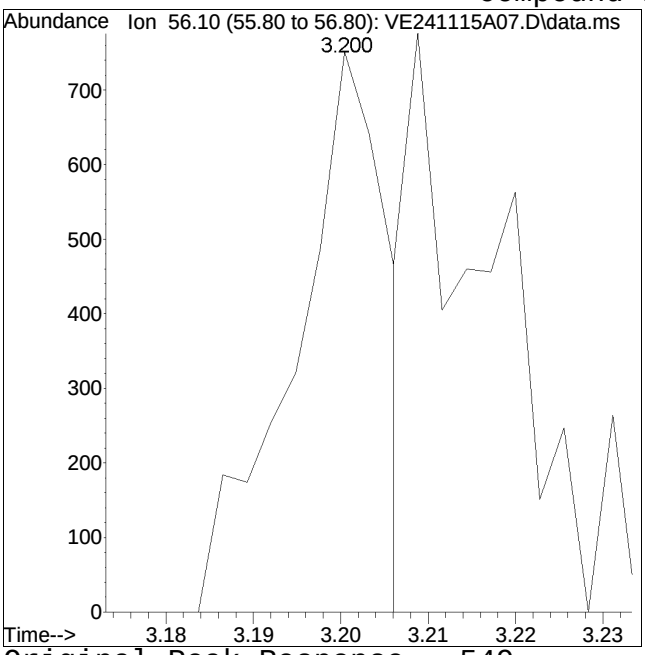
Original Peak Response = 4675 Manual Peak Response = 9774 M3

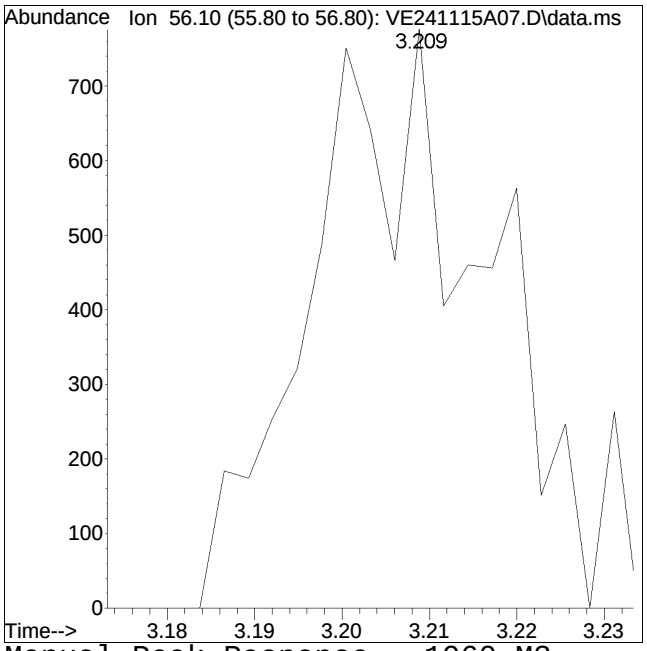
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #14: Acrolein





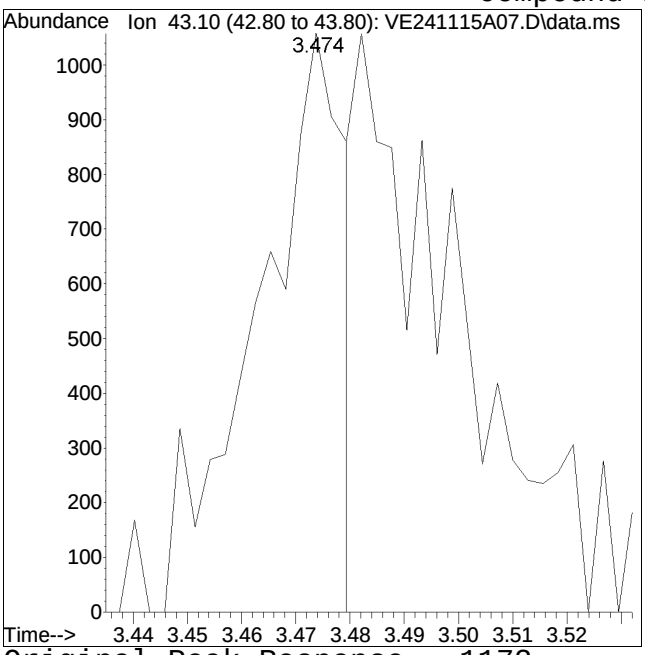
Original Peak Response = 549 Manual Peak Response = 1060 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

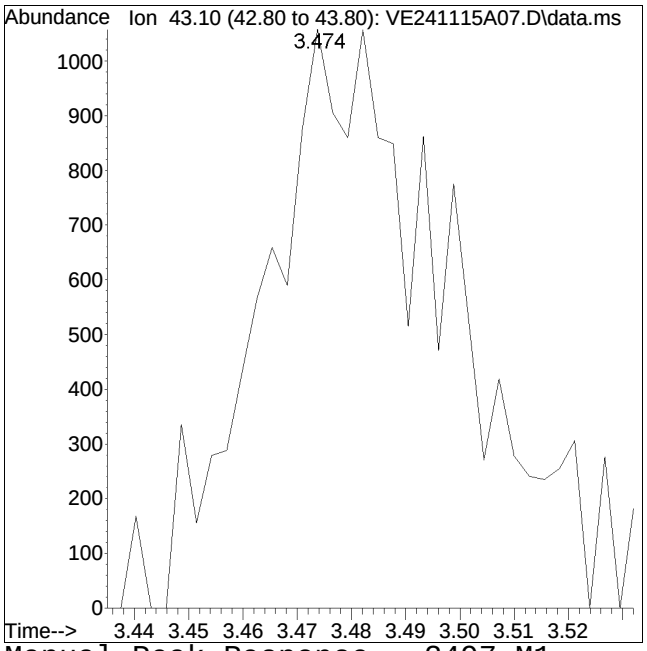
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #17: Acetone



Original Peak Response = 1172



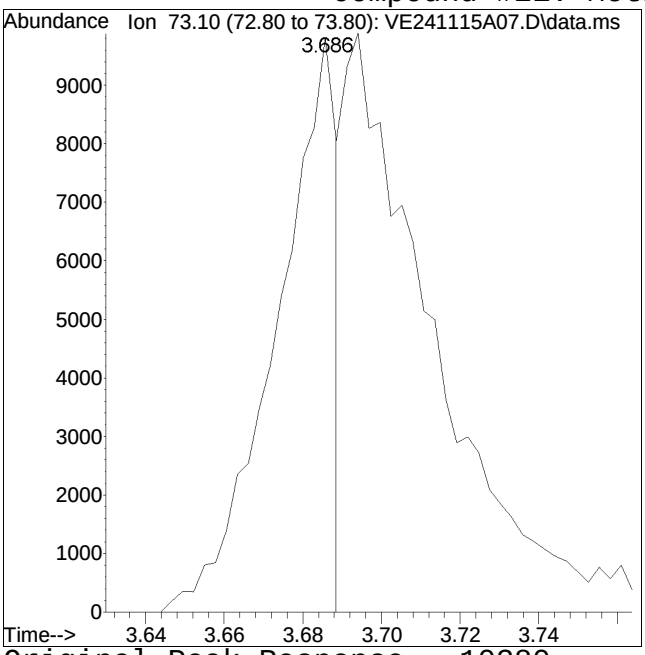
Manual Peak Response = 2497 M1

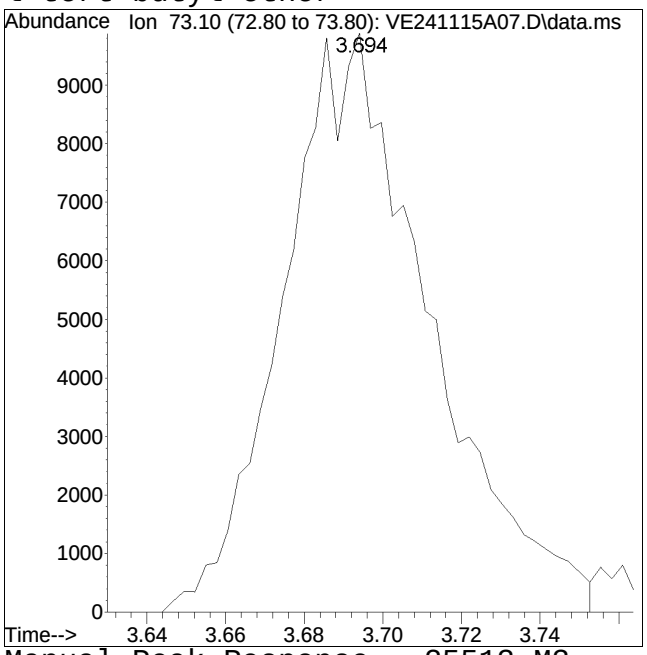
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #21: Methyl tert-butyl ether



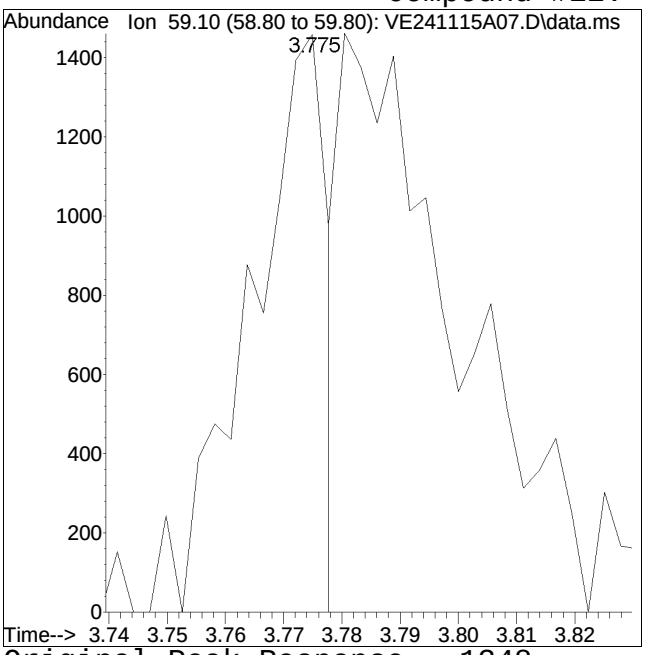


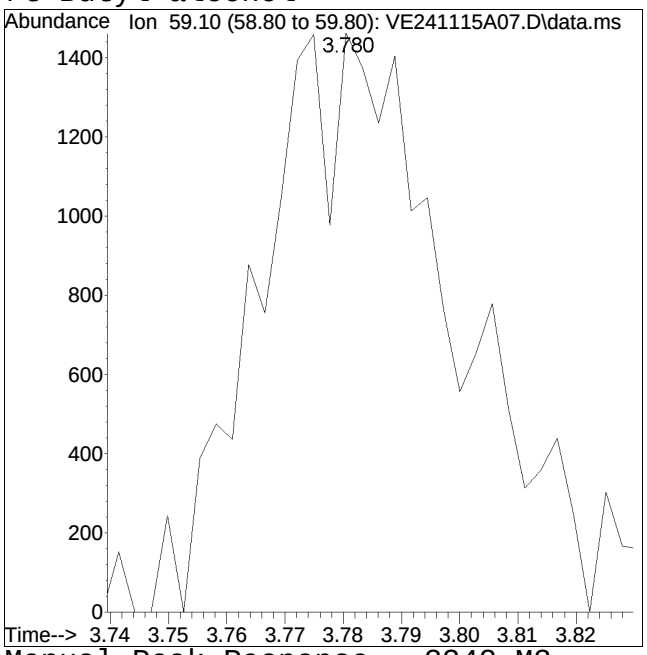
Original Peak Response = 10380 Manual Peak Response = 25513 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #22: tert-Butyl alcohol





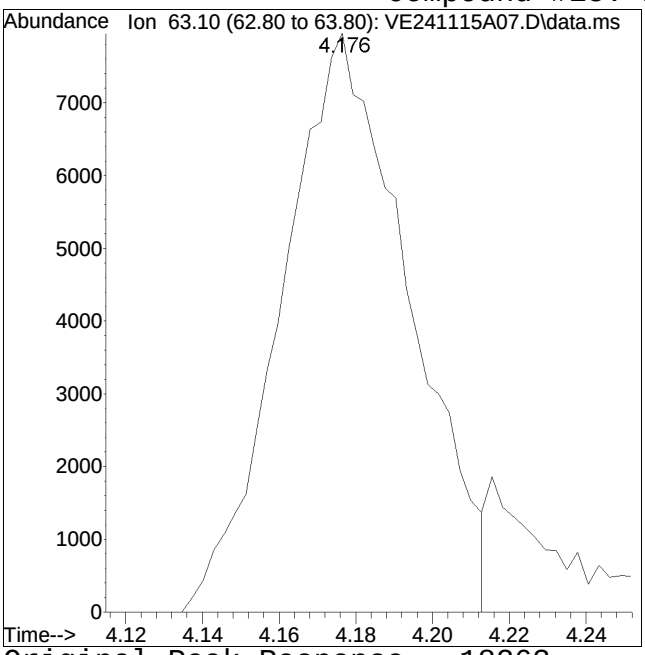
Original Peak Response = 1348 Manual Peak Response = 3342 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

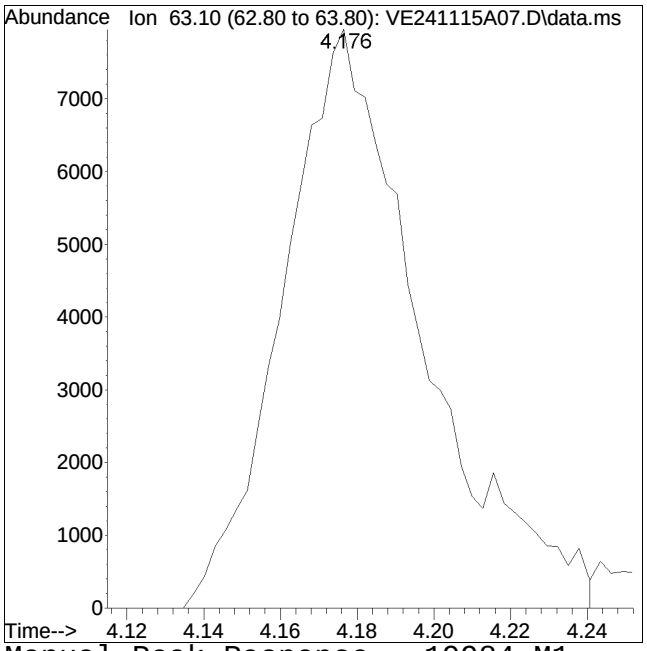
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #25: 1,1-Dichloroethane



Original Peak Response = 18263



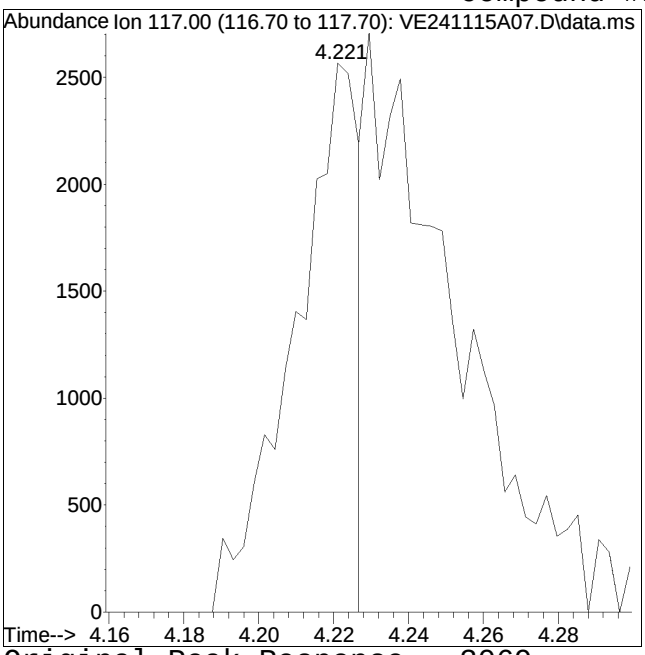
Manual Peak Response = 19984 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

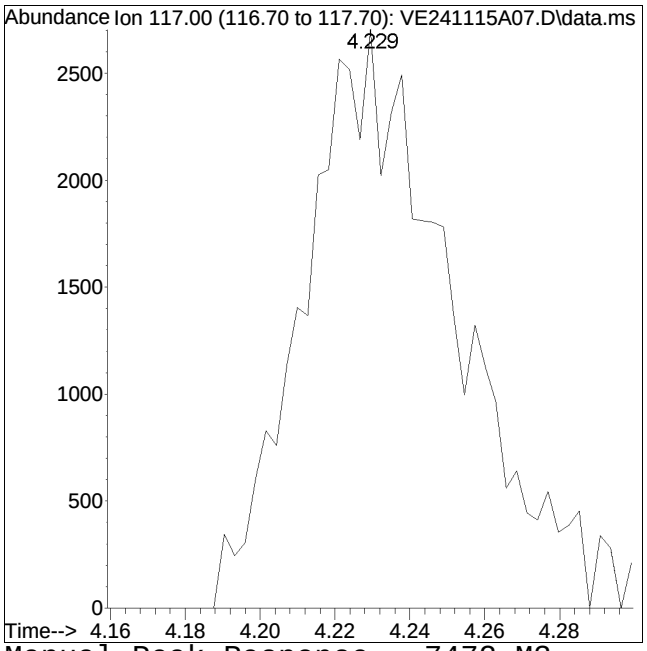
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #26: Halothane



Original Peak Response = 3069



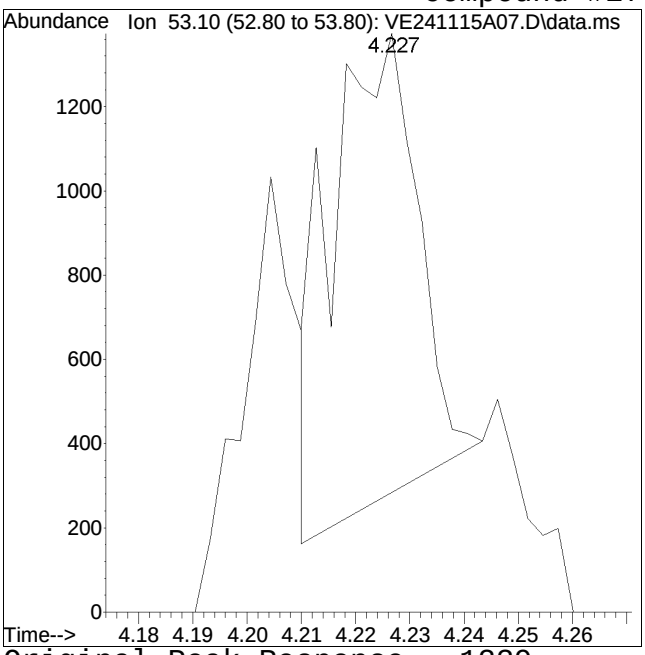
Manual Peak Response = 7472 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

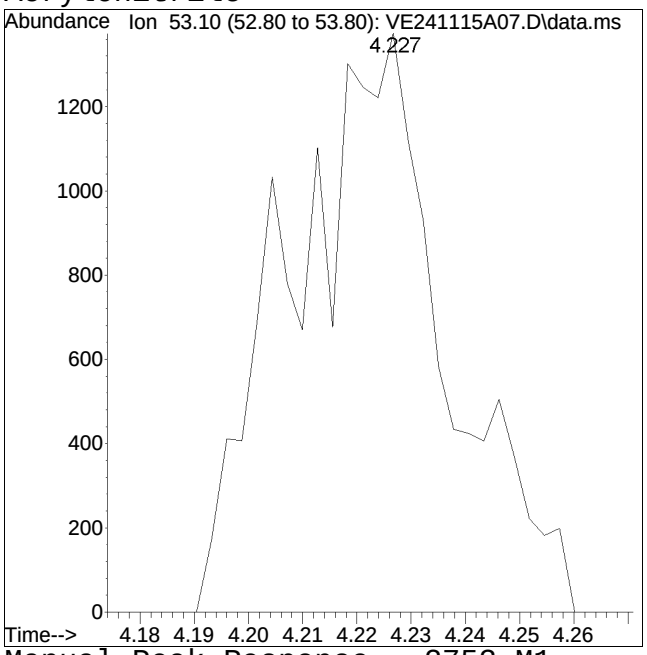
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #27: Acrylonitrile



Original Peak Response = 1239



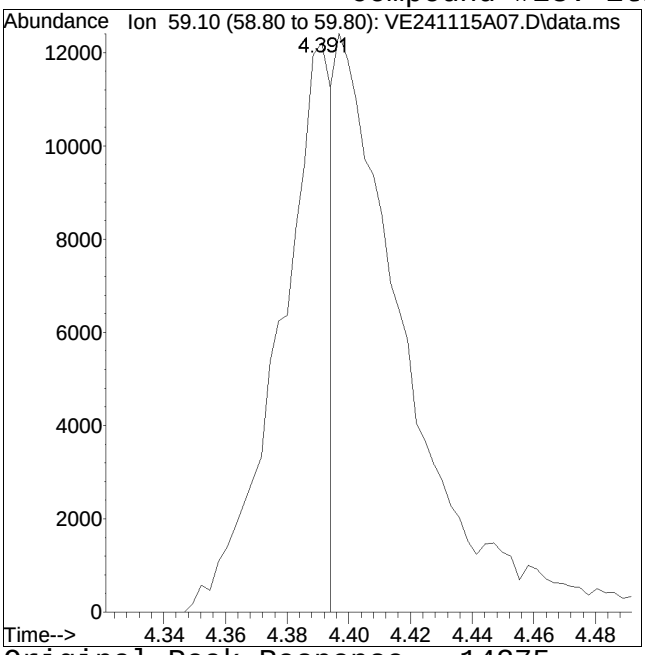
Manual Peak Response = 2753 M1

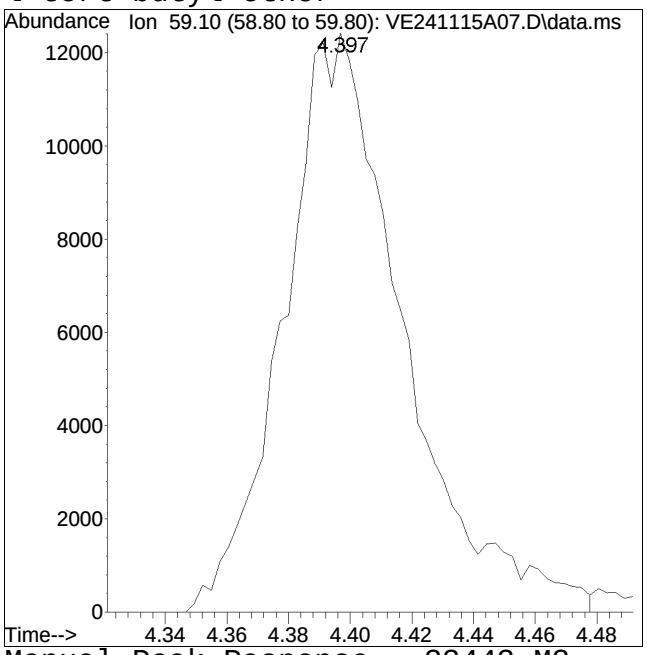
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #28: Ethyl tert-butyl ether





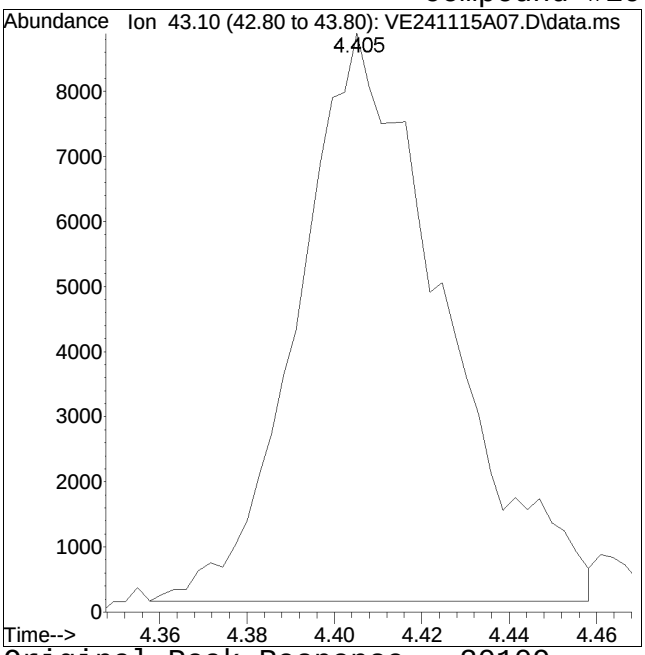
Original Peak Response = 14275 Manual Peak Response = 33443 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

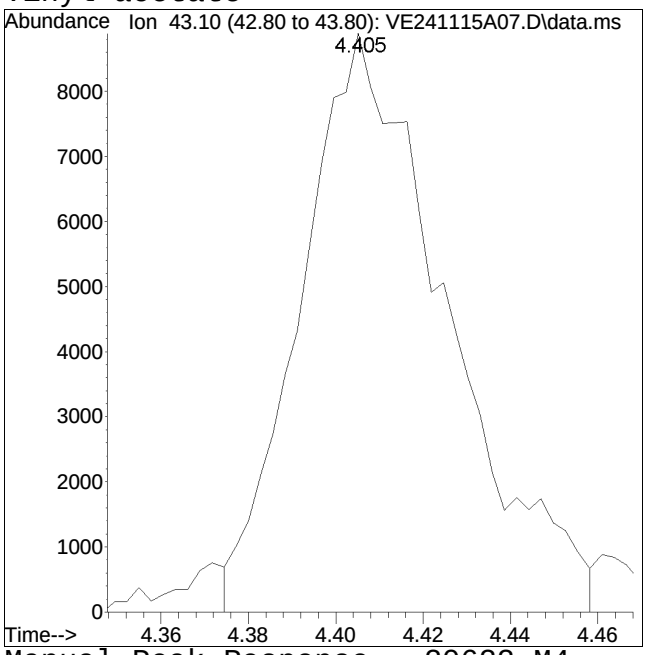
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #29: Vinyl acetate



Original Peak Response = 20109



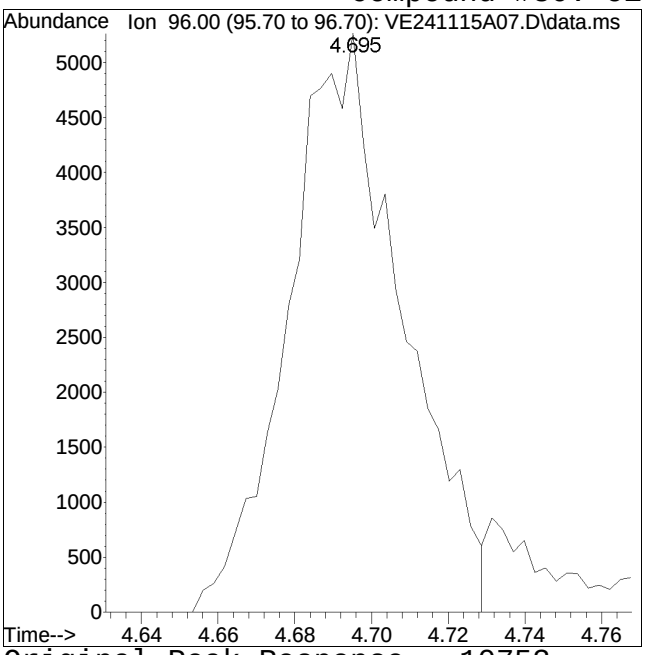
Manual Peak Response = 20622 M4

M4 = Poor automated baseline construction.

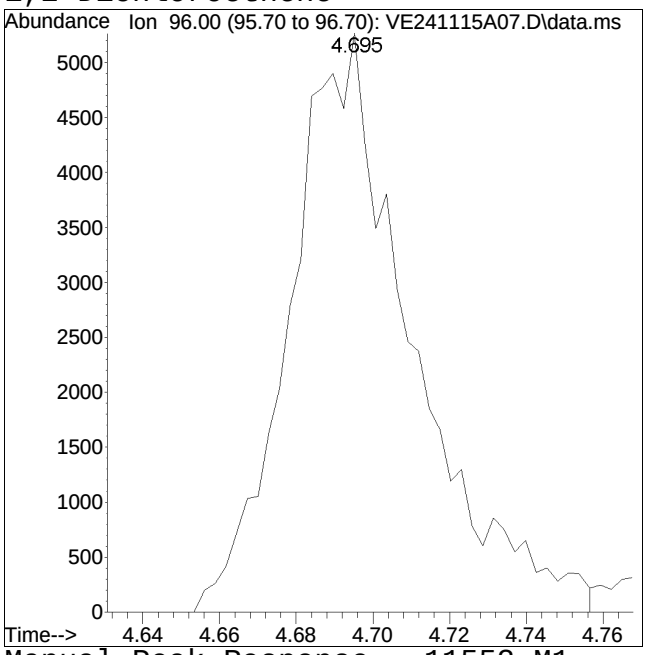
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #30: cis-1,2-Dichloroethene



Original Peak Response = 10753



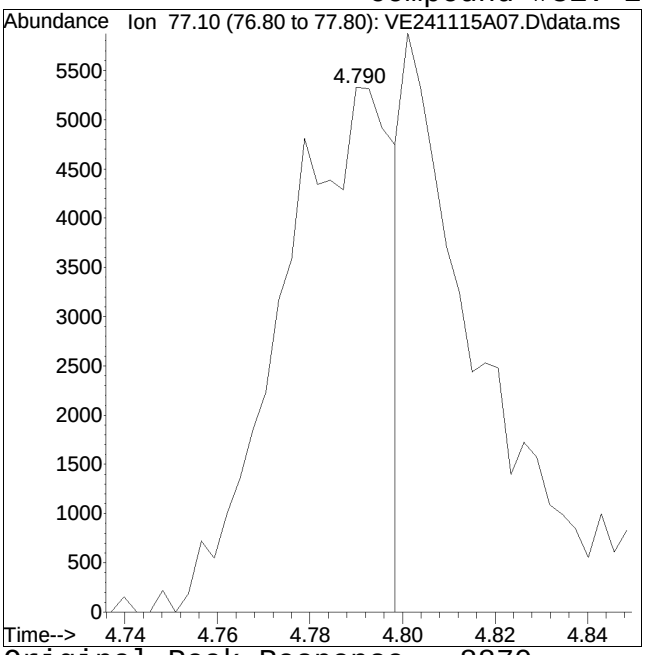
Manual Peak Response = 11552 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

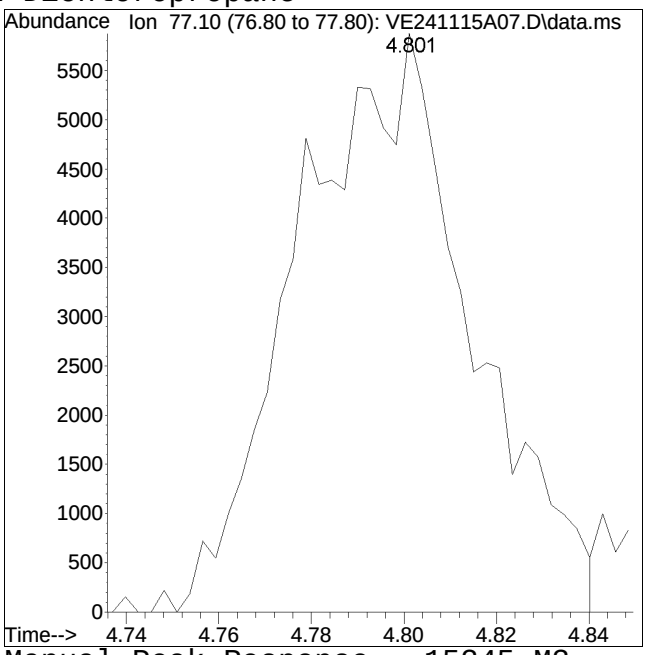
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #31: 2,2-Dichloropropane



Original Peak Response = 8870



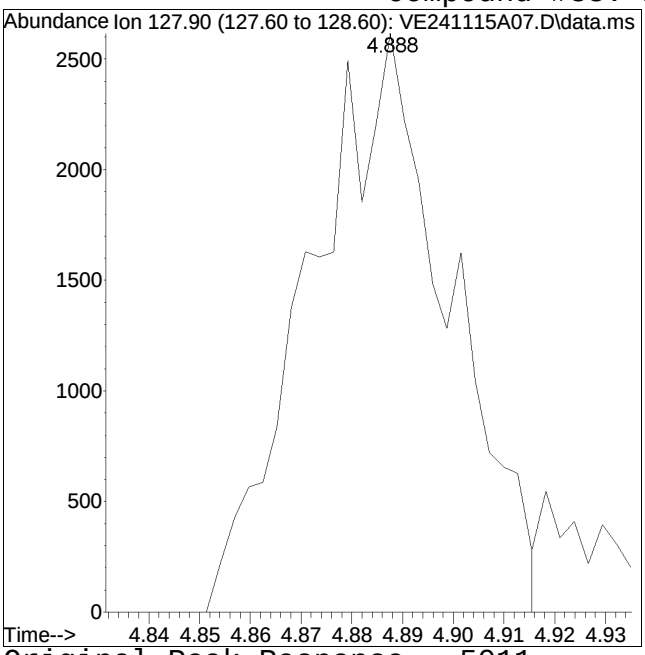
Manual Peak Response = 15245 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

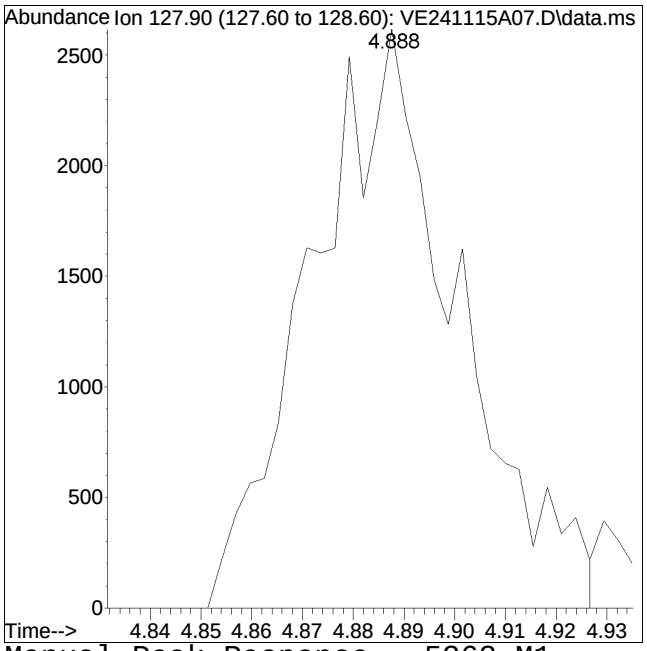
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #33: Bromochloromethane



Original Peak Response = 5011



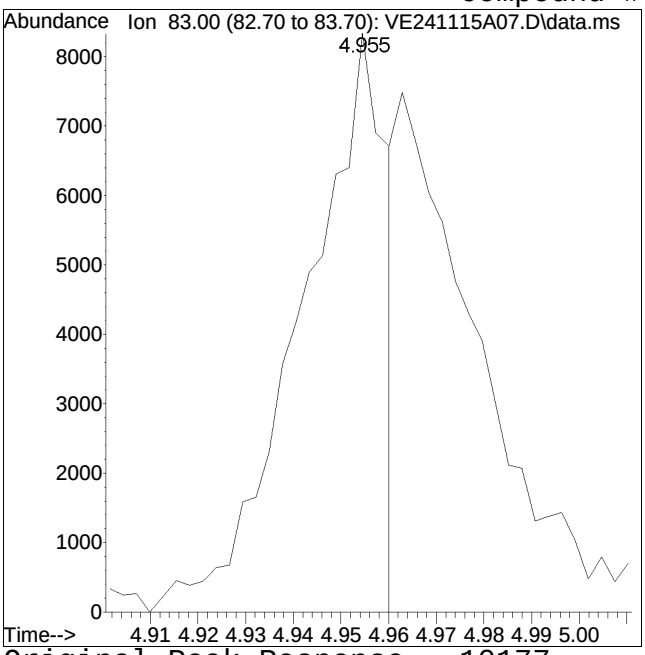
Manual Peak Response = 5263 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

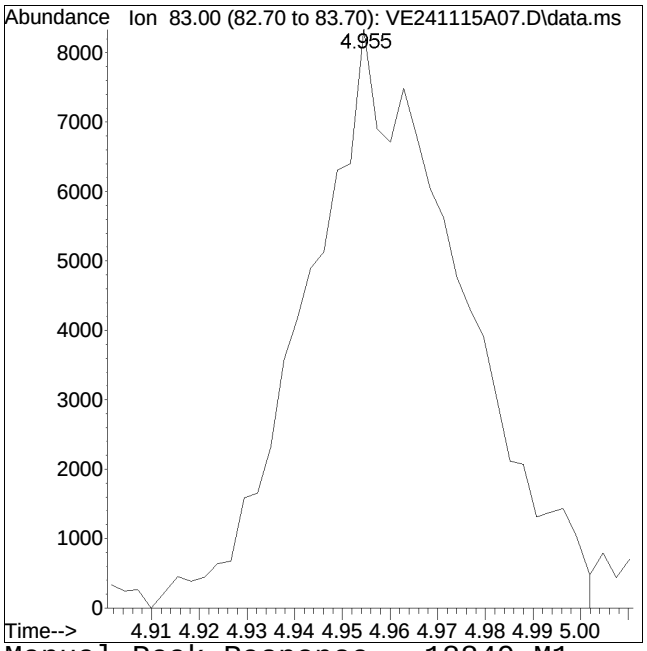
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #35: Chloroform



Original Peak Response = 10177



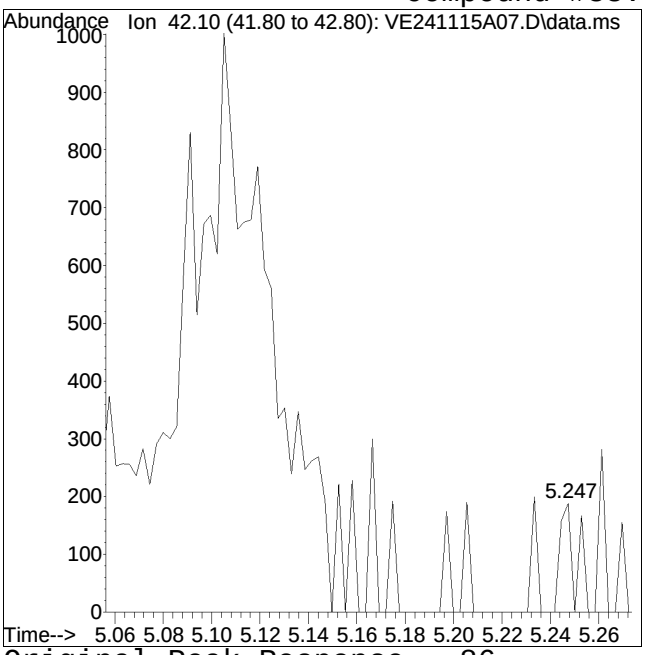
Manual Peak Response = 18840 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

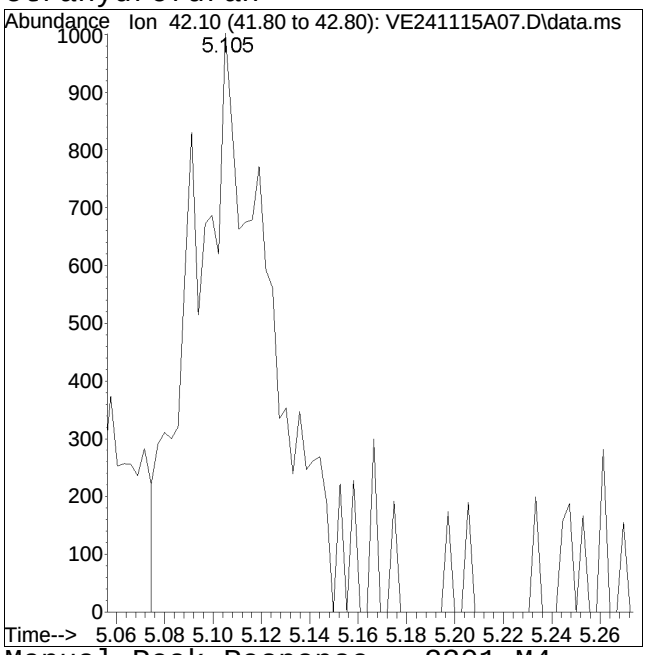
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



Original Peak Response = 86



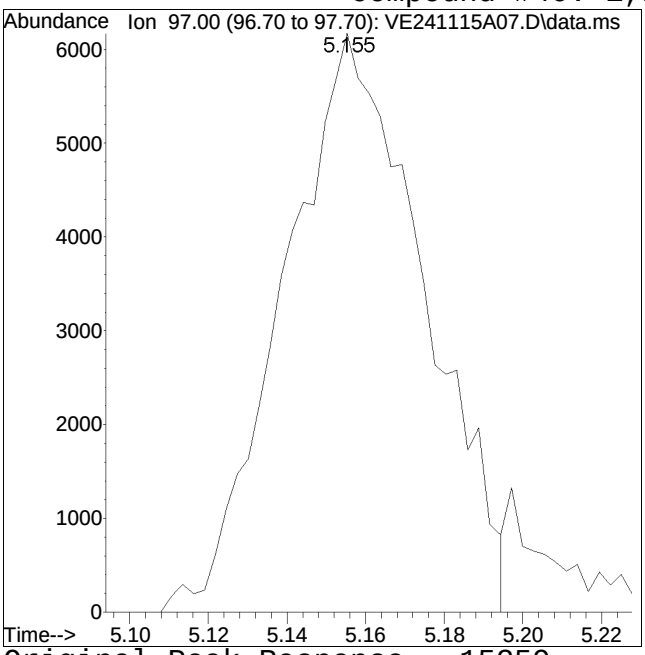
Manual Peak Response = 2201 M4

M4 = Poor automated baseline construction.

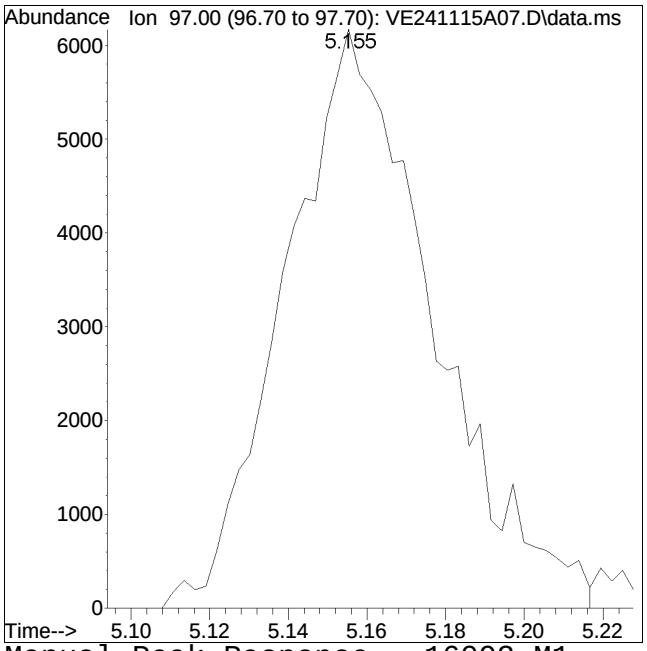
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #40: 1,1,1-Trichloroethane



Original Peak Response = 15259



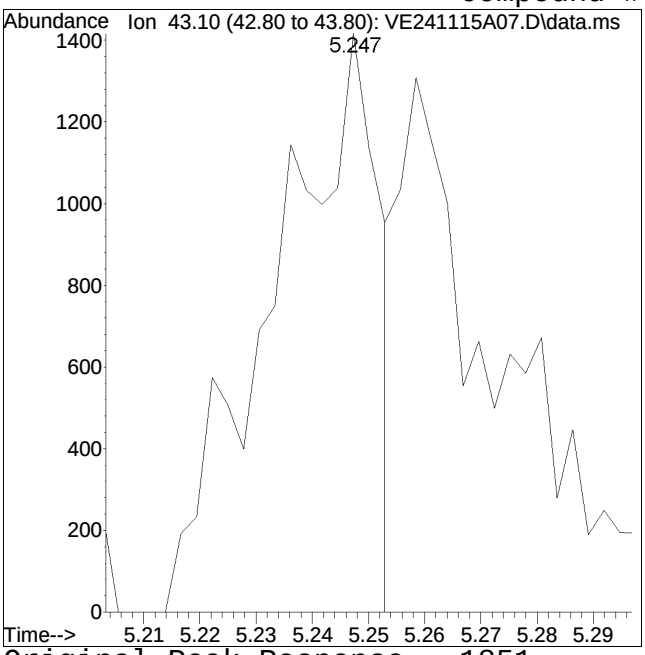
Manual Peak Response = 16092 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

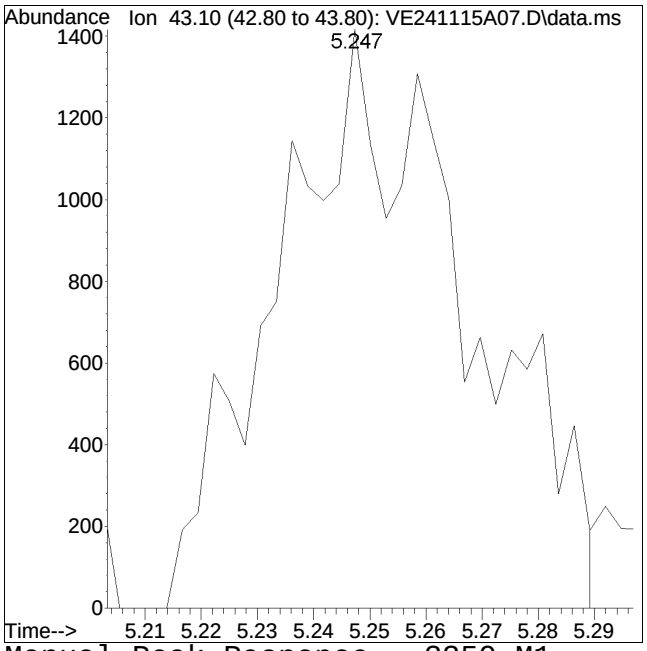
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone



Original Peak Response = 1851



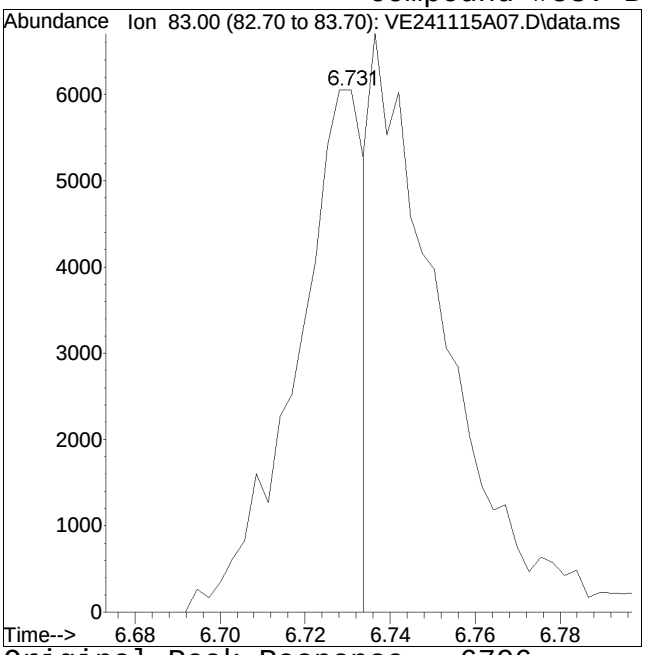
Manual Peak Response = 3359 M1

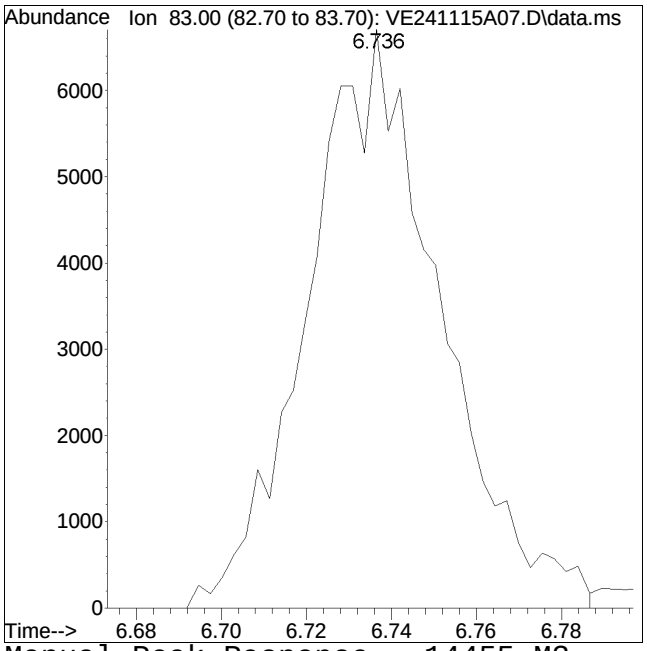
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #58: Bromodichloromethane





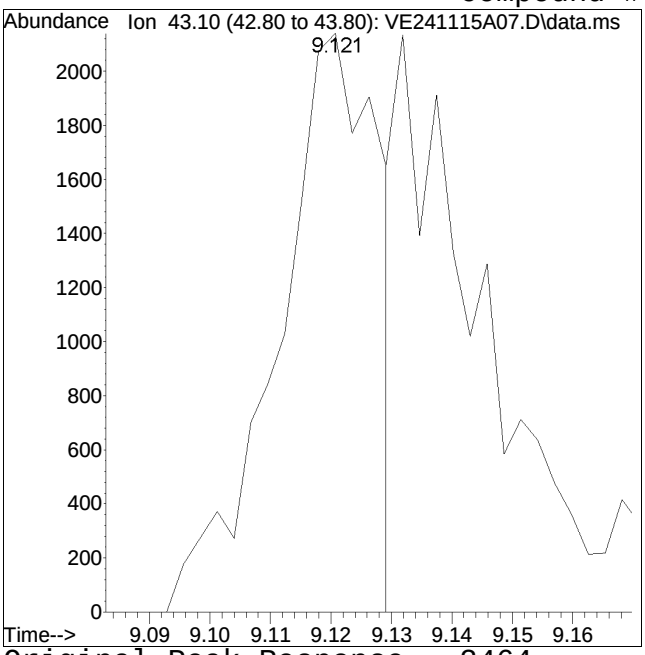
Original Peak Response = 6706 Manual Peak Response = 14455 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

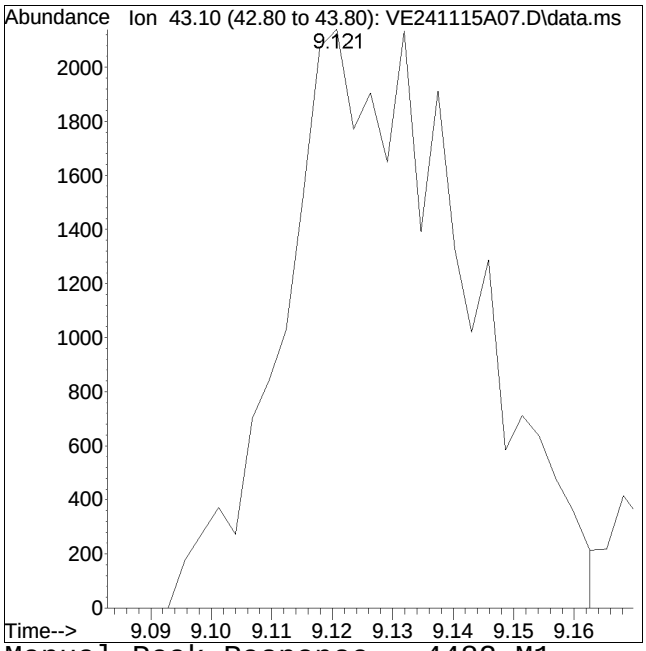
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #77: 2-Hexanone



Original Peak Response = 2464



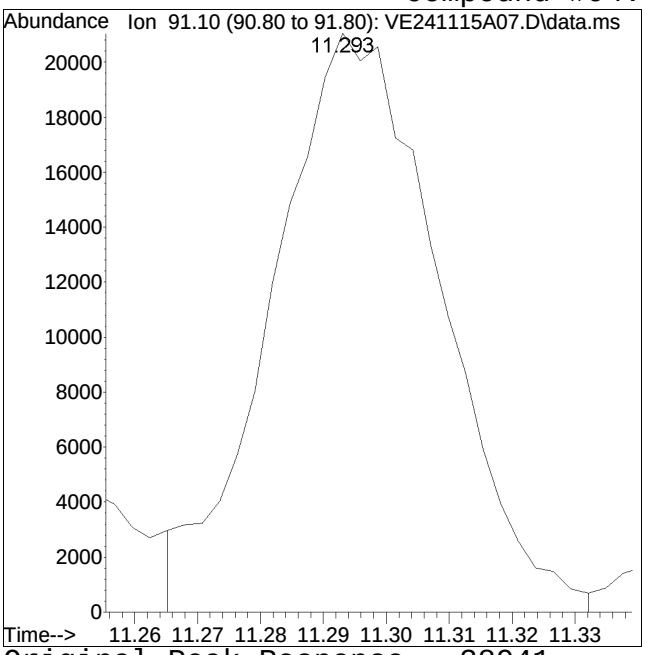
Manual Peak Response = 4482 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

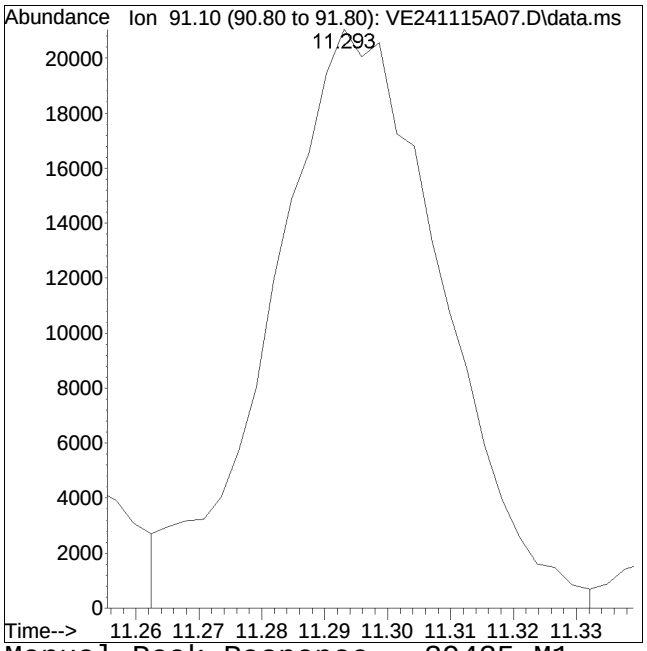
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A07.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 4:30 am Instrument : Elaine
Sample : I8260STD2PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 38941



Manual Peak Response = 39435 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	258108	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	187202	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.186	152	99398	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	60835	10.279	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.79%			
47) 1,2-Dichloroethane-d4	5.657	65	70004	9.997	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.97%			
64) Toluene-d8	7.632	98	258031	10.107	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.07%			
88) 4-Bromofluorobenzene	10.970	95	90652	9.927	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.27%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	64019	11.101	ug/L	93
3) Chloromethane	1.773	50	60439	10.607	ug/L	96
4) Vinyl chloride	1.848	62	66772	10.997	ug/L	95
5) Bromomethane	2.155	94	42650	10.008	ug/L	93
6) Chloroethane	2.272	64	47018	10.695	ug/L	99
7) Trichlorofluoromethane	2.409	101	98234	11.089	ug/L	98
8) Ethyl ether	2.701	74	27581	10.068	ug/L	88
10) 1,1-Dichloroethene	2.894	96	46566	10.322	ug/L	91
11) Carbon disulfide	2.919	76	144250	10.647	ug/L	95
12) Freon-113	2.930	101	52530M1	11.041	ug/L	
13) Iodomethane	3.025	142	37708	9.104	ug/L #	92
14) Acrolein	3.206	56	5696	10.340	ug/L	91
15) Methylene chloride	3.440	84	57108	10.140	ug/L	81
17) Acetone	3.477	43	10464M1	9.441	ug/L	
18) trans-1,2-Dichloroethene	3.594	96	53278	10.605	ug/L	96
19) Methyl acetate	3.597	43	24558	9.918	ug/L #	82
21) Methyl tert-butyl ether	3.694	73	137376M1	10.230	ug/L	
22) tert-Butyl alcohol	3.778	59	17924	52.958	ug/L #	61
24) Diisopropyl ether	4.051	45	172170	10.218	ug/L #	93
25) 1,1-Dichloroethane	4.177	63	104920	10.448	ug/L	99
26) Halothane	4.227	117	40749	10.518	ug/L	97

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	13811M3	10.166	ug/L		
28) Ethyl tert-butyl ether	4.394	59	176280	9.985	ug/L		97
29) Vinyl acetate	4.402	43	116027	9.948	ug/L	#	95
30) cis-1,2-Dichloroethene	4.692	96	59779	10.424	ug/L		91
31) 2,2-Dichloropropane	4.793	77	83984	10.599	ug/L		87
33) Bromochloromethane	4.882	128	27679	10.594	ug/L	#	80
34) Cyclohexane	4.891	56	110576	10.832	ug/L		82
35) Chloroform	4.960	83	92551	9.823	ug/L		95
36) Ethyl acetate	5.061	43	40904	10.396	ug/L	#	95
37) Carbon tetrachloride	5.091	117	72830	10.659	ug/L	#	90
38) Tetrahydrofuran	5.100	42	10865M1	9.958	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	89281	10.733	ug/L		91
42) 2-Butanone	5.245	43	13986	8.849	ug/L	#	90
43) 1,1-Dichloropropene	5.278	75	77501	10.633	ug/L		94
45) Benzene	5.521	78	236758	10.314	ug/L		94
46) tert-Amyl methyl ether	5.632	73	147912	10.012	ug/L		92
48) 1,2-Dichloroethane	5.727	62	73423	10.057	ug/L		99
51) Methyl cyclohexane	6.109	83	107391	10.505	ug/L		85
52) Trichloroethene	6.120	95	58124	10.679	ug/L		95
54) Dibromomethane	6.555	93	32136	10.331	ug/L		91
55) 1,2-Dichloropropane	6.658	63	60189	10.321	ug/L		96
57) 2-Chloroethyl vinyl ether	7.350	63	35068	10.223	ug/L		90
58) Bromodichloromethane	6.734	83	78987	10.437	ug/L		94
61) 1,4-Dioxane	6.940	88	20444	536.478	ug/L	#	81
62) cis-1,3-Dichloropropene	7.423	75	91786	10.507	ug/L		90
65) Toluene	7.685	92	153656	10.445	ug/L		94
66) 4-Methyl-2-pentanone	8.117	58	14783	9.562	ug/L		85
67) Tetrachloroethene	8.128	166	63558	10.746	ug/L		96
69) trans-1,3-Dichloropropene	8.170	75	77996	10.707	ug/L		85
71) Ethyl methacrylate	8.357	69	57283	10.310	ug/L		94
72) 1,1,2-Trichloroethane	8.357	83	39609	10.245	ug/L		98
73) Chlorodibromomethane	8.566	129	51913	10.008	ug/L		98
74) 1,3-Dichloropropane	8.677	76	81868	10.256	ug/L		98
75) 1,2-Dibromoethane	8.839	107	46445	10.139	ug/L		87
77) 2-Hexanone	9.126	43	24765	9.971	ug/L	#	93
78) Chlorobenzene	9.489	112	161435	10.325	ug/L	#	82
79) Ethylbenzene	9.528	91	295070	10.497	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.575	131	54217	10.444	ug/L		96
81) p/m Xylene	9.712	106	224264	20.724	ug/L		95
82) o Xylene	10.259	106	218078	20.667	ug/L		88

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.326	104	357909	20.091	ug/L		95
85) Bromoform	10.356	173	28988	9.867	ug/L		92
87) Isopropylbenzene	10.643	105	300081	10.220	ug/L		97
89) Bromobenzene	11.081	156	68169	10.400	ug/L		99
90) n-Propylbenzene	11.129	91	342490	10.284	ug/L		95
91) 1,4-Dichlorobutane	11.145	55	80033	10.260	ug/L		100
92) 1,1,2,2-Tetrachloroethane	11.218	83	56522	9.971	ug/L		98
93) 4-Ethyltoluene	11.254	105	287656	10.409	ug/L		100
94) 2-Chlorotoluene	11.296	91	198672M1	10.271	ug/L		
95) 1,3,5-Trimethylbenzene	11.352	105	251462	10.283	ug/L		98
96) 1,2,3-Trichloropropane	11.355	75	44509	9.946	ug/L		91
97) trans-1,4-Dichloro-2-b...	11.408	53	15538	9.591	ug/L	#	67
98) 4-Chlorotoluene	11.480	91	205242	10.256	ug/L		98
99) tert-Butylbenzene	11.695	119	209364	10.375	ug/L		94
102) 1,2,4-Trimethylbenzene	11.773	105	251489	10.255	ug/L		96
103) sec-Butylbenzene	11.887	105	317704	10.311	ug/L		100
104) p-Isopropyltoluene	12.041	119	263190	10.309	ug/L		96
105) 1,3-Dichlorobenzene	12.107	146	132538	10.102	ug/L		96
106) 1,4-Dichlorobenzene	12.202	146	132040	10.035	ug/L		99
107) p-Diethylbenzene	12.414	119	154927	10.372	ug/L		97
108) n-Butylbenzene	12.473	91	229472	10.307	ug/L		98
109) 1,2-Dichlorobenzene	12.623	146	123739	9.913	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.209	119	237836	9.939	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.407	155	7272	9.592	ug/L		94
112) 1,3,5-Trichlorobenzene	13.438	180	90630	10.179	ug/L		93
113) Hexachlorobutadiene	14.012	225	25243	10.620	ug/L		93
114) 1,2,4-Trichlorobenzene	14.032	180	78820	10.139	ug/L		98
115) Naphthalene	14.327	128	180798	9.903	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	69443	10.007	ug/L		94

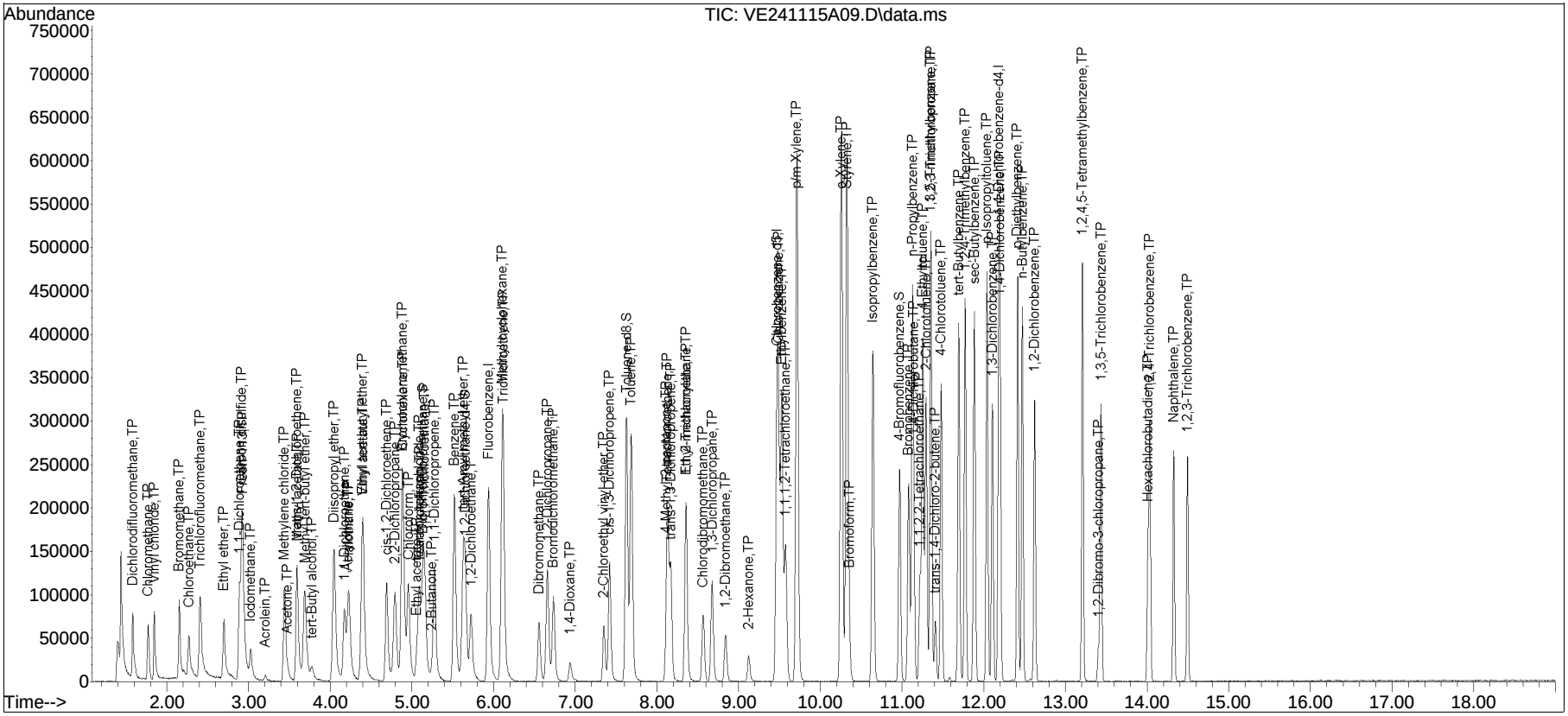
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A09.D
Acq On : 15 Nov 2024 5:18 am
Operator : ELAINE:PID
Sample : I8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 11:45:29 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

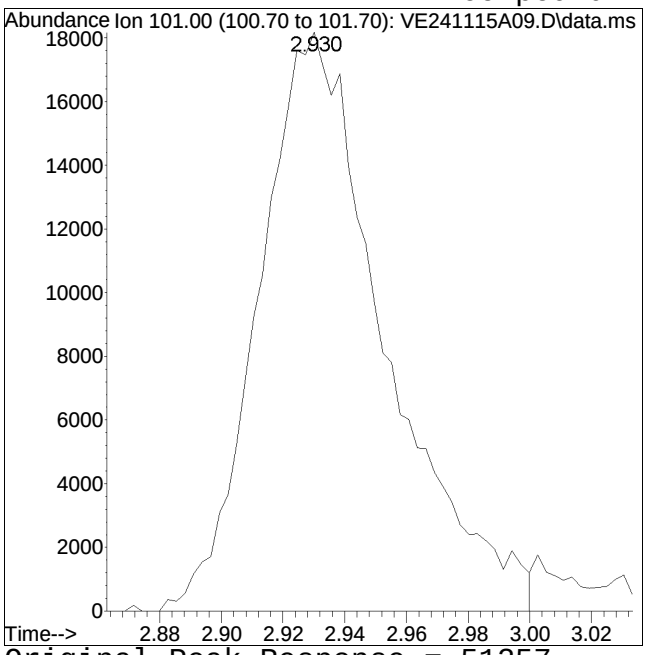
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

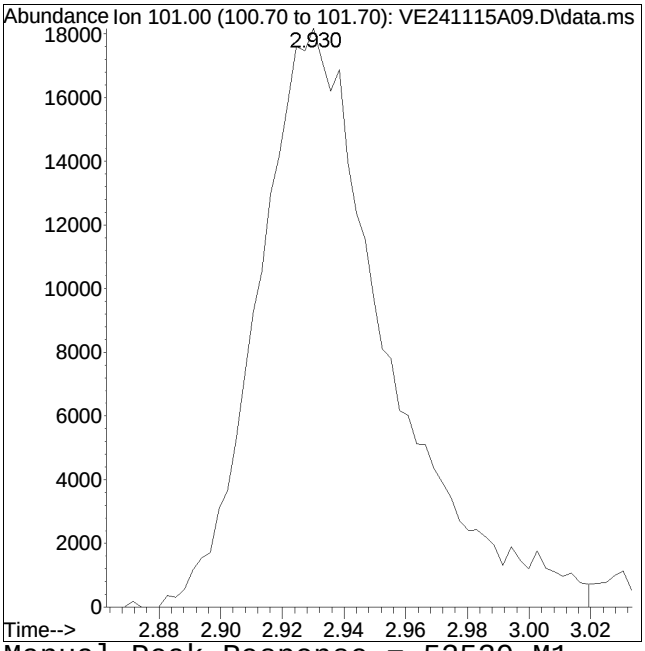


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #12: Freon-113



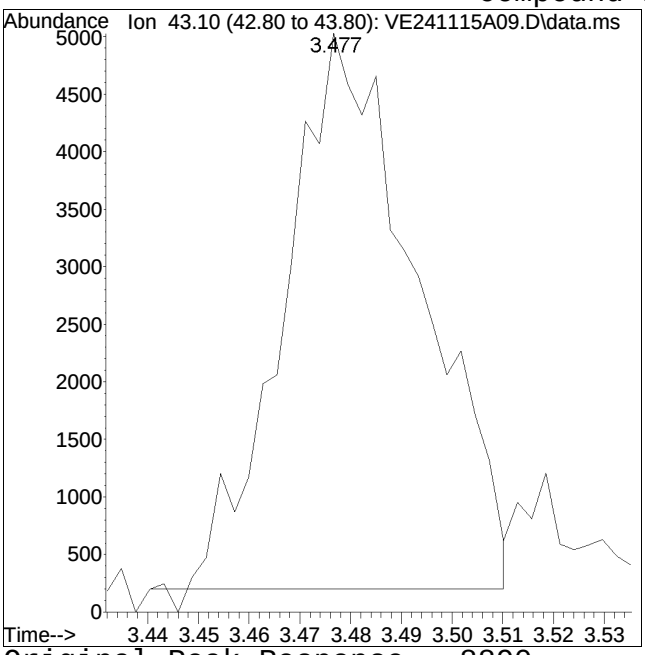


Original Peak Response = 51257 Manual Peak Response = 52530 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

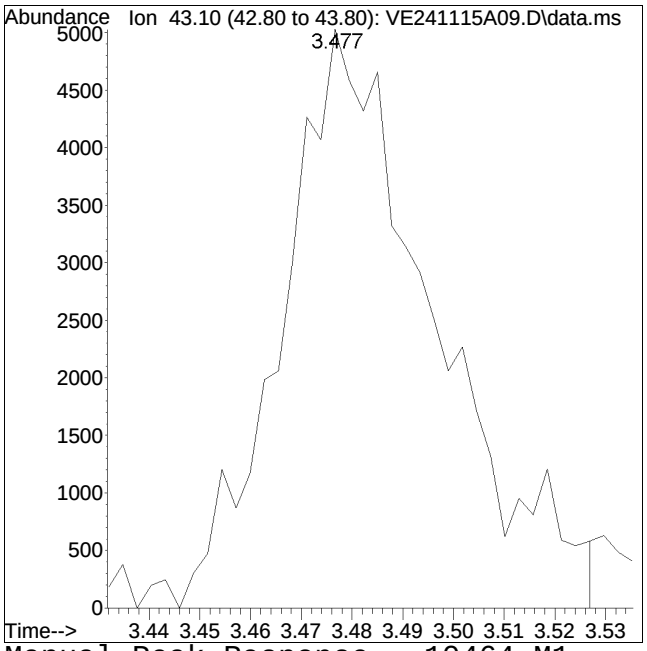
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #17: Acetone



Original Peak Response = 8890



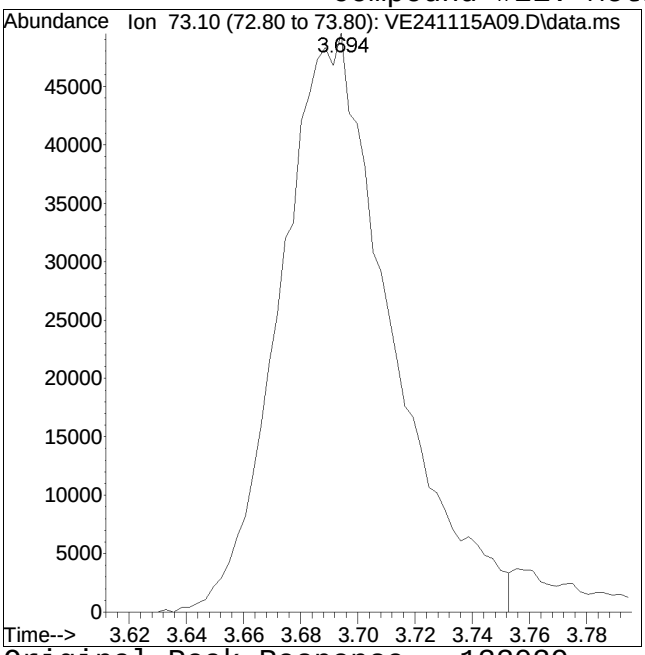
Manual Peak Response = 10464 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

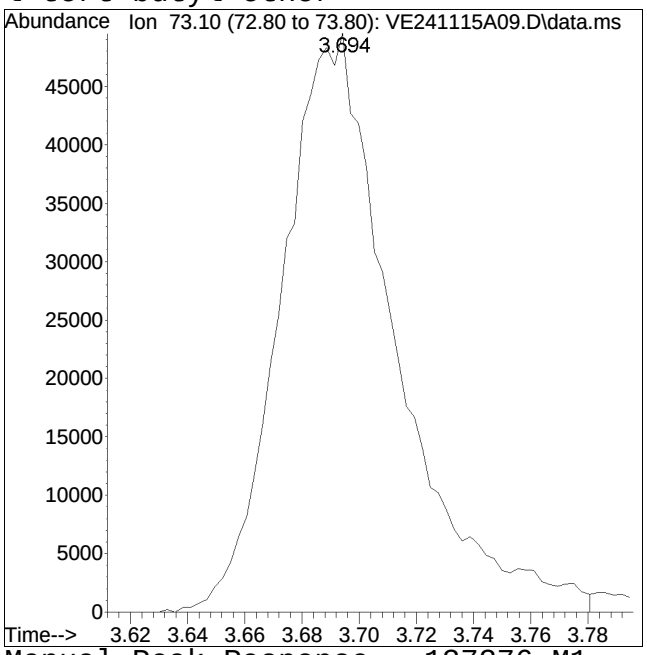
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #21: Methyl tert-butyl ether



Original Peak Response = 133039



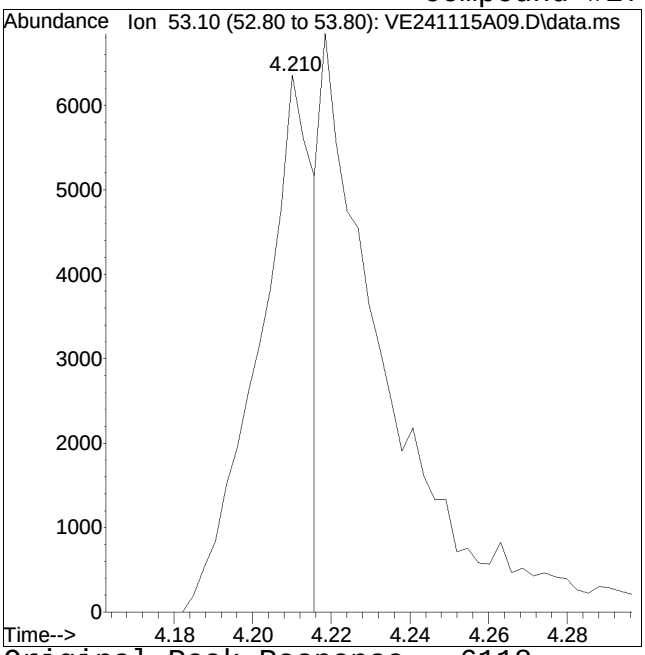
Manual Peak Response = 137376 M1

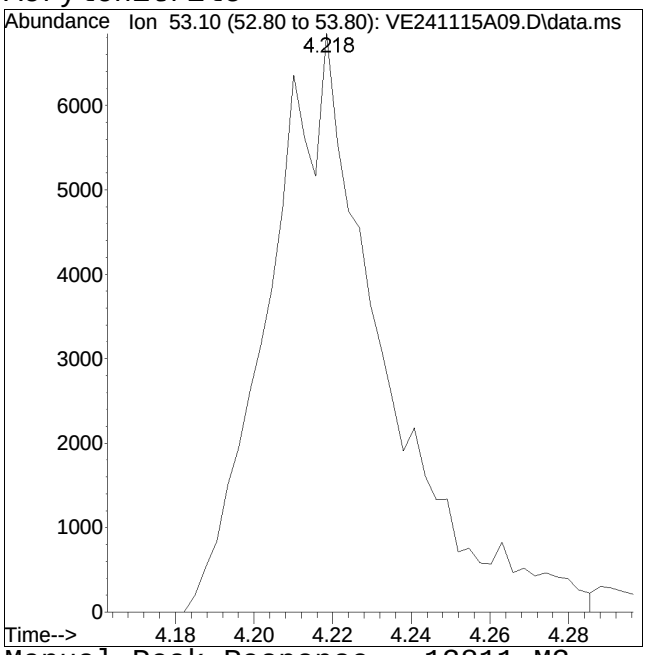
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #27: Acrylonitrile



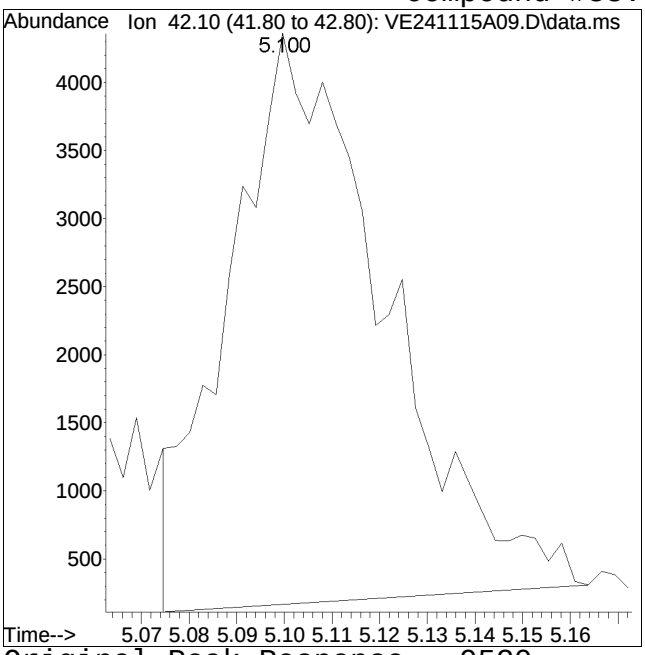


Original Peak Response = 6118 Manual Peak Response = 13811 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

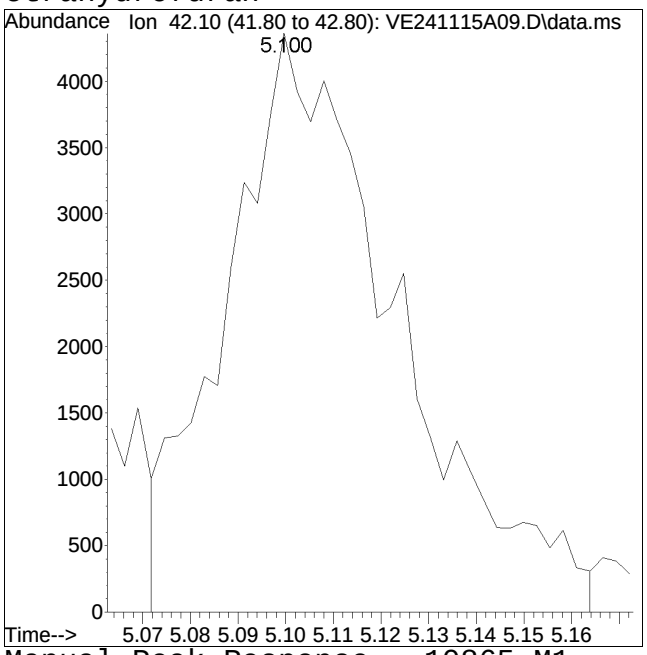
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



Original Peak Response = 9520



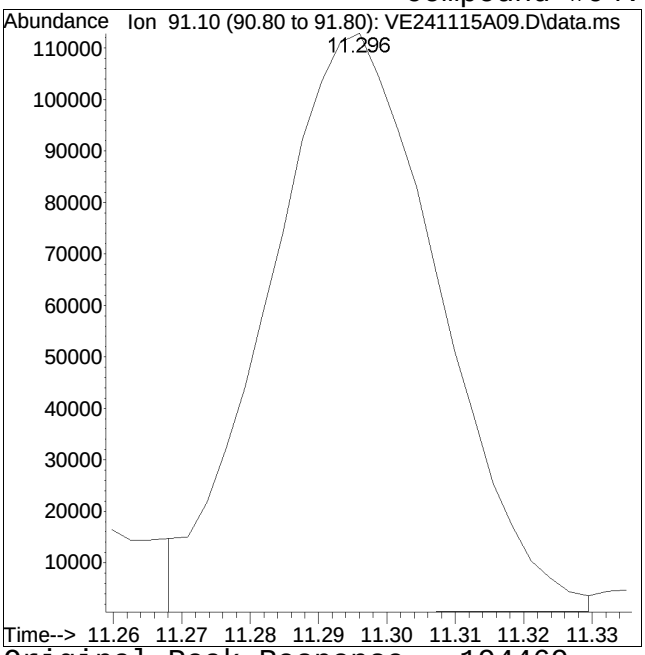
Manual Peak Response = 10865 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

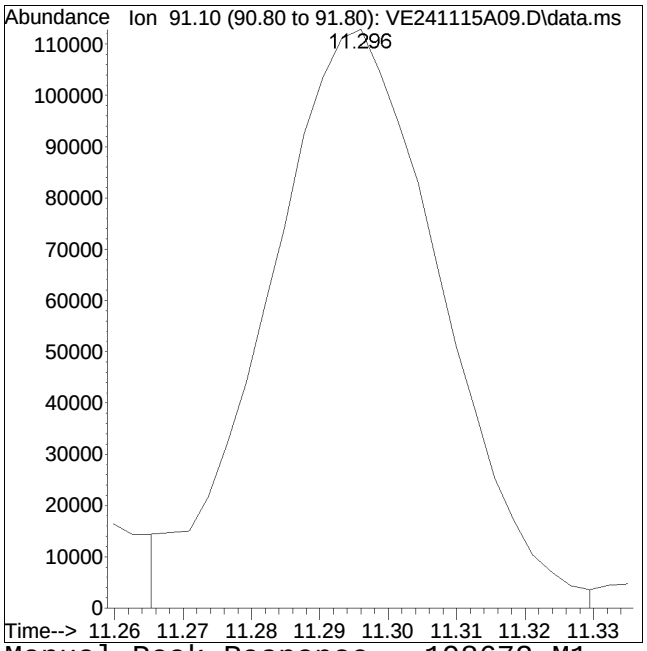
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A09.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:18 am Instrument : Elaine
Sample : I8260STD10PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 194469



Manual Peak Response = 198672 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	263012	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 101.90%			
63) Chlorobenzene-d5	9.469	117	190470	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.75%			
84) 1,4-Dichlorobenzene-d4	12.186	152	102497	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 103.12%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	59245	9.824	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 98.24%		
47) 1,2-Dichloroethane-d4	5.657	65	69659	9.762	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 97.62%		
64) Toluene-d8	7.629	98	261063	10.050	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 100.50%		
88) 4-Bromofluorobenzene	10.967	95	92894	9.865	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 98.65%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	191482	32.584	ug/L	95
3) Chloromethane	1.773	50	179019	30.832	ug/L	97
4) Vinyl chloride	1.848	62	205852	33.271	ug/L	97
5) Bromomethane	2.155	94	123191	28.368	ug/L	94
6) Chloroethane	2.269	64	140161	31.289	ug/L	99
7) Trichlorofluoromethane	2.411	101	288395	31.948	ug/L	96
8) Ethyl ether	2.699	74	88301	31.633	ug/L	89
10) 1,1-Dichloroethene	2.891	96	146183	31.800	ug/L	97
11) Carbon disulfide	2.922	76	433868	31.426	ug/L	96
12) Freon-113	2.930	101	154185	31.804	ug/L	97
13) Iodomethane	3.028	142	126576	29.989	ug/L #	92
14) Acrolein	3.203	56	16516	29.424	ug/L #	68
15) Methylene chloride	3.443	84	172240	30.014	ug/L	83
17) Acetone	3.479	43	28526	25.258	ug/L	92
18) trans-1,2-Dichloroethene	3.594	96	162196	31.682	ug/L	97
19) Methyl acetate	3.599	43	75308	29.848	ug/L #	87
21) Methyl tert-butyl ether	3.691	73	428275	31.296	ug/L	87
22) tert-Butyl alcohol	3.783	59	52357	151.808	ug/L #	74
24) Diisopropyl ether	4.048	45	523475	30.488	ug/L #	93
25) 1,1-Dichloroethane	4.174	63	315299	30.813	ug/L	99
26) Halothane	4.227	117	123993	31.408	ug/L	93

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.216	53	41142	29.720	ug/L	#	80
28) Ethyl tert-butyl ether	4.397	59	550000	30.573	ug/L		96
29) Vinyl acetate	4.405	43	369146	31.061	ug/L		96
30) cis-1,2-Dichloroethene	4.692	96	183245	31.357	ug/L		90
31) 2,2-Dichloropropane	4.796	77	258010	31.954	ug/L		86
33) Bromochloromethane	4.885	128	80194	30.121	ug/L		84
34) Cyclohexane	4.890	56	329047	31.633	ug/L		76
35) Chloroform	4.955	83	294662	30.692	ug/L		94
36) Ethyl acetate	5.061	43	122246	30.490	ug/L	#	85
37) Carbon tetrachloride	5.088	117	224693	32.271	ug/L		94
38) Tetrahydrofuran	5.102	42	33786M1	30.389	ug/L		
40) 1,1,1-Trichloroethane	5.158	97	267093	31.509	ug/L		91
42) 2-Butanone	5.245	43	45160	28.041	ug/L		97
43) 1,1-Dichloropropene	5.275	75	229327	30.876	ug/L		92
45) Benzene	5.521	78	727735	31.111	ug/L		94
46) tert-Amyl methyl ether	5.632	73	461123	30.631	ug/L		91
48) 1,2-Dichloroethane	5.727	62	228290	30.685	ug/L		100
51) Methyl cyclohexane	6.106	83	334316	32.094	ug/L		85
52) Trichloroethene	6.117	95	176353	31.798	ug/L		95
54) Dibromomethane	6.555	93	98072	30.941	ug/L		90
55) 1,2-Dichloropropane	6.658	63	187311	31.521	ug/L		95
57) 2-Chloroethyl vinyl ether	7.353	63	111073	31.775	ug/L		89
58) Bromodichloromethane	6.734	83	238680	30.949	ug/L		93
61) 1,4-Dioxane	6.943	88	24915M1	641.612	ug/L		
62) cis-1,3-Dichloropropene	7.420	75	287342	32.279	ug/L		90
65) Toluene	7.685	92	458170	30.611	ug/L		94
66) 4-Methyl-2-pentanone	8.114	58	48600	30.897	ug/L		78
67) Tetrachloroethene	8.131	166	188239	31.281	ug/L		98
69) trans-1,3-Dichloropropene	8.170	75	247914	33.448	ug/L		84
71) Ethyl methacrylate	8.357	69	178550	31.585	ug/L		97
72) 1,1,2-Trichloroethane	8.354	83	120623	30.663	ug/L		98
73) Chlorodibromomethane	8.566	129	166443	31.536	ug/L		98
74) 1,3-Dichloropropane	8.675	76	249398	30.706	ug/L		98
75) 1,2-Dibromoethane	8.839	107	141920	30.449	ug/L		87
77) 2-Hexanone	9.121	43	77771	30.776	ug/L		92
78) Chlorobenzene	9.489	112	489189	30.751	ug/L	#	83
79) Ethylbenzene	9.528	91	892601	31.208	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.575	131	167451	31.702	ug/L		95
81) p/m Xylene	9.715	106	681211	61.871	ug/L		96
82) o Xylene	10.259	106	657337	61.227	ug/L		90

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.326	104	1111760	61.337	ug/L		96
85) Bromoform	10.353	173	96041	31.701	ug/L		93
87) Isopropylbenzene	10.643	105	933244	30.822	ug/L		98
89) Bromobenzene	11.081	156	206282	30.520	ug/L		97
90) n-Propylbenzene	11.129	91	1065150	31.016	ug/L		96
91) 1,4-Dichlorobutane	11.145	55	242025	30.090	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.221	83	178162	30.478	ug/L		97
93) 4-Ethyltoluene	11.254	105	880214	30.887	ug/L		100
94) 2-Chlorotoluene	11.296	91	611032M1	30.633	ug/L		
95) 1,3,5-Trimethylbenzene	11.352	105	775199	30.742	ug/L		98
96) 1,2,3-Trichloropropane	11.355	75	136118	29.498	ug/L		93
97) trans-1,4-Dichloro-2-b...	11.408	53	52342	31.330	ug/L	#	63
98) 4-Chlorotoluene	11.480	91	626572	30.362	ug/L		99
99) tert-Butylbenzene	11.692	119	639463	30.729	ug/L		95
102) 1,2,4-Trimethylbenzene	11.773	105	774215	30.615	ug/L		96
103) sec-Butylbenzene	11.887	105	985196	31.007	ug/L		98
104) p-Isopropyltoluene	12.043	119	821699	31.212	ug/L		96
105) 1,3-Dichlorobenzene	12.110	146	409714	30.285	ug/L		96
106) 1,4-Dichlorobenzene	12.199	146	404259	29.793	ug/L		98
107) p-Diethylbenzene	12.414	119	487942	31.680	ug/L		96
108) n-Butylbenzene	12.473	91	718542	31.298	ug/L		98
109) 1,2-Dichlorobenzene	12.623	146	389286	30.243	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.209	119	766052	31.044	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.407	155	24992	31.970	ug/L		91
112) 1,3,5-Trichlorobenzene	13.435	180	287411	31.305	ug/L		93
113) Hexachlorobutadiene	14.012	225	79871	32.587	ug/L		92
114) 1,2,4-Trichlorobenzene	14.034	180	245938	30.679	ug/L		99
115) Naphthalene	14.327	128	578701	30.739	ug/L		100
116) 1,2,3-Trichlorobenzene	14.495	180	221887	31.007	ug/L		94

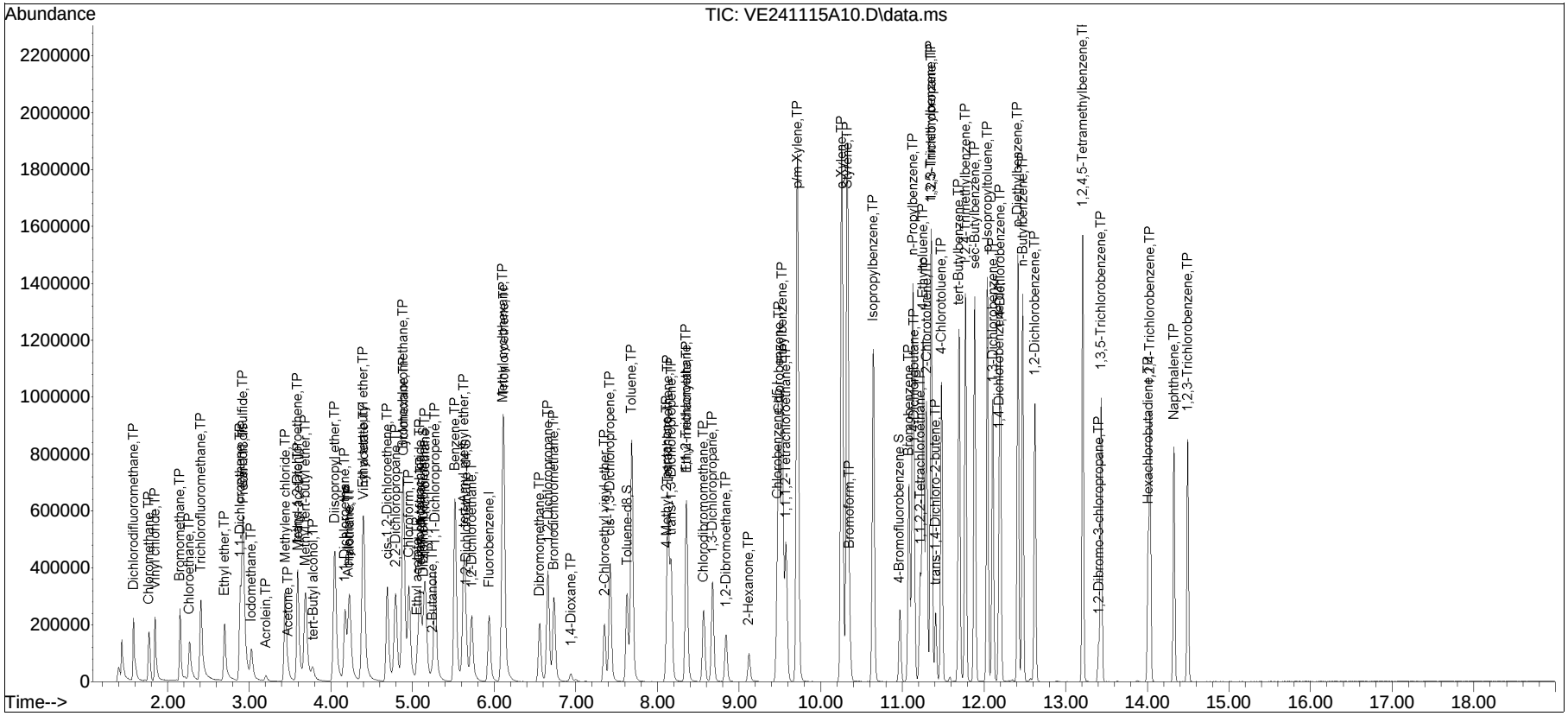
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A10.D
Acq On : 15 Nov 2024 5:43 am
Operator : ELAINE:PID
Sample : I8260STD30PPB
Misc : WG1998028,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 15 11:45:41 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

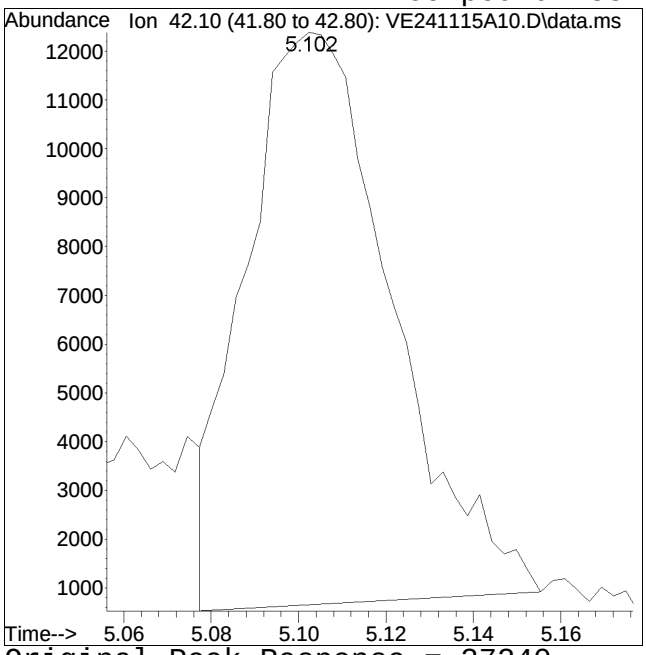
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

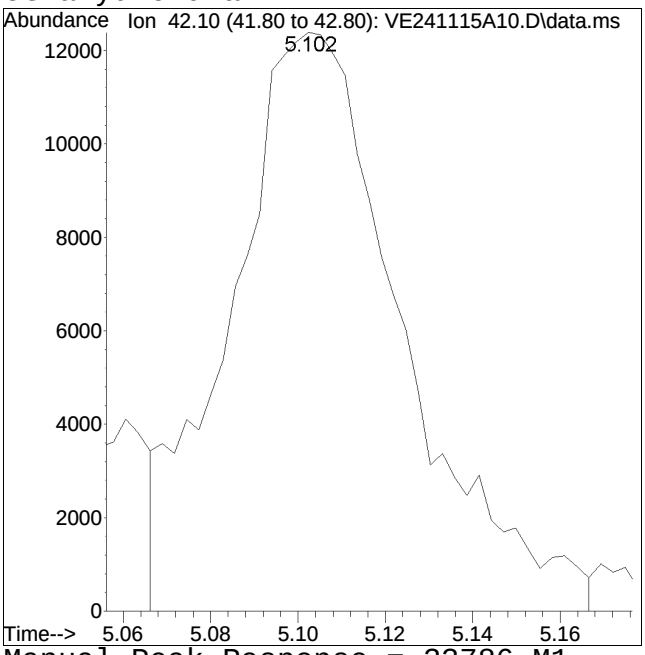


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A10.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:43 am Instrument : Elaine
Sample : I8260STD30PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



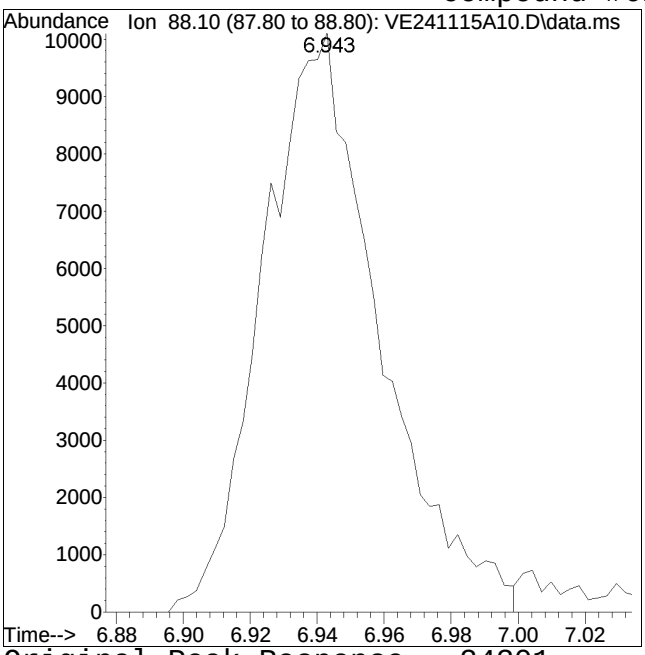


Original Peak Response = 27240 Manual Peak Response = 33786 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

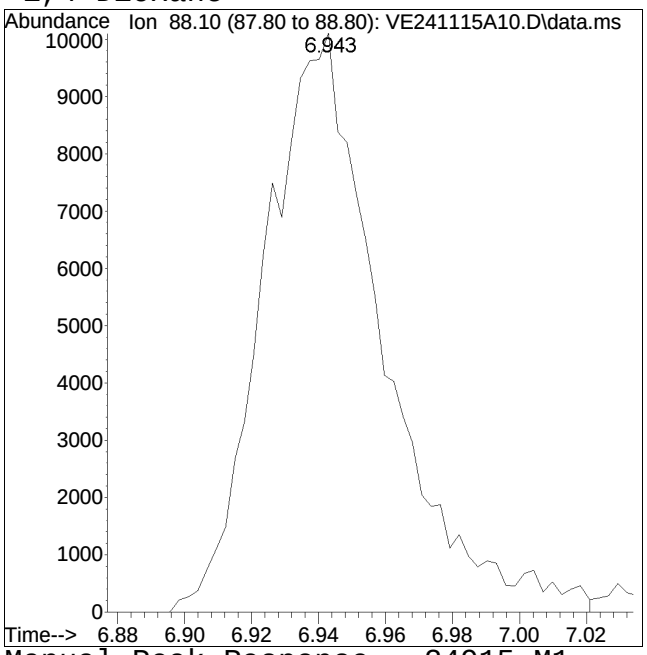
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A10.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:43 am Instrument : Elaine
Sample : I8260STD30PPB Quant Date : 11/15/2024 11:45 am

Compound #61: 1,4-Dioxane



Original Peak Response = 24301



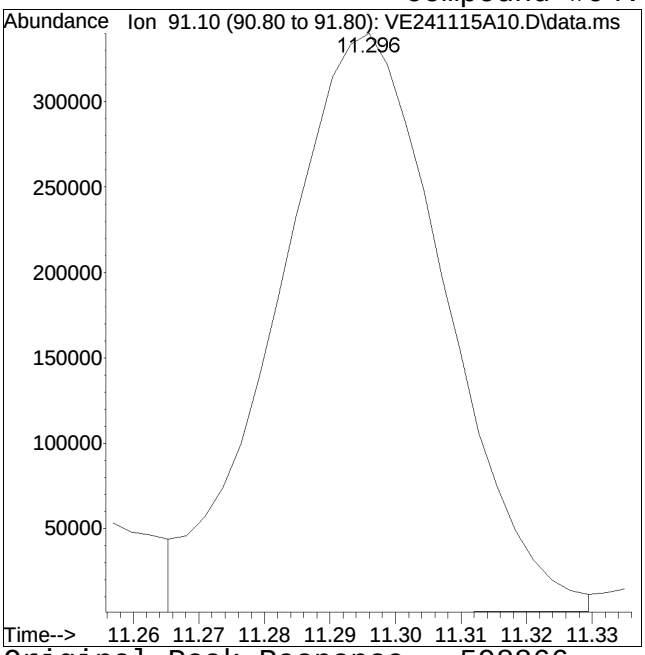
Manual Peak Response = 24915 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

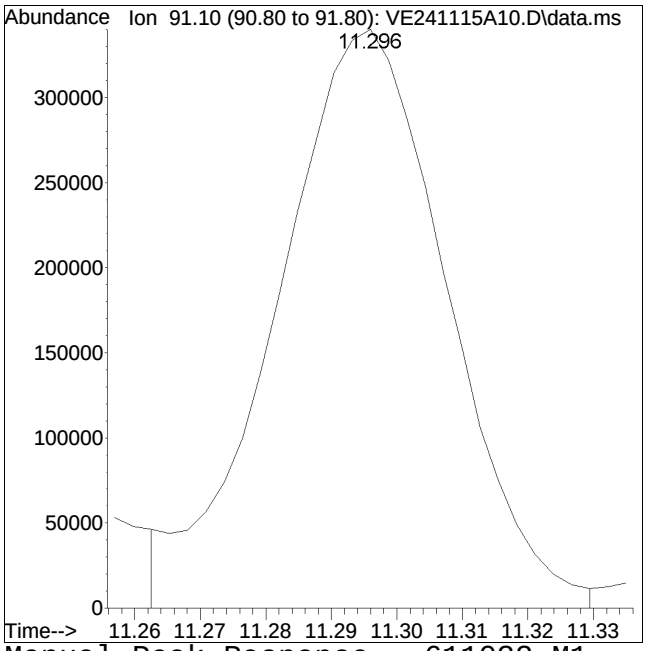
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A10.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 5:43 am Instrument : Elaine
Sample : I8260STD30PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 598866



Manual Peak Response = 611032 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	262160	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 101.57%			
63) Chlorobenzene-d5	9.472	117	190412	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.71%			
84) 1,4-Dichlorobenzene-d4	12.185	152	102157	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 102.78%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.130	113	59891	9.964	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.64%			
47) 1,2-Dichloroethane-d4	5.655	65	70551	9.919	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.19%			
64) Toluene-d8	7.626	98	258700	9.962	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.62%			
88) 4-Bromofluorobenzene	10.972	95	92872	9.895	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.95%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	508422	86.797	ug/L	94
3) Chloromethane	1.773	50	459431	79.383	ug/L	98
4) Vinyl chloride	1.848	62	529547	85.868	ug/L	93
5) Bromomethane	2.152	94	333208	76.979	ug/L	95
6) Chloroethane	2.269	64	376069	84.224	ug/L	100
7) Trichlorofluoromethane	2.409	101	781736	86.882	ug/L	94
8) Ethyl ether	2.699	74	232555	83.582	ug/L	87
10) 1,1-Dichloroethene	2.894	96	383570	83.710	ug/L	96
11) Carbon disulfide	2.922	76	1156091	84.010	ug/L	96
12) Freon-113	2.930	101	402561	83.307	ug/L	96
13) Iodomethane	3.028	142	373981	88.893	ug/L	92
14) Acrolein	3.209	56	43334	77.452	ug/L #	70
15) Methylene chloride	3.440	84	450600	78.775	ug/L	82
17) Acetone	3.477	43	82285	73.095	ug/L	95
18) trans-1,2-Dichloroethene	3.594	96	424683	83.223	ug/L	96
19) Methyl acetate	3.596	43	196562	78.160	ug/L #	83
21) Methyl tert-butyl ether	3.691	73	1149255	84.255	ug/L	86
22) tert-Butyl alcohol	3.778	59	144563	420.519	ug/L #	72
24) Diisopropyl ether	4.048	45	1427601	83.417	ug/L #	92
25) 1,1-Dichloroethane	4.174	63	846856	83.029	ug/L	100
26) Halothane	4.230	117	331091	84.138	ug/L	96

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	109538	79.386	ug/L		89
28) Ethyl tert-butyl ether	4.397	59	1486942	82.925	ug/L		95
29) Vinyl acetate	4.405	43	1002664	84.641	ug/L		97
30) cis-1,2-Dichloroethene	4.692	96	479355	82.294	ug/L		90
31) 2,2-Dichloropropane	4.793	77	672681	83.581	ug/L		86
33) Bromochloromethane	4.882	128	213306	80.379	ug/L	#	82
34) Cyclohexane	4.888	56	866958	83.616	ug/L		76
35) Chloroform	4.957	83	773364	80.815	ug/L		94
36) Ethyl acetate	5.063	43	314987	78.817	ug/L	#	91
37) Carbon tetrachloride	5.094	117	607355	87.512	ug/L		96
38) Tetrahydrofuran	5.105	42	87057M1	78.559	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	704151	83.340	ug/L		91
42) 2-Butanone	5.242	43	131043M3	81.633	ug/L		
43) 1,1-Dichloropropene	5.278	75	616627	83.290	ug/L		94
45) Benzene	5.523	78	1935306	83.005	ug/L		93
46) tert-Amyl methyl ether	5.629	73	1251657	83.413	ug/L		91
48) 1,2-Dichloroethane	5.724	62	593345	80.013	ug/L		100
51) Methyl cyclohexane	6.106	83	882808	85.024	ug/L		86
52) Trichloroethene	6.117	95	466538	84.394	ug/L		96
54) Dibromomethane	6.558	93	262432	83.065	ug/L		90
55) 1,2-Dichloropropane	6.661	63	493190	83.264	ug/L		96
57) 2-Chloroethyl vinyl ether	7.353	63	298334	85.623	ug/L		88
58) Bromodichloromethane	6.734	83	648872	84.411	ug/L		94
61) 1,4-Dioxane	6.940	88	30863	797.369	ug/L	#	78
62) cis-1,3-Dichloropropene	7.423	75	773606	87.188	ug/L		89
65) Toluene	7.685	92	1222831	81.724	ug/L		94
66) 4-Methyl-2-pentanone	8.114	58	131453	83.595	ug/L		77
67) Tetrachloroethene	8.131	166	495654	82.391	ug/L		98
69) trans-1,3-Dichloropropene	8.170	75	662436	89.402	ug/L		86
71) Ethyl methacrylate	8.357	69	472755	83.653	ug/L		97
72) 1,1,2-Trichloroethane	8.357	83	317085	80.630	ug/L		99
73) Chlorodibromomethane	8.569	129	459405	87.069	ug/L		98
74) 1,3-Dichloropropane	8.675	76	664977	81.897	ug/L		98
75) 1,2-Dibromoethane	8.839	107	376668	80.838	ug/L		87
77) 2-Hexanone	9.121	43	208752	82.634	ug/L		92
78) Chlorobenzene	9.492	112	1292677	81.284	ug/L	#	83
79) Ethylbenzene	9.531	91	2380120	83.243	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.575	131	451033	85.417	ug/L		95
81) p/m Xylene	9.715	106	1824131	165.727	ug/L		97
82) o Xylene	10.261	106	1783478	166.171	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.328	104	3064593	169.129	ug/L		97
85) Bromoform	10.353	173	274464	90.897	ug/L		93
87) Isopropylbenzene	10.643	105	2525019	83.672	ug/L		98
89) Bromobenzene	11.084	156	559181	83.009	ug/L		97
90) n-Propylbenzene	11.129	91	2877120	84.057	ug/L		96
91) 1,4-Dichlorobutane	11.145	55	657189	81.976	ug/L		100
92) 1,1,2,2-Tetrachloroethane	11.218	83	470491	80.755	ug/L		97
93) 4-Ethyltoluene	11.257	105	2344175	82.532	ug/L		100
94) 2-Chlorotoluene	11.296	91	1604553M1	80.710	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	2069891	82.359	ug/L		97
96) 1,2,3-Trichloropropane	11.357	75	362199	78.752	ug/L		91
97) trans-1,4-Dichloro-2-b...	11.407	53	142272	85.443	ug/L	#	57
98) 4-Chlorotoluene	11.483	91	1686491	81.996	ug/L		99
99) tert-Butylbenzene	11.698	119	1718883	82.876	ug/L		96
102) 1,2,4-Trimethylbenzene	11.776	105	2096164	83.166	ug/L		97
103) sec-Butylbenzene	11.887	105	2654684	83.828	ug/L		98
104) p-Isopropyltoluene	12.041	119	2217494	84.512	ug/L		97
105) 1,3-Dichlorobenzene	12.107	146	1105764	82.008	ug/L		96
106) 1,4-Dichlorobenzene	12.202	146	1087963	80.448	ug/L		98
107) p-Diethylbenzene	12.417	119	1302511	84.848	ug/L		96
108) n-Butylbenzene	12.476	91	1920150	83.917	ug/L		98
109) 1,2-Dichlorobenzene	12.623	146	1031447	80.397	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.212	119	2043681	83.095	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.404	155	67978	87.247	ug/L		92
112) 1,3,5-Trichlorobenzene	13.438	180	747936	81.737	ug/L		94
113) Hexachlorobutadiene	14.012	225	198264	81.160	ug/L		92
114) 1,2,4-Trichlorobenzene	14.037	180	661029	82.733	ug/L		99
115) Naphthalene	14.327	128	1606060	85.593	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	599108	83.998	ug/L		94

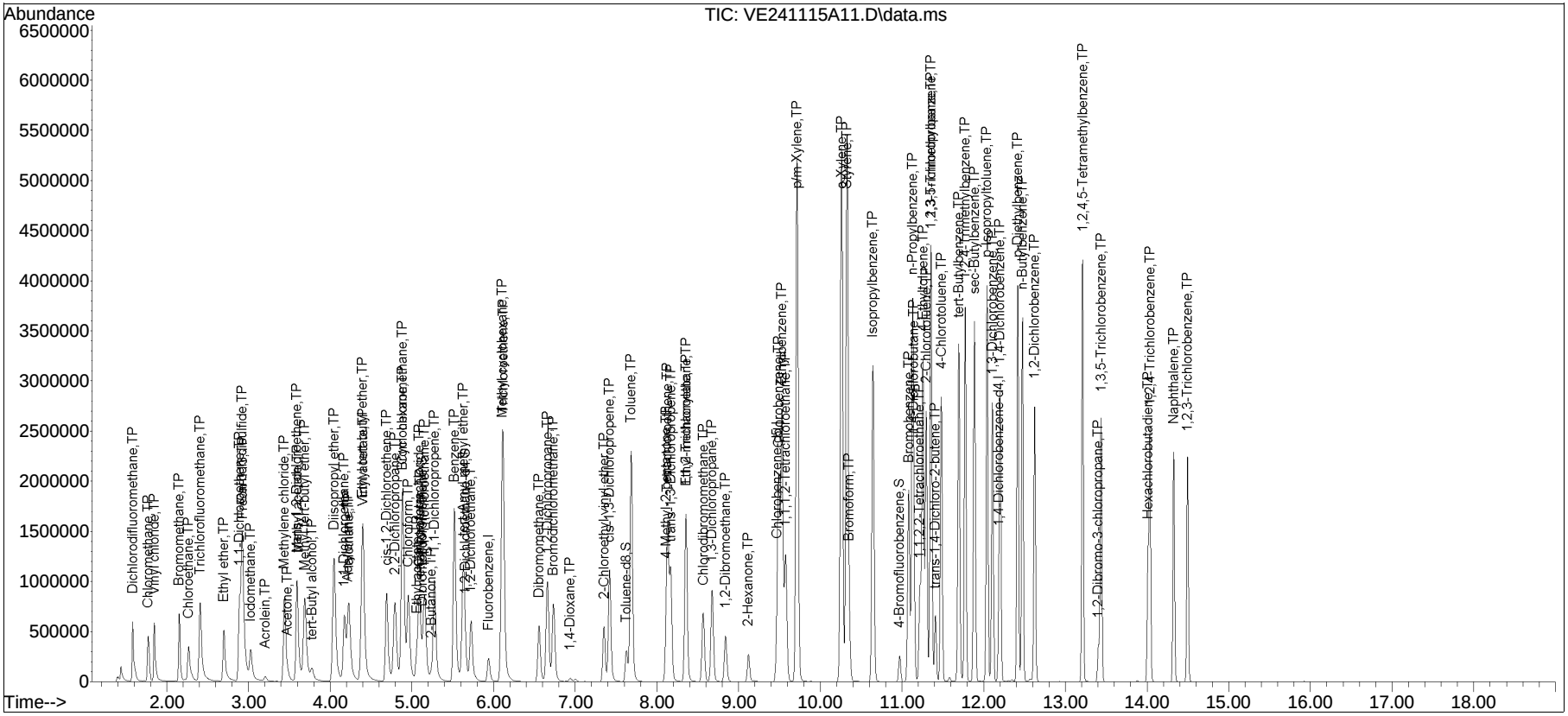
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A11.D
Acq On : 15 Nov 2024 6:07 am
Operator : ELAINE:PID
Sample : I8260STD80PPB
Misc : WG1998028,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 15 11:45:48 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

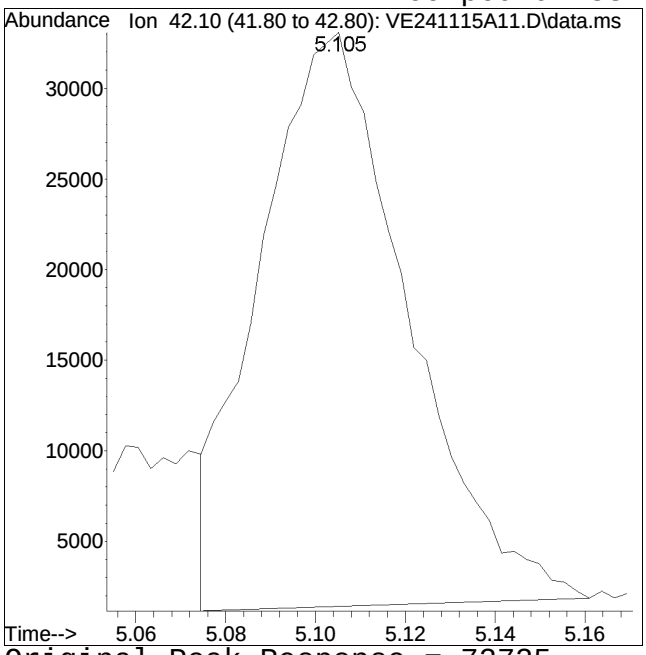
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

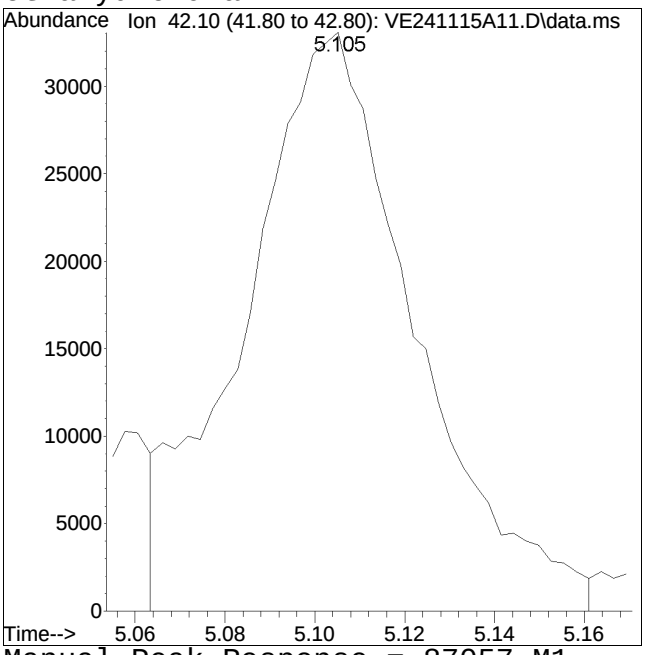


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A11.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:07 am Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



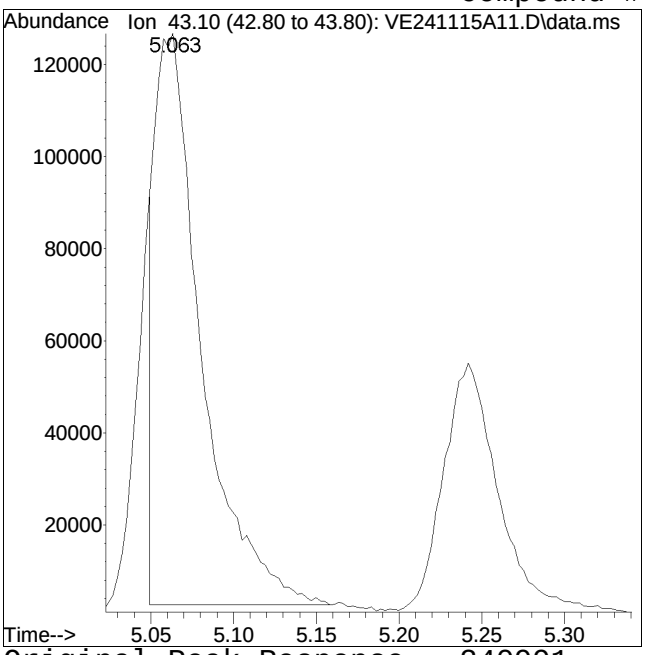


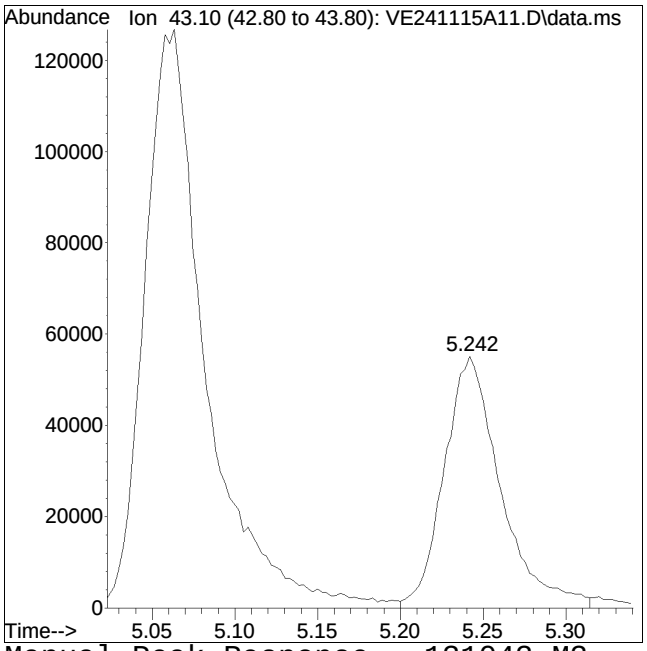
Original Peak Response = 72725 Manual Peak Response = 87057 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A11.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:07 am Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone





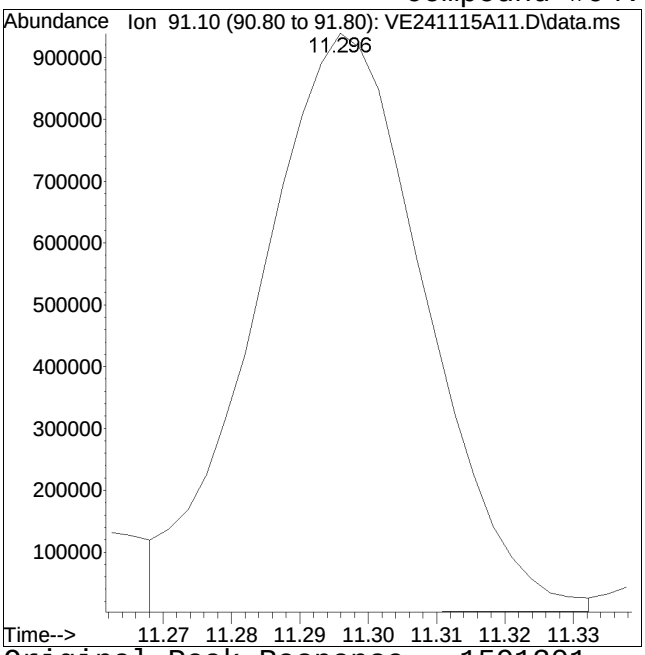
Original Peak Response = 240991 Manual Peak Response = 131043 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

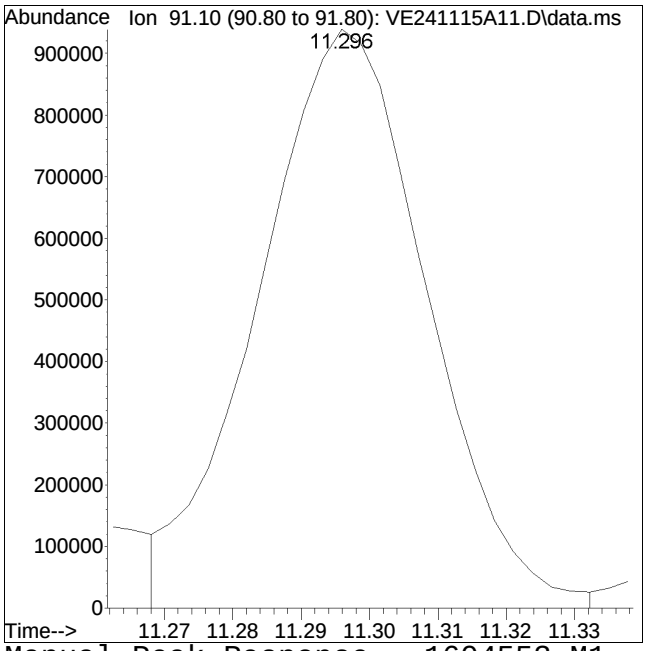
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A11.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:07 am Instrument : Elaine
Sample : I8260STD80PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 1591301



Manual Peak Response = 1604553 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	271467	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 105.18%			
63) Chlorobenzene-d5	9.467	117	195889	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 104.64%			
84) 1,4-Dichlorobenzene-d4	12.188	152	102518	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 103.14%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	60301	9.688	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 96.88%		
47) 1,2-Dichloroethane-d4	5.652	65	72241	9.809	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 98.09%		
64) Toluene-d8	7.632	98	262391	9.822	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 98.22%		
88) 4-Bromofluorobenzene	10.975	95	95646	10.155	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 101.55%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	756754	124.763	ug/L	95
3) Chloromethane	1.773	50	688689	114.916	ug/L	97
4) Vinyl chloride	1.845	62	798886	125.101	ug/L	94
5) Bromomethane	2.152	94	515128	114.927	ug/L	93
6) Chloroethane	2.264	64	570275	123.340	ug/L	99
7) Trichlorofluoromethane	2.411	101	1166902	125.243	ug/L	94
8) Ethyl ether	2.699	74	362414	125.789	ug/L	88
10) 1,1-Dichloroethene	2.894	96	588882	124.111	ug/L	96
11) Carbon disulfide	2.919	76	1765108	123.868	ug/L	97
12) Freon-113	2.930	101	611015	122.110	ug/L	96
13) Iodomethane	3.028	142	571309	131.141	ug/L #	93
14) Acrolein	3.206	56	70450M1	121.600	ug/L	
15) Methylene chloride	3.443	84	697991	117.841	ug/L	82
17) Acetone	3.479	43	127794	109.629	ug/L	94
18) trans-1,2-Dichloroethene	3.594	96	648162	122.662	ug/L	96
19) Methyl acetate	3.596	43	307533	118.094	ug/L #	85
21) Methyl tert-butyl ether	3.689	73	1756860	124.385	ug/L	87
22) tert-Butyl alcohol	3.778	59	226034	634.967	ug/L #	70
24) Diisopropyl ether	4.048	45	2205292	124.441	ug/L #	92
25) 1,1-Dichloroethane	4.177	63	1288338	121.983	ug/L	99
26) Halothane	4.230	117	500656	122.867	ug/L	94

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	167494	117.227	ug/L		88
28) Ethyl tert-butyl ether	4.394	59	2320375	124.967	ug/L		95
29) Vinyl acetate	4.405	43	1562954	127.415	ug/L		96
30) cis-1,2-Dichloroethene	4.690	96	735508	121.941	ug/L		89
31) 2,2-Dichloropropane	4.796	77	1022862	122.734	ug/L		85
33) Bromochloromethane	4.882	128	316313	115.108	ug/L		84
34) Cyclohexane	4.888	56	1309264	121.946	ug/L		78
35) Chloroform	4.957	83	1217459	122.860	ug/L		94
36) Ethyl acetate	5.058	43	500765	121.006	ug/L	#	92
37) Carbon tetrachloride	5.094	117	912976	127.038	ug/L		94
38) Tetrahydrofuran	5.102	42	140027M1	122.026	ug/L		
40) 1,1,1-Trichloroethane	5.158	97	1072192	122.549	ug/L		92
42) 2-Butanone	5.242	43	209793M3	126.210	ug/L		
43) 1,1-Dichloropropene	5.278	75	929932	121.303	ug/L		94
45) Benzene	5.521	78	2952887	122.307	ug/L		93
46) tert-Amyl methyl ether	5.629	73	1959797	126.128	ug/L		90
48) 1,2-Dichloroethane	5.724	62	913337	118.941	ug/L		100
51) Methyl cyclohexane	6.109	83	1334084	124.082	ug/L		85
52) Trichloroethene	6.117	95	710299	124.083	ug/L		96
54) Dibromomethane	6.558	93	406208	124.165	ug/L		90
55) 1,2-Dichloropropane	6.661	63	755932	123.247	ug/L		95
57) 2-Chloroethyl vinyl ether	7.350	63	455028	126.117	ug/L		90
58) Bromodichloromethane	6.734	83	993255	124.781	ug/L		94
61) 1,4-Dioxane	6.940	88	50027	1248.173	ug/L	#	82
62) cis-1,3-Dichloropropene	7.423	75	1190163	129.536	ug/L		90
65) Toluene	7.687	92	1850300	120.201	ug/L		94
66) 4-Methyl-2-pentanone	8.117	58	207019	127.969	ug/L		76
67) Tetrachloroethene	8.131	166	743008	120.055	ug/L		97
69) trans-1,3-Dichloropropene	8.170	75	1026729	134.693	ug/L		86
71) Ethyl methacrylate	8.357	69	733868	126.226	ug/L		98
72) 1,1,2-Trichloroethane	8.357	83	485735	120.062	ug/L		99
73) Chlorodibromomethane	8.566	129	710886	130.964	ug/L		98
74) 1,3-Dichloropropane	8.677	76	1012473	121.208	ug/L		97
75) 1,2-Dibromoethane	8.839	107	584212	121.875	ug/L		88
77) 2-Hexanone	9.124	43	325029	125.064	ug/L		90
78) Chlorobenzene	9.489	112	1959286	119.757	ug/L	#	82
79) Ethylbenzene	9.531	91	3592512	122.132	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.575	131	681613	125.475	ug/L		96
81) p/m Xylene	9.718	106	2800134	247.287	ug/L		97
82) o Xylene	10.261	106	2778031	251.598	ug/L		91

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.328	104	4736981	254.115	ug/L		98
85) Bromoform	10.356	173	423668	139.817	ug/L		94
87) Isopropylbenzene	10.646	105	3811609	125.861	ug/L		98
89) Bromobenzene	11.084	156	843235	124.735	ug/L		97
90) n-Propylbenzene	11.131	91	4326746	125.964	ug/L		97
91) 1,4-Dichlorobutane	11.145	55	1005989	125.043	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.221	83	720544	123.239	ug/L		98
93) 4-Ethyltoluene	11.257	105	3505438	122.983	ug/L		100
94) 2-Chlorotoluene	11.299	91	2457698M4	123.188	ug/L		
95) 1,3,5-Trimethylbenzene	11.357	105	3105458	123.128	ug/L		97
96) 1,2,3-Trichloropropane	11.357	75	567743	123.008	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.410	53	222856	133.368	ug/L	#	58
98) 4-Chlorotoluene	11.483	91	2569030	124.464	ug/L		100
99) tert-Butylbenzene	11.697	119	2570138	123.483	ug/L		97
102) 1,2,4-Trimethylbenzene	11.776	105	3144051	124.302	ug/L		97
103) sec-Butylbenzene	11.887	105	3936872	123.878	ug/L		98
104) p-Isopropyltoluene	12.043	119	3267030	124.074	ug/L		97
105) 1,3-Dichlorobenzene	12.107	146	1634894	120.823	ug/L		97
106) 1,4-Dichlorobenzene	12.202	146	1624728	119.716	ug/L		99
107) p-Diethylbenzene	12.417	119	1911310	124.068	ug/L		96
108) n-Butylbenzene	12.476	91	2807328	122.257	ug/L		98
109) 1,2-Dichlorobenzene	12.626	146	1540726	119.671	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.212	119	3203373	129.788	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.404	155	112496	143.875	ug/L		91
112) 1,3,5-Trichlorobenzene	13.438	180	1154650	125.740	ug/L		93
113) Hexachlorobutadiene	14.012	225	303187	123.674	ug/L		93
114) 1,2,4-Trichlorobenzene	14.037	180	983952	122.715	ug/L		99
115) Naphthalene	14.327	128	2469864	131.165	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	900770	125.849	ug/L		94

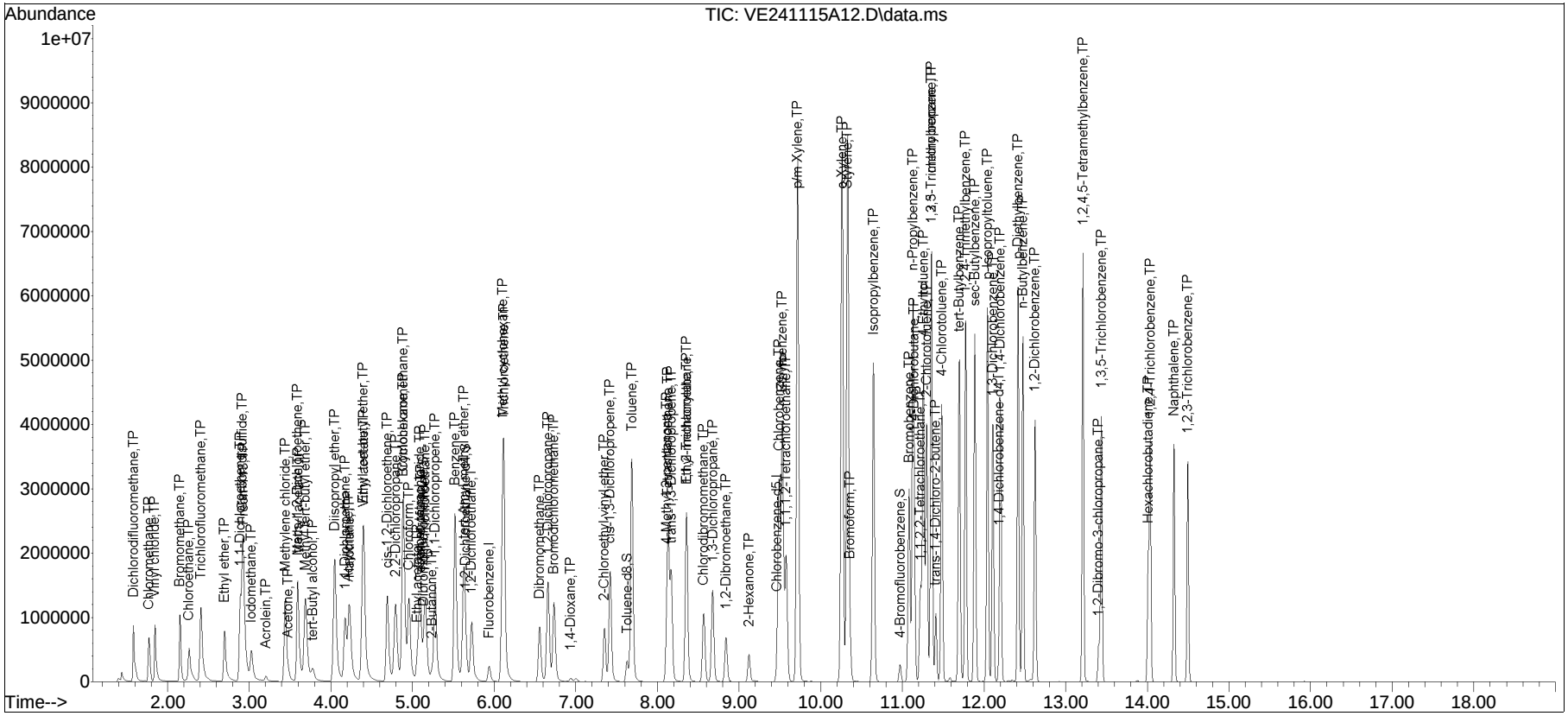
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A12.D
Acq On : 15 Nov 2024 6:32 am
Operator : ELAINE:PID
Sample : I8260STD120PPB
Misc : WG1998028,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 15 11:45:55 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

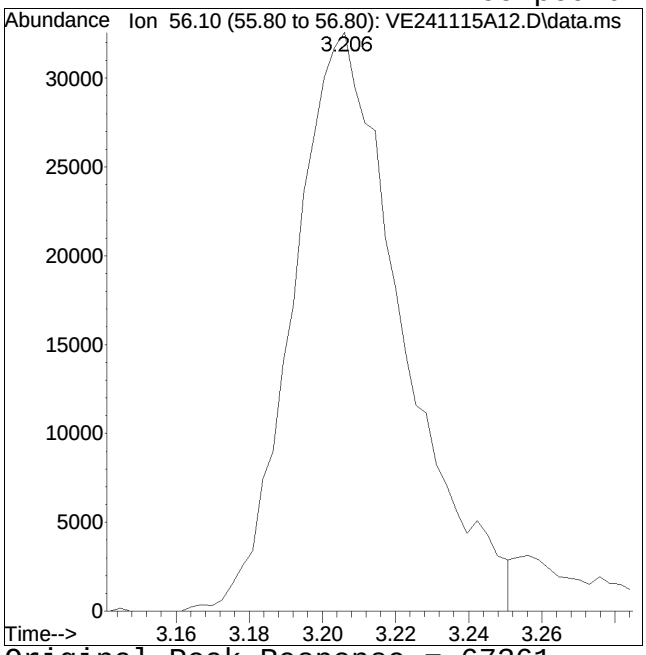


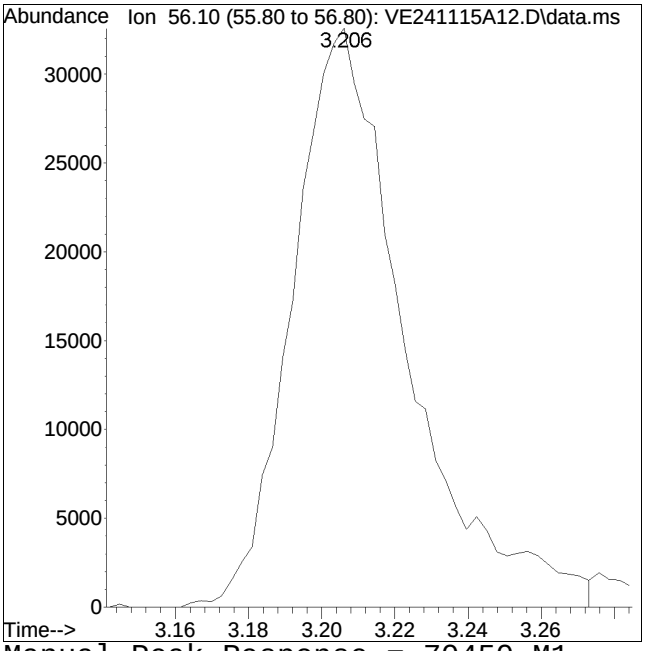
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQ
Data File : VE241115A12.D
Date Inj'd : 11/15/2024 6:32 am
Sample : I8260STD120PPB

Method : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/15/2024 11:45 am

Compound #14: Acrolein





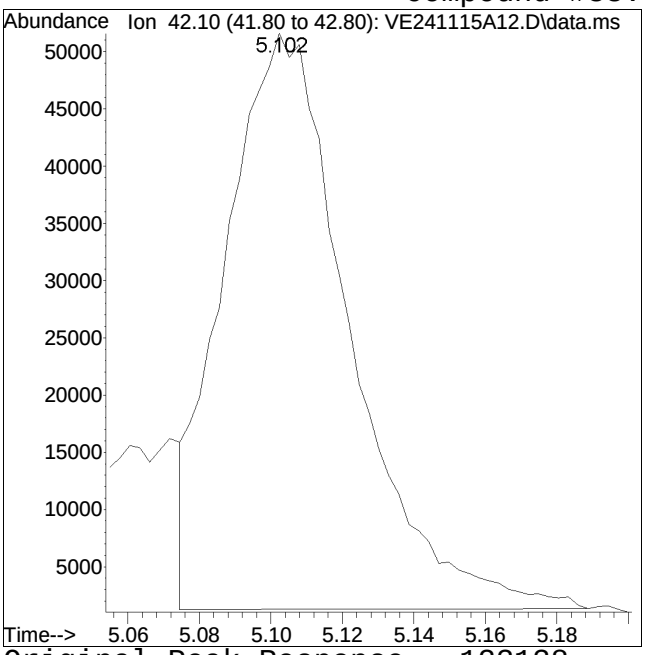
Original Peak Response = 67361 Manual Peak Response = 70450 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

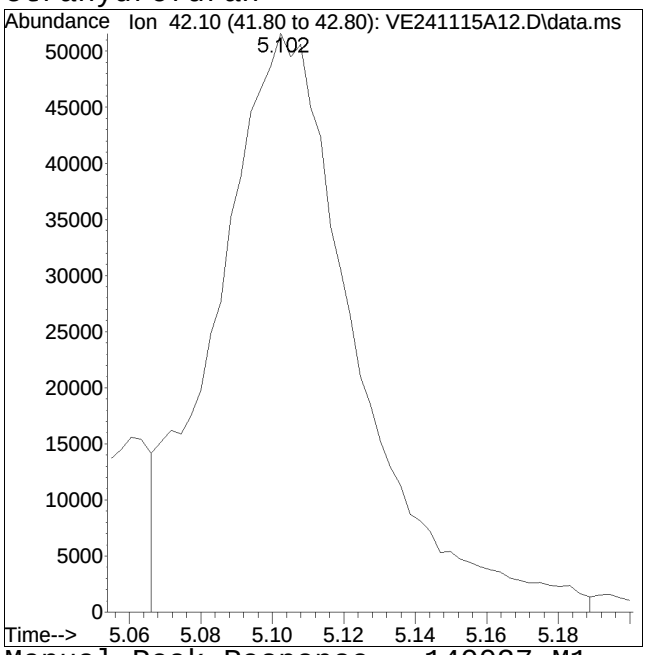
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A12.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:32 am Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



Original Peak Response = 123138



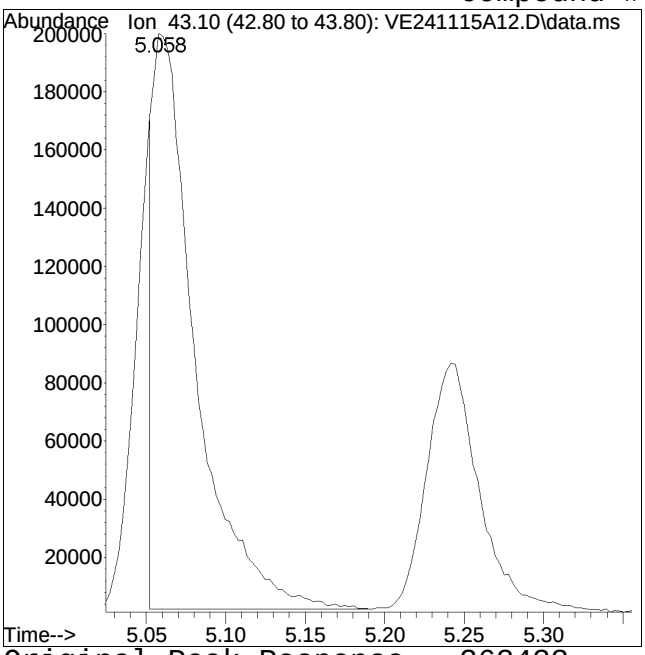
Manual Peak Response = 140027 M1

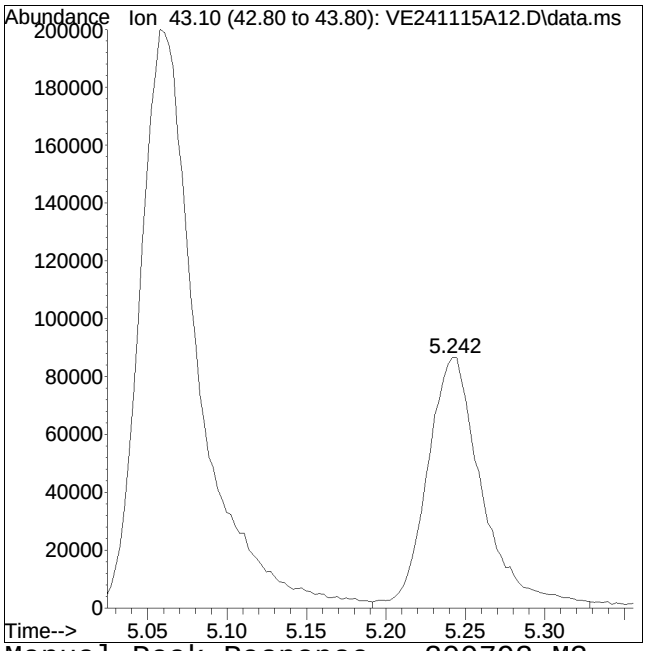
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A12.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:32 am Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone





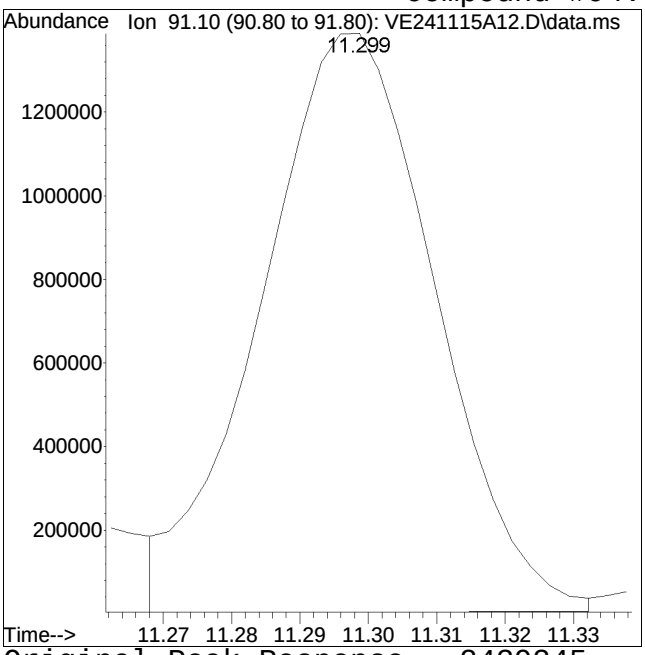
Original Peak Response = 363433 Manual Peak Response = 209793 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

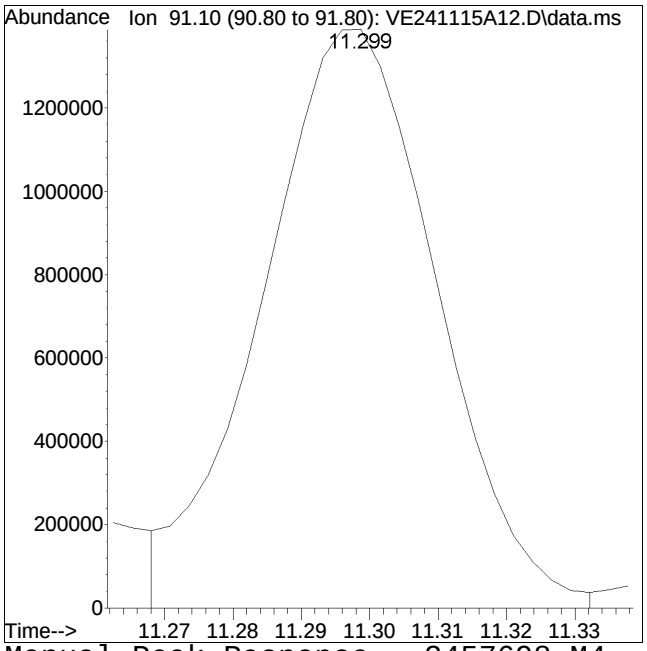
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A12.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:32 am Instrument : Elaine
Sample : I8260STD120PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 2439245



Manual Peak Response = 2457698 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	281809	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 109.18%			
63) Chlorobenzene-d5	9.472	117	200657	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 107.19%			
84) 1,4-Dichlorobenzene-d4	12.188	152	109443	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 110.11%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	61963	9.589	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.89%			
47) 1,2-Dichloroethane-d4	5.655	65	76590	10.018	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.18%			
64) Toluene-d8	7.626	98	273276	9.986	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.86%			
88) 4-Bromofluorobenzene	10.973	95	99235	9.869	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.69%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	1308064	207.741	ug/L	94
3) Chloromethane	1.773	50	1158680	186.245	ug/L	98
4) Vinyl chloride	1.845	62	1402789	211.607	ug/L	95
5) Bromomethane	2.152	94	901071	193.656	ug/L	94
6) Chloroethane	2.258	64	997751	207.876	ug/L	100
7) Trichlorofluoromethane	2.409	101	2014174	208.246	ug/L	94
8) Ethyl ether	2.699	74	633683	211.872	ug/L	89
10) 1,1-Dichloroethene	2.891	96	1013284	205.720	ug/L	95
11) Carbon disulfide	2.919	76	3051924	206.311	ug/L	96
12) Freon-113	2.927	101	1051263	202.383	ug/L	98
13) Iodomethane	3.028	142	994965	220.008	ug/L	93
14) Acrolein	3.203	56	124341	206.742	ug/L #	71
15) Methylene chloride	3.440	84	1200027	195.164	ug/L	82
17) Acetone	3.477	43	219577	181.453	ug/L	93
18) trans-1,2-Dichloroethene	3.594	96	1110974	202.532	ug/L	94
19) Methyl acetate	3.597	43	527254	195.037	ug/L #	83
21) Methyl tert-butyl ether	3.689	73	3066117	209.113	ug/L #	86
22) tert-Butyl alcohol	3.781	59	401030	1085.217	ug/L #	71
24) Diisopropyl ether	4.046	45	3871308	210.434	ug/L	92
25) 1,1-Dichloroethane	4.174	63	2246240	204.874	ug/L	99
26) Halothane	4.227	117	871041	205.919	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.216	53	297228	200.392	ug/L		90
28) Ethyl tert-butyl ether	4.394	59	4074726	211.397	ug/L		95
29) Vinyl acetate	4.405	43	2772979	217.763	ug/L		97
30) cis-1,2-Dichloroethene	4.690	96	1315192	210.046	ug/L		87
31) 2,2-Dichloropropane	4.793	77	1752196	202.531	ug/L		86
33) Bromochloromethane	4.885	128	545333	191.166	ug/L		84
34) Cyclohexane	4.888	56	2265418	203.259	ug/L		76
35) Chloroform	4.957	83	2023349	196.693	ug/L		93
36) Ethyl acetate	5.058	43	869393	202.373	ug/L	#	91
37) Carbon tetrachloride	5.089	117	1622027	217.418	ug/L		95
38) Tetrahydrofuran	5.103	42	232404M1	195.095	ug/L		
40) 1,1,1-Trichloroethane	5.155	97	1860812	204.881	ug/L		91
42) 2-Butanone	5.239	43	357848M3	207.378	ug/L		
43) 1,1-Dichloropropene	5.278	75	1622390	203.862	ug/L		94
45) Benzene	5.521	78	5096565	203.350	ug/L		93
46) tert-Amyl methyl ether	5.630	73	3423253	212.227	ug/L		90
48) 1,2-Dichloroethane	5.724	62	1583341	198.627	ug/L		100
51) Methyl cyclohexane	6.109	83	2341916	209.825	ug/L		86
52) Trichloroethene	6.118	95	1242807	209.141	ug/L		97
54) Dibromomethane	6.555	93	702879	206.963	ug/L		91
55) 1,2-Dichloropropane	6.659	63	1295661	203.493	ug/L		95
57) 2-Chloroethyl vinyl ether	7.353	63	789790	210.867	ug/L		89
58) Bromodichloromethane	6.737	83	1723047	208.520	ug/L		93
61) 1,4-Dioxane	6.937	88	84169M1	2022.948	ug/L		
62) cis-1,3-Dichloropropene	7.423	75	2044724	214.379	ug/L		91
65) Toluene	7.688	92	3217073	204.025	ug/L		95
66) 4-Methyl-2-pentanone	8.117	58	355693	214.647	ug/L		77
67) Tetrachloroethene	8.134	166	1288602	203.265	ug/L		97
69) trans-1,3-Dichloropropene	8.170	75	1761992	225.657	ug/L		86
71) Ethyl methacrylate	8.357	69	1274607	214.025	ug/L		99
72) 1,1,2-Trichloroethane	8.354	83	845729	204.077	ug/L		98
73) Chlorodibromomethane	8.566	129	1222353	219.839	ug/L		98
74) 1,3-Dichloropropane	8.678	76	1732855	202.519	ug/L		98
75) 1,2-Dibromoethane	8.842	107	1003585	204.387	ug/L		88
77) 2-Hexanone	9.121	43	562247	211.200	ug/L		92
78) Chlorobenzene	9.492	112	3357852	200.364	ug/L	#	82
79) Ethylbenzene	9.531	91	6160677	204.463	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.575	131	1166248	209.588	ug/L		96
81) p/m Xylene	9.720	106	5016119	432.460	ug/L		95
82) o Xylene	10.264	106	4891567	432.488	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.334	104	8267009	432.945	ug/L		98
85) Bromoform	10.356	173	737369	227.946	ug/L		94
87) Isopropylbenzene	10.646	105	6593001	203.928	ug/L		98
89) Bromobenzene	11.084	156	1422596	197.121	ug/L		98
90) n-Propylbenzene	11.132	91	7431252	202.656	ug/L		97
91) 1,4-Dichlorobutane	11.145	55	1698519	197.765	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.221	83	1209963	193.853	ug/L		97
93) 4-Ethyltoluene	11.260	105	6019443	197.820	ug/L		99
94) 2-Chlorotoluene	11.299	91	4254282M1	199.747	ug/L		
95) 1,3,5-Trimethylbenzene	11.357	105	5430535	201.690	ug/L		96
96) 1,2,3-Trichloropropane	11.360	75	959908	194.816	ug/L		91
97) trans-1,4-Dichloro-2-b...	11.413	53	378271	212.052	ug/L	#	57
98) 4-Chlorotoluene	11.483	91	4445506	201.748	ug/L		100
99) tert-Butylbenzene	11.698	119	4444587	200.029	ug/L		98
102) 1,2,4-Trimethylbenzene	11.776	105	5460752	202.233	ug/L		97
103) sec-Butylbenzene	11.890	105	6904336	203.506	ug/L		98
104) p-Isopropyltoluene	12.046	119	5849865	208.106	ug/L		98
105) 1,3-Dichlorobenzene	12.110	146	2874599	198.999	ug/L		97
106) 1,4-Dichlorobenzene	12.205	146	2881966	198.917	ug/L		99
107) p-Diethylbenzene	12.420	119	3510124	213.434	ug/L		96
108) n-Butylbenzene	12.478	91	5127270	209.161	ug/L		98
109) 1,2-Dichlorobenzene	12.626	146	2744800	199.704	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.212	119	5613733	213.055	ug/L		98
111) 1,2-Dibromo-3-chloropr...	13.407	155	192838	231.022	ug/L		92
112) 1,3,5-Trichlorobenzene	13.441	180	1971478	201.108	ug/L		94
113) Hexachlorobutadiene	14.012	225	507039	193.741	ug/L		93
114) 1,2,4-Trichlorobenzene	14.037	180	1675473	195.737	ug/L		99
115) Naphthalene	14.327	128	4193145	208.592	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	1547760	202.558	ug/L		95

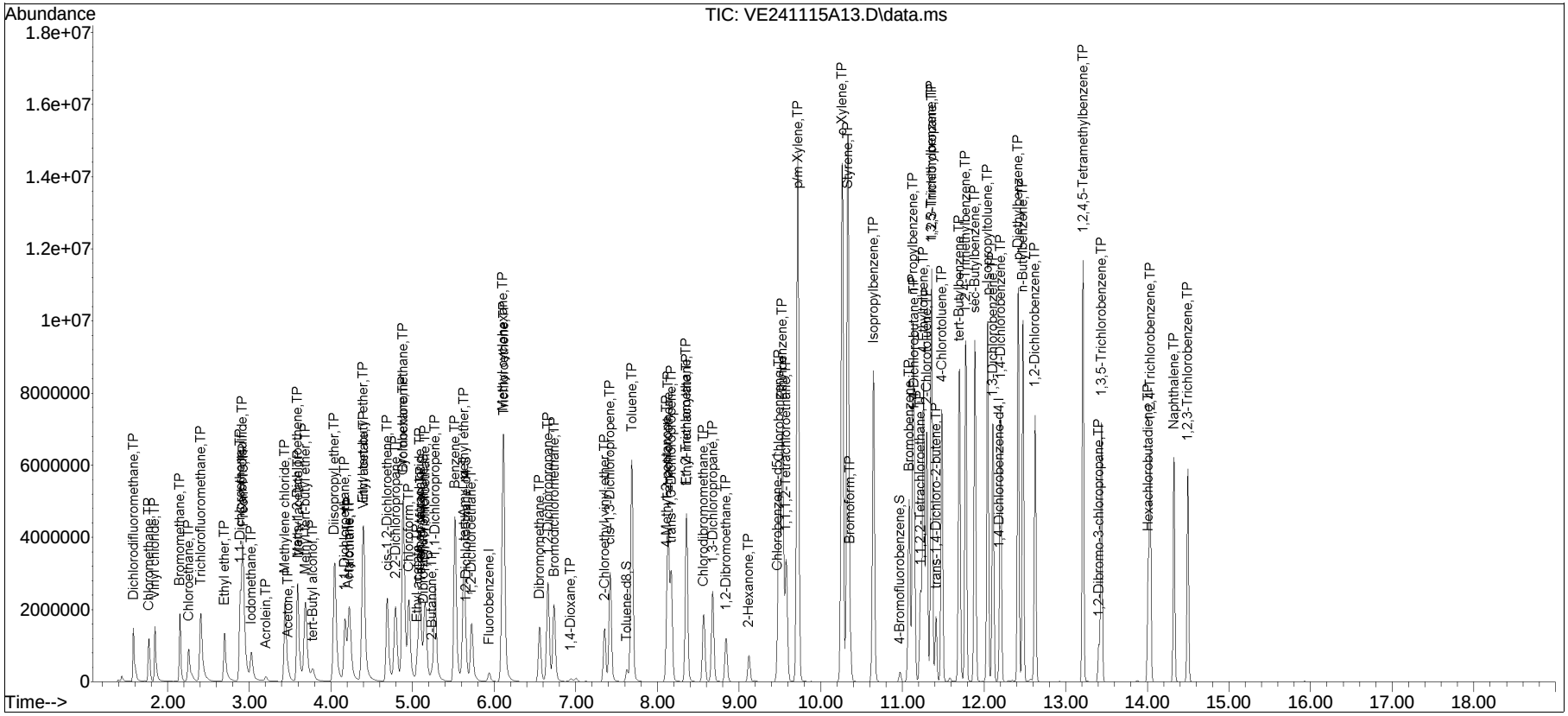
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A13.D
Acq On : 15 Nov 2024 6:56 am
Operator : ELAINE:PID
Sample : I8260STD200PPB
Misc : WG1998028,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 15 11:46:02 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:44:38 2024
Response via : Initial Calibration

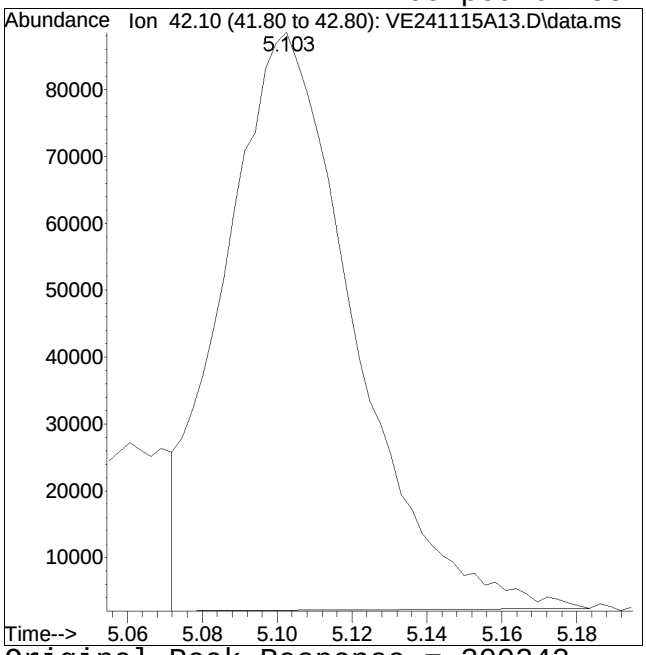
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•

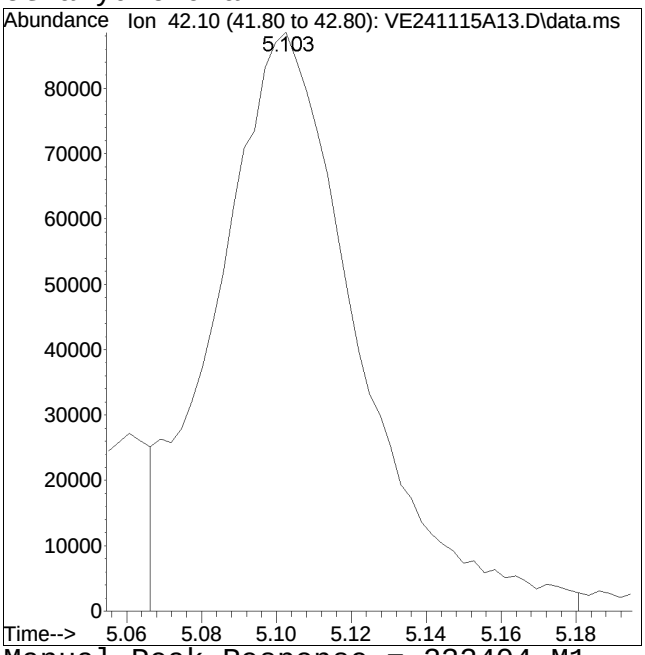


Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #38: Tetrahydrofuran



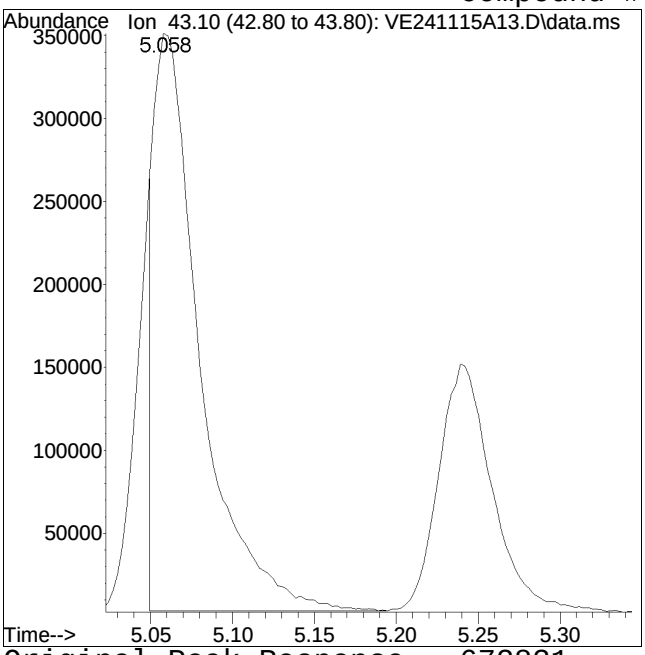


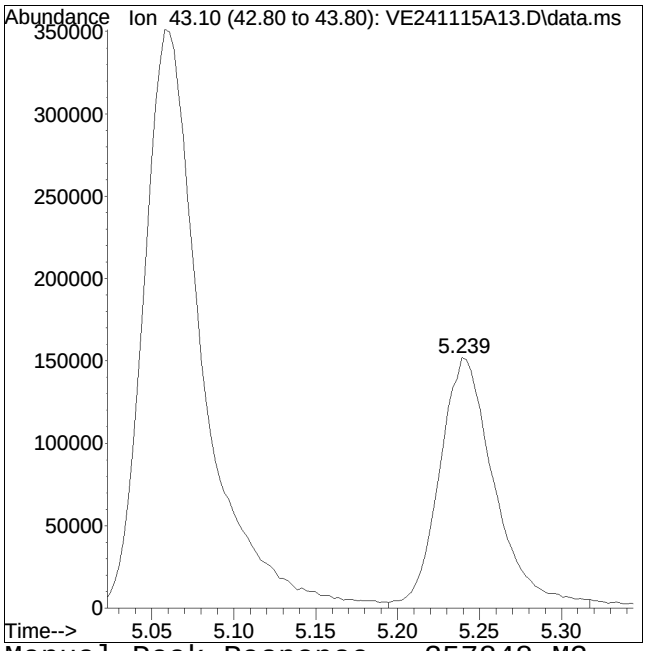
Original Peak Response = 209242 Manual Peak Response = 232404 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #42: 2-Butanone



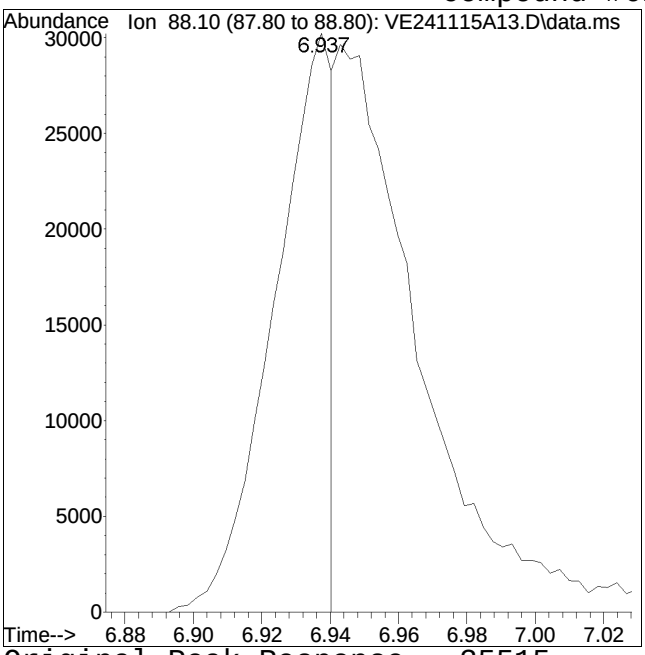


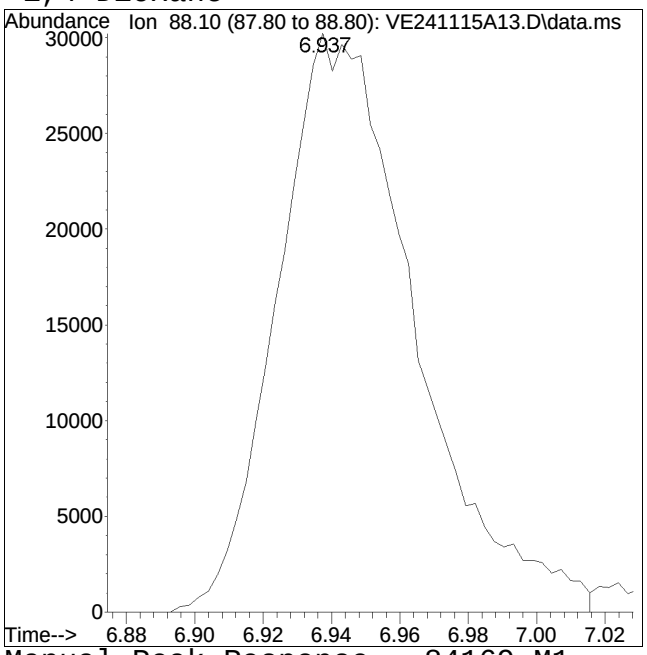
Original Peak Response = 672831 Manual Peak Response = 357848 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #61: 1,4-Dioxane



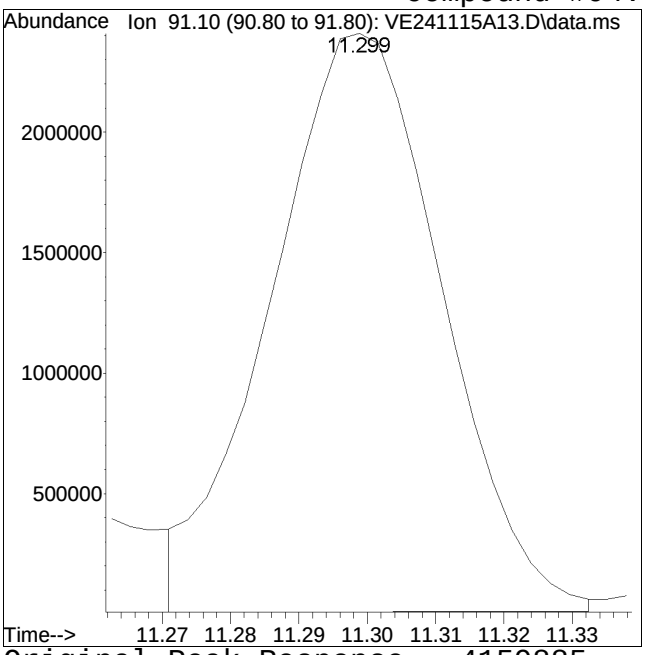


Original Peak Response = 35515 Manual Peak Response = 84169 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

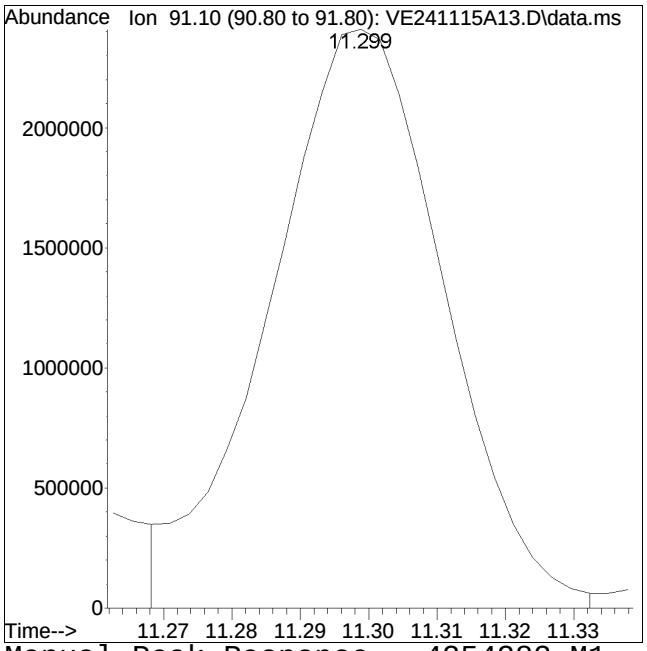
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A13.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 6:56 am Instrument : Elaine
Sample : I8260STD200PPB Quant Date : 11/15/2024 11:45 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 4159885



Manual Peak Response = 4254282 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	100	0.00
2	TP	Dichlorodifluoromethane	0.223	0.182	18.4	73	0.00
3	TP	Chloromethane	0.221	0.223	-0.9	95	0.00
4	TP	Vinyl chloride	0.235	0.245	-4.3	95	0.00
5	TP	Bromomethane	0.165	0.182	-10.3	110	0.00
6	TP	Chloroethane	0.170	0.172	-1.2	95	0.00
7	TP	Trichlorofluoromethane	0.343	0.371	-8.2	97	0.00
8	TP	Ethyl ether	0.106	0.129	-21.7#	121	0.00
10	TP	1,1-Dichloroethene	0.175	0.171	2.3	95	0.00
11	TP	Carbon disulfide	0.525	0.527	-0.4	94	0.00
12	TP	Freon-113	0.184	0.204	-10.9	100	0.00
13	TP	Iodomethane	0.160	0.214	-33.8#	147	0.00
14	TP	Acrolein	0.021	0.030	-42.9#	135	0.00
15	TP	Methylene chloride	0.218	0.204	6.4	92	0.00
17	TP	Acetone	0.043	0.046	-7.0	113	0.00
18	TP	trans-1,2-Dichloroethene	0.195	0.187	4.1	91	0.00
19	TP	Methyl acetate	0.096	0.097	-1.0	102	0.00
21	TP	Methyl tert-butyl ether	0.520	0.546	-5.0	103	0.00
22	TP	tert-Butyl alcohol	0.013	0.015	-15.4	109	0.00
24	TP	Diisopropyl ether	0.653	0.662	-1.4	99	0.00
25	TP	1,1-Dichloroethane	0.389	0.401	-3.1	99	0.00
26	TP	Halothane	0.150	0.158	-5.3	100	0.00
27	TP	Acrylonitrile	0.053	0.056	-5.7	105	0.00
28	TP	Ethyl tert-butyl ether	0.684	0.716	-4.7	105	0.00
29	TP	Vinyl acetate	0.452	0.432	4.4	96	0.00
30	TP	cis-1,2-Dichloroethene	0.222	0.231	-4.1	100	0.00
31	TP	2,2-Dichloropropane	0.307	0.298	2.9	91	0.00
33	TP	Bromochloromethane	0.101	0.103	-2.0	96	0.00
34	TP	Cyclohexane	0.395	0.406	-2.8	95	0.00
35	TP	Chloroform	0.365	0.371	-1.6	103	0.00
36	TP	Ethyl acetate	0.152	0.156	-2.6	99	0.00
37	TP	Carbon tetrachloride	0.265	0.279	-5.3	99	0.00
38	TP	Tetrahydrofuran	0.042	0.045	-7.1	108	0.00
39	S	Dibromofluoromethane	0.229	0.229	0.0	97	0.00
40	TP	1,1,1-Trichloroethane	0.322	0.341	-5.9	99	0.00
42	TP	2-Butanone	0.061	0.060	1.6	111	0.00
43	TP	1,1-Dichloropropene	0.282	0.301	-6.7	100	0.00
45	TP	Benzene	0.889	0.892	-0.3	97	0.00
46	TP	tert-Amyl methyl ether	0.572	0.588	-2.8	103	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.271	0.272	-0.4	100	0.00
48	T	1,2-Dichloroethane	0.283	0.291	-2.8	102	0.00
51	TP	Methyl cyclohexane	0.396	0.411	-3.8	99	0.00
52	TP	Trichloroethene	0.211	0.224	-6.2	100	0.00
54	TP	Dibromomethane	0.121	0.124	-2.5	99	0.00
55	TP	1,2-Dichloropropane	0.226	0.234	-3.5	100	0.00
57	TP	2-Chloroethyl vinyl ether	0.133	0.133	0.0	98	0.00
58	TP	Bromodichloromethane	0.293	0.289#	1.4	95	0.00
61	TP	1,4-Dioxane	0.00148	0.00166#	-12.2	105	0.00
62	TP	cis-1,3-Dichloropropene	0.338	0.354	-4.7	99	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
64	S	Toluene-d8	1.364	1.375	-0.8	101	0.00
65	TP	Toluene	0.786	0.799	-1.7	98	0.00
66	TP	4-Methyl-2-pentanone	0.083	0.090	-8.4	115	0.00
67	TP	Tetrachloroethene	0.316	0.336	-6.3	100	0.00
69	TP	trans-1,3-Dichloropropene	0.389	0.417	-7.2	101	0.00
71	TP	Ethyl methacrylate	0.297	0.350	-17.8	116	0.00
72	TP	1,1,2-Trichloroethane	0.207	0.208	-0.5	99	0.00
73	TP	Chlorodibromomethane	0.277	0.275	0.7	100	0.00
74	TP	1,3-Dichloropropane	0.426	0.432	-1.4	100	0.00
75	TP	1,2-Dibromoethane	0.245	0.249	-1.6	102	0.00
77	TP	2-Hexanone	0.133	0.139	-4.5	107	0.00
78	TP	Chlorobenzene	0.835	0.861	-3.1	101	0.00
79	TP	Ethylbenzene	1.502	1.545	-2.9	99	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.277	0.288	-4.0	100	0.00
81	TP	p/m Xylene	0.578	0.590	-2.1	100	0.00
82	TP	o Xylene	0.564	0.580	-2.8	101	0.00
83	TP	Styrene	0.952	0.967	-1.6	102	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
85	TP	Bromoform	0.296	0.307	-3.7	102	0.00
87	TP	Isopropylbenzene	2.954	3.097	-4.8	100	0.00
88	S	4-Bromofluorobenzene	0.919	0.952	-3.6	102	0.00
89	TP	Bromobenzene	0.659	0.704	-6.8	100	0.00
90	TP	n-Propylbenzene	3.351	3.567	-6.4	101	0.00
91	TP	1,4-Dichlorobutane	0.785	0.906	-15.4	109	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.570	0.584	-2.5	100	0.00
93	TP	4-Ethyltoluene	2.780	3.095	-11.3	104	0.00

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94 TP	2-Chlorotoluene	1.946	2.040	-4.8	99	0.00
95 TP	1,3,5-Trimethylbenzene	2.460	2.565	-4.3	99	0.00
96 TP	1,2,3-Trichloropropane	0.450	0.489	-8.7	106	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.163	0.179	-9.8	112	0.00
98 TP	4-Chlorotoluene	2.013	2.138	-6.2	101	0.00
99 TP	tert-Butylbenzene	2.030	2.161	-6.5	100	0.00
102 TP	1,2,4-Trimethylbenzene	2.467	2.651	-7.5	102	0.00
103 TP	sec-Butylbenzene	3.100	3.235	-4.4	98	0.00
104 TP	p-Isopropyltoluene	2.568	2.692	-4.8	99	0.00
105 TP	1,3-Dichlorobenzene	1.320	1.380	-4.5	101	0.00
106 TP	1,4-Dichlorobenzene	1.324	1.397	-5.5	102	0.00
107 TP	p-Diethylbenzene	1.503	1.569	-4.4	98	0.00
108 TP	n-Butylbenzene	2.240	2.414	-7.8	102	0.00
109 TP	1,2-Dichlorobenzene	1.256	1.323	-5.3	103	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.408	2.478	-2.9	101	0.00
111 TP	1,2-Dibromo-3-chloropropane	0.076	0.083	-9.2	110	0.00
112 TP	1,3,5-Trichlorobenzene	0.896	0.921	-2.8	98	0.00
113 TP	Hexachlorobutadiene	0.239	0.251	-5.0	96	0.00
114 TP	1,2,4-Trichlorobenzene	0.782	0.823	-5.2	101	0.00
115 TP	Naphthalene	1.837	1.922	-4.6	103	0.00
116 TP	1,2,3-Trichlorobenzene	0.698	0.732	-4.9	102	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 2 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	258201	10.000	ug/L	0.00
Standard Area 1 = 258108			Recovery = 100.04%			
63) Chlorobenzene-d5	9.467	117	189435	10.000	ug/L	0.00
Standard Area 1 = 187202			Recovery = 101.19%			
84) 1,4-Dichlorobenzene-d4	12.188	152	96658	10.000	ug/L	0.00
Standard Area 1 = 99398			Recovery = 97.24%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	59232	10.005	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.05%			
47) 1,2-Dichloroethane-d4	5.660	65	70160	10.016	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.16%			
64) Toluene-d8	7.626	98	260441	10.081	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.81%			
88) 4-Bromofluorobenzene	10.973	95	92060	10.367	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.67%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	47006	8.148	ug/L #	93
3) Chloromethane	1.776	50	57511	10.089	ug/L	96
4) Vinyl chloride	1.848	62	63197	10.405	ug/L	92
5) Bromomethane	2.152	94	47110	11.050	ug/L	92
6) Chloroethane	2.269	64	44518M1	10.123	ug/L	
7) Trichlorofluoromethane	2.409	101	95692	10.798	ug/L	98
8) Ethyl ether	2.704	74	33320	12.159	ug/L	87
10) 1,1-Dichloroethene	2.897	96	44178	9.789	ug/L	100
11) Carbon disulfide	2.922	76	136172	10.047	ug/L	99
12) Freon-113	2.936	101	52753	11.084	ug/L	94
13) Iodomethane	3.028	142	55371	13.363	ug/L #	91
14) Acrolein	3.203	56	7715	14.001	ug/L #	74
15) Methylene chloride	3.443	84	52724	9.359	ug/L	85
17) Acetone	3.479	43	11779	10.624	ug/L #	74
18) trans-1,2-Dichloroethene	3.594	96	48272	9.605	ug/L	92
19) Methyl acetate	3.605	43	24990M3	10.089	ug/L	
21) Methyl tert-butyl ether	3.694	73	140945	10.492	ug/L	89
22) tert-Butyl alcohol	3.783	59	19581	57.832	ug/L #	66
24) Diisopropyl ether	4.051	45	170945	10.142	ug/L #	93
25) 1,1-Dichloroethane	4.179	63	103413	10.294	ug/L	99
26) Halothane	4.232	117	40826	10.534	ug/L	89

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	14486	10.659	ug/L	#	77
28) Ethyl tert-butyl ether	4.391	59	184970	10.474	ug/L		96
29) Vinyl acetate	4.405	43	111599	9.565	ug/L	#	95
30) cis-1,2-Dichloroethene	4.690	96	59751	10.415	ug/L		89
31) 2,2-Dichloropropane	4.796	77	76845	9.694	ug/L		87
33) Bromochloromethane	4.885	128	26493	10.136	ug/L	#	81
34) Cyclohexane	4.891	56	104798	10.262	ug/L		71
35) Chloroform	4.957	83	95734	10.157	ug/L		95
36) Ethyl acetate	5.061	43	40325	10.245	ug/L	#	93
37) Carbon tetrachloride	5.097	117	72087	10.546	ug/L		96
38) Tetrahydrofuran	5.100	42	11700M6	10.720	ug/L		
40) 1,1,1-Trichloroethane	5.161	97	88068	10.583	ug/L		91
42) 2-Butanone	5.242	43	15459	9.778	ug/L		99
43) 1,1-Dichloropropene	5.278	75	77658	10.650	ug/L		94
45) Benzene	5.524	78	230255	10.027	ug/L		93
46) tert-Amyl methyl ether	5.635	73	151708	10.265	ug/L		92
48) 1,2-Dichloroethane	5.727	62	75026	10.272	ug/L		100
51) Methyl cyclohexane	6.106	83	106042	10.370	ug/L		85
52) Trichloroethene	6.115	95	57922	10.638	ug/L		91
54) Dibromomethane	6.561	93	31946	10.267	ug/L		91
55) 1,2-Dichloropropane	6.659	63	60421	10.357	ug/L		96
57) 2-Chloroethyl vinyl ether	7.353	63	34243	9.979	ug/L		90
58) Bromodichloromethane	6.734	83	74704	9.867	ug/L		91
61) 1,4-Dioxane	6.935	88	21427M1	562.071	ug/L		
62) cis-1,3-Dichloropropene	7.423	75	91278	10.445	ug/L		90
65) Toluene	7.688	92	151299	10.164	ug/L		93
66) 4-Methyl-2-pentanone	8.114	58	17052	10.900	ug/L		77
67) Tetrachloroethene	8.136	166	63628	10.631	ug/L		98
69) trans-1,3-Dichloropropene	8.164	75	78967	10.712	ug/L		83
71) Ethyl methacrylate	8.360	69	66371	11.805	ug/L		98
72) 1,1,2-Trichloroethane	8.354	83	39389	10.068	ug/L		98
73) Chlorodibromomethane	8.569	129	52067	9.919	ug/L		99
74) 1,3-Dichloropropane	8.680	76	81810	10.128	ug/L		99
75) 1,2-Dibromoethane	8.845	107	47142	10.170	ug/L		89
77) 2-Hexanone	9.126	43	26381	10.497	ug/L		92
78) Chlorobenzene	9.492	112	163138	10.311	ug/L	#	83
79) Ethylbenzene	9.528	91	292732	10.291	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.578	131	54488	10.372	ug/L		96
81) p/m Xylene	9.718	106	223646	20.424	ug/L		96
82) o Xylene	10.261	106	219895	20.594	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241115AICAL\VE241115A09.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.326	104	366490	20.330	ug/L		95
85) Bromoform	10.348	173	29631	10.372	ug/L		93
87) Isopropylbenzene	10.643	105	299346	10.484	ug/L		98
89) Bromobenzene	11.081	156	68064	10.679	ug/L		98
90) n-Propylbenzene	11.129	91	344768	10.646	ug/L		94
91) 1,4-Dichlorobutane	11.145	55	87586	11.547	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.215	83	56484	10.247	ug/L		97
93) 4-Ethyltoluene	11.257	105	299120	11.130	ug/L		100
94) 2-Chlorotoluene	11.296	91	197219M1	10.485	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	247954	10.427	ug/L		98
96) 1,2,3-Trichloropropane	11.355	75	47286	10.866	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.408	53	17339	11.006	ug/L	#	70
98) 4-Chlorotoluene	11.480	91	206675	10.620	ug/L		100
99) tert-Butylbenzene	11.695	119	208880	10.644	ug/L		95
102) 1,2,4-Trimethylbenzene	11.773	105	256207	10.743	ug/L		97
103) sec-Butylbenzene	11.887	105	312677	10.435	ug/L		100
104) p-Isopropyltoluene	12.041	119	260237	10.482	ug/L		96
105) 1,3-Dichlorobenzene	12.108	146	133373	10.454	ug/L		98
106) 1,4-Dichlorobenzene	12.202	146	135076	10.556	ug/L		98
107) p-Diethylbenzene	12.417	119	151639	10.440	ug/L		97
108) n-Butylbenzene	12.476	91	233327	10.777	ug/L		97
109) 1,2-Dichlorobenzene	12.626	146	127838	10.531	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.209	119	239535	10.293	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.404	155	8026	10.887	ug/L	#	48
112) 1,3,5-Trichlorobenzene	13.435	180	89065	10.287	ug/L		91
113) Hexachlorobutadiene	14.012	225	24249	10.491	ug/L		94
114) 1,2,4-Trichlorobenzene	14.034	180	79559	10.524	ug/L		98
115) Naphthalene	14.327	128	185804	10.466	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	70739	10.482	ug/L		95

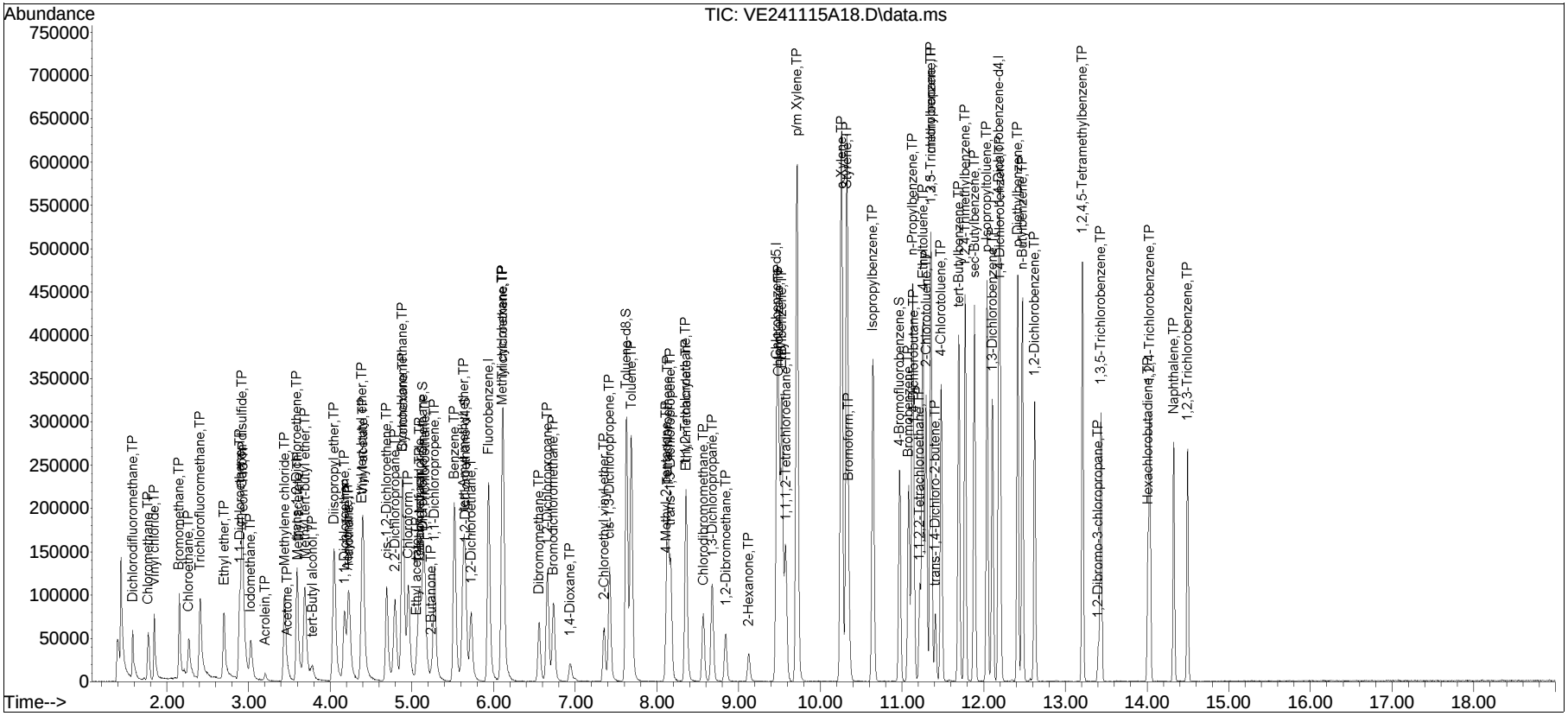
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241115AICAL\
Data File : VE241115A18.D
Acq On : 15 Nov 2024 8:59 am
Operator : ELAINE:PID
Sample : C8260STD10PPB
Misc : WG1998028,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 15 11:51:50 2024
Quant Method : K:\Elaine\2024\241115AICAL\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

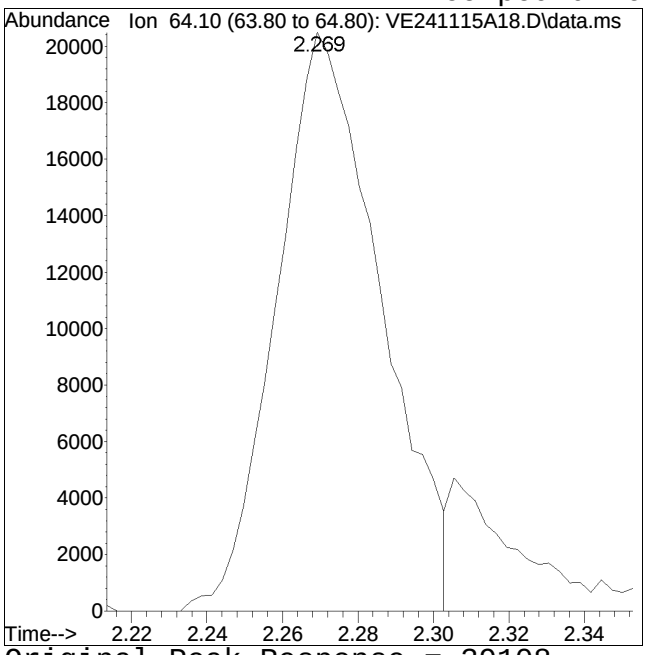
Sub List : 8260-Curve - Megamix plus Diox\VE241115A09.D•



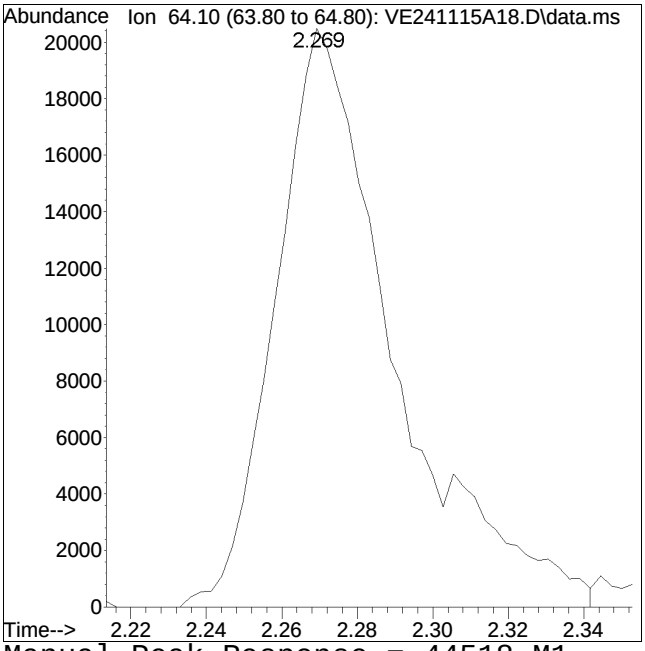
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #6: Chloroethane



Original Peak Response = 39108



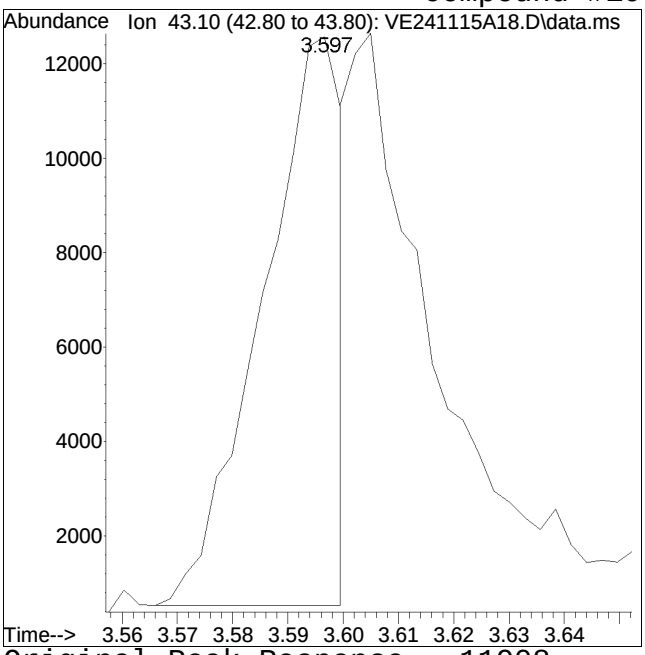
Manual Peak Response = 44518 M1

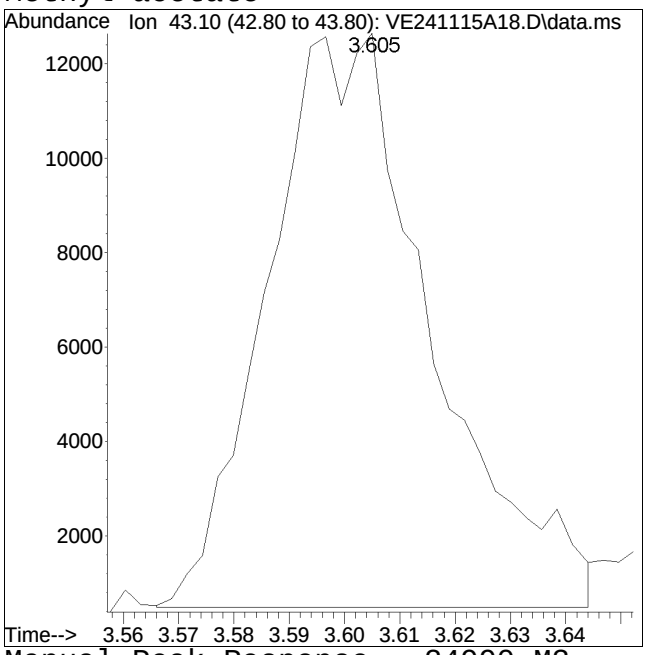
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #19: Methyl acetate





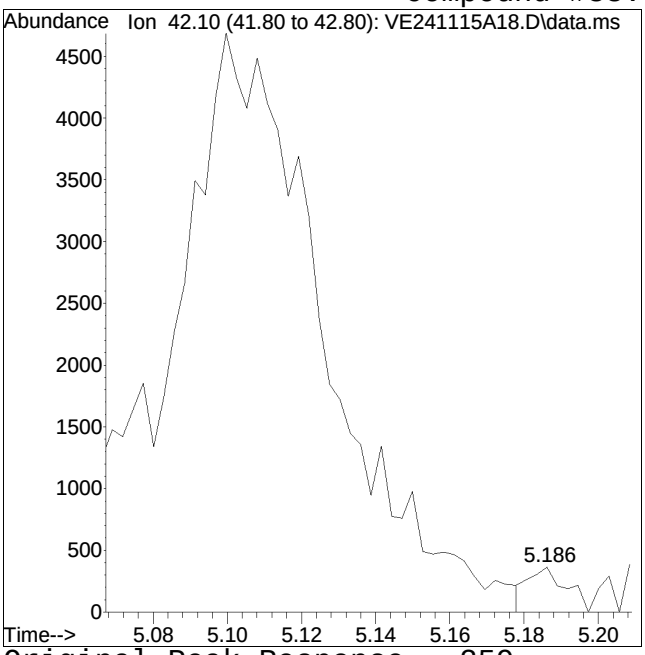
Original Peak Response = 11908 Manual Peak Response = 24990 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

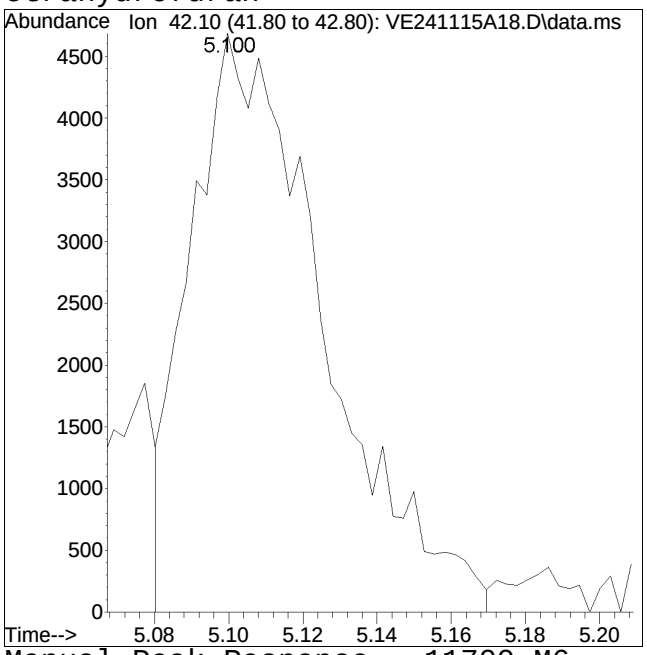
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #38: Tetrahydrofuran



Original Peak Response = 259



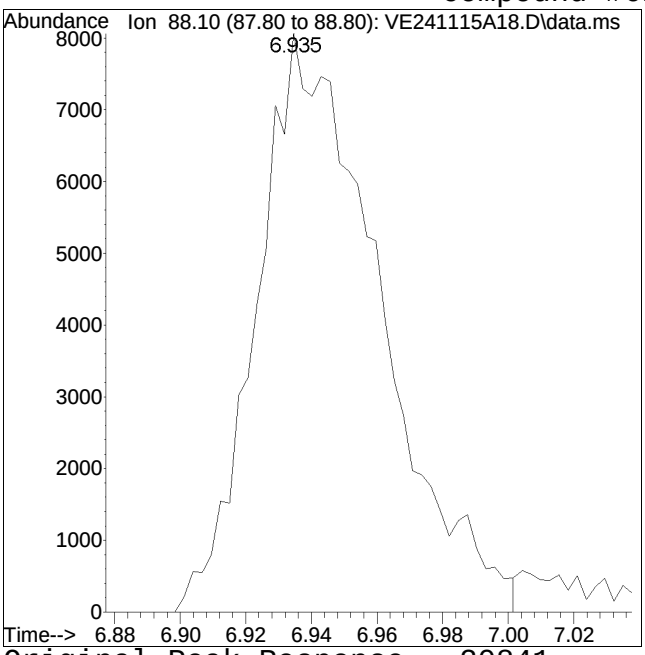
Manual Peak Response = 11700 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

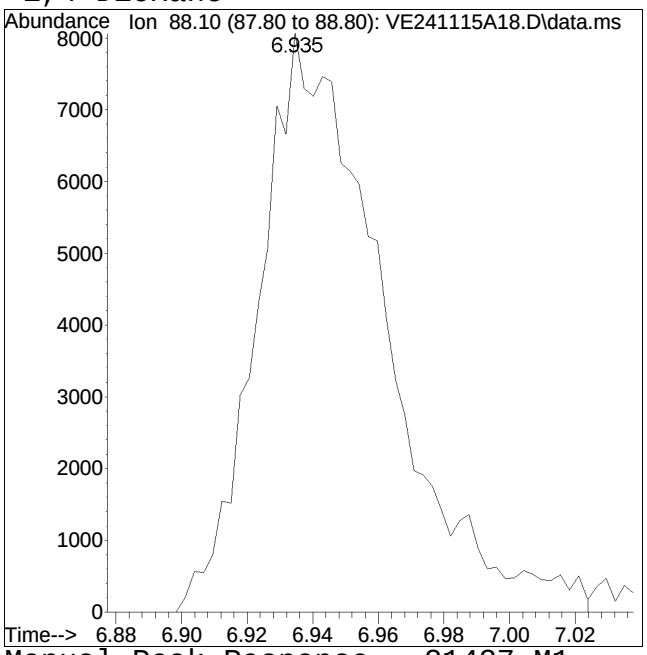
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #61: 1,4-Dioxane



Original Peak Response = 20841



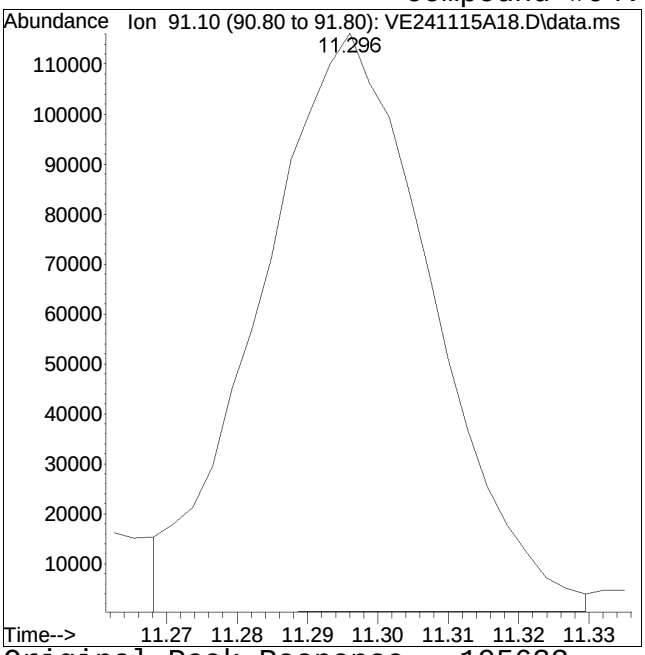
Manual Peak Response = 21427 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

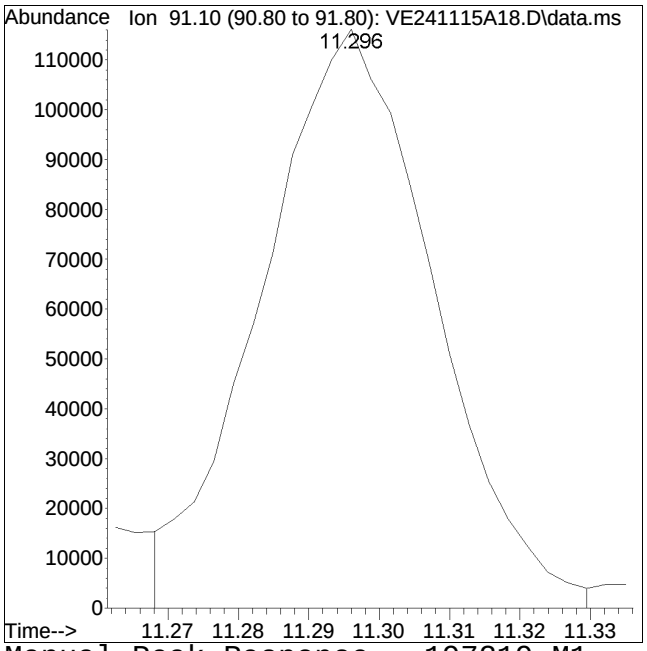
Manual Integration Report

Data Path : K:\Elaine\2024\241115AICALQMethod : Elaine_241115A_8260.m
Data File : VE241115A18.D Operator : ELAINE:PID
Date Inj'd : 11/15/2024 8:59 am Instrument : Elaine
Sample : C8260STD10PPB Quant Date : 11/15/2024 11:50 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 195632



Manual Peak Response = 197219 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 11/23/24 19:58	
Lab File ID	: VE241123N02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24
Sample No	: WG2001825-2	**Init. Calib. Times**	: 02:52	06:56
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	77	0
Dichlorodifluoromethane	0.223	0.233	-	-4.5	20	72	0
Chloromethane	0.221	0.182	-	17.6	20	60	0
Vinyl chloride	0.235	0.254	-	-8.1	20	76	0
Bromomethane	0.165	0.083	-	49.7*	20	39	0
Chloroethane	0.17	0.182	-	-7.1	20	77	0
Trichlorofluoromethane	0.343	0.337	-	1.7	20	68	0
Ethyl ether	0.106	0.116	-	-9.4	20	84	0
1,1-Dichloroethene	0.175	0.177	-	-1.1	20	75	0
Carbon disulfide	0.525	0.529	-	-0.8	20	73	0
Freon-113	0.184	0.184	-	0	20	70	0
Iodomethane	0.16	0.061	-	61.9*	20	32	0
Acrolein	0.021	0.028	-	-33.3*	20	97	0
Methylene chloride	0.218	0.209	-	4.1	20	73	0
Acetone	0.043	0.038	-	11.6	20	72	.01
trans-1,2-Dichloroethene	0.195	0.18	-	7.7	20	67	0
Methyl acetate	0.096	0.095	-	1	20	77	0
Methyl tert-butyl ether	0.52	0.476	-	8.5	20	69	0
tert-Butyl alcohol	0.013	0.012	-	7.7	20	64	0
Diisopropyl ether	0.653	0.661	-	-1.2	20	76	0
1,1-Dichloroethane	0.389	0.41	-	-5.4	20	78	0
Halothane	0.15	0.134	-	10.7	20	65	0
Acrylonitrile	0.053	0.05	-	5.7	20	72	0
Ethyl tert-butyl ether	0.684	0.627	-	8.3	20	71	0
Vinyl acetate	0.452	0.417	-	7.7	20	71	0
cis-1,2-Dichloroethene	0.222	0.217	-	2.3	20	72	0
2,2-Dichloropropane	0.307	0.256	-	16.6	20	60	0
Bromochloromethane	0.101	0.098*	-	3	20	70	0
Cyclohexane	0.395	0.388	-	1.8	20	70	0
Chloroform	0.365	0.339	-	7.1	20	73	0
Ethyl acetate	0.152	0.129	-	15.1	20	62	0
Carbon tetrachloride	0.265	0.24	-	9.4	20	65	0
Tetrahydrofuran	0.042	0.038	-	9.5	20	70	0
Dibromofluoromethane	0.229	0.235	-	-2.6	20	76	0
1,1,1-Trichloroethane	0.322	0.301	-	6.5	20	67	0
2-Butanone	0.061	0.057	-	6.6	20	80	0
1,1-Dichloropropene	0.282	0.261	-	7.4	20	67	0
Benzene	0.889	0.88	-	1	20	74	0
tert-Amyl methyl ether	0.572	0.477	-	16.6	20	64	0
1,2-Dichloroethane-d4	0.271	0.306	-	-12.9	20	87	0
1,2-Dichloroethane	0.283	0.288	-	-1.8	20	78	0
Methyl cyclohexane	0.396	0.369	-	6.8	20	68	0
Trichloroethene	0.211	0.199*	-	5.7	20	68	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 11/23/24 19:58		
Lab File ID	: VE241123N02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24	
Sample No	: WG2001825-2	**Init. Calib. Times**	: 02:52	06:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.121	0.112	-	7.4	20	69	0
1,2-Dichloropropane	0.226	0.227	-	-0.4	20	75	0
Bromodichloromethane	0.293	0.271*	-	7.5	20	68	0
1,4-Dioxane	0.00148	0.00145*	-	2	20	70	0
cis-1,3-Dichloropropene	0.338	0.308	-	8.9	20	67	0
Chlorobenzene-d5	1	1	-	0	20	76	0
Toluene-d8	1.364	1.401	-	-2.7	20	78	0
Toluene	0.786	0.742	-	5.6	20	69	0
4-Methyl-2-pentanone	0.083	0.076	-	8.4	20	73	0
Tetrachloroethene	0.316	0.285	-	9.8	20	64	0
trans-1,3-Dichloropropene	0.389	0.363	-	6.7	20	66	0
Ethyl methacrylate	0.297	0.258	-	13.1	20	64	0
1,1,2-Trichloroethane	0.207	0.2*	-	3.4	20	72	0
Chlorodibromomethane	0.277	0.246	-	11.2	20	68	0
1,3-Dichloropropane	0.426	0.417	-	2.1	20	73	0
1,2-Dibromoethane	0.245	0.225	-	8.2	20	69	0
2-Hexanone	0.133	0.113	-	15	20	65	0
Chlorobenzene	0.835	0.788	-	5.6	20	70	0
Ethylbenzene	1.502	1.446	-	3.7	20	70	0
1,1,1,2-Tetrachloroethane	0.277	0.255	-	7.9	20	67	0
p/m Xylene	0.578	0.551	-	4.7	20	70	0
o Xylene	0.564	0.529	-	6.2	20	69	0
Styrene	0.952	0.877	-	7.9	20	70	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	73	0
Bromoform	0.296	0.247	-	16.6	20	62	0
Isopropylbenzene	2.954	2.84	-	3.9	20	69	0
4-Bromofluorobenzene	0.919	0.927	-	-0.9	20	74	0
Bromobenzene	0.659	0.622	-	5.6	20	66	0
n-Propylbenzene	3.351	3.325	-	0.8	20	71	0
1,4-Dichlorobutane	0.785	0.822	-	-4.7	20	75	0
1,1,2,2-Tetrachloroethane	0.57	0.567	-	0.5	20	73	0
4-Ethyltoluene	2.78	2.736	-	1.6	20	69	0
2-Chlorotoluene	1.946	1.915	-	1.6	20	70	0
1,3,5-Trimethylbenzene	2.46	2.455	-	0.2	20	71	0
1,2,3-Trichloropropane	0.45	0.439	-	2.4	20	72	0
trans-1,4-Dichloro-2-buten	0.163	0.147	-	9.8	20	69	0
4-Chlorotoluene	2.013	2.014	-	-0	20	71	0
tert-Butylbenzene	2.03	1.95	-	3.9	20	68	0
1,2,4-Trimethylbenzene	2.467	2.405	-	2.5	20	70	0
sec-Butylbenzene	3.1	3.021	-	2.5	20	69	0
p-Isopropyltoluene	2.568	2.476	-	3.6	20	68	0
1,3-Dichlorobenzene	1.32	1.24	-	6.1	20	68	0
1,4-Dichlorobenzene	1.324	1.246	-	5.9	20	69	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 11/23/24 19:58		
Lab File ID	: VE241123N02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24	
Sample No	: WG2001825-2	**Init. Calib. Times**	: 02:52	06:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.503	1.421	-	5.5	20	67	0
n-Butylbenzene	2.24	2.208	-	1.4	20	70	0
1,2-Dichlorobenzene	1.256	1.174	-	6.5	20	69	0
1,2,4,5-Tetramethylbenzene	2.408	2.183	-	9.3	20	67	0
1,2-Dibromo-3-chloropropan	0.076	0.066	-	13.2	20	66	0
1,3,5-Trichlorobenzene	0.896	0.799	-	10.8	20	64	0
Hexachlorobutadiene	0.239	0.2	-	16.3	20	58	0
1,2,4-Trichlorobenzene	0.782	0.688	-	12	20	63	0
Naphthalene	1.837	1.571	-	14.5	20	63	0
1,2,3-Trichlorobenzene	0.698	0.604	-	13.5	20	63	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: ELAINE	**Calibration Date**	: 11/24/24 10:56	
Lab File ID	: VE241124A02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24
Sample No	: WG2001843-2	**Init. Calib. Times**	: 02:52	06:56
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	81	0
Dichlorodifluoromethane	0.223	0.218	-	2.2	20	72	0
Chloromethane	0.221	0.203	-	8.1	20	70	0
Vinyl chloride	0.235	0.248	-	-5.5	20	78	0
Bromomethane	0.165	0.1	-	39.4*	20	49	0
Chloroethane	0.17	0.19	-	-11.8	20	85	0
Trichlorofluoromethane	0.343	0.33	-	3.8	20	70	0
Ethyl ether	0.106	0.109	-	-2.8	20	83	0
1,1-Dichloroethene	0.175	0.184	-	-5.1	20	83	0
Carbon disulfide	0.525	0.559	-	-6.5	20	81	0
Freon-113	0.184	0.175	-	4.9	20	70	0
Methylene chloride	0.218	0.216	-	0.9	20	79	0
Acetone	0.043	0.037	-	14	20	74	0
trans-1,2-Dichloroethene	0.195	0.192	-	1.5	20	75	0
Methyl acetate	0.096	0.088	-	8.3	20	75	0
Methyl tert-butyl ether	0.52	0.477	-	8.3	20	73	0
tert-Butyl alcohol	0.013	0.011	-	15.4	20	62	0
Diisopropyl ether	0.653	0.684	-	-4.7	20	83	0
1,1-Dichloroethane	0.389	0.419	-	-7.7	20	84	0
Halothane	0.15	0.134	-	10.7	20	69	0
Acrylonitrile	0.053	0.05	-	5.7	20	76	0
Ethyl tert-butyl ether	0.684	0.655	-	4.2	20	78	0
Vinyl acetate	0.452	0.427	-	5.5	20	77	0
cis-1,2-Dichloroethene	0.222	0.219	-	1.4	20	77	0
2,2-Dichloropropane	0.307	0.276	-	10.1	20	69	0
Bromochloromethane	0.101	0.099*	-	2	20	75	0
Cyclohexane	0.395	0.388	-	1.8	20	73	0
Chloroform	0.365	0.357	-	2.2	20	81	0
Ethyl acetate	0.152	0.131	-	13.8	20	67	0
Carbon tetrachloride	0.265	0.246	-	7.2	20	71	0
Tetrahydrofuran	0.042	0.041	-	2.4	20	79	0
Dibromofluoromethane	0.229	0.226	-	1.3	20	78	0
1,1,1-Trichloroethane	0.322	0.299	-	7.1	20	70	0
2-Butanone	0.061	0.053	-	13.1	20	80	0
1,1-Dichloropropene	0.282	0.269	-	4.6	20	73	0
Benzene	0.889	0.904	-	-1.7	20	80	0
tert-Amyl methyl ether	0.572	0.499	-	12.8	20	71	0
1,2-Dichloroethane-d4	0.271	0.285	-	-5.2	20	85	0
1,2-Dichloroethane	0.283	0.288	-	-1.8	20	82	0
Methyl cyclohexane	0.396	0.364	-	8.1	20	71	0
Trichloroethene	0.211	0.208	-	1.4	20	75	0
Dibromomethane	0.121	0.112	-	7.4	20	73	0
1,2-Dichloropropane	0.226	0.239	-	-5.8	20	83	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 11/24/24 10:56		
Lab File ID	: VE241124A02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24	
Sample No	: WG2001843-2	**Init. Calib. Times**	: 02:52	06:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.293	0.284*	-	3.1	20	75	0
1,4-Dioxane	0.00148	0.00141*	-	4.7	20	73	0
cis-1,3-Dichloropropene	0.338	0.327	-	3.3	20	75	0
Chlorobenzene-d5	1	1	-	0	20	79	0
Toluene-d8	1.364	1.396	-	-2.3	20	81	0
Toluene	0.786	0.794	-	-1	20	77	0
4-Methyl-2-pentanone	0.083	0.078	-	6	20	79	0
Tetrachloroethene	0.316	0.298	-	5.7	20	70	0
trans-1,3-Dichloropropene	0.389	0.383	-	1.5	20	73	0
Ethyl methacrylate	0.297	0.276	-	7.1	20	72	0
1,1,2-Trichloroethane	0.207	0.208	-	-0.5	20	78	0
Chlorodibromomethane	0.277	0.253	-	8.7	20	73	0
1,3-Dichloropropane	0.426	0.433	-	-1.6	20	79	0
1,2-Dibromoethane	0.245	0.228	-	6.9	20	73	0
2-Hexanone	0.133	0.113	-	15	20	68	0
Chlorobenzene	0.835	0.806	-	3.5	20	74	0
Ethylbenzene	1.502	1.486	-	1.1	20	75	0
1,1,1,2-Tetrachloroethane	0.277	0.268	-	3.2	20	74	0
p/m Xylene	0.578	0.569	-	1.6	20	76	0
o Xylene	0.564	0.548	-	2.8	20	75	0
Styrene	0.952	0.916	-	3.8	20	76	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	75	0
Bromoform	0.296	0.269	-	9.1	20	69	0
Isopropylbenzene	2.954	2.975	-	-0.7	20	74	0
4-Bromofluorobenzene	0.919	0.961	-	-4.6	20	79	0
Bromobenzene	0.659	0.652	-	1.1	20	71	0
n-Propylbenzene	3.351	3.492	-	-4.2	20	76	0
1,4-Dichlorobutane	0.785	0.858	-	-9.3	20	80	0
1,1,2,2-Tetrachloroethane	0.57	0.593	-	-4	20	78	0
4-Ethyltoluene	2.78	2.852	-	-2.6	20	74	0
2-Chlorotoluene	1.946	2.049	-	-5.3	20	77	0
1,3,5-Trimethylbenzene	2.46	2.555	-	-3.9	20	76	0
1,2,3-Trichloropropane	0.45	0.464	-	-3.1	20	78	0
trans-1,4-Dichloro-2-buten	0.163	0.161	-	1.2	20	77	0
4-Chlorotoluene	2.013	2.118	-	-5.2	20	77	0
tert-Butylbenzene	2.03	2.014	-	0.8	20	72	0
1,2,4-Trimethylbenzene	2.467	2.529	-	-2.5	20	75	0
sec-Butylbenzene	3.1	3.152	-	-1.7	20	74	0
p-Isopropyltoluene	2.568	2.565	-	0.1	20	73	0
1,3-Dichlorobenzene	1.32	1.313	-	0.5	20	74	0
1,4-Dichlorobenzene	1.324	1.338	-	-1.1	20	75	0
p-Diethylbenzene	1.503	1.508	-	-0.3	20	72	0
n-Butylbenzene	2.24	2.336	-	-4.3	20	76	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: ELAINE	**Calibration Date**	: 11/24/24 10:56		
Lab File ID	: VE241124A02	**Init. Calib. Date(s)**	: 11/15/24	11/15/24	
Sample No	: WG2001843-2	**Init. Calib. Times**	: 02:52	06:56	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichlorobenzene	1.256	1.237	-	1.5	20	74	0
1,2,4,5-Tetramethylbenzene	2.408	2.341	-	2.8	20	73	0
1,2-Dibromo-3-chloropropan	0.076	0.068	-	10.5	20	70	0
1,3,5-Trichlorobenzene	0.896	0.853	-	4.8	20	70	0
Hexachlorobutadiene	0.239	0.212	-	11.3	20	63	0
1,2,4-Trichlorobenzene	0.782	0.723	-	7.5	20	68	0
Naphthalene	1.837	1.653	-	10	20	68	0
1,2,3-Trichlorobenzene	0.698	0.633	-	9.3	20	68	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: GONZO	**Calibration Date**	: 11/25/24 07:14	
Lab File ID	: VG241125A01	**Init. Calib. Date(s)**	: 10/03/24	10/03/24
Sample No	: WG2001998-2	**Init. Calib. Times**	: 04:54	08:54
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	92	0
Dichlorodifluoromethane	0.212	0.162	-	23.6*	20	64	0
Chloromethane	0.23	0.234	-	-1.7	20	92	0
Vinyl chloride	0.23	0.234	-	-1.7	20	86	0
Bromomethane	0.132	0.045	-	65.9*	20	34	0
Chloroethane	10	11.559	-	-15.6	20	95	0
Trichlorofluoromethane	0.306	0.318	-	-3.9	20	89	0
Ethyl ether	0.111	0.09	-	18.9	20	74	0
1,1-Dichloroethene	0.176	0.177	-	-0.6	20	91	0
Carbon disulfide	0.536	0.555	-	-3.5	20	95	0
Freon-113	0.179	0.185	-	-3.4	20	87	0
Acrolein	0.031	0.022	-	29*	20	72	0
Methylene chloride	0.212	0.213	-	-0.5	20	94	0
Acetone	0.055	0.05	-	9.1	20	93	0
trans-1,2-Dichloroethene	0.191	0.199	-	-4.2	20	94	0
Methyl acetate	0.124	0.121	-	2.4	20	95	0
Methyl tert-butyl ether	0.646	0.488	-	24.5*	20	72	0
tert-Butyl alcohol	0.02	0.014	-	30*	20	69	0
Diisopropyl ether	0.727	0.867	-	-19.3	20	110	0
1,1-Dichloroethane	0.37	0.436	-	-17.8	20	105	-.01
Halothane	0.152	0.162	-	-6.6	20	95	-.01
Acrylonitrile	0.068	0.06	-	11.8	20	86	0
Ethyl tert-butyl ether	0.681	0.692	-	-1.6	20	98	0
Vinyl acetate	0.519	0.557	-	-7.3	20	97	0
cis-1,2-Dichloroethene	0.221	0.231	-	-4.5	20	94	0
2,2-Dichloropropane	0.246	0.327	-	-32.9*	20	120	0
Bromochloromethane	0.101	0.104	-	-3	20	93	0
Cyclohexane	0.359	0.41	-	-14.2	20	99	0
Chloroform	0.358	0.381	-	-6.4	20	97	0
Ethyl acetate	0.197	0.192	-	2.5	20	94	0
Carbon tetrachloride	0.273	0.303	-	-11	20	97	0
Tetrahydrofuran	0.064	0.057	-	10.9	20	87	0
Dibromofluoromethane	0.249	0.259	-	-4	20	95	-.02
1,1,1-Trichloroethane	0.316	0.339	-	-7.3	20	94	0
2-Butanone	0.084	0.08	-	4.8	20	96	0
1,1-Dichloropropene	0.265	0.288	-	-8.7	20	93	0
Benzene	0.825	0.89	-	-7.9	20	96	0
tert-Amyl methyl ether	0.598	0.5	-	16.4	20	77	-.01
1,2-Dichloroethane-d4	0.287	0.317	-	-10.5	20	98	0
1,2-Dichloroethane	0.279	0.311	-	-11.5	20	103	0
Methyl cyclohexane	0.3	0.305	-	-1.7	20	86	-.02
Trichloroethene	0.221	0.232	-	-5	20	98	0
Dibromomethane	0.126	0.123	-	2.4	20	92	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: GONZO	**Calibration Date**	: 11/25/24 07:14		
Lab File ID	: VG241125A01	**Init. Calib. Date(s)**	: 10/03/24	10/03/24	
Sample No	: WG2001998-2	**Init. Calib. Times**	: 04:54	08:54	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.214	0.24	-	-12.1	20	103	0
Bromodichloromethane	0.289	0.294*	-	-1.7	20	92	0
1,4-Dioxane	0.00215	0.00168*	-	21.9*	20	76	-.01
cis-1,3-Dichloropropene	0.327	0.334	-	-2.1	20	93	0
Chlorobenzene-d5	1	1	-	0	20	97	-.02
Toluene-d8	1.323	1.259	-	4.8	20	93	0
Toluene	0.696	0.71	-	-2	20	96	0
4-Methyl-2-pentanone	0.097	0.077	-	20.6*	20	82	-.01
Tetrachloroethene	0.301	0.312	-	-3.7	20	96	-.01
trans-1,3-Dichloropropene	0.406	0.379	-	6.7	20	93	0
Ethyl methacrylate	0.36	0.24	-	33.3*	20	66	0
1,1,2-Trichloroethane	0.212	0.184*	-	13.2	20	88	0
Chlorodibromomethane	0.293	0.277	-	5.5	20	92	-.01
1,3-Dichloropropane	0.42	0.389	-	7.4	20	90	0
1,2-Dibromoethane	0.25	0.215	-	14	20	83	0
2-Hexanone	0.174	0.143	-	17.8	20	85	0
Chlorobenzene	0.748	0.781	-	-4.4	20	99	0
Ethylbenzene	1.337	1.344	-	-0.5	20	97	0
1,1,1,2-Tetrachloroethane	0.287	0.275	-	4.2	20	92	0
p/m Xylene	0.509	0.513	-	-0.8	20	95	0
o Xylene	0.493	0.495	-	-0.4	20	95	-.02
Styrene	0.839	0.83	-	1.1	20	93	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	97	0
Bromoform	0.359	0.315	-	12.3	20	89	0
Isopropylbenzene	2.211	2.182	-	1.3	20	93	0
4-Bromofluorobenzene	0.876	0.835	-	4.7	20	94	-.02
Bromobenzene	0.598	0.617	-	-3.2	20	97	0
n-Propylbenzene	2.574	2.576	-	-0.1	20	96	-.02
1,4-Dichlorobutane	0.87	0.764	-	12.2	20	89	0
1,1,2,2-Tetrachloroethane	0.56	0.466	-	16.8	20	83	0
4-Ethyltoluene	2.108	2.098	-	0.5	20	95	0
2-Chlorotoluene	1.57	1.627	-	-3.6	20	102	0
1,3,5-Trimethylbenzene	1.866	1.815	-	2.7	20	93	0
1,2,3-Trichloropropane	0.457	0.39	-	14.7	20	87	0
trans-1,4-Dichloro-2-buten	0.184	0.138	-	25*	20	77	0
4-Chlorotoluene	1.653	1.645	-	0.5	20	95	0
tert-Butylbenzene	1.472	1.508	-	-2.4	20	96	0
1,2,4-Trimethylbenzene	1.821	1.738	-	4.6	20	92	0
sec-Butylbenzene	2.123	2.087	-	1.7	20	92	0
p-Isopropyltoluene	1.801	1.787	-	0.8	20	93	0
1,3-Dichlorobenzene	1.09	1.1	-	-0.9	20	98	0
1,4-Dichlorobenzene	1.132	1.127	-	0.4	20	97	0
p-Diethylbenzene	1.01	0.993	-	1.7	20	94	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469254	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: GONZO	**Calibration Date**	: 11/25/24 07:14	
Lab File ID	: VG241125A01	**Init. Calib. Date(s)**	: 10/03/24	10/03/24
Sample No	: WG2001998-2	**Init. Calib. Times**	: 04:54	08:54
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.45	1.403	-	3.2	20	92	0
1,2-Dichlorobenzene	1.051	1.021	-	2.9	20	92	0
1,2,4,5-Tetramethylbenzene	1.421	1.342	-	5.6	20	93	0
1,2-Dibromo-3-chloropropan	0.093	0.068	-	26.9*	20	75	0
1,3,5-Trichlorobenzene	0.661	0.684	-	-3.5	20	99	0
Hexachlorobutadiene	0.212	0.236	-	-11.3	20	108	0
1,2,4-Trichlorobenzene	0.561	0.502	-	10.5	20	85	0
Naphthalene	1.188	0.76	-	36*	20	65	0
1,2,3-Trichlorobenzene	0.469	0.367*	-	21.7*	20	75	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-2
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	77	0.00
2	TP	Dichlorodifluoromethane	0.223	0.233	-4.5	72	0.00
3	TP	Chloromethane	0.221	0.182	17.6	60	0.00
4	TP	Vinyl chloride	0.235	0.254	-8.1	76	0.00
5	TP	Bromomethane	0.165	0.083	49.7#	39#	0.00
6	TP	Chloroethane	0.170	0.182	-7.1	77	0.00
7	TP	Trichlorofluoromethane	0.343	0.337	1.7	68	0.00
8	TP	Ethyl ether	0.106	0.116	-9.4	84	0.00
10	TP	1,1-Dichloroethene	0.175	0.177	-1.1	75	0.00
11	TP	Carbon disulfide	0.525	0.529	-0.8	73	0.00
12	TP	Freon-113	0.184	0.184	0.0	70	0.00
13	TP	Iodomethane	0.160	0.061	61.9#	32#	0.00
14	TP	Acrolein	0.021	0.028	-33.3#	97	0.00
15	TP	Methylene chloride	0.218	0.209	4.1	73	0.00
17	TP	Acetone	0.043	0.038	11.6	72	0.01
18	TP	trans-1,2-Dichloroethene	0.195	0.180	7.7	67	0.00
19	TP	Methyl acetate	0.096	0.095	1.0	77	0.00
21	TP	Methyl tert-butyl ether	0.520	0.476	8.5	69	0.00
22	TP	tert-Butyl alcohol	0.013	0.012	7.7	64	0.00
24	TP	Diisopropyl ether	0.653	0.661	-1.2	76	0.00
25	TP	1,1-Dichloroethane	0.389	0.410	-5.4	78	0.00
26	TP	Halothane	0.150	0.134	10.7	65	0.00
27	TP	Acrylonitrile	0.053	0.050	5.7	72	0.00
28	TP	Ethyl tert-butyl ether	0.684	0.627	8.3	71	0.00
29	TP	Vinyl acetate	0.452	0.417	7.7	71	0.00
30	TP	cis-1,2-Dichloroethene	0.222	0.217	2.3	72	0.00
31	TP	2,2-Dichloropropane	0.307	0.256	16.6	60	0.00
33	TP	Bromochloromethane	0.101	0.098#	3.0	70	0.00
34	TP	Cyclohexane	0.395	0.388	1.8	70	0.00
35	TP	Chloroform	0.365	0.339	7.1	73	0.00
36	TP	Ethyl acetate	0.152	0.129	15.1	62	0.00
37	TP	Carbon tetrachloride	0.265	0.240	9.4	65	0.00
38	TP	Tetrahydrofuran	0.042	0.038	9.5	70	0.00
39	S	Dibromofluoromethane	0.229	0.235	-2.6	76	0.00
40	TP	1,1,1-Trichloroethane	0.322	0.301	6.5	67	0.00
42	TP	2-Butanone	0.061	0.057	6.6	80	0.00
43	TP	1,1-Dichloropropene	0.282	0.261	7.4	67	0.00
45	TP	Benzene	0.889	0.880	1.0	74	0.00
46	TP	tert-Amyl methyl ether	0.572	0.477	16.6	64	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-2
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.271	0.306	-12.9	87	0.00
48	T	1,2-Dichloroethane	0.283	0.288	-1.8	78	0.00
51	TP	Methyl cyclohexane	0.396	0.369	6.8	68	0.00
52	TP	Trichloroethene	0.211	0.199#	5.7	68	0.00
54	TP	Dibromomethane	0.121	0.112	7.4	69	0.00
55	TP	1,2-Dichloropropane	0.226	0.227	-0.4	75	0.00
58	TP	Bromodichloromethane	0.293	0.271#	7.5	68	0.00
61	TP	1,4-Dioxane	0.00148	0.00145#	2.0	70	0.00
62	TP	cis-1,3-Dichloropropene	0.338	0.308	8.9	67	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	76	0.00
64	S	Toluene-d8	1.364	1.401	-2.7	78	0.00
65	TP	Toluene	0.786	0.742	5.6	69	0.00
66	TP	4-Methyl-2-pentanone	0.083	0.076	8.4	73	0.00
67	TP	Tetrachloroethene	0.316	0.285	9.8	64	0.00
69	TP	trans-1,3-Dichloropropene	0.389	0.363	6.7	66	0.00
71	TP	Ethyl methacrylate	0.297	0.258	13.1	64	0.00
72	TP	1,1,2-Trichloroethane	0.207	0.200#	3.4	72	0.00
73	TP	Chlorodibromomethane	0.277	0.246	11.2	68	0.00
74	TP	1,3-Dichloropropane	0.426	0.417	2.1	73	0.00
75	TP	1,2-Dibromoethane	0.245	0.225	8.2	69	0.00
77	TP	2-Hexanone	0.133	0.113	15.0	65	0.00
78	TP	Chlorobenzene	0.835	0.788	5.6	70	0.00
79	TP	Ethylbenzene	1.502	1.446	3.7	70	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.277	0.255	7.9	67	0.00
81	TP	p/m Xylene	0.578	0.551	4.7	70	0.00
82	TP	o Xylene	0.564	0.529	6.2	69	0.00
83	TP	Styrene	0.952	0.877	7.9	70	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00
85	TP	Bromoform	0.296	0.247	16.6	62	0.00
87	TP	Isopropylbenzene	2.954	2.840	3.9	69	0.00
88	S	4-Bromofluorobenzene	0.919	0.927	-0.9	74	0.00
89	TP	Bromobenzene	0.659	0.622	5.6	66	0.00
90	TP	n-Propylbenzene	3.351	3.325	0.8	71	0.00
91	TP	1,4-Dichlorobutane	0.785	0.822	-4.7	75	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.570	0.567	0.5	73	0.00
93	TP	4-Ethyltoluene	2.780	2.736	1.6	69	0.00
94	TP	2-Chlorotoluene	1.946	1.915	1.6	70	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-2
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
95 TP	1,3,5-Trimethylbenzene	2.460	2.455	0.2	71	0.00
96 TP	1,2,3-Trichloropropane	0.450	0.439	2.4	72	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.163	0.147	9.8	69	0.00
98 TP	4-Chlorotoluene	2.013	2.014	-0.0	71	0.00
99 TP	tert-Butylbenzene	2.030	1.950	3.9	68	0.00
102 TP	1,2,4-Trimethylbenzene	2.467	2.405	2.5	70	0.00
103 TP	sec-Butylbenzene	3.100	3.021	2.5	69	0.00
104 TP	p-Isopropyltoluene	2.568	2.476	3.6	68	0.00
105 TP	1,3-Dichlorobenzene	1.320	1.240	6.1	68	0.00
106 TP	1,4-Dichlorobenzene	1.324	1.246	5.9	69	0.00
107 TP	p-Diethylbenzene	1.503	1.421	5.5	67	0.00
108 TP	n-Butylbenzene	2.240	2.208	1.4	70	0.00
109 TP	1,2-Dichlorobenzene	1.256	1.174	6.5	69	0.00
110 TP	1,2,4,5-Tetramethylbenzene	2.408	2.183	9.3	67	0.00
111 TP	1,2-Dibromo-3-chloropropane	0.076	0.066	13.2	66	0.00
112 TP	1,3,5-Trichlorobenzene	0.896	0.799	10.8	64	0.00
113 TP	Hexachlorobutadiene	0.239	0.200	16.3	58	0.00
114 TP	1,2,4-Trichlorobenzene	0.782	0.688	12.0	63	0.00
115 TP	Naphthalene	1.837	1.571	14.5	63	0.00
116 TP	1,2,3-Trichlorobenzene	0.698	0.604	13.5	63	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 5 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-2
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	198303	10.000	ug/L	0.00
Standard Area 1 = 198303			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	142748	10.000	ug/L	0.00
Standard Area 1 = 142748			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.186	152	72729	10.000	ug/L	0.00
Standard Area 1 = 72729			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	46524	10.232	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.32%			
47) 1,2-Dichloroethane-d4	5.660	65	60692	11.281	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.81%			
64) Toluene-d8	7.632	98	200001	10.274	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.74%			
88) 4-Bromofluorobenzene	10.972	95	67425	10.091	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.91%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	46146	10.415	ug/L	94
3) Chloromethane	1.776	50	36155	8.259	ug/L	98
4) Vinyl chloride	1.848	62	50425	10.810	ug/L	95
5) Bromomethane	2.158	94	16517	5.045	ug/L	91
6) Chloroethane	2.272	64	36074	10.681	ug/L	96
7) Trichlorofluoromethane	2.409	101	66770	9.810	ug/L	92
8) Ethyl ether	2.704	74	23058M1	10.956	ug/L	
10) 1,1-Dichloroethene	2.891	96	35136	10.137	ug/L #	71
11) Carbon disulfide	2.922	76	104995	10.087	ug/L	95
12) Freon-113	2.933	101	36519M1	9.991	ug/L	
13) Iodomethane	3.025	142	12177	3.826	ug/L #	64
14) Acrolein	3.206	56	5525	13.055	ug/L #	54
15) Methylene chloride	3.446	84	41536	9.600	ug/L	90
17) Acetone	3.488	43	7565	8.884	ug/L	97
18) trans-1,2-Dichloroethene	3.594	96	35740	9.259	ug/L	88
19) Methyl acetate	3.594	43	18908	9.940	ug/L #	88
21) Methyl tert-butyl ether	3.691	73	94361	9.146	ug/L #	86
22) tert-Butyl alcohol	3.783	59	11486M3	44.171	ug/L	
24) Diisopropyl ether	4.048	45	131162	10.132	ug/L	95
25) 1,1-Dichloroethane	4.179	63	81399	10.551	ug/L	93
26) Halothane	4.235	117	26482M3	8.897	ug/L	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-2
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.218	53	9928	9.512	ug/L	#	81
28) Ethyl tert-butyl ether	4.394	59	124382	9.170	ug/L		97
29) Vinyl acetate	4.402	43	82603	9.218	ug/L		98
30) cis-1,2-Dichloroethene	4.690	96	42991	9.757	ug/L		94
31) 2,2-Dichloropropane	4.798	77	50771	8.340	ug/L		97
33) Bromochloromethane	4.885	128	19388	9.658	ug/L		89
34) Cyclohexane	4.893	56	76996	9.817	ug/L		87
35) Chloroform	4.957	83	67209	9.285	ug/L		95
36) Ethyl acetate	5.063	43	25509	8.438	ug/L	#	90
37) Carbon tetrachloride	5.091	117	47680	9.082	ug/L	#	90
38) Tetrahydrofuran	5.100	42	7630M1	9.102	ug/L		
40) 1,1,1-Trichloroethane	5.158	97	59737	9.347	ug/L	#	94
42) 2-Butanone	5.242	43	11208	9.230	ug/L	#	91
43) 1,1-Dichloropropene	5.284	75	51669	9.227	ug/L		93
45) Benzene	5.523	78	174448	9.891	ug/L		95
46) tert-Amyl methyl ether	5.629	73	94674	8.341	ug/L		94
48) 1,2-Dichloroethane	5.727	62	57084	10.177	ug/L		98
51) Methyl cyclohexane	6.112	83	73227	9.324	ug/L		93
52) Trichloroethene	6.115	95	39403	9.423	ug/L		96
54) Dibromomethane	6.558	93	22235	9.304	ug/L		95
55) 1,2-Dichloropropane	6.661	63	44932	10.029	ug/L		97
58) Bromodichloromethane	6.731	83	53724	9.239	ug/L	#	88
61) 1,4-Dioxane	6.946	88	14346	489.992	ug/L	#	76
62) cis-1,3-Dichloropropene	7.423	75	61086	9.102	ug/L		93
65) Toluene	7.687	92	105916	9.442	ug/L		92
66) 4-Methyl-2-pentanone	8.114	58	10833M1	9.189	ug/L		
67) Tetrachloroethene	8.134	166	40664	9.016	ug/L		94
69) trans-1,3-Dichloropropene	8.167	75	51849	9.334	ug/L		89
71) Ethyl methacrylate	8.362	69	36804	8.687	ug/L		91
72) 1,1,2-Trichloroethane	8.357	83	28538	9.680	ug/L		98
73) Chlorodibromomethane	8.569	129	35134	8.882	ug/L		95
74) 1,3-Dichloropropane	8.680	76	59477	9.771	ug/L		98
75) 1,2-Dibromoethane	8.842	107	32101	9.190	ug/L		90
77) 2-Hexanone	9.121	43	16164M1	8.535	ug/L		
78) Chlorobenzene	9.489	112	112468	9.433	ug/L	#	80
79) Ethylbenzene	9.531	91	206427	9.630	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.578	131	36397	9.194	ug/L		94
81) p/m Xylene	9.715	106	157371	19.072	ug/L		94
82) o Xylene	10.256	106	150976	18.764	ug/L		89
83) Styrene	10.328	104	250255	18.423	ug/L		97

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-2
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85) Bromoform	10.348	173	17930	8.341	ug/L	95
87) Isopropylbenzene	10.646	105	206584	9.615	ug/L	99
89) Bromobenzene	11.084	156	45242	9.434	ug/L	99
90) n-Propylbenzene	11.129	91	241789	9.922	ug/L	98
91) 1,4-Dichlorobutane	11.148	55	59806	10.479	ug/L	99
92) 1,1,2,2-Tetrachloroethane	11.221	83	41234	9.941	ug/L	96
93) 4-Ethyltoluene	11.254	105	199005	9.841	ug/L	99
94) 2-Chlorotoluene	11.293	91	139308M4	9.843	ug/L	
95) 1,3,5-Trimethylbenzene	11.355	105	178519	9.977	ug/L	95
96) 1,2,3-Trichloropropane	11.355	75	31907	9.745	ug/L	92
97) trans-1,4-Dichloro-2-b...	11.413	53	10715	9.039	ug/L	84
98) 4-Chlorotoluene	11.477	91	146505	10.005	ug/L	98
99) tert-Butylbenzene	11.698	119	141856	9.607	ug/L	96
102) 1,2,4-Trimethylbenzene	11.776	105	174877	9.746	ug/L	98
103) sec-Butylbenzene	11.887	105	219721	9.746	ug/L	98
104) p-Isopropyltoluene	12.041	119	180096	9.641	ug/L	97
105) 1,3-Dichlorobenzene	12.107	146	90192	9.396	ug/L	97
106) 1,4-Dichlorobenzene	12.202	146	90585	9.408	ug/L	98
107) p-Diethylbenzene	12.414	119	103360	9.457	ug/L	95
108) n-Butylbenzene	12.473	91	160581	9.858	ug/L	99
109) 1,2-Dichlorobenzene	12.626	146	85419	9.352	ug/L	99
110) 1,2,4,5-Tetramethylben...	13.212	119	158795	9.069	ug/L	98
111) 1,2-Dibromo-3-chloropr...	13.404	155	4779	8.615	ug/L	93
112) 1,3,5-Trichlorobenzene	13.435	180	58112	8.920	ug/L	94
113) Hexachlorobutadiene	14.015	225	14515	8.346	ug/L	93
114) 1,2,4-Trichlorobenzene	14.037	180	50035	8.796	ug/L	96
115) Naphthalene	14.327	128	114276	8.554	ug/L	100
116) 1,2,3-Trichlorobenzene	14.495	180	43937	8.653	ug/L	93

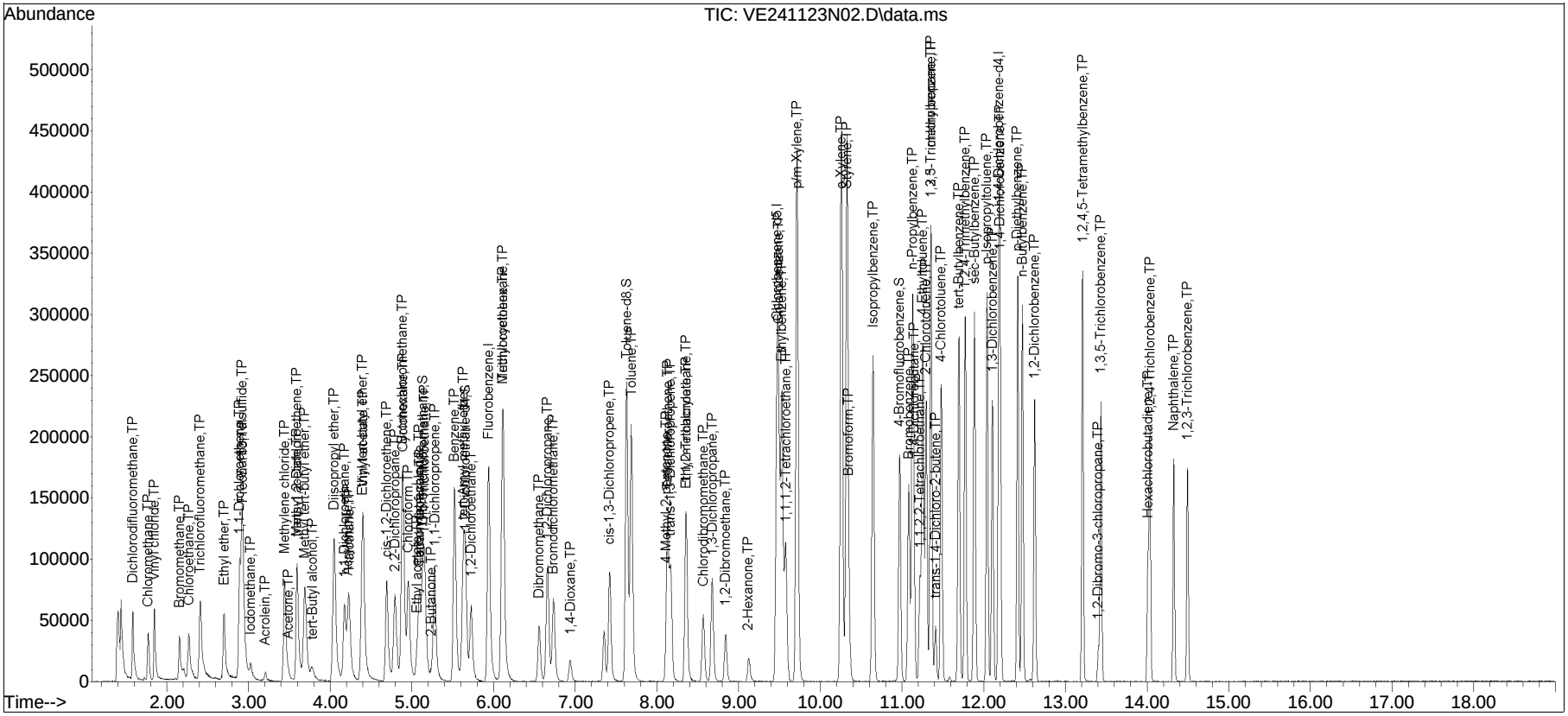
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-2
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

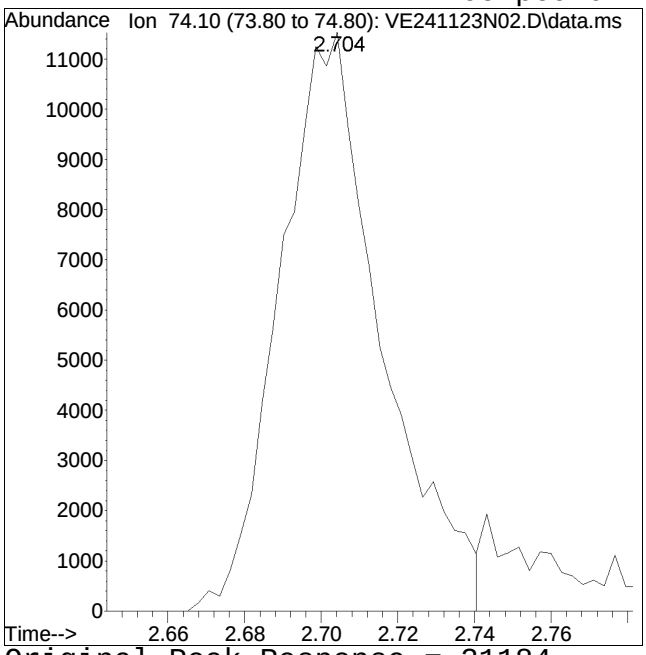
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE2.D•

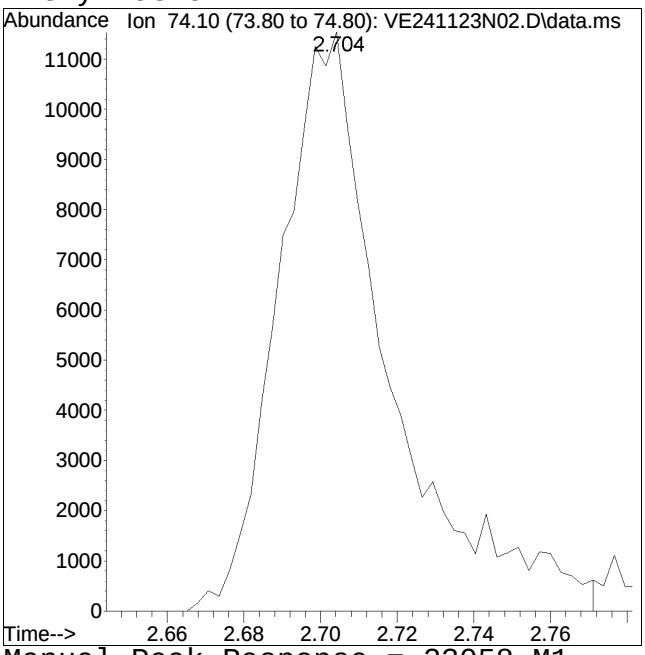


Manual Integration Report

Data Path	: K:\Elaine\2024\241123N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241123N02.D	Operator	: ELAINE:PID
Date Inj'd	: 11/23/2024 7:58 pm	Instrument	: Elaine
Sample	: WG2001825-2	Quant Date	: 11/23/2024 8:21 pm

Compound #8: Ethyl ether





Original Peak Response = 21184 Manual Peak Response = 23058 M1

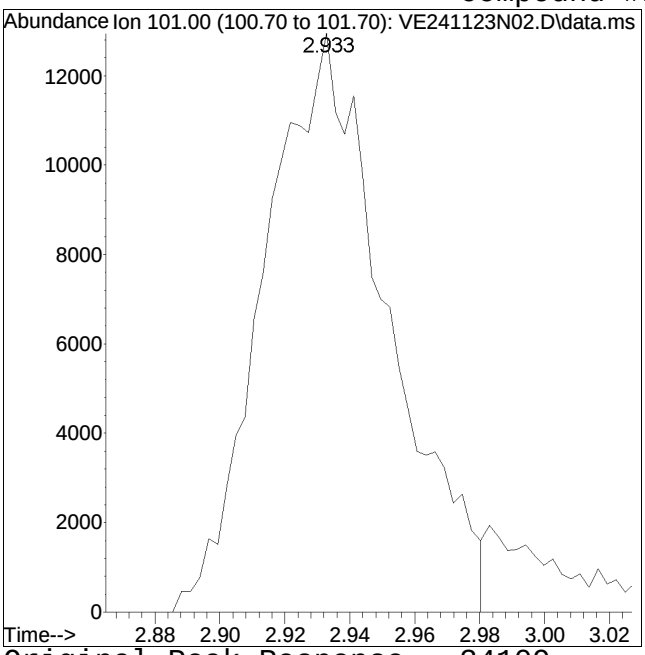
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

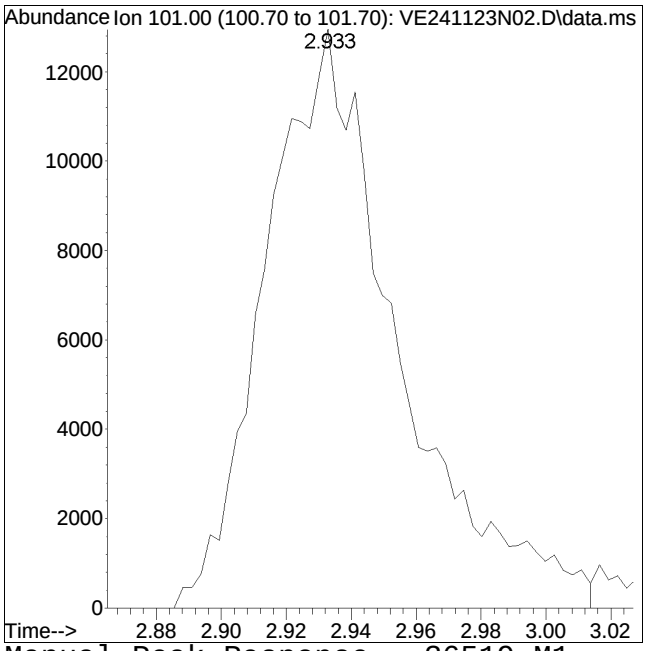
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #12: Freon-113



Original Peak Response = 34109



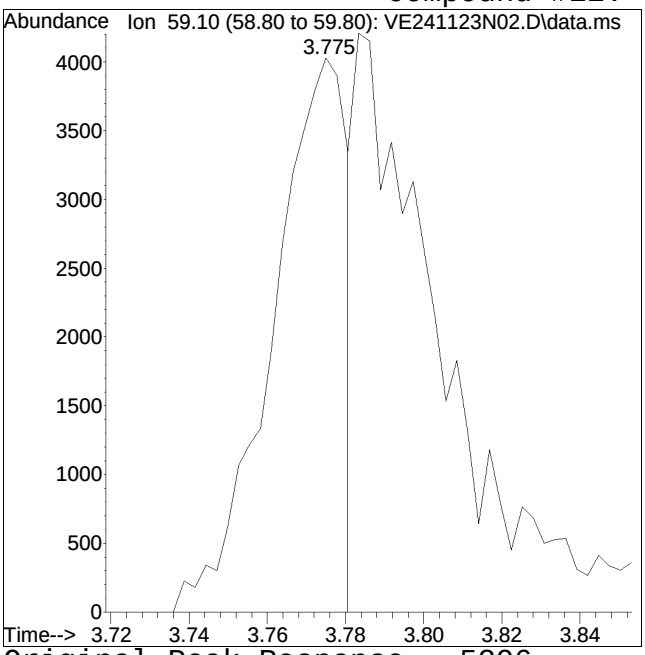
Manual Peak Response = 36519 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

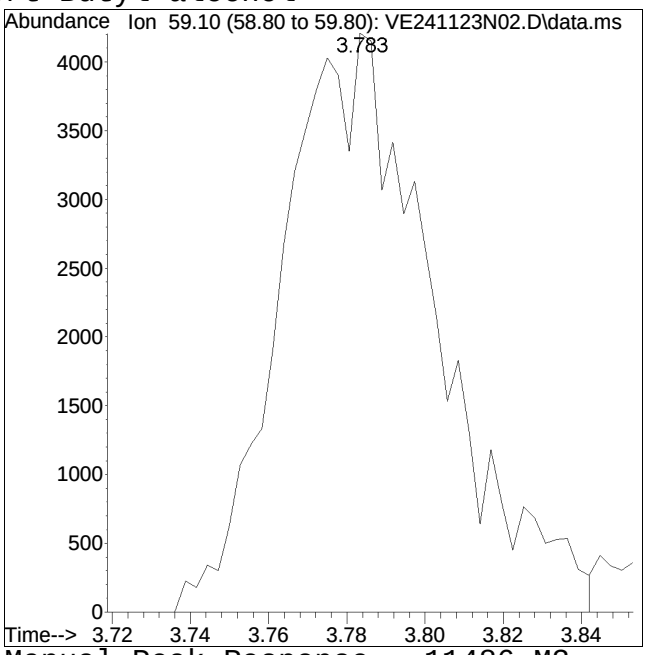
Manual Integration Report

Data Path	: K:\Elaine\2024\241123N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241123N02.D	Operator	: ELAINE:PID
Date Inj'd	: 11/23/2024 7:58 pm	Instrument	: Elaine
Sample	: WG2001825-2	Quant Date	: 11/23/2024 8:21 pm

Compound #22: tert-Butyl alcohol



Original Peak Response = 5296



Manual Peak Response = 11486 M3

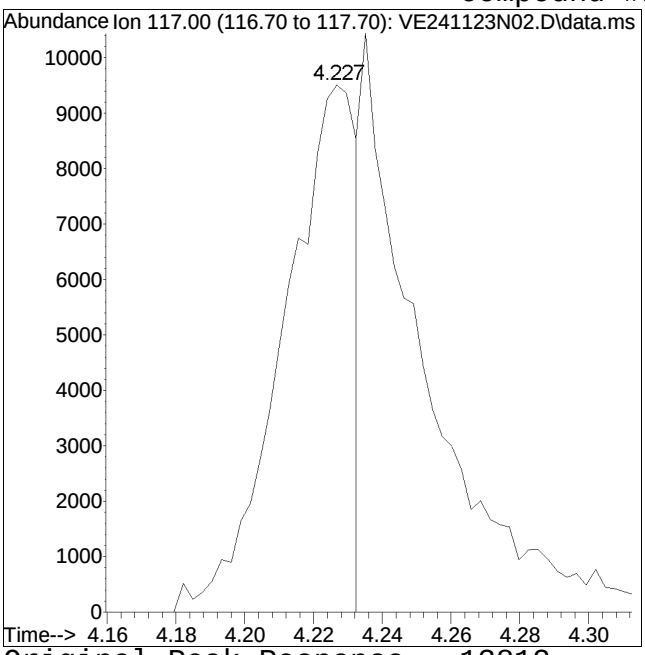
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

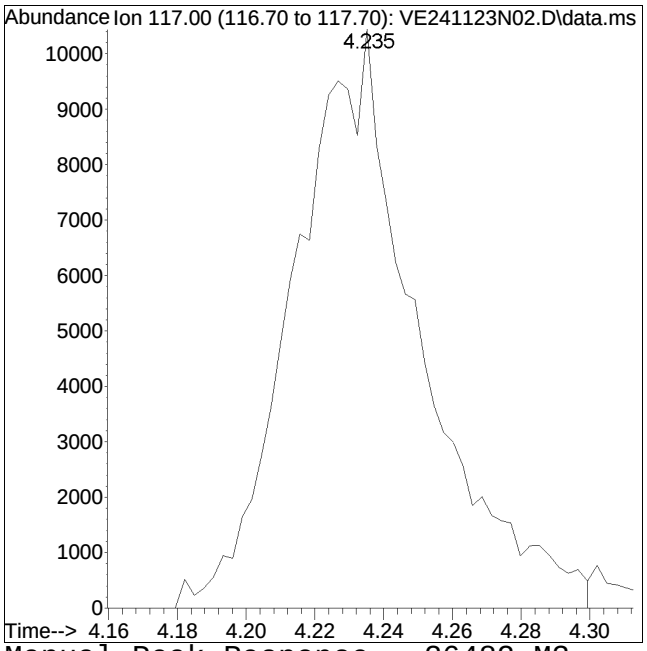
Manual Integration Report

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #26: Halothane





Original Peak Response = 13812 Manual Peak Response = 26482 M3

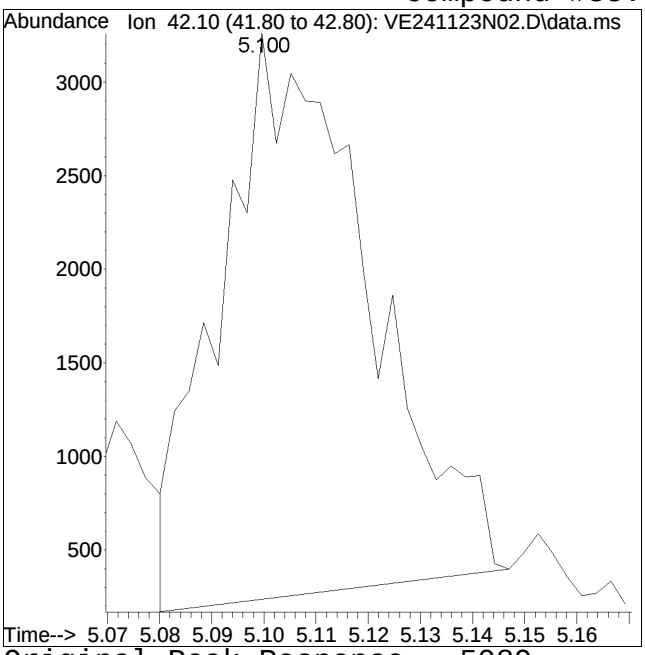
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

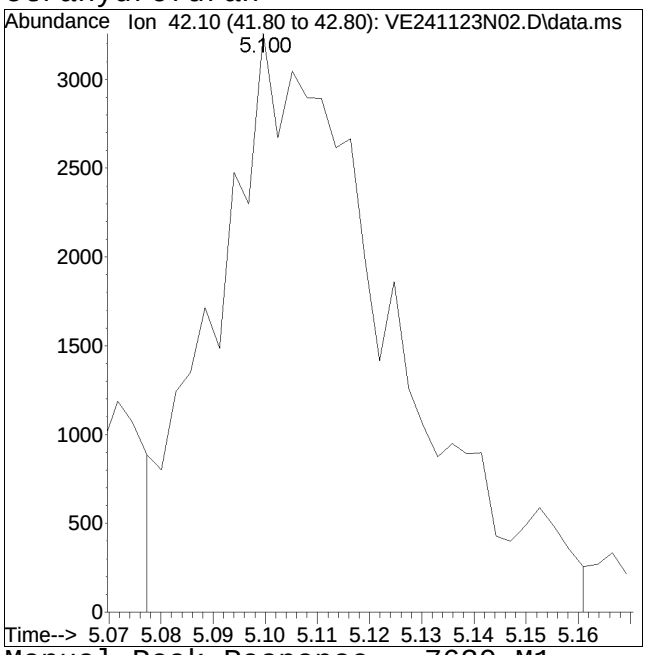
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 5989



Manual Peak Response = 7630 M1

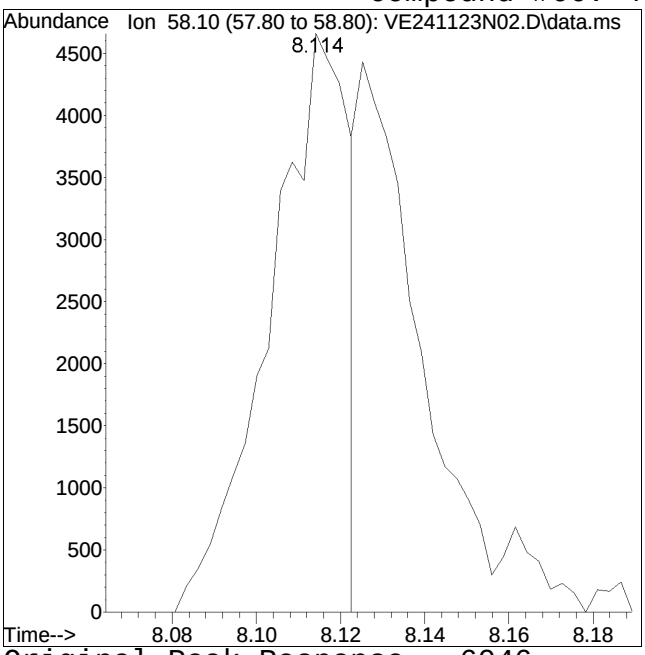
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

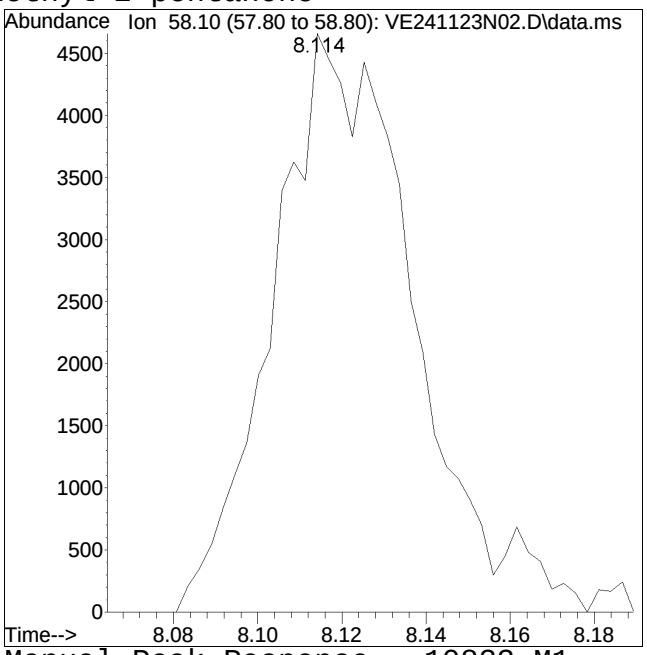
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 6046



Manual Peak Response = 10833 M1

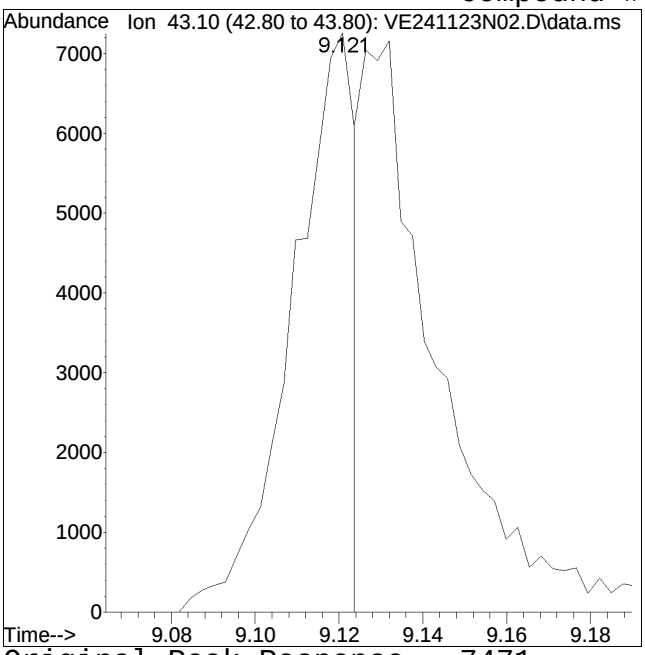
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

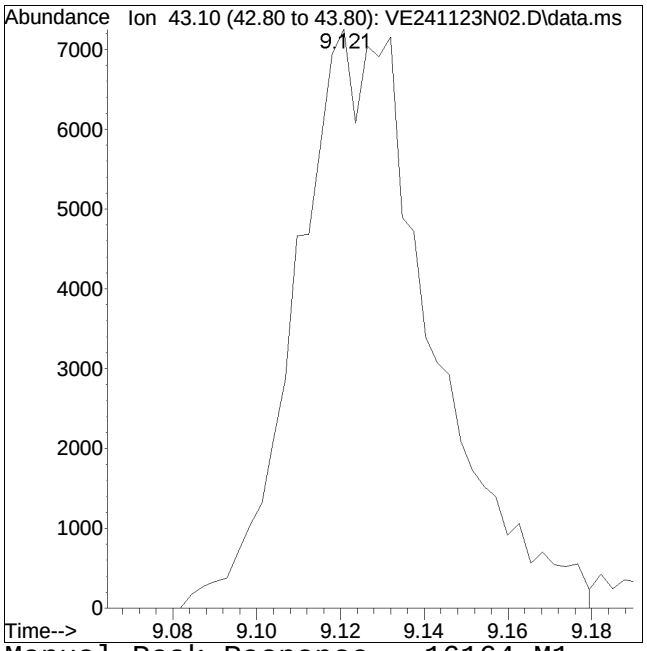
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #77: 2-Hexanone



Original Peak Response = 7471



Manual Peak Response = 16164 M1

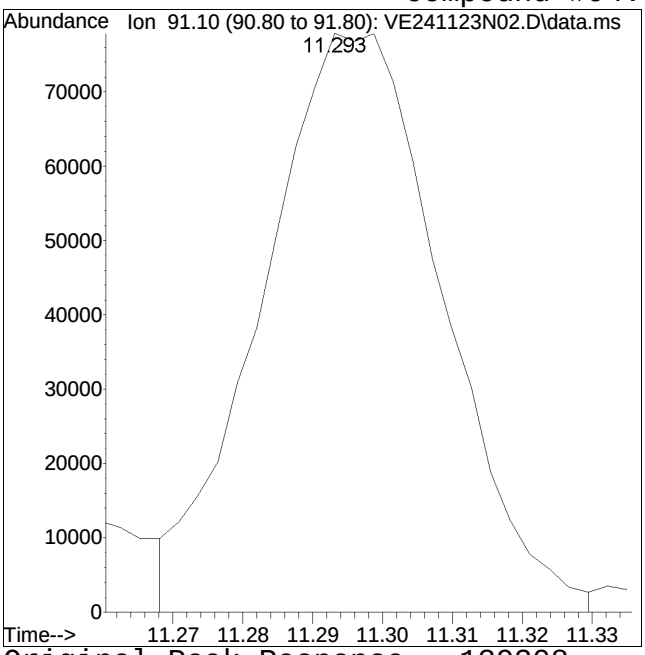
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

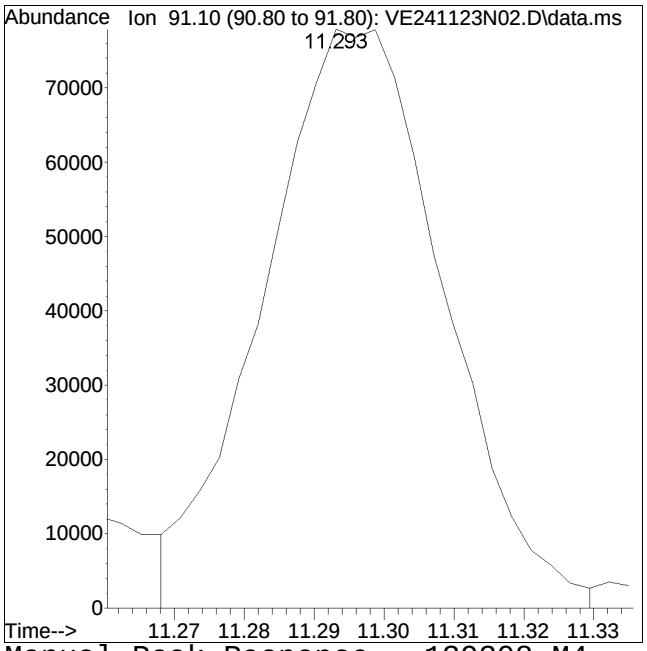
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 139308



Manual Peak Response = 139308 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-2
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	81	0.00
2	TP	Dichlorodifluoromethane	0.223	0.218	2.2	72	0.00
3	TP	Chloromethane	0.221	0.203	8.1	70	0.00
4	TP	Vinyl chloride	0.235	0.248	-5.5	78	0.00
5	TP	Bromomethane	0.165	0.100	39.4#	49#	0.00
6	TP	Chloroethane	0.170	0.190	-11.8	85	0.00
7	TP	Trichlorofluoromethane	0.343	0.330	3.8	70	0.00
8	TP	Ethyl ether	0.106	0.109	-2.8	83	0.00
10	TP	1,1-Dichloroethene	0.175	0.184	-5.1	83	0.00
11	TP	Carbon disulfide	0.525	0.559	-6.5	81	0.00
12	TP	Freon-113	0.184	0.175	4.9	70	0.00
15	TP	Methylene chloride	0.218	0.216	0.9	79	0.00
17	TP	Acetone	0.043	0.037	14.0	74	0.00
18	TP	trans-1,2-Dichloroethene	0.195	0.192	1.5	75	0.00
19	TP	Methyl acetate	0.096	0.088	8.3	75	0.00
21	TP	Methyl tert-butyl ether	0.520	0.477	8.3	73	0.00
22	TP	tert-Butyl alcohol	0.013	0.011	15.4	62	0.00
24	TP	Diisopropyl ether	0.653	0.684	-4.7	83	0.00
25	TP	1,1-Dichloroethane	0.389	0.419	-7.7	84	0.00
26	TP	Halothane	0.150	0.134	10.7	69	0.00
27	TP	Acrylonitrile	0.053	0.050	5.7	76	0.00
28	TP	Ethyl tert-butyl ether	0.684	0.655	4.2	78	0.00
29	TP	Vinyl acetate	0.452	0.427	5.5	77	0.00
30	TP	cis-1,2-Dichloroethene	0.222	0.219	1.4	77	0.00
31	TP	2,2-Dichloropropane	0.307	0.276	10.1	69	0.00
33	TP	Bromochloromethane	0.101	0.099#	2.0	75	0.00
34	TP	Cyclohexane	0.395	0.388	1.8	73	0.00
35	TP	Chloroform	0.365	0.357	2.2	81	0.00
36	TP	Ethyl acetate	0.152	0.131	13.8	67	0.00
37	TP	Carbon tetrachloride	0.265	0.246	7.2	71	0.00
38	TP	Tetrahydrofuran	0.042	0.041	2.4	79	0.00
39	S	Dibromofluoromethane	0.229	0.226	1.3	78	0.00
40	TP	1,1,1-Trichloroethane	0.322	0.299	7.1	70	0.00
42	TP	2-Butanone	0.061	0.053	13.1	80	0.00
43	TP	1,1-Dichloropropene	0.282	0.269	4.6	73	0.00
45	TP	Benzene	0.889	0.904	-1.7	80	0.00
46	TP	tert-Amyl methyl ether	0.572	0.499	12.8	71	0.00
47	S	1,2-Dichloroethane-d4	0.271	0.285	-5.2	85	0.00
48	T	1,2-Dichloroethane	0.283	0.288	-1.8	82	0.00

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-2
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
51	TP	Methyl cyclohexane	0.396	0.364	8.1	71	0.00
52	TP	Trichloroethene	0.211	0.208	1.4	75	0.00
54	TP	Dibromomethane	0.121	0.112	7.4	73	0.00
55	TP	1,2-Dichloropropane	0.226	0.239	-5.8	83	0.00
58	TP	Bromodichloromethane	0.293	0.284#	3.1	75	0.00
61	TP	1,4-Dioxane	0.00148	0.00141#	4.7	73	0.00
62	TP	cis-1,3-Dichloropropene	0.338	0.327	3.3	75	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	79	0.00
64	S	Toluene-d8	1.364	1.396	-2.3	81	0.00
65	TP	Toluene	0.786	0.794	-1.0	77	0.00
66	TP	4-Methyl-2-pentanone	0.083	0.078	6.0	79	0.00
67	TP	Tetrachloroethene	0.316	0.298	5.7	70	0.00
69	TP	trans-1,3-Dichloropropene	0.389	0.383	1.5	73	0.00
71	TP	Ethyl methacrylate	0.297	0.276	7.1	72	0.00
72	TP	1,1,2-Trichloroethane	0.207	0.208	-0.5	78	0.00
73	TP	Chlorodibromomethane	0.277	0.253	8.7	73	0.00
74	TP	1,3-Dichloropropane	0.426	0.433	-1.6	79	0.00
75	TP	1,2-Dibromoethane	0.245	0.228	6.9	73	0.00
77	TP	2-Hexanone	0.133	0.113	15.0	68	0.00
78	TP	Chlorobenzene	0.835	0.806	3.5	74	0.00
79	TP	Ethylbenzene	1.502	1.486	1.1	75	0.00
80	TP	1,1,1,2-Tetrachloroethane	0.277	0.268	3.2	74	0.00
81	TP	p/m Xylene	0.578	0.569	1.6	76	0.00
82	TP	o Xylene	0.564	0.548	2.8	75	0.00
83	TP	Styrene	0.952	0.916	3.8	76	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	75	0.00
85	TP	Bromoform	0.296	0.269	9.1	69	0.00
87	TP	Isopropylbenzene	2.954	2.975	-0.7	74	0.00
88	S	4-Bromofluorobenzene	0.919	0.961	-4.6	79	0.00
89	TP	Bromobenzene	0.659	0.652	1.1	71	0.00
90	TP	n-Propylbenzene	3.351	3.492	-4.2	76	0.00
91	TP	1,4-Dichlorobutane	0.785	0.858	-9.3	80	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.570	0.593	-4.0	78	0.00
93	TP	4-Ethyltoluene	2.780	2.852	-2.6	74	0.00
94	TP	2-Chlorotoluene	1.946	2.049	-5.3	77	0.00
95	TP	1,3,5-Trimethylbenzene	2.460	2.555	-3.9	76	0.00
96	TP	1,2,3-Trichloropropane	0.450	0.464	-3.1	78	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-2
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
97	TP	trans-1,4-Dichloro-2-butene	0.163	0.161	1.2	77	0.00
98	TP	4-Chlorotoluene	2.013	2.118	-5.2	77	0.00
99	TP	tert-Butylbenzene	2.030	2.014	0.8	72	0.00
102	TP	1,2,4-Trimethylbenzene	2.467	2.529	-2.5	75	0.00
103	TP	sec-Butylbenzene	3.100	3.152	-1.7	74	0.00
104	TP	p-Isopropyltoluene	2.568	2.565	0.1	73	0.00
105	TP	1,3-Dichlorobenzene	1.320	1.313	0.5	74	0.00
106	TP	1,4-Dichlorobenzene	1.324	1.338	-1.1	75	0.00
107	TP	p-Diethylbenzene	1.503	1.508	-0.3	72	0.00
108	TP	n-Butylbenzene	2.240	2.336	-4.3	76	0.00
109	TP	1,2-Dichlorobenzene	1.256	1.237	1.5	74	0.00
110	TP	1,2,4,5-Tetramethylbenzene	2.408	2.341	2.8	73	0.00
111	TP	1,2-Dibromo-3-chloropropane	0.076	0.068	10.5	70	0.00
112	TP	1,3,5-Trichlorobenzene	0.896	0.853	4.8	70	0.00
113	TP	Hexachlorobutadiene	0.239	0.212	11.3	63	0.00
114	TP	1,2,4-Trichlorobenzene	0.782	0.723	7.5	68	0.00
115	TP	Naphthalene	1.837	1.653	10.0	68	0.00
116	TP	1,2,3-Trichlorobenzene	0.698	0.633	9.3	68	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 3 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-2
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	209590	10.000	ug/L	0.00
Standard Area 1 = 209590			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	148793	10.000	ug/L	0.00
Standard Area 1 = 148793			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.186	152	74459	10.000	ug/L	0.00
Standard Area 1 = 74459			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	47349	9.853	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.53%			
47) 1,2-Dichloroethane-d4	5.660	65	59658	10.492	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.92%			
64) Toluene-d8	7.629	98	207778	10.240	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.40%			
88) 4-Bromofluorobenzene	10.972	95	71534	10.457	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.57%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	45780	9.776	ug/L	95
3) Chloromethane	1.770	50	42520	9.190	ug/L	98
4) Vinyl chloride	1.848	62	52010	10.549	ug/L	95
5) Bromomethane	2.158	94	20941	6.051	ug/L	100
6) Chloroethane	2.269	64	39820	11.155	ug/L	99
7) Trichlorofluoromethane	2.409	101	69253	9.627	ug/L	95
8) Ethyl ether	2.696	74	22918	10.303	ug/L	86
10) 1,1-Dichloroethene	2.891	96	38581	10.532	ug/L #	72
11) Carbon disulfide	2.922	76	117138	10.647	ug/L	96
12) Freon-113	2.927	101	36589	9.471	ug/L	99
15) Methylene chloride	3.443	84	45300	9.906	ug/L	89
17) Acetone	3.482	43	7794	8.660	ug/L	95
18) trans-1,2-Dichloroethene	3.591	96	40220	9.859	ug/L	93
19) Methyl acetate	3.597	43	18467	9.185	ug/L #	90
21) Methyl tert-butyl ether	3.686	73	100007	9.171	ug/L	92
22) tert-Butyl alcohol	3.786	59	11192	40.722	ug/L #	60
24) Diisopropyl ether	4.048	45	143371	10.479	ug/L	94
25) 1,1-Dichloroethane	4.174	63	87738	10.760	ug/L	97
26) Halothane	4.232	117	27985M1	8.895	ug/L	
27) Acrylonitrile	4.216	53	10531	9.547	ug/L #	72
28) Ethyl tert-butyl ether	4.397	59	137365	9.582	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-2
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
29) Vinyl acetate	4.402	43	89399	9.440	ug/L		99
30) cis-1,2-Dichloroethene	4.692	96	45891	9.855	ug/L		97
31) 2,2-Dichloropropane	4.796	77	57808	8.984	ug/L		96
33) Bromochloromethane	4.885	128	20796	9.802	ug/L		91
34) Cyclohexane	4.888	56	81223	9.799	ug/L		90
35) Chloroform	4.957	83	74879	9.787	ug/L		96
36) Ethyl acetate	5.061	43	27543	8.620	ug/L	#	94
37) Carbon tetrachloride	5.091	117	51486	9.279	ug/L	#	93
38) Tetrahydrofuran	5.100	42	8605M1	9.713	ug/L		
40) 1,1,1-Trichloroethane	5.153	97	62578	9.264	ug/L		92
42) 2-Butanone	5.242	43	11197	8.725	ug/L	#	83
43) 1,1-Dichloropropene	5.278	75	56405	9.530	ug/L		95
45) Benzene	5.521	78	189464	10.164	ug/L		94
46) tert-Amyl methyl ether	5.629	73	104600	8.719	ug/L		96
48) 1,2-Dichloroethane	5.724	62	60398	10.188	ug/L		99
51) Methyl cyclohexane	6.106	83	76224	9.183	ug/L		90
52) Trichloroethene	6.120	95	43651	9.877	ug/L		95
54) Dibromomethane	6.561	93	23464	9.290	ug/L		95
55) 1,2-Dichloropropane	6.661	63	50151	10.591	ug/L		96
58) Bromodichloromethane	6.737	83	59586	9.696	ug/L		92
61) 1,4-Dioxane	6.943	88	14823M3	479.019	ug/L		
62) cis-1,3-Dichloropropene	7.420	75	68623	9.674	ug/L		92
65) Toluene	7.685	92	118193	10.108	ug/L		94
66) 4-Methyl-2-pentanone	8.117	58	11630	9.465	ug/L		76
67) Tetrachloroethene	8.134	166	44346	9.433	ug/L		97
69) trans-1,3-Dichloropropene	8.167	75	57040	9.851	ug/L		87
71) Ethyl methacrylate	8.360	69	41111	9.309	ug/L		94
72) 1,1,2-Trichloroethane	8.357	83	30920	10.062	ug/L		98
73) Chlorodibromomethane	8.566	129	37686	9.140	ug/L		100
74) 1,3-Dichloropropane	8.677	76	64353	10.142	ug/L		99
75) 1,2-Dibromoethane	8.845	107	33990	9.335	ug/L		86
77) 2-Hexanone	9.126	43	16884	8.553	ug/L		93
78) Chlorobenzene	9.489	112	119948	9.652	ug/L	#	78
79) Ethylbenzene	9.528	91	221126	9.897	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.575	131	39942	9.680	ug/L		95
81) p/m Xylene	9.718	106	169331	19.687	ug/L		97
82) o Xylene	10.259	106	163123	19.450	ug/L		91
83) Styrene	10.326	104	272496	19.245	ug/L		97
85) Bromoform	10.348	173	20025	9.099	ug/L	#	54
87) Isopropylbenzene	10.646	105	221517	10.071	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-2
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
89) Bromobenzene	11.081	156	48536	9.885	ug/L		99
90) n-Propylbenzene	11.129	91	260029	10.423	ug/L		97
91) 1,4-Dichlorobutane	11.145	55	63884	10.933	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.223	83	44171	10.402	ug/L		97
93) 4-Ethyltoluene	11.254	105	212323	10.256	ug/L		100
94) 2-Chlorotoluene	11.296	91	152571M1	10.529	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	190269	10.387	ug/L		96
96) 1,2,3-Trichloropropane	11.355	75	34576M1	10.314	ug/L		
97) trans-1,4-Dichloro-2-b...	11.410	53	11954	9.850	ug/L	#	55
98) 4-Chlorotoluene	11.477	91	157705	10.520	ug/L		100
99) tert-Butylbenzene	11.695	119	149978	9.921	ug/L		97
102) 1,2,4-Trimethylbenzene	11.773	105	188277	10.249	ug/L		98
103) sec-Butylbenzene	11.884	105	234701	10.168	ug/L		97
104) p-Isopropyltoluene	12.043	119	190980	9.986	ug/L		97
105) 1,3-Dichlorobenzene	12.105	146	97765	9.948	ug/L		97
106) 1,4-Dichlorobenzene	12.202	146	99607	10.105	ug/L		100
107) p-Diethylbenzene	12.417	119	112249	10.032	ug/L		95
108) n-Butylbenzene	12.476	91	173939	10.429	ug/L		99
109) 1,2-Dichlorobenzene	12.623	146	92075	9.847	ug/L		98
110) 1,2,4,5-Tetramethylben...	13.209	119	174327	9.725	ug/L		98
111) 1,2-Dibromo-3-chloropr...	13.404	155	5065	8.919	ug/L		93
112) 1,3,5-Trichlorobenzene	13.438	180	63489	9.519	ug/L		93
113) Hexachlorobutadiene	14.012	225	15798	8.873	ug/L		93
114) 1,2,4-Trichlorobenzene	14.034	180	53863	9.249	ug/L		96
115) Naphthalene	14.327	128	123091	9.000	ug/L		100
116) 1,2,3-Trichlorobenzene	14.495	180	47096	9.059	ug/L		95

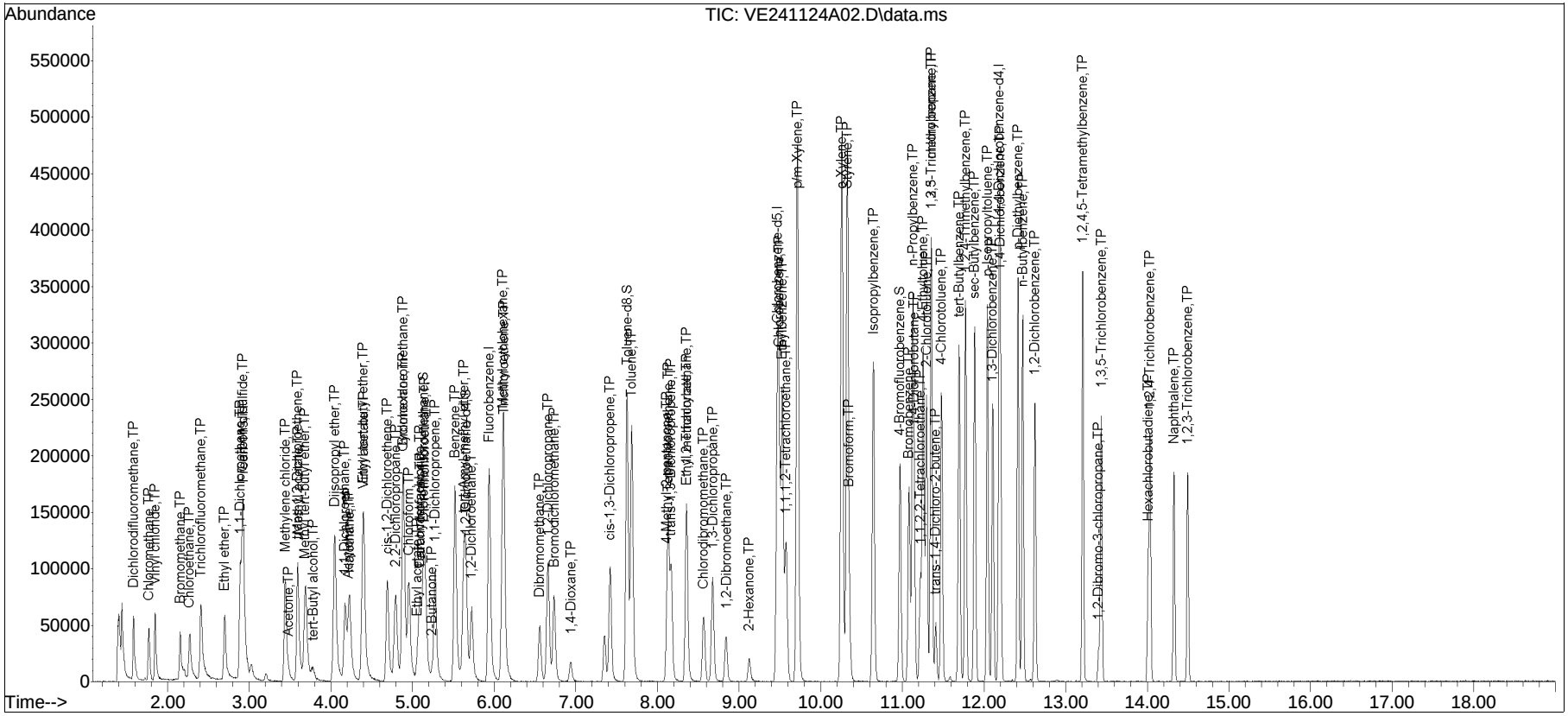
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-2
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

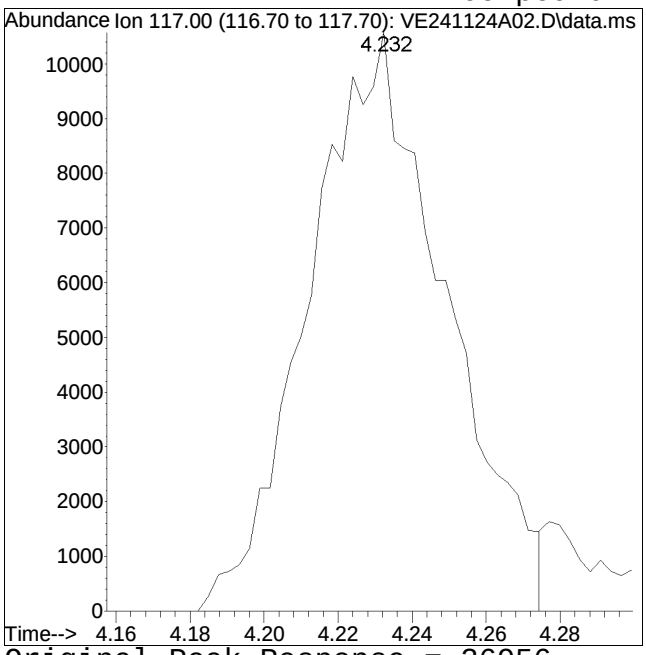
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

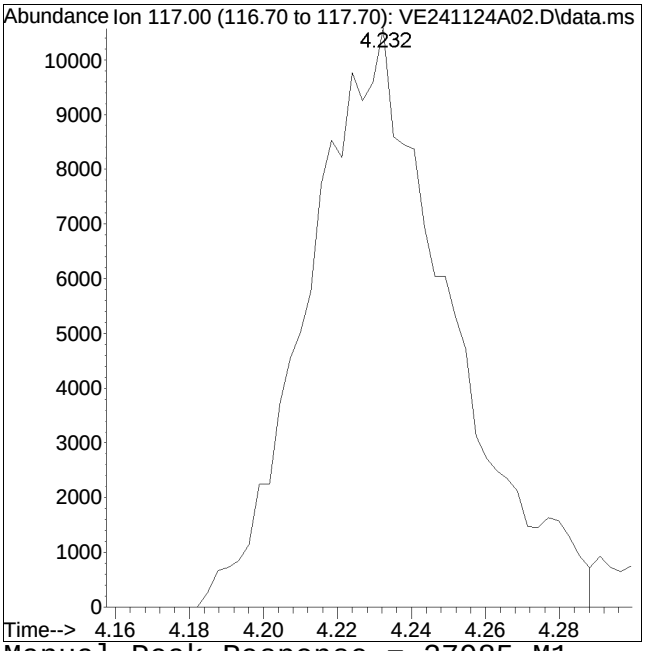


Manual Integration Report

Data Path	: K:\Elaine\2024\241124A\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241124A02.D	Operator	: ELAINE:PID
Date Inj'd	: 11/24/2024 10:56 am	Instrument	: Elaine
Sample	: WG2001843-2	Quant Date	: 11/24/2024 11:24 am

Compound #26: Halothane





Original Peak Response = 26956 Manual Peak Response = 27985 M1

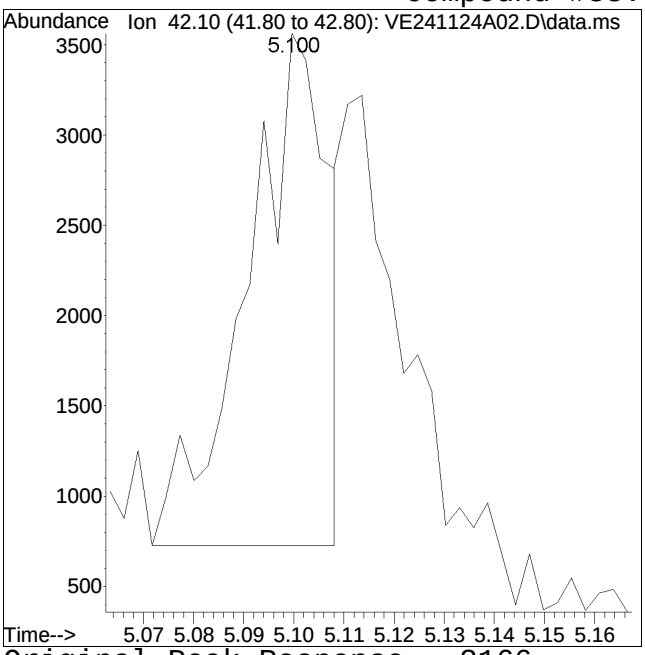
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

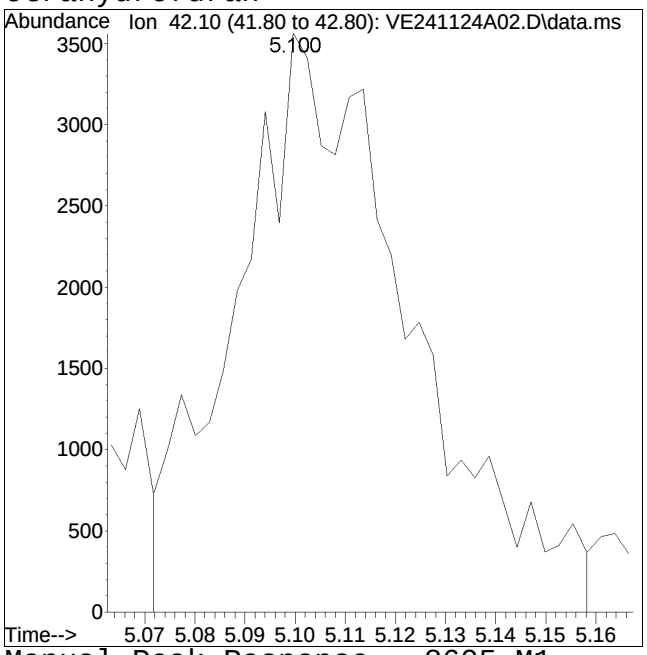
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Date Inj'd : 11/24/2024 10:56 am
Sample : WG2001843-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/24/2024 11:24 am

Compound #38: Tetrahydrofuran



Original Peak Response = 3166



Manual Peak Response = 8605 M1

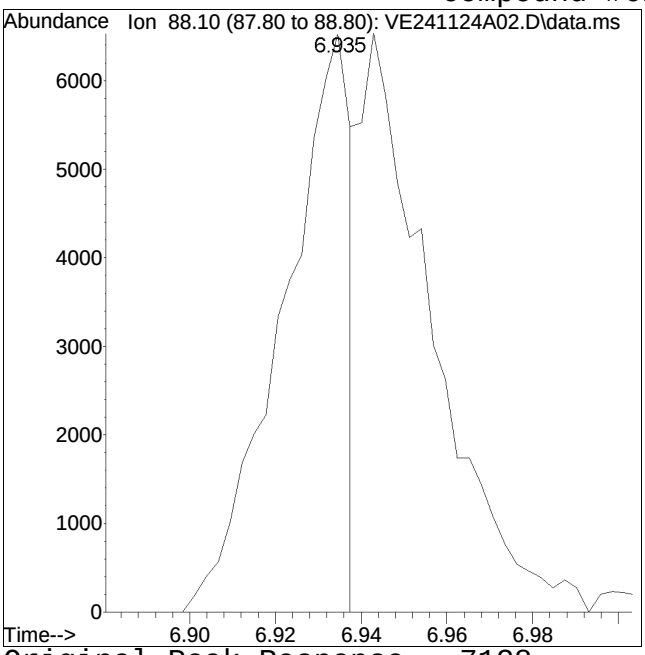
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

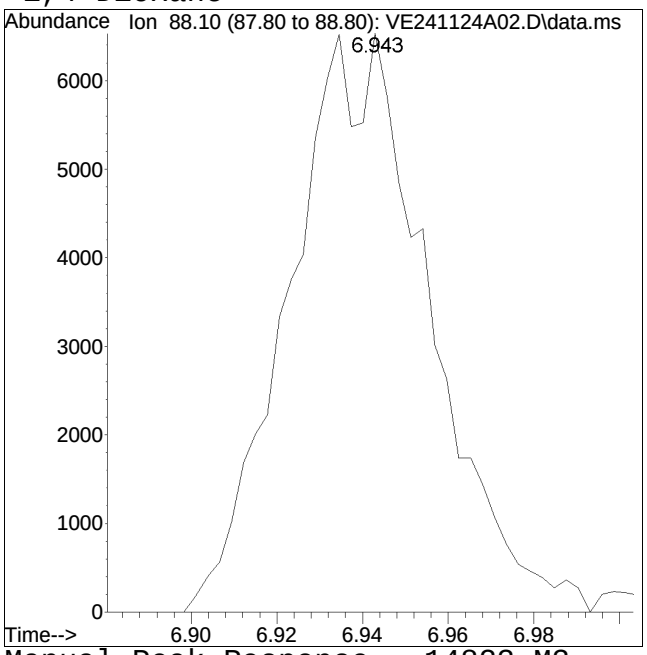
Manual Integration Report

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Date Inj'd : 11/24/2024 10:56 am
Sample : WG2001843-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/24/2024 11:24 am

Compound #61: 1,4-Dioxane





Original Peak Response = 7128 Manual Peak Response = 14823 M3

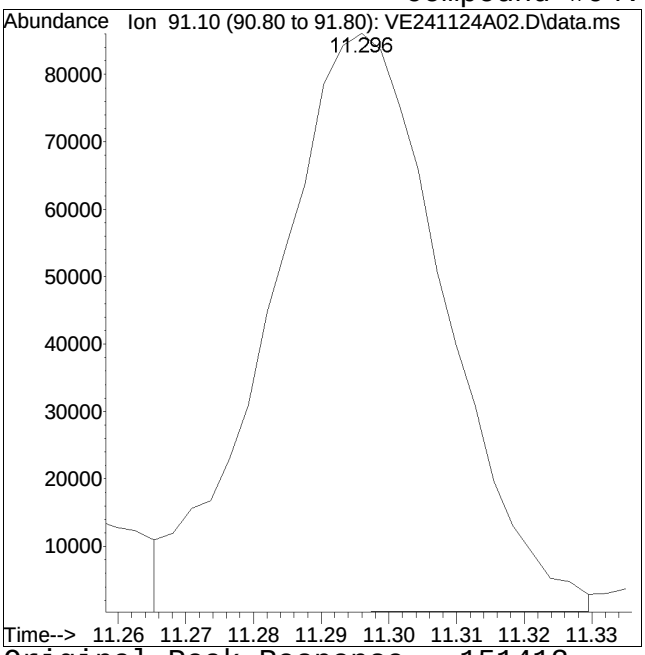
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

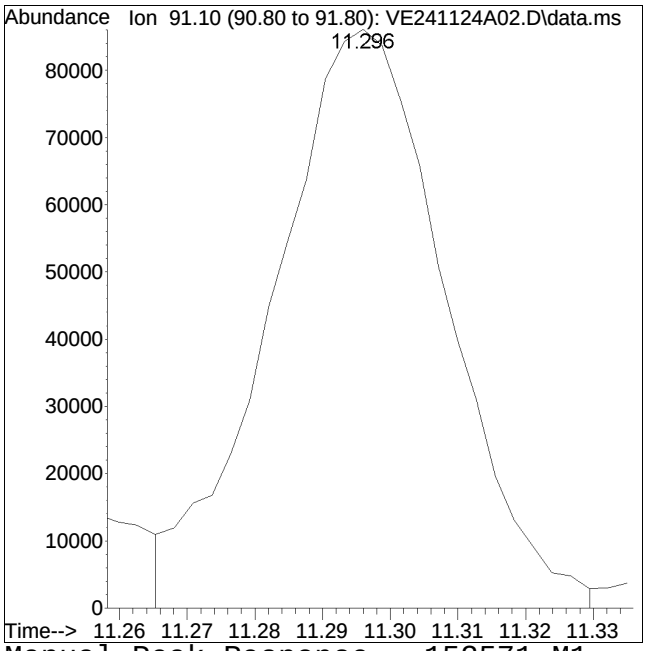
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Date Inj'd : 11/24/2024 10:56 am
Sample : WG2001843-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/24/2024 11:24 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 151412



Manual Peak Response = 152571 M1

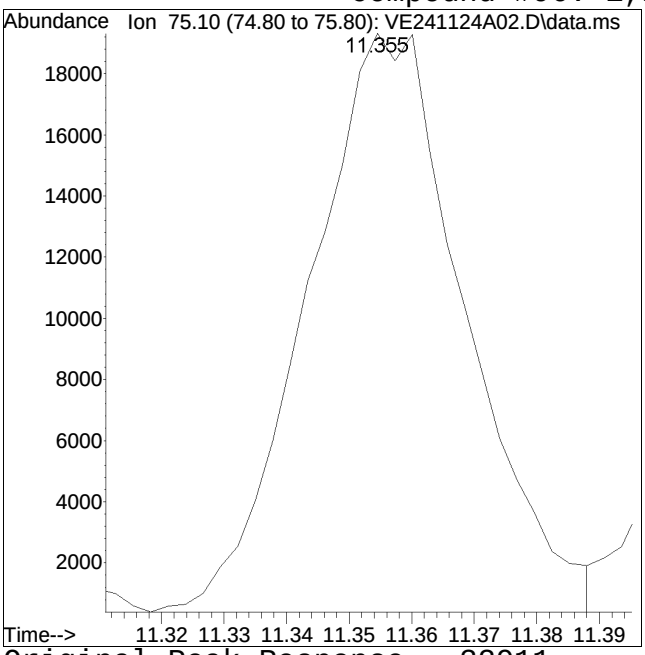
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

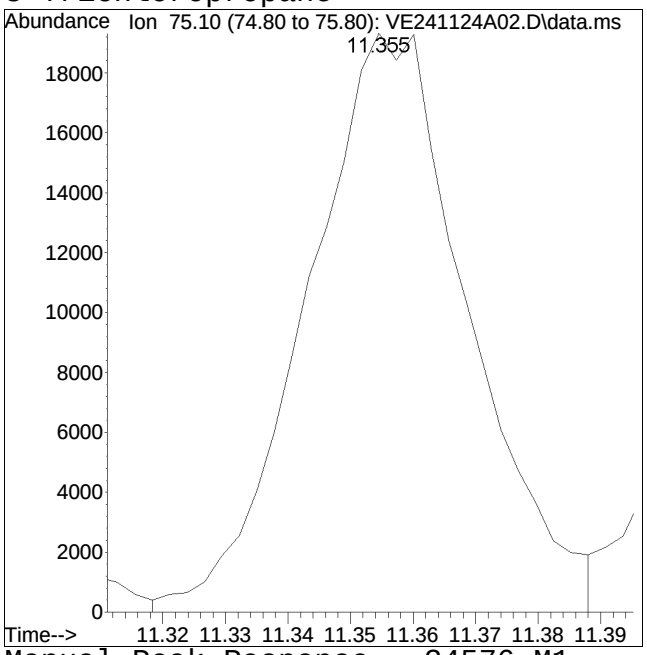
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Date Inj'd : 11/24/2024 10:56 am
Sample : WG2001843-2

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/24/2024 11:24 am

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 32911



Manual Peak Response = 34576 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene		1.000	1.000	0.0	92	0.00
2	TP	Dichlorodifluoromethane		0.212	0.162	23.6#	64	0.00
3	TP	Chloromethane		0.230	0.234	-1.7	92	0.00
4	TP	Vinyl chloride		0.230	0.234	-1.7	86	0.00
5	TP	Bromomethane		0.132	0.045	65.9#	34#	0.00
6	TP	Chloroethane	*	10.000	11.559	-15.6	95	0.00
7	TP	Trichlorofluoromethane		0.306	0.318	-3.9	89	0.00
8	TP	Ethyl ether		0.111	0.090	18.9	74	0.00
10	TP	1,1-Dichloroethene		0.176	0.177	-0.6	91	0.00
11	TP	Carbon disulfide		0.536	0.555	-3.5	95	0.00
12	TP	Freon-113		0.179	0.185	-3.4	87	0.00
14	TP	Acrolein		0.031	0.022	29.0#	72	0.00
15	TP	Methylene chloride		0.212	0.213	-0.5	94	0.00
17	TP	Acetone		0.055	0.050	9.1	93	0.00
18	TP	trans-1,2-Dichloroethene		0.191	0.199	-4.2	94	0.00
19	TP	Methyl acetate		0.124	0.121	2.4	95	0.00
20	TP	Methyl tert-butyl ether		0.646	0.488	24.5#	72	0.00
21	TP	tert-Butyl alcohol		0.020	0.014	30.0#	69	0.00
22	TP	Diisopropyl ether		0.727	0.867	-19.3	110	0.00
23	TP	1,1-Dichloroethane		0.370	0.436	-17.8	105	-0.01
24	TP	Halothane		0.152	0.162	-6.6	95	-0.01
25	TP	Acrylonitrile		0.068	0.060	11.8	86	0.00
26	TP	Ethyl tert-butyl ether		0.681	0.692	-1.6	98	0.00
27	TP	Vinyl acetate		0.519	0.557	-7.3	97	0.00
28	TP	cis-1,2-Dichloroethene		0.221	0.231	-4.5	94	0.00
29	TP	2,2-Dichloropropane		0.246	0.327	-32.9#	120	0.00
30	TP	Bromochloromethane		0.101	0.104	-3.0	93	0.00
31	TP	Cyclohexane		0.359	0.410	-14.2	99	0.00
32	TP	Chloroform		0.358	0.381	-6.4	97	0.00
33	TP	Ethyl acetate		0.197	0.192	2.5	94	0.00
34	TP	Carbon tetrachloride		0.273	0.303	-11.0	97	0.00
35	TP	Tetrahydrofuran		0.064	0.057	10.9	87	0.00
36	S	Dibromofluoromethane		0.249	0.259	-4.0	95	-0.02
37	TP	1,1,1-Trichloroethane		0.316	0.339	-7.3	94	0.00
39	TP	2-Butanone		0.084	0.080	4.8	96	0.00
40	TP	1,1-Dichloropropene		0.265	0.288	-8.7	93	0.00
41	TP	Benzene		0.825	0.890	-7.9	96	0.00
42	TP	tert-Amyl methyl ether		0.598	0.500	16.4	77	-0.01
43	S	1,2-Dichloroethane-d4		0.287	0.317	-10.5	98	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
44	TP	1,2-Dichloroethane	0.279	0.311	-11.5	103	0.00
47	TP	Methyl cyclohexane	0.300	0.305	-1.7	86	-0.02
48	TP	Trichloroethene	0.221	0.232	-5.0	98	0.00
50	TP	Dibromomethane	0.126	0.123	2.4	92	0.00
51	TP	1,2-Dichloropropane	0.214	0.240	-12.1	103	0.00
54	TP	Bromodichloromethane	0.289	0.294#	-1.7	92	0.00
57	TP	1,4-Dioxane	0.00215	0.00168#	21.9#	76	-0.01
58	TP	cis-1,3-Dichloropropene	0.327	0.334	-2.1	93	0.00
59	I	Chlorobenzene-d5	1.000	1.000	0.0	97	-0.02
60	S	Toluene-d8	1.323	1.259	4.8	93	0.00
61	TP	Toluene	0.696	0.710	-2.0	96	0.00
62	TP	4-Methyl-2-pentanone	0.097	0.077	20.6#	82	-0.01
63	TP	Tetrachloroethene	0.301	0.312	-3.7	96	-0.01
65	TP	trans-1,3-Dichloropropene	0.406	0.379	6.7	93	0.00
67	TP	Ethyl methacrylate	0.360	0.240	33.3#	66	0.00
68	TP	1,1,2-Trichloroethane	0.212	0.184#	13.2	88	0.00
69	TP	Chlorodibromomethane	0.293	0.277	5.5	92	-0.01
70	TP	1,3-Dichloropropane	0.420	0.389	7.4	90	0.00
71	TP	1,2-Dibromoethane	0.250	0.215	14.0	83	0.00
72	TP	2-Hexanone	0.174	0.143	17.8	85	0.00
73	TP	Chlorobenzene	0.748	0.781	-4.4	99	0.00
74	TP	Ethylbenzene	1.337	1.344	-0.5	97	0.00
75	TP	1,1,1,2-Tetrachloroethane	0.287	0.275	4.2	92	0.00
76	TP	p/m Xylene	0.509	0.513	-0.8	95	0.00
77	TP	o Xylene	0.493	0.495	-0.4	95	-0.02
78	TP	Styrene	0.839	0.830	1.1	93	0.00
79	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
80	TP	Bromoform	0.359	0.315	12.3	89	0.00
82	TP	Isopropylbenzene	2.211	2.182	1.3	93	0.00
83	S	4-Bromofluorobenzene	0.876	0.835	4.7	94	-0.02
84	TP	Bromobenzene	0.598	0.617	-3.2	97	0.00
85	TP	n-Propylbenzene	2.574	2.576	-0.1	96	-0.02
86	TP	1,4-Dichlorobutane	0.870	0.764	12.2	89	0.00
87	TP	1,1,2,2-Tetrachloroethane	0.560	0.466	16.8	83	0.00
88	TP	4-Ethyltoluene	2.108	2.098	0.5	95	0.00
89	TP	2-Chlorotoluene	1.570	1.627	-3.6	102	0.00
90	TP	1,3,5-Trimethylbenzene	1.866	1.815	2.7	93	0.00

Evaluate Continuing Calibration Report

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
91 TP	1,2,3-Trichloropropane	0.457	0.390	14.7	87	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.184	0.138	25.0#	77	0.00
93 TP	4-Chlorotoluene	1.653	1.645	0.5	95	0.00
94 TP	tert-Butylbenzene	1.472	1.508	-2.4	96	0.00
97 TP	1,2,4-Trimethylbenzene	1.821	1.738	4.6	92	0.00
98 TP	sec-Butylbenzene	2.123	2.087	1.7	92	0.00
99 TP	p-Isopropyltoluene	1.801	1.787	0.8	93	0.00
100 TP	1,3-Dichlorobenzene	1.090	1.100	-0.9	98	0.00
101 TP	1,4-Dichlorobenzene	1.132	1.127	0.4	97	0.00
102 TP	p-Diethylbenzene	1.010	0.993	1.7	94	0.00
103 TP	n-Butylbenzene	1.450	1.403	3.2	92	0.00
104 TP	1,2-Dichlorobenzene	1.051	1.021	2.9	92	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.421	1.342	5.6	93	0.00
106 TP	1,2-Dibromo-3-chloropropane	0.093	0.068	26.9#	75	0.00
107 TP	1,3,5-Trichlorobenzene	0.661	0.684	-3.5	99	0.00
108 TP	Hexachlorobutadiene	0.212	0.236	-11.3	108	0.00
109 TP	1,2,4-Trichlorobenzene	0.561	0.502	10.5	85	0.00
110 TP	Naphthalene	1.188	0.760	36.0#	65	0.00
111 TP	1,2,3-Trichlorobenzene	0.469	0.367#	21.7#	75	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 4 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.056	96	566955	10.000	ug/L	0.00
59) Chlorobenzene-d5	9.588	117	435387	10.000	ug/L	-0.02
79) 1,4-Dichlorobenzene-d4	12.286	152	248554	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.243	113	146888	10.390	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.90%			
43) 1,2-Dichloroethane-d4	5.775	65	179862	11.042	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.42%			
60) Toluene-d8	7.743	98	547987	9.517	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.17%			
83) 4-Bromofluorobenzene	11.077	95	207435	9.522	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.22%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	91717	7.614	ug/L	97
3) Chloromethane	1.862	50	132419	10.140	ug/L	98
4) Vinyl chloride	1.931	62	132497	10.180	ug/L	99
5) Bromomethane	2.234	94	25672	3.421	ug/L	95
6) Chloroethane	2.341	64	84451	11.559	ug/L	94
7) Trichlorofluoromethane	2.493	101	180519	10.403	ug/L	98
8) Ethyl ether	2.789	74	50807	8.044	ug/L #	64
10) 1,1-Dichloroethene	2.987	96	100263	10.029	ug/L #	78
11) Carbon disulfide	3.025	76	314675	10.362	ug/L	99
12) Freon-113	3.025	101	105126	10.336	ug/L #	70
14) Acrolein	3.321	56	12713	7.201	ug/L	90
15) Methylene chloride	3.549	84	120577	10.032	ug/L #	66
17) Acetone	3.594	43	28442	9.156	ug/L	97
18) trans-1,2-Dichloroethene	3.701	96	113074	10.434	ug/L	81
19) Methyl acetate	3.708	43	68555	9.716	ug/L #	90
20) Methyl tert-butyl ether	3.784	73	276886	7.555	ug/L #	81
21) tert-Butyl alcohol	3.883	59	40090	34.995	ug/L	90
22) Diisopropyl ether	4.141	45	491338	11.914	ug/L #	93
23) 1,1-Dichloroethane	4.278	63	246993	11.767	ug/L	98
24) Halothane	4.331	117	92019	10.663	ug/L	97
25) Acrylonitrile	4.339	53	34018	8.778	ug/L	96
26) Ethyl tert-butyl ether	4.491	59	392365	10.158	ug/L	82
27) Vinyl acetate	4.514	43	315681	10.731	ug/L #	93
28) cis-1,2-Dichloroethene	4.802	96	130760	10.423	ug/L	86
29) 2,2-Dichloropropane	4.901	77	185169	13.271	ug/L	86

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Bromochloromethane	5.000	128	59224	10.376	ug/L	#	68
31) Cyclohexane	4.992	56	232682	11.442	ug/L		68
32) Chloroform	5.068	83	216024	10.631	ug/L		96
33) Ethyl acetate	5.175	43	108667	9.709	ug/L		97
34) Carbon tetrachloride	5.197	117	171608	11.078	ug/L		98
35) Tetrahydrofuran	5.220	42	32438M6	8.945	ug/L		
37) 1,1,1-Trichloroethane	5.266	97	191939	10.708	ug/L		94
39) 2-Butanone	5.365	43	45511	9.606	ug/L	#	74
40) 1,1-Dichloropropene	5.387	75	163543	10.874	ug/L		97
41) Benzene	5.630	78	504785	10.795	ug/L	#	91
42) tert-Amyl methyl ether	5.729	73	283651	8.359	ug/L	#	87
44) 1,2-Dichloroethane	5.843	62	176226	11.127	ug/L		99
47) Methyl cyclohexane	6.208	83	172941	10.172	ug/L	#	63
48) Trichloroethene	6.231	95	131697	10.493	ug/L		96
50) Dibromomethane	6.679	93	69908	9.786	ug/L		98
51) 1,2-Dichloropropane	6.778	63	136094	11.219	ug/L		98
54) Bromodichloromethane	6.854	83	166751	10.189	ug/L		100
57) 1,4-Dioxane	7.056	88	47653	390.844	ug/L	#	73
58) cis-1,3-Dichloropropene	7.543	75	189405	10.215	ug/L	#	86
61) Toluene	7.801	92	309009	10.198	ug/L		99
62) 4-Methyl-2-pentanone	8.238	58	33526	7.900	ug/L	#	81
63) Tetrachloroethene	8.245	166	135636	10.349	ug/L		98
65) trans-1,3-Dichloropropene	8.295	75	165199	9.352	ug/L		88
67) Ethyl methacrylate	8.474	69	104429	6.662	ug/L		88
68) 1,1,2-Trichloroethane	8.481	83	80085	8.690	ug/L		100
69) Chlorodibromomethane	8.689	129	120622	9.462	ug/L		99
70) 1,3-Dichloropropane	8.803	76	169473	9.262	ug/L		99
71) 1,2-Dibromoethane	8.968	107	93446	8.569	ug/L		100
72) 2-Hexanone	9.255	43	62279	8.203	ug/L	#	87
73) Chlorobenzene	9.612	112	340209	10.450	ug/L		97
74) Ethylbenzene	9.645	91	585038	10.048	ug/L		98
75) 1,1,1,2-Tetrachloroethane	9.695	131	119606	9.585	ug/L		99
76) p/m Xylene	9.835	106	446782	20.169	ug/L		93
77) o Xylene	10.369	106	430660	20.075	ug/L		93
78) Styrene	10.443	104	722352	19.784	ug/L		96
80) Bromoform	10.476	173	78235	8.757	ug/L		98
82) Isopropylbenzene	10.748	105	542311	9.870	ug/L		99
84) Bromobenzene	11.192	156	153401	10.315	ug/L		99
85) n-Propylbenzene	11.225	91	640179	10.005	ug/L		99
86) 1,4-Dichlorobutane	11.258	55	189852	8.777	ug/L		97
87) 1,1,2,2-Tetrachloroethane	11.323	83	115889	8.332	ug/L		99

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
88) 4-Ethyltoluene	11.356	105	521472	9.955	ug/L	99
89) 2-Chlorotoluene	11.398	91	404351M6	10.362	ug/L	
90) 1,3,5-Trimethylbenzene	11.455	105	451145	9.726	ug/L	100
91) 1,2,3-Trichloropropane	11.463	75	96949	8.533	ug/L	98
92) trans-1,4-Dichloro-2-b...	11.521	53	34283M1	7.482	ug/L	
93) 4-Chlorotoluene	11.587	91	408785	9.952	ug/L	98
94) tert-Butylbenzene	11.792	119	374751	10.243	ug/L	97
97) 1,2,4-Trimethylbenzene	11.875	105	431951	9.544	ug/L	100
98) sec-Butylbenzene	11.982	105	518815	9.832	ug/L	99
99) p-Isopropyltoluene	12.130	119	444077	9.923	ug/L	99
100) 1,3-Dichlorobenzene	12.212	146	273406	10.092	ug/L	99
101) 1,4-Dichlorobenzene	12.302	146	280039	9.952	ug/L	98
102) p-Diethylbenzene	12.508	119	246847	9.832	ug/L	98
103) n-Butylbenzene	12.566	91	348690	9.676	ug/L	99
104) 1,2-Dichlorobenzene	12.722	146	253853	9.719	ug/L	99
105) 1,2,4,5-Tetramethylben...	13.298	119	333589	9.447	ug/L	98
106) 1,2-Dibromo-3-chloropr...	13.503	155	16801	7.250	ug/L	94
107) 1,3,5-Trichlorobenzene	13.528	180	169951	10.342	ug/L	98
108) Hexachlorobutadiene	14.096	225	58558	11.096	ug/L	98
109) 1,2,4-Trichlorobenzene	14.129	180	124812	8.949	ug/L	97
110) Naphthalene	14.425	128	188975	6.398	ug/L	100
111) 1,2,3-Trichlorobenzene	14.589	180	91211	7.818	ug/L	99

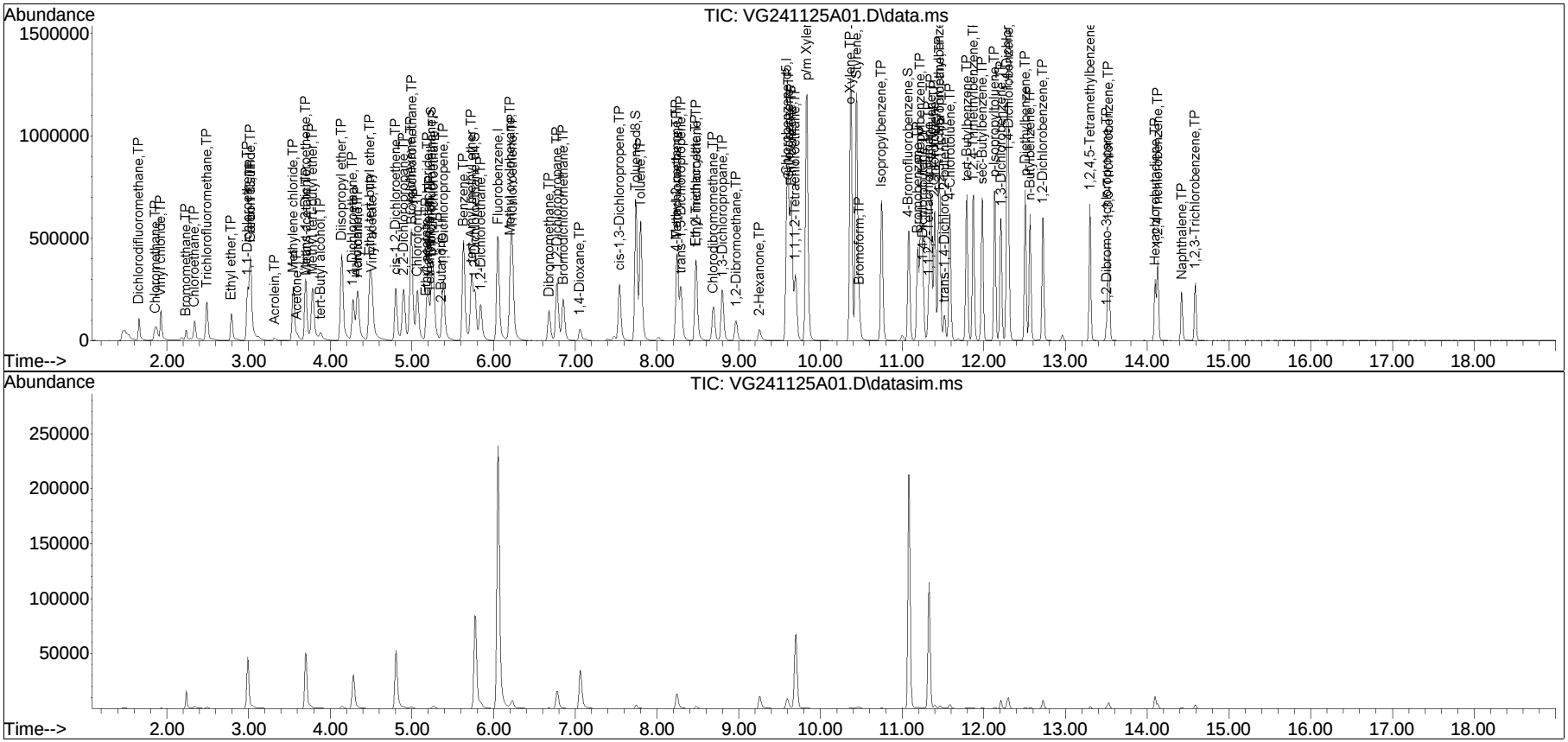
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-2 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

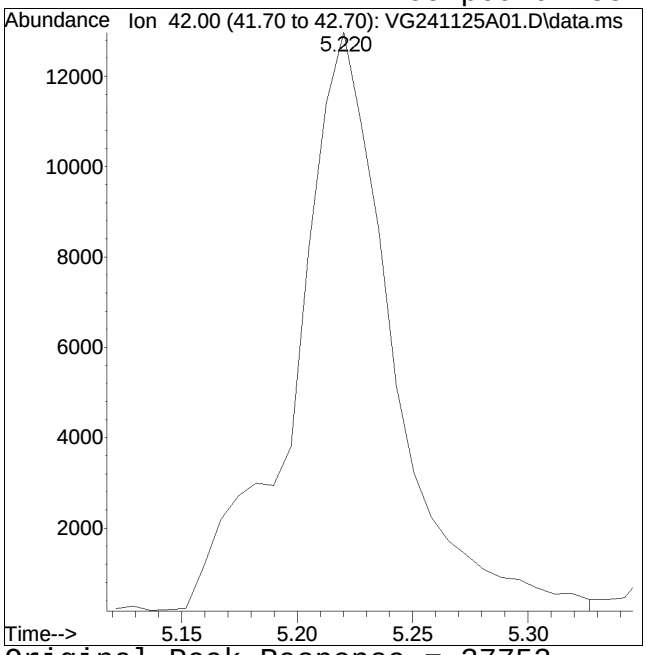


Manual Integration Report

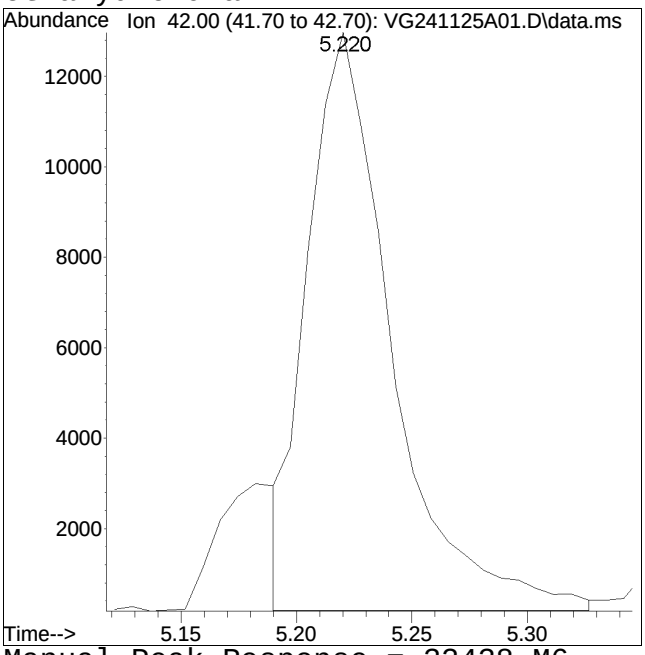
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Date Inj'd : 11/25/2024 7:14 am
Sample : WG2001998-2

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 7:41 am

Compound #35: Tetrahydrofuran



Original Peak Response = 37752



Manual Peak Response = 32438 M6

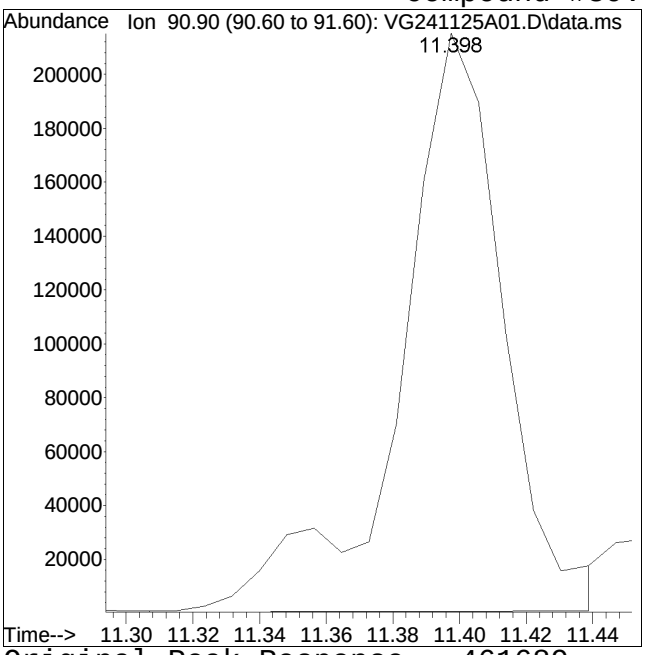
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

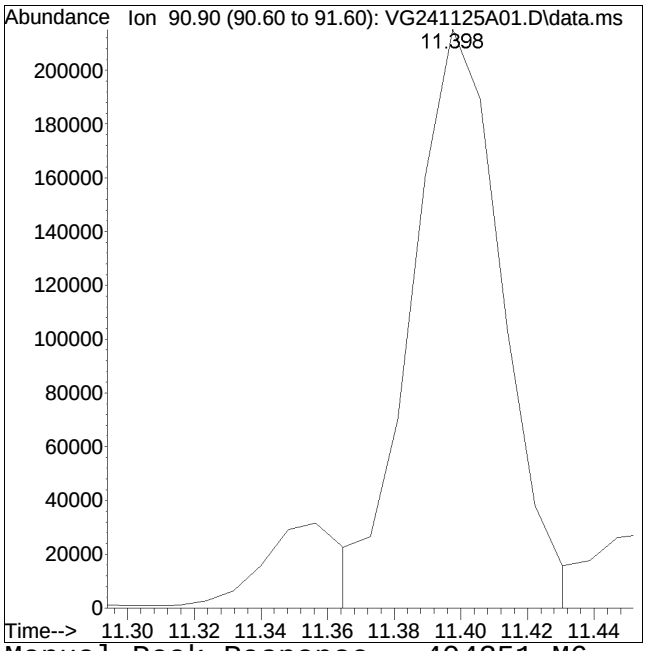
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Date Inj'd : 11/25/2024 7:14 am
Sample : WG2001998-2

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 7:41 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 461689



Manual Peak Response = 404351 M6

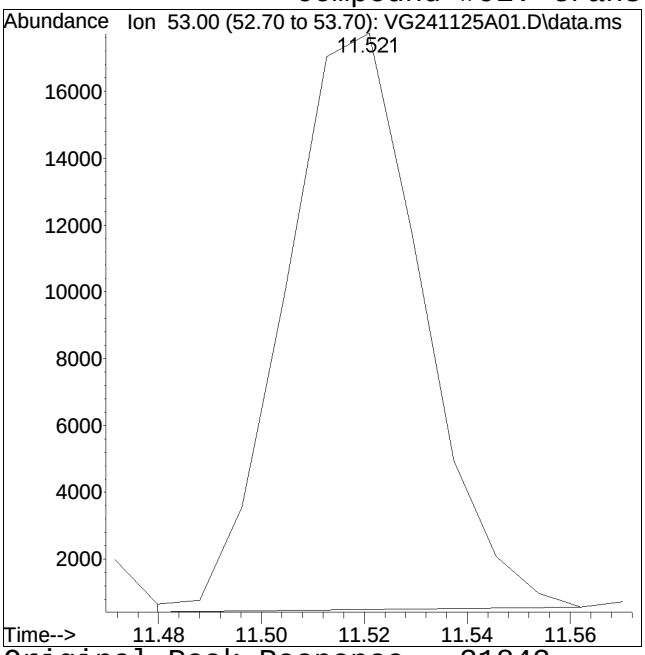
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

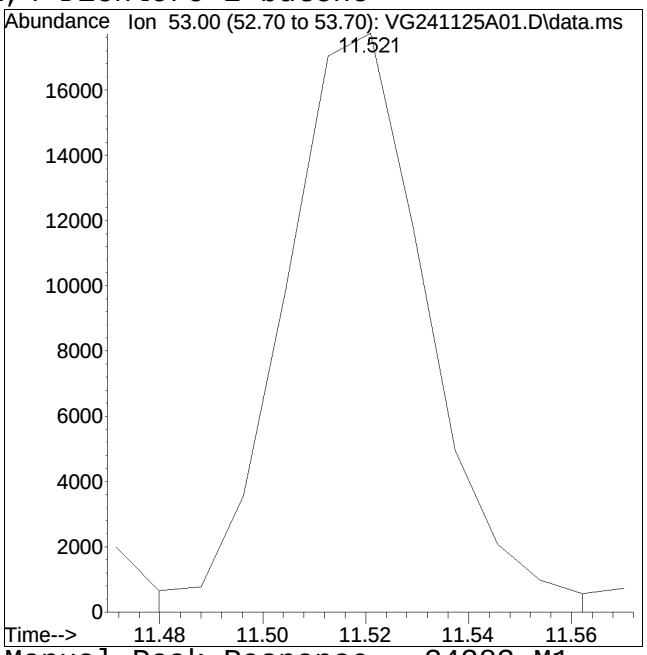
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Date Inj'd : 11/25/2024 7:14 am
Sample : WG2001998-2

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 7:41 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 31842



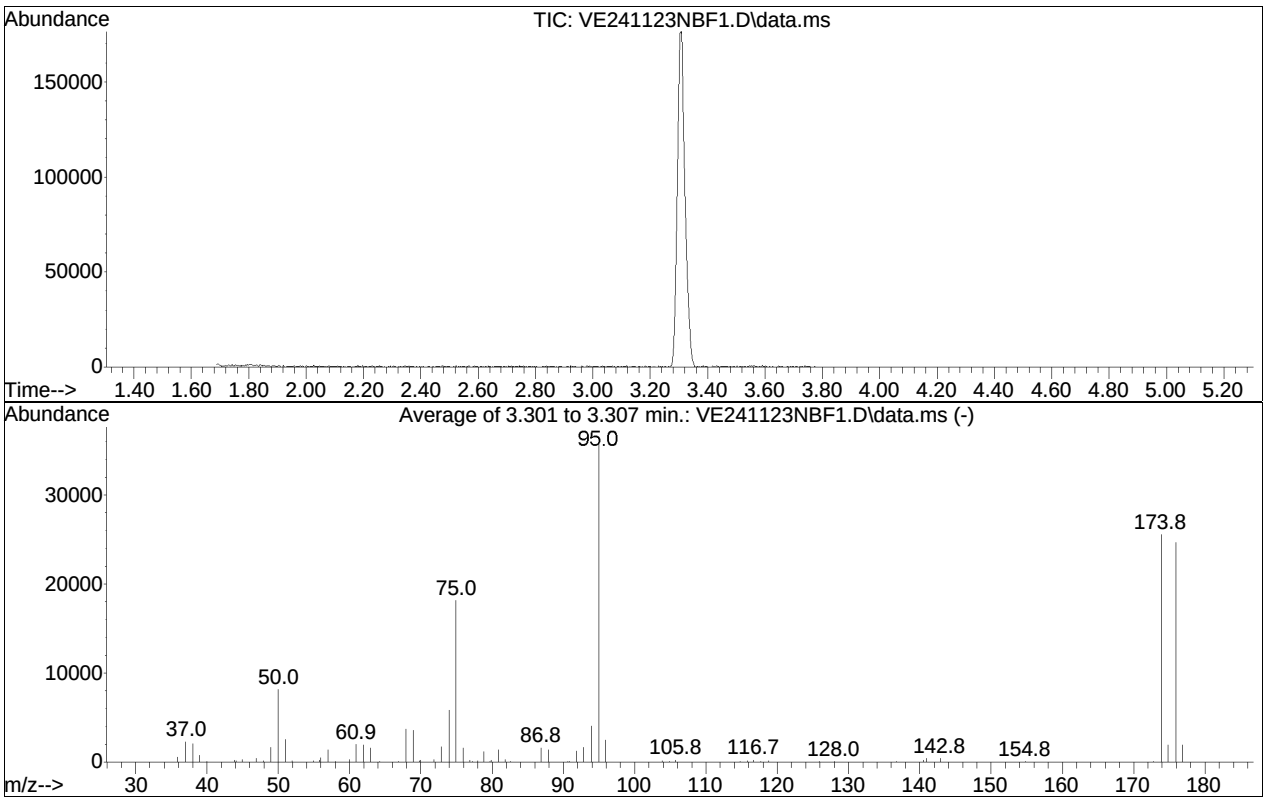
Manual Peak Response = 34283 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123NBF1.D
Acq On : 23 Nov 2024 7:21 pm
Operator : ELAINE:PID
Sample : WG2001825-1
Misc : WG2001825,ICAL21711
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024



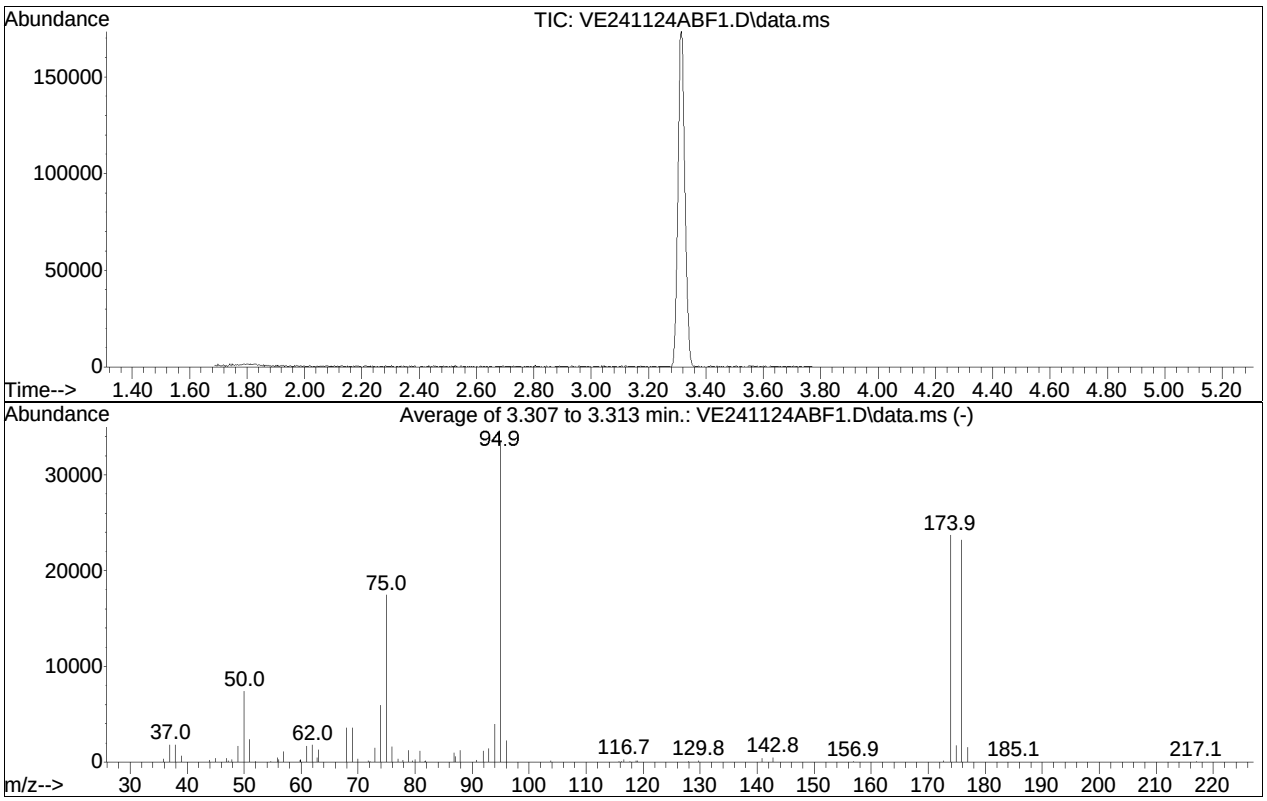
Spectrum Information: Average of 3.301 to 3.307 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.8	8180	PASS
75	95	30	60	50.7	18191	PASS
95	95	100	100	100.0	35877	PASS
96	95	5	9	6.9	2489	PASS
173	174	0.00	2	0.4	91	PASS
174	95	50	100	71.3	25595	PASS
175	174	5	9	7.7	1969	PASS
176	174	95	101	96.4	24683	PASS
177	176	5	9	7.8	1919	PASS

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124ABF1.D
Acq On : 24 Nov 2024 10:18 am
Operator : ELAINE:PID
Sample : WG2001843-1
Misc : WG2001843,ICAL21711
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 15 11:49:20 2024



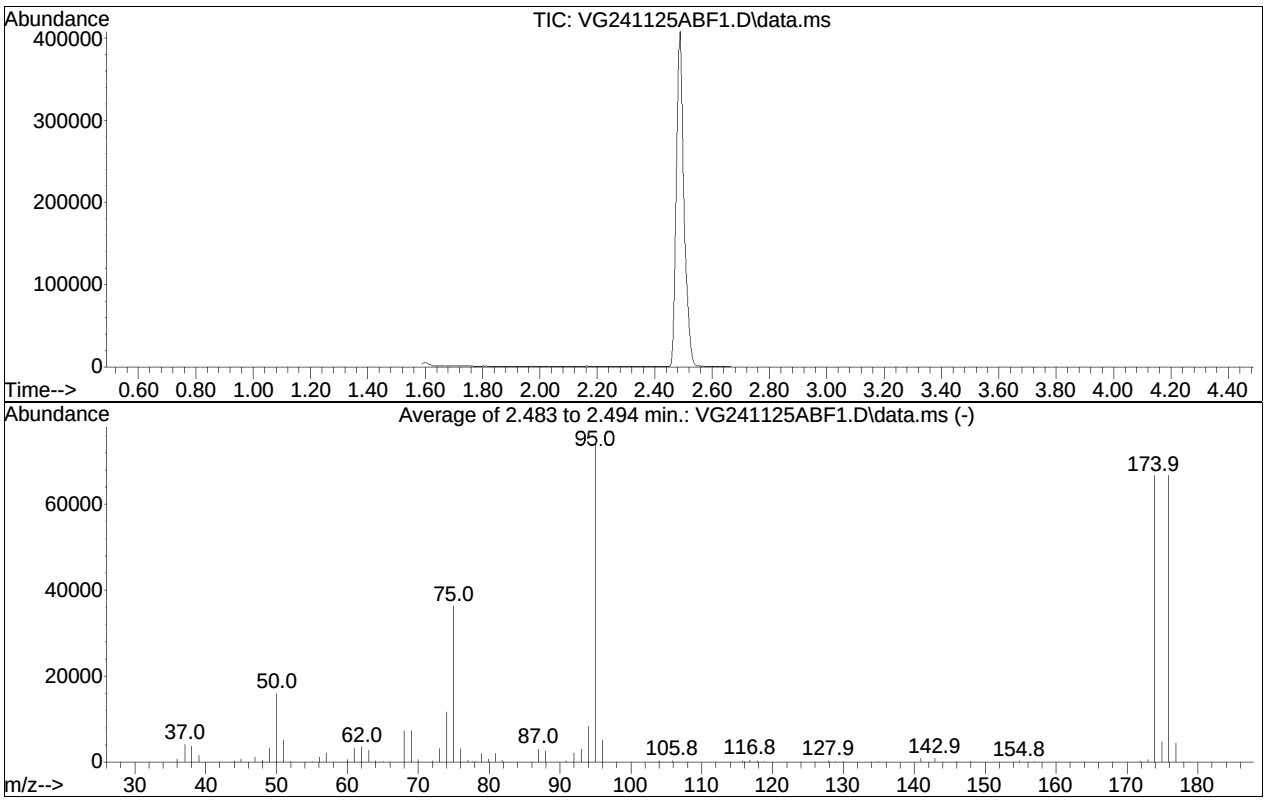
Spectrum Information: Average of 3.307 to 3.313 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.1	7378	PASS
75	95	30	60	52.3	17453	PASS
95	95	100	100	100.0	33368	PASS
96	95	5	9	6.7	2238	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.1	23709	PASS
175	174	5	9	7.3	1720	PASS
176	174	95	101	98.0	23243	PASS
177	176	5	9	6.7	1551	PASS

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125ABF1.D
Acq On : 25 Nov 2024 7:00 am
Operator : GONZO:PID
Sample : WG2001998-1
Misc : WG2001998,ICAL21571
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Oct 04 09:30:18 2024



Spectrum Information: Average of 2.483 to 2.494 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	16025	PASS
75	95	30	60	48.9	36341	PASS
95	95	100	100	100.0	74347	PASS
96	95	5	9	6.8	5060	PASS
173	174	0.00	2	0.9	571	PASS
174	95	50	100	89.7	66699	PASS
175	174	5	9	7.2	4794	PASS
176	174	95	101	100.0	66688	PASS
177	176	5	9	6.5	4354	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N05.D
Acq On : 23 Nov 2024 9:11 pm
Operator : ELAINE:PID
Sample : WG2001825-5,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 21:55:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	5.942	96	193233	10.000 ug/L	0.00
Standard Area 1 = 198303			Recovery = 97.44%		
63) Chlorobenzene-d5	9.472	117	134029	10.000 ug/L	0.00
Standard Area 1 = 142748			Recovery = 93.89%		
84) 1,4-Dichlorobenzene-d4	12.188	152	66296	10.000 ug/L	0.00
Standard Area 1 = 72729			Recovery = 91.15%		
System Monitoring Compounds					
39) Dibromofluoromethane	5.139	113	42898	9.682 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 96.82%	
47) 1,2-Dichloroethane-d4	5.657	65	56467	10.771 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 107.71%	
64) Toluene-d8	7.632	98	190444	10.419 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 104.19%	
88) 4-Bromofluorobenzene	10.970	95	62773	10.306 ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 103.06%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.444	85	29	N.D.	
3) Chloromethane	1.776	50	73	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.158	94	44	N.D.	
6) Chloroethane	2.155	64	28	N.D.	
7) Trichlorofluoromethane	2.423	101	27	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	2.933	76	149	N.D.	
15) Methylene chloride	3.432	84	30	N.D.	
17) Acetone	0.000		0	N.D.	d
18) trans-1,2-Dichloroethene	3.591	96	27	N.D.	
21) Methyl tert-butyl ether	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
27) Acrylonitrile	0.000		0	N.D.	
29) Vinyl acetate	4.405	43	41	N.D.	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	
31) 2,2-Dichloropropane	0.000		0	N.D.	
33) Bromochloromethane	0.000		0	N.D.	
35) Chloroform	0.000		0	N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N05.D
Acq On : 23 Nov 2024 9:11 pm
Operator : ELAINE:PID
Sample : WG2001825-5,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 21:55:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	5.278	43	26		N.D.	
43) 1,1-Dichloropropene	5.370	75	29		N.D.	
45) Benzene	0.000		0		N.D.	
48) 1,2-Dichloroethane	5.710	62	44		N.D.	
52) Trichloroethene	6.020	95	172		N.D.	
54) Dibromomethane	6.441	93	31		N.D.	
55) 1,2-Dichloropropane	6.552	63	37		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	7.598	75	29		N.D.	
65) Toluene	7.710	92	26		N.D.	
66) 4-Methyl-2-pentanone	8.181	58	36		N.D.	
67) Tetrachloroethene	8.173	166	31		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	8.845	76	26		N.D.	
75) 1,2-Dibromoethane	8.836	107	28		N.D.	
77) 2-Hexanone	9.238	43	26		N.D.	
78) Chlorobenzene	9.497	112	111		N.D.	
79) Ethylbenzene	9.547	91	52		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	9.536	106	27		N.D.	
82) o Xylene	0.000		0		N.D.	
83) Styrene	10.326	104	31		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	0.000		0		N.D.	
89) Bromobenzene	11.067	156	31		N.D.	
90) n-Propylbenzene	11.129	91	112		N.D.	
92) 1,1,2,2-Tetrachloroethane	11.396	83	28		N.D.	
93) 4-Ethyltoluene	11.251	105	62		N.D.	
94) 2-Chlorotoluene	11.293	91	55		N.D.	
95) 1,3,5-Trimethylbenzene	11.349	105	92		N.D.	
96) 1,2,3-Trichloropropane	11.318	75	25		N.D.	
97) trans-1,4-Dichloro-2-b...	11.276	53	26		N.D.	
98) 4-Chlorotoluene	11.486	91	77		N.D.	
99) tert-Butylbenzene	11.684	119	52		N.D.	

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N05.D
Acq On : 23 Nov 2024 9:11 pm
Operator : ELAINE:PID
Sample : WG2001825-5,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 21:55:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.778	105	126	N.D.		
103) sec-Butylbenzene	11.896	105	71	N.D.		
104) p-Isopropyltoluene	12.041	119	46	N.D.		
105) 1,3-Dichlorobenzene	12.107	146	36	N.D.		
106) 1,4-Dichlorobenzene	12.208	146	61	N.D.		
107) p-Diethylbenzene	12.409	119	28	N.D.		
108) n-Butylbenzene	12.476	91	73	N.D.		
109) 1,2-Dichlorobenzene	12.623	146	30	N.D.		
110) 1,2,4,5-Tetramethylben...	13.209	119	209	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	14.012	225	36	N.D.		
114) 1,2,4-Trichlorobenzene	14.040	180	99	N.D.		
115) Naphthalene	14.327	128	424	N.D.		
116) 1,2,3-Trichlorobenzene	14.495	180	87	N.D.		

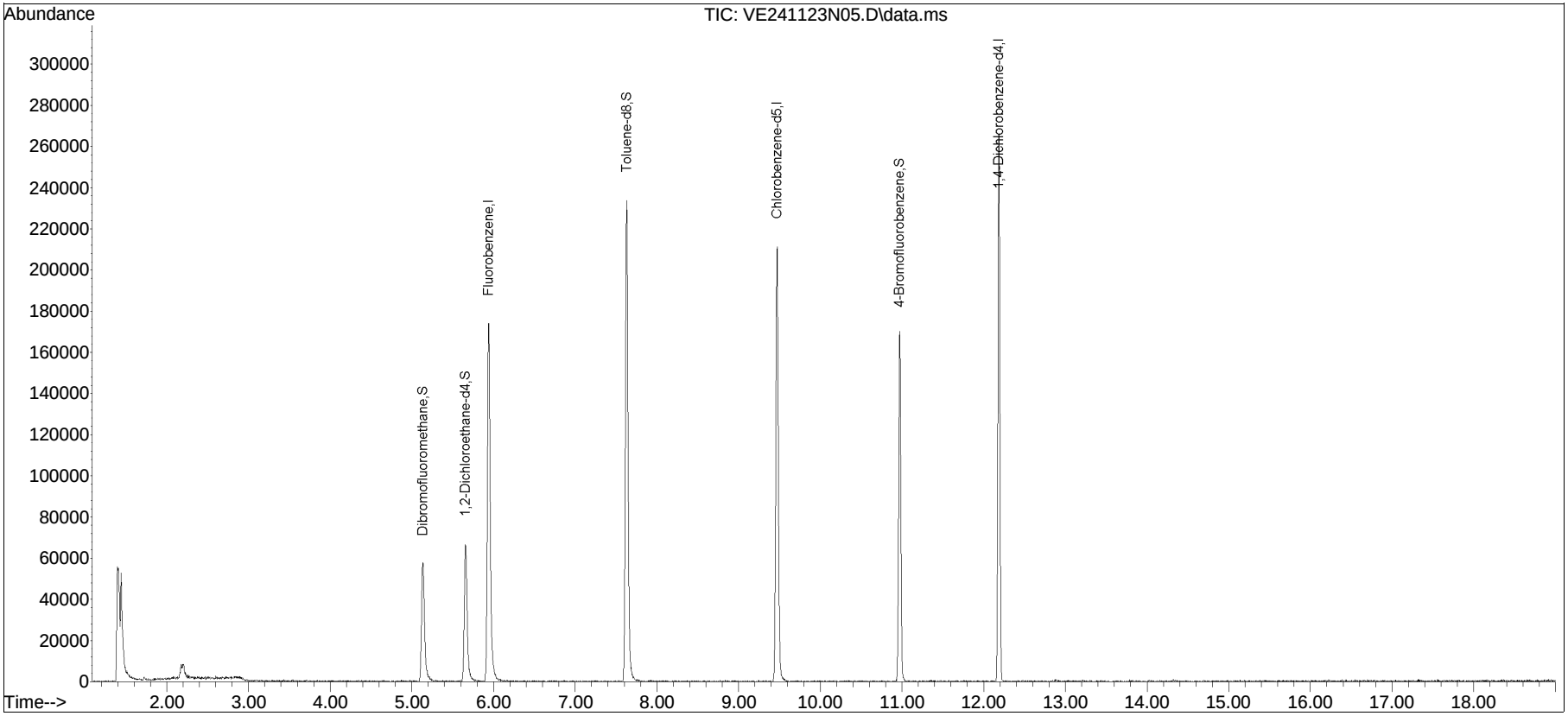
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N05.D
Acq On : 23 Nov 2024 9:11 pm
Operator : ELAINE:PID
Sample : WG2001825-5,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 23 21:55:00 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE2.D•



Manual Integration Report

Data Path	: K:\Elaine\2024\241123N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241123N05.D	Operator	: ELAINE:PID
Date Inj'd	: 11/23/2024 9:11 pm	Instrument	: Elaine
Sample	: WG2001825-5,31,10,10	Quant Date	: 11/23/2024 9:54 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A05.D
Acq On : 24 Nov 2024 12:10 pm
Operator : ELAINE:PID
Sample : WG2001843-5,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 24 12:39:38 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	200946	10.000	ug/L	0.00
Standard Area 1 = 209590			Recovery = 95.88%			
63) Chlorobenzene-d5	9.472	117	138199	10.000	ug/L	0.00
Standard Area 1 = 148793			Recovery = 92.88%			
84) 1,4-Dichlorobenzene-d4	12.186	152	68423	10.000	ug/L	0.00
Standard Area 1 = 74459			Recovery = 91.89%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	46039	9.992	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.92%			
47) 1,2-Dichloroethane-d4	5.657	65	58947	10.813	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.13%			
64) Toluene-d8	7.629	98	197994	10.505	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.05%			
88) 4-Bromofluorobenzene	10.973	95	65147	10.363	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.63%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	29	N.D.		
3) Chloromethane	1.770	50	96	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.158	94	101	N.D.		
6) Chloroethane	2.291	64	25	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	2.738	96	30	N.D.		
11) Carbon disulfide	2.916	76	295	N.D.		
15) Methylene chloride	3.432	84	28	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	4.177	63	25	N.D.		
27) Acrylonitrile	4.266	53	26	N.D.		
29) Vinyl acetate	4.411	43	25	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	4.740	128	25	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A05.D
Acq On : 24 Nov 2024 12:10 pm
Operator : ELAINE:PID
Sample : WG2001843-5,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 24 12:39:38 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	4.916	117	28		N.D.	
40) 1,1,1-Trichloroethane	5.016	97	26		N.D.	
42) 2-Butanone	5.236	43	26		N.D.	
43) 1,1-Dichloropropene	5.270	75	26		N.D.	
45) Benzene	5.515	78	29		N.D.	
48) 1,2-Dichloroethane	5.694	62	79		N.D.	
52) Trichloroethene	6.017	95	177		N.D.	
54) Dibromomethane	6.703	93	26		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	7.682	92	26		N.D.	
66) 4-Methyl-2-pentanone	0.000		0		N.D.	
67) Tetrachloroethene	0.000		0		N.D.	
69) trans-1,3-Dichloropropene	8.346	75	27		N.D.	
72) 1,1,2-Trichloroethane	8.368	83	26		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	8.881	107	26		N.D.	
77) 2-Hexanone	9.171	43	27		N.D.	
78) Chlorobenzene	0.000		0		N.D.	
79) Ethylbenzene	9.539	91	78		N.D.	
80) 1,1,1,2-Tetrachloroethane	9.603	131	26		N.D.	
81) p/m Xylene	9.720	106	37		N.D.	
82) o Xylene	10.398	106	26		N.D.	
83) Styrene	10.326	104	71		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	10.641	105	31		N.D.	
89) Bromobenzene	10.961	156	27		N.D.	
90) n-Propylbenzene	11.296	91	146		N.D.	
92) 1,1,2,2-Tetrachloroethane	11.193	83	26		N.D.	
93) 4-Ethyltoluene	11.246	105	69		N.D.	
94) 2-Chlorotoluene	11.296	91	146		N.D.	
95) 1,3,5-Trimethylbenzene	11.352	105	63		N.D.	
96) 1,2,3-Trichloropropane	11.335	75	29		N.D.	
97) trans-1,4-Dichloro-2-b...	11.539	53	26		N.D.	
98) 4-Chlorotoluene	11.480	91	39		N.D.	
99) tert-Butylbenzene	11.695	119	38		N.D.	

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A05.D
Acq On : 24 Nov 2024 12:10 pm
Operator : ELAINE:PID
Sample : WG2001843-5,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 24 12:39:38 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	97	N.D.		
103) sec-Butylbenzene	11.887	105	241	N.D.		
104) p-Isopropyltoluene	12.035	119	118	N.D.		
105) 1,3-Dichlorobenzene	12.107	146	84	N.D.		
106) 1,4-Dichlorobenzene	12.202	146	149	N.D.		
107) p-Diethylbenzene	12.423	119	26	N.D.		
108) n-Butylbenzene	12.476	91	313	N.D.		
109) 1,2-Dichlorobenzene	12.632	146	58	N.D.		
110) 1,2,4,5-Tetramethylben...	13.209	119	153	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	14.004	225	27	N.D.		
114) 1,2,4-Trichlorobenzene	14.018	180	29	N.D.		
115) Naphthalene	14.330	128	447	N.D.		
116) 1,2,3-Trichlorobenzene	14.486	180	62	N.D.		

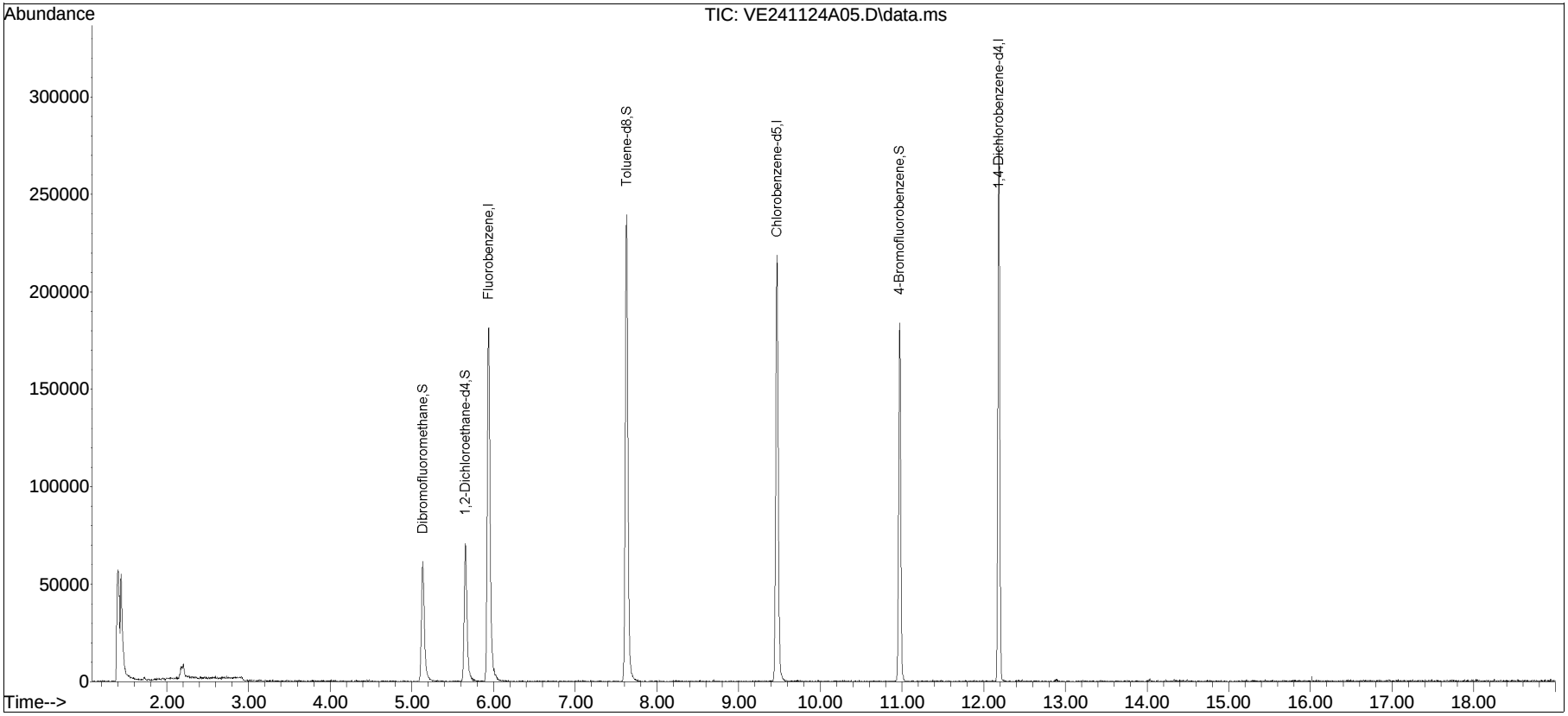
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A05.D
Acq On : 24 Nov 2024 12:10 pm
Operator : ELAINE:PID
Sample : WG2001843-5,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 24 12:39:38 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve



Manual Integration Report

Data Path	: K:\Elaine\2024\241124A\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241124A05.D	Operator	: ELAINE:PID
Date Inj'd	: 11/24/2024 12:10 pm	Instrument	: Elaine
Sample	: WG2001843-5,31,10,10	Quant Date	: 11/24/2024 12:39 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A05.D
Acq On : 25 Nov 2024 8:49 am
Operator : GONZO:PID
Sample : WG2001998-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 25 10:05:03 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	6.056	96	513585	10.000 ug/L	0.00
Standard Area 1 = 566955			Recovery =	90.59%	
59) Chlorobenzene-d5	9.596	117	394311	10.000 ug/L	0.00
Standard Area 1 = 435387			Recovery =	90.57%	
79) 1,4-Dichlorobenzene-d4	12.294	152	215403	10.000 ug/L	0.00
Standard Area 1 = 248554			Recovery =	86.66%	
System Monitoring Compounds					
36) Dibromofluoromethane	5.250	113	132832	10.372 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.72%	
43) 1,2-Dichloroethane-d4	5.774	65	163555	11.084 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	110.84%	
60) Toluene-d8	7.750	98	489415	9.385 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.85%	
83) 4-Bromofluorobenzene	11.085	95	181251	9.601 ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.01%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.497	85	431	N.D.	
3) Chloromethane	1.854	50	390	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	2.242	94	611	0.090 ug/L #	73
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
10) 1,1-Dichloroethene	0.000		0	N.D.	
11) Carbon disulfide	3.024	76	1698	N.D.	
15) Methylene chloride	3.548	84	243	N.D.	
17) Acetone	3.617	43	195	N.D.	
18) trans-1,2-Dichloroethene	0.000		0	N.D.	
20) Methyl tert-butyl ether	0.000		0	N.D.	
23) 1,1-Dichloroethane	0.000		0	N.D.	
25) Acrylonitrile	0.000		0	N.D.	
27) Vinyl acetate	0.000		0	N.D.	
28) cis-1,2-Dichloroethene	4.817	96	72	N.D.	
29) 2,2-Dichloropropane	0.000		0	N.D.	
30) Bromochloromethane	0.000		0	N.D.	
32) Chloroform	0.000		0	N.D.	

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A05.D
Acq On : 25 Nov 2024 8:49 am
Operator : GONZO:PID
Sample : WG2001998-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 25 10:05:03 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0	N.D.		
37) 1,1,1-Trichloroethane	0.000		0	N.D.		
39) 2-Butanone	0.000		0	N.D.		
40) 1,1-Dichloropropene	0.000		0	N.D.		
41) Benzene	0.000		0	N.D.		
44) 1,2-Dichloroethane	0.000		0	N.D.	d	
48) Trichloroethene	0.000		0	N.D.	d	
50) Dibromomethane	0.000		0	N.D.		
51) 1,2-Dichloropropane	0.000		0	N.D.		
54) Bromodichloromethane	0.000		0	N.D.		
57) 1,4-Dioxane	0.000		0	N.D.		
58) cis-1,3-Dichloropropene	0.000		0	N.D.		
61) Toluene	0.000		0	N.D.		
62) 4-Methyl-2-pentanone	0.000		0	N.D.		
63) Tetrachloroethene	0.000		0	N.D.		
65) trans-1,3-Dichloropropene	0.000		0	N.D.		
68) 1,1,2-Trichloroethane	0.000		0	N.D.		
69) Chlorodibromomethane	0.000		0	N.D.		
70) 1,3-Dichloropropane	0.000		0	N.D.		
71) 1,2-Dibromoethane	0.000		0	N.D.		
72) 2-Hexanone	0.000		0	N.D.		
73) Chlorobenzene	9.629	112	88	N.D.		
74) Ethylbenzene	9.670	91	96	N.D.		
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
76) p/m Xylene	0.000		0	N.D.		
77) o Xylene	0.000		0	N.D.		
78) Styrene	10.517	104	99	N.D.		
80) Bromoform	0.000		0	N.D.		
82) Isopropylbenzene	10.780	105	291	N.D.		
84) Bromobenzene	11.200	156	89	N.D.		
85) n-Propylbenzene	11.274	91	548	N.D.		
87) 1,1,2,2-Tetrachloroethane	11.085	83	95	N.D.		
88) 4-Ethyltoluene	11.414	105	114	N.D.		
89) 2-Chlorotoluene	11.389	91	82	N.D.		
90) 1,3,5-Trimethylbenzene	11.488	105	393	N.D.		
91) 1,2,3-Trichloropropane	11.611	75	82	N.D.		
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
93) 4-Chlorotoluene	11.628	91	270	N.D.		
94) tert-Butylbenzene	11.809	119	303	N.D.		

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A05.D
Acq On : 25 Nov 2024 8:49 am
Operator : GONZO:PID
Sample : WG2001998-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 25 10:05:03 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	11.899	105	216	N.D.		
98)	sec-Butylbenzene	11.998	105	1001	N.D.		
99)	p-Isopropyltoluene	12.138	119	714	N.D.		
100)	1,3-Dichlorobenzene	12.228	146	486	N.D.		
101)	1,4-Dichlorobenzene	12.310	146	712	N.D.		
102)	p-Diethylbenzene	12.549	119	527	N.D.		
103)	n-Butylbenzene	12.615	91	1484	N.D.		
104)	1,2-Dichlorobenzene	0.000		0	N.D.		
105)	1,2,4,5-Tetramethylben...	13.314	119	925	N.D.		
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	14.104	225	695	0.152	ug/L	88
109)	1,2,4-Trichlorobenzene	14.161	180	846	N.D.		
110)	Naphthalene	14.449	128	2492M6	0.097	ug/L	
111)	1,2,3-Trichlorobenzene	14.597	180	1298	0.128	ug/L #	81

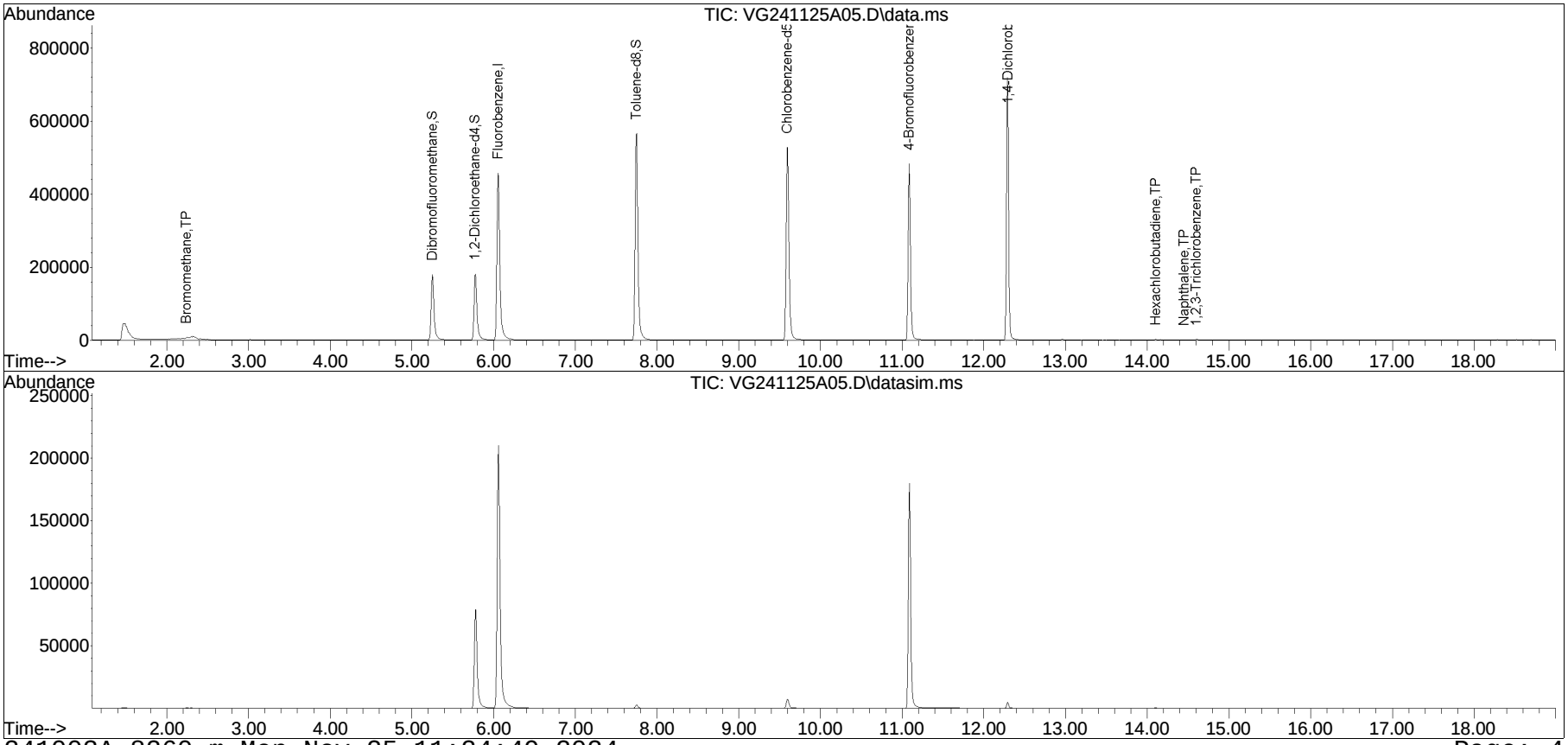
(#) = qualifier out of range (m) = manual integration (+) = signals summed

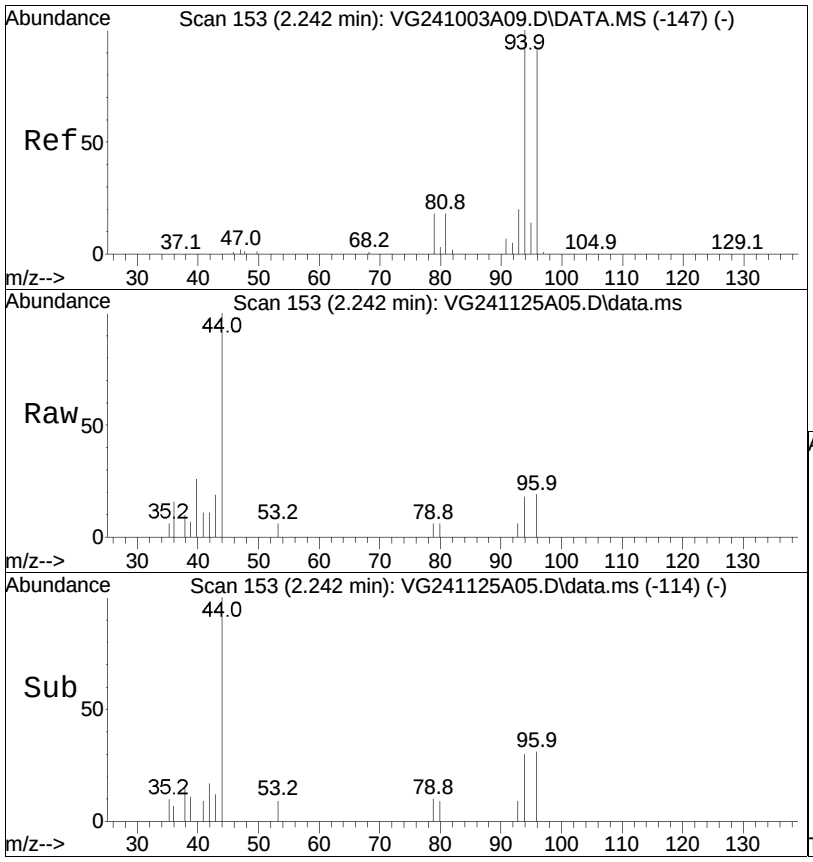
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A05.D
Acq On : 25 Nov 2024 8:49 am
Operator : GONZO:PID
Sample : WG2001998-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 25 10:05:03 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

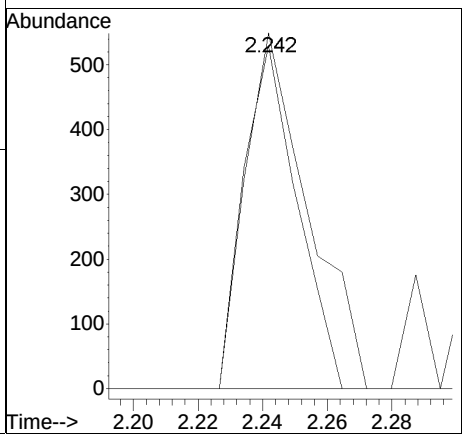


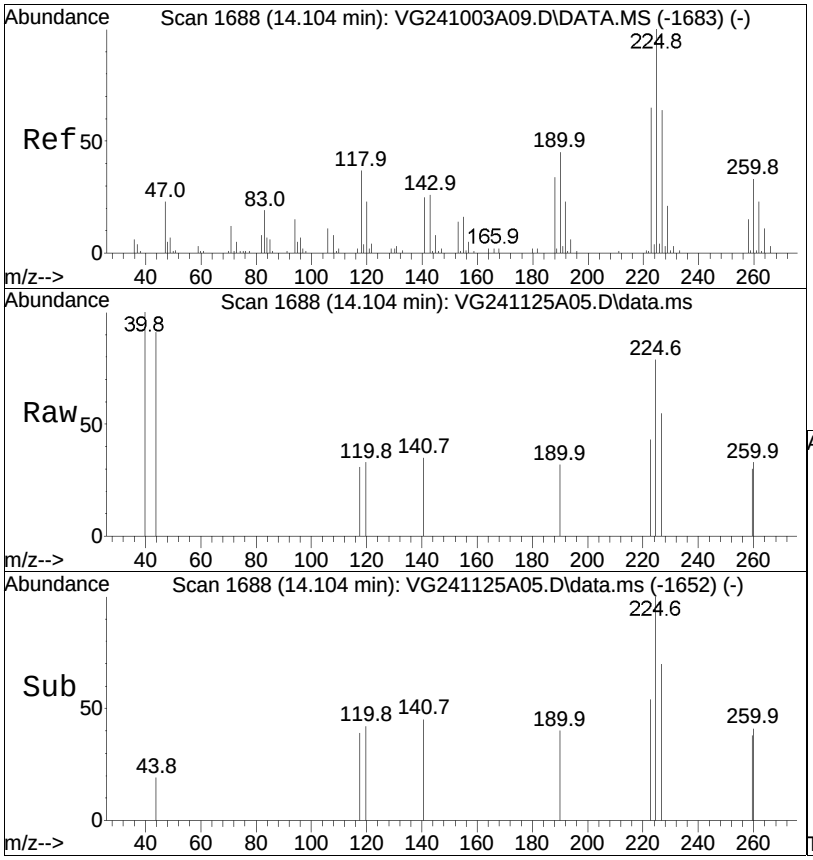


#5
Bromomethane
Concen: 0.09 ug/L
RT: 2.242 min Scan# 153
Delta R.T. -0.000 min
Lab File: VG241125A05.D
Acq: 25 Nov 2024 8:49 am

Tgt Ion: 94 Resp: 611

Ion	Ratio	Lower	Upper
94	100		
96	121.4	75.2	115.2#

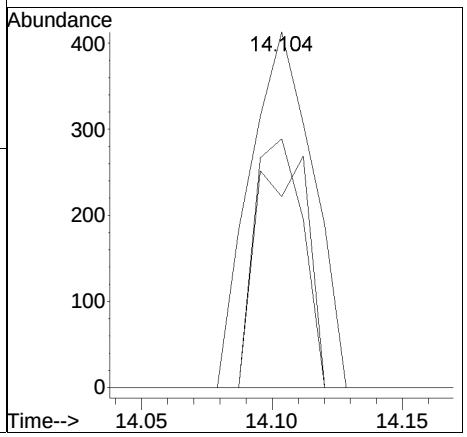


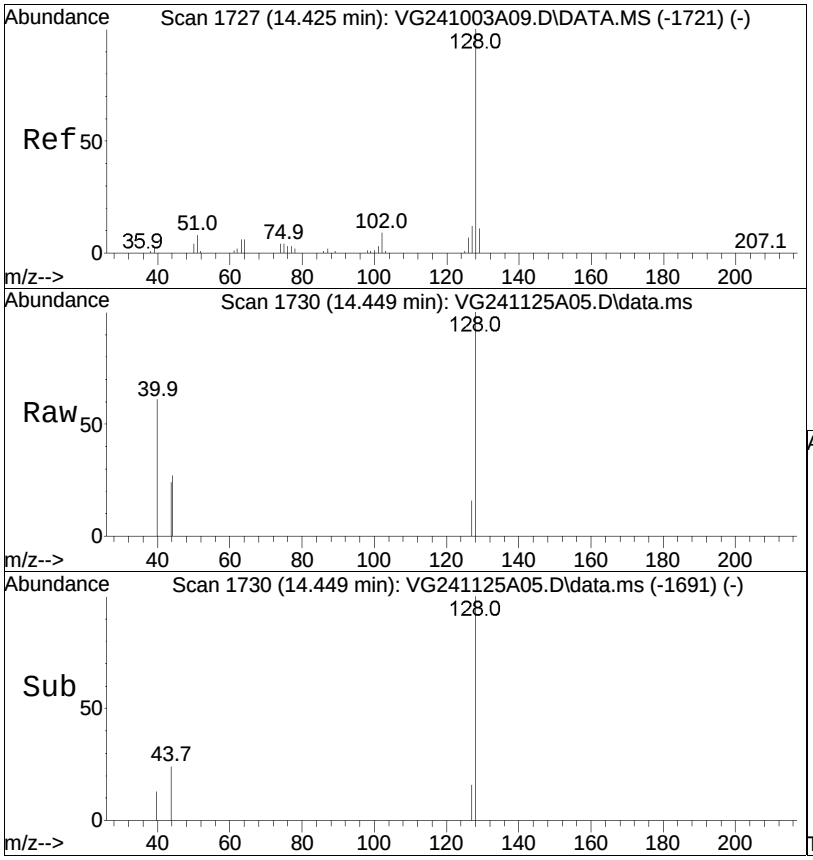


#108
Hexachlorobutadiene
Concen: 0.15 ug/L
RT: 14.104 min Scan# 1688
Delta R.T. -0.000 min
Lab File: VG241125A05.D
Acq: 25 Nov 2024 8:49 am

Tgt Ion:225 Resp: 695

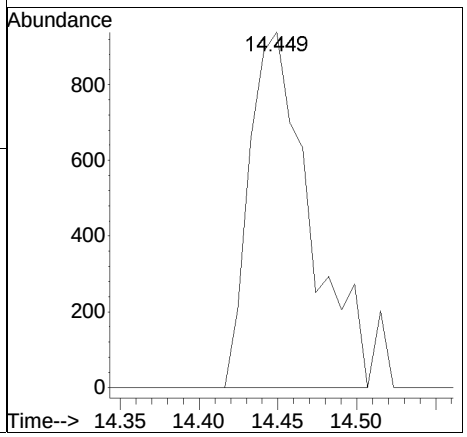
Ion	Ratio	Lower	Upper
225	100		
223	52.8	50.1	75.1
227	53.4	50.2	75.4

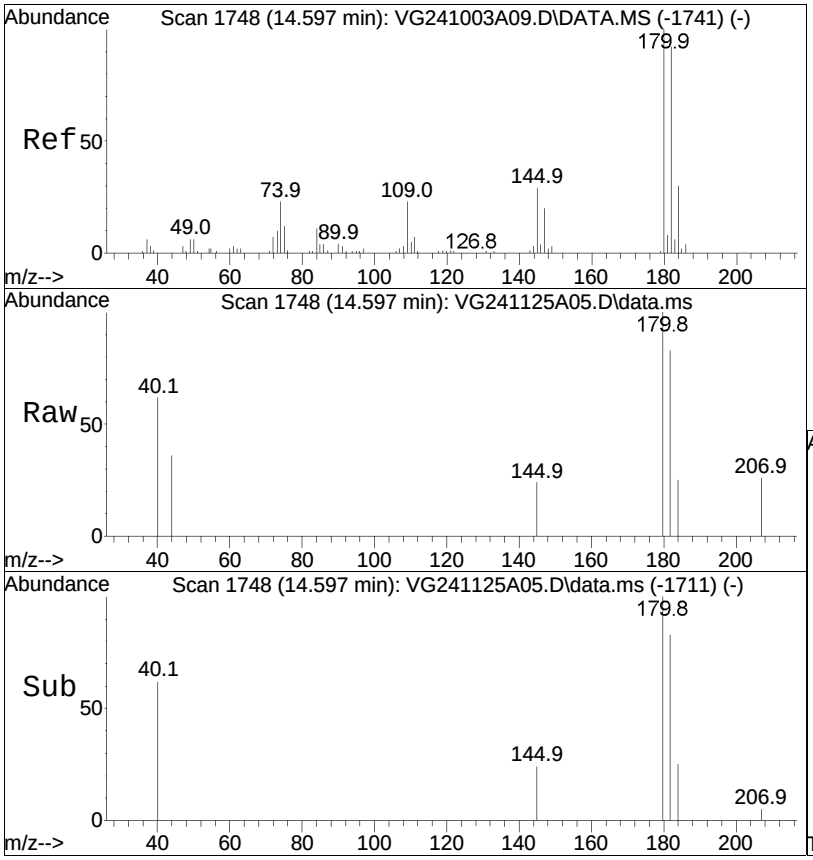




#110
Naphthalene
Concen: 0.10 ug/L M6
RT: 14.449 min Scan# 1730
Delta R.T. 0.024 min
Lab File: VG241125A05.D
Acq: 25 Nov 2024 8:49 am

Tgt Ion:128 Resp: 2492

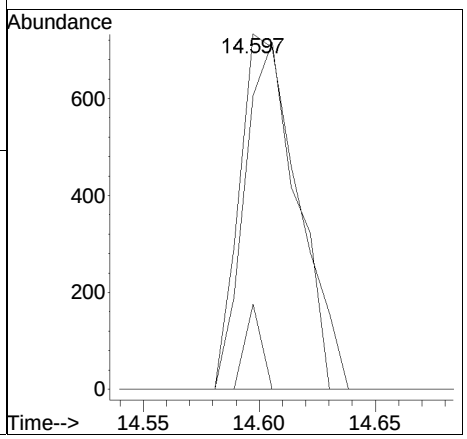




#111
1,2,3-Trichlorobenzene
Concen: 0.13 ug/L
RT: 14.597 min Scan# 1748
Delta R.T. 0.000 min
Lab File: VG241125A05.D
Acq: 25 Nov 2024 8:49 am

Tgt Ion:180 Resp: 1298

Ion	Ratio	Lower	Upper
180	100		
182	85.6	77.0	115.4
145	6.7	24.1	36.1#

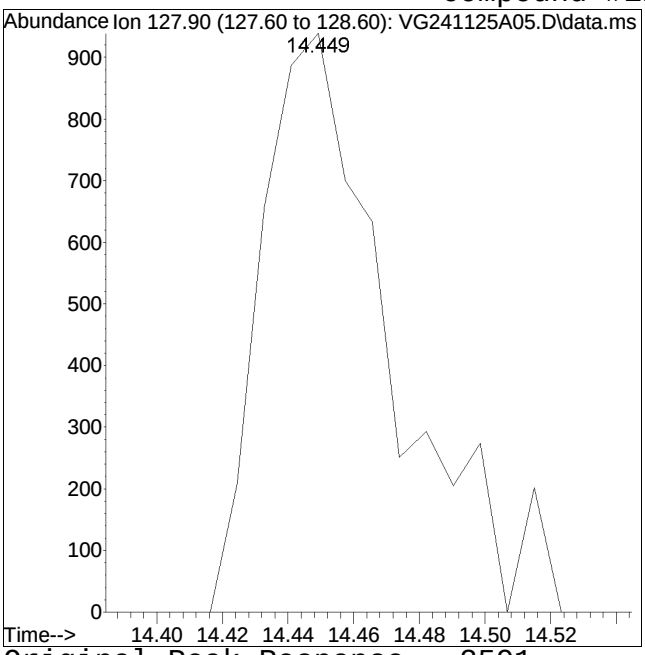


Manual Integration Report

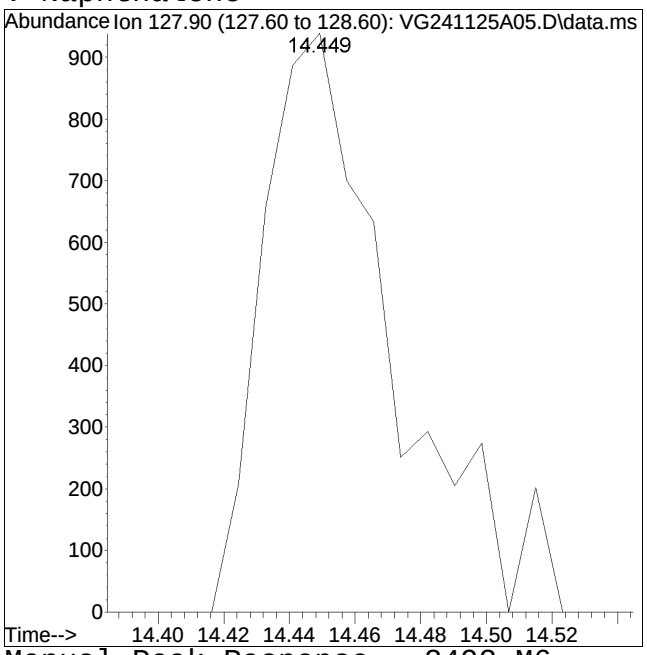
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A05.D
Date Inj'd : 11/25/2024 8:49 am
Sample : WG2001998-5,31,10,10

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 10:04 am

Compound #110: Naphthalene



Original Peak Response = 2591



Manual Peak Response = 2492 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-3,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.939	96	198303	10.000	ug/L	0.00
Standard Area 1 = 198303			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	142748	10.000	ug/L	0.00
Standard Area 1 = 142748			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.186	152	72729	10.000	ug/L	0.00
Standard Area 1 = 72729			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	46524	10.232	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.32%			
47) 1,2-Dichloroethane-d4	5.660	65	60692	11.281	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.81%			
64) Toluene-d8	7.632	98	200001	10.274	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.74%			
88) 4-Bromofluorobenzene	10.972	95	67425	10.091	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.91%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	46146	10.415	ug/L	94
3) Chloromethane	1.776	50	36155	8.259	ug/L	98
4) Vinyl chloride	1.848	62	50425	10.810	ug/L	95
5) Bromomethane	2.158	94	16517	5.045	ug/L	91
6) Chloroethane	2.272	64	36074	10.681	ug/L	96
7) Trichlorofluoromethane	2.409	101	66770	9.810	ug/L	92
8) Ethyl ether	2.704	74	23058M1	10.956	ug/L	
10) 1,1-Dichloroethene	2.891	96	35136	10.137	ug/L #	71
11) Carbon disulfide	2.922	76	104995	10.087	ug/L	95
15) Methylene chloride	3.446	84	41536	9.600	ug/L	90
17) Acetone	3.488	43	7565	8.884	ug/L	97
18) trans-1,2-Dichloroethene	3.594	96	35740	9.259	ug/L	88
21) Methyl tert-butyl ether	3.691	73	94361	9.146	ug/L #	86
25) 1,1-Dichloroethane	4.179	63	81399	10.551	ug/L	93
27) Acrylonitrile	4.218	53	9928	9.512	ug/L #	81
29) Vinyl acetate	4.402	43	82603	9.218	ug/L	98
30) cis-1,2-Dichloroethene	4.690	96	42991	9.757	ug/L	94
31) 2,2-Dichloropropane	4.798	77	50771	8.340	ug/L	97
33) Bromochloromethane	4.885	128	19388	9.658	ug/L	89
35) Chloroform	4.957	83	67209	9.285	ug/L	95

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-3,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.091	117	47680	9.082	ug/L	#	90
40) 1,1,1-Trichloroethane	5.158	97	59737	9.347	ug/L	#	94
42) 2-Butanone	5.242	43	11208	9.230	ug/L	#	91
43) 1,1-Dichloropropene	5.284	75	51669	9.227	ug/L		93
45) Benzene	5.523	78	174448	9.891	ug/L		95
48) 1,2-Dichloroethane	5.727	62	57084	10.177	ug/L		98
52) Trichloroethene	6.115	95	39403	9.423	ug/L		96
54) Dibromomethane	6.558	93	22235	9.304	ug/L		95
55) 1,2-Dichloropropane	6.661	63	44932	10.029	ug/L		97
58) Bromodichloromethane	6.731	83	53724	9.239	ug/L	#	88
61) 1,4-Dioxane	6.946	88	14346	489.992	ug/L	#	76
62) cis-1,3-Dichloropropene	7.423	75	61086	9.102	ug/L		93
65) Toluene	7.687	92	105916	9.442	ug/L		92
66) 4-Methyl-2-pentanone	8.114	58	10833M1	9.189	ug/L		
67) Tetrachloroethene	8.134	166	40664	9.016	ug/L		94
69) trans-1,3-Dichloropropene	8.167	75	51849	9.334	ug/L		89
72) 1,1,2-Trichloroethane	8.357	83	28538	9.680	ug/L		98
73) Chlorodibromomethane	8.569	129	35134	8.882	ug/L		95
74) 1,3-Dichloropropane	8.680	76	59477	9.771	ug/L		98
75) 1,2-Dibromoethane	8.842	107	32101	9.190	ug/L		90
77) 2-Hexanone	9.121	43	16164M1	8.535	ug/L		
78) Chlorobenzene	9.489	112	112468	9.433	ug/L	#	80
79) Ethylbenzene	9.531	91	206427	9.630	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.578	131	36397	9.194	ug/L		94
81) p/m Xylene	9.715	106	157371	19.072	ug/L		94
82) o Xylene	10.256	106	150976	18.764	ug/L		89
83) Styrene	10.328	104	250255	18.423	ug/L		97
85) Bromoform	10.348	173	17930	8.341	ug/L		95
87) Isopropylbenzene	10.646	105	206584	9.615	ug/L		99
89) Bromobenzene	11.084	156	45242	9.434	ug/L		99
90) n-Propylbenzene	11.129	91	241789	9.922	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.221	83	41234	9.941	ug/L		96
93) 4-Ethyltoluene	11.254	105	199005	9.841	ug/L		99
94) 2-Chlorotoluene	11.293	91	139308M4	9.843	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	178519	9.977	ug/L		95
96) 1,2,3-Trichloropropane	11.355	75	31907	9.745	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.413	53	10715	9.039	ug/L		84
98) 4-Chlorotoluene	11.477	91	146505	10.005	ug/L		98
99) tert-Butylbenzene	11.698	119	141856	9.607	ug/L		96

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-3,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	174877	9.746	ug/L	98
103) sec-Butylbenzene	11.887	105	219721	9.746	ug/L	98
104) p-Isopropyltoluene	12.041	119	180096	9.641	ug/L	97
105) 1,3-Dichlorobenzene	12.107	146	90192	9.396	ug/L	97
106) 1,4-Dichlorobenzene	12.202	146	90585	9.408	ug/L	98
107) p-Diethylbenzene	12.414	119	103360	9.457	ug/L	95
108) n-Butylbenzene	12.473	91	160581	9.858	ug/L	99
109) 1,2-Dichlorobenzene	12.626	146	85419	9.352	ug/L	99
110) 1,2,4,5-Tetramethylben...	13.212	119	158795	9.069	ug/L	98
111) 1,2-Dibromo-3-chloropr...	13.404	155	4779	8.615	ug/L	93
113) Hexachlorobutadiene	14.015	225	14515	8.346	ug/L	93
114) 1,2,4-Trichlorobenzene	14.037	180	50035	8.796	ug/L	96
115) Naphthalene	14.327	128	114276	8.554	ug/L	100
116) 1,2,3-Trichlorobenzene	14.495	180	43937	8.653	ug/L	93

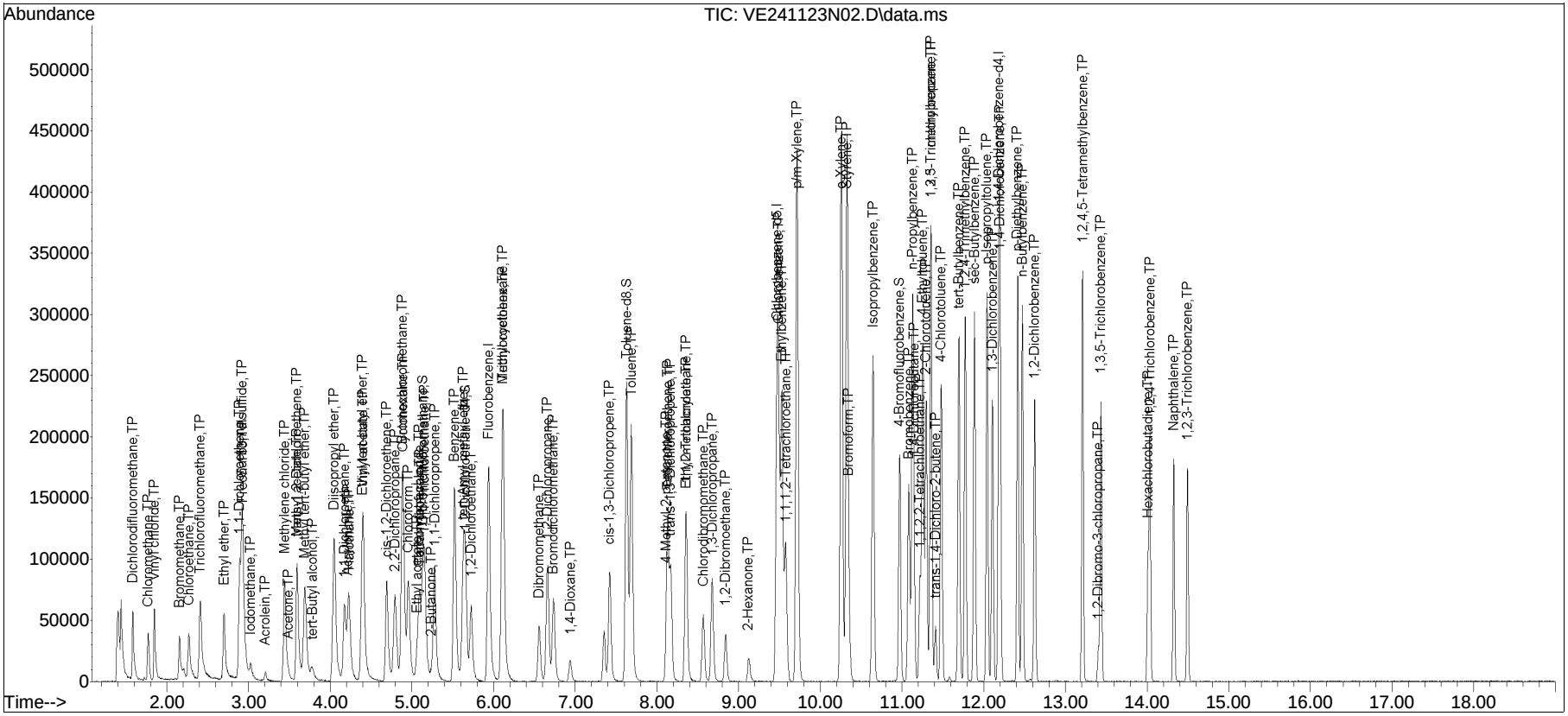
(#) = qualifier out of range (m) = manual integration (+) = signals summed

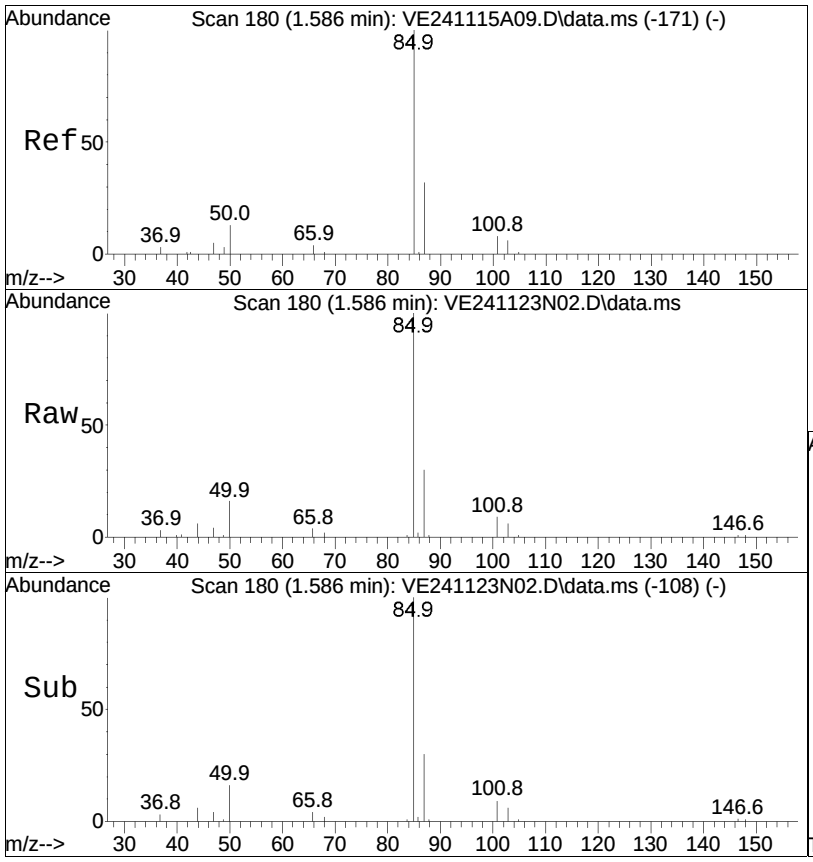
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Acq On : 23 Nov 2024 7:58 pm
Operator : ELAINE:PID
Sample : WG2001825-3,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 23 20:22:56 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE2.D•

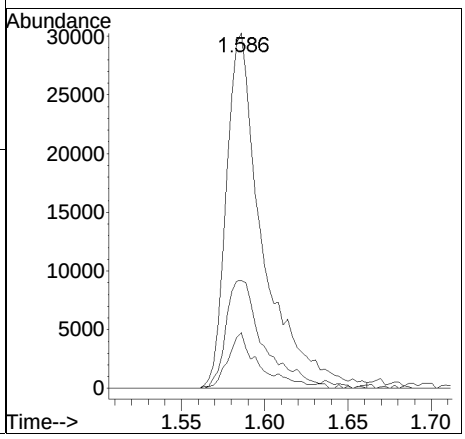


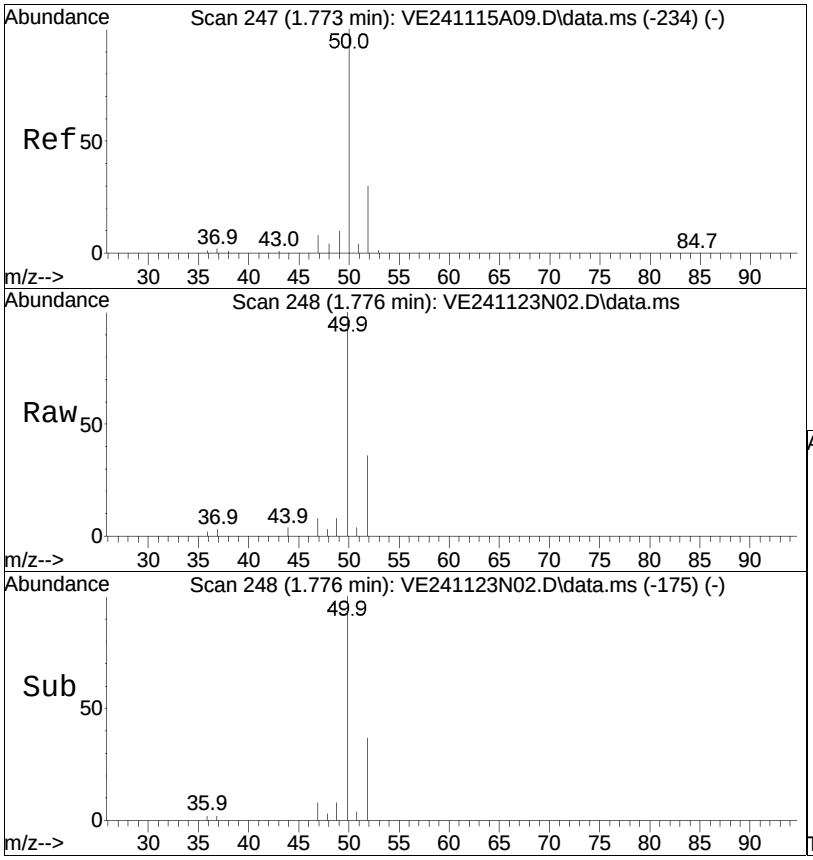


#2
Dichlorodifluoromethane
Concen: 10.41 ug/L
RT: 1.586 min Scan# 180
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 85 Resp: 46146

Ion	Ratio	Lower	Upper
85	100		
87	31.2	21.7	45.1
50	13.6	11.8	24.4

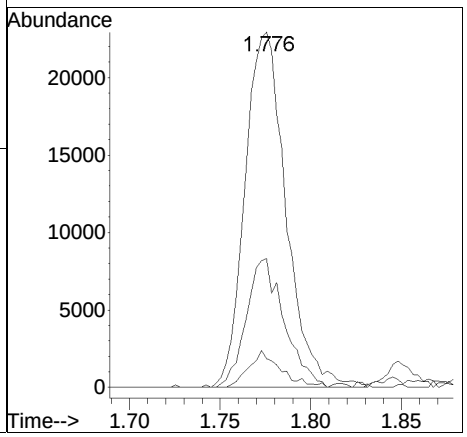


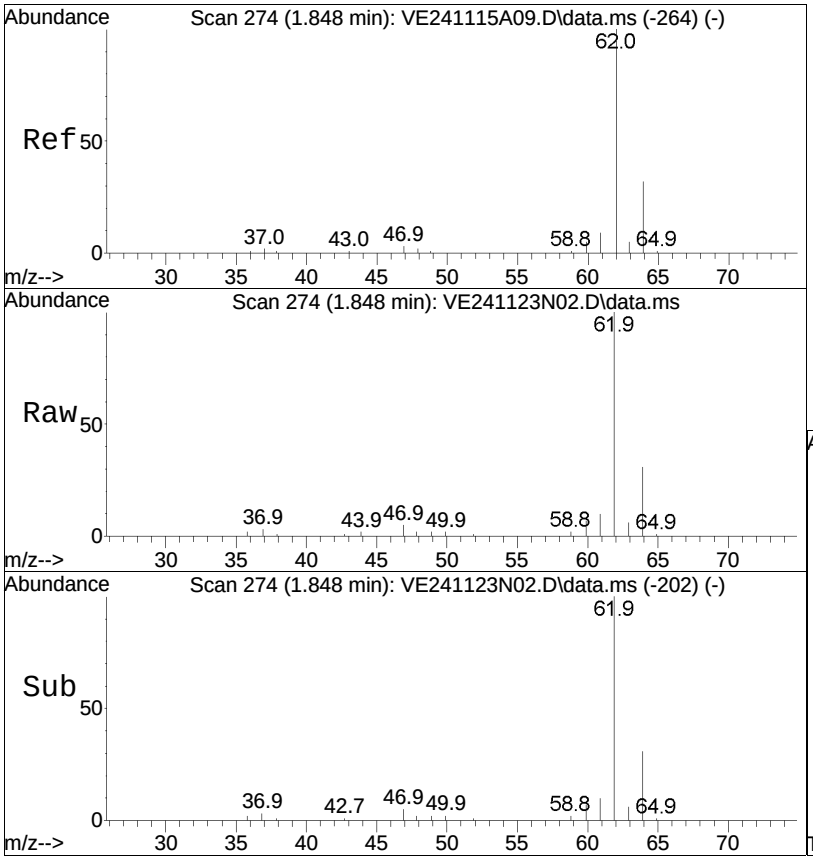


#3
Chloromethane
Concen: 8.26 ug/L
RT: 1.776 min Scan# 248
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 50 Resp: 36155

Ion	Ratio	Lower	Upper
50	100		
52	33.5	14.9	54.9
47	8.1	0.0	28.0

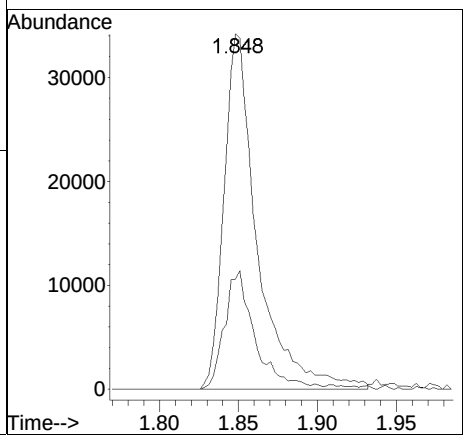


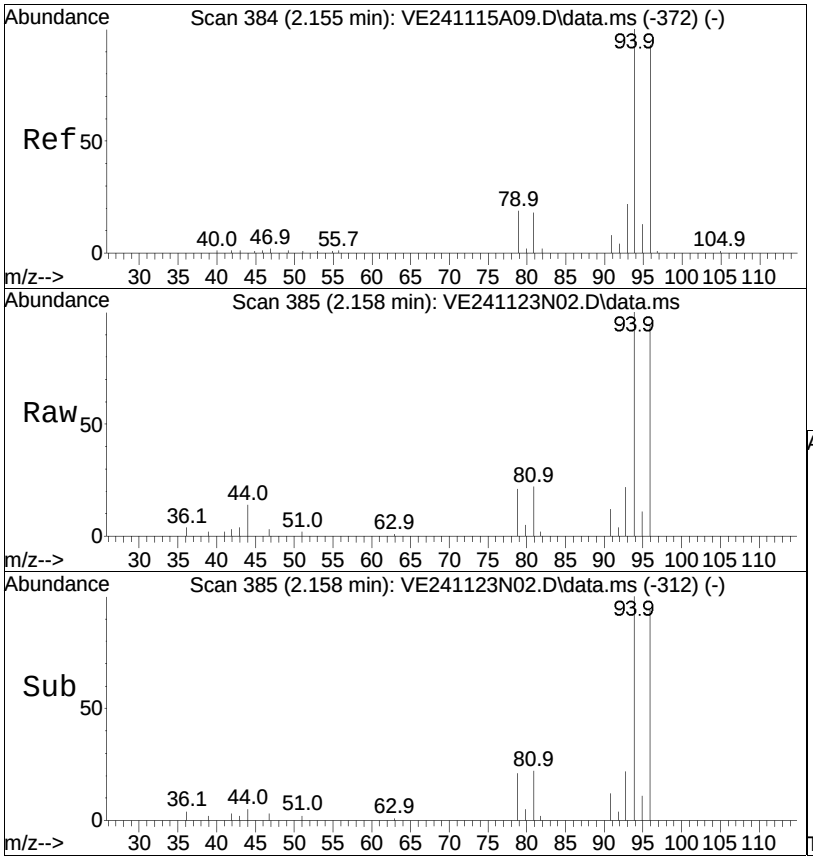


#4
Vinyl chloride
Concen: 10.81 ug/L
RT: 1.848 min Scan# 274
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 62 Resp: 50425

Ion	Ratio	Lower	Upper
62	100		
64	30.7	8.1	48.1

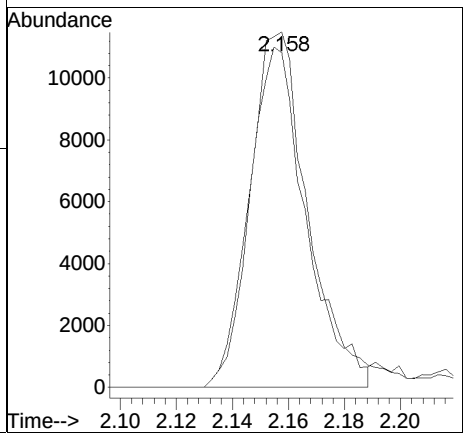


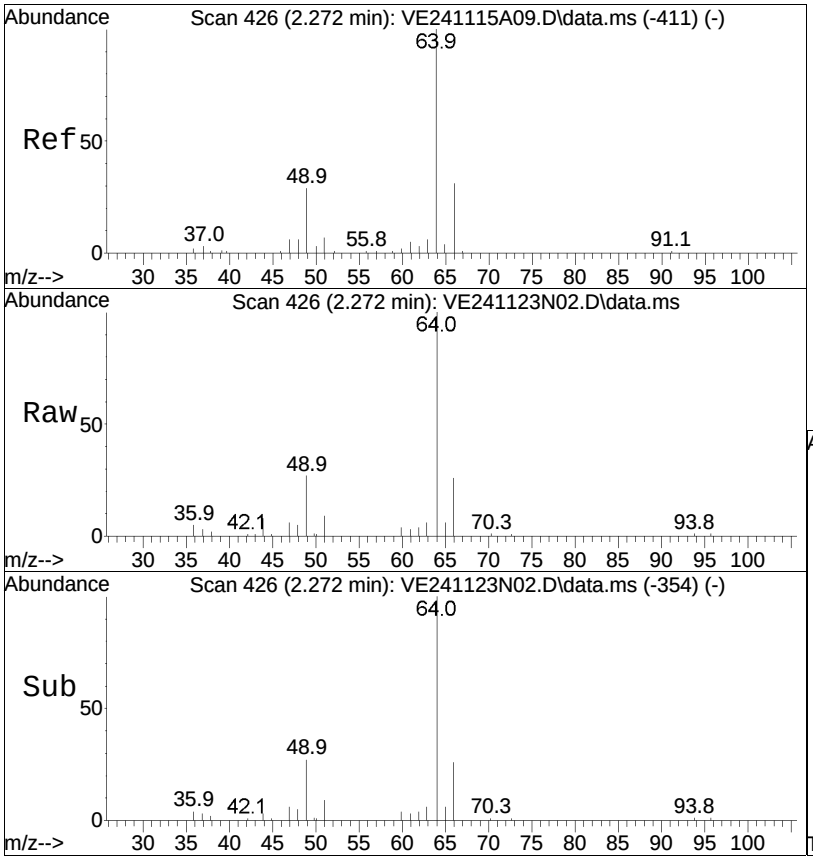


#5
Bromomethane
Concen: 5.04 ug/L
RT: 2.158 min Scan# 385
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 94 Resp: 16517

Ion	Ratio	Lower	Upper
94	100		
96	96.2	68.2	108.2

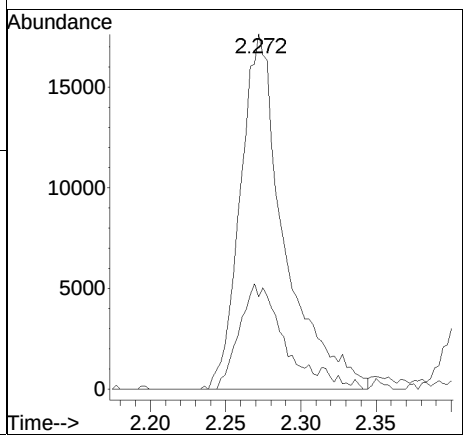


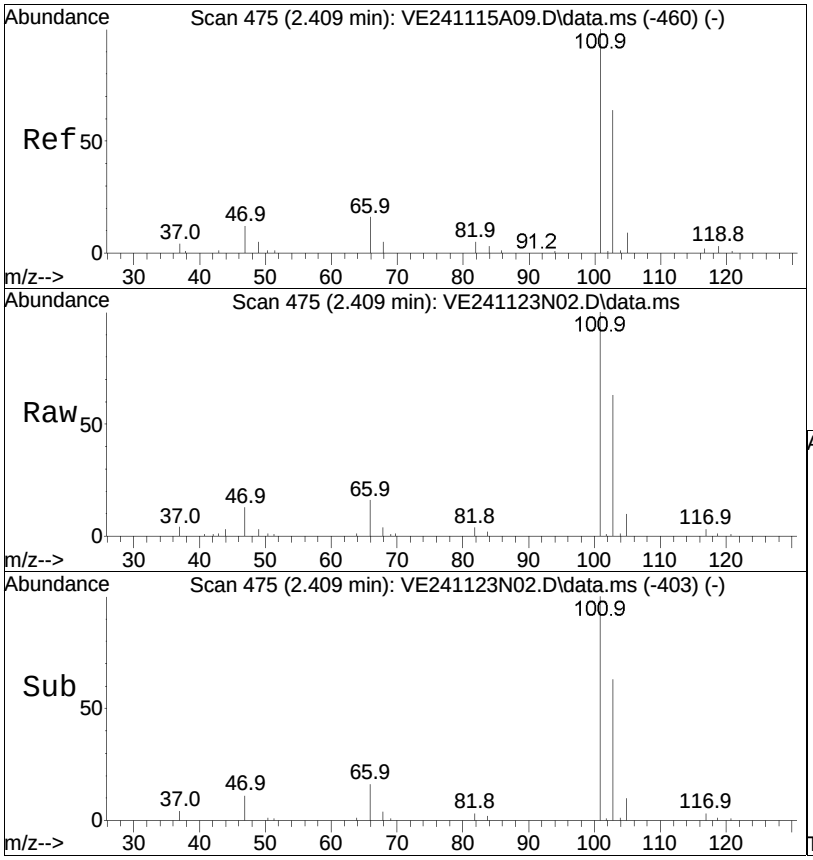


#6
Chloroethane
Concen: 10.68 ug/L
RT: 2.272 min Scan# 426
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 64 Resp: 36074

Ion	Ratio	Lower	Upper
64	100		
66	28.7	10.7	50.7

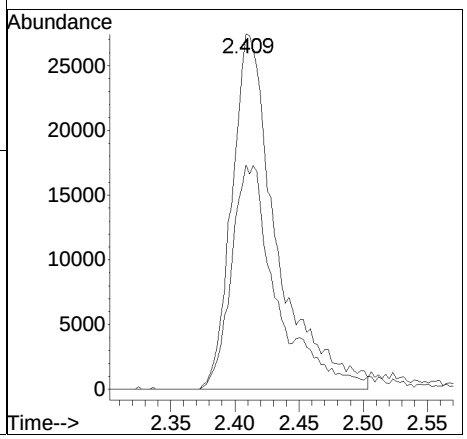


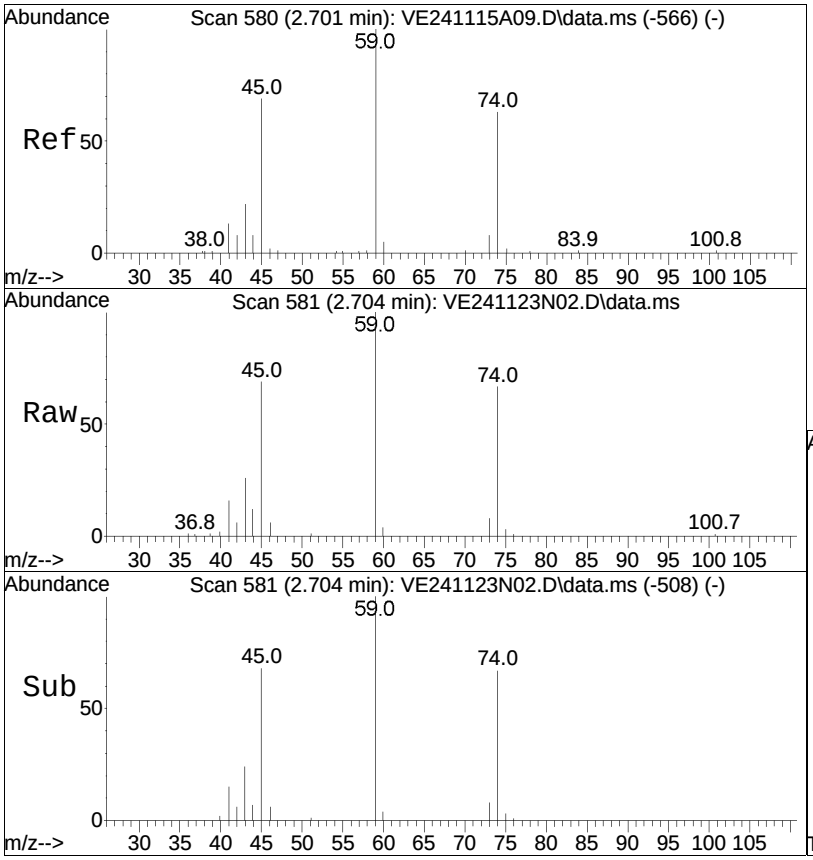


#7
Trichlorofluoromethane
Concen: 9.81 ug/L
RT: 2.409 min Scan# 475
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:101 Resp: 66770

Ion	Ratio	Lower	Upper
101	100		
103	54.4	48.2	72.2

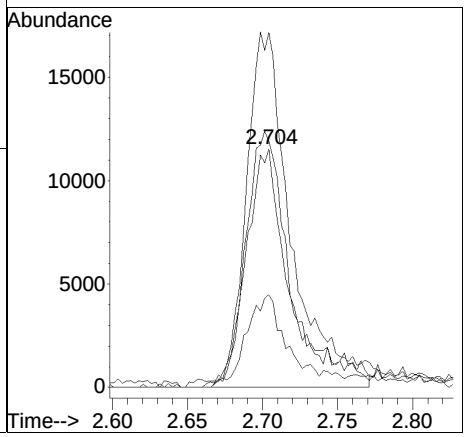


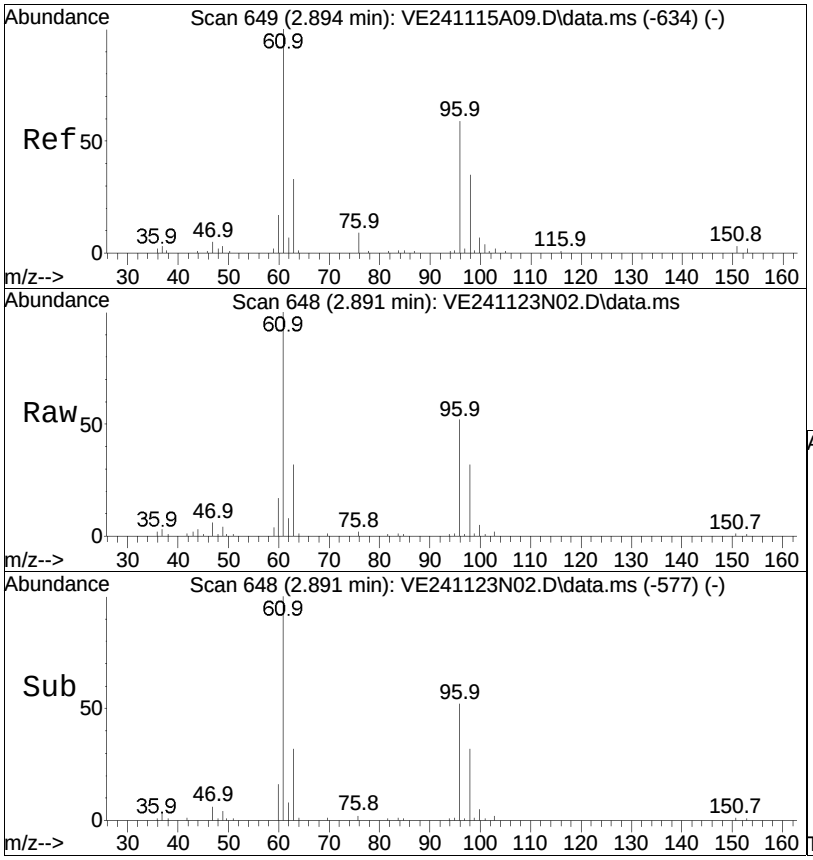


#8
Ethyl ether
Concen: 10.96 ug/L M1
RT: 2.704 min Scan# 581
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 74 Resp: 23058

Ion	Ratio	Lower	Upper
74	100		
59	154.2	91.7	190.5
45	106.9	77.4	160.8
43	31.8	24.6	51.2

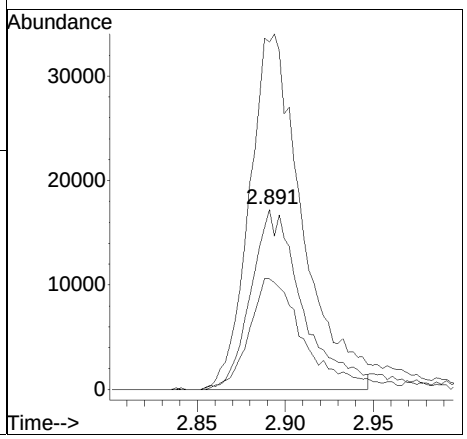


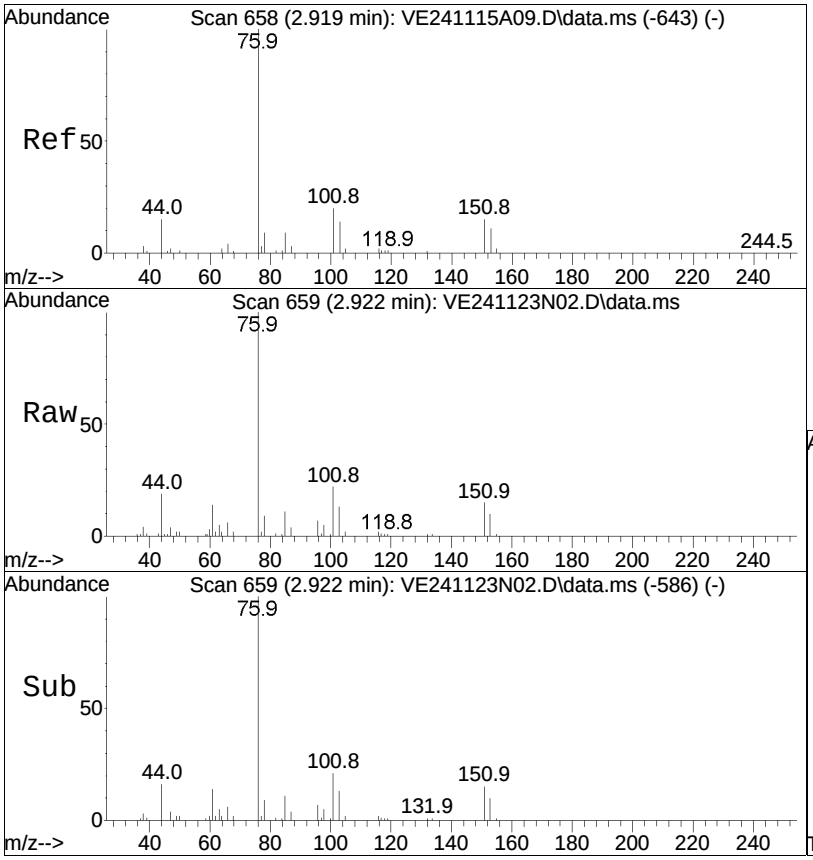


#10
1,1-Dichloroethene
Concen: 10.14 ug/L
RT: 2.891 min Scan# 648
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 96 Resp: 35136

Ion	Ratio	Lower	Upper
96	100		
61	213.3	135.4	203.0#
63	65.3	42.6	63.8#

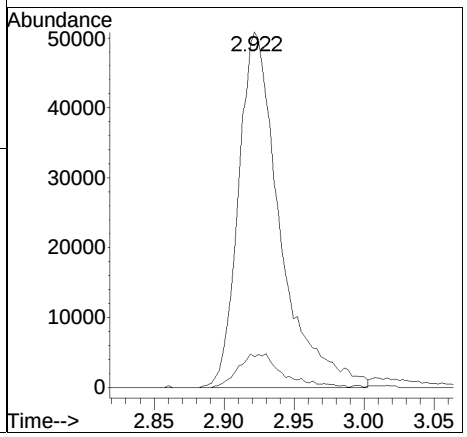


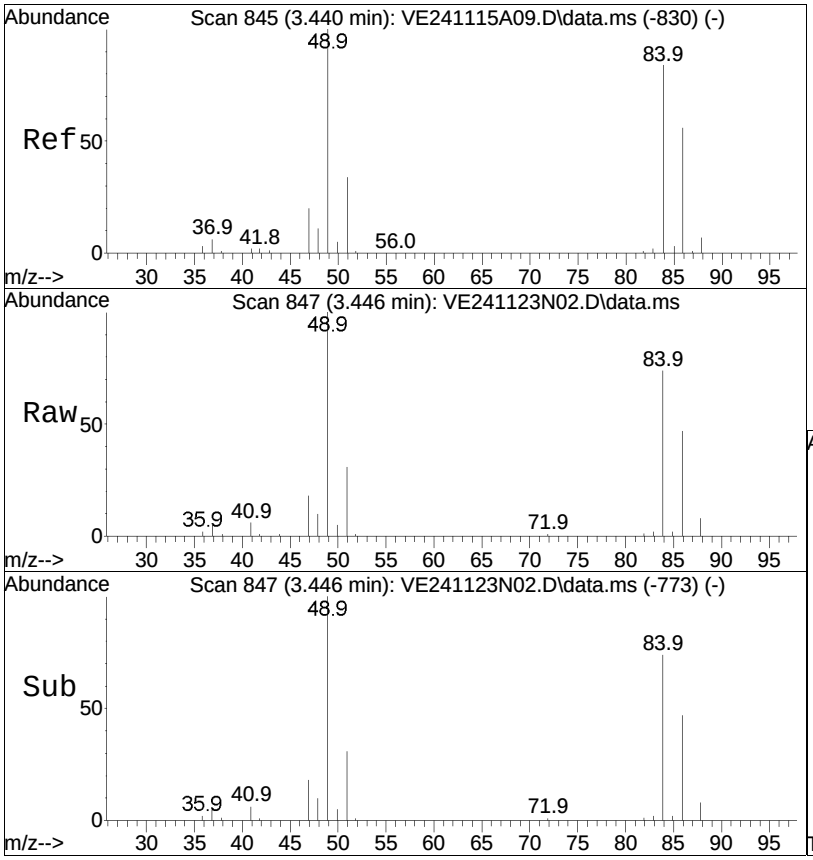


#11
Carbon disulfide
Concen: 10.09 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 76 Resp: 104995

Ion	Ratio	Lower	Upper
76	100		
78	10.0	5.5	11.3

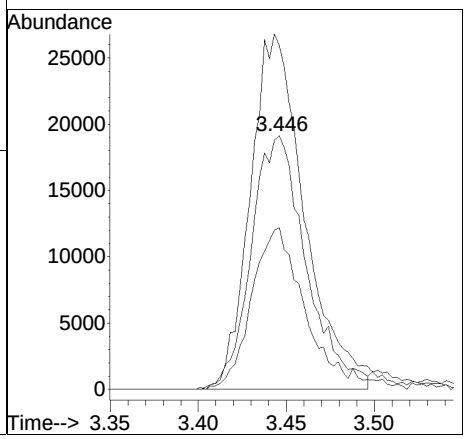


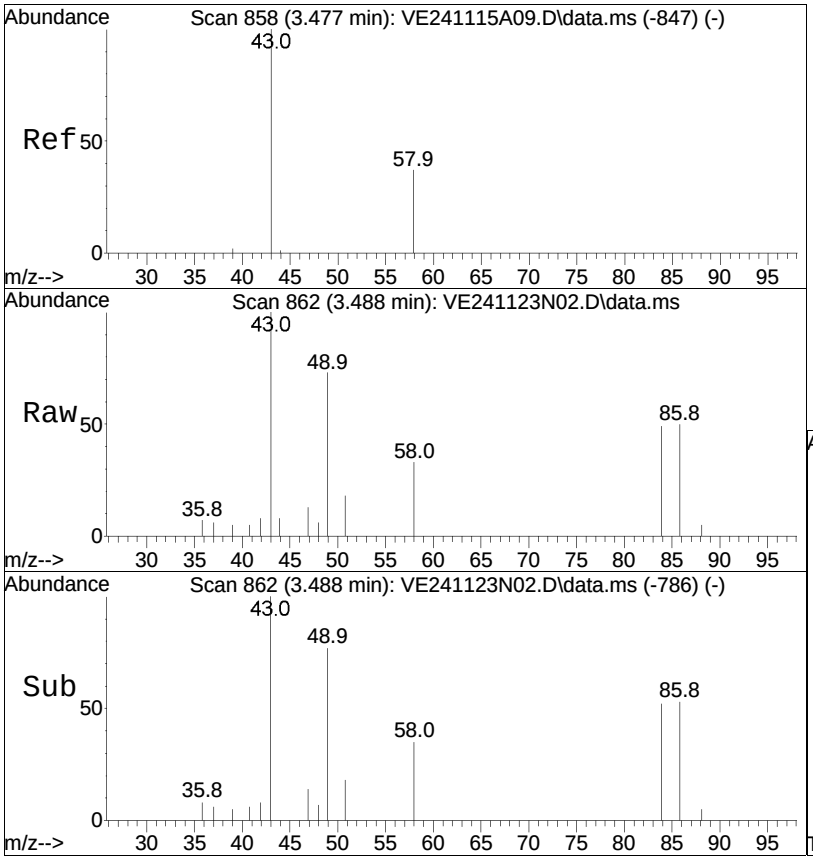


#15
Methylene chloride
Concen: 9.60 ug/L
RT: 3.446 min Scan# 847
Delta R.T. 0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 84 Resp: 41536

Ion	Ratio	Lower	Upper
84	100		
86	60.1	40.2	83.6
49	142.4	103.2	214.4

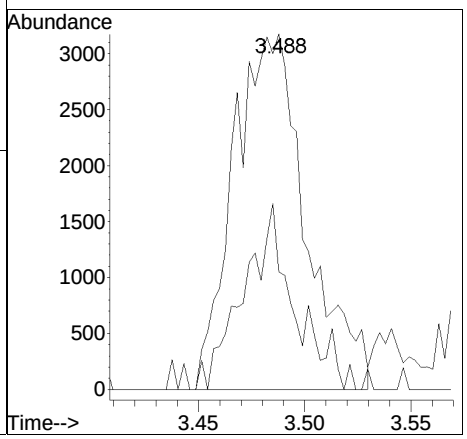


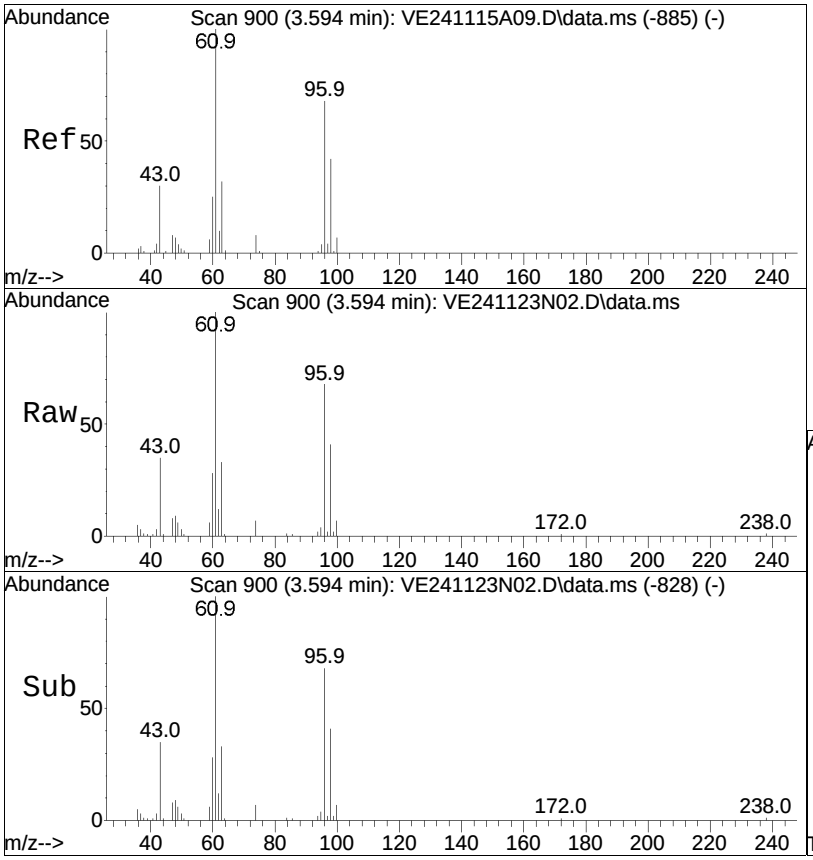


#17
Acetone
Concen: 8.88 ug/L
RT: 3.488 min Scan# 862
Delta R.T. 0.011 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 43 Resp: 7565

Ion	Ratio	Lower	Upper
43	100		
58	30.8	23.4	35.0

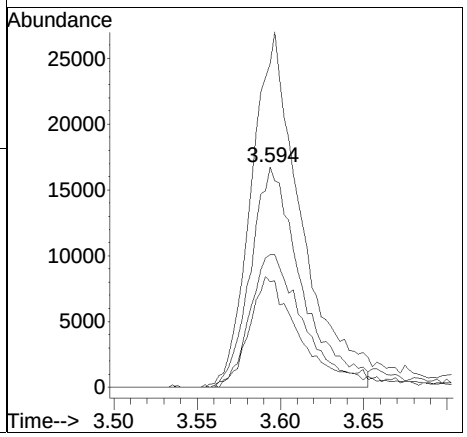


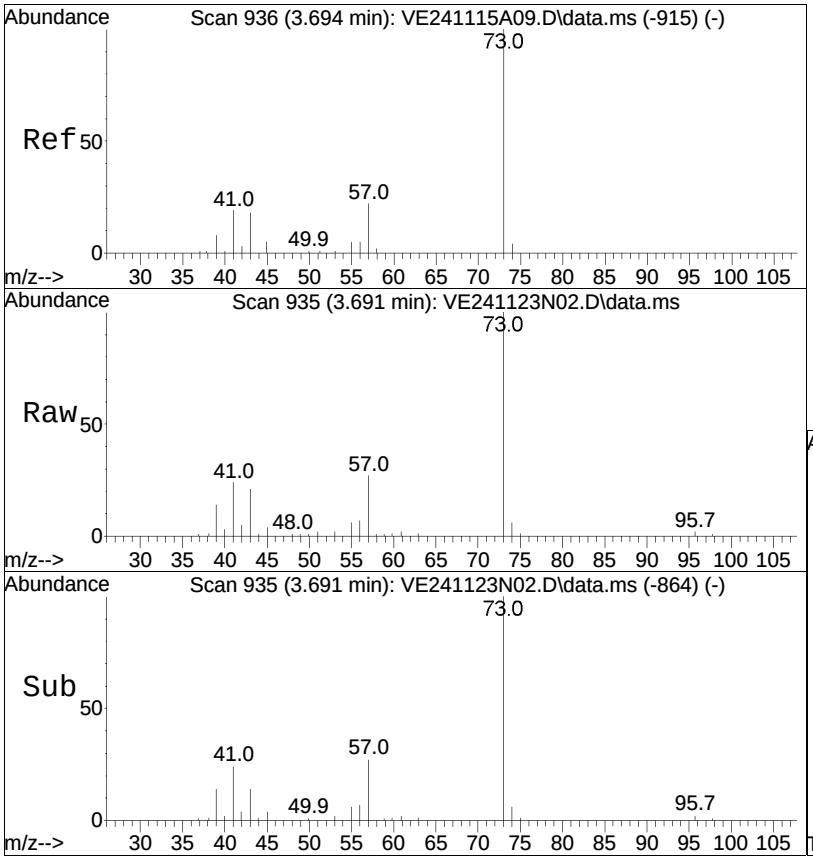


#18
trans-1,2-Dichloroethene
Concen: 9.26 ug/L
RT: 3.594 min Scan# 900
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 96 Resp: 35740

Ion	Ratio	Lower	Upper
96	100		
61	163.1	93.5	194.1
98	62.0	37.8	78.6
63	51.4	29.7	61.7

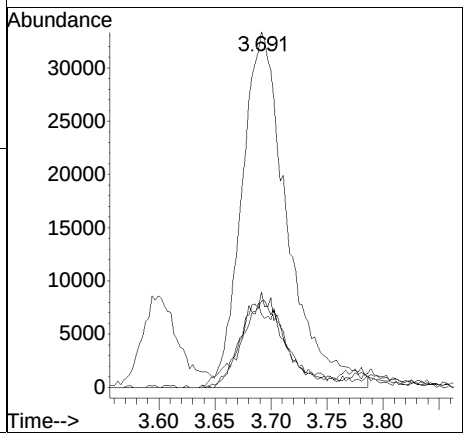


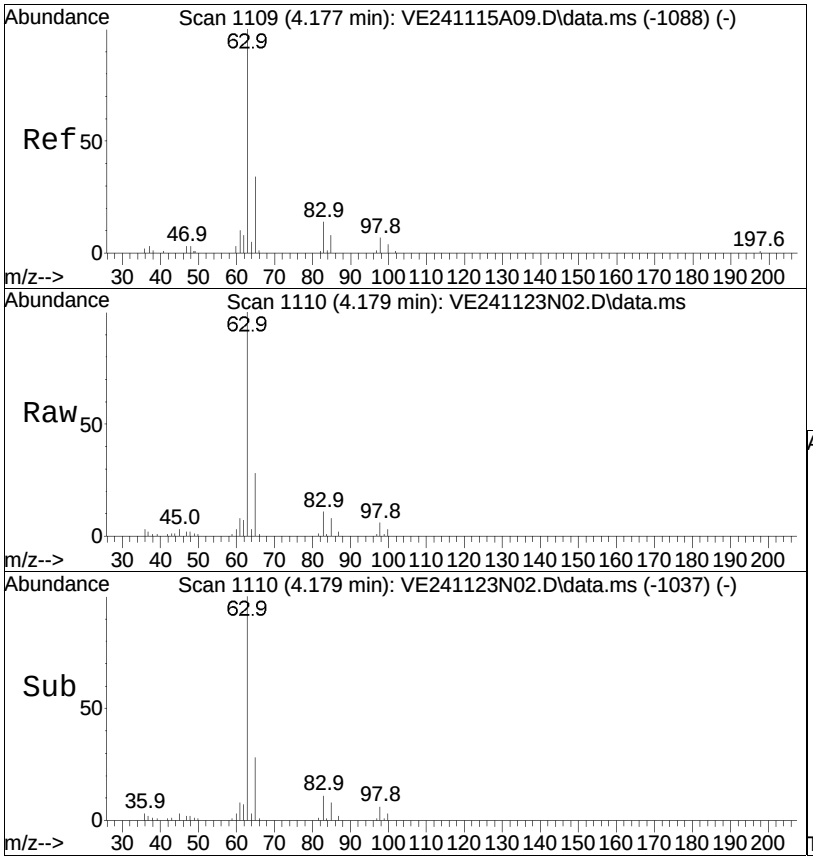


#21
Methyl tert-butyl ether
Concen: 9.15 ug/L
RT: 3.691 min Scan# 935
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 73 Resp: 94361

Ion	Ratio	Lower	Upper
73	100		
57	24.5	16.1	33.3
43	9.6	17.0	35.2#
41	23.7	18.7	38.9

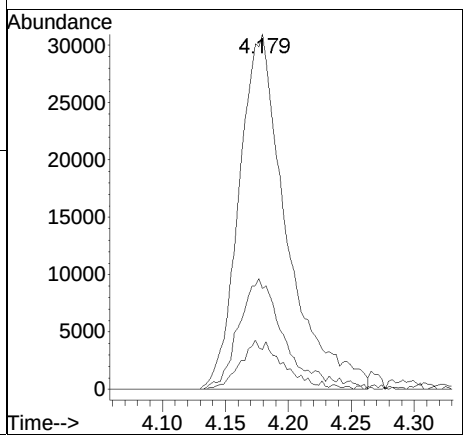


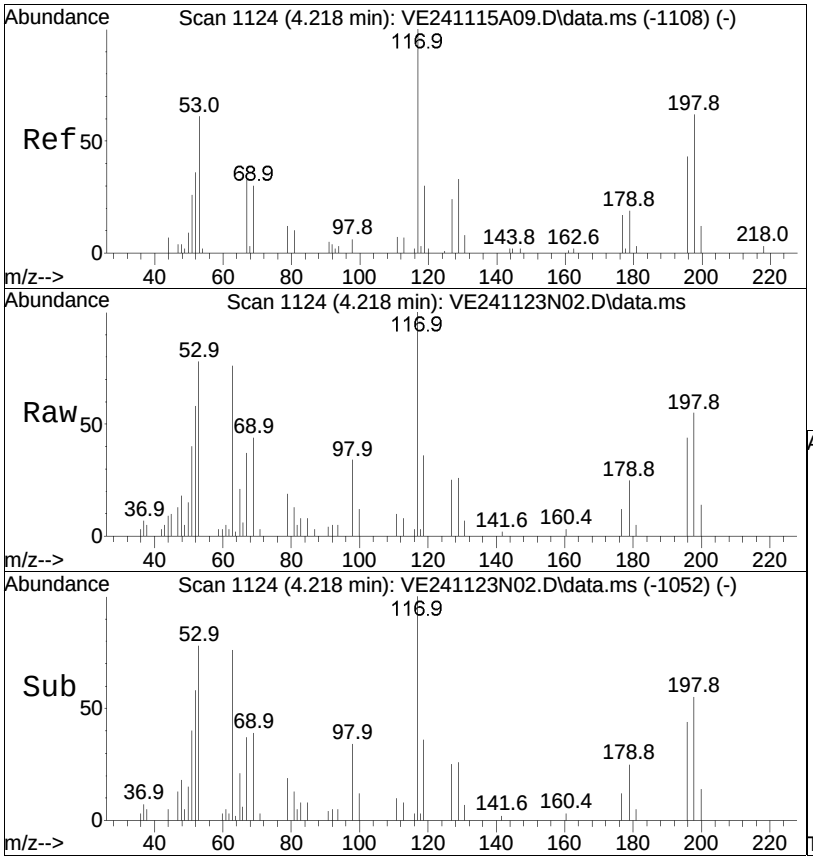


#25
1,1-Dichloroethane
Concen: 10.55 ug/L
RT: 4.179 min Scan# 1110
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 63 Resp: 81399

Ion	Ratio	Lower	Upper
63	100		
65	29.0	10.3	50.3
83	6.4	0.0	33.1

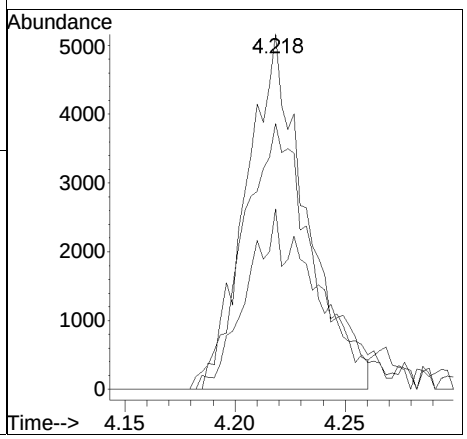


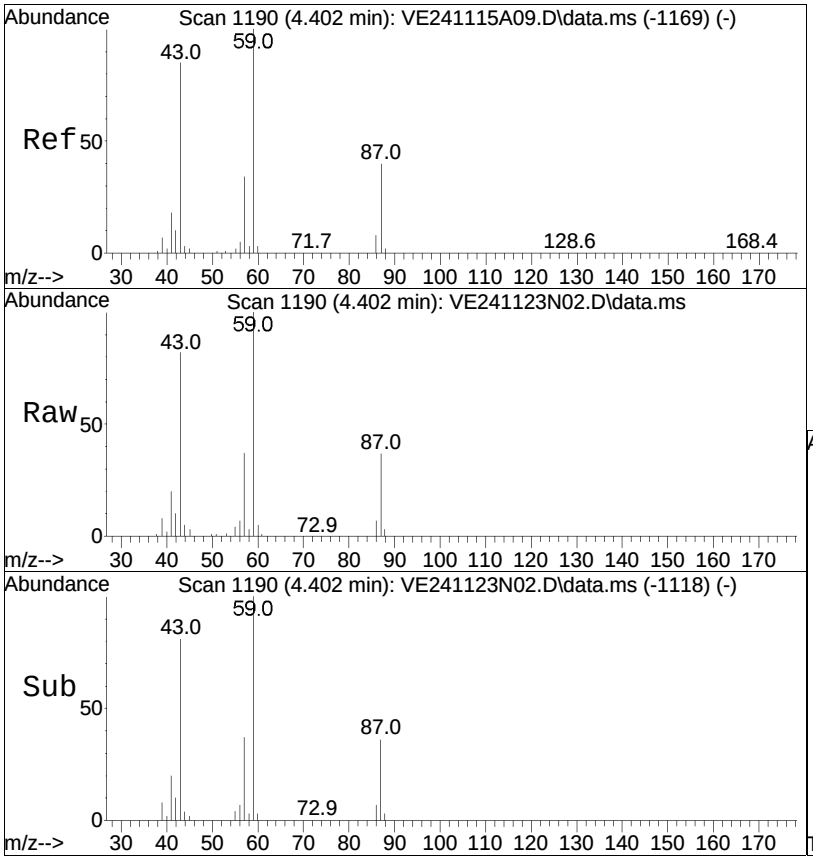


#27
Acrylonitrile
Concen: 9.51 ug/L
RT: 4.218 min Scan# 1124
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 53 Resp: 9928

Ion	Ratio	Lower	Upper
53	100		
52	85.5	58.9	88.3
51	31.9	40.2	60.2#

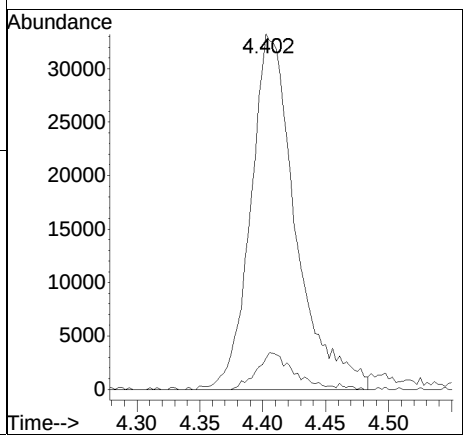


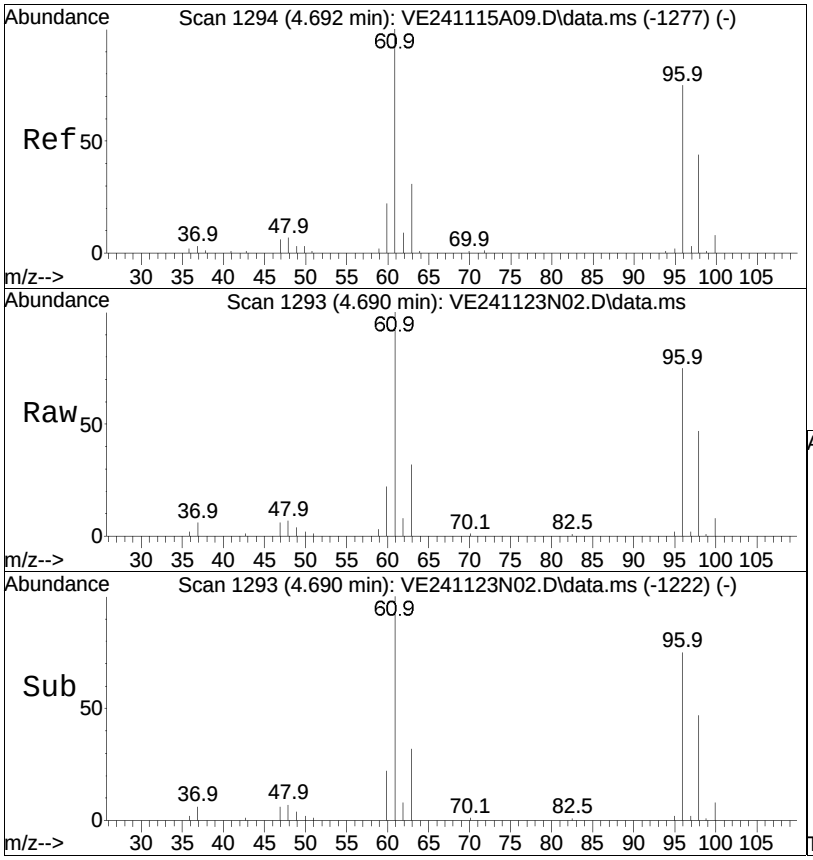


#29
Vinyl acetate
Concen: 9.22 ug/L
RT: 4.402 min Scan# 1190
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 43 Resp: 82603

Ion	Ratio	Lower	Upper
43	100		
86	8.5	6.2	9.4

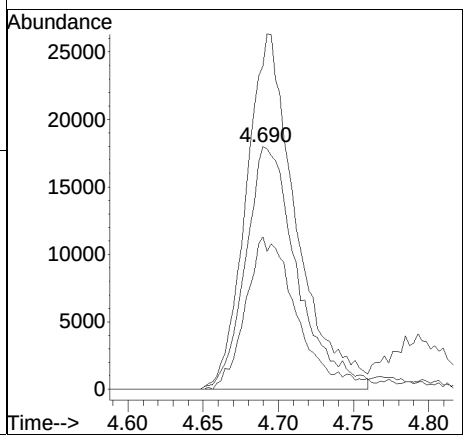


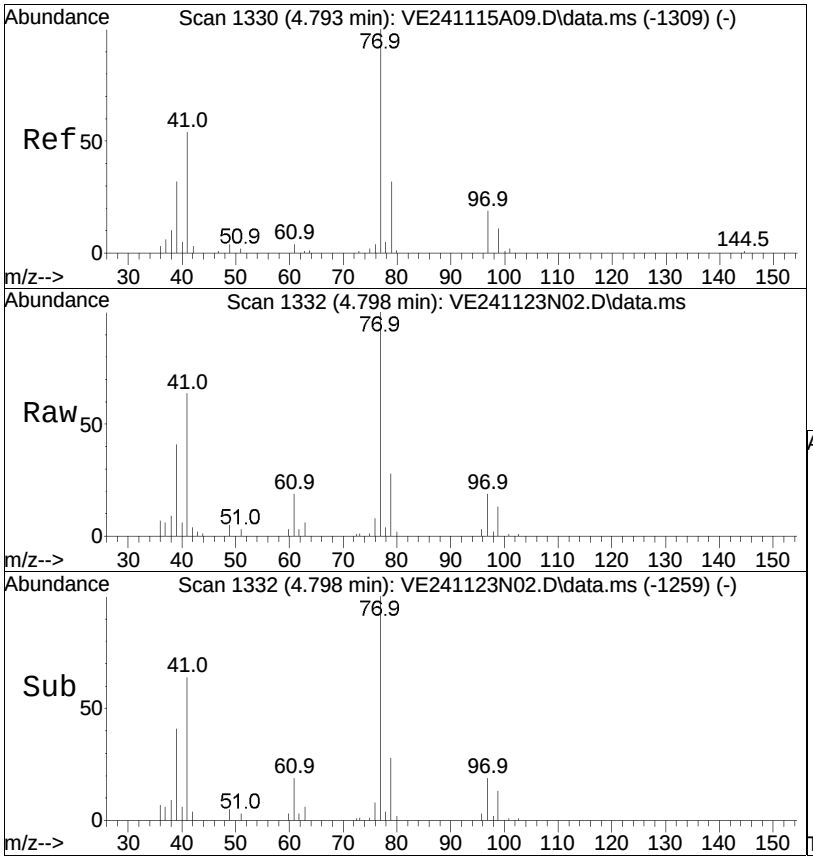


#30
cis-1,2-Dichloroethene
Concen: 9.76 ug/L
RT: 4.690 min Scan# 1293
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 96 Resp: 42991

Ion	Ratio	Lower	Upper
96	100		
61	142.1	120.3	180.5
98	59.5	50.2	75.4

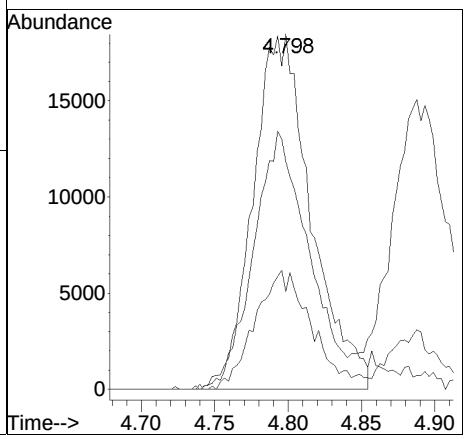


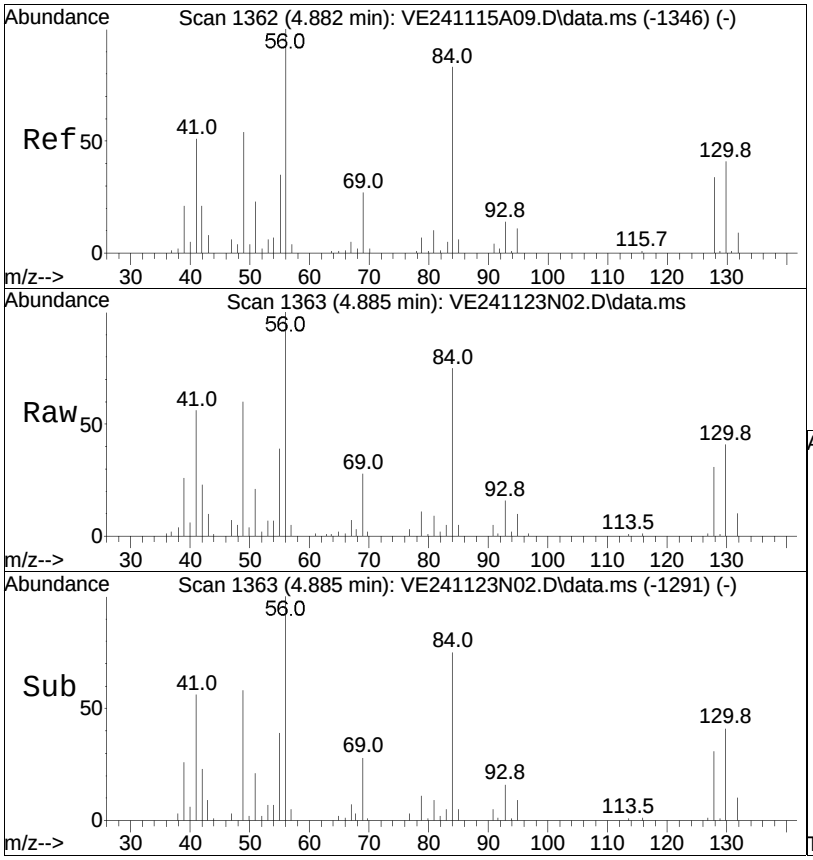


#31
2,2-Dichloropropane
Concen: 8.34 ug/L
RT: 4.798 min Scan# 1332
Delta R.T. 0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 77 Resp: 50771

Ion	Ratio	Lower	Upper
77	100		
41	68.6	46.5	96.5
79	32.5	21.6	45.0

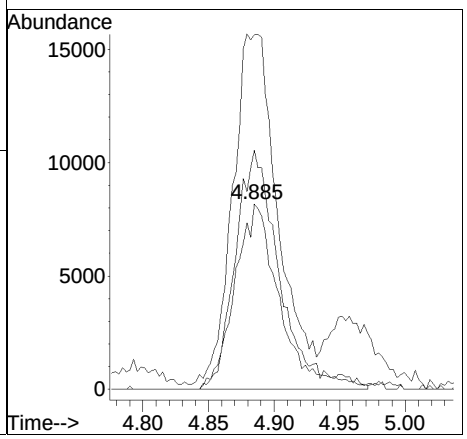


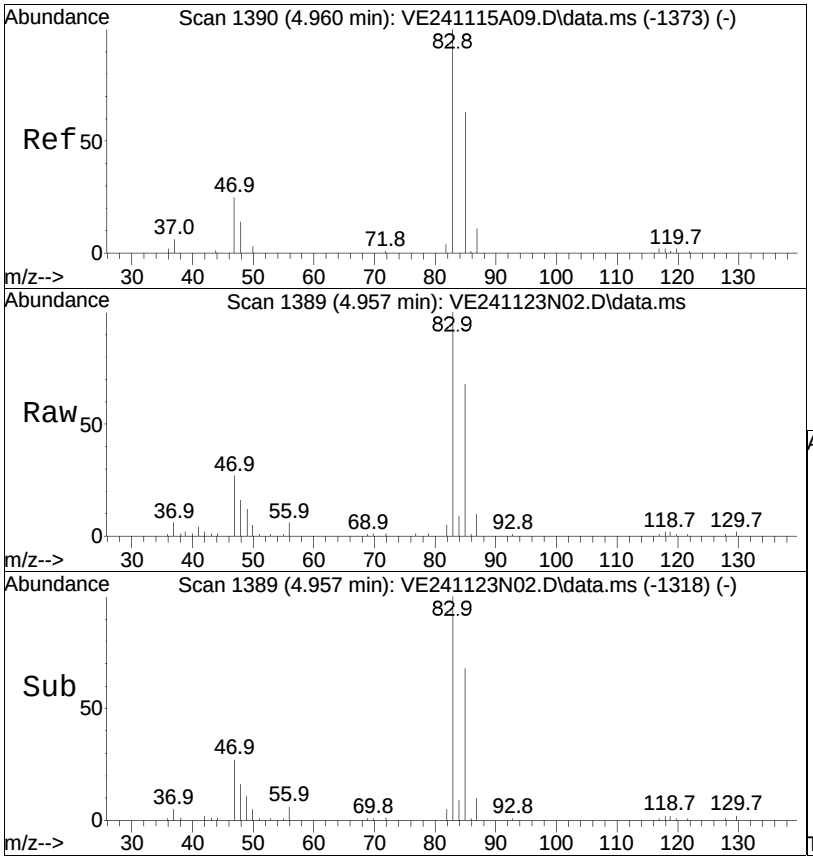


#33
Bromochloromethane
Concen: 9.66 ug/L
RT: 4.885 min Scan# 1363
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:128 Resp: 19388

Ion	Ratio	Lower	Upper
128	100		
49	189.3	170.2	255.2
130	125.1	103.7	155.5

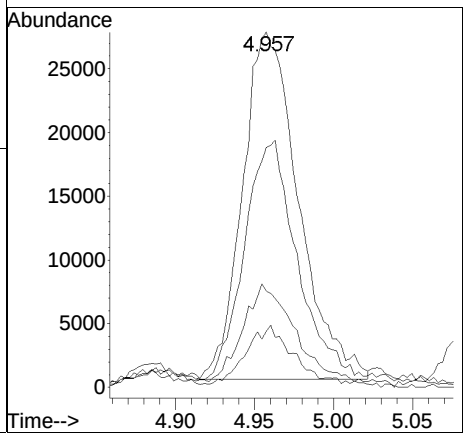


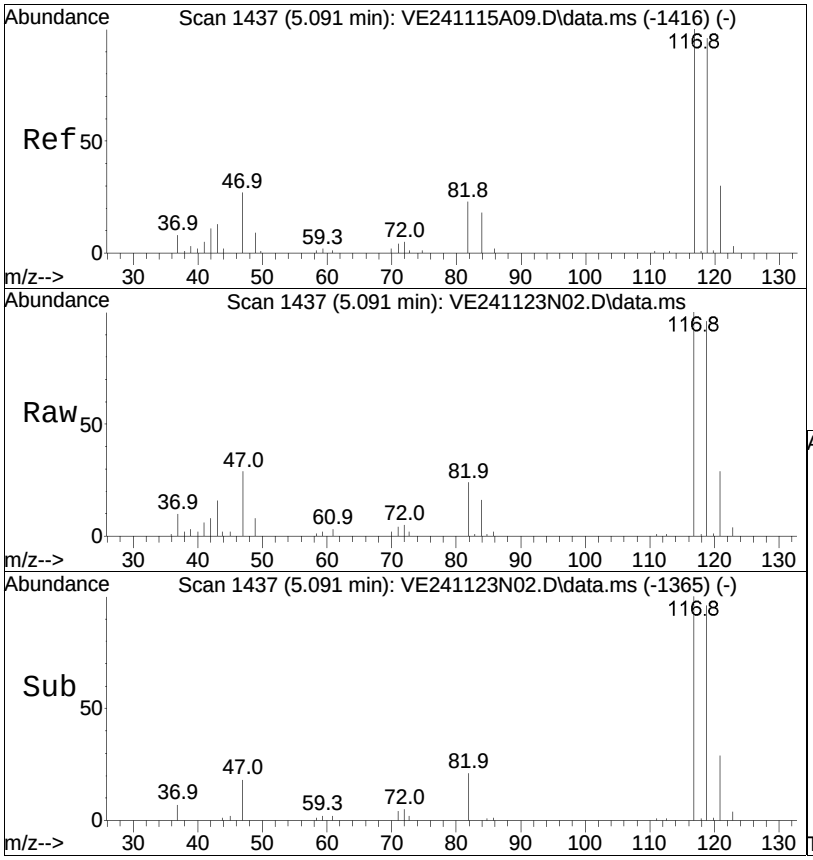


#35
Chloroform
Concen: 9.28 ug/L
RT: 4.957 min Scan# 1389
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 83 Resp: 67209

Ion	Ratio	Lower	Upper
83	100		
85	65.2	41.3	85.9
47	26.8	20.9	43.3
48	13.5	10.3	21.5

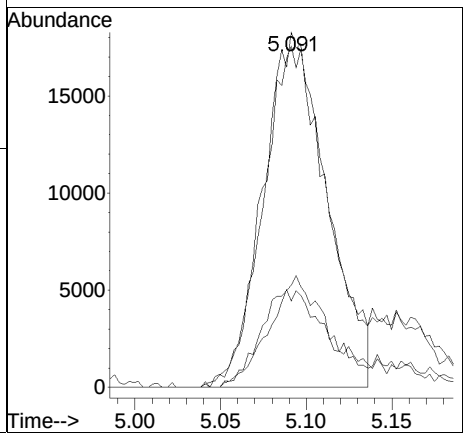


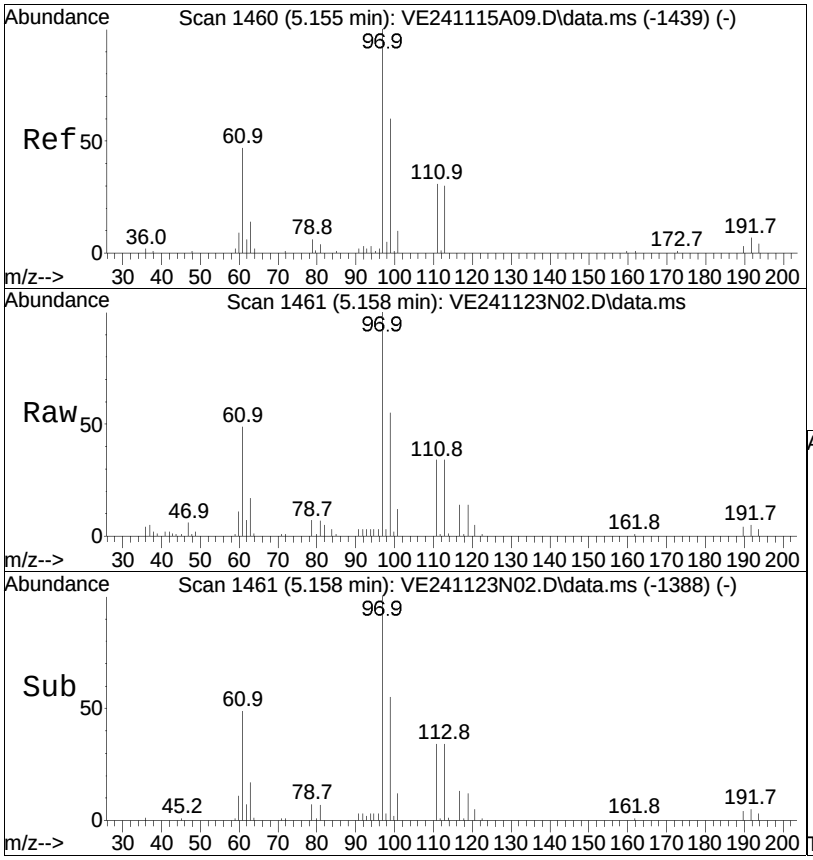


#37
Carbon tetrachloride
Concen: 9.08 ug/L
RT: 5.091 min Scan# 1437
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:117 Resp: 47680

Ion	Ratio	Lower	Upper
117	100		
119	97.1	60.6	126.0
121	30.7	18.0	37.4
82	11.8	19.8	41.0#

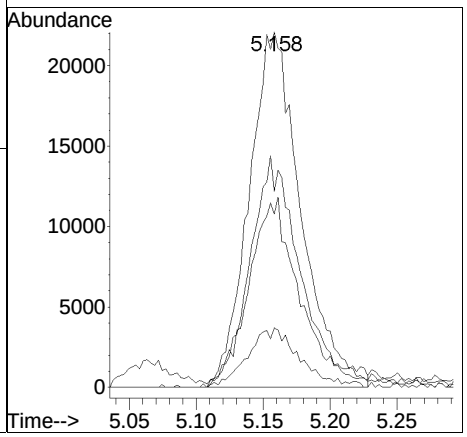


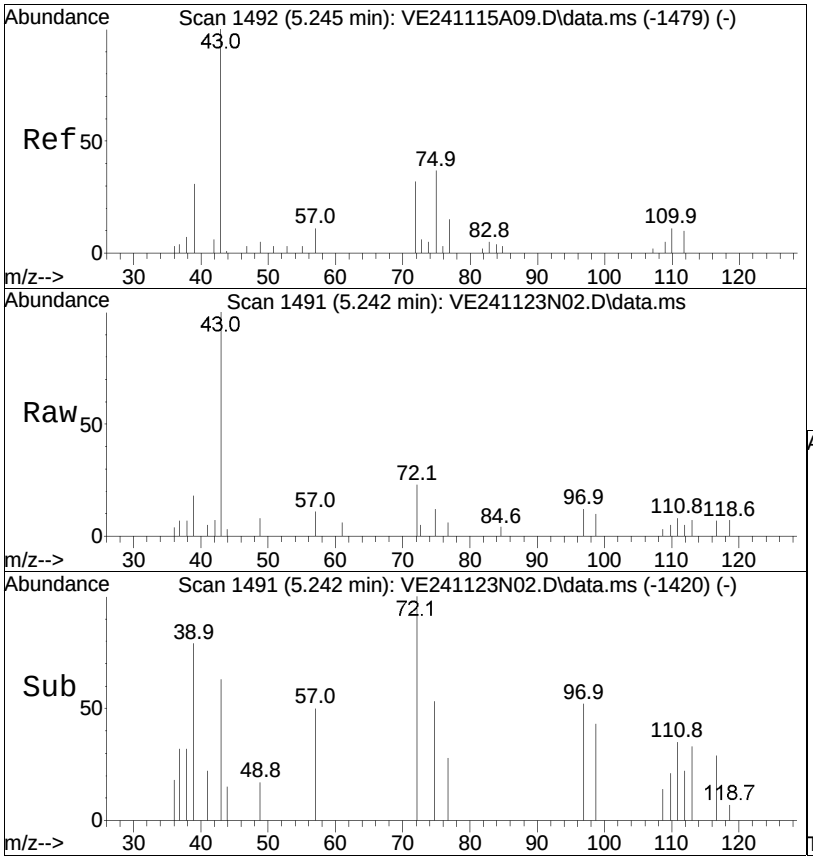


#40
1,1,1-Trichloroethane
Concen: 9.35 ug/L
RT: 5.158 min Scan# 1461
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 97 Resp: 59737

Ion	Ratio	Lower	Upper
97	100		
99	63.2	40.2	83.4
61	50.3	36.9	76.5
63	7.8	8.3	17.3#

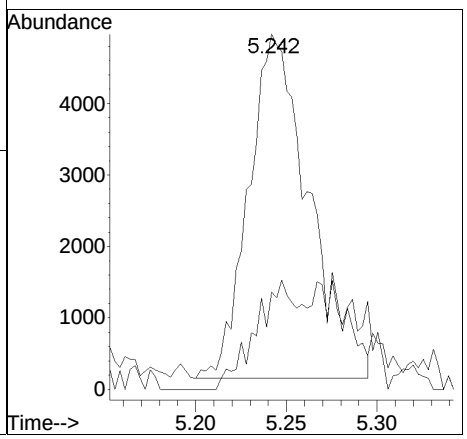


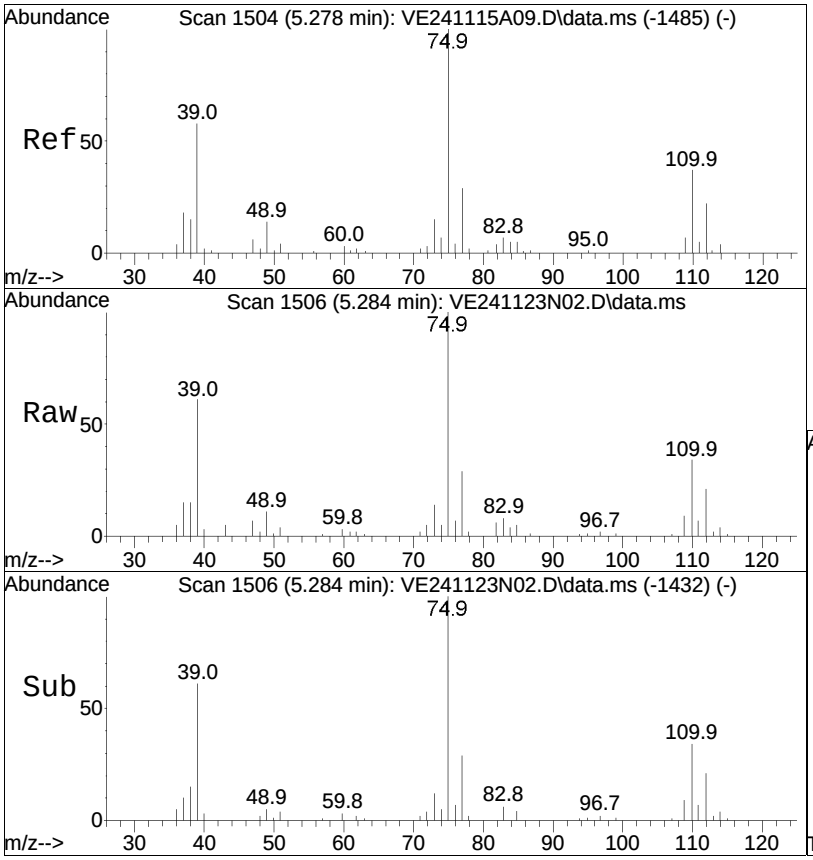


#42
2-Butanone
Concen: 9.23 ug/L
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 43 Resp: 11208

Ion	Ratio	Lower	Upper
43	100		
72	23.7	15.7	23.5#

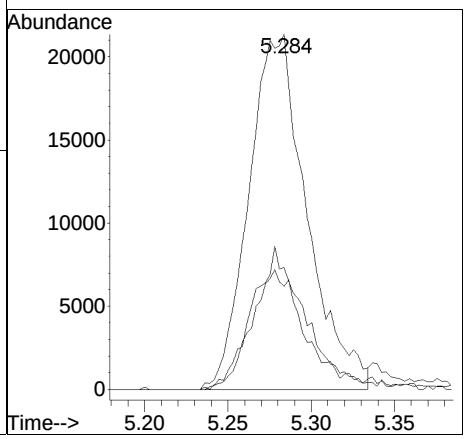


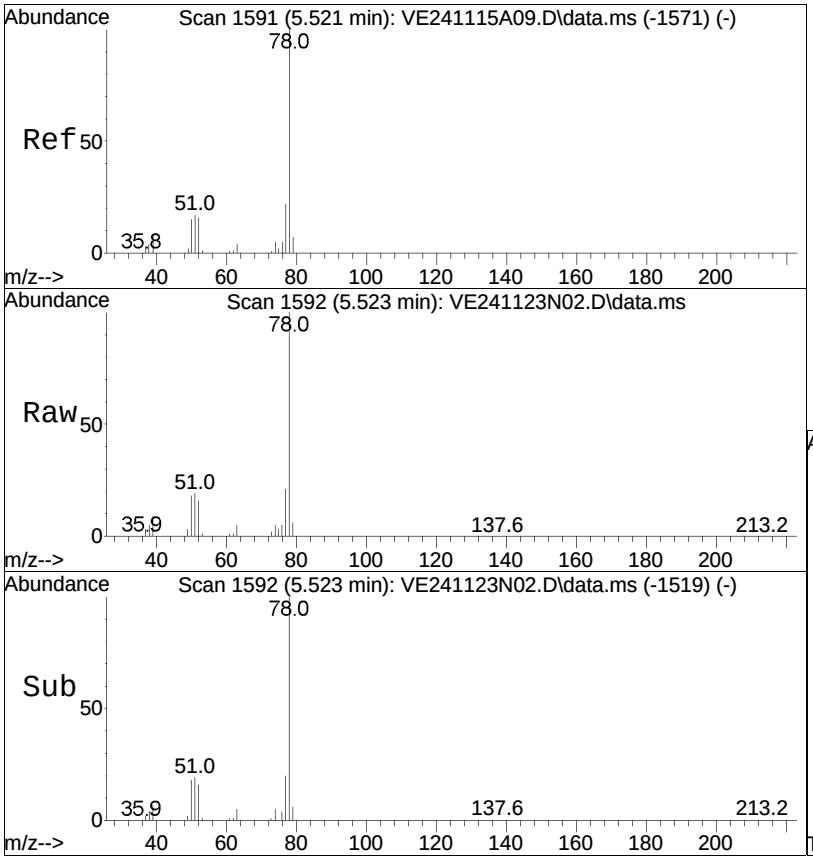


#43
1,1-Dichloropropene
Concen: 9.23 ug/L
RT: 5.284 min Scan# 1506
Delta R.T. 0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 75 Resp: 51669

Ion	Ratio	Lower	Upper
75	100		
110	36.3	20.3	42.1
77	31.5	18.9	39.3

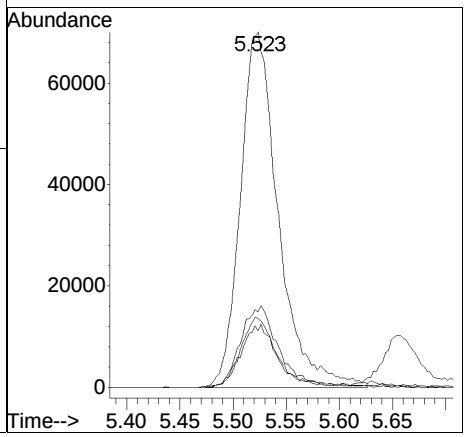


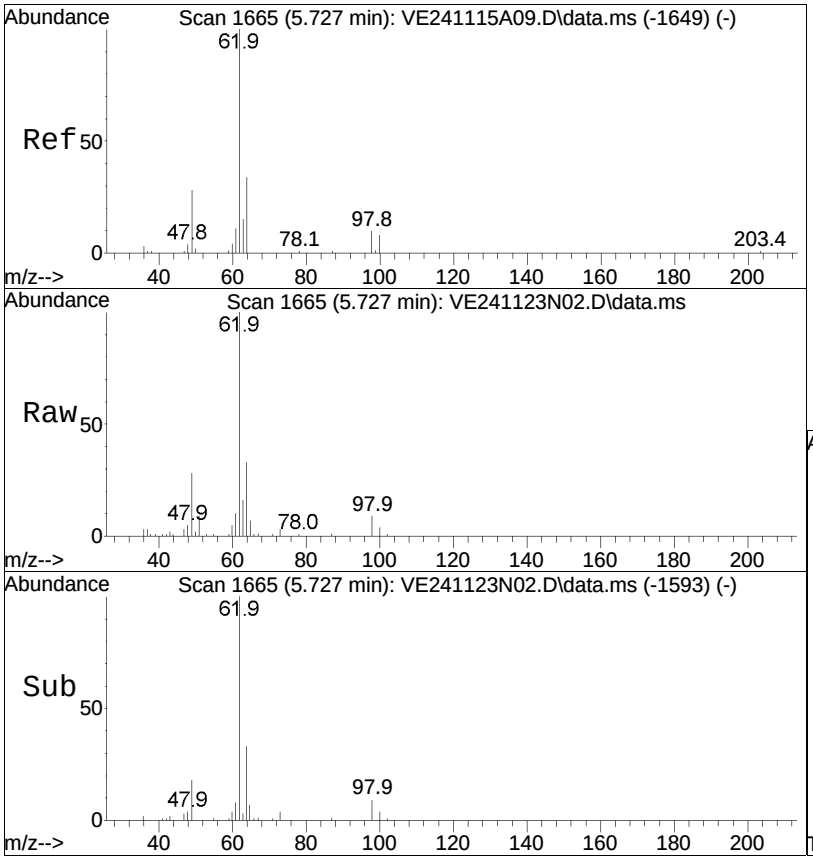


#45
Benzene
Concen: 9.89 ug/L
RT: 5.523 min Scan# 1592
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 78 Resp: 174448

Ion	Ratio	Lower	Upper
78	100		
77	23.0	12.8	26.6
51	18.4	13.5	27.9
52	16.9	12.0	25.0

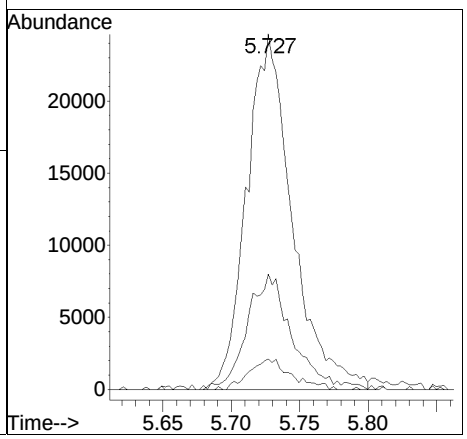


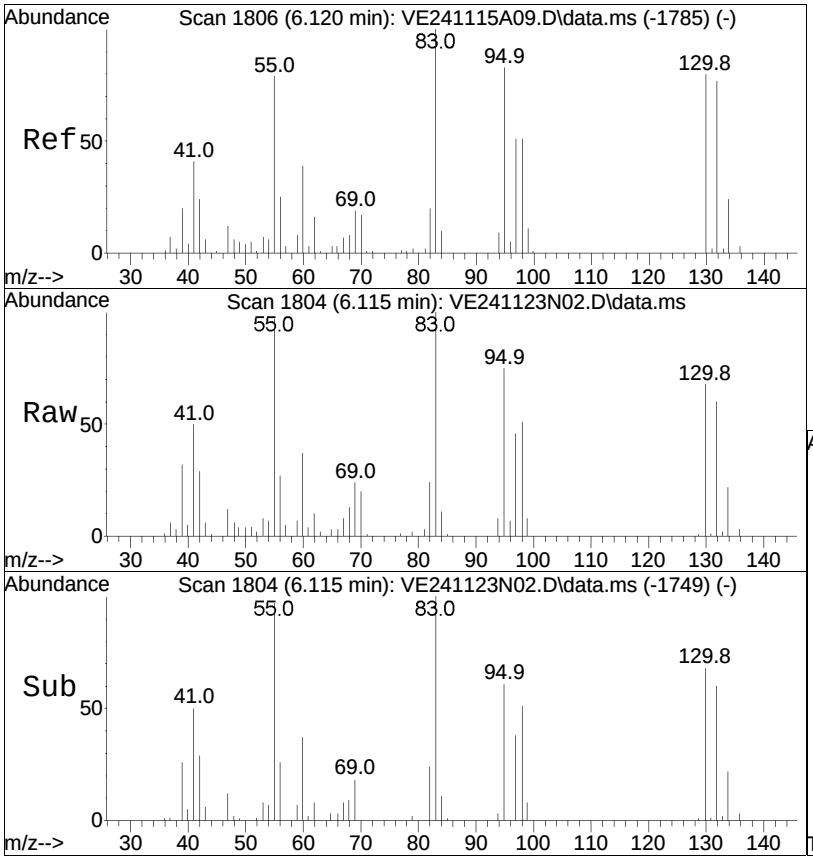


#48
1,2-Dichloroethane
Concen: 10.18 ug/L
RT: 5.727 min Scan# 1665
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 62 Resp: 57084

Ion	Ratio	Lower	Upper
62	100		
64	31.3	12.0	52.0
98	7.8	0.0	29.1

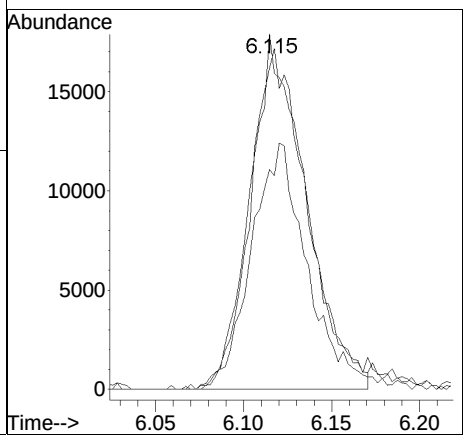


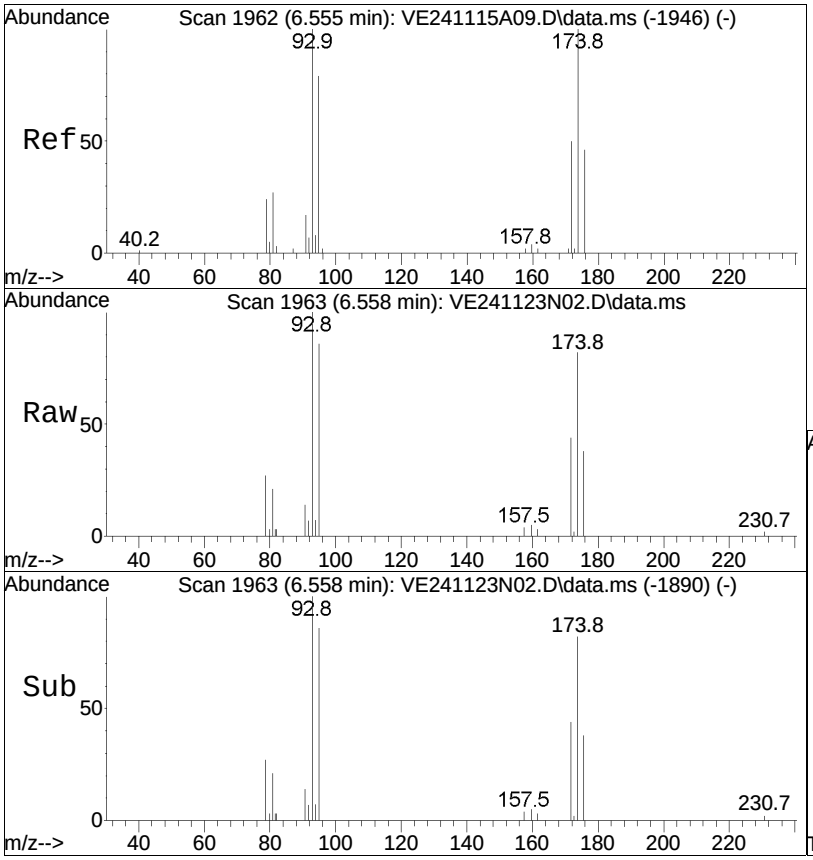


#52
Trichloroethene
Concen: 9.42 ug/L
RT: 6.115 min Scan# 1804
Delta R.T. -0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 95 Resp: 39403

Ion	Ratio	Lower	Upper
95	100		
97	70.3	50.2	75.2
130	98.2	78.2	117.4

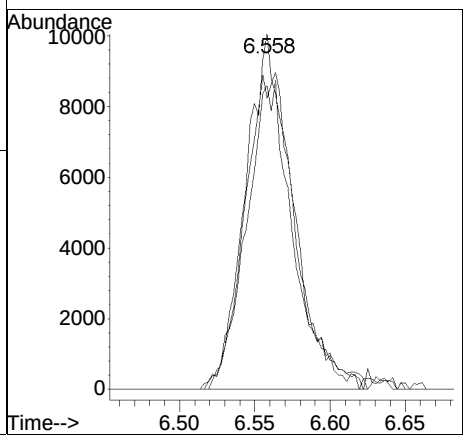


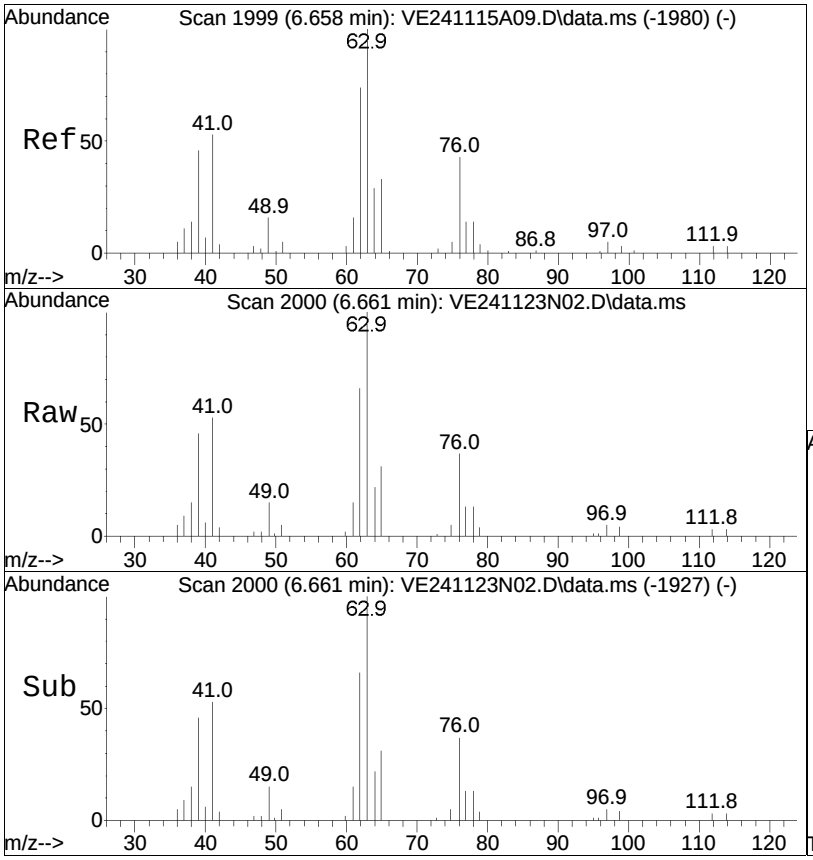


#54
Dibromomethane
Concen: 9.30 ug/L
RT: 6.558 min Scan# 1963
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 93 Resp: 22235

Ion	Ratio	Lower	Upper
93	100		
95	84.6	73.2	109.8
174	94.3	73.8	110.8

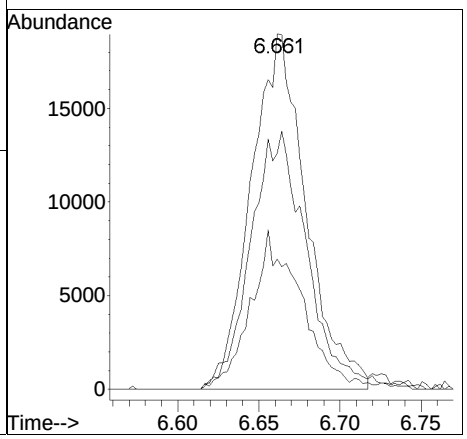


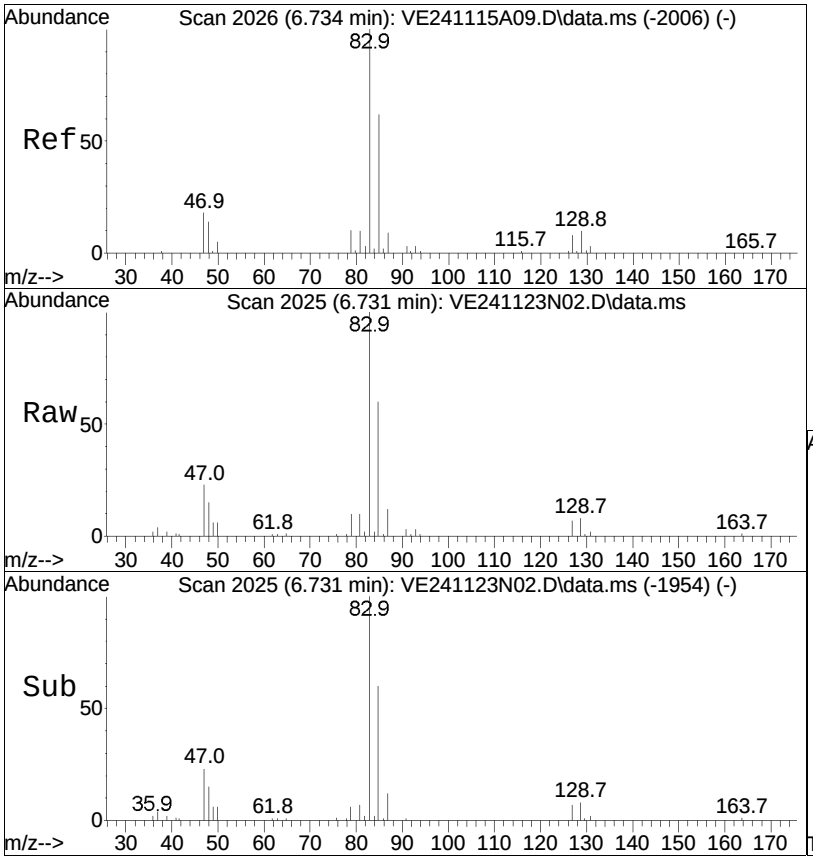


#55
1,2-Dichloropropane
Concen: 10.03 ug/L
RT: 6.661 min Scan# 2000
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 63 Resp: 44932

Ion	Ratio	Lower	Upper
63	100		
62	73.8	58.4	87.6
76	40.5	28.7	43.1

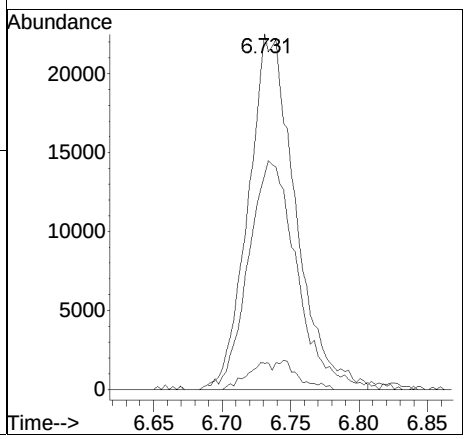


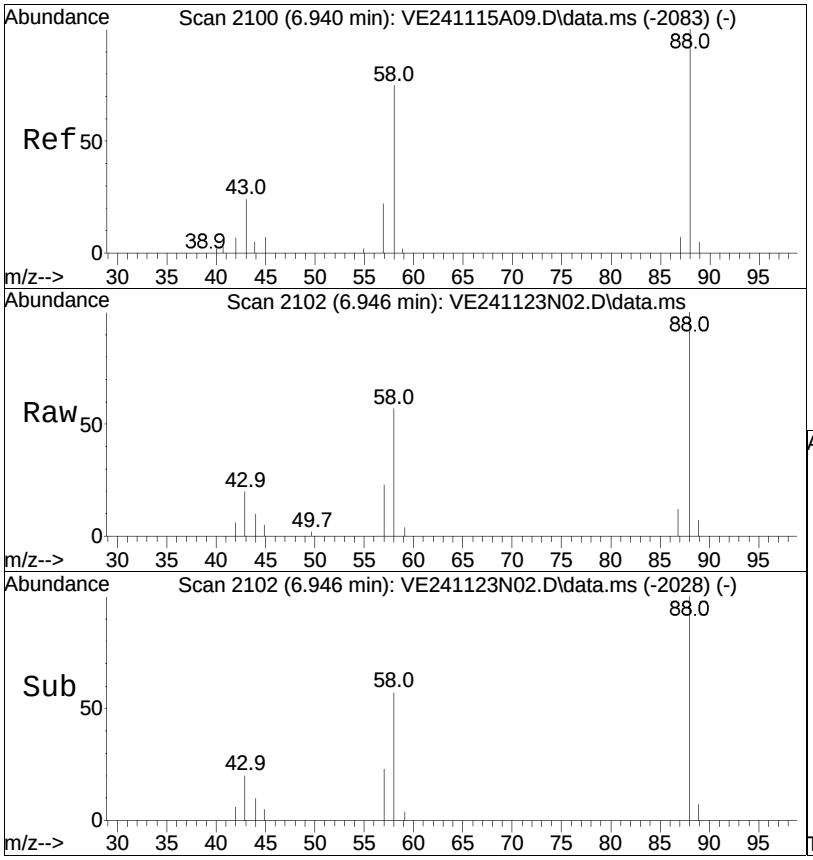


#58
Bromodichloromethane
Concen: 9.24 ug/L
RT: 6.731 min Scan# 2025
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 83 Resp: 53724

Ion	Ratio	Lower	Upper
83	100		
85	66.8	46.6	69.8
127	4.0	6.2	9.4#

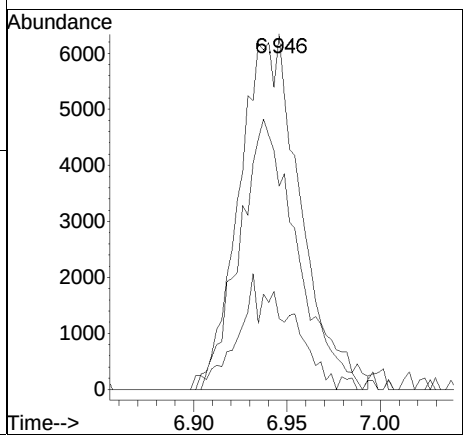


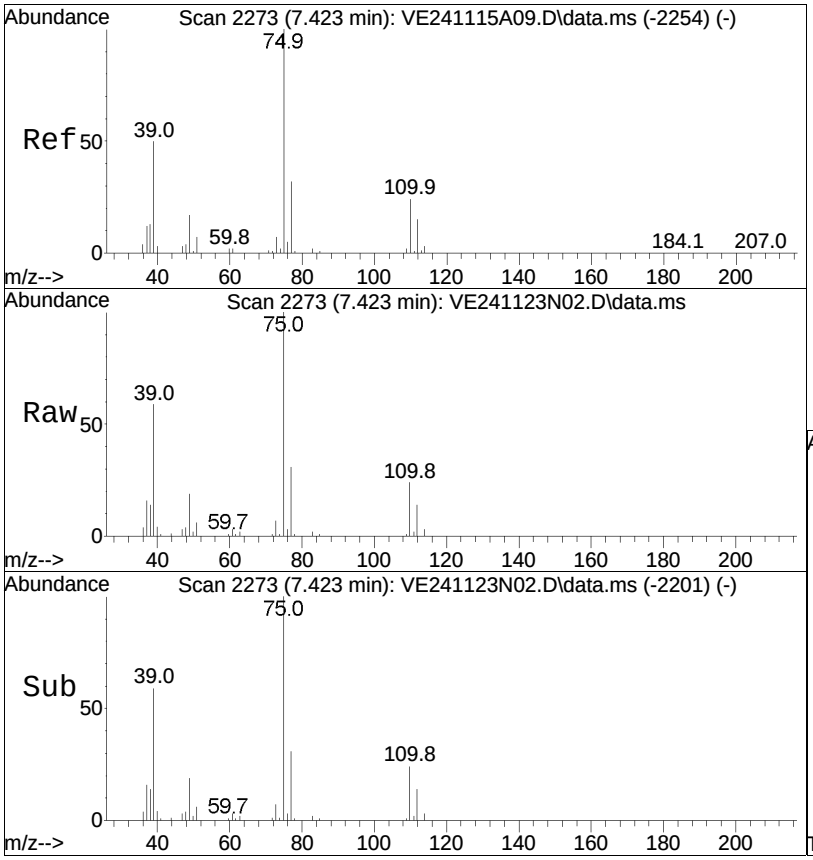


#61
1,4-Dioxane
Concen: 489.99 ug/L
RT: 6.946 min Scan# 2102
Delta R.T. 0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 88 Resp: 14346

Ion	Ratio	Lower	Upper
88	100		
58	72.0	62.8	94.2
43	11.6	36.6	55.0#

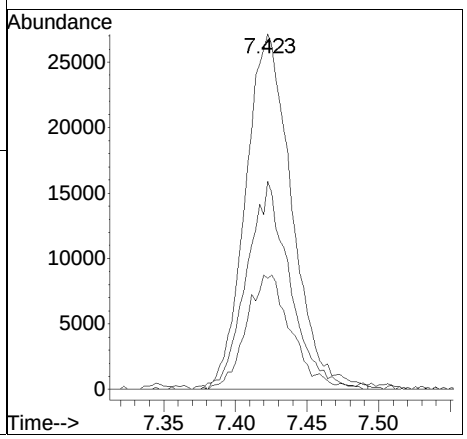


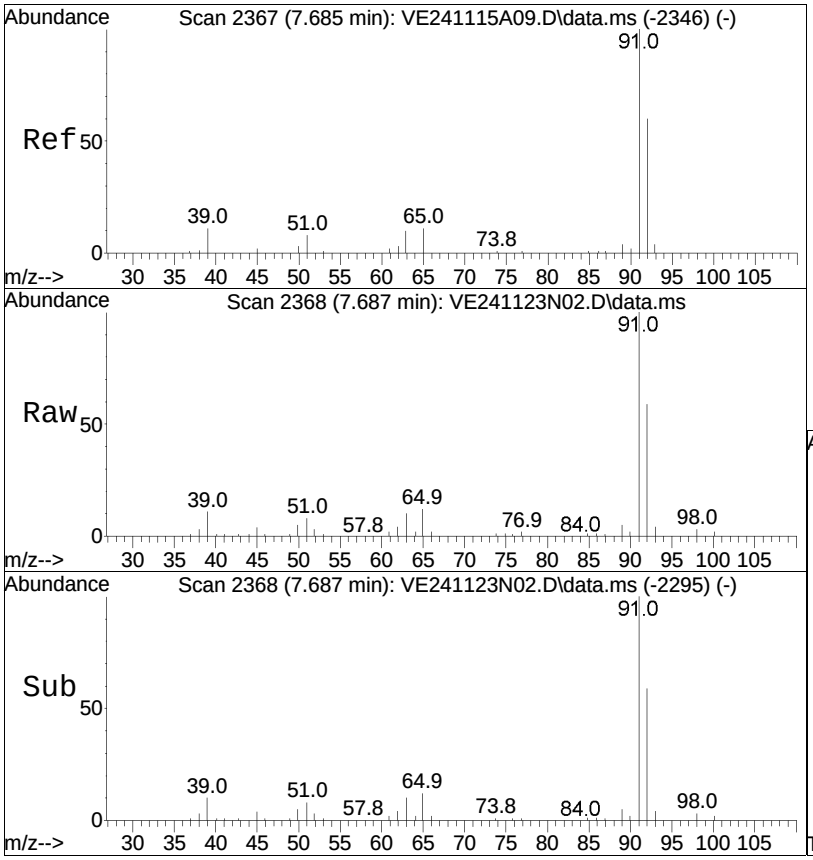


#62
cis-1,3-Dichloropropene
Concen: 9.10 ug/L
RT: 7.423 min Scan# 2273
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 75 Resp: 61086

Ion	Ratio	Lower	Upper
75	100		
77	31.2	25.1	37.7
39	54.8	50.7	76.1

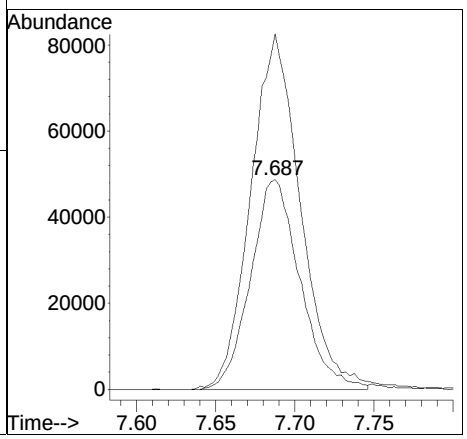


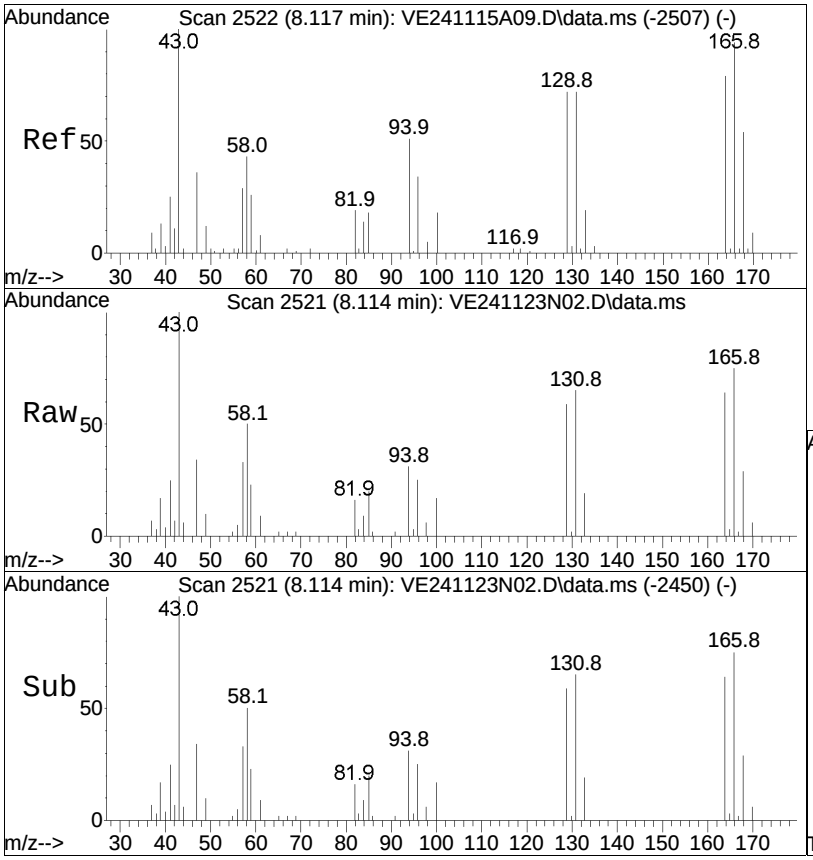


#65
Toluene
Concen: 9.44 ug/L
RT: 7.687 min Scan# 2368
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 92 Resp: 105916

Ion	Ratio	Lower	Upper
92	100		
91	171.9	129.1	193.7

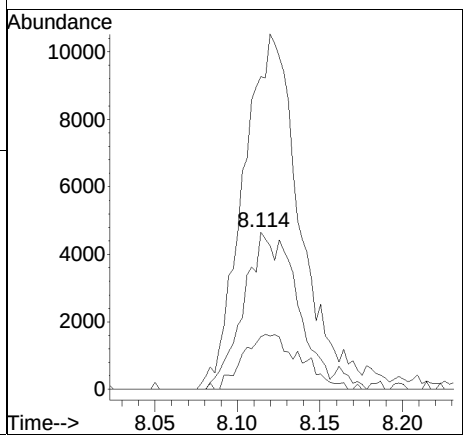


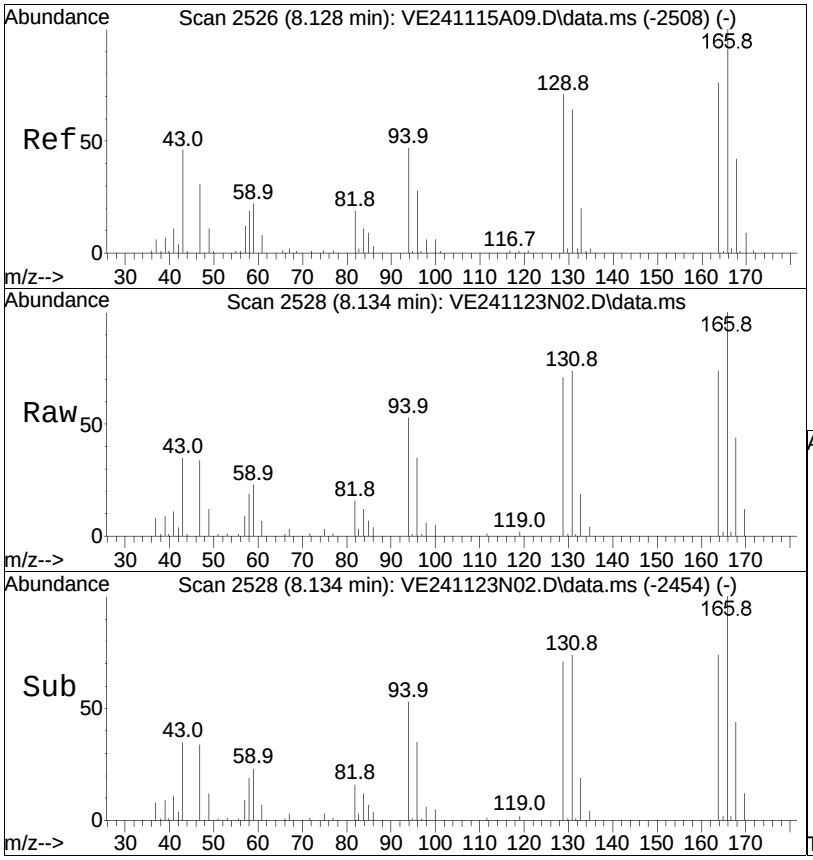


#66
4-Methyl-2-pentanone
Concen: 9.19 ug/L M1
RT: 8.114 min Scan# 2521
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 58 Resp: 10833

Ion	Ratio	Lower	Upper
58	100		
100	36.4	27.9	41.9
43	233.1	225.7	338.5

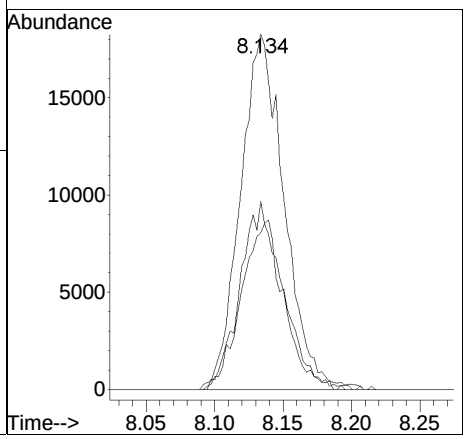


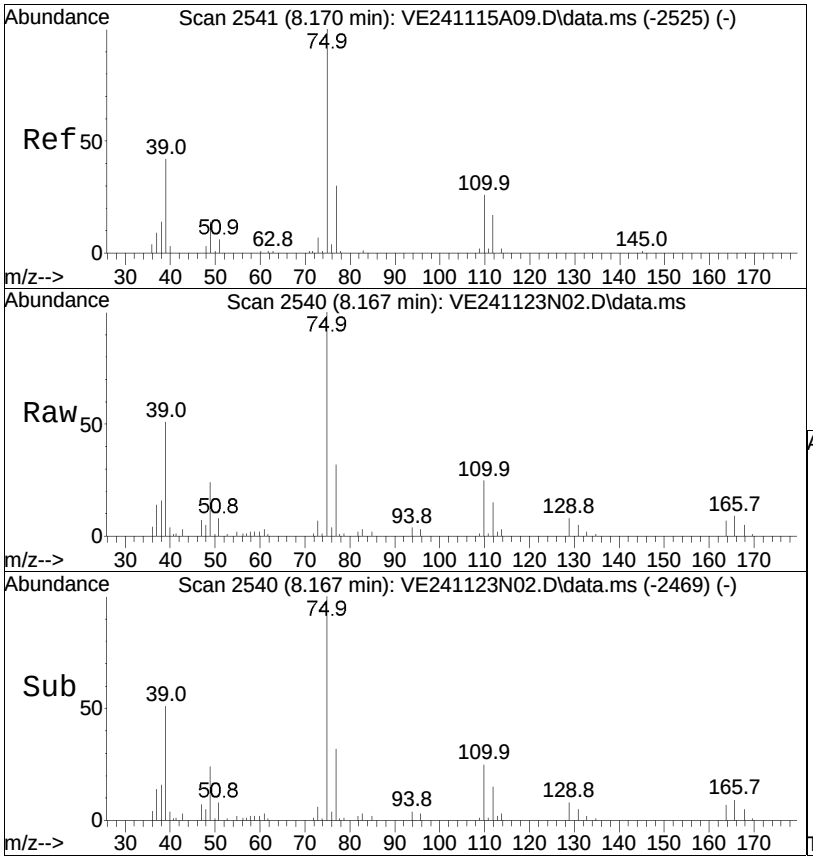


#67
Tetrachloroethene
Concen: 9.02 ug/L
RT: 8.134 min Scan# 2528
Delta R.T. 0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:166 Resp: 40664

Ion	Ratio	Lower	Upper
166	100		
168	47.4	25.8	65.8
94	50.6	24.3	64.3

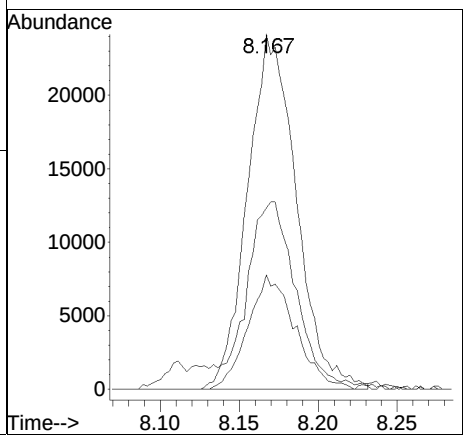


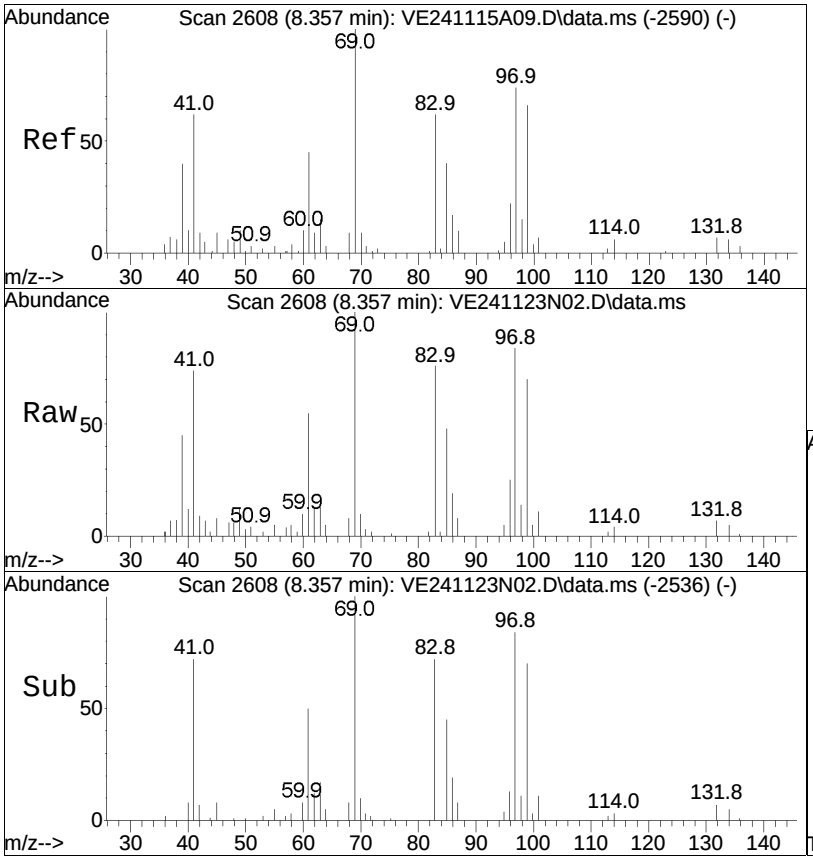


#69
trans-1,3-Dichloropropene
Concen: 9.33 ug/L
RT: 8.167 min Scan# 2540
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 75 Resp: 51849

Ion	Ratio	Lower	Upper
75	100		
77	31.2	10.2	50.2
39	53.4	45.7	85.7

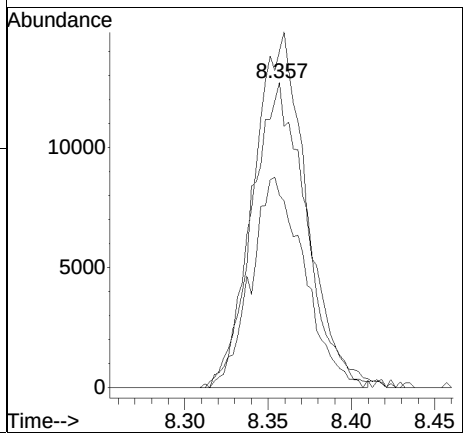


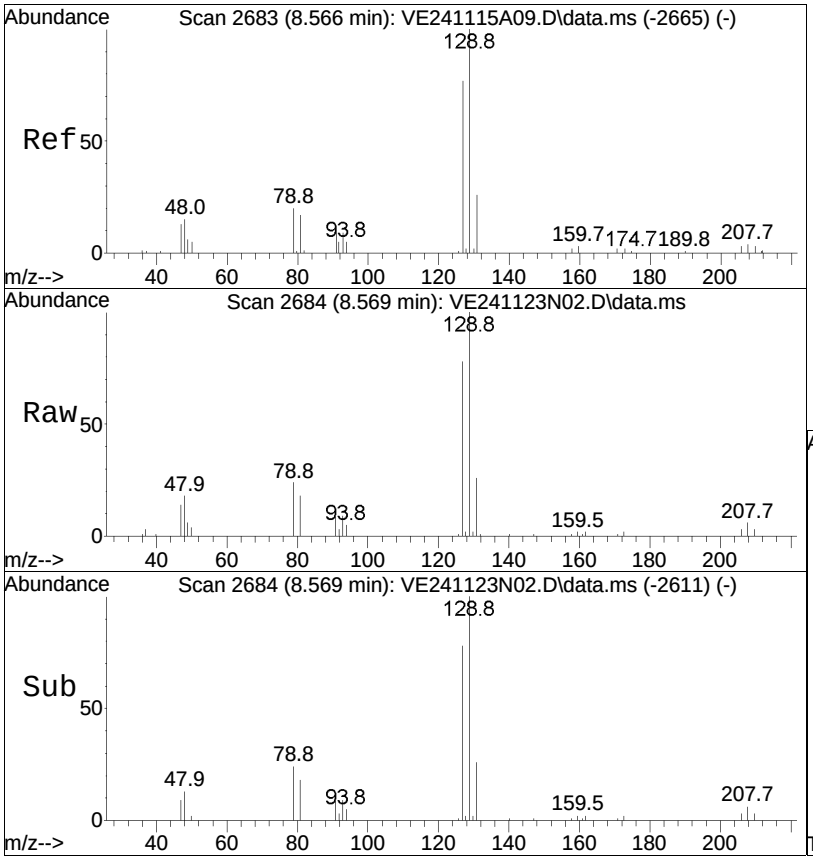


#72
1,1,2-Trichloroethane
Concen: 9.68 ug/L
RT: 8.357 min Scan# 2608
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 83 Resp: 28538

Ion	Ratio	Lower	Upper
83	100		
97	116.0	99.2	139.2
85	68.0	48.7	88.7

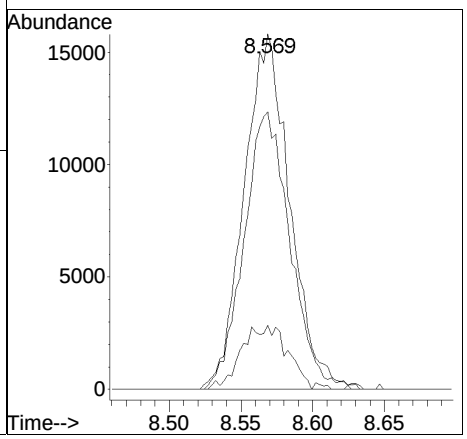


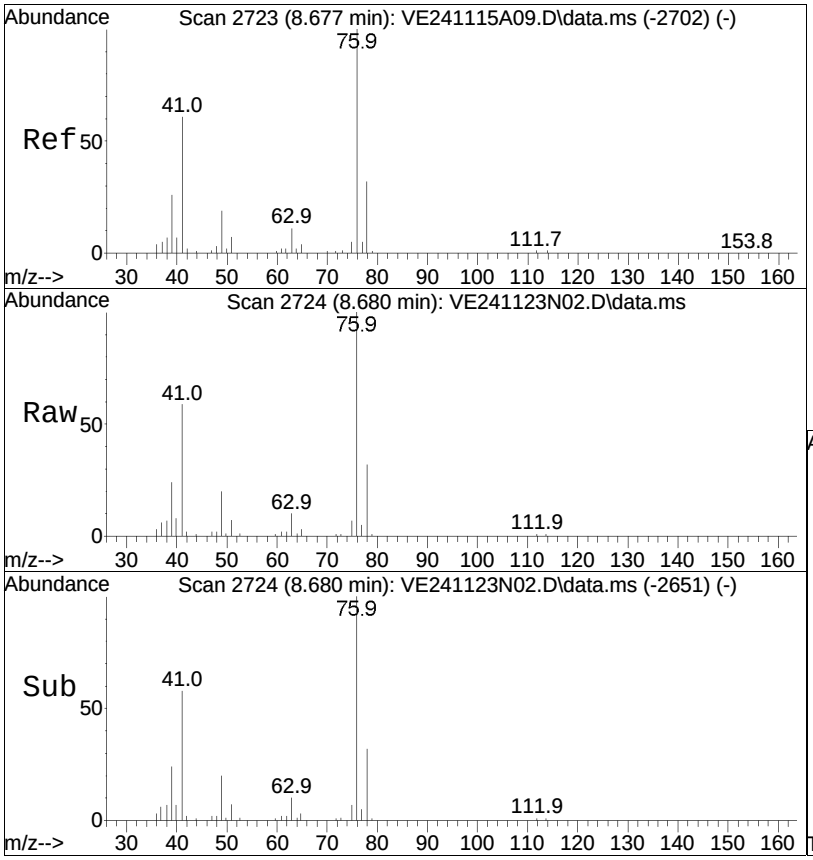


#73
Chlorodibromomethane
Concen: 8.88 ug/L
RT: 8.569 min Scan# 2684
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:129 Resp: 35134

Ion	Ratio	Lower	Upper
129	100		
81	8.2	0.0	39.5
127	78.7	58.6	98.6

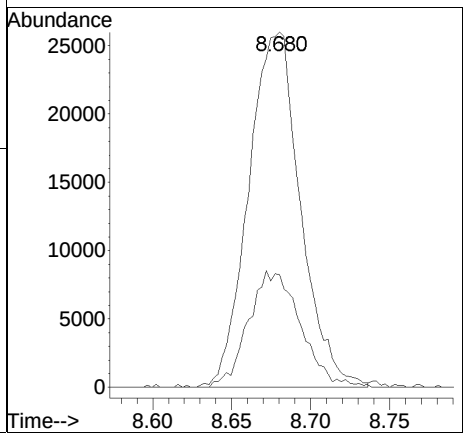


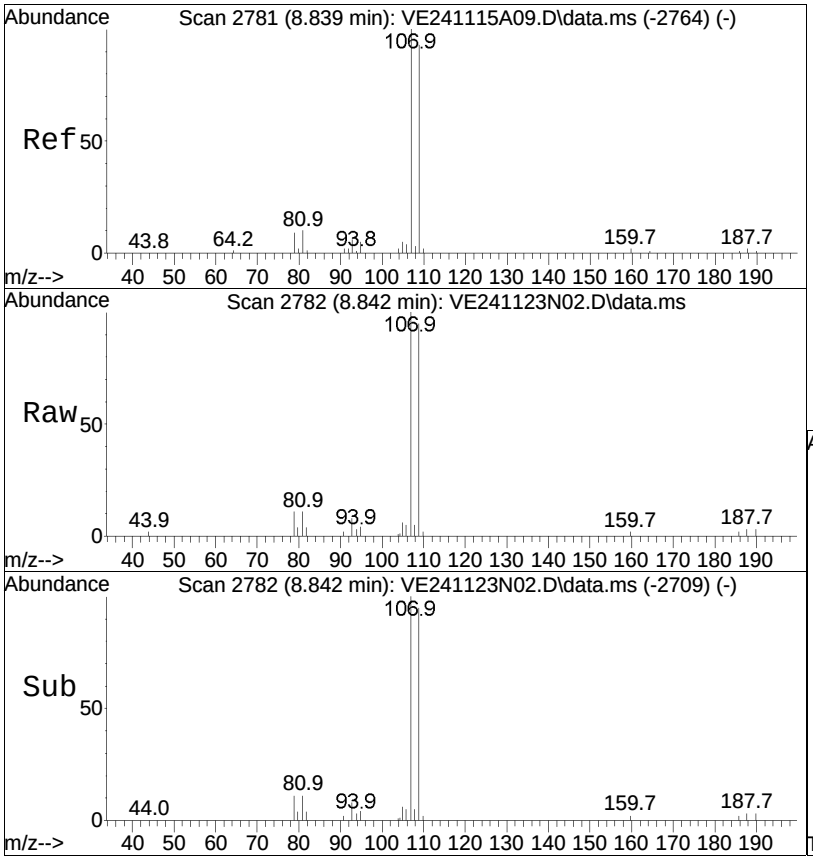


#74
1,3-Dichloropropane
Concen: 9.77 ug/L
RT: 8.680 min Scan# 2724
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 76 Resp: 59477

Ion	Ratio	Lower	Upper
76	100		
78	32.8	27.0	40.4

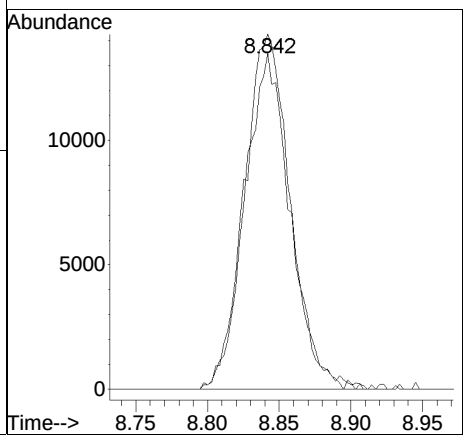


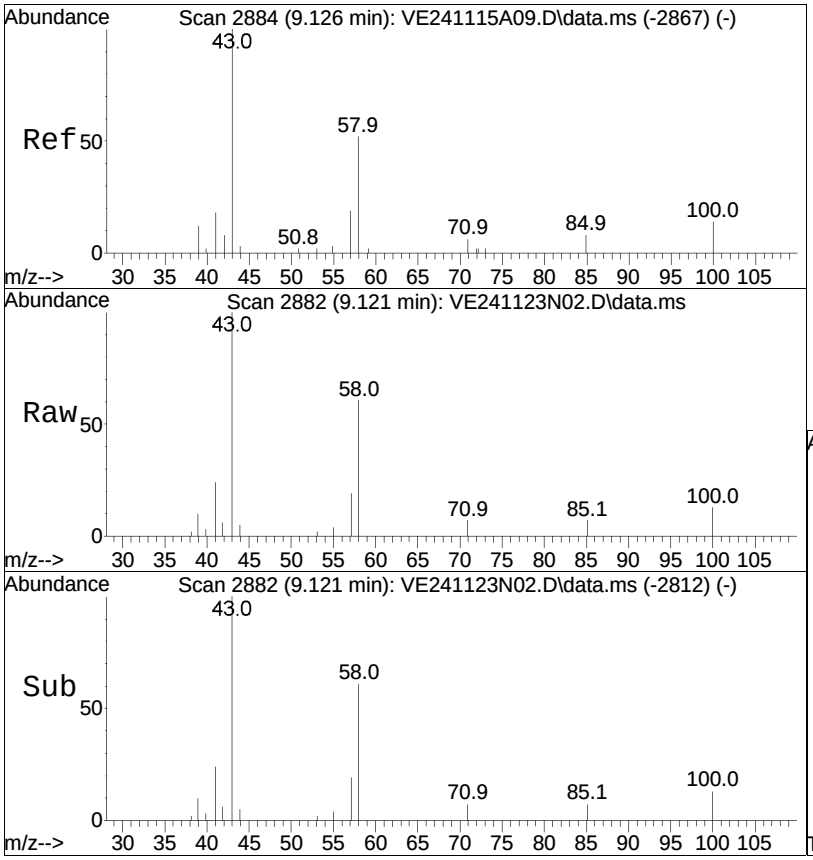


#75
1,2-Dibromoethane
Concen: 9.19 ug/L
RT: 8.842 min Scan# 2782
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:107 Resp: 32101

Ion	Ratio	Lower	Upper
107	100		
109	92.0	66.3	99.5

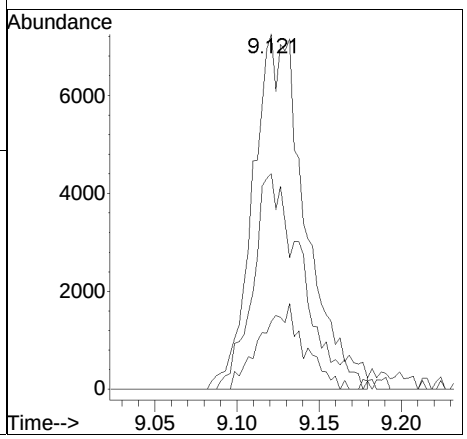


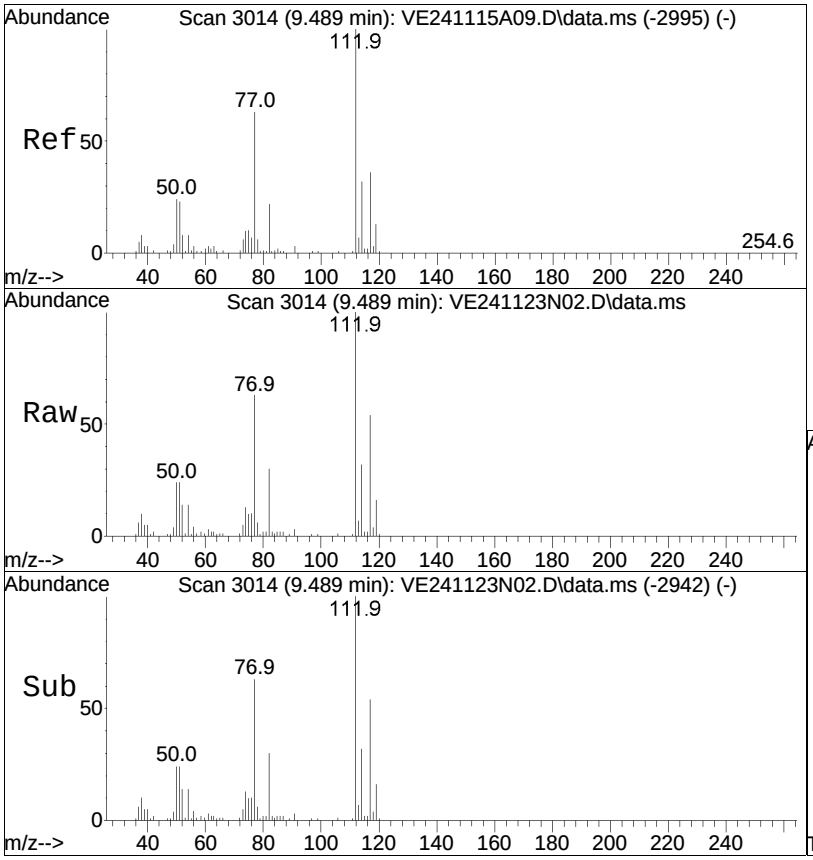


#77
2-Hexanone
Concen: 8.53 ug/L M1
RT: 9.121 min Scan# 2882
Delta R.T. -0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 43 Resp: 16164

Ion	Ratio	Lower	Upper
43	100		
58	57.2	42.5	63.7
57	20.4	13.9	20.9

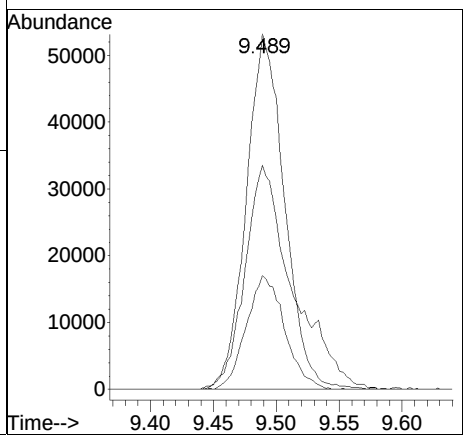


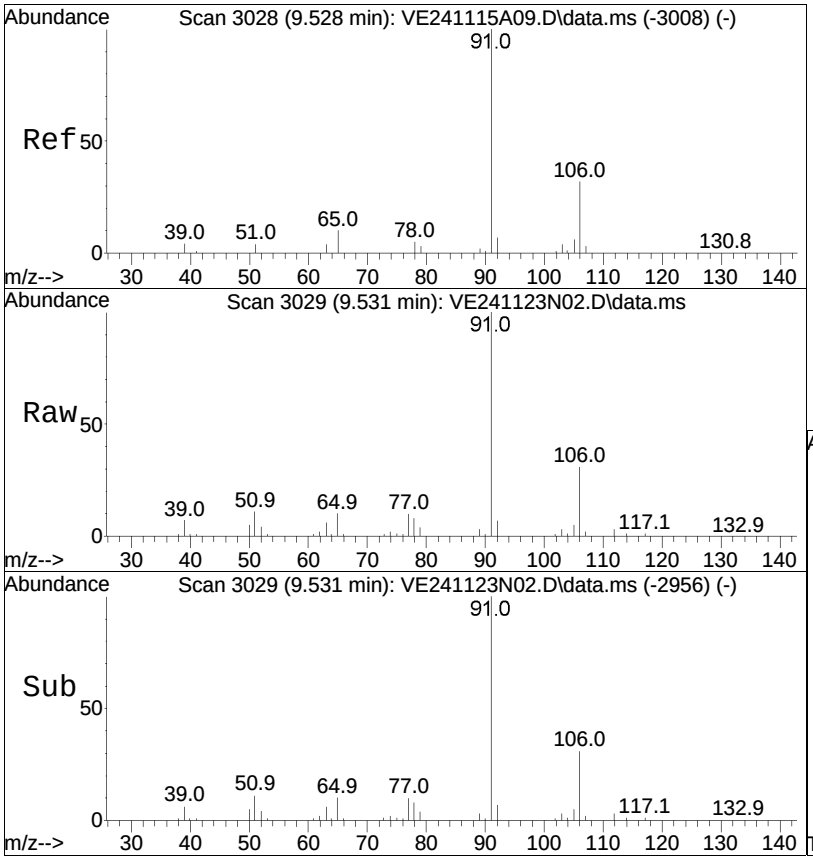


#78
Chlorobenzene
Concen: 9.43 ug/L
RT: 9.489 min Scan# 3014
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:112 Resp: 112468

Ion	Ratio	Lower	Upper
112	100		
77	78.9	46.9	70.3#
114	32.2	23.8	35.6

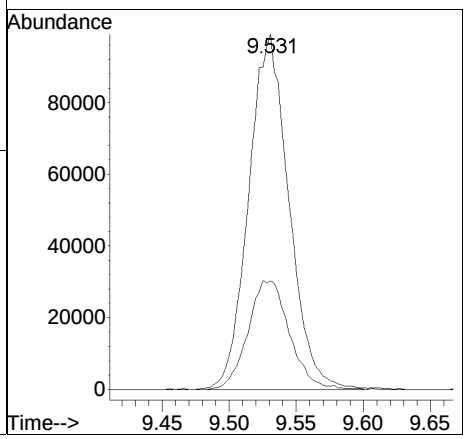


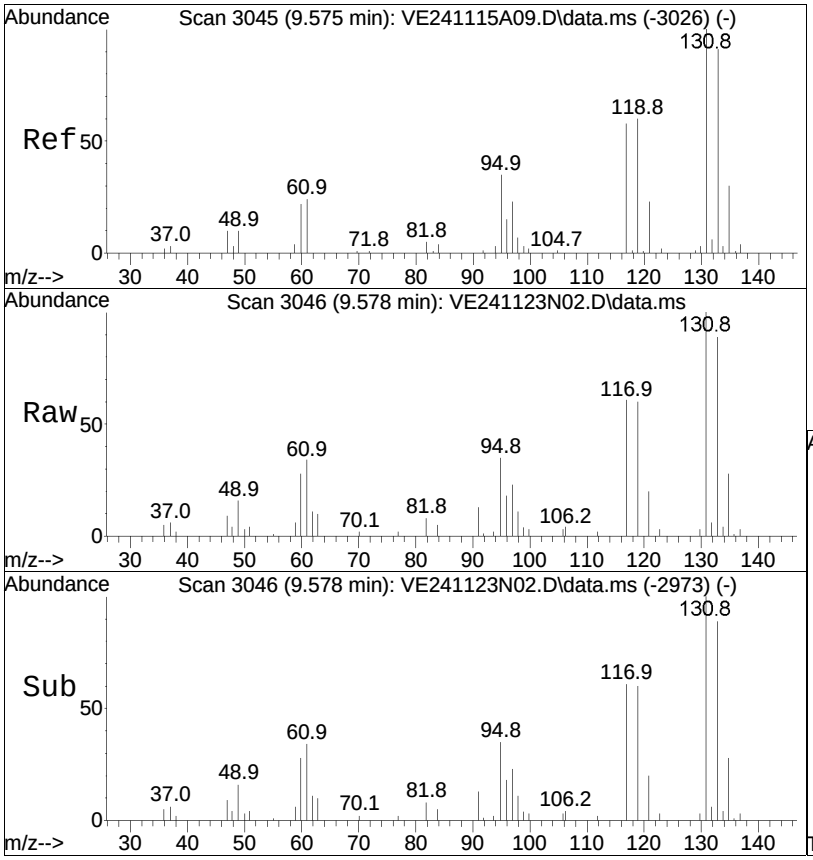


#79
Ethylbenzene
Concen: 9.63 ug/L
RT: 9.531 min Scan# 3029
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 91 Resp: 206427

Ion	Ratio	Lower	Upper
91	100		
106	31.6	25.3	37.9

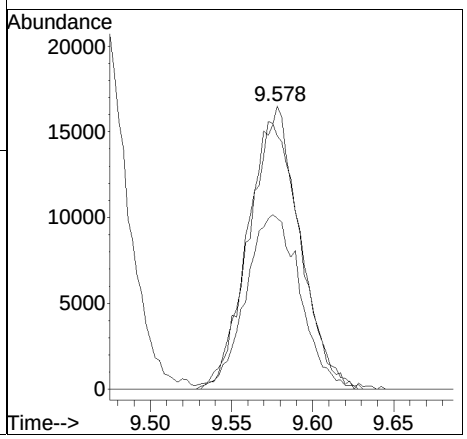


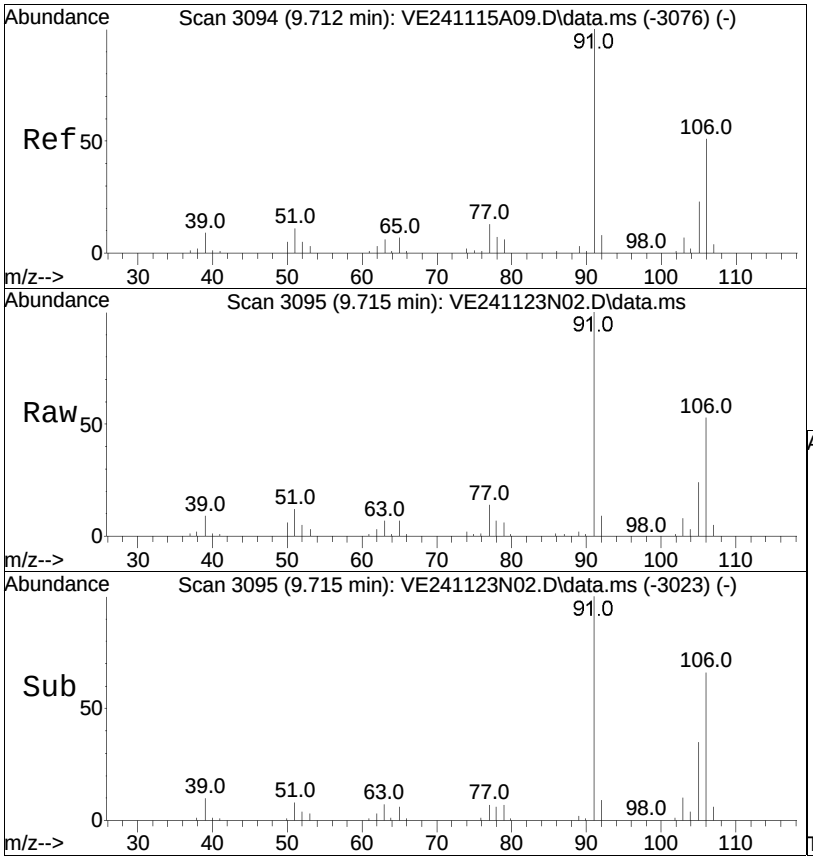


#80
1,1,1,2-Tetrachloroethane
Concen: 9.19 ug/L
RT: 9.578 min Scan# 3046
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:131 Resp: 36397

Ion	Ratio	Lower	Upper
131	100		
133	97.1	72.9	112.9
119	65.4	39.6	79.6

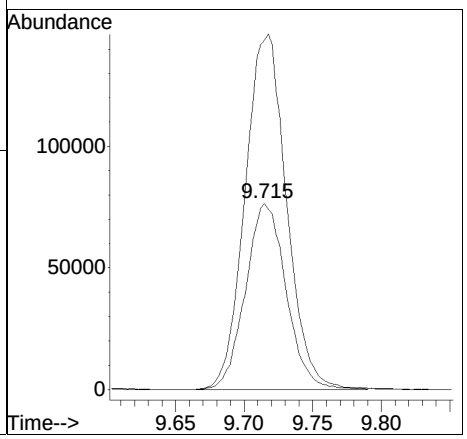


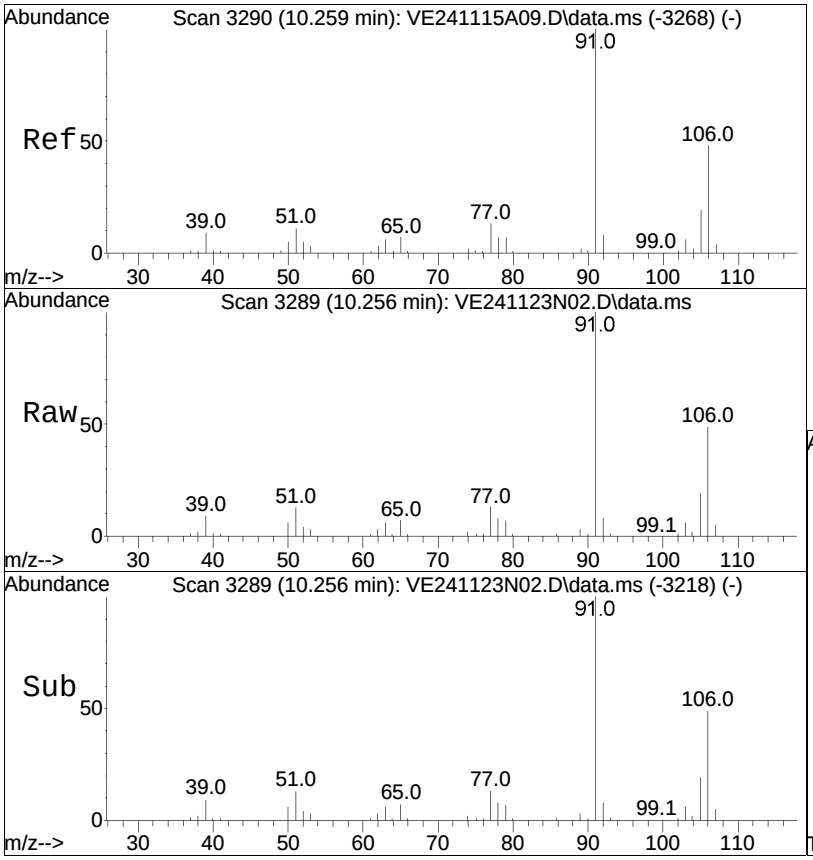


#81
p/m Xylene
Concen: 19.07 ug/L
RT: 9.715 min Scan# 3095
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:106 Resp: 157371

Ion	Ratio	Lower	Upper
106	100		
91	195.5	163.3	244.9

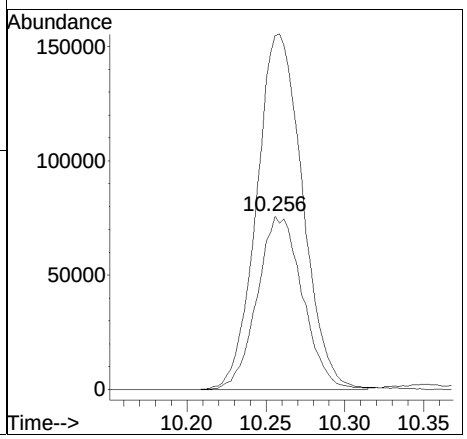


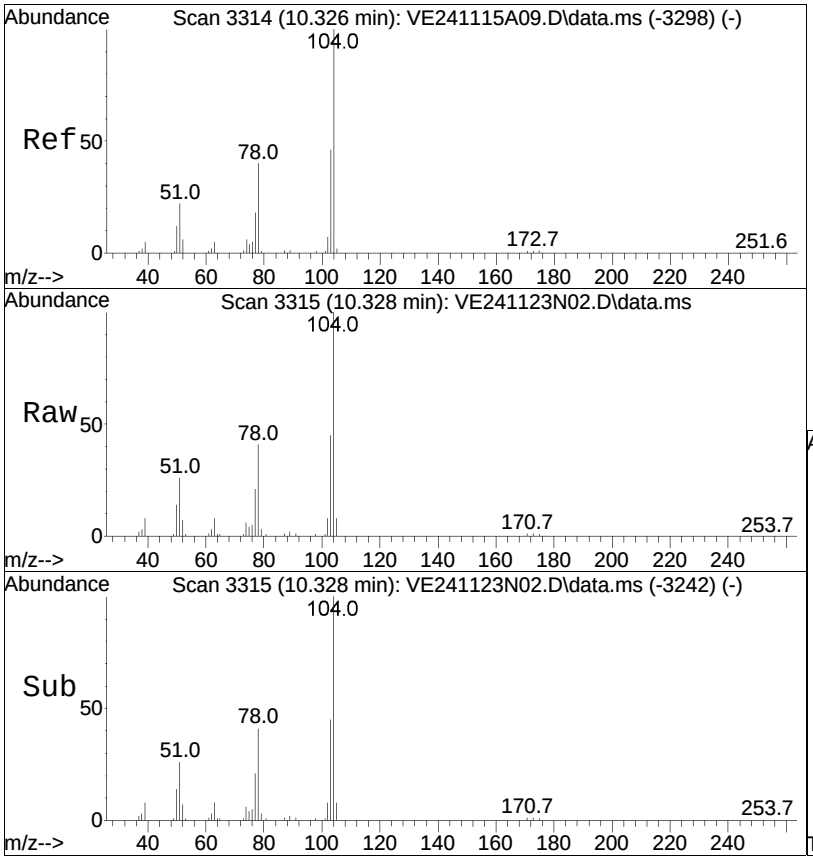


#82
o Xylene
Concen: 18.76 ug/L
RT: 10.256 min Scan# 3289
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:106 Resp: 150976

Ion	Ratio	Lower	Upper
106	100		
91	207.8	181.0	271.6

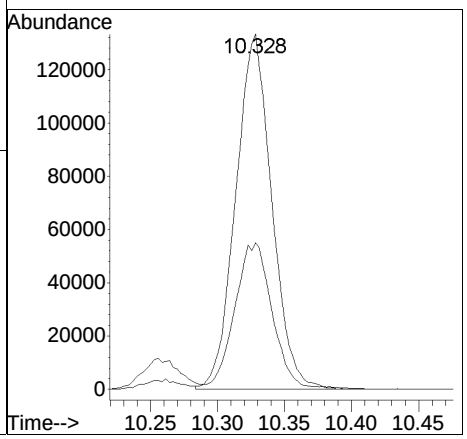


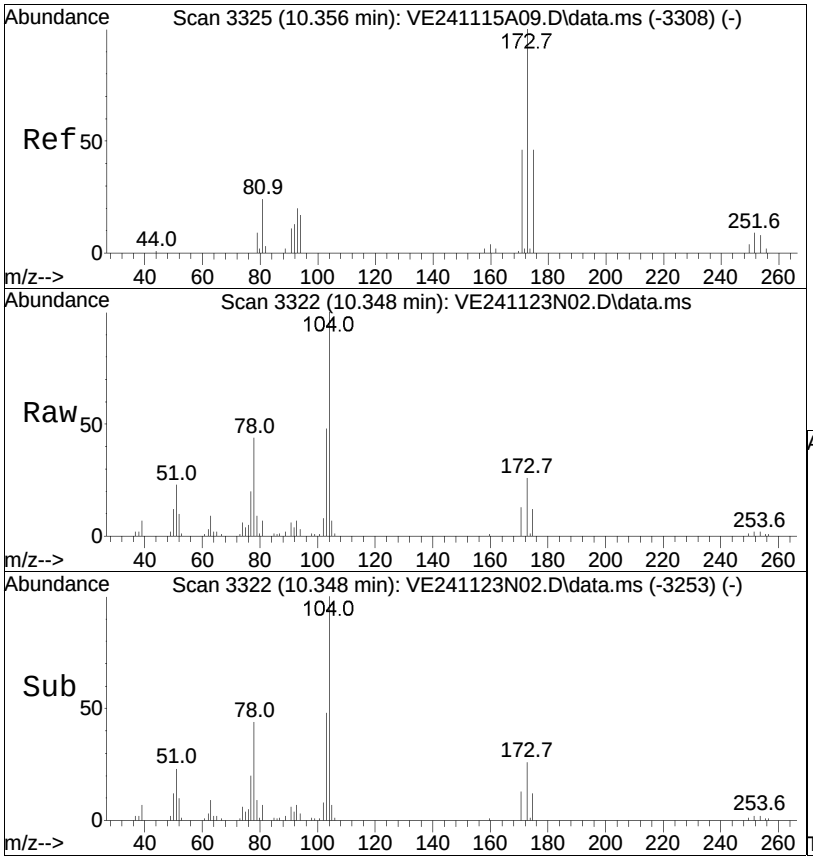


#83
Styrene
Concen: 18.42 ug/L
RT: 10.328 min Scan# 3315
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:104 Resp: 250255

Ion	Ratio	Lower	Upper
104	100		
78	42.7	35.9	53.9

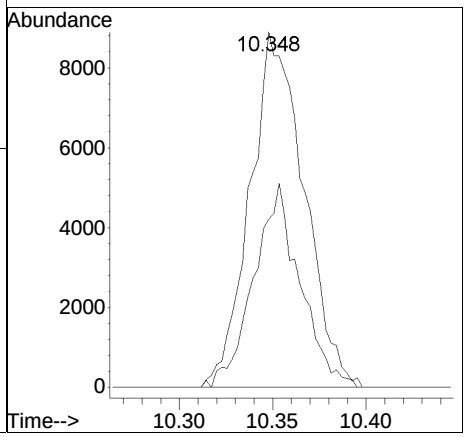


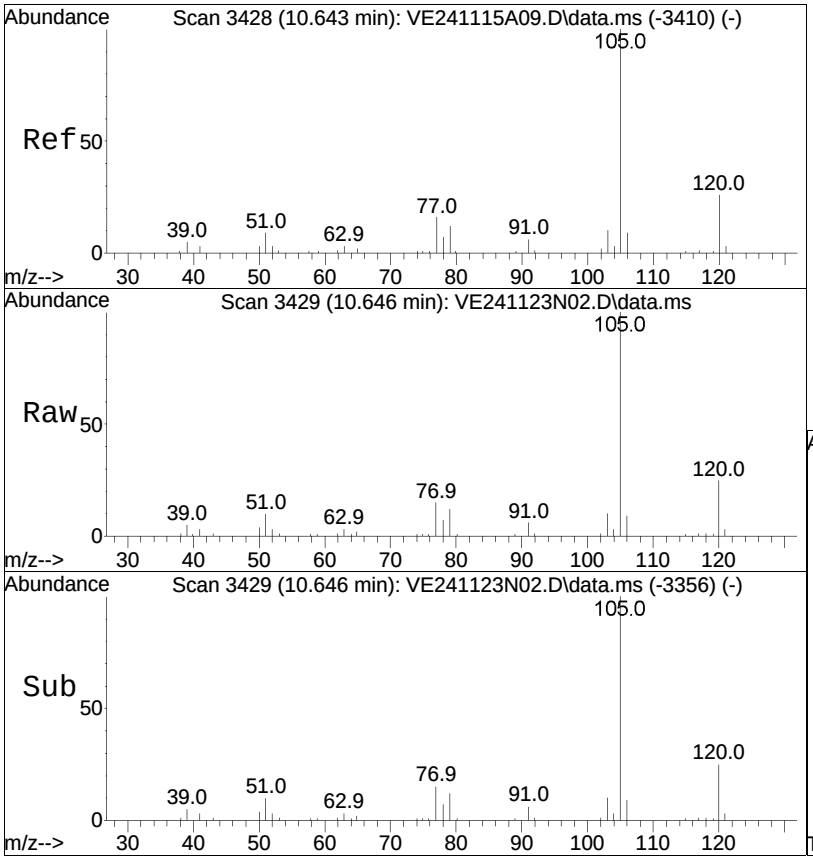


#85
Bromoform
Concen: 8.34 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.008 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:173 Resp: 17930

Ion	Ratio	Lower	Upper
173	100		
175	49.0	32.9	72.9

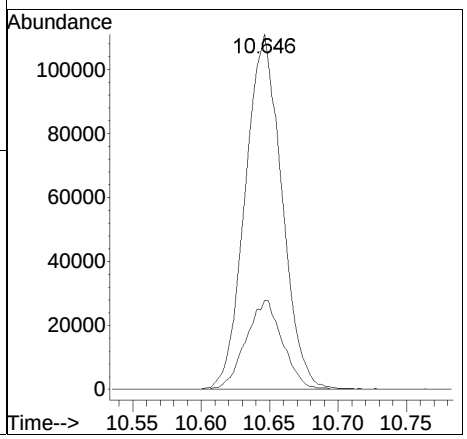


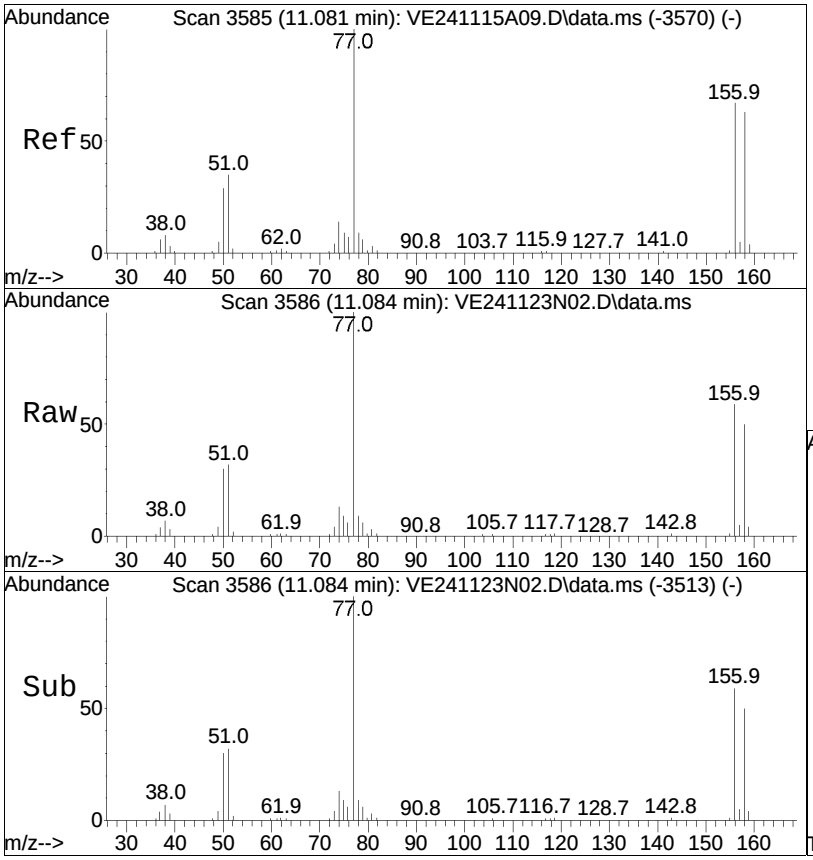


#87
Isopropylbenzene
Concen: 9.62 ug/L
RT: 10.646 min Scan# 3429
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:105 Resp: 206584

Ion	Ratio	Lower	Upper
105	100		
120	25.1	4.8	44.8

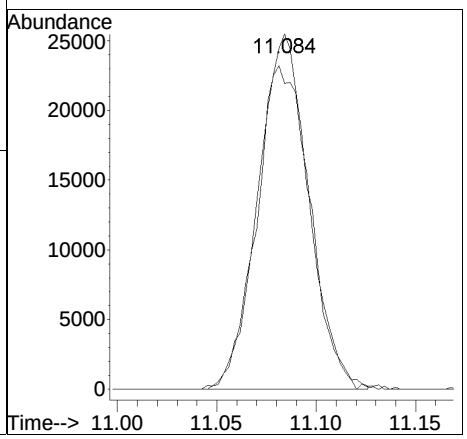


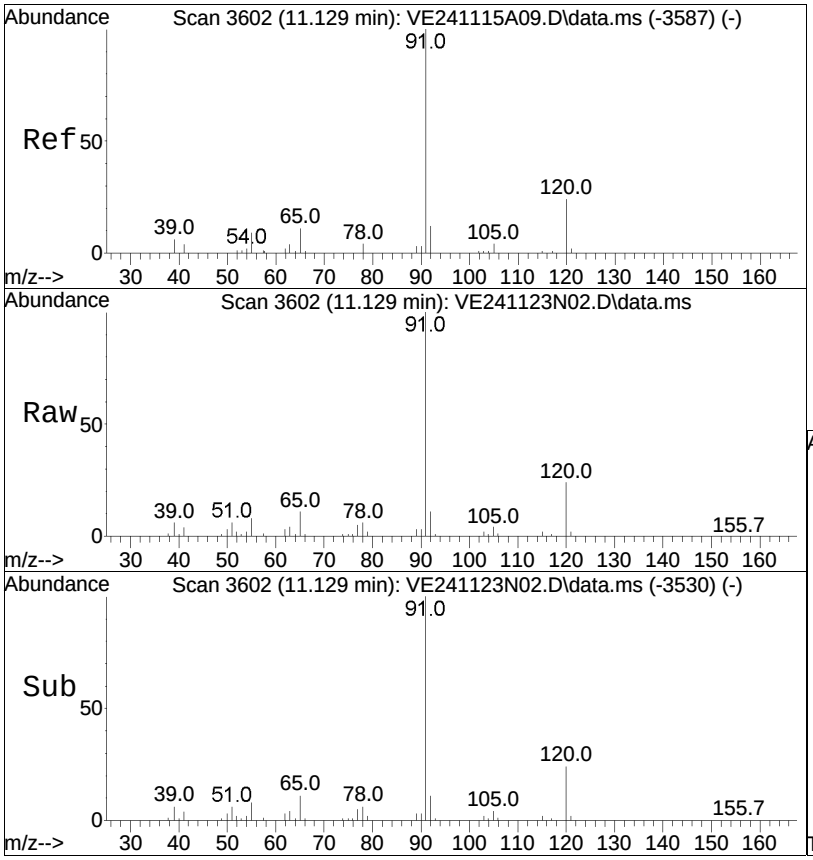


#89
Bromobenzene
Concen: 9.43 ug/L
RT: 11.084 min Scan# 3586
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:156 Resp: 45242

Ion	Ratio	Lower	Upper
156	100		
158	95.7	75.9	113.9

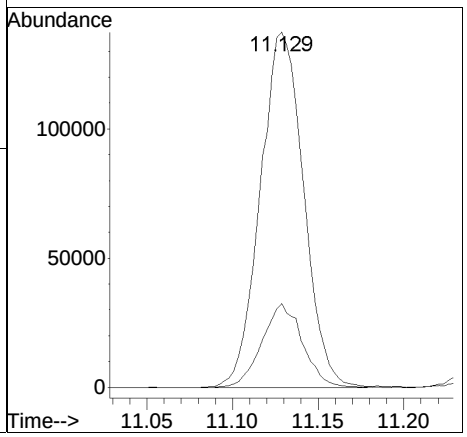


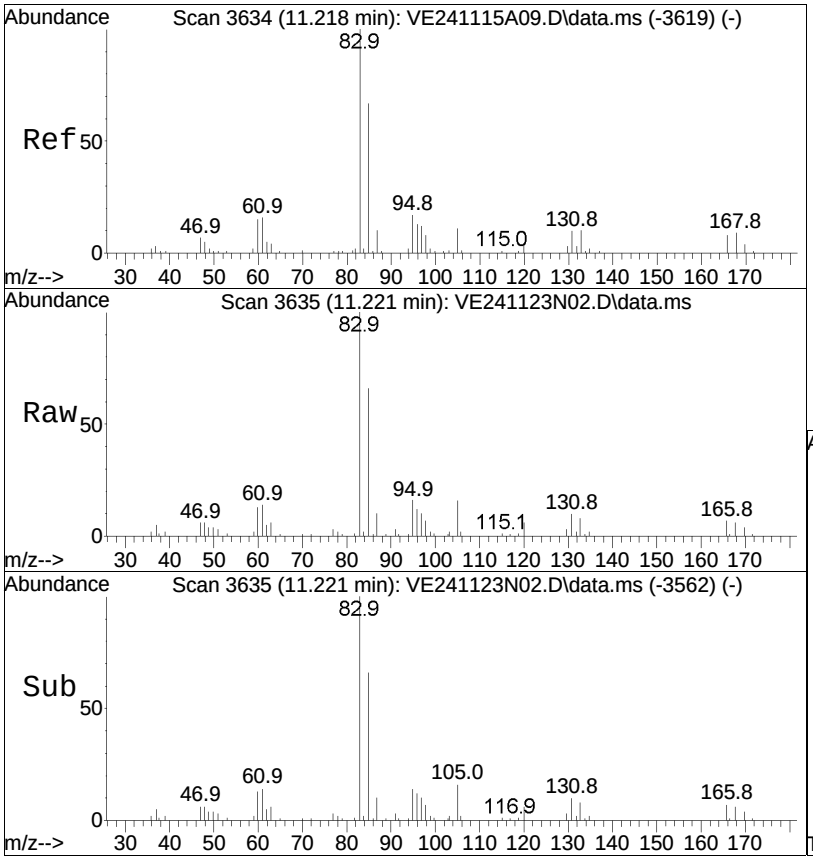


#90
n-Propylbenzene
Concen: 9.92 ug/L
RT: 11.129 min Scan# 3602
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 91 Resp: 241789

Ion	Ratio	Lower	Upper
91	100		
120	22.0	16.7	25.1

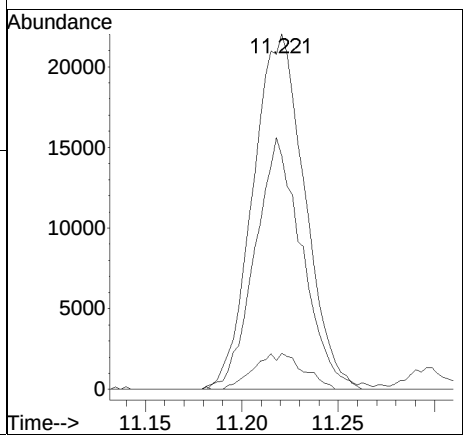


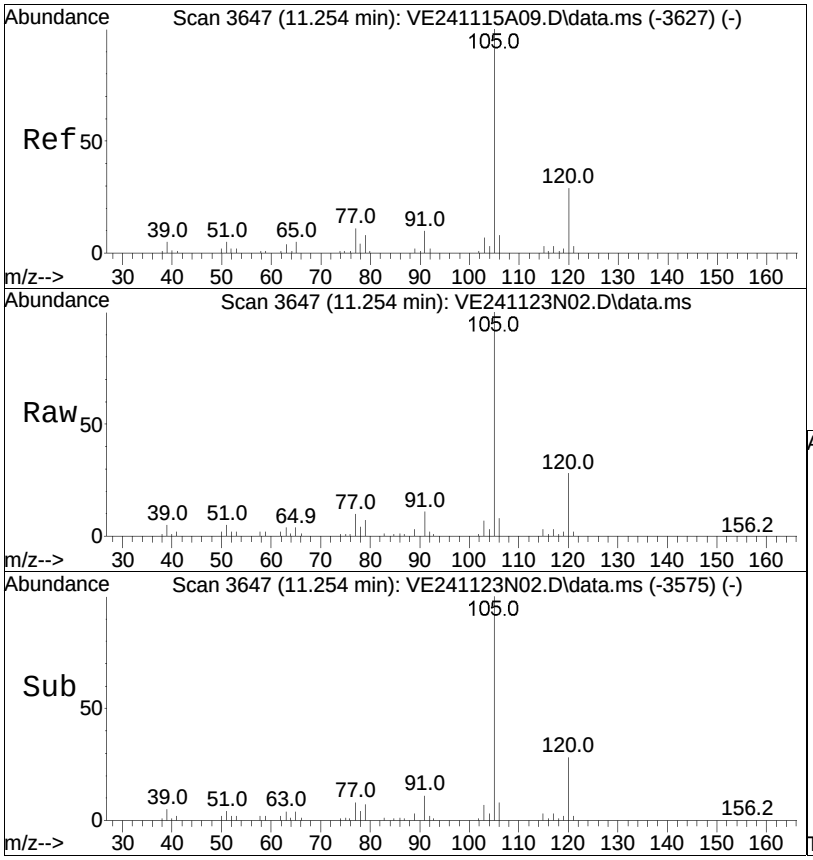


#92
1,1,2,2-Tetrachloroethane
Concen: 9.94 ug/L
RT: 11.221 min Scan# 3635
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 83 Resp: 41234

Ion	Ratio	Lower	Upper
83	100		
131	4.8	0.0	28.6
85	64.7	47.4	87.4

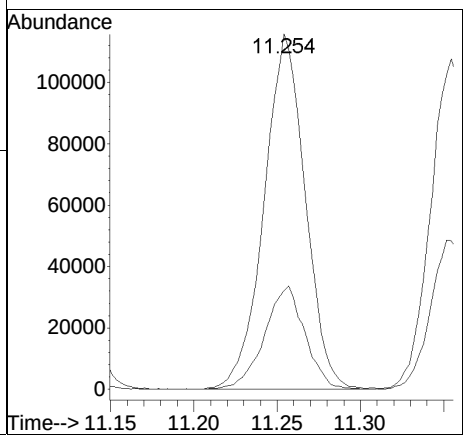


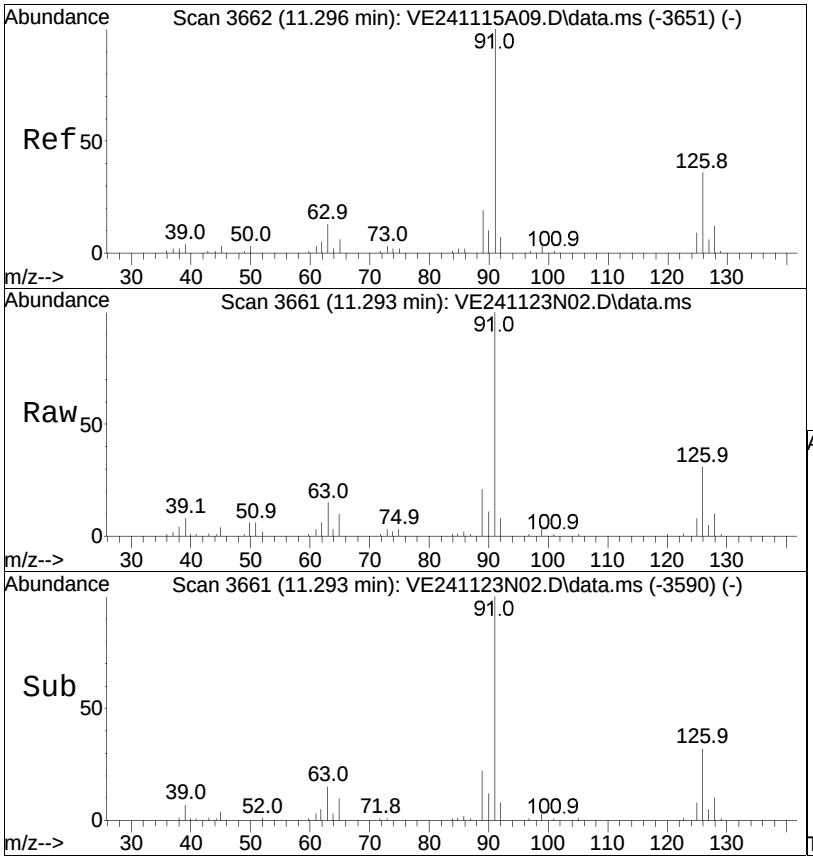


#93
4-Ethyltoluene
Concen: 9.84 ug/L
RT: 11.254 min Scan# 3647
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:105 Resp: 199005

Ion	Ratio	Lower	Upper
105	100		
120	28.6	18.9	39.3

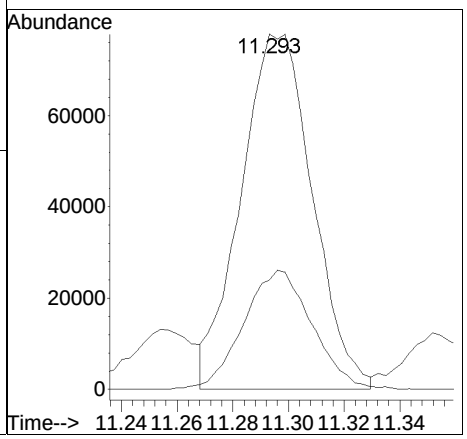


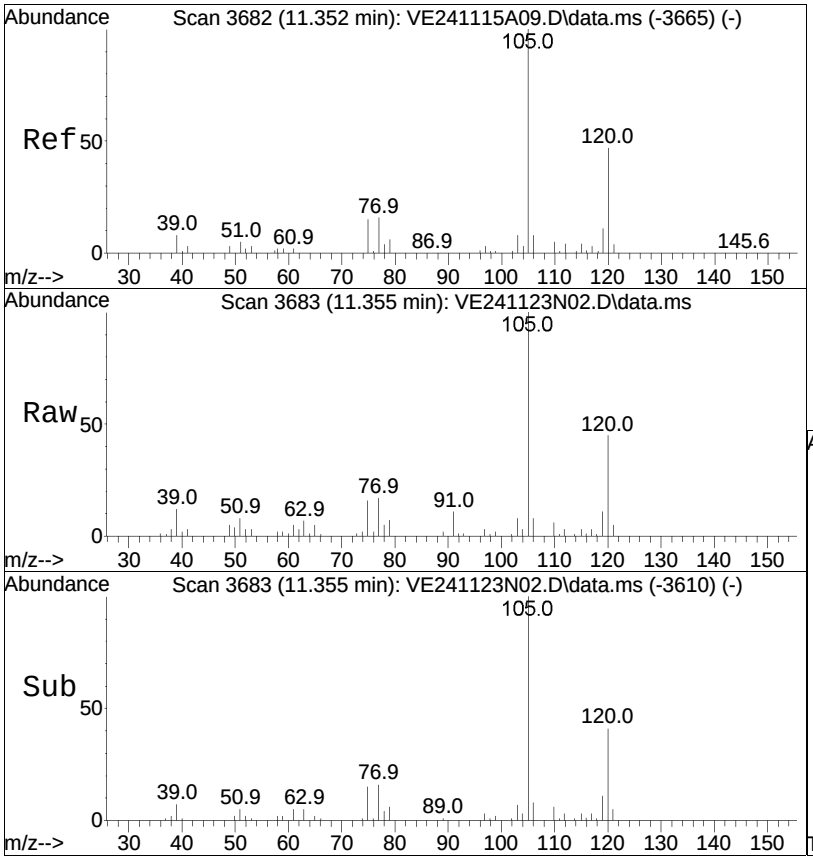


#94
2-Chlorotoluene
Concen: 9.84 ug/L M4
RT: 11.293 min Scan# 3661
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 91 Resp: 139308

Ion	Ratio	Lower	Upper
91	100		
126	32.1	24.4	36.6

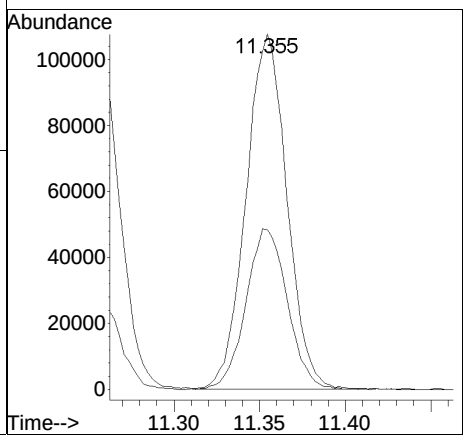


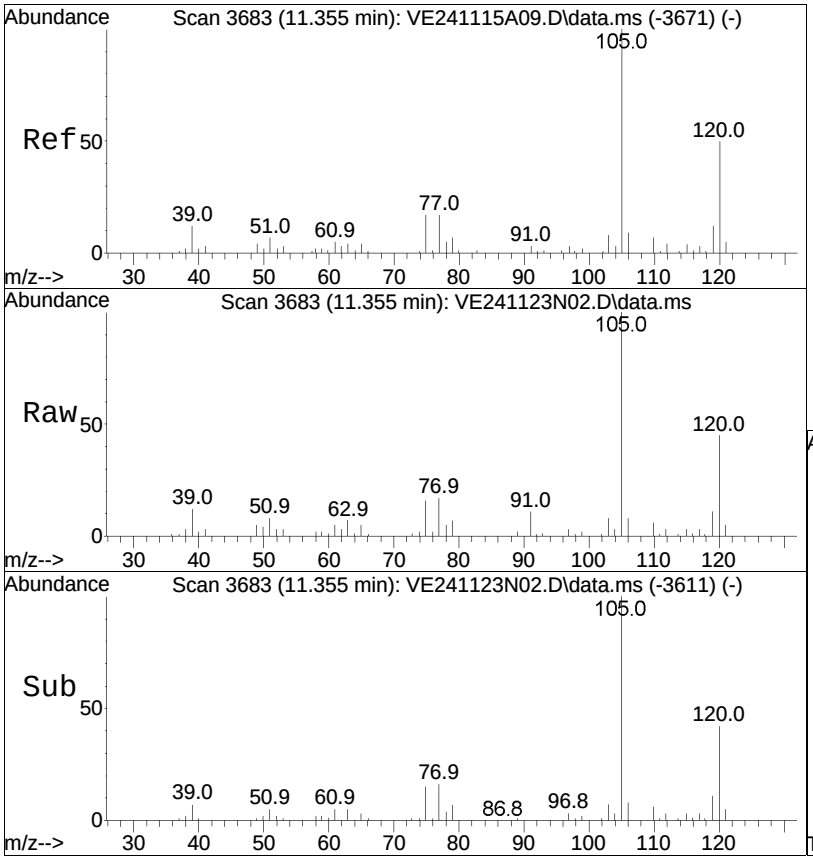


#95
1,3,5-Trimethylbenzene
Concen: 9.98 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:105 Resp: 178519

Ion	Ratio	Lower	Upper
105	100		
120	45.8	39.3	58.9

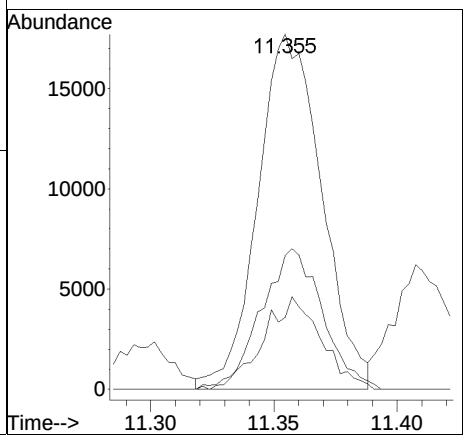


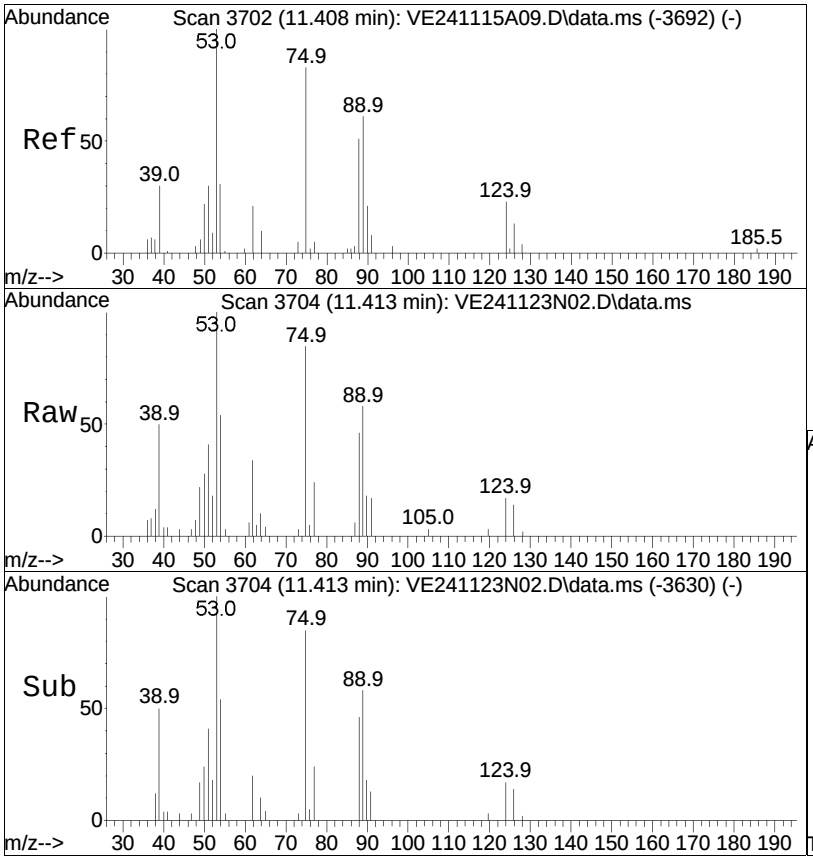


#96
1,2,3-Trichloropropane
Concen: 9.74 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 75 Resp: 31907

Ion	Ratio	Lower	Upper
75	100		
110	38.0	22.4	46.4
112	23.7	12.2	25.2

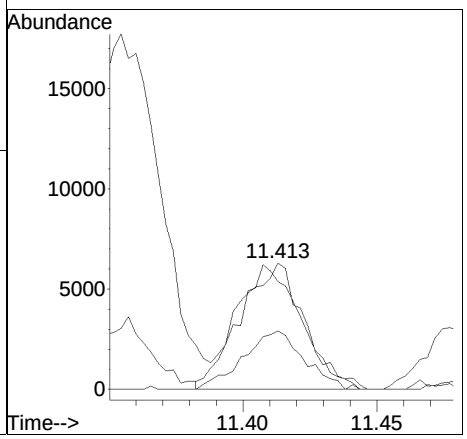


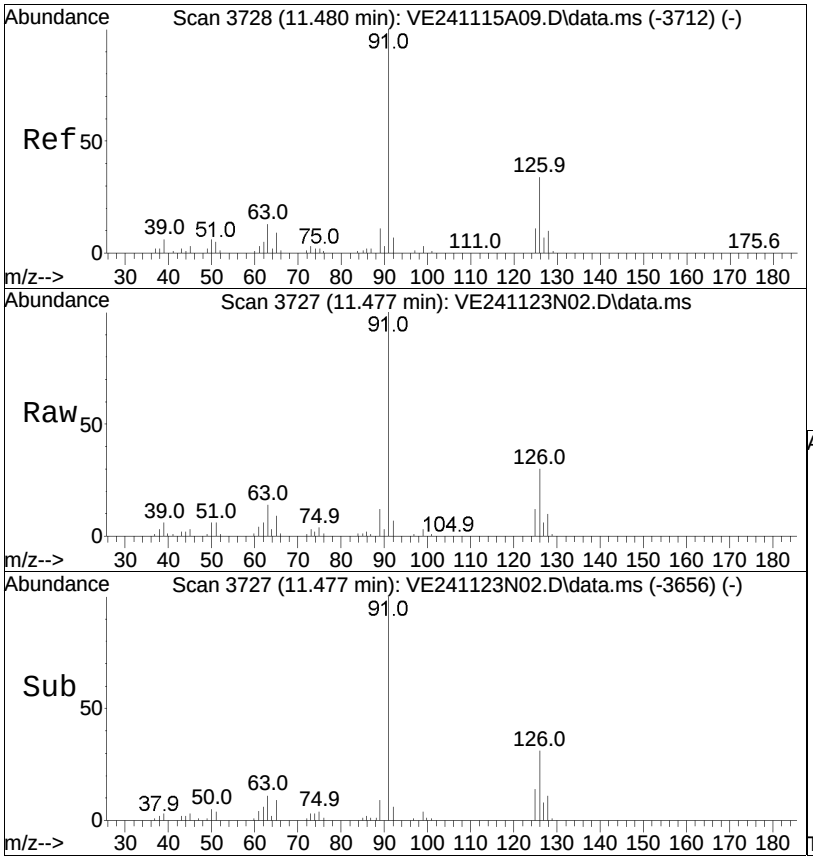


#97
trans-1,4-Dichloro-2-butene
Concen: 9.04 ug/L
RT: 11.413 min Scan# 3704
Delta R.T. 0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 53 Resp: 10715

Ion	Ratio	Lower	Upper
53	100		
88	43.1	29.2	43.8
75	93.9	62.6	94.0

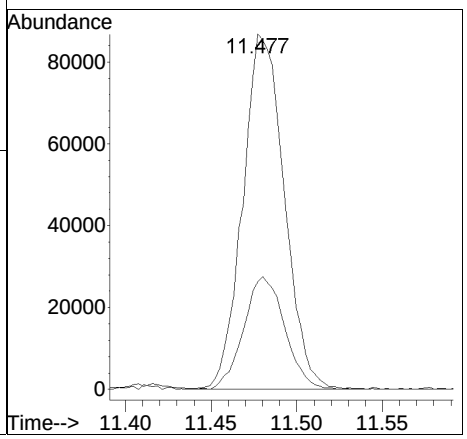


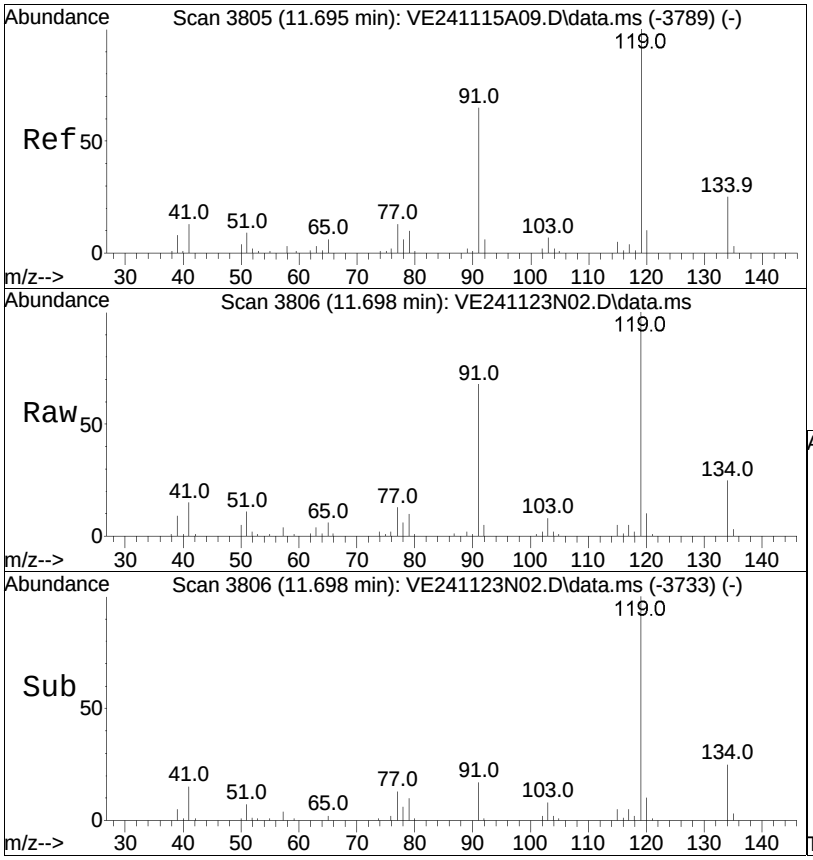


#98
4-Chlorotoluene
Concen: 10.01 ug/L
RT: 11.477 min Scan# 3727
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 91 Resp: 146505

Ion	Ratio	Lower	Upper
91	100		
126	31.4	25.8	38.8

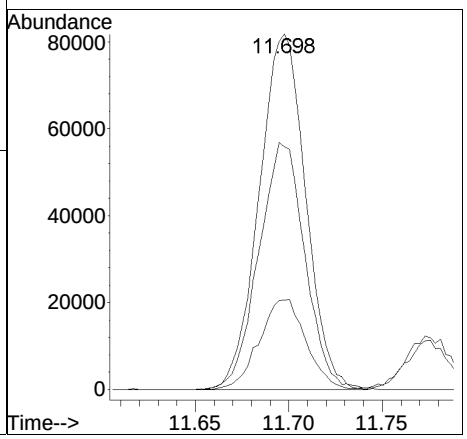


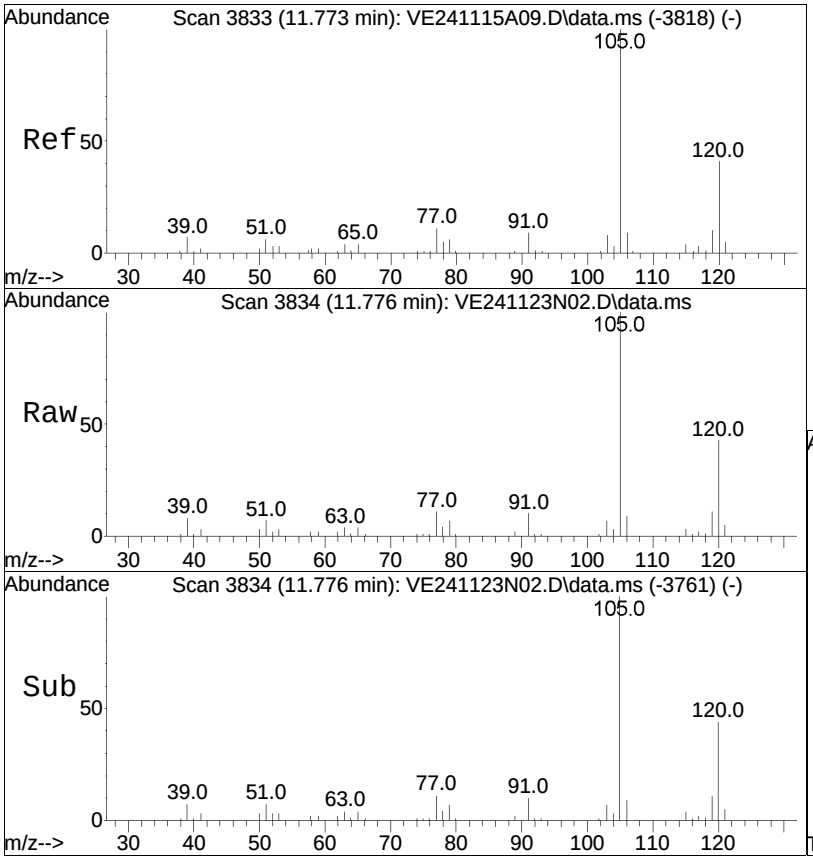


#99
tert-Butylbenzene
Concen: 9.61 ug/L
RT: 11.698 min Scan# 3806
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:119 Resp: 141856

Ion	Ratio	Lower	Upper
119	100		
91	68.7	56.6	84.8
134	25.4	17.7	26.5

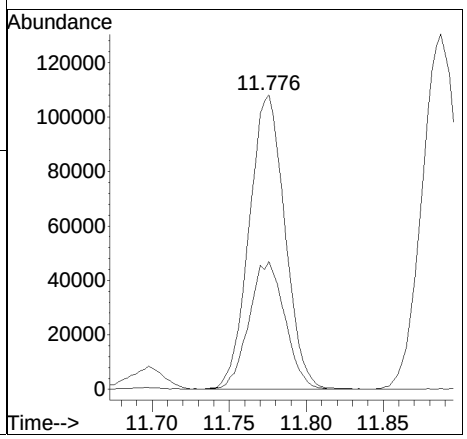


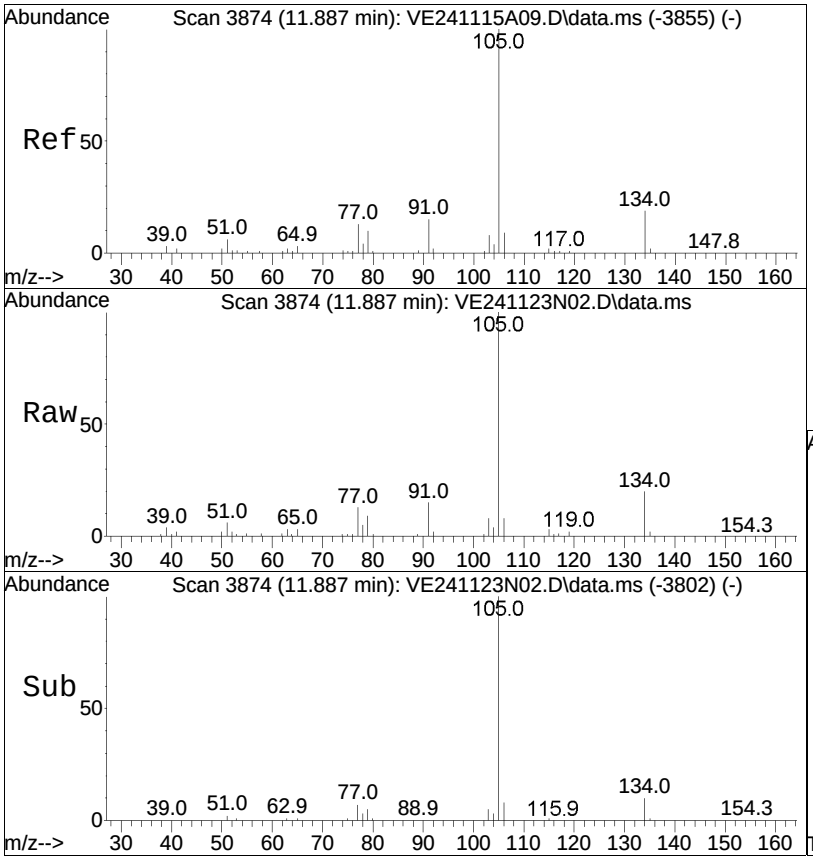


#102
1,2,4-Trimethylbenzene
Concen: 9.75 ug/L
RT: 11.776 min Scan# 3834
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:105 Resp: 174877

Ion	Ratio	Lower	Upper
105	100		
120	43.5	33.6	50.4

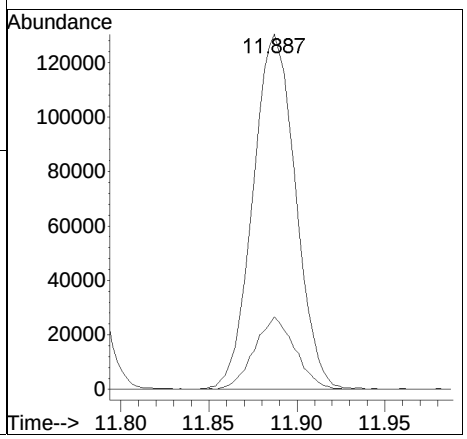


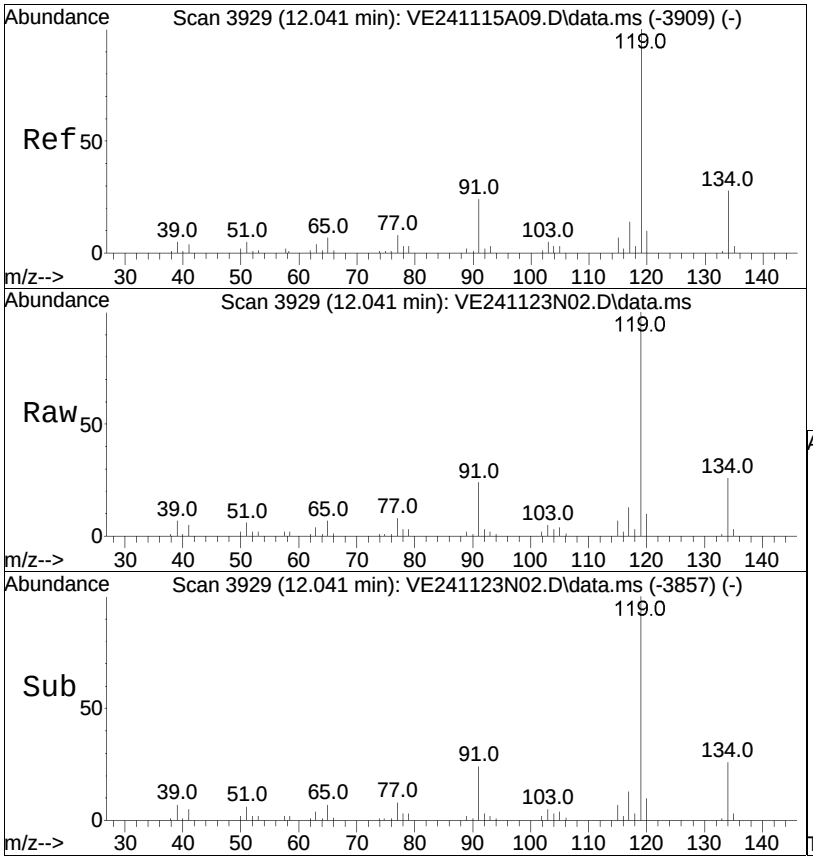


#103
sec-Butylbenzene
Concen: 9.75 ug/L
RT: 11.887 min Scan# 3874
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:105 Resp: 219721

Ion	Ratio	Lower	Upper
105	100		
134	19.6	13.3	27.5

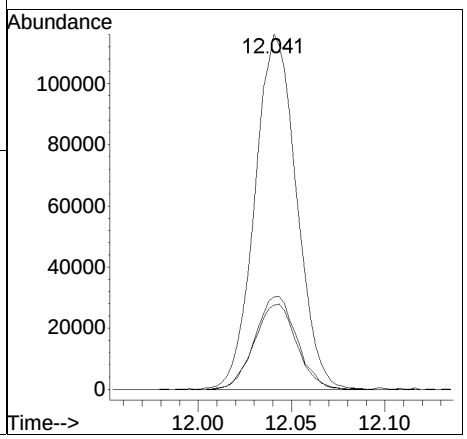


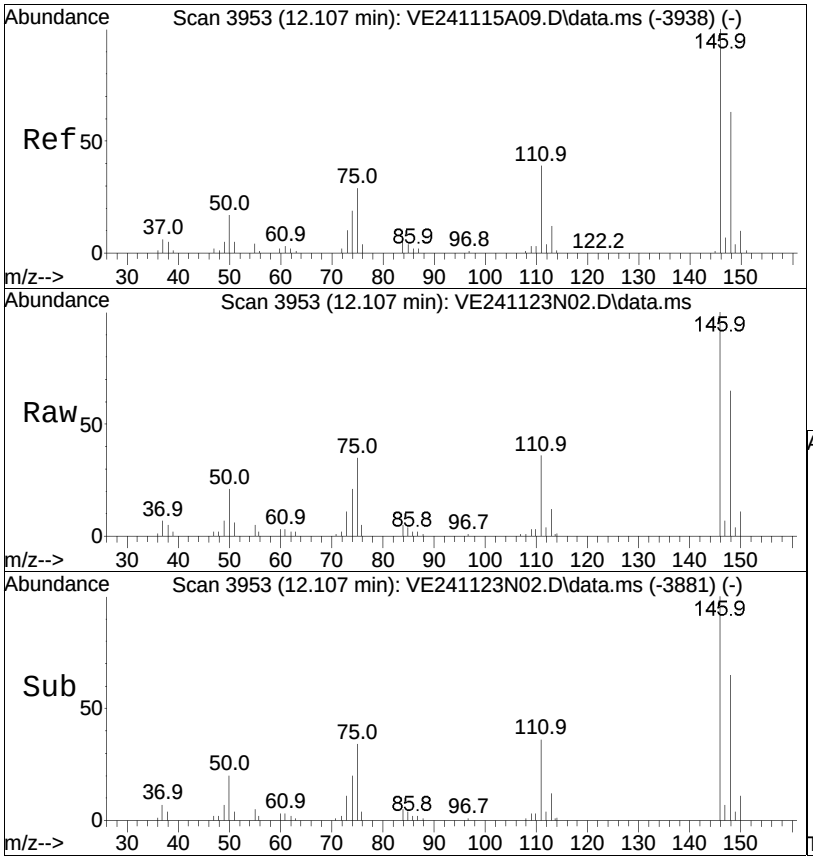


#104
p-Isopropyltoluene
Concen: 9.64 ug/L
RT: 12.041 min Scan# 3929
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:119 Resp: 180096

Ion	Ratio	Lower	Upper
119	100		
134	26.5	15.8	32.8
91	24.4	16.6	34.4

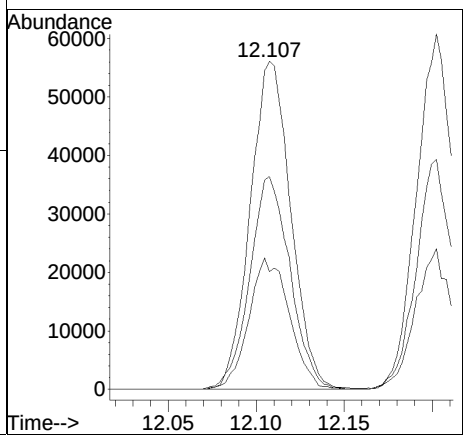


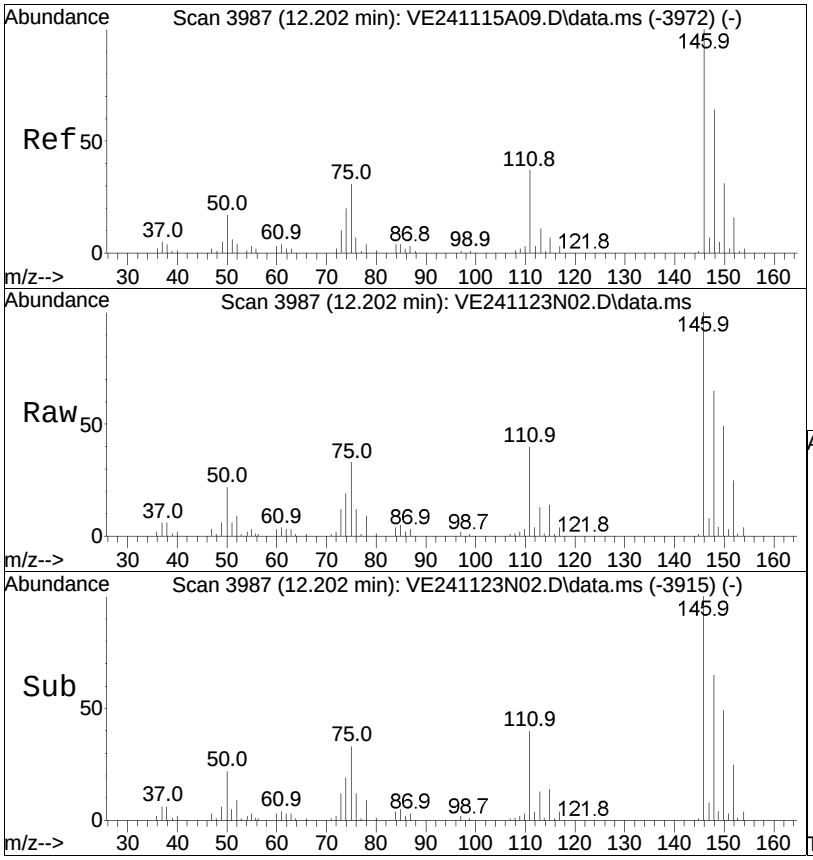


#105
1,3-Dichlorobenzene
Concen: 9.40 ug/L
RT: 12.107 min Scan# 3953
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:146 Resp: 90192

Ion	Ratio	Lower	Upper
146	100		
111	40.0	27.9	57.9
148	64.1	42.4	88.2

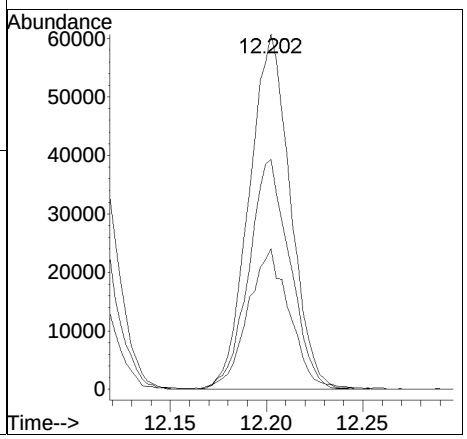


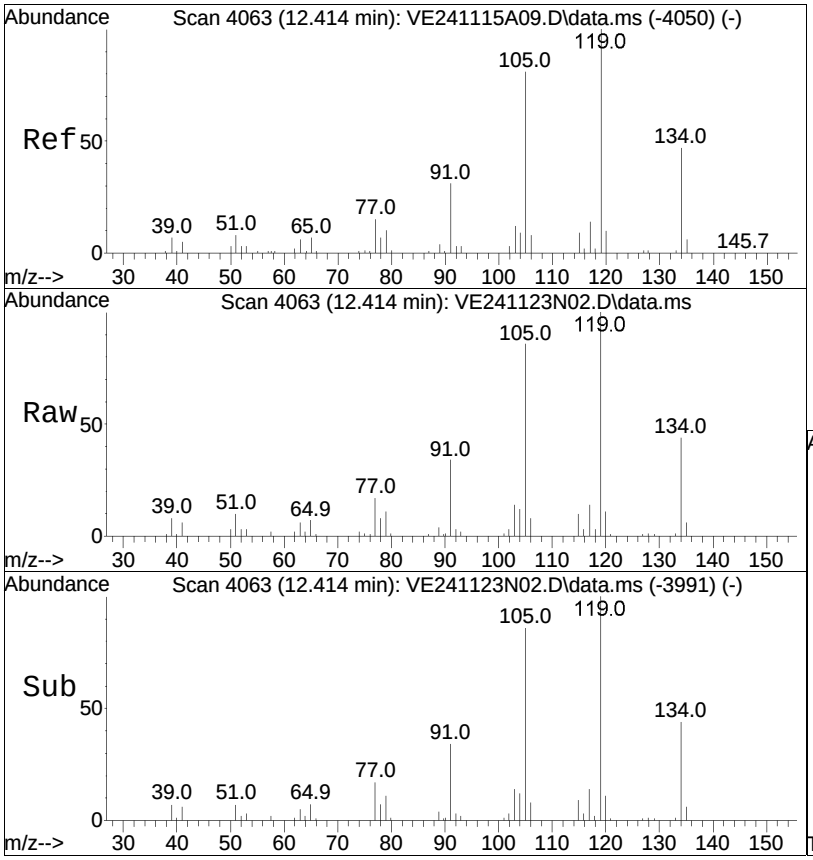


#106
1,4-Dichlorobenzene
Concen: 9.41 ug/L
RT: 12.202 min Scan# 3987
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:146 Resp: 90585

Ion	Ratio	Lower	Upper
146	100		
111	40.0	31.4	47.0
148	64.6	49.8	74.8

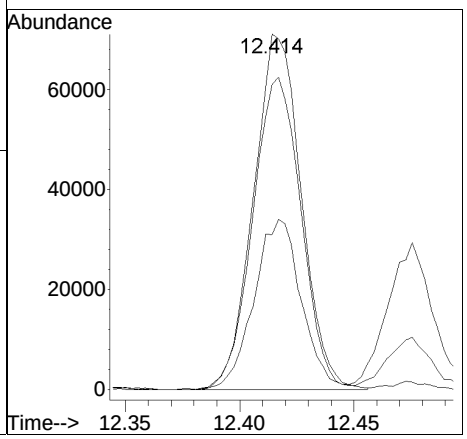


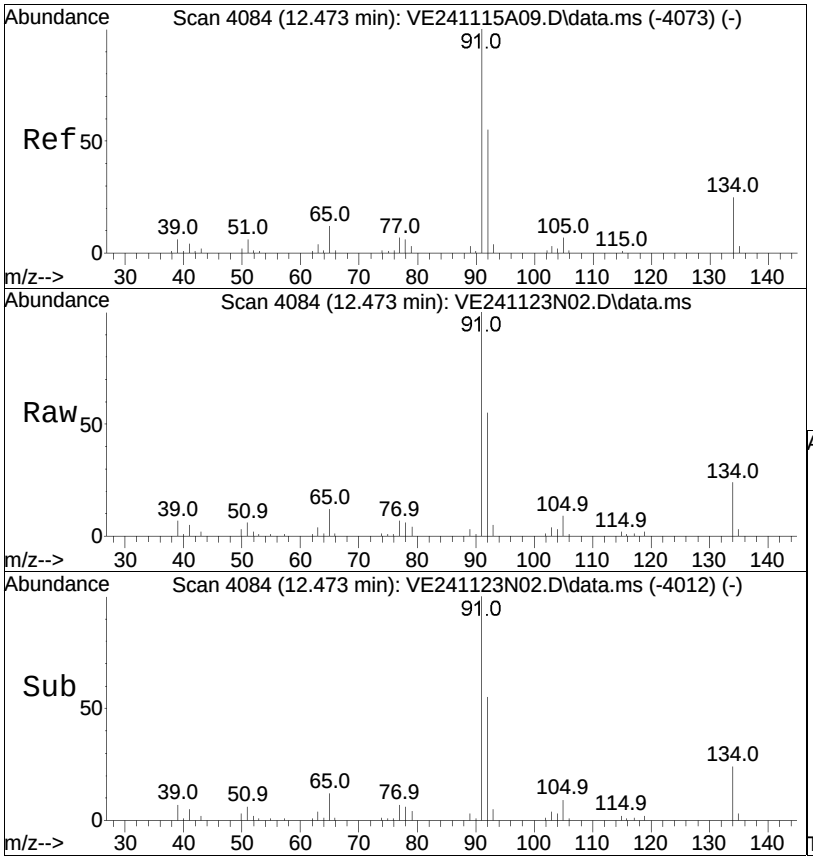


#107
p-Diethylbenzene
Concen: 9.46 ug/L
RT: 12.414 min Scan# 4063
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:119 Resp: 103360

Ion	Ratio	Lower	Upper
119	100		
105	89.1	55.4	115.2
134	47.4	28.4	59.0

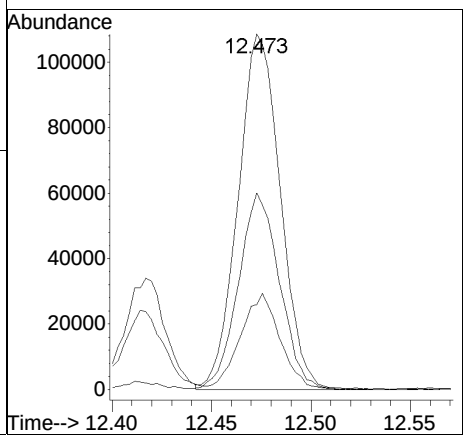


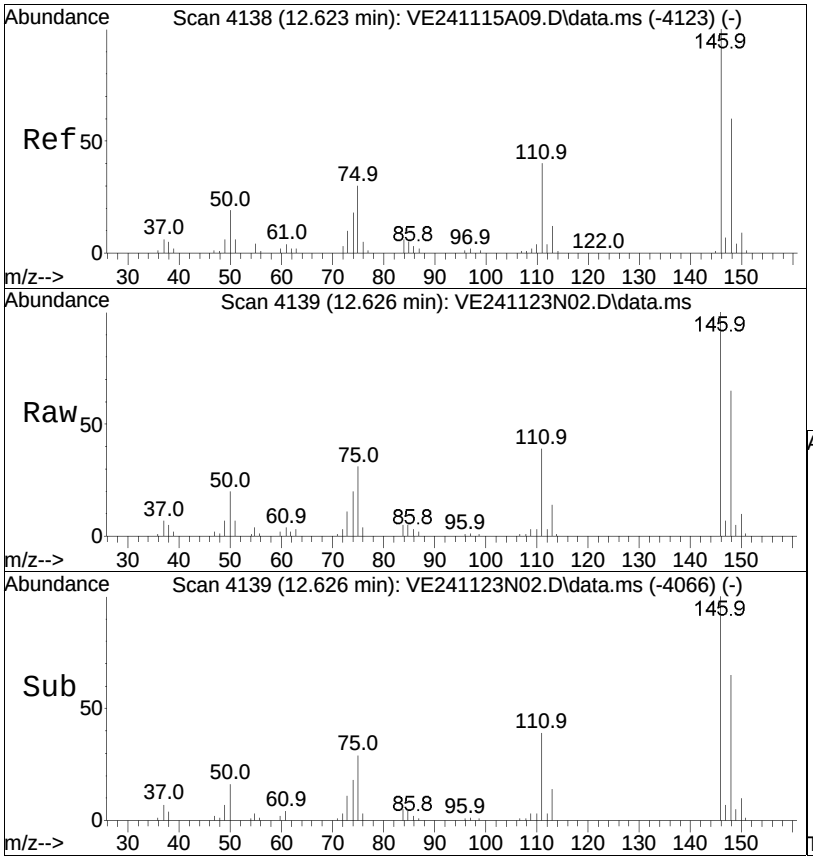


#108
n-Butylbenzene
Concen: 9.86 ug/L
RT: 12.473 min Scan# 4084
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion: 91 Resp: 160581

Ion	Ratio	Lower	Upper
91	100		
92	53.8	42.4	63.6
134	25.3	20.3	30.5

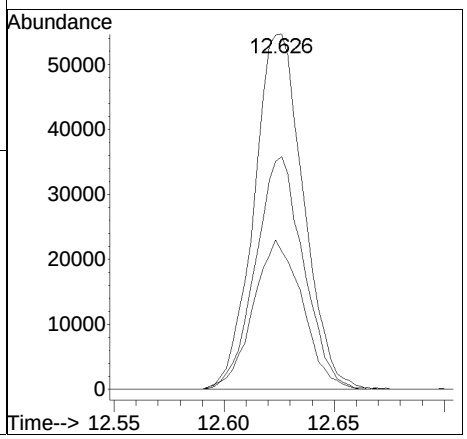


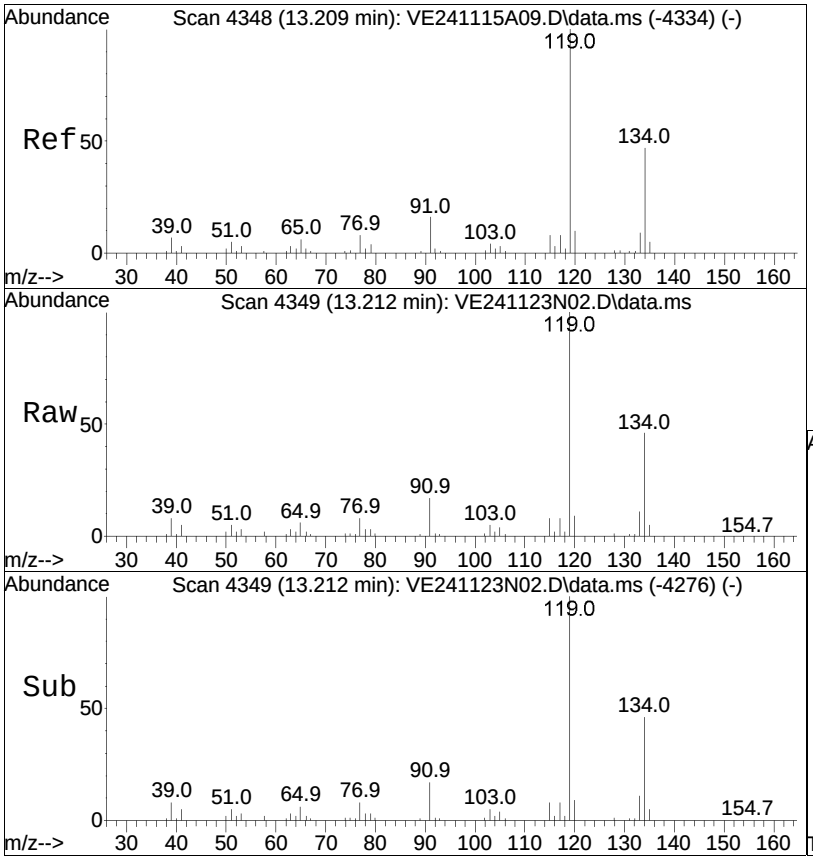


#109
1,2-Dichlorobenzene
Concen: 9.35 ug/L
RT: 12.626 min Scan# 4139
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:146 Resp: 85419

Ion	Ratio	Lower	Upper
146	100		
111	41.8	26.4	54.8
148	63.8	41.7	86.7

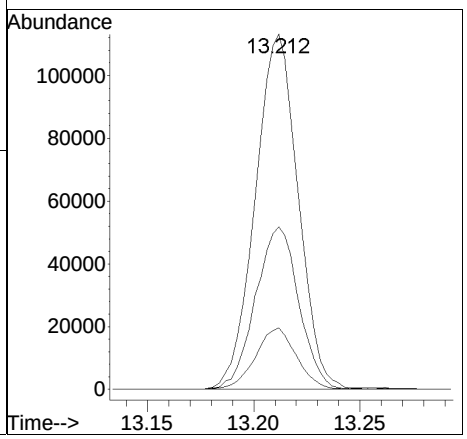


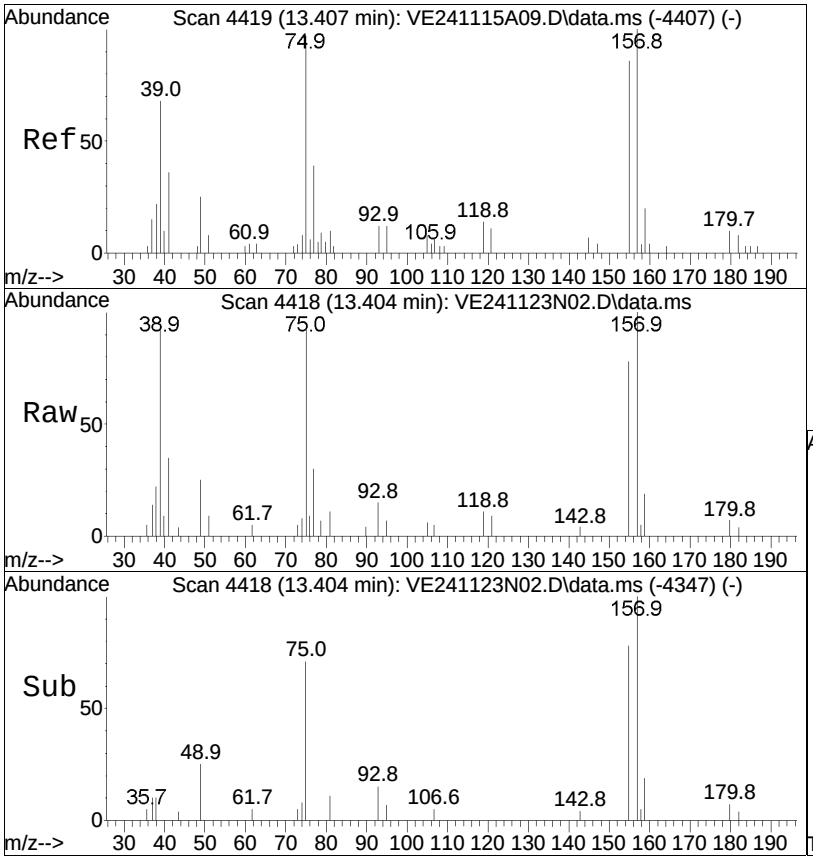


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.07 ug/L
RT: 13.212 min Scan# 4349
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:119 Resp: 158795

Ion	Ratio	Lower	Upper
119	100		
134	46.3	29.6	61.4
91	16.6	9.8	20.3

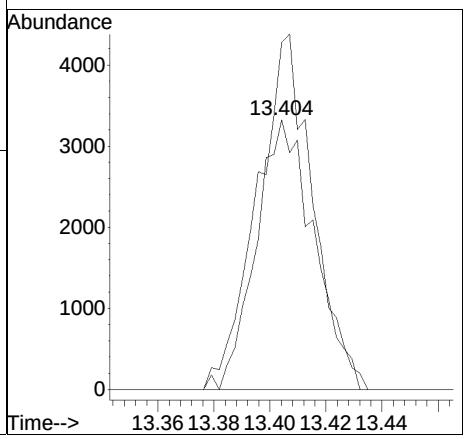


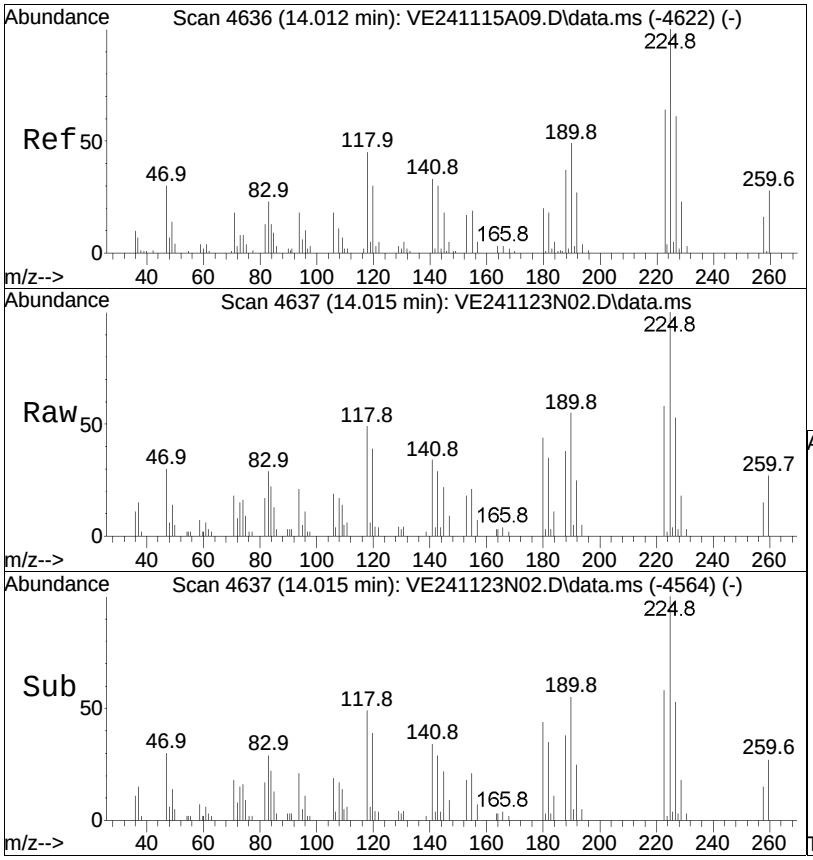


#111
1,2-Dibromo-3-chloropropane
Concen: 8.62 ug/L
RT: 13.404 min Scan# 4418
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:155 Resp: 4779

Ion	Ratio	Lower	Upper
155	100		
157	126.4	95.1	142.7

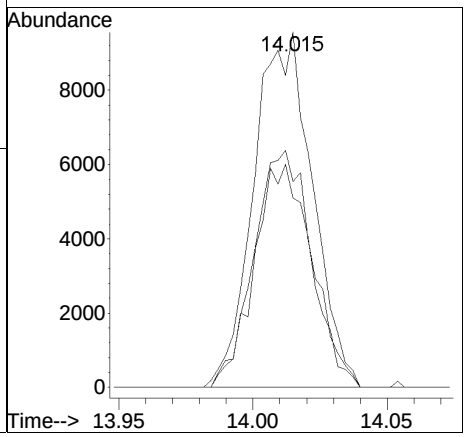


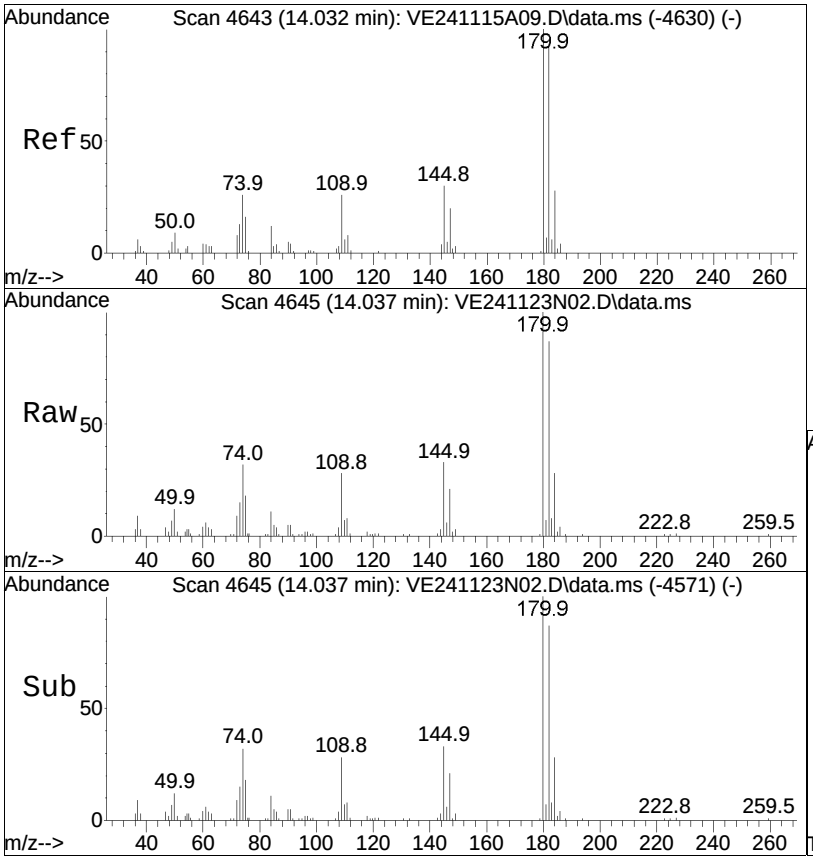


#113
Hexachlorobutadiene
Concen: 8.35 ug/L
RT: 14.015 min Scan# 4637
Delta R.T. 0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:225 Resp: 14515

Ion	Ratio	Lower	Upper
225	100		
223	66.7	54.6	82.0
227	61.2	56.2	84.4

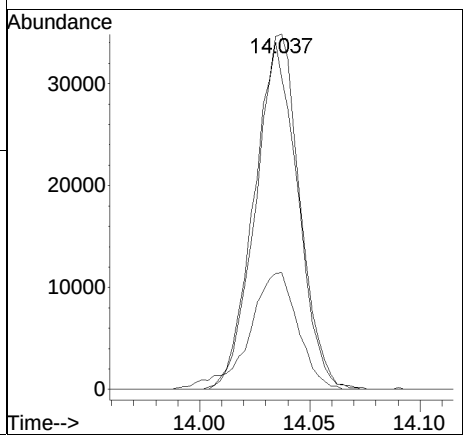


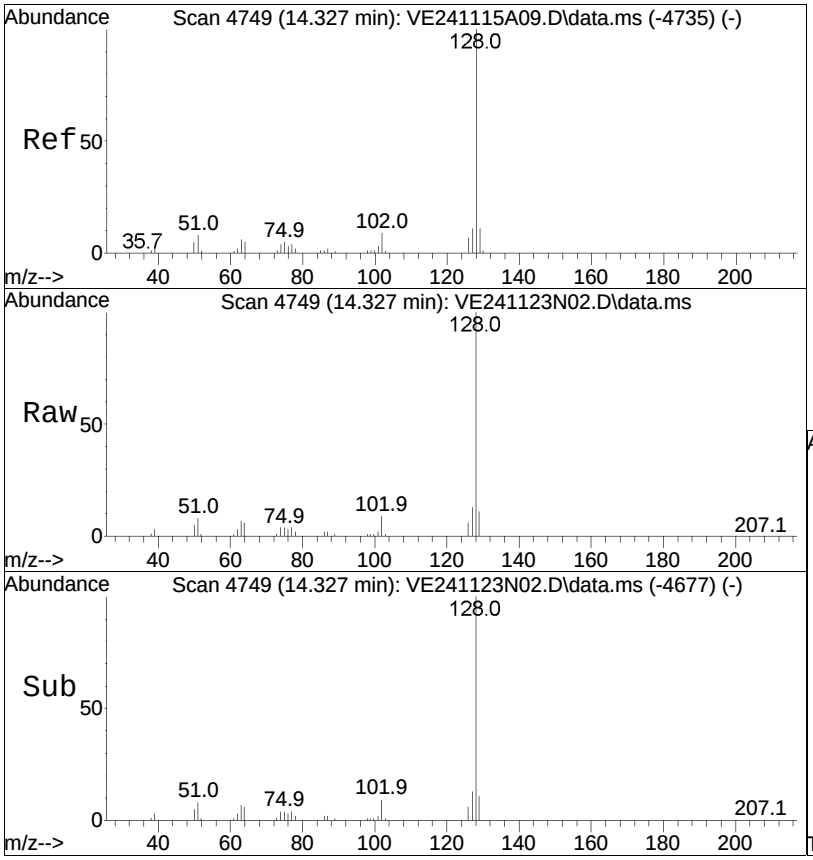


#114
1,2,4-Trichlorobenzene
Concen: 8.80 ug/L
RT: 14.037 min Scan# 4645
Delta R.T. 0.006 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:180 Resp: 50035

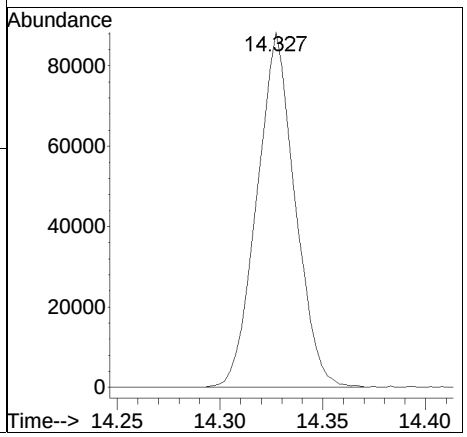
Ion	Ratio	Lower	Upper
180	100		
182	91.3	75.4	113.2
145	35.3	26.0	39.0

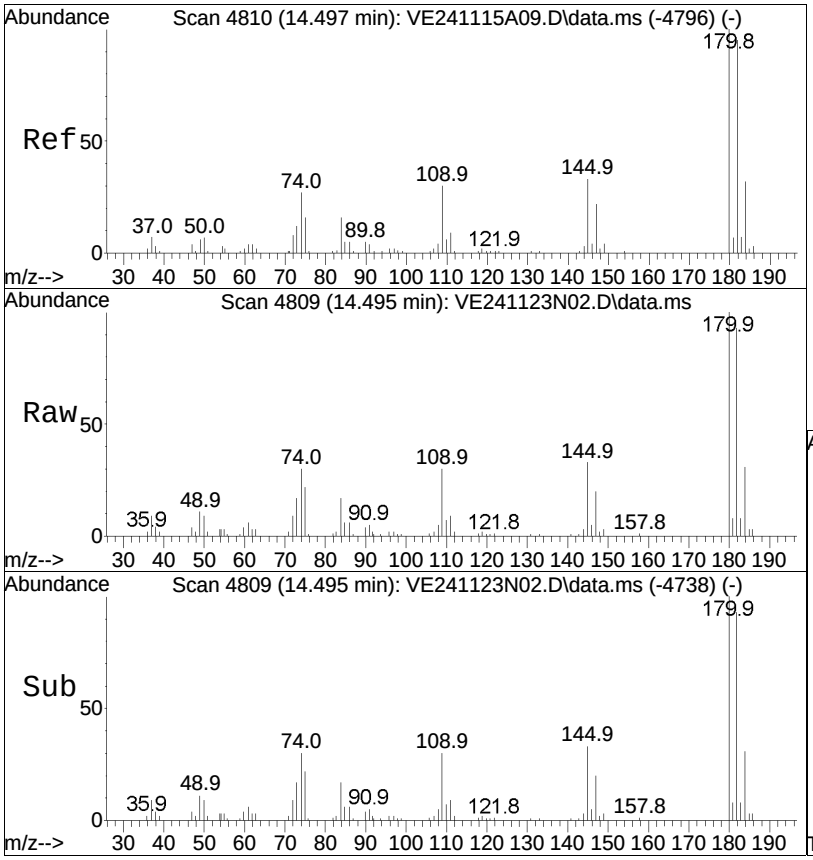




#115
Naphthalene
Concen: 8.55 ug/L
RT: 14.327 min Scan# 4749
Delta R.T. -0.000 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:128 Resp: 114276

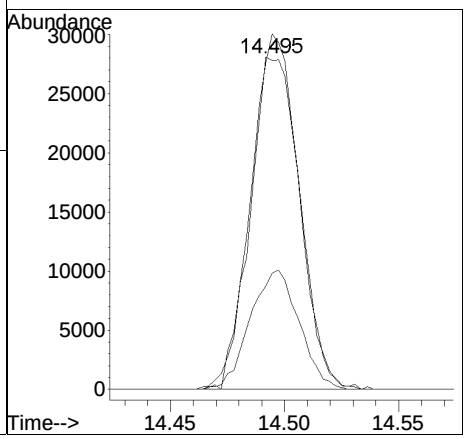




#116
1,2,3-Trichlorobenzene
Concen: 8.65 ug/L
RT: 14.495 min Scan# 4809
Delta R.T. -0.003 min
Lab File: VE241123N02.D
Acq: 23 Nov 2024 7:58 pm

Tgt Ion:180 Resp: 43937

Ion	Ratio	Lower	Upper
180	100		
182	96.5	71.6	107.4
145	34.3	25.1	37.7

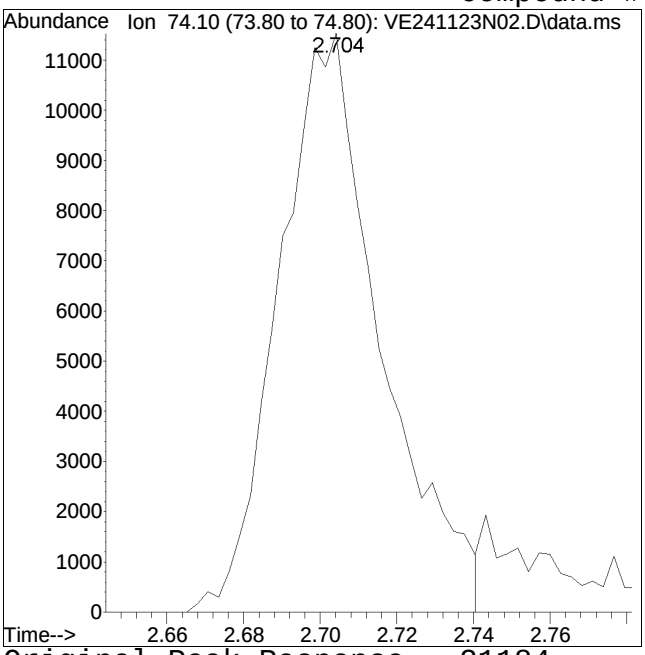


Manual Integration Report

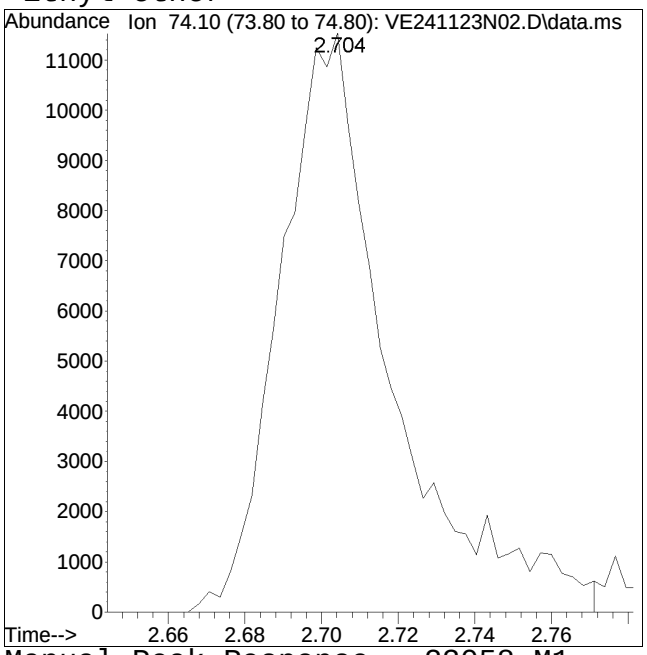
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #8: Ethyl ether



Original Peak Response = 21184



Manual Peak Response = 23058 M1

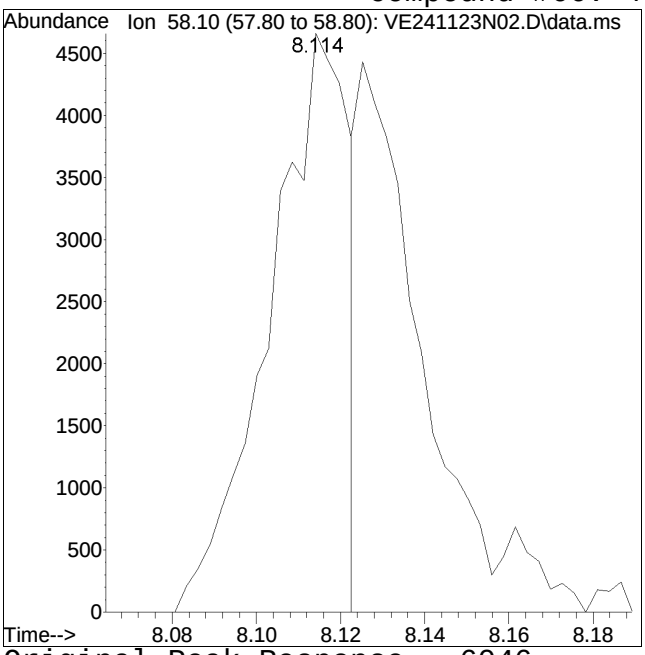
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

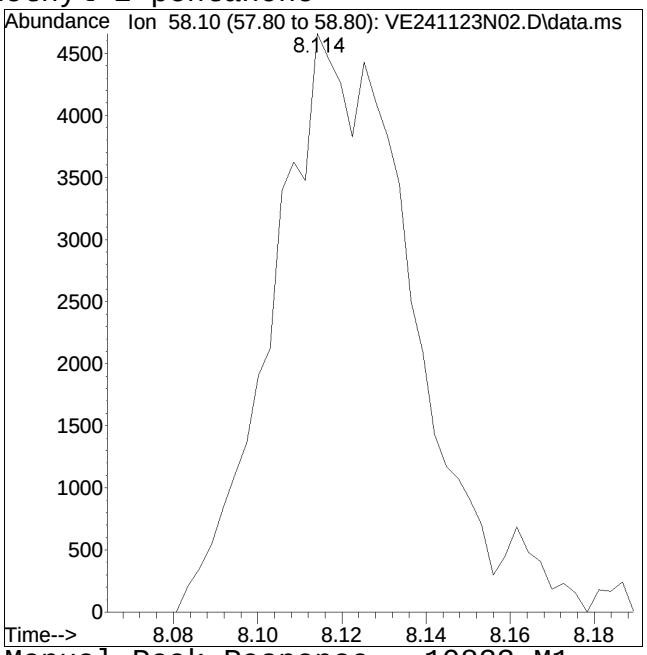
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 6046



Manual Peak Response = 10833 M1

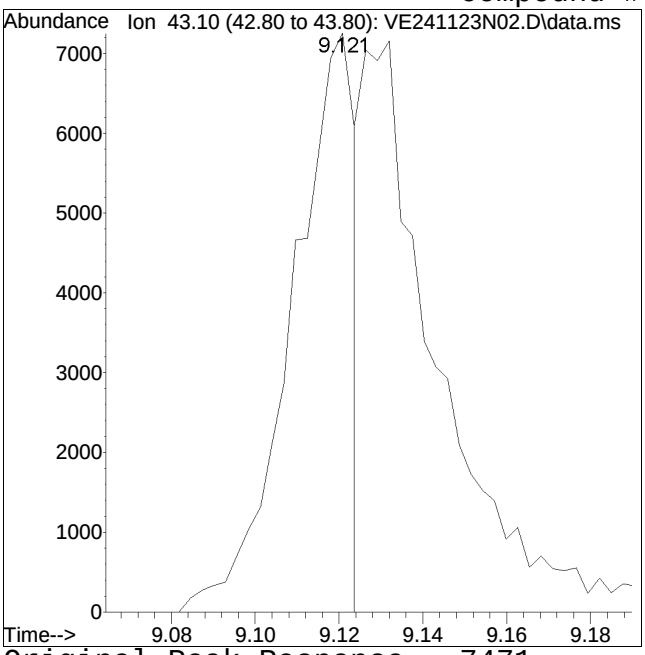
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

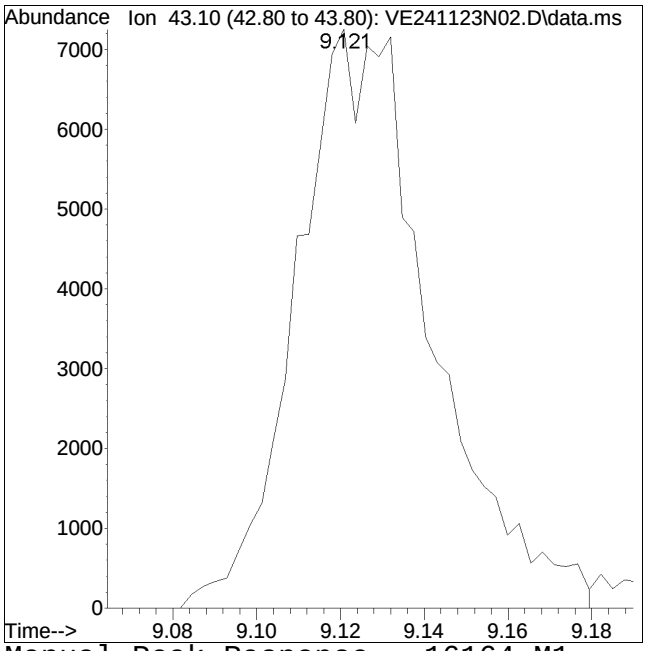
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #77: 2-Hexanone



Original Peak Response = 7471



Manual Peak Response = 16164 M1

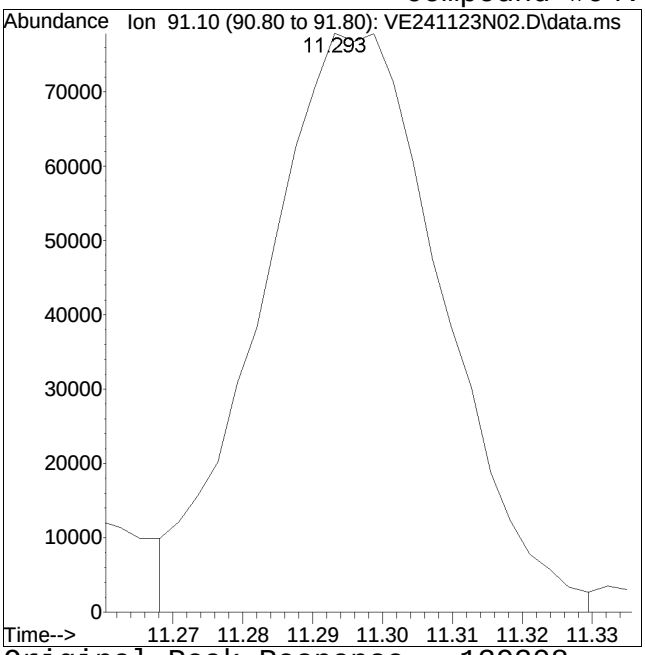
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

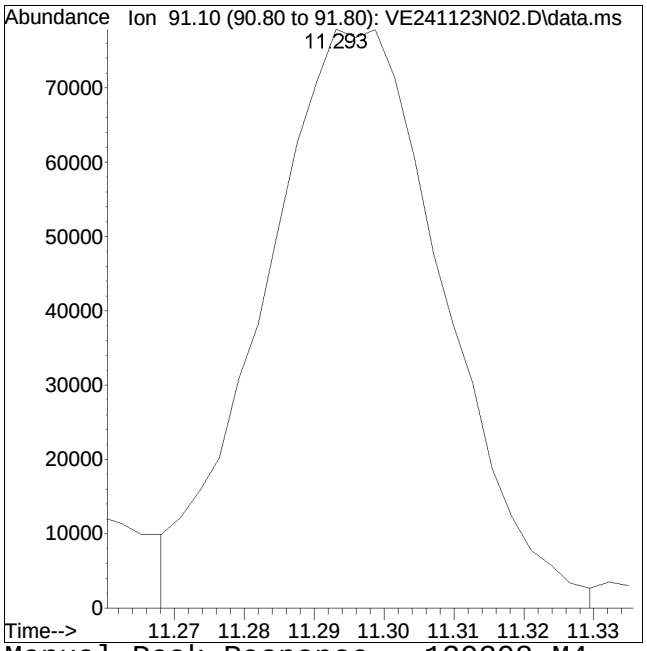
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N02.D
Date Inj'd : 11/23/2024 7:58 pm
Sample : WG2001825-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 8:21 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 139308



Manual Peak Response = 139308 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-3,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	209590	10.000	ug/L	0.00
Standard Area 1 = 209590			Recovery = 100.00%			
63) Chlorobenzene-d5	9.469	117	148793	10.000	ug/L	0.00
Standard Area 1 = 148793			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.186	152	74459	10.000	ug/L	0.00
Standard Area 1 = 74459			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	47349	9.853	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.53%			
47) 1,2-Dichloroethane-d4	5.660	65	59658	10.492	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.92%			
64) Toluene-d8	7.629	98	207778	10.240	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.40%			
88) 4-Bromofluorobenzene	10.972	95	71534	10.457	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.57%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	45780	9.776	ug/L	95
3) Chloromethane	1.770	50	42520	9.190	ug/L	98
4) Vinyl chloride	1.848	62	52010	10.549	ug/L	95
5) Bromomethane	2.158	94	20941	6.051	ug/L	100
6) Chloroethane	2.269	64	39820	11.155	ug/L	99
7) Trichlorofluoromethane	2.409	101	69253	9.627	ug/L	95
8) Ethyl ether	2.696	74	22918	10.303	ug/L	86
10) 1,1-Dichloroethene	2.891	96	38581	10.532	ug/L #	72
11) Carbon disulfide	2.922	76	117138	10.647	ug/L	96
15) Methylene chloride	3.443	84	45300	9.906	ug/L	89
17) Acetone	3.482	43	7794	8.660	ug/L	95
18) trans-1,2-Dichloroethene	3.591	96	40220	9.859	ug/L	93
21) Methyl tert-butyl ether	3.686	73	100007	9.171	ug/L	92
25) 1,1-Dichloroethane	4.174	63	87738	10.760	ug/L	97
27) Acrylonitrile	4.216	53	10531	9.547	ug/L #	72
29) Vinyl acetate	4.402	43	89399	9.440	ug/L	99
30) cis-1,2-Dichloroethene	4.692	96	45891	9.855	ug/L	97
31) 2,2-Dichloropropane	4.796	77	57808	8.984	ug/L	96
33) Bromochloromethane	4.885	128	20796	9.802	ug/L	91
35) Chloroform	4.957	83	74879	9.787	ug/L	96

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-3,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.091	117	51486	9.279	ug/L	#	93
40) 1,1,1-Trichloroethane	5.153	97	62578	9.264	ug/L		92
42) 2-Butanone	5.242	43	11197	8.725	ug/L	#	83
43) 1,1-Dichloropropene	5.278	75	56405	9.530	ug/L		95
45) Benzene	5.521	78	189464	10.164	ug/L		94
48) 1,2-Dichloroethane	5.724	62	60398	10.188	ug/L		99
52) Trichloroethene	6.120	95	43651	9.877	ug/L		95
54) Dibromomethane	6.561	93	23464	9.290	ug/L		95
55) 1,2-Dichloropropane	6.661	63	50151	10.591	ug/L		96
58) Bromodichloromethane	6.737	83	59586	9.696	ug/L		92
61) 1,4-Dioxane	6.943	88	14823M3	479.019	ug/L		
62) cis-1,3-Dichloropropene	7.420	75	68623	9.674	ug/L		92
65) Toluene	7.685	92	118193	10.108	ug/L		94
66) 4-Methyl-2-pentanone	8.117	58	11630	9.465	ug/L		76
67) Tetrachloroethene	8.134	166	44346	9.433	ug/L		97
69) trans-1,3-Dichloropropene	8.167	75	57040	9.851	ug/L		87
72) 1,1,2-Trichloroethane	8.357	83	30920	10.062	ug/L		98
73) Chlorodibromomethane	8.566	129	37686	9.140	ug/L		100
74) 1,3-Dichloropropane	8.677	76	64353	10.142	ug/L		99
75) 1,2-Dibromoethane	8.845	107	33990	9.335	ug/L		86
77) 2-Hexanone	9.126	43	16884	8.553	ug/L		93
78) Chlorobenzene	9.489	112	119948	9.652	ug/L	#	78
79) Ethylbenzene	9.528	91	221126	9.897	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.575	131	39942	9.680	ug/L		95
81) p/m Xylene	9.718	106	169331	19.687	ug/L		97
82) o Xylene	10.259	106	163123	19.450	ug/L		91
83) Styrene	10.326	104	272496	19.245	ug/L		97
85) Bromoform	10.348	173	20025	9.099	ug/L	#	54
87) Isopropylbenzene	10.646	105	221517	10.071	ug/L		99
89) Bromobenzene	11.081	156	48536	9.885	ug/L		99
90) n-Propylbenzene	11.129	91	260029	10.423	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.223	83	44171	10.402	ug/L		97
93) 4-Ethyltoluene	11.254	105	212323	10.256	ug/L		100
94) 2-Chlorotoluene	11.296	91	152571M1	10.529	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	190269	10.387	ug/L		96
96) 1,2,3-Trichloropropane	11.355	75	34576M1	10.314	ug/L		
97) trans-1,4-Dichloro-2-b...	11.410	53	11954	9.850	ug/L	#	55
98) 4-Chlorotoluene	11.477	91	157705	10.520	ug/L		100
99) tert-Butylbenzene	11.695	119	149978	9.921	ug/L		97

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-3,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.773	105	188277	10.249	ug/L	98
103) sec-Butylbenzene	11.884	105	234701	10.168	ug/L	97
104) p-Isopropyltoluene	12.043	119	190980	9.986	ug/L	97
105) 1,3-Dichlorobenzene	12.105	146	97765	9.948	ug/L	97
106) 1,4-Dichlorobenzene	12.202	146	99607	10.105	ug/L	100
107) p-Diethylbenzene	12.417	119	112249	10.032	ug/L	95
108) n-Butylbenzene	12.476	91	173939	10.429	ug/L	99
109) 1,2-Dichlorobenzene	12.623	146	92075	9.847	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.209	119	174327	9.725	ug/L	98
111) 1,2-Dibromo-3-chloropr...	13.404	155	5065	8.919	ug/L	93
113) Hexachlorobutadiene	14.012	225	15798	8.873	ug/L	93
114) 1,2,4-Trichlorobenzene	14.034	180	53863	9.249	ug/L	96
115) Naphthalene	14.327	128	123091	9.000	ug/L	100
116) 1,2,3-Trichlorobenzene	14.495	180	47096	9.059	ug/L	95

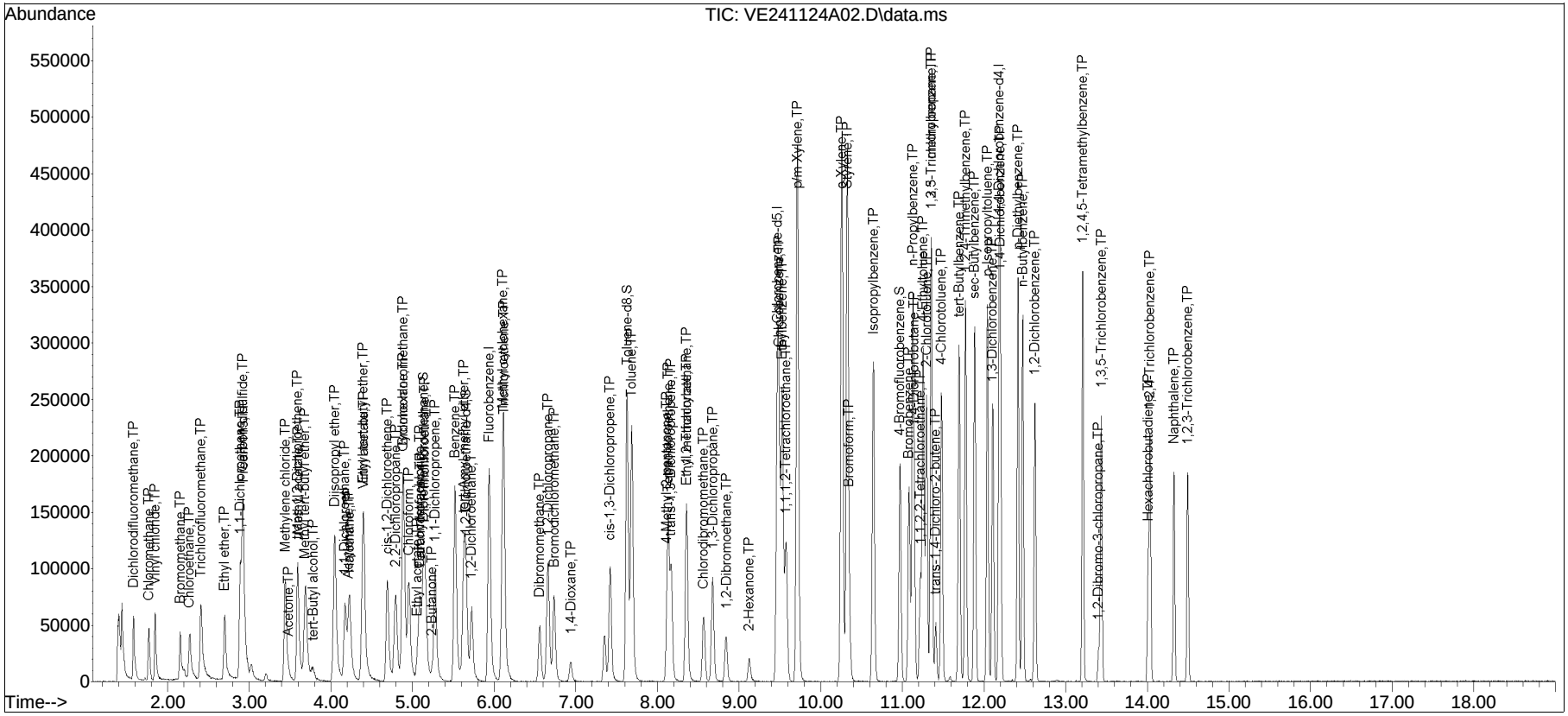
(#) = qualifier out of range (m) = manual integration (+) = signals summed

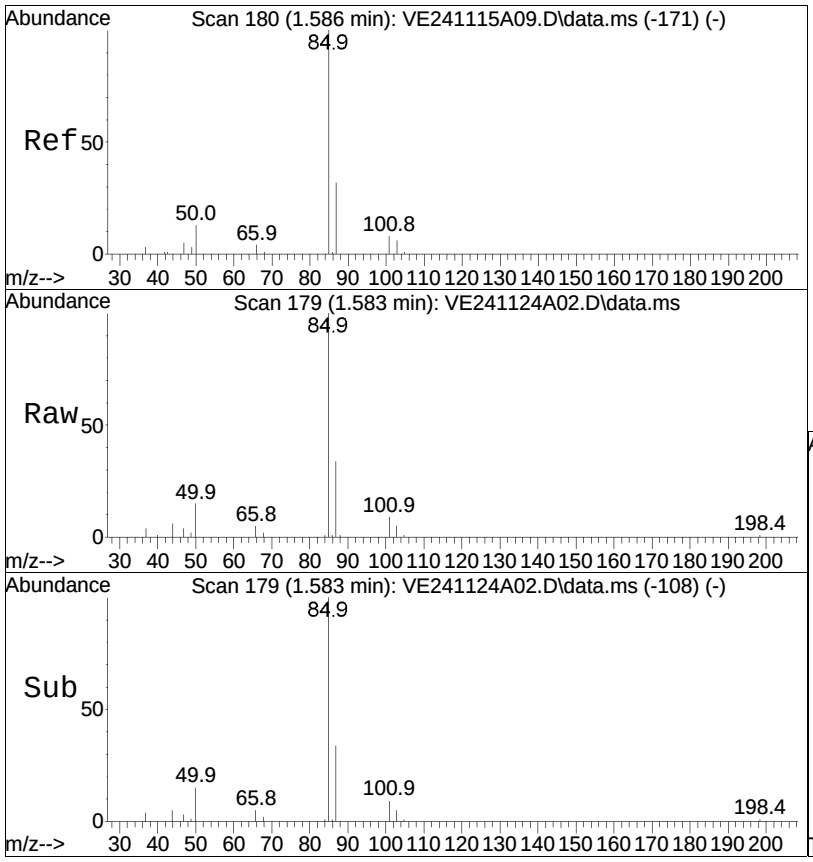
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Acq On : 24 Nov 2024 10:56 am
Operator : ELAINE:PID
Sample : WG2001843-3,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 24 11:25:48 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

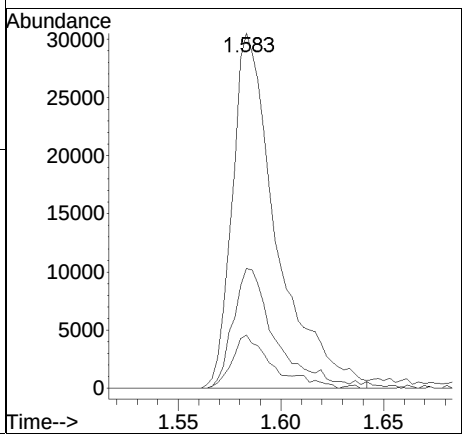


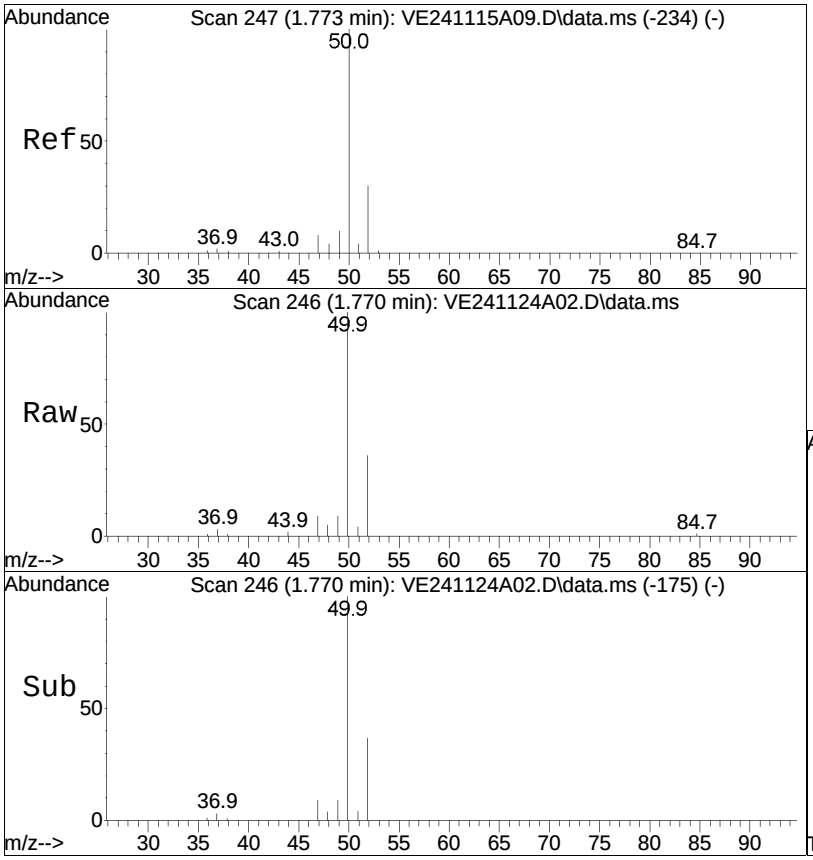


#2
Dichlorodifluoromethane
Concen: 9.78 ug/L
RT: 1.583 min Scan# 179
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 85 Resp: 45780

Ion	Ratio	Lower	Upper
85	100		
87	32.3	21.7	45.1
50	13.9	11.8	24.4

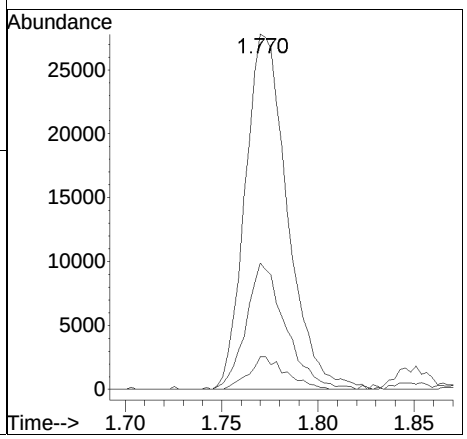


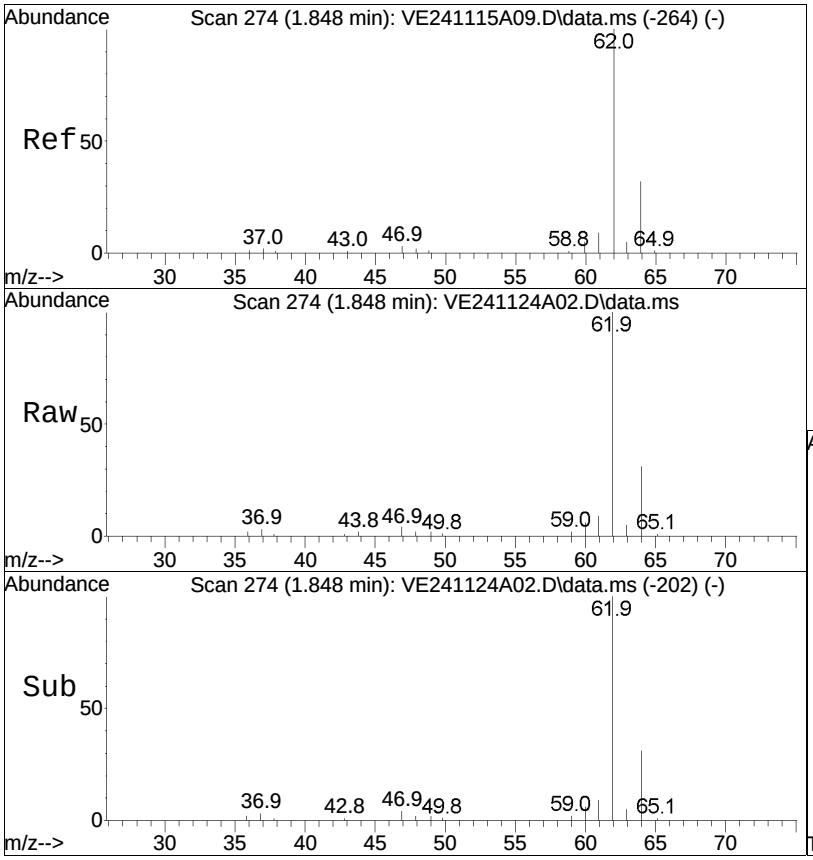


#3
Chloromethane
Concen: 9.19 ug/L
RT: 1.770 min Scan# 246
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 50 Resp: 42520

Ion	Ratio	Lower	Upper
50	100		
52	33.2	14.9	54.9
47	8.1	0.0	28.0

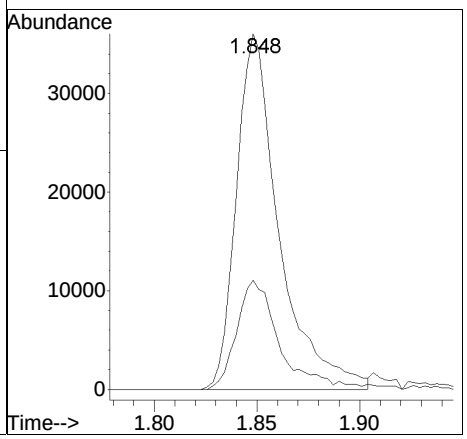


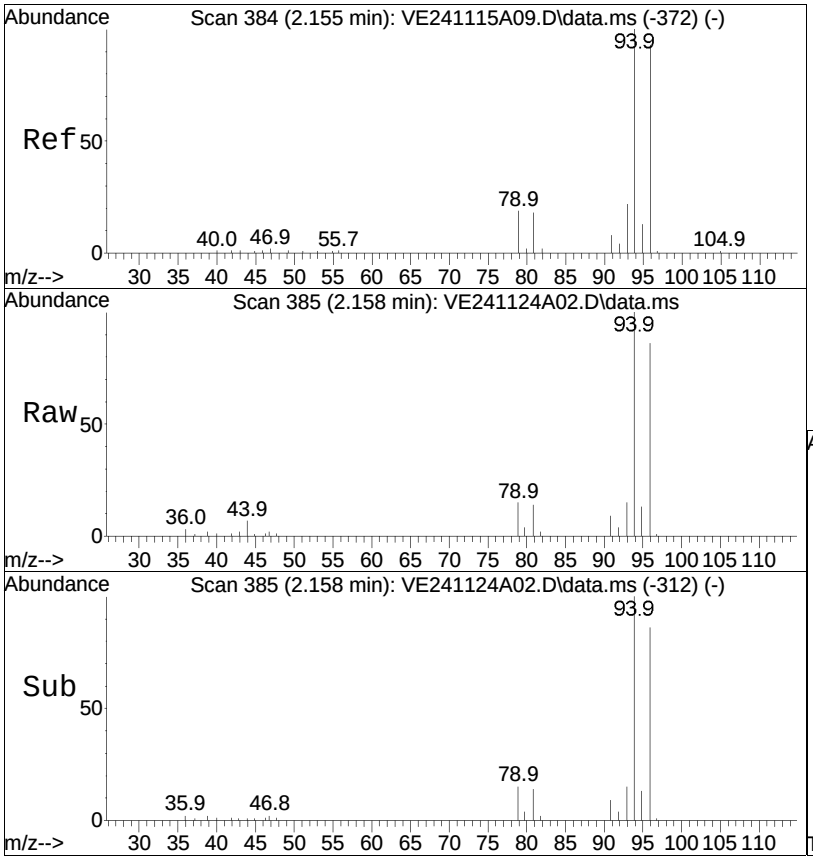


#4
Vinyl chloride
Concen: 10.55 ug/L
RT: 1.848 min Scan# 274
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 62 Resp: 52010

Ion	Ratio	Lower	Upper
62	100		
64	30.7	8.1	48.1

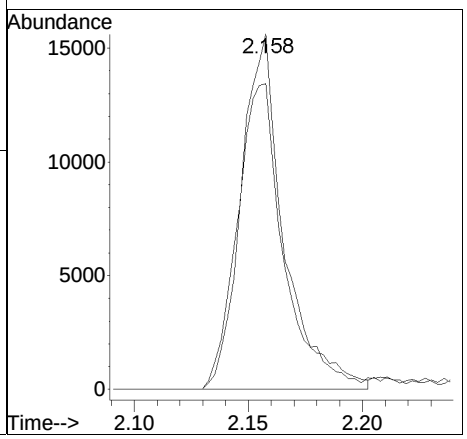


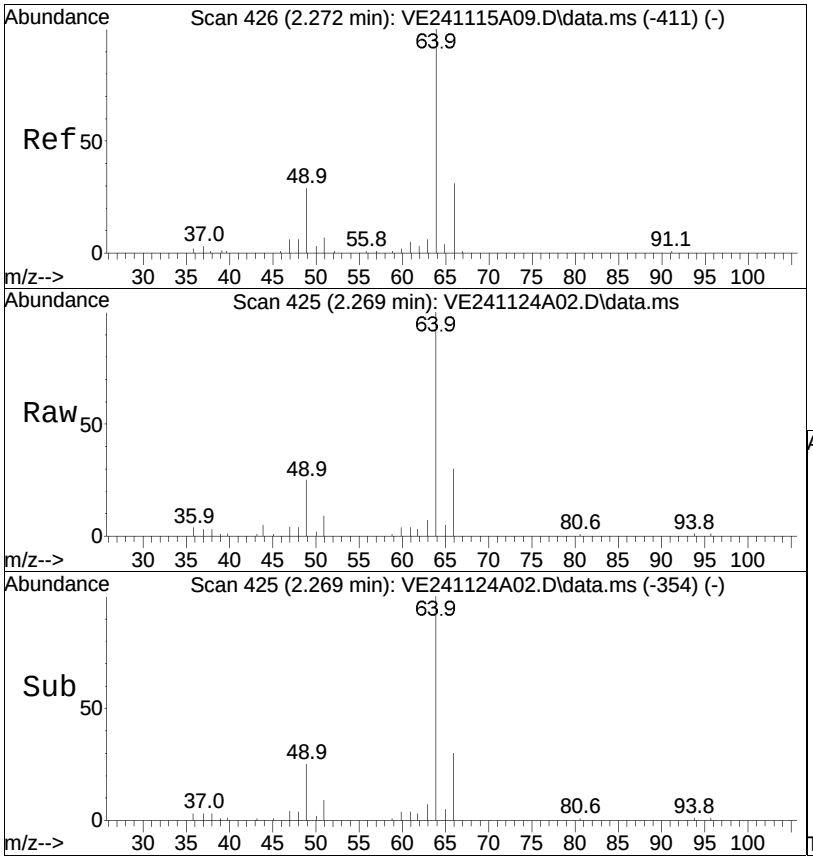


#5
Bromomethane
Concen: 6.05 ug/L
RT: 2.158 min Scan# 385
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 94 Resp: 20941

Ion	Ratio	Lower	Upper
94	100		
96	88.3	68.2	108.2

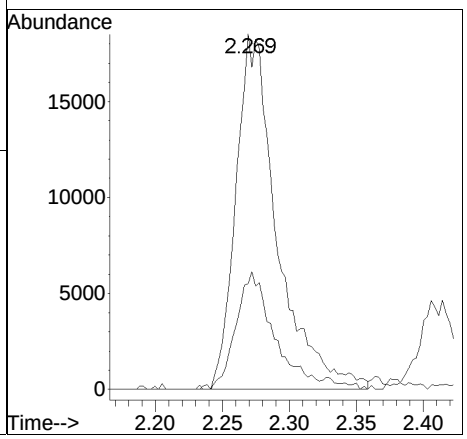


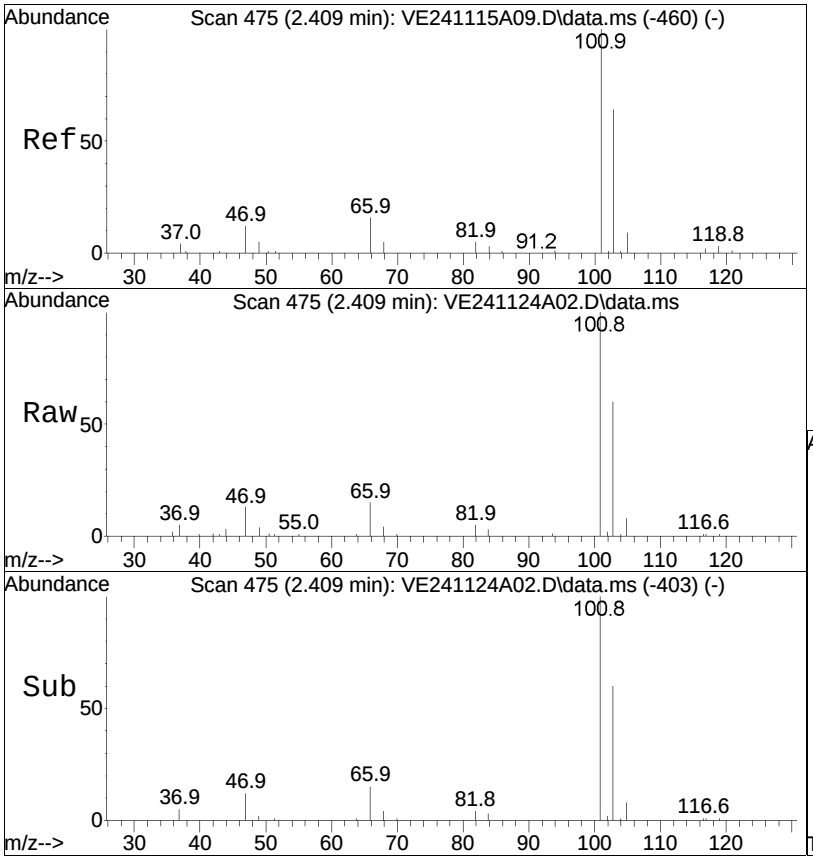


#6
Chloroethane
Concen: 11.15 ug/L
RT: 2.269 min Scan# 425
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 64 Resp: 39820

Ion	Ratio	Lower	Upper
64	100		
66	30.2	10.7	50.7

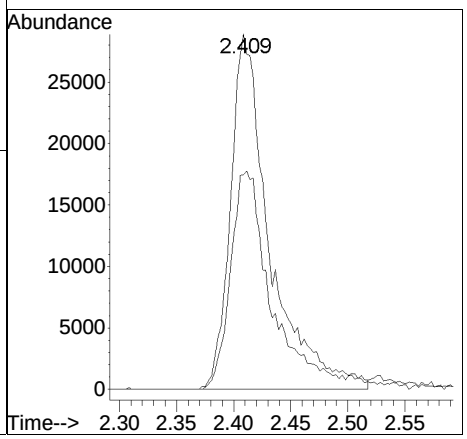


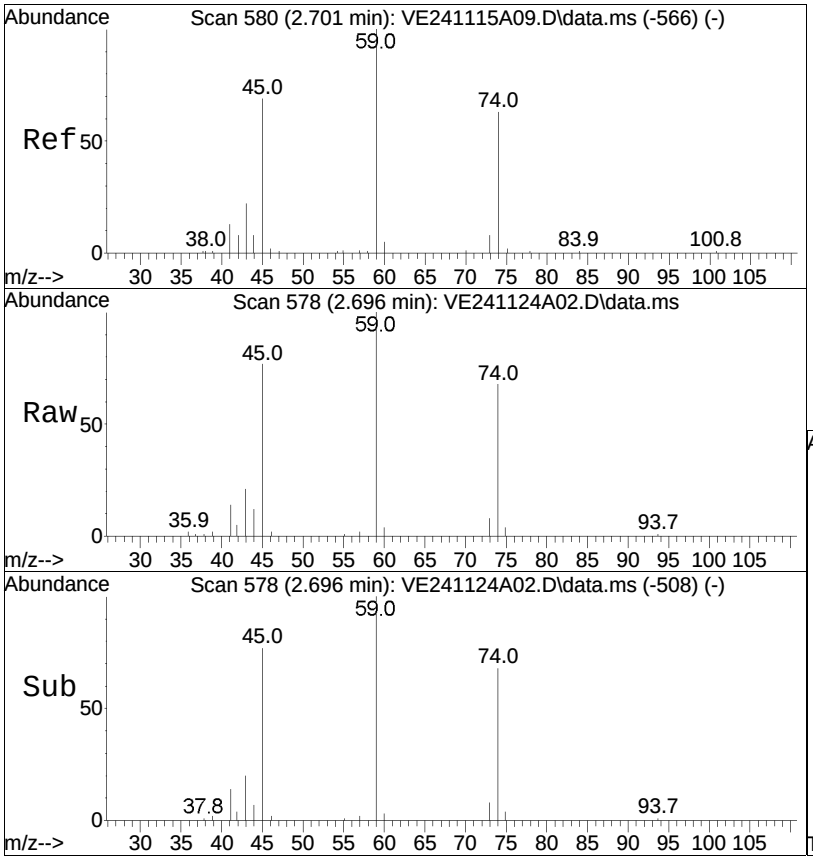


#7
Trichlorofluoromethane
Concen: 9.63 ug/L
RT: 2.409 min Scan# 475
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:101 Resp: 69253

Ion	Ratio	Lower	Upper
101	100		
103	63.6	48.2	72.2

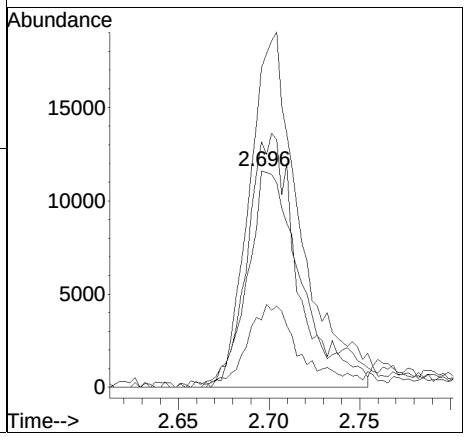


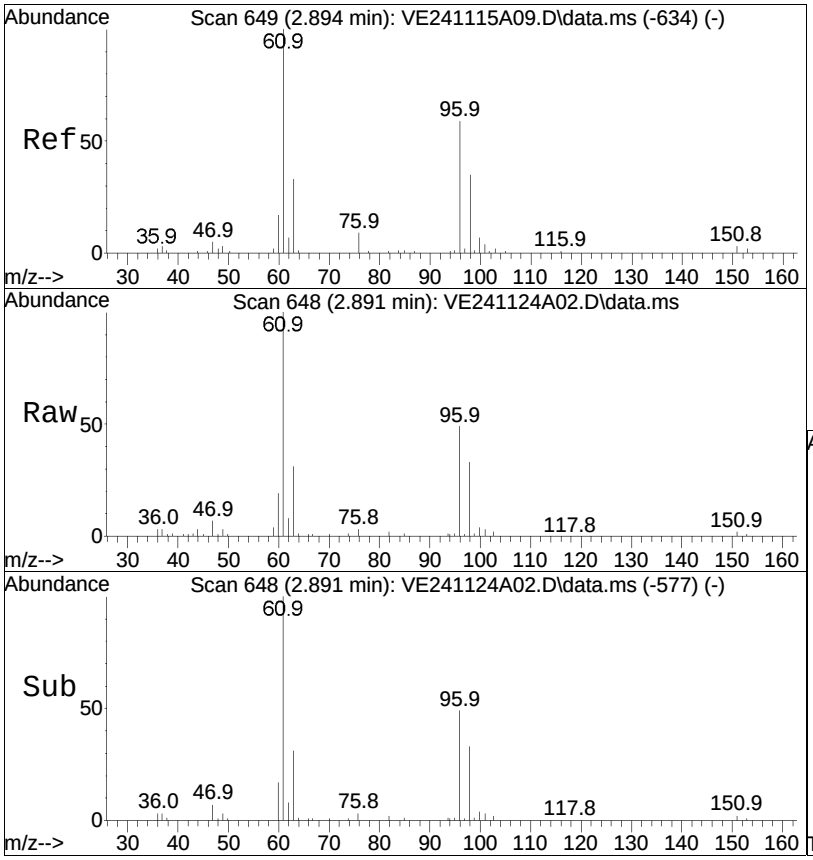


#8
Ethyl ether
Concen: 10.30 ug/L
RT: 2.696 min Scan# 578
Delta R.T. -0.006 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 74 Resp: 22918

Ion	Ratio	Lower	Upper
74	100		
59	168.5	91.7	190.5
45	110.6	77.4	160.8
43	35.1	24.6	51.2

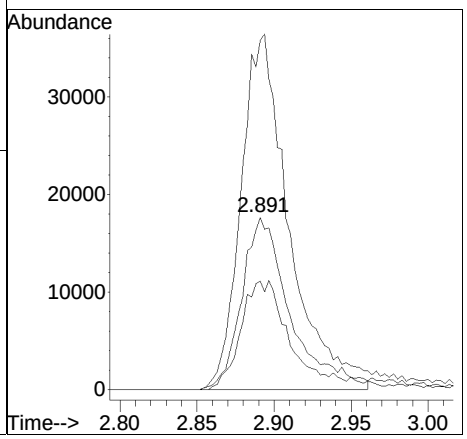


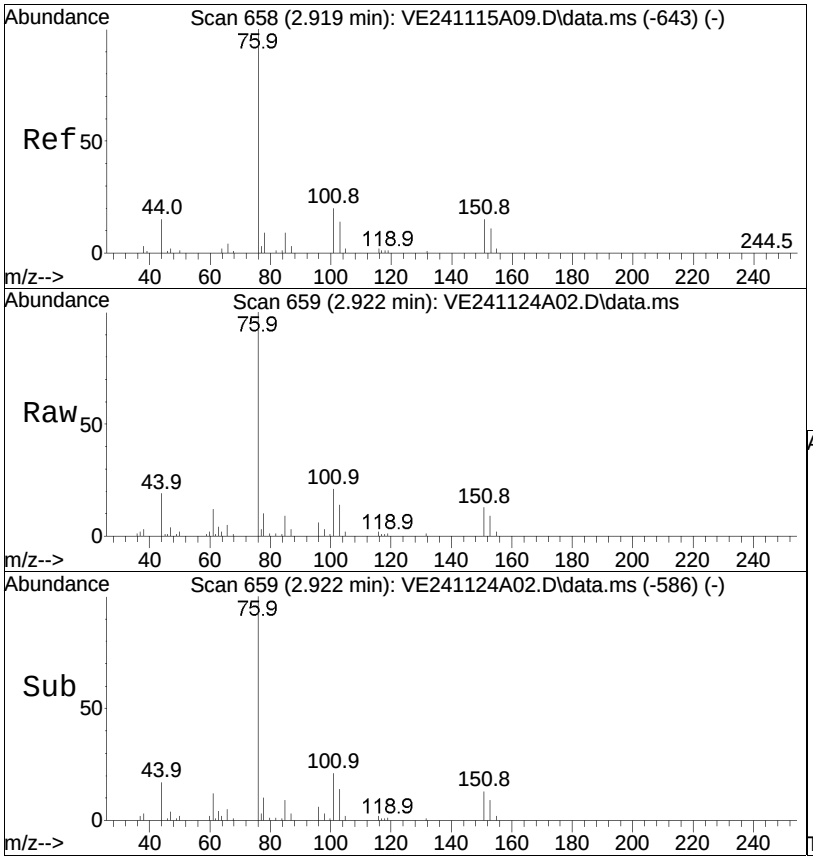


#10
1,1-Dichloroethene
Concen: 10.53 ug/L
RT: 2.891 min Scan# 648
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 96 Resp: 38581

Ion	Ratio	Lower	Upper
96	100		
61	212.5	135.4	203.0#
63	63.4	42.6	63.8

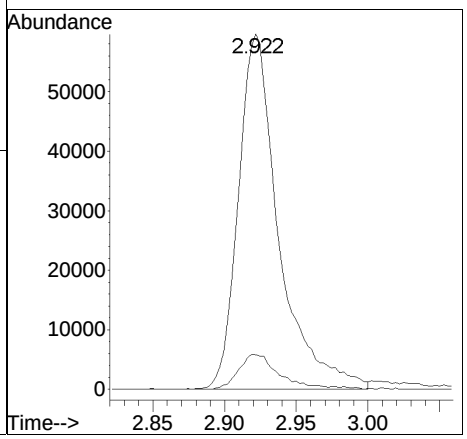


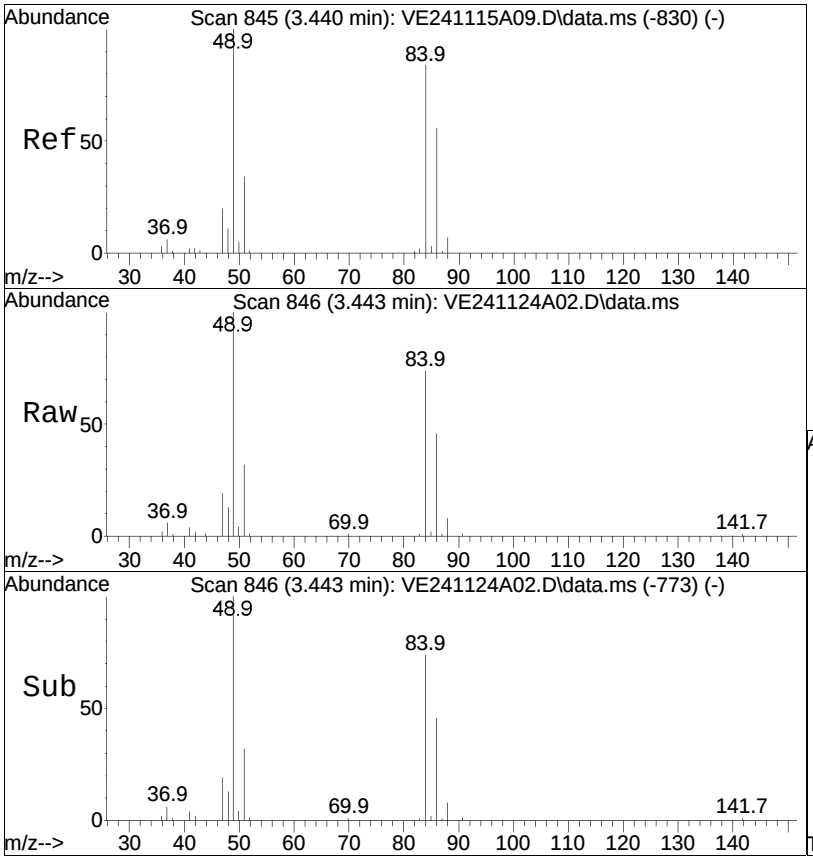


#11
Carbon disulfide
Concen: 10.65 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 76 Resp: 117138

Ion	Ratio	Lower	Upper
76	100		
78	9.8	5.5	11.3

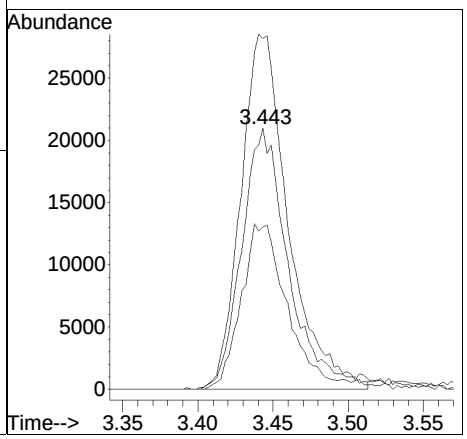


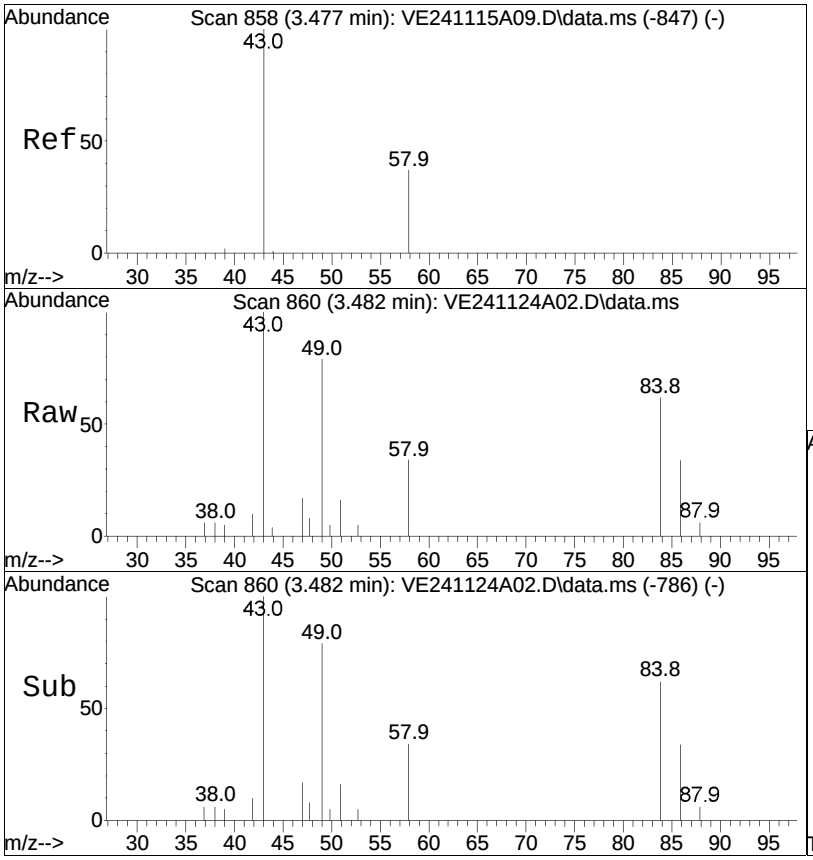


#15
Methylene chloride
Concen: 9.91 ug/L
RT: 3.443 min Scan# 846
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 84 Resp: 45300

Ion	Ratio	Lower	Upper
84	100		
86	62.0	40.2	83.6
49	138.0	103.2	214.4

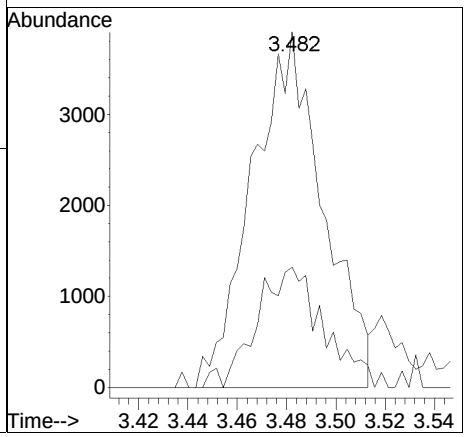


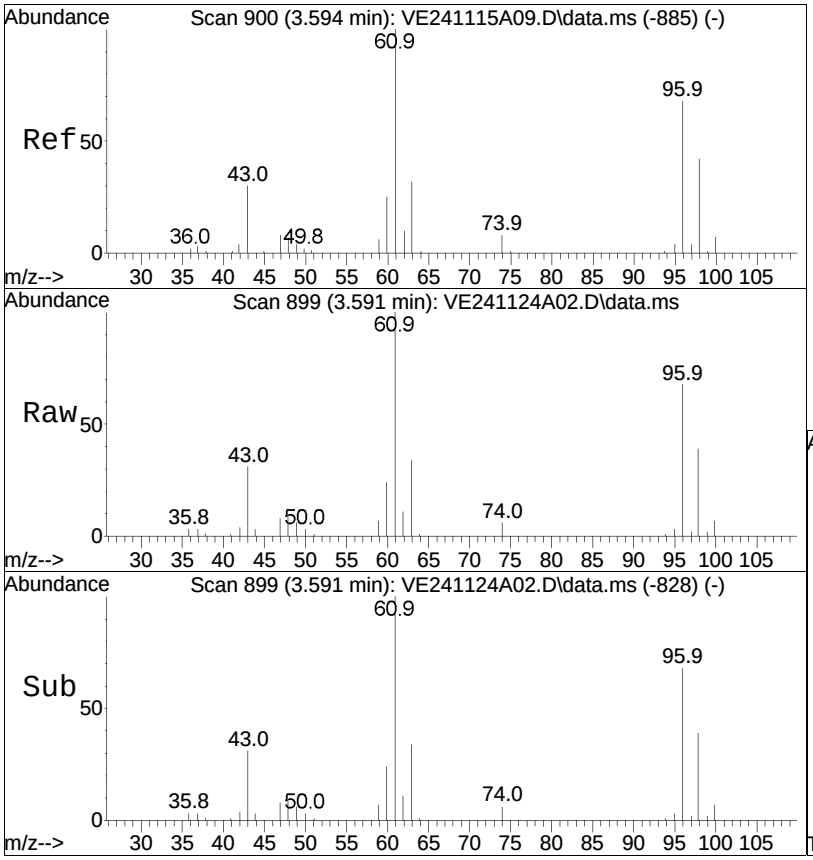


#17
Acetone
Concen: 8.66 ug/L
RT: 3.482 min Scan# 860
Delta R.T. 0.006 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 43 Resp: 7794

Ion	Ratio	Lower	Upper
43	100		
58	31.7	23.4	35.0

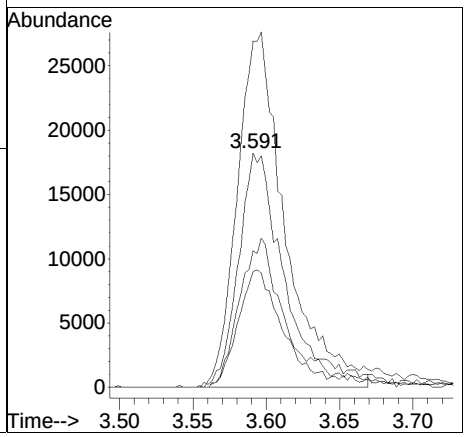


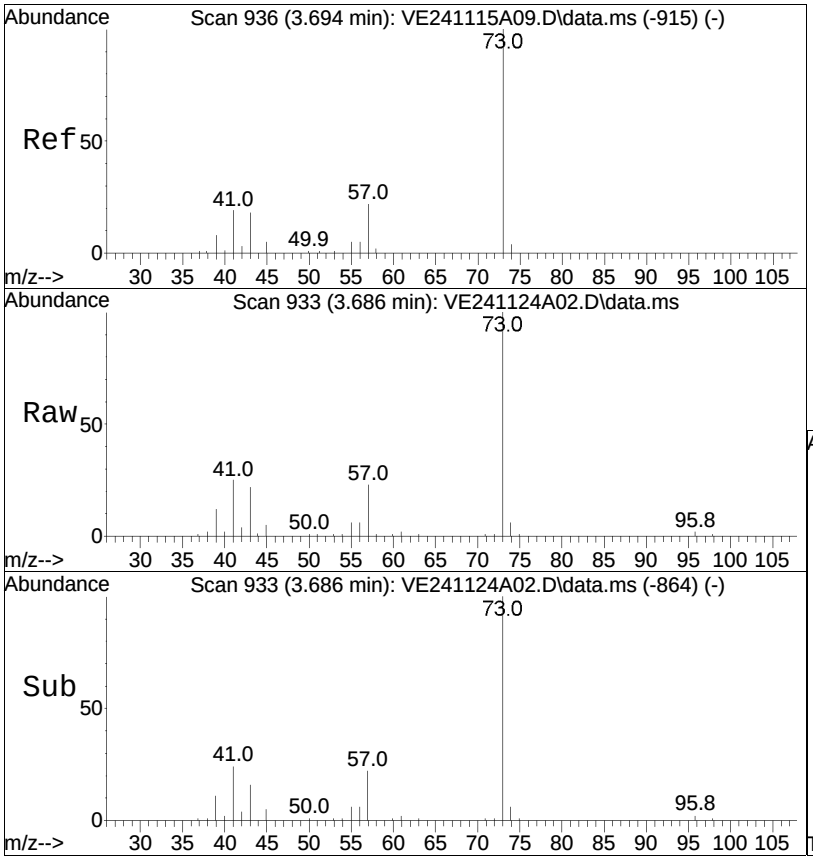


#18
trans-1,2-Dichloroethene
Concen: 9.86 ug/L
RT: 3.591 min Scan# 899
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 96 Resp: 40220

Ion	Ratio	Lower	Upper
96	100		
61	155.2	93.5	194.1
98	61.0	37.8	78.6
63	48.2	29.7	61.7

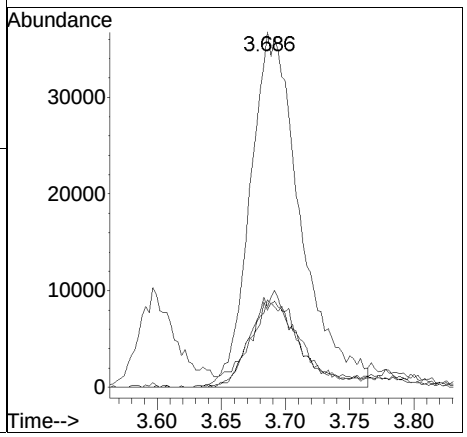


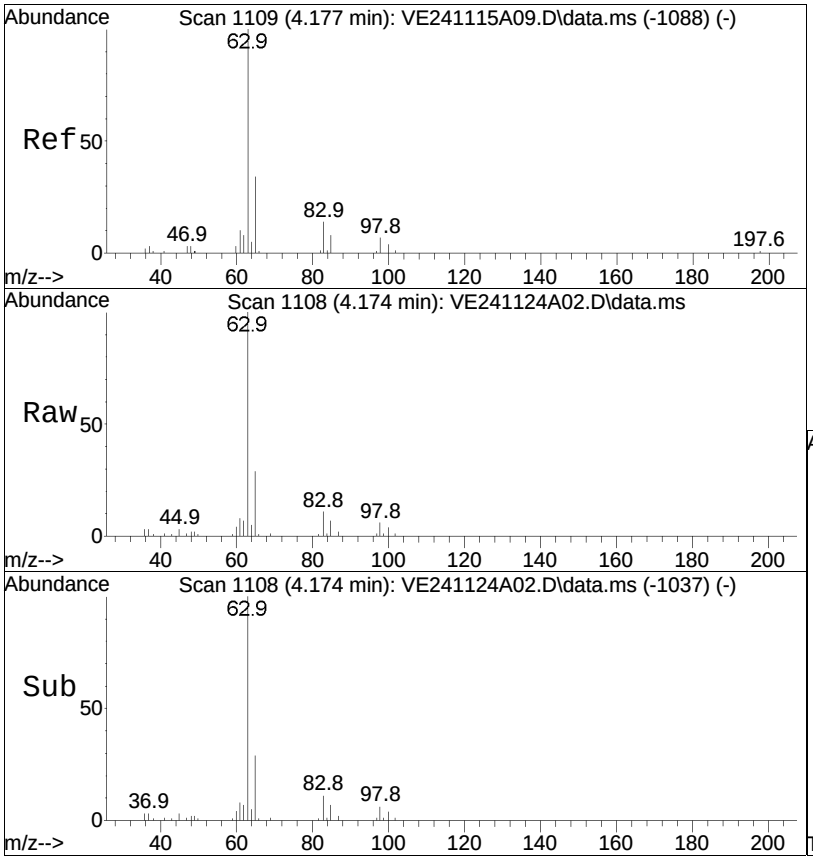


#21
Methyl tert-butyl ether
Concen: 9.17 ug/L
RT: 3.686 min Scan# 933
Delta R.T. -0.008 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 73 Resp: 100007

Ion	Ratio	Lower	Upper
73	100		
57	25.7	16.1	33.3
43	19.0	17.0	35.2
41	24.3	18.7	38.9

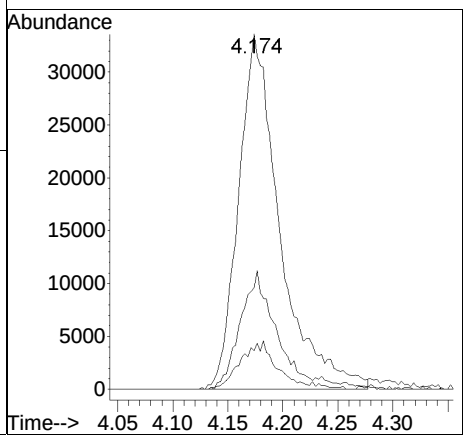


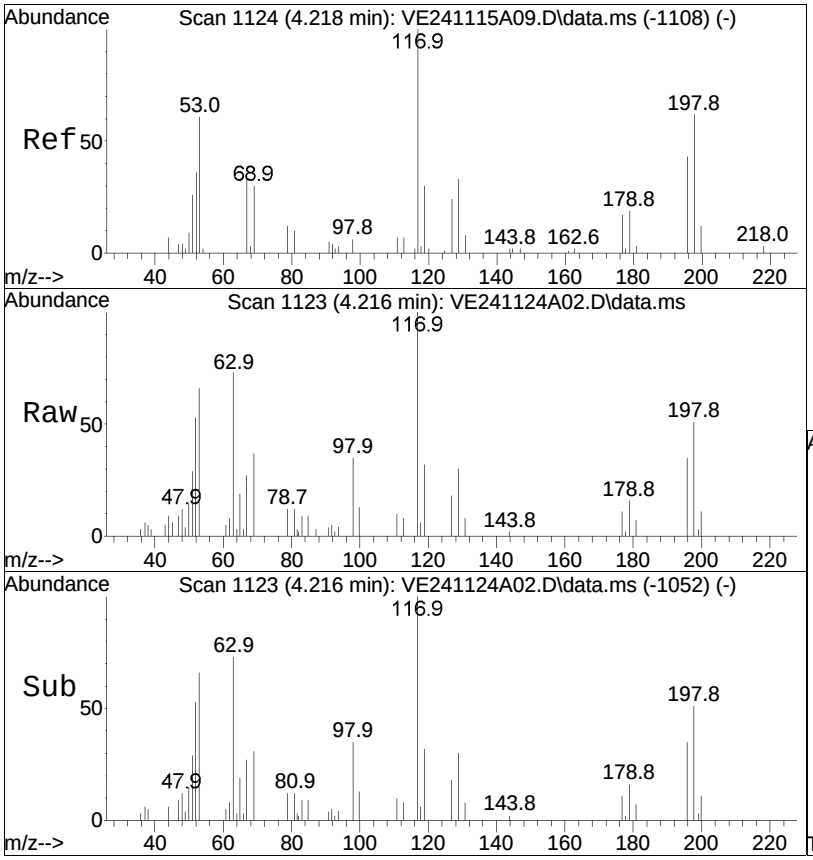


#25
1,1-Dichloroethane
Concen: 10.76 ug/L
RT: 4.174 min Scan# 1108
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 63 Resp: 87738

Ion	Ratio	Lower	Upper
63	100		
65	28.4	10.3	50.3
83	11.8	0.0	33.1

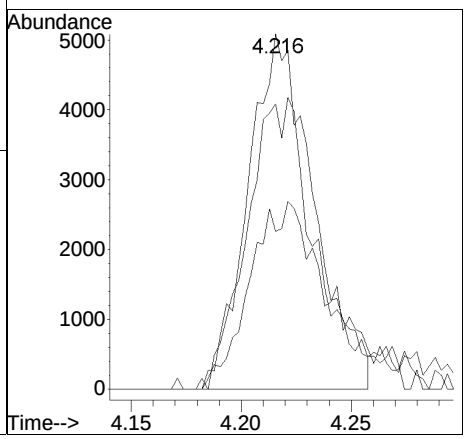


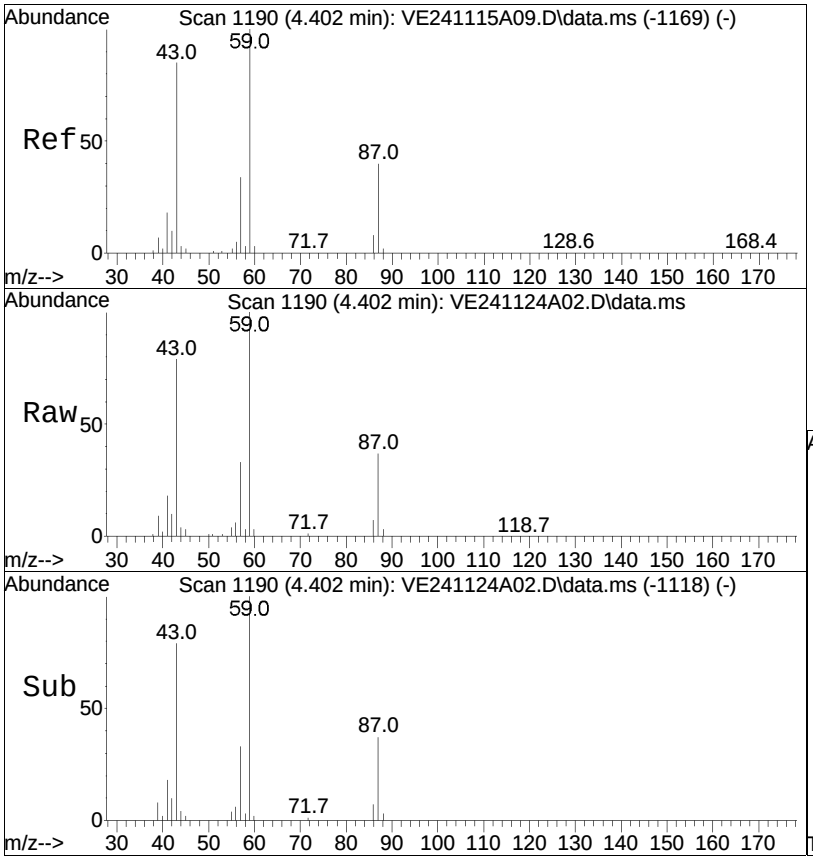


#27
Acrylonitrile
Concen: 9.55 ug/L
RT: 4.216 min Scan# 1123
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 53 Resp: 10531

Ion	Ratio	Lower	Upper
53	100		
52	45.2	58.9	88.3#
51	63.7	40.2	60.2#

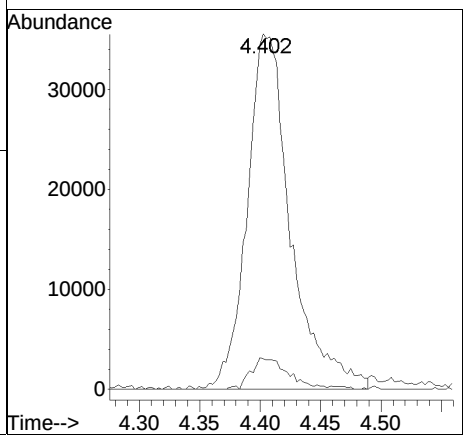


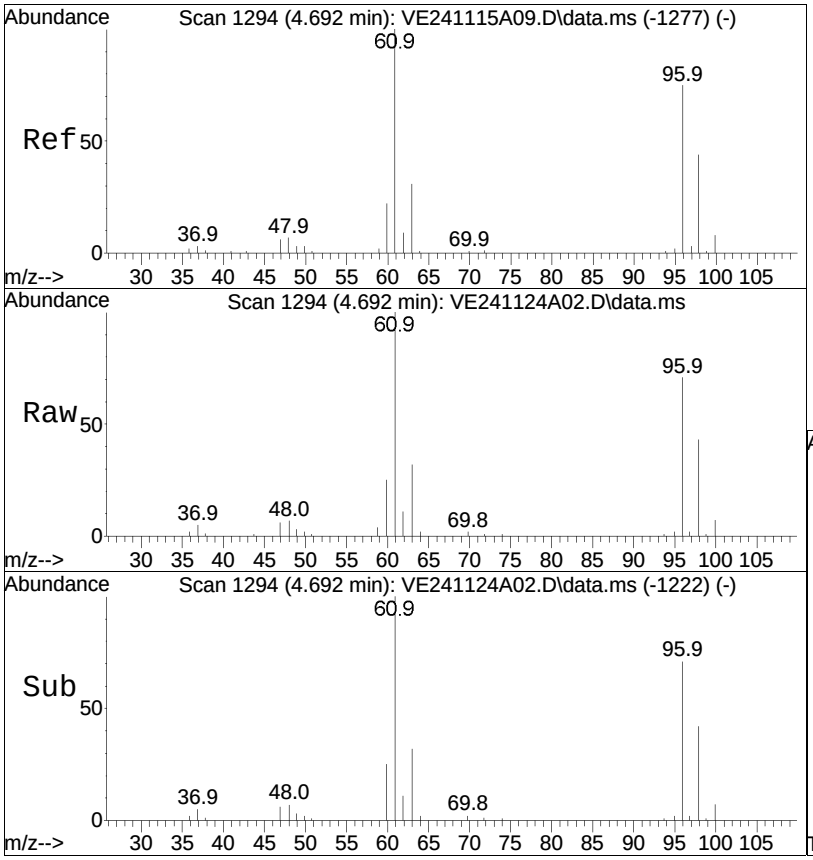


#29
Vinyl acetate
Concen: 9.44 ug/L
RT: 4.402 min Scan# 1190
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 43 Resp: 89399

Ion	Ratio	Lower	Upper
43	100		
86	7.4	6.2	9.4

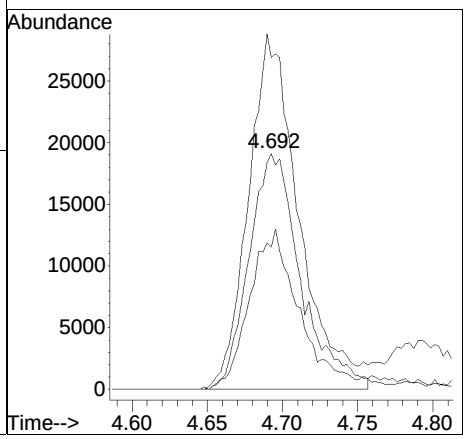


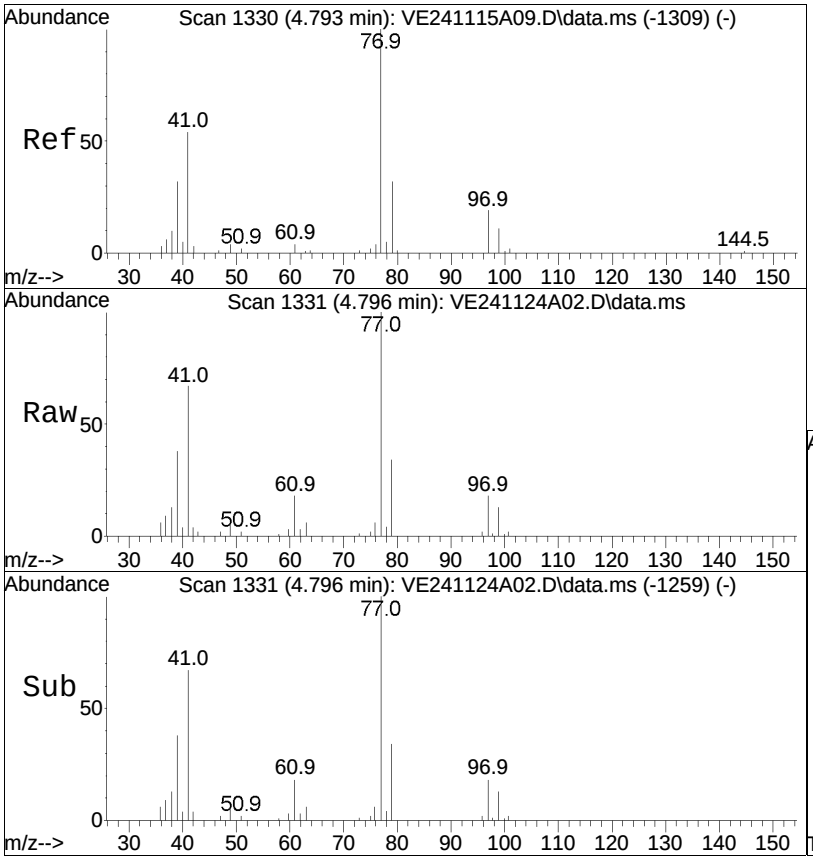


#30
cis-1,2-Dichloroethene
Concen: 9.85 ug/L
RT: 4.692 min Scan# 1294
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 96 Resp: 45891

Ion	Ratio	Lower	Upper
96	100		
61	145.7	120.3	180.5
98	64.5	50.2	75.4

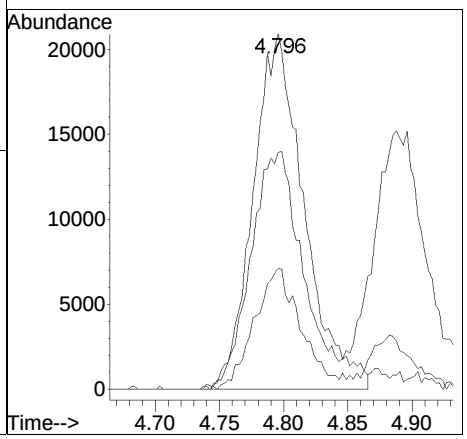


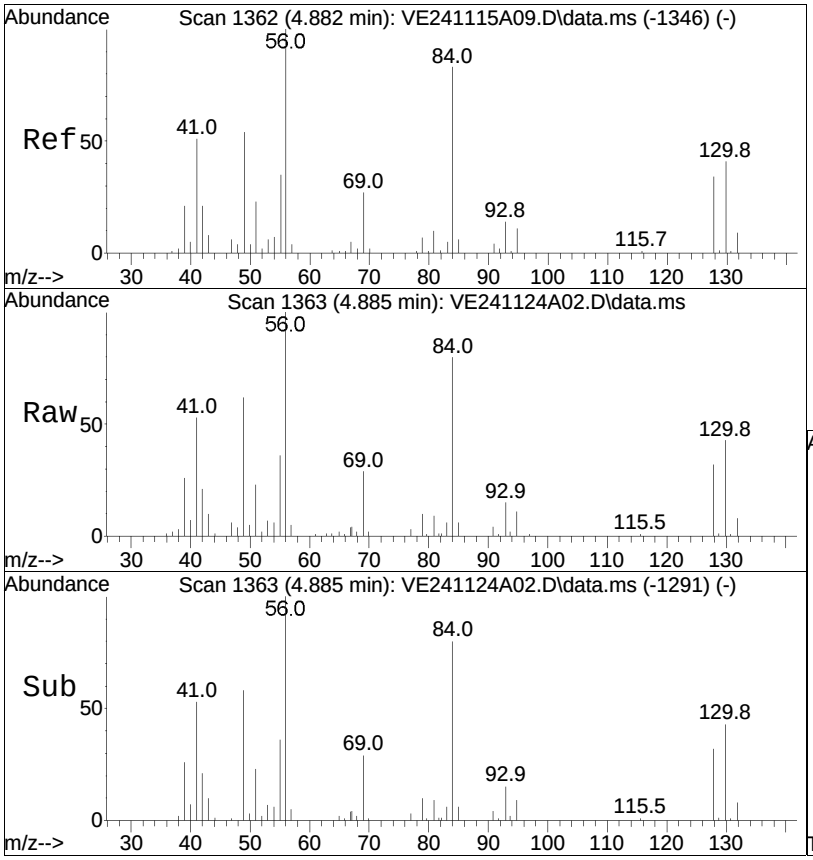


#31
2,2-Dichloropropane
Concen: 8.98 ug/L
RT: 4.796 min Scan# 1331
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 77 Resp: 57808

Ion	Ratio	Lower	Upper
77	100		
41	67.6	46.5	96.5
79	31.0	21.6	45.0

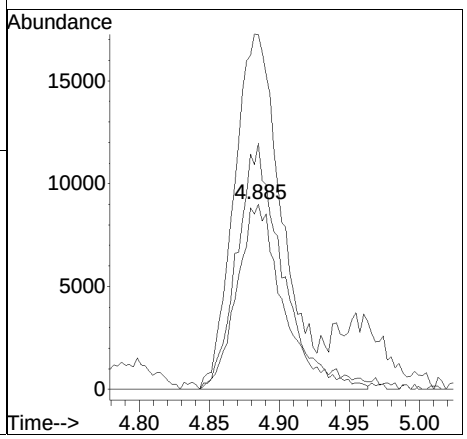


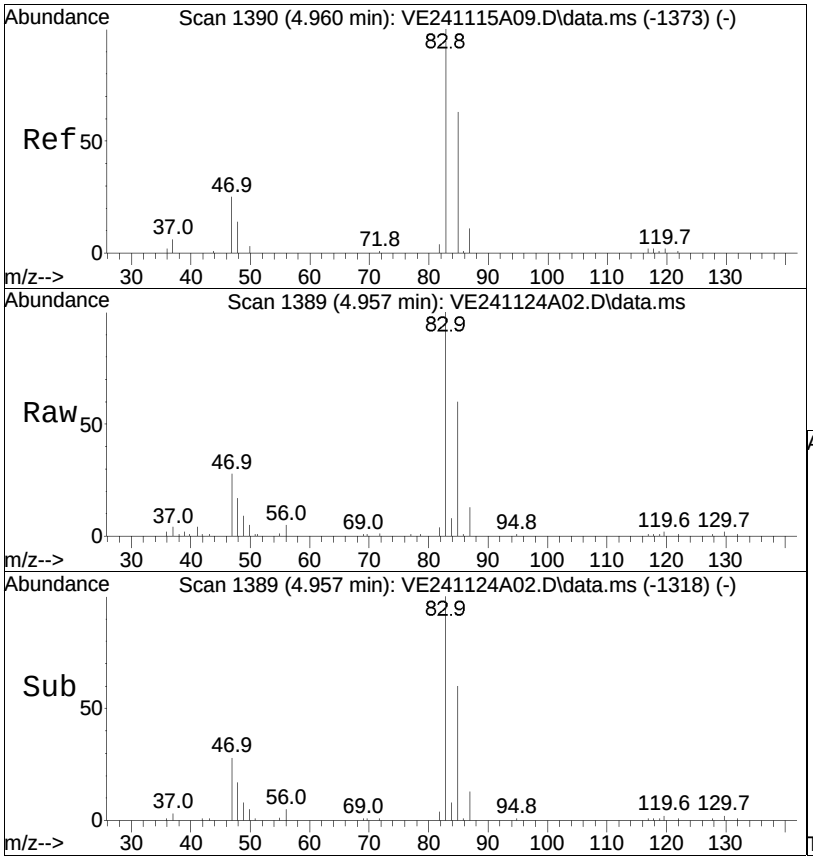


#33
Bromochloromethane
Concen: 9.80 ug/L
RT: 4.885 min Scan# 1363
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:128 Resp: 20796

Ion	Ratio	Lower	Upper
128	100		
49	193.9	170.2	255.2
130	125.9	103.7	155.5

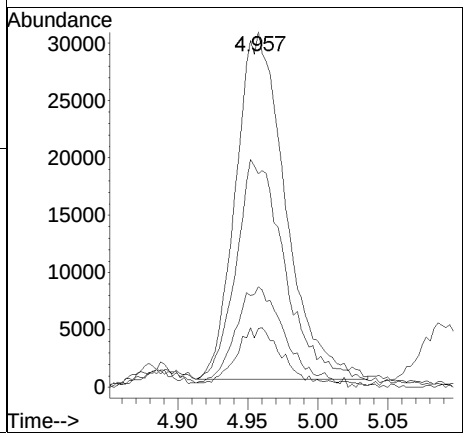


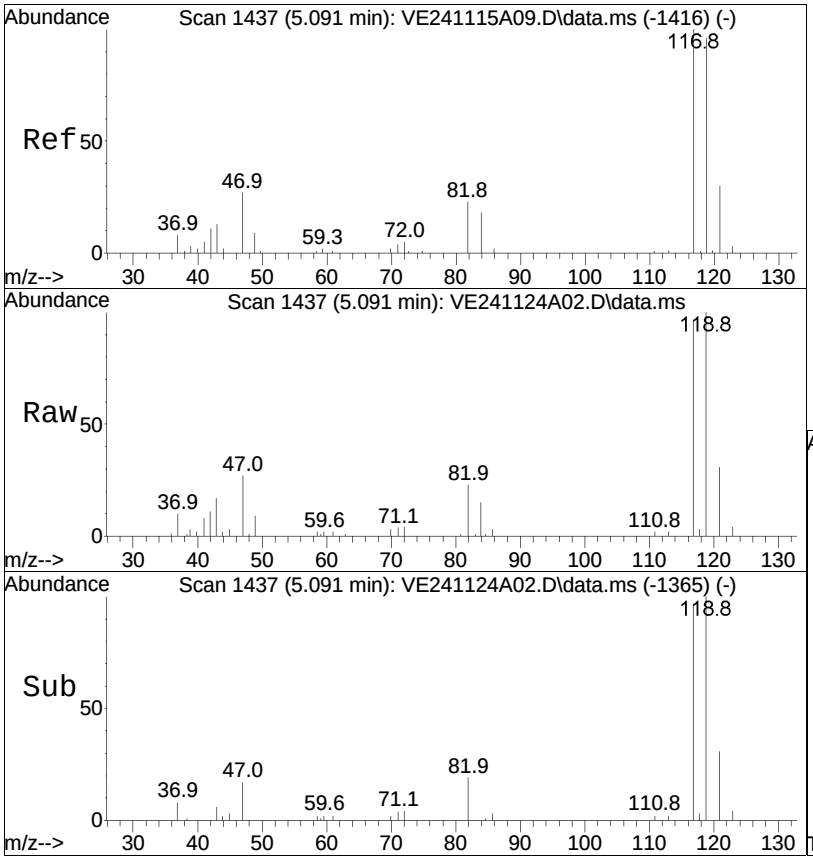


#35
Chloroform
Concen: 9.79 ug/L
RT: 4.957 min Scan# 1389
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 83 Resp: 74879

Ion	Ratio	Lower	Upper
83	100		
85	63.9	41.3	85.9
47	26.1	20.9	43.3
48	13.7	10.3	21.5

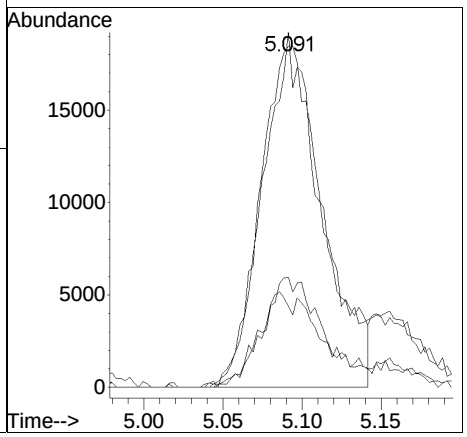


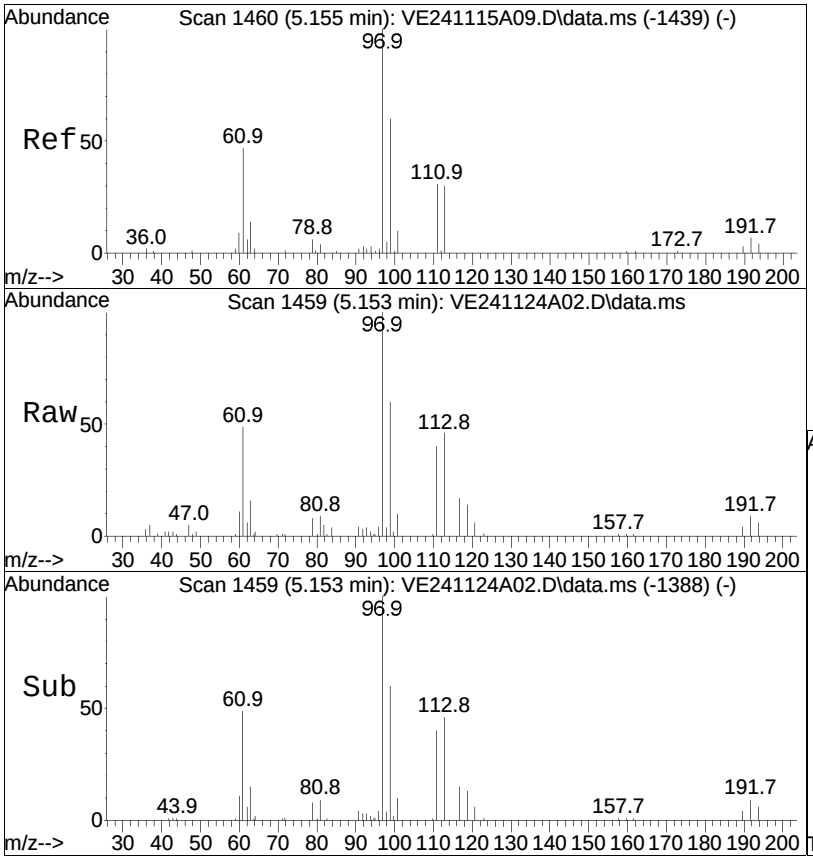


#37
Carbon tetrachloride
Concen: 9.28 ug/L
RT: 5.091 min Scan# 1437
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:117 Resp: 51486

Ion	Ratio	Lower	Upper
117	100		
119	94.4	60.6	126.0
121	29.7	18.0	37.4
82	14.7	19.8	41.0#

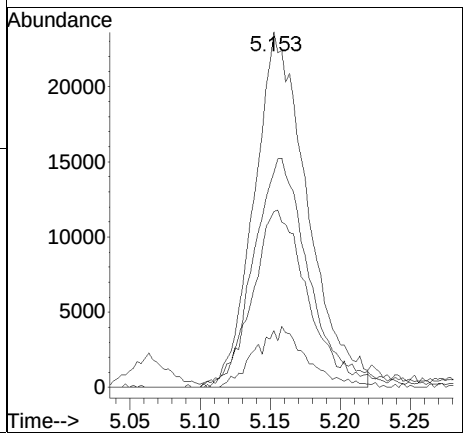


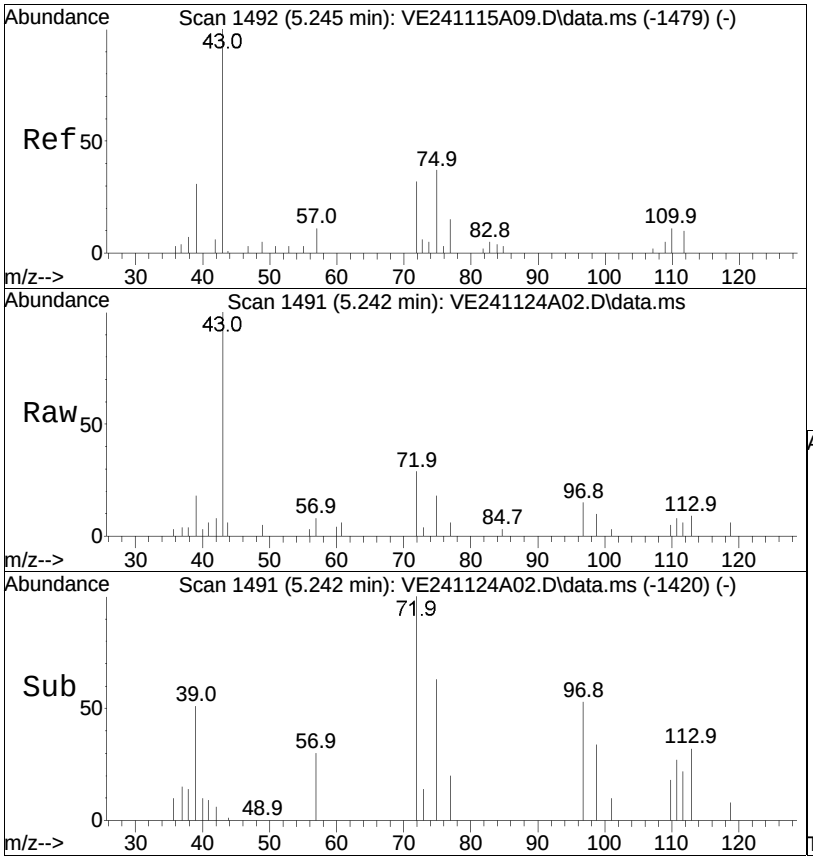


#40
1,1,1-Trichloroethane
Concen: 9.26 ug/L
RT: 5.153 min Scan# 1459
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 97 Resp: 62578

Ion	Ratio	Lower	Upper
97	100		
99	66.9	40.2	83.4
61	49.6	36.9	76.5
63	16.7	8.3	17.3

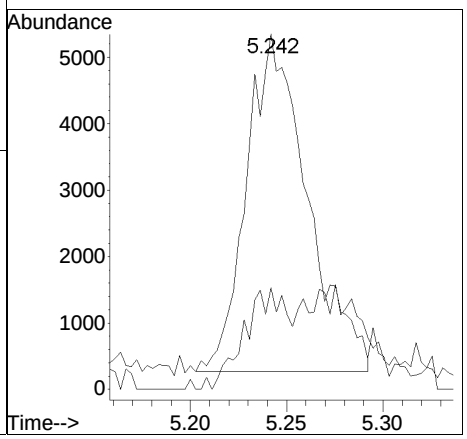


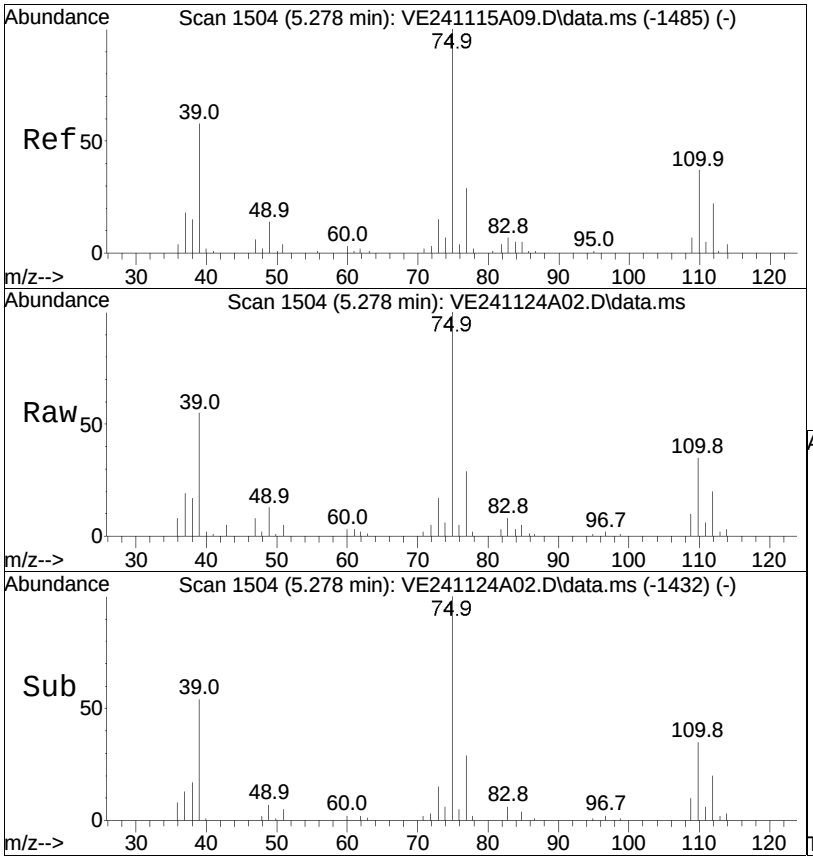


#42
2-Butanone
Concen: 8.72 ug/L
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 43 Resp: 11197

Ion	Ratio	Lower	Upper
43	100		
72	11.9	15.7	23.5#

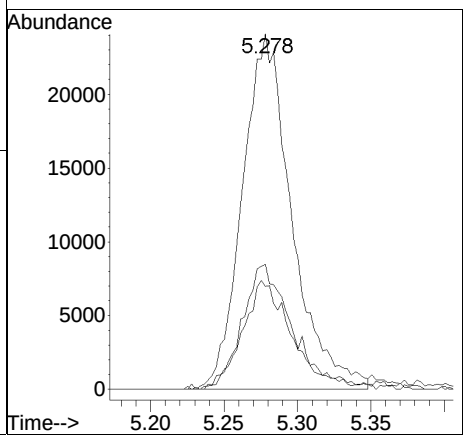


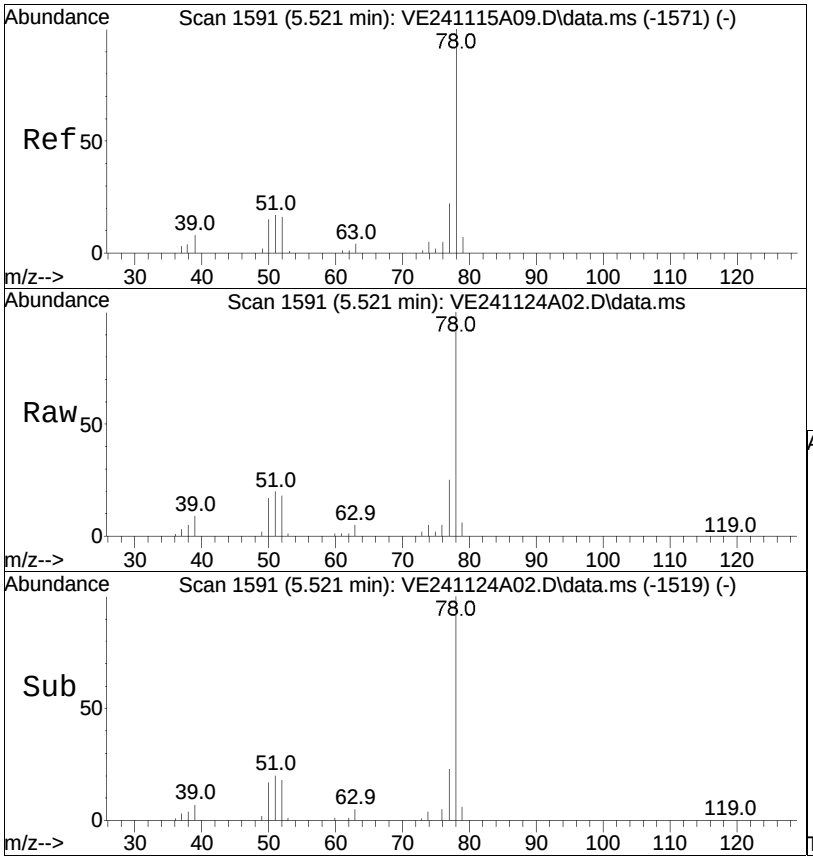


#43
1,1-Dichloropropene
Concen: 9.53 ug/L
RT: 5.278 min Scan# 1504
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 75 Resp: 56405

Ion	Ratio	Lower	Upper
75	100		
110	35.5	20.3	42.1
77	30.6	18.9	39.3

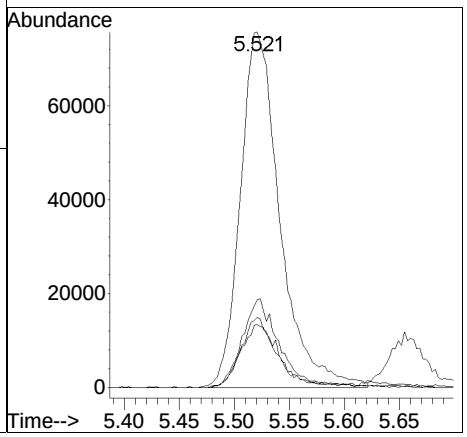


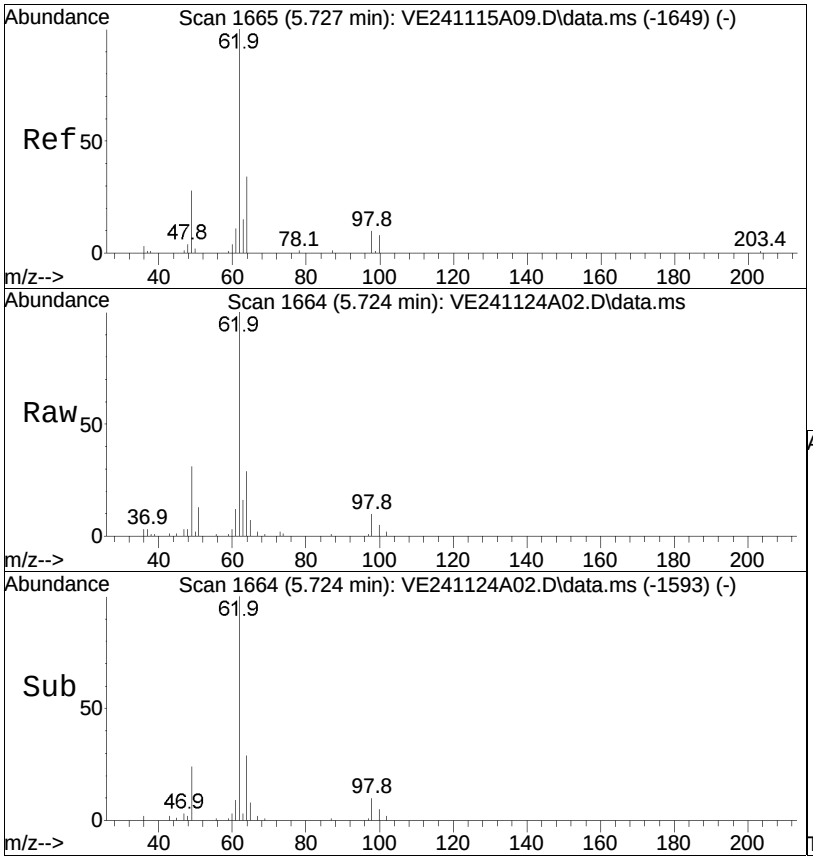


#45
Benzene
Concen: 10.16 ug/L
RT: 5.521 min Scan# 1591
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 78 Resp: 189464

Ion	Ratio	Lower	Upper
78	100		
77	23.2	12.8	26.6
51	18.3	13.5	27.9
52	16.9	12.0	25.0

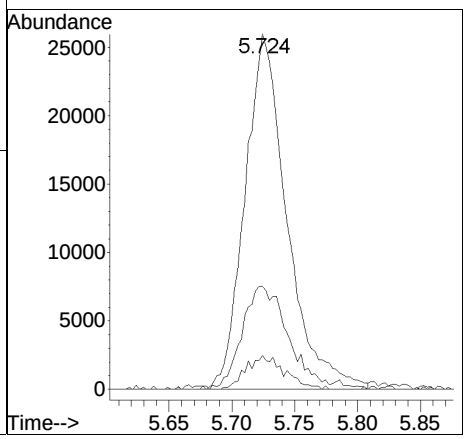


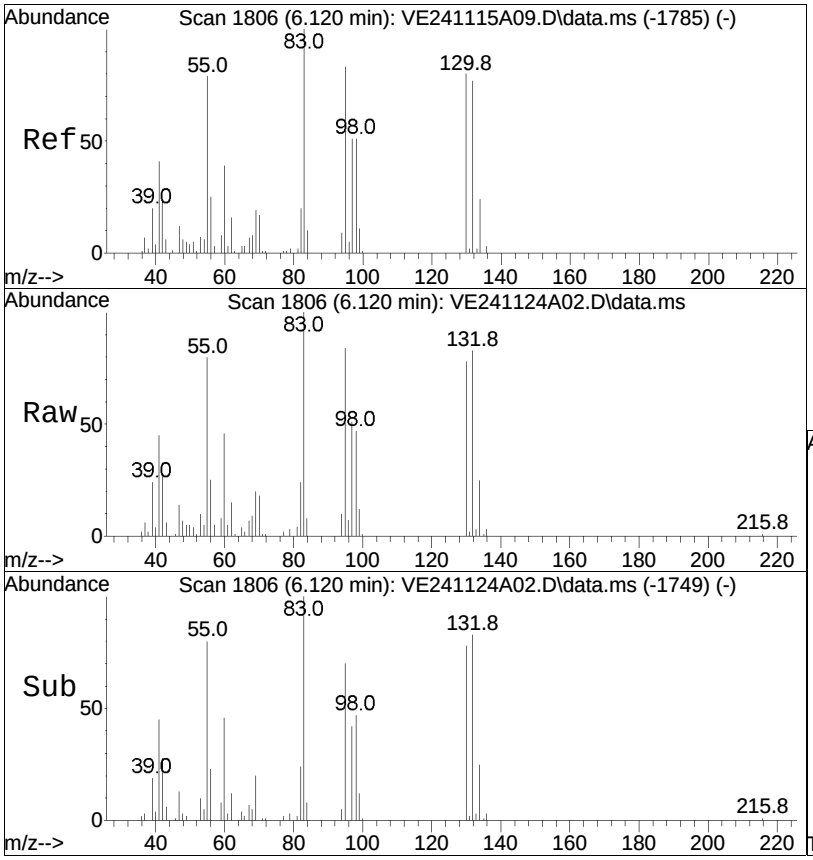


#48
1,2-Dichloroethane
Concen: 10.19 ug/L
RT: 5.724 min Scan# 1664
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 62 Resp: 60398

Ion	Ratio	Lower	Upper
62	100		
64	31.6	12.0	52.0
98	8.7	0.0	29.1

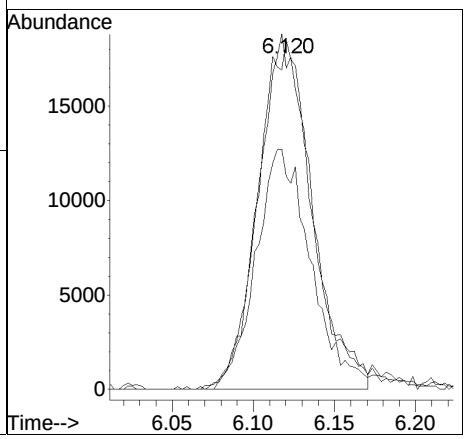


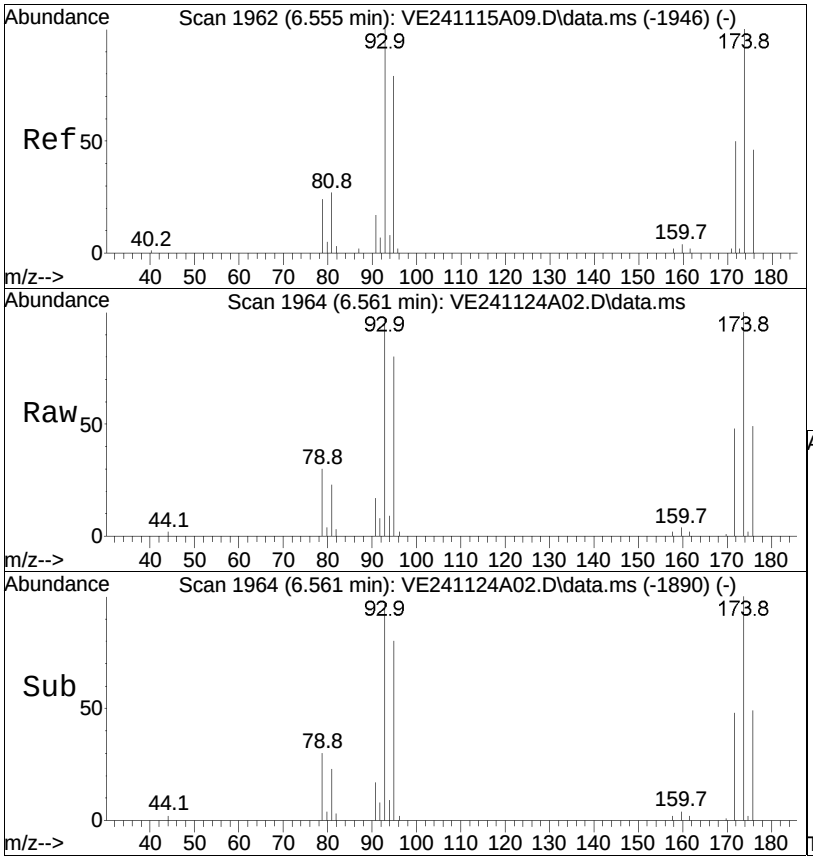


#52
Trichloroethene
Concen: 9.88 ug/L
RT: 6.120 min Scan# 1806
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 95 Resp: 43651

Ion	Ratio	Lower	Upper
95	100		
97	71.0	50.2	75.2
130	99.0	78.2	117.4

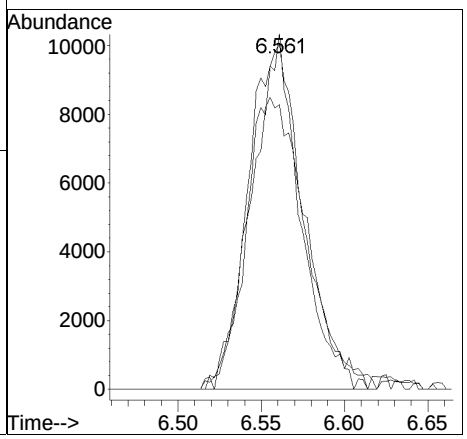


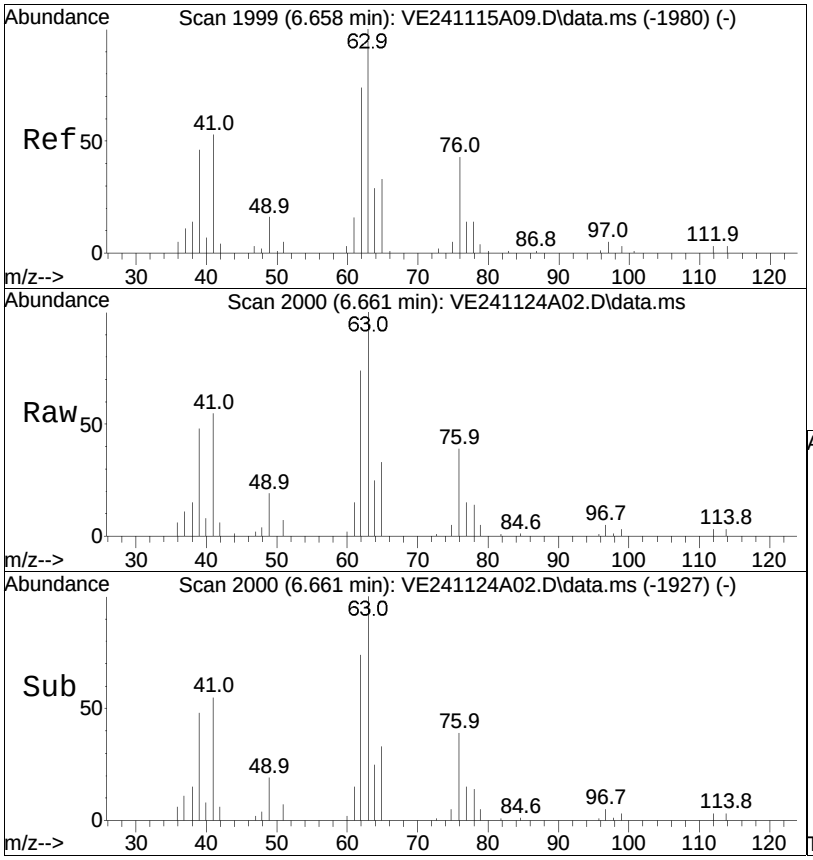


#54
Dibromomethane
Concen: 9.29 ug/L
RT: 6.561 min Scan# 1964
Delta R.T. 0.006 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 93 Resp: 23464

Ion	Ratio	Lower	Upper
93	100		
95	85.1	73.2	109.8
174	95.7	73.8	110.8

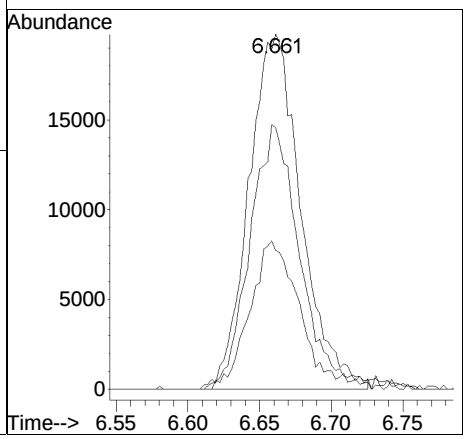


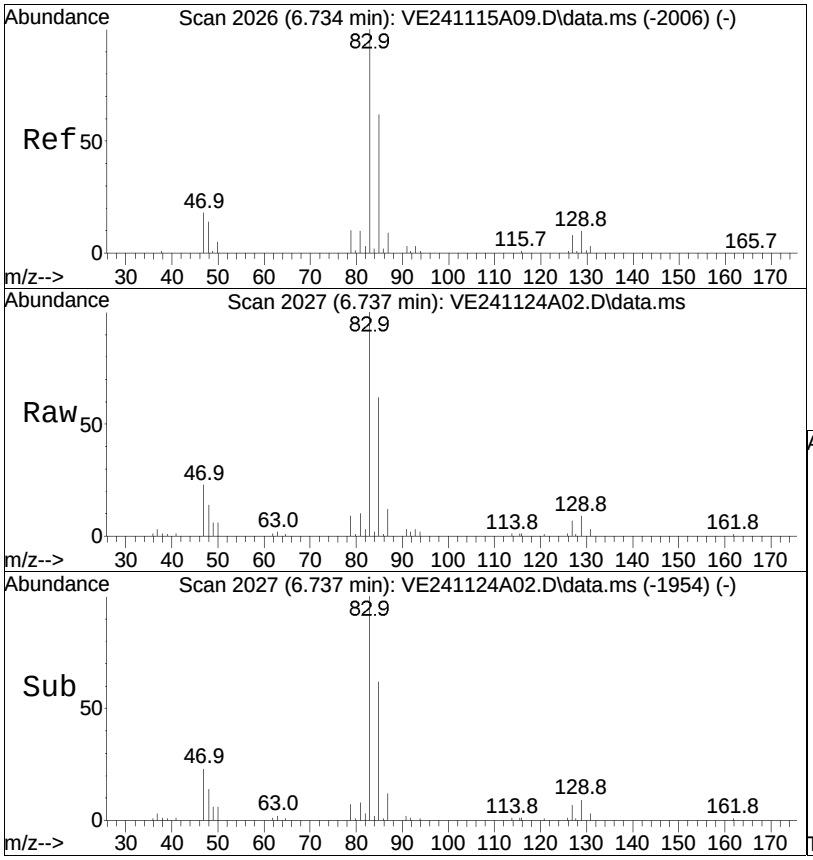


#55
1,2-Dichloropropane
Concen: 10.59 ug/L
RT: 6.661 min Scan# 2000
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 63 Resp: 50151

Ion	Ratio	Lower	Upper
63	100		
62	70.9	58.4	87.6
76	40.4	28.7	43.1

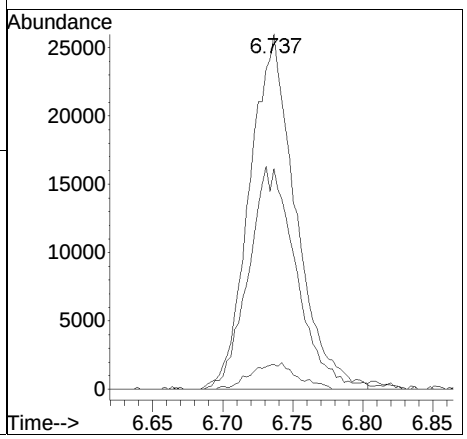


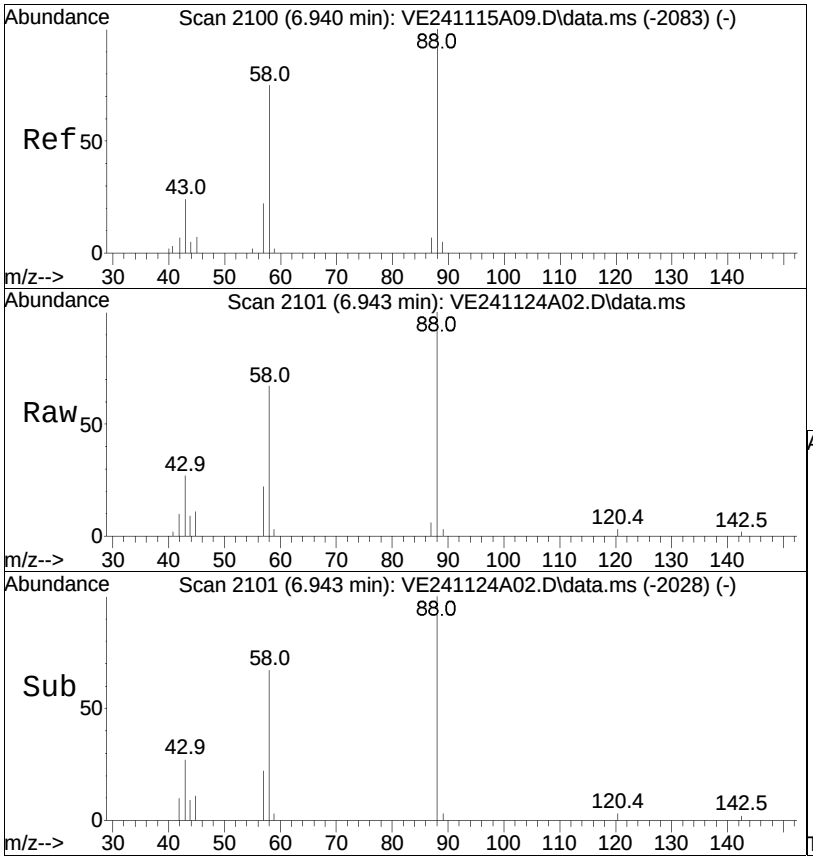


#58
Bromodichloromethane
Concen: 9.70 ug/L
RT: 6.737 min Scan# 2027
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 83 Resp: 59586

Ion	Ratio	Lower	Upper
83	100		
85	65.2	46.6	69.8
127	7.5	6.2	9.4

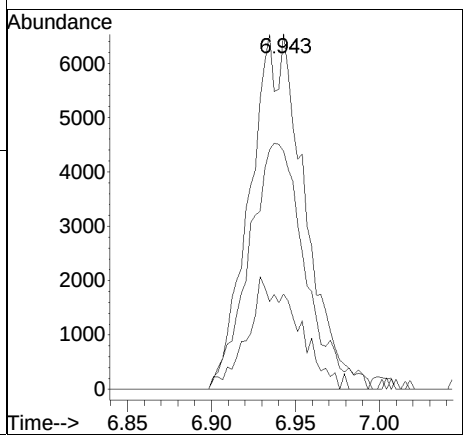


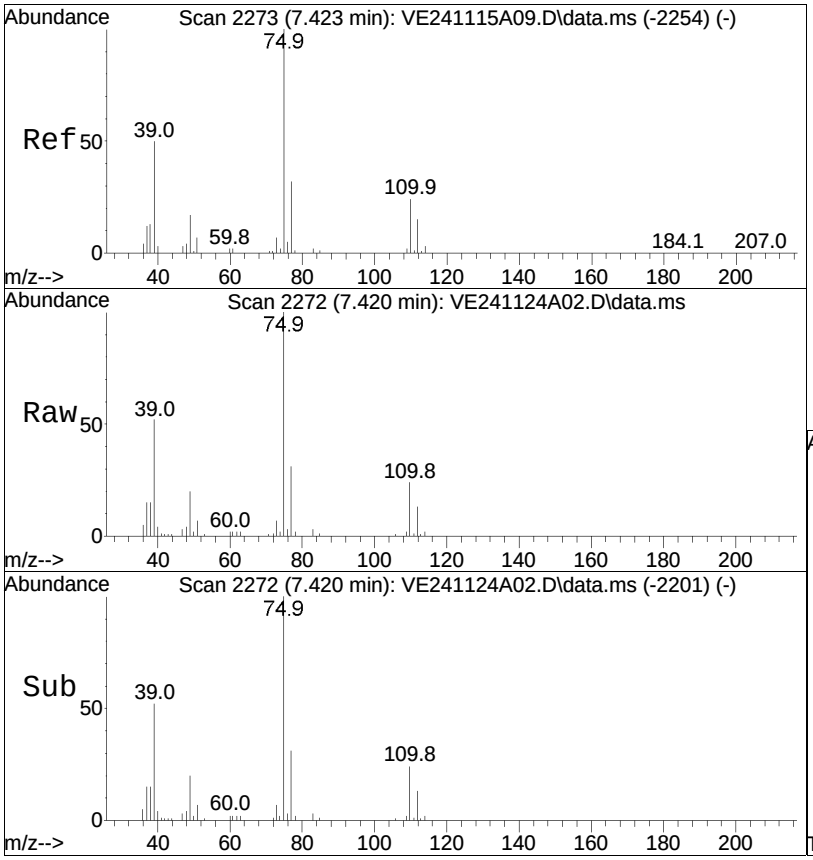


#61
1,4-Dioxane
Concen: 479.02 ug/L M3
RT: 6.943 min Scan# 2101
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 88 Resp: 14823

Ion	Ratio	Lower	Upper
88	100		
58	71.4	62.8	94.2
43	29.1	36.6	55.0#

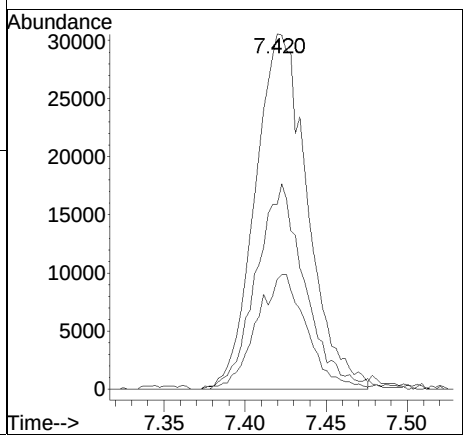


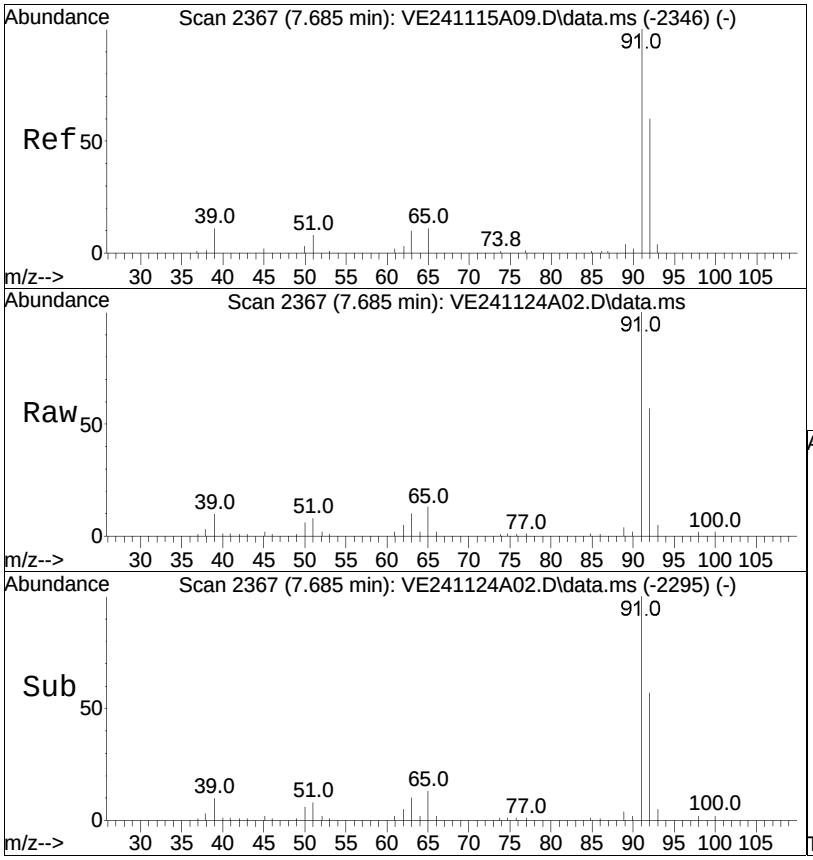


#62
cis-1,3-Dichloropropene
Concen: 9.67 ug/L
RT: 7.420 min Scan# 2272
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 75 Resp: 68623

Ion	Ratio	Lower	Upper
75	100		
77	31.1	25.1	37.7
39	54.4	50.7	76.1

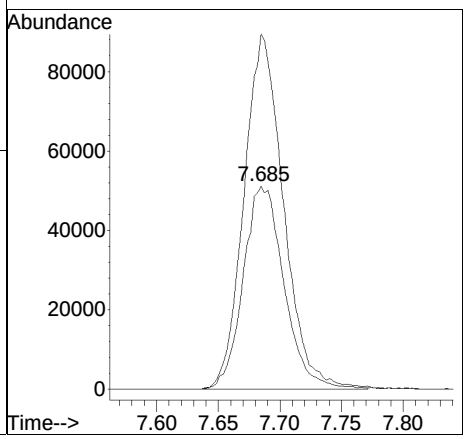


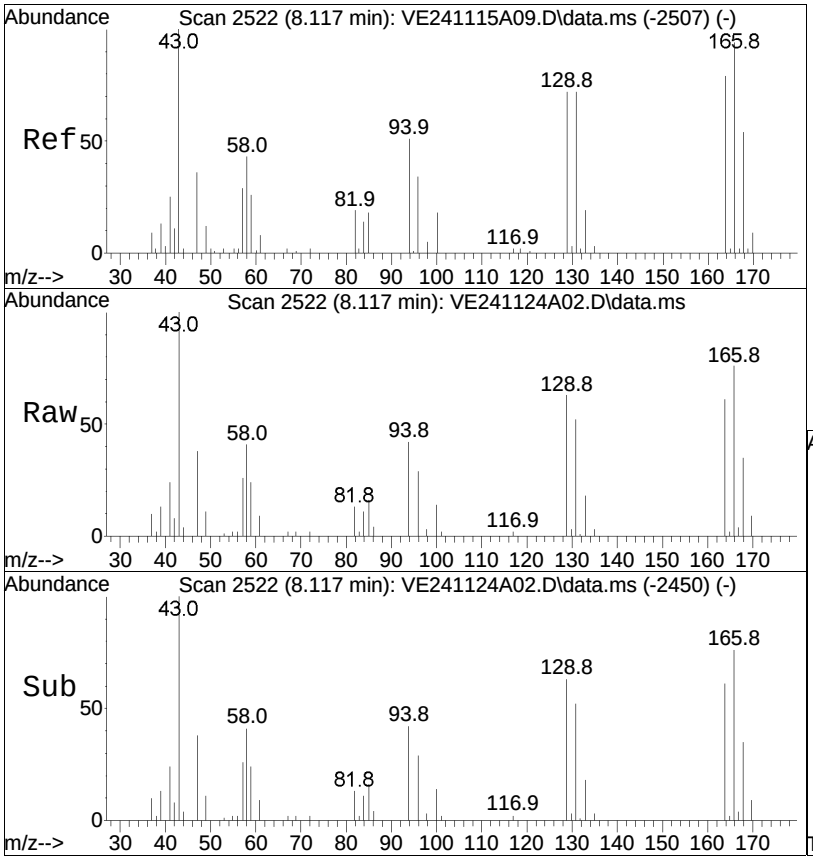


#65
Toluene
Concen: 10.11 ug/L
RT: 7.685 min Scan# 2367
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 92 Resp: 118193

Ion	Ratio	Lower	Upper
92	100		
91	169.6	129.1	193.7

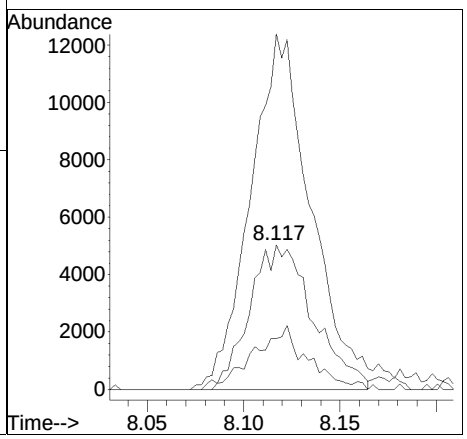


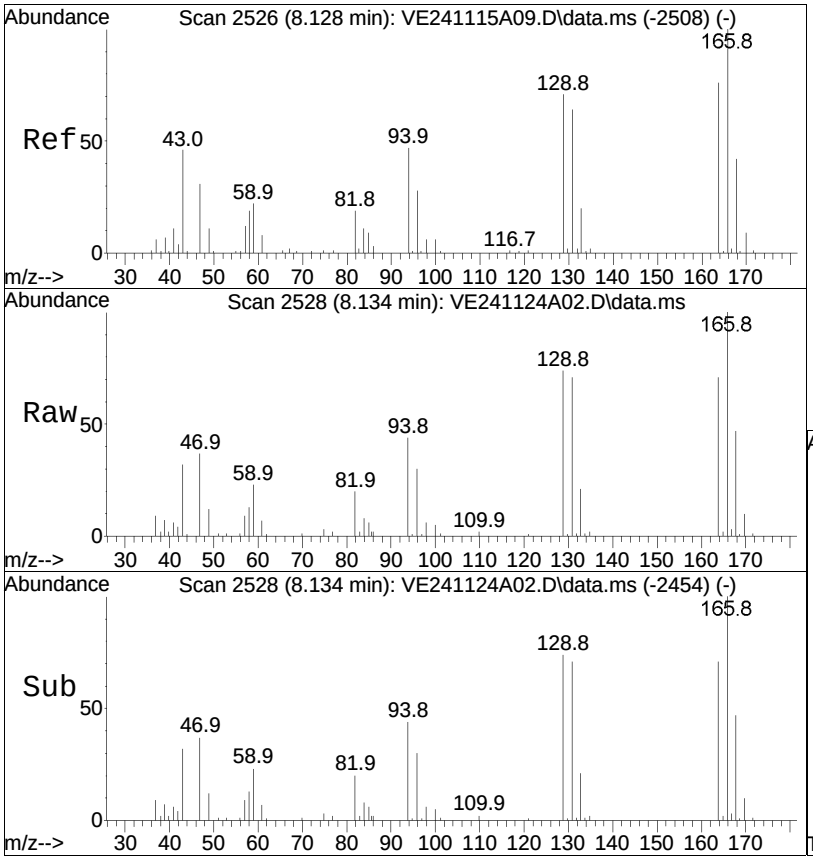


#66
4-Methyl-2-pentanone
Concen: 9.46 ug/L
RT: 8.117 min Scan# 2522
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 58 Resp: 11630

Ion	Ratio	Lower	Upper
58	100		
100	35.9	27.9	41.9
43	232.3	225.7	338.5

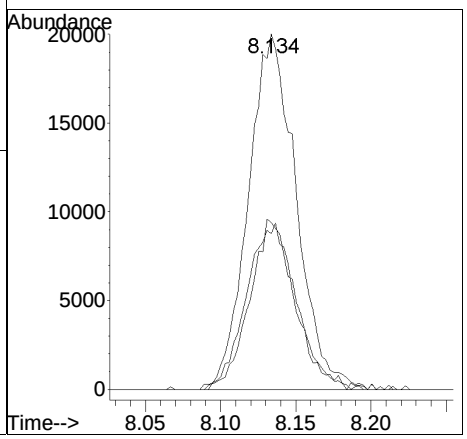


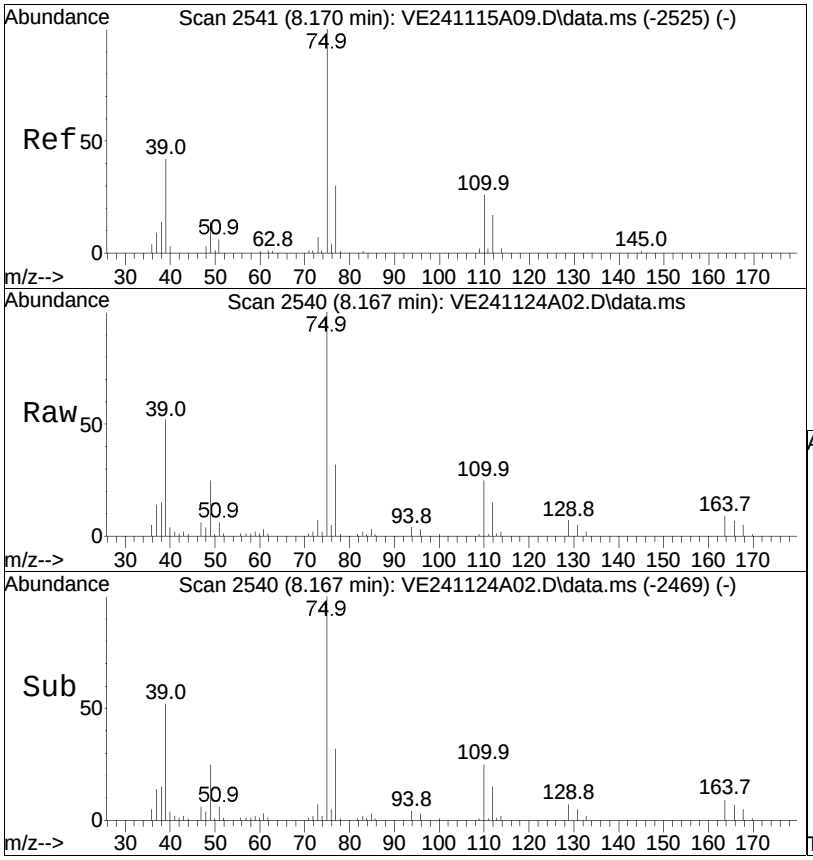


#67
Tetrachloroethene
Concen: 9.43 ug/L
RT: 8.134 min Scan# 2528
Delta R.T. 0.006 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:166 Resp: 44346

Ion	Ratio	Lower	Upper
166	100		
168	46.1	25.8	65.8
94	47.8	24.3	64.3

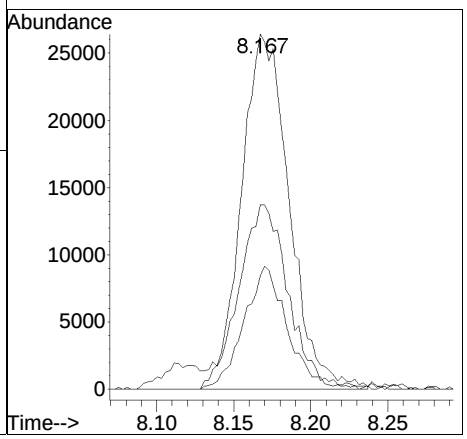


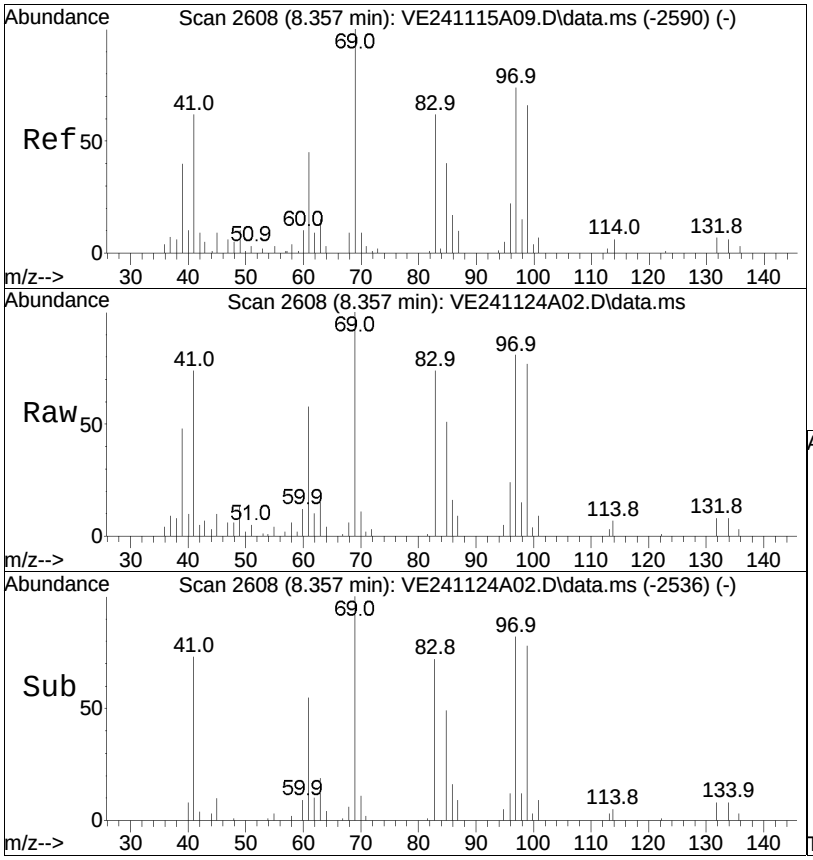


#69
trans-1,3-Dichloropropene
Concen: 9.85 ug/L
RT: 8.167 min Scan# 2540
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 75 Resp: 57040

Ion	Ratio	Lower	Upper
75	100		
77	31.6	10.2	50.2
39	51.6	45.7	85.7

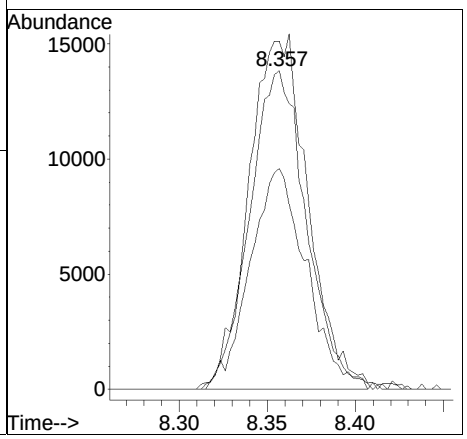


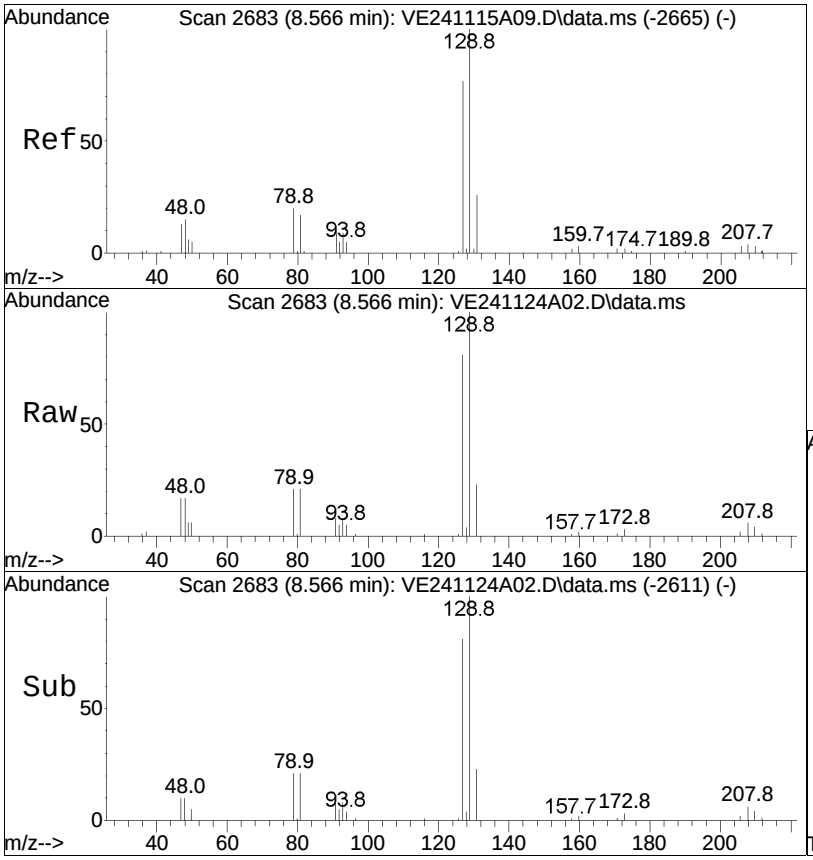


#72
1,1,2-Trichloroethane
Concen: 10.06 ug/L
RT: 8.357 min Scan# 2608
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 83 Resp: 30920

Ion	Ratio	Lower	Upper
83	100		
97	116.0	99.2	139.2
85	69.2	48.7	88.7

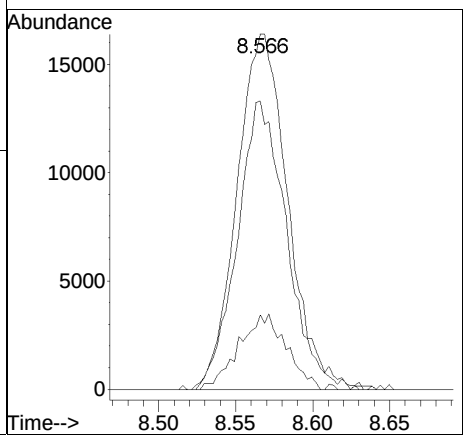


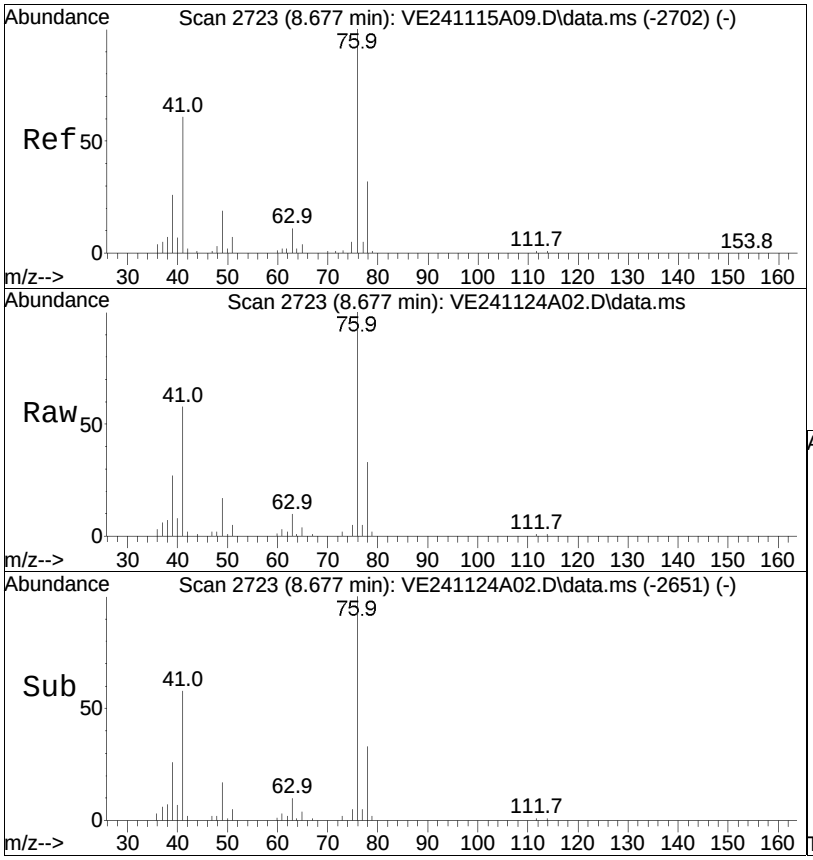


#73
Chlorodibromomethane
Concen: 9.14 ug/L
RT: 8.566 min Scan# 2683
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:129 Resp: 37686

Ion	Ratio	Lower	Upper
129	100		
81	19.8	0.0	39.5
127	78.6	58.6	98.6

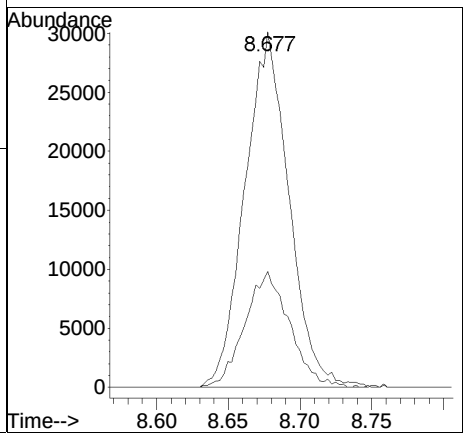


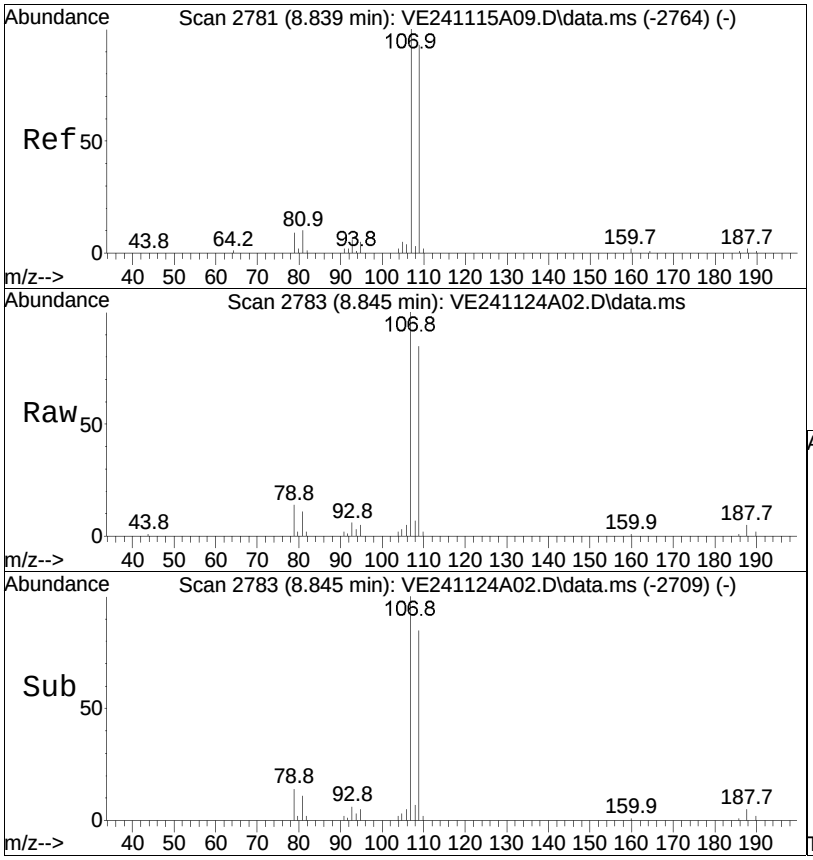


#74
1,3-Dichloropropane
Concen: 10.14 ug/L
RT: 8.677 min Scan# 2723
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 76 Resp: 64353

Ion	Ratio	Lower	Upper
76	100		
78	33.2	27.0	40.4

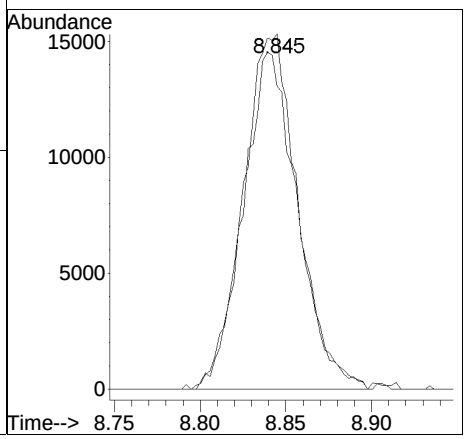


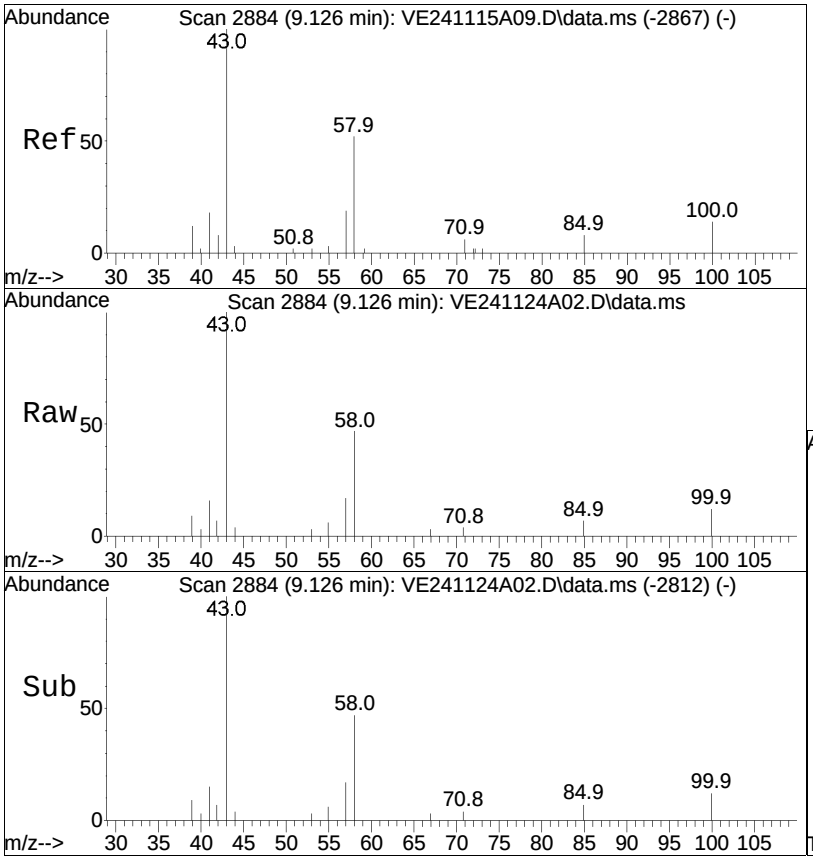


#75
1,2-Dibromoethane
Concen: 9.34 ug/L
RT: 8.845 min Scan# 2783
Delta R.T. 0.006 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:107 Resp: 33990

Ion	Ratio	Lower	Upper
107	100		
109	95.3	66.3	99.5

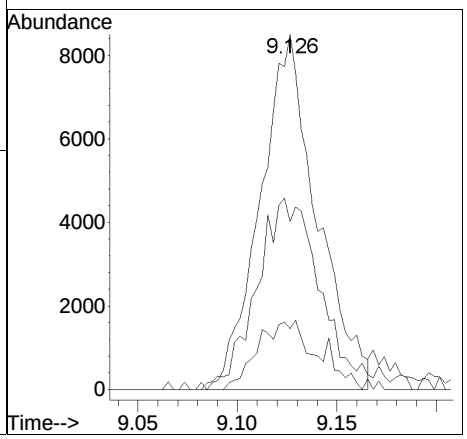


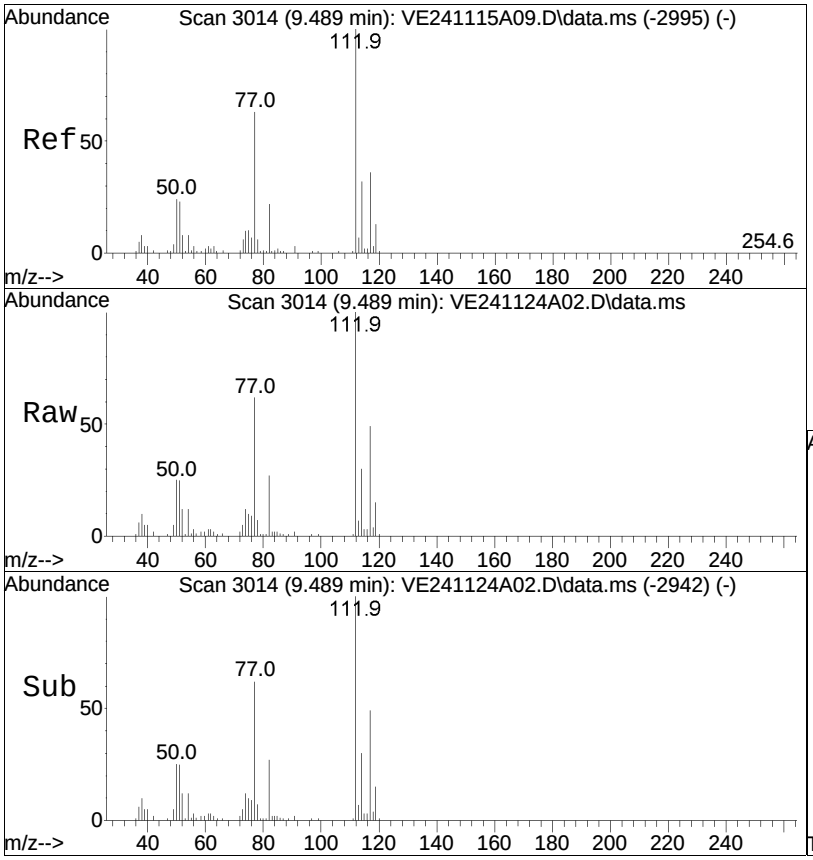


#77
2-Hexanone
Concen: 8.55 ug/L
RT: 9.126 min Scan# 2884
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 43 Resp: 16884

Ion	Ratio	Lower	Upper
43	100		
58	59.8	42.5	63.7
57	16.7	13.9	20.9

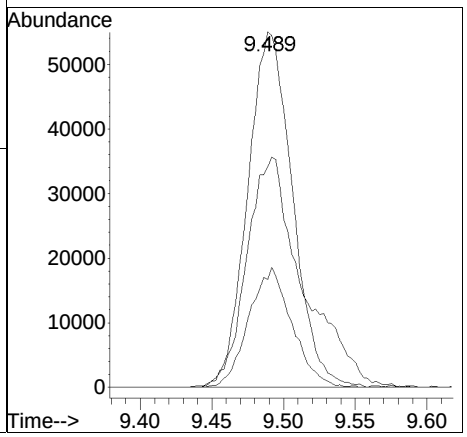


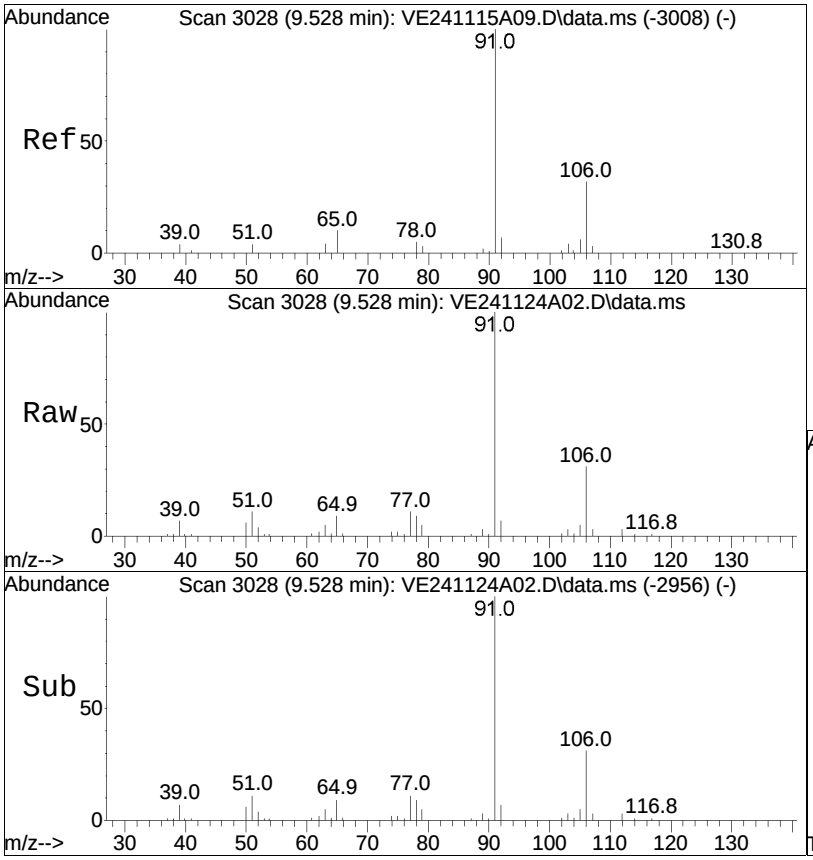


#78
Chlorobenzene
Concen: 9.65 ug/L
RT: 9.489 min Scan# 3014
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:112 Resp: 119948

Ion	Ratio	Lower	Upper
112	100		
77	81.1	46.9	70.3#
114	32.5	23.8	35.6

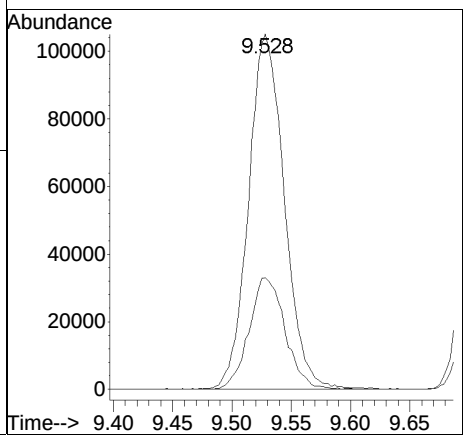


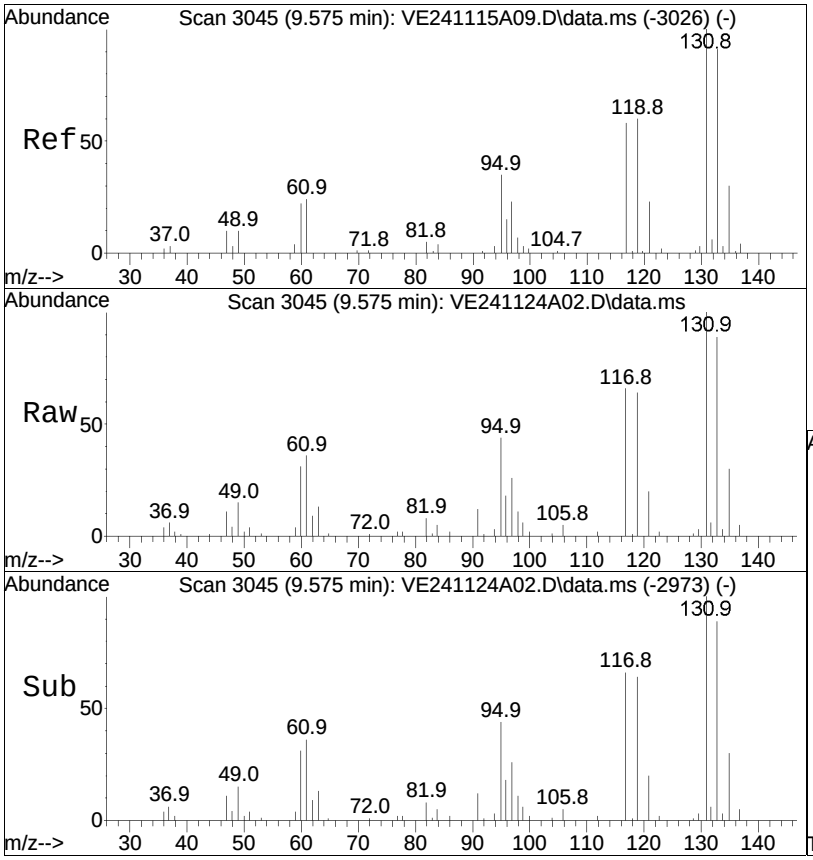


#79
Ethylbenzene
Concen: 9.90 ug/L
RT: 9.528 min Scan# 3028
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 91 Resp: 221126

Ion	Ratio	Lower	Upper
91	100		
106	31.6	25.3	37.9

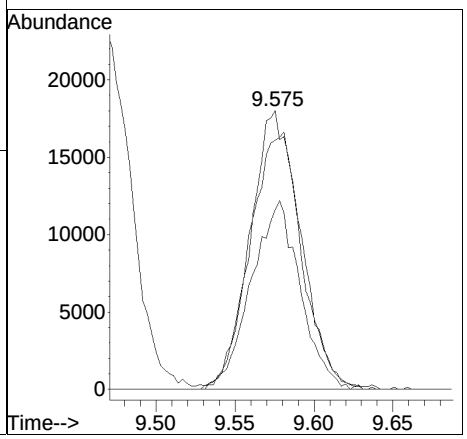


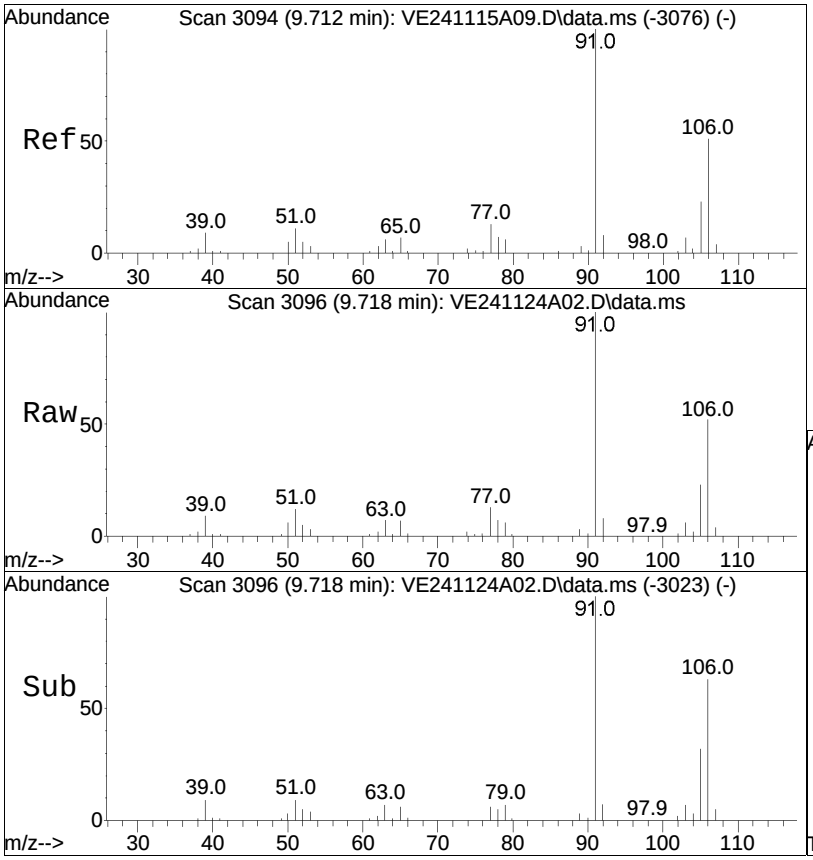


#80
1,1,1,2-Tetrachloroethane
Concen: 9.68 ug/L
RT: 9.575 min Scan# 3045
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:131 Resp: 39942

Ion	Ratio	Lower	Upper
131	100		
133	95.7	72.9	112.9
119	65.7	39.6	79.6

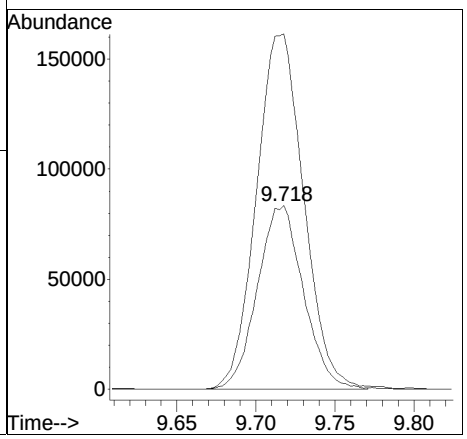


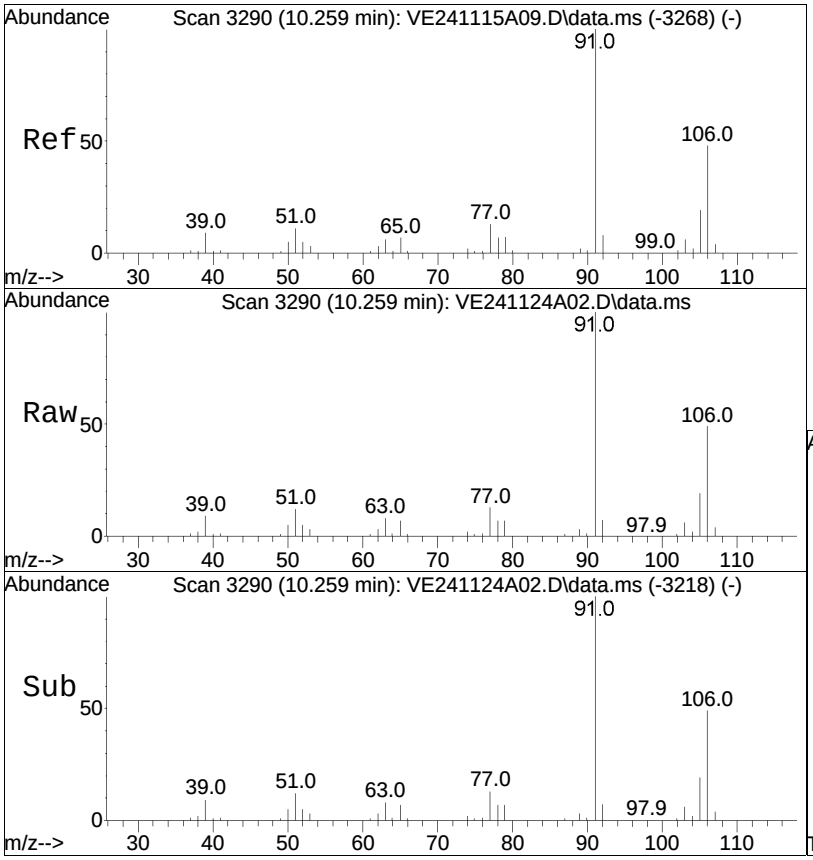


#81
p/m Xylene
Concen: 19.69 ug/L
RT: 9.718 min Scan# 3096
Delta R.T. 0.006 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:106 Resp: 169331

Ion	Ratio	Lower	Upper
106	100		
91	199.2	163.3	244.9

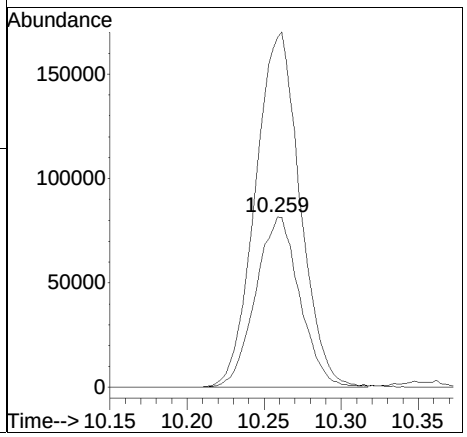


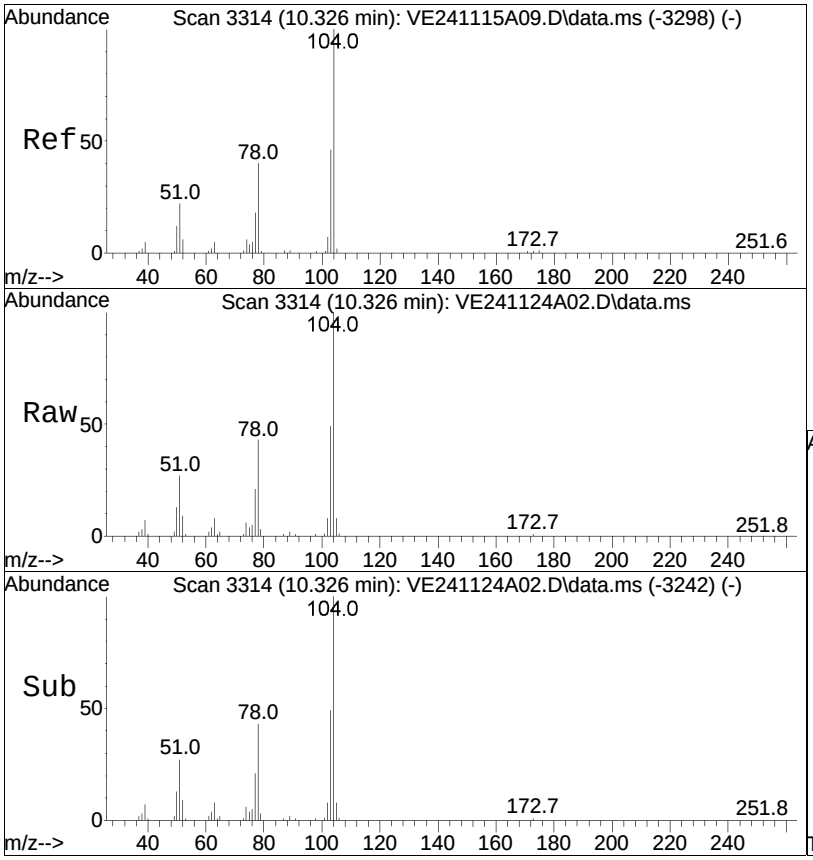


#82
o Xylene
Concen: 19.45 ug/L
RT: 10.259 min Scan# 3290
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:106 Resp: 163123

Ion	Ratio	Lower	Upper
106	100		
91	211.1	181.0	271.6

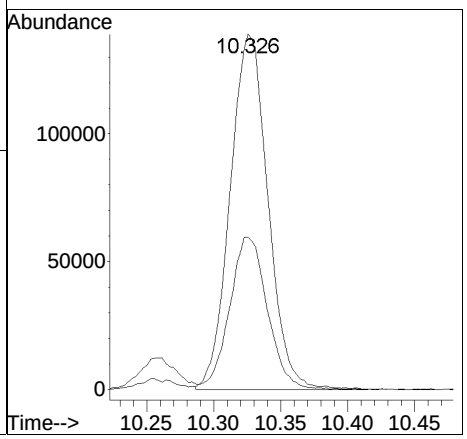


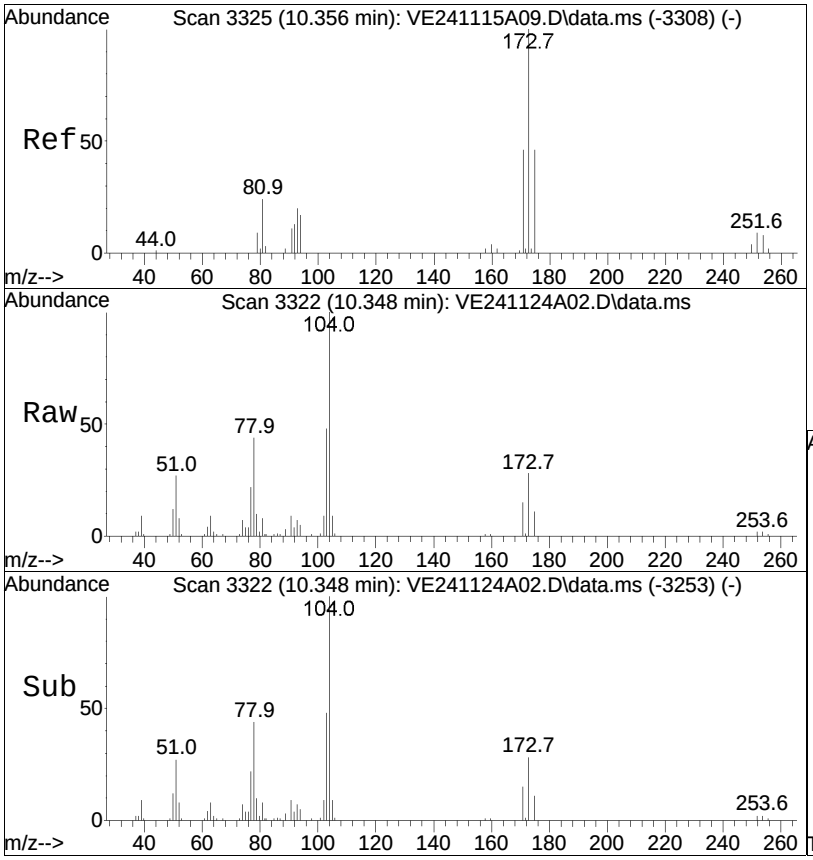


#83
Styrene
Concen: 19.24 ug/L
RT: 10.326 min Scan# 3314
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:104 Resp: 272496

Ion	Ratio	Lower	Upper
104	100		
78	42.6	35.9	53.9

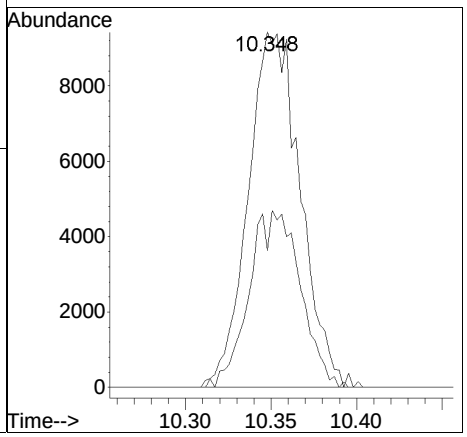


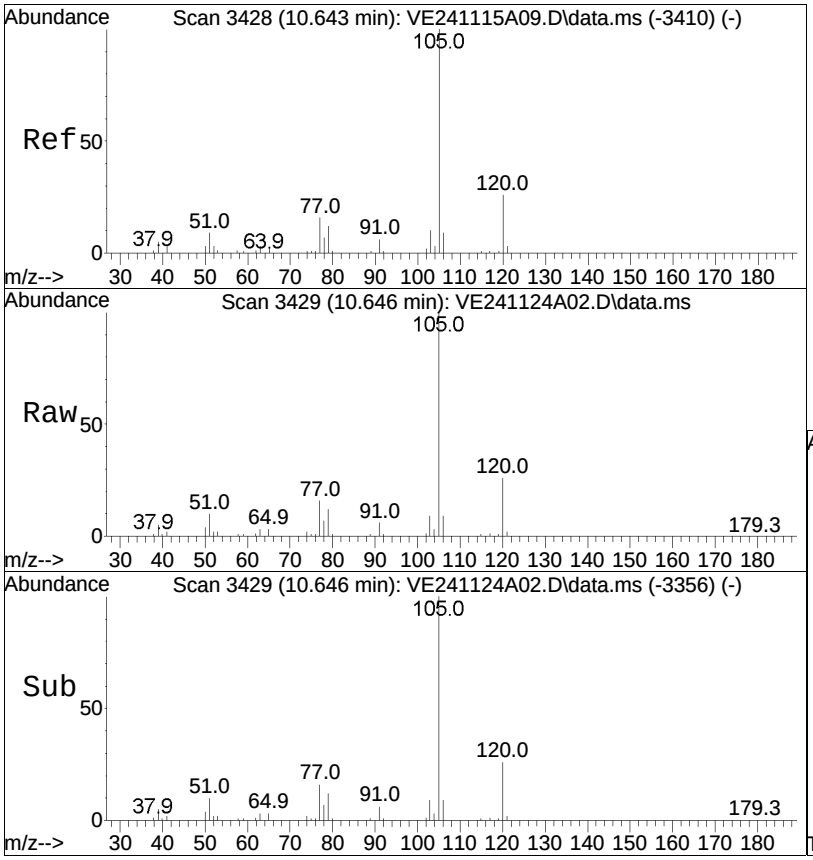


#85
Bromoform
Concen: 9.10 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.008 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:173 Resp: 20025

Ion	Ratio	Lower	Upper
173	100		
175	20.0	32.9	72.9#

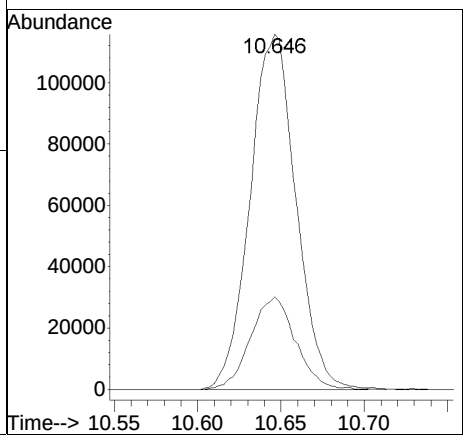


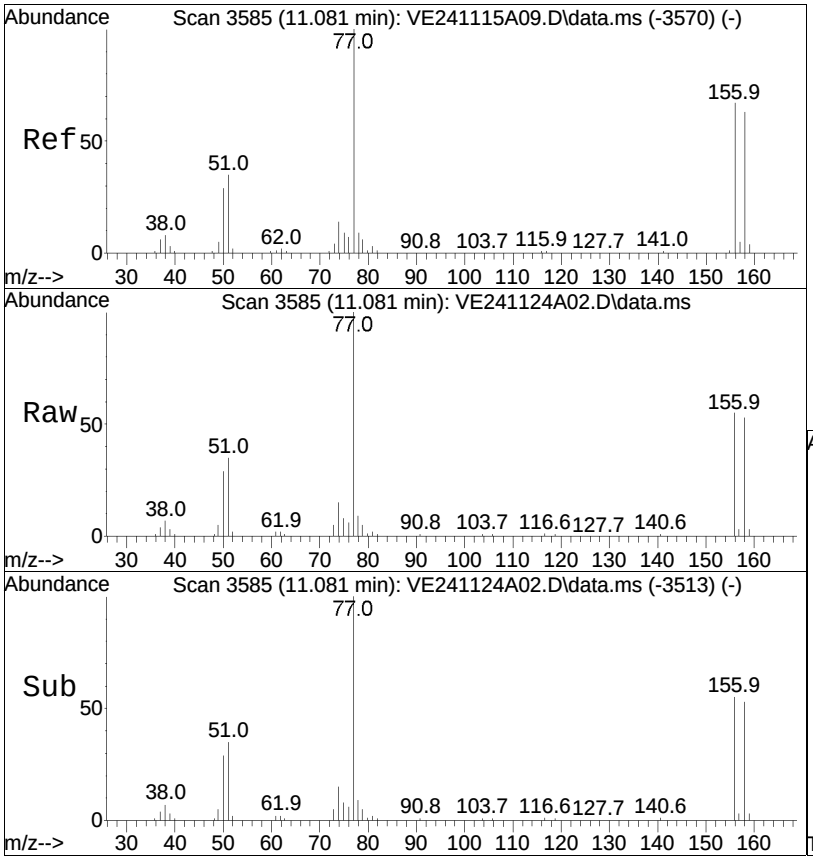


#87
Isopropylbenzene
Concen: 10.07 ug/L
RT: 10.646 min Scan# 3429
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:105 Resp: 221517

Ion	Ratio	Lower	Upper
105	100		
120	25.5	4.8	44.8

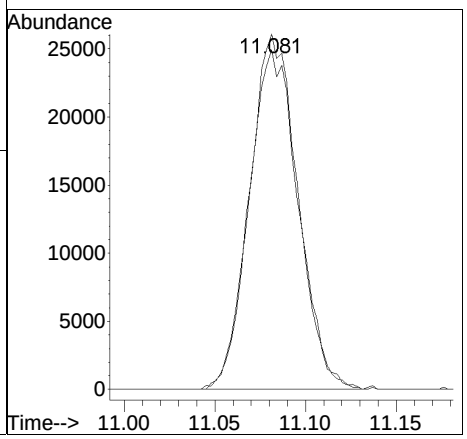


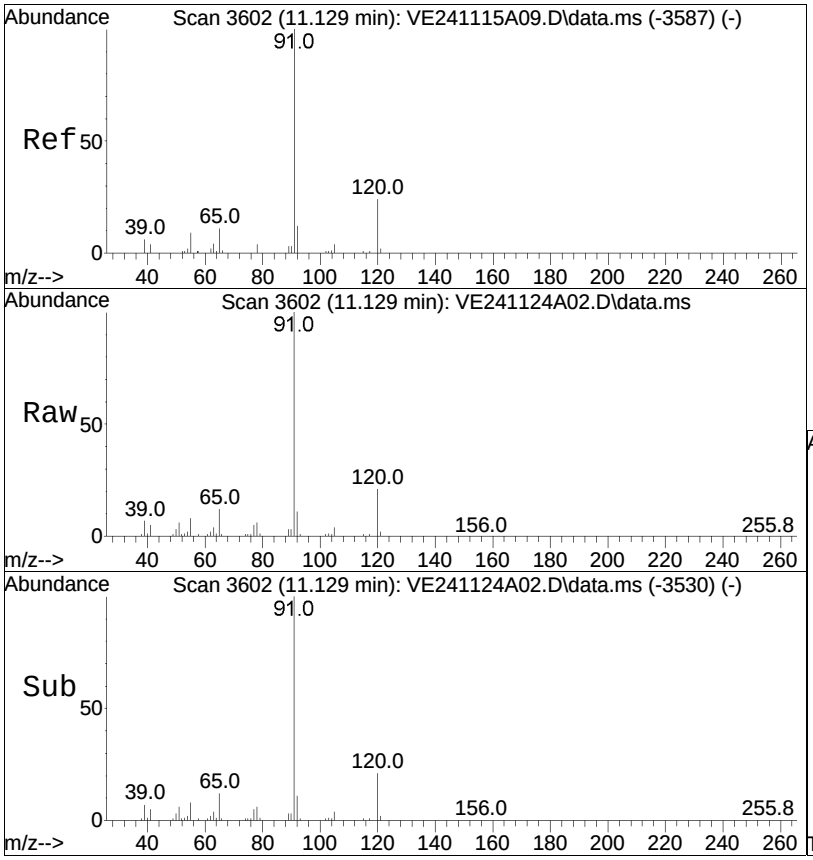


#89
Bromobenzene
Concen: 9.89 ug/L
RT: 11.081 min Scan# 3585
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:156 Resp: 48536

Ion	Ratio	Lower	Upper
156	100		
158	96.2	75.9	113.9

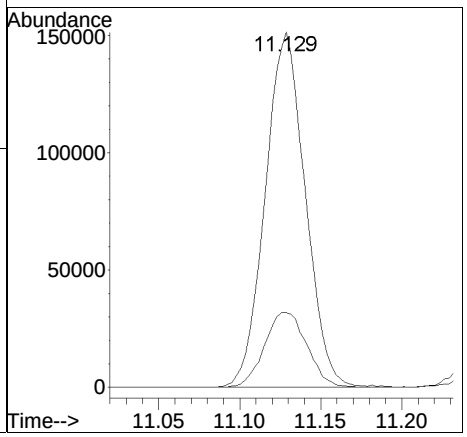


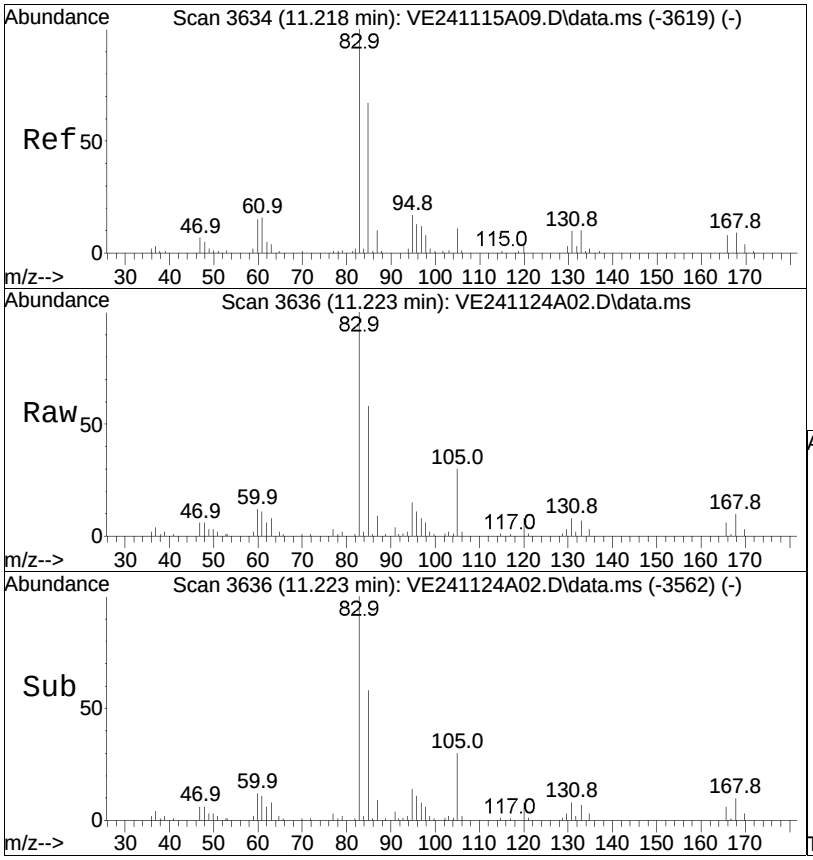


#90
n-Propylbenzene
Concen: 10.42 ug/L
RT: 11.129 min Scan# 3602
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 91 Resp: 260029

Ion	Ratio	Lower	Upper
91	100		
120	22.4	16.7	25.1

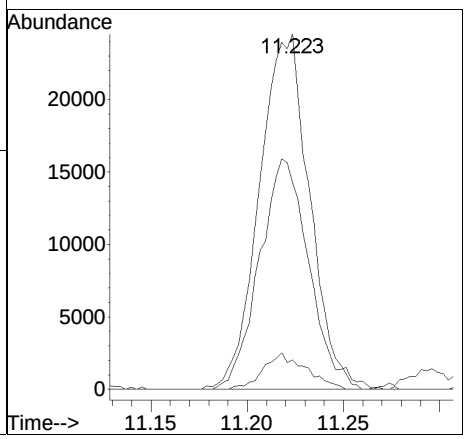


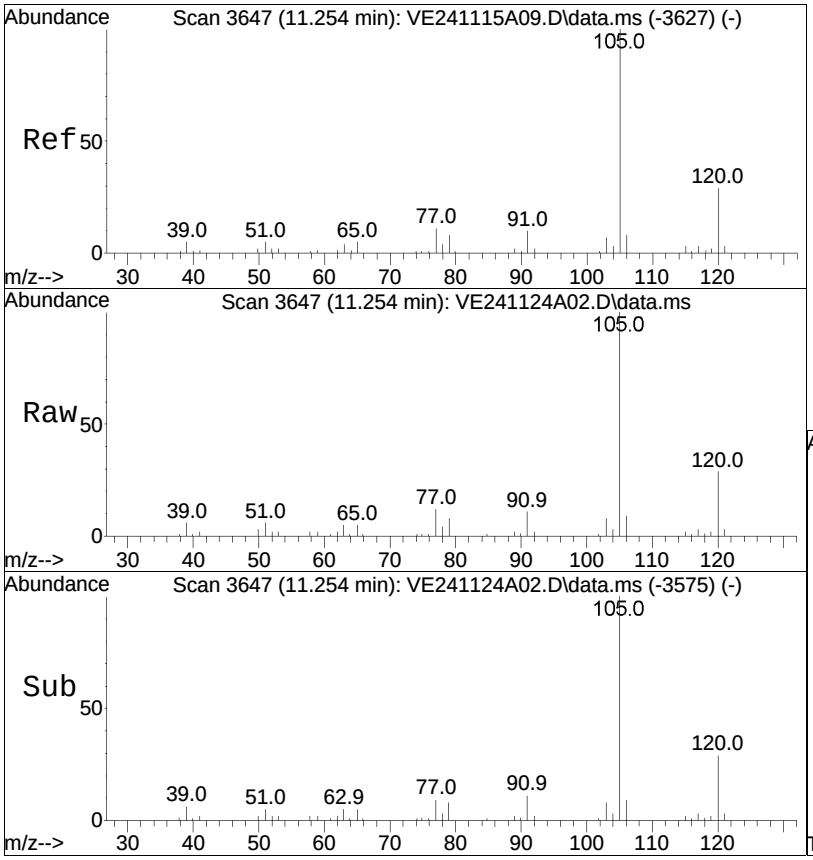


#92
1,1,2,2-Tetrachloroethane
Concen: 10.40 ug/L
RT: 11.223 min Scan# 3636
Delta R.T. 0.006 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 83 Resp: 44171

Ion	Ratio	Lower	Upper
83	100		
131	8.8	0.0	28.6
85	64.8	47.4	87.4

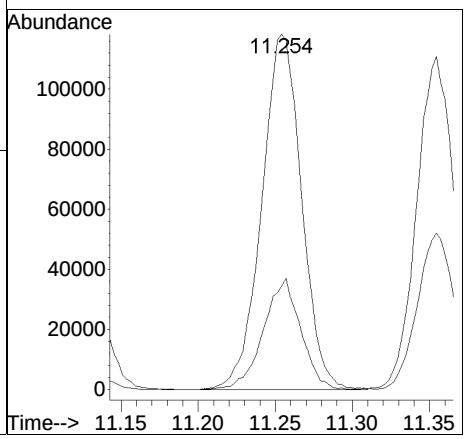


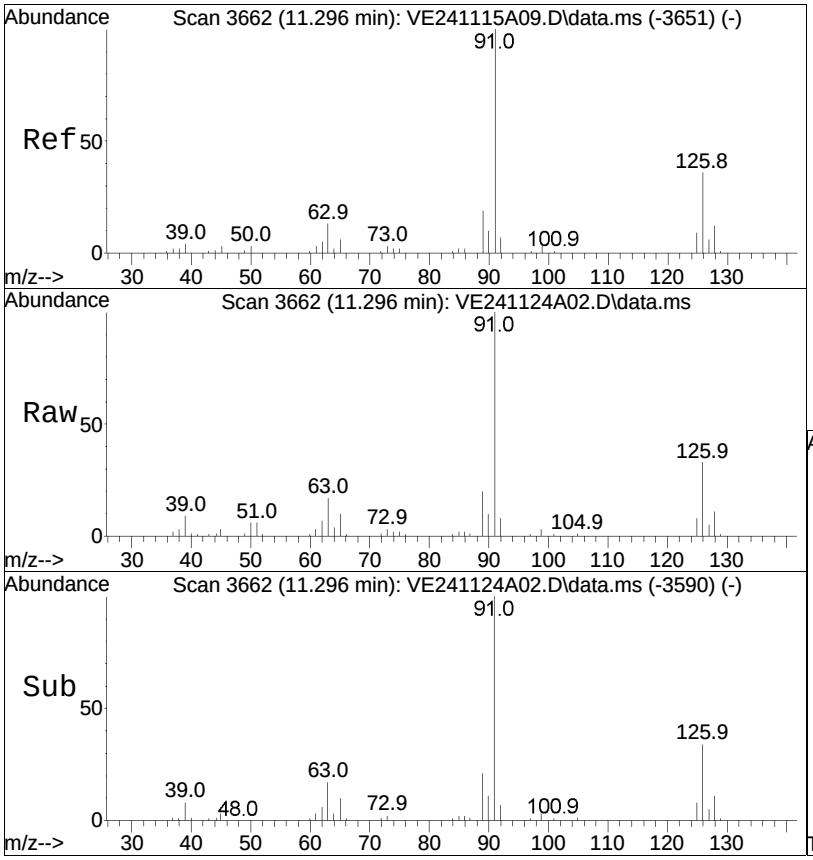


#93
4-Ethyltoluene
Concen: 10.26 ug/L
RT: 11.254 min Scan# 3647
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:105 Resp: 212323

Ion	Ratio	Lower	Upper
105	100		
120	29.2	18.9	39.3

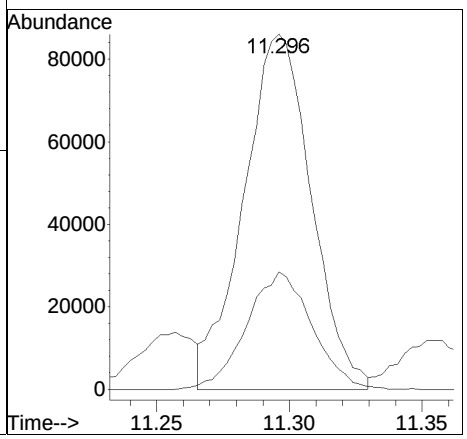


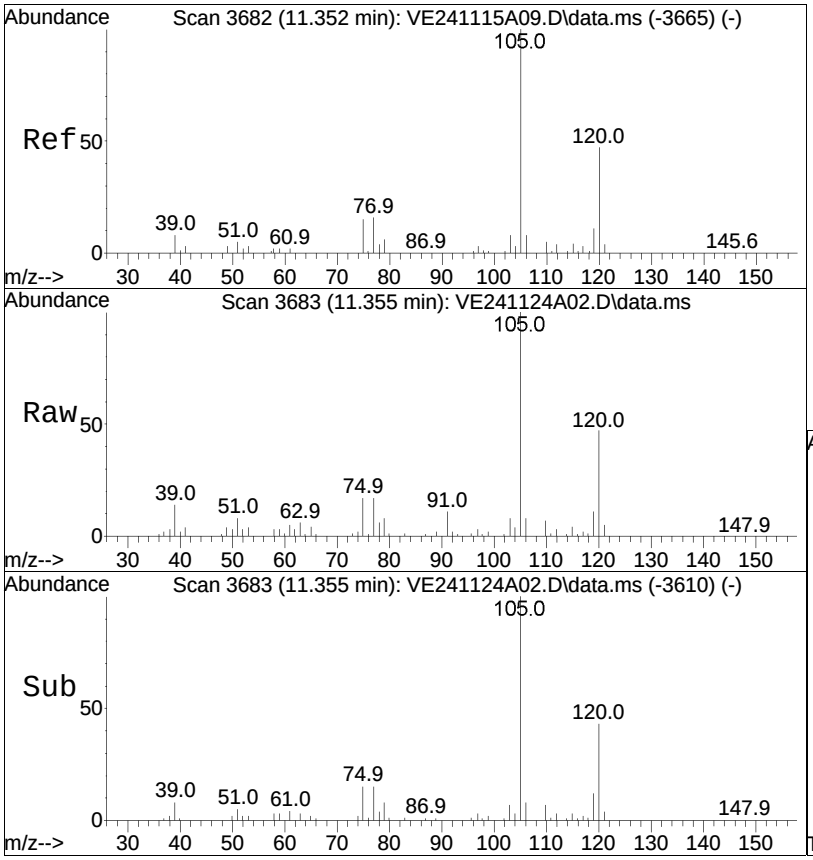


#94
2-Chlorotoluene
Concen: 10.53 ug/L M1
RT: 11.296 min Scan# 3662
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 91 Resp: 152571

Ion	Ratio	Lower	Upper
91	100		
126	32.0	24.4	36.6

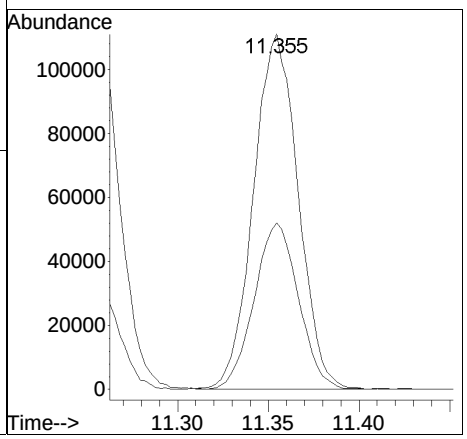


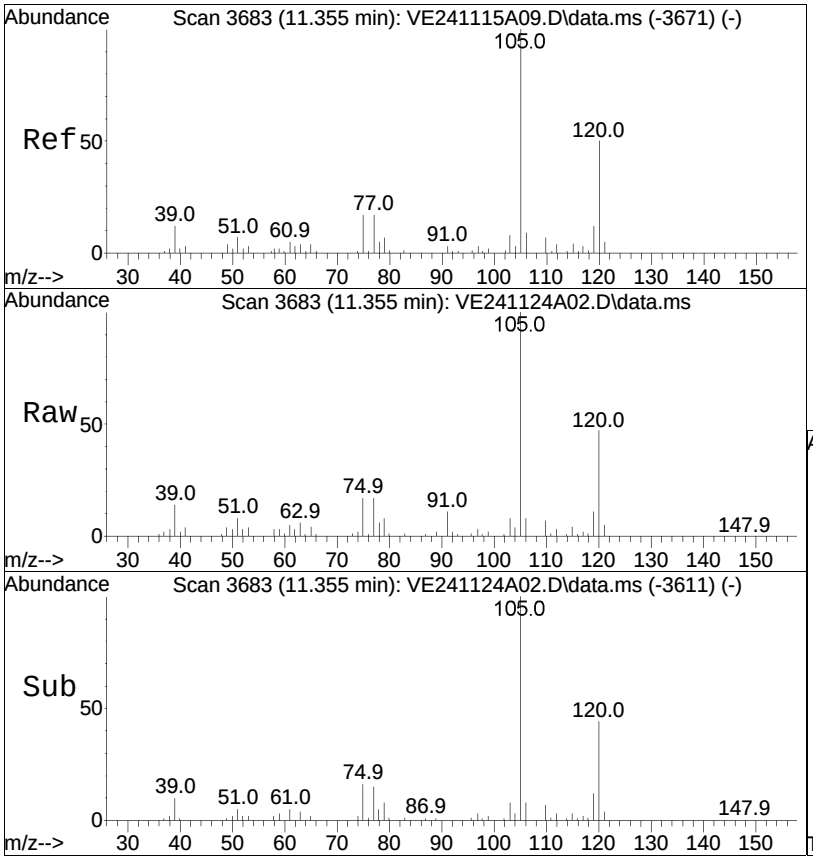


#95
1,3,5-Trimethylbenzene
Concen: 10.39 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:105 Resp: 190269

Ion	Ratio	Lower	Upper
105	100		
120	46.5	39.3	58.9

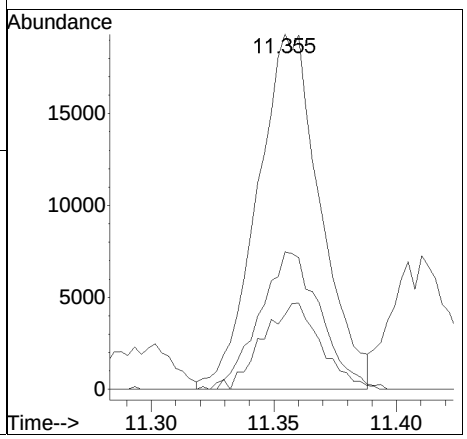


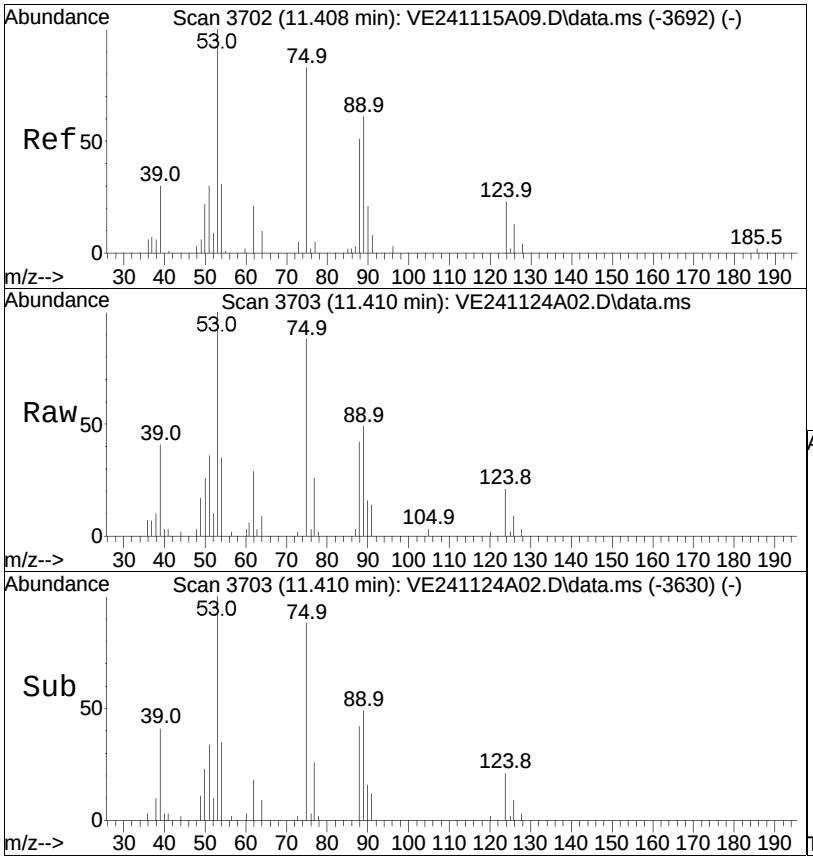


#96
1,2,3-Trichloropropane
Concen: 10.31 ug/L M1
RT: 11.355 min Scan# 3683
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 75 Resp: 34576

Ion	Ratio	Lower	Upper
75	100		
110	37.5	22.4	46.4
112	22.6	12.2	25.2

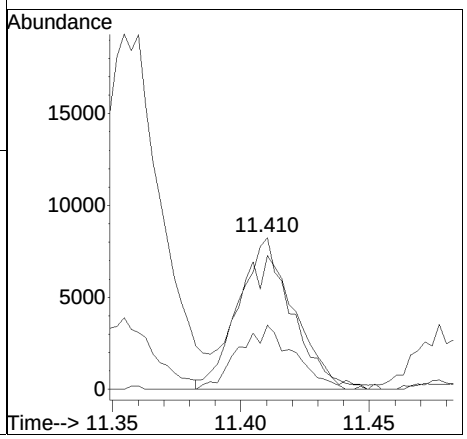


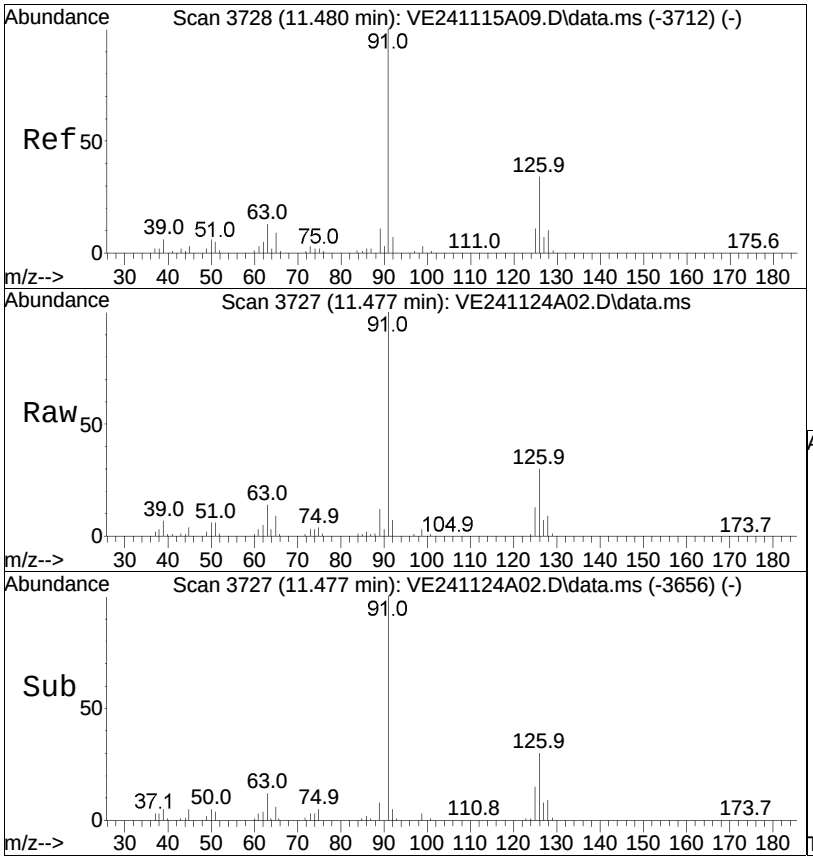


#97
trans-1,4-Dichloro-2-butene
Concen: 9.85 ug/L
RT: 11.410 min Scan# 3703
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 53 Resp: 11954

Ion	Ratio	Lower	Upper
53	100		
88	43.6	29.2	43.8
75	25.1	62.6	94.0#

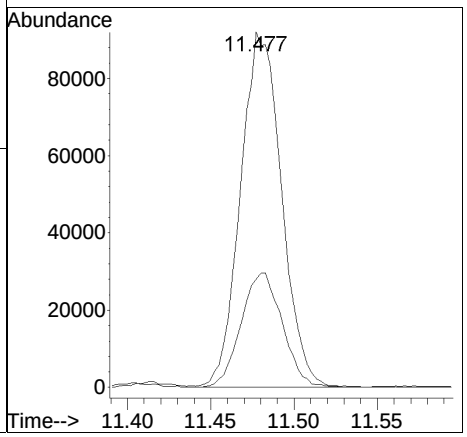


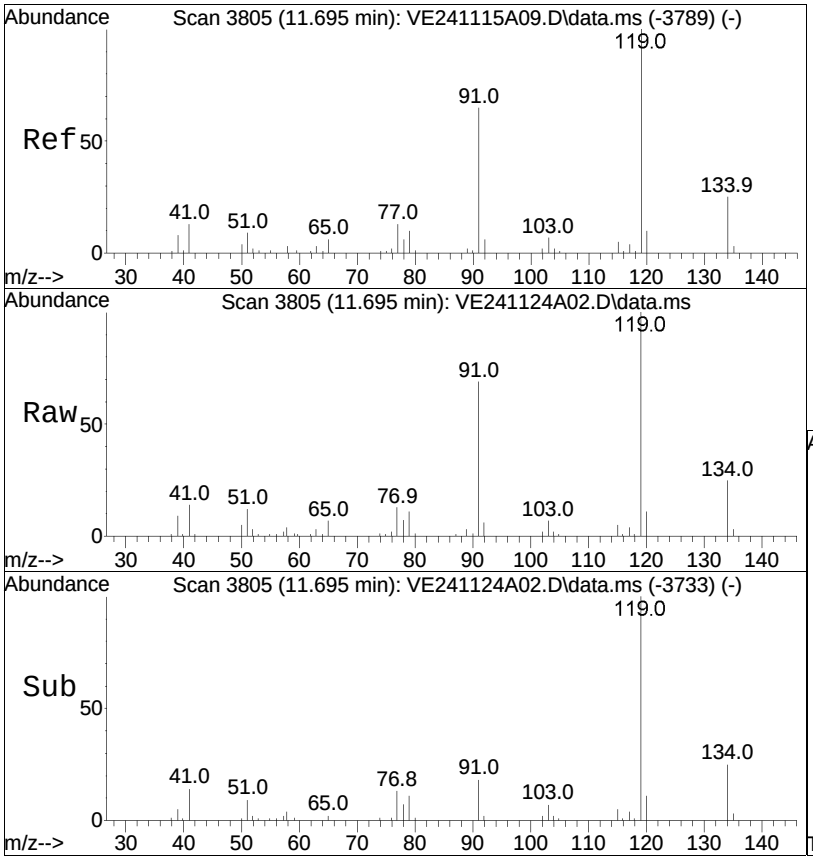


#98
4-Chlorotoluene
Concen: 10.52 ug/L
RT: 11.477 min Scan# 3727
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 91 Resp: 157705

Ion	Ratio	Lower	Upper
91	100		
126	32.4	25.8	38.8

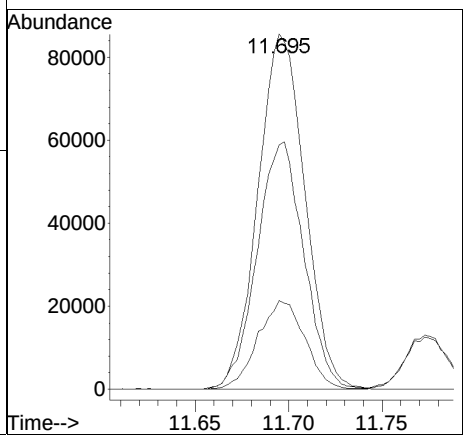


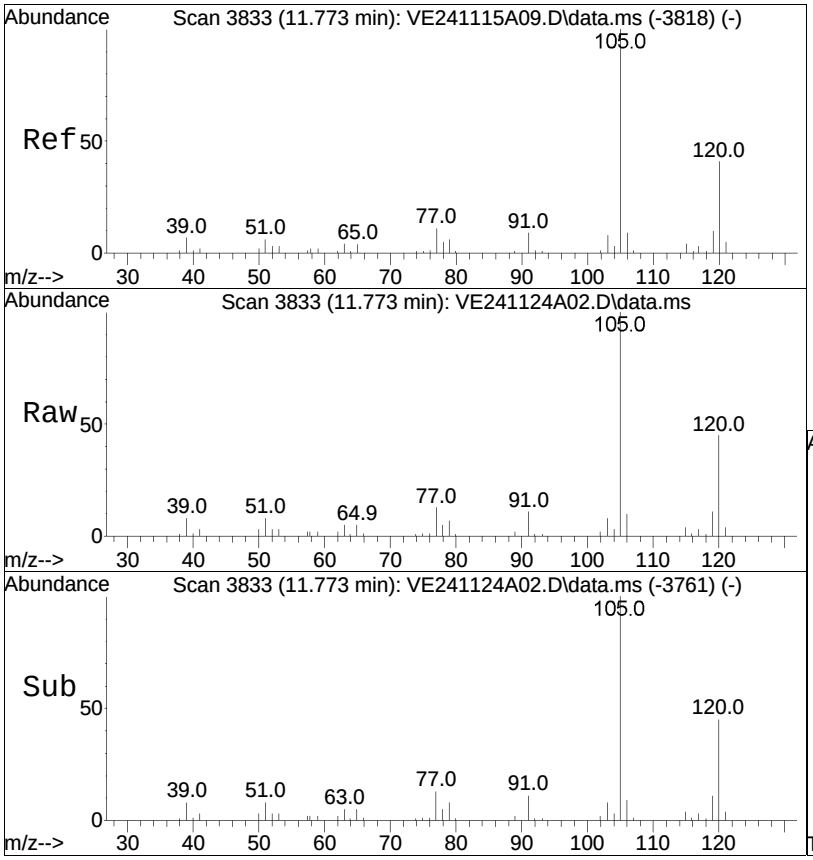


#99
tert-Butylbenzene
Concen: 9.92 ug/L
RT: 11.695 min Scan# 3805
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:119 Resp: 149978

Ion	Ratio	Lower	Upper
119	100		
91	69.4	56.6	84.8
134	25.0	17.7	26.5

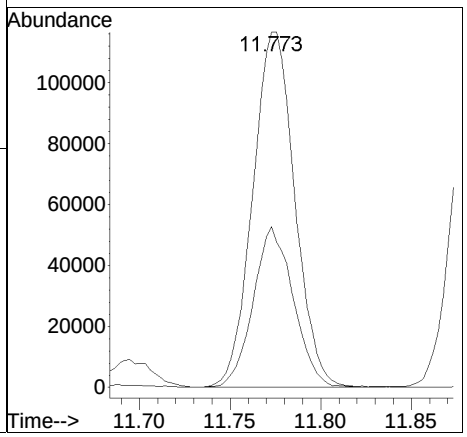


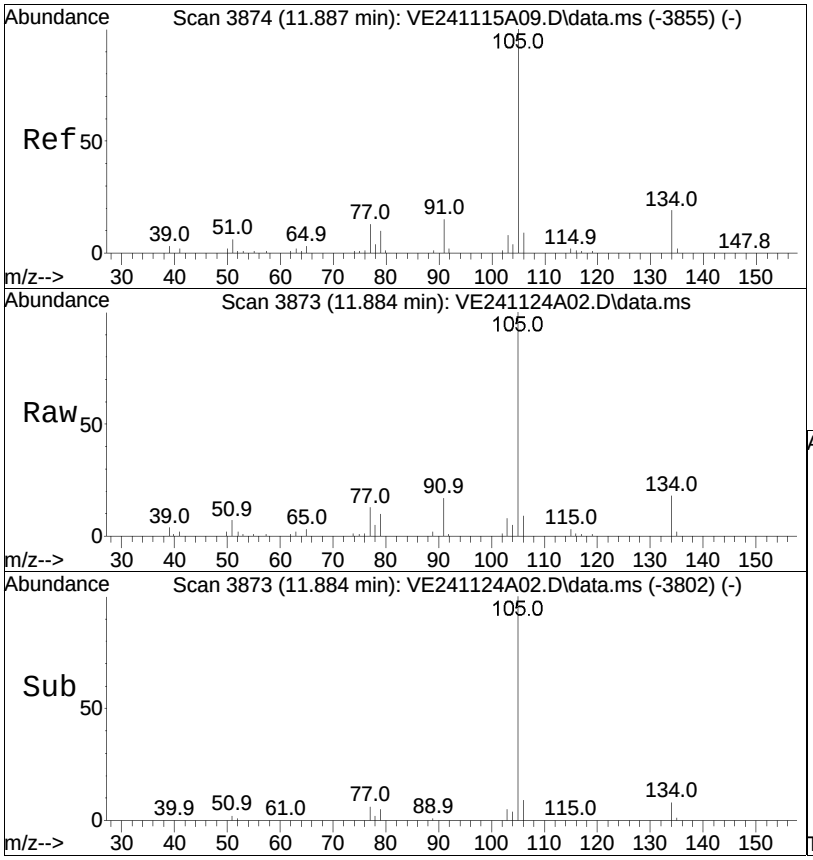


#102
1,2,4-Trimethylbenzene
Concen: 10.25 ug/L
RT: 11.773 min Scan# 3833
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:105 Resp: 188277

Ion	Ratio	Lower	Upper
105	100		
120	43.1	33.6	50.4

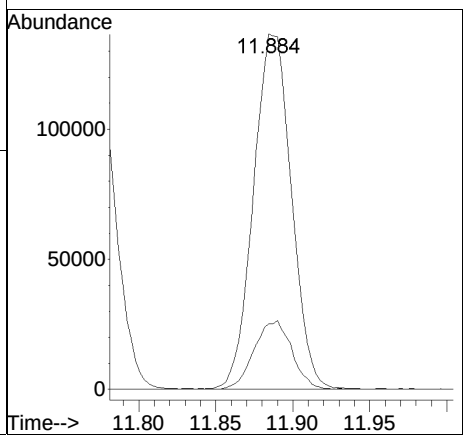


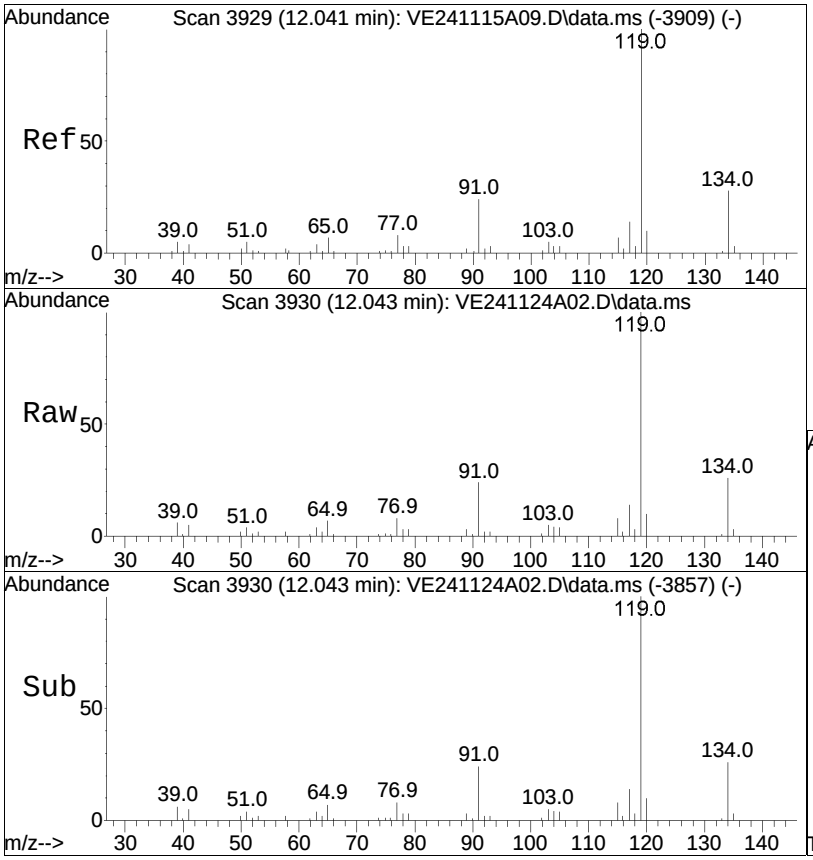


#103
sec-Butylbenzene
Concen: 10.17 ug/L
RT: 11.884 min Scan# 3873
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:105 Resp: 234701

Ion	Ratio	Lower	Upper
105	100		
134	19.2	13.3	27.5

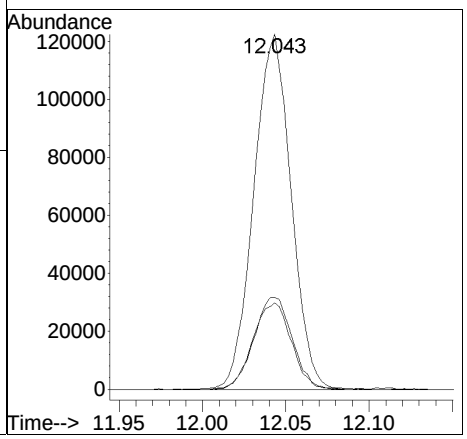


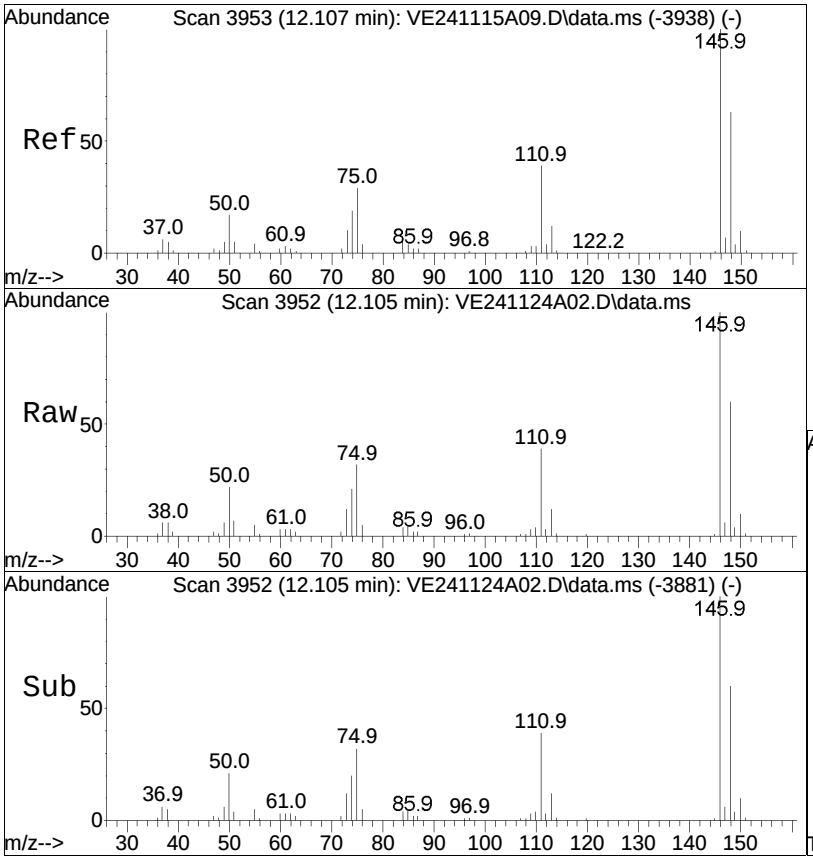


#104
p-Isopropyltoluene
Concen: 9.99 ug/L
RT: 12.043 min Scan# 3930
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:119 Resp: 190980

Ion	Ratio	Lower	Upper
119	100		
134	26.6	15.8	32.8
91	25.1	16.6	34.4

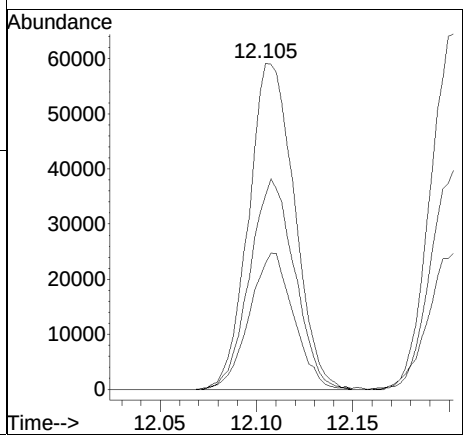


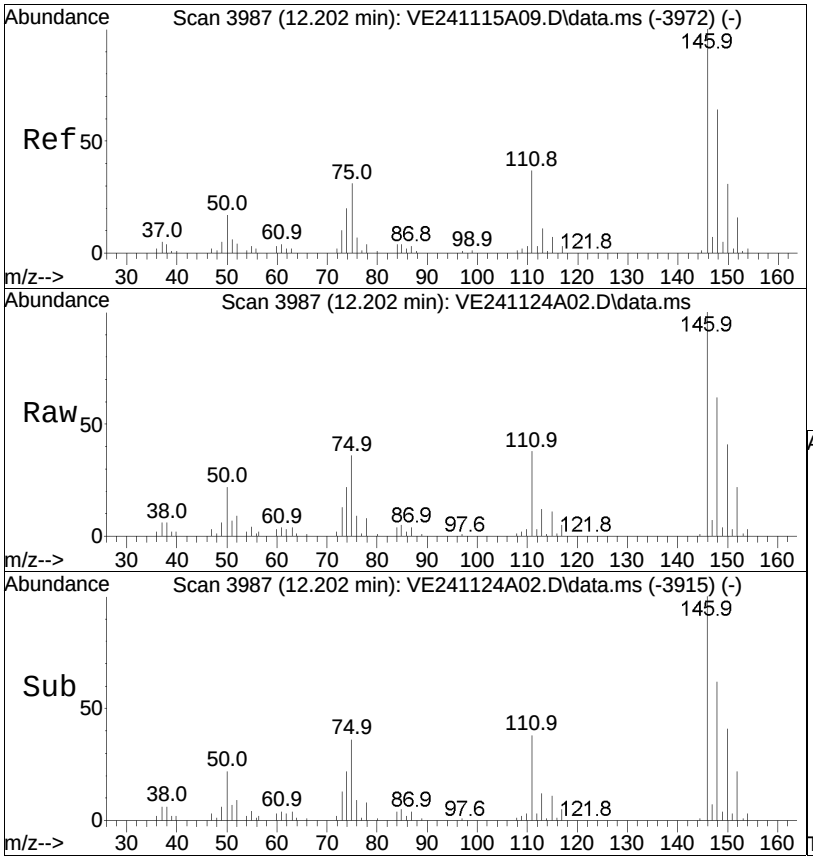


#105
1,3-Dichlorobenzene
Concen: 9.95 ug/L
RT: 12.105 min Scan# 3952
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:146 Resp: 97765

Ion	Ratio	Lower	Upper
146	100		
111	40.4	27.9	57.9
148	63.3	42.4	88.2

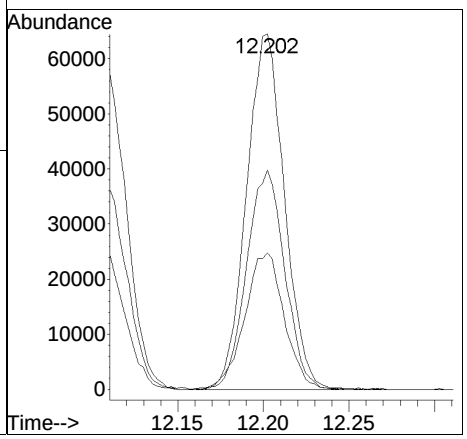


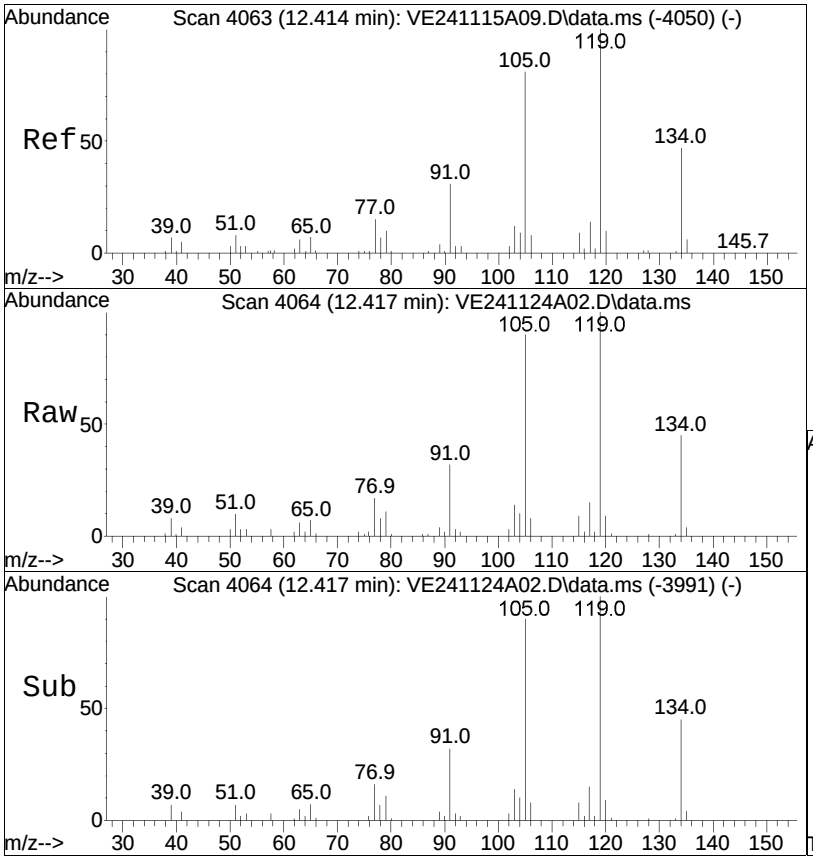


#106
1,4-Dichlorobenzene
Concen: 10.11 ug/L
RT: 12.202 min Scan# 3987
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:146 Resp: 99607

Ion	Ratio	Lower	Upper
146	100		
111	39.6	31.4	47.0
148	62.2	49.8	74.8

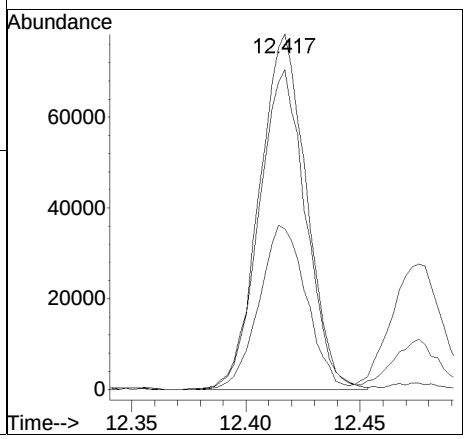


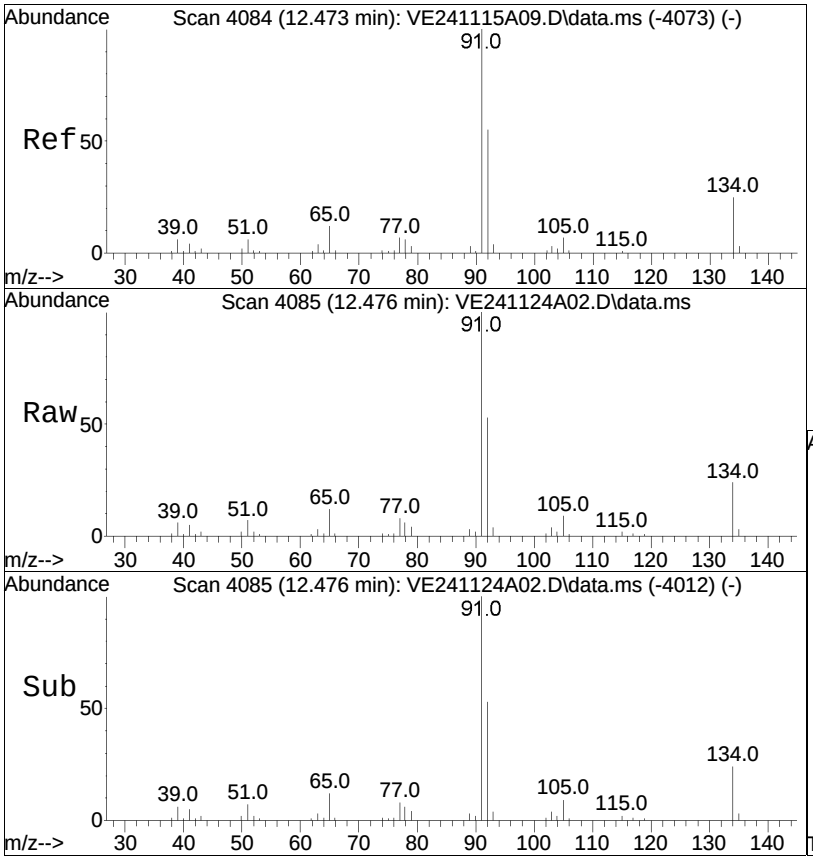


#107
p-Diethylbenzene
Concen: 10.03 ug/L
RT: 12.417 min Scan# 4064
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:119 Resp: 112249

Ion	Ratio	Lower	Upper
119	100		
105	89.8	55.4	115.2
134	46.5	28.4	59.0

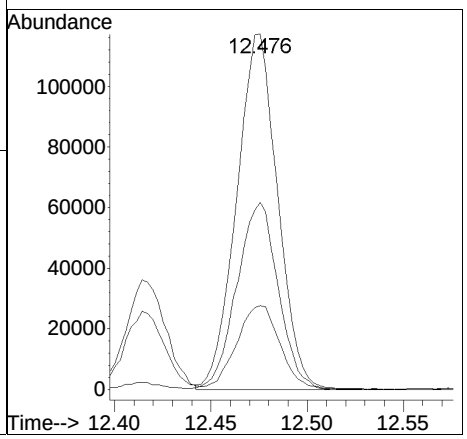


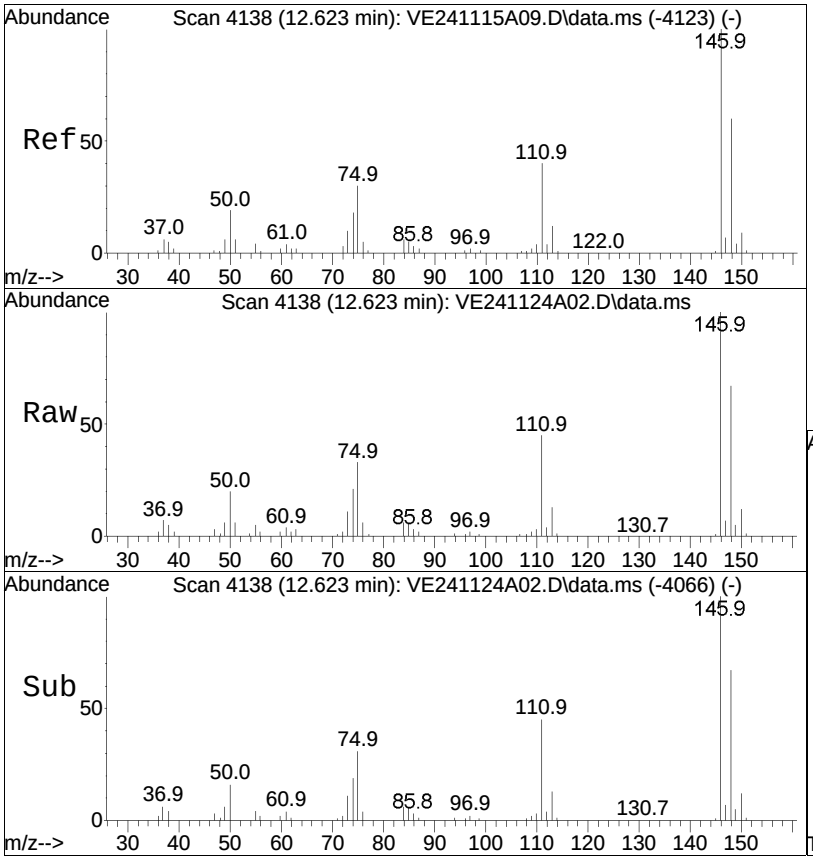


#108
n-Butylbenzene
Concen: 10.43 ug/L
RT: 12.476 min Scan# 4085
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion: 91 Resp: 173939

Ion	Ratio	Lower	Upper
91	100		
92	53.2	42.4	63.6
134	24.8	20.3	30.5

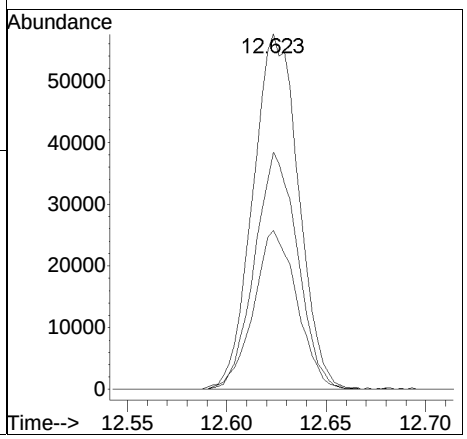


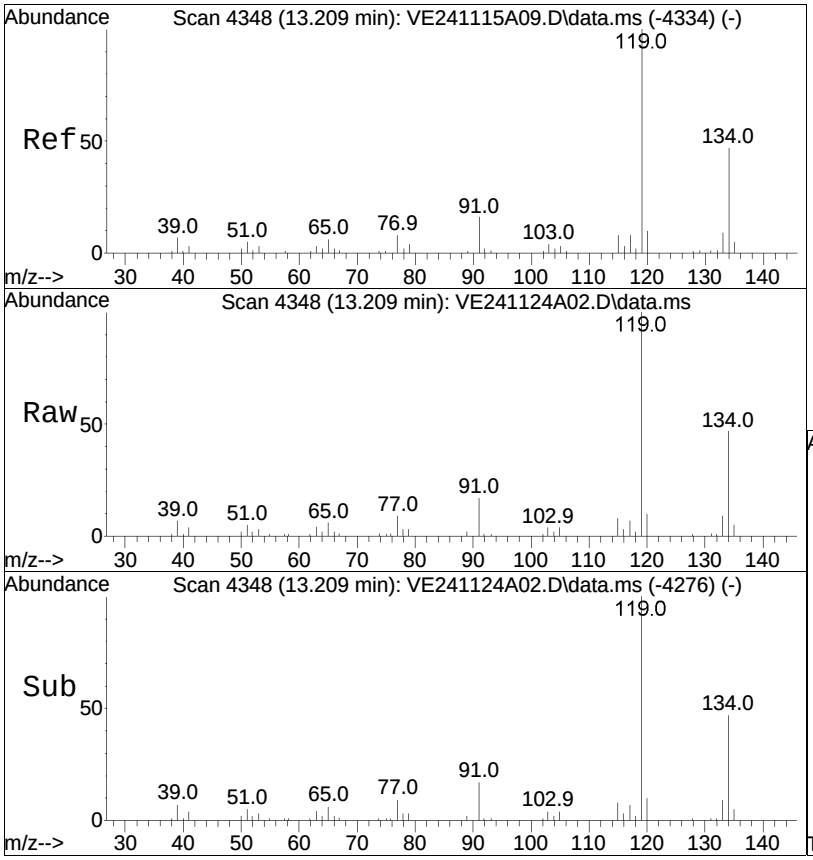


#109
1,2-Dichlorobenzene
Concen: 9.85 ug/L
RT: 12.623 min Scan# 4138
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:146 Resp: 92075

Ion	Ratio	Lower	Upper
146	100		
111	42.4	26.4	54.8
148	62.8	41.7	86.7

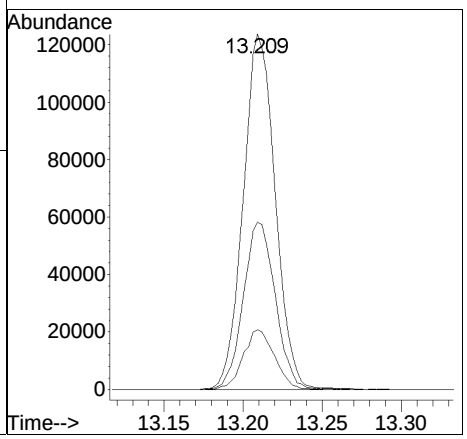


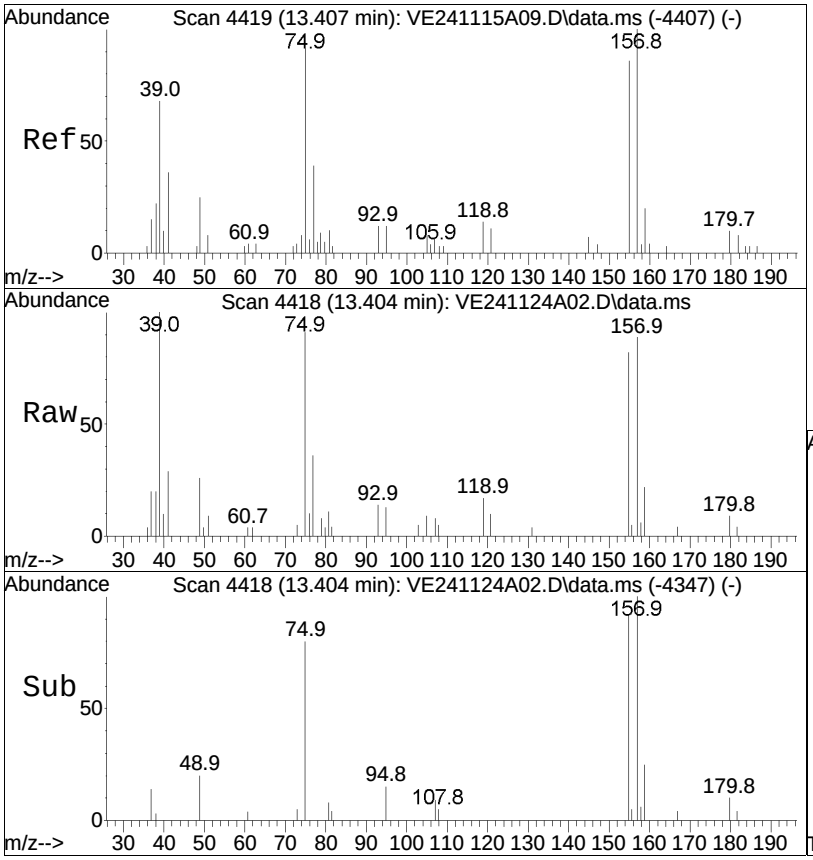


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.72 ug/L
RT: 13.209 min Scan# 4348
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:119 Resp: 174327

Ion	Ratio	Lower	Upper
119	100		
134	46.9	29.6	61.4
91	16.4	9.8	20.3

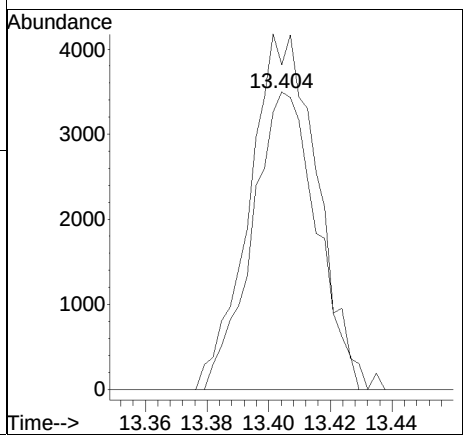


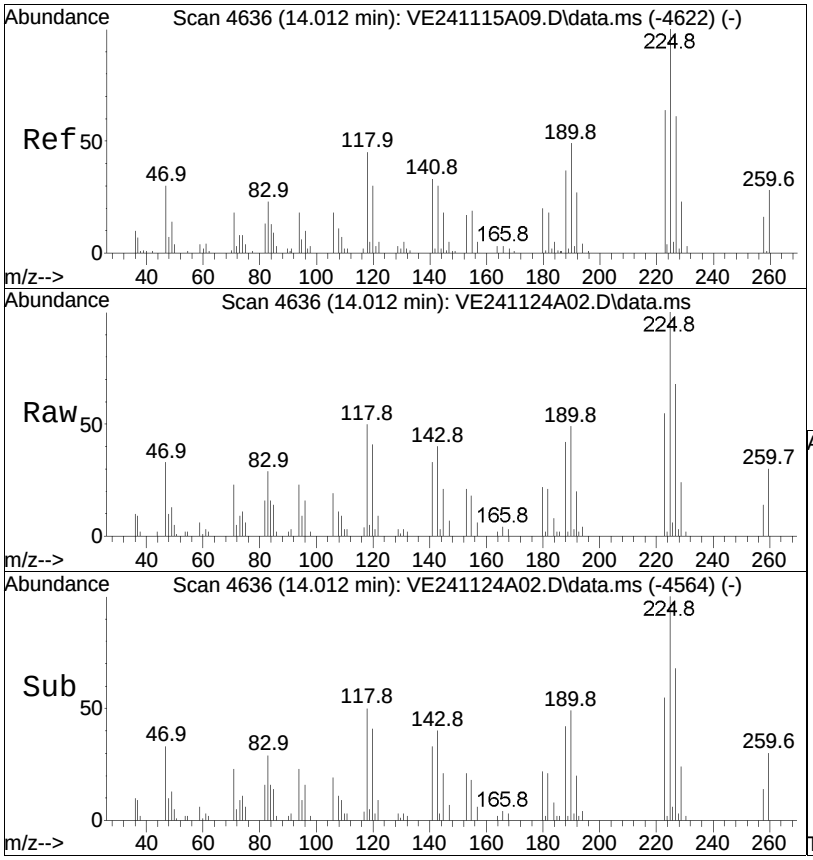


#111
1,2-Dibromo-3-chloropropane
Concen: 8.92 ug/L
RT: 13.404 min Scan# 4418
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:155 Resp: 5065

Ion	Ratio	Lower	Upper
155	100		
157	127.0	95.1	142.7

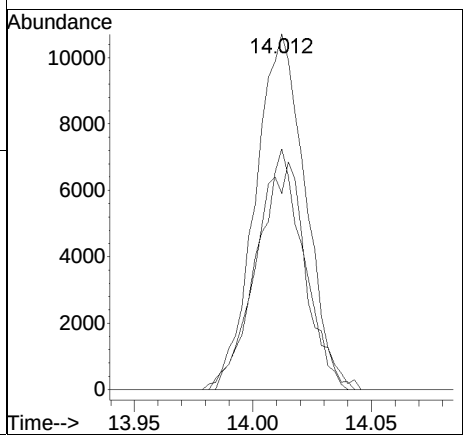


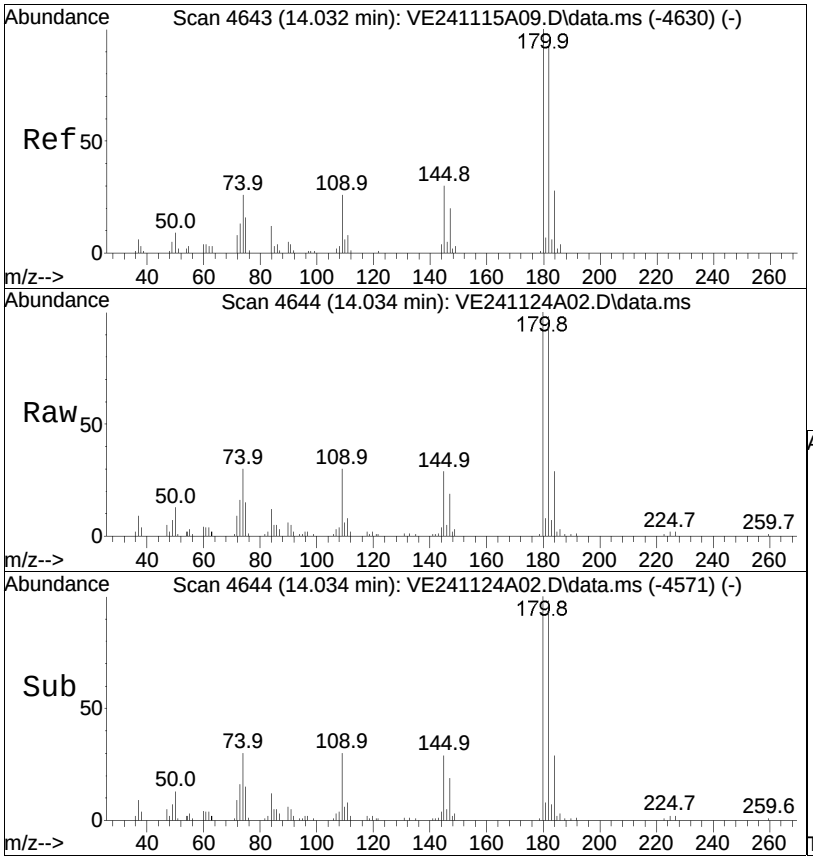


#113
Hexachlorobutadiene
Concen: 8.87 ug/L
RT: 14.012 min Scan# 4636
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:225 Resp: 15798

Ion	Ratio	Lower	Upper
225	100		
223	63.9	54.6	82.0
227	63.2	56.2	84.4

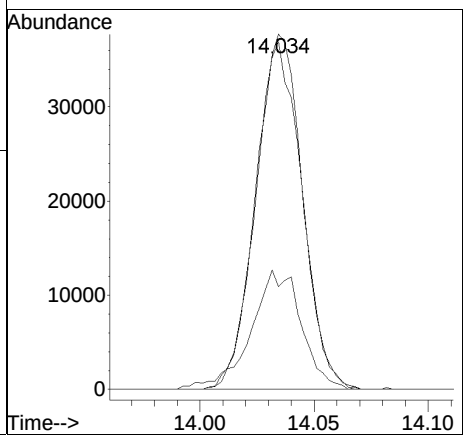


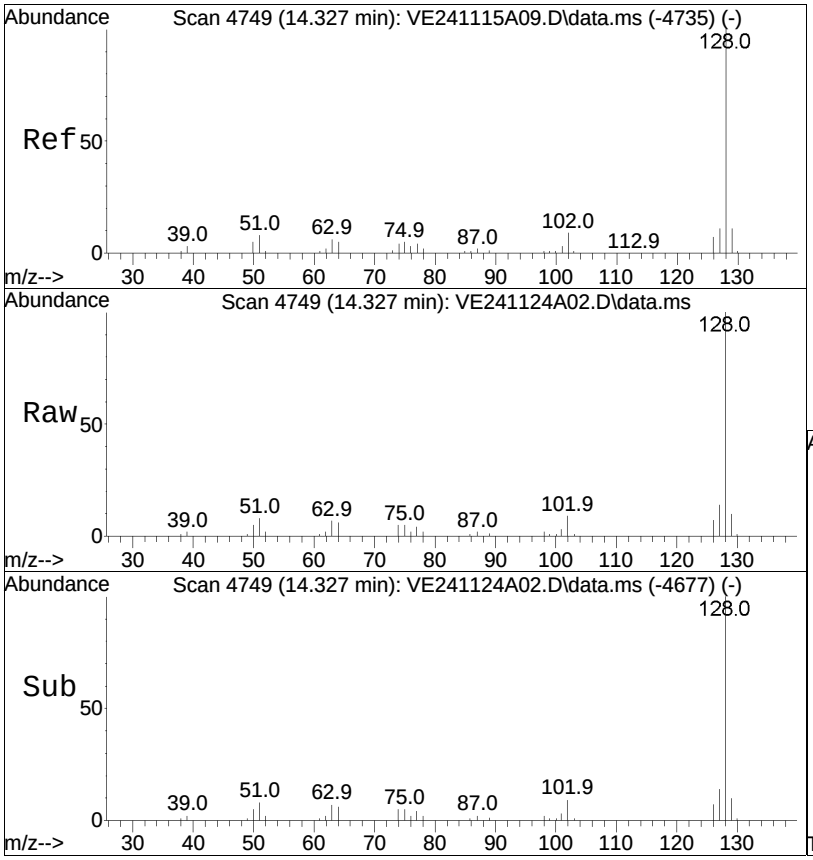


#114
1,2,4-Trichlorobenzene
Concen: 9.25 ug/L
RT: 14.034 min Scan# 4644
Delta R.T. 0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:180 Resp: 53863

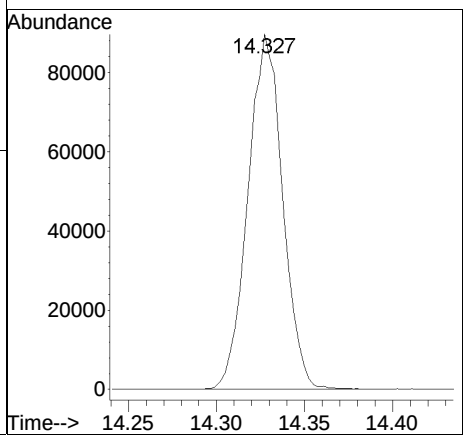
Ion	Ratio	Lower	Upper
180	100		
182	96.8	75.4	113.2
145	36.1	26.0	39.0

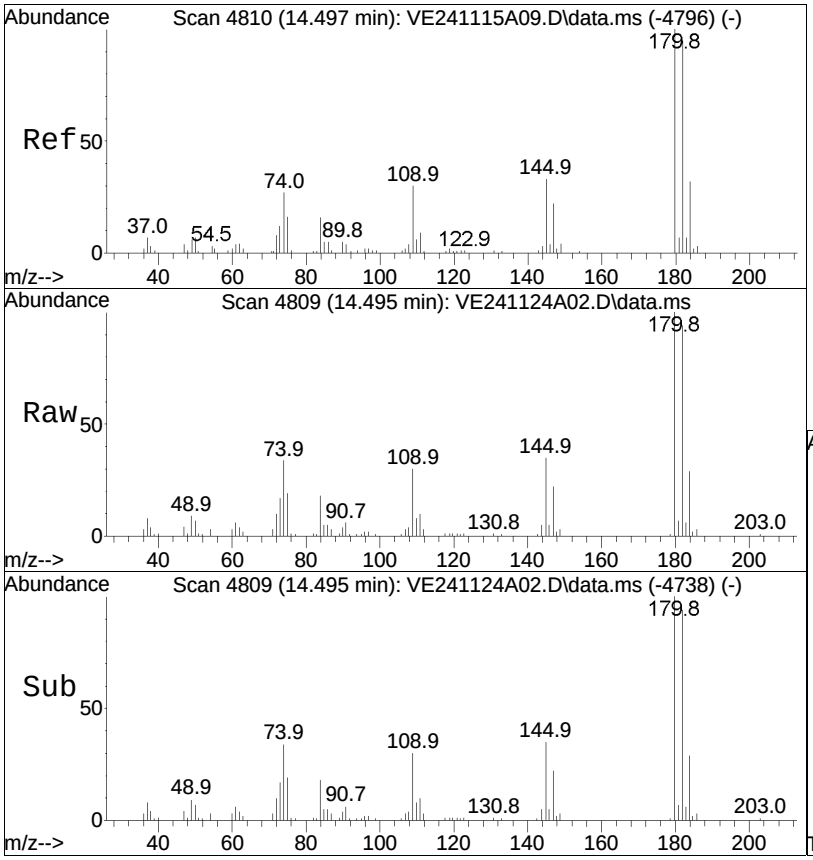




#115
Naphthalene
Concen: 9.00 ug/L
RT: 14.327 min Scan# 4749
Delta R.T. -0.000 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:128 Resp: 123091

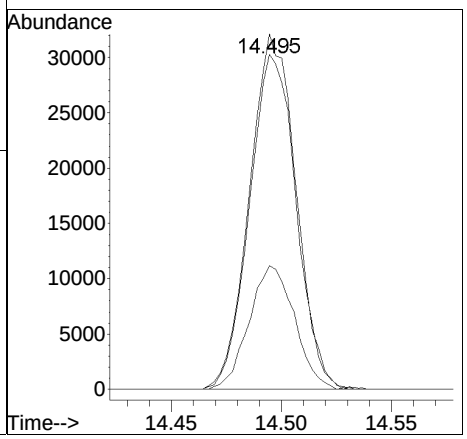




#116
1,2,3-Trichlorobenzene
Concen: 9.06 ug/L
RT: 14.495 min Scan# 4809
Delta R.T. -0.003 min
Lab File: VE241124A02.D
Acq: 24 Nov 2024 10:56 am

Tgt Ion:180 Resp: 47096

Ion	Ratio	Lower	Upper
180	100		
182	94.3	71.6	107.4
145	34.1	25.1	37.7

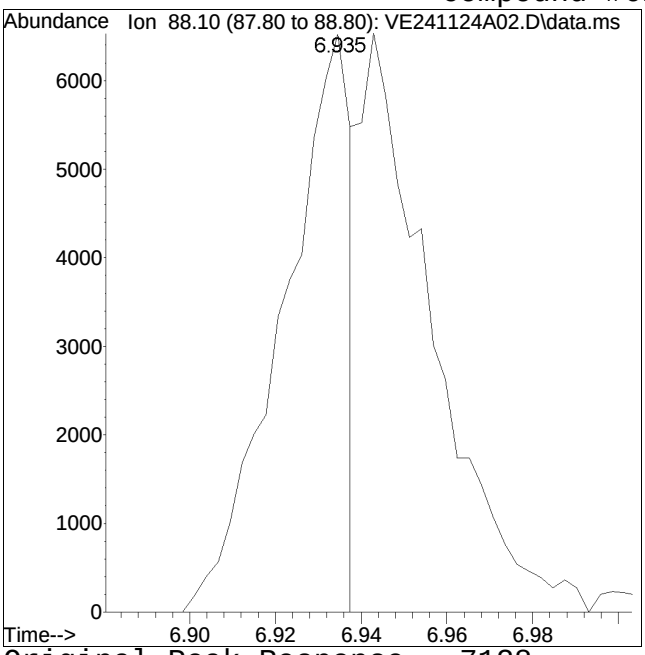


Manual Integration Report

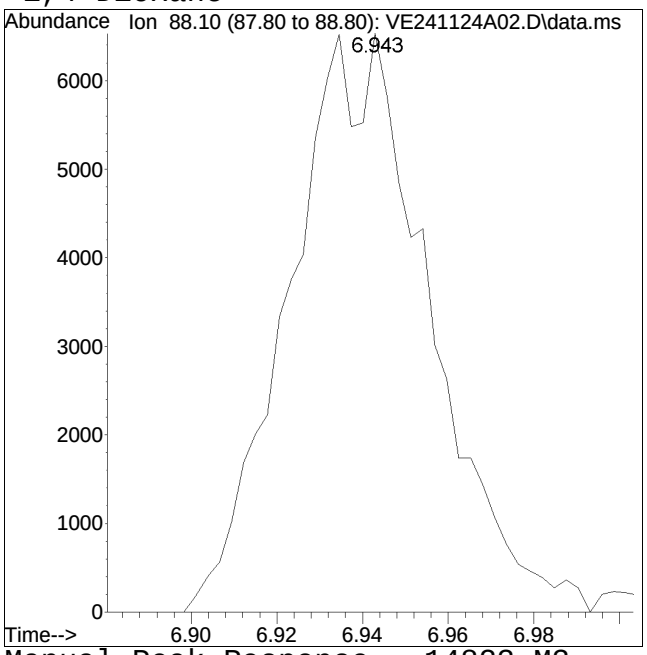
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Date Inj'd : 11/24/2024 10:56 am
Sample : WG2001843-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/24/2024 11:24 am

Compound #61: 1,4-Dioxane



Original Peak Response = 7128



Manual Peak Response = 14823 M3

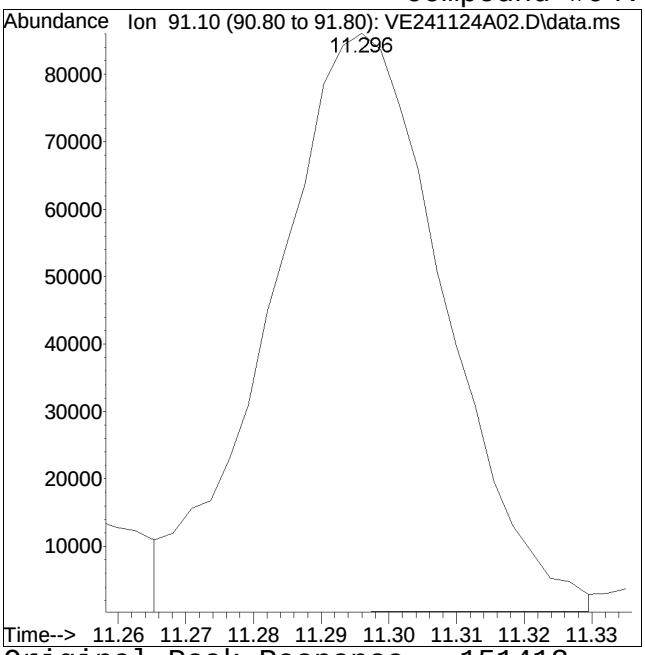
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

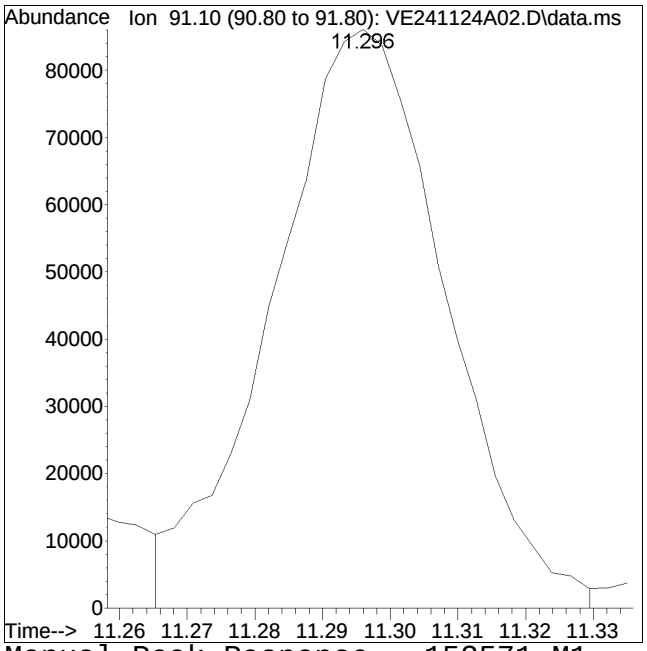
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Date Inj'd : 11/24/2024 10:56 am
Sample : WG2001843-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/24/2024 11:24 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 151412



Manual Peak Response = 152571 M1

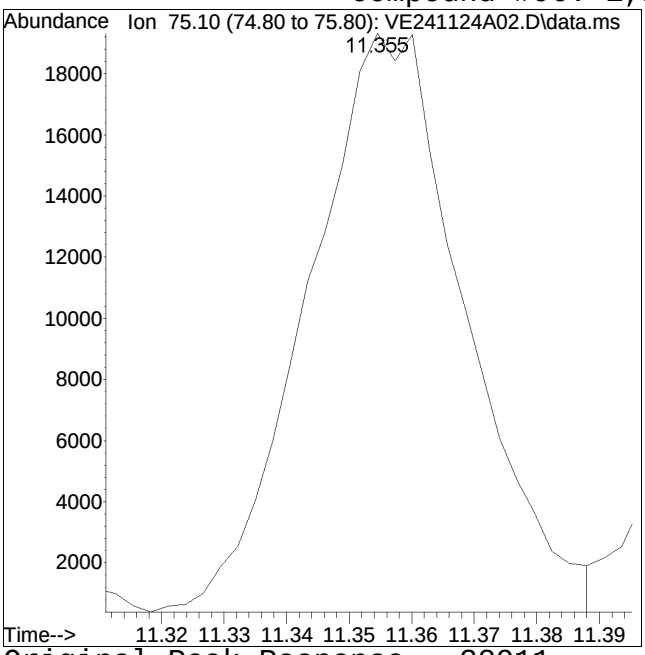
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

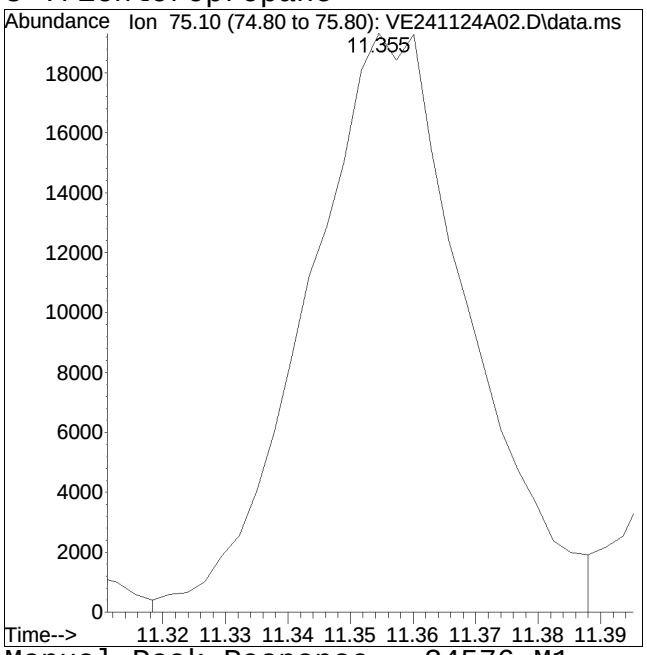
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A02.D
Date Inj'd : 11/24/2024 10:56 am
Sample : WG2001843-3,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/24/2024 11:24 am

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 32911



Manual Peak Response = 34576 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.056	96	566955	10.000	ug/L	0.00
59) Chlorobenzene-d5	9.588	117	435387	10.000	ug/L	-0.02
79) 1,4-Dichlorobenzene-d4	12.286	152	248554	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.243	113	146888	10.390	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.90%			
43) 1,2-Dichloroethane-d4	5.775	65	179862	11.042	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.42%			
60) Toluene-d8	7.743	98	547987	9.517	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.17%			
83) 4-Bromofluorobenzene	11.077	95	207435	9.522	ug/L	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.22%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	91717	7.614	ug/L	97
3) Chloromethane	1.862	50	132419	10.140	ug/L	98
4) Vinyl chloride	1.931	62	132497	10.180	ug/L	99
5) Bromomethane	2.234	94	25672	3.421	ug/L	95
6) Chloroethane	2.341	64	84451	11.559	ug/L	94
7) Trichlorofluoromethane	2.493	101	180519	10.403	ug/L	98
8) Ethyl ether	2.789	74	50807	8.044	ug/L #	64
10) 1,1-Dichloroethene	2.987	96	100263	10.029	ug/L #	78
11) Carbon disulfide	3.025	76	314675	10.362	ug/L	99
15) Methylene chloride	3.549	84	120577	10.032	ug/L #	66
17) Acetone	3.594	43	28442	9.156	ug/L	97
18) trans-1,2-Dichloroethene	3.701	96	113074	10.434	ug/L	81
20) Methyl tert-butyl ether	3.784	73	276886	7.555	ug/L #	81
23) 1,1-Dichloroethane	4.278	63	246993	11.767	ug/L	98
25) Acrylonitrile	4.339	53	34018	8.778	ug/L	96
27) Vinyl acetate	4.514	43	315681	10.731	ug/L #	93
28) cis-1,2-Dichloroethene	4.802	96	130760	10.423	ug/L	86
29) 2,2-Dichloropropane	4.901	77	185169	13.271	ug/L	86
30) Bromochloromethane	5.000	128	59224	10.376	ug/L #	68
32) Chloroform	5.068	83	216024	10.631	ug/L	96
34) Carbon tetrachloride	5.197	117	171608	11.078	ug/L	98
37) 1,1,1-Trichloroethane	5.266	97	191939	10.708	ug/L	94
39) 2-Butanone	5.365	43	45511	9.606	ug/L #	74
40) 1,1-Dichloropropene	5.387	75	163543	10.874	ug/L	97

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Benzene	5.630	78	504785	10.795	ug/L	#	91
44) 1,2-Dichloroethane	5.843	62	176226	11.127	ug/L		99
48) Trichloroethene	6.231	95	131697	10.493	ug/L		96
50) Dibromomethane	6.679	93	69908	9.786	ug/L		98
51) 1,2-Dichloropropane	6.778	63	136094	11.219	ug/L		98
54) Bromodichloromethane	6.854	83	166751	10.189	ug/L		100
57) 1,4-Dioxane	7.056	88	47653	390.844	ug/L	#	73
58) cis-1,3-Dichloropropene	7.543	75	189405	10.215	ug/L	#	86
61) Toluene	7.801	92	309009	10.198	ug/L		99
62) 4-Methyl-2-pentanone	8.238	58	33526	7.900	ug/L	#	81
63) Tetrachloroethene	8.245	166	135636	10.349	ug/L		98
65) trans-1,3-Dichloropropene	8.295	75	165199	9.352	ug/L		88
68) 1,1,2-Trichloroethane	8.481	83	80085	8.690	ug/L		100
69) Chlorodibromomethane	8.689	129	120622	9.462	ug/L		99
70) 1,3-Dichloropropane	8.803	76	169473	9.262	ug/L		99
71) 1,2-Dibromoethane	8.968	107	93446	8.569	ug/L		100
72) 2-Hexanone	9.255	43	62279	8.203	ug/L	#	87
73) Chlorobenzene	9.612	112	340209	10.450	ug/L		97
74) Ethylbenzene	9.645	91	585038	10.048	ug/L		98
75) 1,1,1,2-Tetrachloroethane	9.695	131	119606	9.585	ug/L		99
76) p/m Xylene	9.835	106	446782	20.169	ug/L		93
77) o Xylene	10.369	106	430660	20.075	ug/L		93
78) Styrene	10.443	104	722352	19.784	ug/L		96
80) Bromoform	10.476	173	78235	8.757	ug/L		98
82) Isopropylbenzene	10.748	105	542311	9.870	ug/L		99
84) Bromobenzene	11.192	156	153401	10.315	ug/L		99
85) n-Propylbenzene	11.225	91	640179	10.005	ug/L		99
87) 1,1,2,2-Tetrachloroethane	11.323	83	115889	8.332	ug/L		99
88) 4-Ethyltoluene	11.356	105	521472	9.955	ug/L		99
89) 2-Chlorotoluene	11.398	91	404351M6	10.362	ug/L		
90) 1,3,5-Trimethylbenzene	11.455	105	451145	9.726	ug/L		100
91) 1,2,3-Trichloropropane	11.463	75	96949	8.533	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.521	53	34283M1	7.482	ug/L		
93) 4-Chlorotoluene	11.587	91	408785	9.952	ug/L		98
94) tert-Butylbenzene	11.792	119	374751	10.243	ug/L		97
97) 1,2,4-Trimethylbenzene	11.875	105	431951	9.544	ug/L		100
98) sec-Butylbenzene	11.982	105	518815	9.832	ug/L		99
99) p-Isopropyltoluene	12.130	119	444077	9.923	ug/L		99
100) 1,3-Dichlorobenzene	12.212	146	273406	10.092	ug/L		99
101) 1,4-Dichlorobenzene	12.302	146	280039	9.952	ug/L		98

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	p-Diethylbenzene	12.508	119	246847	9.832	ug/L	98
103)	n-Butylbenzene	12.566	91	348690	9.676	ug/L	99
104)	1,2-Dichlorobenzene	12.722	146	253853	9.719	ug/L	99
105)	1,2,4,5-Tetramethylben...	13.298	119	333589	9.447	ug/L	98
106)	1,2-Dibromo-3-chloropr...	13.503	155	16801	7.250	ug/L	94
108)	Hexachlorobutadiene	14.096	225	58558	11.096	ug/L	98
109)	1,2,4-Trichlorobenzene	14.129	180	124812	8.949	ug/L	97
110)	Naphthalene	14.425	128	188975	6.398	ug/L	100
111)	1,2,3-Trichlorobenzene	14.589	180	91211	7.818	ug/L	99

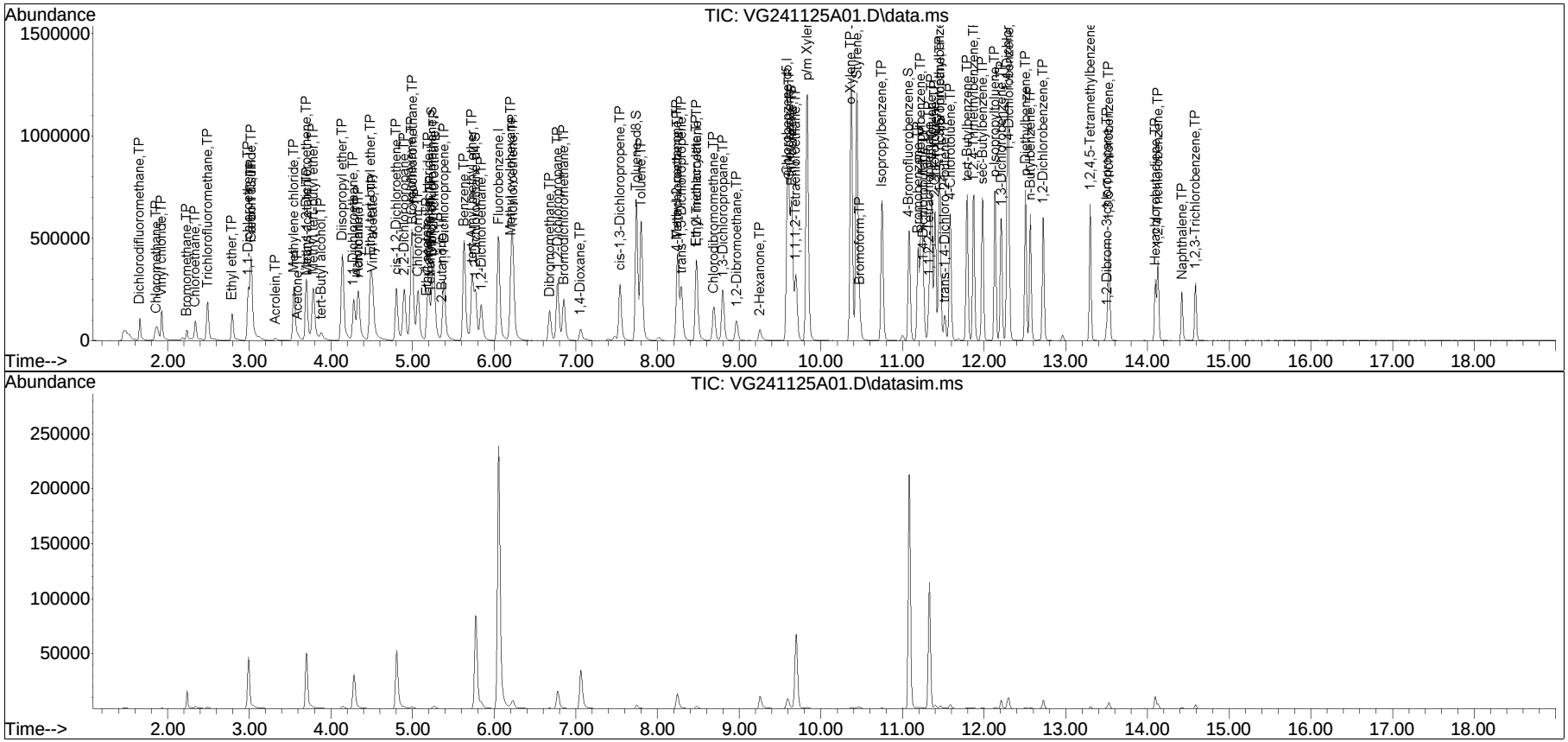
(#) = qualifier out of range (m) = manual integration (+) = signals summed

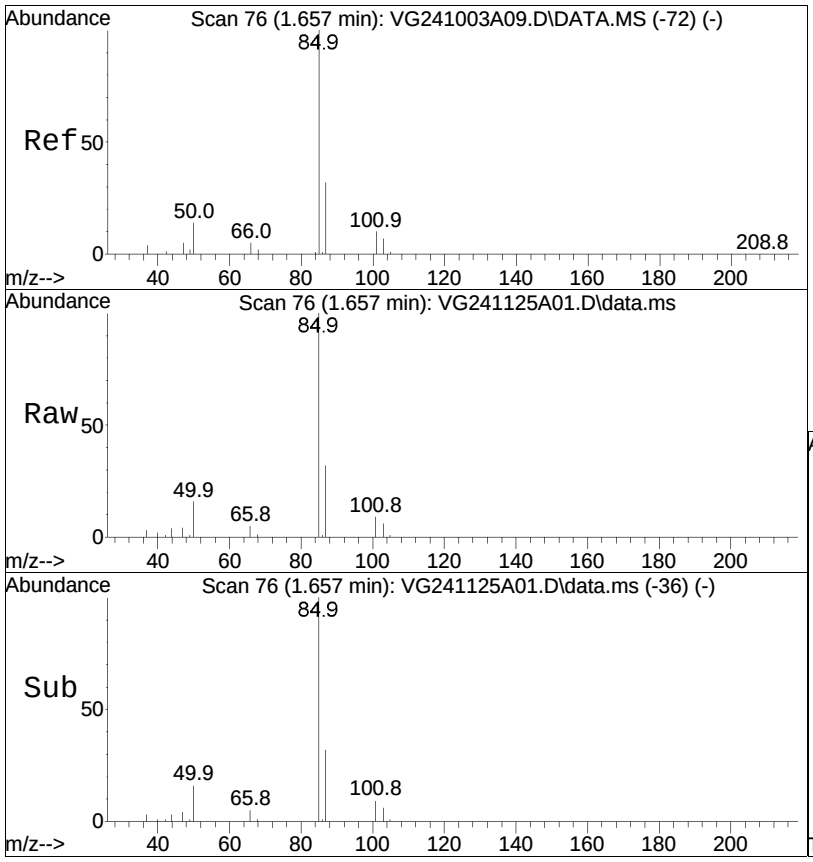
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Acq On : 25 Nov 2024 7:14 am
Operator : GONZO:PID
Sample : WG2001998-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 25 07:42:36 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

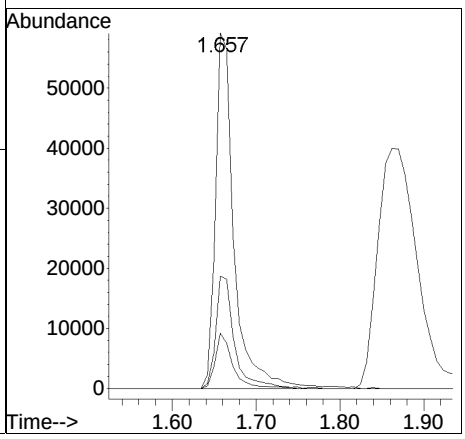


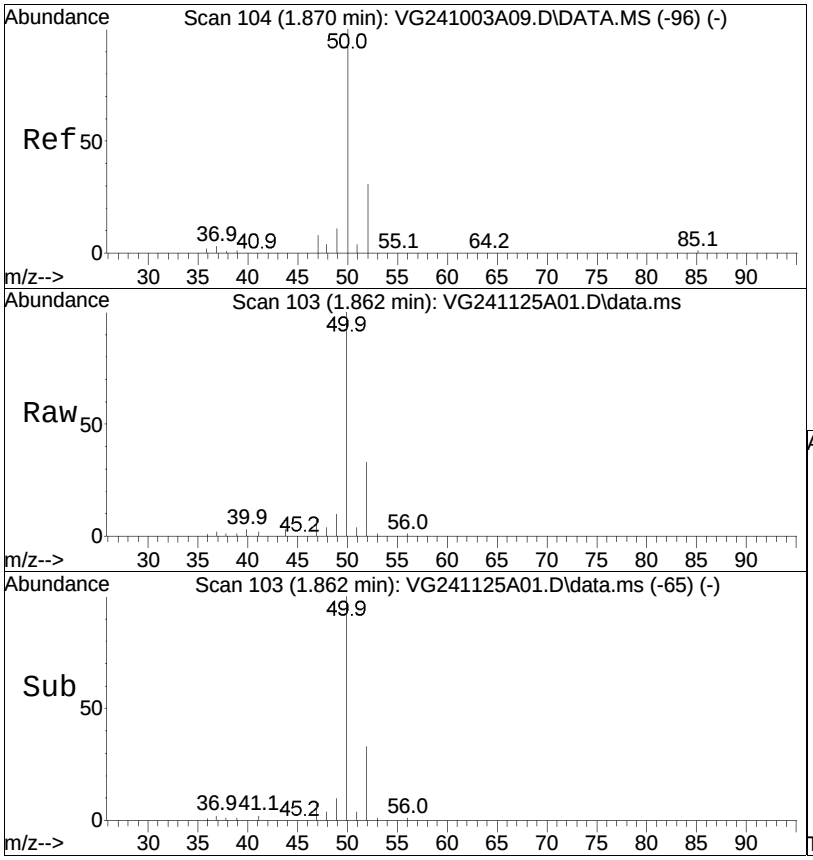


#2
Dichlorodifluoromethane
Concen: 7.61 ug/L
RT: 1.657 min Scan# 76
Delta R.T. 0.000 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 85 Resp: 91717

Ion	Ratio	Lower	Upper
85	100		
87	31.4	20.7	42.9
50	14.6	7.5	15.5

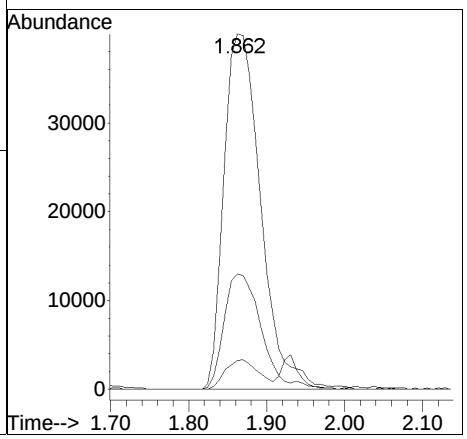


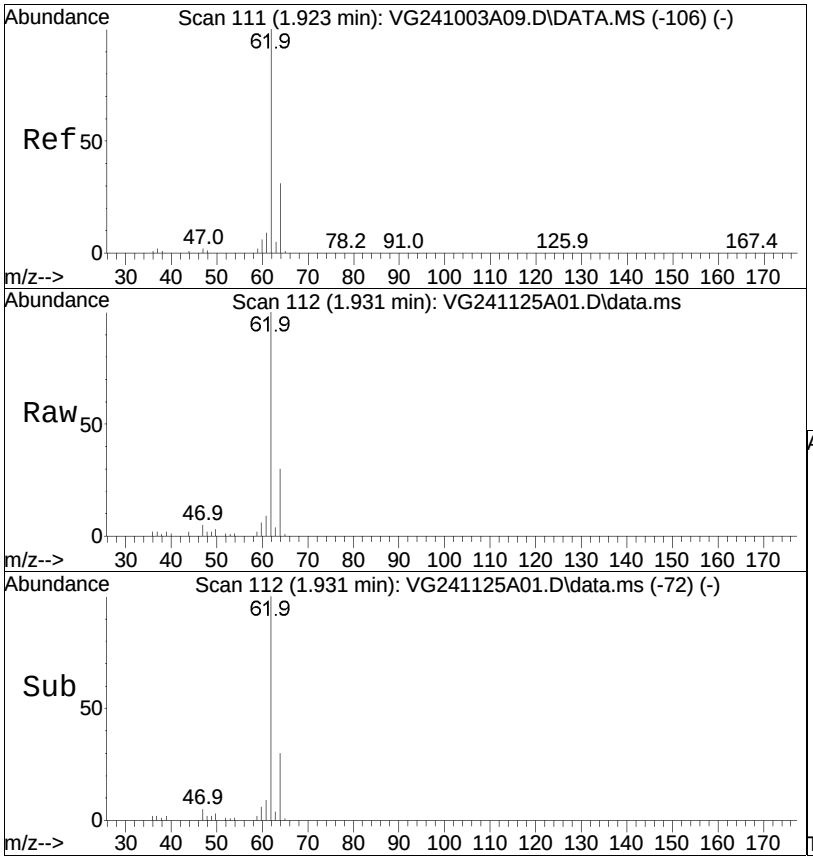


#3
Chloromethane
Concen: 10.14 ug/L
RT: 1.862 min Scan# 103
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 50 Resp: 132419

Ion	Ratio	Lower	Upper
50	100		
52	32.6	11.7	51.7
47	7.6	0.0	28.0

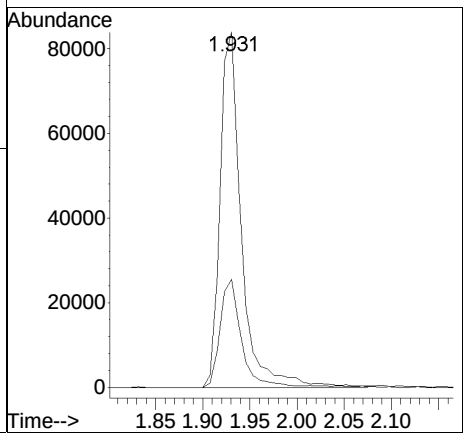


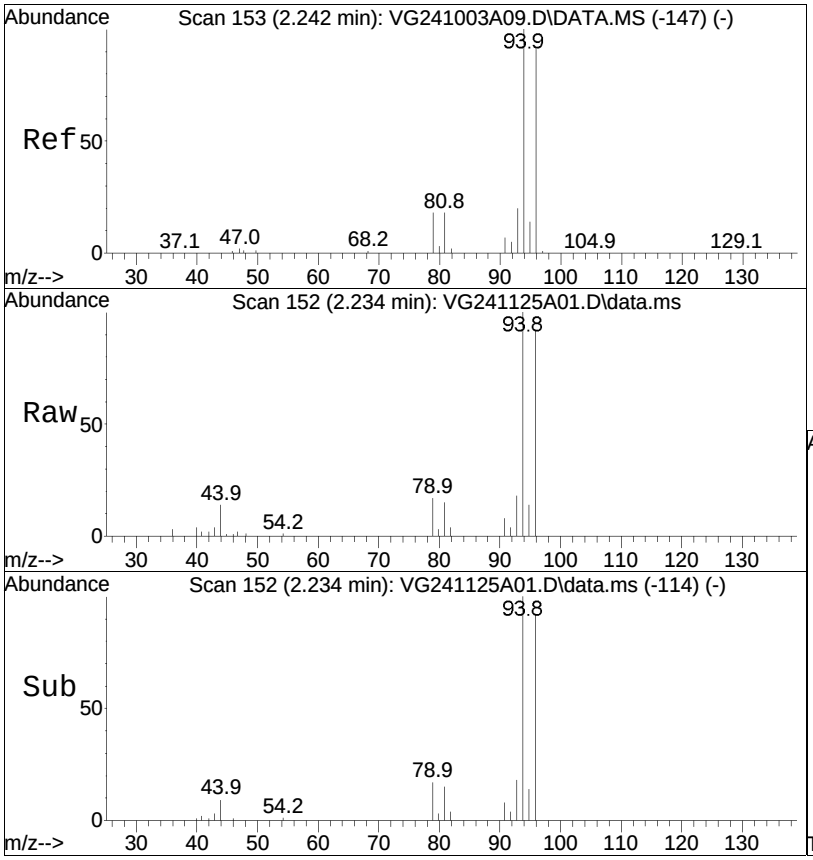


#4
Vinyl chloride
Concen: 10.18 ug/L
RT: 1.931 min Scan# 112
Delta R.T. 0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 62 Resp: 132497

Ion	Ratio	Lower	Upper
62	100		
64	30.9	11.3	51.3

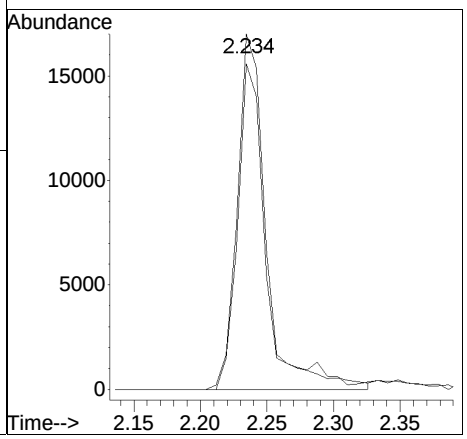


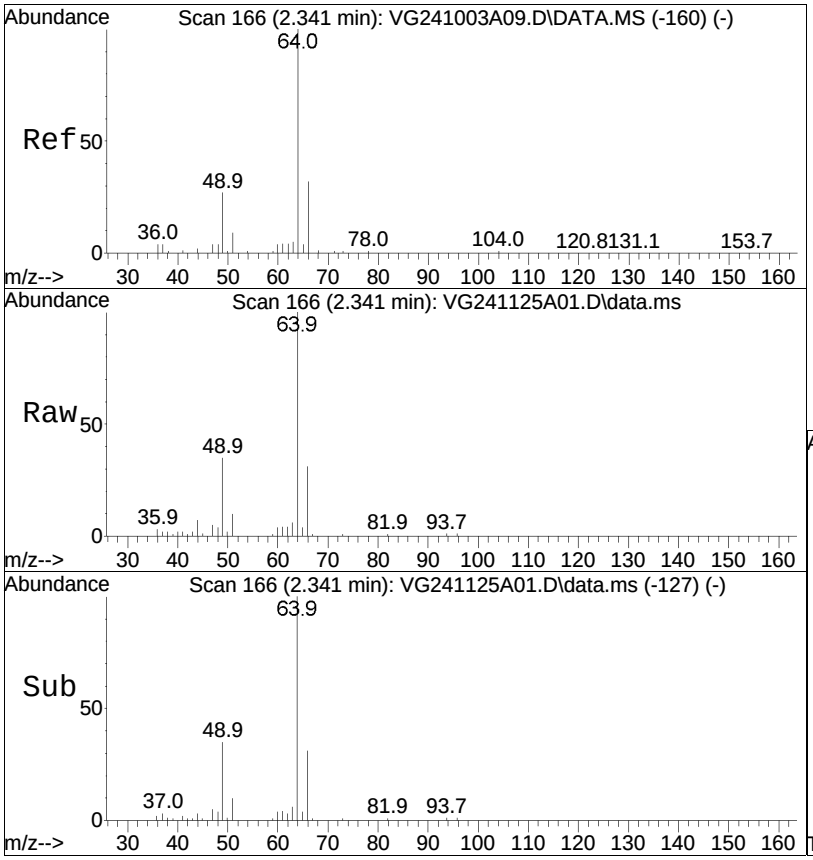


#5
Bromomethane
Concen: 3.42 ug/L
RT: 2.234 min Scan# 152
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 94 Resp: 25672

Ion	Ratio	Lower	Upper
94	100		
96	90.3	75.2	115.2

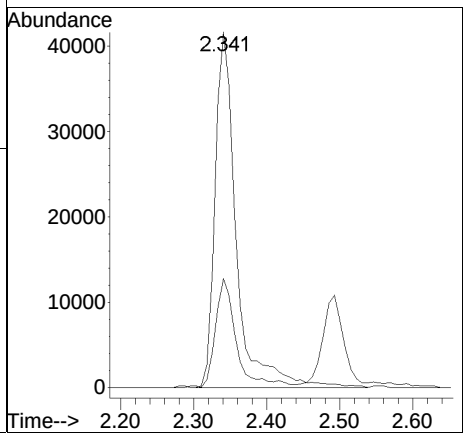


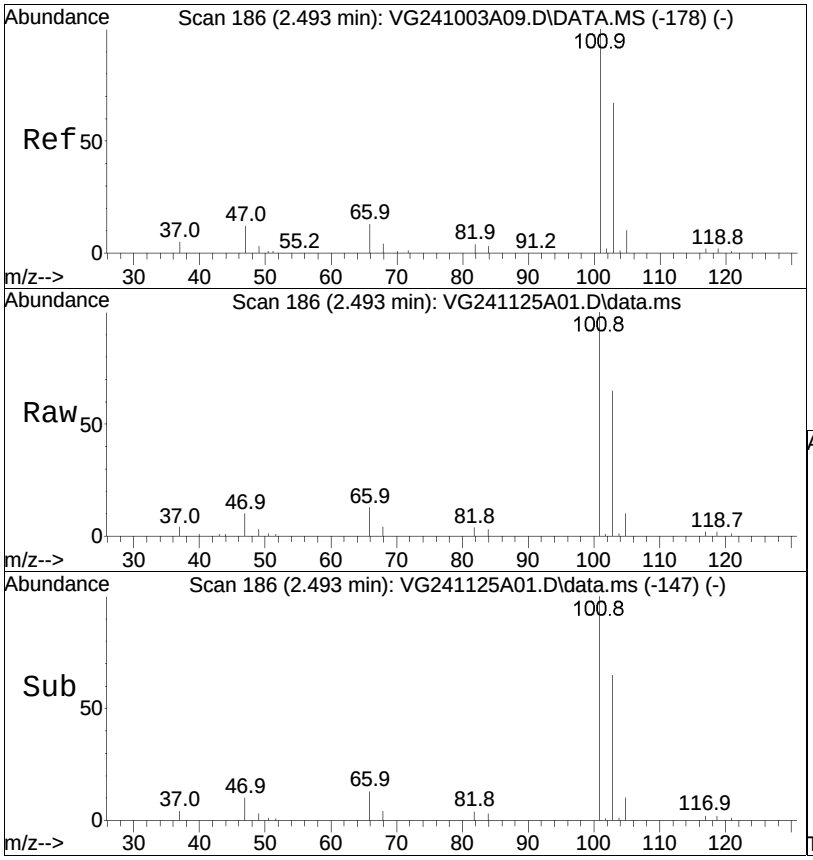


#6
Chloroethane
Concen: 11.56 ug/L
RT: 2.341 min Scan# 166
Delta R.T. -0.000 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 64 Resp: 84451

Ion	Ratio	Lower	Upper
64	100		
66	30.1	13.7	53.7

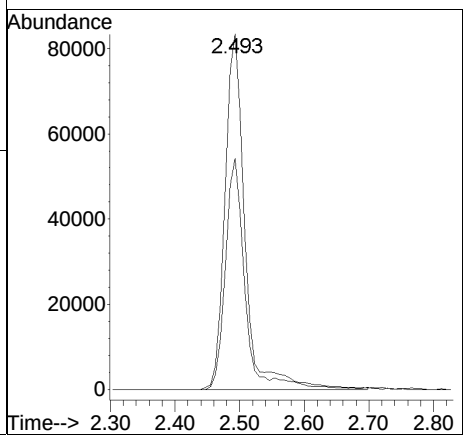


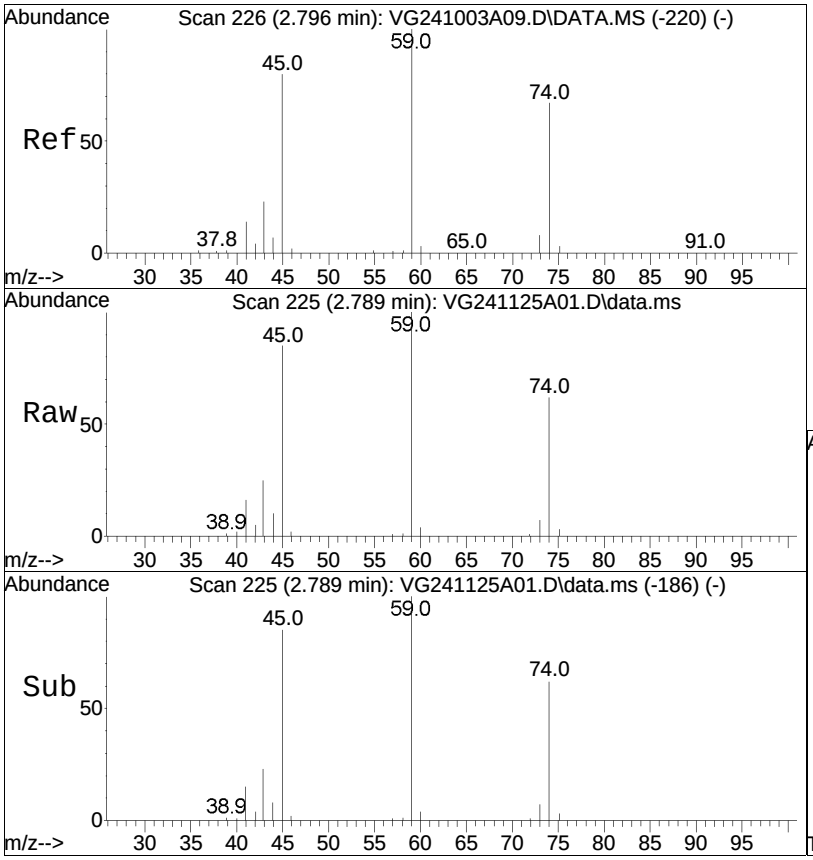


#7
Trichlorofluoromethane
Concen: 10.40 ug/L
RT: 2.493 min Scan# 186
Delta R.T. -0.000 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:101 Resp: 180519

Ion	Ratio	Lower	Upper
101	100		
103	63.8	52.2	78.2

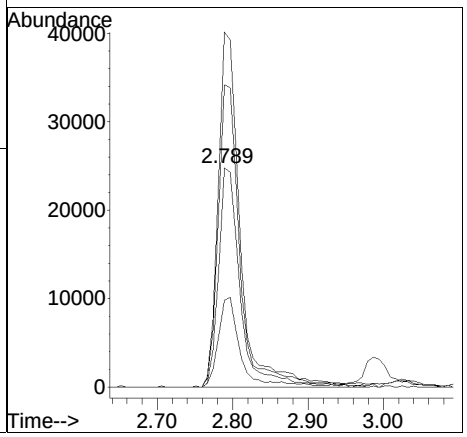


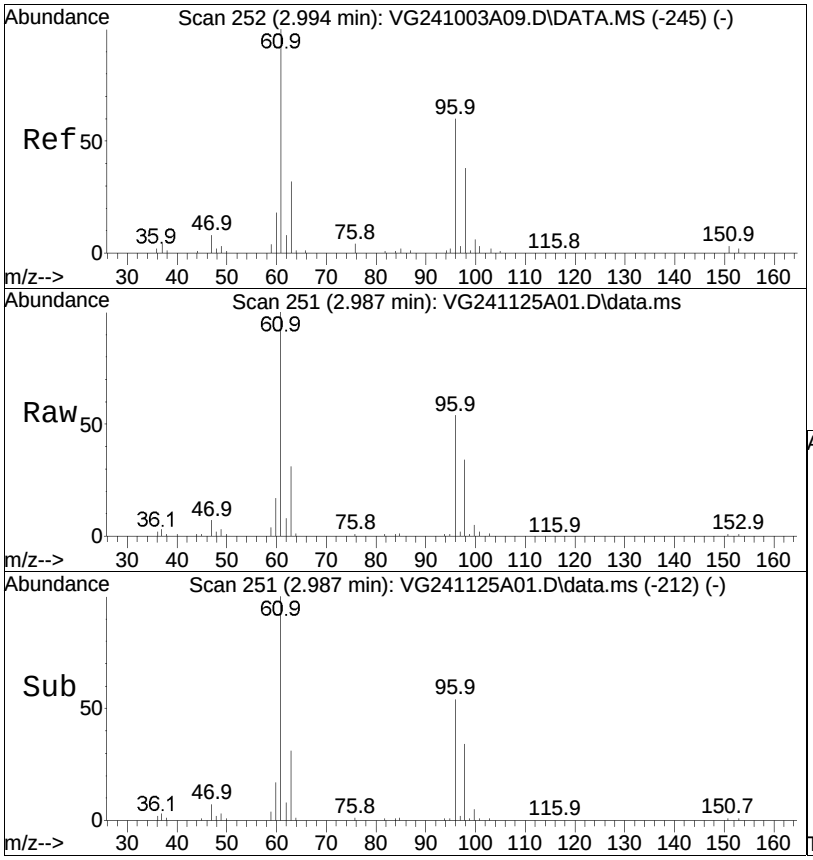


#8
Ethyl ether
Concen: 8.04 ug/L
RT: 2.789 min Scan# 225
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 74 Resp: 50807

Ion	Ratio	Lower	Upper
74	100		
59	162.6	83.5	173.3
45	136.1	59.7	123.9#
43	41.6	17.6	36.6#

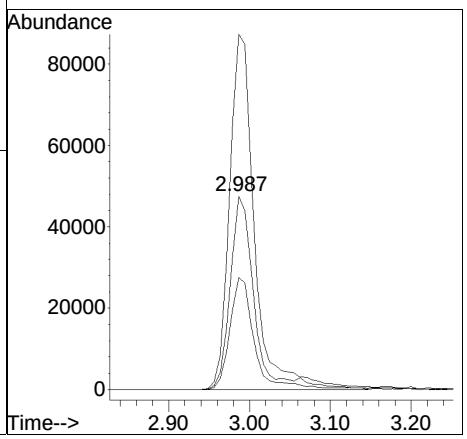


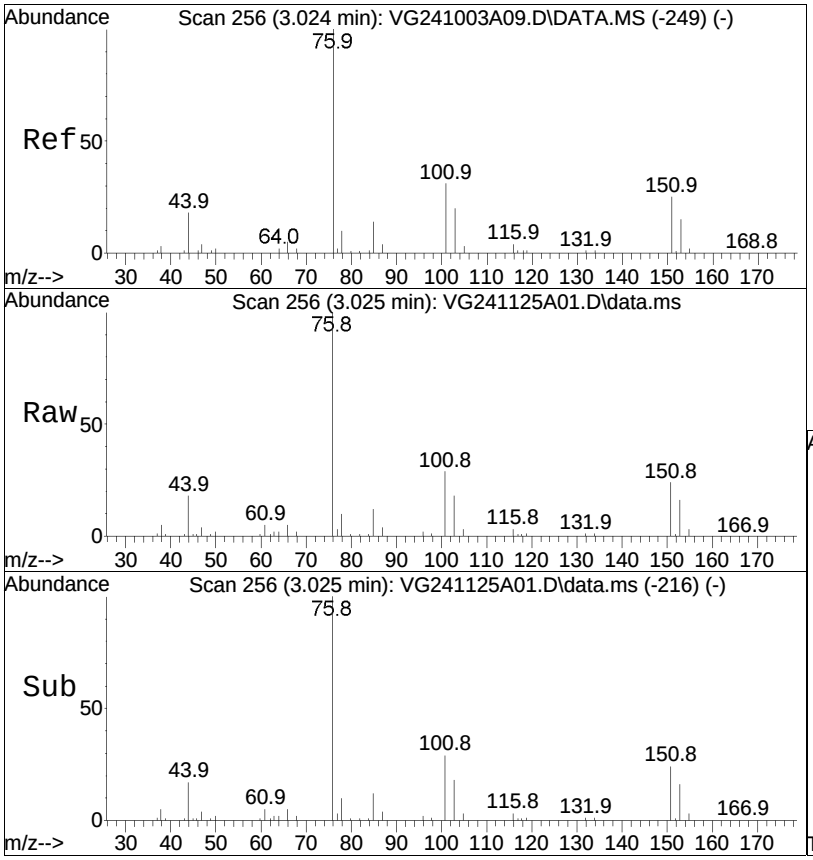


#10
1,1-Dichloroethene
Concen: 10.03 ug/L
RT: 2.987 min Scan# 251
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 96 Resp: 100263

Ion	Ratio	Lower	Upper
96	100		
61	188.9	124.2	186.4#
63	57.3	40.0	60.0

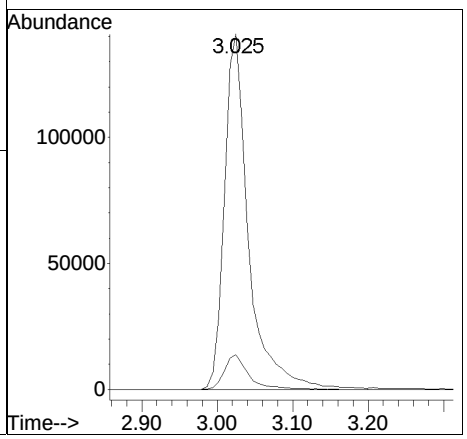


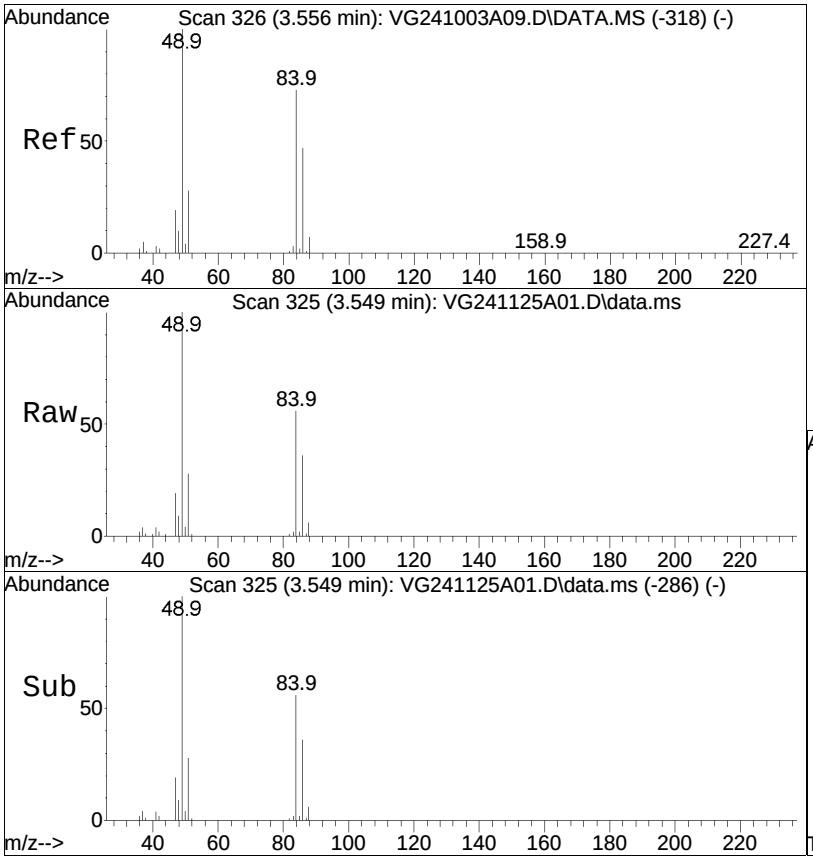


#11
Carbon disulfide
Concen: 10.36 ug/L
RT: 3.025 min Scan# 256
Delta R.T. 0.001 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 76 Resp: 314675

Ion	Ratio	Lower	Upper
76	100		
78	9.8	6.6	13.6

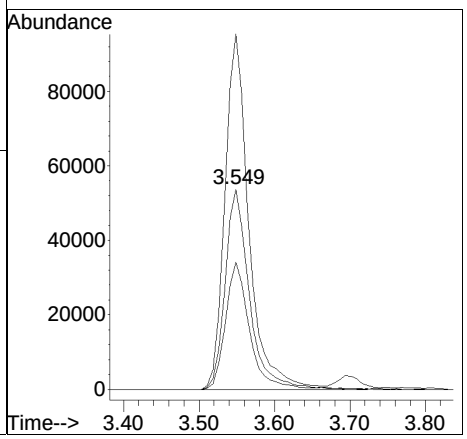


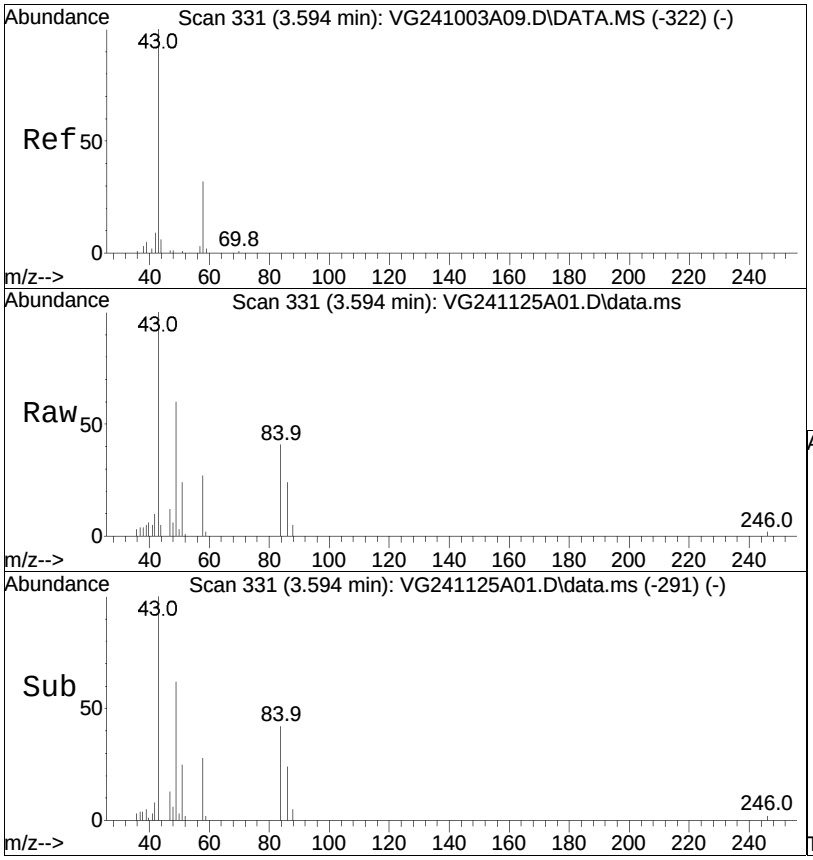


#15
Methylene chloride
Concen: 10.03 ug/L
RT: 3.549 min Scan# 325
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 84 Resp: 120577

Ion	Ratio	Lower	Upper
84	100		
86	63.0	41.1	85.5
49	174.1	76.2	158.2#

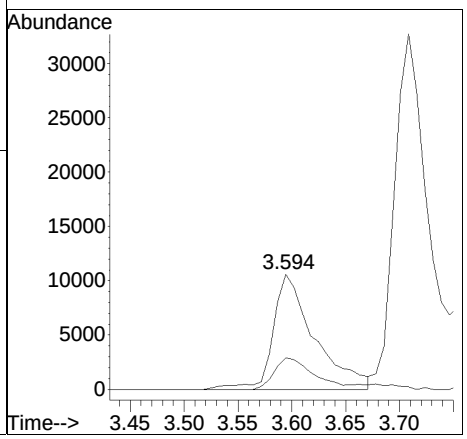


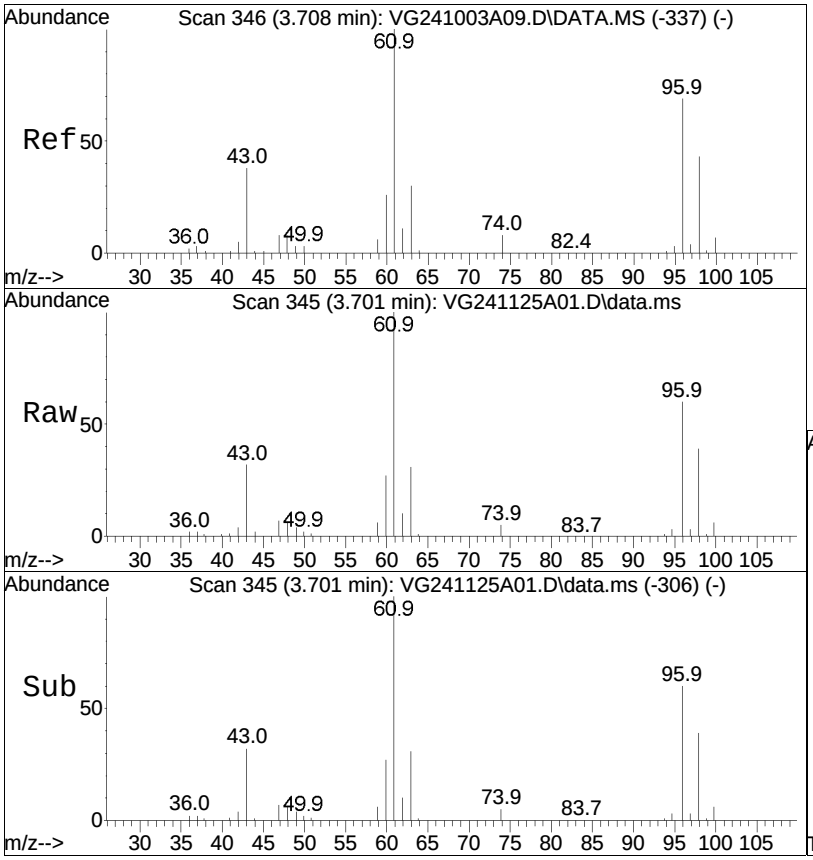


#17
Acetone
Concen: 9.16 ug/L
RT: 3.594 min Scan# 331
Delta R.T. 0.000 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 43 Resp: 28442

Ion	Ratio	Lower	Upper
43	100		
58	26.1	22.2	33.4

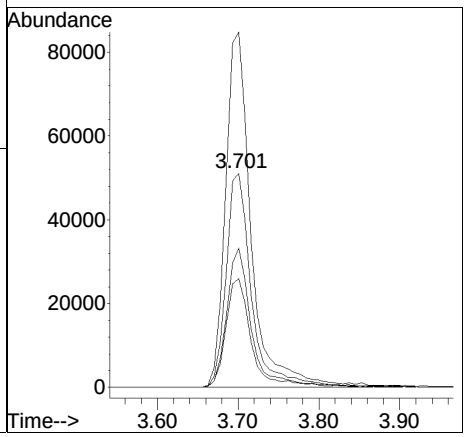


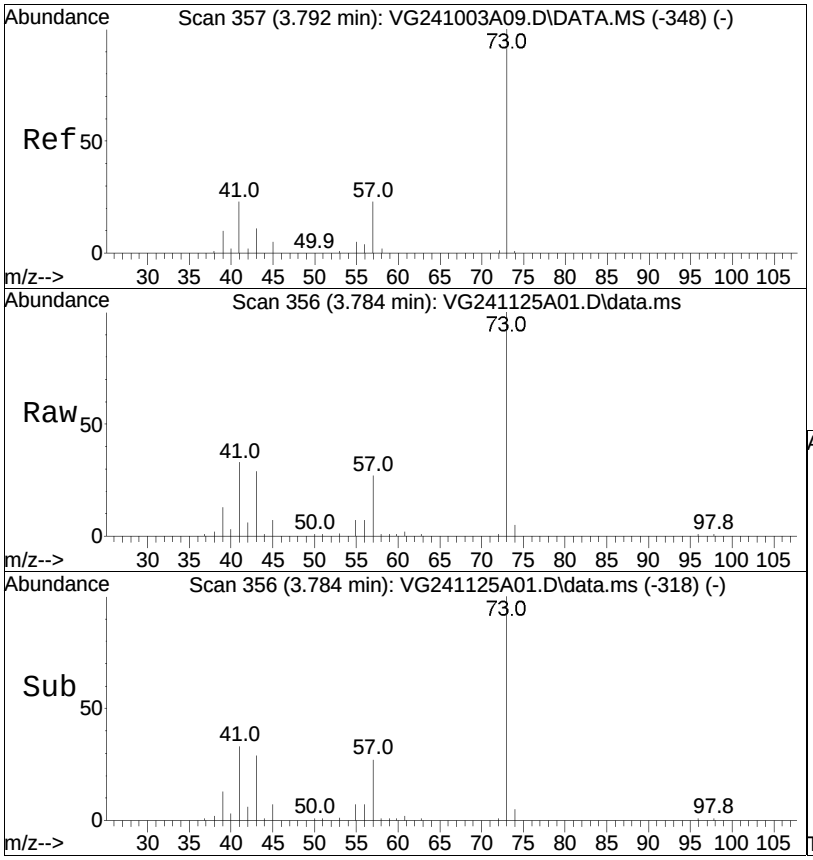


#18
trans-1,2-Dichloroethene
Concen: 10.43 ug/L
RT: 3.701 min Scan# 345
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 96 Resp: 113074

Ion	Ratio	Lower	Upper
96	100		
61	165.4	85.7	178.1
98	63.4	40.2	83.4
63	50.4	28.0	58.2

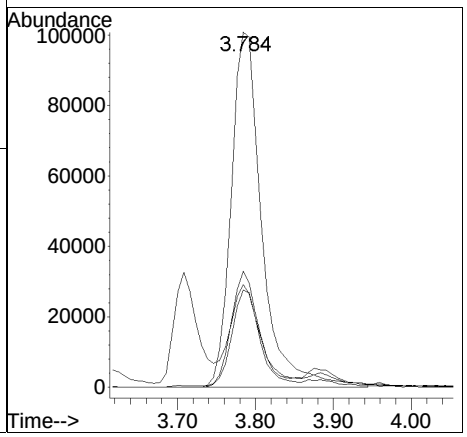


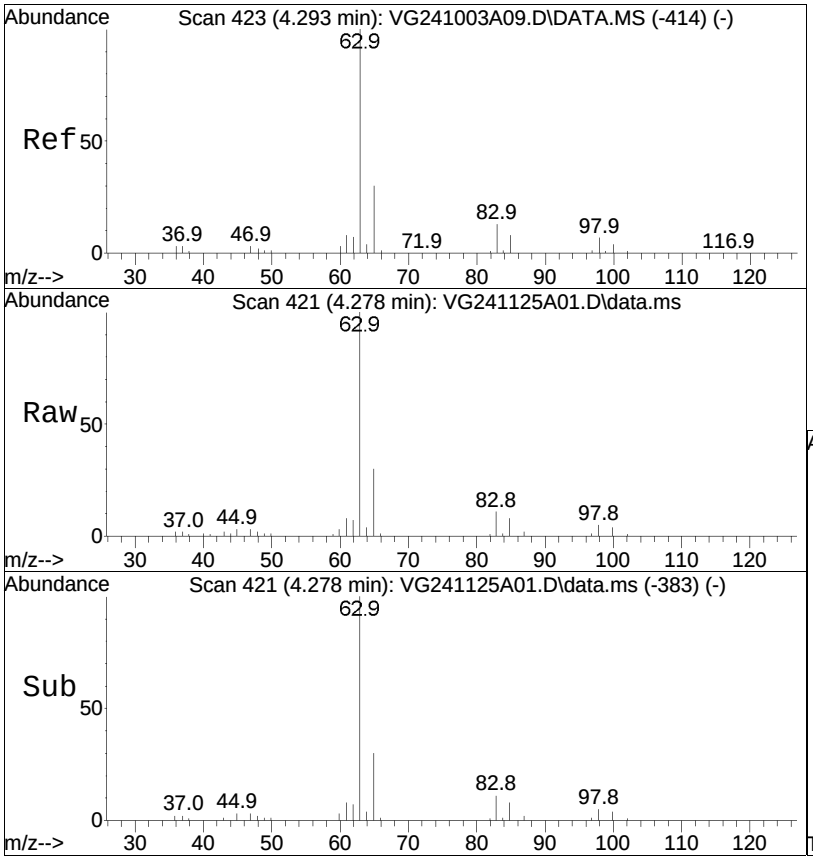


#20
Methyl tert-butyl ether
Concen: 7.56 ug/L
RT: 3.784 min Scan# 356
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 73 Resp: 276886

Ion	Ratio	Lower	Upper
73	100		
57	25.4	12.5	26.1
43	28.9	13.0	27.0#
41	29.6	12.5	26.1#

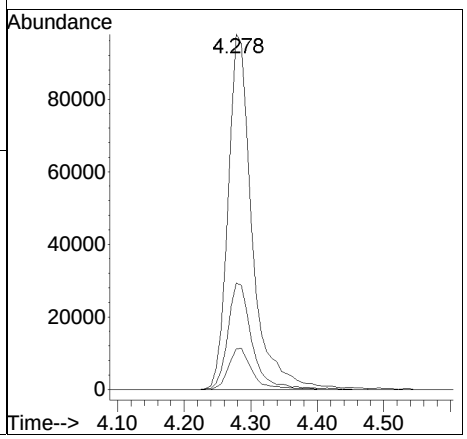


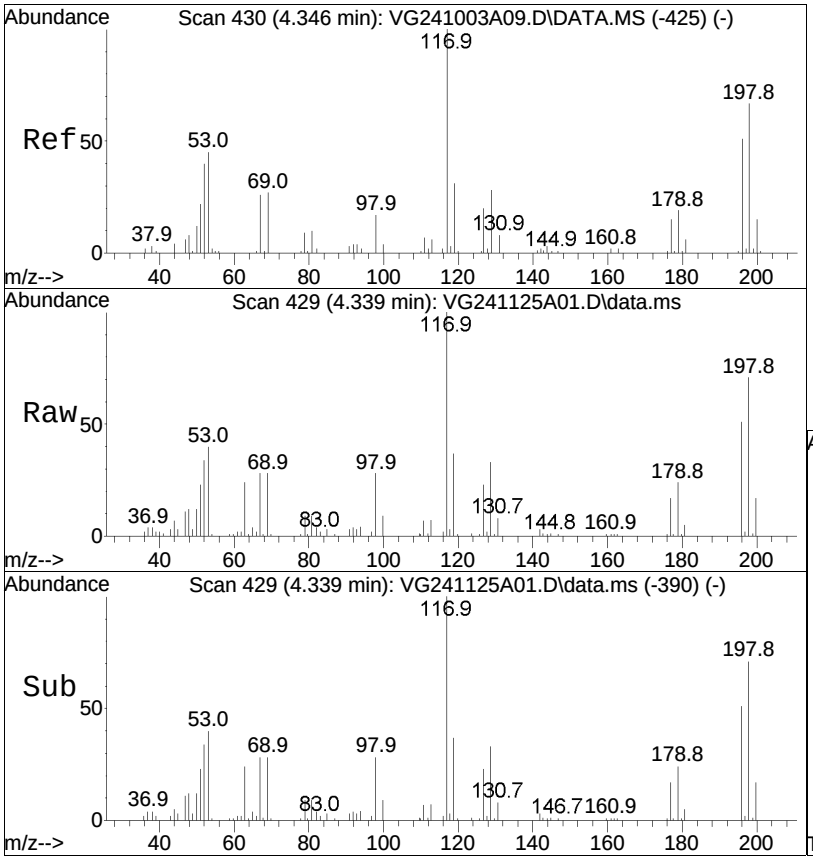


#23
1,1-Dichloroethane
Concen: 11.77 ug/L
RT: 4.278 min Scan# 421
Delta R.T. -0.015 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 63 Resp: 246993

Ion	Ratio	Lower	Upper
63	100		
65	29.9	10.4	50.4
83	11.4	0.0	33.2

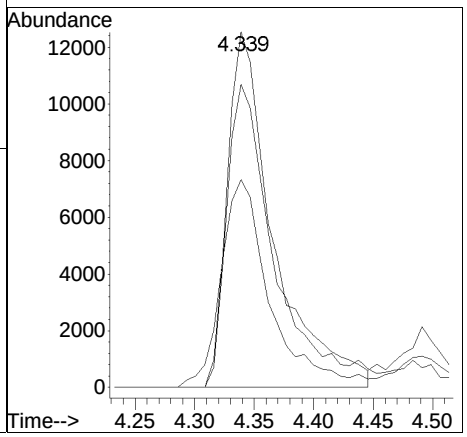


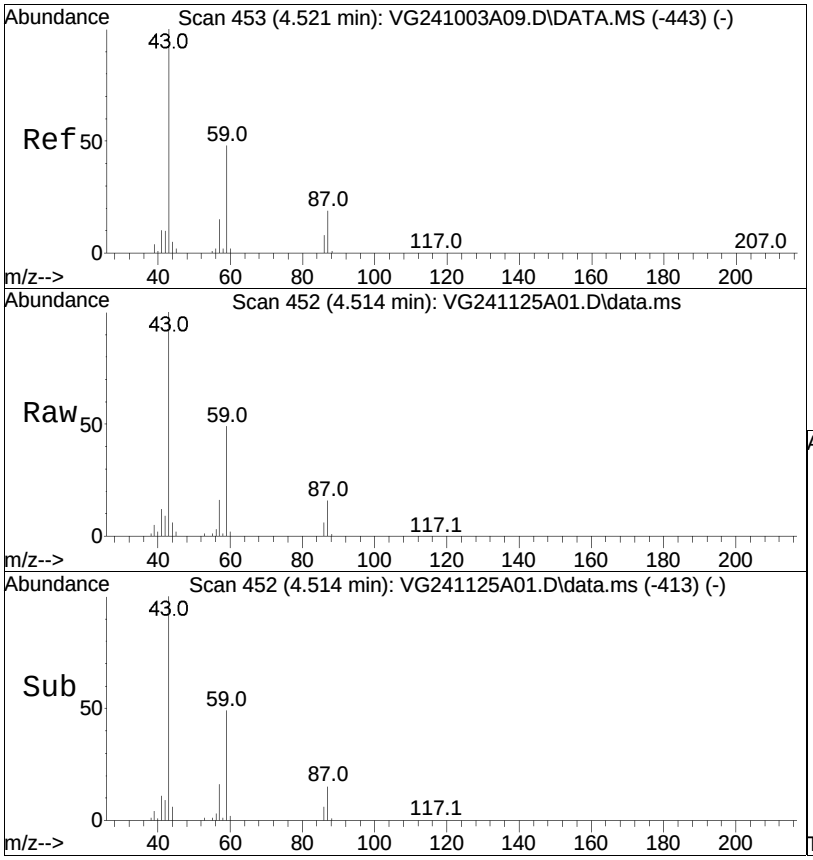


#25
Acrylonitrile
Concen: 8.78 ug/L
RT: 4.339 min Scan# 429
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 53 Resp: 34018

Ion	Ratio	Lower	Upper
53	100		
52	88.3	68.3	102.5
51	61.6	51.9	77.9

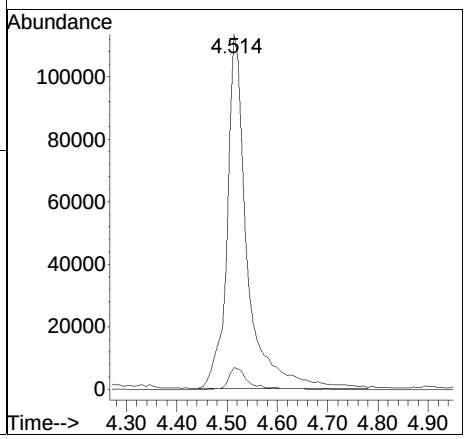


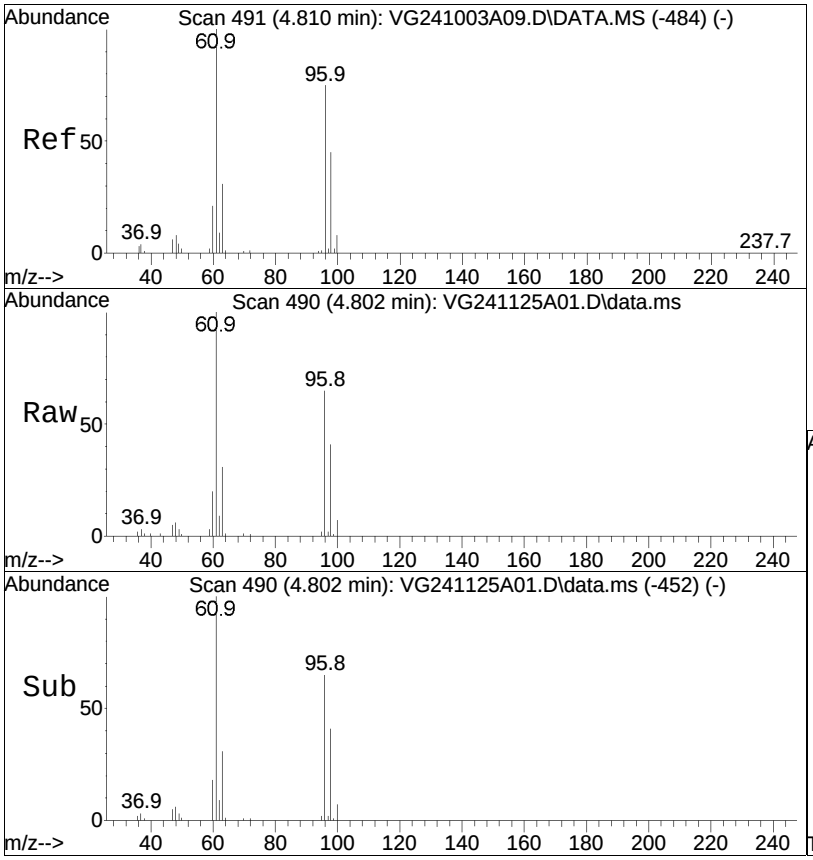


#27
Vinyl acetate
Concen: 10.73 ug/L
RT: 4.514 min Scan# 452
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 43 Resp: 315681

Ion	Ratio	Lower	Upper
43	100		
86	5.5	6.3	9.5#

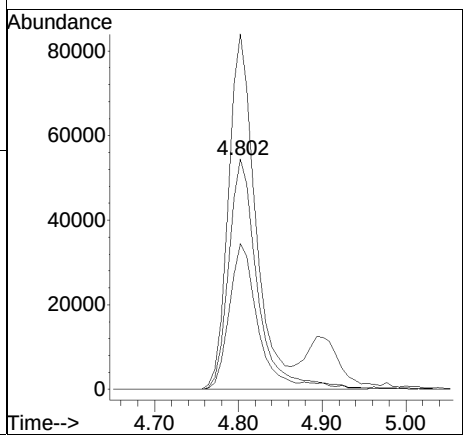


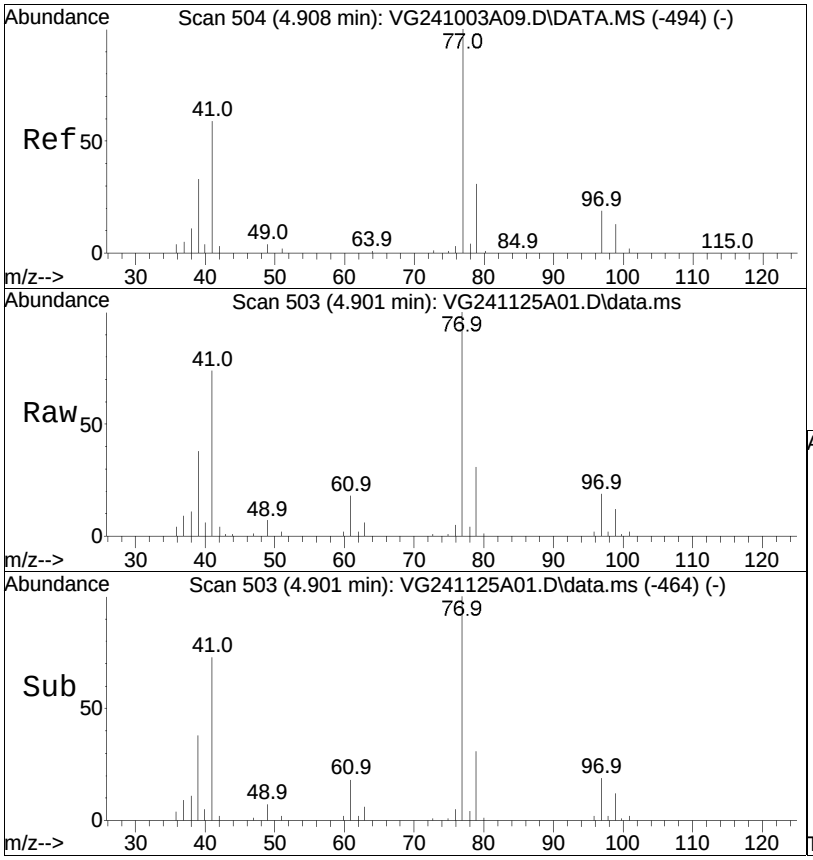


#28
cis-1,2-Dichloroethene
Concen: 10.42 ug/L
RT: 4.802 min Scan# 490
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 96 Resp: 130760

Ion	Ratio	Lower	Upper
96	100		
61	143.7	96.6	144.8
98	64.4	51.3	76.9

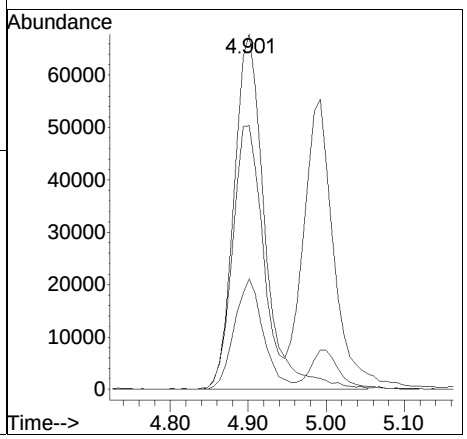


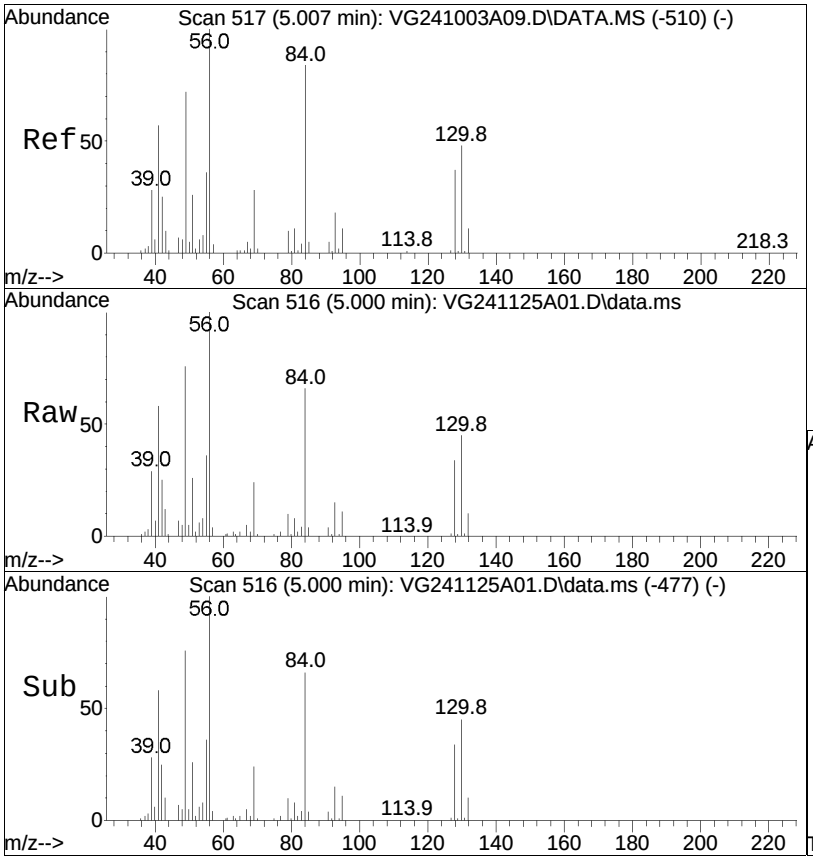


#29
2,2-Dichloropropane
Concen: 13.27 ug/L
RT: 4.901 min Scan# 503
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 77 Resp: 185169

Ion	Ratio	Lower	Upper
77	100		
41	73.7	38.1	79.1
79	29.5	20.6	42.8

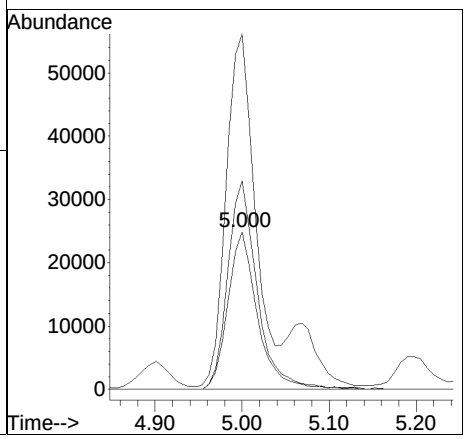


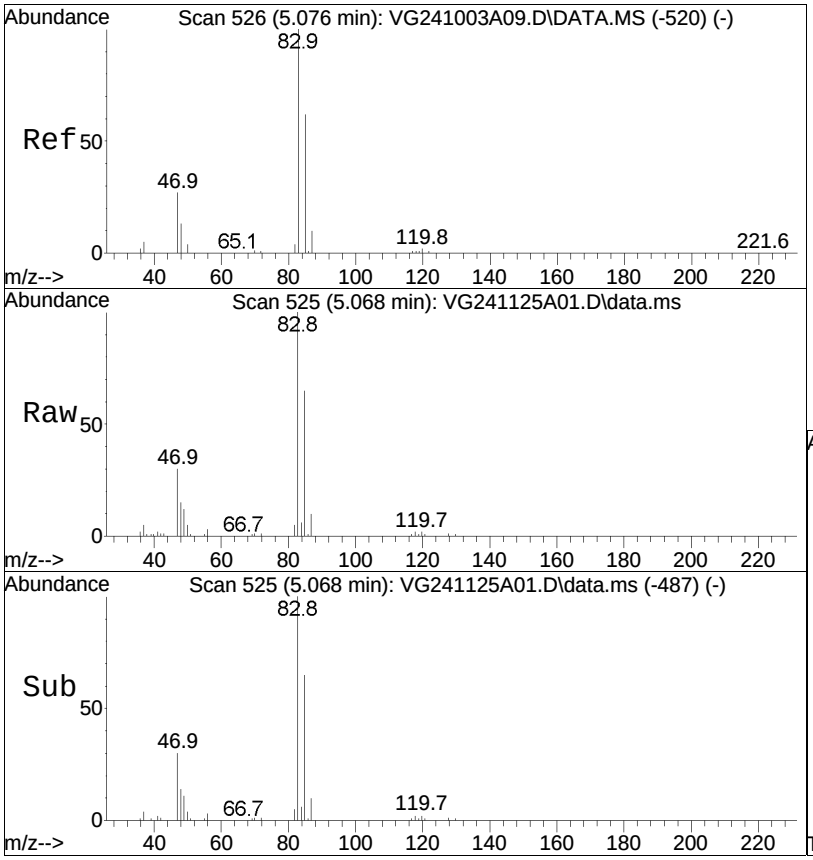


#30
Bromochloromethane
Concen: 10.38 ug/L
RT: 5.000 min Scan# 516
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:128 Resp: 59224

Ion	Ratio	Lower	Upper
128	100		
49	214.6	112.7	169.1#
130	130.3	103.3	154.9

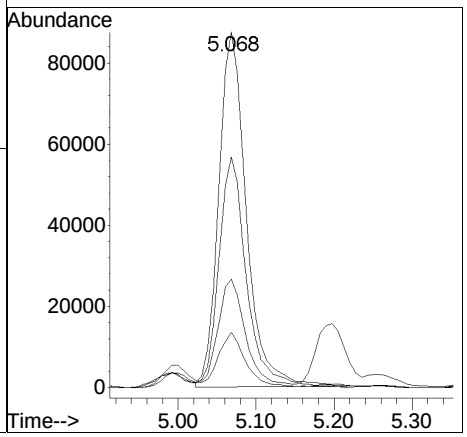


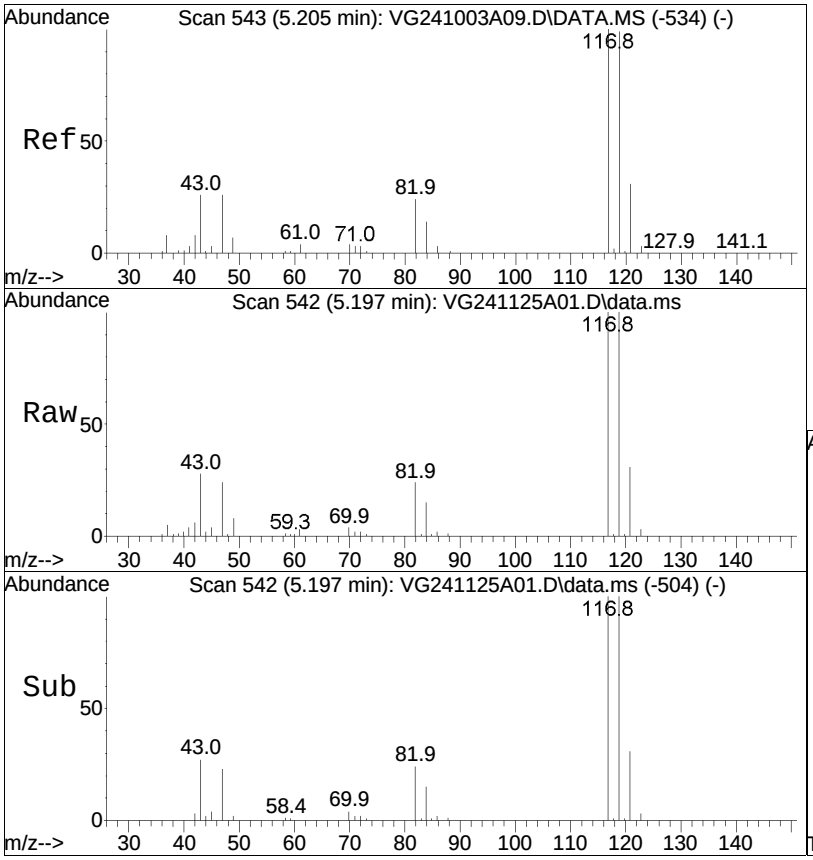


#32
Chloroform
Concen: 10.63 ug/L
RT: 5.068 min Scan# 525
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 83 Resp: 216024

Ion	Ratio	Lower	Upper
83	100		
85	63.1	41.4	86.0
47	27.7	15.1	31.3
48	15.1	7.7	16.1

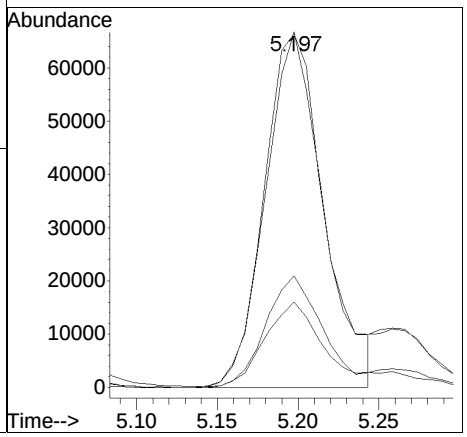


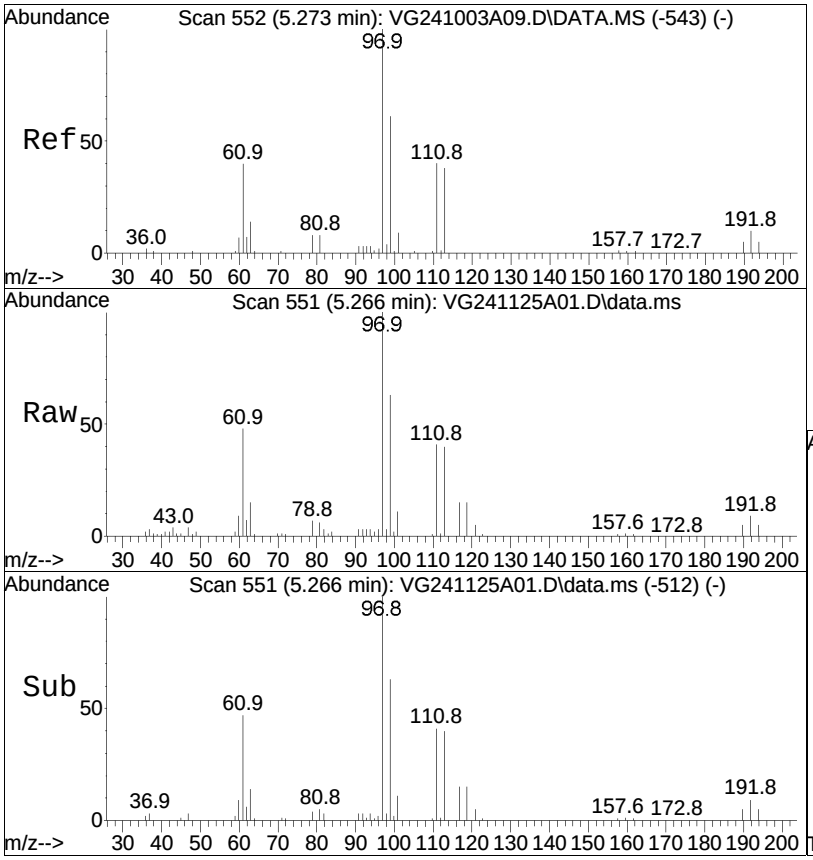


#34
Carbon tetrachloride
Concen: 11.08 ug/L
RT: 5.197 min Scan# 542
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:117 Resp: 171608

Ion	Ratio	Lower	Upper
117	100		
119	96.6	63.2	131.2
121	30.1	20.4	42.4
82	27.3	15.4	32.0

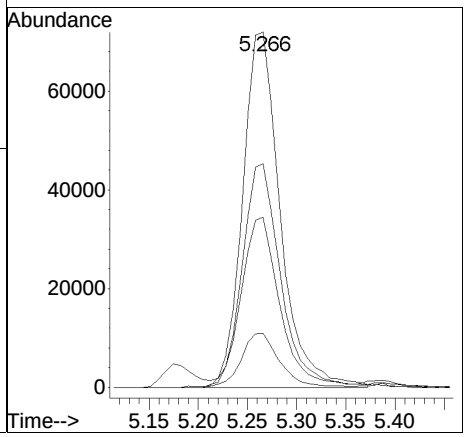


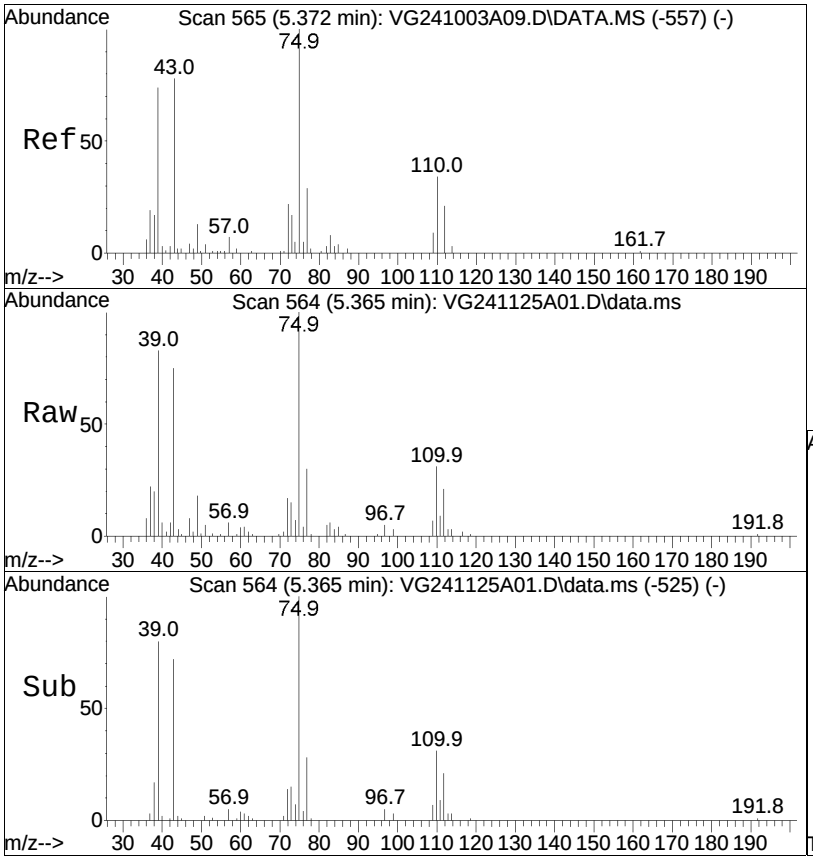


#37
1,1,1-Trichloroethane
Concen: 10.71 ug/L
RT: 5.266 min Scan# 551
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 97 Resp: 191939

Ion	Ratio	Lower	Upper
97	100		
99	64.3	41.3	85.7
61	49.3	26.0	54.0
63	15.7	8.6	18.0

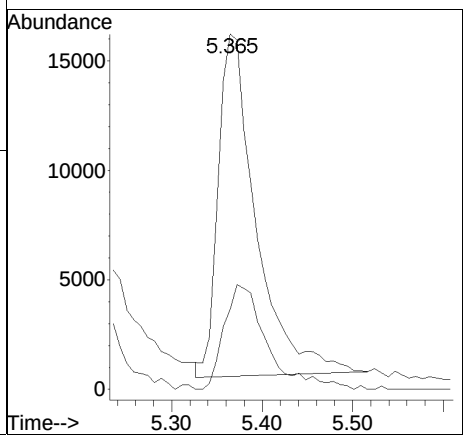


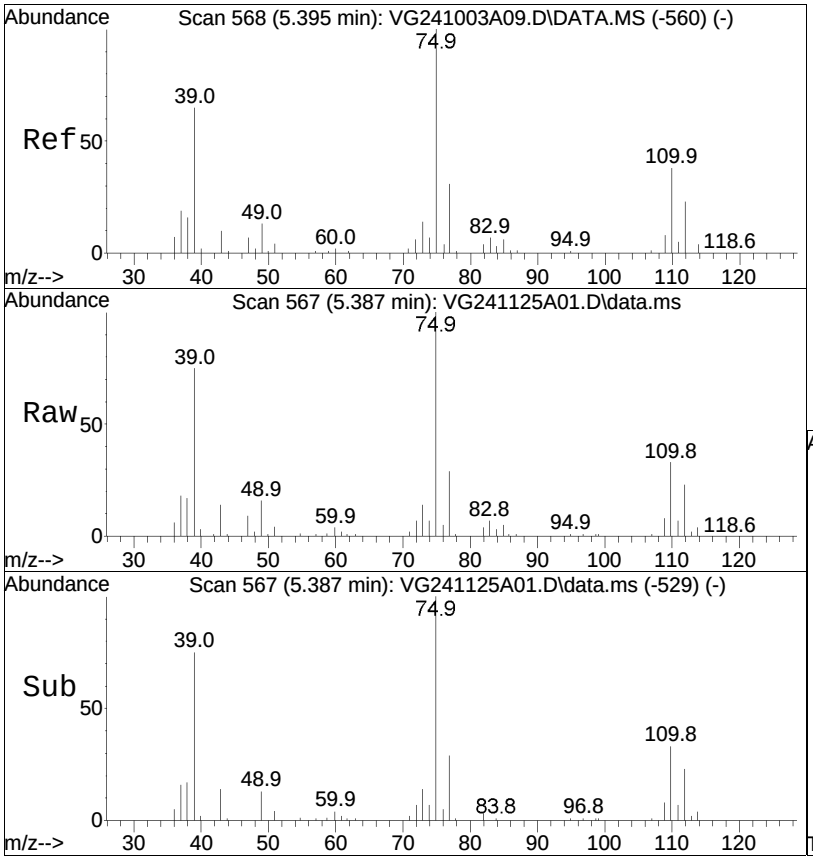


#39
2-Butanone
Concen: 9.61 ug/L
RT: 5.365 min Scan# 564
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 43 Resp: 45511

Ion	Ratio	Lower	Upper
43	100		
72	34.9	42.6	63.8#

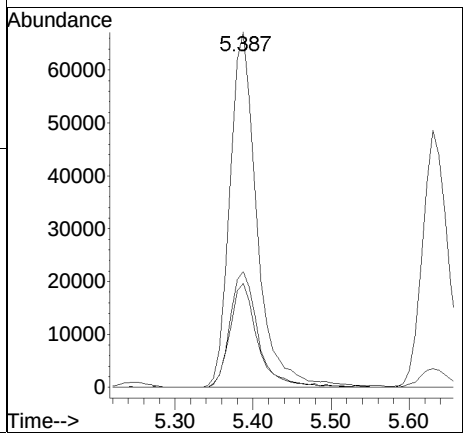


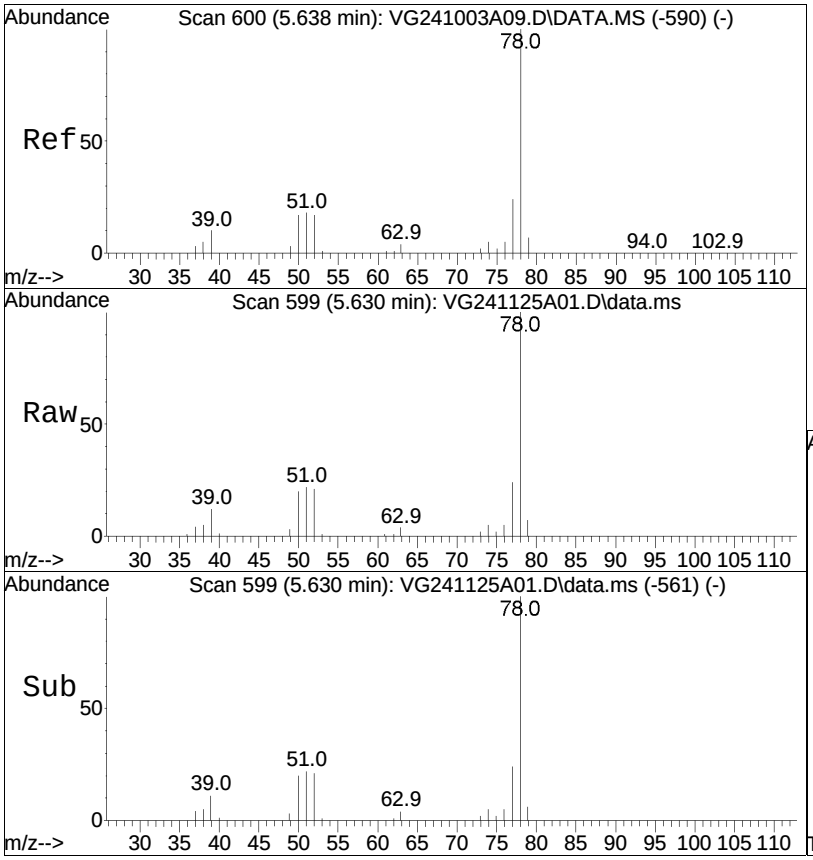


#40
1,1-Dichloropropene
Concen: 10.87 ug/L
RT: 5.387 min Scan# 567
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 75 Resp: 163543

Ion	Ratio	Lower	Upper
75	100		
110	34.0	24.1	50.1
77	30.0	19.8	41.0

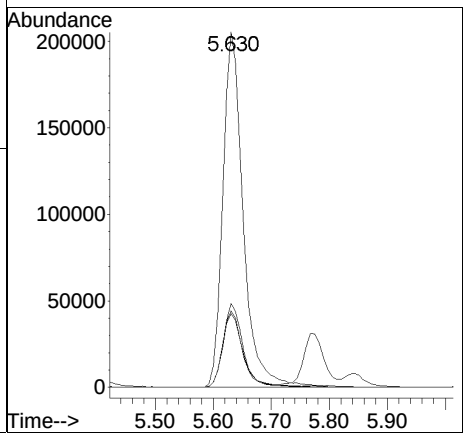


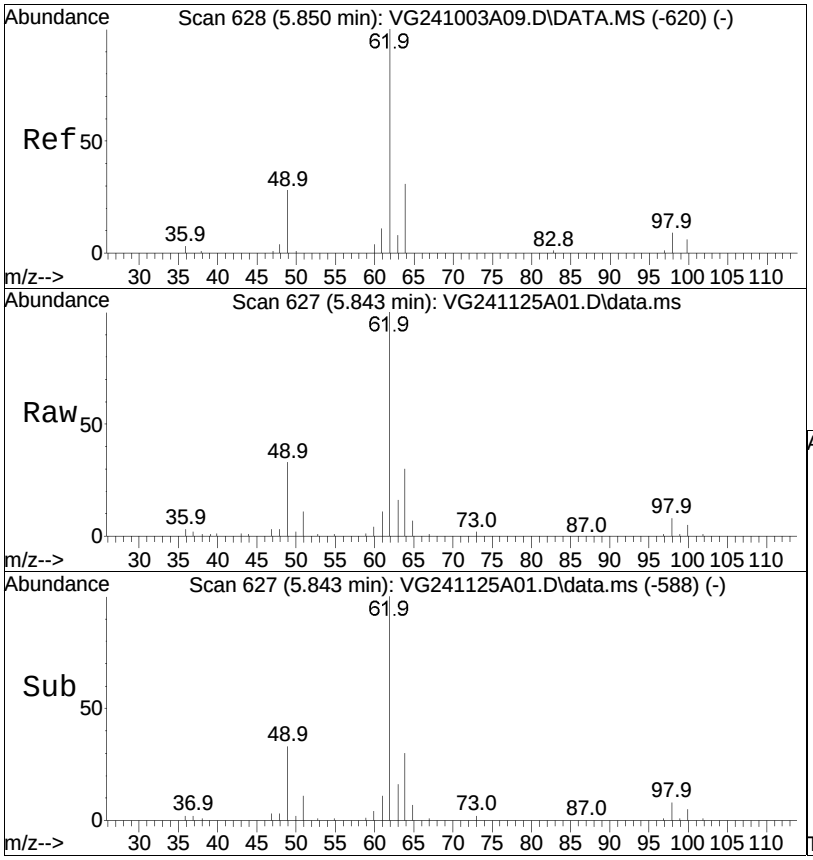


#41
Benzene
Concen: 10.80 ug/L
RT: 5.630 min Scan# 599
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 78 Resp: 504785

Ion	Ratio	Lower	Upper
78	100		
77	23.2	15.5	32.1
51	21.1	9.9	20.7#
52	20.9	9.2	19.2#

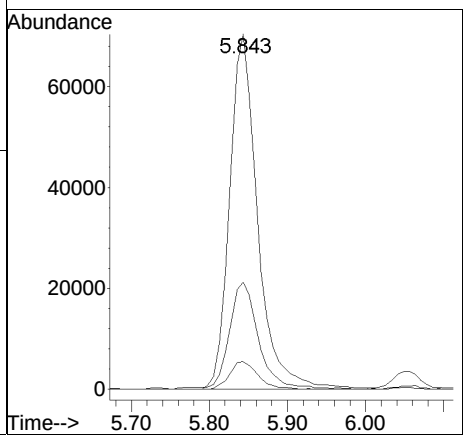


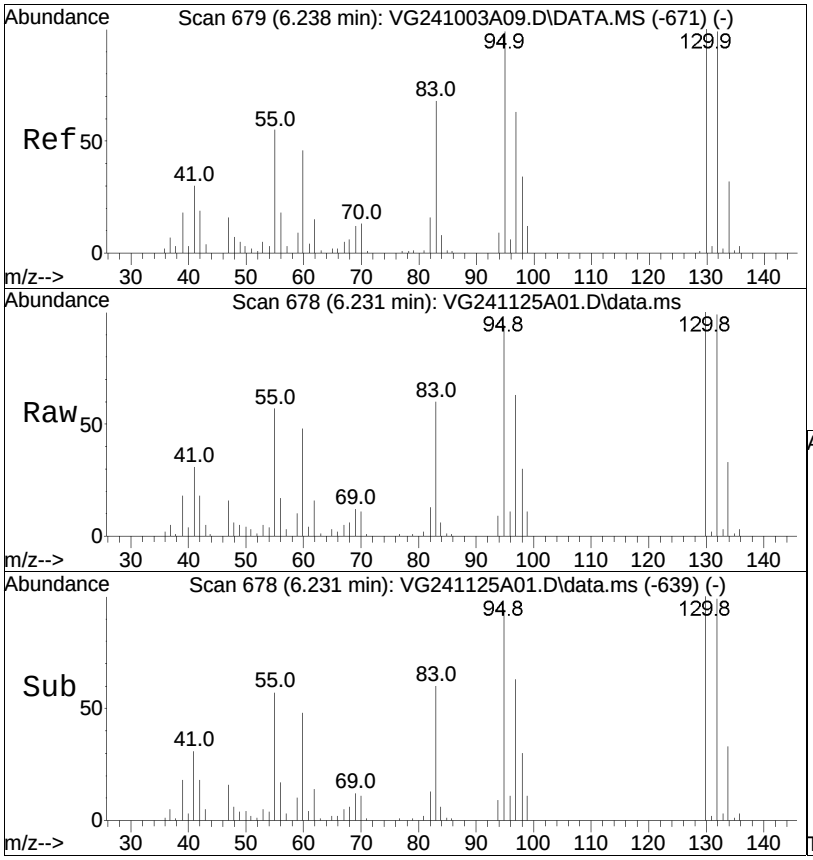


#44
1,2-Dichloroethane
Concen: 11.13 ug/L
RT: 5.843 min Scan# 627
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 62 Resp: 176226

Ion	Ratio	Lower	Upper
62	100		
64	31.9	11.9	51.9
98	8.0	0.0	29.3

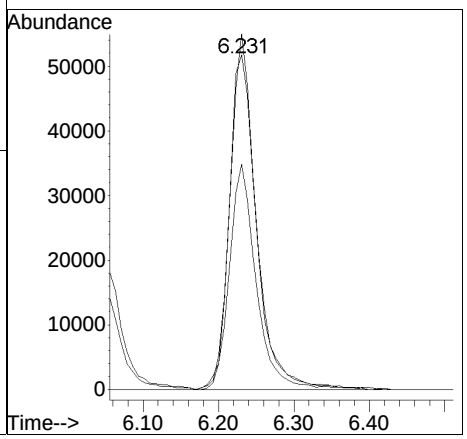


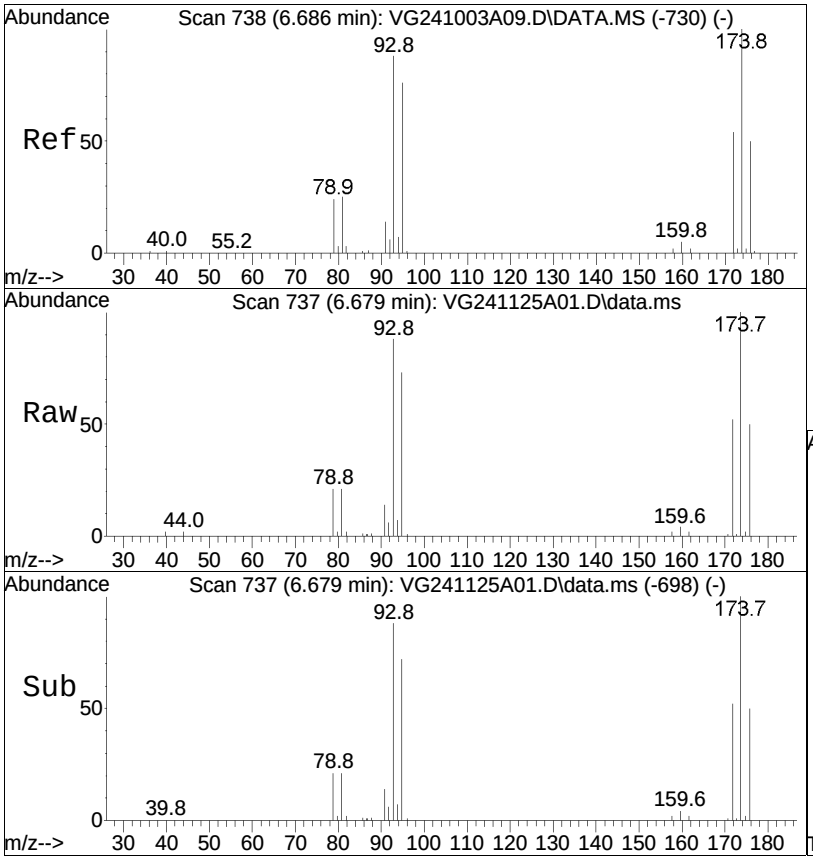


#48
Trichloroethene
Concen: 10.49 ug/L
RT: 6.231 min Scan# 678
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 95 Resp: 131697

Ion	Ratio	Lower	Upper
95	100		
97	65.9	54.0	81.0
130	100.1	85.0	127.4

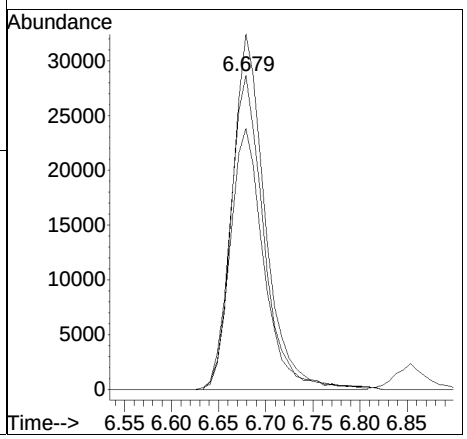


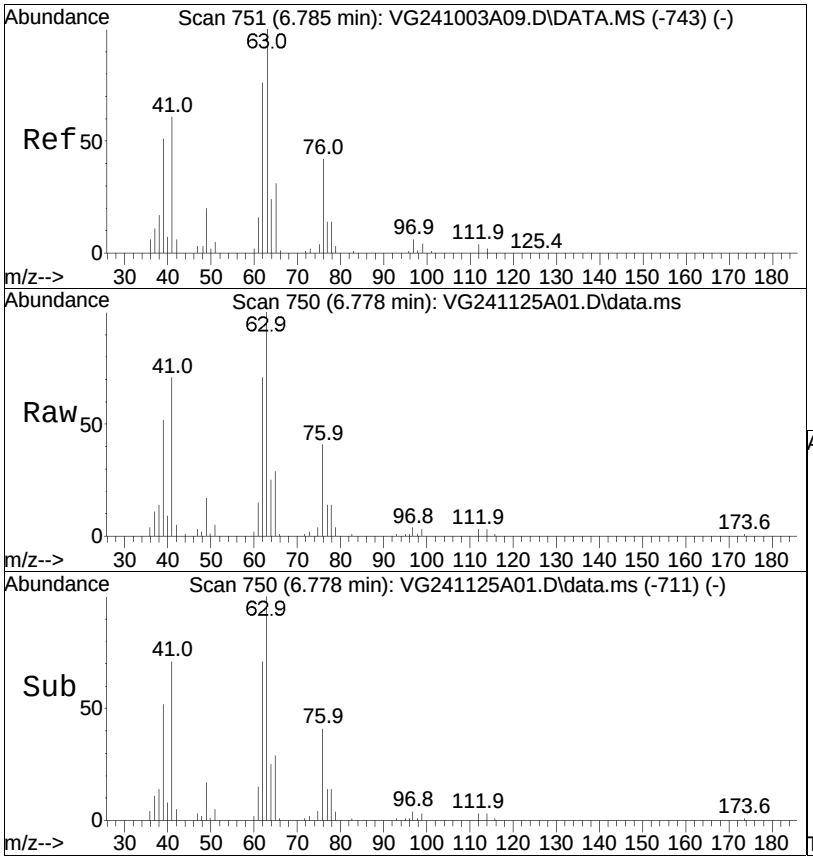


#50
Dibromomethane
Concen: 9.79 ug/L
RT: 6.679 min Scan# 737
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 93 Resp: 69908

Ion	Ratio	Lower	Upper
93	100		
95	85.4	66.6	100.0
174	111.9	90.5	135.7

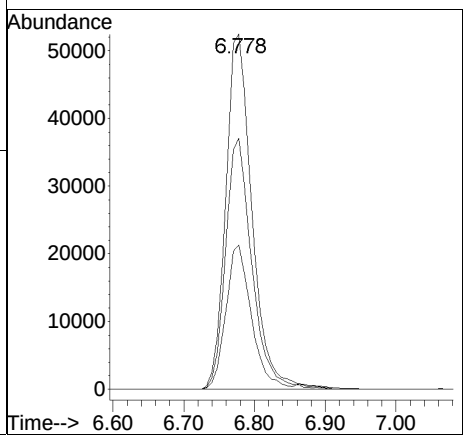


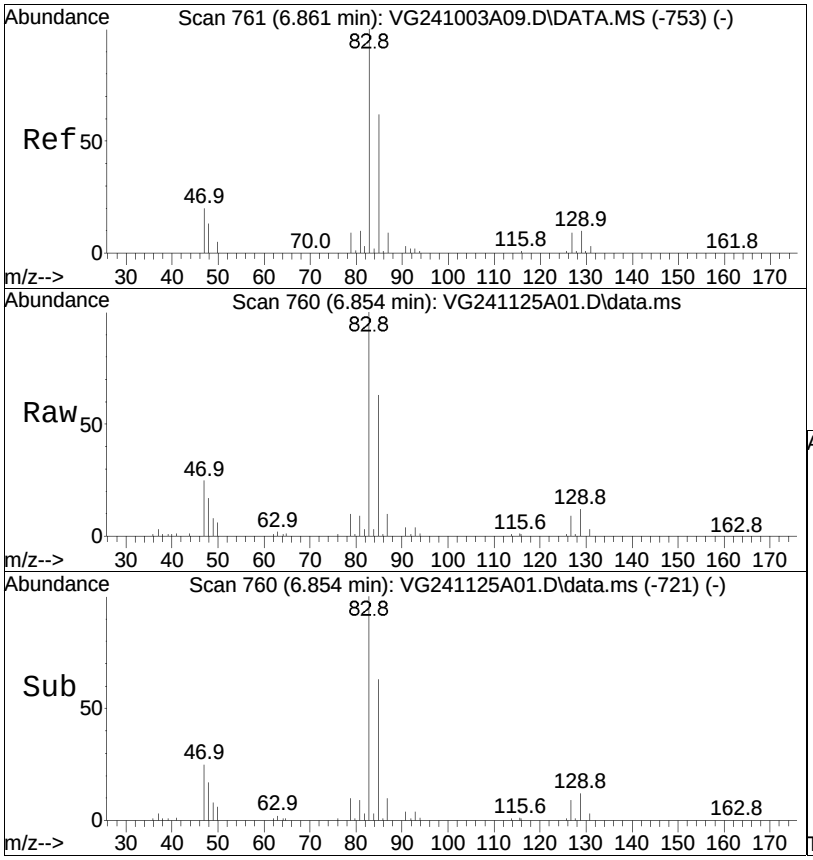


#51
1,2-Dichloropropane
Concen: 11.22 ug/L
RT: 6.778 min Scan# 750
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 63 Resp: 136094

Ion	Ratio	Lower	Upper
63	100		
62	70.8	56.5	84.7
76	39.5	34.6	52.0

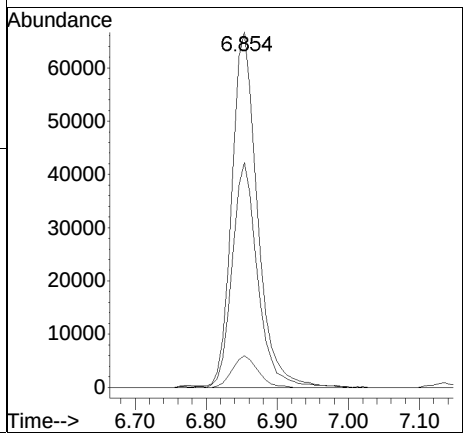


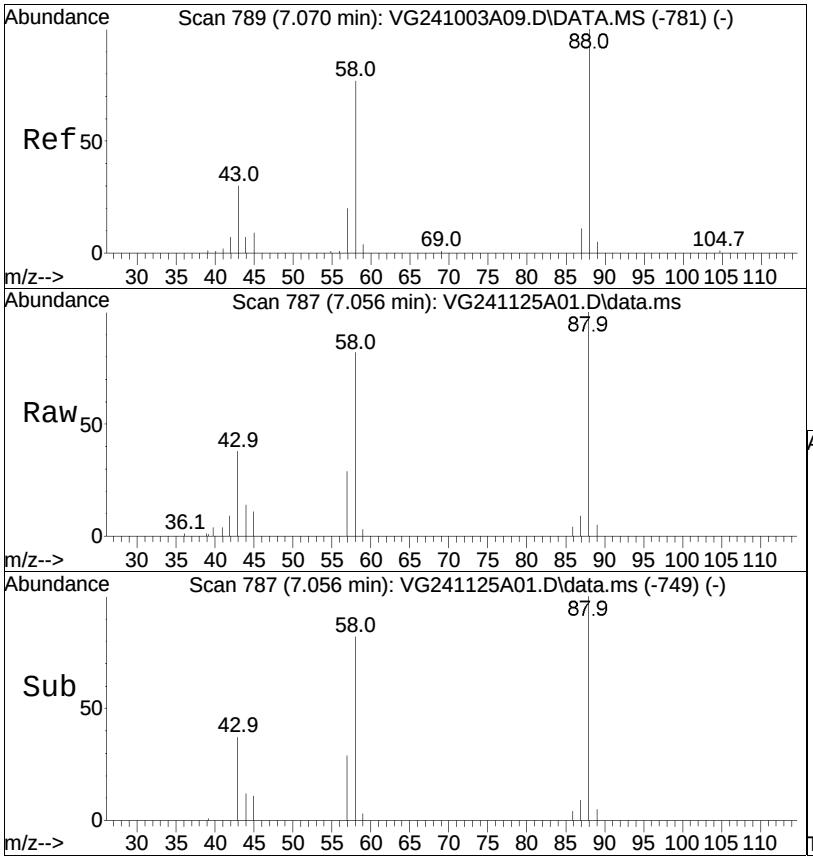


#54
Bromodichloromethane
Concen: 10.19 ug/L
RT: 6.854 min Scan# 760
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 83 Resp: 166751

Ion	Ratio	Lower	Upper
83	100		
85	63.4	50.8	76.2
127	8.9	7.4	11.2

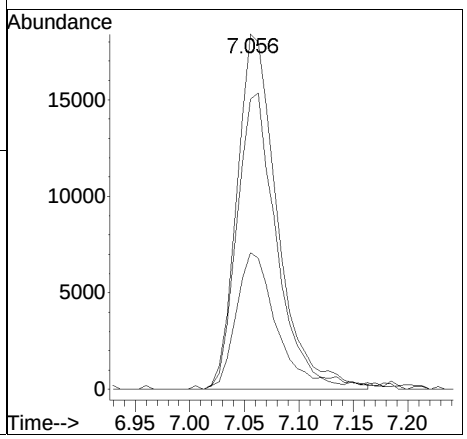


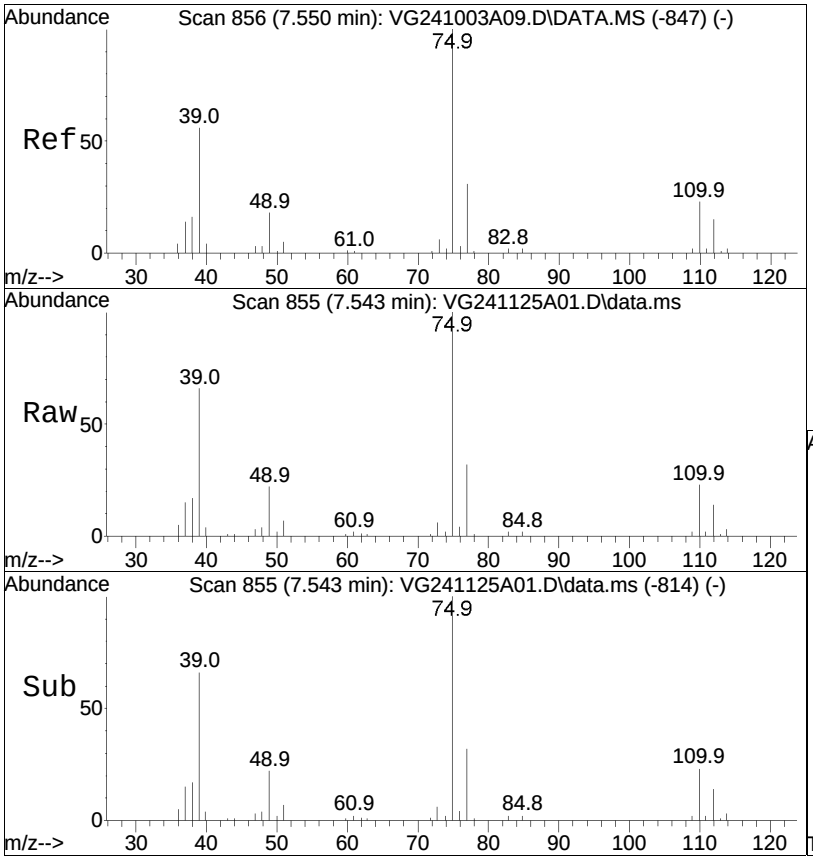


#57
1,4-Dioxane
Concen: 390.84 ug/L
RT: 7.056 min Scan# 787
Delta R.T. -0.014 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 88 Resp: 47653

Ion	Ratio	Lower	Upper
88	100		
58	83.2	48.7	73.1#
43	39.0	22.4	33.6#

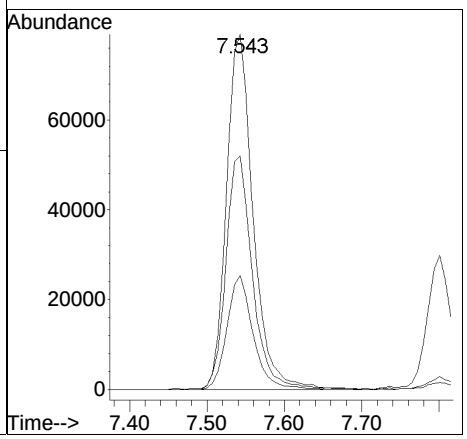


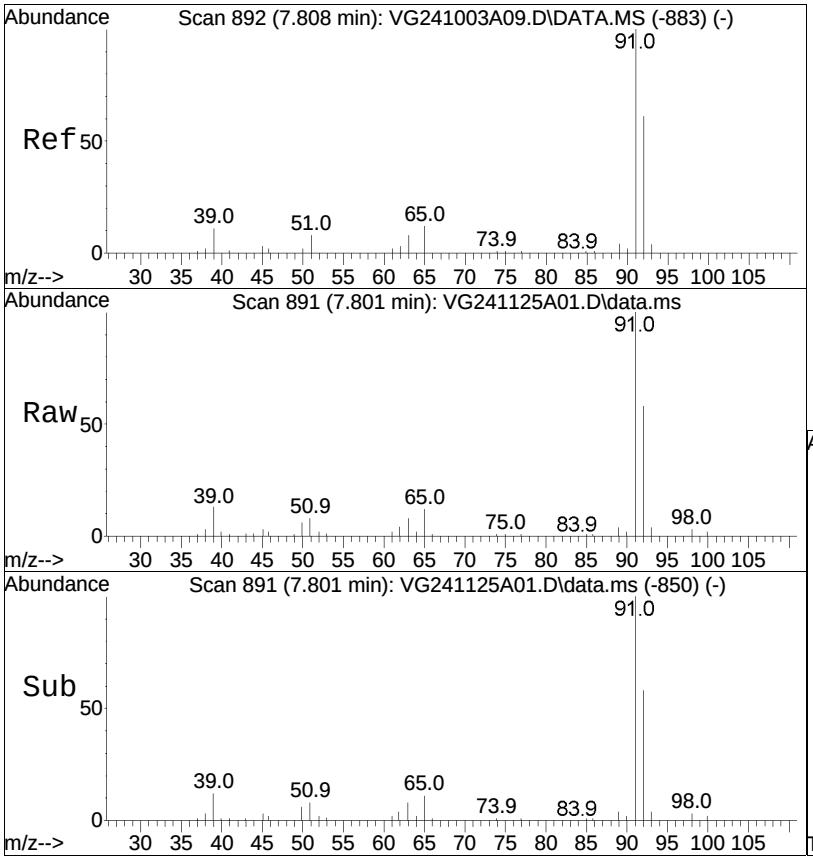


#58
cis-1,3-Dichloropropene
Concen: 10.22 ug/L
RT: 7.543 min Scan# 855
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 75 Resp: 189405

Ion	Ratio	Lower	Upper
75	100		
77	31.4	24.6	36.8
39	65.8	40.8	61.2#

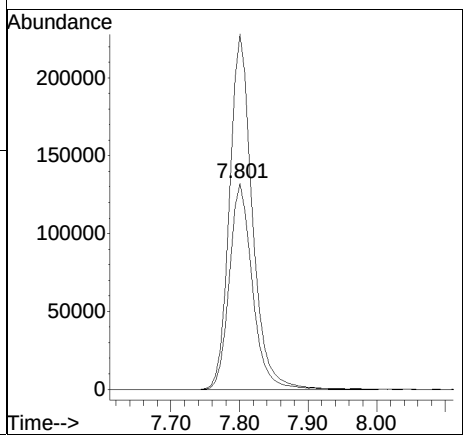


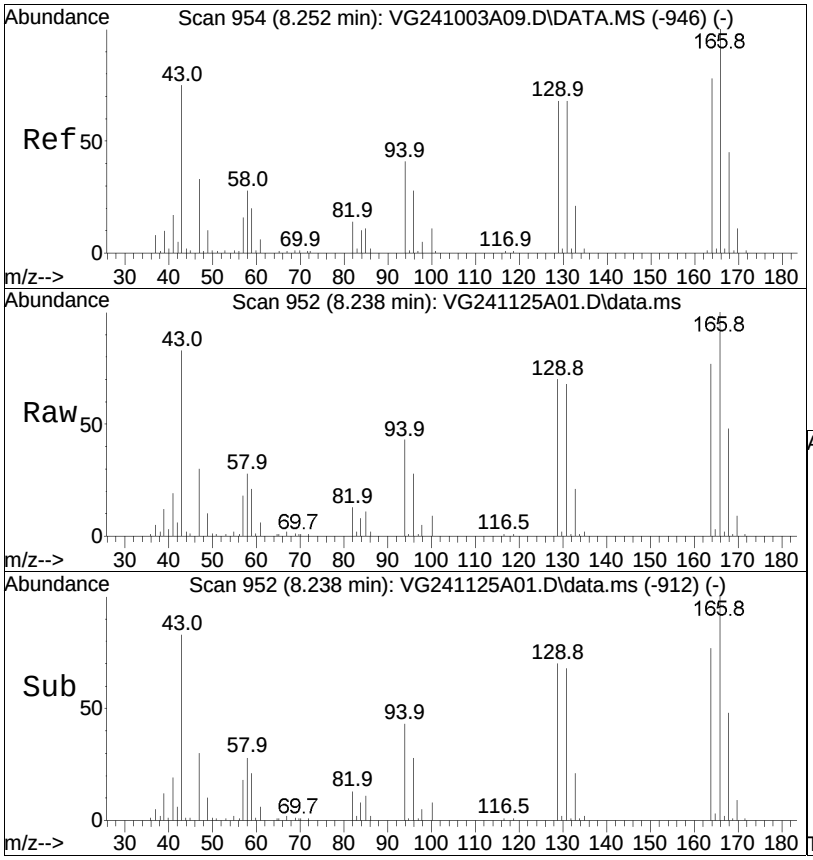


#61
Toluene
Concen: 10.20 ug/L
RT: 7.801 min Scan# 891
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 92 Resp: 309009

Ion	Ratio	Lower	Upper
92	100		
91	170.4	134.8	202.2

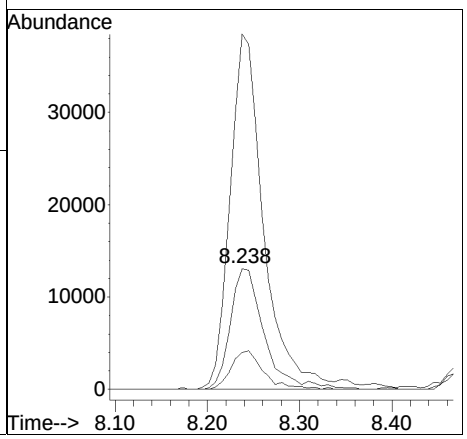


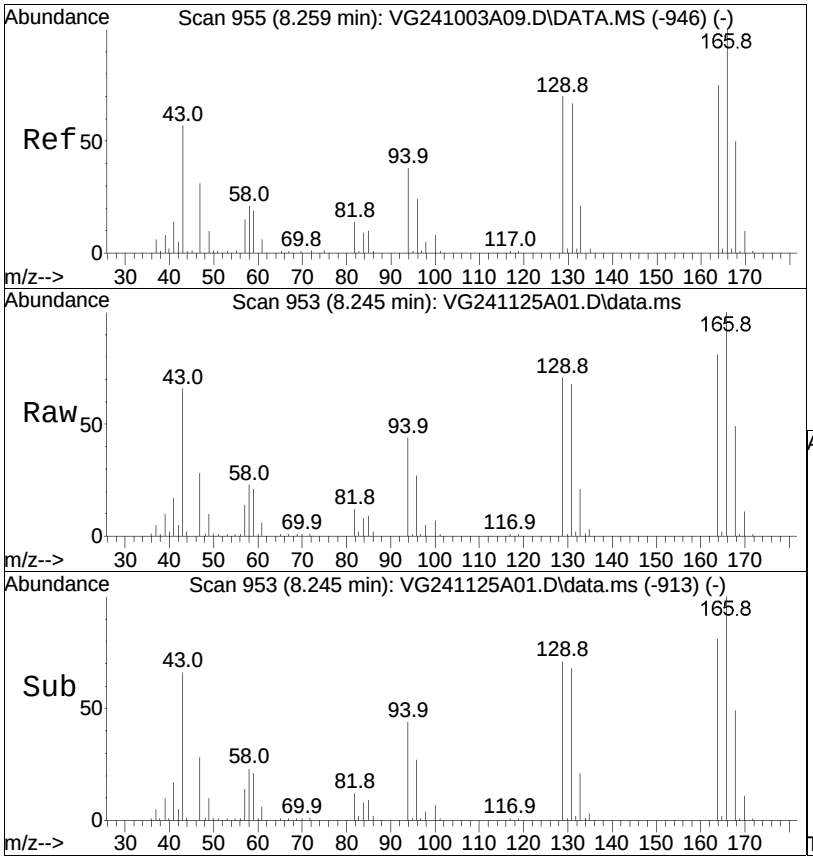


#62
4-Methyl-2-pentanone
Concen: 7.90 ug/L
RT: 8.238 min Scan# 952
Delta R.T. -0.014 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 58 Resp: 33526

Ion	Ratio	Lower	Upper
58	100		
100	31.1	33.6	50.4#
43	289.5	204.3	306.5

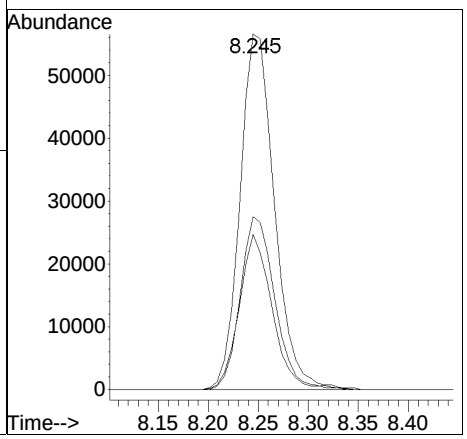


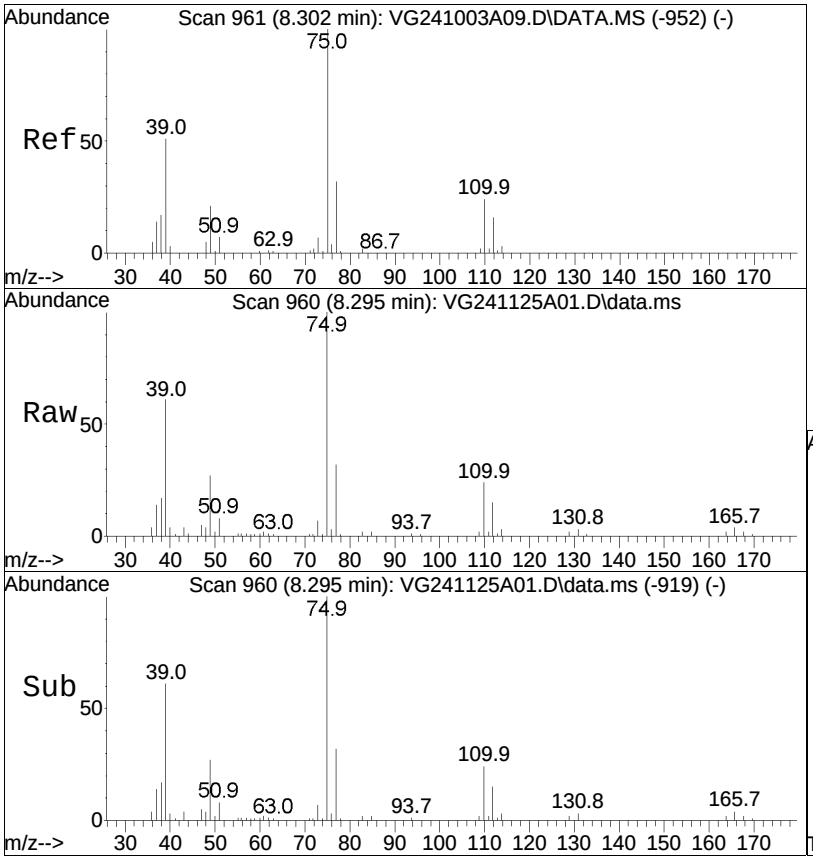


#63
Tetrachloroethene
Concen: 10.35 ug/L
RT: 8.245 min Scan# 953
Delta R.T. -0.014 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:166 Resp: 135636

Ion	Ratio	Lower	Upper
166	100		
168	48.4	27.3	67.3
94	41.6	20.5	60.5

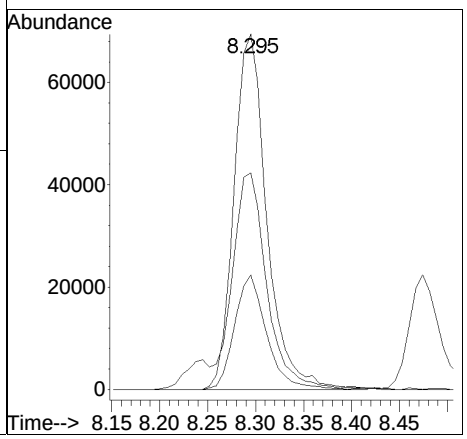


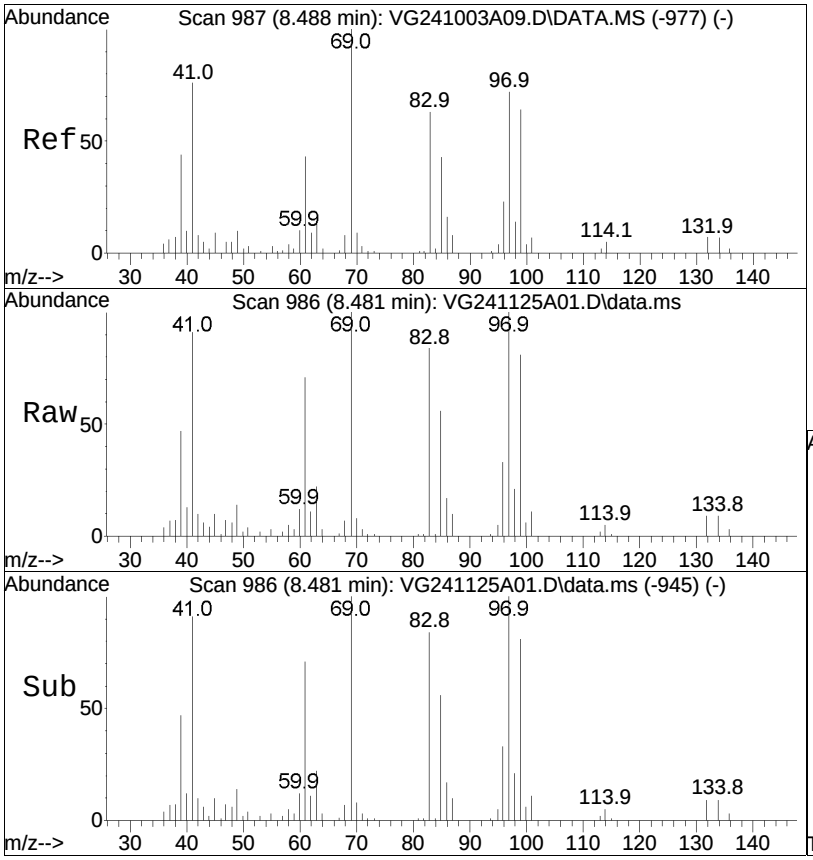


#65
trans-1,3-Dichloropropene
Concen: 9.35 ug/L
RT: 8.295 min Scan# 960
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 75 Resp: 165199

Ion	Ratio	Lower	Upper
75	100		
77	31.3	11.3	51.3
39	69.8	36.0	76.0

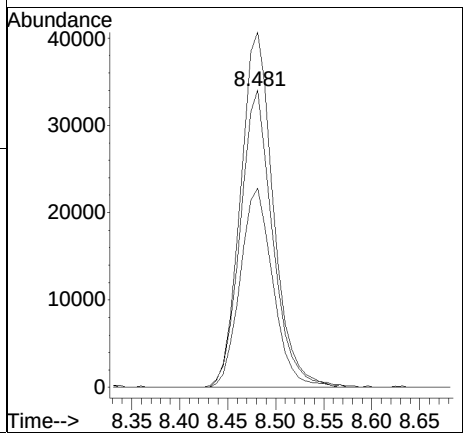


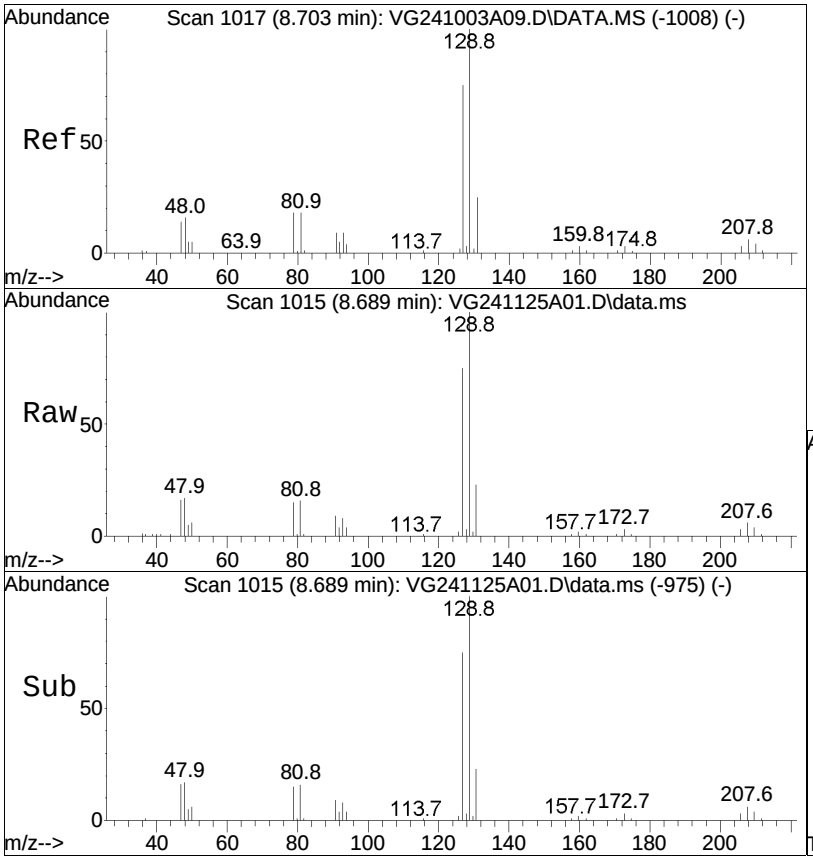


#68
1,1,2-Trichloroethane
Concen: 8.69 ug/L
RT: 8.481 min Scan# 986
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 83 Resp: 80085

Ion	Ratio	Lower	Upper
83	100		
97	121.1	101.0	141.0
85	67.8	47.9	87.9

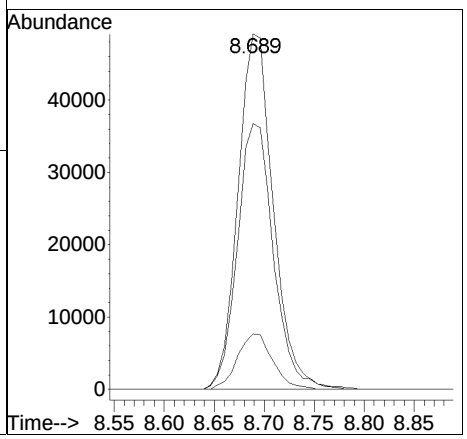


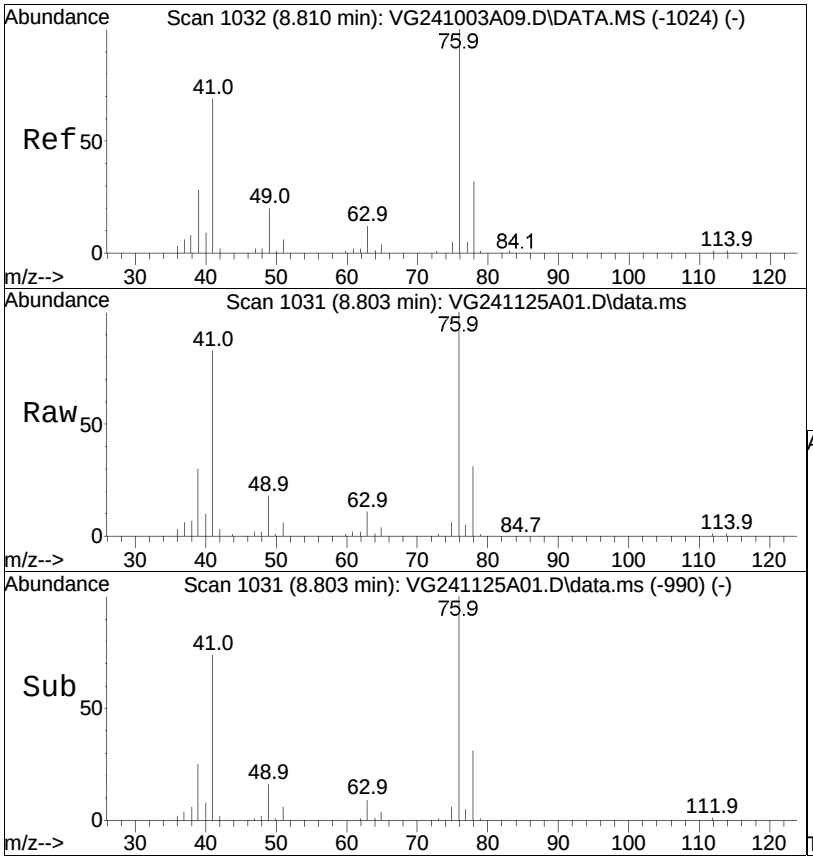


#69
Chlorodibromomethane
Concen: 9.46 ug/L
RT: 8.689 min Scan# 1015
Delta R.T. -0.014 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:129 Resp: 120622

Ion	Ratio	Lower	Upper
129	100		
81	15.6	0.0	35.0
127	76.4	57.1	97.1

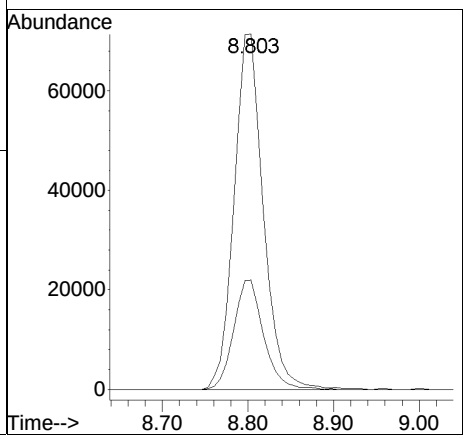


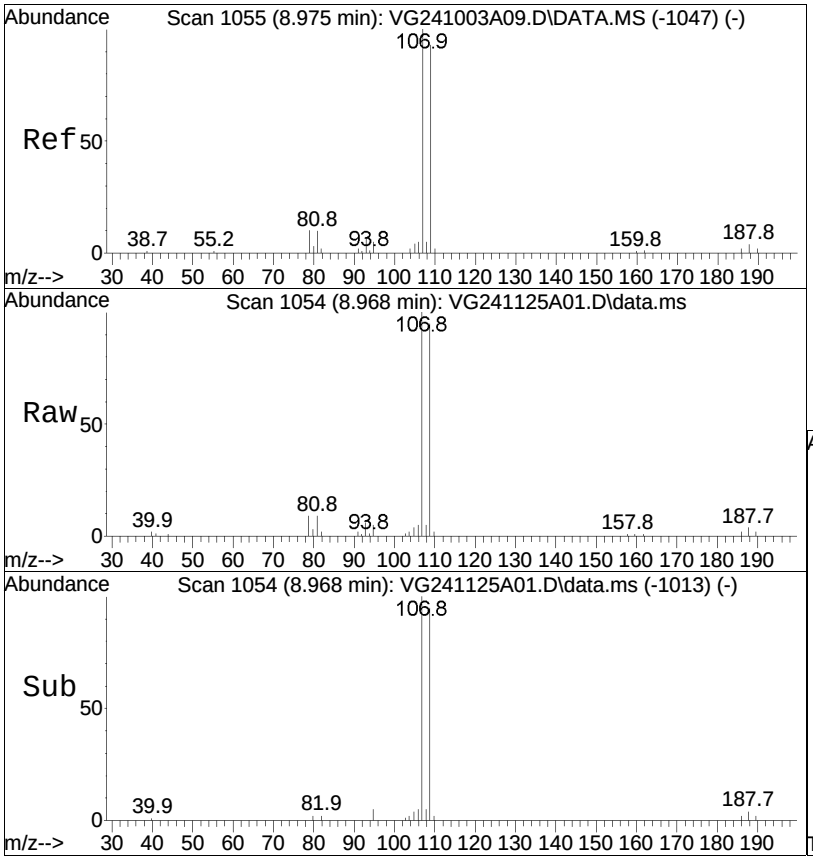


#70
1,3-Dichloropropane
Concen: 9.26 ug/L
RT: 8.803 min Scan# 1031
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 76 Resp: 169473

Ion	Ratio	Lower	Upper
76	100		
78	31.4	25.4	38.2

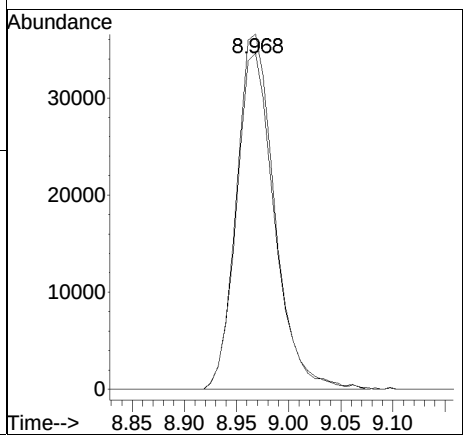


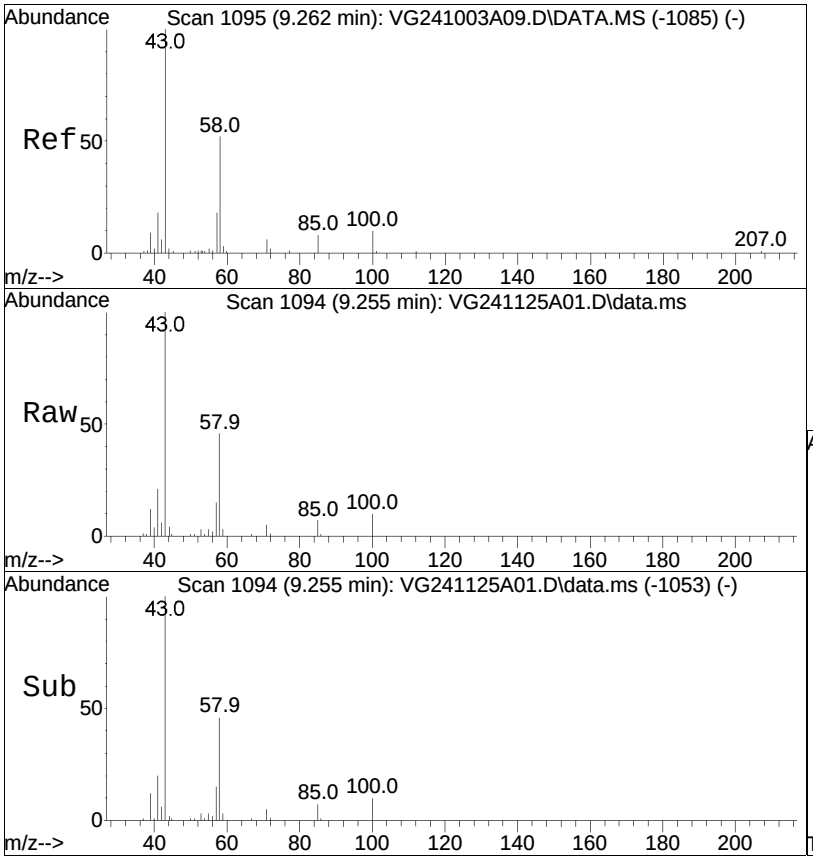


#71
1,2-Dibromoethane
Concen: 8.57 ug/L
RT: 8.968 min Scan# 1054
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:107 Resp: 93446

Ion	Ratio	Lower	Upper
107	100		
109	94.5	76.0	114.0

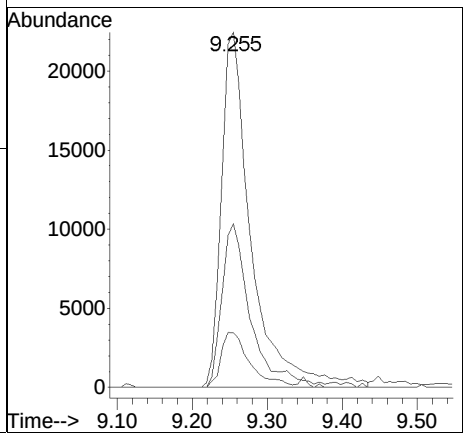


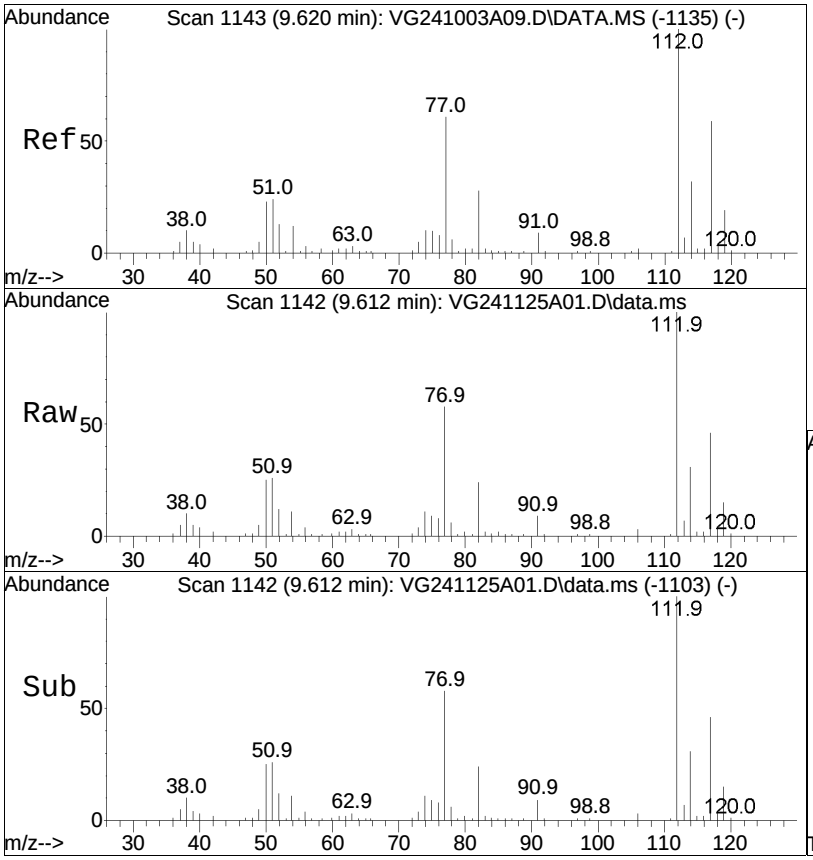


#72
2-Hexanone
Concen: 8.20 ug/L
RT: 9.255 min Scan# 1094
Delta R.T. -0.007 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 43 Resp: 62279

Ion	Ratio	Lower	Upper
43	100		
58	44.4	43.8	65.6
57	15.0	15.2	22.8#

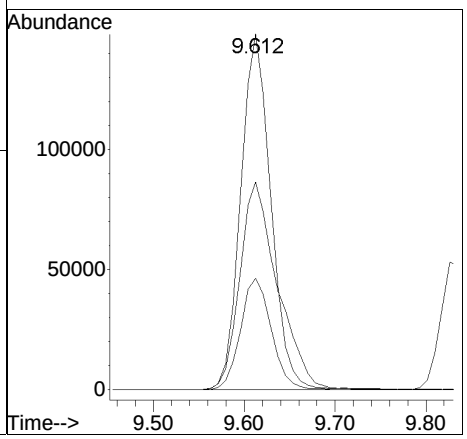


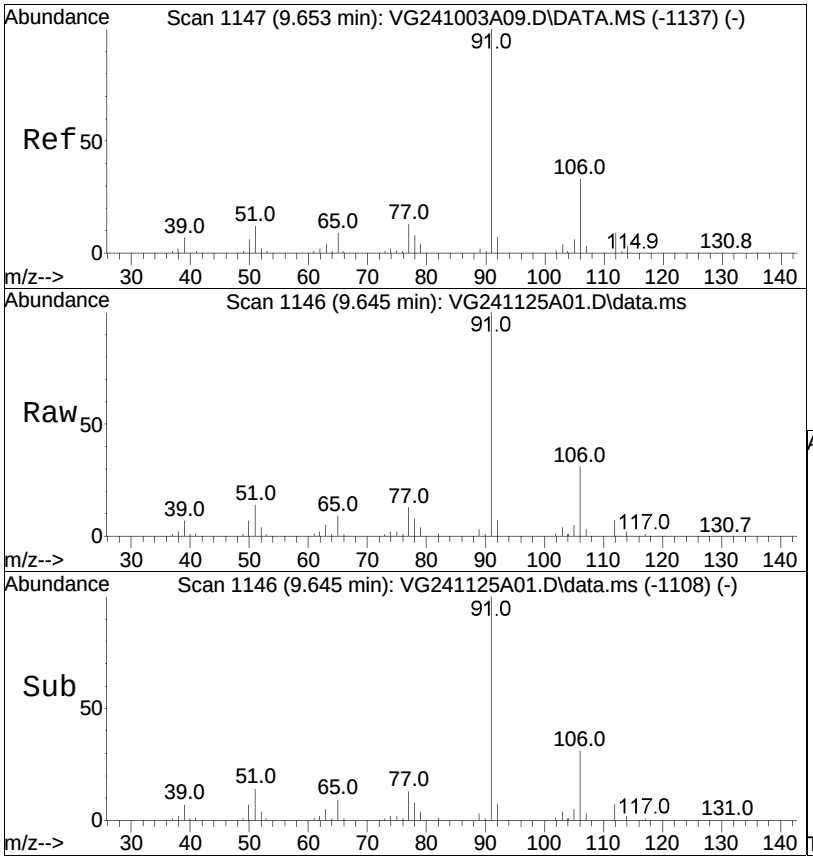


#73
Chlorobenzene
Concen: 10.45 ug/L
RT: 9.612 min Scan# 1142
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:112 Resp: 340209

Ion	Ratio	Lower	Upper
112	100		
77	73.2	55.9	83.9
114	31.9	25.4	38.0

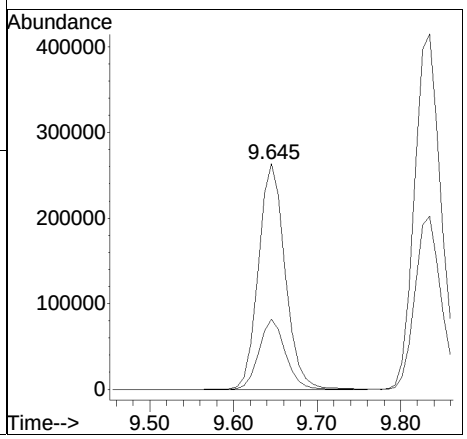


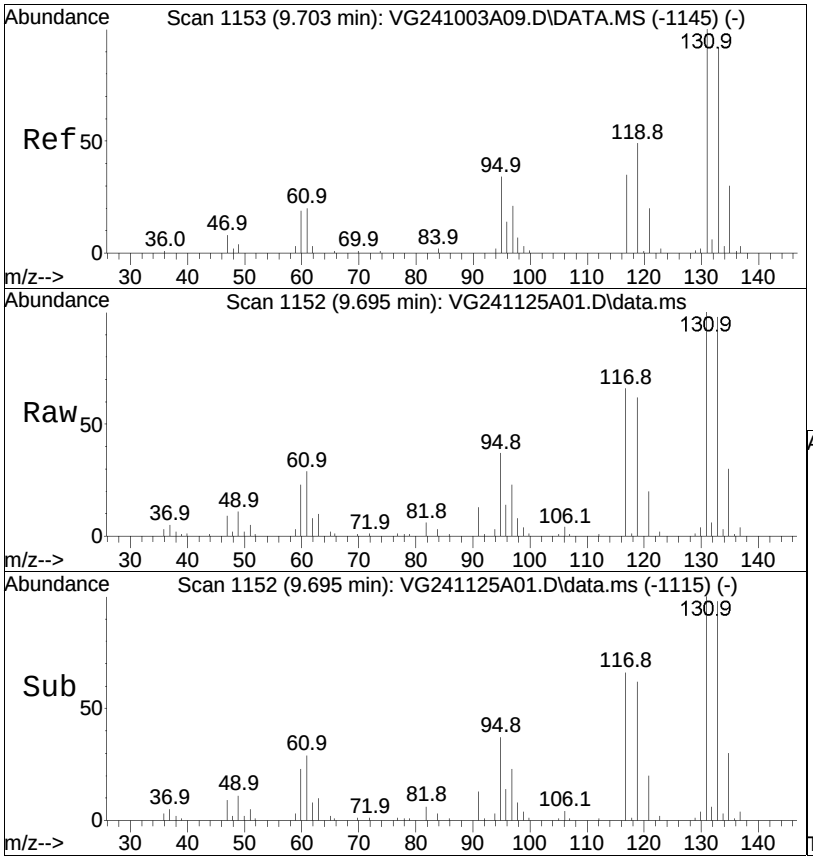


#74
Ethylbenzene
Concen: 10.05 ug/L
RT: 9.645 min Scan# 1146
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 91 Resp: 585038

Ion	Ratio	Lower	Upper
91	100		
106	30.7	25.3	37.9

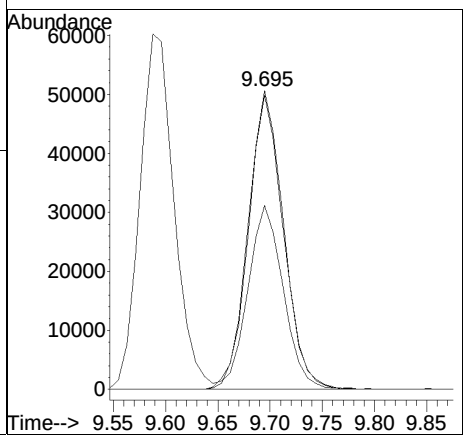


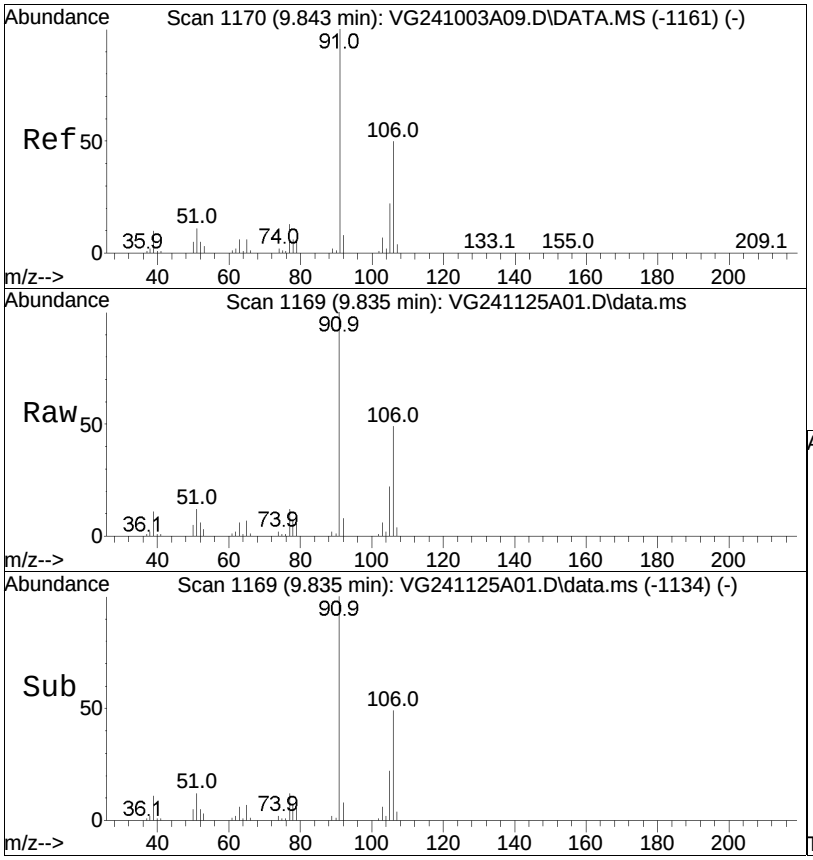


#75
1,1,1,2-Tetrachloroethane
Concen: 9.59 ug/L
RT: 9.695 min Scan# 1152
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:131 Resp: 119606

Ion	Ratio	Lower	Upper
131	100		
133	97.2	77.3	117.3
119	61.7	42.7	82.7

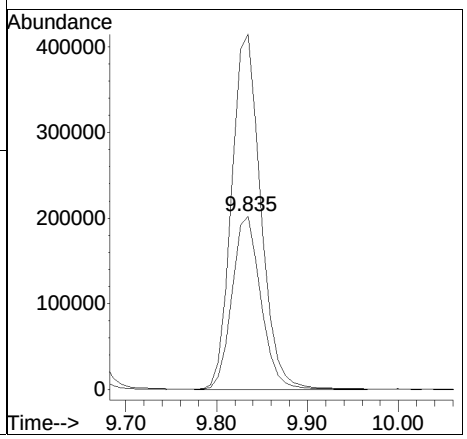


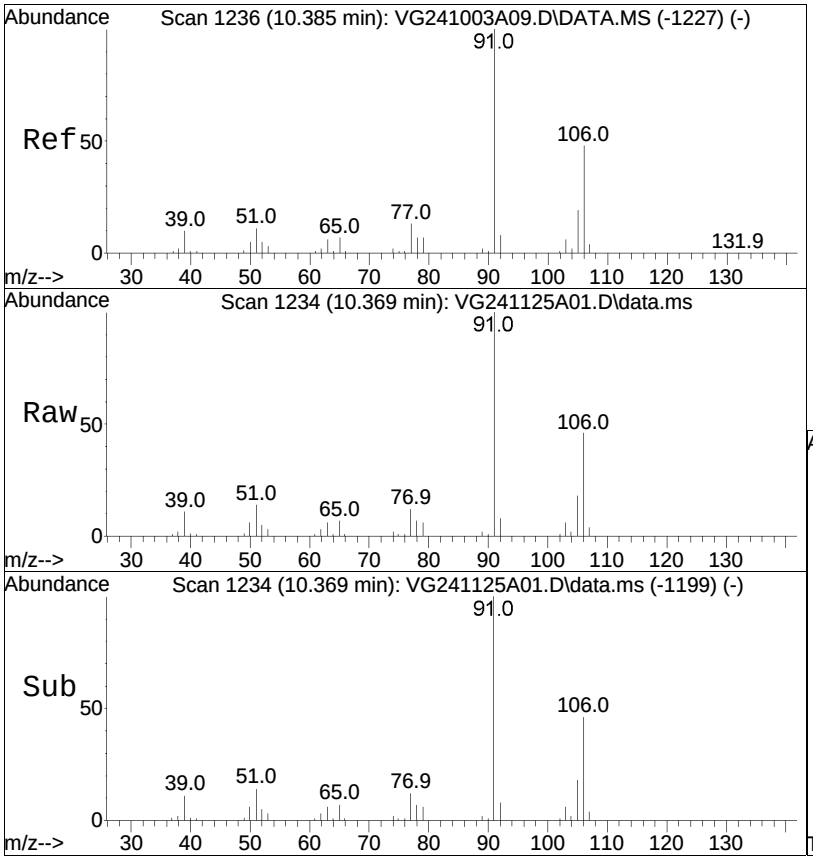


#76
p/m Xylene
Concen: 20.17 ug/L
RT: 9.835 min Scan# 1169
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:106 Resp: 446782

Ion	Ratio	Lower	Upper
106	100		
91	206.8	157.1	235.7

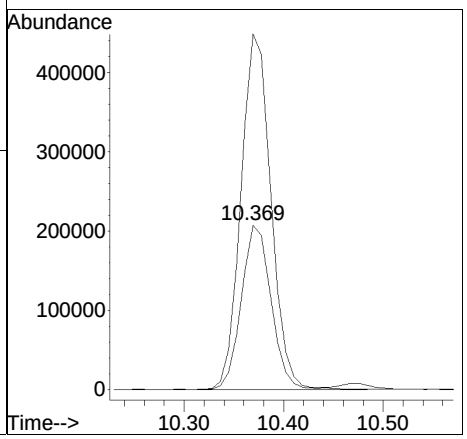


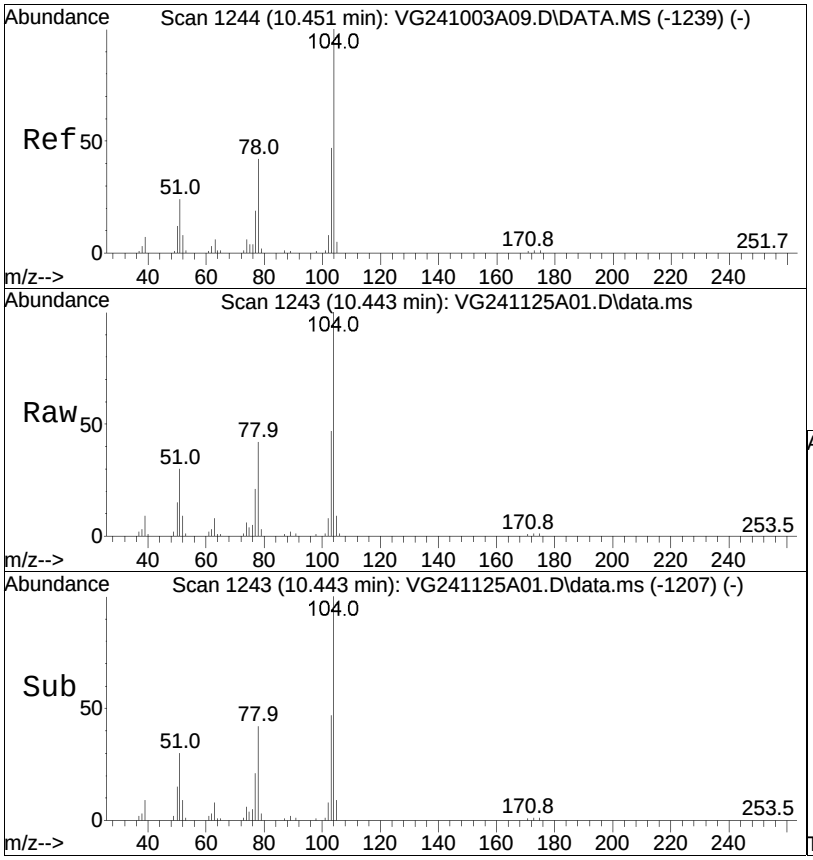


#77
o Xylene
Concen: 20.07 ug/L
RT: 10.369 min Scan# 1234
Delta R.T. -0.016 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:106 Resp: 430660

Ion	Ratio	Lower	Upper
106	100		
91	217.3	164.7	247.1

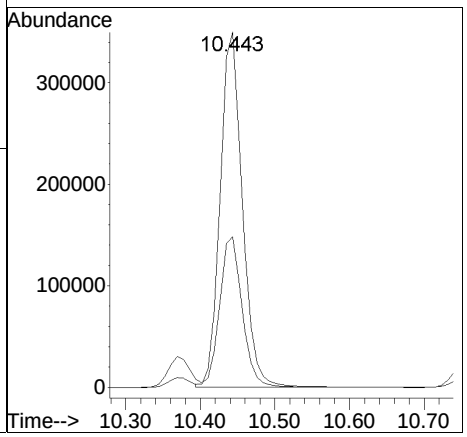


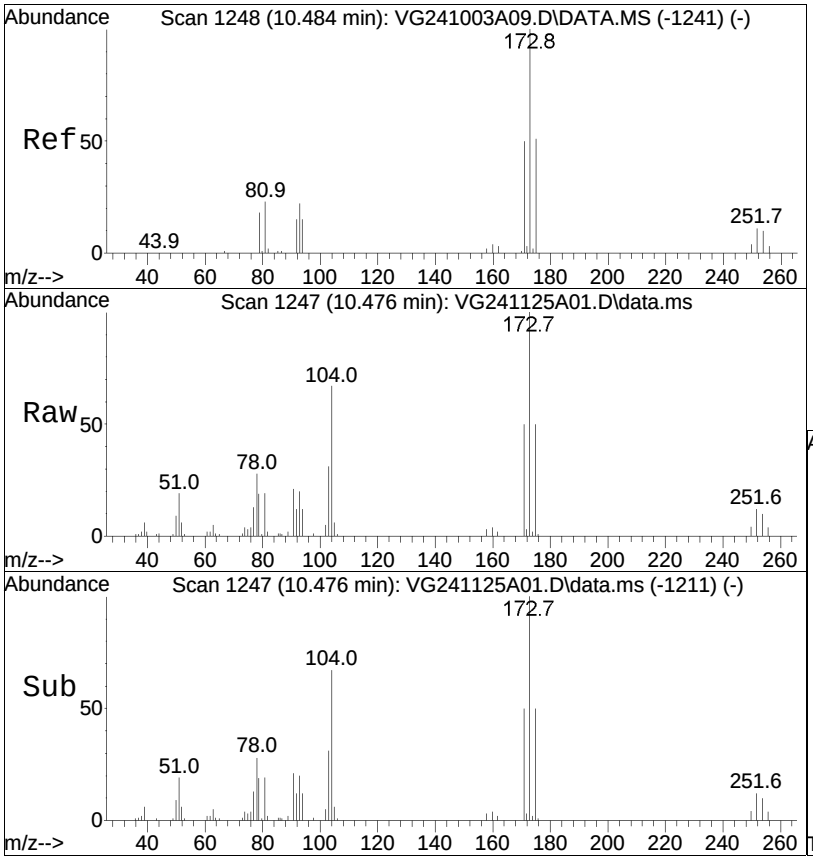


#78
Styrene
Concen: 19.78 ug/L
RT: 10.443 min Scan# 1243
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:104 Resp: 722352

Ion	Ratio	Lower	Upper
104	100		
78	42.7	32.2	48.4

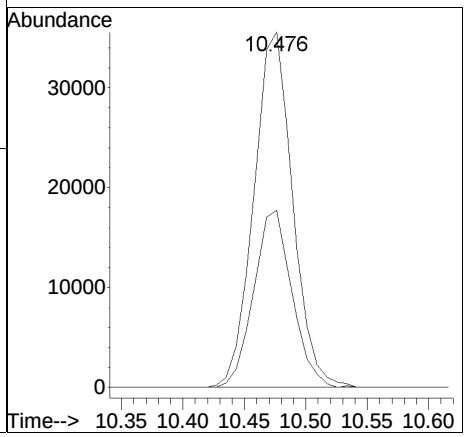


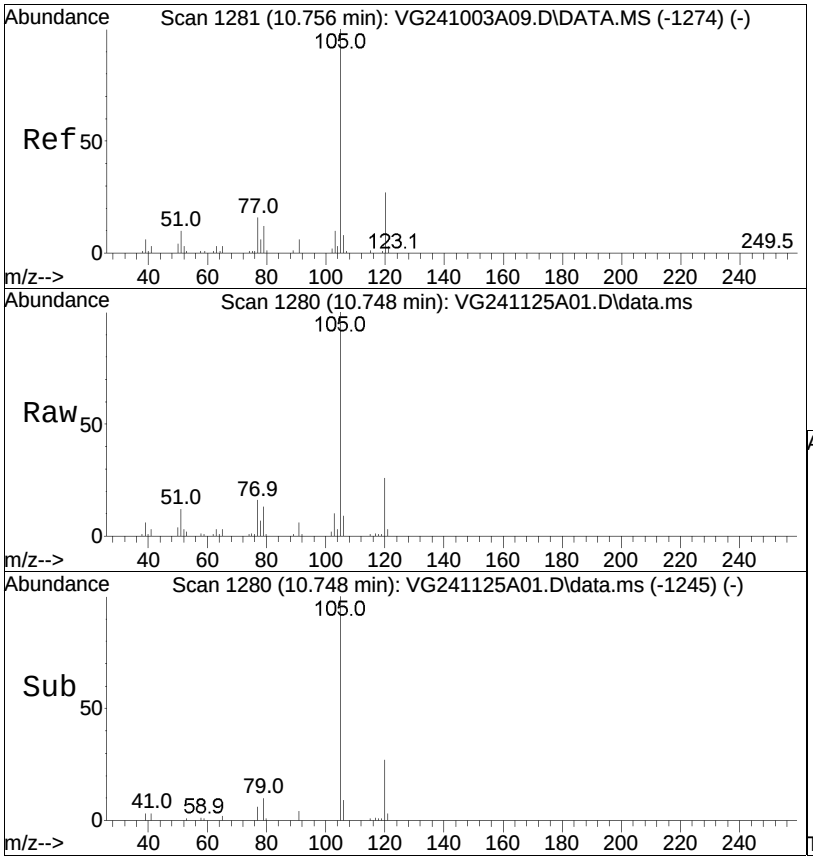


#80
Bromoform
Concen: 8.76 ug/L
RT: 10.476 min Scan# 1247
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:173 Resp: 78235

Ion	Ratio	Lower	Upper
173	100		
175	49.2	28.0	68.0

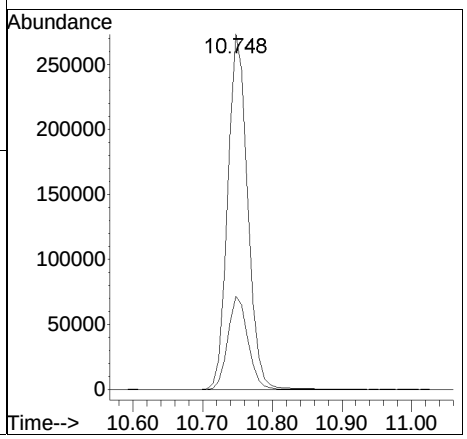


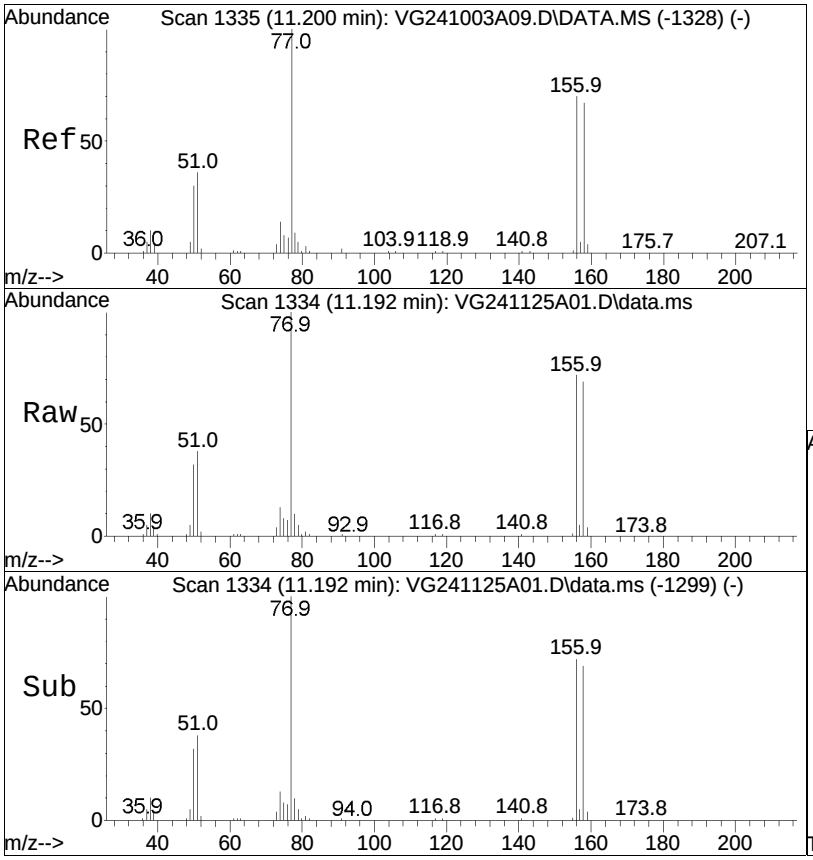


#82
Isopropylbenzene
Concen: 9.87 ug/L
RT: 10.748 min Scan# 1280
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:105 Resp: 542311

Ion	Ratio	Lower	Upper
105	100		
120	26.5	7.0	47.0

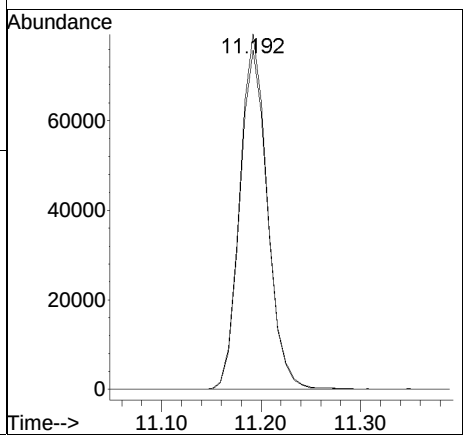


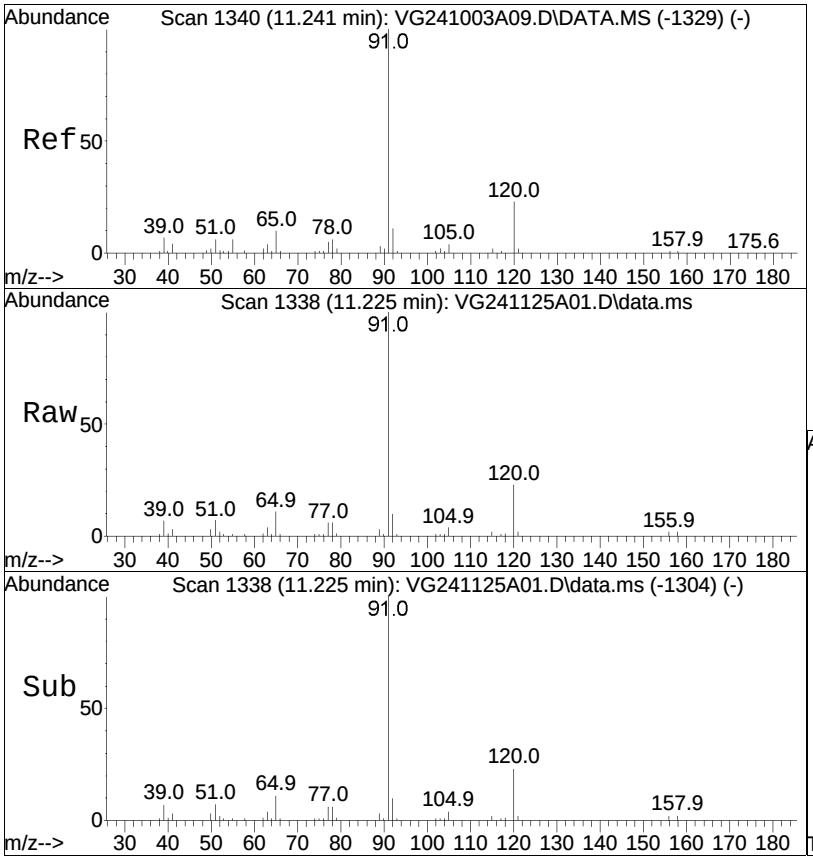


#84
Bromobenzene
Concen: 10.31 ug/L
RT: 11.192 min Scan# 1334
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:156 Resp: 153401

Ion	Ratio	Lower	Upper
156	100		
158	95.6	76.9	115.3

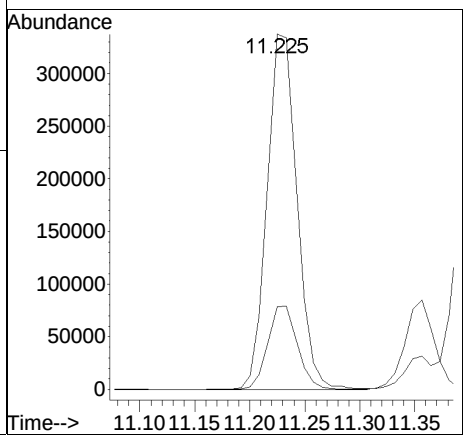


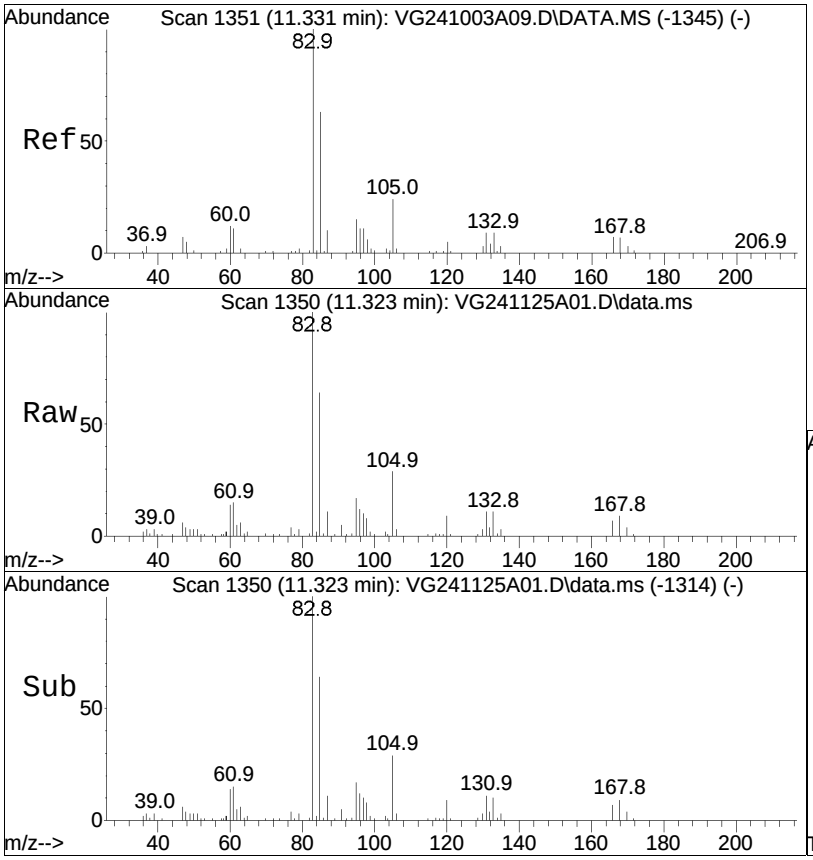


#85
n-Propylbenzene
Concen: 10.01 ug/L
RT: 11.225 min Scan# 1338
Delta R.T. -0.016 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 91 Resp: 640179

Ion	Ratio	Lower	Upper
91	100		
120	23.2	19.0	28.6

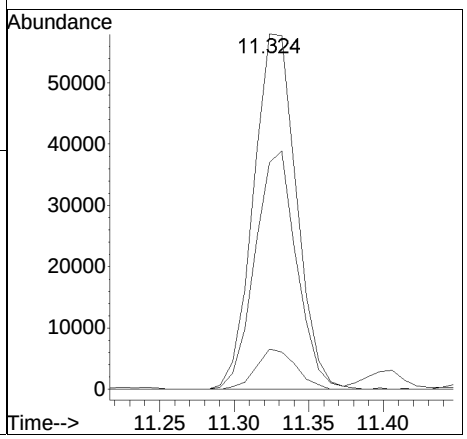


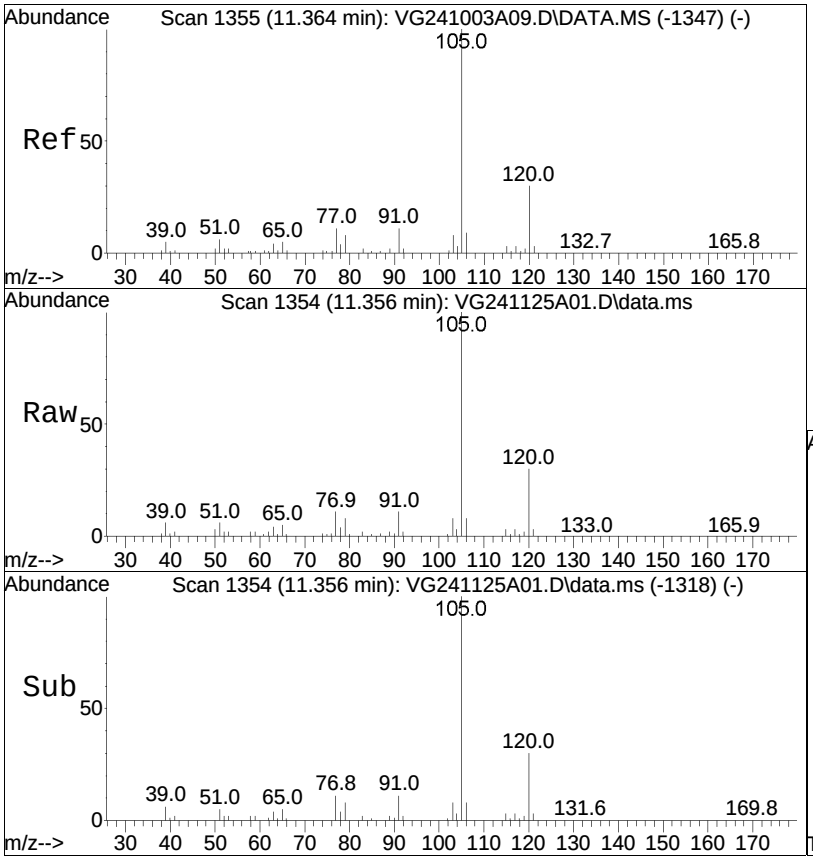


#87
1,1,2,2-Tetrachloroethane
Concen: 8.33 ug/L
RT: 11.323 min Scan# 1350
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 83 Resp: 115889

Ion	Ratio	Lower	Upper
83	100		
131	10.6	0.0	31.0
85	65.1	43.9	83.9

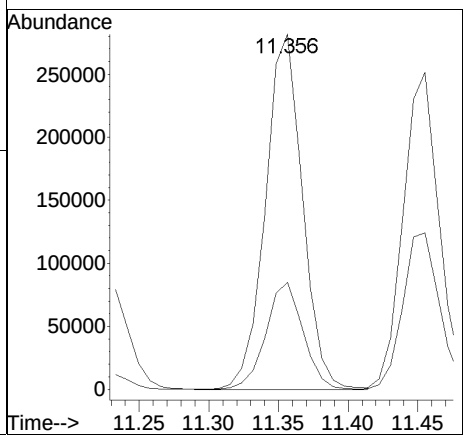


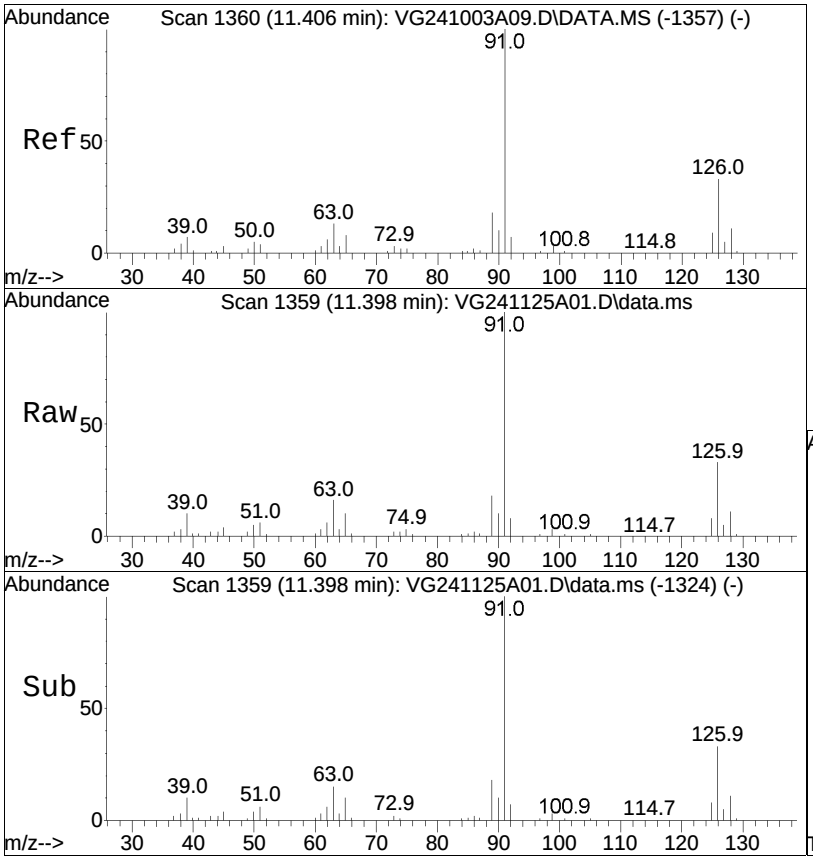


#88
4-Ethyltoluene
Concen: 9.95 ug/L
RT: 11.356 min Scan# 1354
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:105 Resp: 521472

Ion	Ratio	Lower	Upper
105	100		
120	30.1	19.9	41.3

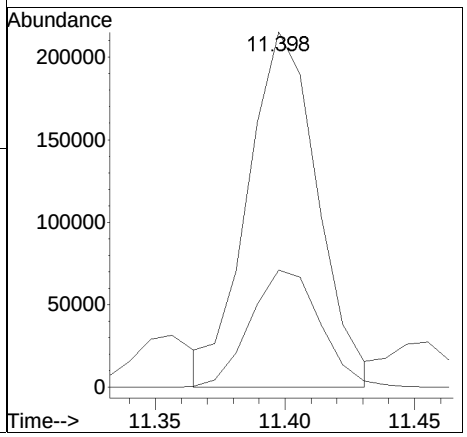


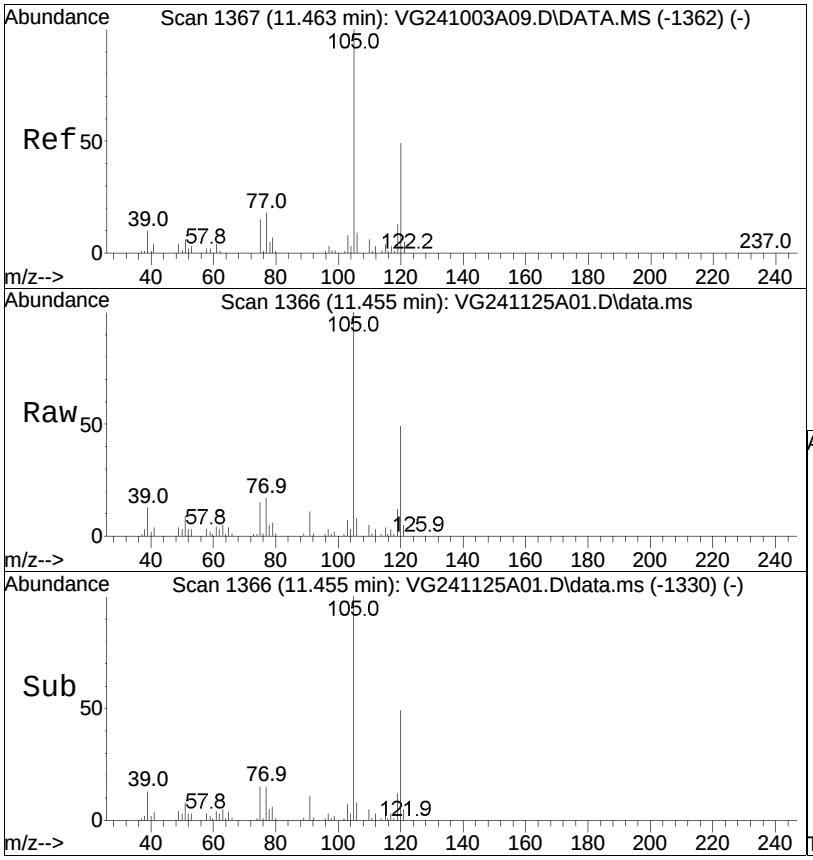


#89
2-Chlorotoluene
Concen: 10.36 ug/L M6
RT: 11.398 min Scan# 1359
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 91 Resp: 404351

Ion	Ratio	Lower	Upper
91	100		
126	33.3	27.4	41.2

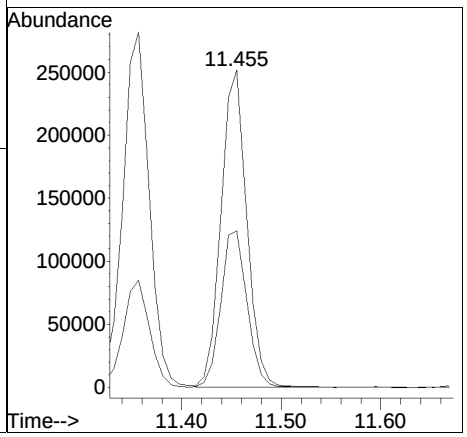


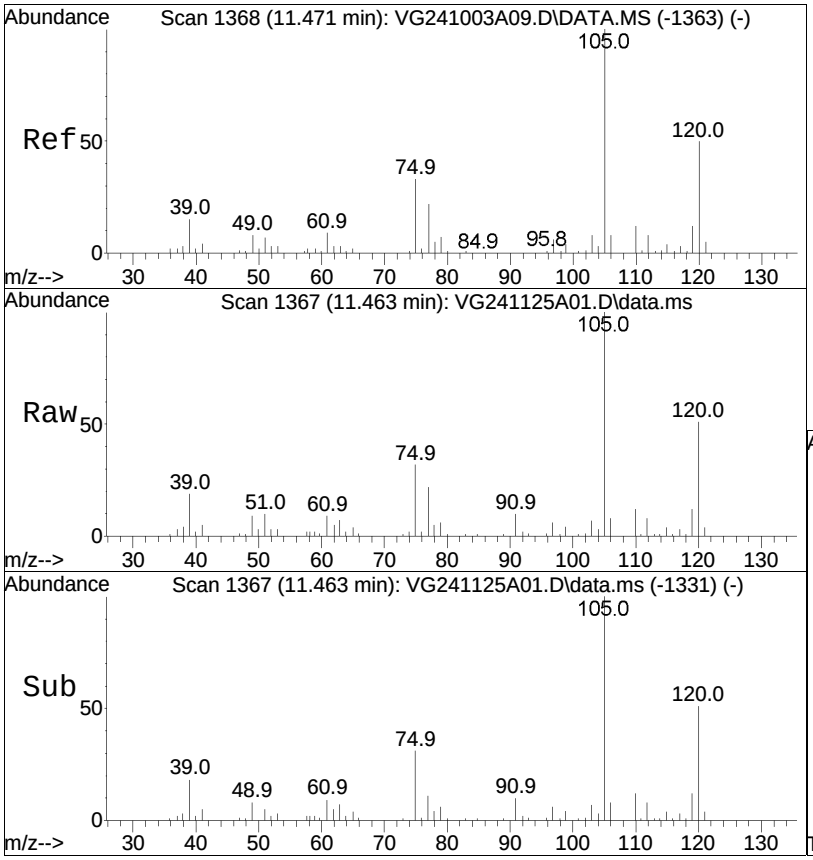


#90
1,3,5-Trimethylbenzene
Concen: 9.73 ug/L
RT: 11.455 min Scan# 1366
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:105 Resp: 451145

Ion	Ratio	Lower	Upper
105	100		
120	50.1	40.3	60.5

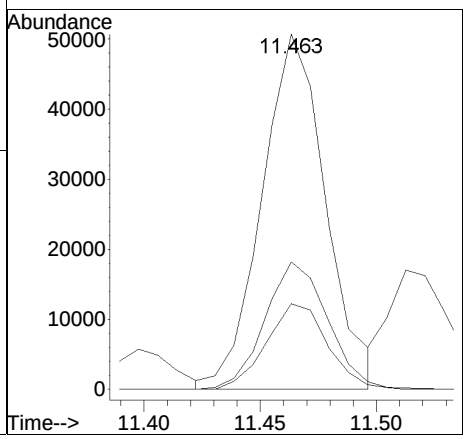


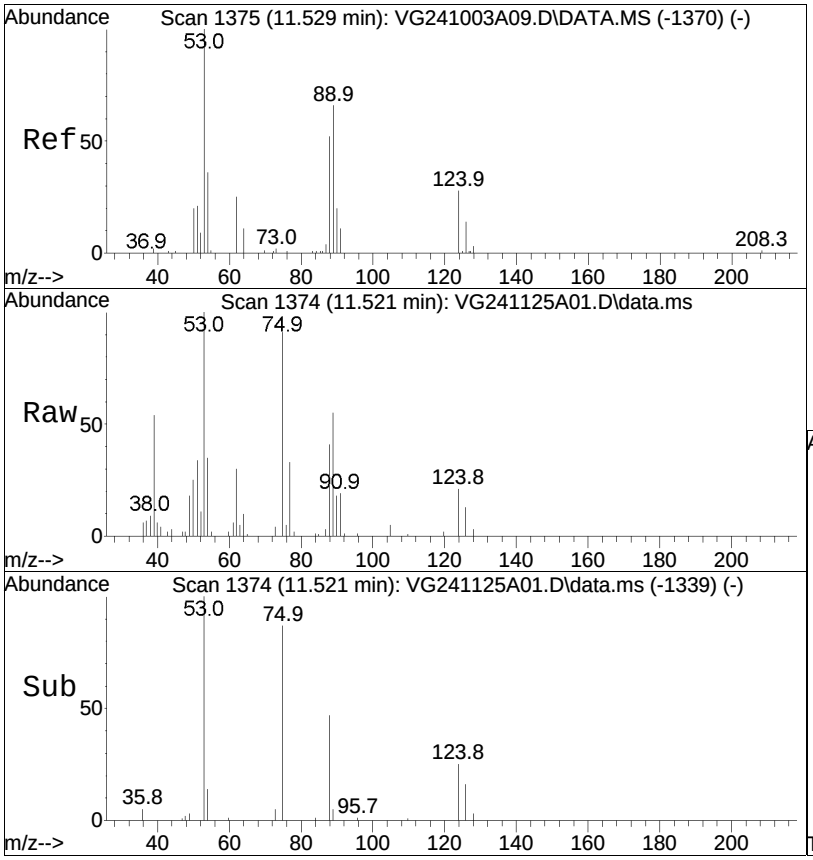


#91
1,2,3-Trichloropropane
Concen: 8.53 ug/L
RT: 11.463 min Scan# 1367
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 75 Resp: 96949

Ion	Ratio	Lower	Upper
75	100		
110	35.2	23.5	48.9
112	23.1	15.9	32.9

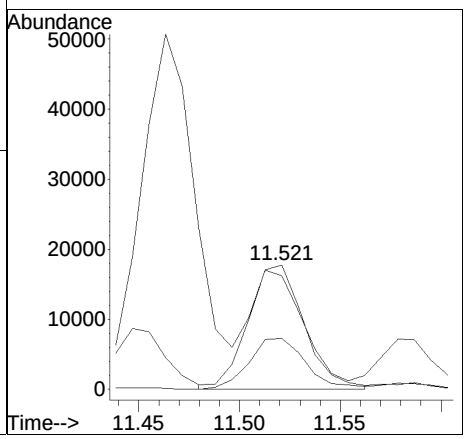


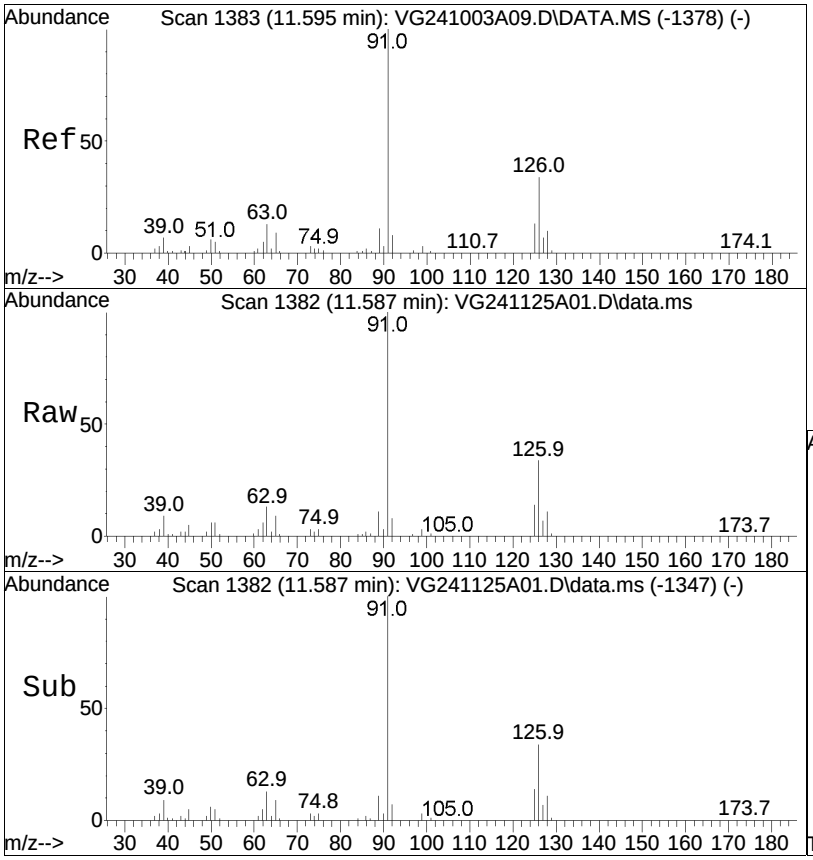


#92
trans-1,4-Dichloro-2-butene
Concen: 7.48 ug/L M1
RT: 11.521 min Scan# 1374
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 53 Resp: 34283

Ion	Ratio	Lower	Upper
53	100		
88	41.9	41.6	62.4
75	92.0	0.0	0.0#

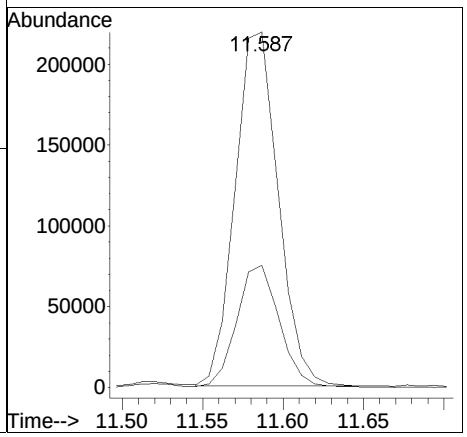


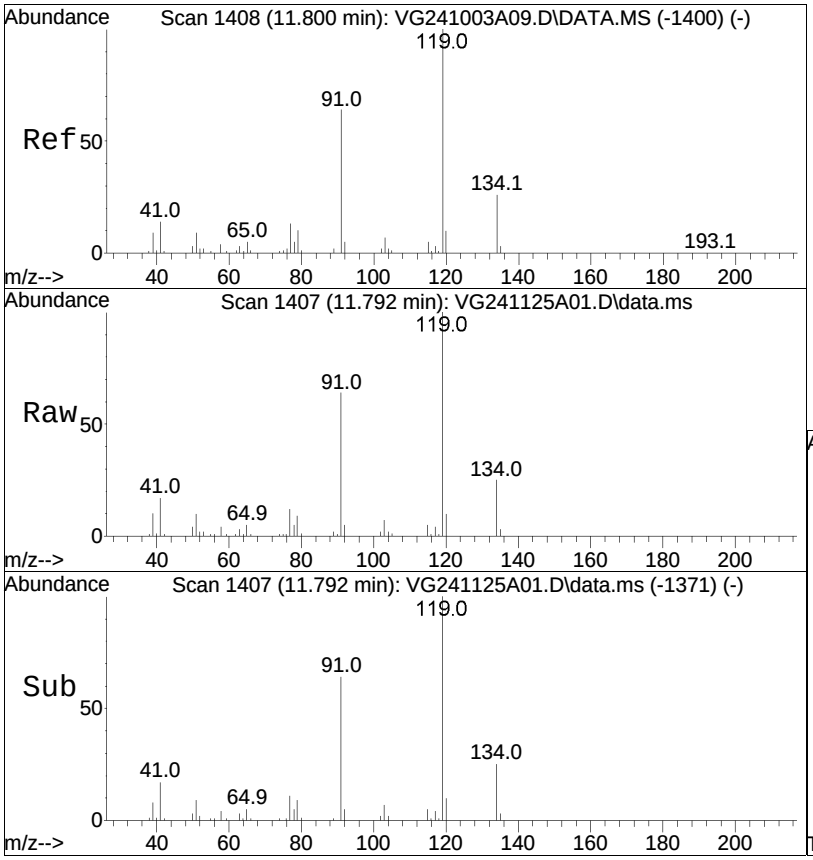


#93
4-Chlorotoluene
Concen: 9.95 ug/L
RT: 11.587 min Scan# 1382
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 91 Resp: 408785

Ion	Ratio	Lower	Upper
91	100		
126	34.3	28.2	42.4

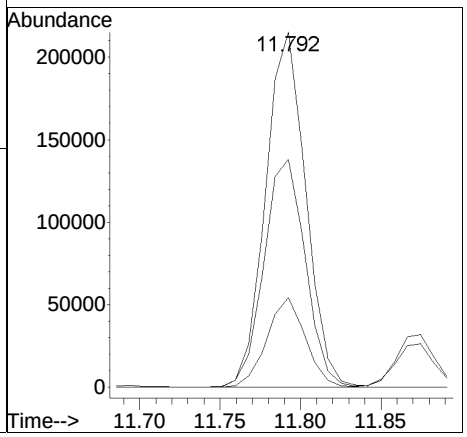


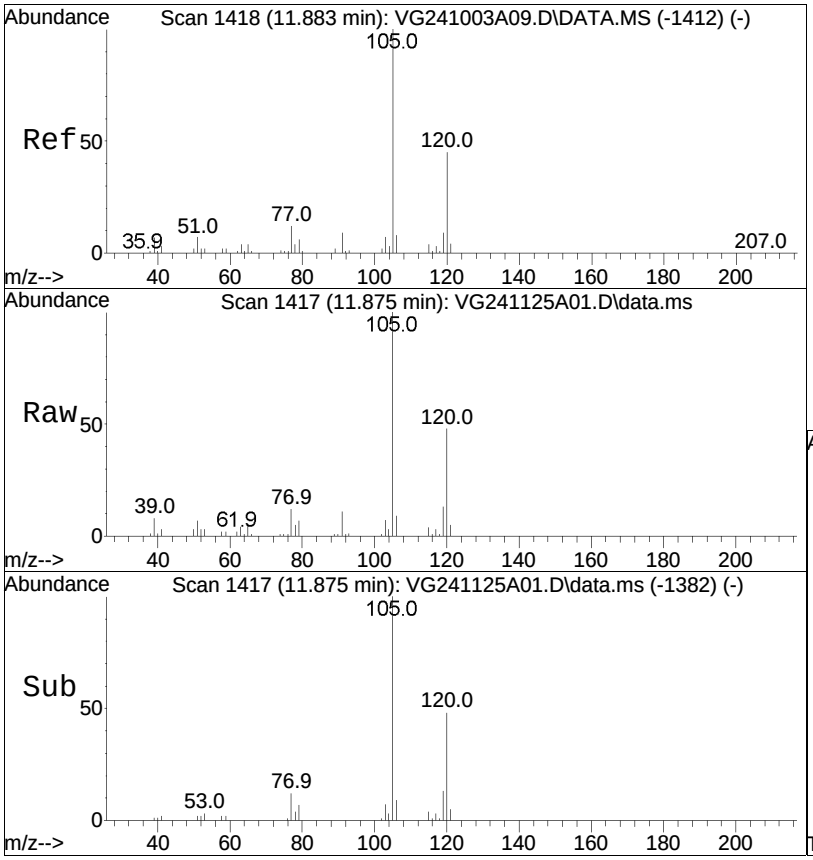


#94
tert-Butylbenzene
Concen: 10.24 ug/L
RT: 11.792 min Scan# 1407
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:119 Resp: 374751

Ion	Ratio	Lower	Upper
119	100		
91	65.9	50.8	76.2
134	24.4	20.2	30.4

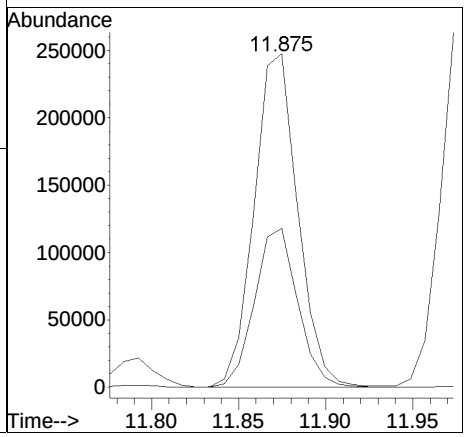


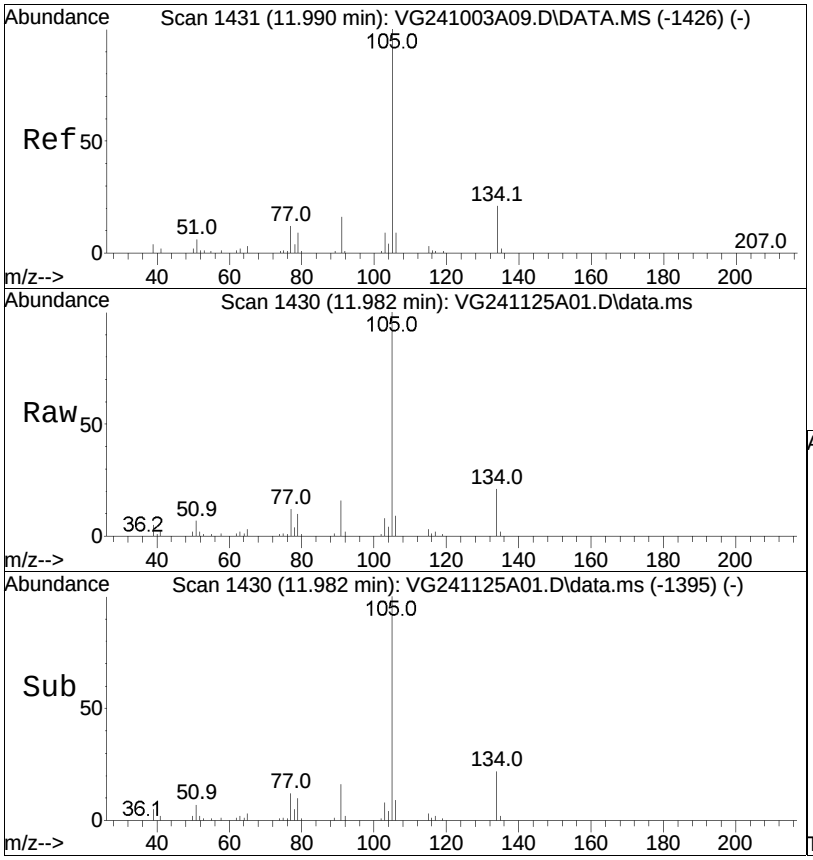


#97
1,2,4-Trimethylbenzene
Concen: 9.54 ug/L
RT: 11.875 min Scan# 1417
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:105 Resp: 431951

Ion	Ratio	Lower	Upper
105	100		
120	47.1	37.8	56.6

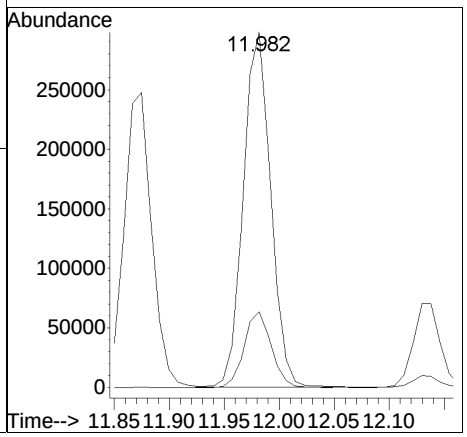


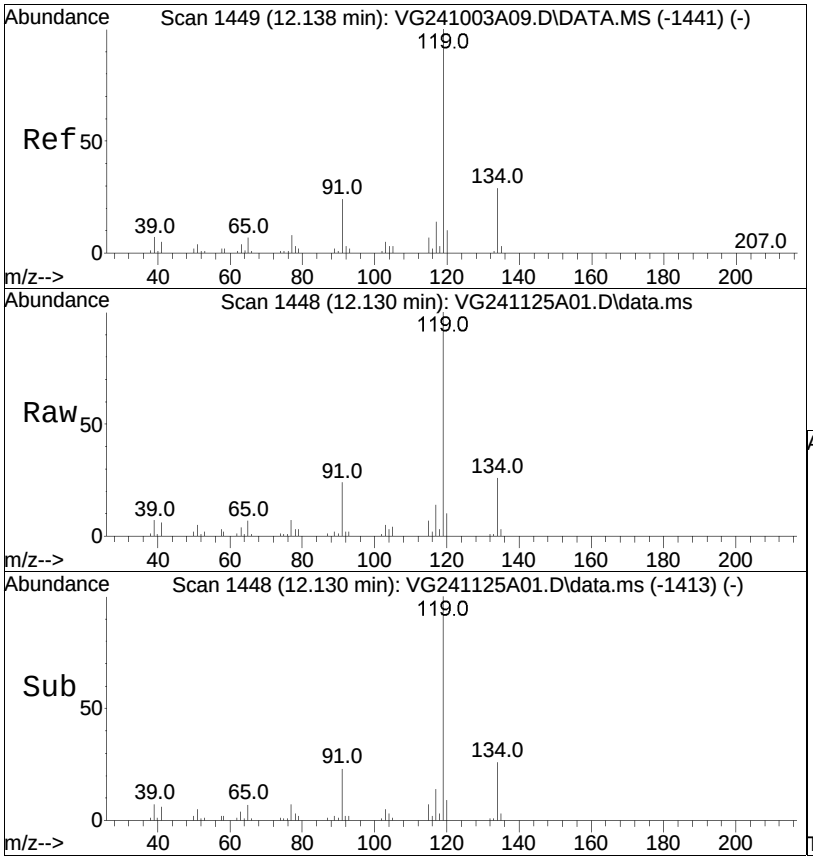


#98
sec-Butylbenzene
Concen: 9.83 ug/L
RT: 11.982 min Scan# 1430
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:105 Resp: 518815

Ion	Ratio	Lower	Upper
105	100		
134	20.9	13.3	27.7

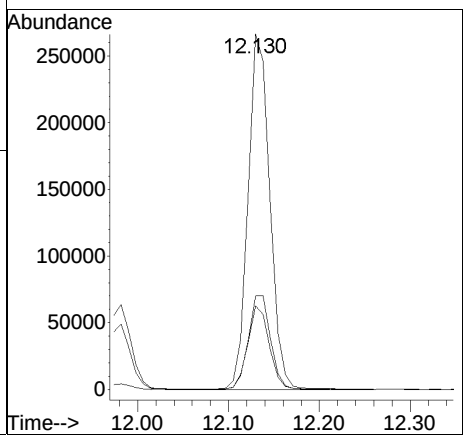


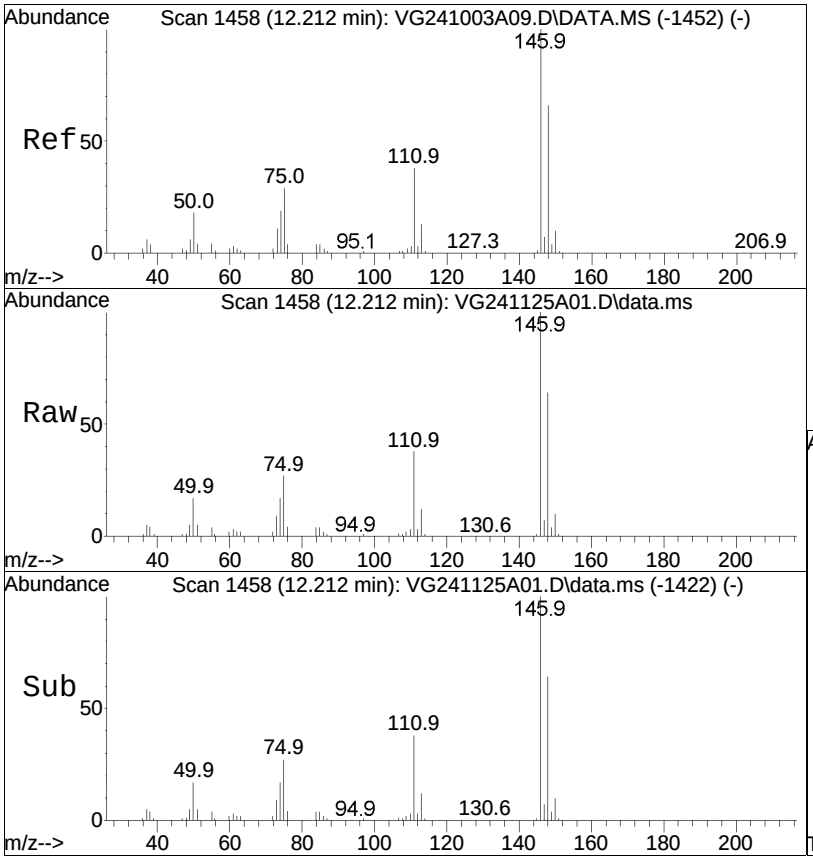


#99
p-Isopropyltoluene
Concen: 9.92 ug/L
RT: 12.130 min Scan# 1448
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:119 Resp: 444077

Ion	Ratio	Lower	Upper
119	100		
134	27.0	17.5	36.3
91	23.4	14.6	30.4

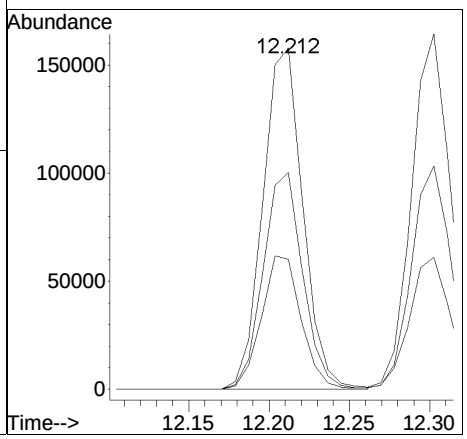


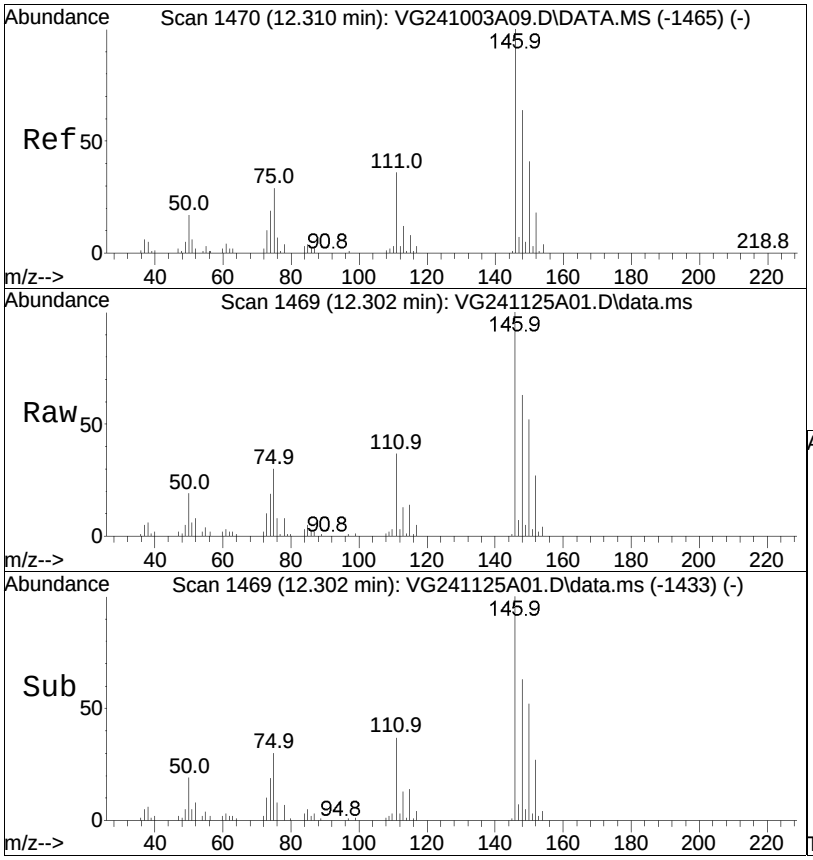


#100
1,3-Dichlorobenzene
Concen: 10.09 ug/L
RT: 12.212 min Scan# 1458
Delta R.T. -0.000 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:146 Resp: 273406

Ion	Ratio	Lower	Upper
146	100		
111	39.0	24.4	50.6
148	63.0	41.0	85.2

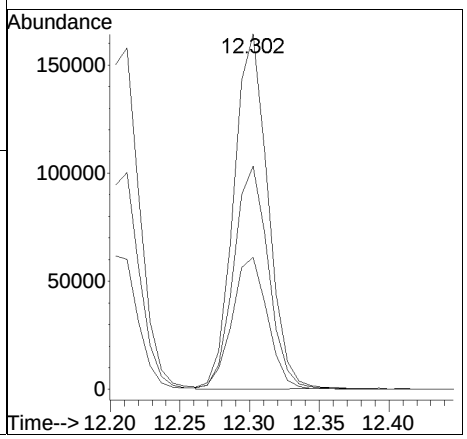


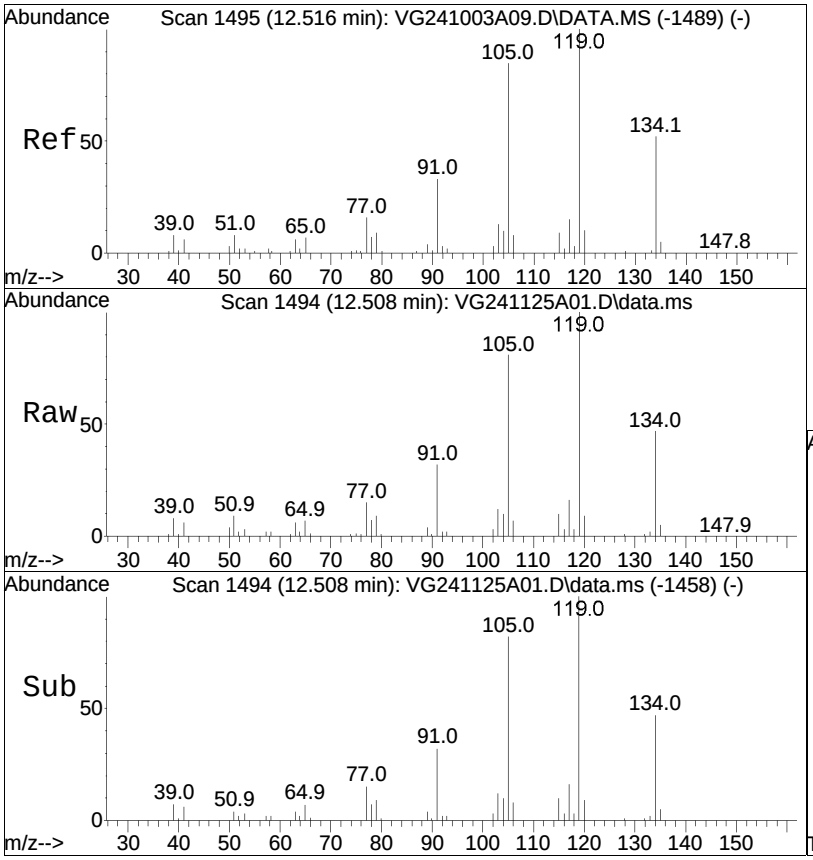


#101
1,4-Dichlorobenzene
Concen: 9.95 ug/L
RT: 12.302 min Scan# 1469
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:146 Resp: 280039

Ion	Ratio	Lower	Upper
146	100		
111	39.2	29.3	43.9
148	64.5	51.2	76.8

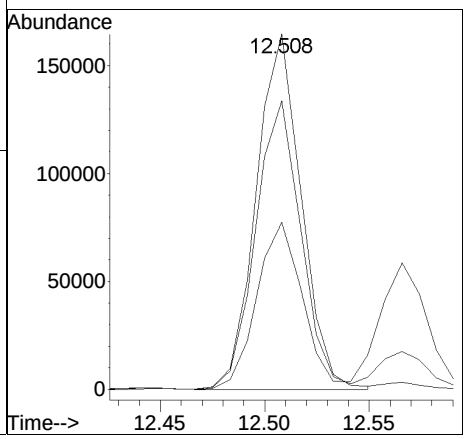


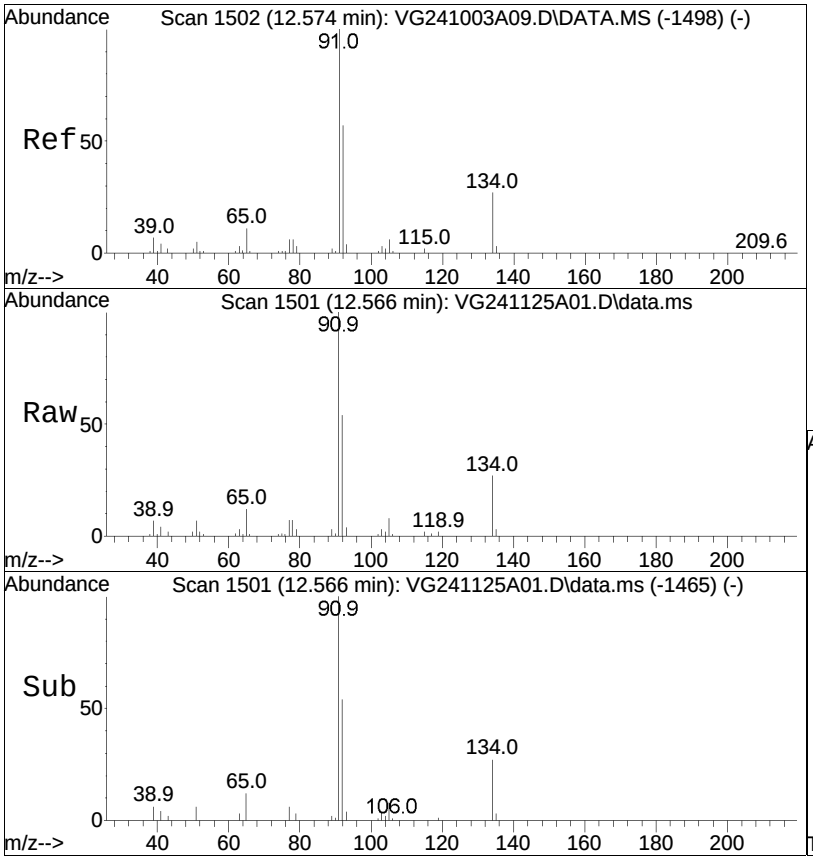


#102
p-Diethylbenzene
Concen: 9.83 ug/L
RT: 12.508 min Scan# 1494
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:119 Resp: 246847

Ion	Ratio	Lower	Upper
119	100		
105	81.4	53.9	112.1
134	48.0	32.0	66.6

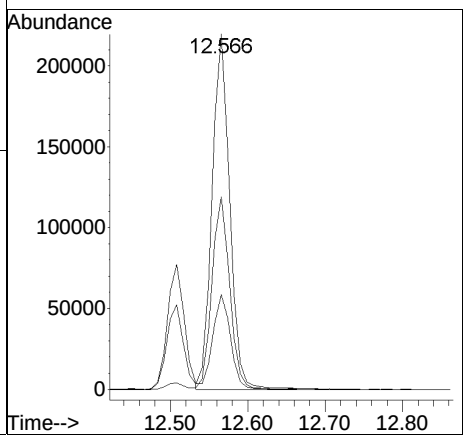


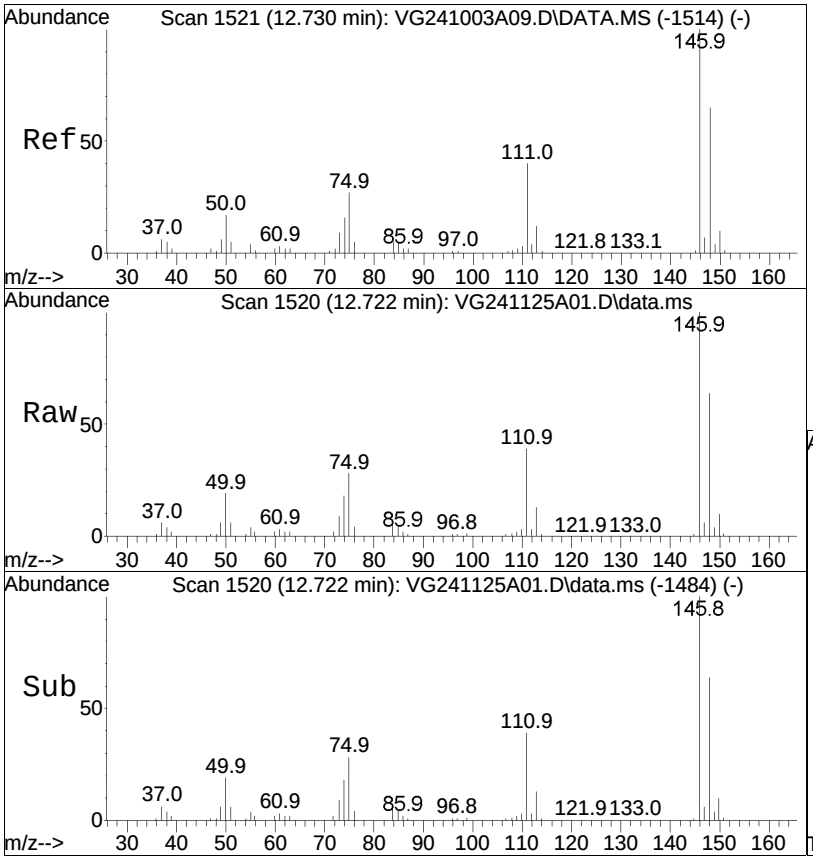


#103
n-Butylbenzene
Concen: 9.68 ug/L
RT: 12.566 min Scan# 1501
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion: 91 Resp: 348690

Ion	Ratio	Lower	Upper
91	100		
92	54.5	43.8	65.8
134	26.2	22.0	33.0

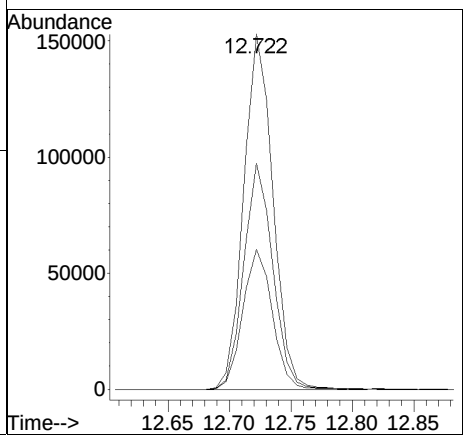


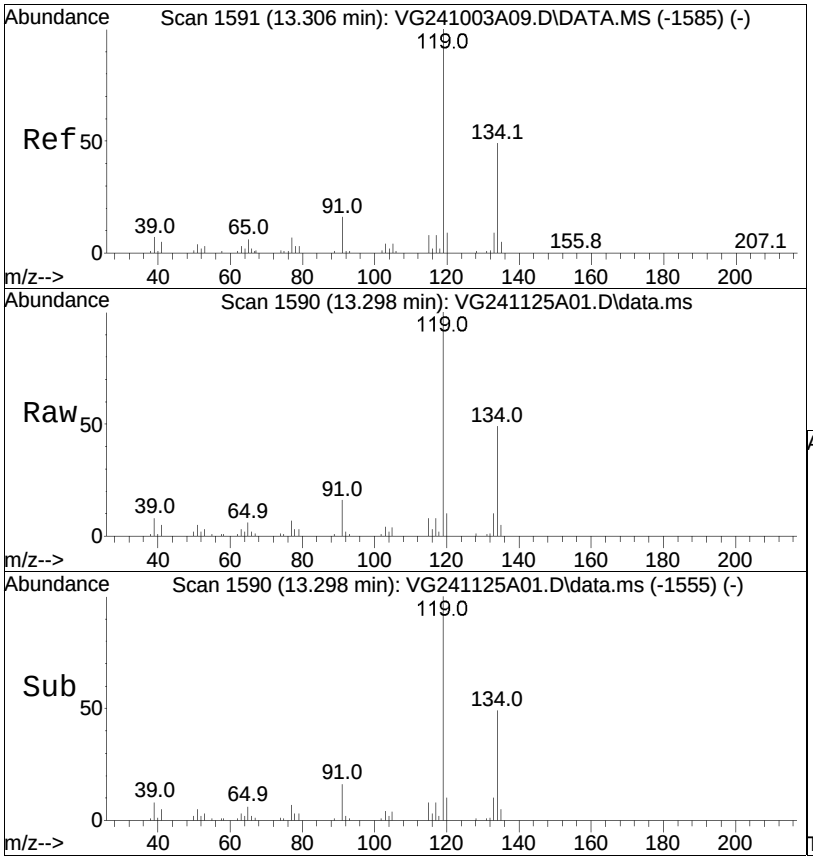


#104
1,2-Dichlorobenzene
Concen: 9.72 ug/L
RT: 12.722 min Scan# 1520
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:146 Resp: 253853

Ion	Ratio	Lower	Upper
146	100		
111	39.8	25.4	52.8
148	63.2	41.7	86.5

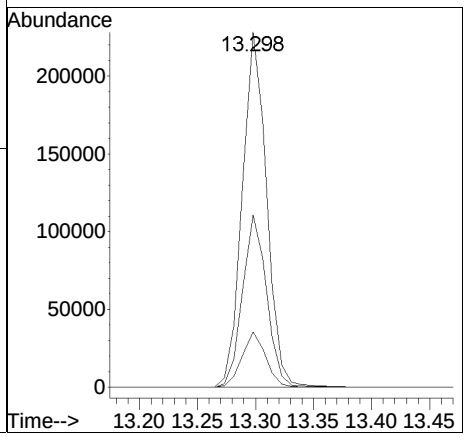


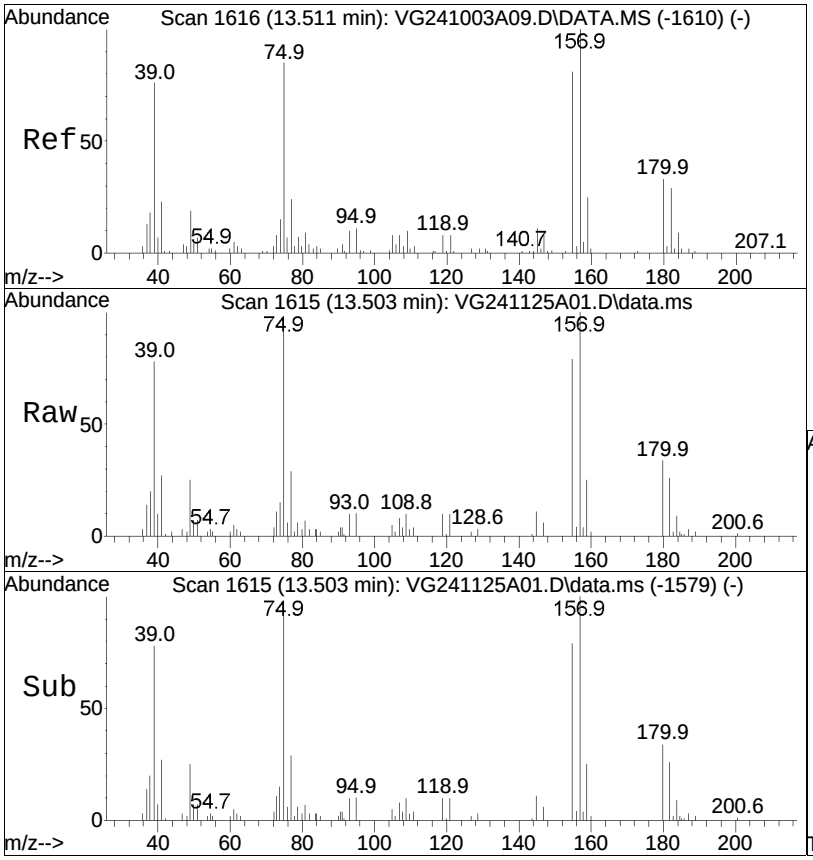


#105
1,2,4,5-Tetramethylbenzene
Concen: 9.45 ug/L
RT: 13.298 min Scan# 1590
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:119 Resp: 333589

Ion	Ratio	Lower	Upper
119	100		
134	48.3	32.7	67.9
91	15.5	9.9	20.7

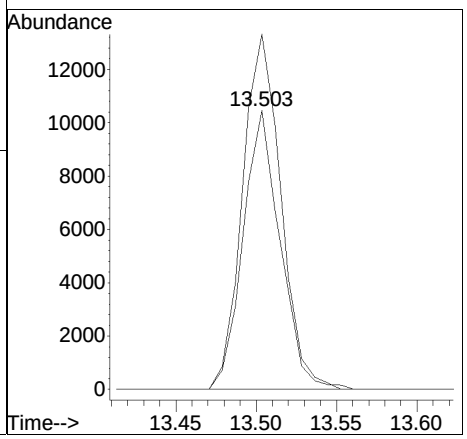


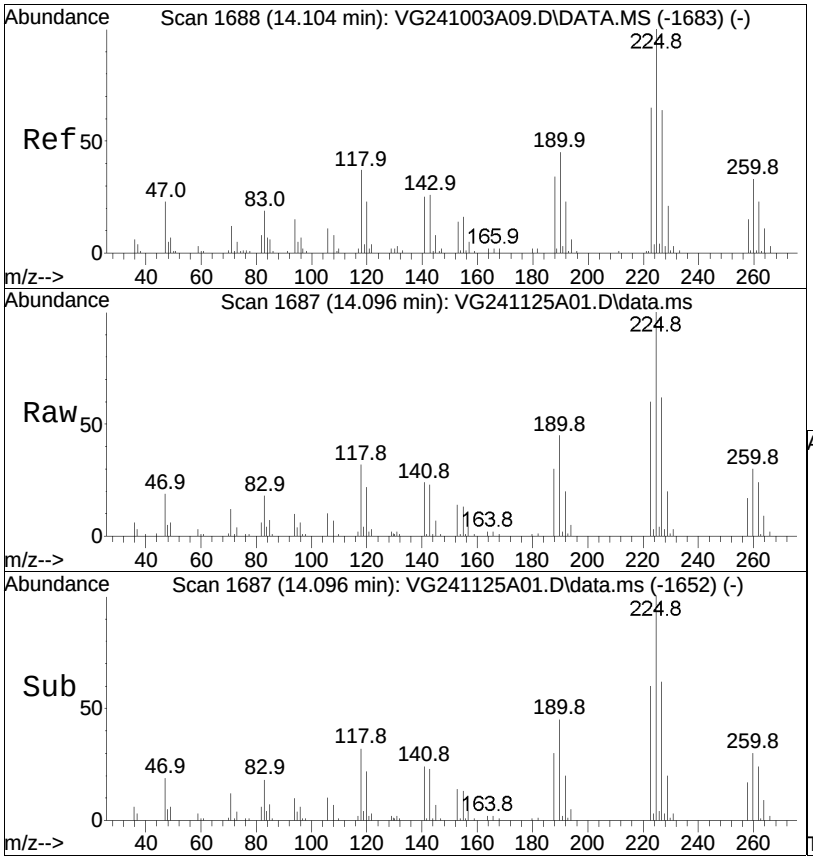


#106
1,2-Dibromo-3-chloropropane
Concen: 7.25 ug/L
RT: 13.503 min Scan# 1615
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:155 Resp: 16801

Ion	Ratio	Lower	Upper
155	100		
157	131.3	99.9	149.9

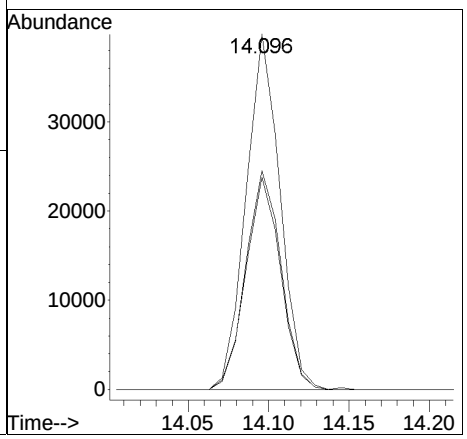


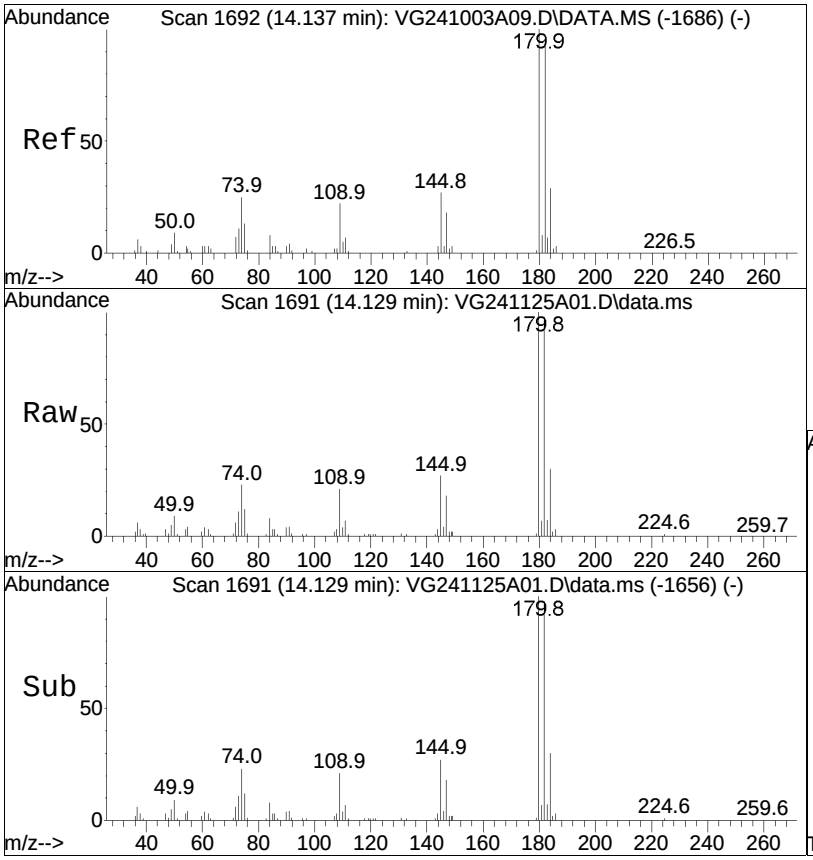


#108
Hexachlorobutadiene
Concen: 11.10 ug/L
RT: 14.096 min Scan# 1687
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:225 Resp: 58558

Ion	Ratio	Lower	Upper
225	100		
223	61.3	50.1	75.1
227	64.0	50.2	75.4

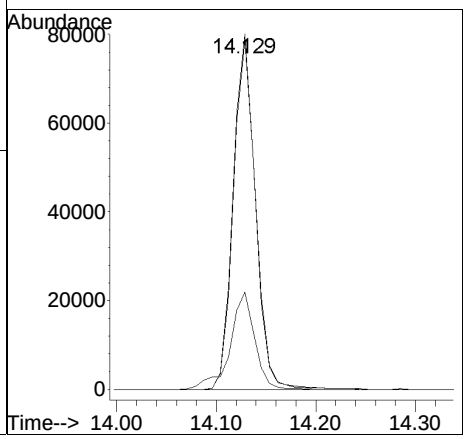


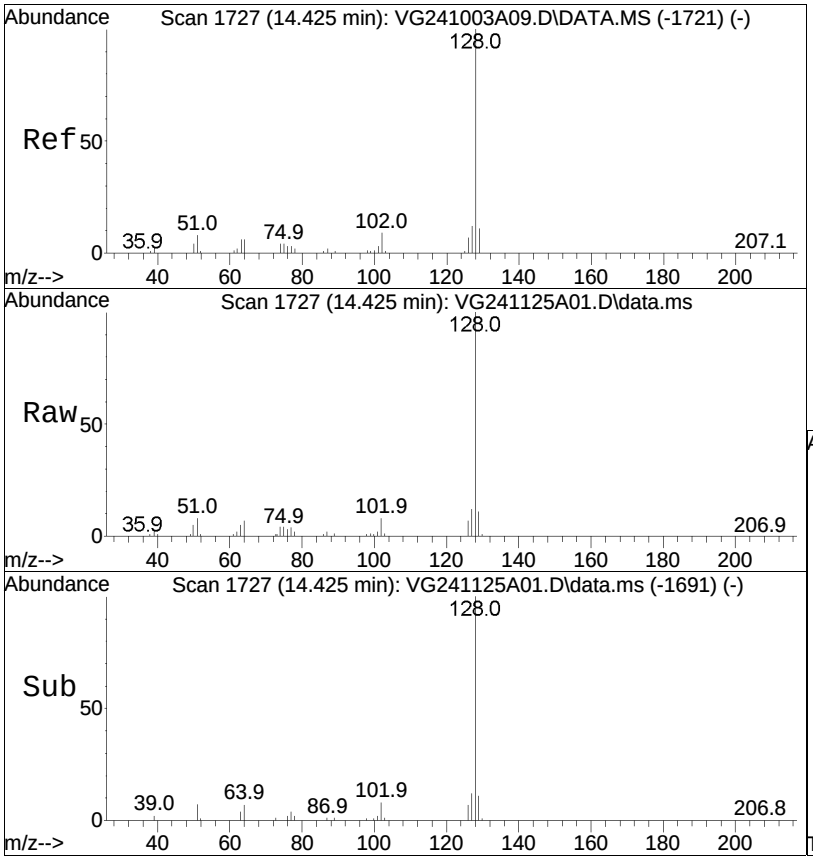


#109
1,2,4-Trichlorobenzene
Concen: 8.95 ug/L
RT: 14.129 min Scan# 1691
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:180 Resp: 124812

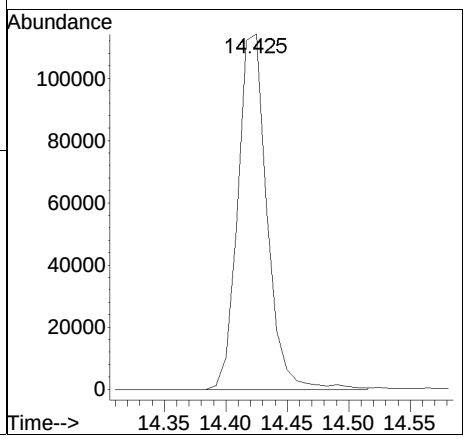
Ion	Ratio	Lower	Upper
180	100		
182	97.5	76.7	115.1
145	30.2	26.5	39.7

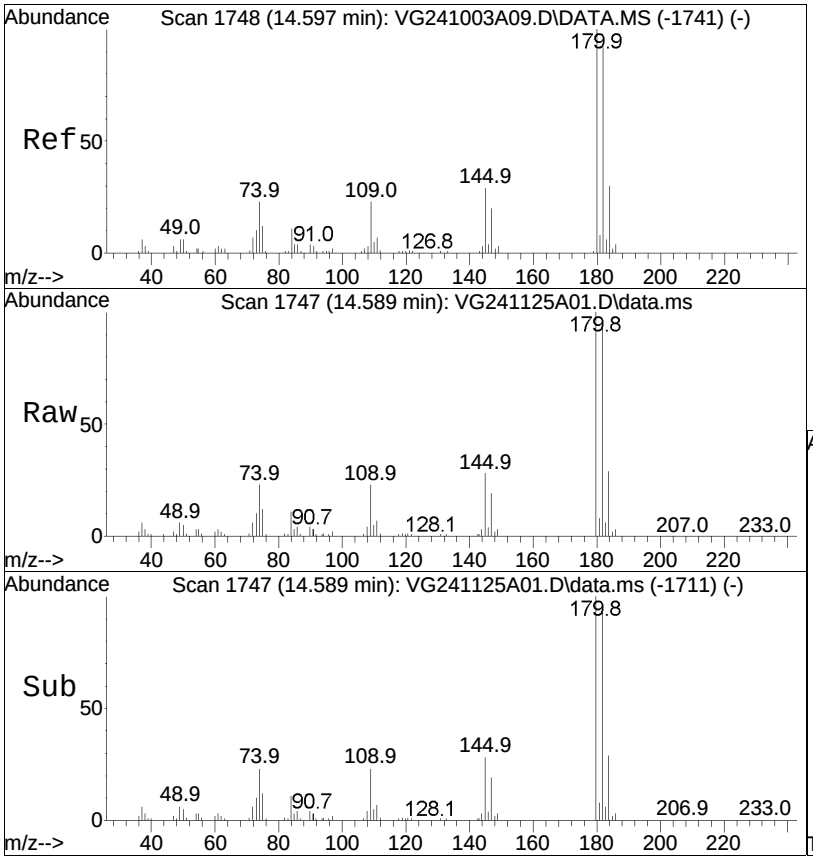




#110
Naphthalene
Concen: 6.40 ug/L
RT: 14.425 min Scan# 1727
Delta R.T. -0.000 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:128 Resp: 188975

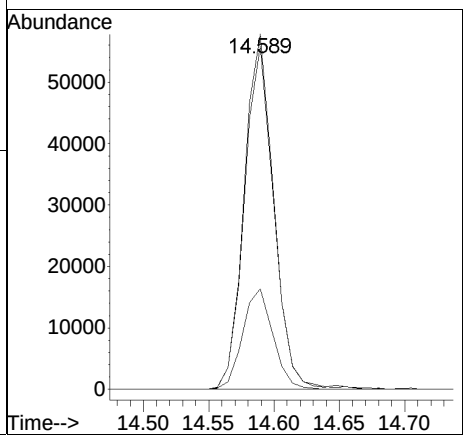




#111
1,2,3-Trichlorobenzene
Concen: 7.82 ug/L
RT: 14.589 min Scan# 1747
Delta R.T. -0.008 min
Lab File: VG241125A01.D
Acq: 25 Nov 2024 7:14 am

Tgt Ion:180 Resp: 91211

Ion	Ratio	Lower	Upper
180	100		
182	95.8	77.0	115.4
145	29.1	24.1	36.1

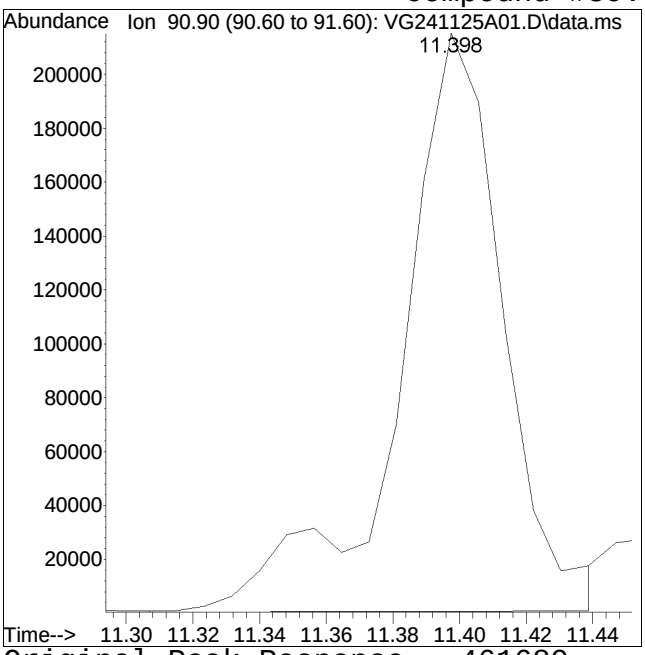


Manual Integration Report

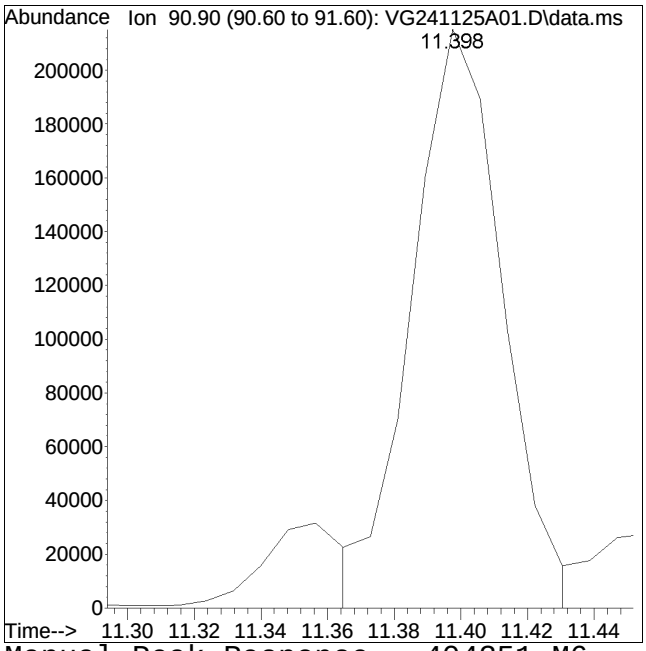
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Date Inj'd : 11/25/2024 7:14 am
Sample : WG2001998-3,31,10,10

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 7:41 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 461689



Manual Peak Response = 404351 M6

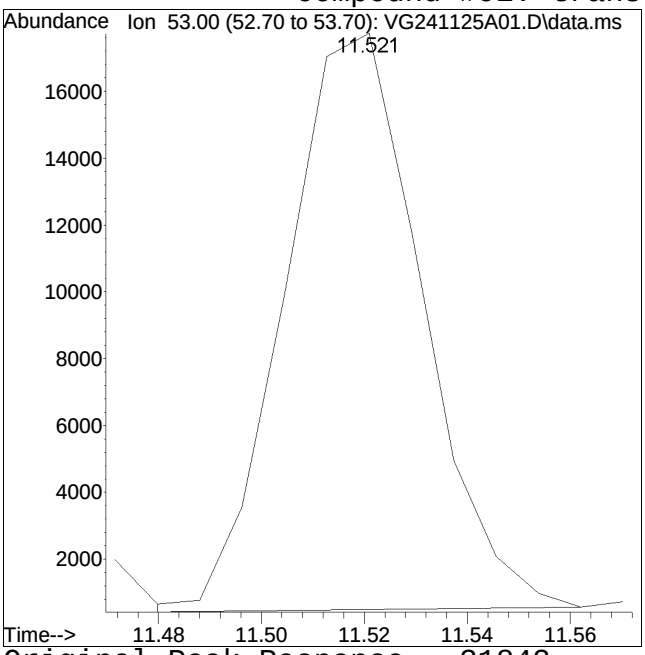
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

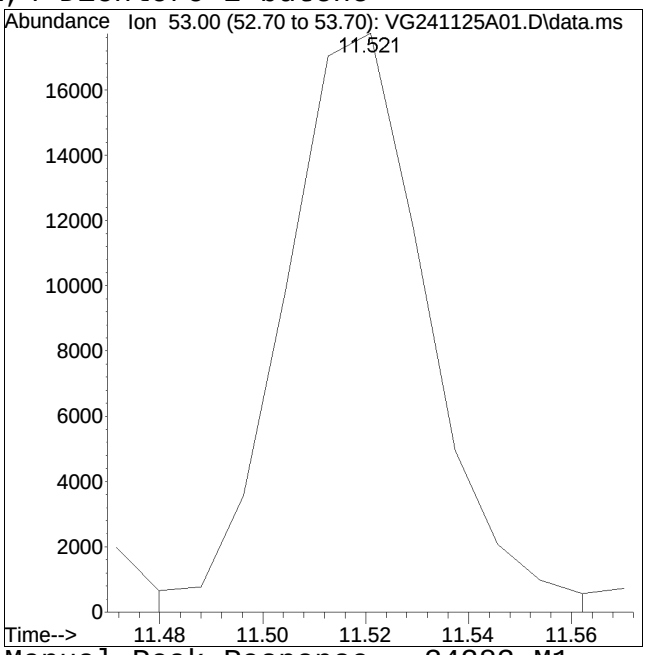
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A01.D
Date Inj'd : 11/25/2024 7:14 am
Sample : WG2001998-3,31,10,10

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 7:41 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 31842



Manual Peak Response = 34283 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N03.D
Acq On : 23 Nov 2024 8:22 pm
Operator : ELAINE:PID
Sample : WG2001825-4,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 23 21:54:31 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	202167	10.000	ug/L	0.00
Standard Area 1 = 198303			Recovery = 101.95%			
63) Chlorobenzene-d5	9.472	117	141632	10.000	ug/L	0.00
Standard Area 1 = 142748			Recovery = 99.22%			
84) 1,4-Dichlorobenzene-d4	12.186	152	73969	10.000	ug/L	0.00
Standard Area 1 = 72729			Recovery = 101.70%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.136	113	44853	9.676	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 96.76%		
47) 1,2-Dichloroethane-d4	5.657	65	58854	10.730	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 107.30%		
64) Toluene-d8	7.629	98	201536	10.434	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 104.34%		
88) 4-Bromofluorobenzene	10.973	95	68597	10.094	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 100.94%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	46102	10.206	ug/L	92
3) Chloromethane	1.776	50	36749	8.234	ug/L	99
4) Vinyl chloride	1.851	62	48967	10.296	ug/L	97
5) Bromomethane	2.155	94	18458	5.530	ug/L	96
6) Chloroethane	2.272	64	37054	10.761	ug/L	99
7) Trichlorofluoromethane	2.409	101	66322	9.558	ug/L	97
8) Ethyl ether	2.701	74	21457	10.000	ug/L	88
10) 1,1-Dichloroethene	2.894	96	35338	10.001	ug/L #	72
11) Carbon disulfide	2.922	76	104731	9.869	ug/L #	88
15) Methylene chloride	3.443	84	41664	9.445	ug/L	90
17) Acetone	3.477	43	8289M1	9.548	ug/L	
18) trans-1,2-Dichloroethene	3.597	96	38053	9.670	ug/L	93
21) Methyl tert-butyl ether	3.689	73	93333M1	8.873	ug/L	
25) 1,1-Dichloroethane	4.174	63	80921	10.288	ug/L	92
27) Acrylonitrile	4.224	53	10101	9.493	ug/L	88
29) Vinyl acetate	4.408	43	79650	8.719	ug/L	98
30) cis-1,2-Dichloroethene	4.690	96	42801	9.528	ug/L	96
31) 2,2-Dichloropropane	4.793	77	51430	8.286	ug/L	96
33) Bromochloromethane	4.882	128	19101	9.334	ug/L	93
35) Chloroform	4.960	83	68783	9.321	ug/L	94

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N03.D
Acq On : 23 Nov 2024 8:22 pm
Operator : ELAINE:PID
Sample : WG2001825-4,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 23 21:54:31 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.094	117	48711	9.101	ug/L		99
40) 1,1,1-Trichloroethane	5.158	97	58993	9.054	ug/L		91
42) 2-Butanone	5.242	43	11501	9.291	ug/L	#	85
43) 1,1-Dichloropropene	5.275	75	52245	9.151	ug/L		94
45) Benzene	5.524	78	174113	9.684	ug/L		95
48) 1,2-Dichloroethane	5.727	62	56232	9.833	ug/L		95
52) Trichloroethene	6.118	95	40780	9.566	ug/L		96
54) Dibromomethane	6.564	93	22187	9.107	ug/L		94
55) 1,2-Dichloropropane	6.661	63	46916	10.271	ug/L		96
58) Bromodichloromethane	6.734	83	55281	9.325	ug/L		94
61) 1,4-Dioxane	6.943	88	14509	486.088	ug/L	#	80
62) cis-1,3-Dichloropropene	7.423	75	61533	8.993	ug/L		93
65) Toluene	7.685	92	108606	9.758	ug/L		95
66) 4-Methyl-2-pentanone	8.114	58	9915	8.477	ug/L		89
67) Tetrachloroethene	8.134	166	40706	9.097	ug/L		95
69) trans-1,3-Dichloropropene	8.173	75	53236	9.659	ug/L		86
72) 1,1,2-Trichloroethane	8.351	83	28832	9.857	ug/L		97
73) Chlorodibromomethane	8.569	129	35171	8.962	ug/L		99
74) 1,3-Dichloropropane	8.678	76	60051	9.943	ug/L		97
75) 1,2-Dibromoethane	8.839	107	31958	9.221	ug/L		88
77) 2-Hexanone	9.132	43	15670	8.339	ug/L	#	95
78) Chlorobenzene	9.489	112	111256	9.405	ug/L	#	80
79) Ethylbenzene	9.528	91	204651	9.623	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.581	131	36738	9.354	ug/L		95
81) p/m Xylene	9.718	106	154033	18.814	ug/L		96
82) o Xylene	10.262	106	150499	18.852	ug/L		89
83) Styrene	10.326	104	248428	18.432	ug/L		95
85) Bromoform	10.348	173	18013	8.239	ug/L		94
87) Isopropylbenzene	10.646	105	201458	9.220	ug/L		99
89) Bromobenzene	11.084	156	44604	9.145	ug/L		97
90) n-Propylbenzene	11.129	91	238363	9.618	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.218	83	41490	9.835	ug/L		96
93) 4-Ethyltoluene	11.257	105	194471	9.456	ug/L		99
94) 2-Chlorotoluene	11.293	91	138601M4	9.628	ug/L		
95) 1,3,5-Trimethylbenzene	11.355	105	172597	9.484	ug/L		98
96) 1,2,3-Trichloropropane	11.355	75	32682	9.814	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.405	53	11163	9.259	ug/L		88
98) 4-Chlorotoluene	11.480	91	142496	9.568	ug/L		99
99) tert-Butylbenzene	11.695	119	137295	9.142	ug/L		97

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N03.D
Acq On : 23 Nov 2024 8:22 pm
Operator : ELAINE:PID
Sample : WG2001825-4,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 23 21:54:31 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.773	105	171093	9.375	ug/L	97
103) sec-Butylbenzene	11.890	105	211998	9.245	ug/L	98
104) p-Isopropyltoluene	12.041	119	174360	9.177	ug/L	98
105) 1,3-Dichlorobenzene	12.110	146	87742	8.987	ug/L	98
106) 1,4-Dichlorobenzene	12.200	146	90845	9.277	ug/L	99
107) p-Diethylbenzene	12.414	119	99533	8.955	ug/L	94
108) n-Butylbenzene	12.476	91	154919	9.351	ug/L	99
109) 1,2-Dichlorobenzene	12.626	146	85271	9.179	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.209	119	152663	8.573	ug/L	97
111) 1,2-Dibromo-3-chloropr...	13.407	155	4808	8.522	ug/L	95
113) Hexachlorobutadiene	14.009	225	13735	7.765	ug/L	93
114) 1,2,4-Trichlorobenzene	14.035	180	47435	8.199	ug/L	97
115) Naphthalene	14.327	128	114429	8.422	ug/L	100
116) 1,2,3-Trichlorobenzene	14.495	180	42847	8.297	ug/L	96

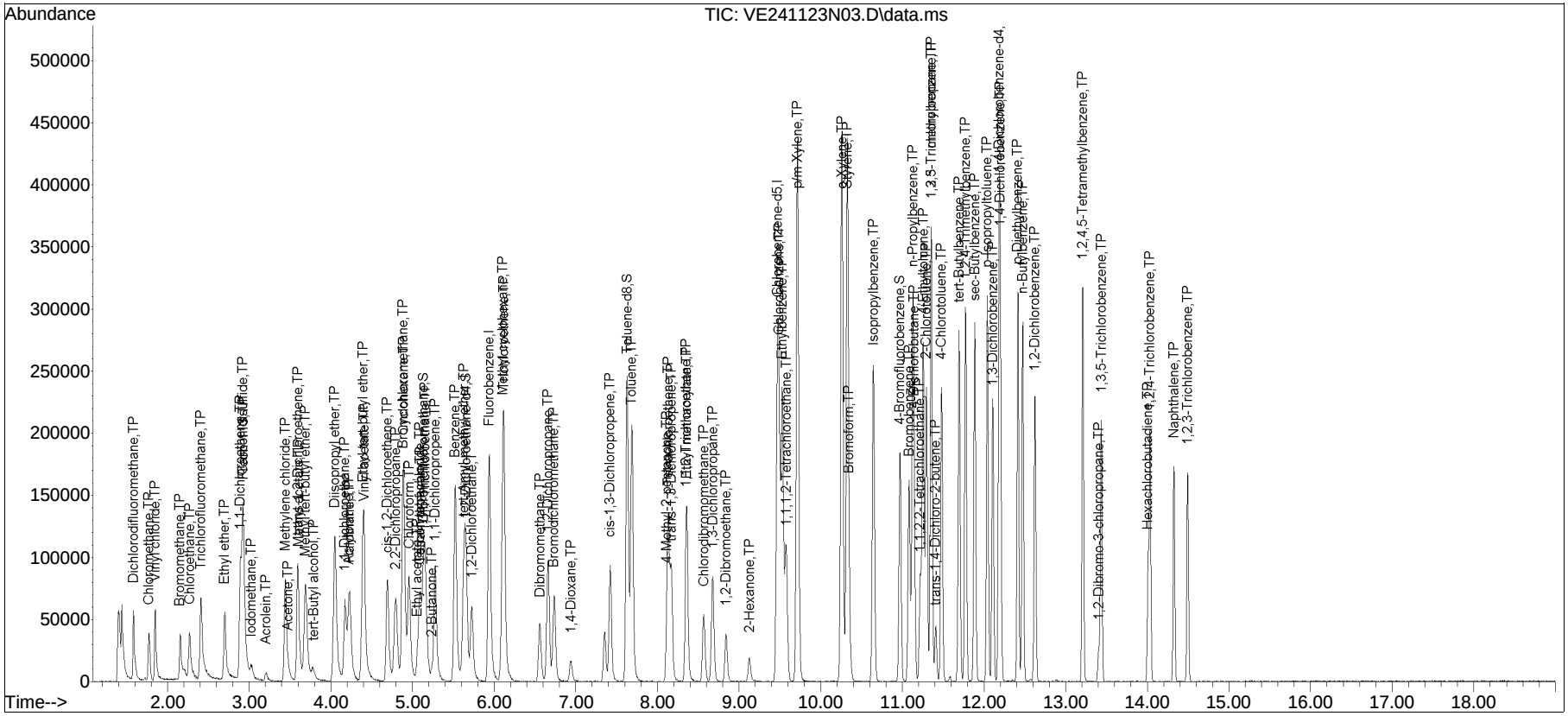
(#) = qualifier out of range (m) = manual integration (+) = signals summed

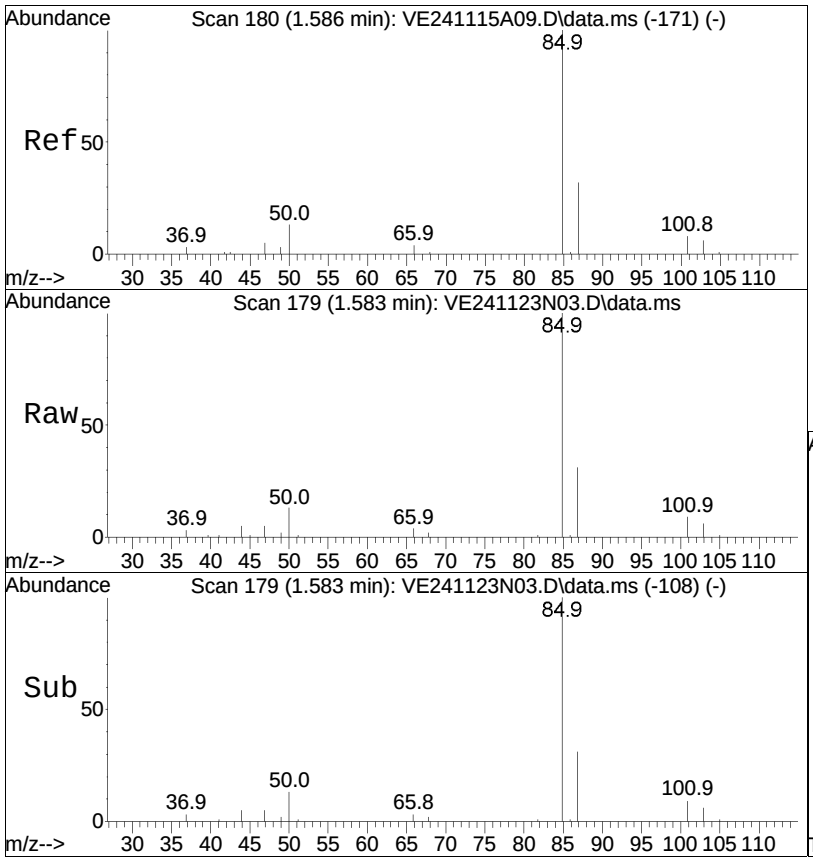
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N03.D
Acq On : 23 Nov 2024 8:22 pm
Operator : ELAINE:PID
Sample : WG2001825-4,31,10,10
Misc : WG2001825,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 23 21:54:31 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-2CEVE - Megamix+Diox-2CEVE2.D•

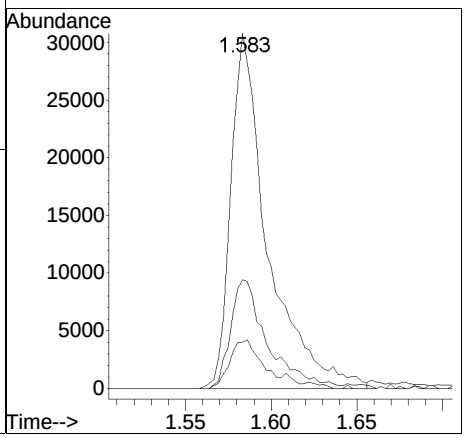


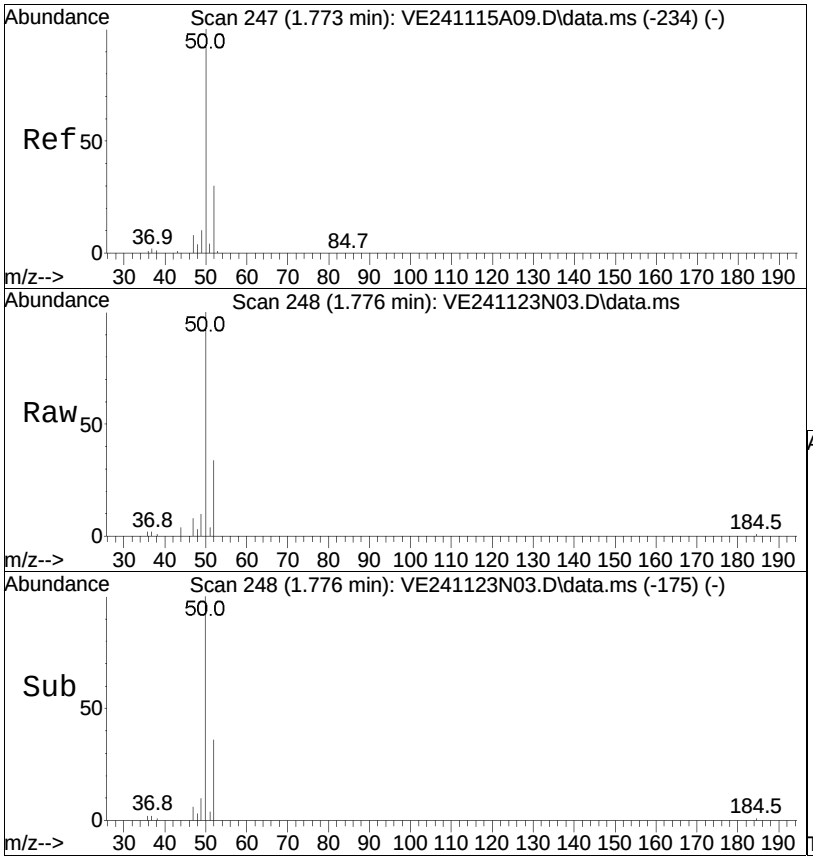


#2
Dichlorodifluoromethane
Concen: 10.21 ug/L
RT: 1.583 min Scan# 179
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 85 Resp: 46102

Ion	Ratio	Lower	Upper
85	100		
87	30.7	21.7	45.1
50	11.9	11.8	24.4

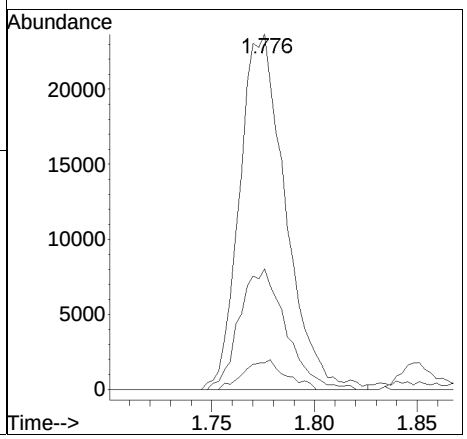


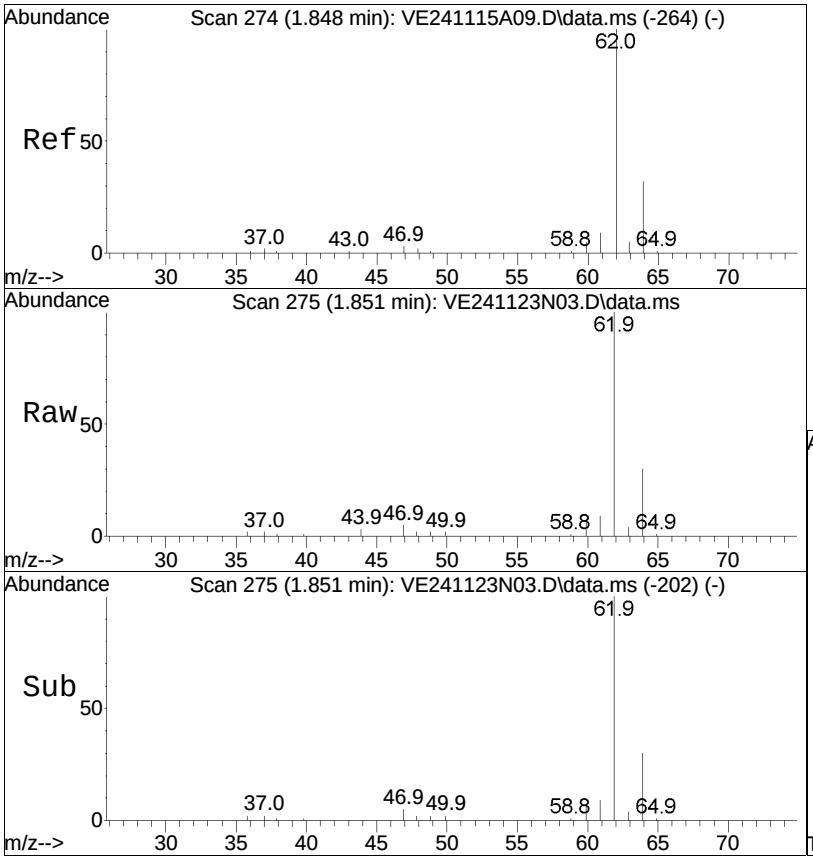


#3
Chloromethane
Concen: 8.23 ug/L
RT: 1.776 min Scan# 248
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 50 Resp: 36749

Ion	Ratio	Lower	Upper
50	100		
52	34.3	14.9	54.9
47	7.5	0.0	28.0

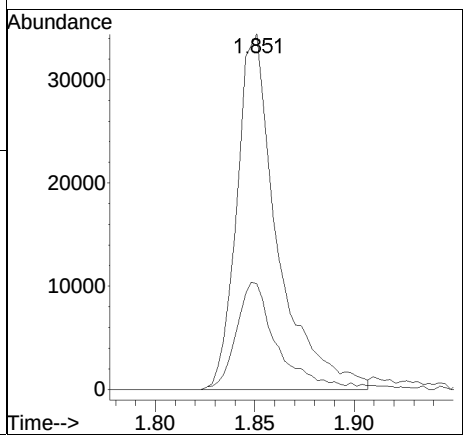


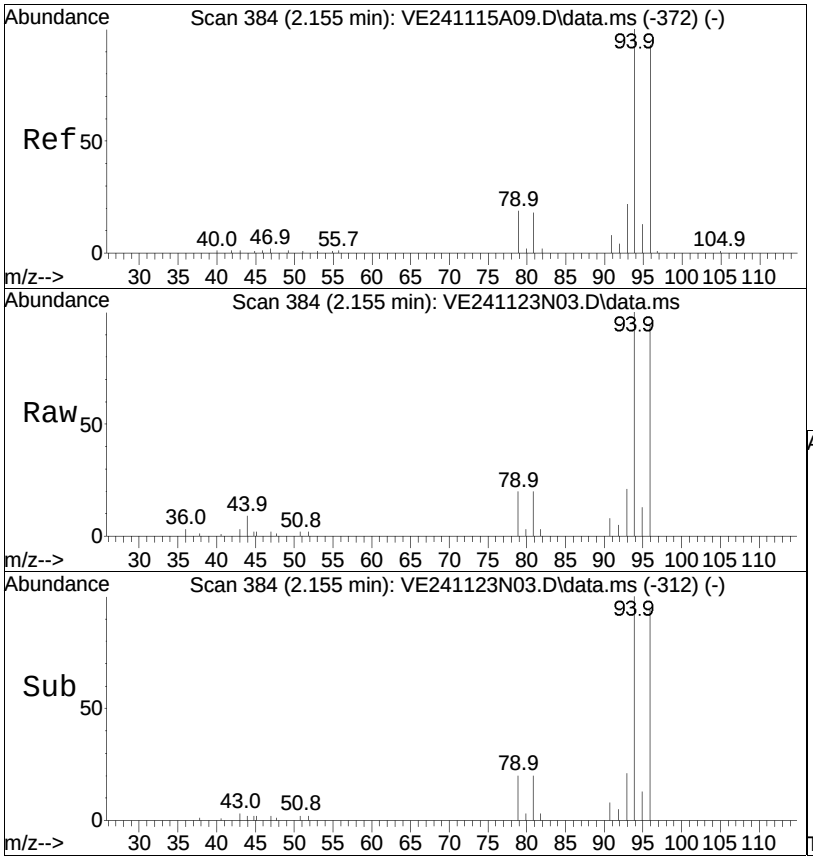


#4
Vinyl chloride
Concen: 10.30 ug/L
RT: 1.851 min Scan# 275
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 62 Resp: 48967

Ion	Ratio	Lower	Upper
62	100		
64	29.9	8.1	48.1

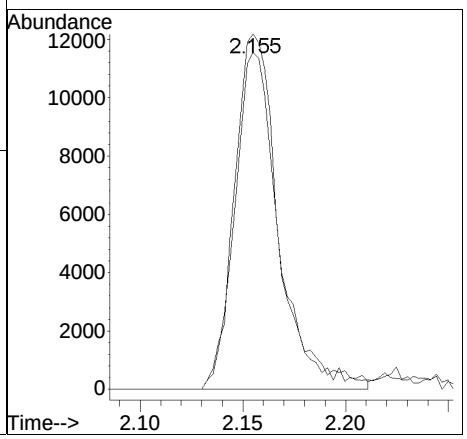


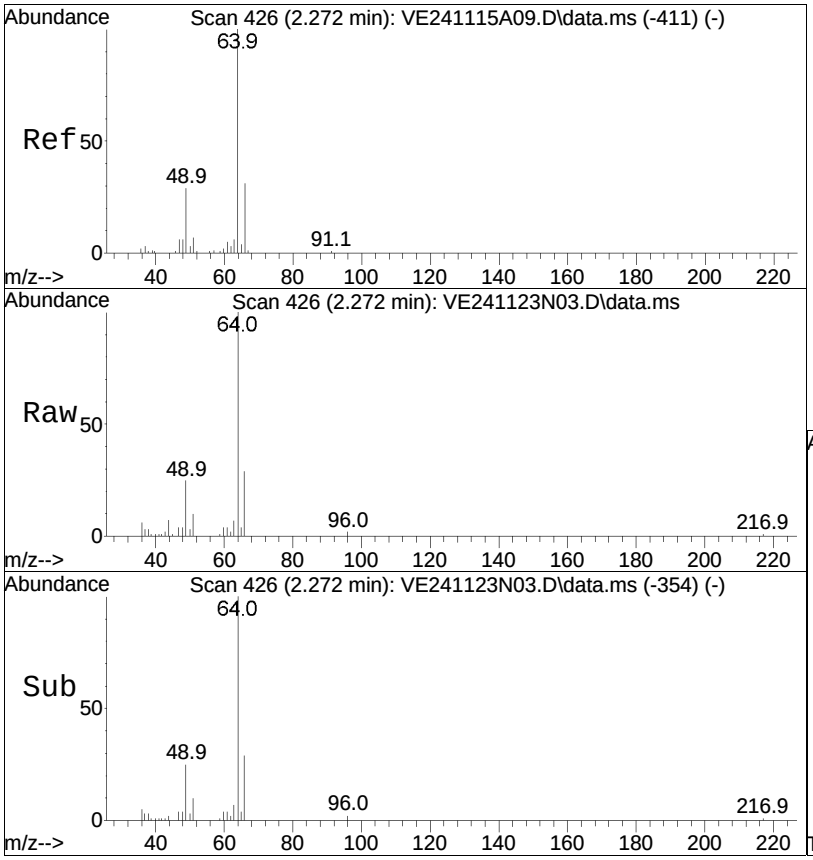


#5
Bromomethane
Concen: 5.53 ug/L
RT: 2.155 min Scan# 384
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 94 Resp: 18458

Ion	Ratio	Lower	Upper
94	100		
96	92.1	68.2	108.2

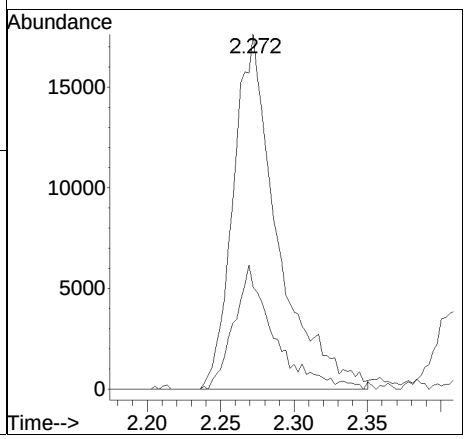


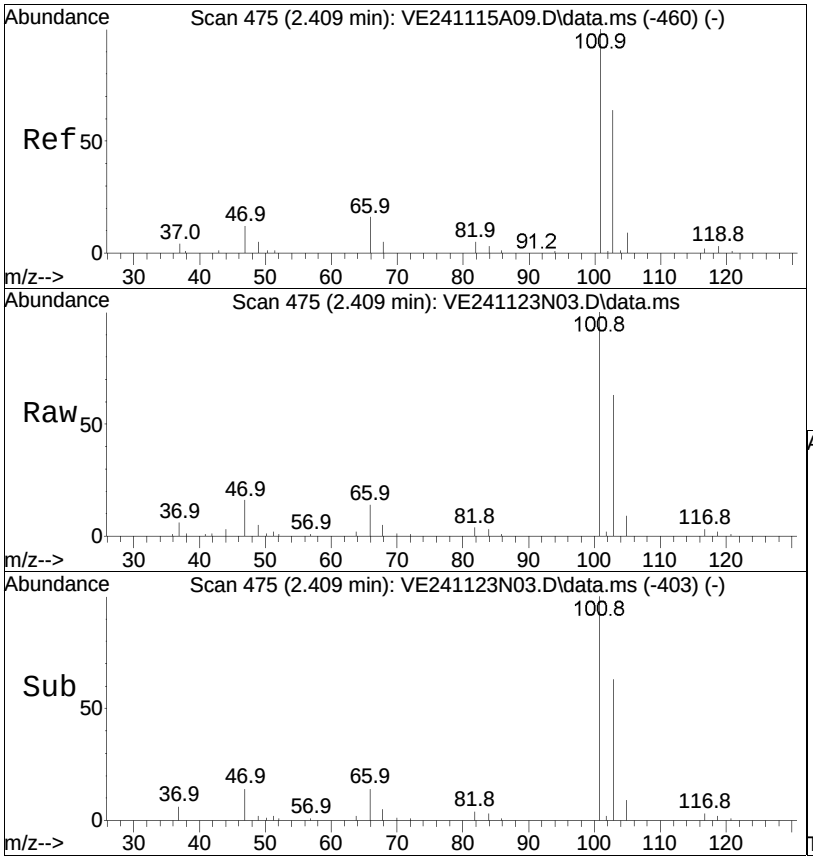


#6
Chloroethane
Concen: 10.76 ug/L
RT: 2.272 min Scan# 426
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 64 Resp: 37054

Ion	Ratio	Lower	Upper
64	100		
66	31.1	10.7	50.7

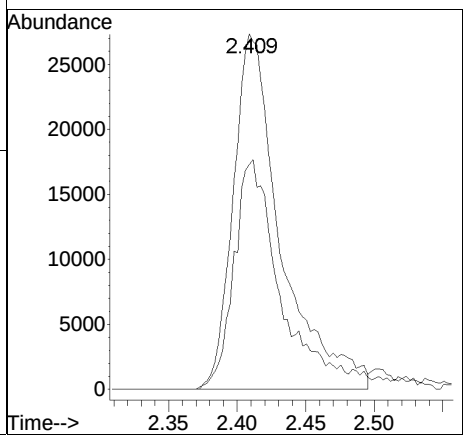


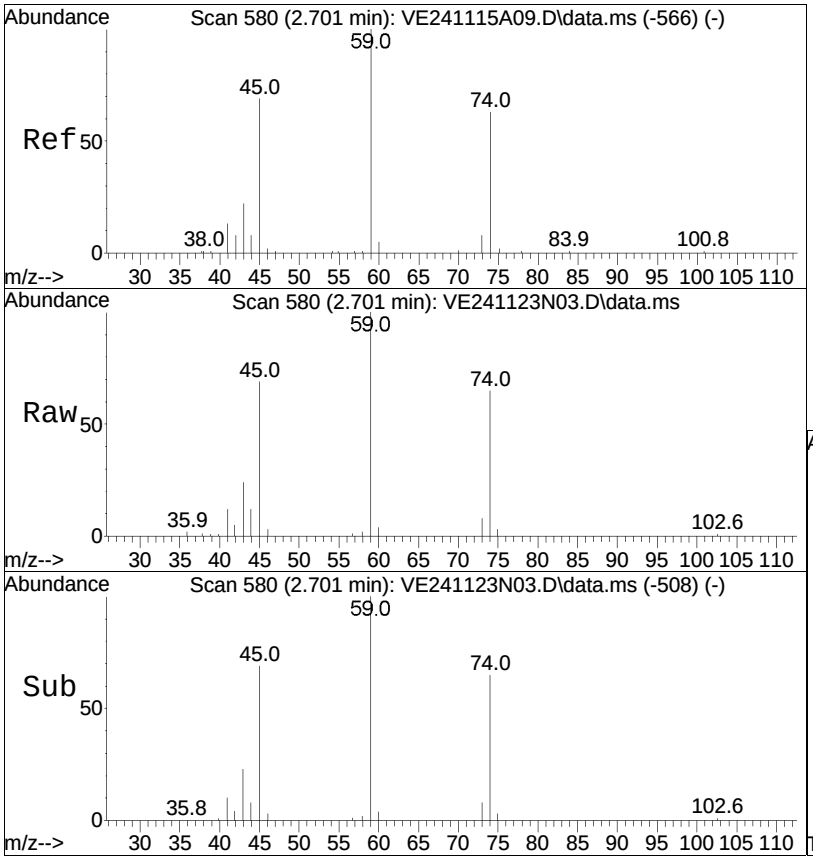


#7
Trichlorofluoromethane
Concen: 9.56 ug/L
RT: 2.409 min Scan# 475
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:101 Resp: 66322

Ion	Ratio	Lower	Upper
101	100		
103	62.1	48.2	72.2

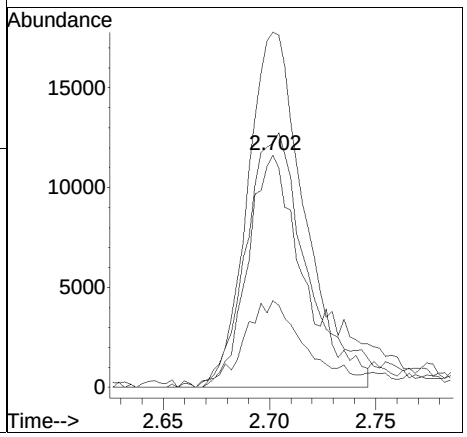


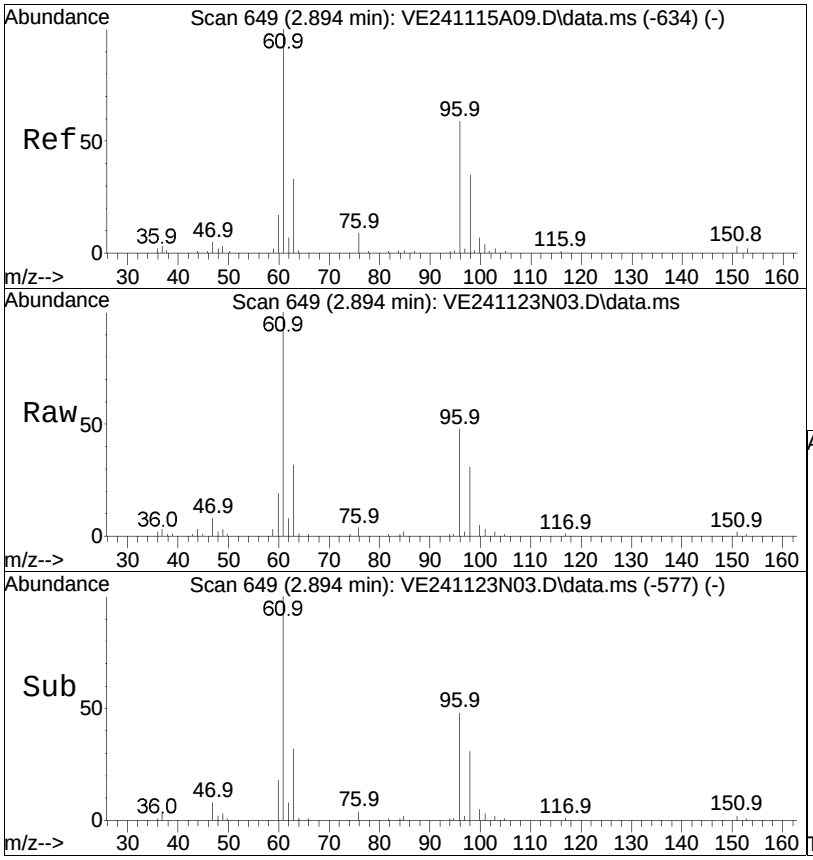


#8
Ethyl ether
Concen: 10.00 ug/L
RT: 2.701 min Scan# 580
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 74 Resp: 21457

Ion	Ratio	Lower	Upper
74	100		
59	168.3	91.7	190.5
45	120.4	77.4	160.8
43	40.7	24.6	51.2

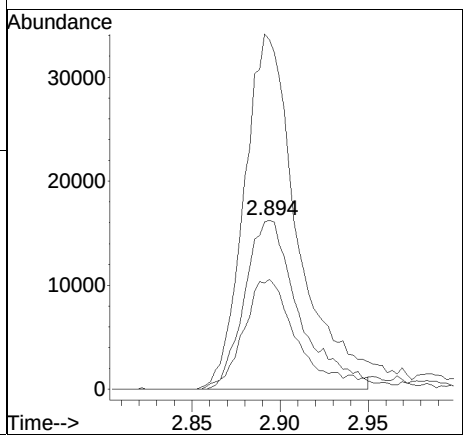


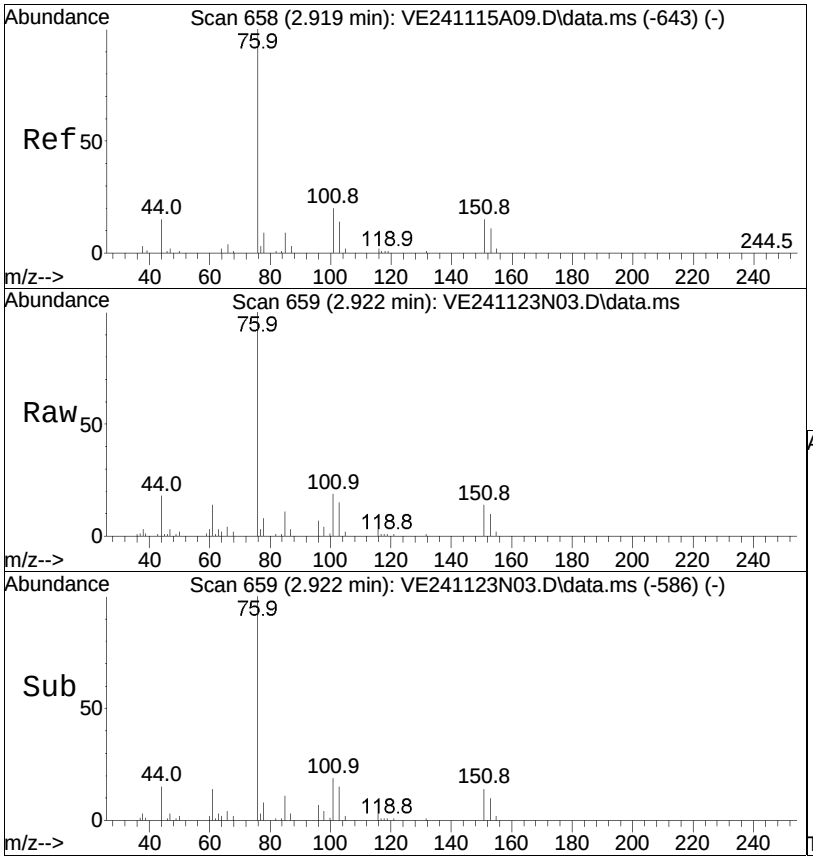


#10
1,1-Dichloroethene
Concen: 10.00 ug/L
RT: 2.894 min Scan# 649
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 96 Resp: 35338

Ion	Ratio	Lower	Upper
96	100		
61	212.4	135.4	203.0#
63	65.2	42.6	63.8#

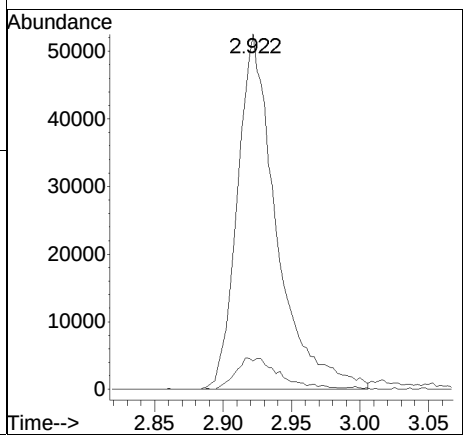


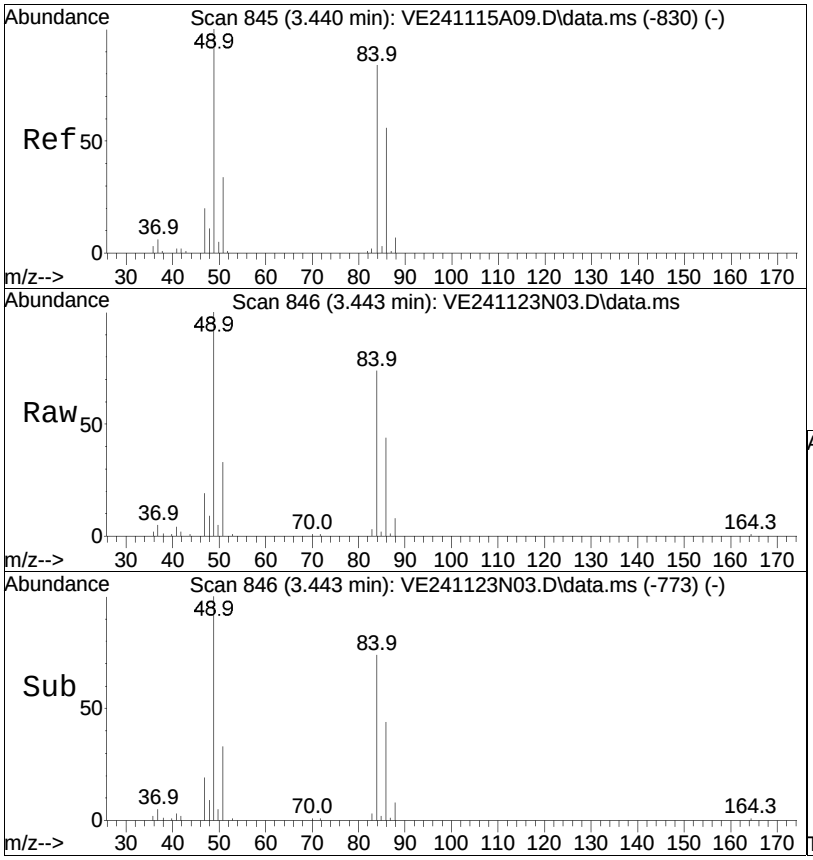


#11
Carbon disulfide
Concen: 9.87 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 76 Resp: 104731

Ion	Ratio	Lower	Upper
76	100		
78	4.1	5.5	11.3#

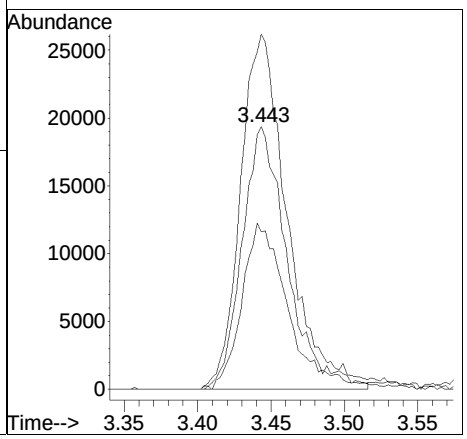


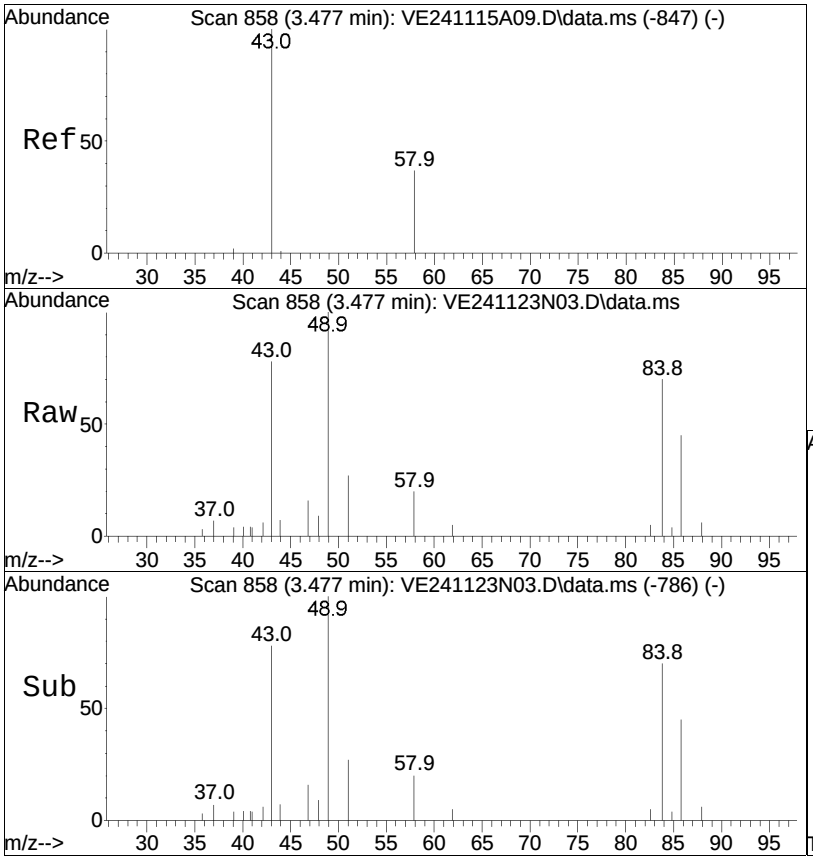


#15
Methylene chloride
Concen: 9.45 ug/L
RT: 3.443 min Scan# 846
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 84 Resp: 41664

Ion	Ratio	Lower	Upper
84	100		
86	64.7	40.2	83.6
49	142.0	103.2	214.4

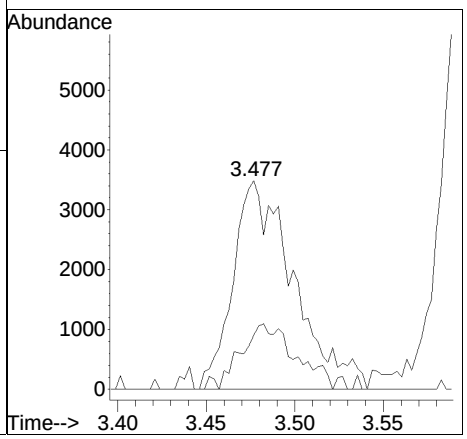


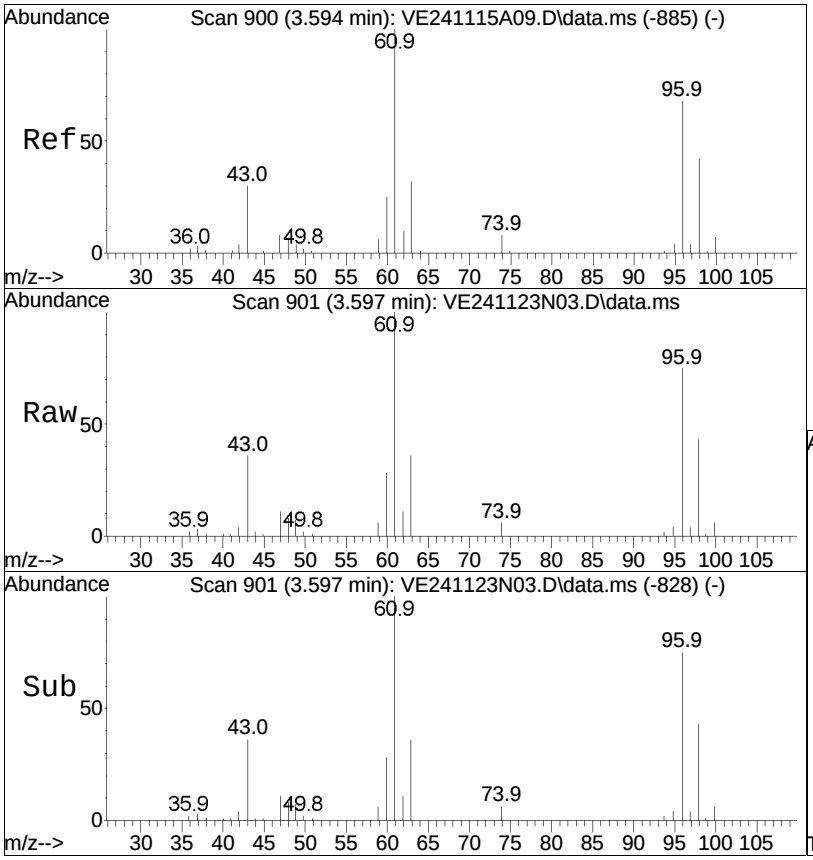


#17
Acetone
Concen: 9.55 ug/L M1
RT: 3.477 min Scan# 858
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 43 Resp: 8289

Ion	Ratio	Lower	Upper
43	100		
58	27.8	23.4	35.0

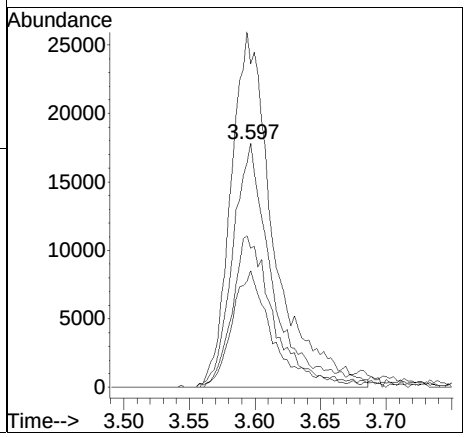


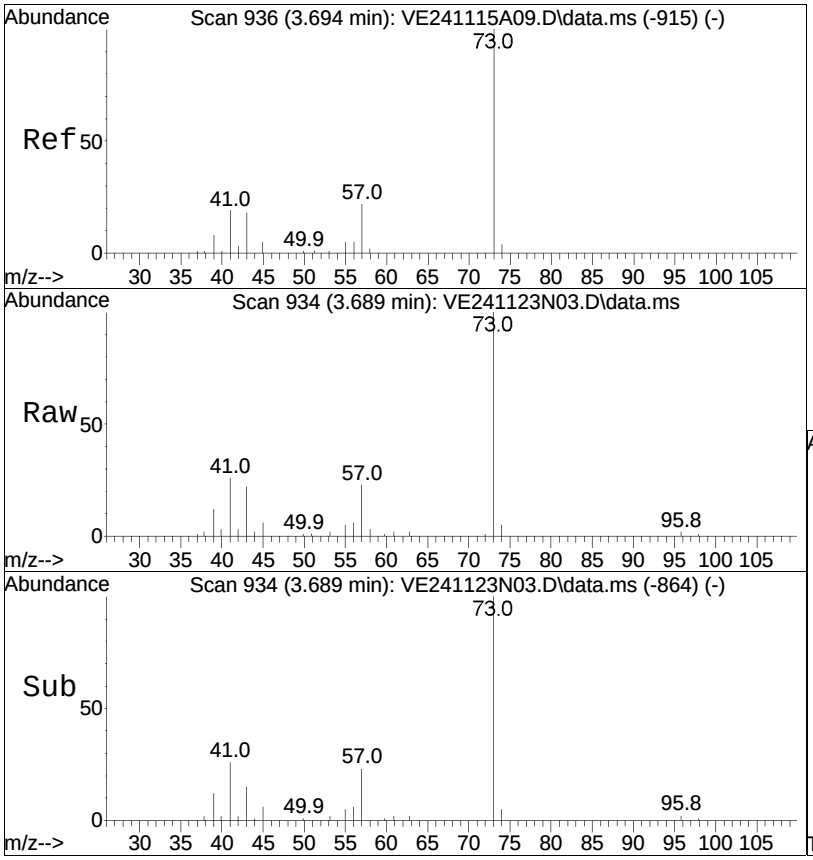


#18
trans-1,2-Dichloroethene
Concen: 9.67 ug/L
RT: 3.597 min Scan# 901
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 96 Resp: 38053

Ion	Ratio	Lower	Upper
96	100		
61	155.1	93.5	194.1
98	63.4	37.8	78.6
63	47.7	29.7	61.7

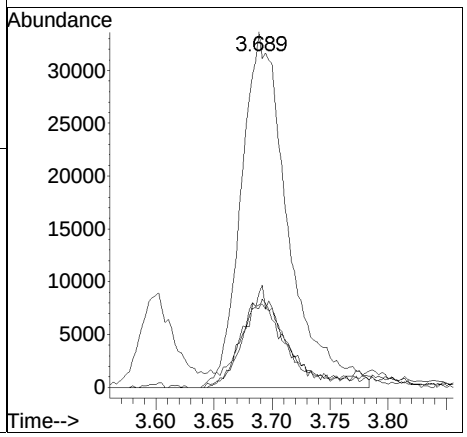


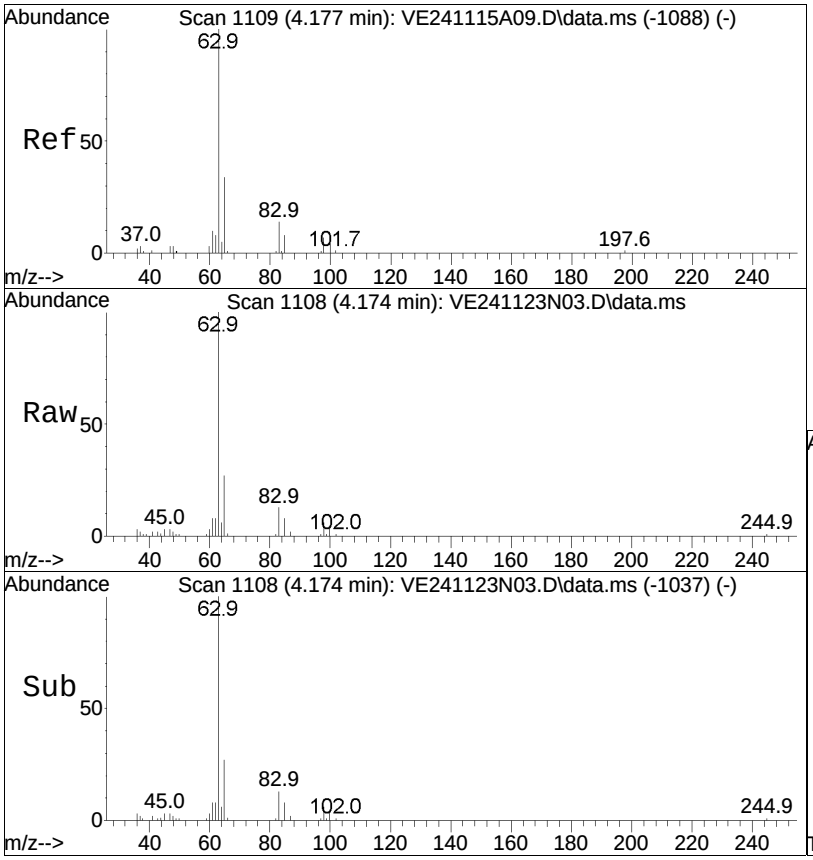


#21
Methyl tert-butyl ether
Concen: 8.87 ug/L M1
RT: 3.689 min Scan# 934
Delta R.T. -0.005 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 73 Resp: 93333

Ion	Ratio	Lower	Upper
73	100		
57	10.3	16.1	33.3#
43	20.8	17.0	35.2
41	23.8	18.7	38.9

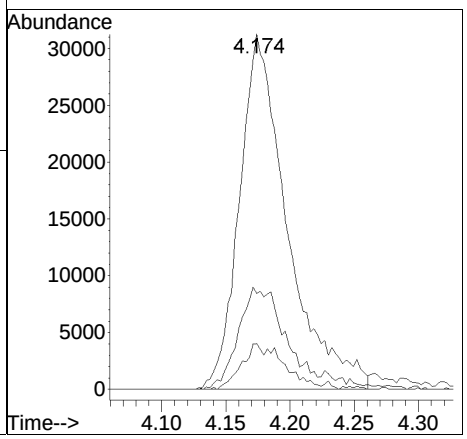


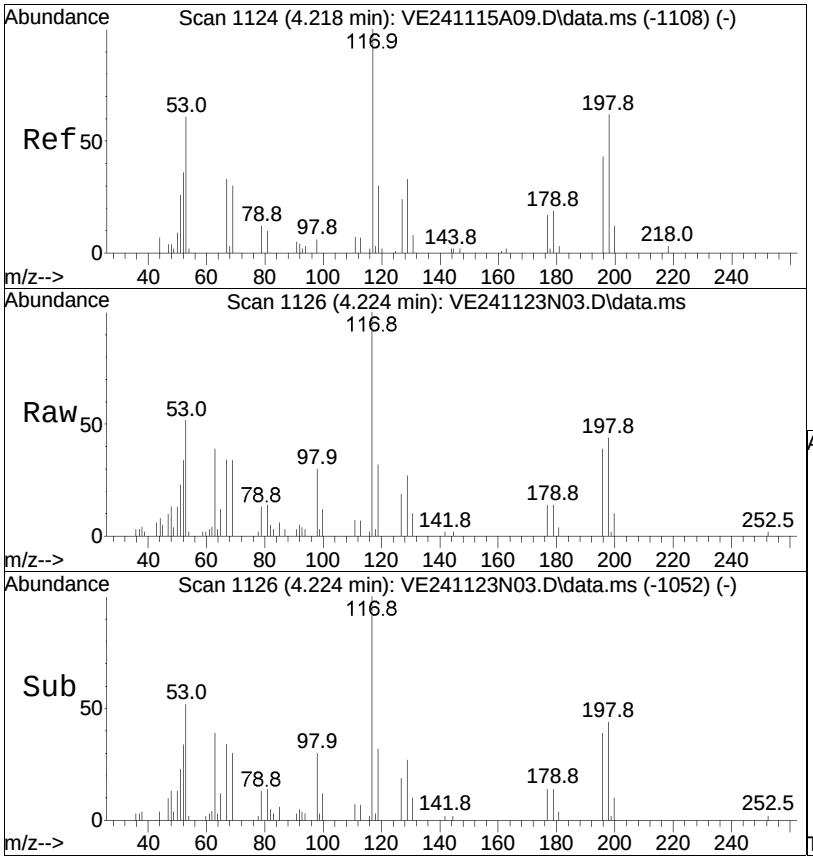


#25
1,1-Dichloroethane
Concen: 10.29 ug/L
RT: 4.174 min Scan# 1108
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 63 Resp: 80921

Ion	Ratio	Lower	Upper
63	100		
65	28.0	10.3	50.3
83	5.9	0.0	33.1

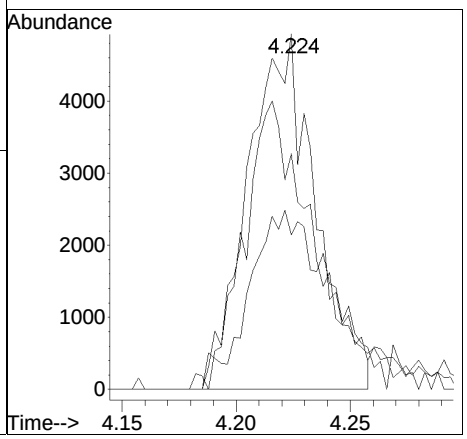


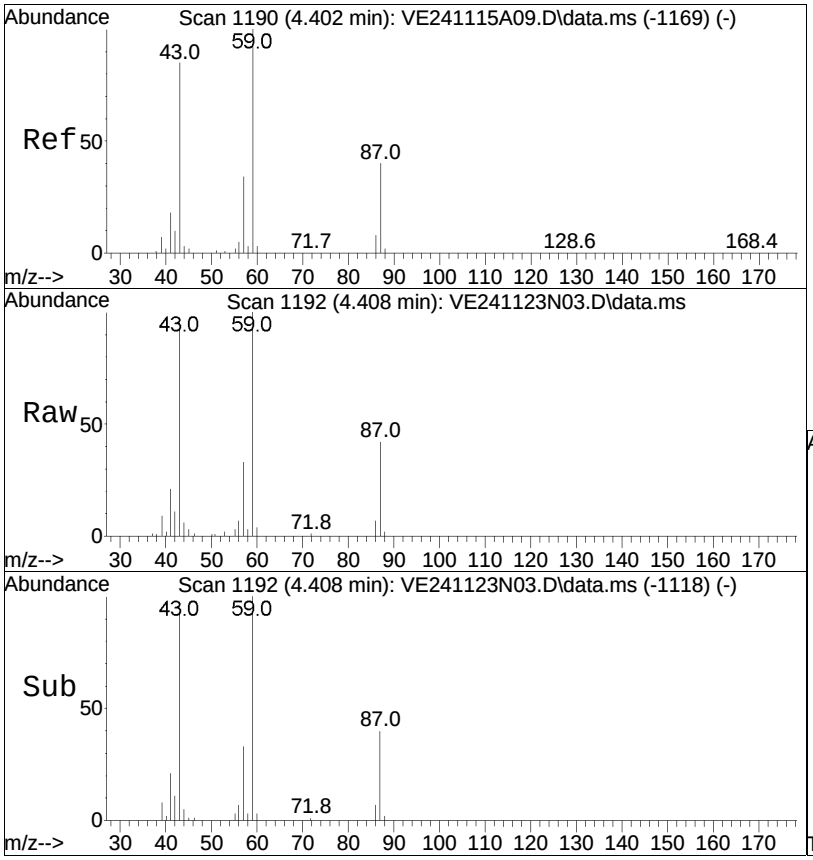


#27
Acrylonitrile
Concen: 9.49 ug/L
RT: 4.224 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 53 Resp: 10101

Ion	Ratio	Lower	Upper
53	100		
52	84.7	58.9	88.3
51	58.0	40.2	60.2

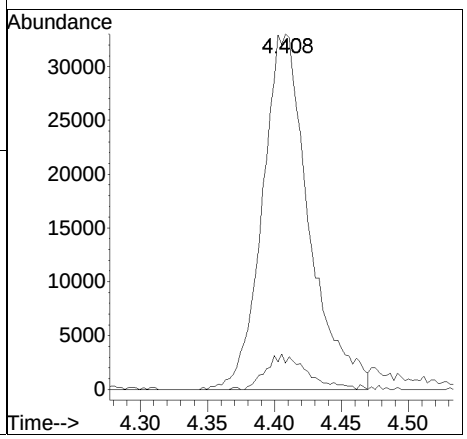


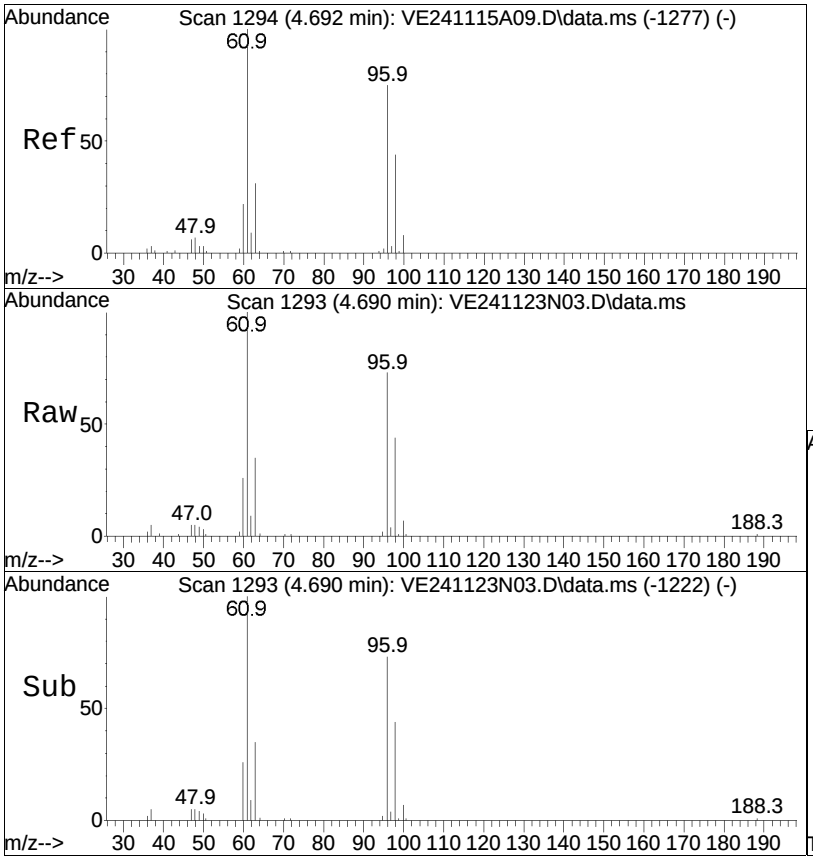


#29
Vinyl acetate
Concen: 8.72 ug/L
RT: 4.408 min Scan# 1192
Delta R.T. 0.006 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 43 Resp: 79650

Ion	Ratio	Lower	Upper
43	100		
86	8.6	6.2	9.4

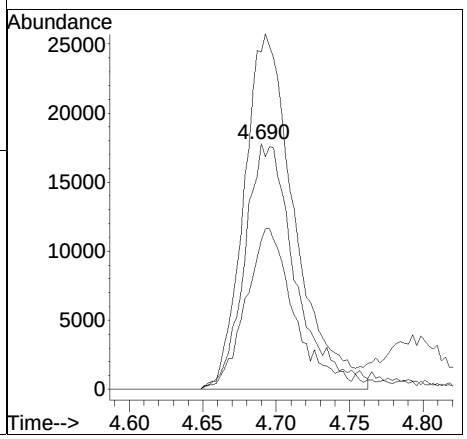


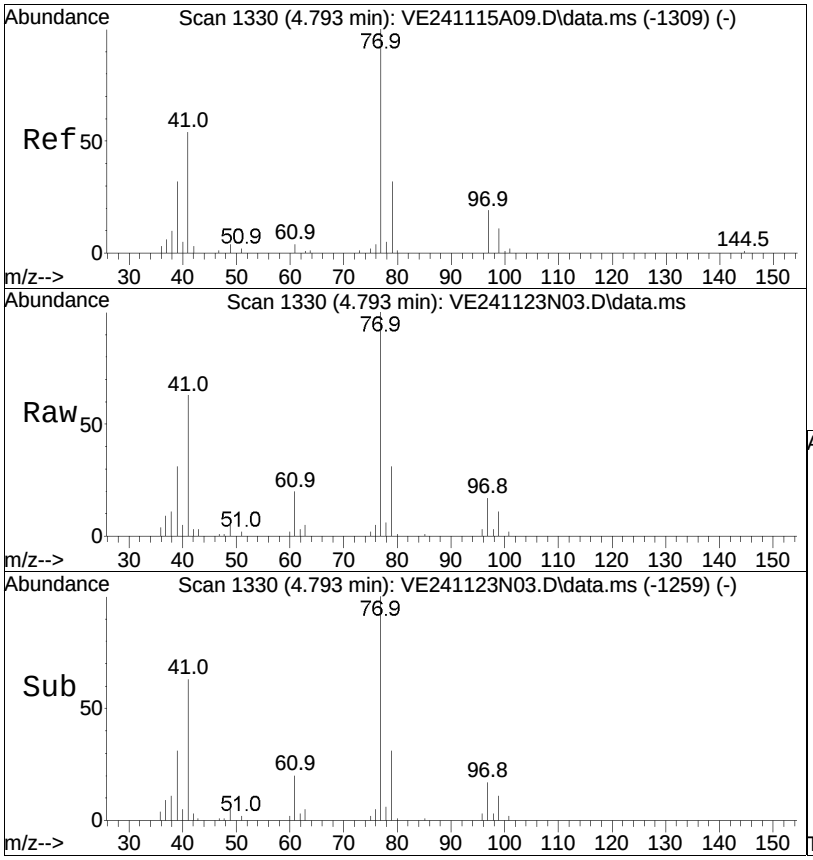


#30
cis-1,2-Dichloroethene
Concen: 9.53 ug/L
RT: 4.690 min Scan# 1293
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 96 Resp: 42801

Ion	Ratio	Lower	Upper
96	100		
61	143.4	120.3	180.5
98	63.0	50.2	75.4

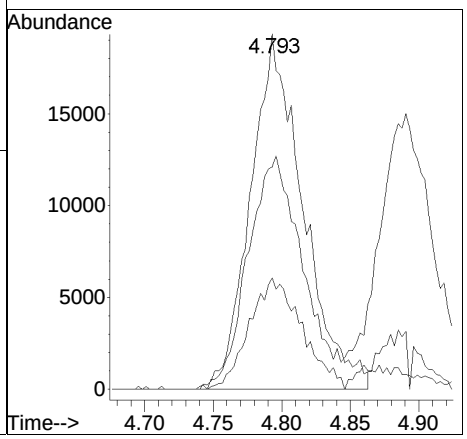


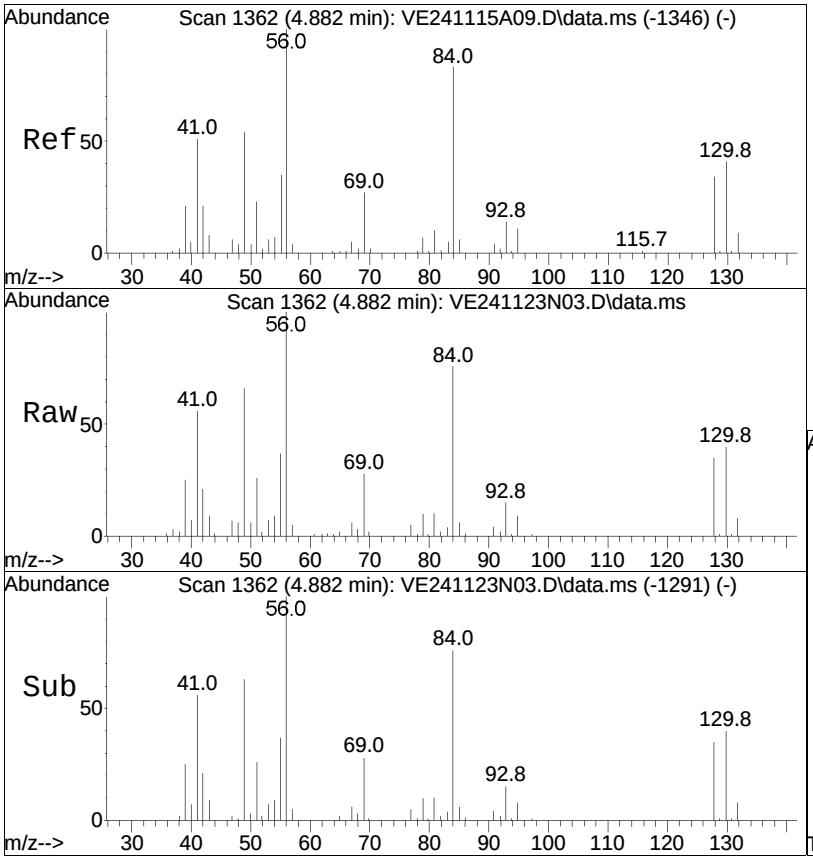


#31
2,2-Dichloropropane
Concen: 8.29 ug/L
RT: 4.793 min Scan# 1330
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 77 Resp: 51430

Ion	Ratio	Lower	Upper
77	100		
41	68.2	46.5	96.5
79	31.6	21.6	45.0

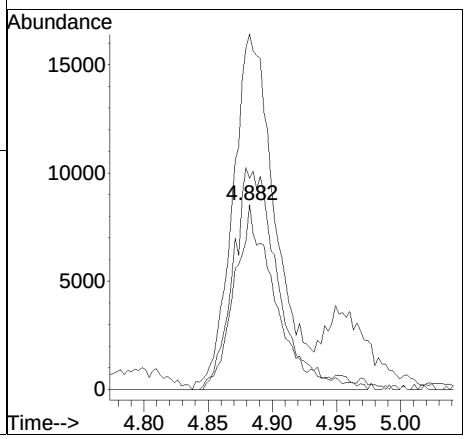


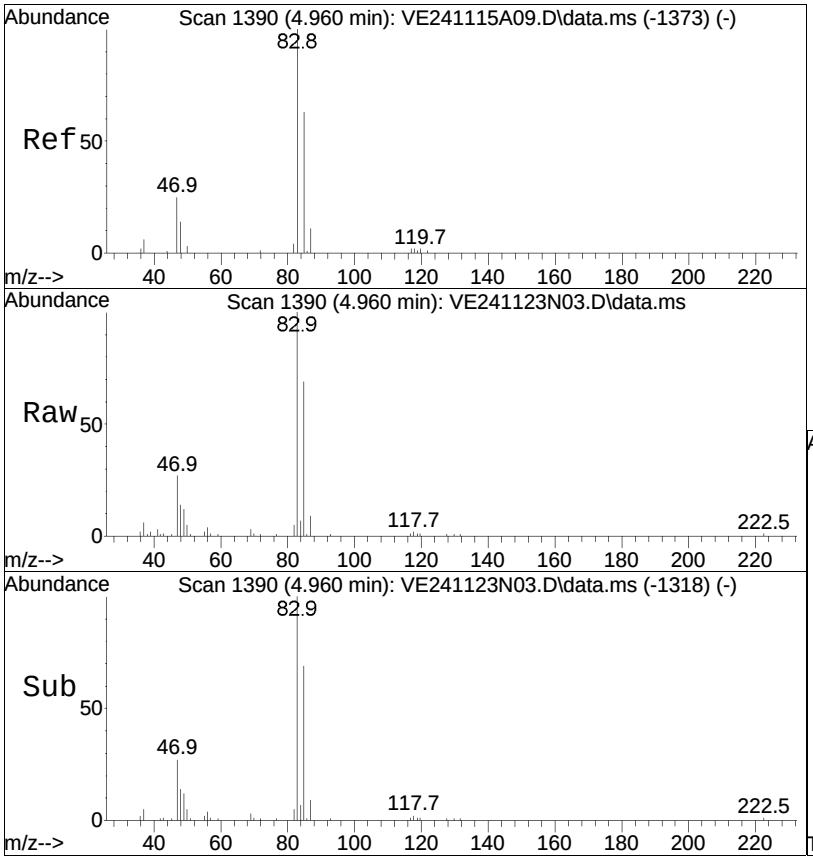


#33
Bromochloromethane
Concen: 9.33 ug/L
RT: 4.882 min Scan# 1362
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:128 Resp: 19101

Ion	Ratio	Lower	Upper
128	100		
49	197.9	170.2	255.2
130	126.0	103.7	155.5

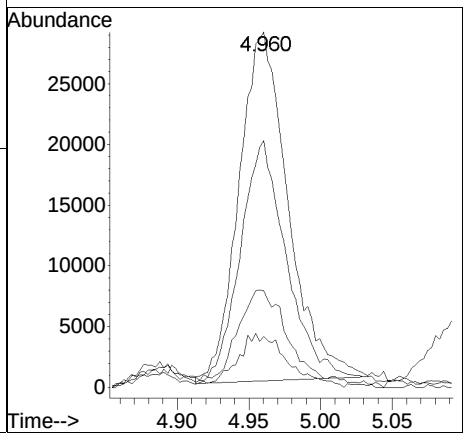


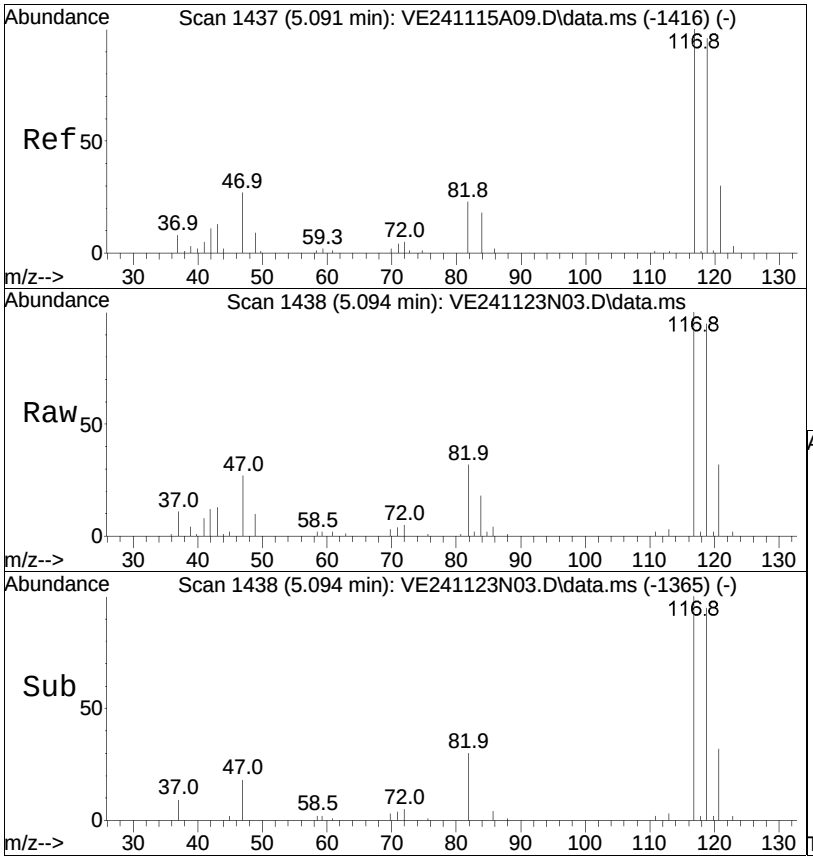


#35
Chloroform
Concen: 9.32 ug/L
RT: 4.960 min Scan# 1390
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 83 Resp: 68783

Ion	Ratio	Lower	Upper
83	100		
85	67.5	41.3	85.9
47	25.8	20.9	43.3
48	15.7	10.3	21.5

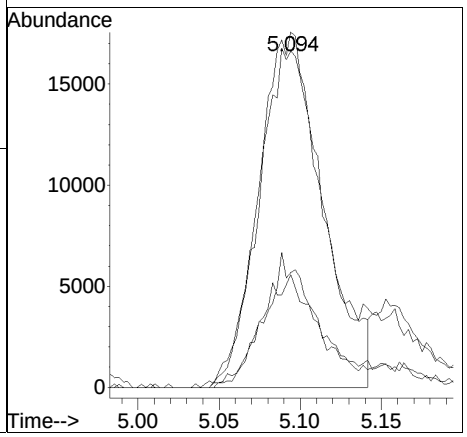


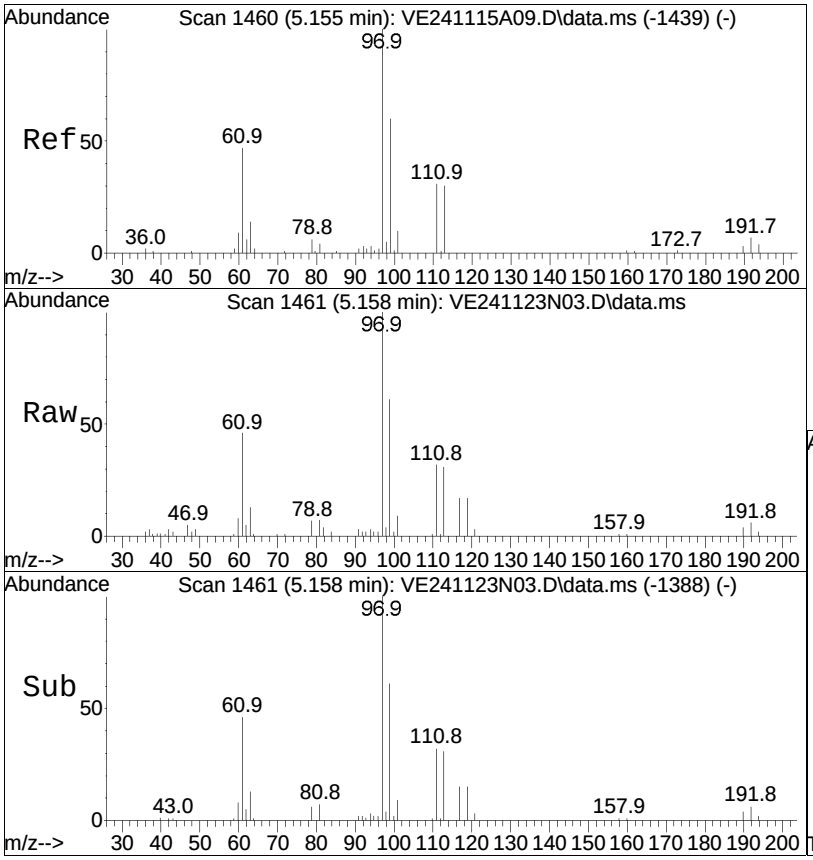


#37
Carbon tetrachloride
Concen: 9.10 ug/L
RT: 5.094 min Scan# 1438
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:117 Resp: 48711

Ion	Ratio	Lower	Upper
117	100		
119	93.2	60.6	126.0
121	30.3	18.0	37.4
82	29.0	19.8	41.0

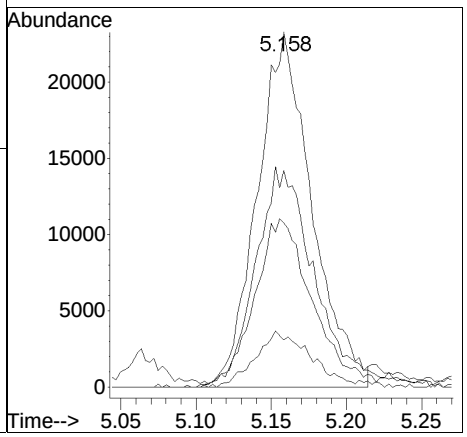


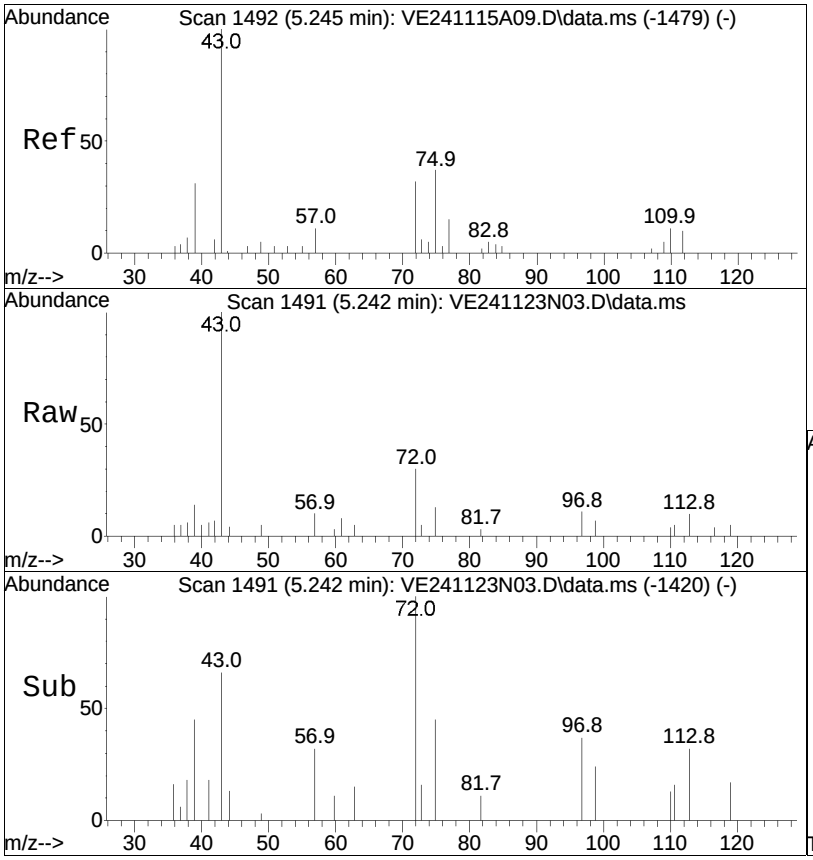


#40
1,1,1-Trichloroethane
Concen: 9.05 ug/L
RT: 5.158 min Scan# 1461
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 97 Resp: 58993

Ion	Ratio	Lower	Upper
97	100		
99	66.3	40.2	83.4
61	47.9	36.9	76.5
63	16.0	8.3	17.3

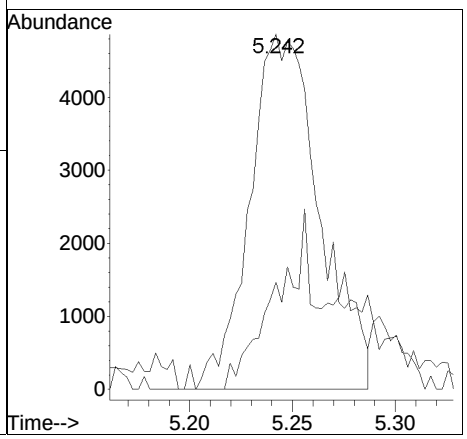


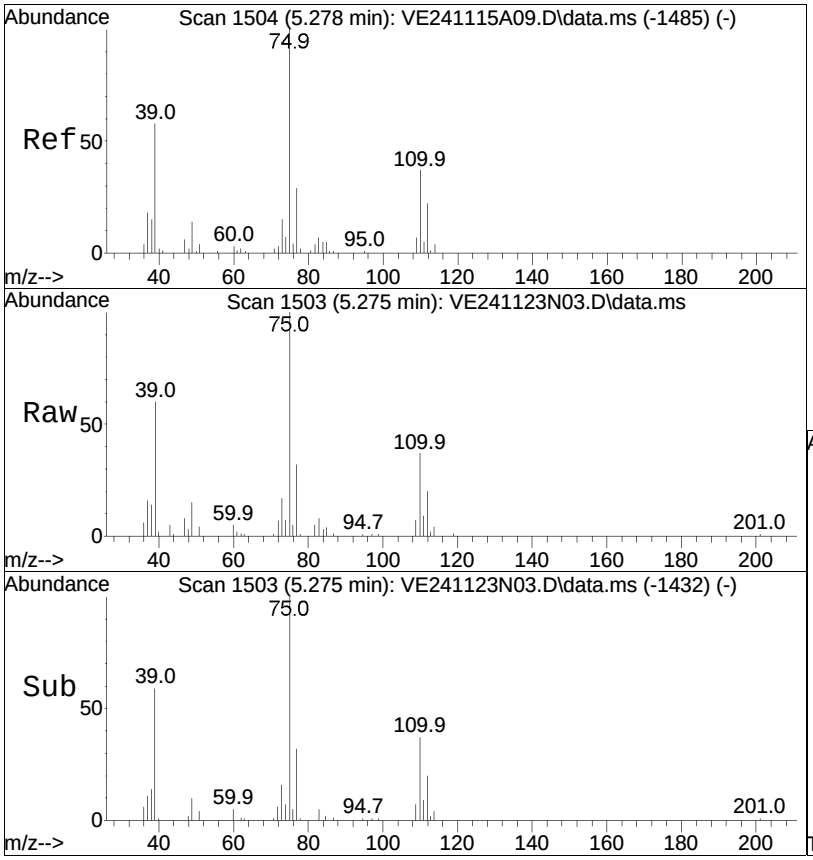


#42
2-Butanone
Concen: 9.29 ug/L
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 43 Resp: 11501

Ion	Ratio	Lower	Upper
43	100		
72	26.5	15.7	23.5#

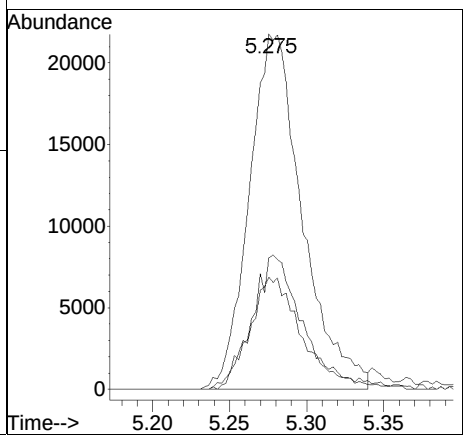


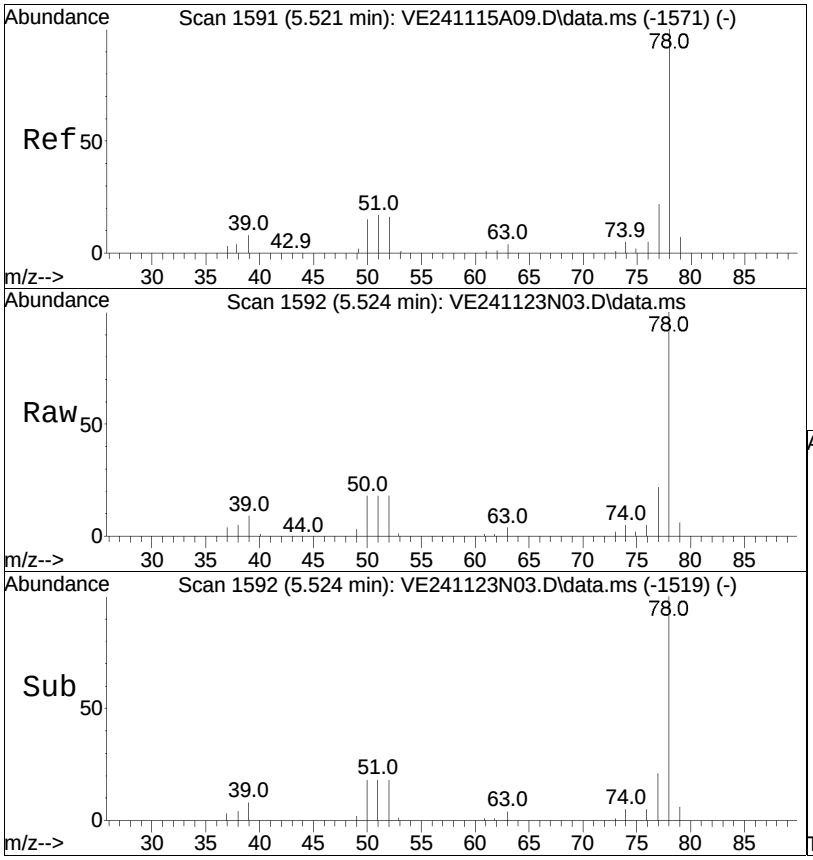


#43
1,1-Dichloropropene
Concen: 9.15 ug/L
RT: 5.275 min Scan# 1503
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 75 Resp: 52245

Ion	Ratio	Lower	Upper
75	100		
110	35.5	20.3	42.1
77	31.4	18.9	39.3

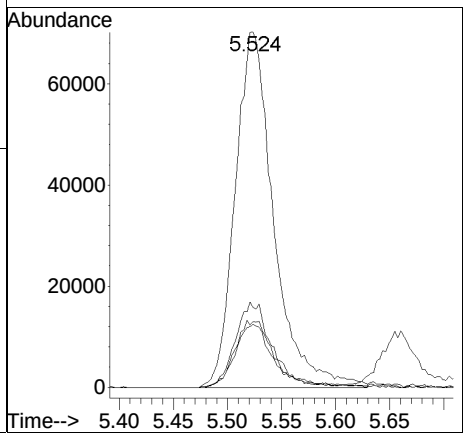


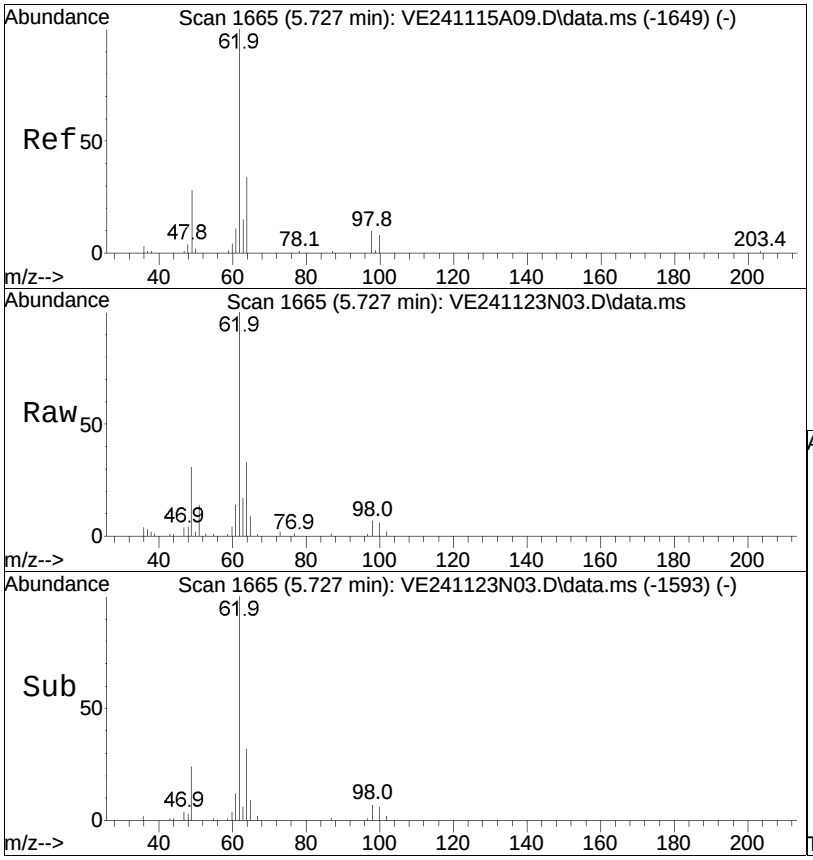


#45
Benzene
Concen: 9.68 ug/L
RT: 5.524 min Scan# 1592
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 78 Resp: 174113

Ion	Ratio	Lower	Upper
78	100		
77	22.8	12.8	26.6
51	18.7	13.5	27.9
52	17.2	12.0	25.0

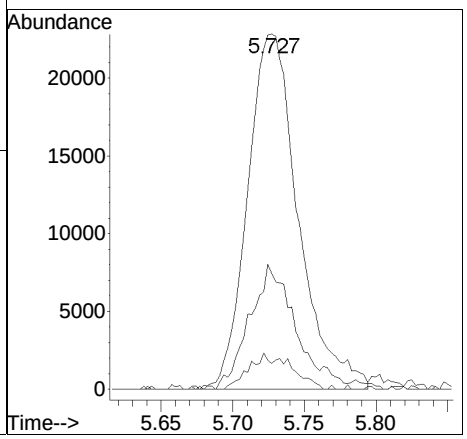


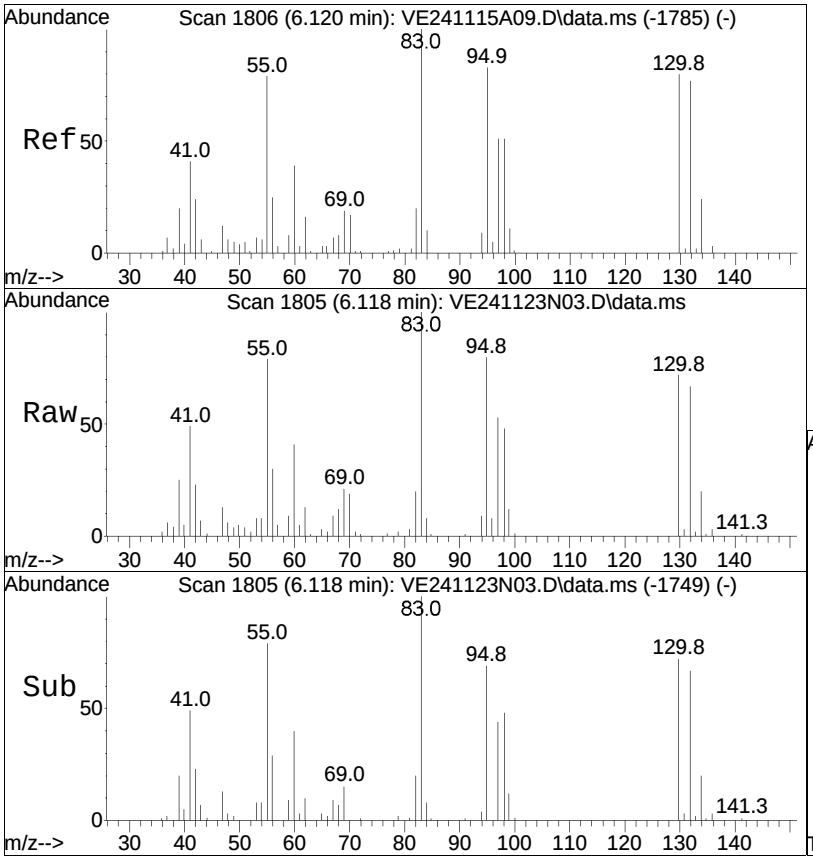


#48
1,2-Dichloroethane
Concen: 9.83 ug/L
RT: 5.727 min Scan# 1665
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 62 Resp: 56232

Ion	Ratio	Lower	Upper
62	100		
64	30.2	12.0	52.0
98	4.5	0.0	29.1

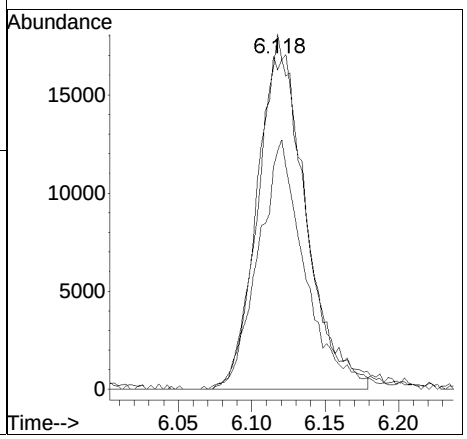


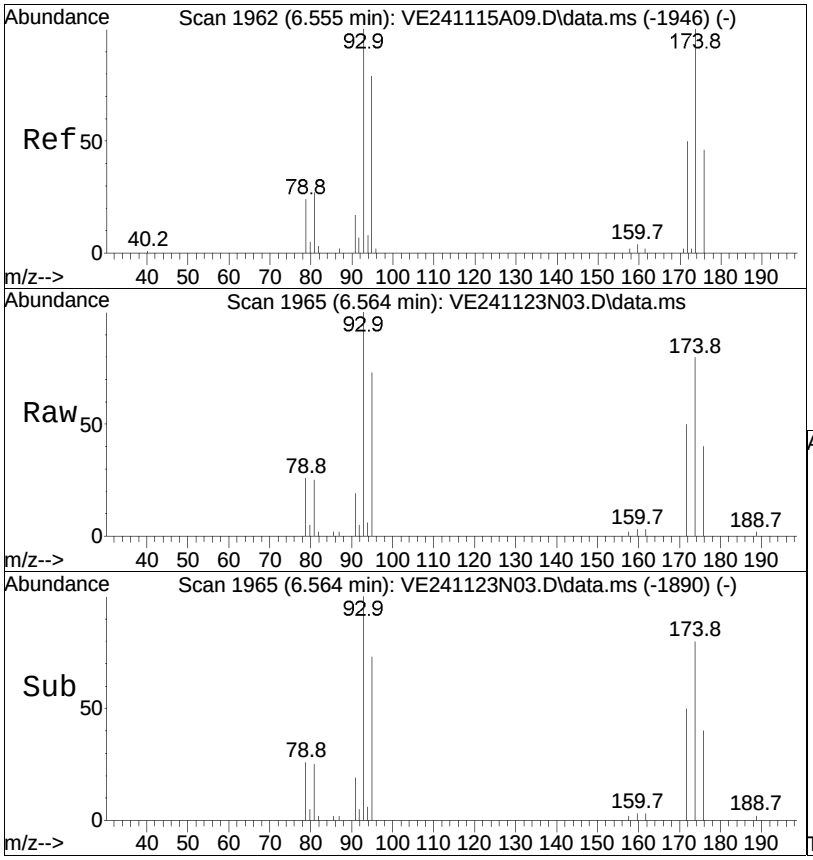


#52
Trichloroethene
Concen: 9.57 ug/L
RT: 6.118 min Scan# 1805
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 95 Resp: 40780

Ion	Ratio	Lower	Upper
95	100		
97	69.2	50.2	75.2
130	99.0	78.2	117.4

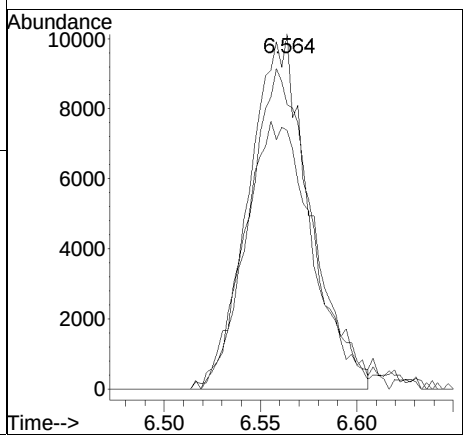


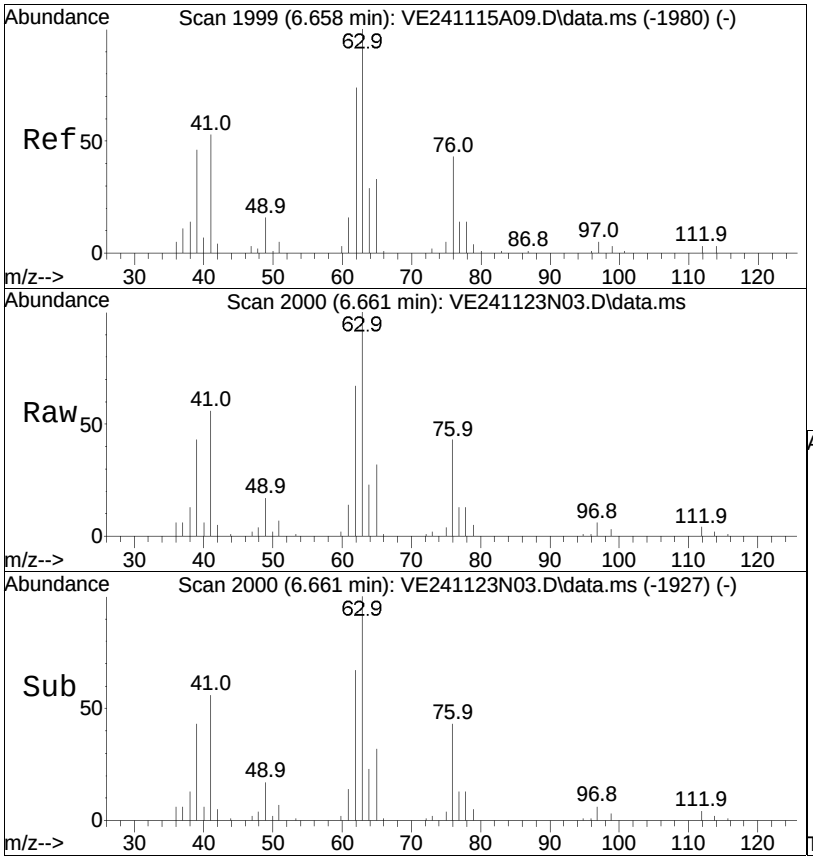


#54
Dibromomethane
Concen: 9.11 ug/L
RT: 6.564 min Scan# 1965
Delta R.T. 0.008 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 93 Resp: 22187

Ion	Ratio	Lower	Upper
93	100		
95	83.5	73.2	109.8
174	95.9	73.8	110.8

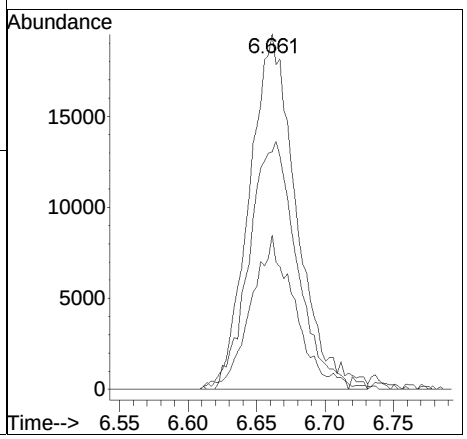


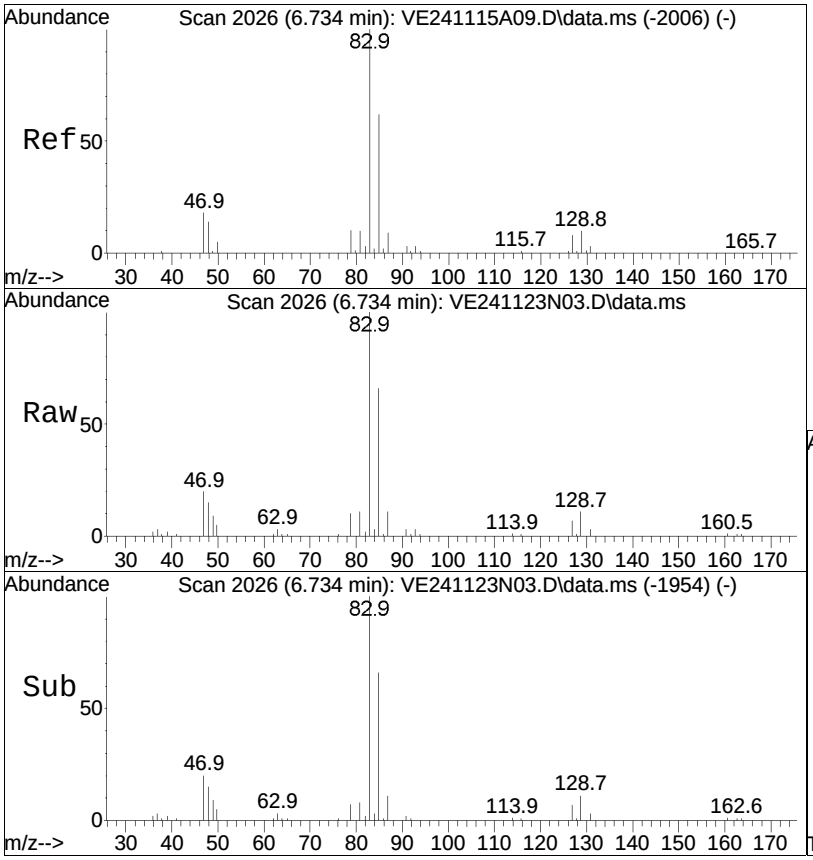


#55
1,2-Dichloropropane
Concen: 10.27 ug/L
RT: 6.661 min Scan# 2000
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 63 Resp: 46916

Ion	Ratio	Lower	Upper
63	100		
62	70.2	58.4	87.6
76	39.1	28.7	43.1

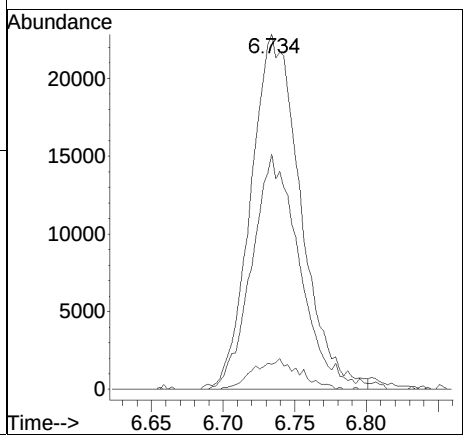


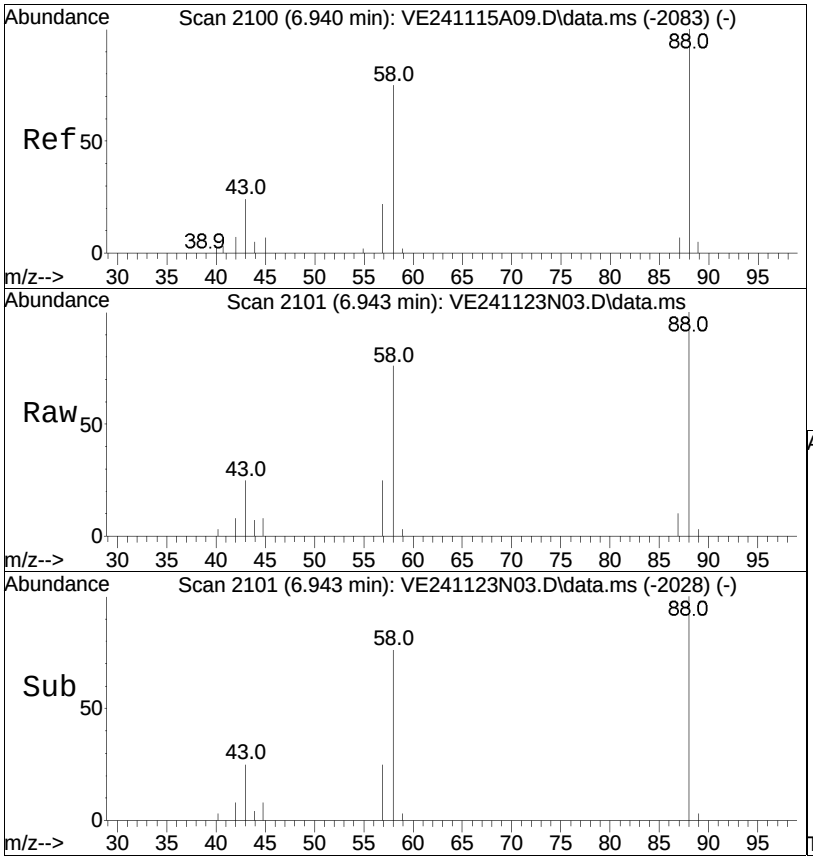


#58
Bromodichloromethane
Concen: 9.33 ug/L
RT: 6.734 min Scan# 2026
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 83 Resp: 55281

Ion	Ratio	Lower	Upper
83	100		
85	63.2	46.6	69.8
127	8.0	6.2	9.4

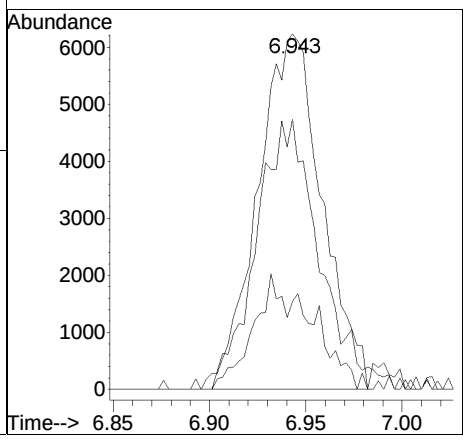


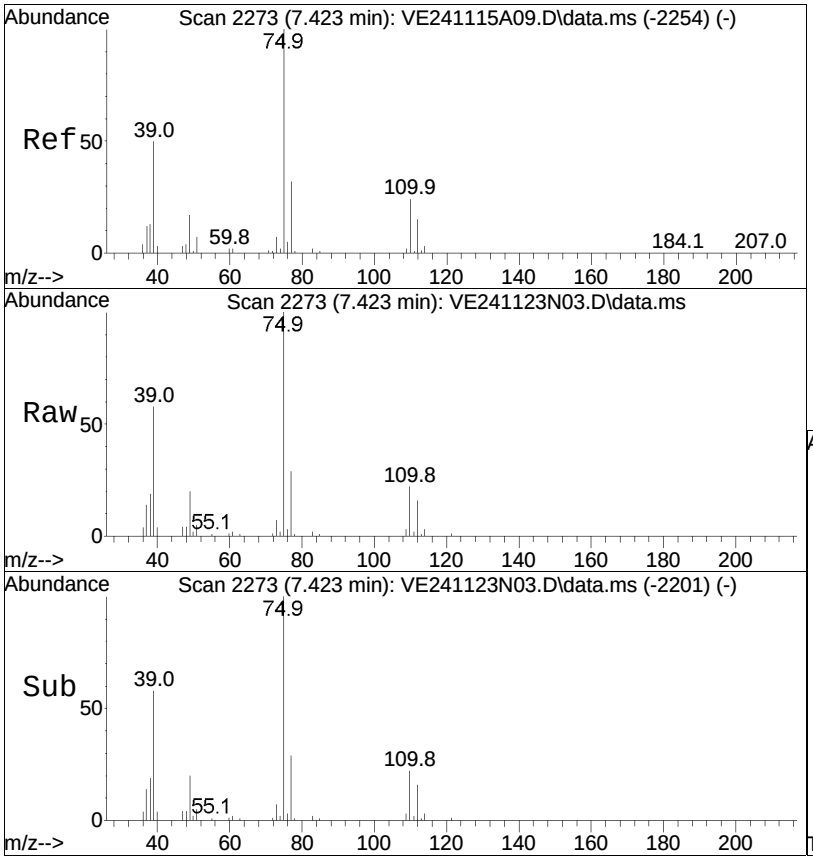


#61
1,4-Dioxane
Concen: 486.09 ug/L
RT: 6.943 min Scan# 2101
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 88 Resp: 14509

Ion	Ratio	Lower	Upper
88	100		
58	74.2	62.8	94.2
43	15.7	36.6	55.0#

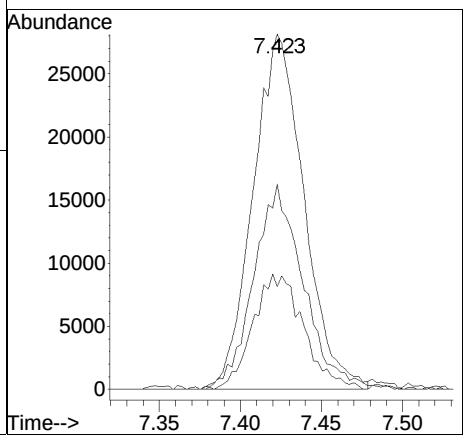


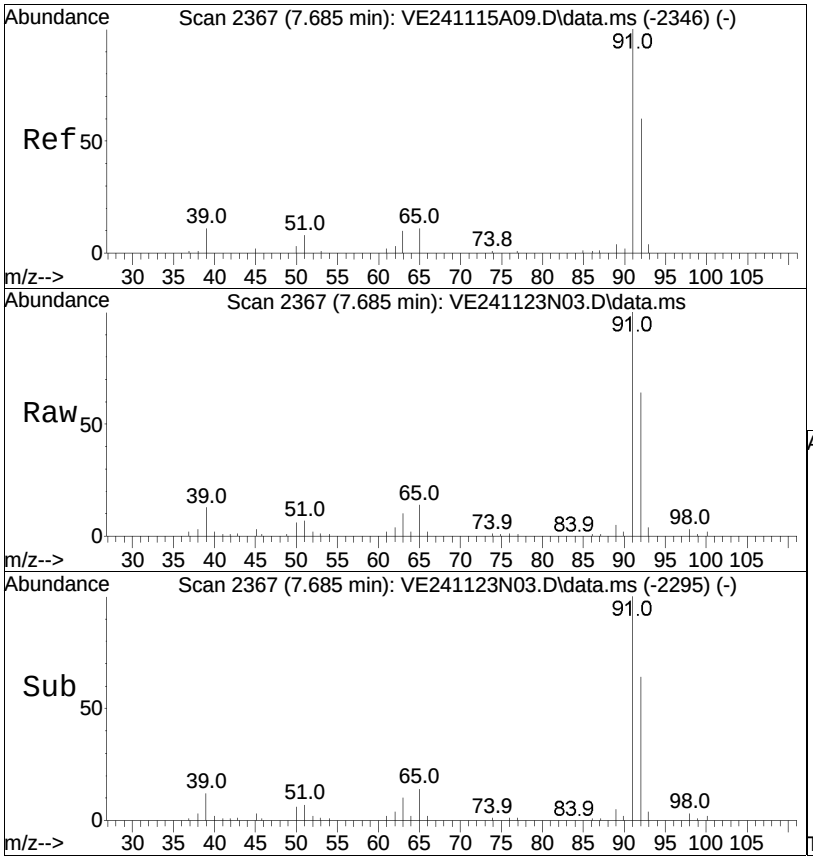


#62
cis-1,3-Dichloropropene
Concen: 8.99 ug/L
RT: 7.423 min Scan# 2273
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 75 Resp: 61533

Ion	Ratio	Lower	Upper
75	100		
77	32.2	25.1	37.7
39	56.1	50.7	76.1

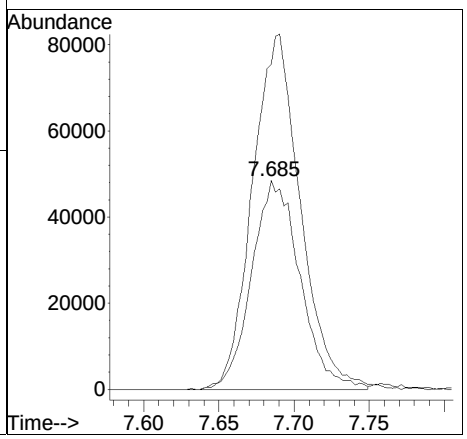


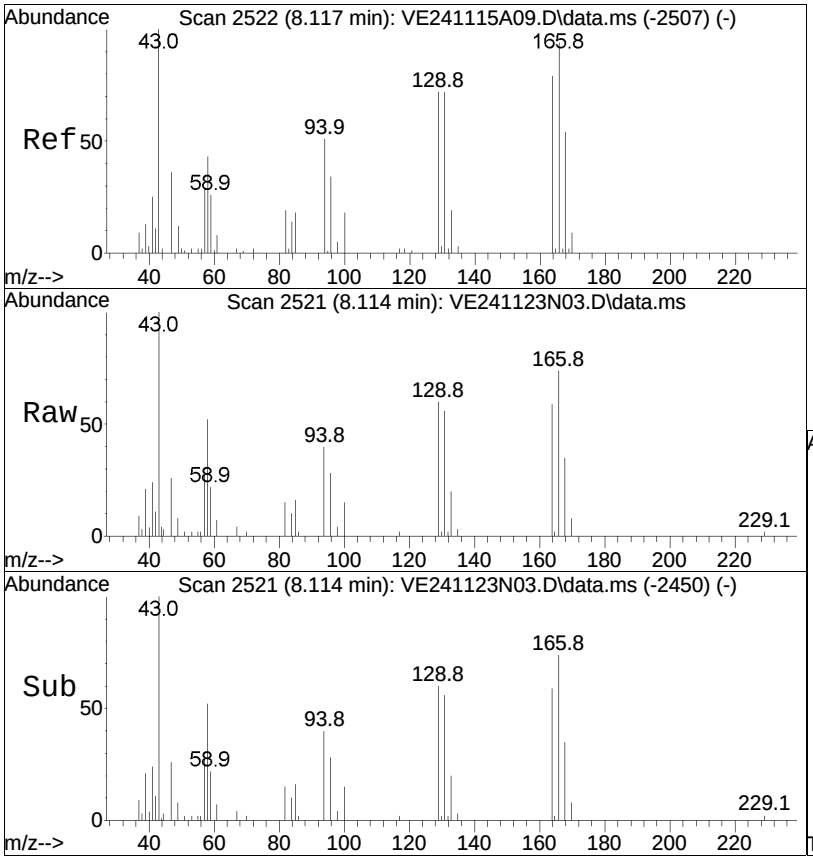


#65
Toluene
Concen: 9.76 ug/L
RT: 7.685 min Scan# 2367
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 92 Resp: 108606

Ion	Ratio	Lower	Upper
92	100		
91	168.5	129.1	193.7

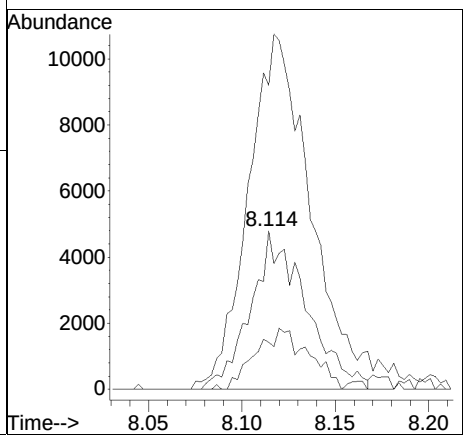


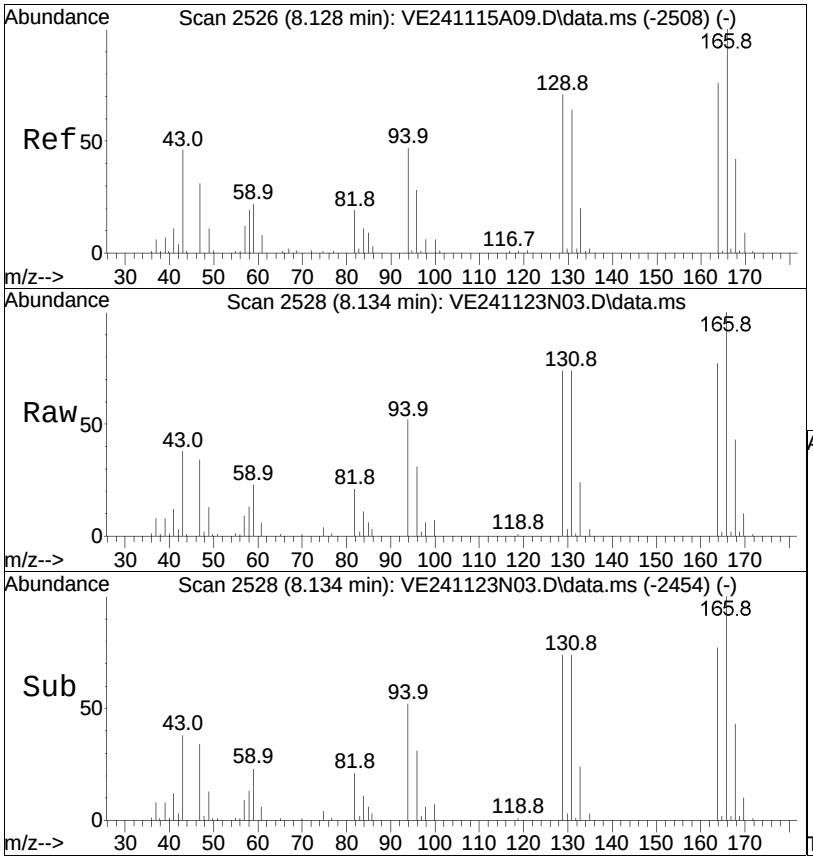


#66
4-Methyl-2-pentanone
Concen: 8.48 ug/L
RT: 8.114 min Scan# 2521
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 58 Resp: 9915

Ion	Ratio	Lower	Upper
58	100		
100	36.7	27.9	41.9
43	259.7	225.7	338.5

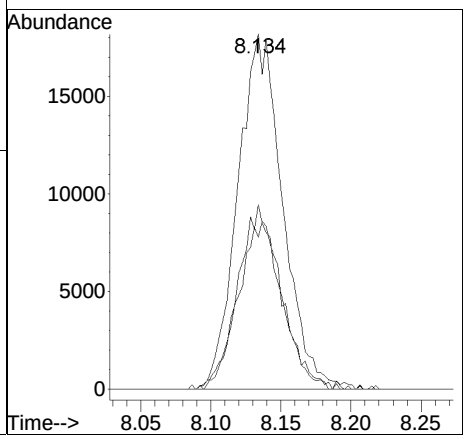


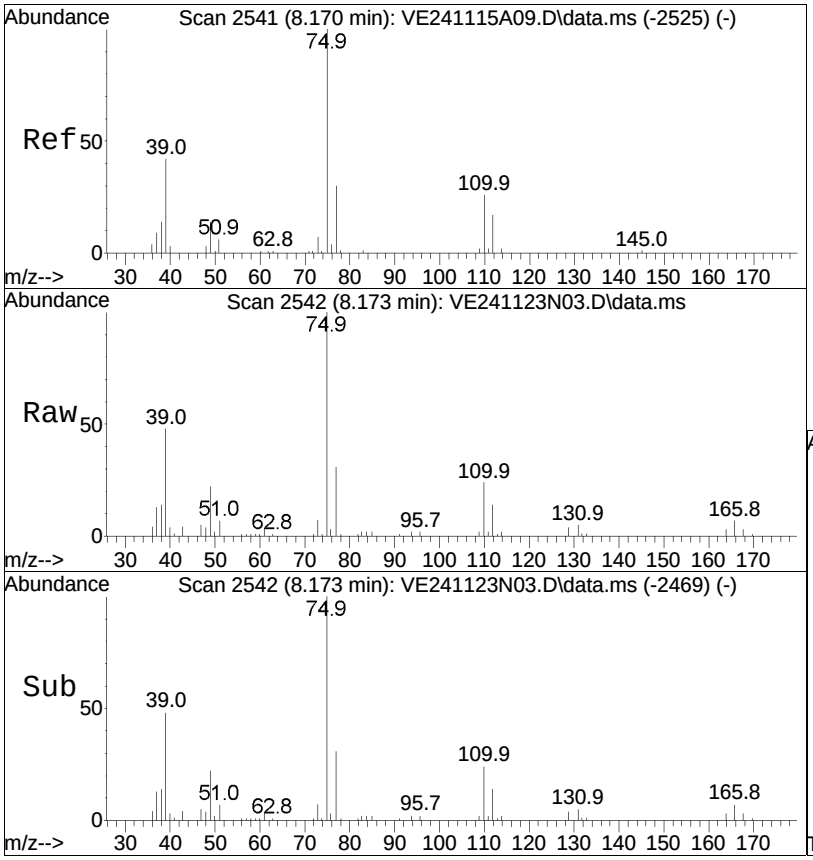


#67
Tetrachloroethene
Concen: 9.10 ug/L
RT: 8.134 min Scan# 2528
Delta R.T. 0.006 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:166 Resp: 40706

Ion	Ratio	Lower	Upper
166	100		
168	47.6	25.8	65.8
94	48.8	24.3	64.3

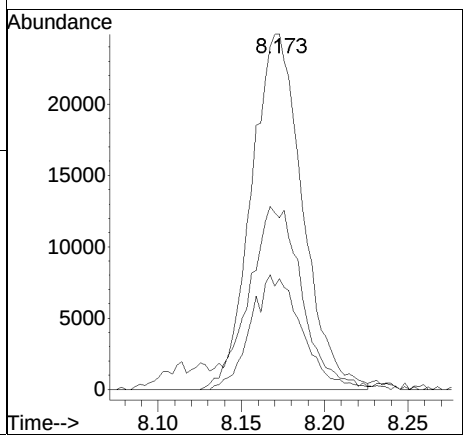


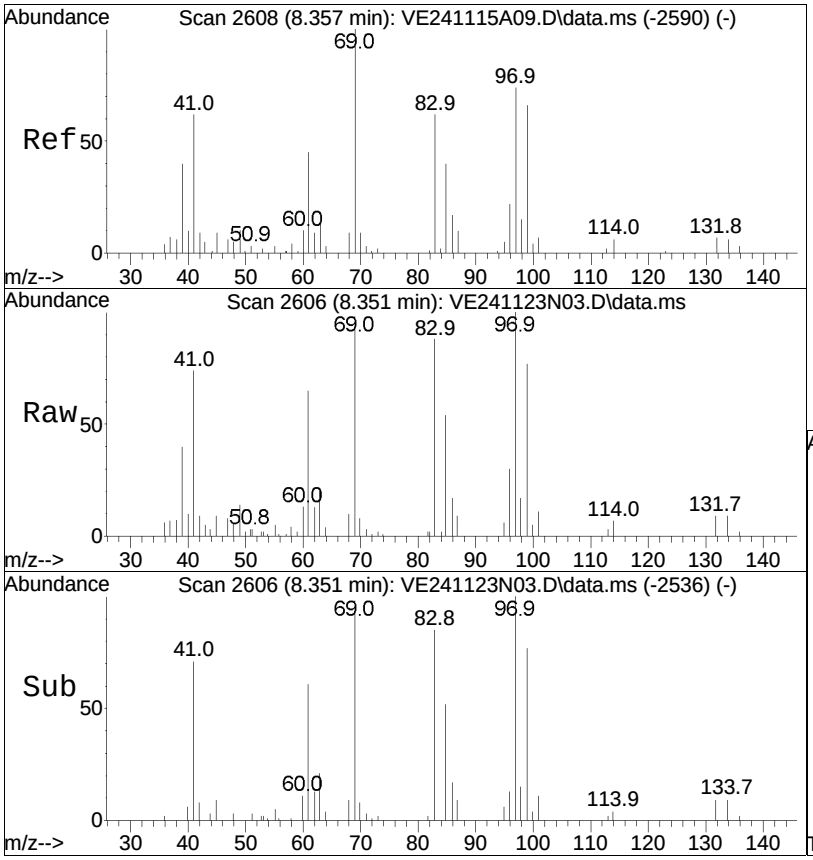


#69
trans-1,3-Dichloropropene
Concen: 9.66 ug/L
RT: 8.173 min Scan# 2542
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 75 Resp: 53236

Ion	Ratio	Lower	Upper
75	100		
77	32.0	10.2	50.2
39	50.6	45.7	85.7

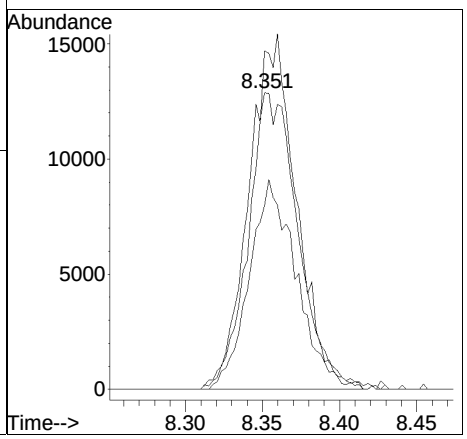


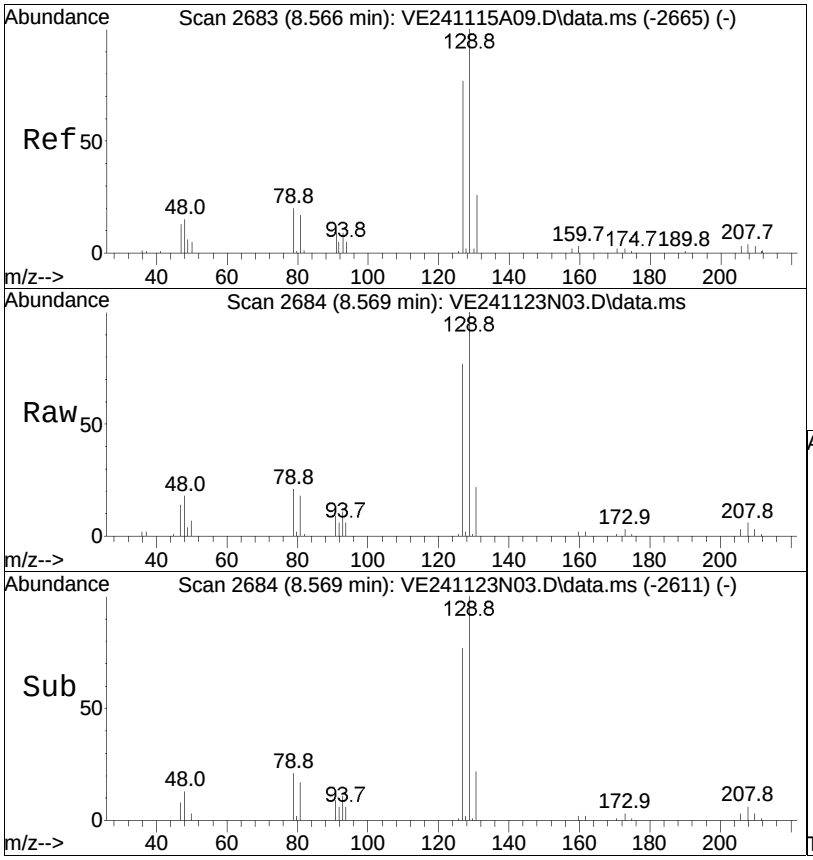


#72
1,1,2-Trichloroethane
Concen: 9.86 ug/L
RT: 8.351 min Scan# 2606
Delta R.T. -0.005 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 83 Resp: 28832

Ion	Ratio	Lower	Upper
83	100		
97	116.2	99.2	139.2
85	66.8	48.7	88.7

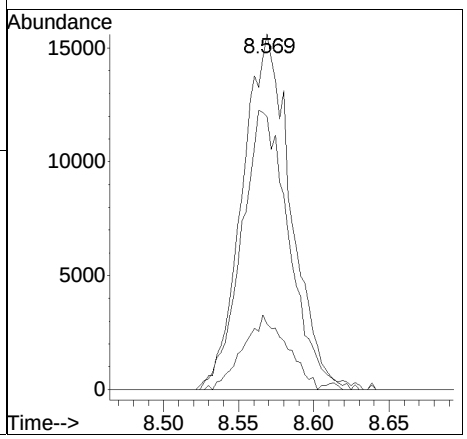


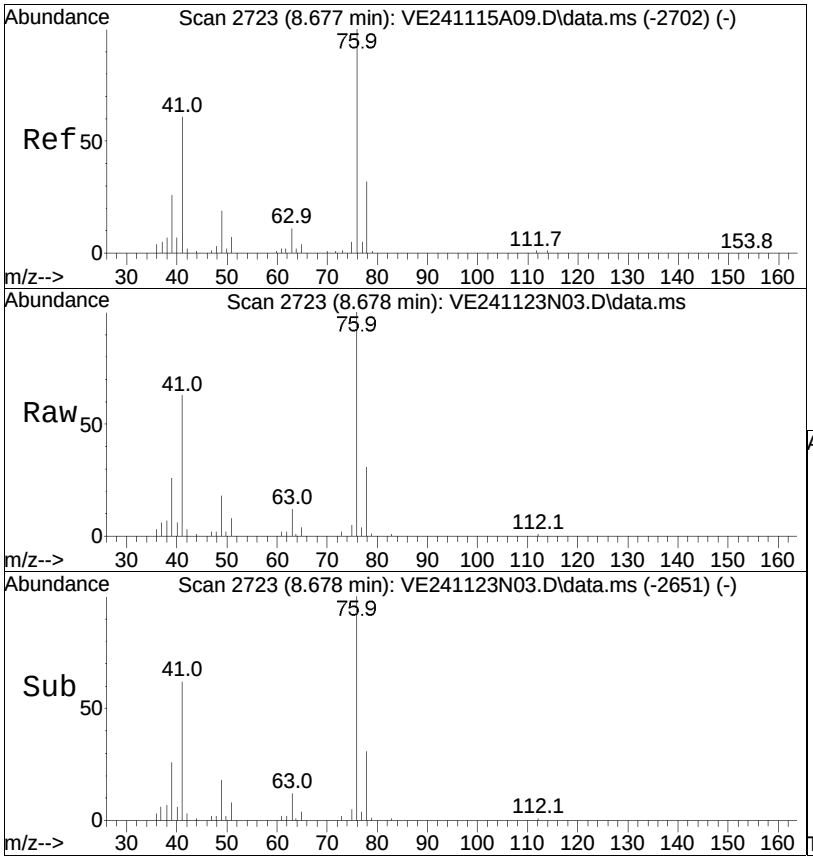


#73
Chlorodibromomethane
Concen: 8.96 ug/L
RT: 8.569 min Scan# 2684
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:129 Resp: 35171

Ion	Ratio	Lower	Upper
129	100		
81	19.1	0.0	39.5
127	77.3	58.6	98.6

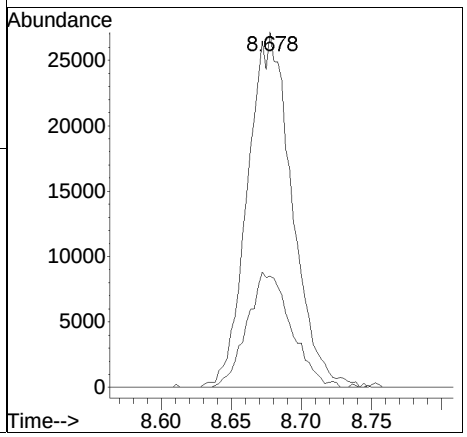


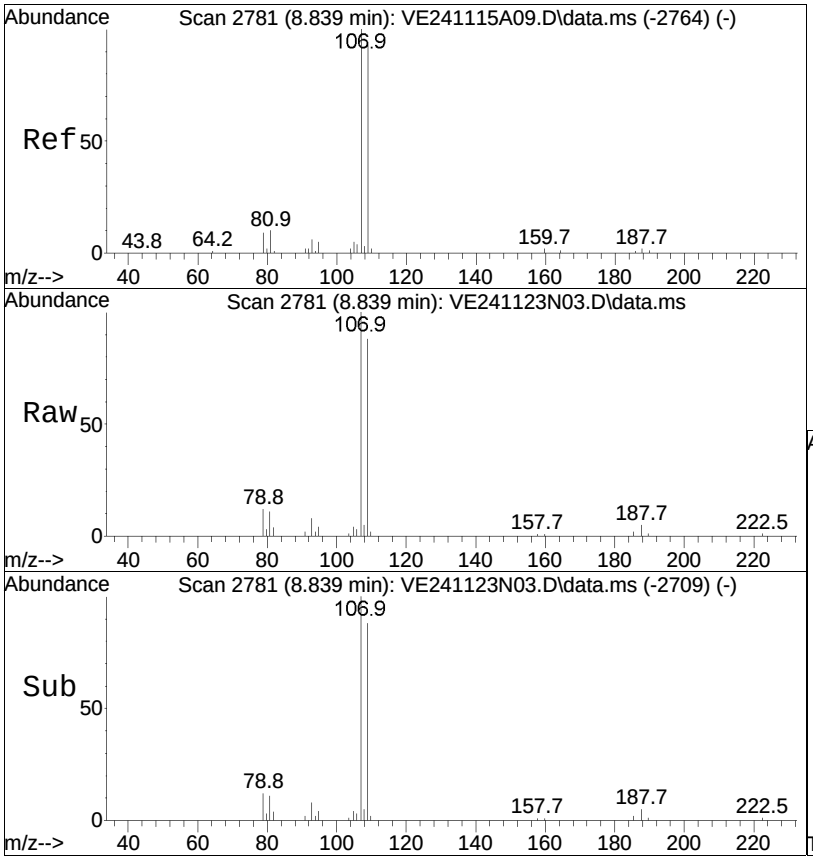


#74
1,3-Dichloropropane
Concen: 9.94 ug/L
RT: 8.678 min Scan# 2723
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 76 Resp: 60051

Ion	Ratio	Lower	Upper
76	100		
78	32.1	27.0	40.4

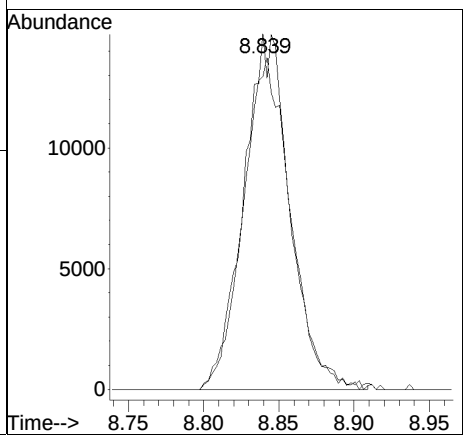


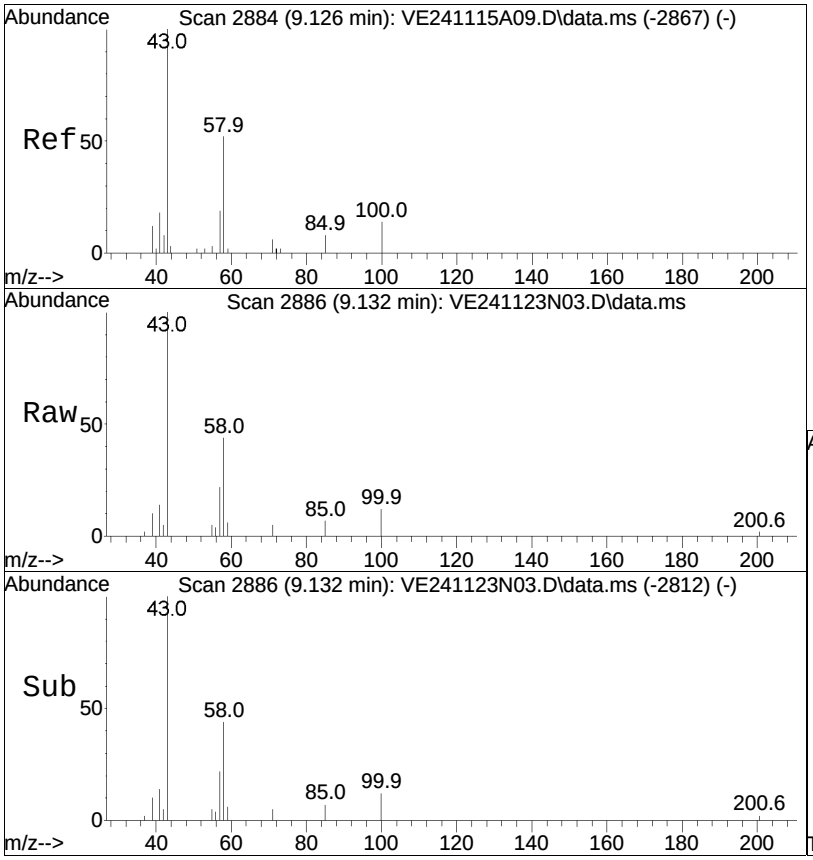


#75
1,2-Dibromoethane
Concen: 9.22 ug/L
RT: 8.839 min Scan# 2781
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:107 Resp: 31958

Ion	Ratio	Lower	Upper
107	100		
109	93.8	66.3	99.5

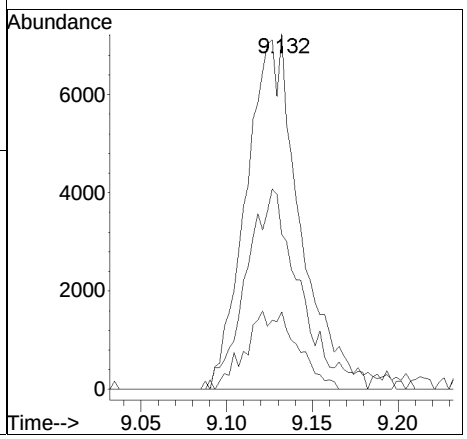


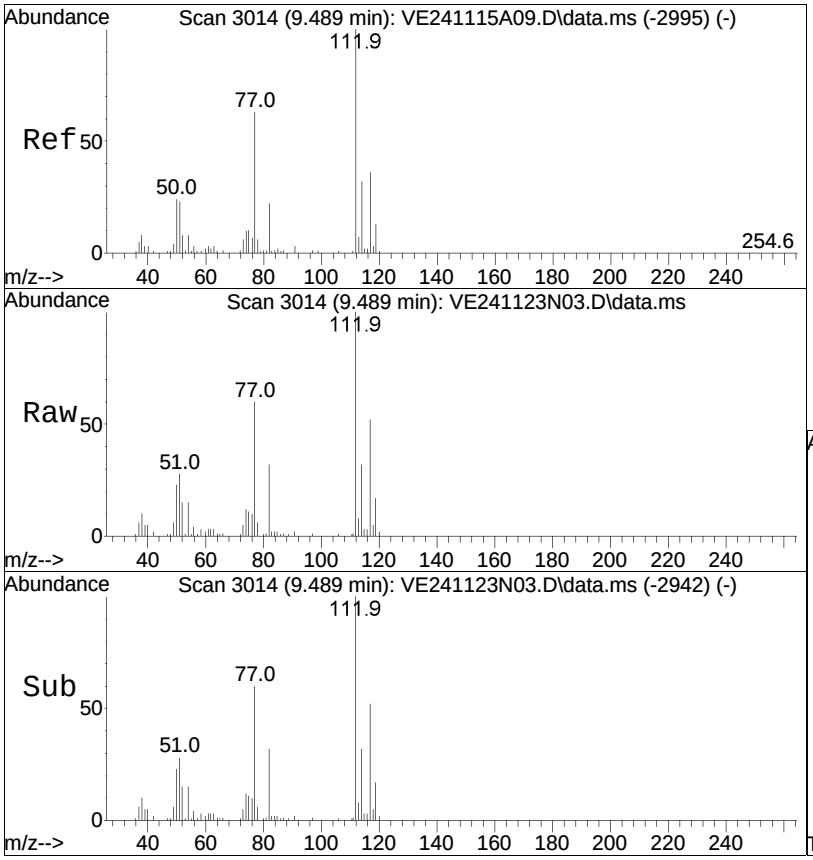


#77
2-Hexanone
Concen: 8.34 ug/L
RT: 9.132 min Scan# 2886
Delta R.T. 0.006 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 43 Resp: 15670

Ion	Ratio	Lower	Upper
43	100		
58	54.2	42.5	63.7
57	9.9	13.9	20.9#

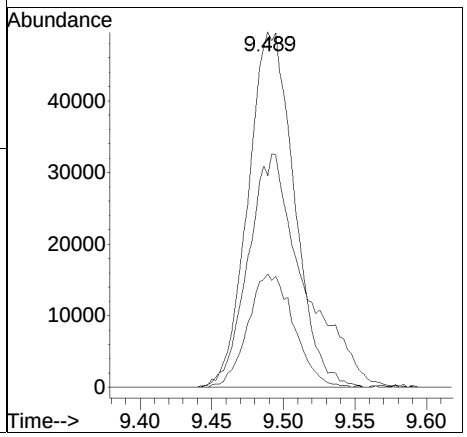


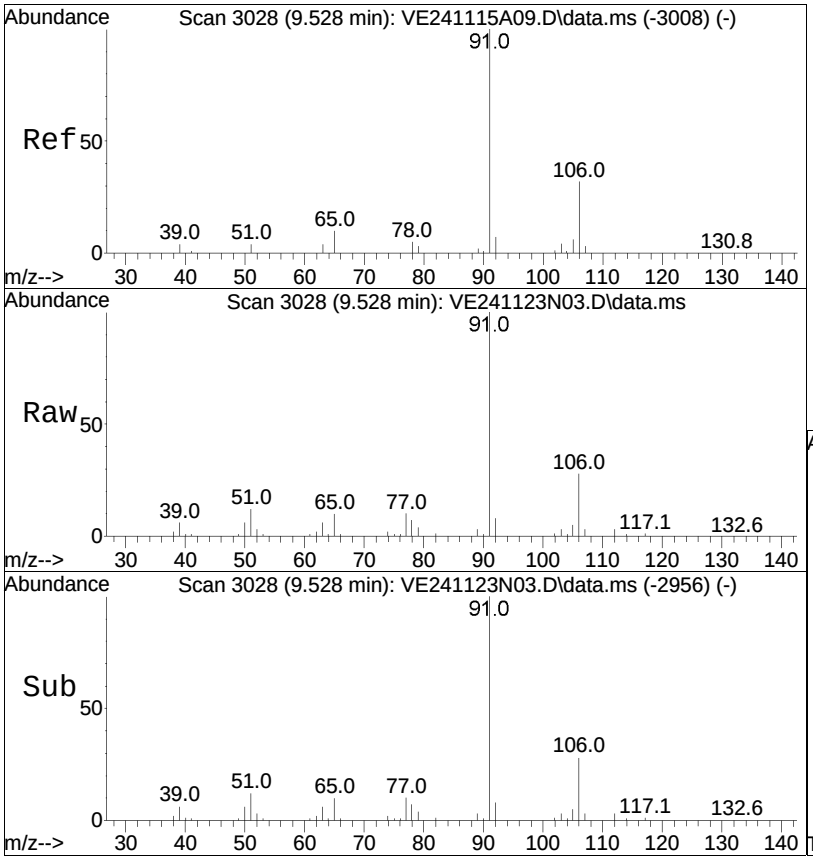


#78
Chlorobenzene
Concen: 9.41 ug/L
RT: 9.489 min Scan# 3014
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:112 Resp: 111256

Ion	Ratio	Lower	Upper
112	100		
77	79.8	46.9	70.3#
114	31.8	23.8	35.6

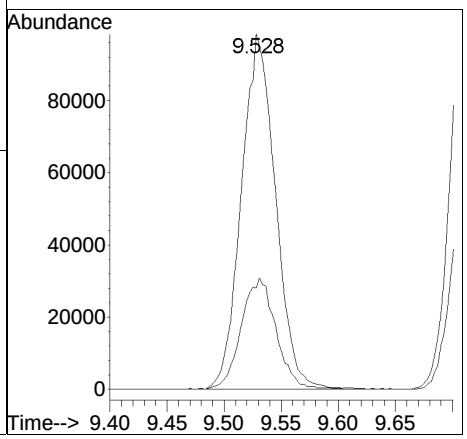


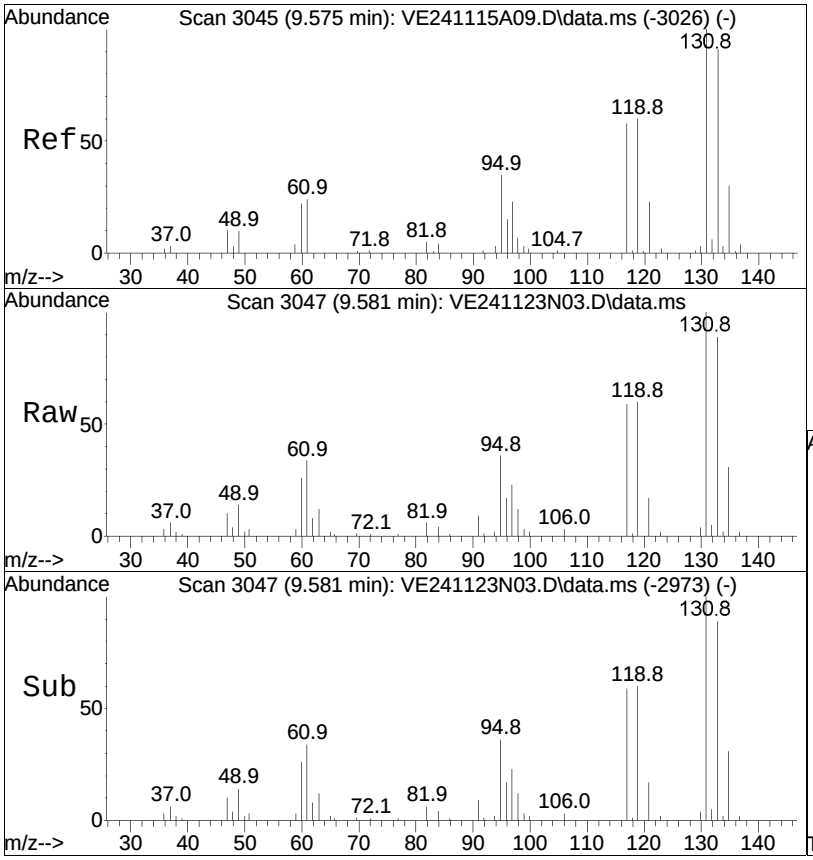


#79
Ethylbenzene
Concen: 9.62 ug/L
RT: 9.528 min Scan# 3028
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 91 Resp: 204651

Ion	Ratio	Lower	Upper
91	100		
106	31.9	25.3	37.9

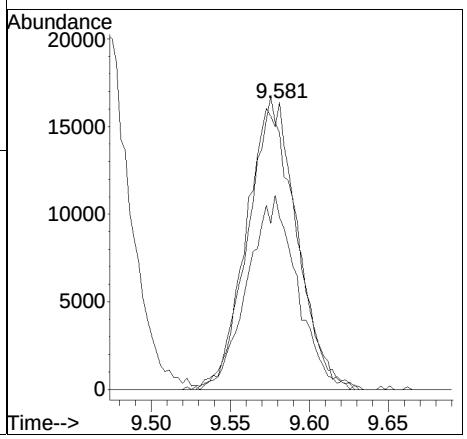


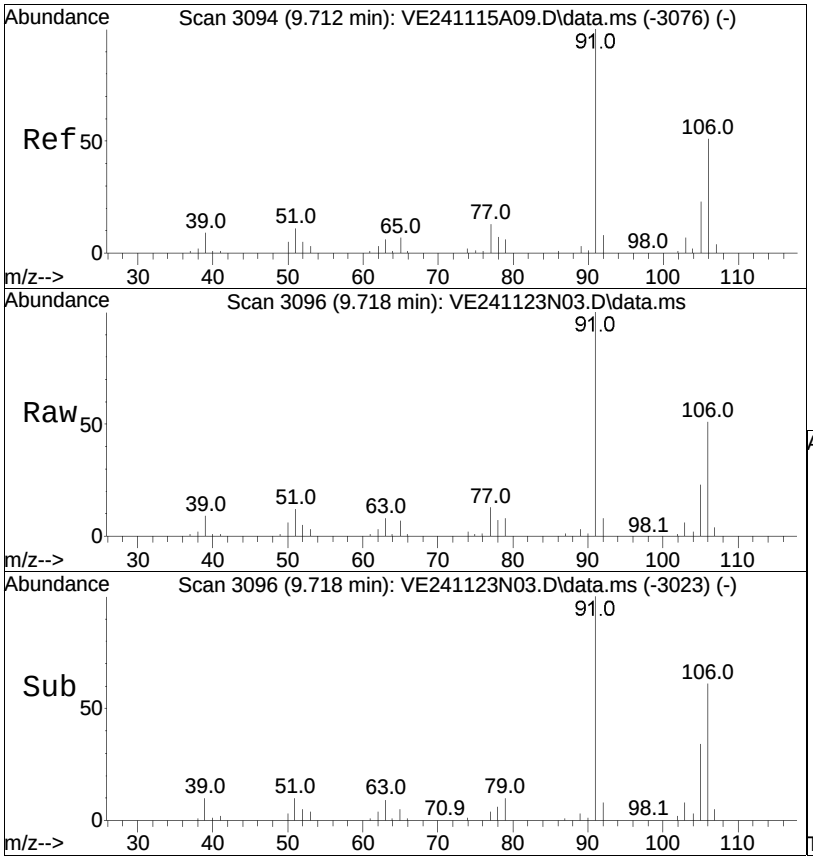


#80
1,1,1,2-Tetrachloroethane
Concen: 9.35 ug/L
RT: 9.581 min Scan# 3047
Delta R.T. 0.006 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:131 Resp: 36738

Ion	Ratio	Lower	Upper
131	100		
133	96.2	72.9	112.9
119	65.7	39.6	79.6

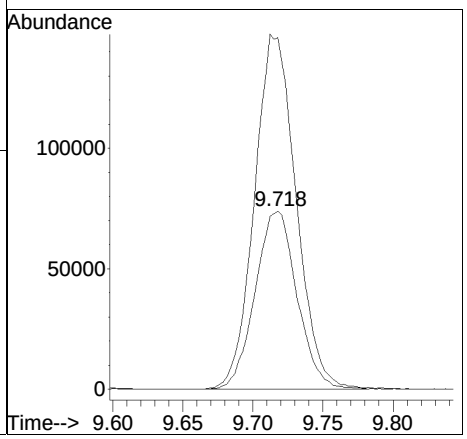


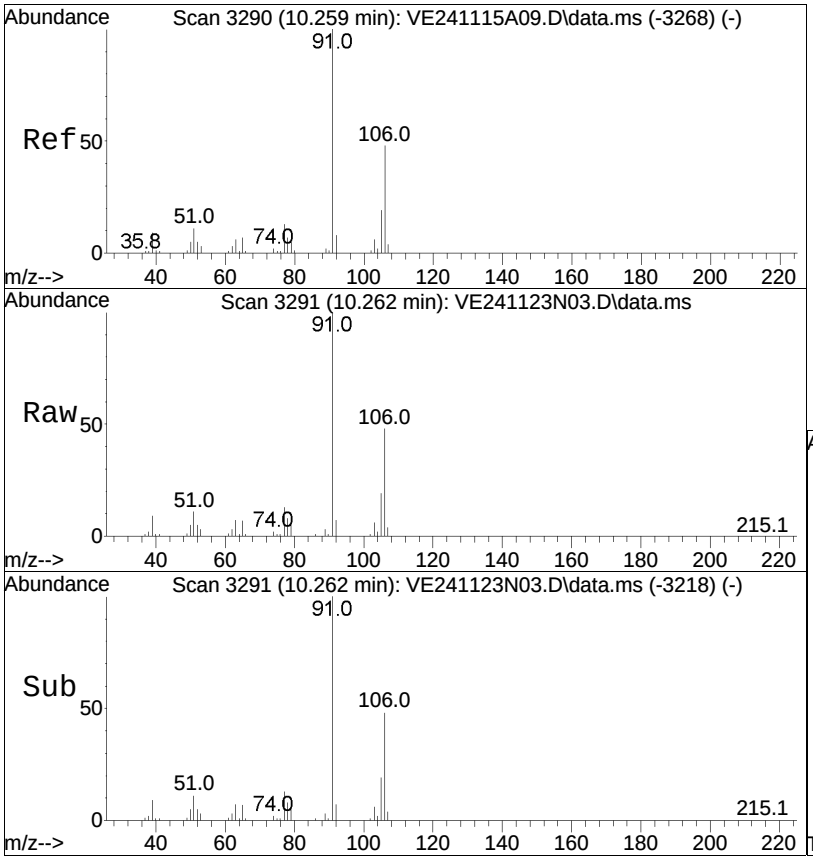


#81
p/m Xylene
Concen: 18.81 ug/L
RT: 9.718 min Scan# 3096
Delta R.T. 0.006 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:106 Resp: 154033

Ion	Ratio	Lower	Upper
106	100		
91	197.7	163.3	244.9

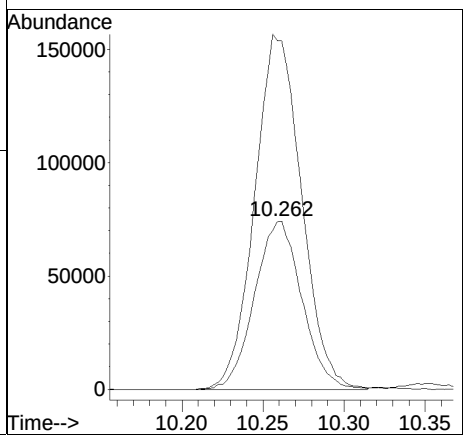


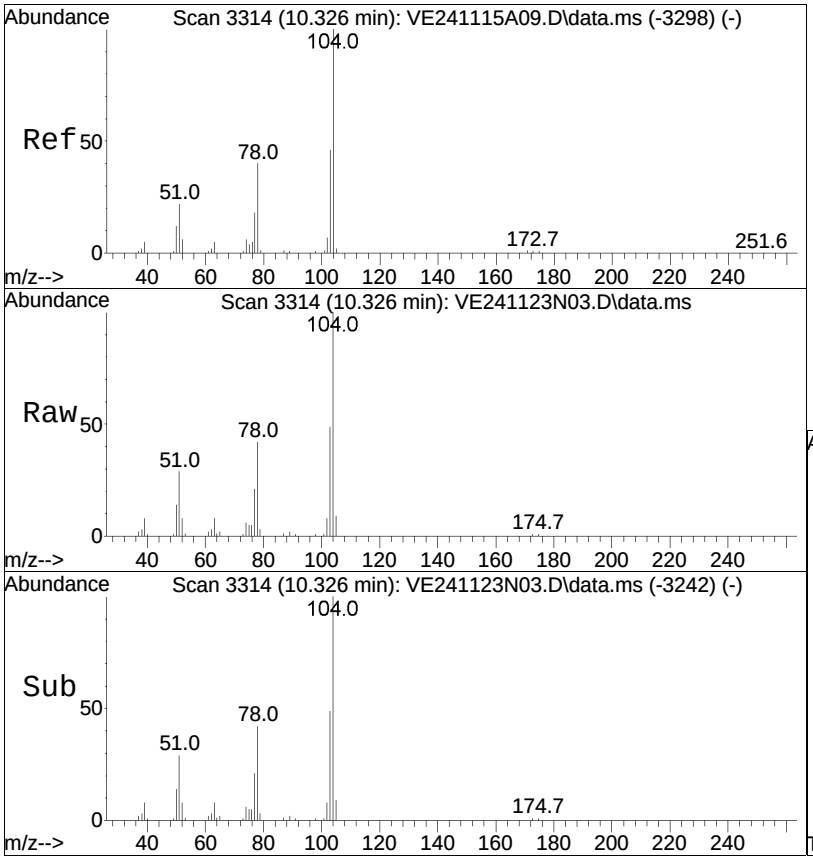


#82
o Xylene
Concen: 18.85 ug/L
RT: 10.262 min Scan# 3291
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:106 Resp: 150499

Ion	Ratio	Lower	Upper
106	100		
91	208.7	181.0	271.6

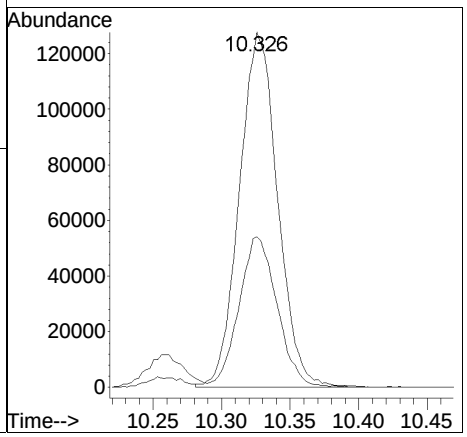


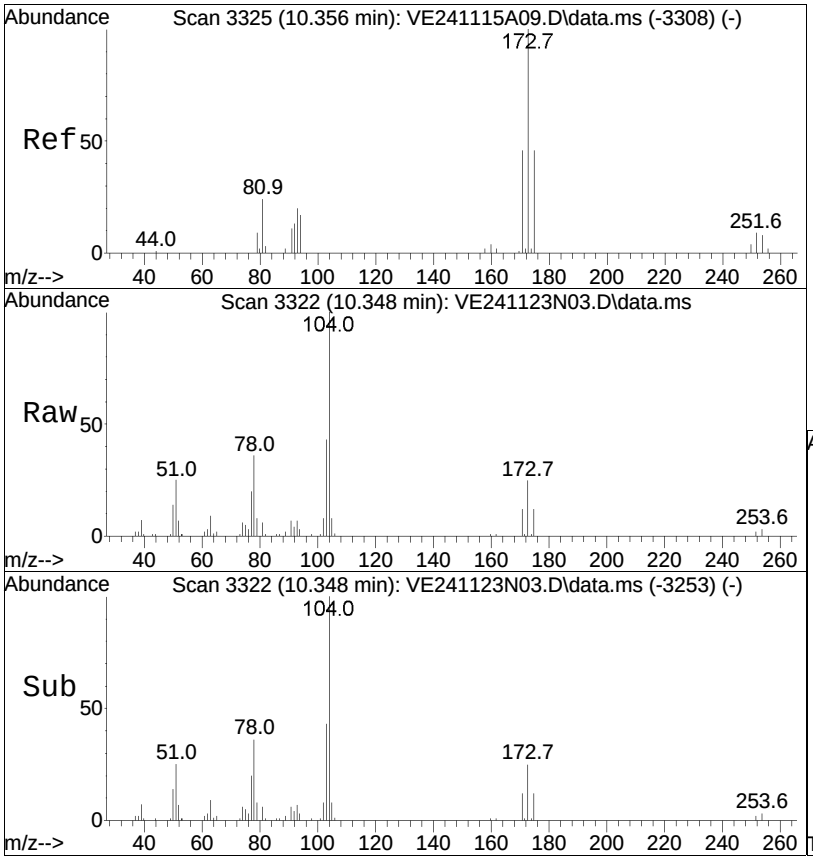


#83
Styrene
Concen: 18.43 ug/L
RT: 10.326 min Scan# 3314
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:104 Resp: 248428

Ion	Ratio	Lower	Upper
104	100		
78	41.7	35.9	53.9

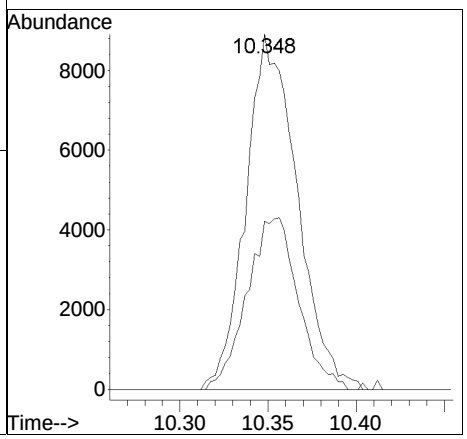


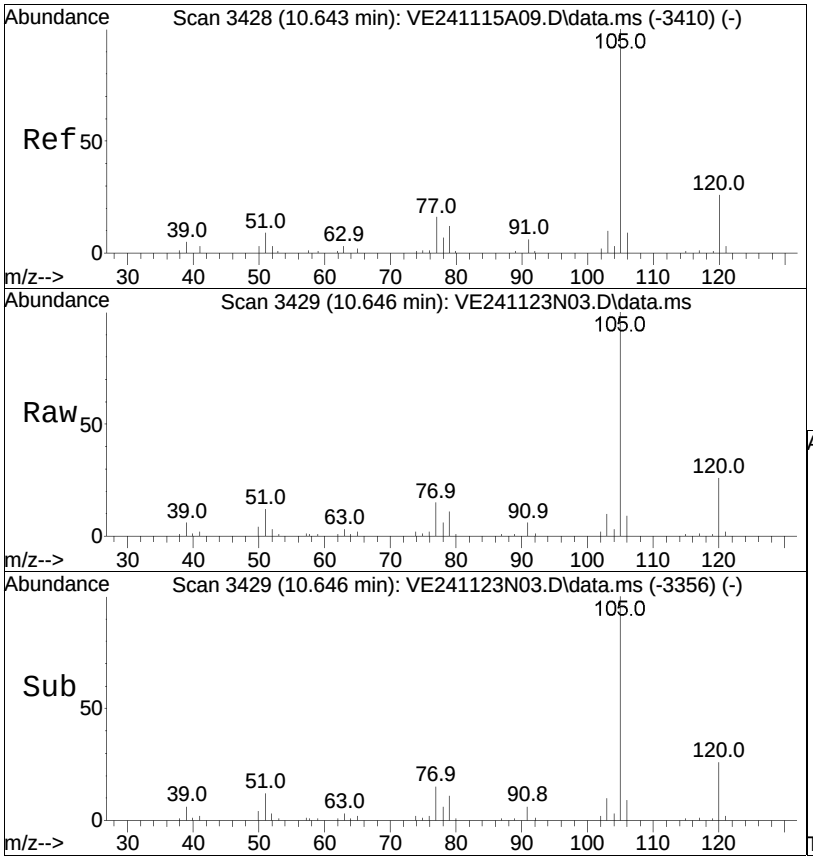


#85
Bromoform
Concen: 8.24 ug/L
RT: 10.348 min Scan# 3322
Delta R.T. -0.008 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:173 Resp: 18013

Ion	Ratio	Lower	Upper
173	100		
175	48.4	32.9	72.9

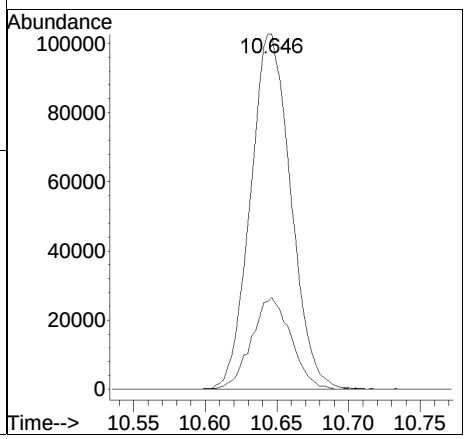


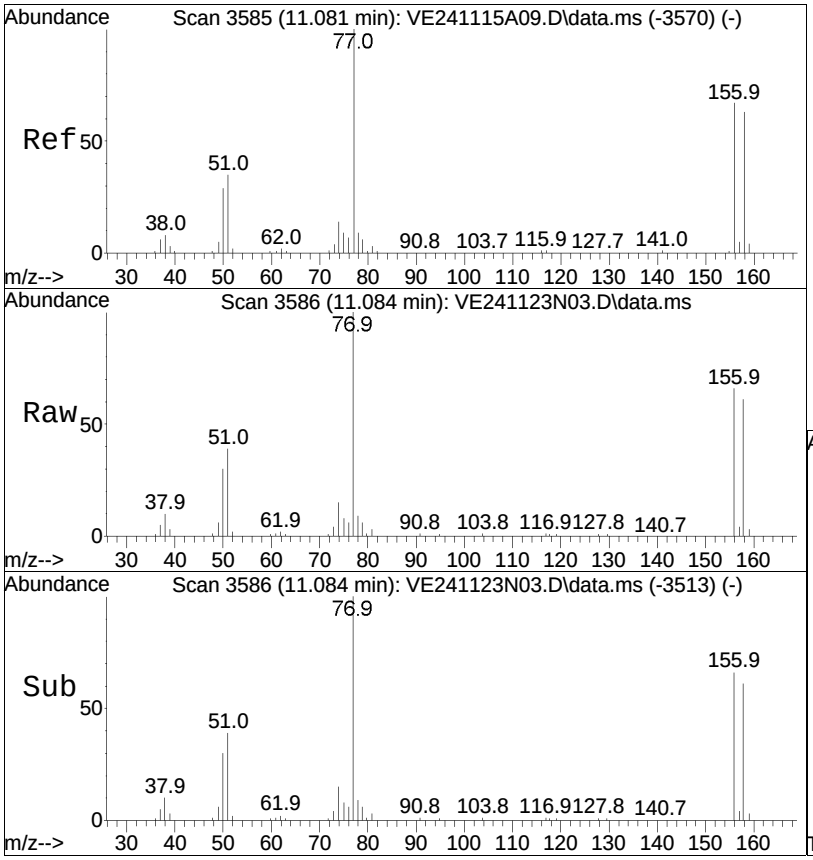


#87
Isopropylbenzene
Concen: 9.22 ug/L
RT: 10.646 min Scan# 3429
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:105 Resp: 201458

Ion	Ratio	Lower	Upper
105	100		
120	25.3	4.8	44.8

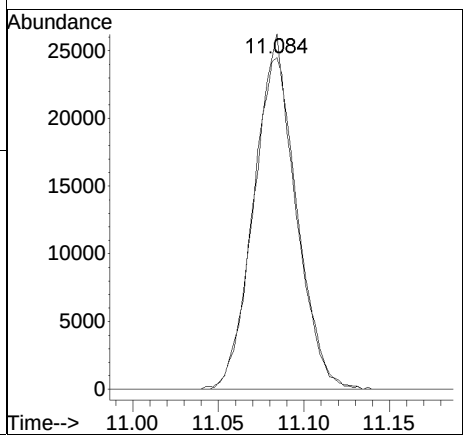


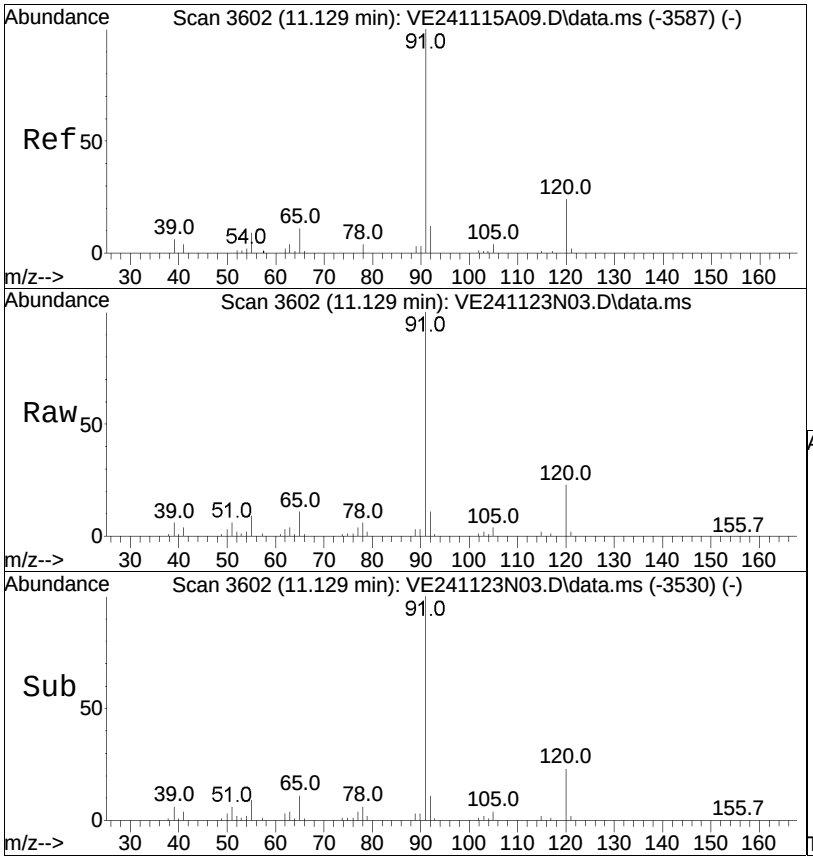


#89
Bromobenzene
Concen: 9.14 ug/L
RT: 11.084 min Scan# 3586
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:156 Resp: 44604

Ion	Ratio	Lower	Upper
156	100		
158	97.5	75.9	113.9

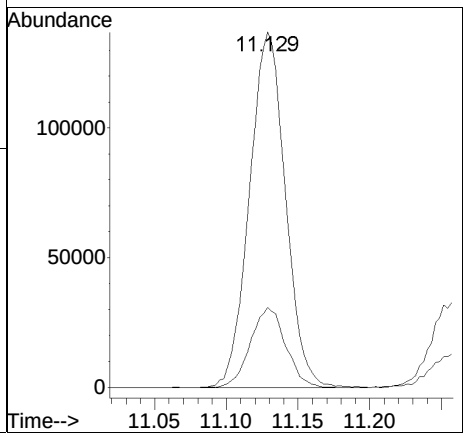


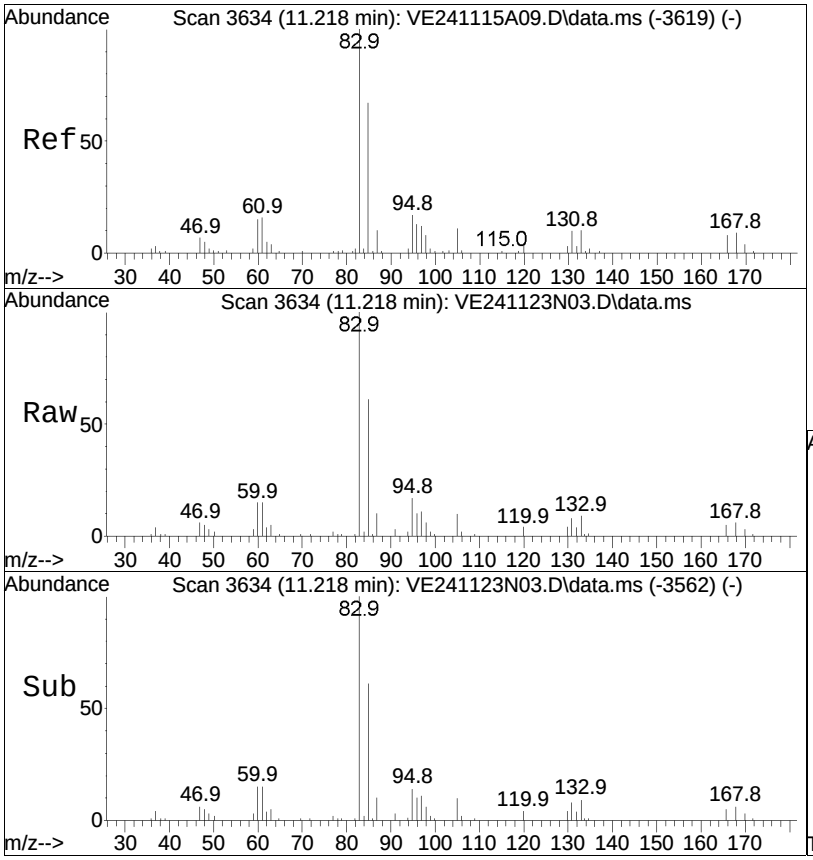


#90
n-Propylbenzene
Concen: 9.62 ug/L
RT: 11.129 min Scan# 3602
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 91 Resp: 238363

Ion	Ratio	Lower	Upper
91	100		
120	22.0	16.7	25.1

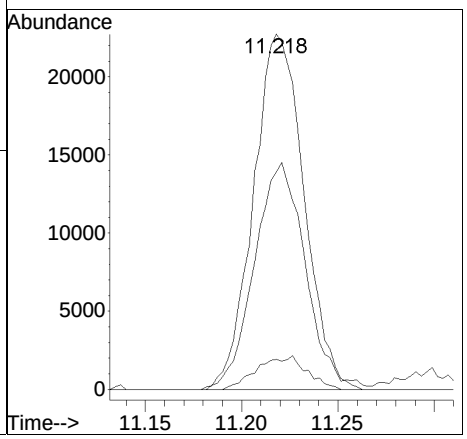


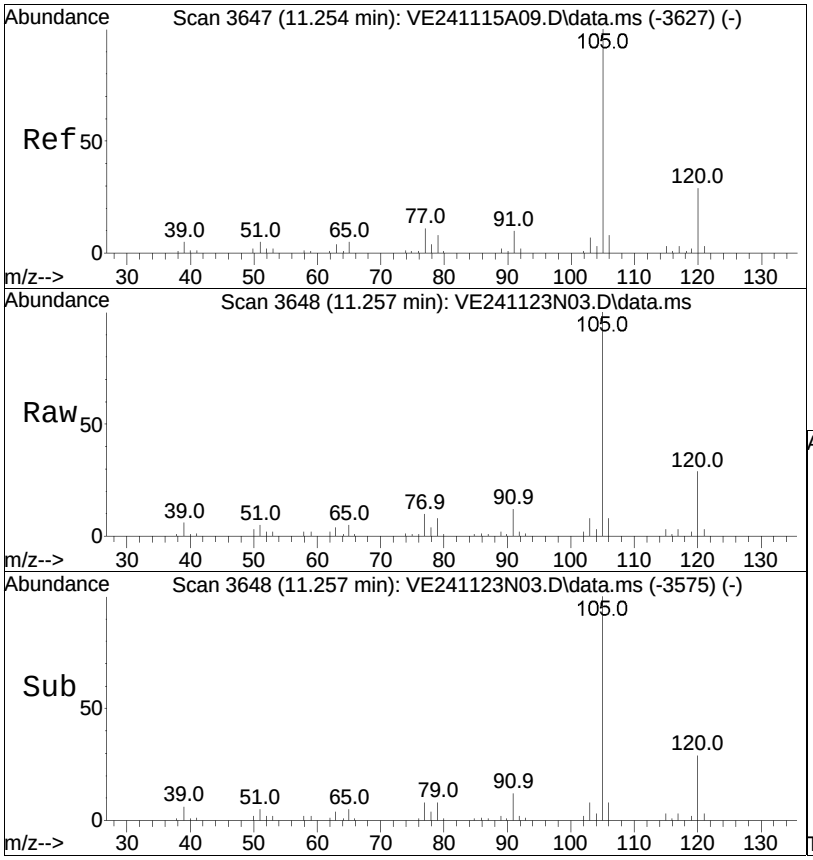


#92
1,1,2,2-Tetrachloroethane
Concen: 9.84 ug/L
RT: 11.218 min Scan# 3634
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 83 Resp: 41490

Ion	Ratio	Lower	Upper
83	100		
131	9.2	0.0	28.6
85	64.3	47.4	87.4

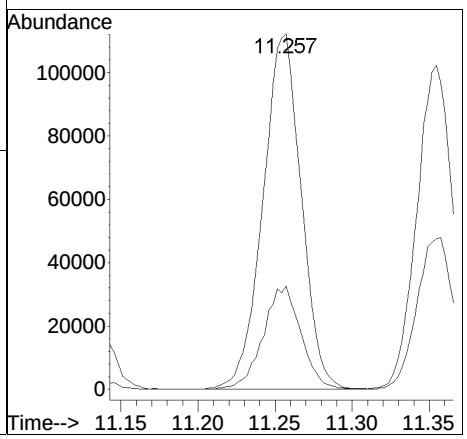


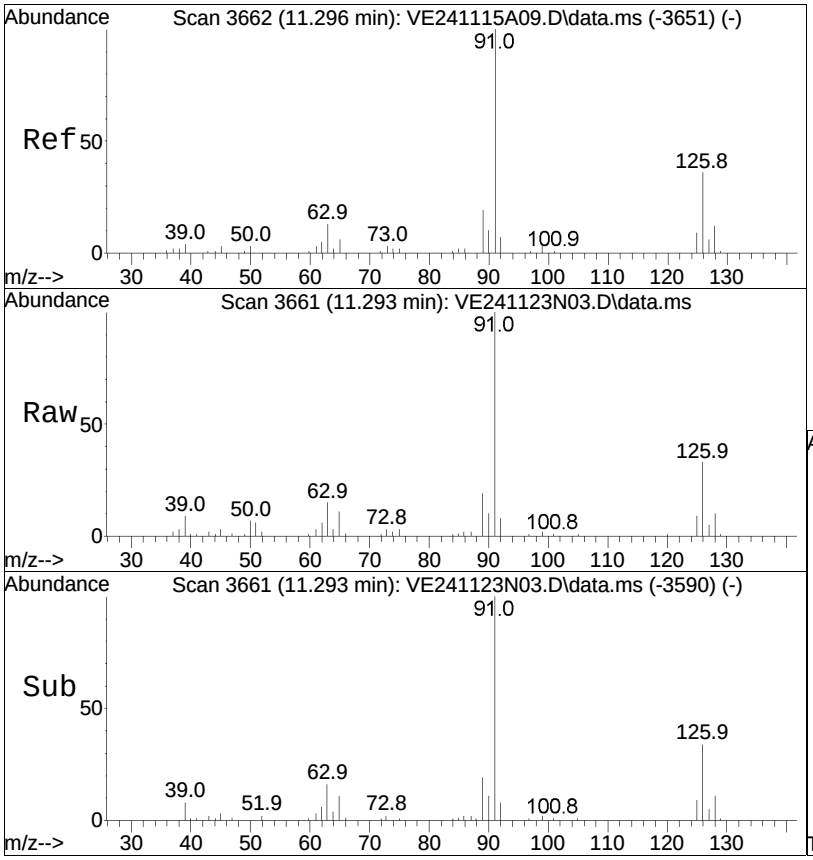


#93
4-Ethyltoluene
Concen: 9.46 ug/L
RT: 11.257 min Scan# 3648
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:105 Resp: 194471

Ion	Ratio	Lower	Upper
105	100		
120	28.7	18.9	39.3

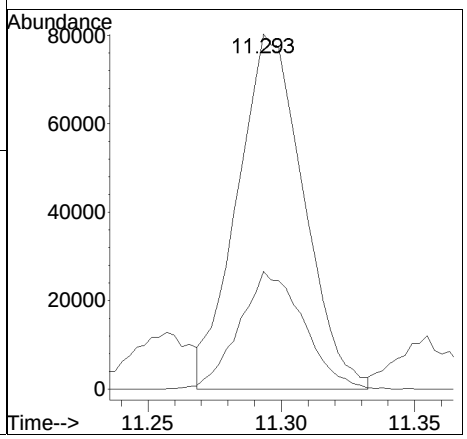


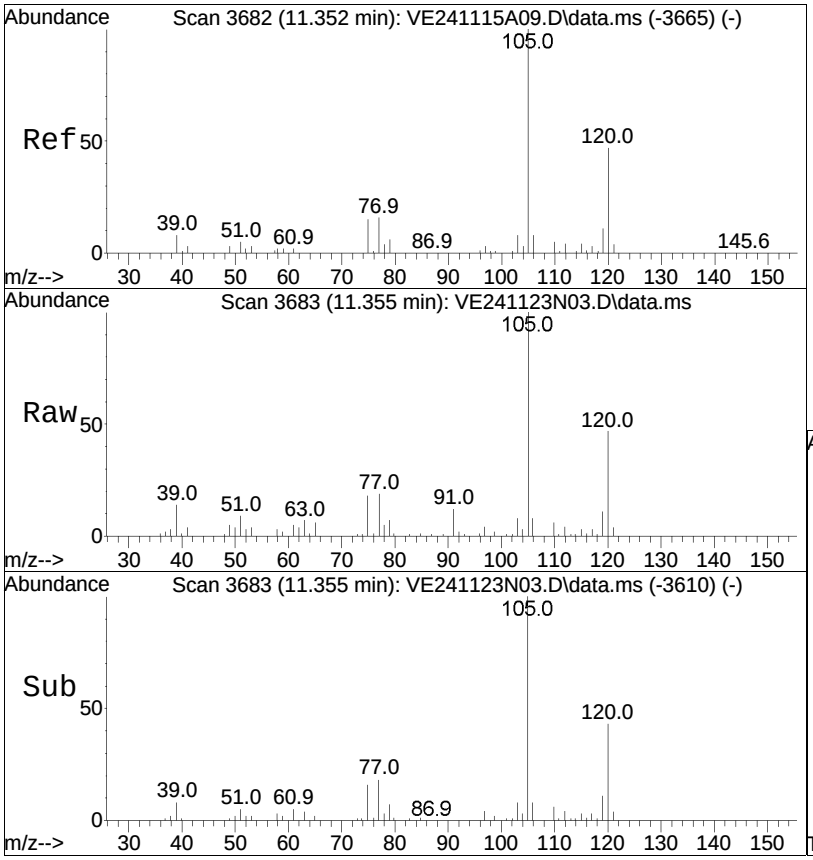


#94
2-Chlorotoluene
Concen: 9.63 ug/L M4
RT: 11.293 min Scan# 3661
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 91 Resp: 138601

Ion	Ratio	Lower	Upper
91	100		
126	32.4	24.4	36.6

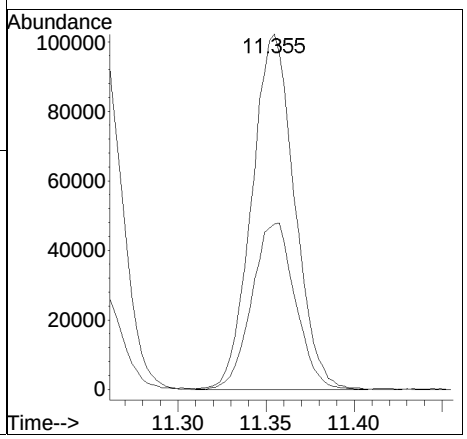


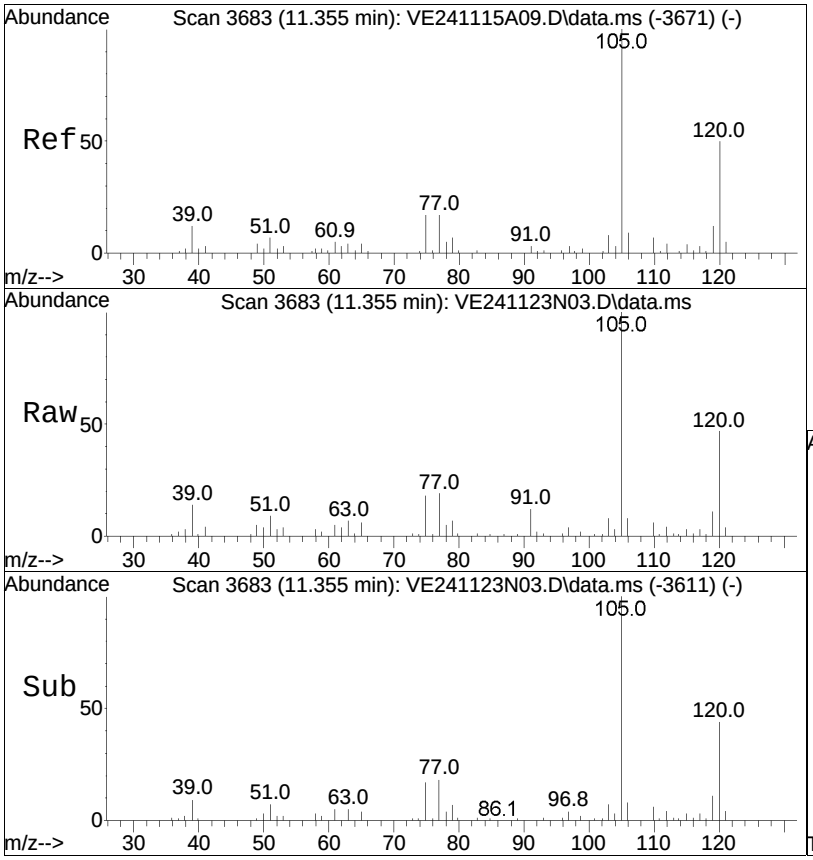


#95
1,3,5-Trimethylbenzene
Concen: 9.48 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:105 Resp: 172597

Ion	Ratio	Lower	Upper
105	100		
120	47.5	39.3	58.9

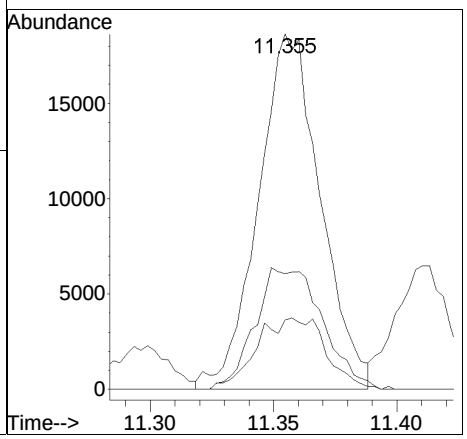


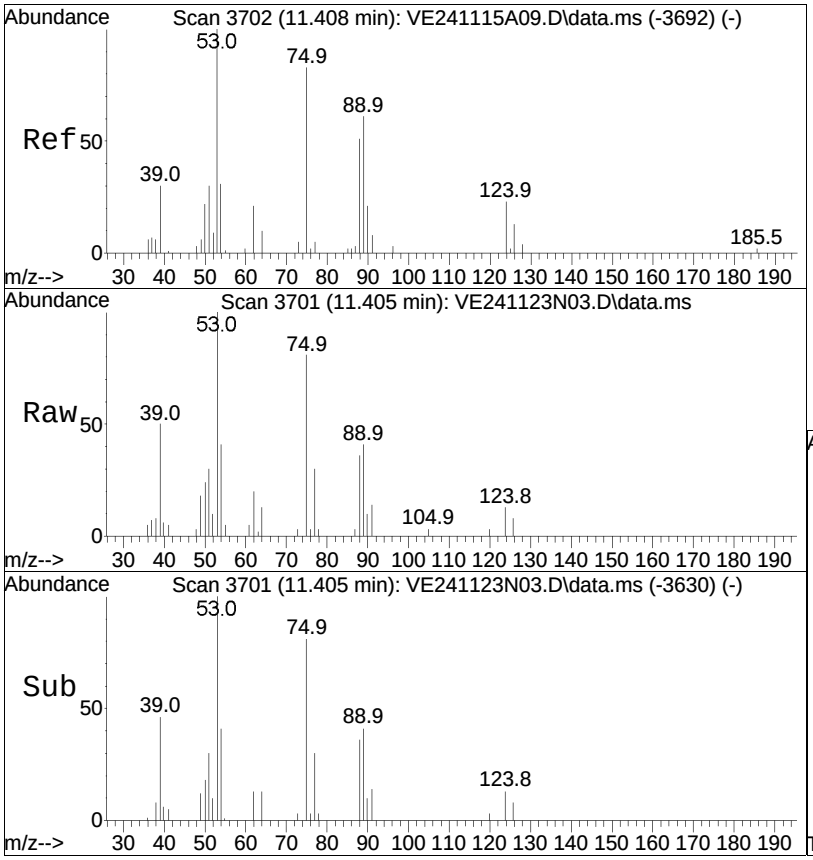


#96
1,2,3-Trichloropropane
Concen: 9.81 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 75 Resp: 32682

Ion	Ratio	Lower	Upper
75	100		
110	37.0	22.4	46.4
112	22.3	12.2	25.2

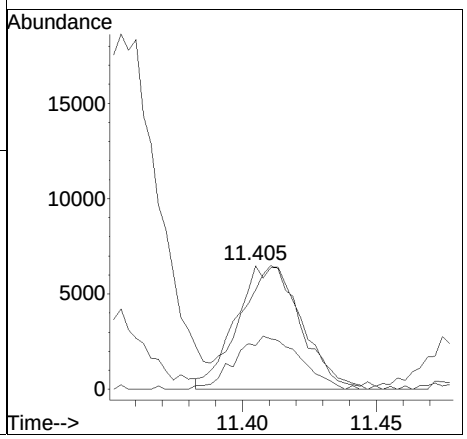


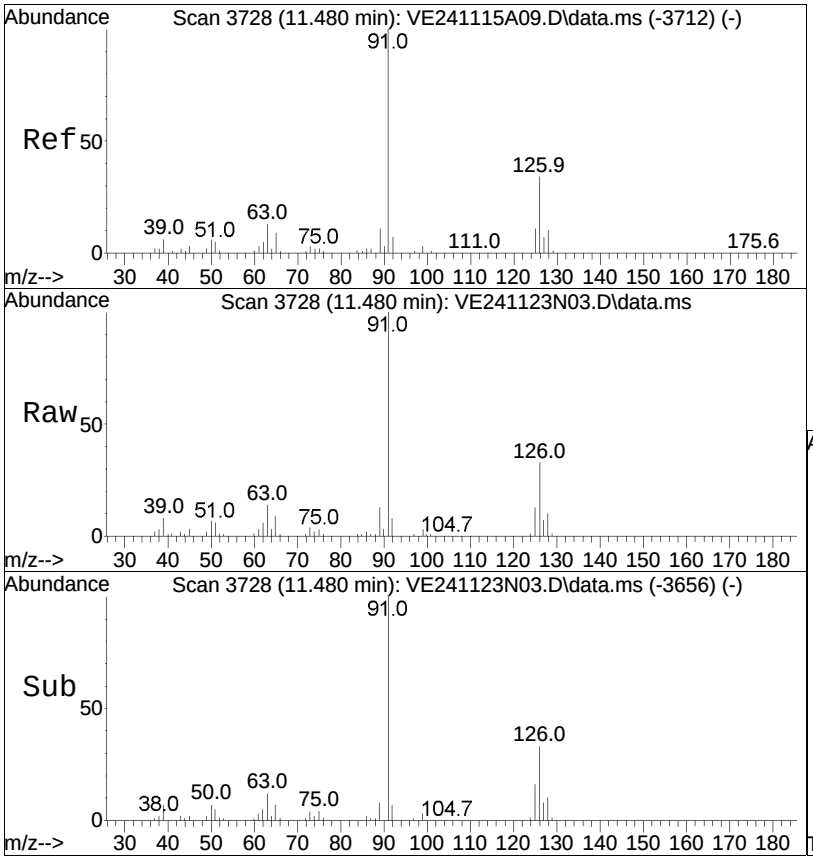


#97
trans-1,4-Dichloro-2-butene
Concen: 9.26 ug/L
RT: 11.405 min Scan# 3701
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 53 Resp: 11163

Ion	Ratio	Lower	Upper
53	100		
88	42.2	29.2	43.8
75	90.2	62.6	94.0

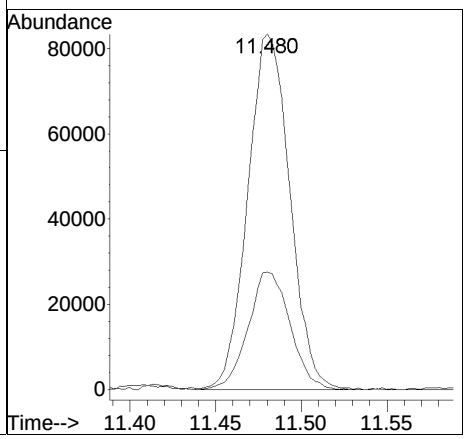


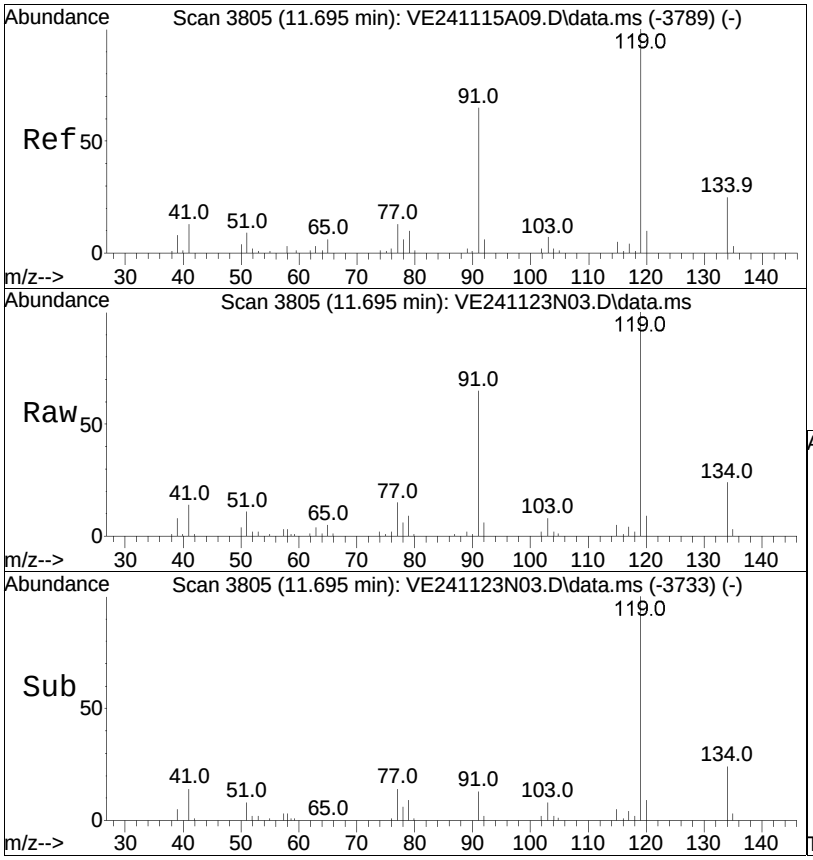


#98
4-Chlorotoluene
Concen: 9.57 ug/L
RT: 11.480 min Scan# 3728
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 91 Resp: 142496

Ion	Ratio	Lower	Upper
91	100		
126	32.9	25.8	38.8

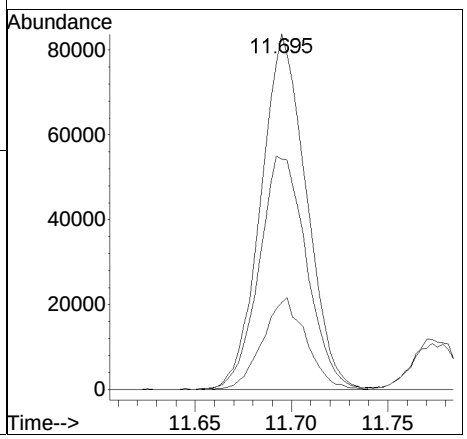


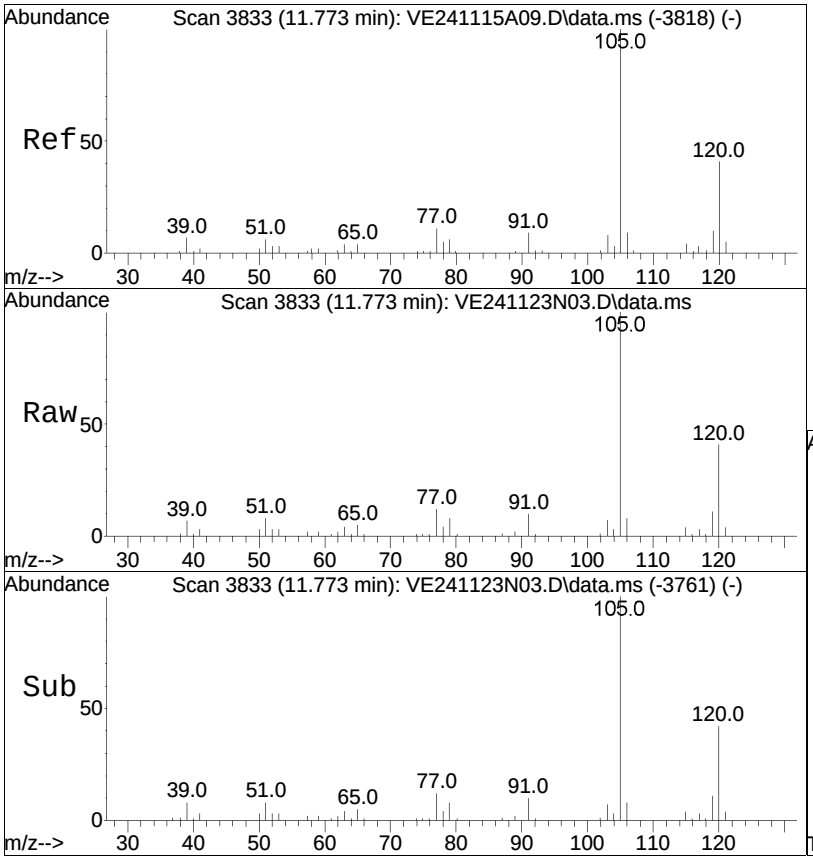


#99
tert-Butylbenzene
Concen: 9.14 ug/L
RT: 11.695 min Scan# 3805
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:119 Resp: 137295

Ion	Ratio	Lower	Upper
119	100		
91	68.9	56.6	84.8
134	24.7	17.7	26.5

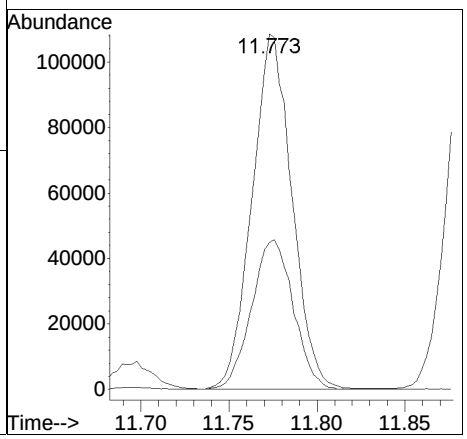


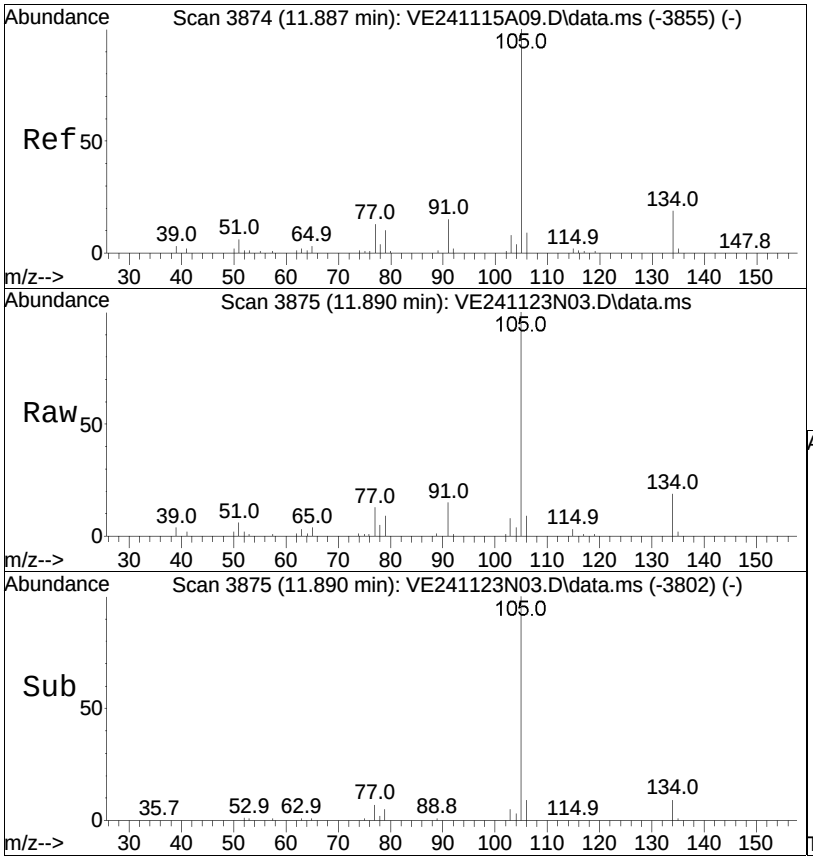


#102
1,2,4-Trimethylbenzene
Concen: 9.37 ug/L
RT: 11.773 min Scan# 3833
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:105 Resp: 171093

Ion	Ratio	Lower	Upper
105	100		
120	44.1	33.6	50.4

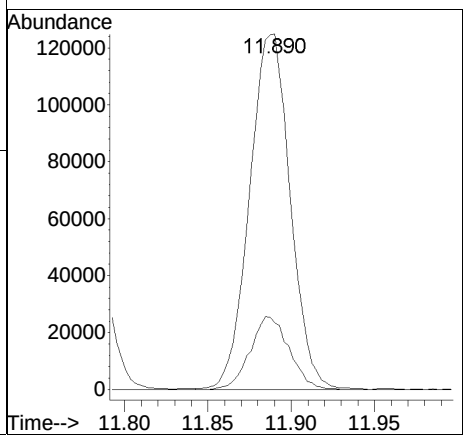


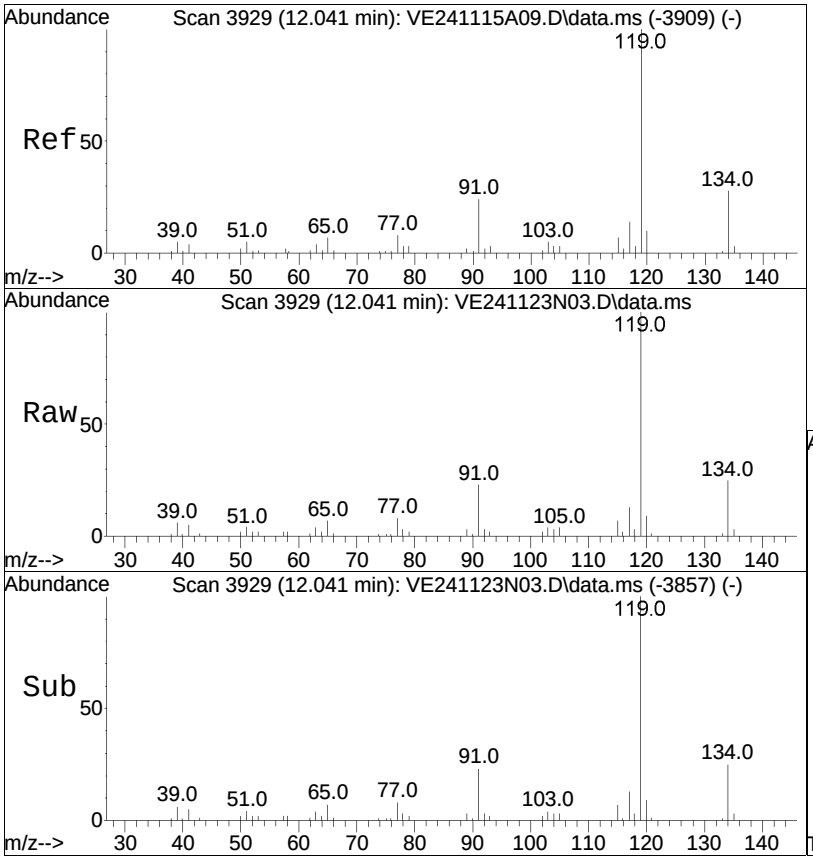


#103
sec-Butylbenzene
Concen: 9.25 ug/L
RT: 11.890 min Scan# 3875
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:105 Resp: 211998

Ion	Ratio	Lower	Upper
105	100		
134	19.6	13.3	27.5

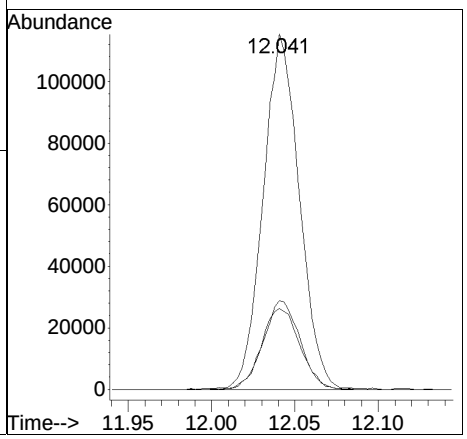


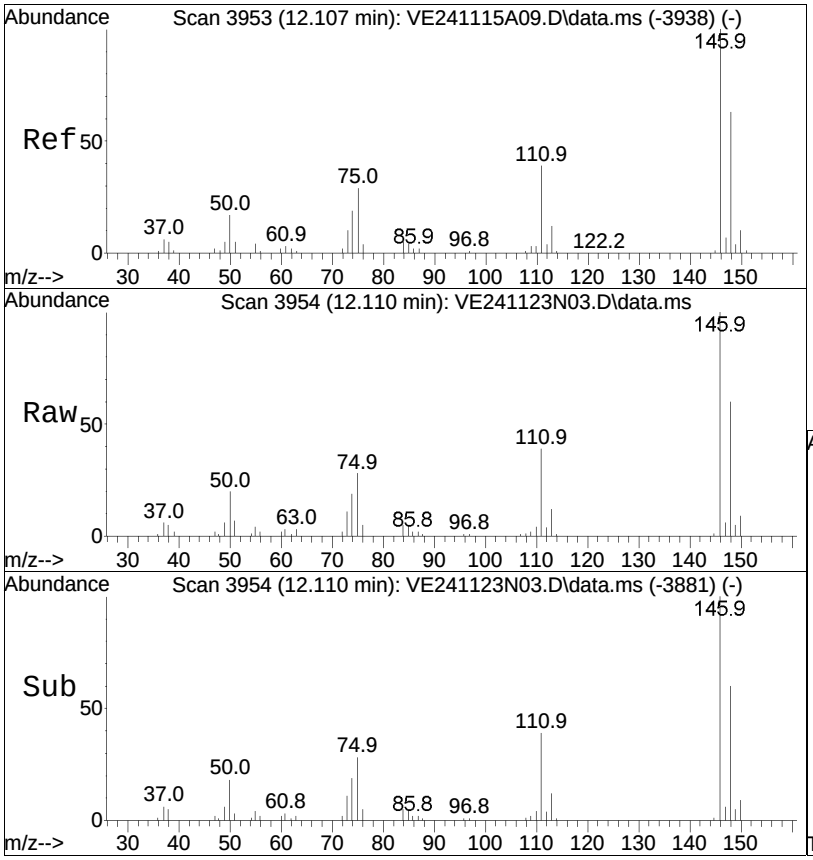


#104
p-Isopropyltoluene
Concen: 9.18 ug/L
RT: 12.041 min Scan# 3929
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:119 Resp: 174360

Ion	Ratio	Lower	Upper
119	100		
134	25.5	15.8	32.8
91	24.2	16.6	34.4

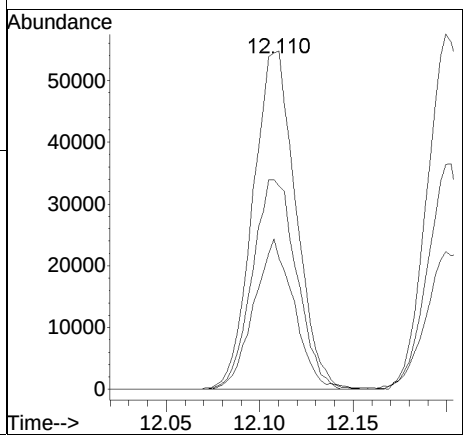


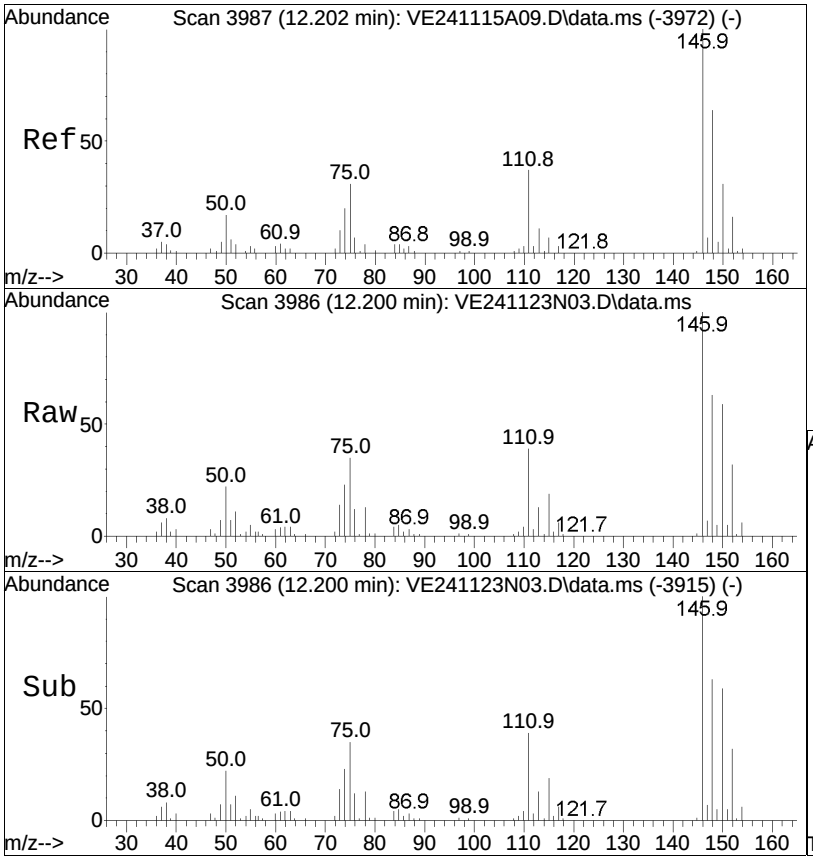


#105
1,3-Dichlorobenzene
Concen: 8.99 ug/L
RT: 12.110 min Scan# 3954
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:146 Resp: 87742

Ion	Ratio	Lower	Upper
146	100		
111	41.4	27.9	57.9
148	64.1	42.4	88.2

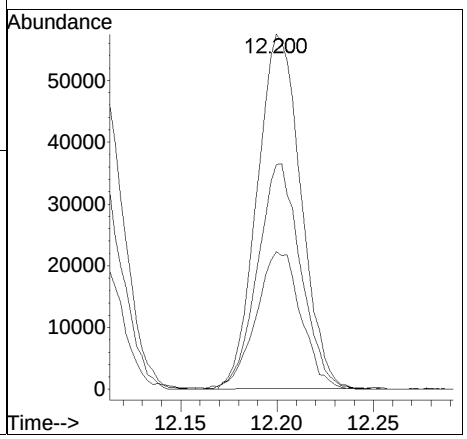


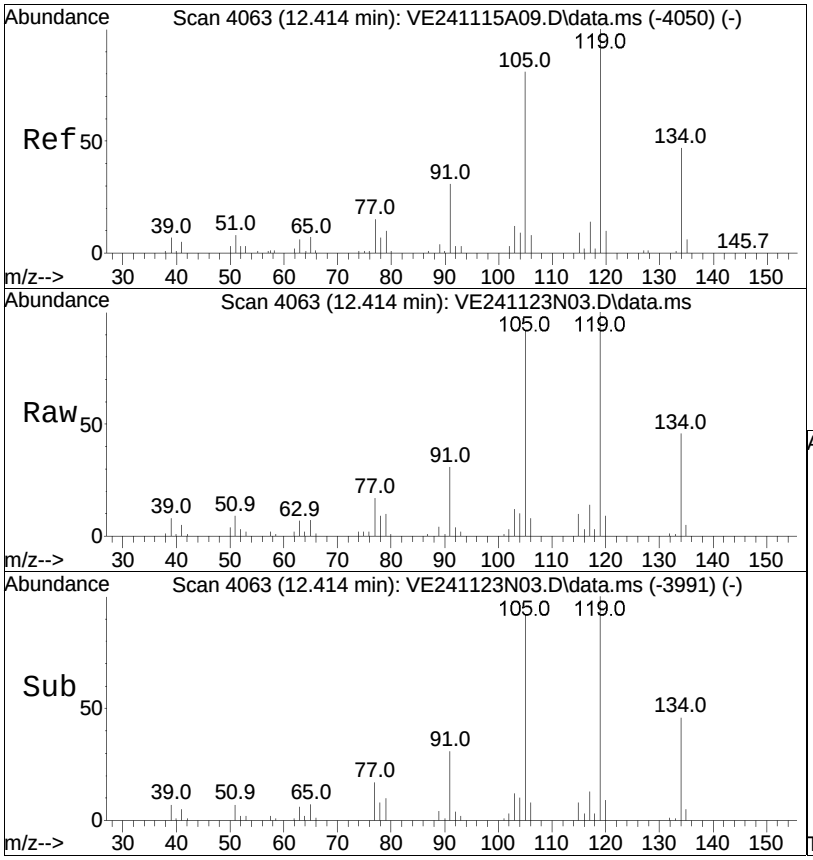


#106
1,4-Dichlorobenzene
Concen: 9.28 ug/L
RT: 12.200 min Scan# 3986
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:146 Resp: 90845

Ion	Ratio	Lower	Upper
146	100		
111	40.1	31.4	47.0
148	62.8	49.8	74.8

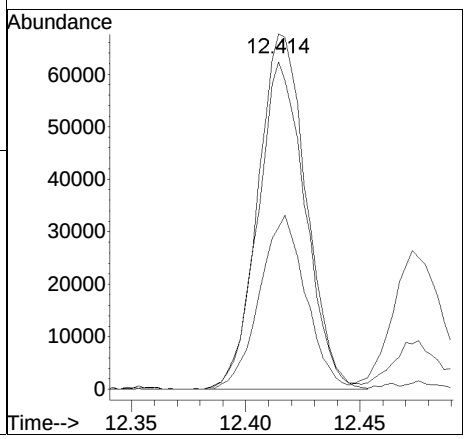


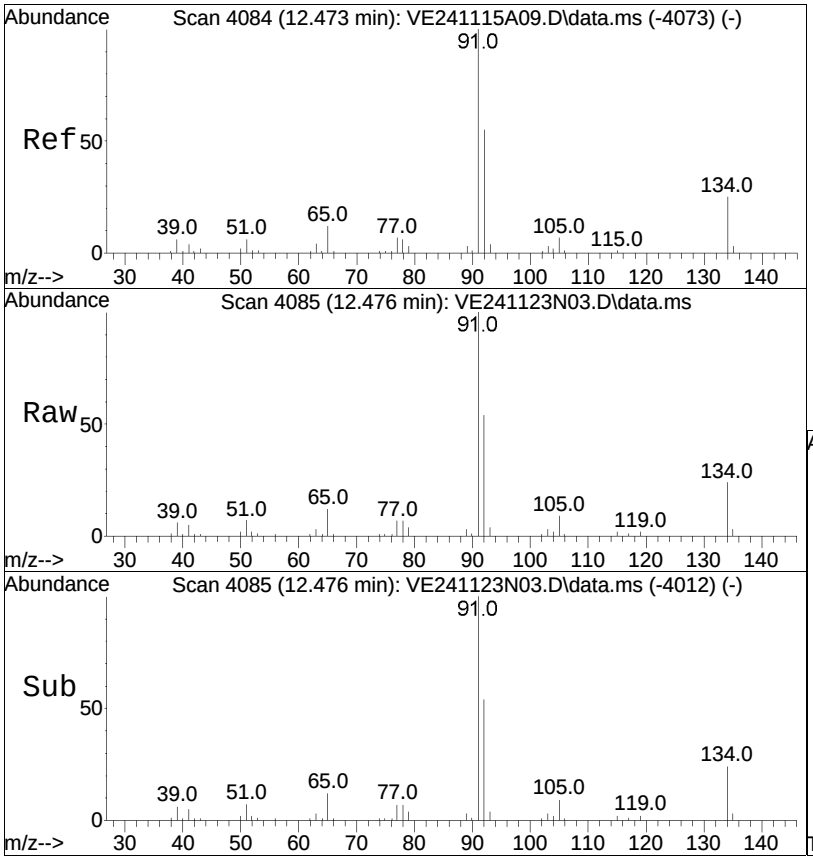


#107
p-Diethylbenzene
Concen: 8.95 ug/L
RT: 12.414 min Scan# 4063
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:119 Resp: 99533

Ion	Ratio	Lower	Upper
119	100		
105	90.5	55.4	115.2
134	47.0	28.4	59.0

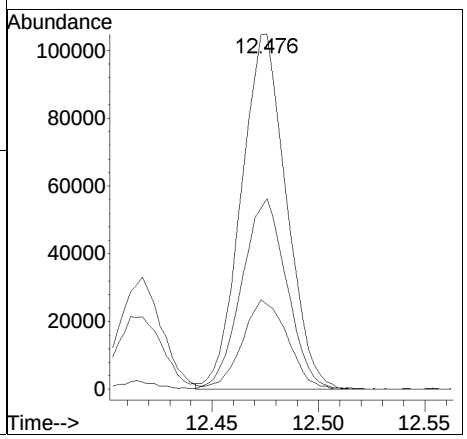


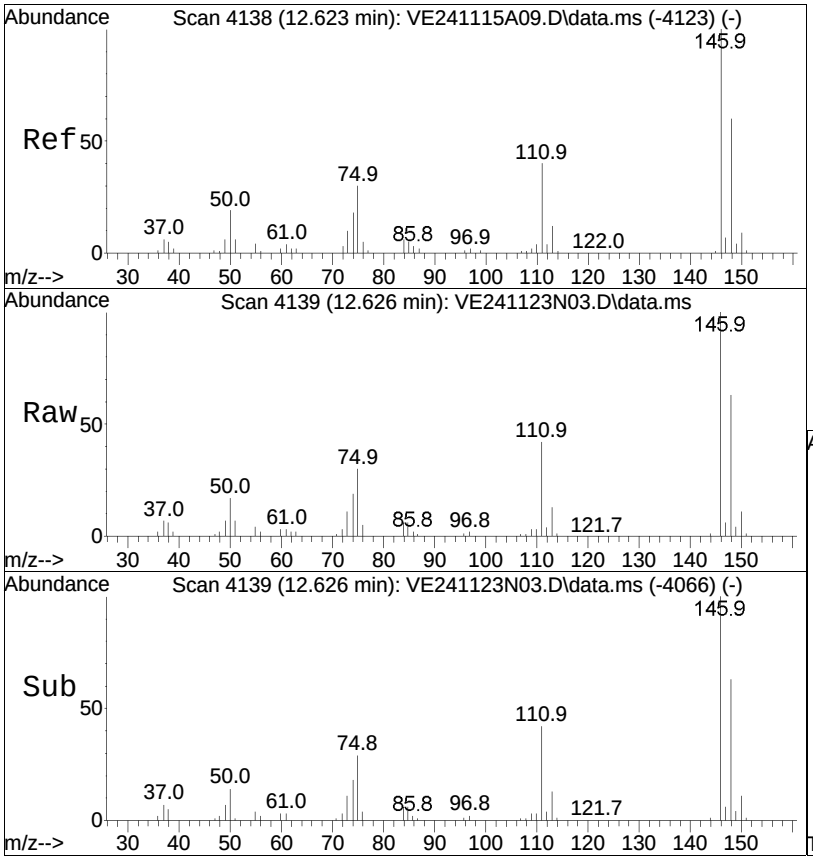


#108
n-Butylbenzene
Concen: 9.35 ug/L
RT: 12.476 min Scan# 4085
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion: 91 Resp: 154919

Ion	Ratio	Lower	Upper
91	100		
92	53.7	42.4	63.6
134	25.3	20.3	30.5

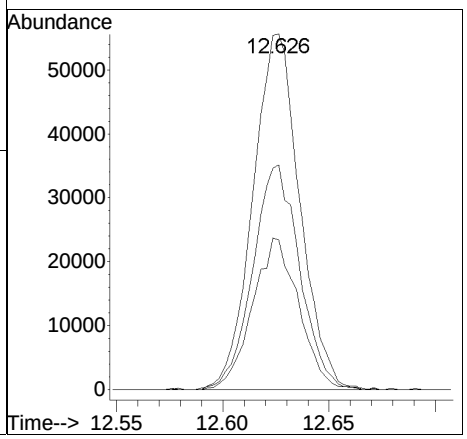


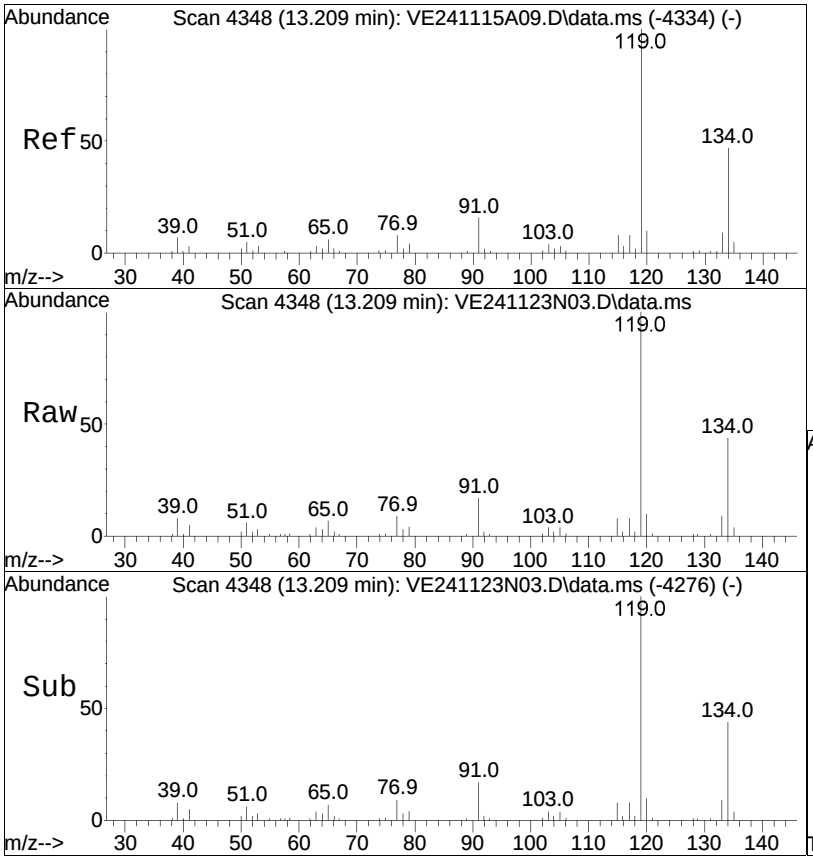


#109
1,2-Dichlorobenzene
Concen: 9.18 ug/L
RT: 12.626 min Scan# 4139
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:146 Resp: 85271

Ion	Ratio	Lower	Upper
146	100		
111	41.9	26.4	54.8
148	63.1	41.7	86.7

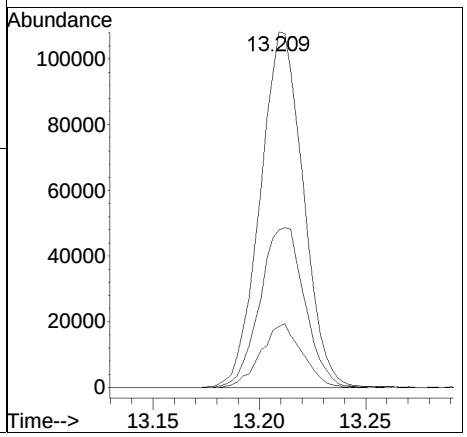


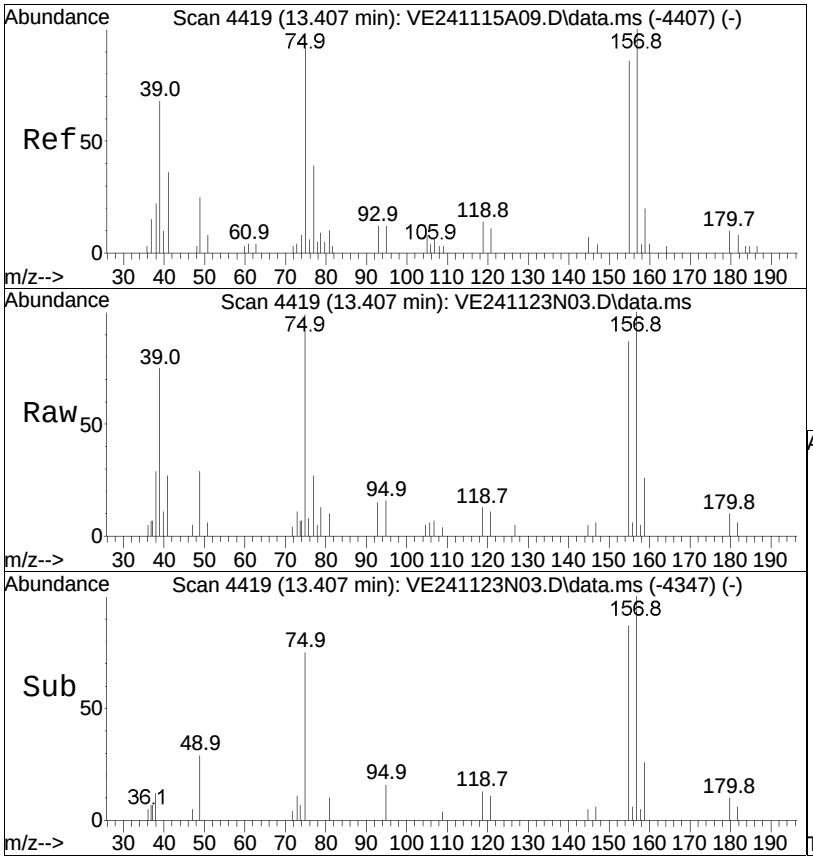


#110
1,2,4,5-Tetramethylbenzene
Concen: 8.57 ug/L
RT: 13.209 min Scan# 4348
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:119 Resp: 152663

Ion	Ratio	Lower	Upper
119	100		
134	46.6	29.6	61.4
91	17.1	9.8	20.3

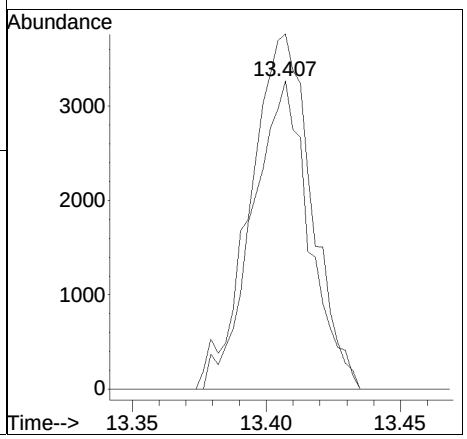


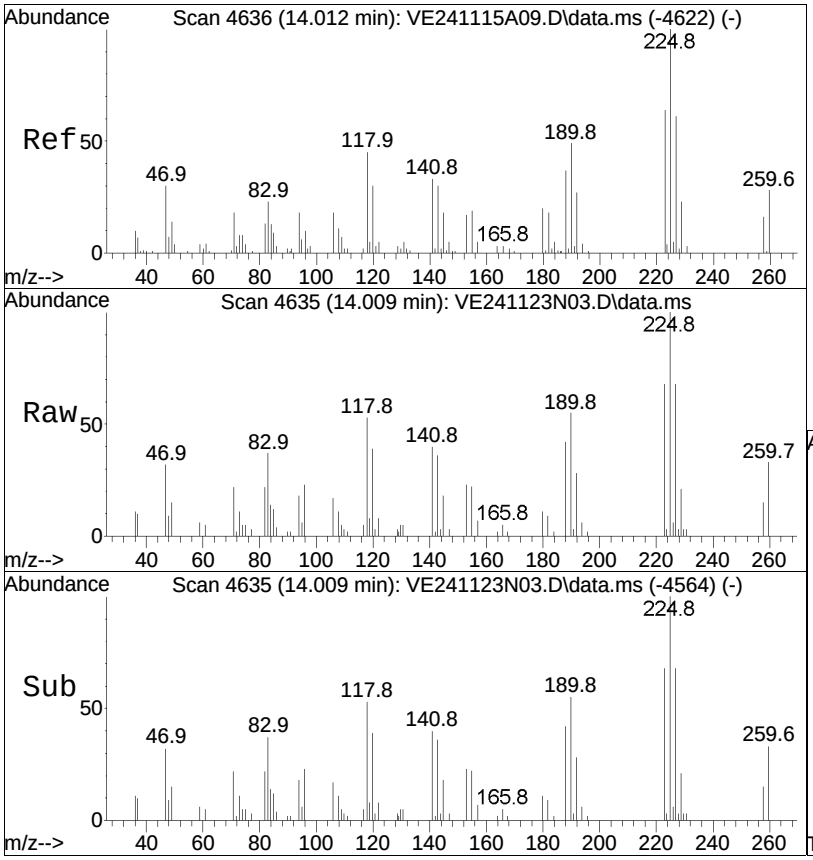


#111
1,2-Dibromo-3-chloropropane
Concen: 8.52 ug/L
RT: 13.407 min Scan# 4419
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:155 Resp: 4808

Ion	Ratio	Lower	Upper
155	100		
157	124.9	95.1	142.7

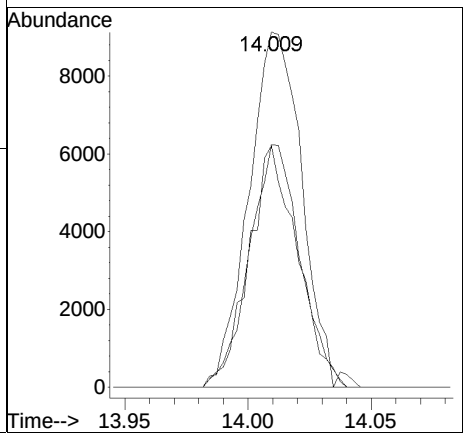


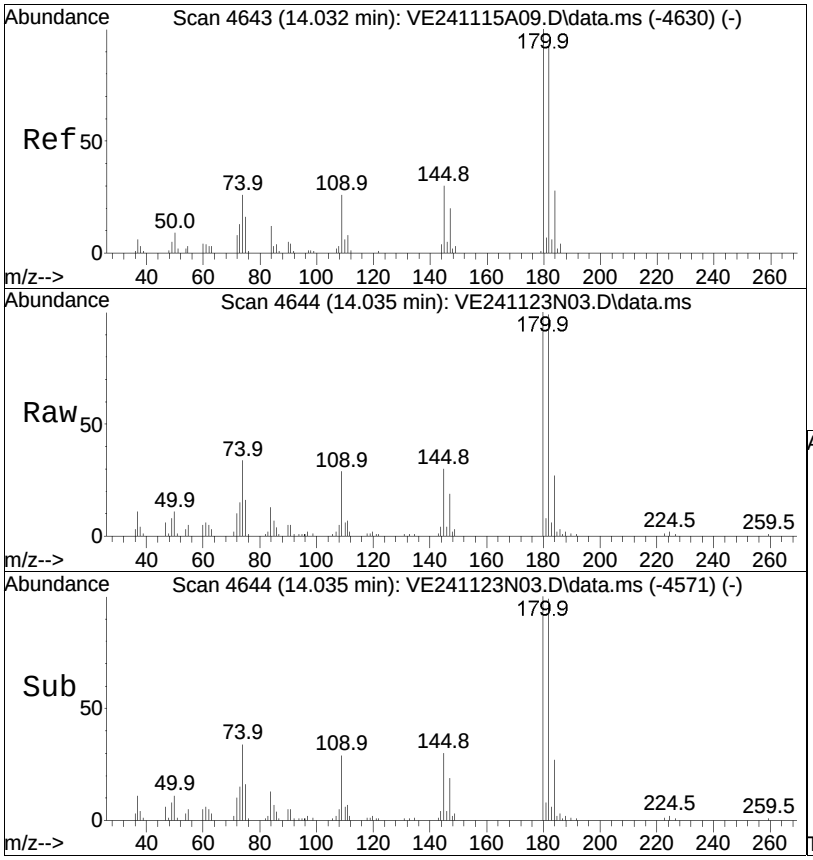


#113
Hexachlorobutadiene
Concen: 7.77 ug/L
RT: 14.009 min Scan# 4635
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:225 Resp: 13735

Ion	Ratio	Lower	Upper
225	100		
223	62.2	54.6	82.0
227	65.2	56.2	84.4

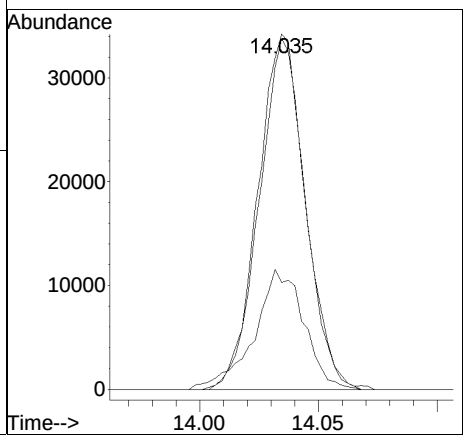


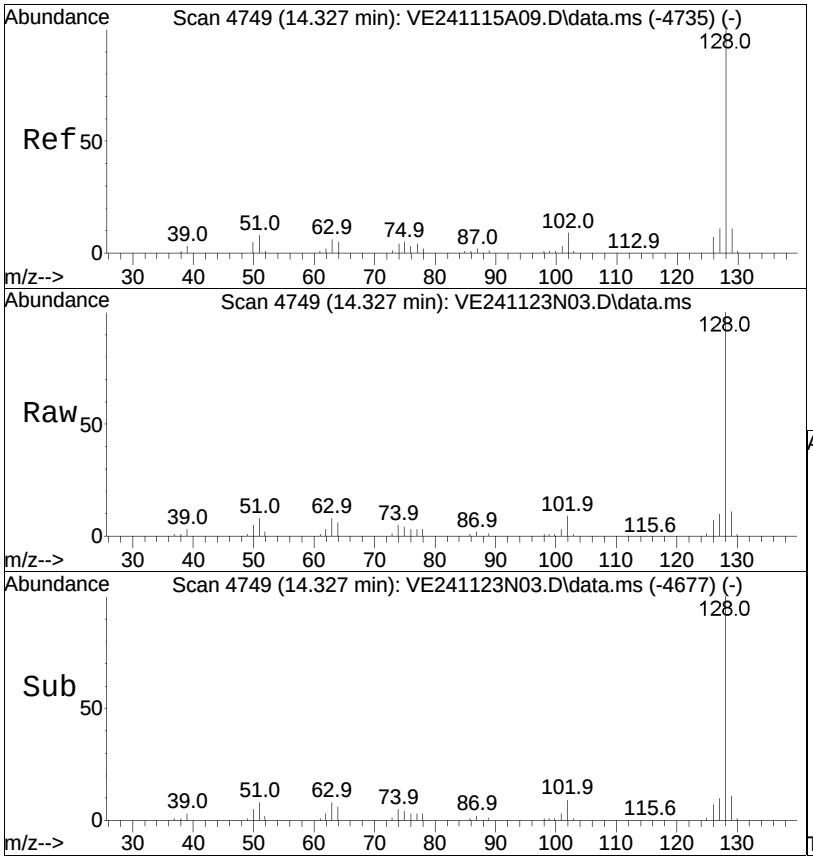


#114
1,2,4-Trichlorobenzene
Concen: 8.20 ug/L
RT: 14.035 min Scan# 4644
Delta R.T. 0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:180 Resp: 47435

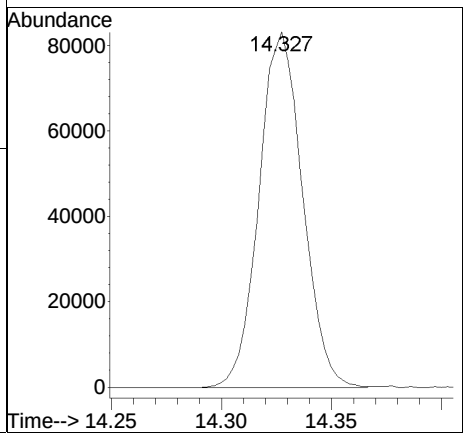
Ion	Ratio	Lower	Upper
180	100		
182	96.2	75.4	113.2
145	35.4	26.0	39.0

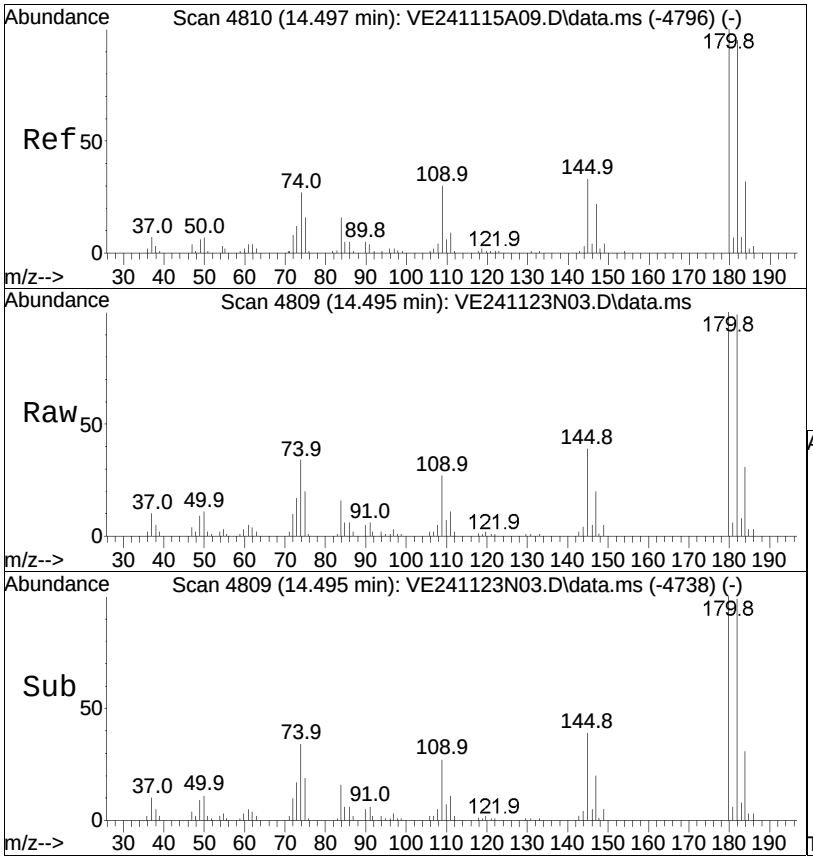




#115
Naphthalene
Concen: 8.42 ug/L
RT: 14.327 min Scan# 4749
Delta R.T. 0.000 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:128 Resp: 114429

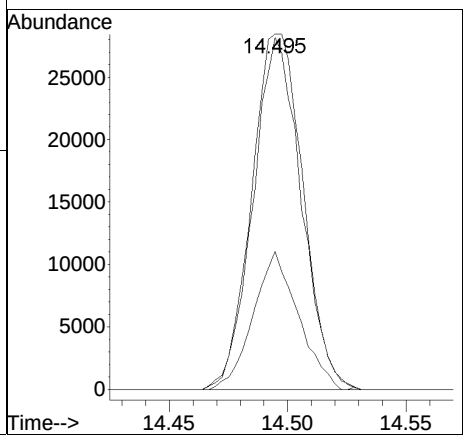




#116
1,2,3-Trichlorobenzene
Concen: 8.30 ug/L
RT: 14.495 min Scan# 4809
Delta R.T. -0.003 min
Lab File: VE241123N03.D
Acq: 23 Nov 2024 8:22 pm

Tgt Ion:180 Resp: 42847

Ion	Ratio	Lower	Upper
180	100		
182	92.6	71.6	107.4
145	33.9	25.1	37.7

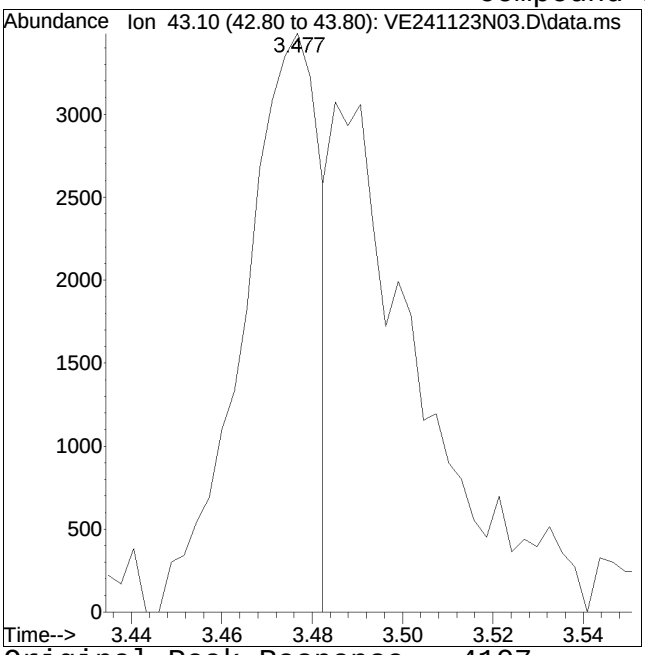


Manual Integration Report

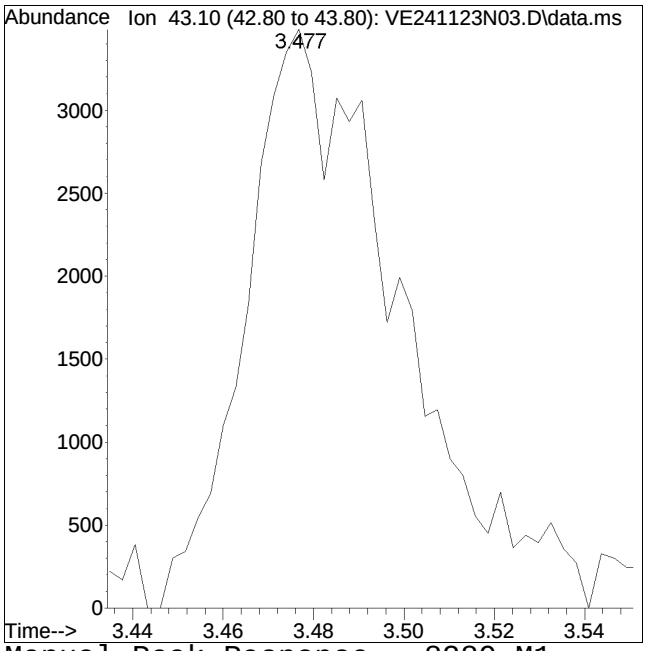
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N03.D
Date Inj'd : 11/23/2024 8:22 pm
Sample : WG2001825-4,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 9:53 pm

Compound #17: Acetone



Original Peak Response = 4107



Manual Peak Response = 8289 M1

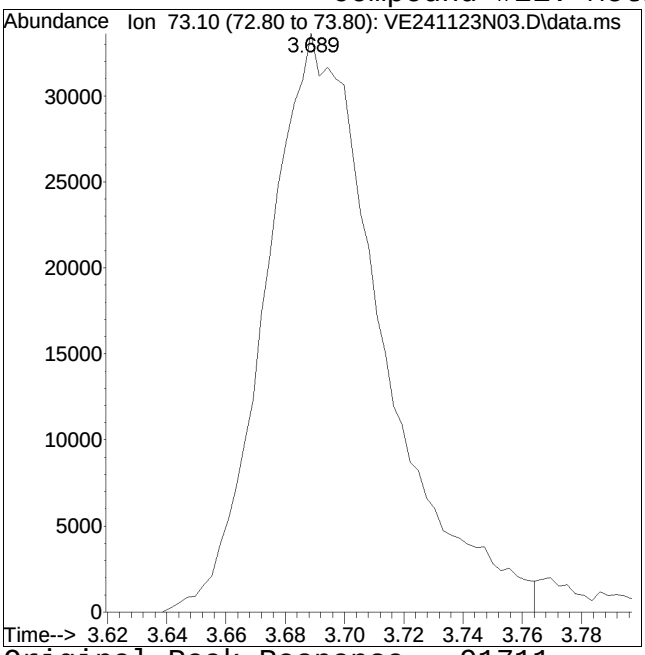
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

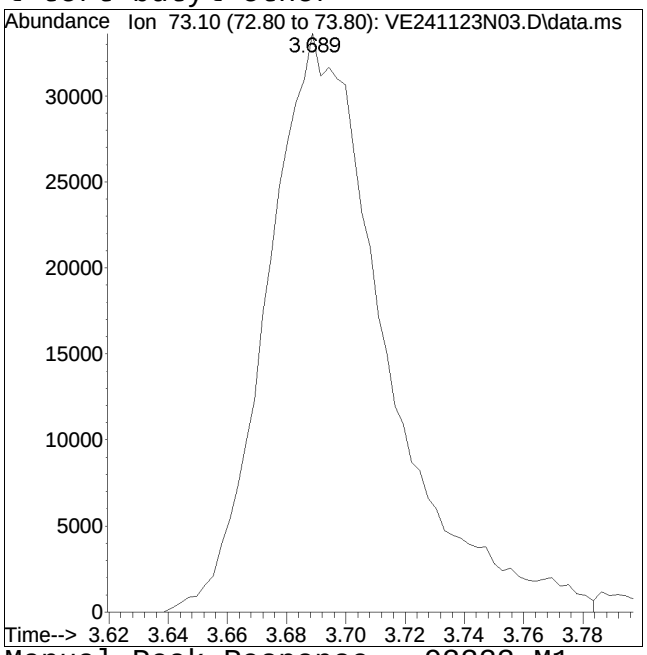
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N03.D
Date Inj'd : 11/23/2024 8:22 pm
Sample : WG2001825-4,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 9:53 pm

Compound #21: Methyl tert-butyl ether



Original Peak Response = 91711



Manual Peak Response = 93333 M1

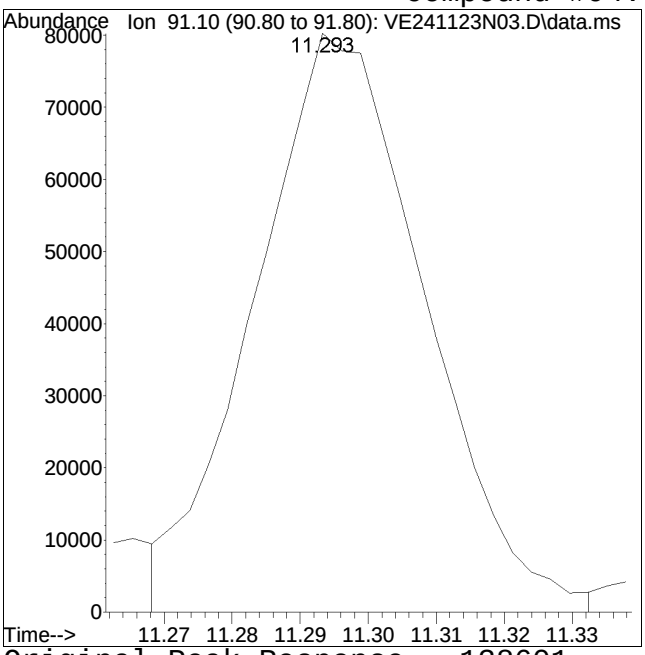
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

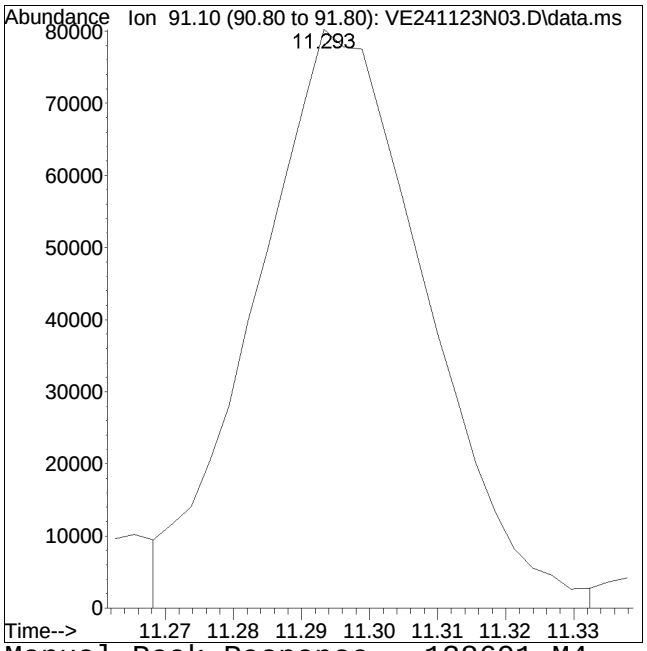
Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N03.D
Date Inj'd : 11/23/2024 8:22 pm
Sample : WG2001825-4,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/23/2024 9:53 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 138601



Manual Peak Response = 138601 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A03.D
Acq On : 24 Nov 2024 11:21 am
Operator : ELAINE:PID
Sample : WG2001843-4,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 07:08:03 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	206972	10.000	ug/L	0.00
Standard Area 1 = 209590			Recovery = 98.75%			
63) Chlorobenzene-d5	9.467	117	146195	10.000	ug/L	0.00
Standard Area 1 = 148793			Recovery = 98.25%			
84) 1,4-Dichlorobenzene-d4	12.186	152	73699	10.000	ug/L	0.00
Standard Area 1 = 74459			Recovery = 98.98%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	47721	10.056	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.56%			
47) 1,2-Dichloroethane-d4	5.655	65	60125	10.708	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.08%			
64) Toluene-d8	7.626	98	207127	10.389	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.89%			
88) 4-Bromofluorobenzene	10.973	95	70494	10.411	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.11%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	46410	10.036	ug/L	95
3) Chloromethane	1.770	50	42762	9.359	ug/L	96
4) Vinyl chloride	1.848	62	51070	10.489	ug/L	93
5) Bromomethane	2.158	94	20754	6.073	ug/L	97
6) Chloroethane	2.275	64	37281	10.576	ug/L	96
7) Trichlorofluoromethane	2.412	101	65137	9.170	ug/L	90
8) Ethyl ether	2.704	74	24315	11.069	ug/L	83
10) 1,1-Dichloroethene	2.888	96	39495	10.918	ug/L #	76
11) Carbon disulfide	2.922	76	123065	11.327	ug/L	96
15) Methylene chloride	3.443	84	44876	9.937	ug/L	90
17) Acetone	3.480	43	8828M3	9.933	ug/L	
18) trans-1,2-Dichloroethene	3.599	96	39183	9.726	ug/L	90
21) Methyl tert-butyl ether	3.692	73	98486	9.146	ug/L #	86
25) 1,1-Dichloroethane	4.177	63	81139	10.076	ug/L	98
27) Acrylonitrile	4.219	53	10871	9.979	ug/L #	84
29) Vinyl acetate	4.403	43	88560	9.469	ug/L	98
30) cis-1,2-Dichloroethene	4.695	96	47276	10.280	ug/L	94
31) 2,2-Dichloropropane	4.793	77	56513	8.894	ug/L	95
33) Bromochloromethane	4.888	128	20694	9.877	ug/L	92
35) Chloroform	4.955	83	75608	10.008	ug/L	96

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A03.D
Acq On : 24 Nov 2024 11:21 am
Operator : ELAINE:PID
Sample : WG2001843-4,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 07:08:03 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.089	117	51189	9.342	ug/L		98
40) 1,1,1-Trichloroethane	5.156	97	64294	9.639	ug/L		93
42) 2-Butanone	5.242	43	13293	10.489	ug/L		99
43) 1,1-Dichloropropene	5.278	75	57425	9.825	ug/L		95
45) Benzene	5.521	78	188271	10.228	ug/L		95
48) 1,2-Dichloroethane	5.724	62	60203	10.283	ug/L		99
52) Trichloroethene	6.115	95	44003	10.082	ug/L		97
54) Dibromomethane	6.561	93	25022	10.032	ug/L		95
55) 1,2-Dichloropropane	6.656	63	50871	10.879	ug/L		95
58) Bromodichloromethane	6.739	83	59869	9.865	ug/L		94
61) 1,4-Dioxane	6.937	88	13882	454.284	ug/L	#	87
62) cis-1,3-Dichloropropene	7.417	75	67214	9.595	ug/L		93
65) Toluene	7.682	92	117443	10.223	ug/L		93
66) 4-Methyl-2-pentanone	8.125	58	11771M3	9.750	ug/L		
67) Tetrachloroethene	8.131	166	42977	9.305	ug/L		95
69) trans-1,3-Dichloropropene	8.167	75	57295	10.071	ug/L		86
72) 1,1,2-Trichloroethane	8.357	83	31247	10.349	ug/L		95
73) Chlorodibromomethane	8.566	129	37667	9.298	ug/L		99
74) 1,3-Dichloropropane	8.678	76	64110	10.284	ug/L		97
75) 1,2-Dibromoethane	8.839	107	34612	9.675	ug/L		88
77) 2-Hexanone	9.129	43	18153	9.359	ug/L		97
78) Chlorobenzene	9.495	112	123078	10.080	ug/L	#	81
79) Ethylbenzene	9.528	91	222471	10.134	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.576	131	40789	10.061	ug/L		98
81) p/m Xylene	9.715	106	167811	19.857	ug/L		96
82) o Xylene	10.259	106	161574	19.607	ug/L		91
83) Styrene	10.326	104	266019	19.121	ug/L		96
85) Bromoform	10.354	173	20052	9.205	ug/L		95
87) Isopropylbenzene	10.644	105	219456	10.080	ug/L		98
89) Bromobenzene	11.079	156	48608	10.002	ug/L		98
90) n-Propylbenzene	11.129	91	258394	10.464	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.218	83	44486	10.584	ug/L		97
93) 4-Ethyltoluene	11.254	105	214491	10.468	ug/L		99
94) 2-Chlorotoluene	11.296	91	151708	10.578	ug/L		97
95) 1,3,5-Trimethylbenzene	11.355	105	187905	10.364	ug/L		98
96) 1,2,3-Trichloropropane	11.357	75	34427	10.376	ug/L		92
97) trans-1,4-Dichloro-2-b...	11.410	53	12422	10.341	ug/L		86
98) 4-Chlorotoluene	11.483	91	155746	10.496	ug/L		100
99) tert-Butylbenzene	11.695	119	149620	9.999	ug/L		97

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A03.D
Acq On : 24 Nov 2024 11:21 am
Operator : ELAINE:PID
Sample : WG2001843-4,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 07:08:03 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241124A\VE241124A02.D
Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.773	105	186799	10.273	ug/L	97
103) sec-Butylbenzene	11.887	105	229977	10.066	ug/L	98
104) p-Isopropyltoluene	12.041	119	189546	10.013	ug/L	97
105) 1,3-Dichlorobenzene	12.108	146	97873	10.062	ug/L	97
106) 1,4-Dichlorobenzene	12.202	146	97886	10.033	ug/L	99
107) p-Diethylbenzene	12.417	119	110879	10.012	ug/L	96
108) n-Butylbenzene	12.473	91	169043	10.240	ug/L	98
109) 1,2-Dichlorobenzene	12.624	146	92813	10.028	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.209	119	170977	9.636	ug/L	97
111) 1,2-Dibromo-3-chloropr...	13.402	155	5251	9.342	ug/L	97
113) Hexachlorobutadiene	14.012	225	15276	8.668	ug/L	96
114) 1,2,4-Trichlorobenzene	14.035	180	54666	9.484	ug/L	98
115) Naphthalene	14.325	128	124910	9.227	ug/L	100
116) 1,2,3-Trichlorobenzene	14.495	180	47537	9.239	ug/L	93

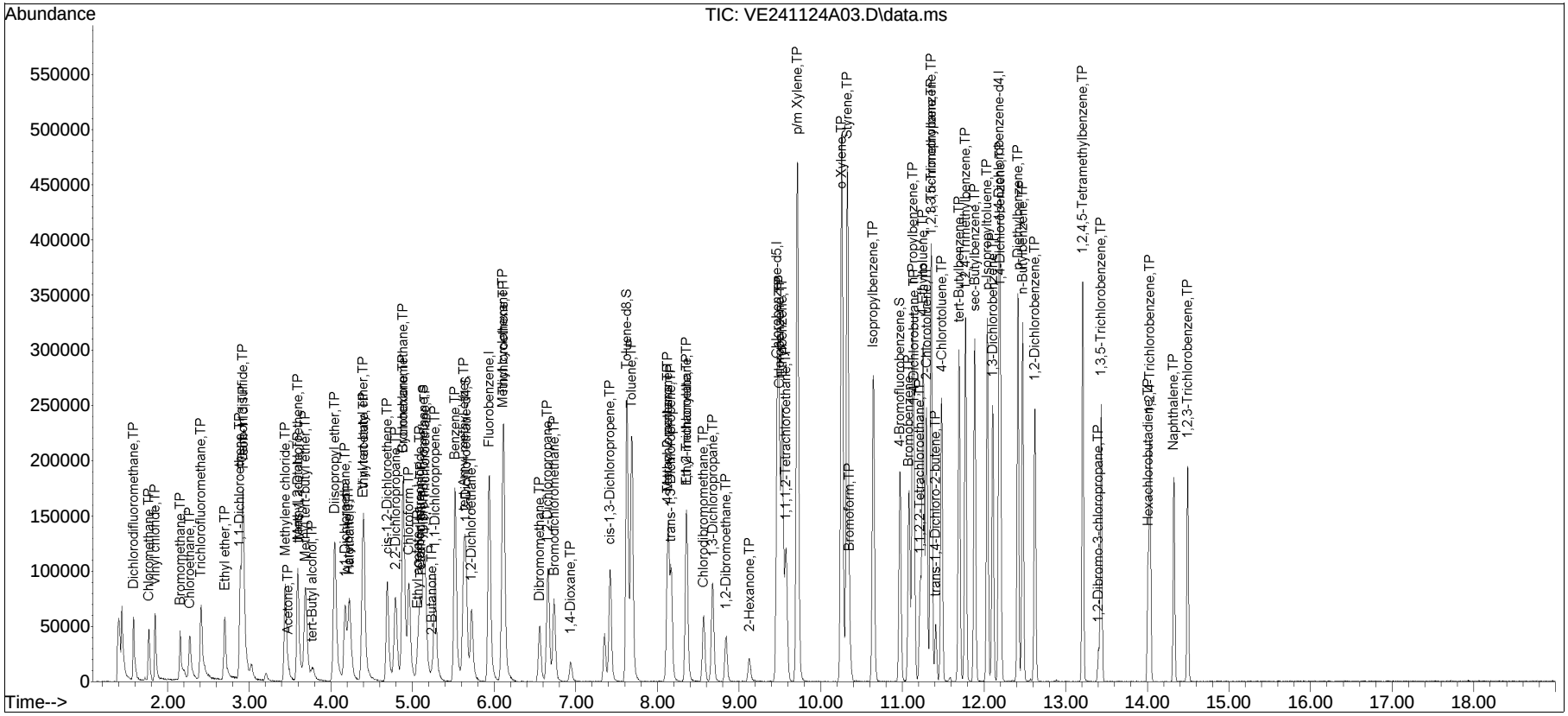
(#) = qualifier out of range (m) = manual integration (+) = signals summed

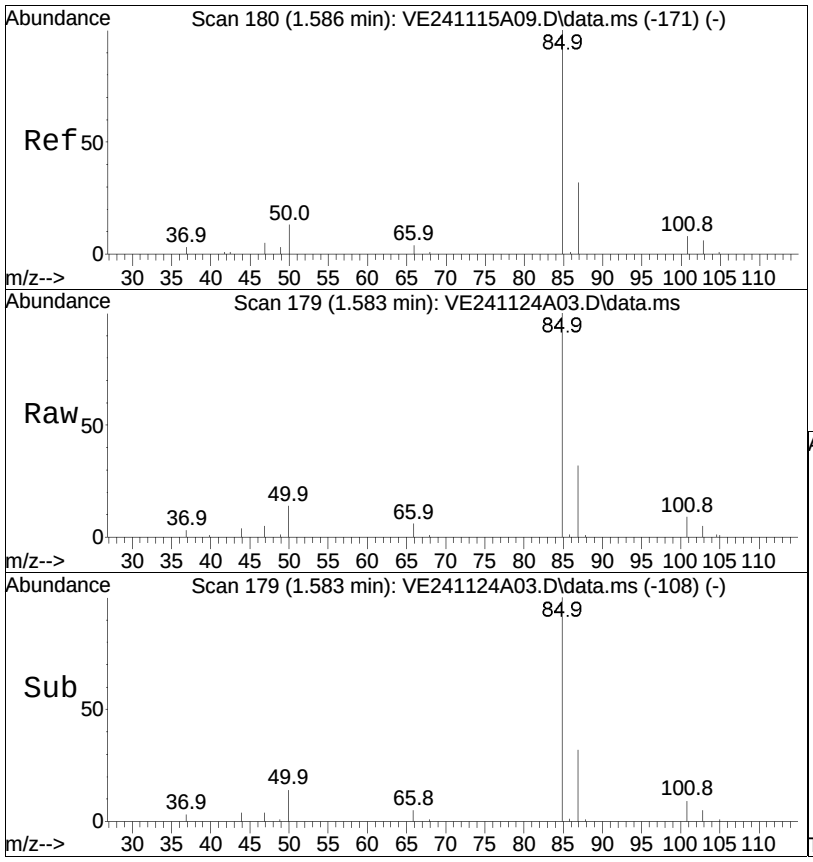
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A03.D
Acq On : 24 Nov 2024 11:21 am
Operator : ELAINE:PID
Sample : WG2001843-4,31,10,10
Misc : WG2001843,ICAL21711
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 07:08:03 2024
Quant Method : K:\Elaine\2024\241124A\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-Curve-3 - Megamix plus Diox-IM, Acro, 2Ceve

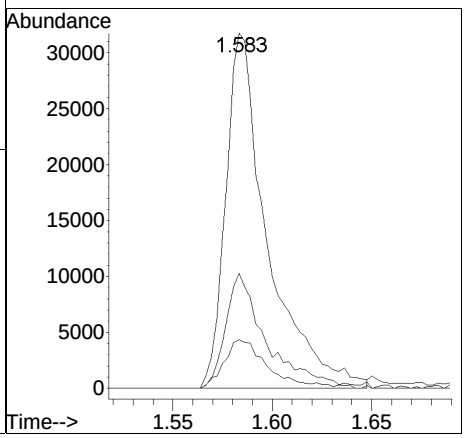


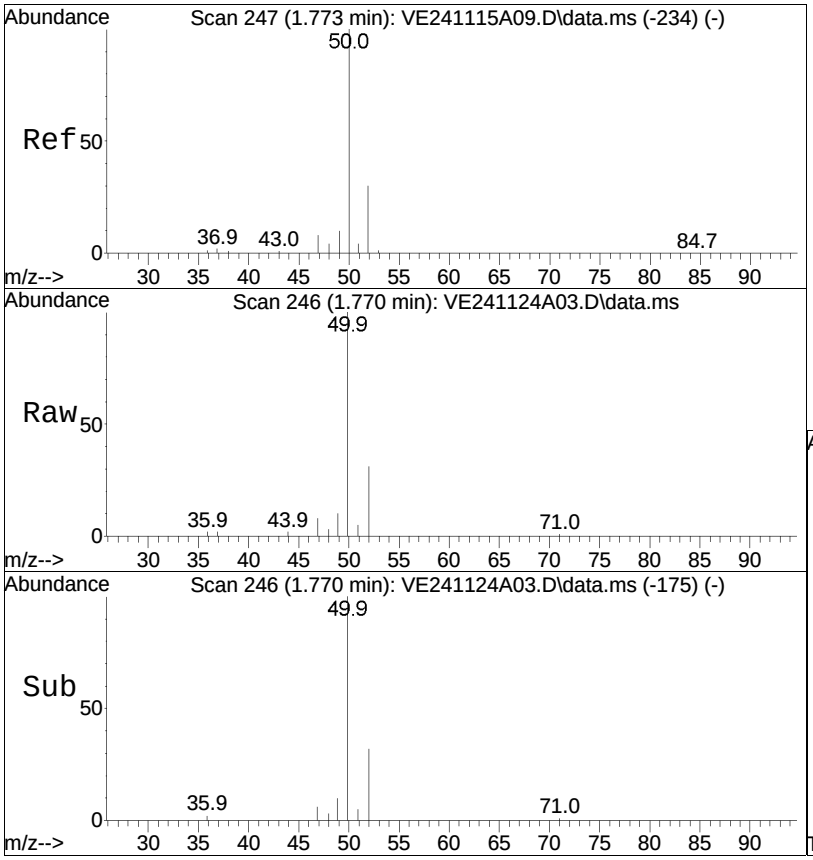


#2
Dichlorodifluoromethane
Concen: 10.04 ug/L
RT: 1.583 min Scan# 179
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 85 Resp: 46410

Ion	Ratio	Lower	Upper
85	100		
87	31.8	21.7	45.1
50	14.3	11.8	24.4

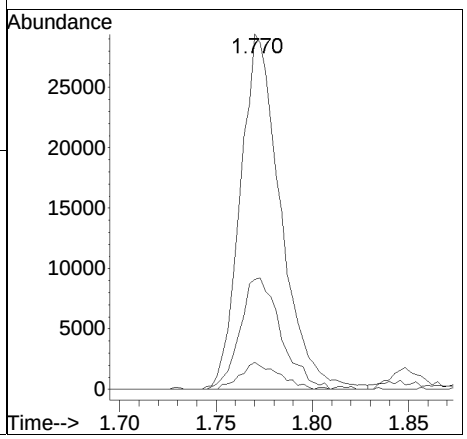


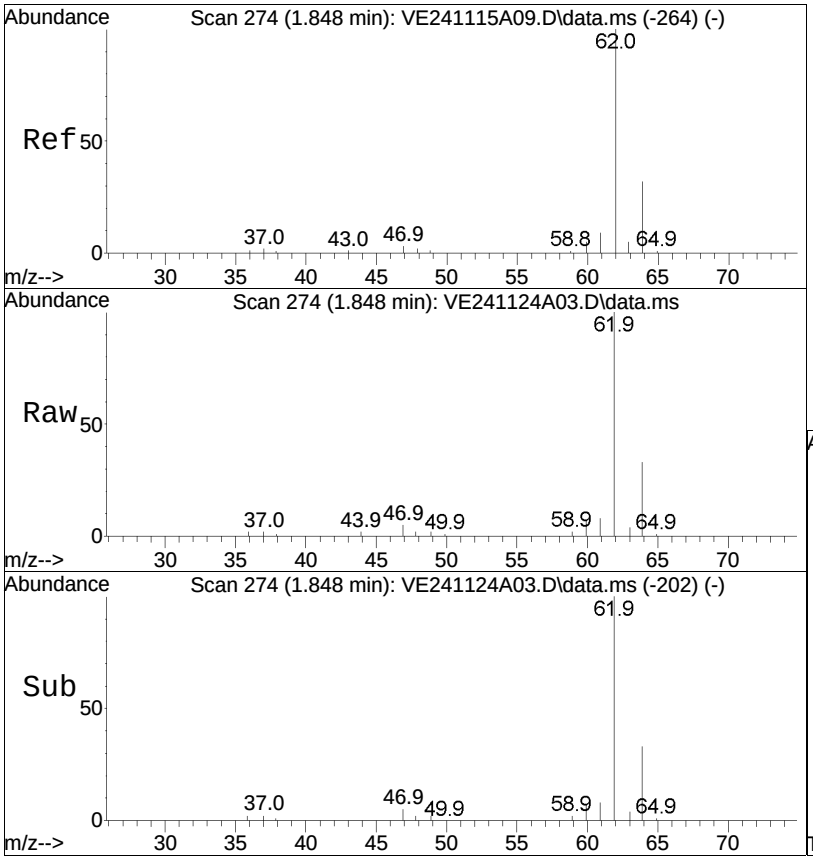


#3
Chloromethane
Concen: 9.36 ug/L
RT: 1.770 min Scan# 246
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 50 Resp: 42762

Ion	Ratio	Lower	Upper
50	100		
52	32.1	14.9	54.9
47	7.3	0.0	28.0

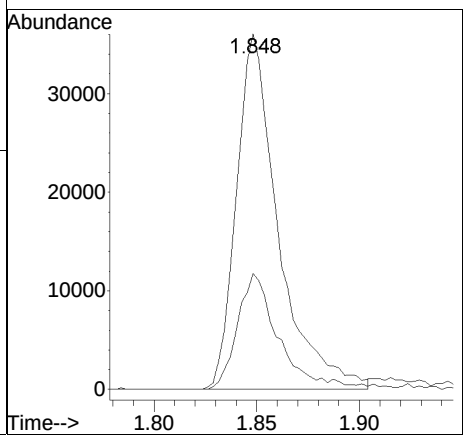


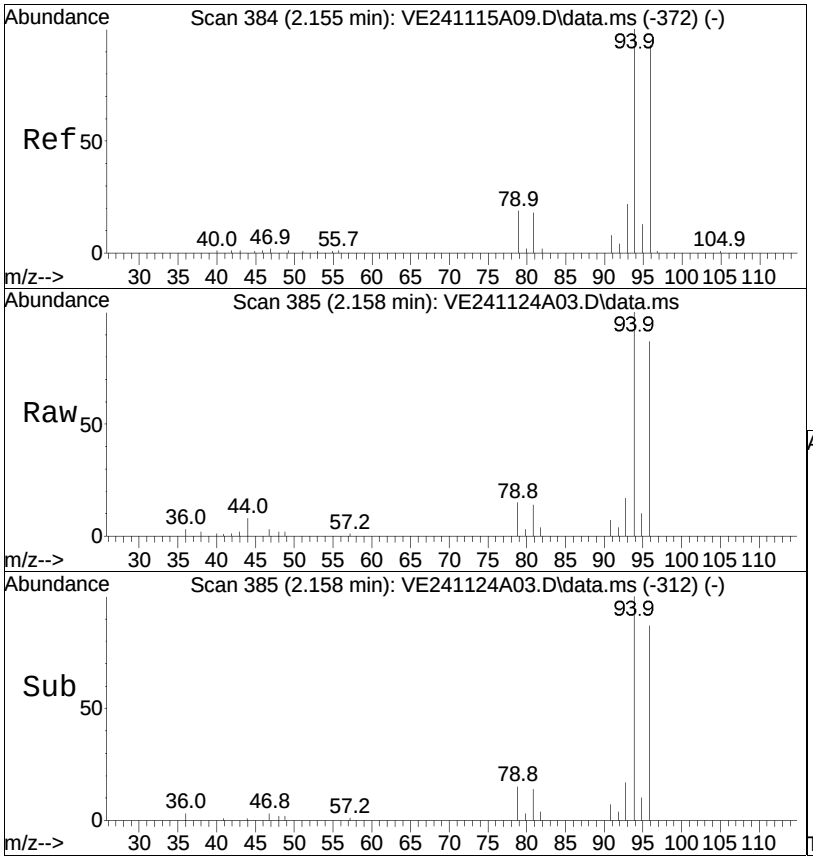


#4
Vinyl chloride
Concen: 10.49 ug/L
RT: 1.848 min Scan# 274
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 62 Resp: 51070

Ion	Ratio	Lower	Upper
62	100		
64	31.9	8.1	48.1

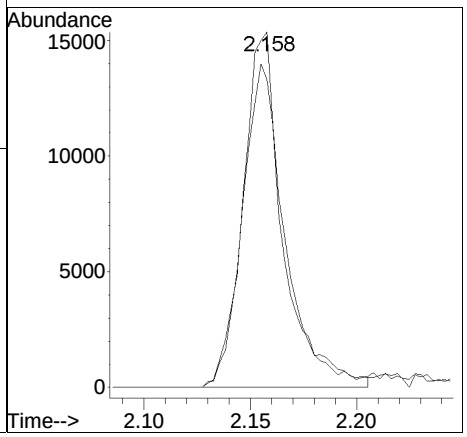


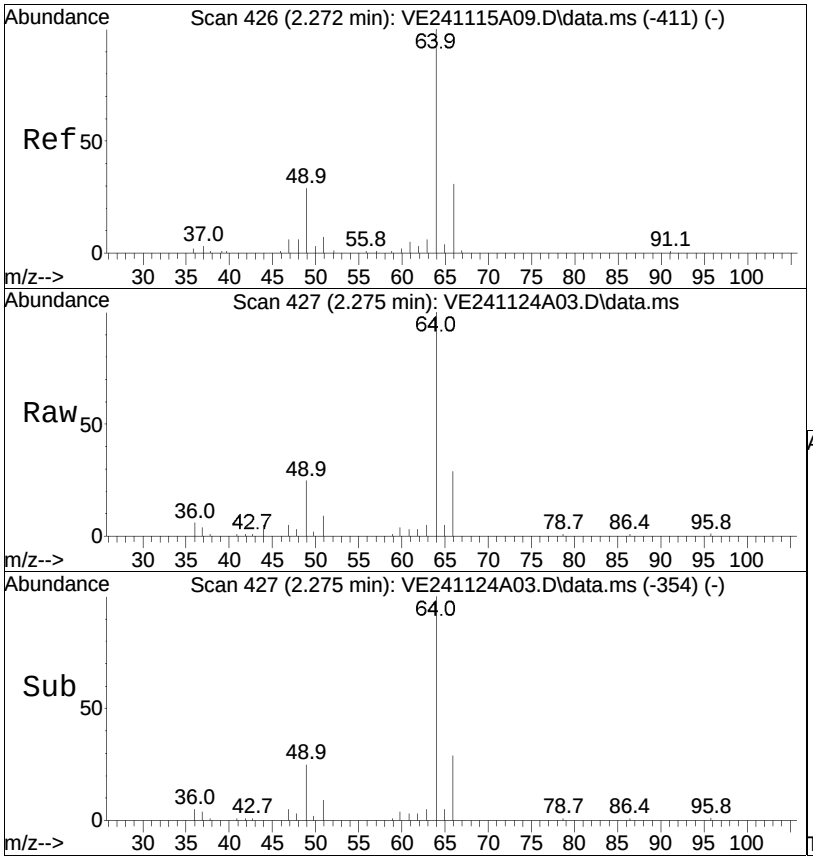


#5
Bromomethane
Concen: 6.07 ug/L
RT: 2.158 min Scan# 385
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 94 Resp: 20754

Ion	Ratio	Lower	Upper
94	100		
96	90.7	68.2	108.2

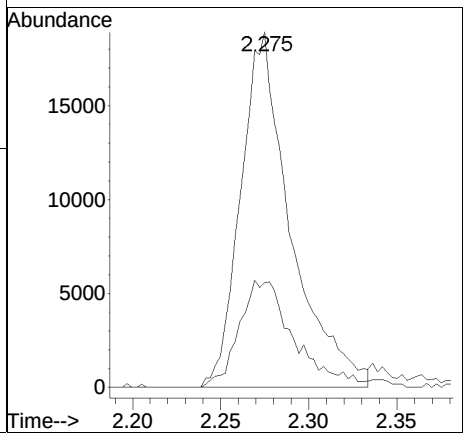


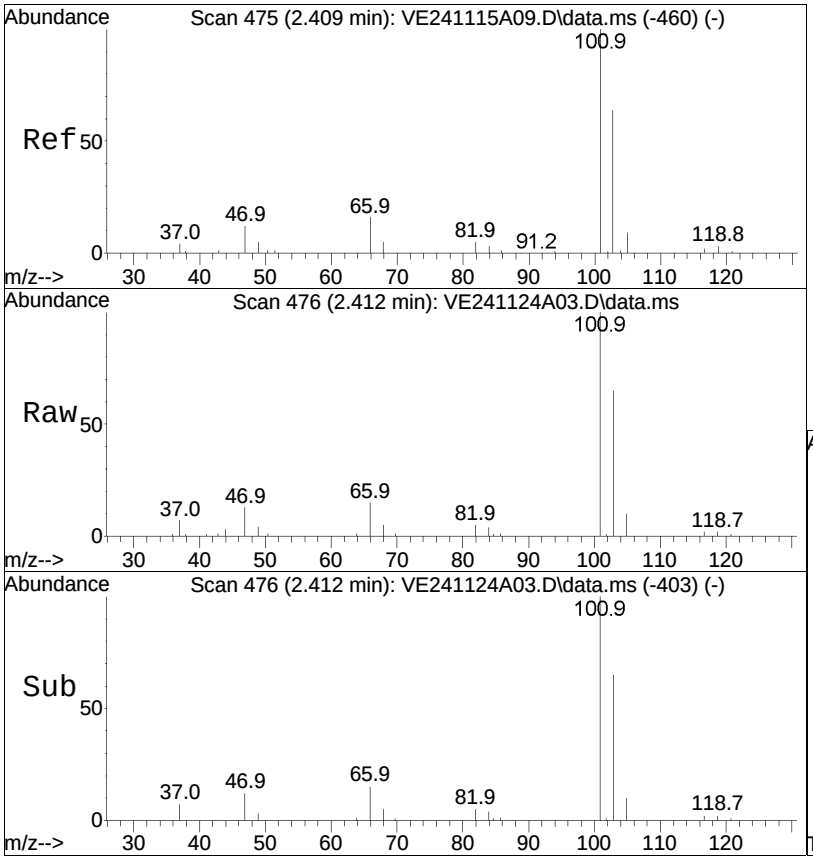


#6
Chloroethane
Concen: 10.58 ug/L
RT: 2.275 min Scan# 427
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 64 Resp: 37281

Ion	Ratio	Lower	Upper
64	100		
66	33.0	10.7	50.7

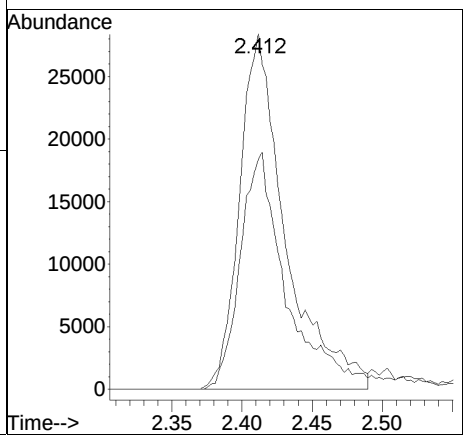


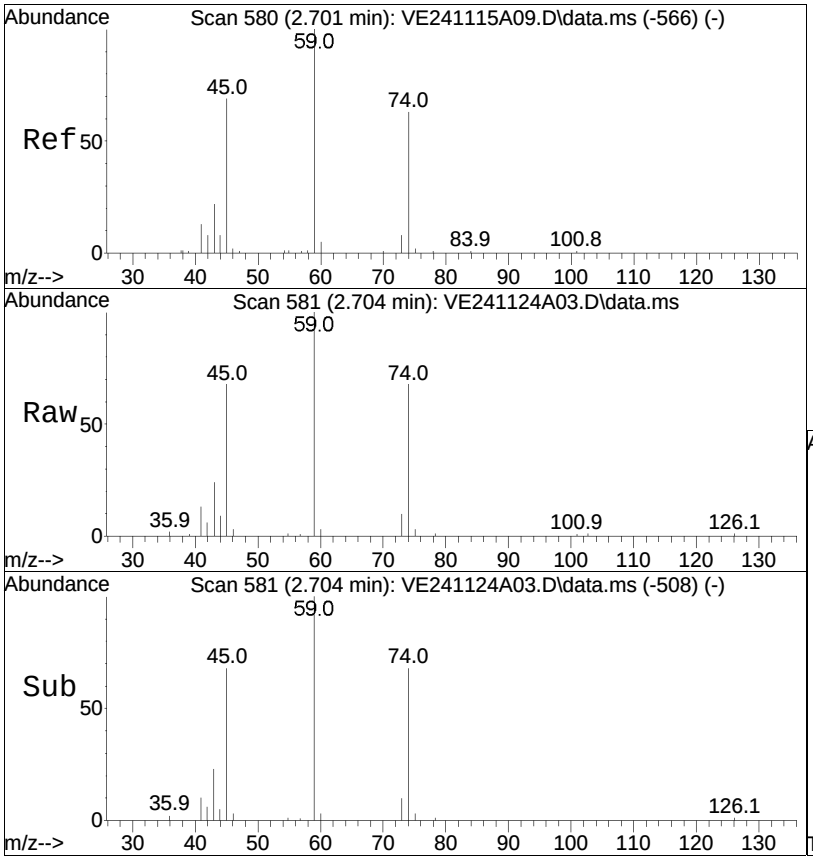


#7
Trichlorofluoromethane
Concen: 9.17 ug/L
RT: 2.412 min Scan# 476
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:101 Resp: 65137

Ion	Ratio	Lower	Upper
101	100		
103	68.1	48.2	72.2

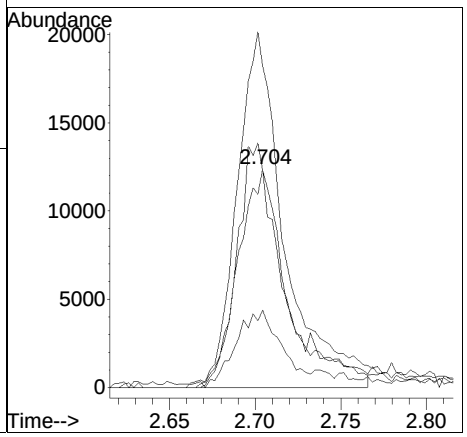


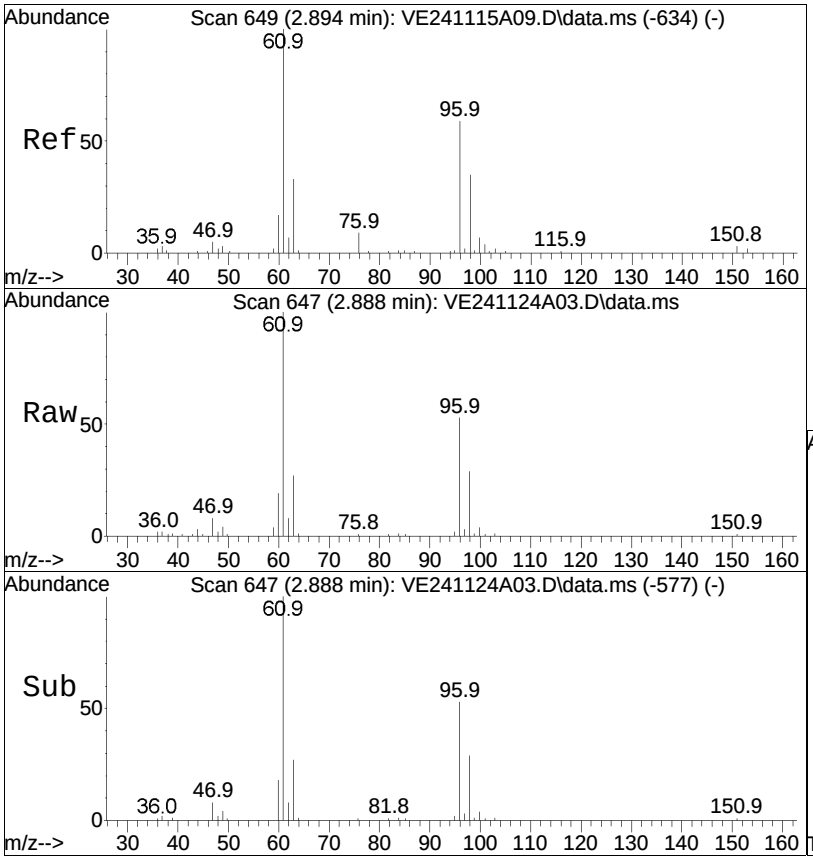


#8
Ethyl ether
Concen: 11.07 ug/L
RT: 2.704 min Scan# 581
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 74 Resp: 24315

Ion	Ratio	Lower	Upper
74	100		
59	162.6	91.7	190.5
45	98.1	77.4	160.8
43	33.3	24.6	51.2

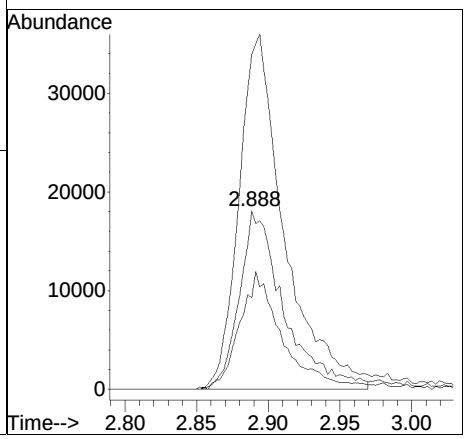


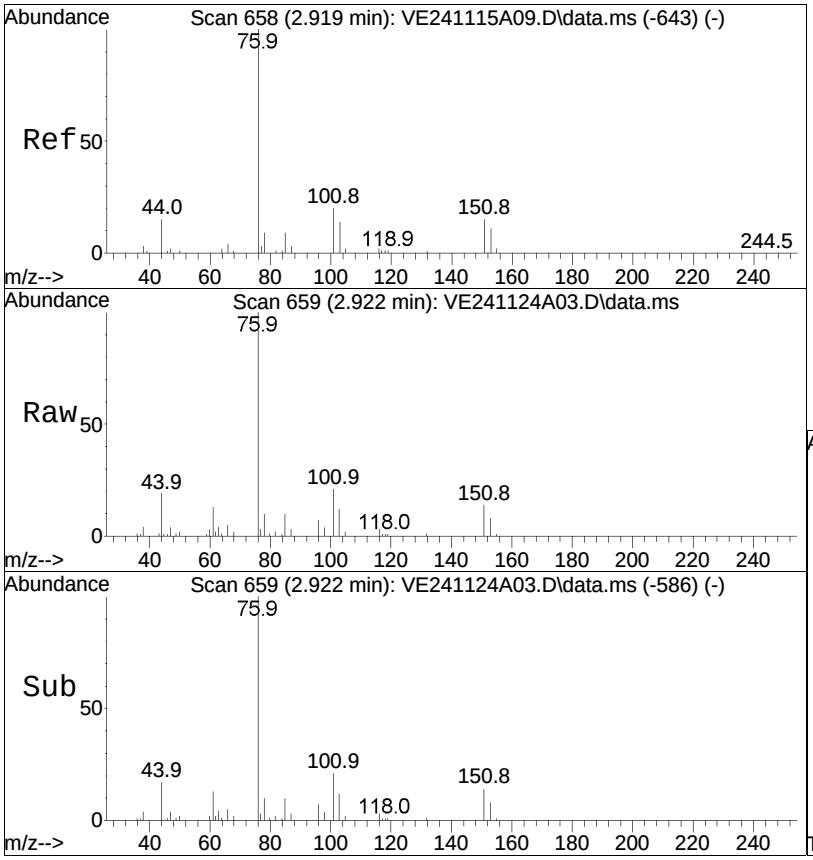


#10
1,1-Dichloroethene
Concen: 10.92 ug/L
RT: 2.888 min Scan# 647
Delta R.T. -0.005 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 96 Resp: 39495

Ion	Ratio	Lower	Upper
96	100		
61	205.3	135.4	203.0#
63	63.4	42.6	63.8

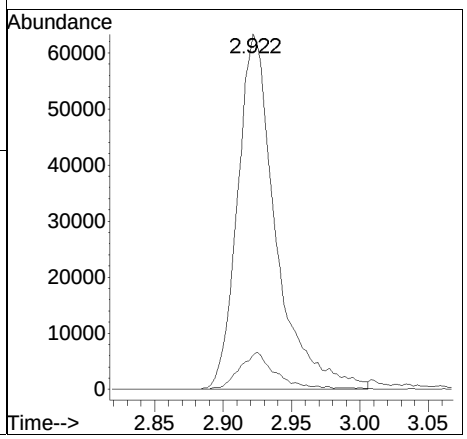


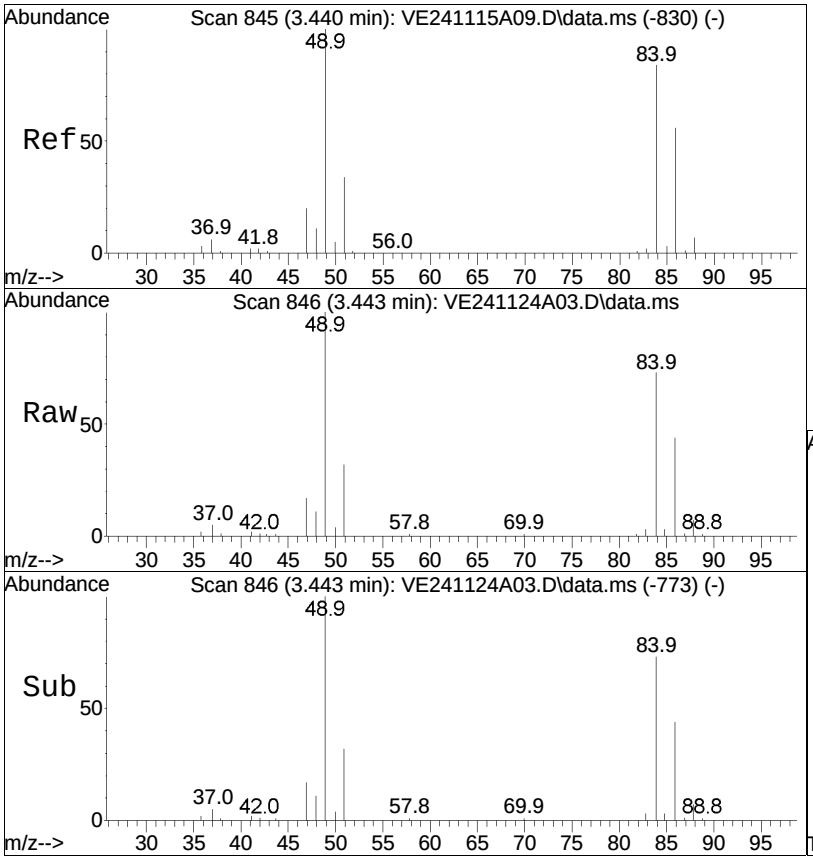


#11
Carbon disulfide
Concen: 11.33 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 76 Resp: 123065

Ion	Ratio	Lower	Upper
76	100		
78	10.0	5.5	11.3

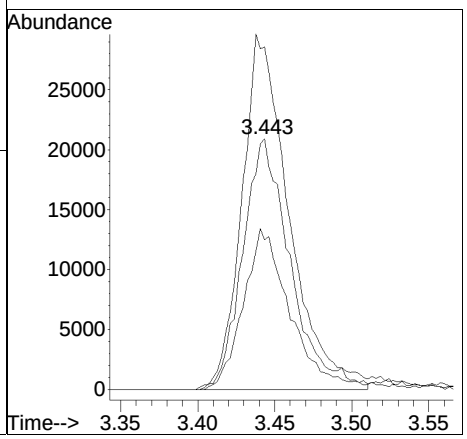


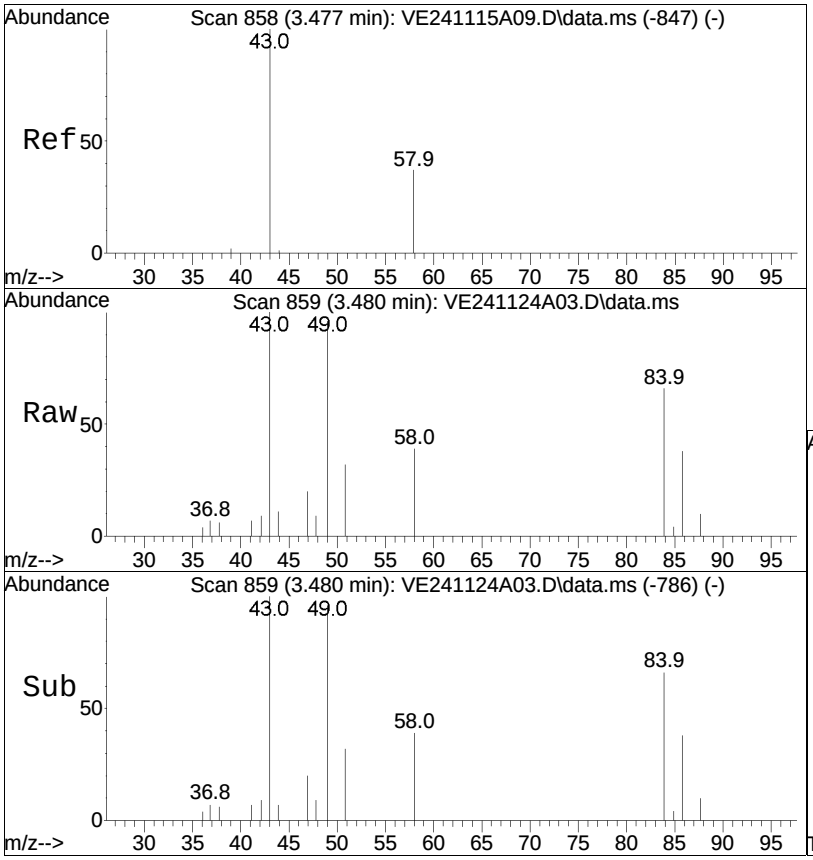


#15
Methylene chloride
Concen: 9.94 ug/L
RT: 3.443 min Scan# 846
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 84 Resp: 44876

Ion	Ratio	Lower	Upper
84	100		
86	62.8	40.2	83.6
49	140.7	103.2	214.4

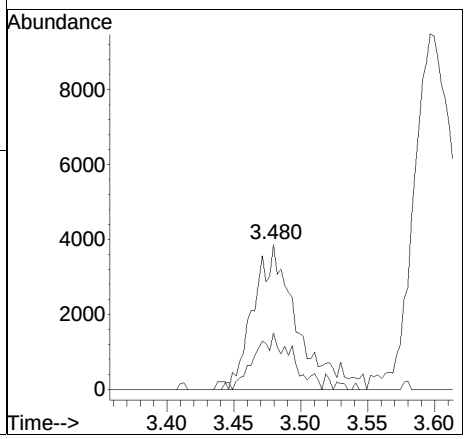


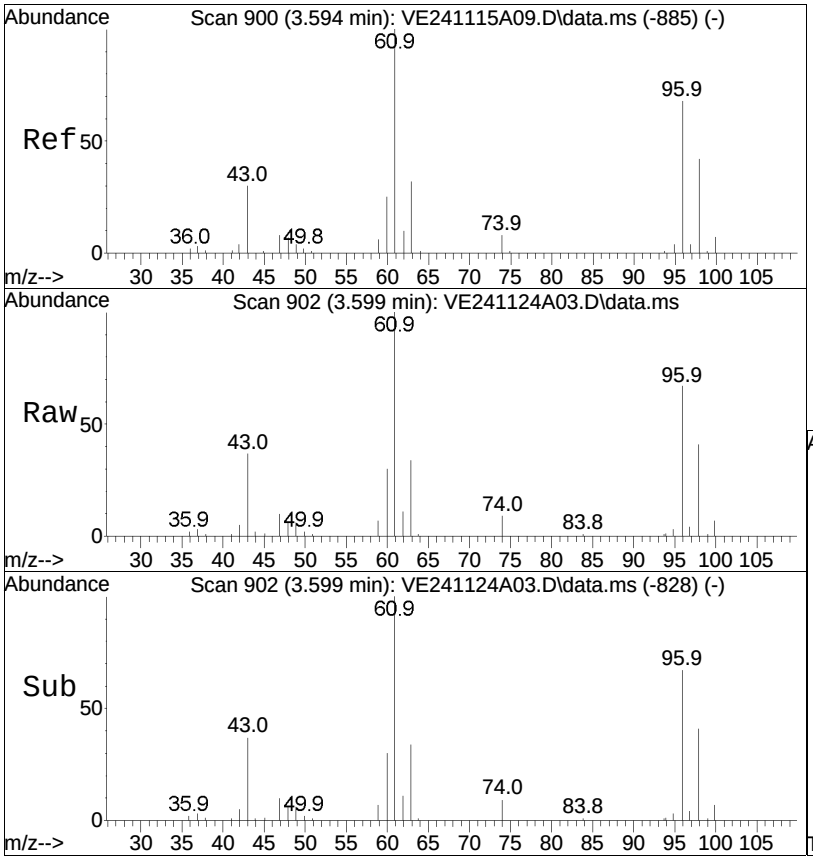


#17
Acetone
Concen: 9.93 ug/L M3
RT: 3.480 min Scan# 859
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 43 Resp: 8828

Ion	Ratio	Lower	Upper
43	100		
58	14.6	23.4	35.0#

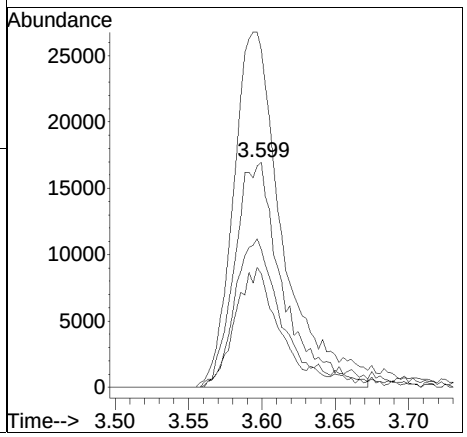


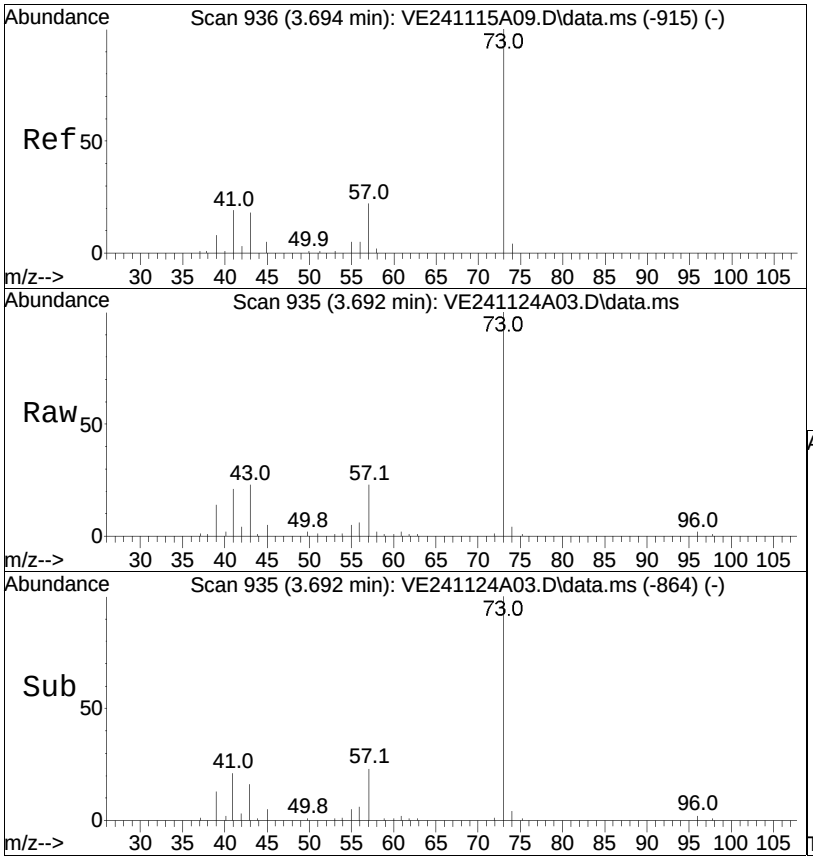


#18
trans-1,2-Dichloroethene
Concen: 9.73 ug/L
RT: 3.599 min Scan# 902
Delta R.T. 0.006 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 96 Resp: 39183

Ion	Ratio	Lower	Upper
96	100		
61	161.8	93.5	194.1
98	62.4	37.8	78.6
63	46.4	29.7	61.7

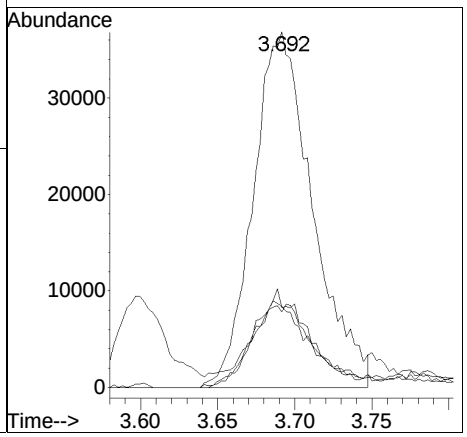


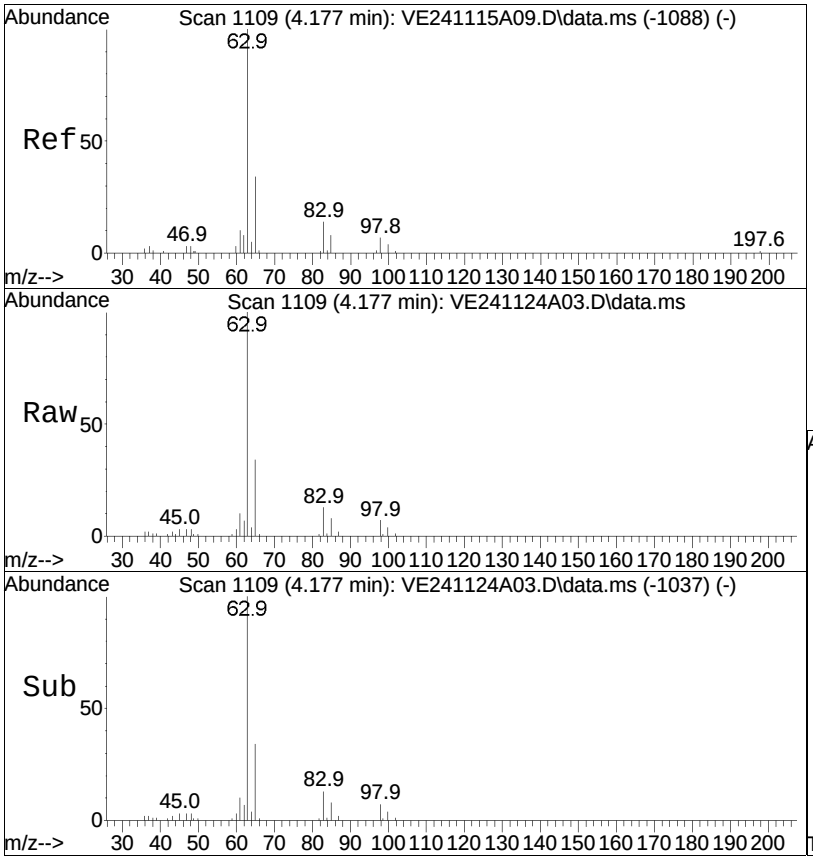


#21
Methyl tert-butyl ether
Concen: 9.15 ug/L
RT: 3.692 min Scan# 935
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 73 Resp: 98486

Ion	Ratio	Lower	Upper
73	100		
57	26.0	16.1	33.3
43	21.7	17.0	35.2
41	12.8	18.7	38.9#

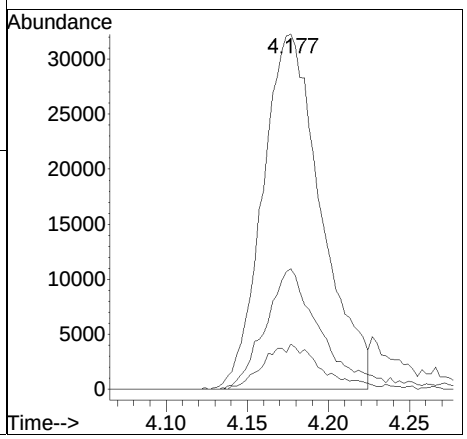


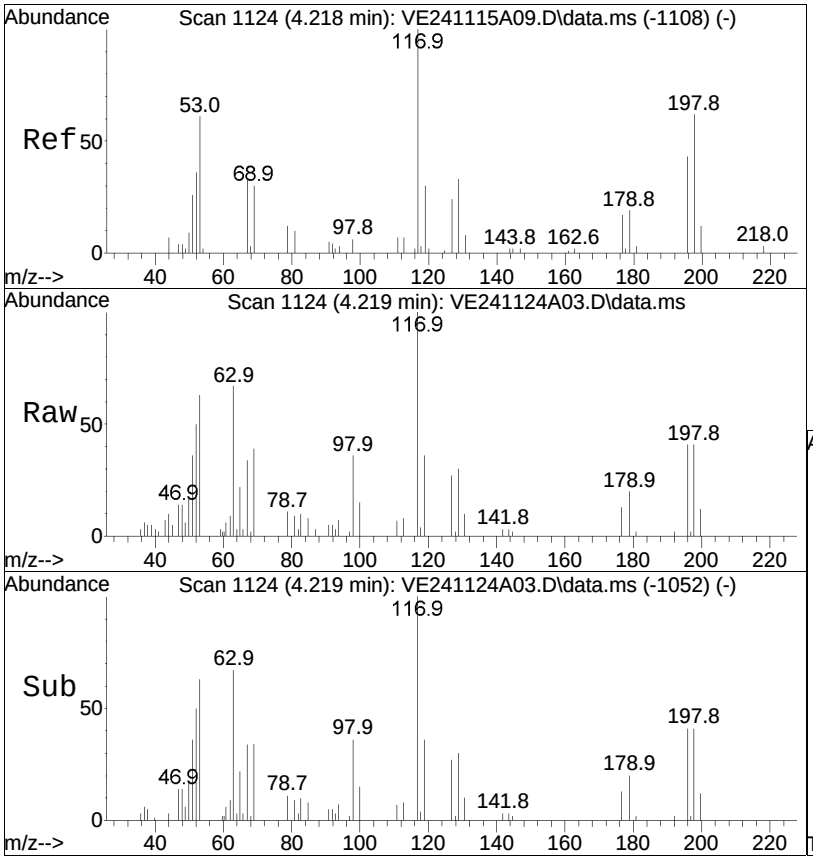


#25
1,1-Dichloroethane
Concen: 10.08 ug/L
RT: 4.177 min Scan# 1109
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 63 Resp: 81139

Ion	Ratio	Lower	Upper
63	100		
65	31.8	10.3	50.3
83	12.6	0.0	33.1

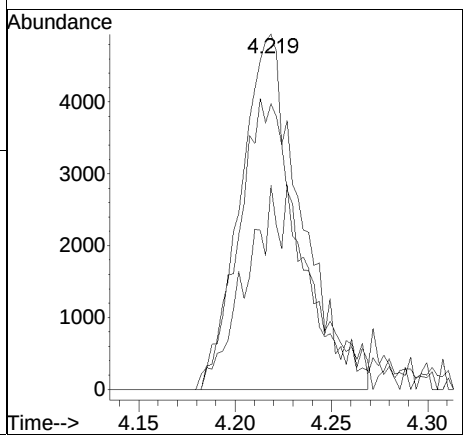


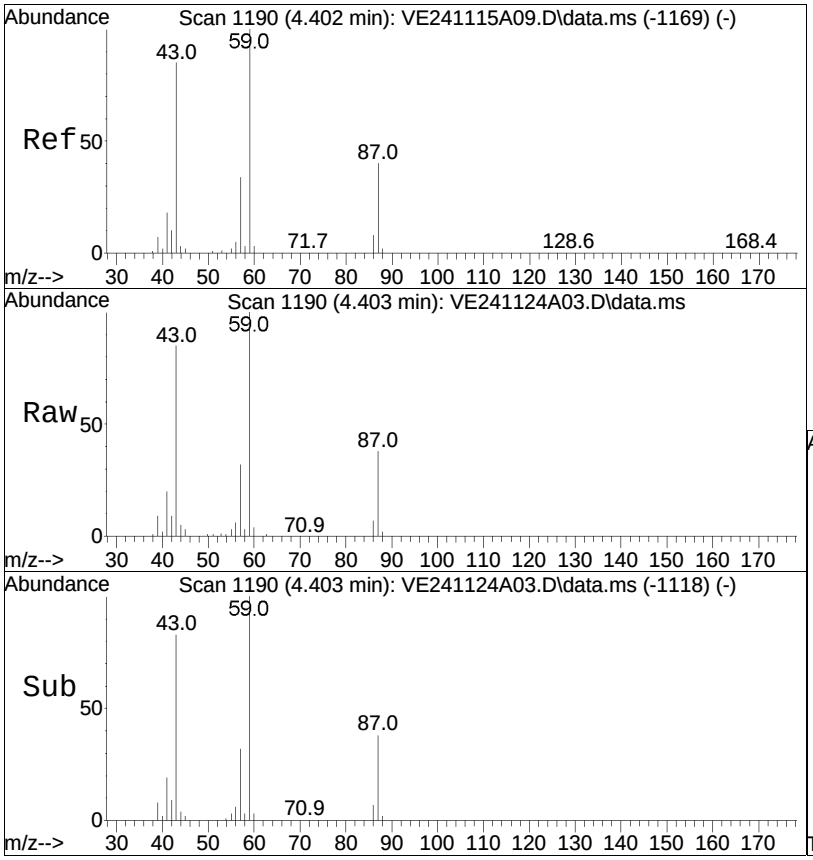


#27
Acrylonitrile
Concen: 9.98 ug/L
RT: 4.219 min Scan# 1124
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 53 Resp: 10871

Ion	Ratio	Lower	Upper
53	100		
52	81.5	58.9	88.3
51	33.1	40.2	60.2#

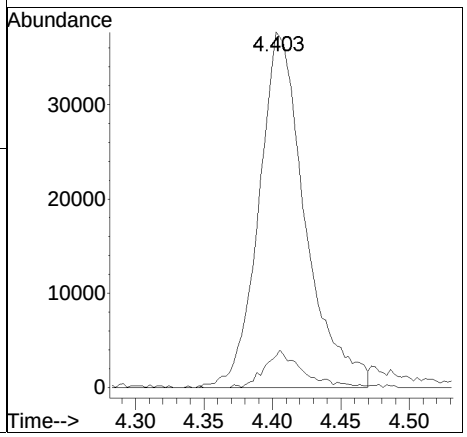


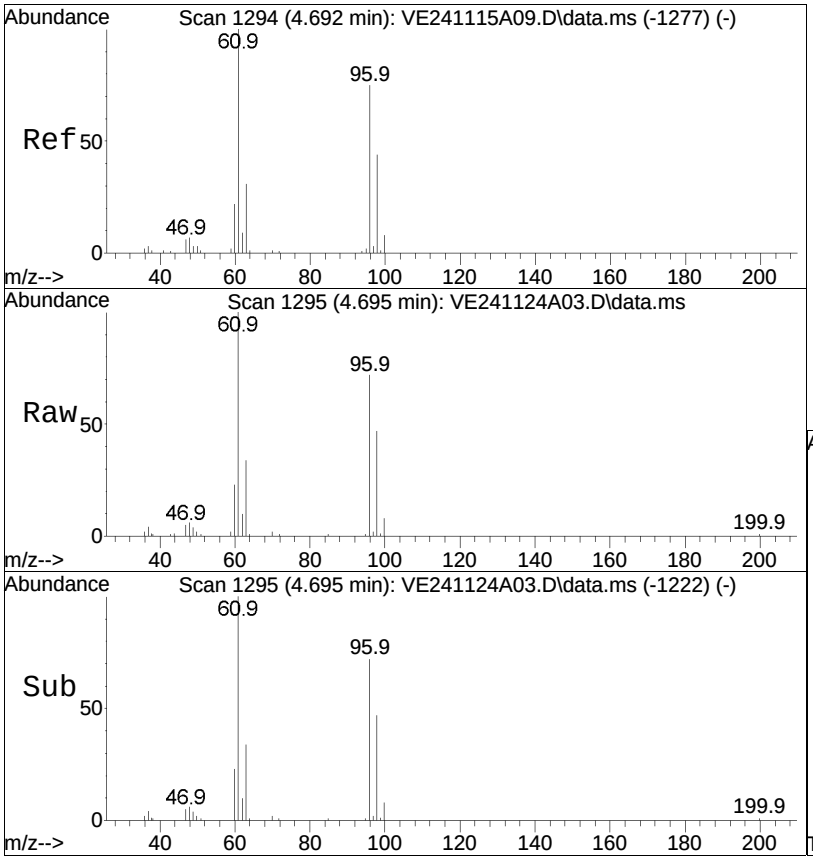


#29
Vinyl acetate
Concen: 9.47 ug/L
RT: 4.403 min Scan# 1190
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 43 Resp: 88560

Ion	Ratio	Lower	Upper
43	100		
86	8.5	6.2	9.4

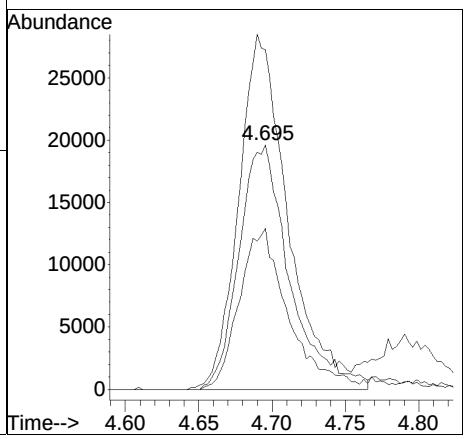


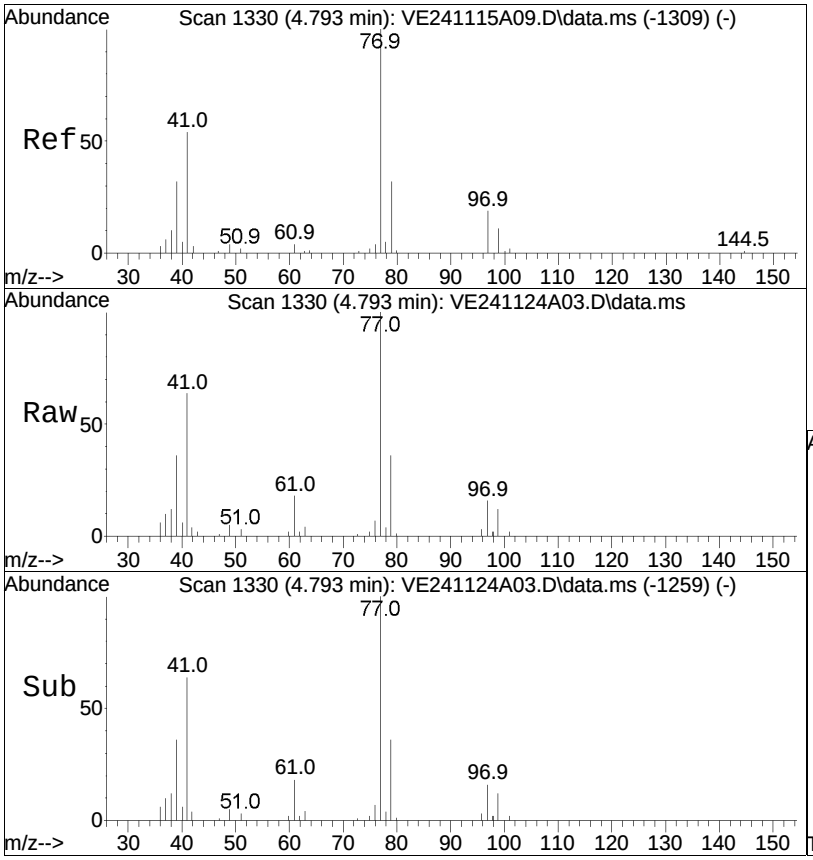


#30
cis-1,2-Dichloroethene
Concen: 10.28 ug/L
RT: 4.695 min Scan# 1295
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 96 Resp: 47276

Ion	Ratio	Lower	Upper
96	100		
61	140.0	120.3	180.5
98	63.4	50.2	75.4

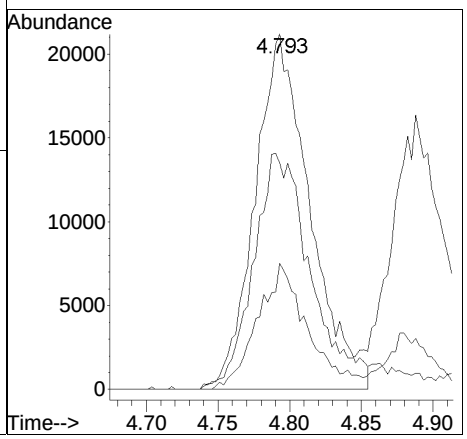


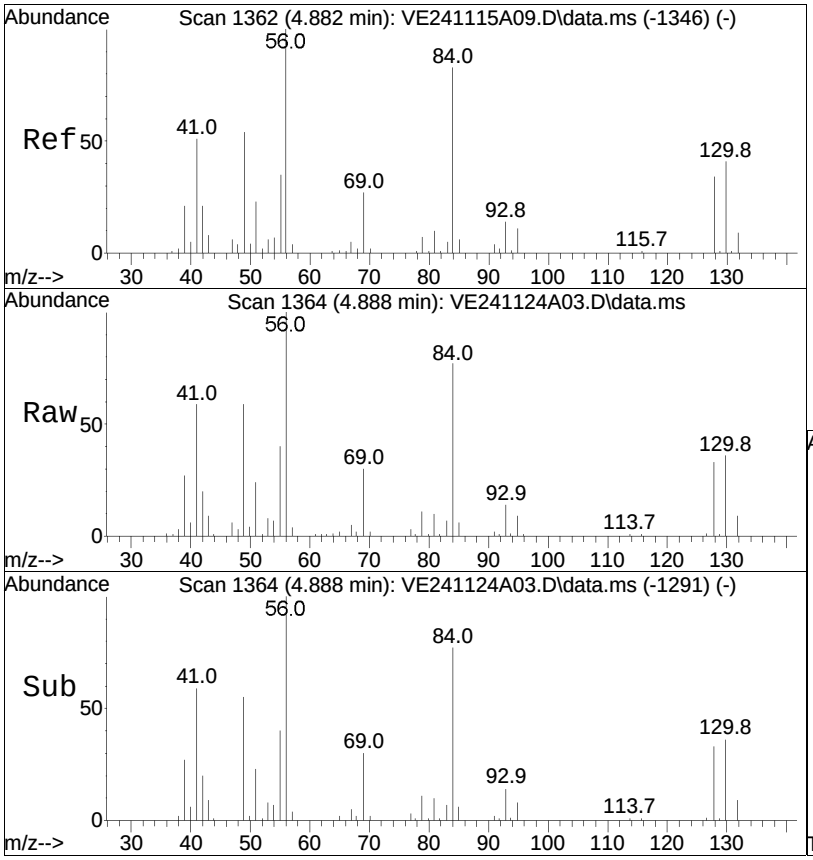


#31
2,2-Dichloropropane
Concen: 8.89 ug/L
RT: 4.793 min Scan# 1330
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 77 Resp: 56513

Ion	Ratio	Lower	Upper
77	100		
41	67.1	46.5	96.5
79	31.1	21.6	45.0

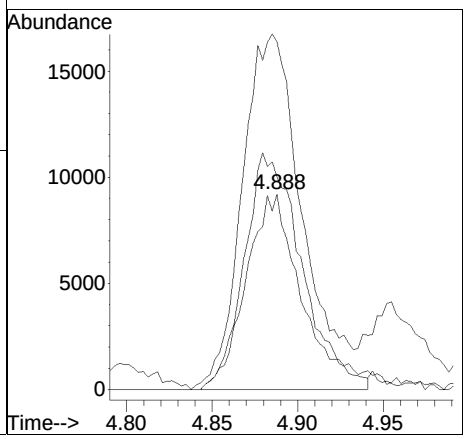


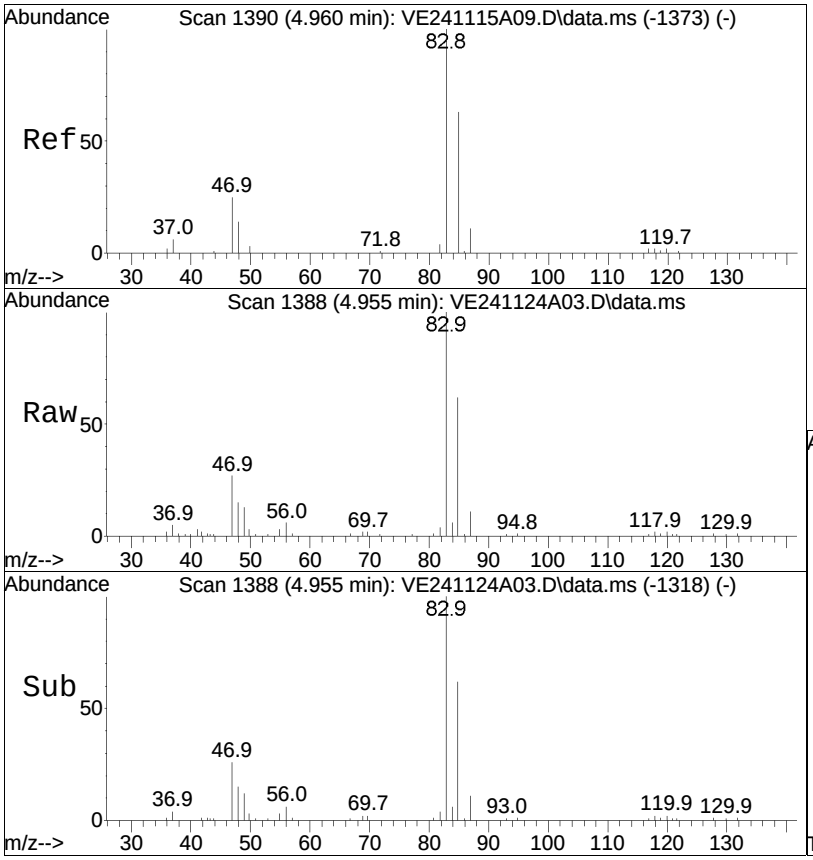


#33
Bromochloromethane
Concen: 9.88 ug/L
RT: 4.888 min Scan# 1364
Delta R.T. 0.006 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:128 Resp: 20694

Ion	Ratio	Lower	Upper
128	100		
49	196.8	170.2	255.2
130	125.3	103.7	155.5

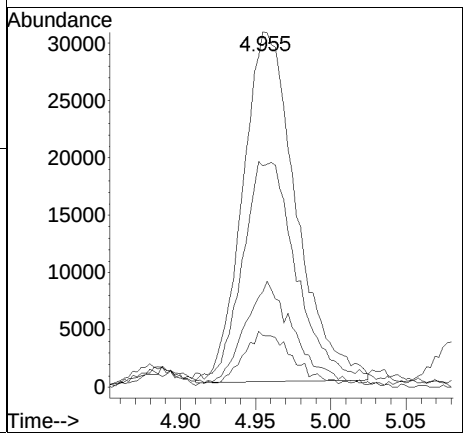


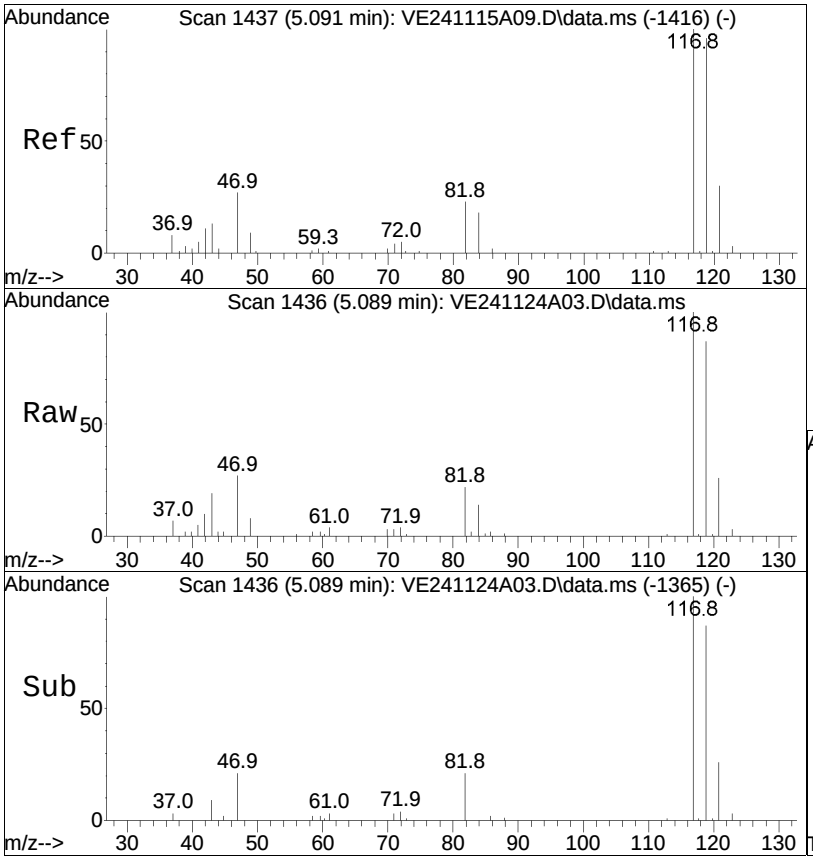


#35
Chloroform
Concen: 10.01 ug/L
RT: 4.955 min Scan# 1388
Delta R.T. -0.005 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 83 Resp: 75608

Ion	Ratio	Lower	Upper
83	100		
85	62.2	41.3	85.9
47	27.5	20.9	43.3
48	13.5	10.3	21.5

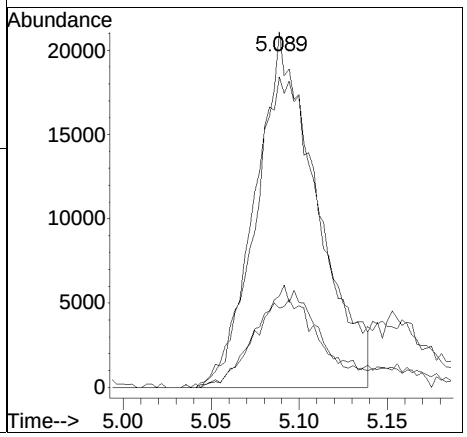


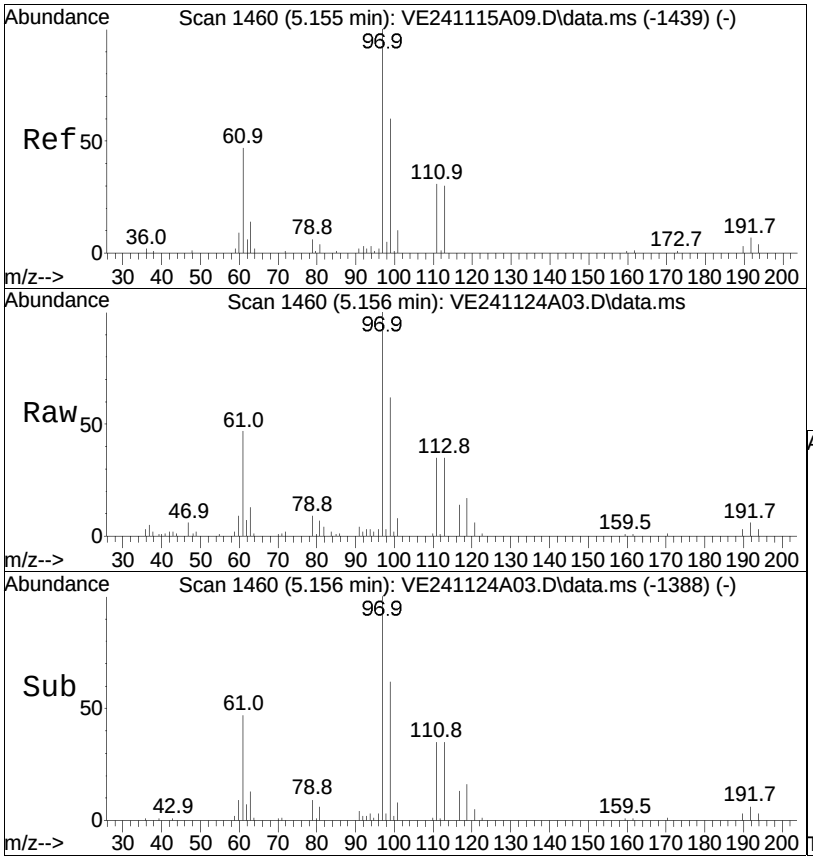


#37
Carbon tetrachloride
Concen: 9.34 ug/L
RT: 5.089 min Scan# 1436
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:117 Resp: 51189

Ion	Ratio	Lower	Upper
117	100		
119	95.0	60.6	126.0
121	28.3	18.0	37.4
82	27.9	19.8	41.0

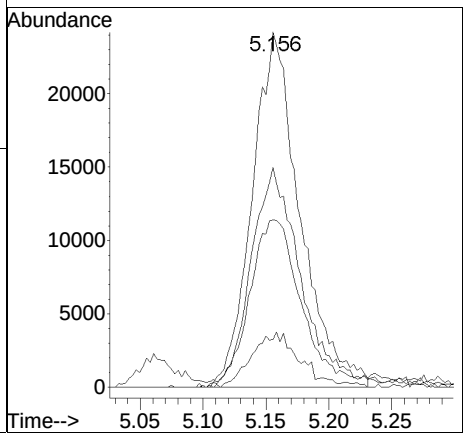


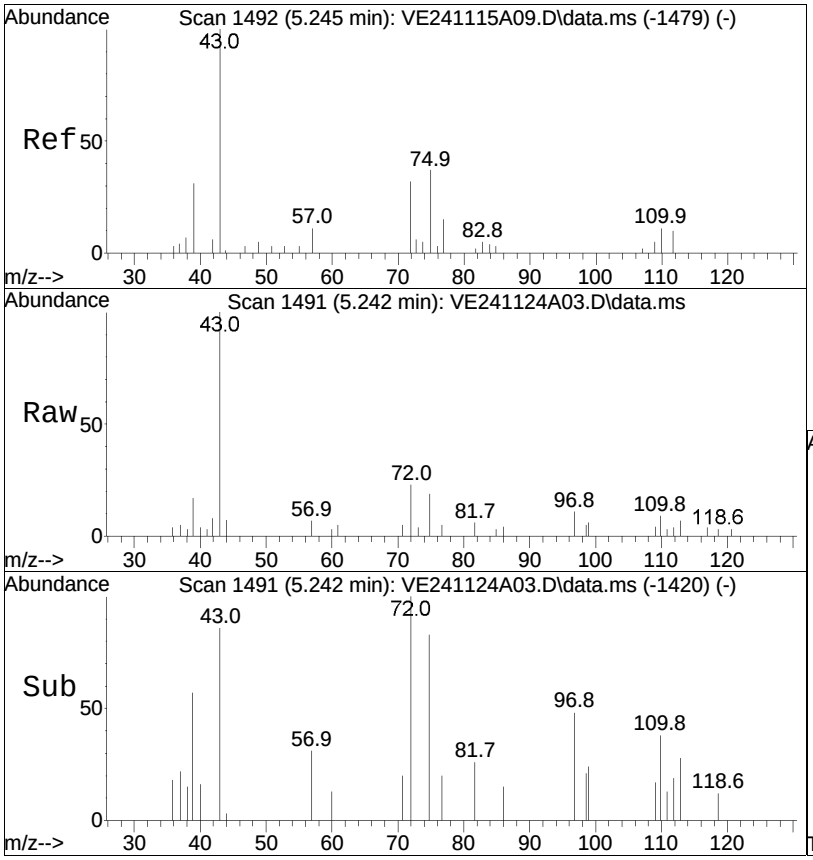


#40
1,1,1-Trichloroethane
Concen: 9.64 ug/L
RT: 5.156 min Scan# 1460
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 97 Resp: 64294

Ion	Ratio	Lower	Upper
97	100		
99	64.3	40.2	83.4
61	47.6	36.9	76.5
63	14.6	8.3	17.3

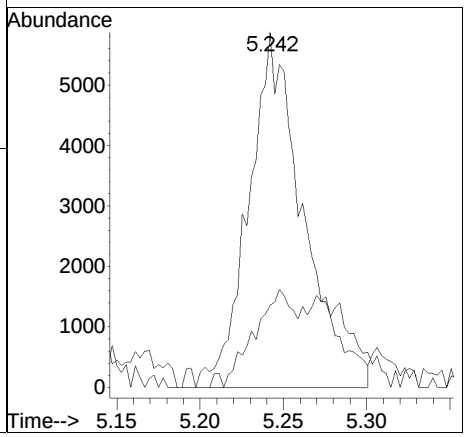


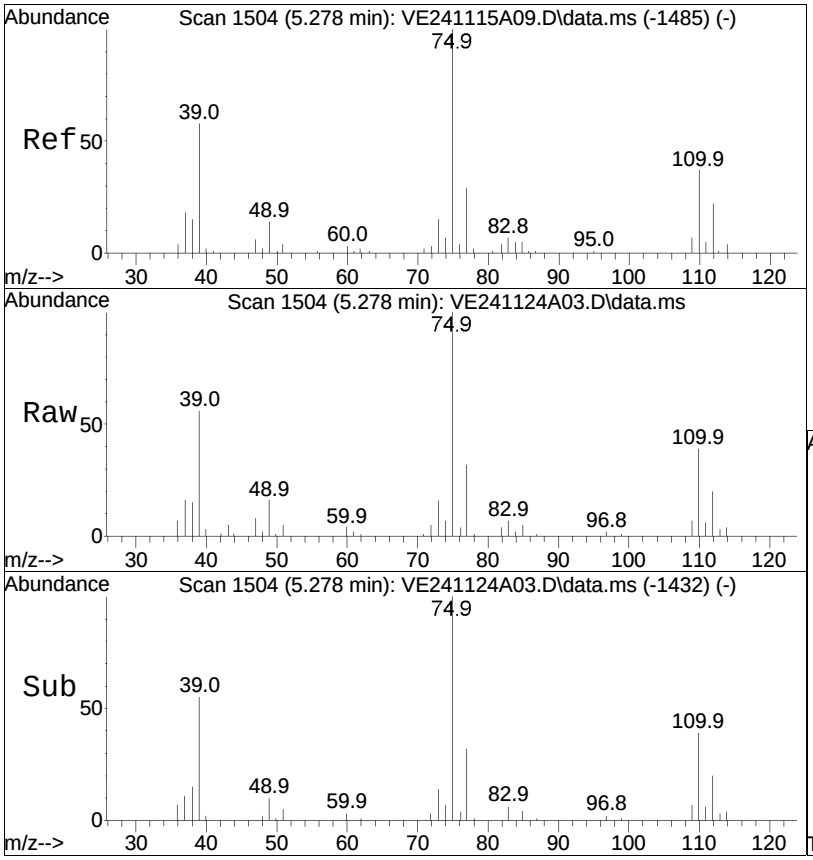


#42
2-Butanone
Concen: 10.49 ug/L
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 43 Resp: 13293

Ion	Ratio	Lower	Upper
43	100		
72	20.2	15.7	23.5

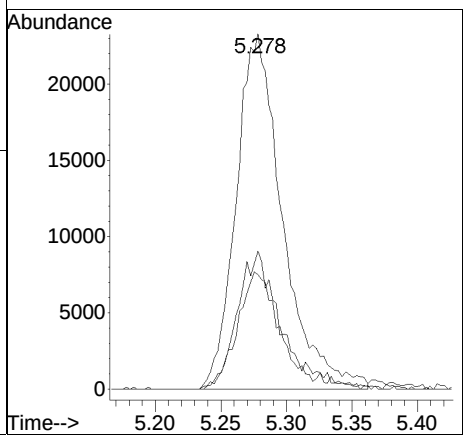


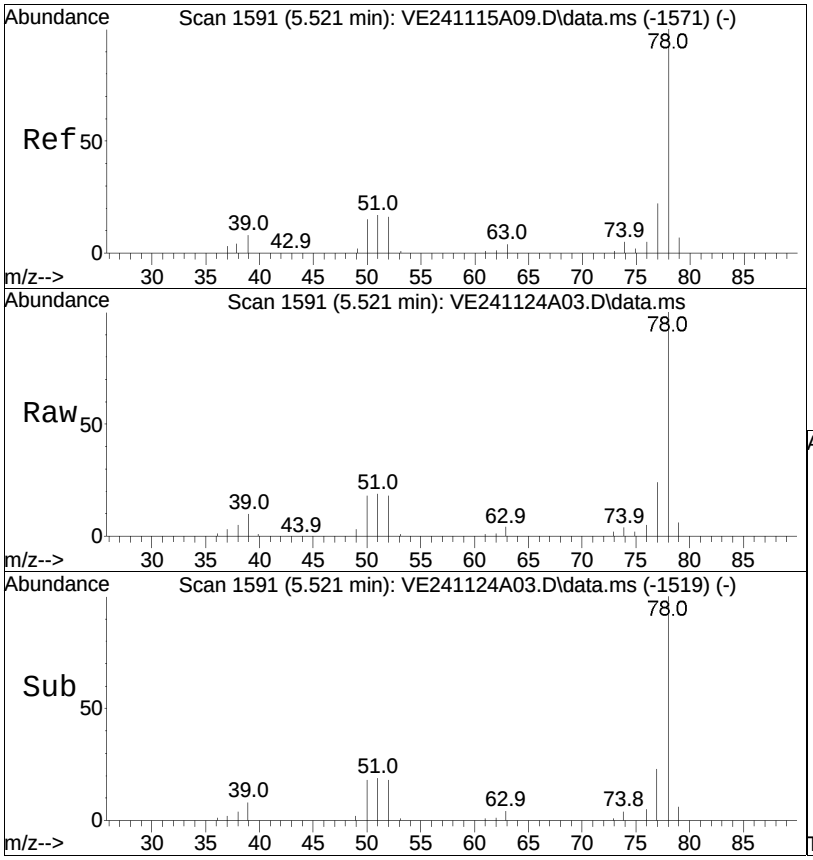


#43
1,1-Dichloropropene
Concen: 9.82 ug/L
RT: 5.278 min Scan# 1504
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 75 Resp: 57425

Ion	Ratio	Lower	Upper
75	100		
110	35.9	20.3	42.1
77	29.8	18.9	39.3

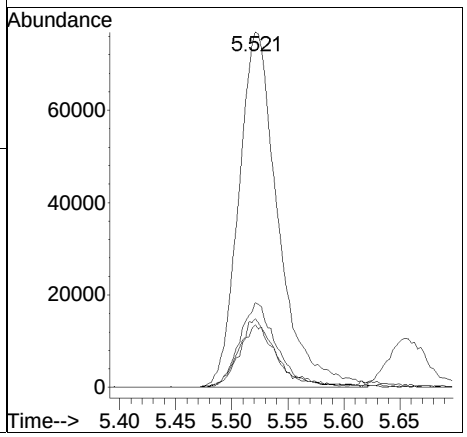


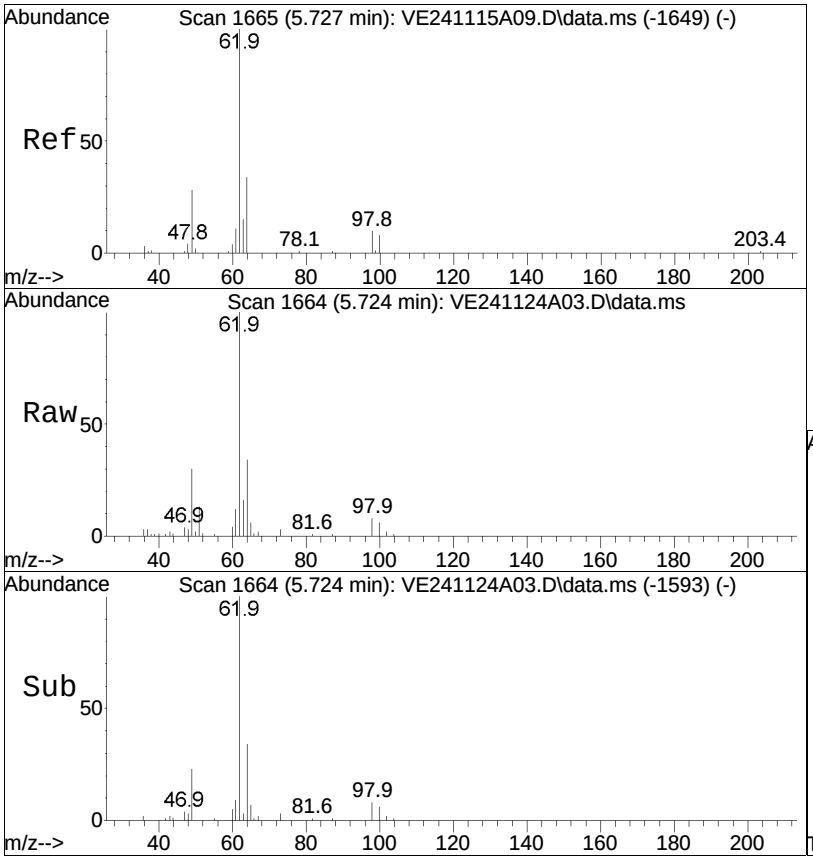


#45
Benzene
Concen: 10.23 ug/L
RT: 5.521 min Scan# 1591
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 78 Resp: 188271

Ion	Ratio	Lower	Upper
78	100		
77	22.8	12.8	26.6
51	18.3	13.5	27.9
52	16.9	12.0	25.0

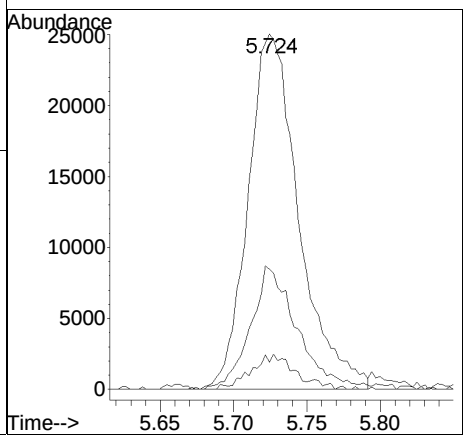


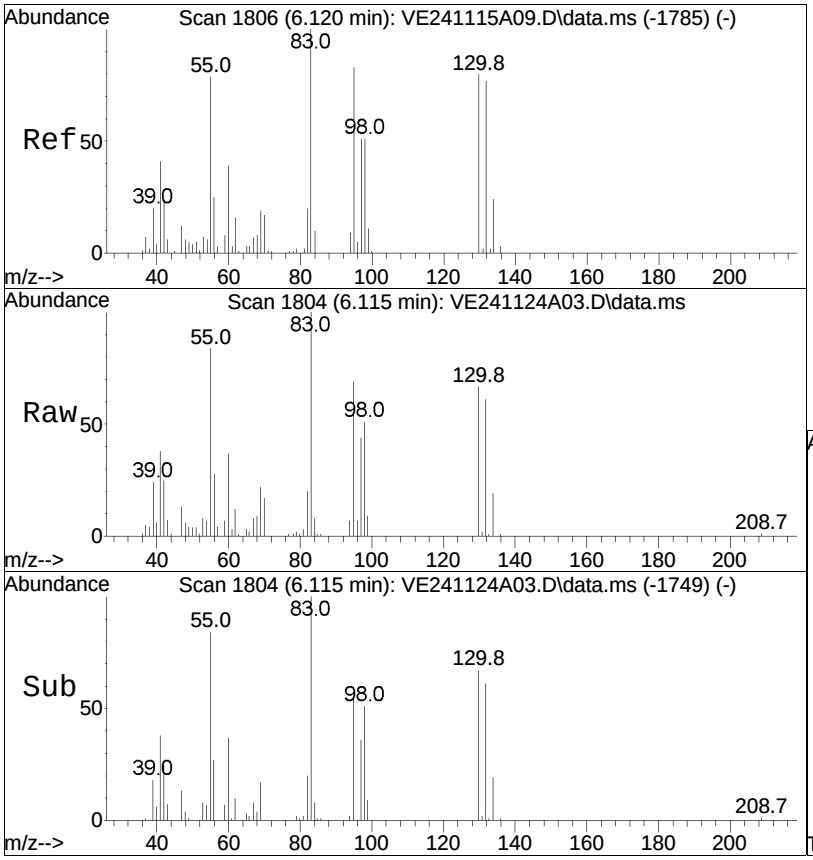


#48
1,2-Dichloroethane
Concen: 10.28 ug/L
RT: 5.724 min Scan# 1664
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 62 Resp: 60203

Ion	Ratio	Lower	Upper
62	100		
64	31.9	12.0	52.0
98	7.8	0.0	29.1

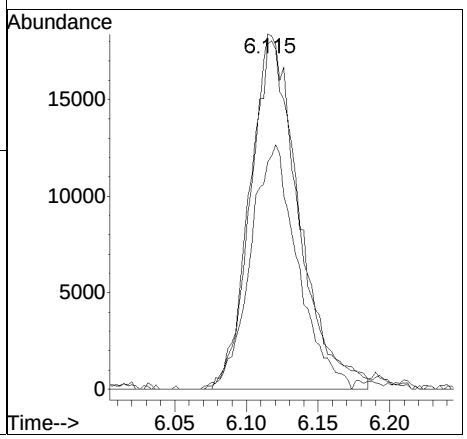


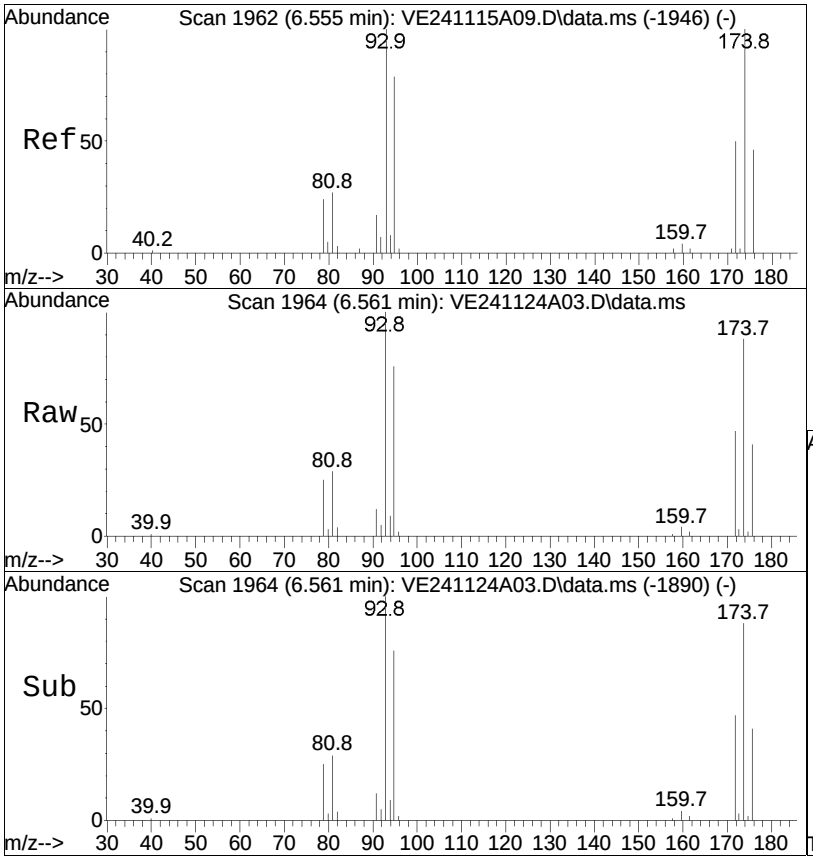


#52
Trichloroethene
Concen: 10.08 ug/L
RT: 6.115 min Scan# 1804
Delta R.T. -0.005 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 95 Resp: 44003

Ion	Ratio	Lower	Upper
95	100		
97	66.1	50.2	75.2
130	96.1	78.2	117.4

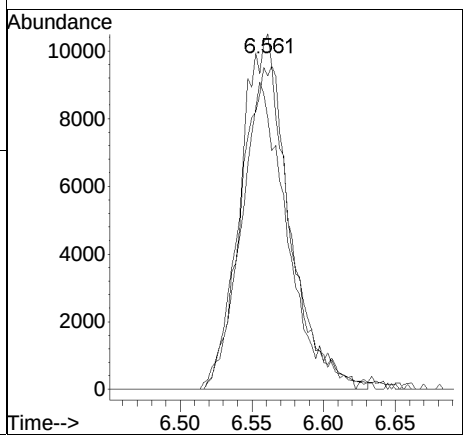


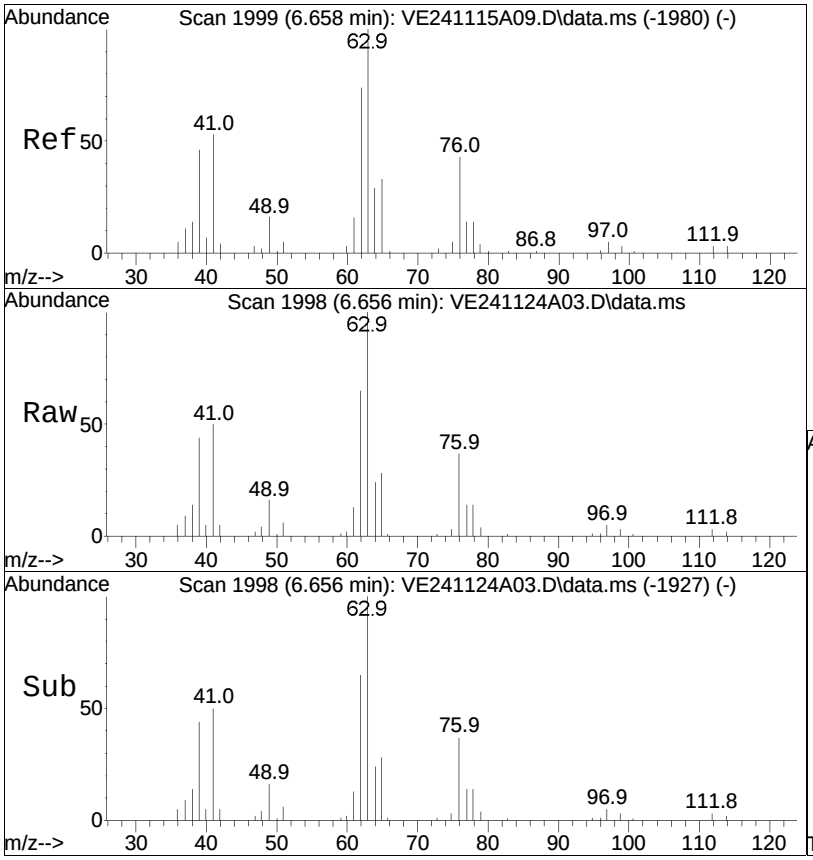


#54
Dibromomethane
Concen: 10.03 ug/L
RT: 6.561 min Scan# 1964
Delta R.T. 0.006 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 93 Resp: 25022

Ion	Ratio	Lower	Upper
93	100		
95	82.3	73.2	109.8
174	91.1	73.8	110.8

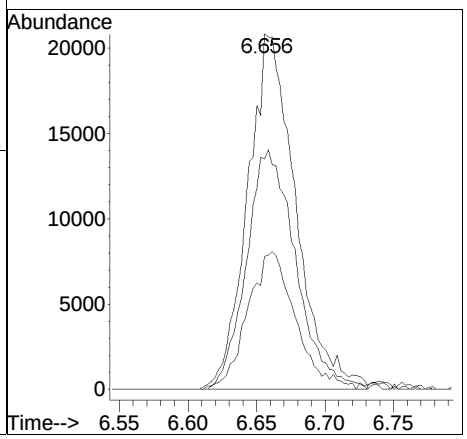


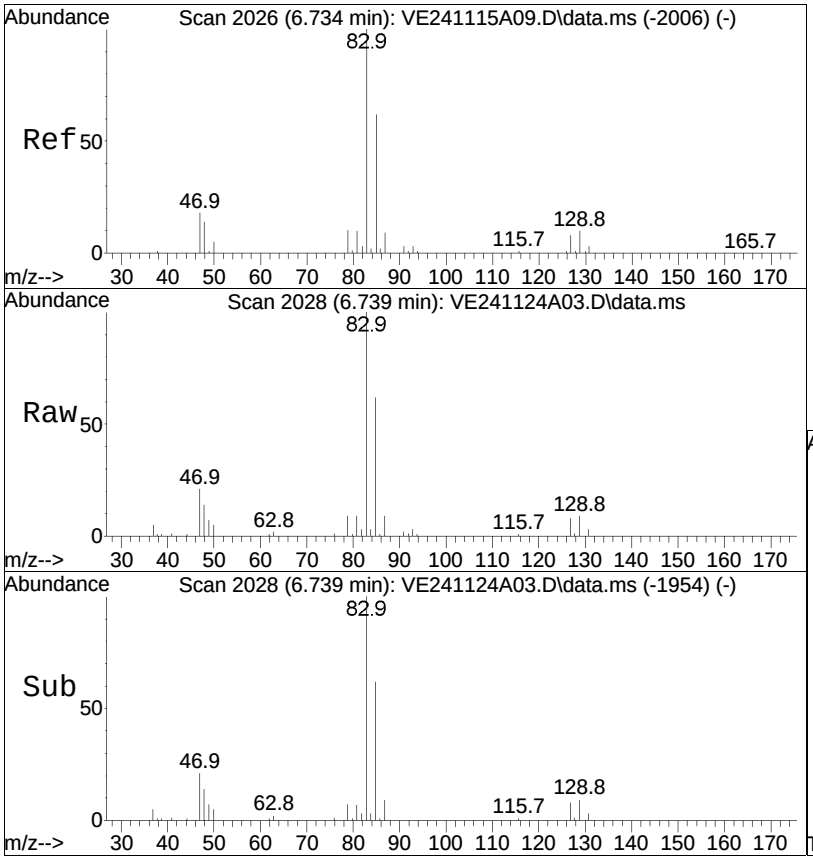


#55
1,2-Dichloropropane
Concen: 10.88 ug/L
RT: 6.656 min Scan# 1998
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 63 Resp: 50871

Ion	Ratio	Lower	Upper
63	100		
62	69.2	58.4	87.6
76	38.6	28.7	43.1

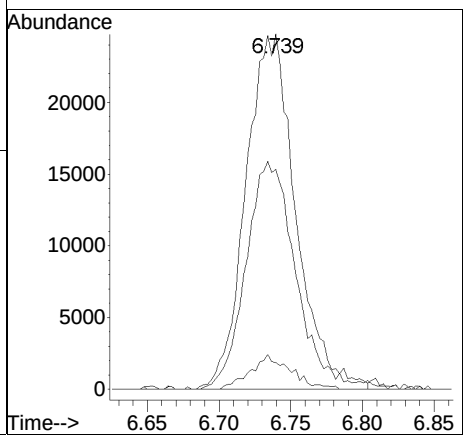


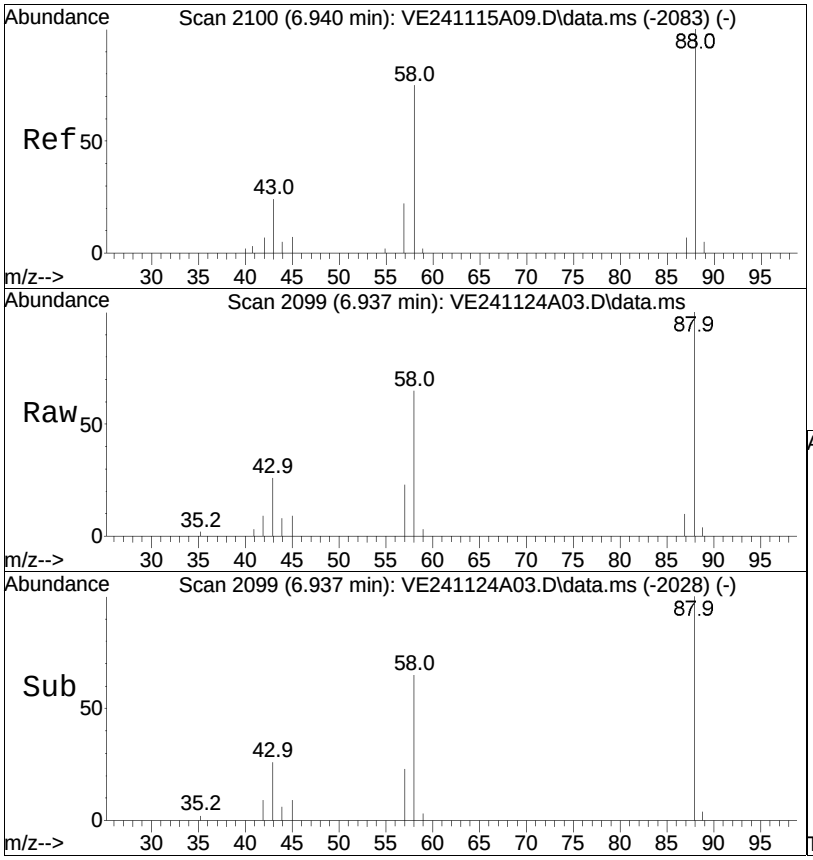


#58
Bromodichloromethane
Concen: 9.86 ug/L
RT: 6.739 min Scan# 2028
Delta R.T. 0.006 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 83 Resp: 59869

Ion	Ratio	Lower	Upper
83	100		
85	63.6	46.6	69.8
127	8.0	6.2	9.4

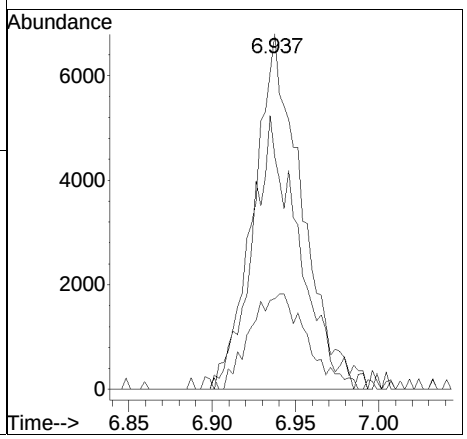


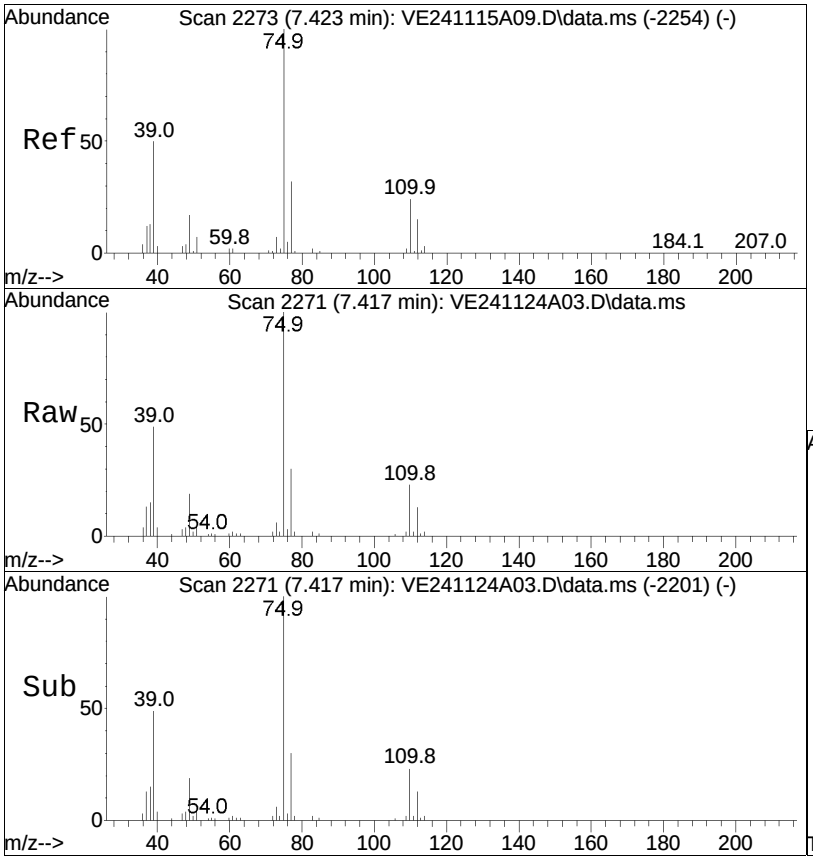


#61
1,4-Dioxane
Concen: 454.28 ug/L
RT: 6.937 min Scan# 2099
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 88 Resp: 13882

Ion	Ratio	Lower	Upper
88	100		
58	72.0	62.8	94.2
43	31.4	36.6	55.0#

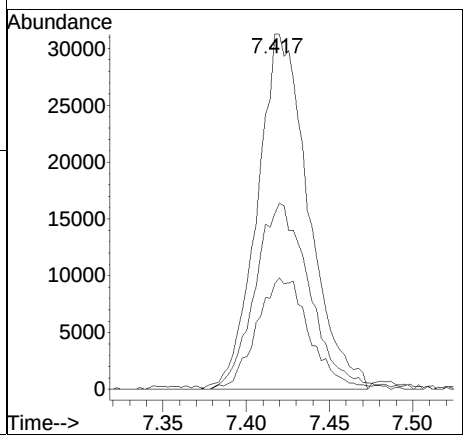


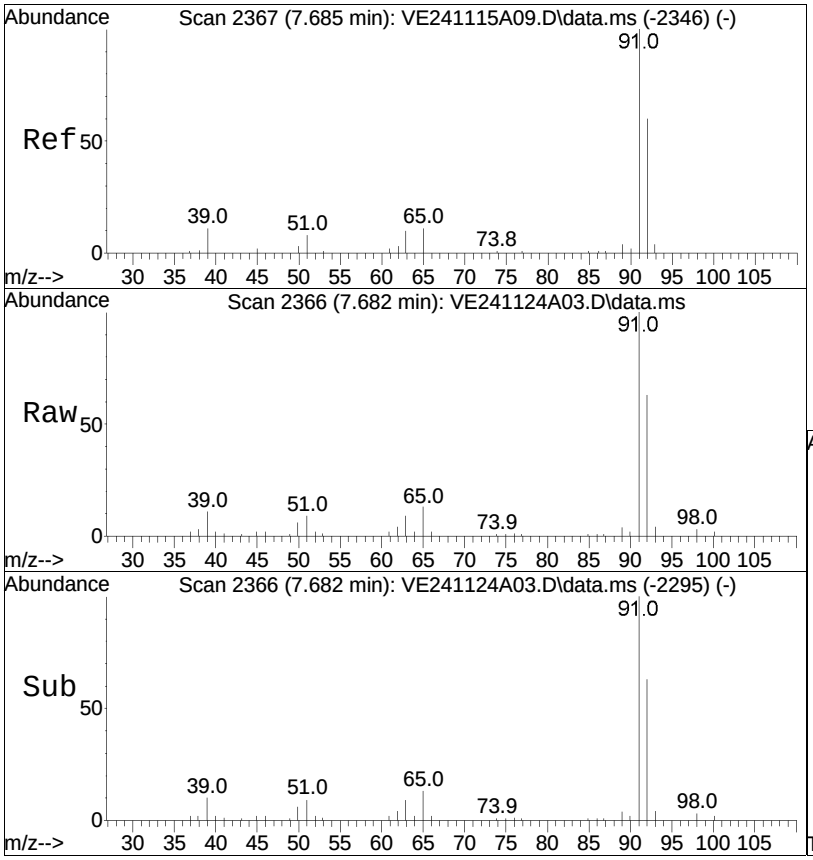


#62
cis-1,3-Dichloropropene
Concen: 9.60 ug/L
RT: 7.417 min Scan# 2271
Delta R.T. -0.005 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 75 Resp: 67214

Ion	Ratio	Lower	Upper
75	100		
77	32.2	25.1	37.7
39	55.7	50.7	76.1

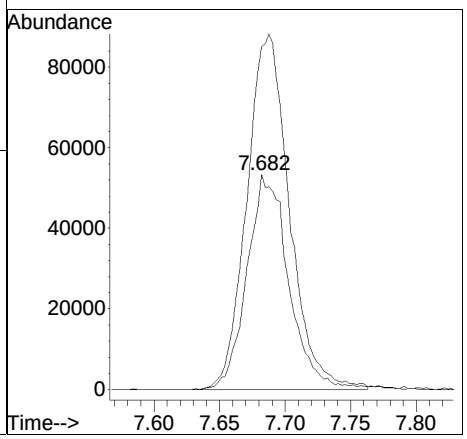


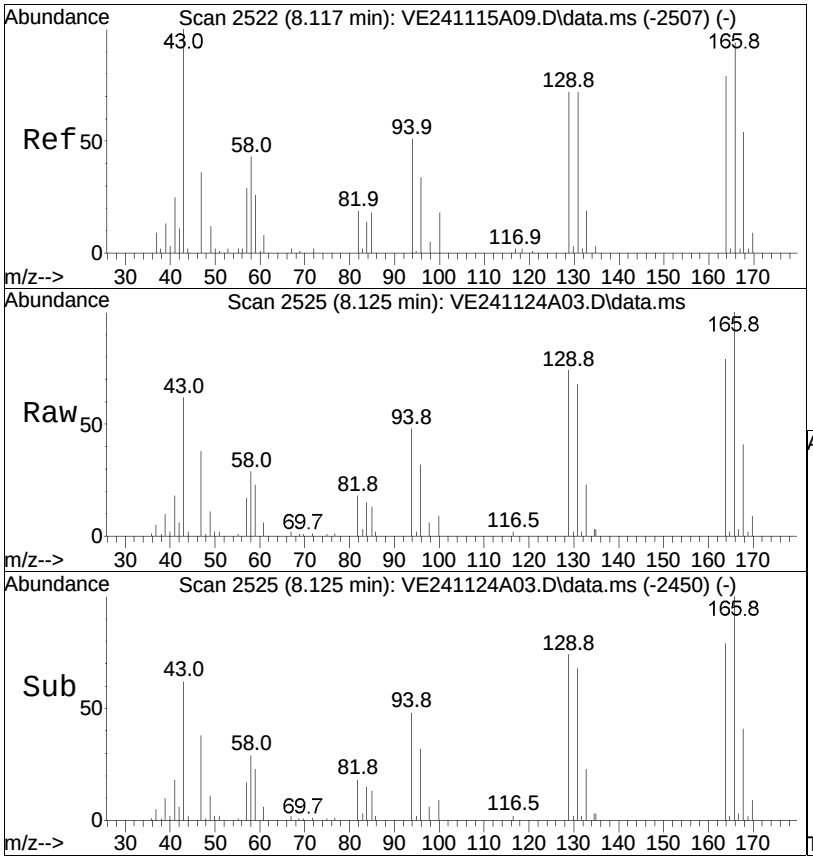


#65
Toluene
Concen: 10.22 ug/L
RT: 7.682 min Scan# 2366
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 92 Resp: 117443

Ion	Ratio	Lower	Upper
92	100		
91	170.3	129.1	193.7

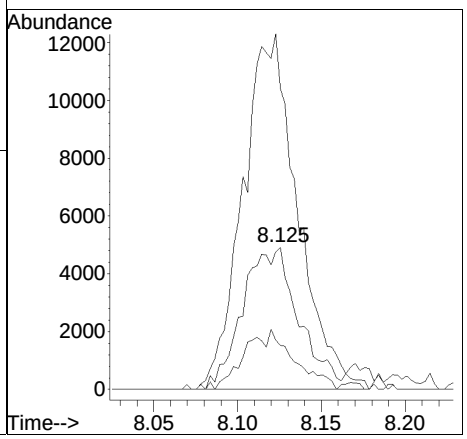


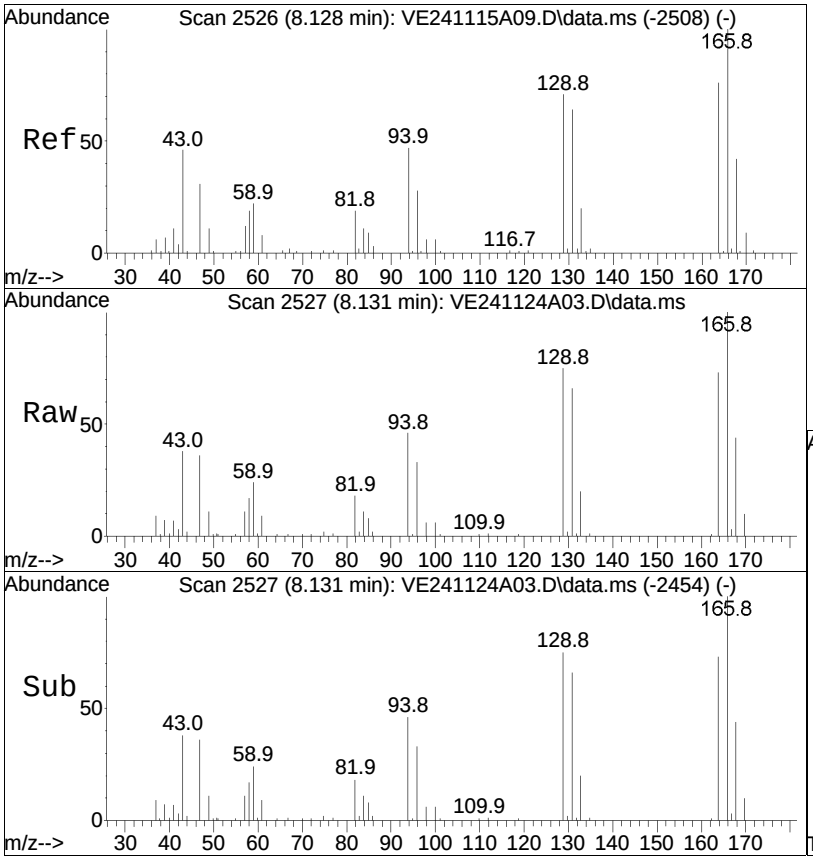


#66
4-Methyl-2-pentanone
Concen: 9.75 ug/L M3
RT: 8.125 min Scan# 2525
Delta R.T. 0.008 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 58 Resp: 11771

Ion	Ratio	Lower	Upper
58	100		
100	17.5	27.9	41.9#
43	235.6	225.7	338.5

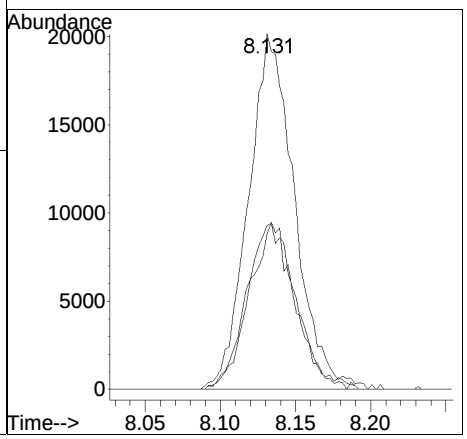


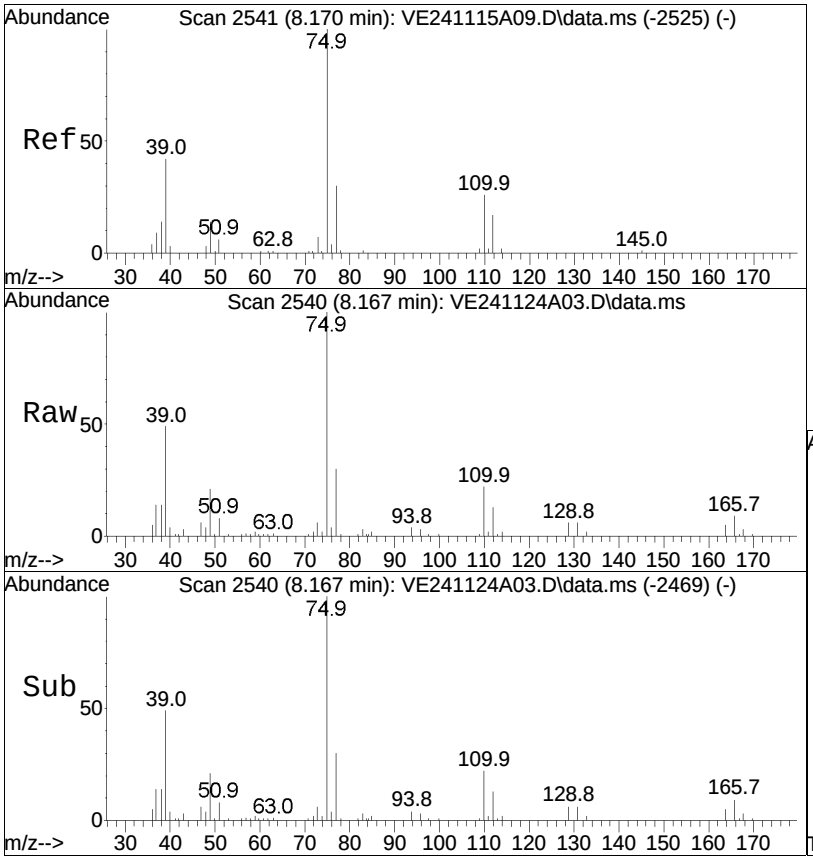


#67
Tetrachloroethene
Concen: 9.30 ug/L
RT: 8.131 min Scan# 2527
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:166 Resp: 42977

Ion	Ratio	Lower	Upper
166	100		
168	47.6	25.8	65.8
94	49.4	24.3	64.3

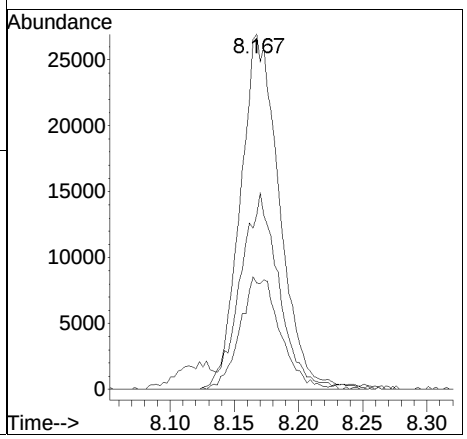


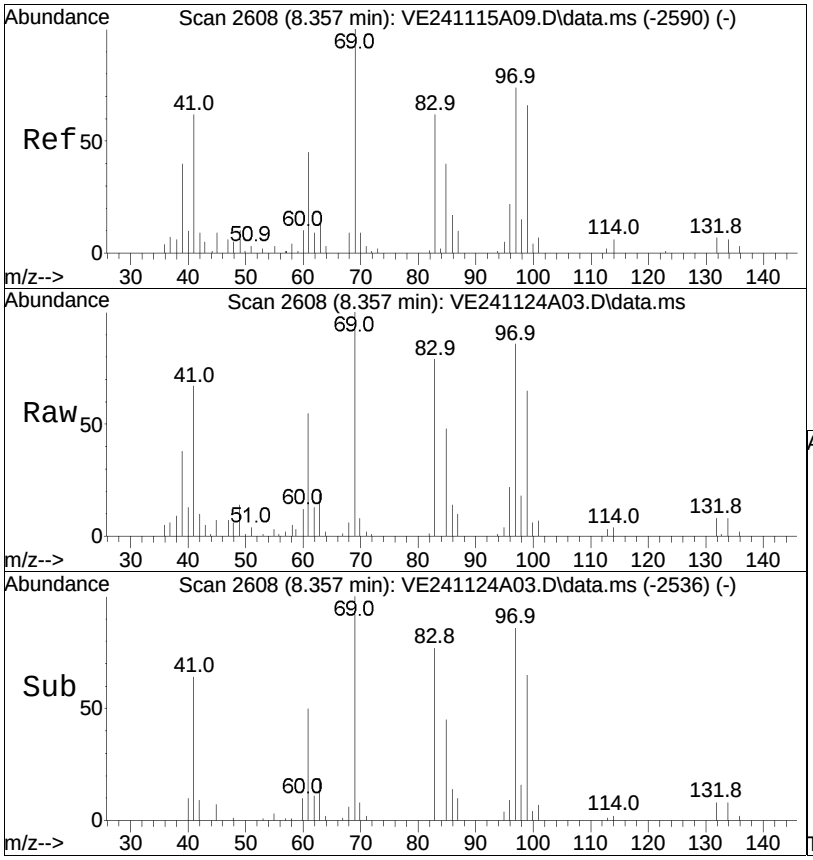


#69
trans-1,3-Dichloropropene
Concen: 10.07 ug/L
RT: 8.167 min Scan# 2540
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 75 Resp: 57295

Ion	Ratio	Lower	Upper
75	100		
77	32.3	10.2	50.2
39	50.4	45.7	85.7

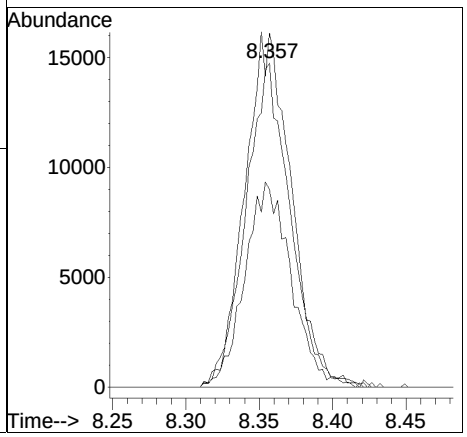


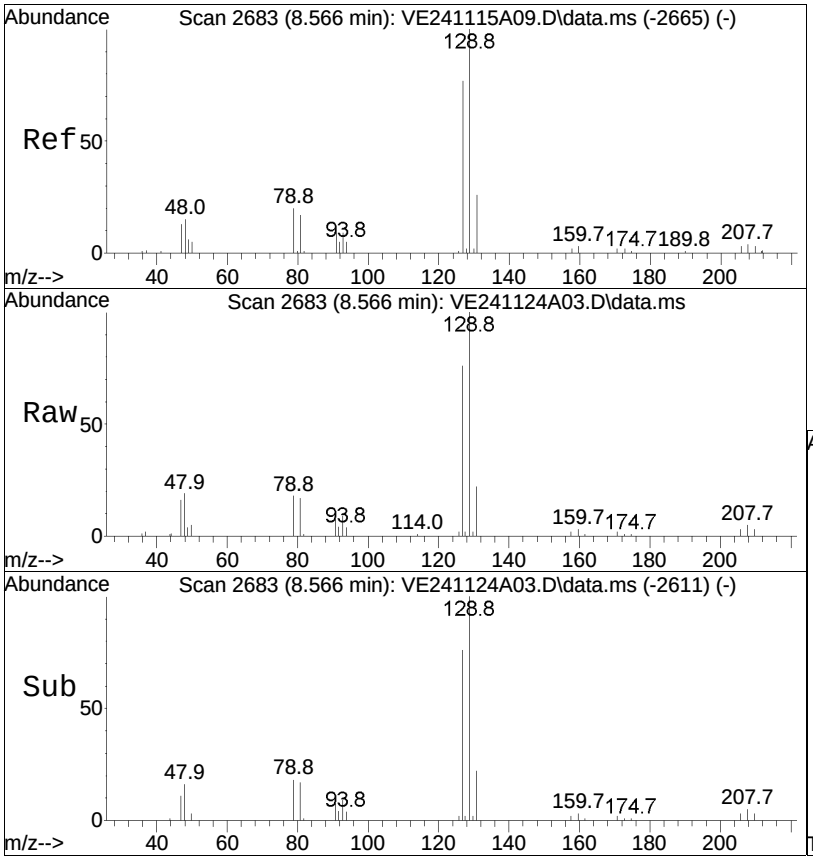


#72
1,1,2-Trichloroethane
Concen: 10.35 ug/L
RT: 8.357 min Scan# 2608
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 83 Resp: 31247

Ion	Ratio	Lower	Upper
83	100		
97	113.3	99.2	139.2
85	66.1	48.7	88.7

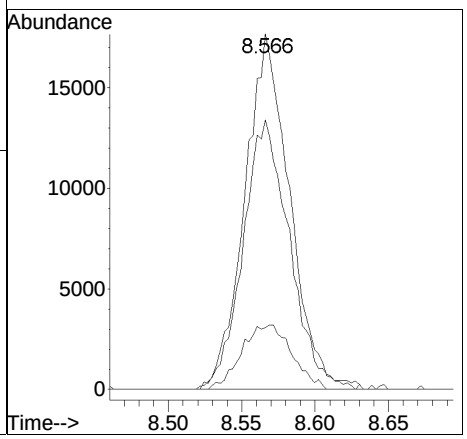


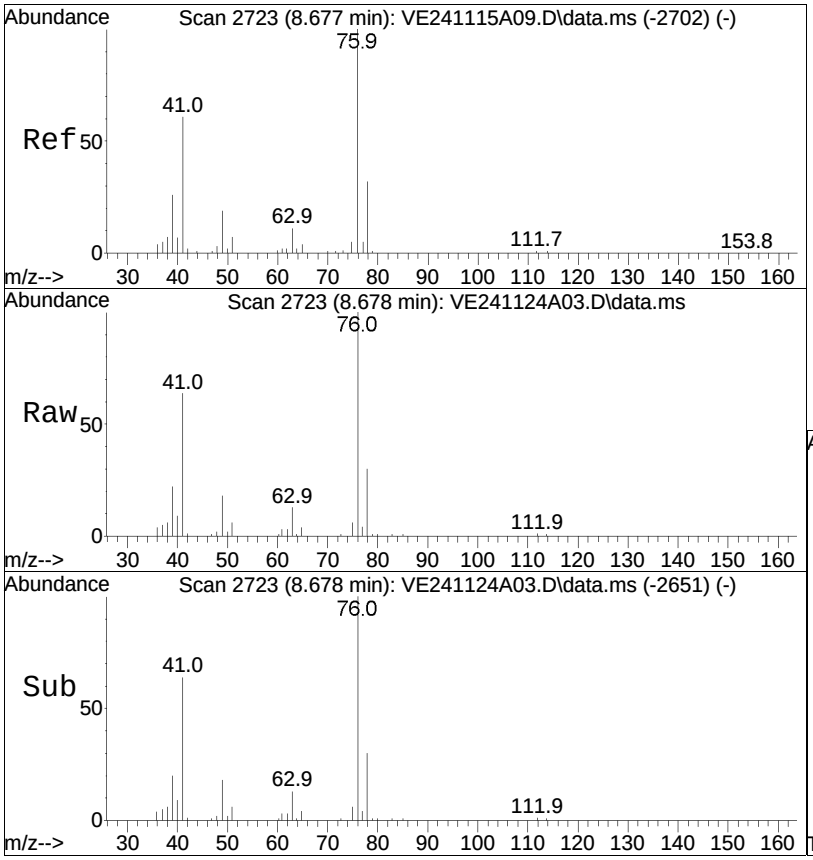


#73
Chlorodibromomethane
Concen: 9.30 ug/L
RT: 8.566 min Scan# 2683
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:129 Resp: 37667

Ion	Ratio	Lower	Upper
129	100		
81	20.3	0.0	39.5
127	78.4	58.6	98.6

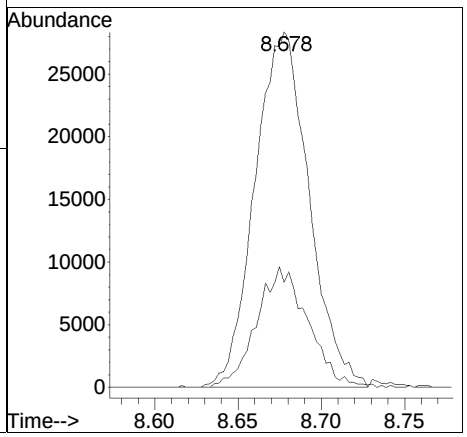


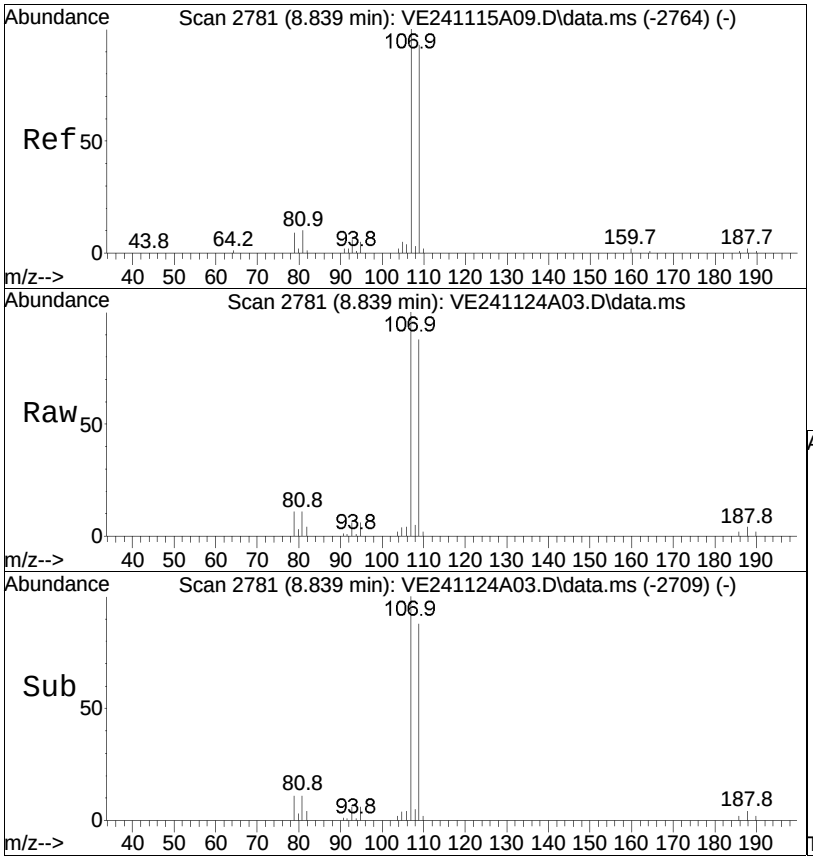


#74
1,3-Dichloropropane
Concen: 10.28 ug/L
RT: 8.678 min Scan# 2723
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 76 Resp: 64110

Ion	Ratio	Lower	Upper
76	100		
78	32.1	27.0	40.4

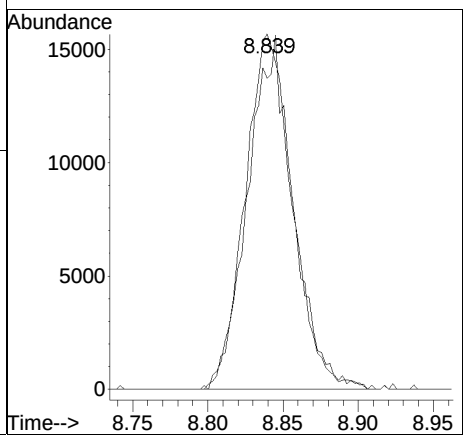


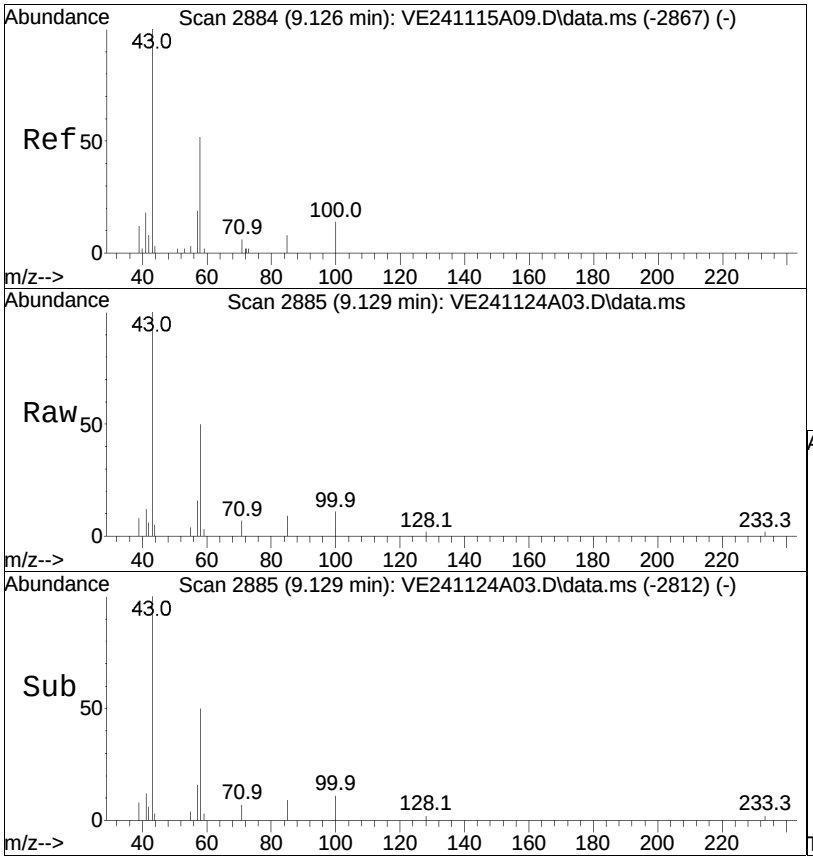


#75
1,2-Dibromoethane
Concen: 9.67 ug/L
RT: 8.839 min Scan# 2781
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:107 Resp: 34612

Ion	Ratio	Lower	Upper
107	100		
109	94.1	66.3	99.5

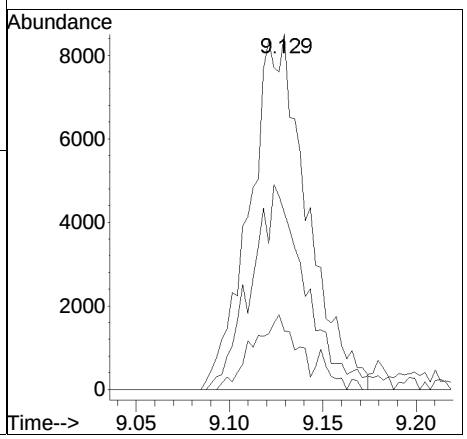


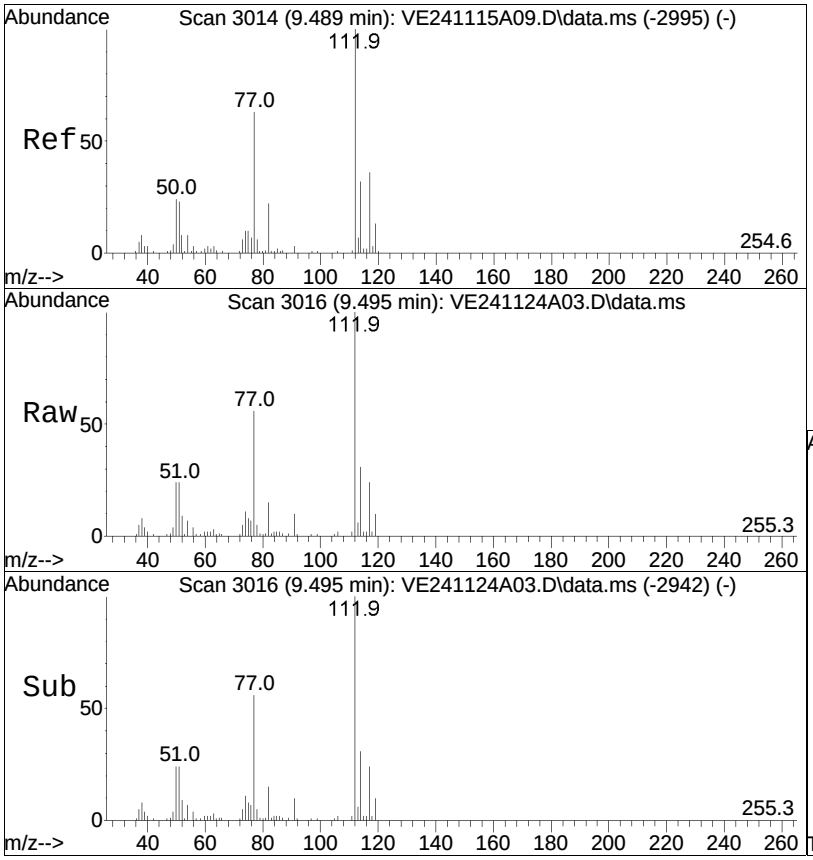


#77
2-Hexanone
Concen: 9.36 ug/L
RT: 9.129 min Scan# 2885
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 43 Resp: 18153

Ion	Ratio	Lower	Upper
43	100		
58	55.5	42.5	63.7
57	15.8	13.9	20.9

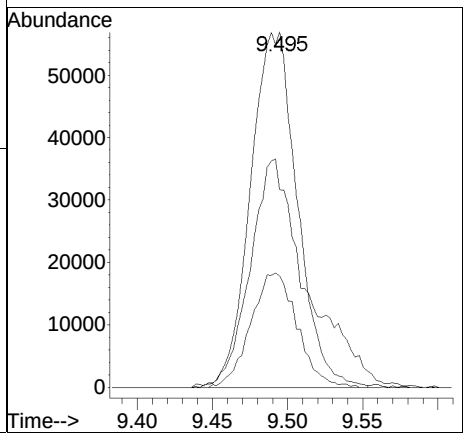


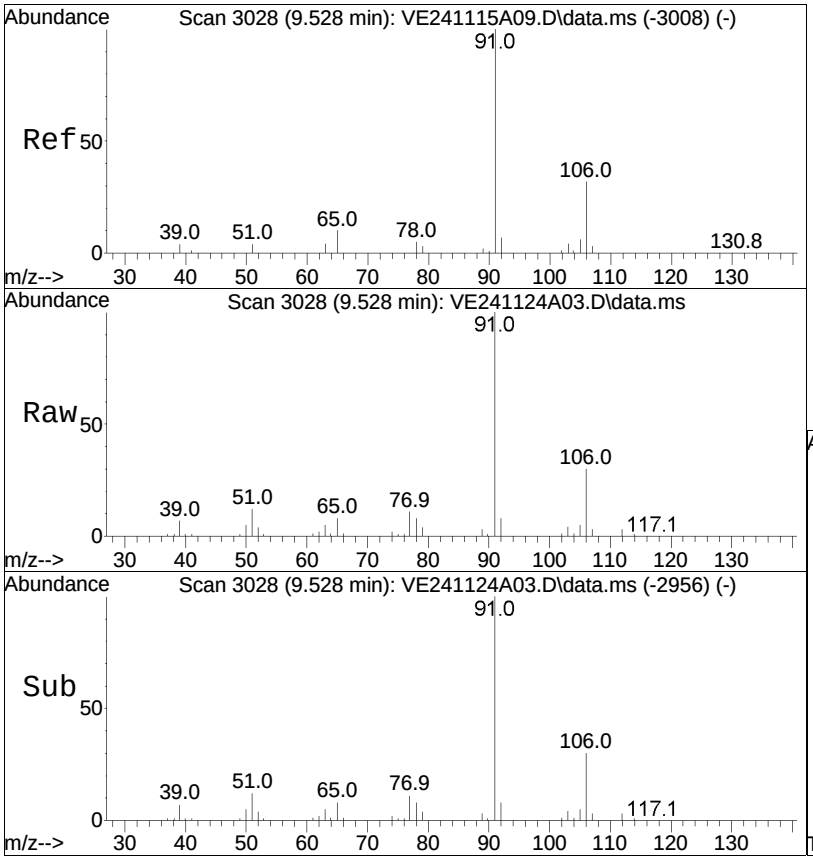


#78
Chlorobenzene
Concen: 10.08 ug/L
RT: 9.495 min Scan# 3016
Delta R.T. 0.006 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:112 Resp: 123078

Ion	Ratio	Lower	Upper
112	100		
77	78.4	46.9	70.3#
114	32.0	23.8	35.6

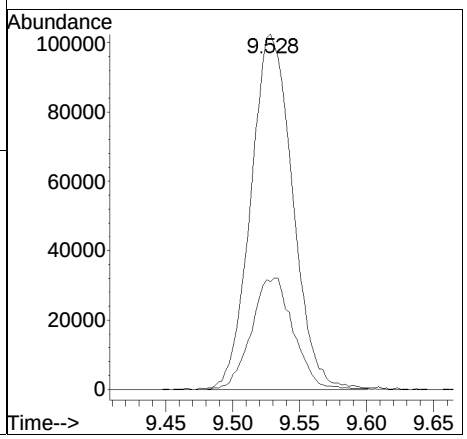


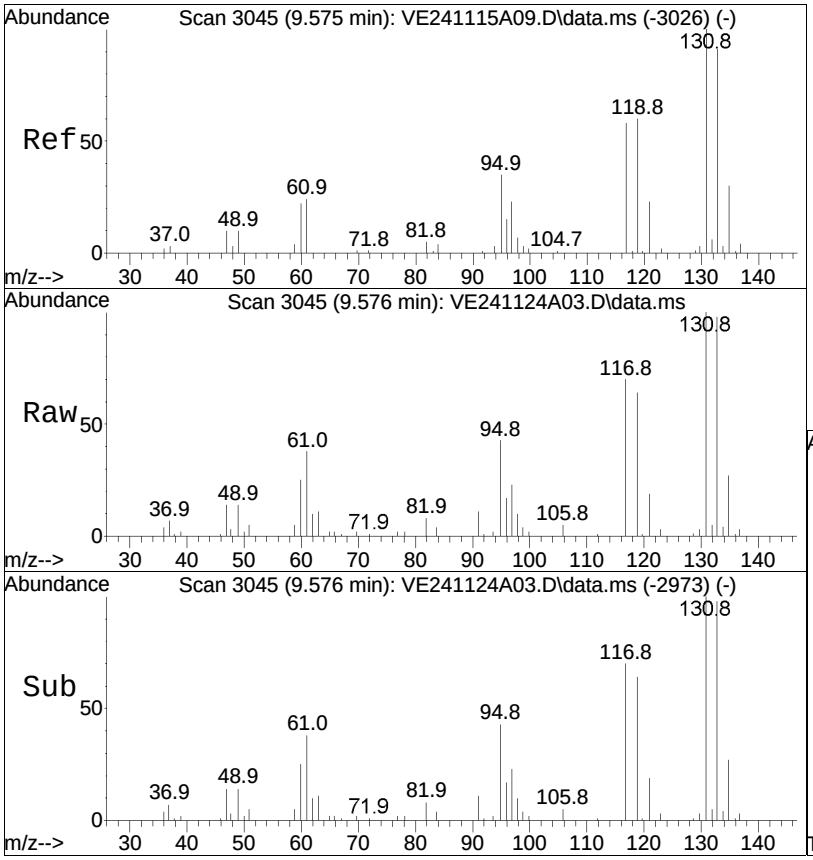


#79
Ethylbenzene
Concen: 10.13 ug/L
RT: 9.528 min Scan# 3028
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 91 Resp: 222471

Ion	Ratio	Lower	Upper
91	100		
106	31.4	25.3	37.9

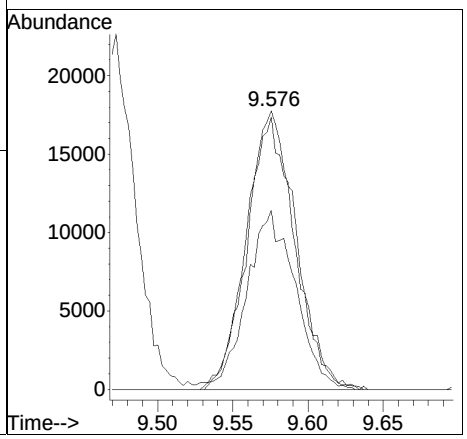


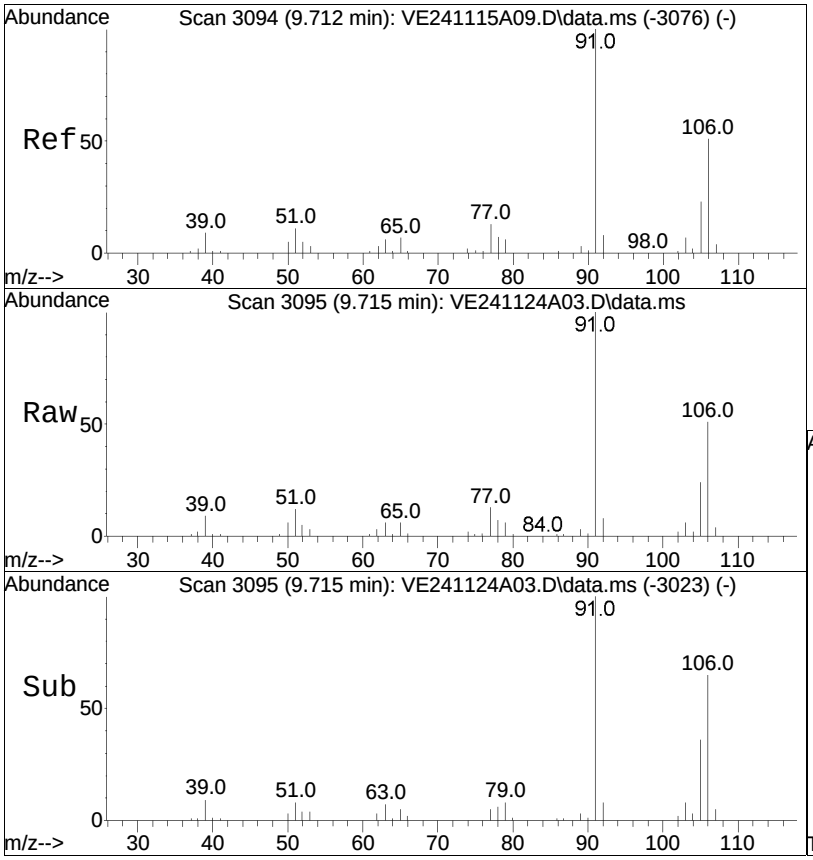


#80
1,1,1,2-Tetrachloroethane
Concen: 10.06 ug/L
RT: 9.576 min Scan# 3045
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:131 Resp: 40789

Ion	Ratio	Lower	Upper
131	100		
133	93.9	72.9	112.9
119	62.8	39.6	79.6

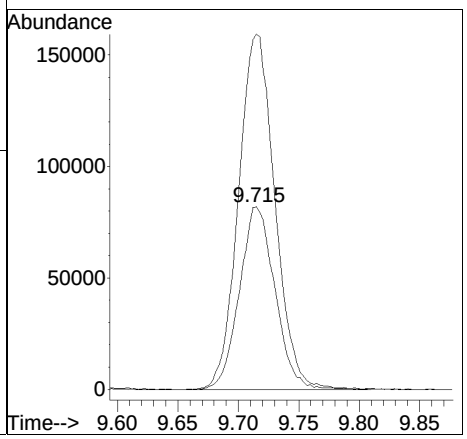


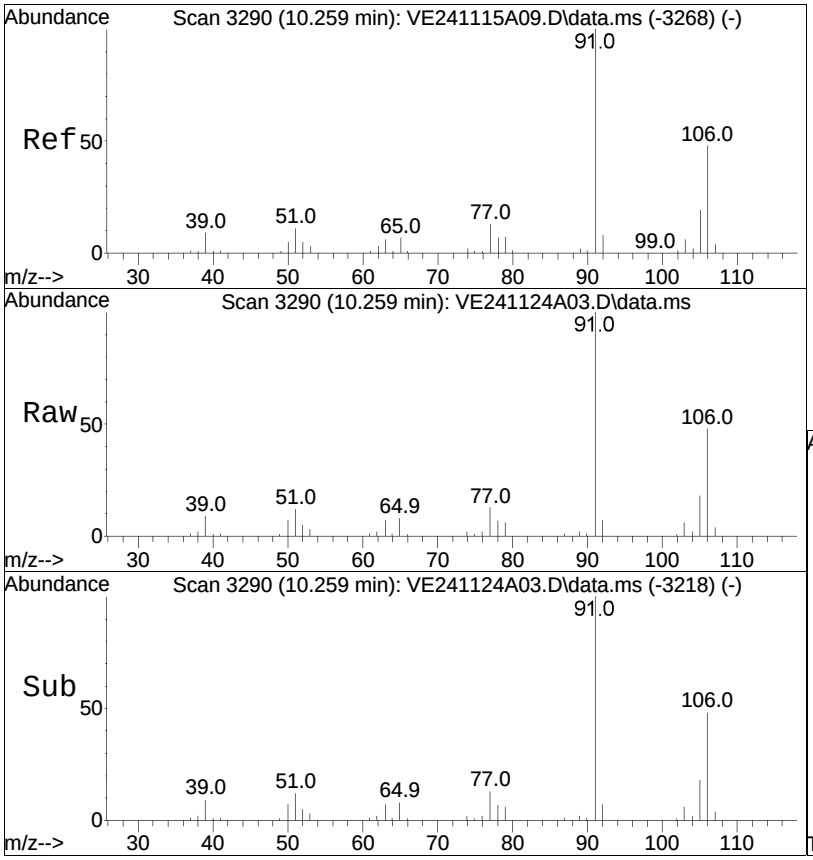


#81
p/m Xylene
Concen: 19.86 ug/L
RT: 9.715 min Scan# 3095
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:106 Resp: 167811

Ion	Ratio	Lower	Upper
106	100		
91	198.4	163.3	244.9

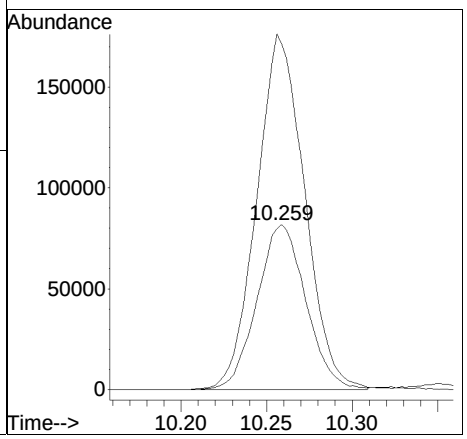


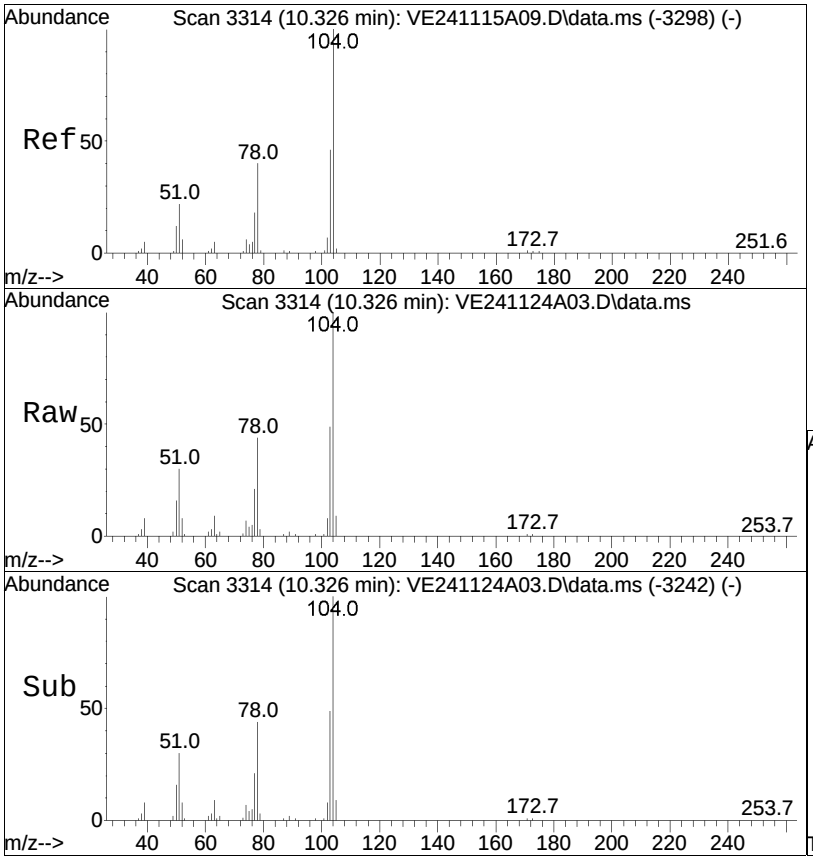


#82
o Xylene
Concen: 19.61 ug/L
RT: 10.259 min Scan# 3290
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:106 Resp: 161574

Ion	Ratio	Lower	Upper
106	100		
91	212.1	181.0	271.6

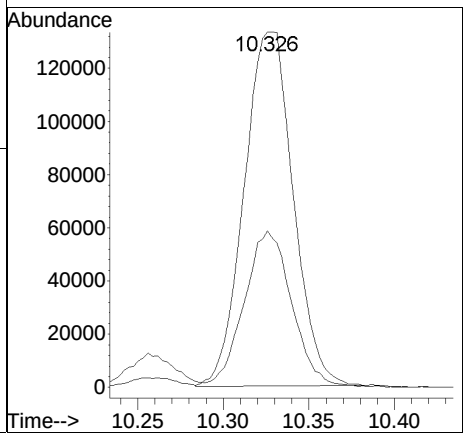


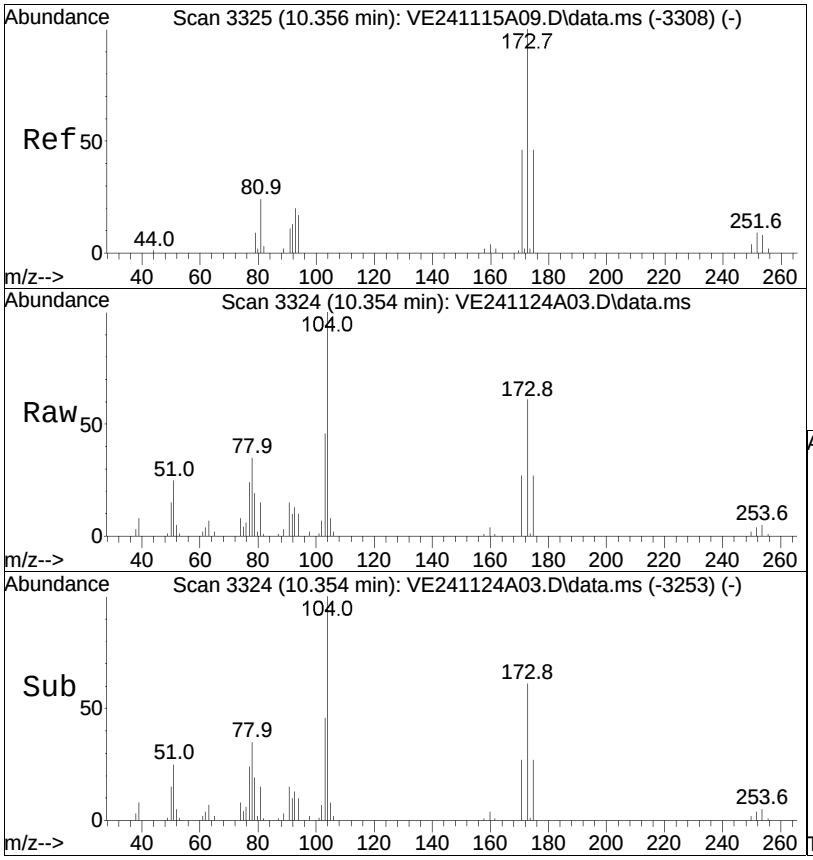


#83
Styrene
Concen: 19.12 ug/L
RT: 10.326 min Scan# 3314
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:104 Resp: 266019

Ion	Ratio	Lower	Upper
104	100		
78	42.4	35.9	53.9

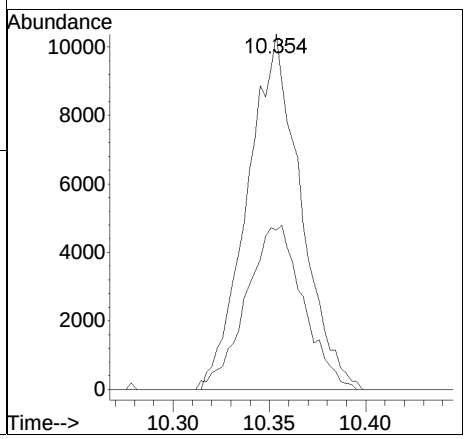


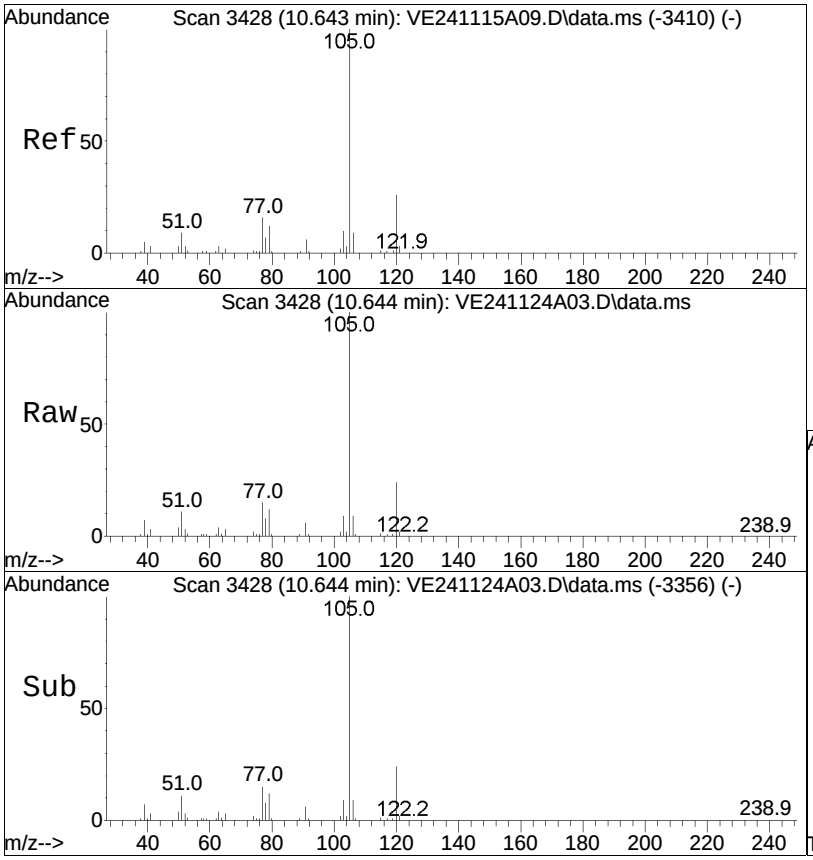


#85
Bromoform
Concen: 9.21 ug/L
RT: 10.354 min Scan# 3324
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:173 Resp: 20052

Ion	Ratio	Lower	Upper
173	100		
175	49.3	32.9	72.9

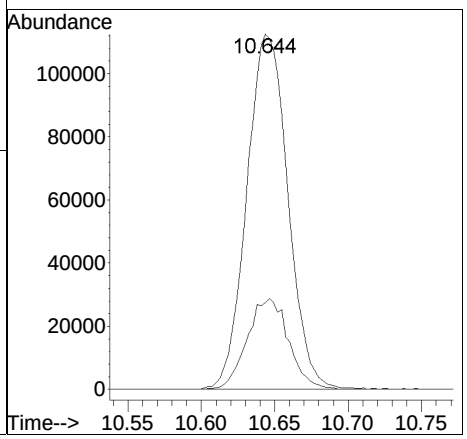


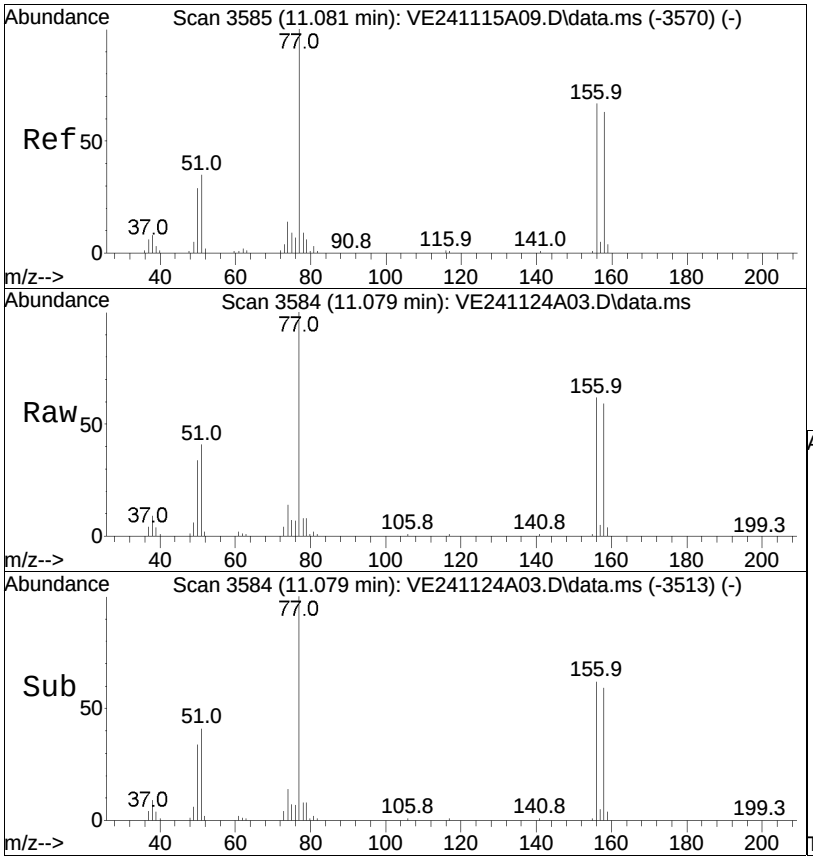


#87
Isopropylbenzene
Concen: 10.08 ug/L
RT: 10.644 min Scan# 3428
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:105 Resp: 219456

Ion	Ratio	Lower	Upper
105	100		
120	25.7	4.8	44.8

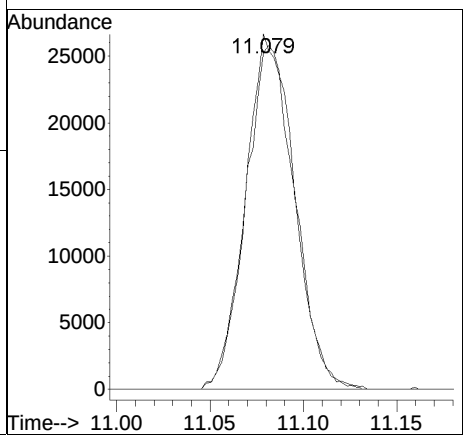


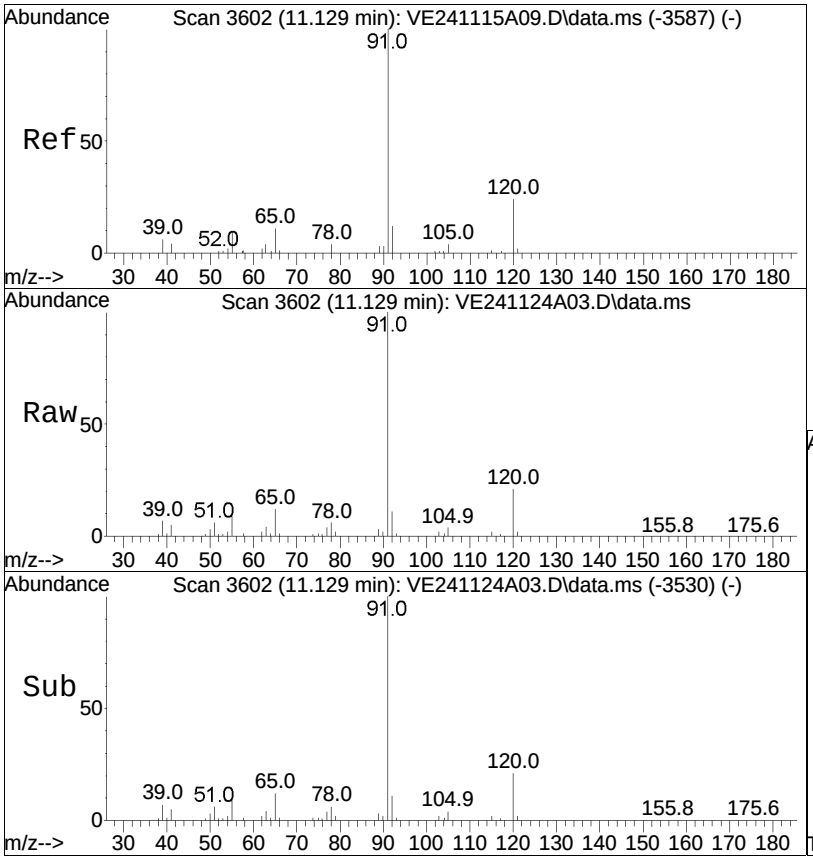


#89
Bromobenzene
Concen: 10.00 ug/L
RT: 11.079 min Scan# 3584
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:156 Resp: 48608

Ion	Ratio	Lower	Upper
156	100		
158	96.9	75.9	113.9

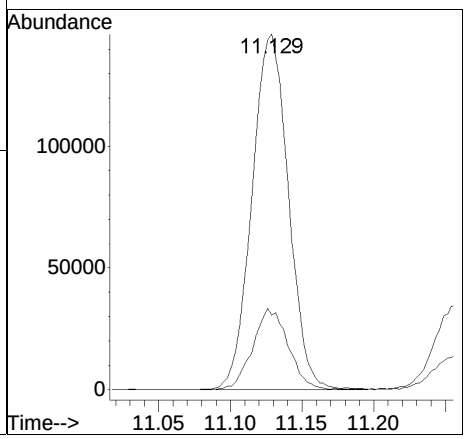


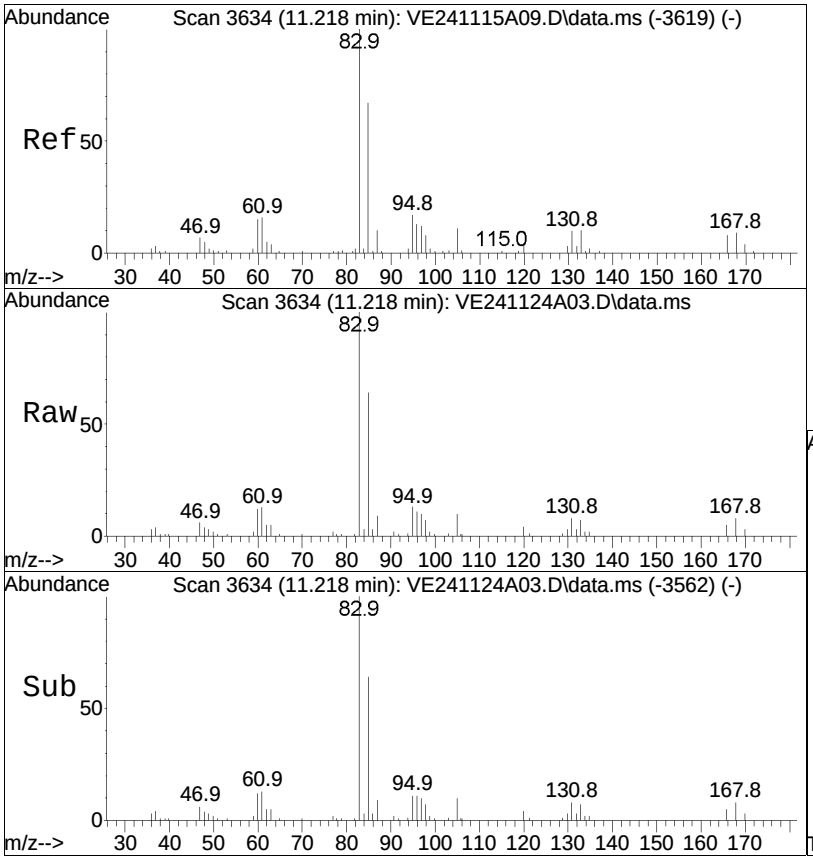


#90
n-Propylbenzene
Concen: 10.46 ug/L
RT: 11.129 min Scan# 3602
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 91 Resp: 258394

Ion	Ratio	Lower	Upper
91	100		
120	21.9	16.7	25.1

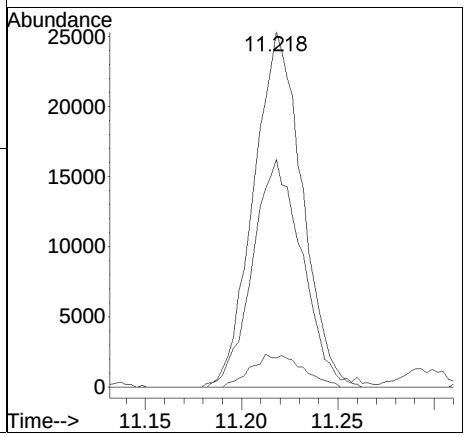


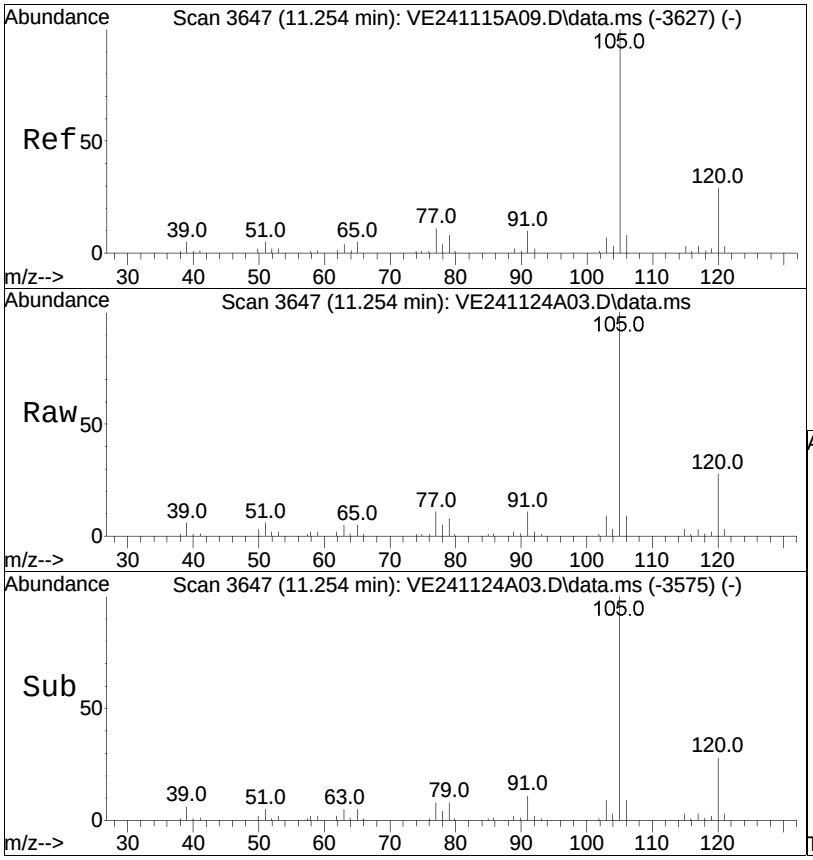


#92
1,1,2,2-Tetrachloroethane
Concen: 10.58 ug/L
RT: 11.218 min Scan# 3634
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 83 Resp: 44486

Ion	Ratio	Lower	Upper
83	100		
131	5.1	0.0	28.6
85	66.1	47.4	87.4

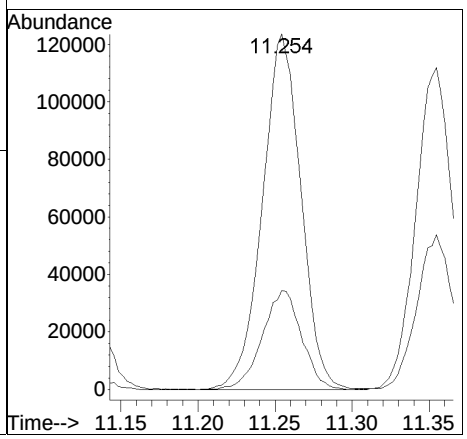


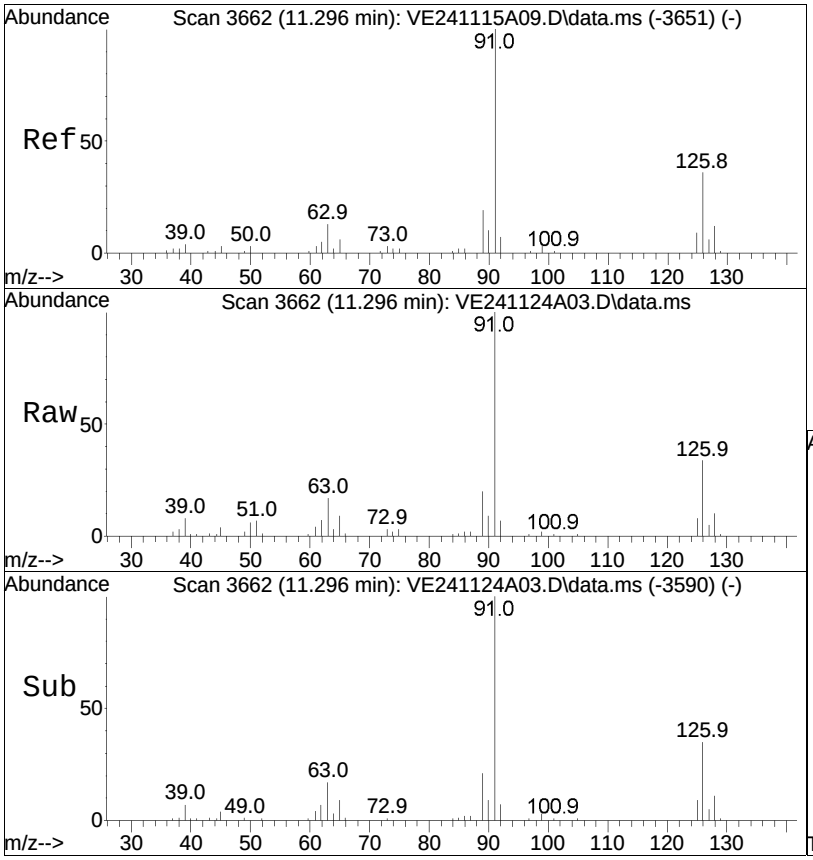


#93
4-Ethyltoluene
Concen: 10.47 ug/L
RT: 11.254 min Scan# 3647
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:105 Resp: 214491

Ion	Ratio	Lower	Upper
105	100		
120	28.3	18.9	39.3

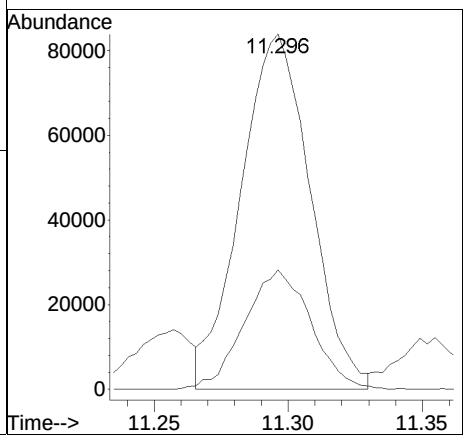


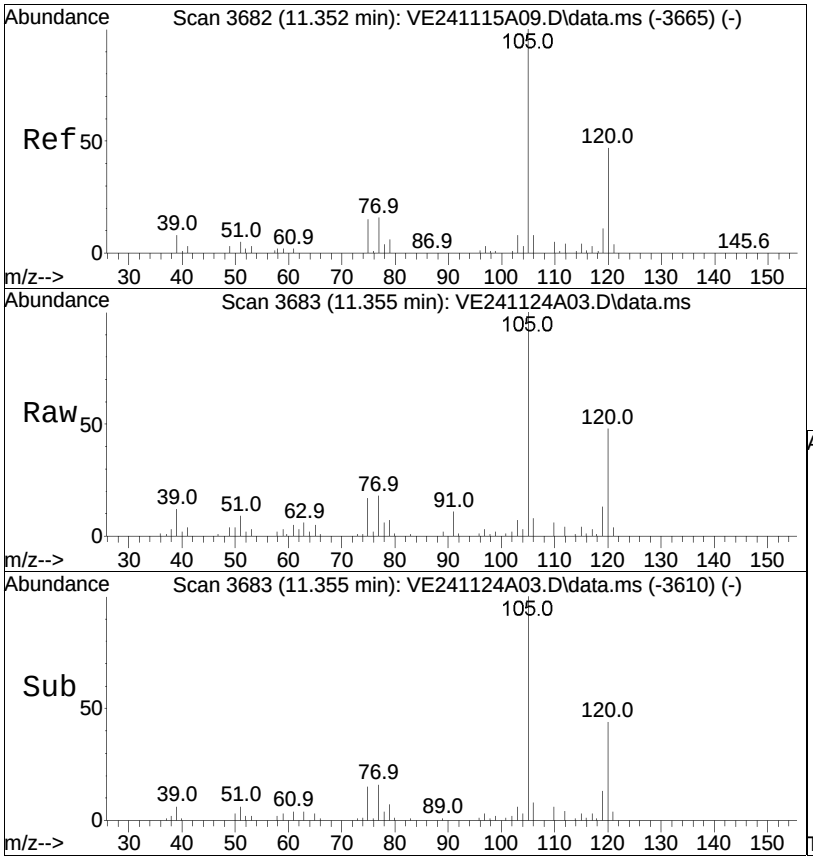


#94
2-Chlorotoluene
Concen: 10.58 ug/L
RT: 11.296 min Scan# 3662
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 91 Resp: 151708

Ion	Ratio	Lower	Upper
91	100		
126	32.1	24.4	36.6

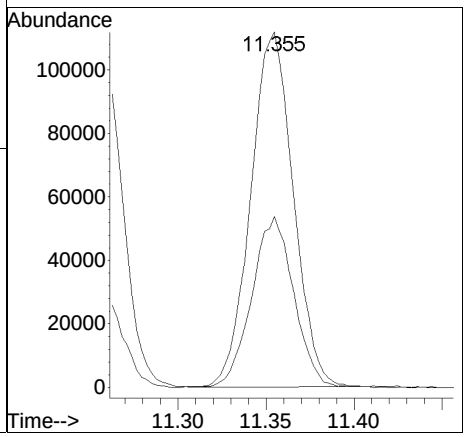


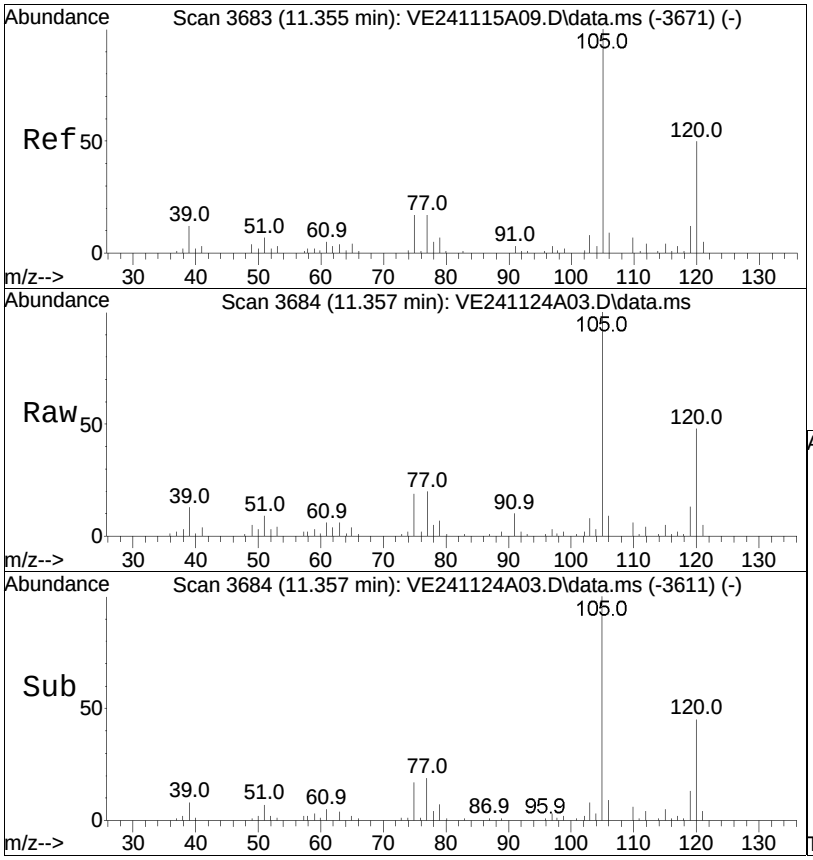


#95
1,3,5-Trimethylbenzene
Concen: 10.36 ug/L
RT: 11.355 min Scan# 3683
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:105 Resp: 187905

Ion	Ratio	Lower	Upper
105	100		
120	47.5	39.3	58.9

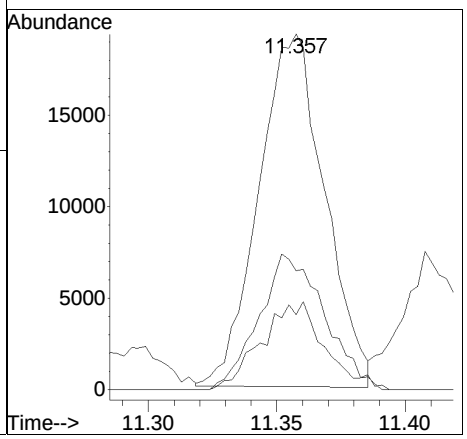


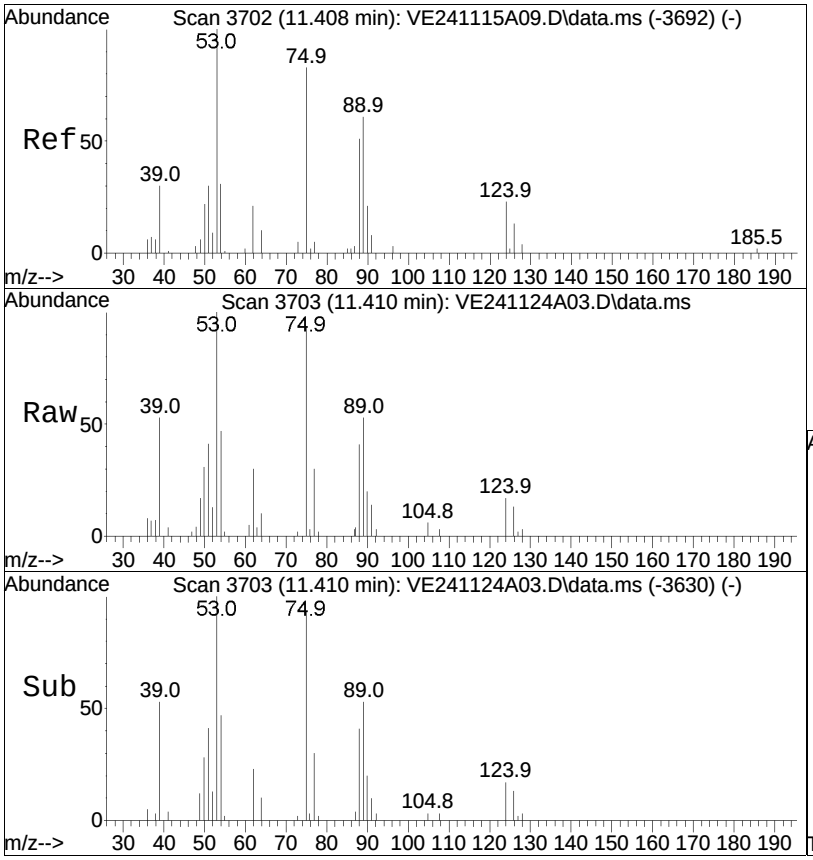


#96
1,2,3-Trichloropropane
Concen: 10.38 ug/L
RT: 11.357 min Scan# 3684
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 75 Resp: 34427

Ion	Ratio	Lower	Upper
75	100		
110	38.0	22.4	46.4
112	23.4	12.2	25.2

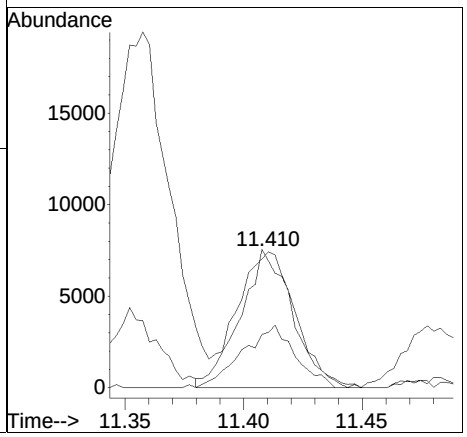


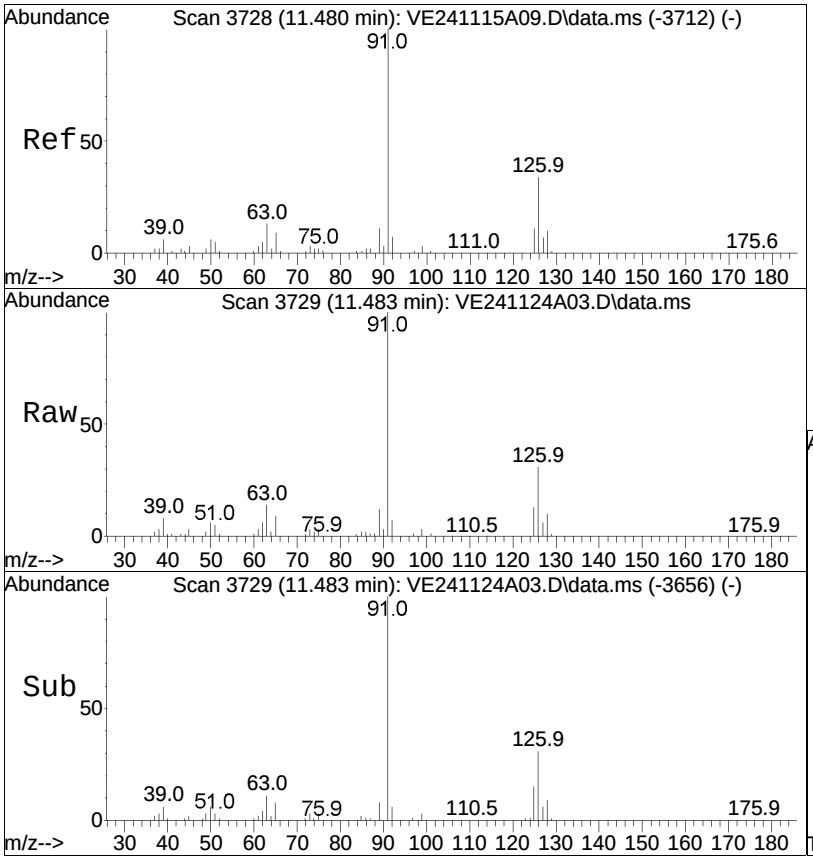


#97
trans-1,4-Dichloro-2-butene
Concen: 10.34 ug/L
RT: 11.410 min Scan# 3703
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 53 Resp: 12422

Ion	Ratio	Lower	Upper
53	100		
88	42.4	29.2	43.8
75	92.2	62.6	94.0

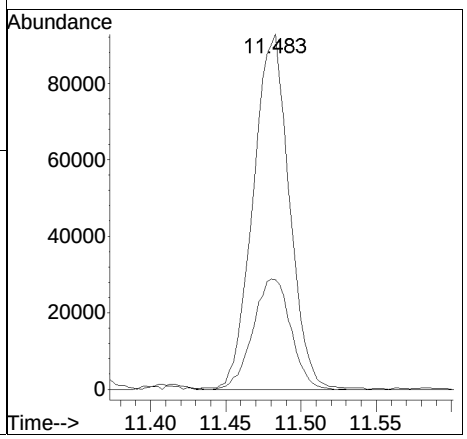


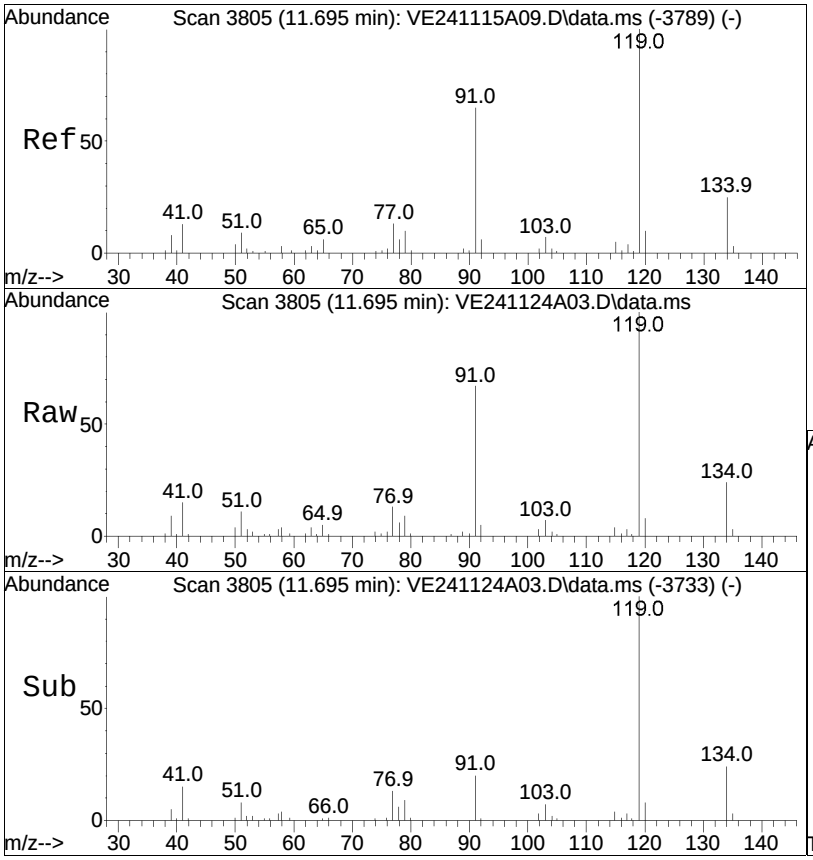


#98
4-Chlorotoluene
Concen: 10.50 ug/L
RT: 11.483 min Scan# 3729
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 91 Resp: 155746

Ion	Ratio	Lower	Upper
91	100		
126	32.4	25.8	38.8

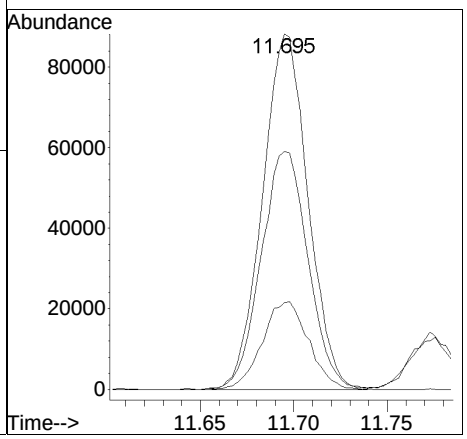


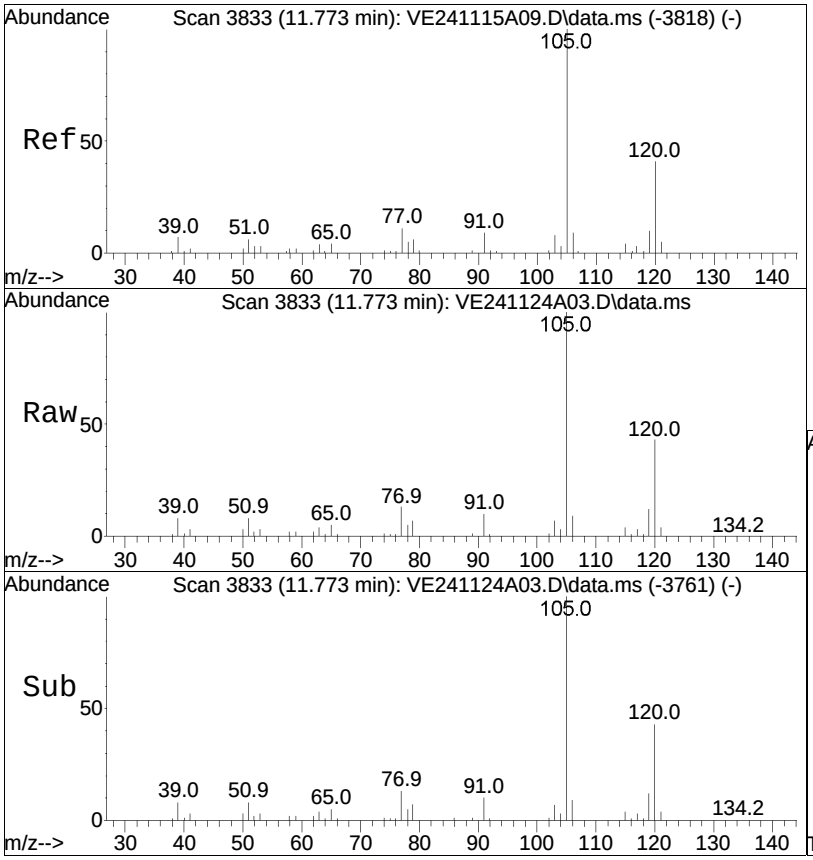


#99
tert-Butylbenzene
Concen: 10.00 ug/L
RT: 11.695 min Scan# 3805
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:119 Resp: 149620

Ion	Ratio	Lower	Upper
119	100		
91	69.1	56.6	84.8
134	25.1	17.7	26.5

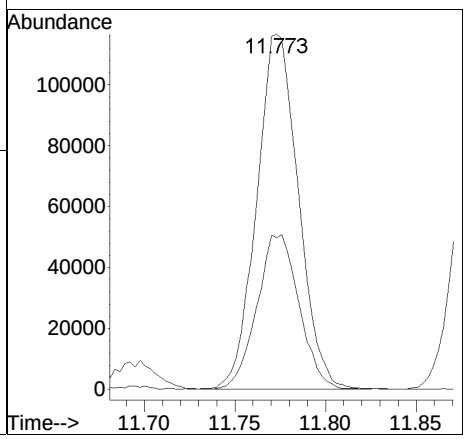


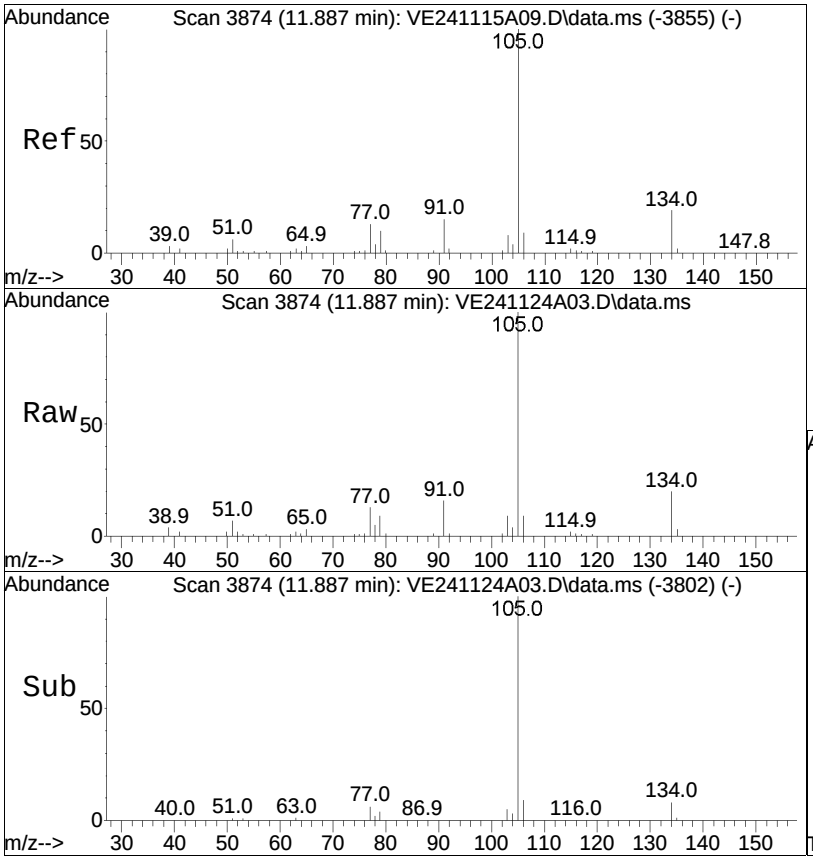


#102
1,2,4-Trimethylbenzene
Concen: 10.27 ug/L
RT: 11.773 min Scan# 3833
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:105 Resp: 186799

Ion	Ratio	Lower	Upper
105	100		
120	44.0	33.6	50.4

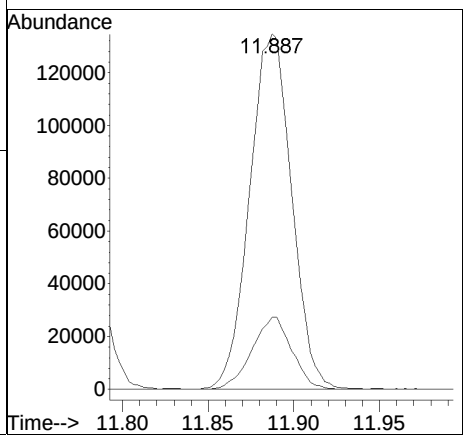


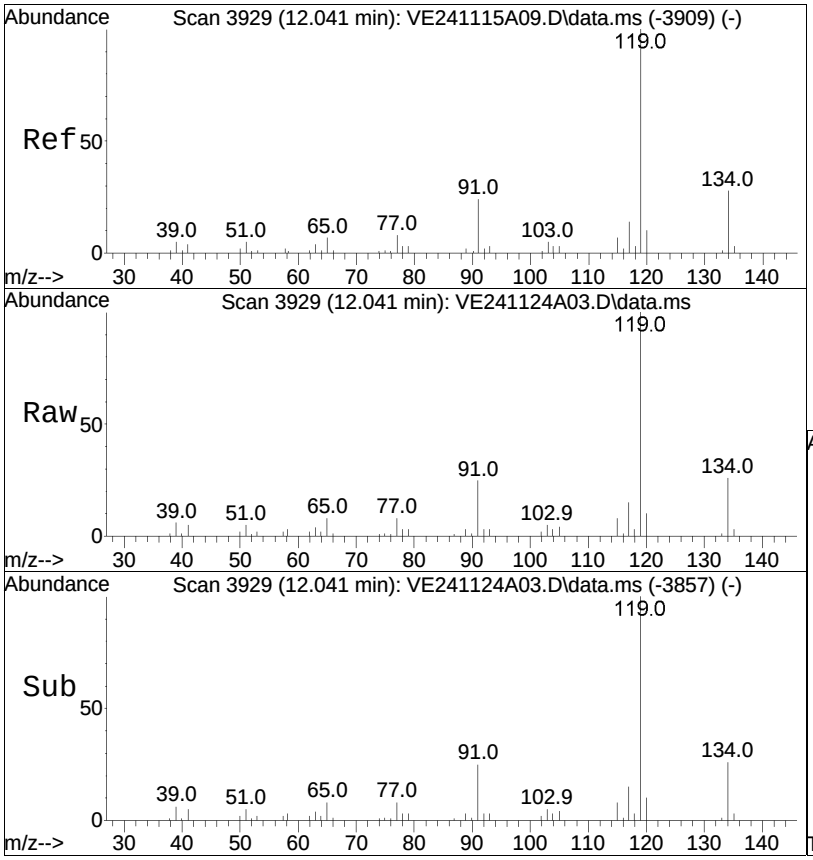


#103
sec-Butylbenzene
Concen: 10.07 ug/L
RT: 11.887 min Scan# 3874
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:105 Resp: 229977

Ion	Ratio	Lower	Upper
105	100		
134	19.3	13.3	27.5

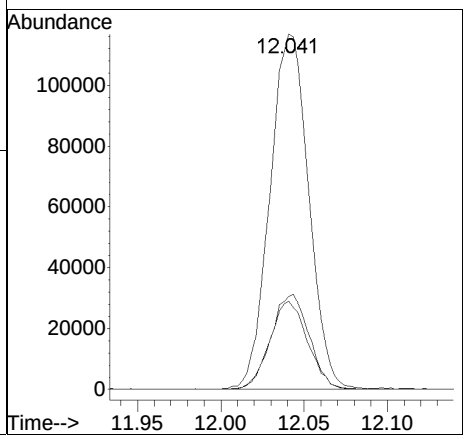


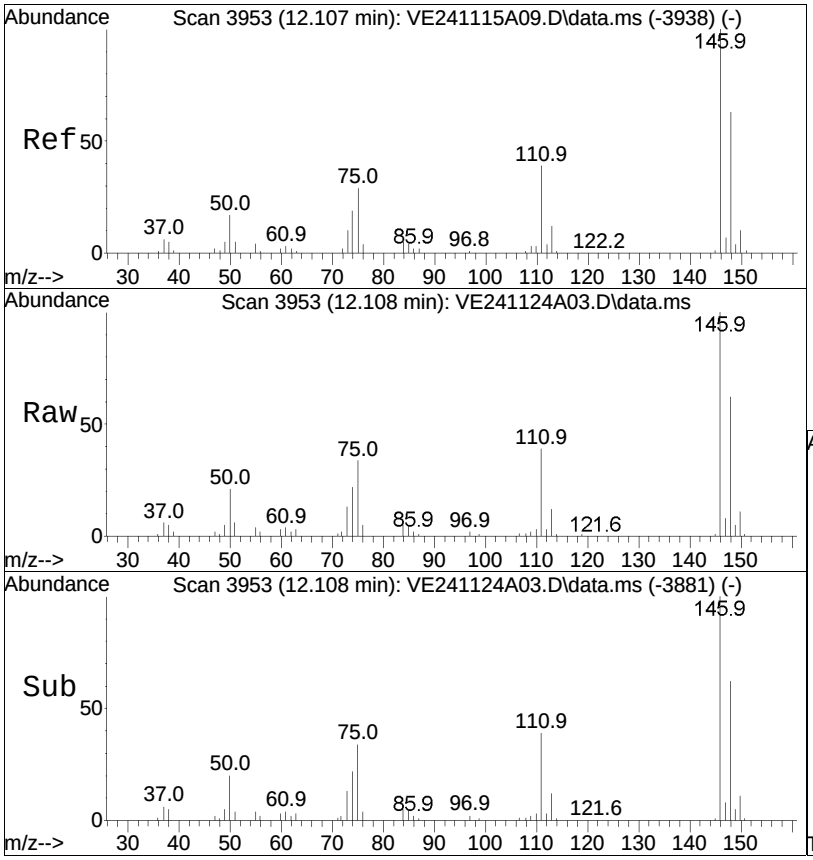


#104
p-Isopropyltoluene
Concen: 10.01 ug/L
RT: 12.041 min Scan# 3929
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:119 Resp: 189546

Ion	Ratio	Lower	Upper
119	100		
134	26.3	15.8	32.8
91	24.2	16.6	34.4

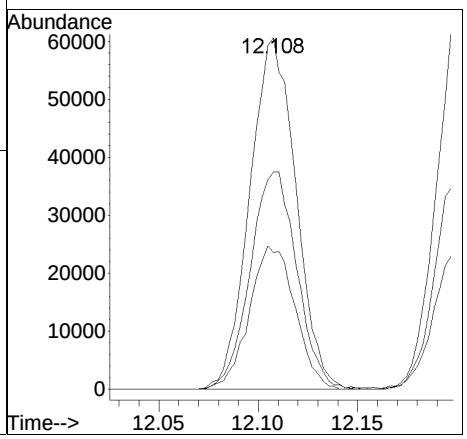


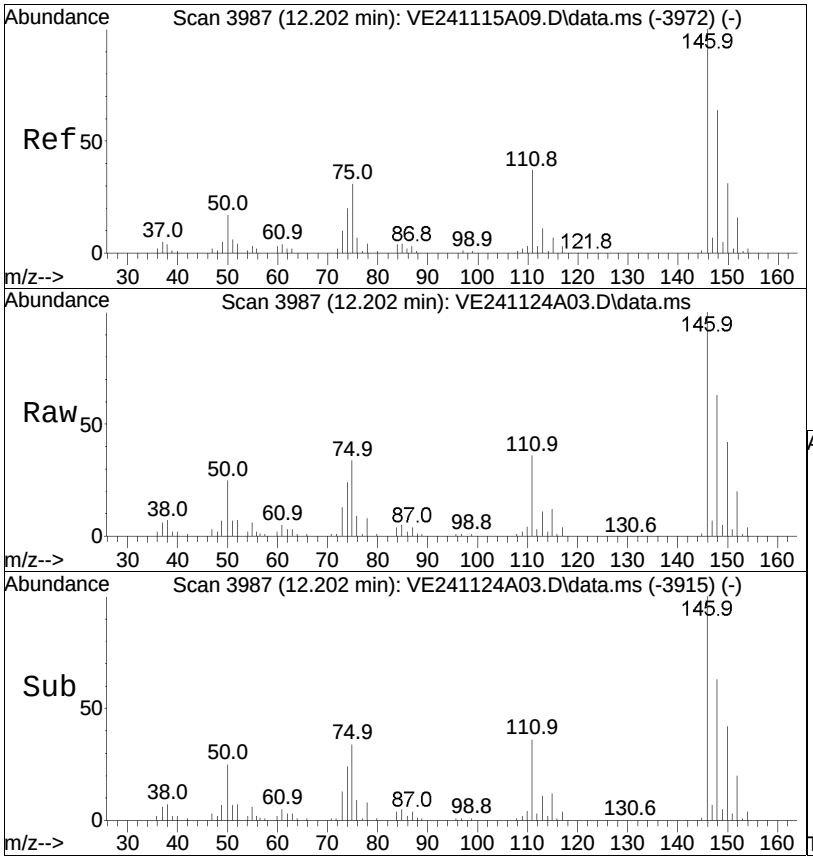


#105
1,3-Dichlorobenzene
Concen: 10.06 ug/L
RT: 12.108 min Scan# 3953
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:146 Resp: 97873

Ion	Ratio	Lower	Upper
146	100		
111	40.6	27.9	57.9
148	62.7	42.4	88.2

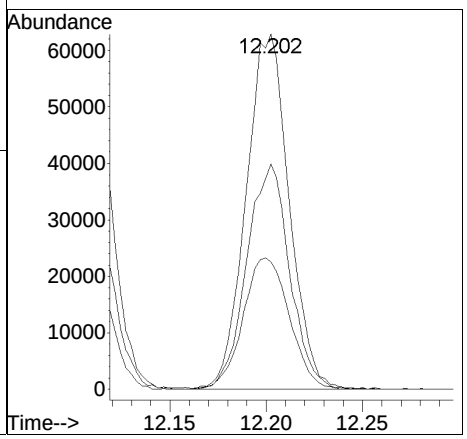


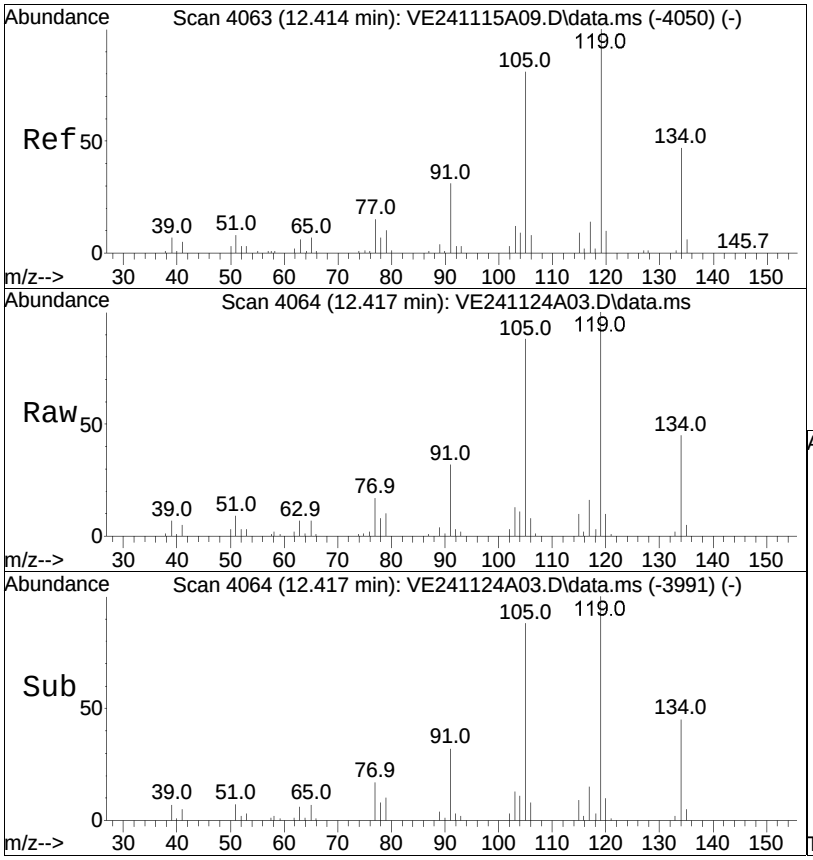


#106
1,4-Dichlorobenzene
Concen: 10.03 ug/L
RT: 12.202 min Scan# 3987
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:146 Resp: 97886

Ion	Ratio	Lower	Upper
146	100		
111	39.8	31.4	47.0
148	63.3	49.8	74.8

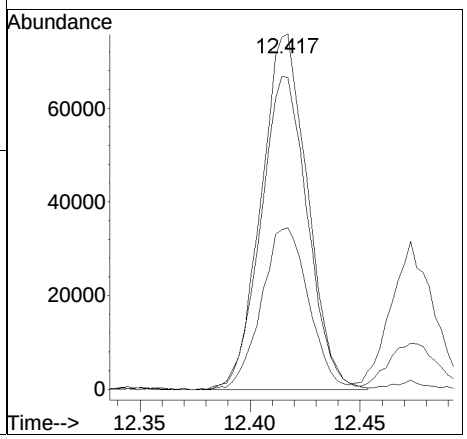


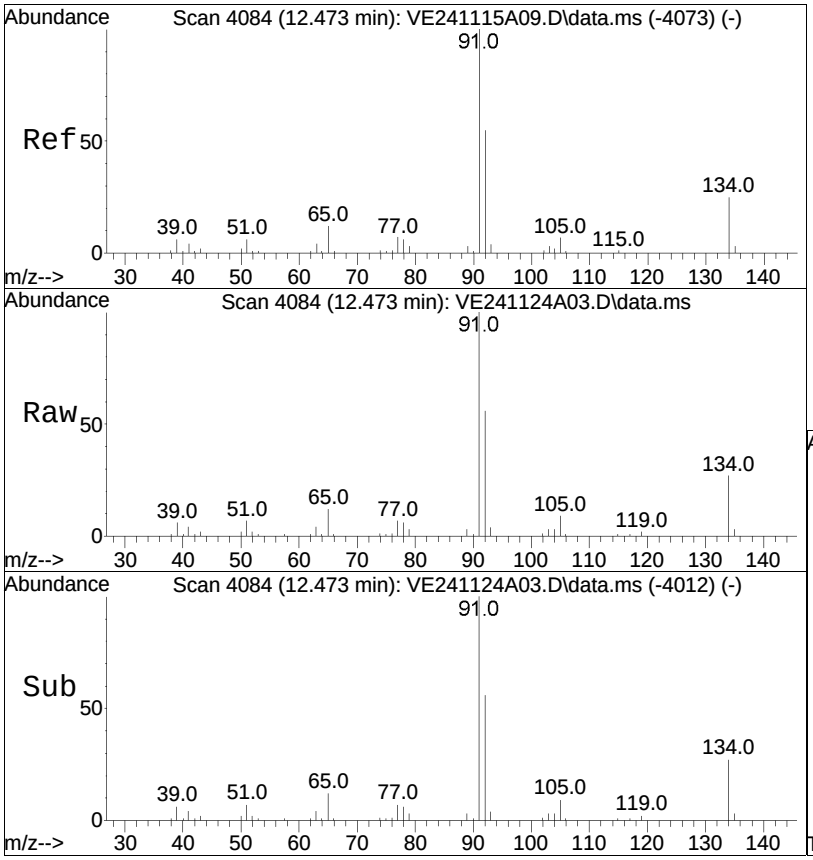


#107
p-Diethylbenzene
Concen: 10.01 ug/L
RT: 12.417 min Scan# 4064
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:119 Resp: 110879

Ion	Ratio	Lower	Upper
119	100		
105	88.8	55.4	115.2
134	46.3	28.4	59.0

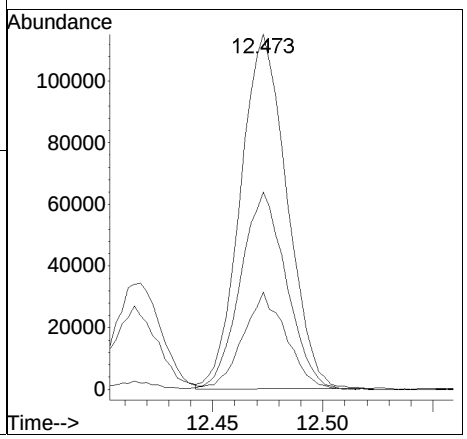


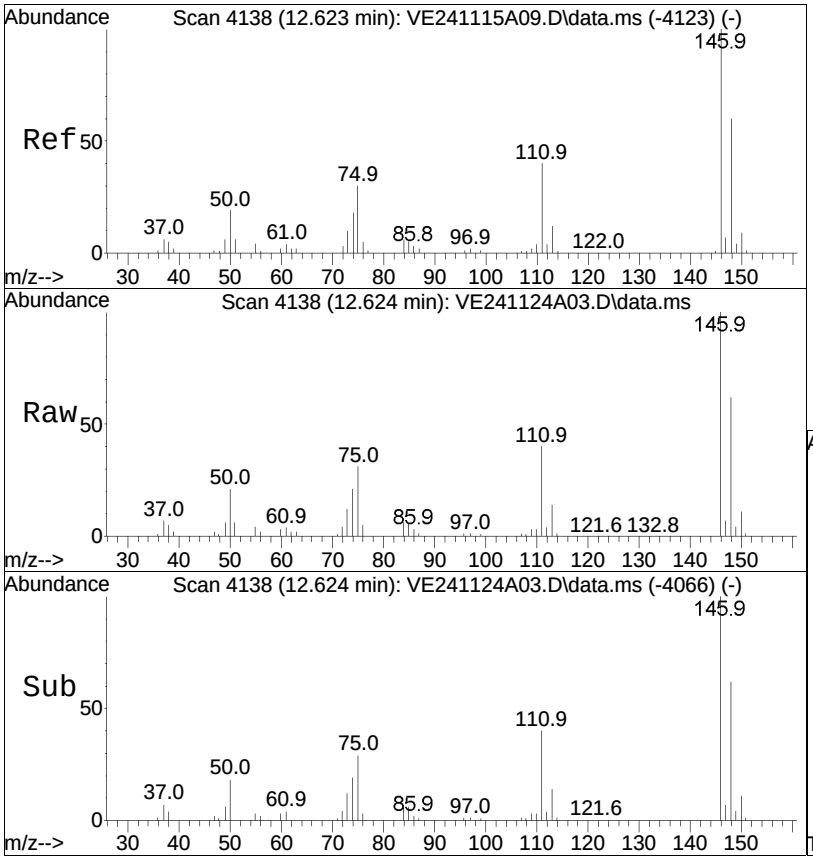


#108
n-Butylbenzene
Concen: 10.24 ug/L
RT: 12.473 min Scan# 4084
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion: 91 Resp: 169043

Ion	Ratio	Lower	Upper
91	100		
92	55.2	42.4	63.6
134	25.5	20.3	30.5

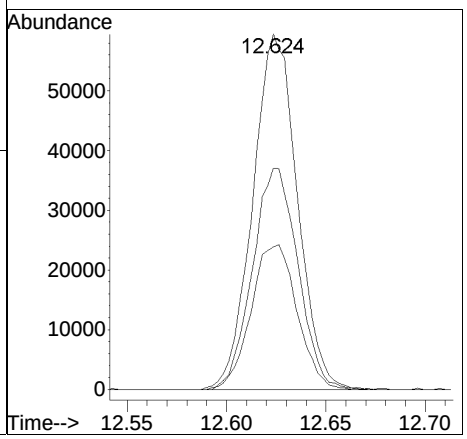


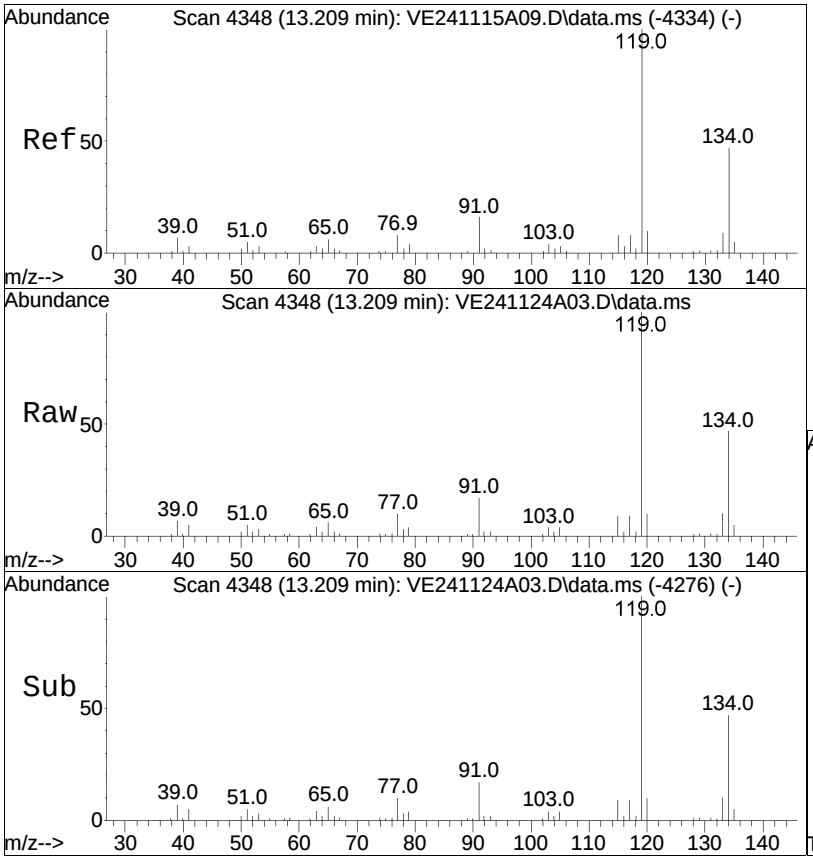


#109
1,2-Dichlorobenzene
Concen: 10.03 ug/L
RT: 12.624 min Scan# 4138
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:146 Resp: 92813

Ion	Ratio	Lower	Upper
146	100		
111	41.9	26.4	54.8
148	63.3	41.7	86.7

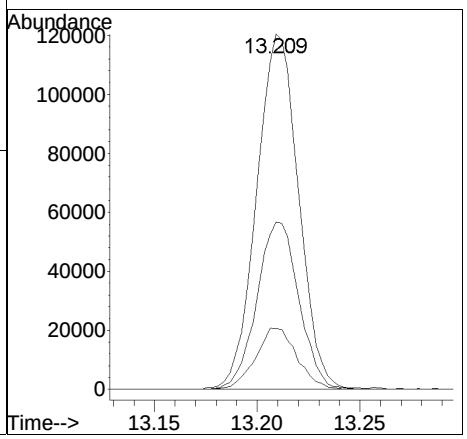


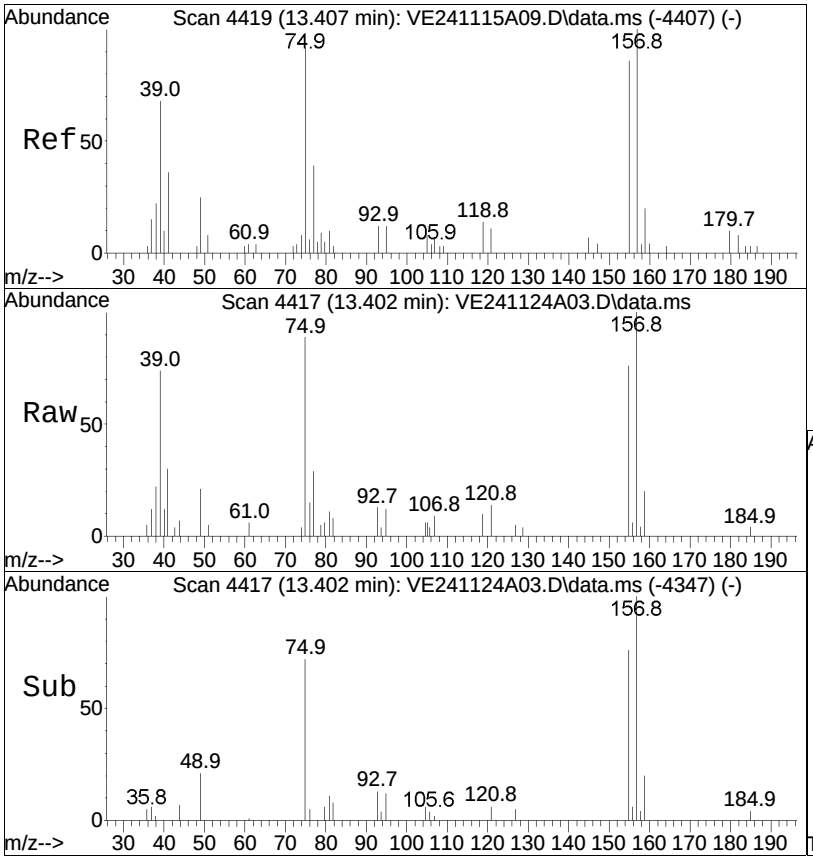


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.64 ug/L
RT: 13.209 min Scan# 4348
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:119 Resp: 170977

Ion	Ratio	Lower	Upper
119	100		
134	47.2	29.6	61.4
91	17.0	9.8	20.3

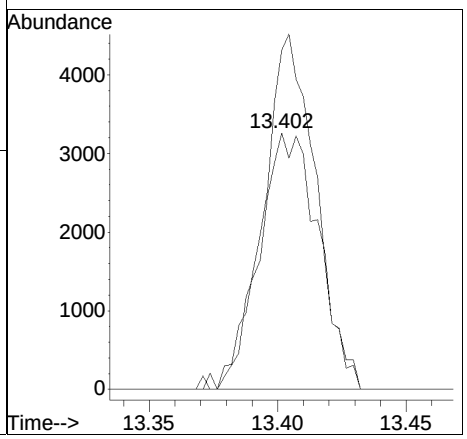


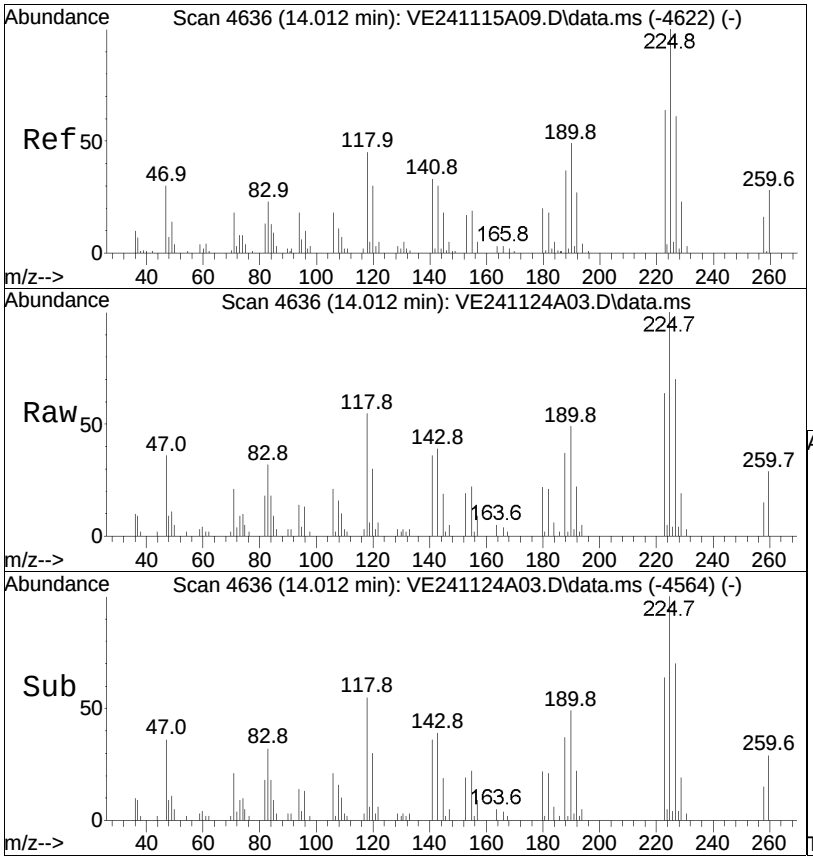


#111
1,2-Dibromo-3-chloropropane
Concen: 9.34 ug/L
RT: 13.402 min Scan# 4417
Delta R.T. -0.005 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:155 Resp: 5251

Ion	Ratio	Lower	Upper
155	100		
157	122.3	95.1	142.7

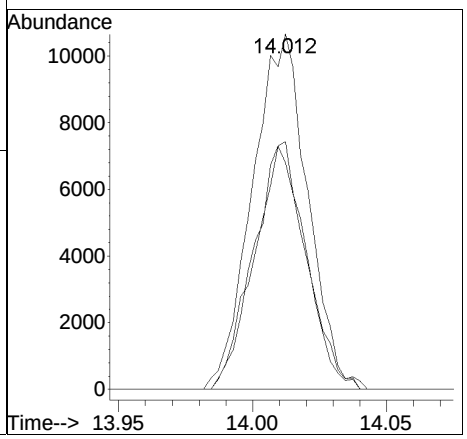


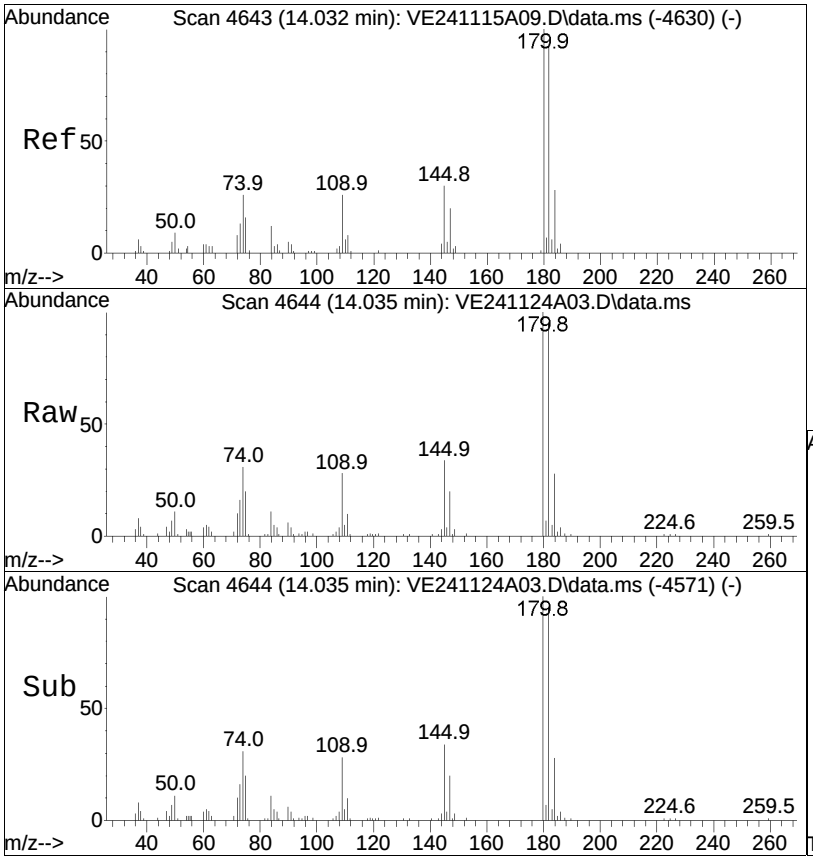


#113
Hexachlorobutadiene
Concen: 8.67 ug/L
RT: 14.012 min Scan# 4636
Delta R.T. 0.000 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:225 Resp: 15276

Ion	Ratio	Lower	Upper
225	100		
223	64.7	54.6	82.0
227	66.6	56.2	84.4

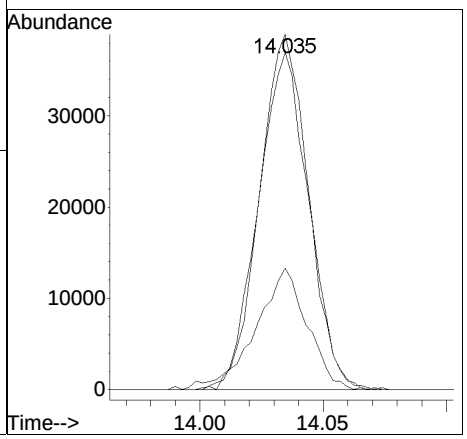


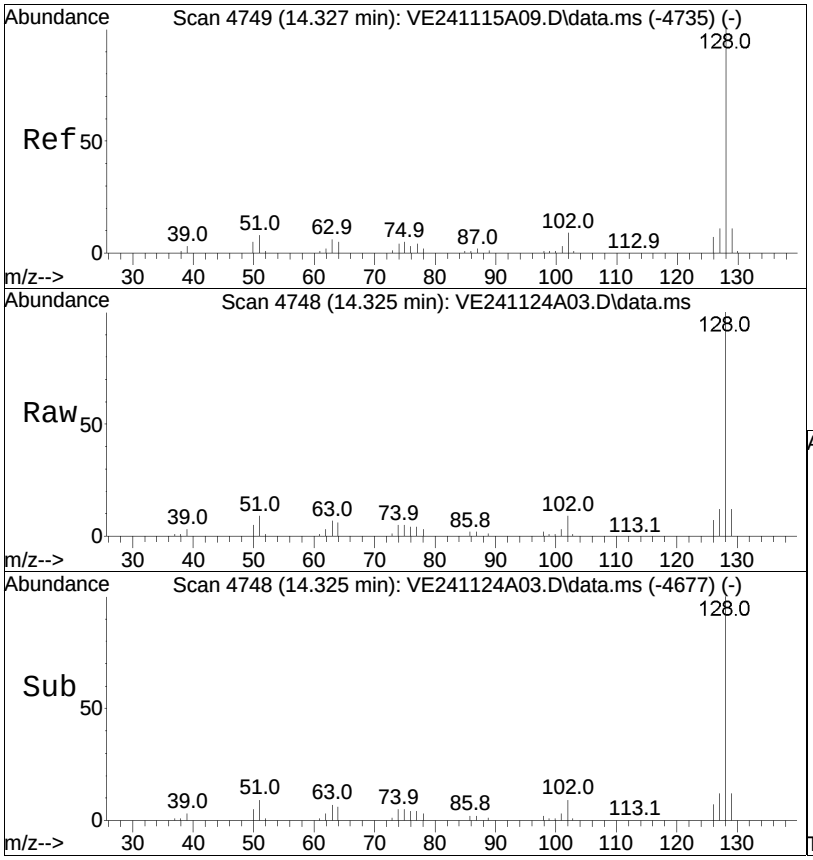


#114
1,2,4-Trichlorobenzene
Concen: 9.48 ug/L
RT: 14.035 min Scan# 4644
Delta R.T. 0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:180 Resp: 54666

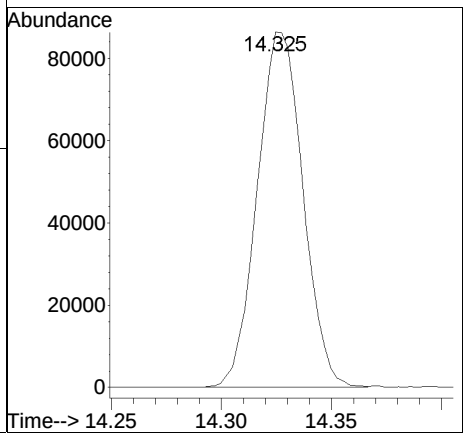
Ion	Ratio	Lower	Upper
180	100		
182	94.0	75.4	113.2
145	35.3	26.0	39.0

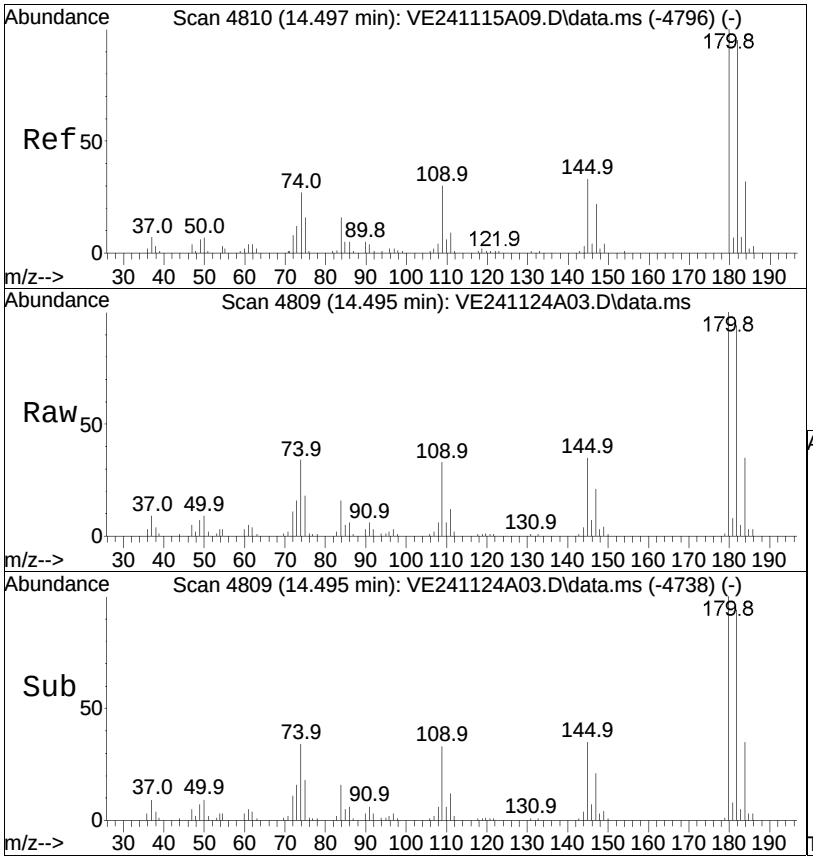




#115
Naphthalene
Concen: 9.23 ug/L
RT: 14.325 min Scan# 4748
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:128 Resp: 124910

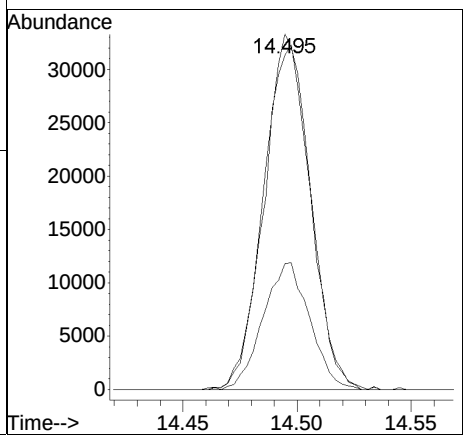




#116
1,2,3-Trichlorobenzene
Concen: 9.24 ug/L
RT: 14.495 min Scan# 4809
Delta R.T. -0.003 min
Lab File: VE241124A03.D
Acq: 24 Nov 2024 11:21 am

Tgt Ion:180 Resp: 47537

Ion	Ratio	Lower	Upper
180	100		
182	96.3	71.6	107.4
145	35.3	25.1	37.7

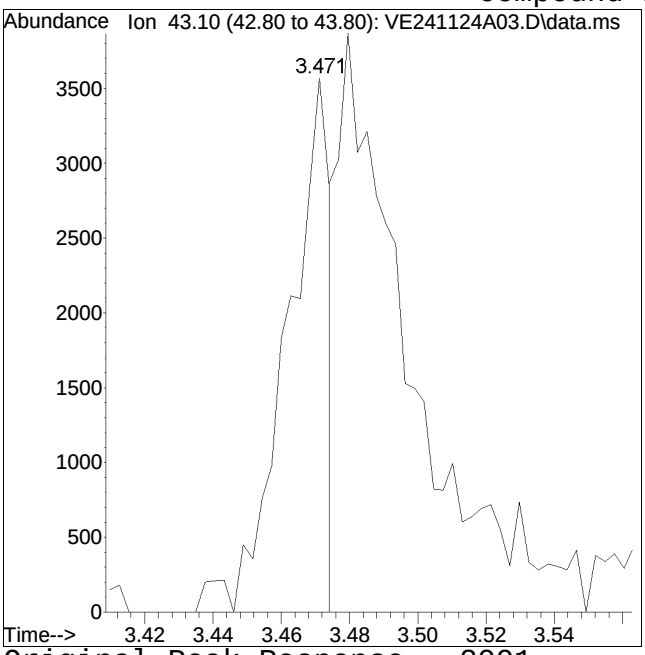


Manual Integration Report

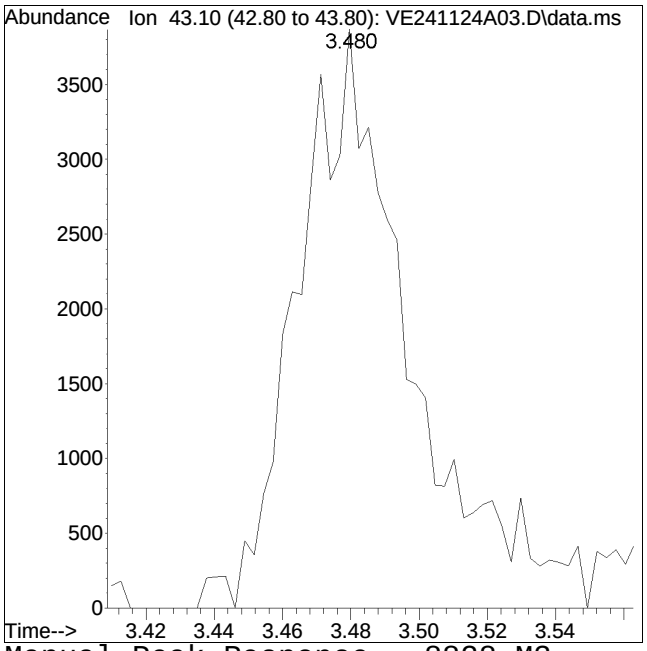
Data Path : K:\Elaine\2024\241124A\
Data File : VE241124A03.D
Date Inj'd : 11/24/2024 11:21 am
Sample : WG2001843-4,31,10,10

QMethod : Elaine_241115A_8260.m
Operator : ELAINE:PID
Instrument : Elaine
Quant Date : 11/25/2024 7:07 am

Compound #17: Acetone



Original Peak Response = 2991



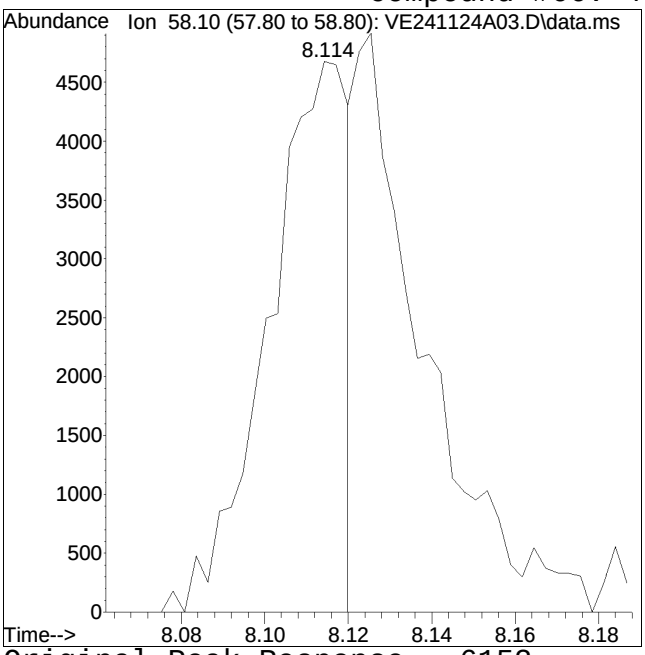
Manual Peak Response = 8828 M3

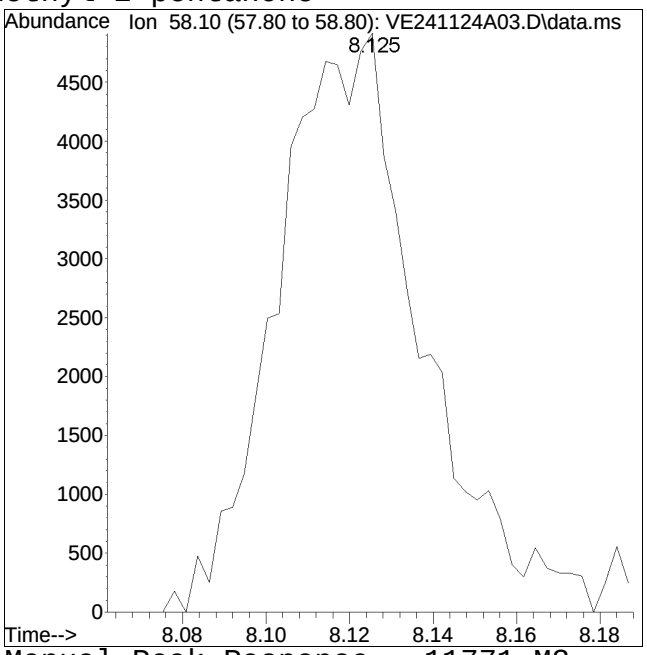
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : K:\Elaine\2024\241124A\ QMethod : Elaine_241115A_8260.m
Data File : VE241124A03.D Operator : ELAINE:PID
Date Inj'd : 11/24/2024 11:21 am Instrument : Elaine
Sample : WG2001843-4,31,10,10 Quant Date : 11/25/2024 7:07 am

Compound #66: 4-Methyl-2-pentanone





Original Peak Response = 6152 Manual Peak Response = 11771 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A02.D
Acq On : 25 Nov 2024 7:37 am
Operator : GONZO:PID
Sample : WG2001998-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 08:14:14 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.056	96	522490	10.000	ug/L	0.00
Standard Area 1 = 566955			Recovery = 92.16%			
59) Chlorobenzene-d5	9.588	117	405367	10.000	ug/L	-0.02
Standard Area 1 = 435387			Recovery = 93.10%			
79) 1,4-Dichlorobenzene-d4	12.286	152	234646	10.000	ug/L	0.00
Standard Area 1 = 248554			Recovery = 94.40%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.251	113	137041	10.518	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.18%			
43) 1,2-Dichloroethane-d4	5.775	65	171309	11.412	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 114.12%			
60) Toluene-d8	7.743	98	516399	9.632	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.32%			
83) 4-Bromofluorobenzene	11.085	95	197178	9.588	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.657	85	77954	7.022	ug/L	97
3) Chloromethane	1.870	50	121442	10.091	ug/L	98
4) Vinyl chloride	1.923	62	119835	9.991	ug/L	98
5) Bromomethane	2.235	94	27352	3.956	ug/L	97
6) Chloroethane	2.333	64	73240	10.852	ug/L	89
7) Trichlorofluoromethane	2.485	101	158100	9.887	ug/L	99
8) Ethyl ether	2.797	74	50342	8.648	ug/L #	61
10) 1,1-Dichloroethene	2.987	96	90285	9.799	ug/L #	74
11) Carbon disulfide	3.017	76	283236	10.120	ug/L	99
15) Methylene chloride	3.549	84	114074	10.298	ug/L #	67
17) Acetone	3.594	43	31046	10.844	ug/L	97
18) trans-1,2-Dichloroethene	3.701	96	105304	10.544	ug/L	81
20) Methyl tert-butyl ether	3.784	73	284407	8.421	ug/L #	81
23) 1,1-Dichloroethane	4.286	63	230653	11.924	ug/L	97
25) Acrylonitrile	4.339	53	36620	10.254	ug/L	94
27) Vinyl acetate	4.514	43	328807	12.129	ug/L #	95
28) cis-1,2-Dichloroethene	4.802	96	121652	10.523	ug/L #	85
29) 2,2-Dichloropropane	4.901	77	171330	13.324	ug/L	88
30) Bromochloromethane	5.000	128	56817	10.801	ug/L #	71
32) Chloroform	5.068	83	202499	10.814	ug/L	94

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A02.D
Acq On : 25 Nov 2024 7:37 am
Operator : GONZO:PID
Sample : WG2001998-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 08:14:14 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34) Carbon tetrachloride	5.197	117	154158	10.799	ug/L		98
37) 1,1,1-Trichloroethane	5.266	97	178634	10.814	ug/L		94
39) 2-Butanone	5.365	43	48722	11.159	ug/L	#	72
40) 1,1-Dichloropropene	5.387	75	147639	10.652	ug/L		96
41) Benzene	5.630	78	471105	10.932	ug/L	#	91
44) 1,2-Dichloroethane	5.843	62	168099	11.517	ug/L		97
48) Trichloroethene	6.231	95	120030	10.377	ug/L		96
50) Dibromomethane	6.679	93	69934	10.622	ug/L		98
51) 1,2-Dichloropropane	6.778	63	129801	11.611	ug/L		97
54) Bromodichloromethane	6.854	83	158092	10.482	ug/L		99
57) 1,4-Dioxane	7.063	88	51442	457.827	ug/L	#	70
58) cis-1,3-Dichloropropene	7.543	75	183046	10.712	ug/L	#	85
61) Toluene	7.801	92	289879	10.275	ug/L		99
62) 4-Methyl-2-pentanone	8.238	58	37549	9.503	ug/L	#	81
63) Tetrachloroethene	8.245	166	126120	10.335	ug/L		99
65) trans-1,3-Dichloropropene	8.295	75	164039	9.974	ug/L		93
68) 1,1,2-Trichloroethane	8.481	83	81541	9.503	ug/L		98
69) Chlorodibromomethane	8.689	129	119324	10.054	ug/L		100
70) 1,3-Dichloropropane	8.796	76	169194	9.931	ug/L		99
71) 1,2-Dibromoethane	8.968	107	94951	9.351	ug/L		98
72) 2-Hexanone	9.255	43	68247	9.654	ug/L		93
73) Chlorobenzene	9.612	112	323228	10.664	ug/L		98
74) Ethylbenzene	9.645	91	546439	10.080	ug/L		97
75) 1,1,1,2-Tetrachloroethane	9.695	131	115555	9.946	ug/L		99
76) p/m Xylene	9.835	106	415479	20.145	ug/L		93
77) o Xylene	10.369	106	402747	20.164	ug/L		92
78) Styrene	10.443	104	688000	20.239	ug/L		96
80) Bromoform	10.468	173	79086	9.377	ug/L		99
82) Isopropylbenzene	10.748	105	500181	9.643	ug/L		100
84) Bromobenzene	11.192	156	148289	10.562	ug/L		99
85) n-Propylbenzene	11.225	91	595735	9.863	ug/L		98
87) 1,1,2,2-Tetrachloroethane	11.324	83	120416	9.171	ug/L		98
88) 4-Ethyltoluene	11.356	105	487207	9.852	ug/L		100
89) 2-Chlorotoluene	11.398	91	381715M6	10.361	ug/L		
90) 1,3,5-Trimethylbenzene	11.455	105	426247	9.734	ug/L		100
91) 1,2,3-Trichloropropane	11.463	75	102436	9.551	ug/L		98
92) trans-1,4-Dichloro-2-b...	11.521	53	37282M1	8.618	ug/L		
93) 4-Chlorotoluene	11.587	91	397494M4	10.251	ug/L		
94) tert-Butylbenzene	11.792	119	353541	10.236	ug/L		97

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A02.D
Acq On : 25 Nov 2024 7:37 am
Operator : GONZO:PID
Sample : WG2001998-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 08:14:14 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Gonzo\2024\241125A\VG241125A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) 1,2,4-Trimethylbenzene	11.875	105	415803	9.731	ug/L	100
98) sec-Butylbenzene	11.982	105	483695	9.709	ug/L	100
99) p-Isopropyltoluene	12.138	119	427465	10.118	ug/L	99
100) 1,3-Dichlorobenzene	12.212	146	261954	10.242	ug/L	98
101) 1,4-Dichlorobenzene	12.302	146	268982	10.126	ug/L	98
102) p-Diethylbenzene	12.508	119	236990	9.999	ug/L	98
103) n-Butylbenzene	12.566	91	335338	9.857	ug/L	99
104) 1,2-Dichlorobenzene	12.722	146	248433	10.075	ug/L	99
105) 1,2,4,5-Tetramethylben...	13.298	119	332611	9.978	ug/L	98
106) 1,2-Dibromo-3-chloropr...	13.504	155	18888	8.634	ug/L	96
108) Hexachlorobutadiene	14.096	225	55385	11.117	ug/L	98
109) 1,2,4-Trichlorobenzene	14.129	180	133004	10.102	ug/L	97
110) Naphthalene	14.425	128	232665	8.344	ug/L	100
111) 1,2,3-Trichlorobenzene	14.589	180	104537	9.491	ug/L	98

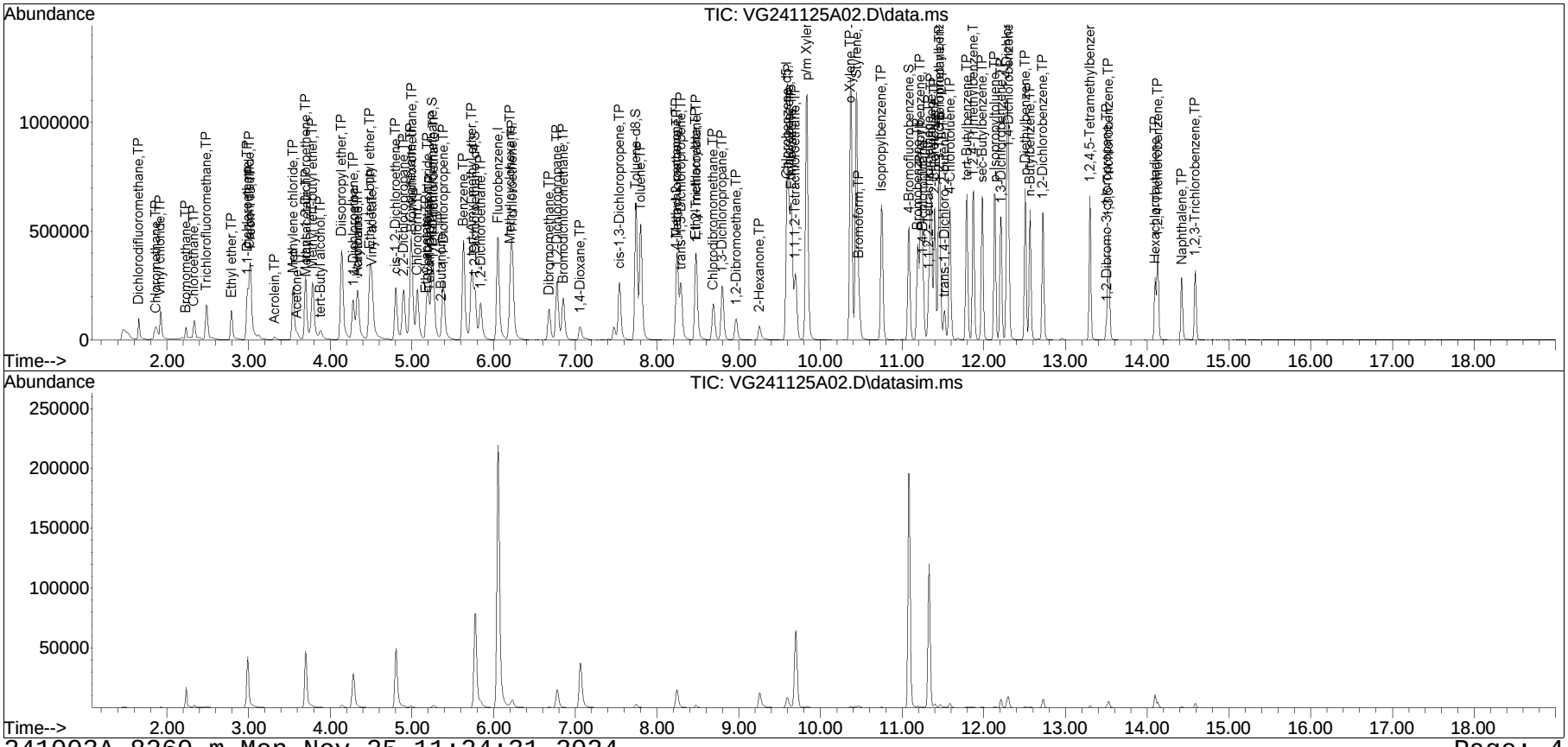
(#) = qualifier out of range (m) = manual integration (+) = signals summed

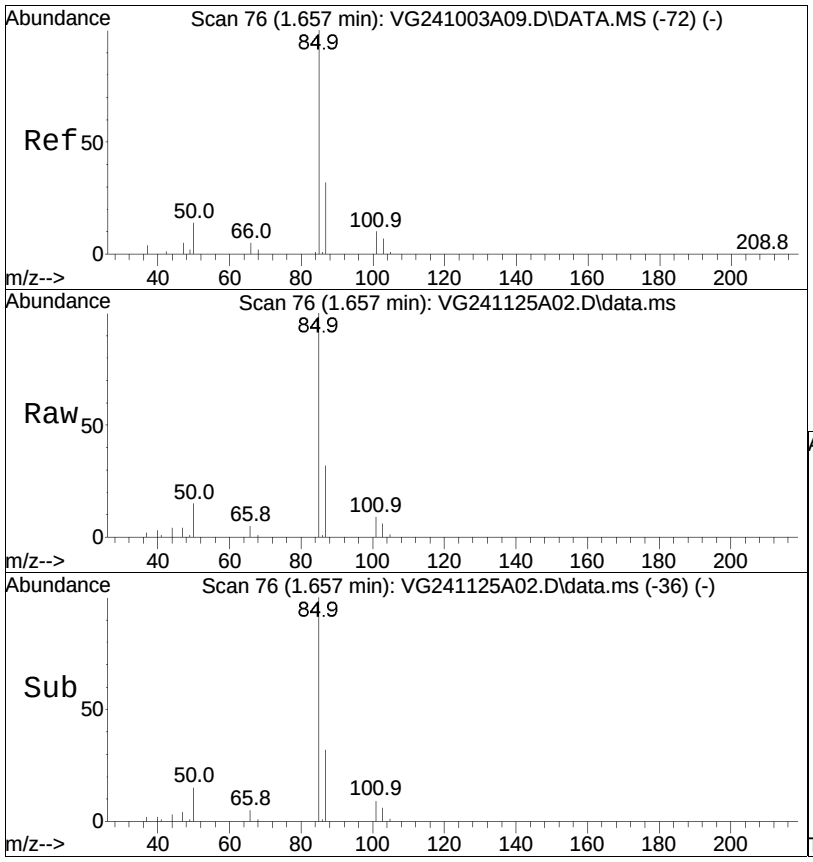
Quantitation Report (QT Reviewed)

Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A02.D
Acq On : 25 Nov 2024 7:37 am
Operator : GONZO:PID
Sample : WG2001998-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG2001998,ICAL21571 (Sig #1); WG,ICAL21571 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 25 08:14:14 2024
Quant Method : K:\Gonzo\2024\241125A\G_241003A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Oct 04 09:30:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

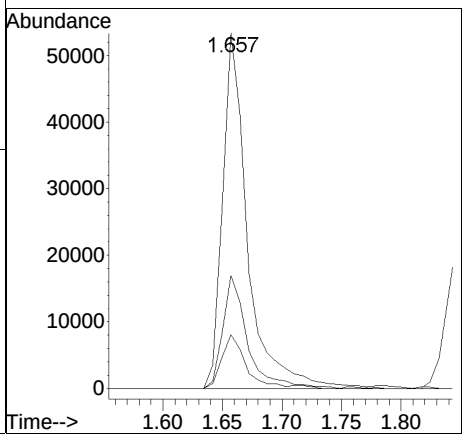


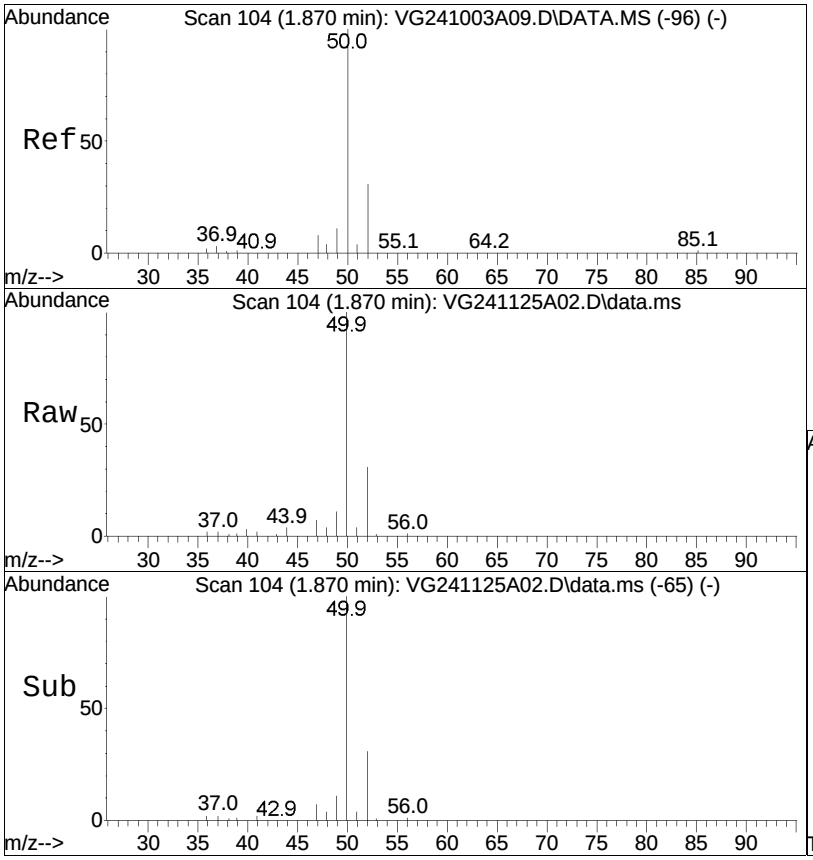


#2
Dichlorodifluoromethane
Concen: 7.02 ug/L
RT: 1.657 min Scan# 76
Delta R.T. 0.000 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 85 Resp: 77954

Ion	Ratio	Lower	Upper
85	100		
87	31.5	20.7	42.9
50	15.0	7.5	15.5

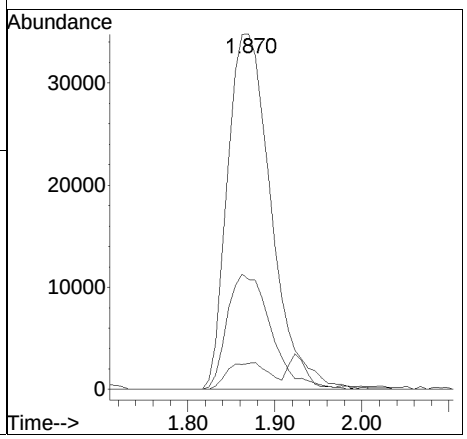


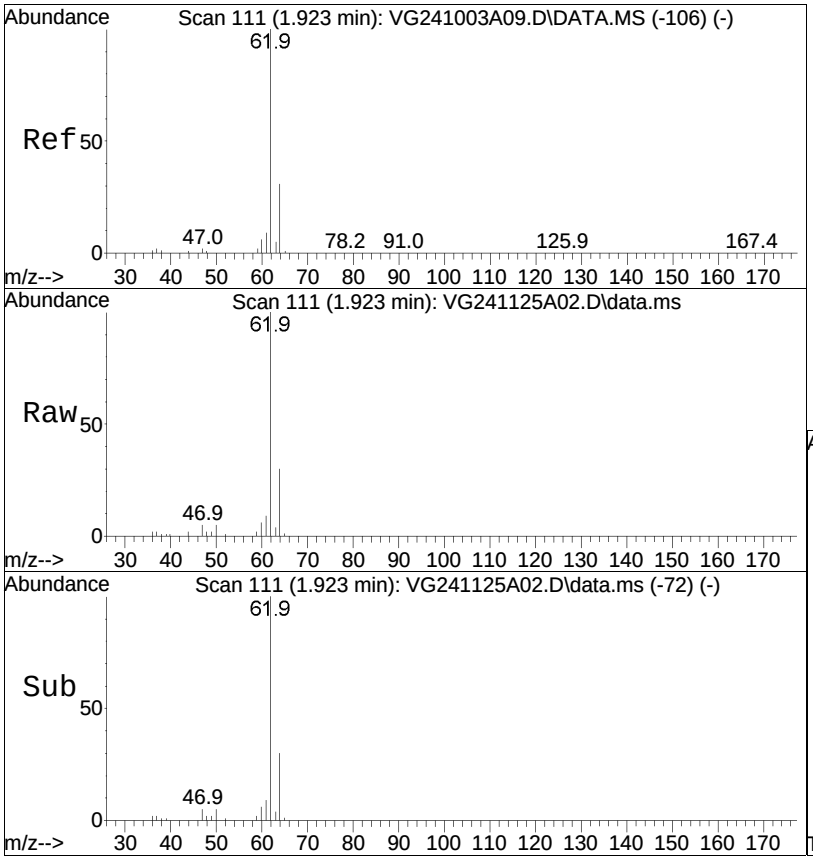


#3
Chloromethane
Concen: 10.09 ug/L
RT: 1.870 min Scan# 104
Delta R.T. -0.000 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 50 Resp: 121442

Ion	Ratio	Lower	Upper
50	100		
52	32.6	11.7	51.7
47	7.3	0.0	28.0

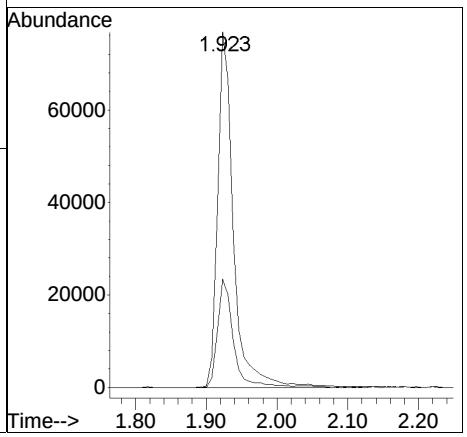


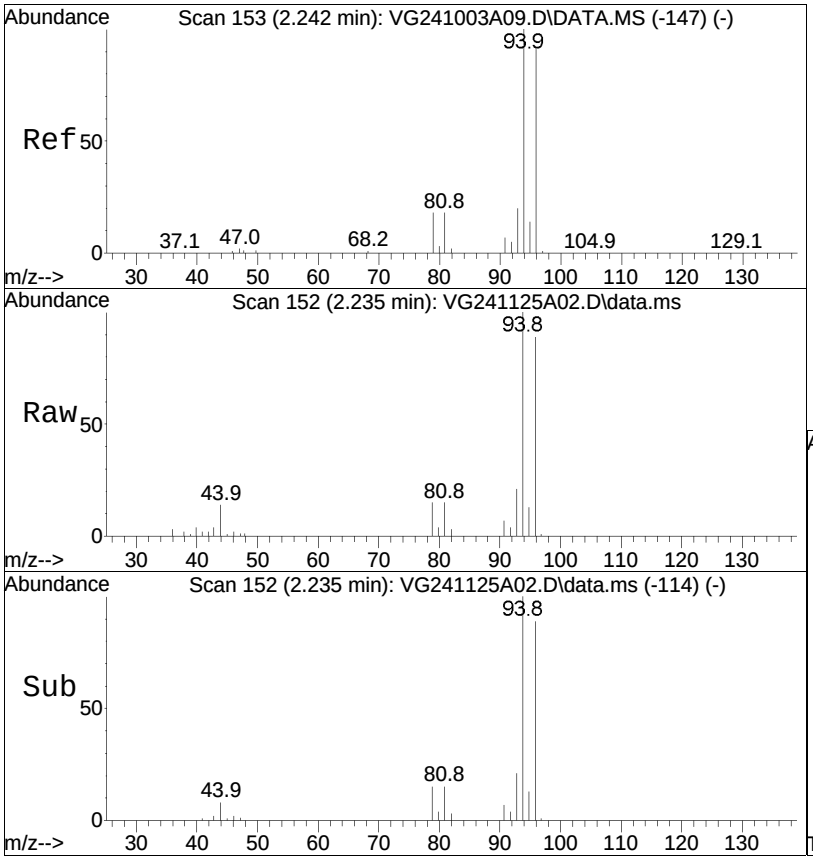


#4
Vinyl chloride
Concen: 9.99 ug/L
RT: 1.923 min Scan# 111
Delta R.T. 0.000 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 62 Resp: 119835

Ion	Ratio	Lower	Upper
62	100		
64	30.1	11.3	51.3

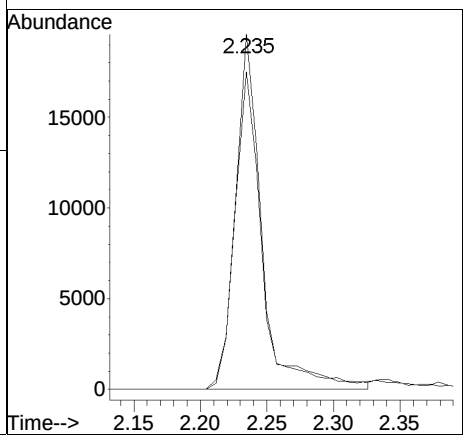


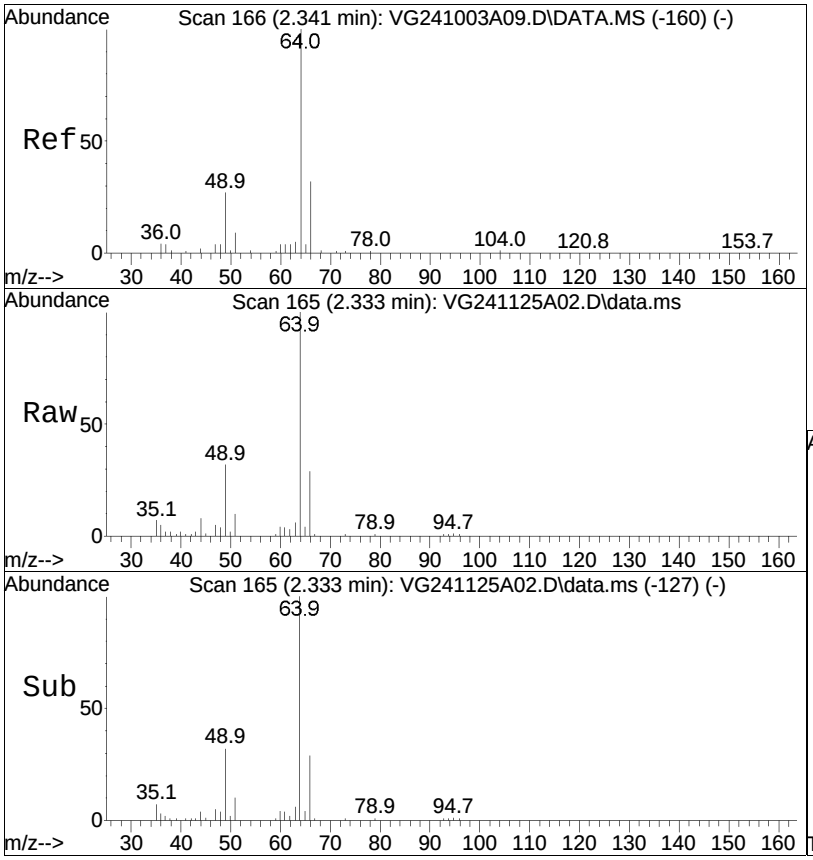


#5
Bromomethane
Concen: 3.96 ug/L
RT: 2.235 min Scan# 152
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 94 Resp: 27352

Ion	Ratio	Lower	Upper
94	100		
96	91.8	75.2	115.2

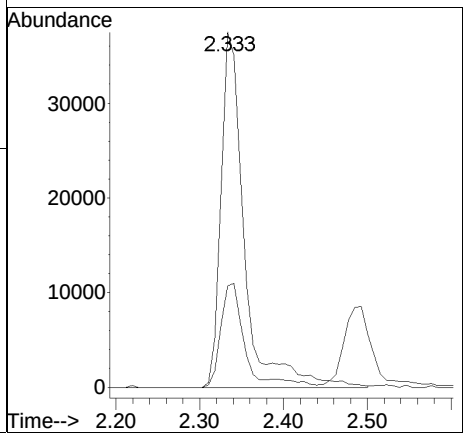


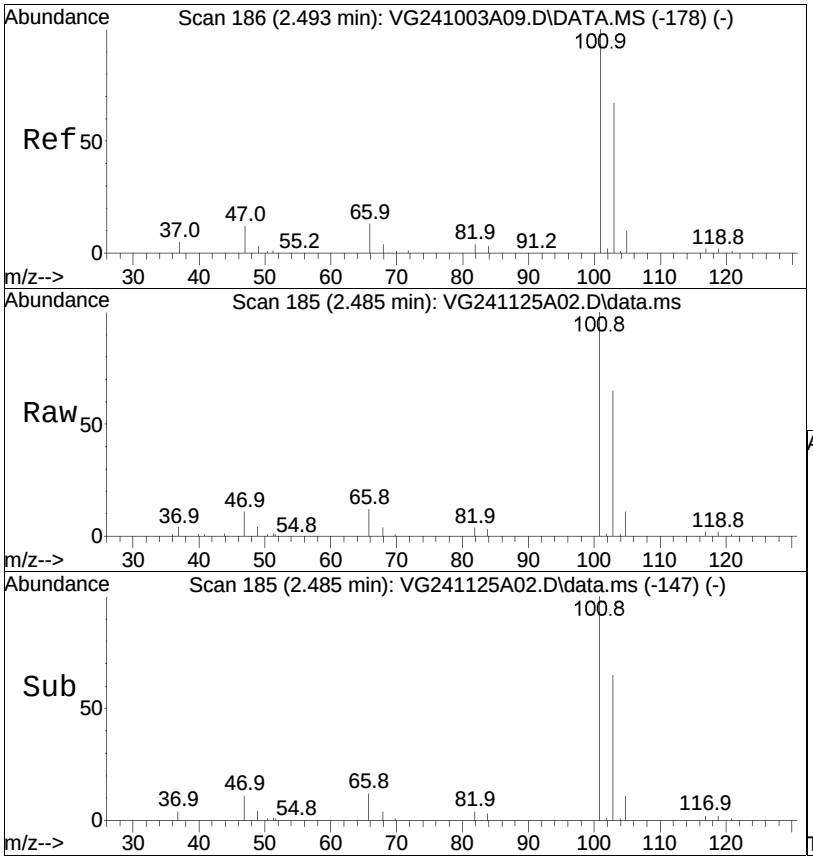


#6
Chloroethane
Concen: 10.85 ug/L
RT: 2.333 min Scan# 165
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 64 Resp: 73240

Ion	Ratio	Lower	Upper
64	100		
66	27.2	13.7	53.7

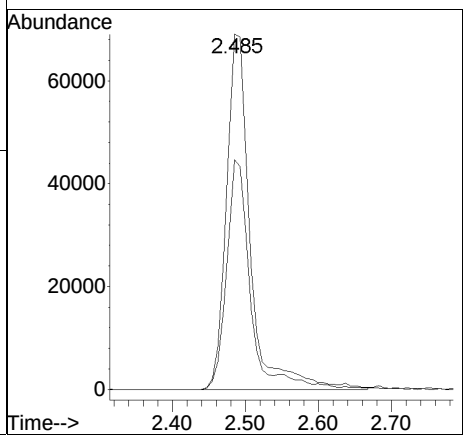


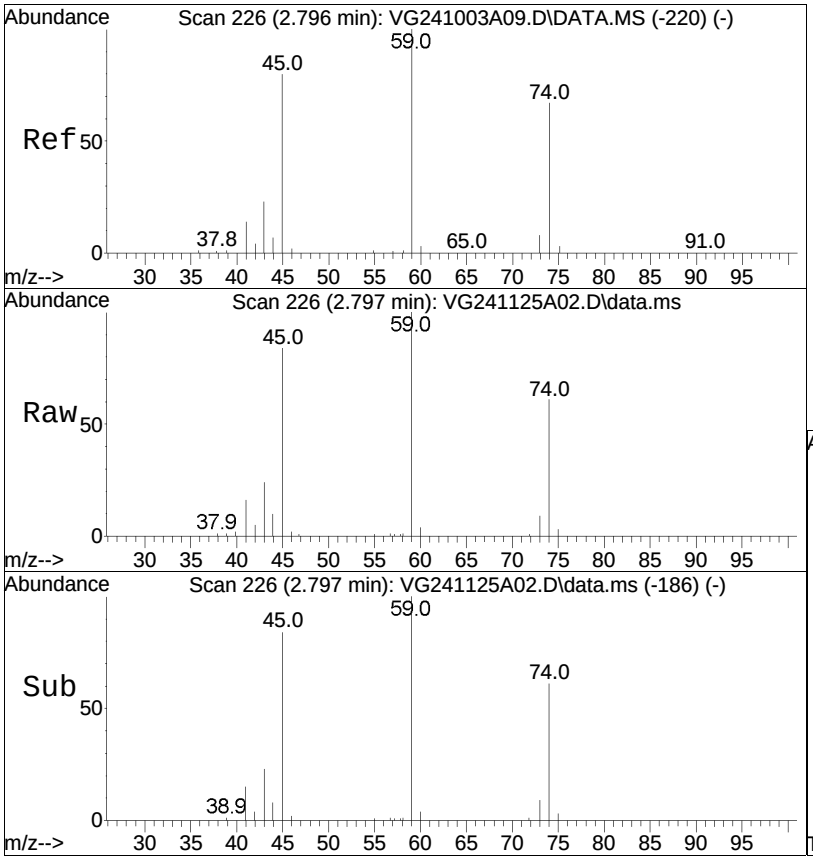


#7
Trichlorofluoromethane
Concen: 9.89 ug/L
RT: 2.485 min Scan# 185
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:101 Resp: 158100

Ion	Ratio	Lower	Upper
101	100		
103	64.7	52.2	78.2

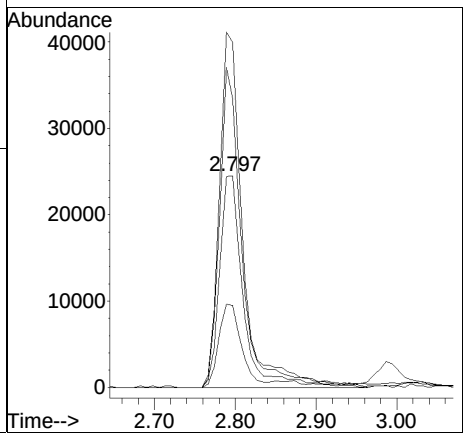


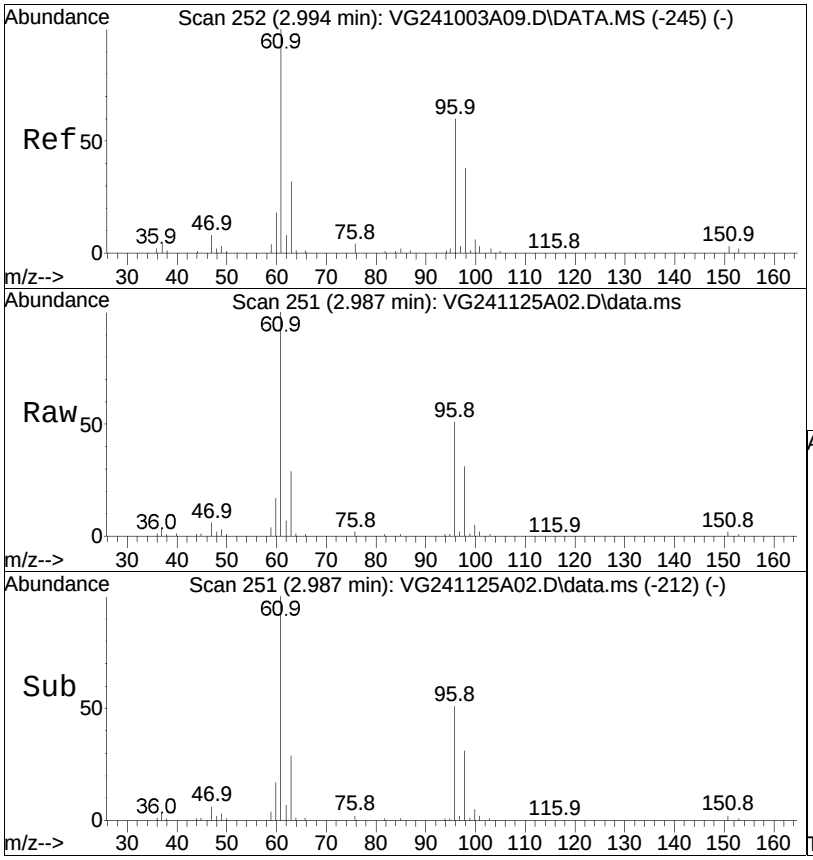


#8
Ethyl ether
Concen: 8.65 ug/L
RT: 2.797 min Scan# 226
Delta R.T. 0.001 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 74 Resp: 50342

Ion	Ratio	Lower	Upper
74	100		
59	164.9	83.5	173.3
45	143.0	59.7	123.9#
43	37.8	17.6	36.6#

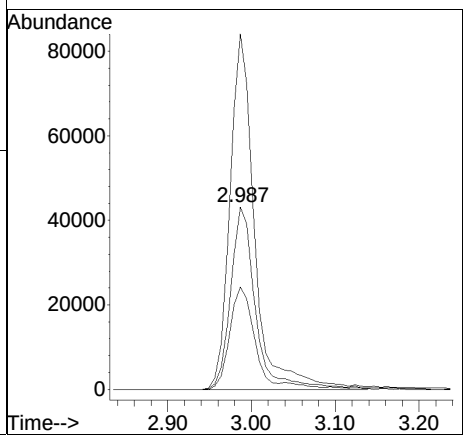


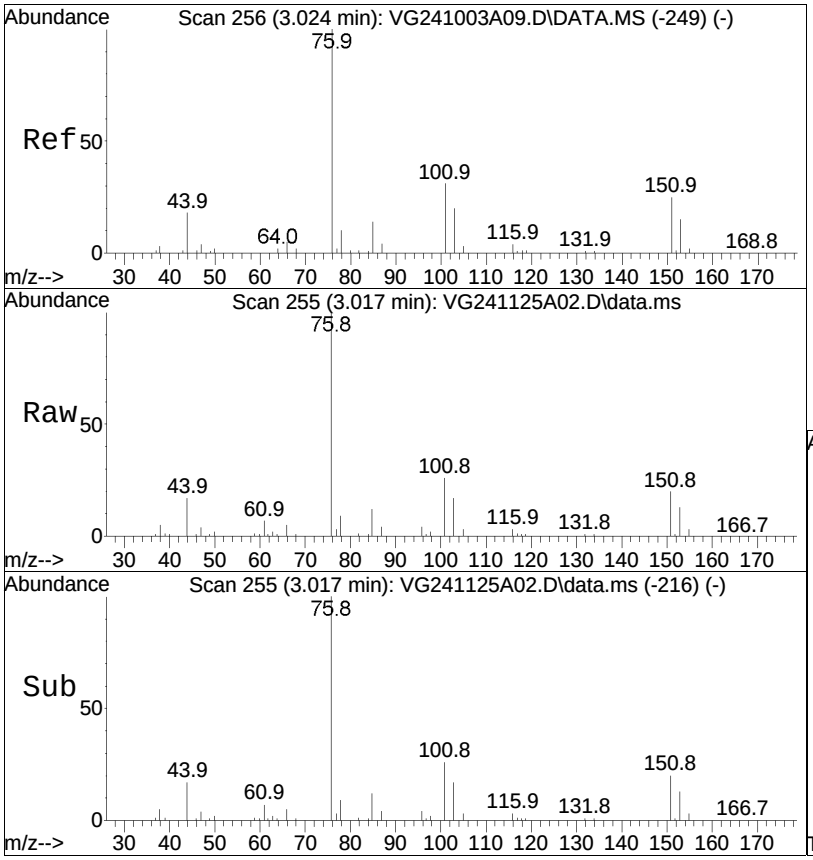


#10
1,1-Dichloroethene
Concen: 9.80 ug/L
RT: 2.987 min Scan# 251
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 96 Resp: 90285

Ion	Ratio	Lower	Upper
96	100		
61	194.9	124.2	186.4#
63	58.1	40.0	60.0

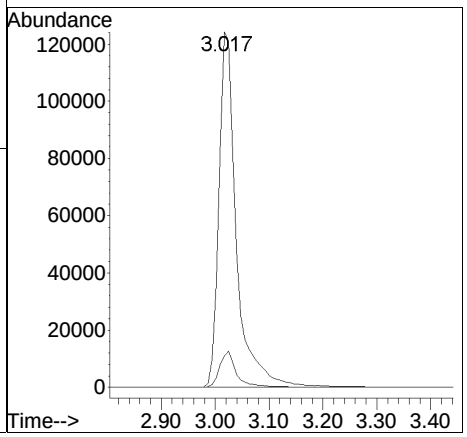


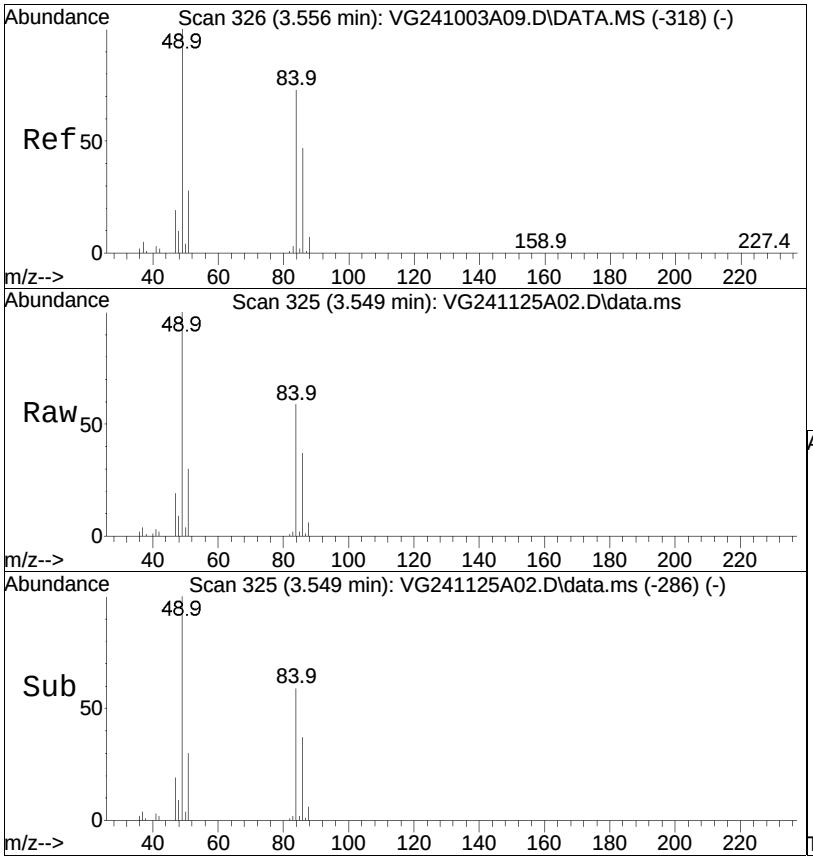


#11
Carbon disulfide
Concen: 10.12 ug/L
RT: 3.017 min Scan# 255
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 76 Resp: 283236

Ion	Ratio	Lower	Upper
76	100		
78	9.8	6.6	13.6

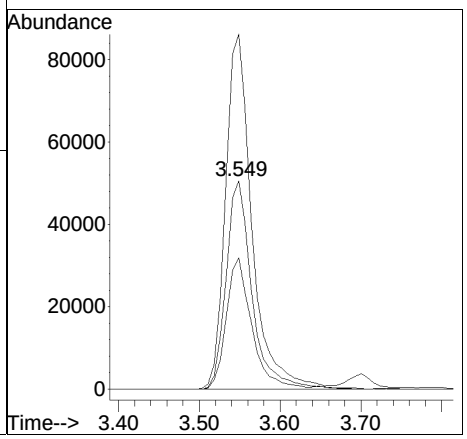


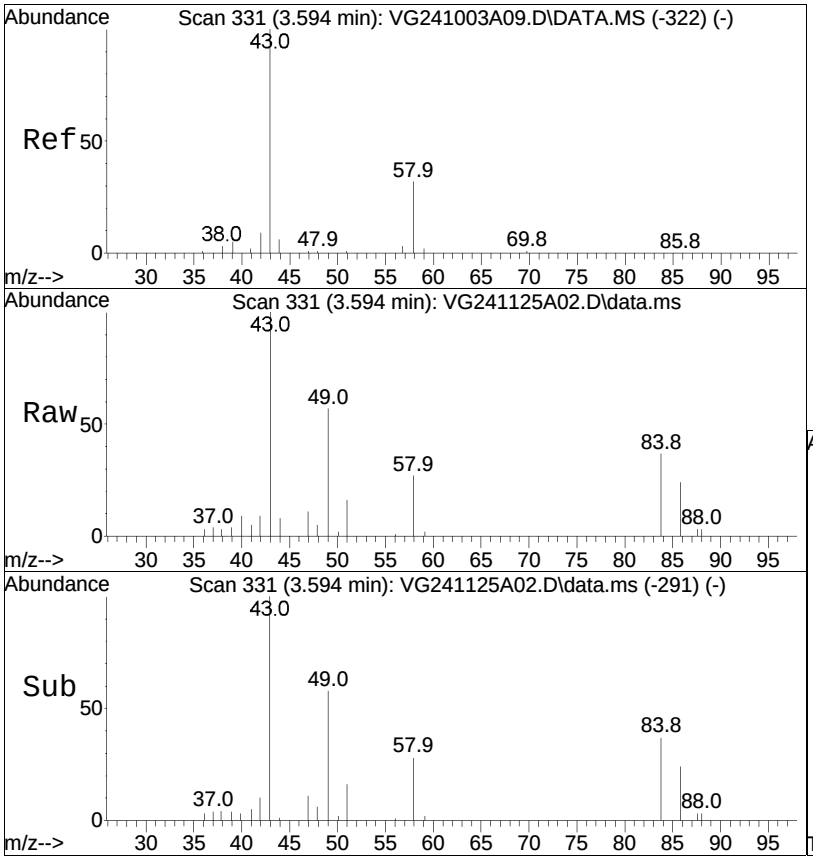


#15
Methylene chloride
Concen: 10.30 ug/L
RT: 3.549 min Scan# 325
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 84 Resp: 114074

Ion	Ratio	Lower	Upper
84	100		
86	62.0	41.1	85.5
49	172.3	76.2	158.2#

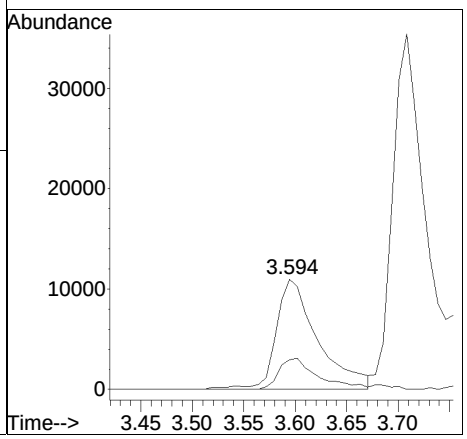


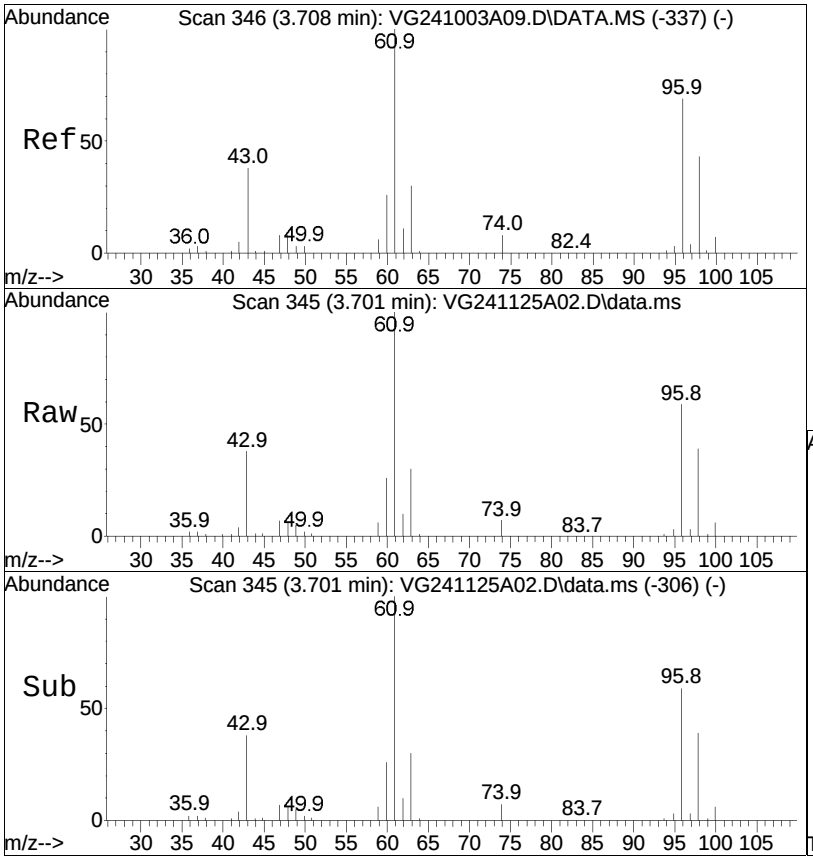


#17
Acetone
Concen: 10.84 ug/L
RT: 3.594 min Scan# 331
Delta R.T. 0.000 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 43 Resp: 31046

Ion	Ratio	Lower	Upper
43	100		
58	26.4	22.2	33.4

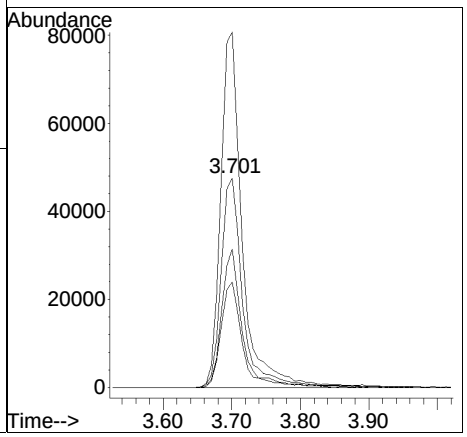


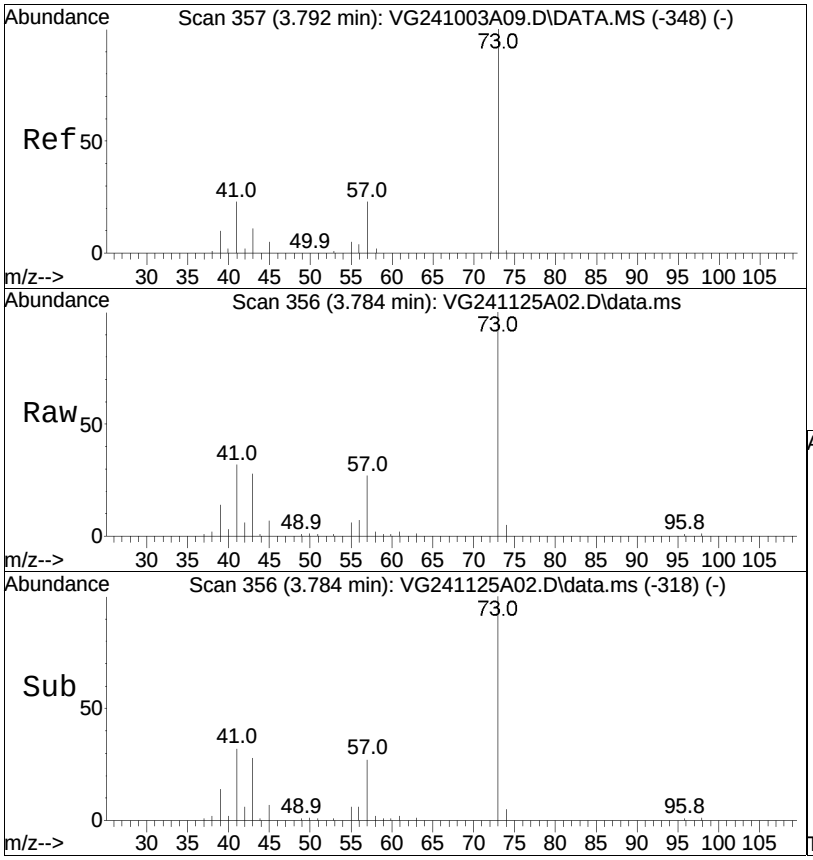


#18
trans-1,2-Dichloroethene
Concen: 10.54 ug/L
RT: 3.701 min Scan# 345
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 96 Resp: 105304

Ion	Ratio	Lower	Upper
96	100		
61	167.2	85.7	178.1
98	62.3	40.2	83.4
63	49.4	28.0	58.2

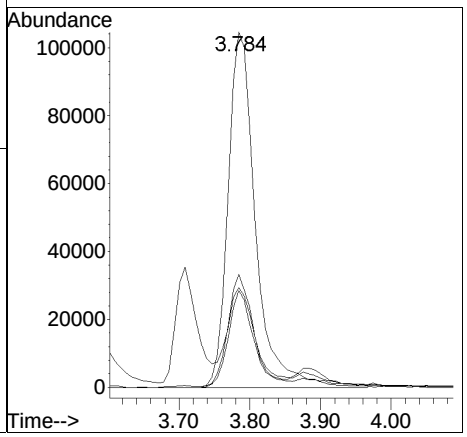


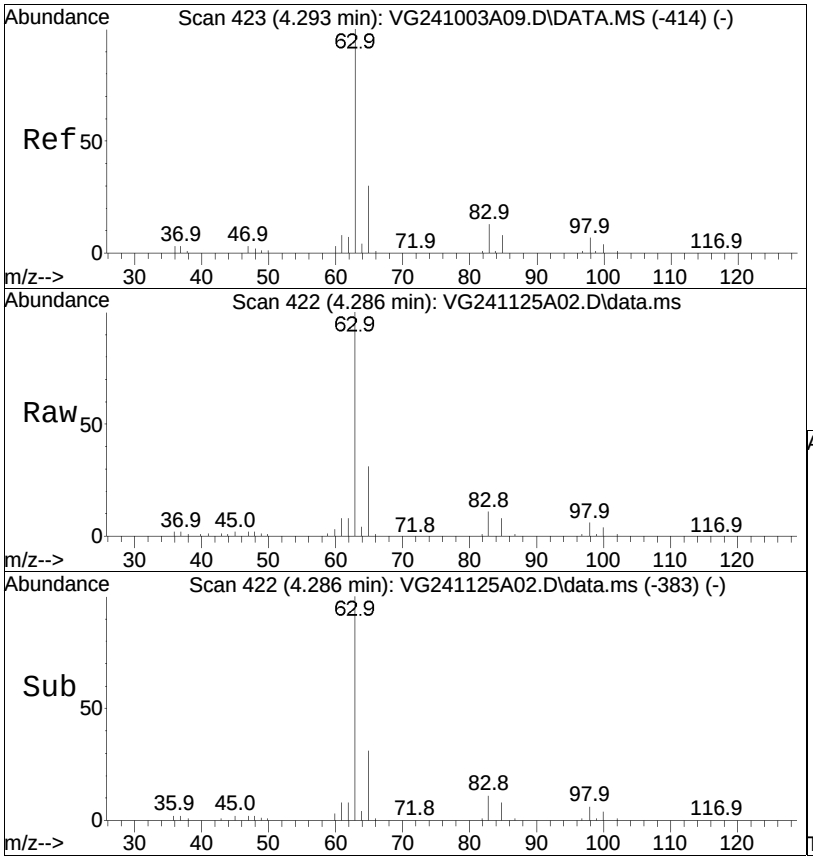


#20
Methyl tert-butyl ether
Concen: 8.42 ug/L
RT: 3.784 min Scan# 356
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 73 Resp: 284407

Ion	Ratio	Lower	Upper
73	100		
57	25.4	12.5	26.1
43	28.7	13.0	27.0#
41	29.8	12.5	26.1#

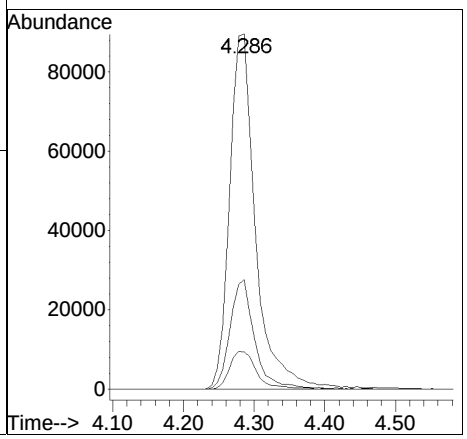


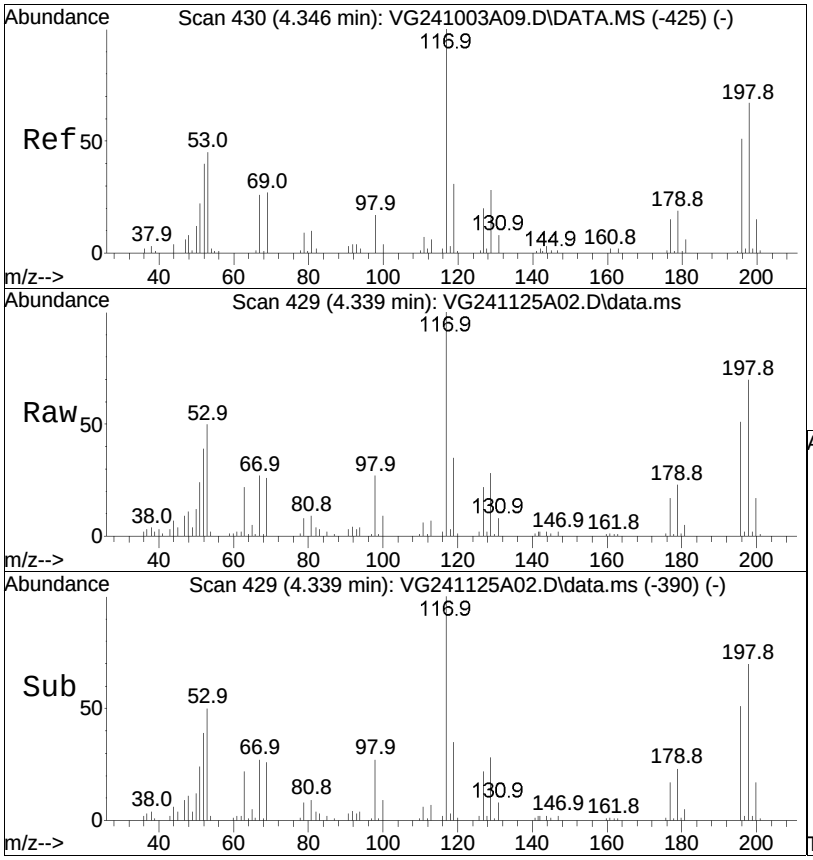


#23
1,1-Dichloroethane
Concen: 11.92 ug/L
RT: 4.286 min Scan# 422
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 63 Resp: 230653

Ion	Ratio	Lower	Upper
63	100		
65	29.4	10.4	50.4
83	11.3	0.0	33.2

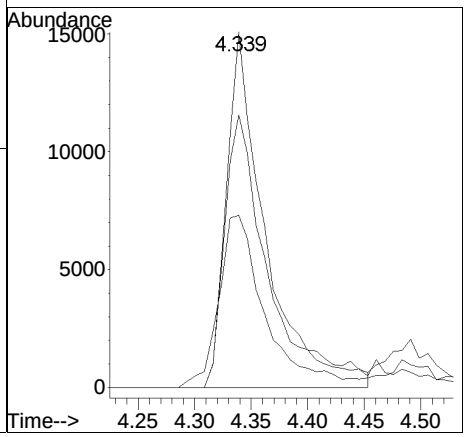


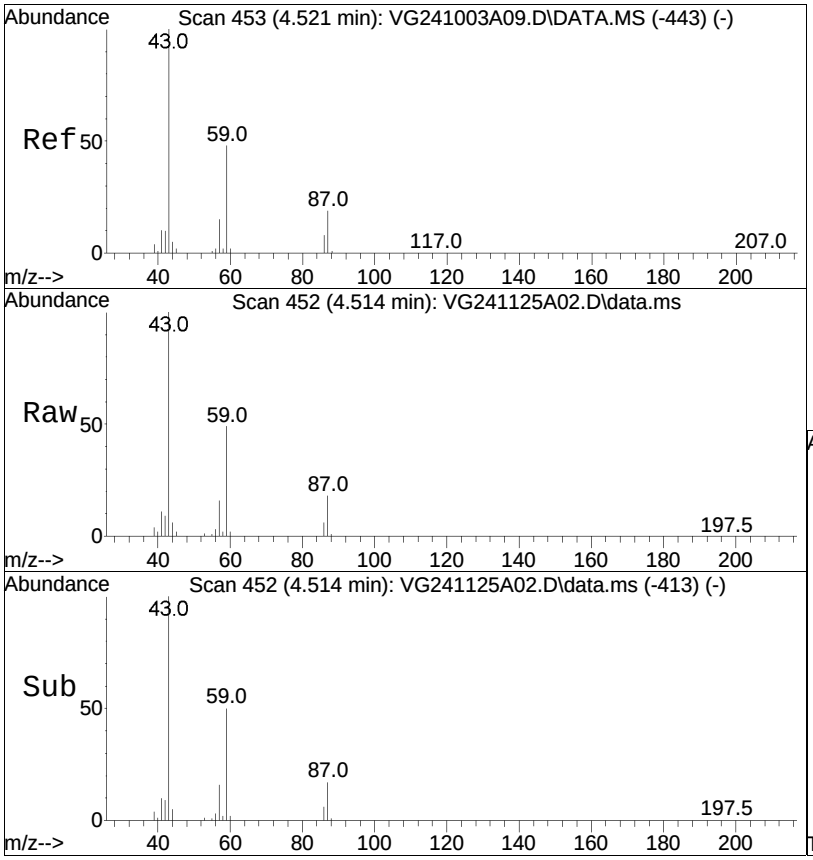


#25
Acrylonitrile
Concen: 10.25 ug/L
RT: 4.339 min Scan# 429
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 53 Resp: 36620

Ion	Ratio	Lower	Upper
53	100		
52	82.3	68.3	102.5
51	57.1	51.9	77.9

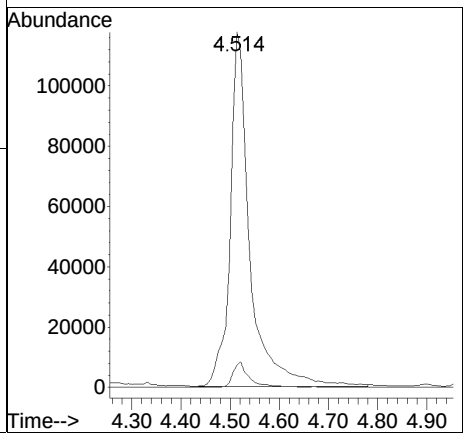


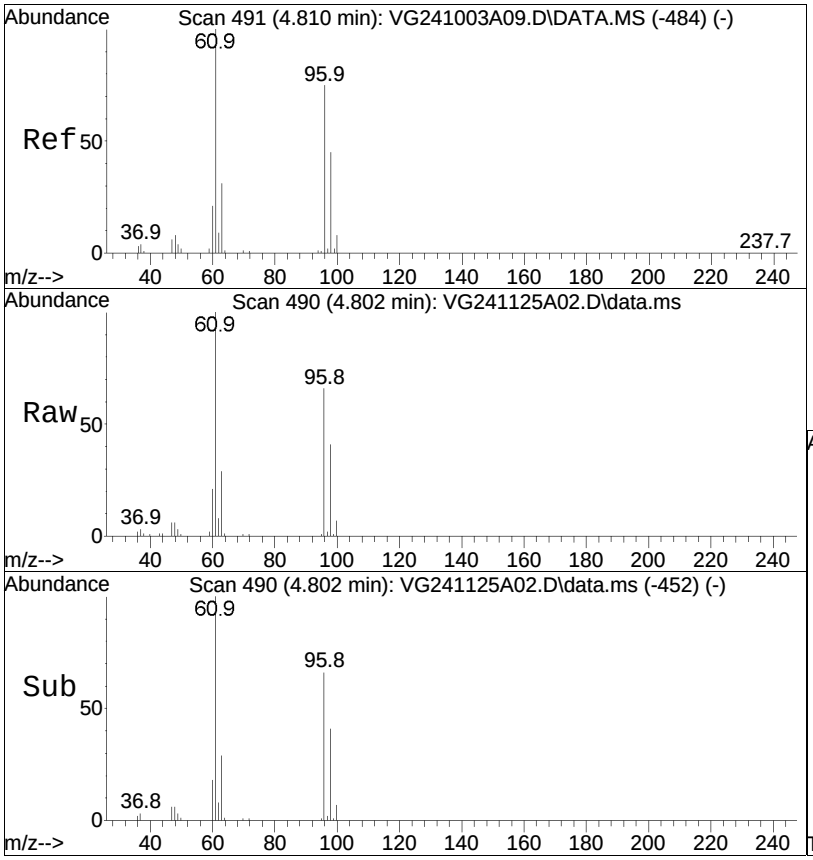


#27
Vinyl acetate
Concen: 12.13 ug/L
RT: 4.514 min Scan# 452
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 43 Resp: 328807

Ion	Ratio	Lower	Upper
43	100		
86	6.0	6.3	9.5#

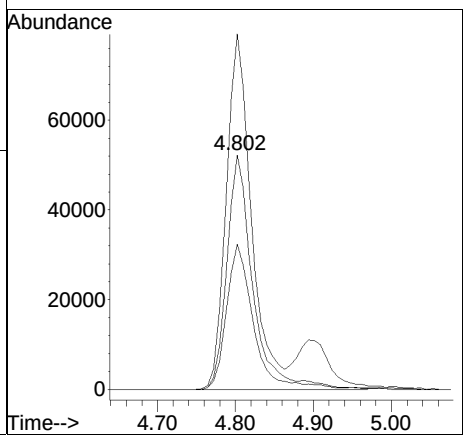


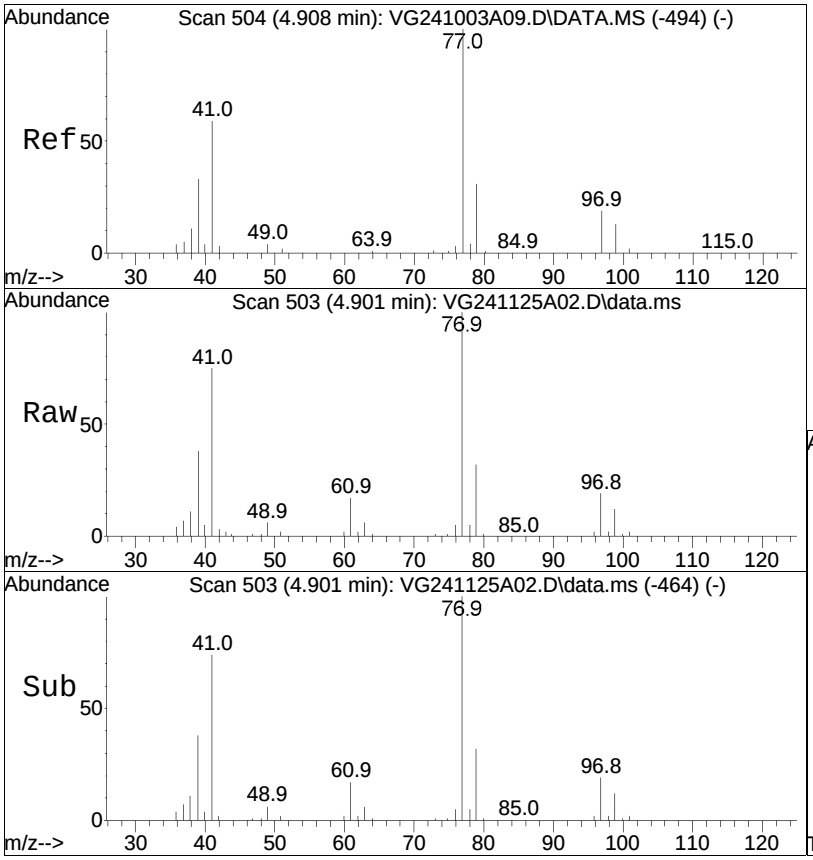


#28
cis-1,2-Dichloroethene
Concen: 10.52 ug/L
RT: 4.802 min Scan# 490
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 96 Resp: 121652

Ion	Ratio	Lower	Upper
96	100		
61	145.5	96.6	144.8#
98	64.1	51.3	76.9

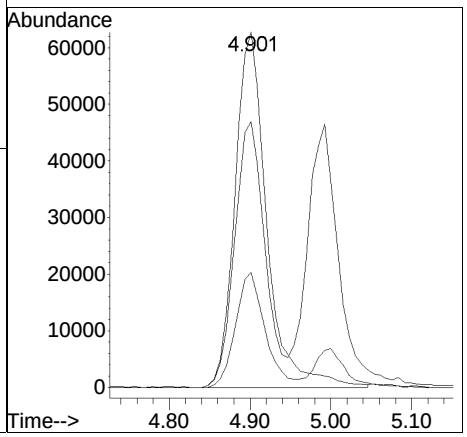


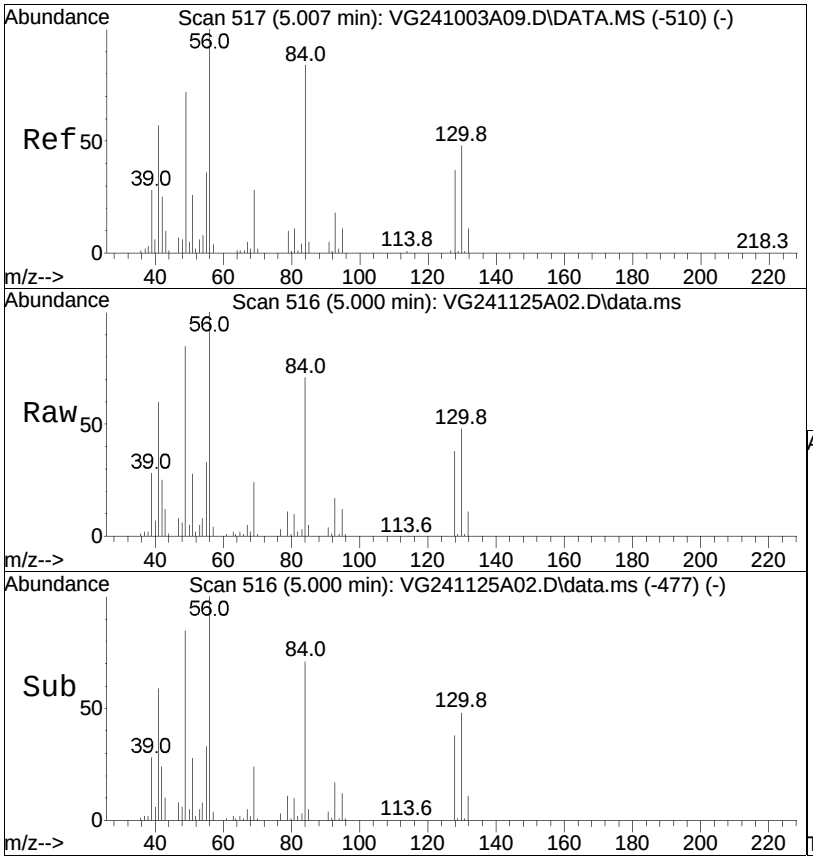


#29
2,2-Dichloropropane
Concen: 13.32 ug/L
RT: 4.901 min Scan# 503
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 77 Resp: 171330

Ion	Ratio	Lower	Upper
77	100		
41	71.7	38.1	79.1
79	30.0	20.6	42.8

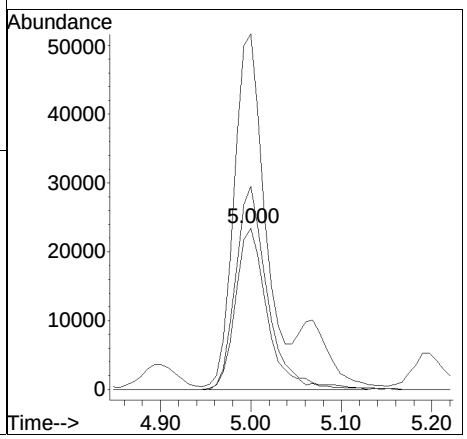


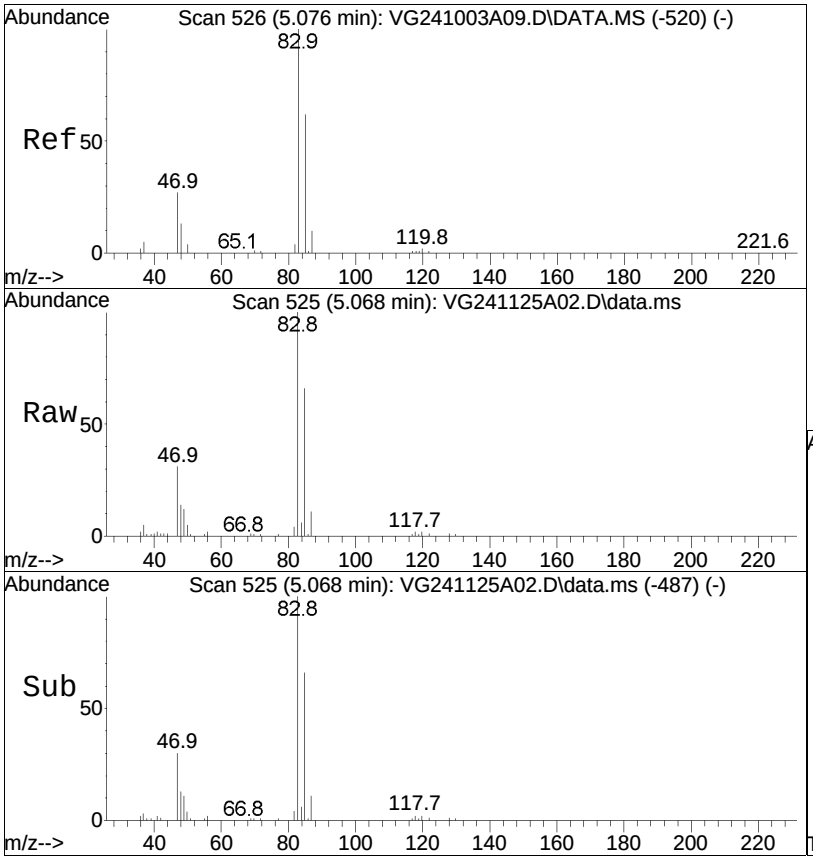


#30
Bromochloromethane
Concen: 10.80 ug/L
RT: 5.000 min Scan# 516
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:128 Resp: 56817

Ion	Ratio	Lower	Upper
128	100		
49	208.0	112.7	169.1#
130	127.2	103.3	154.9

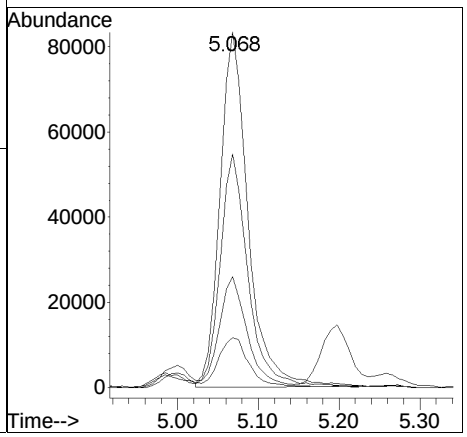


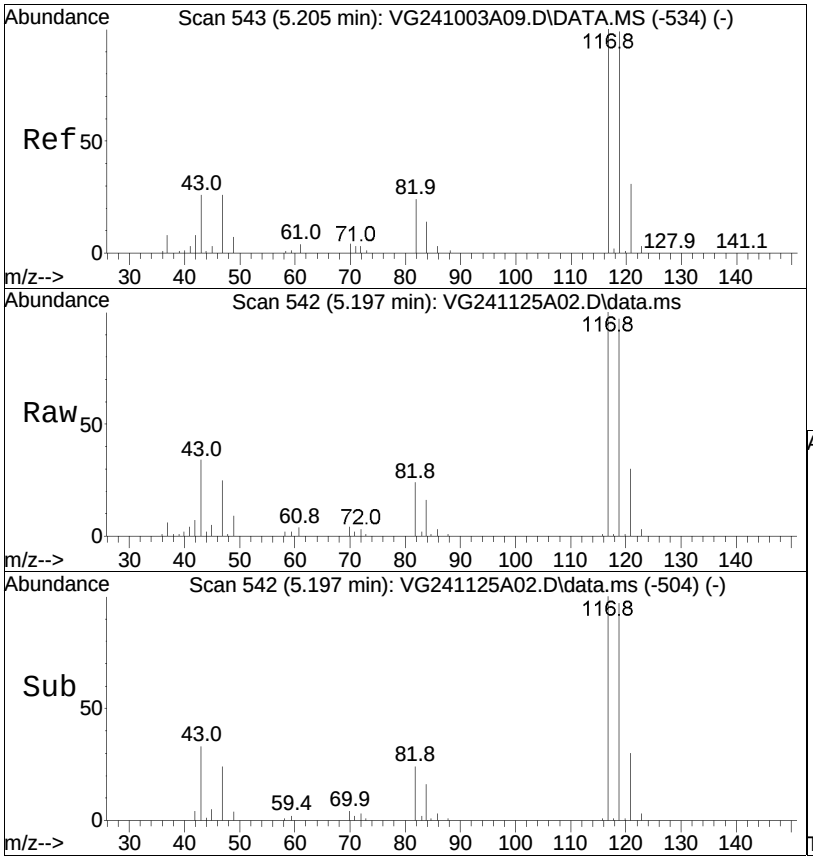


#32
Chloroform
Concen: 10.81 ug/L
RT: 5.068 min Scan# 525
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 83 Resp: 202499

Ion	Ratio	Lower	Upper
83	100		
85	64.9	41.4	86.0
47	30.8	15.1	31.3
48	14.6	7.7	16.1

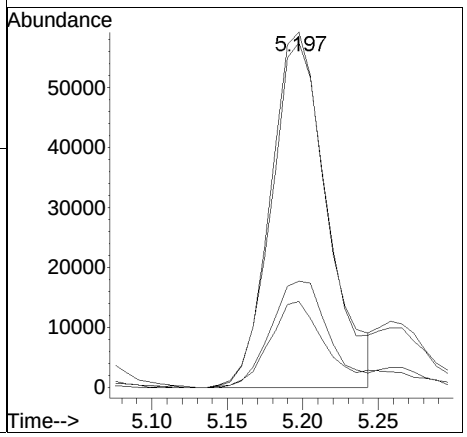


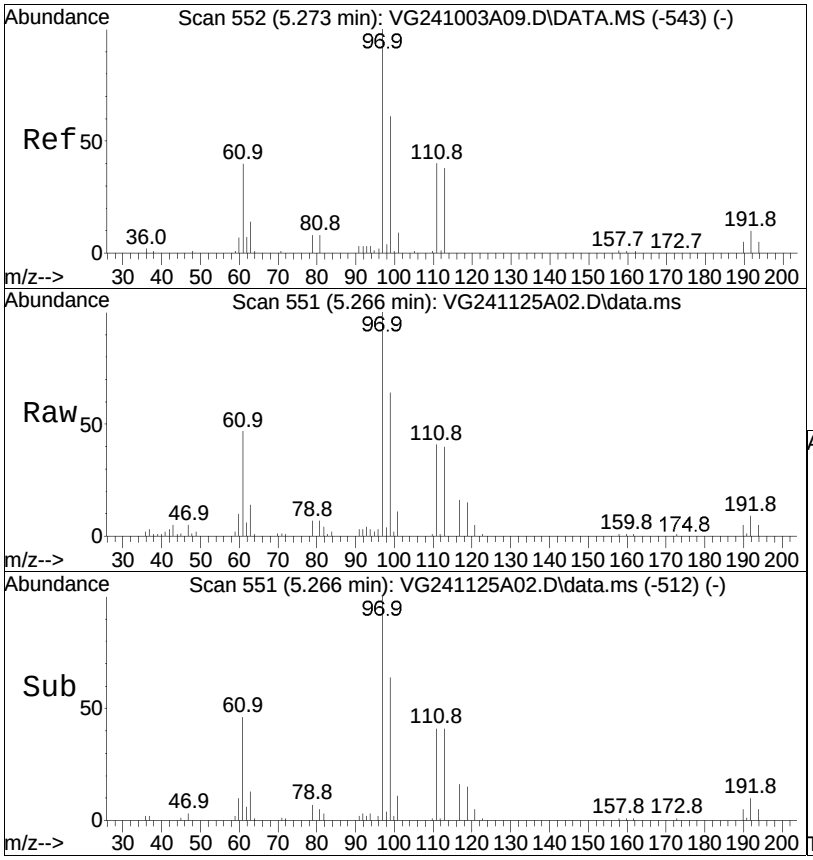


#34
Carbon tetrachloride
Concen: 10.80 ug/L
RT: 5.197 min Scan# 542
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:117 Resp: 154158

Ion	Ratio	Lower	Upper
117	100		
119	96.7	63.2	131.2
121	30.8	20.4	42.4
82	28.6	15.4	32.0

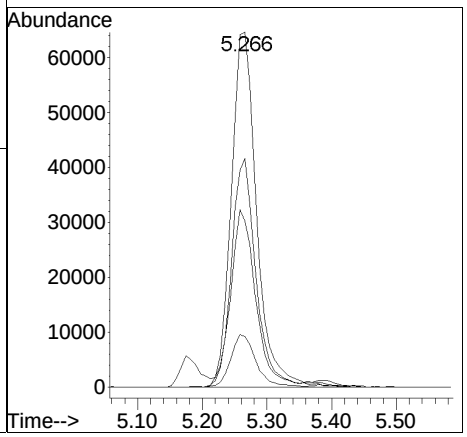


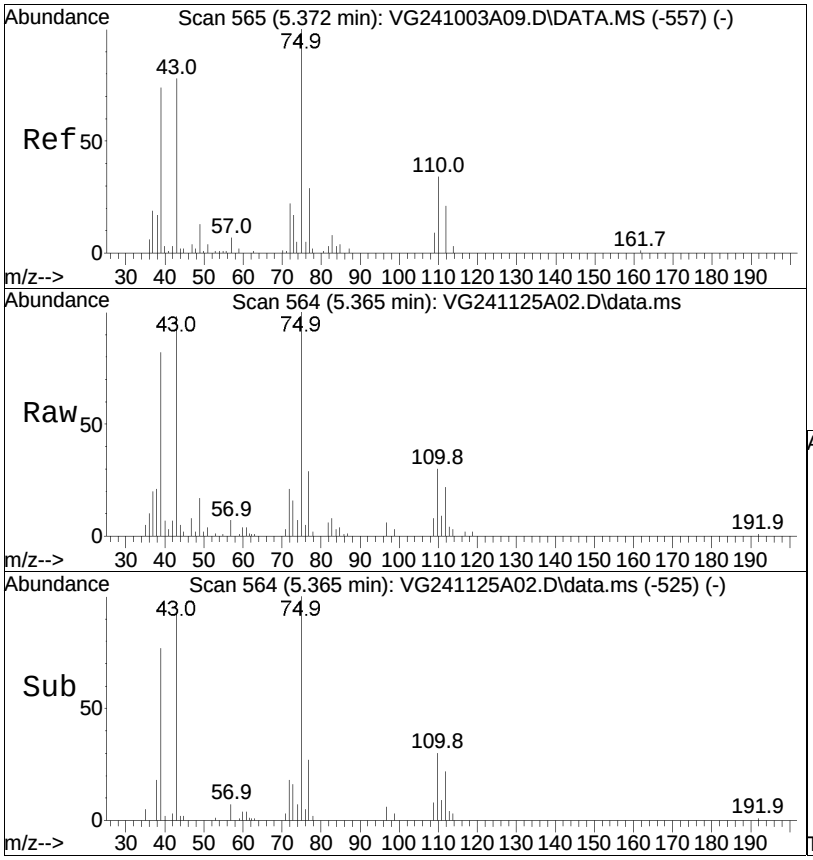


#37
1,1,1-Trichloroethane
Concen: 10.81 ug/L
RT: 5.266 min Scan# 551
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 97 Resp: 178634

Ion	Ratio	Lower	Upper
97	100		
99	62.4	41.3	85.7
61	49.0	26.0	54.0
63	14.9	8.6	18.0

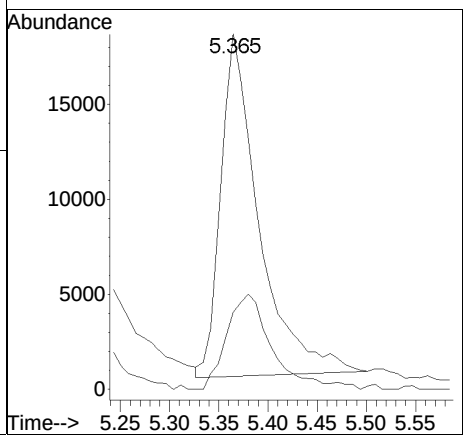


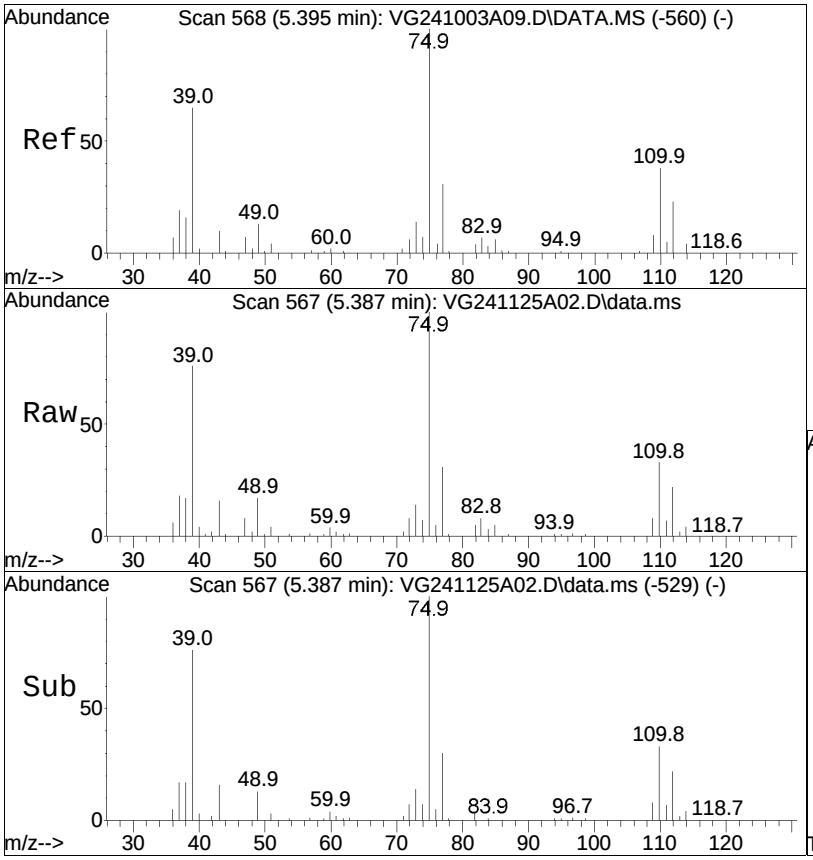


#39
2-Butanone
Concen: 11.16 ug/L
RT: 5.365 min Scan# 564
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 43 Resp: 48722

Ion	Ratio	Lower	Upper
43	100		
72	33.1	42.6	63.8#

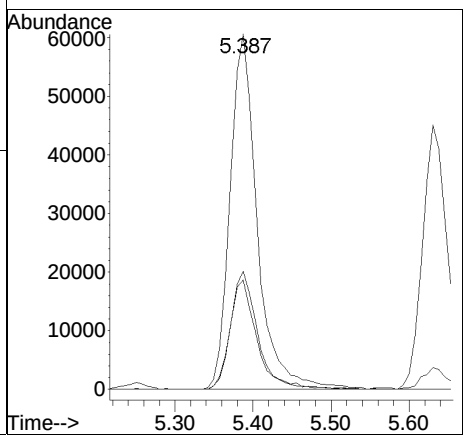


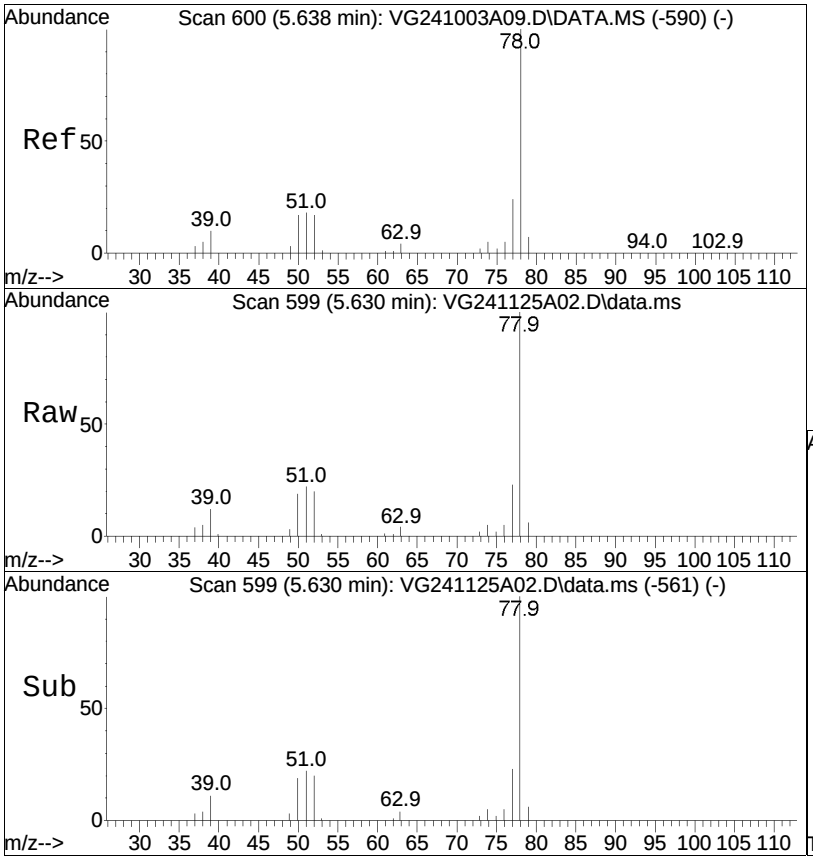


#40
1,1-Dichloropropene
Concen: 10.65 ug/L
RT: 5.387 min Scan# 567
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 75 Resp: 147639

Ion	Ratio	Lower	Upper
75	100		
110	33.2	24.1	50.1
77	30.4	19.8	41.0

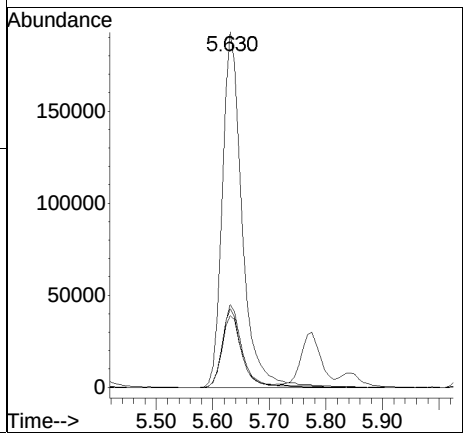


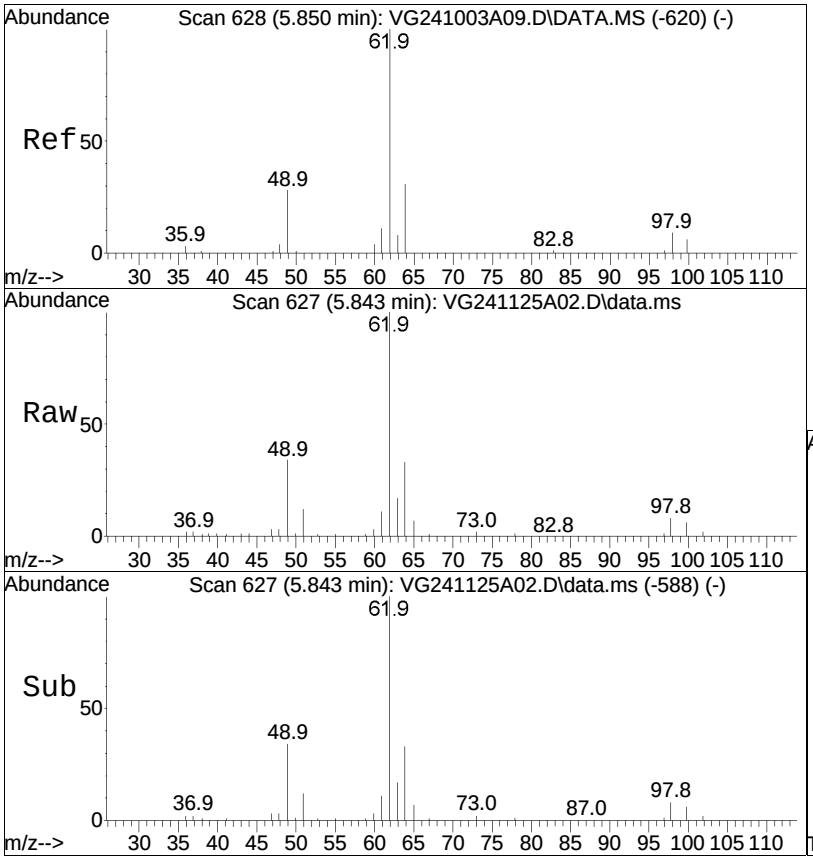


#41
Benzene
Concen: 10.93 ug/L
RT: 5.630 min Scan# 599
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 78 Resp: 471105

Ion	Ratio	Lower	Upper
78	100		
77	23.0	15.5	32.1
51	21.2	9.9	20.7#
52	20.2	9.2	19.2#

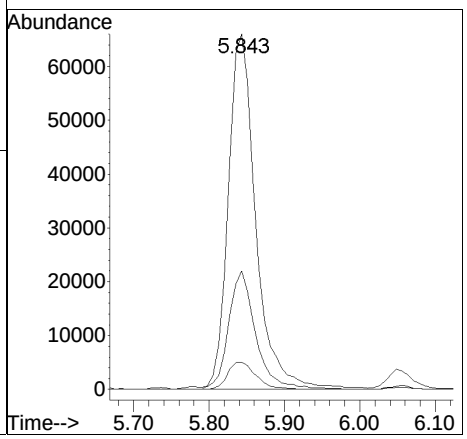


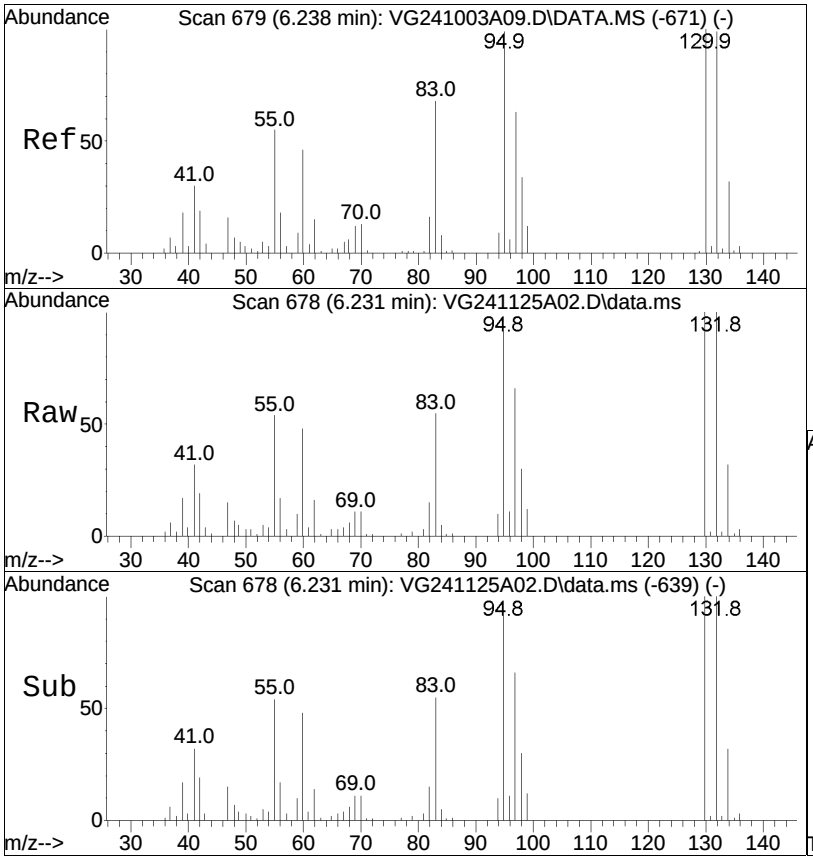


#44
1,2-Dichloroethane
Concen: 11.52 ug/L
RT: 5.843 min Scan# 627
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 62 Resp: 168099

Ion	Ratio	Lower	Upper
62	100		
64	33.2	11.9	51.9
98	7.9	0.0	29.3

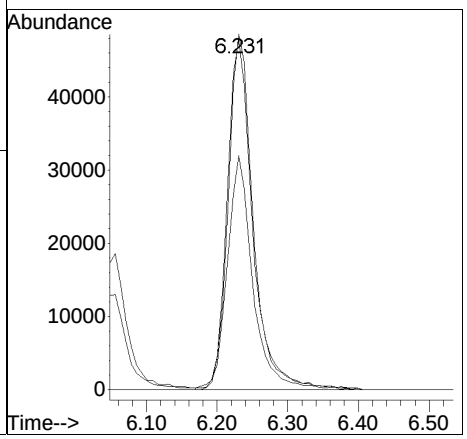


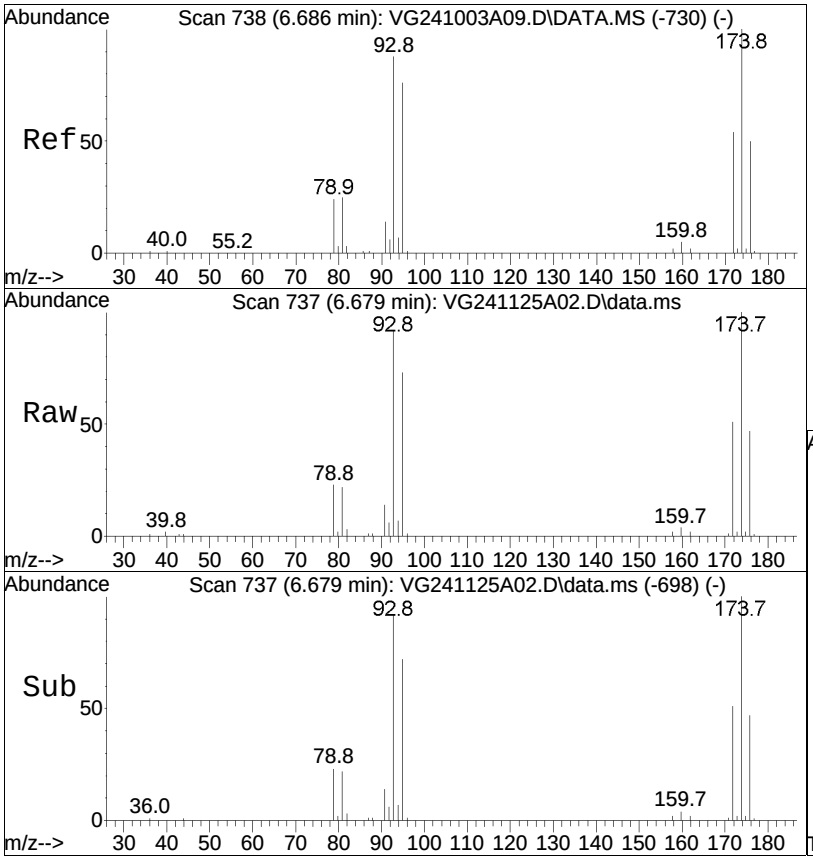


#48
Trichloroethene
Concen: 10.38 ug/L
RT: 6.231 min Scan# 678
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 95 Resp: 120030

Ion	Ratio	Lower	Upper
95	100		
97	66.6	54.0	81.0
130	100.5	85.0	127.4

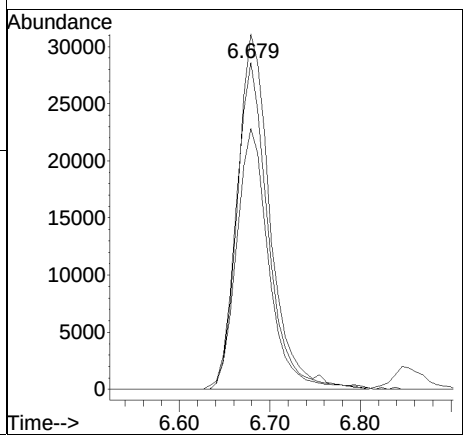


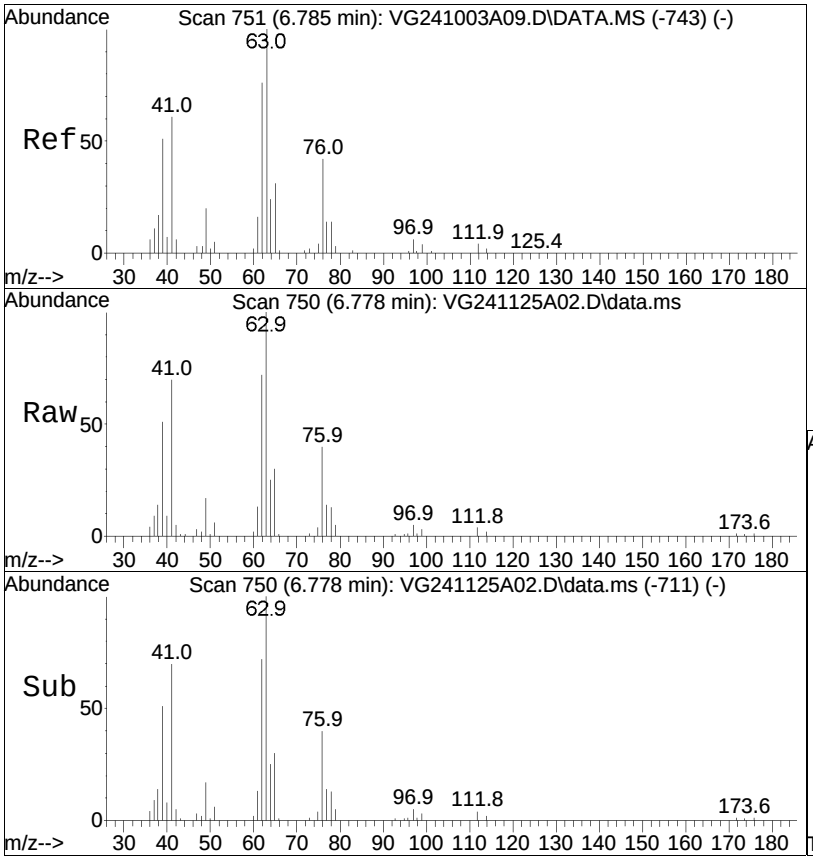


#50
Dibromomethane
Concen: 10.62 ug/L
RT: 6.679 min Scan# 737
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 93 Resp: 69934

Ion	Ratio	Lower	Upper
93	100		
95	81.3	66.6	100.0
174	111.5	90.5	135.7

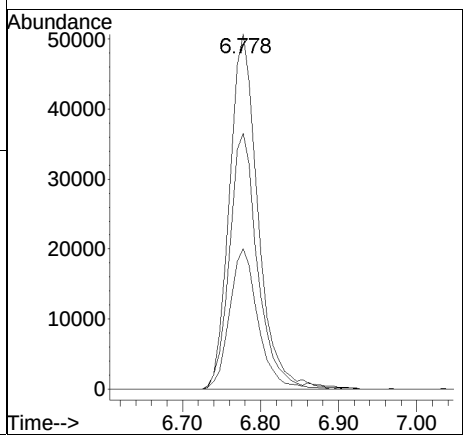


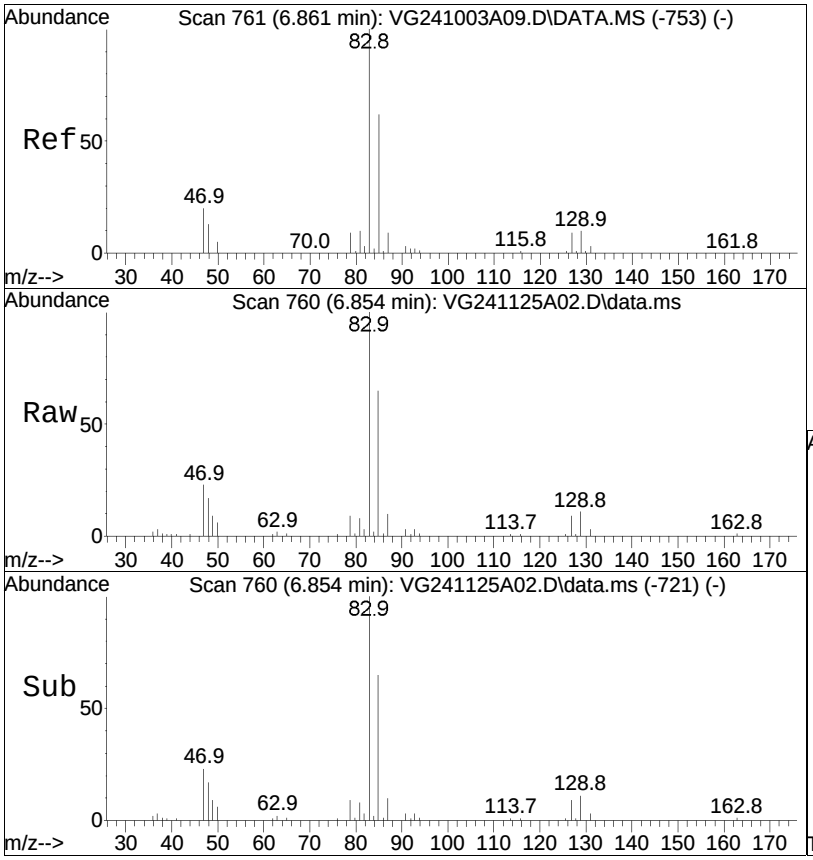


#51
1,2-Dichloropropane
Concen: 11.61 ug/L
RT: 6.778 min Scan# 750
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 63 Resp: 129801

Ion	Ratio	Lower	Upper
63	100		
62	70.2	56.5	84.7
76	39.4	34.6	52.0

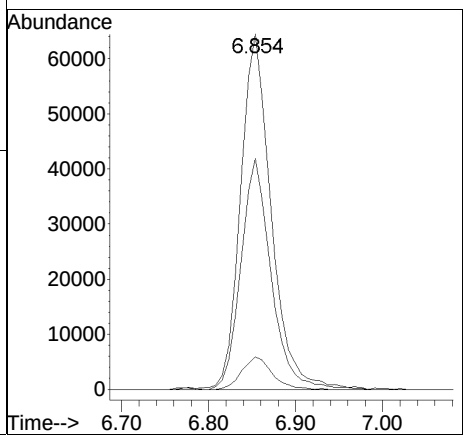


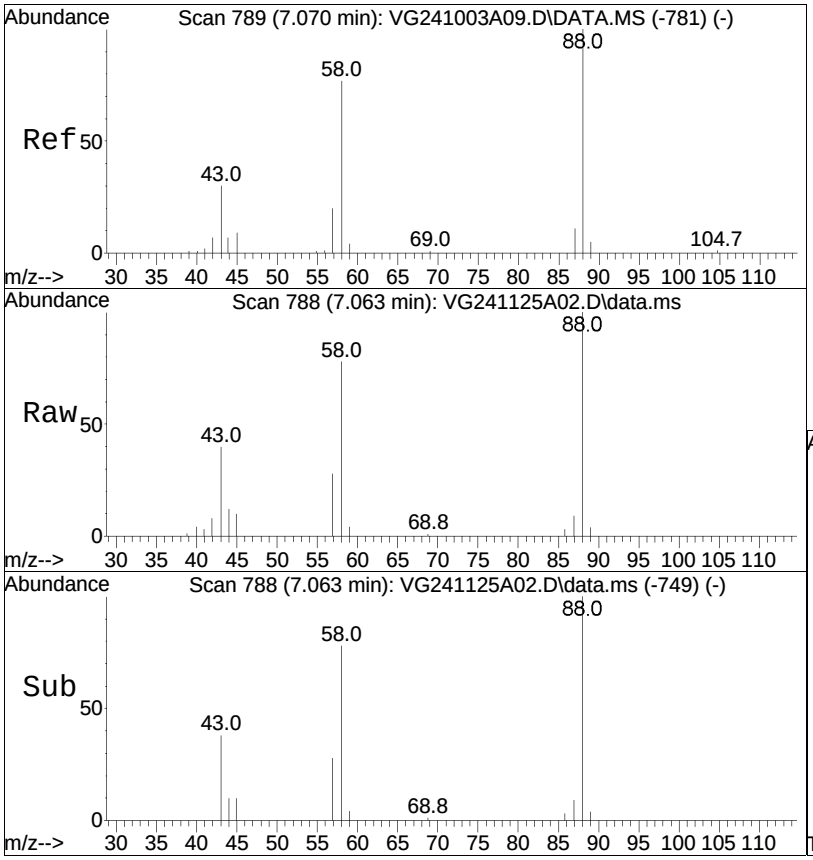


#54
Bromodichloromethane
Concen: 10.48 ug/L
RT: 6.854 min Scan# 760
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 83 Resp: 158092

Ion	Ratio	Lower	Upper
83	100		
85	63.9	50.8	76.2
127	9.1	7.4	11.2

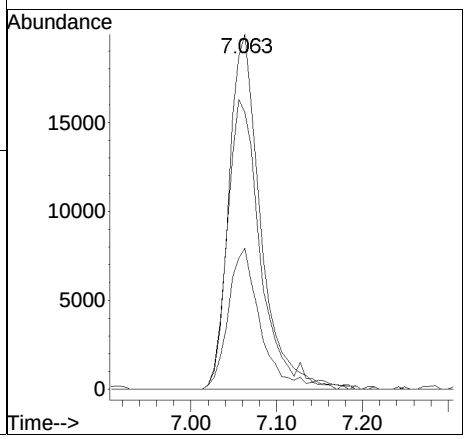


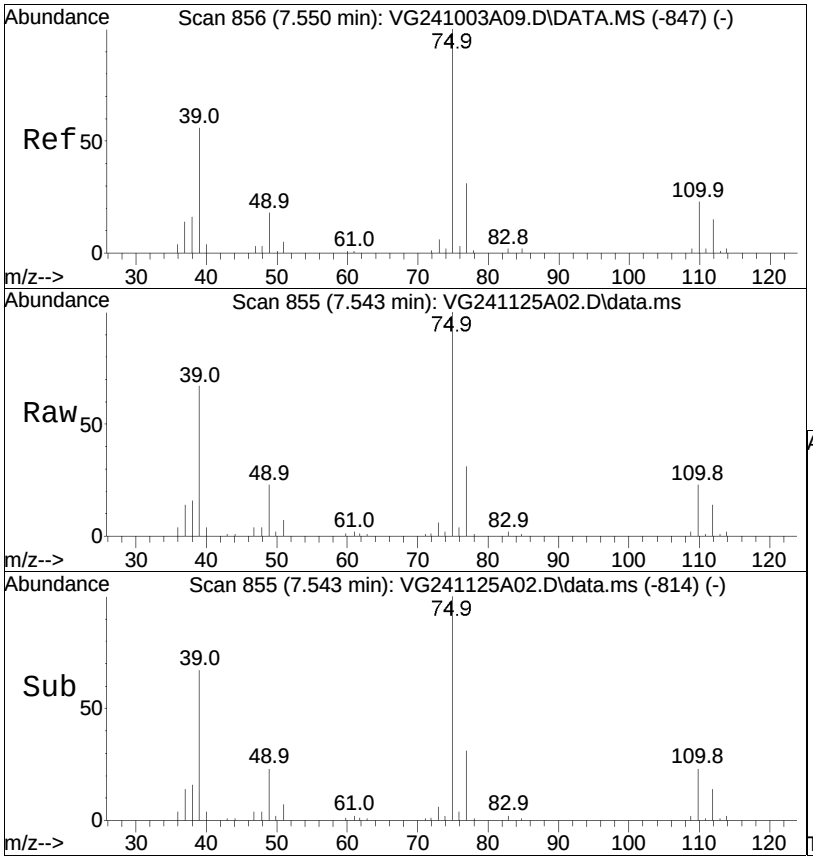


#57
1,4-Dioxane
Concen: 457.83 ug/L
RT: 7.063 min Scan# 788
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 88 Resp: 51442

Ion	Ratio	Lower	Upper
88	100		
58	85.3	48.7	73.1#
43	40.7	22.4	33.6#

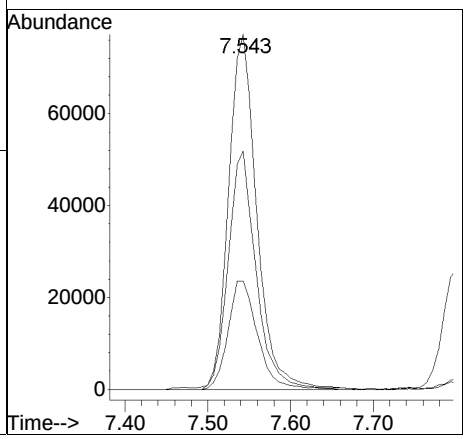


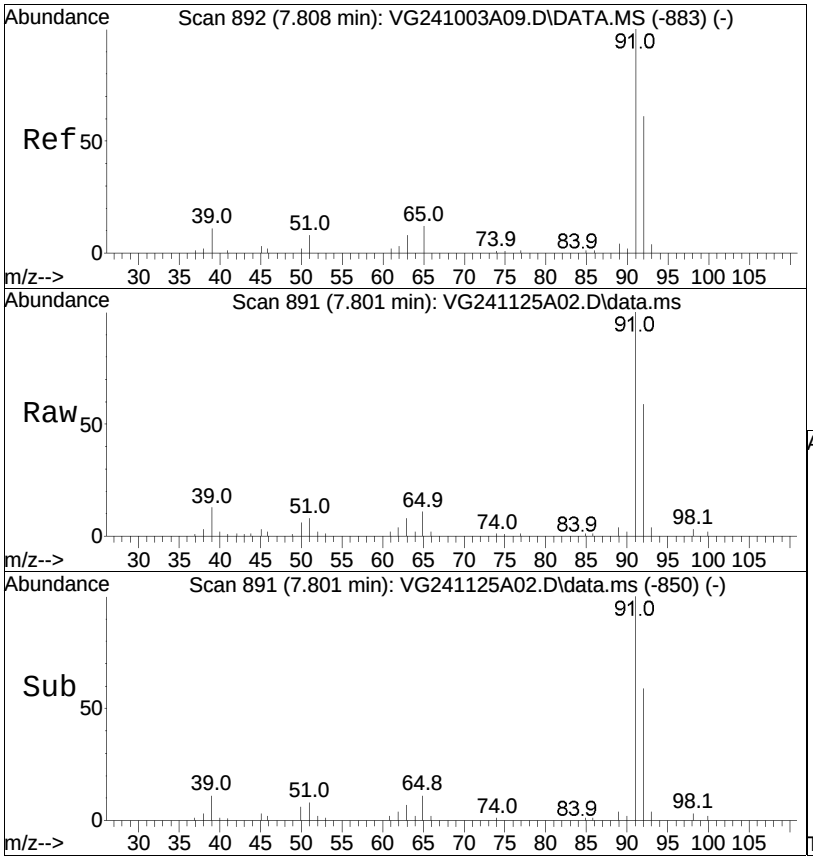


#58
cis-1,3-Dichloropropene
Concen: 10.71 ug/L
RT: 7.543 min Scan# 855
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 75 Resp: 183046

Ion	Ratio	Lower	Upper
75	100		
77	32.0	24.6	36.8
39	66.5	40.8	61.2#

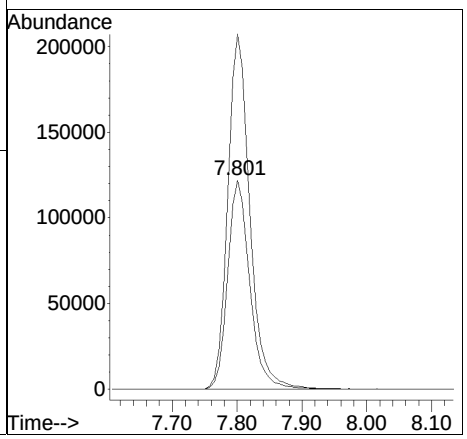


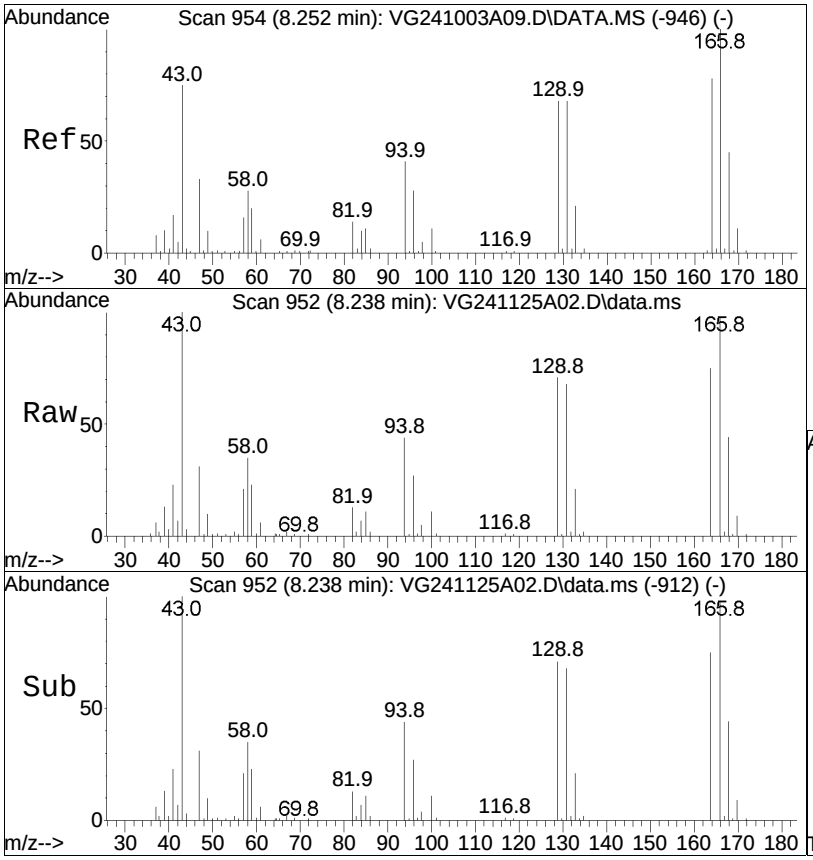


#61
Toluene
Concen: 10.28 ug/L
RT: 7.801 min Scan# 891
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 92 Resp: 289879

Ion	Ratio	Lower	Upper
92	100		
91	169.2	134.8	202.2

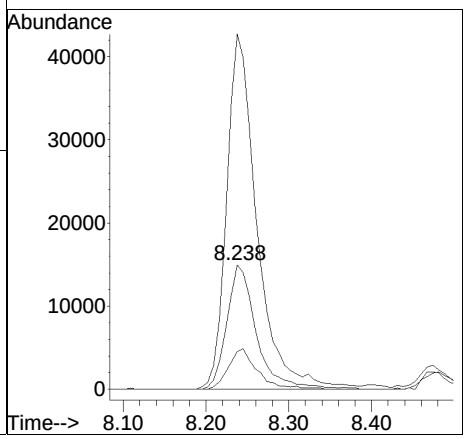


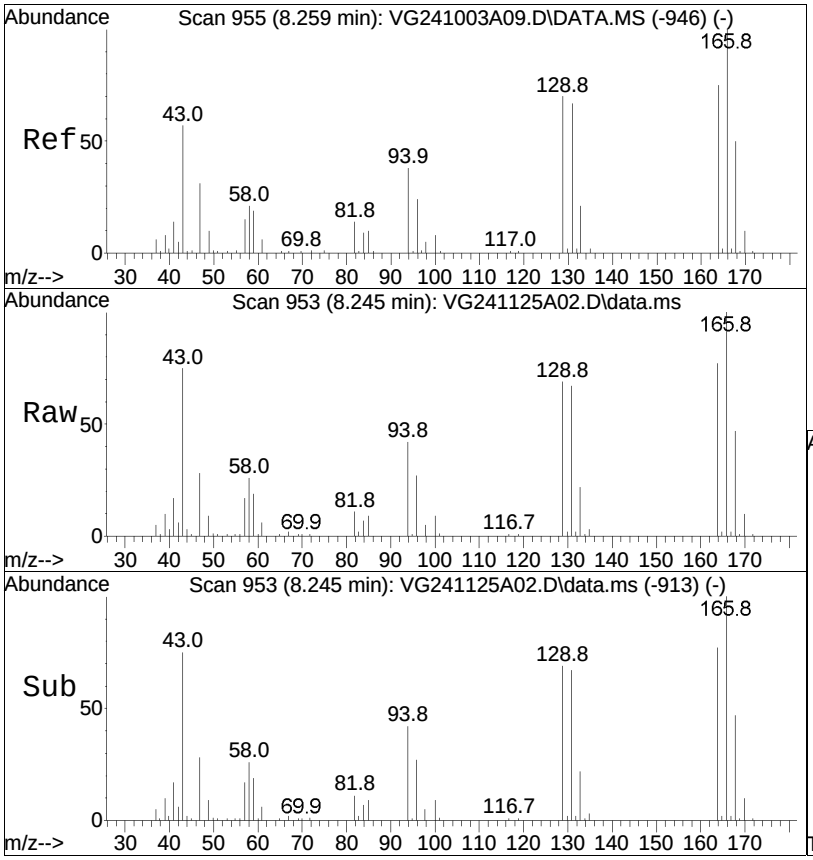


#62
4-Methyl-2-pentanone
Concen: 9.50 ug/L
RT: 8.238 min Scan# 952
Delta R.T. -0.014 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 58 Resp: 37549

Ion	Ratio	Lower	Upper
58	100		
100	32.1	33.6	50.4#
43	290.7	204.3	306.5

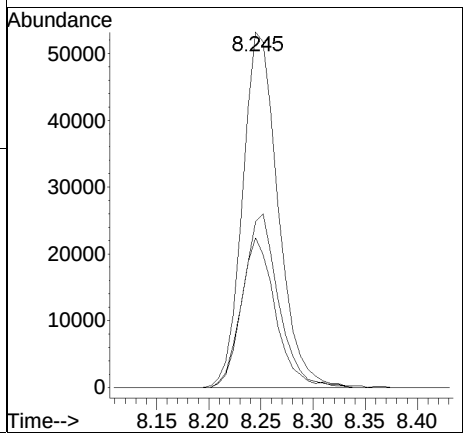


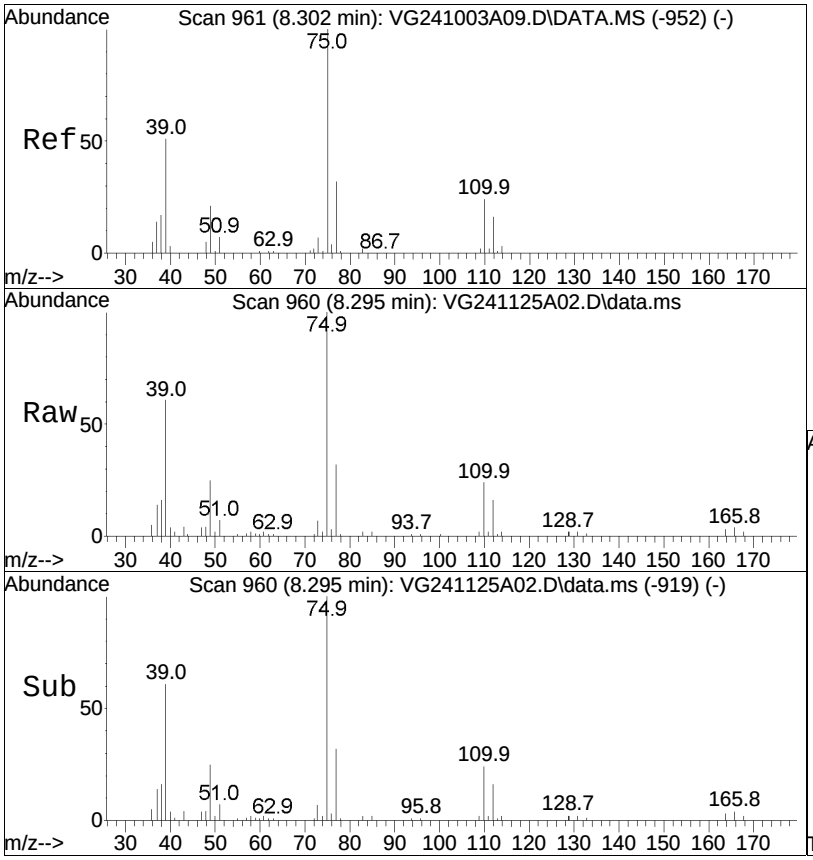


#63
Tetrachloroethene
Concen: 10.34 ug/L
RT: 8.245 min Scan# 953
Delta R.T. -0.014 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:166 Resp: 126120

Ion	Ratio	Lower	Upper
166	100		
168	48.3	27.3	67.3
94	41.0	20.5	60.5

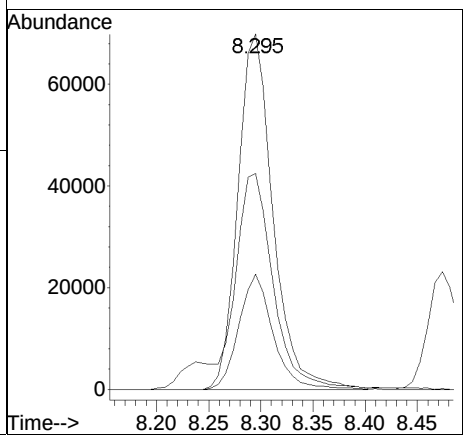


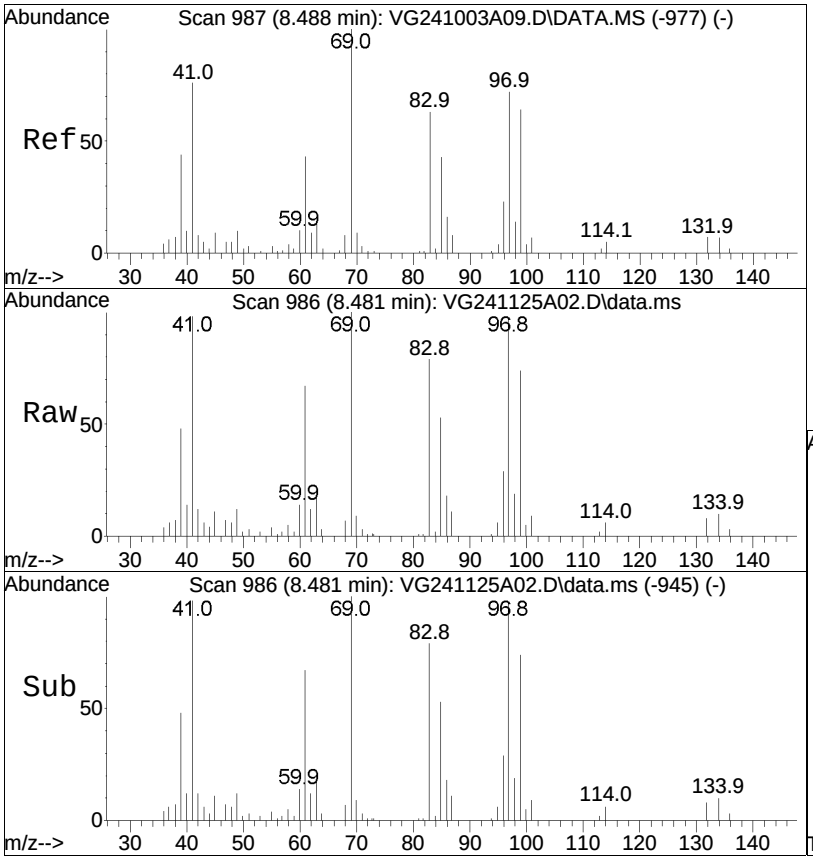


#65
trans-1,3-Dichloropropene
Concen: 9.97 ug/L
RT: 8.295 min Scan# 960
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 75 Resp: 164039

Ion	Ratio	Lower	Upper
75	100		
77	31.5	11.3	51.3
39	63.6	36.0	76.0

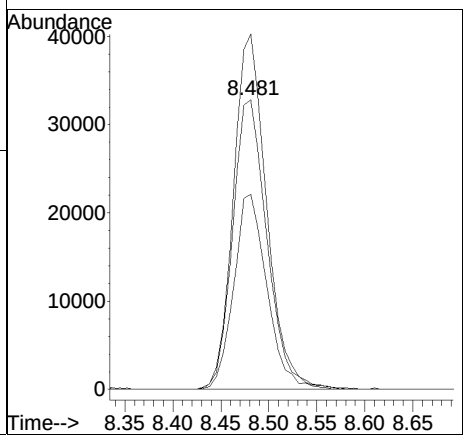


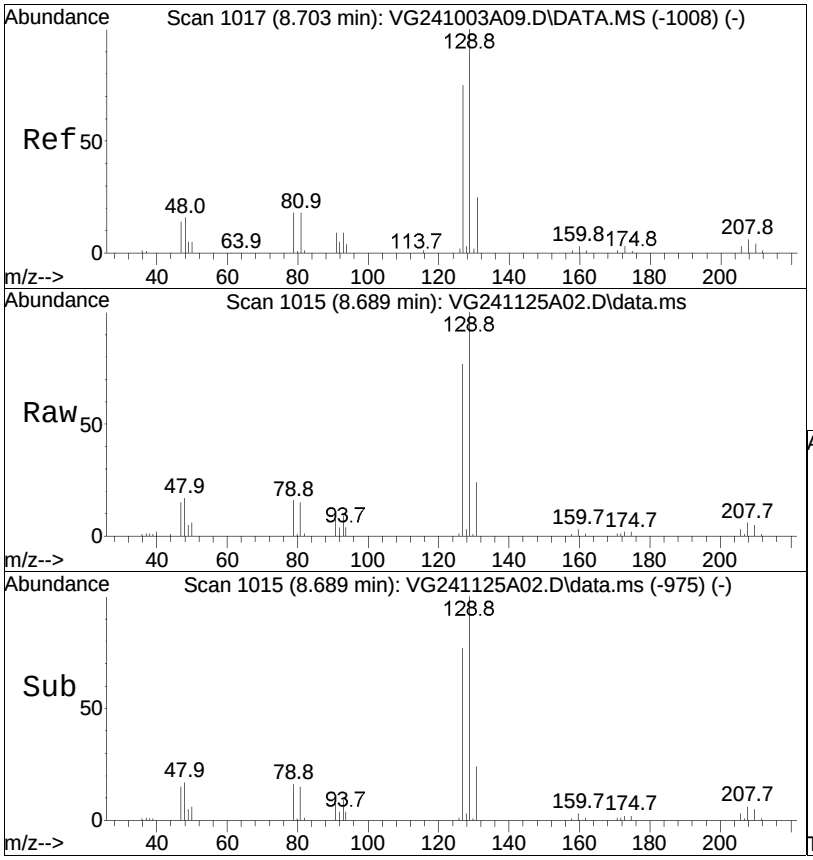


#68
1,1,2-Trichloroethane
Concen: 9.50 ug/L
RT: 8.481 min Scan# 986
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 83 Resp: 81541

Ion	Ratio	Lower	Upper
83	100		
97	119.0	101.0	141.0
85	65.4	47.9	87.9

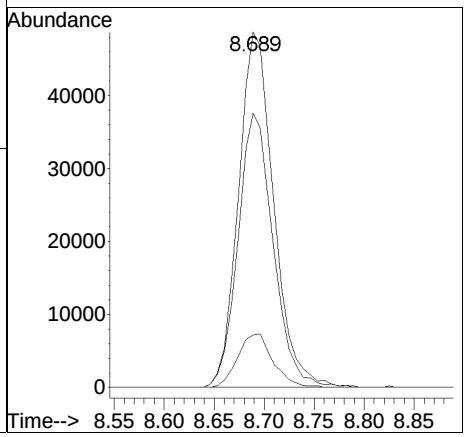


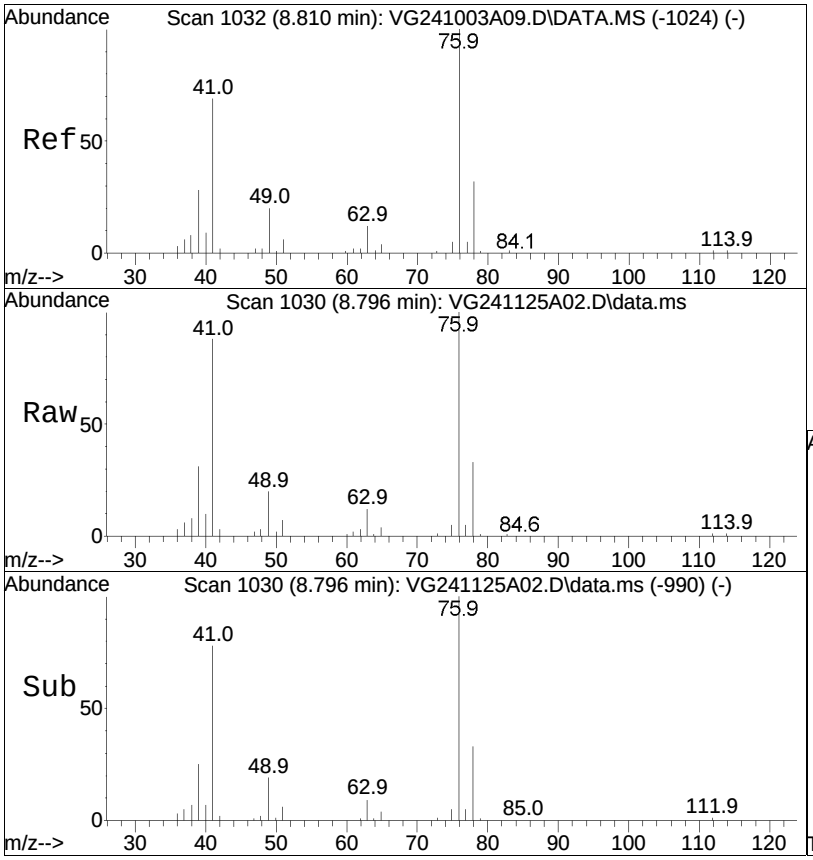


#69
Chlorodibromomethane
Concen: 10.05 ug/L
RT: 8.689 min Scan# 1015
Delta R.T. -0.014 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:129 Resp: 119324

Ion	Ratio	Lower	Upper
129	100		
81	15.1	0.0	35.0
127	77.1	57.1	97.1

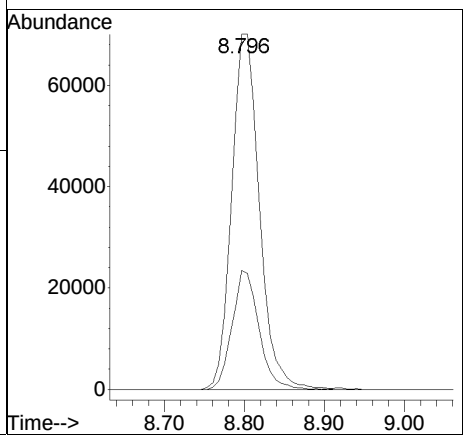


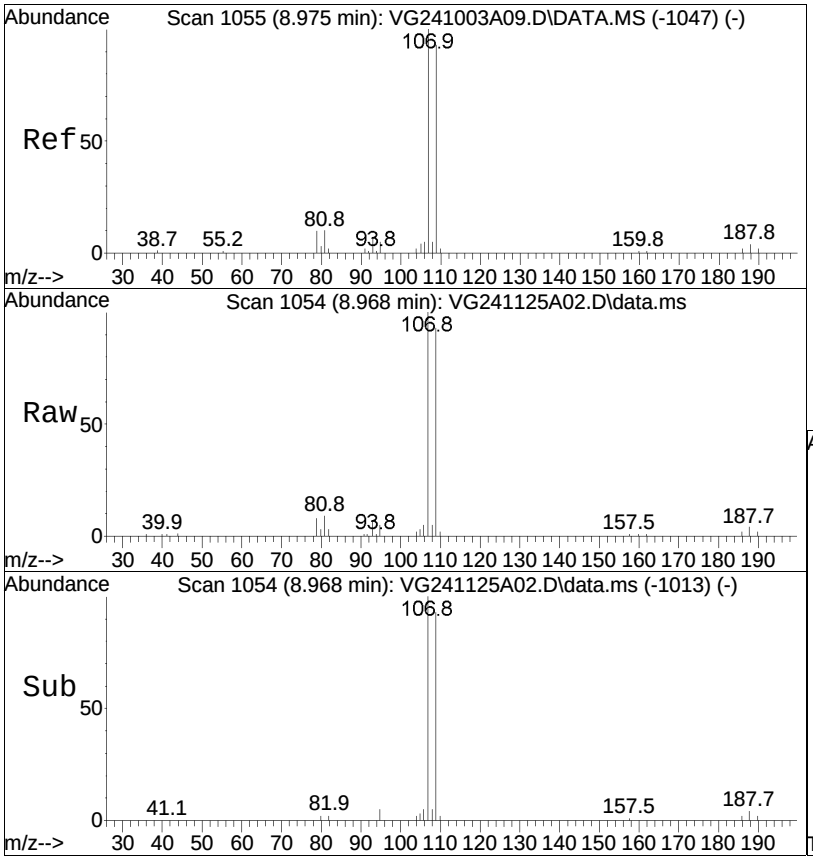


#70
1,3-Dichloropropane
Concen: 9.93 ug/L
RT: 8.796 min Scan# 1030
Delta R.T. -0.014 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 76 Resp: 169194

Ion	Ratio	Lower	Upper
76	100		
78	32.2	25.4	38.2

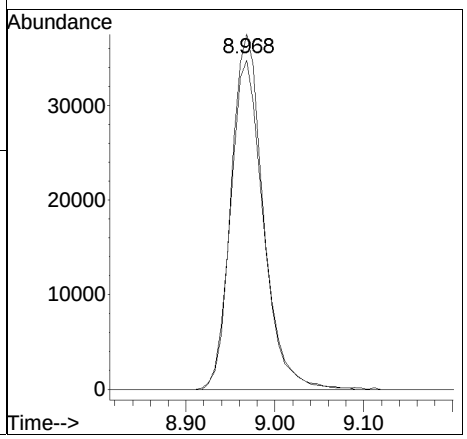


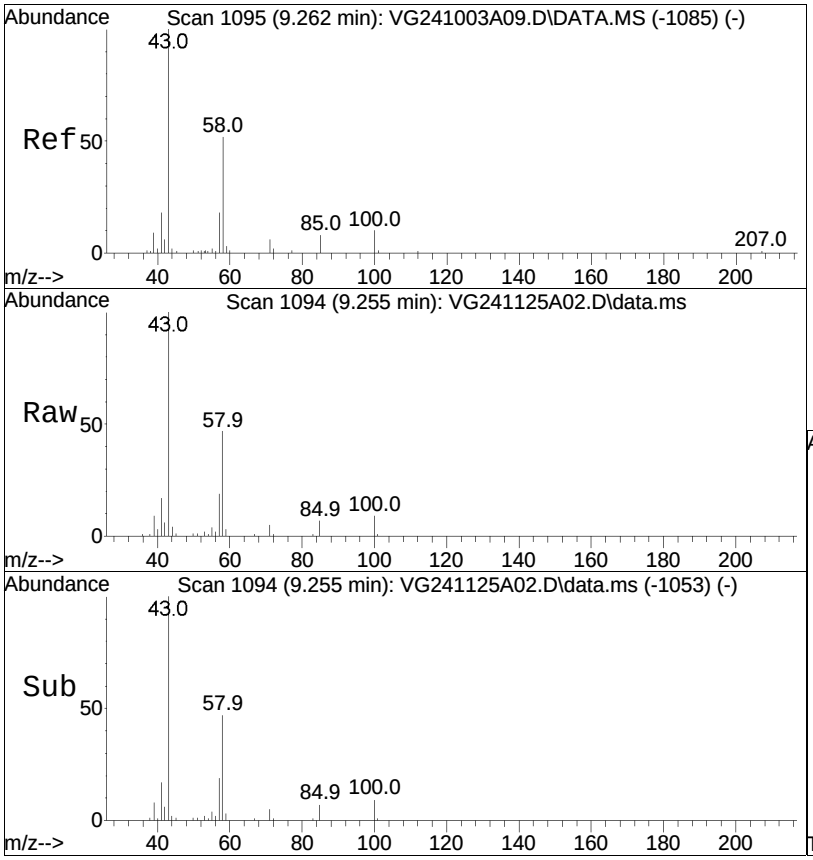


#71
1,2-Dibromoethane
Concen: 9.35 ug/L
RT: 8.968 min Scan# 1054
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:107 Resp: 94951

Ion	Ratio	Lower	Upper
107	100		
109	93.3	76.0	114.0

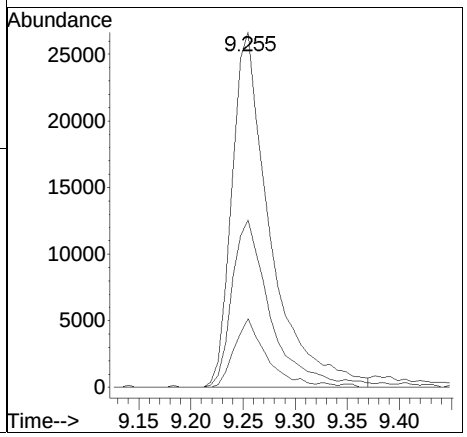


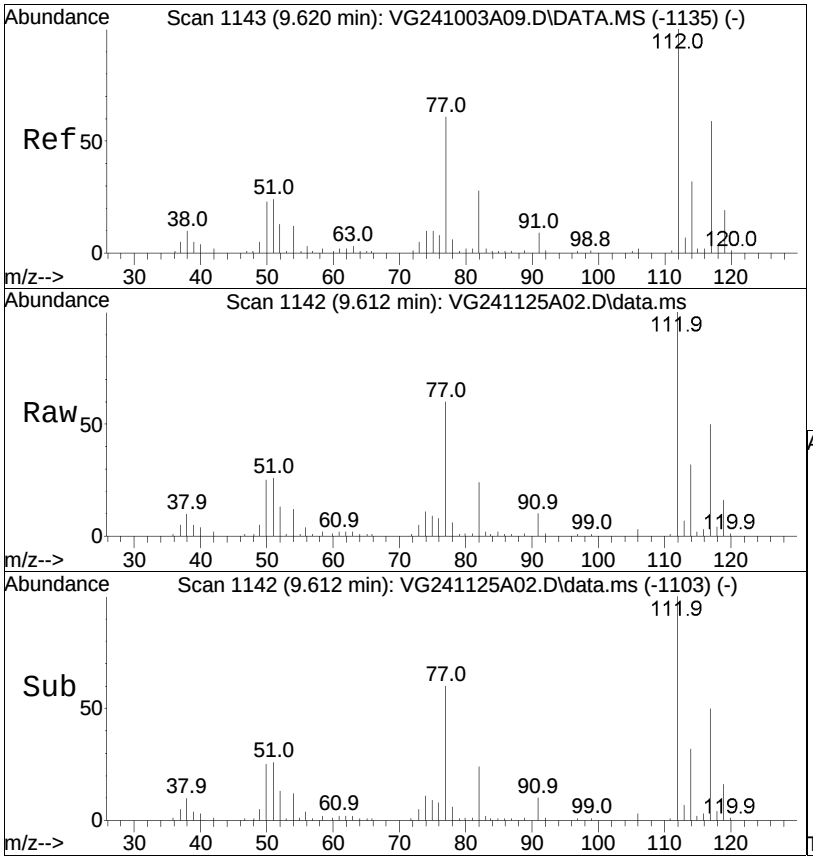


#72
2-Hexanone
Concen: 9.65 ug/L
RT: 9.255 min Scan# 1094
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 43 Resp: 68247

Ion	Ratio	Lower	Upper
43	100		
58	48.5	43.8	65.6
57	17.1	15.2	22.8

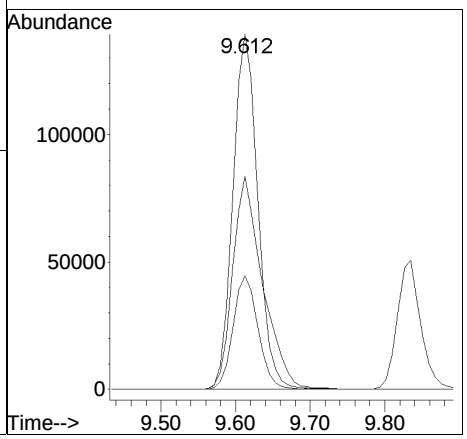


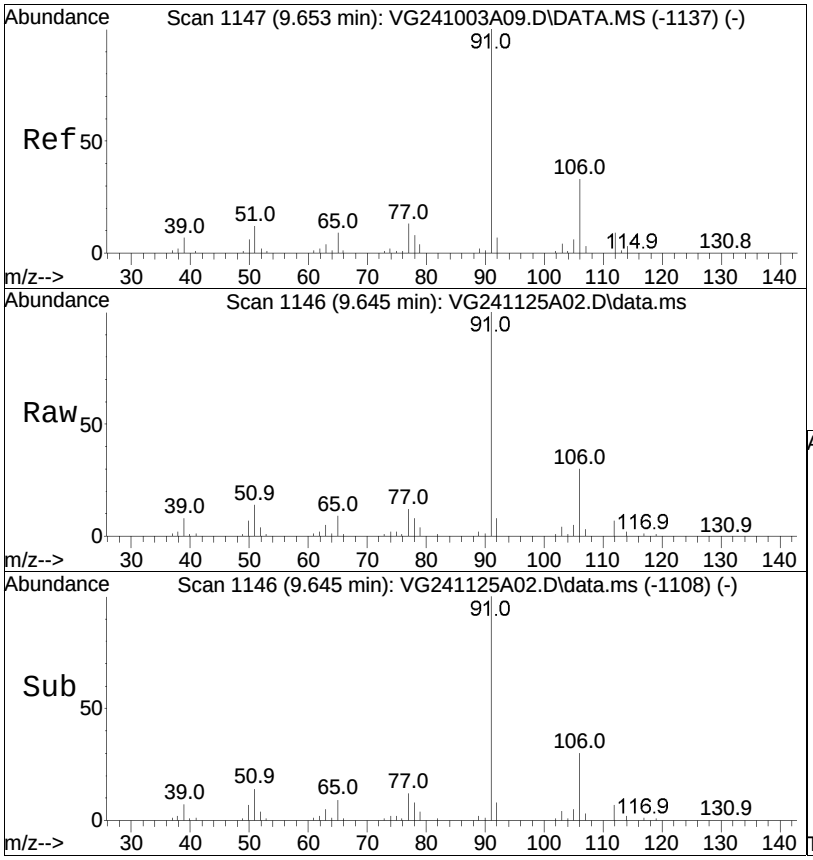


#73
Chlorobenzene
Concen: 10.66 ug/L
RT: 9.612 min Scan# 1142
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:112 Resp: 323228

Ion	Ratio	Lower	Upper
112	100		
77	72.3	55.9	83.9
114	32.1	25.4	38.0

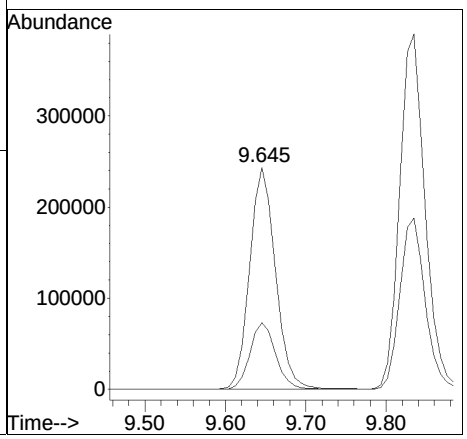


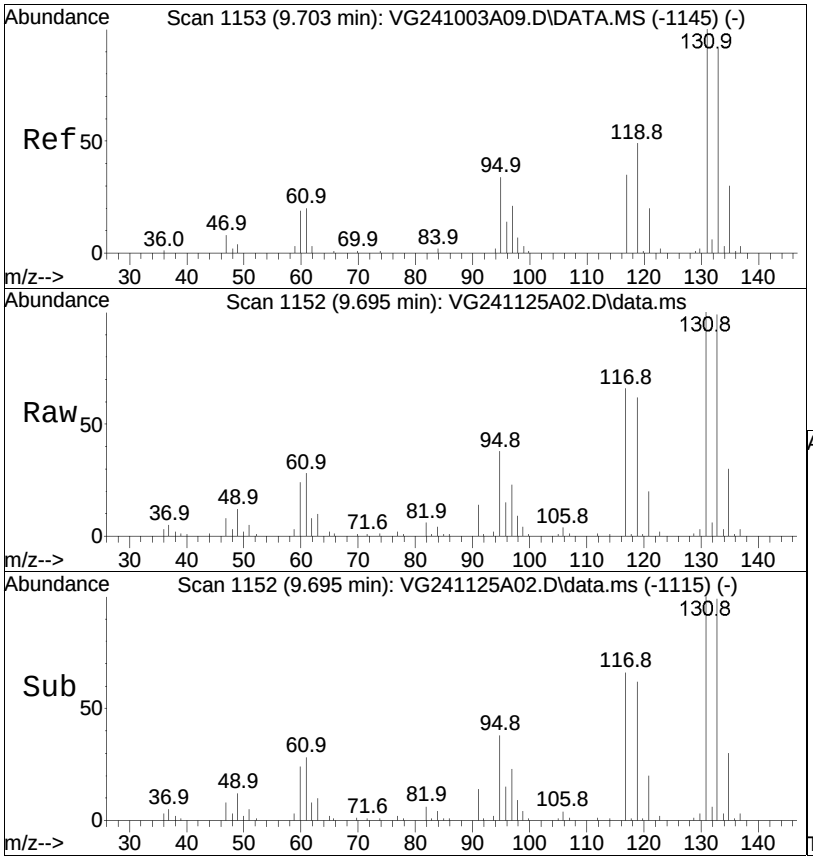


#74
Ethylbenzene
Concen: 10.08 ug/L
RT: 9.645 min Scan# 1146
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 91 Resp: 546439

Ion	Ratio	Lower	Upper
91	100		
106	29.9	25.3	37.9

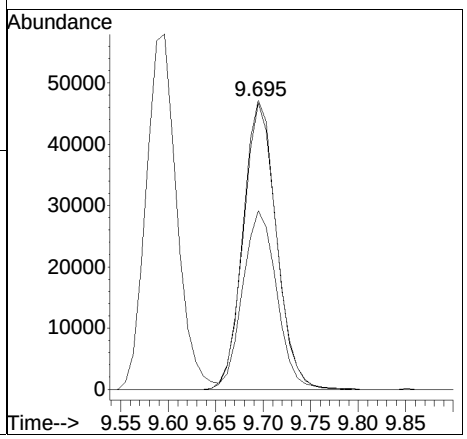


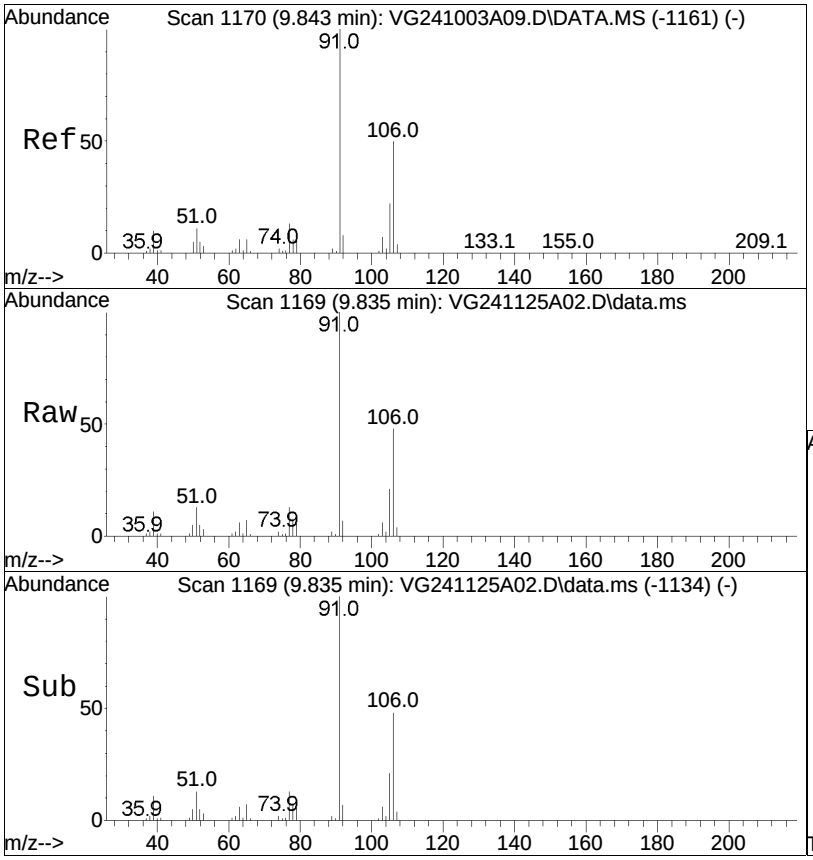


#75
1,1,1,2-Tetrachloroethane
Concen: 9.95 ug/L
RT: 9.695 min Scan# 1152
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:131 Resp: 115555

Ion	Ratio	Lower	Upper
131	100		
133	98.2	77.3	117.3
119	62.6	42.7	82.7

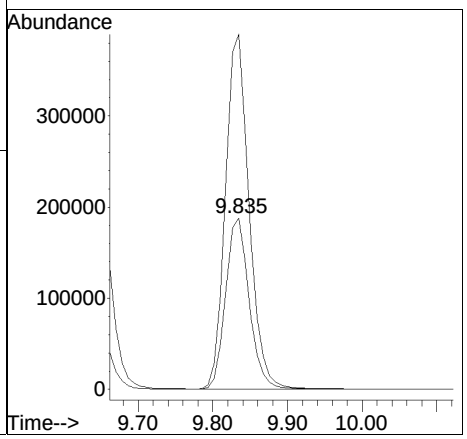


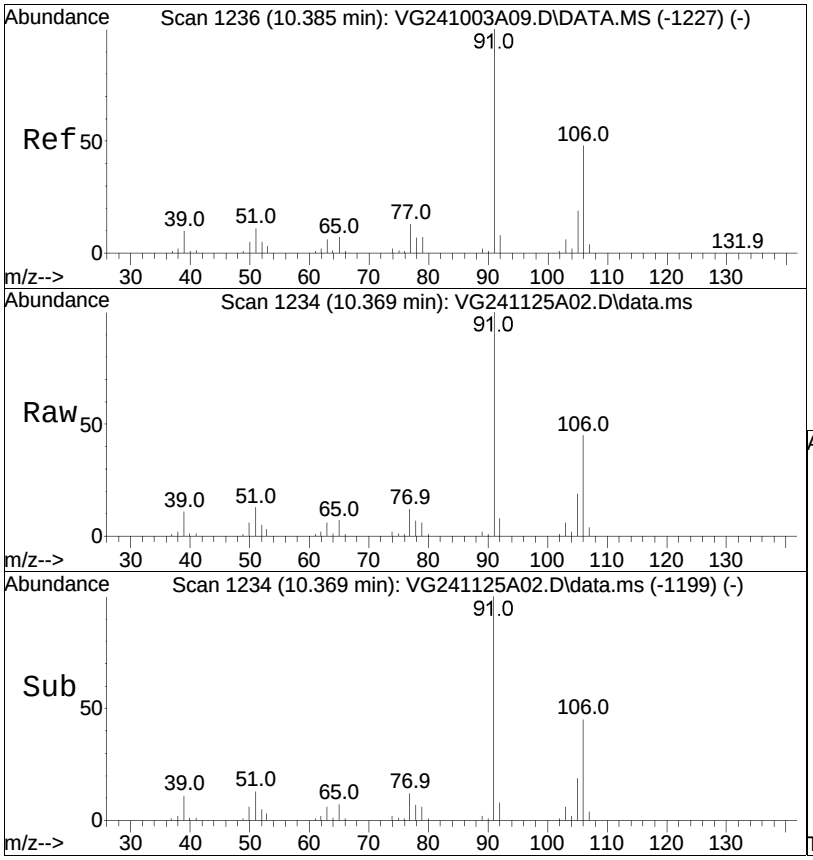


#76
p/m Xylene
Concen: 20.14 ug/L
RT: 9.835 min Scan# 1169
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:106 Resp: 415479

Ion	Ratio	Lower	Upper
106	100		
91	206.2	157.1	235.7

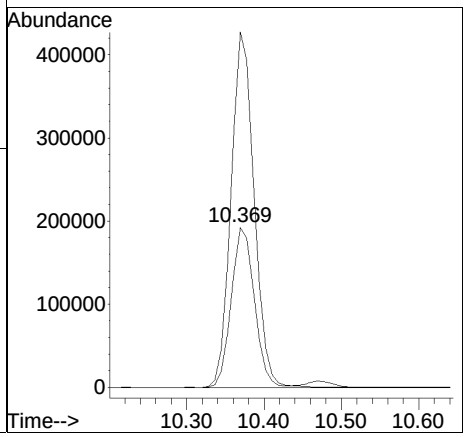


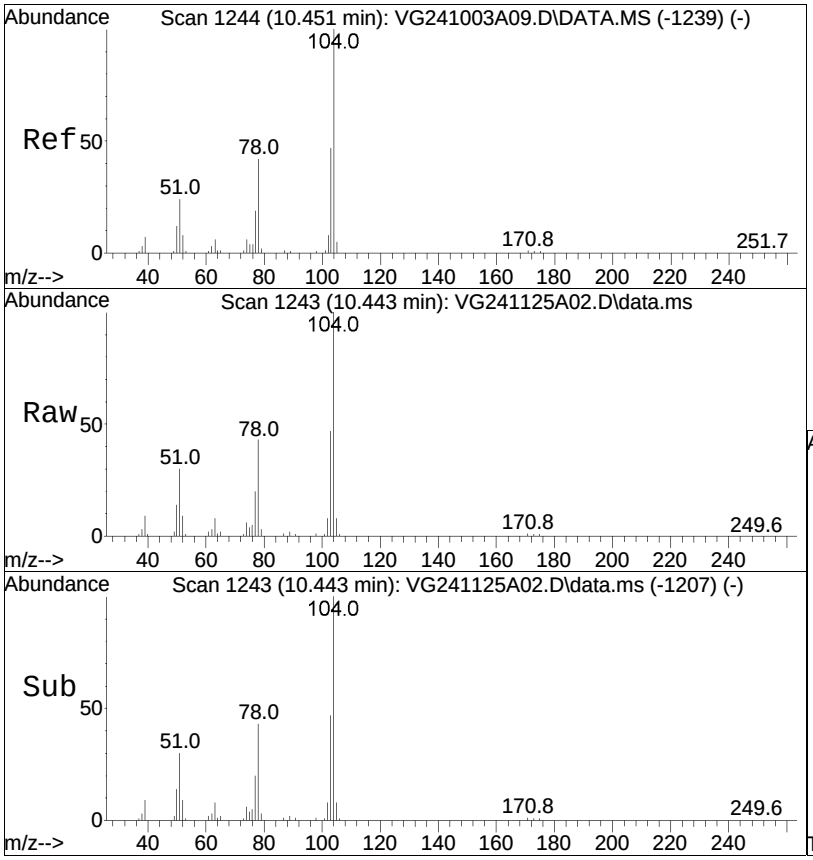


#77
o Xylene
Concen: 20.16 ug/L
RT: 10.369 min Scan# 1234
Delta R.T. -0.016 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:106 Resp: 402747

Ion	Ratio	Lower	Upper
106	100		
91	218.8	164.7	247.1

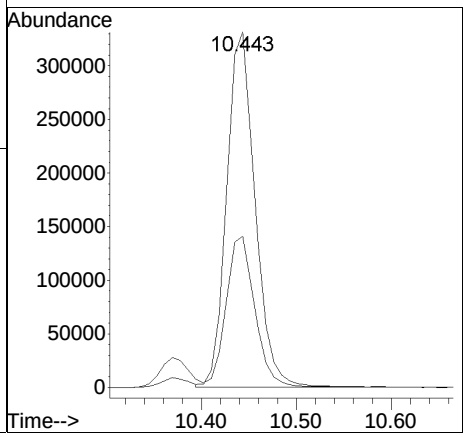


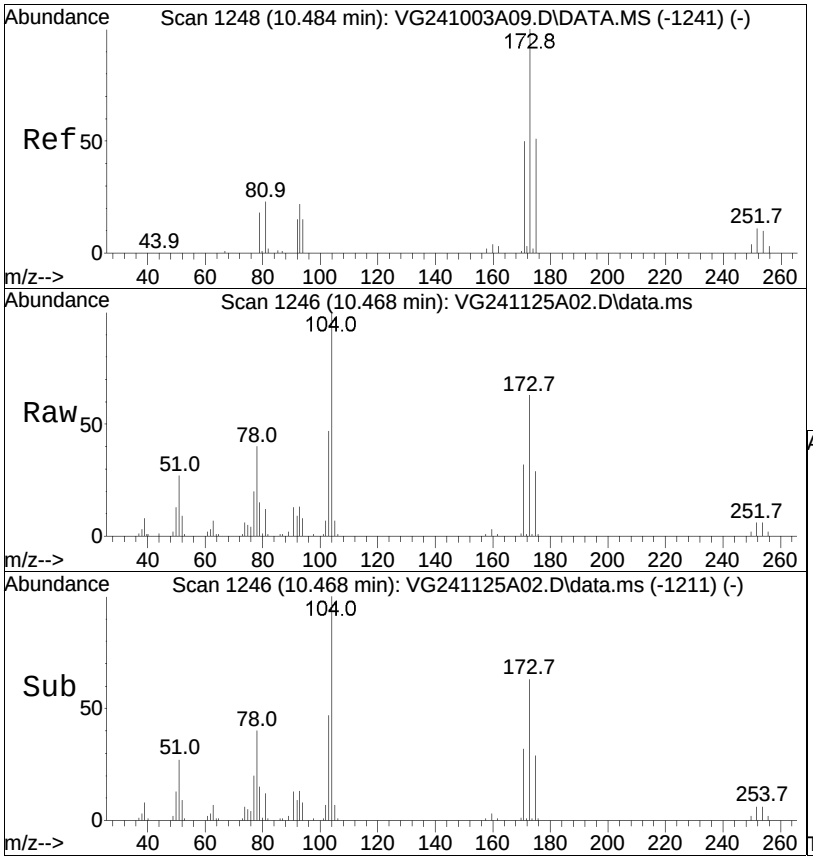


#78
Styrene
Concen: 20.24 ug/L
RT: 10.443 min Scan# 1243
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:104 Resp: 688000

Ion	Ratio	Lower	Upper
104	100		
78	42.9	32.2	48.4

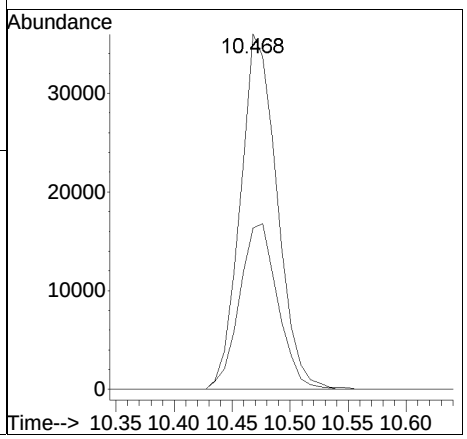


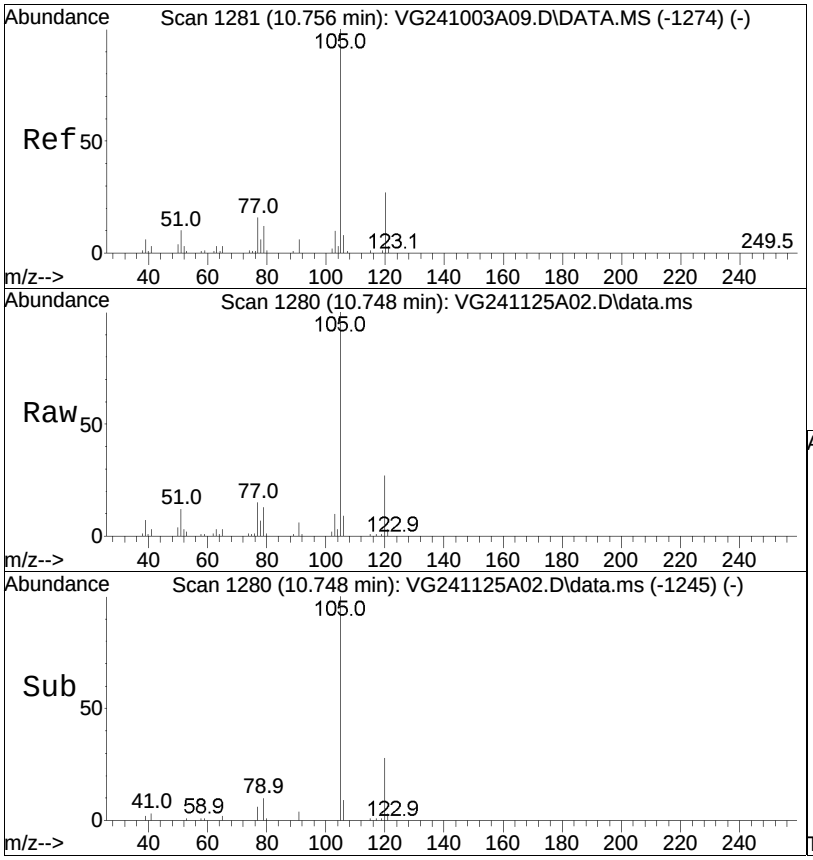


#80
Bromoform
Concen: 9.38 ug/L
RT: 10.468 min Scan# 1246
Delta R.T. -0.016 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:173 Resp: 79086

Ion	Ratio	Lower	Upper
173	100		
175	48.7	28.0	68.0

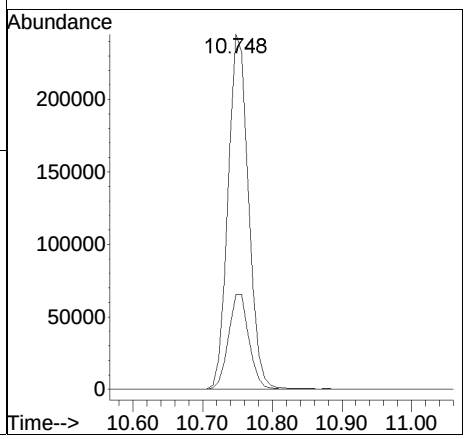


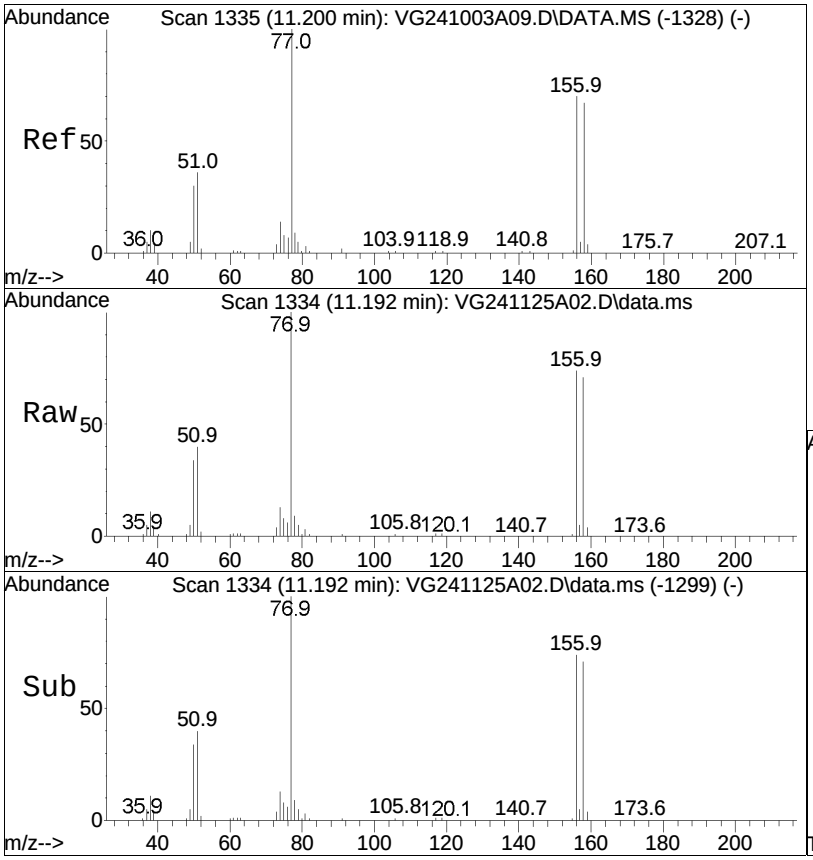


#82
Isopropylbenzene
Concen: 9.64 ug/L
RT: 10.748 min Scan# 1280
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:105 Resp: 500181

Ion	Ratio	Lower	Upper
105	100		
120	27.0	7.0	47.0

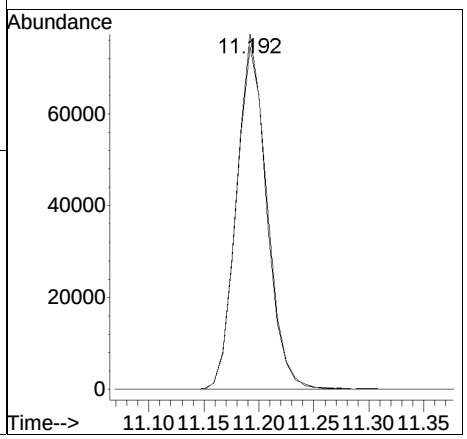


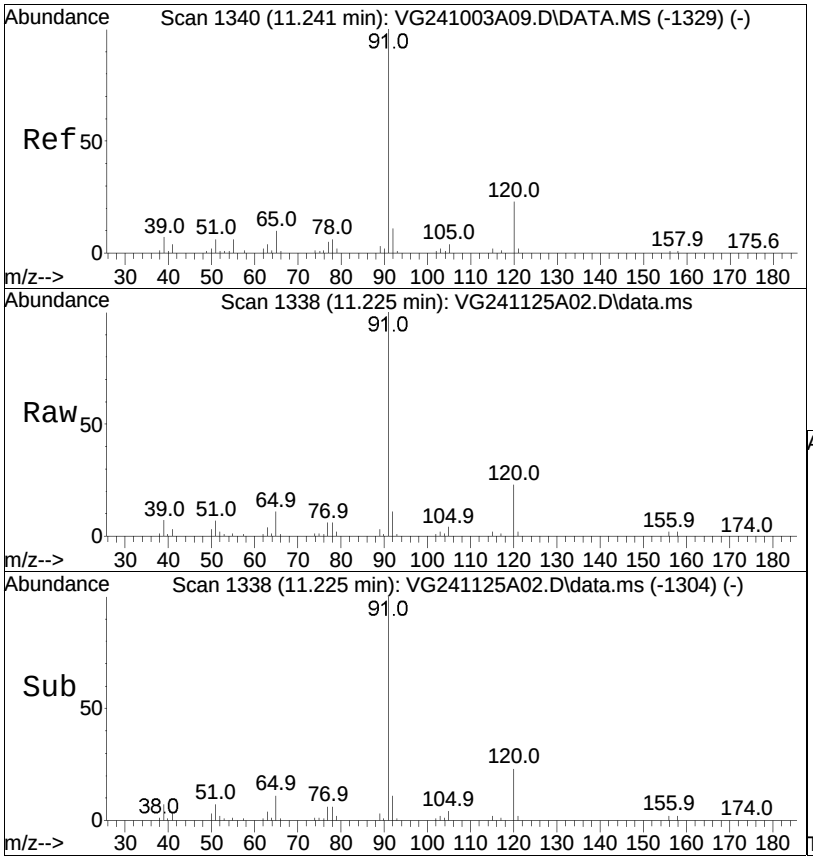


#84
Bromobenzene
Concen: 10.56 ug/L
RT: 11.192 min Scan# 1334
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:156 Resp: 148289

Ion	Ratio	Lower	Upper
156	100		
158	97.1	76.9	115.3

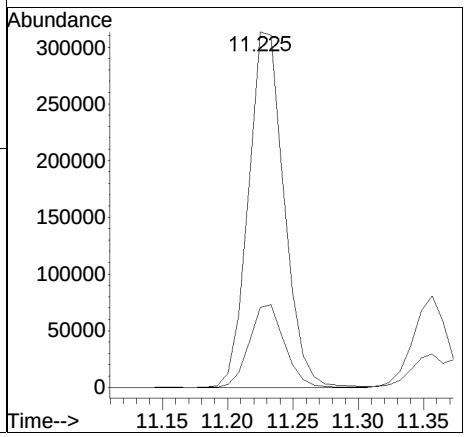


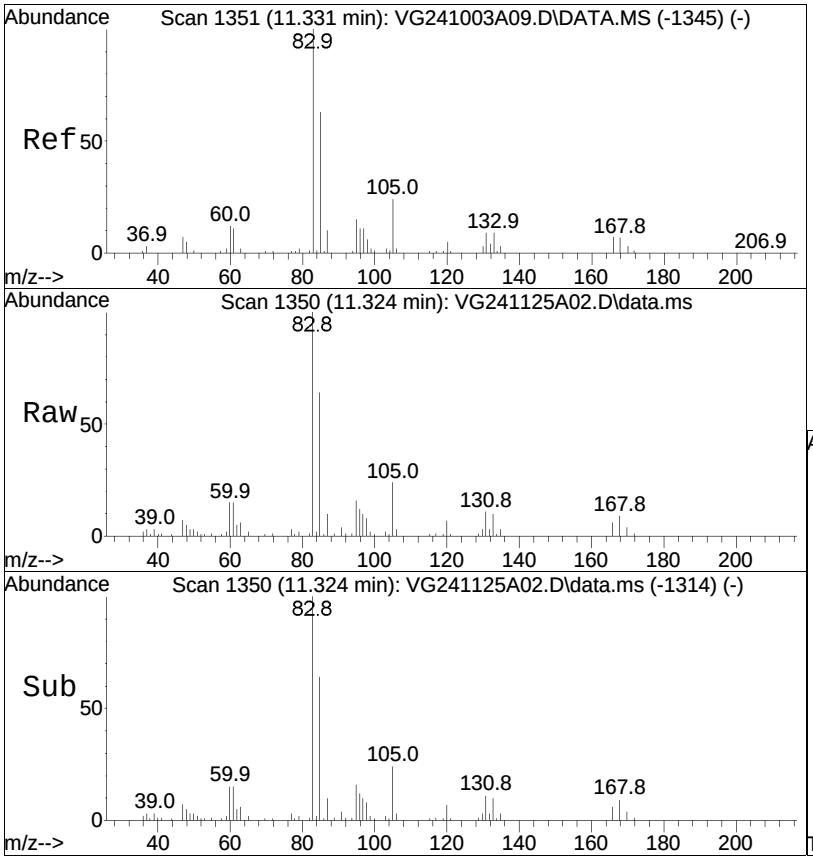


#85
n-Propylbenzene
Concen: 9.86 ug/L
RT: 11.225 min Scan# 1338
Delta R.T. -0.016 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 91 Resp: 595735

Ion	Ratio	Lower	Upper
91	100		
120	22.9	19.0	28.6

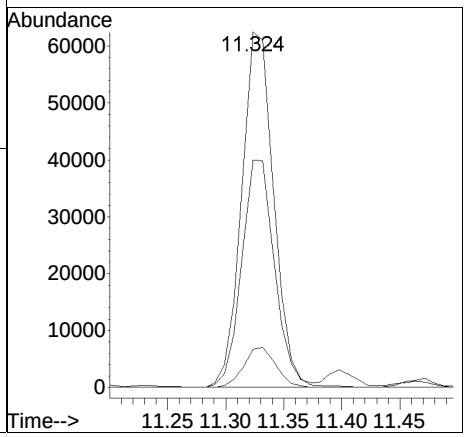


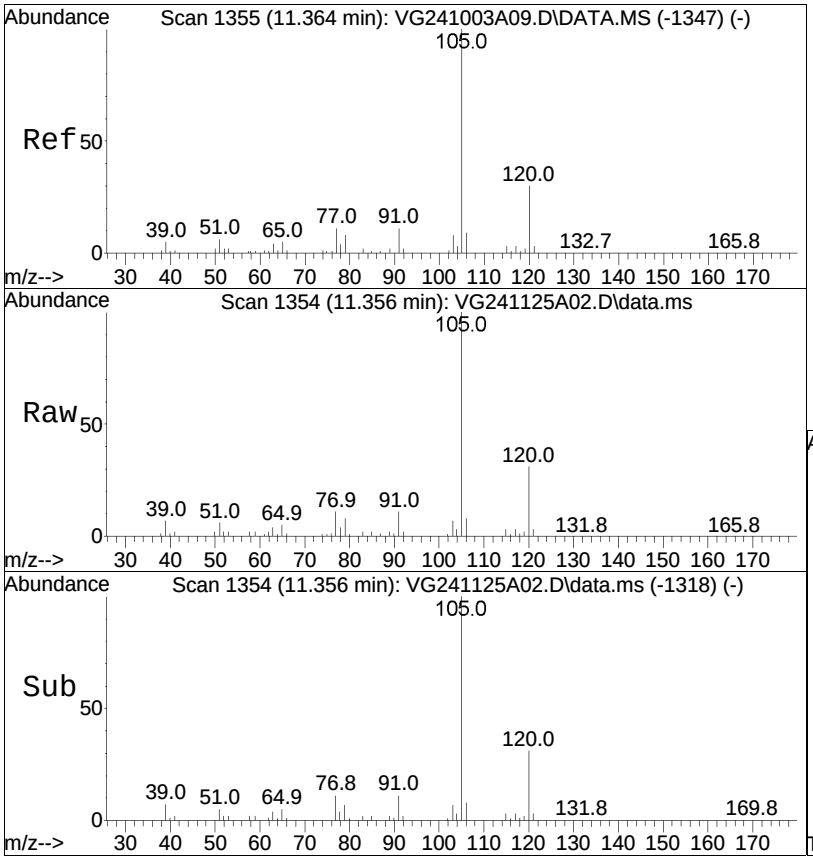


#87
1,1,2,2-Tetrachloroethane
Concen: 9.17 ug/L
RT: 11.324 min Scan# 1350
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 83 Resp: 120416

Ion	Ratio	Lower	Upper
83	100		
131	11.3	0.0	31.0
85	65.5	43.9	83.9

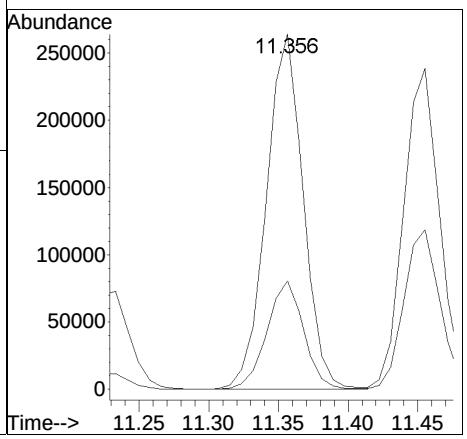


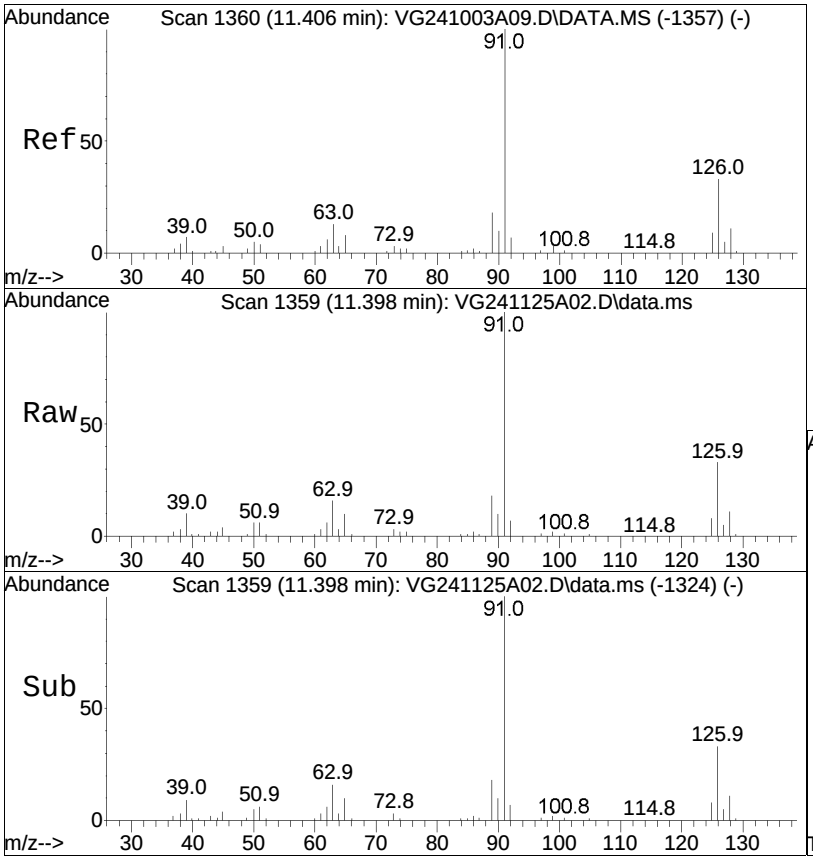


#88
4-Ethyltoluene
Concen: 9.85 ug/L
RT: 11.356 min Scan# 1354
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:105 Resp: 487207

Ion	Ratio	Lower	Upper
105	100		
120	30.3	19.9	41.3

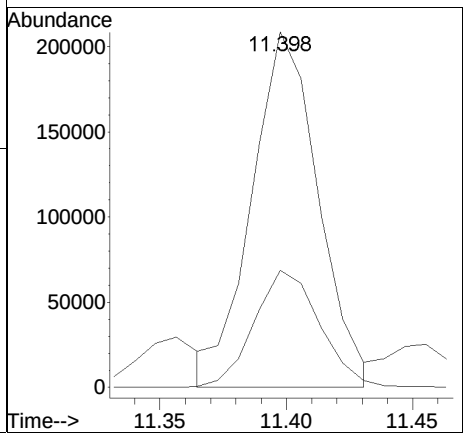


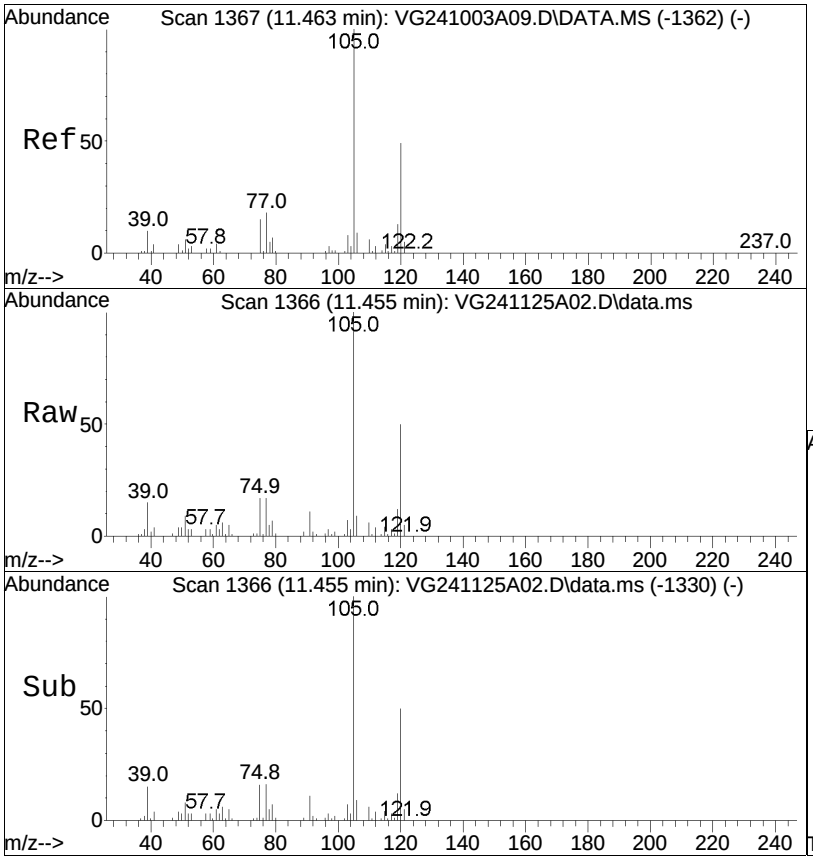


#89
2-Chlorotoluene
Concen: 10.36 ug/L M6
RT: 11.398 min Scan# 1359
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 91 Resp: 381715

Ion	Ratio	Lower	Upper
91	100		
126	32.7	27.4	41.2

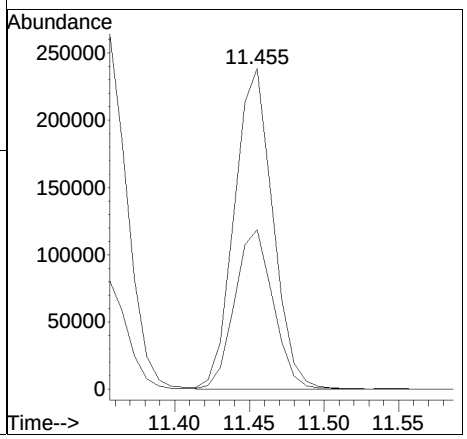


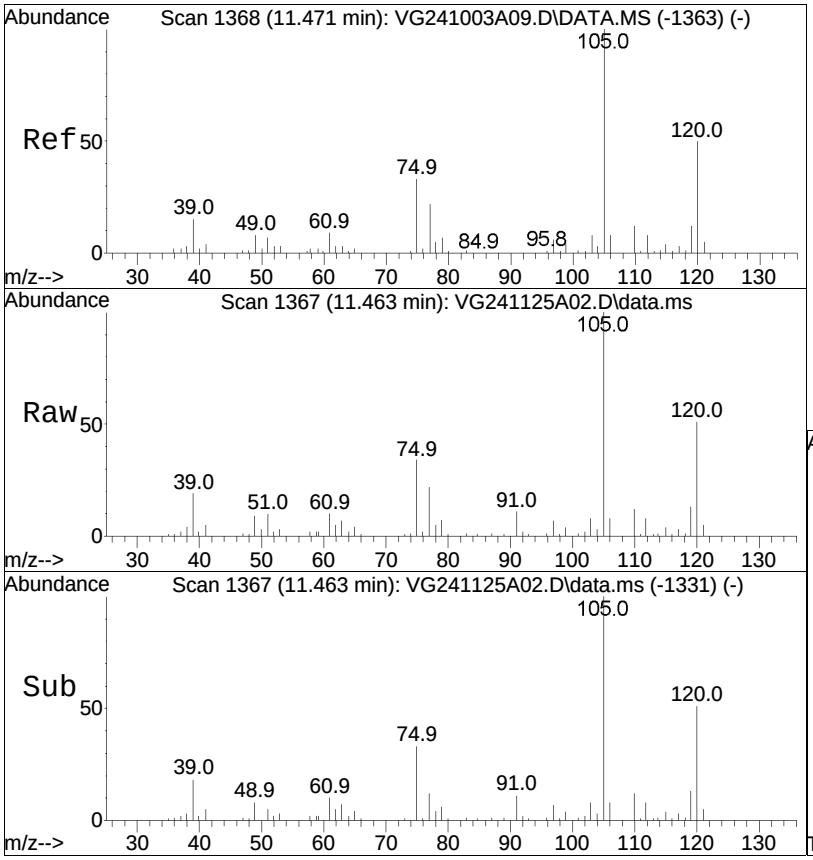


#90
1,3,5-Trimethylbenzene
Concen: 9.73 ug/L
RT: 11.455 min Scan# 1366
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:105 Resp: 426247

Ion	Ratio	Lower	Upper
105	100		
120	50.4	40.3	60.5

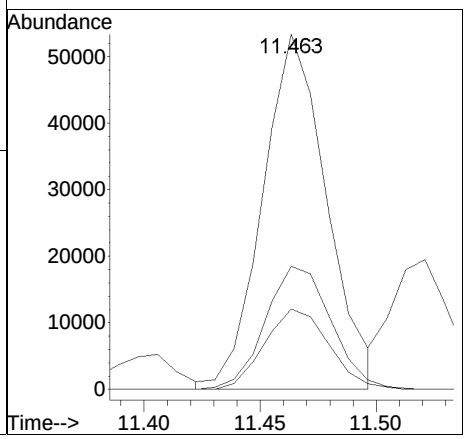


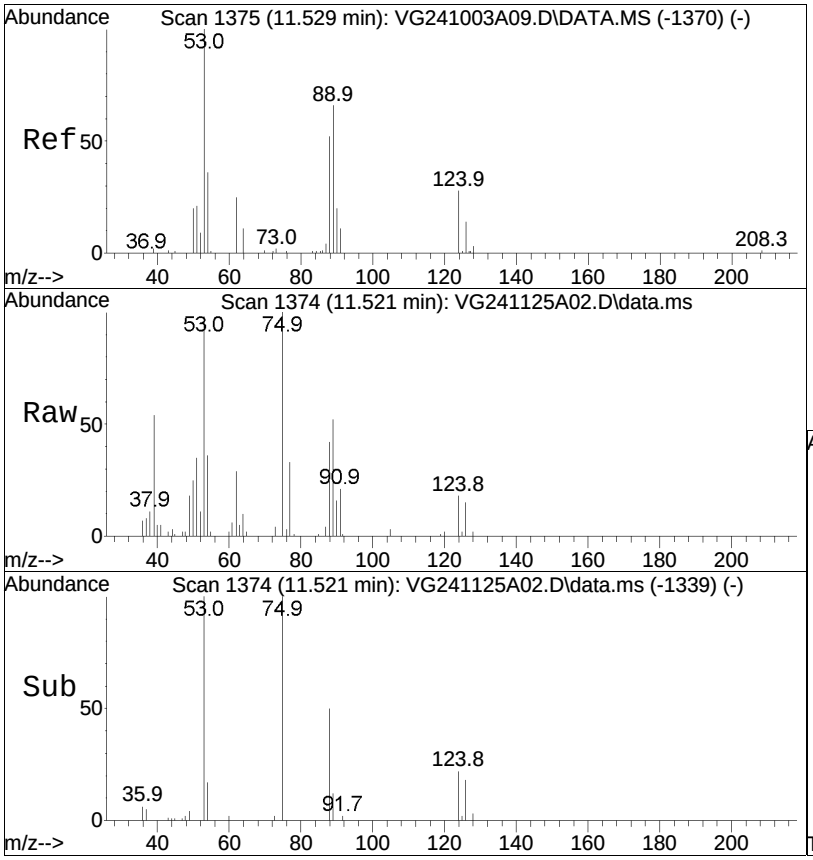


#91
1,2,3-Trichloropropane
Concen: 9.55 ug/L
RT: 11.463 min Scan# 1367
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 75 Resp: 102436

Ion	Ratio	Lower	Upper
75	100		
110	35.6	23.5	48.9
112	22.8	15.9	32.9

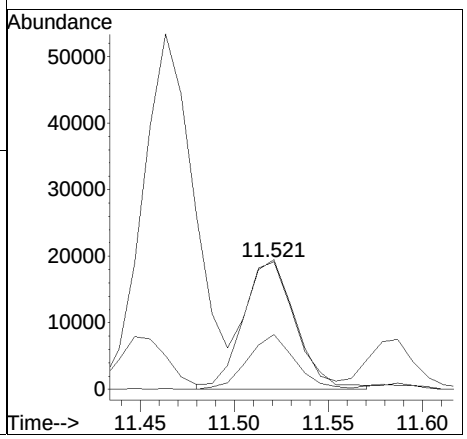


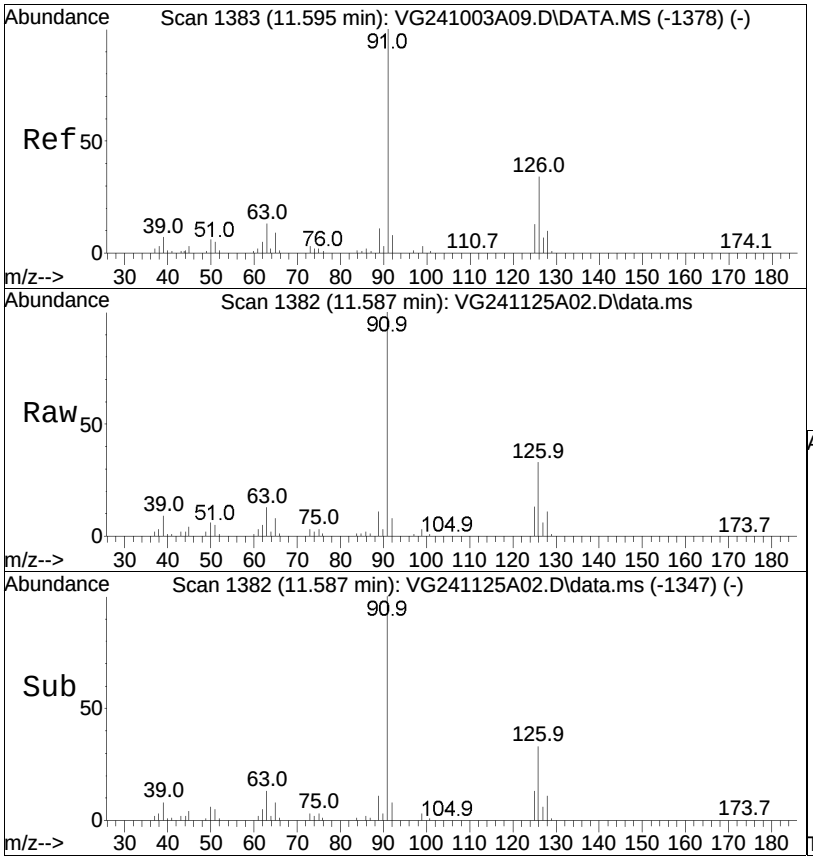


#92
trans-1,4-Dichloro-2-butene
Concen: 8.62 ug/L M1
RT: 11.521 min Scan# 1374
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 53 Resp: 37282

Ion	Ratio	Lower	Upper
53	100		
88	38.9	41.6	62.4#
75	93.6	0.0	0.0#

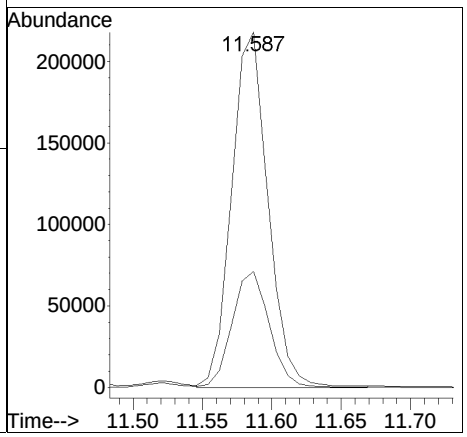


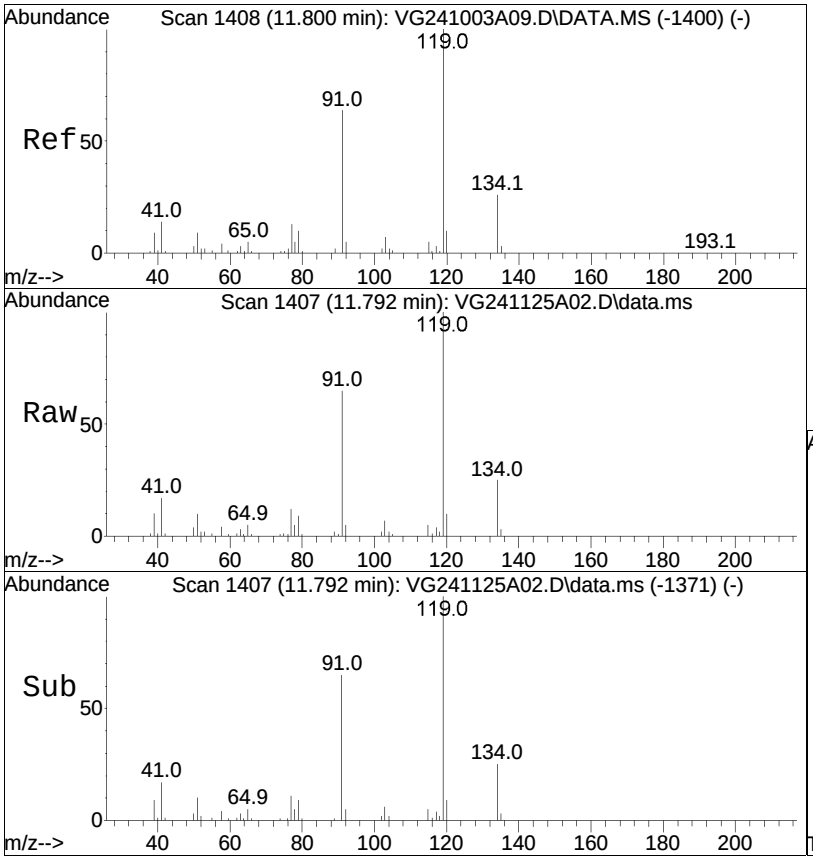


#93
4-Chlorotoluene
Concen: 10.25 ug/L M4
RT: 11.587 min Scan# 1382
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 91 Resp: 397494

Ion	Ratio	Lower	Upper
91	100		
126	33.4	28.2	42.4

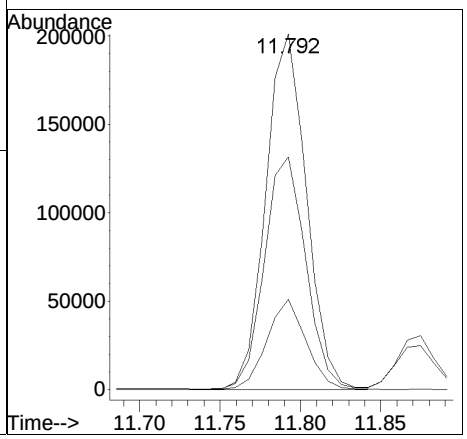


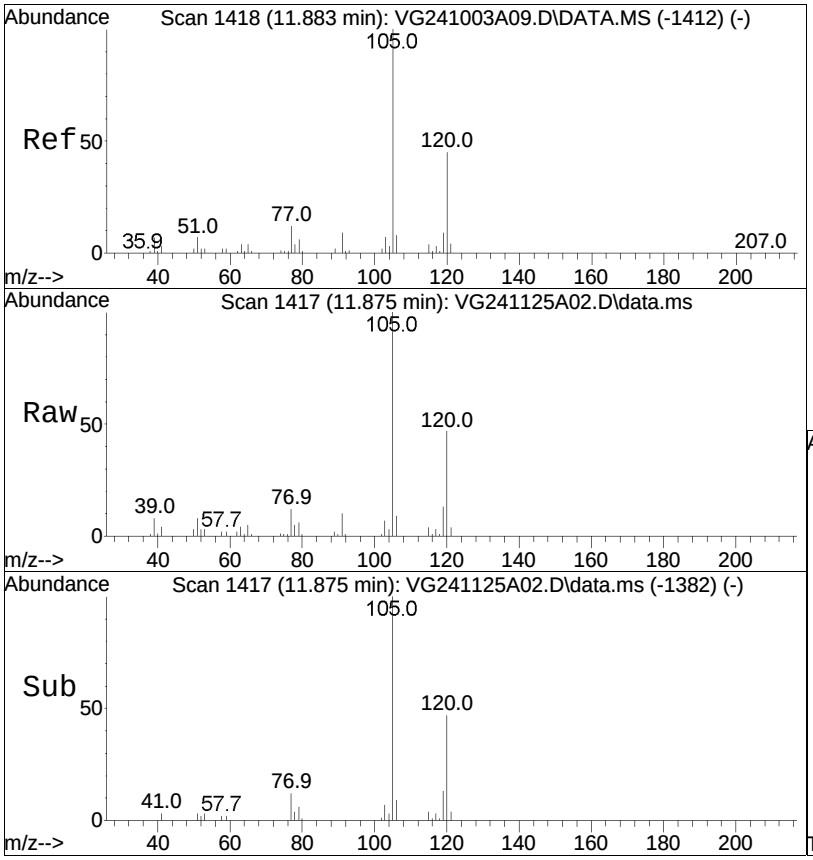


#94
tert-Butylbenzene
Concen: 10.24 ug/L
RT: 11.792 min Scan# 1407
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:119 Resp: 353541

Ion	Ratio	Lower	Upper
119	100		
91	66.4	50.8	76.2
134	24.3	20.2	30.4

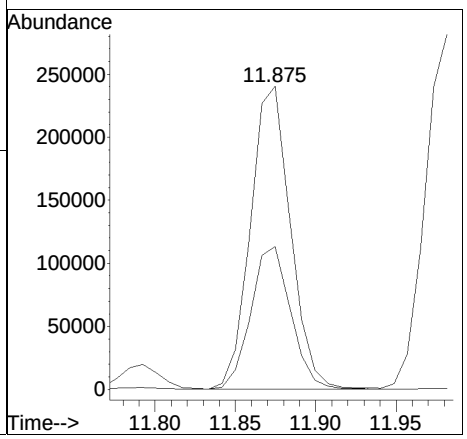


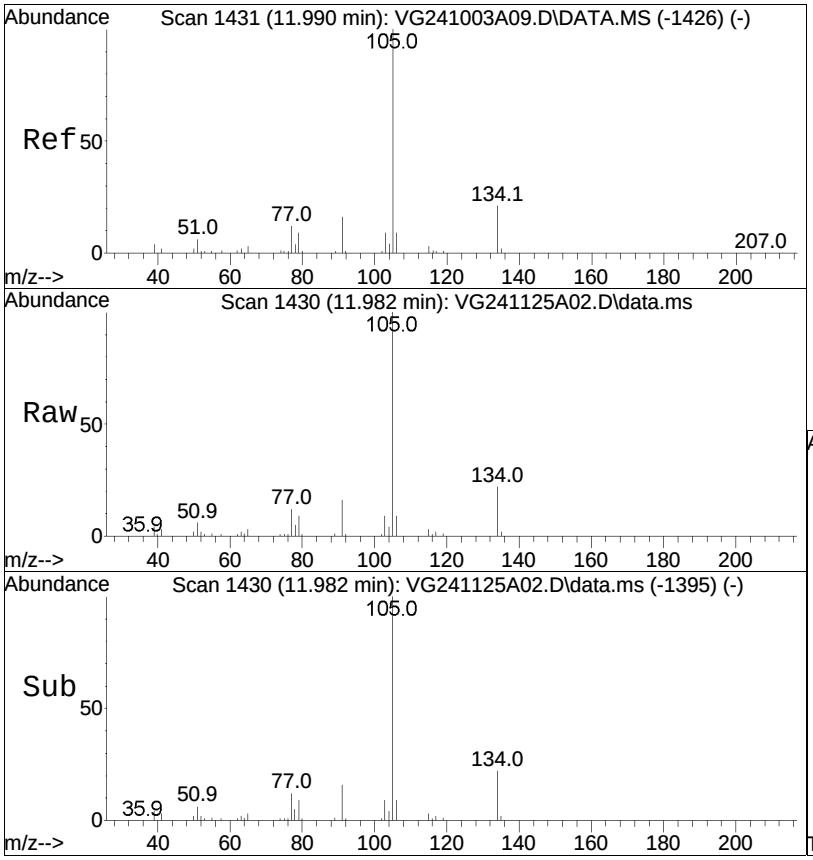


#97
1,2,4-Trimethylbenzene
Concen: 9.73 ug/L
RT: 11.875 min Scan# 1417
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:105 Resp: 415803

Ion	Ratio	Lower	Upper
105	100		
120	47.0	37.8	56.6

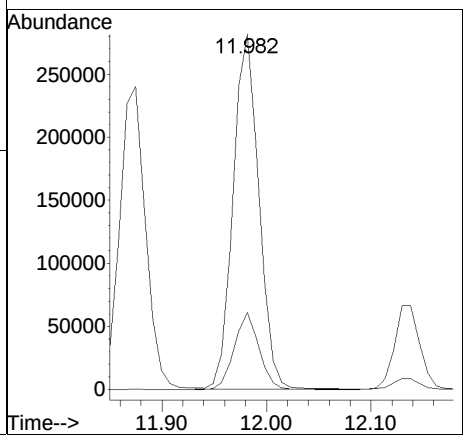


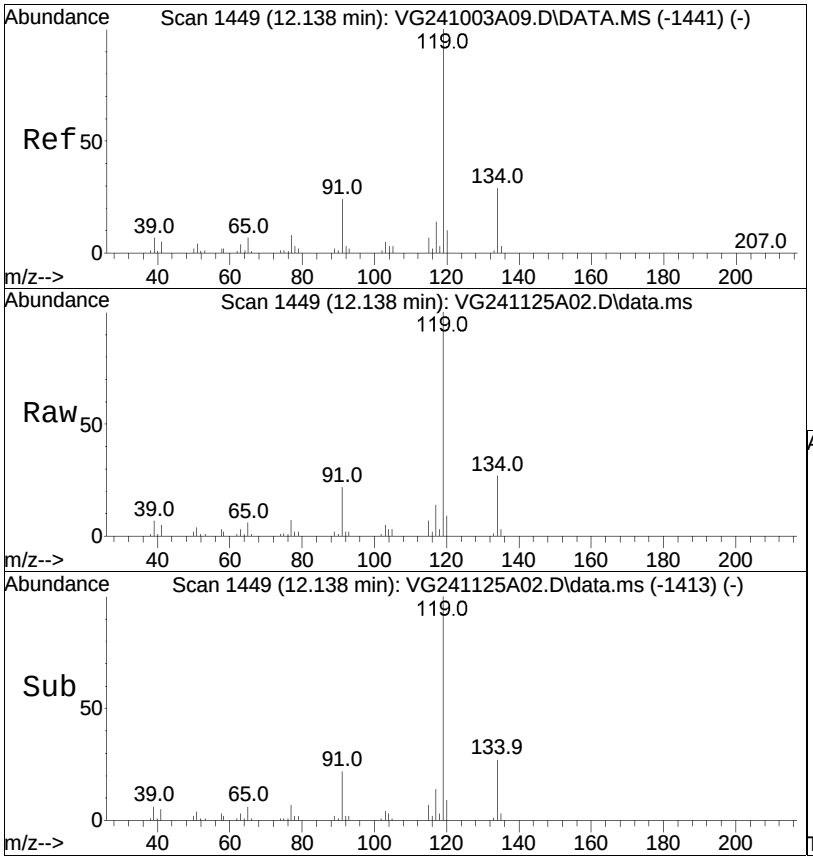


#98
sec-Butylbenzene
Concen: 9.71 ug/L
RT: 11.982 min Scan# 1430
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:105 Resp: 483695

Ion	Ratio	Lower	Upper
105	100		
134	20.6	13.3	27.7

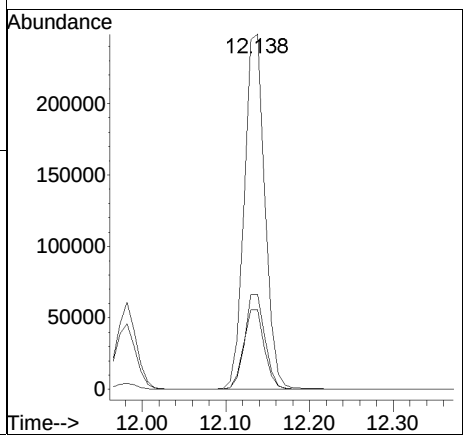


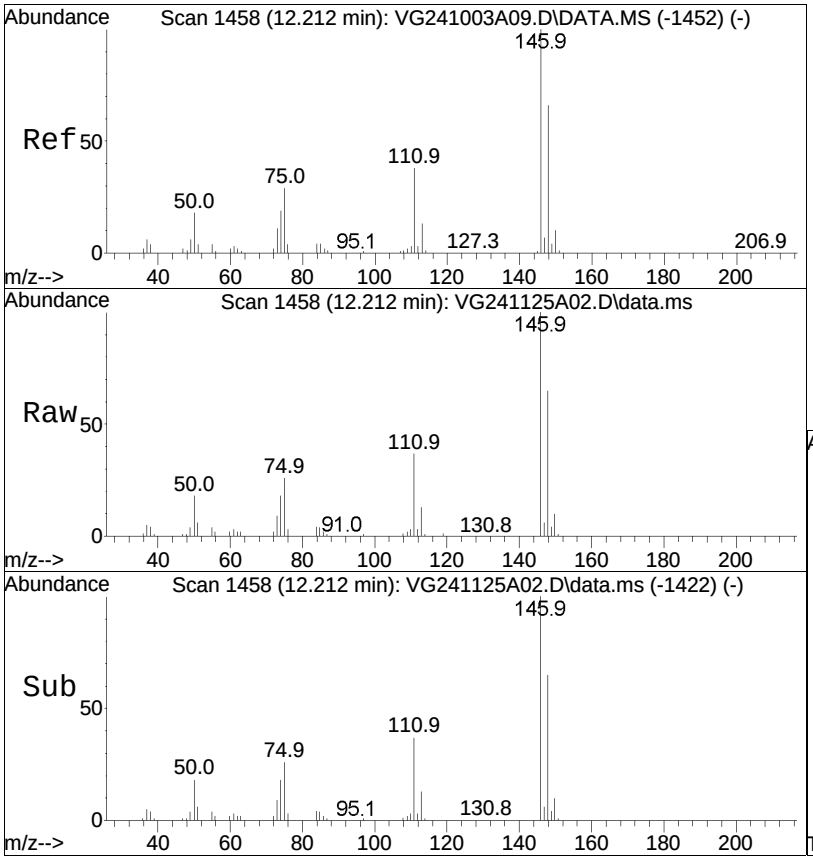


#99
p-Isopropyltoluene
Concen: 10.12 ug/L
RT: 12.138 min Scan# 1449
Delta R.T. -0.000 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:119 Resp: 427465

Ion	Ratio	Lower	Upper
119	100		
134	26.3	17.5	36.3
91	22.9	14.6	30.4

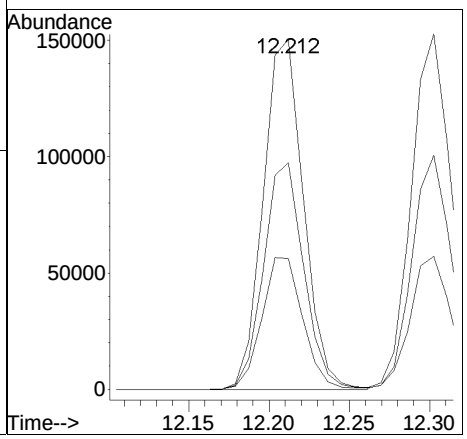


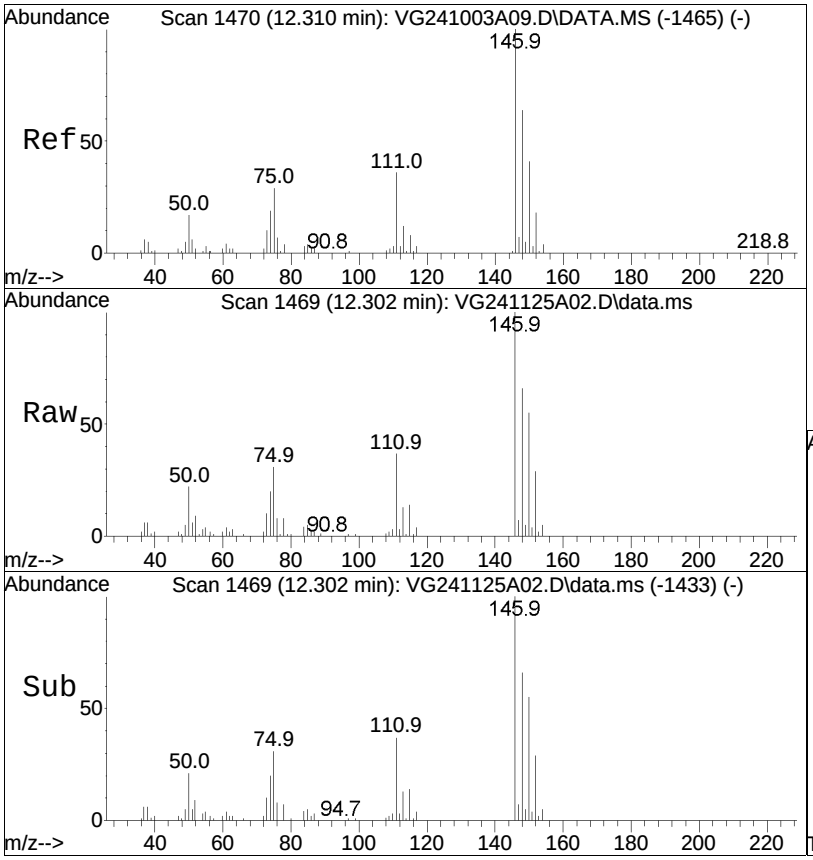


#100
1,3-Dichlorobenzene
Concen: 10.24 ug/L
RT: 12.212 min Scan# 1458
Delta R.T. -0.000 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:146 Resp: 261954

Ion	Ratio	Lower	Upper
146	100		
111	38.4	24.4	50.6
148	64.7	41.0	85.2

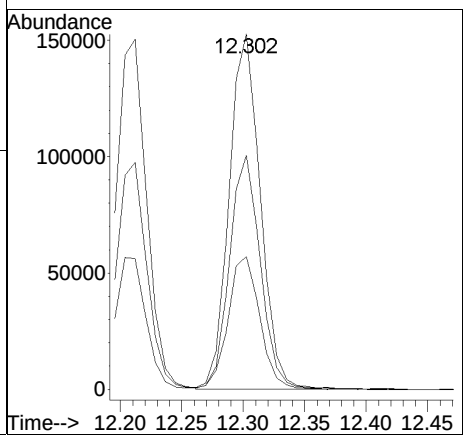


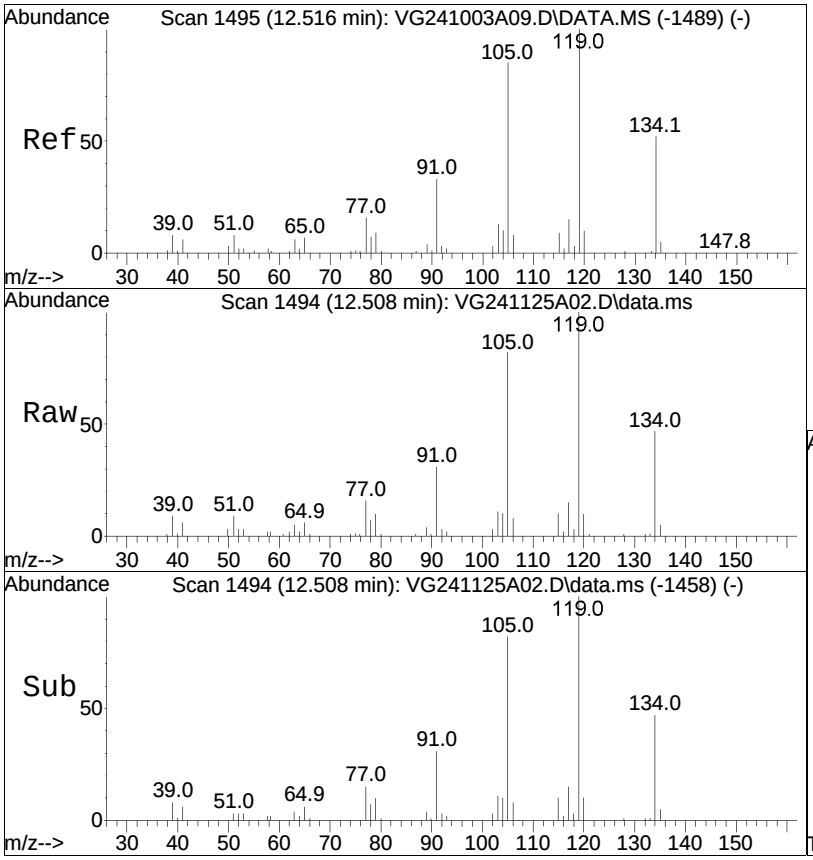


#101
1,4-Dichlorobenzene
Concen: 10.13 ug/L
RT: 12.302 min Scan# 1469
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:146 Resp: 268982

Ion	Ratio	Lower	Upper
146	100		
111	38.2	29.3	43.9
148	65.3	51.2	76.8

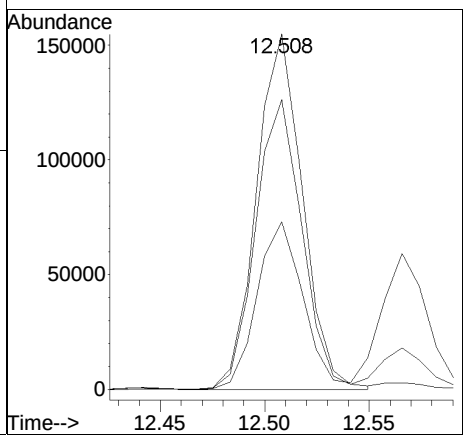


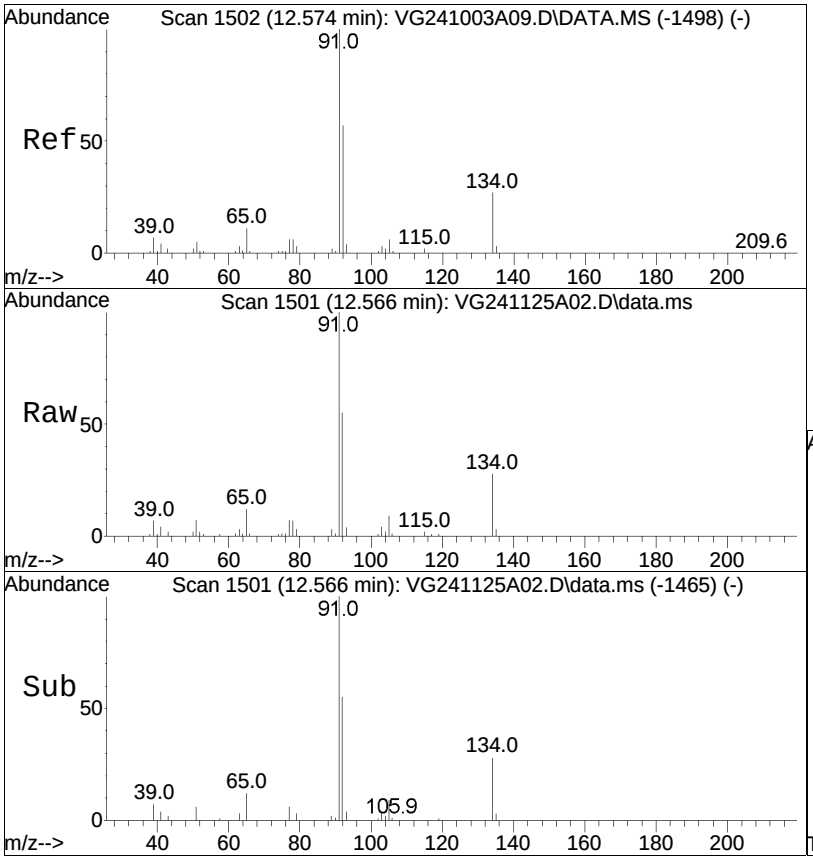


#102
p-Diethylbenzene
Concen: 10.00 ug/L
RT: 12.508 min Scan# 1494
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:119 Resp: 236990

Ion	Ratio	Lower	Upper
119	100		
105	81.8	53.9	112.1
134	47.4	32.0	66.6

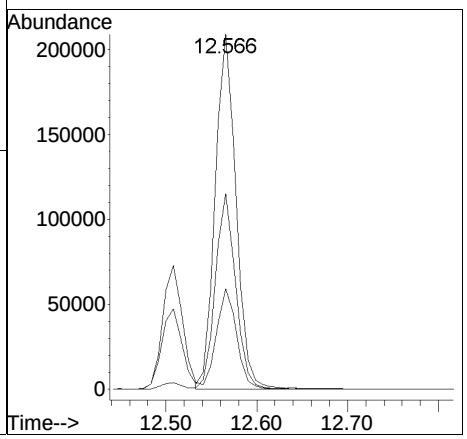


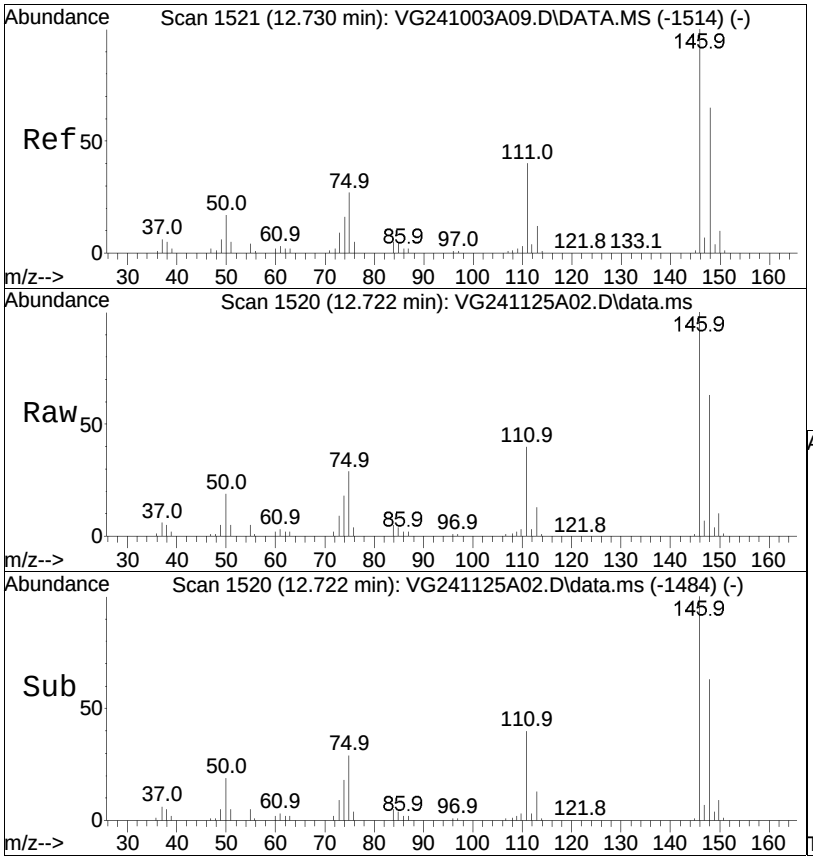


#103
n-Butylbenzene
Concen: 9.86 ug/L
RT: 12.566 min Scan# 1501
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion: 91 Resp: 335338

Ion	Ratio	Lower	Upper
91	100		
92	53.8	43.8	65.8
134	26.8	22.0	33.0

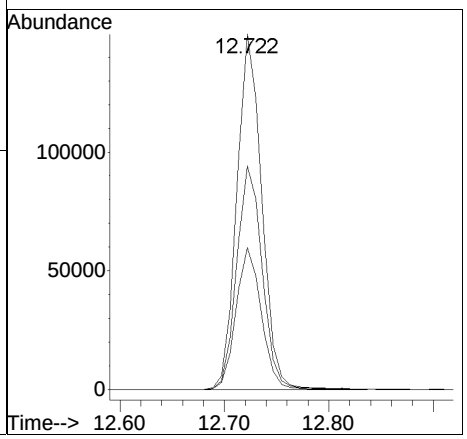


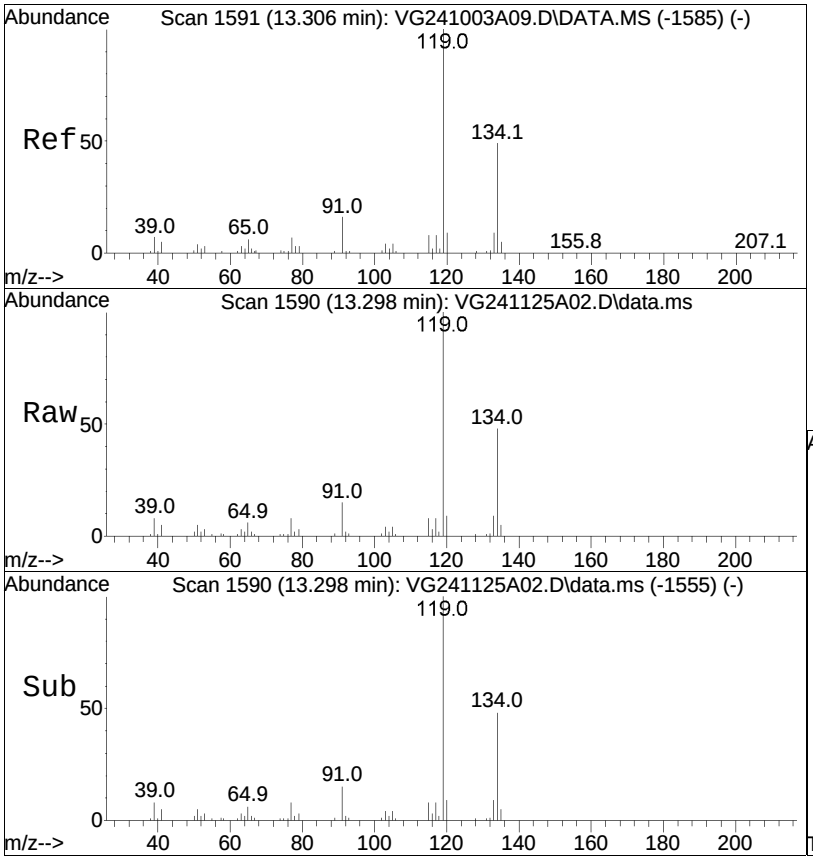


#104
1,2-Dichlorobenzene
Concen: 10.07 ug/L
RT: 12.722 min Scan# 1520
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:146 Resp: 248433

Ion	Ratio	Lower	Upper
146	100		
111	40.5	25.4	52.8
148	64.5	41.7	86.5

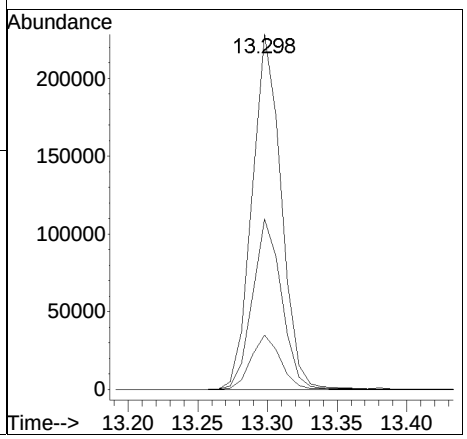


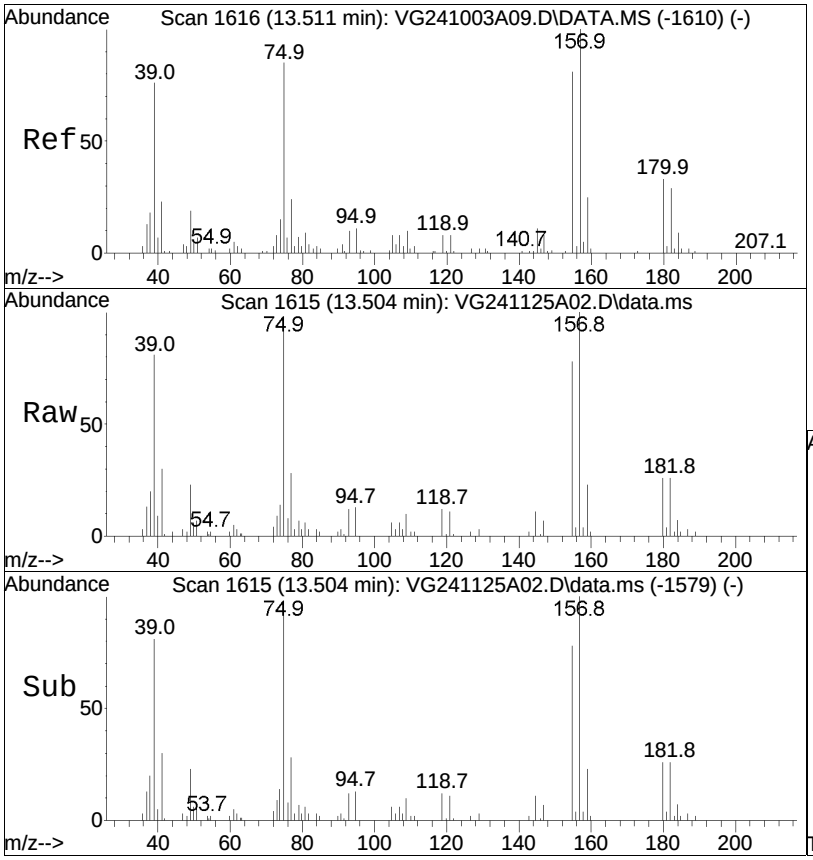


#105
1,2,4,5-Tetramethylbenzene
Concen: 9.98 ug/L
RT: 13.298 min Scan# 1590
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:119 Resp: 332611

Ion	Ratio	Lower	Upper
119	100		
134	48.2	32.7	67.9
91	15.5	9.9	20.7

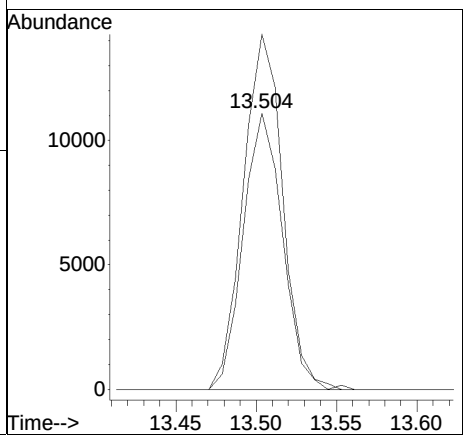


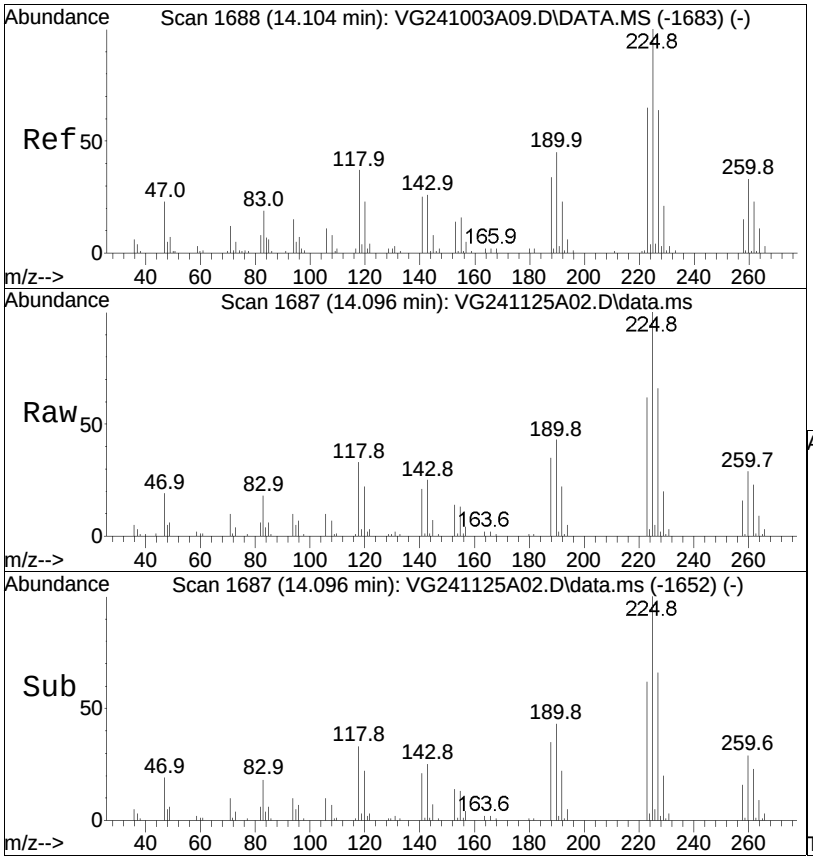


#106
1,2-Dibromo-3-chloropropane
Concen: 8.63 ug/L
RT: 13.504 min Scan# 1615
Delta R.T. -0.007 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:155 Resp: 18888

Ion	Ratio	Lower	Upper
155	100		
157	129.0	99.9	149.9

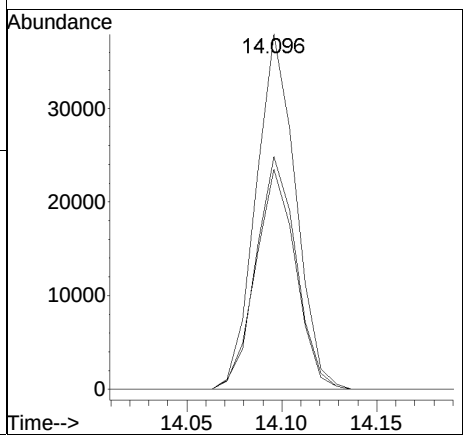


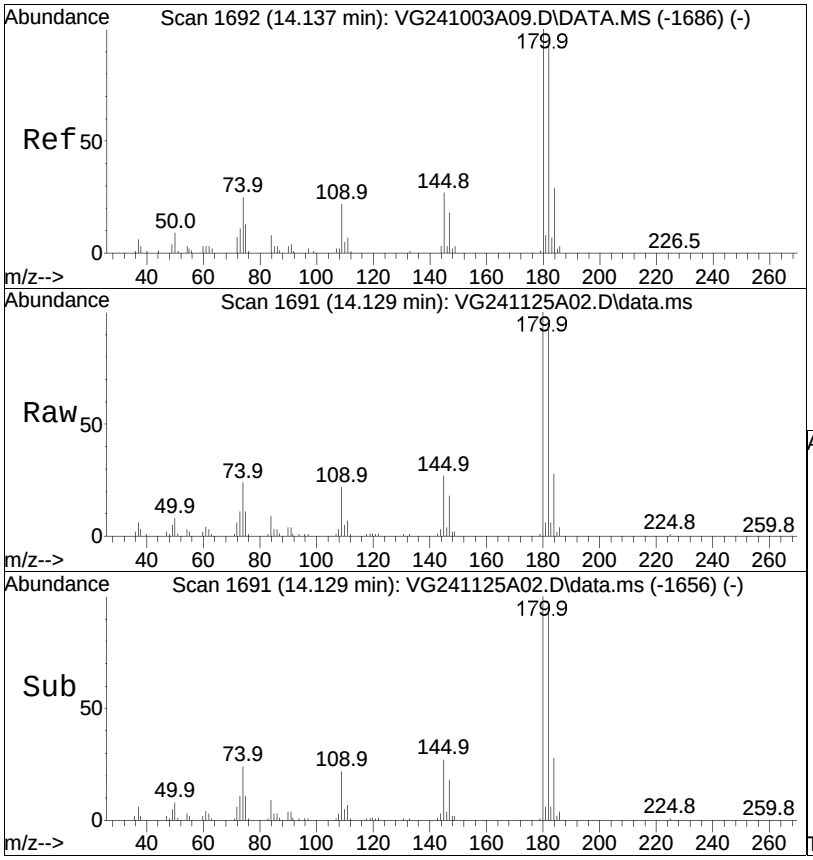


#108
Hexachlorobutadiene
Concen: 11.12 ug/L
RT: 14.096 min Scan# 1687
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:225 Resp: 55385

Ion	Ratio	Lower	Upper
225	100		
223	62.7	50.1	75.1
227	66.2	50.2	75.4

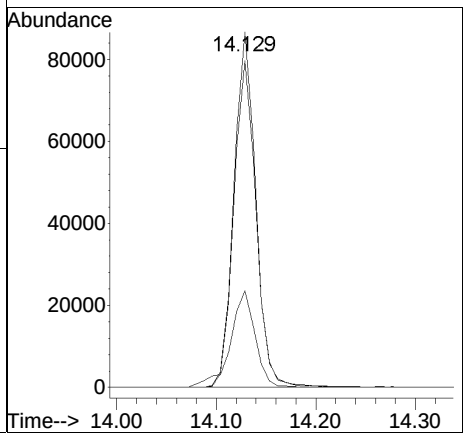


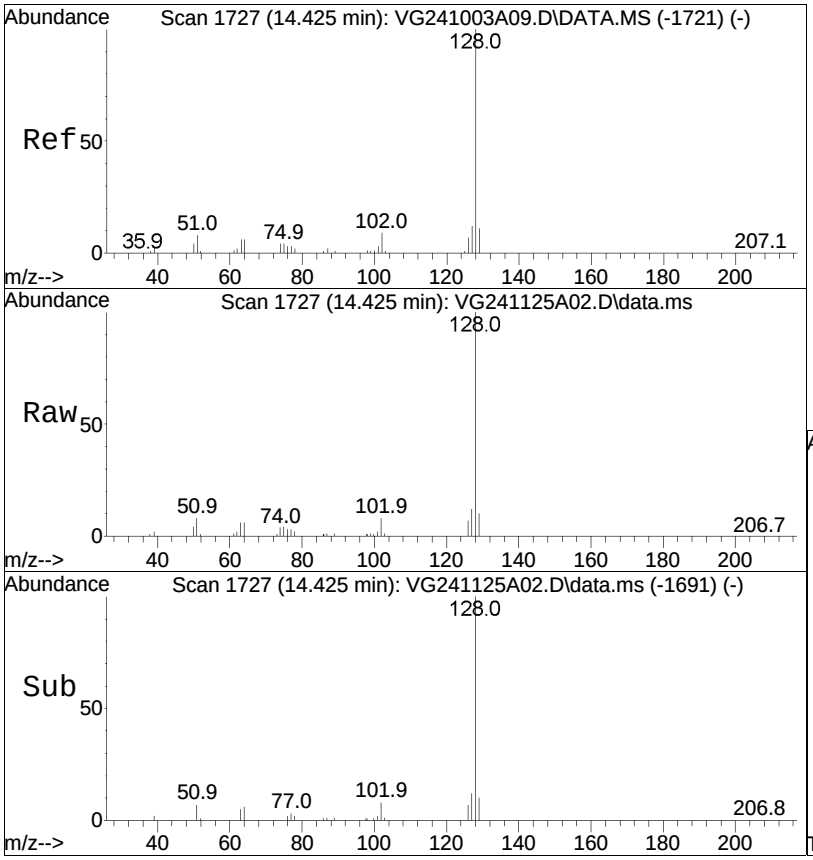


#109
1,2,4-Trichlorobenzene
Concen: 10.10 ug/L
RT: 14.129 min Scan# 1691
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:180 Resp: 133004

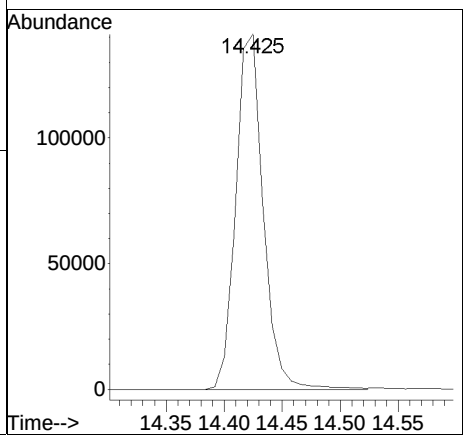
Ion	Ratio	Lower	Upper
180	100		
182	93.4	76.7	115.1
145	30.6	26.5	39.7

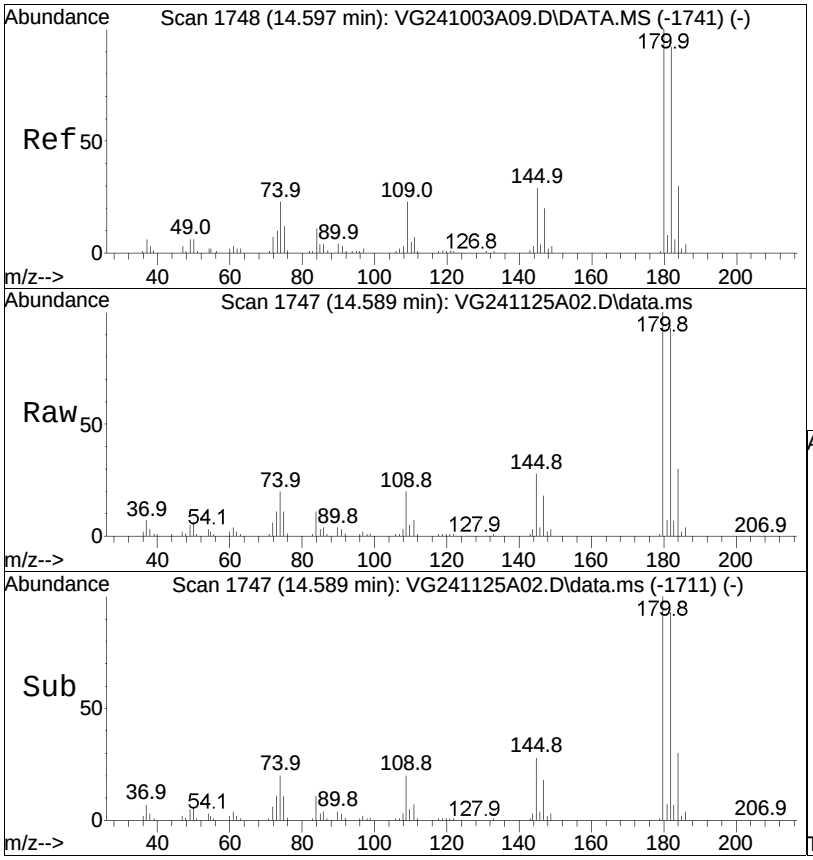




#110
Naphthalene
Concen: 8.34 ug/L
RT: 14.425 min Scan# 1727
Delta R.T. -0.000 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:128 Resp: 232665

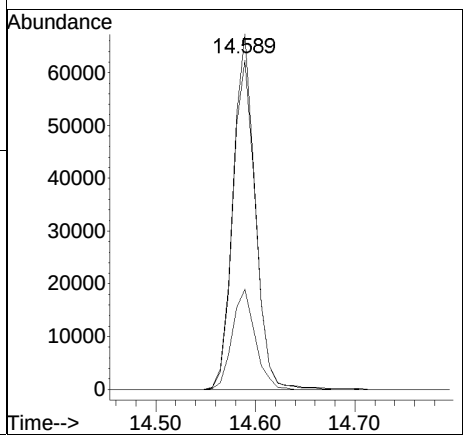




#111
1,2,3-Trichlorobenzene
Concen: 9.49 ug/L
RT: 14.589 min Scan# 1747
Delta R.T. -0.008 min
Lab File: VG241125A02.D
Acq: 25 Nov 2024 7:37 am

Tgt Ion:180 Resp: 104537

Ion	Ratio	Lower	Upper
180	100		
182	94.8	77.0	115.4
145	29.1	24.1	36.1

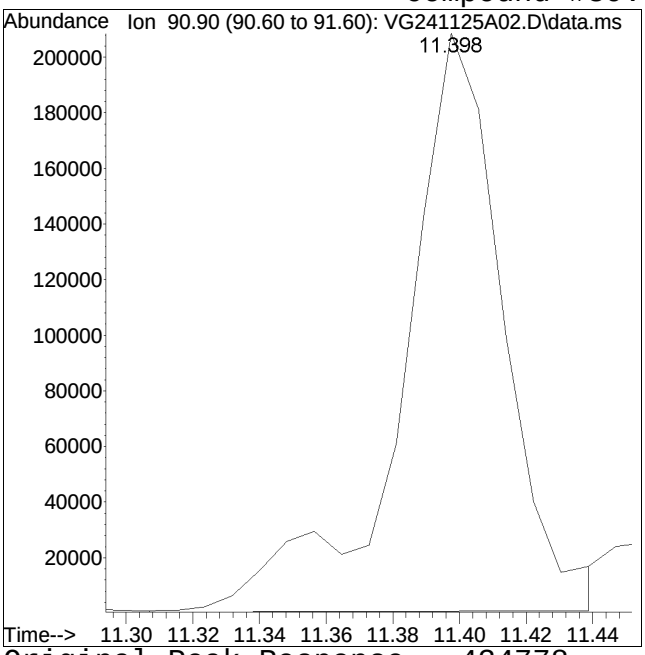


Manual Integration Report

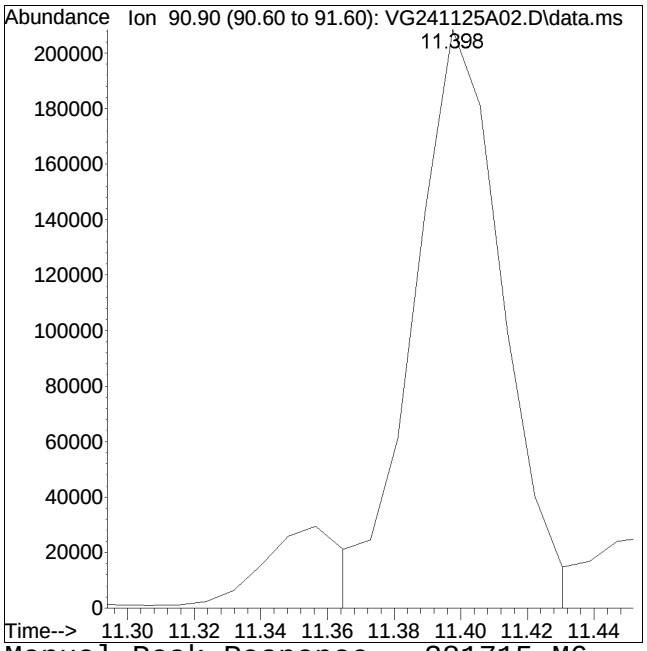
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A02.D
Date Inj'd : 11/25/2024 7:37 am
Sample : WG2001998-4,31,10,10

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 8:13 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 434778



Manual Peak Response = 381715 M6

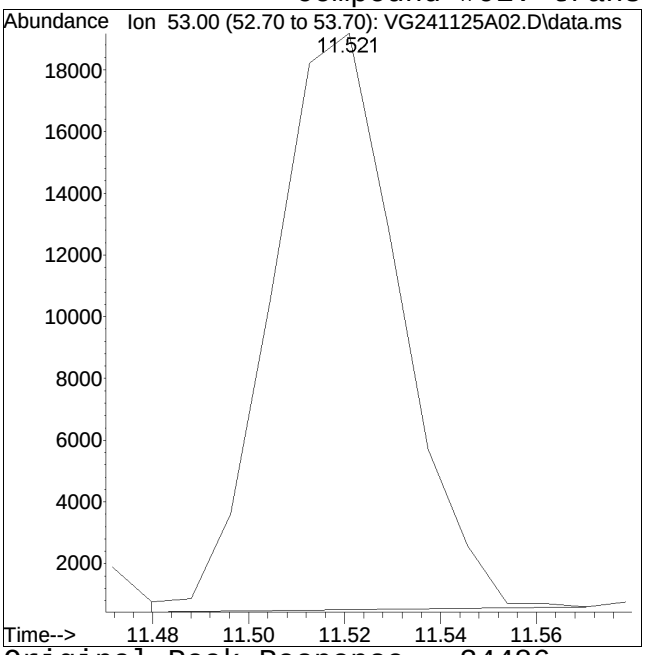
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

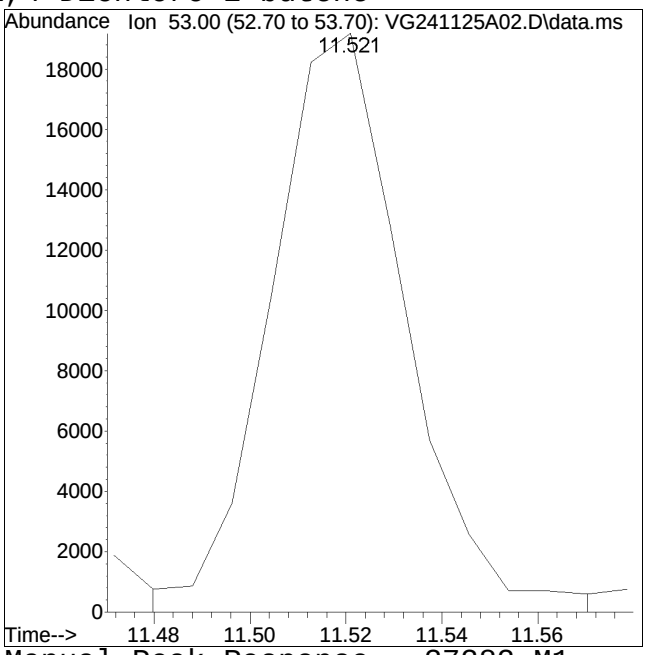
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A02.D
Date Inj'd : 11/25/2024 7:37 am
Sample : WG2001998-4,31,10,10

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 8:13 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 34486



Manual Peak Response = 37282 M1

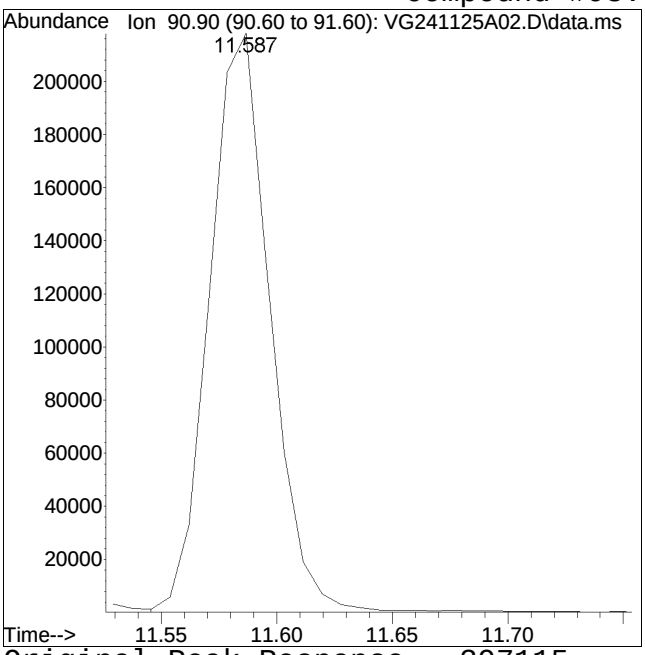
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

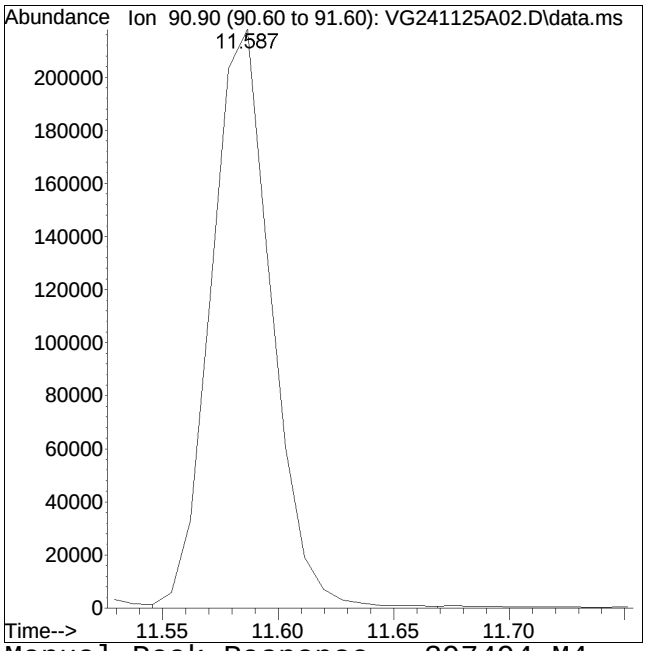
Data Path : K:\Gonzo\2024\241125A\
Data File : VG241125A02.D
Date Inj'd : 11/25/2024 7:37 am
Sample : WG2001998-4,31,10,10

QMethod : G_241003A_8260.m
Operator : GONZO:PID
Instrument : Gonzo
Quant Date : 11/25/2024 8:13 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 397115



Manual Peak Response = 397494 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N26.D
Acq On : 24 Nov 2024 5:44 am
Operator : ELAINE:MJV
Sample : WG2001825-6,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 25 06:27:22 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.944	96	199203	10.000	ug/L	0.00
Standard Area 1 = 198303			Recovery = 100.45%			
63) Chlorobenzene-d5	9.469	117	141375	10.000	ug/L	0.00
Standard Area 1 = 142748			Recovery = 99.04%			
84) 1,4-Dichlorobenzene-d4	12.188	152	72310	10.000	ug/L	0.00
Standard Area 1 = 72729			Recovery = 99.42%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	46441	10.168	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.68%			
47) 1,2-Dichloroethane-d4	5.654	65	58407	10.807	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.07%			
64) Toluene-d8	7.626	98	200338	10.391	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.91%			
88) 4-Bromofluorobenzene	10.972	95	67952	10.228	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.28%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.583	85	52676	11.835	ug/L #	92
3) Chloromethane	1.773	50	44283	10.070	ug/L	97
4) Vinyl chloride	1.848	62	59728	12.746	ug/L	95
5) Bromomethane	2.155	94	18825	5.724	ug/L	95
6) Chloroethane	2.275	64	36299	10.699	ug/L	93
7) Trichlorofluoromethane	2.411	101	75757	11.081	ug/L	95
8) Ethyl ether	2.701	74	23534	11.132	ug/L	91
10) 1,1-Dichloroethene	2.891	96	40691	11.687	ug/L #	76
11) Carbon disulfide	2.922	76	112819	10.789	ug/L	97
15) Methylene chloride	3.446	84	43685	10.051	ug/L	92
17) Acetone	3.482	43	10829	12.660	ug/L	99
18) trans-1,2-Dichloroethene	3.591	96	39334	10.144	ug/L	88
21) Methyl tert-butyl ether	3.688	73	96105	9.272	ug/L	94
25) 1,1-Dichloroethane	4.177	63	89006	11.484	ug/L	98
27) Acrylonitrile	4.213	53	10759	10.262	ug/L #	85
29) Vinyl acetate	4.402	43	87602	9.732	ug/L	100
30) cis-1,2-Dichloroethene	4.695	96	46390	10.481	ug/L	95
31) 2,2-Dichloropropane	4.796	77	51476	8.417	ug/L #	86
33) Bromochloromethane	4.882	128	18902	9.374	ug/L	97
35) Chloroform	4.957	83	76747	10.555	ug/L	94

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N26.D
Acq On : 24 Nov 2024 5:44 am
Operator : ELAINE:MJV
Sample : WG2001825-6,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 25 06:27:22 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.088	117	51489	9.764	ug/L		95
40) 1,1,1-Trichloroethane	5.153	97	68253	10.631	ug/L		95
42) 2-Butanone	5.242	43	45383	37.206	ug/L	#	87
43) 1,1-Dichloropropene	5.281	75	59981	10.662	ug/L		94
45) Benzene	5.523	78	190055	10.728	ug/L		96
48) 1,2-Dichloroethane	5.727	62	59211	10.508	ug/L		99
52) Trichloroethene	6.117	95	43977	10.469	ug/L	#	84
54) Dibromomethane	6.558	93	23928	9.967	ug/L		94
55) 1,2-Dichloropropane	6.658	63	48994	10.886	ug/L		98
58) Bromodichloromethane	6.734	83	58511	10.017	ug/L		94
61) 1,4-Dioxane	6.934	88	11131	378.465	ug/L	#	84
62) cis-1,3-Dichloropropene	7.425	75	63679	9.445	ug/L		93
65) Toluene	7.690	92	115264	10.375	ug/L		93
66) 4-Methyl-2-pentanone	8.122	58	11312M1	9.689	ug/L		
67) Tetrachloroethene	8.134	166	43176	9.666	ug/L		96
69) trans-1,3-Dichloropropene	8.170	75	53045	9.642	ug/L		89
72) 1,1,2-Trichloroethane	8.357	83	29356	10.054	ug/L		97
73) Chlorodibromomethane	8.574	129	36033	9.198	ug/L		99
74) 1,3-Dichloropropane	8.680	76	62318	10.337	ug/L		98
75) 1,2-Dibromoethane	8.839	107	33364	9.644	ug/L		86
77) 2-Hexanone	9.124	43	16644	8.874	ug/L	#	88
78) Chlorobenzene	9.486	112	118211	10.011	ug/L	#	80
79) Ethylbenzene	9.525	91	216084	10.179	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.573	131	37626	9.597	ug/L	#	82
81) p/m Xylene	9.715	106	161338	19.742	ug/L		97
82) o Xylene	10.259	106	158324	19.868	ug/L		88
83) Styrene	10.328	104	254125	18.889	ug/L		97
85) Bromoform	10.353	173	18238	8.533	ug/L	#	62
87) Isopropylbenzene	10.643	105	211990	9.924	ug/L		99
89) Bromobenzene	11.081	156	45631	9.570	ug/L		98
90) n-Propylbenzene	11.129	91	245494	10.133	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.221	83	44016	10.673	ug/L		98
93) 4-Ethyltoluene	11.254	105	202092	10.052	ug/L		99
94) 2-Chlorotoluene	11.299	91	144858	10.294	ug/L		98
95) 1,3,5-Trimethylbenzene	11.354	105	177542	9.980	ug/L		97
96) 1,2,3-Trichloropropane	11.357	75	34512	10.601	ug/L	#	90
97) trans-1,4-Dichloro-2-b...	11.407	53	11023	9.353	ug/L		87
98) 4-Chlorotoluene	11.483	91	146308	10.050	ug/L		100
99) tert-Butylbenzene	11.695	119	144406	9.836	ug/L		97

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N26.D
Acq On : 24 Nov 2024 5:44 am
Operator : ELAINE:MJV
Sample : WG2001825-6,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 25 06:27:22 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.776	105	175852	9.857	ug/L	97
103) sec-Butylbenzene	11.884	105	218136	9.731	ug/L	98
104) p-Isopropyltoluene	12.040	119	176603	9.509	ug/L	97
105) 1,3-Dichlorobenzene	12.110	146	92382	9.679	ug/L	97
106) 1,4-Dichlorobenzene	12.202	146	91566	9.565	ug/L	98
107) p-Diethylbenzene	12.414	119	103709	9.544	ug/L	96
108) n-Butylbenzene	12.476	91	159023	9.818	ug/L	99
109) 1,2-Dichlorobenzene	12.623	146	86143	9.486	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.209	119	158345	9.096	ug/L	97
111) 1,2-Dibromo-3-chloropr...	13.401	155	5213	9.452	ug/L	99
113) Hexachlorobutadiene	14.012	225	13722	7.936	ug/L	91
114) 1,2,4-Trichlorobenzene	14.032	180	49689	8.786	ug/L	96
115) Naphthalene	14.327	128	123547	9.302	ug/L	100
116) 1,2,3-Trichlorobenzene	14.494	180	45024	8.918	ug/L	95

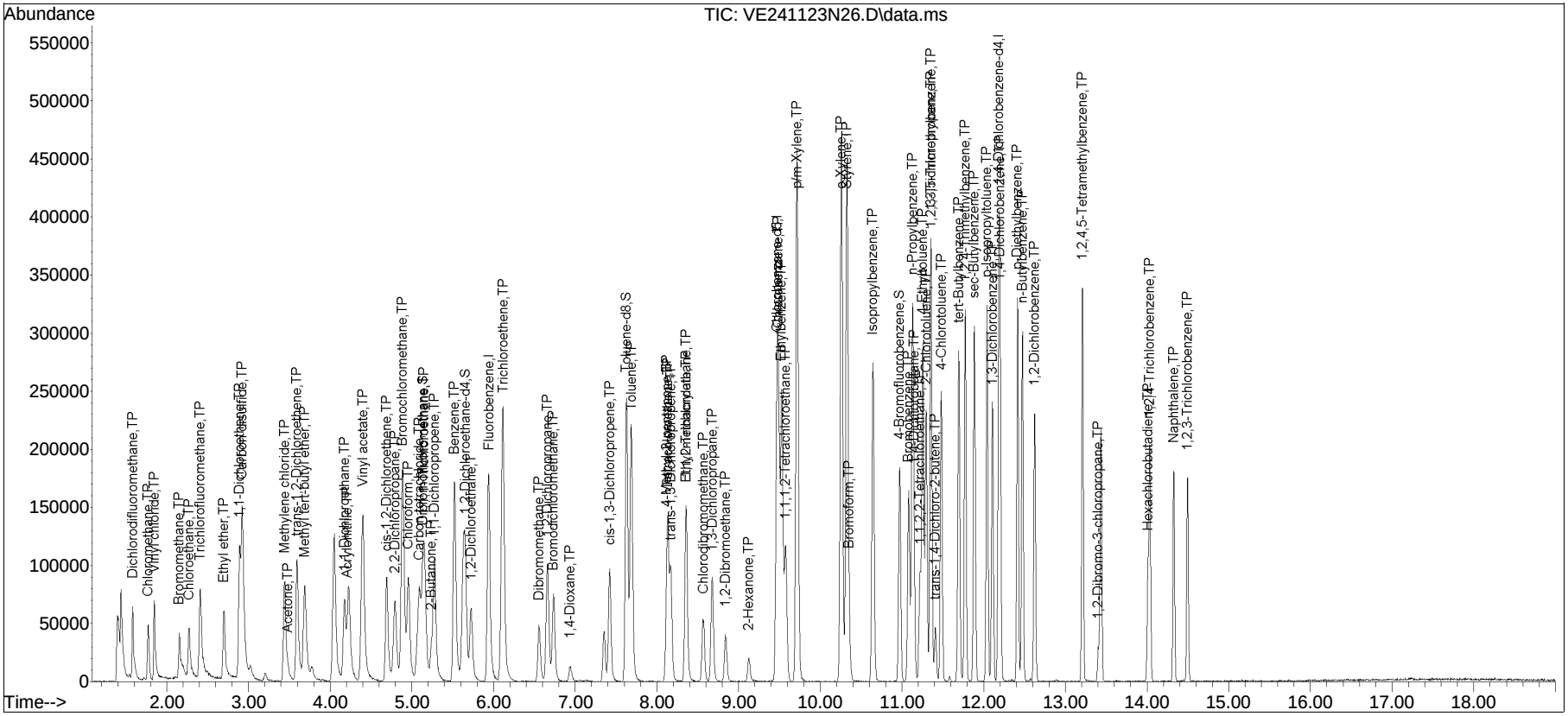
(#) = qualifier out of range (m) = manual integration (+) = signals summed

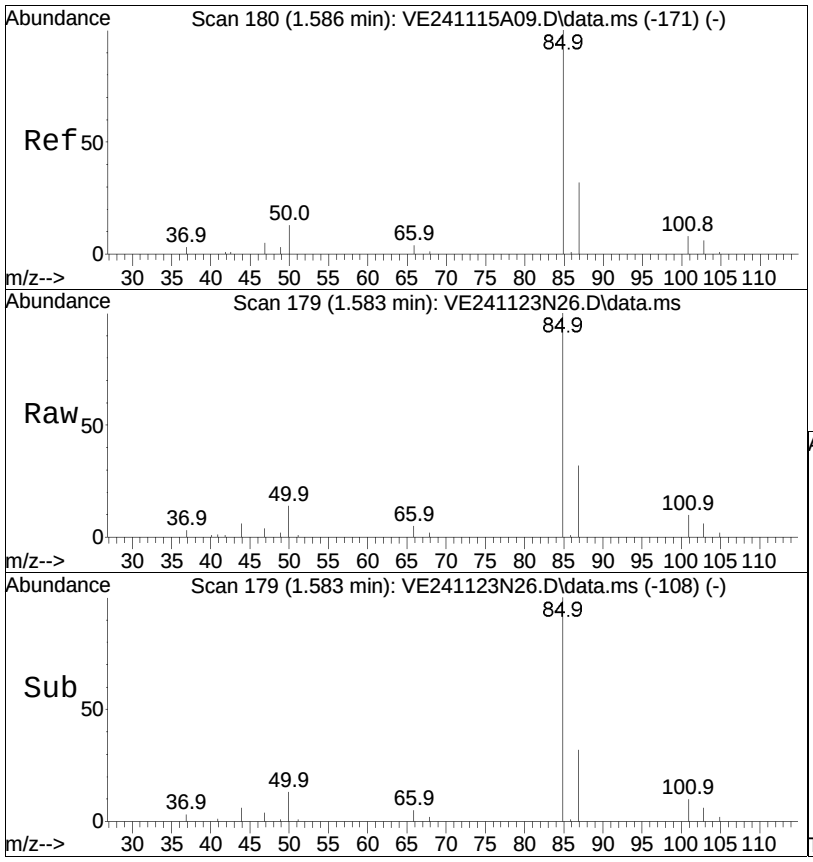
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N26.D
Acq On : 24 Nov 2024 5:44 am
Operator : ELAINE:MJV
Sample : WG2001825-6,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 25 06:27:22 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41123N02.D•

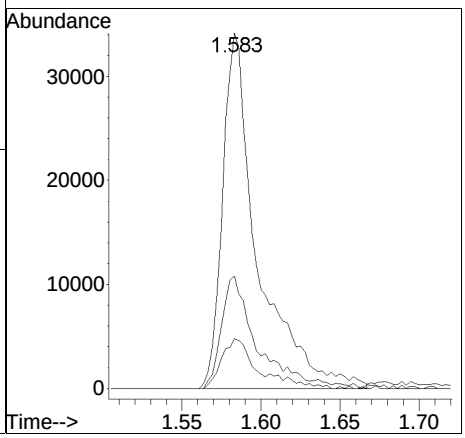


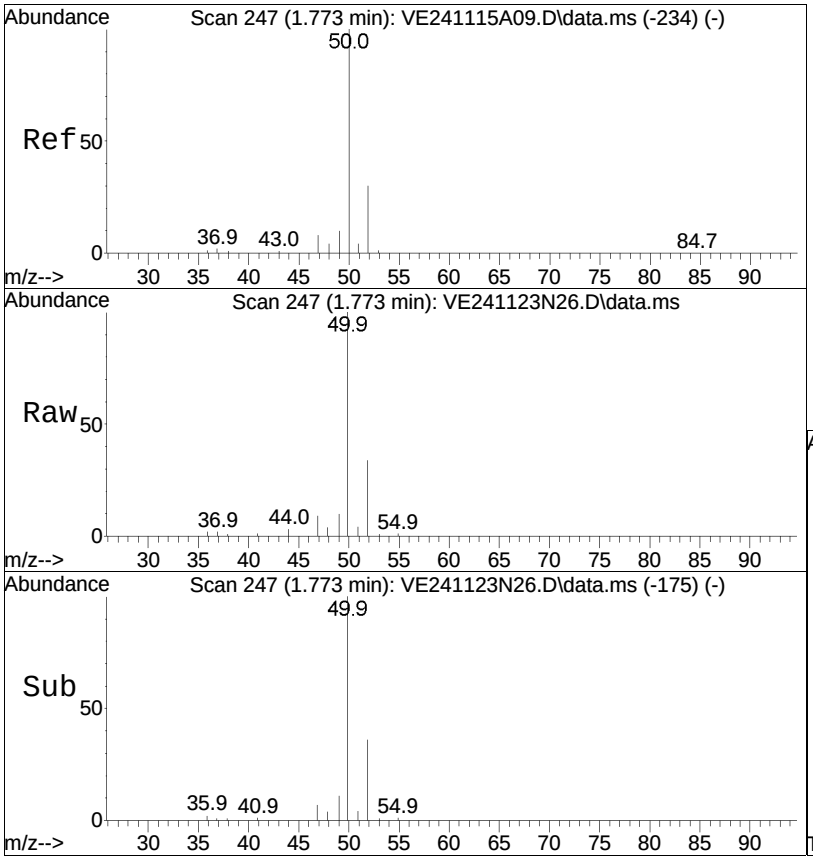


#2
Dichlorodifluoromethane
Concen: 11.83 ug/L
RT: 1.583 min Scan# 179
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 85 Resp: 52676

Ion	Ratio	Lower	Upper
85	100		
87	30.8	21.7	45.1
50	11.6	11.8	24.4#

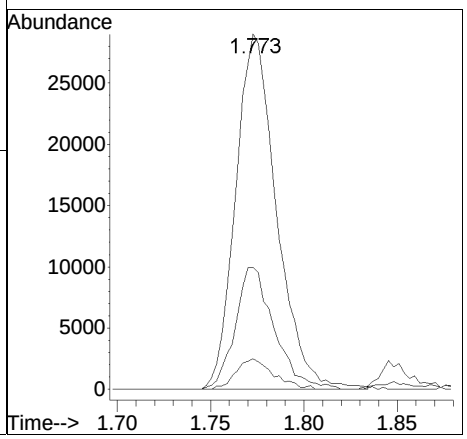


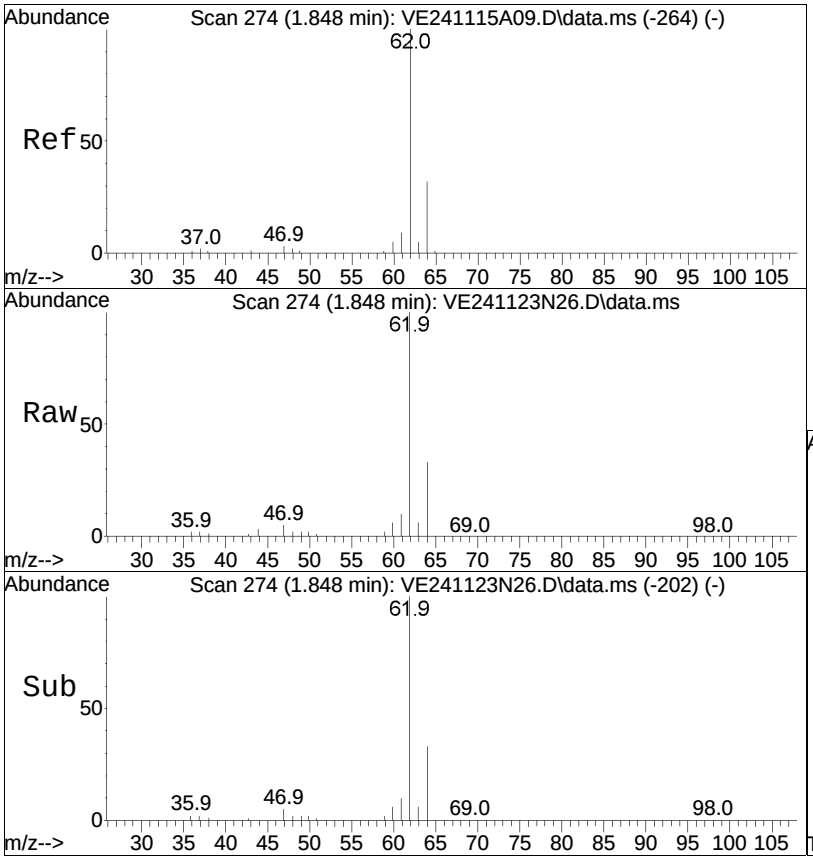


#3
Chloromethane
Concen: 10.07 ug/L
RT: 1.773 min Scan# 247
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 50 Resp: 44283

Ion	Ratio	Lower	Upper
50	100		
52	32.8	14.9	54.9
47	8.0	0.0	28.0

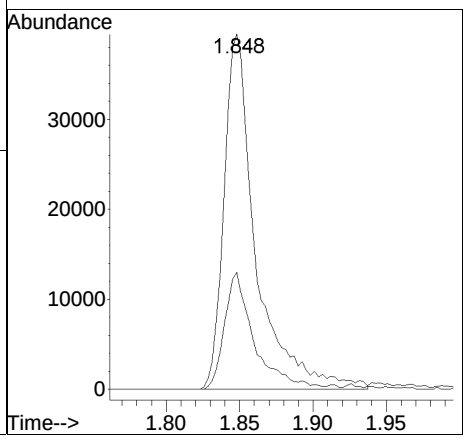


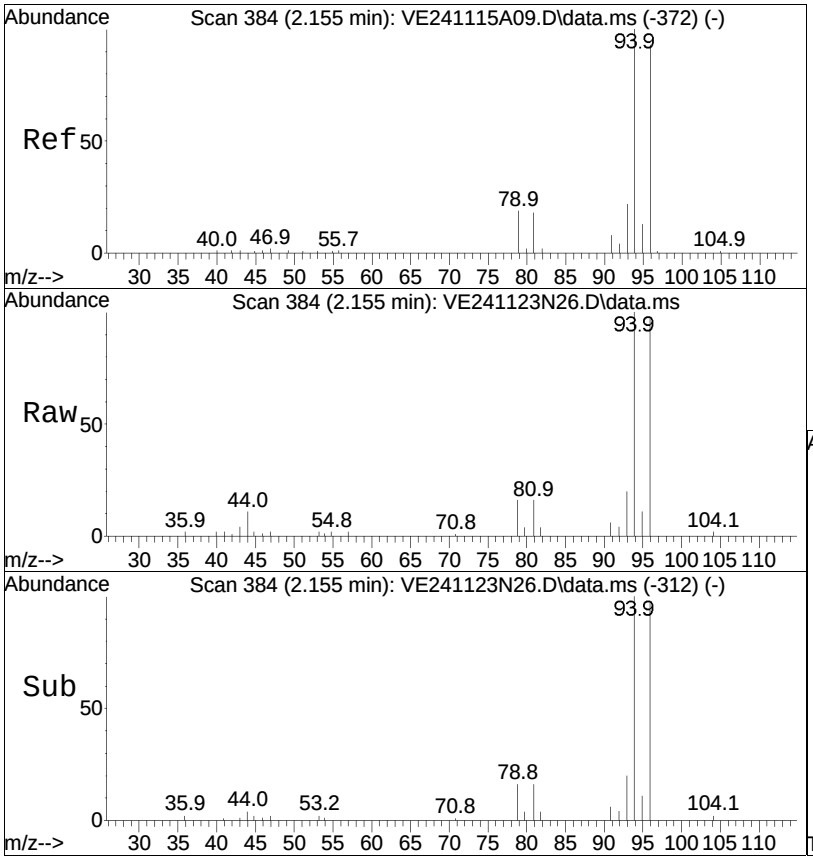


#4
Vinyl chloride
Concen: 12.75 ug/L
RT: 1.848 min Scan# 274
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 62 Resp: 59728

Ion	Ratio	Lower	Upper
62	100		
64	30.8	8.1	48.1

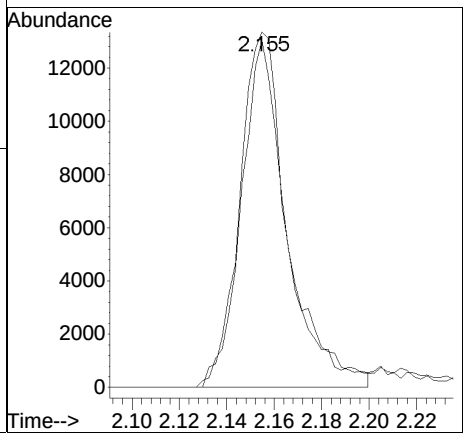


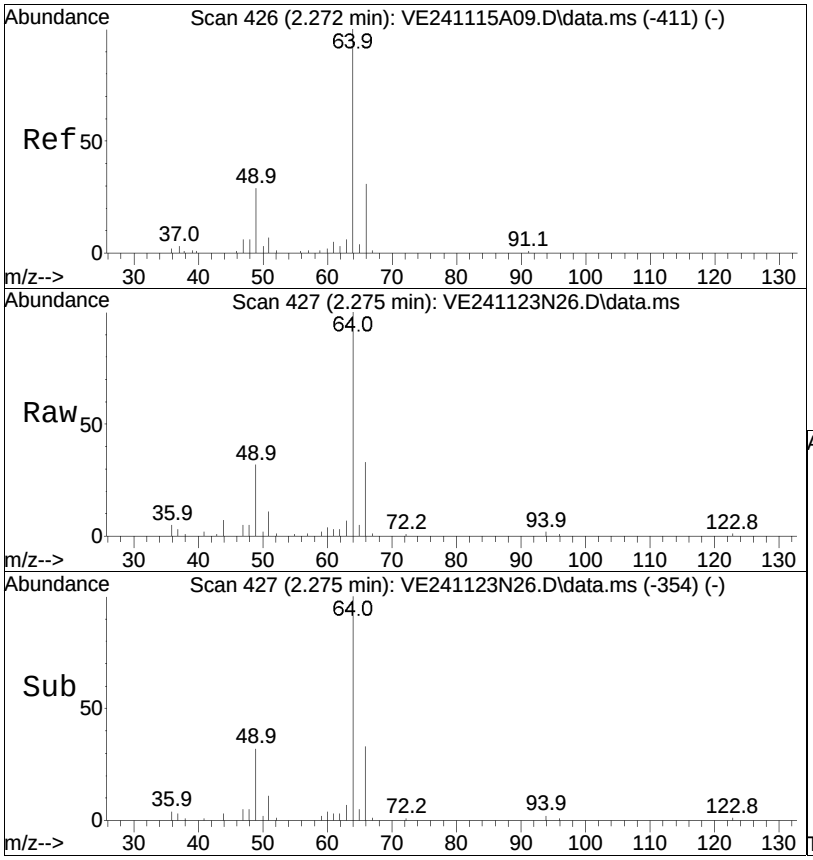


#5
Bromomethane
Concen: 5.72 ug/L
RT: 2.155 min Scan# 384
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 94 Resp: 18825

Ion	Ratio	Lower	Upper
94	100		
96	92.5	68.2	108.2

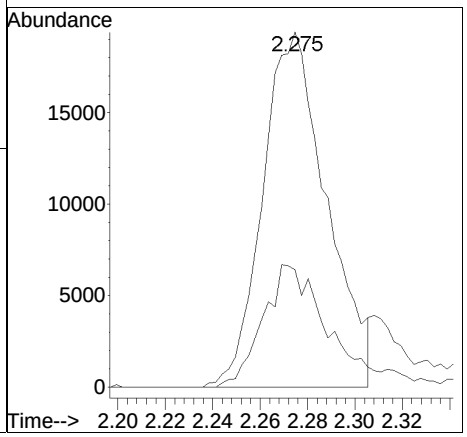


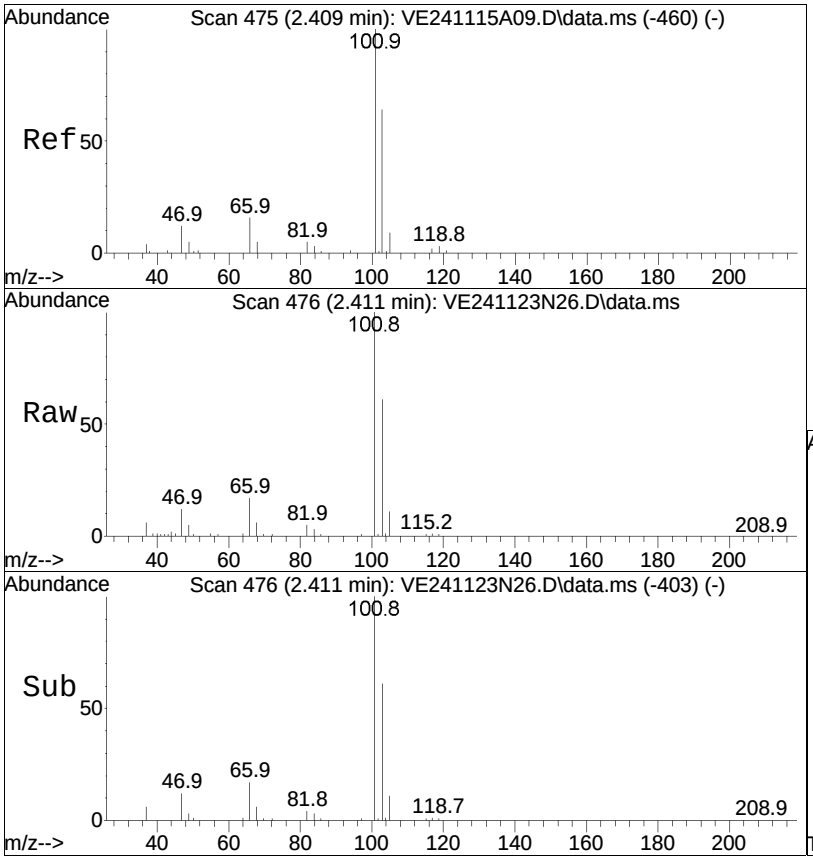


#6
Chloroethane
Concen: 10.70 ug/L
RT: 2.275 min Scan# 427
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 64 Resp: 36299

Ion	Ratio	Lower	Upper
64	100		
66	34.4	10.7	50.7

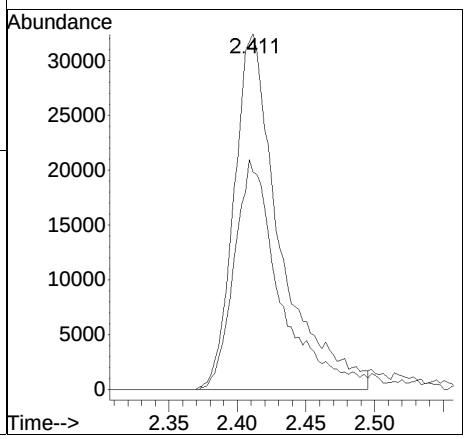


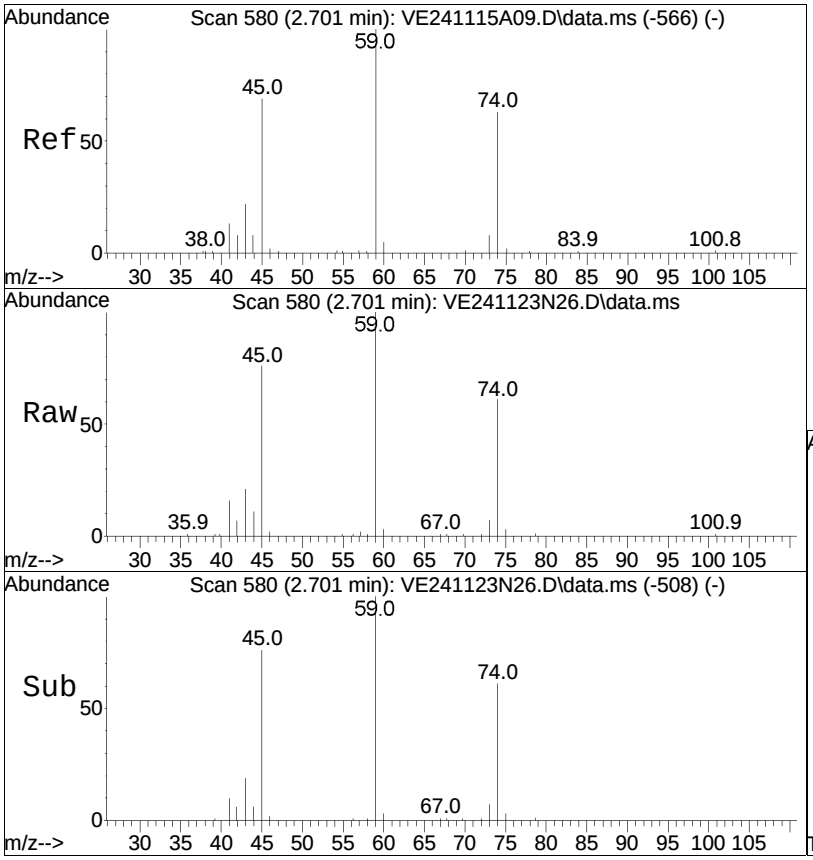


#7
Trichlorofluoromethane
Concen: 11.08 ug/L
RT: 2.411 min Scan# 476
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:101 Resp: 75757

Ion	Ratio	Lower	Upper
101	100		
103	64.2	48.2	72.2

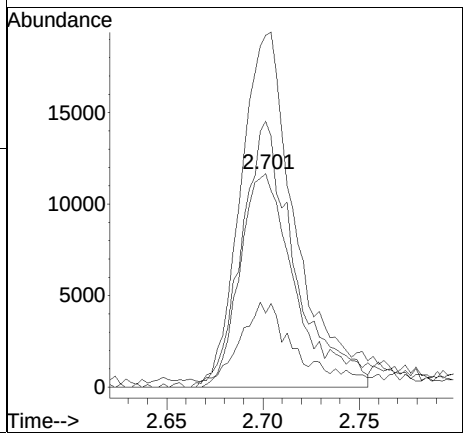


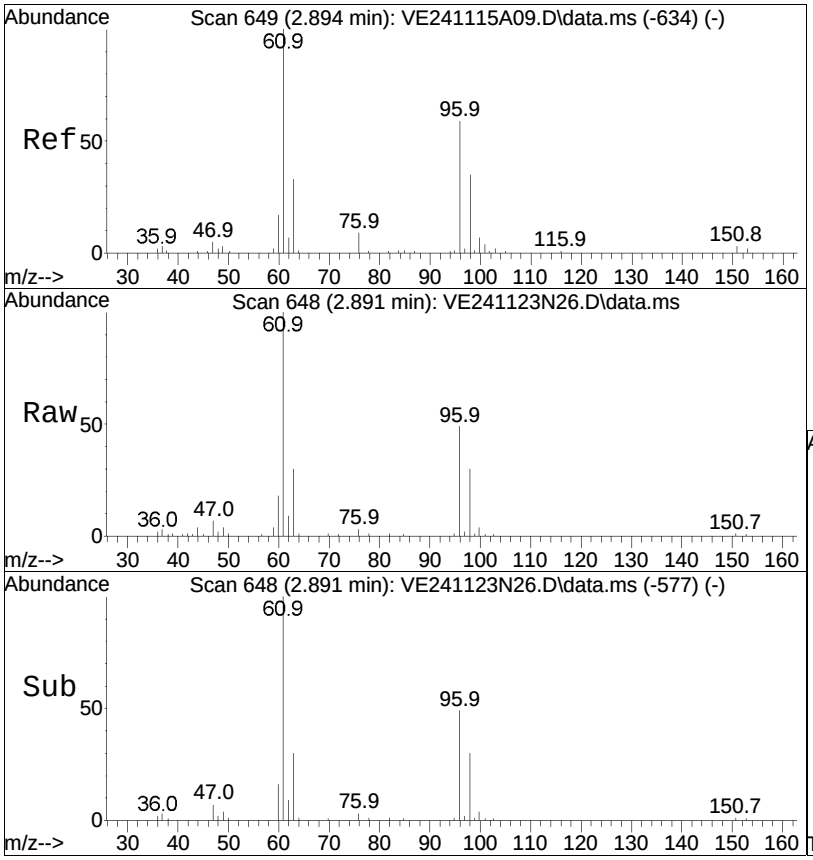


#8
Ethyl ether
Concen: 11.13 ug/L
RT: 2.701 min Scan# 580
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 74 Resp: 23534

Ion	Ratio	Lower	Upper
74	100		
59	160.2	91.7	190.5
45	118.1	77.4	160.8
43	30.1	24.6	51.2

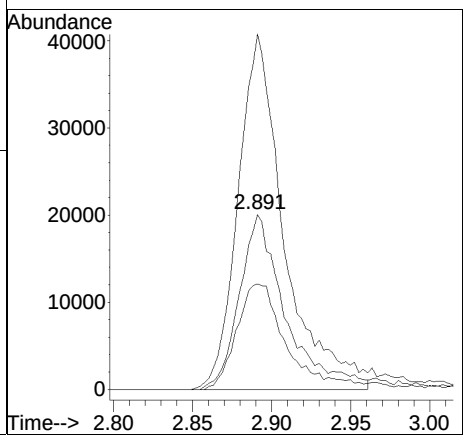


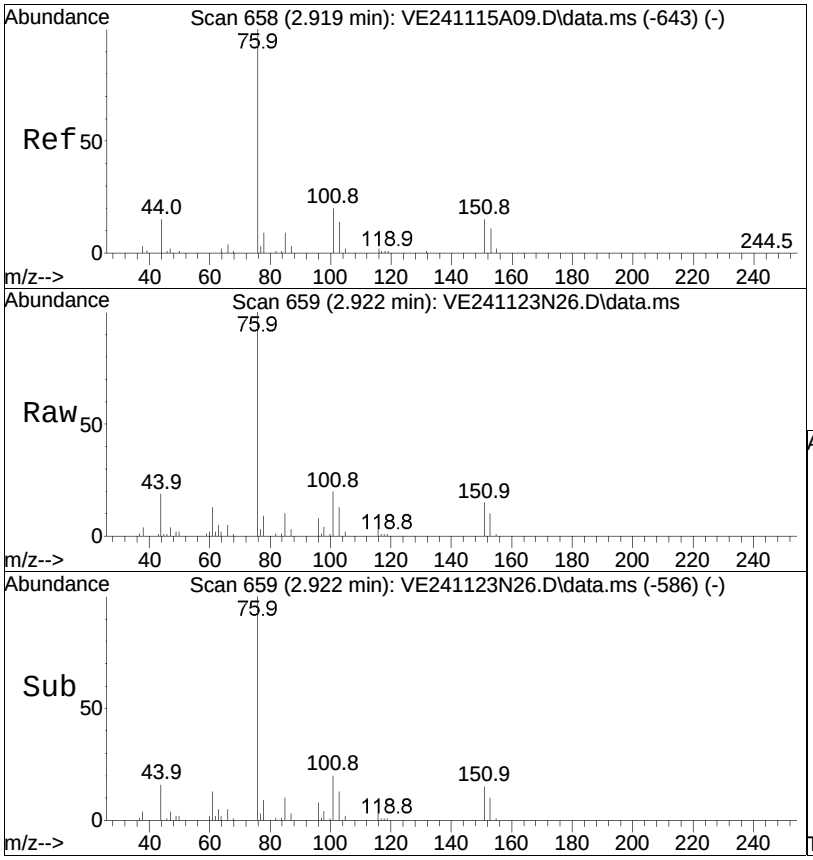


#10
1,1-Dichloroethene
Concen: 11.69 ug/L
RT: 2.891 min Scan# 648
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 96 Resp: 40691

Ion	Ratio	Lower	Upper
96	100		
61	205.5	135.4	203.0#
63	64.8	42.6	63.8#

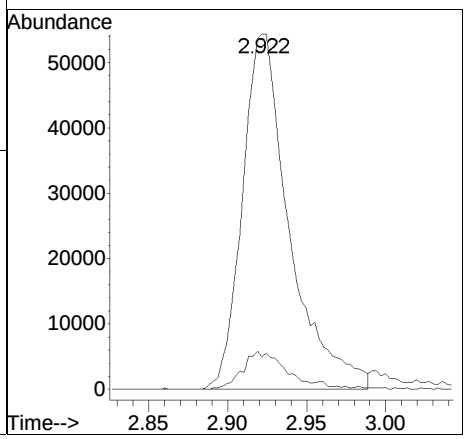


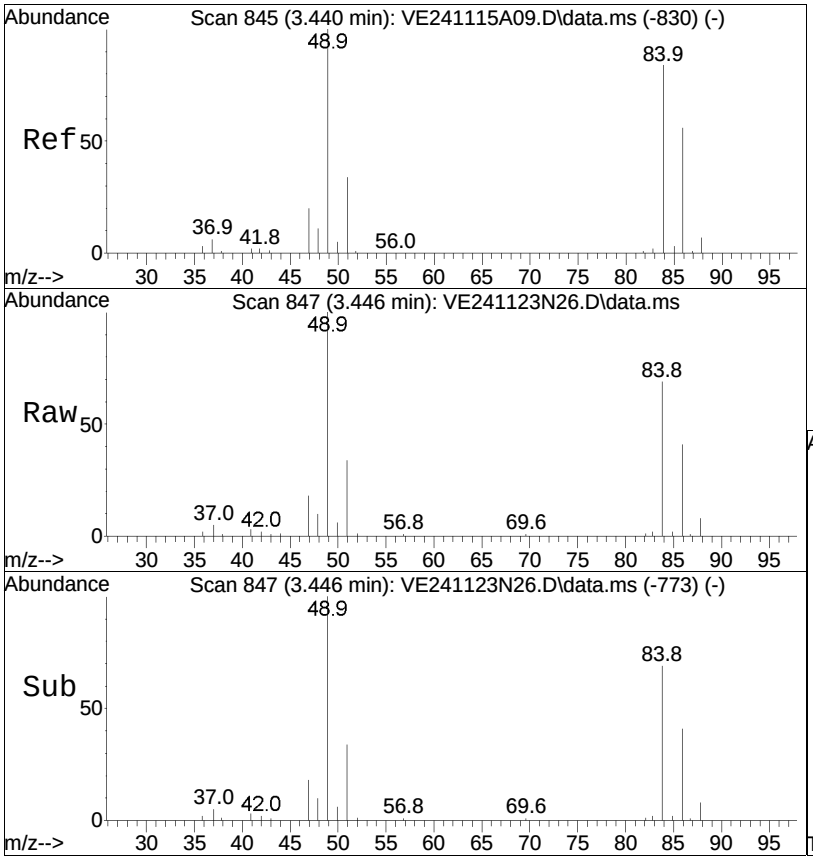


#11
Carbon disulfide
Concen: 10.79 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 76 Resp: 112819

Ion	Ratio	Lower	Upper
76	100		
78	9.5	5.5	11.3

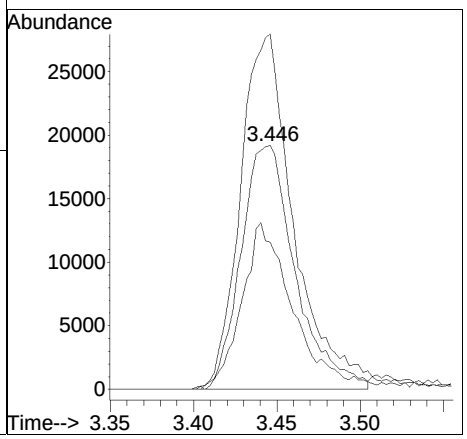


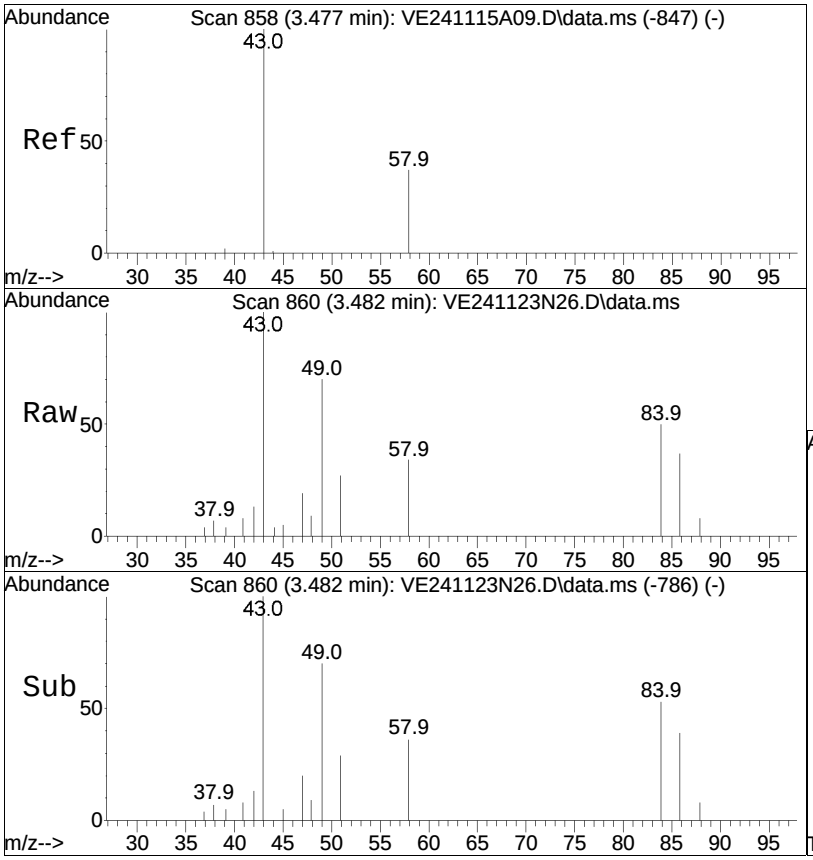


#15
Methylene chloride
Concen: 10.05 ug/L
RT: 3.446 min Scan# 847
Delta R.T. 0.005 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 84 Resp: 43685

Ion	Ratio	Lower	Upper
84	100		
86	62.3	40.2	83.6
49	144.8	103.2	214.4

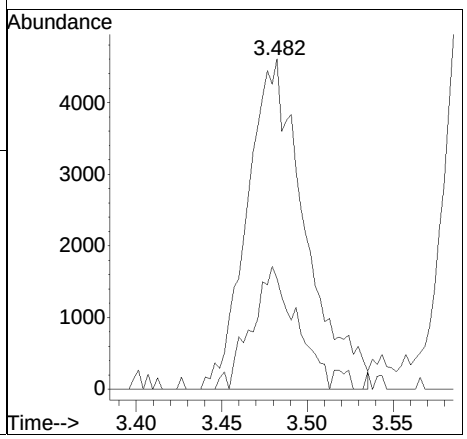


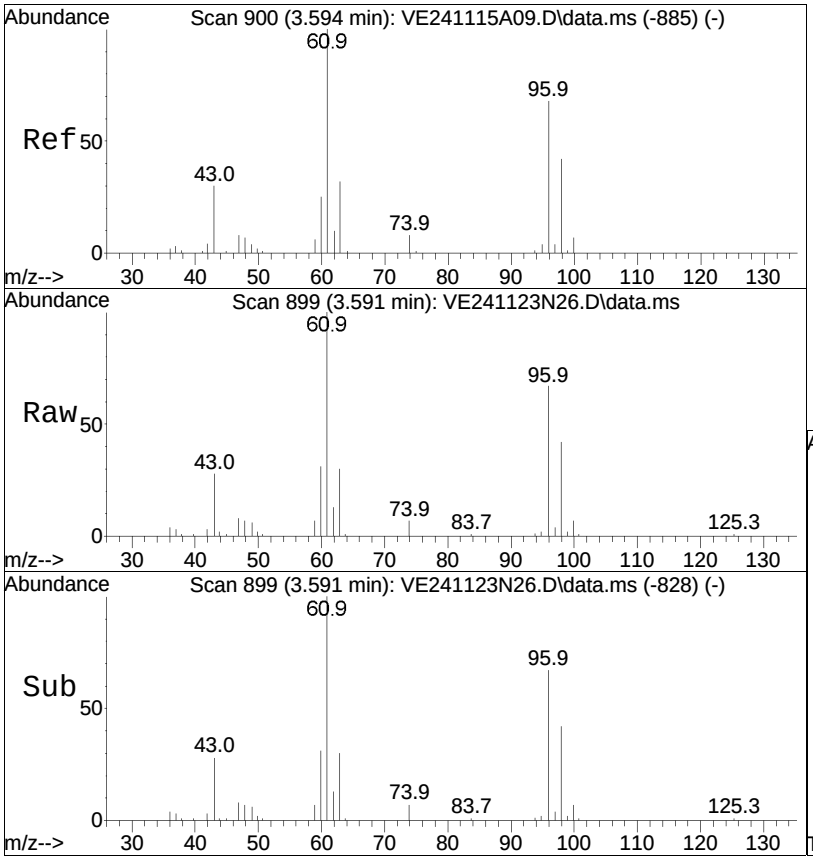


#17
Acetone
Concen: 12.66 ug/L
RT: 3.482 min Scan# 860
Delta R.T. 0.005 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 43 Resp: 10829

Ion	Ratio	Lower	Upper
43	100		
58	28.9	23.4	35.0

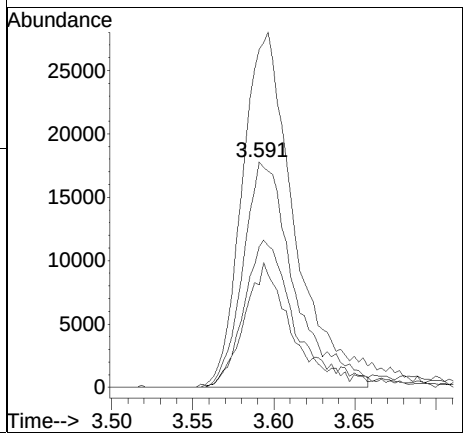


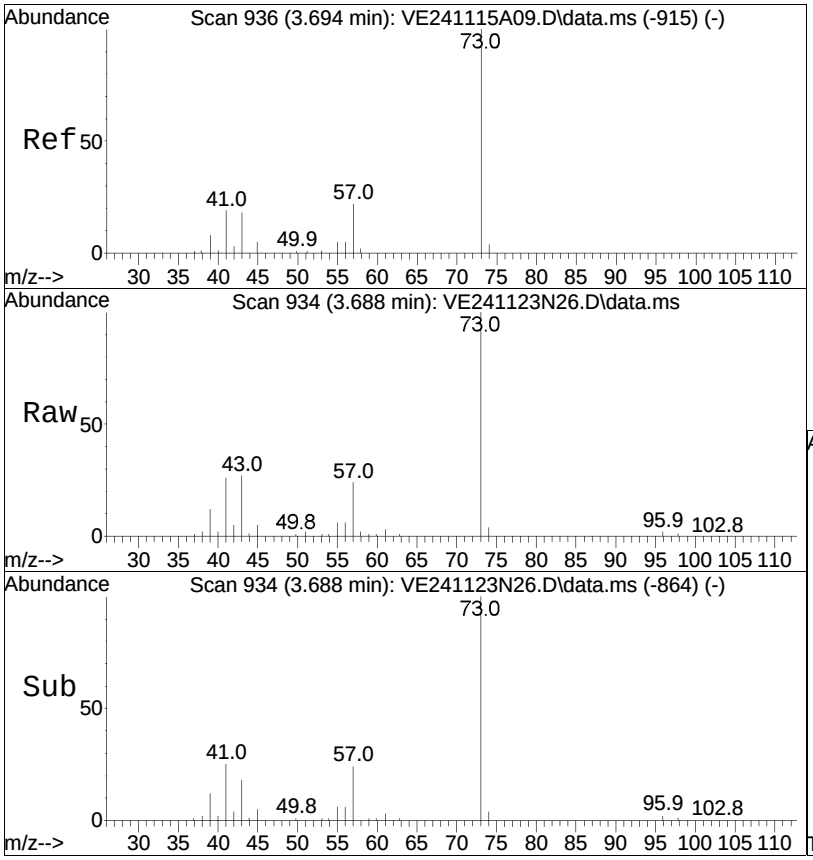


#18
trans-1,2-Dichloroethene
Concen: 10.14 ug/L
RT: 3.591 min Scan# 899
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 96 Resp: 39334

Ion	Ratio	Lower	Upper
96	100		
61	166.8	93.5	194.1
98	61.3	37.8	78.6
63	48.1	29.7	61.7

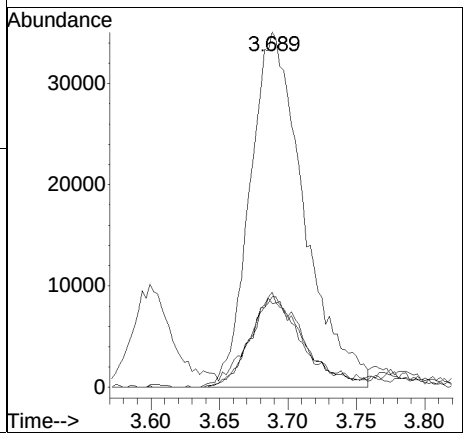


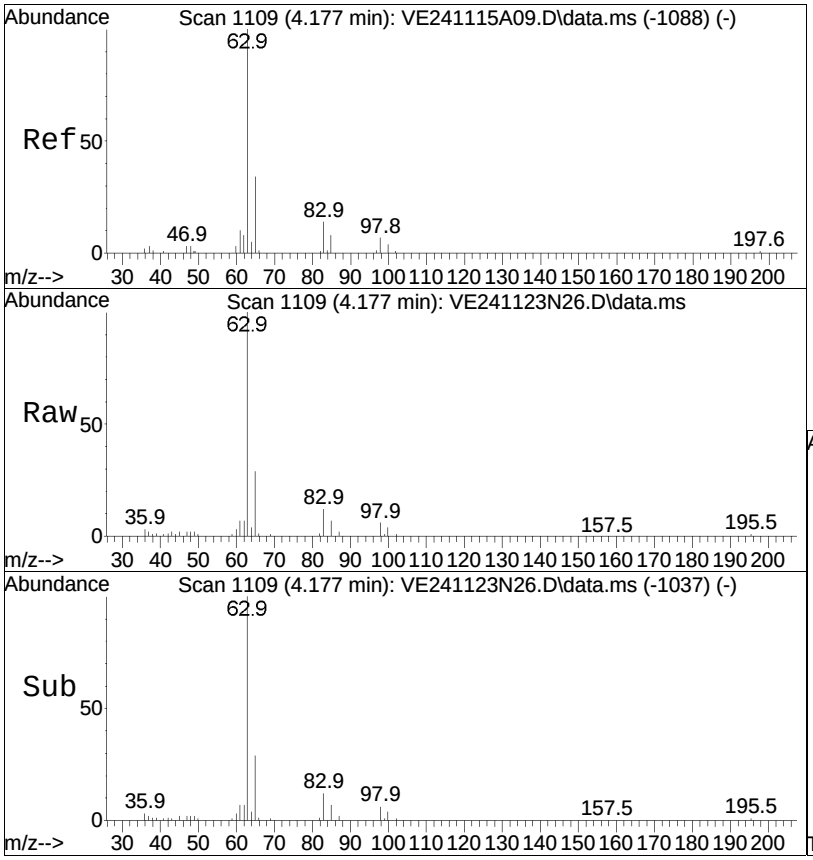


#21
Methyl tert-butyl ether
Concen: 9.27 ug/L
RT: 3.688 min Scan# 934
Delta R.T. -0.006 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 73 Resp: 96105

Ion	Ratio	Lower	Upper
73	100		
57	25.7	16.1	33.3
43	21.6	17.0	35.2
41	25.2	18.7	38.9

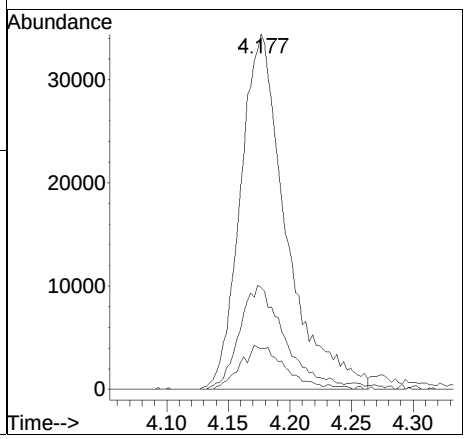


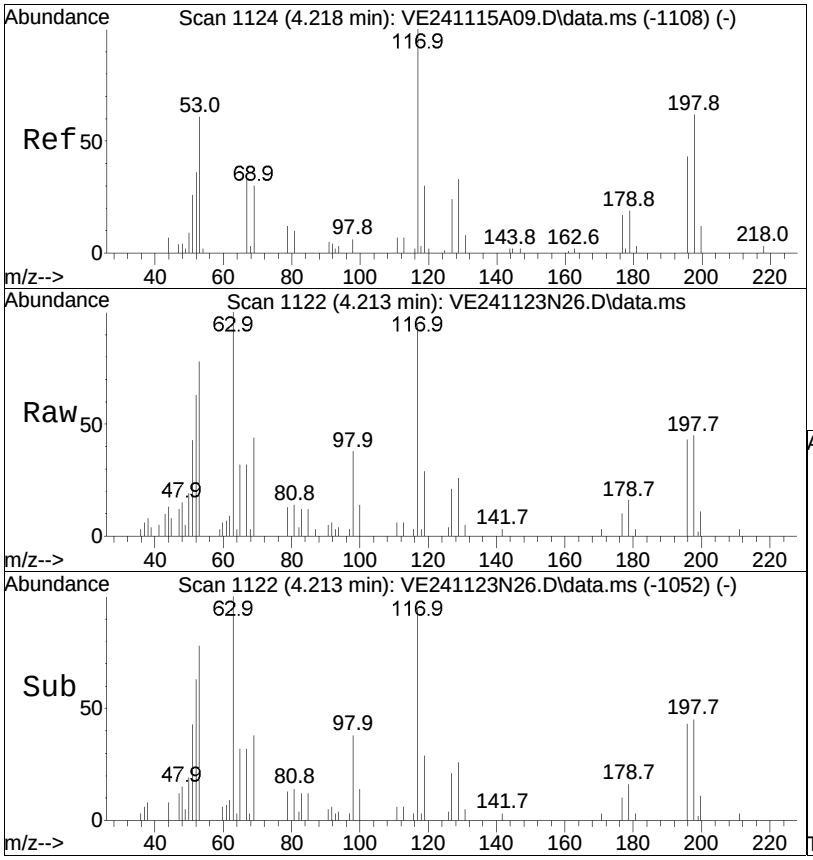


#25
1,1-Dichloroethane
Concen: 11.48 ug/L
RT: 4.177 min Scan# 1109
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 63 Resp: 89006

Ion	Ratio	Lower	Upper
63	100		
65	29.1	10.3	50.3
83	11.8	0.0	33.1

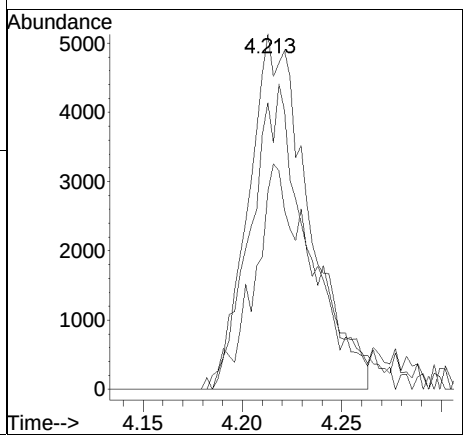


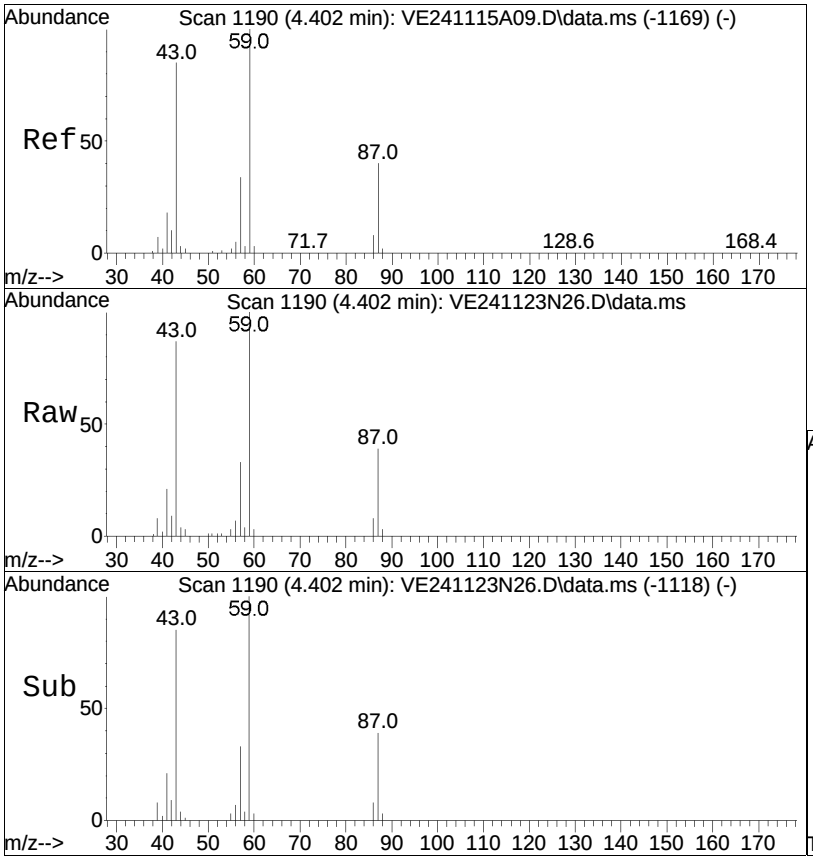


#27
Acrylonitrile
Concen: 10.26 ug/L
RT: 4.213 min Scan# 1122
Delta R.T. -0.006 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 53 Resp: 10759

Ion	Ratio	Lower	Upper
53	100		
52	84.3	58.9	88.3
51	63.7	40.2	60.2#

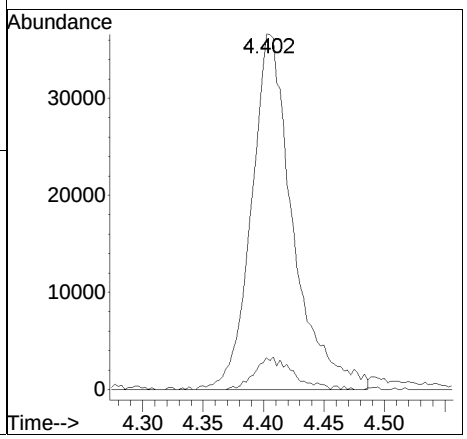


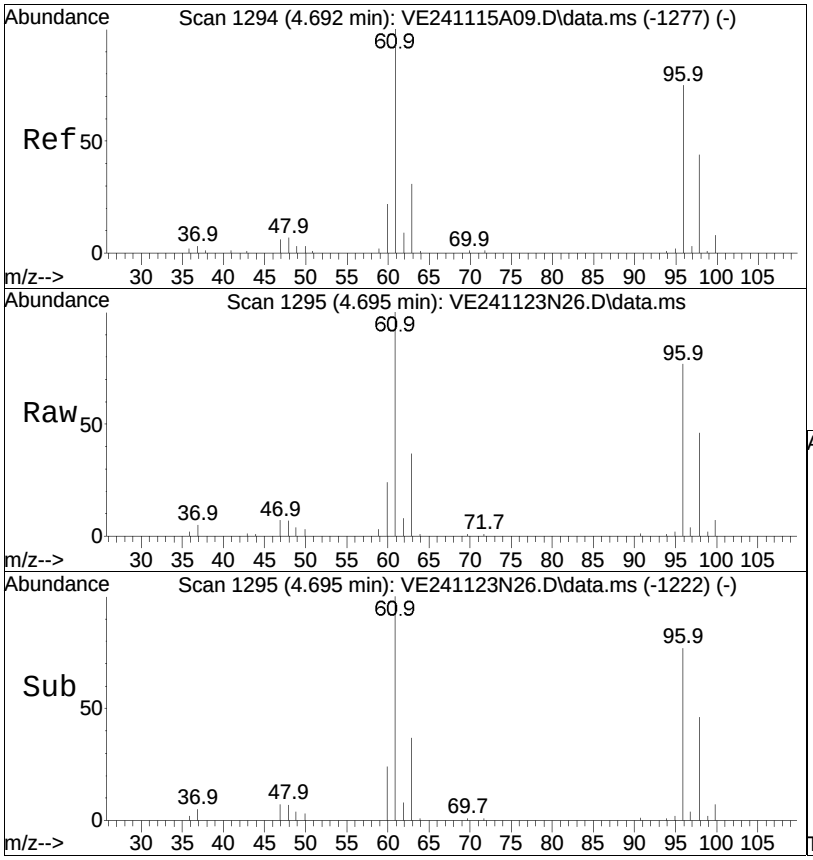


#29
Vinyl acetate
Concen: 9.73 ug/L
RT: 4.402 min Scan# 1190
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 43 Resp: 87602

Ion	Ratio	Lower	Upper
43	100		
86	7.9	6.2	9.4

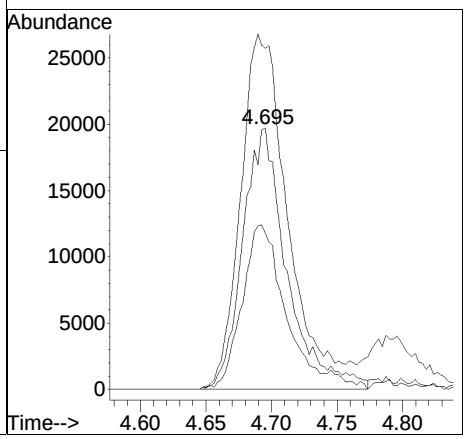


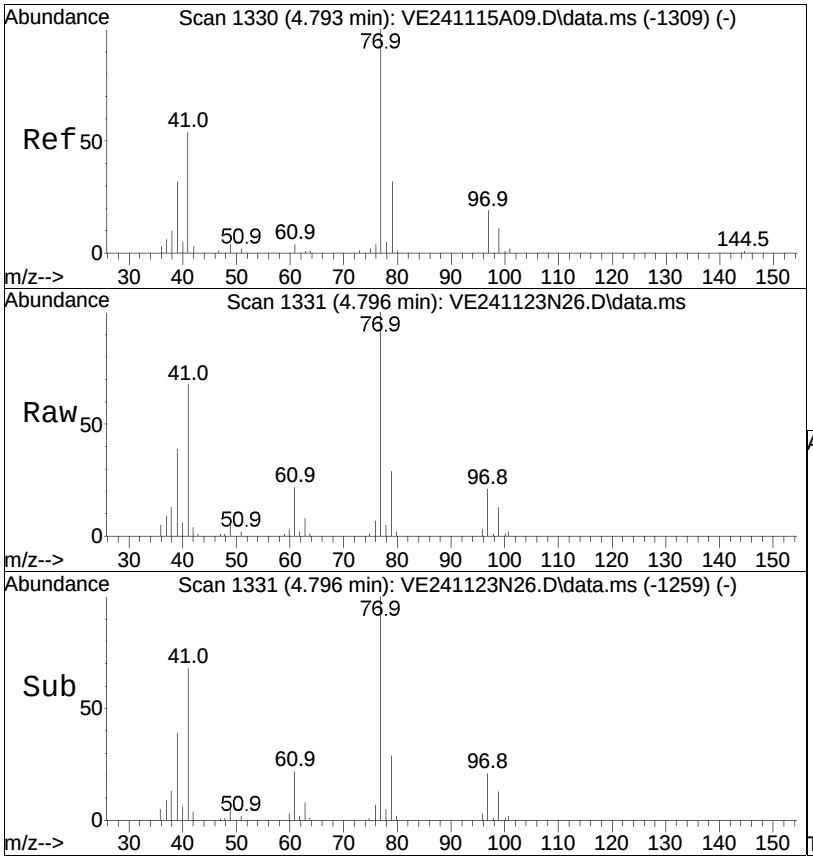


#30
cis-1,2-Dichloroethene
Concen: 10.48 ug/L
RT: 4.695 min Scan# 1295
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 96 Resp: 46390

Ion	Ratio	Lower	Upper
96	100		
61	144.0	120.3	180.5
98	60.2	50.2	75.4

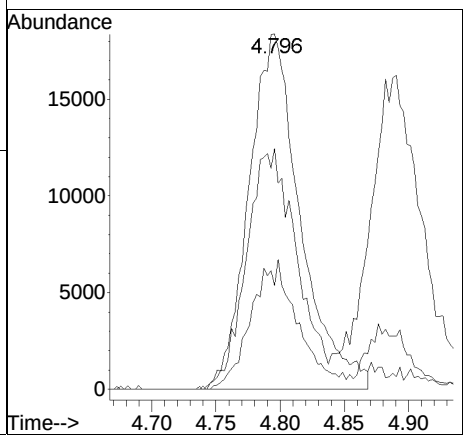


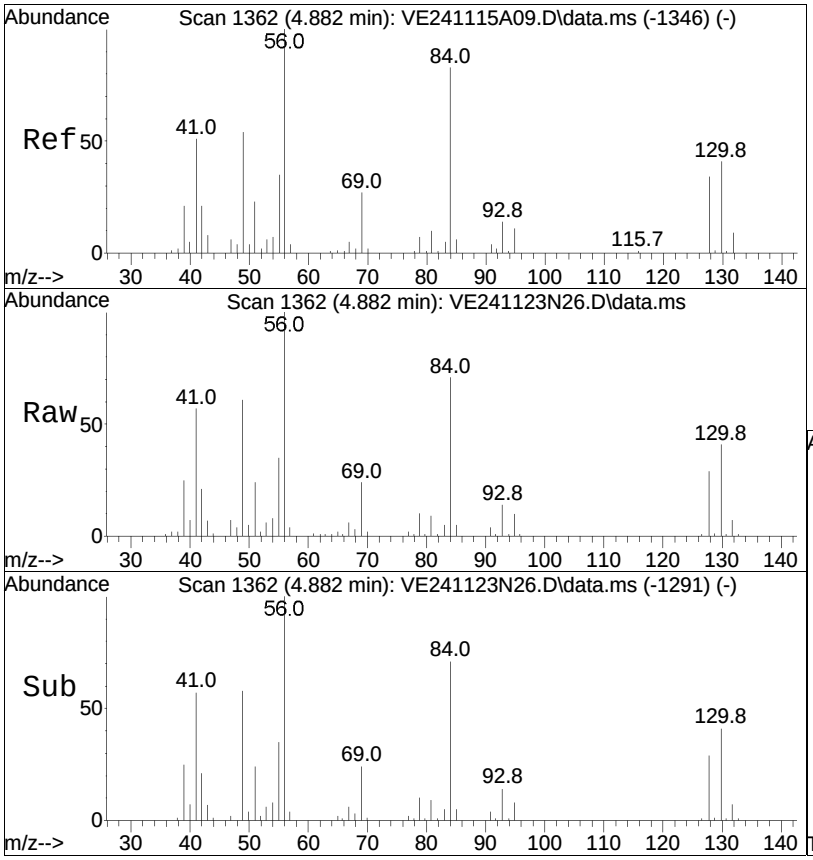


#31
2,2-Dichloropropane
Concen: 8.42 ug/L
RT: 4.796 min Scan# 1331
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 77 Resp: 51476

Ion	Ratio	Lower	Upper
77	100		
41	65.8	46.5	96.5
79	17.1	21.6	45.0#

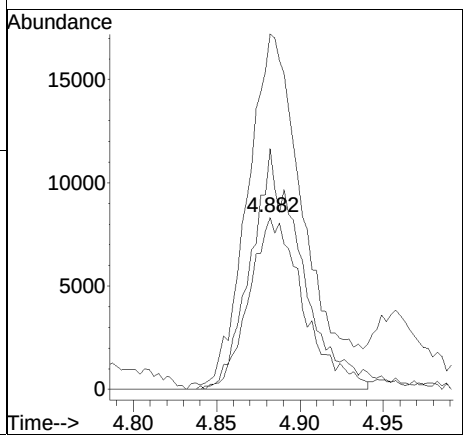


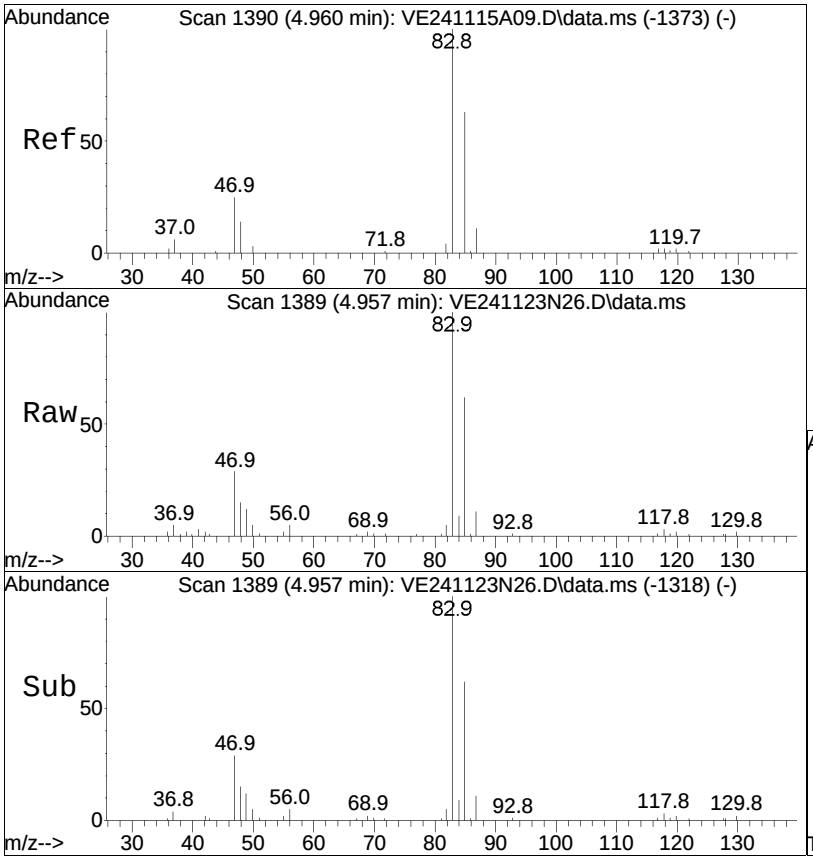


#33
Bromochloromethane
Concen: 9.37 ug/L
RT: 4.882 min Scan# 1362
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:128 Resp: 18902

Ion	Ratio	Lower	Upper
128	100		
49	217.0	170.2	255.2
130	132.7	103.7	155.5

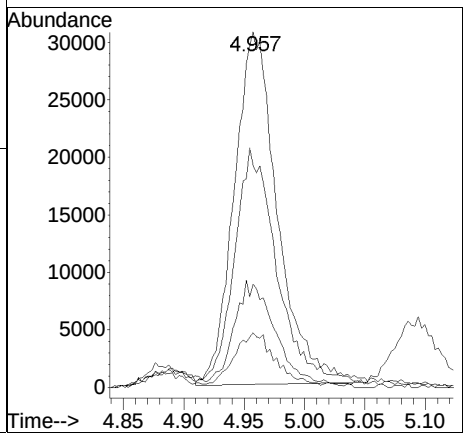


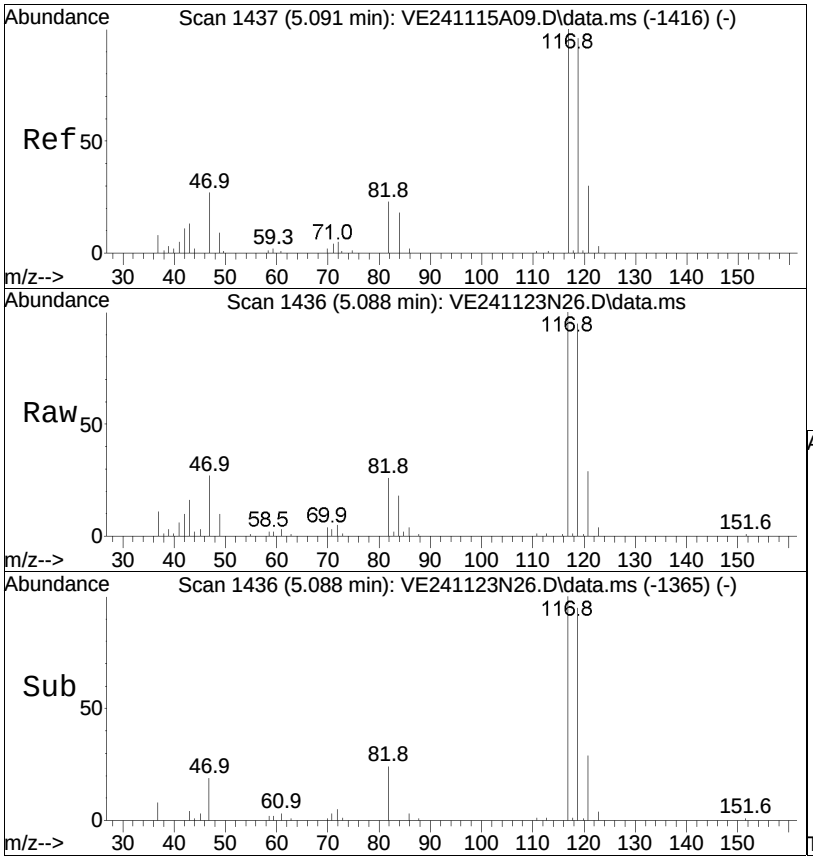


#35
Chloroform
Concen: 10.55 ug/L
RT: 4.957 min Scan# 1389
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 83 Resp: 76747

Ion	Ratio	Lower	Upper
83	100		
85	66.3	41.3	85.9
47	26.1	20.9	43.3
48	14.4	10.3	21.5

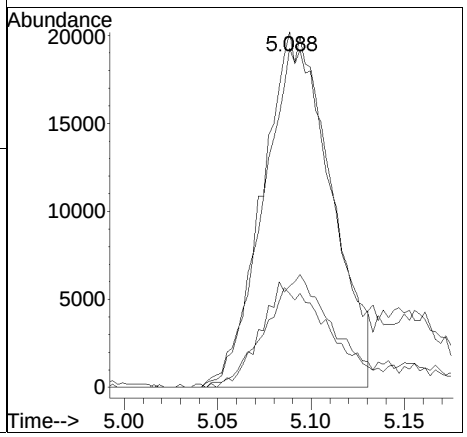


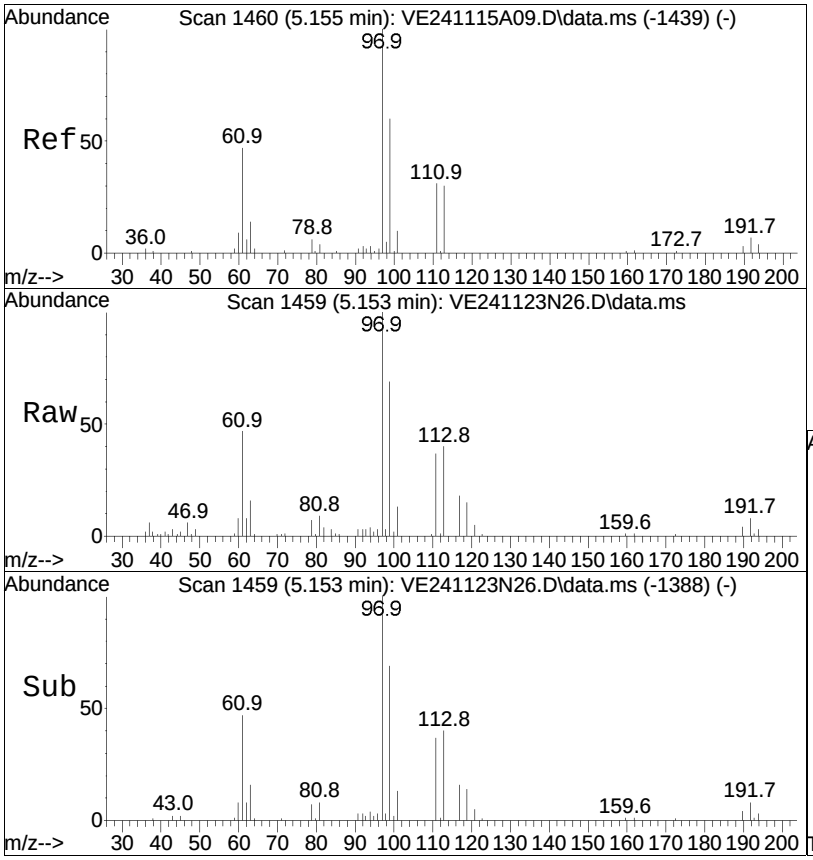


#37
Carbon tetrachloride
Concen: 9.76 ug/L
RT: 5.088 min Scan# 1436
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:117 Resp: 51489

Ion	Ratio	Lower	Upper
117	100		
119	97.9	60.6	126.0
121	31.8	18.0	37.4
82	28.8	19.8	41.0

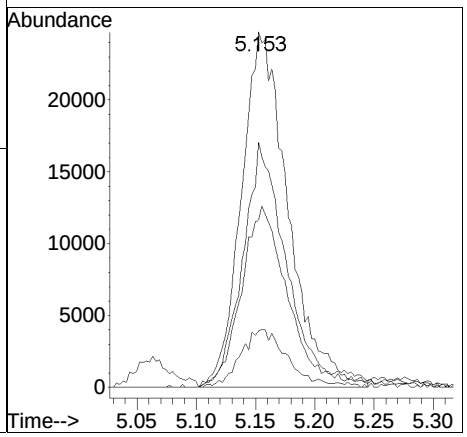


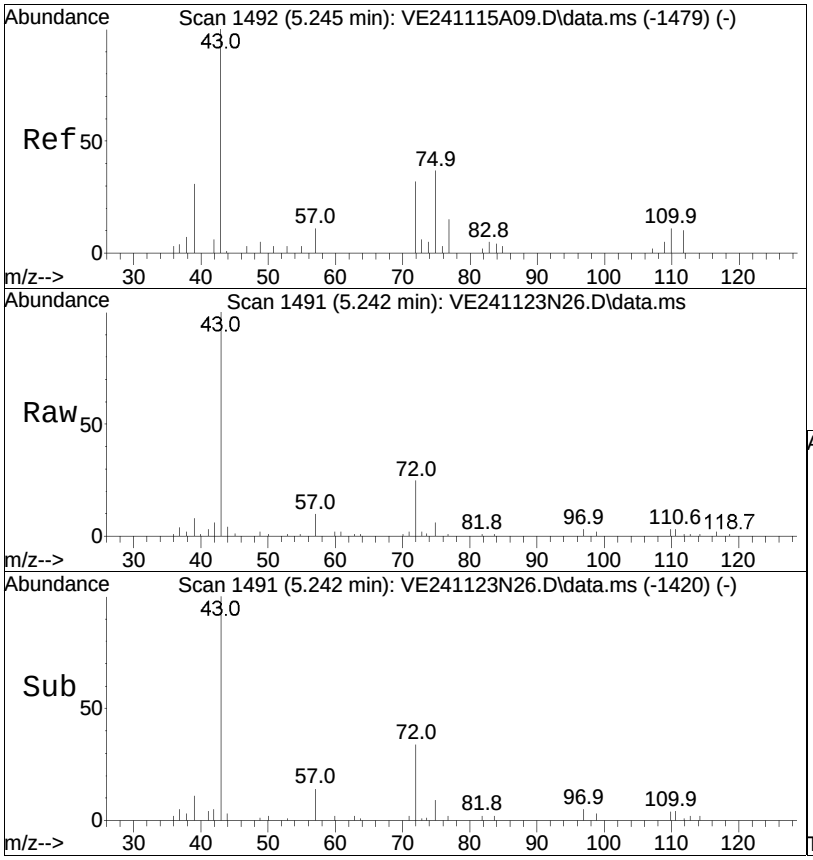


#40
1,1,1-Trichloroethane
Concen: 10.63 ug/L
RT: 5.153 min Scan# 1459
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 97 Resp: 68253

Ion	Ratio	Lower	Upper
97	100		
99	62.6	40.2	83.4
61	50.2	36.9	76.5
63	15.6	8.3	17.3

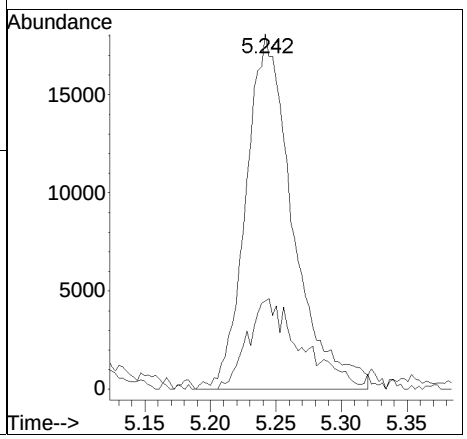


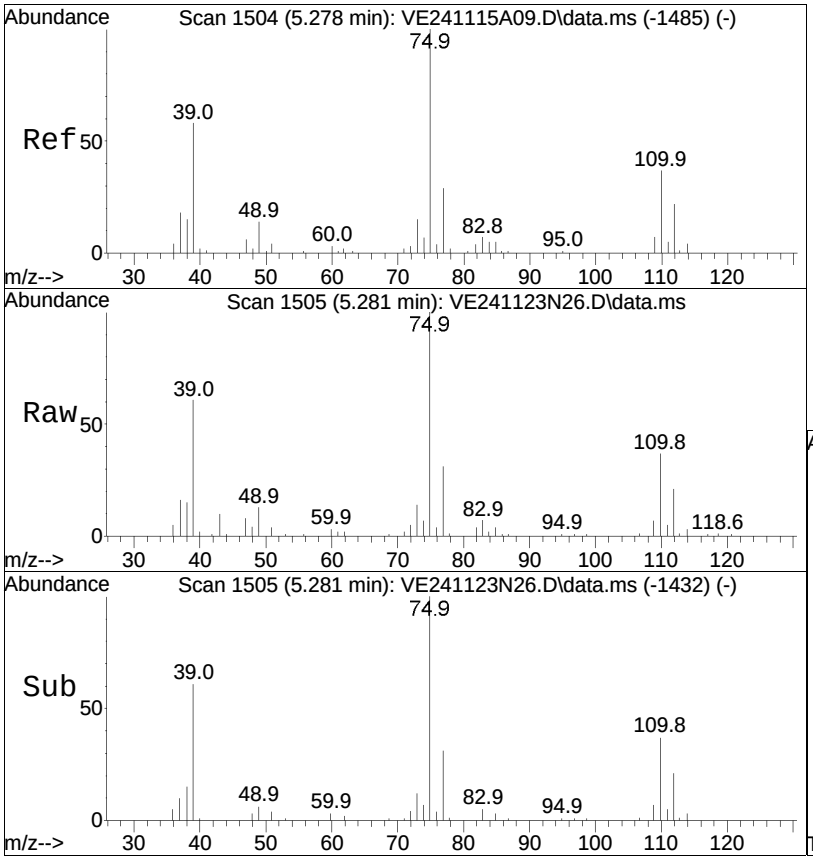


#42
2-Butanone
Concen: 37.21 ug/L
RT: 5.242 min Scan# 1491
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 43 Resp: 45383

Ion	Ratio	Lower	Upper
43	100		
72	25.4	15.7	23.5#

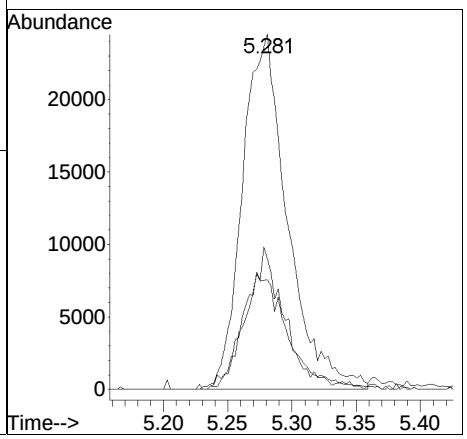


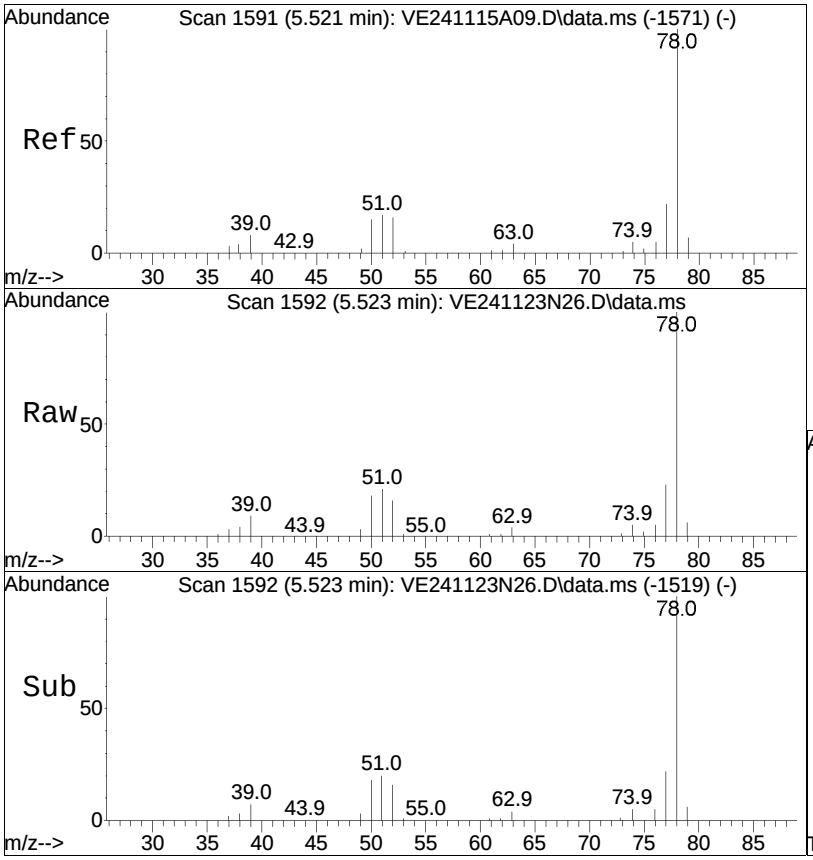


#43
1,1-Dichloropropene
Concen: 10.66 ug/L
RT: 5.281 min Scan# 1505
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 75 Resp: 59981

Ion	Ratio	Lower	Upper
75	100		
110	35.8	20.3	42.1
77	31.1	18.9	39.3

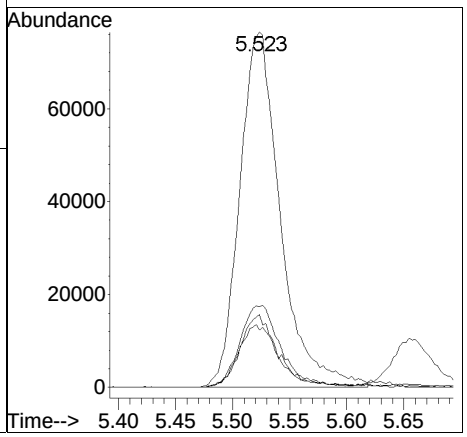


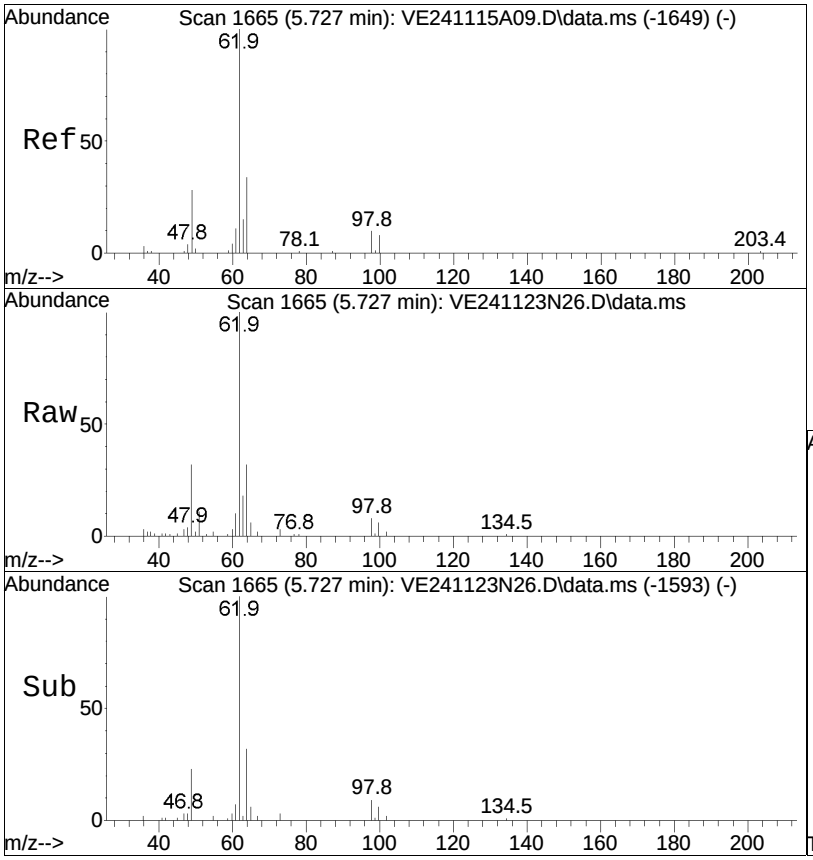


#45
Benzene
Concen: 10.73 ug/L
RT: 5.523 min Scan# 1592
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 78 Resp: 190055

Ion	Ratio	Lower	Upper
78	100		
77	23.0	12.8	26.6
51	19.2	13.5	27.9
52	17.4	12.0	25.0

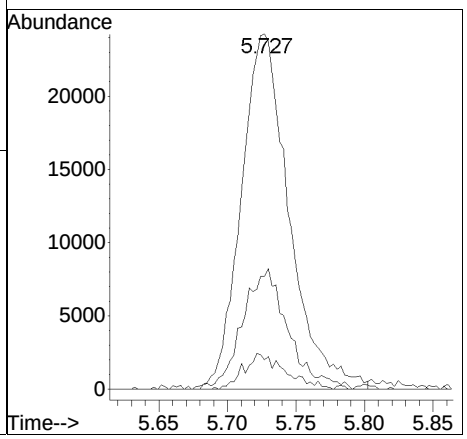


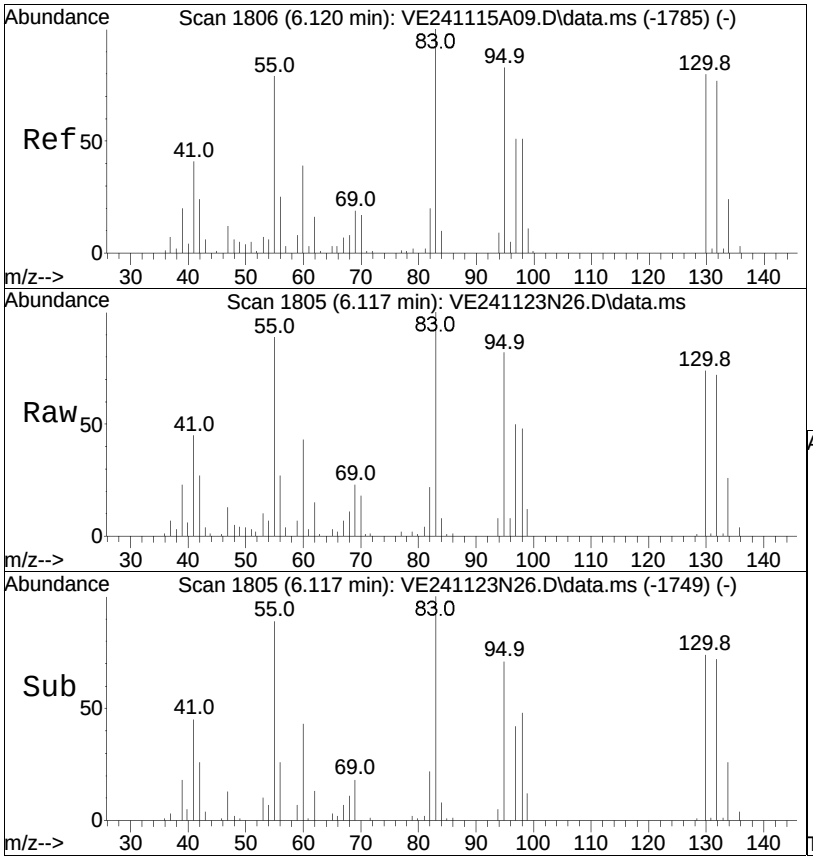


#48
1,2-Dichloroethane
Concen: 10.51 ug/L
RT: 5.727 min Scan# 1665
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 62 Resp: 59211

Ion	Ratio	Lower	Upper
62	100		
64	31.2	12.0	52.0
98	8.8	0.0	29.1

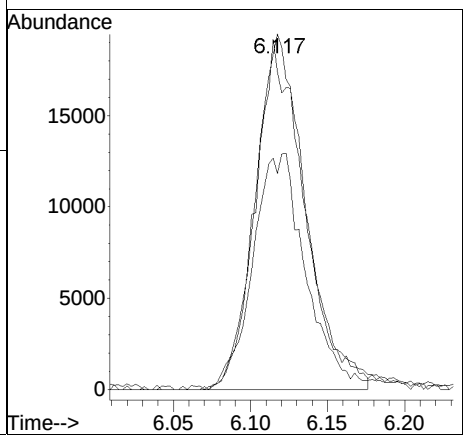


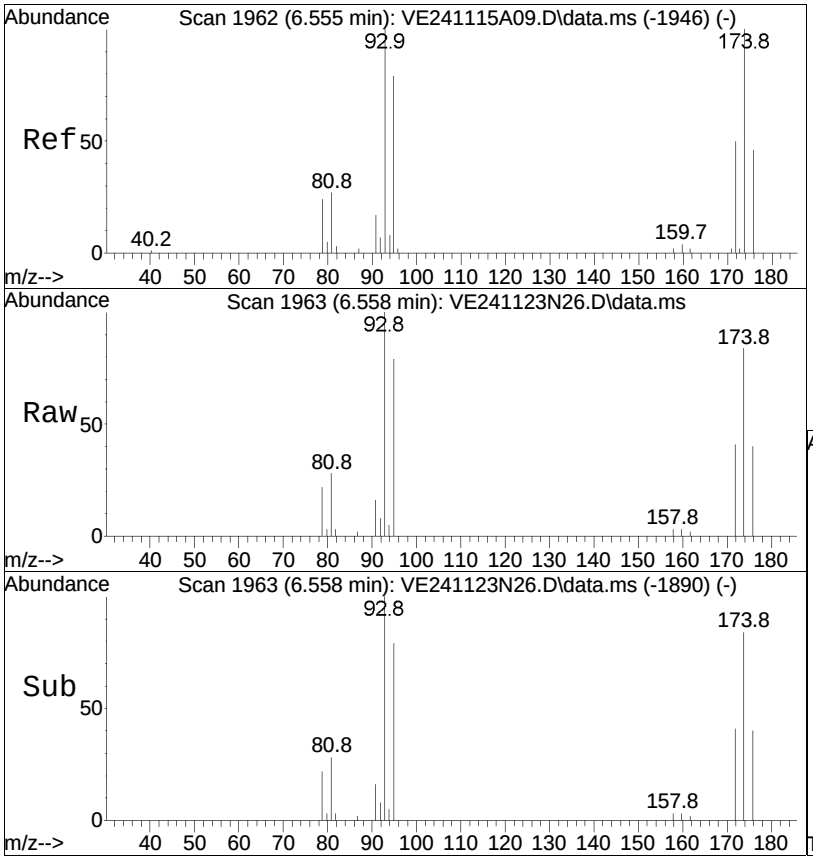


#52
Trichloroethene
Concen: 10.47 ug/L
RT: 6.117 min Scan# 1805
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 95 Resp: 43977

Ion	Ratio	Lower	Upper
95	100		
97	34.3	50.2	75.2#
130	100.1	78.2	117.4

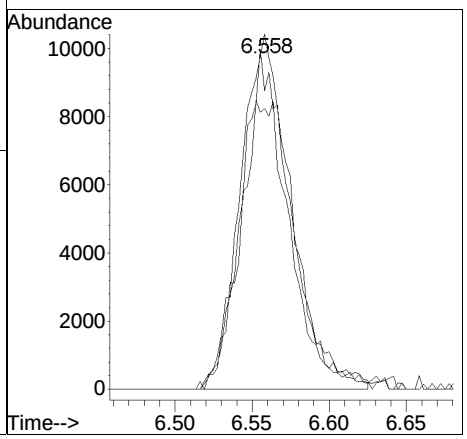


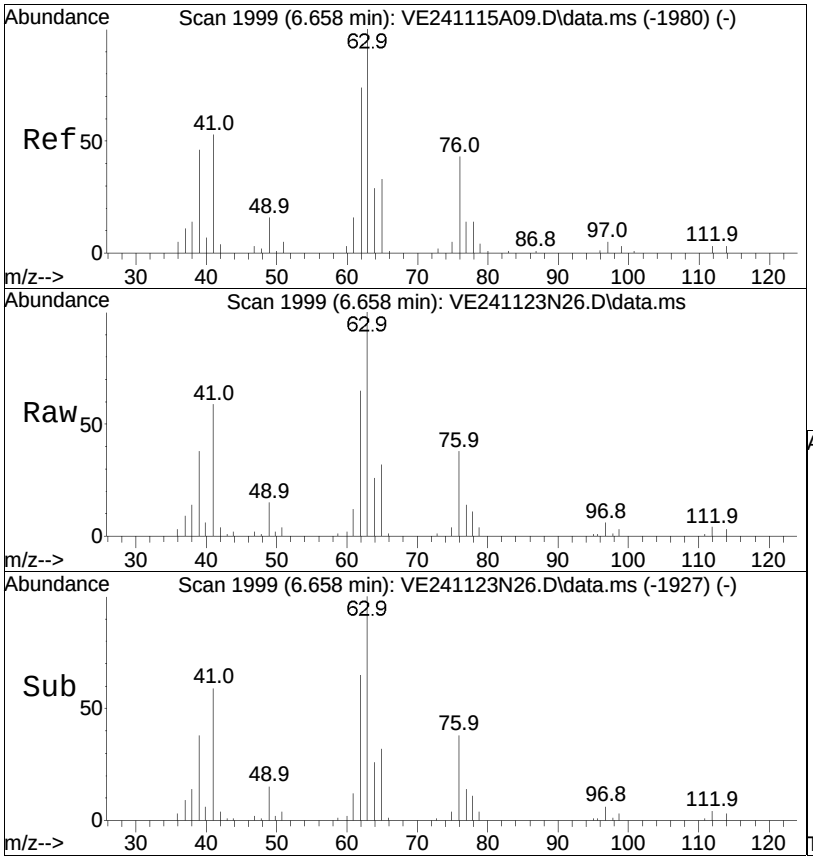


#54
Dibromomethane
Concen: 9.97 ug/L
RT: 6.558 min Scan# 1963
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 93 Resp: 23928

Ion	Ratio	Lower	Upper
93	100		
95	80.3	73.2	109.8
174	93.5	73.8	110.8

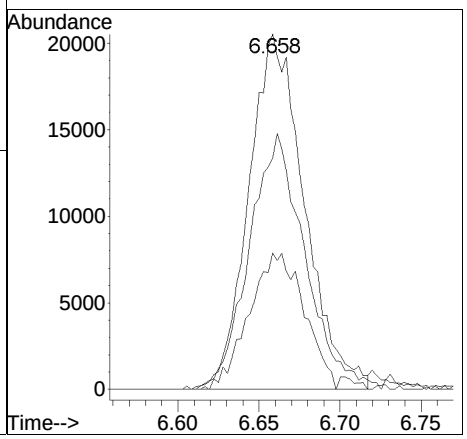


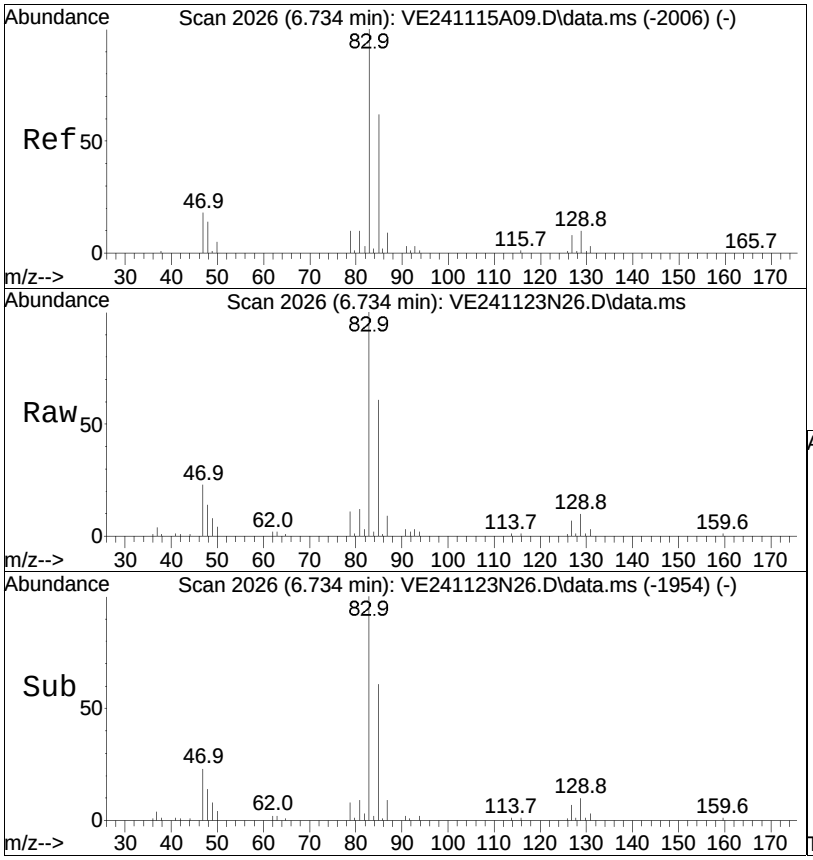


#55
1,2-Dichloropropane
Concen: 10.89 ug/L
RT: 6.658 min Scan# 1999
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 63 Resp: 48994

Ion	Ratio	Lower	Upper
63	100		
62	71.9	58.4	87.6
76	38.1	28.7	43.1

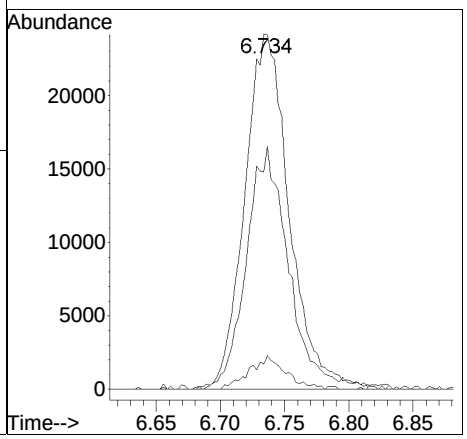


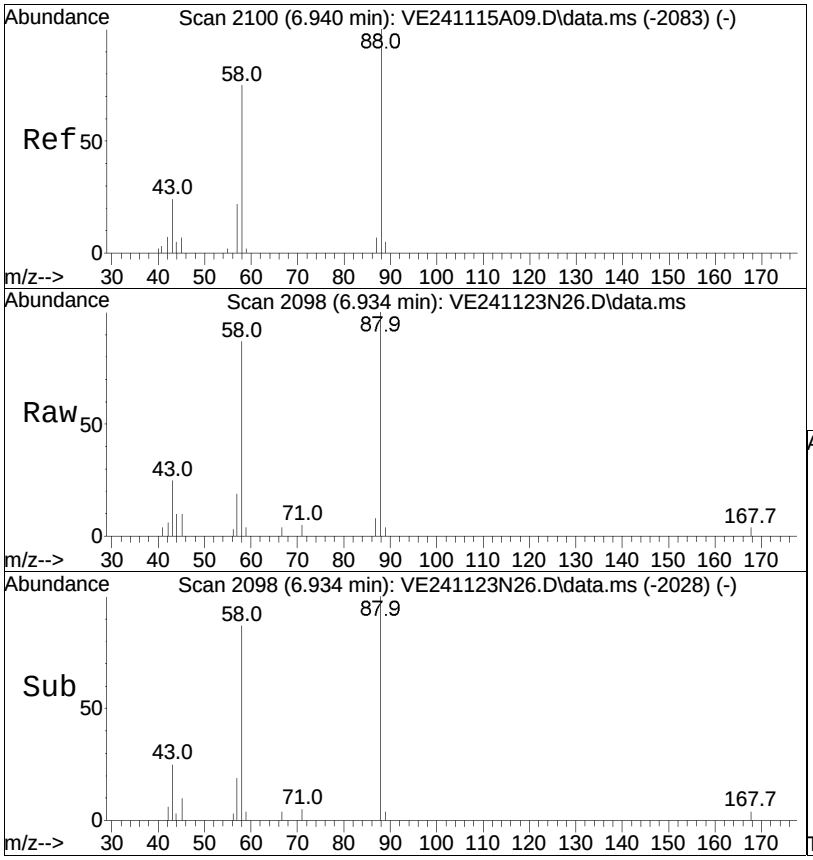


#58
Bromodichloromethane
Concen: 10.02 ug/L
RT: 6.734 min Scan# 2026
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 83 Resp: 58511

Ion	Ratio	Lower	Upper
83	100		
85	63.5	46.6	69.8
127	7.7	6.2	9.4

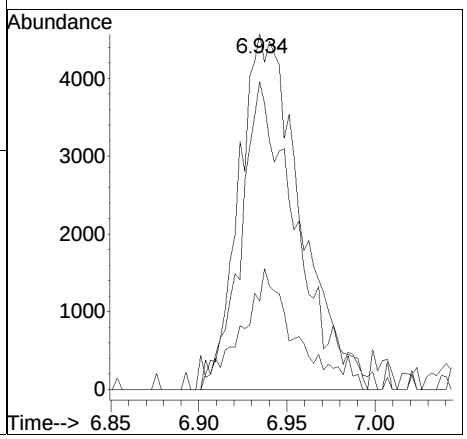


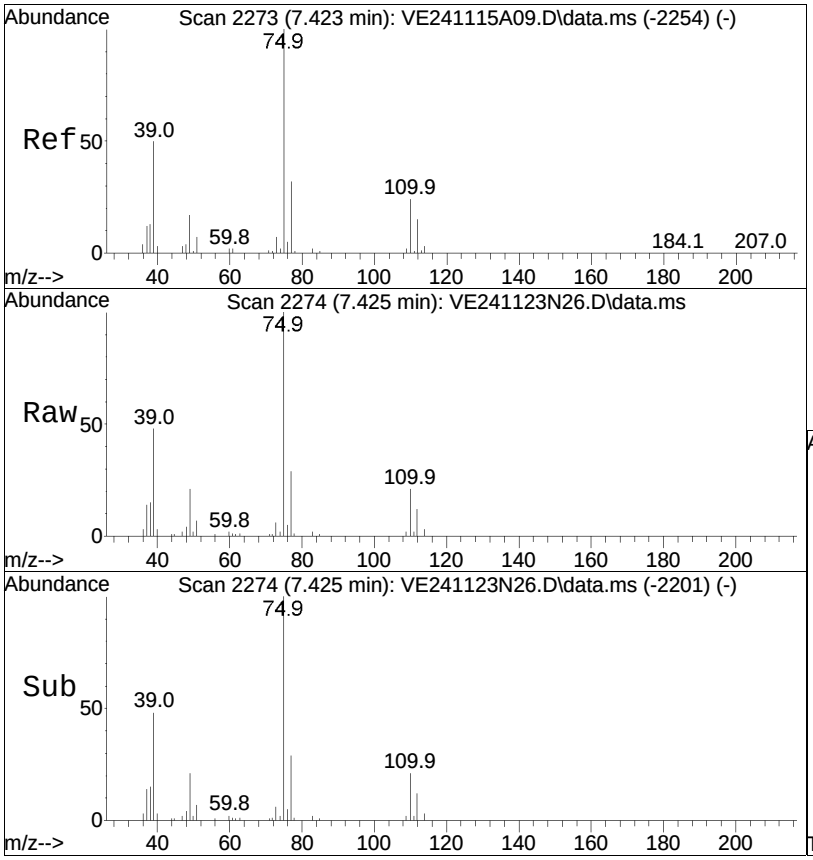


#61
1,4-Dioxane
Concen: 378.46 ug/L
RT: 6.934 min Scan# 2098
Delta R.T. -0.006 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 88 Resp: 11131

Ion	Ratio	Lower	Upper
88	100		
58	73.2	62.8	94.2
43	23.7	36.6	55.0#

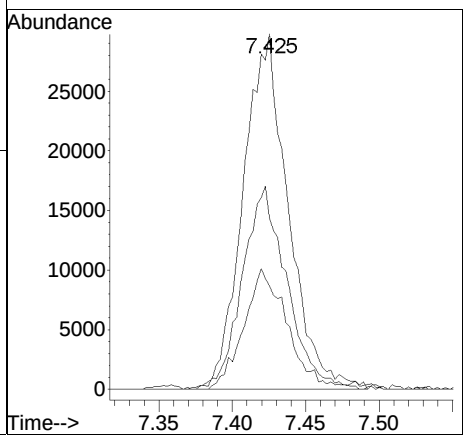


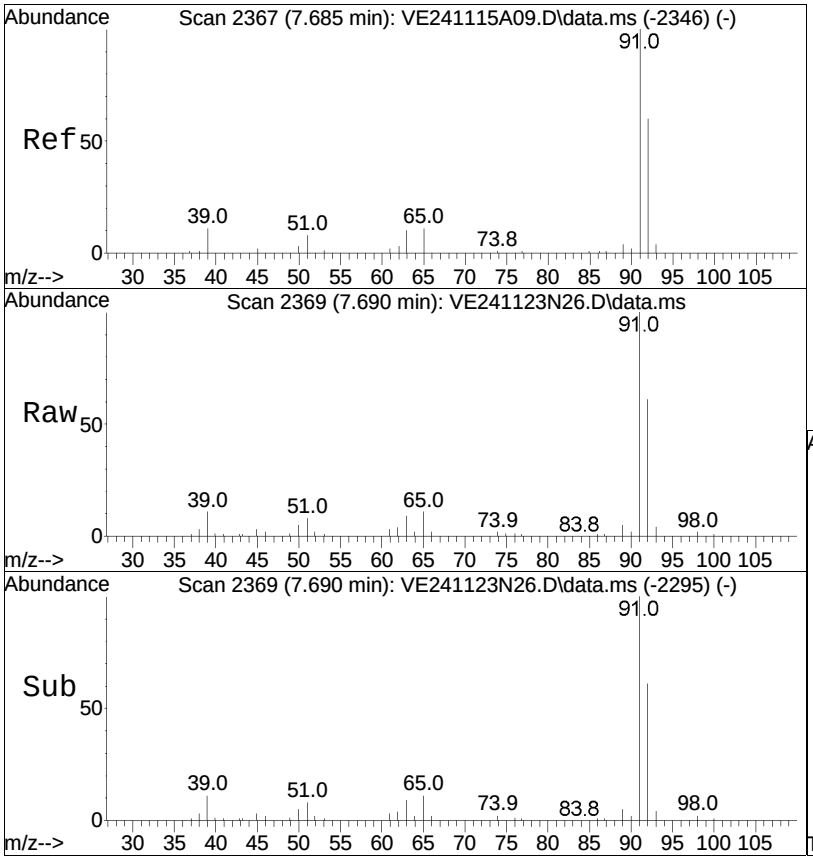


#62
cis-1,3-Dichloropropene
Concen: 9.45 ug/L
RT: 7.425 min Scan# 2274
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 75 Resp: 63679

Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.1	37.7
39	56.0	50.7	76.1

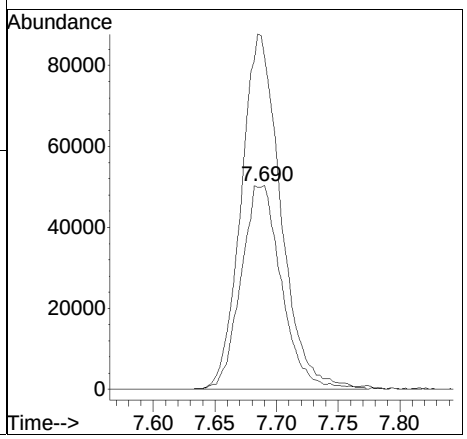


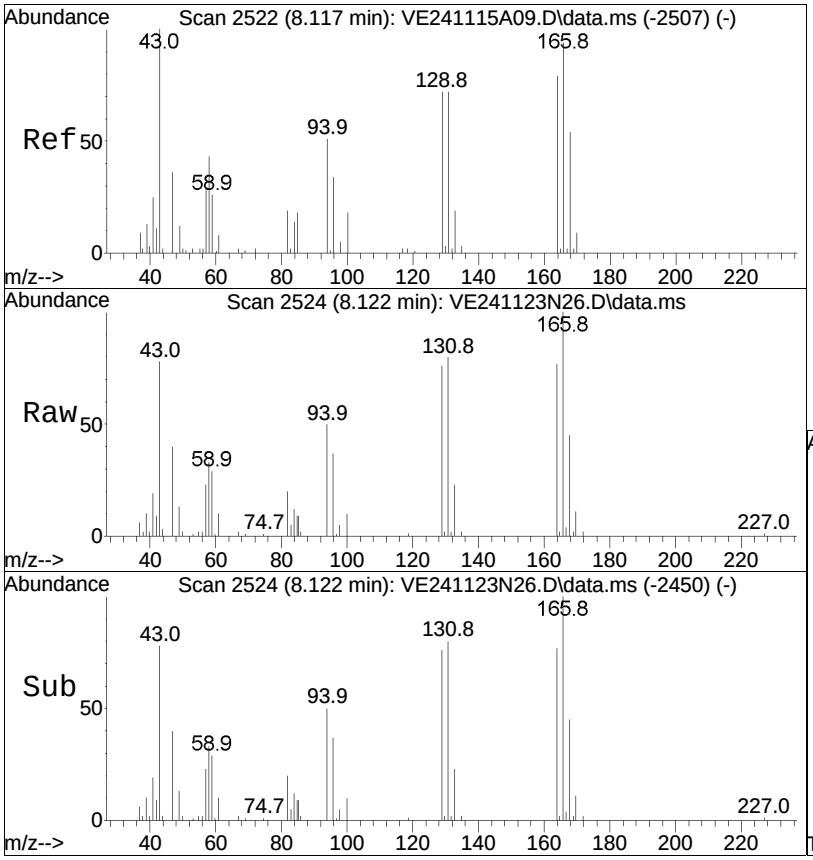


#65
Toluene
Concen: 10.38 ug/L
RT: 7.690 min Scan# 2369
Delta R.T. 0.005 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 92 Resp: 115264

Ion	Ratio	Lower	Upper
92	100		
91	170.4	129.1	193.7

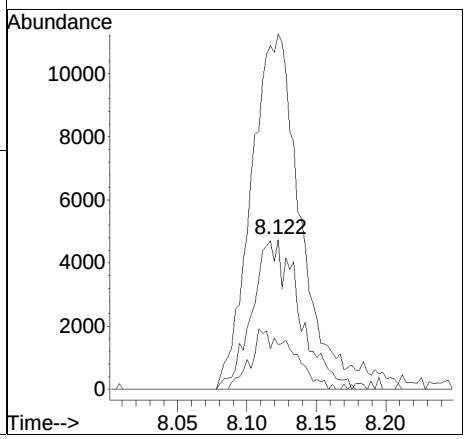


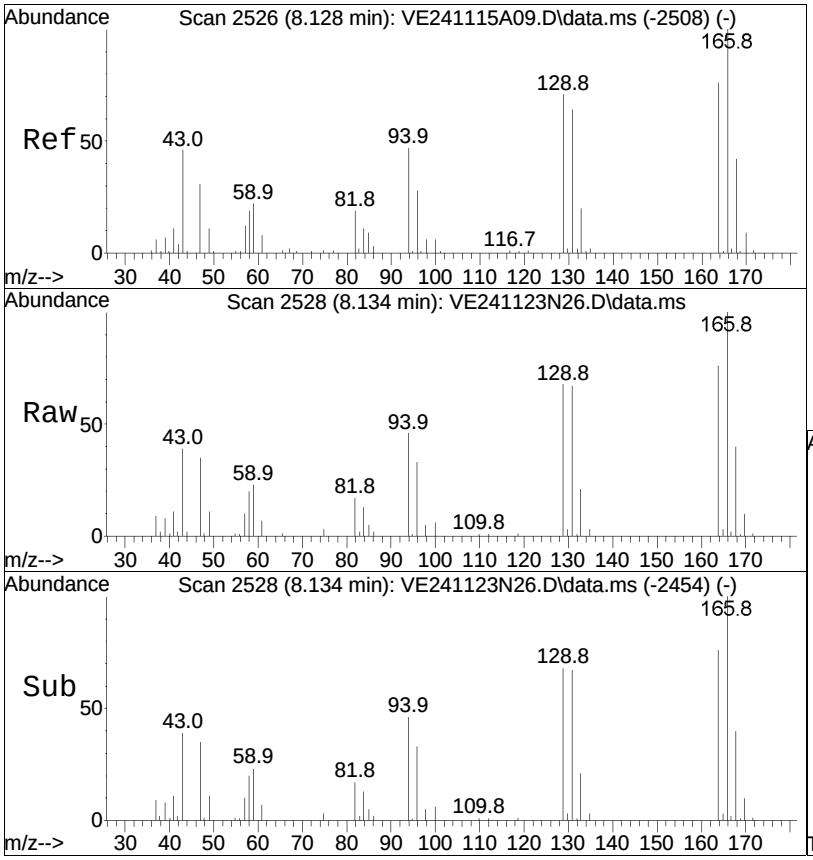


#66
4-Methyl-2-pentanone
Concen: 9.69 ug/L M1
RT: 8.122 min Scan# 2524
Delta R.T. 0.005 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 58 Resp: 11312

Ion	Ratio	Lower	Upper
58	100		
100	35.6	27.9	41.9
43	241.9	225.7	338.5

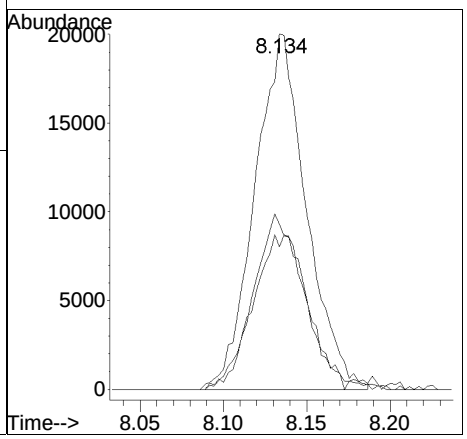


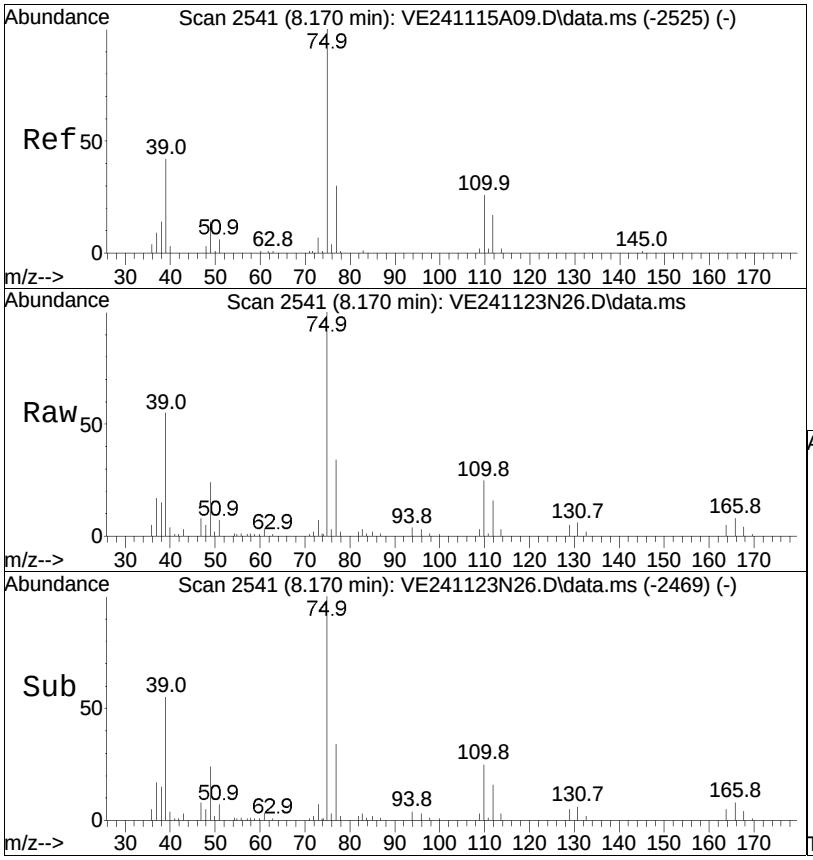


#67
Tetrachloroethene
Concen: 9.67 ug/L
RT: 8.134 min Scan# 2528
Delta R.T. 0.005 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:166 Resp: 43176

Ion	Ratio	Lower	Upper
166	100		
168	46.6	25.8	65.8
94	48.4	24.3	64.3

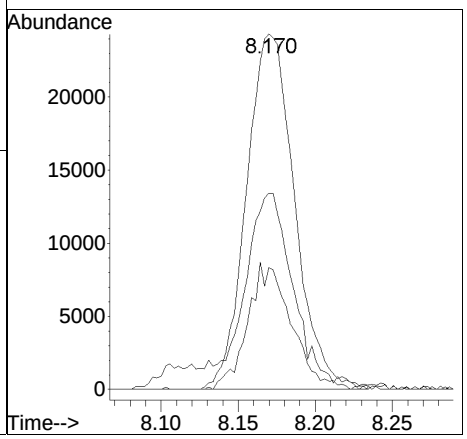


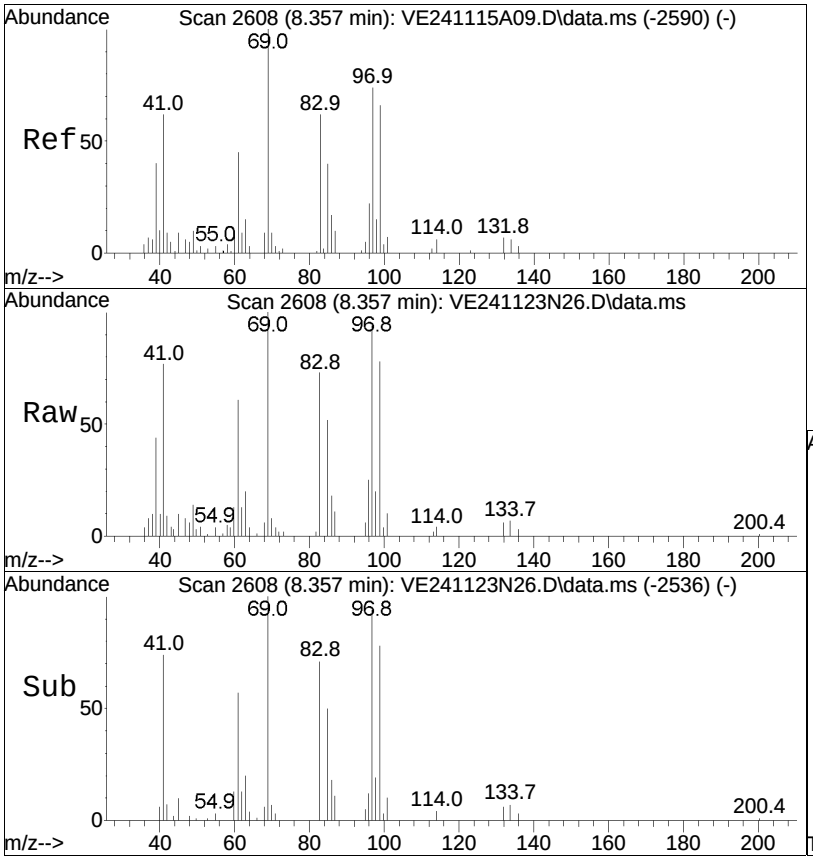


#69
trans-1,3-Dichloropropene
Concen: 9.64 ug/L
RT: 8.170 min Scan# 2541
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 75 Resp: 53045

Ion	Ratio	Lower	Upper
75	100		
77	32.1	10.2	50.2
39	54.7	45.7	85.7

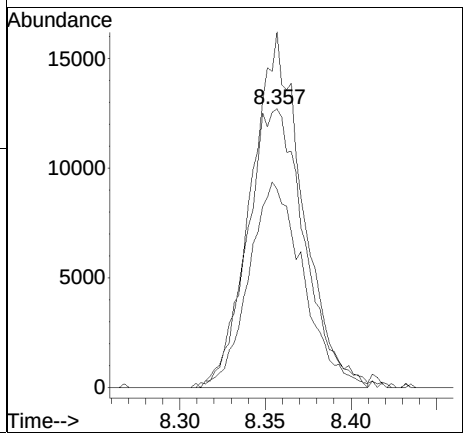


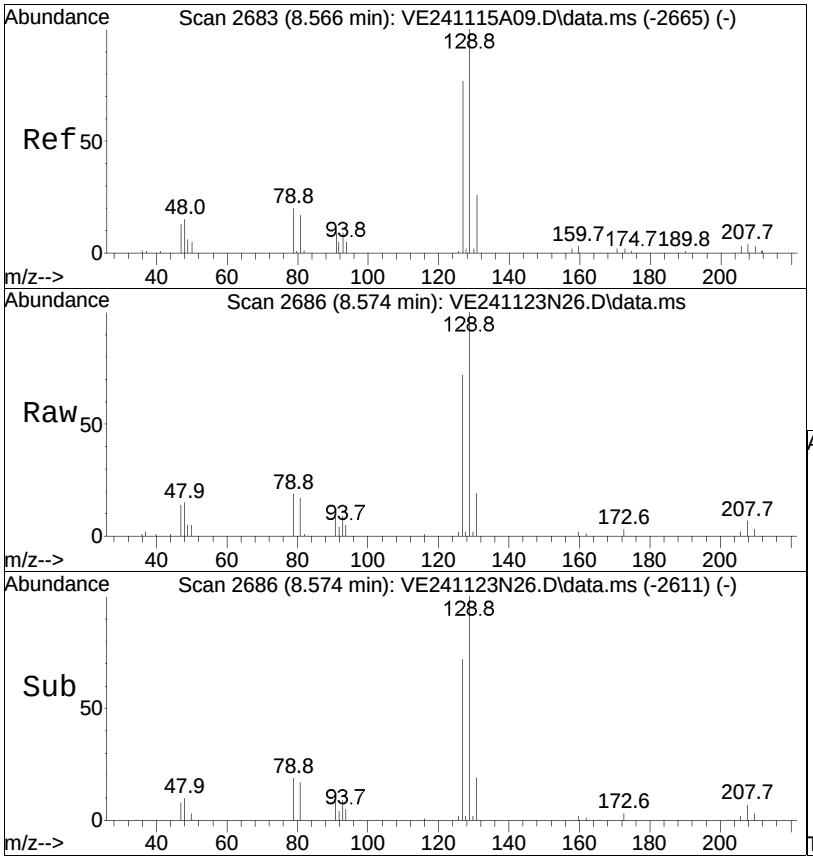


#72
1,1,2-Trichloroethane
Concen: 10.05 ug/L
RT: 8.357 min Scan# 2608
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 83 Resp: 29356

Ion	Ratio	Lower	Upper
83	100		
97	115.8	99.2	139.2
85	70.3	48.7	88.7

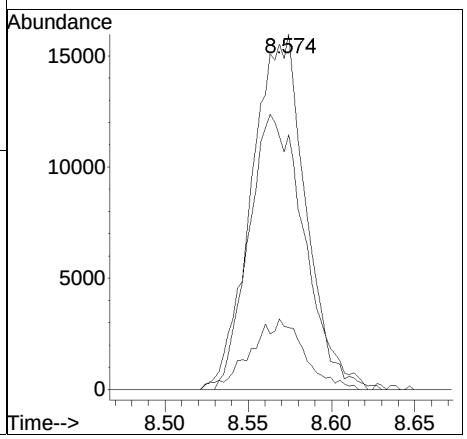


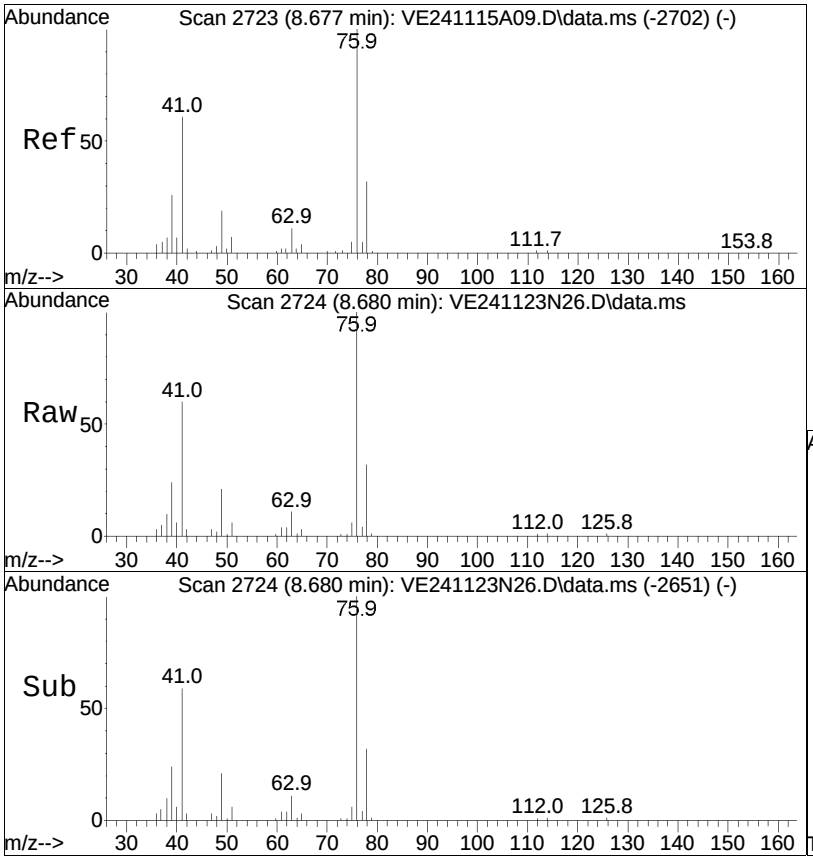


#73
Chlorodibromomethane
Concen: 9.20 ug/L
RT: 8.574 min Scan# 2686
Delta R.T. 0.008 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:129 Resp: 36033

Ion	Ratio	Lower	Upper
129	100		
81	19.4	0.0	39.5
127	79.6	58.6	98.6

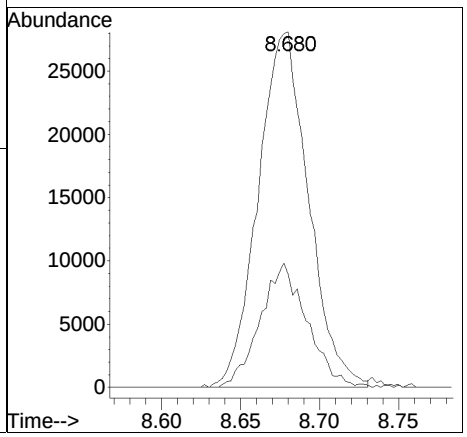


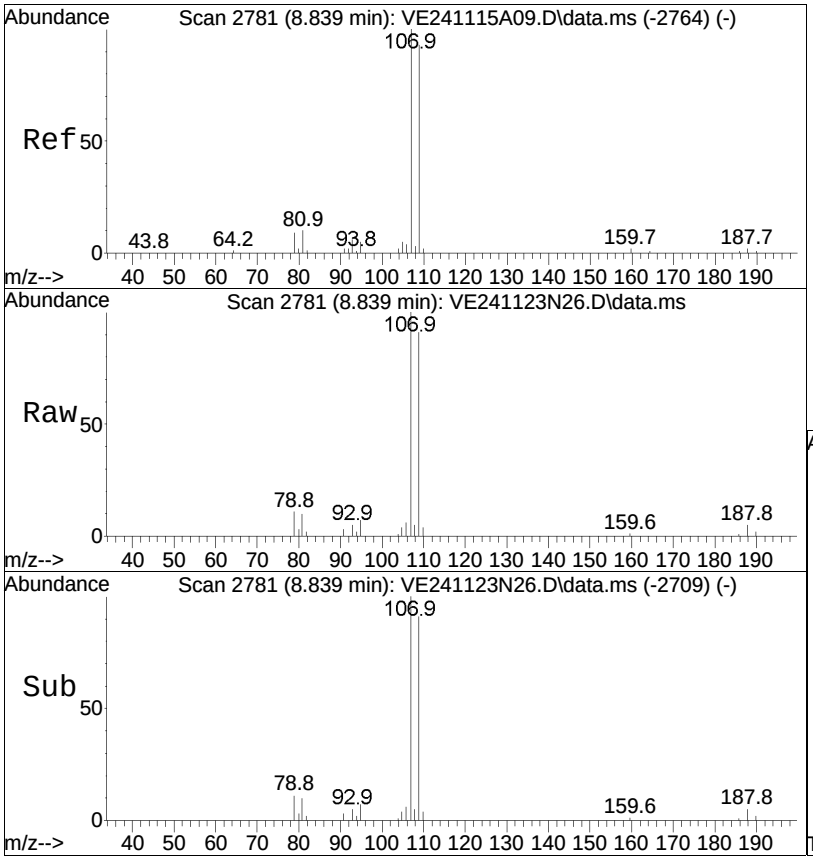


#74
1,3-Dichloropropane
Concen: 10.34 ug/L
RT: 8.680 min Scan# 2724
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 76 Resp: 62318

Ion	Ratio	Lower	Upper
76	100		
78	32.5	27.0	40.4

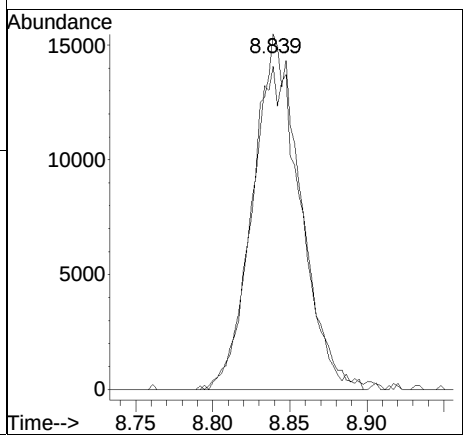


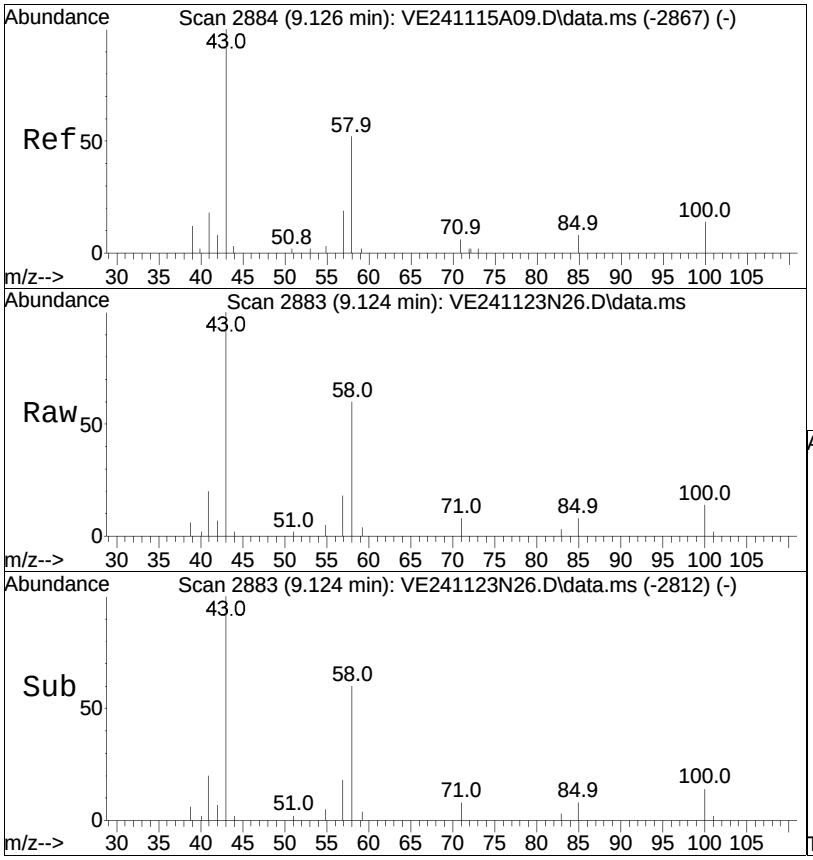


#75
1,2-Dibromoethane
Concen: 9.64 ug/L
RT: 8.839 min Scan# 2781
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:107 Resp: 33364

Ion	Ratio	Lower	Upper
107	100		
109	95.3	66.3	99.5

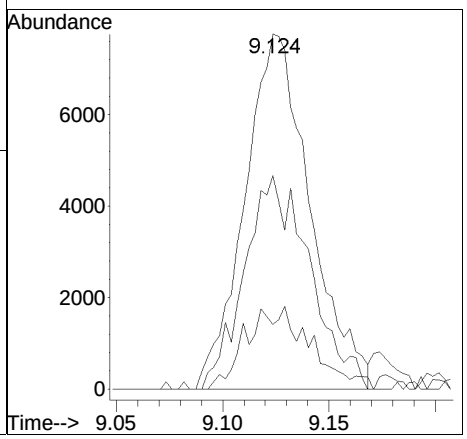


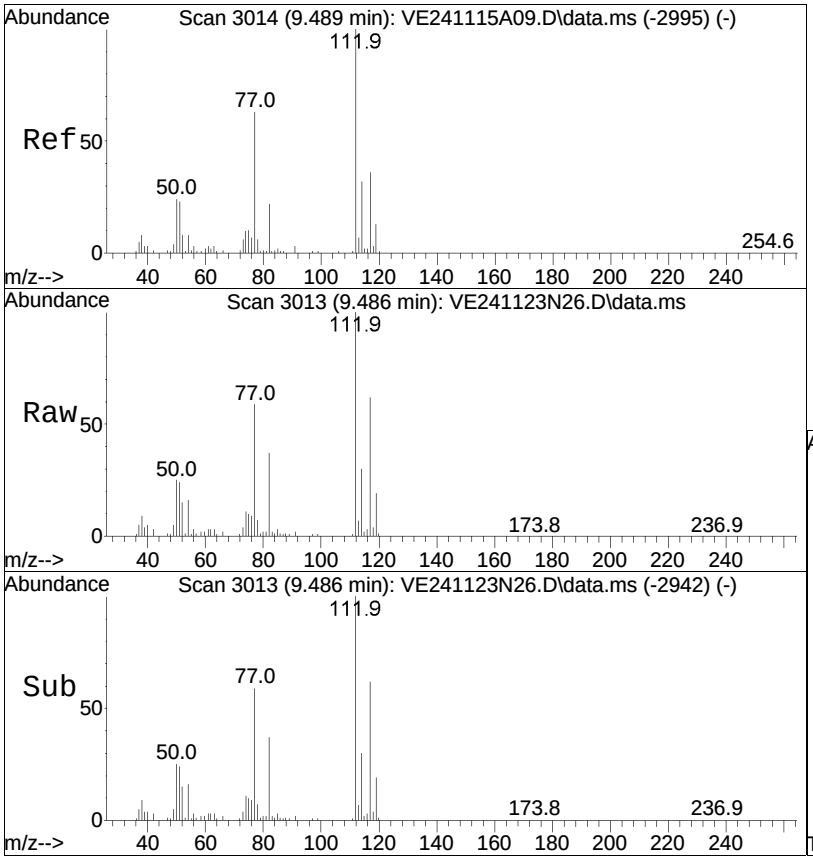


#77
2-Hexanone
Concen: 8.87 ug/L
RT: 9.124 min Scan# 2883
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 43 Resp: 16644

Ion	Ratio	Lower	Upper
43	100		
58	60.3	42.5	63.7
57	10.4	13.9	20.9#

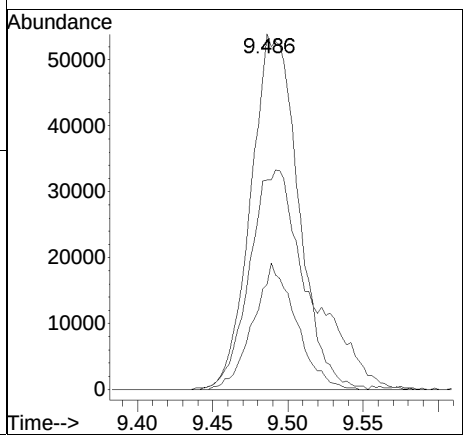


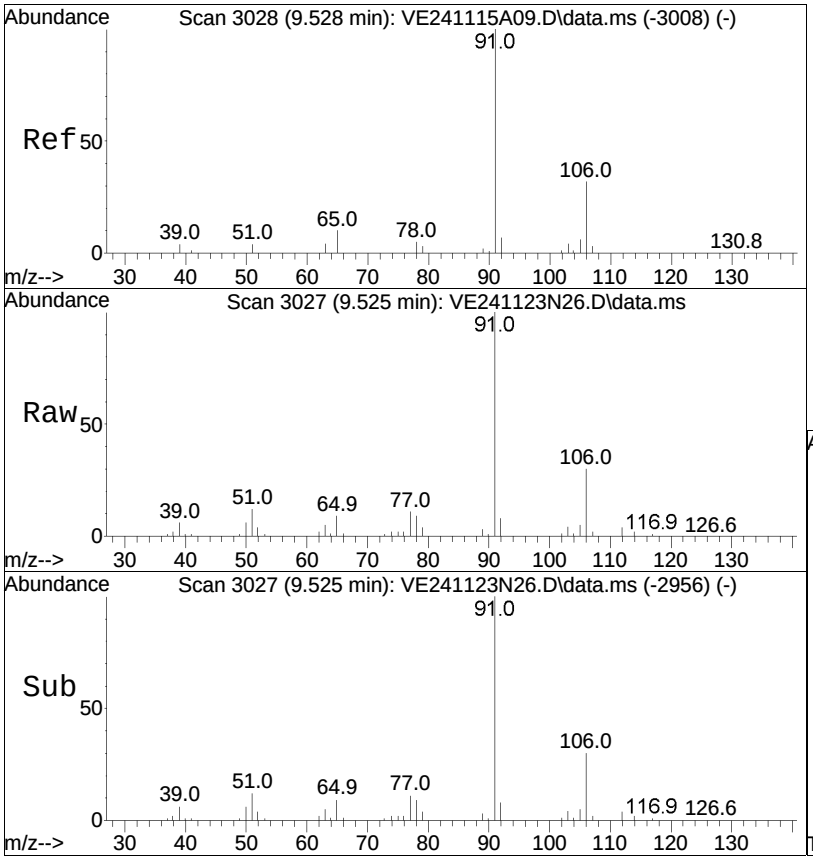


#78
Chlorobenzene
Concen: 10.01 ug/L
RT: 9.486 min Scan# 3013
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:112 Resp: 118211

Ion	Ratio	Lower	Upper
112	100		
77	79.5	46.9	70.3#
114	32.2	23.8	35.6

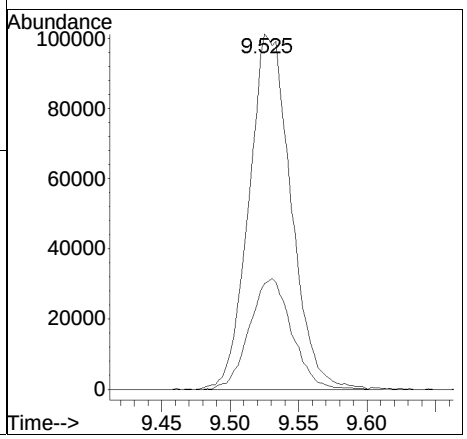


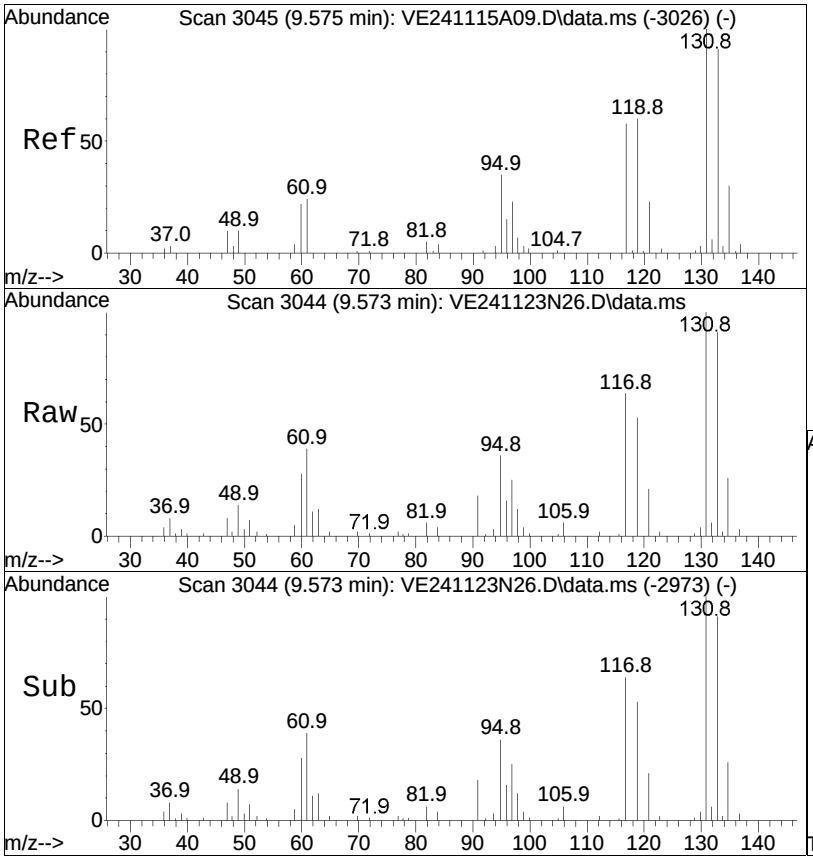


#79
Ethylbenzene
Concen: 10.18 ug/L
RT: 9.525 min Scan# 3027
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 91 Resp: 216084

Ion	Ratio	Lower	Upper
91	100		
106	31.5	25.3	37.9

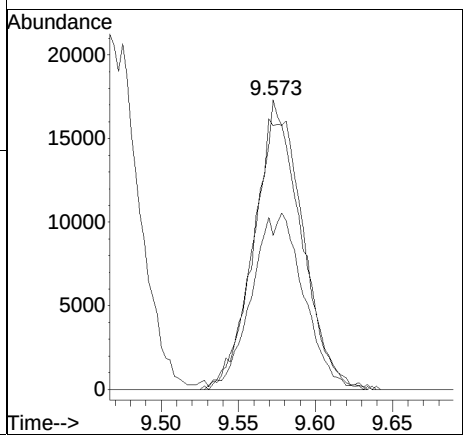


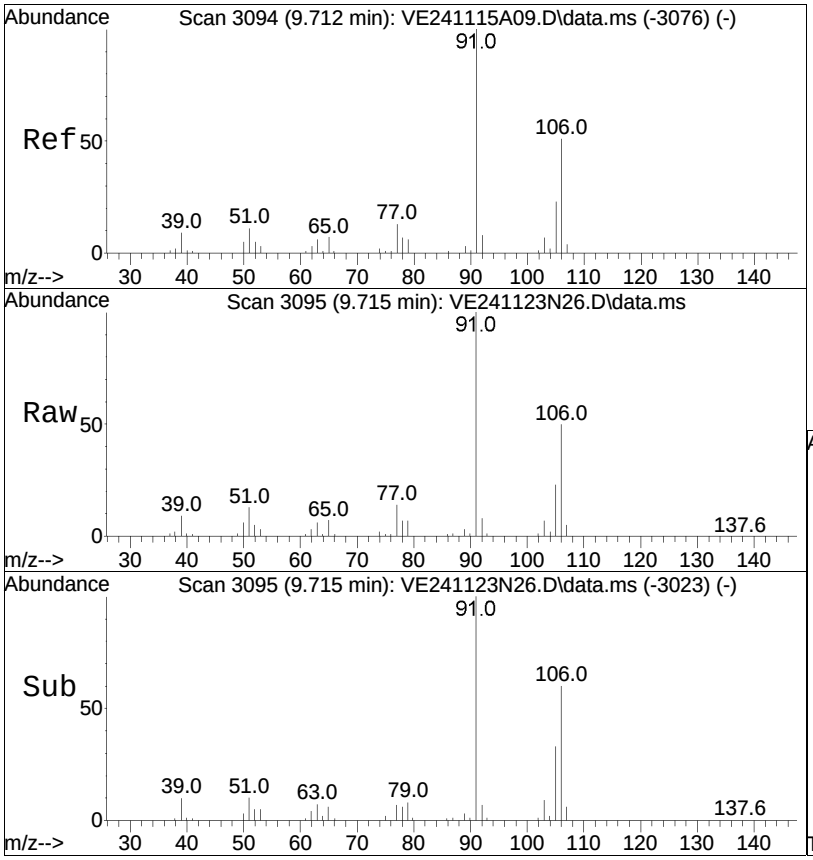


#80
1,1,1,2-Tetrachloroethane
Concen: 9.60 ug/L
RT: 9.573 min Scan# 3044
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:131 Resp: 37626

Ion	Ratio	Lower	Upper
131	100		
133	96.8	72.9	112.9
119	28.8	39.6	79.6#

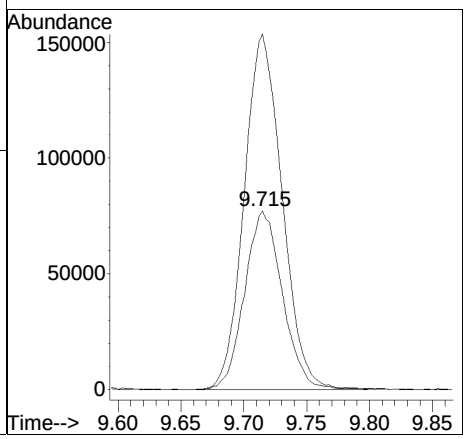


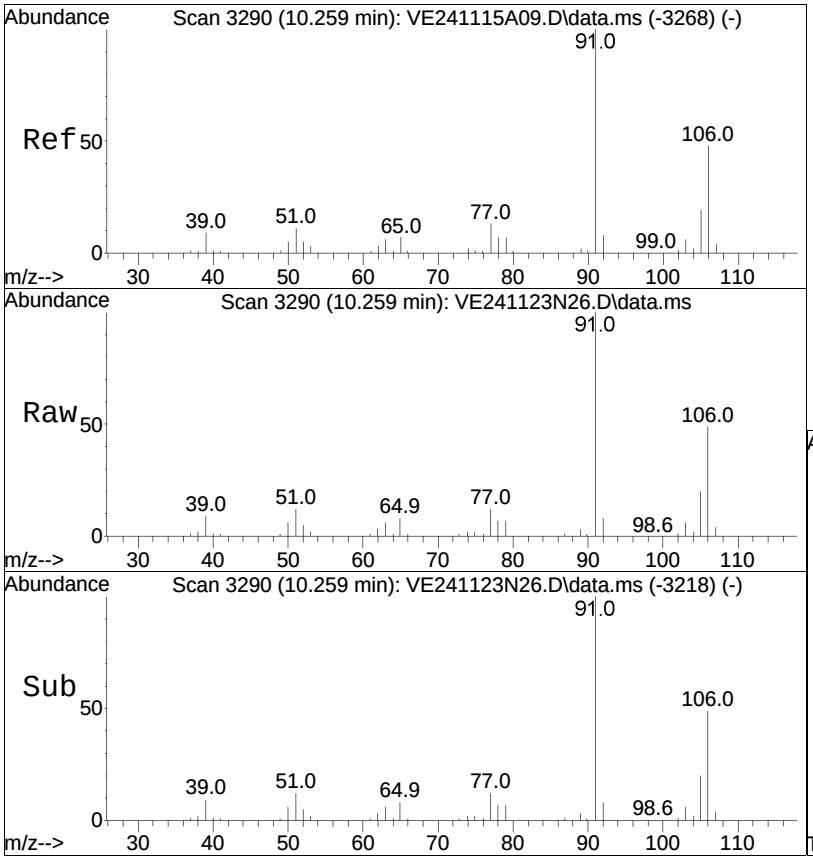


#81
p/m Xylene
Concen: 19.74 ug/L
RT: 9.715 min Scan# 3095
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:106 Resp: 161338

Ion	Ratio	Lower	Upper
106	100		
91	199.2	163.3	244.9

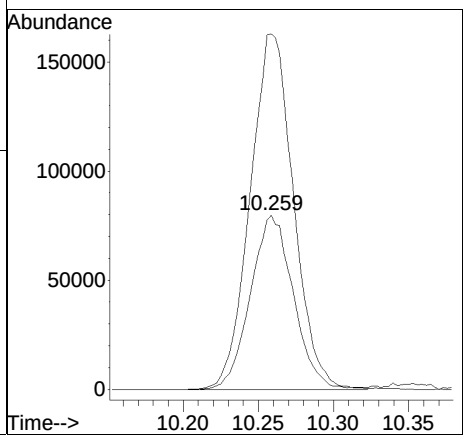


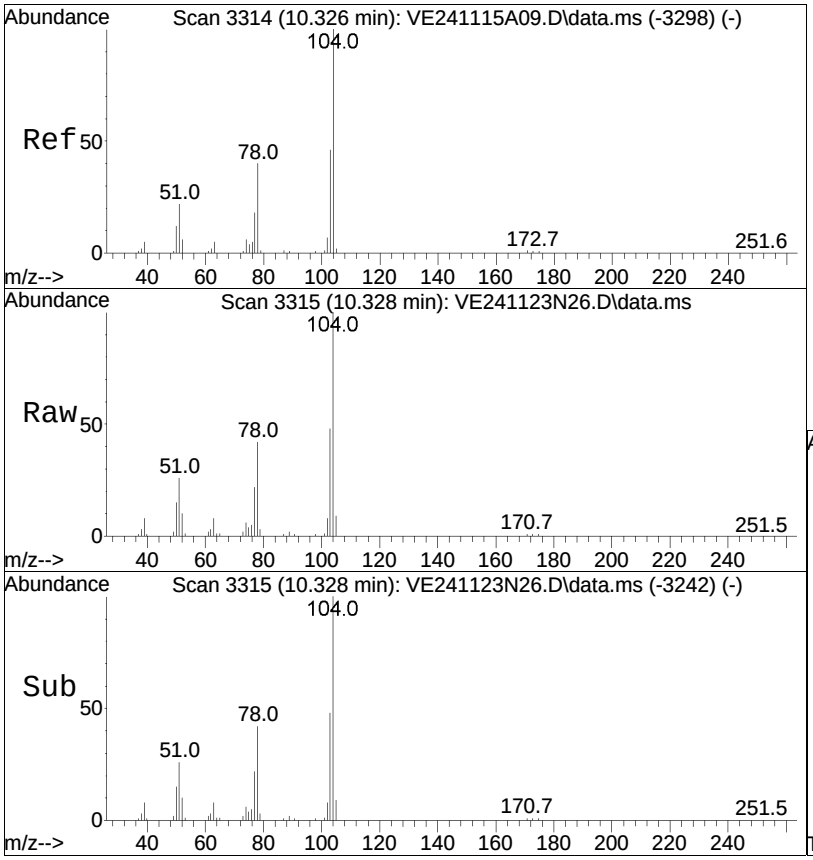


#82
o Xylene
Concen: 19.87 ug/L
RT: 10.259 min Scan# 3290
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:106 Resp: 158324

Ion	Ratio	Lower	Upper
106	100		
91	206.3	181.0	271.6

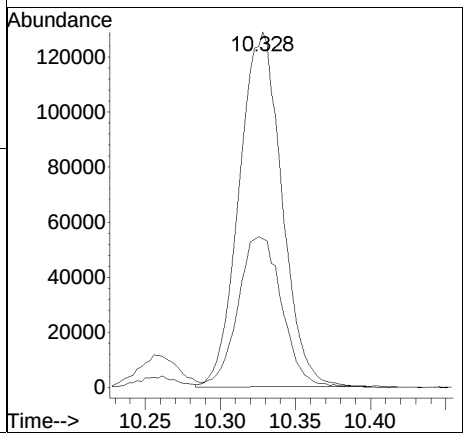


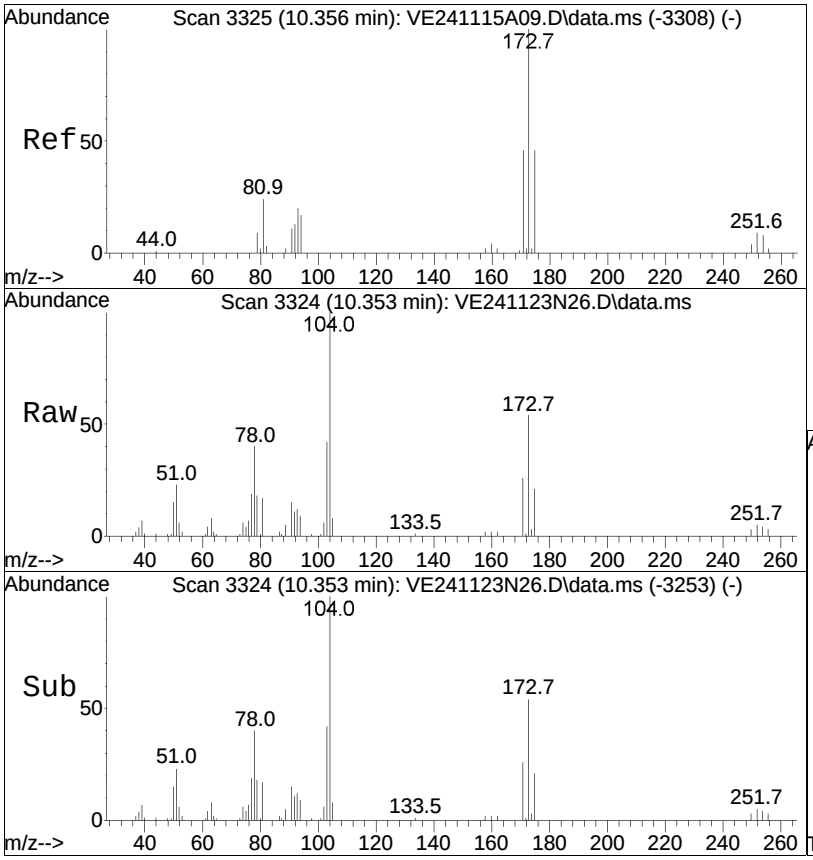


#83
Styrene
Concen: 18.89 ug/L
RT: 10.328 min Scan# 3315
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:104 Resp: 254125

Ion	Ratio	Lower	Upper
104	100		
78	43.1	35.9	53.9

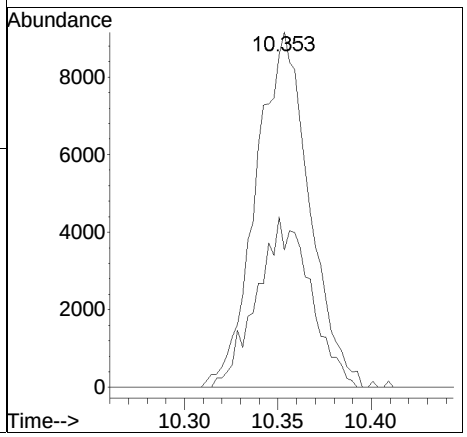


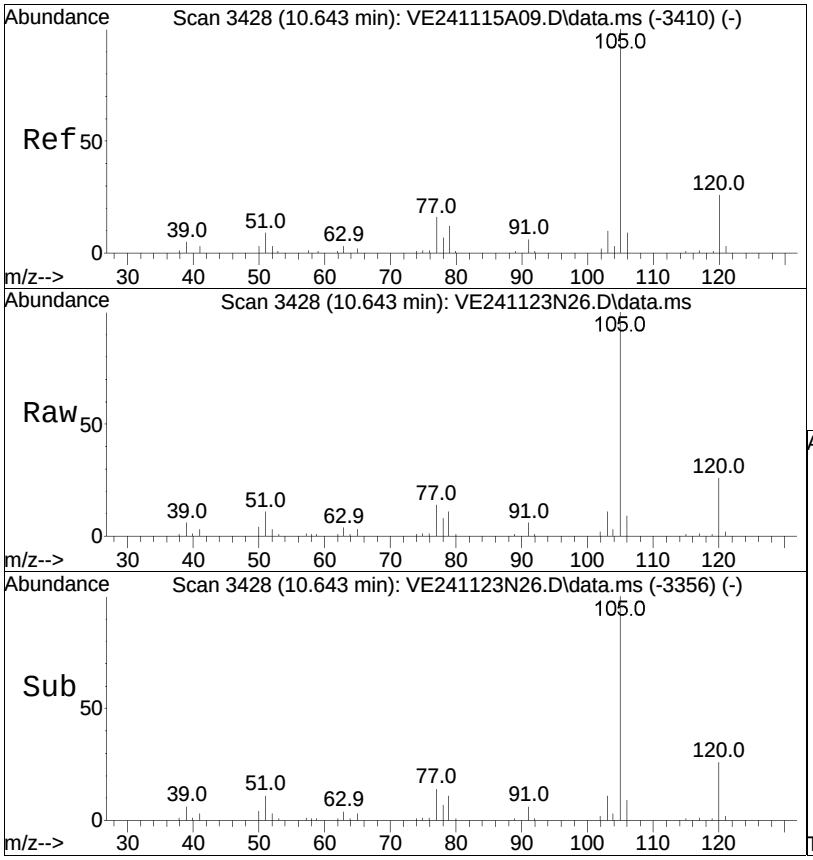


#85
Bromoform
Concen: 8.53 ug/L
RT: 10.353 min Scan# 3324
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:173 Resp: 18238

Ion	Ratio	Lower	Upper
173	100		
175	25.8	32.9	72.9#

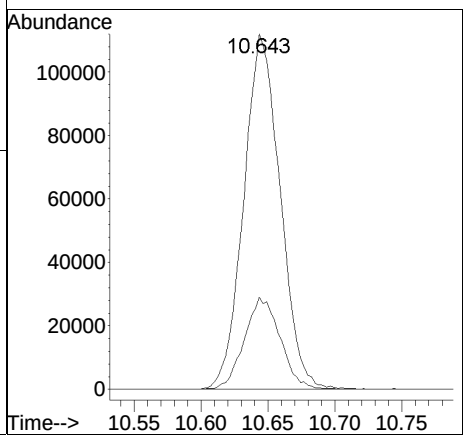


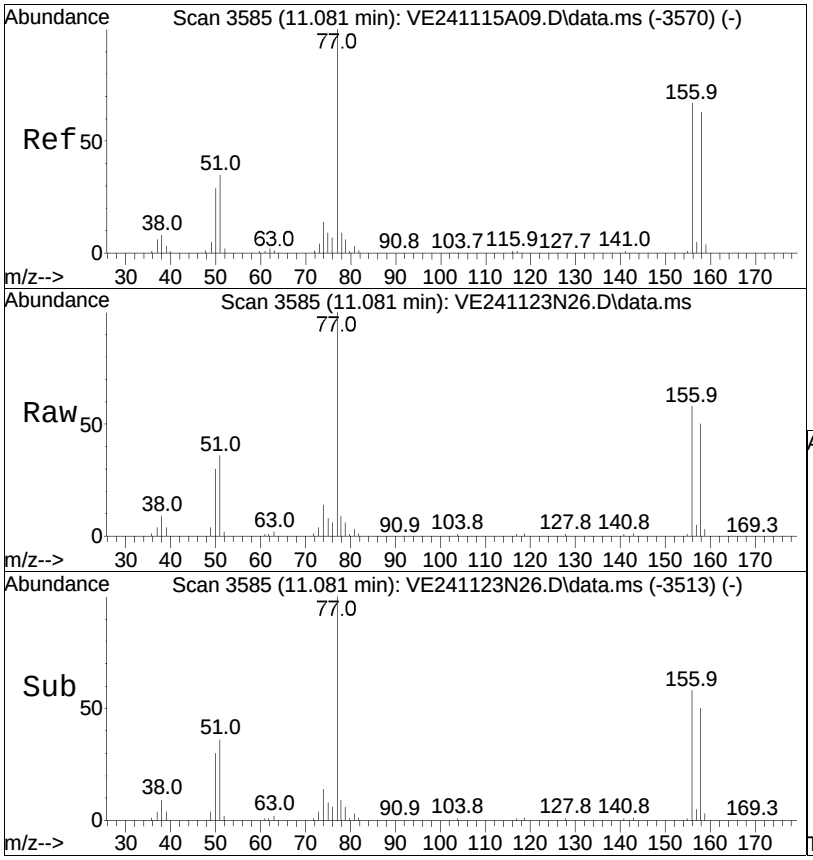


#87
Isopropylbenzene
Concen: 9.92 ug/L
RT: 10.643 min Scan# 3428
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:105 Resp: 211990

Ion	Ratio	Lower	Upper
105	100		
120	25.5	4.8	44.8

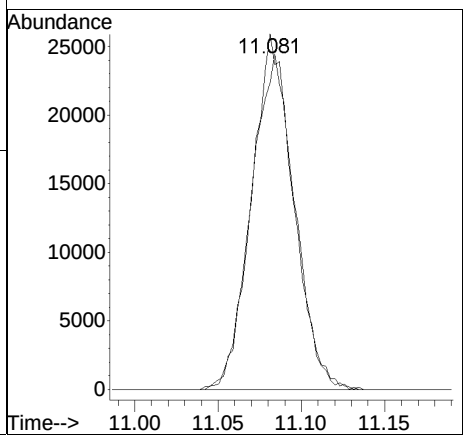


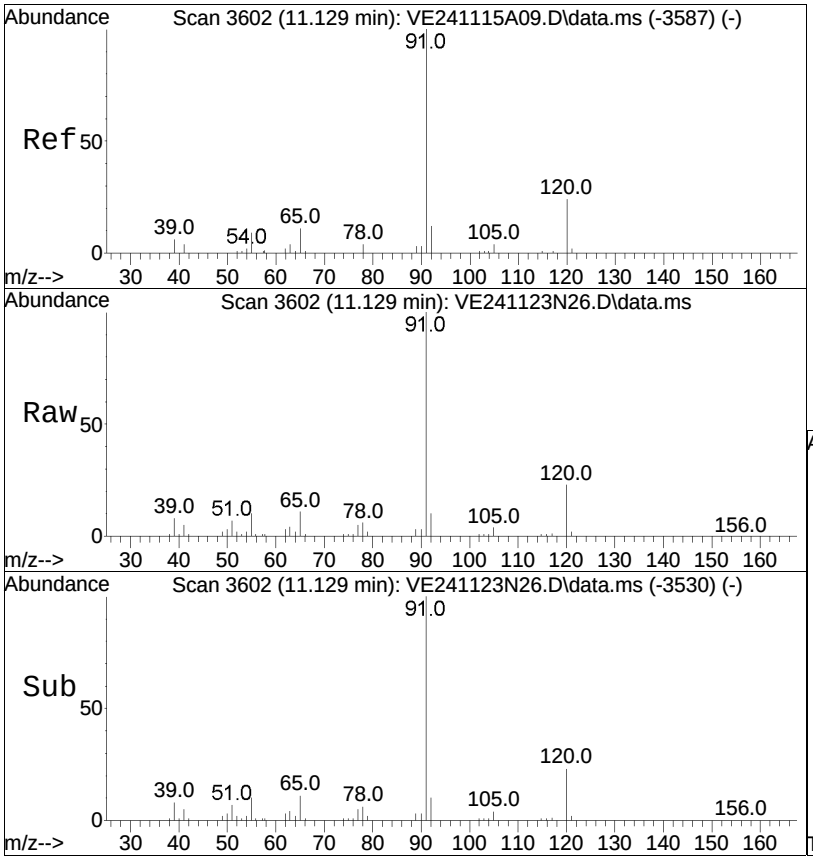


#89
Bromobenzene
Concen: 9.57 ug/L
RT: 11.081 min Scan# 3585
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:156 Resp: 45631

Ion	Ratio	Lower	Upper
156	100		
158	96.8	75.9	113.9

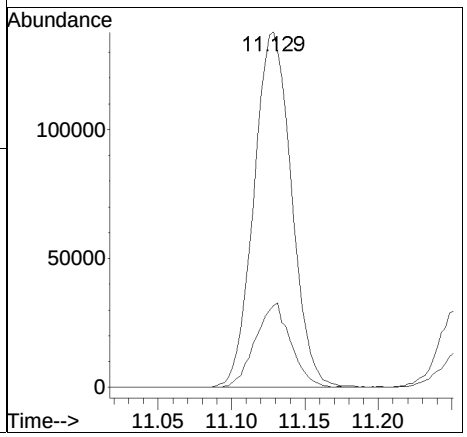


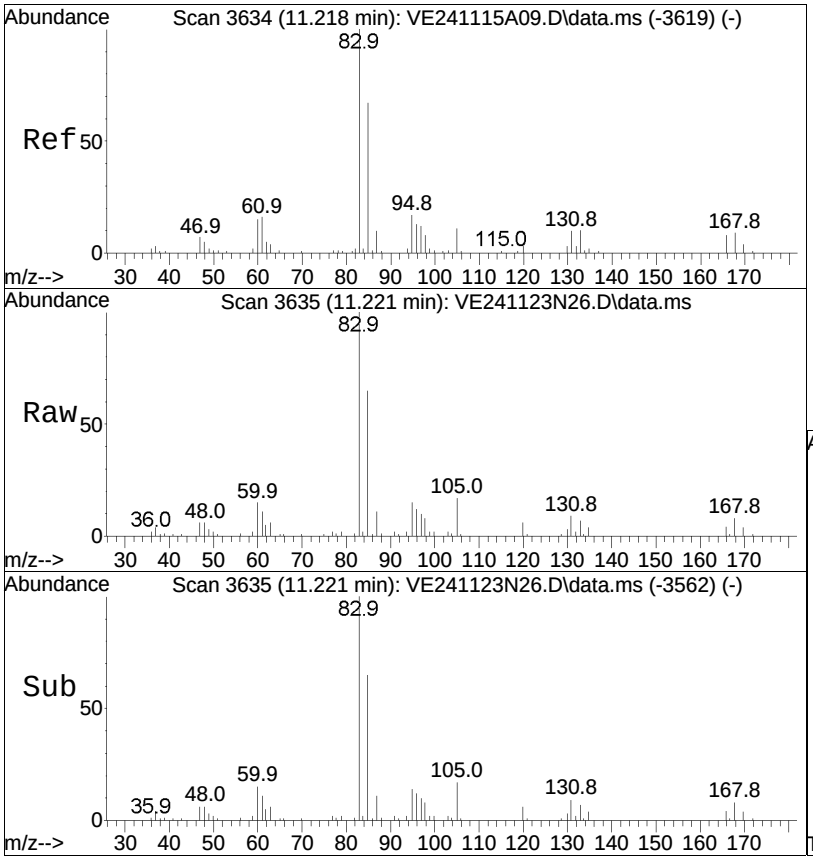


#90
n-Propylbenzene
Concen: 10.13 ug/L
RT: 11.129 min Scan# 3602
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 91 Resp: 245494

Ion	Ratio	Lower	Upper
91	100		
120	22.4	16.7	25.1

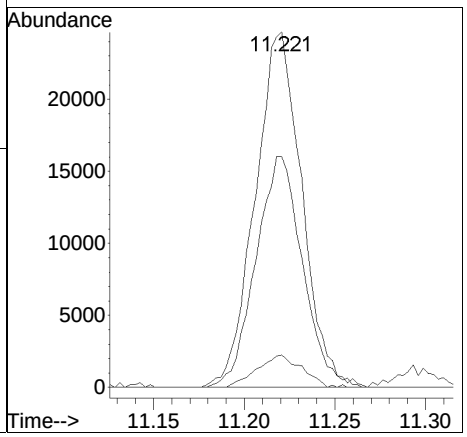


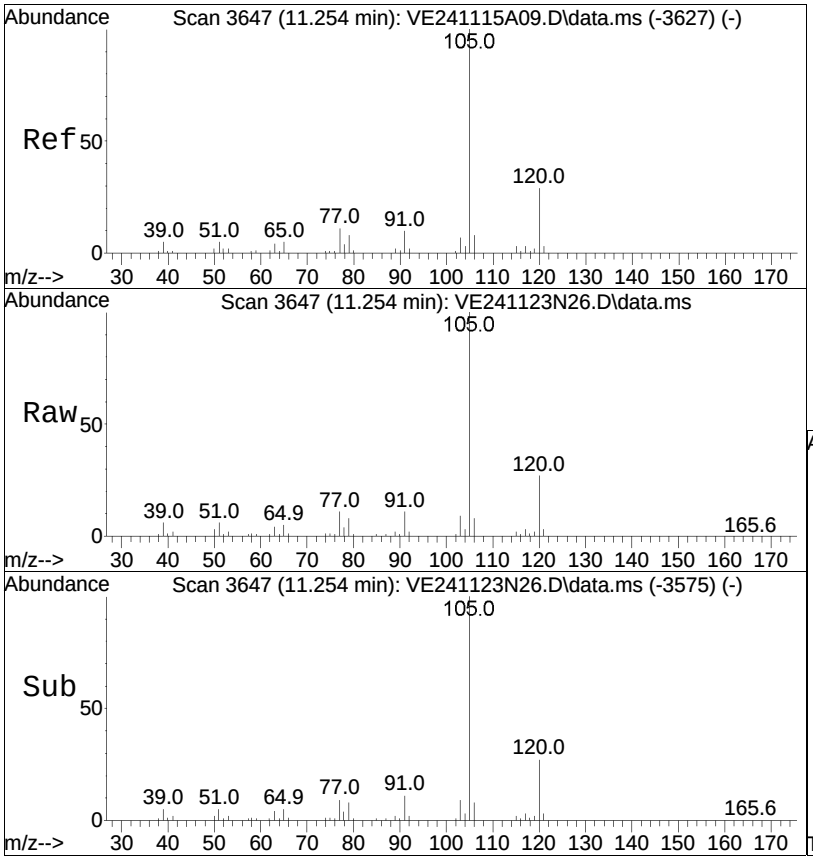


#92
1,1,2,2-Tetrachloroethane
Concen: 10.67 ug/L
RT: 11.221 min Scan# 3635
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 83 Resp: 44016

Ion	Ratio	Lower	Upper
83	100		
131	8.8	0.0	28.6
85	65.4	47.4	87.4

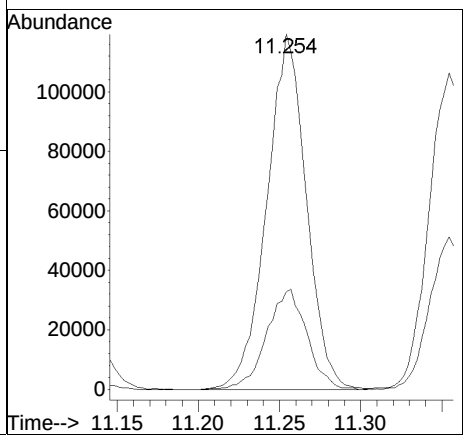


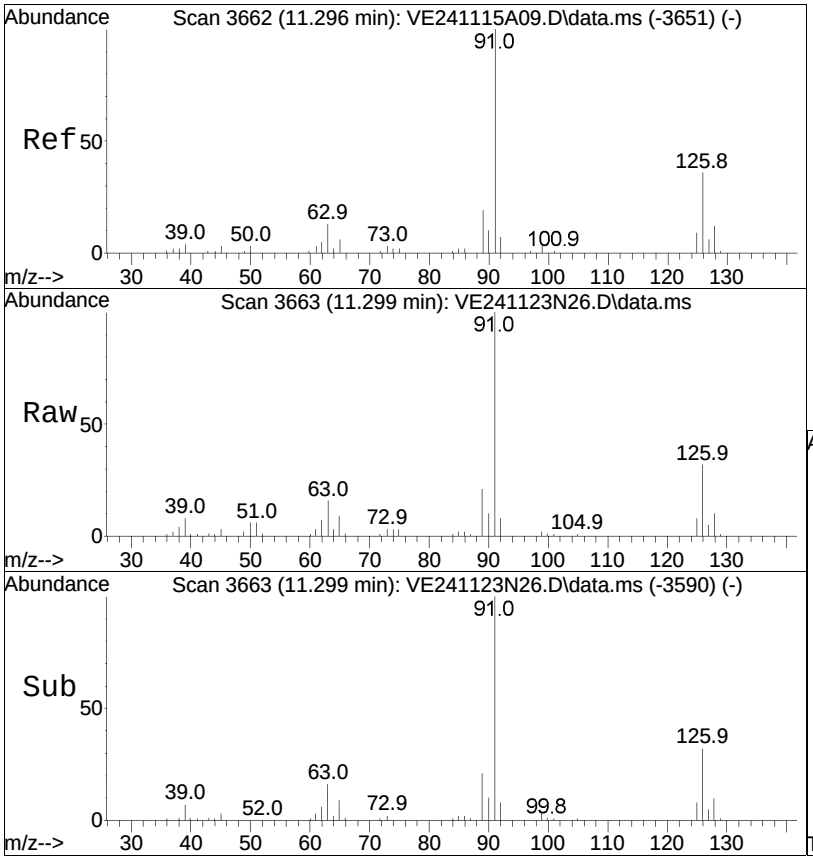


#93
4-Ethyltoluene
Concen: 10.05 ug/L
RT: 11.254 min Scan# 3647
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:105 Resp: 202092

Ion	Ratio	Lower	Upper
105	100		
120	28.6	18.9	39.3

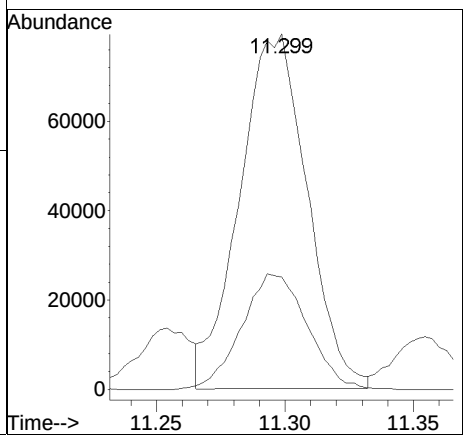


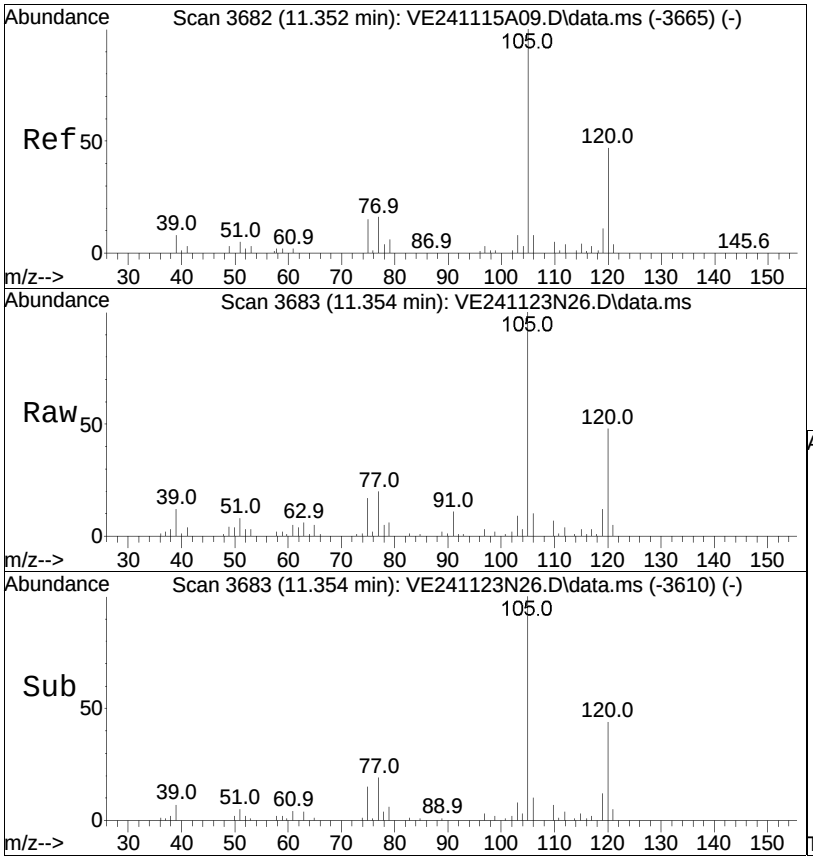


#94
2-Chlorotoluene
Concen: 10.29 ug/L
RT: 11.299 min Scan# 3663
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 91 Resp: 144858

Ion	Ratio	Lower	Upper
91	100		
126	31.7	24.4	36.6

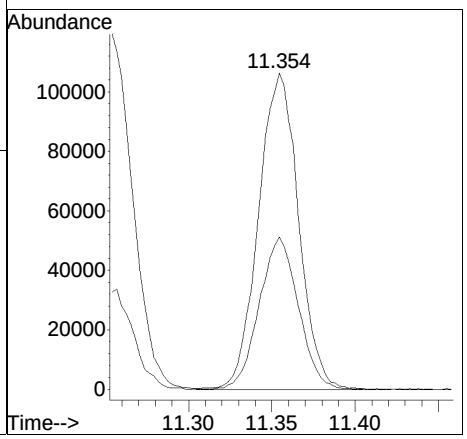


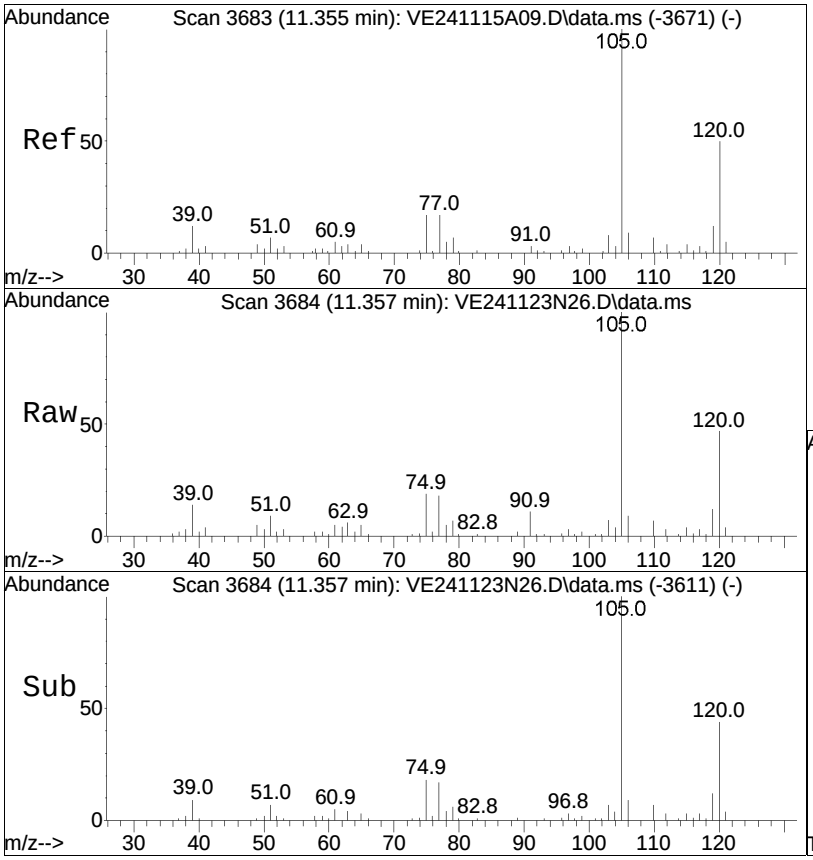


#95
1,3,5-Trimethylbenzene
Concen: 9.98 ug/L
RT: 11.354 min Scan# 3683
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:105 Resp: 177542

Ion	Ratio	Lower	Upper
105	100		
120	47.1	39.3	58.9

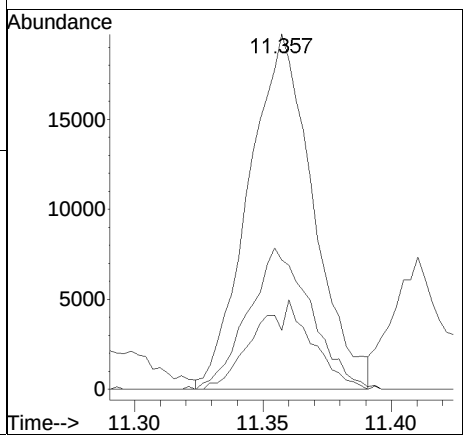


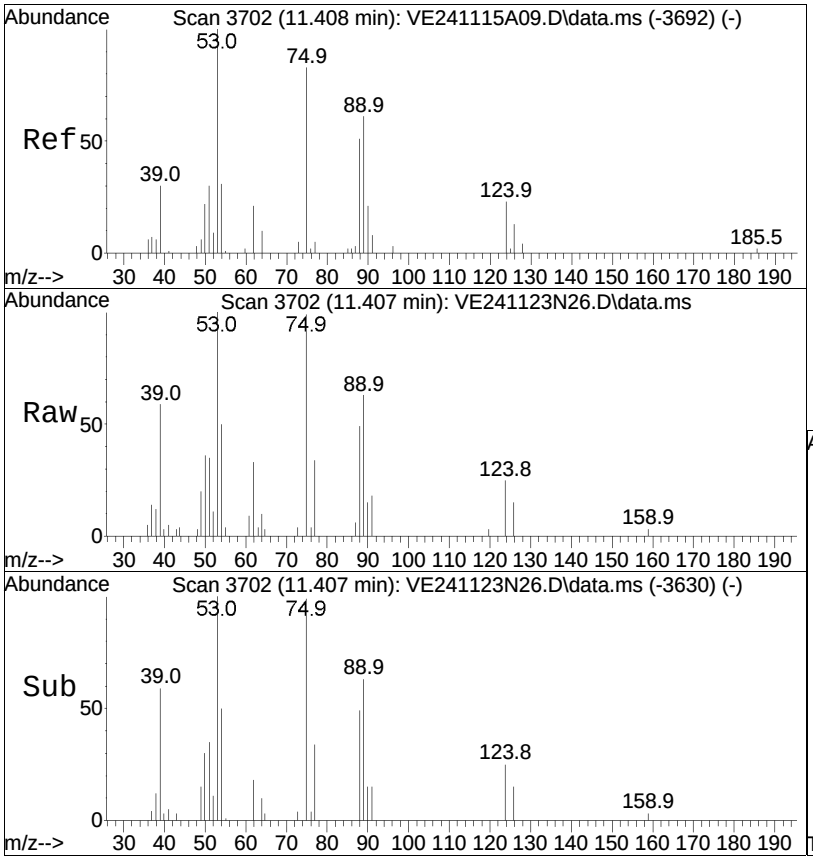


#96
1,2,3-Trichloropropane
Concen: 10.60 ug/L
RT: 11.357 min Scan# 3684
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 75 Resp: 34512

Ion	Ratio	Lower	Upper
75	100		
110	38.8	22.4	46.4
112	12.0	12.2	25.2#

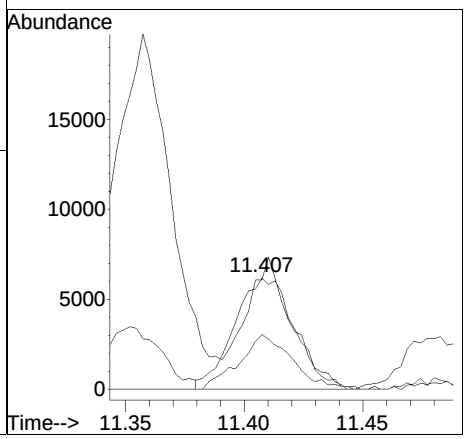


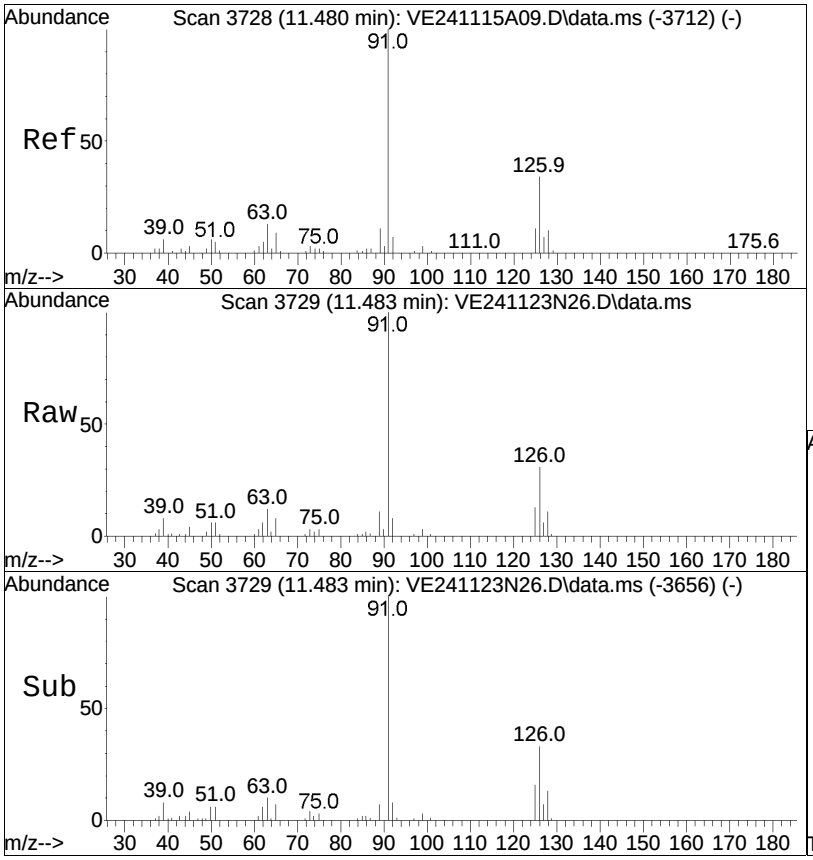


#97
trans-1,4-Dichloro-2-butene
Concen: 9.35 ug/L
RT: 11.407 min Scan# 3702
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 53 Resp: 11023

Ion	Ratio	Lower	Upper
53	100		
88	43.0	29.2	43.8
75	90.0	62.6	94.0

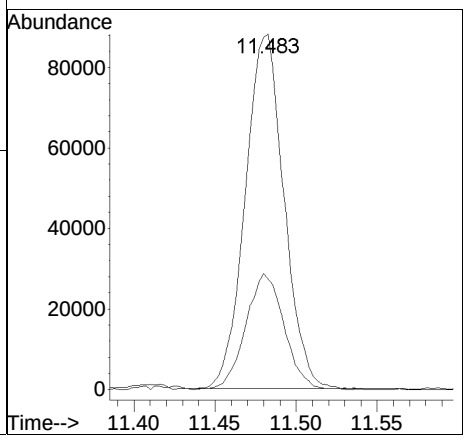


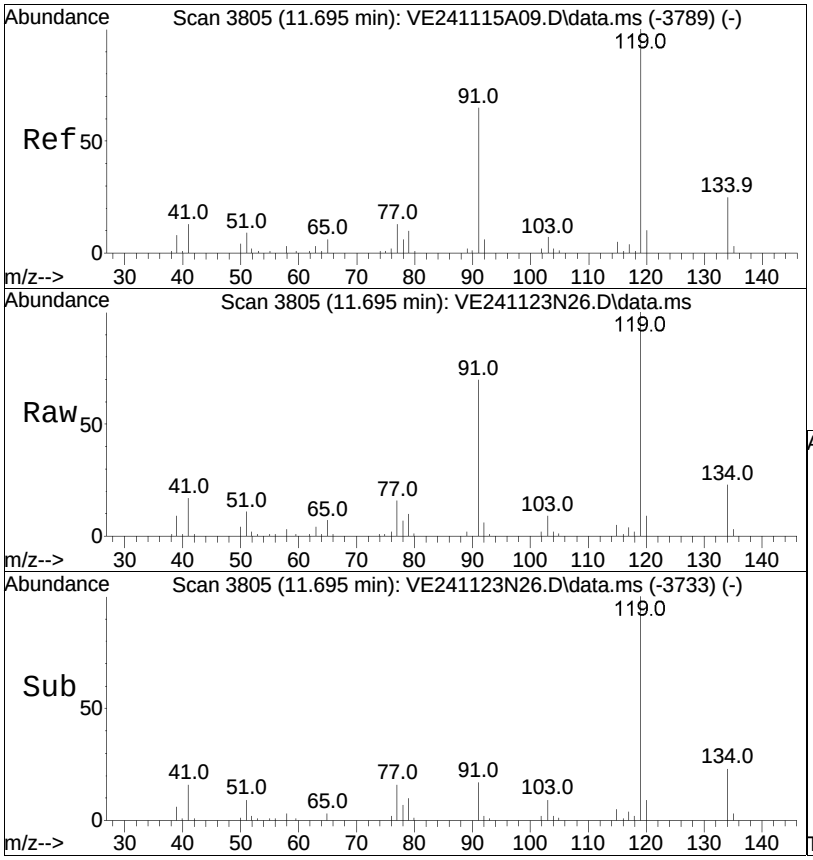


#98
4-Chlorotoluene
Concen: 10.05 ug/L
RT: 11.483 min Scan# 3729
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 91 Resp: 146308

Ion	Ratio	Lower	Upper
91	100		
126	32.4	25.8	38.8

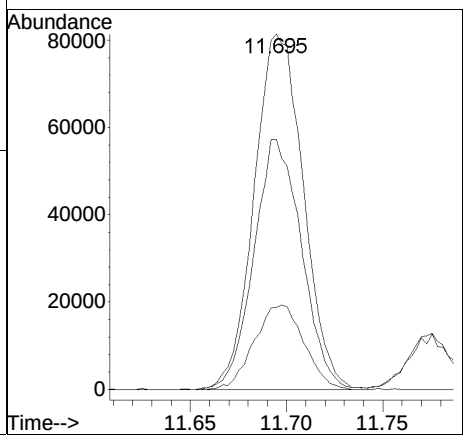


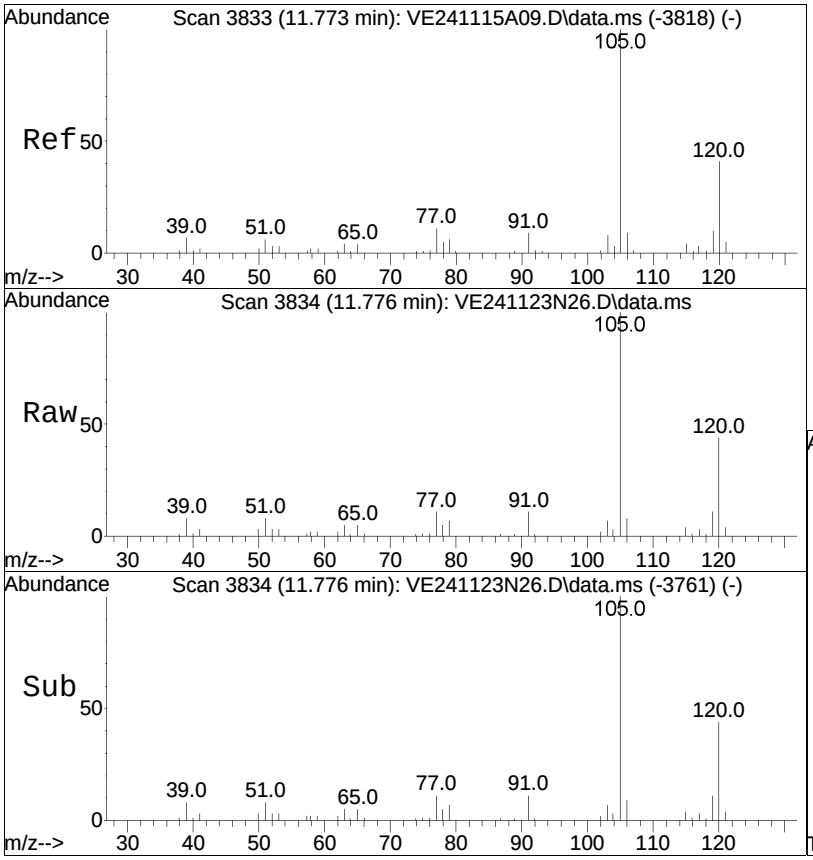


#99
tert-Butylbenzene
Concen: 9.84 ug/L
RT: 11.695 min Scan# 3805
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:119 Resp: 144406

Ion	Ratio	Lower	Upper
119	100		
91	68.4	56.6	84.8
134	24.0	17.7	26.5

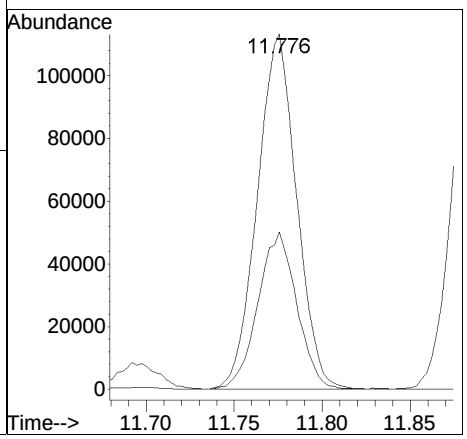


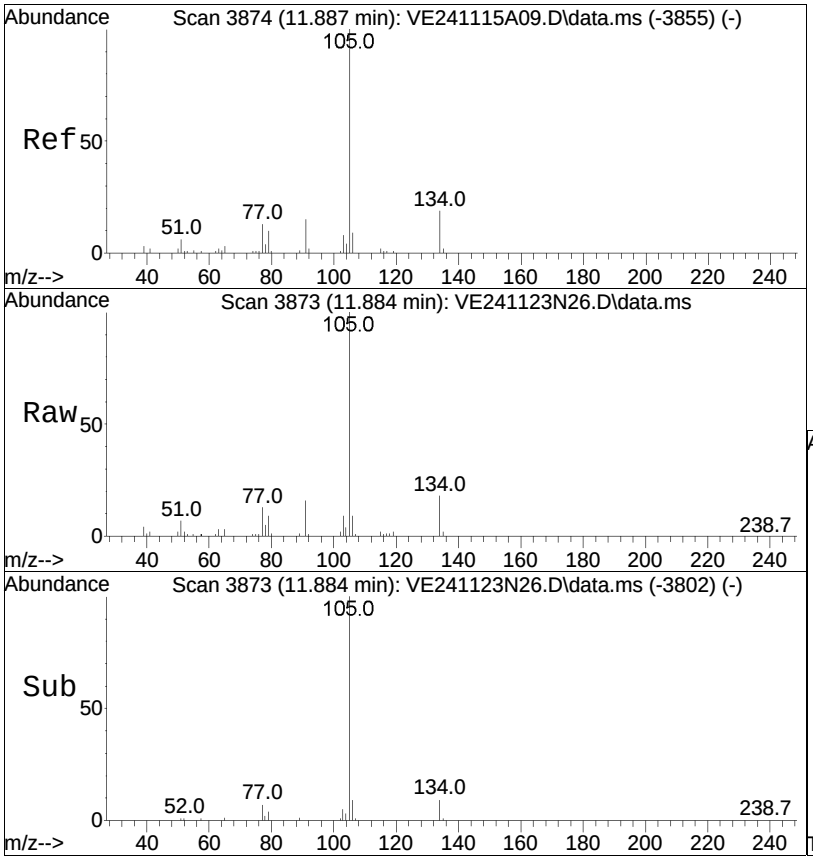


#102
1,2,4-Trimethylbenzene
Concen: 9.86 ug/L
RT: 11.776 min Scan# 3834
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:105 Resp: 175852

Ion	Ratio	Lower	Upper
105	100		
120	43.7	33.6	50.4

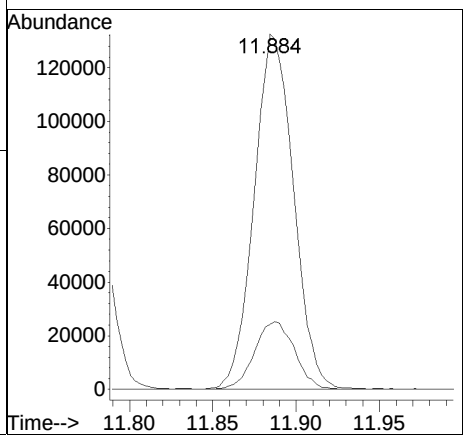


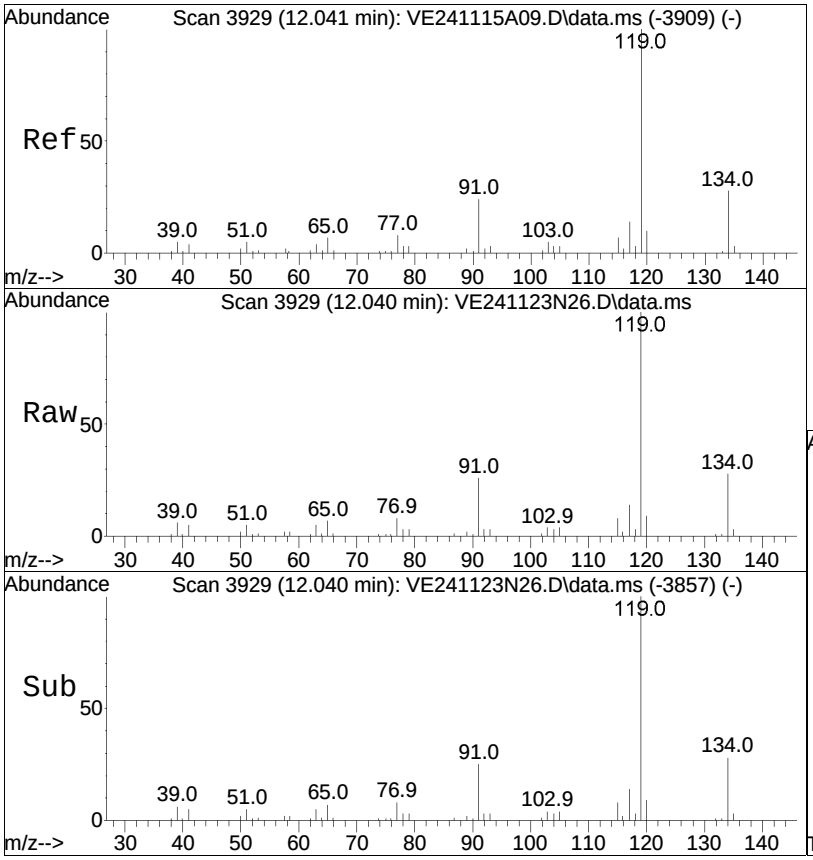


#103
sec-Butylbenzene
Concen: 9.73 ug/L
RT: 11.884 min Scan# 3873
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:105 Resp: 218136

Ion	Ratio	Lower	Upper
105	100		
134	19.4	13.3	27.5

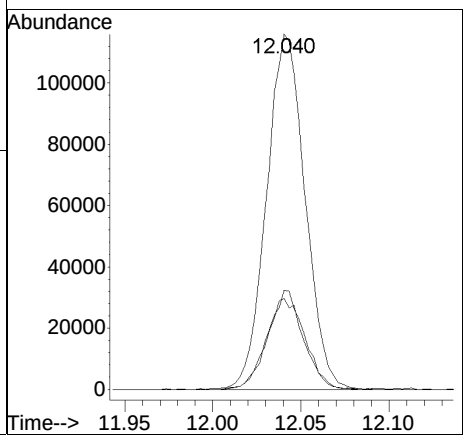


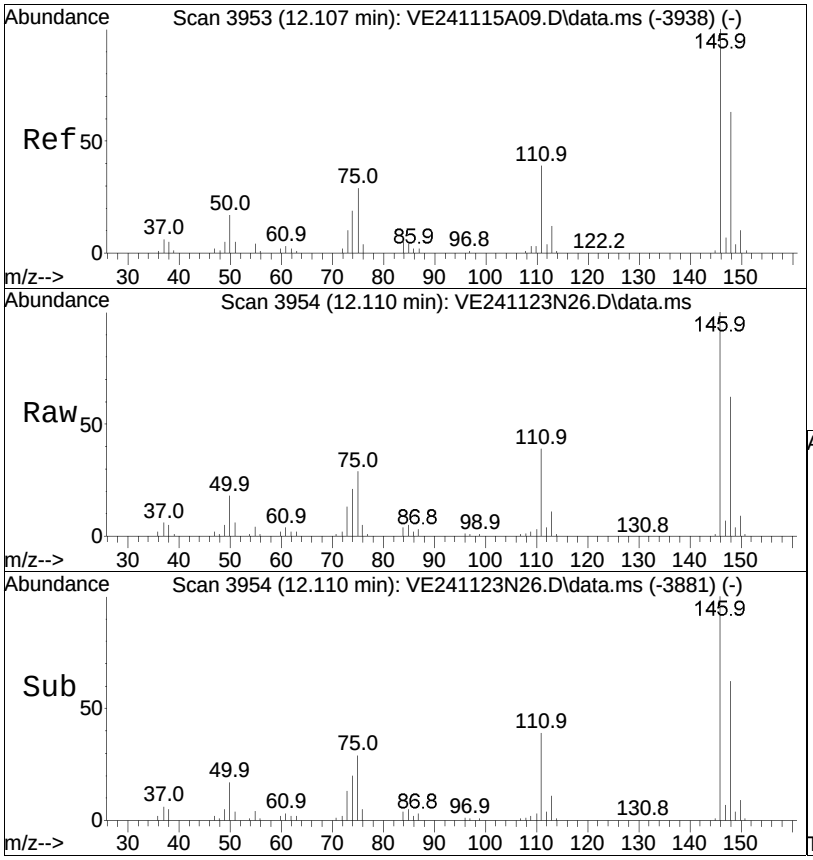


#104
p-Isopropyltoluene
Concen: 9.51 ug/L
RT: 12.040 min Scan# 3929
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:119 Resp: 176603

Ion	Ratio	Lower	Upper
119	100		
134	26.5	15.8	32.8
91	25.1	16.6	34.4

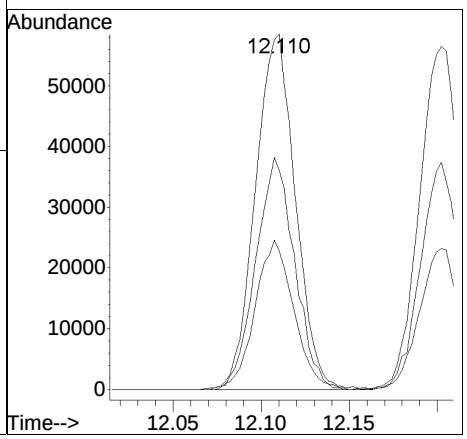


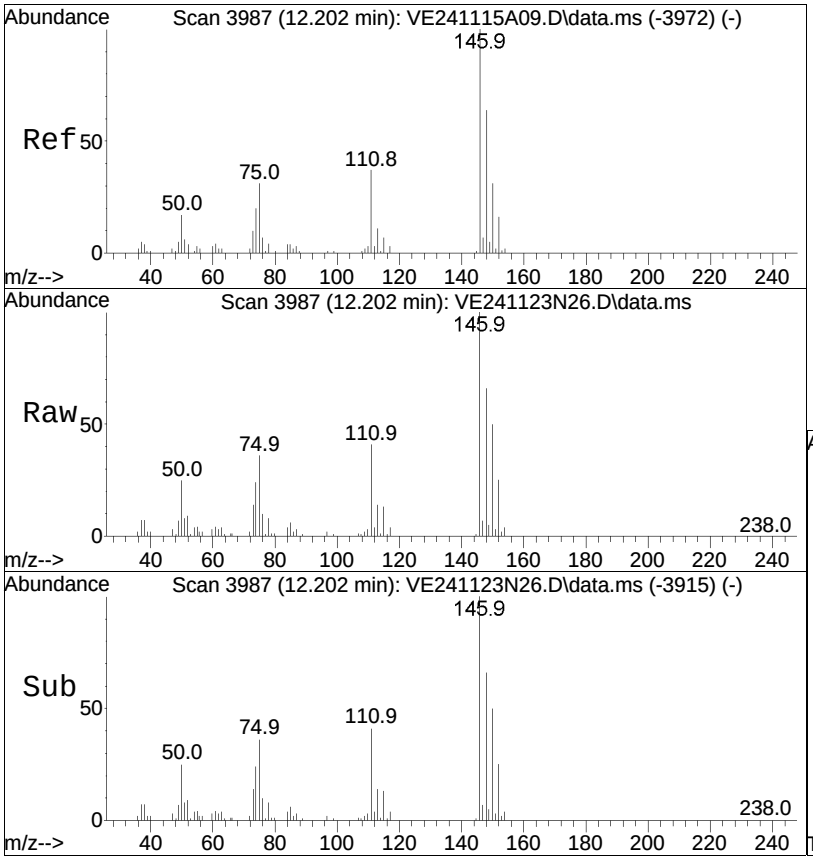


#105
1,3-Dichlorobenzene
Concen: 9.68 ug/L
RT: 12.110 min Scan# 3954
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:146 Resp: 92382

Ion	Ratio	Lower	Upper
146	100		
111	40.3	27.9	57.9
148	63.5	42.4	88.2

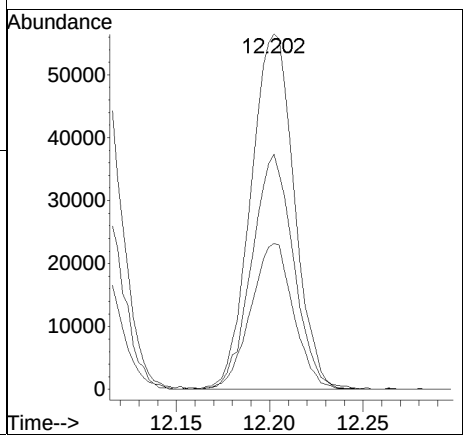


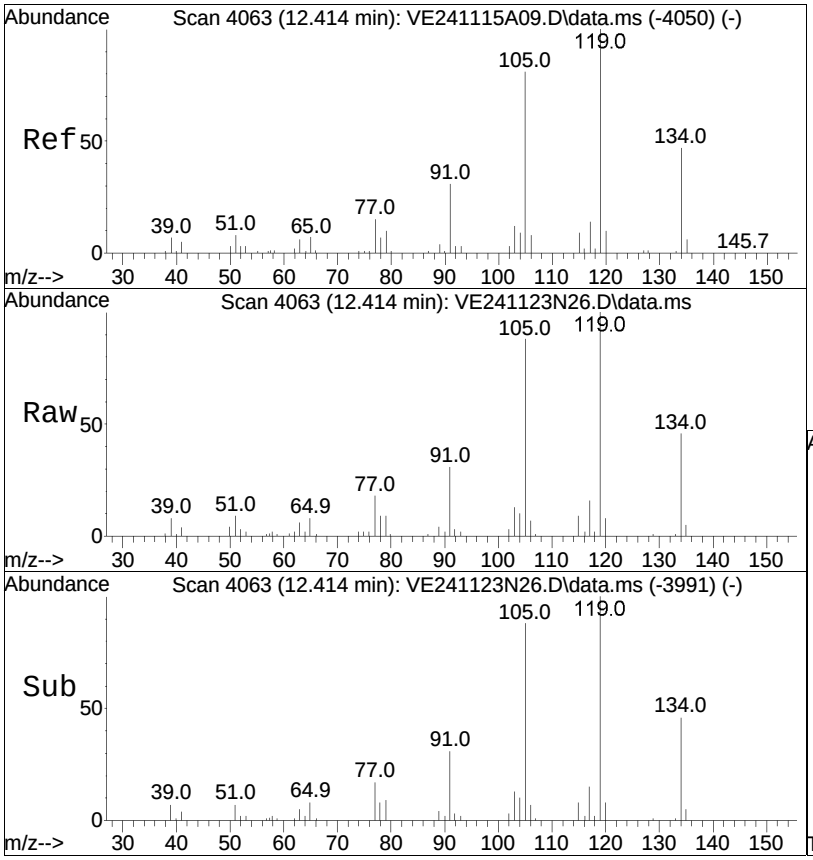


#106
1,4-Dichlorobenzene
Concen: 9.57 ug/L
RT: 12.202 min Scan# 3987
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:146 Resp: 91566

Ion	Ratio	Lower	Upper
146	100		
111	40.4	31.4	47.0
148	63.4	49.8	74.8

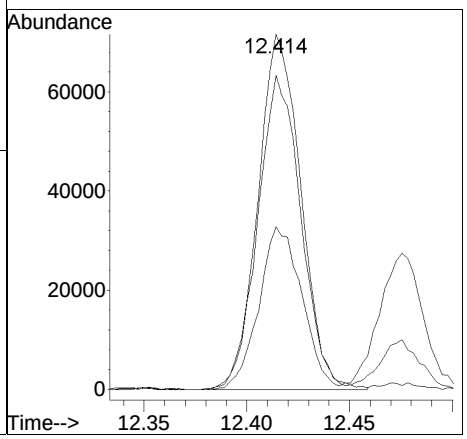


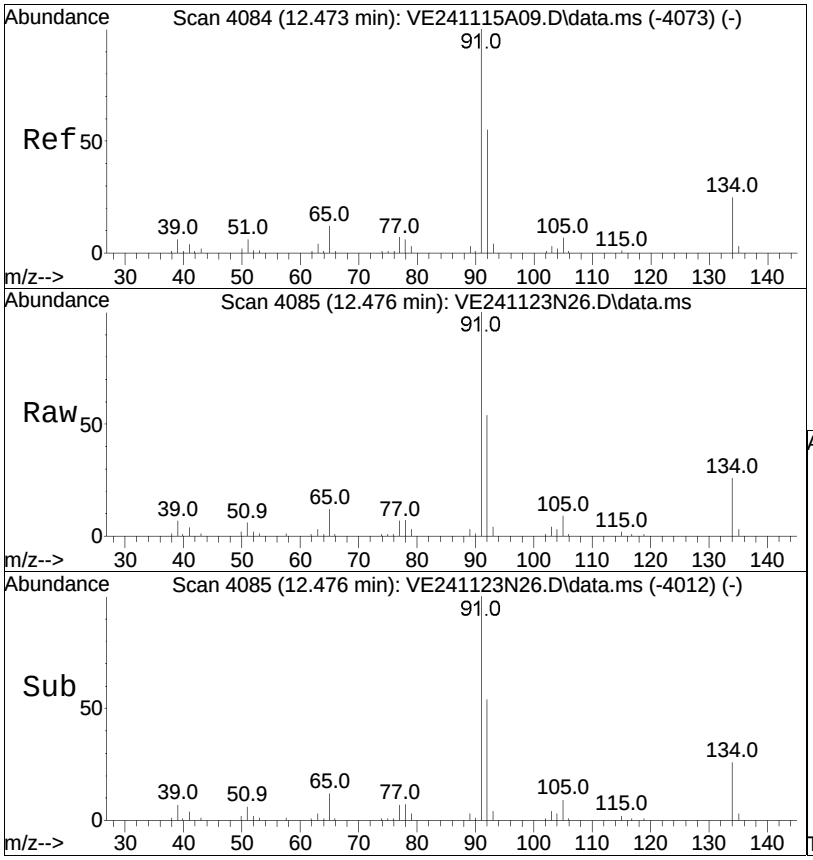


#107
p-Diethylbenzene
Concen: 9.54 ug/L
RT: 12.414 min Scan# 4063
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:119 Resp: 103709

Ion	Ratio	Lower	Upper
119	100		
105	88.9	55.4	115.2
134	46.0	28.4	59.0

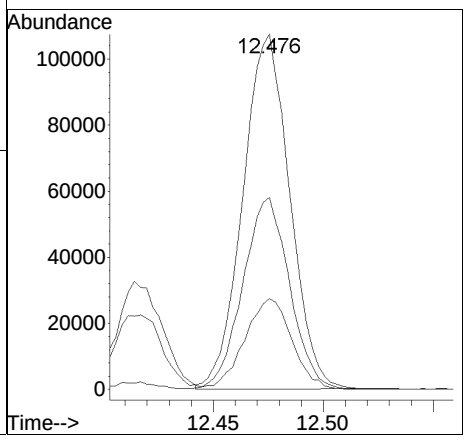


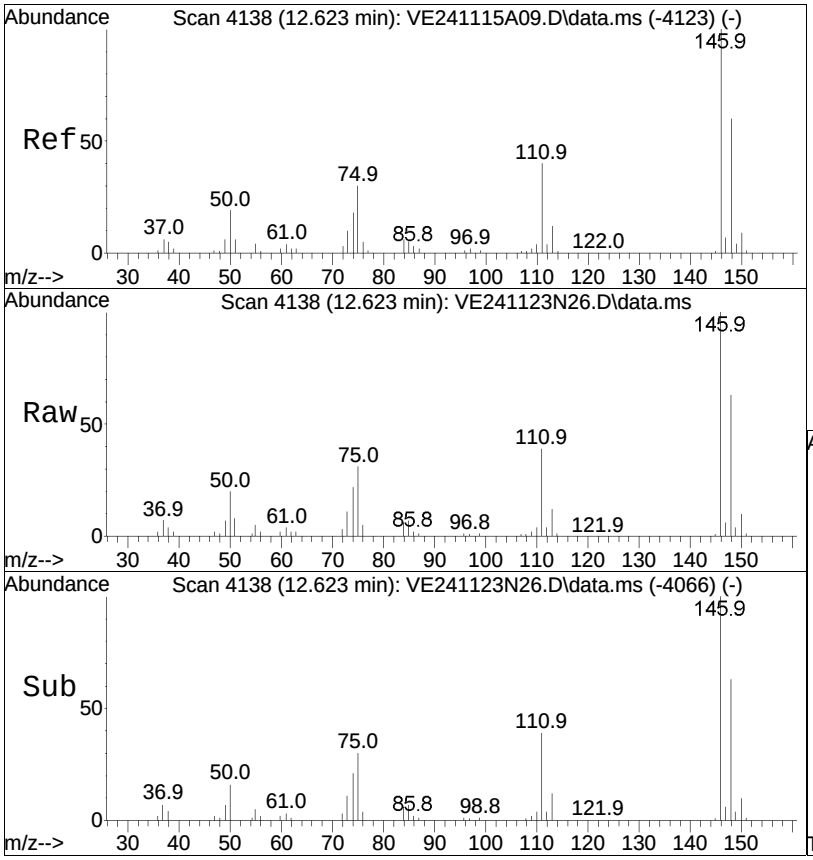


#108
n-Butylbenzene
Concen: 9.82 ug/L
RT: 12.476 min Scan# 4085
Delta R.T. 0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion: 91 Resp: 159023

Ion	Ratio	Lower	Upper
91	100		
92	53.9	42.4	63.6
134	25.7	20.3	30.5

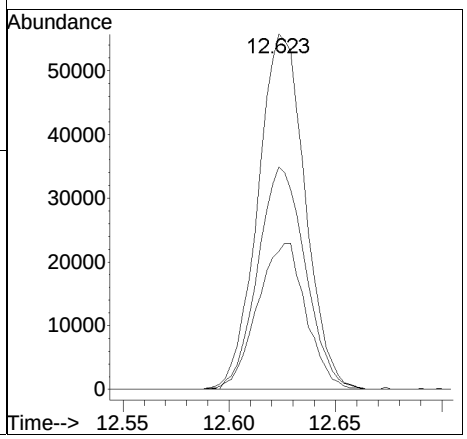


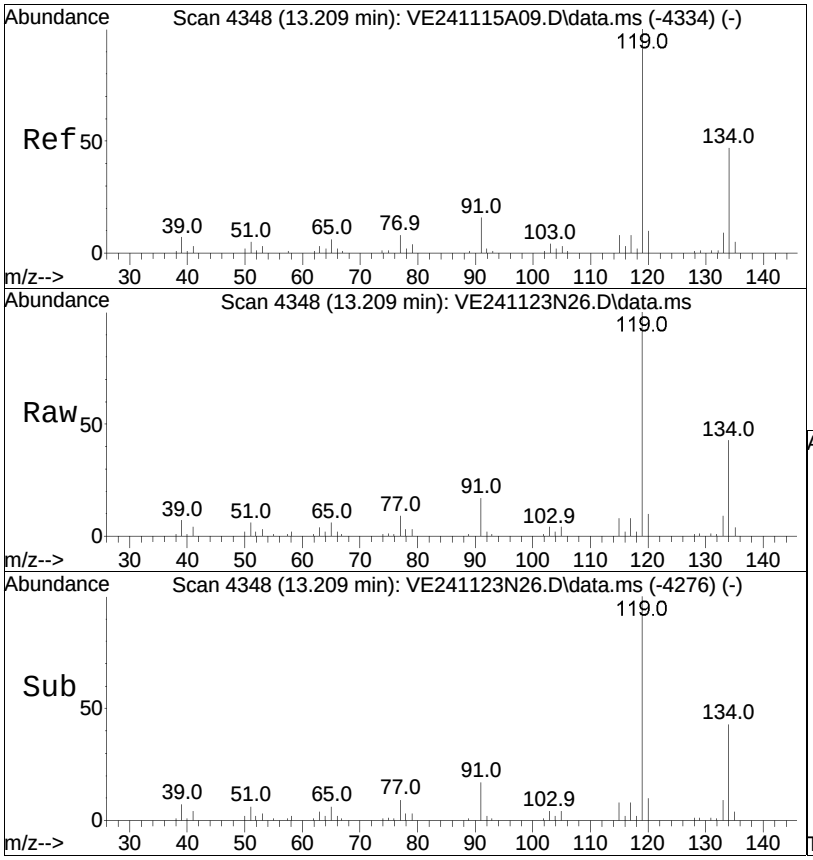


#109
1,2-Dichlorobenzene
Concen: 9.49 ug/L
RT: 12.623 min Scan# 4138
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:146 Resp: 86143

Ion	Ratio	Lower	Upper
146	100		
111	42.4	26.4	54.8
148	63.1	41.7	86.7

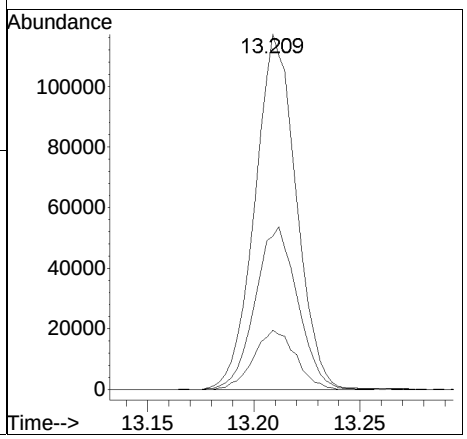


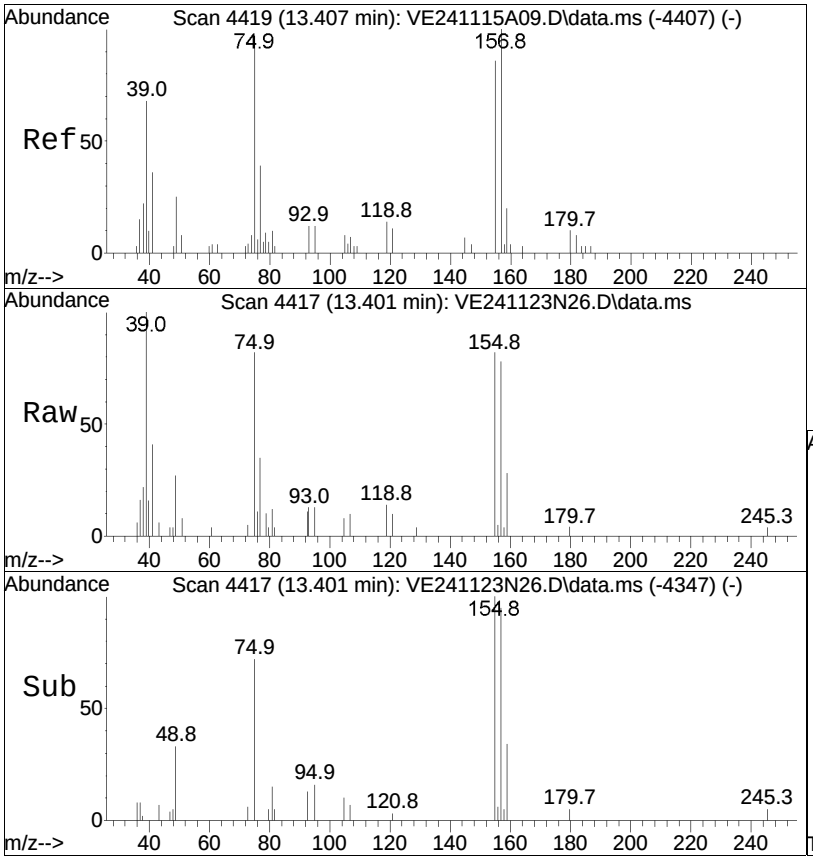


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.10 ug/L
RT: 13.209 min Scan# 4348
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:119 Resp: 158345

Ion	Ratio	Lower	Upper
119	100		
134	47.1	29.6	61.4
91	16.9	9.8	20.3

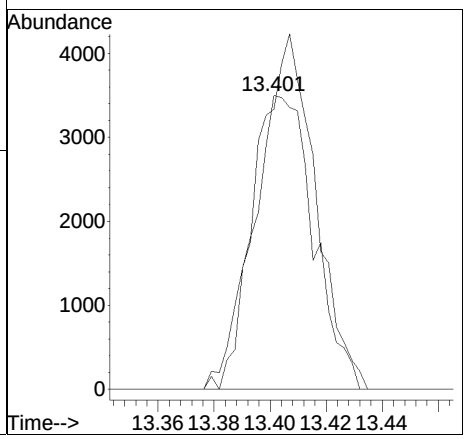


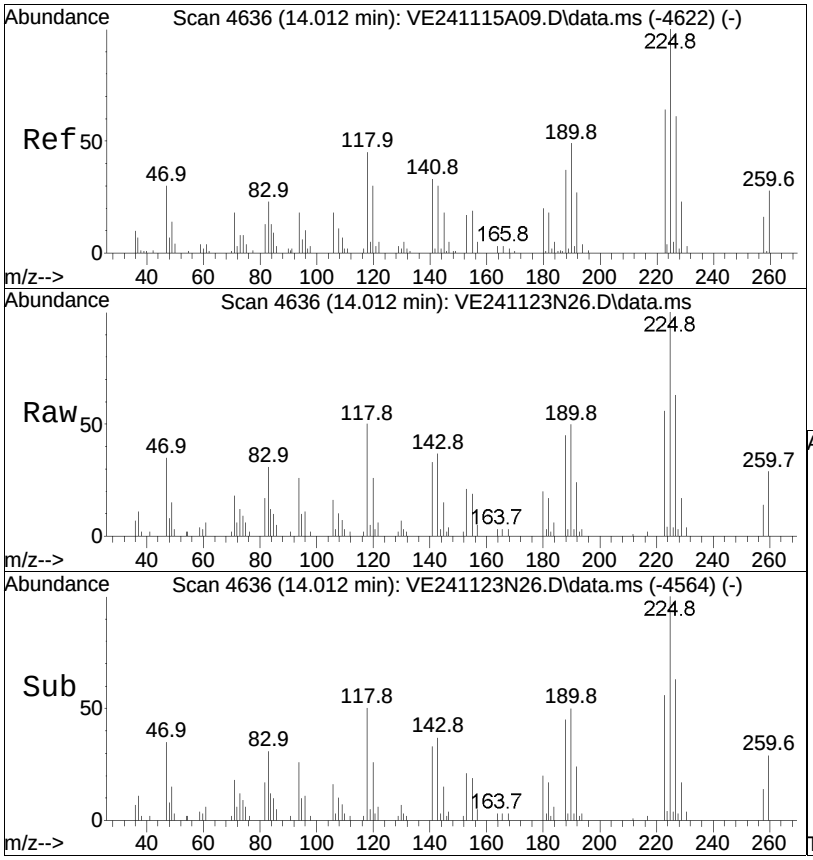


#111
1,2-Dibromo-3-chloropropane
Concen: 9.45 ug/L
RT: 13.401 min Scan# 4417
Delta R.T. -0.006 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:155 Resp: 5213

Ion	Ratio	Lower	Upper
155	100		
157	120.4	95.1	142.7

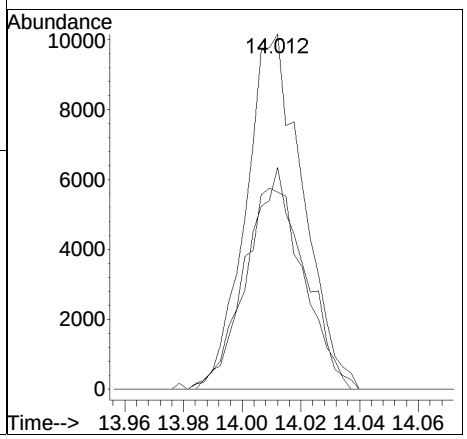


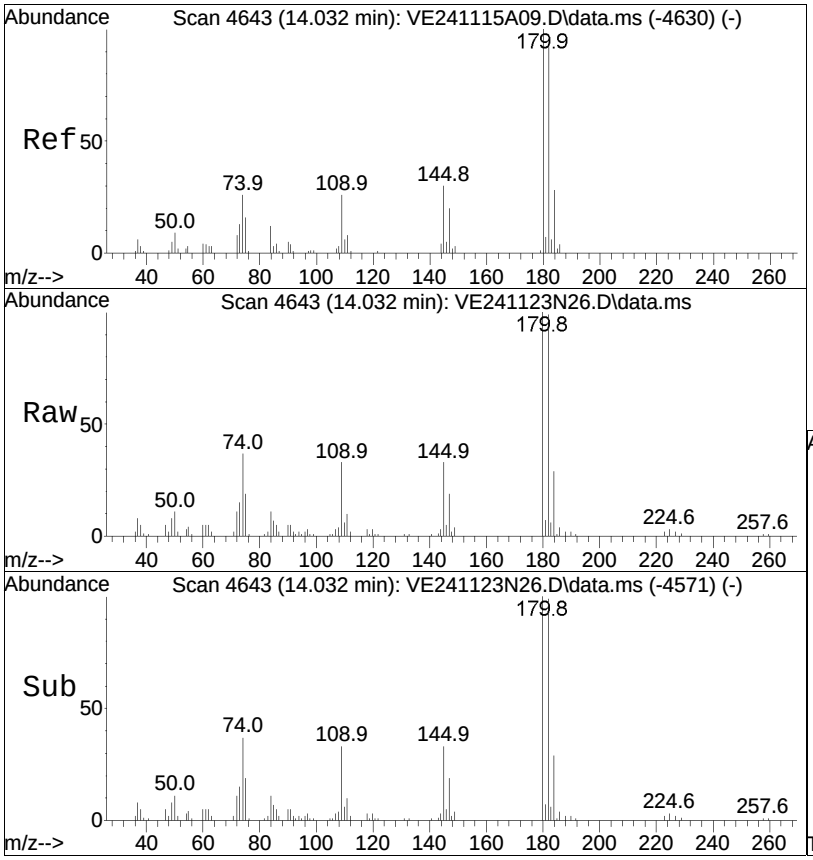


#113
Hexachlorobutadiene
Concen: 7.94 ug/L
RT: 14.012 min Scan# 4636
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:225 Resp: 13722

Ion	Ratio	Lower	Upper
225	100		
223	61.3	54.6	82.0
227	62.2	56.2	84.4

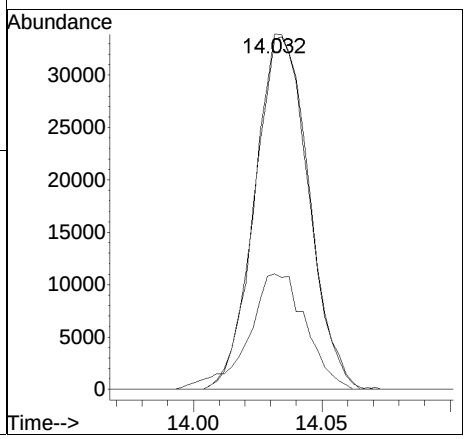


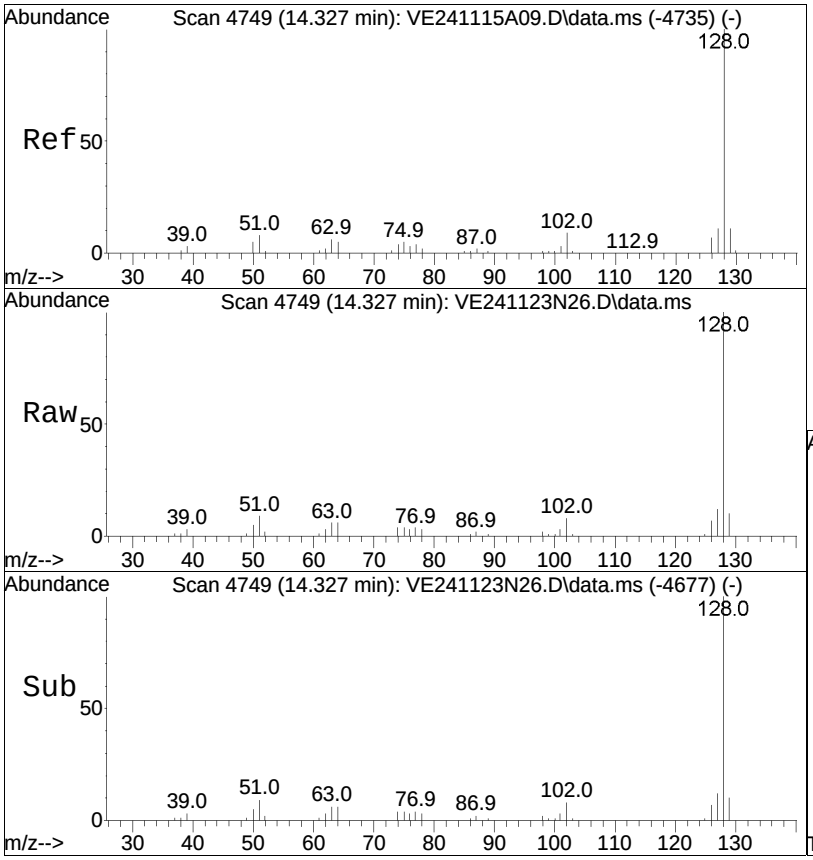


#114
1,2,4-Trichlorobenzene
Concen: 8.79 ug/L
RT: 14.032 min Scan# 4643
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:180 Resp: 49689

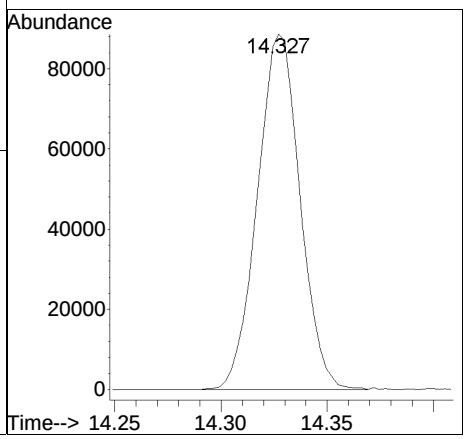
Ion	Ratio	Lower	Upper
180	100		
182	97.7	75.4	113.2
145	34.5	26.0	39.0

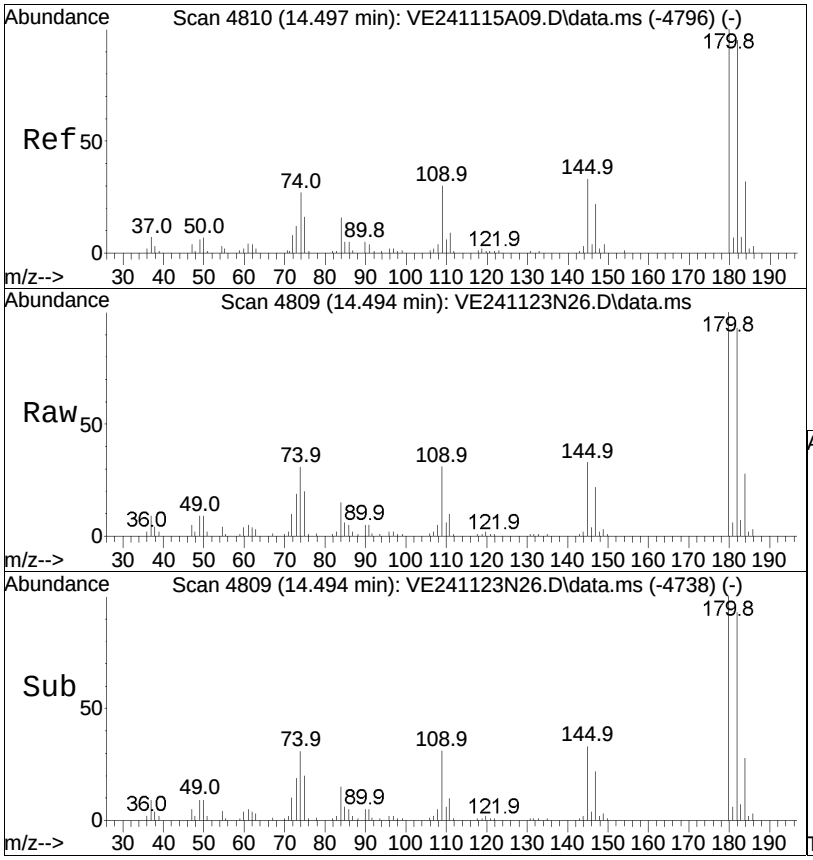




#115
Naphthalene
Concen: 9.30 ug/L
RT: 14.327 min Scan# 4749
Delta R.T. -0.000 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:128 Resp: 123547

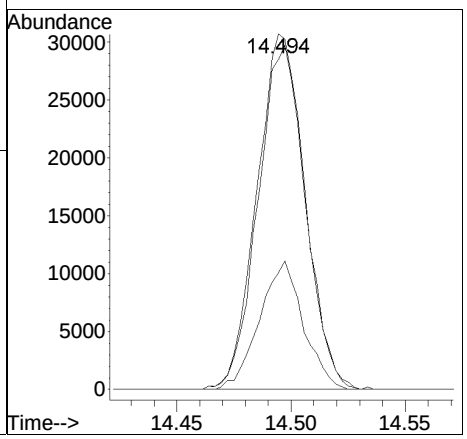




#116
1,2,3-Trichlorobenzene
Concen: 8.92 ug/L
RT: 14.494 min Scan# 4809
Delta R.T. -0.003 min
Lab File: VE241123N26.D
Acq: 24 Nov 2024 5:44 am

Tgt Ion:180 Resp: 45024

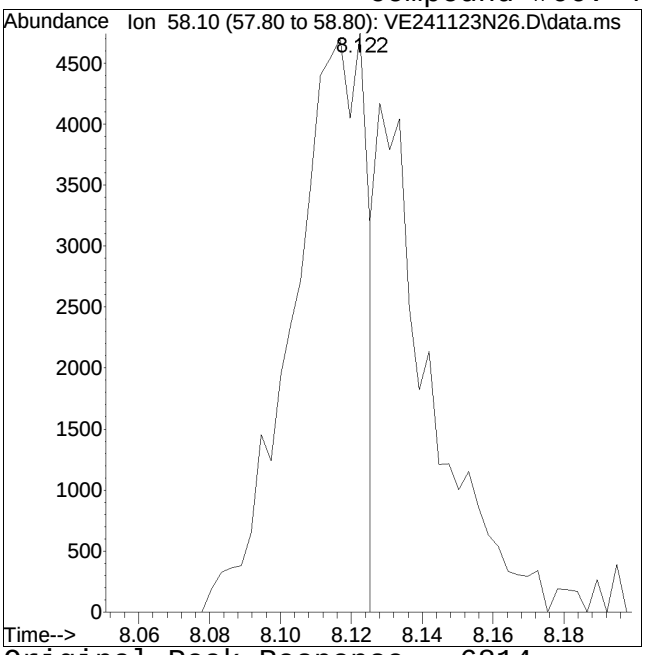
Ion	Ratio	Lower	Upper
180	100		
182	94.8	71.6	107.4
145	32.8	25.1	37.7



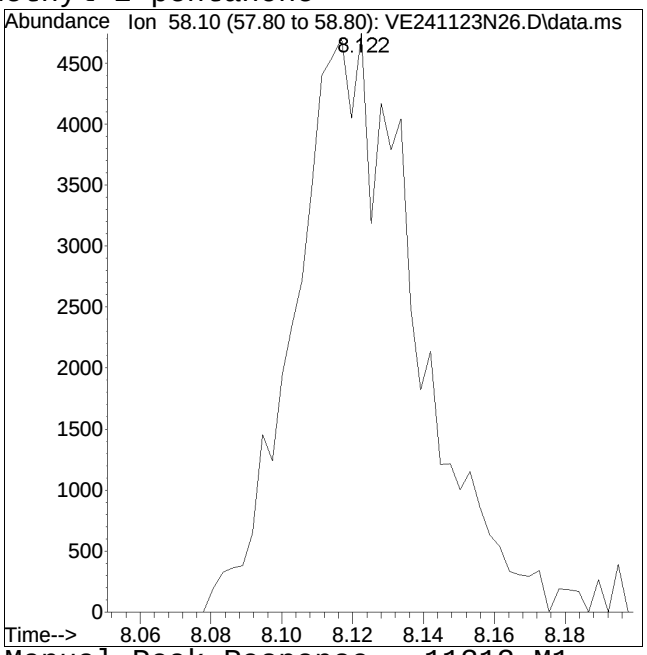
Manual Integration Report

Data Path : K:\Elaine\2024\241123N\ QMethod : Elaine_241115A_8260.m
Data File : VE241123N26.D Operator : ELAINE:MJV
Date Inj'd : 11/24/2024 5:44 am Instrument : Elaine
Sample : WG2001825-6,31,0.04,10,,A, Quant Date : 11/25/2024 6:03 am

Compound #66: 4-Methyl-2-pentanone



Original Peak Response = 6814



Manual Peak Response = 11312 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N27.D
Acq On : 24 Nov 2024 6:08 am
Operator : ELAINE:MJV
Sample : WG2001825-7,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 06:03:11 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	5.942	96	196398	10.000	ug/L	0.00
Standard Area 1 = 198303			Recovery = 99.04%			
63) Chlorobenzene-d5	9.470	117	140236	10.000	ug/L	0.00
Standard Area 1 = 142748			Recovery = 98.24%			
84) 1,4-Dichlorobenzene-d4	12.186	152	73296	10.000	ug/L	0.00
Standard Area 1 = 72729			Recovery = 100.78%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.133	113	47084	10.456	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 104.56%		
47) 1,2-Dichloroethane-d4	5.657	65	57091	10.715	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 107.15%		
64) Toluene-d8	7.629	98	199557	10.434	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 104.34%		
88) 4-Bromofluorobenzene	10.970	95	68698	10.202	ug/L	0.00
Spiked Amount 10.000		Range 70 - 130		Recovery = 102.02%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.586	85	56929	12.973	ug/L #	93
3) Chloromethane	1.773	50	48214	11.120	ug/L	97
4) Vinyl chloride	1.848	62	62781	13.589	ug/L	94
5) Bromomethane	2.155	94	21752	6.708	ug/L	93
6) Chloroethane	2.275	64	43525	13.012	ug/L	99
7) Trichlorofluoromethane	2.411	101	78683	11.673	ug/L	94
8) Ethyl ether	2.704	74	24763	11.880	ug/L	88
10) 1,1-Dichloroethene	2.894	96	42264	12.312	ug/L #	76
11) Carbon disulfide	2.922	76	119495	11.591	ug/L	95
15) Methylene chloride	3.443	84	47378	11.056	ug/L	90
17) Acetone	3.482	43	10422	12.358	ug/L #	80
18) trans-1,2-Dichloroethene	3.597	96	42311	11.068	ug/L	90
21) Methyl tert-butyl ether	3.691	73	107767	10.546	ug/L	93
25) 1,1-Dichloroethane	4.174	63	94542	12.373	ug/L	93
27) Acrylonitrile	4.216	53	11952	11.562	ug/L #	89
29) Vinyl acetate	4.405	43	95737	10.788	ug/L	100
30) cis-1,2-Dichloroethene	4.695	96	47349	10.851	ug/L	97
31) 2,2-Dichloropropane	4.796	77	52674	8.736	ug/L	98
33) Bromochloromethane	4.888	128	21562	10.846	ug/L	94
35) Chloroform	4.957	83	80281	11.198	ug/L	97

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N27.D
Acq On : 24 Nov 2024 6:08 am
Operator : ELAINE:MJV
Sample : WG2001825-7,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 06:03:11 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.091	117	57326	11.026	ug/L		97
40) 1,1,1-Trichloroethane	5.155	97	70856	11.194	ug/L	#	77
42) 2-Butanone	5.247	43	41895	34.837	ug/L	#	88
43) 1,1-Dichloropropene	5.275	75	63094	11.376	ug/L		96
45) Benzene	5.524	78	199645	11.430	ug/L	#	88
48) 1,2-Dichloroethane	5.722	62	63772	11.479	ug/L		98
52) Trichloroethene	6.118	95	47180	11.392	ug/L		98
54) Dibromomethane	6.553	93	25366	10.717	ug/L		95
55) 1,2-Dichloropropane	6.659	63	53461	12.048	ug/L		95
58) Bromodichloromethane	6.737	83	63188	10.972	ug/L	#	93
61) 1,4-Dioxane	6.940	88	12652	436.324	ug/L	#	87
62) cis-1,3-Dichloropropene	7.423	75	68228	10.264	ug/L		91
65) Toluene	7.685	92	121431	11.019	ug/L		93
66) 4-Methyl-2-pentanone	8.120	58	12395	10.703	ug/L	#	76
67) Tetrachloroethene	8.134	166	44803	10.112	ug/L		97
69) trans-1,3-Dichloropropene	8.170	75	59240	10.856	ug/L		87
72) 1,1,2-Trichloroethane	8.360	83	31557	10.896	ug/L		99
73) Chlorodibromomethane	8.569	129	39201	10.088	ug/L		95
74) 1,3-Dichloropropane	8.675	76	67264	11.248	ug/L		98
75) 1,2-Dibromoethane	8.839	107	35360	10.304	ug/L		88
77) 2-Hexanone	9.127	43	18824	10.118	ug/L	#	41
78) Chlorobenzene	9.489	112	122446	10.454	ug/L	#	78
79) Ethylbenzene	9.528	91	224152	10.644	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.573	131	41005	10.544	ug/L		94
81) p/m Xylene	9.715	106	169631	20.926	ug/L		96
82) o Xylene	10.259	106	164993	20.873	ug/L		90
83) Styrene	10.326	104	268654	20.131	ug/L		96
85) Bromoform	10.351	173	20283	9.362	ug/L		94
87) Isopropylbenzene	10.644	105	220875	10.201	ug/L		98
89) Bromobenzene	11.084	156	48997	10.137	ug/L		99
90) n-Propylbenzene	11.126	91	256713	10.453	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.218	83	46261	11.067	ug/L		99
93) 4-Ethyltoluene	11.257	105	211200	10.364	ug/L		98
94) 2-Chlorotoluene	11.296	91	149829	10.504	ug/L		96
95) 1,3,5-Trimethylbenzene	11.352	105	185483	10.286	ug/L		97
96) 1,2,3-Trichloropropane	11.360	75	36322	11.007	ug/L		94
97) trans-1,4-Dichloro-2-b...	11.408	53	12315	10.308	ug/L		86
98) 4-Chlorotoluene	11.480	91	152395	10.327	ug/L		99
99) tert-Butylbenzene	11.698	119	148715	9.994	ug/L		97

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N27.D
Acq On : 24 Nov 2024 6:08 am
Operator : ELAINE:MJV
Sample : WG2001825-7,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 06:03:11 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\Elaine\2024\241123N\VE241123N02.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) 1,2,4-Trimethylbenzene	11.773	105	182572	10.096	ug/L		96
103) sec-Butylbenzene	11.887	105	231439	10.186	ug/L		97
104) p-Isopropyltoluene	12.041	119	182730	9.706	ug/L		98
105) 1,3-Dichlorobenzene	12.108	146	95273	9.848	ug/L		98
106) 1,4-Dichlorobenzene	12.200	146	94979	9.789	ug/L		97
107) p-Diethylbenzene	12.414	119	107121	9.726	ug/L		95
108) n-Butylbenzene	12.473	91	164151	9.999	ug/L		98
109) 1,2-Dichlorobenzene	12.626	146	91737	9.966	ug/L		99
110) 1,2,4,5-Tetramethylben...	13.212	119	164582	9.327	ug/L		97
111) 1,2-Dibromo-3-chloropr...	13.401	155	5347	9.565	ug/L	#	54
113) Hexachlorobutadiene	14.012	225	14728	8.403	ug/L		94
114) 1,2,4-Trichlorobenzene	14.035	180	52124	9.092	ug/L		98
115) Naphthalene	14.327	128	131277	9.751	ug/L		100
116) 1,2,3-Trichlorobenzene	14.497	180	47322	9.247	ug/L		94

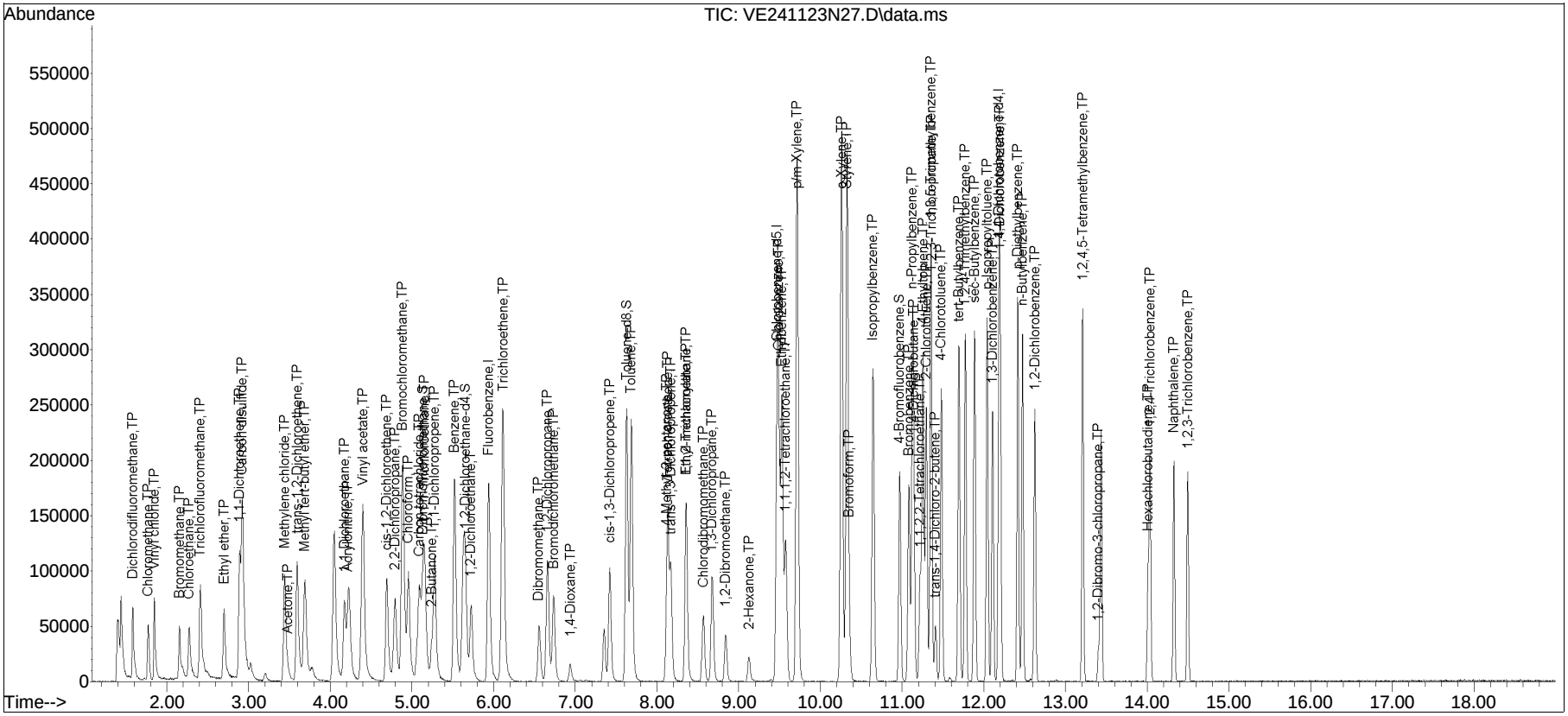
(#) = qualifier out of range (m) = manual integration (+) = signals summed

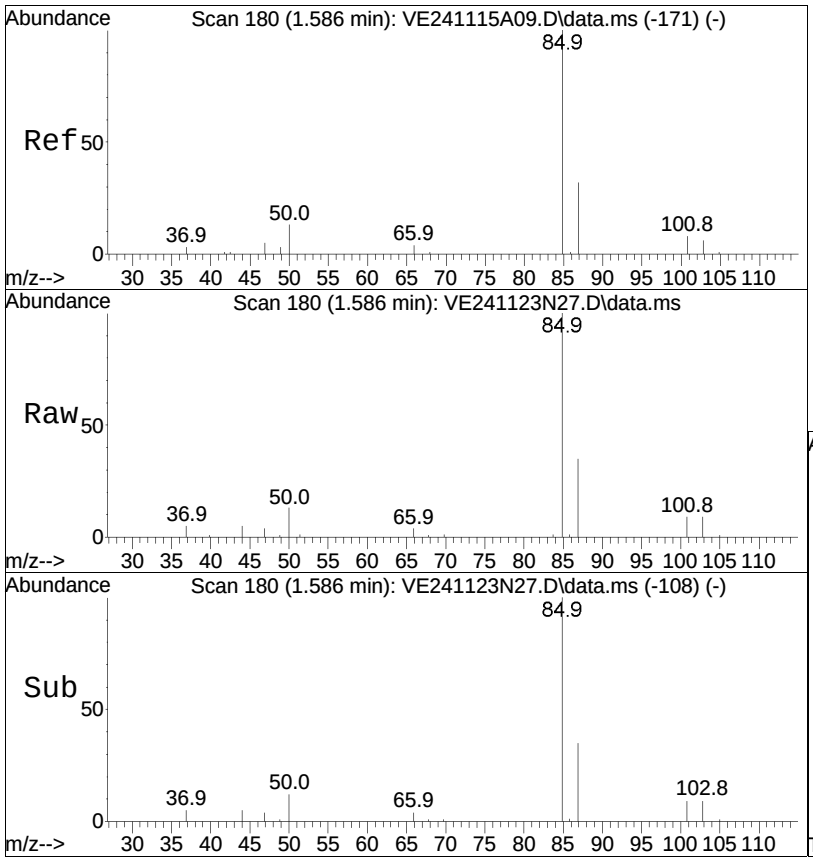
Quantitation Report (QT Reviewed)

Data Path : K:\Elaine\2024\241123N\
Data File : VE241123N27.D
Acq On : 24 Nov 2024 6:08 am
Operator : ELAINE:MJV
Sample : WG2001825-7,31,0.04,10,,A,R1A
Misc : WG2001825,ICAL21711
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 06:03:11 2024
Quant Method : K:\Elaine\2024\241123N\Elaine_241115A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 15 11:49:20 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox41123N02.D•

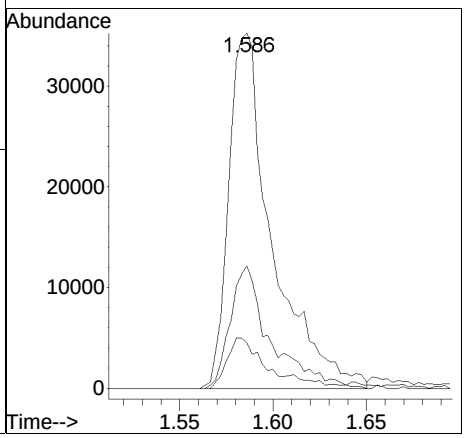


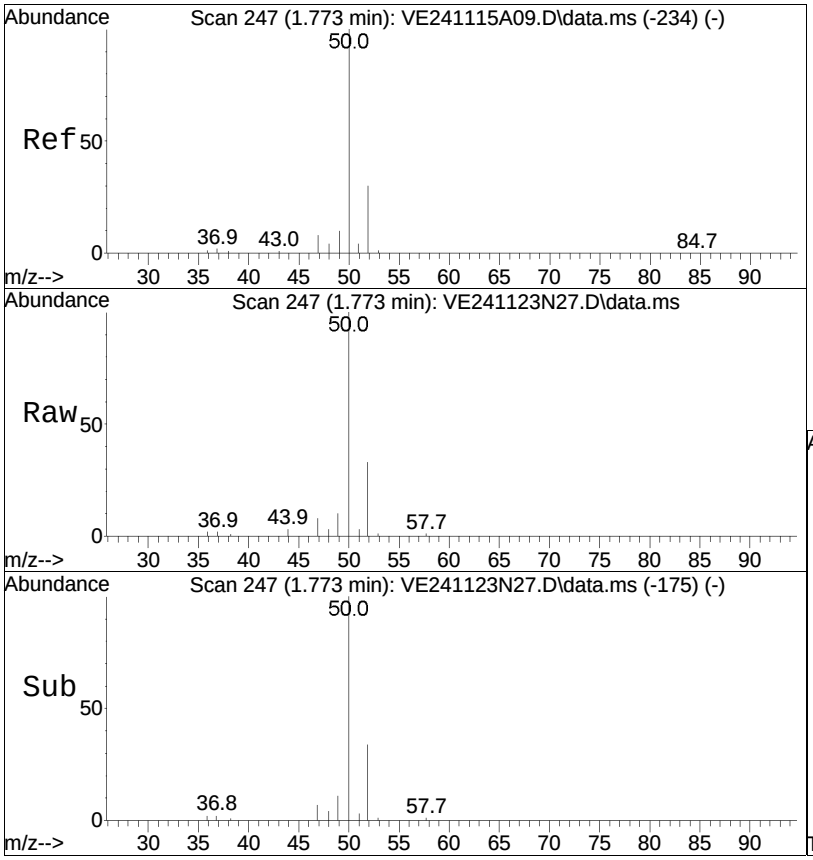


#2
Dichlorodifluoromethane
Concen: 12.97 ug/L
RT: 1.586 min Scan# 180
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 85 Resp: 56929

Ion	Ratio	Lower	Upper
85	100		
87	31.9	21.7	45.1
50	11.2	11.8	24.4#

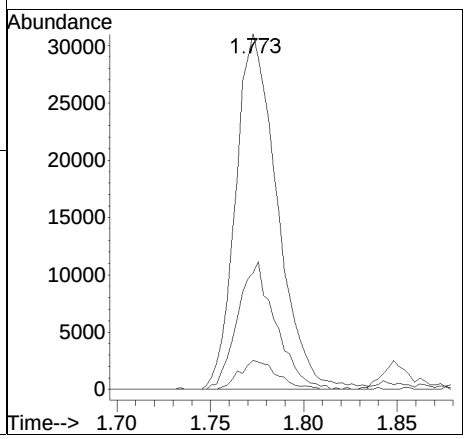


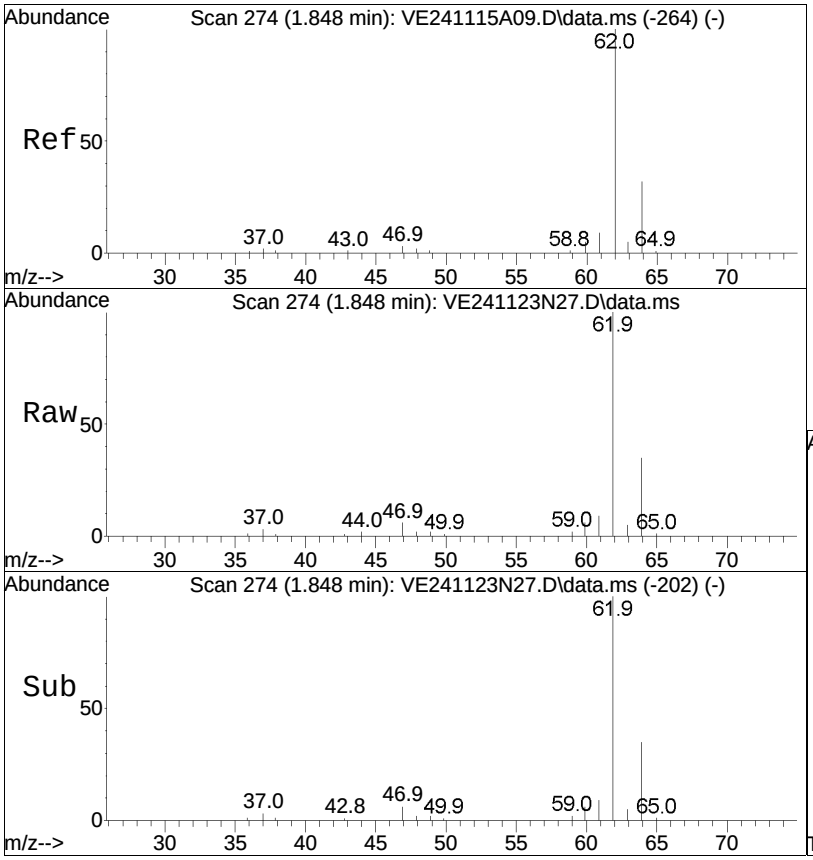


#3
Chloromethane
Concen: 11.12 ug/L
RT: 1.773 min Scan# 247
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 50 Resp: 48214

Ion	Ratio	Lower	Upper
50	100		
52	33.0	14.9	54.9
47	7.4	0.0	28.0

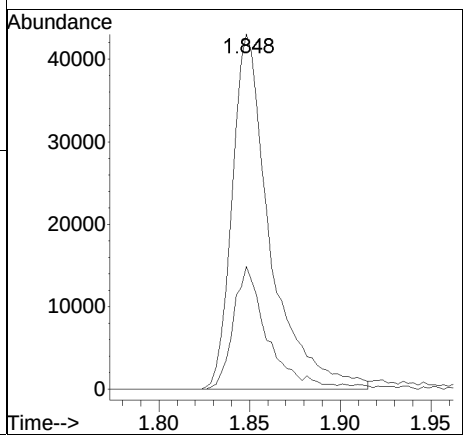


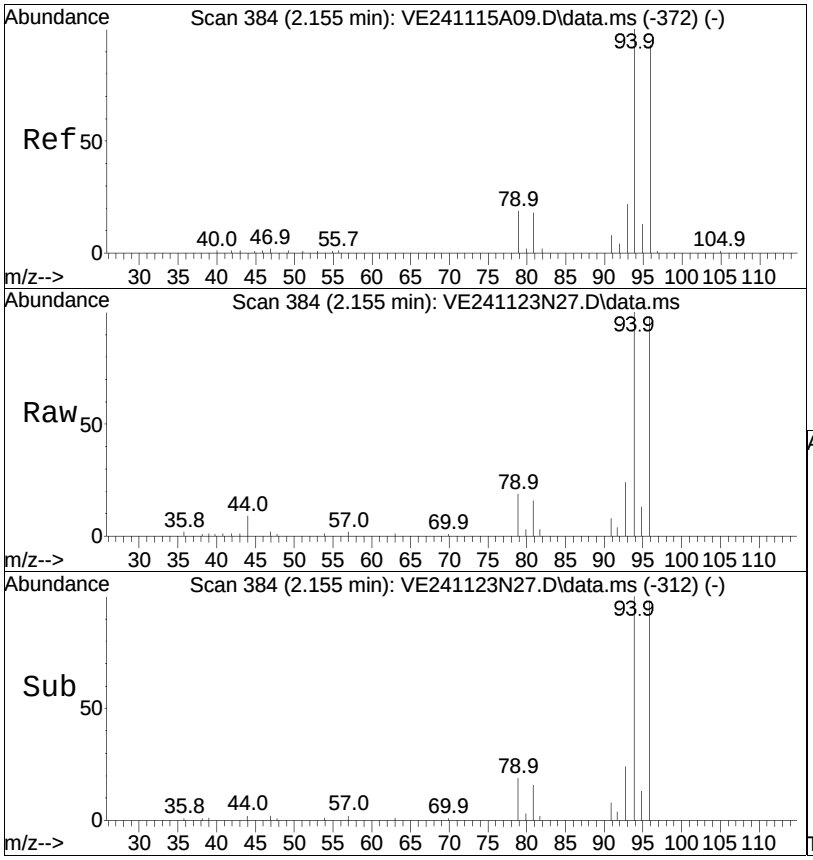


#4
Vinyl chloride
Concen: 13.59 ug/L
RT: 1.848 min Scan# 274
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 62 Resp: 62781

Ion	Ratio	Lower	Upper
62	100		
64	31.2	8.1	48.1

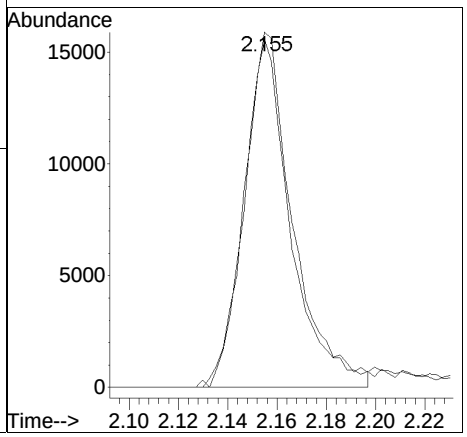


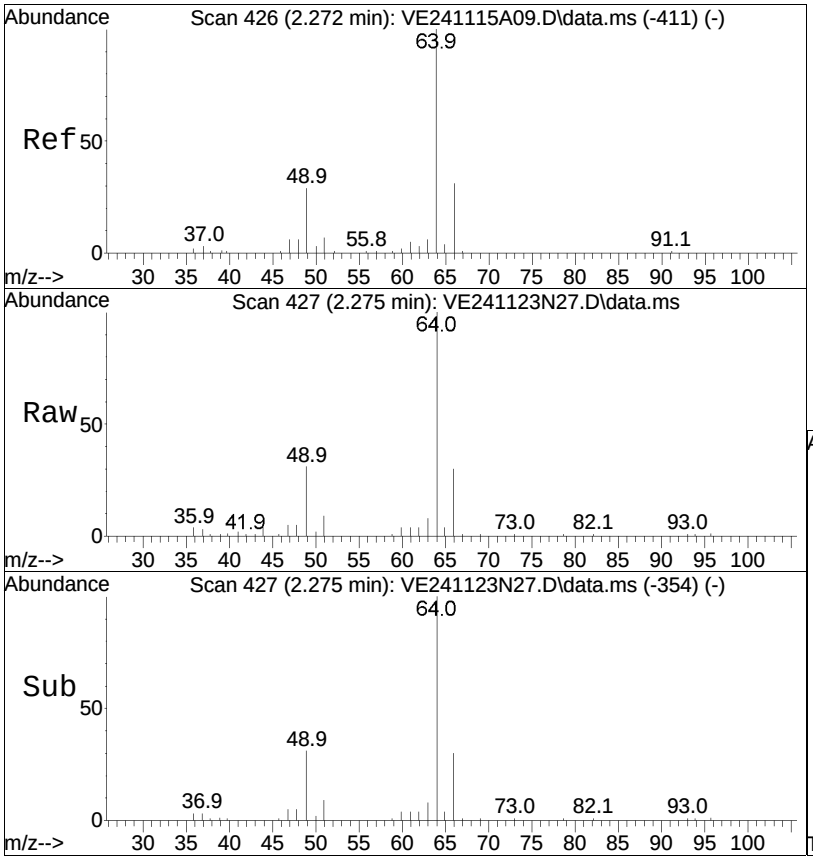


#5
Bromomethane
Concen: 6.71 ug/L
RT: 2.155 min Scan# 384
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 94 Resp: 21752

Ion	Ratio	Lower	Upper
94	100		
96	94.3	68.2	108.2

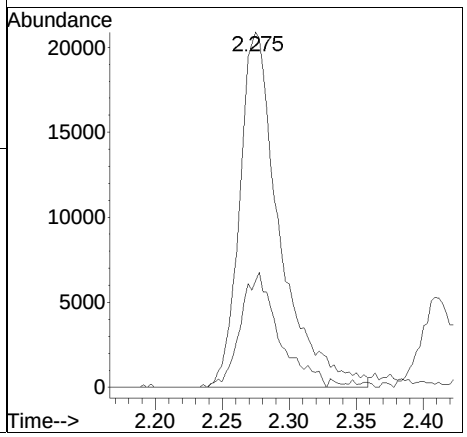


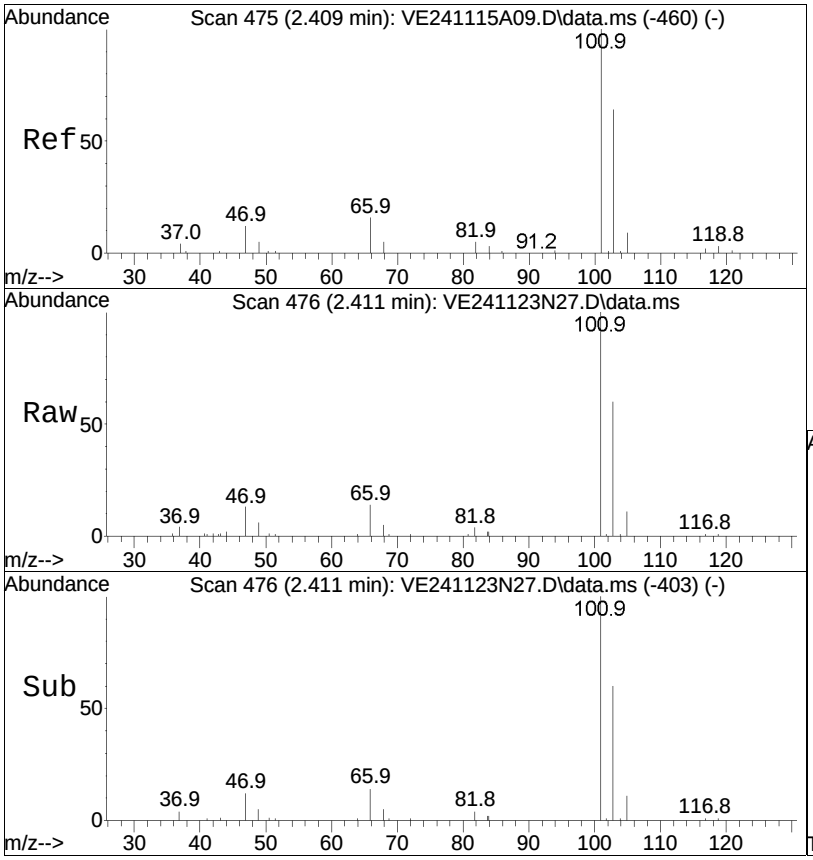


#6
Chloroethane
Concen: 13.01 ug/L
RT: 2.275 min Scan# 427
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 64 Resp: 43525

Ion	Ratio	Lower	Upper
64	100		
66	31.2	10.7	50.7

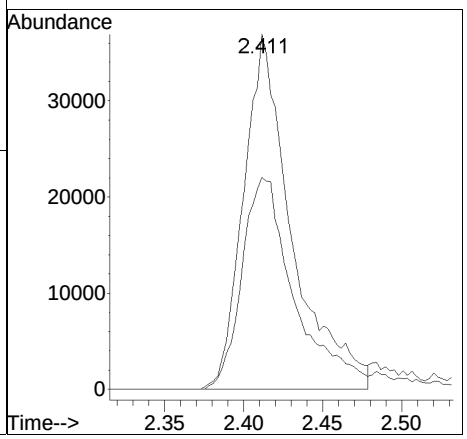


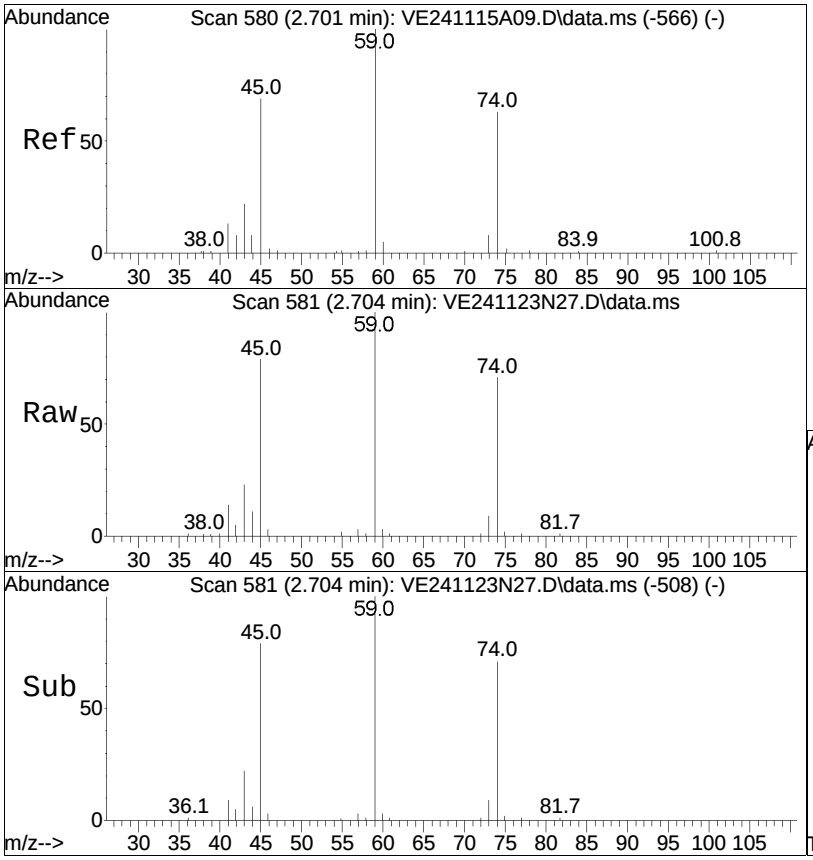


#7
Trichlorofluoromethane
Concen: 11.67 ug/L
RT: 2.411 min Scan# 476
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:101 Resp: 78683

Ion	Ratio	Lower	Upper
101	100		
103	64.7	48.2	72.2

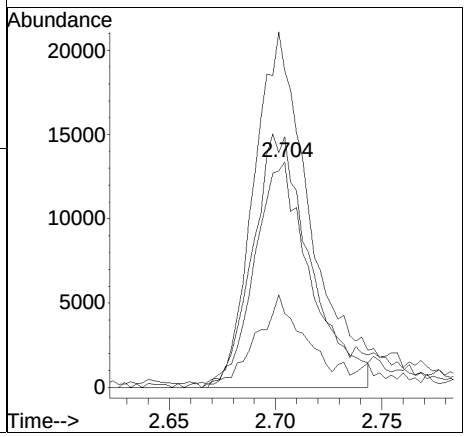


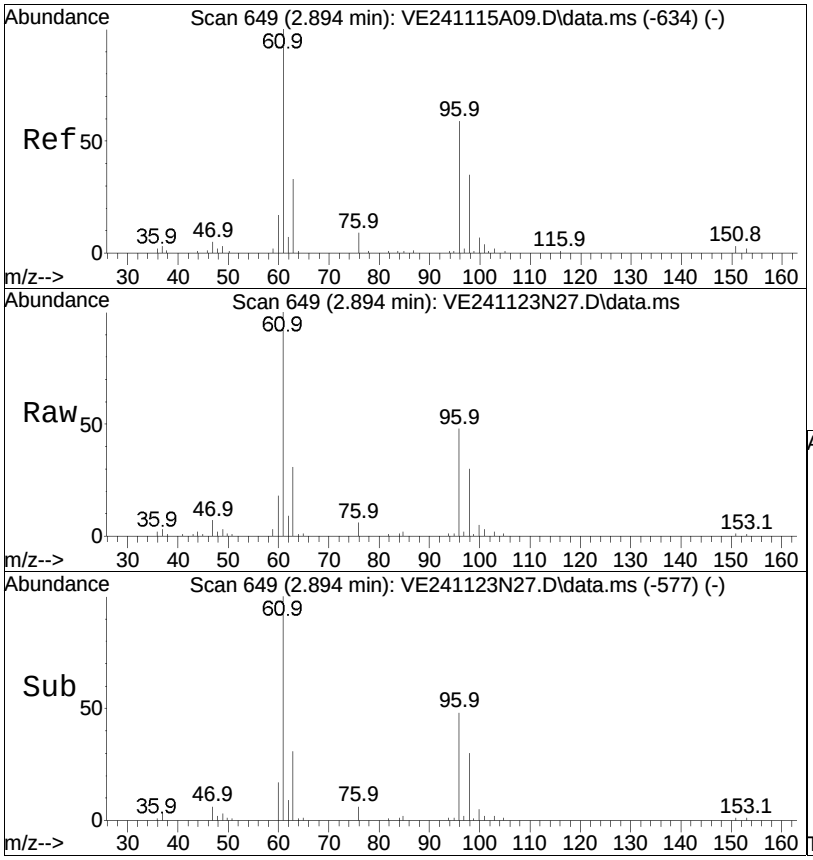


#8
Ethyl ether
Concen: 11.88 ug/L
RT: 2.704 min Scan# 581
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 74 Resp: 24763

Ion	Ratio	Lower	Upper
74	100		
59	160.9	91.7	190.5
45	111.3	77.4	160.8
43	32.2	24.6	51.2

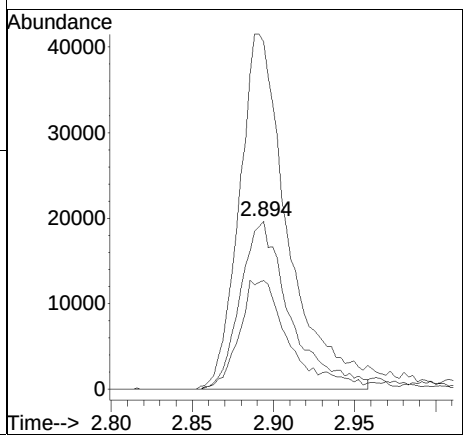


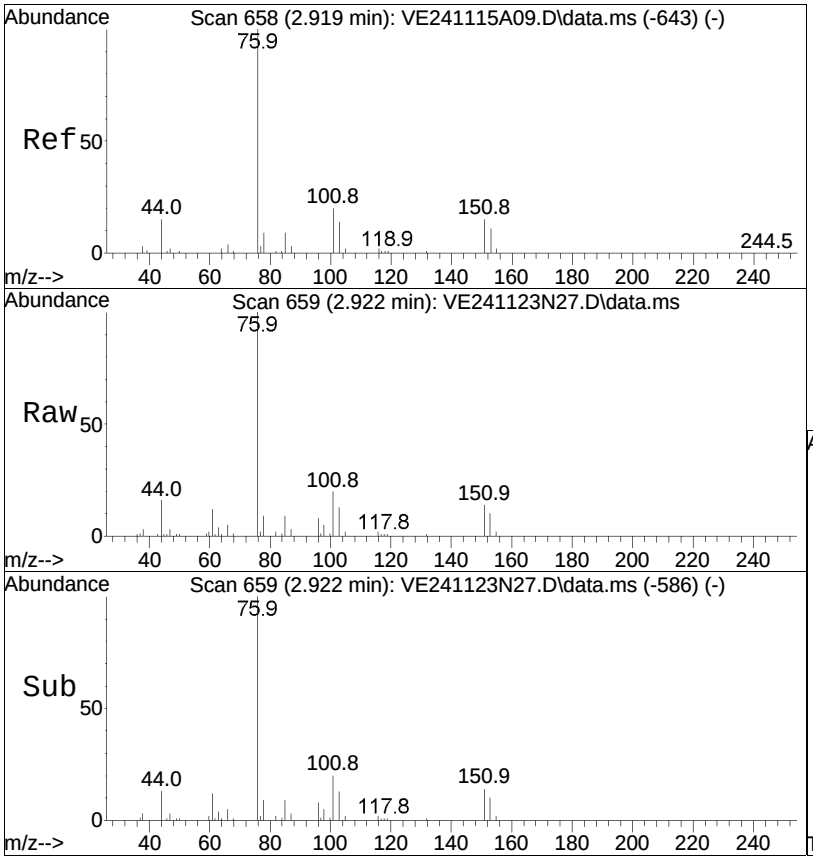


#10
1,1-Dichloroethene
Concen: 12.31 ug/L
RT: 2.894 min Scan# 649
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 96 Resp: 42264

Ion	Ratio	Lower	Upper
96	100		
61	204.9	135.4	203.0#
63	64.8	42.6	63.8#

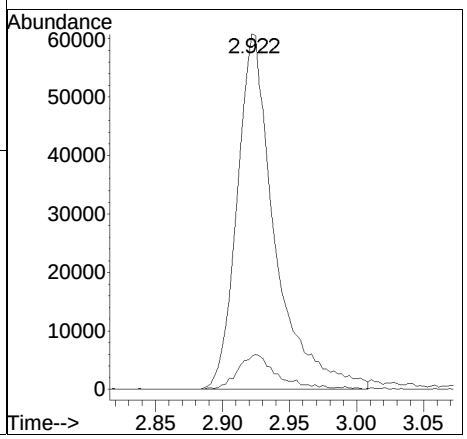


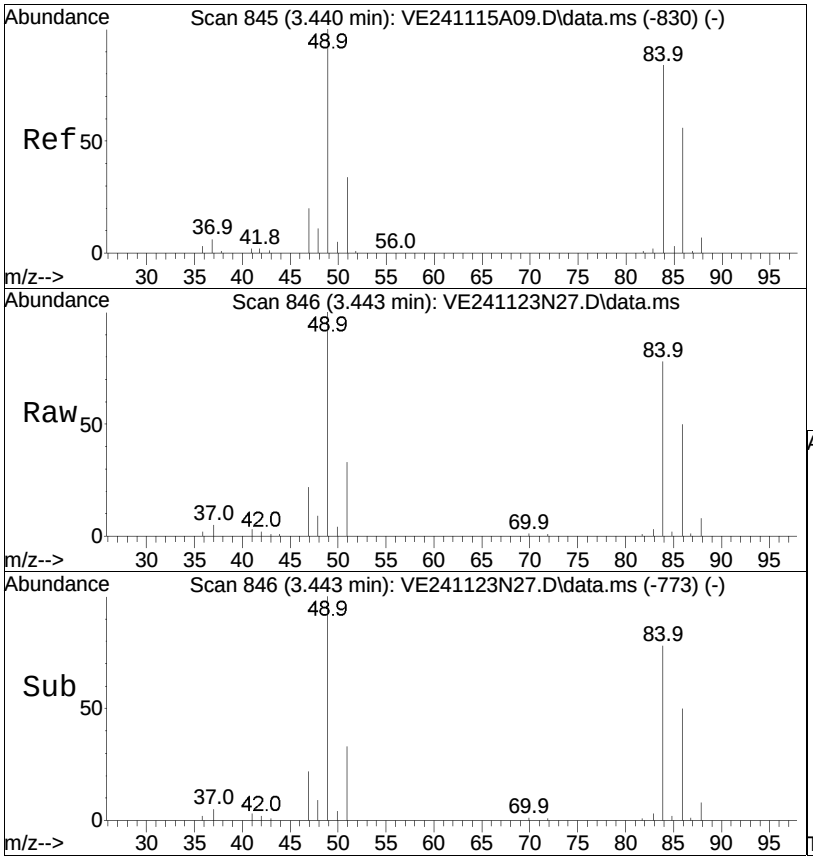


#11
Carbon disulfide
Concen: 11.59 ug/L
RT: 2.922 min Scan# 659
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 76 Resp: 119495

Ion	Ratio	Lower	Upper
76	100		
78	10.2	5.5	11.3

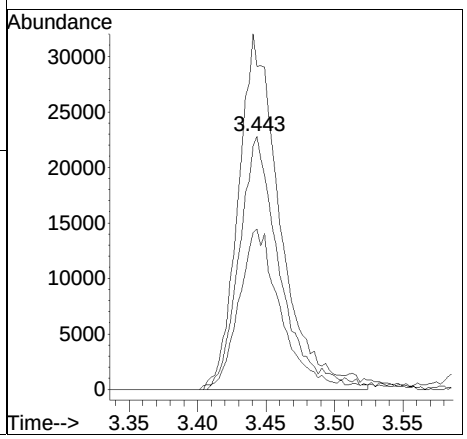


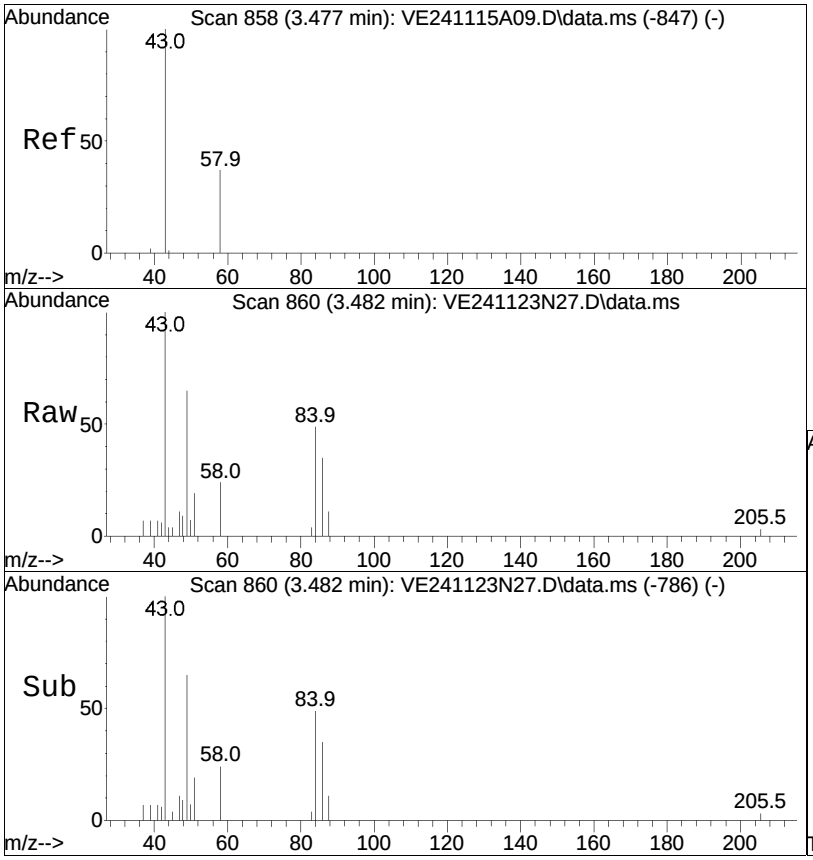


#15
Methylene chloride
Concen: 11.06 ug/L
RT: 3.443 min Scan# 846
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 84 Resp: 47378

Ion	Ratio	Lower	Upper
84	100		
86	64.1	40.2	83.6
49	142.4	103.2	214.4

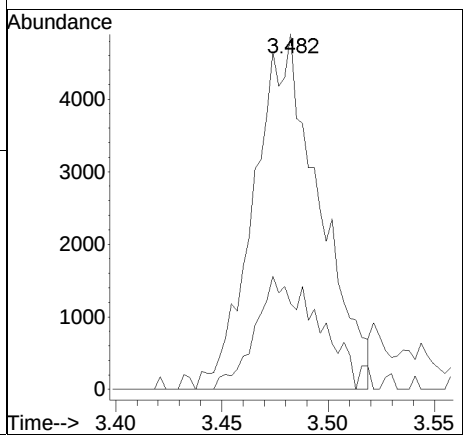


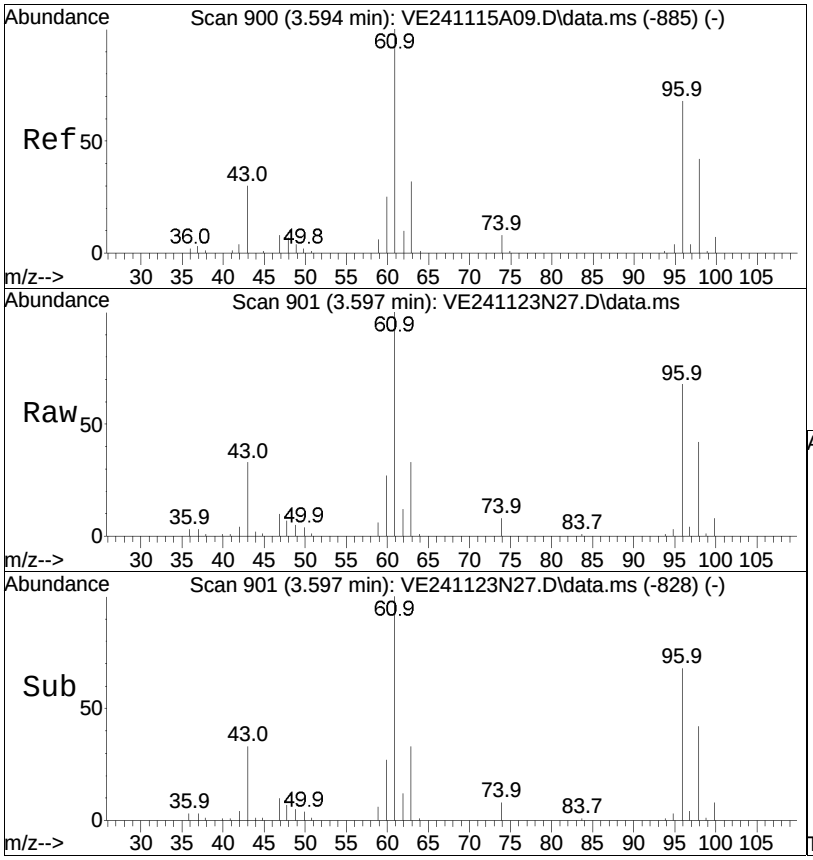


#17
Acetone
Concen: 12.36 ug/L
RT: 3.482 min Scan# 860
Delta R.T. 0.006 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 43 Resp: 10422

Ion	Ratio	Lower	Upper
43	100		
58	18.5	23.4	35.0#

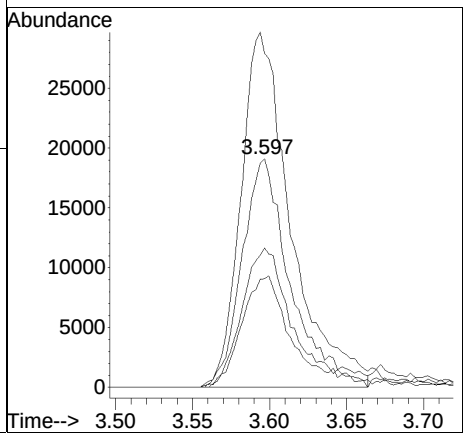


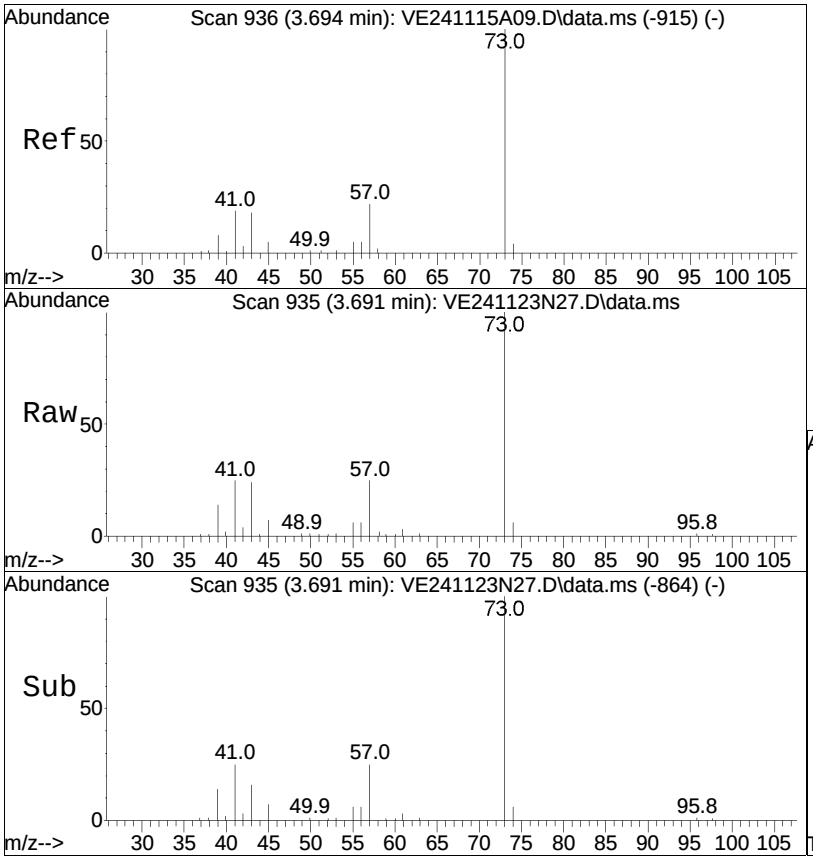


#18
trans-1,2-Dichloroethene
Concen: 11.07 ug/L
RT: 3.597 min Scan# 901
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 96 Resp: 42311

Ion	Ratio	Lower	Upper
96	100		
61	158.5	93.5	194.1
98	63.5	37.8	78.6
63	49.8	29.7	61.7

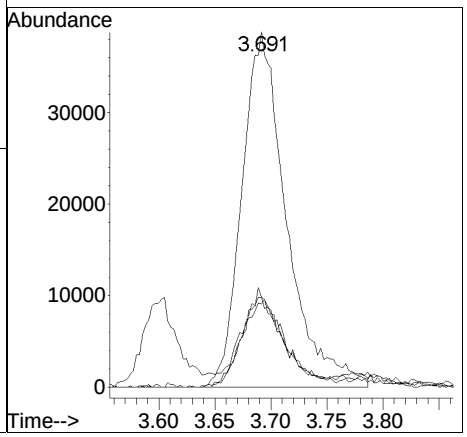


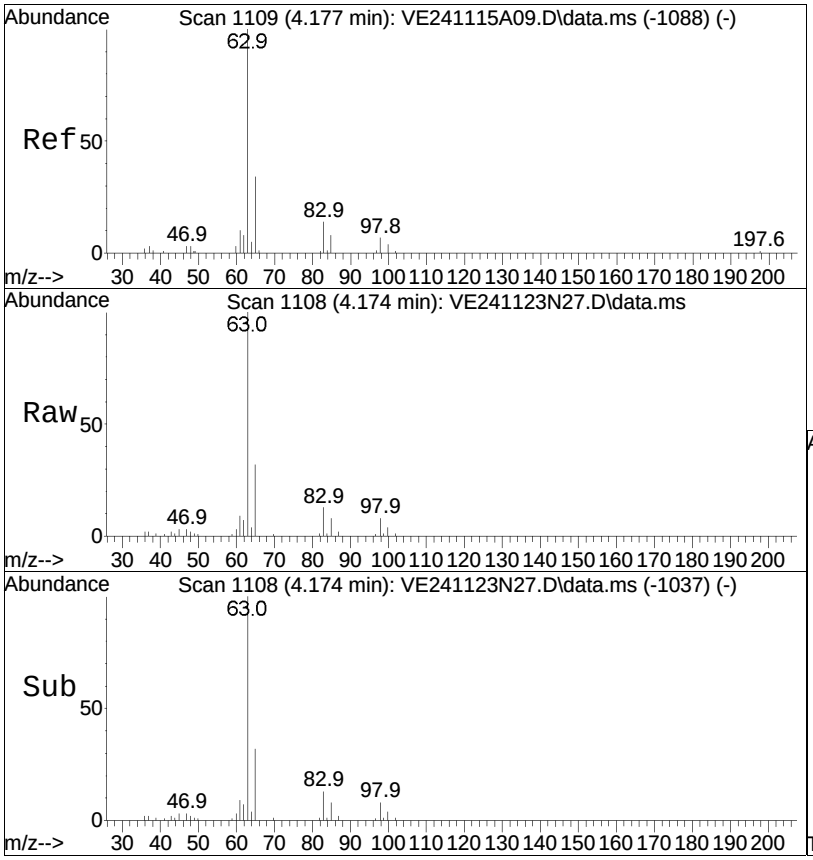


#21
Methyl tert-butyl ether
Concen: 10.55 ug/L
RT: 3.691 min Scan# 935
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 73 Resp: 107767

Ion	Ratio	Lower	Upper
73	100		
57	24.2	16.1	33.3
43	21.4	17.0	35.2
41	23.7	18.7	38.9

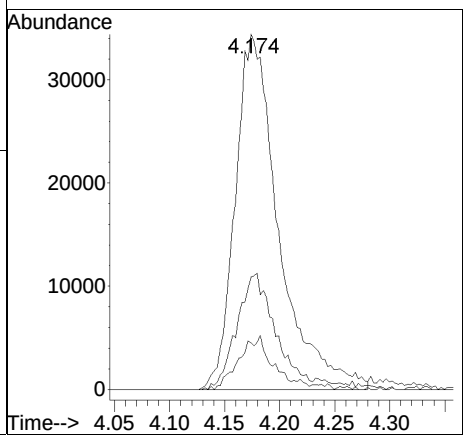


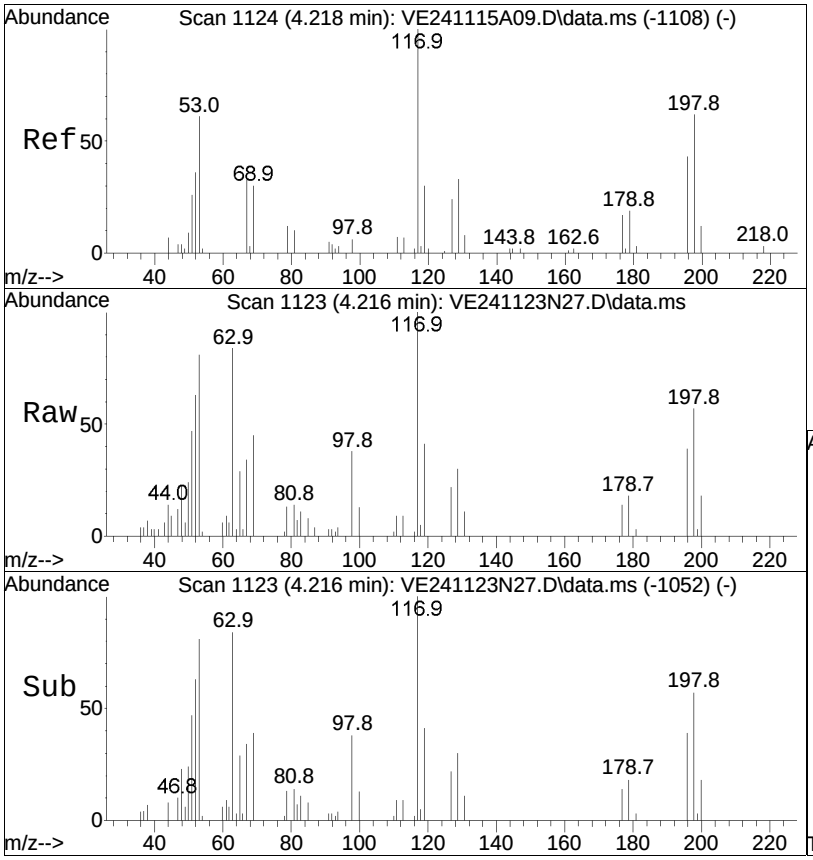


#25
1,1-Dichloroethane
Concen: 12.37 ug/L
RT: 4.174 min Scan# 1108
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 63 Resp: 94542

Ion	Ratio	Lower	Upper
63	100		
65	28.9	10.3	50.3
83	5.8	0.0	33.1

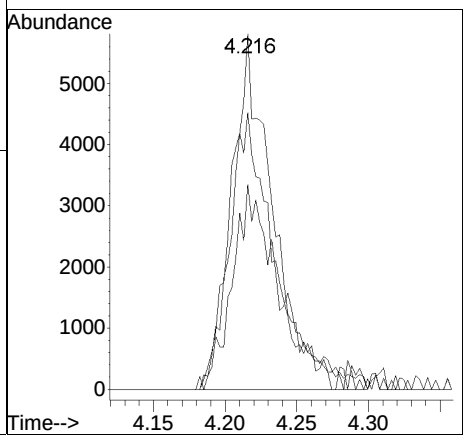


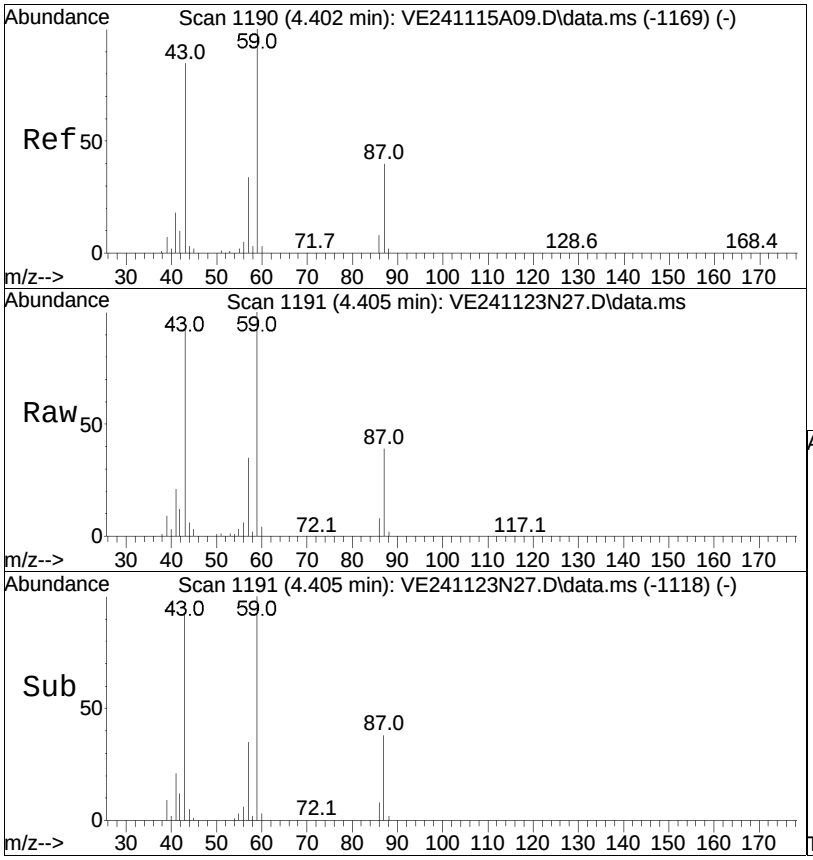


#27
Acrylonitrile
Concen: 11.56 ug/L
RT: 4.216 min Scan# 1123
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 53 Resp: 11952

Ion	Ratio	Lower	Upper
53	100		
52	79.4	58.9	88.3
51	62.4	40.2	60.2#

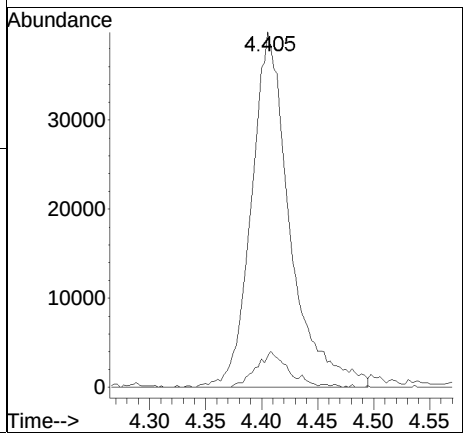


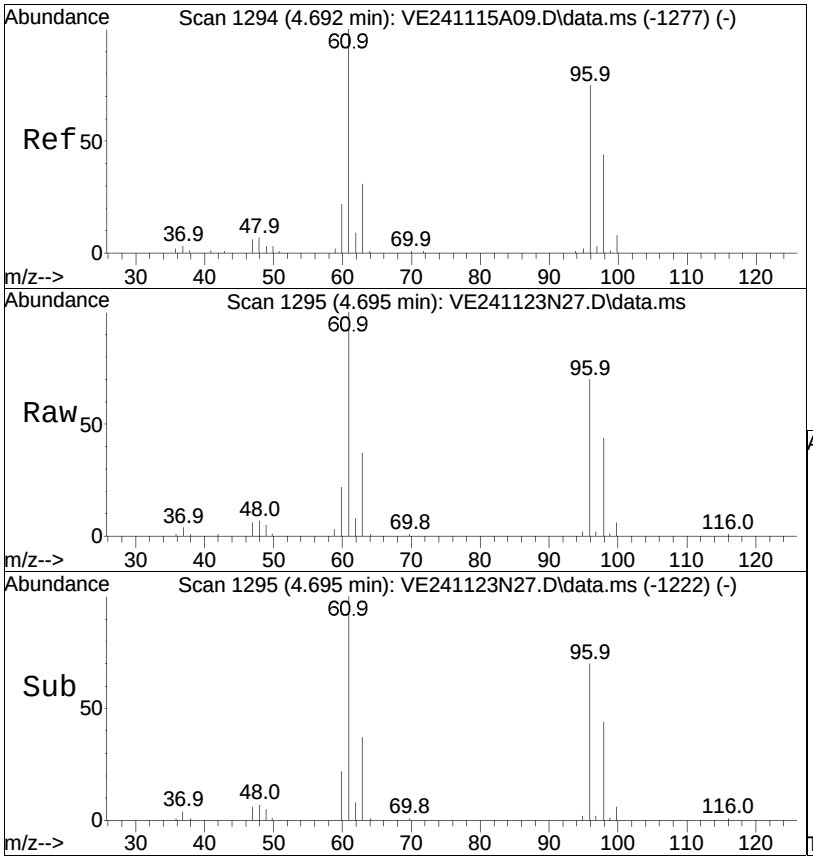


#29
Vinyl acetate
Concen: 10.79 ug/L
RT: 4.405 min Scan# 1191
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 43 Resp: 95737

Ion	Ratio	Lower	Upper
43	100		
86	7.7	6.2	9.4

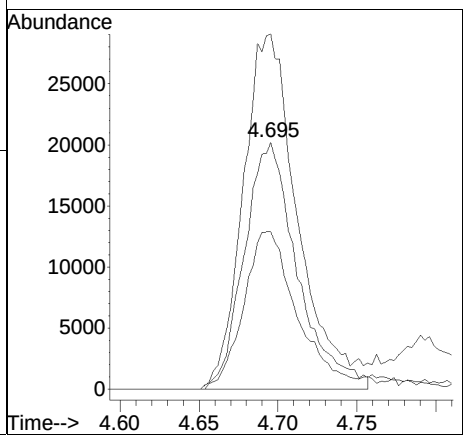


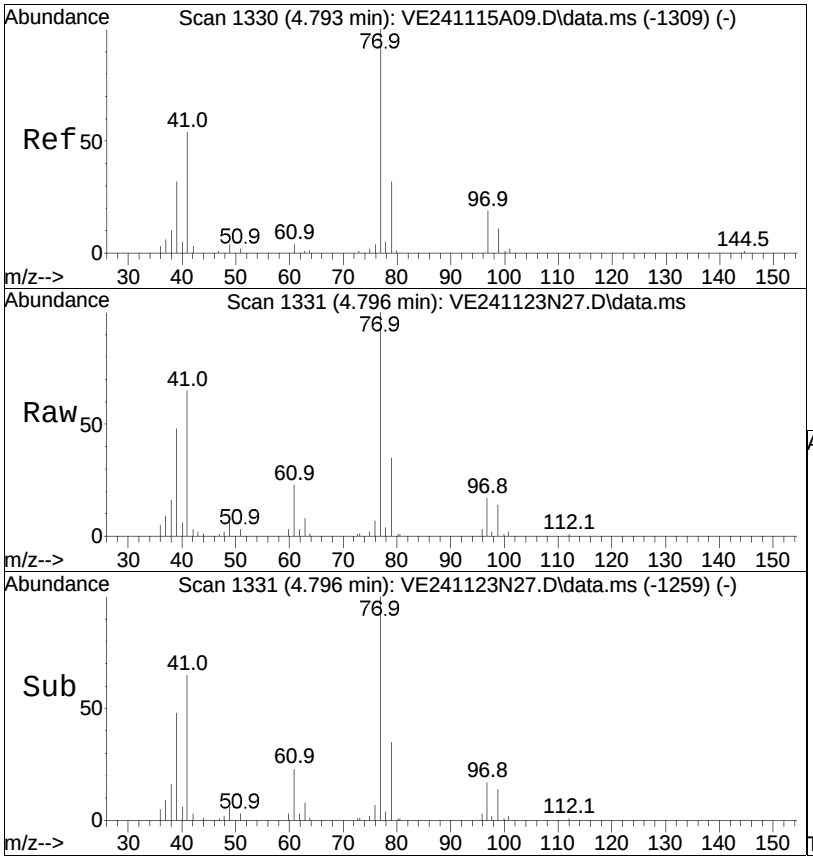


#30
cis-1,2-Dichloroethene
Concen: 10.85 ug/L
RT: 4.695 min Scan# 1295
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 96 Resp: 47349

Ion	Ratio	Lower	Upper
96	100		
61	146.0	120.3	180.5
98	64.5	50.2	75.4

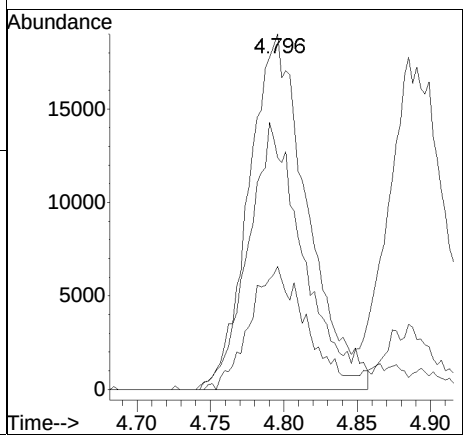


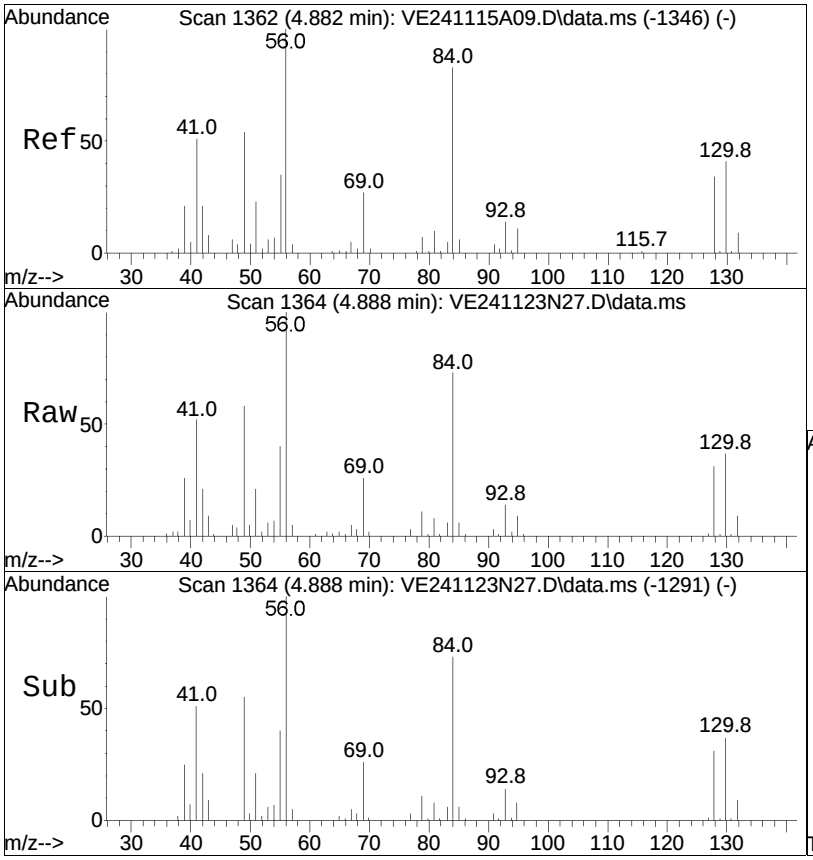


#31
2,2-Dichloropropane
Concen: 8.74 ug/L
RT: 4.796 min Scan# 1331
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 77 Resp: 52674

Ion	Ratio	Lower	Upper
77	100		
41	69.9	46.5	96.5
79	32.9	21.6	45.0

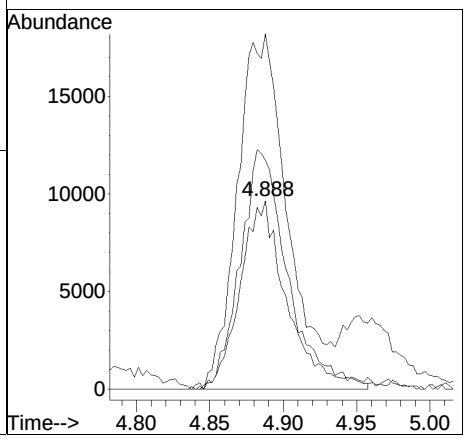


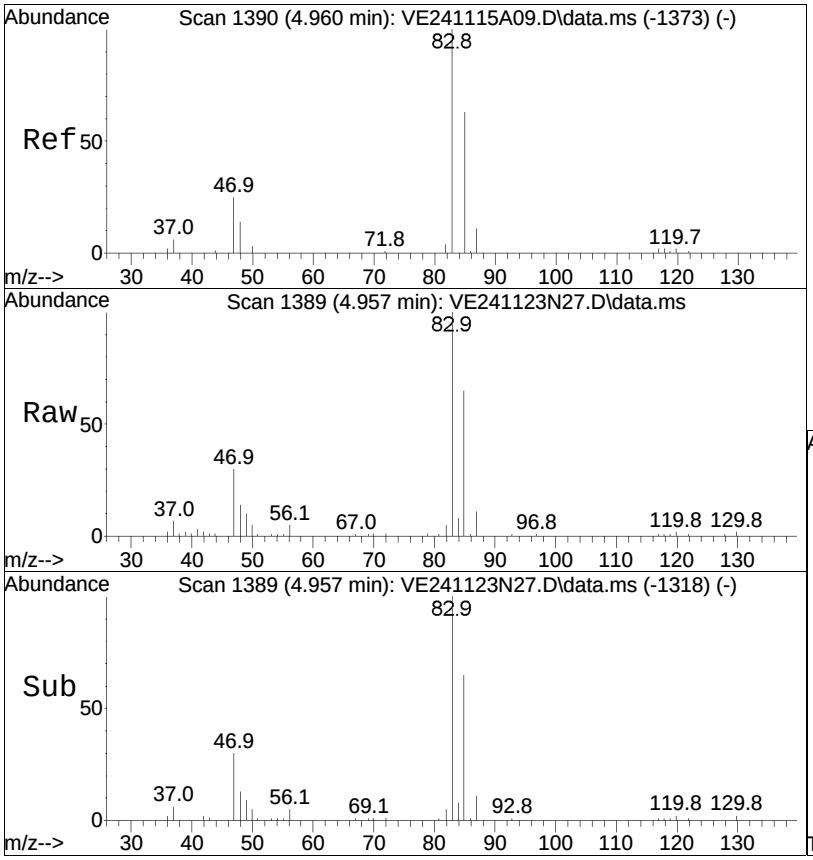


#33
Bromochloromethane
Concen: 10.85 ug/L
RT: 4.888 min Scan# 1364
Delta R.T. 0.006 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:128 Resp: 21562

Ion	Ratio	Lower	Upper
128	100		
49	198.7	170.2	255.2
130	128.3	103.7	155.5

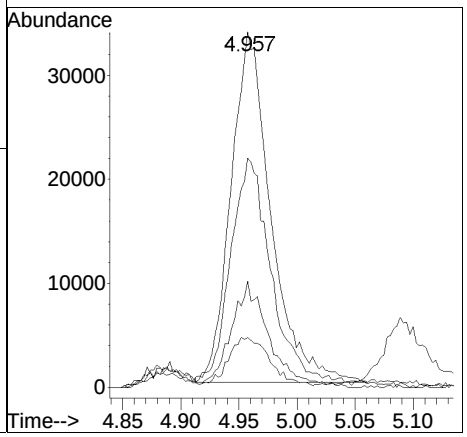


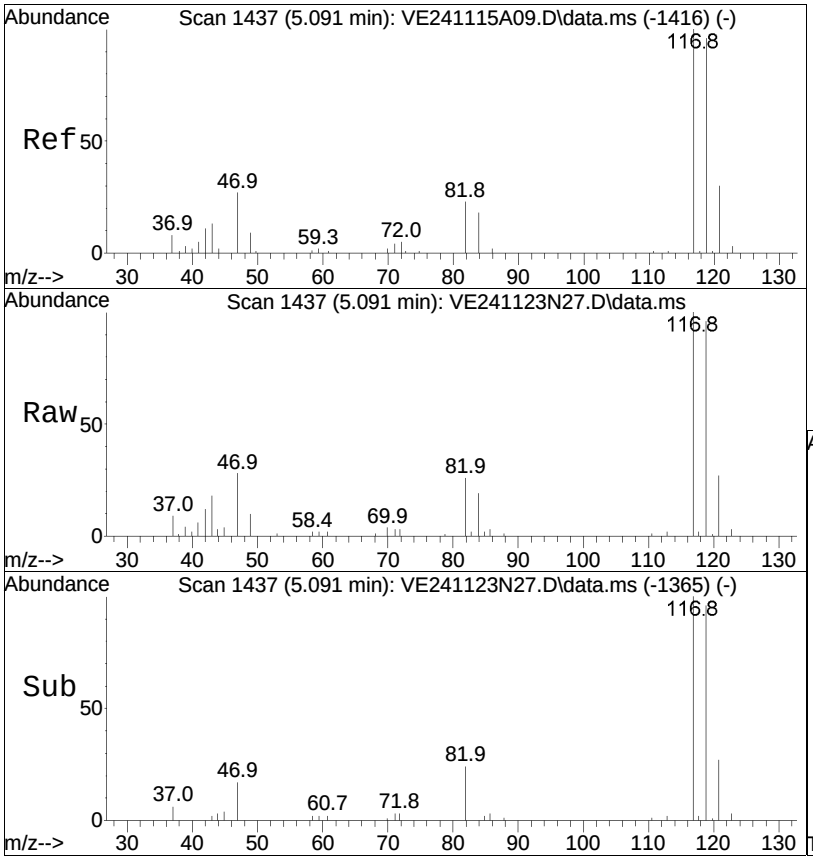


#35
Chloroform
Concen: 11.20 ug/L
RT: 4.957 min Scan# 1389
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 83 Resp: 80281

Ion	Ratio	Lower	Upper
83	100		
85	63.6	41.3	85.9
47	26.8	20.9	43.3
48	14.0	10.3	21.5

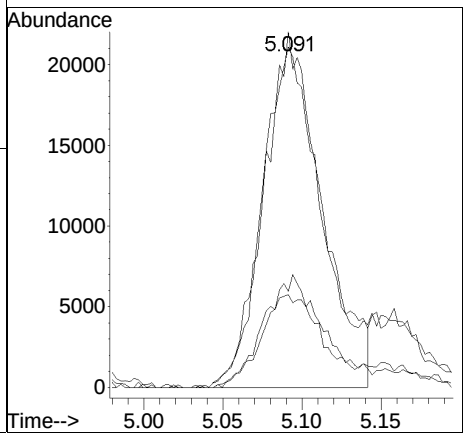


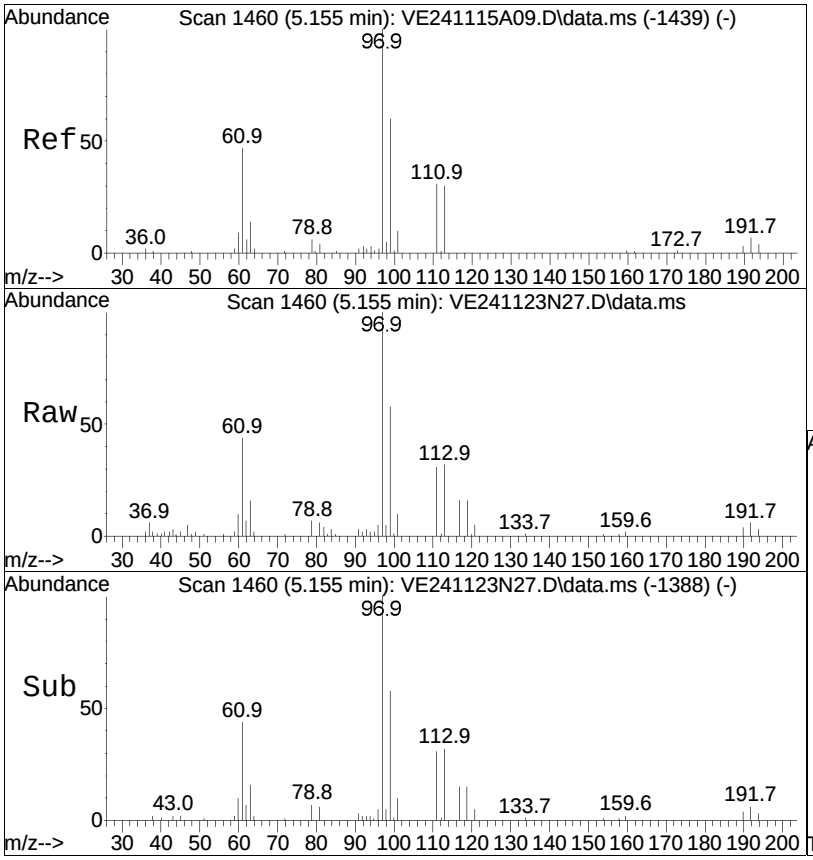


#37
Carbon tetrachloride
Concen: 11.03 ug/L
RT: 5.091 min Scan# 1437
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:117 Resp: 57326

Ion	Ratio	Lower	Upper
117	100		
119	92.4	60.6	126.0
121	31.1	18.0	37.4
82	26.8	19.8	41.0

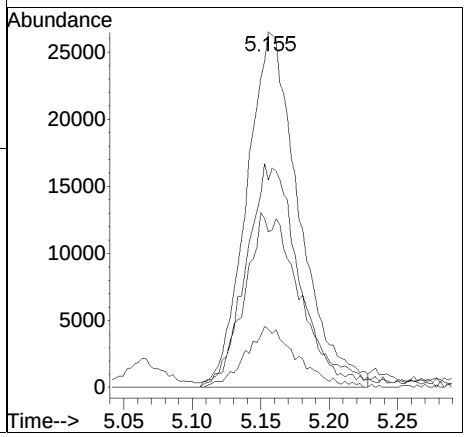


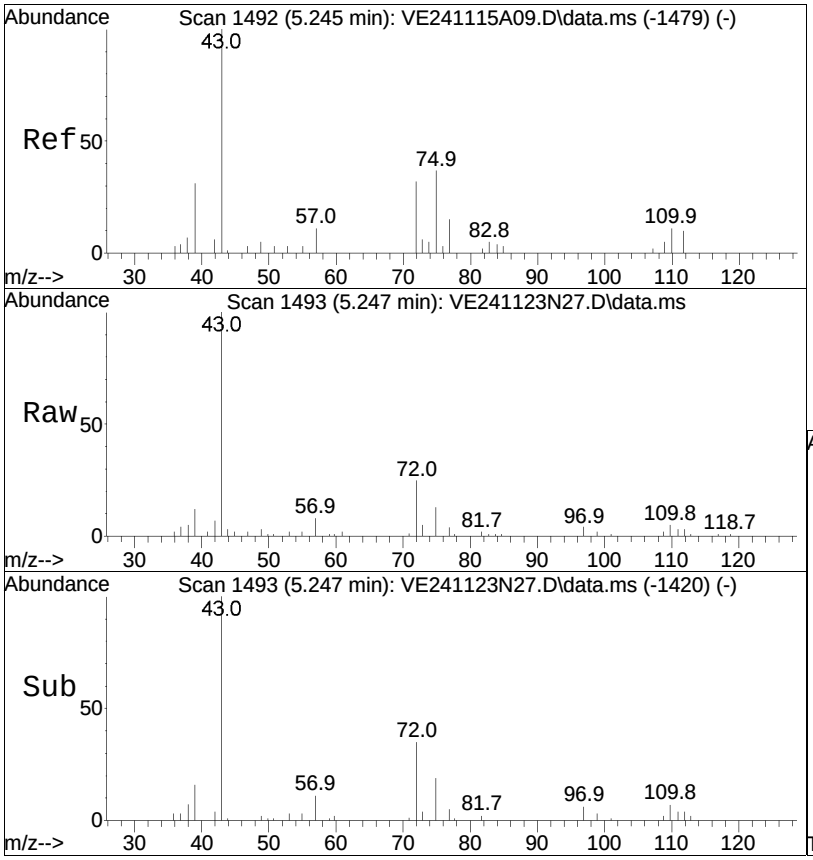


#40
1,1,1-Trichloroethane
Concen: 11.19 ug/L
RT: 5.155 min Scan# 1460
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 97 Resp: 70856

Ion	Ratio	Lower	Upper
97	100		
99	63.7	40.2	83.4
61	21.8	36.9	76.5#
63	16.4	8.3	17.3

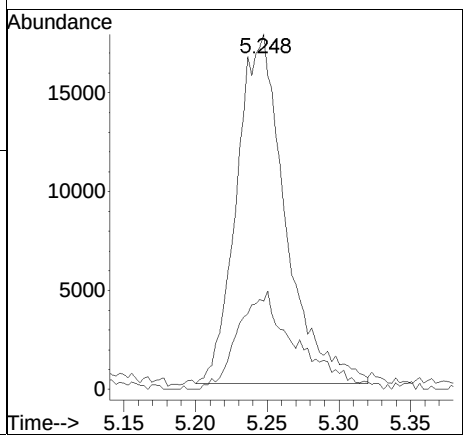


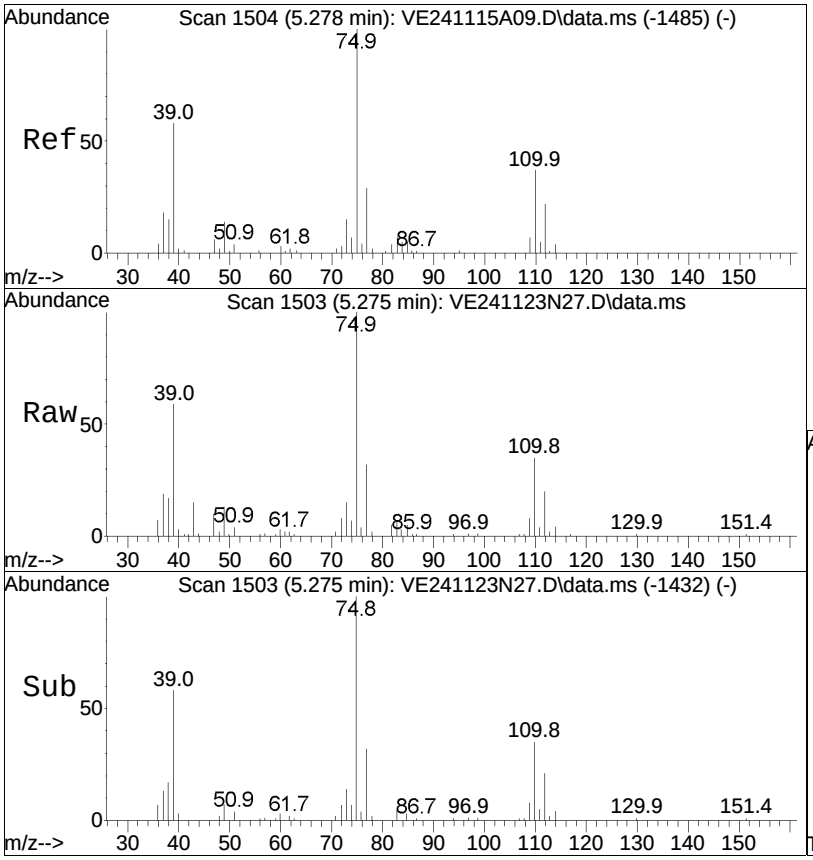


#42
2-Butanone
Concen: 34.84 ug/L
RT: 5.247 min Scan# 1493
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 43 Resp: 41895

Ion	Ratio	Lower	Upper
43	100		
72	25.2	15.7	23.5#

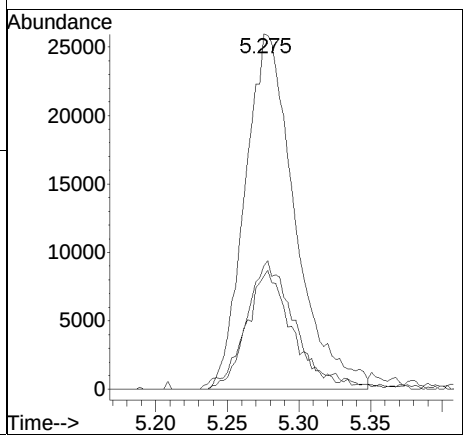


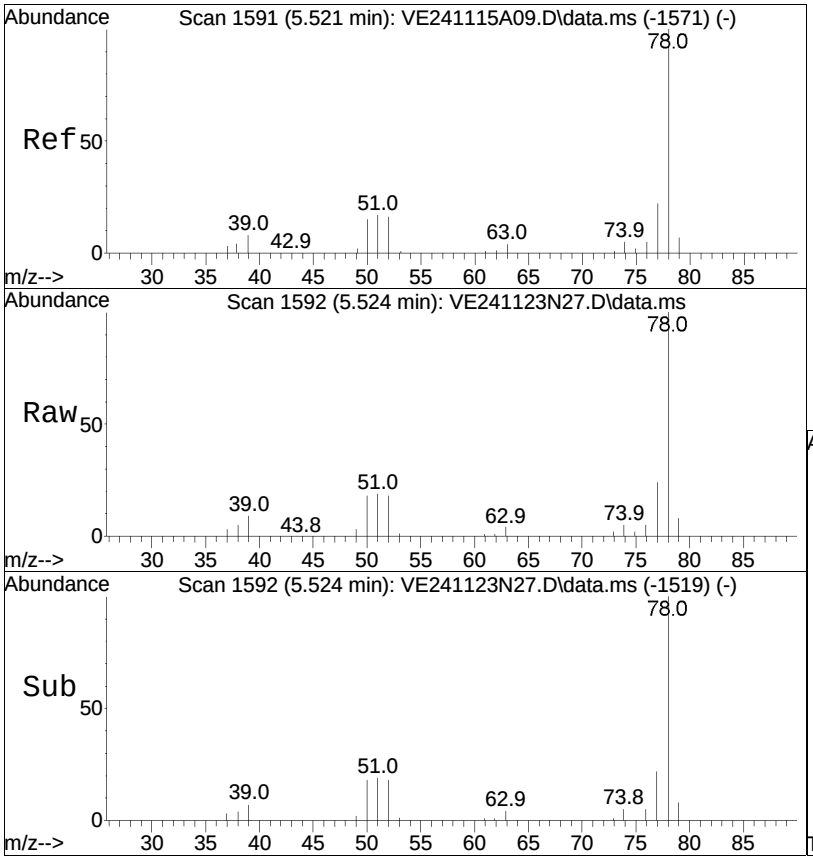


#43
1,1-Dichloropropene
Concen: 11.38 ug/L
RT: 5.275 min Scan# 1503
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 75 Resp: 63094

Ion	Ratio	Lower	Upper
75	100		
110	35.0	20.3	42.1
77	30.1	18.9	39.3

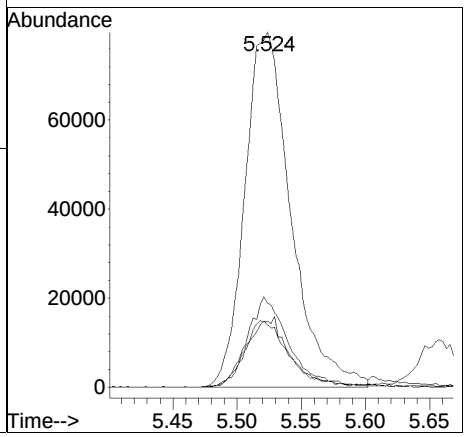


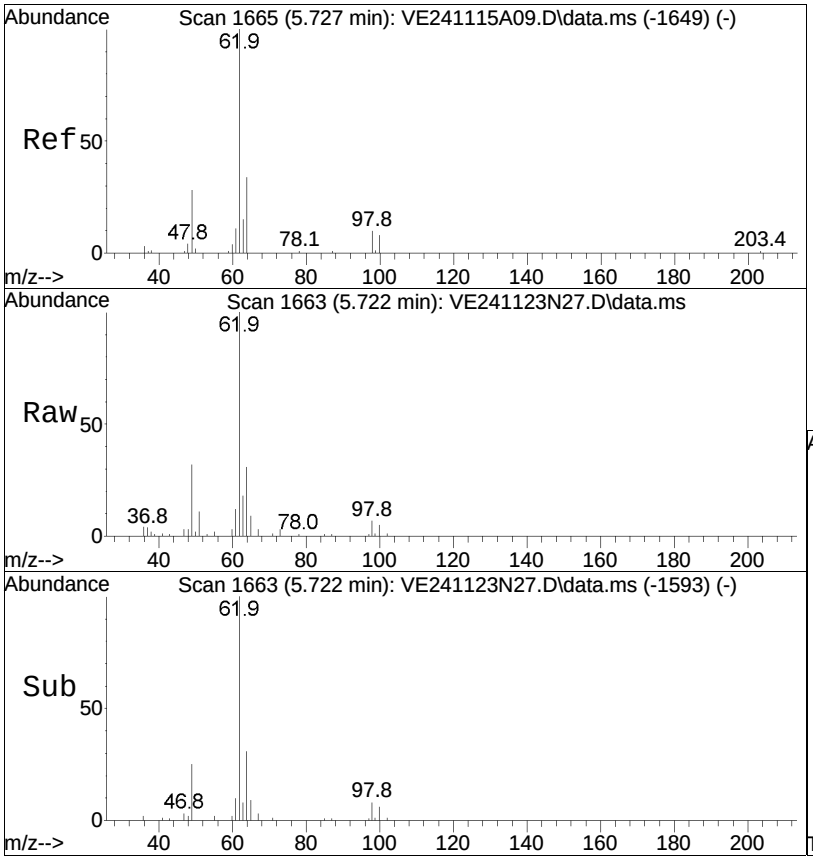


#45
Benzene
Concen: 11.43 ug/L
RT: 5.524 min Scan# 1592
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 78 Resp: 199645

Ion	Ratio	Lower	Upper
78	100		
77	23.0	12.8	26.6
51	8.4	13.5	27.9#
52	17.7	12.0	25.0

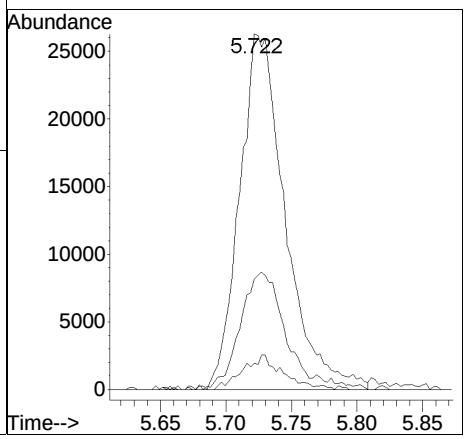


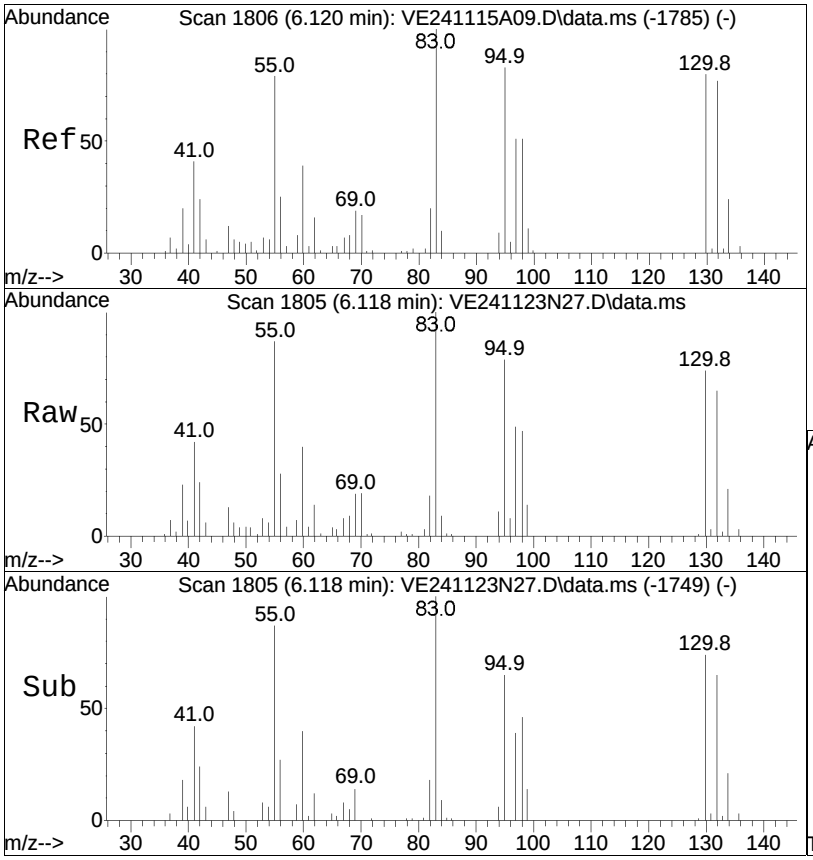


#48
1,2-Dichloroethane
Concen: 11.48 ug/L
RT: 5.722 min Scan# 1663
Delta R.T. -0.006 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 62 Resp: 63772

Ion	Ratio	Lower	Upper
62	100		
64	31.2	12.0	52.0
98	8.2	0.0	29.1

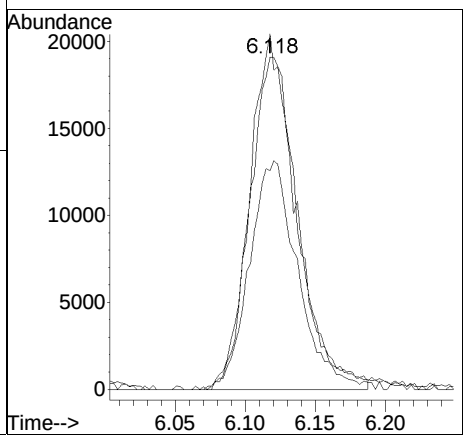


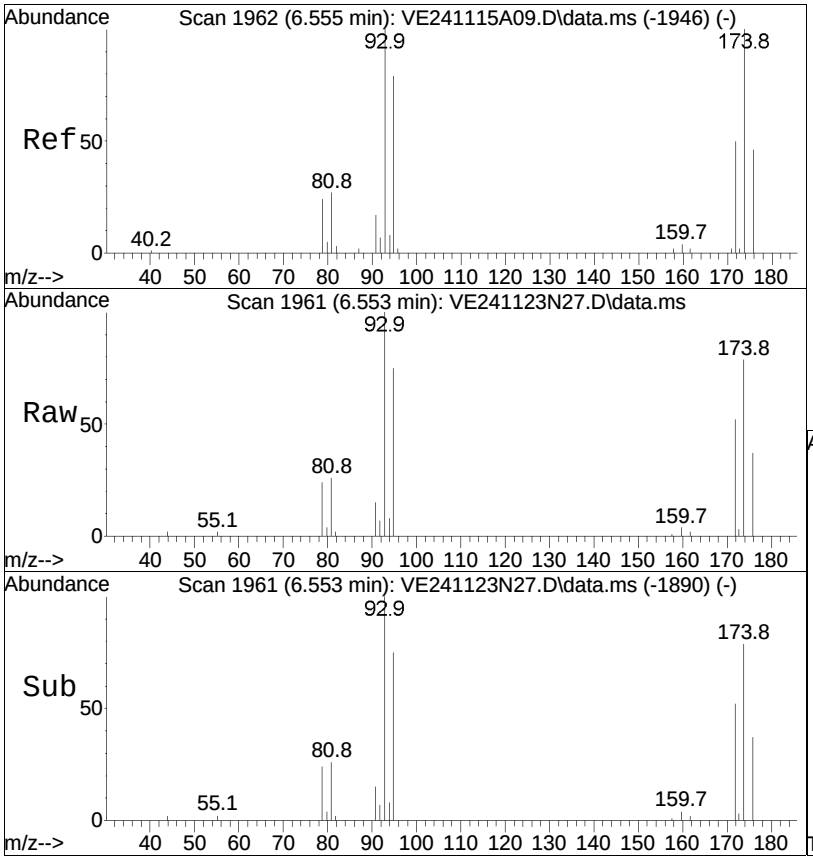


#52
Trichloroethene
Concen: 11.39 ug/L
RT: 6.118 min Scan# 1805
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 95 Resp: 47180

Ion	Ratio	Lower	Upper
95	100		
97	66.6	50.2	75.2
130	98.0	78.2	117.4

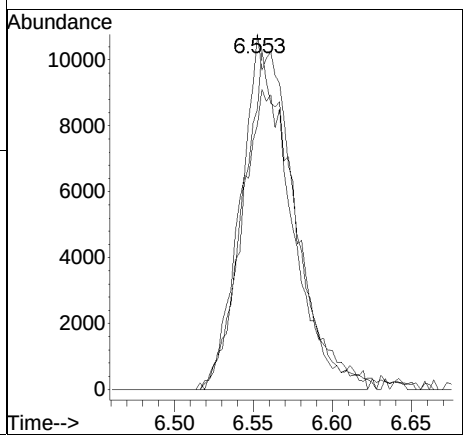


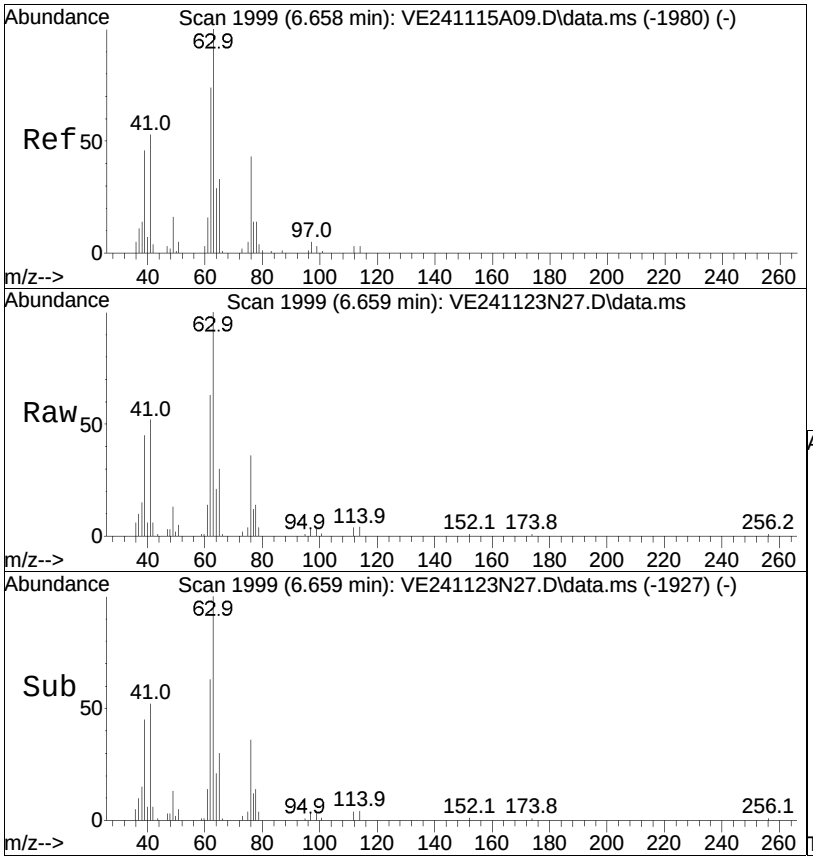


#54
Dibromomethane
Concen: 10.72 ug/L
RT: 6.553 min Scan# 1961
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 93 Resp: 25366

Ion	Ratio	Lower	Upper
93	100		
95	83.2	73.2	109.8
174	90.4	73.8	110.8

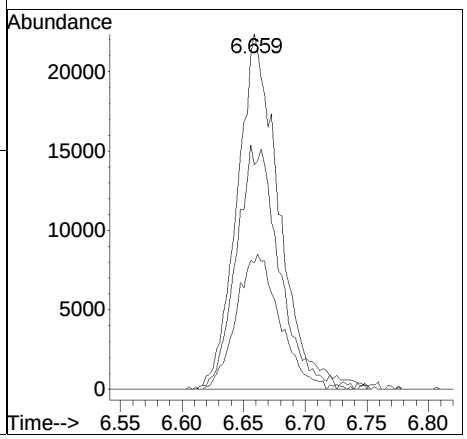


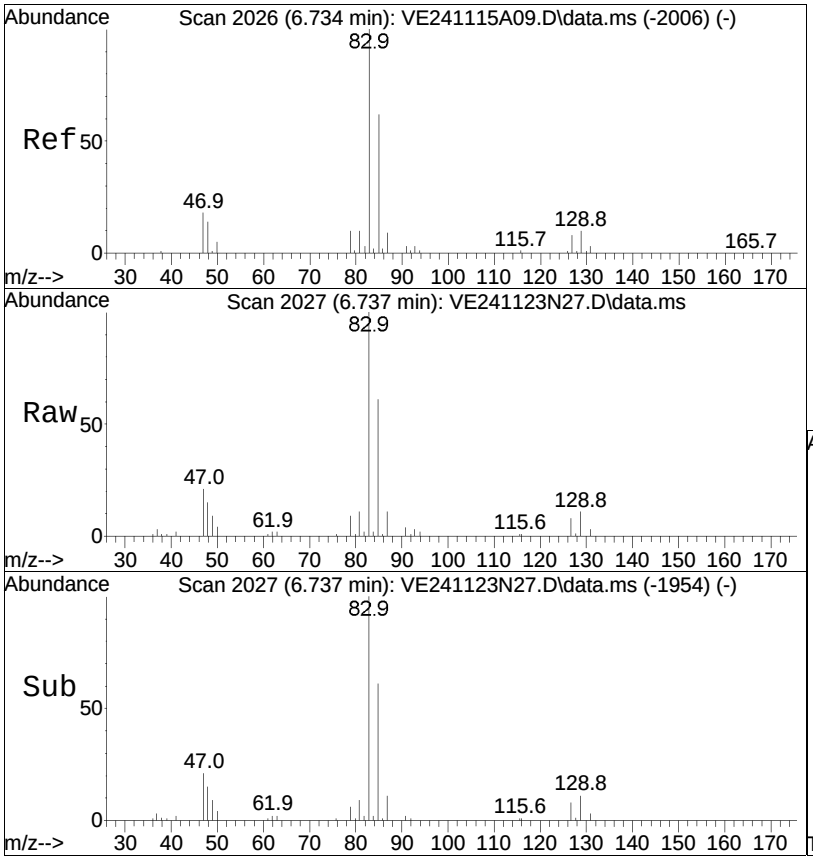


#55
1,2-Dichloropropane
Concen: 12.05 ug/L
RT: 6.659 min Scan# 1999
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 63 Resp: 53461

Ion	Ratio	Lower	Upper
63	100		
62	69.5	58.4	87.6
76	39.1	28.7	43.1

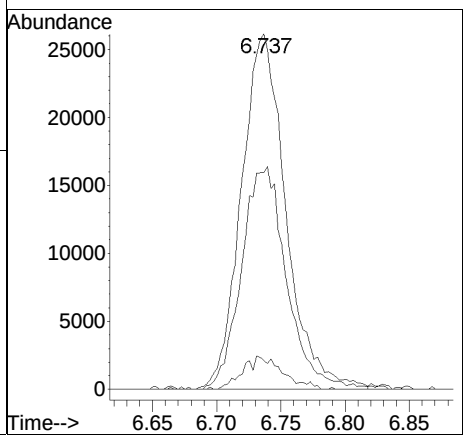


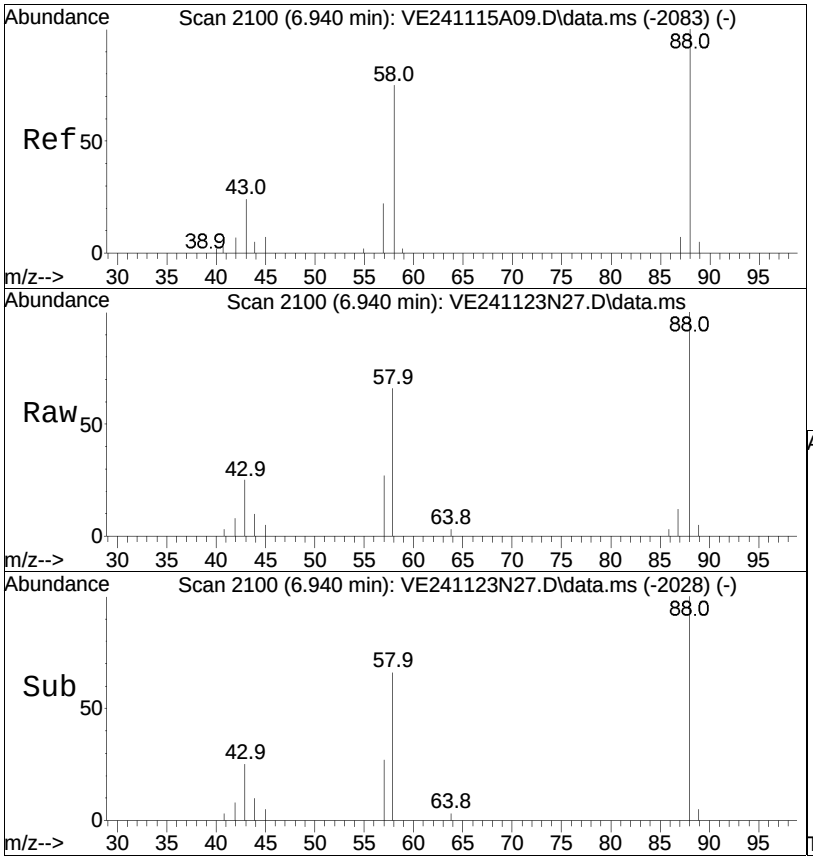


#58
Bromodichloromethane
Concen: 10.97 ug/L
RT: 6.737 min Scan# 2027
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 83 Resp: 63188

Ion	Ratio	Lower	Upper
83	100		
85	63.4	46.6	69.8
127	5.7	6.2	9.4#

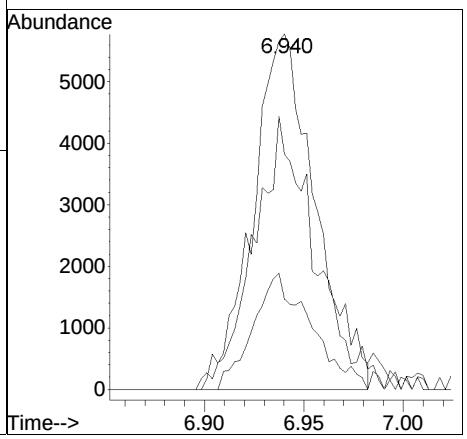


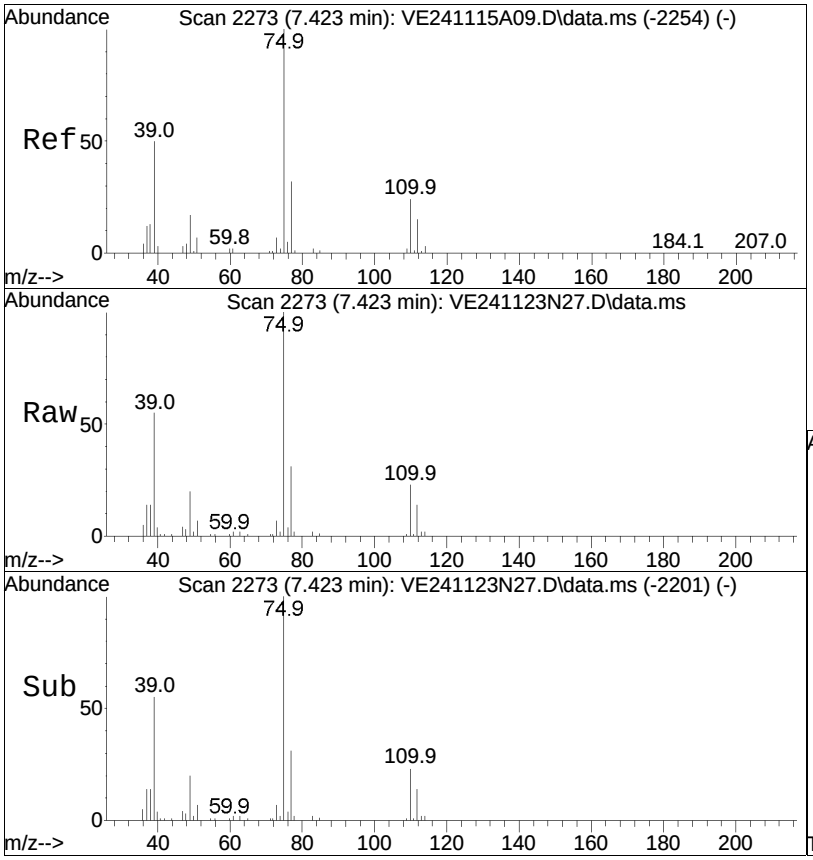


#61
1,4-Dioxane
Concen: 436.32 ug/L
RT: 6.940 min Scan# 2100
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 88 Resp: 12652

Ion	Ratio	Lower	Upper
88	100		
58	72.0	62.8	94.2
43	30.3	36.6	55.0#

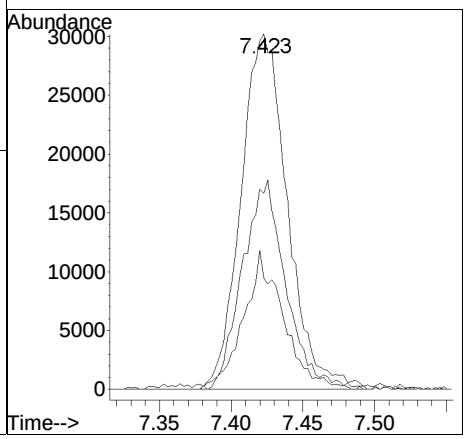


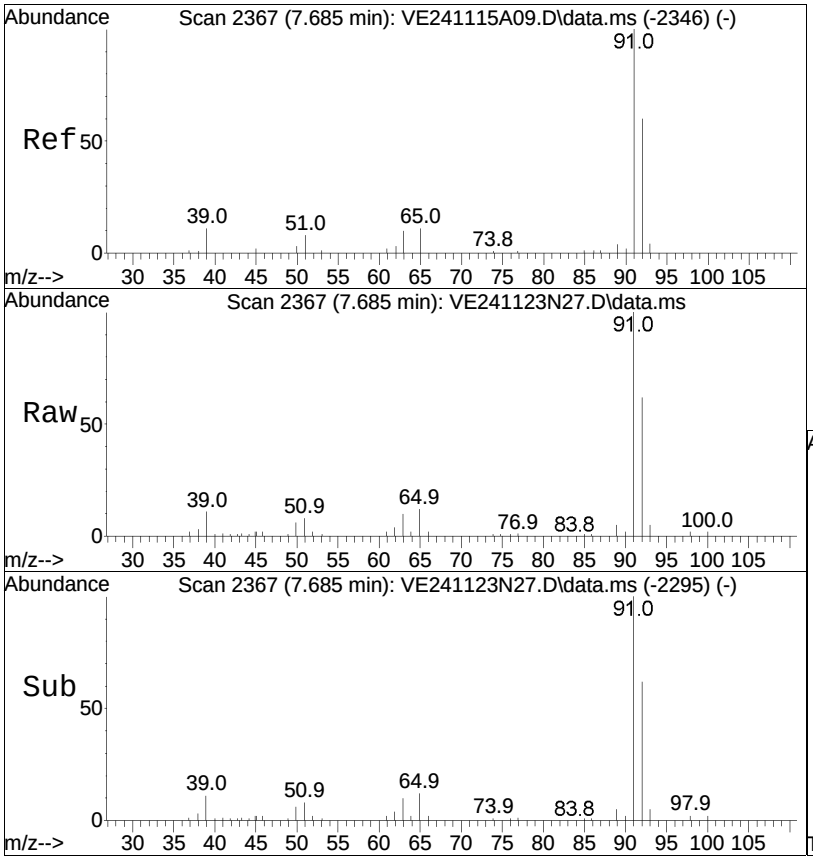


#62
cis-1,3-Dichloropropene
Concen: 10.26 ug/L
RT: 7.423 min Scan# 2273
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 75 Resp: 68228

Ion	Ratio	Lower	Upper
75	100		
77	33.1	25.1	37.7
39	54.1	50.7	76.1

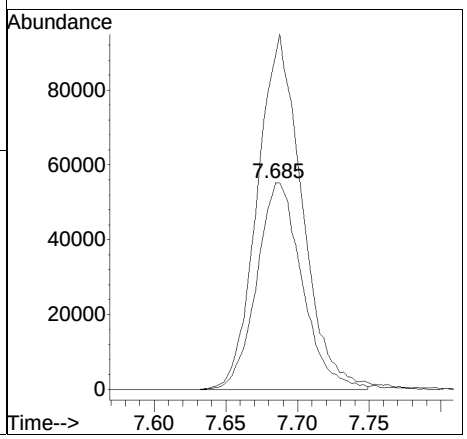


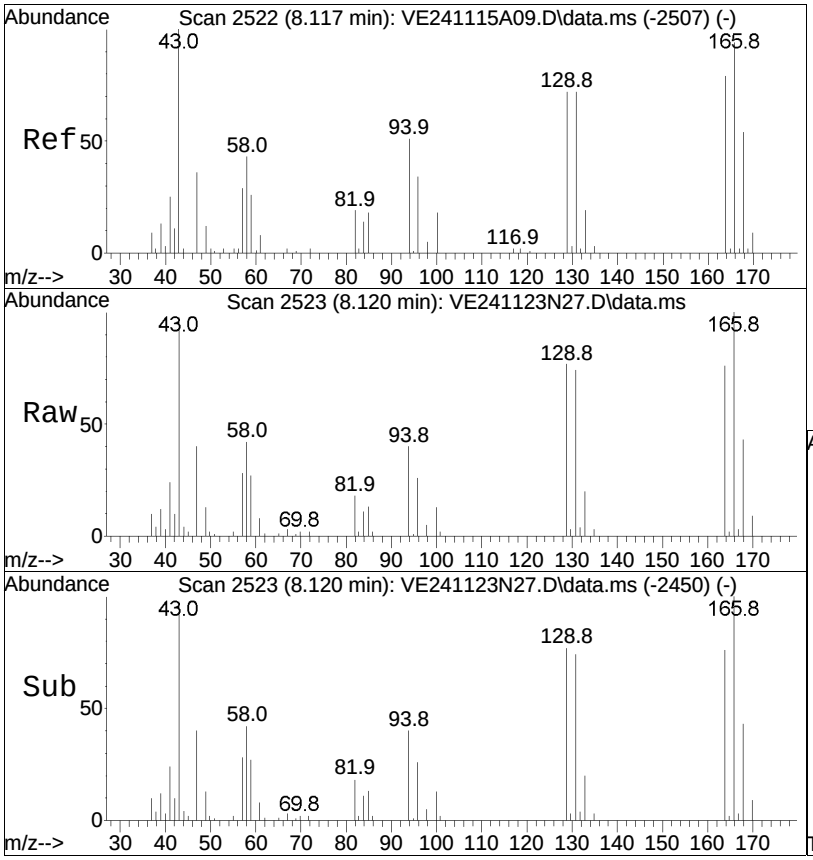


#65
Toluene
Concen: 11.02 ug/L
RT: 7.685 min Scan# 2367
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 92 Resp: 121431

Ion	Ratio	Lower	Upper
92	100		
91	170.6	129.1	193.7

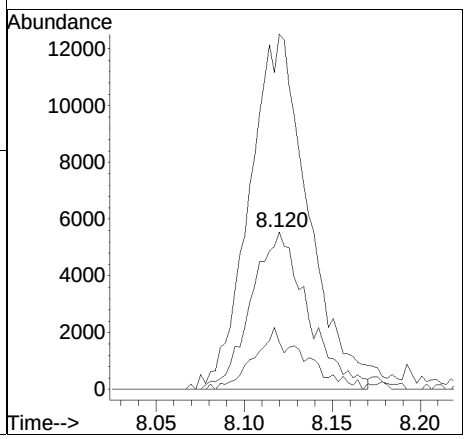


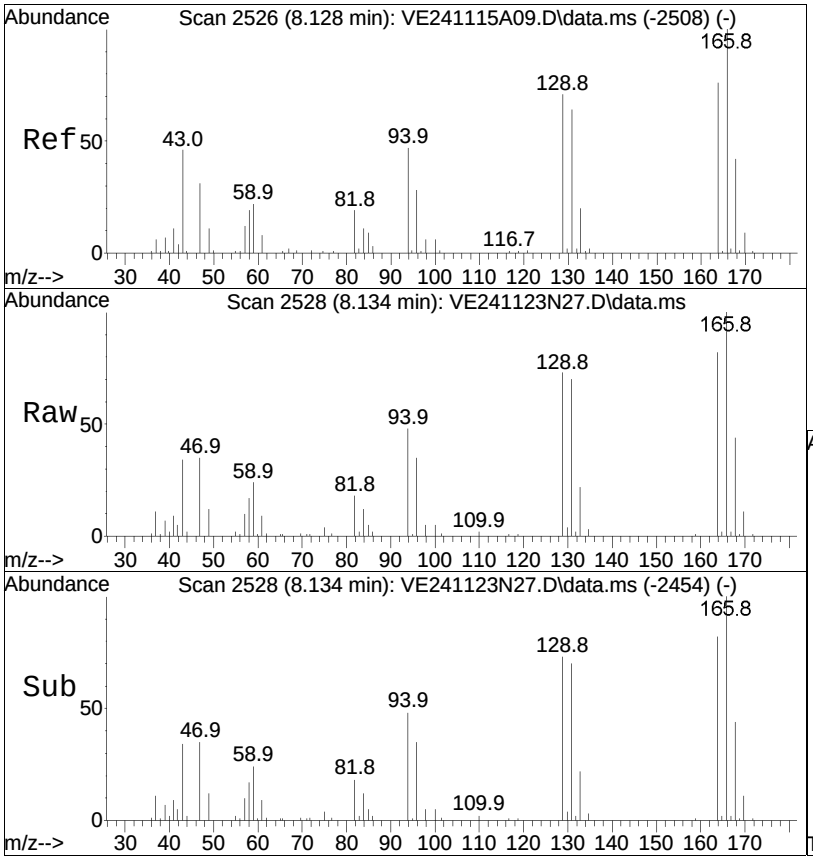


#66
4-Methyl-2-pentanone
Concen: 10.70 ug/L
RT: 8.120 min Scan# 2523
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 58 Resp: 12395

Ion	Ratio	Lower	Upper
58	100		
100	19.5	27.9	41.9#
43	237.9	225.7	338.5

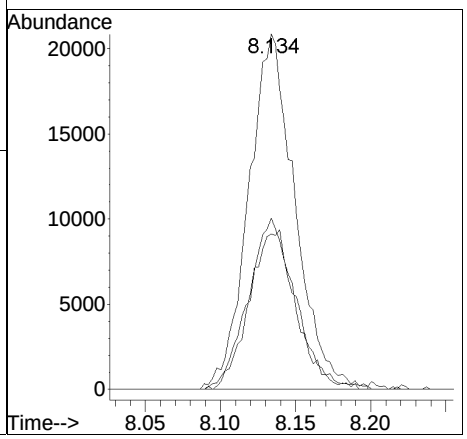


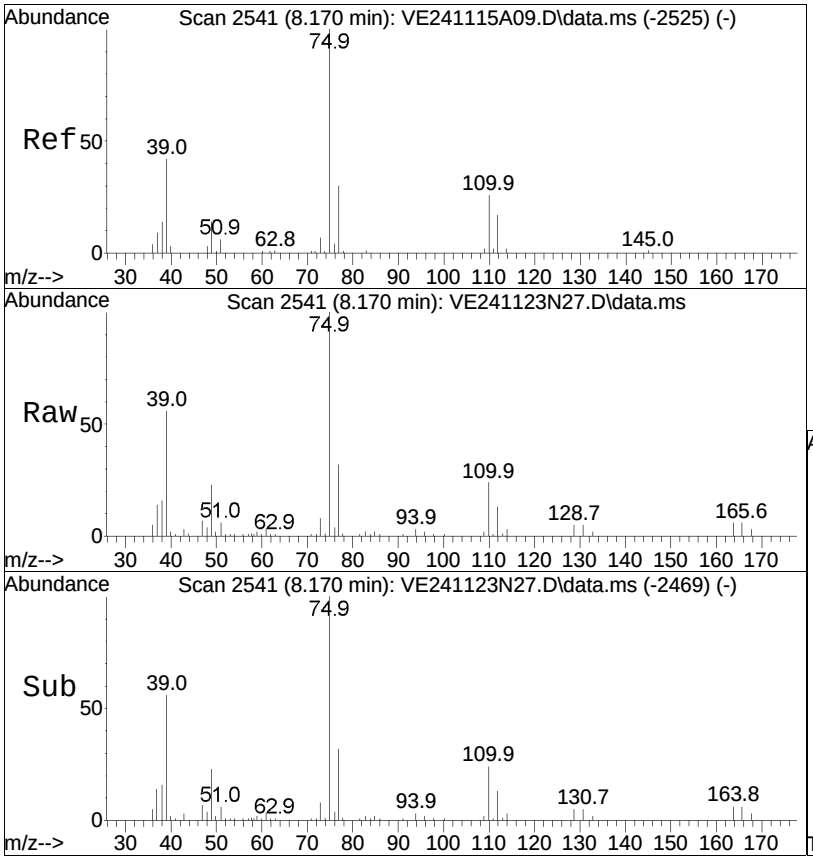


#67
Tetrachloroethene
Concen: 10.11 ug/L
RT: 8.134 min Scan# 2528
Delta R.T. 0.006 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:166 Resp: 44803

Ion	Ratio	Lower	Upper
166	100		
168	46.3	25.8	65.8
94	47.3	24.3	64.3

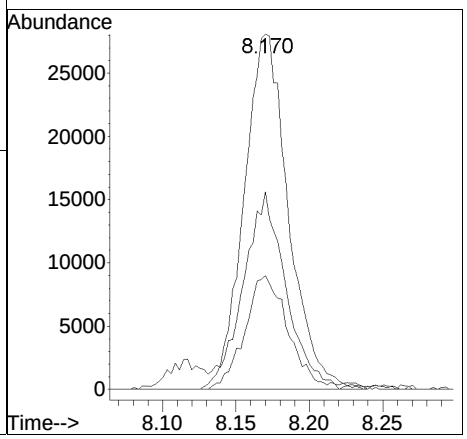


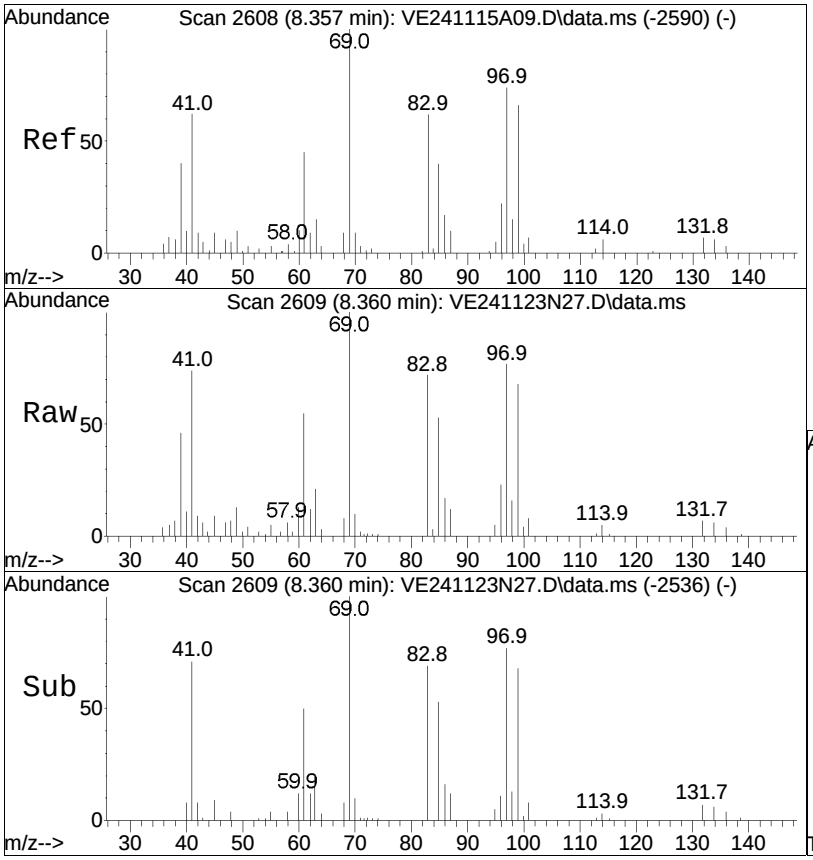


#69
trans-1,3-Dichloropropene
Concen: 10.86 ug/L
RT: 8.170 min Scan# 2541
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 75 Resp: 59240

Ion	Ratio	Lower	Upper
75	100		
77	31.2	10.2	50.2
39	51.1	45.7	85.7

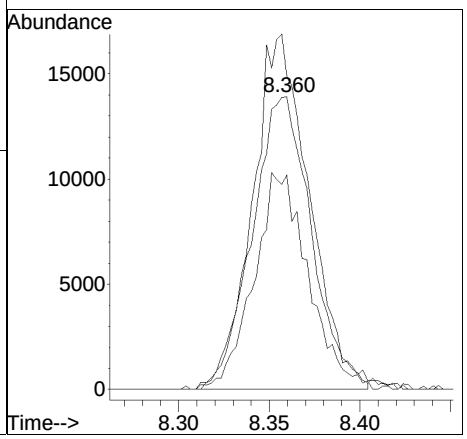


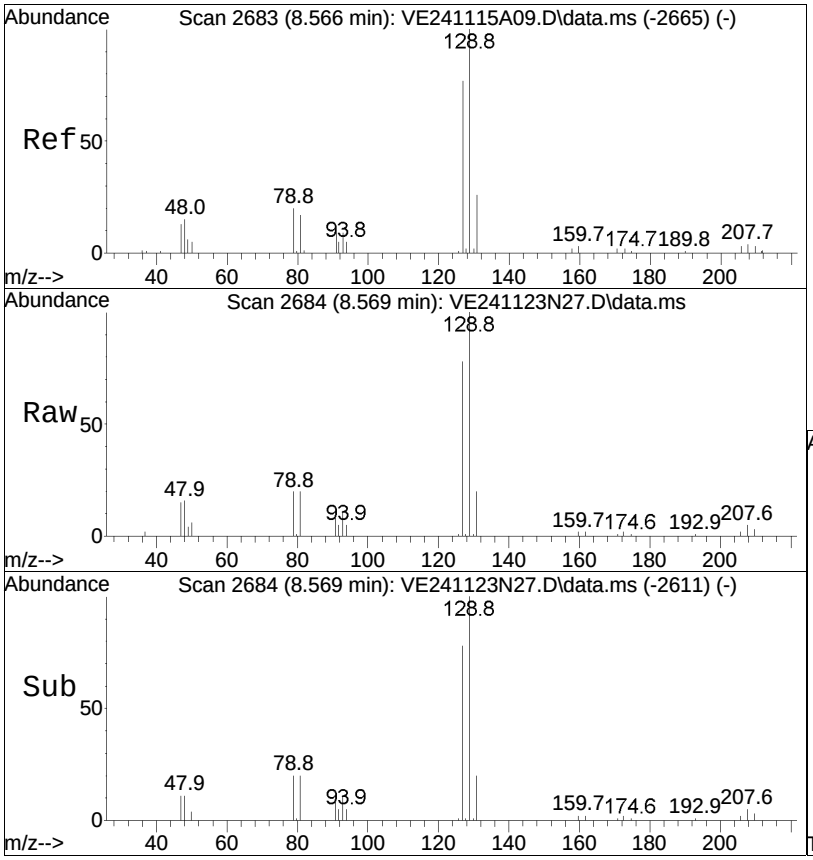


#72
1,1,2-Trichloroethane
Concen: 10.90 ug/L
RT: 8.360 min Scan# 2609
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 83 Resp: 31557

Ion	Ratio	Lower	Upper
83	100		
97	118.0	99.2	139.2
85	68.2	48.7	88.7

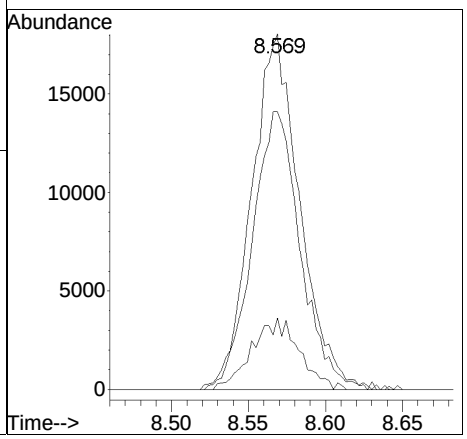


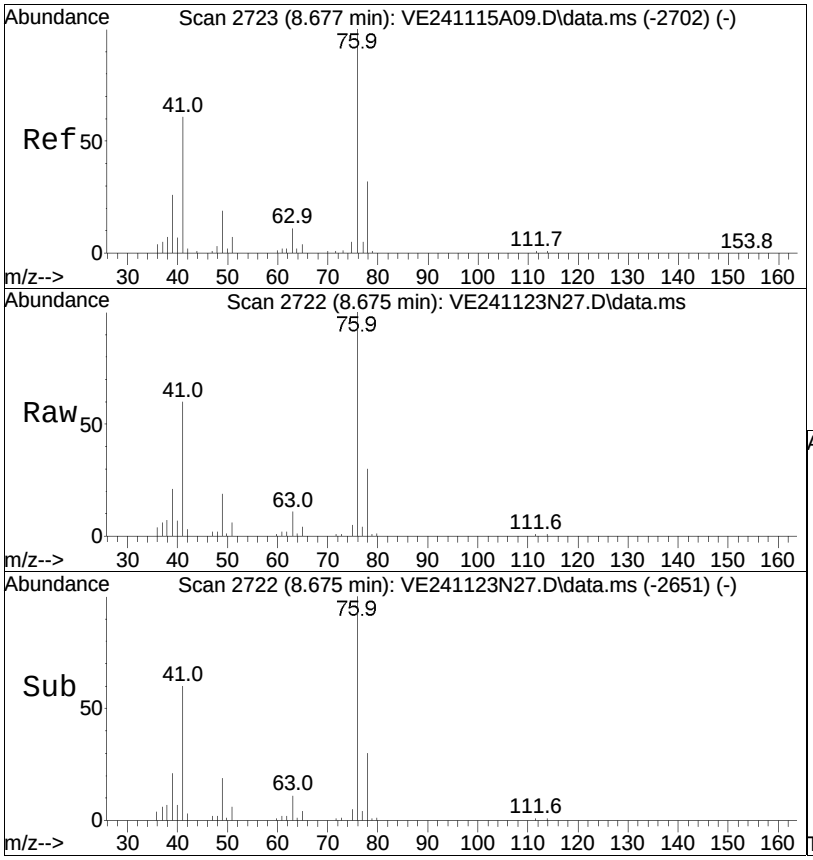


#73
Chlorodibromomethane
Concen: 10.09 ug/L
RT: 8.569 min Scan# 2684
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:129 Resp: 39201

Ion	Ratio	Lower	Upper
129	100		
81	9.6	0.0	39.5
127	78.1	58.6	98.6

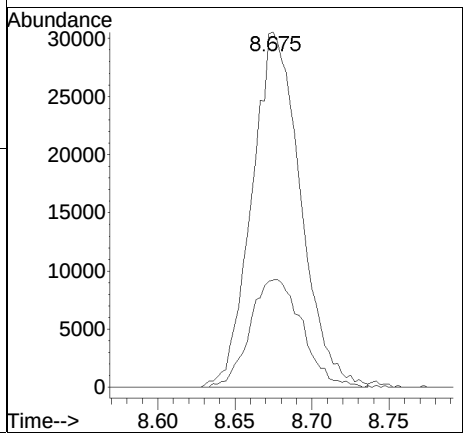


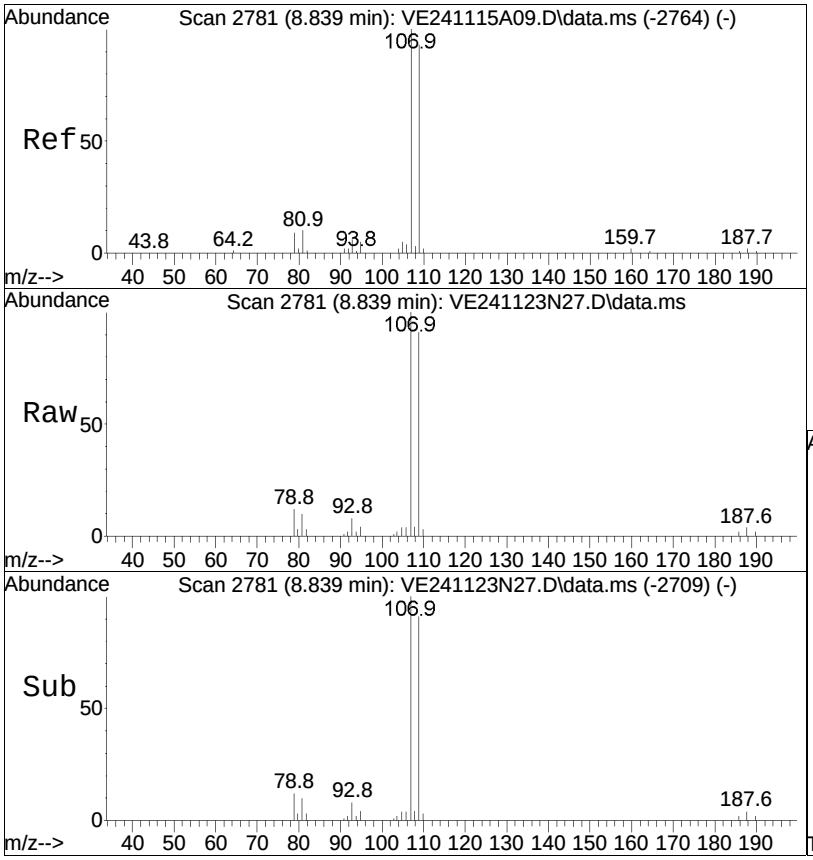


#74
1,3-Dichloropropane
Concen: 11.25 ug/L
RT: 8.675 min Scan# 2722
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 76 Resp: 67264

Ion	Ratio	Lower	Upper
76	100		
78	32.6	27.0	40.4

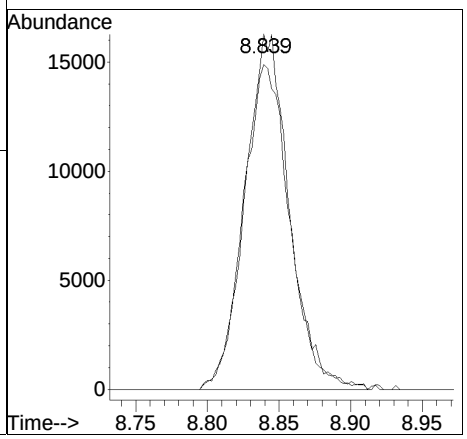


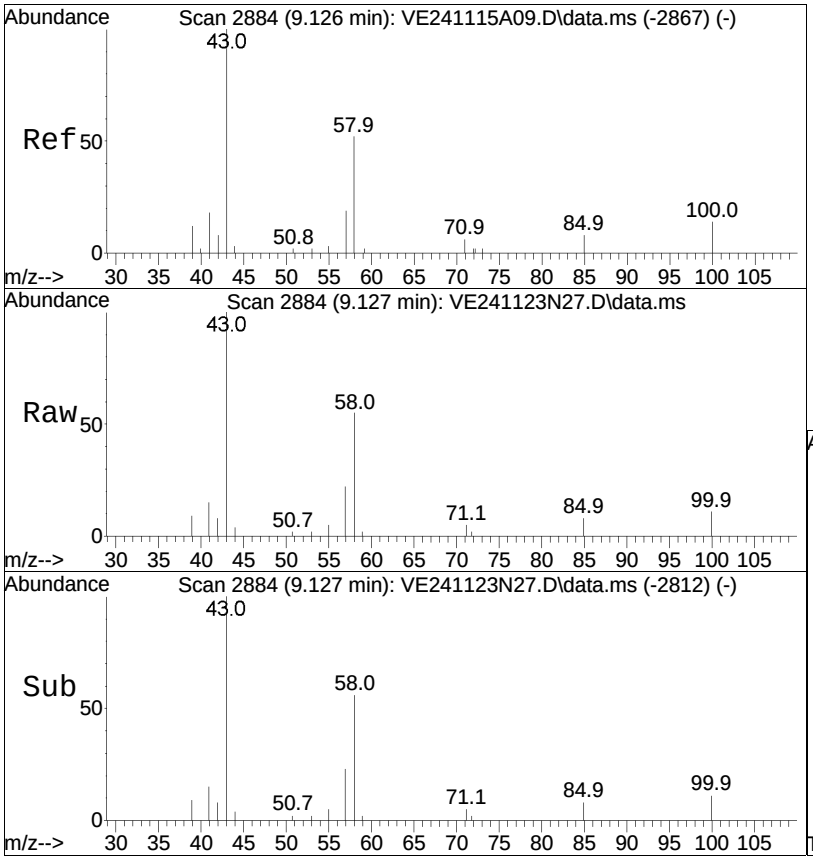


#75
1,2-Dibromoethane
Concen: 10.30 ug/L
RT: 8.839 min Scan# 2781
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:107 Resp: 35360

Ion	Ratio	Lower	Upper
107	100		
109	94.1	66.3	99.5

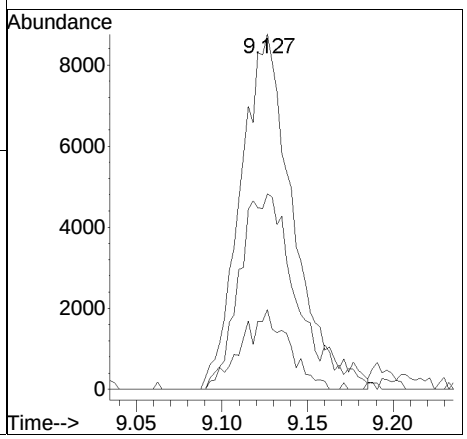


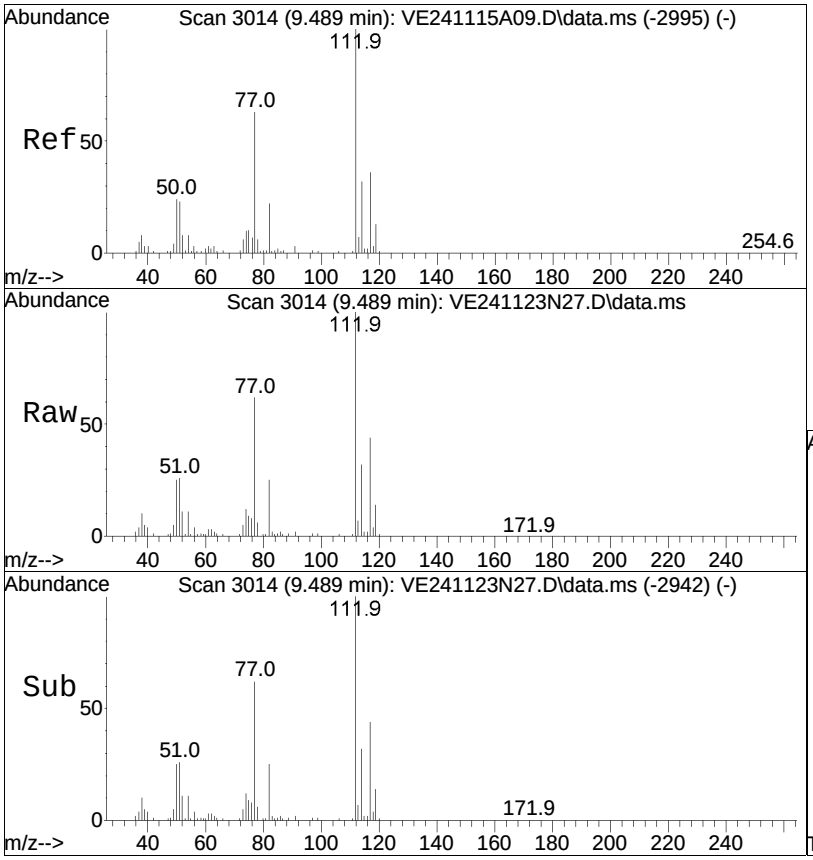


#77
2-Hexanone
Concen: 10.12 ug/L
RT: 9.127 min Scan# 2884
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 43 Resp: 18824

Ion	Ratio	Lower	Upper
43	100		
58	0.0	42.5	63.7#
57	13.2	13.9	20.9#

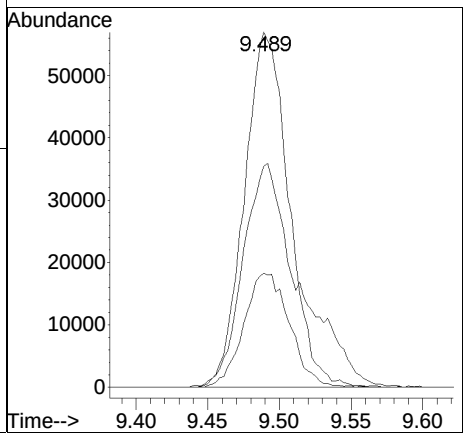


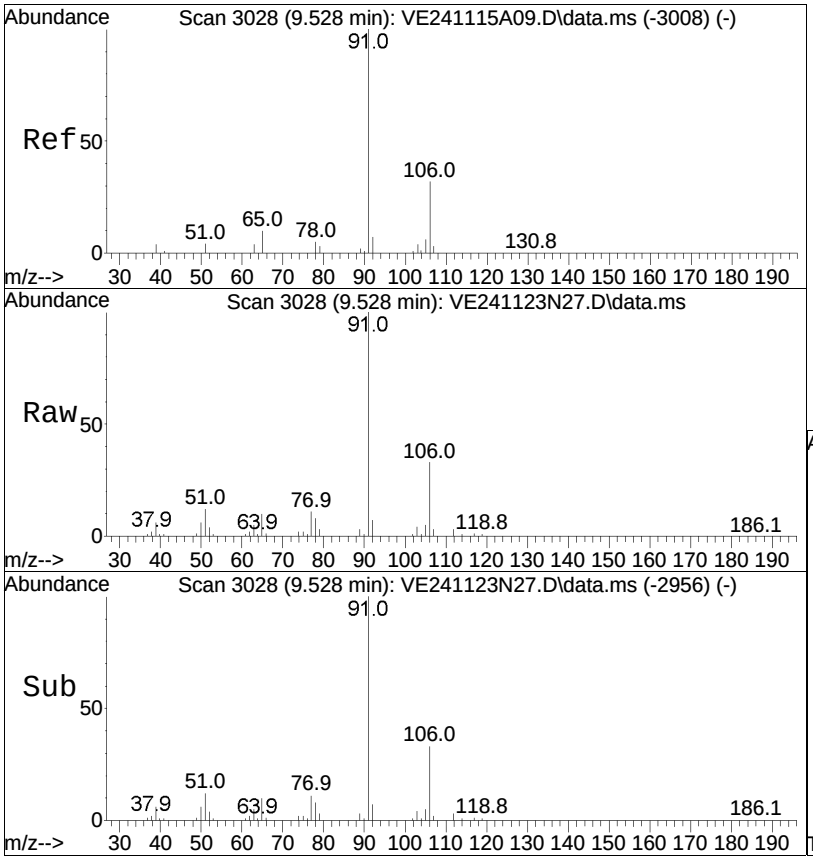


#78
Chlorobenzene
Concen: 10.45 ug/L
RT: 9.489 min Scan# 3014
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:112 Resp: 122446

Ion	Ratio	Lower	Upper
112	100		
77	80.5	46.9	70.3#
114	33.2	23.8	35.6

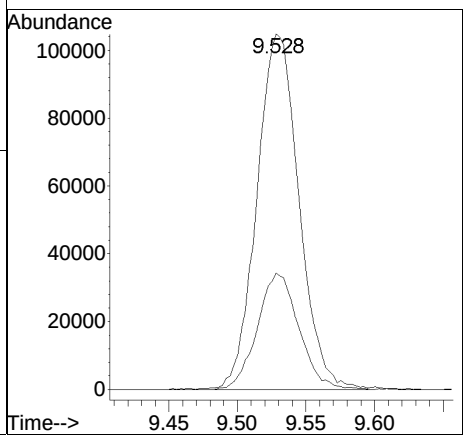


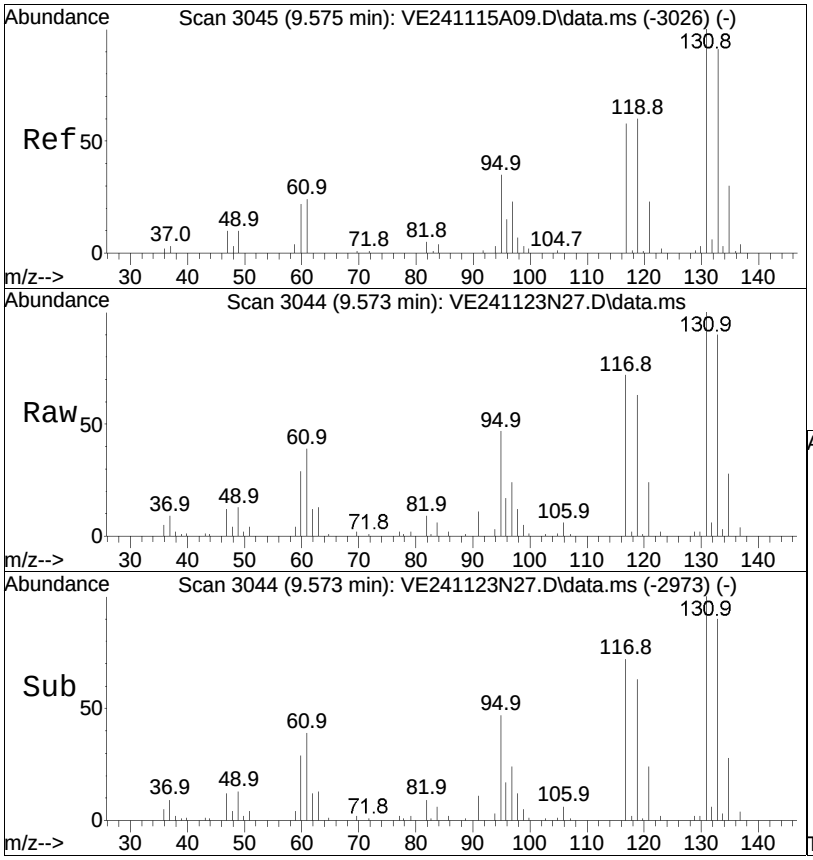


#79
Ethylbenzene
Concen: 10.64 ug/L
RT: 9.528 min Scan# 3028
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 91 Resp: 224152

Ion	Ratio	Lower	Upper
91	100		
106	32.2	25.3	37.9

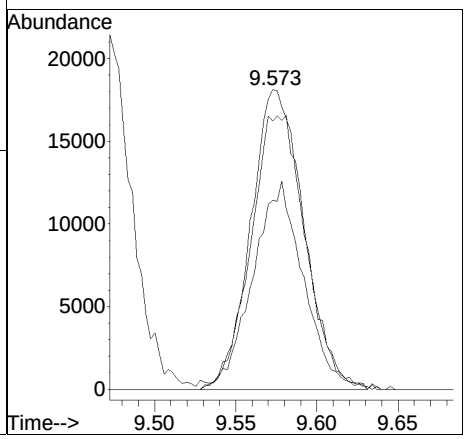


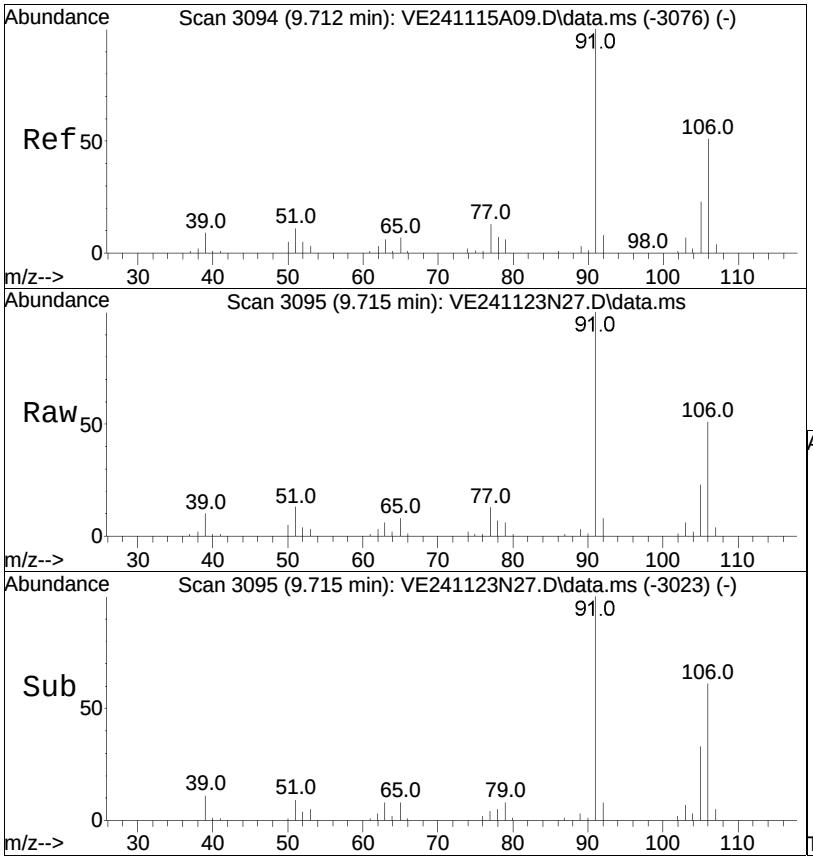


#80
1,1,1,2-Tetrachloroethane
Concen: 10.54 ug/L
RT: 9.573 min Scan# 3044
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:131 Resp: 41005

Ion	Ratio	Lower	Upper
131	100		
133	95.6	72.9	112.9
119	67.0	39.6	79.6

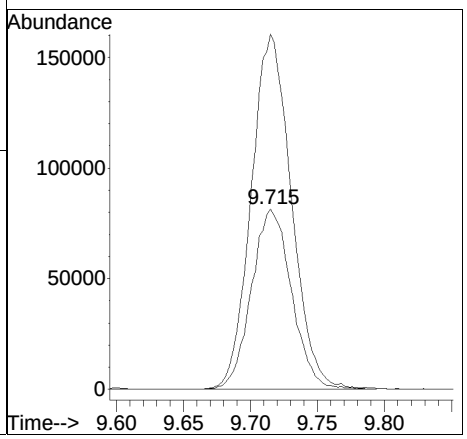


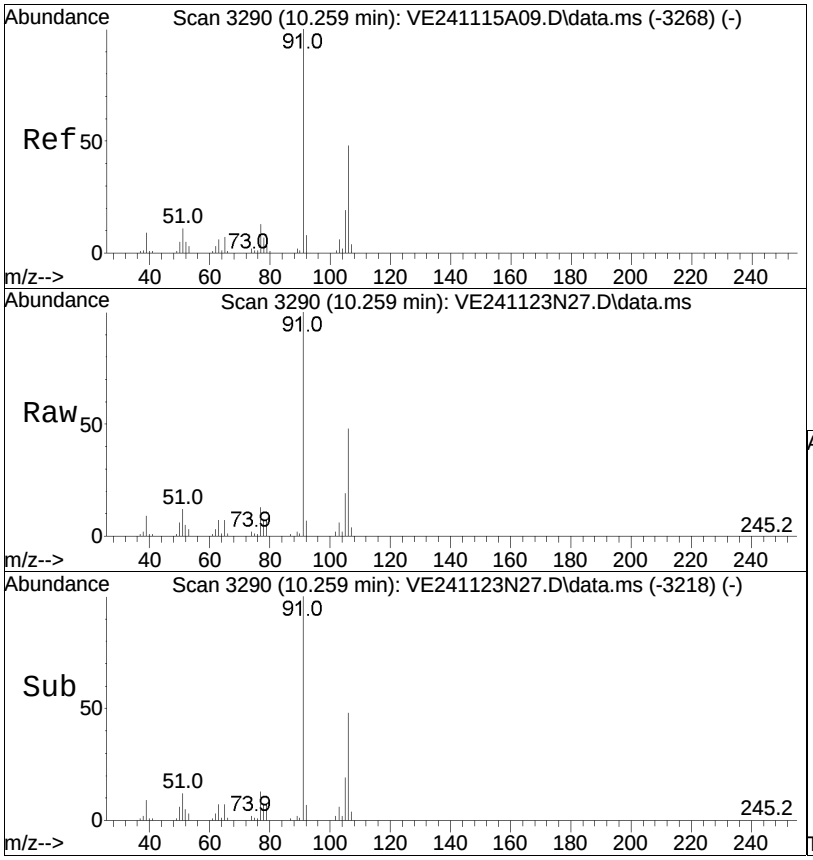


#81
p/m Xylene
Concen: 20.93 ug/L
RT: 9.715 min Scan# 3095
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:106 Resp: 169631

Ion	Ratio	Lower	Upper
106	100		
91	197.5	163.3	244.9

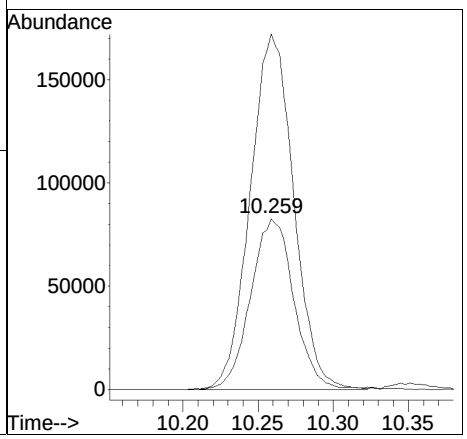


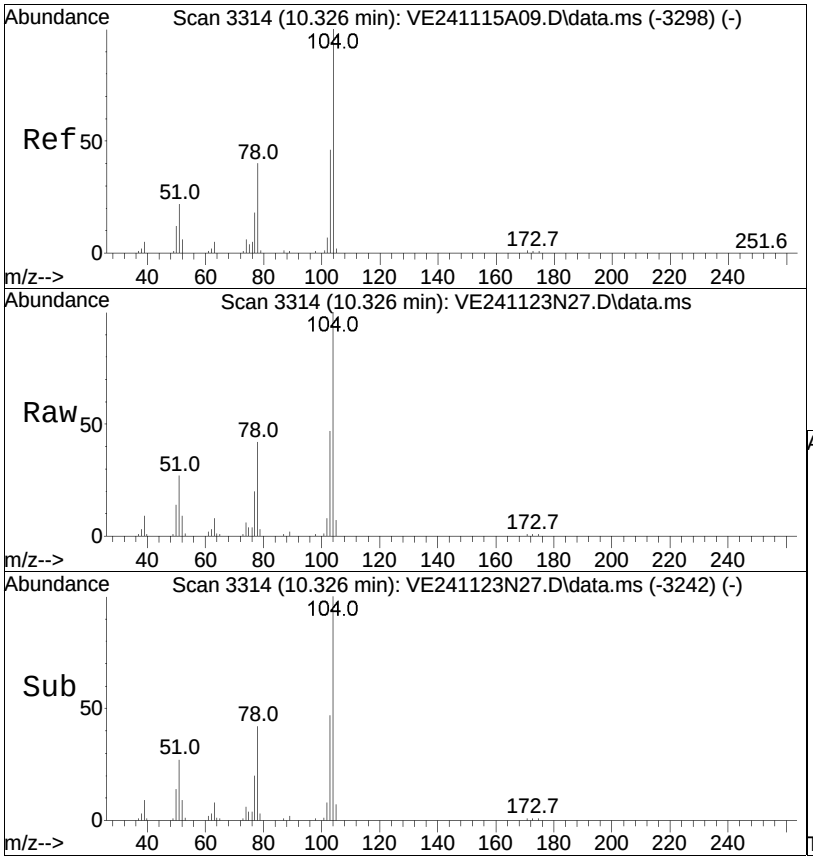


#82
o Xylene
Concen: 20.87 ug/L
RT: 10.259 min Scan# 3290
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:106 Resp: 164993

Ion	Ratio	Lower	Upper
106	100		
91	209.2	181.0	271.6

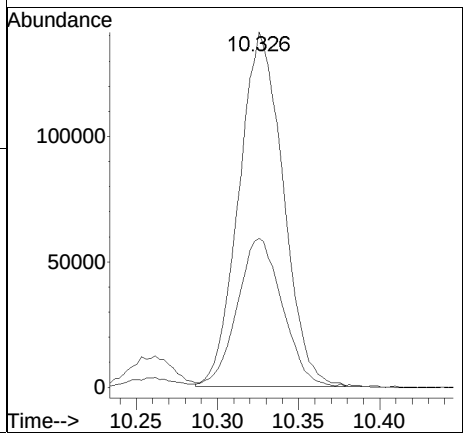


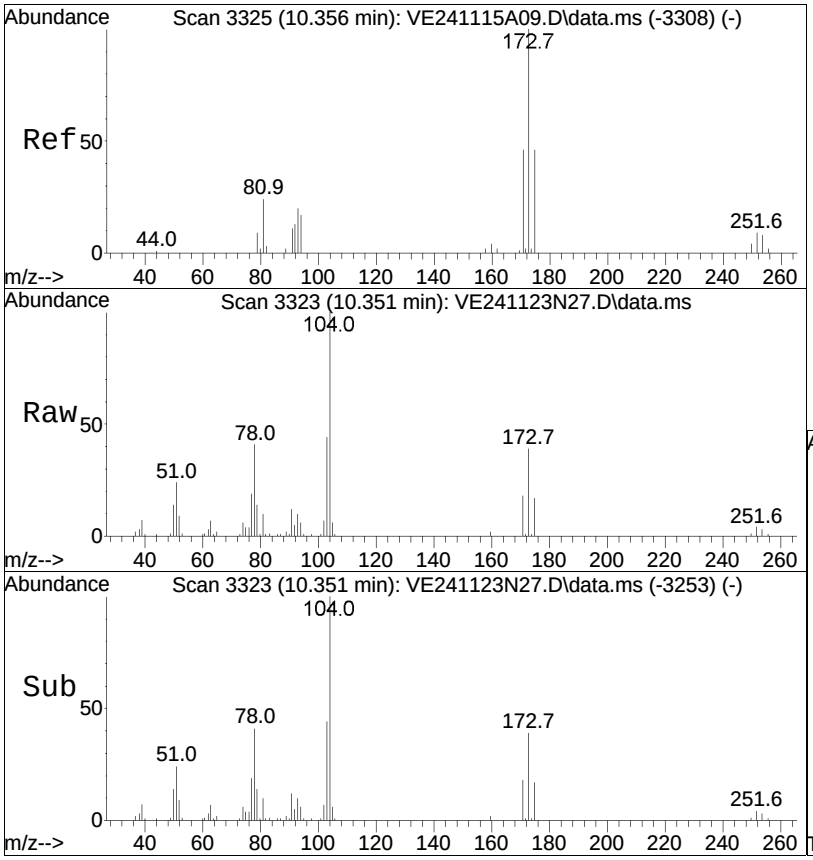


#83
Styrene
Concen: 20.13 ug/L
RT: 10.326 min Scan# 3314
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:104 Resp: 268654

Ion	Ratio	Lower	Upper
104	100		
78	42.2	35.9	53.9

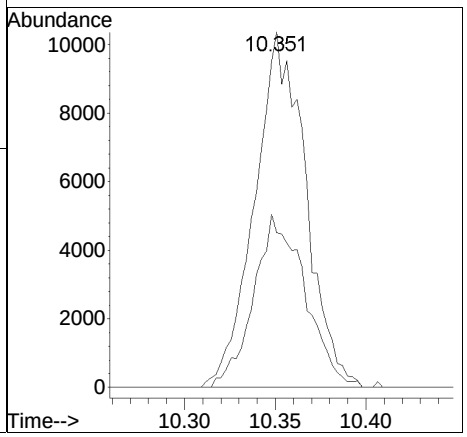


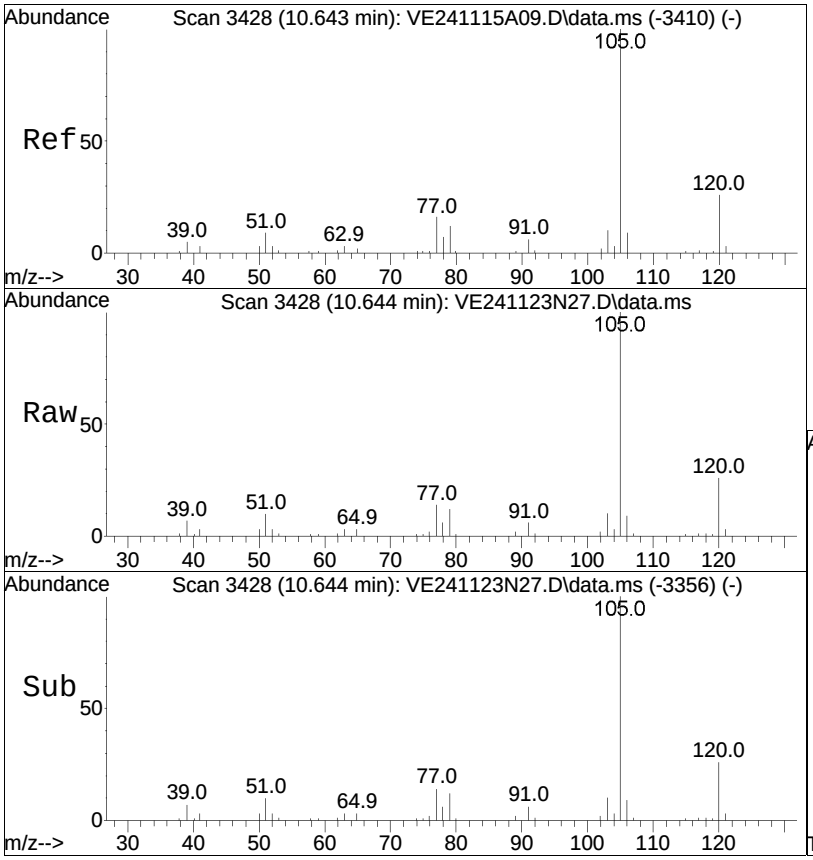


#85
Bromoform
Concen: 9.36 ug/L
RT: 10.351 min Scan# 3323
Delta R.T. -0.005 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:173 Resp: 20283

Ion	Ratio	Lower	Upper
173	100		
175	48.9	32.9	72.9

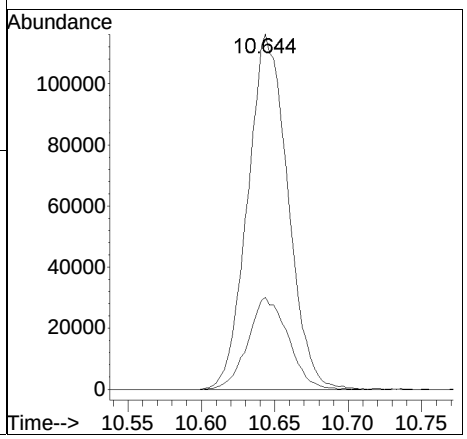


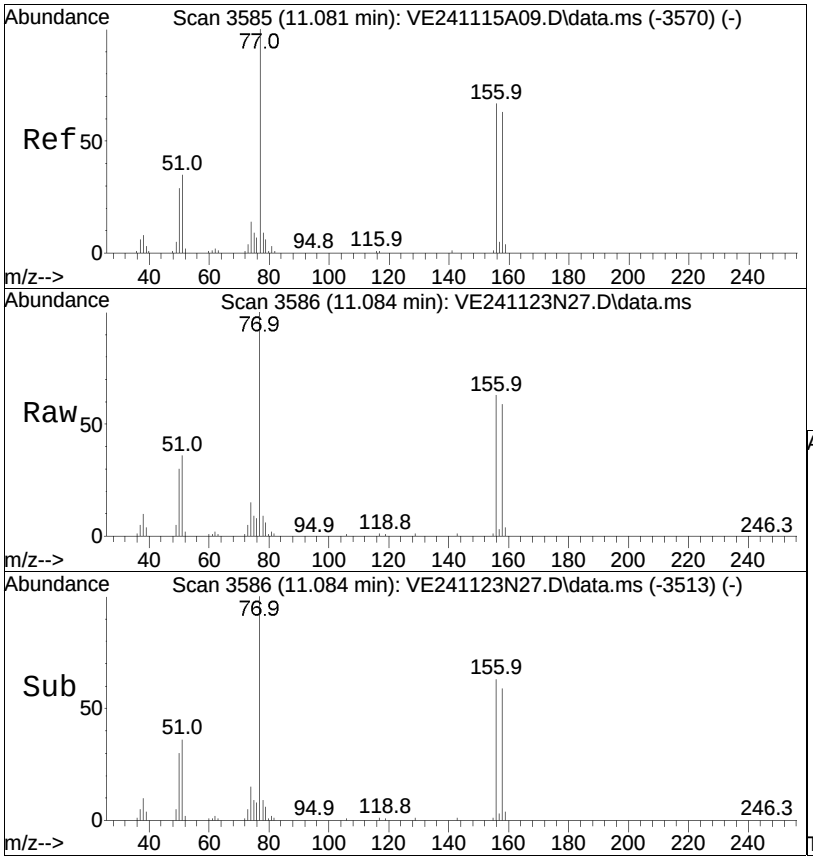


#87
Isopropylbenzene
Concen: 10.20 ug/L
RT: 10.644 min Scan# 3428
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:105 Resp: 220875

Ion	Ratio	Lower	Upper
105	100		
120	25.9	4.8	44.8

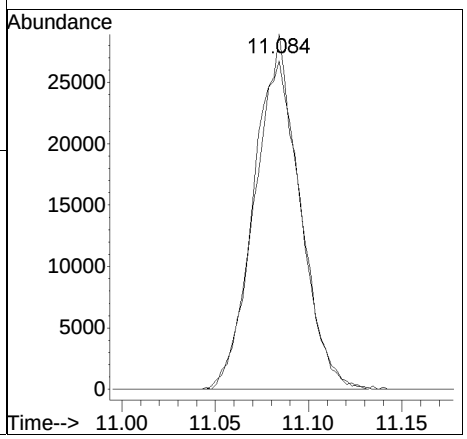


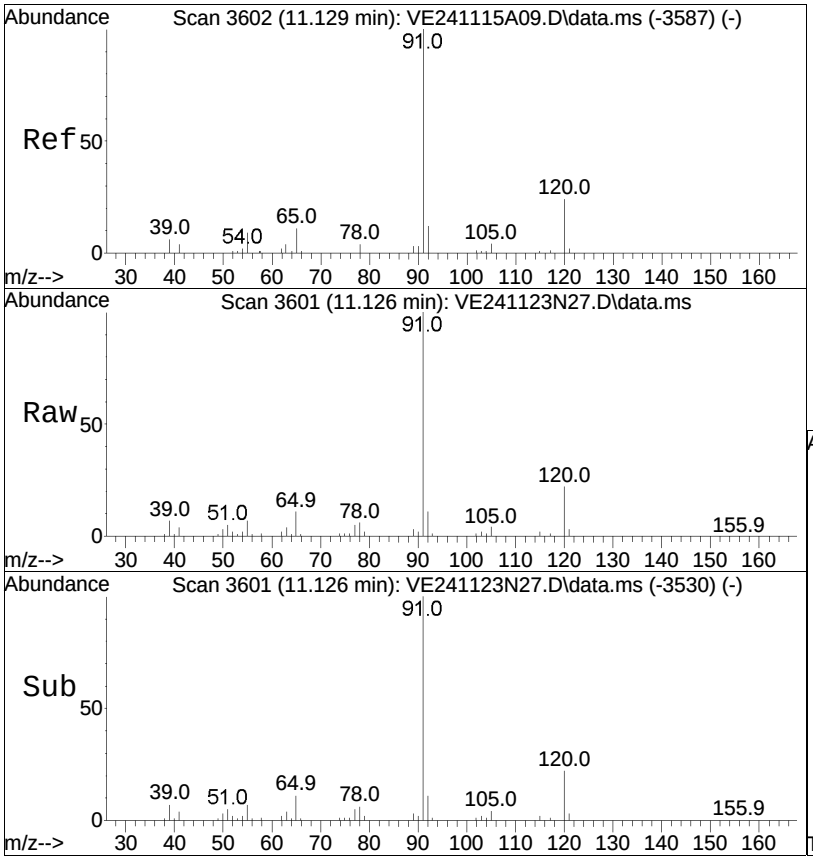


#89
Bromobenzene
Concen: 10.14 ug/L
RT: 11.084 min Scan# 3586
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:156 Resp: 48997

Ion	Ratio	Lower	Upper
156	100		
158	96.2	75.9	113.9

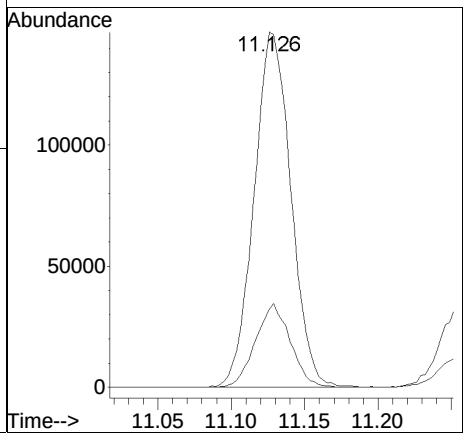


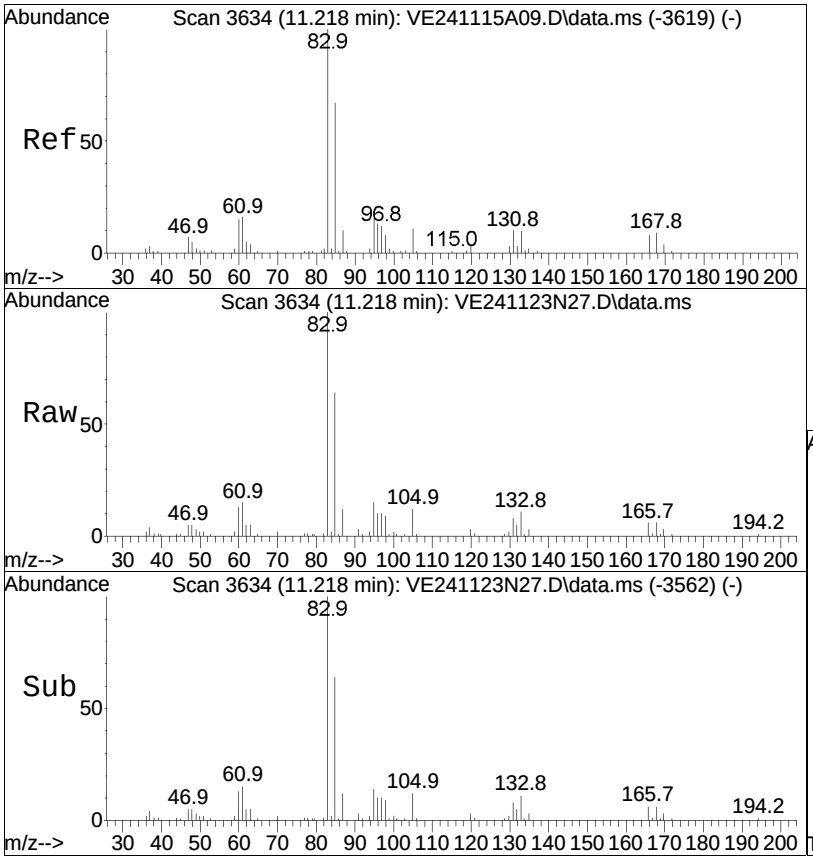


#90
n-Propylbenzene
Concen: 10.45 ug/L
RT: 11.126 min Scan# 3601
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 91 Resp: 256713

Ion	Ratio	Lower	Upper
91	100		
120	22.3	16.7	25.1

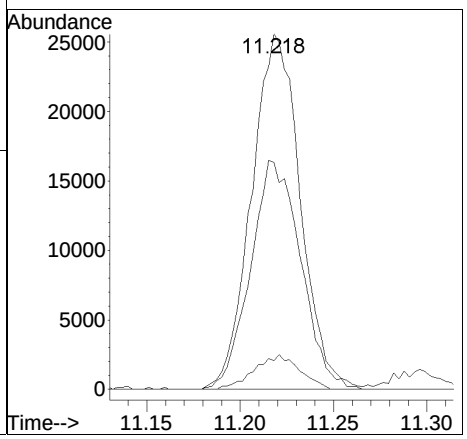


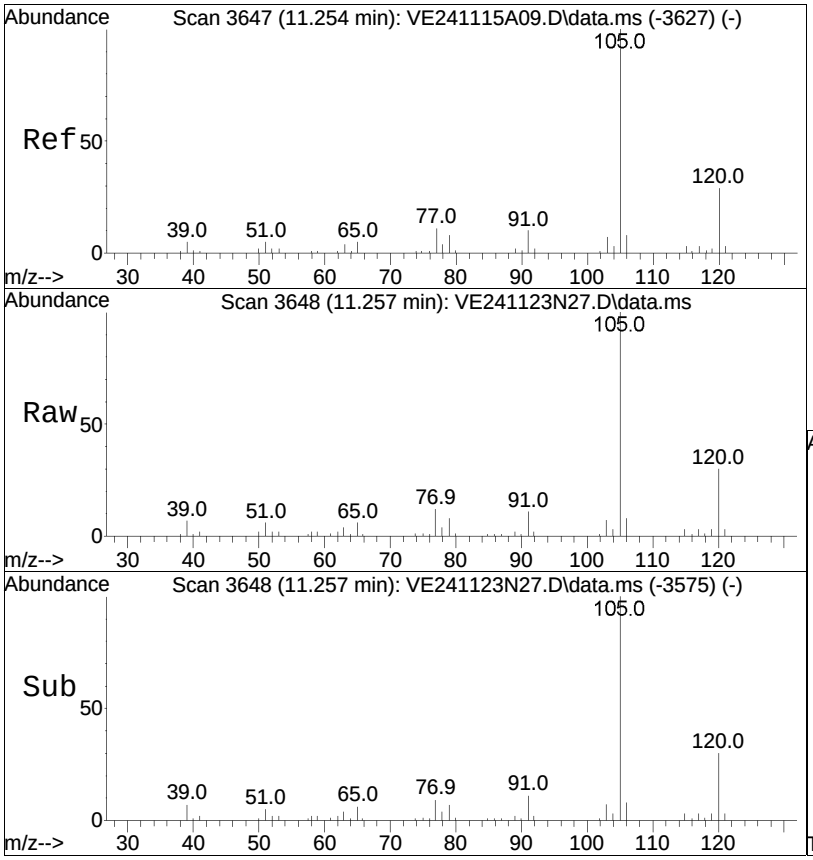


#92
1,1,2,2-Tetrachloroethane
Concen: 11.07 ug/L
RT: 11.218 min Scan# 3634
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 83 Resp: 46261

Ion	Ratio	Lower	Upper
83	100		
131	9.1	0.0	28.6
85	66.7	47.4	87.4

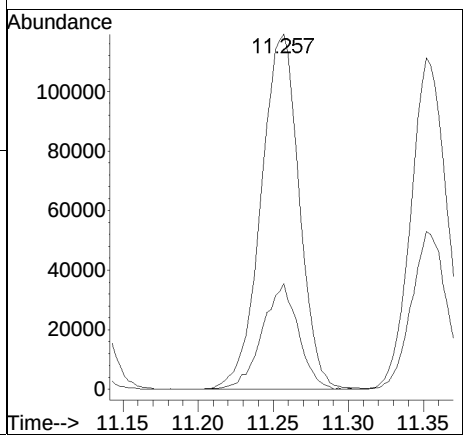


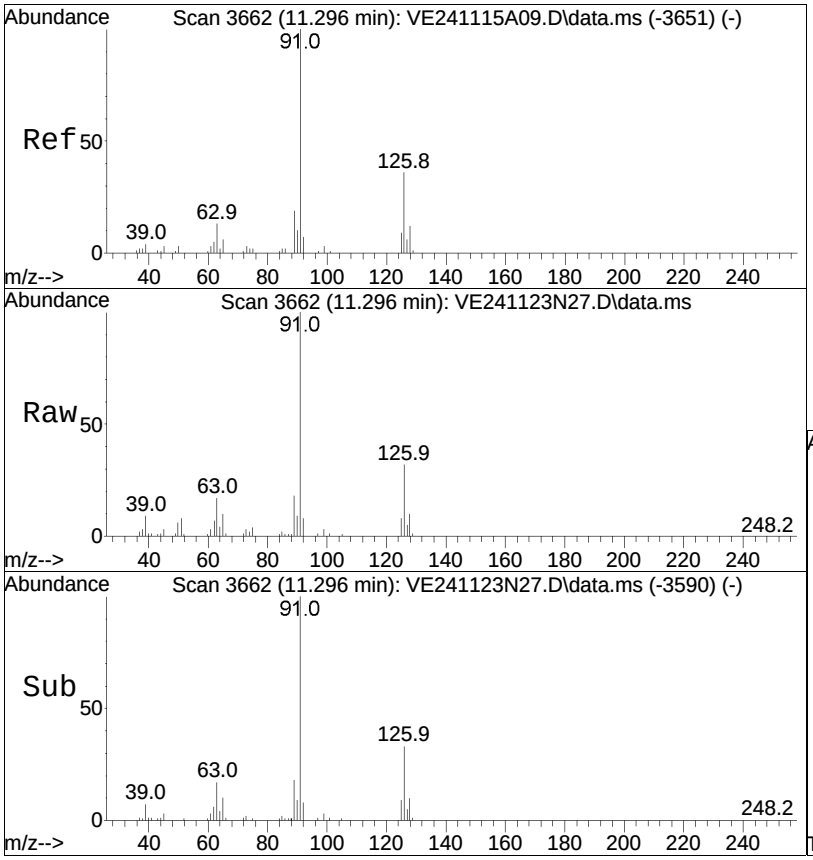


#93
4-Ethyltoluene
Concen: 10.36 ug/L
RT: 11.257 min Scan# 3648
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:105 Resp: 211200

Ion	Ratio	Lower	Upper
105	100		
120	28.2	18.9	39.3

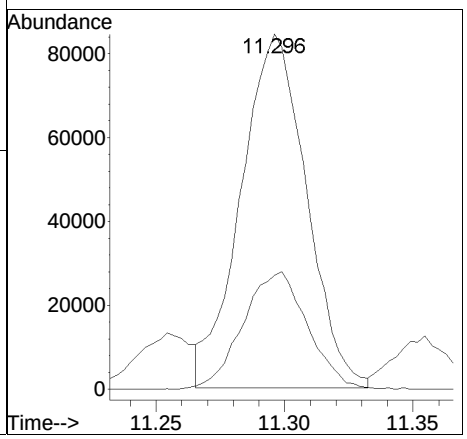


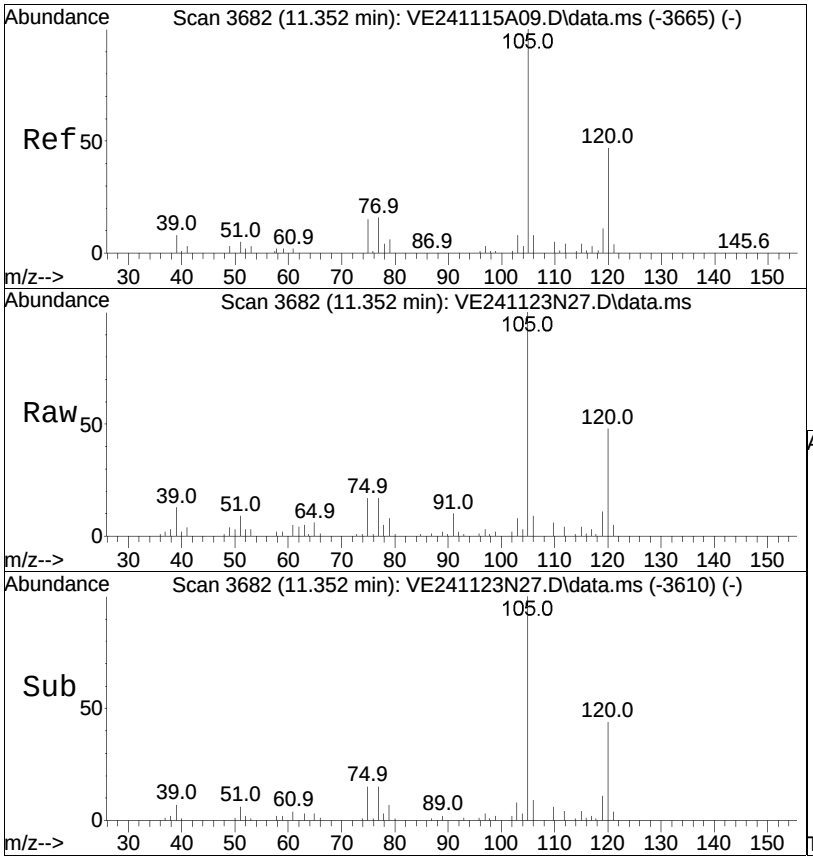


#94
2-Chlorotoluene
Concen: 10.50 ug/L
RT: 11.296 min Scan# 3662
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 91 Resp: 149829

Ion	Ratio	Lower	Upper
91	100		
126	32.9	24.4	36.6

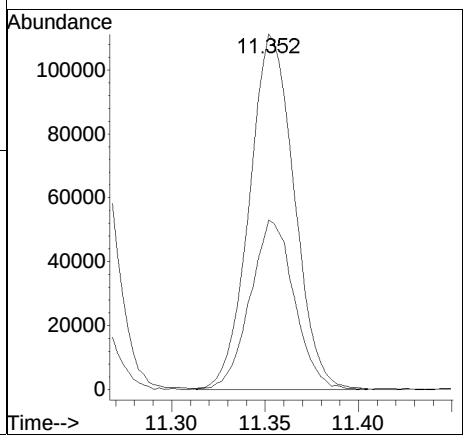


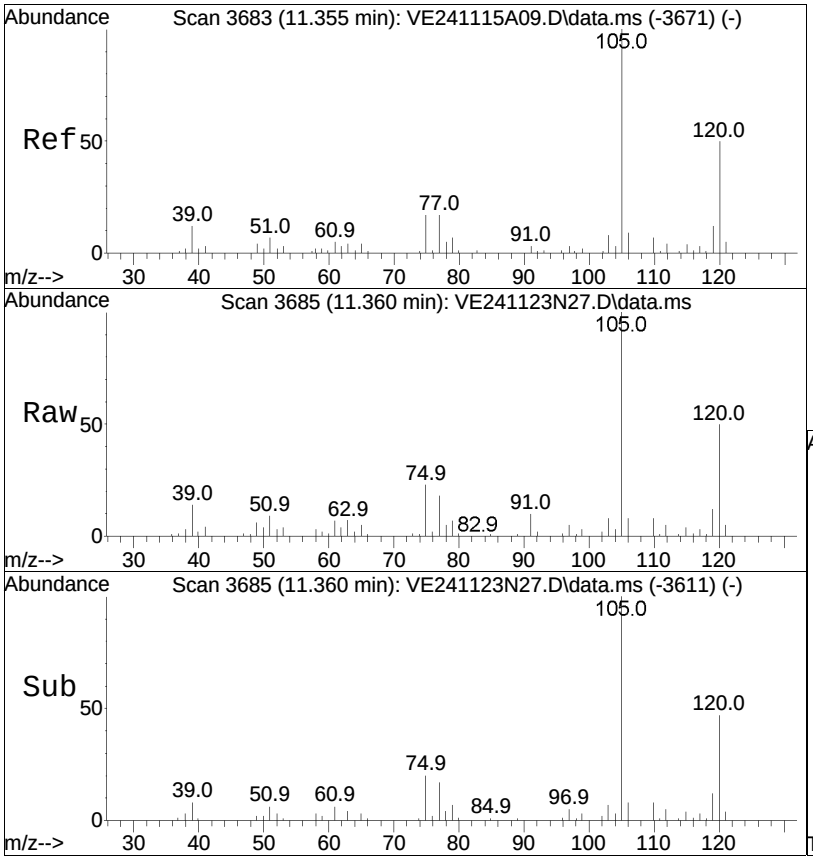


#95
1,3,5-Trimethylbenzene
Concen: 10.29 ug/L
RT: 11.352 min Scan# 3682
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:105 Resp: 185483

Ion	Ratio	Lower	Upper
105	100		
120	47.0	39.3	58.9

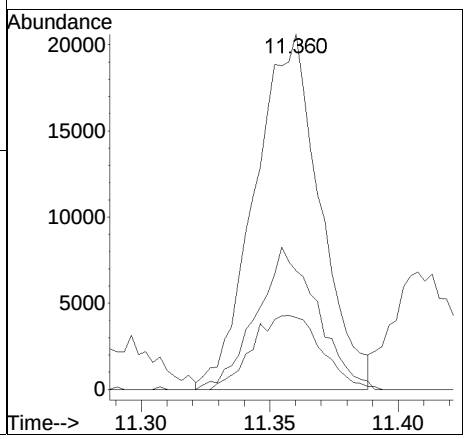


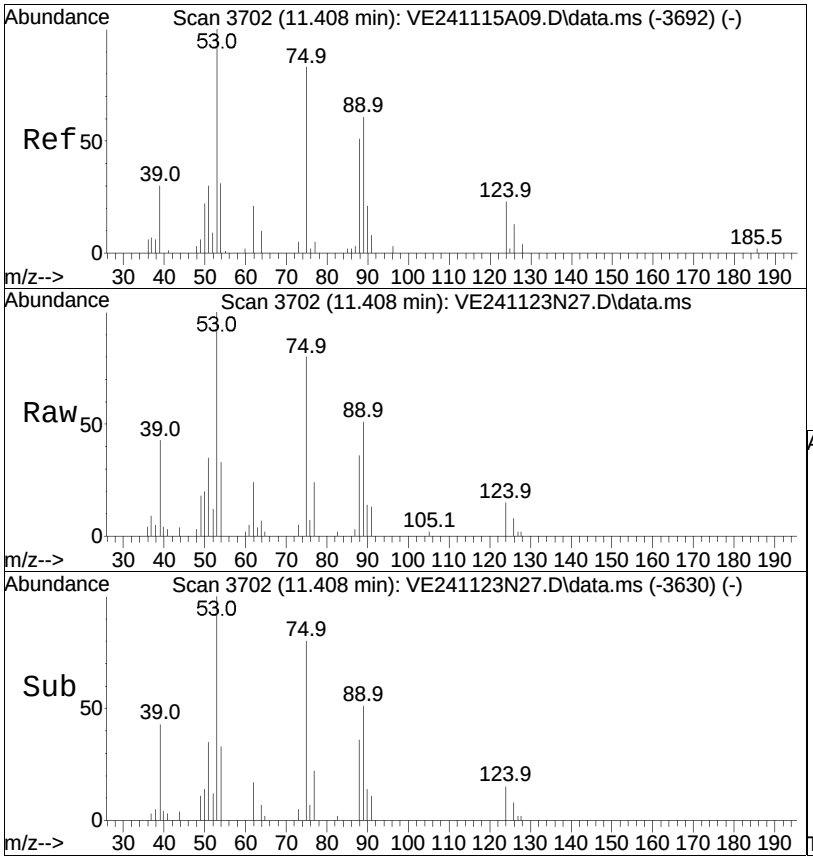


#96
1,2,3-Trichloropropane
Concen: 11.01 ug/L
RT: 11.360 min Scan# 3685
Delta R.T. 0.006 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 75 Resp: 36322

Ion	Ratio	Lower	Upper
75	100		
110	37.2	22.4	46.4
112	22.1	12.2	25.2

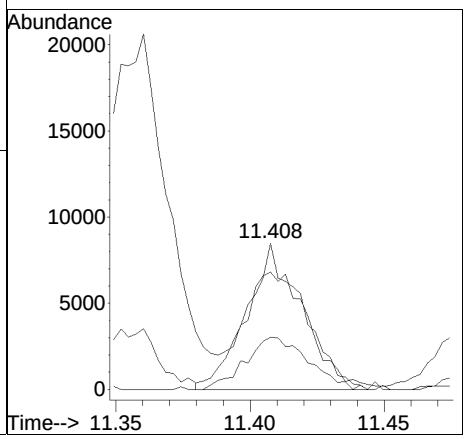


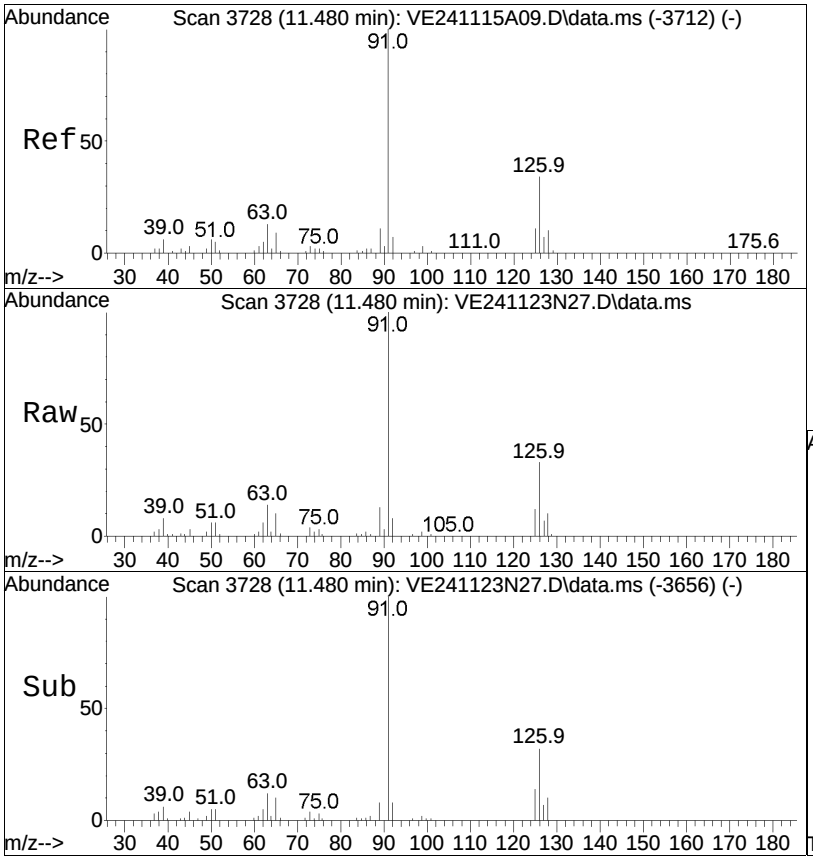


#97
trans-1,4-Dichloro-2-butene
Concen: 10.31 ug/L
RT: 11.408 min Scan# 3702
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 53 Resp: 12315

Ion	Ratio	Lower	Upper
53	100		
88	40.1	29.2	43.8
75	93.8	62.6	94.0

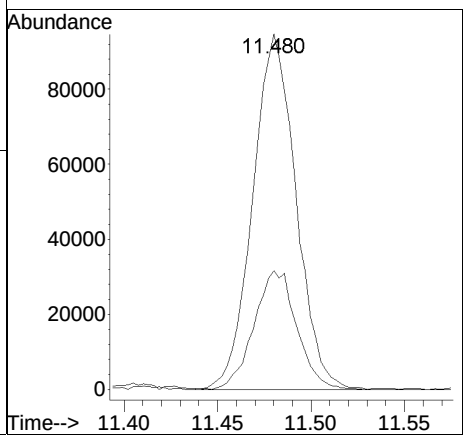


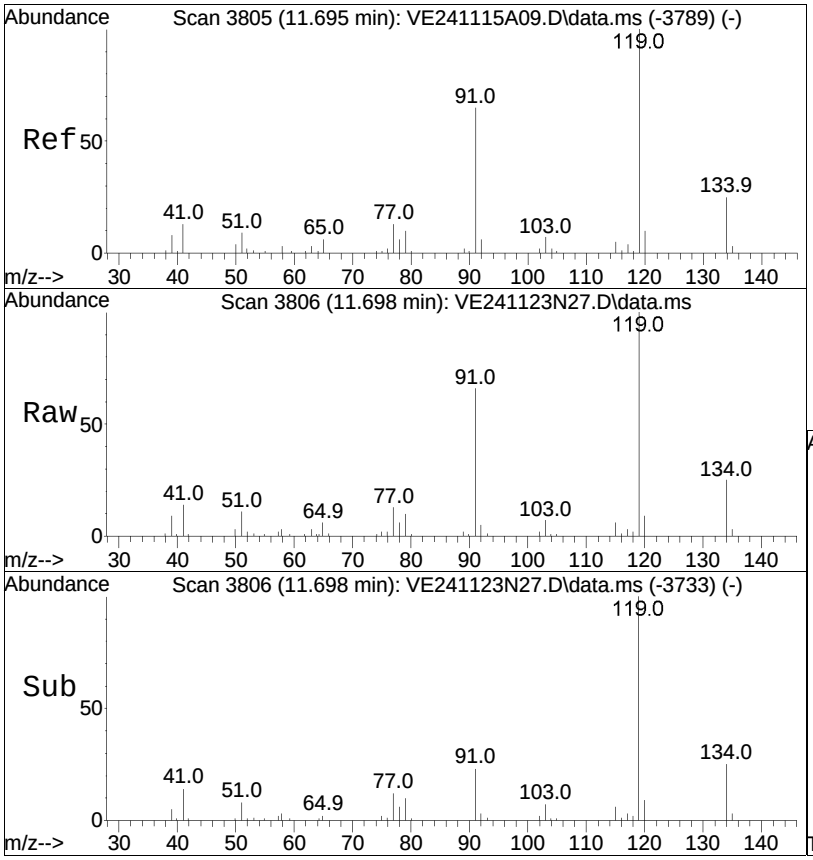


#98
4-Chlorotoluene
Concen: 10.33 ug/L
RT: 11.480 min Scan# 3728
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 91 Resp: 152395

Ion	Ratio	Lower	Upper
91	100		
126	33.0	25.8	38.8

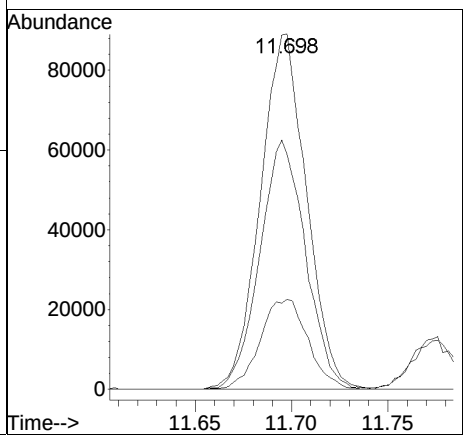


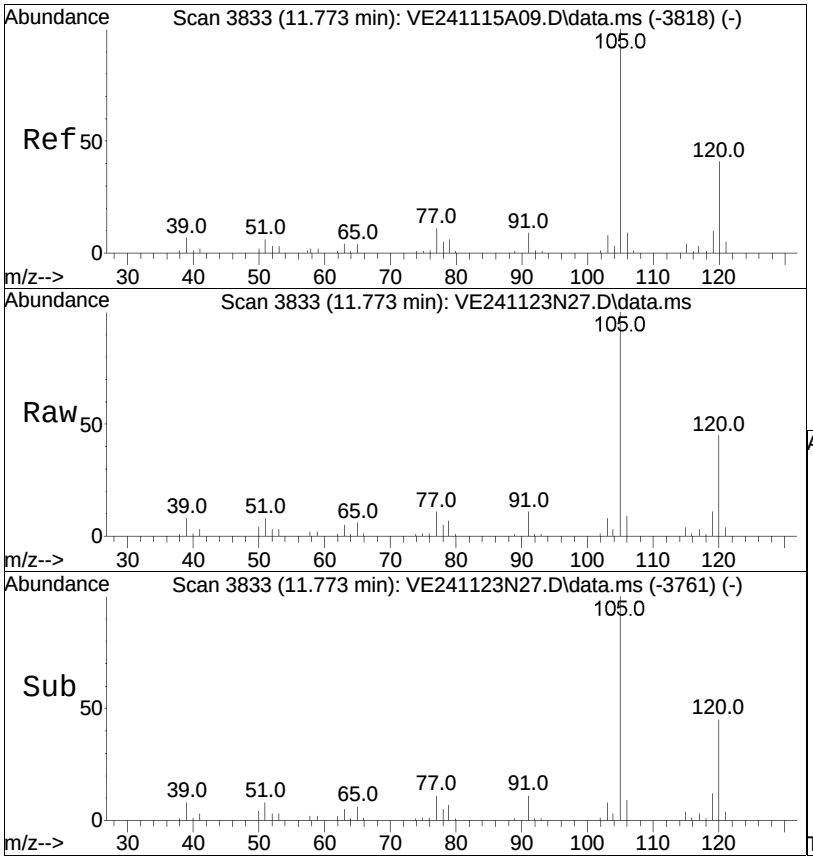


#99
tert-Butylbenzene
Concen: 9.99 ug/L
RT: 11.698 min Scan# 3806
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:119 Resp: 148715

Ion	Ratio	Lower	Upper
119	100		
91	69.7	56.6	84.8
134	26.3	17.7	26.5

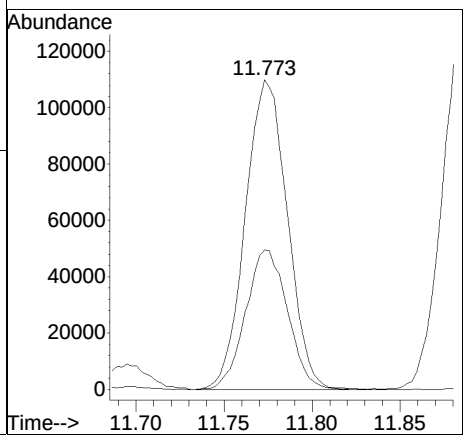


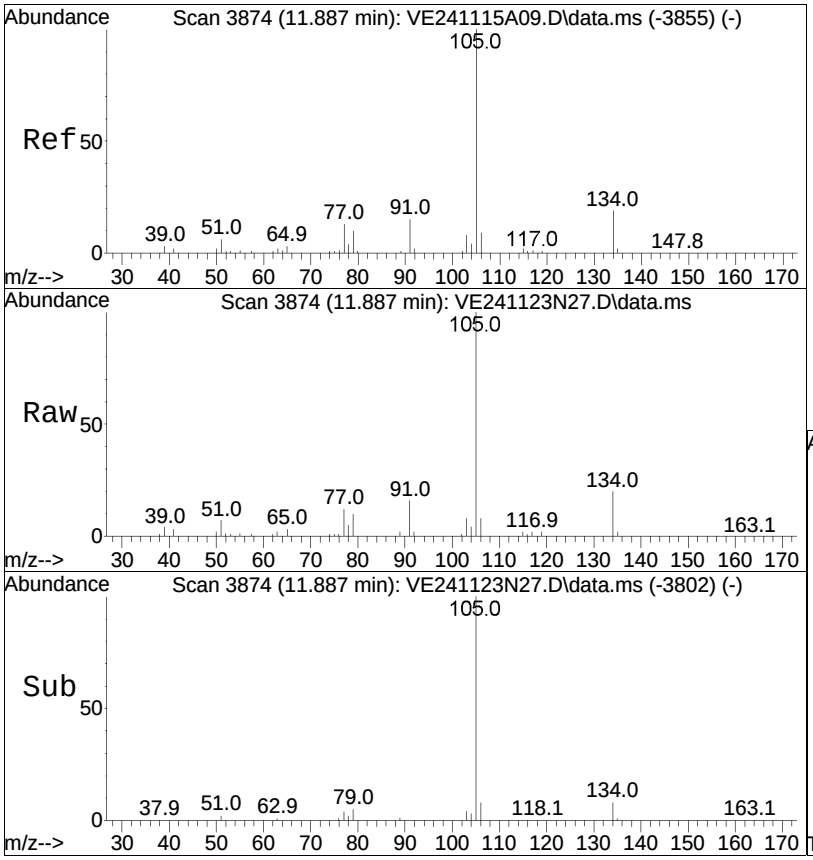


#102
1,2,4-Trimethylbenzene
Concen: 10.10 ug/L
RT: 11.773 min Scan# 3833
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:105 Resp: 182572

Ion	Ratio	Lower	Upper
105	100		
120	44.8	33.6	50.4

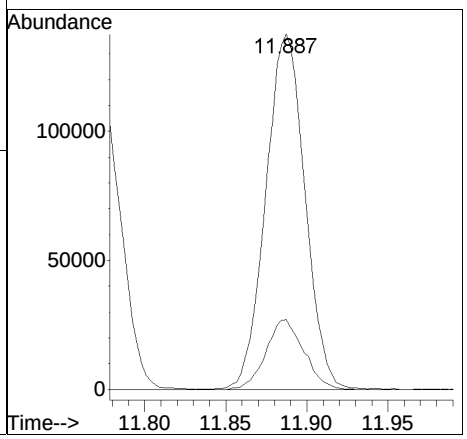


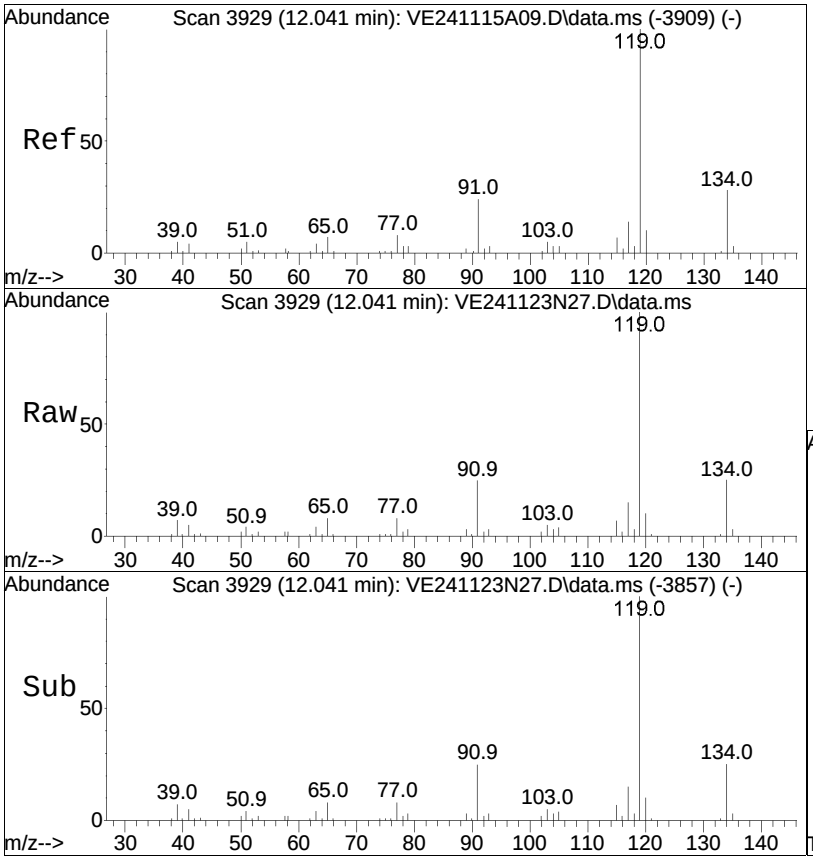


#103
sec-Butylbenzene
Concen: 10.19 ug/L
RT: 11.887 min Scan# 3874
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:105 Resp: 231439

Ion	Ratio	Lower	Upper
105	100		
134	18.9	13.3	27.5

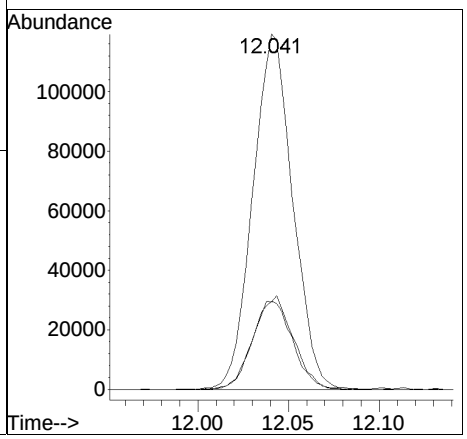


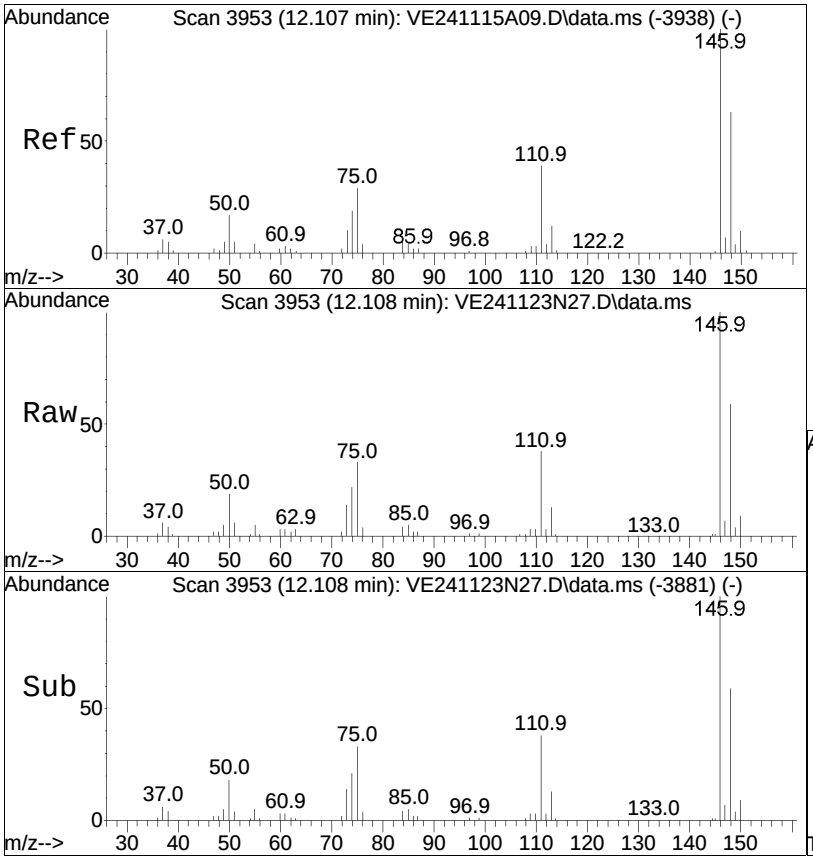


#104
p-Isopropyltoluene
Concen: 9.71 ug/L
RT: 12.041 min Scan# 3929
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:119 Resp: 182730

Ion	Ratio	Lower	Upper
119	100		
134	26.2	15.8	32.8
91	25.2	16.6	34.4

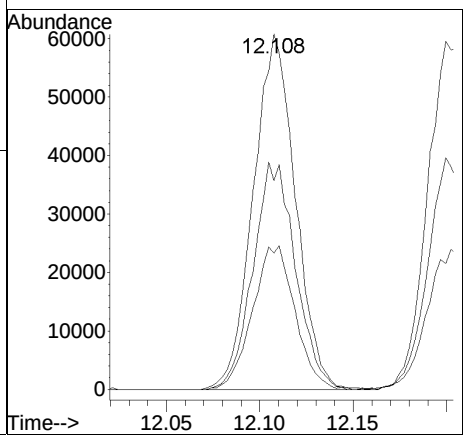


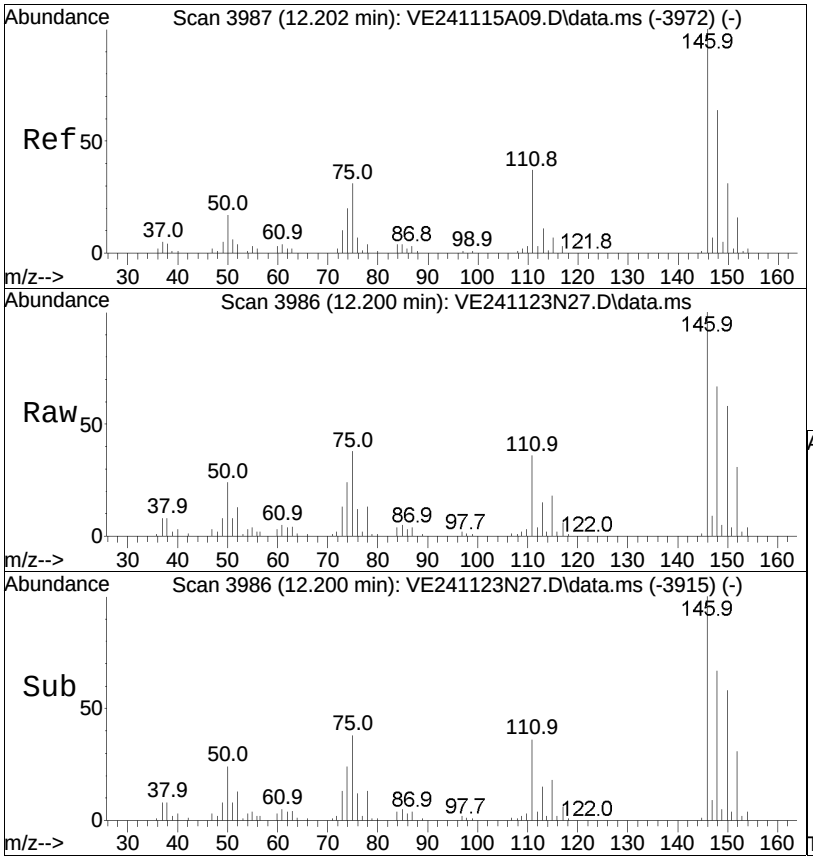


#105
1,3-Dichlorobenzene
Concen: 9.85 ug/L
RT: 12.108 min Scan# 3953
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:146 Resp: 95273

Ion	Ratio	Lower	Upper
146	100		
111	40.7	27.9	57.9
148	64.4	42.4	88.2

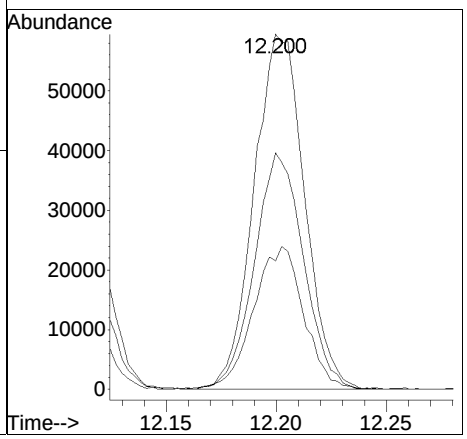


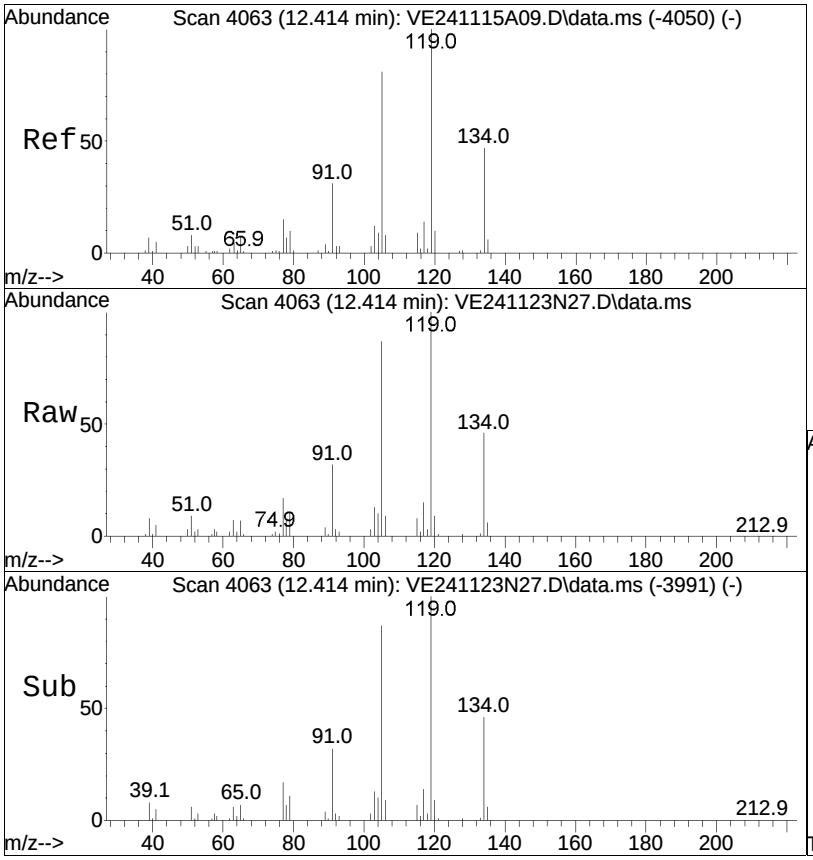


#106
1,4-Dichlorobenzene
Concen: 9.79 ug/L
RT: 12.200 min Scan# 3986
Delta R.T. -0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:146 Resp: 94979

Ion	Ratio	Lower	Upper
146	100		
111	40.2	31.4	47.0
148	64.8	49.8	74.8

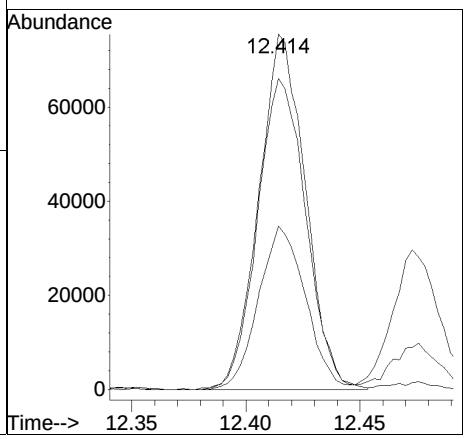


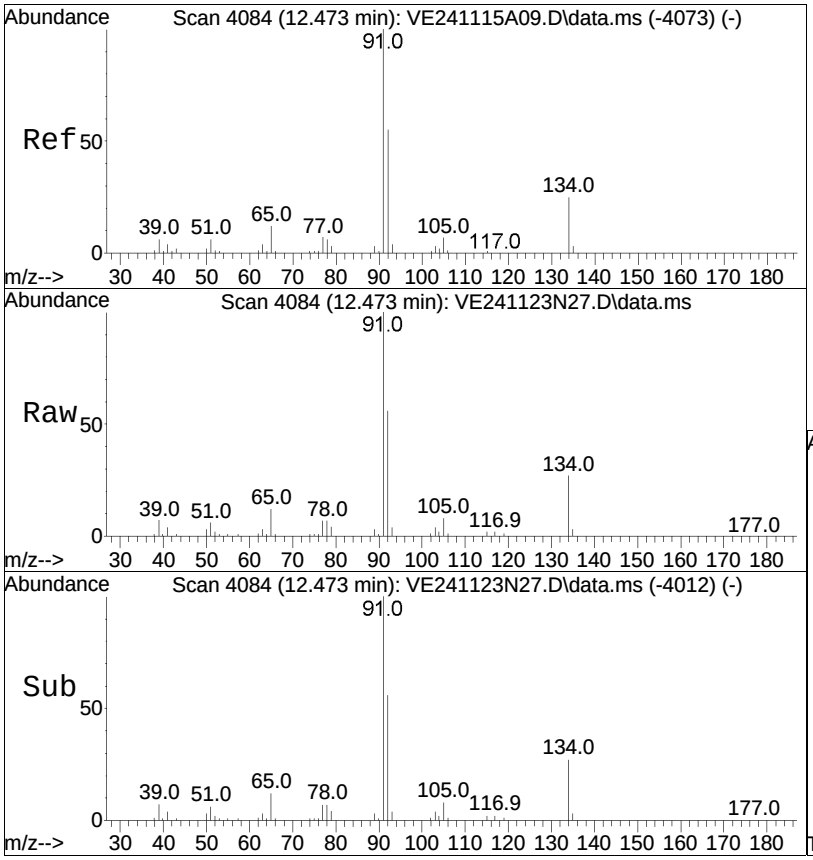


#107
p-Diethylbenzene
Concen: 9.73 ug/L
RT: 12.414 min Scan# 4063
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:119 Resp: 107121

Ion	Ratio	Lower	Upper
119	100		
105	90.8	55.4	115.2
134	46.4	28.4	59.0

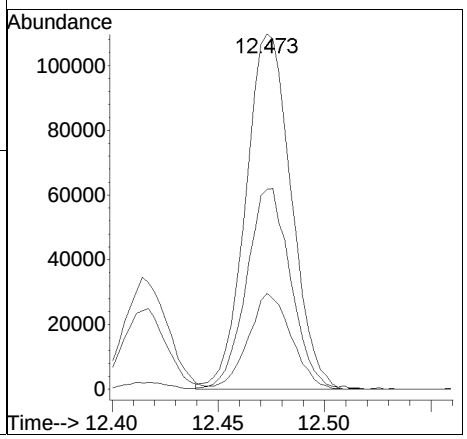


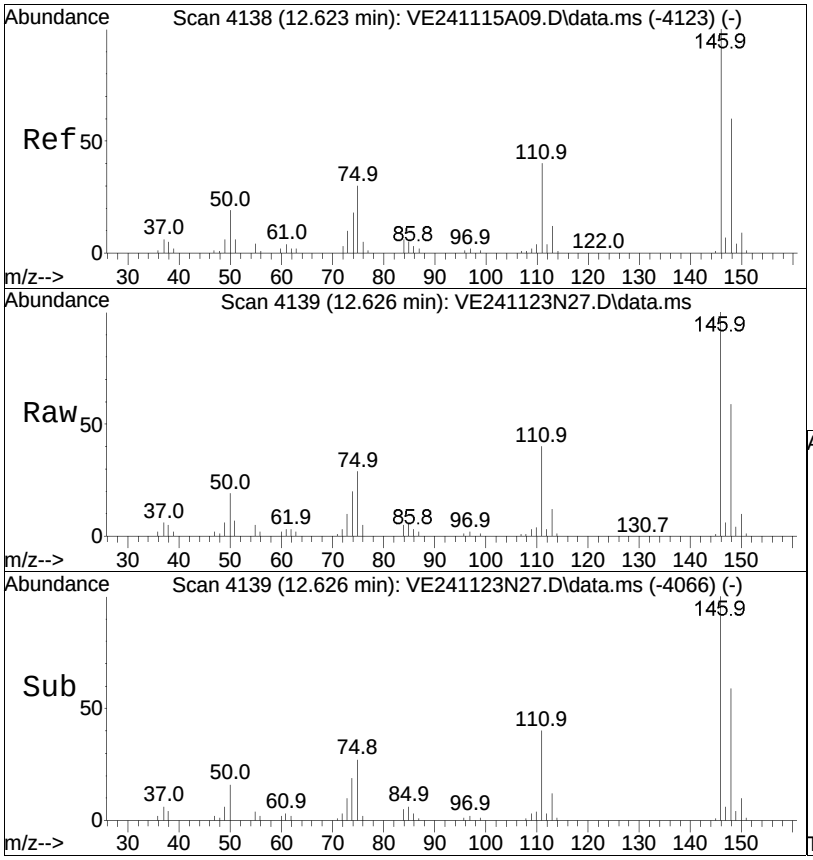


#108
n-Butylbenzene
Concen: 10.00 ug/L
RT: 12.473 min Scan# 4084
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion: 91 Resp: 164151

Ion	Ratio	Lower	Upper
91	100		
92	54.7	42.4	63.6
134	25.5	20.3	30.5

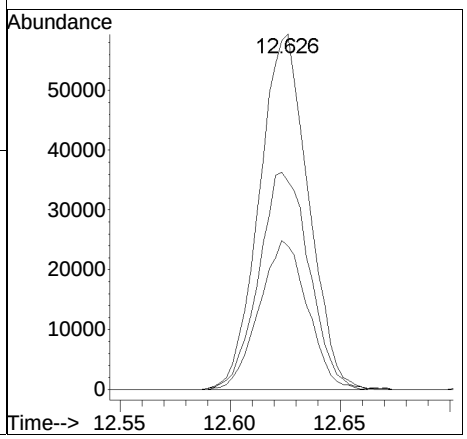


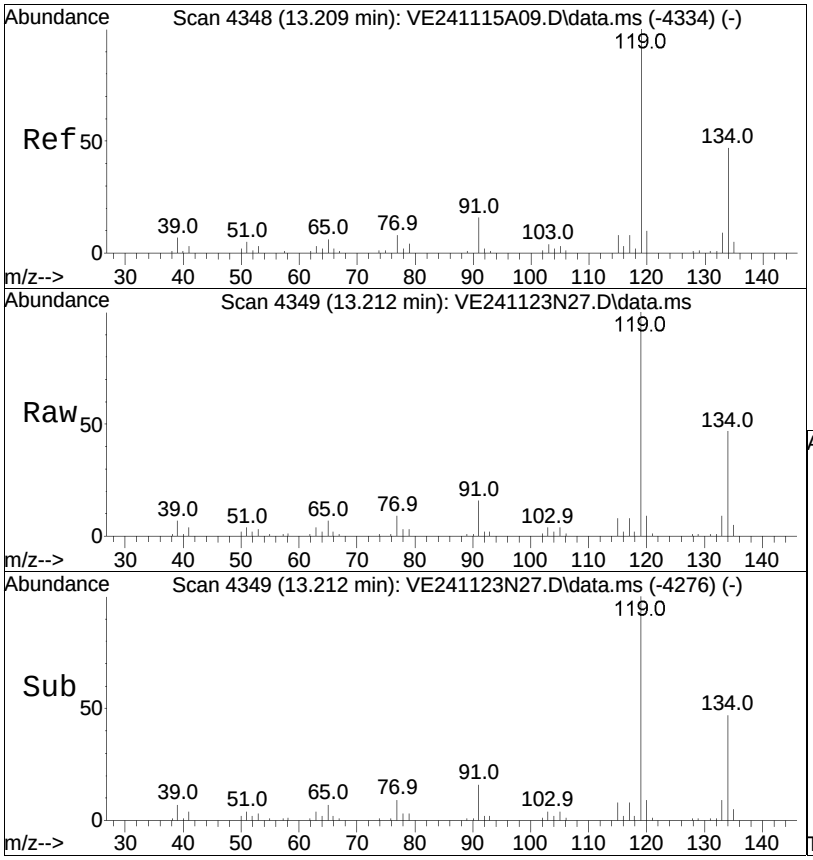


#109
1,2-Dichlorobenzene
Concen: 9.97 ug/L
RT: 12.626 min Scan# 4139
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:146 Resp: 91737

Ion	Ratio	Lower	Upper
146	100		
111	41.3	26.4	54.8
148	63.2	41.7	86.7

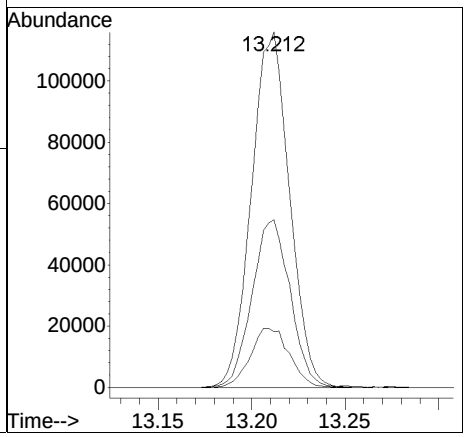


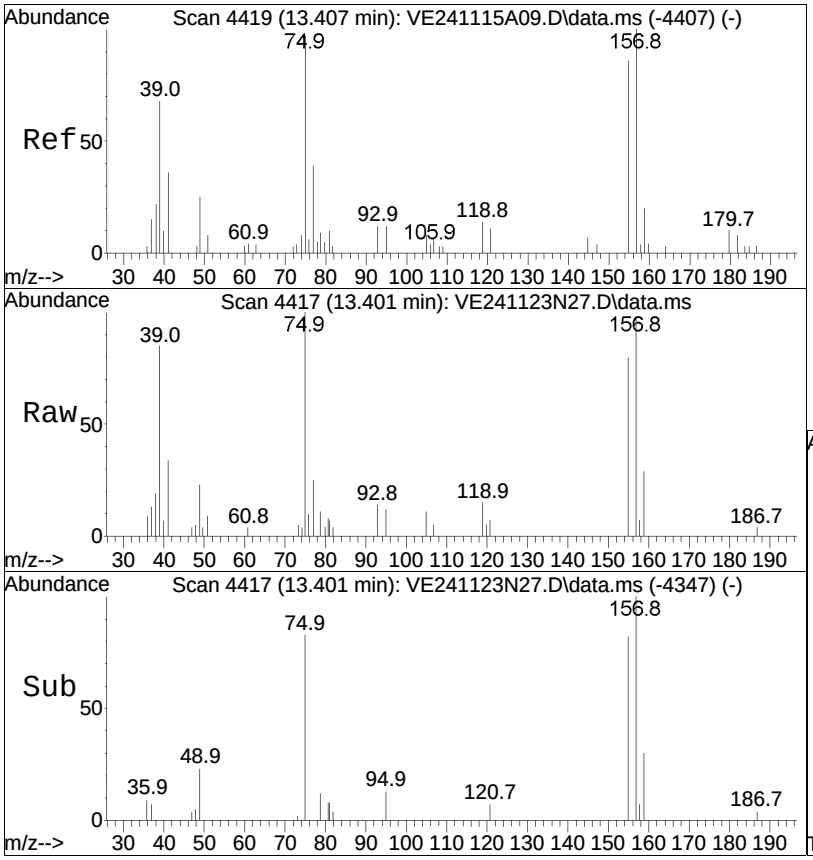


#110
1,2,4,5-Tetramethylbenzene
Concen: 9.33 ug/L
RT: 13.212 min Scan# 4349
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:119 Resp: 164582

Ion	Ratio	Lower	Upper
119	100		
134	47.2	29.6	61.4
91	17.1	9.8	20.3

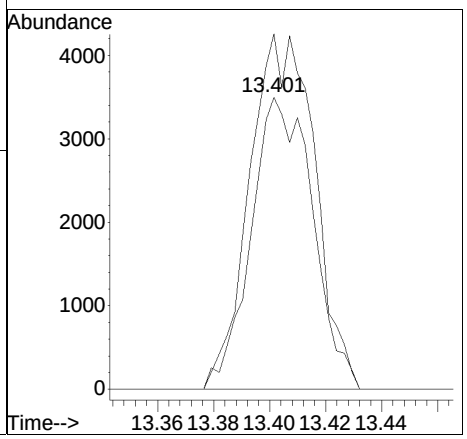


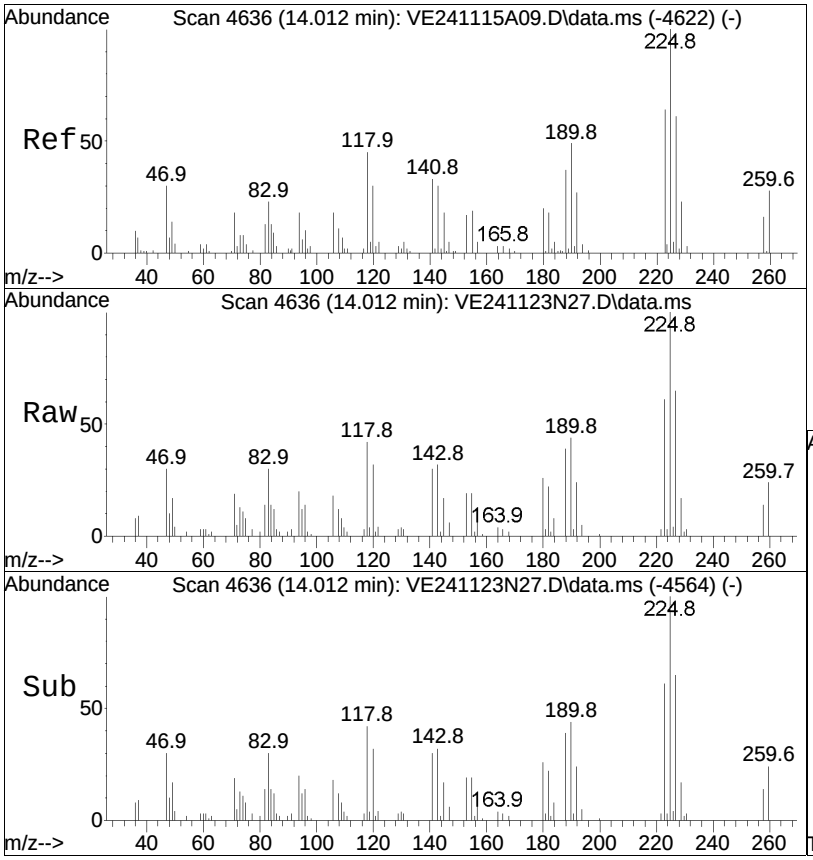


#111
1,2-Dibromo-3-chloropropane
Concen: 9.56 ug/L
RT: 13.401 min Scan# 4417
Delta R.T. -0.006 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:155 Resp: 5347

Ion	Ratio	Lower	Upper
155	100		
157	68.0	95.1	142.7#

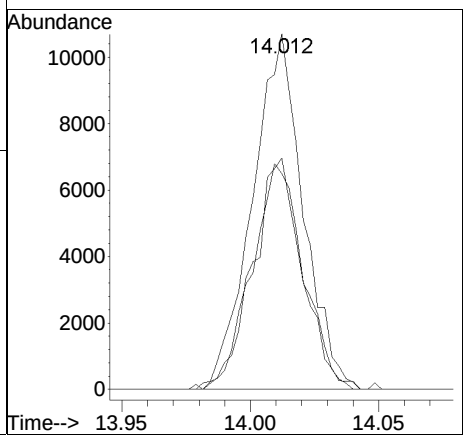


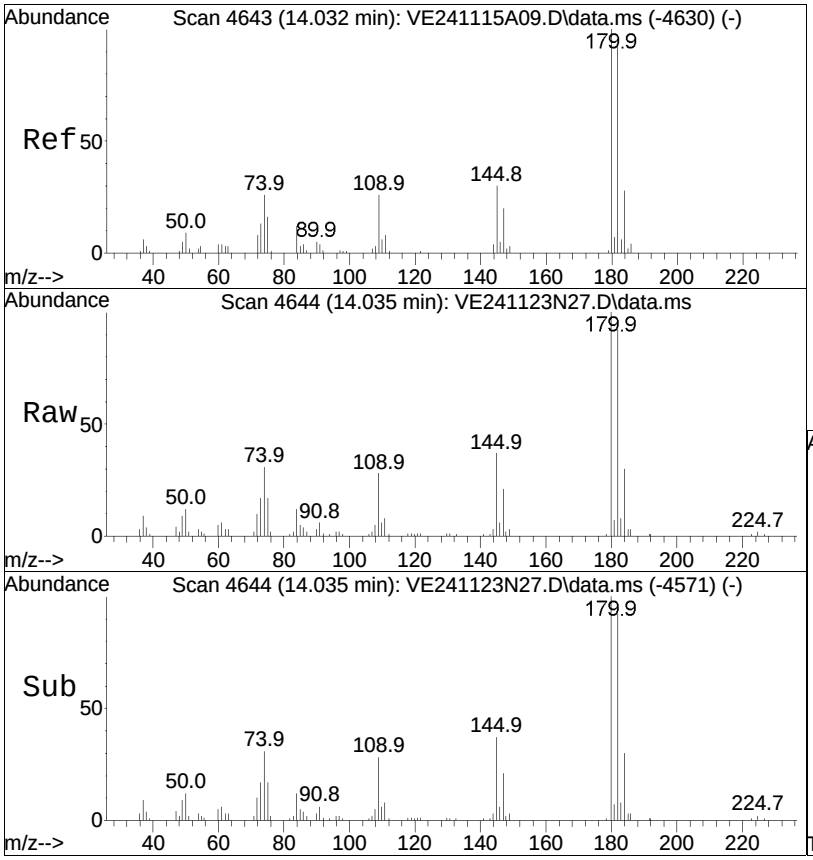


#113
Hexachlorobutadiene
Concen: 8.40 ug/L
RT: 14.012 min Scan# 4636
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:225 Resp: 14728

Ion	Ratio	Lower	Upper
225	100		
223	64.1	54.6	82.0
227	64.0	56.2	84.4

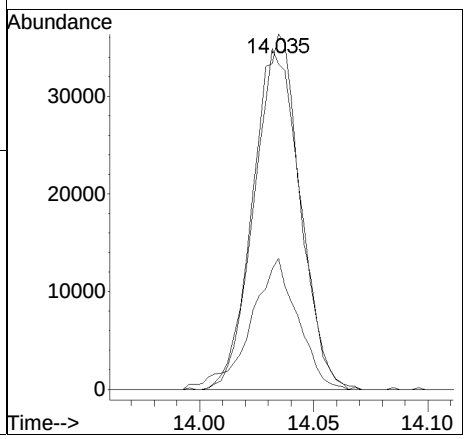


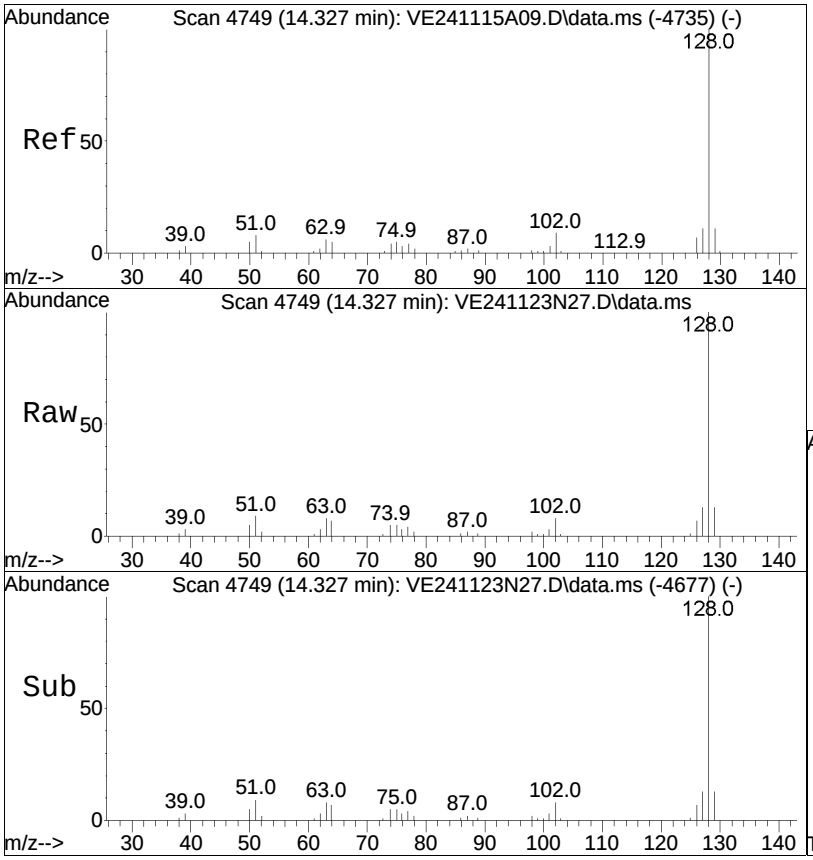


#114
1,2,4-Trichlorobenzene
Concen: 9.09 ug/L
RT: 14.035 min Scan# 4644
Delta R.T. 0.003 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:180 Resp: 52124

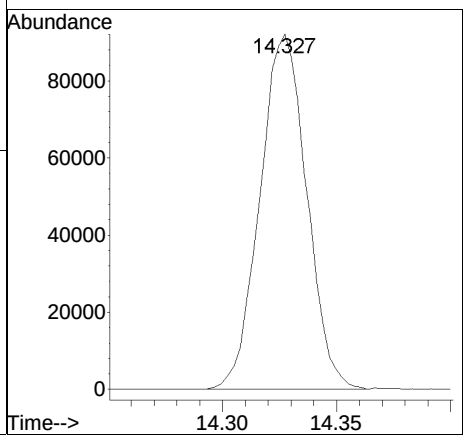
Ion	Ratio	Lower	Upper
180	100		
182	94.1	75.4	113.2
145	36.9	26.0	39.0

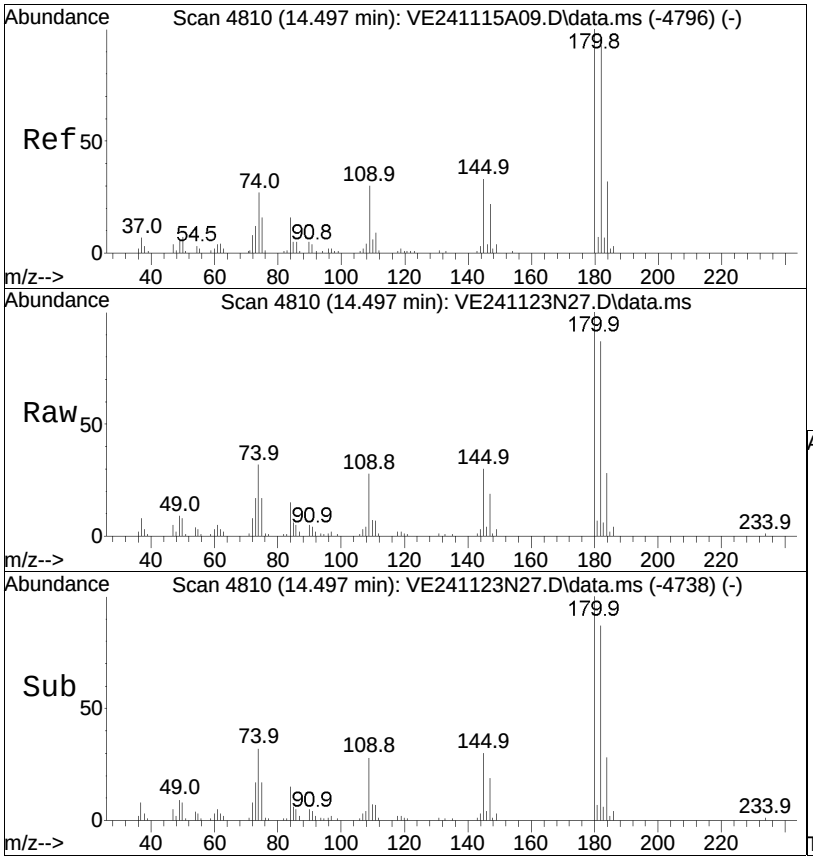




#115
Naphthalene
Concen: 9.75 ug/L
RT: 14.327 min Scan# 4749
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:128 Resp: 131277

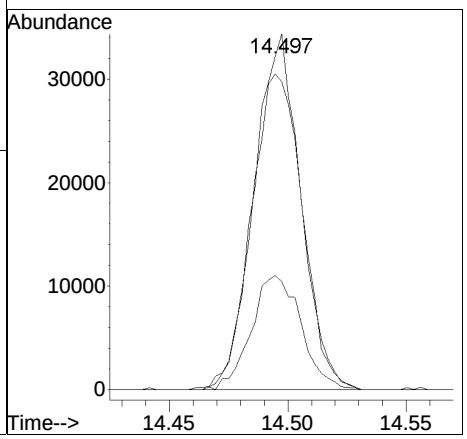




#116
1,2,3-Trichlorobenzene
Concen: 9.25 ug/L
RT: 14.497 min Scan# 4810
Delta R.T. 0.000 min
Lab File: VE241123N27.D
Acq: 24 Nov 2024 6:08 am

Tgt Ion:180 Resp: 47322

Ion	Ratio	Lower	Upper
180	100		
182	95.8	71.6	107.4
145	33.8	25.1	37.7



Manual Integration Report

Data Path	: K:\Elaine\2024\241123N\	QMethod	: Elaine_241115A_8260.m
Data File	: VE241123N27.D	Operator	: ELAINE:MJV
Date Inj'd	: 11/24/2024 6:08 am	Instrument	: Elaine
Sample	: WG2001825-7,31,0.04,10,,A,	Quant Date	: 11/25/2024 6:03 am

There are no manual integrations or false positives in this file.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 25 2024, 11:35 am

Work Group: WG2001825 for Department: 31 GC/MS - Volatiles

Created: 25-NOV-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2468003-01	DG-CW1S	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468003-02	DG-CW3S	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468003-03	DG-CW3D	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468003-04	UG-CW1S	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468003-07	TRIP BLANK	S	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468042-01	MW-2D	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468042-02	MW-4	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468042-03	MW-5	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468042-04	MW-10S	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2468042-05	SW-2	C	NYTCL-8260	WATER	SEC	U	1203	1126	S0	Vial-B
L2469254-01	TB_11222024	S	NYTCL-8260	WATER	DONE	U	1205	1125	1A	Vial-B
L2469254-02	LMW-7RD_23.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
L2469254-04	LMW-8RS_18.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
L2469254-08	LMW-8RD_59.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
L2469254-10	LMW-6RS_18.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
WG2001825-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG2001825-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG2001825-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG2001825-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG2001825-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				
WG2001825-6	Matrix Spike	S	NYTCL-8260	WATER	DONE	U				
WG2001825-7	Matrix Spike Duplica	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG2001825-4	WG2001825-3
WG2001825-6	L2469254-02
WG2001825-7	L2469254-02

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 25 2024, 11:35 am

Work Group: WG2001843 for Department: 31 GC/MS - Volatiles

Created: 25-NOV-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2469254-03	LMW-8RS_6.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
L2469254-05	LMW-7RS_6.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
L2469254-07	LMW-8RD_27.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
L2469254-09	LMW-9RS_13.75	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
L2469254-11	LMW-7RS_16.75	S	NYTCL-8260	WATER	DONE	U	1205	1125	1A	Vial-B
WG2001843-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG2001843-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG2001843-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG2001843-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG2001843-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG2001843-4 WG2001843-3

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 25 2024, 11:35 am

Work Group: WG2001998 for Department: 31 GC/MS - Volatiles

Created: 25-NOV-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2467879-09	03MW12	S	NYTCL-8260-R2	WATER	SEC	U	1130	1126	S0	Vial-B
L2469254-06	LMW-9RD_58.25	S	NYTCL-8260	WATER	DONE	U	1206	1125	1A	Vial-B
WG2001998-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG2001998-1	MS BFB Tune Standard	S	NYTCL-8260-R2	WATER	DONE	U				
WG2001998-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG2001998-2	Continuing Calibrati	S	NYTCL-8260-R2	WATER	DONE	U				
WG2001998-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG2001998-3	Laboratory Control S	S	NYTCL-8260-R2	WATER	DACQ	U				
WG2001998-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG2001998-4	LCS Duplicate	S	NYTCL-8260-R2	WATER	DACQ	U				
WG2001998-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				
WG2001998-5	Laboratory Method Bl	S	NYTCL-8260-R2	WATER	DACQ	U				

Comments:

WG2001998-4 WG2001998-3

Inst: Gonzo
Initials: TMS
Date: **10/03/24**
Run: **A**

BFB: V10678
IS/SS: V10699
ICAL: V10683C,V10712
ICV: V10703,V10693,V10709,V10695,V10701,V10653,V10654

Method
GC 8260_RTX_VMS
Autosampler: 8260water
Concentrator: 8260AA

QC: Seq:

Vial	DATA FILE	SAMPLE	pH<2
1	VG241003ABF2	BFB TUNE	
1	VG241003A01	BLK	
2	VG241003A02	BLK	
3	VG241003A03	I8260STD0.19PPB	
4	VG241003A04	I8260STD0.19PPB	
5	VG241003A05	I8260STD0.5PPB	
6	VG241003A06	I8260STD0.5PPB	
7	VG241003A07	I8260STD2PPB	
8	VG241003A08	I8260STD2PPB	
9	VG241003A09	I8260STD10PPB	
10	VG241003A10	I8260STD30PPB	
11	VG241003A11	I8260STD80PPB	
12	VG241003A12	I8260STD120PPB	
13	VG241003A13	I8260STD200PPB	
14	VG241003A14	BLK	
15	VG241003A15	BLK	
16	VG241003A16	BLK	
17	VG241003A17	BLK	
18	VG241003A18	C8260STD10PPB	
19	VG241003A19	C8260STD10PPB	
20	VG241003A20	BLK	
21	VG241003A21	BLK	
22	VG241003A22	METHOD BLK	
23	VG241003A23	MDL 0.19PPB	
24	VG241003A24	MDL 0.5PPB	
25	VG241003A25	MDL 2PPB	
26	VG241003A26	BLK	

Inst: Elaine
Initials: TMS
Date: **11/15/24**
Run: **A**

BFB: V10797
IS/SS: V10782
ICAL: V10788C,V10798
ICV: V10780,V10761,V10771,V10762,V10745,V10756

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample	obs
1	VE241115ABF3	BFB TUNE 1:44	
1	VE241115A01	BLK	
2	VE241115A02	BLK	
3	VE241115A03	I8260STD0.19PPB	
4	VE241115A04	I8260STD0.19PPB	
5	VE241115A05	I8260STD0.5PPB	
6	VE241115A06	I8260STD0.5PPB	
7	VE241115A07	I8260STD2PPB	
8	VE241115A08	I8260STD2PPB	
9	VE241115A09	I8260STD10PPB	
10	VE241115A10	I8260STD30PPB	
11	VE241115A11	I8260STD80PPB	
12	VE241115A12	I8260STD120PPB	
13	VE241115A13	I8260STD200PPB	
14	VE241115A14	BLK	
15	VE241115A15	BLK	
16	VE241115A16	BLK	
17	VE241115A17	BLK	
18	VE241115A18	C8260STD10PPB	
19	VE241115A19	C8260STD10PPB	
20	VE241115A20	BLK	

Inst: Elaine
Initials: PID
Date: **11/23/24**
Run: **N**

BFB: V10797
IS/SS: V10782
ICAL: V10807A,V10812

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample			obs
1	VE241123NBF1	BFB TUNE 19:21			
1	VE241123N01	8260 CCAL QC FAILS			
2	VE241123N02	8260 CCAL LCS			
3	VE241123N03	8260 CCAL LCSD			
4	VE241123N04	BLK			
5	VE241123N05	METHOD BLK			
6	VE241123N06	I2469254-01,31,10,10,,a,r1a	NYTCL	TB	pH<2
7	VE241123N07	L2469254-10d,31,1.0,10,,C,R1A	NYTCL	CLOUDY,FOAM	pH<2
8	VE241123N08	L2469254-02d,31,0.04,10,,A,R1A	NYTCL	CLOUDY,HEAVY FOAM	pH>2
9	VE241123N09	L2469254-04d,31,0.4,10,,A,R1A	NYTCL	FOAM	pH<2
10	VE241123N10	L2469254-06d,31,2.0,10,,A,R1A	NYTCL		pH<2
11	VE241123N11	L2469254-08d,31,0.5,10,,A,R1A	NYTCL	CLOUDY,FOAM	pH<2
12	VE241123N12	I2468003-01,31,10,10,,a	NYCURVE/IM		pH<2
13	VE241123N13	I2468003-02,31,10,10,,a	NYCURVE/IM		pH<2
14	VE241123N14	I2468003-03,31,10,10,,a	NYCURVE/IM		pH<2
15	VE241123N15	I2468003-04,31,10,10,,a	NYCURVE/IM		pH<2
16	VE241123N16	I2468003-07,31,10,10,,a	NYCURVE/IM	TB	pH<2
17	VE241123N17	I2468042-01,31,10,10,,a	NYCURVE/IM		pH<2
18	VE241123N18	I2468042-02,31,10,10,,a	NYCURVE/IM		pH<2
19	VE241123N19	I2468042-03,31,10,10,,a	NYCURVE/IM		pH<2
20	VE241123N20	I2468042-04,31,10,10,,a	NYCURVE/IM		pH<2
21	VE241123N21	I2468042-05,31,10,10,,a	NYCURVE/IM		pH<2
22	VE241123N22	I2468201-03,31,10,10,,a	8260NH	TB	pH<2
23	VE241123N23	L2467753-02d,31,0.05,10,,A	8260	WHITE,CLOUDY	pH>2
24	VE241123N24	L2467753-01d,31,0.05,10,,A	8260	WHITE,CLOUDY	pH>2
25	VE241123N25	L2467753-03d,31,0.1,10,,A	8260	BROWN,CLOUDY	pH>2
26	VE241123N26	L2469254-02MS,31,0.04,10,,A,R1A	NYTCL	CLOUDY,HEAVY FOAM	pH>2
27	VE241123N27	L2469254-02MSD,31,0.04,10,,A,R1A	NYTCL	CLOUDY,HEAVY FOAM	pH>2
28	VE241123N28	HSTD			
29	VE241123N29	BLK			
30	VE241123N30	BLK			
31	VE241123N31	BLK			

Inst: Elaine
Initials: PID
Date: **11/24/24**
Run: **A**

BFB: V10797
IS/SS: V10782
ICAL: V10807A,V10812

Method
GC: 8260
Autosampler: 8260
Concentrator: 8260

QC:_____ Seq:_____

Vial	Data File	Sample			obs
1	VE241124ABF1	BFB TUNE 10:18			
1	VE241124A01	8260 CCAL QC FAILS			
2	VE241124A02	8260 CCAL LCS			
3	VE241124A03	8260 CCAL LCSD			
4	VE241124A04	BLK			
5	VE241124A05	METHOD BLK			
6	VE241124A06	L2469254-03d,31,1.0,10,,A,R1A	NYTCL	FOAM	pH<2
7	VE241124A07	L2469254-05d,31,0.25,10,,A,R1A	NYTCL	FOAM	pH<2
8	VE241124A08	L2469254-07d,31,2.0,10,,A,R1A	NYTCL	FOAM	pH<2
9	VE241124A09	L2469254-09d,31,0.2,10,,A,R1A	NYTCL	CLOUDY,HEAVY FOAM	pH>2
10	VE241124A10	L2469254-11d,31,2.0,10,,A,R1A	NYTCL	FOAM	pH<2
11	VE241124A11	I2467930-07,31,10,10,,a	PA/BTEX,NAPH	TB	pH<2
12	VE241124A12	I2467930-03,31,10,10,,c	PA/BTEX,NAPH		pH<2
13	VE241124A13	L2467533-06d,31,2.0,10,,C	NJ/EB		pH<2
14	VE241124A14	I2468056-01,31,10,10,,a	NJ/15		pH<2
15	VE241124A15	I2468056-02,31,10,10,,a	NJ/15		pH<2
16	VE241124A16	I2468056-03,31,10,10,,a	NJ/15		pH<2
17	VE241124A17	I2468056-04,31,10,10,,a	NJ/15		pH<2
18	VE241124A18	I2468056-05,31,10,10,,a	NJ/15		pH<2
19	VE241124A19	I2468056-06,31,10,10,,a	NJ/15	TB	pH<2
20	VE241124A20	I2468064-06,31,10,10,,a	NJ/15	TB	pH<2
21	VE241124A21	L2468064-01d,31,1.0,10,,A	NJ/15	FOAM	pH<2
22	VE241124A22	L2468064-02d,31,1.0,10,,A	NJ/15	FOAM	pH<2
23	VE241124A23	I2468064-03,31,10,10,,a	NJ/15		pH<2
24	VE241124A24	L2468064-04d,31,0.5,10,,A	NJ/15		pH<2
25	VE241124A25	L2468064-05d,31,1.0,10,,A	NJ/15	FOAM	pH<2
26	VE241124A26	L2468064-04DUP,31,0.5,10,,A	NJQC		pH<2
27	VE241124A27	L2468064-04MS,31,0.5,10,,A	NJQC		pH<2
28	VE241124A28	HSTD			
29	VE241124A29	BLK			
30	VE241124A30	BLK			

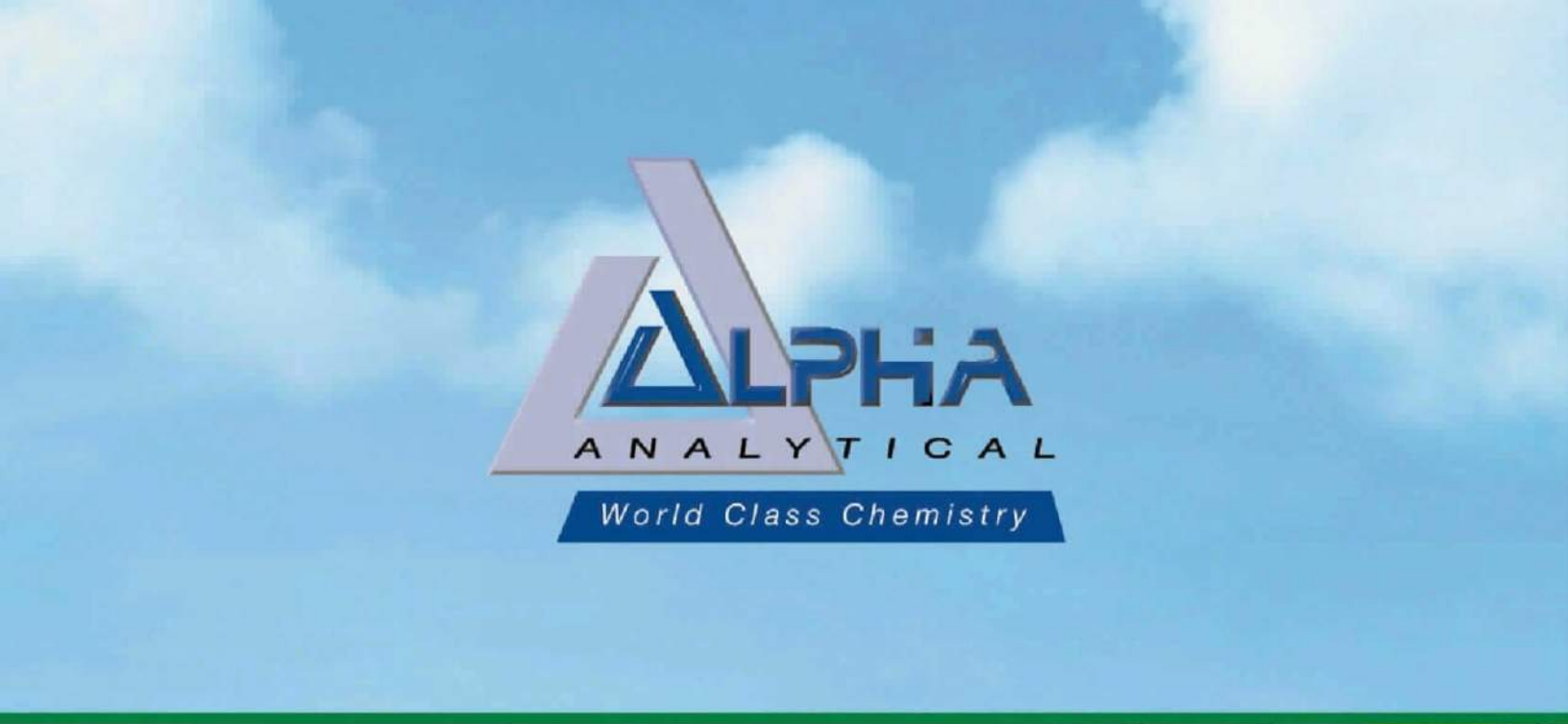
Inst: Gonzo BFB: V10797 Method GC 8260_RTX_VMS

Initials: MJV IS/SS: V10808 Autosampler: 8260water

Date: **11/25/24** ICAL: V10788A,V10812 Concentrator: 8260AA

Run: **A** QC: _____ Seq: _____

Vial	DATA FILE	SAMPLE			pH<2
1	VG241125ABF1	BFB TUNE	07:00		
1	VG241125A01	8260 CCAL	LCS		
2	VG241125A02	8260 CCAL	LCSD		
3	VG241125A03	8260 CCAL			
4	VG241125A04	BLK			
5	VG241125A05	METHOD BLK			
6	VG241125A06	I2469254-06,31,10,10,,c,r1a		NYTCL	pH<2
7	VG241125A07	L2467879-09d,31,2.0,10,,C		NY/VC	pH<2
8	VG241125A08	d STD BENZ			
9	VG241125A09	I2468276-03,31,10,10,,a		NYTCL TB	
10	VG241125A10	I2468276-02,31,10,10,,a		NYTCL	
11	VG241125A11	L2468276-01d,31,0.05,10,,A		NYTCL	pH>2
12	VG241125A12	I2468297-01,31,10,10,,a		NY/R2	
13	VG241125A13	I2468363-01,31,10,10,,a		8260DIOX/10/LOWERRL	
14	VG241125A14	I2468363-02,31,10,10,,a		8260DIOX/10/LOWERRL	
15	VG241125A15	I2468363-03,31,10,10,,a		8260DIOX/10/LOWERRL	
16	VG241125A16	I2468468-02,31,10,10,,a		NY/R2	
17	VG241125A17	I2468468-04,31,10,10,,a		NY/R2	
18	VG241125A18	I2468468-14,31,10,10,,a		NY/R2 TB	
19	VG241125A19	I2468198-09,31,10,10,,a		NYTCL FB	
20	VG241125A20	I2468198-11,31,10,10,,a		NYTCL TB	
21	VG241125A21	I2468198-03,31,10,10,,a		NYTCL	
22	VG241125A22	I2468198-05,31,10,10,,a		NYTCL	
23	VG241125A23	L2468198-01d,31,5.0,10,,A		NYTCL SHEEN	pH<2
24	VG241125A24	L2468198-07d,31,5.0,10,,A		NYTCL SHEEN	pH<2
25	VG241125A25	d STD BENZ			
26	VG241125A26	I2468396-01,31,10,10,,a		NY/R2	
27	VG241125A27	L2468396-02,31,10.0,10,,A		NY/R2 SED	pH>2
28	VG241125A28	HSTD			
29	VG241125A29	BLK			
30	VG241125A30	BLK			



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Alpha Analytical

Laboratory Code: 11148

SDG Number: L2469490

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Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2469490
Report Date: 11/26/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2469490-01	DUP_11222024	WATER	NEW YORK, NY	11/22/24 11:05	11/25/24
L2469490-02	LMW-10RS-24.75	WATER	NEW YORK, NY	11/22/24 16:00	11/25/24
L2469490-03	LMW-10RD-30.75	WATER	NEW YORK, NY	11/25/24 08:40	11/25/24
L2469490-04	LMW-10RD-40.75	WATER	NEW YORK, NY	11/25/24 09:20	11/25/24
L2469490-05	TB_11252024	WATER	NEW YORK, NY	11/22/24 00:00	11/25/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Report Date: 11/26/24

Title: Technical Director/Representative

DATA PACKAGE GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

ND or U - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

TYPICAL INSTRUMENT PARAMETERS

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD	
	Column Type: Haysep S Column
	Column Length: 2 Meters packed (100/200 mesh)
Autosampler: LEAP Headspace	Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L2469490

Account Name : Langan Engineering & Environmental
Project Number : 100963701
Project Name : 1487 FIRST AVE

Received : 25-NOV-2024
Reviewer : Julie Karlowicz

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	2.6	

Condition Information

1) All samples on COC received?	**YES**
2) Extra samples received?	**NO**
3) Are there any sample container discrepancies?	**NO**
4) Are there any discrepancies between COC & sample labels?	**NO**
5) Are samples in appropriate containers for requested analysis?	**YES**
6) Are samples properly preserved for requested analysis? Following containers were received with headspace: -01B	**NO**
7) Are samples within holding time for requested analysis?	**YES**
8) All sampling equipment returned?	**NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	**NO**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 26 2024, 03:33 pm

Login Number: L2469490
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100963701
Received: 25NOV24 Due Date: 26NOV24

Sample #	Client ID	Mat	PR	Collected
L2469490-01	DUP_11222024	1	1A	22NOV24 11:05

Batch Separately, Run On Same Instrument When Possible ASP-B Package Due Date: 11/26/24

ASP-B,NYTCL-8260

L2469490-02	LMW-10RS-24.75	1	1A	22NOV24 16:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/26/24

NYTCL-8260

L2469490-03	LMW-10RD-30.75	1	1A	25NOV24 08:40

Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/26/24

NYTCL-8260

L2469490-04	LMW-10RD-40.75	1	1A	25NOV24 09:20

Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/26/24

NYTCL-8260

L2469490-05	TB_11252024	1	1A	22NOV24 00:00

Batch Separately, Run On Same Instrument When Possible Package Due Date: 11/26/24

NYTCL-8260

Logged By: Ben Rao

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 11/26/24

ALPHA Job #: L2469490

Client Information
Client: LARGAN
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfriscia@largan.com

Project Information
Project Name: 1487 First Ave
Project Location: New York NY
Project #: 10096370
(Use Project name as Project #) ☐
Project Manager: Jessica Friscia
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☒ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS
VOCs

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Sample Specific Comments	Total Bottle
69490-01	DUP-11222024	11/23	1105	GW	RB	X		3
02	LMW-10RS-24.75	↓	1600		RB	X		3
03	LMW-10RD-30.75	11/25	0840		RB	X		3
04	LMW-10RD-40.75	11/25	0920	↓	RB	X		3
05	TB-11252024			QC	RB	X		2

Container Type: V
Preservative: HCl

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Aaron Forbes/Largan	11/25 1500	[illegible]	11/25/24 1500
[illegible]	11/25/24 1910	FedEx	11/25/24 1945
FedEx	11/26/24	[illegible]	11/25/24 2200
[illegible]	11/26/24 0155	[illegible]	11/26/24 0155

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Organics

GC/MS 8260
Analysis

Volatiles QC Summary

Surrogate Recovery Summary
Form 2
Volatiles

Client: Langan Engineering & Environmental
Project Name: 1487 FIRST AVE

Lab Number: L2469490
Project Number: 100963701
Matrix:

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
DUP_11222024 (L2469490-01)	108	95	97	118	0
LMW-10RS-24.75 (L2469490-02)	108	94	96	118	0
LMW-10RD-30.75 (L2469490-03)	115	96	96	122	0
LMW-10RD-40.75 (L2469490-04)	114	95	98	122	0
TB_11252024 (L2469490-05)	113	95	100	127	0
WG2002632-3LCS	111	103	92	108	0
WG2002632-4LCSD	113	100	95	106	0
WG2002632-5BLANK	112	95	100	121	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

*** Values outside of QC limits**

FORM II NYTCL-8260

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2002632-3 **Analysis Date** : 11/26/24 06:48	**File ID**	: V30241126A01
LCSD Sample ID	: WG2002632-4 **Analysis Date** : 11/26/24 07:09	**File ID**	: V30241126A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	10	11	110	10	9.6	96	14	70-130	20
1,1-Dichloroethane	10	11	110	10	9.5	95	15	70-130	20
Chloroform	10	10	100	10	9.5	95	5	70-130	20
Carbon tetrachloride	10	8.6	86	10	7.7	77	11	63-132	20
1,2-Dichloropropane	10	8.4	84	10	8.0	80	5	70-130	20
Dibromochloromethane	10	8.6	86	10	8.1	81	6	63-130	20
1,1,2-Trichloroethane	10	9.1	91	10	9.0	90	1	70-130	20
Tetrachloroethene	10	9.5	95	10	8.5	85	11	70-130	20
Chlorobenzene	10	9.7	97	10	8.8	88	10	75-130	20
Trichlorofluoromethane	10	9.7	97	10	8.6	86	12	62-150	20
1,2-Dichloroethane	10	10	100	10	9.5	95	5	70-130	20
1,1,1-Trichloroethane	10	9.6	96	10	8.3	83	15	67-130	20
Bromodichloromethane	10	9.0	90	10	8.4	84	7	67-130	20
trans-1,3-Dichloropropene	10	8.4	84	10	8.1	81	4	70-130	20
cis-1,3-Dichloropropene	10	8.0	80	10	7.8	78	3	70-130	20
1,1-Dichloropropene	10	7.7	77	10	6.9	69 Q	11	70-130	20
Bromoform	10	7.8	78	10	7.9	79	1	54-136	20
1,1,2,2-Tetrachloroethane	10	8.6	86	10	9.4	94	9	67-130	20
Benzene	10	9.5	95	10	8.7	87	9	70-130	20
Toluene	10	9.8	98	10	8.8	88	11	70-130	20
Ethylbenzene	10	9.7	97	10	8.5	85	13	70-130	20
Chloromethane	10	10	100	10	9.4	94	6	64-130	20
Bromomethane	10	7.2	72	10	6.6	66	9	39-139	20
Vinyl chloride	10	10	100	10	9.3	93	7	55-140	20
Chloroethane	10	11	110	10	9.8	98	12	55-138	20
1,1-Dichloroethene	10	10	100	10	8.8	88	13	61-145	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2002632-3 **Analysis Date** : 11/26/24 06:48	**File ID**	: V30241126A01
LCSD Sample ID	: WG2002632-4 **Analysis Date** : 11/26/24 07:09	**File ID**	: V30241126A02

	Laboratory Control Sample				Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R		True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
trans-1,2-Dichloroethene	10	10	100		10	9.1	91	9	70-130	20
Trichloroethene	10	8.7	87		10	7.8	78	11	70-130	20
1,2-Dichlorobenzene	10	9.0	90		10	8.6	86	5	70-130	20
1,3-Dichlorobenzene	10	9.4	94		10	8.6	86	9	70-130	20
1,4-Dichlorobenzene	10	9.3	93		10	8.7	87	7	70-130	20
Methyl tert butyl ether	10	7.0	70		10	7.3	73	4	63-130	20
p/m-Xylene	20	20	100		20	18	90	11	70-130	20
o-Xylene	20	20	100		20	18	90	11	70-130	20
cis-1,2-Dichloroethene	10	10	100		10	9.3	93	7	70-130	20
Dibromomethane	10	10	100		10	9.5	95	5	70-130	20
1,2,3-Trichloropropane	10	8.6	86		10	9.5	95	10	64-130	20
Acrylonitrile	10	11	110		10	11	110	0	70-130	20
Styrene	20	20	100		20	18	90	11	70-130	20
Dichlorodifluoromethane	10	11	110		10	9.6	96	14	36-147	20
Acetone	10	11	110		10	11	110	0	58-148	20
Carbon disulfide	10	11	110		10	9.2	92	18	51-130	20
2-Butanone	10	9.8	98		10	10	100	2	63-138	20
Vinyl acetate	10	6.8	68	Q	10	7.5	75	10	70-130	20
4-Methyl-2-pentanone	10	7.4	74		10	8.5	85	14	59-130	20
2-Hexanone	10	7.2	72		10	8.8	88	20	57-130	20
Bromochloromethane	10	10	100		10	9.7	97	3	70-130	20
2,2-Dichloropropane	10	11	110		10	9.3	93	17	63-133	20
1,2-Dibromoethane	10	9.0	90		10	8.8	88	2	70-130	20
1,3-Dichloropropane	10	8.8	88		10	8.6	86	2	70-130	20
1,1,1,2-Tetrachloroethane	10	9.2	92		10	8.5	85	8	64-130	20
Bromobenzene	10	8.7	87		10	8.5	85	2	70-130	20

Laboratory Control Sample Summary
Form 3
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG2002632-3 **Analysis Date** : 11/26/24 06:48	**File ID**	: V30241126A01
LCSD Sample ID	: WG2002632-4 **Analysis Date** : 11/26/24 07:09	**File ID**	: V30241126A02

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
n-Butylbenzene	10	9.6	96	10	8.4	84	13	53-136	20
sec-Butylbenzene	10	9.1	91	10	8.1	81	12	70-130	20
tert-Butylbenzene	10	8.6	86	10	7.7	77	11	70-130	20
o-Chlorotoluene	10	9.5	95	10	8.7	87	9	70-130	20
p-Chlorotoluene	10	9.3	93	10	8.5	85	9	70-130	20
1,2-Dibromo-3-chloropropane	10	9.0	90	10	9.9	99	10	41-144	20
Hexachlorobutadiene	10	8.5	85	10	7.4	74	14	63-130	20
Isopropylbenzene	10	8.6	86	10	7.9	79	8	70-130	20
p-Isopropyltoluene	10	9.0	90	10	8.0	80	12	70-130	20
Naphthalene	10	8.1	81	10	8.3	83	2	70-130	20
n-Propylbenzene	10	9.3	93	10	8.3	83	11	69-130	20
1,2,3-Trichlorobenzene	10	8.9	89	10	8.4	84	6	70-130	20
1,2,4-Trichlorobenzene	10	8.6	86	10	8.1	81	6	70-130	20
1,3,5-Trimethylbenzene	10	9.1	91	10	8.3	83	9	64-130	20
1,2,4-Trimethylbenzene	10	9.1	91	10	8.2	82	10	70-130	20
1,4-Dioxane	500	520	104	500	580	116	11	56-162	20
p-Diethylbenzene	10	8.7	87	10	7.8	78	11	70-130	20
p-Ethyltoluene	10	9.1	91	10	8.2	82	10	70-130	20
1,2,4,5-Tetramethylbenzene	10	7.7	77	10	7.0	70	10	70-130	20
Ethyl ether	10	10	100	10	9.9	99	1	59-134	20
trans-1,4-Dichloro-2-butene	10	9.7	97	10	10	100	3	70-130	20

Method Blank Summary
Form 4
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab Sample ID	: WG2002632-5	**Lab File ID**	: V30241126A05
Instrument ID	: VOA130		
Matrix	: WATER	**Analysis Date**	: 11/26/24 08:15

Client Sample No.	Lab Sample ID	Analysis Date
WG2002632-3LCS	WG2002632-3	11/26/24 06:48
WG2002632-4LCSD	WG2002632-4	11/26/24 07:09
TB_11252024	L2469490-05	11/26/24 08:37
DUP_11222024	L2469490-01	11/26/24 08:59
LMW-10RS-24.75	L2469490-02	11/26/24 09:20
LMW-10RD-30.75	L2469490-03	11/26/24 09:42
LMW-10RD-40.75	L2469490-04	11/26/24 10:04

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA130	**Analysis Date**	: 11/12/24 14:39
Tune Standard	: WG1996978-1	**Tune File ID**	: V30241112NBF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	19.3
75	30.0 - 80.0% of mass 95	50
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0% of mass 95	78.3
175	5.0 - 9.0% of mass 174	6 (7.6)1
176	Greater than 95.0% but less than 101% of mass	76.6 (97.9)1
177	5.0 - 9.0% of mass 176	5 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.19PPB	R1899692-1	V30241112N03	11/12/24 15:35
STD0.5PPB	R1899692-2	V30241112N05	11/12/24 16:19
STD2PPB	R1899692-3	V30241112N06	11/12/24 16:41
STD10PPB	R1899692-4	V30241112N08	11/12/24 17:24
STD30PPB	R1899692-5	V30241112N09	11/12/24 17:46
STD80PPB	R1899692-6	V30241112N10	11/12/24 18:08
STD120PPB	R1899692-7	V30241112N11	11/12/24 18:30
STD200PPB	R1899692-8	V30241112N12	11/12/24 18:51
Correlation Data Summary	R1899692-9	V30241112N17	11/12/24 20:40
ICV Quant Report	R1899692-9	V30241112N17	11/12/24 20:40

Instrument Performance Check (Tune) Summary
Form 5
Volatiles
Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA130	**Analysis Date**	: 11/26/24 06:37
Tune Standard	: WG2002632-1	**Tune File ID**	: V30241126ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 80.0% of mass 95	49.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0% of mass 95	79
175	5.0 - 9.0% of mass 174	6 (7.6)1
176	Greater than 95.0% but less than 101% of mass	76.3 (96.6)1
177	5.0 - 9.0% of mass 176	4.9 (6.4)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG2002632-2CCAL	WG2002632-2	V30241126A01	11/26/24 06:48
WG2002632-3LCS	WG2002632-3	V30241126A01	11/26/24 06:48
WG2002632-4LCSD	WG2002632-4	V30241126A02	11/26/24 07:09
WG2002632-5BLANK	WG2002632-5	V30241126A05	11/26/24 08:15
TB_11252024	L2469490-05	V30241126A06	11/26/24 08:37
DUP_11222024	L2469490-01	V30241126A07	11/26/24 08:59
LMW-10RS-24.75	L2469490-02	V30241126A08	11/26/24 09:20
LMW-10RD-30.75	L2469490-03	V30241126A09	11/26/24 09:42
LMW-10RD-40.75	L2469490-04	V30241126A10	11/26/24 10:04

Internal Standard Area and RT Summary
Form 8a
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Instrument ID	: VOA130	**Analysis Date**	: 11/26/24 06:48:00
Sample No	: WG2002632-2	**Lab File ID**	: V30241126A01

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG2002632-2	428062	6.09	326733	9.63	222637	12.32
Upper Limit	856124	6.59	653466	10.13	445274	12.82
Lower Limit	214031	5.59	163367	9.13	111319	11.82
Sample ID						
WG2002632-3 LCS	428062	6.09	326733	9.63	222637	12.32
WG2002632-4 LCSD	430757	6.09	349408	9.63	228213	12.32
WG2002632-5 BLANK	353469	6.09	318972	9.63	202380	12.32
TB_11252024	327157	6.09	300986	9.64	188925	12.32
DUP_11222024	354423	6.09	310630	9.63	198647	12.32
LMW-10RS-24.75	344982	6.09	307874	9.63	201901	12.32
LMW-10RD-30.75	337487	6.09	297433	9.63	192210	12.32
LMW-10RD-40.75	335383	6.09	297650	9.63	186638	12.32

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Date Created: 03/15/23
Created By: Jason Hebert
File: PM14094-1
Page: 1

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.21	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.24	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.2	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.33	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics - EPA 8260D (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.43	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.22	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

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Date Created: 03/15/23
Created By: Jason Hebert
File: PM14095-1
Page: 1

VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.14	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.23	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.14	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.56	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			

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VOCs - EPA 8260D/5035 High & Low (SOIL)

Holding Time: 14 days
Container/Sample Preservation: 1 - 1 Vial MeOH/2 Vial Water

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	25	10	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.65	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
4-Bromofluorobenzene	*460-00-4*									*70-130*		
Dibromofluoromethane	*1868-53-7*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
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Volatiles Sample Data

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-01	**Date Collected**	: 11/22/24 11:05
Client ID	: DUP_11222024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A07	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	0.43	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.22	0.50	0.18	J
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	0.33	0.50	0.19	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	3.0	0.50	0.16	
108-88-3	Toluene	0.77	2.5	0.70	J
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.19	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-01	**Date Collected**	: 11/22/24 11:05
Client ID	: DUP_11222024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A07	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	0.70	2.5	0.17	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	3.0	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	18	5.0	1.9	
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-01	**Date Collected**	: 11/22/24 11:05
Client ID	: DUP_11222024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A07	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-01	**Date Collected**	: 11/22/24 11:05
Client ID	: DUP_11222024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A07	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-02	**Date Collected**	: 11/22/24 16:00
Client ID	: LMW-10RS-24.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A08	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.34	0.50	0.18	J
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.24	0.50	0.16	J
108-88-3	Toluene	6.9	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.69	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-02	**Date Collected**	: 11/22/24 16:00
Client ID	: LMW-10RS-24.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A08	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.21	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	0.71	2.5	0.70	J
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	0.71	2.5	0.70	J
156-59-2	cis-1,2-Dichloroethene	1.5	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.5	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	2.7	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	1.7	5.0	1.0	J
591-78-6	2-Hexanone	1.4	5.0	1.0	J
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-02	**Date Collected**	: 11/22/24 16:00
Client ID	: LMW-10RS-24.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A08	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-02	**Date Collected**	: 11/22/24 16:00
Client ID	: LMW-10RS-24.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A08	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-03	**Date Collected**	: 11/25/24 08:40
Client ID	: LMW-10RD-30.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A09	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.48	0.50	0.18	J
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.42	0.50	0.16	J
108-88-3	Toluene	1.7	2.5	0.70	J
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-03	**Date Collected**	: 11/25/24 08:40
Client ID	: LMW-10RD-30.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A09	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-03	**Date Collected**	: 11/25/24 08:40
Client ID	: LMW-10RD-30.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A09	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-03	**Date Collected**	: 11/25/24 08:40
Client ID	: LMW-10RD-30.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 09:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A09	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-04	**Date Collected**	: 11/25/24 09:20
Client ID	: LMW-10RD-40.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 10:04
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A10	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.23	0.50	0.18	J
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	0.31	0.50	0.16	J
108-88-3	Toluene	2.7	2.5	0.70	
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.16	1.0	0.07	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-04	**Date Collected**	: 11/25/24 09:20
Client ID	: LMW-10RD-40.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 10:04
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A10	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	0.29	2.5	0.17	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	2.9	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-04	**Date Collected**	: 11/25/24 09:20
Client ID	: LMW-10RD-40.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 10:04
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A10	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-04	**Date Collected**	: 11/25/24 09:20
Client ID	: LMW-10RD-40.75	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 10:04
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A10	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-05	**Date Collected**	: 11/22/24 00:00
Client ID	: TB_11252024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:37
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A06	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-05	**Date Collected**	: 11/22/24 00:00
Client ID	: TB_11252024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:37
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A06	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-05	**Date Collected**	: 11/22/24 00:00
Client ID	: TB_11252024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:37
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A06	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: L2469490-05	**Date Collected**	: 11/22/24 00:00
Client ID	: TB_11252024	**Date Received**	: 11/25/24
Sample Location	: NEW YORK, NY	**Date Analyzed**	: 11/26/24 08:37
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: V30241126A06	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2002632-5	**Date Collected**	: NA
Client ID	: WG2002632-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/26/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V30241126A05	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2002632-5	**Date Collected**	: NA
Client ID	: WG2002632-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/26/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V30241126A05	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2002632-5	**Date Collected**	: NA
Client ID	: WG2002632-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/26/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V30241126A05	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701
Lab ID	: WG2002632-5	**Date Collected**	: NA
Client ID	: WG2002632-5BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/26/24 08:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: PID
Lab File ID	: V30241126A05	**Instrument ID**	: VOA130
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A06.D
Acq On : 26 Nov 2024 08:37 am
Operator : VOA130:MJV
Sample : L2469490-05,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 26 10:32:11 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	327157	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery = 76.43%			
63) Chlorobenzene-d5	9.638	117	300986	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery = 92.12%			
84) 1,4-Dichlorobenzene-d4	12.323	152	188925	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery = 84.86%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	142433	12.665	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 126.65%			
47) 1,2-Dichloroethane-d4	5.801	65	127318	11.306	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 113.06%			
64) Toluene-d8	7.788	98	382803	9.481	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.81%			
88) 4-Bromofluorobenzene	11.117	95	162877	9.983	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.83%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	1.868	50	405	N.D.		
4) Vinyl chloride	1.936	62	261	N.D.		
5) Bromomethane	2.261	94	353	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.048	76	2836	0.138	ug/L #	89
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	3.609	43	1295	Below Cal	#	69
18) trans-1,2-Dichloroethene	3.724	96	247	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.831	96	264	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A06.D
Acq On : 26 Nov 2024 08:37 am
Operator : VOA130:MJV
Sample : L2469490-05,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 26 10:32:11 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	0.000		0		N.D.	
43) 1,1-Dichloropropene	0.000		0		N.D.	
45) Benzene	0.000		0		N.D.	
48) 1,2-Dichloroethane	0.000		0		N.D.	
52) Trichloroethene	0.000		0		N.D.	
54) Dibromomethane	0.000		0		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	7.845	92	470		N.D.	
66) 4-Methyl-2-pentanone	0.000		0		N.D.	
67) Tetrachloroethene	8.302	166	112		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	0.000		0		N.D.	
77) 2-Hexanone	0.000		0		N.D.	
78) Chlorobenzene	9.659	112	247		N.D.	
79) Ethylbenzene	9.707	91	166		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	0.000		0		N.D.	
82) o Xylene	0.000		0		N.D.	
83) Styrene	10.504	104	370		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	0.000		0		N.D.	
89) Bromobenzene	11.238	156	49		N.D.	
90) n-Propylbenzene	11.290	91	252		N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
93) 4-Ethyltoluene	0.000		0		N.D.	
94) 2-Chlorotoluene	11.290	91	252		N.D.	
95) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
96) 1,2,3-Trichloropropane	0.000		0		N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
98) 4-Chlorotoluene	11.636	91	391		N.D.	
99) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A06.D
Acq On : 26 Nov 2024 08:37 am
Operator : VOA130:MJV
Sample : L2469490-05,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 26 10:32:11 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	0.000		0		N.D.	
103) sec-Butylbenzene	0.000		0		N.D.	
104) p-Isopropyltoluene	0.000		0		N.D.	
105) 1,3-Dichlorobenzene	12.255	146	217		N.D.	
106) 1,4-Dichlorobenzene	12.339	146	441		N.D.	
107) p-Diethylbenzene	0.000		0		N.D.	
108) n-Butylbenzene	12.622	91	202		N.D.	
109) 1,2-Dichlorobenzene	0.000		0		N.D.	
110) 1,2,4,5-Tetramethylben...	0.000		0		N.D.	
111) 1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
113) Hexachlorobutadiene	0.000		0		N.D.	
114) 1,2,4-Trichlorobenzene	14.169	180	127		N.D.	
115) Naphthalene	14.478	128	136		N.D.	
116) 1,2,3-Trichlorobenzene	0.000		0		N.D.	

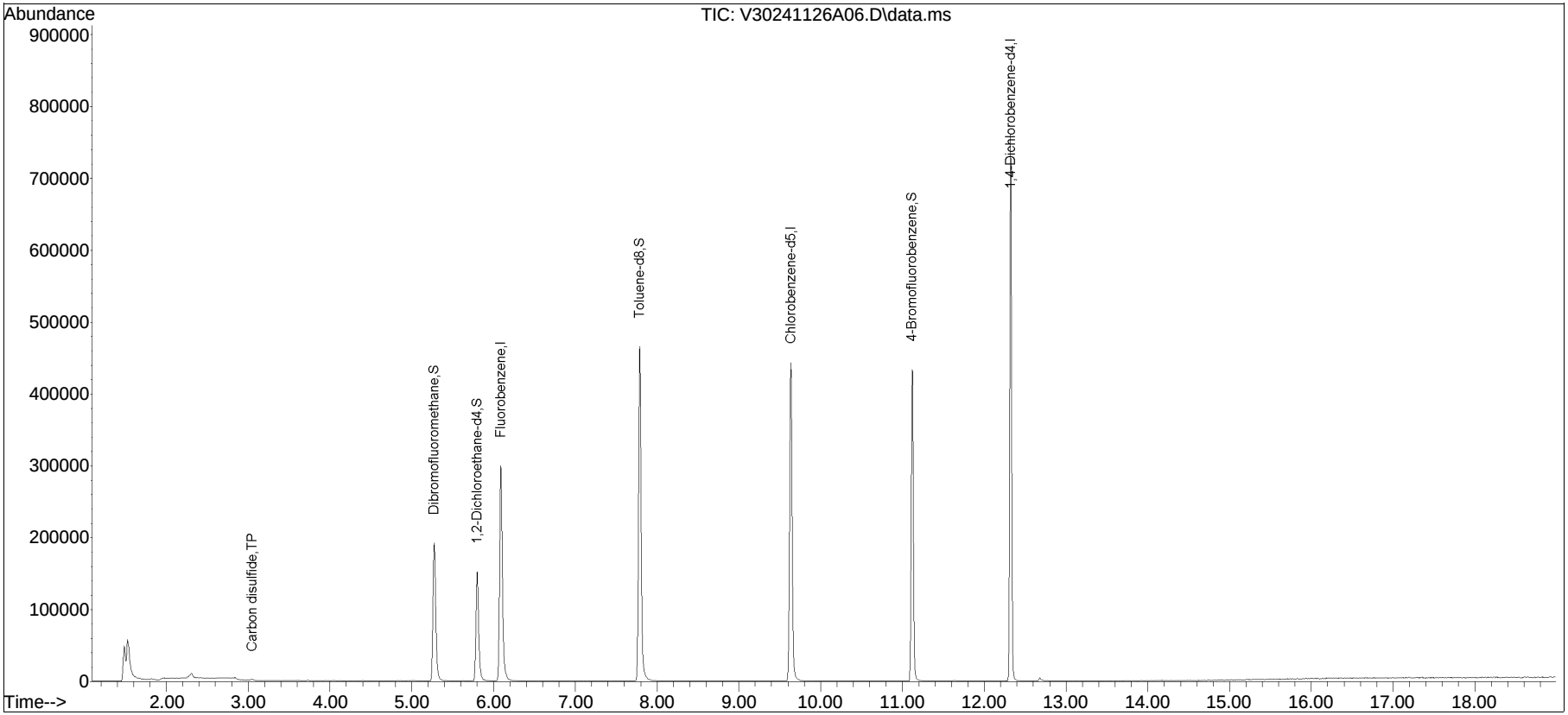
(#) = qualifier out of range (m) = manual integration (+) = signals summed

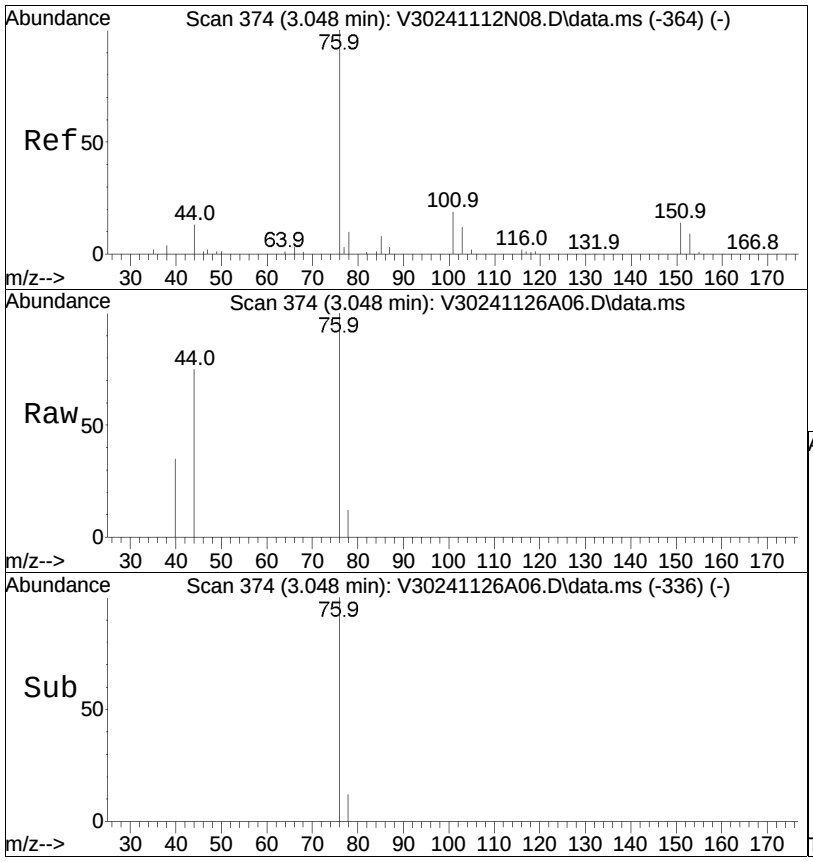
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A06.D
Acq On : 26 Nov 2024 08:37 am
Operator : VOA130:MJV
Sample : L2469490-05,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 26 10:32:11 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox241126A01.D•

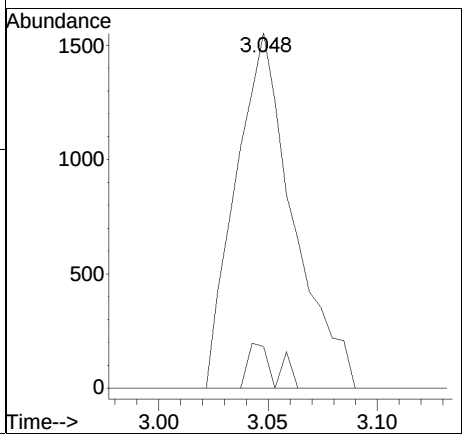




#11
Carbon disulfide
Concen: 0.14 ug/L
RT: 3.048 min Scan# 374
Delta R.T. -0.000 min
Lab File: V30241126A06.D
Acq: 26 Nov 2024 08:37 am

Tgt Ion: 76 Resp: 2836

Ion	Ratio	Lower	Upper
76	100		
78	6.0	6.4	13.4#



Manual Integration Report

Data Path	: K:\VOA130\2024\241126A\	QMethod	: V130_241112N_8260D.m
Data File	: V30241126A06.D	Operator	: VOA130:MJV
Date Inj'd	: 11/26/2024 8:37 am	Instrument	: VOA130
Sample	: L2469490-05,31,10,10,,A,R1	Quant Date	: 11/26/2024 10:32 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A07.D
Acq On : 26 Nov 2024 08:59 am
Operator : VOA130:MJV
Sample : L2469490-01,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 26 10:35:41 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	354423	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery =	82.80%		
63) Chlorobenzene-d5	9.633	117	310630	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery =	95.07%		
84) 1,4-Dichlorobenzene-d4	12.323	152	198647	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery =	89.22%		
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	143170	11.751	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	117.51%		
47) 1,2-Dichloroethane-d4	5.800	65	132152	10.833	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	108.33%		
64) Toluene-d8	7.788	98	394518	9.468	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	94.68%		
88) 4-Bromofluorobenzene	11.122	95	166398	9.699	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.99%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	1.936	62	1914	0.187	ug/L	91
5) Bromomethane	2.261	94	293	N.D.		
6) Chloroethane	0.000		0	N.D. d		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.043	76	9156	0.412	ug/L	97
15) Methylene chloride	3.572	84	1391	0.153	ug/L	88
17) Acetone	3.604	43	5719	2.953	ug/L	96
18) trans-1,2-Dichloroethene	3.719	96	325	N.D.		
21) Methyl tert-butyl ether	3.824	73	5451	0.703	ug/L	95
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	4.542	43	54	N.D.		
30) cis-1,2-Dichloroethene	4.836	96	2841	0.315	ug/L	89
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	5.098	83	7996	0.527	ug/L	94

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A07.D
Acq On : 26 Nov 2024 08:59 am
Operator : VOA130:MJV
Sample : L2469490-01,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 26 10:35:41 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.			
40) 1,1,1-Trichloroethane	5.302	97	905	0.083	ug/L	#	68
42) 2-Butanone	5.386	43	29854	17.932	ug/L		99
43) 1,1-Dichloropropene	0.000		0	N.D.			
45) Benzene	5.669	78	80694	3.052	ug/L		97
48) 1,2-Dichloroethane	5.863	62	53	N.D.			
52) Trichloroethene	6.267	95	335	N.D.			
54) Dibromomethane	0.000		0	N.D.			
55) 1,2-Dichloropropane	0.000		0	N.D.			
58) Bromodichloromethane	6.880	83	3139	0.333	ug/L	#	98
61) 1,4-Dioxane	0.000		0	N.D.			
62) cis-1,3-Dichloropropene	0.000		0	N.D.			
65) Toluene	7.845	92	14615	0.770	ug/L		99
66) 4-Methyl-2-pentanone	0.000		0	N.D.	d		
67) Tetrachloroethene	8.307	166	1546	0.225	ug/L	#	83
69) trans-1,3-Dichloropropene	0.000		0	N.D.			
72) 1,1,2-Trichloroethane	0.000		0	N.D.			
73) Chlorodibromomethane	8.721	129	929	0.431	ug/L	#	81
74) 1,3-Dichloropropane	0.000		0	N.D.			
75) 1,2-Dibromoethane	0.000		0	N.D.			
77) 2-Hexanone	0.000		0	N.D.	d		
78) Chlorobenzene	9.665	112	558	N.D.			
79) Ethylbenzene	9.701	91	1298	N.D.			
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
81) p/m Xylene	9.895	106	688	N.D.			
82) o Xylene	10.420	106	117	N.D.			
83) Styrene	10.509	104	100	N.D.			
85) Bromoform	0.000		0	N.D.			
87) Isopropylbenzene	10.802	105	127	N.D.			
89) Bromobenzene	0.000		0	N.D.			
90) n-Propylbenzene	11.285	91	441	N.D.			
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
93) 4-Ethyltoluene	11.400	105	346	N.D.			
94) 2-Chlorotoluene	11.447	91	113	N.D.			
95) 1,3,5-Trimethylbenzene	11.505	105	49	N.D.			
96) 1,2,3-Trichloropropane	0.000		0	N.D.			
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.			
98) 4-Chlorotoluene	11.641	91	384	N.D.			
99) tert-Butylbenzene	0.000		0	N.D.			

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A07.D
Acq On : 26 Nov 2024 08:59 am
Operator : VOA130:MJV
Sample : L2469490-01,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 26 10:35:41 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.919	105	427	N.D.		
103) sec-Butylbenzene	12.029	105	56	N.D.		
104) p-Isopropyltoluene	12.176	119	185	N.D.		
105) 1,3-Dichlorobenzene	12.260	146	308	N.D.		
106) 1,4-Dichlorobenzene	12.339	146	2244	0.117	ug/L #	14
107) p-Diethylbenzene	0.000		0	N.D.	d	
108) n-Butylbenzene	12.616	91	388	N.D.		
109) 1,2-Dichlorobenzene	12.758	146	546	N.D.		
110) 1,2,4,5-Tetramethylben...	13.350	119	186	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.179	180	184	N.D.		
115) Naphthalene	14.467	128	896	N.D.		
116) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

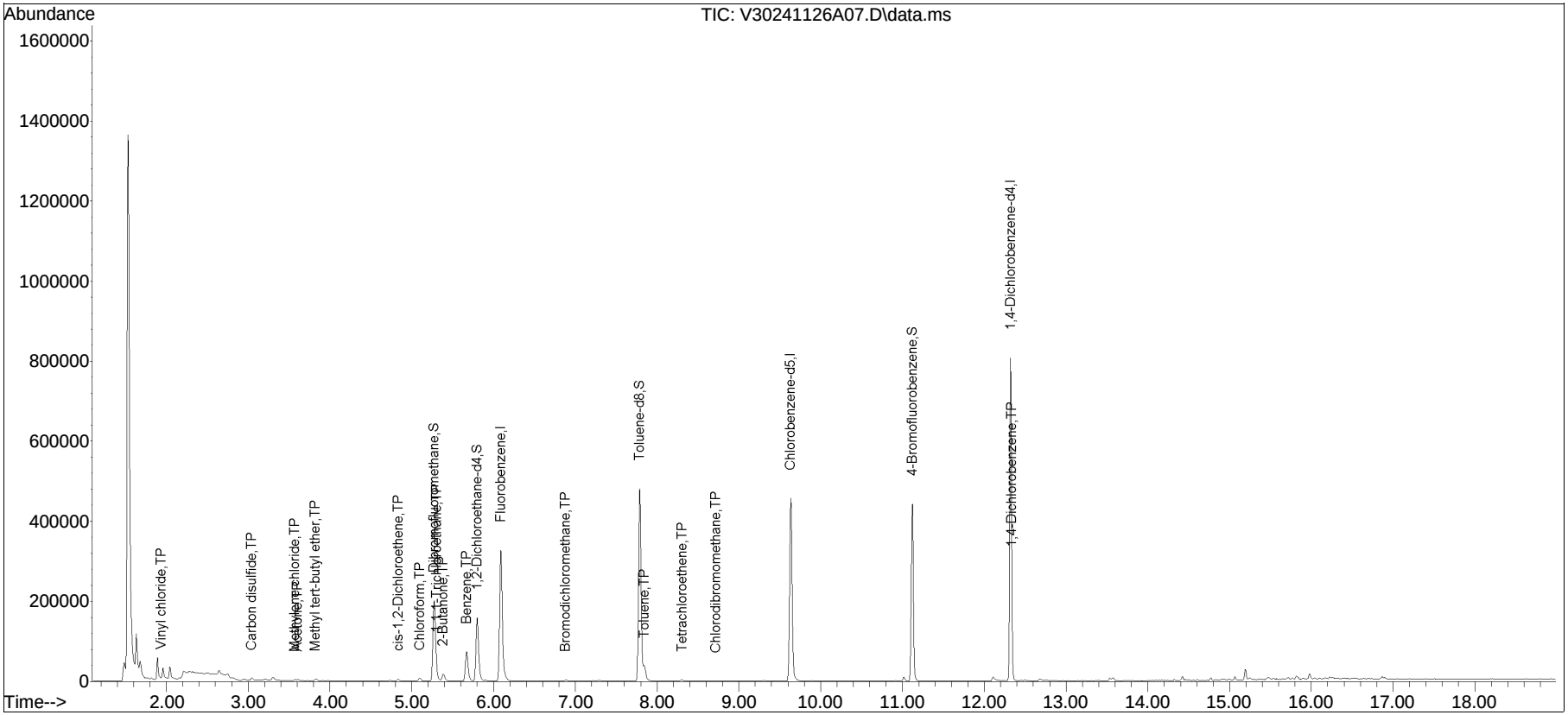
(#) = qualifier out of range (m) = manual integration (+) = signals summed

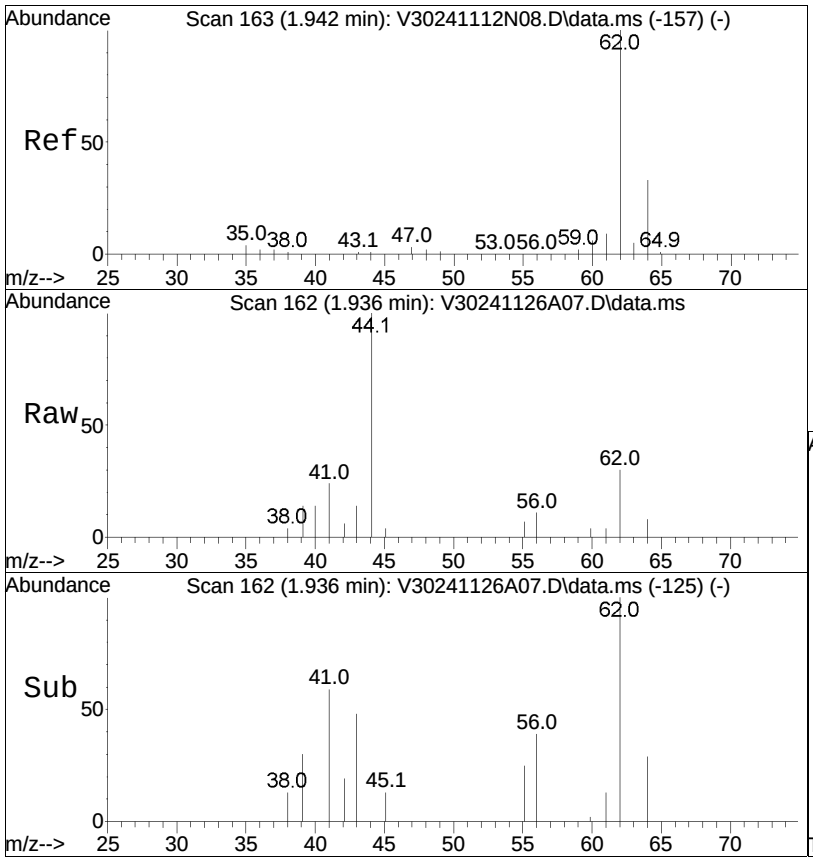
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A07.D
Acq On : 26 Nov 2024 08:59 am
Operator : VOA130:MJV
Sample : L2469490-01,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 26 10:35:41 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox241126A01.D•

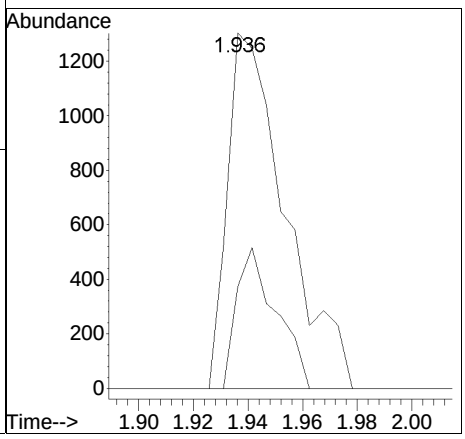


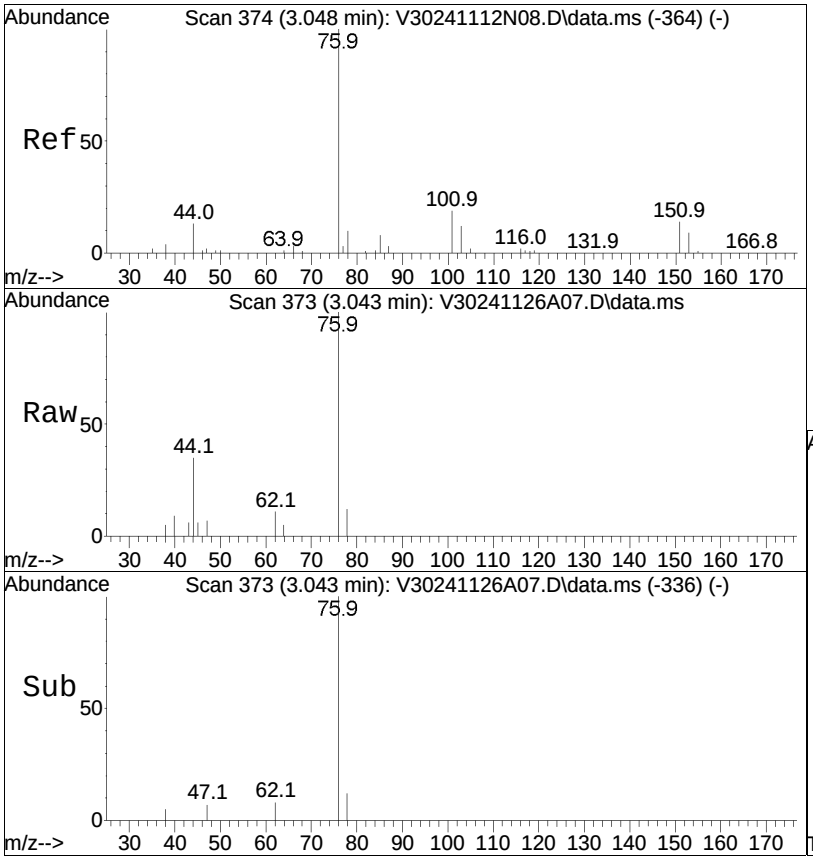


#4
Vinyl chloride
Concen: 0.19 ug/L
RT: 1.936 min Scan# 162
Delta R.T. -0.006 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 62 Resp: 1914

Ion	Ratio	Lower	Upper
62	100		
64	27.2	25.7	38.5

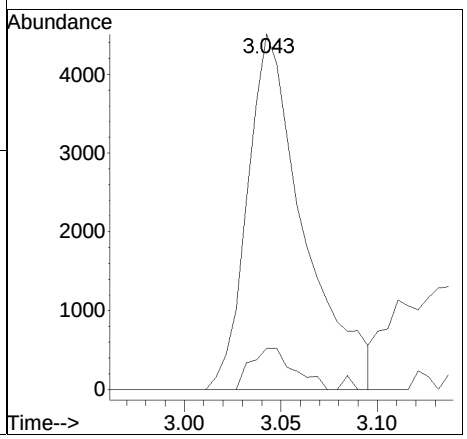


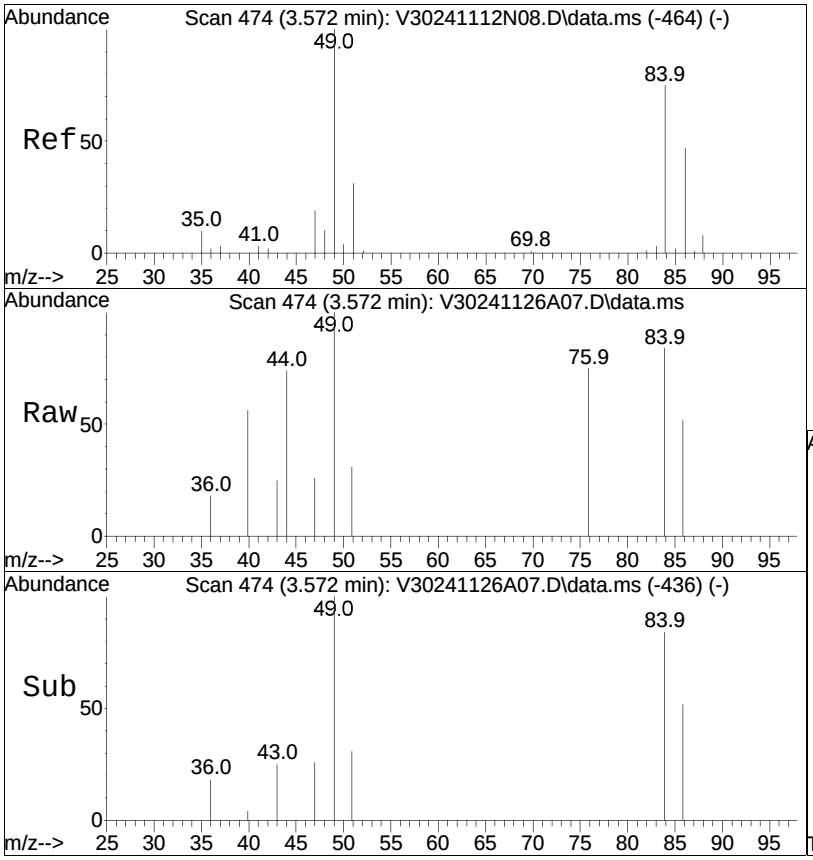


#11
Carbon disulfide
Concen: 0.41 ug/L
RT: 3.043 min Scan# 373
Delta R.T. -0.005 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 76 Resp: 9156

Ion	Ratio	Lower	Upper
76	100		
78	8.9	6.4	13.4

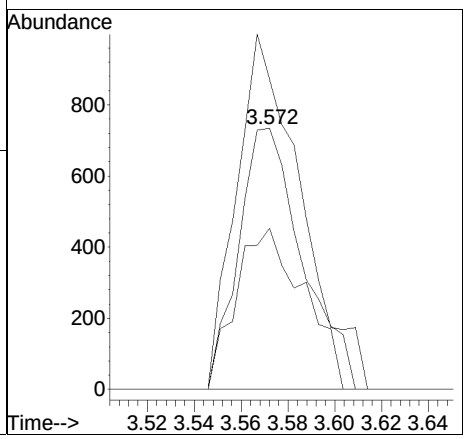


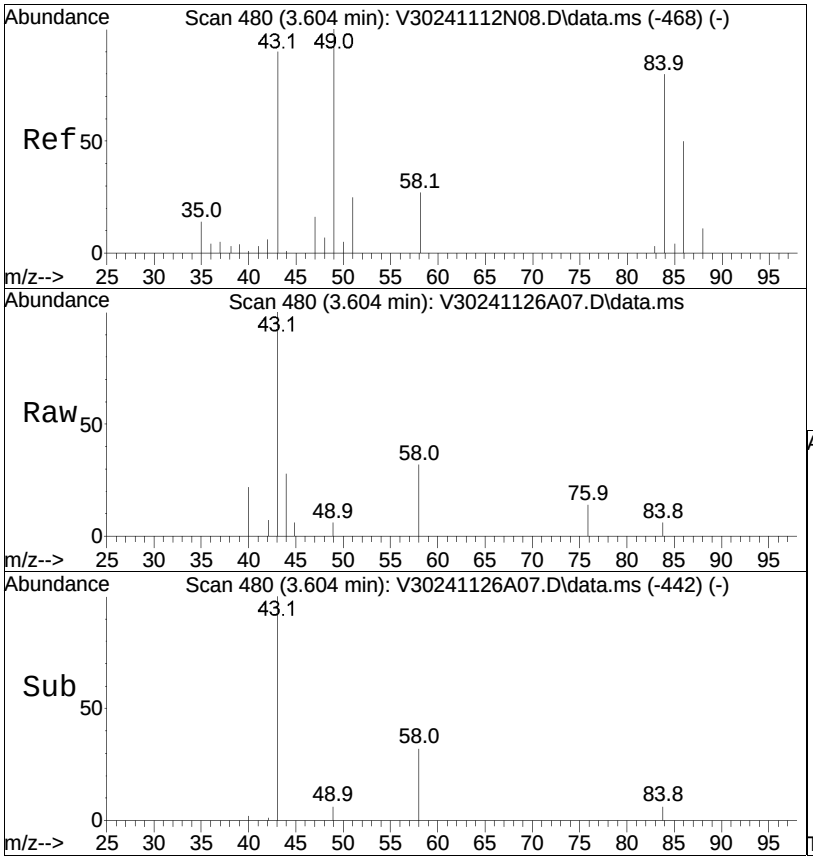


#15
Methylene chloride
Concen: 0.15 ug/L
RT: 3.572 min Scan# 474
Delta R.T. 0.000 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 84 Resp: 1391

Ion	Ratio	Lower	Upper
84	100		
86	65.9	41.7	86.5
49	138.3	103.9	215.9

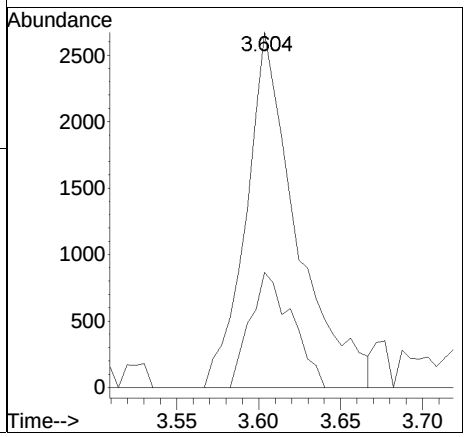


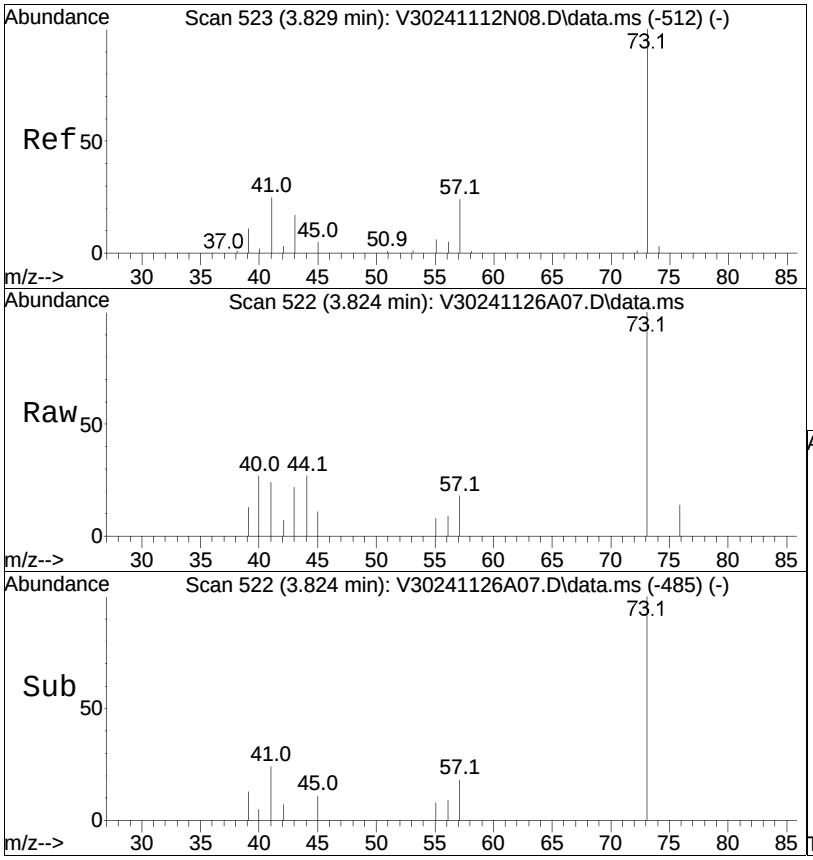


#17
Acetone
Concen: 2.95 ug/L
RT: 3.604 min Scan# 480
Delta R.T. -0.000 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 43 Resp: 5719

Ion	Ratio	Lower	Upper
43	100		
58	27.0	20.1	30.1

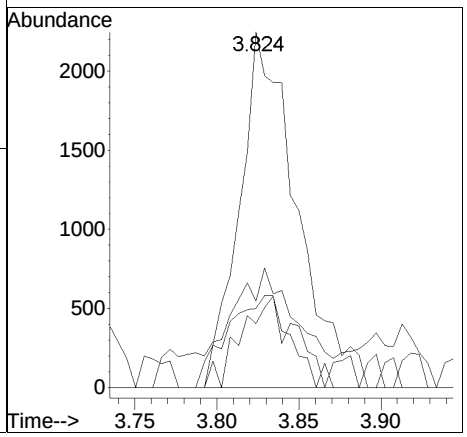


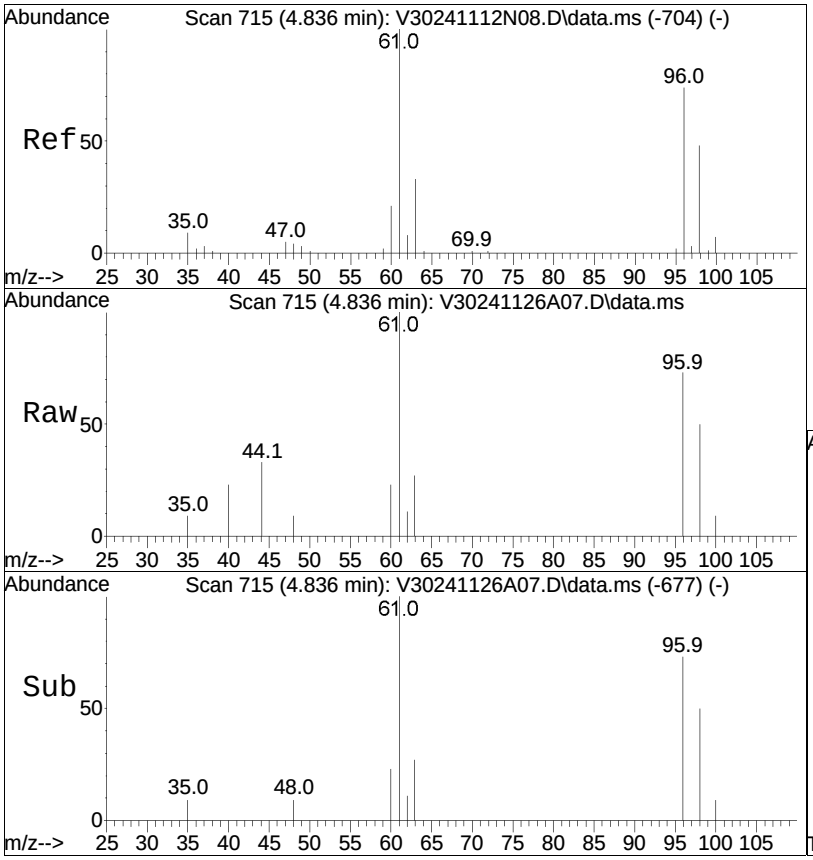


#21
Methyl tert-butyl ether
Concen: 0.70 ug/L
RT: 3.824 min Scan# 522
Delta R.T. -0.005 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 73 Resp: 5451

Ion	Ratio	Lower	Upper
73	100		
57	22.6	15.5	32.1
43	30.0	16.6	34.6
41	24.7	17.2	35.6

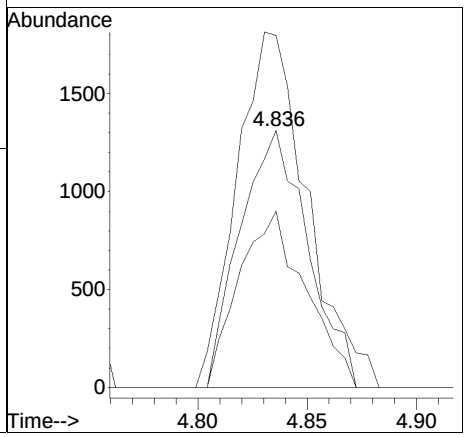


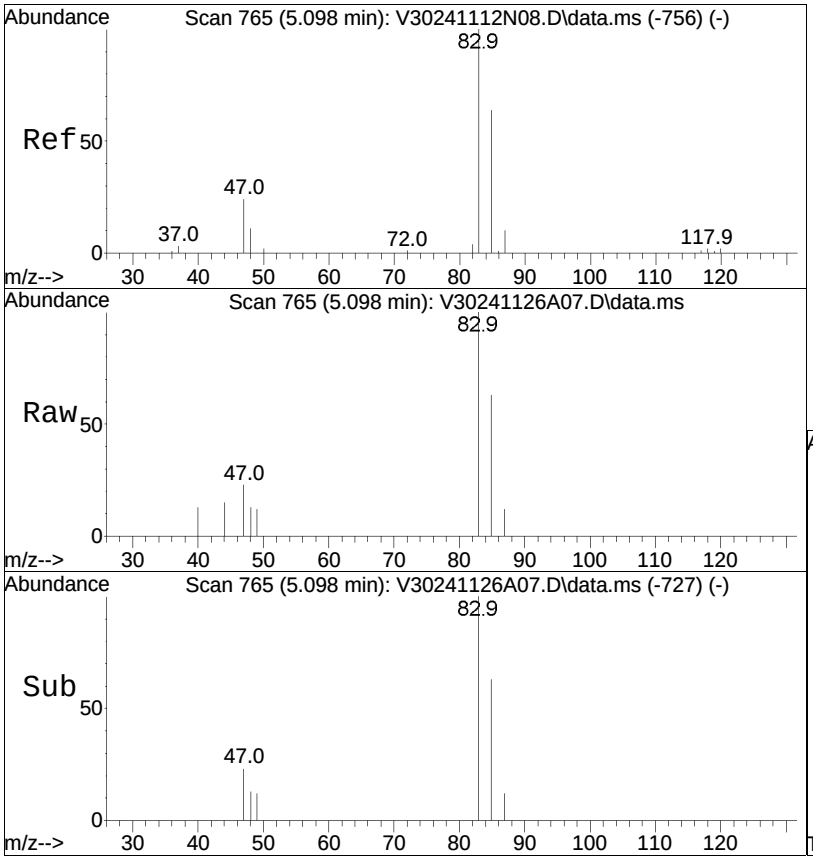


#30
cis-1,2-Dichloroethene
Concen: 0.32 ug/L
RT: 4.836 min Scan# 715
Delta R.T. -0.000 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 96 Resp: 2841

Ion	Ratio	Lower	Upper
96	100		
61	143.2	129.3	193.9
98	67.3	51.4	77.2

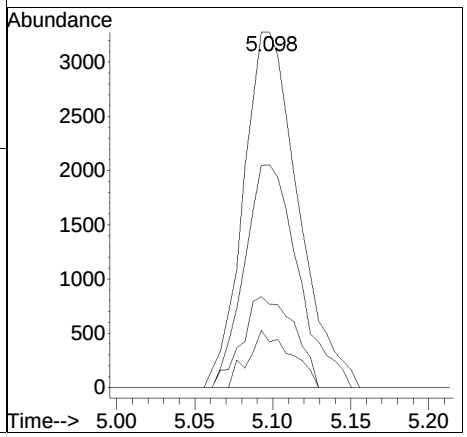


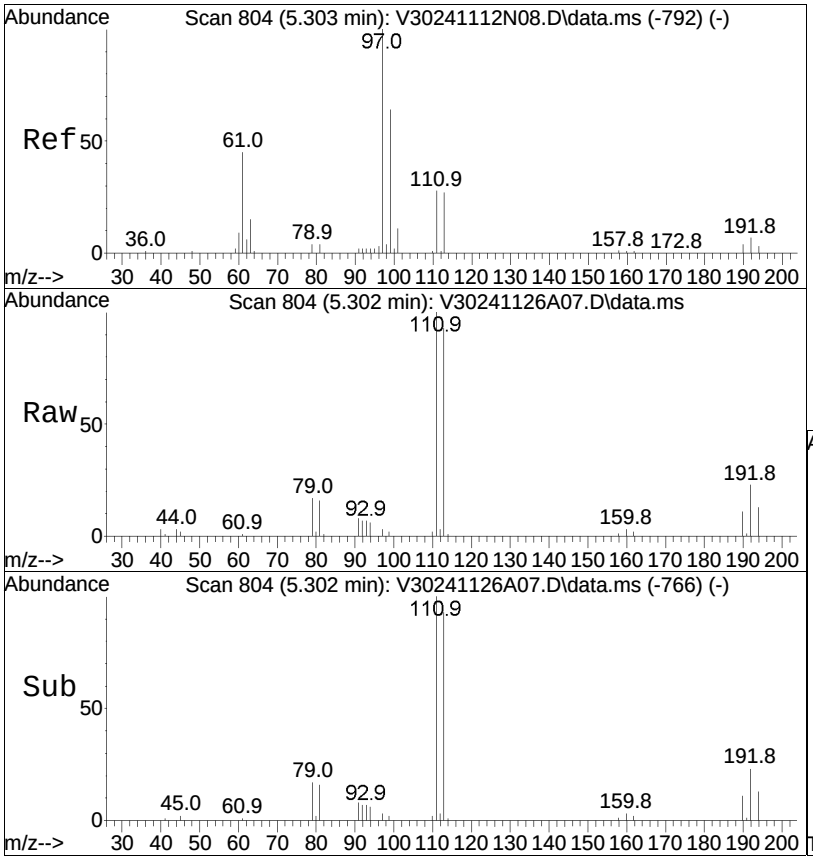


#35
Chloroform
Concen: 0.53 ug/L
RT: 5.098 min Scan# 765
Delta R.T. -0.000 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 83 Resp: 7996

Ion	Ratio	Lower	Upper
83	100		
85	61.4	41.4	86.0
47	24.4	20.5	42.5
48	12.5	9.9	20.5

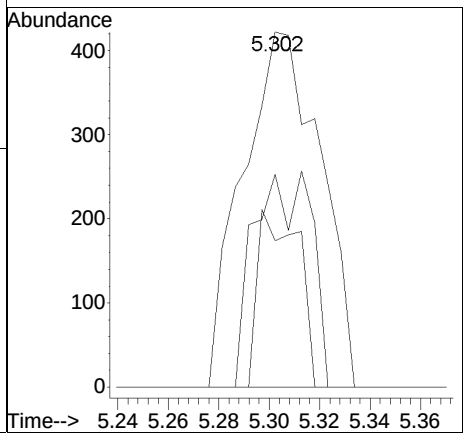


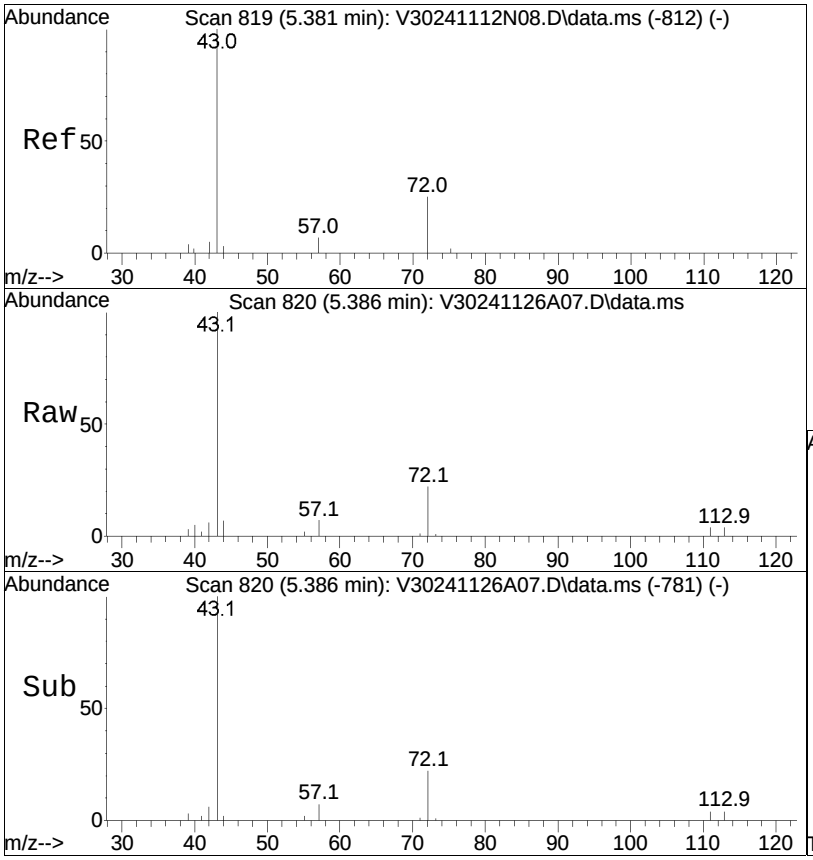


#40
1,1,1-Trichloroethane
Concen: 0.08 ug/L
RT: 5.302 min Scan# 804
Delta R.T. -0.001 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 97 Resp: 905

Ion	Ratio	Lower	Upper
97	100		
99	44.6	40.6	84.4
61	26.1	35.0	72.8#
63	0.0	11.1	23.0#

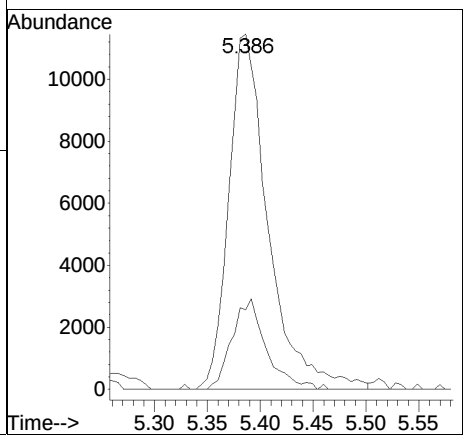


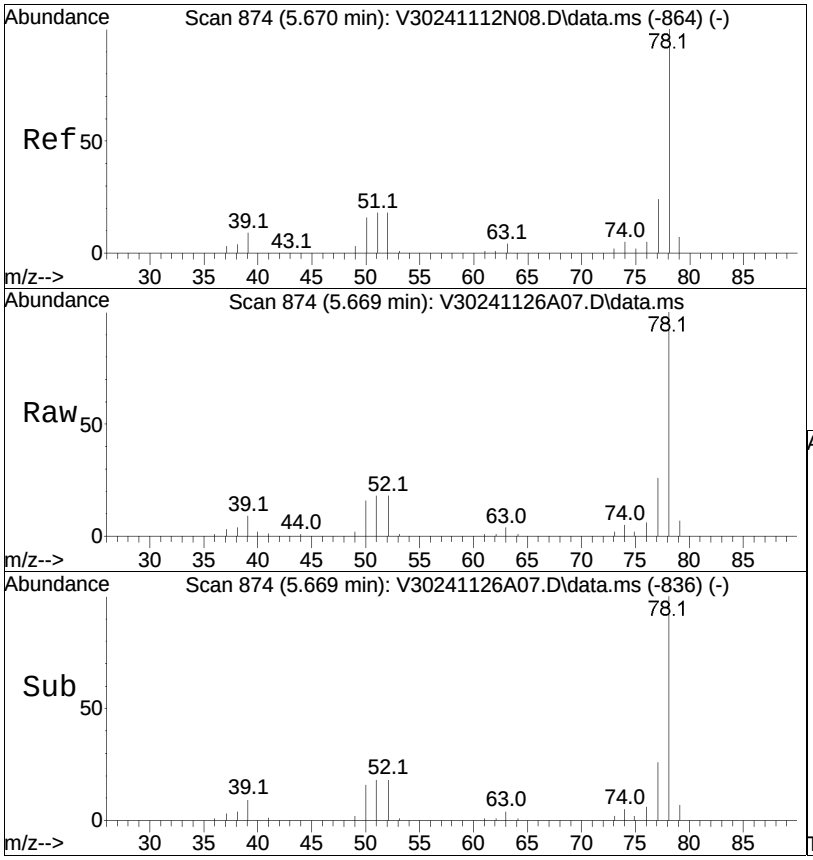


#42
2-Butanone
Concen: 17.93 ug/L
RT: 5.386 min Scan# 820
Delta R.T. 0.005 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 43 Resp: 29854

Ion	Ratio	Lower	Upper
43	100		
72	22.2	18.2	27.4

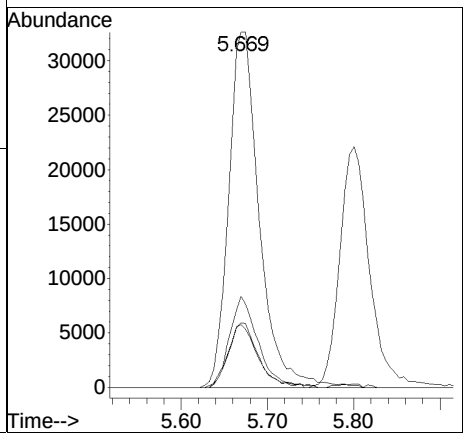


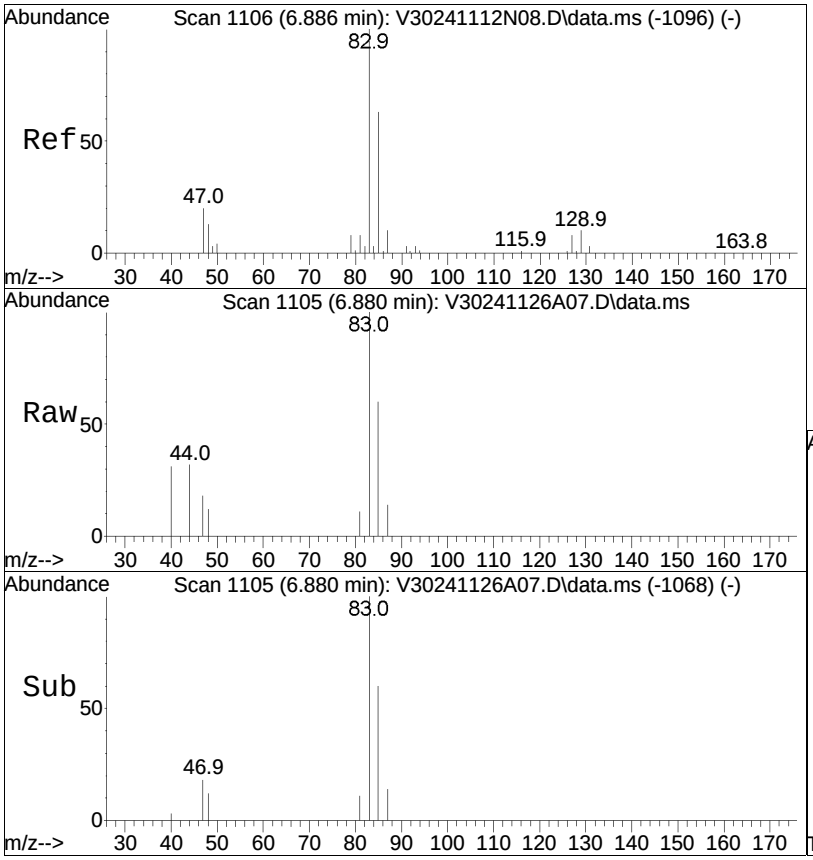


#45
Benzene
Concen: 3.05 ug/L
RT: 5.669 min Scan# 874
Delta R.T. -0.001 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 78 Resp: 80694

Ion	Ratio	Lower	Upper
78	100		
77	23.9	15.6	32.4
51	17.5	12.9	26.7
52	17.2	12.4	25.7

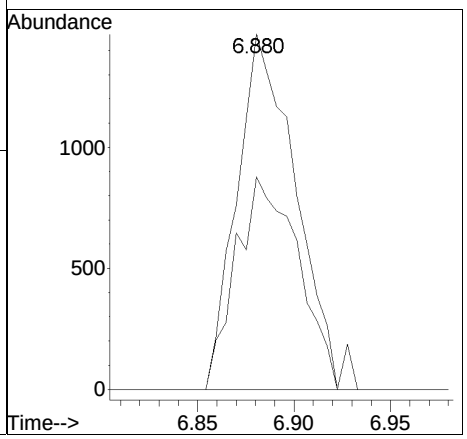


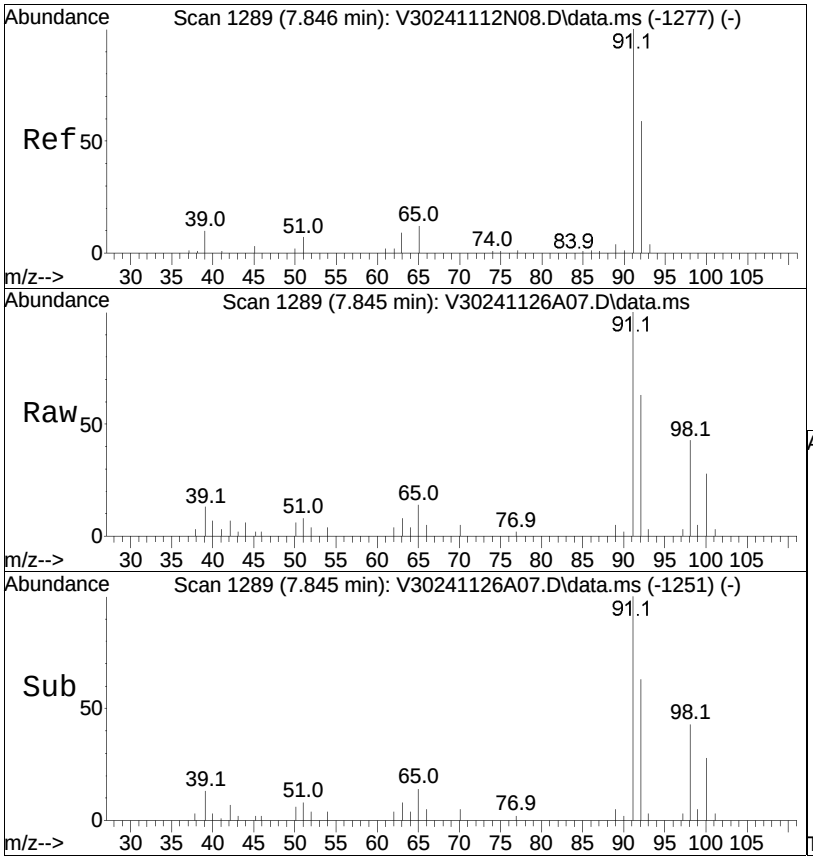


#58
Bromodichloromethane
Concen: 0.33 ug/L
RT: 6.880 min Scan# 1105
Delta R.T. -0.006 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 83 Resp: 3139

Ion	Ratio	Lower	Upper
83	100		
85	62.7	50.2	75.2
127	0.0	5.2	7.8#

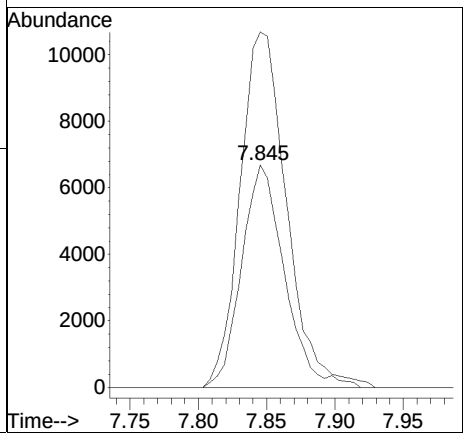


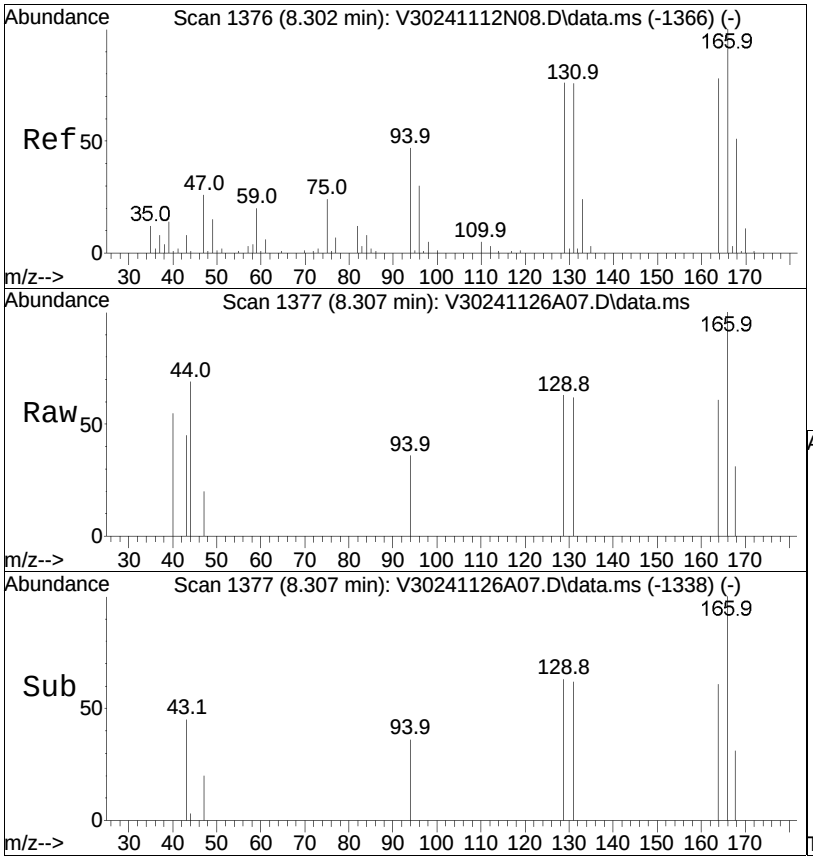


#65
Toluene
Concen: 0.77 ug/L
RT: 7.845 min Scan# 1289
Delta R.T. -0.001 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion: 92 Resp: 14615

Ion	Ratio	Lower	Upper
92	100		
91	172.7	137.5	206.3

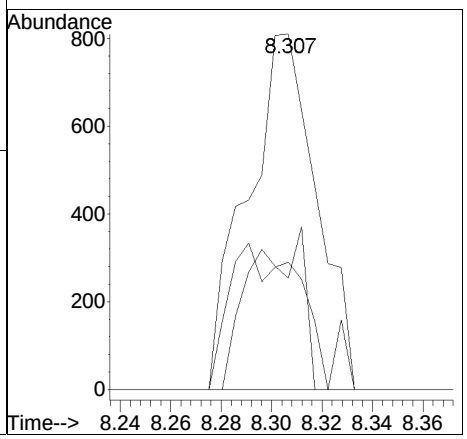


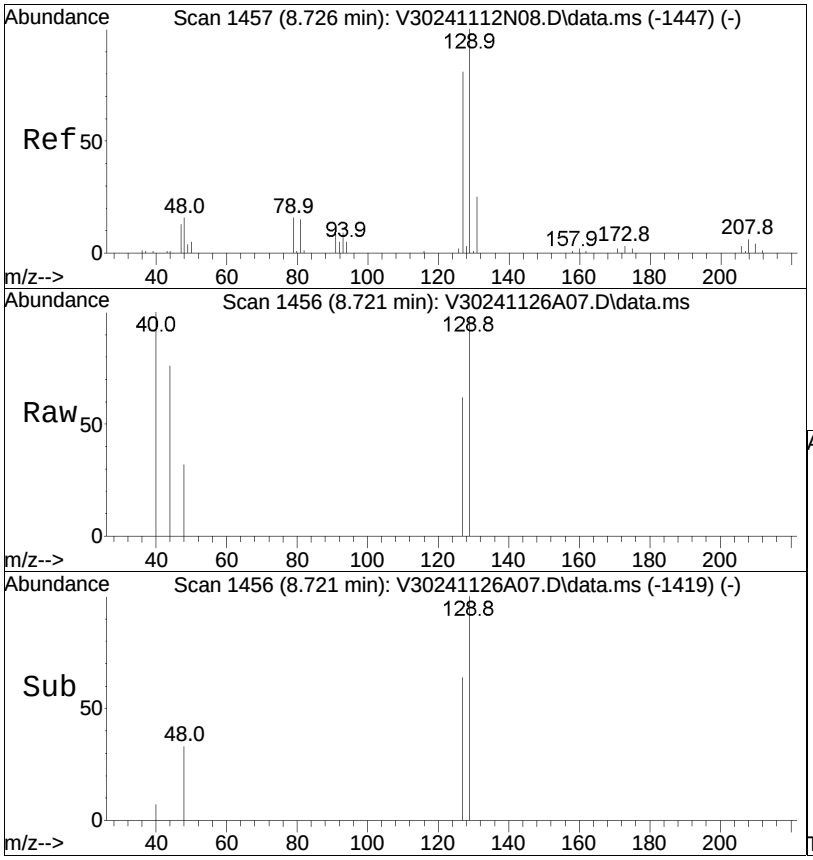


#67
Tetrachloroethene
Concen: 0.22 ug/L
RT: 8.307 min Scan# 1377
Delta R.T. 0.005 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion:166 Resp: 1546

Ion	Ratio	Lower	Upper
166	100		
168	33.8	38.6	58.0#
94	44.0	42.6	63.8

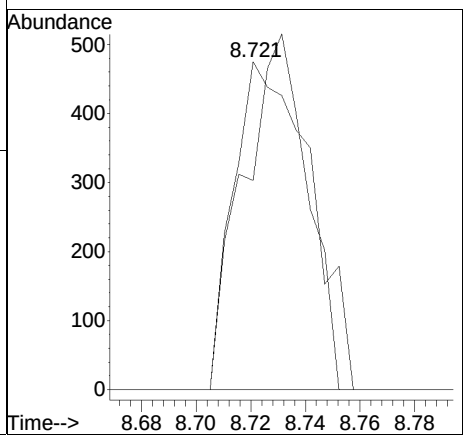


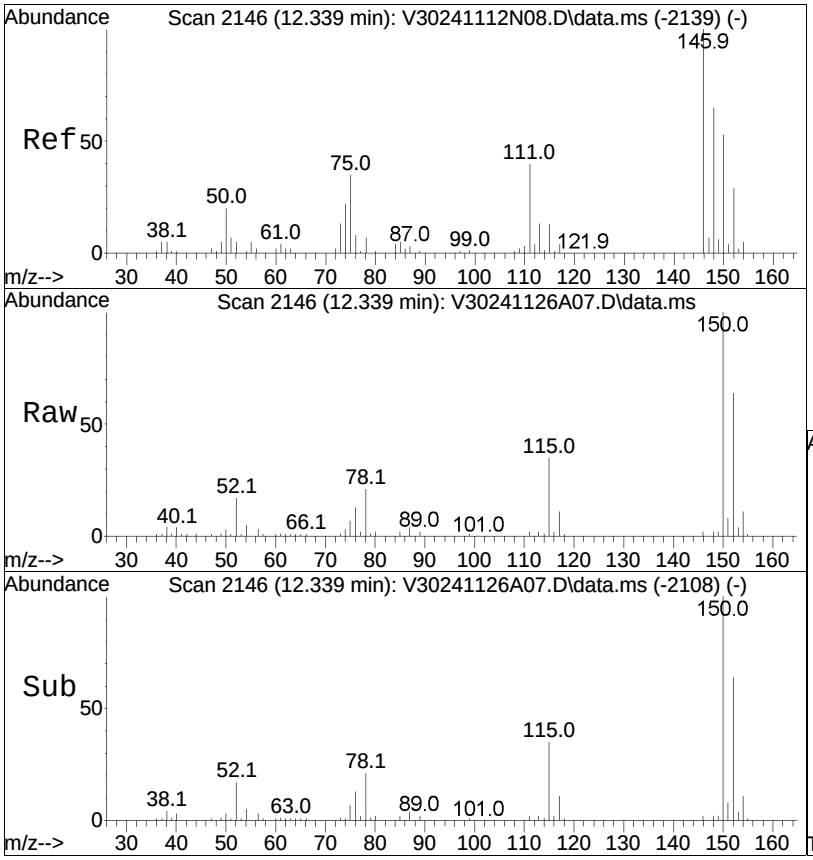


#73
Chlorodibromomethane
Concen: 0.43 ug/L
RT: 8.721 min Scan# 1456
Delta R.T. -0.005 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion:129 Resp: 929

Ion	Ratio	Lower	Upper
129	100		
81	0.0	14.6	22.0#
127	90.5	62.6	93.8

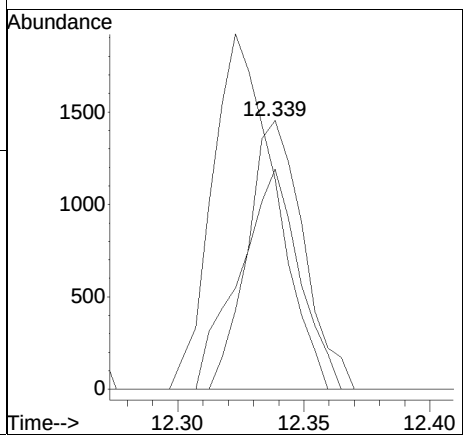




#106
1,4-Dichlorobenzene
Concen: 0.12 ug/L
RT: 12.339 min Scan# 2146
Delta R.T. -0.000 min
Lab File: V30241126A07.D
Acq: 26 Nov 2024 08:59 am

Tgt Ion:146 Resp: 2244

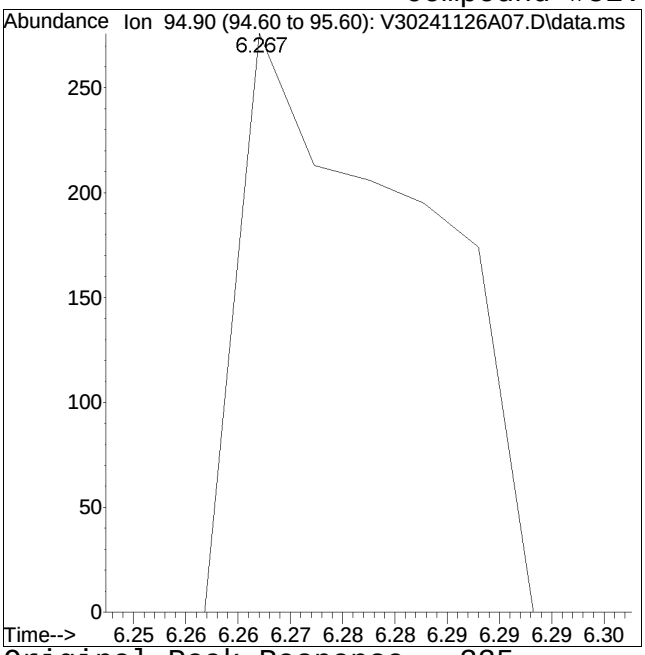
Ion	Ratio	Lower	Upper
146	100		
111	148.0	33.7	50.5#
148	88.1	50.8	76.2#



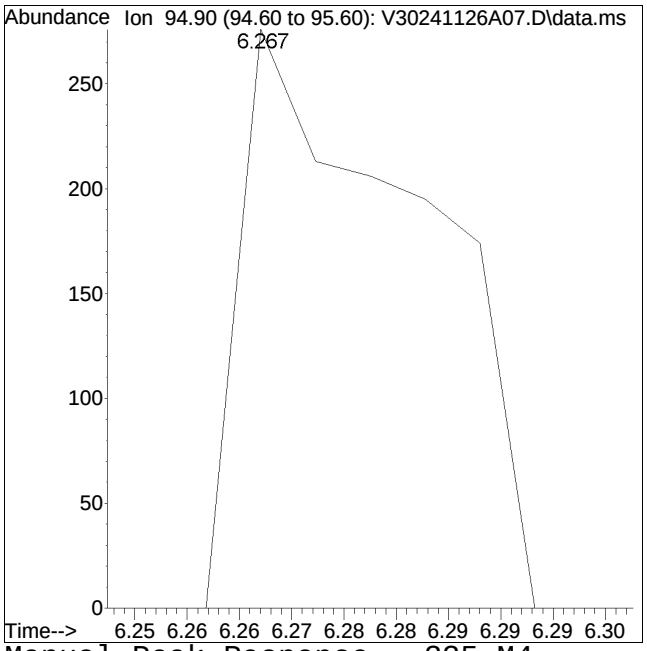
Manual Integration Report

Data Path : K:\VOA130\2024\241126A\ QMethod : V130_241112N_8260D.m
Data File : V30241126A07.D Operator : VOA130:MJV
Date Inj'd : 11/26/2024 8:59 am Instrument : VOA130
Sample : L2469490-01,31,10,10,,A,R1 Quant Date : 11/26/2024 10:32 am

Compound #52: Trichloroethene



Original Peak Response = 335



Manual Peak Response = 335 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A08.D
Acq On : 26 Nov 2024 09:20 am
Operator : VOA130:MJV
Sample : L2469490-02,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 26 10:37:00 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	344982	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery =	80.59%		
63) Chlorobenzene-d5	9.633	117	307874	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery =	94.23%		
84) 1,4-Dichlorobenzene-d4	12.323	152	201901	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery =	90.69%		
System Monitoring Compounds						
39) Dibromofluoromethane	5.271	113	140340	11.834	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	118.34%		
47) 1,2-Dichloroethane-d4	5.801	65	127711	10.755	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.55%		
64) Toluene-d8	7.788	98	389650	9.435	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	94.35%		
88) 4-Bromofluorobenzene	11.122	95	167544	9.609	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.09%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	1.942	62	6879	0.689	ug/L #	88
5) Bromomethane	2.261	94	626	0.116	ug/L #	1
6) Chloroethane	0.000		0	N.D. d		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.043	76	14134	0.654	ug/L	98
15) Methylene chloride	3.567	84	3715	0.419	ug/L	87
17) Acetone	3.609	43	5246	2.671	ug/L	97
18) trans-1,2-Dichloroethene	3.735	96	348	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D. d		
29) Vinyl acetate	4.568	43	696	N.D.		
30) cis-1,2-Dichloroethene	4.831	96	12857	1.465	ug/L	90
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A08.D
Acq On : 26 Nov 2024 09:20 am
Operator : VOA130:MJV
Sample : L2469490-02,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 26 10:37:00 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.	
40) 1,1,1-Trichloroethane	5.308	97	1453	0.138 ug/L #	75
42) 2-Butanone	0.000		0	N.D. d	
43) 1,1-Dichloropropene	0.000		0	N.D.	
45) Benzene	5.670	78	6069	0.236 ug/L #	84
48) 1,2-Dichloroethane	5.864	62	54	N.D.	
52) Trichloroethene	6.272	95	1302	0.208 ug/L	92
54) Dibromomethane	0.000		0	N.D.	
55) 1,2-Dichloropropane	0.000		0	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
61) 1,4-Dioxane	0.000		0	N.D.	
62) cis-1,3-Dichloropropene	0.000		0	N.D.	
65) Toluene	7.845	92	130357	6.932 ug/L	98
66) 4-Methyl-2-pentanone	8.286	58	2345	1.700 ug/L	93
67) Tetrachloroethene	8.307	166	2326	0.341 ug/L	94
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	0.000		0	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	0.000		0	N.D.	
75) 1,2-Dibromoethane	0.000		0	N.D.	
77) 2-Hexanone	9.292	43	3641	1.439 ug/L #	74
78) Chlorobenzene	9.654	112	558	N.D.	
79) Ethylbenzene	9.701	91	19548	0.528 ug/L	99
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	9.885	106	10594	0.712 ug/L	97
82) o Xylene	10.425	106	7028	0.491 ug/L	97
83) Styrene	10.493	104	2991	0.127 ug/L	91
85) Bromoform	0.000		0	N.D.	
87) Isopropylbenzene	10.813	105	693	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	11.280	91	852	N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
93) 4-Ethyltoluene	11.390	105	2494	N.D.	
94) 2-Chlorotoluene	11.395	91	526	N.D.	
95) 1,3,5-Trimethylbenzene	11.500	105	1037	N.D.	
96) 1,2,3-Trichloropropane	11.631	75	57	N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D. d	
98) 4-Chlorotoluene	11.641	91	229	N.D.	
99) tert-Butylbenzene	11.925	119	382	N.D.	

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A08.D
Acq On : 26 Nov 2024 09:20 am
Operator : VOA130:MJV
Sample : L2469490-02,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 26 10:37:00 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.919	105	3286	0.099	ug/L	95
103) sec-Butylbenzene	0.000		0	N.D.	d	
104) p-Isopropyltoluene	12.181	119	14168	0.405	ug/L	98
105) 1,3-Dichlorobenzene	12.255	146	181	N.D.		
106) 1,4-Dichlorobenzene	12.334	146	740	N.D.		
107) p-Diethylbenzene	12.559	119	48	N.D.		
108) n-Butylbenzene	12.622	91	185	N.D.		
109) 1,2-Dichlorobenzene	12.769	146	294	N.D.		
110) 1,2,4,5-Tetramethylben...	13.398	119	662	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.174	180	294	N.D.		
115) Naphthalene	14.462	128	3748	0.154	ug/L	100
116) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

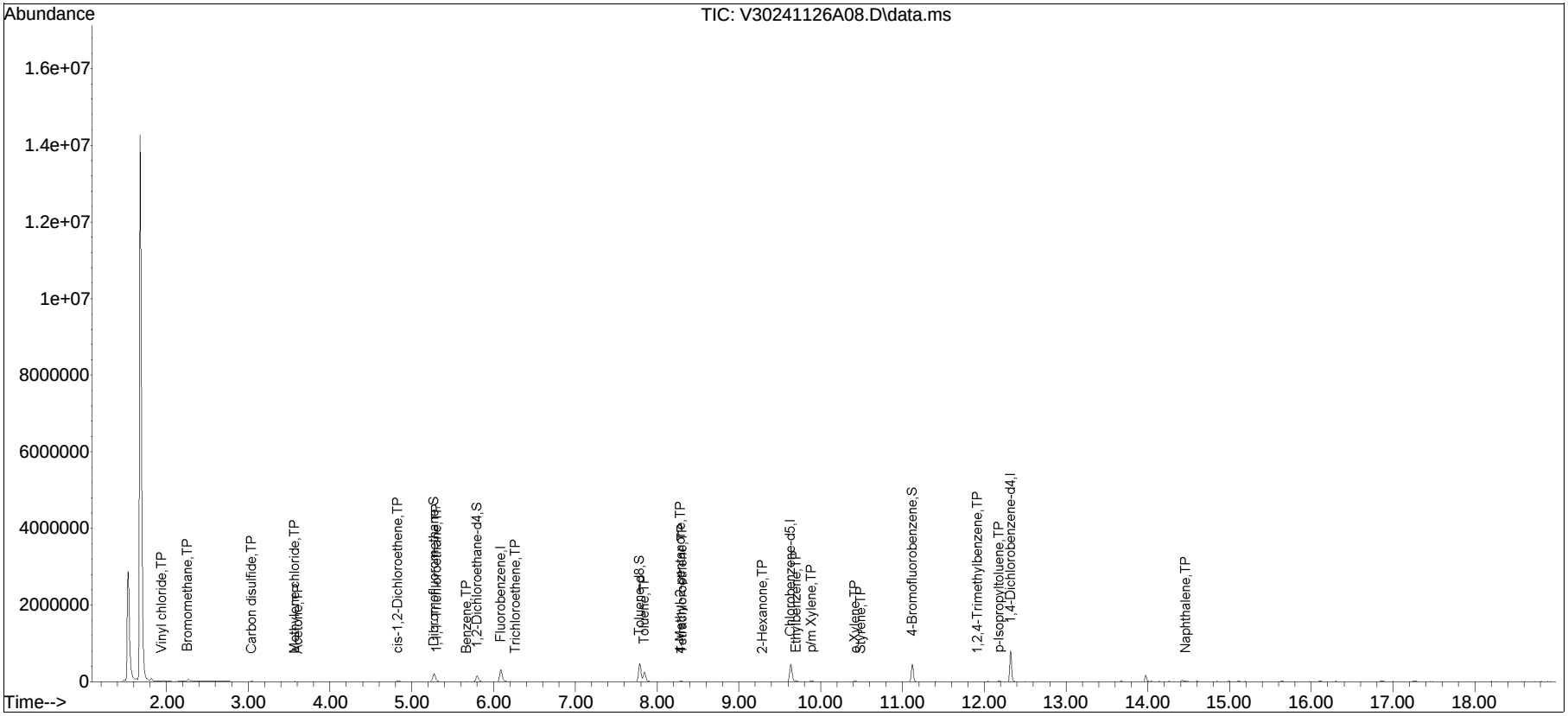
(#) = qualifier out of range (m) = manual integration (+) = signals summed

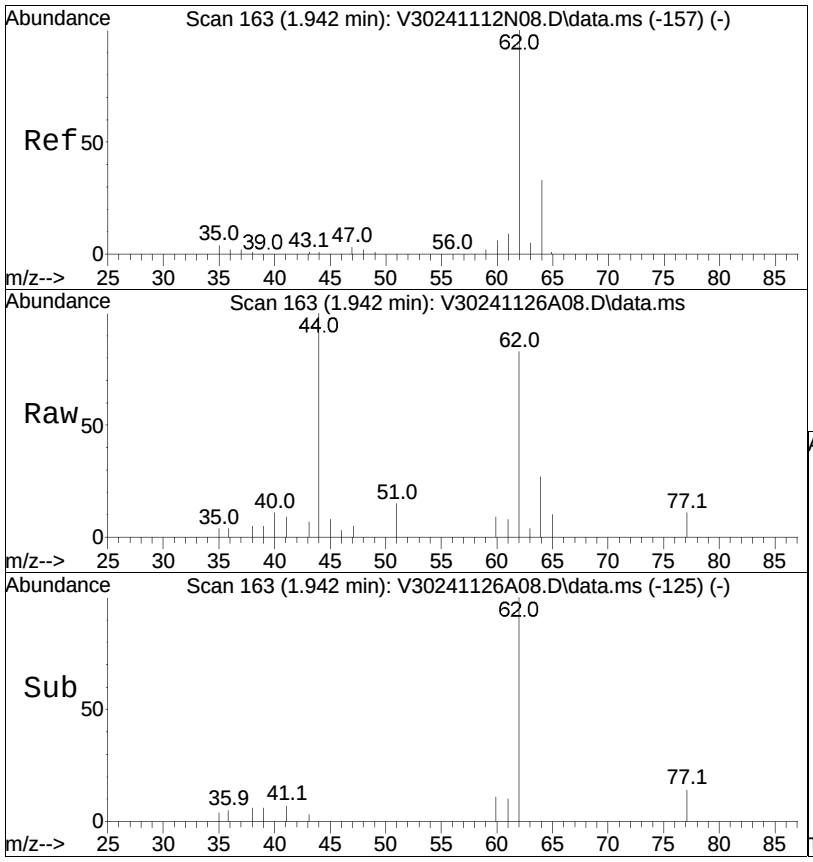
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A08.D
Acq On : 26 Nov 2024 09:20 am
Operator : VOA130:MJV
Sample : L2469490-02,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 26 10:37:00 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox241126A01.D•

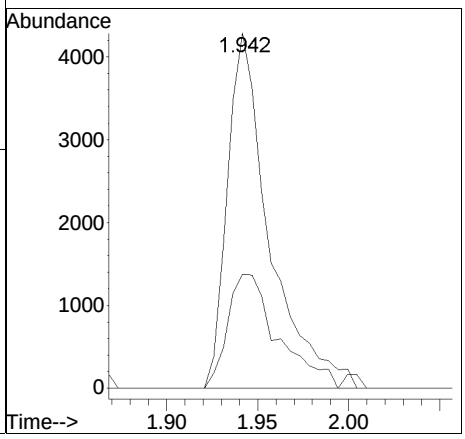


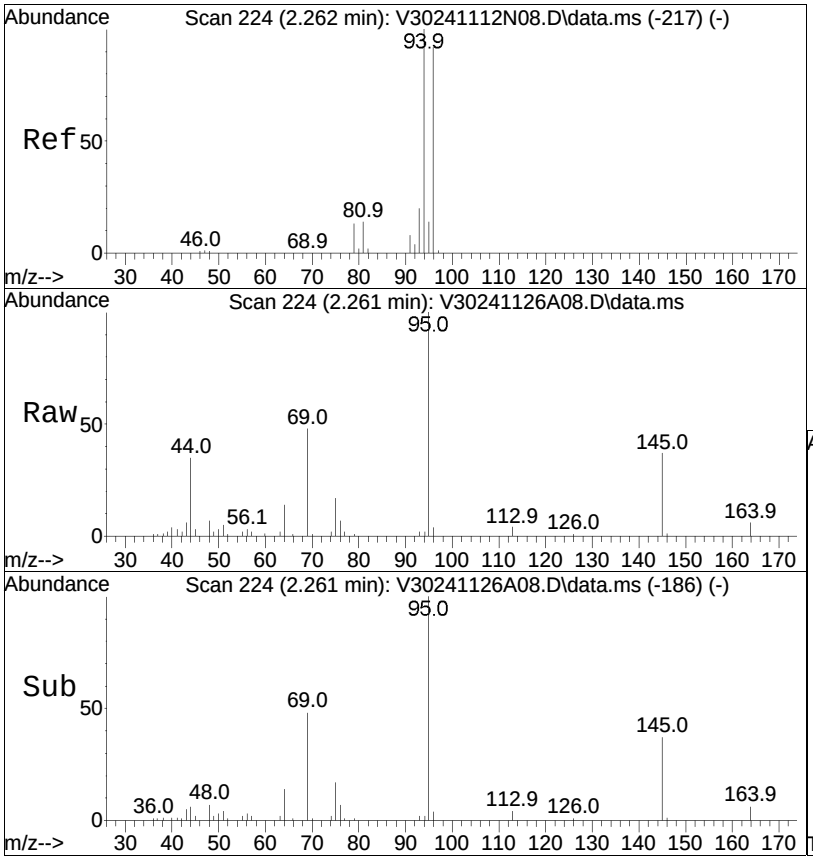


#4
Vinyl chloride
Concen: 0.69 ug/L
RT: 1.942 min Scan# 163
Delta R.T. -0.000 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 62 Resp: 6879

Ion	Ratio	Lower	Upper
62	100		
64	38.6	25.7	38.5#

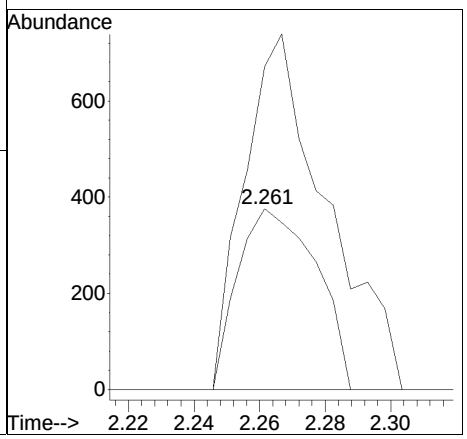


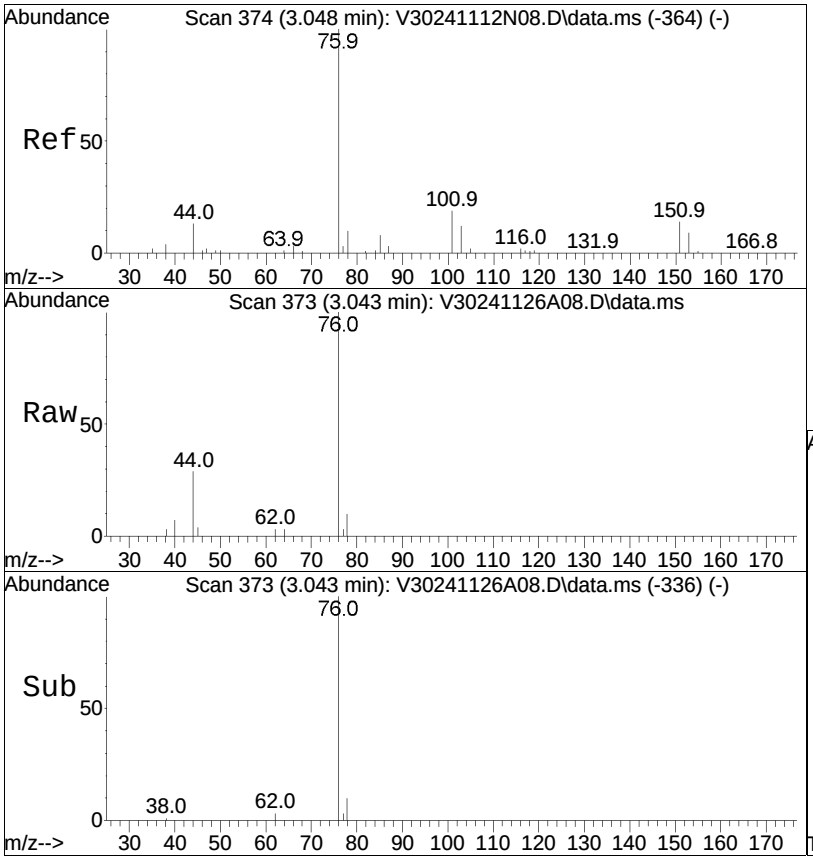


#5
Bromomethane
Concen: 0.12 ug/L
RT: 2.261 min Scan# 224
Delta R.T. -0.001 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 94 Resp: 626

Ion	Ratio	Lower	Upper
94	100		
96	205.9	73.7	110.5#

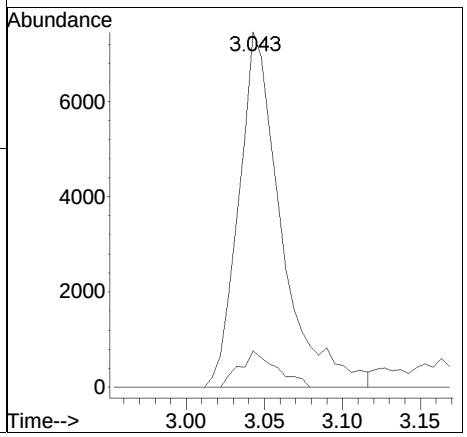


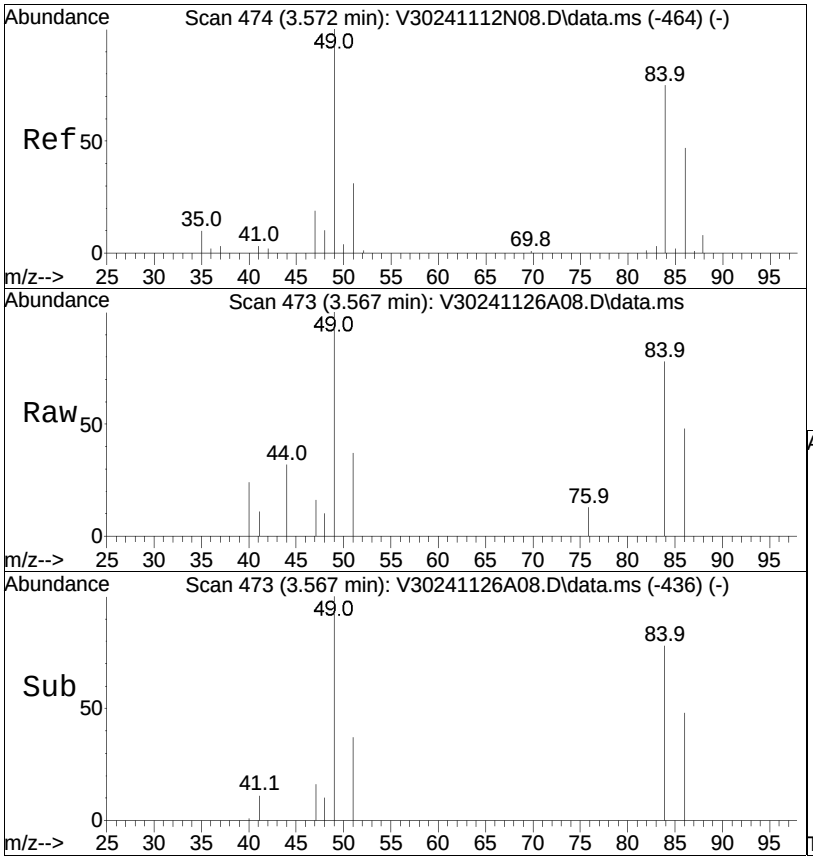


#11
Carbon disulfide
Concen: 0.65 ug/L
RT: 3.043 min Scan# 373
Delta R.T. -0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 76 Resp: 14134

Ion	Ratio	Lower	Upper
76	100		
78	9.0	6.4	13.4

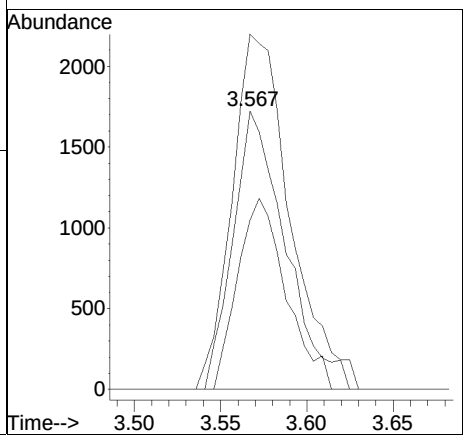


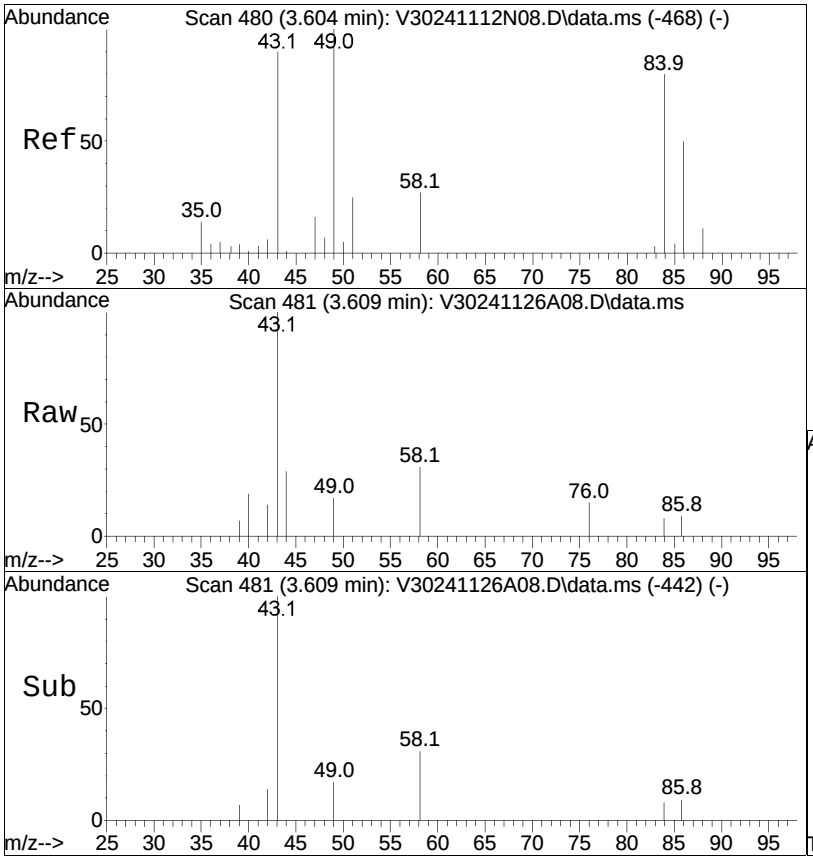


#15
Methylene chloride
Concen: 0.42 ug/L
RT: 3.567 min Scan# 473
Delta R.T. -0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 84 Resp: 3715

Ion	Ratio	Lower	Upper
84	100		
86	62.6	41.7	86.5
49	137.5	103.9	215.9

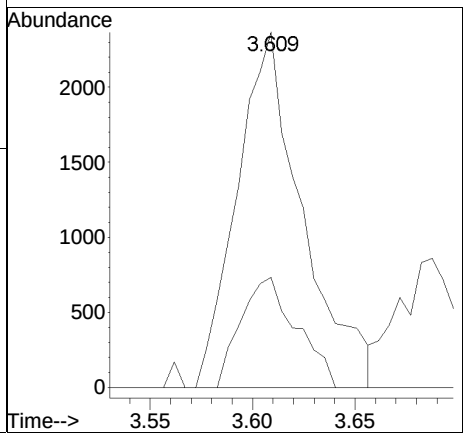


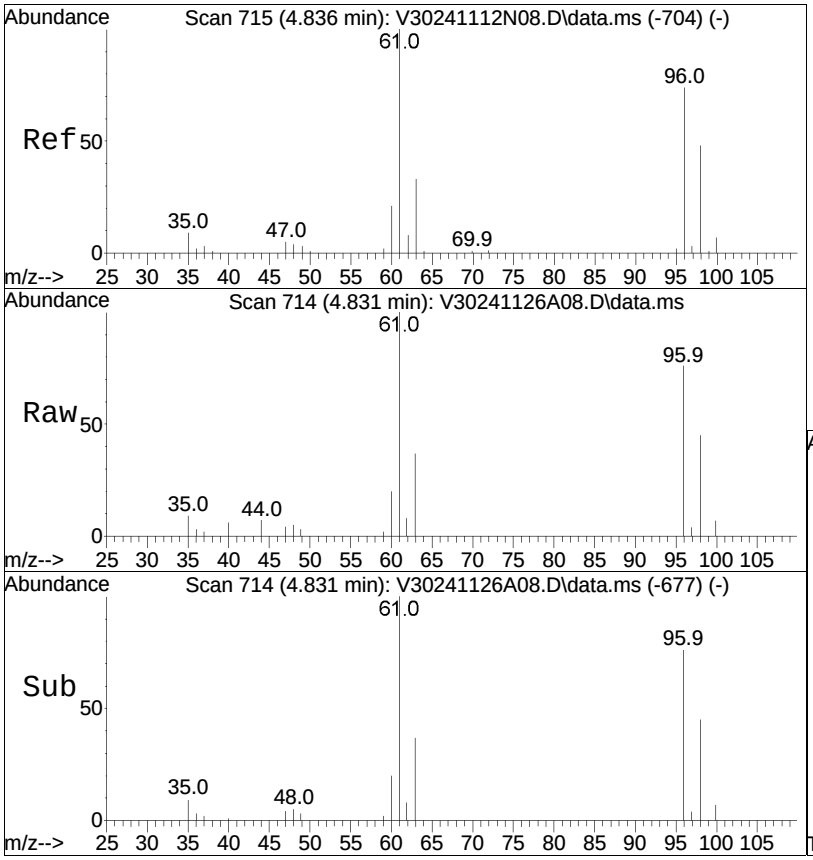


#17
Acetone
Concen: 2.67 ug/L
RT: 3.609 min Scan# 481
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 43 Resp: 5246

Ion	Ratio	Lower	Upper
43	100		
58	26.5	20.1	30.1

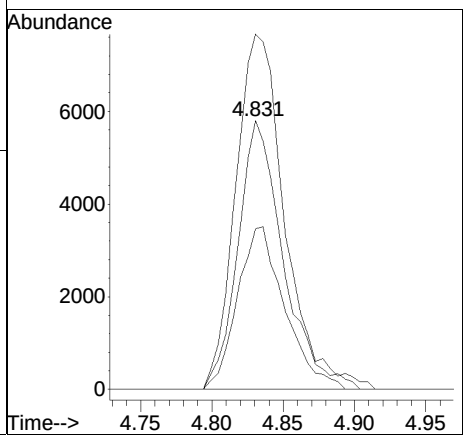


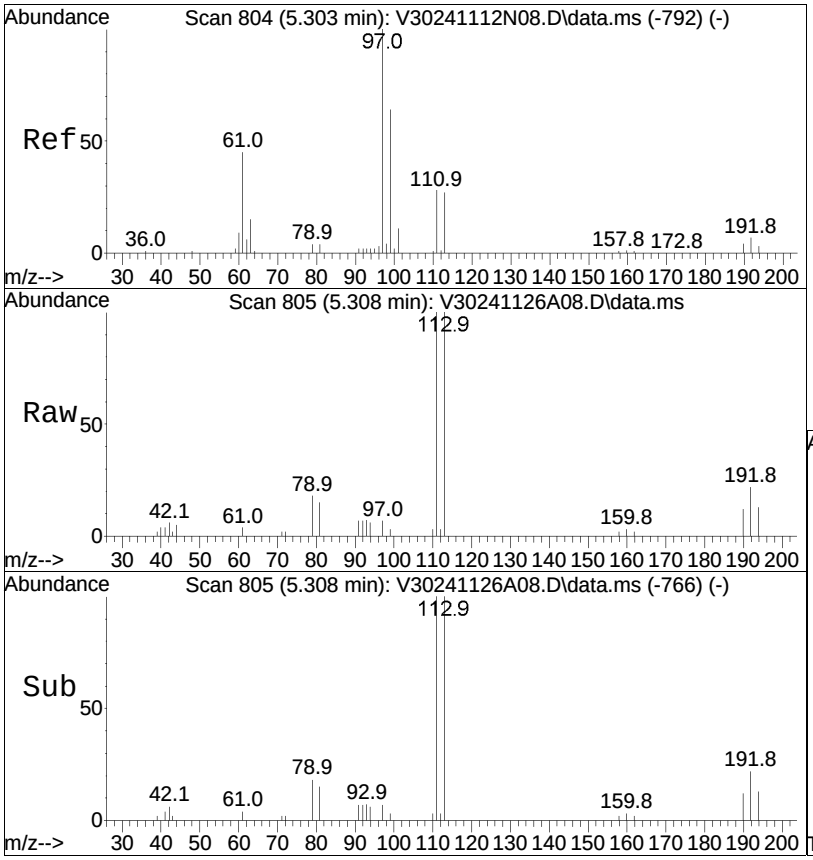


#30
cis-1,2-Dichloroethene
Concen: 1.47 ug/L
RT: 4.831 min Scan# 714
Delta R.T. -0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 96 Resp: 12857

Ion	Ratio	Lower	Upper
96	100		
61	143.1	129.3	193.9
98	63.1	51.4	77.2

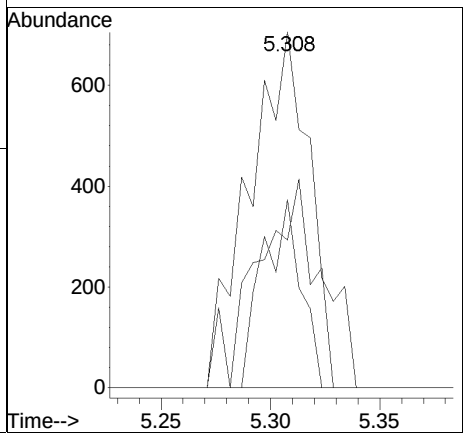


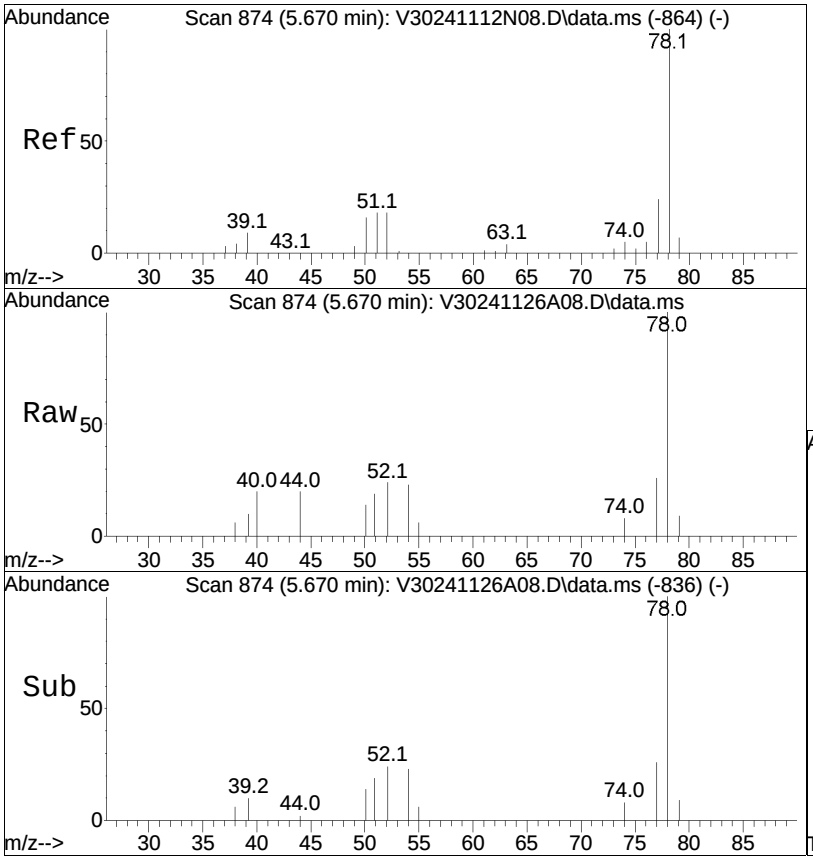


#40
1,1,1-Trichloroethane
Concen: 0.14 ug/L
RT: 5.308 min Scan# 805
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 97 Resp: 1453

Ion	Ratio	Lower	Upper
97	100		
99	50.4	40.6	84.4
61	31.3	35.0	72.8#
63	0.0	11.1	23.0#

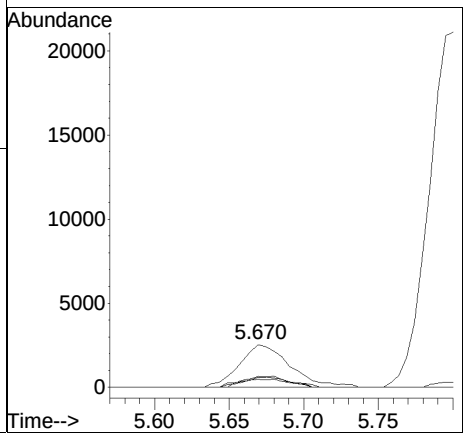


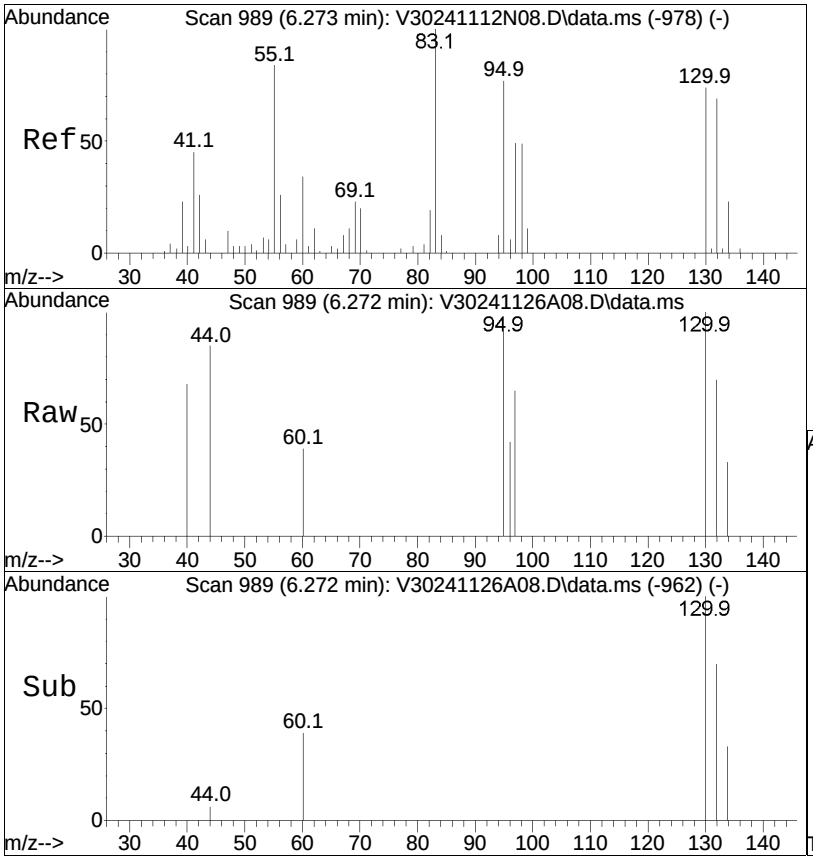


#45
Benzene
Concen: 0.24 ug/L
RT: 5.670 min Scan# 874
Delta R.T. -0.000 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 78 Resp: 6069

Ion	Ratio	Lower	Upper
78	100		
77	24.8	15.6	32.4
51	0.0	12.9	26.7#
52	21.3	12.4	25.7

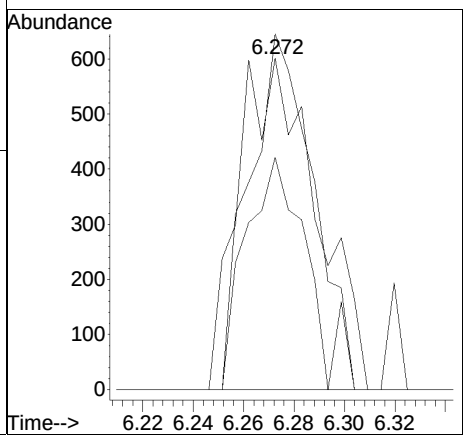


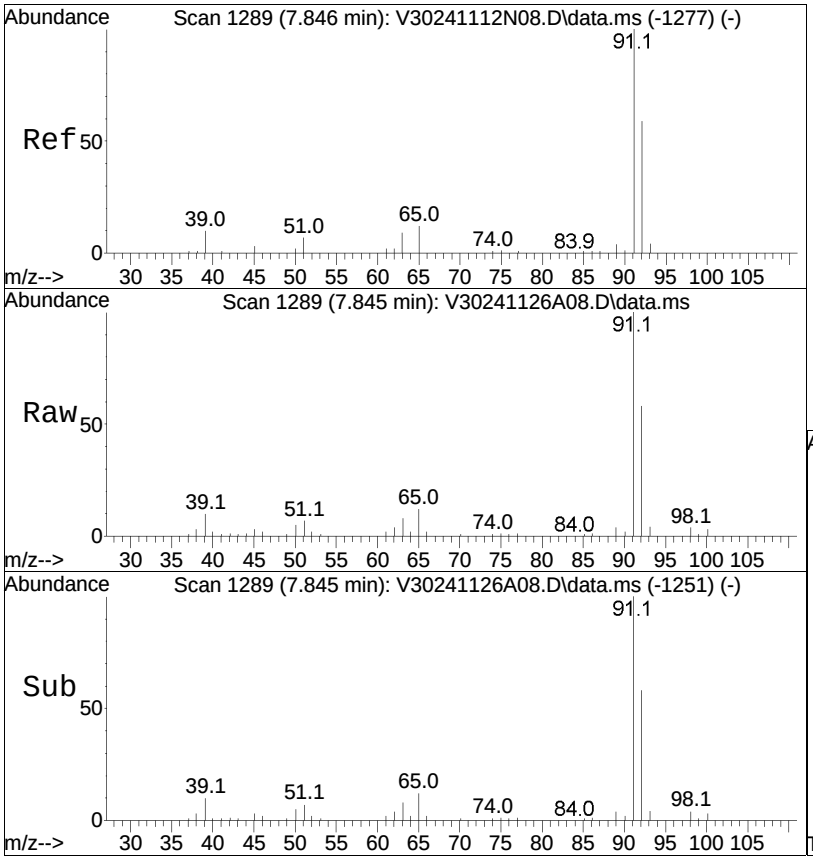


#52
Trichloroethene
Concen: 0.21 ug/L
RT: 6.272 min Scan# 989
Delta R.T. -0.001 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 95 Resp: 1302

Ion	Ratio	Lower	Upper
95	100		
97	54.8	53.8	80.6
130	86.6	71.4	107.0

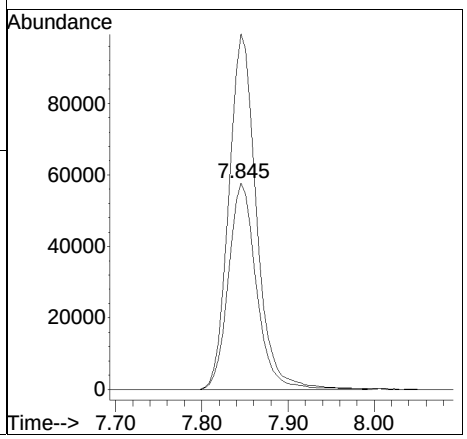


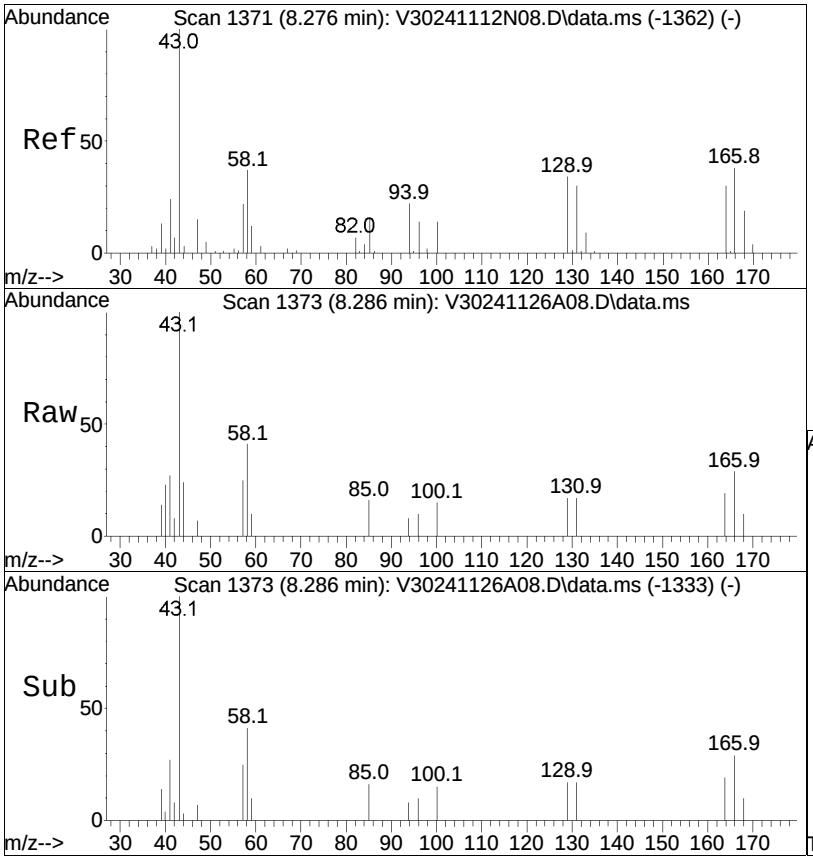


#65
Toluene
Concen: 6.93 ug/L
RT: 7.845 min Scan# 1289
Delta R.T. -0.001 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 92 Resp: 130357

Ion	Ratio	Lower	Upper
92	100		
91	169.5	137.5	206.3

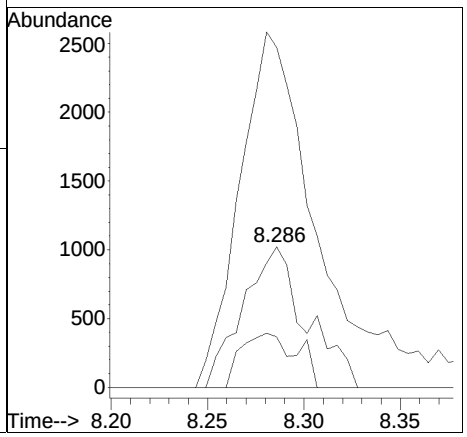


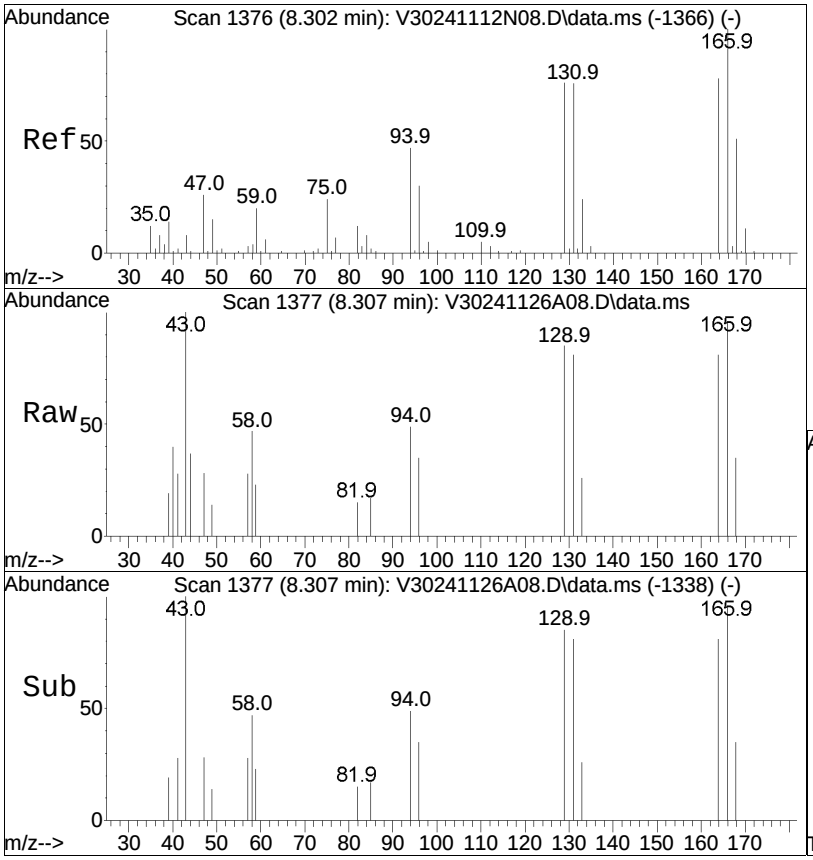


#66
4-Methyl-2-pentanone
Concen: 1.70 ug/L
RT: 8.286 min Scan# 1373
Delta R.T. 0.010 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 58 Resp: 2345

Ion	Ratio	Lower	Upper
58	100		
100	33.8	22.6	34.0
43	307.1	234.6	351.8

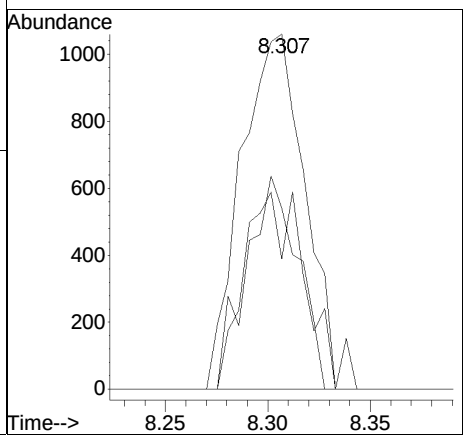


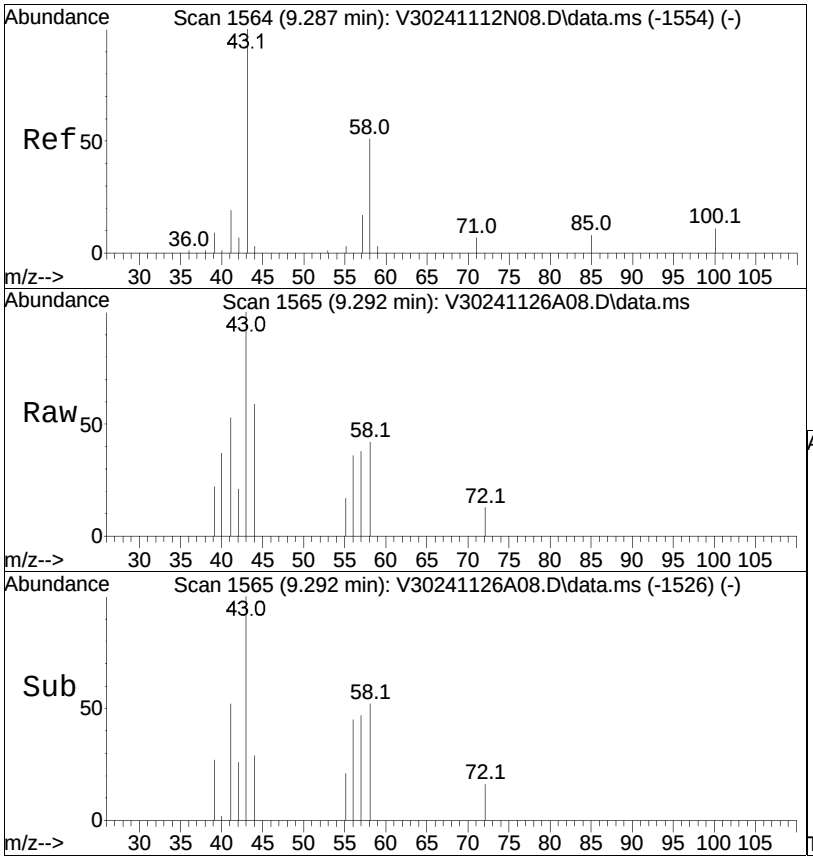


#67
Tetrachloroethene
Concen: 0.34 ug/L
RT: 8.307 min Scan# 1377
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion:166 Resp: 2326

Ion	Ratio	Lower	Upper
166	100		
168	50.8	38.6	58.0
94	47.9	42.6	63.8

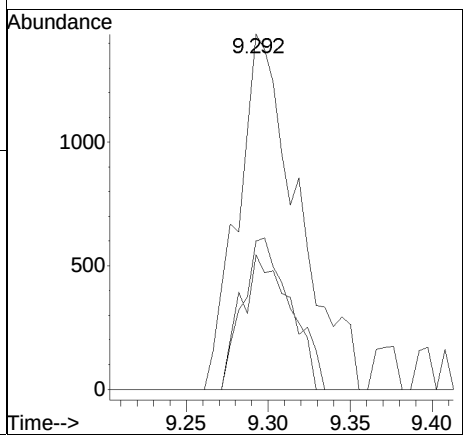


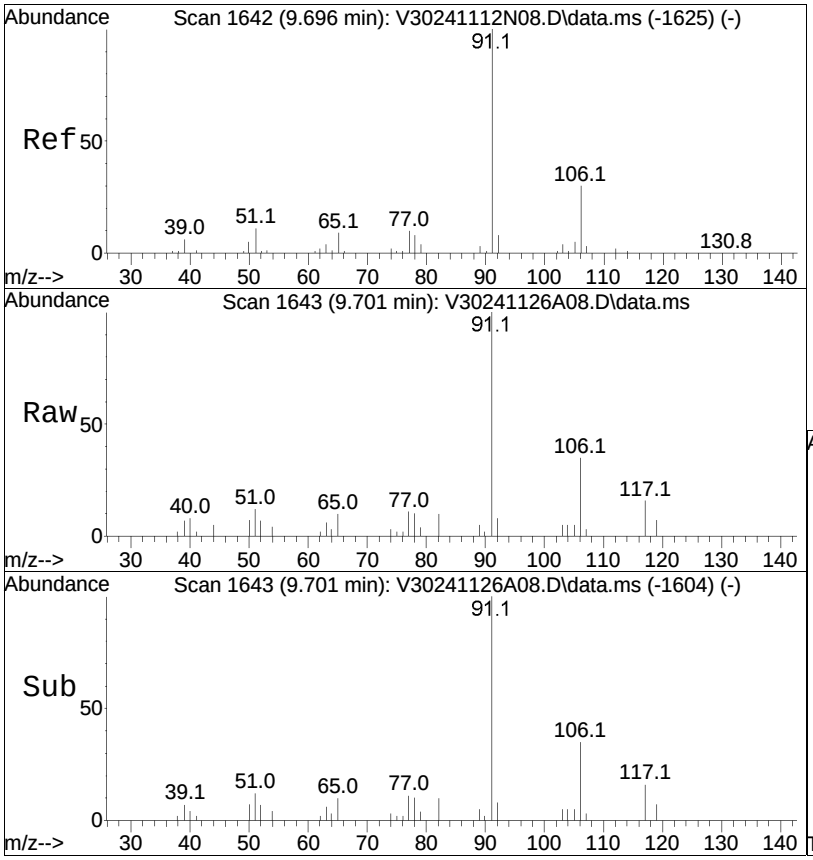


#77
2-Hexanone
Concen: 1.44 ug/L
RT: 9.292 min Scan# 1565
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 43 Resp: 3641

Ion	Ratio	Lower	Upper
43	100		
58	33.0	38.6	58.0#
57	32.7	14.1	21.1#

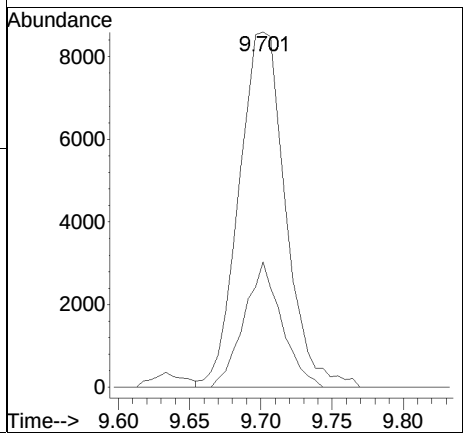


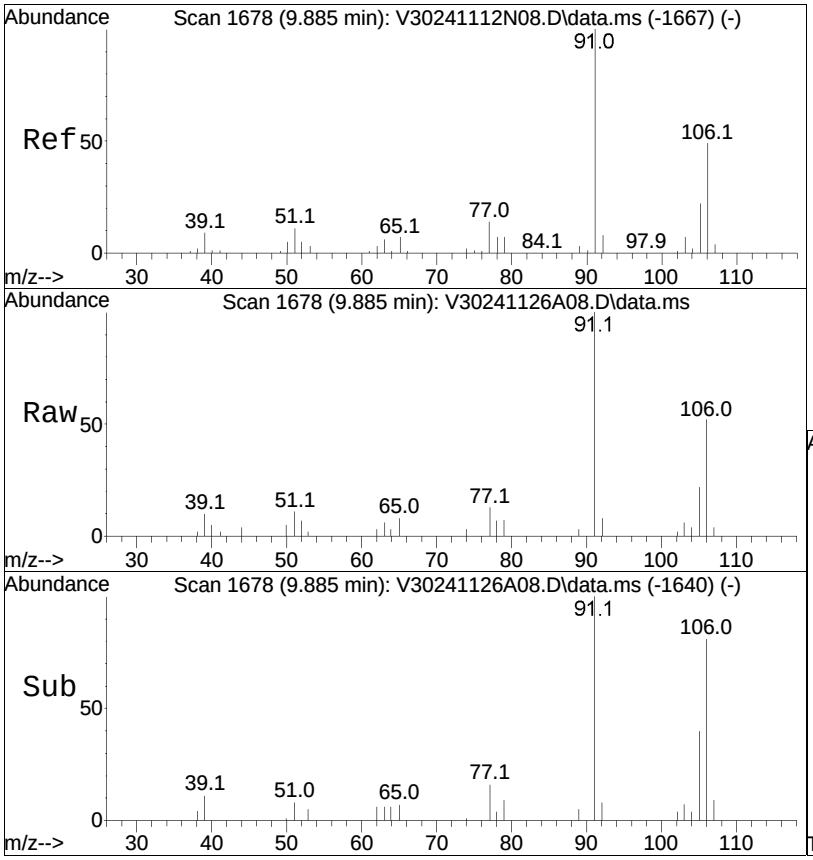


#79
Ethylbenzene
Concen: 0.53 ug/L
RT: 9.701 min Scan# 1643
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion: 91 Resp: 19548

Ion	Ratio	Lower	Upper
91	100		
106	28.6	23.4	35.2

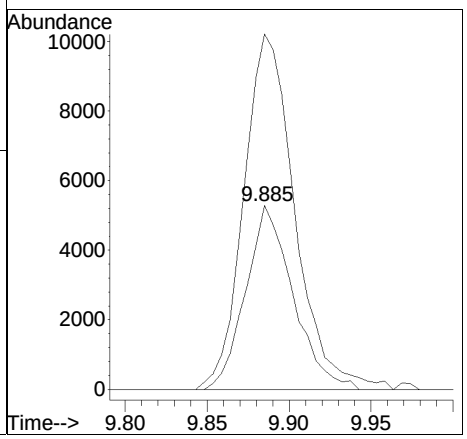


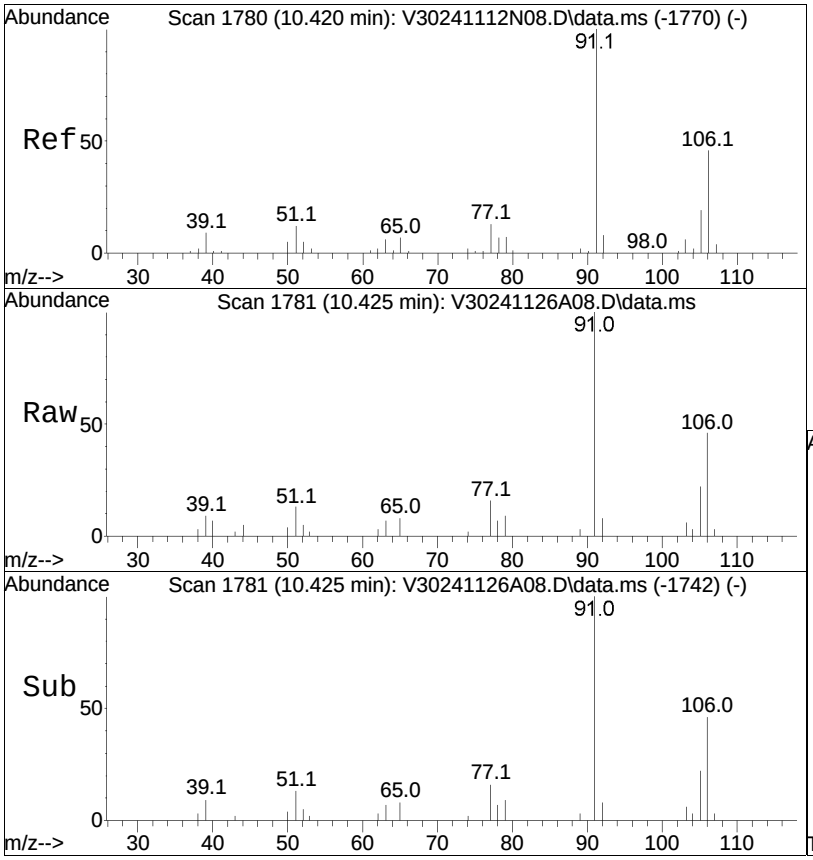


#81
p/m Xylene
Concen: 0.71 ug/L
RT: 9.885 min Scan# 1678
Delta R.T. -0.000 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion:106 Resp: 10594

Ion	Ratio	Lower	Upper
106	100		
91	208.8	171.4	257.2

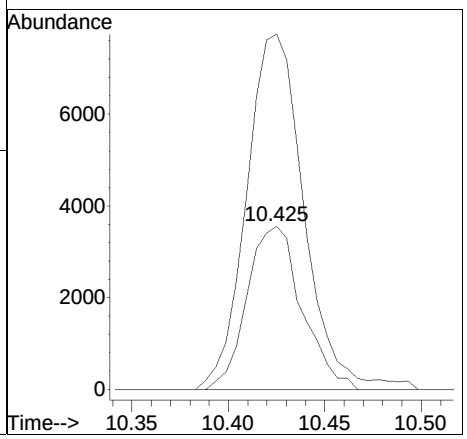


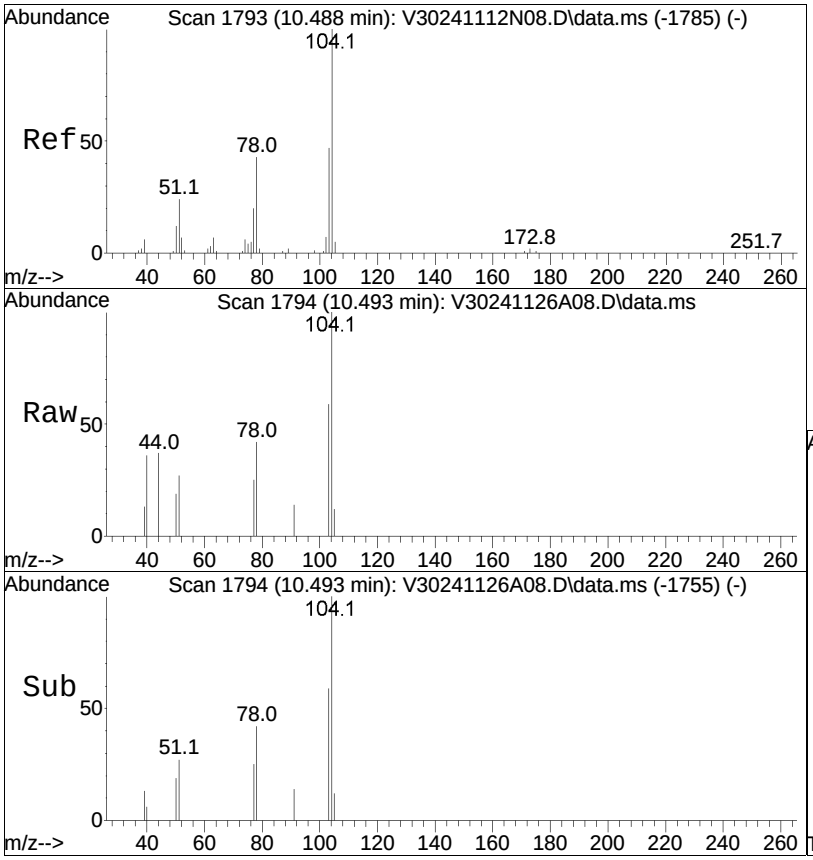


#82
o Xylene
Concen: 0.49 ug/L
RT: 10.425 min Scan# 1781
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion:106 Resp: 7028

Ion	Ratio	Lower	Upper
106	100		
91	229.1	179.2	268.8

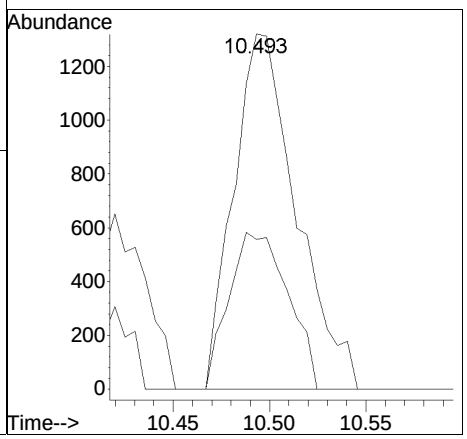


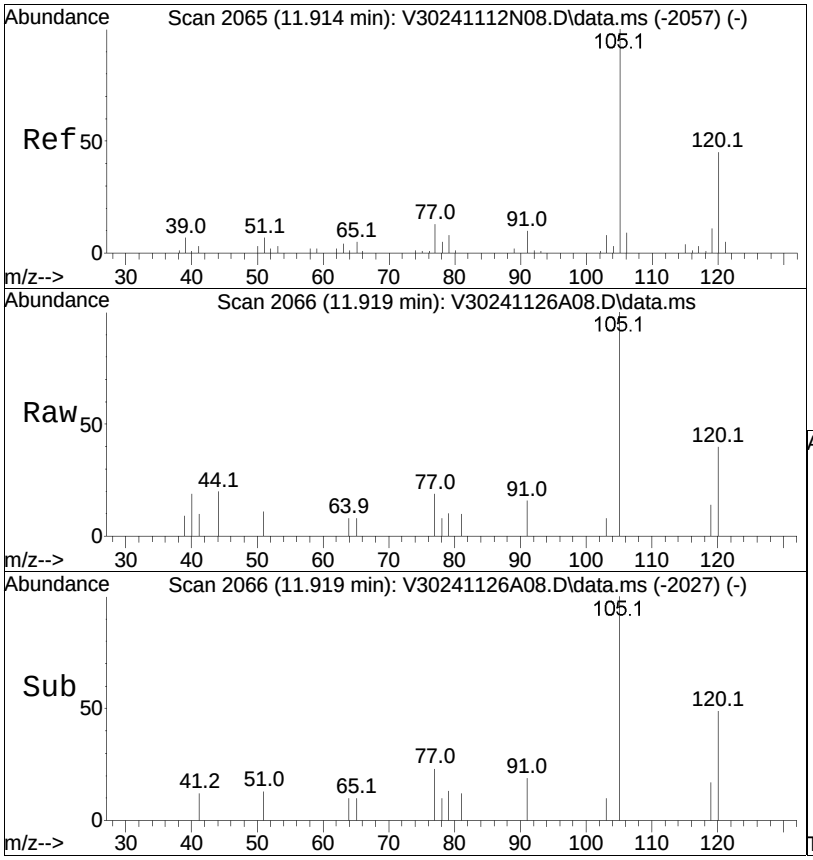


#83
Styrene
Concen: 0.13 ug/L
RT: 10.493 min Scan# 1794
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion:104 Resp: 2991

Ion	Ratio	Lower	Upper
104	100		
78	41.6	38.1	57.1

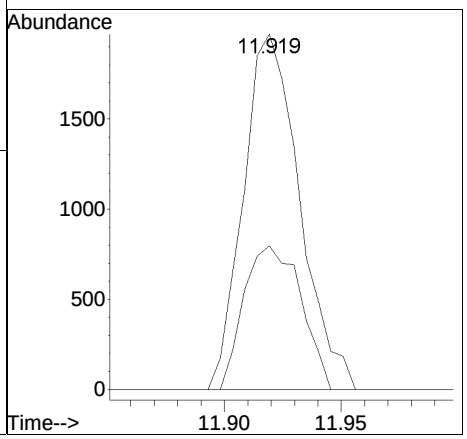


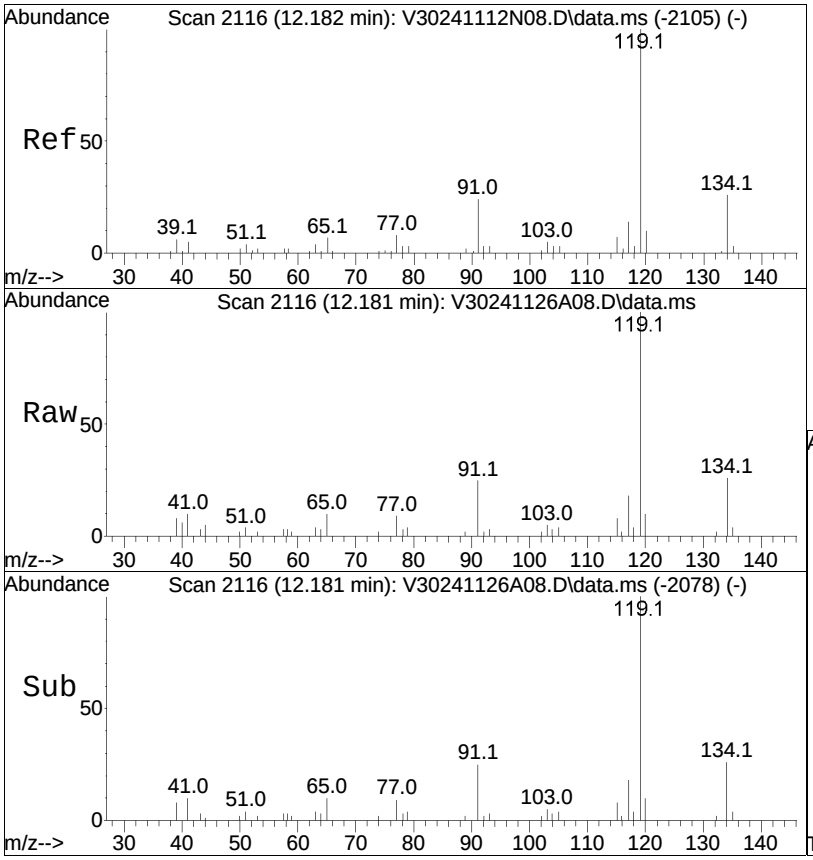


#102
1,2,4-Trimethylbenzene
Concen: 0.10 ug/L
RT: 11.919 min Scan# 2066
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion:105 Resp: 3286

Ion	Ratio	Lower	Upper
105	100		
120	41.1	35.2	52.8

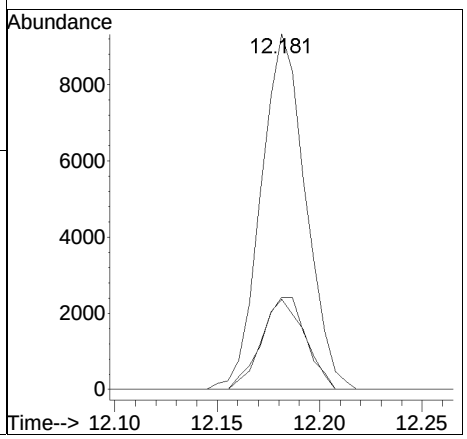


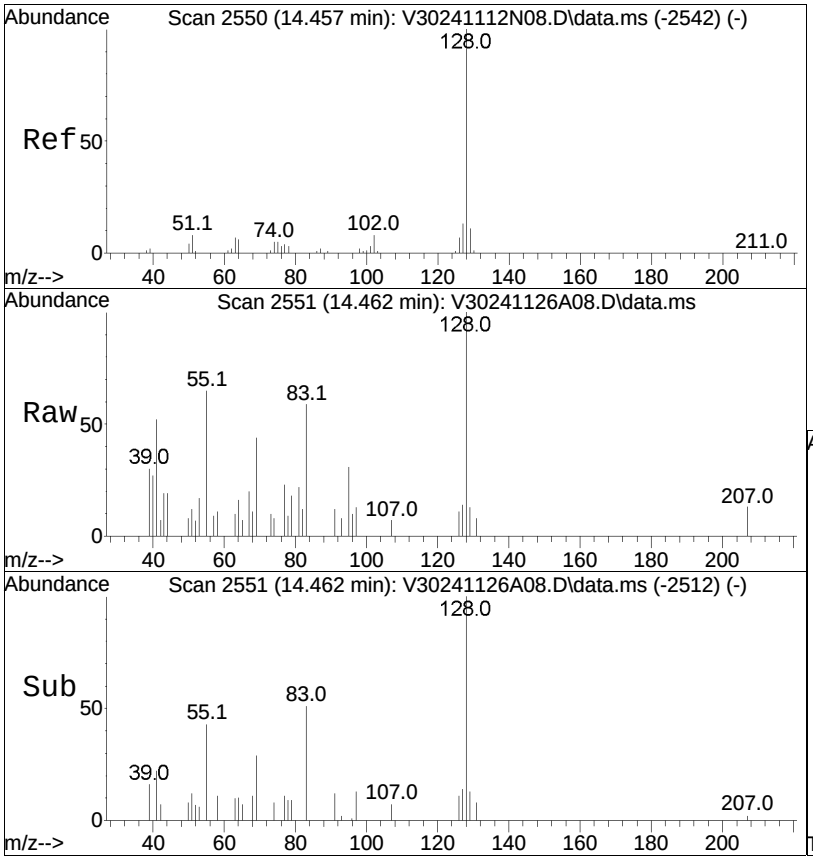


#104
p-Isopropyltoluene
Concen: 0.40 ug/L
RT: 12.181 min Scan# 2116
Delta R.T. -0.001 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion:119 Resp: 14168

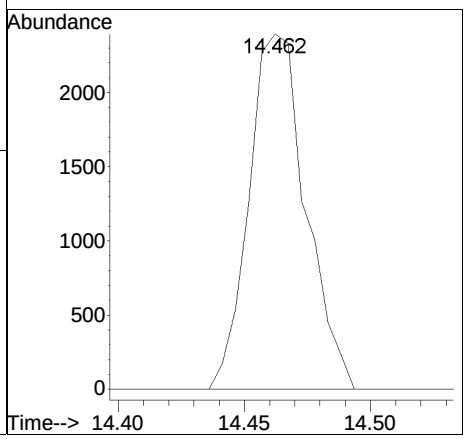
Ion	Ratio	Lower	Upper
119	100		
134	25.7	15.9	33.1
91	25.0	16.6	34.4





#115
Naphthalene
Concen: 0.15 ug/L
RT: 14.462 min Scan# 2551
Delta R.T. 0.005 min
Lab File: V30241126A08.D
Acq: 26 Nov 2024 09:20 am

Tgt Ion:128 Resp: 3748



Manual Integration Report

Data Path	: K:\VOA130\2024\241126A\	QMethod	: V130_241112N_8260D.m
Data File	: V30241126A08.D	Operator	: VOA130:MJV
Date Inj'd	: 11/26/2024 9:20 am	Instrument	: VOA130
Sample	: L2469490-02,31,10,10,,A,R1	Quant Date	: 11/26/2024 10:32 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A09.D
Acq On : 26 Nov 2024 09:42 am
Operator : VOA130:MJV
Sample : L2469490-03,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 26 10:38:19 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	337487	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery =	78.84%		
63) Chlorobenzene-d5	9.633	117	297433	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery =	91.03%		
84) 1,4-Dichlorobenzene-d4	12.323	152	192210	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery =	86.33%		
System Monitoring Compounds						
39) Dibromofluoromethane	5.271	113	141768	12.220	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	122.20%		
47) 1,2-Dichloroethane-d4	5.801	65	134096	11.544	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	115.44%		
64) Toluene-d8	7.788	98	381257	9.555	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.55%		
88) 4-Bromofluorobenzene	11.117	95	160082	9.644	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.44%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.501	85	51	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	1.942	62	614	N.D.		
5) Bromomethane	2.267	94	384	0.072	ug/L #	33
6) Chloroethane	0.000		0	N.D. d		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.043	76	5154	0.244	ug/L	96
15) Methylene chloride	3.567	84	4212	0.486	ug/L	89
17) Acetone	3.609	43	2635	0.432	ug/L #	89
18) trans-1,2-Dichloroethene	3.724	96	297	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	4.569	43	76	N.D.		
30) cis-1,2-Dichloroethene	4.831	96	2020	0.235	ug/L	79
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A09.D
Acq On : 26 Nov 2024 09:42 am
Operator : VOA130:MJV
Sample : L2469490-03,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 26 10:38:19 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	5.297	117	120	N.D.	
40) 1,1,1-Trichloroethane	5.303	97	3521	0.341 ug/L	92
42) 2-Butanone	0.000		0	N.D. d	
43) 1,1-Dichloropropene	0.000		0	N.D.	
45) Benzene	5.675	78	10703	0.425 ug/L	96
48) 1,2-Dichloroethane	5.864	62	427	N.D.	
52) Trichloroethene	6.273	95	963	0.157 ug/L #	70
54) Dibromomethane	0.000		0	N.D.	
55) 1,2-Dichloropropane	0.000		0	N.D.	
58) Bromodichloromethane	0.000		0	N.D.	
61) 1,4-Dioxane	0.000		0	N.D.	
62) cis-1,3-Dichloropropene	0.000		0	N.D.	
65) Toluene	7.846	92	30802	1.695 ug/L	100
66) 4-Methyl-2-pentanone	0.000		0	N.D.	
67) Tetrachloroethene	8.302	166	3171	0.481 ug/L	93
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	0.000		0	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	0.000		0	N.D.	
75) 1,2-Dibromoethane	0.000		0	N.D.	
77) 2-Hexanone	0.000		0	N.D. d	
78) Chlorobenzene	9.649	112	970	N.D.	
79) Ethylbenzene	9.702	91	3117	0.087 ug/L	90
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	9.890	106	1534	0.107 ug/L	92
82) o Xylene	10.425	106	1405	0.102 ug/L	88
83) Styrene	0.000		0	N.D. d	
85) Bromoform	0.000		0	N.D.	
87) Isopropylbenzene	10.813	105	392	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	11.280	91	318	N.D.	
92) 1,1,2,2-Tetrachloroethane	11.364	83	56	N.D.	
93) 4-Ethyltoluene	11.395	105	370	N.D.	
94) 2-Chlorotoluene	11.280	91	318	N.D.	
95) 1,3,5-Trimethylbenzene	11.500	105	79	N.D.	
96) 1,2,3-Trichloropropane	11.631	75	49	N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
98) 4-Chlorotoluene	11.636	91	75	N.D.	
99) tert-Butylbenzene	11.836	119	102	N.D.	

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A09.D
Acq On : 26 Nov 2024 09:42 am
Operator : VOA130:MJV
Sample : L2469490-03,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 26 10:38:19 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.925	105	636	N.D.		
103) sec-Butylbenzene	12.024	105	391	N.D.		
104) p-Isopropyltoluene	12.187	119	588	N.D.		
105) 1,3-Dichlorobenzene	12.250	146	170	N.D.		
106) 1,4-Dichlorobenzene	12.344	146	1419	0.076	ug/L #	1
107) p-Diethylbenzene	0.000		0	N.D.		
108) n-Butylbenzene	12.612	91	53	N.D.		
109) 1,2-Dichlorobenzene	12.764	146	684	N.D.		
110) 1,2,4,5-Tetramethylben...	13.393	119	102	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.169	180	59	N.D.		
115) Naphthalene	14.473	128	502	N.D.		
116) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

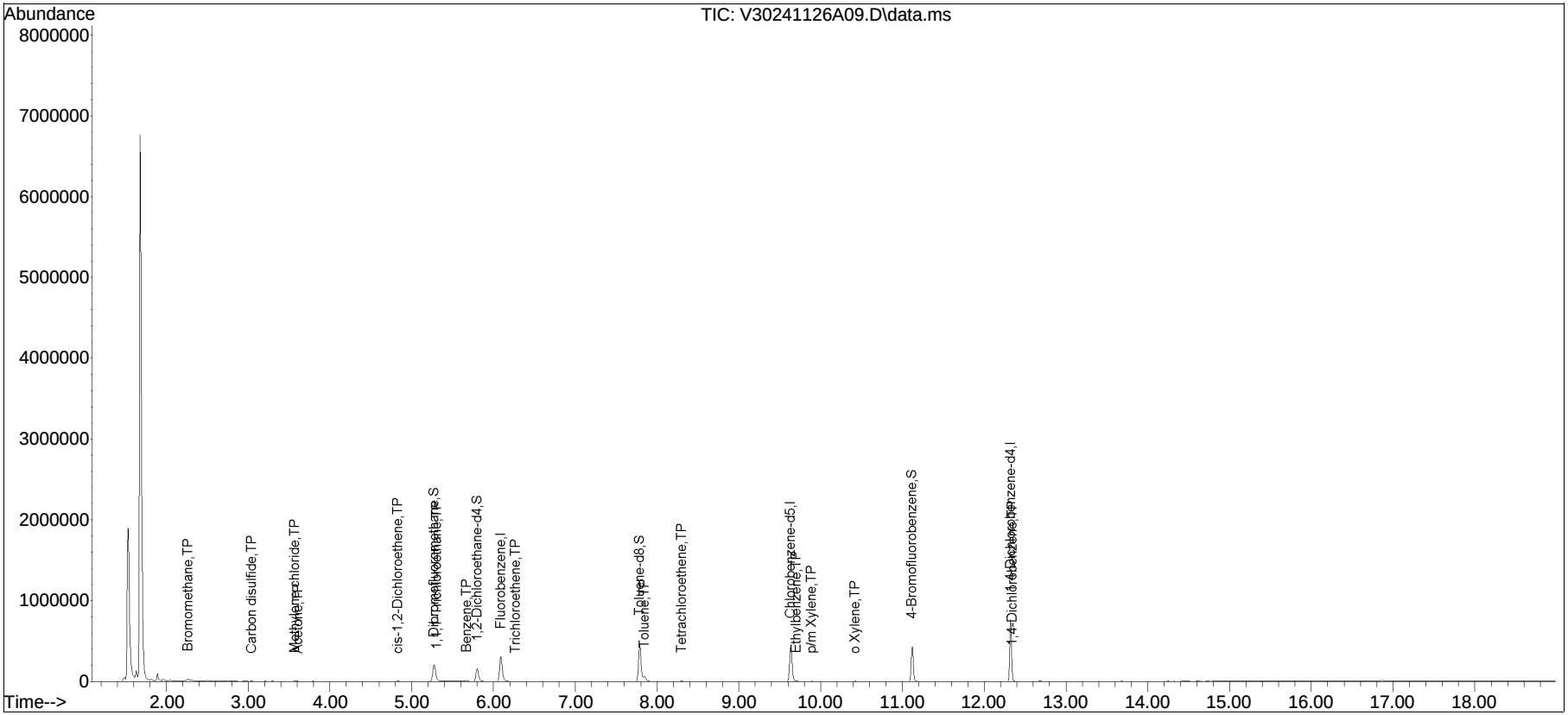
(#) = qualifier out of range (m) = manual integration (+) = signals summed

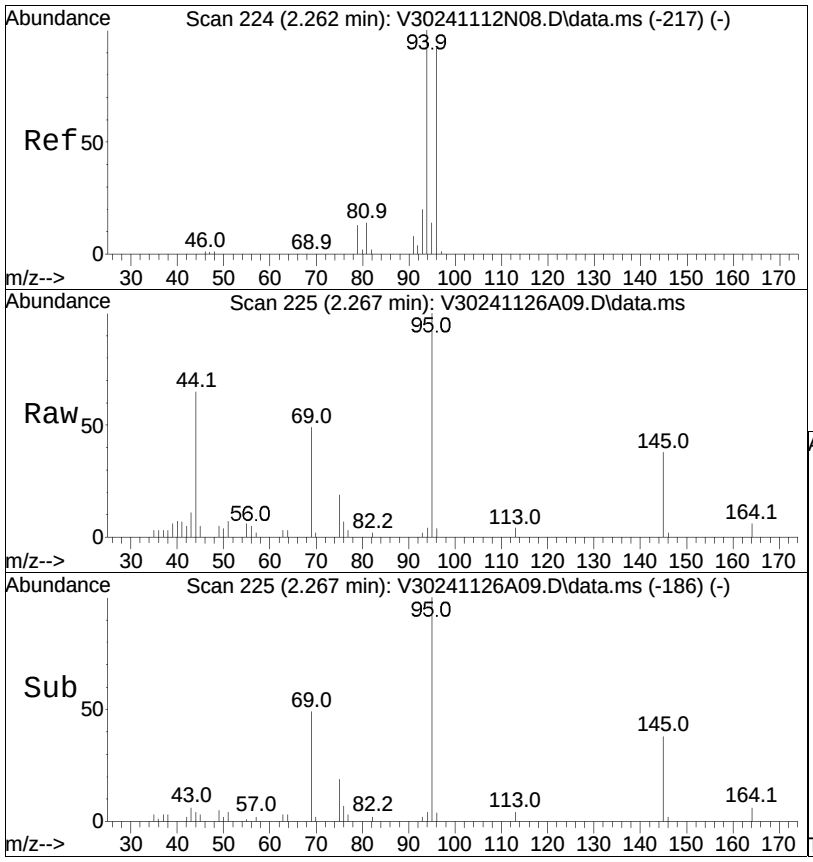
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A09.D
Acq On : 26 Nov 2024 09:42 am
Operator : VOA130:MJV
Sample : L2469490-03,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 26 10:38:19 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox241126A01.D•

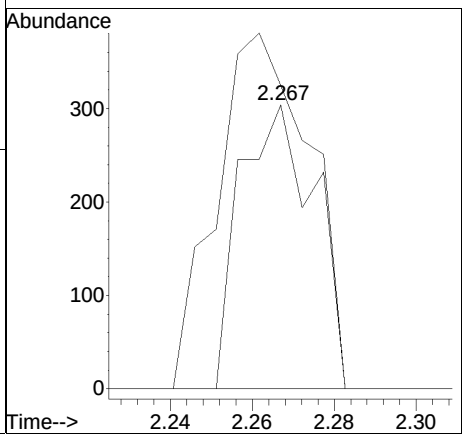


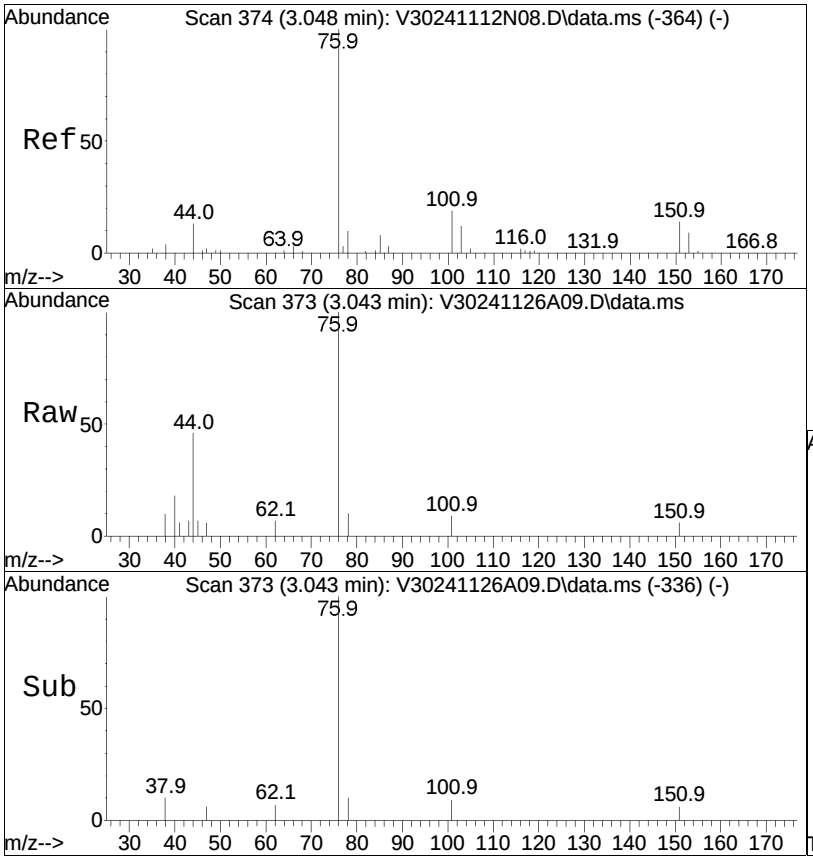


#5
Bromomethane
Concen: 0.07 ug/L
RT: 2.267 min Scan# 225
Delta R.T. 0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 94 Resp: 384

Ion	Ratio	Lower	Upper
94	100		
96	156.0	73.7	110.5#

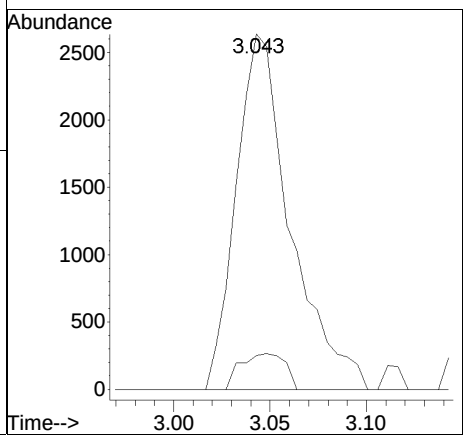


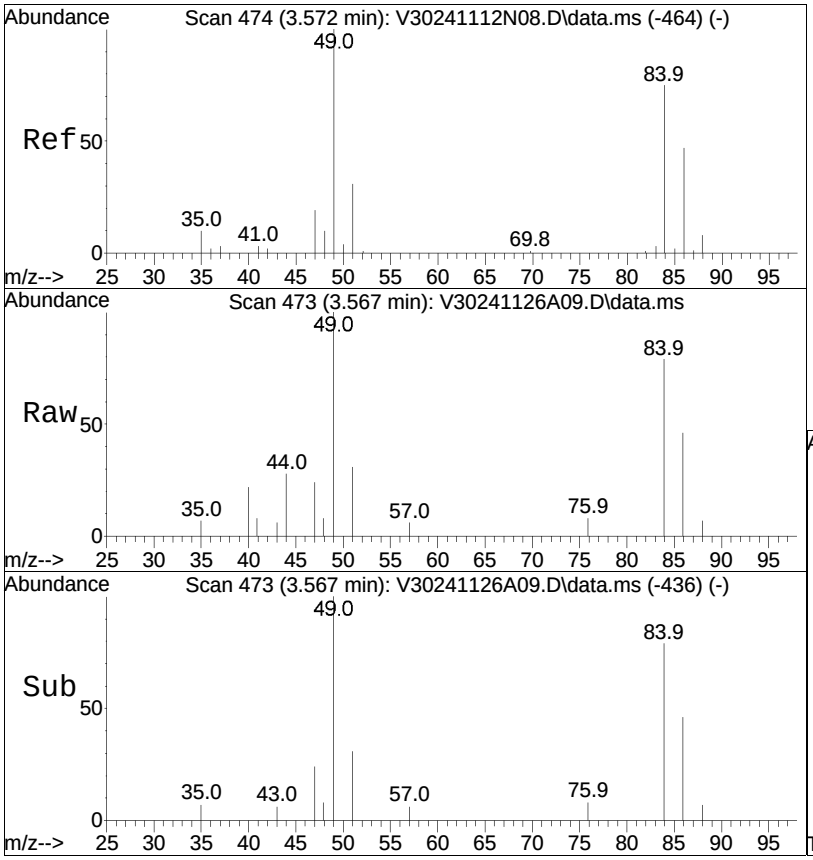


#11
Carbon disulfide
Concen: 0.24 ug/L
RT: 3.043 min Scan# 373
Delta R.T. -0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 76 Resp: 5154

Ion	Ratio	Lower	Upper
76	100		
78	8.3	6.4	13.4

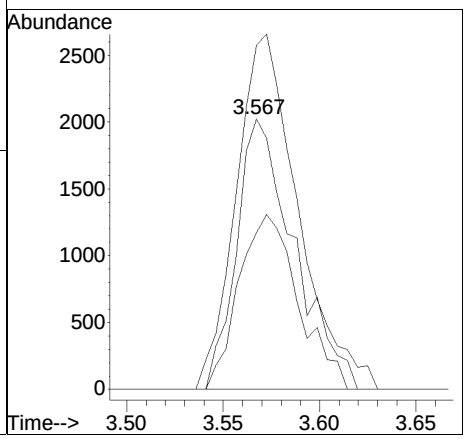


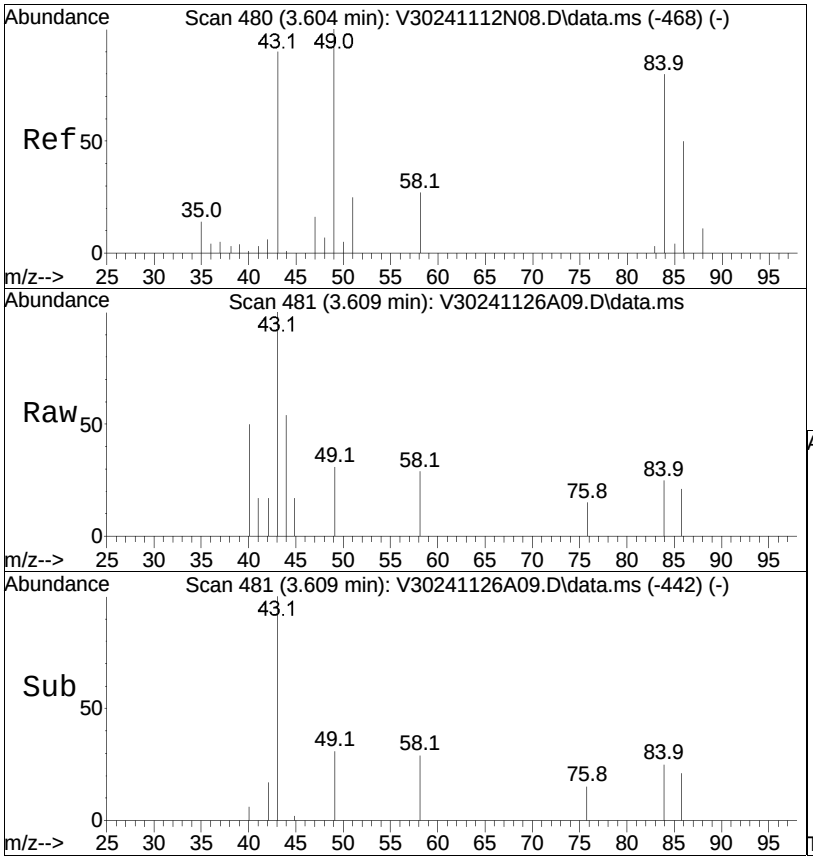


#15
Methylene chloride
Concen: 0.49 ug/L
RT: 3.567 min Scan# 473
Delta R.T. -0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 84 Resp: 4212

Ion	Ratio	Lower	Upper
84	100		
86	66.6	41.7	86.5
49	141.1	103.9	215.9

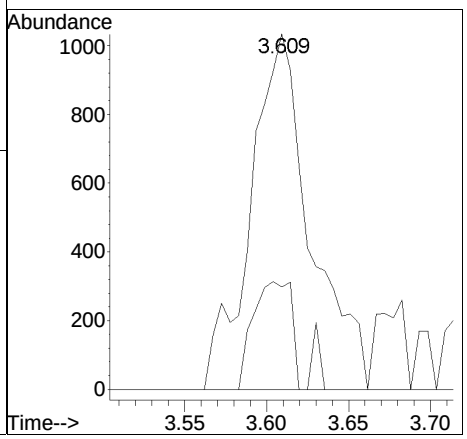


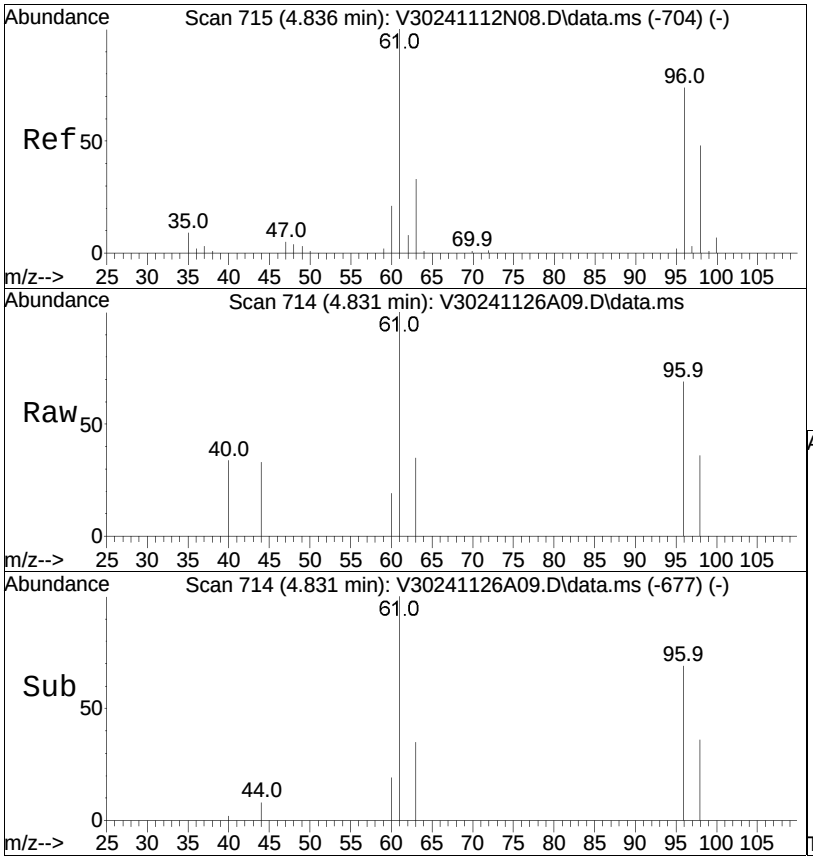


#17
Acetone
Concen: 0.43 ug/L
RT: 3.609 min Scan# 481
Delta R.T. 0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 43 Resp: 2635

Ion	Ratio	Lower	Upper
43	100		
58	19.4	20.1	30.1#

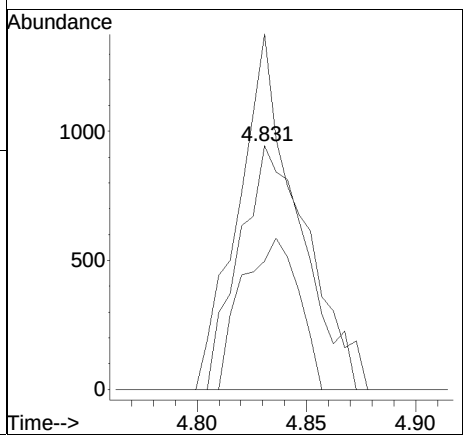


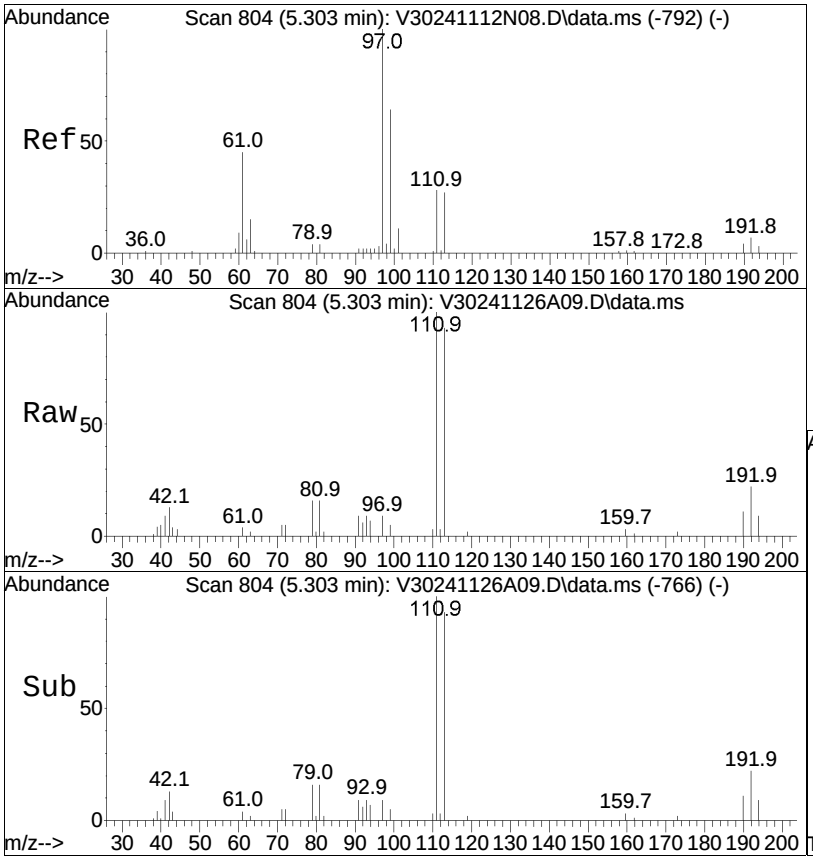


#30
cis-1,2-Dichloroethene
Concen: 0.24 ug/L
RT: 4.831 min Scan# 714
Delta R.T. -0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 96 Resp: 2020

Ion	Ratio	Lower	Upper
96	100		
61	130.8	129.3	193.9
98	52.6	51.4	77.2

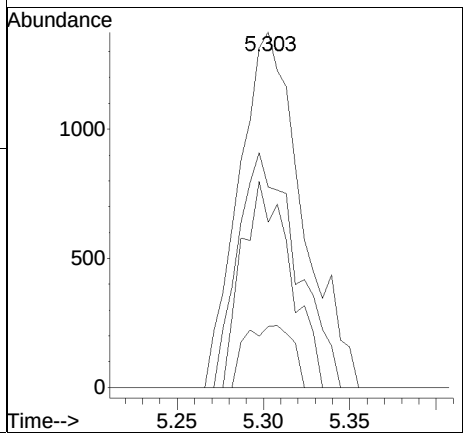


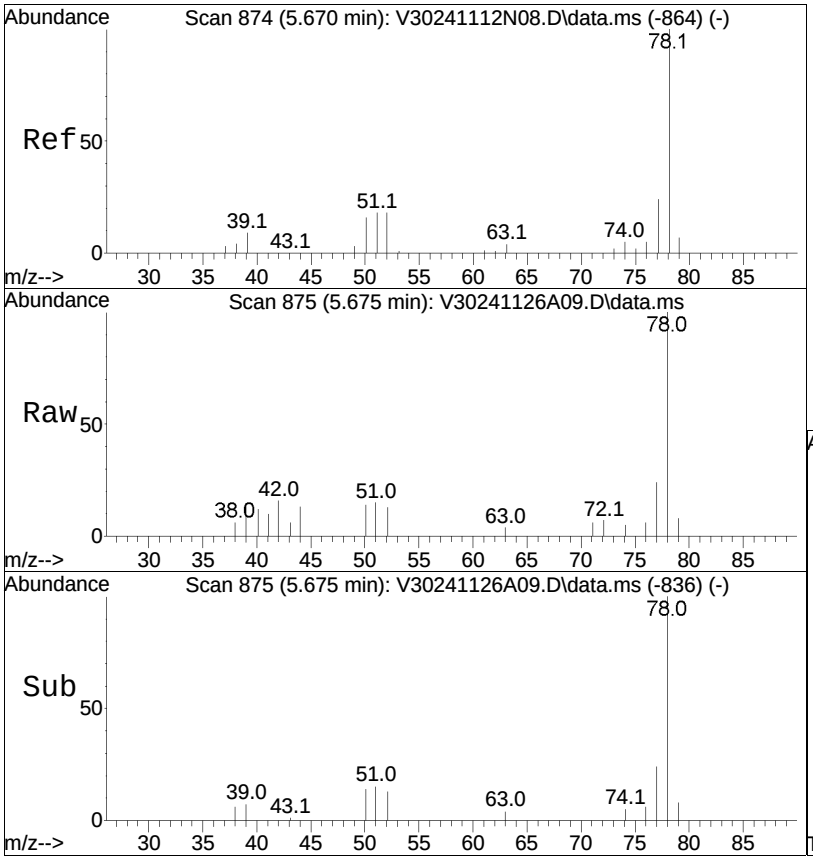


#40
1,1,1-Trichloroethane
Concen: 0.34 ug/L
RT: 5.303 min Scan# 804
Delta R.T. -0.000 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 97 Resp: 3521

Ion	Ratio	Lower	Upper
97	100		
99	60.8	40.6	84.4
61	44.2	35.0	72.8
63	13.0	11.1	23.0

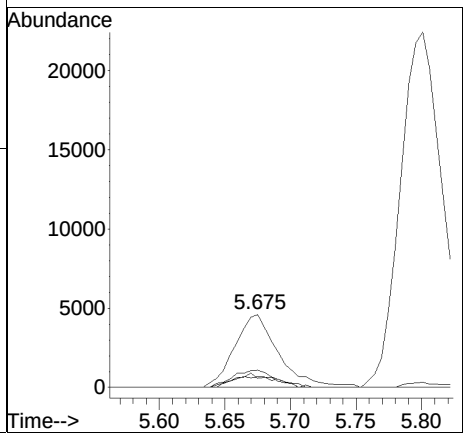


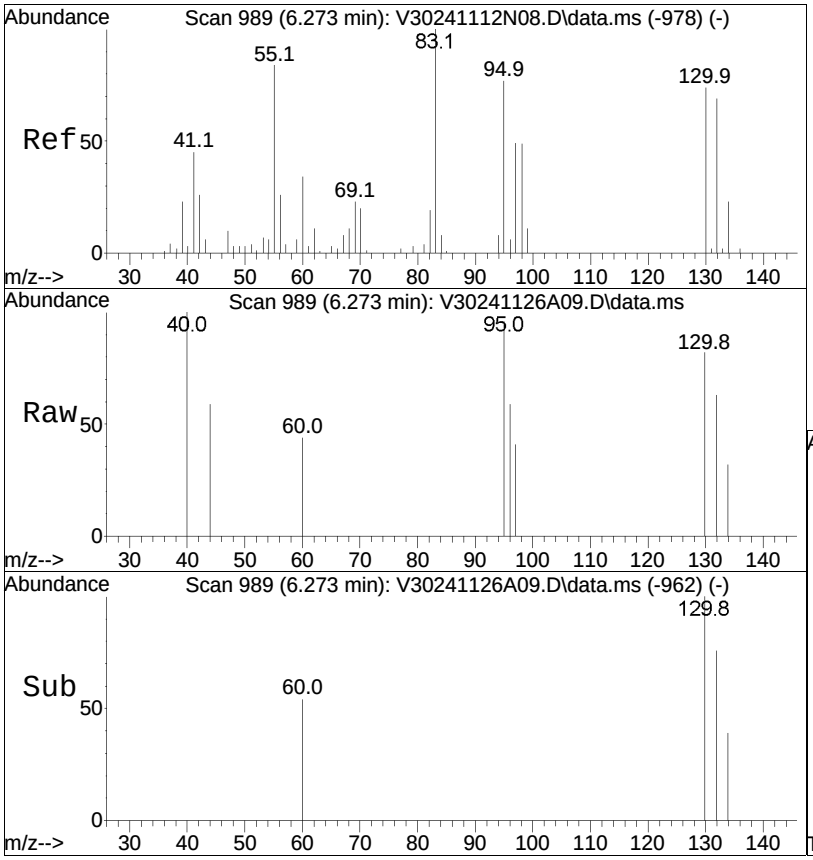


#45
Benzene
Concen: 0.43 ug/L
RT: 5.675 min Scan# 875
Delta R.T. 0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 78 Resp: 10703

Ion	Ratio	Lower	Upper
78	100		
77	23.6	15.6	32.4
51	16.7	12.9	26.7
52	16.6	12.4	25.7

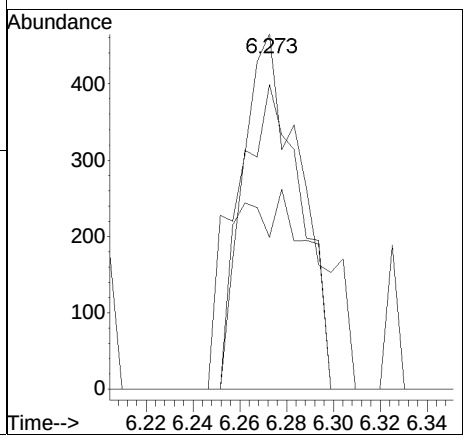


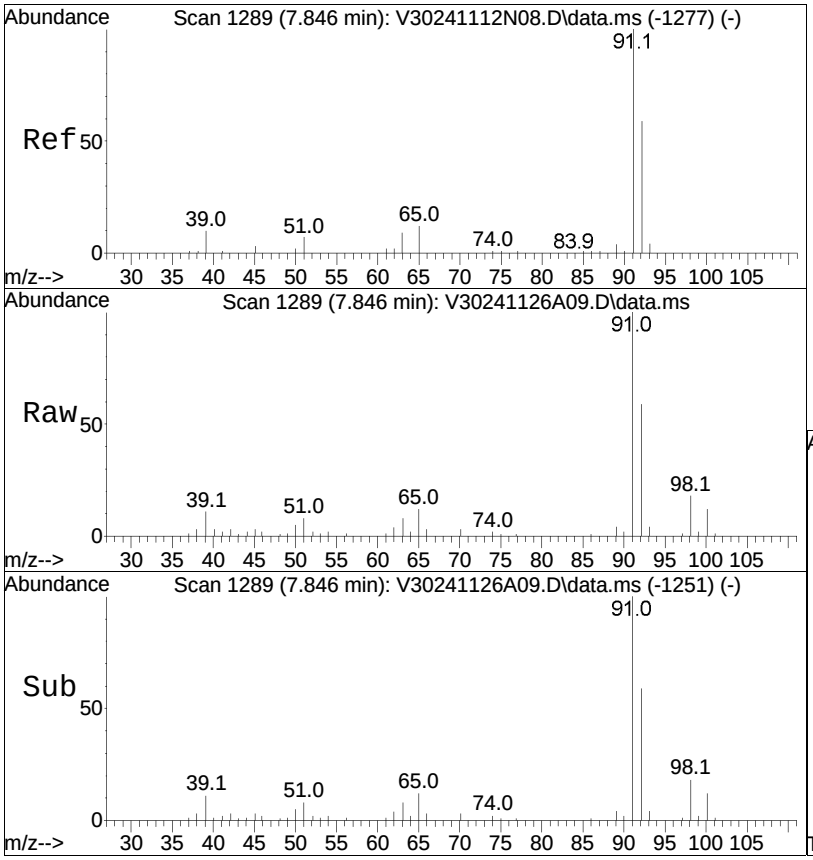


#52
Trichloroethene
Concen: 0.16 ug/L
RT: 6.273 min Scan# 989
Delta R.T. -0.000 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 95 Resp: 963

Ion	Ratio	Lower	Upper
95	100		
97	29.3	53.8	80.6#
130	72.7	71.4	107.0

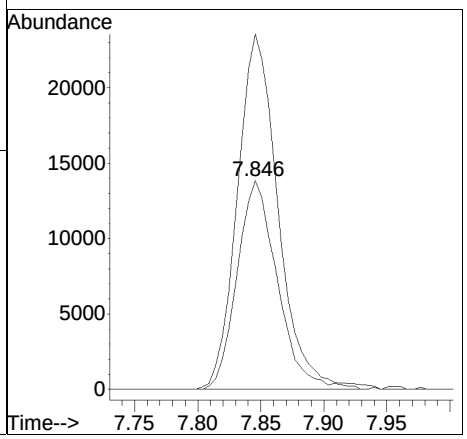


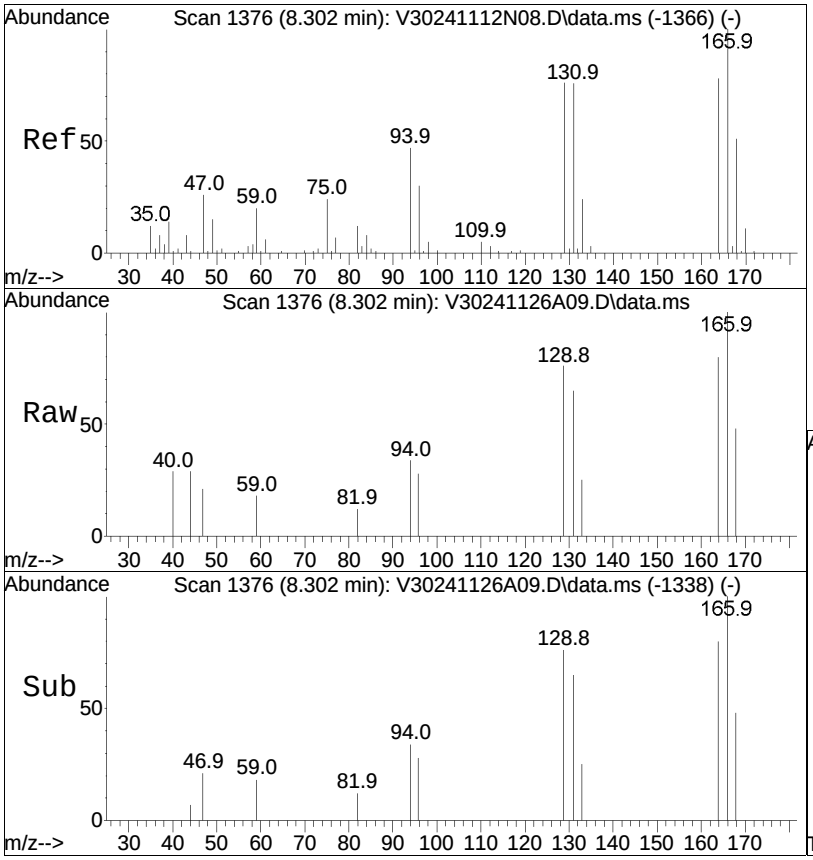


#65
Toluene
Concen: 1.70 ug/L
RT: 7.846 min Scan# 1289
Delta R.T. -0.000 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 92 Resp: 30802

Ion	Ratio	Lower	Upper
92	100		
91	172.3	137.5	206.3

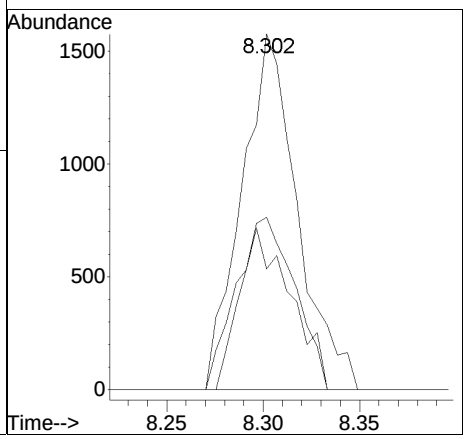


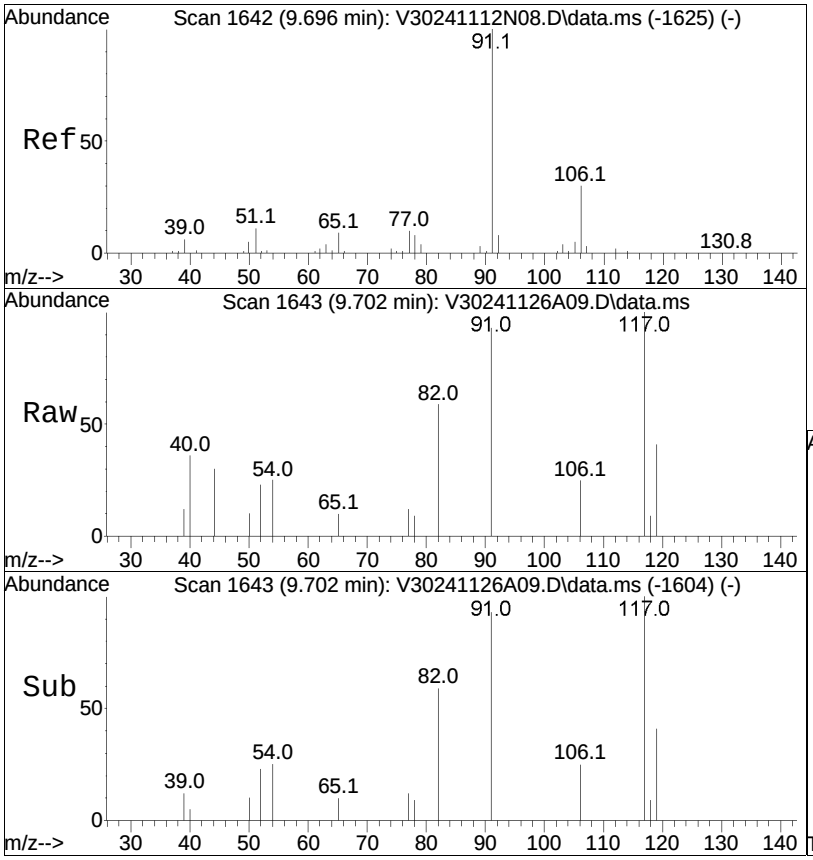


#67
Tetrachloroethene
Concen: 0.48 ug/L
RT: 8.302 min Scan# 1376
Delta R.T. -0.000 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion:166 Resp: 3171

Ion	Ratio	Lower	Upper
166	100		
168	46.7	38.6	58.0
94	45.6	42.6	63.8

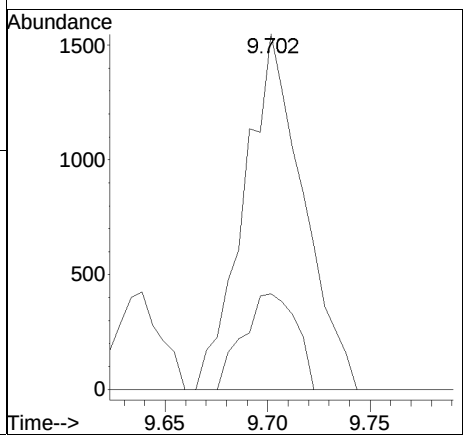


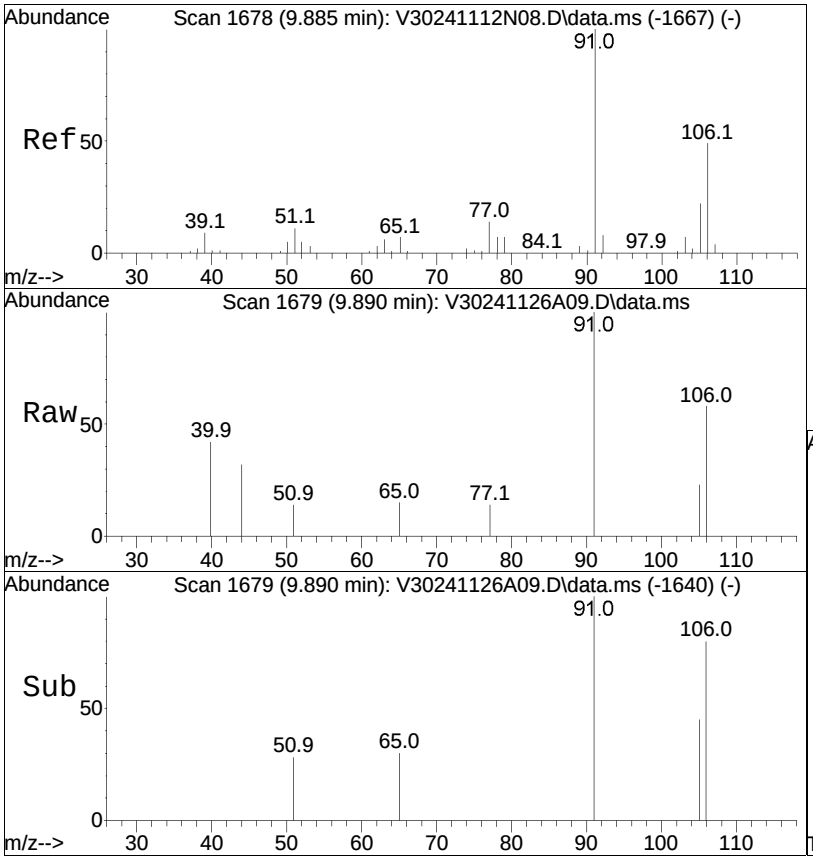


#79
Ethylbenzene
Concen: 0.09 ug/L
RT: 9.702 min Scan# 1643
Delta R.T. 0.006 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion: 91 Resp: 3117

Ion	Ratio	Lower	Upper
91	100		
106	24.2	23.4	35.2

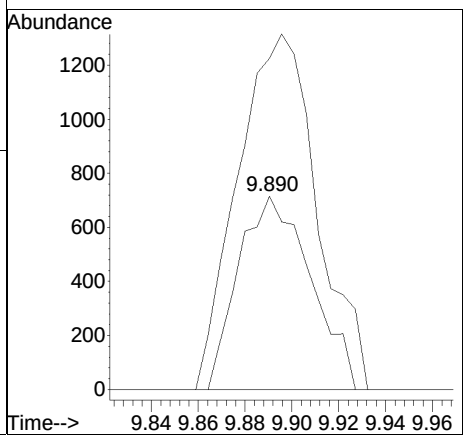


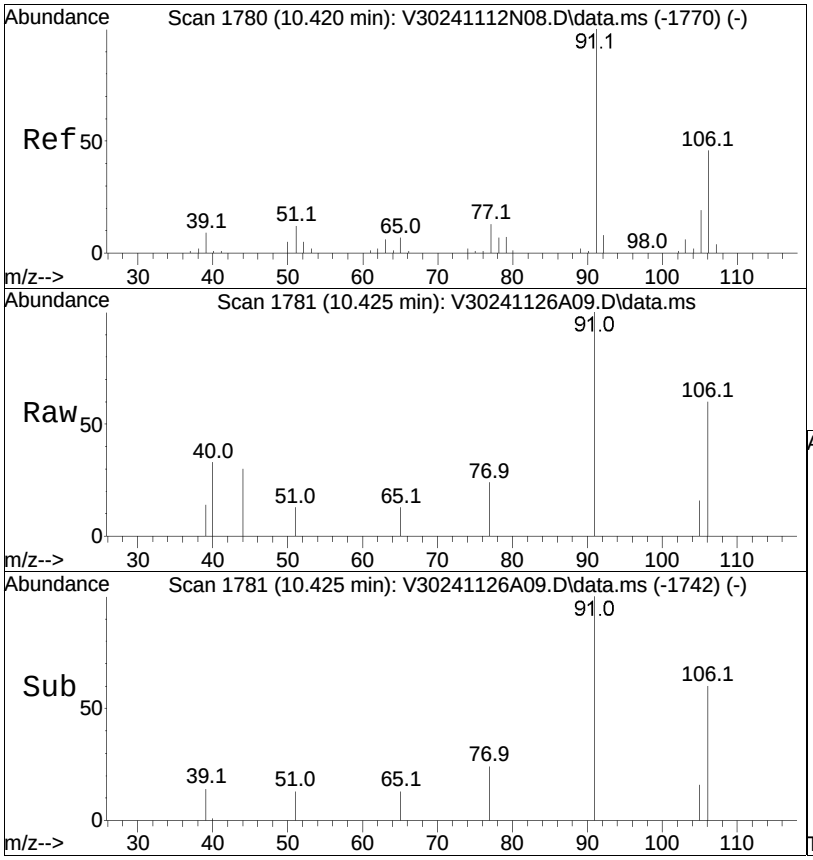


#81
p/m Xylene
Concen: 0.11 ug/L
RT: 9.890 min Scan# 1679
Delta R.T. 0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion:106 Resp: 1534

Ion	Ratio	Lower	Upper
106	100		
91	202.0	171.4	257.2

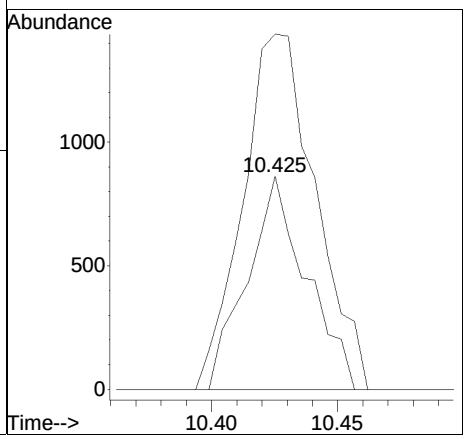


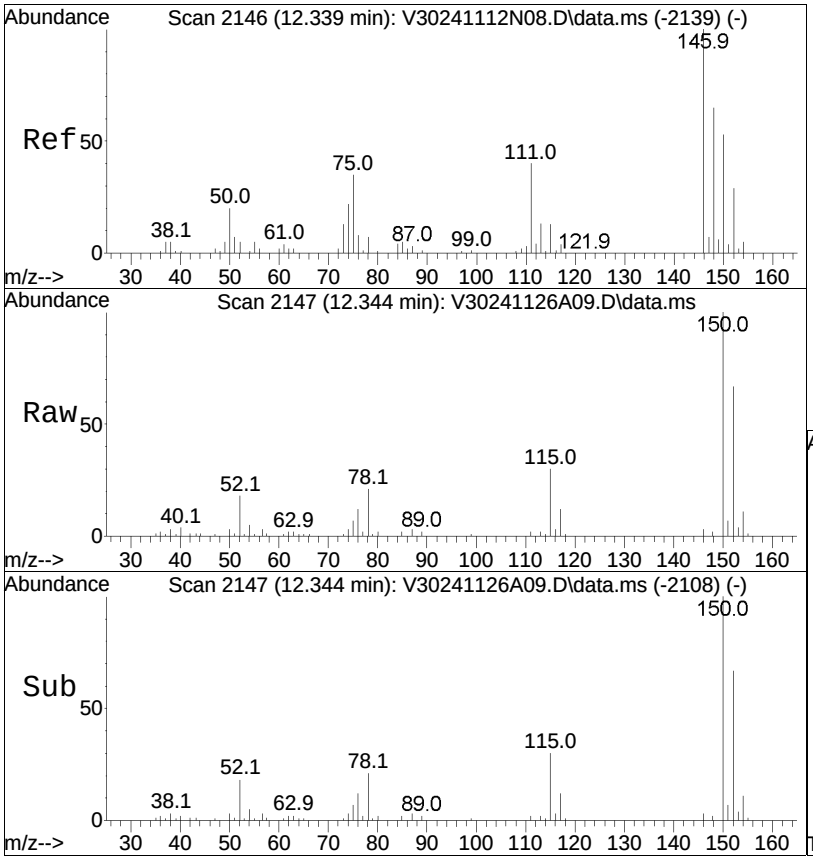


#82
o Xylene
Concen: 0.10 ug/L
RT: 10.425 min Scan# 1781
Delta R.T. 0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion:106 Resp: 1405

Ion	Ratio	Lower	Upper
106	100		
91	205.3	179.2	268.8

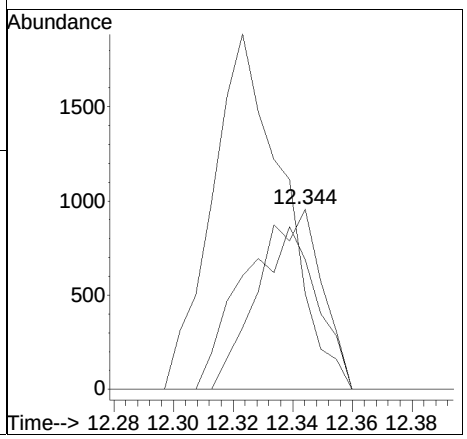




#106
1,4-Dichlorobenzene
Concen: 0.08 ug/L
RT: 12.344 min Scan# 2147
Delta R.T. 0.005 min
Lab File: V30241126A09.D
Acq: 26 Nov 2024 09:42 am

Tgt Ion:146 Resp: 1419

Ion	Ratio	Lower	Upper
146	100		
111	220.2	33.7	50.5#
148	106.8	50.8	76.2#



Manual Integration Report

Data Path	: K:\VOA130\2024\241126A\	QMethod	: V130_241112N_8260D.m
Data File	: V30241126A09.D	Operator	: VOA130:MJV
Date Inj'd	: 11/26/2024 9:42 am	Instrument	: VOA130
Sample	: L2469490-03,31,10,10,,A,R1	Quant Date	: 11/26/2024 10:32 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A10.D
Acq On : 26 Nov 2024 10:04 am
Operator : VOA130:MJV
Sample : L2469490-04,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 26 12:55:33 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	335383	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery = 78.35%			
63) Chlorobenzene-d5	9.633	117	297650	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery = 91.10%			
84) 1,4-Dichlorobenzene-d4	12.323	152	186638	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery = 83.83%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	140477	12.185	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 121.85%			
47) 1,2-Dichloroethane-d4	5.801	65	131603	11.400	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 114.00%			
64) Toluene-d8	7.788	98	379491	9.504	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.04%			
88) 4-Bromofluorobenzene	11.117	95	158297	9.821	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.21%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	1.942	62	1549	0.160	ug/L #	82
5) Bromomethane	2.262	94	234	N.D.		
6) Chloroethane	2.382	64	103	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.043	76	2913	0.139	ug/L #	80
15) Methylene chloride	3.572	84	1473	0.171	ug/L	89
17) Acetone	3.604	43	5363	2.909	ug/L	99
18) trans-1,2-Dichloroethene	3.724	96	510	N.D.		
21) Methyl tert-butyl ether	3.829	73	277	0.294	ug/L #	75
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.	d	
29) Vinyl acetate	4.401	43	54	N.D.		
30) cis-1,2-Dichloroethene	4.836	96	1498	0.176	ug/L	91
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	5.093	83	351	N.D.		

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A10.D
Acq On : 26 Nov 2024 10:04 am
Operator : VOA130:MJV
Sample : L2469490-04,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 26 12:55:33 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Carbon tetrachloride	0.000		0	N.D.	
40) 1,1,1-Trichloroethane	5.308	97	1053	0.103 ug/L #	77
42) 2-Butanone	0.000		0	N.D. d	
43) 1,1-Dichloropropene	0.000		0	N.D.	
45) Benzene	5.670	78	7861	0.314 ug/L #	85
48) 1,2-Dichloroethane	5.869	62	56	N.D.	
52) Trichloroethene	6.267	95	452	0.074 ug/L #	32
54) Dibromomethane	0.000		0	N.D.	
55) 1,2-Dichloropropane	0.000		0	N.D.	
58) Bromodichloromethane	6.891	83	59	N.D.	
61) 1,4-Dioxane	0.000		0	N.D.	
62) cis-1,3-Dichloropropene	0.000		0	N.D.	
65) Toluene	7.845	92	49308	2.712 ug/L	98
66) 4-Methyl-2-pentanone	0.000		0	N.D.	
67) Tetrachloroethene	8.307	166	1519	0.230 ug/L #	78
69) trans-1,3-Dichloropropene	0.000		0	N.D.	
72) 1,1,2-Trichloroethane	0.000		0	N.D.	
73) Chlorodibromomethane	0.000		0	N.D.	
74) 1,3-Dichloropropane	0.000		0	N.D.	
75) 1,2-Dibromoethane	0.000		0	N.D.	
77) 2-Hexanone	0.000		0	N.D. d	
78) Chlorobenzene	0.000		0	N.D. d	
79) Ethylbenzene	9.696	91	983	N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
81) p/m Xylene	9.901	106	574	N.D.	
82) o Xylene	10.425	106	166	N.D.	
83) Styrene	10.498	104	1395	N.D.	
85) Bromoform	0.000		0	N.D.	
87) Isopropylbenzene	0.000		0	N.D.	
89) Bromobenzene	0.000		0	N.D.	
90) n-Propylbenzene	11.285	91	130	N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
93) 4-Ethyltoluene	11.416	105	53	N.D.	
94) 2-Chlorotoluene	11.285	91	130	N.D.	
95) 1,3,5-Trimethylbenzene	11.416	105	53	N.D.	
96) 1,2,3-Trichloropropane	11.626	75	53	N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
98) 4-Chlorotoluene	11.631	91	51	N.D.	
99) tert-Butylbenzene	0.000		0	N.D.	

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A10.D
Acq On : 26 Nov 2024 10:04 am
Operator : VOA130:MJV
Sample : L2469490-04,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 26 12:55:33 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.930	105	97	N.D.		
103) sec-Butylbenzene	11.930	105	97	N.D.		
104) p-Isopropyltoluene	12.182	119	188	N.D.		
105) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
106) 1,4-Dichlorobenzene	12.339	146	1509	0.083	ug/L #	1
107) p-Diethylbenzene	0.000		0	N.D.		
108) n-Butylbenzene	0.000		0	N.D.		
109) 1,2-Dichlorobenzene	12.764	146	66	N.D.		
110) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	0.000		0	N.D.		
114) 1,2,4-Trichlorobenzene	14.179	180	50	N.D.		
115) Naphthalene	14.473	128	410	N.D.		
116) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

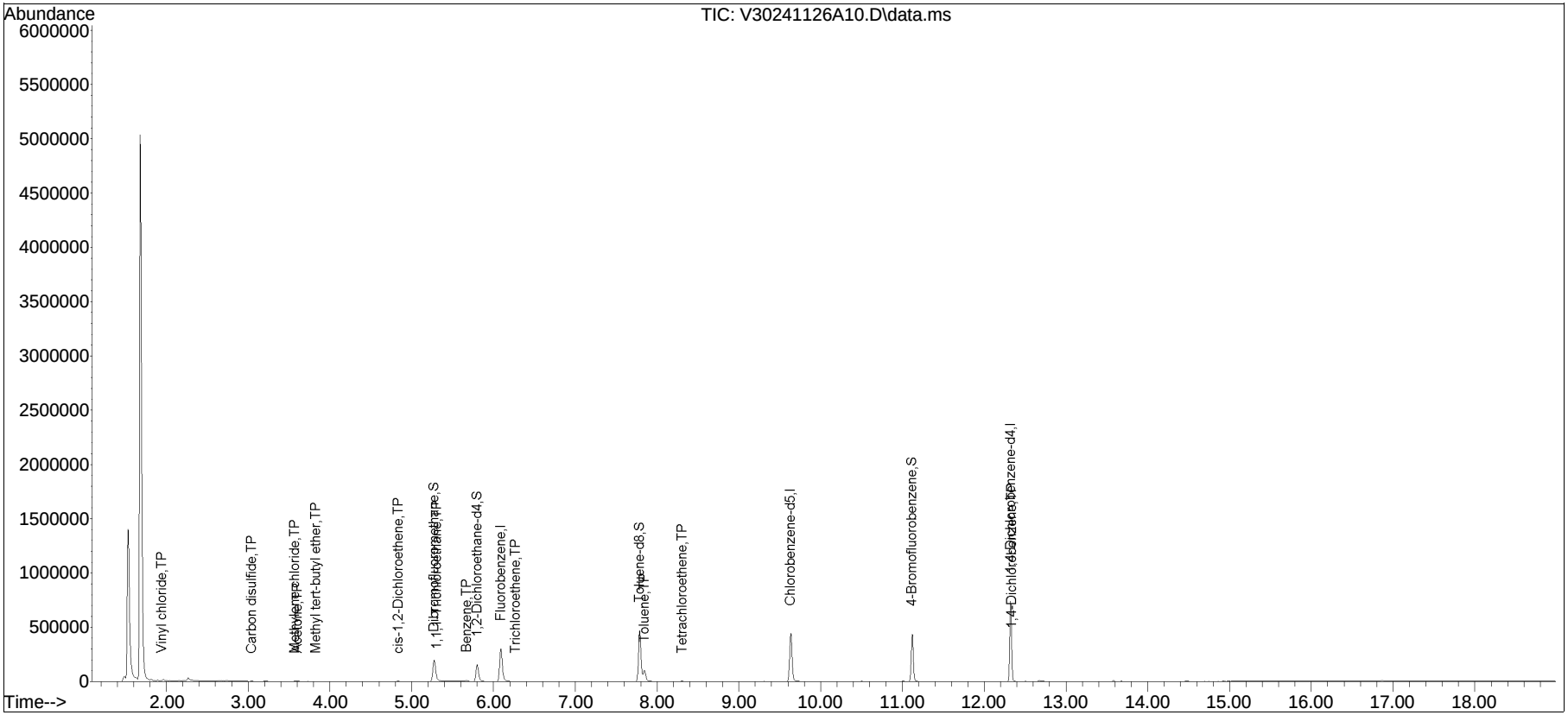
(#) = qualifier out of range (m) = manual integration (+) = signals summed

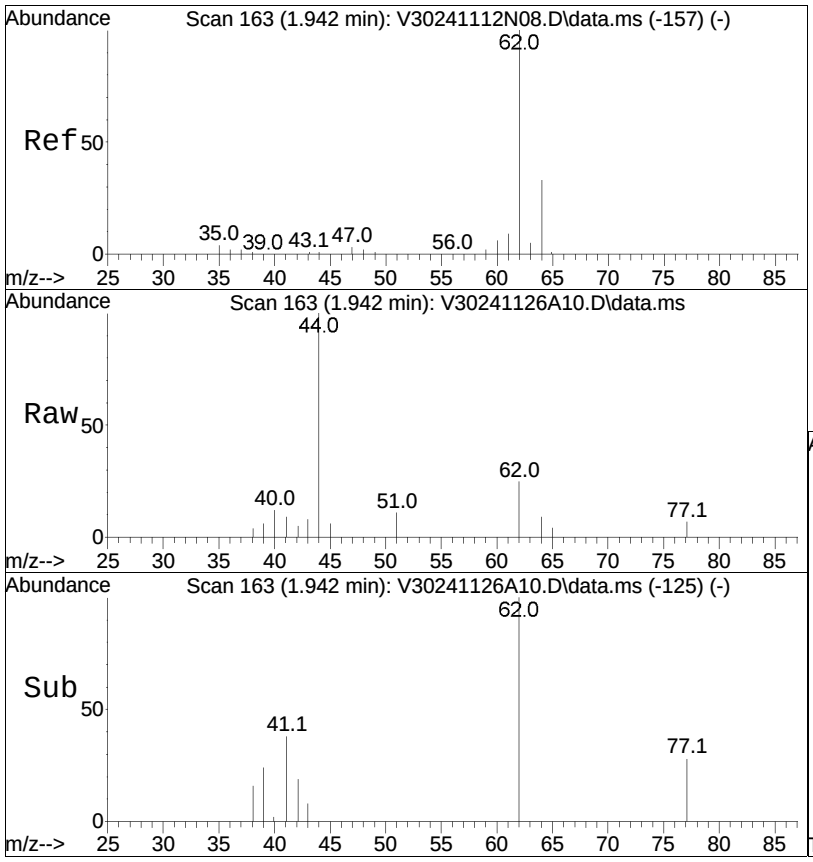
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A10.D
Acq On : 26 Nov 2024 10:04 am
Operator : VOA130:MJV
Sample : L2469490-04,31,10,10,,A,R1A
Misc : WG2002632,ICAL21702
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 26 12:55:33 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox241126A01.D•

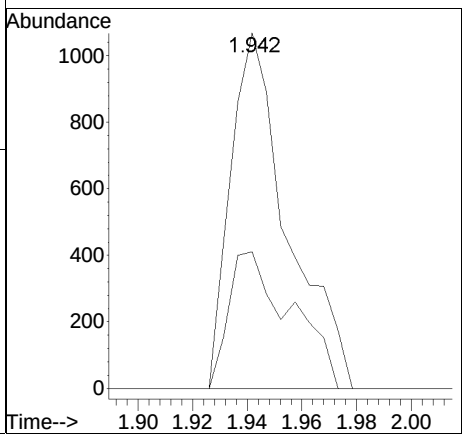


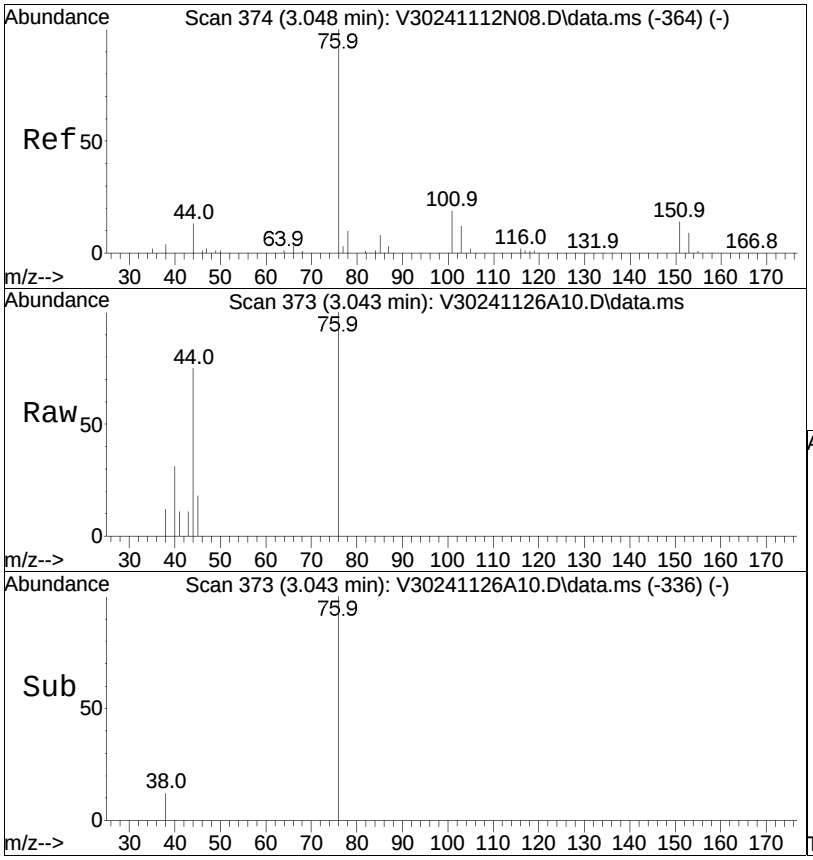


#4
Vinyl chloride
Concen: 0.16 ug/L
RT: 1.942 min Scan# 163
Delta R.T. -0.000 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 62 Resp: 1549

Ion	Ratio	Lower	Upper
62	100		
64	42.0	25.7	38.5#

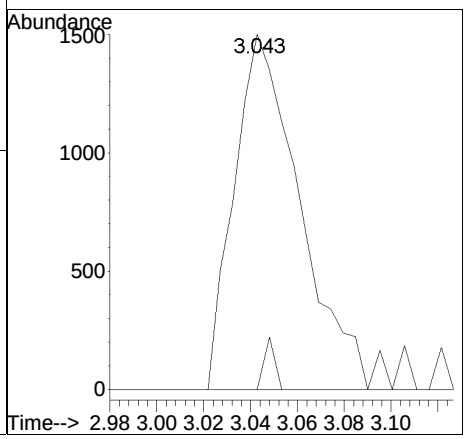


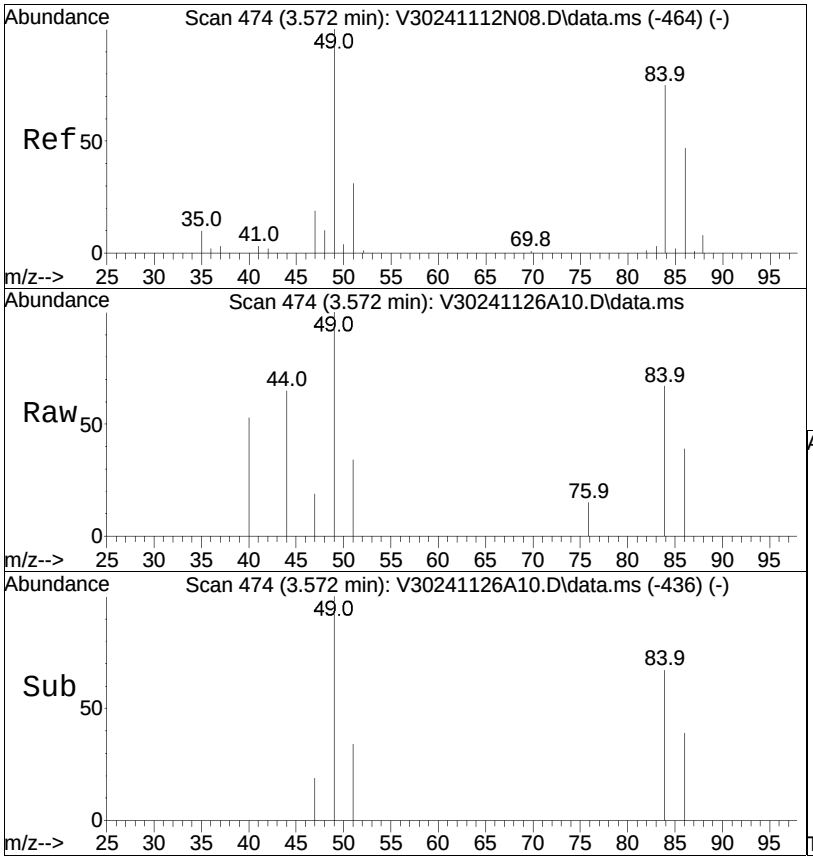


#11
Carbon disulfide
Concen: 0.14 ug/L
RT: 3.043 min Scan# 373
Delta R.T. -0.005 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 76 Resp: 2913

Ion	Ratio	Lower	Upper
76	100		
78	2.4	6.4	13.4#

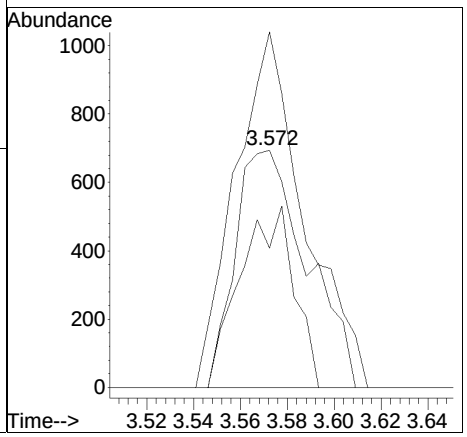


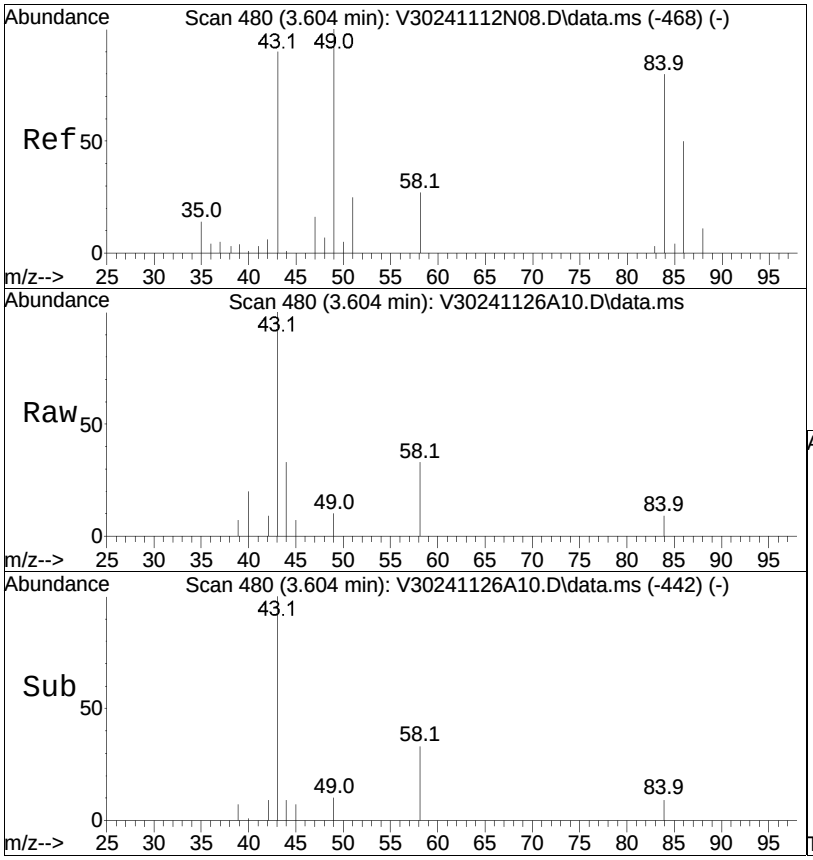


#15
Methylene chloride
Concen: 0.17 ug/L
RT: 3.572 min Scan# 474
Delta R.T. 0.000 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 84 Resp: 1473

Ion	Ratio	Lower	Upper
84	100		
86	57.6	41.7	86.5
49	144.8	103.9	215.9

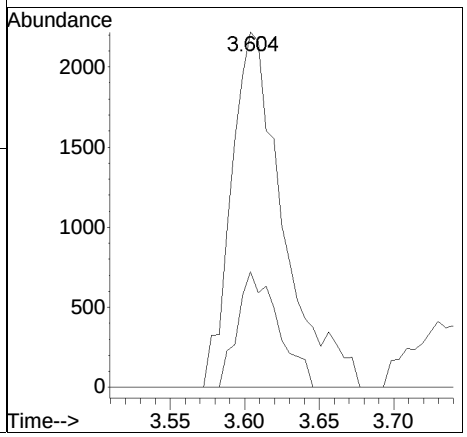


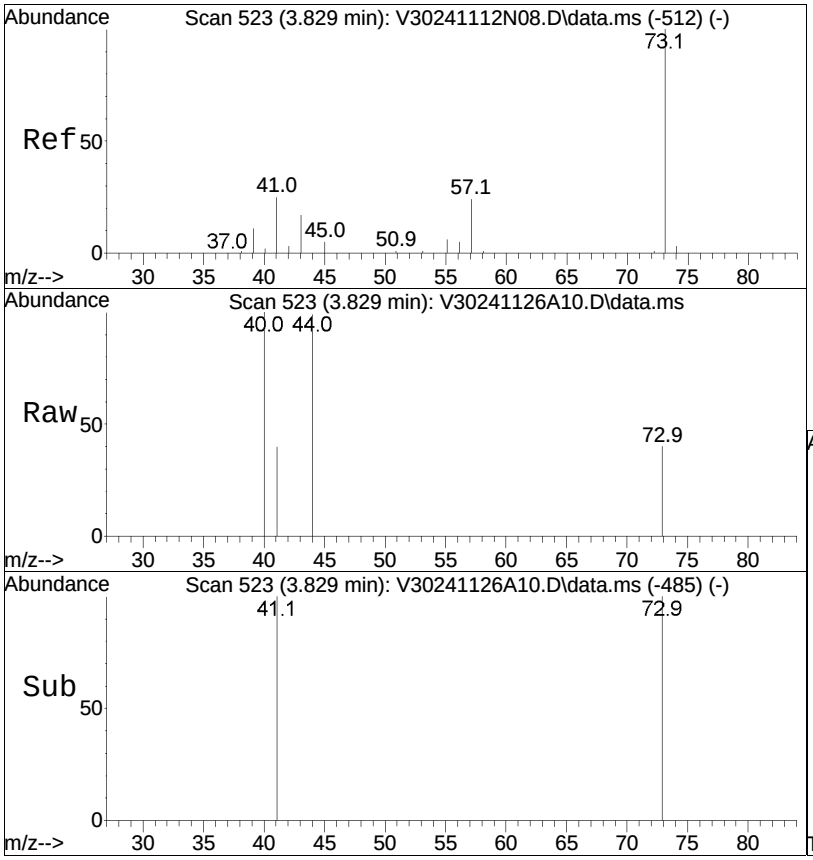


#17
Acetone
Concen: 2.91 ug/L
RT: 3.604 min Scan# 480
Delta R.T. -0.000 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 43 Resp: 5363

Ion	Ratio	Lower	Upper
43	100		
58	25.7	20.1	30.1

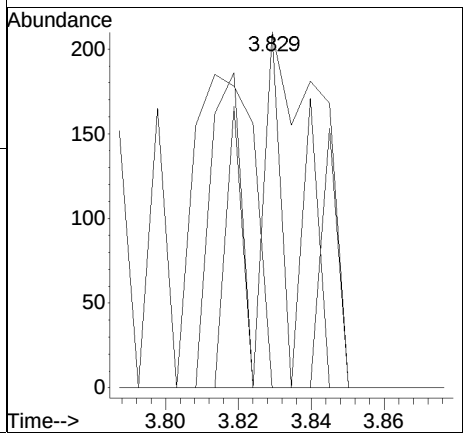


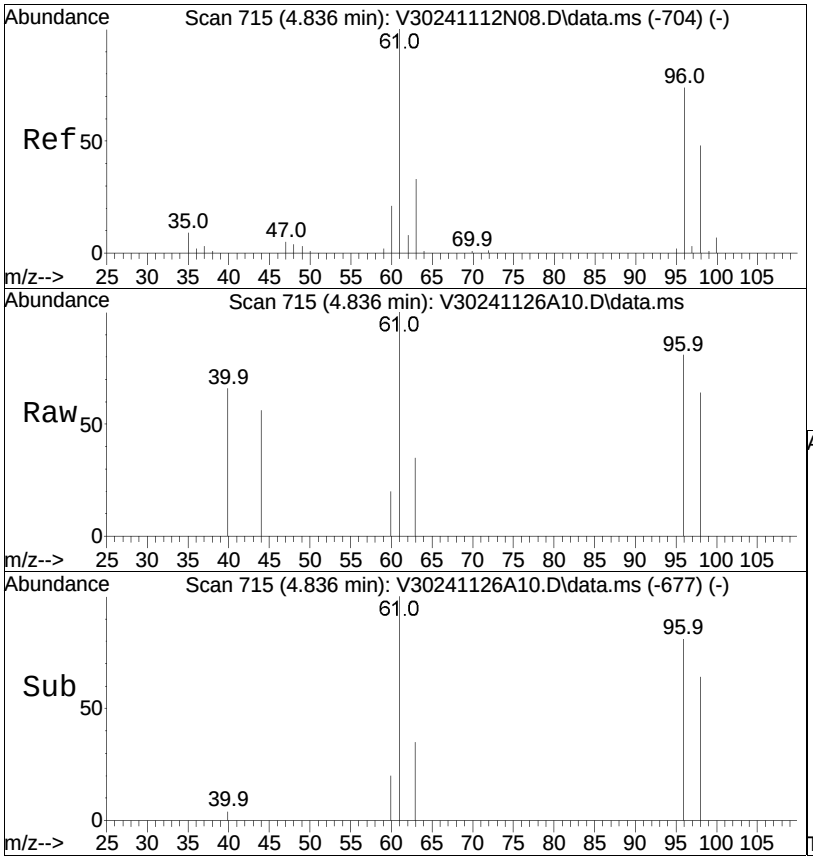


#21
Methyl tert-butyl ether
Concen: 0.29 ug/L
RT: 3.829 min Scan# 523
Delta R.T. 0.000 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 73 Resp: 277

Ion	Ratio	Lower	Upper
73	100		
57	0.0	15.5	32.1#
43	19.5	16.6	34.6
41	17.3	17.2	35.6

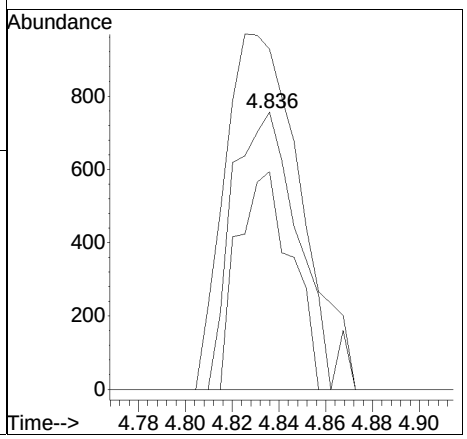


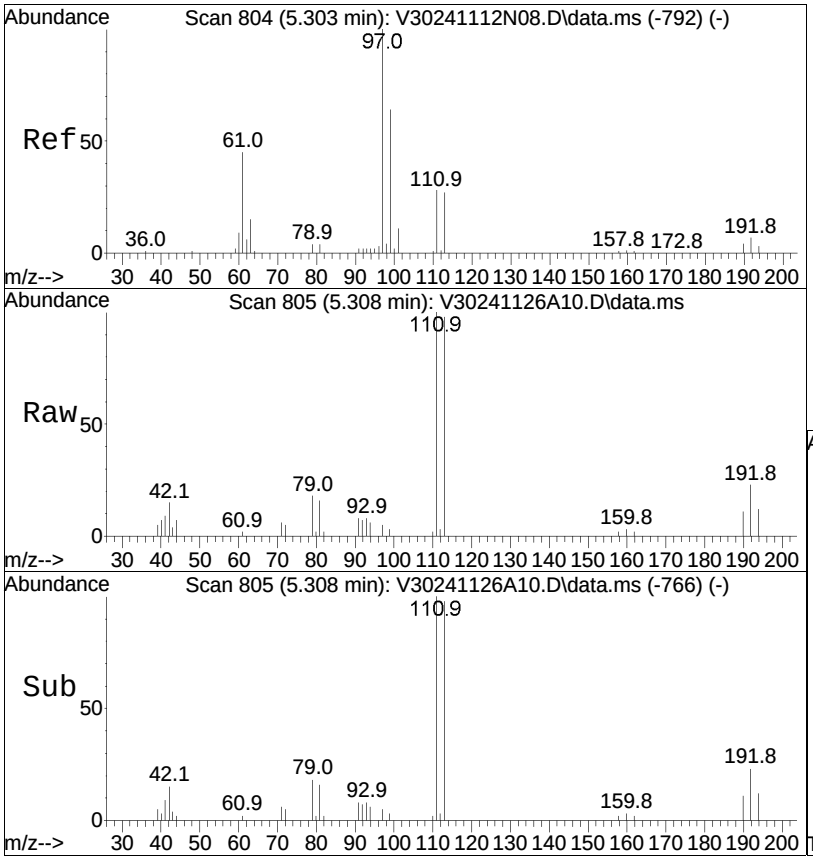


#30
cis-1,2-Dichloroethene
Concen: 0.18 ug/L
RT: 4.836 min Scan# 715
Delta R.T. -0.000 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 96 Resp: 1498

Ion	Ratio	Lower	Upper
96	100		
61	146.6	129.3	193.9
98	63.2	51.4	77.2

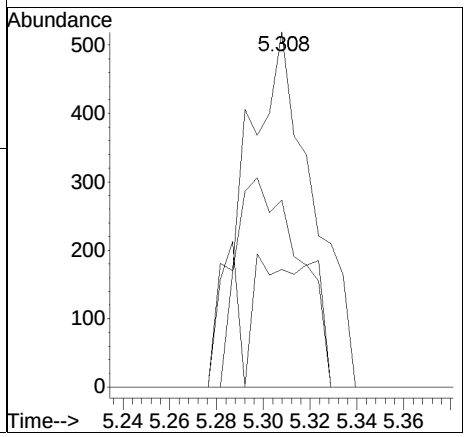


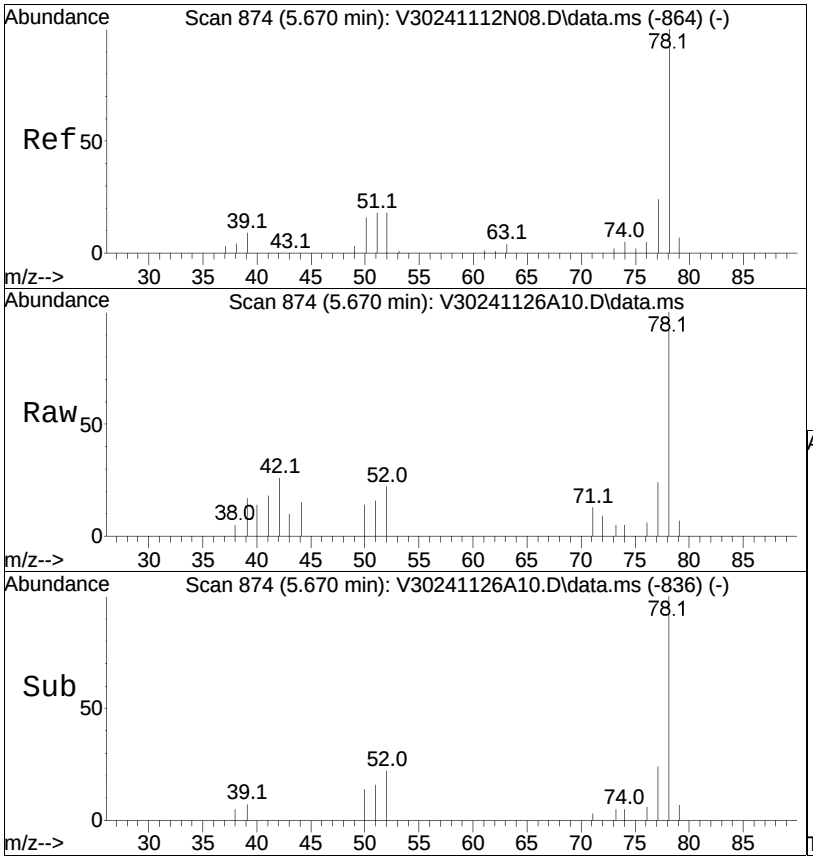


#40
1,1,1-Trichloroethane
Concen: 0.10 ug/L
RT: 5.308 min Scan# 805
Delta R.T. 0.005 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 97 Resp: 1053

Ion	Ratio	Lower	Upper
97	100		
99	55.0	40.6	84.4
61	30.8	35.0	72.8#
63	0.0	11.1	23.0#

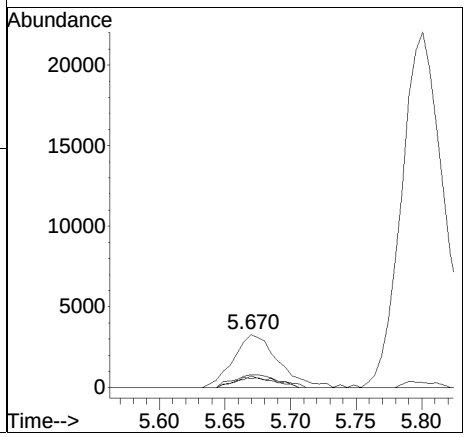


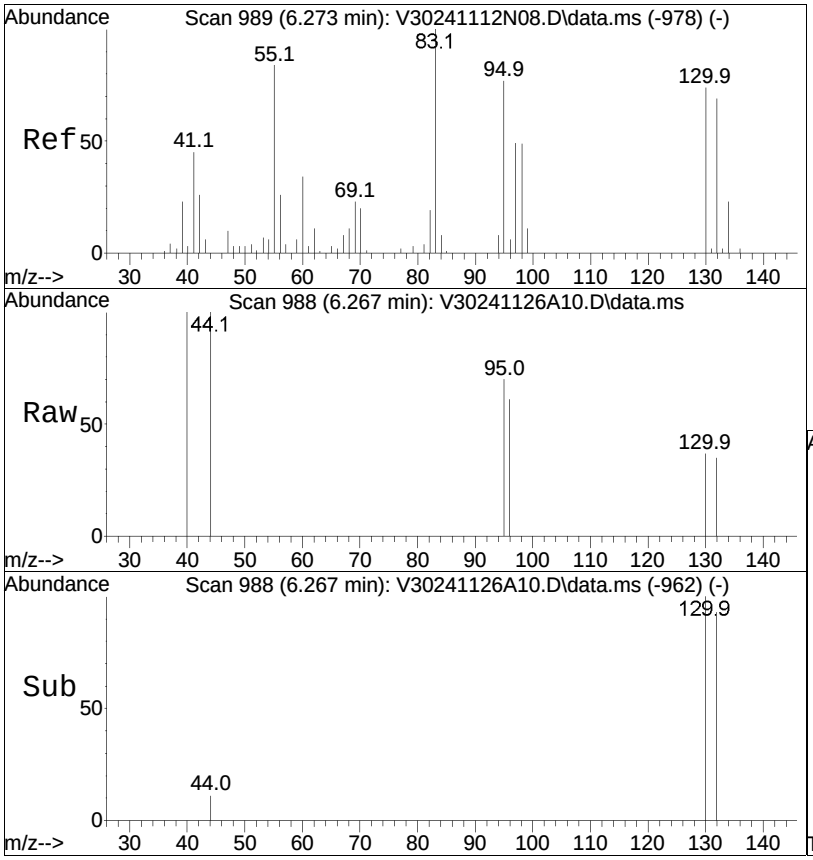


#45
Benzene
Concen: 0.31 ug/L
RT: 5.670 min Scan# 874
Delta R.T. -0.000 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 78 Resp: 7861

Ion	Ratio	Lower	Upper
78	100		
77	24.2	15.6	32.4
51	0.0	12.9	26.7#
52	17.5	12.4	25.7

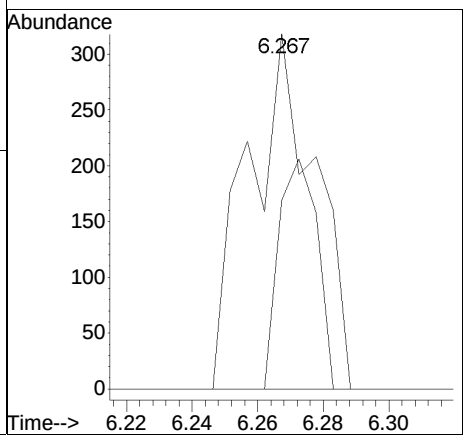


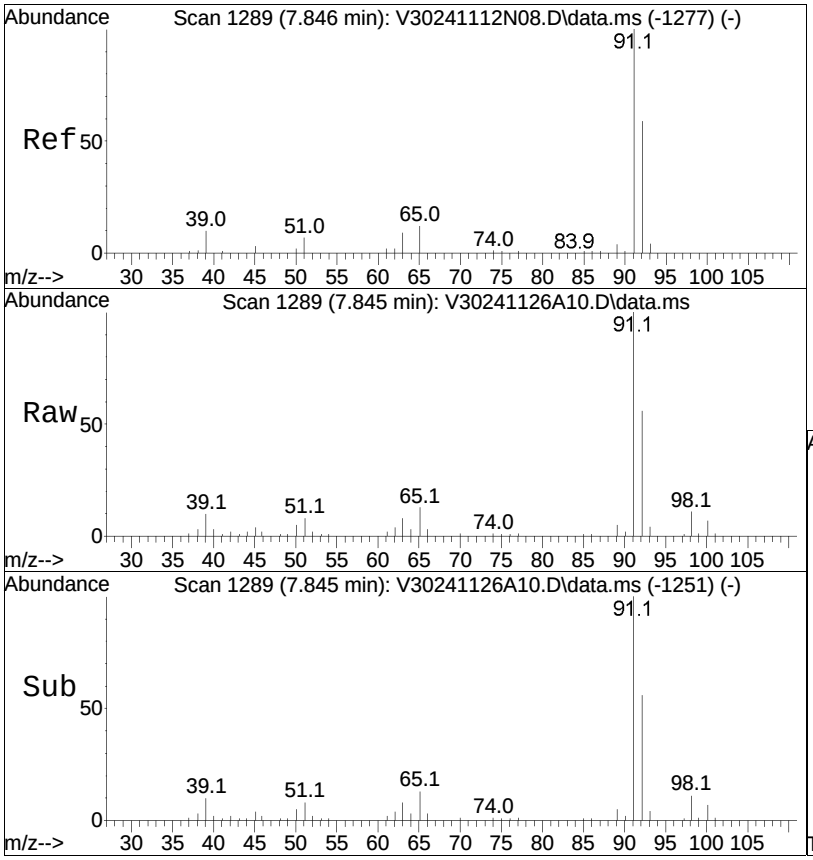


#52
Trichloroethene
Concen: 0.07 ug/L
RT: 6.267 min Scan# 988
Delta R.T. -0.006 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 95 Resp: 452

Ion	Ratio	Lower	Upper
95	100		
97	0.0	53.8	80.6#
130	37.2	71.4	107.0#

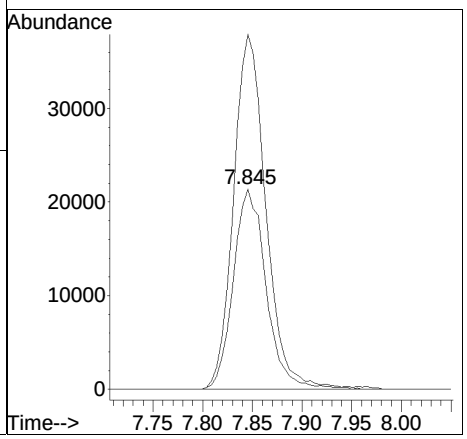


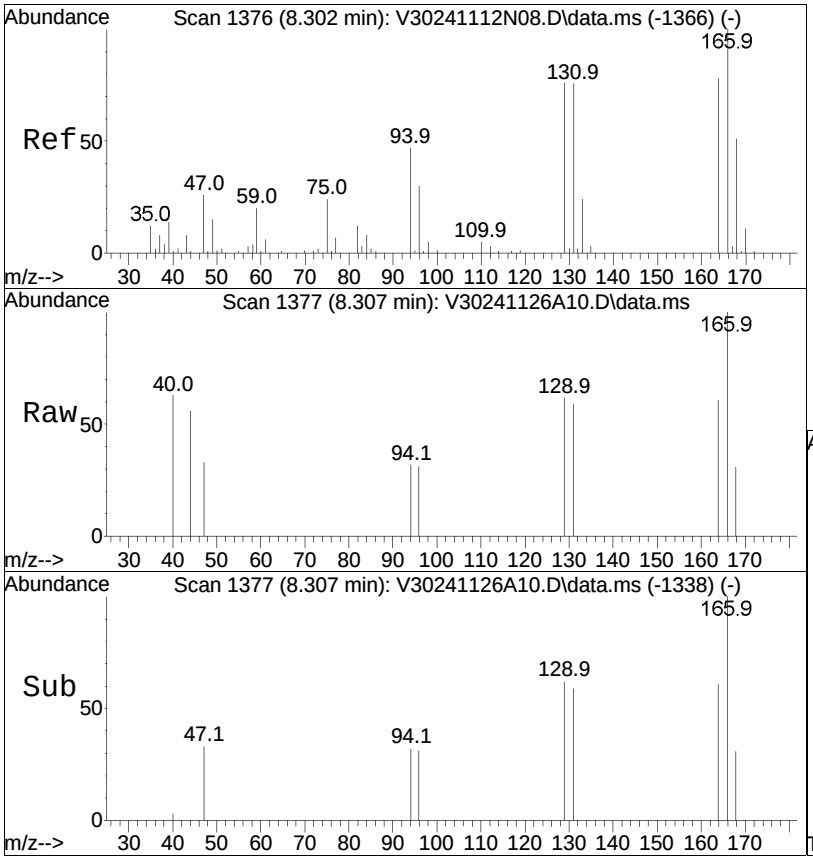


#65
Toluene
Concen: 2.71 ug/L
RT: 7.845 min Scan# 1289
Delta R.T. -0.001 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion: 92 Resp: 49308

Ion	Ratio	Lower	Upper
92	100		
91	174.1	137.5	206.3

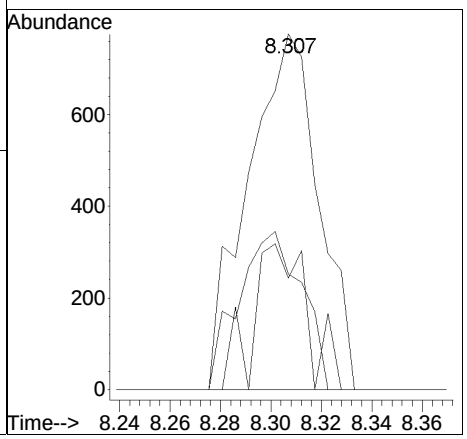


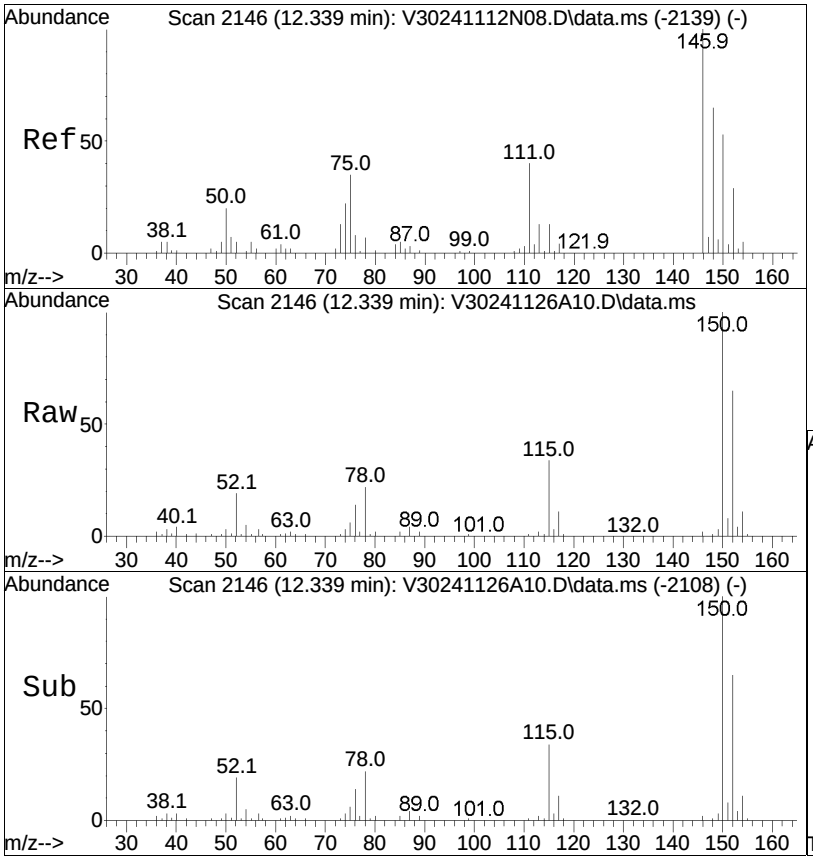


#67
Tetrachloroethene
Concen: 0.23 ug/L
RT: 8.307 min Scan# 1377
Delta R.T. 0.005 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion:166 Resp: 1519

Ion	Ratio	Lower	Upper
166	100		
168	31.2	38.6	58.0#
94	39.6	42.6	63.8#

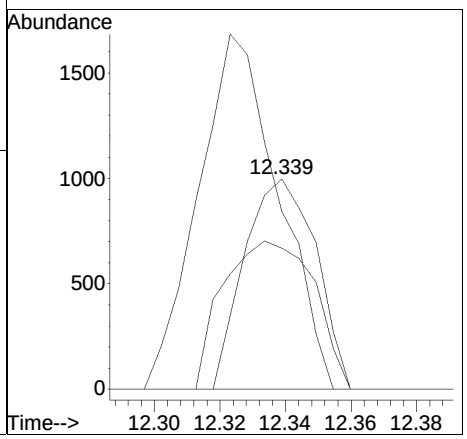




#106
1,4-Dichlorobenzene
Concen: 0.08 ug/L
RT: 12.339 min Scan# 2146
Delta R.T. -0.000 min
Lab File: V30241126A10.D
Acq: 26 Nov 2024 10:04 am

Tgt Ion:146 Resp: 1509

Ion	Ratio	Lower	Upper
146	100		
111	188.9	33.7	50.5#
148	89.9	50.8	76.2#



Manual Integration Report

Data Path	: K:\VOA130\2024\241126A\	QMethod	: V130_241112N_8260D.m
Data File	: V30241126A10.D	Operator	: VOA130:MJV
Date Inj'd	: 11/26/2024 10:04 am	Instrument	: VOA130
Sample	: L2469490-04,31,10,10,,A,R1	Quant Date	: 11/26/2024 10:32 am

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469490**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA130**	**Ical Ref**	**: ICAL21702**
Calibration dates	**: 11/12/24 15:35 11/12/24 18:51**		

Calibration Files

L11 =V30241112N03.D L1 =V30241112N05.D L2 =V30241112N06.D L3 =V30241112N08.D L4 =V30241112N09.D

L6 =V30241112N10.D L8 =V30241112N11.D L10 =V30241112N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.259	0.282	0.250	0.245	0.245	0.218	0.192	0.242	12.07
3)	TP	Chloromethane		0.356	0.354	0.307	0.283	0.282	0.258	0.223	0.295	16.58
4)	TP	Vinyl chloride	0.304	0.331	0.339	0.298	0.281	0.281	0.255	0.226	0.290	12.99
5)	TP	Bromomethane		0.187	0.185	0.160	0.148	0.154	0.140	0.125	0.157	14.46
6)	TP	Chloroethane		0.212	0.216	0.183	0.170	0.170	0.155	0.134	0.177	16.69
7)	TP	Trichlorofluor		0.360	0.375	0.337	0.328	0.326	0.290	0.255	0.324	12.55
8)	TP	Ethyl ether		0.076	0.077	0.081	0.090	0.091	0.087	0.079	0.083	7.37
10)	TP	1,1-Dichloroet		0.227	0.235	0.215	0.208	0.210	0.192	0.170	0.208	10.54
11)	TP	Carbon disulfide		0.758	0.725	0.638	0.606	0.609	0.561	0.492	0.627	14.60
12)	TP	Freon-113		0.184	0.206	0.203	0.215	0.214	0.193	0.169	0.198	8.44
13)	TP	Iodomethane		0.145	0.159	0.160	0.172	0.193	0.185	0.163	0.168	9.85
14)	TP	Acrolein		0.020	0.023	0.020	0.019	0.018	0.018	0.018	0.019	8.97
15)	TP	Methylene chlo		0.322	0.305	0.264	0.244	0.241	0.226	0.198	0.257	17.00
17)	TP	Acetone			0.059	0.042	0.038	0.035	0.034	0.033	*L	0.9986
18)	TP	trans-1,2-Dich		0.258	0.251	0.228	0.219	0.222	0.207	0.181	0.224	11.61
19)	TP	Methyl acetate			0.109	0.097	0.094	0.089	0.087	0.086	0.094	9.04
21)	TP	Methyl tert butyl ether		0.261	0.259	0.288	0.374	0.429	0.424		*Q	0.9975
22)	TP	tert-Butyl alc		0.006	0.006	0.007	0.008	0.008	0.008	0.008	0.007#	10.81
24)	TP	Diisopropyl ether		0.455	0.449	0.509	0.543	0.572	0.546	0.490	0.509	9.31
25)	TP	1,1-Dichloroet		0.544	0.551	0.484	0.453	0.451	0.417	0.357	0.465	14.76
26)	TP	Halothane		0.128	0.143	0.145	0.164	0.170	0.157	0.138	0.149	9.92
27)	TP	Acrylonitrile		0.051	0.051	0.052	0.050	0.045	0.044	0.043	0.048	8.01
28)	TP	Ethyl tert-but		0.325	0.337	0.398	0.442	0.490	0.487	0.460	0.420	16.27
29)	TP	Vinyl acetate		0.301	0.271	0.283	0.340	0.375	0.370	0.352	0.327	12.94
30)	TP	cis-1,2-Dichlo		0.293	0.295	0.258	0.247	0.249	0.234	0.204	0.254	12.62
31)	TP	2,2-Dichloropr		0.281	0.305	0.309	0.332	0.340	0.310	0.270	0.307	8.20
33)	TP	Bromochloromet		0.134	0.130	0.119	0.112	0.109	0.103	0.092	0.114	12.85
34)	TP	Cyclohexane		0.267	0.287	0.308	0.388	0.414	0.373	0.332	0.338	16.23
35)	TP	Chloroform		0.495	0.510	0.444	0.417	0.414	0.385	0.333	0.428	14.32
36)	TP	Ethyl acetate		0.118	0.100	0.100	0.112	0.117	0.115	0.115	0.111	7.13
37)	TP	Carbon tetrachloride		0.191	0.211	0.231	0.282	0.306	0.284	0.253	0.251	16.77
38)	TP	Tetrahydrofuran		0.032	0.038	0.034	0.036	0.035	0.035	0.034	0.035	5.46
39)	S	Dibromofluoromethane	0.387	0.397	0.382	0.349	0.325	0.305	0.303	0.301	0.344	11.75
40)	TP	1,1,1-Trichlor		0.253	0.285	0.303	0.341	0.353	0.324	0.285	0.306	11.55
42)	TP	2-Butanone			0.041	0.042	0.049	0.051	0.050	0.050	0.047	9.45

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469490**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA130**	**Ical Ref**	**: ICAL21702**
Calibration dates	**: 11/12/24 15:35 11/12/24 18:51**		

Calibration Files

L11 =V30241112N03.D L1 =V30241112N05.D L2 =V30241112N06.D L3 =V30241112N08.D L4 =V30241112N09.D

L6 =V30241112N10.D L8 =V30241112N11.D L10 =V30241112N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
43) TP	1,1-Dichloropr		0.196	0.206	0.215	0.268	0.310	0.289	0.258	0.249	17.75
45) TP	Benzene	0.652	0.738	0.760	0.733	0.769	0.832	0.789	0.695	0.746	7.44
46) TP	Tertiary-Amyl Methyl Ether		0.279	0.283	0.325	0.358	0.370	0.365	0.346	0.332	11.48
47) S	1,2-Dichloroethane-d4	0.356	0.361	0.359	0.365	0.344	0.316	0.323	0.329	0.344	5.54
48) TP	1,2-Dichloroet		0.284	0.275	0.267	0.269	0.266	0.253	0.228	0.263	6.89
51) TP	Methyl cyclohe		0.209	0.233	0.258	0.289	0.313	0.290	0.264	0.265	13.55
52) TP	Trichloroethene	0.150	0.159	0.165	0.167	0.194	0.222	0.210	0.188	0.182#	14.20
54) TP	Dibromomethane		0.134	0.129	0.121	0.119	0.117	0.113	0.105	0.120	8.07
55) TP	1,2-Dichloropr		0.163	0.175	0.175	0.204	0.233	0.223	0.199	0.196#	13.49
57) TP	2-Chloroethyl		0.061	0.067	0.084	0.093	0.088	0.087	0.083	0.080	14.67
58) TP	Bromodichlorom		0.229	0.234	0.244	0.289	0.310	0.295	0.263	0.266#	12.07
61) TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	13.19
62) TP	cis-1,3-Dichloropropene		0.210	0.229	0.237	0.285	0.330	0.322	0.294	0.273#	17.32
63) I	Chlorobenzene-d5	----------ISTD----------									
64) S	Toluene-d8	1.328	1.333	1.321	1.371	1.368	1.350	1.348	1.312	1.341	1.61
65) TP	Toluene		0.576	0.619	0.626	0.635	0.664	0.621	0.536	0.611	6.87
66) TP	4-Methyl-2-pen			0.030	0.044	0.050	0.050	0.049	0.046	0.045	17.68
67) TP	Tetrachloroethene		0.197	0.210	0.221	0.235	0.249	0.233	0.206	0.222	8.37
69) TP	trans-1,3-Dichloropropene		0.188	0.207	0.253	0.301	0.350	0.349		*Q	0.9983
71) TP	Ethyl methacry		0.155	0.161	0.183	0.200	0.200	0.193	0.178	0.181	9.93
72) TP	1,1,2-Trichlor		0.096	0.111	0.128	0.144	0.160	0.160	0.153	0.136#	18.37
73) TP	Chlorodibromom		0.131	0.140	0.164	0.200	0.236	0.239		*Q	0.9984
74) TP	1,3-Dichloropr		0.234	0.248	0.282	0.314	0.347	0.344	0.327	0.299	15.23
75) TP	1,2-Dibromoethane		0.113	0.120	0.138	0.151	0.164	0.165	0.160	0.144#	14.74
77) TP	2-Hexanone		0.085	0.077	0.081	0.086	0.085	0.082	0.079	0.082	4.07
78) T	Chlorobenzene		0.643	0.672	0.661	0.663	0.691	0.657	0.573	0.651	5.75
79) TP	Ethylbenzene		1.168	1.244	1.251	1.245	1.285	1.193	1.028	1.202	7.16
80) T	1,1,1,2-Tetrac		0.127	0.136	0.163	0.188	0.212	0.208	0.193	0.175	19.41
81) TP	p/m Xylene		0.470	0.496	0.505	0.500	0.517	0.480	0.415	0.484	7.00
82) TP	o Xylene		0.449	0.477	0.491	0.480	0.497	0.465	0.398	0.465	7.27
83) TP	Styrene		0.725	0.773	0.817	0.806	0.821	0.765	0.644	0.765	8.24
84) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85) TP	Bromoform		0.104	0.124	0.152	0.178	0.189	0.191	0.191	*Q	0.9992
87) TP	Isopropylbenzene		1.706	1.890	1.929	1.981	2.031	1.873	1.644	1.865	7.57
88) S	4-Bromofluorobenzene	0.898	0.892	0.890	0.875	0.867	0.826	0.826	0.834	0.864	3.56
89) TP	Bromobenzene		0.427	0.471	0.459	0.463	0.475	0.453	0.409	0.451	5.39

Initial Calibration Summary
Form 6
Volatiles

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L2469490**
Project Name	**: 1487 FIRST AVE**	**Project Number**	**: 100963701**
Instrument ID	**: VOA130**	**Ical Ref**	**: ICAL21702**
Calibration dates	**: 11/12/24 15:35 11/12/24 18:51**		

Calibration Files
L11 =V30241112N03.D L1 =V30241112N05.D L2 =V30241112N06.D L3 =V30241112N08.D L4 =V30241112N09.D
L6 =V30241112N10.D L8 =V30241112N11.D L10 =V30241112N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP	n-Propylbenzene		2.198	2.412	2.461	2.504	2.530	2.321	1.997	2.346	8.17
91) TP	1,4-Dichlorobu		0.408	0.394	0.414	0.437	0.421	0.408	0.386	0.410	4.14
92) TP	1,1,2,2-Tetrac		0.267	0.278	0.285	0.308	0.308	0.303	0.296	0.292	5.42
93) TP	4-Ethyltoluene		1.784	1.960	2.013	2.060	2.122	1.965	1.712	1.945	7.57
94) TP	2-Chlorotoluene		1.489	1.519	1.481	1.470	1.496	1.402	1.220	1.439	7.19
95) TP	1,3,5-Trimethy		1.507	1.651	1.747	1.821	1.908	1.760	1.528	1.703	8.74
96) TP	1,2,3-Trichlor		0.228	0.228	0.237	0.254	0.247	0.241	0.234	0.238	4.05
97) TP	trans-1,4-Dich		0.055	0.064	0.070	0.077	0.077	0.076	0.077	0.071	12.26
98) TP	4-Chlorotoluene		1.447	1.563	1.546	1.550	1.605	1.497	1.304	1.502	6.70
99) TP	tert-Butylbenzene		1.279	1.398	1.409	1.451	1.504	1.398	1.233	1.382	6.86
102) TP	1,2,4-Trimethy		1.356	1.528	1.690	1.799	1.901	1.771	1.521	1.652	11.58
103) TP	sec-Butylbenzene		1.792	2.033	2.098	2.151	2.201	2.021	1.766	2.009	8.42
104) TP	p-Isopropyltol		1.440	1.674	1.794	1.873	1.972	1.815	1.574	1.735	10.57
105) TP	1,3-Dichlorobe		0.921	0.958	0.964	0.973	1.016	0.960	0.846	0.948	5.62
106) TP	1,4-Dichlorobe		0.971	0.992	0.978	0.982	1.029	0.972	0.859	0.969	5.40
107) TP	p-Diethylbenzene		0.813	0.912	1.020	1.097	1.199	1.120	0.983	1.021	12.88
108) TP	n-Butylbenzene		1.179	1.420	1.561	1.654	1.746	1.605	1.391	1.508	12.70
109) TP	1,2-Dichlorobe		0.889	0.909	0.909	0.926	0.952	0.902	0.804	0.899	5.15
110) TP	1,2,4,5-Tetram		1.128	1.192	1.274	1.527	1.774	1.690	1.481	1.438	17.26
111) TP	1,2-Dibromo-3-		0.040	0.051	0.050	0.052	0.050	0.049	0.049	0.049	8.45
112) TP	1,3,5-Trichlor		0.571	0.601	0.622	0.697	0.770	0.733	0.650	0.663	10.99
113) TP	Hexachlorobuta		0.205	0.225	0.224	0.233	0.250	0.235	0.213	0.227	6.53
114) TP	1,2,4-Trichlor		0.519	0.538	0.566	0.617	0.662	0.637	0.578	0.588	8.94
115) TP	Naphthalene		1.124	1.084	1.210	1.300	1.293	1.240	1.162	1.202	6.88
116) TP	1,2,3-Trichlor		0.524	0.527	0.540	0.573	0.586	0.563	0.520	0.548	4.80

Response Factor Report VOA130

Method Path : K:\VOA130\2024\241112NICAL\
Method File : V130_241112N_8260D.m
Title : VOLATILES BY GC/MS
Last Update : Wed Nov 13 13:45:44 2024
Response Via : Initial Calibration

Calibration Files
L11 =V30241112N03.D L1 =V30241112N05.D L2 =V30241112N06.D L3 =V30241112N08.D L4 =V30241112N09.D
L6 =V30241112N10.D L8 =V30241112N11.D L10 =V30241112N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo...		0.259	0.282	0.250	0.245	0.245	0.218	0.192	0.242	12.07
3)	TP	Chloromethane		0.356	0.354	0.307	0.283	0.282	0.258	0.223	0.295	16.58
4)	TP	Vinyl chloride	0.304	0.331	0.339	0.298	0.281	0.281	0.255	0.226	0.290	12.99
5)	TP	Bromomethane		0.187	0.185	0.160	0.148	0.154	0.140	0.125	0.157	14.46
6)	TP	Chloroethane		0.212	0.216	0.183	0.170	0.170	0.155	0.134	0.177	16.69
7)	TP	Trichlorofluor...		0.360	0.375	0.337	0.328	0.326	0.290	0.255	0.324	12.55
8)	TP	Ethyl ether		0.076	0.077	0.081	0.090	0.091	0.087	0.079	0.083	7.37
10)	TP	1,1-Dichloroet...		0.227	0.235	0.215	0.208	0.210	0.192	0.170	0.208	10.54
11)	TP	Carbon disulfide		0.758	0.725	0.638	0.606	0.609	0.561	0.492	0.627	14.60
12)	TP	Freon-113		0.184	0.206	0.203	0.215	0.214	0.193	0.169	0.198	8.44
13)	TP	Iodomethane		0.145	0.159	0.160	0.172	0.193	0.185	0.163	0.168	9.85
14)	TP	Acrolein		0.020	0.023	0.020	0.019	0.018	0.018	0.018	0.019	8.97
15)	TP	Methylene chlo...		0.322	0.305	0.264	0.244	0.241	0.226	0.198	0.257	17.00
17)	TP	Acetone			0.059	0.042	0.038	0.035	0.034	0.033	*L	0.9986
18)	TP	trans-1,2-Dich...		0.258	0.251	0.228	0.219	0.222	0.207	0.181	0.224	11.61
19)	TP	Methyl acetate			0.109	0.097	0.094	0.089	0.087	0.086	0.094	9.04
21)	TP	Methyl tert-bu...		0.261	0.259	0.288	0.374	0.429	0.424		*Q	0.9975
22)	TP	tert-Butyl alc...		0.006	0.006	0.007	0.008	0.008	0.008	0.008	0.007#	10.81
24)	TP	Diisopropyl ether		0.455	0.449	0.509	0.543	0.572	0.546	0.490	0.509	9.31
25)	TP	1,1-Dichloroet...		0.544	0.551	0.484	0.453	0.451	0.417	0.357	0.465	14.76
26)	TP	Halothane		0.128	0.143	0.145	0.164	0.170	0.157	0.138	0.149	9.92
27)	TP	Acrylonitrile		0.051	0.051	0.052	0.050	0.045	0.044	0.043	0.048	8.01
28)	TP	Ethyl tert-but...		0.325	0.337	0.398	0.442	0.490	0.487	0.460	0.420	16.27
29)	TP	Vinyl acetate		0.301	0.271	0.283	0.340	0.375	0.370	0.352	0.327	12.94
30)	TP	cis-1,2-Dichlo...		0.293	0.295	0.258	0.247	0.249	0.234	0.204	0.254	12.62
31)	TP	2,2-Dichloropr...		0.281	0.305	0.309	0.332	0.340	0.310	0.270	0.307	8.20
33)	TP	Bromochloromet...		0.134	0.130	0.119	0.112	0.109	0.103	0.092	0.114	12.85
34)	TP	Cyclohexane		0.267	0.287	0.308	0.388	0.414	0.373	0.332	0.338	16.23
35)	TP	Chloroform		0.495	0.510	0.444	0.417	0.414	0.385	0.333	0.428	14.32
36)	TP	Ethyl acetate		0.118	0.100	0.100	0.112	0.117	0.115	0.115	0.111	7.13

Method Path : K:\VOA130\2024\241112NICAL\
Method File : V130_241112N_8260D.m
Title : VOLATILES BY GC/MS
Last Update : Wed Nov 13 13:45:44 2024
Response Via : Initial Calibration

Calibration Files
L11 =V30241112N03.D L1 =V30241112N05.D L2 =V30241112N06.D L3 =V30241112N08.D L4 =V30241112N09.D
L6 =V30241112N10.D L8 =V30241112N11.D L10 =V30241112N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
37)	TP	Carbon tetrach...		0.191	0.211	0.231	0.282	0.306	0.284	0.253	0.251	16.77
38)	TP	Tetrahydrofuran		0.032	0.038	0.034	0.036	0.035	0.035	0.034	0.035	5.46
39)	S	Dibromofluorom...	0.387	0.397	0.382	0.349	0.325	0.305	0.303	0.301	0.344	11.75
40)	TP	1,1,1-Trichlor...		0.253	0.285	0.303	0.341	0.353	0.324	0.285	0.306	11.55
42)	TP	2-Butanone			0.041	0.042	0.049	0.051	0.050	0.050	0.047	9.45
43)	TP	1,1-Dichloropr...		0.196	0.206	0.215	0.268	0.310	0.289	0.258	0.249	17.75
45)	TP	Benzene	0.652	0.738	0.760	0.733	0.769	0.832	0.789	0.695	0.746	7.44
46)	TP	tert-Amyl meth...		0.279	0.283	0.325	0.358	0.370	0.365	0.346	0.332	11.48
47)	S	1,2-Dichloroet...	0.356	0.361	0.359	0.365	0.344	0.316	0.323	0.329	0.344	5.54
48)	TP	1,2-Dichloroet...		0.284	0.275	0.267	0.269	0.266	0.253	0.228	0.263	6.89
51)	TP	Methyl cyclohe...		0.209	0.233	0.258	0.289	0.313	0.290	0.264	0.265	13.55
52)	TP	Trichloroethene	0.150	0.159	0.165	0.167	0.194	0.222	0.210	0.188	0.182#	14.20
54)	TP	Dibromomethane		0.134	0.129	0.121	0.119	0.117	0.113	0.105	0.120	8.07
55)	TP	1,2-Dichloropr...		0.163	0.175	0.175	0.204	0.233	0.223	0.199	0.196#	13.49
57)	TP	2-Chloroethyl ...		0.061	0.067	0.084	0.093	0.088	0.087	0.083	0.080	14.67
58)	TP	Bromodichlorom...		0.229	0.234	0.244	0.289	0.310	0.295	0.263	0.266#	12.07
61)	TP	1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	13.19
62)	TP	cis-1,3-Dichlo...		0.210	0.229	0.237	0.285	0.330	0.322	0.294	0.273#	17.32
63)	I	Chlorobenzene-d5	----------ISTD----------									
64)	S	Toluene-d8	1.328	1.333	1.321	1.371	1.368	1.350	1.348	1.312	1.341	1.61
65)	TP	Toluene		0.576	0.619	0.626	0.635	0.664	0.621	0.536	0.611	6.87
66)	TP	4-Methyl-2-pen...			0.030	0.044	0.050	0.050	0.049	0.046	0.045	17.68
67)	TP	Tetrachloroethene		0.197	0.210	0.221	0.235	0.249	0.233	0.206	0.222	8.37
69)	TP	trans-1,3-Dich...		0.188	0.207	0.253	0.301	0.350	0.349		*Q	0.9983
71)	TP	Ethyl methacry...		0.155	0.161	0.183	0.200	0.200	0.193	0.178	0.181	9.93
72)	TP	1,1,2-Trichlor...		0.096	0.111	0.128	0.144	0.160	0.160	0.153	0.136#	18.37
73)	TP	Chlorodibromom...		0.131	0.140	0.164	0.200	0.236	0.239		*Q	0.9984
74)	TP	1,3-Dichloropr...		0.234	0.248	0.282	0.314	0.347	0.344	0.327	0.299	15.23
75)	TP	1,2-Dibromoethane		0.113	0.120	0.138	0.151	0.164	0.165	0.160	0.144#	14.74
77)	TP	2-Hexanone		0.085	0.077	0.081	0.086	0.085	0.082	0.079	0.082	4.07
78)	T	Chlorobenzene		0.643	0.672	0.661	0.663	0.691	0.657	0.573	0.651	5.75

Response Factor Report VOA130

Method Path : K:\VOA130\2024\241112NICAL\
Method File : V130_241112N_8260D.m
Title : VOLATILES BY GC/MS
Last Update : Wed Nov 13 13:45:44 2024
Response Via : Initial Calibration

Calibration Files
L11 =V30241112N03.D L1 =V30241112N05.D L2 =V30241112N06.D L3 =V30241112N08.D L4 =V30241112N09.D
L6 =V30241112N10.D L8 =V30241112N11.D L10 =V30241112N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79)	TP	Ethylbenzene		1.168	1.244	1.251	1.245	1.285	1.193	1.028	1.202	7.16
80)	T	1,1,1,2-Tetrac...		0.127	0.136	0.163	0.188	0.212	0.208	0.193	0.175	19.41
81)	TP	p/m Xylene		0.470	0.496	0.505	0.500	0.517	0.480	0.415	0.484	7.00
82)	TP	o Xylene		0.449	0.477	0.491	0.480	0.497	0.465	0.398	0.465	7.27
83)	TP	Styrene		0.725	0.773	0.817	0.806	0.821	0.765	0.644	0.765	8.24
84)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
85)	TP	Bromoform		0.104	0.124	0.152	0.178	0.189	0.191	0.191	*Q	0.9992
87)	TP	Isopropylbenzene		1.706	1.890	1.929	1.981	2.031	1.873	1.644	1.865	7.57
88)	S	4-Bromofluorob...	0.898	0.892	0.890	0.875	0.867	0.826	0.826	0.834	0.864	3.56
89)	TP	Bromobenzene		0.427	0.471	0.459	0.463	0.475	0.453	0.409	0.451	5.39
90)	TP	n-Propylbenzene		2.198	2.412	2.461	2.504	2.530	2.321	1.997	2.346	8.17
91)	TP	1,4-Dichlorobu...		0.408	0.394	0.414	0.437	0.421	0.408	0.386	0.410	4.14
92)	TP	1,1,2,2-Tetrac...		0.267	0.278	0.285	0.308	0.308	0.303	0.296	0.292	5.42
93)	TP	4-Ethyltoluene		1.784	1.960	2.013	2.060	2.122	1.965	1.712	1.945	7.57
94)	TP	2-Chlorotoluene		1.489	1.519	1.481	1.470	1.496	1.402	1.220	1.439	7.19
95)	TP	1,3,5-Trimethy...		1.507	1.651	1.747	1.821	1.908	1.760	1.528	1.703	8.74
96)	TP	1,2,3-Trichlor...		0.228	0.228	0.237	0.254	0.247	0.241	0.234	0.238	4.05
97)	TP	trans-1,4-Dich...		0.055	0.064	0.070	0.077	0.077	0.076	0.077	0.071	12.26
98)	TP	4-Chlorotoluene		1.447	1.563	1.546	1.550	1.605	1.497	1.304	1.502	6.70
99)	TP	tert-Butylbenzene		1.279	1.398	1.409	1.451	1.504	1.398	1.233	1.382	6.86
102)	TP	1,2,4-Trimethy...		1.356	1.528	1.690	1.799	1.901	1.771	1.521	1.652	11.58
103)	TP	sec-Butylbenzene		1.792	2.033	2.098	2.151	2.201	2.021	1.766	2.009	8.42
104)	TP	p-Isopropyltol...		1.440	1.674	1.794	1.873	1.972	1.815	1.574	1.735	10.57
105)	TP	1,3-Dichlorobe...		0.921	0.958	0.964	0.973	1.016	0.960	0.846	0.948	5.62
106)	TP	1,4-Dichlorobe...		0.971	0.992	0.978	0.982	1.029	0.972	0.859	0.969	5.40
107)	TP	p-Diethylbenzene		0.813	0.912	1.020	1.097	1.199	1.120	0.983	1.021	12.88
108)	TP	n-Butylbenzene		1.179	1.420	1.561	1.654	1.746	1.605	1.391	1.508	12.70
109)	TP	1,2-Dichlorobe...		0.889	0.909	0.909	0.926	0.952	0.902	0.804	0.899	5.15
110)	TP	1,2,4,5-Tetram...		1.128	1.192	1.274	1.527	1.774	1.690	1.481	1.438	17.26
111)	TP	1,2-Dibromo-3-...		0.040	0.051	0.050	0.052	0.050	0.049	0.049	0.049	8.45
112)	TP	1,3,5-Trichlor...		0.571	0.601	0.622	0.697	0.770	0.733	0.650	0.663	10.99

Method Path : K:\VOA130\2024\241112NICAL\
Method File : V130_241112N_8260D.m
Title : VOLATILES BY GC/MS
Last Update : Wed Nov 13 13:45:44 2024
Response Via : Initial Calibration

Calibration Files
L11 =V30241112N03.D L1 =V30241112N05.D L2 =V30241112N06.D L3 =V30241112N08.D L4 =V30241112N09.D
L6 =V30241112N10.D L8 =V30241112N11.D L10 =V30241112N12.D

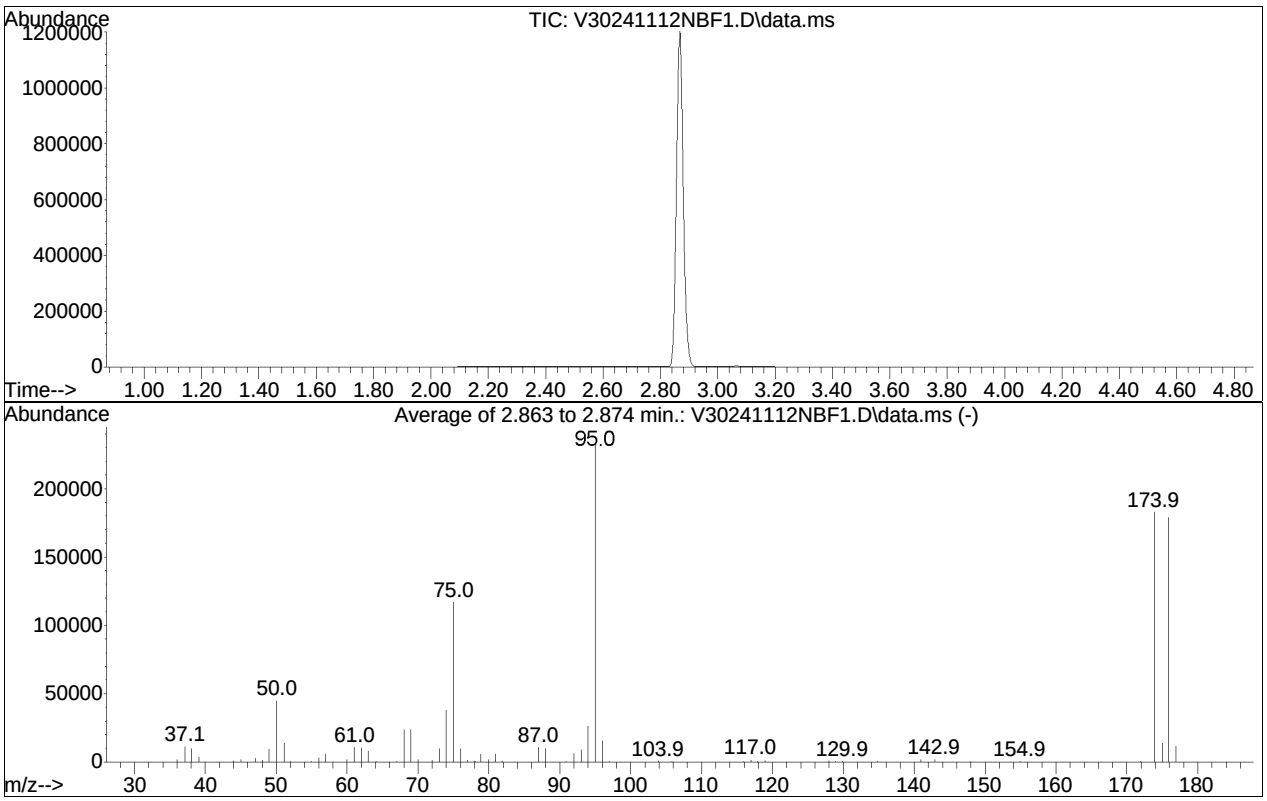
	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
113)	TP Hexachlorobuta...	0.205	0.225	0.224	0.233	0.250	0.235	0.213	0.227		6.53
114)	TP 1,2,4-Trichlor...	0.519	0.538	0.566	0.617	0.662	0.637	0.578	0.588		8.94
115)	TP Naphthalene	1.124	1.084	1.210	1.300	1.293	1.240	1.162	1.202		6.88
116)	TP 1,2,3-Trichlor...	0.524	0.527	0.540	0.573	0.586	0.563	0.520	0.548		4.80

(#) = Out of Range

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112NBF1.D
Acq On : 12 Nov 2024 02:39 pm
Operator : VOA130:PID
Sample : WG1996978-1
Misc : WG1996978
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Title : VOLATILES BY GC/MS
Last Update : Wed Nov 13 12:42:51 2024



AutoFind: Scans 148, 149, 150; Background Corrected with Scan 139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	45027	PASS
75	95	30	60	50.0	116885	PASS
95	95	100	100	100.0	233621	PASS
96	95	5	9	6.8	15849	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.3	182912	PASS
175	174	5	9	7.6	13924	PASS
176	174	95	101	97.9	179051	PASS
177	176	5	9	6.6	11760	PASS

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N03.D
Acq On : 12 Nov 2024 03:35 pm
Operator : VOA130:PID
Sample : I8260STD0.19PPB
Misc : WG1996978,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 13 12:29:29 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-L11_MCP - L11 MCP

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	403362	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery =	89.11%		
63) Chlorobenzene-d5	9.633	117	355797	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery =	99.29%		
84) 1,4-Dichlorobenzene-d4	12.323	152	215025	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery =	96.85%		
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	156011	11.273	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	112.73%		
47) 1,2-Dichloroethane-d4	5.801	65	143480	10.243	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.43%		
64) Toluene-d8	7.788	98	472598	9.917	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.17%		
88) 4-Bromofluorobenzene	11.117	95	193187	10.389	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.89%		
Target Compounds						Qvalue
4) Vinyl chloride	1.942	62	2331	0.206	ug/L	100
37) Carbon tetrachloride	5.229	117	1017	0.107	ug/L #	18
45) Benzene	5.675	78	4997M6	0.170	ug/L	
52) Trichloroethene	6.278	95	1147M6	0.159	ug/L	
62) cis-1,3-Dichloropropene	7.583	75	1440	0.138	ug/L	93
69) trans-1,3-Dichloropropene	8.338	75	1163	0.123	ug/L	89

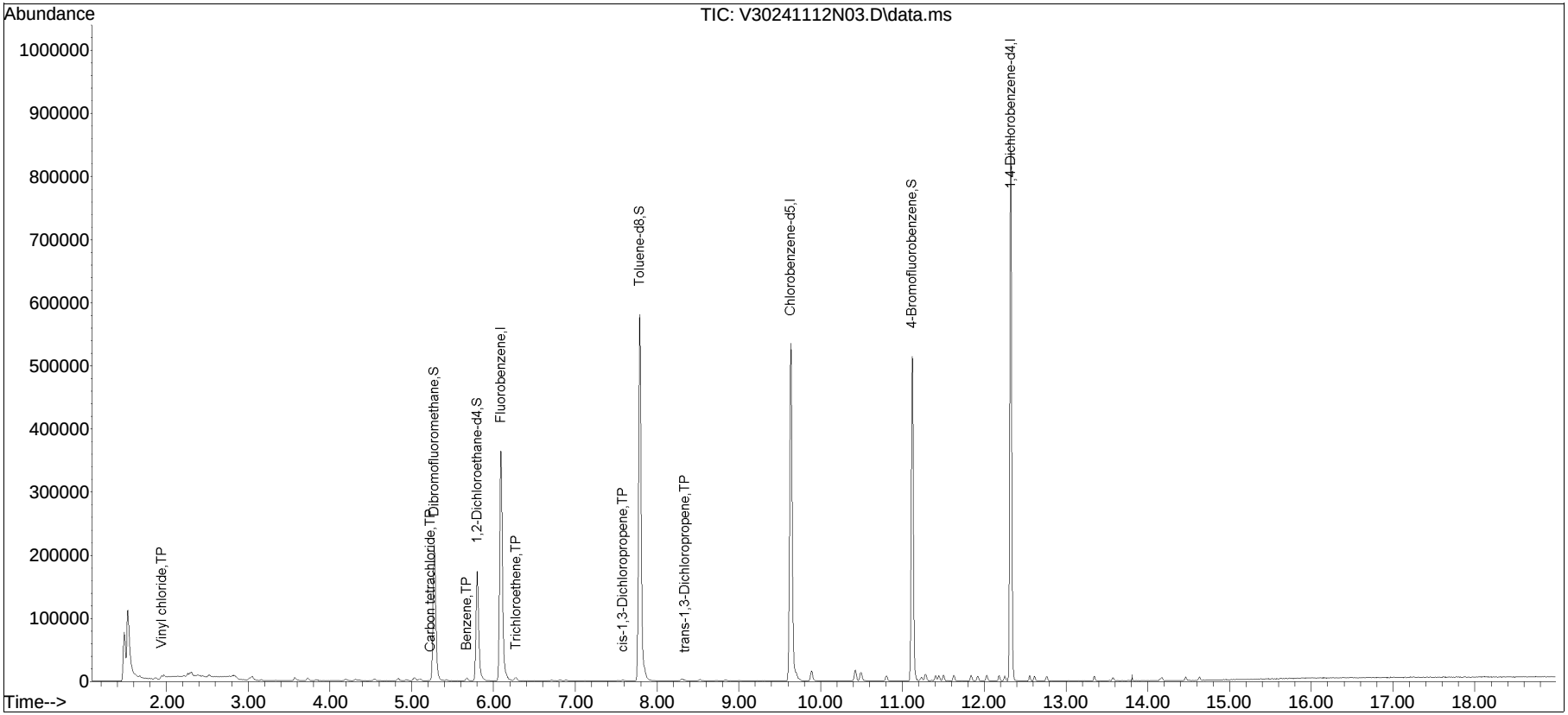
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N03.D
Acq On : 12 Nov 2024 03:35 pm
Operator : VOA130:PID
Sample : I8260STD0.19PPB
Misc : WG1996978,ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 13 12:29:29 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

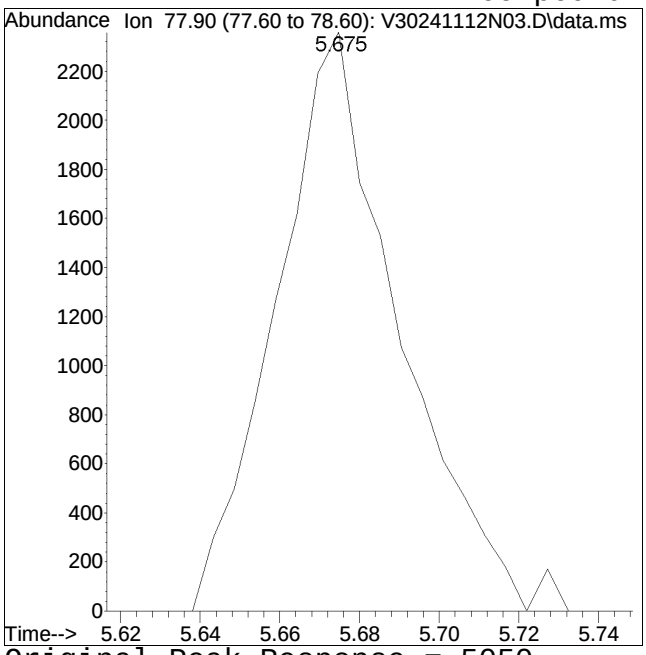
Sub List : 8260-L11_MCP - L11 MCP112NICAL\V30241112N08.D•



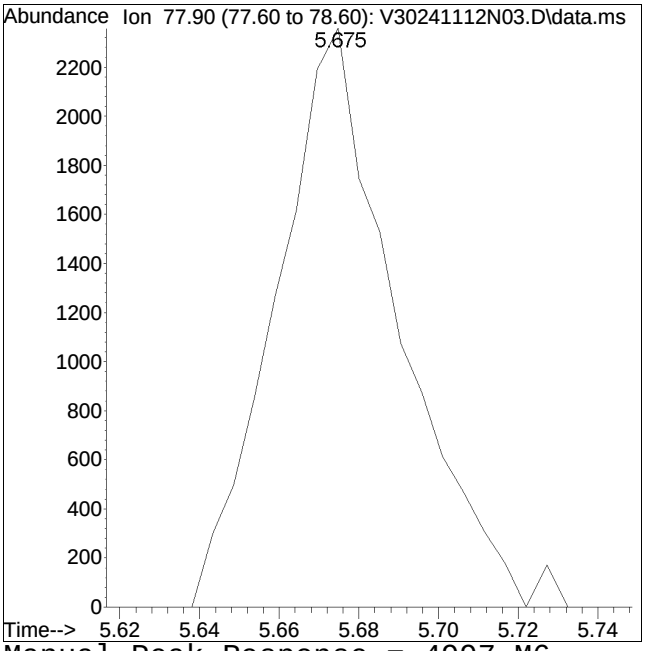
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N03.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 3:35 pm Instrument : VOA130
Sample : I8260STD0.19PPB Quant Date : 11/13/2024 12:29 pm

Compound #45: Benzene



Original Peak Response = 5050



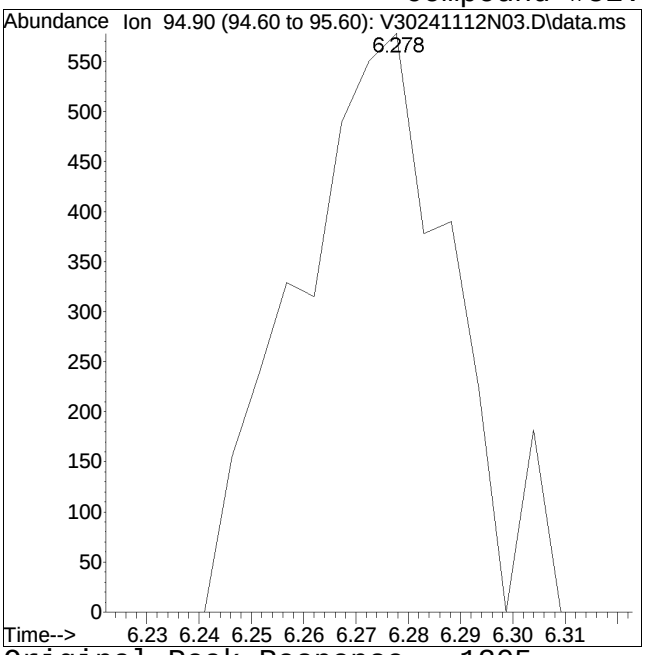
Manual Peak Response = 4997 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

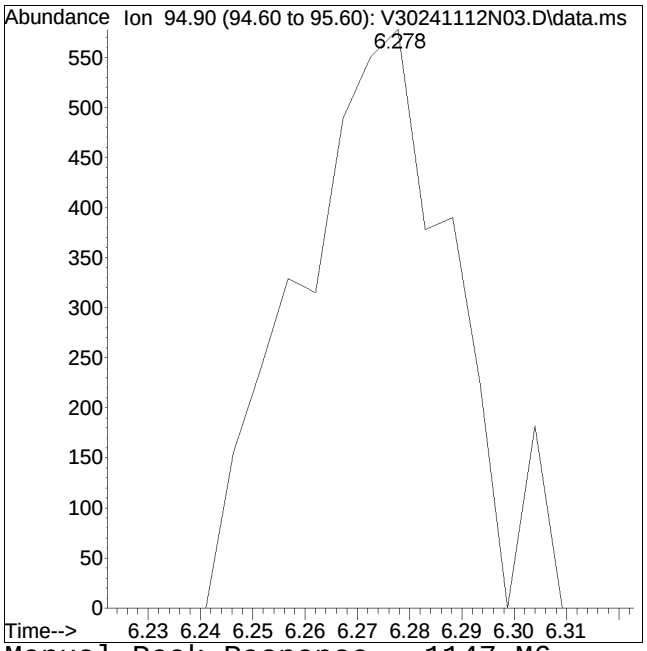
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N03.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 3:35 pm Instrument : VOA130
Sample : I8260STD0.19PPB Quant Date : 11/13/2024 12:29 pm

Compound #52: Trichloroethene



Original Peak Response = 1205



Manual Peak Response = 1147 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N05.D
Acq On : 12 Nov 2024 04:19 pm
Operator : VOA130:PID
Sample : I8260STD0.5PPB
Misc : WG1996978,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 12:34:11 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:32:13 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	384585	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery =	84.96%		
63) Chlorobenzene-d5	9.639	117	341144	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery =	95.20%		
84) 1,4-Dichlorobenzene-d4	12.323	152	212160	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery =	95.56%		
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	152657	11.569	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	115.69%		
47) 1,2-Dichloroethane-d4	5.801	65	138872	10.399	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.99%		
64) Toluene-d8	7.788	98	454747	9.952	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.52%		
88) 4-Bromofluorobenzene	11.117	95	189347	10.320	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	4978	0.550	ug/L	95
3) Chloromethane	1.863	50	6845	0.629	ug/L #	95
4) Vinyl chloride	1.942	62	6368	0.590	ug/L	98
5) Bromomethane	2.261	94	3597M6	0.612	ug/L	
6) Chloroethane	2.382	64	4080	0.618	ug/L	97
7) Trichlorofluoromethane	2.524	101	6924	0.575	ug/L	99
8) Ethyl ether	2.828	74	1466	0.469	ug/L	94
10) 1,1-Dichloroethene	3.017	96	4373	0.565	ug/L	83
11) Carbon disulfide	3.048	76	14567	0.626	ug/L	99
12) Freon-113	3.053	101	3540	0.484	ug/L	91
13) Iodomethane	3.153	142	2783	0.439	ug/L #	96
14) Acrolein	3.331	56	392	0.531	ug/L #	62
15) Methylene chloride	3.572	84	6190	0.649	ug/L	83
17) Acetone	3.609	43	2184	1.167	ug/L #	68
18) trans-1,2-Dichloroethene	3.724	96	4957	0.597	ug/L	81
19) Methyl acetate	3.730	43	3202	0.812	ug/L #	81
21) Methyl tert-butyl ether	3.829	73	5022	0.377	ug/L #	87
22) tert-Butyl alcohol	3.903	59	608	2.196	ug/L #	4
24) Diisopropyl ether	4.191	45	8758	0.459	ug/L	95
25) 1,1-Dichloroethane	4.312	63	10464	0.608	ug/L	99
26) Halothane	4.359	117	2462	0.440	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N05.D
Acq On : 12 Nov 2024 04:19 pm
Operator : VOA130:PID
Sample : I8260STD0.5PPB
Misc : WG1996978,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 12:34:11 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:32:13 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.348	53	982	0.527	ug/L		96
28) Ethyl tert-butyl ether	4.537	59	6249	0.393	ug/L		93
29) Vinyl acetate	4.542	43	5789	0.466	ug/L	#	93
30) cis-1,2-Dichloroethene	4.831	96	5639	0.596	ug/L		86
31) 2,2-Dichloropropane	4.930	77	5396	0.472	ug/L		95
33) Bromochloromethane	5.030	128	2571	0.600	ug/L	#	74
34) Cyclohexane	5.040	56	5132	0.405	ug/L		91
35) Chloroform	5.103	83	9511	0.596	ug/L		93
36) Ethyl acetate	5.208	43	2275	0.539	ug/L	#	75
37) Carbon tetrachloride	5.245	117	3667	0.405	ug/L	#	85
38) Tetrahydrofuran	0.000		0	N.D.	d		
40) 1,1,1-Trichloroethane	5.297	97	4862	0.425	ug/L		93
42) 2-Butanone	0.000		0	N.D.	d		
43) 1,1-Dichloropropene	5.428	75	3766	0.402	ug/L		99
45) Benzene	5.670	78	14200	0.508	ug/L		95
46) tert-Amyl methyl ether	5.790	73	5358	0.426	ug/L		91
48) 1,2-Dichloroethane	5.869	62	5469	0.550	ug/L		97
51) Methyl cyclohexane	6.272	83	4018	0.402	ug/L		93
52) Trichloroethene	6.272	95	3063	0.447	ug/L		94
54) Dibromomethane	6.708	93	2571	0.573	ug/L		93
55) 1,2-Dichloropropane	6.818	63	3128	0.427	ug/L		98
57) 2-Chloroethyl vinyl ether	7.510	63	1170	0.385	ug/L	#	74
58) Bromodichloromethane	6.881	83	4405	0.440	ug/L	#	98
61) 1,4-Dioxane	7.096	88	4591	128.381	ug/L		97
62) cis-1,3-Dichloropropene	7.578	75	4046	0.407	ug/L		90
65) Toluene	7.845	92	9820	0.484	ug/L		94
66) 4-Methyl-2-pentanone	0.000		0	N.D.	d		
67) Tetrachloroethene	8.307	166	3355	0.455	ug/L		92
69) trans-1,3-Dichloropropene	8.333	75	3206	0.354	ug/L		89
71) Ethyl methacrylate	8.527	69	2642	0.429	ug/L	#	84
72) 1,1,2-Trichloroethane	8.511	83	1636	0.353	ug/L		87
73) Chlorodibromomethane	8.726	129	2240	0.348	ug/L	#	96
74) 1,3-Dichloropropane	8.836	76	3984	0.395	ug/L		95
75) 1,2-Dibromoethane	9.004	107	1933	0.400	ug/L		97
77) 2-Hexanone	9.298	43	1456	0.521	ug/L	#	55
78) Chlorobenzene	9.660	112	10973	0.506	ug/L	#	65
79) Ethylbenzene	9.701	91	19923	0.498	ug/L		100
80) 1,1,1,2-Tetrachloroethane	9.743	131	2166	0.369	ug/L	#	64
81) p/m Xylene	9.885	106	16050	1.003	ug/L		94
82) o Xylene	10.420	106	15321	0.992	ug/L		100

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N05.D
Acq On : 12 Nov 2024 04:19 pm
Operator : VOA130:PID
Sample : I8260STD0.5PPB
Misc : WG1996978,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 12:34:11 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:32:13 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.488	104	24733	0.977	ug/L		95
85) Bromoform	10.514	173	1108	0.324	ug/L		99
87) Isopropylbenzene	10.803	105	18101	0.468	ug/L		97
89) Bromobenzene	11.232	156	4528	0.481	ug/L		100
90) n-Propylbenzene	11.280	91	23317	0.480	ug/L		98
91) 1,4-Dichlorobutane	11.295	55	4327	0.501	ug/L		99
92) 1,1,2,2-Tetrachloroethane	11.358	83	2834	0.461	ug/L	#	91
93) 4-Ethyltoluene	11.405	105	18926	0.470	ug/L		100
94) 2-Chlorotoluene	11.447	91	15793M6	0.536	ug/L		
95) 1,3,5-Trimethylbenzene	11.500	105	15989	0.455	ug/L		100
96) 1,2,3-Trichloropropane	11.495	75	2416	0.478	ug/L		96
97) trans-1,4-Dichloro-2-b...	11.547	53	582	0.380	ug/L	#	75
98) 4-Chlorotoluene	11.626	91	15353	0.493	ug/L		94
99) tert-Butylbenzene	11.841	119	13564	0.475	ug/L		98
102) 1,2,4-Trimethylbenzene	11.919	105	14381	0.421	ug/L		99
103) sec-Butylbenzene	12.035	105	19011	0.456	ug/L		94
104) p-Isopropyltoluene	12.187	119	15279	0.425	ug/L		95
105) 1,3-Dichlorobenzene	12.250	146	9765	0.496	ug/L		99
106) 1,4-Dichlorobenzene	12.339	146	10301M3	0.513	ug/L		
107) p-Diethylbenzene	12.554	119	8623	0.408	ug/L		94
108) n-Butylbenzene	12.611	91	12504	0.399	ug/L		99
109) 1,2-Dichlorobenzene	12.769	146	9434	0.508	ug/L		96
110) 1,2,4,5-Tetramethylben...	13.345	119	11962	0.401	ug/L		96
111) 1,2-Dibromo-3-chloropr...	13.529	155	421	0.408	ug/L	#	77
112) 1,3,5-Trichlorobenzene	13.576	180	6055	0.443	ug/L		96
113) Hexachlorobutadiene	14.148	225	2175	0.467	ug/L		100
114) 1,2,4-Trichlorobenzene	14.169	180	5504	0.454	ug/L		98
115) Naphthalene	14.462	128	11922	0.474	ug/L		100
116) 1,2,3-Trichlorobenzene	14.630	180	5560	0.488	ug/L		97

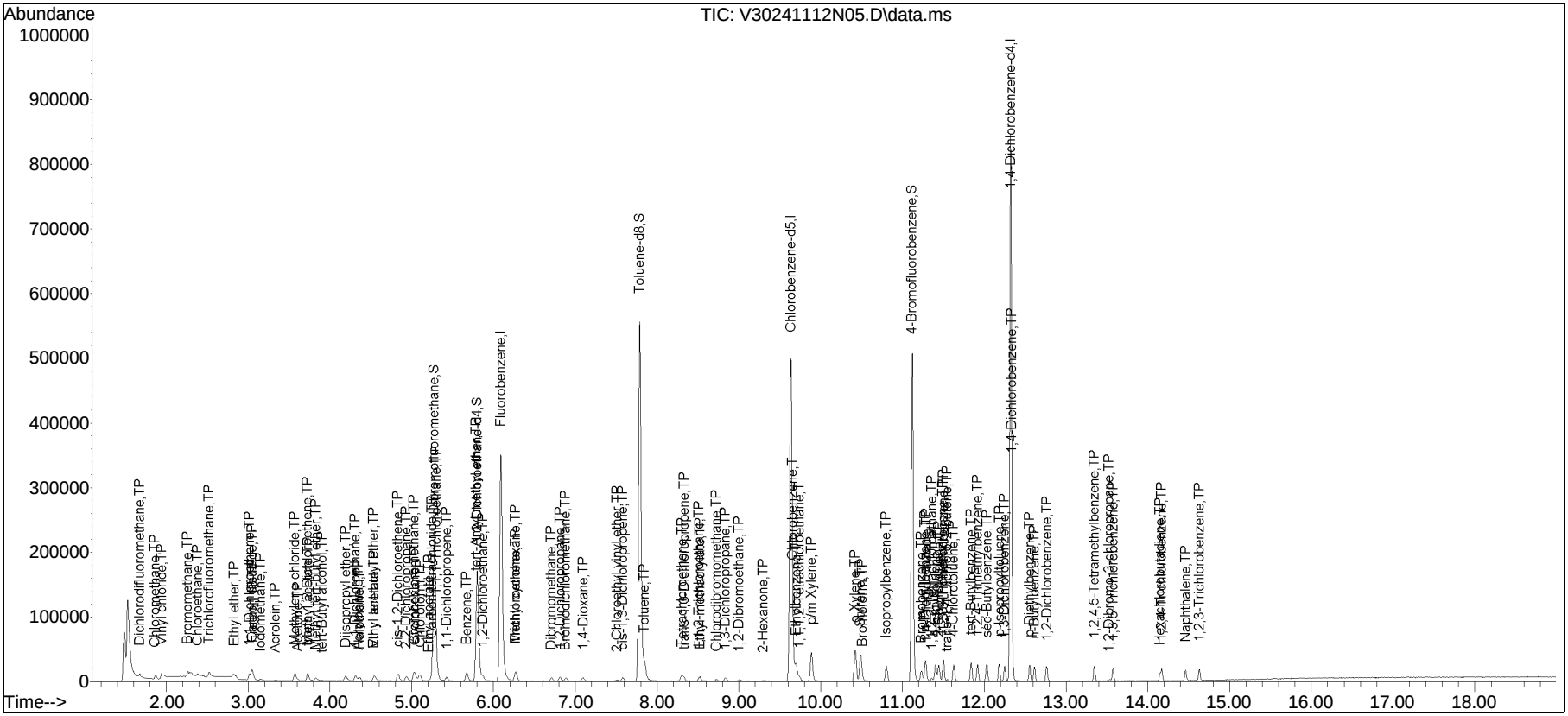
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N05.D
Acq On : 12 Nov 2024 04:19 pm
Operator : VOA130:PID
Sample : I8260STD0.5PPB
Misc : WG1996978,ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 13 12:34:11 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:32:13 2024
Response via : Initial Calibration

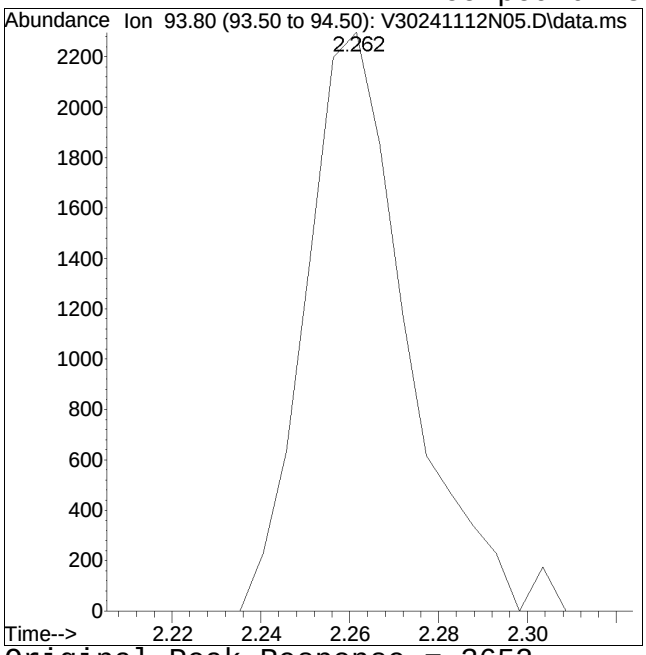
Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•



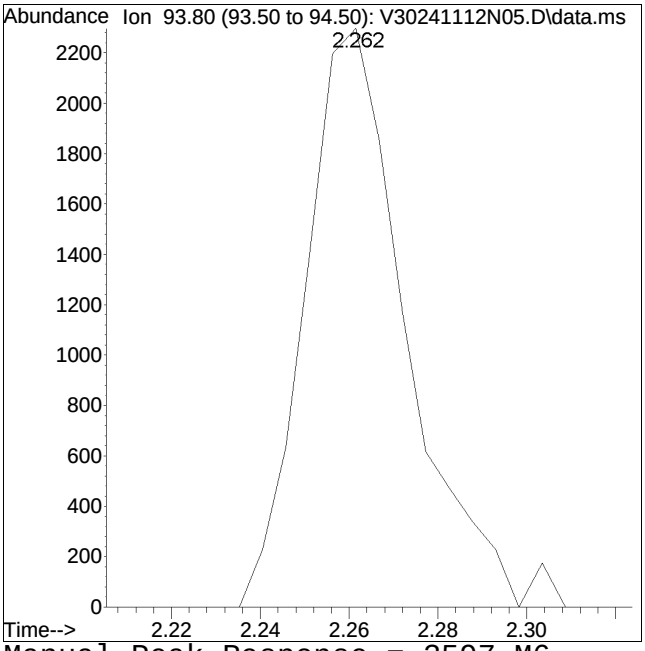
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N05.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 4:19 pm Instrument : VOA130
Sample : I8260STD0.5PPB Quant Date : 11/13/2024 12:32 pm

Compound #5: Bromomethane



Original Peak Response = 3652



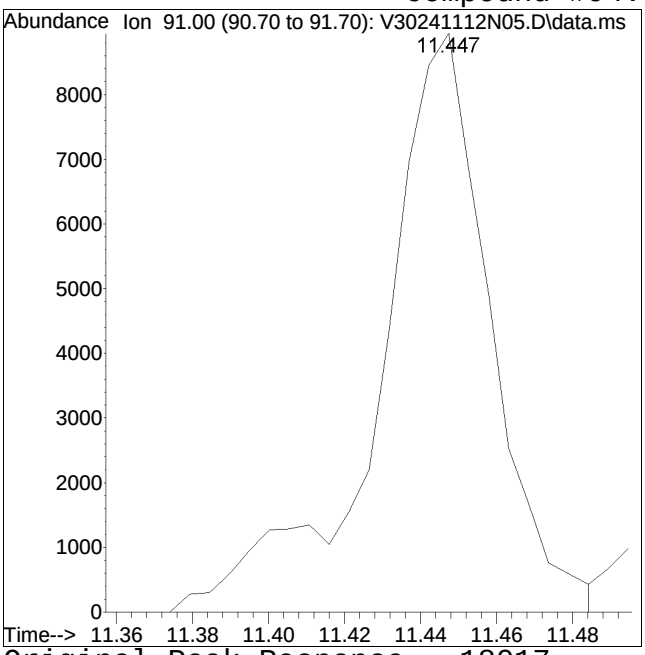
Manual Peak Response = 3597 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

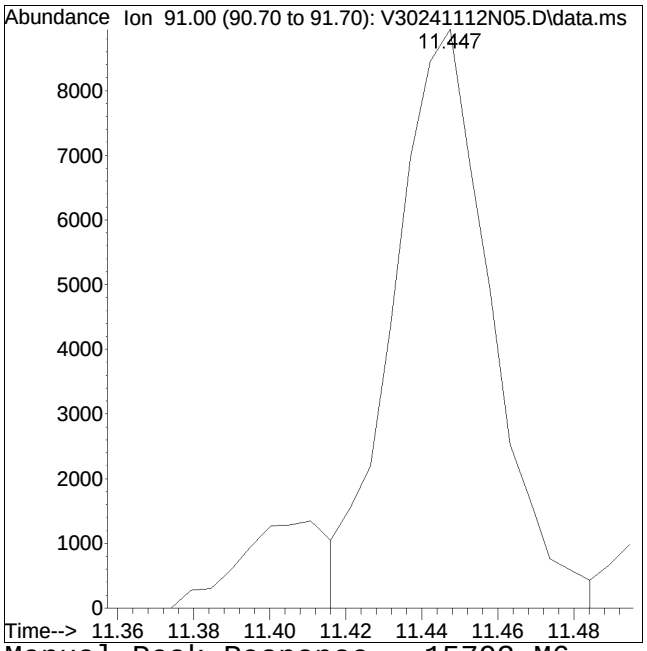
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N05.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 4:19 pm Instrument : VOA130
Sample : I8260STD0.5PPB Quant Date : 11/13/2024 12:32 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 18017



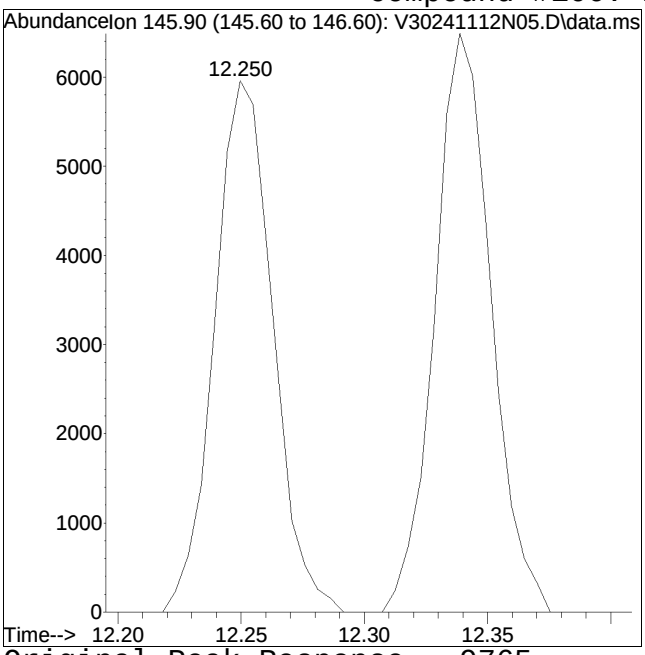
Manual Peak Response = 15793 M6

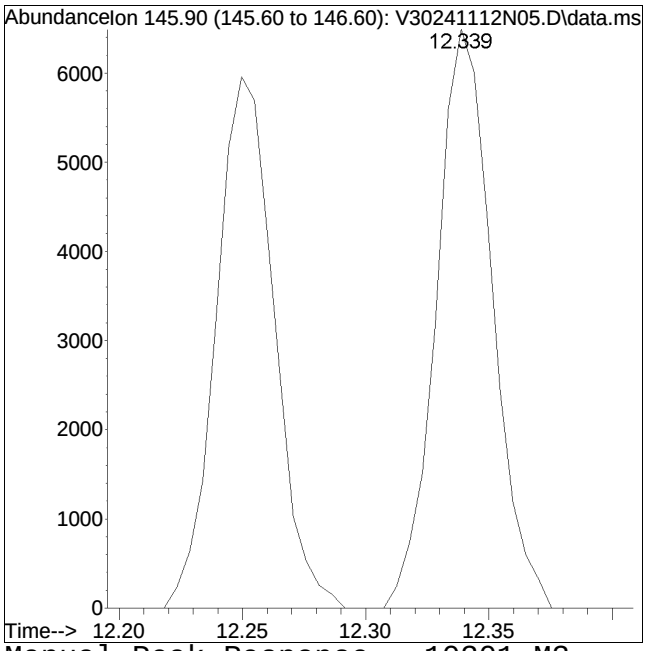
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N05.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 4:19 pm Instrument : VOA130
Sample : I8260STD0.5PPB Quant Date : 11/13/2024 12:32 pm

Compound #106: 1,4-Dichlorobenzene





Original Peak Response = 9765 Manual Peak Response = 10301 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N06.D
Acq On : 12 Nov 2024 04:41 pm
Operator : VOA130:PID
Sample : I8260STD2PPB
Misc : WG1996978,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 13:45:13 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	409145	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery =	90.39%		
63) Chlorobenzene-d5	9.633	117	356531	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery =	99.49%		
84) 1,4-Dichlorobenzene-d4	12.323	152	218876	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery =	98.59%		
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	156334	11.136	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	111.36%		
47) 1,2-Dichloroethane-d4	5.801	65	146960	10.344	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.44%		
64) Toluene-d8	7.788	98	470825	9.859	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.59%		
88) 4-Bromofluorobenzene	11.123	95	194769	10.290	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	23104	2.400	ug/L	97
3) Chloromethane	1.868	50	28962	2.502	ug/L	98
4) Vinyl chloride	1.942	62	27778	2.420	ug/L	100
5) Bromomethane	2.262	94	15123	2.418	ug/L	96
6) Chloroethane	2.382	64	17713	2.522	ug/L	98
7) Trichlorofluoromethane	2.524	101	30684	2.395	ug/L	99
8) Ethyl ether	2.823	74	6315	1.898	ug/L #	93
10) 1,1-Dichloroethene	3.017	96	19248	2.336	ug/L	83
11) Carbon disulfide	3.048	76	59352	2.396	ug/L	100
12) Freon-113	3.053	101	16820	2.160	ug/L	91
13) Iodomethane	3.153	142	13037	1.935	ug/L	100
14) Acrolein	3.337	56	1843	2.348	ug/L	99
15) Methylene chloride	3.572	84	24929	2.458	ug/L	85
17) Acetone	3.604	43	4830	2.426	ug/L	95
18) trans-1,2-Dichloroethene	3.730	96	20559	2.328	ug/L	88
19) Methyl acetate	3.730	43	8889	2.118	ug/L #	94
21) Methyl tert-butyl ether	3.829	73	21224	1.498	ug/L	97
22) tert-Butyl alcohol	3.913	59	2539	8.619	ug/L #	52
24) Diisopropyl ether	4.191	45	36706	1.810	ug/L	97
25) 1,1-Dichloroethane	4.317	63	45117	2.463	ug/L	98
26) Halothane	4.364	117	11704	1.967	ug/L	97

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N06.D
Acq On : 12 Nov 2024 04:41 pm
Operator : VOA130:PID
Sample : I8260STD2PPB
Misc : WG1996978,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 13:45:13 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.348	53	4156	2.097	ug/L		95
28) Ethyl tert-butyl ether	4.542	59	27577	1.630	ug/L		95
29) Vinyl acetate	4.542	43	22136	1.676	ug/L		97
30) cis-1,2-Dichloroethene	4.836	96	24136	2.396	ug/L		85
31) 2,2-Dichloropropane	4.941	77	24945	2.051	ug/L		91
33) Bromochloromethane	5.025	128	10626	2.331	ug/L	#	70
34) Cyclohexane	5.041	56	23452	1.742	ug/L		87
35) Chloroform	5.098	83	41717	2.458	ug/L		96
36) Ethyl acetate	5.214	43	8154	1.815	ug/L		96
37) Carbon tetrachloride	5.240	117	17305M1	1.797	ug/L		
38) Tetrahydrofuran	5.245	42	3131M6	2.210	ug/L		
40) 1,1,1-Trichloroethane	5.308	97	23314	1.914	ug/L		94
42) 2-Butanone	5.387	43	3333M6	1.734	ug/L		
43) 1,1-Dichloropropene	5.428	75	16827	1.690	ug/L		94
45) Benzene	5.670	78	62192	2.091	ug/L		97
46) tert-Amyl methyl ether	5.785	73	23157	1.729	ug/L		95
48) 1,2-Dichloroethane	5.874	62	22541	2.131	ug/L	#	98
51) Methyl cyclohexane	6.273	83	19048	1.793	ug/L		94
52) Trichloroethene	6.273	95	13465	1.846	ug/L		93
54) Dibromomethane	6.703	93	10532	2.208	ug/L		91
55) 1,2-Dichloropropane	6.813	63	14323	1.838	ug/L		96
57) 2-Chloroethyl vinyl ether	7.510	63	5490	1.698	ug/L		92
58) Bromodichloromethane	6.886	83	19108	1.793	ug/L		98
61) 1,4-Dioxane	7.096	88	16535	434.623	ug/L		96
62) cis-1,3-Dichloropropene	7.583	75	18732	1.773	ug/L	#	86
65) Toluene	7.846	92	44137	2.081	ug/L		99
66) 4-Methyl-2-pentanone	8.276	58	2104	1.317	ug/L	#	85
67) Tetrachloroethene	8.302	166	14969	1.941	ug/L		93
69) trans-1,3-Dichloropropene	8.328	75	14733	1.555	ug/L	#	87
71) Ethyl methacrylate	8.522	69	11495	1.786	ug/L	#	86
72) 1,1,2-Trichloroethane	8.517	83	7933	1.639	ug/L		97
73) Chlorodibromomethane	8.726	129	9951	1.480	ug/L		97
74) 1,3-Dichloropropane	8.831	76	17714	1.681	ug/L		99
75) 1,2-Dibromoethane	9.004	107	8523	1.688	ug/L		97
77) 2-Hexanone	9.298	43	5517	1.891	ug/L	#	92
78) Chlorobenzene	9.654	112	47915	2.113	ug/L	#	85
79) Ethylbenzene	9.696	91	88702	2.121	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.738	131	9696	1.580	ug/L		97
81) p/m Xylene	9.885	106	70806	4.235	ug/L		95
82) o Xylene	10.420	106	67972	4.210	ug/L		99

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N06.D
Acq On : 12 Nov 2024 04:41 pm
Operator : VOA130:PID
Sample : I8260STD2PPB
Misc : WG1996978,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 13:45:13 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83) Styrene	10.488	104	110220	4.167	ug/L	95
85) Bromoform	10.509	173	5427	1.539	ug/L	98
87) Isopropylbenzene	10.803	105	82729	2.074	ug/L	98
89) Bromobenzene	11.233	156	20627	2.122	ug/L	96
90) n-Propylbenzene	11.280	91	105576	2.107	ug/L	97
91) 1,4-Dichlorobutane	11.290	55	17232	1.933	ug/L	98
92) 1,1,2,2-Tetrachloroethane	11.358	83	12166	1.917	ug/L	99
93) 4-Ethyltoluene	11.406	105	85808	2.067	ug/L	99
94) 2-Chlorotoluene	11.442	91	66490M1	2.188	ug/L	
95) 1,3,5-Trimethylbenzene	11.500	105	72276	1.992	ug/L	97
96) 1,2,3-Trichloropropane	11.495	75	9968	1.913	ug/L	93
97) trans-1,4-Dichloro-2-b...	11.552	53	2794	1.770	ug/L	97
98) 4-Chlorotoluene	11.626	91	68404	2.130	ug/L	97
99) tert-Butylbenzene	11.841	119	61216	2.079	ug/L	94
102) 1,2,4-Trimethylbenzene	11.919	105	66884	1.898	ug/L	98
103) sec-Butylbenzene	12.030	105	88994	2.071	ug/L	95
104) p-Isopropyltoluene	12.182	119	73261	1.976	ug/L	97
105) 1,3-Dichlorobenzene	12.250	146	41954	2.067	ug/L	98
106) 1,4-Dichlorobenzene	12.339	146	43442	2.095	ug/L	97
107) p-Diethylbenzene	12.554	119	39933	1.831	ug/L	96
108) n-Butylbenzene	12.612	91	62155	1.923	ug/L	97
109) 1,2-Dichlorobenzene	12.764	146	39801	2.076	ug/L	97
110) 1,2,4,5-Tetramethylben...	13.346	119	52170	1.694	ug/L	96
111) 1,2-Dibromo-3-chloropr...	13.534	155	2226	2.091	ug/L	88
112) 1,3,5-Trichlorobenzene	13.571	180	26289	1.864	ug/L	97
113) Hexachlorobutadiene	14.148	225	9860	2.052	ug/L	97
114) 1,2,4-Trichlorobenzene	14.169	180	23531	1.880	ug/L	99
115) Naphthalene	14.457	128	47442	1.829	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	23066	1.964	ug/L	99

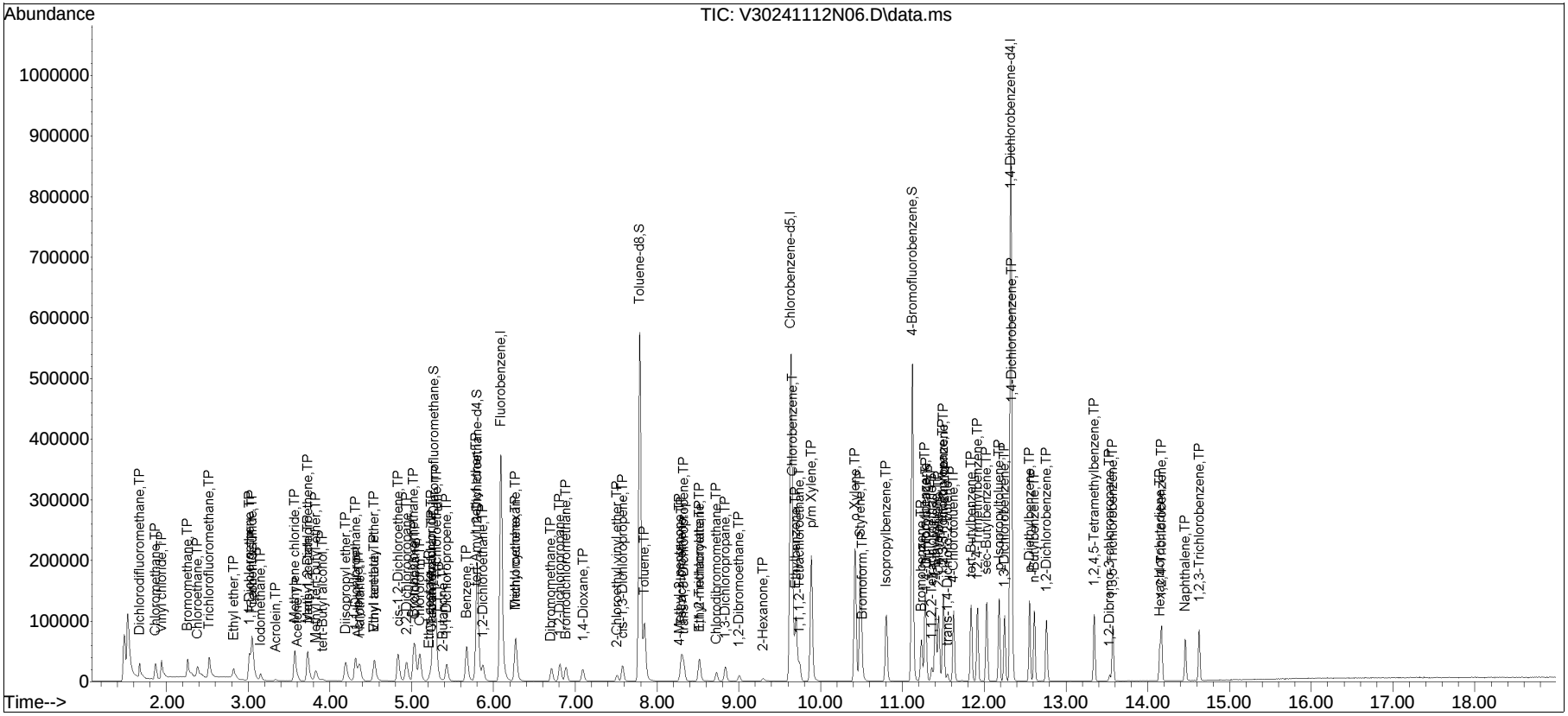
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N06.D
Acq On : 12 Nov 2024 04:41 pm
Operator : VOA130:PID
Sample : I8260STD2PPB
Misc : WG1996978,ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 13 13:45:13 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•

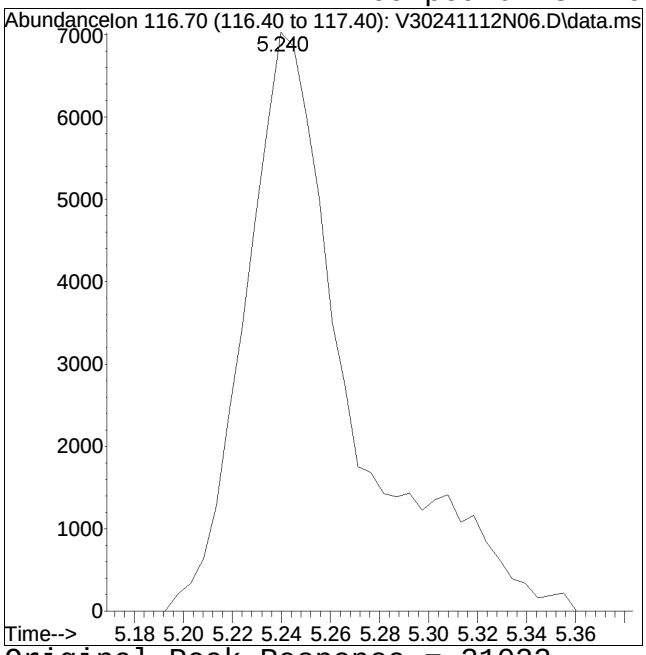


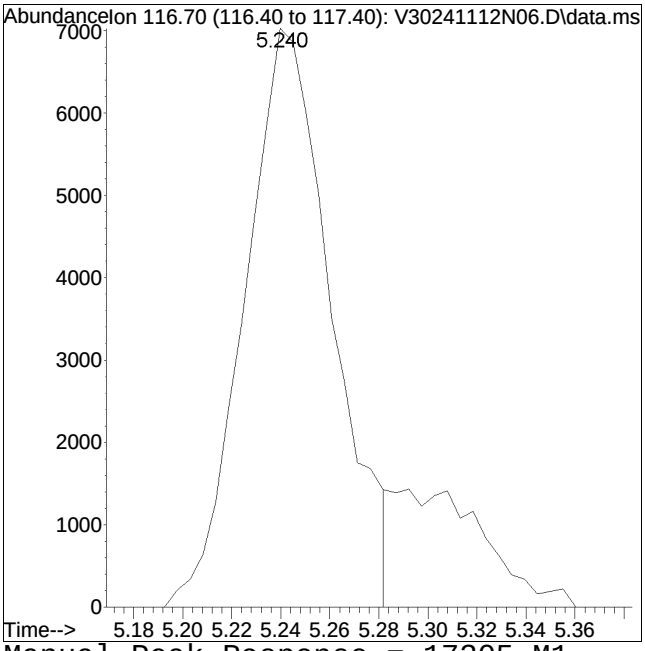
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQ
Data File : V30241112N06.D
Date Inj'd : 11/12/2024 4:41 pm
Sample : I8260STD2PPB

Method : V130_241112N_8260D.m
Operator : VOA130:PID
Instrument : VOA130
Quant Date : 11/13/2024 12:29 pm

Compound #37: Carbon tetrachloride





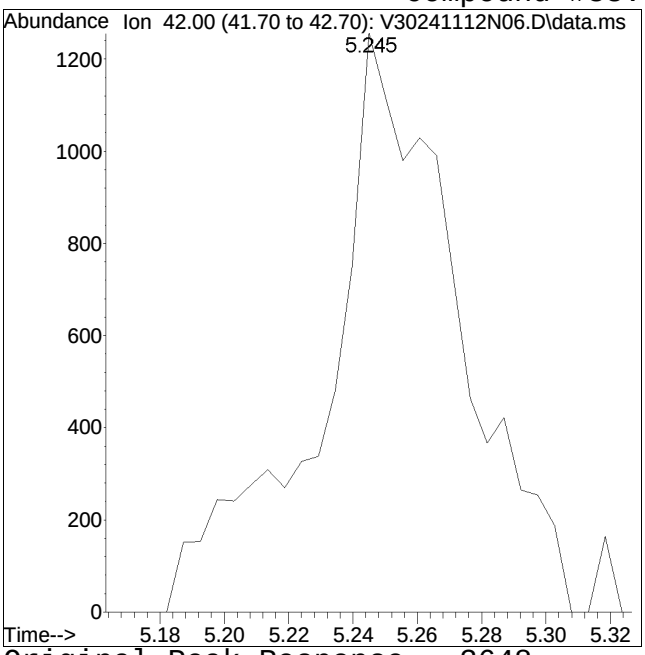
Original Peak Response = 21022 Manual Peak Response = 17305 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

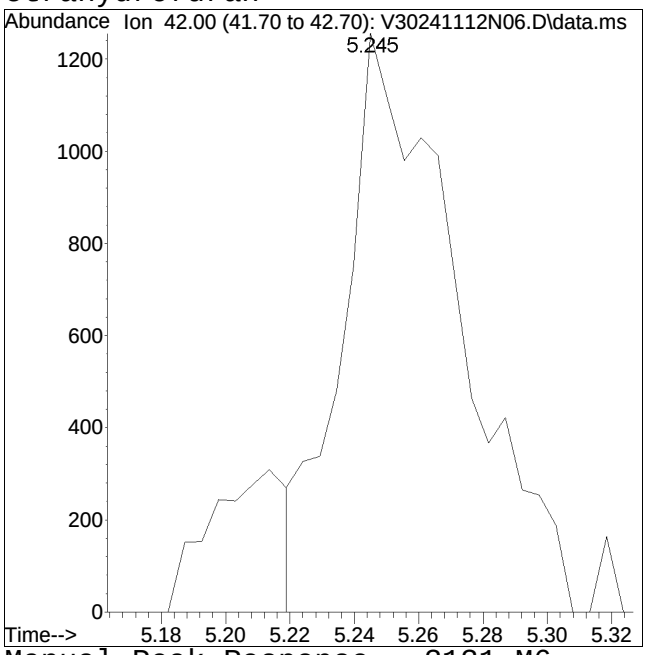
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N06.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 4:41 pm Instrument : VOA130
Sample : I8260STD2PPB Quant Date : 11/13/2024 12:29 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 3648



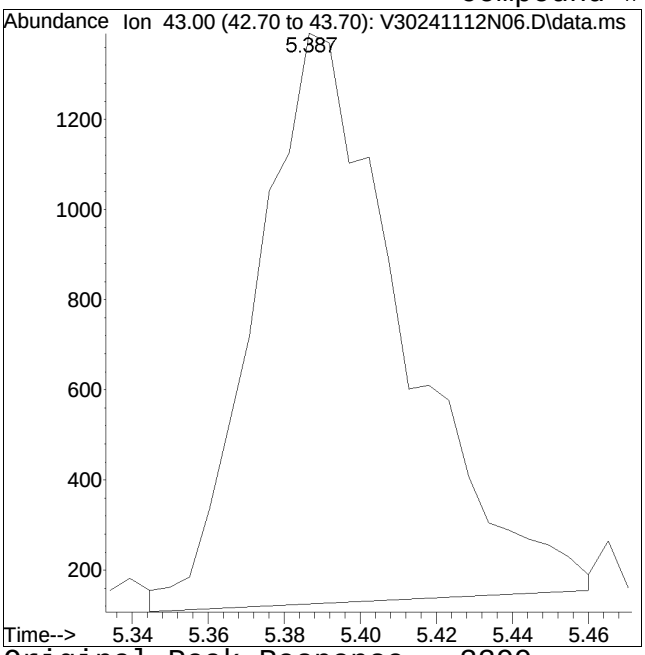
Manual Peak Response = 3131 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

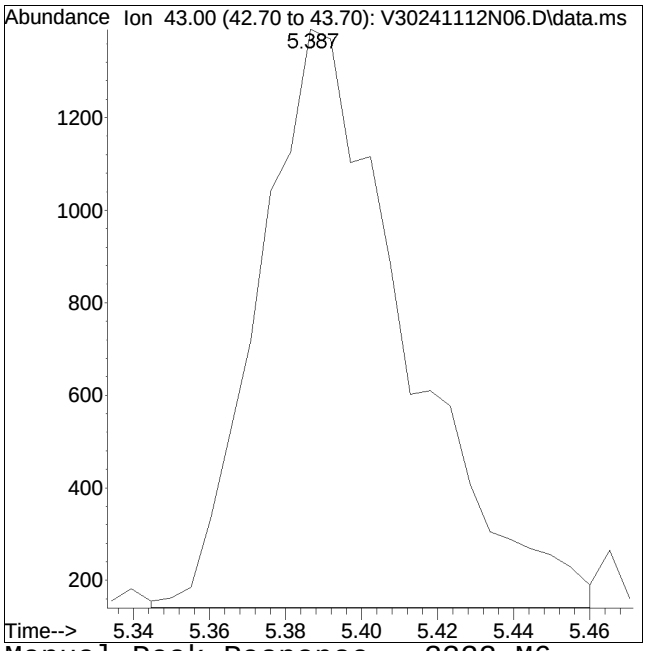
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N06.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 4:41 pm Instrument : VOA130
Sample : I8260STD2PPB Quant Date : 11/13/2024 12:29 pm

Compound #42: 2-Butanone



Original Peak Response = 3399



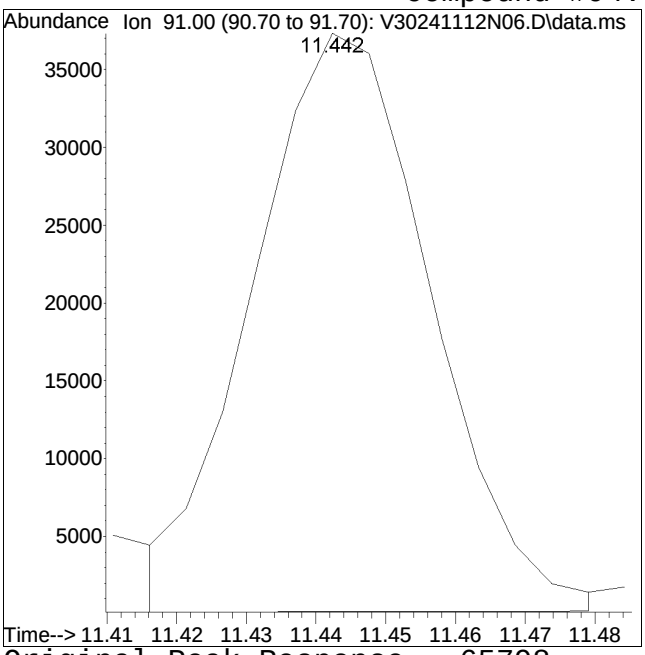
Manual Peak Response = 3333 M6

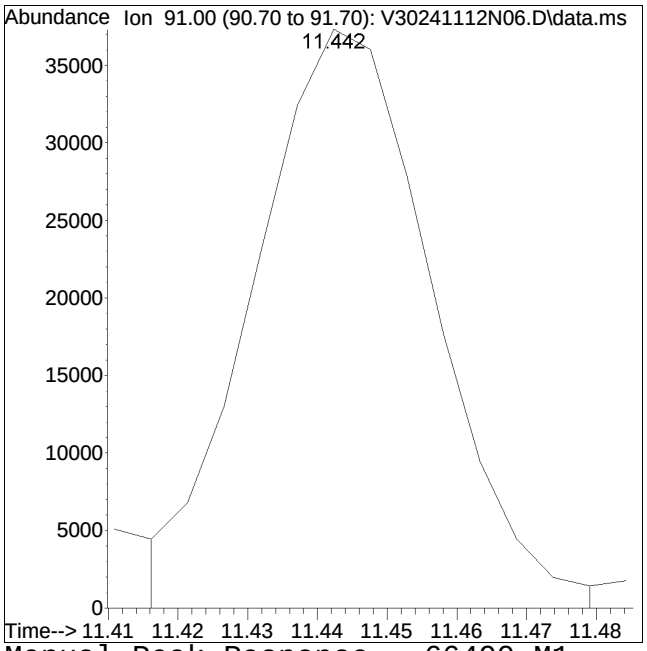
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N06.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 4:41 pm Instrument : VOA130
Sample : I8260STD2PPB Quant Date : 11/13/2024 12:29 pm

Compound #94: 2-Chlorotoluene





Original Peak Response = 65798 Manual Peak Response = 66490 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N08.D
Acq On : 12 Nov 2024 05:24 pm
Operator : VOA130:PID
Sample : I8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 13 12:29:56 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	452641	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery = 100.00%			
63) Chlorobenzene-d5	9.633	117	358354	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.323	152	222013	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	157833	10.163	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.63%			
47) 1,2-Dichloroethane-d4	5.801	65	165359	10.520	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.20%			
64) Toluene-d8	7.788	98	491373	10.237	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.37%			
88) 4-Bromofluorobenzene	11.117	95	194329	10.122	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.22%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	113160	10.624	ug/L	96
3) Chloromethane	1.868	50	139127	10.865	ug/L	98
4) Vinyl chloride	1.942	62	134983	10.630	ug/L	100
5) Bromomethane	2.262	94	72626	10.497	ug/L	99
6) Chloroethane	2.382	64	82943	10.676	ug/L	98
7) Trichlorofluoromethane	2.524	101	152518	10.761	ug/L	99
8) Ethyl ether	2.823	74	36760	9.987	ug/L	91
10) 1,1-Dichloroethene	3.017	96	97443	10.690	ug/L	81
11) Carbon disulfide	3.048	76	289003	10.544	ug/L	100
12) Freon-113	3.053	101	91923	10.669	ug/L	91
13) Iodomethane	3.153	142	72593	9.738	ug/L	97
14) Acrolein	3.331	56	9107	10.487	ug/L	99
15) Methylene chloride	3.572	84	119587	10.660	ug/L	86
17) Acetone	3.604	43	19231	8.730	ug/L	93
18) trans-1,2-Dichloroethene	3.730	96	103115	10.555	ug/L	88
19) Methyl acetate	3.730	43	43750	9.421	ug/L #	88
21) Methyl tert-butyl ether	3.829	73	130526	8.328	ug/L	93
22) tert-Butyl alcohol	3.908	59	16224	49.785	ug/L #	76
24) Diisopropyl ether	4.191	45	230204	10.260	ug/L	97
25) 1,1-Dichloroethane	4.312	63	219275	10.821	ug/L	98
26) Halothane	4.364	117	65837	10.002	ug/L	98

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N08.D
Acq On : 12 Nov 2024 05:24 pm
Operator : VOA130:PID
Sample : I8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 13 12:29:56 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.348	53	23313	10.631	ug/L		93
28) Ethyl tert-butyl ether	4.542	59	180008	9.619	ug/L		90
29) Vinyl acetate	4.548	43	128126	8.770	ug/L	#	95
30) cis-1,2-Dichloroethene	4.836	96	116875	10.488	ug/L		87
31) 2,2-Dichloropropane	4.936	77	139705	10.382	ug/L		89
33) Bromochloromethane	5.025	128	53918	10.692	ug/L	#	69
34) Cyclohexane	5.041	56	139209	9.345	ug/L		89
35) Chloroform	5.098	83	201005	10.707	ug/L		94
36) Ethyl acetate	5.208	43	45110	9.076	ug/L	#	97
37) Carbon tetrachloride	5.240	117	104653	9.822	ug/L		99
38) Tetrahydrofuran	5.250	42	15193M6	9.691	ug/L		
40) 1,1,1-Trichloroethane	5.303	97	137101	10.176	ug/L		95
42) 2-Butanone	5.381	43	18994	8.933	ug/L		94
43) 1,1-Dichloropropene	5.429	75	97112	8.818	ug/L		97
45) Benzene	5.670	78	331965	10.088	ug/L		97
46) tert-Amyl methyl ether	5.785	73	147144	9.929	ug/L		94
48) 1,2-Dichloroethane	5.869	62	120896	10.330	ug/L	#	97
51) Methyl cyclohexane	6.267	83	116952	9.953	ug/L		90
52) Trichloroethene	6.273	95	75526	9.359	ug/L		95
54) Dibromomethane	6.708	93	54924	10.407	ug/L		91
55) 1,2-Dichloropropane	6.813	63	79144	9.179	ug/L		98
57) 2-Chloroethyl vinyl ether	7.510	63	37918	10.599	ug/L		87
58) Bromodichloromethane	6.886	83	110406	9.363	ug/L	#	99
61) 1,4-Dioxane	7.091	88	21666	514.767	ug/L		94
62) cis-1,3-Dichloropropene	7.573	75	107449	9.191	ug/L	#	87
65) Toluene	7.846	92	224354	10.525	ug/L		99
66) 4-Methyl-2-pentanone	8.276	58	15592	9.712	ug/L	#	85
67) Tetrachloroethene	8.302	166	79227	10.220	ug/L		94
69) trans-1,3-Dichloropropene	8.328	75	90499	9.503	ug/L	#	84
71) Ethyl methacrylate	8.517	69	65650	10.146	ug/L	#	84
72) 1,1,2-Trichloroethane	8.511	83	46038	9.465	ug/L		98
73) Chlorodibromomethane	8.726	129	58852	8.711	ug/L		98
74) 1,3-Dichloropropane	8.837	76	100982	9.536	ug/L		100
75) 1,2-Dibromoethane	9.004	107	49516	9.755	ug/L		99
77) 2-Hexanone	9.287	43	28883	9.848	ug/L		98
78) Chlorobenzene	9.660	112	236750	10.386	ug/L		90
79) Ethylbenzene	9.696	91	448151	10.663	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.744	131	58277	9.451	ug/L		100
81) p/m Xylene	9.885	106	361841	21.530	ug/L		95
82) o Xylene	10.420	106	352173	21.702	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N08.D
Acq On : 12 Nov 2024 05:24 pm
Operator : VOA130:PID
Sample : I8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 13 12:29:56 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83) Styrene	10.488	104	585852	22.034	ug/L	95
85) Bromoform	10.509	173	33739	9.431	ug/L	98
87) Isopropylbenzene	10.803	105	428357	10.590	ug/L	98
89) Bromobenzene	11.233	156	101877	10.332	ug/L	99
90) n-Propylbenzene	11.275	91	546452	10.752	ug/L	97
91) 1,4-Dichlorobutane	11.285	55	91967	10.173	ug/L	98
92) 1,1,2,2-Tetrachloroethane	11.358	83	63375	9.846	ug/L	100
93) 4-Ethyltoluene	11.400	105	446930	10.616	ug/L	99
94) 2-Chlorotoluene	11.442	91	328722M1	10.665	ug/L	
95) 1,3,5-Trimethylbenzene	11.500	105	387832	10.541	ug/L	98
96) 1,2,3-Trichloropropane	11.495	75	52680	9.966	ug/L	91
97) trans-1,4-Dichloro-2-b...	11.547	53	15568	9.721	ug/L	98
98) 4-Chlorotoluene	11.626	91	343270	10.536	ug/L	96
99) tert-Butylbenzene	11.841	119	312721	10.471	ug/L	94
102) 1,2,4-Trimethylbenzene	11.914	105	375186	10.496	ug/L	98
103) sec-Butylbenzene	12.030	105	465676	10.684	ug/L	95
104) p-Isopropyltoluene	12.182	119	398264	10.588	ug/L	97
105) 1,3-Dichlorobenzene	12.250	146	213972	10.391	ug/L	98
106) 1,4-Dichlorobenzene	12.339	146	217196	10.329	ug/L	99
107) p-Diethylbenzene	12.554	119	226504	10.237	ug/L	96
108) n-Butylbenzene	12.612	91	346494	10.571	ug/L	98
109) 1,2-Dichlorobenzene	12.758	146	201920	10.383	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.346	119	282861	9.054	ug/L	96
111) 1,2-Dibromo-3-chloropr...	13.534	155	11071	10.251	ug/L	99
112) 1,3,5-Trichlorobenzene	13.571	180	138078	9.654	ug/L	96
113) Hexachlorobutadiene	14.148	225	49821	10.224	ug/L	98
114) 1,2,4-Trichlorobenzene	14.169	180	125695	9.899	ug/L	99
115) Naphthalene	14.457	128	268637	10.210	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	119855	10.059	ug/L	98

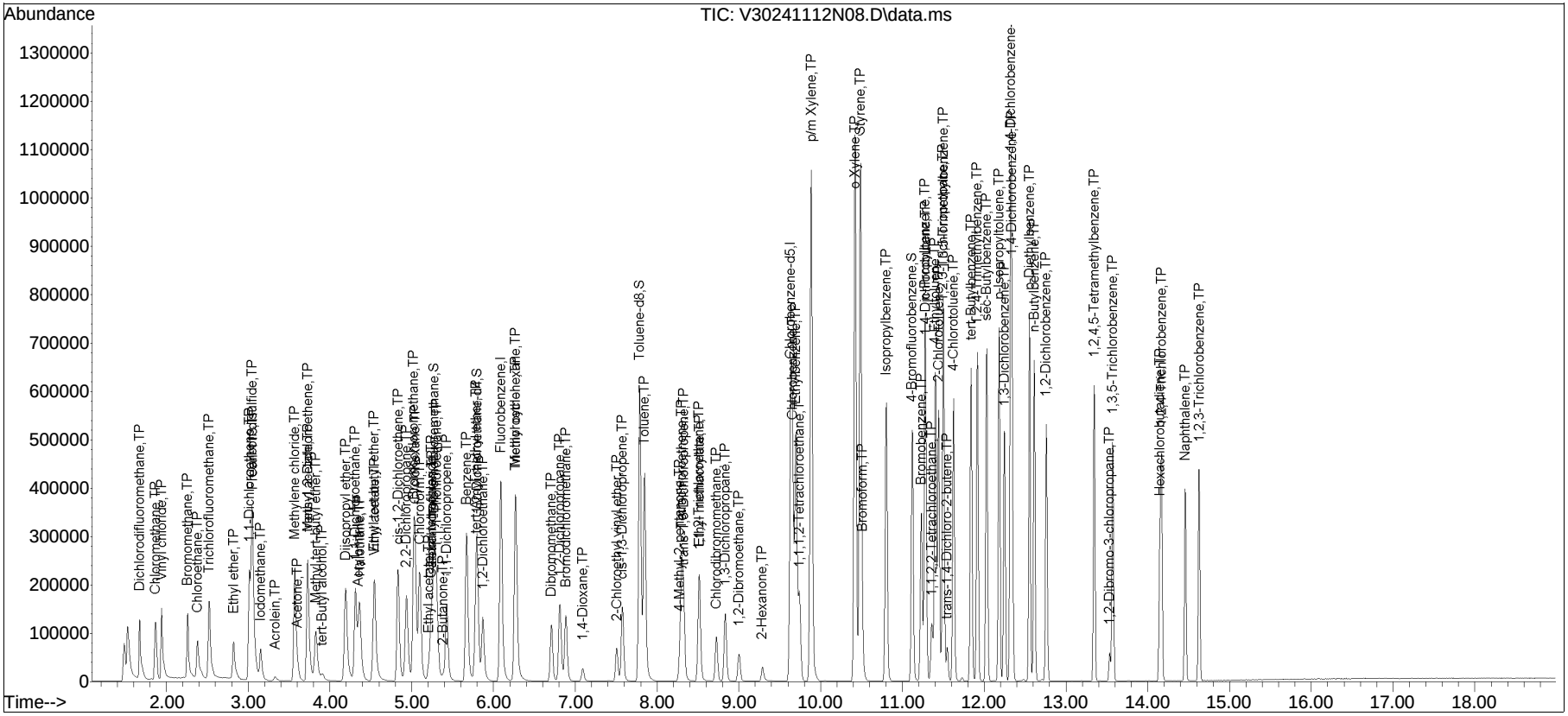
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N08.D
Acq On : 12 Nov 2024 05:24 pm
Operator : VOA130:PID
Sample : I8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 13 12:29:56 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

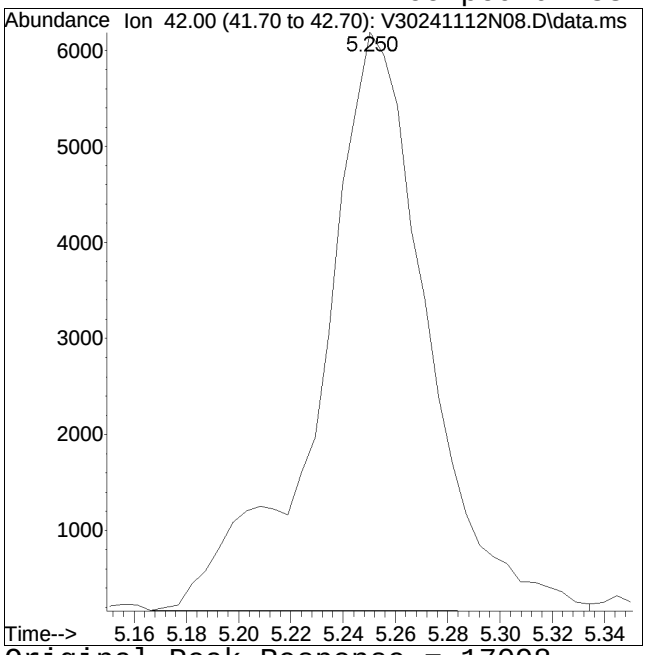
Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•



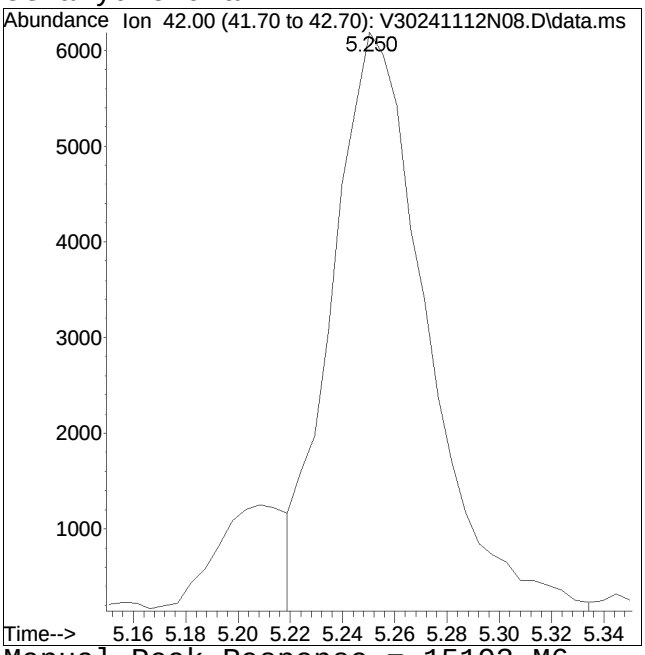
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N08.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 5:24 pm Instrument : VOA130
Sample : I8260STD10PPB Quant Date : 11/13/2024 12:29 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 17098



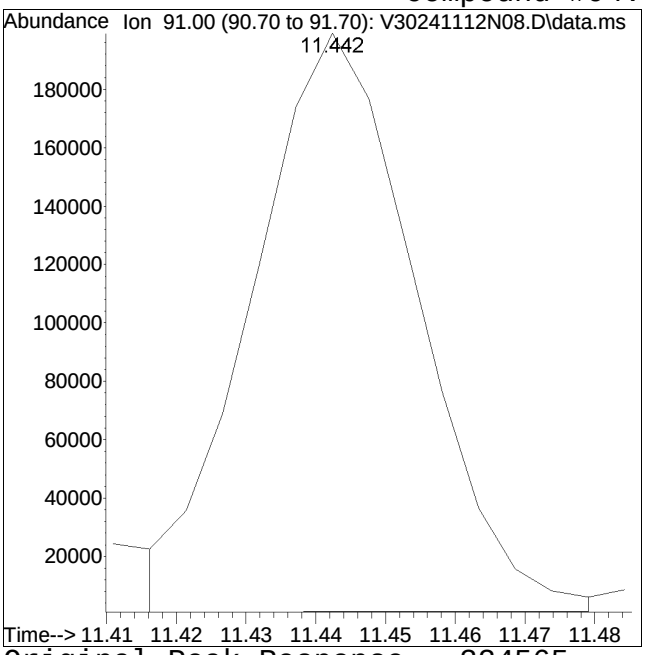
Manual Peak Response = 15193 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

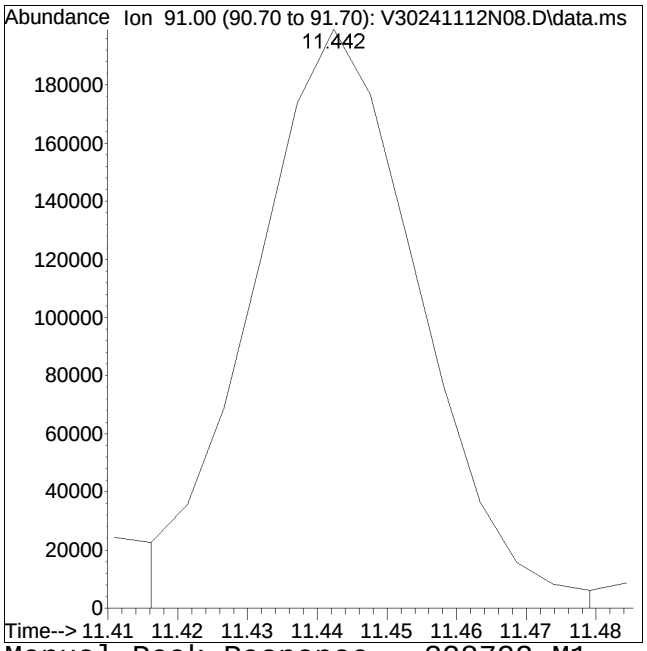
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N08.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 5:24 pm Instrument : VOA130
Sample : I8260STD10PPB Quant Date : 11/13/2024 12:29 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 324565



Manual Peak Response = 328722 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N09.D
Acq On : 12 Nov 2024 05:46 pm
Operator : VOA130:PID
Sample : I8260STD30PPB
Misc : WG1996978,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 13 12:30:05 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	494955	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery = 109.35%			
63) Chlorobenzene-d5	9.639	117	374992	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery = 104.64%			
84) 1,4-Dichlorobenzene-d4	12.323	152	226713	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery = 102.12%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	161047	9.483	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.83%			
47) 1,2-Dichloroethane-d4	5.801	65	170214	9.903	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.03%			
64) Toluene-d8	7.788	98	513154	10.217	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.17%			
88) 4-Bromofluorobenzene	11.117	95	196643	10.030	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	363637	31.222	ug/L	95
3) Chloromethane	1.868	50	420466	30.030	ug/L	97
4) Vinyl chloride	1.942	62	417069	30.038	ug/L	100
5) Bromomethane	2.262	94	220410	29.135	ug/L	98
6) Chloroethane	2.382	64	251707	29.630	ug/L	99
7) Trichlorofluoromethane	2.524	101	486564	31.395	ug/L	99
8) Ethyl ether	2.823	74	133367	33.136	ug/L	90
10) 1,1-Dichloroethene	3.017	96	309113	31.012	ug/L	81
11) Carbon disulfide	3.048	76	899158	30.000	ug/L	100
12) Freon-113	3.059	101	318586	33.815	ug/L	89
13) Iodomethane	3.153	142	255067	31.291	ug/L	97
14) Acrolein	3.331	56	28367	29.872	ug/L	98
15) Methylene chloride	3.572	84	362680	29.565	ug/L	85
17) Acetone	3.609	43	56587	23.492	ug/L #	89
18) trans-1,2-Dichloroethene	3.730	96	324727	30.398	ug/L	87
19) Methyl acetate	3.730	43	139683	27.509	ug/L #	86
21) Methyl tert-butyl ether	3.829	73	555790	32.428	ug/L	91
22) tert-Butyl alcohol	3.913	59	58489	164.136	ug/L #	81
24) Diisopropyl ether	4.191	45	806807	32.886	ug/L	95
25) 1,1-Dichloroethane	4.312	63	672948	30.369	ug/L	98
26) Halothane	4.364	117	243959	33.896	ug/L	98

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N09.D
Acq On : 12 Nov 2024 05:46 pm
Operator : VOA130:PID
Sample : I8260STD30PPB
Misc : WG1996978,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 13 12:30:05 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.348	53	74178	30.934	ug/L		92
28) Ethyl tert-butyl ether	4.542	59	656978	32.105	ug/L		93
29) Vinyl acetate	4.542	43	505124	31.619	ug/L	#	93
30) cis-1,2-Dichloroethene	4.831	96	366084	30.043	ug/L		86
31) 2,2-Dichloropropane	4.936	77	493504	33.540	ug/L		86
33) Bromochloromethane	5.025	128	165706	30.050	ug/L	#	69
34) Cyclohexane	5.040	56	575445	35.325	ug/L		90
35) Chloroform	5.098	83	618717	30.140	ug/L		95
36) Ethyl acetate	5.203	43	165709	30.488	ug/L	#	96
37) Carbon tetrachloride	5.240	117	418585	35.927	ug/L		99
38) Tetrahydrofuran	5.250	42	53287M6	31.085	ug/L		
40) 1,1,1-Trichloroethane	5.303	97	506168	34.358	ug/L		94
42) 2-Butanone	5.386	43	72507	31.186	ug/L		98
43) 1,1-Dichloropropene	5.428	75	398305	33.074	ug/L		96
45) Benzene	5.670	78	1141388	31.721	ug/L		97
46) tert-Amyl methyl ether	5.785	73	532224	32.844	ug/L		96
48) 1,2-Dichloroethane	5.869	62	399522	31.219	ug/L	#	97
51) Methyl cyclohexane	6.267	83	429613	33.435	ug/L		89
52) Trichloroethene	6.273	95	287620	32.593	ug/L		95
54) Dibromomethane	6.708	93	176370	30.561	ug/L		91
55) 1,2-Dichloropropane	6.813	63	303600	32.200	ug/L		98
57) 2-Chloroethyl vinyl ether	7.505	63	138090	35.300	ug/L		85
58) Bromodichloromethane	6.886	83	428799	33.256	ug/L	#	98
61) 1,4-Dioxane	7.090	88	29195	634.350	ug/L		96
62) cis-1,3-Dichloropropene	7.573	75	423271	33.110	ug/L	#	84
65) Toluene	7.846	92	713975	32.009	ug/L		99
66) 4-Methyl-2-pentanone	8.275	58	56141	33.418	ug/L	#	83
67) Tetrachloroethene	8.302	166	264103	32.556	ug/L		94
69) trans-1,3-Dichloropropene	8.323	75	338709	33.990	ug/L	#	79
71) Ethyl methacrylate	8.517	69	225015	33.234	ug/L	#	83
72) 1,1,2-Trichloroethane	8.511	83	162394	31.906	ug/L		97
73) Chlorodibromomethane	8.726	129	225476	31.893	ug/L		99
74) 1,3-Dichloropropane	8.831	76	353083	31.862	ug/L		99
75) 1,2-Dibromoethane	8.999	107	170331	32.066	ug/L		100
77) 2-Hexanone	9.287	43	96780	31.535	ug/L		93
78) Chlorobenzene	9.660	112	745312	31.245	ug/L		91
79) Ethylbenzene	9.696	91	1400243	31.840	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.743	131	211857	32.832	ug/L		99
81) p/m Xylene	9.885	106	1125725	64.010	ug/L		93
82) o Xylene	10.420	106	1080012	63.600	ug/L		95

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N09.D
Acq On : 12 Nov 2024 05:46 pm
Operator : VOA130:PID
Sample : I8260STD30PPB
Misc : WG1996978,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 13 12:30:05 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83) Styrene	10.488	104	1813938	65.194	ug/L	95
85) Bromoform	10.509	173	121376	33.225	ug/L	97
87) Isopropylbenzene	10.803	105	1347439	32.620	ug/L	98
89) Bromobenzene	11.233	156	314838	31.269	ug/L	99
90) n-Propylbenzene	11.280	91	1703296	32.819	ug/L	96
91) 1,4-Dichlorobutane	11.285	55	297065	32.178	ug/L	97
92) 1,1,2,2-Tetrachloroethane	11.358	83	209480	31.870	ug/L	99
93) 4-Ethyltoluene	11.406	105	1400975	32.587	ug/L	98
94) 2-Chlorotoluene	11.442	91	999474M1	31.754	ug/L	
95) 1,3,5-Trimethylbenzene	11.500	105	1238538	32.963	ug/L	97
96) 1,2,3-Trichloropropane	11.495	75	172644M1	31.984	ug/L	
97) trans-1,4-Dichloro-2-b...	11.547	53	52543	32.128	ug/L	97
98) 4-Chlorotoluene	11.626	91	1054293	31.689	ug/L	95
99) tert-Butylbenzene	11.841	119	987186	32.369	ug/L	94
102) 1,2,4-Trimethylbenzene	11.914	105	1223259	33.512	ug/L	97
103) sec-Butylbenzene	12.030	105	1463038	32.871	ug/L	95
104) p-Isopropyltoluene	12.182	119	1273717	33.161	ug/L	96
105) 1,3-Dichlorobenzene	12.250	146	661577	31.460	ug/L	98
106) 1,4-Dichlorobenzene	12.339	146	668037	31.110	ug/L	98
107) p-Diethylbenzene	12.554	119	745868	33.011	ug/L	97
108) n-Butylbenzene	12.611	91	1124830	33.606	ug/L	98
109) 1,2-Dichlorobenzene	12.764	146	629736	31.711	ug/L	97
110) 1,2,4,5-Tetramethylben...	13.346	119	1038541	32.554	ug/L	96
111) 1,2-Dibromo-3-chloropr...	13.534	155	35428	32.124	ug/L	96
112) 1,3,5-Trichlorobenzene	13.571	180	474143	32.462	ug/L	96
113) Hexachlorobutadiene	14.148	225	158571	31.866	ug/L	99
114) 1,2,4-Trichlorobenzene	14.169	180	419633	32.362	ug/L	99
115) Naphthalene	14.457	128	884089	32.904	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	389608	32.021	ug/L	98

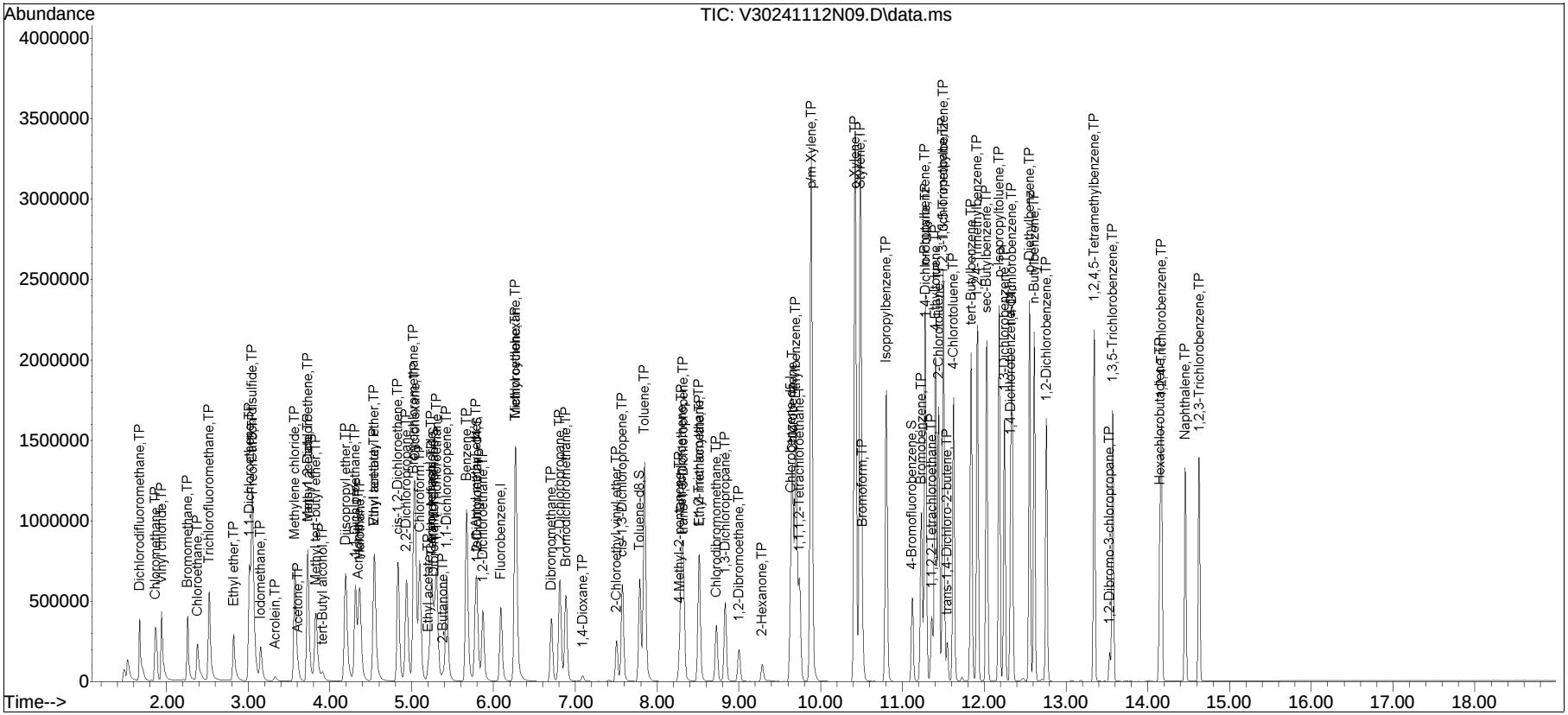
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N09.D
Acq On : 12 Nov 2024 05:46 pm
Operator : VOA130:PID
Sample : I8260STD30PPB
Misc : WG1996978,ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 13 12:30:05 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

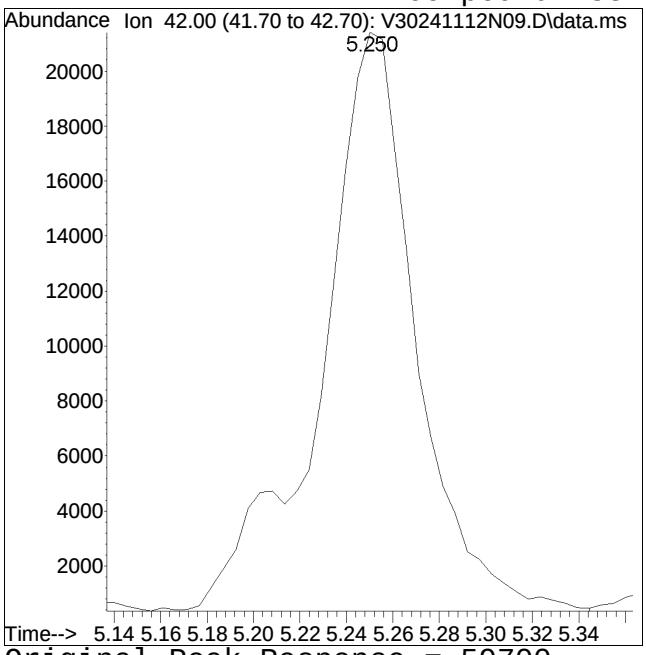
Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•



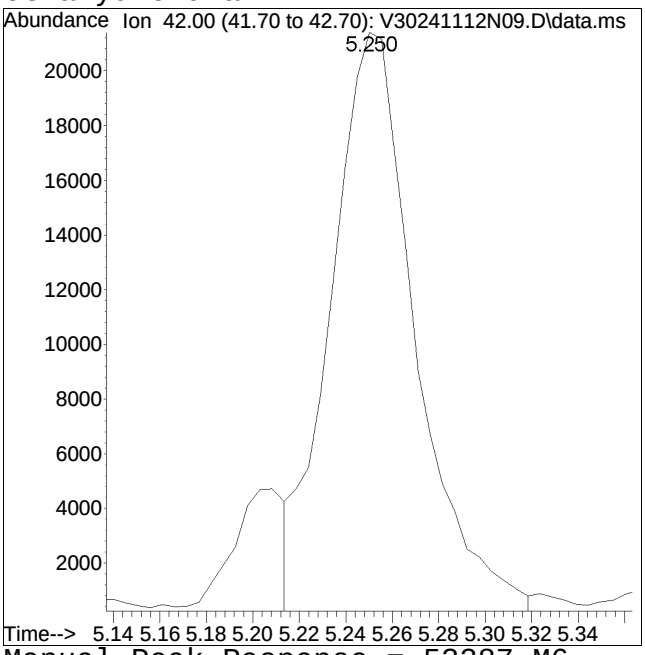
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N09.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 5:46 pm Instrument : VOA130
Sample : I8260STD30PPB Quant Date : 11/13/2024 12:30 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 59700



Manual Peak Response = 53287 M6

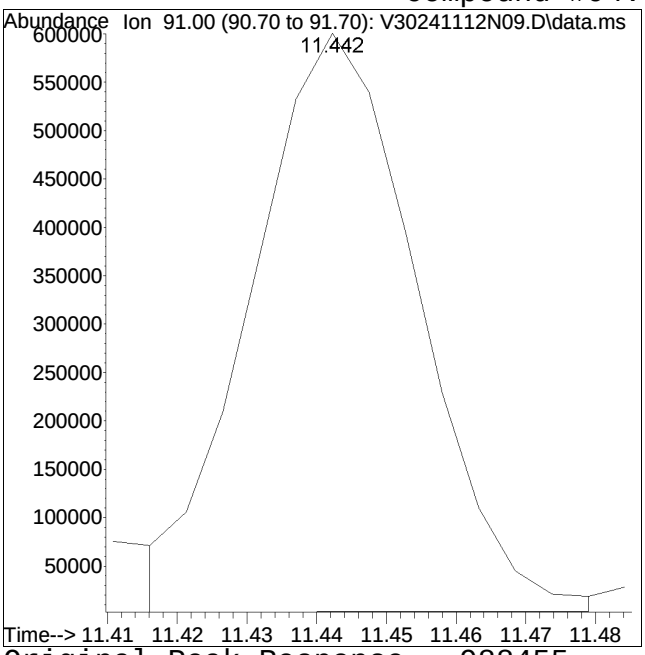
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

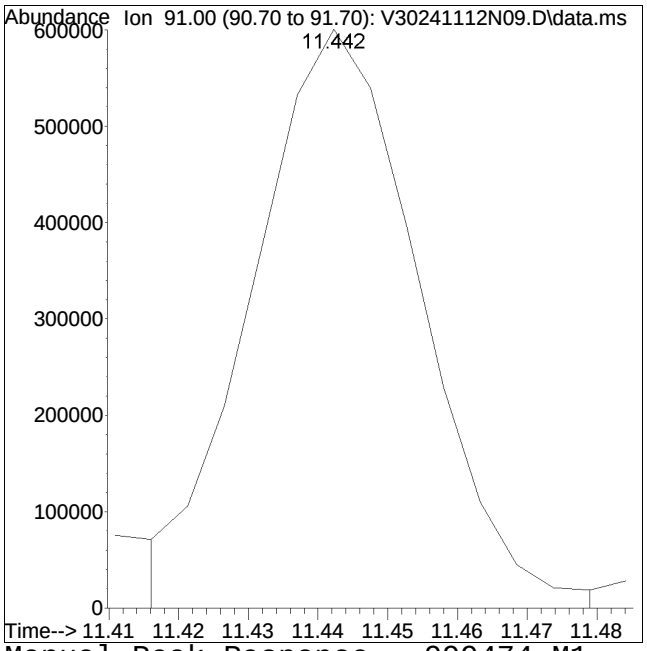
Data Path : K:\VOA130\2024\241112NICALQ
Data File : V30241112N09.D
Date Inj'd : 11/12/2024 5:46 pm
Sample : I8260STD30PPB

Method : V130_241112N_8260D.m
Operator : VOA130:PID
Instrument : VOA130
Quant Date : 11/13/2024 12:30 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 988455



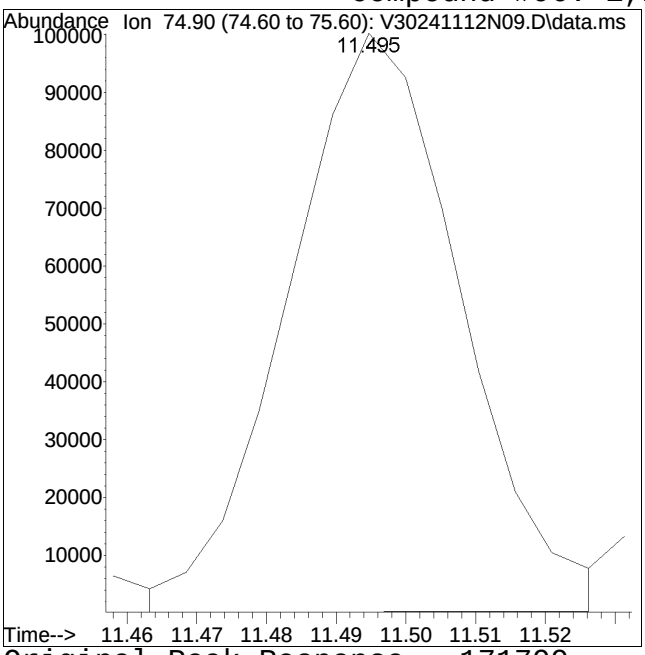
Manual Peak Response = 999474 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

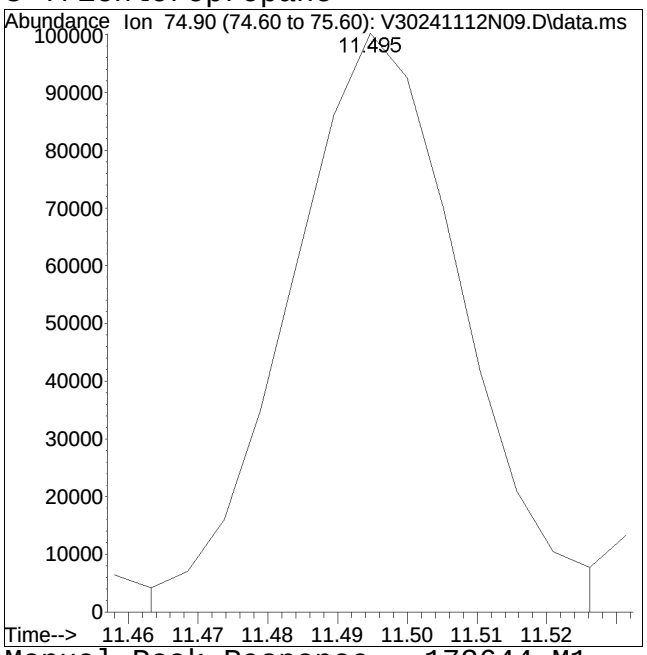
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N09.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 5:46 pm Instrument : VOA130
Sample : I8260STD30PPB Quant Date : 11/13/2024 12:30 pm

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 171799



Manual Peak Response = 172644 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N10.D
Acq On : 12 Nov 2024 06:08 pm
Operator : VOA130:PID
Sample : I8260STD80PPB
Misc : WG1996978,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 13 12:30:14 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	534383	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery = 118.06%			
63) Chlorobenzene-d5	9.633	117	388503	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery = 108.41%			
84) 1,4-Dichlorobenzene-d4	12.323	152	239285	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery = 107.78%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	163220	8.902	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.02%			
47) 1,2-Dichloroethane-d4	5.801	65	169079	9.111	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.11%			
64) Toluene-d8	7.788	98	524559	10.081	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.81%			
88) 4-Bromofluorobenzene	11.117	95	197531	9.546	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.46%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	1048235	83.360	ug/L	96
3) Chloromethane	1.868	50	1204635	79.687	ug/L	98
4) Vinyl chloride	1.942	62	1202325	80.203	ug/L	100
5) Bromomethane	2.261	94	657933	80.552	ug/L	98
6) Chloroethane	2.382	64	727382	79.306	ug/L	99
7) Trichlorofluoromethane	2.524	101	1392267	83.205	ug/L	99
8) Ethyl ether	2.822	74	390422	89.845	ug/L	89
10) 1,1-Dichloroethene	3.017	96	896701	83.325	ug/L	80
11) Carbon disulfide	3.048	76	2601417	80.391	ug/L	100
12) Freon-113	3.058	101	916578	90.109	ug/L	89
13) Iodomethane	3.153	142	825999	93.855	ug/L	97
14) Acrolein	3.331	56	77549	75.639	ug/L	97
15) Methylene chloride	3.572	84	1028403	77.649	ug/L	85
17) Acetone	3.604	43	147597	56.754	ug/L #	88
18) trans-1,2-Dichloroethene	3.730	96	949496	82.326	ug/L	87
19) Methyl acetate	3.730	43	379892	69.294	ug/L #	86
21) Methyl tert-butyl ether	3.829	73	1832103	99.009	ug/L	91
22) tert-Butyl alcohol	3.908	59	173378	450.646	ug/L #	86
24) Diisopropyl ether	4.191	45	2447178	92.389	ug/L	94
25) 1,1-Dichloroethane	4.312	63	1926476	80.525	ug/L	98
26) Halothane	4.364	117	725276	93.335	ug/L	97

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N10.D
Acq On : 12 Nov 2024 06:08 pm
Operator : VOA130:PID
Sample : I8260STD80PPB
Misc : WG1996978,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 13 12:30:14 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.348	53	192188	74.233	ug/L	#	91
28) Ethyl tert-butyl ether	4.542	59	2096899	94.910	ug/L		93
29) Vinyl acetate	4.542	43	1604403	93.019	ug/L	#	93
30) cis-1,2-Dichloroethene	4.831	96	1064634	80.924	ug/L		86
31) 2,2-Dichloropropane	4.935	77	1453360	91.487	ug/L		85
33) Bromochloromethane	5.025	128	465035	78.109	ug/L	#	68
34) Cyclohexane	5.040	56	1768428	100.551	ug/L		90
35) Chloroform	5.098	83	1769898	79.858	ug/L		94
36) Ethyl acetate	5.203	43	498727	84.989	ug/L	#	97
37) Carbon tetrachloride	5.240	117	1308099	103.990	ug/L		98
38) Tetrahydrofuran	5.250	42	150694M6	81.422	ug/L		
40) 1,1,1-Trichloroethane	5.302	97	1509259	94.888	ug/L		93
42) 2-Butanone	5.386	43	218502	87.045	ug/L		97
43) 1,1-Dichloropropene	5.428	75	1327265	102.081	ug/L		96
45) Benzene	5.670	78	3556034	91.536	ug/L		97
46) tert-Amyl methyl ether	5.785	73	1582493	90.452	ug/L		98
48) 1,2-Dichloroethane	5.869	62	1135965	82.217	ug/L	#	97
51) Methyl cyclohexane	6.267	83	1338677	96.496	ug/L		88
52) Trichloroethene	6.272	95	948214	99.523	ug/L		94
54) Dibromomethane	6.708	93	499113	80.104	ug/L	#	90
55) 1,2-Dichloropropane	6.813	63	996343	97.875	ug/L		98
57) 2-Chloroethyl vinyl ether	7.505	63	376828	89.223	ug/L	#	85
58) Bromodichloromethane	6.886	83	1325106	95.188	ug/L	#	99
61) 1,4-Dioxane	7.090	88	40176	808.537	ug/L		96
62) cis-1,3-Dichloropropene	7.578	75	1411723	102.284	ug/L	#	84
65) Toluene	7.845	92	2062726	89.261	ug/L		97
66) 4-Methyl-2-pentanone	8.275	58	155950	89.601	ug/L	#	80
67) Tetrachloroethene	8.302	166	774608	92.164	ug/L		94
69) trans-1,3-Dichloropropene	8.323	75	1086405	105.231	ug/L	#	77
71) Ethyl methacrylate	8.517	69	620888	88.513	ug/L	#	76
72) 1,1,2-Trichloroethane	8.511	83	496444	94.146	ug/L		97
73) Chlorodibromomethane	8.726	129	732398	99.993	ug/L		98
74) 1,3-Dichloropropane	8.831	76	1078033	93.897	ug/L		100
75) 1,2-Dibromoethane	8.999	107	508167	92.340	ug/L		99
77) 2-Hexanone	9.282	43	262939	82.697	ug/L		93
78) Chlorobenzene	9.654	112	2148247	86.928	ug/L		91
79) Ethylbenzene	9.696	91	3993920	87.658	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.738	131	658756	98.537	ug/L		99
81) p/m Xylene	9.885	106	3213553	176.372	ug/L		91
82) o Xylene	10.420	106	3086921	175.460	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N10.D
Acq On : 12 Nov 2024 06:08 pm
Operator : VOA130:PID
Sample : I8260STD80PPB
Misc : WG1996978,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 13 12:30:14 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83) Styrene	10.488	104	5103183	177.034	ug/L	95
85) Bromoform	10.509	173	362103	93.911	ug/L	97
87) Isopropylbenzene	10.803	105	3887368	89.164	ug/L	97
89) Bromobenzene	11.232	156	909252	85.559	ug/L	99
90) n-Propylbenzene	11.280	91	4842718	88.407	ug/L	95
91) 1,4-Dichlorobutane	11.285	55	806560	82.777	ug/L	98
92) 1,1,2,2-Tetrachloroethane	11.358	83	589798	85.018	ug/L	99
93) 4-Ethyltoluene	11.405	105	4062966	89.539	ug/L	97
94) 2-Chlorotoluene	11.442	91	2864072M1	86.214	ug/L	
95) 1,3,5-Trimethylbenzene	11.500	105	3652163	92.094	ug/L	96
96) 1,2,3-Trichloropropane	11.495	75	472328M1	82.906	ug/L	
97) trans-1,4-Dichloro-2-b...	11.547	53	147735	85.587	ug/L	92
98) 4-Chlorotoluene	11.626	91	3072103	87.486	ug/L	94
99) tert-Butylbenzene	11.841	119	2880033	89.473	ug/L	94
102) 1,2,4-Trimethylbenzene	11.914	105	3639491	94.469	ug/L	96
103) sec-Butylbenzene	12.029	105	4212609	89.674	ug/L	93
104) p-Isopropyltoluene	12.181	119	3775618	93.134	ug/L	96
105) 1,3-Dichlorobenzene	12.250	146	1945423	87.652	ug/L	97
106) 1,4-Dichlorobenzene	12.339	146	1970026	86.921	ug/L	97
107) p-Diethylbenzene	12.554	119	2294614	96.221	ug/L	96
108) n-Butylbenzene	12.611	91	3343099	94.633	ug/L	97
109) 1,2-Dichlorobenzene	12.763	146	1823346	86.994	ug/L	97
110) 1,2,4,5-Tetramethylben...	13.345	119	3395520	100.845	ug/L	95
111) 1,2-Dibromo-3-chloropr...	13.534	155	96180	82.629	ug/L	97
112) 1,3,5-Trichlorobenzene	13.571	180	1474889	95.672	ug/L	95
113) Hexachlorobutadiene	14.148	225	478597	91.124	ug/L	99
114) 1,2,4-Trichlorobenzene	14.169	180	1267301	92.600	ug/L	98
115) Naphthalene	14.457	128	2474607	87.260	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	1122480	87.408	ug/L	98

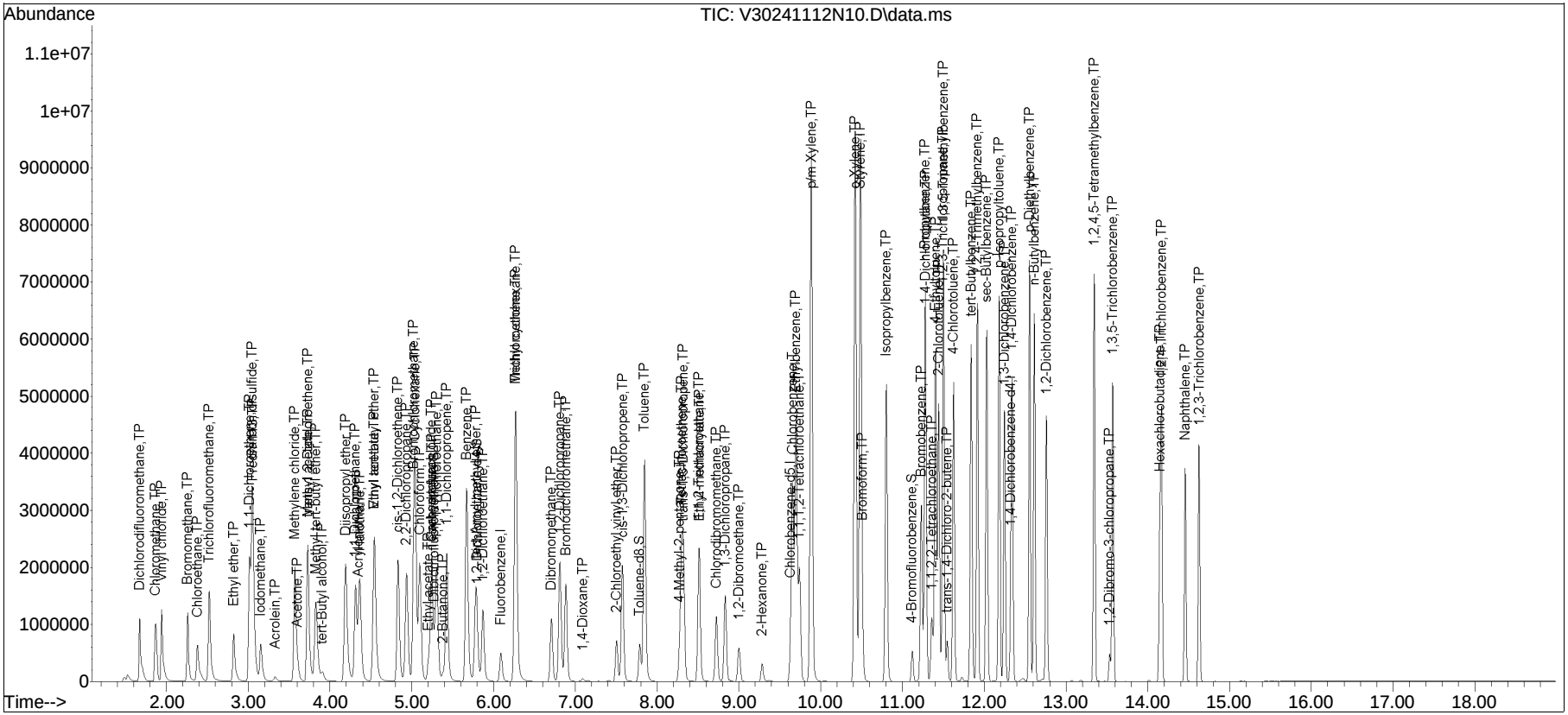
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N10.D
Acq On : 12 Nov 2024 06:08 pm
Operator : VOA130:PID
Sample : I8260STD80PPB
Misc : WG1996978,ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 13 12:30:14 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

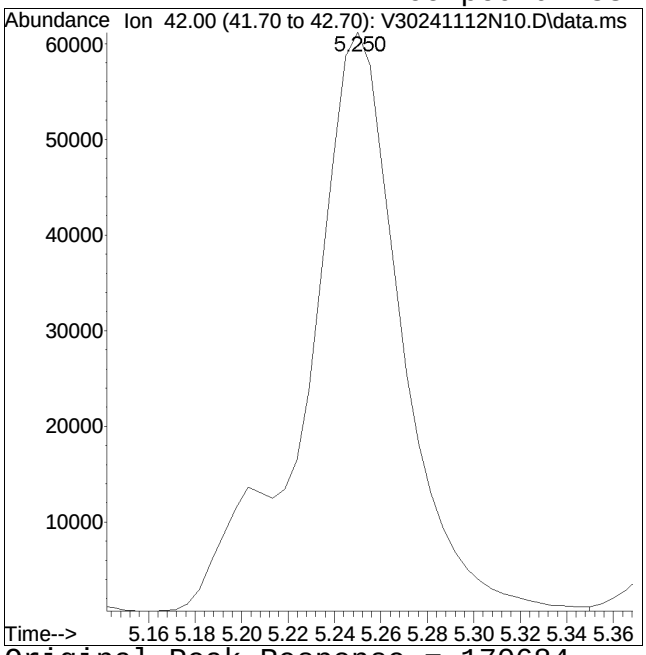
Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•



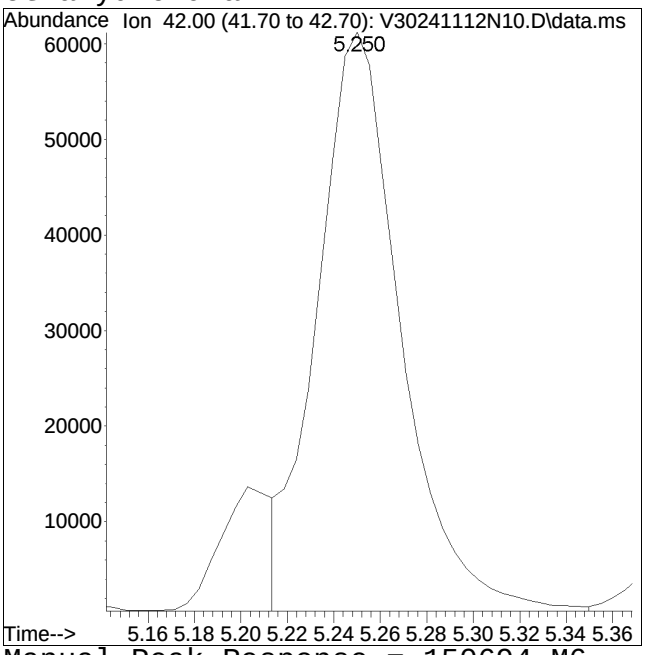
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N10.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:08 pm Instrument : VOA130
Sample : I8260STD80PPB Quant Date : 11/13/2024 12:30 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 170684



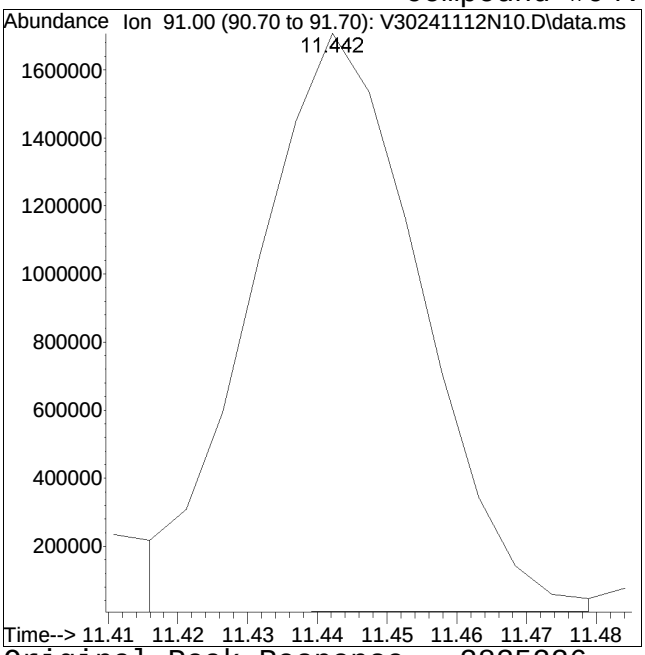
Manual Peak Response = 150694 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

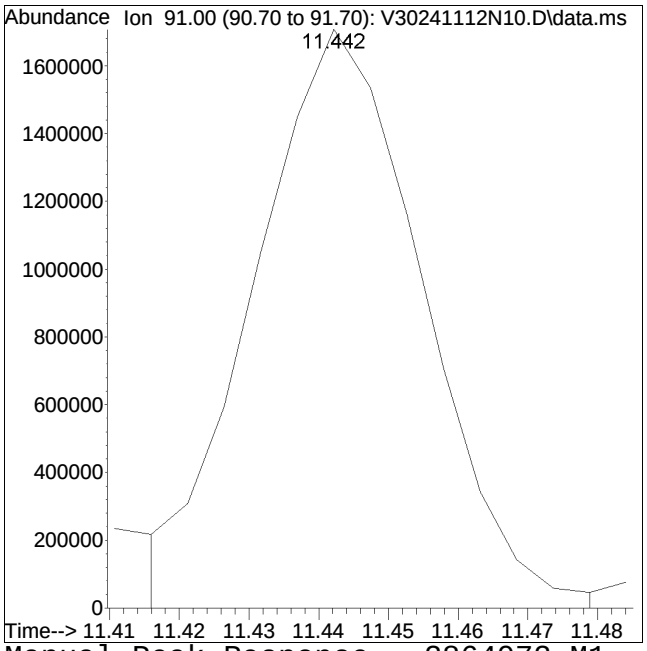
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N10.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:08 pm Instrument : VOA130
Sample : I8260STD80PPB Quant Date : 11/13/2024 12:30 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 2835226



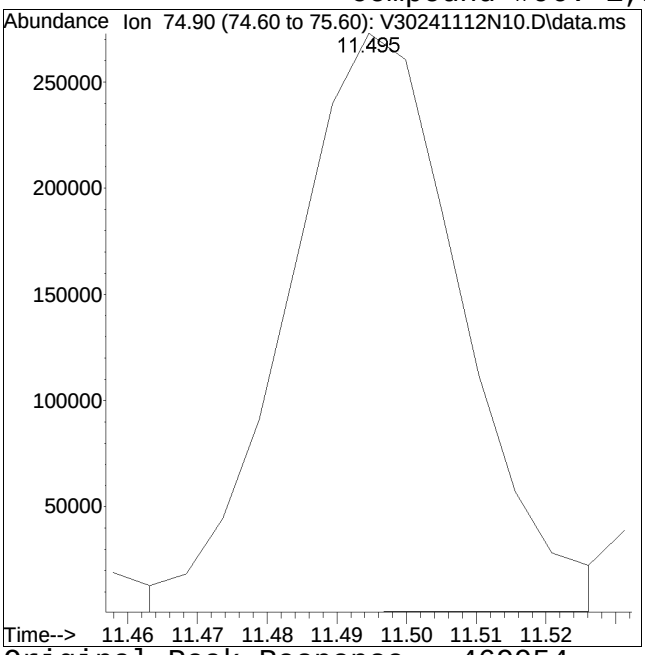
Manual Peak Response = 2864072 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

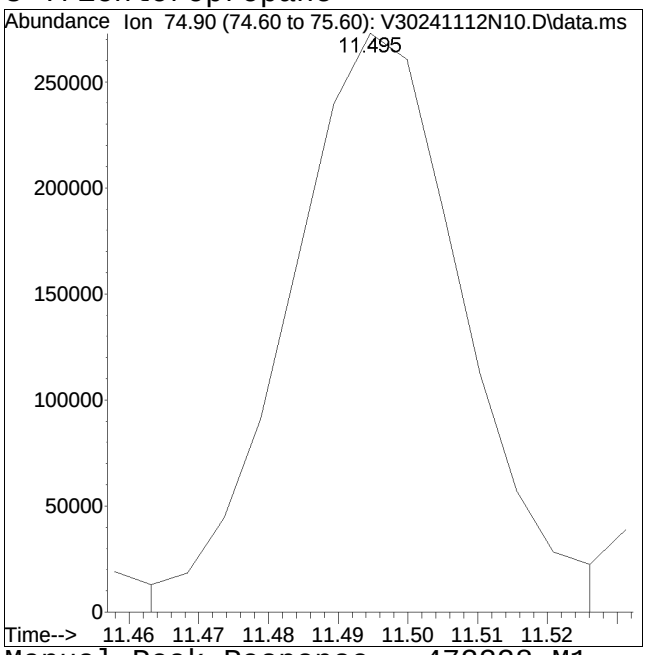
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N10.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:08 pm Instrument : VOA130
Sample : I8260STD80PPB Quant Date : 11/13/2024 12:30 pm

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 469954



Manual Peak Response = 472328 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N11.D
Acq On : 12 Nov 2024 06:30 pm
Operator : VOA130:PID
Sample : I8260STD120PPB
Misc : WG1996978,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 13 12:30:21 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	553324	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery = 122.24%			
63) Chlorobenzene-d5	9.639	117	396659	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery = 110.69%			
84) 1,4-Dichlorobenzene-d4	12.323	152	245229	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery = 110.46%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	167796	8.838	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 88.38%			
47) 1,2-Dichloroethane-d4	5.801	65	178569	9.293	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.93%			
64) Toluene-d8	7.788	98	534649	10.063	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.63%			
88) 4-Bromofluorobenzene	11.117	95	202492	9.548	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.48%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	1446009	111.056	ug/L	96
3) Chloromethane	1.868	50	1709961	109.242	ug/L	98
4) Vinyl chloride	1.942	62	1693474	109.100	ug/L	100
5) Bromomethane	2.256	94	931994	110.200	ug/L	98
6) Chloroethane	2.377	64	1032176	108.686	ug/L	99
7) Trichlorofluoromethane	2.524	101	1925283	111.121	ug/L	98
8) Ethyl ether	2.823	74	576108	128.038	ug/L	88
10) 1,1-Dichloroethene	3.017	96	1275346	114.453	ug/L	80
11) Carbon disulfide	3.048	76	3725661	111.192	ug/L	99
12) Freon-113	3.059	101	1278926	121.427	ug/L	88
13) Iodomethane	3.153	142	1231379	135.127	ug/L	97
14) Acrolein	3.331	56	118565	111.686	ug/L	97
15) Methylene chloride	3.572	84	1497848	109.223	ug/L	85
17) Acetone	3.604	43	223440	82.976	ug/L #	90
18) trans-1,2-Dichloroethene	3.730	96	1372524	114.931	ug/L	87
19) Methyl acetate	3.730	43	580330	102.232	ug/L #	87
21) Methyl tert-butyl ether	3.829	73	2817428	147.045	ug/L	91
22) tert-Butyl alcohol	3.908	59	261742	657.035	ug/L #	86
24) Diisopropyl ether	4.191	45	3627586	132.265	ug/L	94
25) 1,1-Dichloroethane	4.312	63	2769650	111.805	ug/L	97
26) Halothane	4.364	117	1041174	129.401	ug/L	97

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N11.D
Acq On : 12 Nov 2024 06:30 pm
Operator : VOA130:PID
Sample : I8260STD120PPB
Misc : WG1996978,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 13 12:30:21 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.343	53	289648	108.047	ug/L	#	92
28) Ethyl tert-butyl ether	4.542	59	3235205	141.419	ug/L		93
29) Vinyl acetate	4.542	43	2455953	137.515	ug/L	#	93
30) cis-1,2-Dichloroethene	4.831	96	1551733	113.912	ug/L		86
31) 2,2-Dichloropropane	4.936	77	2055380	124.954	ug/L		84
33) Bromochloromethane	5.025	128	682631	110.732	ug/L	#	67
34) Cyclohexane	5.040	56	2478812	136.117	ug/L		89
35) Chloroform	5.098	83	2559112	111.515	ug/L		94
36) Ethyl acetate	5.203	43	765940	126.058	ug/L	#	96
37) Carbon tetrachloride	5.240	117	1884211	144.662	ug/L		98
38) Tetrahydrofuran	5.250	42	229712M6	119.869	ug/L		
40) 1,1,1-Trichloroethane	5.303	97	2153451	130.755	ug/L		93
42) 2-Butanone	5.381	43	329776	126.877	ug/L		98
43) 1,1-Dichloropropene	5.428	75	1916618	142.363	ug/L		95
45) Benzene	5.670	78	5239668	130.258	ug/L		97
46) tert-Amyl methyl ether	5.785	73	2423097	133.758	ug/L		97
48) 1,2-Dichloroethane	5.869	62	1679391	117.388	ug/L	#	98
51) Methyl cyclohexane	6.267	83	1923776	133.925	ug/L		88
52) Trichloroethene	6.273	95	1397426	141.650	ug/L		94
54) Dibromomethane	6.708	93	752618	116.655	ug/L	#	90
55) 1,2-Dichloropropane	6.813	63	1482431	140.641	ug/L		98
57) 2-Chloroethyl vinyl ether	7.505	63	574375	131.341	ug/L	#	84
58) Bromodichloromethane	6.886	83	1957308	135.789	ug/L	#	98
61) 1,4-Dioxane	7.091	88	55773	1084.003	ug/L	#	95
62) cis-1,3-Dichloropropene	7.573	75	2137502	149.568	ug/L	#	84
65) Toluene	7.846	92	2954399	125.218	ug/L		97
66) 4-Methyl-2-pentanone	8.275	58	234988	132.236	ug/L	#	78
67) Tetrachloroethene	8.302	166	1110433	129.404	ug/L		93
69) trans-1,3-Dichloropropene	8.323	75	1660643	157.545	ug/L	#	77
71) Ethyl methacrylate	8.517	69	919577	128.398	ug/L	#	73
72) 1,1,2-Trichloroethane	8.511	83	759401	141.052	ug/L		97
73) Chlorodibromomethane	8.726	129	1135451	151.834	ug/L		98
74) 1,3-Dichloropropane	8.831	76	1639676	139.880	ug/L		100
75) 1,2-Dibromoethane	8.999	107	786495	139.977	ug/L		99
77) 2-Hexanone	9.282	43	391830	120.701	ug/L		91
78) Chlorobenzene	9.654	112	3126867	123.926	ug/L		92
79) Ethylbenzene	9.696	91	5677771	122.053	ug/L		96
80) 1,1,1,2-Tetrachloroethane	9.744	131	991169	145.212	ug/L		99
81) p/m Xylene	9.885	106	4572389	245.790	ug/L		89
82) o Xylene	10.425	106	4429608	246.602	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N11.D
Acq On : 12 Nov 2024 06:30 pm
Operator : VOA130:PID
Sample : I8260STD120PPB
Misc : WG1996978,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 13 12:30:21 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.488	104	7283818	247.486	ug/L		96
85) Bromoform	10.509	173	561869	142.189	ug/L		98
87) Isopropylbenzene	10.803	105	5512682	123.379	ug/L		96
89) Bromobenzene	11.233	156	1332830	122.377	ug/L		100
90) n-Propylbenzene	11.280	91	6830368	121.671	ug/L		94
91) 1,4-Dichlorobutane	11.285	55	1199656	120.136	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.358	83	891449	125.385	ug/L		99
93) 4-Ethyltoluene	11.406	105	5781295	124.319	ug/L		96
94) 2-Chlorotoluene	11.442	91	4125972M1	121.189	ug/L		
95) 1,3,5-Trimethylbenzene	11.500	105	5180389	127.465	ug/L		95
96) 1,2,3-Trichloropropane	11.495	75	707845M1	121.234	ug/L		
97) trans-1,4-Dichloro-2-b...	11.547	53	224807	127.080	ug/L		89
98) 4-Chlorotoluene	11.626	91	4406050	122.432	ug/L		93
99) tert-Butylbenzene	11.841	119	4114290	124.718	ug/L		94
102) 1,2,4-Trimethylbenzene	11.919	105	5212644	132.023	ug/L		95
103) sec-Butylbenzene	12.030	105	5946547	123.517	ug/L		92
104) p-Isopropyltoluene	12.182	119	5341465	128.565	ug/L		96
105) 1,3-Dichlorobenzene	12.250	146	2825985	124.239	ug/L		97
106) 1,4-Dichlorobenzene	12.339	146	2861664	123.202	ug/L		97
107) p-Diethylbenzene	12.554	119	3296798	134.895	ug/L		96
108) n-Butylbenzene	12.612	91	4724501	130.495	ug/L	#	96
109) 1,2-Dichlorobenzene	12.764	146	2654410	123.575	ug/L		97
110) 1,2,4,5-Tetramethylben...	13.346	119	4971785	144.080	ug/L		94
111) 1,2-Dibromo-3-chloropr...	13.534	155	145563	122.023	ug/L		97
112) 1,3,5-Trichlorobenzene	13.571	180	2156724	136.510	ug/L		95
113) Hexachlorobutadiene	14.148	225	692495	128.654	ug/L		99
114) 1,2,4-Trichlorobenzene	14.169	180	1873355	133.566	ug/L		98
115) Naphthalene	14.457	128	3648324	125.529	ug/L		100
116) 1,2,3-Trichlorobenzene	14.630	180	1656797	125.889	ug/L		98

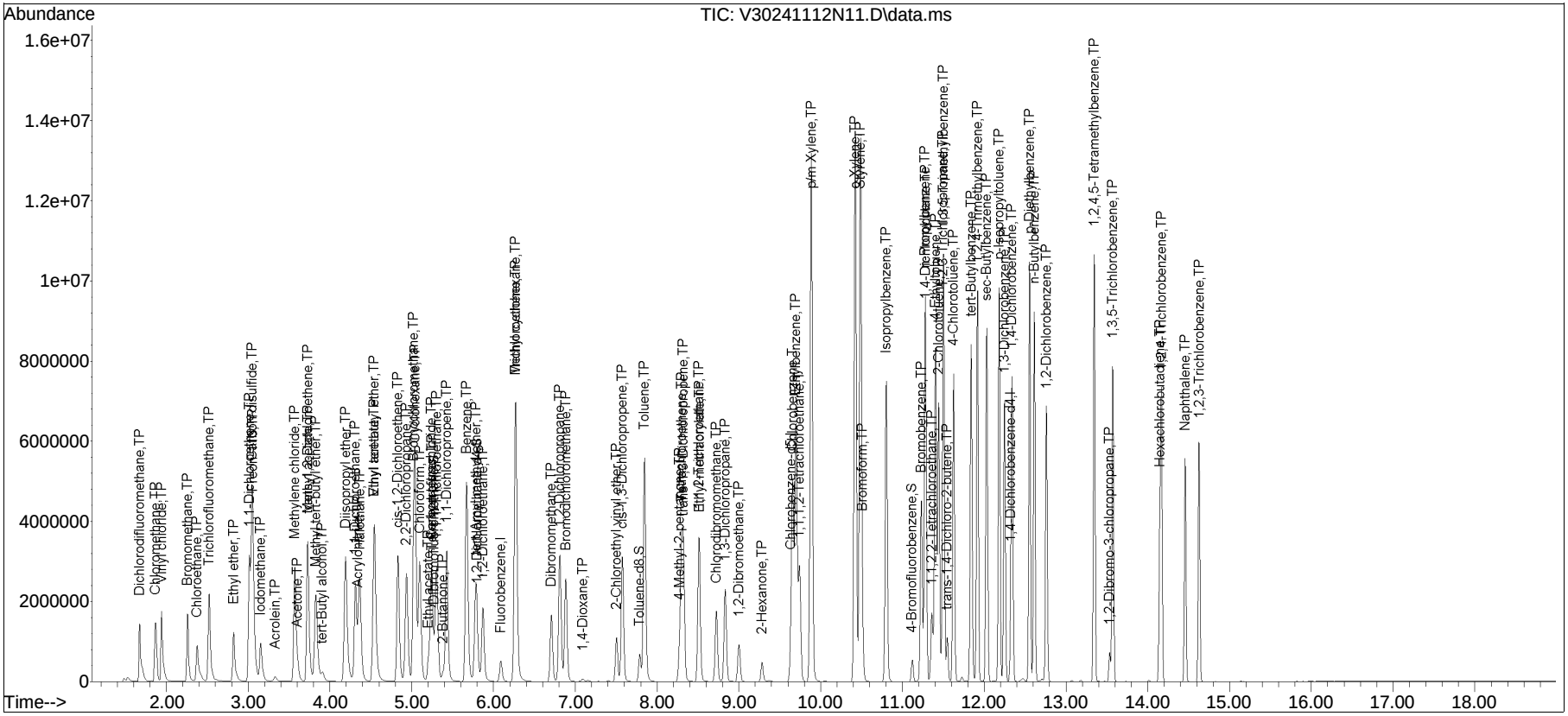
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N11.D
Acq On : 12 Nov 2024 06:30 pm
Operator : VOA130:PID
Sample : I8260STD120PPB
Misc : WG1996978,ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 13 12:30:21 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

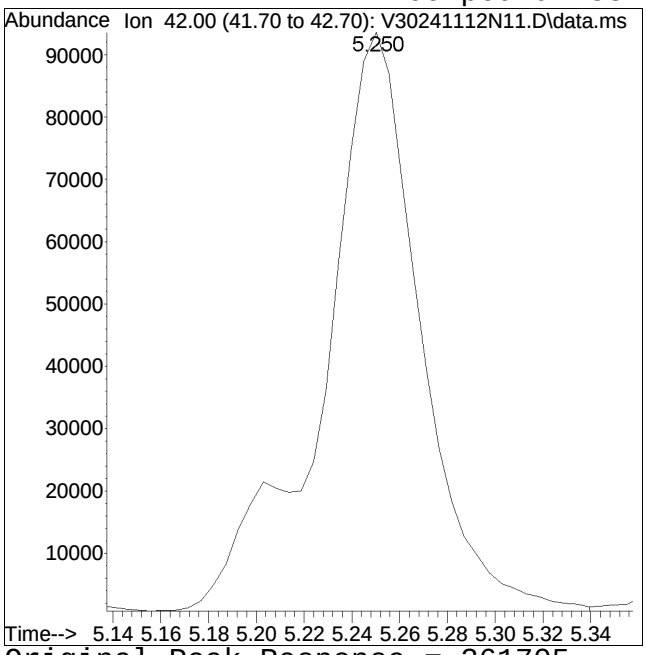
Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•



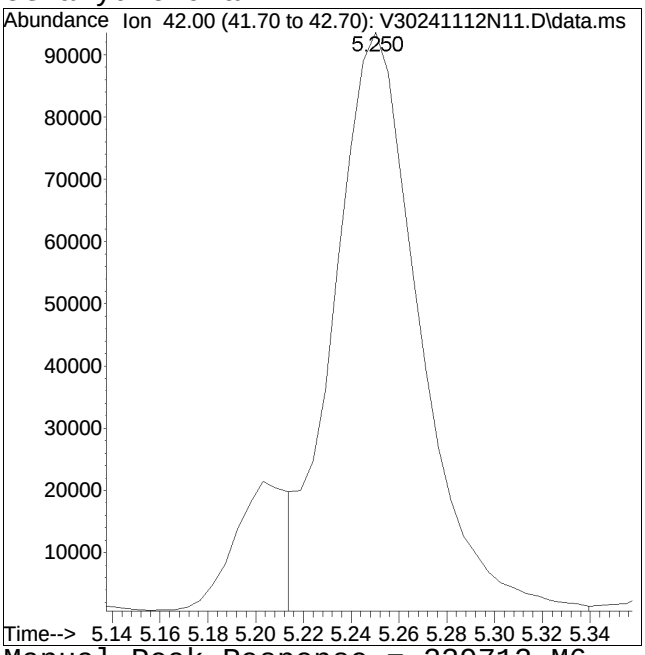
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N11.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:30 pm Instrument : VOA130
Sample : I8260STD120PPB Quant Date : 11/13/2024 12:30 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 261705



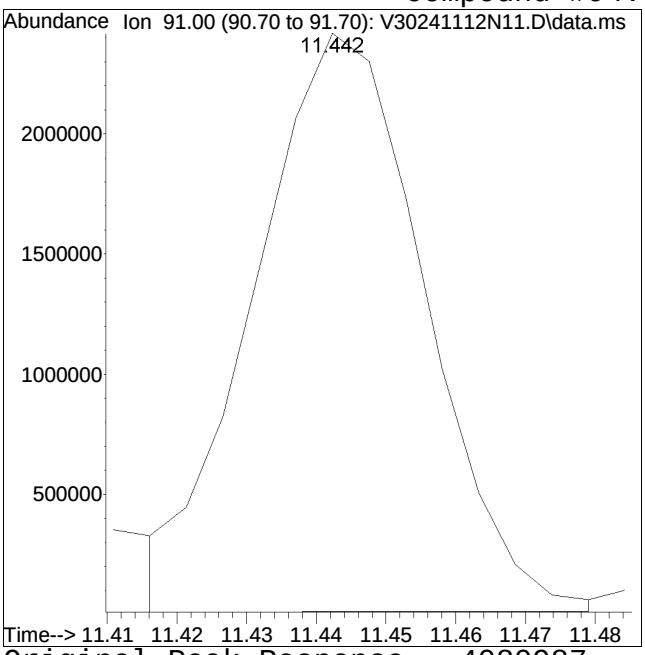
Manual Peak Response = 229712 M6

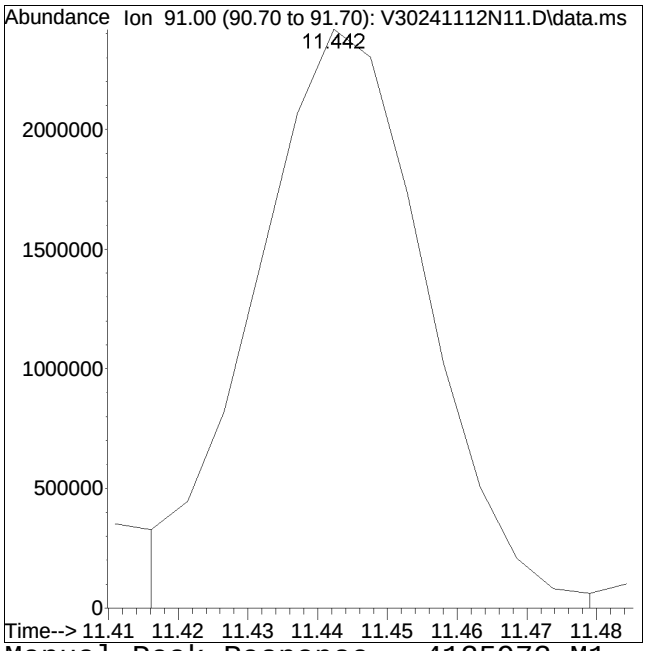
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N11.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:30 pm Instrument : VOA130
Sample : I8260STD120PPB Quant Date : 11/13/2024 12:30 pm

Compound #94: 2-Chlorotoluene



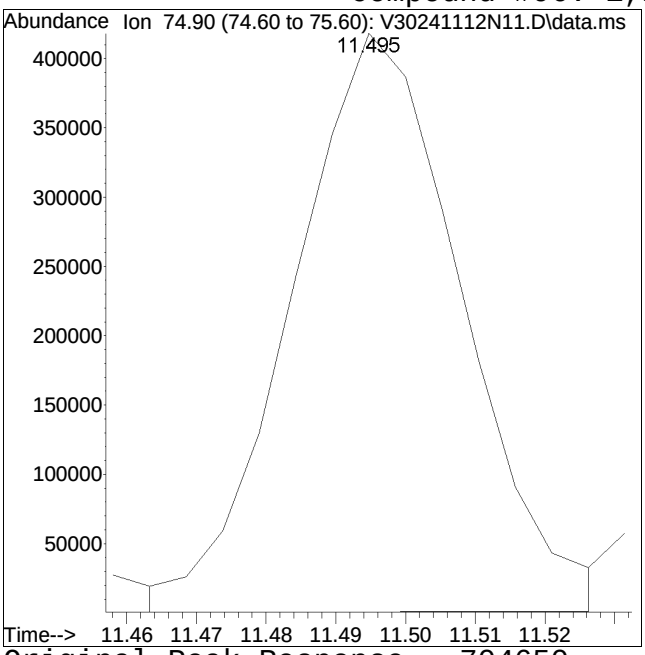


Original Peak Response = 4080987 Manual Peak Response = 4125972 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

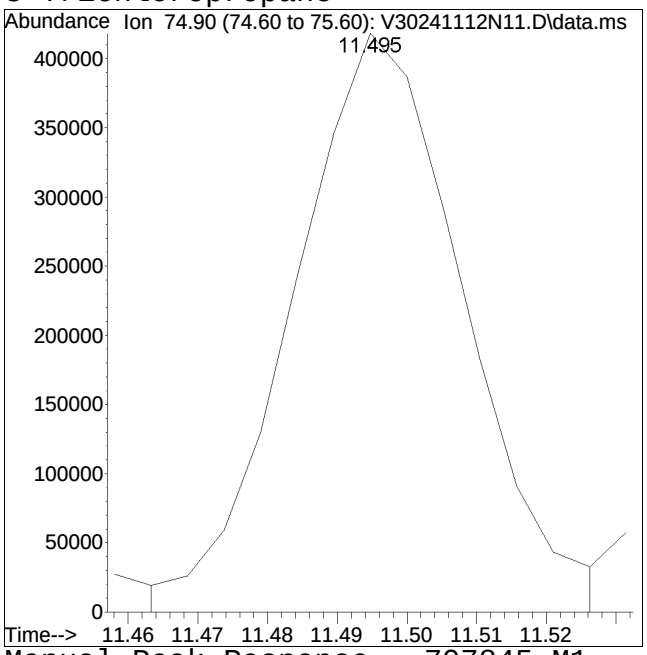
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N11.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:30 pm Instrument : VOA130
Sample : I8260STD120PPB Quant Date : 11/13/2024 12:30 pm

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 704650



Manual Peak Response = 707845 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N12.D
Acq On : 12 Nov 2024 06:51 pm
Operator : VOA130:PID
Sample : I8260STD200PPB
Misc : WG1996978,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 13 12:30:29 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	574120	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery = 126.84%			
63) Chlorobenzene-d5	9.633	117	408717	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery = 114.05%			
84) 1,4-Dichlorobenzene-d4	12.328	152	251468	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery = 113.27%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	173038	8.784	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.84%			
47) 1,2-Dichloroethane-d4	5.801	65	189066	9.483	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.83%			
64) Toluene-d8	7.788	98	536265	9.796	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.96%			
88) 4-Bromofluorobenzene	11.117	95	209828	9.649	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.49%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	2202291	163.014	ug/L	96
3) Chloromethane	1.863	50	2555221	157.329	ug/L	97
4) Vinyl chloride	1.942	62	2593578	161.035	ug/L	100
5) Bromomethane	2.256	94	1431255	163.103	ug/L	98
6) Chloroethane	2.372	64	1538218	156.104	ug/L	99
7) Trichlorofluoromethane	2.518	101	2932951	163.148	ug/L	98
8) Ethyl ether	2.823	74	912017	195.350	ug/L	88
10) 1,1-Dichloroethene	3.017	96	1949246	168.594	ug/L	79
11) Carbon disulfide	3.048	76	5647827	162.454	ug/L	99
12) Freon-113	3.058	101	1944029	177.890	ug/L	88
13) Iodomethane	3.153	142	1876601	198.472	ug/L	98
14) Acrolein	3.331	56	203323	184.590	ug/L	98
15) Methylene chloride	3.572	84	2272176	159.685	ug/L	84
17) Acetone	3.604	43	373211	133.574	ug/L #	88
18) trans-1,2-Dichloroethene	3.730	96	2082615	168.075	ug/L	86
19) Methyl acetate	3.730	43	984667	167.177	ug/L #	88
21) Methyl tert-butyl ether	3.829	73	4626720	232.728	ug/L	91
22) tert-Butyl alcohol	3.913	59	450119	1088.978	ug/L #	85
24) Diisopropyl ether	4.191	45	5626174	197.704	ug/L	94
25) 1,1-Dichloroethane	4.312	63	4104358	159.683	ug/L	97
26) Halothane	4.364	117	1590271	190.485	ug/L	98

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N12.D
Acq On : 12 Nov 2024 06:51 pm
Operator : VOA130:PID
Sample : I8260STD200PPB
Misc : WG1996978,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 13 12:30:29 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.343	53	491986	176.878	ug/L		93
28) Ethyl tert-butyl ether	4.542	59	5281663	222.512	ug/L		93
29) Vinyl acetate	4.542	43	4043561	218.209	ug/L	#	92
30) cis-1,2-Dichloroethene	4.831	96	2347846	166.111	ug/L		86
31) 2,2-Dichloropropane	4.936	77	3102023	181.752	ug/L		84
33) Bromochloromethane	5.025	128	1061676	165.980	ug/L	#	66
34) Cyclohexane	5.040	56	3814434	201.872	ug/L		89
35) Chloroform	5.098	83	3822851	160.549	ug/L		94
36) Ethyl acetate	5.203	43	1315710	208.695	ug/L	#	97
37) Carbon tetrachloride	5.240	117	2902457	214.767	ug/L		97
38) Tetrahydrofuran	5.250	42	393647M6	197.973	ug/L		
40) 1,1,1-Trichloroethane	5.303	97	3268273	191.257	ug/L		93
42) 2-Butanone	5.381	43	568861	210.934	ug/L		98
43) 1,1-Dichloropropene	5.428	75	2961484	212.006	ug/L		95
45) Benzene	5.670	78	7984381	191.301	ug/L		97
46) tert-Amyl methyl ether	5.785	73	3971835	211.309	ug/L		96
48) 1,2-Dichloroethane	5.869	62	2622036	176.639	ug/L	#	97
51) Methyl cyclohexane	6.267	83	3034656	203.608	ug/L		88
52) Trichloroethene	6.273	95	2158124	210.835	ug/L		94
54) Dibromomethane	6.708	93	1200566	179.347	ug/L	#	90
55) 1,2-Dichloropropane	6.813	63	2286639	209.079	ug/L		98
57) 2-Chloroethyl vinyl ether	7.505	63	949285	209.208	ug/L	#	84
58) Bromodichloromethane	6.886	83	3022786	202.110	ug/L	#	98
61) 1,4-Dioxane	7.090	88	92453	1731.826	ug/L	#	93
62) cis-1,3-Dichloropropene	7.578	75	3373439	227.500	ug/L	#	84
65) Toluene	7.845	92	4381978	180.244	ug/L		95
66) 4-Methyl-2-pentanone	8.275	58	378749	206.848	ug/L	#	78
67) Tetrachloroethene	8.302	166	1685905	190.671	ug/L		93
69) trans-1,3-Dichloropropene	8.323	75	2677088	246.482	ug/L	#	77
71) Ethyl methacrylate	8.517	69	1456356	197.348	ug/L	#	71
72) 1,1,2-Trichloroethane	8.511	83	1248418	225.041	ug/L		97
73) Chlorodibromomethane	8.726	129	1865303	242.072	ug/L		98
74) 1,3-Dichloropropane	8.831	76	2670406	221.090	ug/L		100
75) 1,2-Dibromoethane	8.999	107	1309363	226.160	ug/L		100
77) 2-Hexanone	9.282	43	644908	192.799	ug/L		92
78) Chlorobenzene	9.654	112	4686534	180.260	ug/L		91
79) Ethylbenzene	9.696	91	8401921	175.284	ug/L		95
80) 1,1,1,2-Tetrachloroethane	9.743	131	1576787	224.192	ug/L		99
81) p/m Xylene	9.885	106	6788845	354.170	ug/L		85
82) o Xylene	10.425	106	6498988	351.132	ug/L		85

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N12.D
Acq On : 12 Nov 2024 06:51 pm
Operator : VOA130:PID
Sample : I8260STD200PPB
Misc : WG1996978,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 13 12:30:29 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
83) Styrene	10.488	104	10533920	347.358	ug/L		98
85) Bromoform	10.509	173	958442	236.529	ug/L		98
87) Isopropylbenzene	10.803	105	8269196	180.481	ug/L		95
89) Bromobenzene	11.233	156	2056552	184.142	ug/L		99
90) n-Propylbenzene	11.280	91	10044526	174.486	ug/L		92
91) 1,4-Dichlorobutane	11.285	55	1939920	189.447	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.358	83	1487526	204.034	ug/L		99
93) 4-Ethyltoluene	11.406	105	8611012	180.575	ug/L		95
94) 2-Chlorotoluene	11.442	91	6134765M1	175.721	ug/L		
95) 1,3,5-Trimethylbenzene	11.505	105	7683976	184.375	ug/L		93
96) 1,2,3-Trichloropropane	11.495	75	1177169	196.614	ug/L		88
97) trans-1,4-Dichloro-2-b...	11.547	53	386949	213.309	ug/L		87
98) 4-Chlorotoluene	11.626	91	6557606	177.697	ug/L		92
99) tert-Butylbenzene	11.841	119	6201111	183.314	ug/L		94
102) 1,2,4-Trimethylbenzene	11.919	105	7648437	188.909	ug/L		93
103) sec-Butylbenzene	12.029	105	8882230	179.917	ug/L		90
104) p-Isopropyltoluene	12.187	119	7915878	185.802	ug/L		96
105) 1,3-Dichlorobenzene	12.250	146	4253073	182.340	ug/L		97
106) 1,4-Dichlorobenzene	12.339	146	4322457	181.475	ug/L		97
107) p-Diethylbenzene	12.554	119	4945163	197.321	ug/L		96
108) n-Butylbenzene	12.611	91	6997675	188.487	ug/L	#	94
109) 1,2-Dichlorobenzene	12.763	146	4044981	183.640	ug/L		97
110) 1,2,4,5-Tetramethylben...	13.345	119	7446720	210.449	ug/L		93
111) 1,2-Dibromo-3-chloropr...	13.534	155	245027	200.306	ug/L		96
112) 1,3,5-Trichlorobenzene	13.576	180	3267410	201.680	ug/L		96
113) Hexachlorobutadiene	14.148	225	1072875	194.377	ug/L		100
114) 1,2,4-Trichlorobenzene	14.169	180	2905201	201.995	ug/L		99
115) Naphthalene	14.457	128	5844508	196.105	ug/L		100
116) 1,2,3-Trichlorobenzene	14.630	180	2617423	193.946	ug/L		98

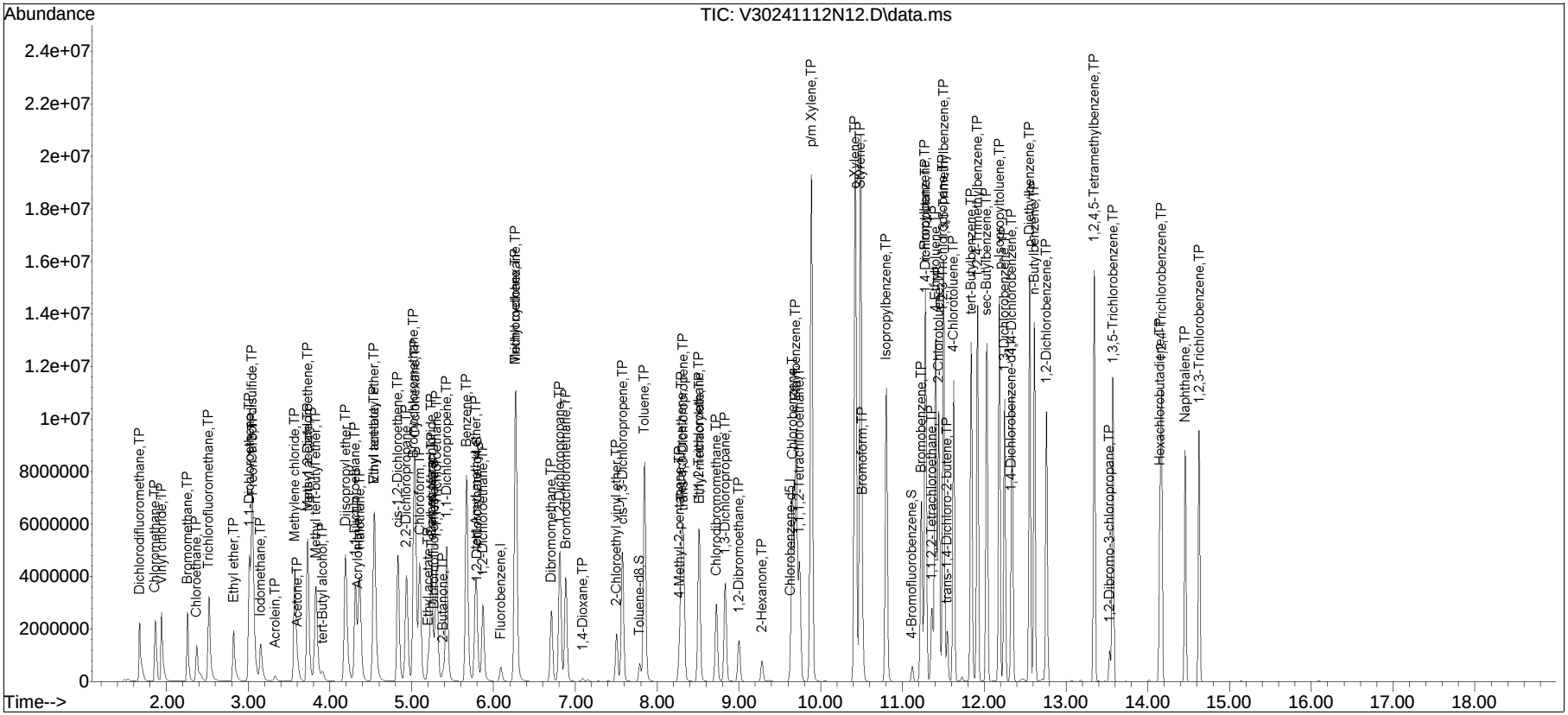
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N12.D
Acq On : 12 Nov 2024 06:51 pm
Operator : VOA130:PID
Sample : I8260STD200PPB
Misc : WG1996978,ICAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 13 12:30:29 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 12:28:18 2024
Response via : Initial Calibration

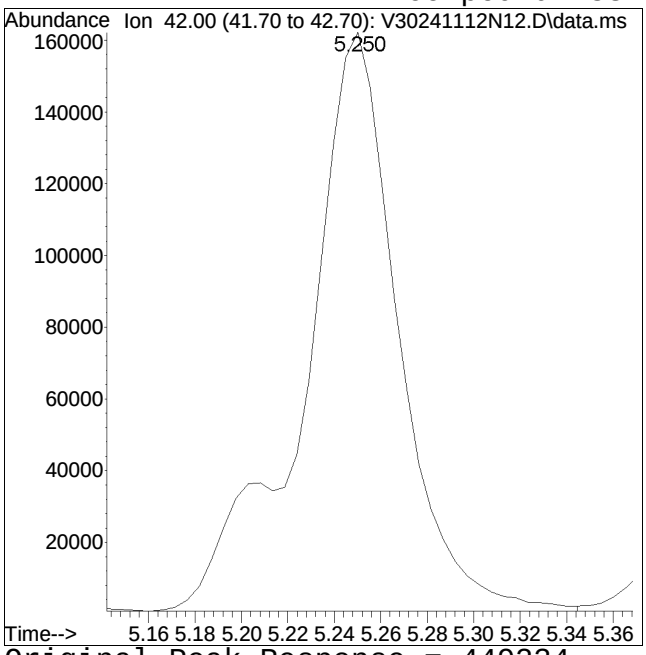
Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•



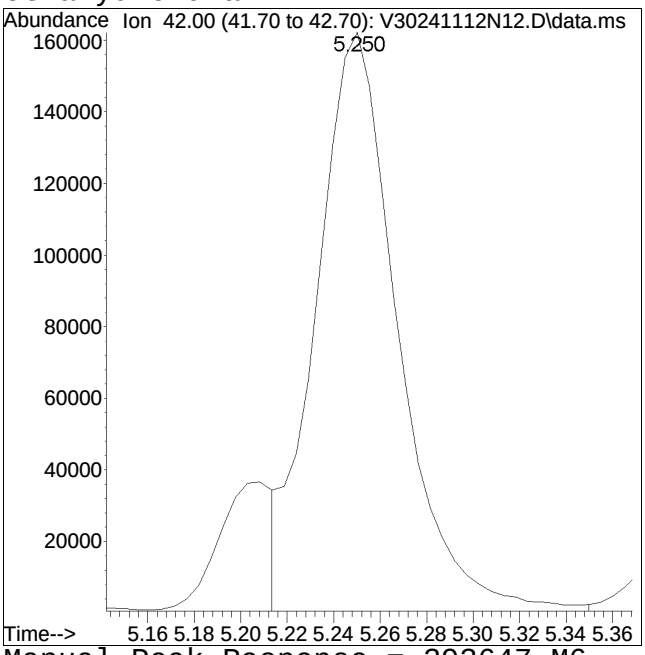
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N12.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:51 pm Instrument : VOA130
Sample : I8260STD200PPB Quant Date : 11/13/2024 12:30 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 449234



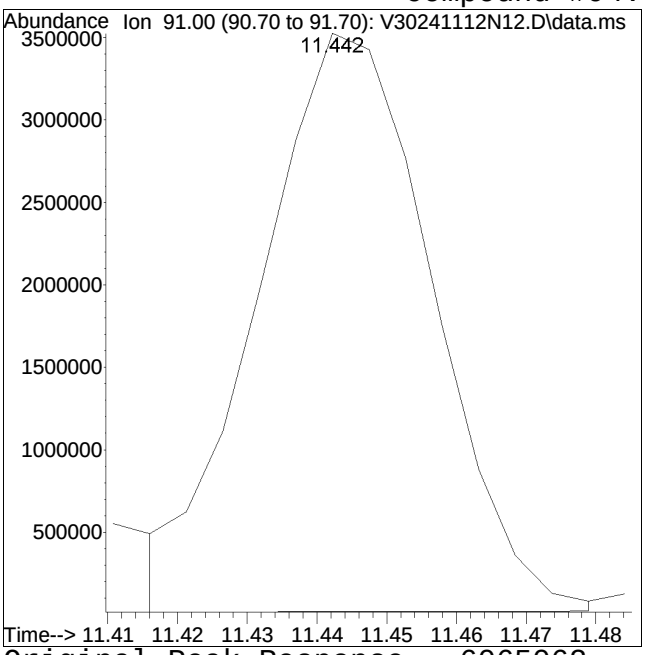
Manual Peak Response = 393647 M6

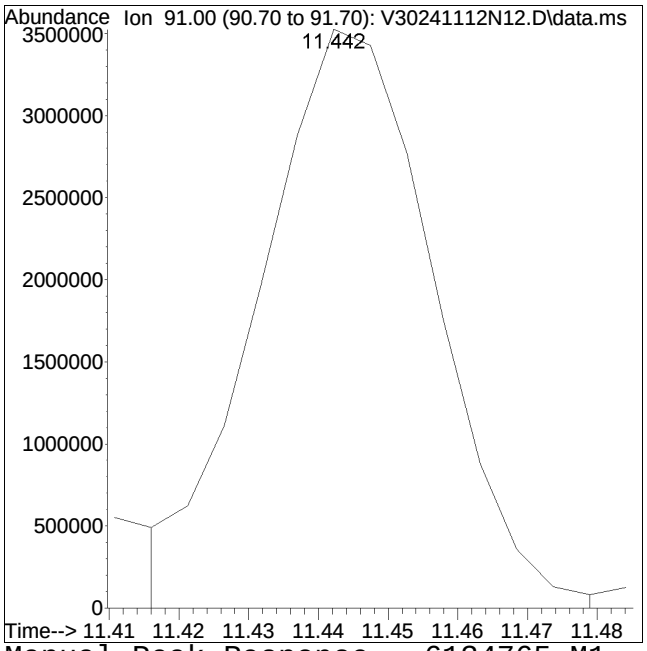
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N12.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 6:51 pm Instrument : VOA130
Sample : I8260STD200PPB Quant Date : 11/13/2024 12:30 pm

Compound #94: 2-Chlorotoluene





Original Peak Response = 6065062 Manual Peak Response = 6134765 M1
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Evaluate Continuing Calibration Report

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N17.D
Acq On : 12 Nov 2024 08:40 pm
Operator : VOA130:PID
Sample : C8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 13:46:30 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	102	0.00
2	TP	Dichlorodifluoromethane	0.242	0.234	3.3	95	0.00
3	TP	Chloromethane	0.295	0.346	-17.3	115	0.00
4	TP	Vinyl chloride	0.290	0.310	-6.9	106	0.00
5	TP	Bromomethane	0.157	0.178	-13.4	113	0.00
6	TP	Chloroethane	0.177	0.192	-8.5	107	0.00
7	TP	Trichlorofluoromethane	0.324	0.353	-9.0	107	0.00
8	TP	Ethyl ether	0.083	0.105	-26.5#	132	0.00
10	TP	1,1-Dichloroethene	0.208	0.210	-1.0	99	0.00
11	TP	Carbon disulfide	0.627	0.693	-10.5	111	0.00
12	TP	Freon-113	0.198	0.218	-10.1	109	0.00
13	TP	Iodomethane	0.168	0.247	-47.0#	157	0.00
14	TP	Acrolein	0.019	0.028	-47.4#	143	0.00
15	TP	Methylene chloride	0.257	0.265	-3.1	102	0.00
17	TP	Acetone	* 10.000	12.245	-22.4#	112	0.00
18	TP	trans-1,2-Dichloroethene	0.224	0.241	-7.6	108	0.00
19	TP	Methyl acetate	0.094	0.103	-9.6	109	0.00
21	TP	Methyl tert-butyl ether	* 10.000	8.678	13.2	107	0.00
22	TP	tert-Butyl alcohol	0.00734	0.00757#	-3.1	108	0.00
24	TP	Diisopropyl ether	0.509	0.530	-4.1	106	0.00
25	TP	1,1-Dichloroethane	0.465	0.500	-7.5	105	0.00
26	TP	Halothane	0.149	0.159	-6.7	111	0.00
27	TP	Acrylonitrile	0.048	0.058	-20.8#	114	0.00
28	TP	Ethyl tert-butyl ether	0.420	0.419	0.2	107	0.00
29	TP	Vinyl acetate	0.327	0.280	14.4	101	0.00
30	TP	cis-1,2-Dichloroethene	0.254	0.269	-5.9	106	0.00
31	TP	2,2-Dichloropropane	0.307	0.303	1.3	100	0.00
33	TP	Bromochloromethane	0.114	0.121	-6.1	104	0.00
34	TP	Cyclohexane	0.338	0.326	3.6	108	0.00
35	TP	Chloroform	0.428	0.461	-7.7	106	0.00
36	TP	Ethyl acetate	0.111	0.107	3.6	109	0.00
37	TP	Carbon tetrachloride	0.251	0.240	4.4	106	0.00
38	TP	Tetrahydrofuran	0.035	0.042	-20.0	126	0.00
39	S	Dibromofluoromethane	0.344	0.347	-0.9	101	0.00
40	TP	1,1,1-Trichloroethane	0.306	0.319	-4.2	107	0.00
42	TP	2-Butanone	0.047	0.045	4.3	110	0.00
43	TP	1,1-Dichloropropene	0.249	0.231	7.2	110	0.00
45	TP	Benzene	0.746	0.750	-0.5	104	0.00
46	TP	tert-Amyl methyl ether	0.332	0.329	0.9	103	0.00

Evaluate Continuing Calibration Report

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N17.D
Acq On : 12 Nov 2024 08:40 pm
Operator : VOA130:PID
Sample : C8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 13:46:30 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	S	1,2-Dichloroethane-d4	0.344	0.348	-1.2	97	0.00
48	TP	1,2-Dichloroethane	0.263	0.277	-5.3	106	0.00
51	TP	Methyl cyclohexane	0.265	0.263	0.8	104	0.00
52	TP	Trichloroethene	0.182	0.173#	4.9	105	0.00
54	TP	Dibromomethane	0.120	0.125	-4.2	105	0.00
55	TP	1,2-Dichloropropane	0.196	0.182#	7.1	106	0.00
57	TP	2-Chloroethyl vinyl ether	0.080	0.088	-10.0	107	0.00
58	TP	Bromodichloromethane	0.266	0.250#	6.0	105	0.00
61	TP	1,4-Dioxane	0.00096	0.00094#	2.1	101	0.00
62	TP	cis-1,3-Dichloropropene	0.273	0.241#	11.7	103	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00
64	S	Toluene-d8	1.341	1.350	-0.7	101	0.00
65	TP	Toluene	0.611	0.645	-5.6	106	0.00
66	TP	4-Methyl-2-pentanone	0.045	0.047	-4.4	111	0.00
67	TP	Tetrachloroethene	0.222	0.229	-3.2	106	0.00
69	TP	trans-1,3-Dichloropropene	* 10.000	8.920	10.8	104	0.00
71	TP	Ethyl methacrylate	0.181	0.211	-16.6	118	0.00
72	TP	1,1,2-Trichloroethane	0.136	0.131#	3.7	105	0.00
73	TP	Chlorodibromomethane	* 10.000	9.054	9.5	107	0.00
74	TP	1,3-Dichloropropane	0.299	0.285	4.7	104	0.00
75	TP	1,2-Dibromoethane	0.144	0.137#	4.9	102	0.00
77	TP	2-Hexanone	0.082	0.085	-3.7	109	0.00
78	T	Chlorobenzene	0.651	0.689	-5.8	107	0.00
79	TP	Ethylbenzene	1.202	1.281	-6.6	105	0.00
80	T	1,1,1,2-Tetrachloroethane	0.175	0.168	4.0	107	0.00
81	TP	p/m Xylene	0.484	0.520	-7.4	106	0.00
82	TP	o Xylene	0.465	0.505	-8.6	106	0.00
83	TP	Styrene	0.765	0.844	-10.3	106	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00
85	TP	Bromoform	* 10.000	9.060	9.4	106	0.00
87	TP	Isopropylbenzene	1.865	1.995	-7.0	105	0.00
88	S	4-Bromofluorobenzene	0.864	0.885	-2.4	103	0.00
89	TP	Bromobenzene	0.451	0.488	-8.2	108	0.00
90	TP	n-Propylbenzene	2.346	2.566	-9.4	106	0.00
91	TP	1,4-Dichlorobutane	0.410	0.471	-14.9	115	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.292	0.285	2.4	101	0.00
93	TP	4-Ethyltoluene	1.945	2.173	-11.7	110	0.00

Evaluate Continuing Calibration Report

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N17.D
Acq On : 12 Nov 2024 08:40 pm
Operator : VOA130:PID
Sample : C8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 13:46:30 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
94 TP	2-Chlorotoluene	1.439	1.568	-9.0	108	0.00
95 TP	1,3,5-Trimethylbenzene	1.703	1.807	-6.1	105	0.00
96 TP	1,2,3-Trichloropropane	0.238	0.243	-2.1	104	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.071	0.077	-8.5	111	0.00
98 TP	4-Chlorotoluene	1.502	1.630	-8.5	107	0.00
99 TP	tert-Butylbenzene	1.382	1.471	-6.4	106	0.00
102 TP	1,2,4-Trimethylbenzene	1.652	1.798	-8.8	108	0.00
103 TP	sec-Butylbenzene	2.009	2.155	-7.3	104	0.00
104 TP	p-Isopropyltoluene	1.735	1.861	-7.3	105	0.00
105 TP	1,3-Dichlorobenzene	0.948	1.010	-6.5	106	0.00
106 TP	1,4-Dichlorobenzene	0.969	1.038	-7.1	108	0.00
107 TP	p-Diethylbenzene	1.021	1.020	0.1	102	0.00
108 TP	n-Butylbenzene	1.508	1.664	-10.3	108	0.00
109 TP	1,2-Dichlorobenzene	0.899	0.960	-6.8	107	0.00
110 TP	1,2,4,5-Tetramethylbenzene	1.438	1.392	3.2	111	0.00
111 TP	1,2-Dibromo-3-chloropropane	0.049	0.053	-8.2	108	0.00
112 TP	1,3,5-Trichlorobenzene	0.663	0.650	2.0	106	0.00
113 TP	Hexachlorobutadiene	0.227	0.229	-0.9	104	0.00
114 TP	1,2,4-Trichlorobenzene	0.588	0.601	-2.2	108	0.00
115 TP	Naphthalene	1.202	1.270	-5.7	107	0.00
116 TP	1,2,3-Trichlorobenzene	0.548	0.574	-4.7	108	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 8 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N17.D
Acq On : 12 Nov 2024 08:40 pm
Operator : VOA130:PID
Sample : C8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 13:46:30 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	461344	10.000	ug/L	0.00
Standard Area 1 = 452641			Recovery = 101.92%			
63) Chlorobenzene-d5	9.639	117	368651	10.000	ug/L	0.00
Standard Area 1 = 358354			Recovery = 102.87%			
84) 1,4-Dichlorobenzene-d4	12.323	152	225443	10.000	ug/L	0.00
Standard Area 1 = 222013			Recovery = 101.54%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	160028	10.091	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.91%			
47) 1,2-Dichloroethane-d4	5.801	65	160562	10.111	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.11%			
64) Toluene-d8	7.788	98	497714	10.064	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.64%			
88) 4-Bromofluorobenzene	11.117	95	199551	10.249	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.49%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	107862	9.679	ug/L	96
3) Chloromethane	1.868	50	159794	11.757	ug/L	98
4) Vinyl chloride	1.942	62	143092	10.714	ug/L	99
5) Bromomethane	2.262	94	82200	11.342	ug/L	96
6) Chloroethane	2.382	64	88686	10.844	ug/L	100
7) Trichlorofluoromethane	2.524	101	162632	10.867	ug/L	98
8) Ethyl ether	2.823	74	48533	12.654	ug/L	89
10) 1,1-Dichloroethene	3.017	96	96920	10.088	ug/L	79
11) Carbon disulfide	3.048	76	319783	11.057	ug/L	100
12) Freon-113	3.059	101	100513	11.023	ug/L	88
13) Iodomethane	3.153	142	114163	14.701	ug/L	97
14) Acrolein	3.331	56	12980	14.499	ug/L	99
15) Methylene chloride	3.572	84	122128	10.300	ug/L	85
17) Acetone	3.604	43	21608	12.245	ug/L	93
18) trans-1,2-Dichloroethene	3.730	96	111400	10.796	ug/L	88
19) Methyl acetate	3.730	43	47640	11.037	ug/L #	87
21) Methyl tert-butyl ether	3.829	73	140096	8.678	ug/L	92
22) tert-Butyl alcohol	3.908	59	17462	51.536	ug/L #	83
24) Diisopropyl ether	4.191	45	244417	10.404	ug/L	96
25) 1,1-Dichloroethane	4.312	63	230495	10.733	ug/L	98
26) Halothane	4.364	117	73157	10.614	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N17.D
Acq On : 12 Nov 2024 08:40 pm
Operator : VOA130:PID
Sample : C8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 13:46:30 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
27) Acrylonitrile	4.343	53	26621	12.067	ug/L		94
28) Ethyl tert-butyl ether	4.542	59	193221	9.973	ug/L		88
29) Vinyl acetate	4.548	43	129205	8.553	ug/L	#	94
30) cis-1,2-Dichloroethene	4.831	96	124026	10.571	ug/L		87
31) 2,2-Dichloropropane	4.941	77	139671	9.875	ug/L		87
33) Bromochloromethane	5.025	128	56011	10.646	ug/L	#	68
34) Cyclohexane	5.041	56	150309	9.632	ug/L		88
35) Chloroform	5.098	83	212676	10.765	ug/L		94
36) Ethyl acetate	5.208	43	49360	9.654	ug/L	#	96
37) Carbon tetrachloride	5.245	117	110685	9.554	ug/L		99
38) Tetrahydrofuran	5.250	42	19212M6	11.943	ug/L		
40) 1,1,1-Trichloroethane	5.308	97	147014	10.406	ug/L		94
42) 2-Butanone	5.387	43	20916	9.652	ug/L		91
43) 1,1-Dichloropropene	5.429	75	106589	9.288	ug/L		96
45) Benzene	5.670	78	346192	10.058	ug/L		97
46) tert-Amyl methyl ether	5.785	73	151660	9.893	ug/L		96
48) 1,2-Dichloroethane	5.869	62	127867	10.527	ug/L	#	98
51) Methyl cyclohexane	6.273	83	121448	9.925	ug/L		90
52) Trichloroethene	6.273	95	79654	9.498	ug/L		95
54) Dibromomethane	6.708	93	57455	10.413	ug/L	#	90
55) 1,2-Dichloropropane	6.813	63	84195	9.308	ug/L		98
57) 2-Chloroethyl vinyl ether	7.505	63	40481	10.929	ug/L	#	85
58) Bromodichloromethane	6.886	83	115442	9.401	ug/L	#	99
61) 1,4-Dioxane	7.091	88	21789	491.285	ug/L		95
62) cis-1,3-Dichloropropene	7.578	75	111102	8.837	ug/L	#	86
65) Toluene	7.846	92	237641	10.553	ug/L		98
66) 4-Methyl-2-pentanone	8.276	58	17332	10.494	ug/L	#	84
67) Tetrachloroethene	8.302	166	84302	10.319	ug/L		94
69) trans-1,3-Dichloropropene	8.323	75	93936	8.920	ug/L	#	80
71) Ethyl methacrylate	8.517	69	77615	11.600	ug/L		91
72) 1,1,2-Trichloroethane	8.511	83	48362	9.646	ug/L		99
73) Chlorodibromomethane	8.726	129	62846	9.054	ug/L		97
74) 1,3-Dichloropropane	8.837	76	104888	9.504	ug/L		100
75) 1,2-Dibromoethane	9.004	107	50399	9.462	ug/L		99
77) 2-Hexanone	9.287	43	31510	10.402	ug/L		94
78) Chlorobenzene	9.654	112	254013	10.578	ug/L		90
79) Ethylbenzene	9.696	91	472403	10.662	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.738	131	62101	9.610	ug/L		98
81) p/m Xylene	9.885	106	383151	21.495	ug/L		95
82) o Xylene	10.420	106	372347	21.711	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N17.D
Acq On : 12 Nov 2024 08:40 pm
Operator : VOA130:PID
Sample : C8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 13:46:30 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241112NICAL\V30241112N08.D
Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
83) Styrene	10.488	104	622376	22.081	ug/L	95
85) Bromoform	10.509	173	35841	9.060	ug/L	97
87) Isopropylbenzene	10.803	105	449811	10.698	ug/L	98
89) Bromobenzene	11.233	156	109990	10.819	ug/L	98
90) n-Propylbenzene	11.280	91	578443	10.936	ug/L	96
91) 1,4-Dichlorobutane	11.285	55	106119	11.492	ug/L	98
92) 1,1,2,2-Tetrachloroethane	11.358	83	64252	9.754	ug/L	99
93) 4-Ethyltoluene	11.406	105	489936	11.172	ug/L	99
94) 2-Chlorotoluene	11.442	91	353598M4	10.897	ug/L	
95) 1,3,5-Trimethylbenzene	11.500	105	407478	10.612	ug/L	98
96) 1,2,3-Trichloropropane	11.495	75	54871M4	10.215	ug/L	
97) trans-1,4-Dichloro-2-b...	11.547	53	17319	10.829	ug/L	93
98) 4-Chlorotoluene	11.626	91	367584	10.857	ug/L	95
99) tert-Butylbenzene	11.841	119	331720	10.648	ug/L	94
102) 1,2,4-Trimethylbenzene	11.920	105	405381	10.883	ug/L	98
103) sec-Butylbenzene	12.030	105	485731	10.726	ug/L	95
104) p-Isopropyltoluene	12.182	119	419641	10.731	ug/L	97
105) 1,3-Dichlorobenzene	12.250	146	227653	10.649	ug/L	98
106) 1,4-Dichlorobenzene	12.339	146	233976	10.707	ug/L	98
107) p-Diethylbenzene	12.554	119	230057	9.999	ug/L	96
108) n-Butylbenzene	12.612	91	375082	11.032	ug/L	98
109) 1,2-Dichlorobenzene	12.764	146	216468	10.681	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.346	119	313711	9.678	ug/L	96
111) 1,2-Dibromo-3-chloropr...	13.534	155	11988	10.918	ug/L	98
112) 1,3,5-Trichlorobenzene	13.571	180	146490	9.796	ug/L	96
113) Hexachlorobutadiene	14.148	225	51682	10.115	ug/L	99
114) 1,2,4-Trichlorobenzene	14.169	180	135423	10.216	ug/L	98
115) Naphthalene	14.457	128	286309	10.568	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	129516	10.490	ug/L	98

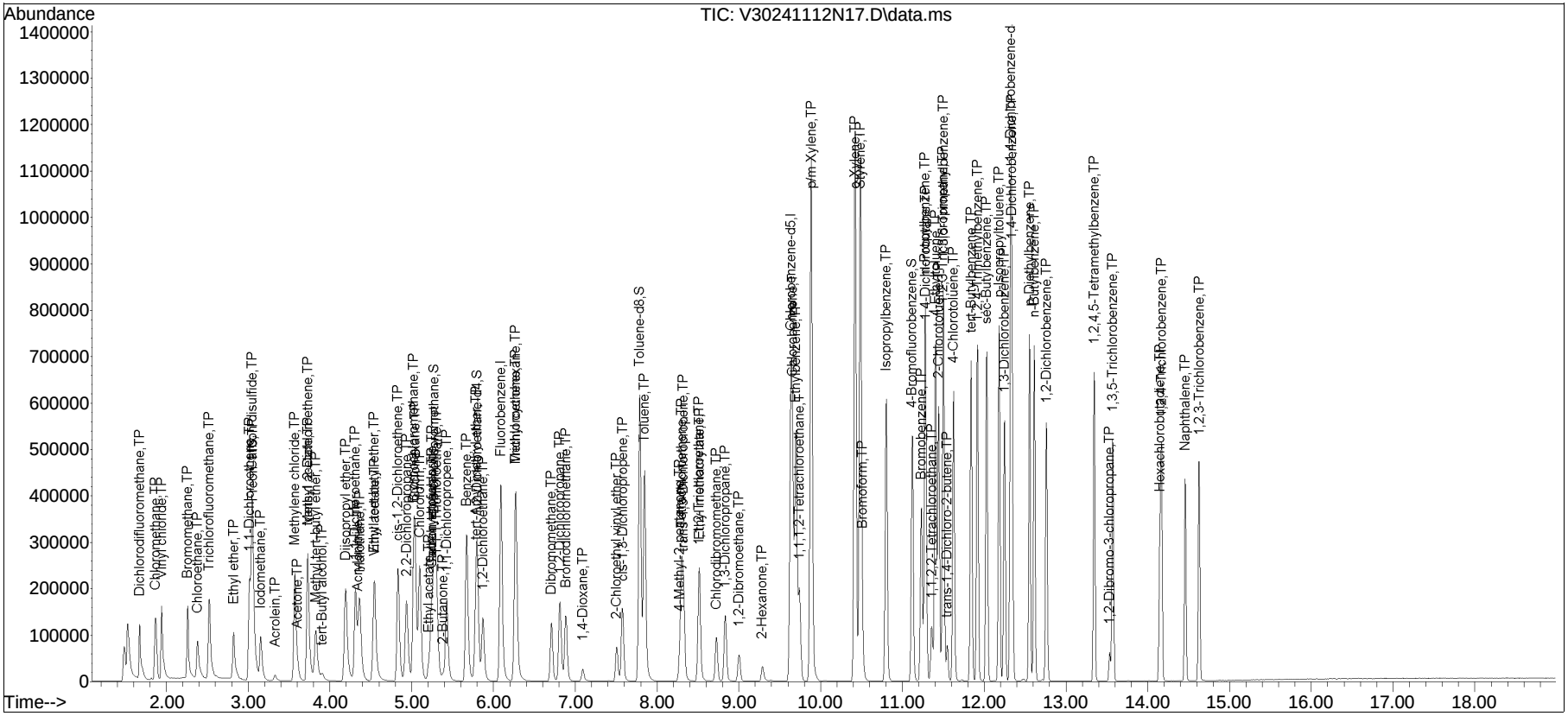
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241112NICAL\
Data File : V30241112N17.D
Acq On : 12 Nov 2024 08:40 pm
Operator : VOA130:PID
Sample : C8260STD10PPB
Misc : WG1996978,ICAL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 13 13:46:30 2024
Quant Method : K:\VOA130\2024\241112NICAL\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

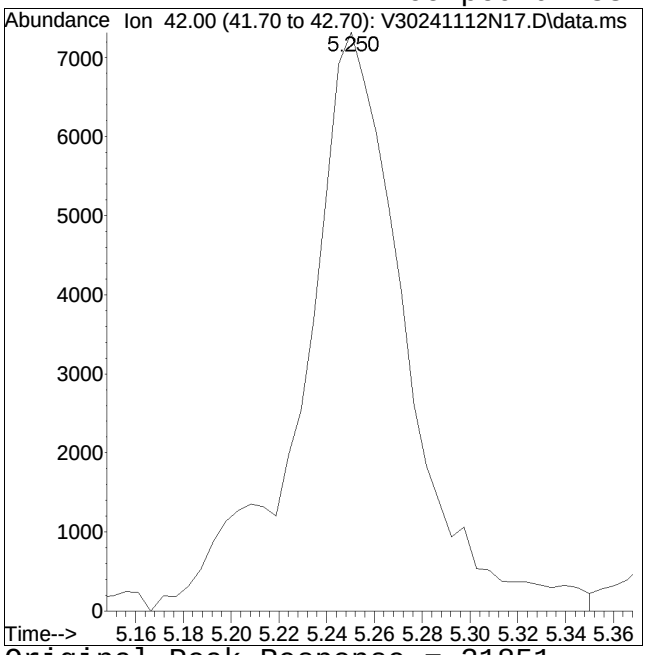
Sub List : 8260-Curve - Megamix plus Diox\V30241112N08.D•



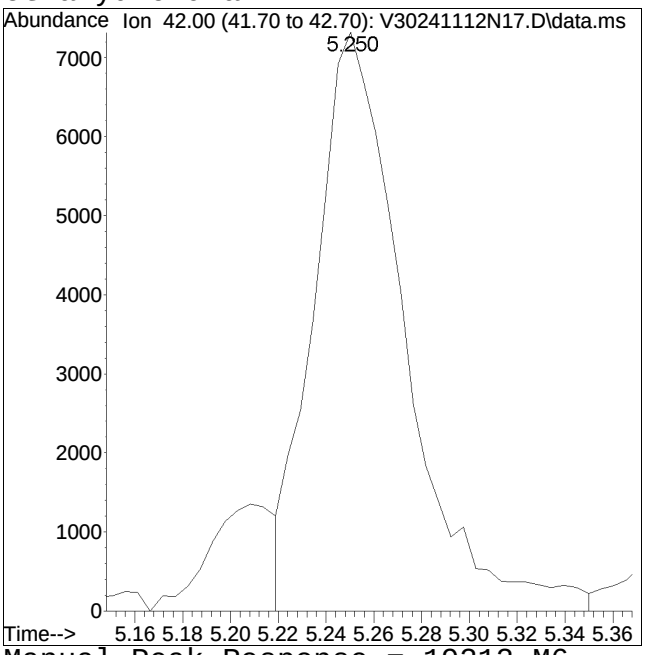
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N17.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 8:40 pm Instrument : VOA130
Sample : C8260STD10PPB Quant Date : 11/13/2024 1:46 pm

Compound #38: Tetrahydrofuran



Original Peak Response = 21851



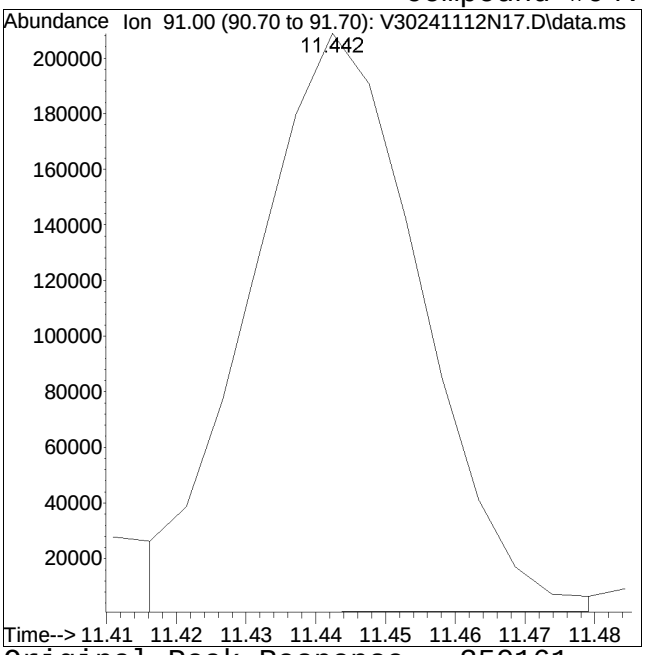
Manual Peak Response = 19212 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

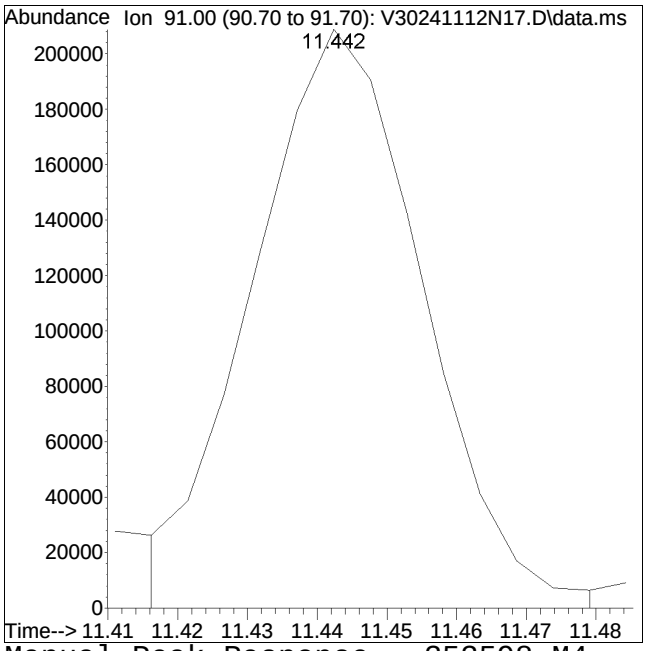
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N17.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 8:40 pm Instrument : VOA130
Sample : C8260STD10PPB Quant Date : 11/13/2024 1:46 pm

Compound #94: 2-Chlorotoluene



Original Peak Response = 350161



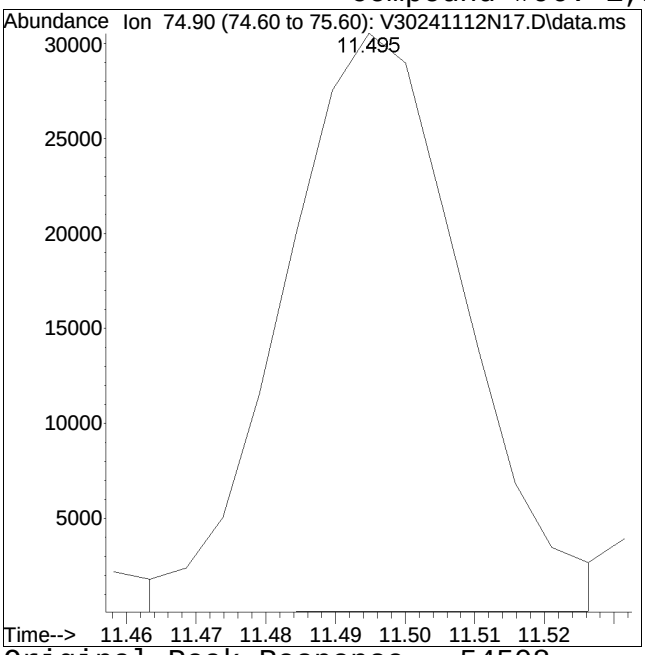
Manual Peak Response = 353598 M4

M4 = Poor automated baseline construction.

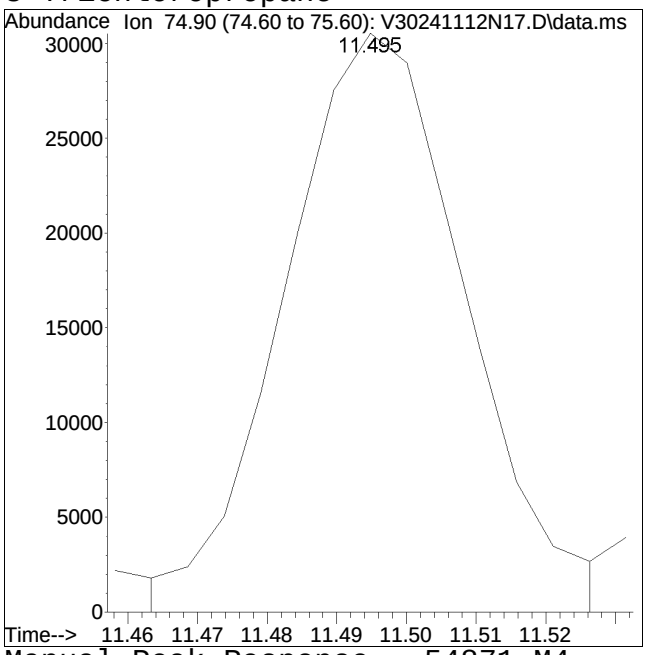
Manual Integration Report

Data Path : K:\VOA130\2024\241112NICALQMethod : V130_241112N_8260D.m
Data File : V30241112N17.D Operator : VOA130:PID
Date Inj'd : 11/12/2024 8:40 pm Instrument : VOA130
Sample : C8260STD10PPB Quant Date : 11/13/2024 1:46 pm

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 54508



Manual Peak Response = 54871 M4

M4 = Poor automated baseline construction.

Evaluate Relative Error Report VOA130

Method Path : K:\VOA130\2024\241112NICAL\
Method File : V130_241112N_8260D.m
Title : VOLATILES BY GC/MS
Last Update : Wed Nov 13 12:42:51 2024

	COMPOUND	CalFit	Units	TrueMid	MidConc	%RE	TrueLow	LowConc	%RE
17	TP Acetone	L	ug/L	10.0	10.928	9.3	2.00	1.642	-17.9
21	TP Methyl tert-butyl ether	Q	ug/L	10.0	8.261	-17.4	0.50	0.638	27.6
69	TP trans-1,3-Dichloropropene	Q	ug/L	10.0	8.844	-11.6	0.50	0.620	24.0
73	TP Chlorodibromomethane	Q	ug/L	10.0	8.738	-12.6	0.50	0.619	23.8
85	TP Bromoform	Q	ug/L	10.0	8.677	-13.2	0.50	0.633	26.6

Calibration Correlation Report

	COMPOUND	CalFit	CoefOfDet	QuadTerm	LinTerm	Constant
17	TP Acetone	Linear	0.998562	0.000000	0.033041	0.00637989
21	TP Methyl tert-butyl ether	Quadratic	0.997528	0.006598	0.355285	-0.00963119
69	TP trans-1,3-Dichloropropene	Quadratic	0.998327	0.005494	0.29045	-0.00863939
73	TP Chlorodibromomethane	Quadratic	0.998369	0.004453	0.190027	-0.00521482
85	TP Bromoform	Quadratic	0.999240	0.000528	0.18194	-0.00629669

Continuing Calibration

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490		
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701		
Instrument ID	: VOA130	**Calibration Date**	: 11/26/24 06:48		
Lab File ID	: V30241126A01	**Init. Calib. Date(s)**	: 11/12/24	11/12/24	
Sample No	: WG2002632-2	**Init. Calib. Times**	: 15:35	18:51	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	95	0
Dichlorodifluoromethane	0.242	0.258	-	-6.6	20	98	0
Chloromethane	0.295	0.31	-	-5.1	20	95	0
Vinyl chloride	0.29	0.305	-	-5.2	20	97	0
Bromomethane	0.157	0.114	-	27.4*	20	67	0
Chloroethane	0.177	0.195	-	-10.2	20	101	0
Trichlorofluoromethane	0.324	0.315	-	2.8	20	88	0
Ethyl ether	0.083	0.086	-	-3.6	20	100	0
1,1-Dichloroethene	0.208	0.208	-	0	20	91	0
Carbon disulfide	0.627	0.685	-	-9.3	20	102	0
Freon-113	0.198	0.187	-	5.6	20	87	0
Acrolein	0.019	0.029	-	-52.6*	20	137	0
Methylene chloride	0.257	0.274	-	-6.6	20	98	0
Acetone	10	10.81	-	-8.1	20	94	0
trans-1,2-Dichloroethene	0.224	0.233	-	-4	20	97	0
Methyl acetate	0.094	0.095	-	-1.1	20	93	0
Methyl tert-butyl ether	10	6.986	-	30.1*	20	79	0
tert-Butyl alcohol	0.00734	0.00749*	-	-2	20	99	0
Diisopropyl ether	0.509	0.432	-	15.1	20	80	0
1,1-Dichloroethane	0.465	0.495	-	-6.5	20	97	0
Halothane	0.149	0.141	-	5.4	20	91	0
Acrylonitrile	0.048	0.051	-	-6.2	20	93	0
Ethyl tert-butyl ether	0.42	0.325	-	22.6*	20	77	0
Vinyl acetate	0.327	0.224	-	31.5*	20	75	0
cis-1,2-Dichloroethene	0.254	0.262	-	-3.1	20	96	0
2,2-Dichloropropane	0.307	0.331	-	-7.8	20	101	0
Bromochloromethane	0.114	0.118	-	-3.5	20	94	0
Cyclohexane	0.338	0.26	-	23.1*	20	80	0
Chloroform	0.428	0.451	-	-5.4	20	96	0
Ethyl acetate	0.111	0.087	-	21.6*	20	83	0
Carbon tetrachloride	0.251	0.215	-	14.3	20	88	0
Tetrahydrofuran	0.035	0.034	-	2.9	20	97	0
Dibromofluoromethane	0.344	0.37	-	-7.6	20	100	0
1,1,1-Trichloroethane	0.306	0.295	-	3.6	20	92	0
2-Butanone	0.047	0.046	-	2.1	20	104	0
1,1-Dichloropropene	0.249	0.192	-	22.9*	20	85	0
Benzene	0.746	0.71	-	4.8	20	92	0
tert-Amyl methyl ether	0.332	0.256	-	22.9*	20	74	0
1,2-Dichloroethane-d4	0.344	0.383	-	-11.3	20	99	0
1,2-Dichloroethane	0.263	0.264	-	-0.4	20	94	0
Methyl cyclohexane	0.265	0.216	-	18.5	20	79	0
Trichloroethene	0.182	0.159*	-	12.6	20	90	0
Dibromomethane	0.12	0.12	-	0	20	93	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: VOA130	**Calibration Date**	: 11/26/24 06:48	
Lab File ID	: V30241126A01	**Init. Calib. Date(s)**	: 11/12/24	11/12/24
Sample No	: WG2002632-2	**Init. Calib. Times**	: 15:35	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.196	0.166*	-	15.3	20	90	0
Bromodichloromethane	0.266	0.241*	-	9.4	20	93	0
1,4-Dioxane	0.00096	0.001*	-	-4.2	20	98	0
cis-1,3-Dichloropropene	0.273	0.219*	-	19.8	20	87	0
Chlorobenzene-d5	1	1	-	0	20	91	0
Toluene-d8	1.341	1.377	-	-2.7	20	92	0
Toluene	0.611	0.596	-	2.5	20	87	0
4-Methyl-2-pentanone	0.045	0.033	-	26.7*	20	69	0
Tetrachloroethene	0.222	0.211	-	5	20	87	0
trans-1,3-Dichloropropene	10	8.411	-	15.9	20	86	0
Ethyl methacrylate	0.181	0.142	-	21.5*	20	71	0
1,1,2-Trichloroethane	0.136	0.124*	-	8.8	20	88	0
Chlorodibromomethane	10	8.61	-	13.9	20	90	0
1,3-Dichloropropane	0.299	0.264	-	11.7	20	85	0
1,2-Dibromoethane	0.144	0.131*	-	9	20	86	0
2-Hexanone	0.082	0.059	-	28*	20	67	0
Chlorobenzene	0.651	0.63	-	3.2	20	87	0
Ethylbenzene	1.202	1.162	-	3.3	20	85	0
1,1,1,2-Tetrachloroethane	0.175	0.161	-	8	20	90	0
p/m Xylene	0.484	0.488	-	-0.8	20	88	0
o Xylene	0.465	0.461	-	0.9	20	86	0
Styrene	0.765	0.784	-	-2.5	20	87	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	100	0
Bromoform	10	7.823	-	21.8*	20	90	0
Isopropylbenzene	1.865	1.595	-	14.5	20	83	0
4-Bromofluorobenzene	0.864	0.792	-	8.3	20	91	0
Bromobenzene	0.451	0.393	-	12.9	20	86	0
n-Propylbenzene	2.346	2.175	-	7.3	20	89	0
1,4-Dichlorobutane	0.41	0.352	-	14.1	20	85	0
1,1,2,2-Tetrachloroethane	0.292	0.251	-	14	20	88	0
4-Ethyltoluene	1.945	1.771	-	8.9	20	88	0
2-Chlorotoluene	1.439	1.368	-	4.9	20	93	0
1,3,5-Trimethylbenzene	1.703	1.556	-	8.6	20	89	0
1,2,3-Trichloropropane	0.238	0.205	-	13.9	20	87	0
trans-1,4-Dichloro-2-buten	0.071	0.069	-	2.8	20	99	0
4-Chlorotoluene	1.502	1.403	-	6.6	20	91	0
tert-Butylbenzene	1.382	1.193	-	13.7	20	85	0
1,2,4-Trimethylbenzene	1.652	1.506	-	8.8	20	89	0
sec-Butylbenzene	2.009	1.832	-	8.8	20	88	0
p-Isopropyltoluene	1.735	1.563	-	9.9	20	87	0
1,3-Dichlorobenzene	0.948	0.896	-	5.5	20	93	0
1,4-Dichlorobenzene	0.969	0.904	-	6.7	20	93	0
p-Diethylbenzene	1.021	0.892	-	12.6	20	88	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Langan Engineering & Environmental	**Lab Number**	: L2469490	
Project Name	: 1487 FIRST AVE	**Project Number**	: 100963701	
Instrument ID	: VOA130	**Calibration Date**	: 11/26/24 06:48	
Lab File ID	: V30241126A01	**Init. Calib. Date(s)**	: 11/12/24	11/12/24
Sample No	: WG2002632-2	**Init. Calib. Times**	: 15:35	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.508	1.452	-	3.7	20	93	0
1,2-Dichlorobenzene	0.899	0.813	-	9.6	20	90	0
1,2,4,5-Tetramethylbenzene	1.438	1.106	-	23.1*	20	87	0
1,2-Dibromo-3-chloropropan	0.049	0.044	-	10.2	20	88	0
1,3,5-Trichlorobenzene	0.663	0.588	-	11.3	20	95	0
Hexachlorobutadiene	0.227	0.193	-	15	20	86	0
1,2,4-Trichlorobenzene	0.588	0.505	-	14.1	20	89	0
Naphthalene	1.202	0.973	-	19.1	20	81	0
1,2,3-Trichlorobenzene	0.548	0.487	-	11.1	20	90	0

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-2
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	95	0.00
2	TP	Dichlorodifluoromethane	0.242	0.258	-6.6	98	0.00
3	TP	Chloromethane	0.295	0.310	-5.1	95	0.00
4	TP	Vinyl chloride	0.290	0.305	-5.2	97	0.00
5	TP	Bromomethane	0.157	0.114	27.4#	67	0.00
6	TP	Chloroethane	0.177	0.195	-10.2	101	0.00
7	TP	Trichlorofluoromethane	0.324	0.315	2.8	88	0.00
8	TP	Ethyl ether	0.083	0.086	-3.6	100	0.00
10	TP	1,1-Dichloroethene	0.208	0.208	0.0	91	0.00
11	TP	Carbon disulfide	0.627	0.685	-9.3	102	0.00
12	TP	Freon-113	0.198	0.187	5.6	87	0.00
14	TP	Acrolein	0.019	0.029	-52.6#	137	0.00
15	TP	Methylene chloride	0.257	0.274	-6.6	98	0.00
17	TP	Acetone	* 10.000	10.810	-8.1	94	0.00
18	TP	trans-1,2-Dichloroethene	0.224	0.233	-4.0	97	0.00
19	TP	Methyl acetate	0.094	0.095	-1.1	93	0.00
21	TP	Methyl tert-butyl ether	* 10.000	6.986	30.1#	79	0.00
22	TP	tert-Butyl alcohol	0.00734	0.00749#	-2.0	99	0.00
24	TP	Diisopropyl ether	0.509	0.432	15.1	80	0.00
25	TP	1,1-Dichloroethane	0.465	0.495	-6.5	97	0.00
26	TP	Halothane	0.149	0.141	5.4	91	0.00
27	TP	Acrylonitrile	0.048	0.051	-6.2	93	0.00
28	TP	Ethyl tert-butyl ether	0.420	0.325	22.6#	77	0.00
29	TP	Vinyl acetate	0.327	0.224	31.5#	75	0.00
30	TP	cis-1,2-Dichloroethene	0.254	0.262	-3.1	96	0.00
31	TP	2,2-Dichloropropane	0.307	0.331	-7.8	101	0.00
33	TP	Bromochloromethane	0.114	0.118	-3.5	94	0.00
34	TP	Cyclohexane	0.338	0.260	23.1#	80	0.00
35	TP	Chloroform	0.428	0.451	-5.4	96	0.00
36	TP	Ethyl acetate	0.111	0.087	21.6#	83	0.00
37	TP	Carbon tetrachloride	0.251	0.215	14.3	88	0.00
38	TP	Tetrahydrofuran	0.035	0.034	2.9	97	0.00
39	S	Dibromofluoromethane	0.344	0.370	-7.6	100	0.00
40	TP	1,1,1-Trichloroethane	0.306	0.295	3.6	92	0.00
42	TP	2-Butanone	0.047	0.046	2.1	104	0.00
43	TP	1,1-Dichloropropene	0.249	0.192	22.9#	85	0.00
45	TP	Benzene	0.746	0.710	4.8	92	0.00
46	TP	tert-Amyl methyl ether	0.332	0.256	22.9#	74	0.00
47	S	1,2-Dichloroethane-d4	0.344	0.383	-11.3	99	0.00

Evaluate Continuing Calibration Report

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-2
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
48	TP	1,2-Dichloroethane	0.263	0.264	-0.4	94	0.00
51	TP	Methyl cyclohexane	0.265	0.216	18.5	79	0.00
52	TP	Trichloroethene	0.182	0.159#	12.6	90	0.00
54	TP	Dibromomethane	0.120	0.120	0.0	93	0.00
55	TP	1,2-Dichloropropane	0.196	0.166#	15.3	90	0.00
58	TP	Bromodichloromethane	0.266	0.241#	9.4	93	0.00
61	TP	1,4-Dioxane	0.00096	0.00100#	-4.2	98	0.00
62	TP	cis-1,3-Dichloropropene	0.273	0.219#	19.8	87	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	91	0.00
64	S	Toluene-d8	1.341	1.377	-2.7	92	0.00
65	TP	Toluene	0.611	0.596	2.5	87	0.00
66	TP	4-Methyl-2-pentanone	0.045	0.033	26.7#	69	0.00
67	TP	Tetrachloroethene	0.222	0.211	5.0	87	0.00
69	TP	trans-1,3-Dichloropropene	* 10.000	8.411	15.9	86	0.00
71	TP	Ethyl methacrylate	0.181	0.142	21.5#	71	0.00
72	TP	1,1,2-Trichloroethane	0.136	0.124#	8.8	88	0.00
73	TP	Chlorodibromomethane	* 10.000	8.610	13.9	90	0.00
74	TP	1,3-Dichloropropane	0.299	0.264	11.7	85	0.00
75	TP	1,2-Dibromoethane	0.144	0.131#	9.0	86	0.00
77	TP	2-Hexanone	0.082	0.059	28.0#	67	0.00
78	T	Chlorobenzene	0.651	0.630	3.2	87	0.00
79	TP	Ethylbenzene	1.202	1.162	3.3	85	0.00
80	T	1,1,1,2-Tetrachloroethane	0.175	0.161	8.0	90	0.00
81	TP	p/m Xylene	0.484	0.488	-0.8	88	0.00
82	TP	o Xylene	0.465	0.461	0.9	86	0.00
83	TP	Styrene	0.765	0.784	-2.5	87	0.00
84	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
85	TP	Bromoform	* 10.000	7.823	21.8#	90	0.00
87	TP	Isopropylbenzene	1.865	1.595	14.5	83	0.00
88	S	4-Bromofluorobenzene	0.864	0.792	8.3	91	0.00
89	TP	Bromobenzene	0.451	0.393	12.9	86	0.00
90	TP	n-Propylbenzene	2.346	2.175	7.3	89	0.00
91	TP	1,4-Dichlorobutane	0.410	0.352	14.1	85	0.00
92	TP	1,1,2,2-Tetrachloroethane	0.292	0.251	14.0	88	0.00
93	TP	4-Ethyltoluene	1.945	1.771	8.9	88	0.00
94	TP	2-Chlorotoluene	1.439	1.368	4.9	93	0.00
95	TP	1,3,5-Trimethylbenzene	1.703	1.556	8.6	89	0.00

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-2
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 TP	1,2,3-Trichloropropane	0.238	0.205	13.9	87	0.00
97 TP	trans-1,4-Dichloro-2-butene	0.071	0.069	2.8	99	0.00
98 TP	4-Chlorotoluene	1.502	1.403	6.6	91	0.00
99 TP	tert-Butylbenzene	1.382	1.193	13.7	85	0.00
102 TP	1,2,4-Trimethylbenzene	1.652	1.506	8.8	89	0.00
103 TP	sec-Butylbenzene	2.009	1.832	8.8	88	0.00
104 TP	p-Isopropyltoluene	1.735	1.563	9.9	87	0.00
105 TP	1,3-Dichlorobenzene	0.948	0.896	5.5	93	0.00
106 TP	1,4-Dichlorobenzene	0.969	0.904	6.7	93	0.00
107 TP	p-Diethylbenzene	1.021	0.892	12.6	88	0.00
108 TP	n-Butylbenzene	1.508	1.452	3.7	93	0.00
109 TP	1,2-Dichlorobenzene	0.899	0.813	9.6	90	0.00
110 TP	1,2,4,5-Tetramethylbenzene	1.438	1.106	23.1#	87	0.00
111 TP	1,2-Dibromo-3-chloropropane	0.049	0.044	10.2	88	0.00
112 TP	1,3,5-Trichlorobenzene	0.663	0.588	11.3	95	0.00
113 TP	Hexachlorobutadiene	0.227	0.193	15.0	86	0.00
114 TP	1,2,4-Trichlorobenzene	0.588	0.505	14.1	89	0.00
115 TP	Naphthalene	1.202	0.973	19.1	81	0.00
116 TP	1,2,3-Trichlorobenzene	0.548	0.487	11.1	90	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 8 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-2
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	428062	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery = 100.00%			
63) Chlorobenzene-d5	9.633	117	326733	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.323	152	222637	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	158388	10.764	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.64%			
47) 1,2-Dichloroethane-d4	5.795	65	163812	11.118	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.18%			
64) Toluene-d8	7.788	98	449780	10.262	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.62%			
88) 4-Bromofluorobenzene	11.117	95	176342	9.171	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.71%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	110432	10.680	ug/L	96
3) Chloromethane	1.868	50	132701	10.522	ug/L	97
4) Vinyl chloride	1.942	62	130385	10.521	ug/L	99
5) Bromomethane	2.256	94	48789	7.255	ug/L	98
6) Chloroethane	2.377	64	83444	10.996	ug/L	99
7) Trichlorofluoromethane	2.524	101	134962	9.719	ug/L	99
8) Ethyl ether	2.823	74	36713	10.316	ug/L	90
10) 1,1-Dichloroethene	3.011	96	89050	9.990	ug/L	80
11) Carbon disulfide	3.043	76	293361	10.932	ug/L	100
12) Freon-113	3.053	101	80162	9.474	ug/L	90
14) Acrolein	3.326	56	12487	15.033	ug/L	99
15) Methylene chloride	3.567	84	117433	10.674	ug/L	85
17) Acetone	3.604	43	18020	10.810	ug/L	96
18) trans-1,2-Dichloroethene	3.724	96	99766	10.420	ug/L	88
19) Methyl acetate	3.730	43	40637	10.146	ug/L #	86
21) Methyl tert-butyl ether	3.829	73	103506	6.986	ug/L	94
22) tert-Butyl alcohol	3.908	59	16037	51.010	ug/L #	73
24) Diisopropyl ether	4.191	45	185128	8.493	ug/L	98
25) 1,1-Dichloroethane	4.312	63	212092	10.644	ug/L	98
26) Halothane	4.364	117	60194	9.413	ug/L	98
27) Acrylonitrile	4.343	53	21758	10.629	ug/L	96

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-2
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
28) Ethyl tert-butyl ether	4.542	59	138939	7.728	ug/L		88
29) Vinyl acetate	4.542	43	95729	6.830	ug/L	#	95
30) cis-1,2-Dichloroethene	4.831	96	111995	10.288	ug/L		86
31) 2,2-Dichloropropane	4.936	77	141498	10.782	ug/L		85
33) Bromochloromethane	5.025	128	50649	10.375	ug/L	#	70
34) Cyclohexane	5.035	56	111256	7.684	ug/L		87
35) Chloroform	5.093	83	193053	10.532	ug/L		94
36) Ethyl acetate	5.203	43	37358	7.874	ug/L	#	95
37) Carbon tetrachloride	5.240	117	92168	8.574	ug/L		95
38) Tetrahydrofuran	5.245	42	14674M6	9.831	ug/L		
40) 1,1,1-Trichloroethane	5.303	97	126482	9.649	ug/L		95
42) 2-Butanone	5.381	43	19727	9.811	ug/L		95
43) 1,1-Dichloropropene	5.423	75	82395	7.738	ug/L		97
45) Benzene	5.670	78	303768	9.511	ug/L		97
46) tert-Amyl methyl ether	5.785	73	109465	7.695	ug/L		90
48) 1,2-Dichloroethane	5.869	62	113112	10.036	ug/L	#	98
51) Methyl cyclohexane	6.267	83	92459	8.144	ug/L		94
52) Trichloroethene	6.267	95	68010	8.740	ug/L		96
54) Dibromomethane	6.702	93	51176	9.996	ug/L		92
55) 1,2-Dichloropropane	6.813	63	70953	8.454	ug/L		98
58) Bromodichloromethane	6.881	83	103181	9.056	ug/L		98
61) 1,4-Dioxane	7.090	88	21310	517.843	ug/L		96
62) cis-1,3-Dichloropropene	7.573	75	93662	8.029	ug/L	#	83
65) Toluene	7.845	92	194822	9.762	ug/L		99
66) 4-Methyl-2-pentanone	8.270	58	10768	7.356	ug/L	#	88
67) Tetrachloroethene	8.302	166	68891	9.515	ug/L		94
69) trans-1,3-Dichloropropene	8.323	75	78269	8.411	ug/L	#	81
71) Ethyl methacrylate	8.517	69	46337	7.814	ug/L	#	73
72) 1,1,2-Trichloroethane	8.511	83	40609	9.139	ug/L		98
73) Chlorodibromomethane	8.721	129	52831	8.610	ug/L		99
74) 1,3-Dichloropropane	8.831	76	86149	8.807	ug/L		99
75) 1,2-Dibromoethane	9.004	107	42674	9.040	ug/L		99
77) 2-Hexanone	9.287	43	19254	7.172	ug/L		99
78) Chlorobenzene	9.654	112	205696	9.664	ug/L		89
79) Ethylbenzene	9.696	91	379795	9.672	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.738	131	52480	9.163	ug/L		100
81) p/m Xylene	9.885	106	318946	20.188	ug/L		95
82) o Xylene	10.420	106	301269	19.820	ug/L		96
83) Styrene	10.483	104	512262	20.506	ug/L		95
85) Bromoform	10.509	173	30359	7.823	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-2
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Isopropylbenzene	10.803	105	355159	8.554	ug/L	98
89) Bromobenzene	11.227	156	87445	8.710	ug/L	100
90) n-Propylbenzene	11.274	91	484317	9.272	ug/L	97
91) 1,4-Dichlorobutane	11.285	55	78453	8.603	ug/L	100
92) 1,1,2,2-Tetrachloroethane	11.358	83	55978	8.605	ug/L	99
93) 4-Ethyltoluene	11.400	105	394322	9.105	ug/L	99
94) 2-Chlorotoluene	11.442	91	304561M1	9.504	ug/L	
95) 1,3,5-Trimethylbenzene	11.500	105	346479	9.137	ug/L	98
96) 1,2,3-Trichloropropane	11.495	75	45600M4	8.596	ug/L	
97) trans-1,4-Dichloro-2-b...	11.547	53	15343	9.715	ug/L	95
98) 4-Chlorotoluene	11.626	91	312285	9.340	ug/L	96
99) tert-Butylbenzene	11.841	119	265507	8.630	ug/L	96
102) 1,2,4-Trimethylbenzene	11.914	105	335206	9.113	ug/L	97
103) sec-Butylbenzene	12.029	105	407889	9.121	ug/L	95
104) p-Isopropyltoluene	12.181	119	348022	9.012	ug/L	97
105) 1,3-Dichlorobenzene	12.244	146	199379	9.444	ug/L	98
106) 1,4-Dichlorobenzene	12.339	146	201276	9.327	ug/L	99
107) p-Diethylbenzene	12.554	119	198679	8.744	ug/L	97
108) n-Butylbenzene	12.611	91	323371	9.631	ug/L	98
109) 1,2-Dichlorobenzene	12.758	146	181106	9.049	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.345	119	246181	7.691	ug/L	96
111) 1,2-Dibromo-3-chloropr...	13.534	155	9787	9.026	ug/L	99
112) 1,3,5-Trichlorobenzene	13.571	180	130833	8.859	ug/L	96
113) Hexachlorobutadiene	14.148	225	43024	8.527	ug/L	99
114) 1,2,4-Trichlorobenzene	14.169	180	112437	8.589	ug/L	99
115) Naphthalene	14.457	128	216728	8.101	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	108334	8.885	ug/L	99

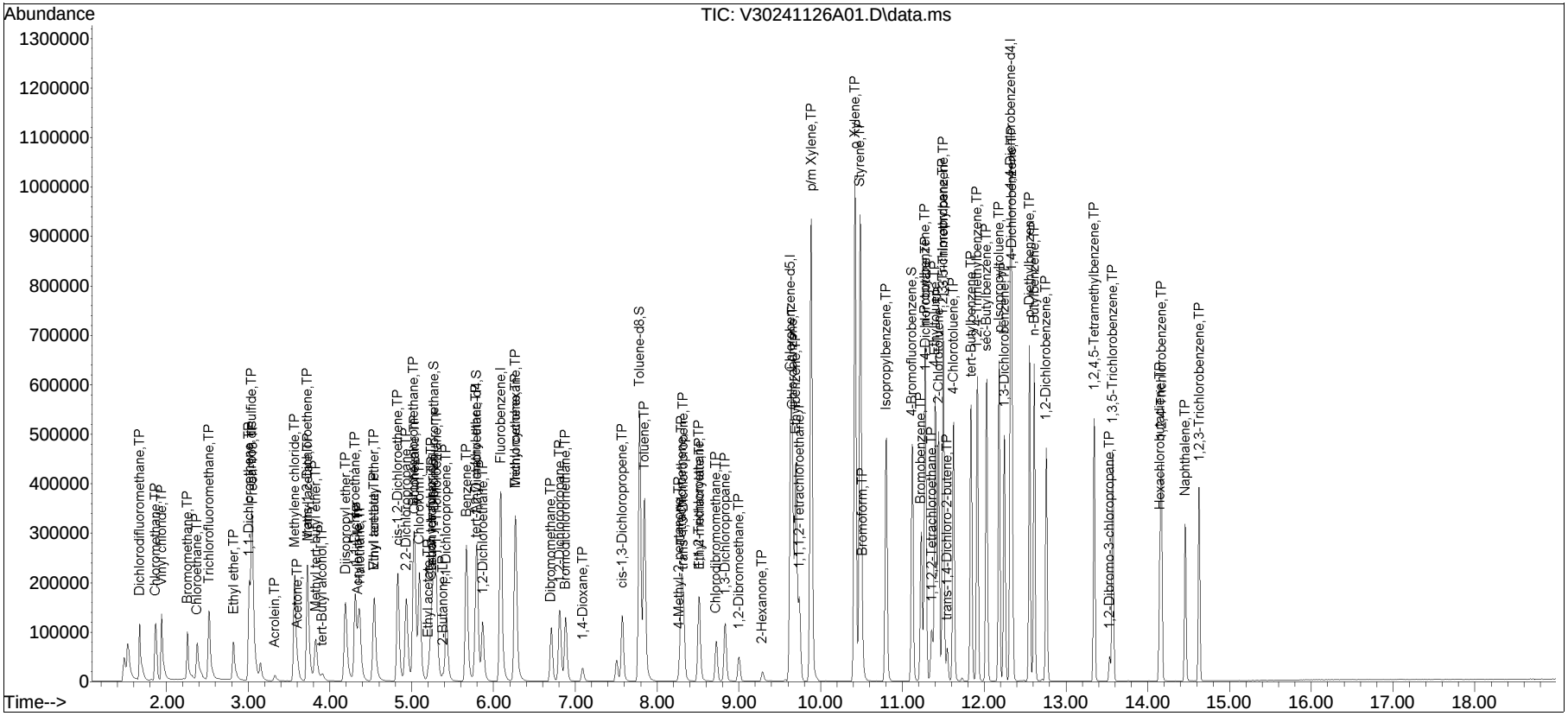
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-2
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

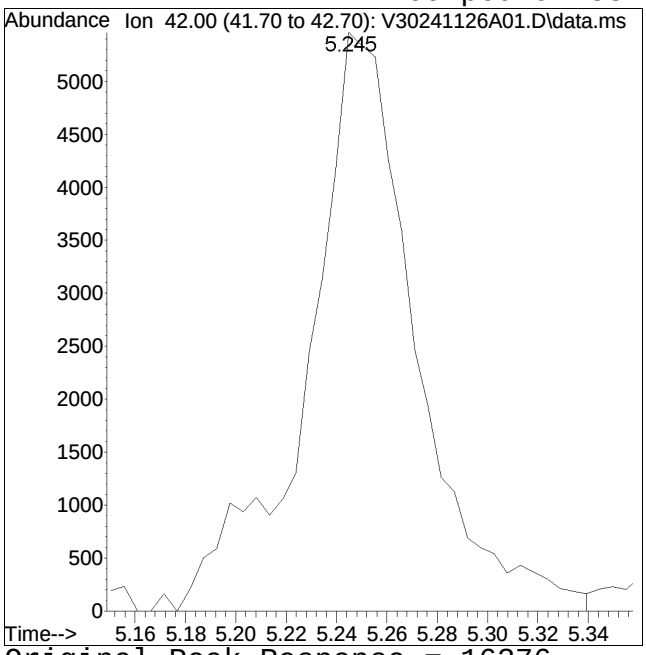
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



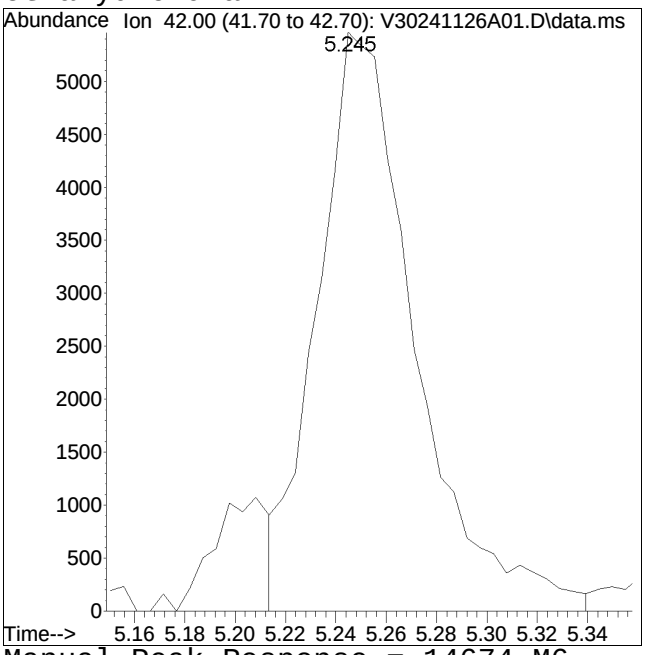
Manual Integration Report

Data Path	: K:\VOA130\2024\241126A\	QMethod	: V130_241112N_8260D.m
Data File	: V30241126A01.D	Operator	: VOA130:PID
Date Inj'd	: 11/26/2024 6:48 am	Instrument	: VOA130
Sample	: WG2002632-2	Quant Date	: 11/26/2024 7:16 am

Compound #38: Tetrahydrofuran



Original Peak Response = 16376



Manual Peak Response = 14674 M6

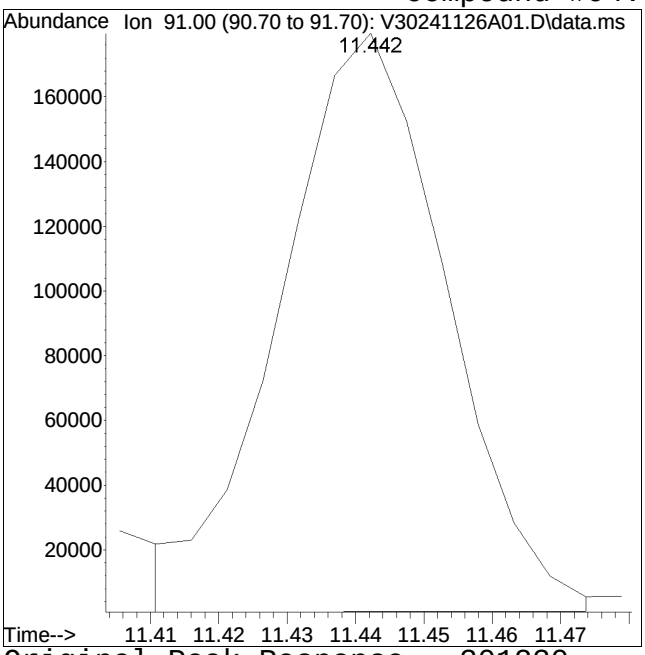
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

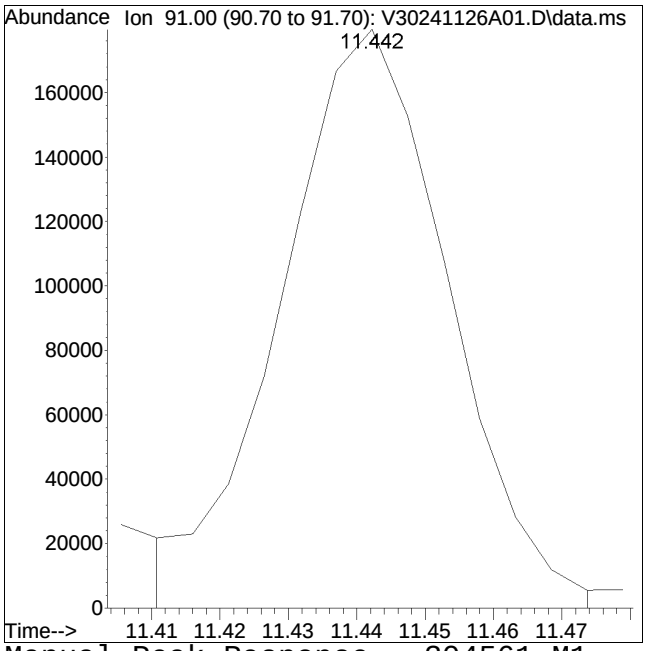
Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Date Inj'd : 11/26/2024 6:48 am
Sample : WG2002632-2

QMethod : V130_241112N_8260D.m
Operator : VOA130:PID
Instrument : VOA130
Quant Date : 11/26/2024 7:16 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 301230



Manual Peak Response = 304561 M1

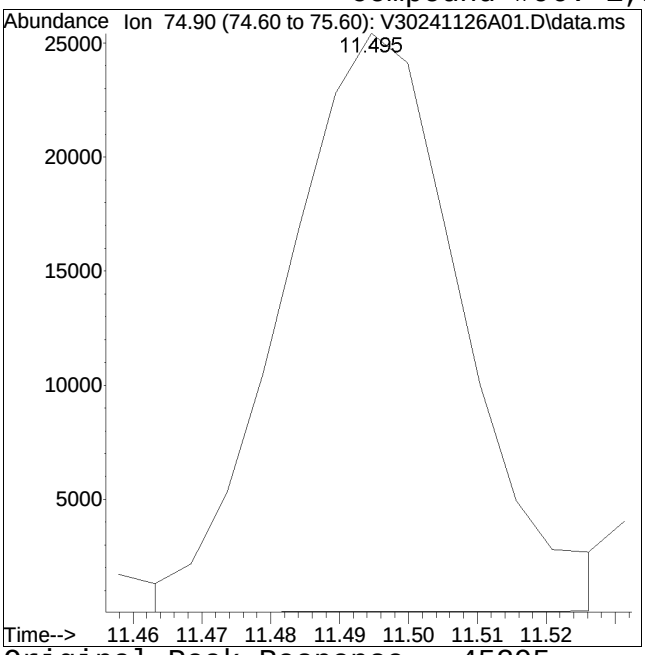
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

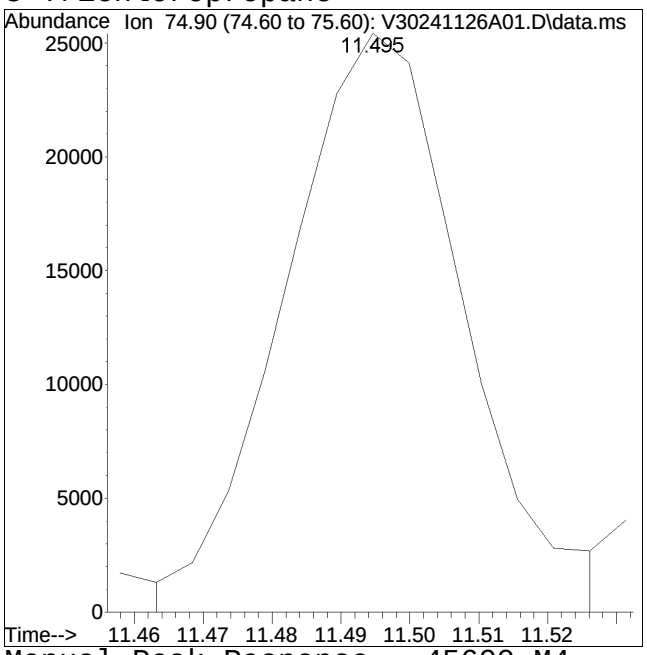
Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Date Inj'd : 11/26/2024 6:48 am
Sample : WG2002632-2

QMethod : V130_241112N_8260D.m
Operator : VOA130:PID
Instrument : VOA130
Quant Date : 11/26/2024 7:16 am

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 45295



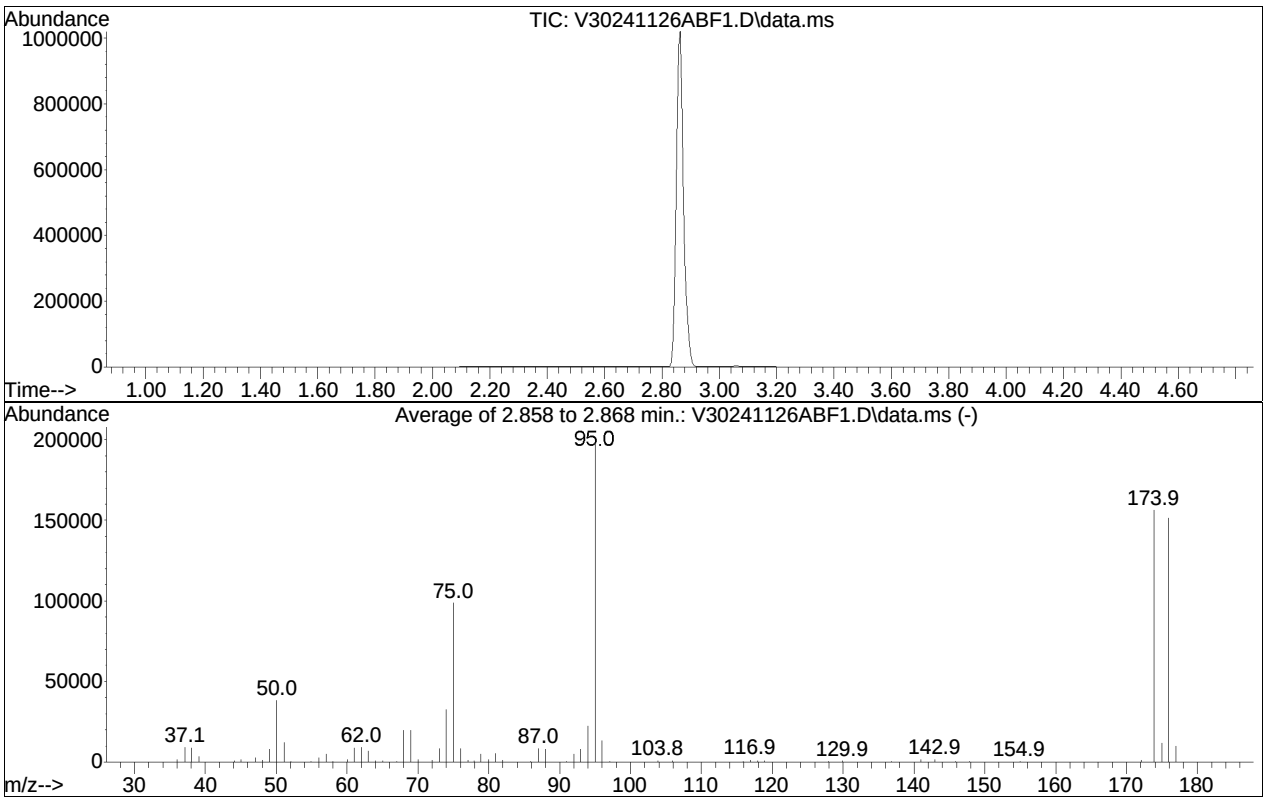
Manual Peak Response = 45600 M4

M4 = Poor automated baseline construction.

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126ABF1.D
Acq On : 26 Nov 2024 06:37 am
Operator : VOA130:PID
Sample : WG2002632-1
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Title : VOLATILES BY GC/MS
Last Update : Wed Nov 13 13:45:44 2024



Spectrum Information: Average of 2.858 to 2.868 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	38507	PASS
75	95	30	60	49.9	98880	PASS
95	95	100	100	100.0	198165	PASS
96	95	5	9	6.7	13290	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.0	156565	PASS
175	174	5	9	7.6	11927	PASS
176	174	95	101	96.6	151275	PASS
177	176	5	9	6.4	9723	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A05.D
Acq On : 26 Nov 2024 08:15 am
Operator : VOA130:PID
Sample : WG2002632-5,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 26 09:13:18 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	353469	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery = 82.57%			
63) Chlorobenzene-d5	9.633	117	318972	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery = 97.62%			
84) 1,4-Dichlorobenzene-d4	12.323	152	202380	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery = 90.90%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.271	113	147254	12.119	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 121.19%			
47) 1,2-Dichloroethane-d4	5.801	65	136457	11.216	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.16%			
64) Toluene-d8	7.788	98	406117	9.491	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.91%			
88) 4-Bromofluorobenzene	11.117	95	174473	9.982	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.82%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	1.863	50	640	N.D.		
4) Vinyl chloride	1.942	62	207	N.D.		
5) Bromomethane	2.256	94	615	0.111	ug/L	96
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	3.011	96	47	N.D.		
11) Carbon disulfide	3.043	76	3517	0.159	ug/L #	89
15) Methylene chloride	3.572	84	49	N.D.		
17) Acetone	0.000		0	N.D. d		
18) trans-1,2-Dichloroethene	3.730	96	296	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.831	96	168	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
33) Bromochloromethane	0.000		0	N.D.		
35) Chloroform	0.000		0	N.D.		

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A05.D
Acq On : 26 Nov 2024 08:15 am
Operator : VOA130:PID
Sample : WG2002632-5,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 26 09:13:18 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Carbon tetrachloride	0.000		0		N.D.	
40) 1,1,1-Trichloroethane	0.000		0		N.D.	
42) 2-Butanone	0.000		0		N.D.	
43) 1,1-Dichloropropene	0.000		0		N.D.	
45) Benzene	0.000		0		N.D.	
48) 1,2-Dichloroethane	0.000		0		N.D.	
52) Trichloroethene	6.273	95	153		N.D.	
54) Dibromomethane	0.000		0		N.D.	
55) 1,2-Dichloropropane	0.000		0		N.D.	
58) Bromodichloromethane	0.000		0		N.D.	
61) 1,4-Dioxane	0.000		0		N.D.	
62) cis-1,3-Dichloropropene	0.000		0		N.D.	
65) Toluene	7.846	92	53		N.D.	
66) 4-Methyl-2-pentanone	0.000		0		N.D.	
67) Tetrachloroethene	0.000		0		N.D.	
69) trans-1,3-Dichloropropene	0.000		0		N.D.	
72) 1,1,2-Trichloroethane	0.000		0		N.D.	
73) Chlorodibromomethane	0.000		0		N.D.	
74) 1,3-Dichloropropane	0.000		0		N.D.	
75) 1,2-Dibromoethane	0.000		0		N.D.	
77) 2-Hexanone	0.000		0		N.D.	
78) Chlorobenzene	9.654	112	258		N.D.	
79) Ethylbenzene	9.696	91	192		N.D.	
80) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
81) p/m Xylene	0.000		0		N.D.	
82) o Xylene	0.000		0		N.D.	
83) Styrene	10.509	104	188		N.D.	
85) Bromoform	0.000		0		N.D.	
87) Isopropylbenzene	0.000		0		N.D.	
89) Bromobenzene	0.000		0		N.D.	
90) n-Propylbenzene	11.285	91	308		N.D.	
92) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
93) 4-Ethyltoluene	11.421	105	99		N.D.	
94) 2-Chlorotoluene	11.285	91	308		N.D.	
95) 1,3,5-Trimethylbenzene	11.421	105	99		N.D.	
96) 1,2,3-Trichloropropane	0.000		0		N.D.	
97) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
98) 4-Chlorotoluene	11.636	91	442		N.D.	
99) tert-Butylbenzene	0.000		0		N.D.	

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A05.D
Acq On : 26 Nov 2024 08:15 am
Operator : VOA130:PID
Sample : WG2002632-5,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 26 09:13:18 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	12.035	105	65	N.D.		
103) sec-Butylbenzene	12.035	105	65	N.D.		
104) p-Isopropyltoluene	12.182	119	77	N.D.		
105) 1,3-Dichlorobenzene	12.260	146	471	N.D.		
106) 1,4-Dichlorobenzene	12.339	146	732	N.D.		
107) p-Diethylbenzene	0.000		0	N.D.		
108) n-Butylbenzene	12.617	91	301	N.D.		
109) 1,2-Dichlorobenzene	12.758	146	51	N.D.		
110) 1,2,4,5-Tetramethylben...	0.000		0	N.D.		
111) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
113) Hexachlorobutadiene	14.153	225	100	N.D.		
114) 1,2,4-Trichlorobenzene	14.184	180	353	N.D.		
115) Naphthalene	14.478	128	403	N.D.		
116) 1,2,3-Trichlorobenzene	14.635	180	241	N.D.		

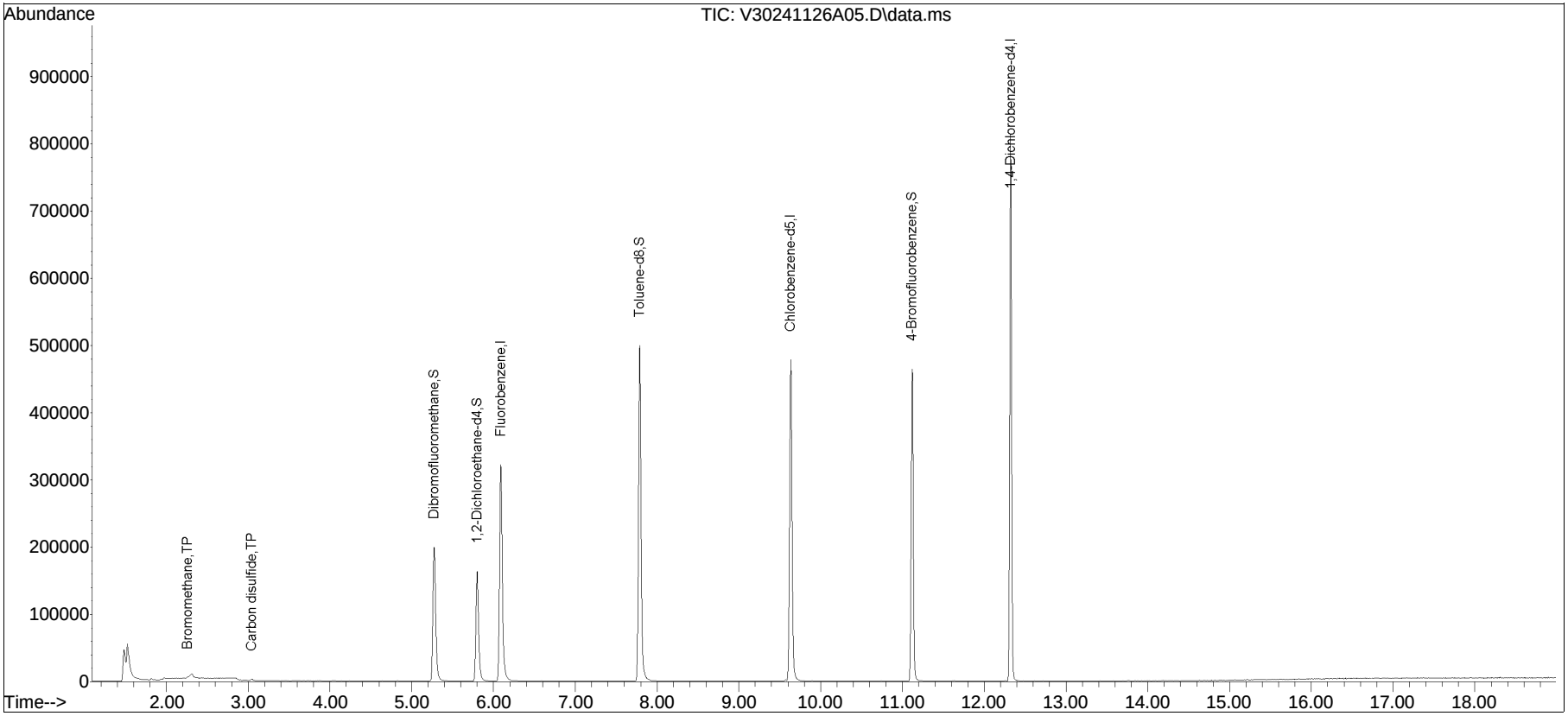
(#) = qualifier out of range (m) = manual integration (+) = signals summed

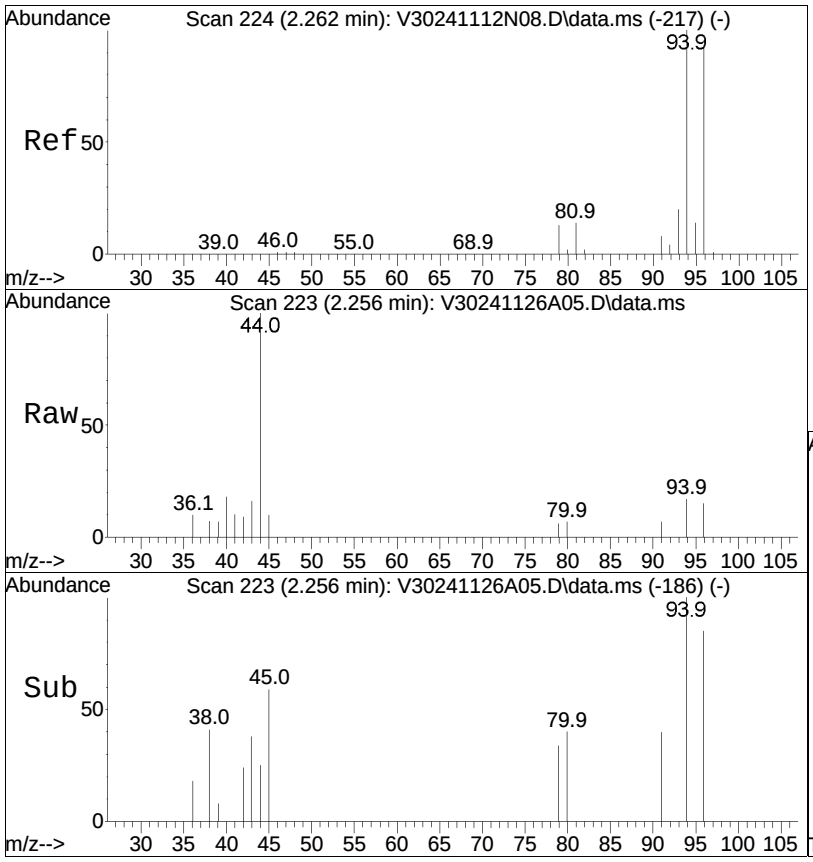
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A05.D
Acq On : 26 Nov 2024 08:15 am
Operator : VOA130:PID
Sample : WG2002632-5,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 26 09:13:18 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

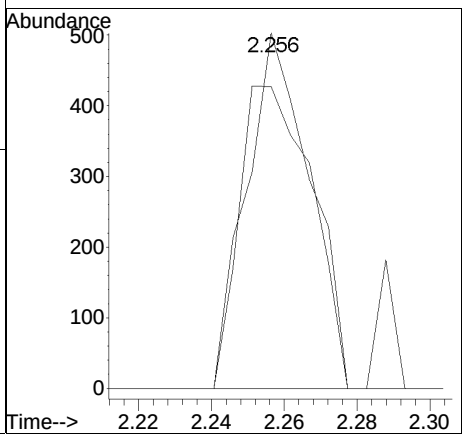


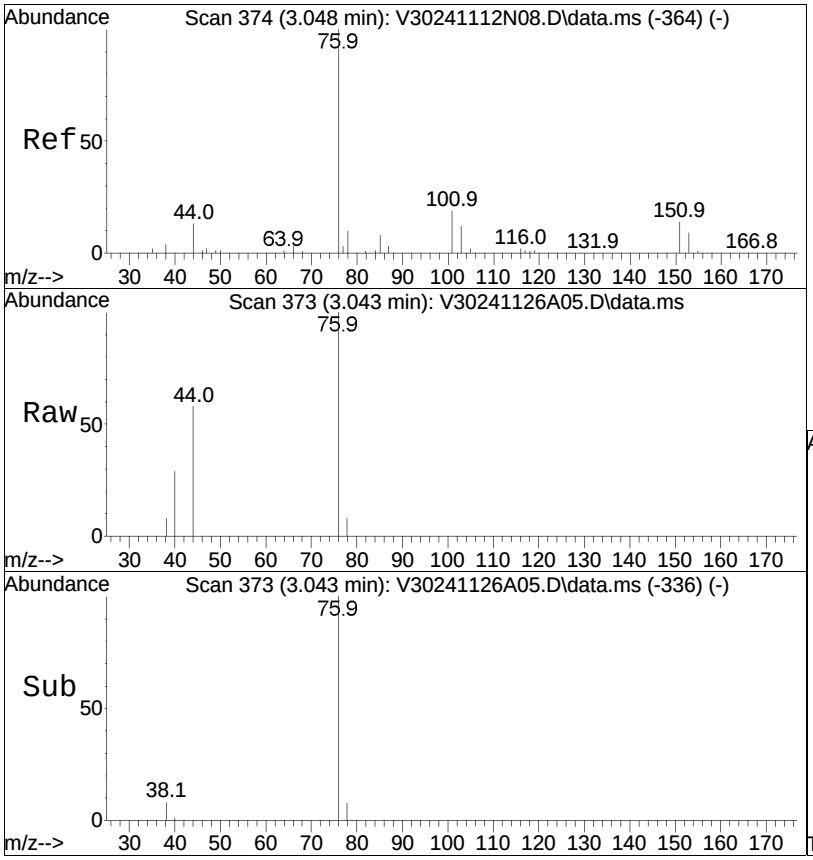


#5
Bromomethane
Concen: 0.11 ug/L
RT: 2.256 min Scan# 223
Delta R.T. -0.006 min
Lab File: V30241126A05.D
Acq: 26 Nov 2024 08:15 am

Tgt Ion: 94 Resp: 615

Ion	Ratio	Lower	Upper
94	100		
96	96.1	73.7	110.5

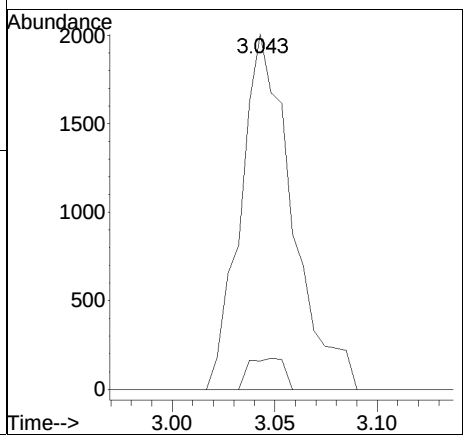




#11
Carbon disulfide
Concen: 0.16 ug/L
RT: 3.043 min Scan# 373
Delta R.T. -0.005 min
Lab File: V30241126A05.D
Acq: 26 Nov 2024 08:15 am

Tgt Ion: 76 Resp: 3517

Ion	Ratio	Lower	Upper
76	100		
78	6.0	6.4	13.4#



Manual Integration Report

Data Path	: K:\VOA130\2024\241126A\	QMethod	: V130_241112N_8260D.m
Data File	: V30241126A05.D	Operator	: VOA130:PID
Date Inj'd	: 11/26/2024 8:15 am	Instrument	: VOA130
Sample	: WG2002632-5,31,10,10	Quant Date	: 11/26/2024 9:11 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-3,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	428062	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery = 100.00%			
63) Chlorobenzene-d5	9.633	117	326733	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery = 100.00%			
84) 1,4-Dichlorobenzene-d4	12.323	152	222637	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery = 100.00%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.276	113	158388	10.764	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.64%			
47) 1,2-Dichloroethane-d4	5.795	65	163812	11.118	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.18%			
64) Toluene-d8	7.788	98	449780	10.262	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.62%			
88) 4-Bromofluorobenzene	11.117	95	176342	9.171	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.71%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	110432	10.680	ug/L	96
3) Chloromethane	1.868	50	132701	10.522	ug/L	97
4) Vinyl chloride	1.942	62	130385	10.521	ug/L	99
5) Bromomethane	2.256	94	48789	7.255	ug/L	98
6) Chloroethane	2.377	64	83444	10.996	ug/L	99
7) Trichlorofluoromethane	2.524	101	134962	9.719	ug/L	99
8) Ethyl ether	2.823	74	36713	10.316	ug/L	90
10) 1,1-Dichloroethene	3.011	96	89050	9.990	ug/L	80
11) Carbon disulfide	3.043	76	293361	10.932	ug/L	100
15) Methylene chloride	3.567	84	117433	10.674	ug/L	85
17) Acetone	3.604	43	18020	10.810	ug/L	96
18) trans-1,2-Dichloroethene	3.724	96	99766	10.420	ug/L	88
21) Methyl tert-butyl ether	3.829	73	103506	6.986	ug/L	94
25) 1,1-Dichloroethane	4.312	63	212092	10.644	ug/L	98
27) Acrylonitrile	4.343	53	21758	10.629	ug/L	96
29) Vinyl acetate	4.542	43	95729	6.830	ug/L #	95
30) cis-1,2-Dichloroethene	4.831	96	111995	10.288	ug/L	86
31) 2,2-Dichloropropane	4.936	77	141498	10.782	ug/L	85
33) Bromochloromethane	5.025	128	50649	10.375	ug/L #	70
35) Chloroform	5.093	83	193053	10.532	ug/L	94

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-3,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.240	117	92168	8.574	ug/L		95
40) 1,1,1-Trichloroethane	5.303	97	126482	9.649	ug/L		95
42) 2-Butanone	5.381	43	19727	9.811	ug/L		95
43) 1,1-Dichloropropene	5.423	75	82395	7.738	ug/L		97
45) Benzene	5.670	78	303768	9.511	ug/L		97
48) 1,2-Dichloroethane	5.869	62	113112	10.036	ug/L	#	98
52) Trichloroethene	6.267	95	68010	8.740	ug/L		96
54) Dibromomethane	6.702	93	51176	9.996	ug/L		92
55) 1,2-Dichloropropane	6.813	63	70953	8.454	ug/L		98
58) Bromodichloromethane	6.881	83	103181	9.056	ug/L		98
61) 1,4-Dioxane	7.090	88	21310	517.843	ug/L		96
62) cis-1,3-Dichloropropene	7.573	75	93662	8.029	ug/L	#	83
65) Toluene	7.845	92	194822	9.762	ug/L		99
66) 4-Methyl-2-pentanone	8.270	58	10768	7.356	ug/L	#	88
67) Tetrachloroethene	8.302	166	68891	9.515	ug/L		94
69) trans-1,3-Dichloropropene	8.323	75	78269	8.411	ug/L	#	81
72) 1,1,2-Trichloroethane	8.511	83	40609	9.139	ug/L		98
73) Chlorodibromomethane	8.721	129	52831	8.610	ug/L		99
74) 1,3-Dichloropropane	8.831	76	86149	8.807	ug/L		99
75) 1,2-Dibromoethane	9.004	107	42674	9.040	ug/L		99
77) 2-Hexanone	9.287	43	19254	7.172	ug/L		99
78) Chlorobenzene	9.654	112	205696	9.664	ug/L		89
79) Ethylbenzene	9.696	91	379795	9.672	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.738	131	52480	9.163	ug/L		100
81) p/m Xylene	9.885	106	318946	20.188	ug/L		95
82) o Xylene	10.420	106	301269	19.820	ug/L		96
83) Styrene	10.483	104	512262	20.506	ug/L		95
85) Bromoform	10.509	173	30359	7.823	ug/L		98
87) Isopropylbenzene	10.803	105	355159	8.554	ug/L		98
89) Bromobenzene	11.227	156	87445	8.710	ug/L		100
90) n-Propylbenzene	11.274	91	484317	9.272	ug/L		97
92) 1,1,2,2-Tetrachloroethane	11.358	83	55978	8.605	ug/L		99
93) 4-Ethyltoluene	11.400	105	394322	9.105	ug/L		99
94) 2-Chlorotoluene	11.442	91	304561M1	9.504	ug/L		
95) 1,3,5-Trimethylbenzene	11.500	105	346479	9.137	ug/L		98
96) 1,2,3-Trichloropropane	11.495	75	45600M4	8.596	ug/L		
97) trans-1,4-Dichloro-2-b...	11.547	53	15343	9.715	ug/L		95
98) 4-Chlorotoluene	11.626	91	312285	9.340	ug/L		96
99) tert-Butylbenzene	11.841	119	265507	8.630	ug/L		96

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-3,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.914	105	335206	9.113	ug/L	97
103) sec-Butylbenzene	12.029	105	407889	9.121	ug/L	95
104) p-Isopropyltoluene	12.181	119	348022	9.012	ug/L	97
105) 1,3-Dichlorobenzene	12.244	146	199379	9.444	ug/L	98
106) 1,4-Dichlorobenzene	12.339	146	201276	9.327	ug/L	99
107) p-Diethylbenzene	12.554	119	198679	8.744	ug/L	97
108) n-Butylbenzene	12.611	91	323371	9.631	ug/L	98
109) 1,2-Dichlorobenzene	12.758	146	181106	9.049	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.345	119	246181	7.691	ug/L	96
111) 1,2-Dibromo-3-chloropr...	13.534	155	9787	9.026	ug/L	99
113) Hexachlorobutadiene	14.148	225	43024	8.527	ug/L	99
114) 1,2,4-Trichlorobenzene	14.169	180	112437	8.589	ug/L	99
115) Naphthalene	14.457	128	216728	8.101	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	108334	8.885	ug/L	99

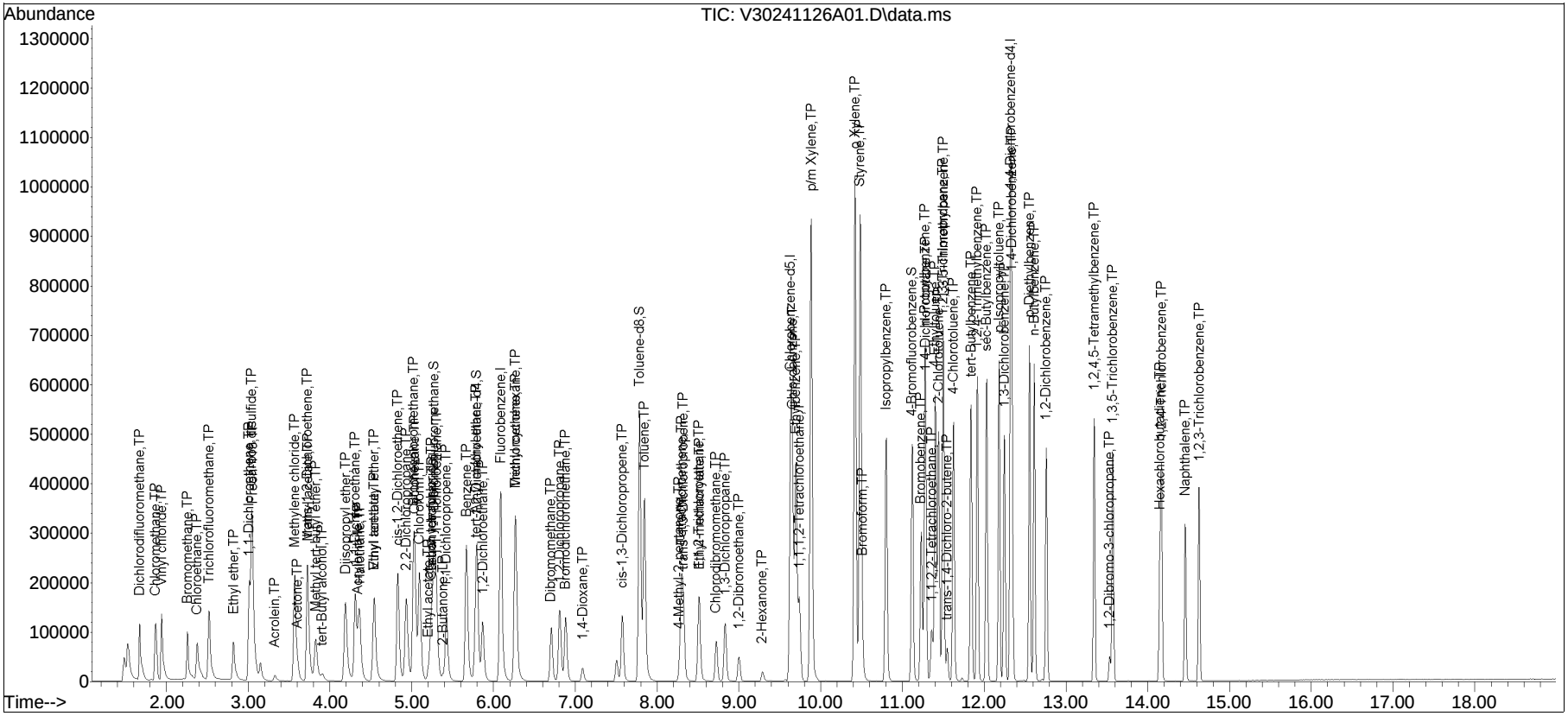
(#) = qualifier out of range (m) = manual integration (+) = signals summed

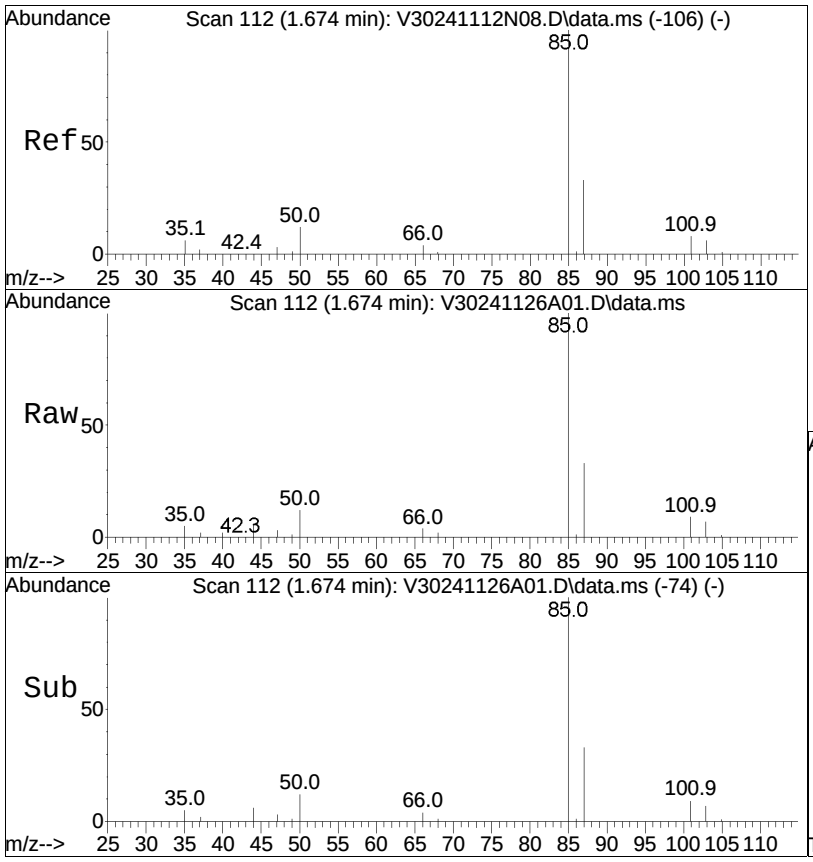
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Acq On : 26 Nov 2024 06:48 am
Operator : VOA130:PID
Sample : WG2002632-3,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 26 07:16:49 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

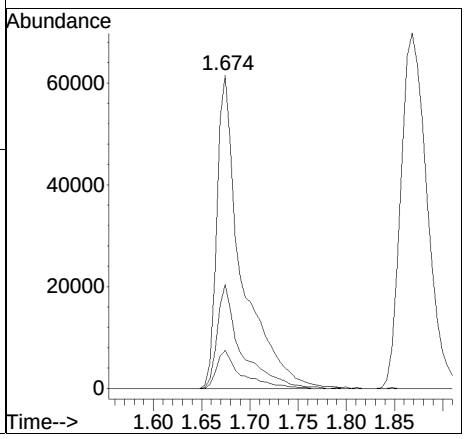


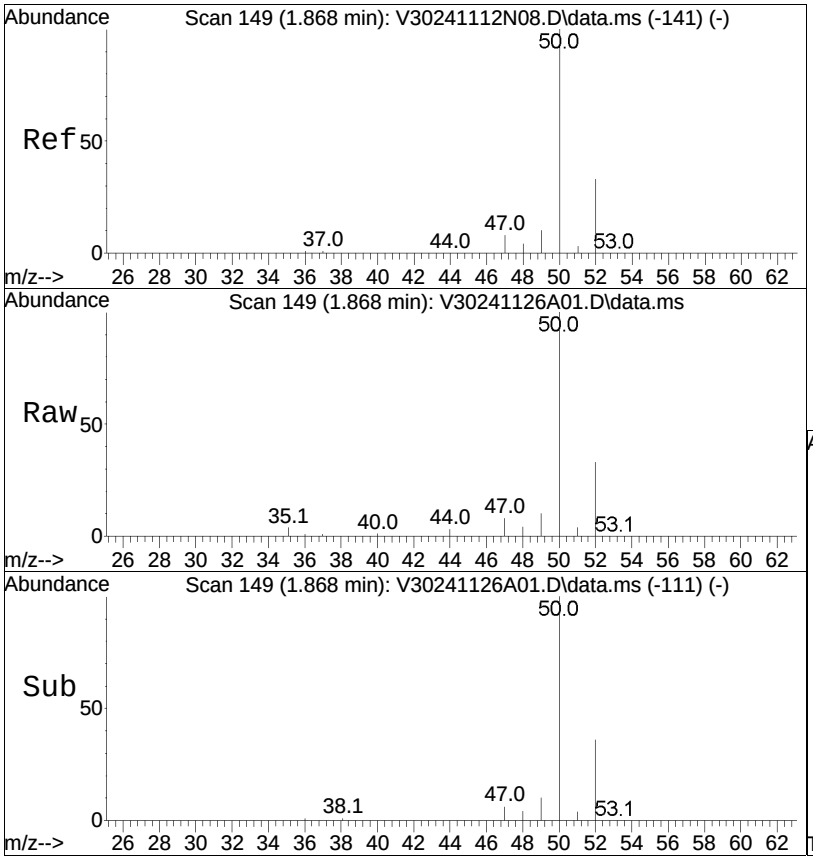


#2
Dichlorodifluoromethane
Concen: 10.68 ug/L
RT: 1.674 min Scan# 112
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 85 Resp: 110432

Ion	Ratio	Lower	Upper
85	100		
87	31.9	20.2	42.0
50	12.0	10.1	20.9

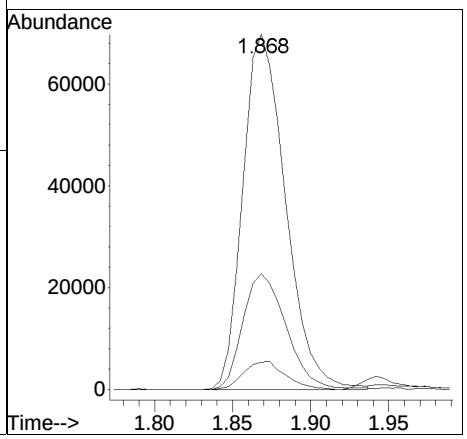


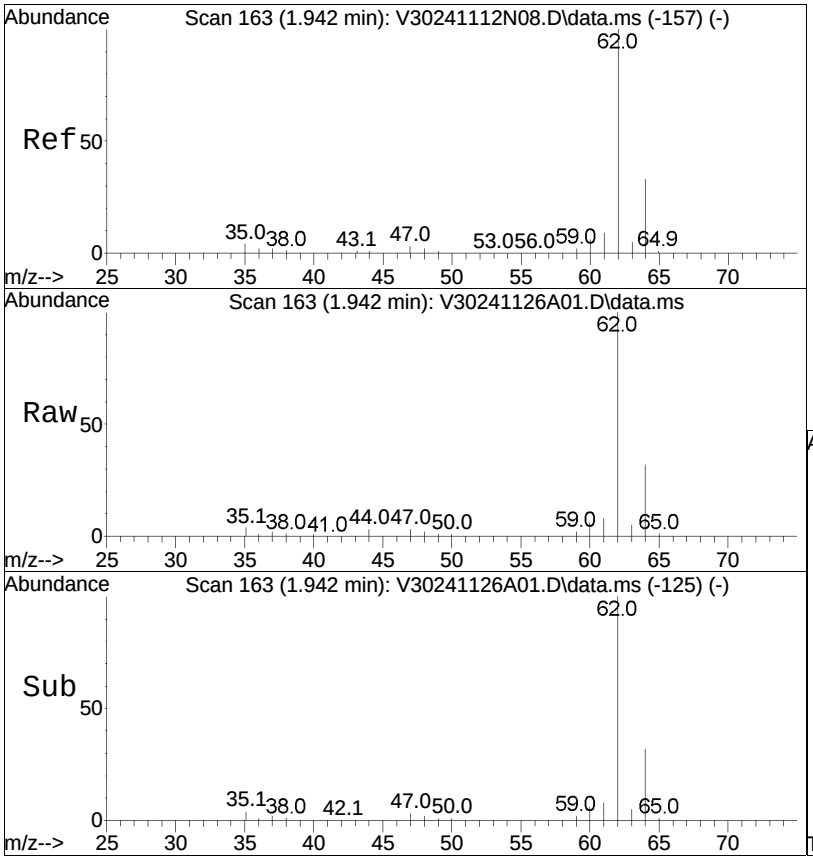


#3
Chloromethane
Concen: 10.52 ug/L
RT: 1.868 min Scan# 149
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 50 Resp: 132701

Ion	Ratio	Lower	Upper
50	100		
52	33.0	25.1	37.7
47	7.7	6.5	9.7

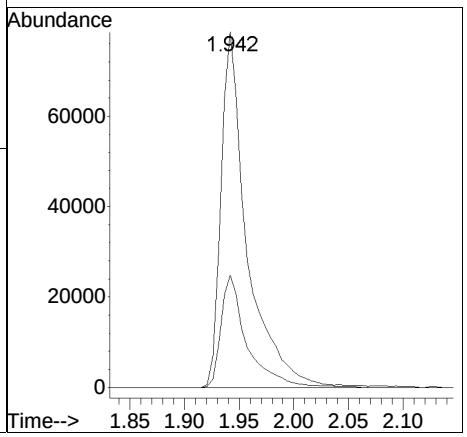


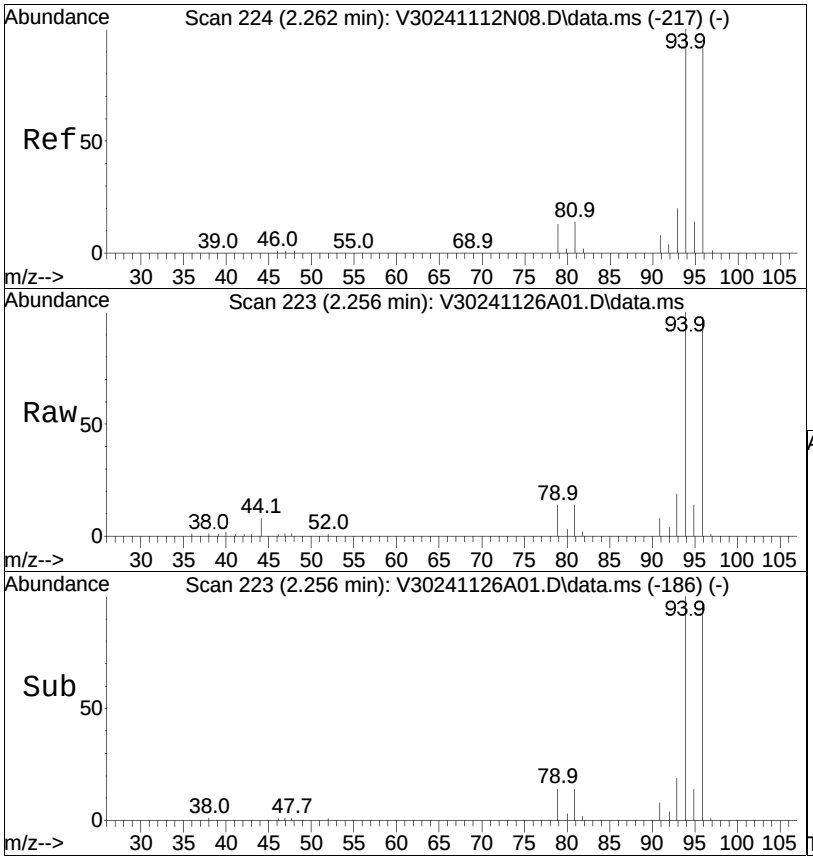


#4
Vinyl chloride
Concen: 10.52 ug/L
RT: 1.942 min Scan# 163
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 62 Resp: 130385

Ion	Ratio	Lower	Upper
62	100		
64	31.4	25.7	38.5

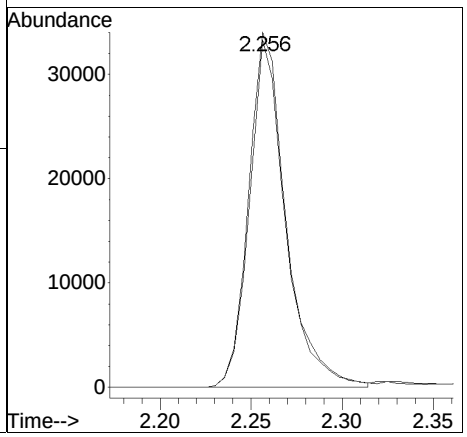


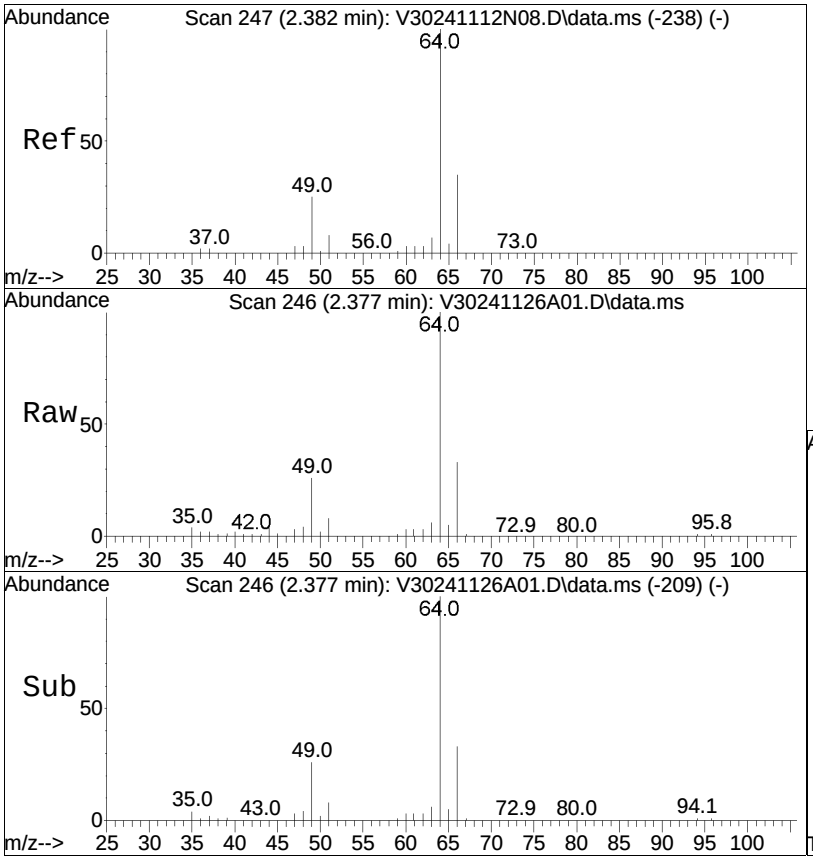


#5
Bromomethane
Concen: 7.26 ug/L
RT: 2.256 min Scan# 223
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 94 Resp: 48789

Ion	Ratio	Lower	Upper
94	100		
96	94.5	73.7	110.5

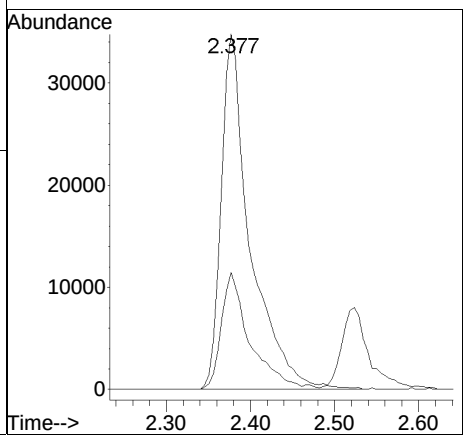


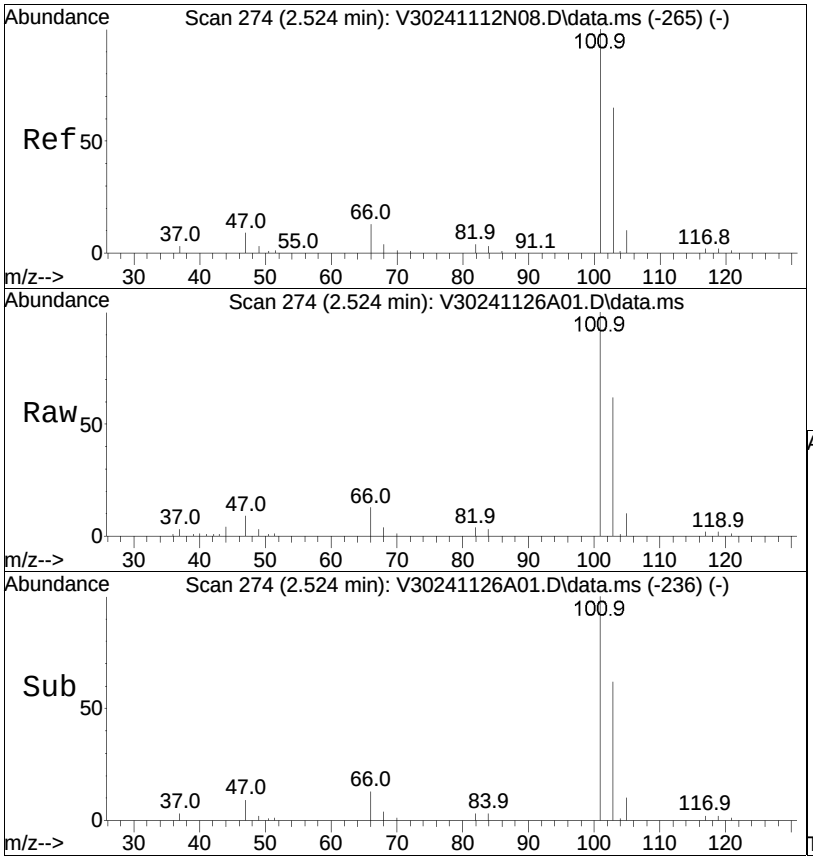


#6
Chloroethane
Concen: 11.00 ug/L
RT: 2.377 min Scan# 246
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 64 Resp: 83444

Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.3	37.9

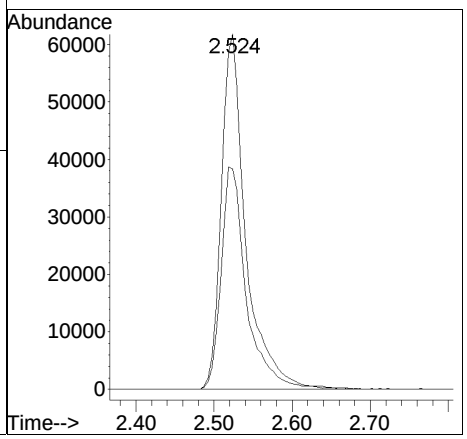


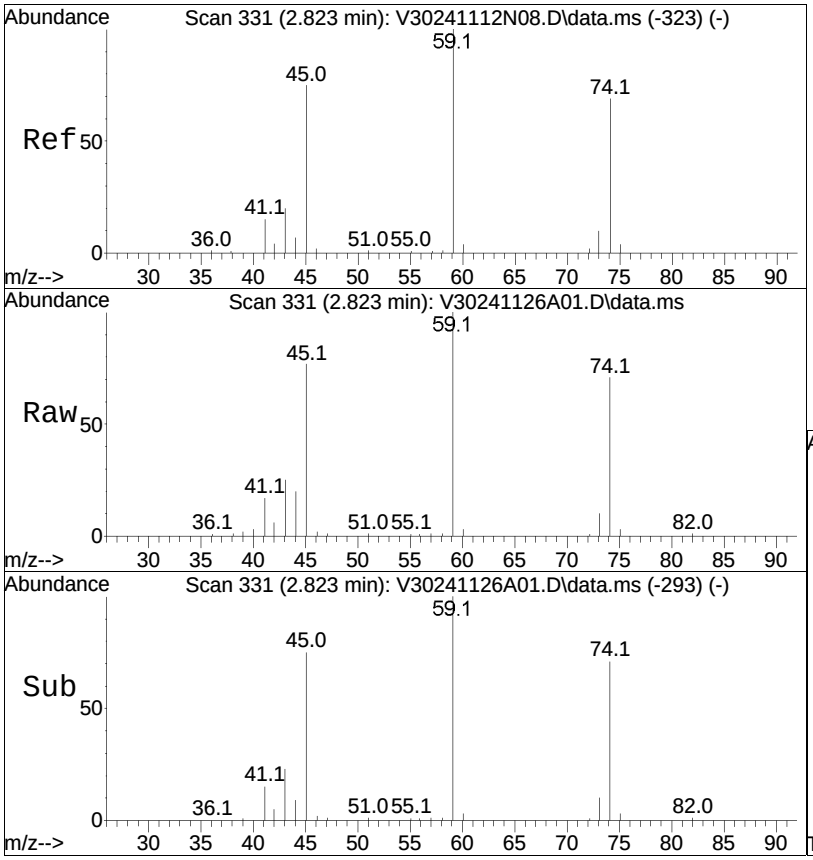


#7
Trichlorofluoromethane
Concen: 9.72 ug/L
RT: 2.524 min Scan# 274
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:101 Resp: 134962

Ion	Ratio	Lower	Upper
101	100		
103	64.5	51.0	76.4

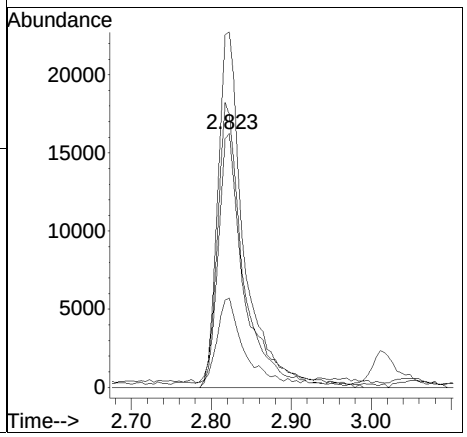


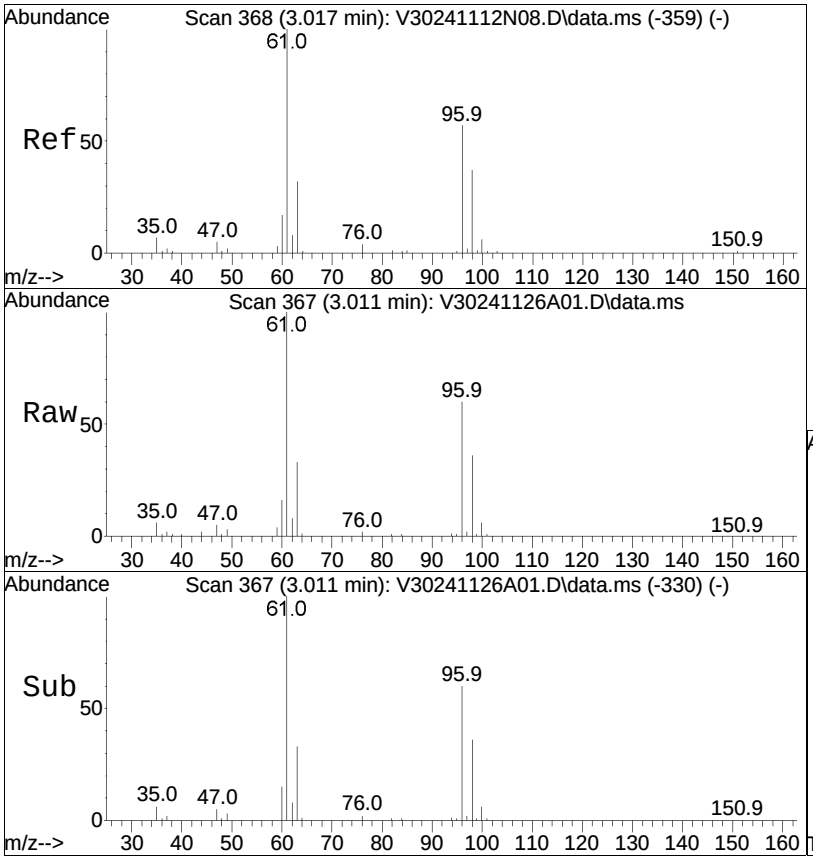


#8
Ethyl ether
Concen: 10.32 ug/L
RT: 2.823 min Scan# 331
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 74 Resp: 36713

Ion	Ratio	Lower	Upper
74	100		
59	142.9	97.6	202.8
45	107.0	80.6	167.4
43	31.9	24.8	51.6

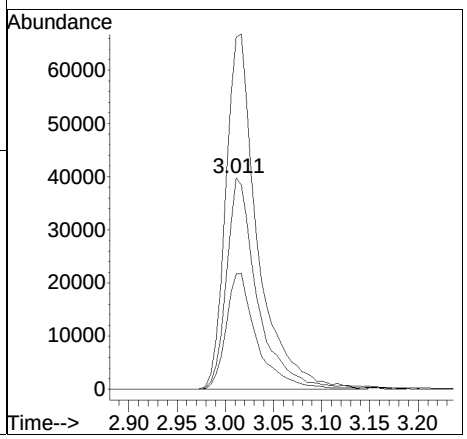


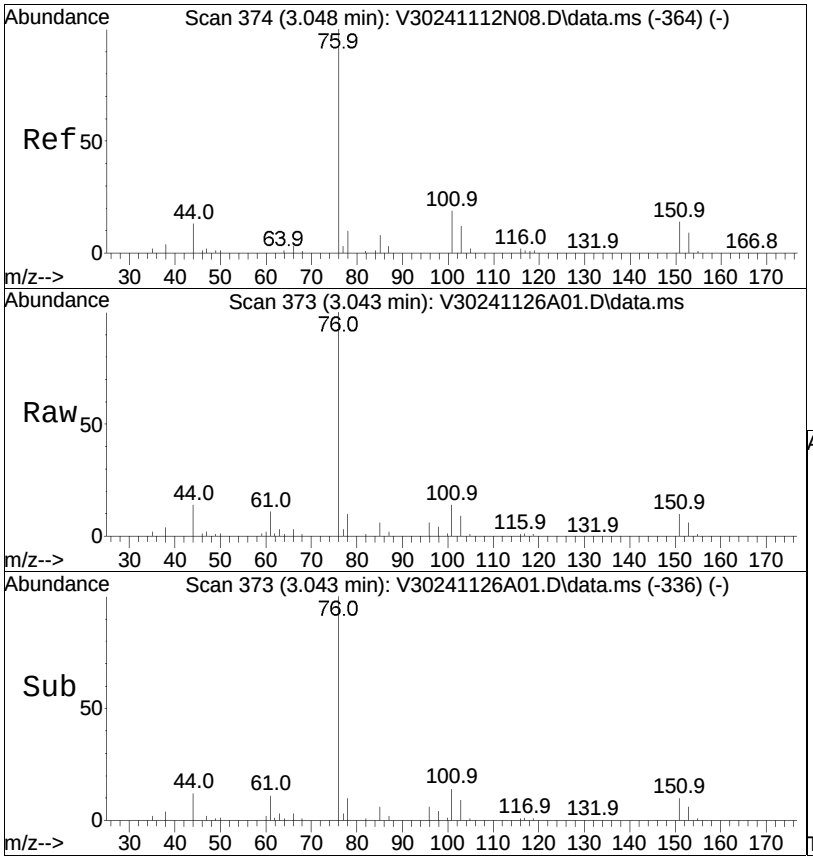


#10
1,1-Dichloroethene
Concen: 9.99 ug/L
RT: 3.011 min Scan# 367
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 96 Resp: 89050

Ion	Ratio	Lower	Upper
96	100		
61	173.2	165.5	248.3
63	55.1	51.9	77.9

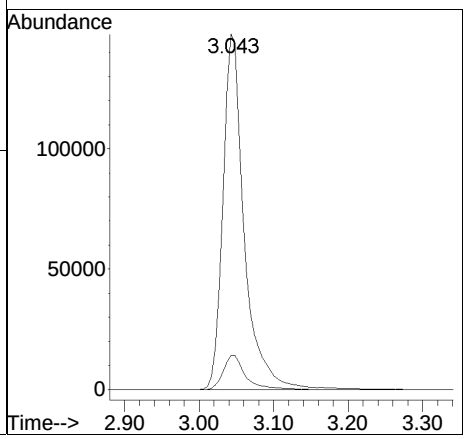


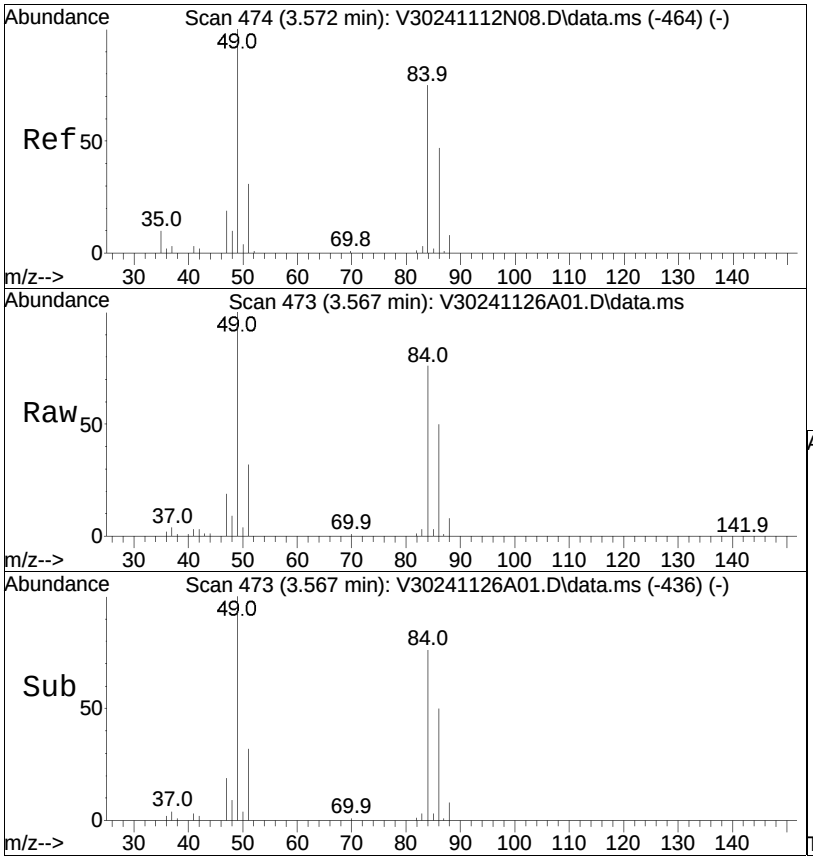


#11
Carbon disulfide
Concen: 10.93 ug/L
RT: 3.043 min Scan# 373
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 76 Resp: 293361

Ion	Ratio	Lower	Upper
76	100		
78	9.8	6.4	13.4

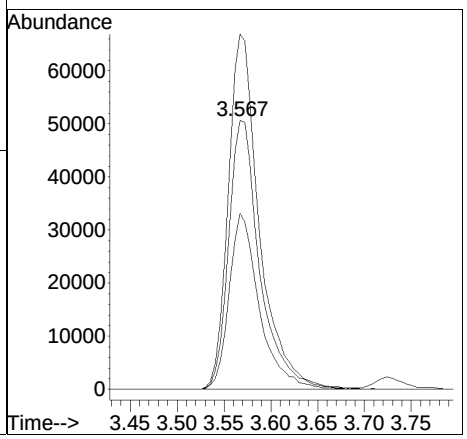


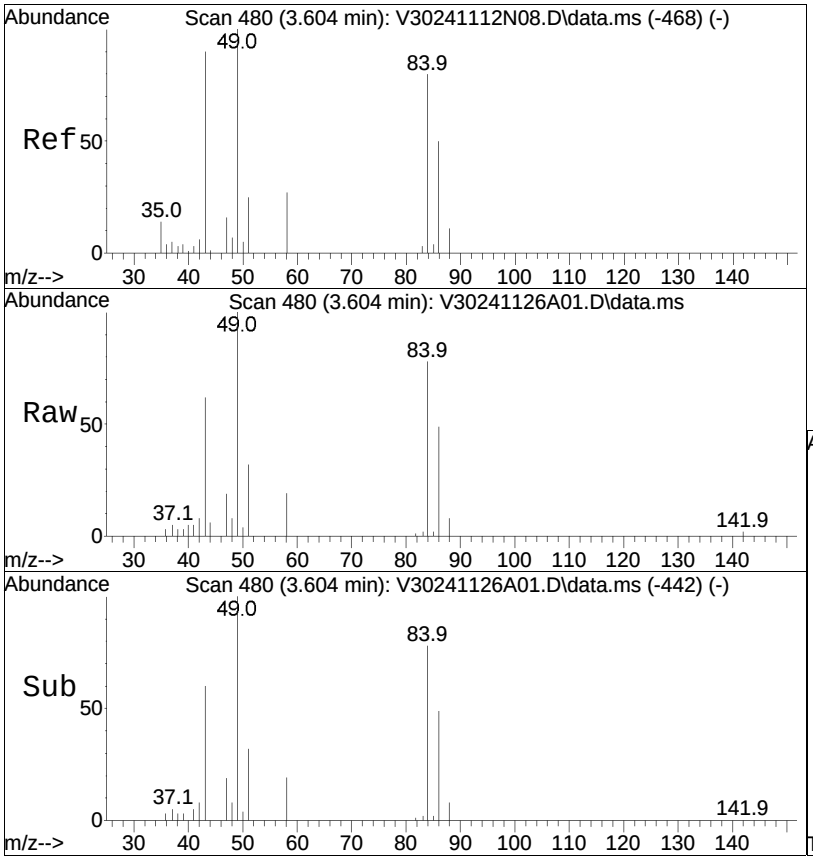


#15
Methylene chloride
Concen: 10.67 ug/L
RT: 3.567 min Scan# 473
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 84 Resp: 117433

Ion	Ratio	Lower	Upper
84	100		
86	63.7	41.7	86.5
49	131.7	103.9	215.9

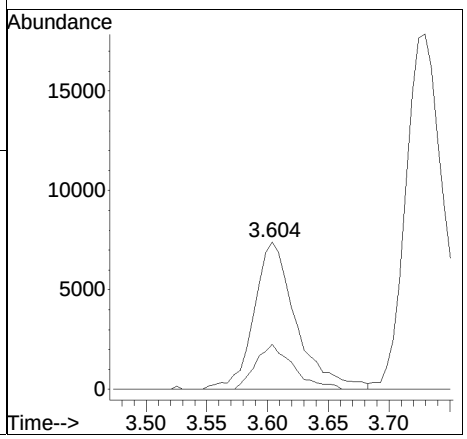


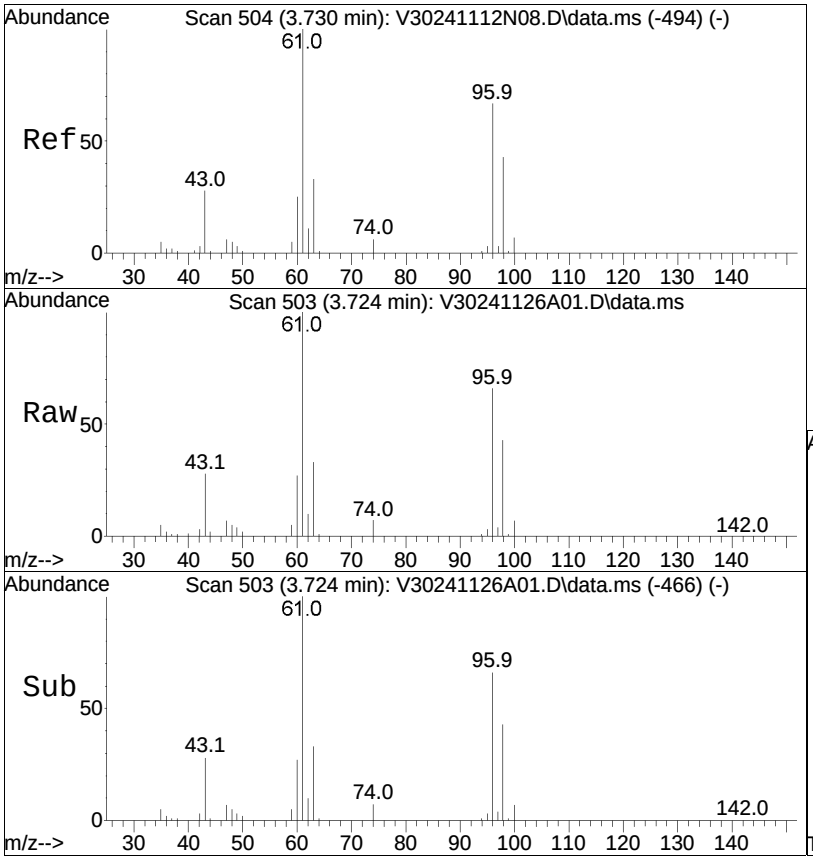


#17
Acetone
Concen: 10.81 ug/L
RT: 3.604 min Scan# 480
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 43 Resp: 18020

Ion	Ratio	Lower	Upper
43	100		
58	27.3	20.1	30.1

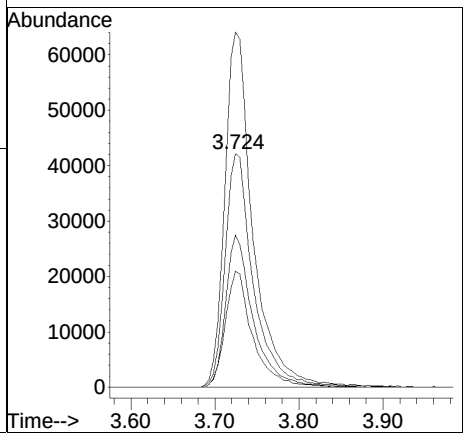


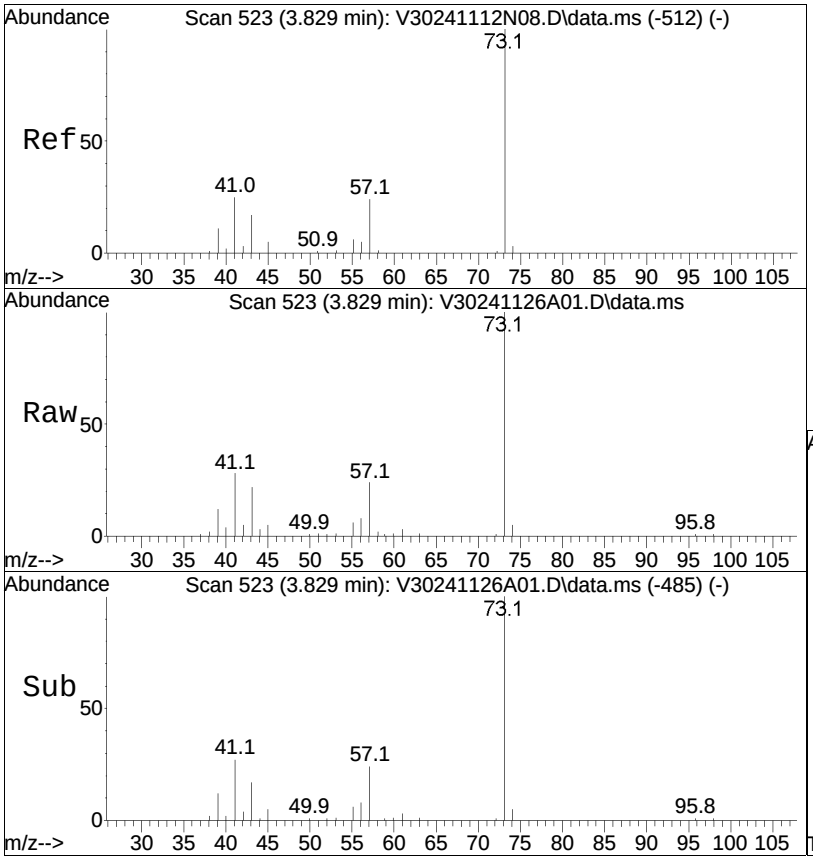


#18
trans-1,2-Dichloroethene
Concen: 10.42 ug/L
RT: 3.724 min Scan# 503
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 96 Resp: 99766

Ion	Ratio	Lower	Upper
96	100		
61	151.1	113.6	236.0
98	63.2	40.8	84.8
63	47.9	36.5	75.7

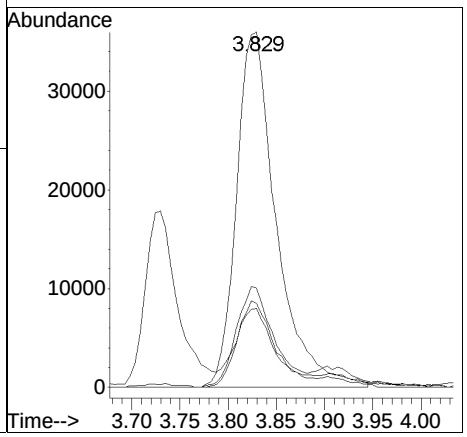


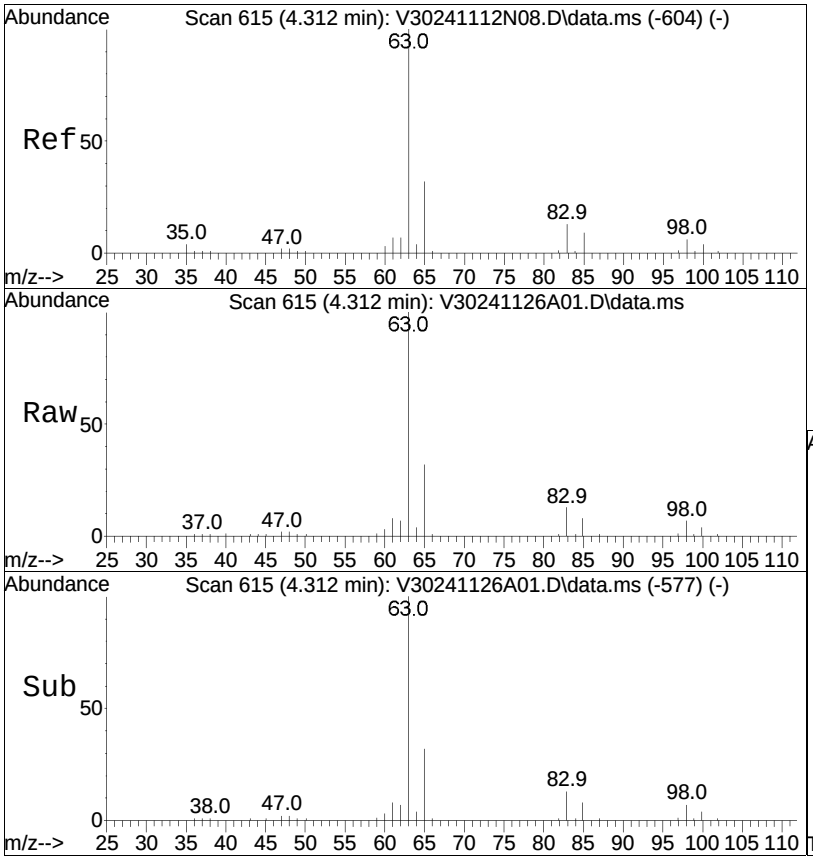


#21
Methyl tert-butyl ether
Concen: 6.99 ug/L
RT: 3.829 min Scan# 523
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 73 Resp: 103506

Ion	Ratio	Lower	Upper
73	100		
57	23.3	15.5	32.1
43	17.2	16.6	34.6
41	27.1	17.2	35.6

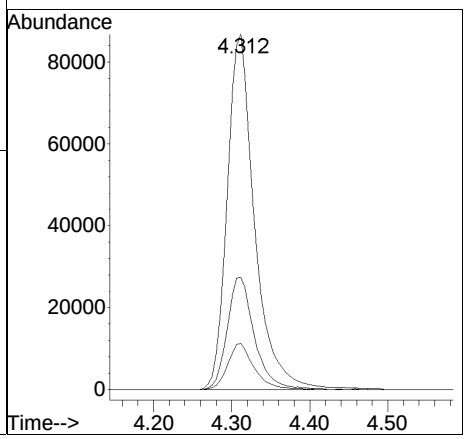


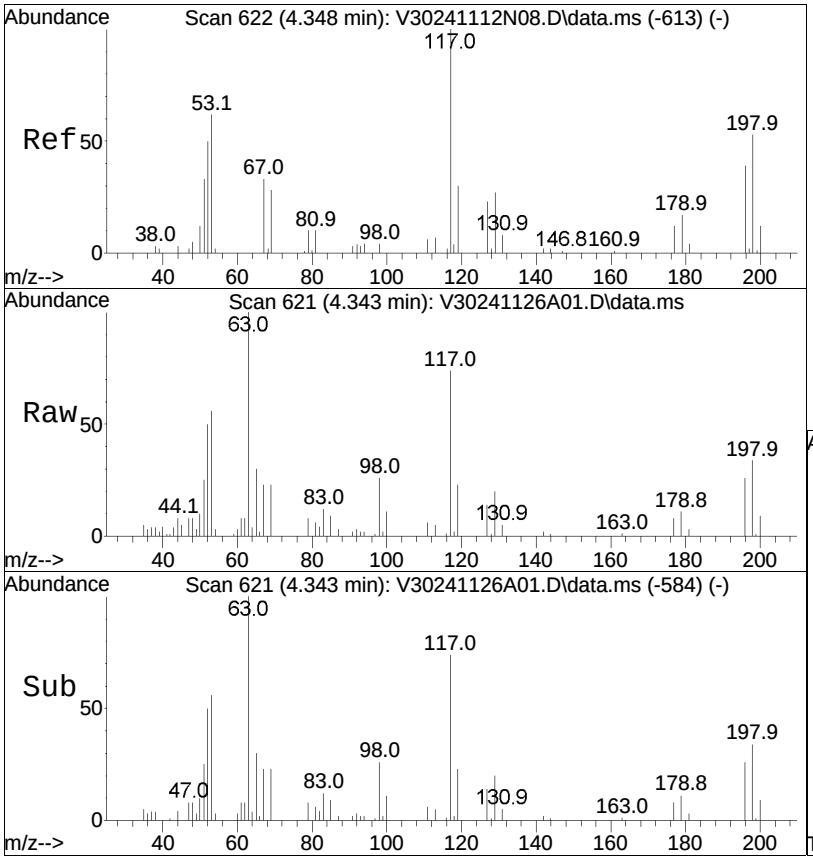


#25
1,1-Dichloroethane
Concen: 10.64 ug/L
RT: 4.312 min Scan# 615
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 63 Resp: 212092

Ion	Ratio	Lower	Upper
63	100		
65	31.1	24.5	36.7
83	12.4	8.9	13.3

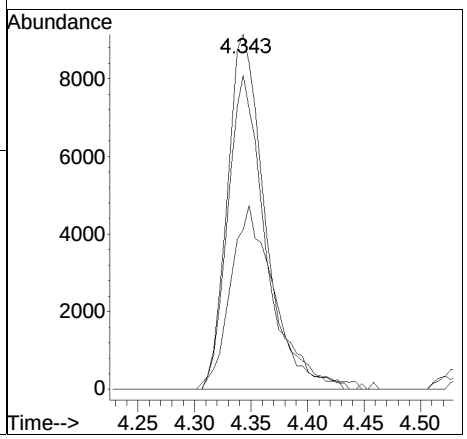


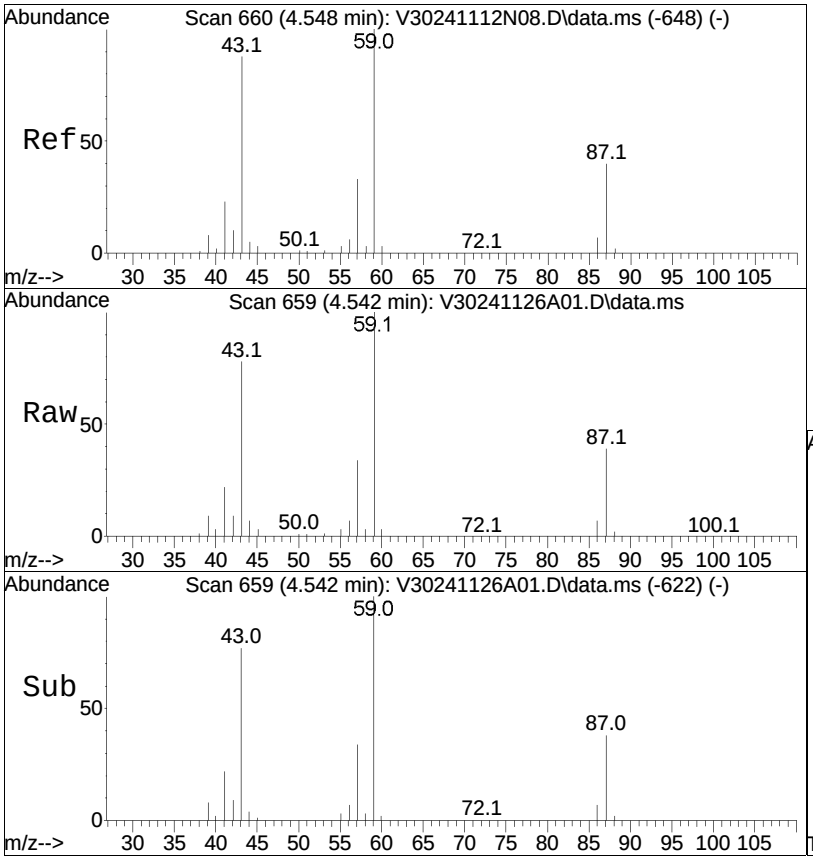


#27
Acrylonitrile
Concen: 10.63 ug/L
RT: 4.343 min Scan# 621
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 53 Resp: 21758

Ion	Ratio	Lower	Upper
53	100		
52	86.2	69.0	103.6
51	58.9	41.8	62.8

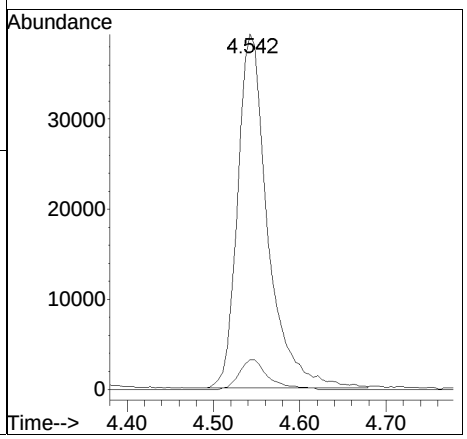


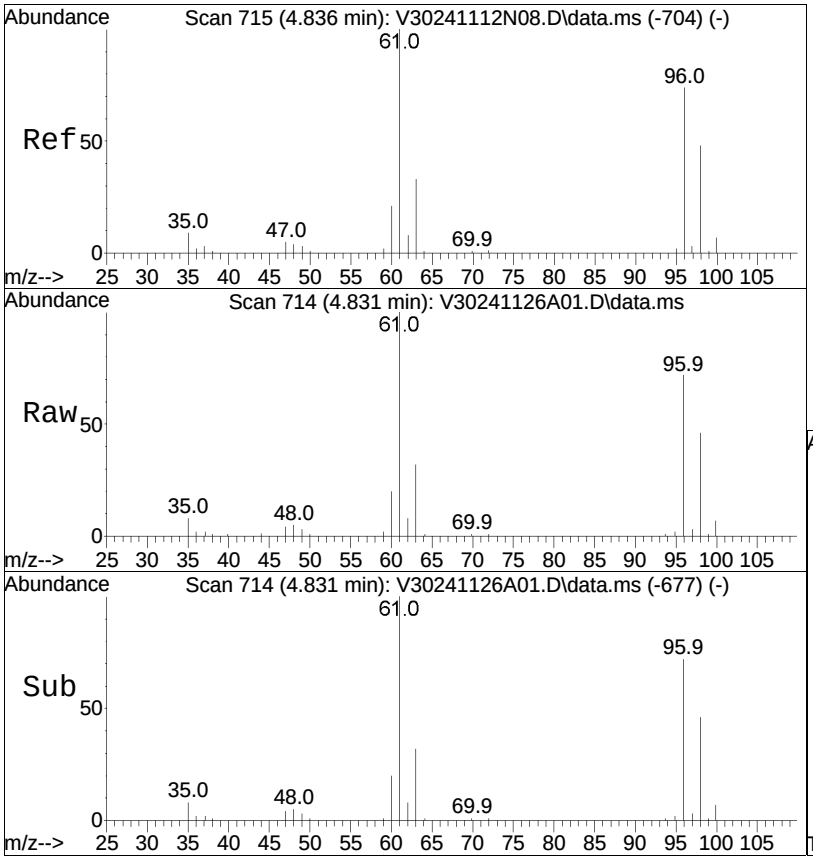


#29
Vinyl acetate
Concen: 6.83 ug/L
RT: 4.542 min Scan# 659
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 43 Resp: 95729

Ion	Ratio	Lower	Upper
43	100		
86	8.1	5.0	7.6#

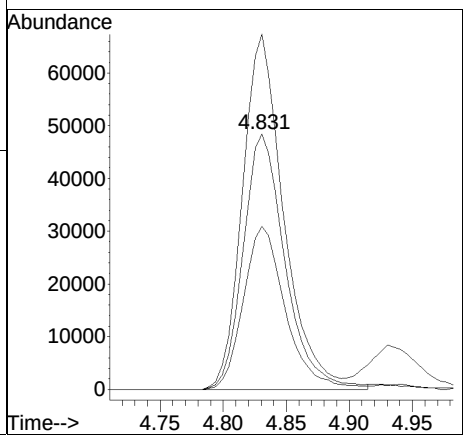


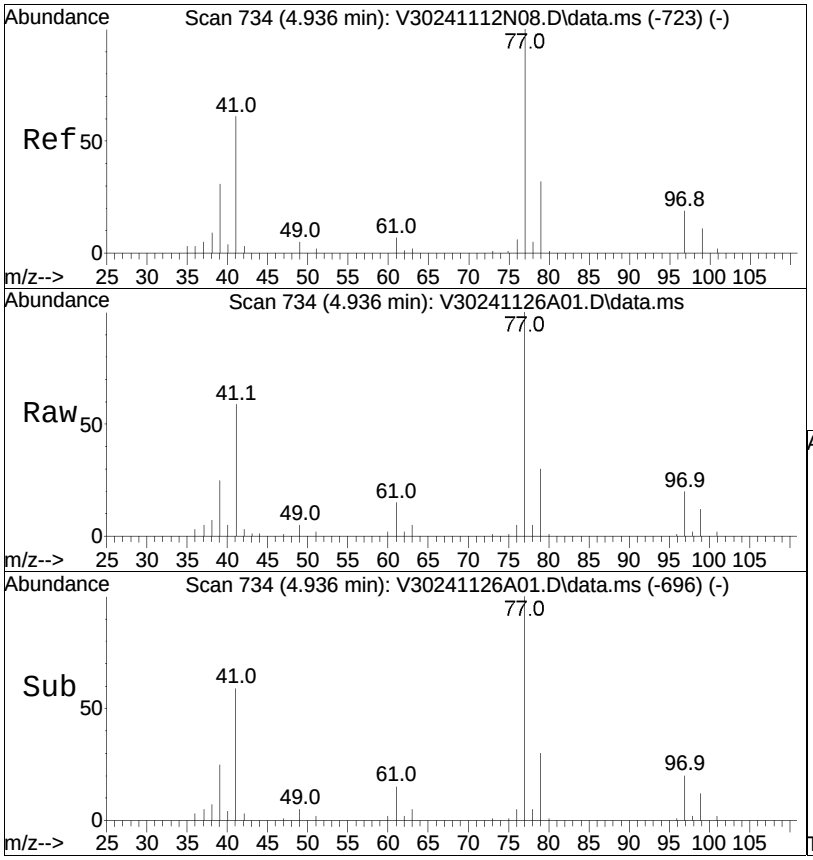


#30
cis-1,2-Dichloroethene
Concen: 10.29 ug/L
RT: 4.831 min Scan# 714
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 96 Resp: 111995

Ion	Ratio	Lower	Upper
96	100		
61	136.1	129.3	193.9
98	64.1	51.4	77.2

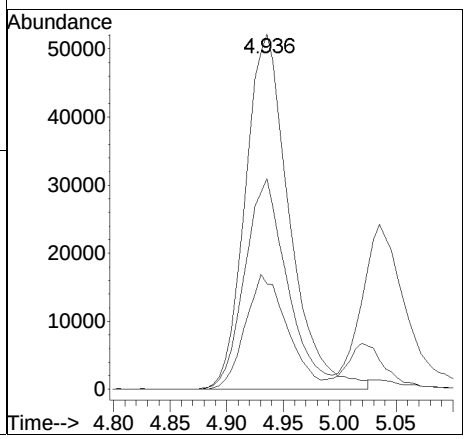


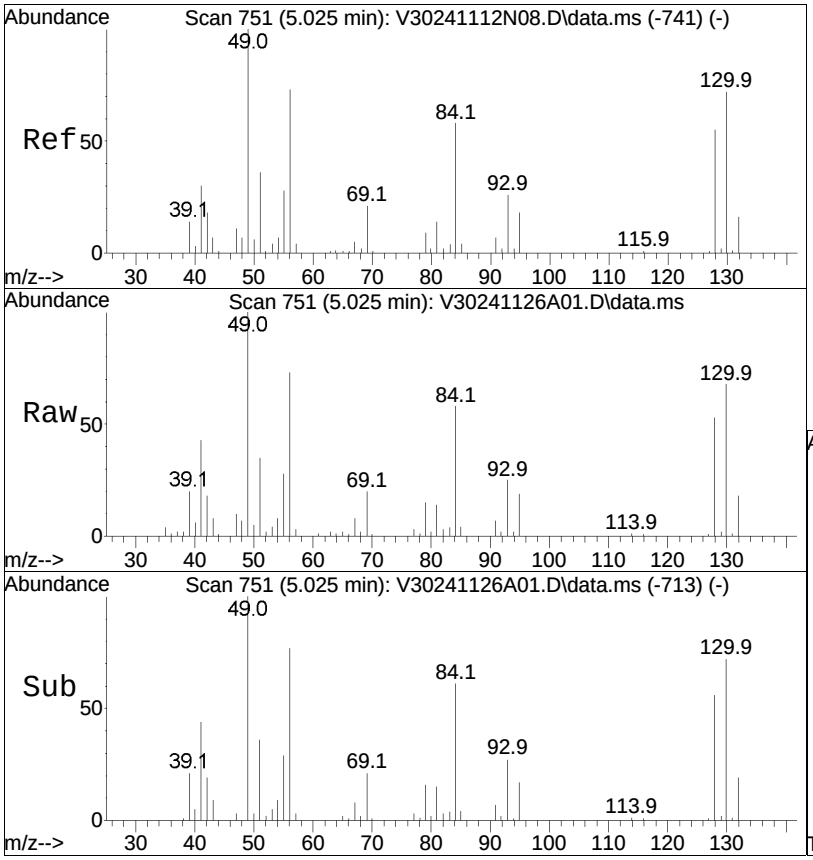


#31
2,2-Dichloropropane
Concen: 10.78 ug/L
RT: 4.936 min Scan# 734
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 77 Resp: 141498

Ion	Ratio	Lower	Upper
77	100		
41	57.4	49.2	102.2
79	30.9	20.6	42.8

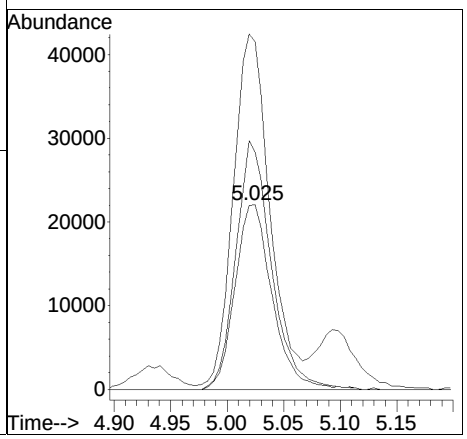


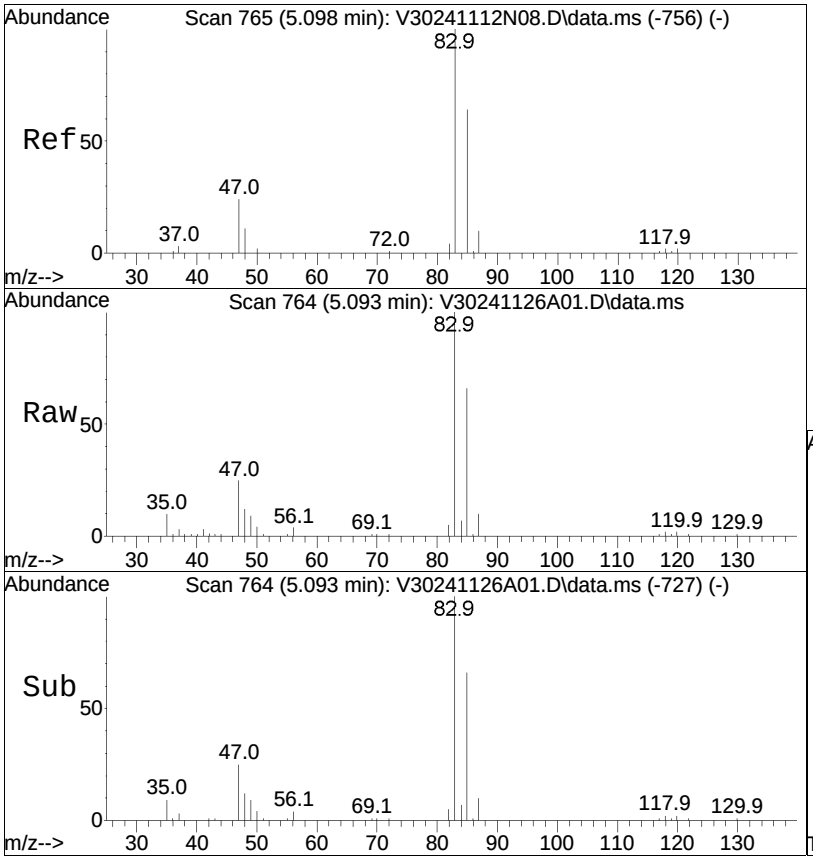


#33
Bromochloromethane
Concen: 10.37 ug/L
RT: 5.025 min Scan# 751
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:128 Resp: 50649

Ion	Ratio	Lower	Upper
128	100		
49	189.3	214.8	322.2#
130	128.6	105.4	158.2

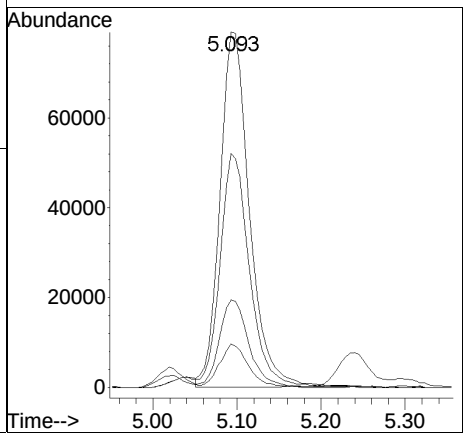


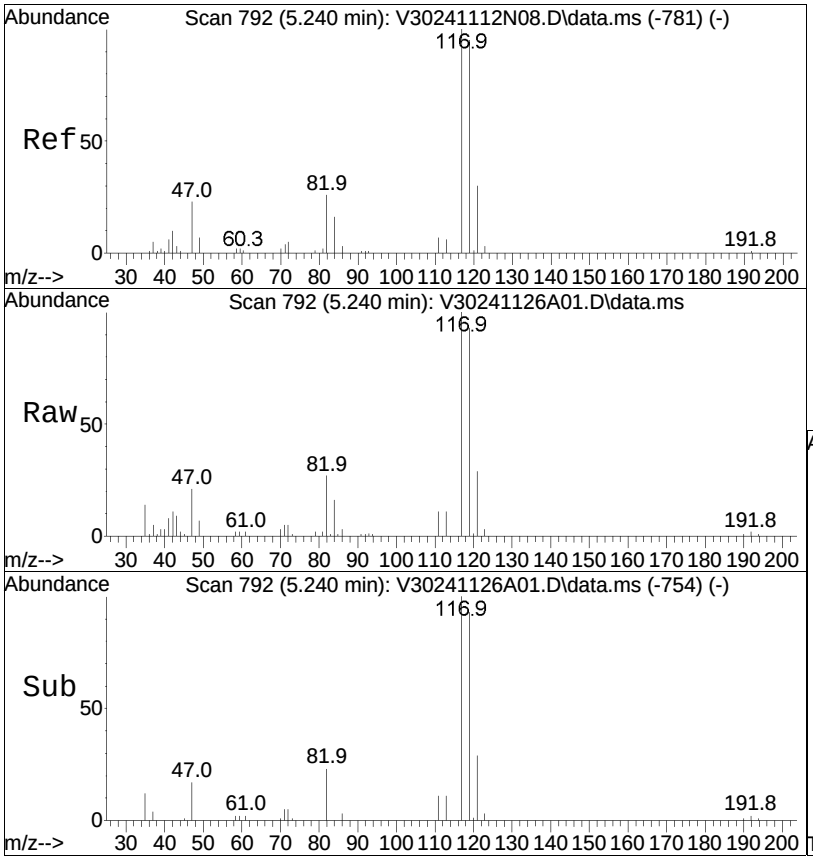


#35
Chloroform
Concen: 10.53 ug/L
RT: 5.093 min Scan# 764
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 83 Resp: 193053

Ion	Ratio	Lower	Upper
83	100		
85	65.0	41.4	86.0
47	24.0	20.5	42.5
48	11.9	9.9	20.5

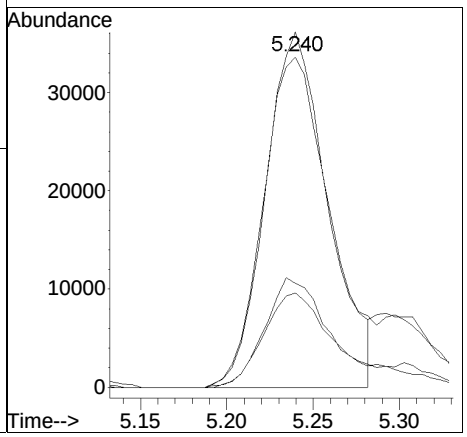


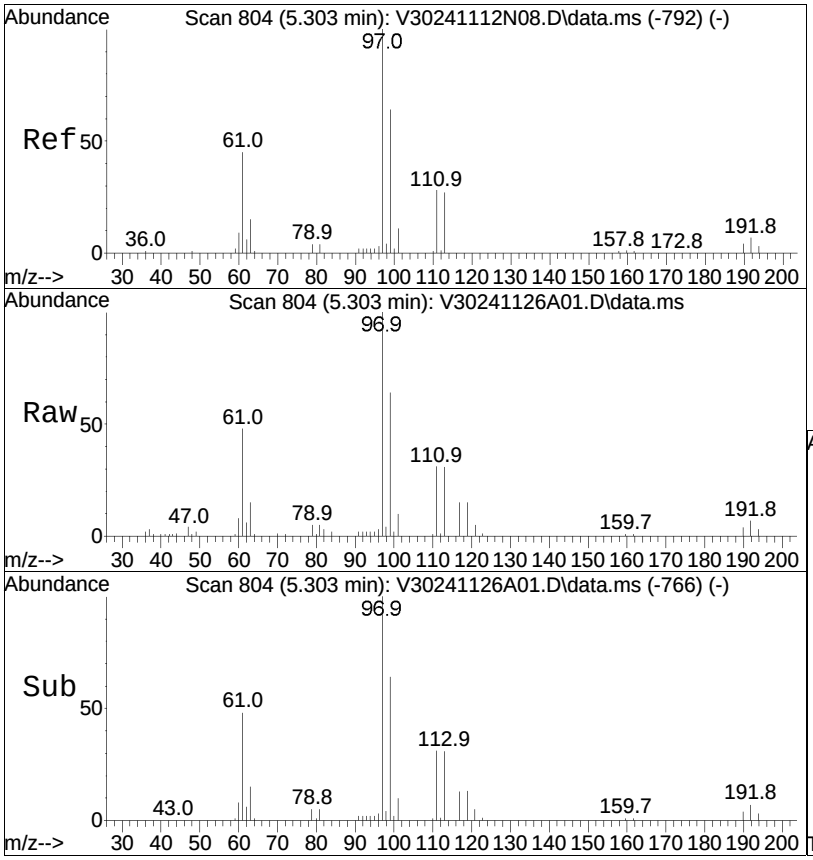


#37
Carbon tetrachloride
Concen: 8.57 ug/L
RT: 5.240 min Scan# 792
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:117 Resp: 92168

Ion	Ratio	Lower	Upper
117	100		
119	98.6	62.0	128.8
121	33.2	19.6	40.6
82	33.1	18.8	39.0

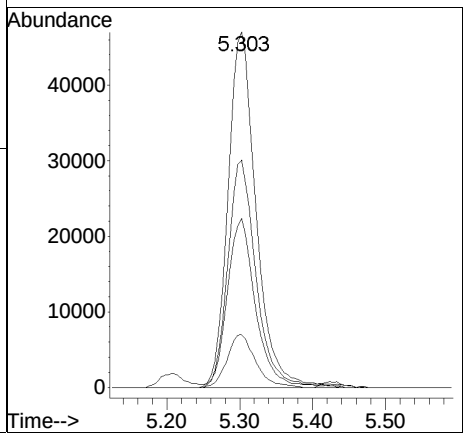


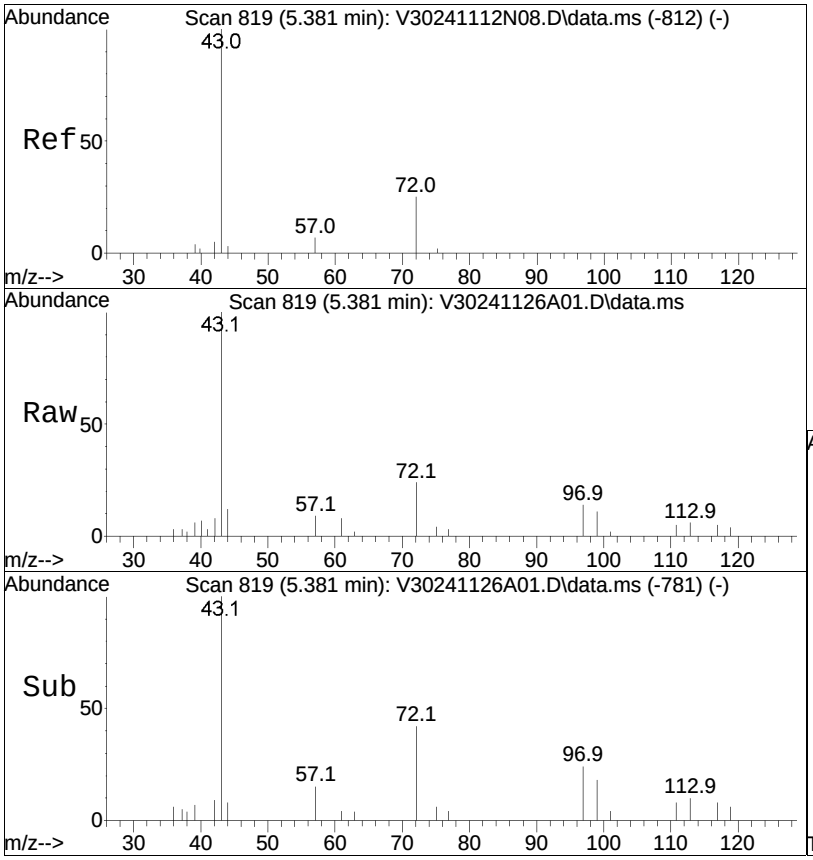


#40
1,1,1-Trichloroethane
Concen: 9.65 ug/L
RT: 5.303 min Scan# 804
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 97 Resp: 126482

Ion	Ratio	Lower	Upper
97	100		
99	63.6	40.6	84.4
61	47.2	35.0	72.8
63	15.0	11.1	23.0

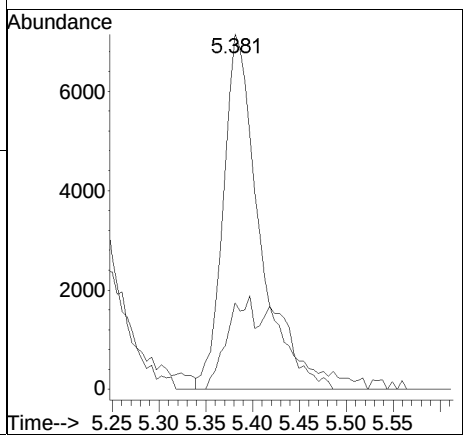


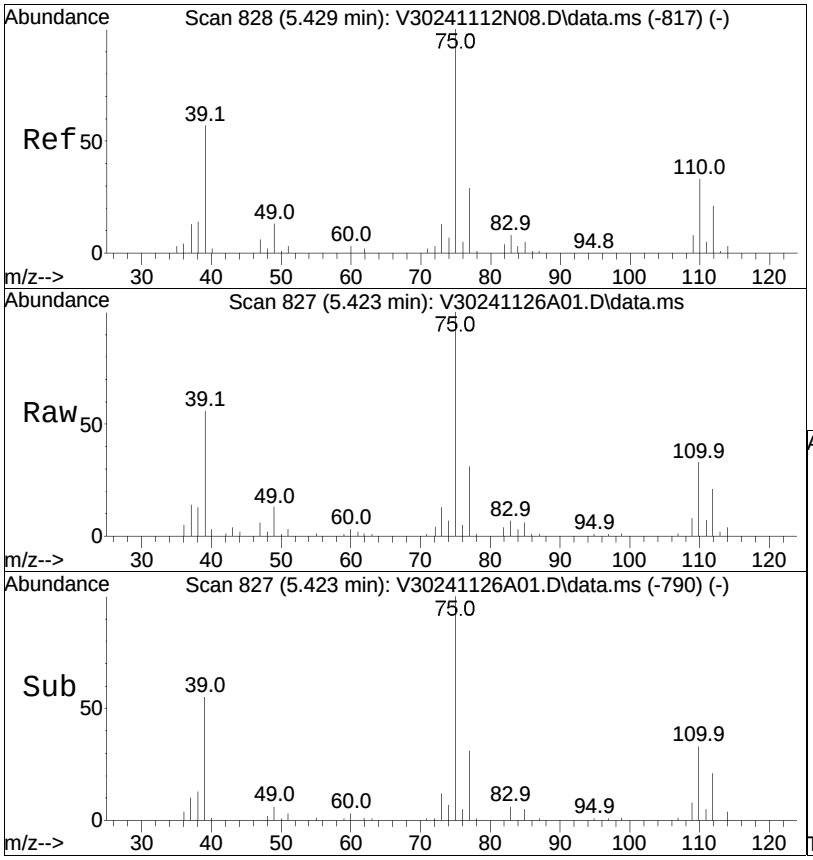


#42
2-Butanone
Concen: 9.81 ug/L
RT: 5.381 min Scan# 819
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 43 Resp: 19727

Ion	Ratio	Lower	Upper
43	100		
72	20.5	18.2	27.4

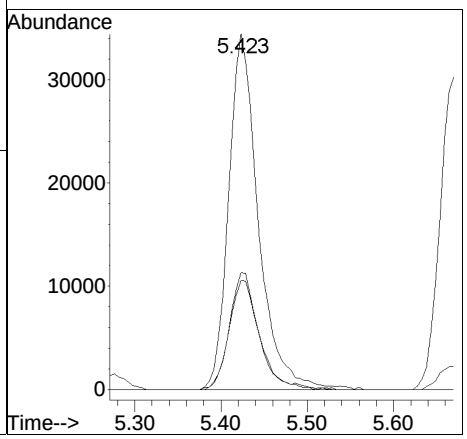


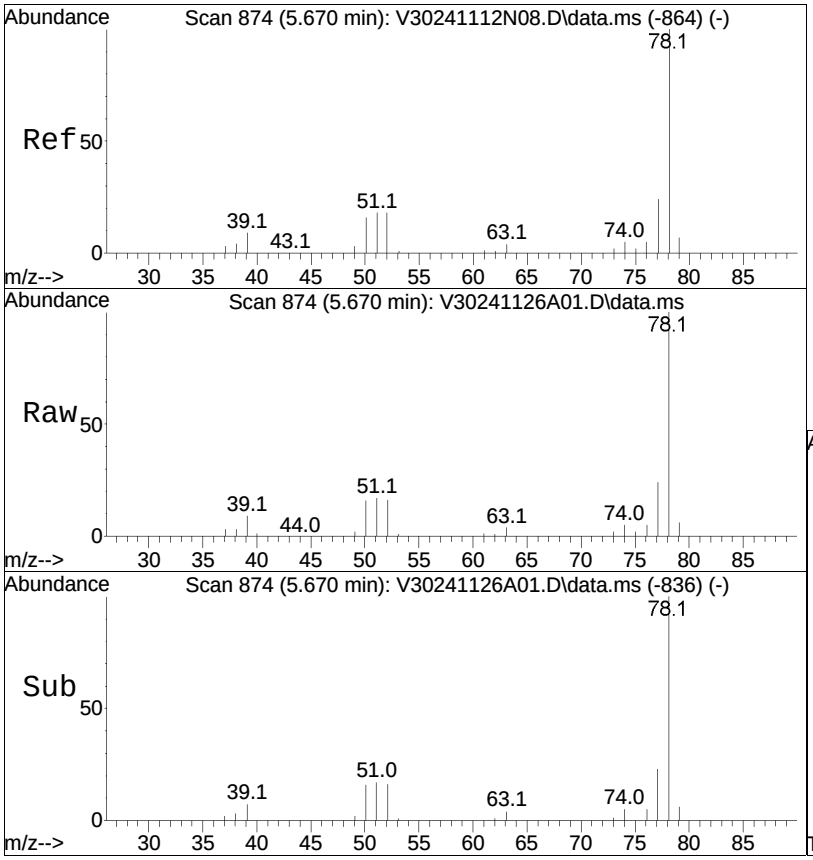


#43
1,1-Dichloropropene
Concen: 7.74 ug/L
RT: 5.423 min Scan# 827
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 75 Resp: 82395

Ion	Ratio	Lower	Upper
75	100		
110	32.6	19.4	40.4
77	31.0	19.7	40.9

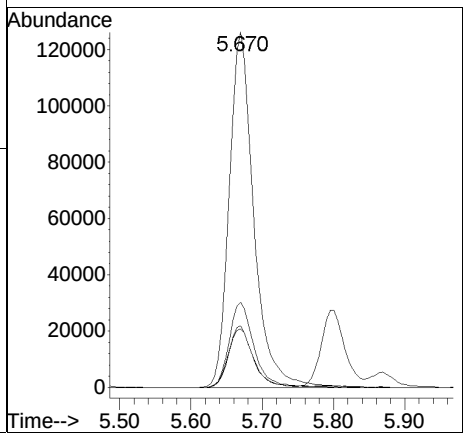


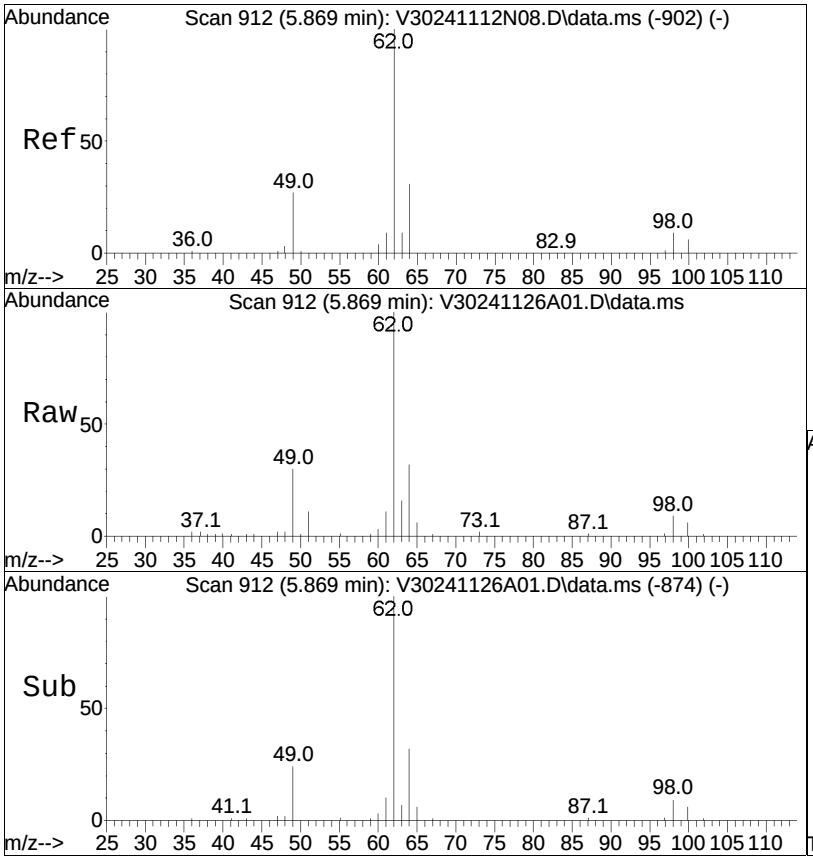


#45
Benzene
Concen: 9.51 ug/L
RT: 5.670 min Scan# 874
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 78 Resp: 303768

Ion	Ratio	Lower	Upper
78	100		
77	24.0	15.6	32.4
51	17.2	12.9	26.7
52	16.7	12.4	25.7

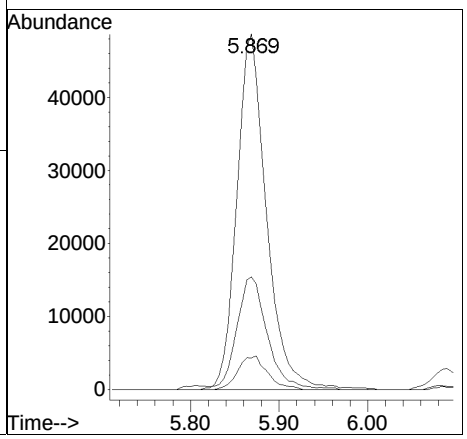


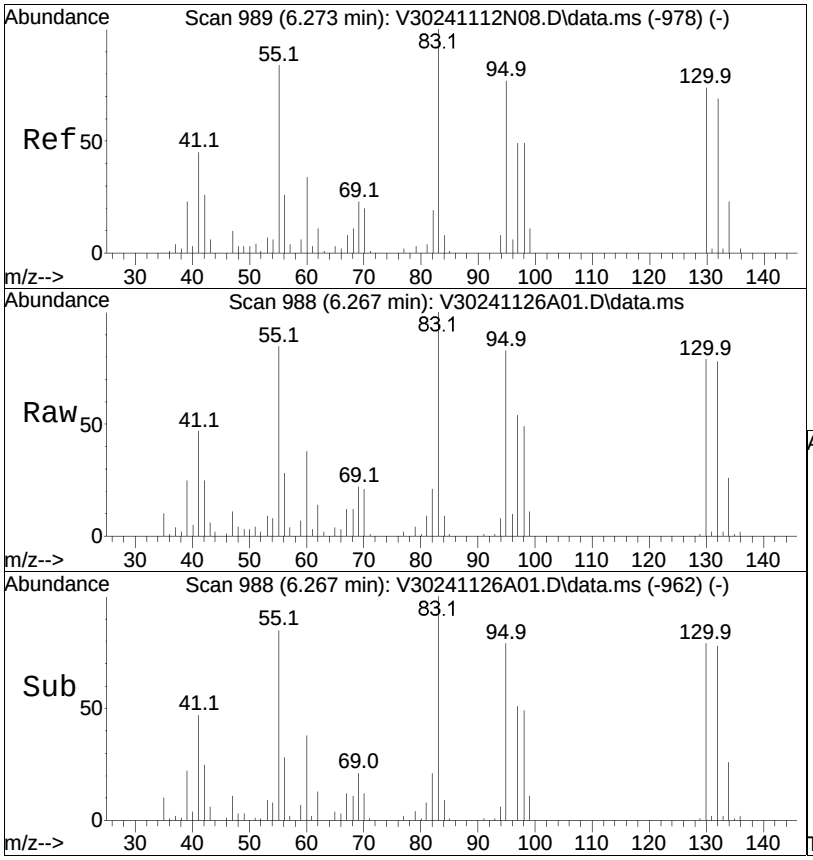


#48
1,2-Dichloroethane
Concen: 10.04 ug/L
RT: 5.869 min Scan# 912
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 62 Resp: 113112

Ion	Ratio	Lower	Upper
62	100		
64	32.5	25.5	38.3
98	9.3	5.5	8.3#

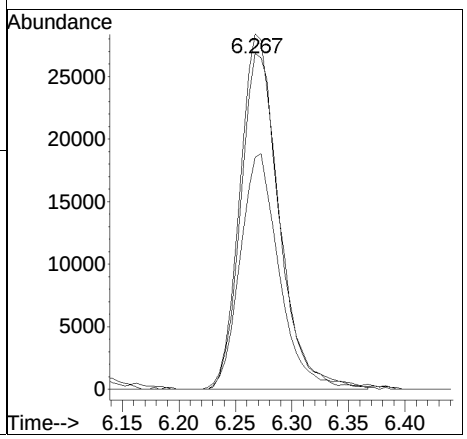


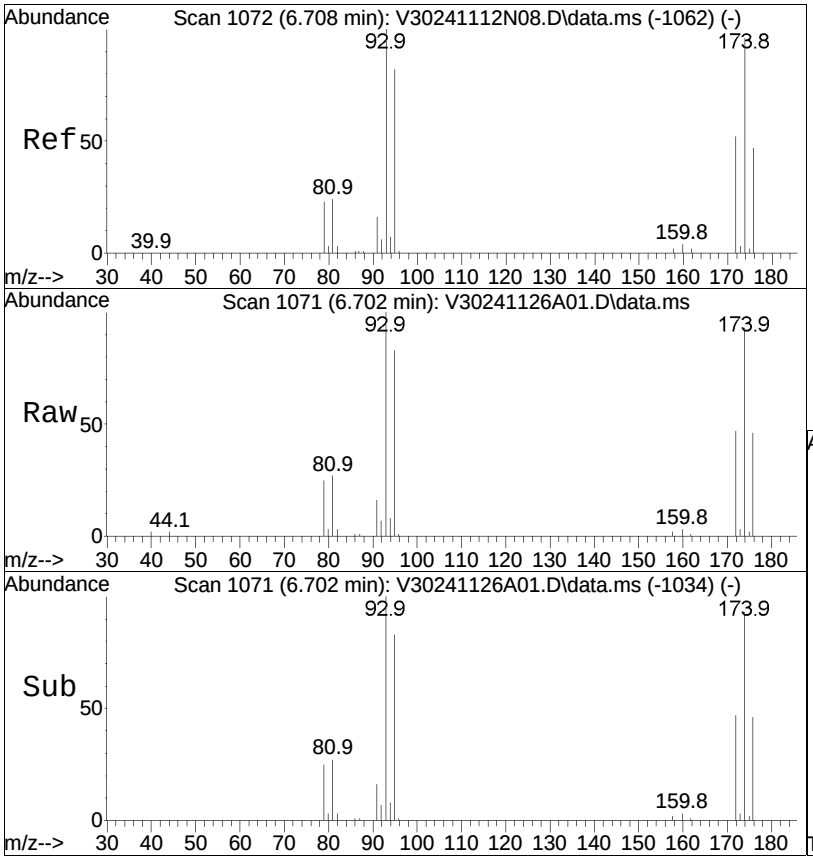


#52
Trichloroethene
Concen: 8.74 ug/L
RT: 6.267 min Scan# 988
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 95 Resp: 68010

Ion	Ratio	Lower	Upper
95	100		
97	66.8	53.8	80.6
130	95.2	71.4	107.0

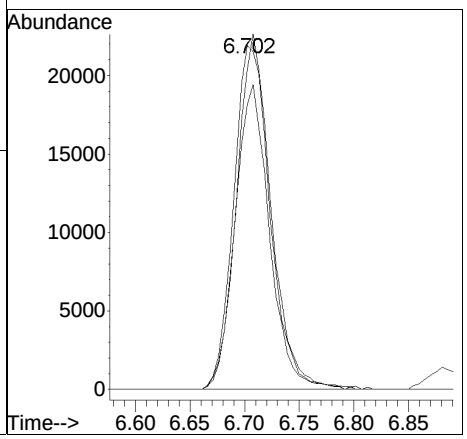


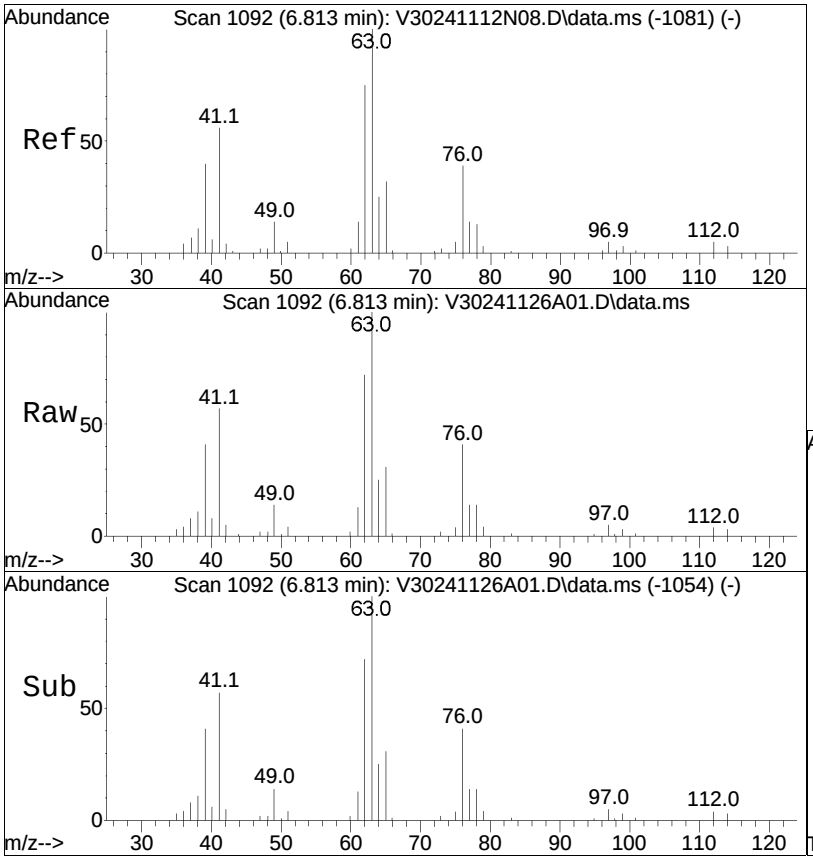


#54
Dibromomethane
Concen: 10.00 ug/L
RT: 6.702 min Scan# 1071
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 93 Resp: 51176

Ion	Ratio	Lower	Upper
93	100		
95	83.3	66.9	100.3
174	97.1	66.4	99.6

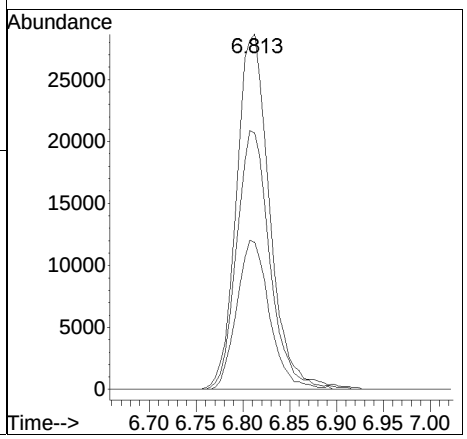


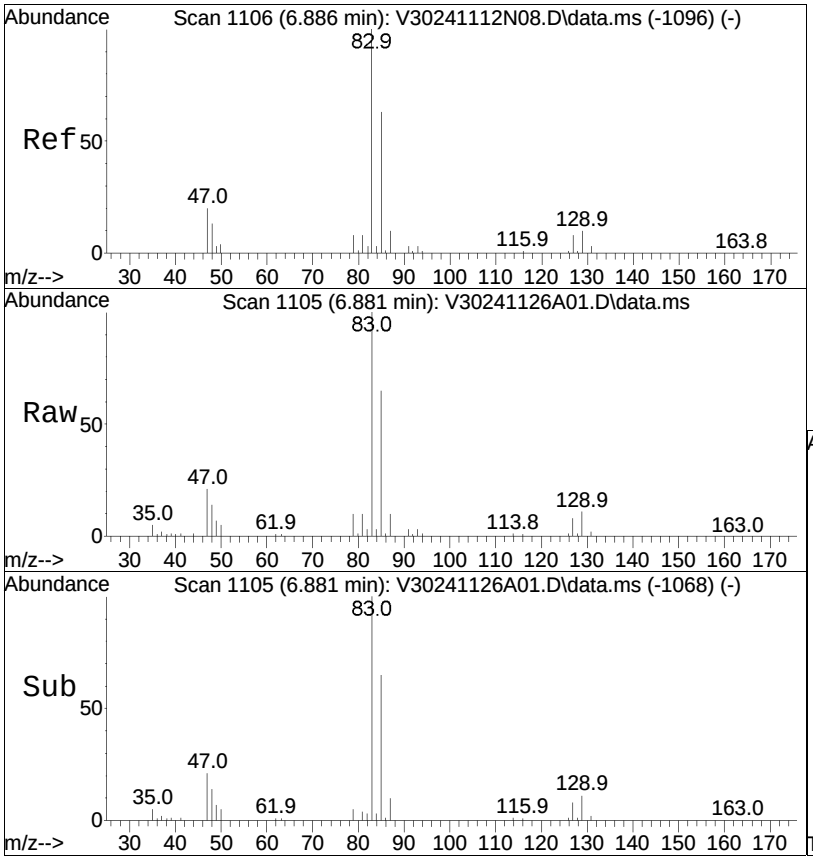


#55
1,2-Dichloropropane
Concen: 8.45 ug/L
RT: 6.813 min Scan# 1092
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 63 Resp: 70953

Ion	Ratio	Lower	Upper
63	100		
62	72.7	58.1	87.1
76	41.4	30.4	45.6

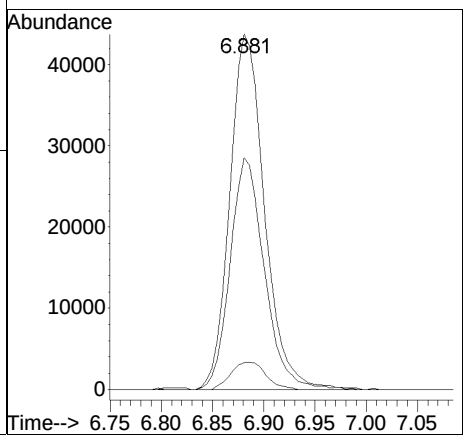


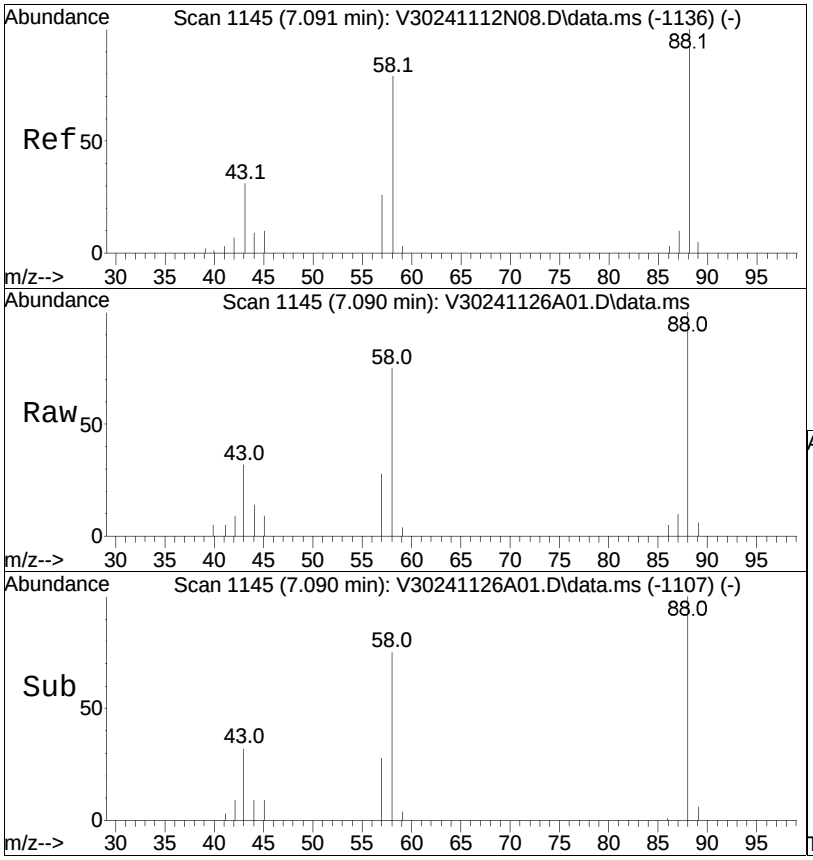


#58
Bromodichloromethane
Concen: 9.06 ug/L
RT: 6.881 min Scan# 1105
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 83 Resp: 103181

Ion	Ratio	Lower	Upper
83	100		
85	64.3	50.2	75.2
127	7.7	5.2	7.8

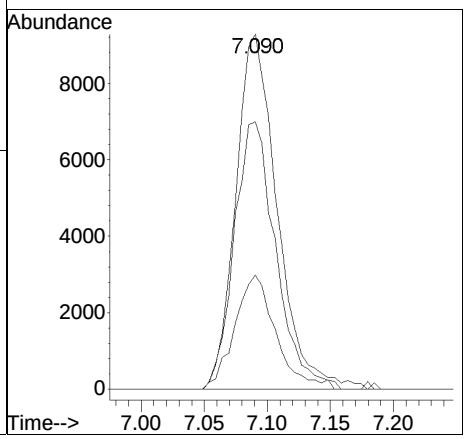


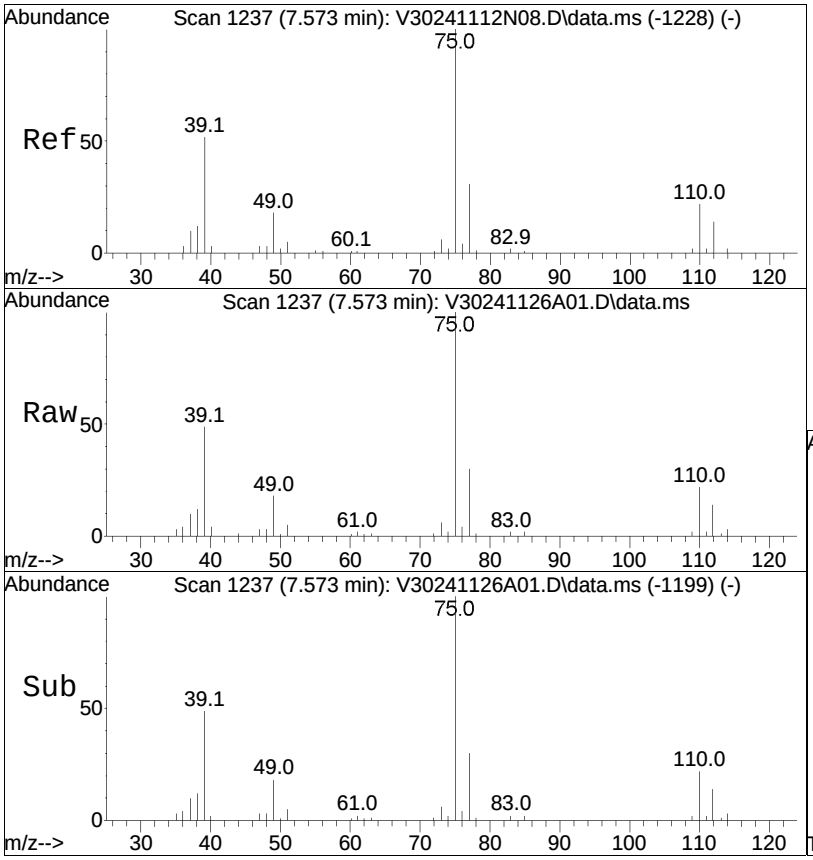


#61
1,4-Dioxane
Concen: 517.84 ug/L
RT: 7.090 min Scan# 1145
Delta R.T. -0.001 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 88 Resp: 21310

Ion	Ratio	Lower	Upper
88	100		
58	75.5	59.9	89.9
43	32.0	30.8	46.2

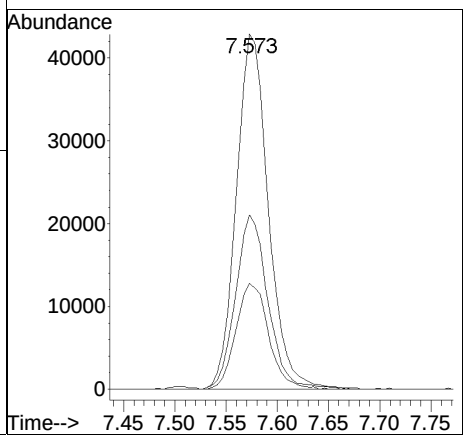


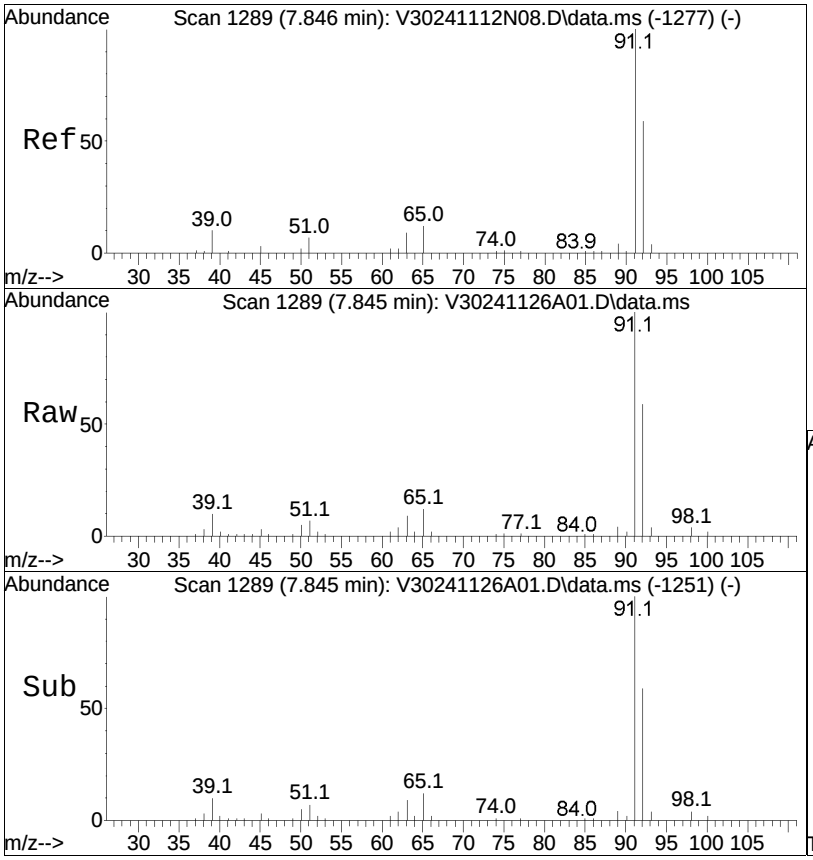


#62
cis-1,3-Dichloropropene
Concen: 8.03 ug/L
RT: 7.573 min Scan# 1237
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 75 Resp: 93662

Ion	Ratio	Lower	Upper
75	100		
77	30.5	25.4	38.2
39	49.6	54.6	82.0#

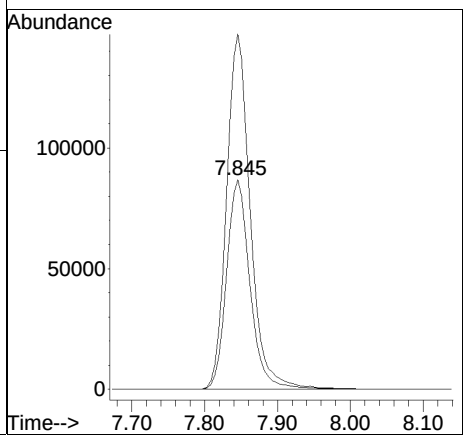


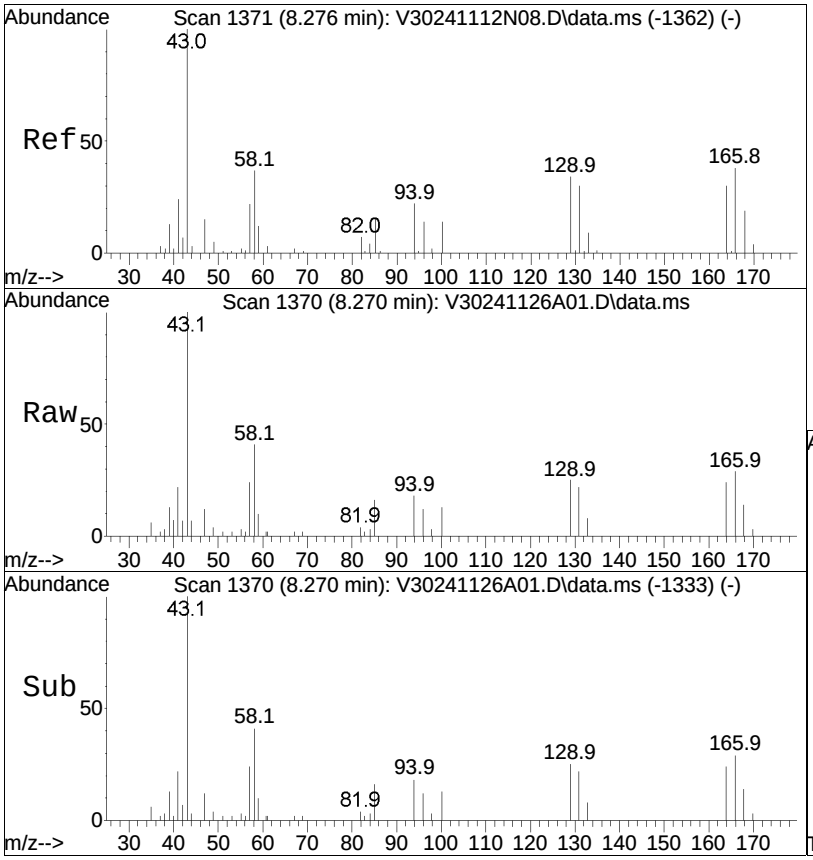


#65
Toluene
Concen: 9.76 ug/L
RT: 7.845 min Scan# 1289
Delta R.T. -0.001 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 92 Resp: 194822

Ion	Ratio	Lower	Upper
92	100		
91	170.8	137.5	206.3

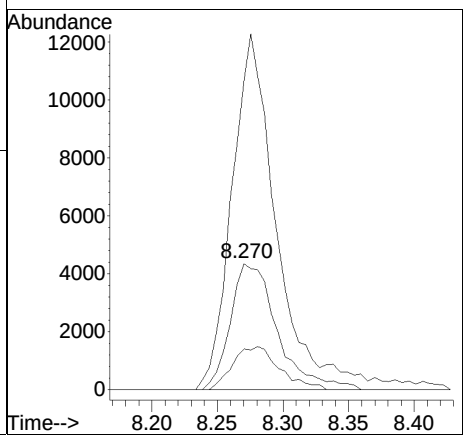


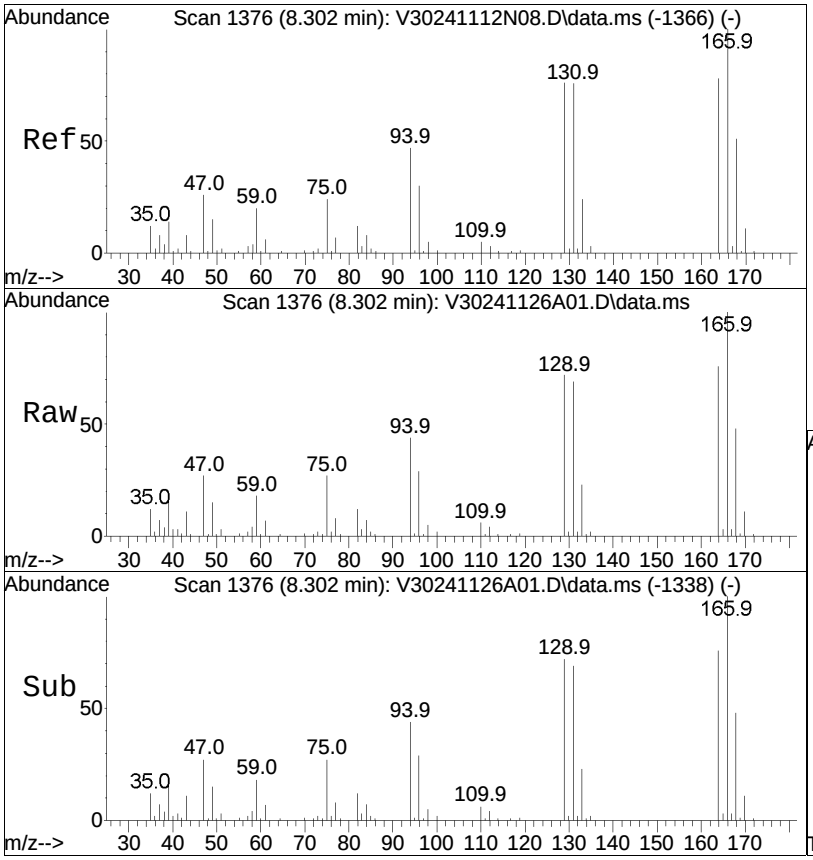


#66
4-Methyl-2-pentanone
Concen: 7.36 ug/L
RT: 8.270 min Scan# 1370
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 58 Resp: 10768

Ion	Ratio	Lower	Upper
58	100		
100	34.0	22.6	34.0#
43	270.7	234.6	351.8

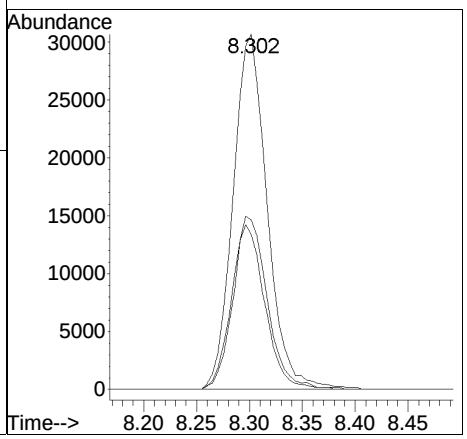


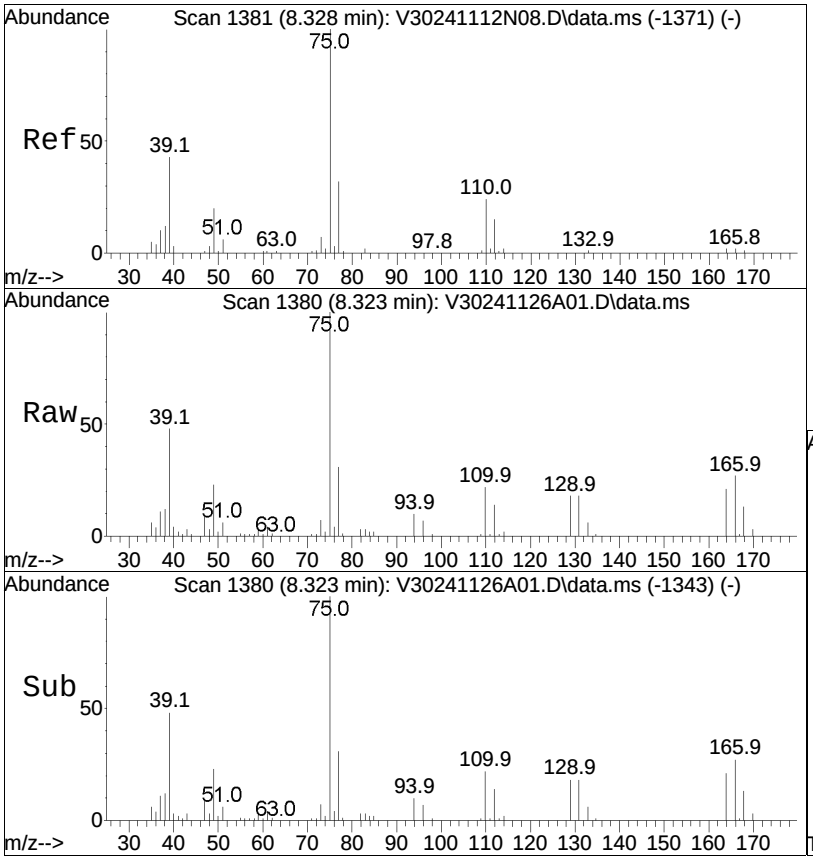


#67
Tetrachloroethene
Concen: 9.51 ug/L
RT: 8.302 min Scan# 1376
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:166 Resp: 68891

Ion	Ratio	Lower	Upper
166	100		
168	48.7	38.6	58.0
94	45.6	42.6	63.8

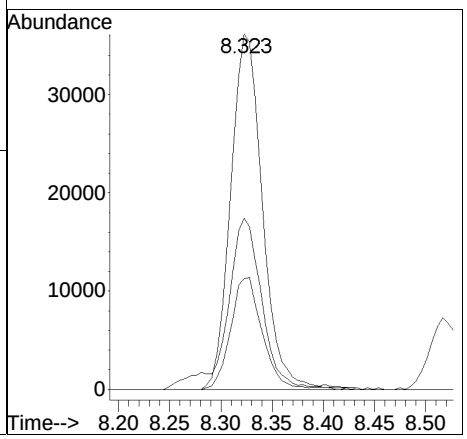


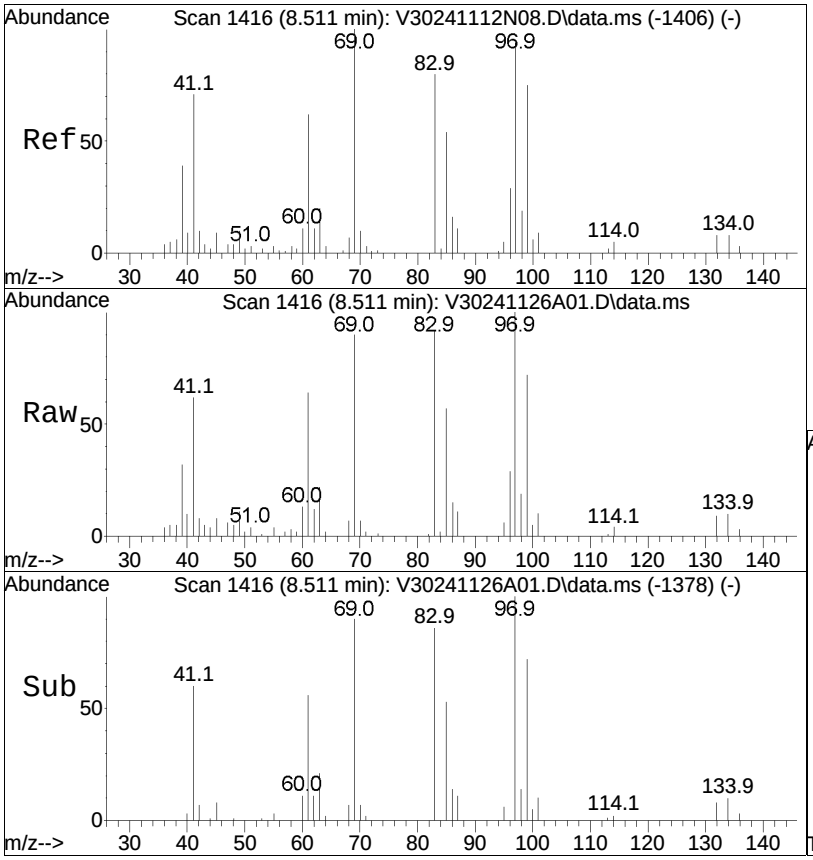


#69
trans-1,3-Dichloropropene
Concen: 8.41 ug/L
RT: 8.323 min Scan# 1380
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 75 Resp: 78269

Ion	Ratio	Lower	Upper
75	100		
77	31.0	25.6	38.4
39	52.7	60.2	90.4#

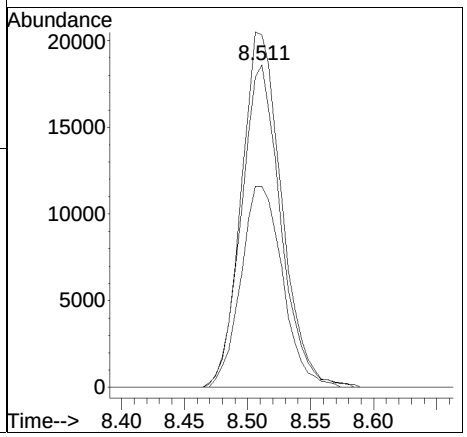


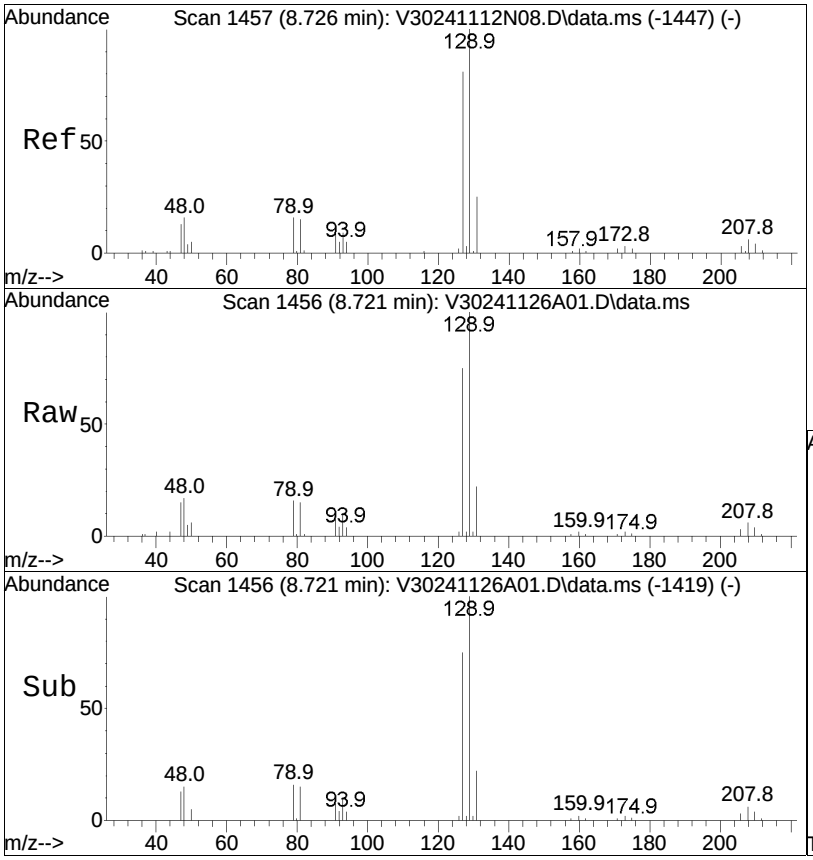


#72
1,1,2-Trichloroethane
Concen: 9.14 ug/L
RT: 8.511 min Scan# 1416
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 83 Resp: 40609

Ion	Ratio	Lower	Upper
83	100		
97	112.5	87.7	131.5
85	65.9	53.1	79.7

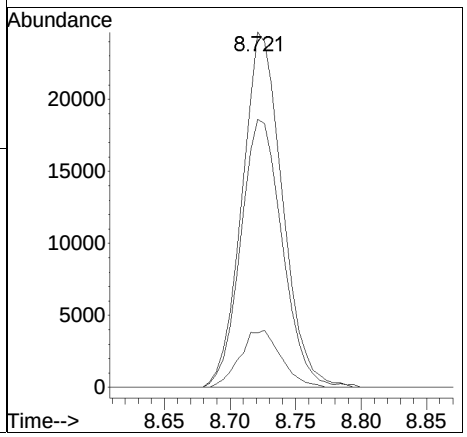


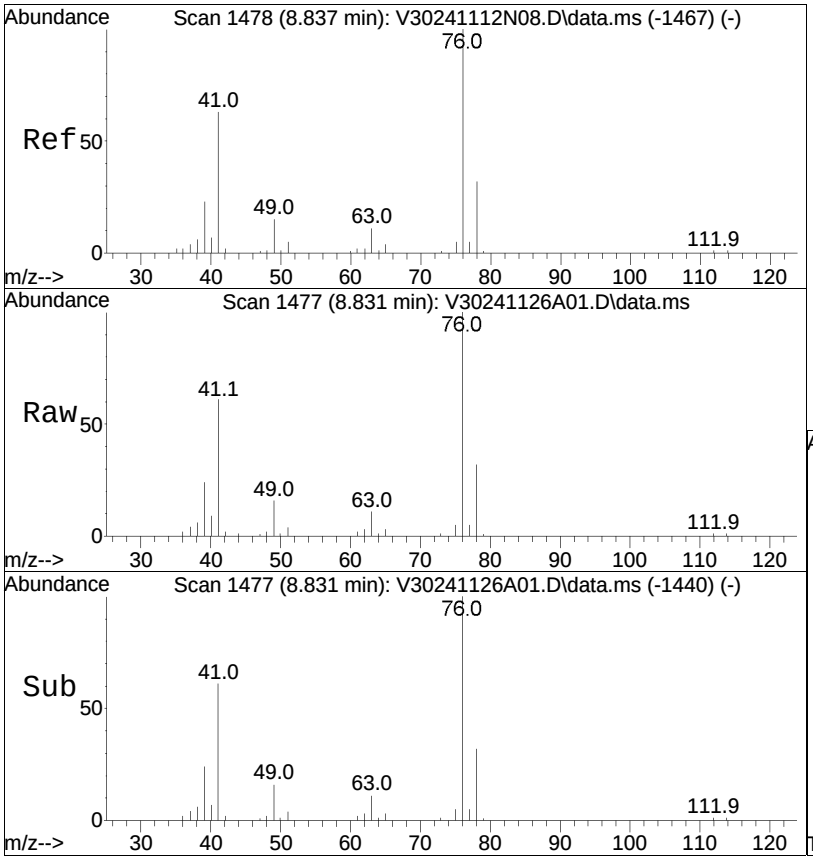


#73
Chlorodibromomethane
Concen: 8.61 ug/L
RT: 8.721 min Scan# 1456
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:129 Resp: 52831

Ion	Ratio	Lower	Upper
129	100		
81	16.4	14.6	22.0
127	77.8	62.6	93.8

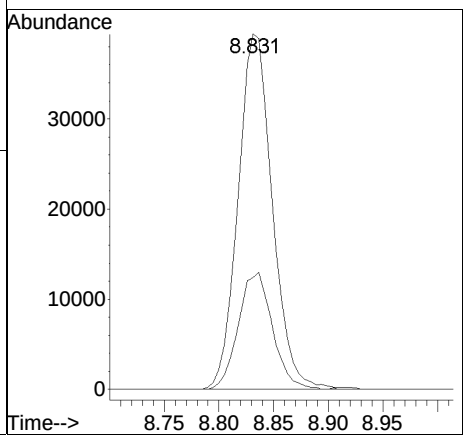


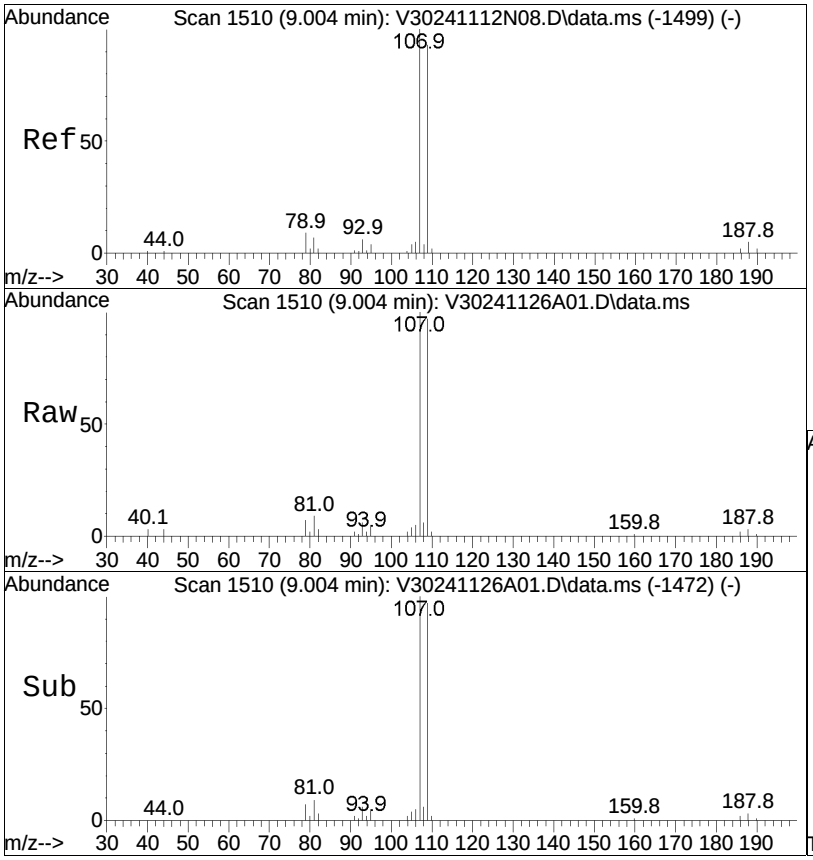


#74
1,3-Dichloropropane
Concen: 8.81 ug/L
RT: 8.831 min Scan# 1477
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 76 Resp: 86149

Ion	Ratio	Lower	Upper
76	100		
78	32.7	25.9	38.9

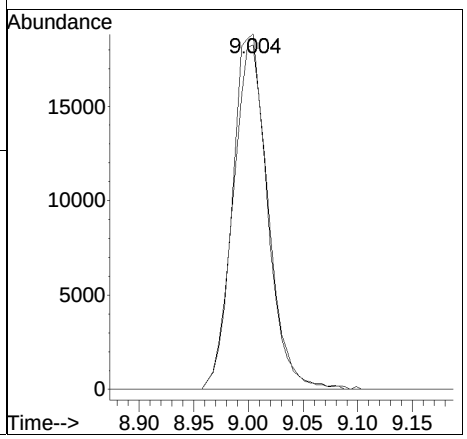


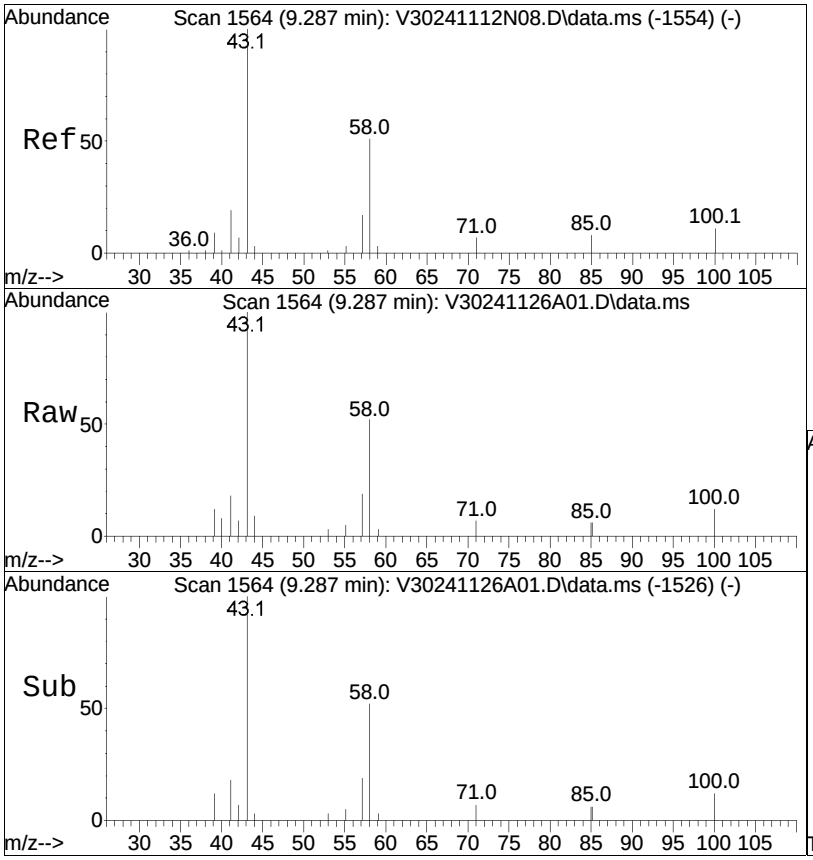


#75
1,2-Dibromoethane
Concen: 9.04 ug/L
RT: 9.004 min Scan# 1510
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:107 Resp: 42674

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.0	112.4

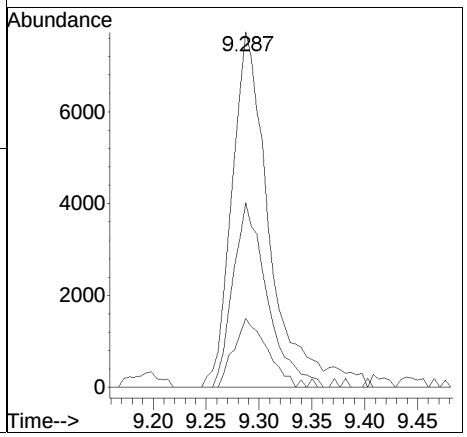


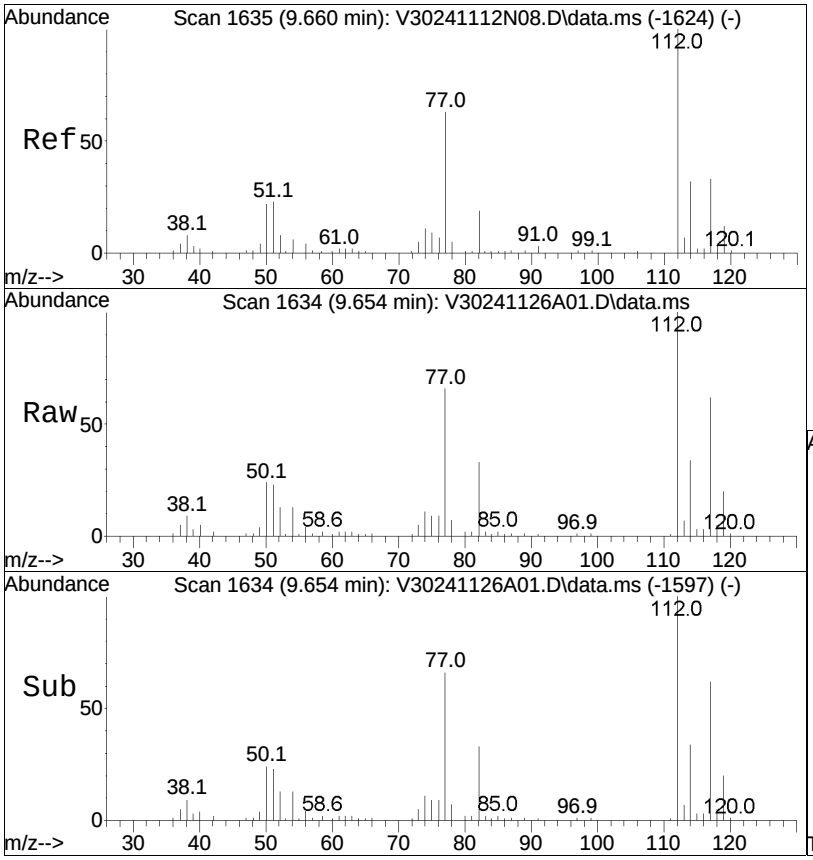


#77
2-Hexanone
Concen: 7.17 ug/L
RT: 9.287 min Scan# 1564
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 43 Resp: 19254

Ion	Ratio	Lower	Upper
43	100		
58	47.4	38.6	58.0
57	17.0	14.1	21.1

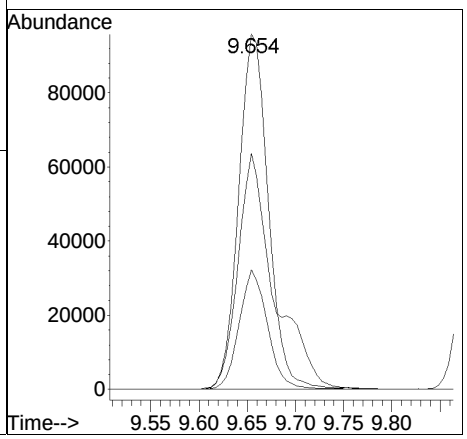


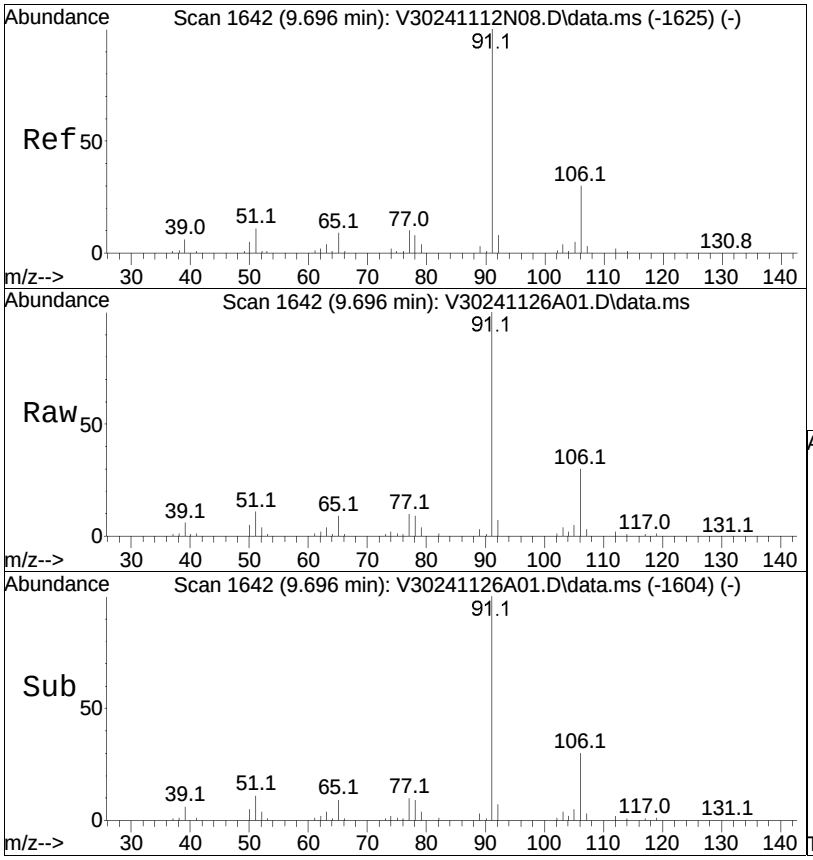


#78
Chlorobenzene
Concen: 9.66 ug/L
RT: 9.654 min Scan# 1634
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:112 Resp: 205696

Ion	Ratio	Lower	Upper
112	100		
77	81.1	54.8	82.2
114	32.3	25.4	38.0

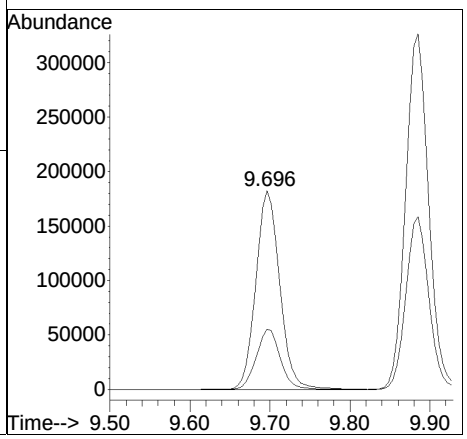


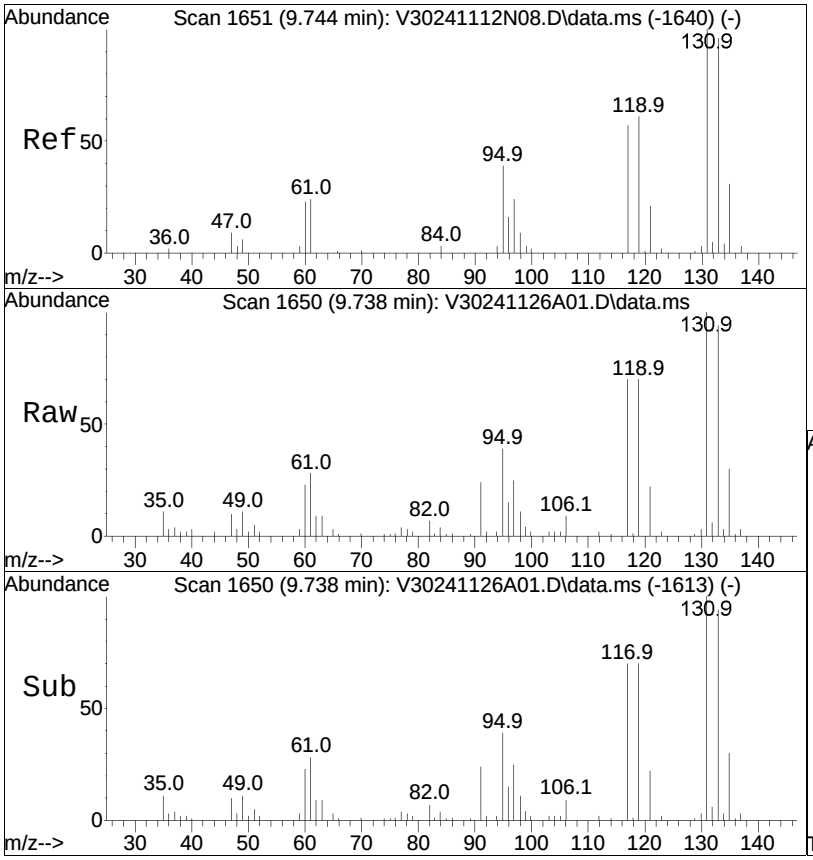


#79
Ethylbenzene
Concen: 9.67 ug/L
RT: 9.696 min Scan# 1642
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 91 Resp: 379795

Ion	Ratio	Lower	Upper
91	100		
106	30.3	23.4	35.2

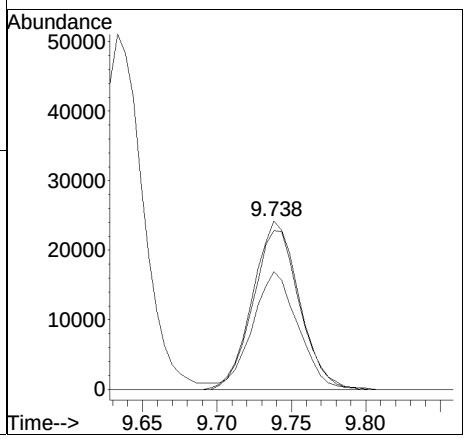


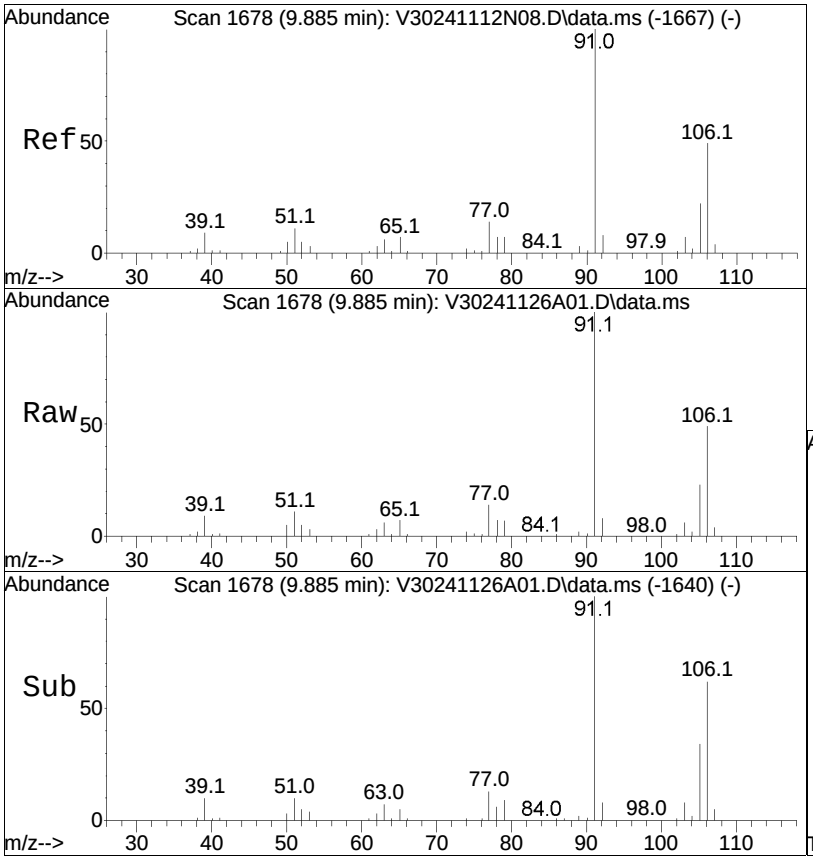


#80
1,1,1,2-Tetrachloroethane
Concen: 9.16 ug/L
RT: 9.738 min Scan# 1650
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:131 Resp: 52480

Ion	Ratio	Lower	Upper
131	100		
133	95.6	76.0	114.0
119	68.4	54.7	82.1

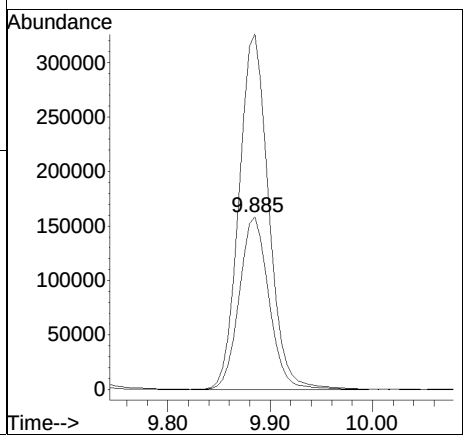


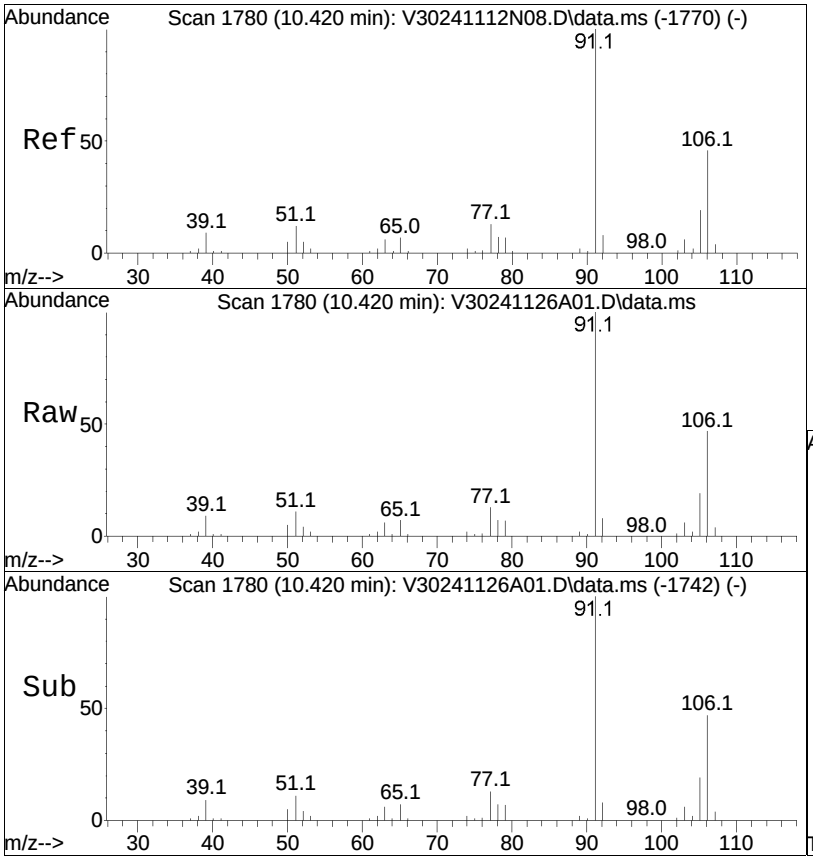


#81
p/m Xylene
Concen: 20.19 ug/L
RT: 9.885 min Scan# 1678
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:106 Resp: 318946

Ion	Ratio	Lower	Upper
106	100		
91	205.7	171.4	257.2

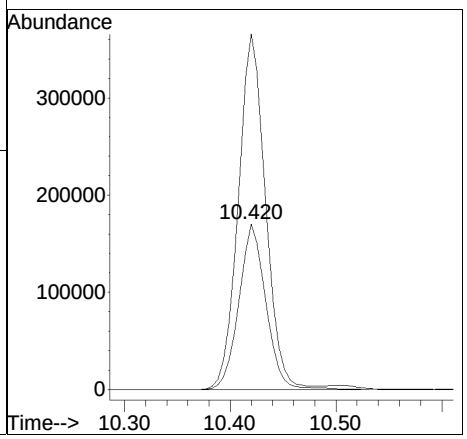


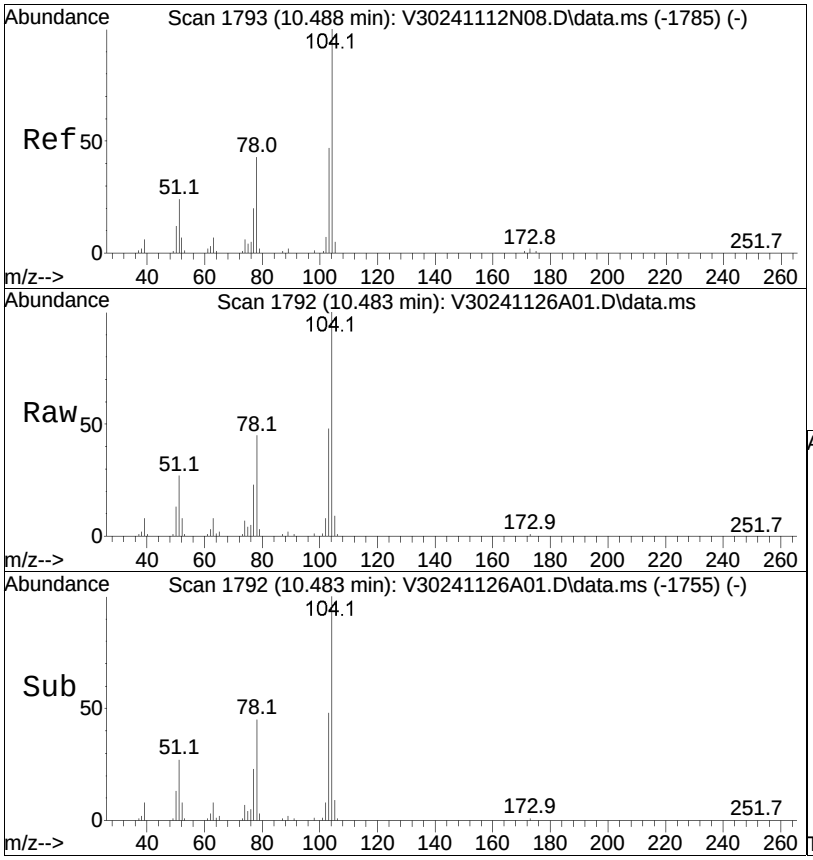


#82
o Xylene
Concen: 19.82 ug/L
RT: 10.420 min Scan# 1780
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:106 Resp: 301269

Ion	Ratio	Lower	Upper
106	100		
91	216.9	179.2	268.8

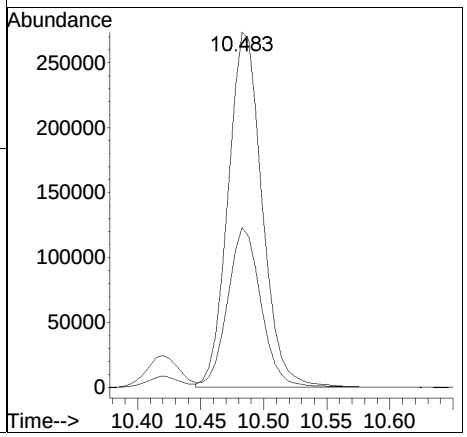


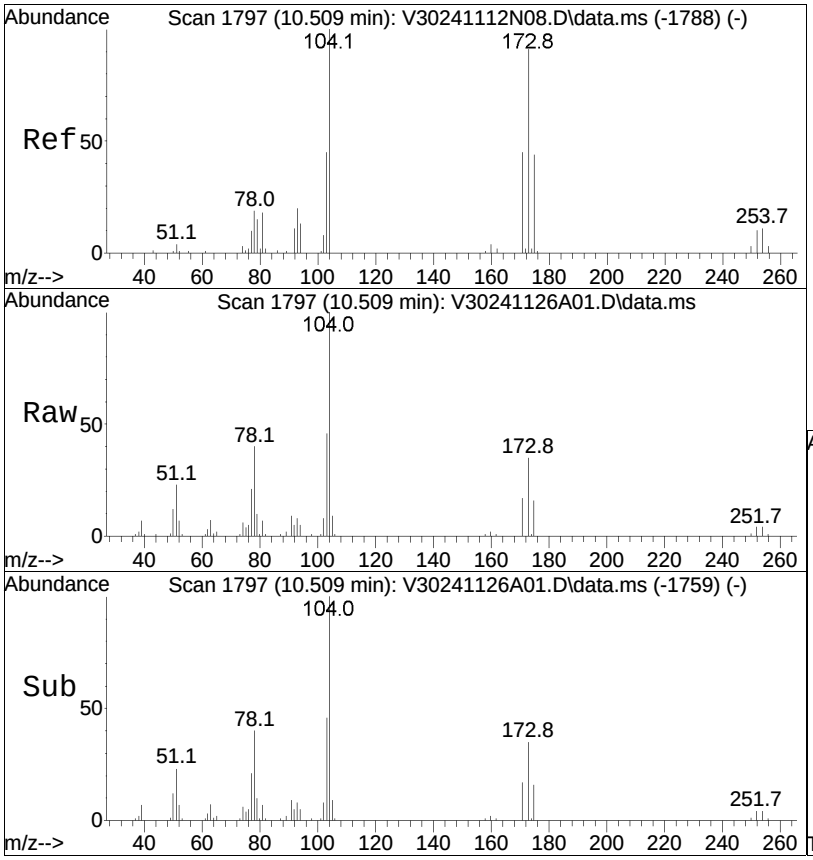


#83
Styrene
Concen: 20.51 ug/L
RT: 10.483 min Scan# 1792
Delta R.T. -0.005 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:104 Resp: 512262

Ion	Ratio	Lower	Upper
104	100		
78	44.4	38.1	57.1

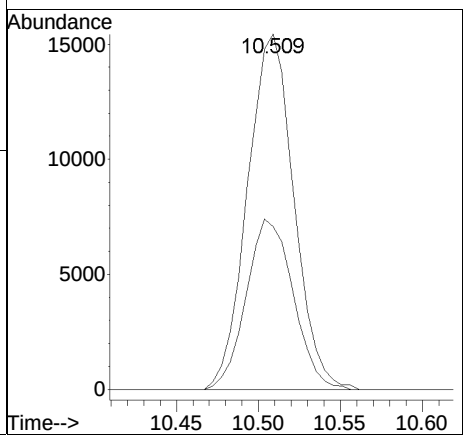


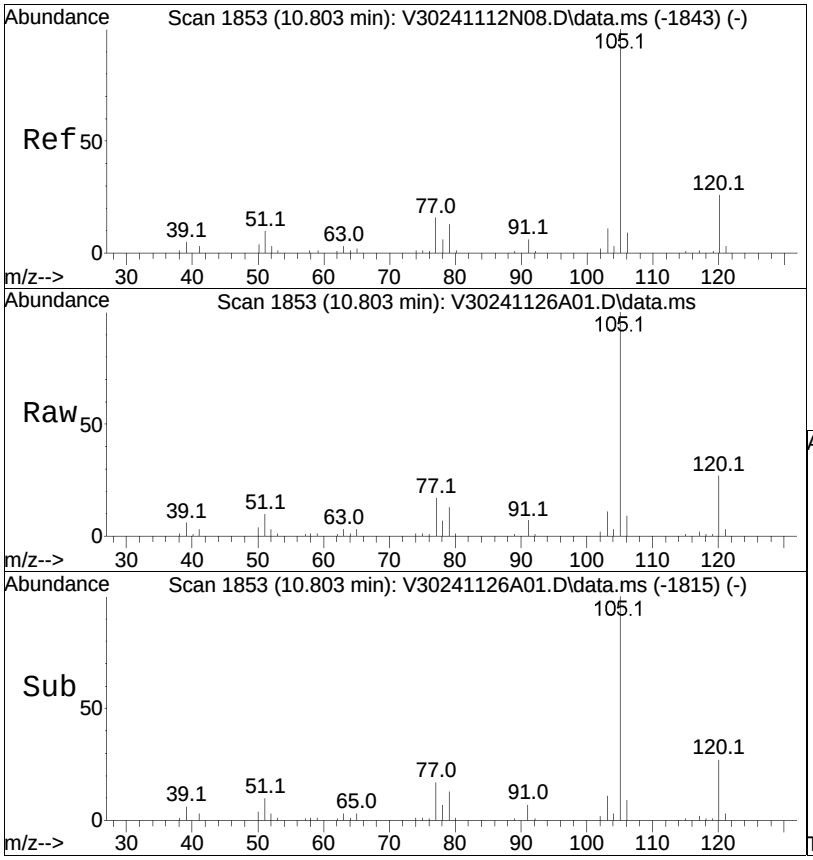


#85
Bromoform
Concen: 7.82 ug/L
RT: 10.509 min Scan# 1797
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:173 Resp: 30359

Ion	Ratio	Lower	Upper
173	100		
175	48.5	37.8	56.6

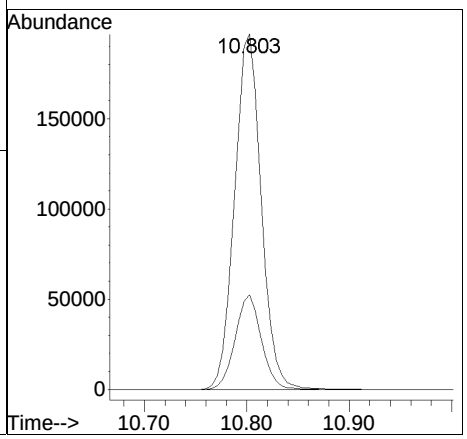


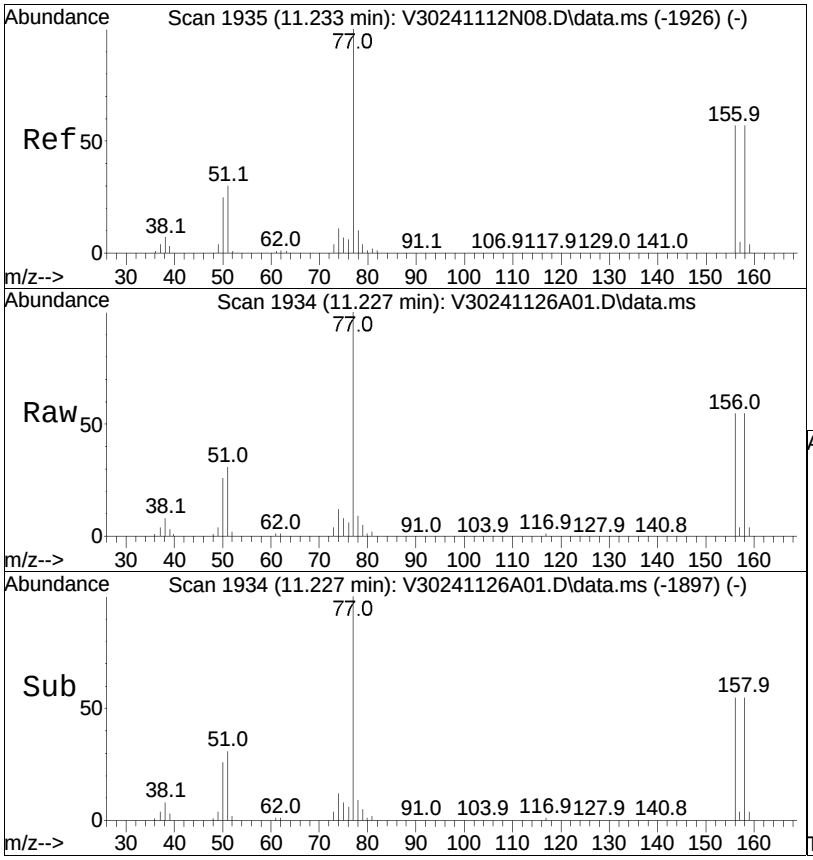


#87
Isopropylbenzene
Concen: 8.55 ug/L
RT: 10.803 min Scan# 1853
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:105 Resp: 355159

Ion	Ratio	Lower	Upper
105	100		
120	26.1	20.0	30.0

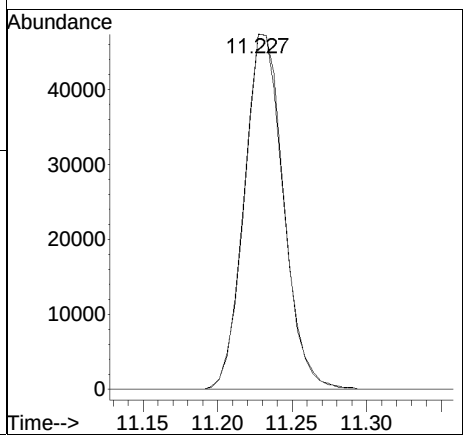


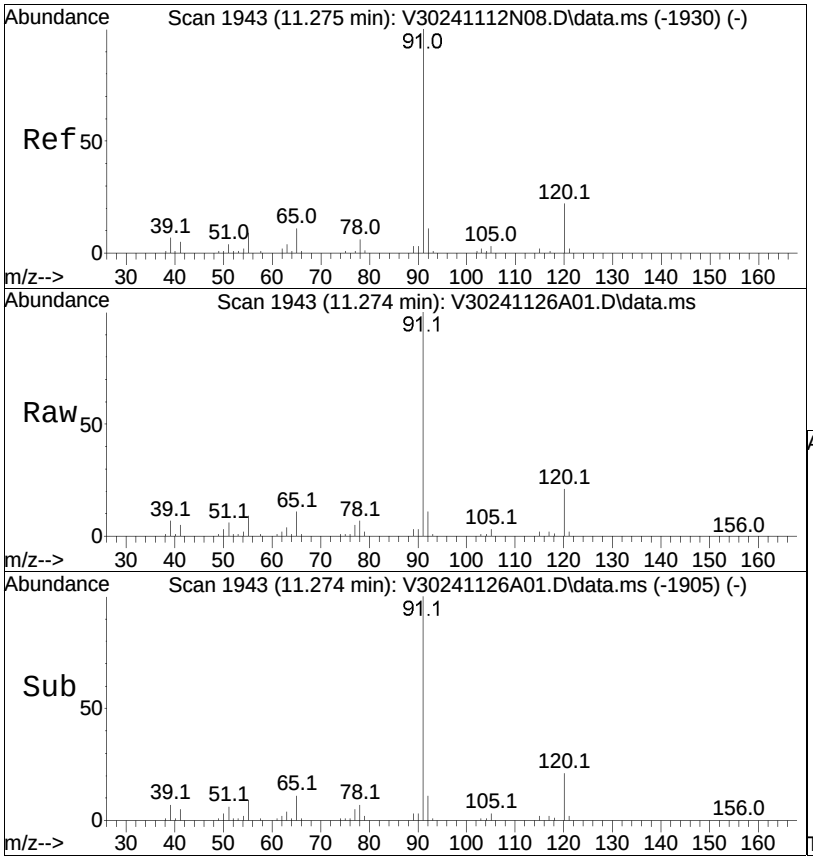


#89
Bromobenzene
Concen: 8.71 ug/L
RT: 11.227 min Scan# 1934
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:156 Resp: 87445

Ion	Ratio	Lower	Upper
156	100		
158	98.3	78.3	117.5

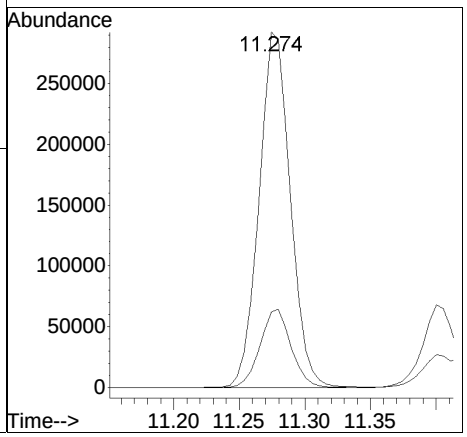


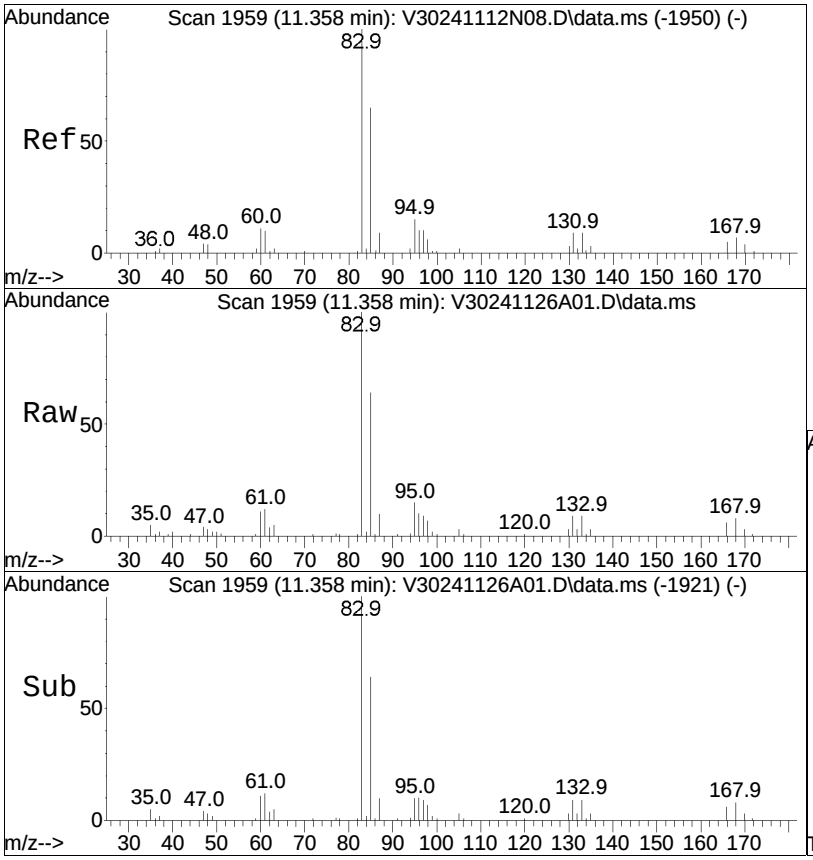


#90
n-Propylbenzene
Concen: 9.27 ug/L
RT: 11.274 min Scan# 1943
Delta R.T. -0.001 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 91 Resp: 484317

Ion	Ratio	Lower	Upper
91	100		
120	21.7	16.3	24.5

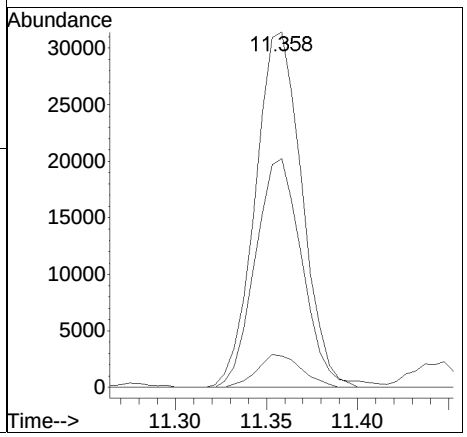


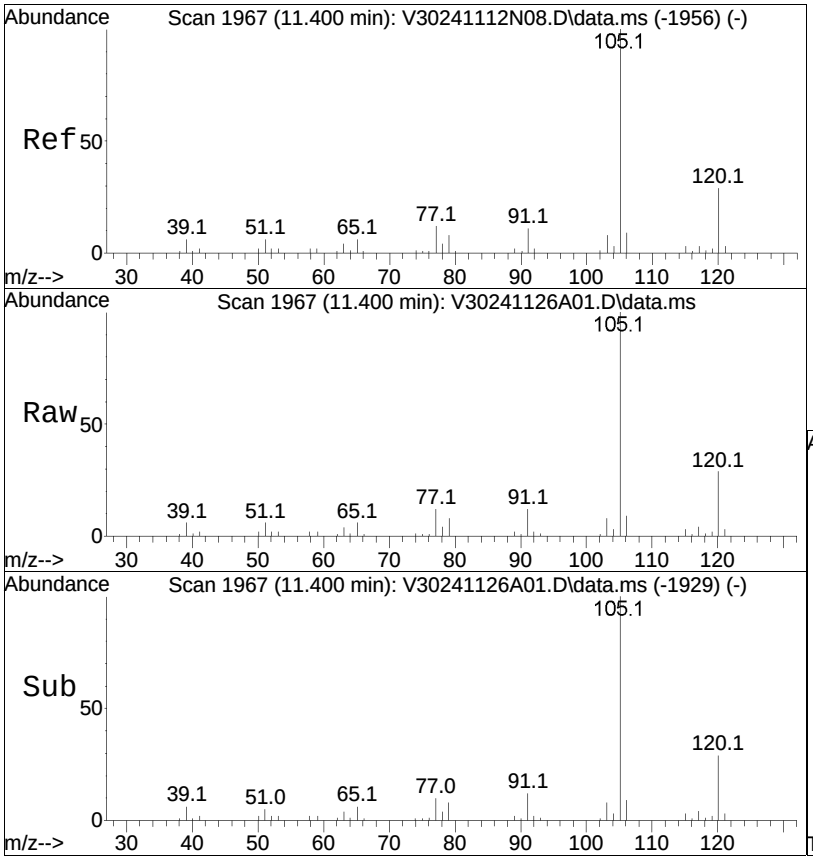


#92
1,1,2,2-Tetrachloroethane
Concen: 8.61 ug/L
RT: 11.358 min Scan# 1959
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 83 Resp: 55978

Ion	Ratio	Lower	Upper
83	100		
131	8.9	6.6	10.0
85	65.2	51.8	77.6

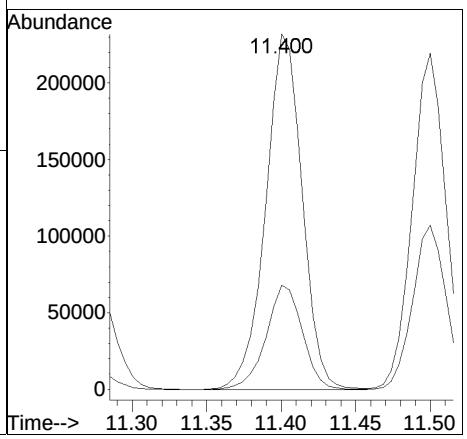


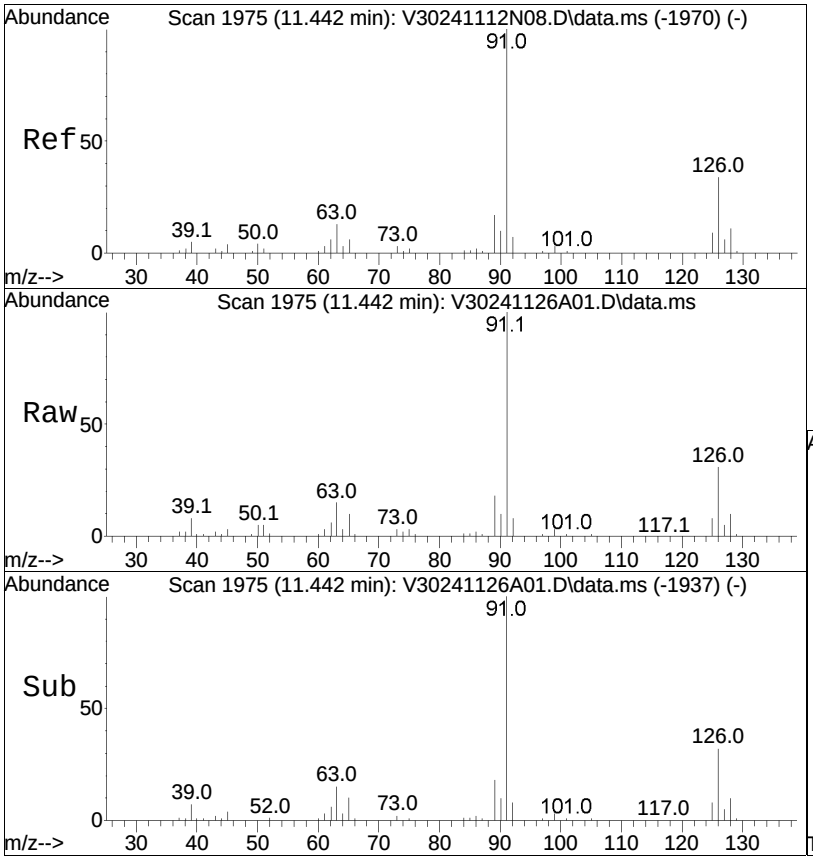


#93
4-Ethyltoluene
Concen: 9.11 ug/L
RT: 11.400 min Scan# 1967
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:105 Resp: 394322

Ion	Ratio	Lower	Upper
105	100		
120	29.2	18.5	38.3

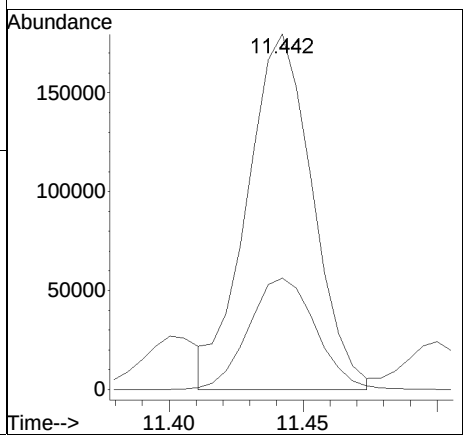


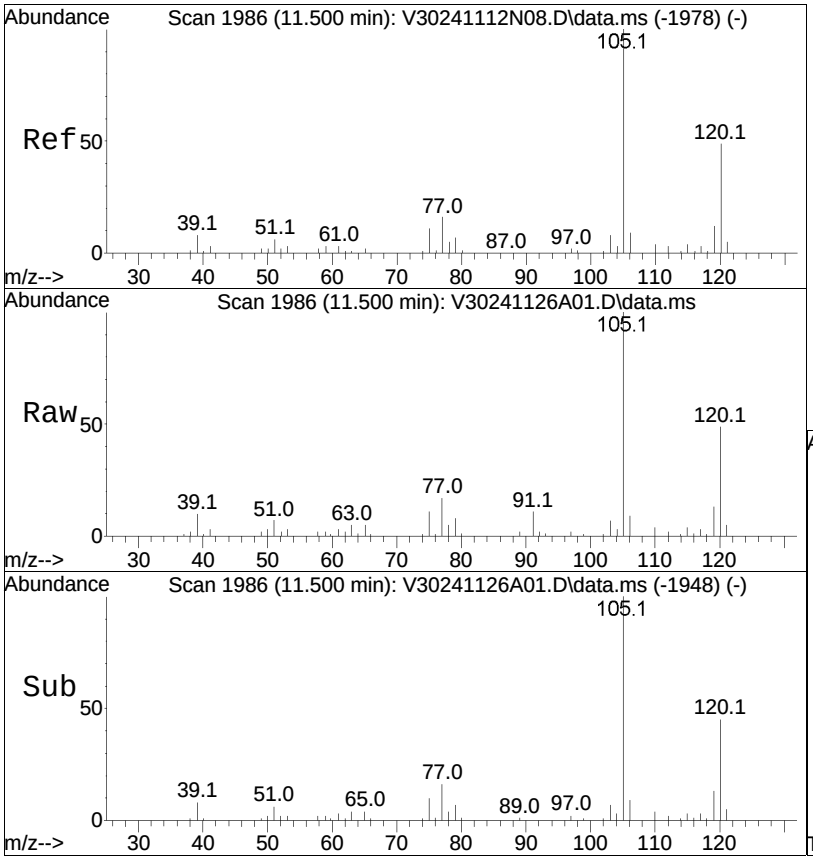


#94
2-Chlorotoluene
Concen: 9.50 ug/L M1
RT: 11.442 min Scan# 1975
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 91 Resp: 304561

Ion	Ratio	Lower	Upper
91	100		
126	32.1	20.6	31.0#

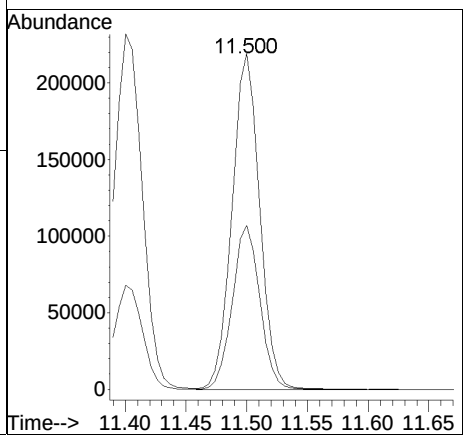


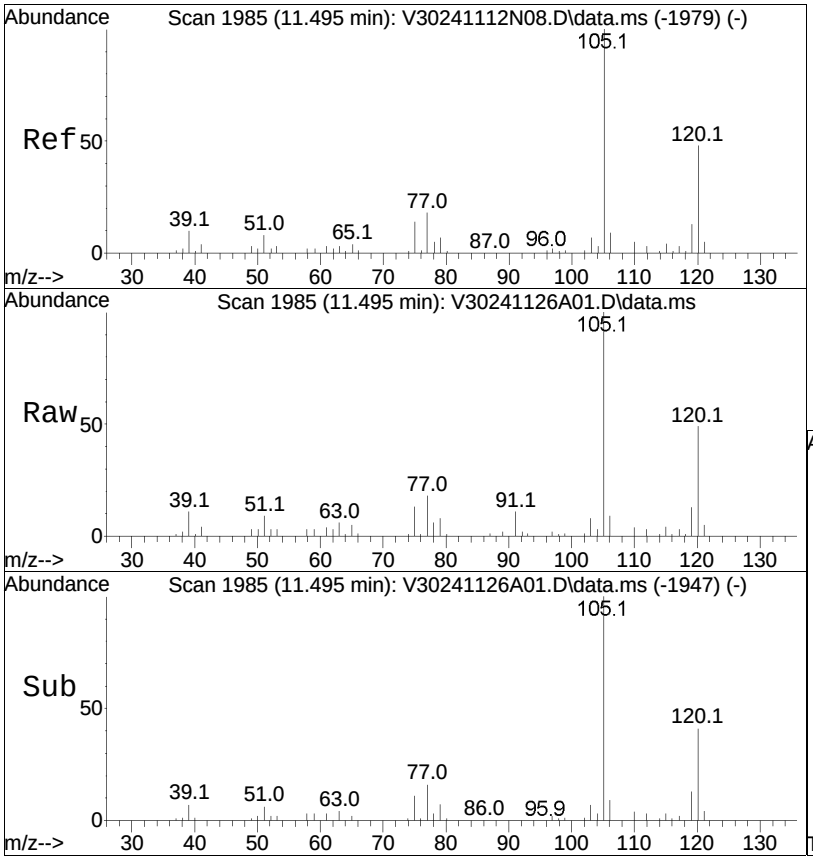


#95
1,3,5-Trimethylbenzene
Concen: 9.14 ug/L
RT: 11.500 min Scan# 1986
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:105 Resp: 346479

Ion	Ratio	Lower	Upper
105	100		
120	48.7	37.8	56.6

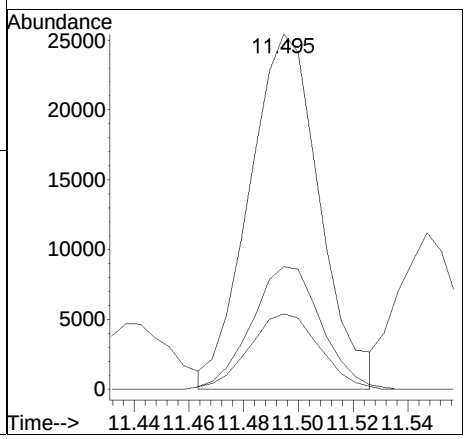


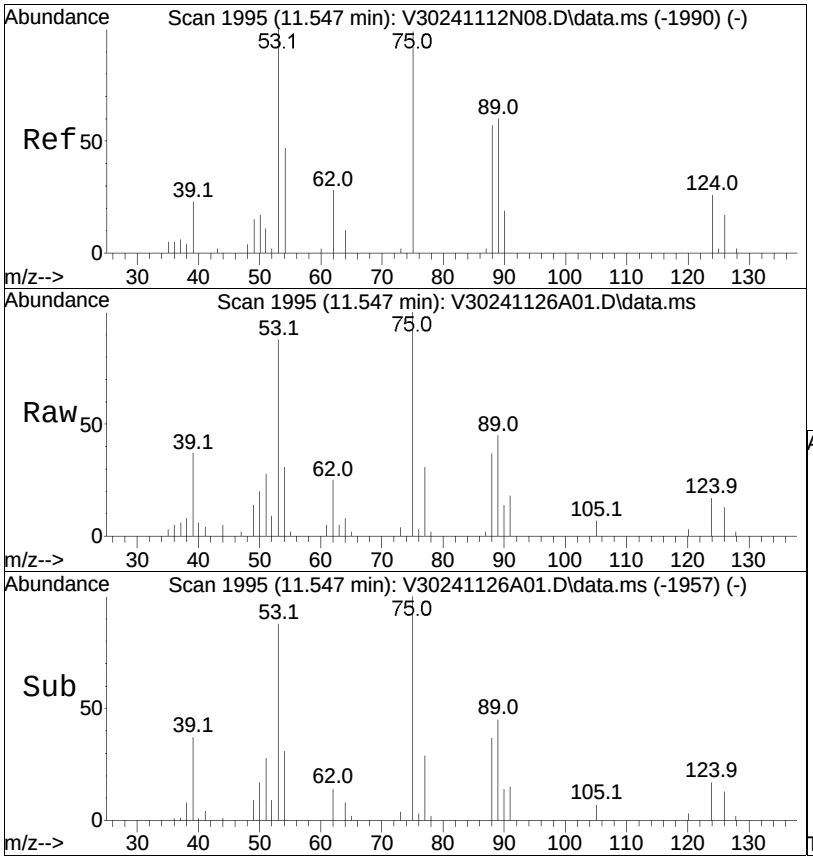


#96
1,2,3-Trichloropropane
Concen: 8.60 ug/L M4
RT: 11.495 min Scan# 1985
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 75 Resp: 45600

Ion	Ratio	Lower	Upper
75	100		
110	34.2	18.4	38.2
112	21.3	12.0	25.0

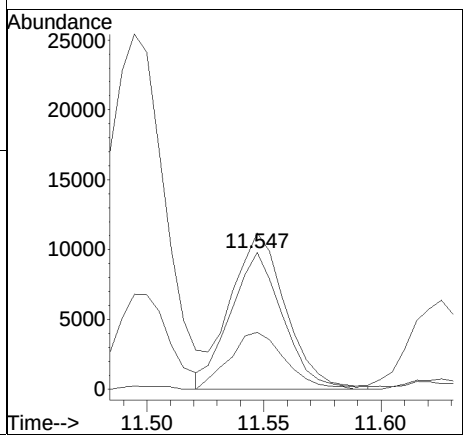


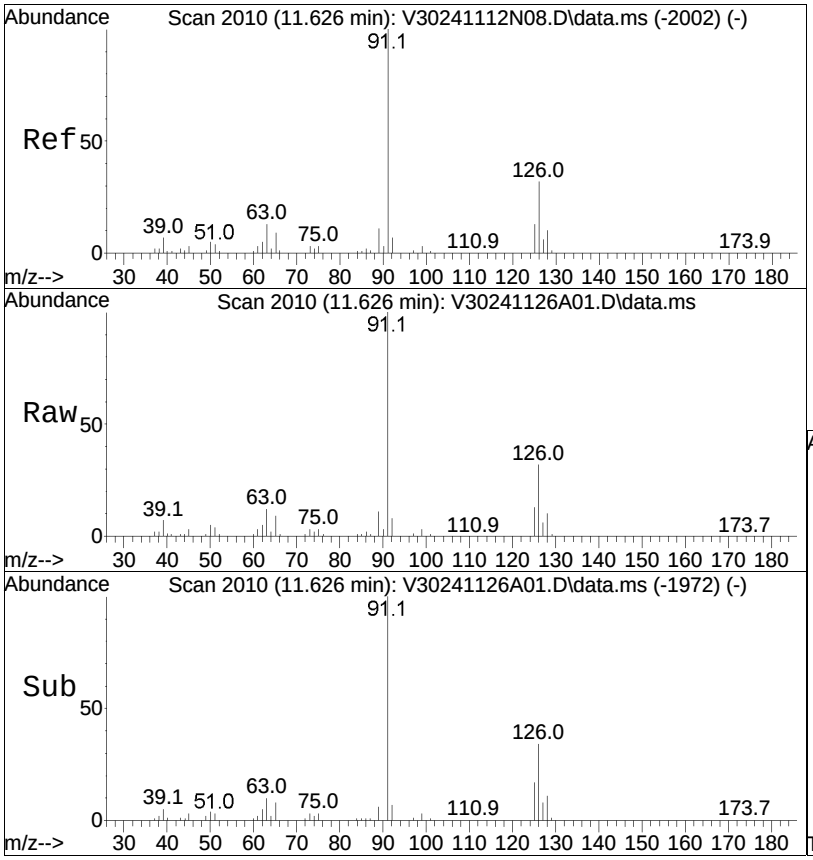


#97
trans-1,4-Dichloro-2-butene
Concen: 9.71 ug/L
RT: 11.547 min Scan# 1995
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 53 Resp: 15343

Ion	Ratio	Lower	Upper
53	100		
88	44.2	33.5	50.3
75	112.7	94.6	141.8

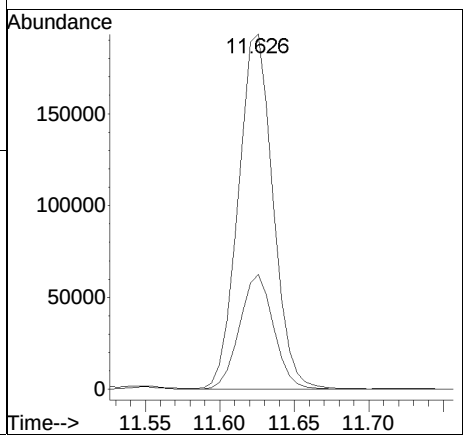


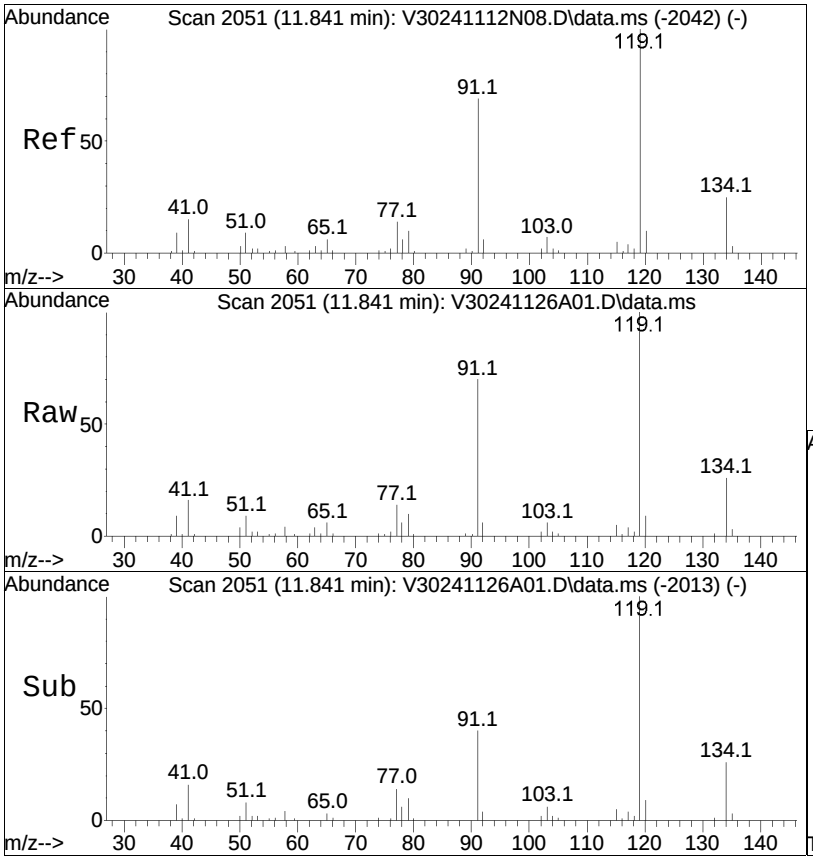


#98
4-Chlorotoluene
Concen: 9.34 ug/L
RT: 11.626 min Scan# 2010
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 91 Resp: 312285

Ion	Ratio	Lower	Upper
91	100		
126	32.0	23.8	35.8

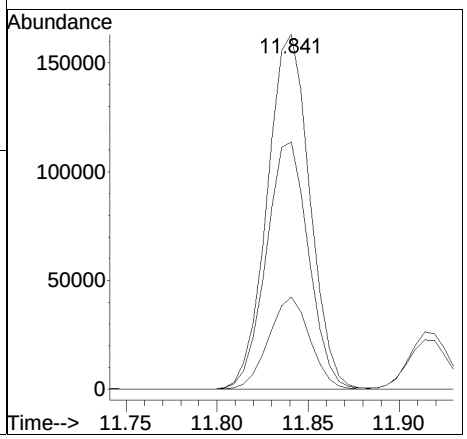


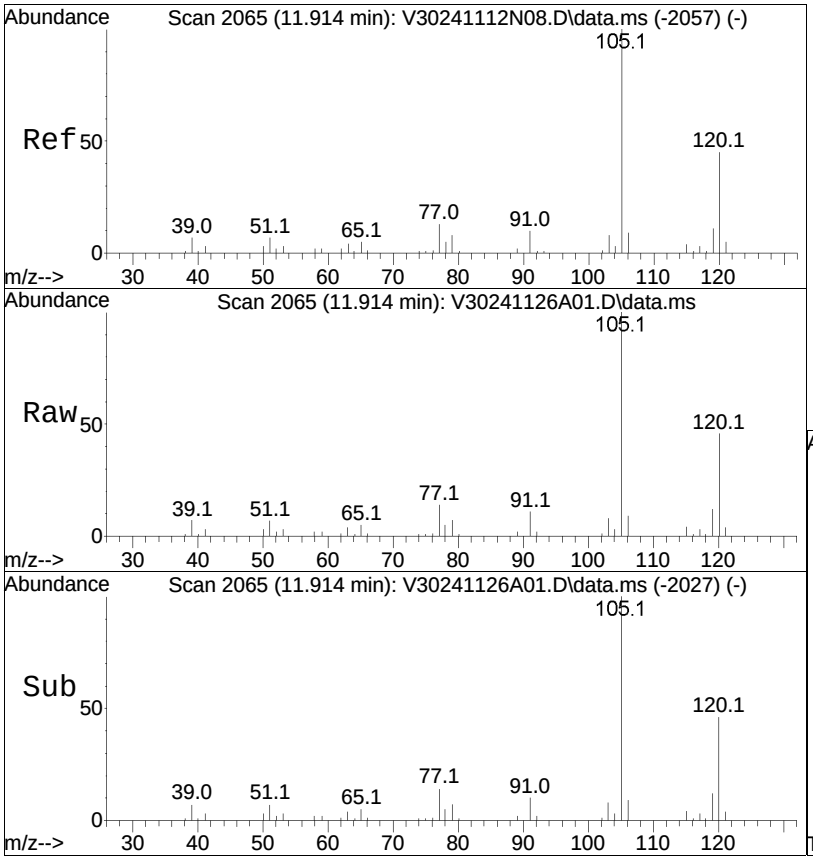


#99
tert-Butylbenzene
Concen: 8.63 ug/L
RT: 11.841 min Scan# 2051
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:119 Resp: 265507

Ion	Ratio	Lower	Upper
119	100		
91	69.7	58.8	88.2
134	25.2	18.6	27.8

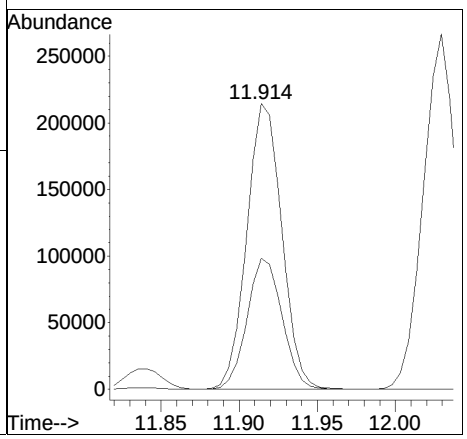


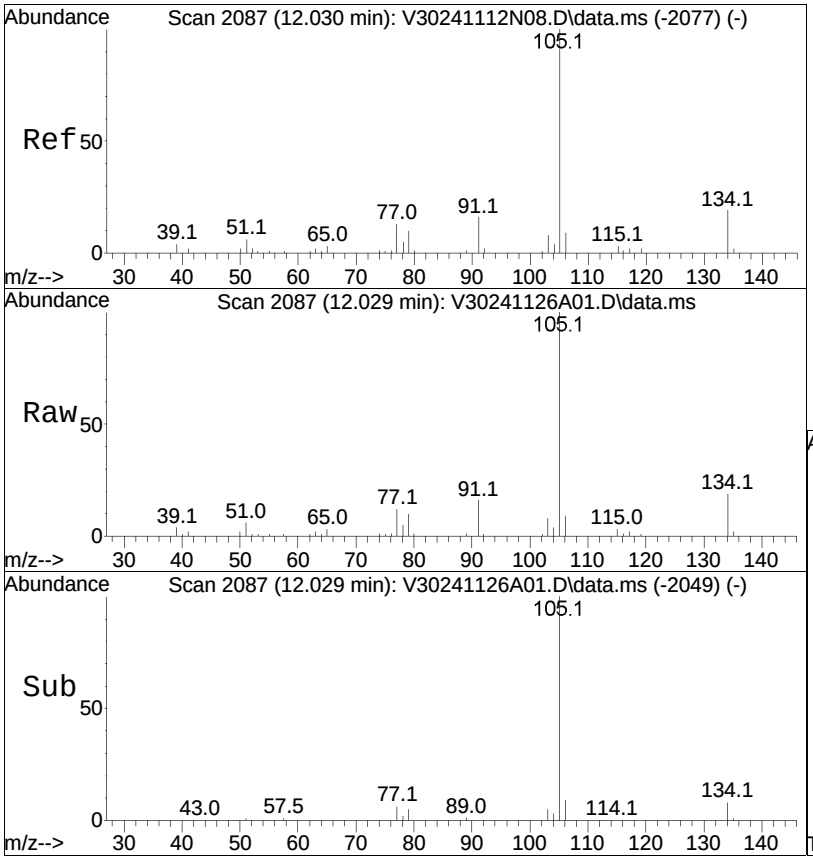


#102
1,2,4-Trimethylbenzene
Concen: 9.11 ug/L
RT: 11.914 min Scan# 2065
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:105 Resp: 335206

Ion	Ratio	Lower	Upper
105	100		
120	45.9	35.2	52.8

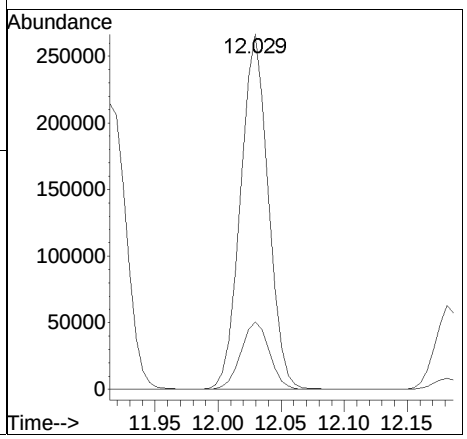


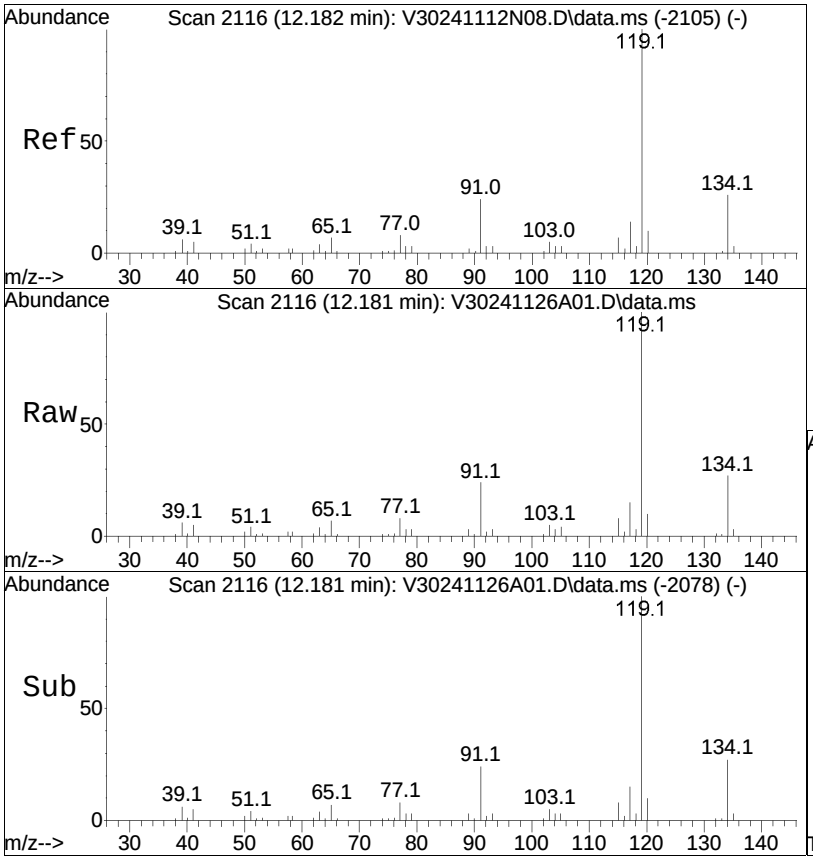


#103
sec-Butylbenzene
Concen: 9.12 ug/L
RT: 12.029 min Scan# 2087
Delta R.T. -0.001 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:105 Resp: 407889

Ion	Ratio	Lower	Upper
105	100		
134	19.5	11.4	23.6

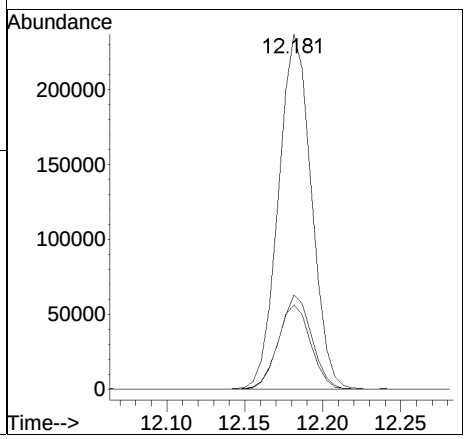


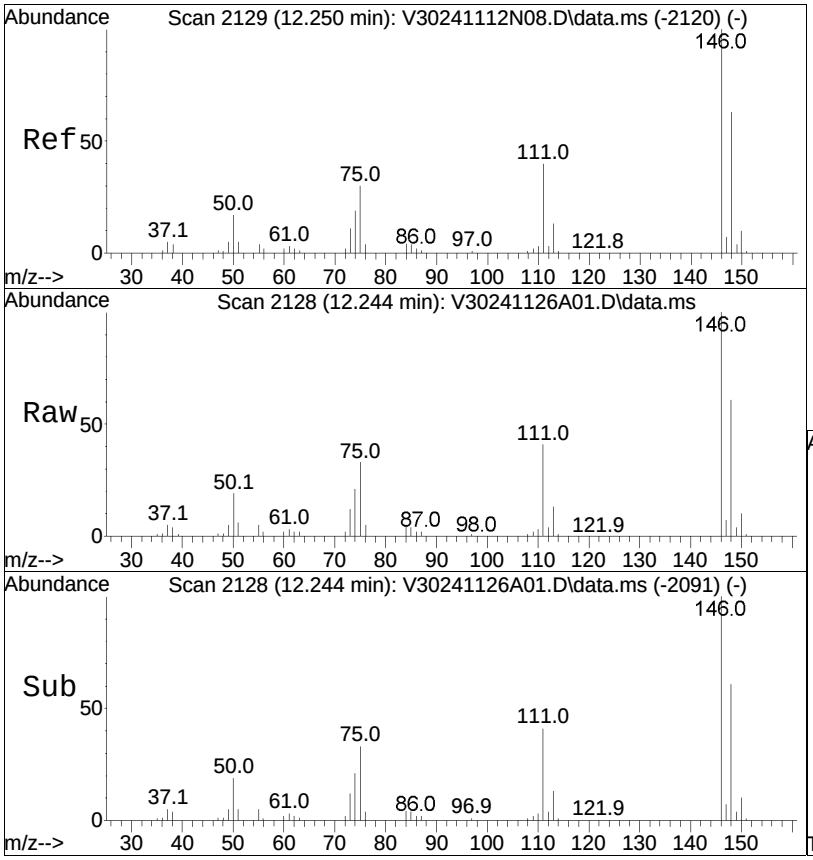


#104
p-Isopropyltoluene
Concen: 9.01 ug/L
RT: 12.181 min Scan# 2116
Delta R.T. -0.001 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:119 Resp: 348022

Ion	Ratio	Lower	Upper
119	100		
134	26.2	15.9	33.1
91	24.1	16.6	34.4

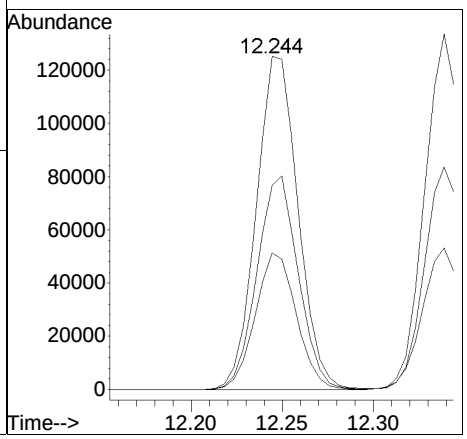


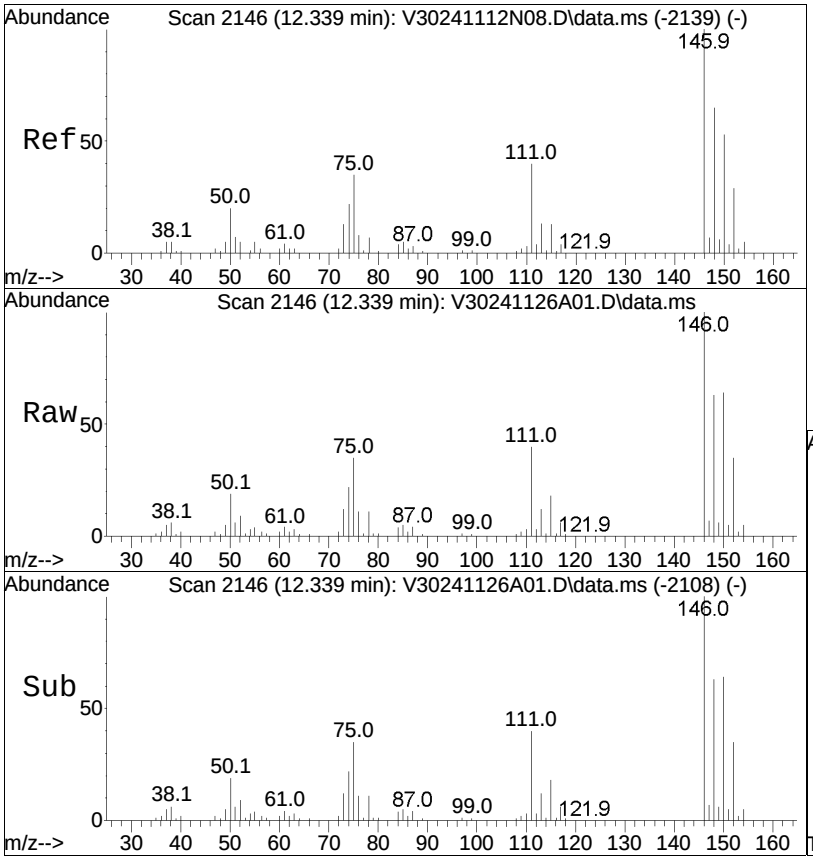


#105
1,3-Dichlorobenzene
Concen: 9.44 ug/L
RT: 12.244 min Scan# 2128
Delta R.T. -0.006 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:146 Resp: 199379

Ion	Ratio	Lower	Upper
146	100		
111	40.3	28.0	58.1
148	63.2	40.8	84.6

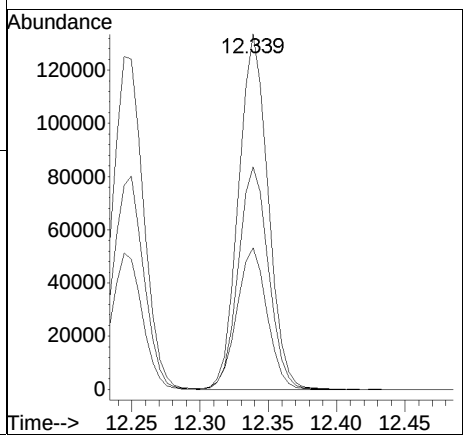


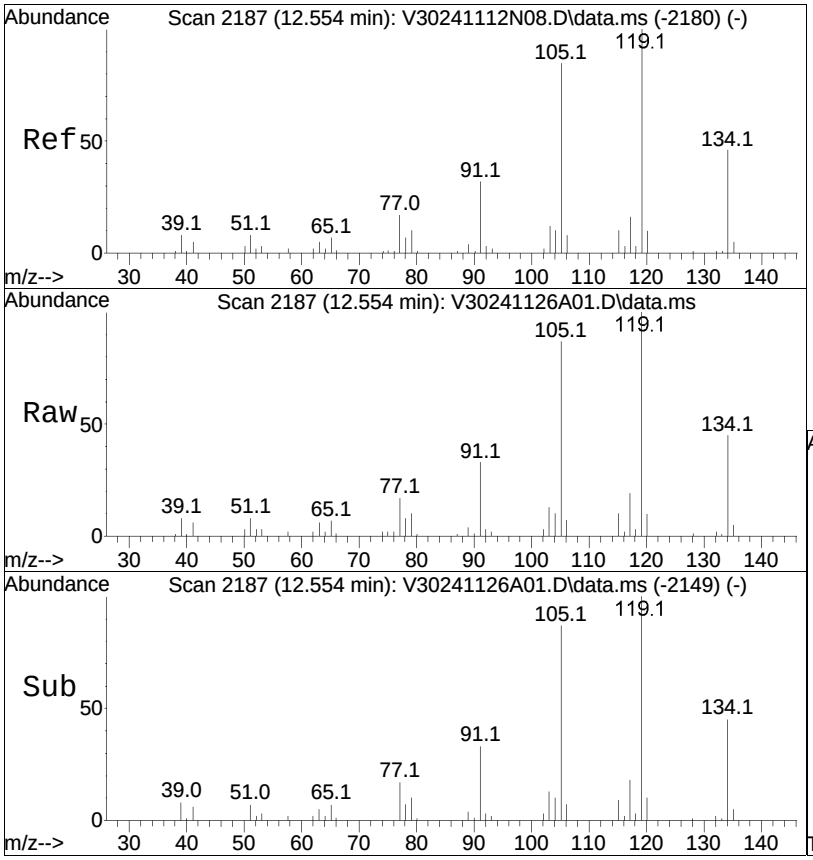


#106
1,4-Dichlorobenzene
Concen: 9.33 ug/L
RT: 12.339 min Scan# 2146
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:146 Resp: 201276

Ion	Ratio	Lower	Upper
146	100		
111	41.0	33.7	50.5
148	64.0	50.8	76.2

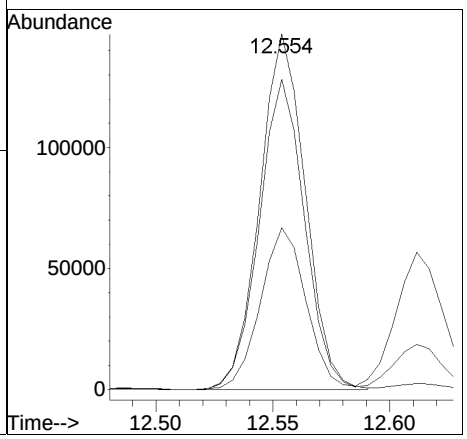


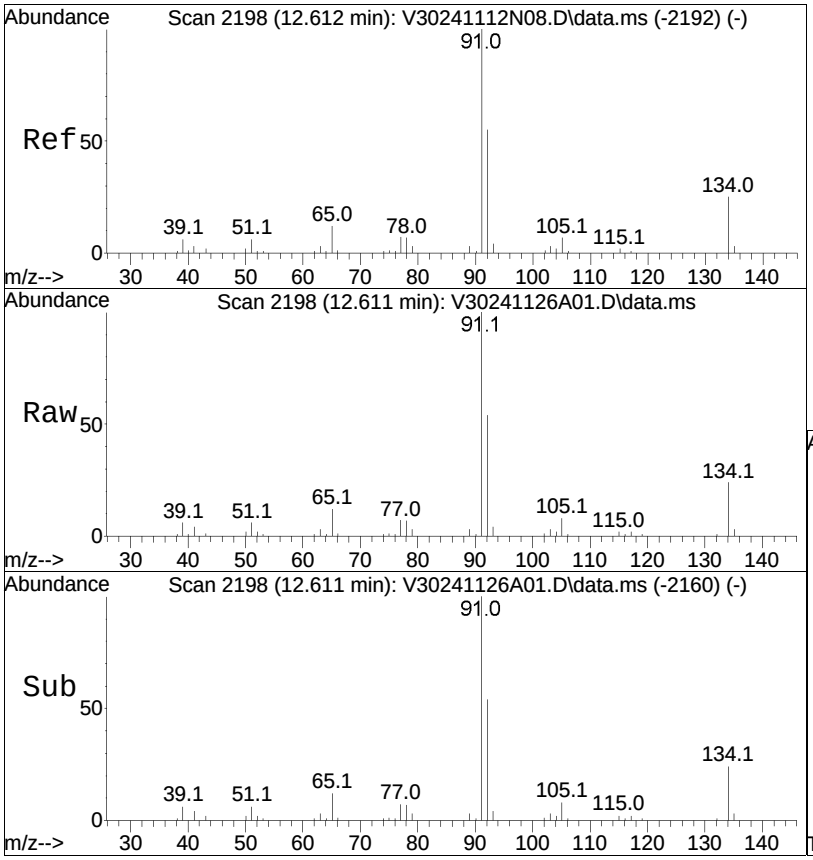


#107
p-Diethylbenzene
Concen: 8.74 ug/L
RT: 12.554 min Scan# 2187
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:119 Resp: 198679

Ion	Ratio	Lower	Upper
119	100		
105	86.6	58.4	121.2
134	45.5	28.7	59.5

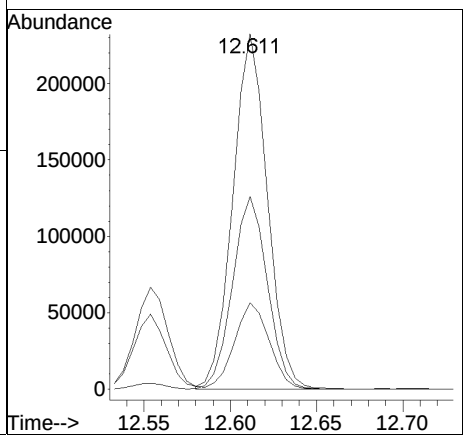


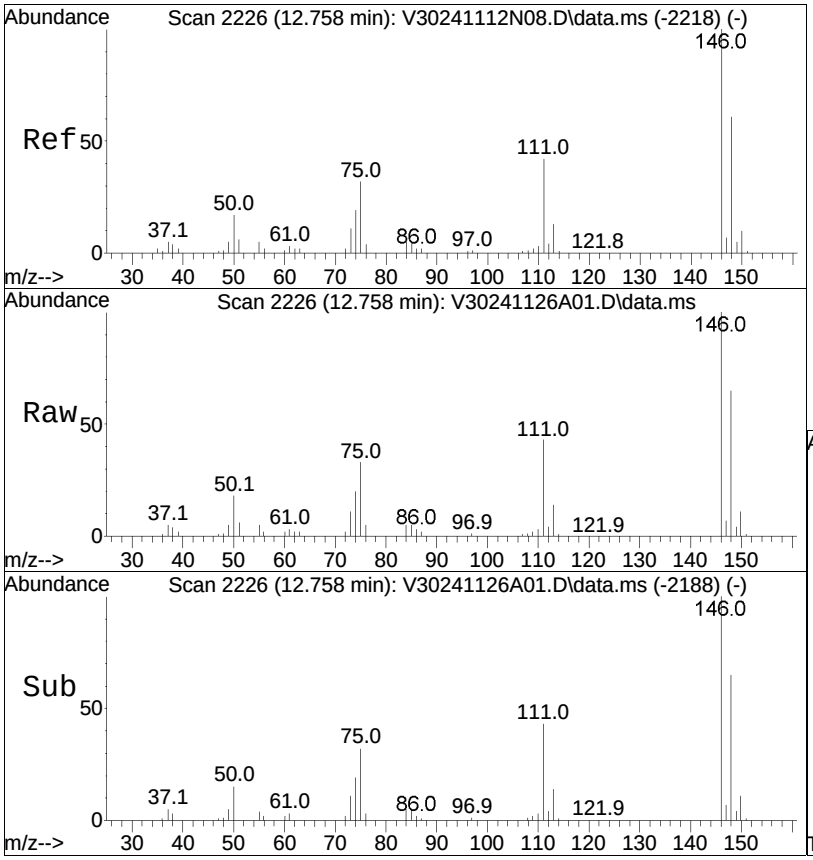


#108
n-Butylbenzene
Concen: 9.63 ug/L
RT: 12.611 min Scan# 2198
Delta R.T. -0.001 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion: 91 Resp: 323371

Ion	Ratio	Lower	Upper
91	100		
92	54.9	44.2	66.4
134	24.6	17.8	26.6

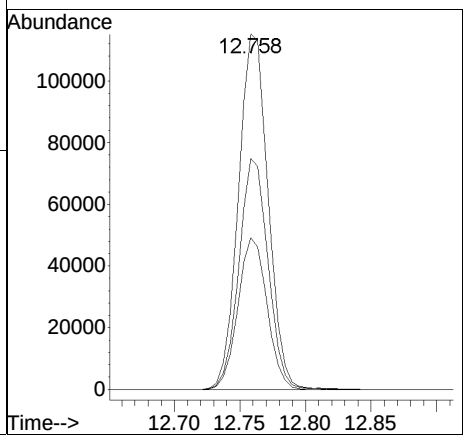


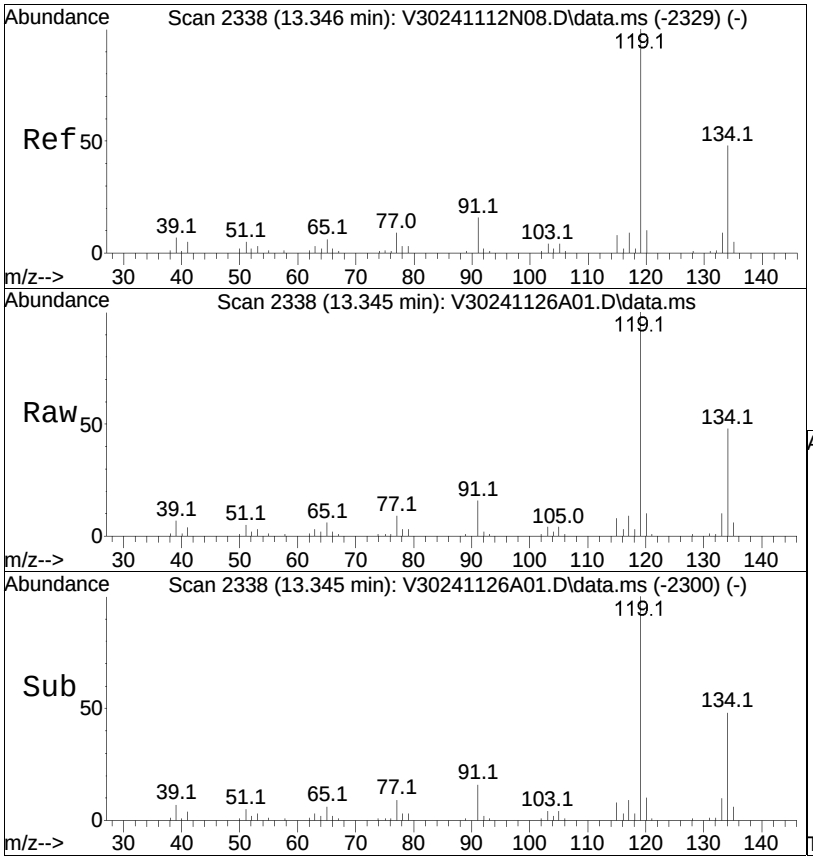


#109
1,2-Dichlorobenzene
Concen: 9.05 ug/L
RT: 12.758 min Scan# 2226
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:146 Resp: 181106

Ion	Ratio	Lower	Upper
146	100		
111	41.9	29.5	61.3
148	63.6	41.3	85.9

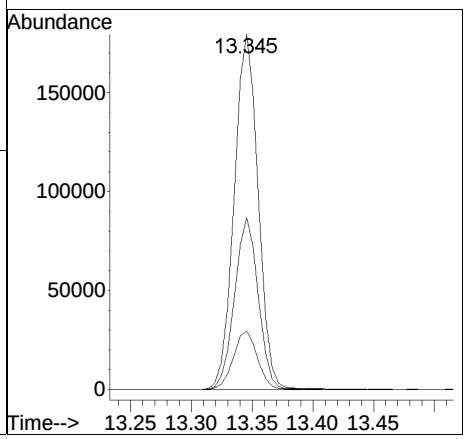


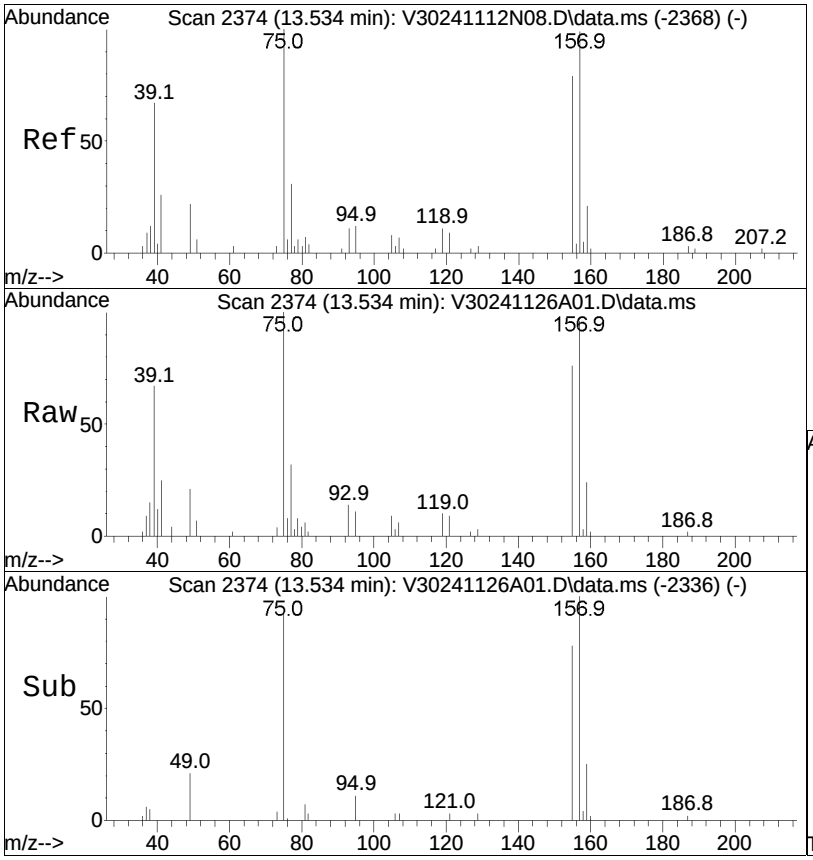


#110
1,2,4,5-Tetramethylbenzene
Concen: 7.69 ug/L
RT: 13.345 min Scan# 2338
Delta R.T. -0.001 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:119 Resp: 246181

Ion	Ratio	Lower	Upper
119	100		
134	47.7	29.1	60.5
91	16.5	11.5	23.9

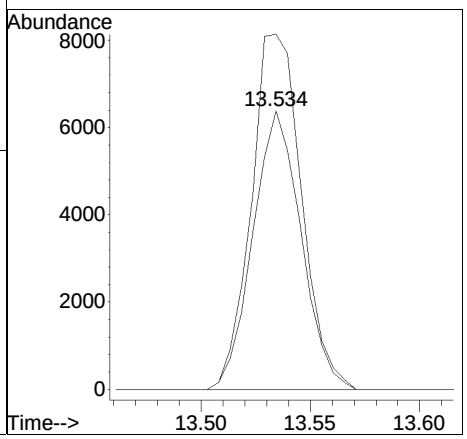


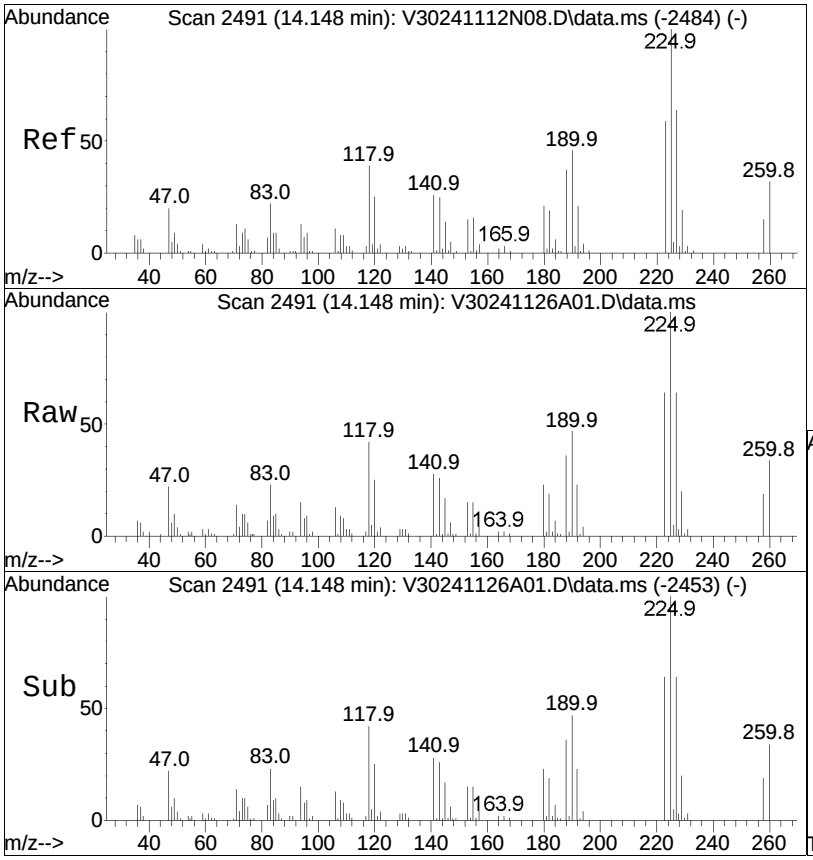


#111
1,2-Dibromo-3-chloropropane
Concen: 9.03 ug/L
RT: 13.534 min Scan# 2374
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:155 Resp: 9787

Ion	Ratio	Lower	Upper
155	100		
157	133.1	105.1	157.7

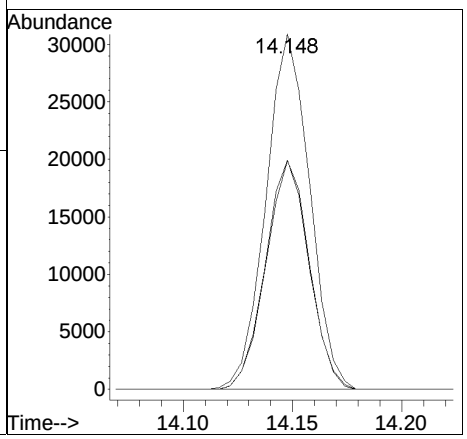


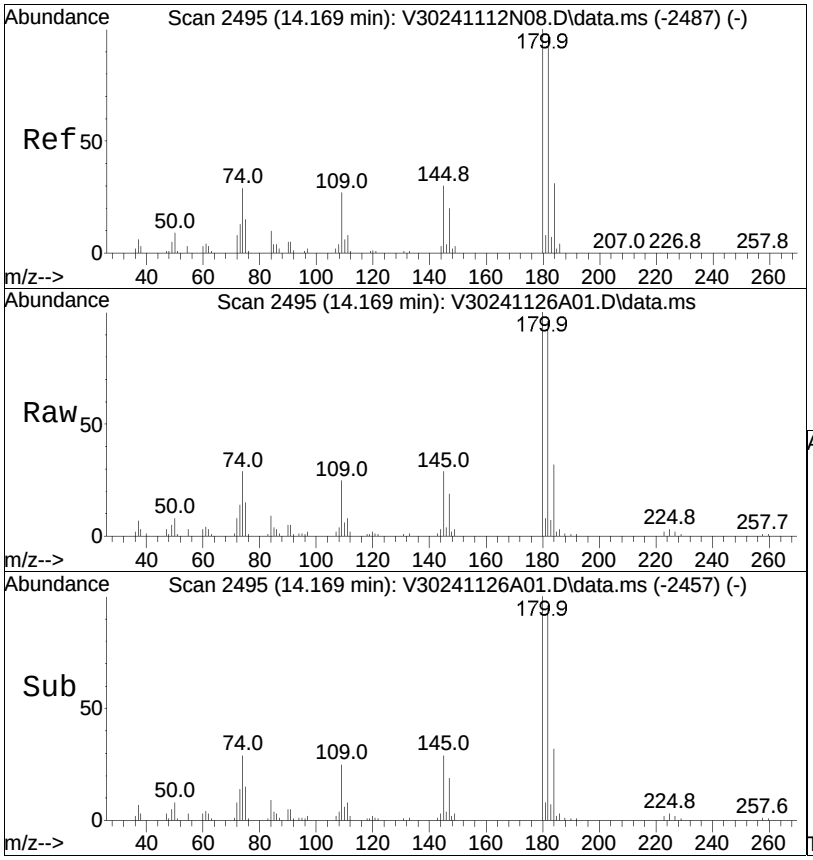


#113
Hexachlorobutadiene
Concen: 8.53 ug/L
RT: 14.148 min Scan# 2491
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:225 Resp: 43024

Ion	Ratio	Lower	Upper
225	100		
223	64.1	50.6	75.8
227	63.8	50.6	76.0

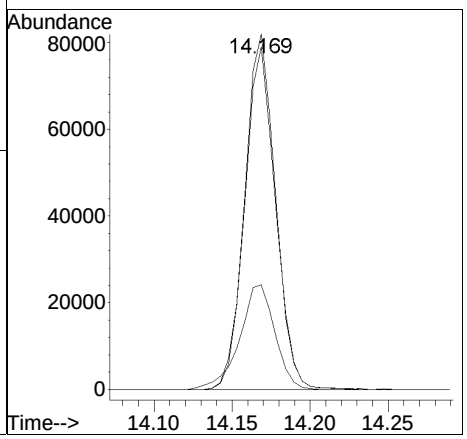


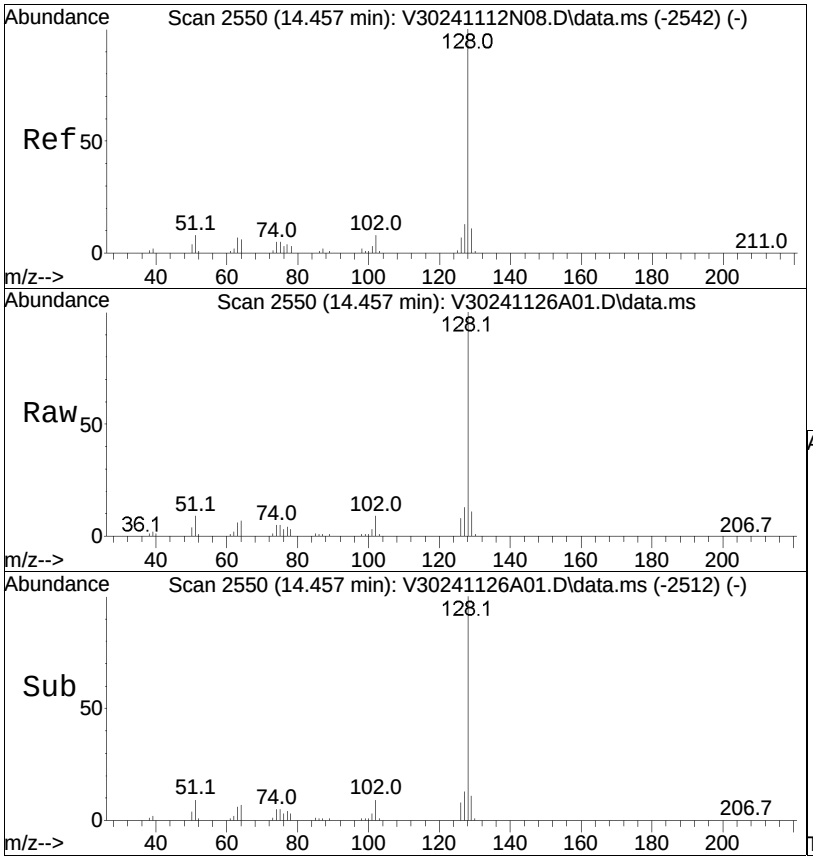


#114
1,2,4-Trichlorobenzene
Concen: 8.59 ug/L
RT: 14.169 min Scan# 2495
Delta R.T. -0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:180 Resp: 112437

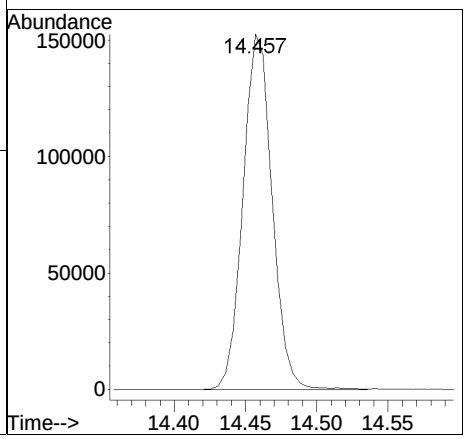
Ion	Ratio	Lower	Upper
180	100		
182	96.1	75.7	113.5
145	33.6	27.4	41.2

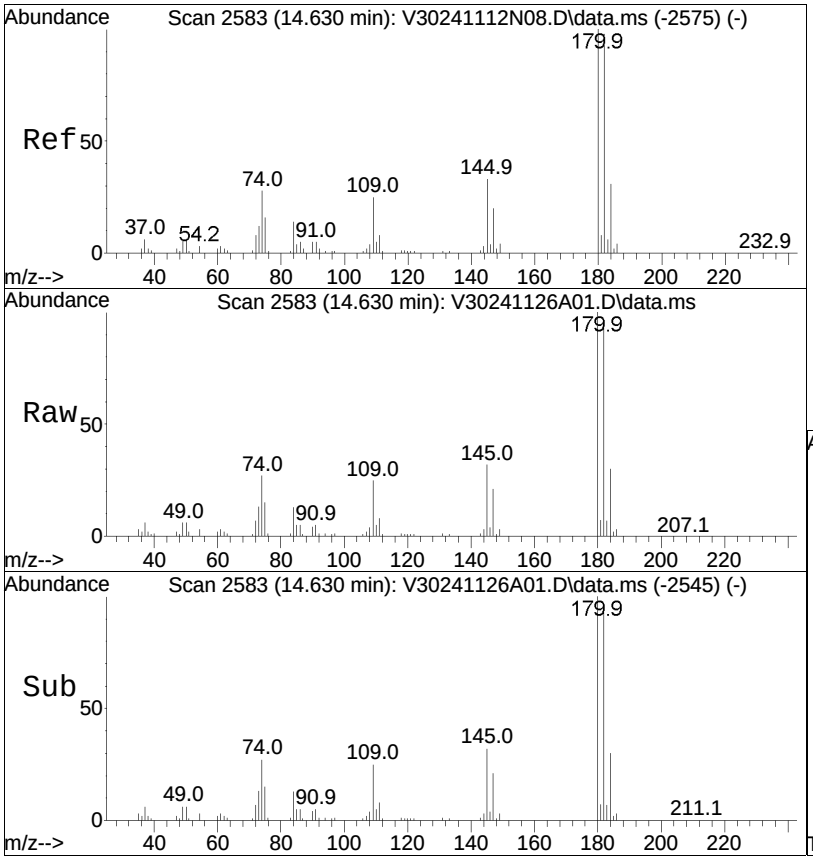




#115
Naphthalene
Concen: 8.10 ug/L
RT: 14.457 min Scan# 2550
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:128 Resp: 216728

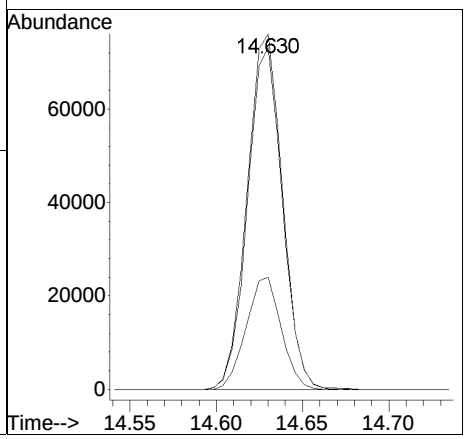




#116
1,2,3-Trichlorobenzene
Concen: 8.89 ug/L
RT: 14.630 min Scan# 2583
Delta R.T. 0.000 min
Lab File: V30241126A01.D
Acq: 26 Nov 2024 06:48 am

Tgt Ion:180 Resp: 108334

Ion	Ratio	Lower	Upper
180	100		
182	94.7	74.9	112.3
145	31.3	26.0	39.0

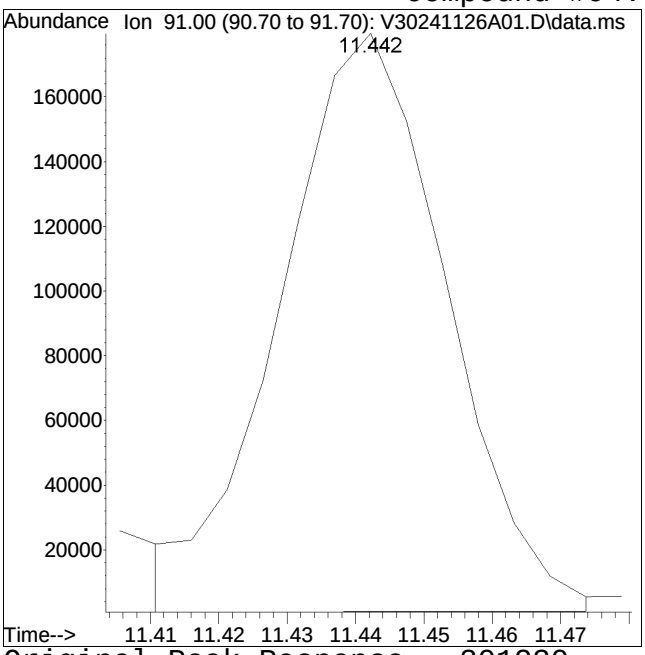


Manual Integration Report

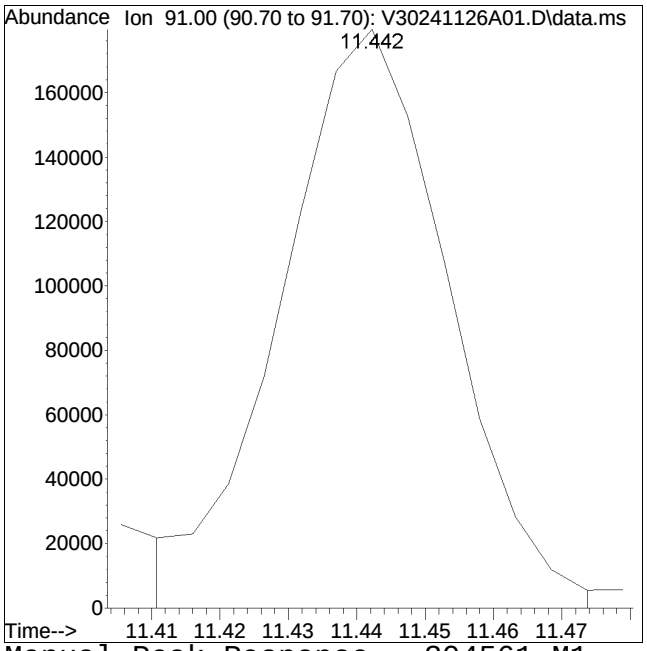
Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Date Inj'd : 11/26/2024 6:48 am
Sample : WG2002632-3,31,10,10

QMethod : V130_241112N_8260D.m
Operator : VOA130:PID
Instrument : VOA130
Quant Date : 11/26/2024 7:16 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 301230



Manual Peak Response = 304561 M1

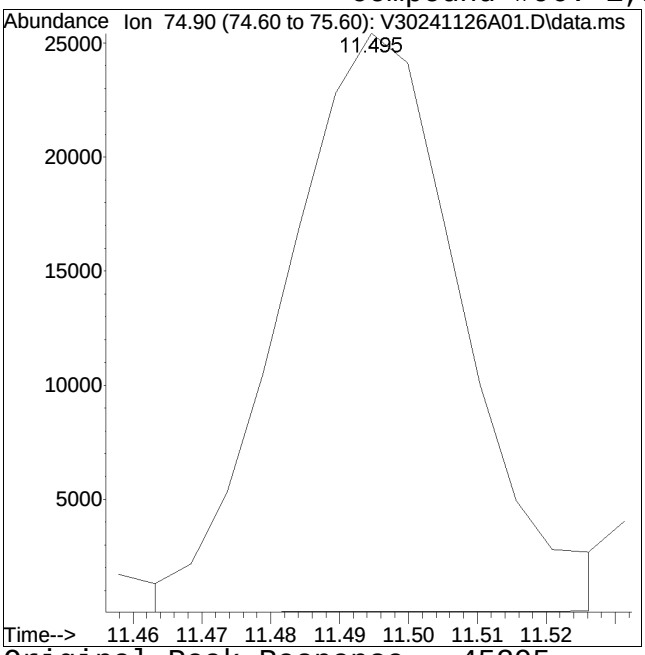
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

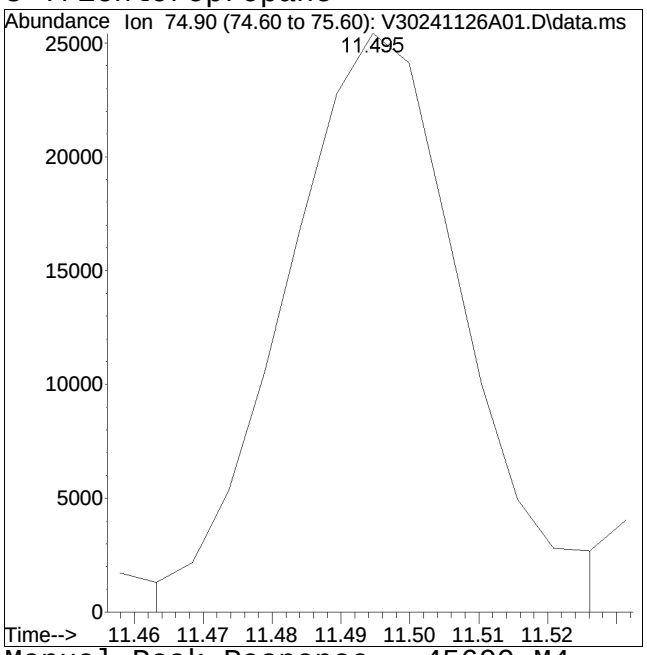
Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A01.D
Date Inj'd : 11/26/2024 6:48 am
Sample : WG2002632-3,31,10,10

QMethod : V130_241112N_8260D.m
Operator : VOA130:PID
Instrument : VOA130
Quant Date : 11/26/2024 7:16 am

Compound #96: 1,2,3-Trichloropropane



Original Peak Response = 45295



Manual Peak Response = 45600 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A02.D
Acq On : 26 Nov 2024 07:09 am
Operator : VOA130:PID
Sample : WG2002632-4,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 07:33:39 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	6.089	96	430757	10.000	ug/L	0.00
Standard Area 1 = 428062			Recovery = 100.63%			
63) Chlorobenzene-d5	9.633	117	349408	10.000	ug/L	0.00
Standard Area 1 = 326733			Recovery = 106.94%			
84) 1,4-Dichlorobenzene-d4	12.323	152	228213	10.000	ug/L	0.00
Standard Area 1 = 222637			Recovery = 102.50%			
System Monitoring Compounds						
39) Dibromofluoromethane	5.271	113	156660	10.580	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 105.80%			
47) 1,2-Dichloroethane-d4	5.801	65	167196	11.277	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.77%			
64) Toluene-d8	7.788	98	470825	10.045	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.45%			
88) 4-Bromofluorobenzene	11.117	95	187650	9.521	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.21%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.674	85	100033	9.614	ug/L	96
3) Chloromethane	1.868	50	119058	9.382	ug/L	97
4) Vinyl chloride	1.942	62	115705	9.278	ug/L	99
5) Bromomethane	2.256	94	44468	6.571	ug/L	99
6) Chloroethane	2.372	64	74485	9.754	ug/L	98
7) Trichlorofluoromethane	2.519	101	119528	8.554	ug/L	99
8) Ethyl ether	2.823	74	35368	9.876	ug/L	93
10) 1,1-Dichloroethene	3.011	96	79325	8.843	ug/L	81
11) Carbon disulfide	3.043	76	249580	9.242	ug/L	100
15) Methylene chloride	3.572	84	106841	9.651	ug/L	87
17) Acetone	3.604	43	18547	11.100	ug/L #	90
18) trans-1,2-Dichloroethene	3.724	96	87738	9.106	ug/L	87
21) Methyl tert-butyl ether	3.824	73	108641	7.272	ug/L	94
25) 1,1-Dichloroethane	4.312	63	189897	9.471	ug/L	98
27) Acrylonitrile	4.343	53	22907	11.120	ug/L	98
29) Vinyl acetate	4.542	43	105541	7.482	ug/L #	94
30) cis-1,2-Dichloroethene	4.831	96	101556	9.271	ug/L	86
31) 2,2-Dichloropropane	4.936	77	123251	9.333	ug/L	85
33) Bromochloromethane	5.025	128	47862	9.743	ug/L #	71
35) Chloroform	5.098	83	175275	9.502	ug/L	94

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A02.D
Acq On : 26 Nov 2024 07:09 am
Operator : VOA130:PID
Sample : WG2002632-4,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 07:33:39 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Carbon tetrachloride	5.240	117	83559	7.725	ug/L		98
40) 1,1,1-Trichloroethane	5.303	97	109546	8.305	ug/L		95
42) 2-Butanone	5.387	43	21140	10.448	ug/L		94
43) 1,1-Dichloropropene	5.423	75	73685	6.877	ug/L		96
45) Benzene	5.670	78	280086	8.715	ug/L		97
48) 1,2-Dichloroethane	5.869	62	108259	9.545	ug/L	#	98
52) Trichloroethene	6.273	95	60775	7.761	ug/L		95
54) Dibromomethane	6.708	93	48895	9.491	ug/L		90
55) 1,2-Dichloropropane	6.807	63	67477	7.989	ug/L		98
58) Bromodichloromethane	6.886	83	96735	8.437	ug/L	#	98
61) 1,4-Dioxane	7.096	88	24004	579.659	ug/L	#	95
62) cis-1,3-Dichloropropene	7.578	75	91332	7.780	ug/L	#	84
65) Toluene	7.846	92	188070	8.812	ug/L		99
66) 4-Methyl-2-pentanone	8.281	58	13345	8.525	ug/L	#	90
67) Tetrachloroethene	8.302	166	65668	8.481	ug/L		93
69) trans-1,3-Dichloropropene	8.323	75	80176	8.074	ug/L	#	82
72) 1,1,2-Trichloroethane	8.511	83	42920	9.032	ug/L		98
73) Chlorodibromomethane	8.726	129	53255	8.140	ug/L		98
74) 1,3-Dichloropropane	8.831	76	89789	8.584	ug/L		99
75) 1,2-Dibromoethane	8.999	107	44714	8.857	ug/L		99
77) 2-Hexanone	9.287	43	25199	8.777	ug/L		99
78) Chlorobenzene	9.654	112	200190	8.795	ug/L		89
79) Ethylbenzene	9.696	91	358616	8.540	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.738	131	52131	8.512	ug/L		99
81) p/m Xylene	9.885	106	300303	17.775	ug/L		95
82) o Xylene	10.420	106	286454	17.622	ug/L		95
83) Styrene	10.483	104	493910	18.489	ug/L		95
85) Bromoform	10.504	173	31556	7.928	ug/L		96
87) Isopropylbenzene	10.803	105	334656	7.863	ug/L		98
89) Bromobenzene	11.227	156	87354	8.488	ug/L		100
90) n-Propylbenzene	11.275	91	444754	8.306	ug/L		98
92) 1,1,2,2-Tetrachloroethane	11.353	83	62695	9.402	ug/L		99
93) 4-Ethyltoluene	11.400	105	363442	8.187	ug/L		98
94) 2-Chlorotoluene	11.442	91	284821M1	8.671	ug/L		
95) 1,3,5-Trimethylbenzene	11.500	105	321242	8.265	ug/L		97
96) 1,2,3-Trichloropropane	11.495	75	51865	9.538	ug/L		90
97) trans-1,4-Dichloro-2-b...	11.547	53	16310	10.075	ug/L		98
98) 4-Chlorotoluene	11.626	91	291514	8.506	ug/L		95
99) tert-Butylbenzene	11.841	119	244178	7.743	ug/L		96

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A02.D
Acq On : 26 Nov 2024 07:09 am
Operator : VOA130:PID
Sample : WG2002632-4,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 07:33:39 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

CCAL FILE(s) : 1 - K:\VOA130\2024\241126A\V30241126A01.D
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,2,4-Trimethylbenzene	11.914	105	311399	8.259	ug/L	97
103) sec-Butylbenzene	12.030	105	373090	8.139	ug/L	95
104) p-Isopropyltoluene	12.182	119	316980	8.008	ug/L	97
105) 1,3-Dichlorobenzene	12.250	146	186022	8.596	ug/L	97
106) 1,4-Dichlorobenzene	12.339	146	191762	8.669	ug/L	98
107) p-Diethylbenzene	12.554	119	180572	7.753	ug/L	96
108) n-Butylbenzene	12.612	91	289856	8.422	ug/L	98
109) 1,2-Dichlorobenzene	12.758	146	176664	8.611	ug/L	98
110) 1,2,4,5-Tetramethylben...	13.346	119	229095	6.982	ug/L	97
111) 1,2-Dibromo-3-chloropr...	13.534	155	10986	9.884	ug/L	99
113) Hexachlorobutadiene	14.148	225	38458	7.435	ug/L	99
114) 1,2,4-Trichlorobenzene	14.169	180	108606	8.094	ug/L	98
115) Naphthalene	14.457	128	228228	8.322	ug/L	100
116) 1,2,3-Trichlorobenzene	14.630	180	105567	8.447	ug/L	98

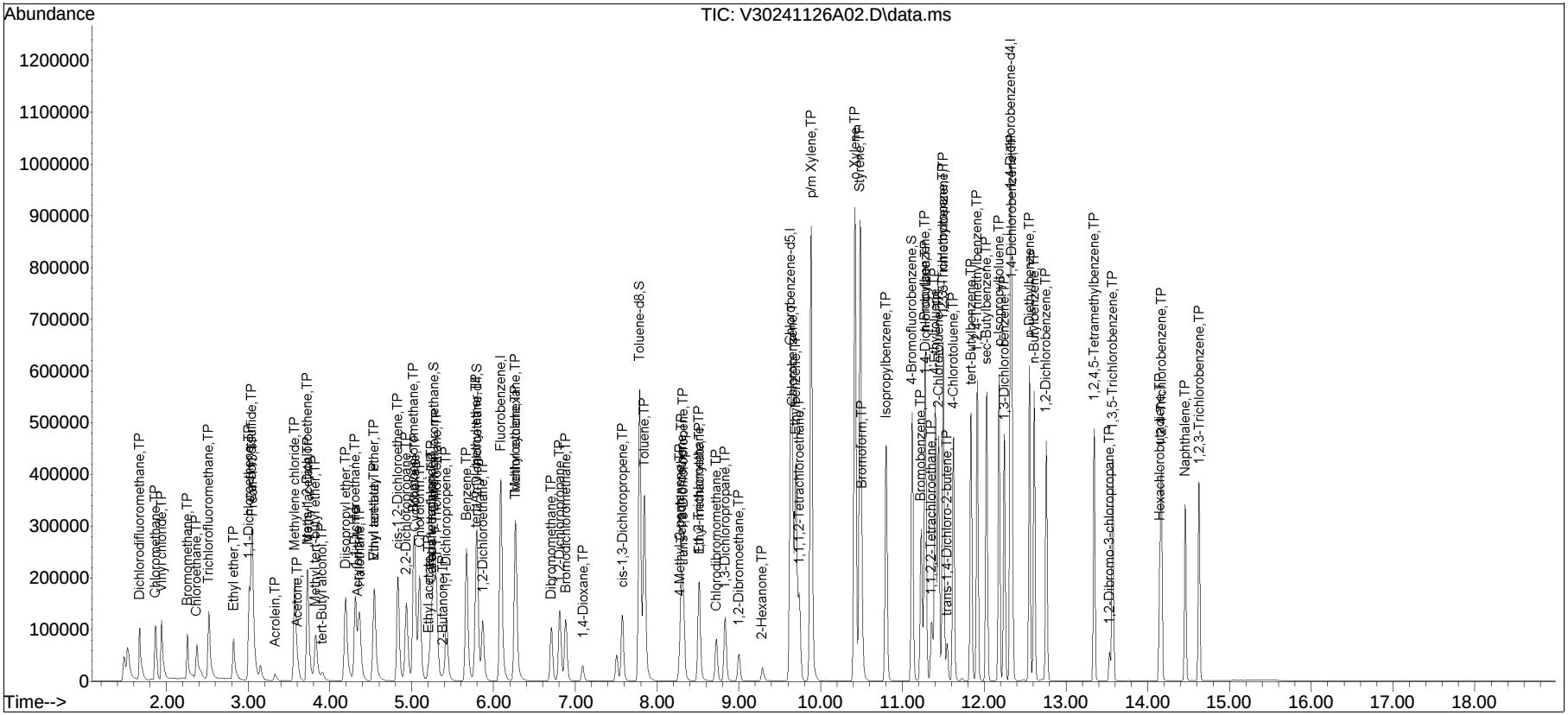
(#) = qualifier out of range (m) = manual integration (+) = signals summed

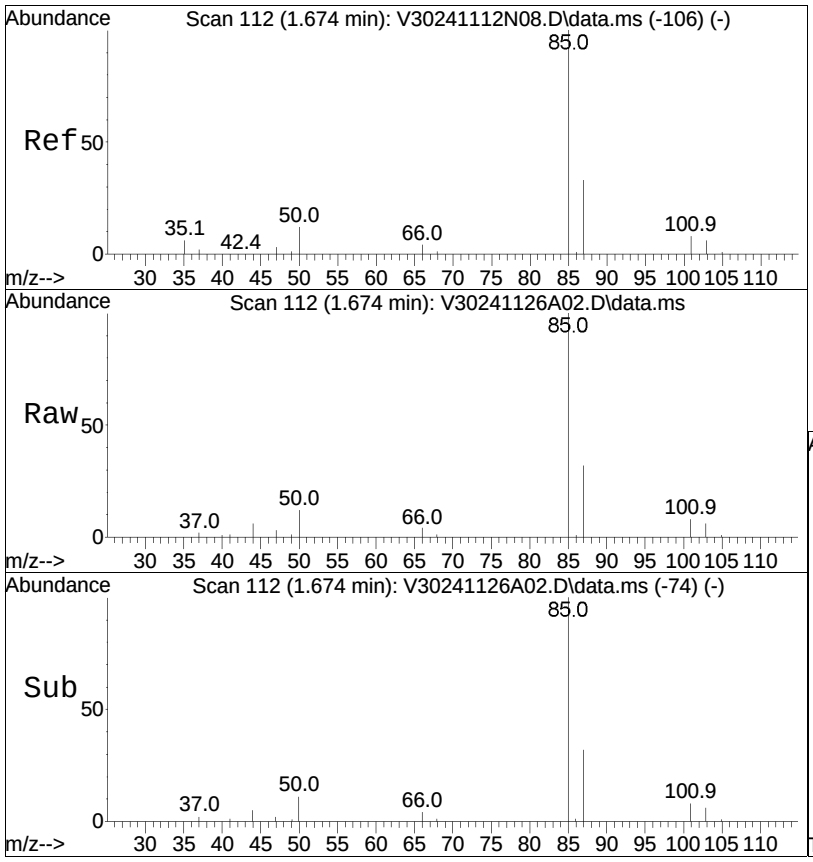
Quantitation Report (QT Reviewed)

Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A02.D
Acq On : 26 Nov 2024 07:09 am
Operator : VOA130:PID
Sample : WG2002632-4,31,10,10
Misc : WG2002632,ICAL21702
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 26 07:33:39 2024
Quant Method : K:\VOA130\2024\241126A\V130_241112N_8260D.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 13 13:45:44 2024
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

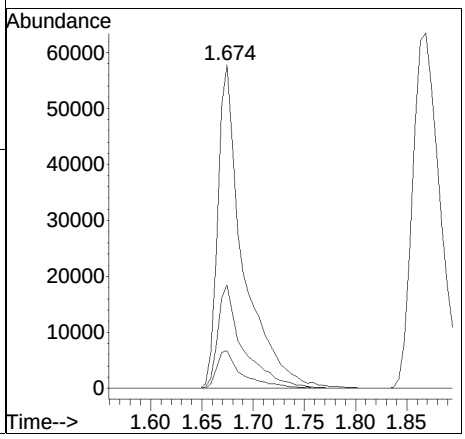


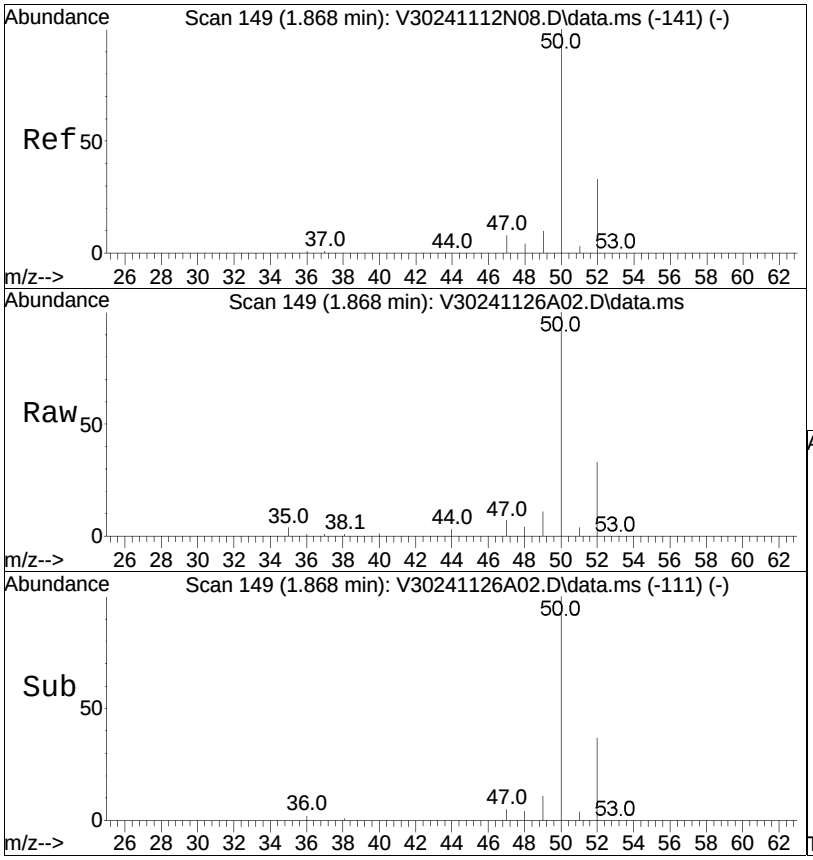


#2
Dichlorodifluoromethane
Concen: 9.61 ug/L
RT: 1.674 min Scan# 112
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 85 Resp: 100033

Ion	Ratio	Lower	Upper
85	100		
87	31.9	20.2	42.0
50	11.7	10.1	20.9

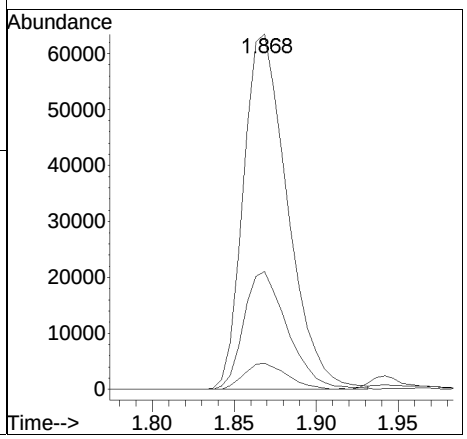


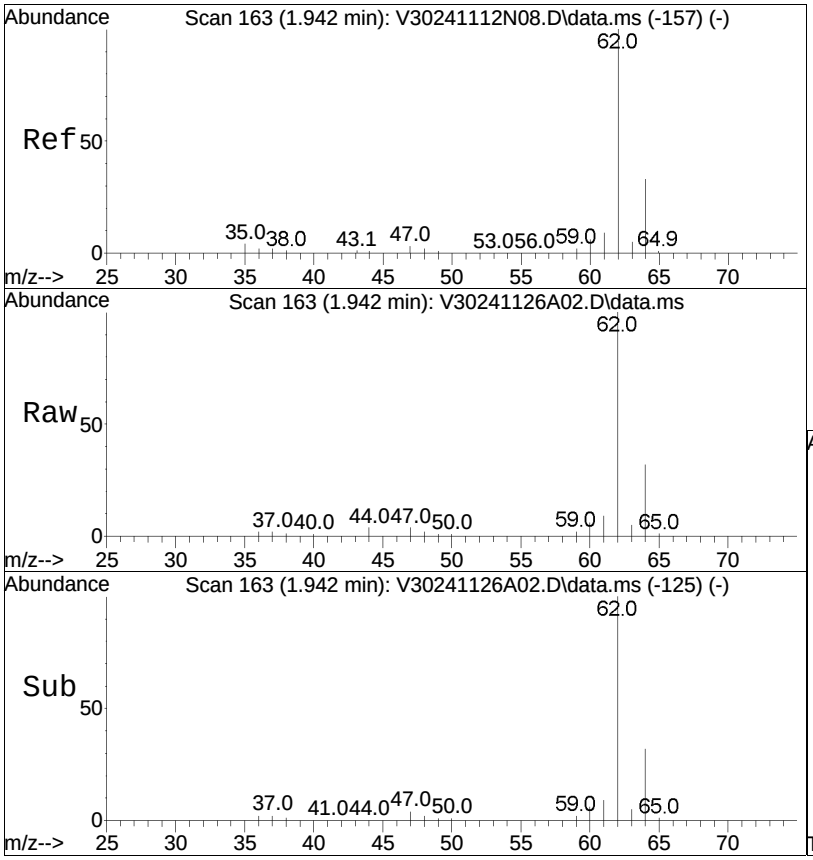


#3
Chloromethane
Concen: 9.38 ug/L
RT: 1.868 min Scan# 149
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 50 Resp: 119058

Ion	Ratio	Lower	Upper
50	100		
52	32.9	25.1	37.7
47	7.2	6.5	9.7

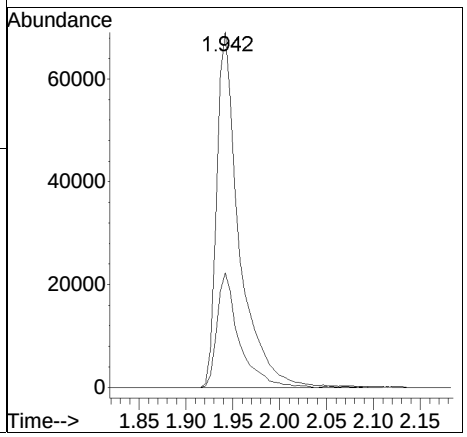


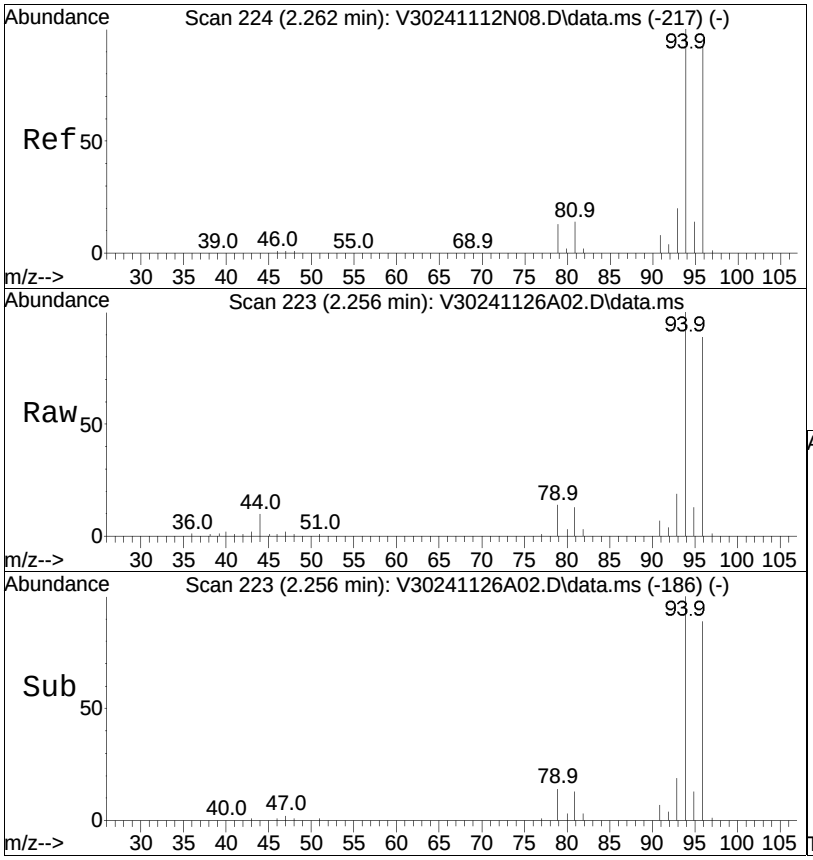


#4
Vinyl chloride
Concen: 9.28 ug/L
RT: 1.942 min Scan# 163
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 62 Resp: 115705

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.7	38.5

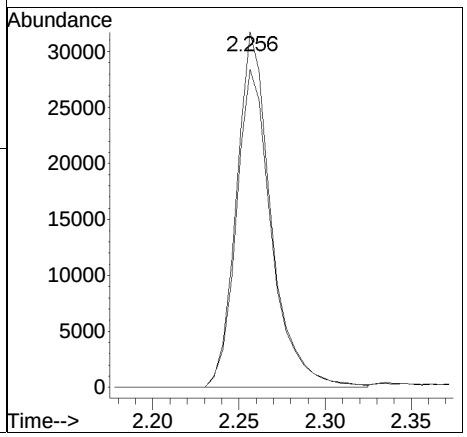


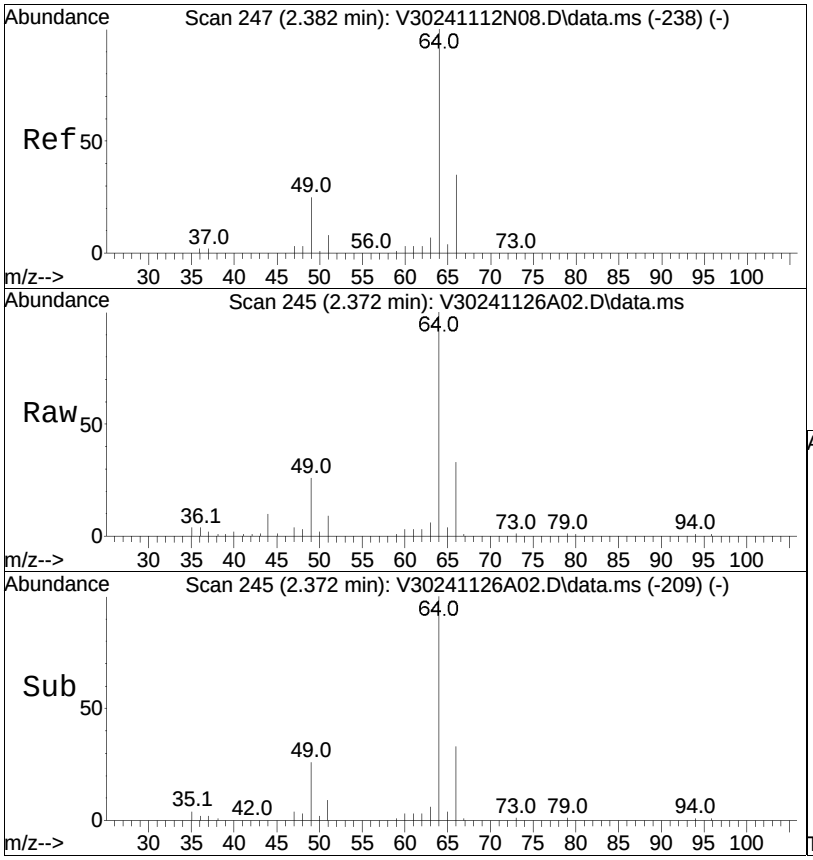


#5
Bromomethane
Concen: 6.57 ug/L
RT: 2.256 min Scan# 223
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 94 Resp: 44468

Ion	Ratio	Lower	Upper
94	100		
96	91.4	73.7	110.5

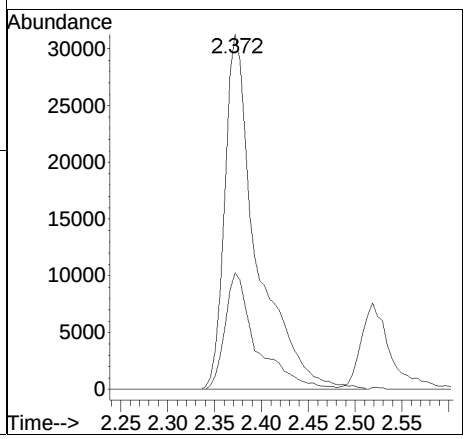


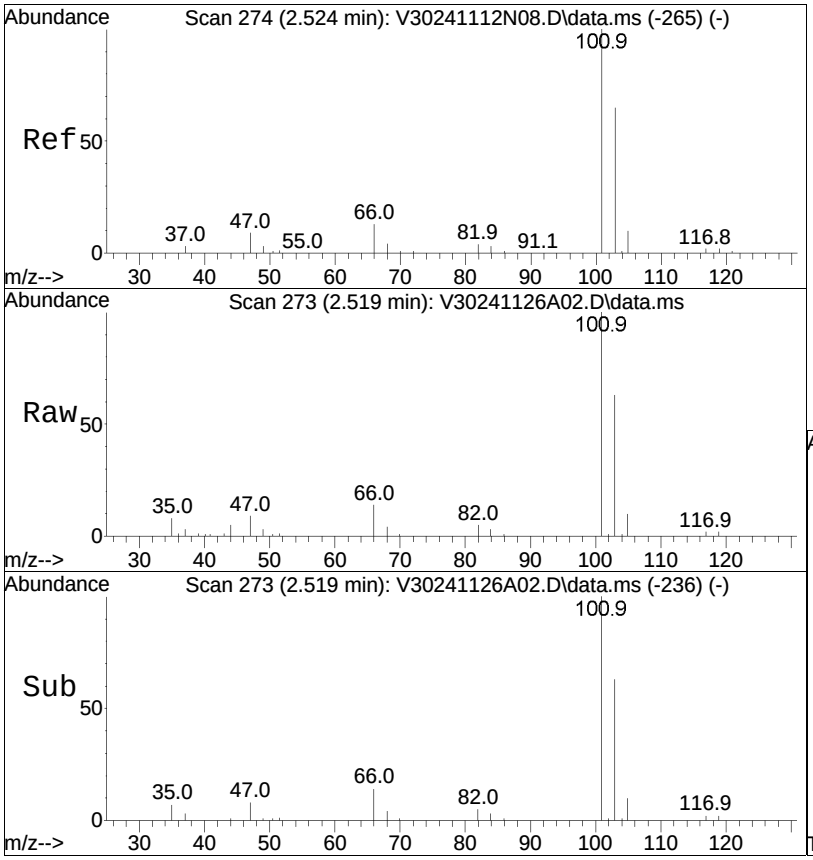


#6
Chloroethane
Concen: 9.75 ug/L
RT: 2.372 min Scan# 245
Delta R.T. -0.010 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 64 Resp: 74485

Ion	Ratio	Lower	Upper
64	100		
66	32.5	25.3	37.9

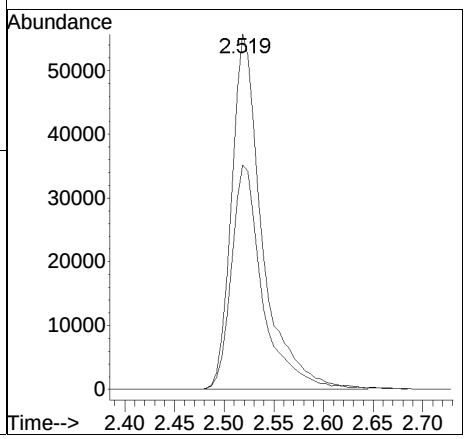


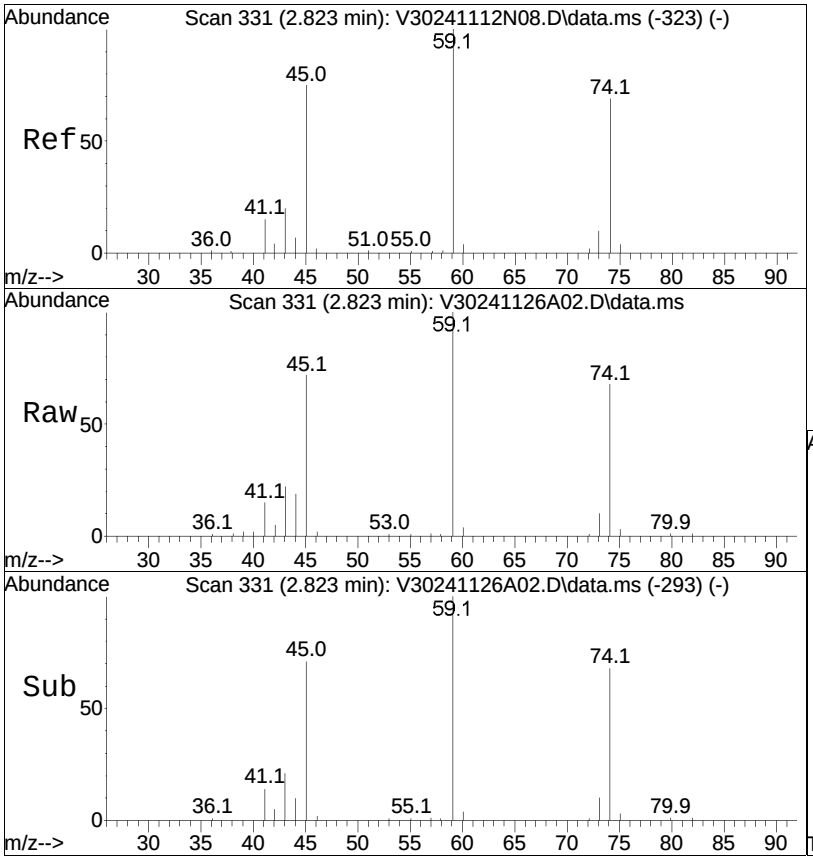


#7
Trichlorofluoromethane
Concen: 8.55 ug/L
RT: 2.519 min Scan# 273
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:101 Resp: 119528

Ion	Ratio	Lower	Upper
101	100		
103	64.8	51.0	76.4

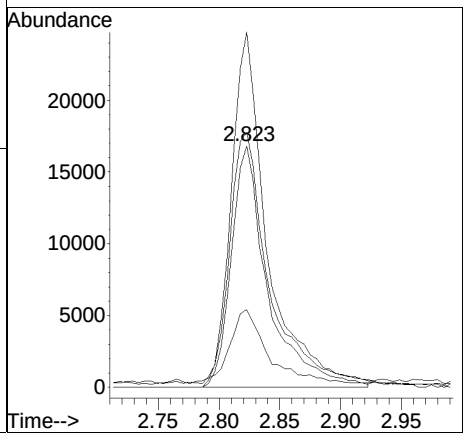


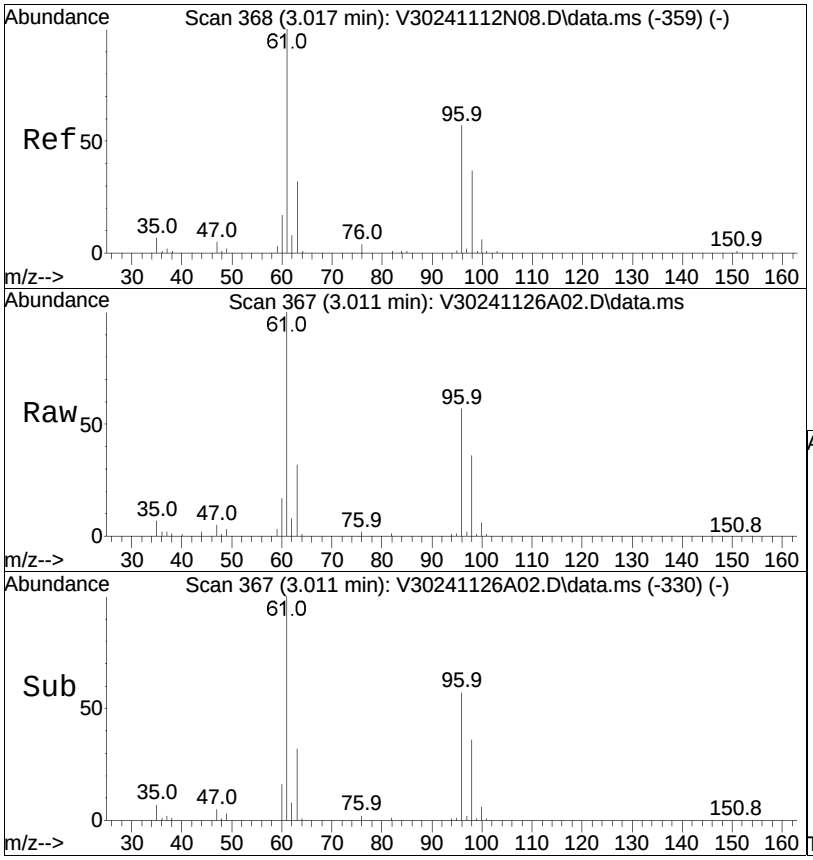


#8
Ethyl ether
Concen: 9.88 ug/L
RT: 2.823 min Scan# 331
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 74 Resp: 35368

Ion	Ratio	Lower	Upper
74	100		
59	147.5	97.6	202.8
45	109.4	80.6	167.4
43	33.0	24.8	51.6

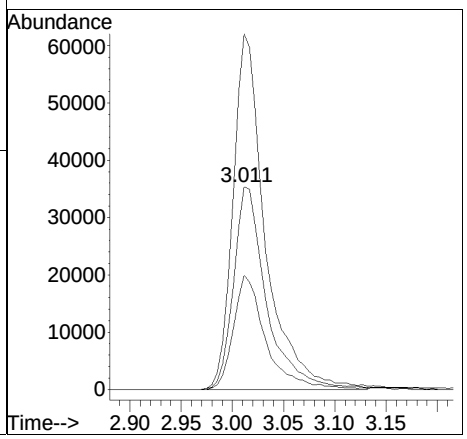


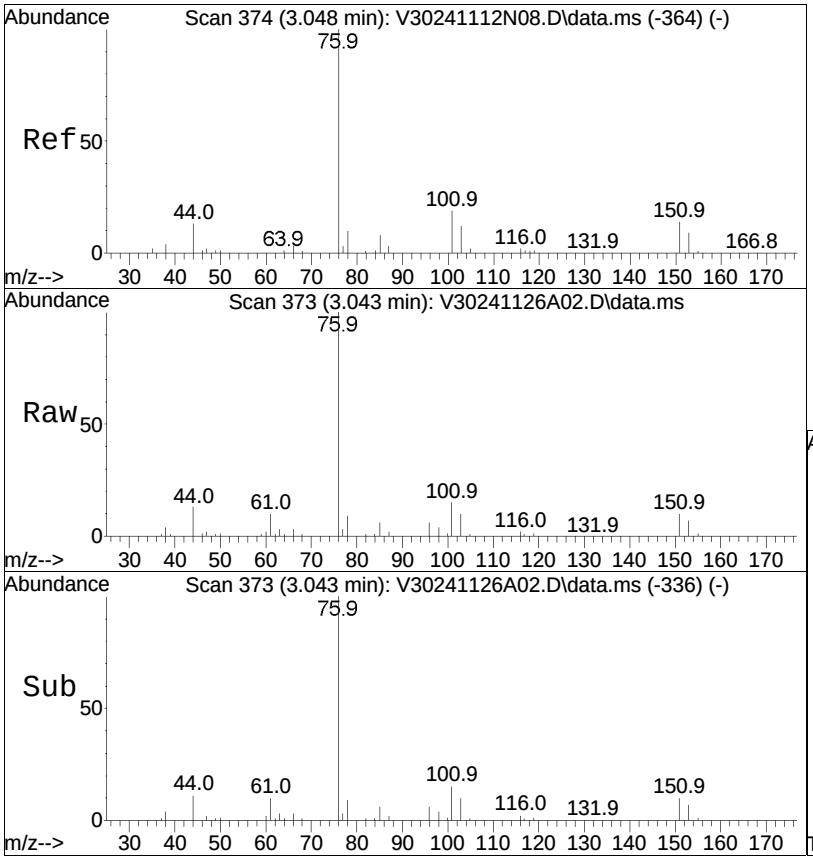


#10
1,1-Dichloroethene
Concen: 8.84 ug/L
RT: 3.011 min Scan# 367
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 96 Resp: 79325

Ion	Ratio	Lower	Upper
96	100		
61	173.5	165.5	248.3
63	55.3	51.9	77.9

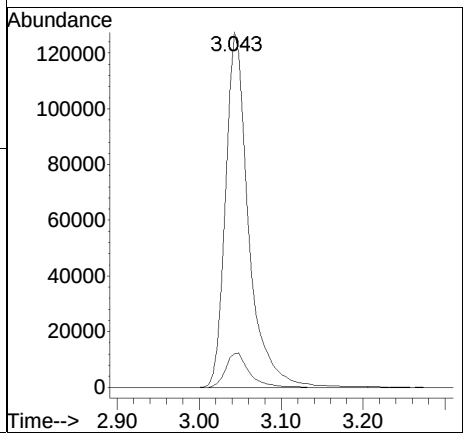


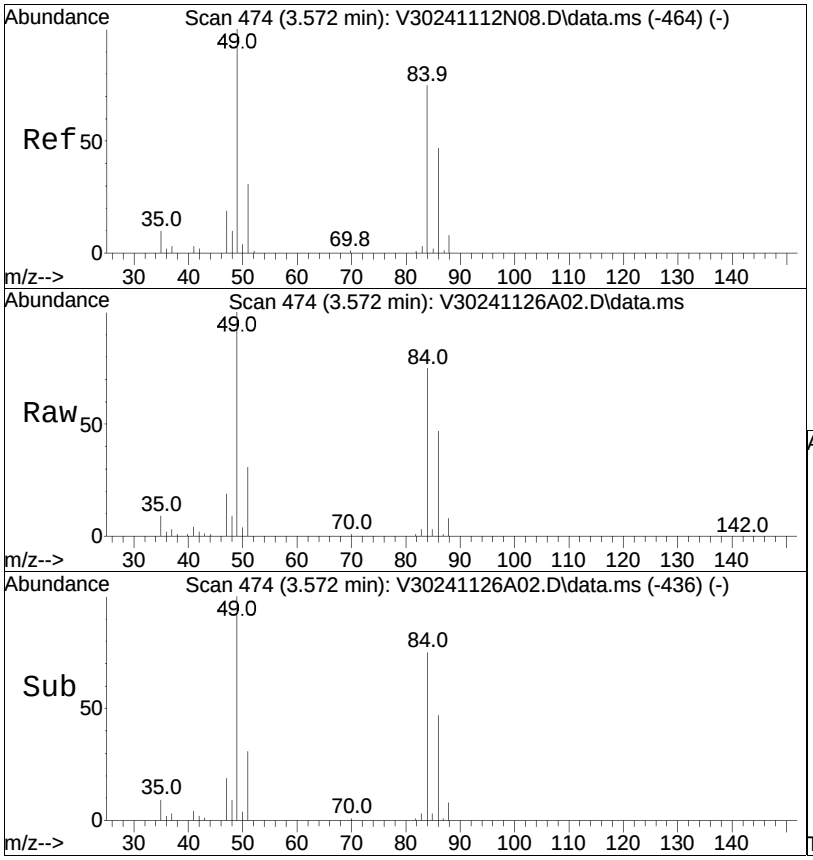


#11
Carbon disulfide
Concen: 9.24 ug/L
RT: 3.043 min Scan# 373
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 76 Resp: 249580

Ion	Ratio	Lower	Upper
76	100		
78	9.9	6.4	13.4

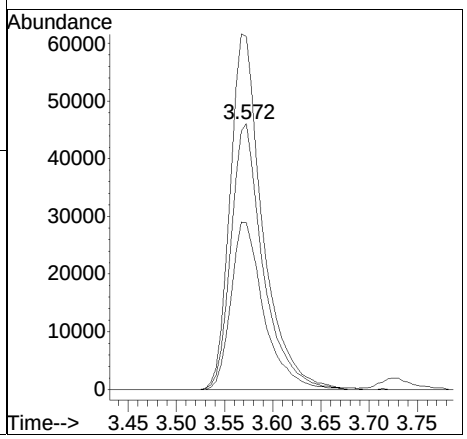


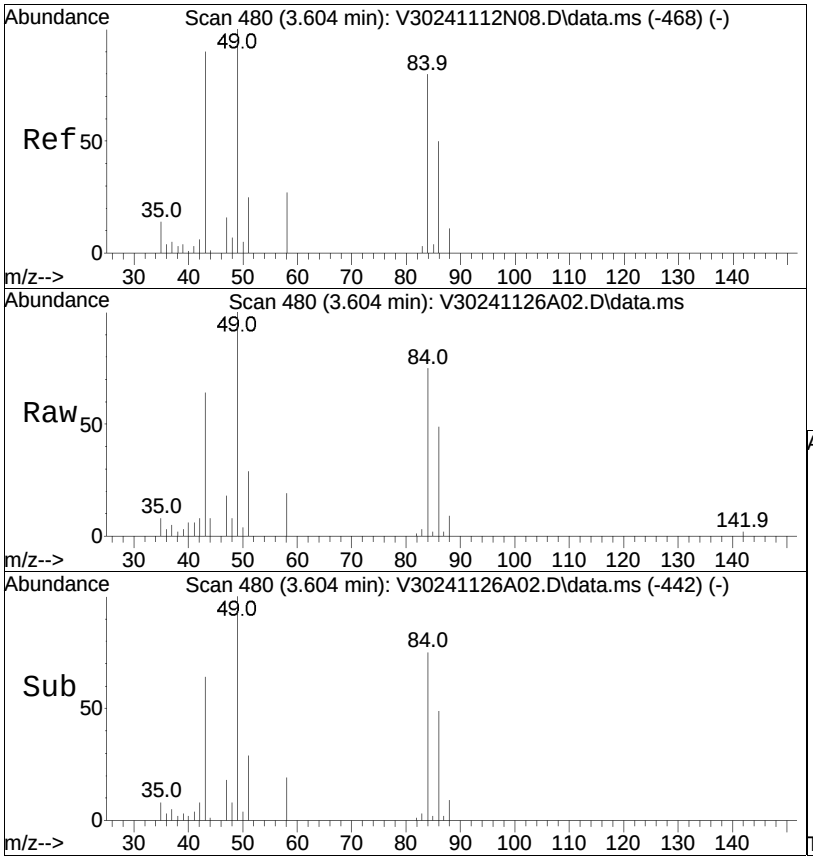


#15
Methylene chloride
Concen: 9.65 ug/L
RT: 3.572 min Scan# 474
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 84 Resp: 106841

Ion	Ratio	Lower	Upper
84	100		
86	64.0	41.7	86.5
49	135.1	103.9	215.9

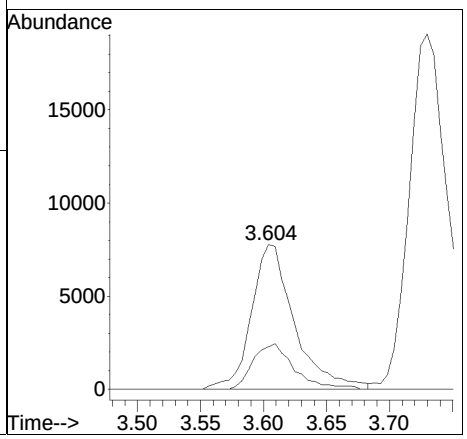


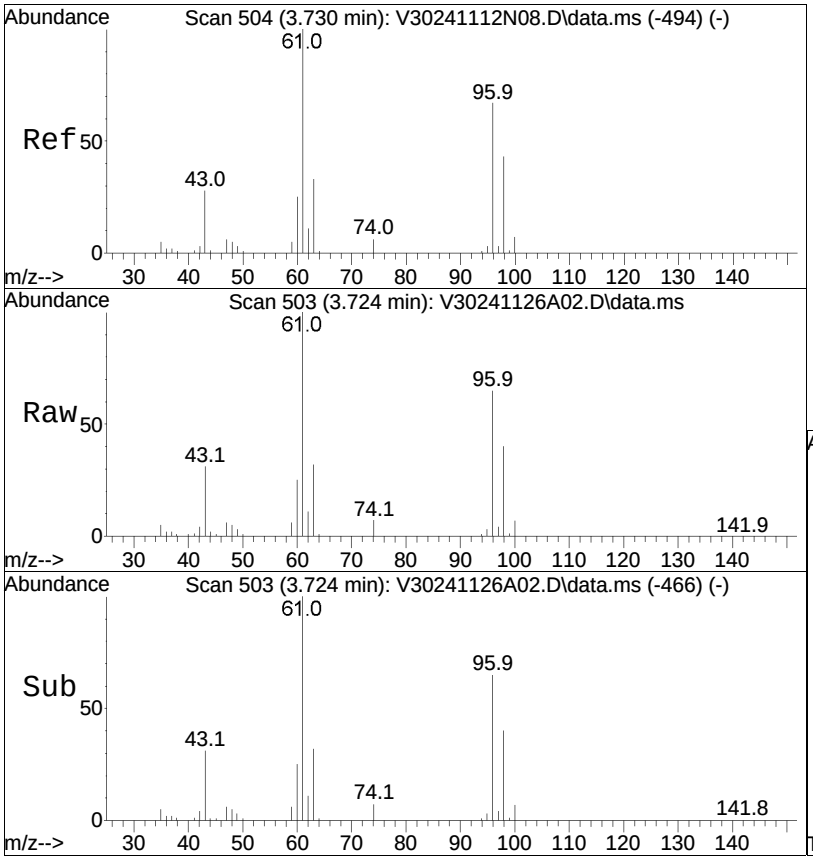


#17
Acetone
Concen: 11.10 ug/L
RT: 3.604 min Scan# 480
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 43 Resp: 18547

Ion	Ratio	Lower	Upper
43	100		
58	30.3	20.1	30.1#

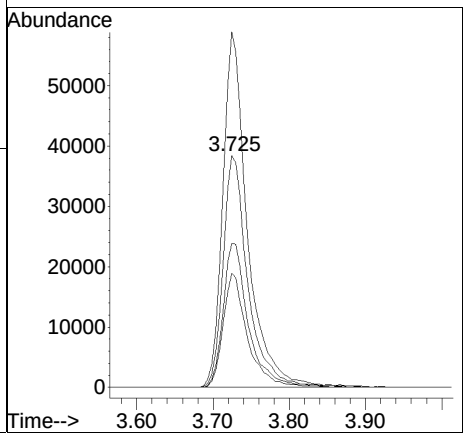


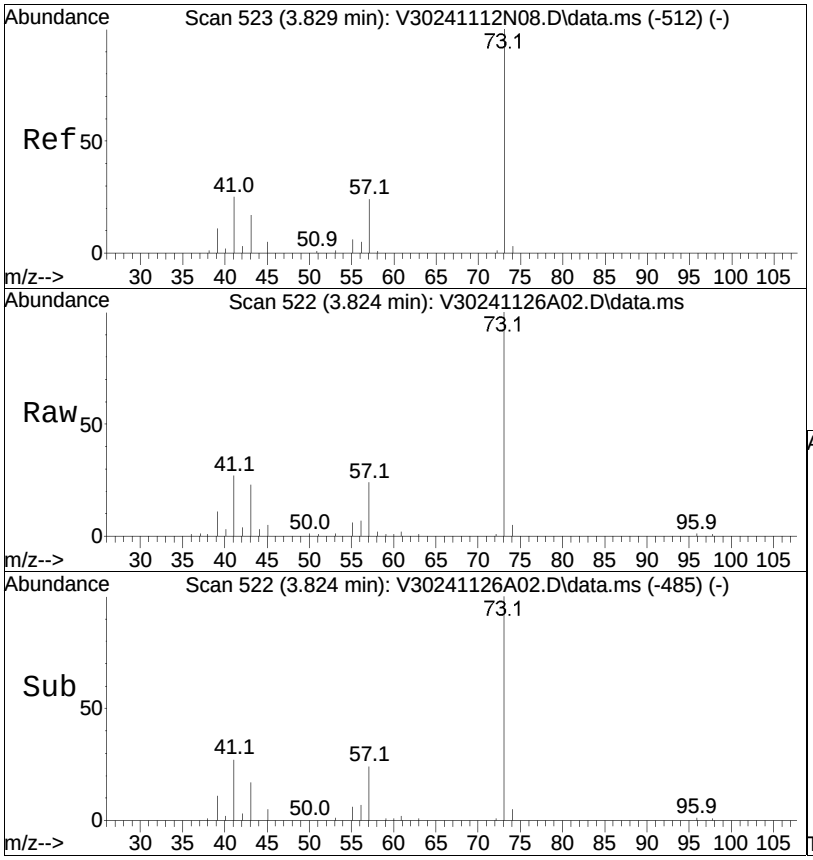


#18
trans-1,2-Dichloroethene
Concen: 9.11 ug/L
RT: 3.724 min Scan# 503
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 96 Resp: 87738

Ion	Ratio	Lower	Upper
96	100		
61	150.5	113.6	236.0
98	62.9	40.8	84.8
63	47.6	36.5	75.7

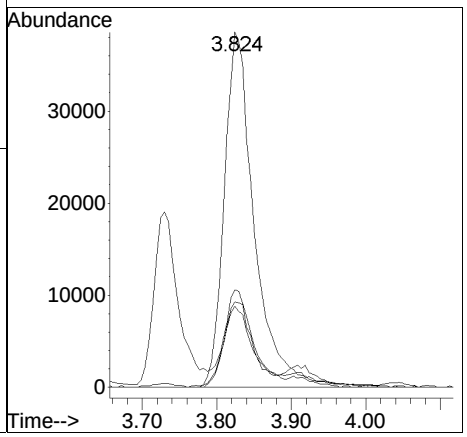


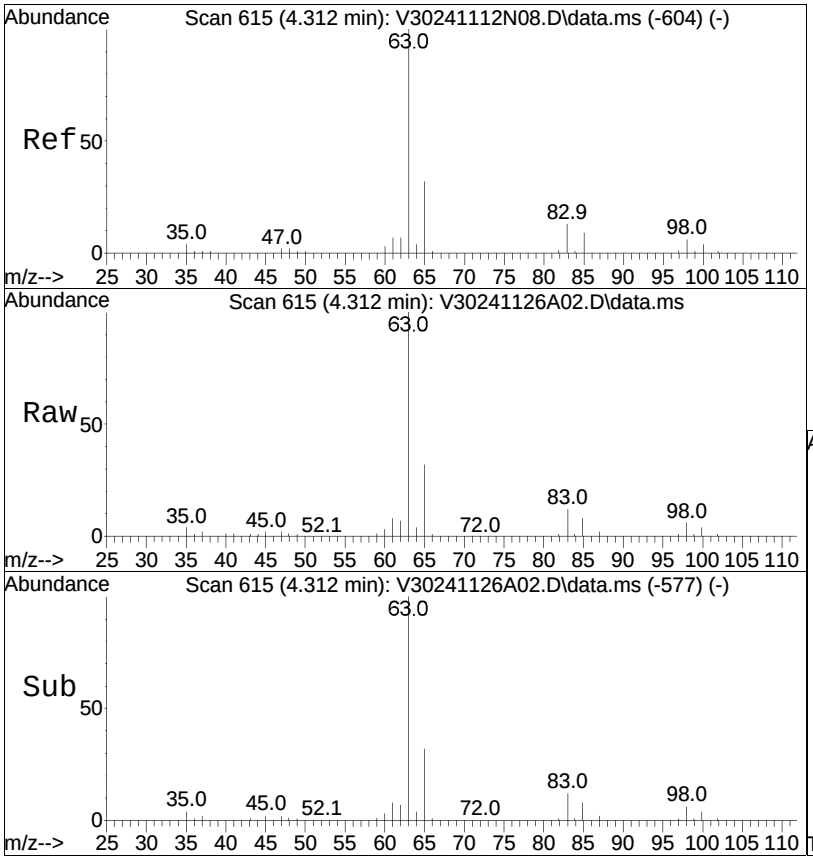


#21
Methyl tert-butyl ether
Concen: 7.27 ug/L
RT: 3.824 min Scan# 522
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 73 Resp: 108641

Ion	Ratio	Lower	Upper
73	100		
57	23.9	15.5	32.1
43	17.2	16.6	34.6
41	26.2	17.2	35.6

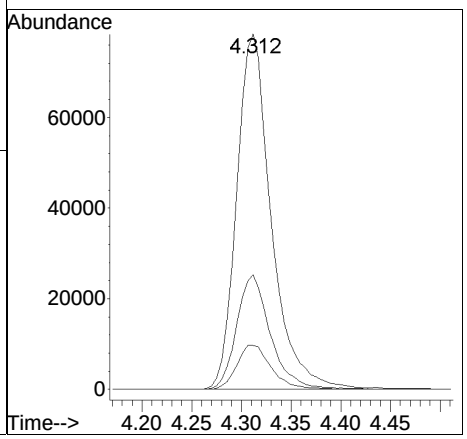


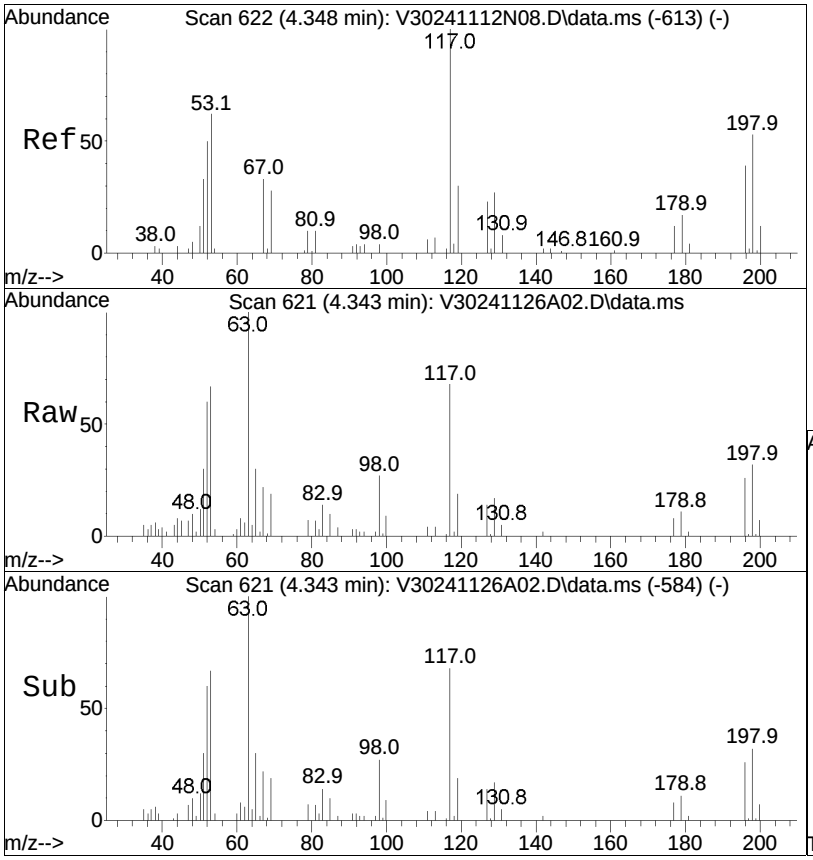


#25
1,1-Dichloroethane
Concen: 9.47 ug/L
RT: 4.312 min Scan# 615
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 63 Resp: 189897

Ion	Ratio	Lower	Upper
63	100		
65	31.6	24.5	36.7
83	12.5	8.9	13.3

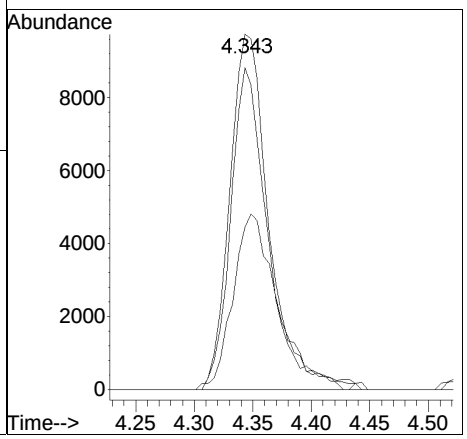


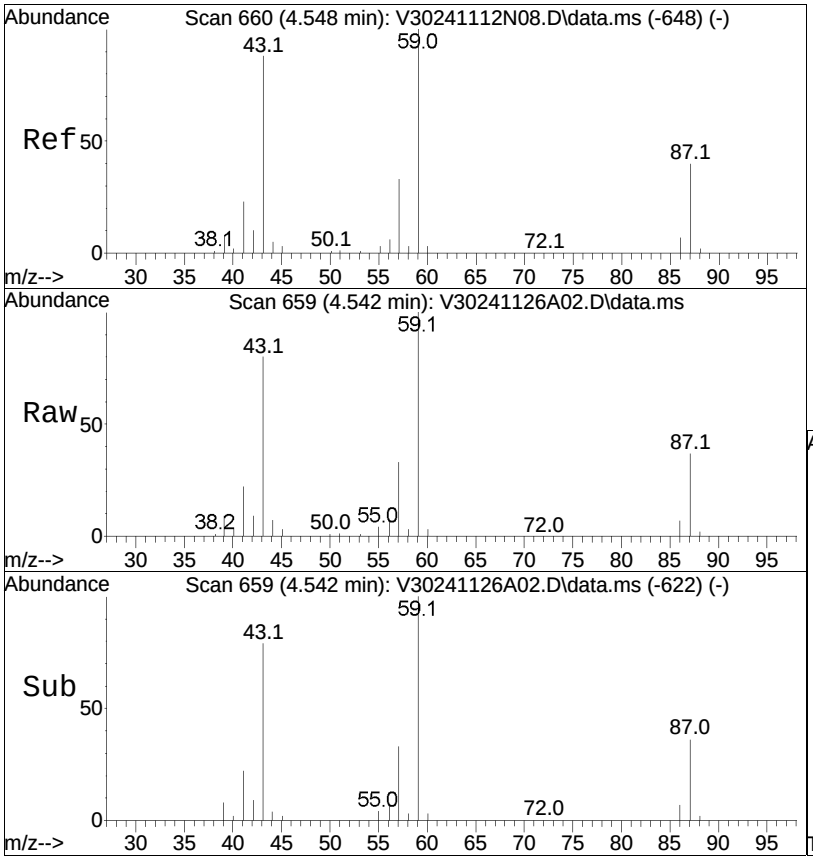


#27
Acrylonitrile
Concen: 11.12 ug/L
RT: 4.343 min Scan# 621
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 53 Resp: 22907

Ion	Ratio	Lower	Upper
53	100		
52	85.6	69.0	103.6
51	55.3	41.8	62.8

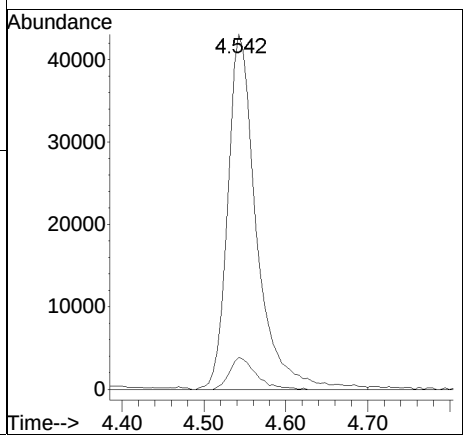


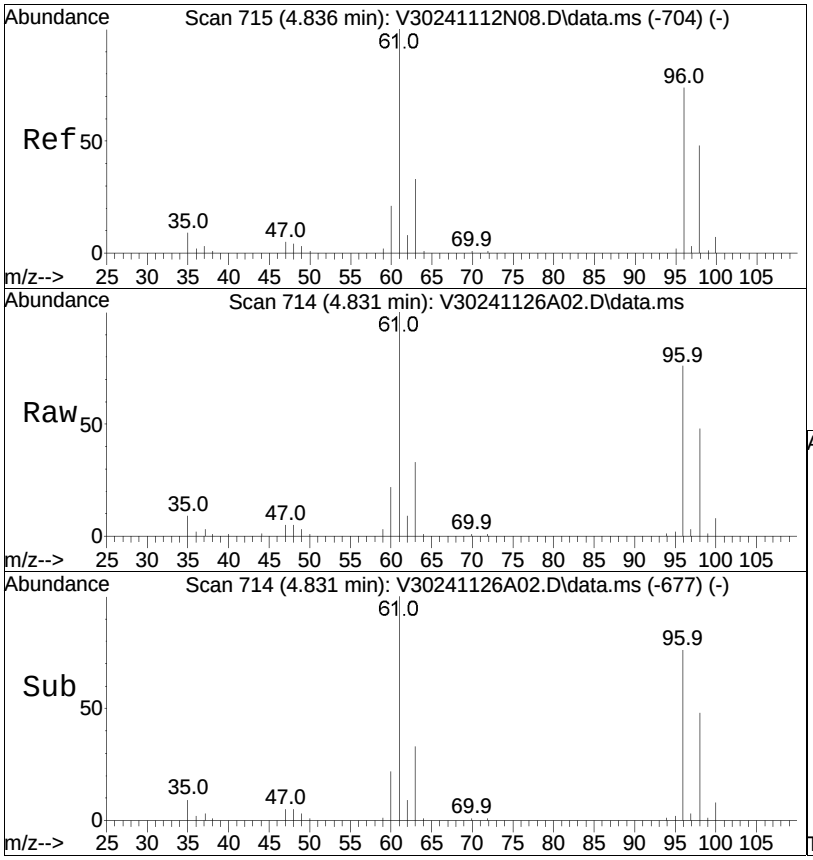


#29
Vinyl acetate
Concen: 7.48 ug/L
RT: 4.542 min Scan# 659
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 43 Resp: 105541

Ion	Ratio	Lower	Upper
43	100		
86	8.2	5.0	7.6#

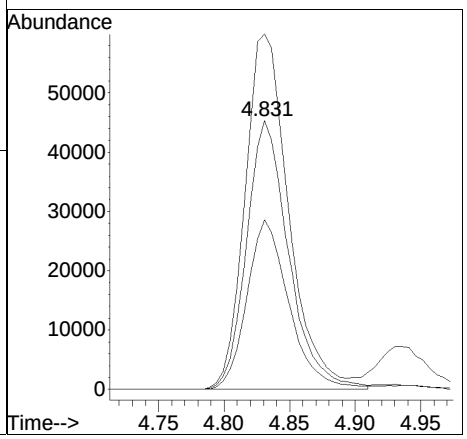


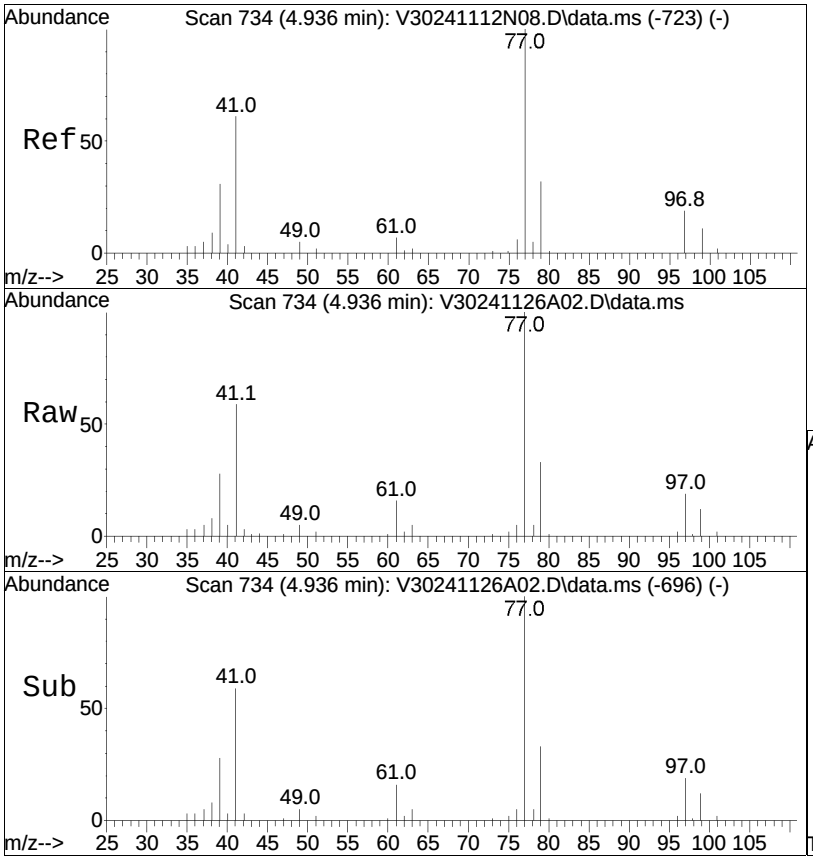


#30
cis-1,2-Dichloroethene
Concen: 9.27 ug/L
RT: 4.831 min Scan# 714
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 96 Resp: 101556

Ion	Ratio	Lower	Upper
96	100		
61	136.5	129.3	193.9
98	62.9	51.4	77.2

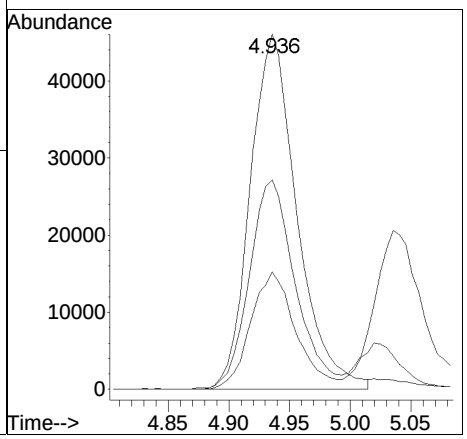


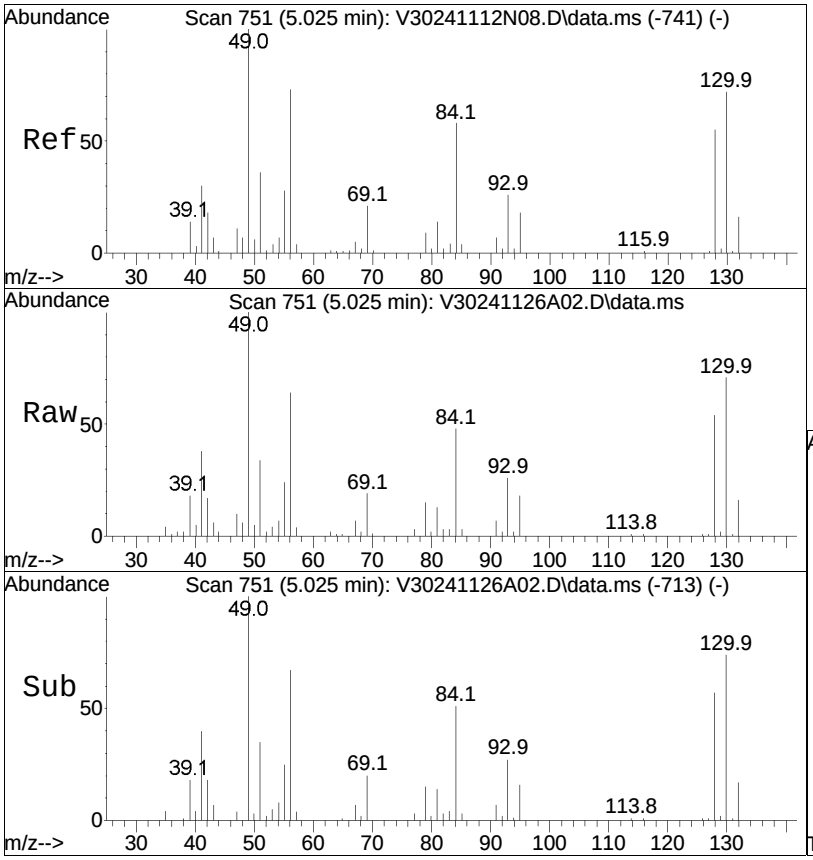


#31
2,2-Dichloropropane
Concen: 9.33 ug/L
RT: 4.936 min Scan# 734
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 77 Resp: 123251

Ion	Ratio	Lower	Upper
77	100		
41	58.3	49.2	102.2
79	32.2	20.6	42.8

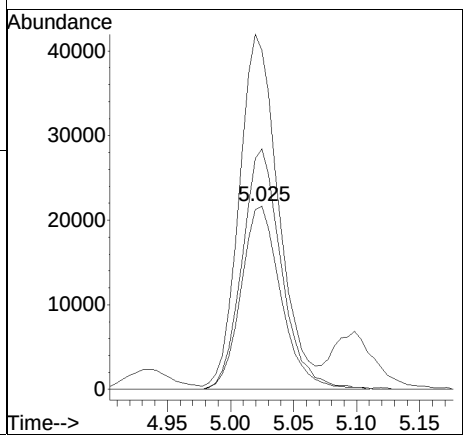


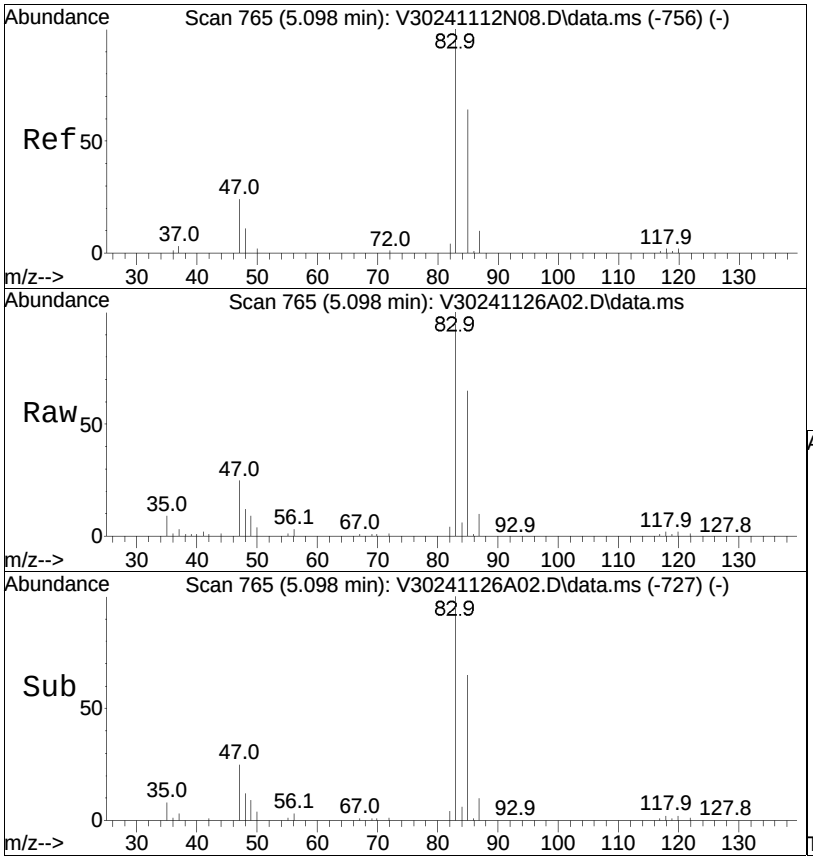


#33
Bromochloromethane
Concen: 9.74 ug/L
RT: 5.025 min Scan# 751
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:128 Resp: 47862

Ion	Ratio	Lower	Upper
128	100		
49	190.6	214.8	322.2#
130	129.1	105.4	158.2

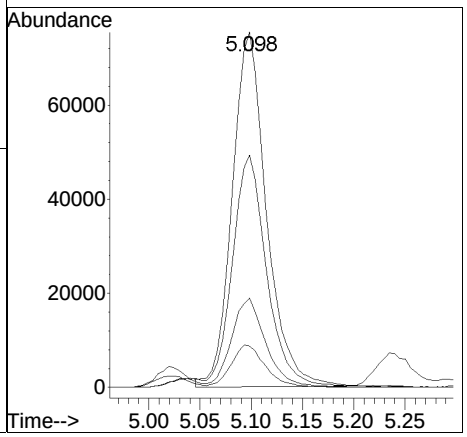


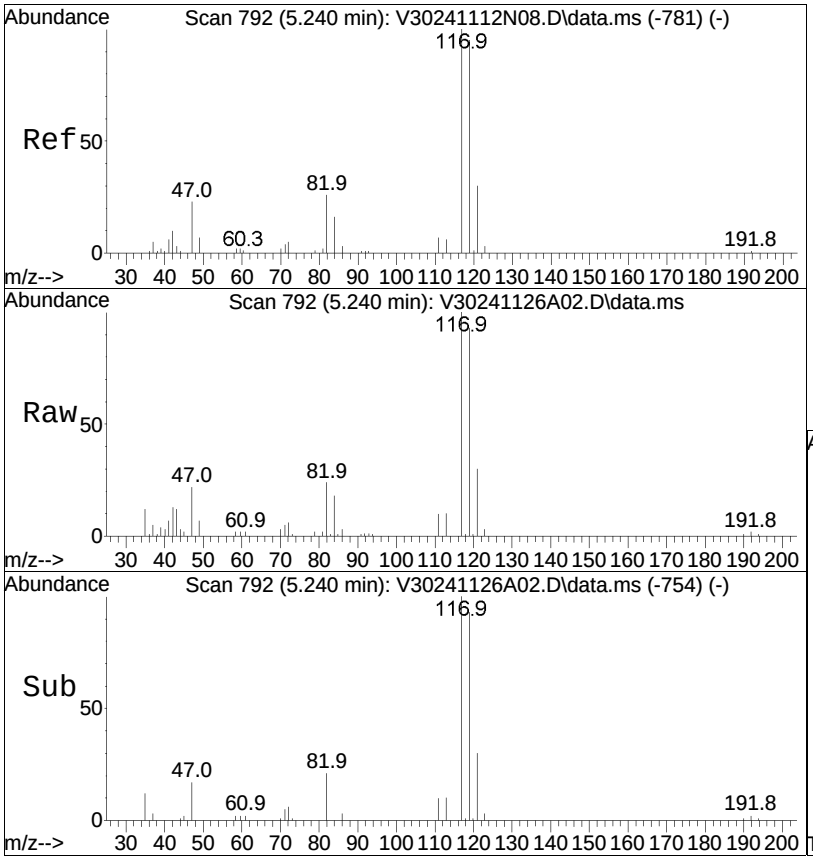


#35
Chloroform
Concen: 9.50 ug/L
RT: 5.098 min Scan# 765
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 83 Resp: 175275

Ion	Ratio	Lower	Upper
83	100		
85	65.0	41.4	86.0
47	24.5	20.5	42.5
48	12.1	9.9	20.5

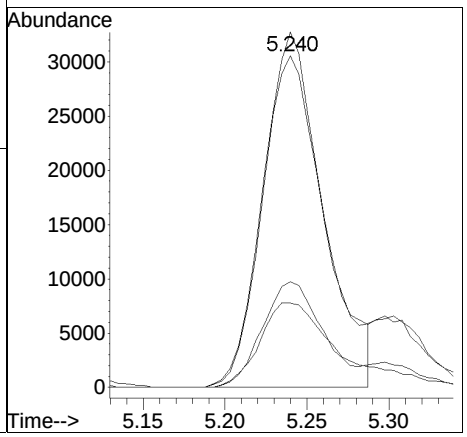


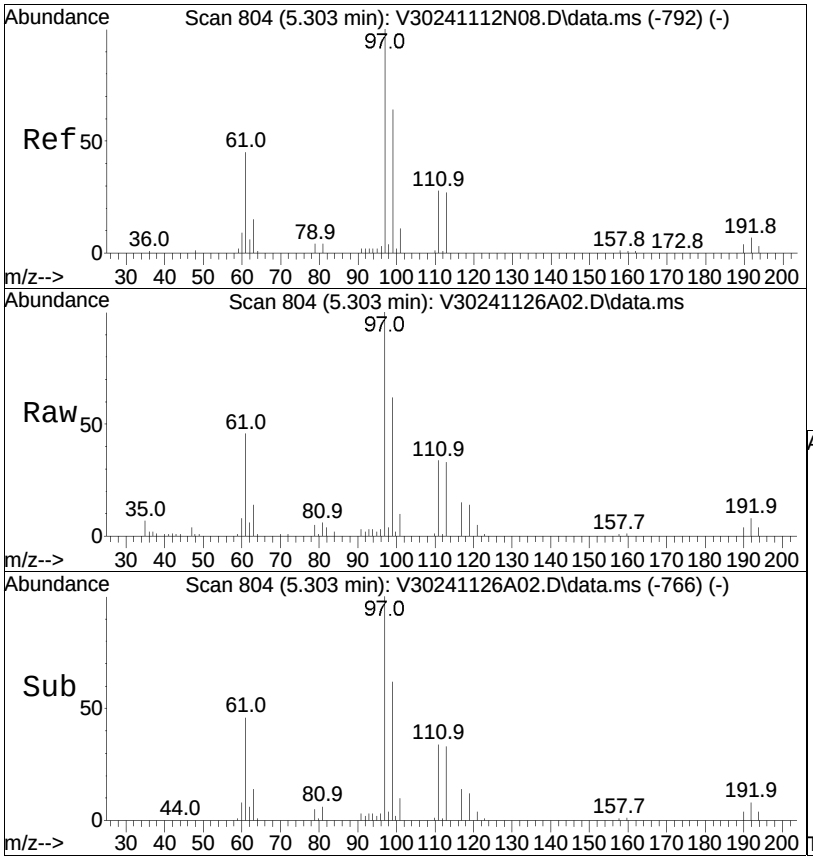


#37
Carbon tetrachloride
Concen: 7.72 ug/L
RT: 5.240 min Scan# 792
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:117 Resp: 83559

Ion	Ratio	Lower	Upper
117	100		
119	93.9	62.0	128.8
121	30.1	19.6	40.6
82	31.6	18.8	39.0

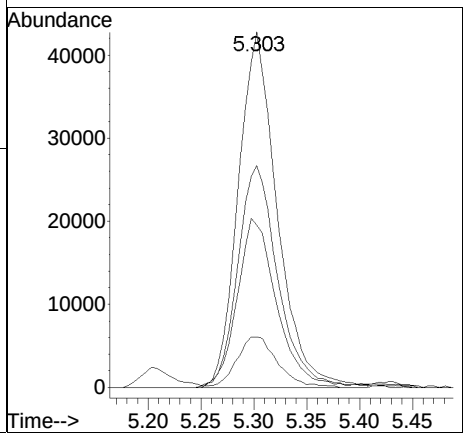


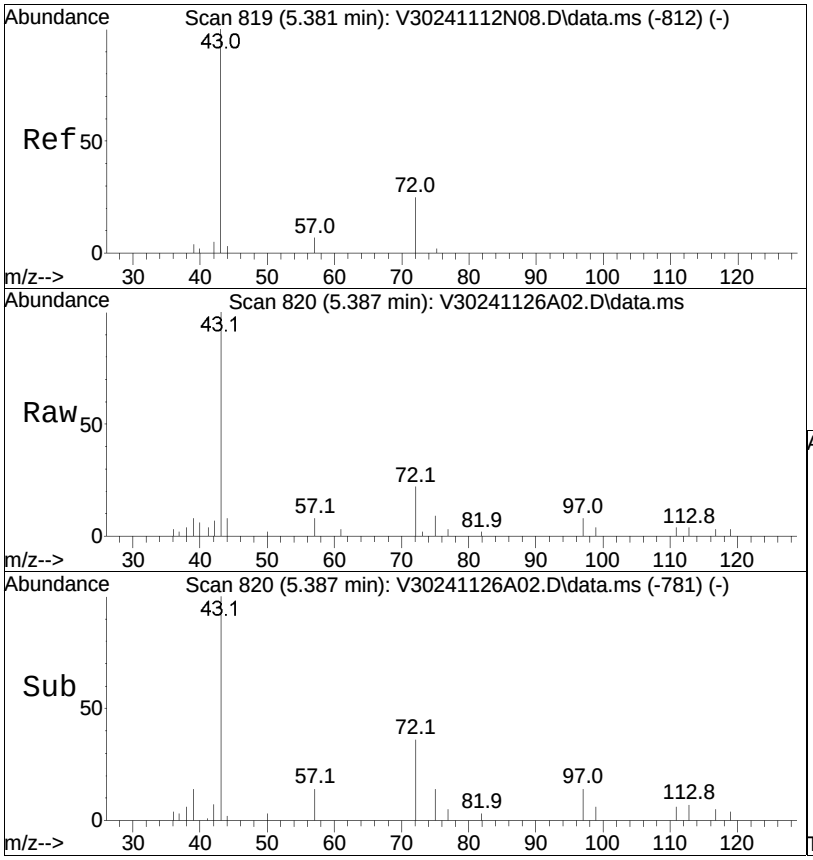


#40
1,1,1-Trichloroethane
Concen: 8.30 ug/L
RT: 5.303 min Scan# 804
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 97 Resp: 109546

Ion	Ratio	Lower	Upper
97	100		
99	64.4	40.6	84.4
61	48.2	35.0	72.8
63	15.0	11.1	23.0

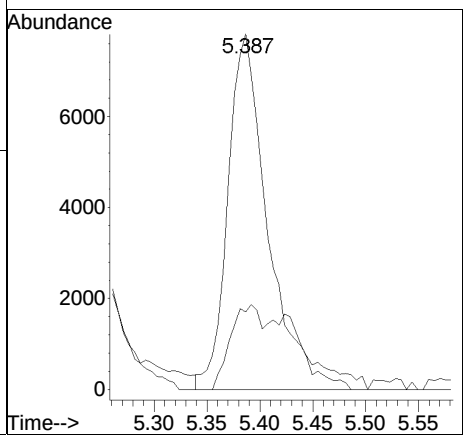


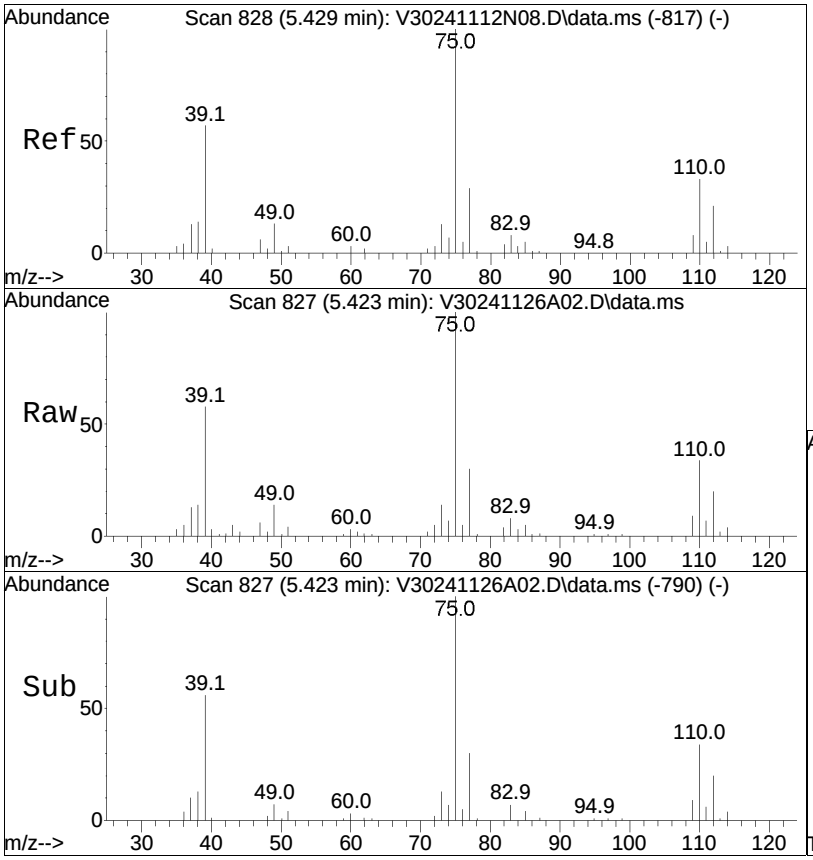


#42
2-Butanone
Concen: 10.45 ug/L
RT: 5.387 min Scan# 820
Delta R.T. 0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 43 Resp: 21140

Ion	Ratio	Lower	Upper
43	100		
72	19.8	18.2	27.4

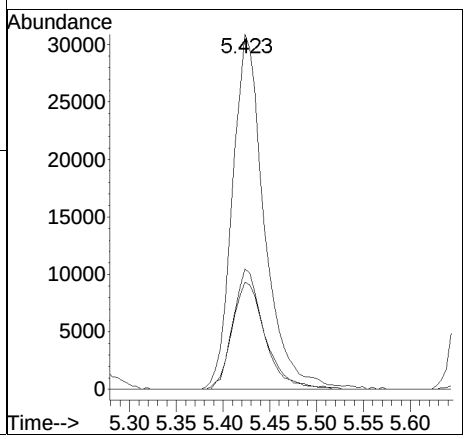


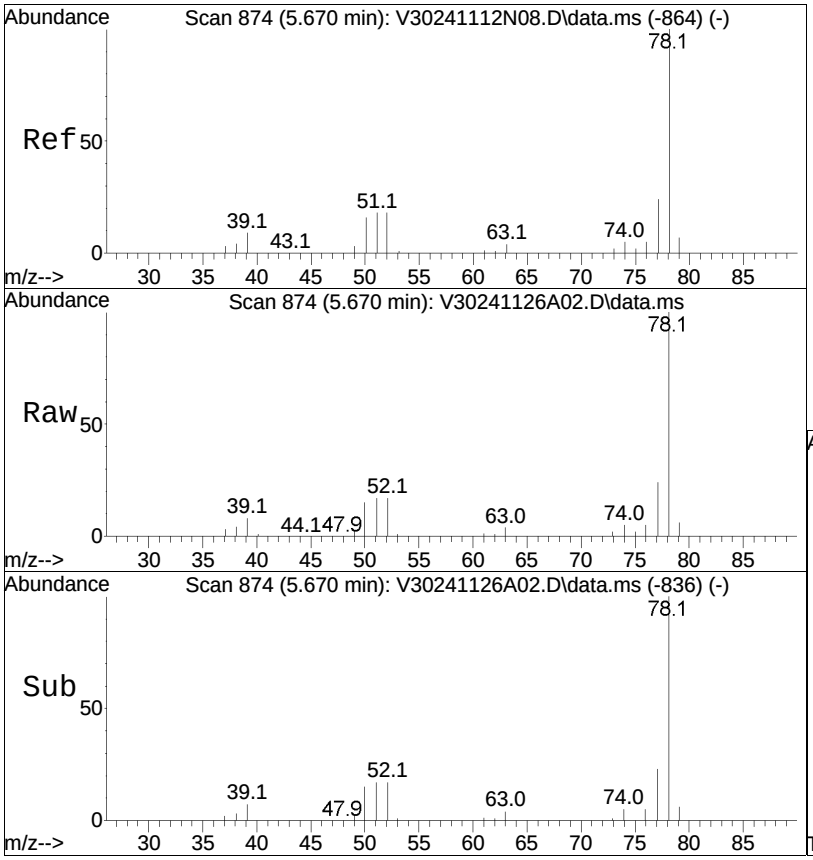


#43
1,1-Dichloropropene
Concen: 6.88 ug/L
RT: 5.423 min Scan# 827
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 75 Resp: 73685

Ion	Ratio	Lower	Upper
75	100		
110	33.2	19.4	40.4
77	31.3	19.7	40.9

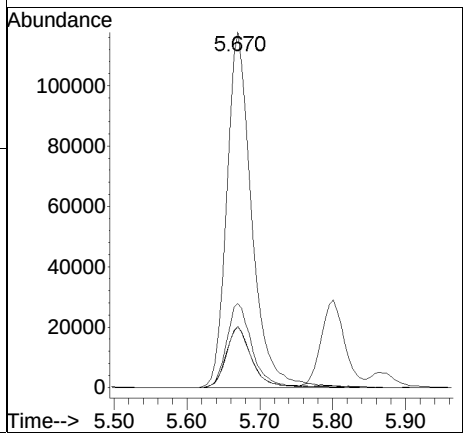


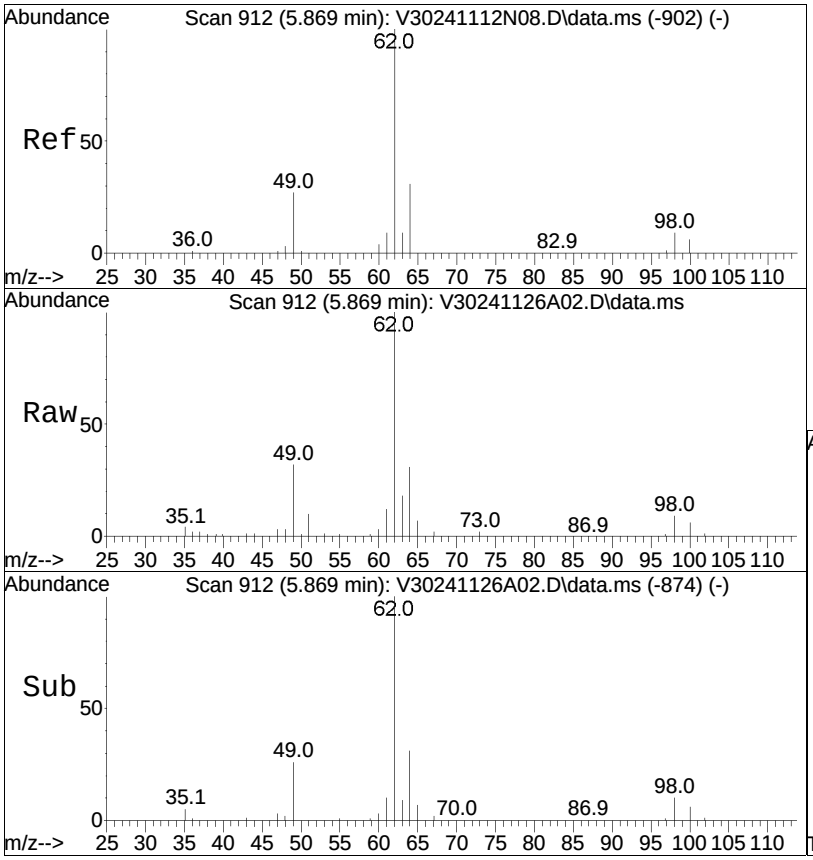


#45
Benzene
Concen: 8.71 ug/L
RT: 5.670 min Scan# 874
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 78 Resp: 280086

Ion	Ratio	Lower	Upper
78	100		
77	24.0	15.6	32.4
51	17.1	12.9	26.7
52	17.0	12.4	25.7

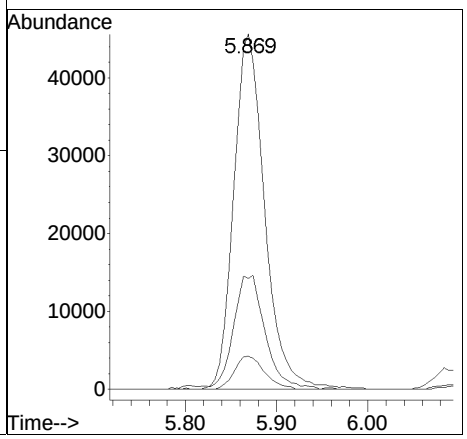


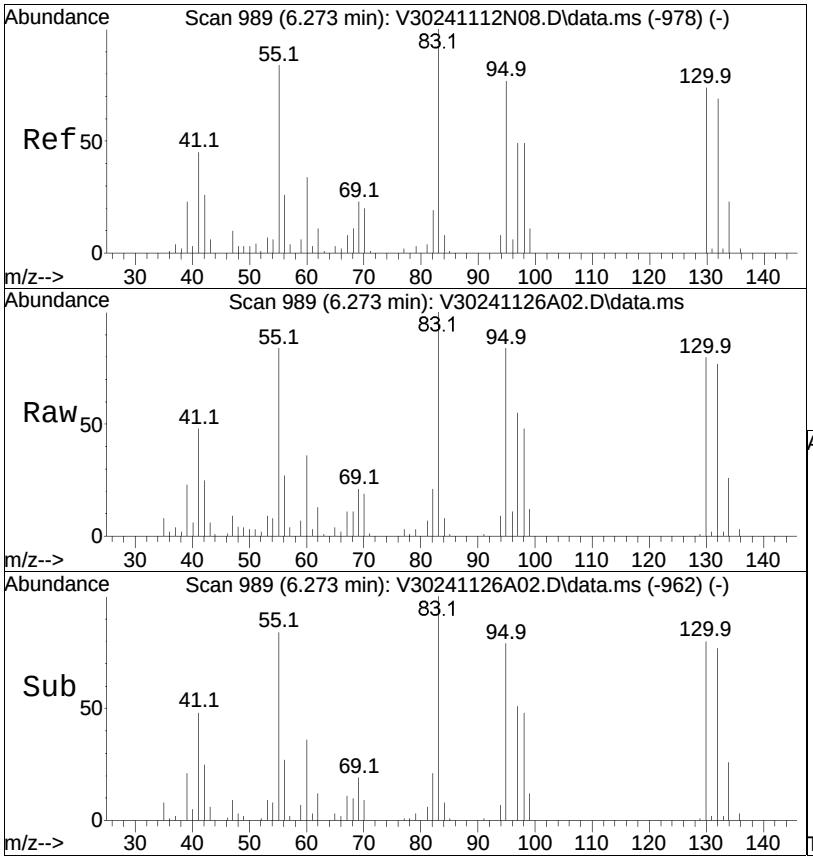


#48
1,2-Dichloroethane
Concen: 9.55 ug/L
RT: 5.869 min Scan# 912
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 62 Resp: 108259

Ion	Ratio	Lower	Upper
62	100		
64	32.8	25.5	38.3
98	9.1	5.5	8.3#

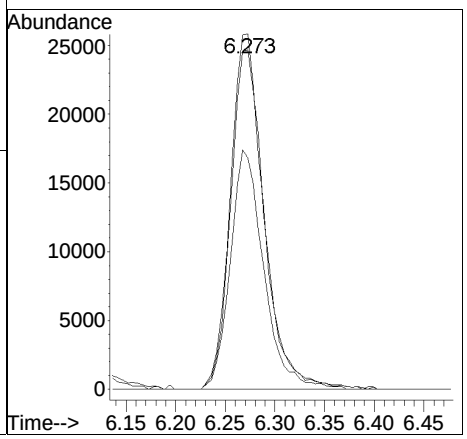


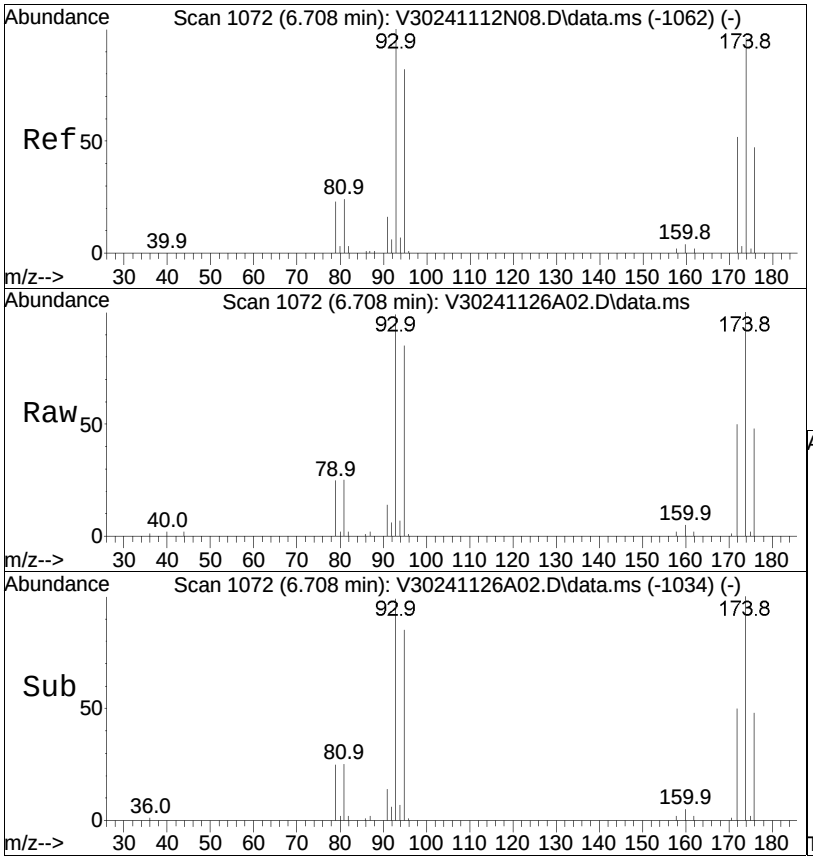


#52
Trichloroethene
Concen: 7.76 ug/L
RT: 6.273 min Scan# 989
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 95 Resp: 60775

Ion	Ratio	Lower	Upper
95	100		
97	67.2	53.8	80.6
130	96.9	71.4	107.0

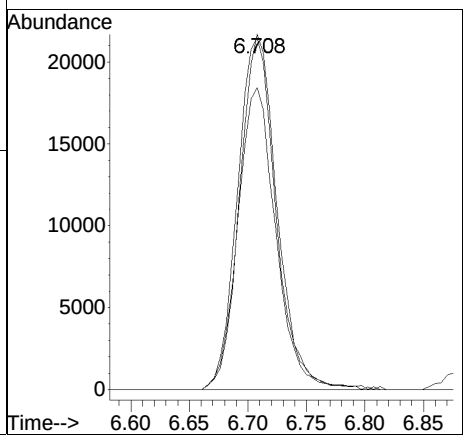


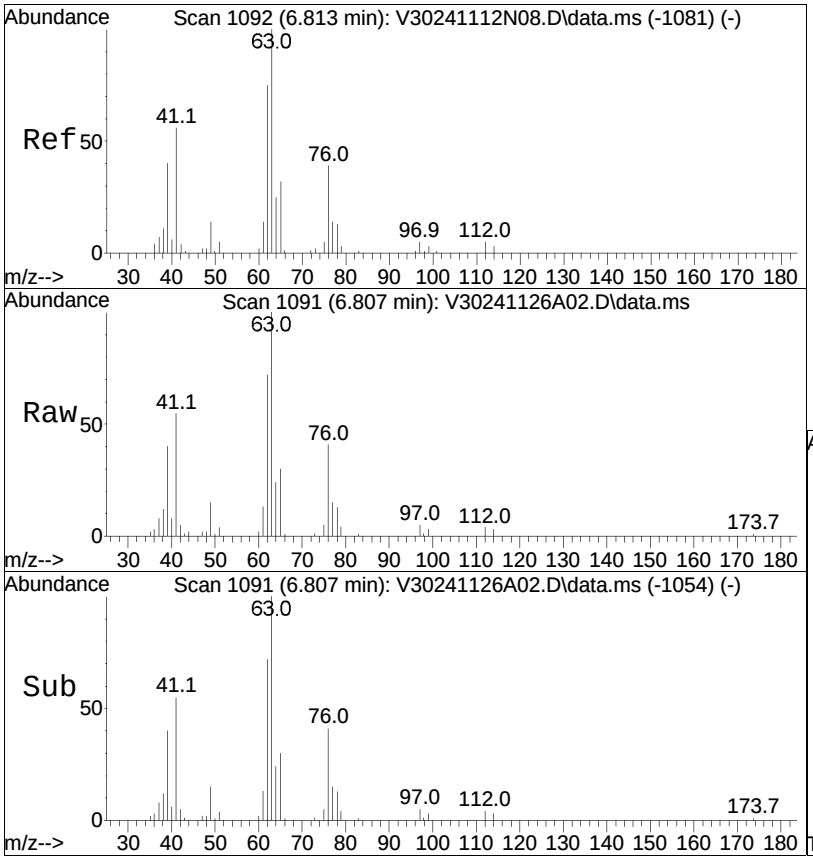


#54
Dibromomethane
Concen: 9.49 ug/L
RT: 6.708 min Scan# 1072
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 93 Resp: 48895

Ion	Ratio	Lower	Upper
93	100		
95	85.4	66.9	100.3
174	98.6	66.4	99.6

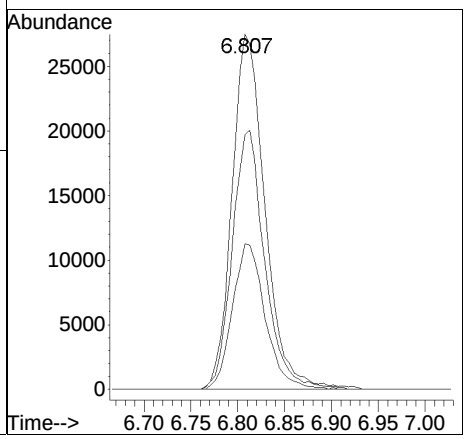


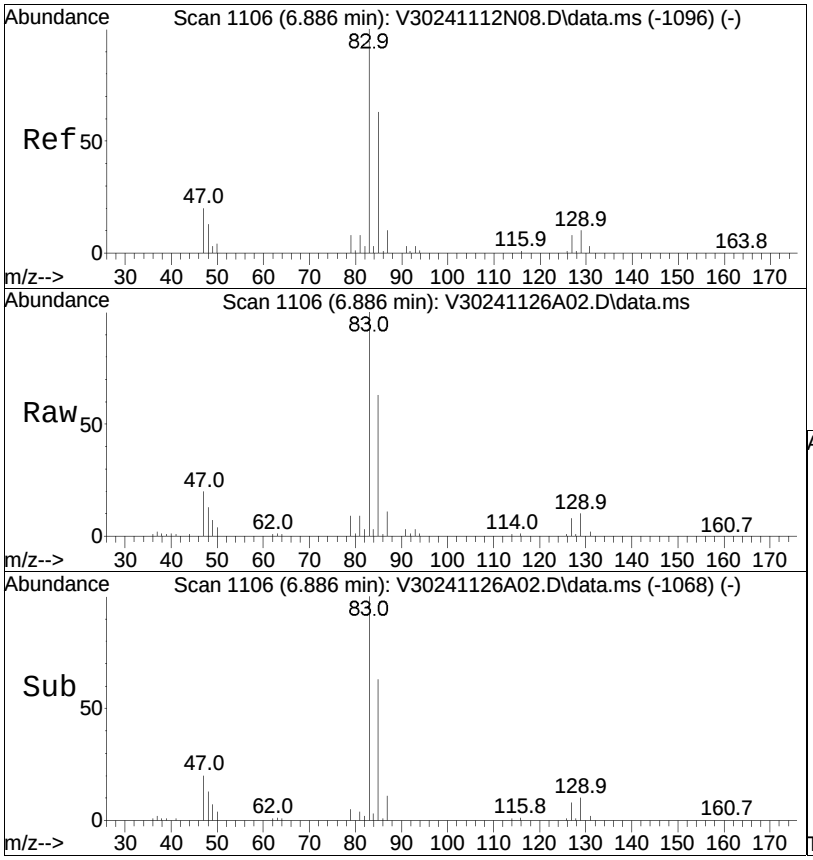


#55
1,2-Dichloropropane
Concen: 7.99 ug/L
RT: 6.807 min Scan# 1091
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 63 Resp: 67477

Ion	Ratio	Lower	Upper
63	100		
62	71.8	58.1	87.1
76	40.8	30.4	45.6

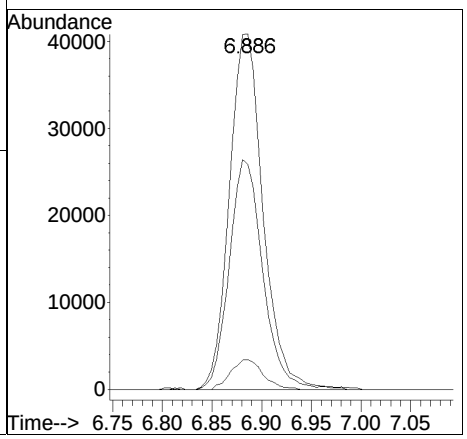


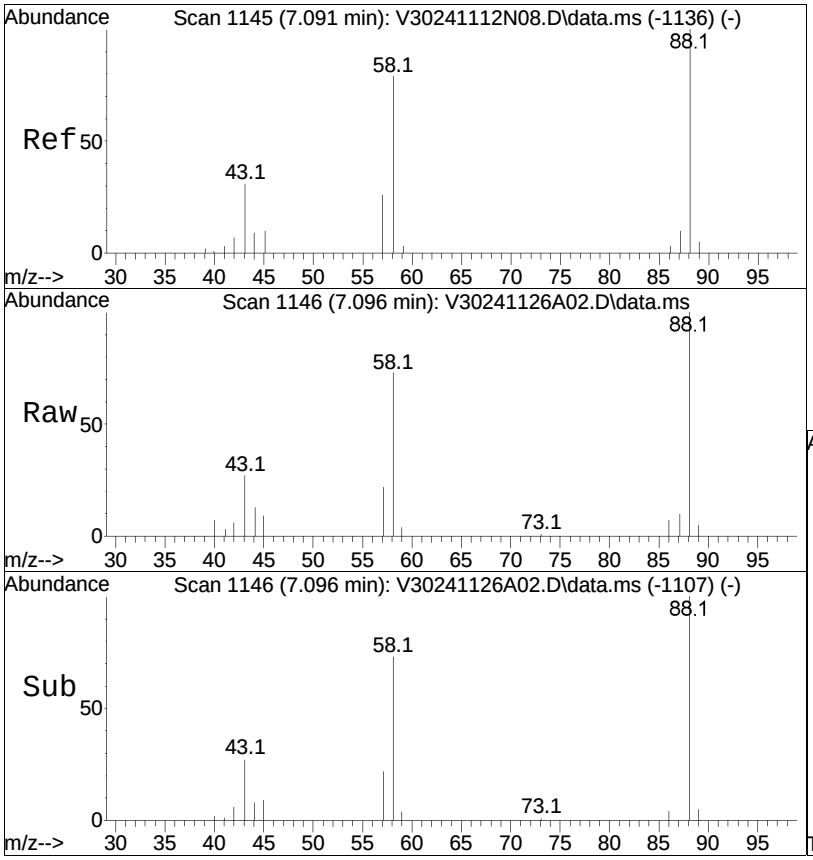


#58
Bromodichloromethane
Concen: 8.44 ug/L
RT: 6.886 min Scan# 1106
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 83 Resp: 96735

Ion	Ratio	Lower	Upper
83	100		
85	64.2	50.2	75.2
127	8.0	5.2	7.8#

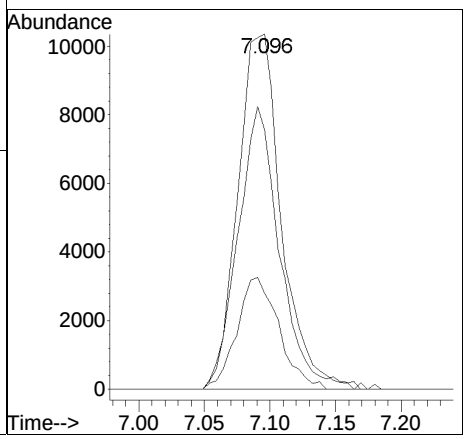


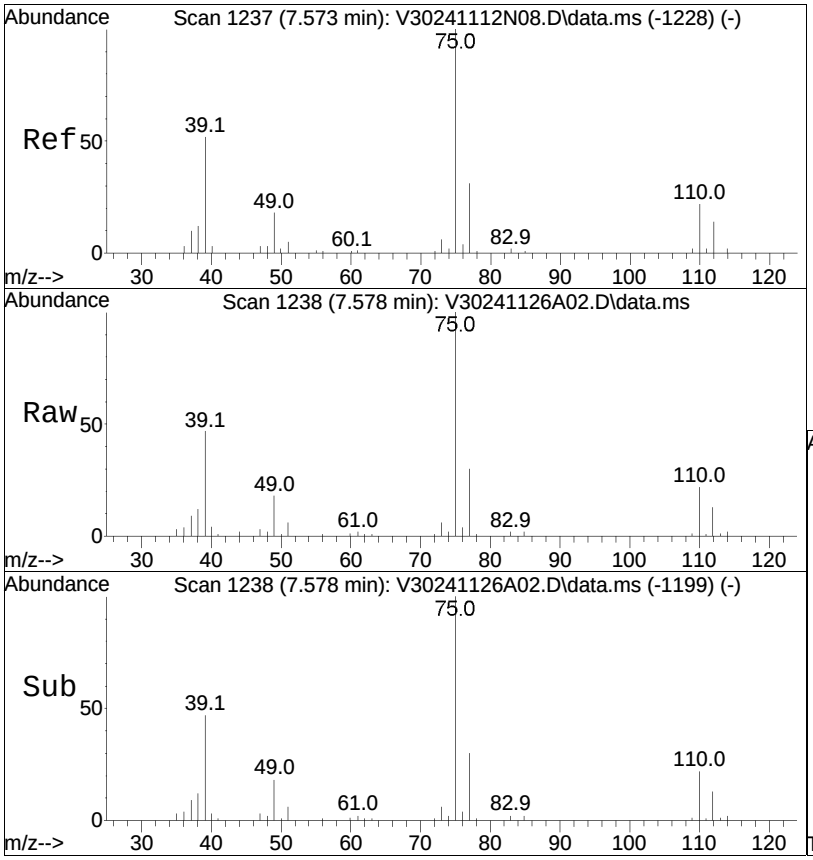


#61
1,4-Dioxane
Concen: 579.66 ug/L
RT: 7.096 min Scan# 1146
Delta R.T. 0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 88 Resp: 24004

Ion	Ratio	Lower	Upper
88	100		
58	75.8	59.9	89.9
43	30.5	30.8	46.2#

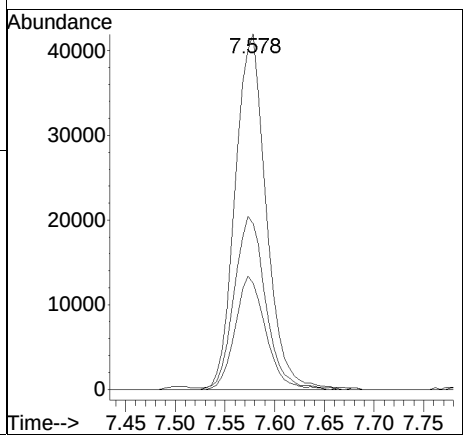


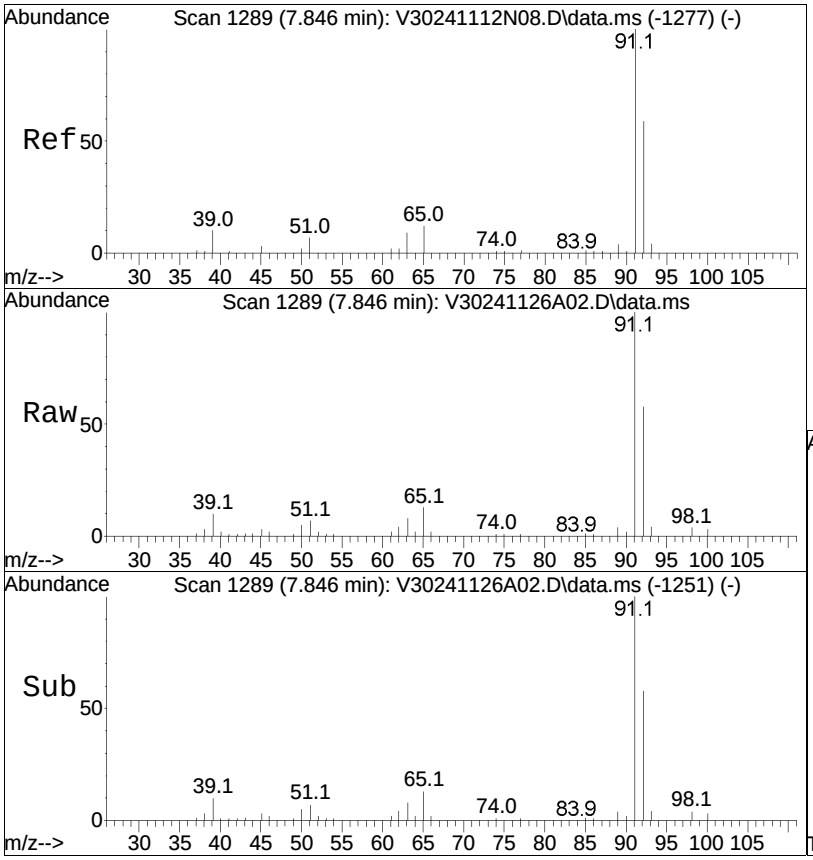


#62
cis-1,3-Dichloropropene
Concen: 7.78 ug/L
RT: 7.578 min Scan# 1238
Delta R.T. 0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 75 Resp: 91332

Ion	Ratio	Lower	Upper
75	100		
77	31.3	25.4	38.2
39	49.3	54.6	82.0#

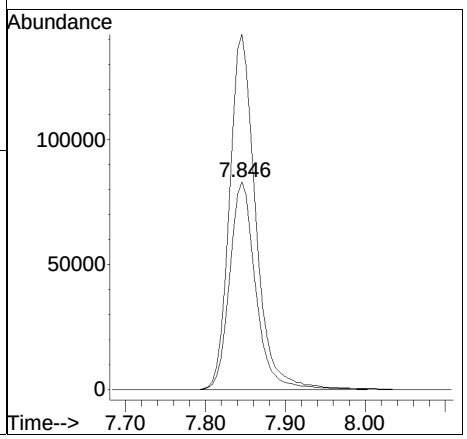


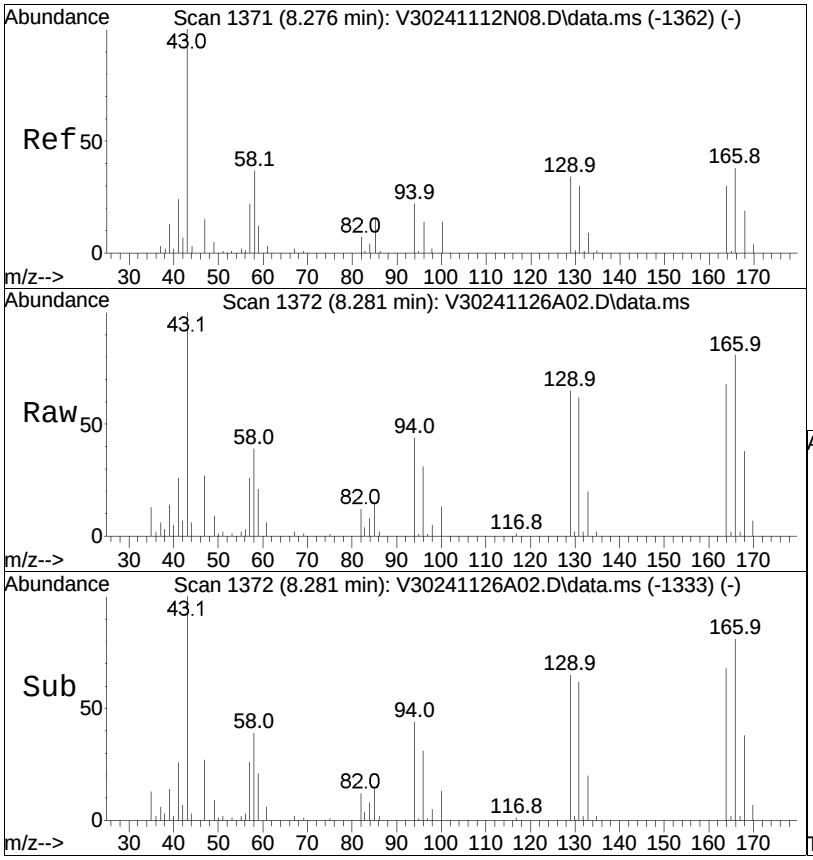


#65
Toluene
Concen: 8.81 ug/L
RT: 7.846 min Scan# 1289
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 92 Resp: 188070

Ion	Ratio	Lower	Upper
92	100		
91	171.0	137.5	206.3

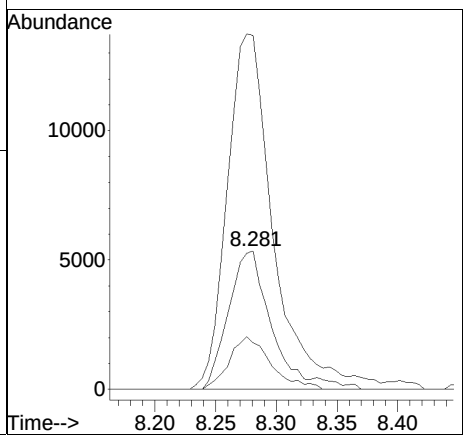


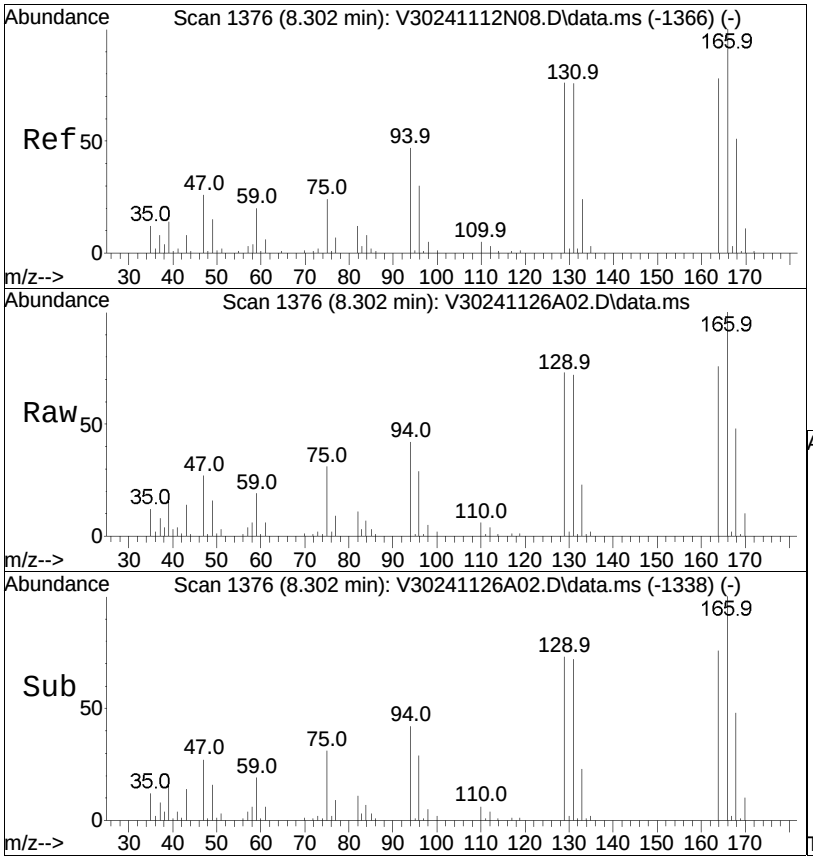


#66
4-Methyl-2-pentanone
Concen: 8.53 ug/L
RT: 8.281 min Scan# 1372
Delta R.T. 0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 58 Resp: 13345

Ion	Ratio	Lower	Upper
58	100		
100	36.5	22.6	34.0#
43	274.5	234.6	351.8

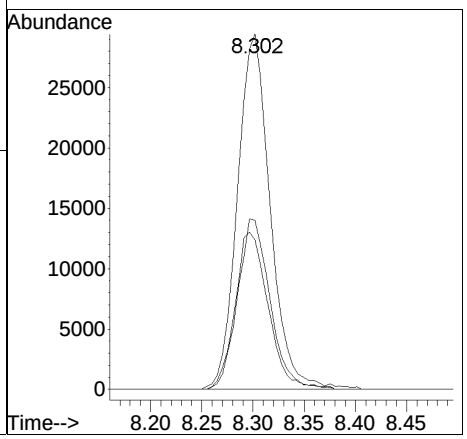


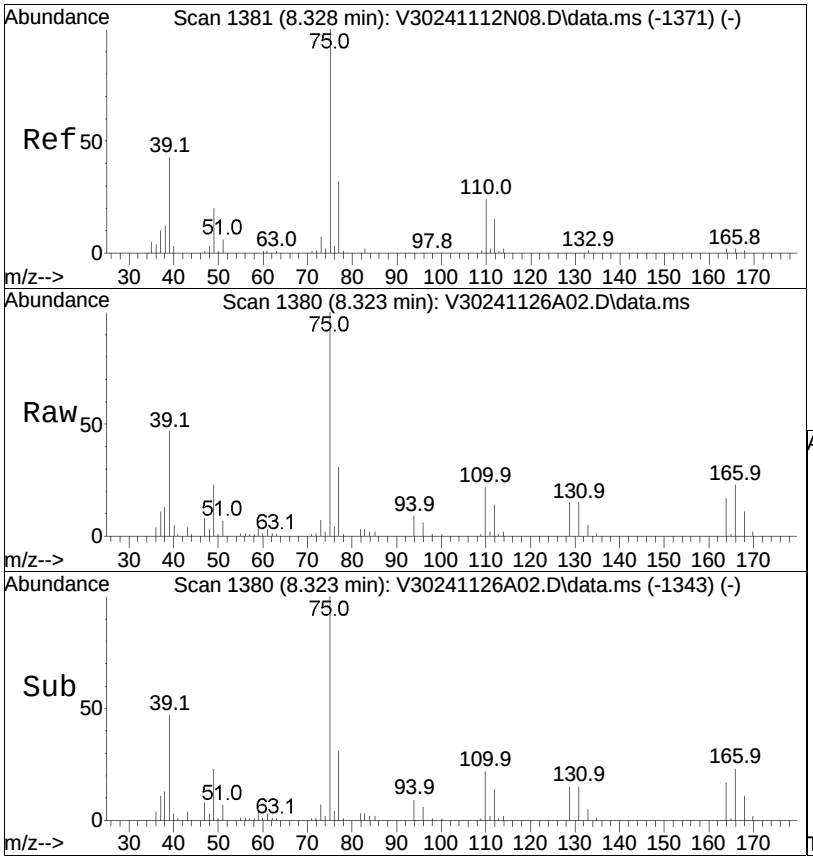


#67
Tetrachloroethene
Concen: 8.48 ug/L
RT: 8.302 min Scan# 1376
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:166 Resp: 65668

Ion	Ratio	Lower	Upper
166	100		
168	47.6	38.6	58.0
94	44.7	42.6	63.8

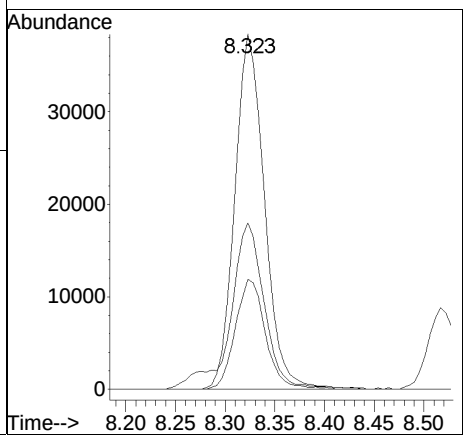


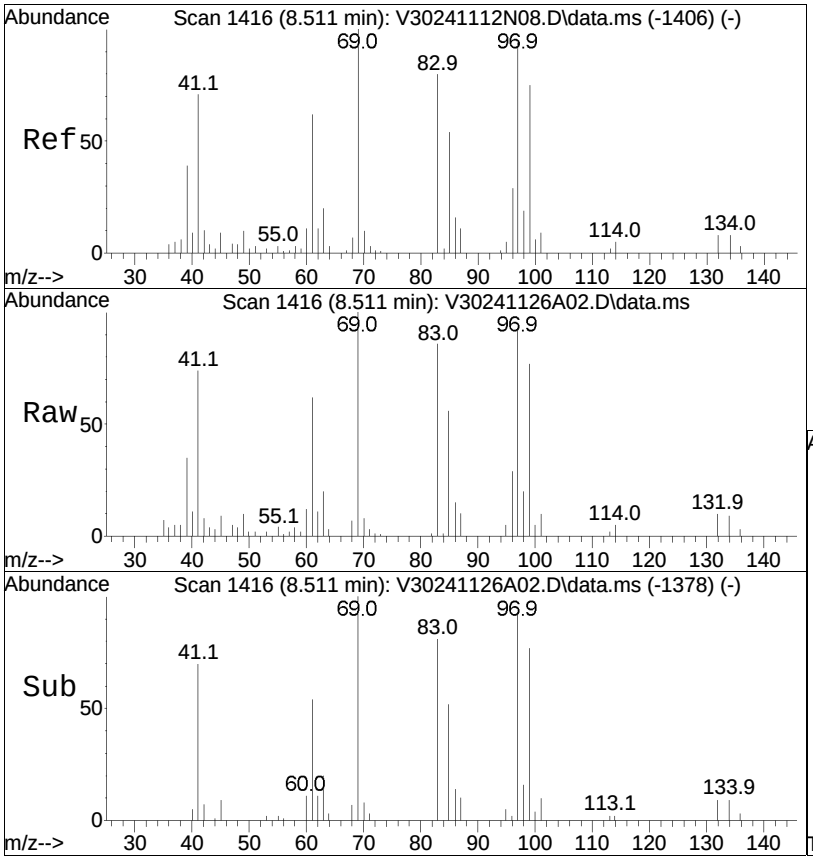


#69
trans-1,3-Dichloropropene
Concen: 8.07 ug/L
RT: 8.323 min Scan# 1380
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 75 Resp: 80176

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.6	38.4
39	53.5	60.2	90.4#

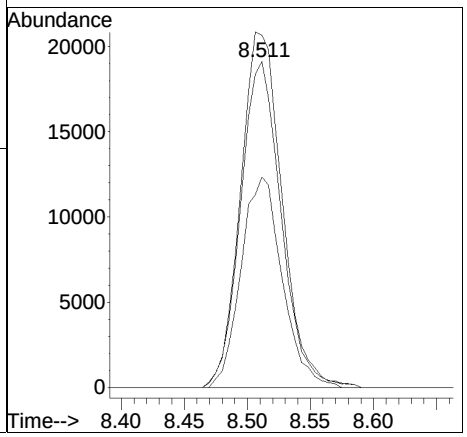


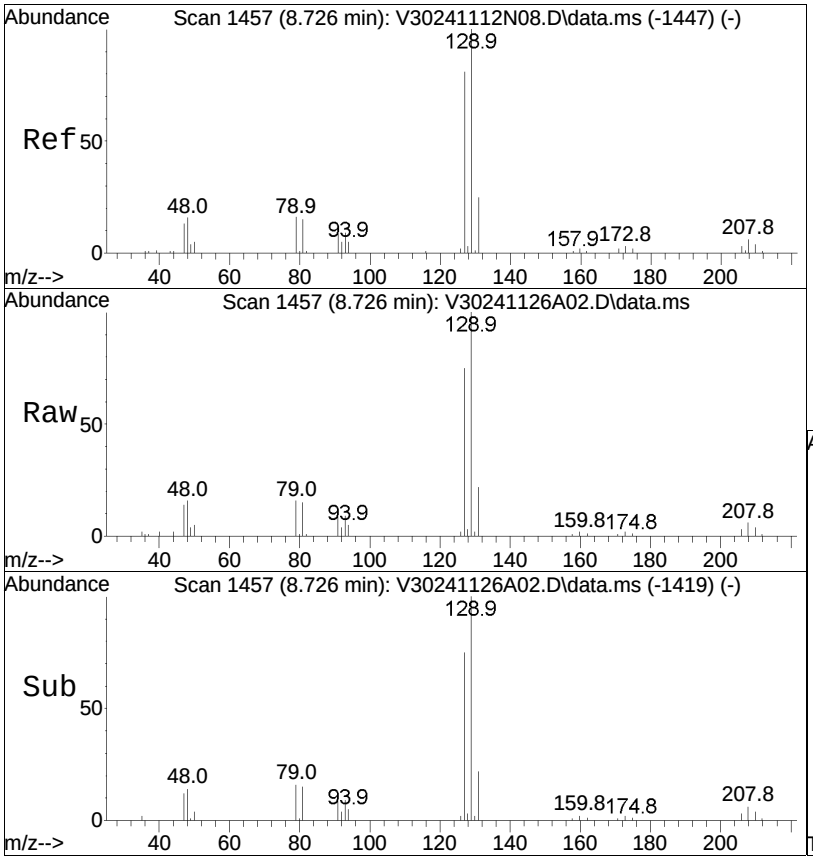


#72
1,1,2-Trichloroethane
Concen: 9.03 ug/L
RT: 8.511 min Scan# 1416
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 83 Resp: 42920

Ion	Ratio	Lower	Upper
83	100		
97	111.6	87.7	131.5
85	65.4	53.1	79.7

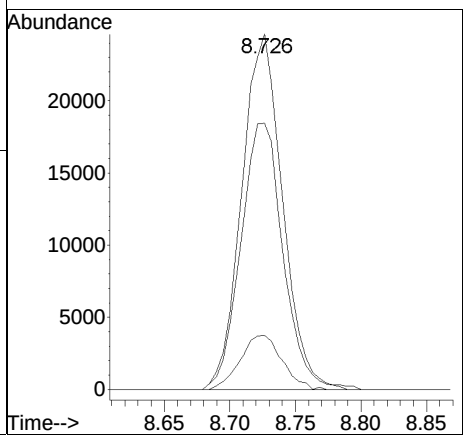


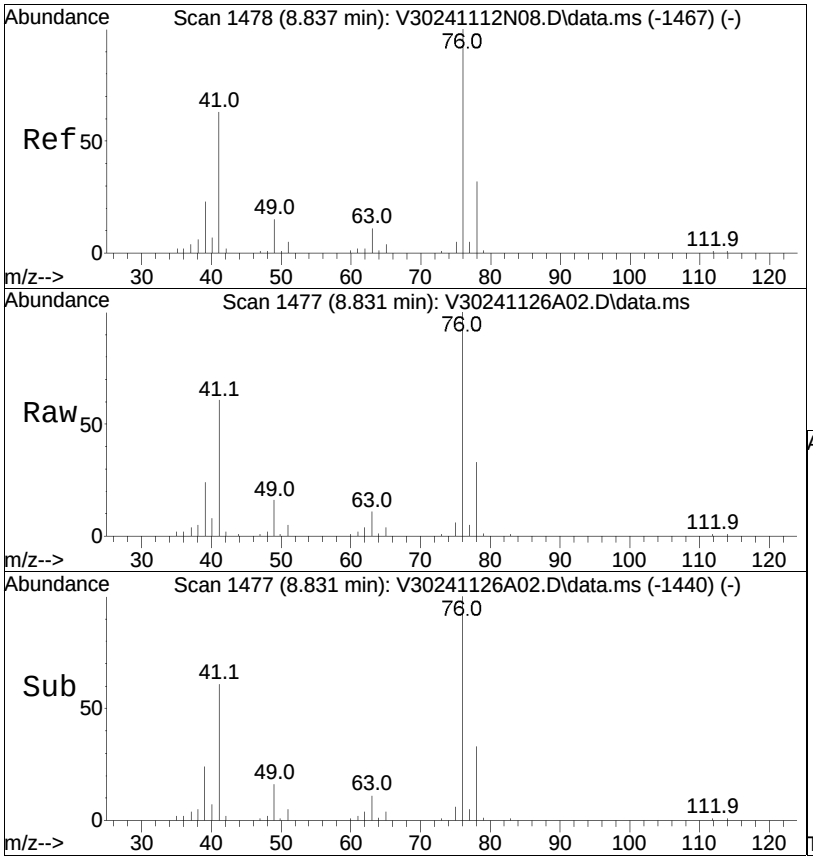


#73
Chlorodibromomethane
Concen: 8.14 ug/L
RT: 8.726 min Scan# 1457
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:129 Resp: 53255

Ion	Ratio	Lower	Upper
129	100		
81	15.6	14.6	22.0
127	77.1	62.6	93.8

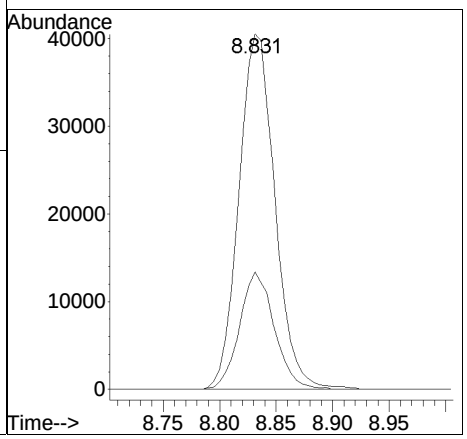


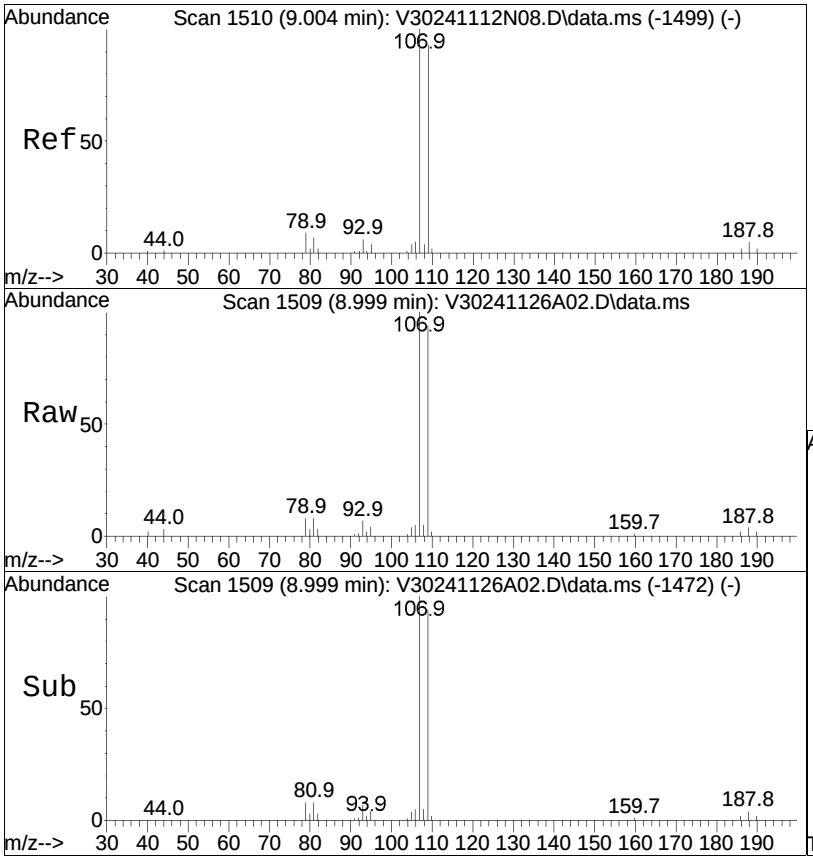


#74
1,3-Dichloropropane
Concen: 8.58 ug/L
RT: 8.831 min Scan# 1477
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 76 Resp: 89789

Ion	Ratio	Lower	Upper
76	100		
78	32.0	25.9	38.9

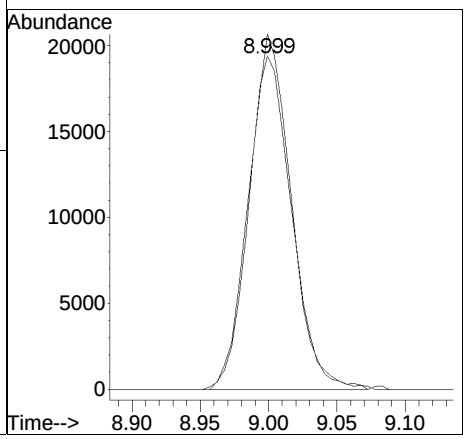


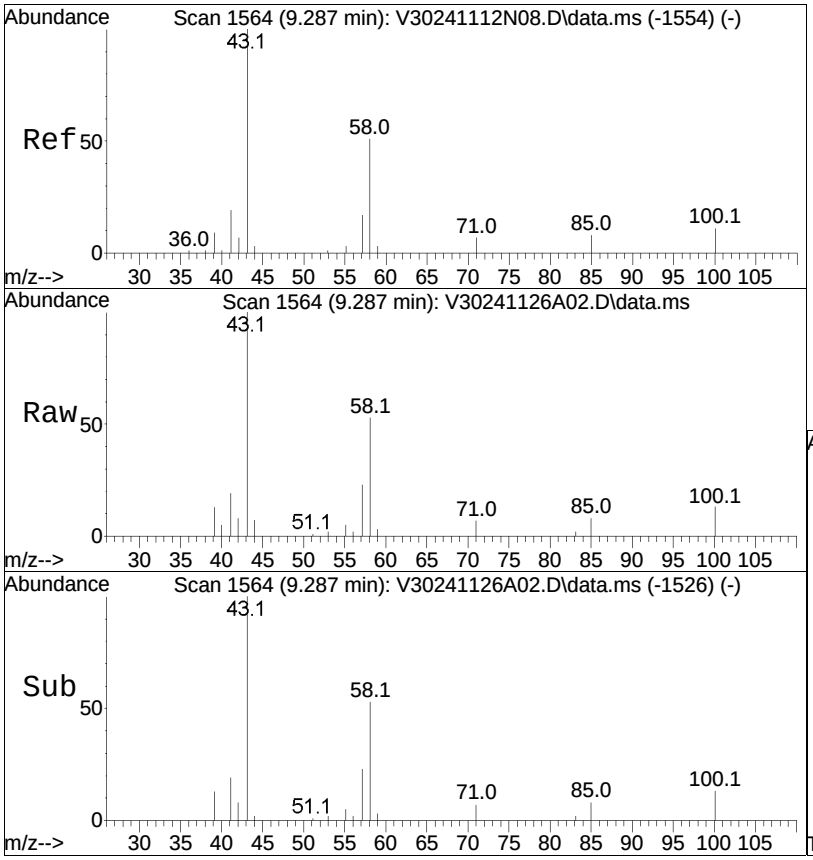


#75
1,2-Dibromoethane
Concen: 8.86 ug/L
RT: 8.999 min Scan# 1509
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:107 Resp: 44714

Ion	Ratio	Lower	Upper
107	100		
109	95.0	75.0	112.4

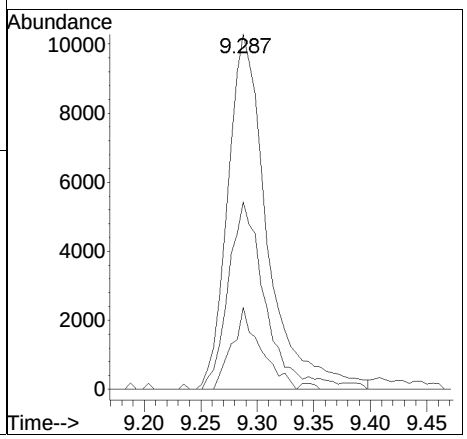


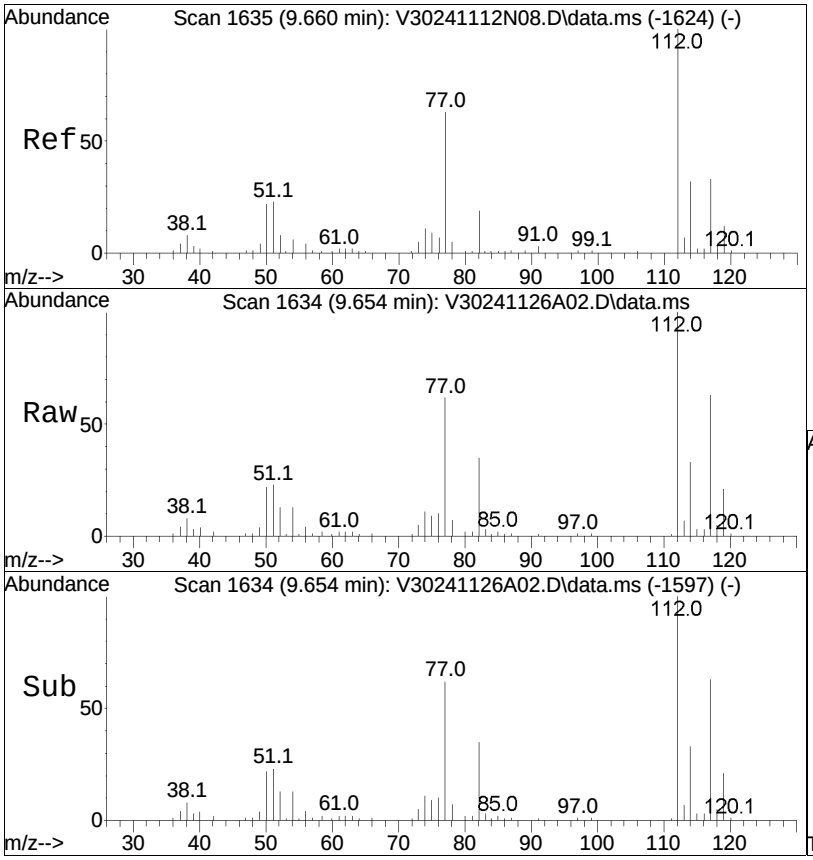


#77
2-Hexanone
Concen: 8.78 ug/L
RT: 9.287 min Scan# 1564
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 43 Resp: 25199

Ion	Ratio	Lower	Upper
43	100		
58	49.2	38.6	58.0
57	16.9	14.1	21.1

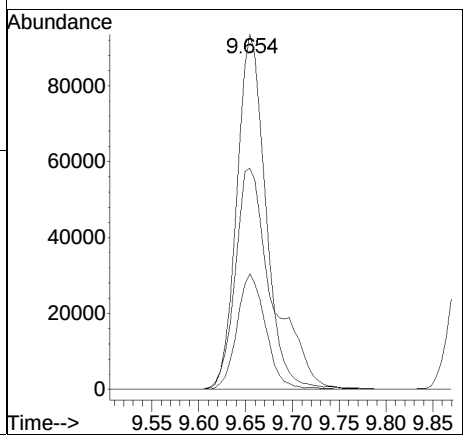


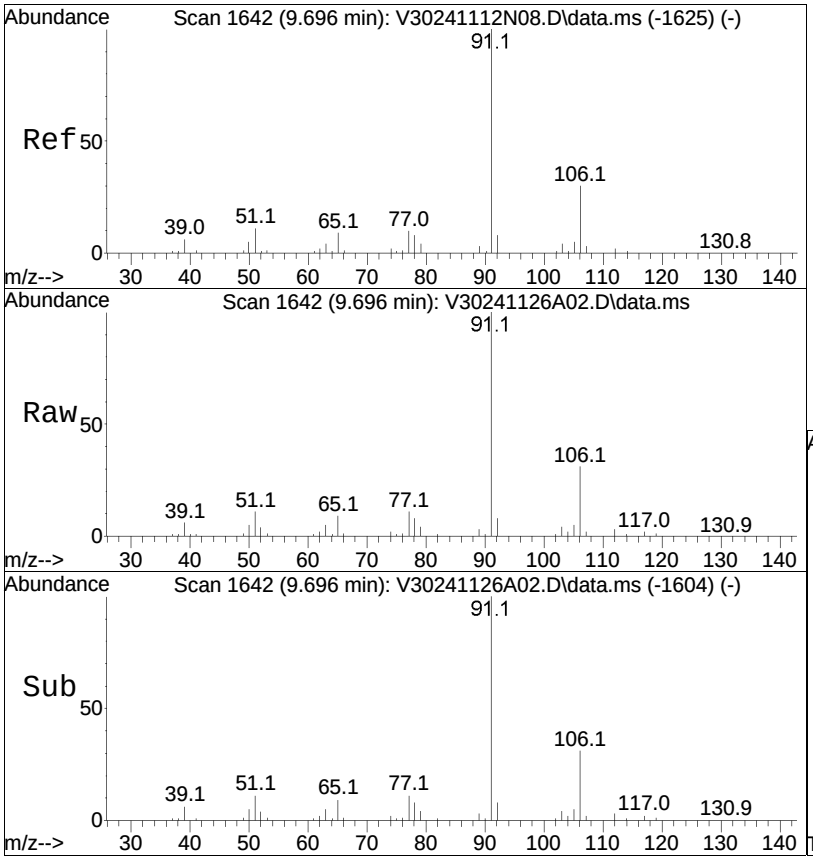


#78
Chlorobenzene
Concen: 8.80 ug/L
RT: 9.654 min Scan# 1634
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:112 Resp: 200190

Ion	Ratio	Lower	Upper
112	100		
77	81.4	54.8	82.2
114	32.5	25.4	38.0

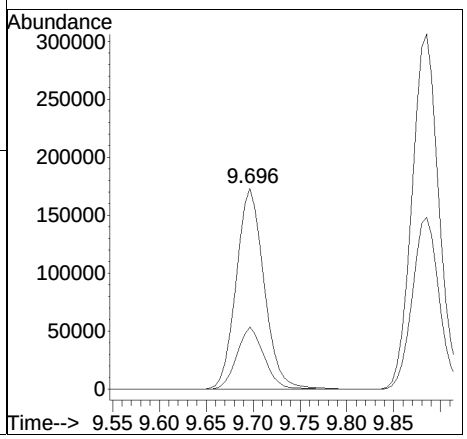


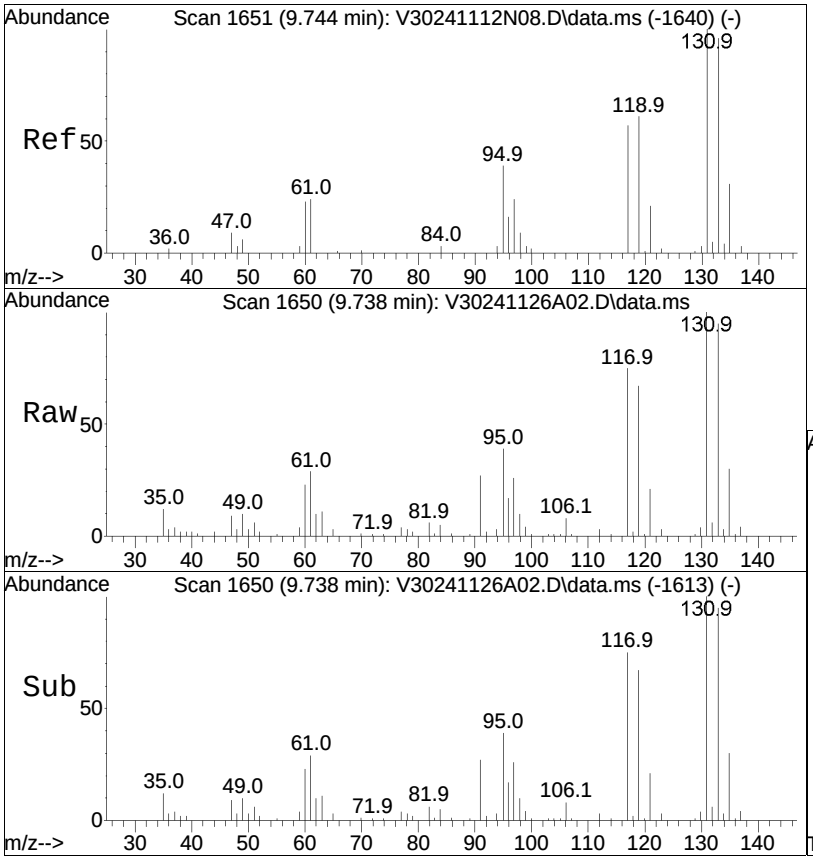


#79
Ethylbenzene
Concen: 8.54 ug/L
RT: 9.696 min Scan# 1642
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 91 Resp: 358616

Ion	Ratio	Lower	Upper
91	100		
106	30.4	23.4	35.2

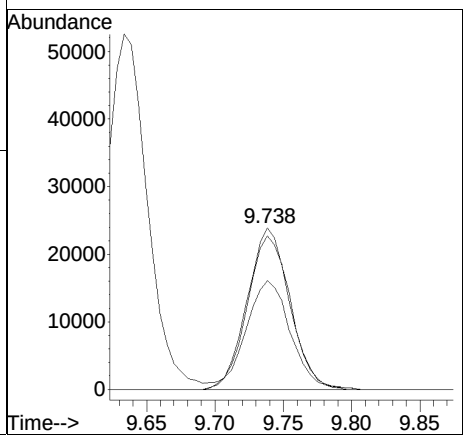


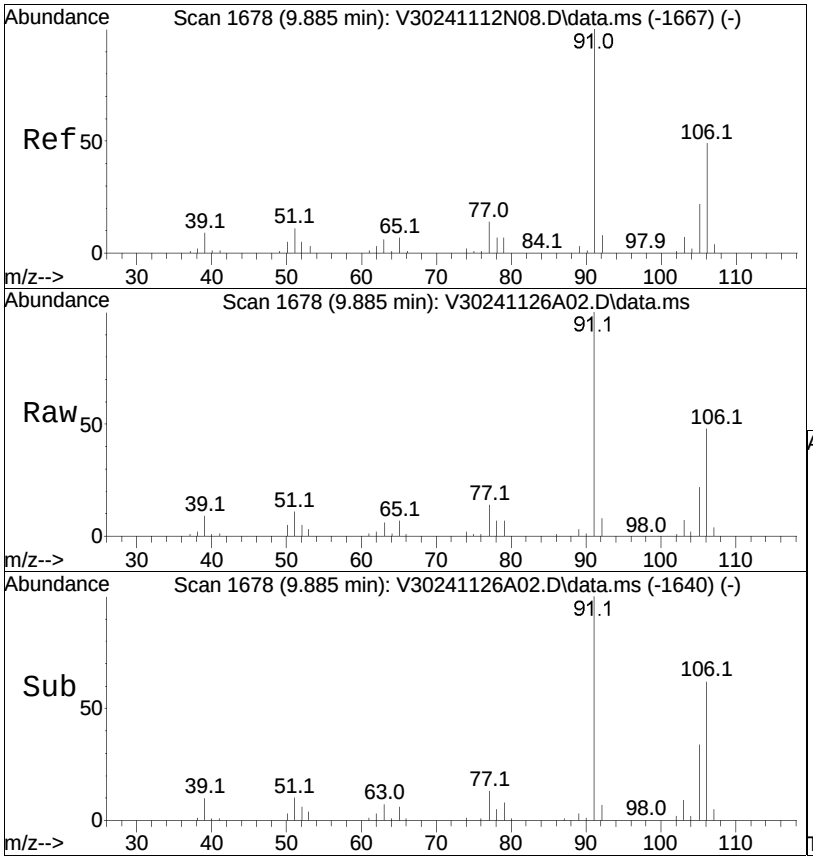


#80
1,1,1,2-Tetrachloroethane
Concen: 8.51 ug/L
RT: 9.738 min Scan# 1650
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:131 Resp: 52131

Ion	Ratio	Lower	Upper
131	100		
133	95.5	76.0	114.0
119	69.3	54.7	82.1

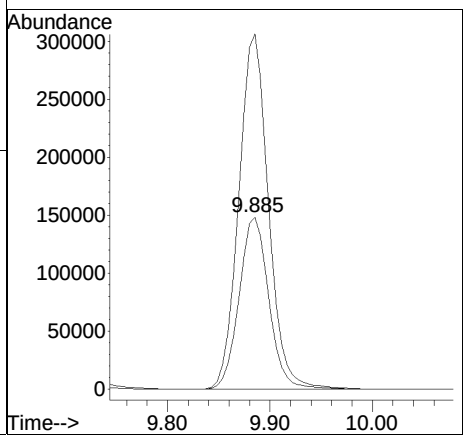


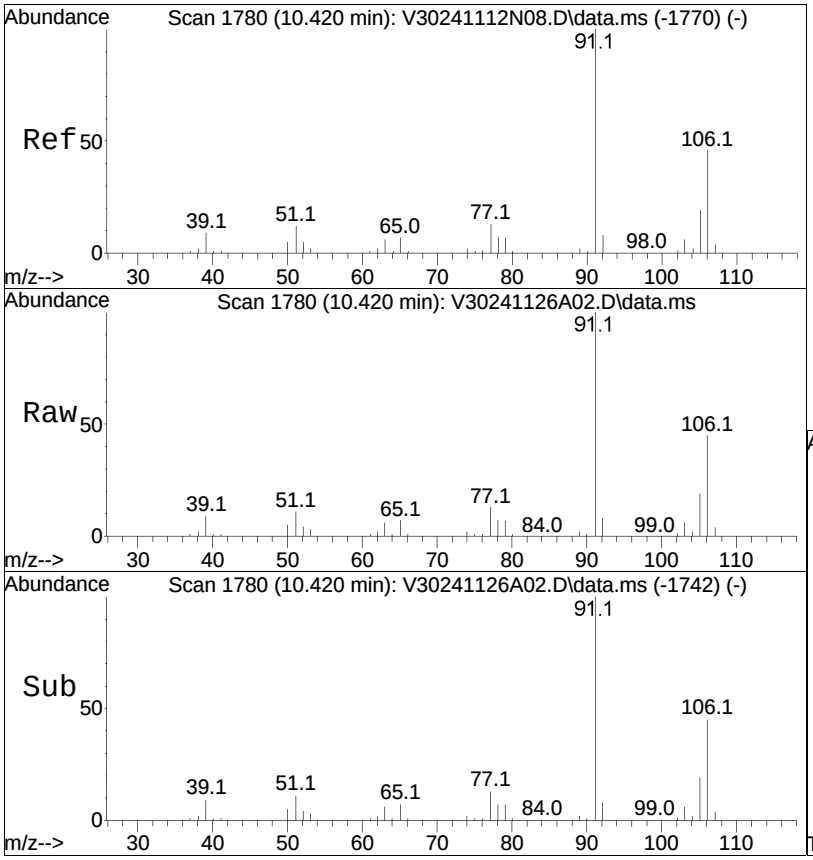


#81
p/m Xylene
Concen: 17.77 ug/L
RT: 9.885 min Scan# 1678
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:106 Resp: 300303

Ion	Ratio	Lower	Upper
106	100		
91	205.7	171.4	257.2

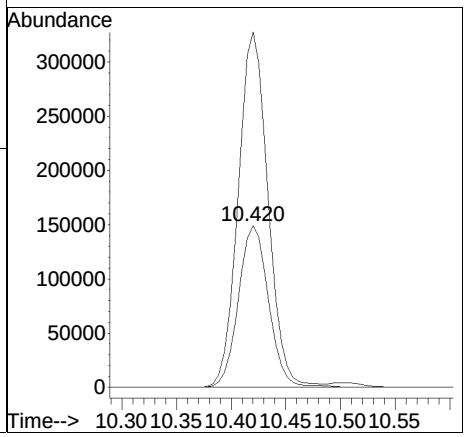


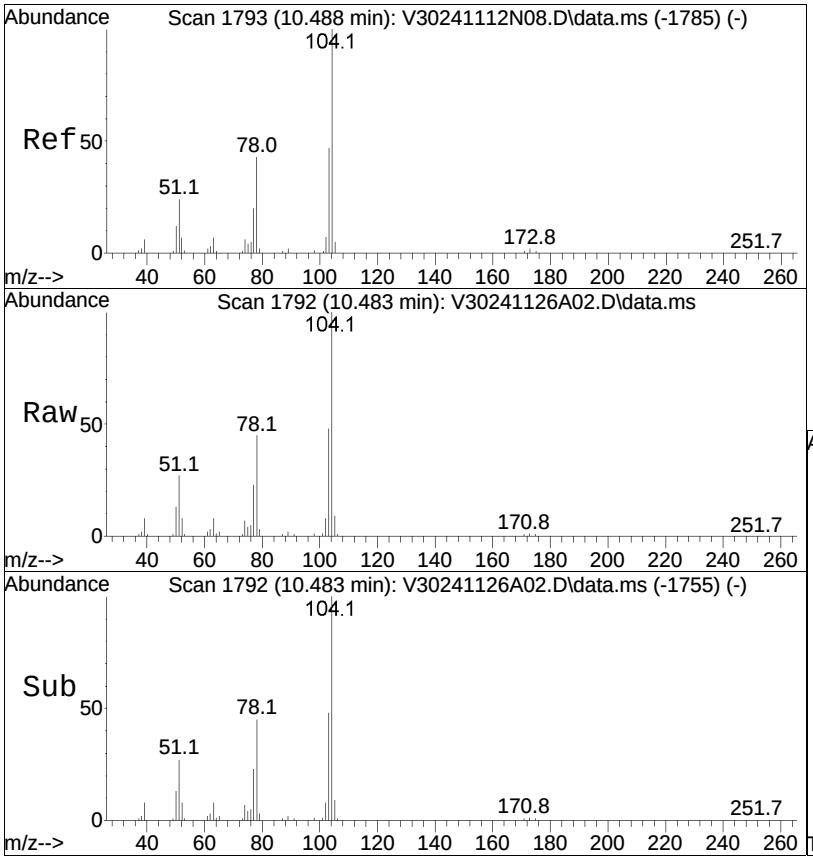


#82
o Xylene
Concen: 17.62 ug/L
RT: 10.420 min Scan# 1780
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:106 Resp: 286454

Ion	Ratio	Lower	Upper
106	100		
91	216.4	179.2	268.8

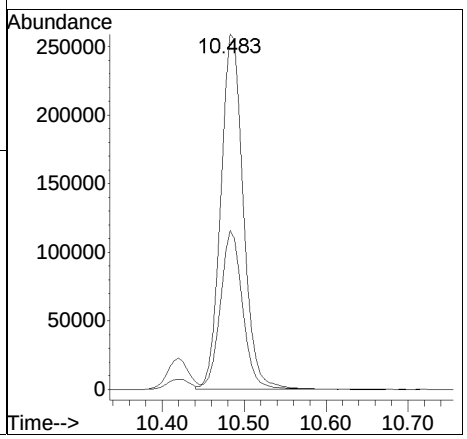


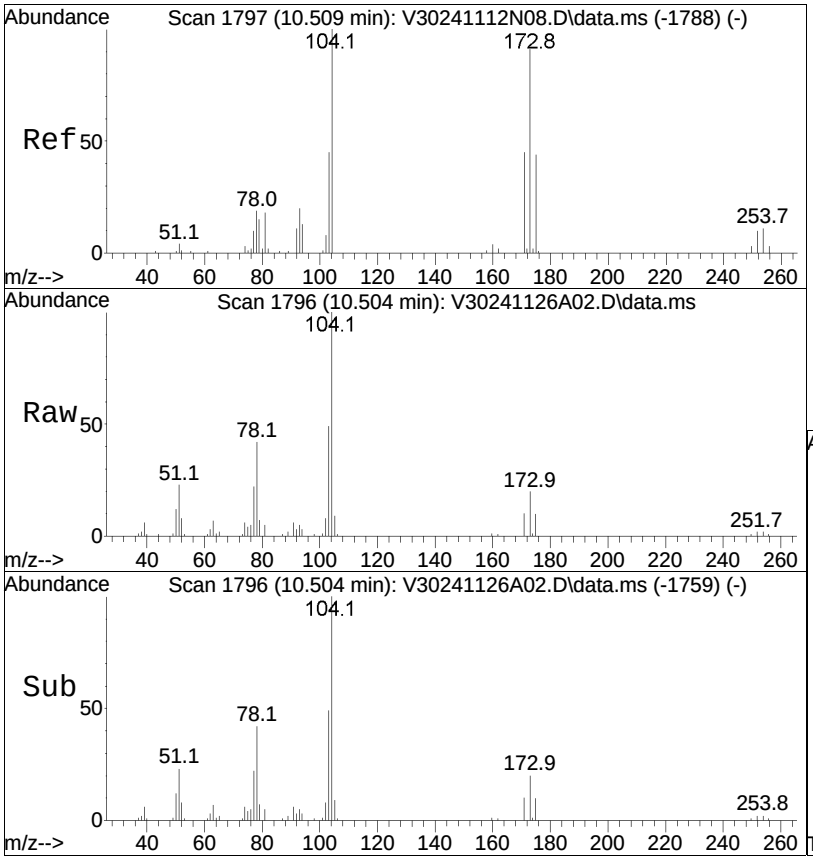


#83
Styrene
Concen: 18.49 ug/L
RT: 10.483 min Scan# 1792
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:104 Resp: 493910

Ion	Ratio	Lower	Upper
104	100		
78	44.1	38.1	57.1

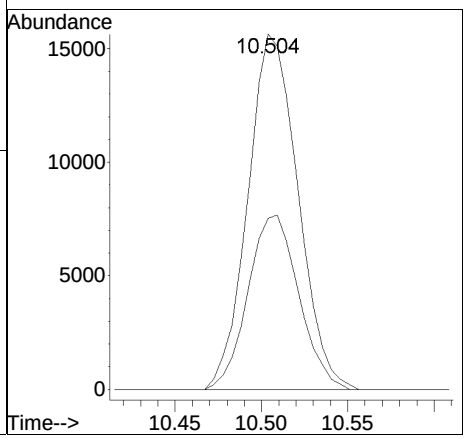


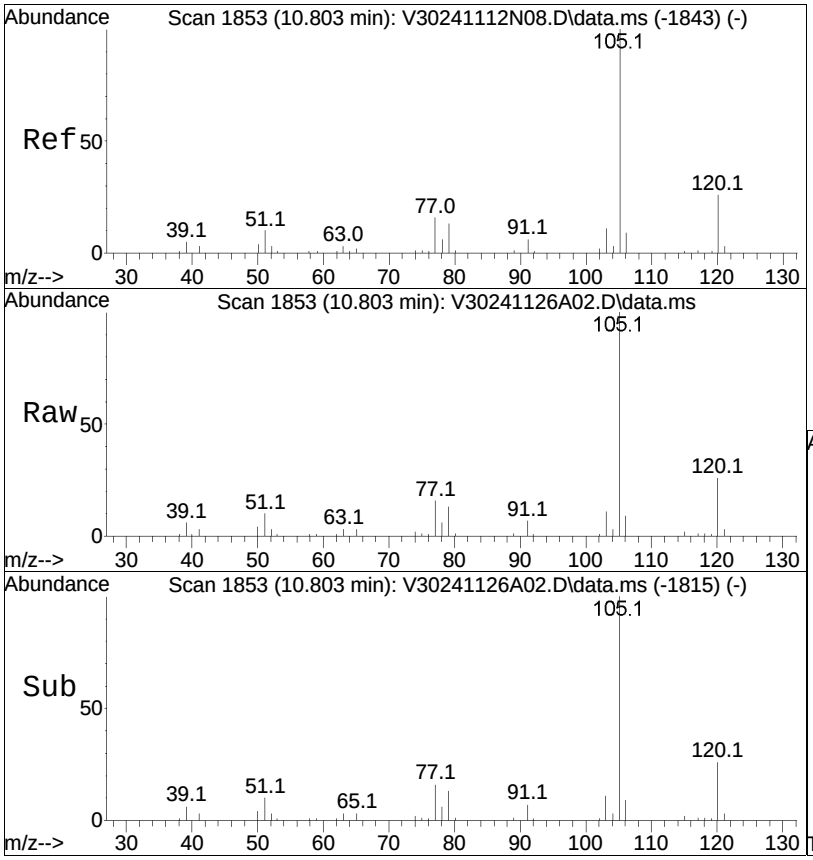


#85
Bromoform
Concen: 7.93 ug/L
RT: 10.504 min Scan# 1796
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:173 Resp: 31556

Ion	Ratio	Lower	Upper
173	100		
175	49.7	37.8	56.6

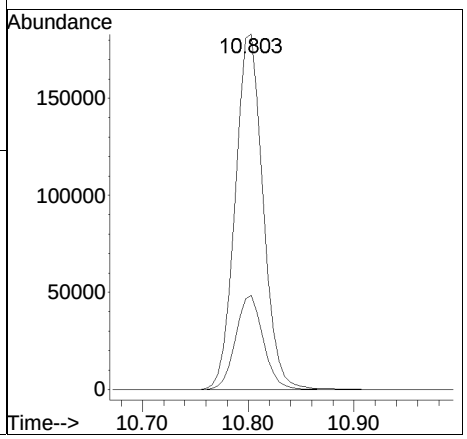


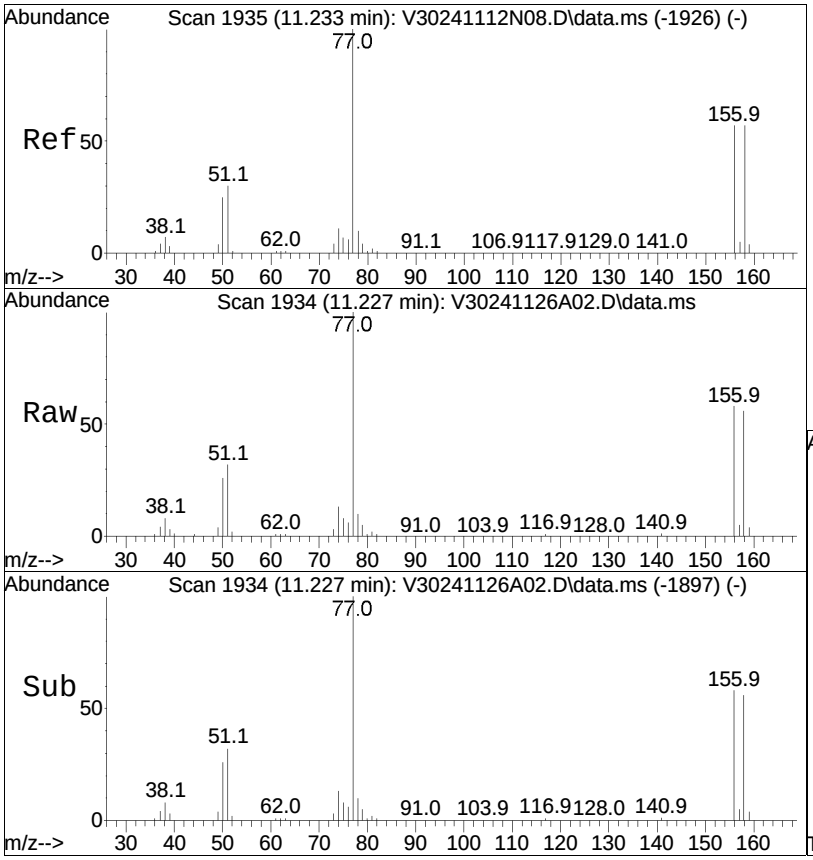


#87
Isopropylbenzene
Concen: 7.86 ug/L
RT: 10.803 min Scan# 1853
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:105 Resp: 334656

Ion	Ratio	Lower	Upper
105	100		
120	26.1	20.0	30.0

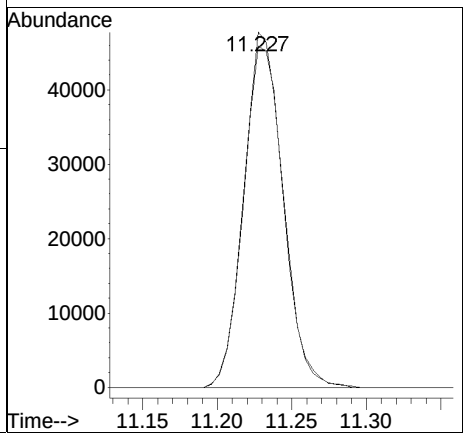


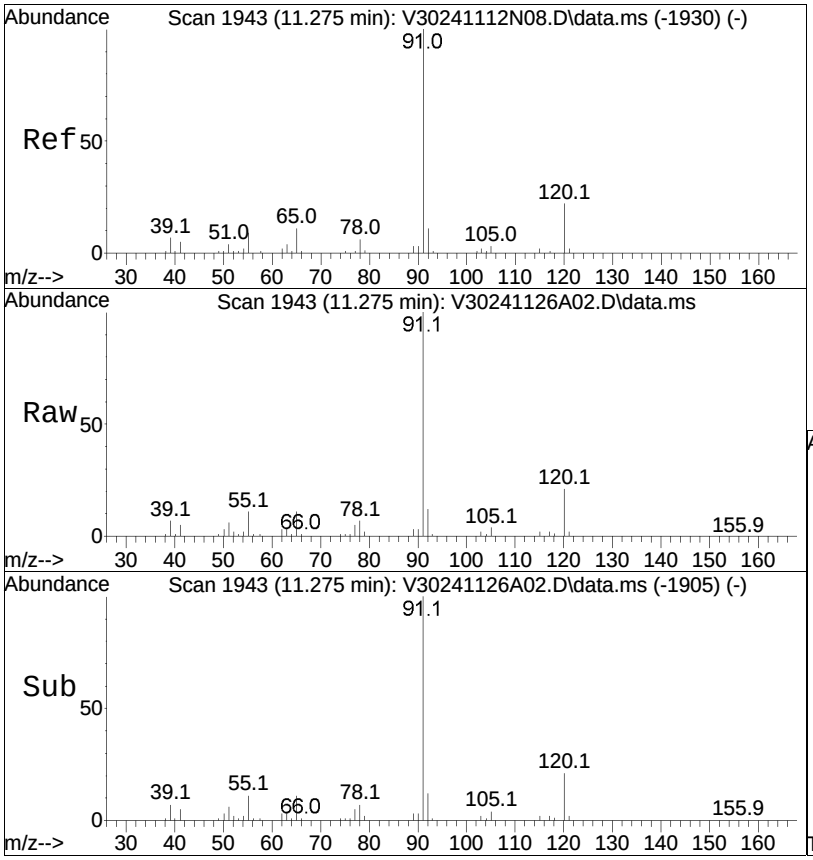


#89
Bromobenzene
Concen: 8.49 ug/L
RT: 11.227 min Scan# 1934
Delta R.T. -0.006 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:156 Resp: 87354

Ion	Ratio	Lower	Upper
156	100		
158	98.2	78.3	117.5

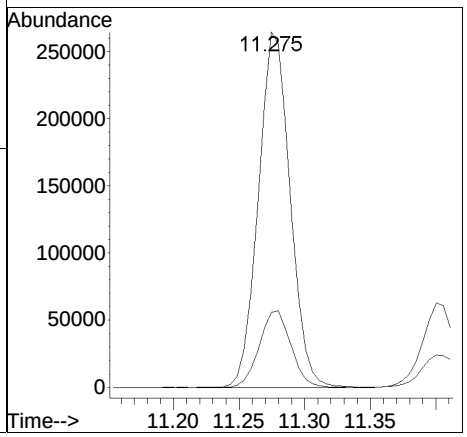


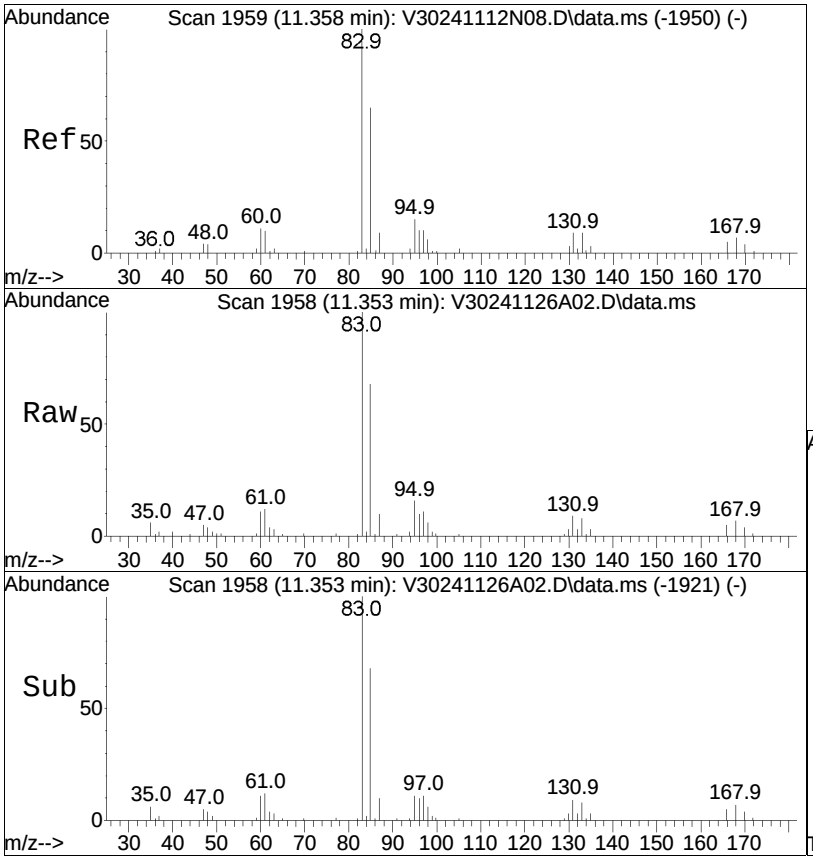


#90
n-Propylbenzene
Concen: 8.31 ug/L
RT: 11.275 min Scan# 1943
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 91 Resp: 444754

Ion	Ratio	Lower	Upper
91	100		
120	21.5	16.3	24.5

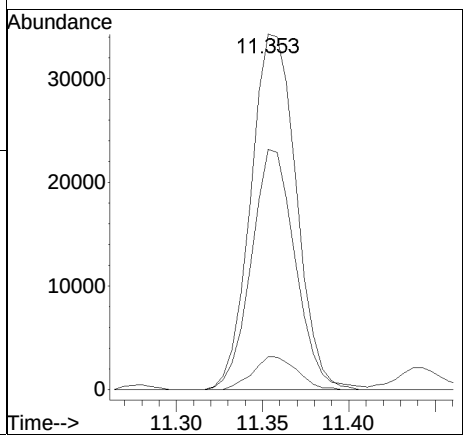


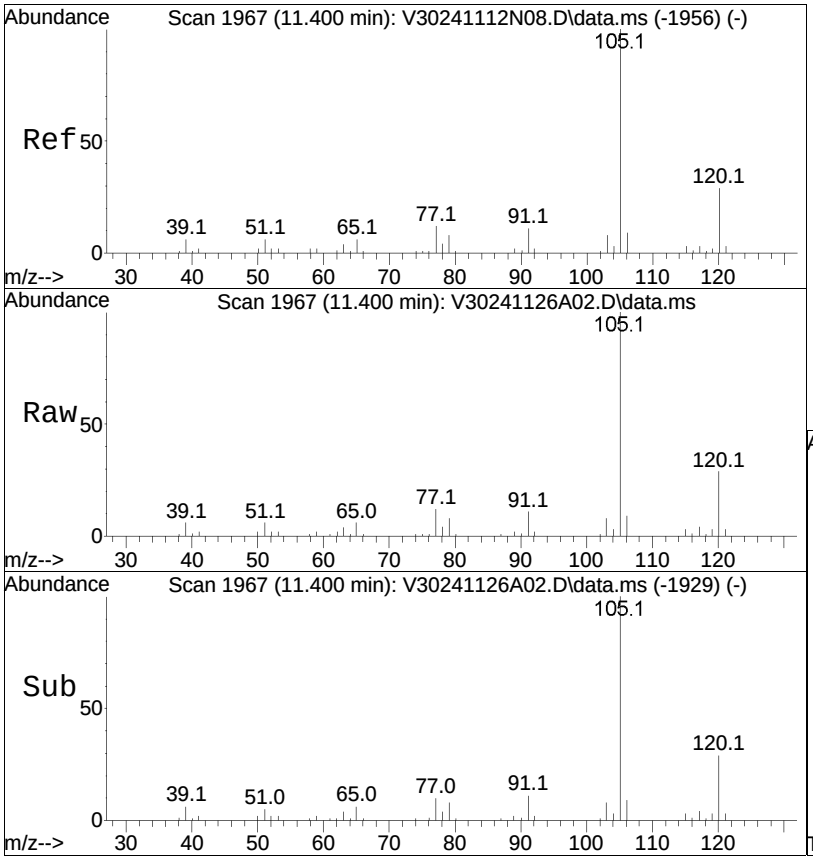


#92
1,1,2,2-Tetrachloroethane
Concen: 9.40 ug/L
RT: 11.353 min Scan# 1958
Delta R.T. -0.005 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 83 Resp: 62695

Ion	Ratio	Lower	Upper
83	100		
131	8.9	6.6	10.0
85	65.6	51.8	77.6

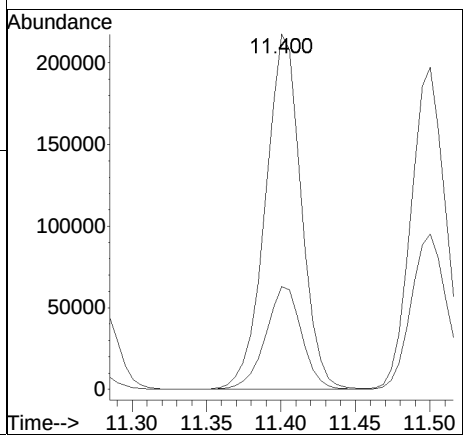


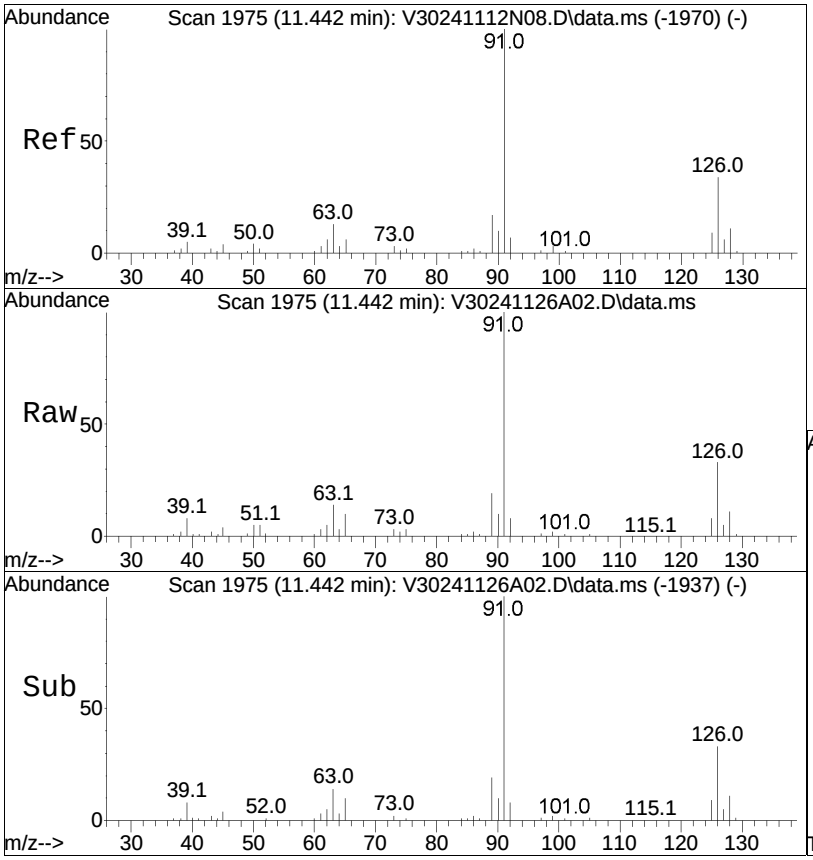


#93
4-Ethyltoluene
Concen: 8.19 ug/L
RT: 11.400 min Scan# 1967
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:105 Resp: 363442

Ion	Ratio	Lower	Upper
105	100		
120	29.2	18.5	38.3

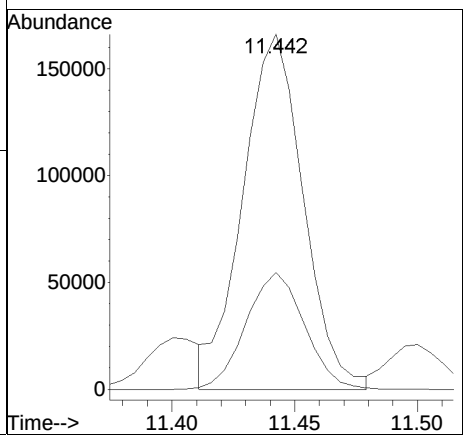


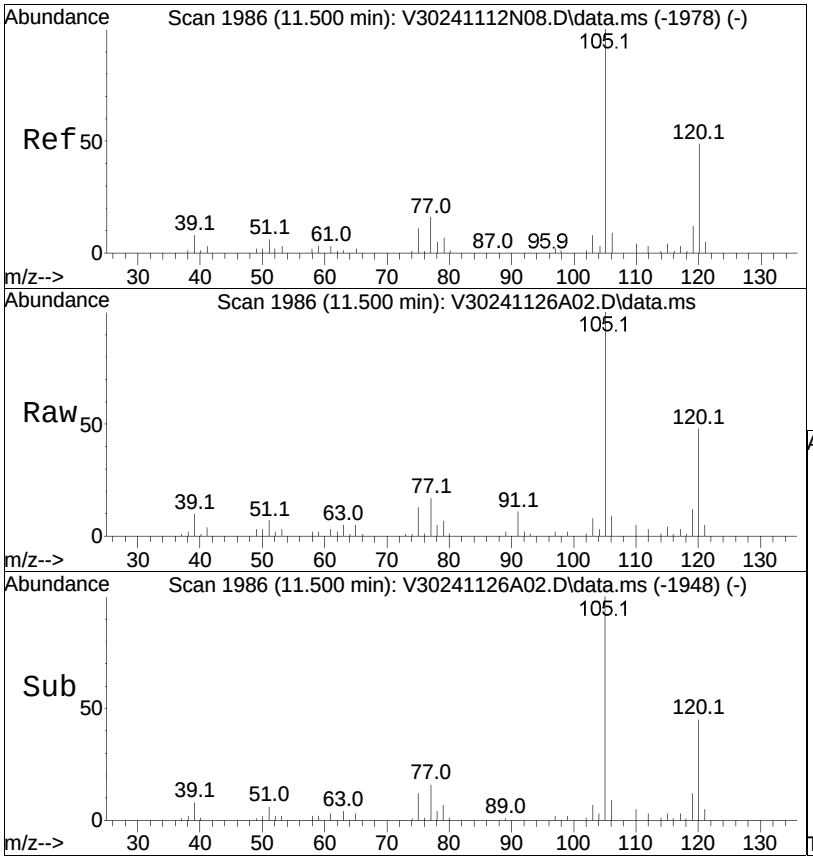


#94
2-Chlorotoluene
Concen: 8.67 ug/L M1
RT: 11.442 min Scan# 1975
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 91 Resp: 284821

Ion	Ratio	Lower	Upper
91	100		
126	32.0	20.6	31.0#

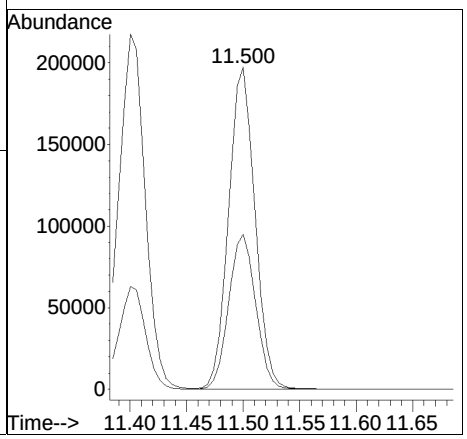


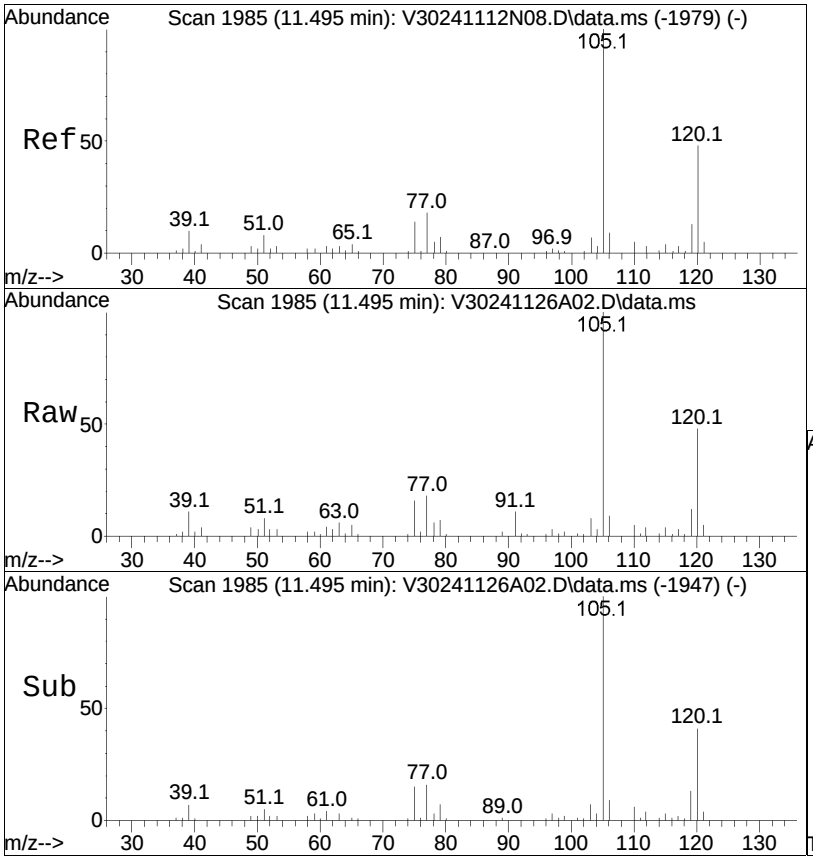


#95
1,3,5-Trimethylbenzene
Concen: 8.26 ug/L
RT: 11.500 min Scan# 1986
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:105 Resp: 321242

Ion	Ratio	Lower	Upper
105	100		
120	49.2	37.8	56.6

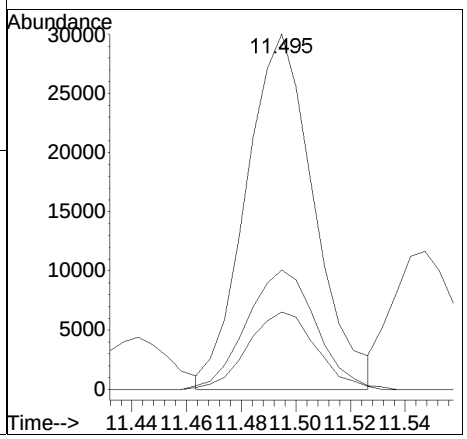


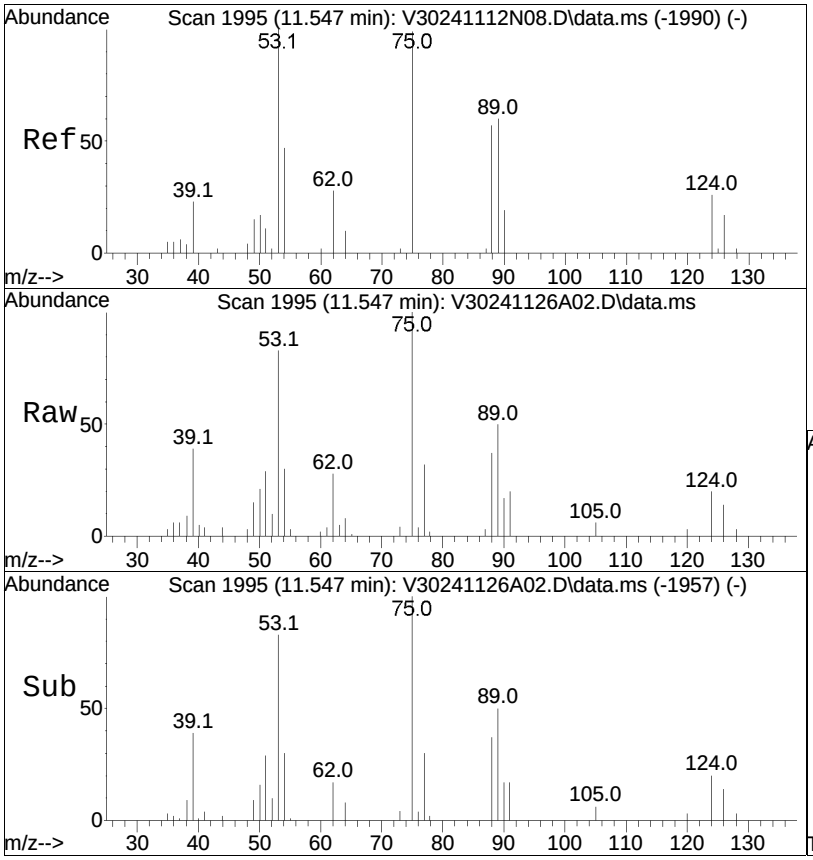


#96
1,2,3-Trichloropropane
Concen: 9.54 ug/L
RT: 11.495 min Scan# 1985
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 75 Resp: 51865

Ion	Ratio	Lower	Upper
75	100		
110	34.2	18.4	38.2
112	21.8	12.0	25.0

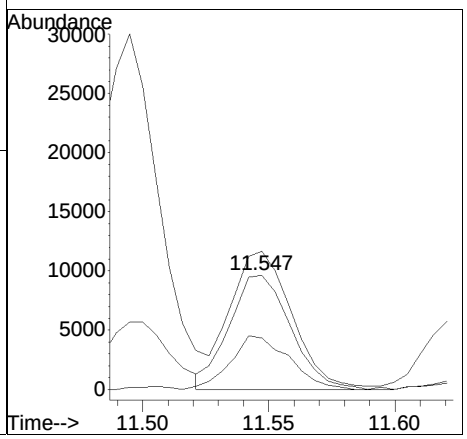


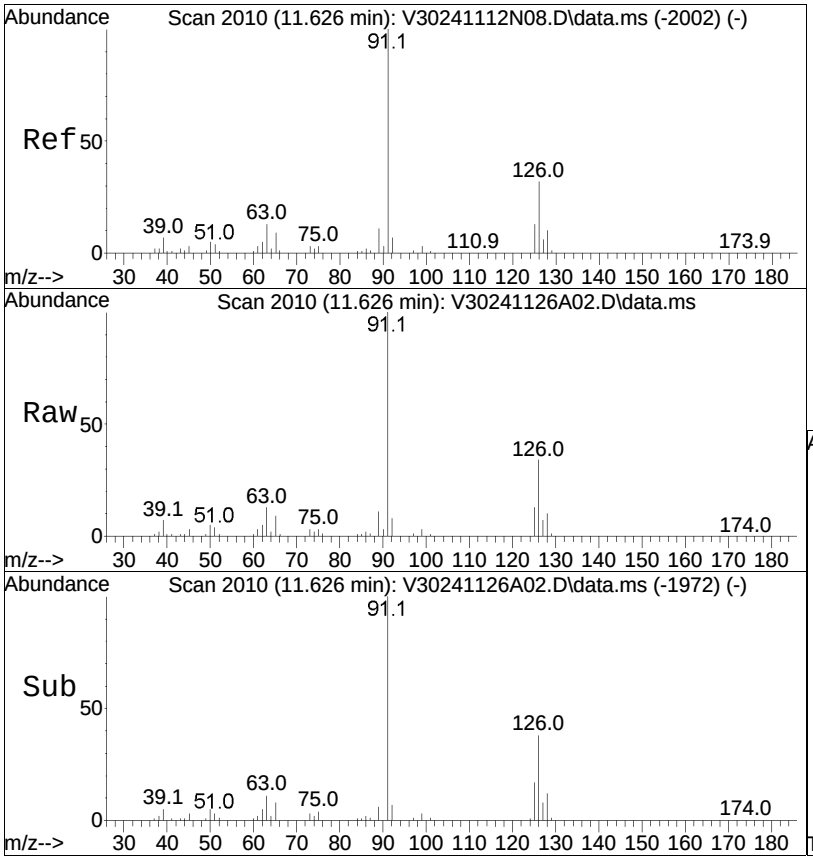


#97
trans-1,4-Dichloro-2-butene
Concen: 10.07 ug/L
RT: 11.547 min Scan# 1995
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 53 Resp: 16310

Ion	Ratio	Lower	Upper
53	100		
88	44.9	33.5	50.3
75	119.5	94.6	141.8

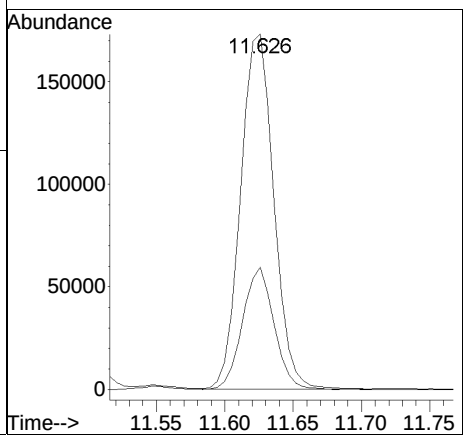


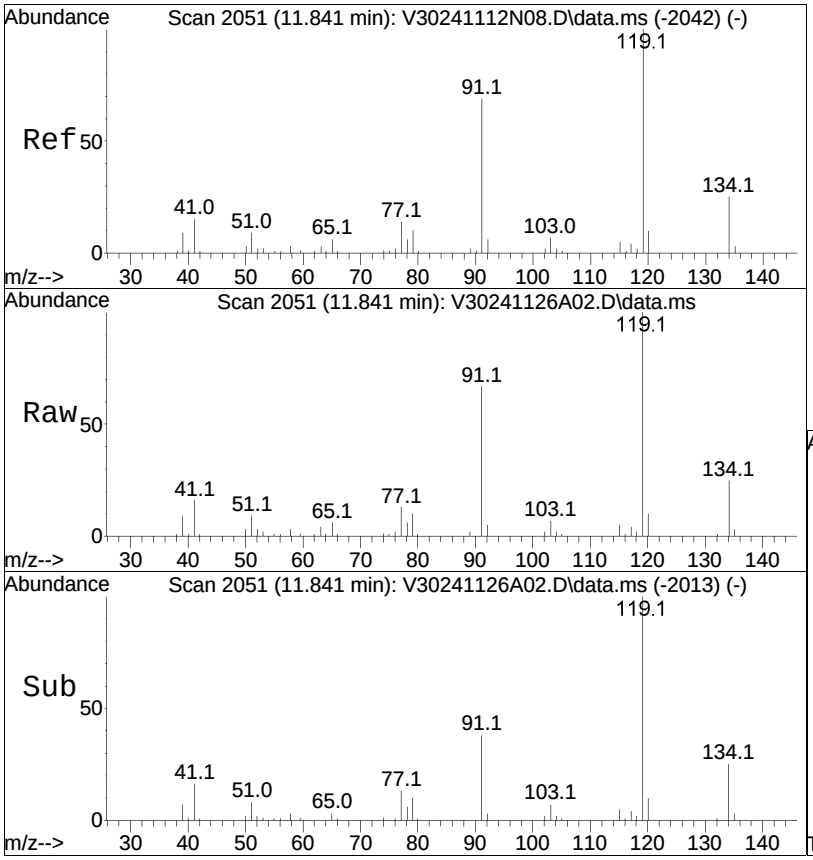


#98
4-Chlorotoluene
Concen: 8.51 ug/L
RT: 11.626 min Scan# 2010
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 91 Resp: 291514

Ion	Ratio	Lower	Upper
91	100		
126	32.7	23.8	35.8

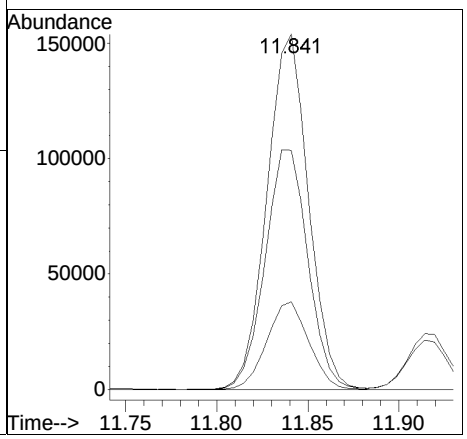


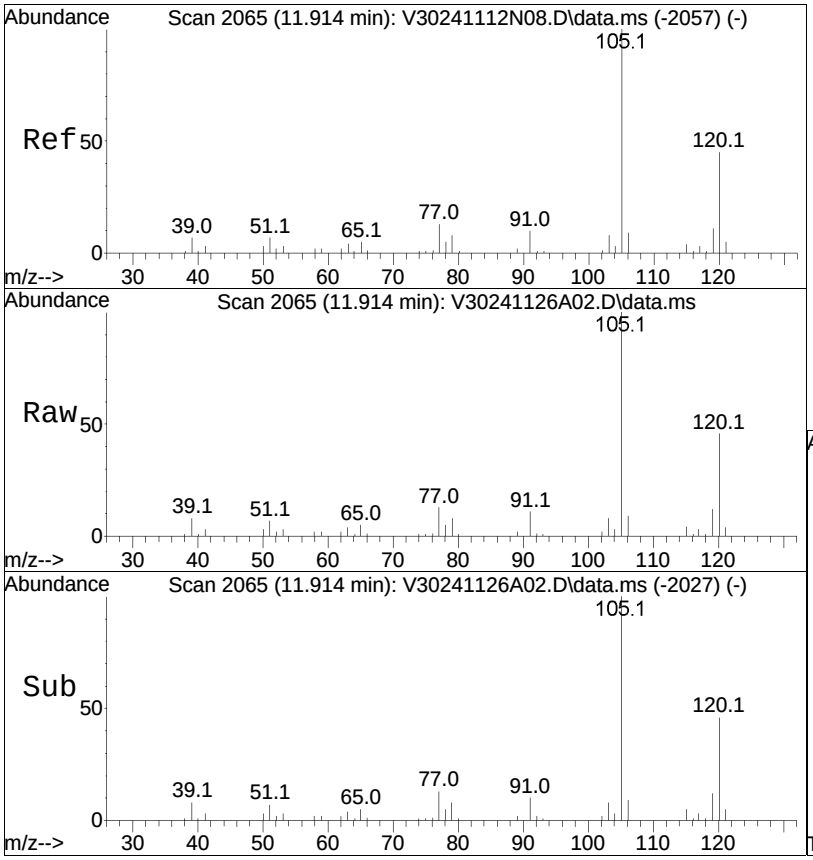


#99
tert-Butylbenzene
Concen: 7.74 ug/L
RT: 11.841 min Scan# 2051
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:119 Resp: 244178

Ion	Ratio	Lower	Upper
119	100		
91	69.6	58.8	88.2
134	24.9	18.6	27.8

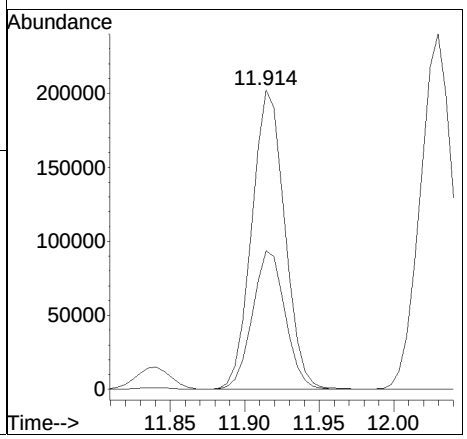


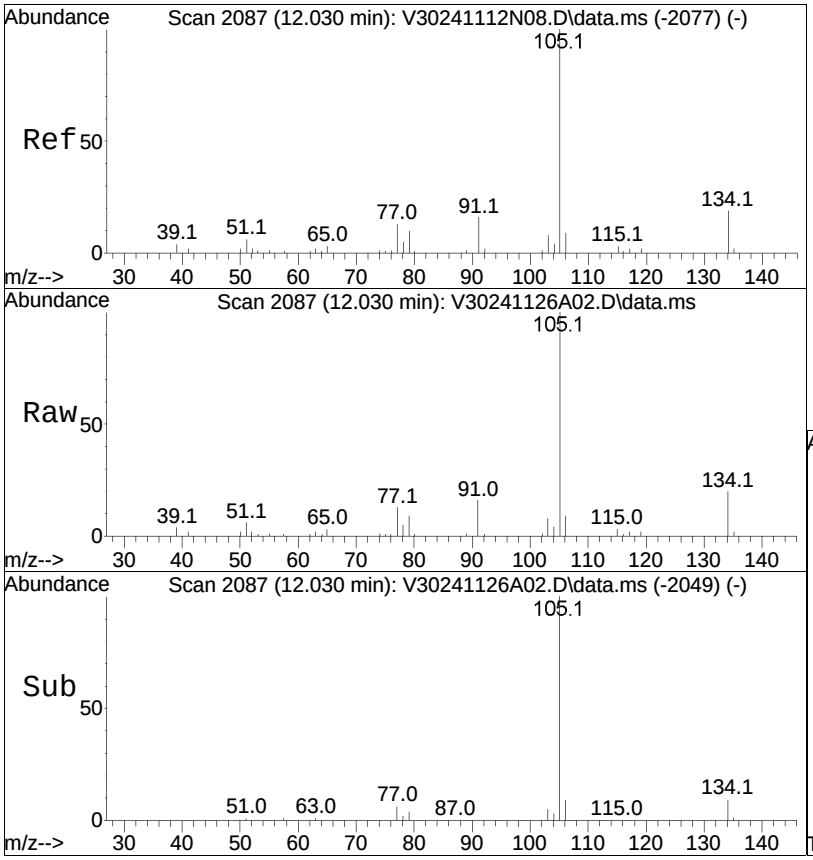


#102
1,2,4-Trimethylbenzene
Concen: 8.26 ug/L
RT: 11.914 min Scan# 2065
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:105 Resp: 311399

Ion	Ratio	Lower	Upper
105	100		
120	46.0	35.2	52.8

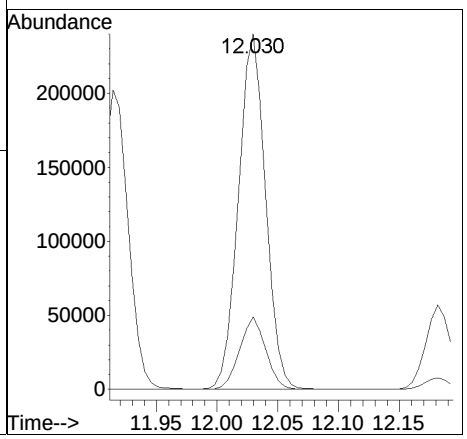


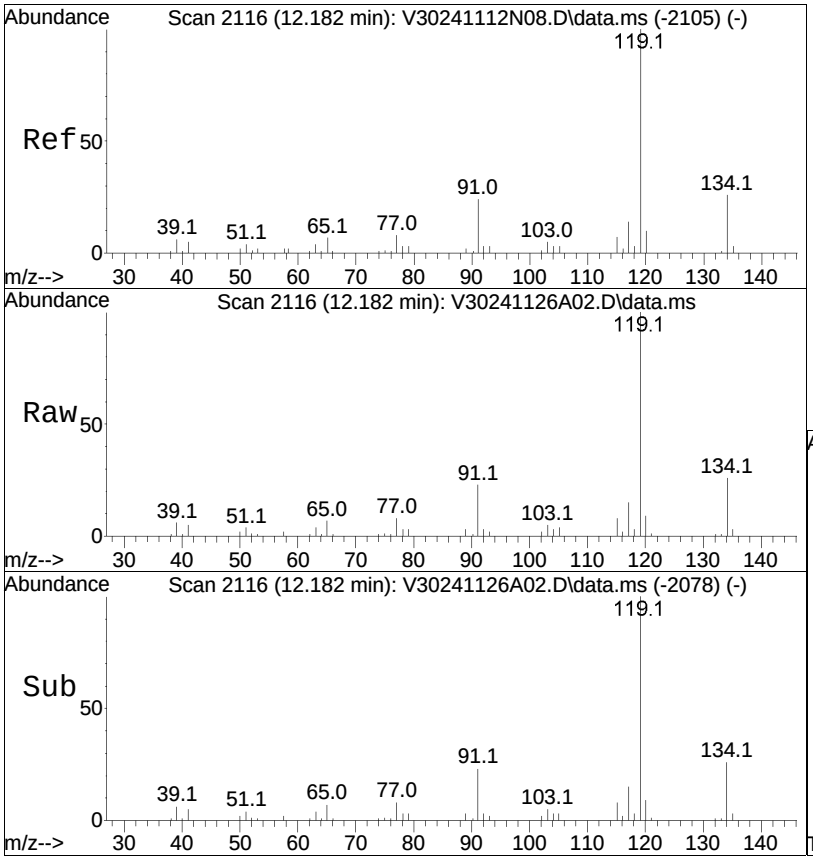


#103
sec-Butylbenzene
Concen: 8.14 ug/L
RT: 12.030 min Scan# 2087
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:105 Resp: 373090

Ion	Ratio	Lower	Upper
105	100		
134	19.6	11.4	23.6

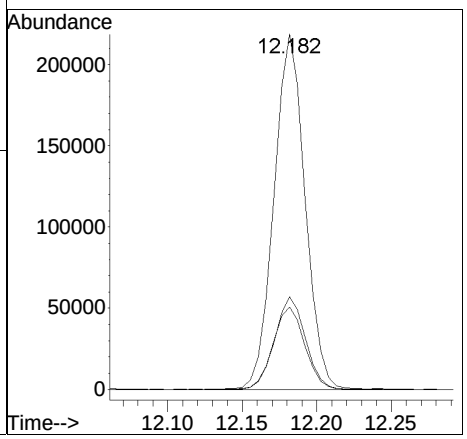


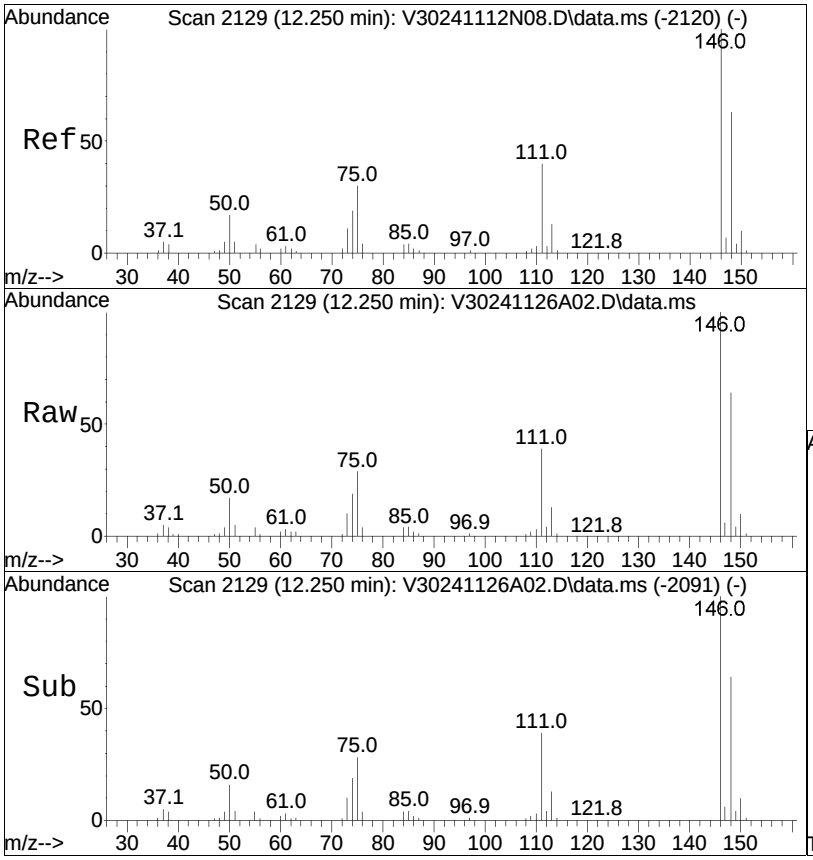


#104
p-Isopropyltoluene
Concen: 8.01 ug/L
RT: 12.182 min Scan# 2116
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:119 Resp: 316980

Ion	Ratio	Lower	Upper
119	100		
134	25.8	15.9	33.1
91	23.8	16.6	34.4

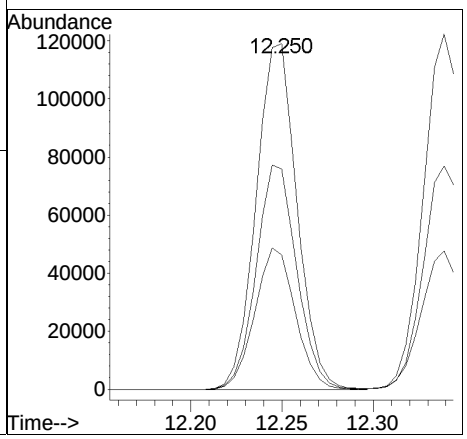


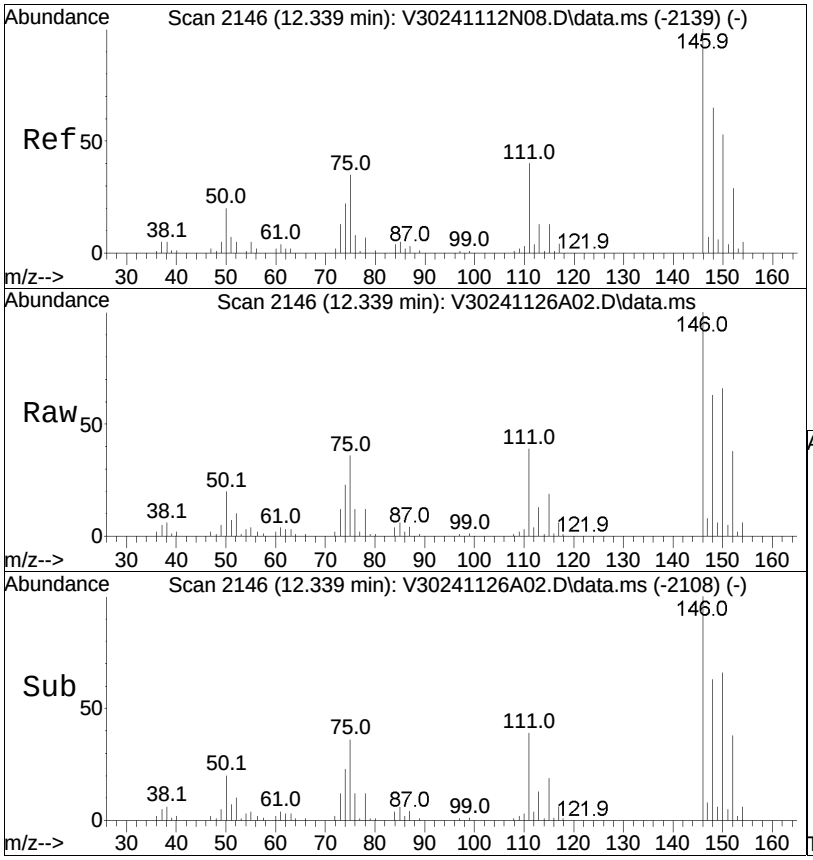


#105
1,3-Dichlorobenzene
Concen: 8.60 ug/L
RT: 12.250 min Scan# 2129
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:146 Resp: 186022

Ion	Ratio	Lower	Upper
146	100		
111	40.5	28.0	58.1
148	64.1	40.8	84.6

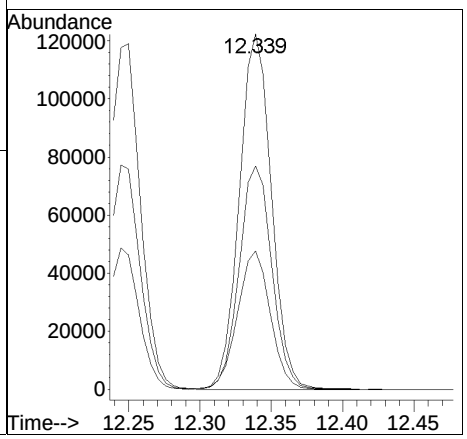


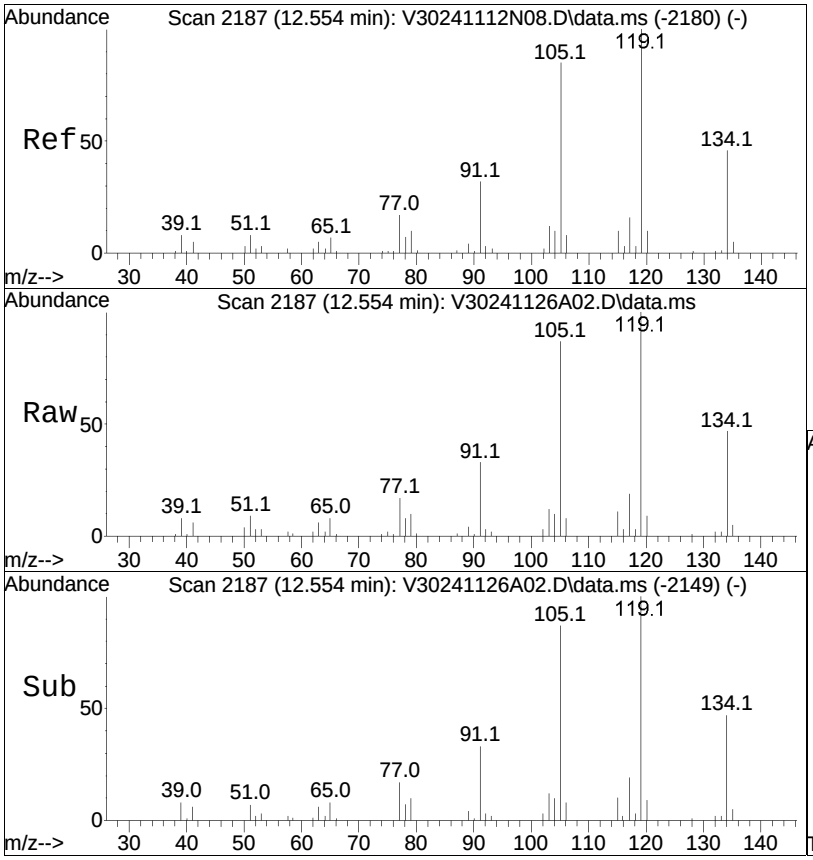


#106
1,4-Dichlorobenzene
Concen: 8.67 ug/L
RT: 12.339 min Scan# 2146
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:146 Resp: 191762

Ion	Ratio	Lower	Upper
146	100		
111	39.9	33.7	50.5
148	64.2	50.8	76.2

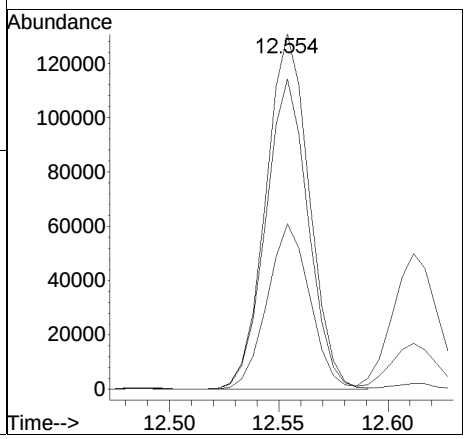


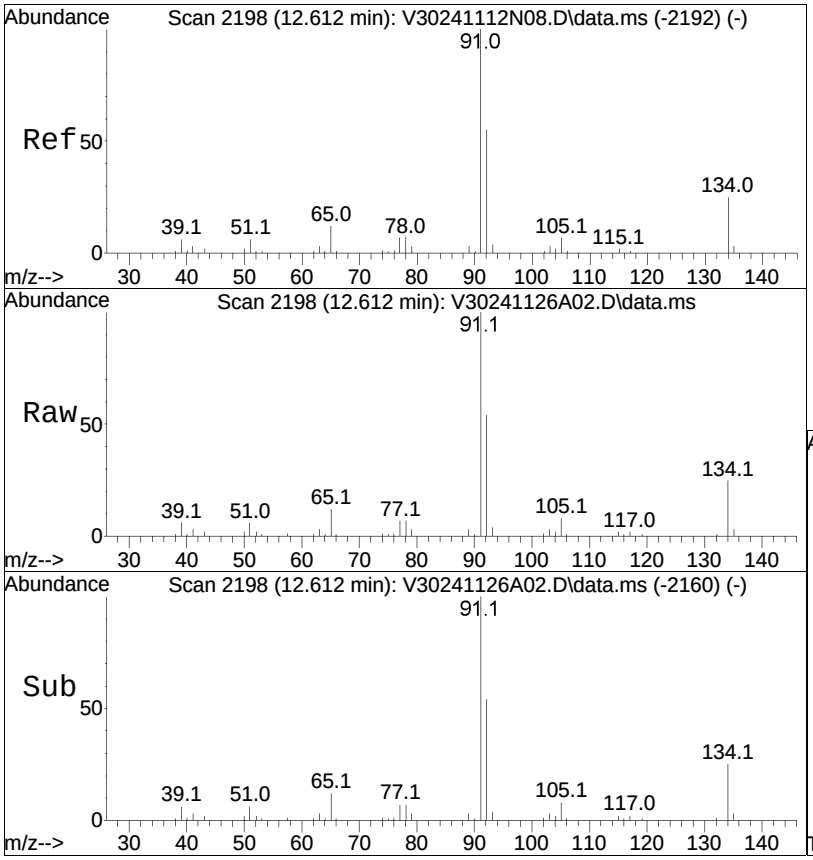


#107
p-Diethylbenzene
Concen: 7.75 ug/L
RT: 12.554 min Scan# 2187
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:119 Resp: 180572

Ion	Ratio	Lower	Upper
119	100		
105	85.9	58.4	121.2
134	45.8	28.7	59.5

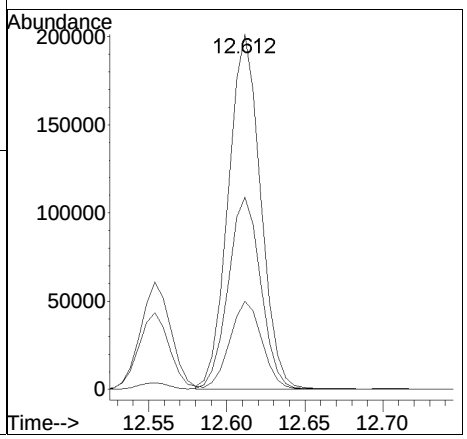


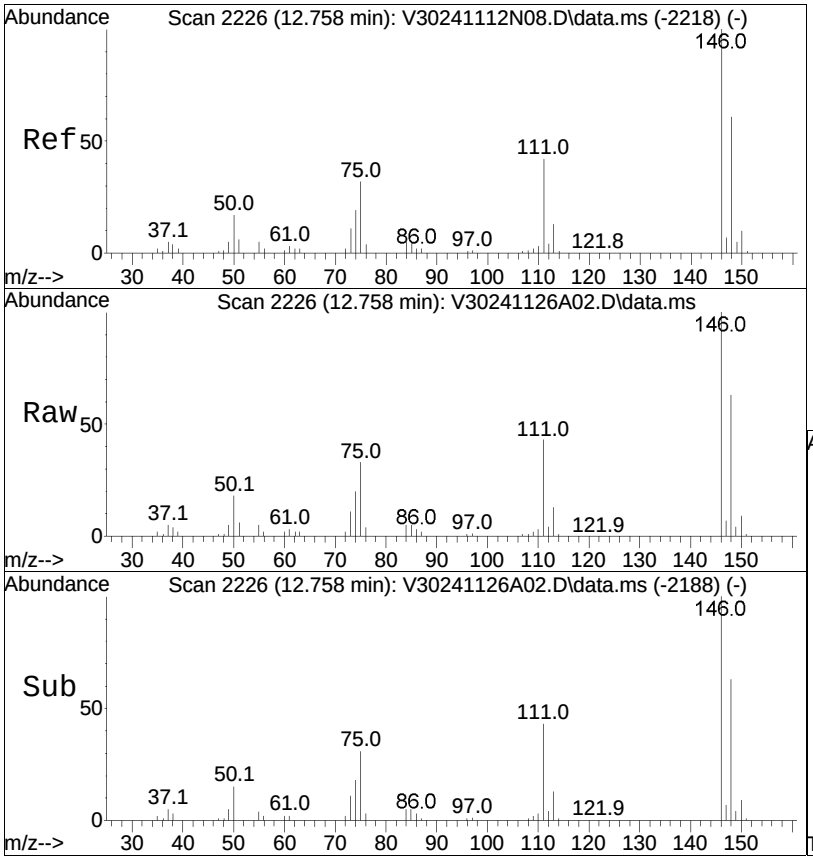


#108
n-Butylbenzene
Concen: 8.42 ug/L
RT: 12.612 min Scan# 2198
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion: 91 Resp: 289856

Ion	Ratio	Lower	Upper
91	100		
92	54.6	44.2	66.4
134	24.8	17.8	26.6

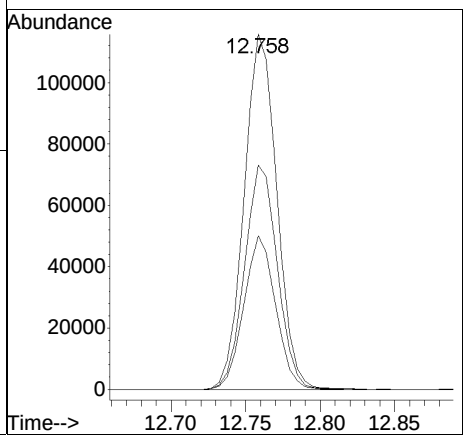


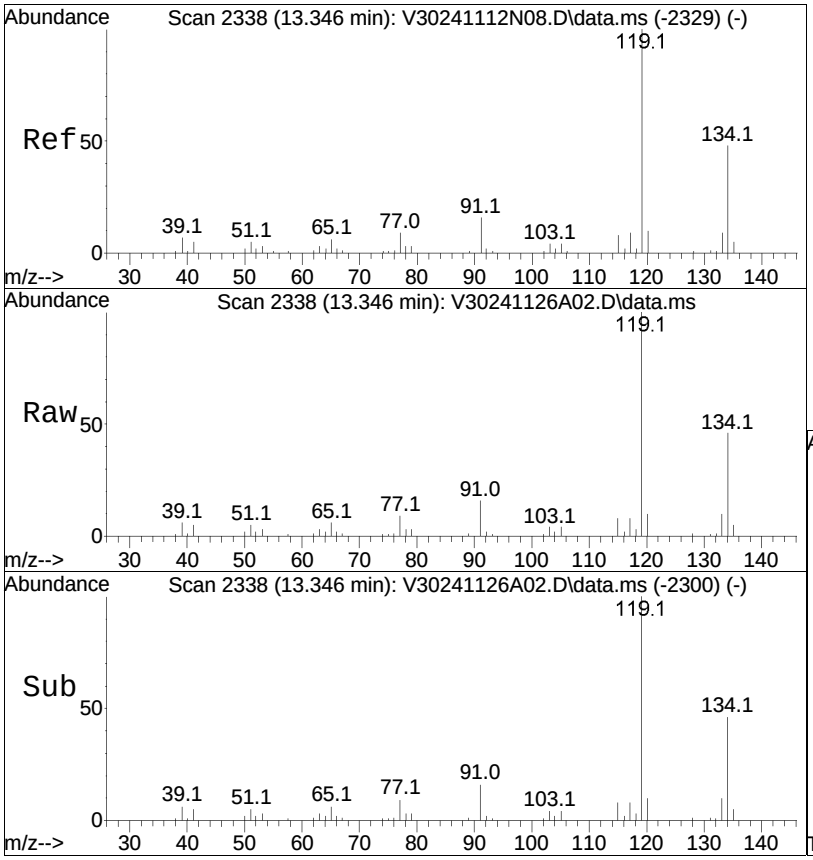


#109
1,2-Dichlorobenzene
Concen: 8.61 ug/L
RT: 12.758 min Scan# 2226
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:146 Resp: 176664

Ion	Ratio	Lower	Upper
146	100		
111	42.0	29.5	61.3
148	63.3	41.3	85.9

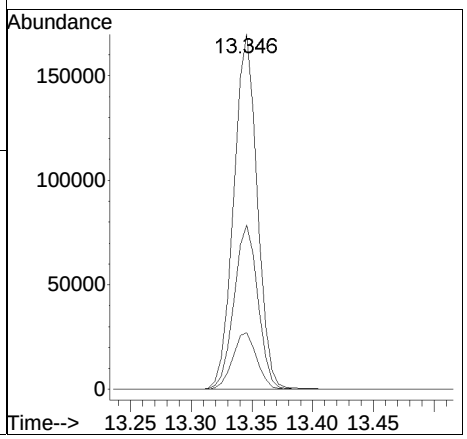


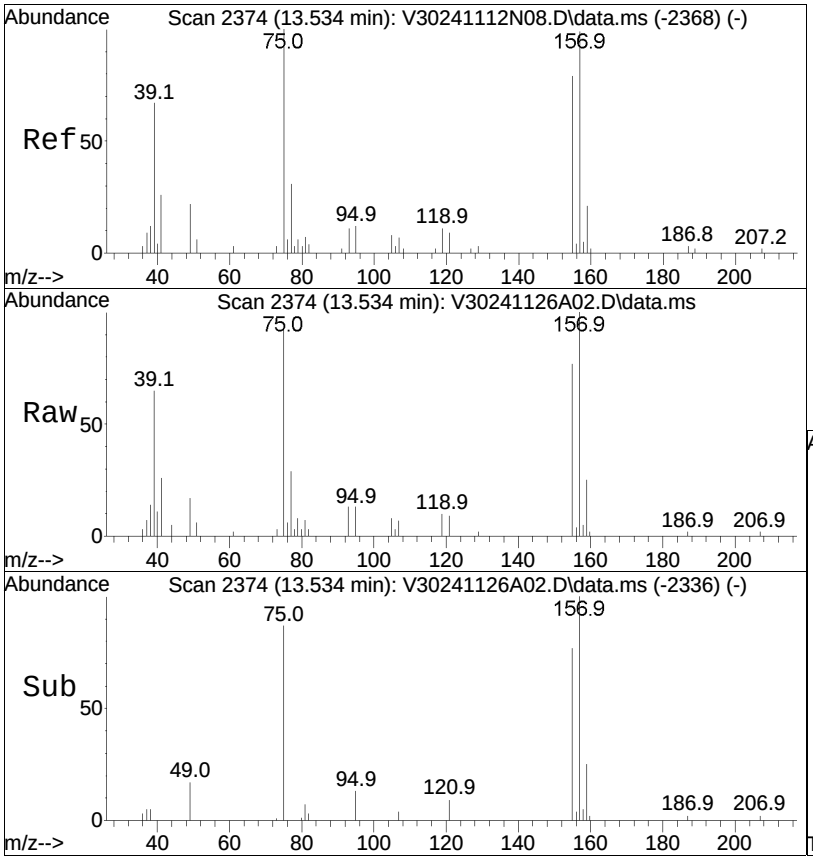


#110
1,2,4,5-Tetramethylbenzene
Concen: 6.98 ug/L
RT: 13.346 min Scan# 2338
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:119 Resp: 229095

Ion	Ratio	Lower	Upper
119	100		
134	47.0	29.1	60.5
91	16.4	11.5	23.9

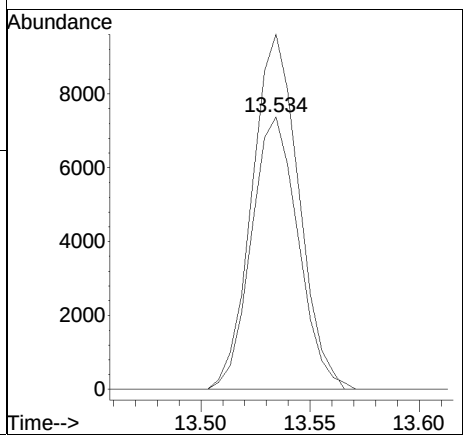


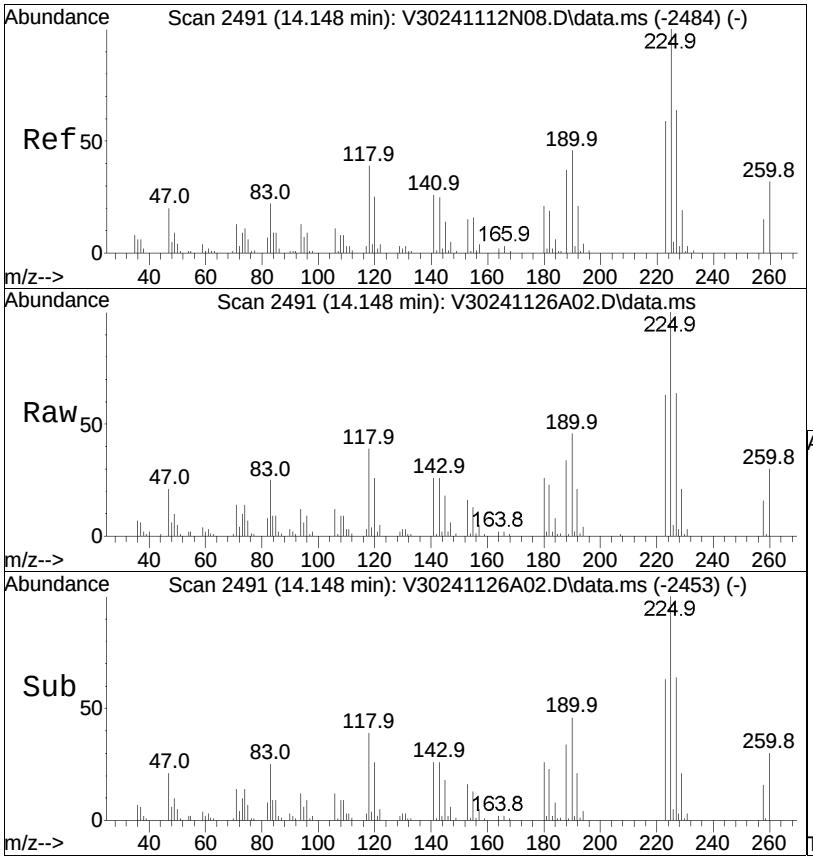


#111
1,2-Dibromo-3-chloropropane
Concen: 9.88 ug/L
RT: 13.534 min Scan# 2374
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:155 Resp: 10986

Ion	Ratio	Lower	Upper
155	100		
157	129.8	105.1	157.7

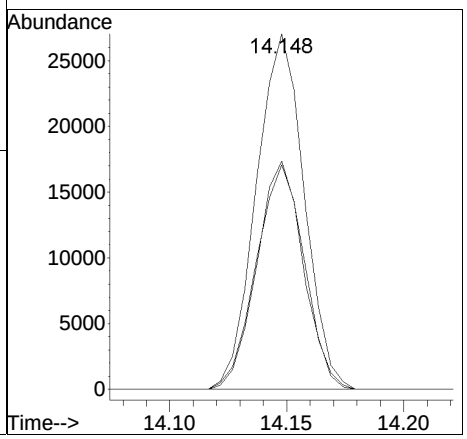


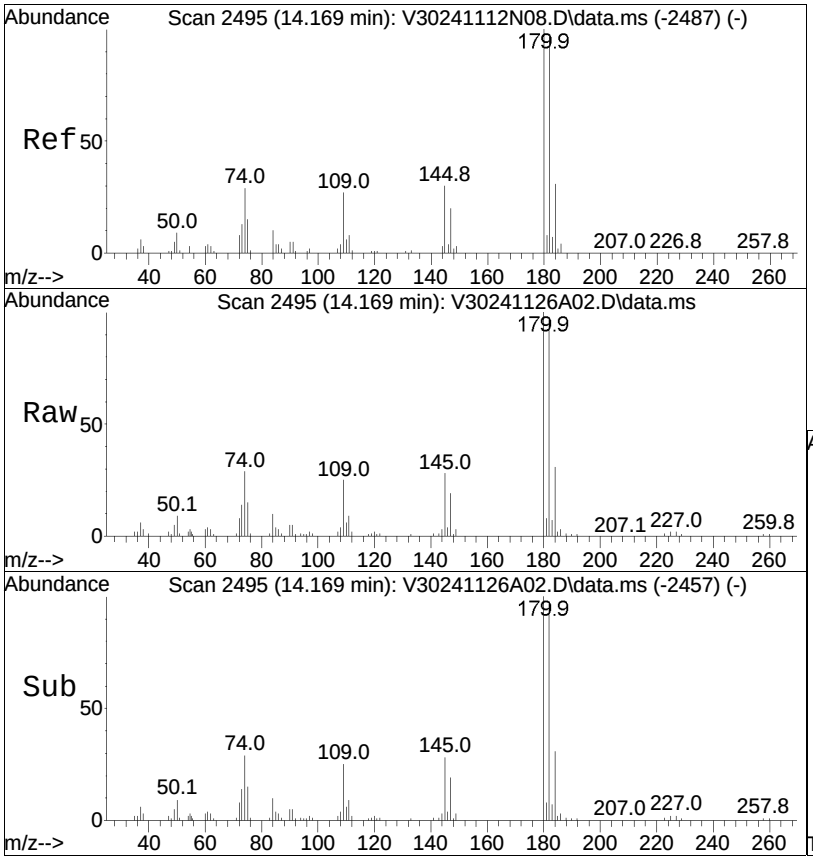


#113
Hexachlorobutadiene
Concen: 7.44 ug/L
RT: 14.148 min Scan# 2491
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:225 Resp: 38458

Ion	Ratio	Lower	Upper
225	100		
223	62.3	50.6	75.8
227	63.4	50.6	76.0

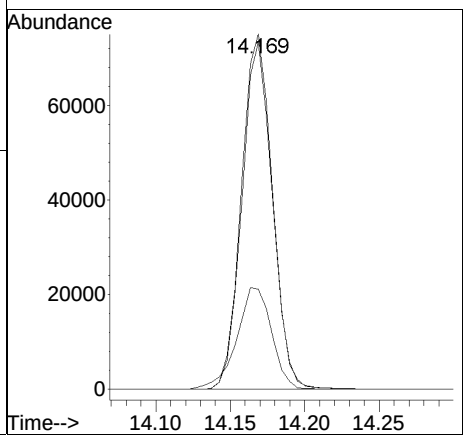


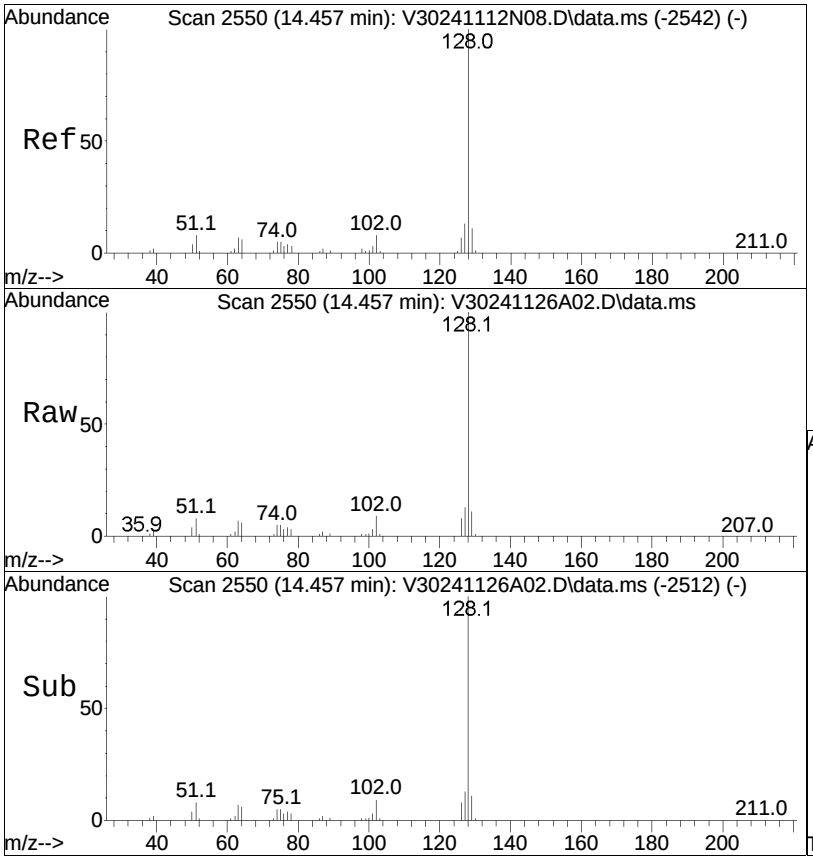


#114
1,2,4-Trichlorobenzene
Concen: 8.09 ug/L
RT: 14.169 min Scan# 2495
Delta R.T. -0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:180 Resp: 108606

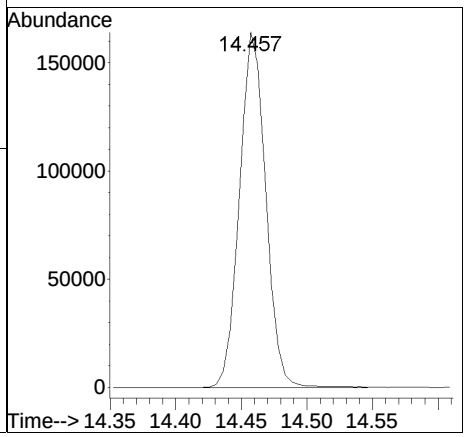
Ion	Ratio	Lower	Upper
180	100		
182	96.0	75.7	113.5
145	32.3	27.4	41.2

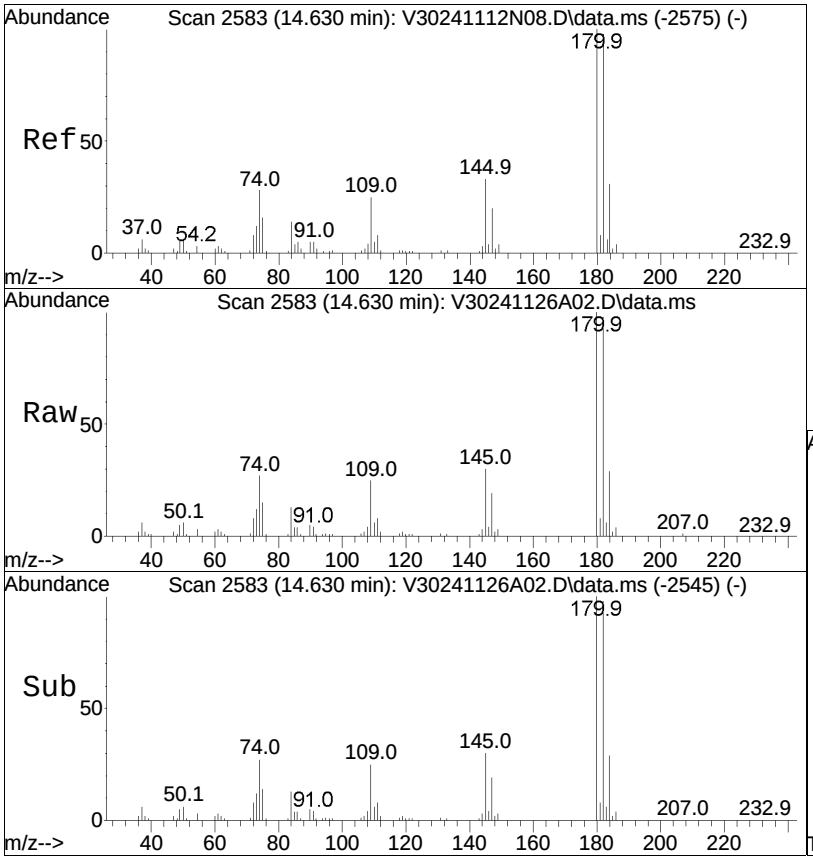




#115
Naphthalene
Concen: 8.32 ug/L
RT: 14.457 min Scan# 2550
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:128 Resp: 228228

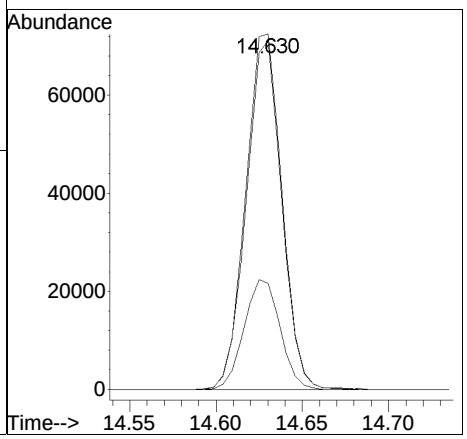




#116
1,2,3-Trichlorobenzene
Concen: 8.45 ug/L
RT: 14.630 min Scan# 2583
Delta R.T. 0.000 min
Lab File: V30241126A02.D
Acq: 26 Nov 2024 07:09 am

Tgt Ion:180 Resp: 105567

Ion	Ratio	Lower	Upper
180	100		
182	95.7	74.9	112.3
145	30.7	26.0	39.0

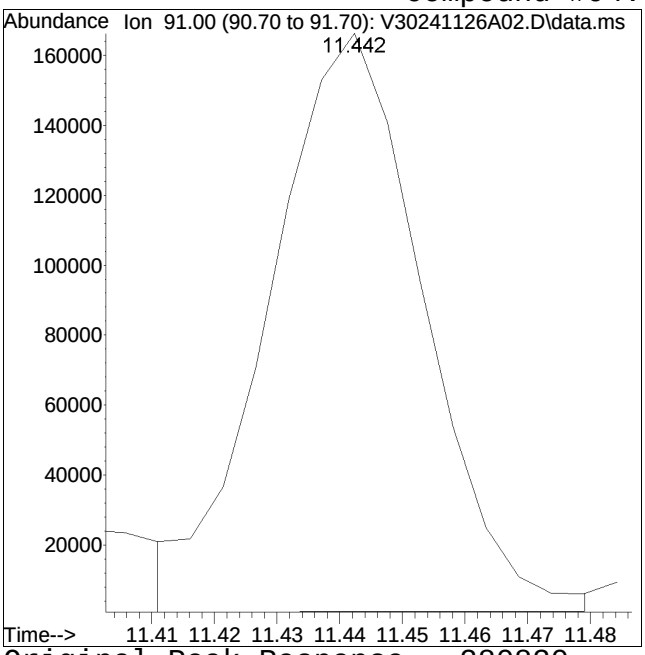


Manual Integration Report

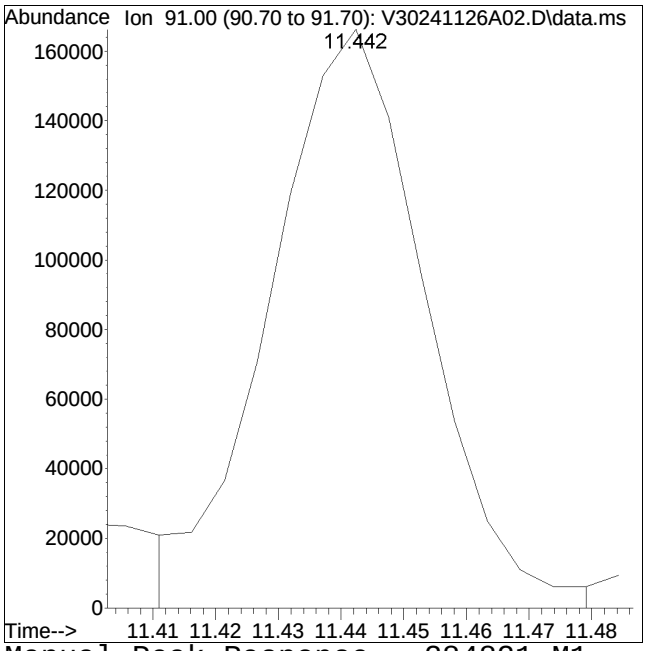
Data Path : K:\VOA130\2024\241126A\
Data File : V30241126A02.D
Date Inj'd : 11/26/2024 7:09 am
Sample : WG2002632-4,31,10,10

QMethod : V130_241112N_8260D.m
Operator : VOA130:PID
Instrument : VOA130
Quant Date : 11/26/2024 7:32 am

Compound #94: 2-Chlorotoluene



Original Peak Response = 280830



Manual Peak Response = 284821 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 26 2024, 01:10 pm

Work Group: WG2002632 for Department: 31 GC/MS - Volatiles

Created: 26-NOV-24 Due: Operator: mjv

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2469490-01	DUP_11222024	S	NYTCL-8260	WATER	DONE	U	1206	1126	1A	Vial-B
L2469490-02	LMW-10RS-24.75	S	NYTCL-8260	WATER	DONE	U	1206	1126	1A	Vial-B
L2469490-03	LMW-10RD-30.75	S	NYTCL-8260	WATER	DONE	U	1209	1126	1A	Vial-B
L2469490-04	LMW-10RD-40.75	S	NYTCL-8260	WATER	DONE	U	1209	1126	1A	Vial-B
L2469490-05	TB_11252024	S	NYTCL-8260	WATER	DONE	U	1206	1126	1A	Vial-B
L2469536-01	HRP-MW5A 112524	S	NYTCL-8260	WATER	DONE	U	1209	1126	3A	Vial-B
L2469536-02	HRP-MW5B 112524	S	NYTCL-8260	WATER	DONE	U	1209	1126	3A	Vial-B
L2469536-03	MW-20A 112524	S	NYTCL-8260	WATER	DONE	U	1209	1126	3A	Vial-B
WG2002632-1	MS BFB Tune Standard	S	NYTCL-8260	WATER	DONE	U				
WG2002632-2	Continuing Calibrati	S	NYTCL-8260	WATER	DONE	U				
WG2002632-3	Laboratory Control S	S	NYTCL-8260	WATER	DONE	U				
WG2002632-4	LCS Duplicate	S	NYTCL-8260	WATER	DONE	U				
WG2002632-5	Laboratory Method Bl	S	NYTCL-8260	WATER	DONE	U				

Comments:

WG2002632-4 WG2002632-3

			Method
Inst: VOA130	BFB: V10735	GC: 8260	
Initials: PID	IS/SS: V10796	Autosampler: 8260	
Date: **11/12/24**	ICAL: V10788B,V10792	Concentrator: 8260	
Run: **N**	ICV: V10780,V10761,V10771,V10762,V10745,V10756	QC:_____	Seq:_____

Vial	Data File	SAMPLE	pH<2
1	V30241112NBF1	BFB TUNE 14:39	
1	V30241112N01	BLK	
2	V30241112N02	BLK	
3	V30241112N03	I8260STD0.19PPB	
4	V30241112N04	I8260STD0.5PPB	
5	V30241112N05	I8260STD0.5PPB	
6	V30241112N06	I8260STD2PPB	
7	V30241112N07	I8260STD2PPB	
8	V30241112N08	I8260STD10PPB	
9	V30241112N09	I8260STD30PPB	
10	V30241112N10	I8260STD80PPB	
11	V30241112N11	I8260STD120PPB	
12	V30241112N12	I8260STD200PPB	
13	V30241112N13	BLK	
14	V30241112N14	BLK	
15	V30241112N15	BLK	
16	V30241112N16	BLK	
17	V30241112N17	C8260STD10PPB	
18	V30241112N18	C8260STD10PPB	
19	V30241112N19	BLK	

Inst: VOA130 BFB: V10797 Method GC: 8260
Initials: MJV IS/SS: V10800 Autosampler: 8260
Date: **11/26/24** ICAL: V10807A,V10812 Concentrator: 8260
Run: **A** QC:_____ Seq:_____

Vial	Data File	SAMPLE			pH<2
1	V30241126ABF1	BFB TUNE 06:37			
1	V30241126A01	8260 CCAL LCS			
2	V30241126A02	8260 CCAL LCSD			
3	V30241126A03	8260 CCAL			
4	V30241126A04	BLK			
5	V30241126A05	METHOD BLK			
6	V30241126A06	L2469490-05,31,10,10,,A,R1A	NYTCL	TB	pH<2
7	V30241126A07	L2469490-01,31,10,10,,A,R1A	NYTCL		pH<2
8	V30241126A08	L2469490-02,31,10,10,,A,R1A	NYTCL		pH<2
9	V30241126A09	L2469490-03,31,10,10,,A,R1A	NYTCL		pH<2
10	V30241126A10	L2469490-04,31,10,10,,A,R1A	NYTCL		pH<2
11	V30241126A11	L2469536-01,31,10,10,,A,R3A	NYTCL/10		pH<2
12	V30241126A12	L2469536-02,31,10,10,,A	NYTCL/10		pH<2
13	V30241126A13	L2469536-03,31,10,10,,A	NYTCL/10		pH<2
14	V30241126A14	L2467965-02D,31,0.5,10,,C	8260NH		pH<2
15	V30241126A15	L2467965-01D,31,0.2,10,,C	8260NH		pH<2
16	V30241126A16	d STD BENZ			
17	V30241126A17	L2468251-01,31,10,10,,A	ME8260DIOX		
18	V30241126A18	L2468251-02,31,10,10,,A	ME8260DIOX		
19	V30241126A19	L2468251-03,31,10,10,,A	ME8260DIOX		
20	V30241126A20	L2468251-04,31,10,10,,A	ME8260DIOX		
21	V30241126A21	L2468251-05,31,10,10,,A	ME8260DIOX		
22	V30241126A22	L2468251-06,31,10,10,,A	ME8260DIOX		
23	V30241126A23	L2468251-07,31,10,10,,A	ME8260DIOX		
24	V30241126A24	L2468251-08,31,10,10,,A	ME8260DIOX		
25	V30241126A25	L2468251-09,31,10,10,,A	ME8260DIOX	TB	
26	V30241126A26	L2468143-14,31,10,10,,A	8260CHLR/PCEBRK		
27	V30241126A27	HSTD			
28	V30241126A28	BLK			
29	V30241126A29	BLK			

APPENDIX B

Data Usability Summary Reports

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

1 University Square Drive Princeton, NJ 08540 T: 609.282.8000
Mailing Address: 1 University Square Drive Princeton, NJ 08540

To: Ashley Sandve, Langan Project Engineer

From: Mariana Wissink, Langan Senior Staff Chemist

Date: December 05, 2024

Re: Data Usability Summary Report
For 1487 First Avenue Development
November 2024 Groundwater Samples
Langan Project No.: 100963701

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in November 2024 by Langan Engineering and Environmental Services at 1487 First Avenue Development. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by SW-846 Method 8260D

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, level of data validation, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedures (SOPs) for Data Validation
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020)
- USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit

ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. The three (3) sample delivery groups underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and our best professional judgment:

- **R –** The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned, these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified because of minor data-quality anomalies are usable, as qualified in Table 2 (attached).

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2469254

The LCS for batch WG2001998 exhibited percent recoveries below the LCL for bromomethane (34%) and naphthalene (64%). The associated results in sample LMW-9RD_58.25 are qualified as UJ because of potential low bias.

The LCS/LCSD for batch WG2001998 exhibited a RPD above the control limit for naphthalene (26%). The associated results in sample LMW-9RD_58.25 are qualified as UJ because of potential indeterminate bias.

L2469490

The LCS for batch WG2002632 exhibited a percent recovery below the LCL for vinyl acetate (68%). The associated results in samples DUP_11222024, LMW-10RS-24.75, LMW-10RD-30.75, and LMW-10RD-40.75 are qualified as UJ because of potential low bias.

The LCSD for batch WG2002632-4 exhibited a percent recovery below the LCL for 1,1-dichloropropene (69%). The associated results in samples DUP_11222024, LMW-10RS-24.75, LMW-10RD-30.75, and LMW-10RD-40.75 are qualified as UJ because of potential low bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. No other deficiencies were identified.

FIELD DUPLICATES:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than ±1X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 30% for groundwater. The following field duplicate and parent sample pair was compared to the precision criteria:

- DUP_11222024 and LMW-9RD_58.25

The field duplicate and parent sample (DUP_11222024 and LMW-9RD_58.25) exhibited an absolute difference above the RL for 2-butanone (11.5 ug/l). The associated results are qualified as J because of potential indeterminate bias.

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above.If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Mariana Wissink
Senior Staff Chemist

GROUNDWATER PERFORMANCE MONITORING REPORT

for

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No. C231152

Prepared For:

CP VII 78th Street Owner, LLC
510 Madison Avenue, Suite 801
New York, New York 10022

Prepared By:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, New Jersey 07054

May 2025
Langan Project No. 100963701

CERTIFICATION

I, Steven Ciambruschini, certify that I am currently a Qualified Environmental Professional as defined in 6 New York Codes, Rules, and Regulations Part 375 and that this Groundwater Performance Monitoring Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

Steven Ciambruschini, P.G.

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1.0 BACKGROUND

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this Groundwater Performance Monitoring Report for the 1487 1st Avenue Redevelopment Site, New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231152. The Site is an approximately 10,050-square-foot parcel identified as Block 1452, Lot 27 in the Upper East Side neighborhood of Manhattan, New York (the "Site"). A site location plan is provided as Figure 1. A Certificate of Completion for remediation through the BCP was issued on 26 December 2023, and the site is currently undergoing construction for redevelopment as a 35-story mixed-use residential and commercial building with an affordable housing component that will occupy the entirety of the Site footprint. Ongoing groundwater monitoring and remediation has been implemented under the NYSDEC-approved 22 December 2023 Site Management Plan (SMP) and groundwater monitoring will continue to be implemented under the forthcoming revised and NYSDEC-approved SMP.

March/April 2023 Injections

Chlorinated volatile organic compounds (CVOCs), including the contaminants of concern (COCs) tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride (VC), and chloroform were detected at concentrations exceeding the NYSDEC Ambient Water Quality Standards and Guidance Values (SGVs) in groundwater samples collected from the eastern portion of the Site during the completion of the Remedial Investigation. The concentrations of PCE and associated breakdown compounds detected in groundwater were indicative of a release that had migrated into bedrock at the site from a former solvent storage tank. Analytical results from the initial and baseline sampling events are presented in Tables 1 and 2, respectively, and CVOC analytical results from these events are summarized on Figures 2B, 3B, and 3C.

To address these exceedances, an emulsified zero valent iron (EZVI) injection was proposed in the NYSDEC-approved January 2023 Interim Remedial Measures Work Plan (IRMWP) to achieve reduction in groundwater concentrations of the chlorinated solvents, such that natural attenuation would be supported. The EZVI remedy objectives were to:

- Both chemically reduce and anaerobically degrade the CVOCs;
- Further promote monitored natural attenuation (MNA); and,
- Mitigate potential for off-Site migration of on-Site CVOC-impacted groundwater.

The EZVI injection scope was presented in Langan's 6 March 2023 EZVI Remedial Design, which was approved by NYSDEC via email correspondence on 27 February 2023. Completion of the EZVI injections in March and April 2023 was documented in the 29 September 2023 EZVI Remedial Injection Report, which was included in the 18 December 2023 Final Engineering Report as Appendix E.

February 2024 Groundwater Monitoring

Post-construction bedrock well re-installation was completed between November 2023 and February 2024, and performance monitoring groundwater samples were collected in February 2024, approximately 10 months following the EZVI injections. Performance monitoring groundwater sample analytical results revealed the successful reduction of PCE and TCE by one order of magnitude in the wells that had previously contained the highest concentrations of these compounds during the initial and baseline sampling events, and elimination of PCE and TCE concentrations above the SGVs across the remainder of the treatment area. Concentrations of breakdown products, including cis-1,2-DCE and VC, were detected during performance monitoring, confirming the ongoing degradation of PCE and TCE.

As discussed in the April 2024 Groundwater Performance Monitoring Report & Injection Design, during the monitoring well re-installation activities, LMW-7R-S and LMW-7R-D were evaluated for the presence of groundwater-producing fractures in the four performance monitoring sampling intervals that had been installed. A water-producing fracture was not detected in the deeper interval in LMW-7R-D and, as such, a sample was not collected from this interval during the February 2024 or any subsequent sampling.

May 2024 Injections

Based on the February 2024 performance monitoring analytical results, an additional focused injection was proposed in the April 2024 Groundwater Performance Monitoring Report and Injection Design to further address the highest concentrations of PCE and breakdown products remaining in groundwater. The additional injection was conducted at the four well intervals where COC concentrations greater than one order of magnitude above the SGV were detected during the February 2024 event. As shown in Figures 2A and 2B, these locations included:

- LMW-7R-S at el 8 to 3 NAVD88 and el -2 to -7 NAVD88 intervals,
- LMW-7R-D at el -9 to -14 NAVD88 interval, and
- LMW-8R-S at el 8 to 3 NAVD88 interval.

EZVI was also injected into LMW-9R-S, at injection interval el 1 to -5 NAVD88, to treat impacts in LMW-7R-S, as communication between these two wells was observed during the 2023 injection event.

In addition to EZVI injections, additional emulsified vegetable oil (EVO) was added at these five intervals (prior to and/or following the EZVI injection) and at the following well intervals where only cis-1,2-DCE and/or VC remained above the SGVs:

- LMW-6R-S at el -4 to -9 NAVD88, and
- LMW-8R-D at el -43 to -50 NAVD88.

The injection activities were summarized in the October 2024 EZVI Remedial Injection and Groundwater Performance Monitoring Report.

August 2024 Groundwater Monitoring

Performance monitoring groundwater samples were collected in August 2024. The analytical results revealed the elimination of PCE and TCE concentrations above the SGVs across the treatment area. Concentrations of breakdown products, including cis-1,2-DCE and VC, were detected during performance monitoring, confirming the continued degradation of PCE and TCE. Based on observations of reagent in some wells during the performance monitoring event, a small volume of reagent and groundwater was purged from LMW-7R-S at el 8 to 3 NAVD88 and additional anaerobic chase water was injected into LMW-7R-S at el 8 to 3 NAVD88 and el -2 to 7 NAVD88 in September 2024 in accordance with the April 2024 Groundwater Performance Monitoring Report and Injection Design. Analytical results were reported in the October 2024 EZVI Remedial Injection and Groundwater Performance Monitoring Report.

November 2024 Groundwater Monitoring

Sixteen performance monitoring groundwater samples were collected between 20 and 25 November 2024. The analytical results revealed that CVOCs were not detected at concentrations above the SGVs across the treatment area. CVOCs were either not detected or were detected below the SGVs at the following seven intervals in four of the monitoring wells: all three intervals at LMW-6R-D, the only interval at LMW-9R-D, the only interval at LMW-10R-S, and both intervals at LMW-10R-D. Elevated reporting limits were reported by the laboratory for PCE and/or breakdown products at nine well intervals in six of the monitoring wells (the only interval at LMW-6R-S, both intervals at LMW-7R-S, the only interval at LMW-7R-D, both intervals at LMW-8R-S, both intervals at LMW-8R-D, and the only interval at LMW-9R-S).

Elevated concentrations of fermentation byproducts (acetone and methyl ethyl ketone) remained above the SGVs in nine well intervals at six of the monitoring wells (LMW-6R-D, LMW-7R-S/D, LMW-8R-S/D, and LMW-9R-S) although the concentrations of one or both byproducts decreased in November 2024 compared to concentrations detected in either February or August 2024 at LMW-6R-S/D, one of the intervals at LMW-8R-D, LMW-9R-D, and LMW-10R-S/D. Analytical results were reported in the March 2025 Groundwater Performance Monitoring Report.

Based on the August and November 2024 analytical results, which were submitted to NYSDEC via email on 14 December 2024 and discussed during a conference call with NYSDEC on 10 January 2025, Langan proposed the elimination of the following five sampling intervals from the sampling program:

- LMW-9R-D (el -40.5 to -48.5), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024);
- LMW-10R-D (el -12 to -21 and el -26 to -31), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024); and,
- LMW-6R-D (el -18 to -23 and el -28 to -33), due to CVOCs, methyl ethyl ketone, and acetone being detected below the SGVs for two consecutive sampling events (August and November 2024).

In an email dated 17 January 2025, NYSDEC approved the modification to the sampling program. This revision to the Groundwater Sampling Plan (GSP) will be reflected in the forthcoming, revised SMP and the modified sampling plan was implemented starting with the fourth quarterly performance monitoring sampling event in March 2025.

March 2025 Groundwater Monitoring

Eight performance monitoring groundwater samples were collected on 5 through 7 March 2025 from one interval at LMW-6R-S, one interval at LMW-7R-D, two intervals from LMW-8R-S, two intervals from LMW-8R-D, one interval from LMW-9R-S, and one interval from LMW-10R-S. Three performance monitoring groundwater samples could not be collected from the remaining interval at LMW-6R-D and the two intervals at LMW-7R-S, as will be discussed in further detail below. The analytical results revealed that CVOCs were not detected at concentrations above the SGVs across the treatment area. CVOCs were either not detected or were detected below the SGVs at the following four well intervals in four of the monitoring wells: the only interval at LMW-6R-S, one interval at LMW-8R-S, one interval at LMW-8R-D, and the only interval at LMW-10R-S. Elevated reporting limits were reported by the laboratory for PCE and/or breakdown

products at four well intervals in four of the monitoring wells (the only interval at LMW-7R-D, one interval at LMW-8R-S, one interval at LMW 8R-D, and the only interval at LMW-9R-S).

Elevated concentrations of fermentation byproducts (acetone and methyl ethyl ketone) remain above the SGVs in four well intervals at four of the monitoring wells (LMW-7R-D, LMW-8R-S/D, and LMW-9R-S) although the concentrations of one or both byproducts decreased in March 2025 compared to peak concentrations detected in either February, August, or November 2024 at LMW 6R-S, one of the intervals at LMW-8R-S, LMW-8R-D, LMW-9R-S, and LMW-10R-S.

The performance monitoring groundwater sample collection and analytical results and the proposed next steps are discussed in detail below.

2.0 POST-INJECTION PERFORMANCE MONITORING AND BEDROCK WELL SAMPLING METHDOLOGY

A post-injection groundwater monitoring event was conducted in March 2025, 10 months after the completion of the second round of EZVI injections. Eight groundwater samples were collected. Collection of three additional samples was attempted in accordance with the NYSDEC-approved revised sampling plan. However, low groundwater recovery volume from the sampling intervals precluded sample collection, as will be discussed in further detail below. Quality assurance/quality control samples, including one duplicate sample and three trip blanks, were also collected during this sampling event.

Groundwater samples were collected in accordance with the NYSDEC-approved revised sampling plan on 5 through 7 March 2025. Performance monitoring samples for VOC analysis were collected by lowering between one and four proprietary Westbay System 250 milliliter (ml) sample containers through the central access casing to the designated sampling zone. The number of sample containers lowered at one time depended on the length of the specific sampling zone. The sealed sample container(s) was then pulled to the surface and the collected sample placed in laboratory-provided bottleware, sealed, labeled, and placed in an ice-chilled cooler (to maintain a temperature of about 4° C) for delivery to Alpha Analytical of Westborough, Massachusetts, a NYSDOH ELAP-certified laboratory. All groundwater samples were analyzed for VOCs.

Water pressure measurements and groundwater quality parameters (e.g., pH, temperature, ORP, DO, turbidity, and conductivity) were collected during the groundwater monitoring event. Purging is not required with the Westbay System due to the isolated nature of each monitoring zone. Valved ports within each monitoring zone provided access to each sampling interval for discrete groundwater sample collection. Discrete groundwater samples were collected at each designated sampling zone in a container that was sealed before being brought to the surface.

Low sample recovery was encountered at three locations (LMW-6R-D, LMW-7R-S, and LMW-9R-S). Among these locations, enough sample volume was produced eventually to collect a sample only at LMW-9RS. However, recovery was too low to be able to collect the necessary sample volume at the remaining interval at LMW-6R-D or the two intervals at LMW-7R-S. The potential for these fractures to produce the necessary sample volume will continue to be evaluated during future sampling events. Additional analytical parameters (metals, anions, total and dissolved organic carbon, alkalinity, hardness, and microbial genes) were included in the sample plan but were not collected. These parameters have historically been used for assessing the status of and potential for ongoing remediation of CVOCs. However, as noted previously, CVOCs have not been detected above the SGVs since August 2024. As such, these parameters may be collected in the future if determined to be necessary by the Remedial Engineer.

No notable field observations of impacts were identified during sample collection. However, the presence of EZVI and/or EVO was observed at one interval each at LMW-7R-D, LMW-8R-S/D, and LMW-9R-S.

3.0 PERFORMANCE MONITORING RESULTS

Groundwater analytical results were compared to the NYSDEC SGVs and are summarized in Table 2 and on Figures 3A through 3C. The laboratory data reports and data summary usability reports are provided in Appendix A and Appendix B, respectively.

Eight performance monitoring groundwater samples were collected on 5 through 7 March 2025. Analytical results revealed no CVOCs above the SGVs in any of the wells sampled. CVOCs were detected below the SGVs at four intervals in four of the wells sampled across the site (the only interval at LMW-6R-S, one interval at LMW-8R-S, one interval at LMW-8R-D, and the only interval at LMW-10R-S) and below elevated laboratory reporting limits above the SGVs for cis-1,2-DCE, PCE, TCE, and/or VC at four well intervals in four of the wells sampled (the only interval at LMW-7R-D, one interval at LMW-8R-S, one interval at LMW-8R-D, and the only interval at LMW-9R-S).

Elevated concentrations of acetone and methyl ethyl ketone were detected above the SGVs in four well intervals at four of the monitoring wells (LMW-7R-D, LMW-8R-S/D, and LMW-9R-S). In March 2025, elevated concentrations of methyl ethyl ketone (360 to 5,600 µg/l) were reported at the three well locations where SRS-ZVI® had also been injected in May 2024: LMW-7R-D, LMW-8R-S, and LMW-9R-S. Elevated concentrations of acetone (70 to 1,400 µg/l) were also reported at these four well locations and at LMW-8R-D (where EVO was injected in May 2024). Although still elevated at some intervals, concentrations of acetone and/or methyl ethyl ketone decreased in March 2025 compared to peak concentrations detected in either February, August, or

November 2024 at all locations except for the only interval at LMW-7R-D and in one of the intervals at LMW-8R-S.

Benzene and/or toluene were either detected above the SGVs, or the laboratory reported concentrations with elevated reporting limits above the SGVs, in all samples except one interval in LMW-8R-S.

Data Usability Summary Reports and Quality Assurance/Quality Control

DUSRs were prepared for data collected during the performance monitoring groundwater sampling event. The DUSRs were prepared in accordance with DER-10 and reviewed by Langan's in-house validator before issuance. The DUSRs present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of deficiencies for each analytical method. DUSRs are provided in Appendix B. All data are considered usable, as qualified. Some data qualifiers were appended to the reported results, which have been included in the respective data summary tables (Tables 3 and 4).

Elevated reporting limits were reported by the laboratory for PCE and/or breakdown products in four well intervals at four of the monitoring wells (i.e., the same four where reagent was observed: LMW-7R-S, LMW-8R-S/D, and LMW-9R-D). Based on correspondence with the laboratory, elevated reporting limits are attributed to sample matrix interference and/or interferences from the elevated concentrations of methyl ethyl ketone and acetone.

4.0 PERFORMANCE MONITORING CONCLUSIONS/RECOMMENDATIONS

CVOCs were not detected at concentrations above the SGVs during the March 2025 performance monitoring groundwater sampling event, confirming the sustained reduction from the maximum concentrations of the COCs, PCE, TCE, cis-1,2-DCE, VC, and chloroform detected during the baseline concentrations and the February 2024 initial performance monitoring event.

The maximum concentrations of PCE, TCE, cis-1,2-DCE, VC, and chloroform detected during the initial September 2022 sampling event and December 2022 baseline sampling event were 900 µg/l of PCE (LMW-8R-S), 390 µg/l of TCE (LMW-8R-S), 710 µg/l of cis-1,2-DCE (LMW-7R-S), 6.7 µg/l of VC (LMW-8R-D), and 56 µg/l of chloroform (LMW-6R-D), respectively. Maximum concentrations of PCE and TCE decreased by an order of magnitude following the 2023 EZVI injections and were not detected above laboratory reporting limits during the August 2024, November 2024, or March 2025 performance monitoring events following the May 2024 EZVI targeted injections. Breakdown products, including cis-1,2-DCE, VC, and chloroform, were detected at concentrations above the SGVs during the February and August 2024 performance

monitoring events but were not detected above laboratory reporting limits or SGVs since the November 2024 performance monitoring event.

Elevated reporting limits were reported by the laboratory for CVOCs at four well locations; based on correspondence with the laboratory, elevated reporting limits are attributed to sample matrix interference and/or interferences from the elevated concentrations of methyl ethyl ketone and acetone.

Concentrations of acetone and methyl ethyl ketone were detected below the SGVs at all well locations during the initial September 2022 sampling event and December 2022 baseline sampling event. Elevated concentrations of these compounds were first detected above the SGVs during the initial performance monitoring sampling event in February 2024, and as of the March 2025 sampling event, are present in four well intervals at four of the monitoring wells (LMW-7R-D, LMW-8R-S/D, and LMW-9R-S). As noted above, elevated concentrations of these compounds were most recently detected at the four well locations sampled in March 2025 where SRS-ZVI® and EVO were injected in May 2024. These compounds are fermentation byproducts that are typically formed as a result of the introduction of electron donors, including the soybean oil and sodium lactate components of SRS-ZVI® and EVO. While a bioaugmentation culture was also introduced into the subsurface in May to facilitate the degradation of PCE and TCE, the presence of other microbial communities capable of fermenting carbon substrate and those microorganisms' specific metabolic processes may result in conversion of some of the organic matter to ketones including acetone and methyl ethyl ketone. Increases in concentrations of these byproducts are typically observed to be temporary and limited to the treatment area. Decreased concentrations were detected in March 2025 at LMW-6R-S, one of the intervals at LMW-8R-S, LMW-8R-D, LMW-9R-S, and LMW-10R-S compared to previously detected peak concentrations. As noted, the presence of these ketone compounds is the result of fermentation byproducts, and concentrations are expected to continue to reduce over time.

As discussed in detail below, groundwater sampling is proposed to continue for at least one additional quarterly round to monitor for continued reductions in CVOC concentrations in one well interval and to monitor for continued reductions in acetone and/or methyl ethyl ketone concentrations at two well intervals. Groundwater sampling is proposed to continue for at least two additional quarterly rounds to monitor for continued reductions in CVOC concentrations in six wells at eight well intervals and to monitor for continued reductions in acetone and methyl ethyl ketone concentrations at three of those well intervals.

Based on March 2025 analytical results, which were submitted to NYSDEC via email on 1 April 2025, the elimination of the following three additional sampling intervals from the groundwater sampling program is proposed for all future sampling events:

- LMW-6R-S (el -4 to -9), due to CVOCs, methyl ethyl ketone, and acetone either not being detected or being detected below the SGVs for two consecutive sampling events (November 2024 and March 2025);

- LMW-8R-D (el -13 to -20), due to CVOCs, methyl ethyl ketone, and acetone either not being detected or being detected below the SGVs for three consecutive sampling events (August and November 2024 and March 2025, with elevated reporting limits for three CVOCs in November); and,

- LMW-10R-S (el -9 to -15), due to CVOCs, methyl ethyl ketone, and acetone either not being detected or being detected below the SGVs for two consecutive sampling events (November 2024 and March 2025).

Sampling of downgradient monitoring well LMW-10R-S is no longer required due to the reduction of PCE and breakdown products within the source area, the limited lateral extents of impacts at the Site, the limited impacts at this well during the baseline event, and the lack of CVOC or fermentation byproduct impacts detected above the SGVs during the November 2024 and March 2025 events. LMW-6R-S is also proposed to be removed from the monitoring plan as PCE, breakdown products, chloroform, and fermentation byproducts were not detected above the SGVs in the November 2024 or March 2025 performance monitoring events. Similarly, these compounds were not detected above the SGVs in August or November 2024 or March 2025 at the el -13 to -20 interval at LMW-8R-D.

Continued monitoring is proposed for the following eight intervals at the monitoring wells in the list below. As discussed above, the potential for these bedrock fractures to produce the necessary groundwater sample volume will continue to be evaluated during future sampling events.

- LMW-6R-D (el -38 to -45), due to elevated concentrations of acetone in November 2024 and an inability to collect sufficient sample volume for analysis in March 2025; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in the acetone concentrations.

- LMW-7R-S (el 8 to 3), due to elevated concentrations of CVOCs in August 2024 followed by elevated reporting limits for CVOCs in November 2024, elevated concentrations of acetone and methyl ethyl ketone detected in August and November 2024, and an inability to collect sufficient sample volume for analysis in March 2025; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in the CVOC, acetone, and methyl ethyl ketone concentrations.

- LMW-7R-S (el -2 to -7), due to elevated concentrations of PCE and breakdown products in February 2024, elevated reporting limits for CVOCs in August and November 2024, an elevated concentration of acetone in November 2024 following an elevated reporting limit for acetone in August 2024, and an inability to collect sufficient sample volume for analysis March 2025; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in CVOC and acetone concentrations.

- LMW-7R-D (el -9 to -14), LMW-8R-S (el 8 to 3), LMW-8R-D (el -43 to -50), and LMW-9R-S (el 1 to -5) due to elevated concentrations of acetone and/or methyl ethyl ketone detected in August and November 2024 and March 2025, and elevated reporting limits for CVOCs in November 2024 and March 2025; groundwater sampling will continue for at least two additional quarterly rounds to monitor for reductions in the CVOC, acetone, and methyl ethyl ketone concentrations.

- LMW-8R-S (el -2 to -9), due to an elevated concentration of methyl ethyl ketone in November 2024 that has since reduced to below the SGVs in March 2025; groundwater sampling will continue for at least one additional quarterly round to monitor for continued reductions in methyl ethyl ketone concentrations.

TABLES

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-S	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S
			Sample Name	LMW-6R-D_46	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-S_21.5	LMW-6R-S_31	LMW-7R-D_48	LMW-7R-D_68.5	LMW-7R-D_75	LMW-7R-S_21.5	LMW-7R-S_27	LMW-7R-S_39	LMW-7R-S_42.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46	70	75	21.5	31	48	68.5	75	21.5	27	39	42.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<7.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	0.53 J	0.69 J	0.88 J	1.2 J
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<2 U	<1 U	<2 U	<2.5 U	<5 U	<5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 UJ	<250 U	<250 U	<250 UJ	<500 U	<500 UJ	<250 U	<500 U	<620 UJ	<1,200 U	<1,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Acetone	67-64-1	**50**	ug/l	19	17	33	8.8	6.7	31	23	19	34	25	26	30
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	0.16 J	<0.5 U	**1.1**	**1.1**	0.34 J	0.63 J	0.46 J	<2.5 U	<2.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<4 U	<2 U	<4 U	<5 U	<10 U	<10 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Chloroform	67-66-3	**7**	ug/l	**55**	**56**	**55**	**24**	**25**	<5 U	<5 U	1.8 J	2.9 J	2.5 J	<12 U	<12 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	4.3	4	3.8	**17**	**16**	**170**	**180**	**100**	**330**	**390**	**480**	**710**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	1 J	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	2.7 J	<5 UJ	<5 U	<5 U	<5 UJ	<10 U	<10 UJ	<5 U	<10 U	<12 UJ	<25 U	<25 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Methylene Chloride	75-09-2	**5**	ug/l	3.9	4	3.6	2.6	2.9	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.19 J	0.18 J	<0.5 U	**25**	**24**	**12**	**9.4**	2.1	**11**	**23**	**31**	**26**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	4.3	4	3.8	17	16	170	180	100	330	390	480	710
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<2.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.29 J	0.34 J	0.18 J	**10**	**9.7**	**20**	**20**	**8.2**	**50**	**90**	**110**	**86**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<12 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<10 U	<5 U	<10 U	<12 U	<25 U	<25 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	0.09 J	0.12 J	0.31 J	0.34 J	1 J	1 J	1	1.1 J	1.1 J	1.2 J	1.6 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-S_15	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	46.5	48.5	58	73	77	15	17.5	22.5	27	43.5	46.5	60.5	63.5	76
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<7.5 U	<7.5 U	<7.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 U	<5 U	<5 U	<5 U	<5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 U	<1,200 U	<1,200 UJ	<1,200 U	<1,200 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	8.5	10	11	28	17	17 J	27	17 J	26	8.4	6.8	20	6.2	13
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	**31**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.6	0.56	0.65	**1.6**	0.19 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 U	<10 U	<10 U	<10 U	<10 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	1 J
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	1.5 J	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	1.2 J	1.2 J	<2.5 U	3.8	**34**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	0.8 J	0.85 J	1 J	0.86 J	**200**	**200**	**190**	**190**	**180**	**9.6**	**8.8**	**9.6**	**11**	2.3 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	<5 U	<10 U	<25 U	<25 UJ	<25 U	<25 UJ	2 J	<5 U	1.9 J	<5 UJ	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.25 J	<0.5 U	0.41 J	**540**	**600**	**640**	**570**	2.7	2.5	2.4	2.1	0.34 J
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	0.8 J	0.85 J	1 J	0.86 J	200	200	190	190	180	9.6	8.8	9.6	11	2.3 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	<0.5 U	0.18 J	<0.5 U	0.39 J	**380**	**390**	**390**	**350**	0.75	0.68	0.65	0.65	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<12 U	<12 U	<12 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 U	<25 U	<25 U	<25 U	<25 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	<1 U	<1 U	**6.7**	<5 U	0.42 J	<5 U	0.41 J	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-10R-D	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S
			Sample Name	LMW-9R-S_15	LMW-9R-S_22	LMW-9R-S_30.5	LMW-10R-D_49	LMW-10R-D_63	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	15	22	30.5	49	63	21.5	26.5	28.5	34	36
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<500 UJ	<620 UJ	<250 UJ	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	12	16	26	**100**	**91**	**91**	**84**	**88**	**100**	**160**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8**	**8.5**	**7.4**	<0.5 U	<0.5 U	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**8.9**	**7.9**	**7.5**	**52**	**47**	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	**28**	5	4.3	**100**	**110**	**90**	**91**	**92**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<10 UJ	<12 UJ	23 J	21	21	17 J	21	24	35
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<5 U	<6.2 U	3	2.5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**140**	**190**	**250**	0.78	0.74	2.7	2.6	2	2	2.1
Toluene	108-88-3	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	28	5	4.3	100	110	90	91	92
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**58**	**56**	**58**	1.6	1.6	**5.4**	**5.5**	4.9	4.8	4.7
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1	1 J	0.96 J	<1 U	<1 U	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-11R-D	LMW-11R-D	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S	LMW-11R-S
			Sample Name	LMW-11R-D_57.5	LMW-11R-D_76	LMW-11R-S_20.5	LMW-11R-S_23	LMW-11R-S_26.5	LMW-11R-S_29.5	LMW-11R-S_40.5
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	57.5	76	20.5	23	26.5	29.5	40.5
			Unit	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	14	25	11	10	12	9.2	8.9
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**15**	**13**	0.6	0.63	0.79	0.64	0.61
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	**20**	**7.2**	**7.4**	**8.4**	6.9	6.7
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**15**	**28**	**29**	**35**	**28**	**28**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	<2.5 U	<2.5 U	0.94 J	0.99 J	1.2 J	0.97 J	0.91 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	3.6	2.9	**12**	**12**	**14**	**12**	**12**
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	15	28	29	35	28	28
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	1.9	1.6	**11**	**12**	**14**	**11**	**11**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.17 J	0.13 J	0.2 J	0.24 J	0.32 J	0.2 J	0.2 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-12R-D	LMW-12R-D	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-12R-S	LMW-13R-D	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-12R-D_53	LMW-12R-D_67	LMW-12R-S_17	LMW-12R-S_20.5	LMW-12R-S_24.5	LMW-12R-S_28.5	LMW-12R-S_36	LMW-13R-D_55.5	LMW-13R-D_75	LMW-13R-S_26
			Sample Date	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022
			Pump Intake Depth	53	67	17	20.5	24.5	28.5	36	55.5	75	26
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 UJ	<250 UJ	<250 UJ
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	**50**	ug/l	10	**170**	11	26	26	12	22	11	14	8.2
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.21 J	0.16 J	0.28 J	0.31 J	0.2 J	0.24 J	0.23 J	**28**	**27**	0.39 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	6.3	**18**	**18**	**16**	**20**	**8.8**	**30**	**29**	**19**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**23**	**27**	**29**	**27**	**32**	**35**	**9.6**	**9.6**	**33**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 UJ	41	<5 U	2.2 J	<5 U	<5 UJ	2.4 J	<5 UJ	<5 UJ	<5 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	**5**	ug/l	**9.4**	**8.1**	2.3 J	2.4 J	3.5	4.1	1.8 J	<2.5 U	<2.5 U	2.6
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	1	0.97	3.3	3.6	1.4	2.5	3	3.9	3.7	1.7
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	23	27	29	27	32	35	9.6	9.6	33
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.66	0.54	3.7	3.8	3.7	4.2	4.9	1.3	1.3	3.3
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	**3.8**	**2.7**	0.08 J	0.07 J	0.17 J	0.23 J	0.2 J	0.25 J	0.29 J	0.1 J

Table 1
Groundwater Performance Monitoring Report
PDB Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Notes:

CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

Table 2
Groundwater Performance Monitoring Report
Baseline Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-S	LMW-7R-D	LMW-7R-D	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-13R-D	LMW-13R-S
			Sample Name	LMW-6R-D_47.75	LMW-6R-S_20.5	LMW-7R-D_42	LMW-7R-D_66	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_38	LMW-8R-D_47.25	LMW-8R-D_56.75	LMW-8R-D_76	LMW-8R-S_14.5	LMW-8R-S_24.75	LMW-10R-D_40.5	LMW-10R-S_13	LMW-10R-S_18.25	LMW-13R-D_45.25	LMW-13R-S_25.75
			Sample Date	12/28/2022	12/28/2022	12/21/2022	12/21/2022	12/19/2022	12/20/2022	12/21/2022	12/27/2022	12/27/2022	12/27/2022	12/22/2022	12/22/2022	12/23/2022	12/22/2022	12/23/2022	12/28/2022	12/28/2022
			Pump Intake Depth	47.75	20.5	42	66	20	25.5	38	47.25	56.75	76	14.5	24.75	40.5	13	18.25	45.25	25.75
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<3 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<15 U	<3.8 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	0.42 J	0.31 J	0.34 J	0.47 J	0.75 J	<0.5 U	<0.5 U	<0.5 U	<5 U	0.74 J	<0.5 U	<0.5 U	0.23 J	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 UJ	<2.5 UJ	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<2 U	<1 U	<1 U	<2 U	<2.5 U	<1 U	<1 U	<1 U	<10 U	<2.5 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<500 U	<250 U	<250 U	<500 U	<620 U	<250 U	<250 U	<250 U	<2,500 U	<620 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<10 U	<5 U	<5 UJ	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	4.4 J	10 J	9.5 J	6	<5 U	6 J	26	24 J	29 J	5.5 J	<50 U	<12 U	2.3 J	<5 U	2.1 J	12 J	4.5 J
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	0.72	0.77 J	0.52	0.52	0.47 J	0.51 J	0.16 J	**2**	**5.5**	<5 U	<1.2 U	0.2 J	<0.5 U	0.25 J	**8.5**	0.45 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<4 U	<2 U	<2 U	<4 U	<5 U	<2 U	<2 U	<2 U	<20 U	<5 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.4**	1.4 J	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	2.6	<2.5 U	<2.5 U	2.2 J	1.7 J
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	3.1	**29**	**220**	**160**	**120**	**340**	**400**	**8.2**	**7.7**	**47**	**270**	**390**	**18**	**16**	**140**	**10**	**47**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	1 J
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<10 U	2 J	<5 U	<10 U	<12 U	8.7	4.6 J	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<10 U	<5 UJ	<5 U	<10 U	<12 U	1.5 J	<5 U	<5 U	<50 UJ	<12 UJ	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	1.6 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.57	**10**	**18**	2.5	**20**	**43**	**50**	0.18 J	0.54	0.21 J	**900**	**63**	2.1	**10**	**26**	**7.2**	**35**
Toluene	108-88-3	**5**	ug/l	1.5 J	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	**9**	2 J	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	3.1	29	220	160	120	340 J	400 J	8.2	7.7	47	270	390 J	18	16	140	10	47
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	1.9 J	2 J	<2.5 U	<2.5 U	<2.5 U	<25 U	1.8 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<1 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	0.33 J	**6.3**	**22**	**16**	**18**	**58**	**61**	0.37 J	0.24 J	0.24 J	**360**	**52**	1.1	**8.8**	**33**	2.2	**9.7**
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<5 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<10 U	<5 U	<5 U	<10 U	<12 U	<5 U	<5 U	<5 U	<50 U	<12 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	0.62 J	**4.4**	0.44 J	0.64 J	0.71 J	<1 U	1	**6.4**	2 J	1.2 J	0.11 J	<1 U	0.37 J	0.18 J	0.27 J
Metals																				
Calcium	7440-70-2	NS	ug/l	90,800	220,000	205,000	146,000	200,000	234,000	236,000	54,400	58,500	95,000	289,000	234,000	97,700	264,000	184,000	136,000	178,000
Hardness (As CaCO3)	HARDNESS	NS	ug/l	235,400	788,400	995,100	547,900	800,300	864,600	1,048,000	174,600	185,100	303,800	1,146,000	868,600	362,800	891,400	693,900	508,600	641,300
Iron	7439-89-6	**300**	ug/l	**7,230**	**14,900**	**98,500**	**25,600**	**17,700**	**29,500**	**76,300**	**5,660**	**9,480**	**6,650**	**31,300**	**34,200**	**12,600**	**17,500**	**33,000**	**17,500**	**12,600**
Magnesium	7439-95-4	**35000**	ug/l	2,140	**58,100**	**117,000**	**44,200**	**73,100**	**67,700**	**111,000**	9,420	9,450	16,200	**103,000**	**68,700**	28,800	**56,600**	**57,100**	**40,800**	**47,800**
Manganese	7439-96-5	**300**	ug/l	108	**2,978**	**7,510**	**2,320**	**5,733**	**4,074**	**8,344**	235.1	**363.8**	**448.3**	**9,421**	**6,069**	**1,638**	**4,386**	**2,861**	**2,363**	**2,307**
General Chemistry - Total																				
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	193,000 J	158,000	119,000	187,000	158,000	128,000	129,000	85,800 J	116,000	141,000	163,000	155,000	177,000	220,000	156,000	220,000	185,000
Chloride (As Cl)	16887-00-6	**250000**	ug/l	25,000	110,000	**340,000**	190,000	**520,000**	**600,000**	**600,000**	54,000	48,000	83,000	110,000	**340,000**	66,000	88,000	97,000	45,000	85,000
Dissolved Organic Carbon	DOC	NS	ug/l	8,000 J	8,200	3,700	8,900 J	2,400 J	1,100	2,500	6,900	8,700	4,000 J	6,100 J	4,400 J	5,300	7,800	5,600	14,000	7,000
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	<100 U	93 J	429	89 J	261	212	175	27 J	104	44 J	120	116	47 J	153	79 J	<100 U	<100 U
Sulfate (As SO4)	14808-79-8	**250000**	ug/l	55,000	**580,000**	**610,000**	**670,000**	**520,000**	**510,000**	**510,000**	140,000	130,000	130,000	**1,100,000**	**600,000**	190,000	**630,000**	**530,000**	**540,000**	**560,000**
Total Organic Carbon	TOC	NS	ug/l	7,600	8,400	3,100	9,200 J	2,200	920	2,300	7,100	8,500	3,500	6,200	3,800	5,700	7,800	5,500	14,000	7,100

Table 2
Groundwater Performance Monitoring Report
Baseline Groundwater Sample Analytical Results

1487 1st Avenue Redevelopment Site
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Notes:

CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

Table 3
Groundwater Performance Monitoring Report
March 2025 Performance Monitoring Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-S	LMW-7R-D	LMW-8R-D	LMW-8R-D	LMW-8R-S	LMW-8R-S	LMW-9R-S	LMW-10R-S	LMW-10R-S
			Sample Name	LMW-6R-S_18.75_030525	LMW-7R-D_23.75_030725	LMW-8R-D_27.75_030525	LMW-8R-D_59.75_030525	LMW-8R-S_18.75_030525	LMW-8R-S_6.75_030725	LMW-9R-S_13.75_030725	LMW-10R-S_24.75_030625	DUP_20250306
			Sample Date	03/05/2025	03/07/2025	03/05/2025	03/05/2025	03/05/2025	03/07/2025	03/07/2025	03/06/2025	03/06/2025
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<75 U	<1.5 U	<30 U	<1.5 U	<3.8 U	<15 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 UJ	<100 U	<2 UJ	<40 U	<2 UJ	<5 U	<20 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<100 U	<2 U	<40 U	<2 U	<5 U	<20 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 UJ	<50 U	<1 UJ	<20 U	<1 UJ	<2.5 U	<10 U	<1 UJ	<1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 UJ	<100 U	<2 UJ	<40 U	<2 UJ	<5 U	<20 U	<2 UJ	<2 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<250 U	<12,000 U	<250 U	<5,000 U	<250 U	<620 U	<2,500 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<250 U	<5 U	<100 U	<5 U	3.6 J	22 J	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 UJ	<2.5 UJ
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<100 U	<2 U	<40 U	<2 U	<5 U	<20 U	<2 UJ	<2 UJ
Acetone	67-64-1	**50**	ug/l	21	**1,400 J**	<4.9 U	**380**	**180**	9.5 J	**70 J**	5.3 J	5.1 J
Acrylonitrile	107-13-1	5	ug/l	<5 U	<250 U	<5 U	<100 U	<5 U	<12 U	<50 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.47 J	<25 U	**1.3**	<10 U	0.18 J	0.54 J	<5 U	0.23 J	0.23 J
Bromobenzene	108-86-1	5	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 UJ	<100 U	<2 UJ	<40 U	<2 UJ	<5 U	<20 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	0.7 J	<2.5 UJ
Carbon Disulfide	75-15-0	60	ug/l	1.1 J	<250 U	<5 U	<100 U	<5 U	5.4 J	14 J	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<25 U	<0.5 U	<10 UJ	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 UJ	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 UJ	<2.5 U	<6.2 U	<25 U	<2.5 UJ	<2.5 UJ
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<2.5 U	<120 U	1.3 J	<50 U	<2.5 U	<6.2 U	<25 U	1.2 J	1.1 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<250 U	<5 U	<100 U	<5 U	<12 U	<50 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<250 U	<5 U	<100 UJ	<5 U	<12 U	<50 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	1.1 J	<120 U	<2.5 U	<50 U	<2.5 U	2.7 J	<25 U	2.5	2.4 J
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	3.5 J	<25 U	1.6 J	1.3 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	**50**	ug/l	24	**5,600**	3.6 J	**580 UJ**	8.7	15	**360**	2.3 J	2.4 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	2.8 J	<250 U	3.2 J	<100 U	<5 U	2.6 J	12 J	1 J	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 UJ	<2.5 UJ
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	0.78 J	0.8 J
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	0.84 J	0.83 J
T-Butylbenzene	98-06-6	5	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 UJ	<120 U	<2.5 UJ	<50 U	<2.5 UJ	<6.2 U	<25 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<0.5 UJ	<25 U	<0.5 UJ	<10 U	<0.5 UJ	<1.2 U	<5 U	0.2 J	<0.5 U
Toluene	108-88-3	**5**	ug/l	**9.3**	<120 U	1.3 J	<50 U	1.5 J	**18**	<25 U	**7.7**	**7.5**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<2.5 U	<120 U	1.3 J	<50 U	<2.5 U	<6.2 U	<25 U	1.2 J	1.1 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	3.5 J	<25 U	2.4 J	2.1 J
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 U	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	<0.5 UJ	<0.5 UJ
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 UJ	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	5	ug/l	<0.5 U	<25 U	<0.5 U	<10 U	<0.5 U	<1.2 U	<5 U	0.33 J	0.22 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<120 U	<2.5 U	<50 UJ	<2.5 U	<6.2 U	<25 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<250 U	<5 U	<100 U	<5 U	<12 U	<50 U	<5 U	<5 U
Vinyl Chloride	75-01-4	2	ug/l	0.19 J	<50 U	0.24 J	<20 UJ	0.53 J	<2.5 U	<10 U	0.32 J	<1 UJ
Total CVOCs	TOTALCVOCS	NS	ug/l	0.19	ND	1.54	ND	0.53	ND	ND	2.05	1.32

Table 3
Groundwater Performance Monitoring Report
March 2025 Performance Monitoring Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Notes:
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-S	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6R-S_21.5	LMW-6R-S_20.5	LMW-6R-S_31	LMW-6R-S_18.75	LMW-6R-S_18.75	LMW-6R-S_18.75	LMW-6R-S_18.75	LMW-6R-D_46	LMW-6R-D_47.75	LMW-6R-D_32.75	LMW-6R-D_32.75	LMW-6R-D_32.75
			Sample Date	09/29/2022	12/28/2022	09/29/2022	02/14/2024	8/13/2024	11/22/2024	3/5/2025	09/29/2022	12/28/2022	02/13/2024	08/12/2024	11/20/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	21.5	20.5	31	18.75-23.75	18.75-23.75	18.75-23.75	18.75-23.75	46	47.75	32.75-37.75	32.75-37.75	32.75-37.75
			Sample El.	9.77 - 7.77	10.77 - 5.77	0.27 - -1.73	-4 - -9	-4 - -9	-4 - -9	-4 - -9	-14.43 - -16.43	-16.18 - -21.18	-18 - -23	-18 - -23	-18 - -23
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 UJ	<15 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 UJ	<2 U	<2 U	0.55 J	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	1 J	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.27 J
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<2 UJ	<10 U	<1 UJ	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 UJ	<2 U	<2 U	0.79 J	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<500 UJ	<2,500 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	1.2 J	2.3 J	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	8.8	10 J	6.7	22	**390**	<50 U	21	19	4.4 J	**59**	6.5	15
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	0.72	<0.5 U	0.23 J	0.44 J	<5 U	0.47 J	<0.5 U	<0.5 U	0.17 J	0.17 J	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<4 UJ	<20 U	<2 UJ	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	1.1 J	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**24**	1.4 J	**25**	<2.5 U	<5 UJ	<25 U	<2.5 U	**55**	**7.4**	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**17**	**29**	**16**	3.3	<5 UJ	<25 U	<2.5 U	4.3	3.1	1.2 J	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	1 J	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	1.1 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1 J	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 UJ	4.8 J	**420**	<50 U	24	2.7 J	<5 U	**57**	3.2 J	8.3
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	2.1 J	<50 U	2.8 J	<5 U	<5 U	<5 UJ	1 J	<5 U
Methylene Chloride	75-09-2	5	ug/l	2.6	<2.5 U	2.9	<2.5 U	<5 UJ	<25 U	<2.5 U	3.9	1.6 J	<2.5 U	<2.5 U	1.7 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.87 J	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**25**	**10**	**24**	0.28 J	<1 UJ	<5 U	<0.5 UJ	0.19 J	0.57	<0.5 U	<0.5 U	1.1
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	**8.3**	3.4 J	<25 U	**9.3**	<2.5 U	1.5 J	**13**	3.4	**7.6**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	17	29	16	3.3	<5 UJ	<25 U	<2.5 U	4.3	3.1	1.2 J	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	1.9 J	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 UJ	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**10**	**6.3**	**9.7**	0.31 J	<1 UJ	<5 U	<0.5 U	0.29 J	0.33 J	<0.5 U	<0.5 U	0.35 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 UJ	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<10 UJ	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.31 J	<1 U	0.34 J	**2.8**	0.14 J	<10 U	0.19 J	<1 U	<1 U	1.2	0.36 J	0.46 J
Metals															
Calcium	7440-70-2	NS	ug/l	NA	220,000	NA	133,000	NA	NA	NA	NA	90,800	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	788,400	NA	411,500	NA	NA	NA	NA	235,400	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	**14,900**	NA	**25,700**	NA	NA	NA	NA	**7,230**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**58,100**	NA	19,200	NA	NA	NA	NA	2,140	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	**2,978**	NA	**666**	NA	NA	NA	NA	108	NA	NA	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	NA	494,000	NA	NA	NA	NA	193,000 J	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	110,000	NA	180,000	NA	NA	NA	NA	25,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	8,200	NA	14,000	NA	NA	NA	NA	8,000 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	93 J	NA	100	NA	NA	NA	NA	<100 U	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**580,000**	NA	3,500 J	NA	NA	NA	NA	55,000	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	8,400	NA	15,000	NA	NA	NA	NA	7,600	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D	LMW-6R-D
			Sample Name	LMW-6R-D_42.75	LMW-6R-D_42.75	LMW-6R-D_42.75	LMW-6R-D_70	LMW-6R-D_75	LMW-6R-D_54.75	LMW-6R-D_54.75	LMW-6R-D_54.75
			Sample Date	02/13/2024	08/15/2024	11/20/2024	09/29/2022	09/29/2022	02/13/2024	08/14/2024	11/20/2024
			Sample Event	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	42.75-47.75	42.75-47.75	42.75-47.75	70	75	52.75-59.75	42.75-47.75	42.75-47.75
			Sample El.	-28 - -33	-28 - -33	-28 - -33	-38.43 - 40.43	-43.43 - -45.43	-38 - -45	-38 - -45	-38 - -45
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.21 J	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	0.95 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.74 J	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.28 J
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 UJ	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	**51**	15	13	17	33	44	6.1	**54**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.16 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	1 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2.3 J
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	**56**	**55**	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	1.2 J	<2.5 U	<2.5 U	4	3.8	0.8 J	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	**53**	6.3	7.6	<5 UJ	<5 U	**55**	3.3 J	9.7
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 UJ	<5 U	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	0.73 J	4	3.6	0.81 J	<2.5 U	1.6 J
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.67	0.18 J	<0.5 U	<0.5 U	<0.5 U	0.63
Toluene	108-88-3	**5**	ug/l	**12**	3.1	**7.6**	<2.5 U	<2.5 U	**7.8**	<2.5 U	**5.8**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	1.2 J	<2.5 U	<2.5 U	4	3.8	0.8 J	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	0.18 J	0.18 J	0.34 J	0.18 J	<0.5 U	<0.5 U	0.23 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1	0.38 J	0.5 J	0.09 J	0.12 J	0.61 J	<1 U	0.33 J
Metals											
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARDNESS	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry											
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S	LMW-7R-S
			Sample Name	LMW-7R-S_21.5	LMW-7R-S_20	LMW-7R-S_25.5	LMW-7R-S_27	LMW-7R-S_6.75	LMW-7R-S_6.75	LMW-7R-S_6.75	LMW-7R-S_39	LMW-7R-S_38	LMW-7R-S_16.75	LMW-7R-S_16.75	LMW-7R-S_16.75
			Sample Date	09/29/2022	12/19/2022	12/20/2022	09/29/2022	02/13/2024	08/12/2024	11/22/2024	09/29/2022	12/21/2022	02/13/2024	8/13/2024	11/21/2024
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	21.5	20	25.5	27	6.75-11.75	6.75-11.75	6.75-11.75	39	38	16.75-21.75	16.75-21.75	16.75-21.75
			Sample El.	12.67 - 10.67	14.17 - 9.17	8.67 - 3.67	7.17 - 5.17	8 - 3	8 - 3	8 - 3	-4.83 - -6.83	-3.83 - -8.83	-2 - -7	-2 - -7	-2 - -7
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<1.5 U	<3 U	<3.8 U	<7.5 U	<15 UJ	<60 U	<7.5 U	<3.8 U	<7.5 U	<3,000 U	<7.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.53 J	0.34 J	0.47 J	0.69 J	<2.5 U	<5 UJ	<20 U	0.88 J	0.75 J	<2.5 U	<1,000 U	<2.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<1 U	<2 U	<2.5 U	<5 U	<10 UJ	<40 U	<5 U	<2.5 U	<5 U	<2,000 U	<5 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 U	<250 U	<500 U	<620 UJ	<1,200 U	<2,500 UJ	<10,000 U	<1,200 U	<620 U	<1,200 U	<500,000 U	<1,200 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<5 UJ	<10 U	<12 U	<25 U	12 J	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
Acetone	67-64-1	50	ug/l	34	<5 U	6 J	25	9.1 J	**220 J**	**170 J**	26	26	<25 U	<10,000 U	**64**
Acrylonitrile	107-13-1	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Benzene	71-43-2	**1**	ug/l	0.63 J	0.52	0.47 J	0.46 J	<2.5 U	<5 UJ	<20 U	<2.5 U	0.51 J	<2.5 U	<1,000 U	<2.5 U
Bromobenzene	108-86-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Bromoform	75-25-2	50	ug/l	<4 U	<2 U	<4 U	<5 U	<10 U	<20 UJ	<80 U	<10 U	<5 U	<10 U	<4,000 U	<10 U
Bromomethane	74-83-9	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Chloroethane	75-00-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Chloroform	67-66-3	**7**	ug/l	2.9 J	<2.5 U	<5 U	2.5 J	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	3.8 J
Chloromethane	74-87-3	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**330**	**120**	**340**	**390**	**500**	**42 J**	<100 U	**480**	**400**	**560**	<5,000 U	<12 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Cymene	99-87-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Dibromomethane	74-95-3	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 U	<5 U	<10 U	<12 UJ	<25 U	**3,400**	**640**	<25 U	<12 U	<25 U	<10,000 U	42
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	**9.1 J**	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Naphthalene	91-20-3	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Styrene	100-42-5	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**11**	**20**	**43**	**23**	**21**	<5 UJ	<20 U	**31**	**50**	**25**	<1,000 U	<2.5 U
Toluene	108-88-3	**5**	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	**5.3 J**	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	330	120	340 J	390	500 J	42 J	<100 U	480	400 J	570 J	<5,000 U	<12 U
Total Xylenes	1330-20-7	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<2.5 U	1.9 J	<6.2 U	4 J	<25 UJ	<100 U	<12 U	2 J	**5.1 J**	<5,000 U	<12 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<0.5 U	<1 U	<1.2 U	<2.5 U	<5 UJ	<20 U	<2.5 U	<1.2 U	<2.5 U	<1,000 U	<2.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**50**	**18**	**56**	**90**	**21**	<5 UJ	<20 U	**110**	**61**	**25**	<1,000 U	<2.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<2.5 U	<5 U	<6.2 U	<12 U	<25 UJ	<100 U	<12 U	<6.2 U	<12 U	<5,000 U	<12 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<5 U	<10 U	<12 U	<25 U	<50 UJ	<200 U	<25 U	<12 U	<25 U	<10,000 U	<25 U
Vinyl Chloride	75-01-4	**2**	ug/l	1.1 J	0.44 J	0.64 J	1.1 J	**46**	**4 J**	<40 U	1.2 J	0.71 J	**70**	<2,000 U	<5 U
Metals															
Calcium	7440-70-2	NS	ug/l	NA	200,000	234,000	NA	NA	124,000	NA	NA	236,000	371,000	660,000 J	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	800,300	864,600	NA	NA	450,100	NA	NA	1,048,000	1,413,000	2,566,000	NA
Iron	7439-89-6	**300**	ug/l	NA	**17,700**	**29,500**	NA	NA	**302,000**	NA	NA	**76,300**	**88,200**	**1,860,000 J**	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	**73,100**	**67,700**	NA	NA	34,200	NA	NA	**111,000**	**118,000**	**223,000 J**	NA
Manganese	7439-96-5	**300**	ug/l	NA	**5,733**	**4,074**	NA	NA	**860.3**	NA	NA	**8,344**	**6,149**	**9,277 J**	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	158,000	128,000	NA	NA	2,060,000 J	NA	NA	129,000	166,000	3,260,000 J	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	**520,000**	**600,000**	NA	NA	100,000	NA	NA	**600,000**	**1,200,000**	**490,000**	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	2,400 J	1,100	NA	NA	3,500,000	NA	NA	2,500	<2,000 U	7,100,000	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	261	212	NA	NA	100	NA	NA	175	117	107	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	**520,000**	**510,000**	NA	NA	<10,000 U	NA	NA	**510,000**	150,000	<100,000 U	NA
Total Organic Carbon	TOC	NS	ug/l	NA	2,200	920	NA	NA	3,500,000	NA	NA	2,300	<1,000 U	7,700,000	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs		Location	LMW-7R-S	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D	LMW-7R-D
				Sample Name	LMW-7R-S_42.5	LMW-7R-D_42	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_23.75	LMW-7R-D_48	LMW-7R-D_66	LMW-7R-D_68.5	LMW-7R-D_49.75	LMW-7R-D_75
				Sample Date	09/29/2022	12/21/2022	02/13/2024	8/13/2024	11/22/2024	3/7/2025	09/29/2022	12/21/2022	09/29/2022	02/13/2024	09/29/2022
				Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Pre-Injections
				Sample Depth	42.5	42	23.75-28.75	23.75-28.75	23.75-28.75	23.75-28.75	48	66	68.5	49.75-54.75	75
				Sample El.	-8.33 - -10.33	-8.66 - -13.66	-9 - -14	-9 - -14	-9 - -14	-9 - -14	-13.83 - -15.83	-32.66 - -37.66	-35.16 - -37.16	-35 - -40	-41.66 - -43.66
				Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l		<7.5 U	<3 U	<6 U	<15 U	<380 U	<75 U	<3 U	<1.5 U	<3 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l		1.2 J	0.42 J	<2 U	<5 U	<120 U	<25 U	<1 U	0.31 J	<1 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l		<5 U	<2 U	<4 U	<10 U	<250 U	<50 U	<2 U	<1 U	<2 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l		<1,200 U	<500 U	<1,000 U	<2,500 U	<62,000 U	<12,000 U	<500 U	<250 U	<500 UJ	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l		30	9.5 J	**54**	**140**	**480 J**	**1,400 J**	31	6	23	**53**	19
Acrylonitrile	107-13-1	5	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 UJ	<10 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l		<2.5 U	0.77 J	<2 U	<5 U	<120 U	<25 U	**1.1**	0.52	**1.1**	0.29 J	0.34 J
Bromobenzene	108-86-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l		<10 U	<4 U	<8 U	<20 U	<500 U	<100 U	<4 U	<2 U	<4 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	1.8 J
Chloromethane	74-87-3	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l		**710**	**220**	**29**	<25 U	<620 U	<120 U	**170**	**160**	**180**	**20**	**100**
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l		<25 U	<10 U	**410**	**4,000**	**6,100**	**5,600**	<10 U	2 J	<10 UJ	**420**	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l		<25 U	<10 U	<20 UJ	<50 U	<1,200 U	<250 U	<10 U	<5 UJ	<10 U	<5 UJ	<5 U
Methylene Chloride	75-09-2	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l		**26**	**18**	1.2 J	<5 U	<120 U	<25 U	**12**	2.5	**9.4**	0.28 J	2.1
Toluene	108-88-3	**5**	ug/l		<12 U	<5 U	4.2 J	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	4.2	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l		710	220	29	<25 U	<620 U	<120 U	170	160	180	20	100
Total Xylenes	1330-20-7	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l		<2.5 U	<1 U	<2 U	<5 U	<120 U	<25 U	<1 U	<0.5 U	<1 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l		**86**	**22**	1 J	<5 U	<120 U	<25 U	**20**	**16**	**20**	0.21 J	**8.2**
Trichlorofluoromethane	75-69-4	5	ug/l		<12 U	<5 U	<10 U	<25 U	<620 U	<120 U	<5 U	<2.5 U	<5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l		<25 U	<10 U	<20 U	<50 U	<1,200 U	<250 U	<10 U	<5 U	<10 U	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l		1.6 J	0.62 J	**17**	<10 U	<250 U	<50 U	1 J	**4.4**	1 J	**27**	1
Metals															
Calcium	7440-70-2	NS	ug/l		NA	205,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l		NA	995,100	NA	NA	NA	NA	NA	547,900	NA	NA	NA
Iron	7439-89-6	**300**	ug/l		NA	**98,500**	NA	NA	NA	NA	NA	**25,600**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l		NA	**117,000**	NA	NA	NA	NA	NA	**44,200**	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l		NA	**7,510**	NA	NA	NA	NA	NA	**2,320**	NA	NA	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l		NA	119,000	NA	NA	NA	NA	NA	187,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l		NA	**340,000**	NA	NA	NA	NA	NA	190,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l		NA	3,700	NA	NA	NA	NA	NA	8,900 J	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l		NA	429	NA	NA	NA	NA	NA	89 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l		NA	**610,000**	NA	NA	NA	NA	NA	**670,000**	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l		NA	3,100	NA	NA	NA	NA	NA	9,200 J	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S	LMW-8R-S
			Sample Name	LMW-8R-S_17.5	LMW-8R-S_22.5	LMW-8R-S_27	LMW-8R-S_24.75	LMW-8R-S_6.75	DUP01_021424	LMW-8R-S_6.75	LMW-8R-S_6.75	LMW-8R-S_6.75	LMW-8R-S_18.75	LMW-8R-S_18.75	LMW-8R-S_18.75	LMW-8R-S_18.75
			Sample Date	09/29/2022	09/29/2022	09/29/2022	12/22/2022	02/14/2024	02/14/2024	8/15/2024	11/22/2024	3/7/2025	02/14/2024	8/12/2024	11/22/2024	3/5/2025
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	17.5	22.5	27	24.75	6.75-11.75	6.75-11.75	6.75-11.75	6.75-11.75	6.75-11.75	16.75-23.75	16.75-23.75	16.75-23.75	16.75-23.75
			Sample El.	14.68 - 12.68	9.68 - 7.68	5.18 - 3.18	7.43 - 2.43	8 - 3	8 - 3	8 - 3	8 - 3	8 - 3	-2 - -9	-2 - -9	-2 - -9	-2 - -9
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
1,1,1-Trichloroethane	71-55-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<7.5 U	<7.5 U	<7.5 U	<3.8 U	<1.5 U	<1.5 U	<3.8 U	<15 U	<3.8 U	<1.5 U	<1.5 U	<38 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.74 J	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 UJ
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<5 U	<5 U	<5 U	<2.5 U	<1 U	<1 U	<2.5 U	<10 U	<2.5 U	<1 U	<1 U	<25 U	<1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
1,3-Dichloropropane	142-28-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<1,200 UJ	<1,200 U	<1,200 UJ	<620 U	<250 U	<250 U	<620 U	<2,500 U	<620 U	<250 U	<250 U	<6,200 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	**25 J**	**3.6 J**	<5 U	<5 U	<120 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 U
Acetone	67-64-1	50	ug/l	27	17 J	26	<12 U	13	14	**120**	**140**	9.5 J	3.5 J	17	43 J	**180**
Acrylonitrile	107-13-1	5	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<50 U	<12 U	<5 U	<5 U	<120 U	<5 U
Benzene	71-43-2	**1**	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	0.31 J	0.29 J	0.48 J	<5 U	0.54 J	0.18 J	0.2 J	<12 U	0.18 J
Bromobenzene	108-86-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Bromochloromethane	74-97-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<10 U	<10 U	<10 U	<5 U	<2 U	<2 U	<5 U	<20 U	<5 U	<2 U	<2 U	<50 U	<2 UJ
Bromomethane	74-83-9	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	5.4 J	<5 U	<5 U	<120 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**190**	**190**	**180**	**390**	**14**	**17**	<6.2 U	<25 U	<6.2 U	2.9	0.88 J	<62 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Cymene	99-87-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<12 U	<5 U	<5 U	<120 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<12 U	<5 U	<5 U	<120 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	2.7 J	<2.5 U	<2.5 U	<62 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
M,P-Xylene	179601-23-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1.2 J	1.4 J	<6.2 U	<25 U	3.5 J	<2.5 U	<2.5 U	<62 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<25 UJ	<25 U	<25 UJ	<12 UJ	2 J	<5 U	**360**	**1,000**	15	7.1	12	**210**	8.7
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<25 U	<25 U	<25 U	<12 UJ	<5 U	<5 U	<12 U	<50 U	2.6 J	<5 U	<5 U	<120 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
n-Propylbenzene	103-65-1	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	1 J	1.2 J	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Sec-Butylbenzene	135-98-8	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Styrene	100-42-5	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 UJ
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**600**	**640**	**570**	**63**	0.54	0.64	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 UJ
Toluene	108-88-3	**5**	ug/l	<12 U	<12 U	<12 U	<6.2 U	**8.7**	**10**	<6.2 U	<25 U	**18**	2.3 J	3.5	<62 U	1.5 J
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	190	190	180	390 J	14	17	<6.2 U	<25 U	<6.2 U	2.9	0.88 J	<62 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	2.2 J	2.6 J	<6.2 U	<25 U	3.5 J	<2.5 U	<2.5 U	<62 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<12 U	<12 U	<12 U	1.8 J	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<2.5 U	<2.5 U	<2.5 U	<1.2 U	<0.5 U	<0.5 U	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**390**	**390**	**350**	**52**	0.56	0.7	<1.2 U	<5 U	<1.2 U	<0.5 U	<0.5 U	<12 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<12 U	<12 U	<12 U	<6.2 U	<2.5 U	<2.5 U	<6.2 U	<25 U	<6.2 U	<2.5 U	<2.5 U	<62 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<25 U	<25 U	<25 U	<12 U	<5 U	<5 U	<12 U	<50 U	<12 U	<5 U	<5 U	<120 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.42 J	<5 U	0.41 J	1.2 J	**4.4**	**5.2**	0.2 J	<10 U	<2.5 U	1.6	1.3	<25 U	0.53 J
Metals																
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	234,000	127,000	NA	353,000	NA	NA	NA	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	868,600	398,900	NA	1,327,000	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**34,200**	**8,330**	NA	**1,180,000**	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	**35.000**	ug/l	NA	NA	NA	**68,700**	19,900	NA	**108,000**	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**6,069**	**662.1**	NA	**2,066**	NA	NA	NA	NA	NA	NA
General Chemistry																
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	155,000	260,000	NA	1,840,000 J	NA	NA	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250.000**	ug/l	NA	NA	NA	**340,000**	**410,000**	NA	88,000	NA	NA	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	4,400 J	6,600	NA	5,400,000 J	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10.000	ug/l	NA	NA	NA	116	164	NA	89 J	NA	NA	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250.000**	ug/l	NA	NA	NA	**600,000**	30,000	NA	<10,000 U	NA	NA	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	3,800	6,700	NA	2,800,000 J	NA	NA	NA	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D	LMW-8R-D
			Sample Name	LMW-8R-D_46.5	LMW-8R-D_48.5	LMW-8R-D_47.25	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_27.75	LMW-8R-D_56.75	LMW-8R-D_58	LMW-8R-D_73	LMW-8R-D_77	LMW-8R-D_76	LMW-8R-D_59.75	LMW-8R-D_59.75	LMW-8R-D_59.75	LMW-8R-D_59.75
			Sample Date	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024	11/22/2024	3/5/2025	12/27/2022	09/29/2022	09/29/2022	09/29/2022	12/27/2022	02/14/2024	8/13/2024	11/22/2024	3/5/2025
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	46.5	48.5	47.25	27.75-34.75	27.75-34.75	27.75-34.75	27.75-34.75	56.75	58	73	77	76	57.75-64.75	57.75-64.75	57.75-64.75	57.75-64.75
			Sample El.	-15.19 - -17.19	-17.19 - -19.19	-15.94 - -20.94	-13 - -20	-13 - -20	-13 - -20	-13 - -20	-20.44 - -25.44	-26.69 - -28.69	-41.69 - -43.69	-45.69 - -47.69	-44.69 - -49.69	-43 - -50	-43 - -50	-43 - -50	-43 - -50
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																			
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<7.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<6 U	<30 U	<30 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 UJ	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<5 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<1 U	<4 U	<20 U	<20 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 UJ	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 U	<250 U	<250 U	<1,200 U	<250 U	<250 U	<250 UJ	<250 U	<500 U	<250 U	<250 U	<1,000 U	<5,000 U	<5,000 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	**7.4 J**	<100 U	<100 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
Acetone	67-64-1	50	ug/l	8.5	10	24 J	**69**	1.6 J	<25 U	<4.9 U	29 J	11	28	17	5.5 J	**52**	**300**	**920**	**380**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	<0.5 U	0.16 J	**3.8**	0.95	**1.2 J**	**1.3**	**2**	<0.5 U	<0.5 U	**31**	**5.5**	**8.1**	0.8 J	<10 U	<10 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<10 U	<2 UJ	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<8 U	<40 U	<40 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	0.94 J	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 UJ
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Chloroform	67-66-3	**7**	ug/l	1.5 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	0.8 J	0.85 J	**8.2**	1.3 J	1.2 J	<12 U	1.3 J	**7.7**	1 J	0.86 J	**200**	**47**	2.3 J	<10 U	<50 U	<50 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 UJ
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	8.7	**82**	<5 U	<25 U	3.6 J	4.6 J	<5 UJ	<5 U	<10 U	<5 U	**120**	**470**	**760**	580 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	1.5 J	<5 UJ	1.7 J	<25 U	3.2 J	<5 U	<5 U	<5 U	<10 U	<5 U	<5 UJ	<20 U	<100 U	<100 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	3 J	<50 U	<50 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	<0.5 U	<0.5 U	0.18 J	<0.5 U	<0.5 U	<2.5 U	<0.5 UJ	0.54	0.25 J	<0.5 U	0.41 J	0.21 J	<0.5 U	<2 U	<10 U	<10 U
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	1.3 J	<2.5 U	<12 U	1.3 J	**9**	<2.5 U	<2.5 U	<5 U	2 J	<2.5 U	<10 U	<50 U	<50 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	0.8 J	0.85 J	8.2	1.3 J	1.2 J	<12 U	1.3 J	7.7	1 J	0.86 J	200	47	2.3 J	<10 U	<50 U	<50 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<2.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<2 U	<10 U	<10 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Trichloroethene (TCE)	79-01-6	**5**	ug/l	<0.5 U	<0.5 U	0.37 J	<0.5 U	<0.5 U	<2.5 U	<0.5 U	0.24 J	0.18 J	<0.5 U	0.39 J	0.24 J	<0.5 U	<2 U	<10 U	<10 U
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<12 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<10 U	<50 U	<50 UJ
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<25 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<20 U	<100 U	<100 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	<1 U	<1 U	0.94 J	0.18 J	<5 U	0.24 J	1	<1 U	<1 U	**6.7**	**6.4**	**2.7**	<4 U	<20 U	<20 UJ
Metals																			
Calcium	7440-70-2	NS	ug/l	NA	NA	54,400	NA	NA	NA	NA	58,500	NA	NA	NA	95,000	NA	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	174,600	NA	NA	NA	NA	185,100	NA	NA	NA	303,800	NA	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	**5,660**	NA	NA	NA	NA	**9,480**	NA	NA	NA	**6,650**	NA	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	9,420	NA	NA	NA	NA	9,450	NA	NA	NA	16,200	NA	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	235.1	NA	NA	NA	NA	**363.8**	NA	NA	NA	**448.3**	NA	NA	NA	NA
General Chemistry																			
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	85,800 J	NA	NA	NA	NA	116,000	NA	NA	NA	141,000	NA	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	54,000	NA	NA	NA	NA	48,000	NA	NA	NA	83,000	NA	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	6,900	NA	NA	NA	NA	8,700	NA	NA	NA	4,000 J	NA	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	27 J	NA	NA	NA	NA	104	NA	NA	NA	44 J	NA	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	140,000	NA	NA	NA	NA	130,000	NA	NA	NA	130,000	NA	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	7,100	NA	NA	NA	NA	8,500	NA	NA	NA	3,500	NA	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-S	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D	LMW-9R-D
			Sample Name	LMW-9R-S_22	LMW-9R-S_30.5	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-S_13.75	LMW-9R-D_43.5	LMW-9R-D_46.5	LMW-9R-D_60.5	LMW-9R-D_63.5	LMW-9R-D_76	LMW-9R-D_58.25	LMW-9R-D_58.25	LMW-9R-D_58.25	DUP_11222024
			Sample Date	09/29/2022	09/29/2022	02/13/2024	8/15/2024	11/22/2024	3/7/2025	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	02/14/2024	8/14/2024	11/22/2024	11/22/2024
			Sample Event	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	22	30.5	13.75-19.75	13.75-19.75	13.75-19.75	13.75-19.75	43.5	46.5	60.5	63.5	76	55.25-63.25	55.25-63.25	55.25-63.25	55.25-63.25
			Sample El.	11.34 - 9.34	2.84 - 0.84	1 - -5	1 - -5	1 - -5	1 - -5	-10.16 - -12.16	-13.16 - -15.16	-26.6 - -28.6	-29.6 - -31.6	-42.1 - -44.1	-40.5 - -48.5	-40.5 - -48.5	-40.5 - -48.5	-40.5 - -48.5
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																		
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<1 U	<1.2 U	0.18 J	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<3 U	<3.8 U	<1.5 U	<38 U	<75 U	<15 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<2 U	<2.5 U	<1 U	<25 U	<50 U	<10 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<500 UJ	<620 UJ	<250 U	<6,200 U	<12,000 U	<2,500 U	<250 U	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<10 U	<12 U	1.2 J	<120 U	**62 J**	22 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	16	26	**100**	**650**	**1,200**	**70 J**	8.4	6.8	20	6.2	13	9.7	2.2 J	2 J	3 J
Acrylonitrile	107-13-1	5	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**8.5**	**7.4**	**1.3**	<12 U	<25 U	<5 U	0.6	0.56	0.65	**1.6**	0.19 J	**5.7**	**3.9**	**3.2**	**3**
Bromobenzene	108-86-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.33 J
Bromoform	75-25-2	50	ug/l	<4 U	<5 U	<2 U	<50 U	<100 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	14 J	<5 U	<5 U	<5 U	<5 U	1 J	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**7.9**	**7.5**	<2.5 U	<62 U	<120 U	<25 U	1.2 J	1.2 J	<2.5 U	3.8	**34**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**28**	**28**	<2.5 U	<62 U	<120 U	<25 U	**9.6**	**8.8**	**9.6**	**11**	2.3 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.43 J
Dibromomethane	74-95-3	5	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<10 UJ	<12 UJ	**82**	**3,600**	**6,000**	**360**	2 J	<5 U	1.9 J	<5 UJ	<5 U	16	<5 U	6.5 J	18 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<10 U	<12 U	4.3 J	<120 U	<250 U	12 J	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ
n-Butylbenzene	104-51-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.75 J	0.65 J	0.52 J	0.7 J
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**190**	**250**	0.2 J	<12 U	<25 U	<5 U	2.7	2.5	2.4	2.1	0.34 J	<0.5 U	<0.5 U	0.27 J	0.22 J
Toluene	108-88-3	**5**	ug/l	<5 U	<6.2 U	**85**	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.77 J	0.77 J
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	28	28	<2.5 U	<62 U	<120 U	<25 U	9.6	8.8	9.6	11	2.3 J	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<1 U	<1.2 U	<0.5 U	<12 U	<25 U	<5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**56**	**58**	<0.5 U	<12 U	<25 U	<5 U	0.75	0.63	0.65	0.65	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<5 U	<6.2 U	<2.5 U	<62 U	<120 U	<25 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<10 U	<12 U	<5 U	<120 U	<250 U	<50 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 UJ
Vinyl Chloride	75-01-4	**2**	ug/l	1 J	0.96 J	**4.6**	<25 U	<50 U	<10 U	0.2 J	0.19 J	0.23 J	0.6 J	0.13 J	0.24 J	0.27 J	0.15 J	0.19 J
Metals																		
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	374,000	NA	NA	NA	NA	NA	NA	NA	148,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	1,262,000	NA	NA	NA	NA	NA	NA	NA	478,100	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	**1,210,000**	NA	NA	NA	NA	NA	NA	NA	**16,700**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	**79,500**	NA	NA	NA	NA	NA	NA	NA	26,400	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	**744.2**	NA	NA	NA	NA	NA	NA	NA	**785.9**	NA	NA	NA
General Chemistry																		
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	3,140,000 J	NA	NA	NA	NA	NA	NA	NA	272,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	**460,000**	NA	NA	NA	NA	NA	NA	NA	230,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	9,200,000	NA	NA	NA	NA	NA	NA	NA	3,900	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	60 J	NA	NA	NA	NA	NA	NA	NA	<100 U	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	34,000	NA	NA	NA	NA	NA	NA	NA	<10,000 U	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	8,600,000	NA	NA	NA	NA	NA	NA	NA	2,100	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-D	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S	LMW-10R-S
			Sample Name	LMW-10R-S_18.25	LMW-10R-S_21.5	LMW-10R-S_26.5	LMW-10R-S_28.5	LMW-10R-S_34	LMW-10R-S_36	LMW-10R-D_40.5	LMW-10R-S_24.75	LMW-10R-S_24.75	LMW-10R-S_24.75	LMW-10R-S_24.75	DUP_20250306
			Sample Date	12/23/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	09/29/2022	12/23/2022	02/13/2024	8/14/2024	11/22/2024	3/6/2025	3/6/2025
			Sample Event	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections
			Sample Depth	18.25	21.5	26.5	28.5	34	36	40.5	23.75-29.75	23.75-29.75	23.75-29.75	23.75-29.75	23.75-29.75
			Sample El.	12.67 - 7.67	9.42 - 7.42	4.42 - 2.42	2.42 - 0.42	-3.08 - -5.08	-5.08 - -7.08	-11.93 - -16.93	-9 - -15	-9 - -15	-9 - -15	-9 - -15	-9 - -15
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result		
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.17 J	<1 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<3 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	0.23 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 UJ	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<2 U	<1 U	<1 UJ	<1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 UJ	<2 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<500 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	1.4 J	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 UJ	<2.5 UJ
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 UJ	<2 UJ
Acetone	67-64-1	50	ug/l	2.1 J	**91**	**84**	**88**	**100**	**160**	2.3 J	30	**160**	2.7 J	5.3 J	5.1 J
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	0.25 J	0.26 J	0.25 J	0.24 J	0.25 J	0.25 J	0.2 J	<0.5 U	<1 U	0.24 J	0.23 J	0.23 J
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	0.81	<1 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<4 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	0.7 J	<2.5 UJ
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.6	**13**	<5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 UJ	<2.5 UJ
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	**140**	**100**	**110**	**90**	**91**	**92**	**18**	**7.5**	<5 U	1.5 J	1.2 J	1.1 J
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	2.5	2.4 J
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	0.71 J	1.6 J	1.3 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	21	17 J	21	24	35	<5 U	5.6	**100**	<5 U	2.3 J	2.4 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	2.4 J	1.7 J	1 J	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.82 J	<5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 UJ	<2.5 UJ
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	0.78 J	0.8 J
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	0.84 J	0.83 J
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	**26**	2.7	2.6	2	2	2.1	2.1	0.41 J	<1 U	0.34 J	0.2 J	<0.5 U
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	**8**	4.2 J	**6.9**	**7.7**	**7.5**
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	140	100	110	90	91	92	18	7.5	<5 U	1.5 J	1.2 J	1.1 J
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.84 J	<5 U	0.71 J	2.4 J	2.1 J
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<1 U	<0.5 U	<0.5 UJ	<0.5 UJ
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	**33**	**5.4**	**5.5**	4.9	4.8	4.7	1.1	0.33 J	<1 U	0.21 J	0.33 J	0.22 J
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<10 U	<5 UJ	<5 U	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	0.37 J	0.63 J	0.6 J	0.39 J	0.39 J	0.4 J	0.11 J	1.8	<2 U	0.69 J	0.32 J	<1 UJ
Metals															
Calcium	7440-70-2	NS	ug/l	184,000	NA	NA	NA	NA	NA	97,700	NA	140,000 J	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	693,900	NA	NA	NA	NA	NA	362,800	NA	458,900	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	**33,000**	NA	NA	NA	NA	NA	**12,600**	NA	**36,800 J**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	**57,100**	NA	NA	NA	NA	NA	28,800	NA	26,600 J	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	**2,861**	NA	NA	NA	NA	NA	**1,638**	NA	**1,017 J**	NA	NA	NA
General Chemistry															
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	156,000	NA	NA	NA	NA	NA	177,000	NA	477,000 J	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	97,000	NA	NA	NA	NA	NA	66,000	NA	130,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	5,600	NA	NA	NA	NA	NA	5,300	NA	120,000	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	79 J	NA	NA	NA	NA	NA	47 J	NA	40 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	**530,000**	NA	NA	NA	NA	NA	190,000	NA	<10,000 U	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	5,500	NA	NA	NA	NA	NA	5,700	NA	120,000	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

Analyte	CAS Number	NYSDEC SGVs	Location	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D	LMW-10R-D
			Sample Name	LMW-10R-D_49	LMW-10R-D_30.75	LMW-10R-D_30.75	LMW-10R-D_30.75	LMW-10R-D_40.75	LMW-10R-D_40.75	LMW-10R-D_40.75	LMW-10R-D_63
			Sample Date	09/29/2022	02/13/2024	8/14/2024	11/25/2024	02/13/2024	8/14/2024	11/25/2024	09/29/2022
			Sample Event	Pre-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Post-Injections	Pre-Injections
			Sample Depth	49	26.75-35.75	26.75-35.75	26.75-35.75	40.75-45.75	40.75-45.75	40.75-45.75	63
			Sample El.	-20.43 - -22.43	-12 - -21	-12 - -21	-12 - -21	-26 - -31	-26 - -31	-26 - -31	-34.43 - -36.43
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U	<2.5 U	<2.5 UJ	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 UJ	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	**100**	4.3 J	7.6	<5 U	5.1	7.8	2.9 J	**91**
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	<0.5 U	0.76	0.55	0.42 J	0.66	0.53	0.31 J	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	0.44 J	<0.5 U	<0.5 U	0.42 J	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	**7**	ug/l	**52**	7	<2.5 U	<2.5 U	6.4	<2.5 U	<2.5 U	**47**
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	**5**	ug/l	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	23 J	<5 U	27	<5 U	<5 U	19	<5 U	21
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	3	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	2.5
Naphthalene	91-20-3	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	0.29 J	<2.5 U
Tetrachloroethene (PCE)	127-18-4	**5**	ug/l	0.78	<0.5 U	<0.5 U	0.48 J	<0.5 U	<0.5 U	0.23 J	0.74
Toluene	108-88-3	**5**	ug/l	<2.5 U	<2.5 U	1.4 J	1.7 J	<2.5 U	3.4	2.7	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	4.3
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Trichloroethene (TCE)	79-01-6	**5**	ug/l	1.6	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	1.6
Trichlorofluoromethane	75-69-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	<5 U	<5 U	<5 U	<5 UJ	<5 U	<5 U	<5 UJ	<5 U
Vinyl Chloride	75-01-4	**2**	ug/l	<1 U	0.63 J	<1 U	<1 U	0.75 J	0.18 J	0.16 J	<1 U
Metals											
Calcium	7440-70-2	NS	ug/l	NA	NA	NA	NA	153,000	NA	NA	NA
Hardness (As CaCO3)	HARD	NS	ug/l	NA	NA	NA	NA	493,800	NA	NA	NA
Iron	7439-89-6	**300**	ug/l	NA	NA	NA	NA	**15,200**	NA	NA	NA
Magnesium	7439-95-4	**35,000**	ug/l	NA	NA	NA	NA	27,200	NA	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	NA	NA	**702.8**	NA	NA	NA
General Chemistry											
Alkalinity, Total (as CaCO3)	471-34-1	NS	ug/l	NA	NA	NA	NA	335,000	NA	NA	NA
Chloride (As Cl)	16887-00-6	**250,000**	ug/l	NA	NA	NA	NA	160,000	NA	NA	NA
Dissolved Organic Carbon	DOC	NS	ug/l	NA	NA	NA	NA	3,400	NA	NA	NA
Nitrogen, Nitrate (As N)	14797-55-8	10,000	ug/l	NA	NA	NA	NA	63 J	NA	NA	NA
Sulfate (As SO4)	14808-79-8	**250,000**	ug/l	NA	NA	NA	NA	11,000	NA	NA	NA
Total Organic Carbon	TOC	NS	ug/l	NA	NA	NA	NA	3,200	NA	NA	NA

Table 4
Groundwater Performance Monitoring Report
Combined Analytical Results

1487 First Avenue
New York, New York
NYSDEC BCP Site No.: C231152
Langan Project No.: 100963701

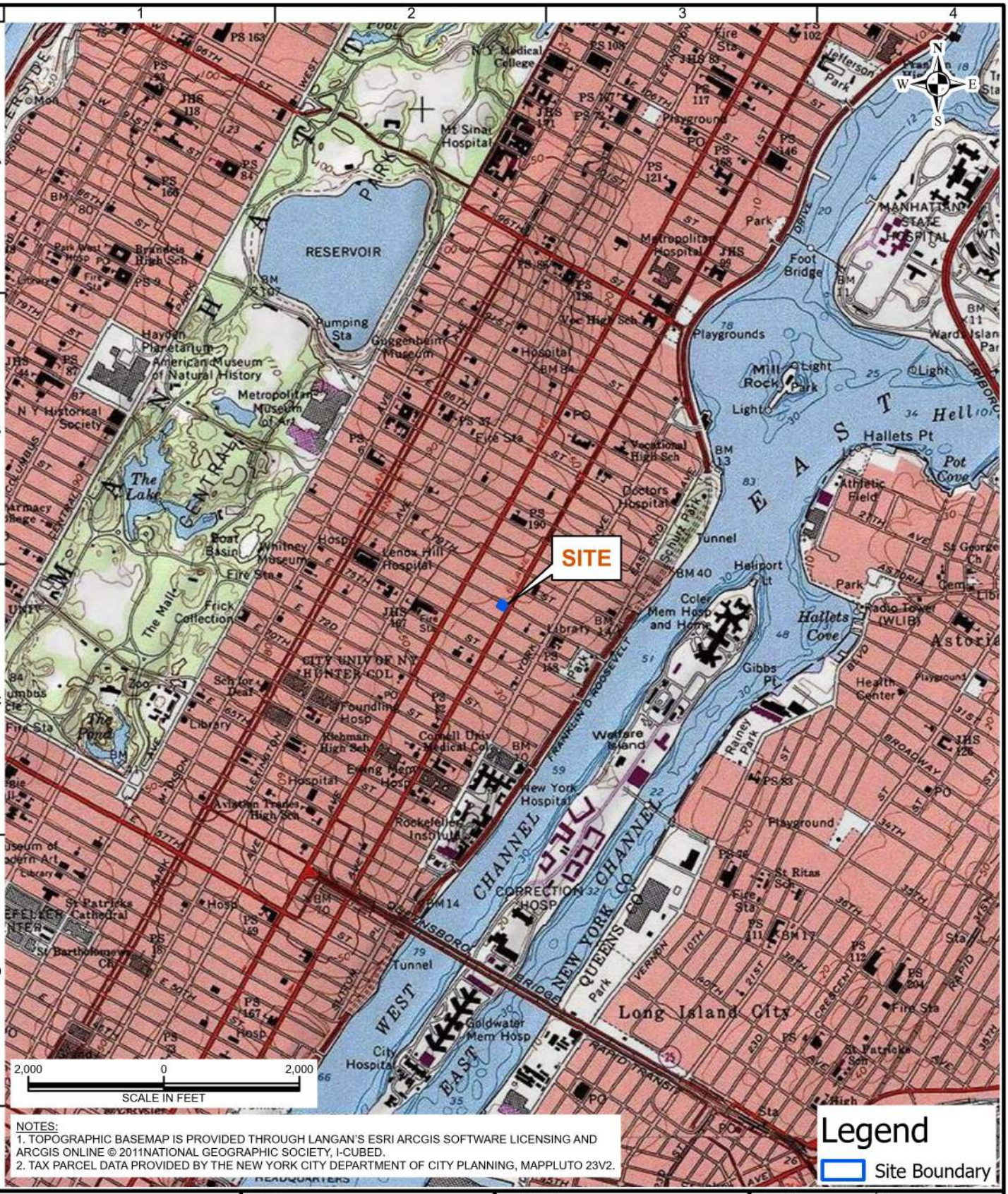
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected
The following groundwater samples and groundwater monitoring wells are not shown on Table 5 due to excavation for the basement construction: LMW-8R-S_14.5, LMW-8R-S_15, LMW-9R-S_15, LMW-10R-S_13, LMW-11R-S, LMW-11R-D, LMW-12R-S, LMW-12R-D, LMW-13R-S, and LMW-13R-D and overburden wells LMW-6, LMW-7, LMW-8, LMW-9, and LMW-10.
Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

FIGURES



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Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

Project

1487 1ST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No.27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

SITE LOCATION MAP

Project No.	100963701
Date	9/28/2023
Scale	1"=2,000'
Drawn By	JF
Submission Date	

Figure 1

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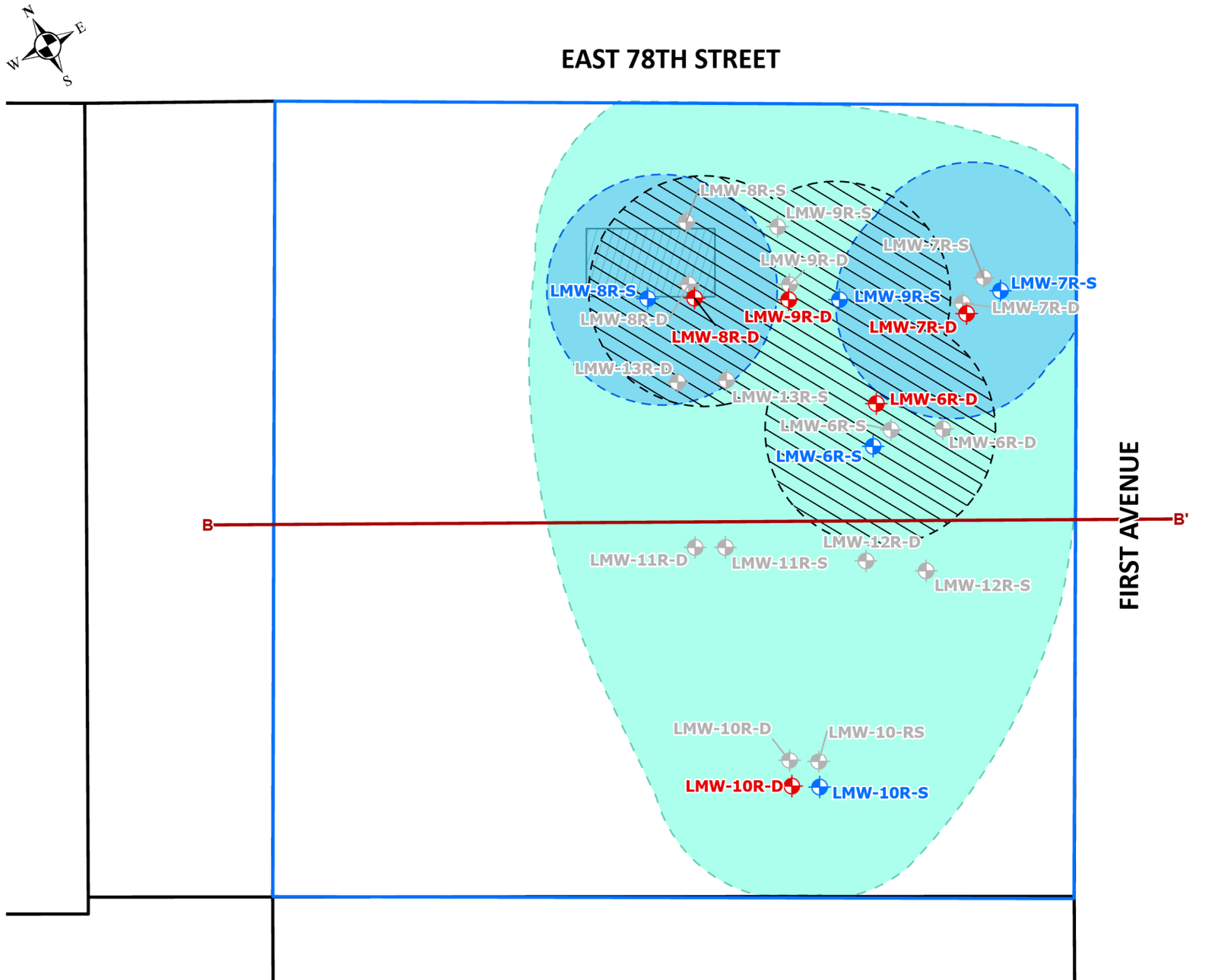

LEGEND

- SITE BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- TAX LOT BOUNDARY
- CROSS SECTION
- 2023 TREATMENT ZONE
- 2024 EZVI TREATMENT ZONE
- 2024 EVO INJECTION ZONE
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
4. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.
3. 2023 TREATMENT ZONE IS SHOWN AS PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN.

15 0 15
SCALE IN FEET

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Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 FIRST AVENUE REDEVELOPMENT SITE
BLOCK No. 1452, LOT No. 27
MANHATTAN
NEW YORK NEW YORK

Drawing Title
SITE AND INJECTION LOCATION PLAN

Project No.	100963701
Date	2/25/2025
Scale	1"=15'
Drawn By	IHB
Figure	2A

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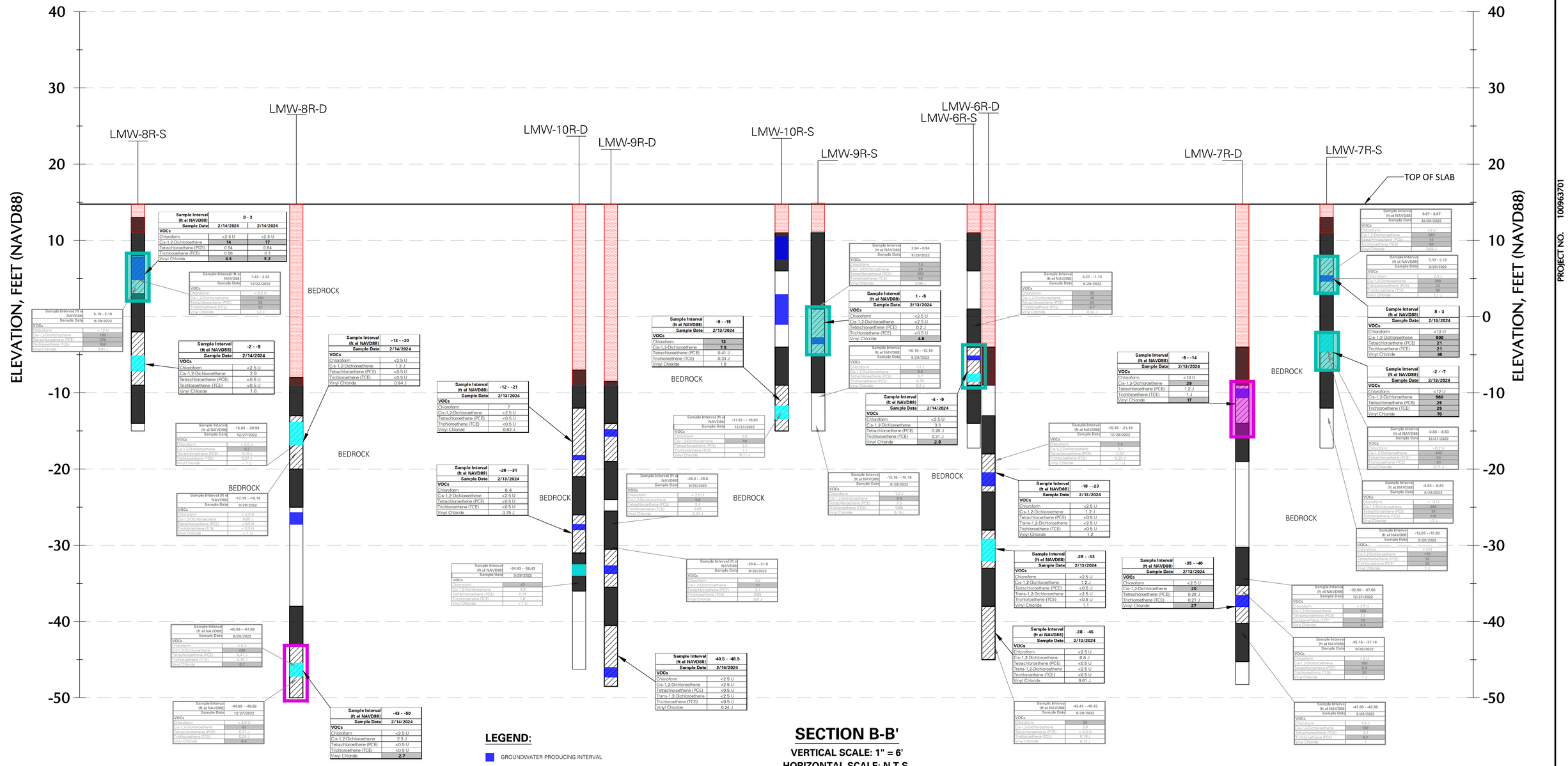
Path: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\APRX\2024-03 - Monitoring Report\Monitoring Report_2025.aprx Date: 2/25/2025 User: aruane Time: 11:15 AM



SECTION B-B'

VERTICAL SCALE: 1" = 6'
HORIZONTAL SCALE: N.T.S.

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RICHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY 2024 PERFORMANCE GROUNDWATER MONITORING EVENT.
6. THESE EZVI / WVO INJECTION INTERVALS ARE FROM THE SECOND ROUND OF INJECTIONS COMPLETED IN MAY 2024. THE INTERVALS FROM THE FIRST ROUND OF INJECTIONS COMPLETED IN MARCH/APRIL 2023 WERE REPORTED IN THE 29 SEPTEMBER 2023 EZVI REMEDIAL INJECTION REPORT.

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title
2024 GROUNDWATER ANALYTICAL RESULTS, AND MAY 2024 BEDROCK TREATMENT INJECTION INTERVALS

Project No.	Drawing No.
100963701	2B
Date: 04/17/2025	
Drawn By: AR	
Checked By: CR	

LANGAN
PROJECT NO. 100963701

Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Monitoring_Report_04-2025.dwg Date: 4/17/2025 Time: 18:17 User: aruane Style Table: Langan.stb Layout: Figure 2B - Bedrock Treatment Injection Intervals
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EAST 78TH STREET

Location	LMW-8R-D	LMW-8R-D
Sample Name	LMW-8R-D_27.75_030525	LMW-8R-D_59.75_030525
Sample Date	03/05/2025	03/05/2025
Sample Interval (ft el NAVD88)	-13 - -20	-43 - -50
VOCs		
Acetone	<4.9 U	**380**
Chloroform	<2.5 U	<50 U
Cis-1,2-Dichloroethene	1.3 J	<50 U
Tetrachloroethene (PCE)	<0.5 UJ	<10 U
Trichloroethene (TCE)	<0.5 U	<10 U
Vinyl Chloride	0.24 J	<20 UJ
Benzene	**1.3**	<10 U
Methyl Ethyl Ketone (2-Butanone)	3.6 J	**580 UJ**
Toluene	1.3 J	<50 U

Location	LMW-8R-S	LMW-8R-S
Sample Name	LMW-8R-S_6.75_030725	LMW-8R-S_18.75_030525
Sample Date	03/07/2025	03/05/2025
Sample Interval (ft el NAVD88)	8 - 3	-2 - -9
VOCs		
Acetone	9.5 J	**180**
Chloroform	<6.2 U	<2.5 U
Cis-1,2-Dichloroethene	<6.2 U	<2.5 U
Tetrachloroethene (PCE)	<1.2 U	<0.5 UJ
Trichloroethene (TCE)	<1.2 U	<0.5 U
Vinyl Chloride	<2.5 U	0.53 J
Benzene	0.54 J	0.18 J
Methyl Ethyl Ketone (2-Butanone)	15	8.7
Toluene	**18**	1.5 J

Location	LMW-9R-S
Sample Name	LMW-9R-S_13.75_030725
Sample Date	03/07/2025
Sample Interval (ft el NAVD88)	1 - -5
VOCs	
Acetone	**70 J**
Chloroform	<25 U
Cis-1,2-Dichloroethene	<25 U
Tetrachloroethene (PCE)	<5 U
Trichloroethene (TCE)	<5 U
Vinyl Chloride	<10 U
Benzene	<5 U
Methyl Ethyl Ketone (2-Butanone)	**360**
Toluene	<25 U

Location	LMW-7R-D
Sample Name	LMW-7R-D_23.75_030725
Sample Date	03/07/2025
Sample Interval (ft el NAVD88)	-9 - -14
VOCs	
Acetone	**1,400 J**
Chloroform	<120 U
Cis-1,2-Dichloroethene	<120 U
Tetrachloroethene (PCE)	<25 U
Trichloroethene (TCE)	<25 U
Vinyl Chloride	<50 U
Benzene	<25 U
Methyl Ethyl Ketone (2-Butanone)	**5,600**
Toluene	<120 U

Location	LMW-6R-S
Sample Name	LMW-6R-S_18.75_030525
Sample Date	03/05/2025
Sample Interval (ft el NAVD88)	-4 - -9
VOCs	
Acetone	21
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	<2.5 U
Tetrachloroethene (PCE)	<0.5 UJ
Trichloroethene (TCE)	<0.5 U
Vinyl Chloride	0.19 J
Benzene	0.47 J
Methyl Ethyl Ketone (2-Butanone)	24
Toluene	**9.3**

Location	LMW-10R-S	LMW-10R-S
Sample Name	LMW-10R-S_24.75_030625	DUP_20250306
Sample Date	03/06/2025	03/06/2025
Sample Interval (ft el NAVD88)	-9 - -15	-9 - -15
VOCs		
Acetone	5.3 J	5.1 J
Chloroform	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	1.2 J	1.1 J
Tetrachloroethene (PCE)	0.2 J	<0.5 U
Trichloroethene (TCE)	0.33 J	0.22 J
Vinyl Chloride	0.32 J	<1 UJ
Benzene	0.23 J	0.23 J
Methyl Ethyl Ketone (2-Butanone)	2.3 J	2.4 J
Toluene	**7.7**	**7.5**

Analyte	NYSDEC SGVs
VOCs	
Acetone	50
Benzene	1
Chloroform	7
Cis-1,2-Dichloroethene	5
Methyl Ethyl Ketone (2-Butanone)	50
Tetrachloroethene (PCE)	5
Toluene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

LMW-8R-S
LMW-9R-S
LMW-9R-D
LMW-7R-S
LMW-7R-S
LMW-7R-D
LMW-8R-S
LMW-8R-D
LMW-9R-D
LMW-9R-S
LMW-8R-D
LMW-7R-D
LMW-13R-D
LMW-13R-S
LMW-6R-D
LMW-6R-D
LMW-6R-S
LMW-6R-S
B
B'
LMW-11R-D
LMW-11R-S
LMW-12R-D
LMW-12R-S
LMW-10R-D
LMW-10-RS
LMW-10R-D
LMW-10R-S

B: 1452
L: 32

B: 1452
L: 31

B: 1452
L: 27

B: 1452
L: 26

FIRST AVENUE

15 0 15
SCALE IN FEET

LEGEND

- SITE BOUNDARY
- TAX LOT BOUNDARY
- AOC-2: FORMER SOLVENT TANK
- CROSS SECTION
- DEEP BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW BEDROCK WELL RE-INSALLATION LOCATION
- SHALLOW AND DEEP BEDROCK MONITORING WELLS INSTALLED DURING THE 2022 RI
- PROPOSED PERFORMANCE MONITORING WELLS

NOTES:
1. TAX PARCEL DATA PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, MAPPLUTO 23V2.
2. 2022 RI MONITORING WELL LOCATIONS ARE BASED ON THE WELL AS-BUILT SURVEY PREPARED BY TRUE NORTH SURVEYORS, INC. DATED 21 OCTOBER 2022.
3. RE-INSTALLED MONITORING WELL LOCATIONS WERE SURVEYED IN THE FIELD BEFORE ROCK CORING BEGAN.

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Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

1487 FIRST AVENUE REDEVELOPMENT SITE

BLOCK No. 1452, LOT No. 27

MANHATTAN

NEW YORK NEW YORK

Drawing Title

MARCH 2025 GROUNDWATER ANALYTICAL RESULTS

Project No.	Figure
100963701	3A
Date: 4/17/2025	
Scale: 1"=15'	
Drawn By: IHB	

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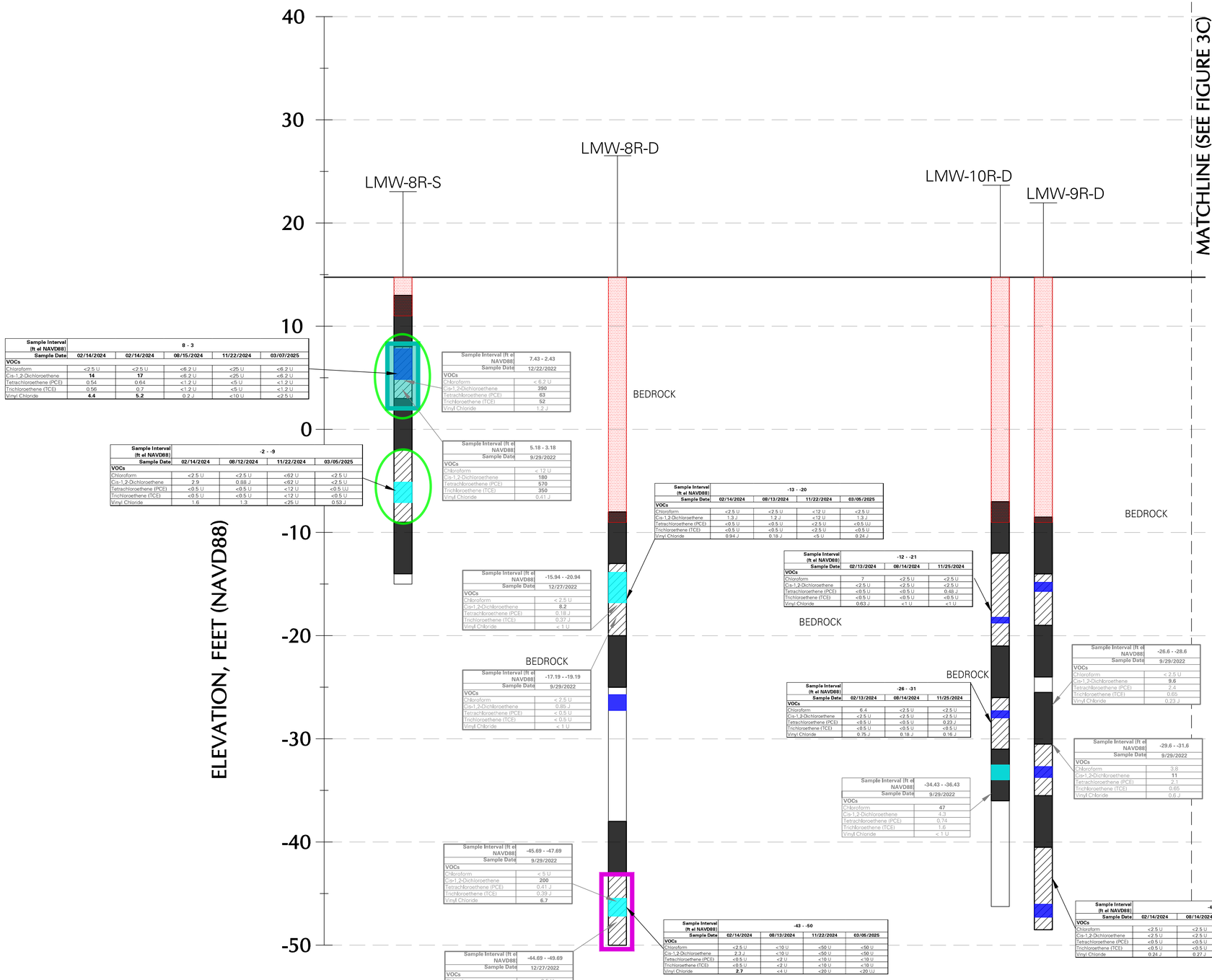

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 FOUNDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEOLOGIC SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY AND AUGUST 2024 PERFORMANCE GROUNDWATER MONITORING EVENTS.

SECTION B-B' WEST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

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6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title
POST-REMEDIATION CVOC GROUNDWATER ANALYTICAL RESULTS ON SUBSURFACE PROFILE B-B' WEST

Project No.	Drawing No.
100963701	3B
Date: 04/21/2025	
Drawn By: AR	
Checked By: CR	

LANGAN
PROJECT NO. 100963701

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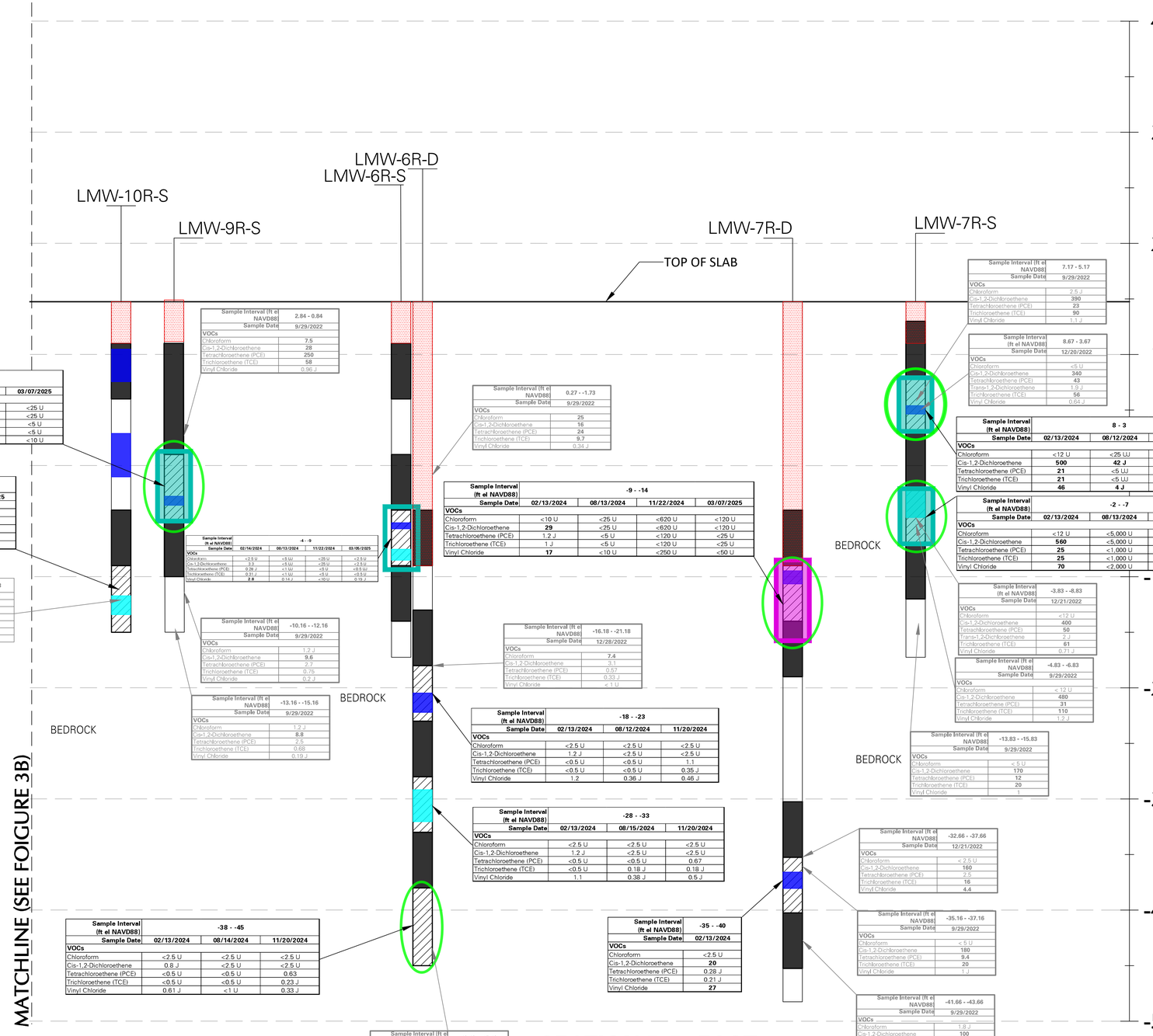
Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Monitoring_Report_04-2025.dwg Date: 4/21/2025 Time: 09:06 User: aruane Style Table: Langan.stb Layout: Figure 3B - Chlorinated VOC Analytical Results



Sample Interval (ft el NAVD88)	1 - -5			
Sample Date	02/13/2024	08/15/2024	11/22/2024	03/07/2025
VOCs				
Chloroform	<2.5 U	<62 U	<120 U	<25 U
Cis-1,2-Dichloroethene	<2.5 U	<62 U	<120 U	<25 U
Tetrachloroethene (PCE)	0.2 J	<12 U	<25 U	<5 U
Trichloroethene (TCE)	<0.5 U	<12 U	<25 U	<5 U
Vinyl Chloride	**4.6**	<25 U	<50 U	<10 U

Sample Interval (ft el NAVD88)	-9 - -15				
Sample Date	02/13/2024	08/14/2024	11/22/2024	03/06/2025	03/06/2025
VOCs					
Chloroform	**13**	<5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	**7.5**	<5 U	1.5 J	1.2 J	1.1 J
Tetrachloroethene (PCE)	0.41 J	<1 U	0.34 J	0.2 J	<0.5 U
Trichloroethene (TCE)	0.33 J	<1 U	0.21 J	0.33 J	0.22 J
Vinyl Chloride	1.8	<2 U	0.69 J	0.32 J	<1 UJ

Sample Interval (ft el NAVD88)	-9.58 - -14.58
Sample Date	12/23/2022
VOCs	
Chloroform	2.6
Cis-1,2-Dichloroethene	18
Tetrachloroethene (PCE)	2.1
Trichloroethene (TCE)	1.1
Vinyl Chloride	0.11 J

Sample Interval (ft el NAVD88)	2.84 - 0.84
Sample Date	9/29/2022
VOCs	
Chloroform	7.5
Cis-1,2-Dichloroethene	28
Tetrachloroethene (PCE)	250
Trichloroethene (TCE)	58
Vinyl Chloride	0.96 J

Sample Interval (ft el NAVD88)	-4 - -9			
Sample Date	02/14/2024	08/13/2024	11/22/2024	03/05/2025
VOCs				
Chloroform	<2.5 U	<5 U	<25 U	<2.5 U
Cis-1,2-Dichloroethene	3.3	<5 U	<25 U	<2.5 U
Tetrachloroethene (PCE)	0.28 J	<1 U	<5 U	<0.5 U
Trichloroethene (TCE)	0.31 J	<1 U	<5 U	<0.5 U
Vinyl Chloride	**2.8**	0.14 J	<10 U	0.19 J

Sample Interval (ft el NAVD88)	-10.16 - -12.16
Sample Date	9/29/2022
VOCs	
Chloroform	1.2 J
Cis-1,2-Dichloroethene	**9.6**
Tetrachloroethene (PCE)	2.7
Trichloroethene (TCE)	0.75
Vinyl Chloride	0.2 J

Sample Interval (ft el NAVD88)	-13.16 - -15.16
Sample Date	9/29/2022
VOCs	
Chloroform	1.2 J
Cis-1,2-Dichloroethene	**8.8**
Tetrachloroethene (PCE)	2.5
Trichloroethene (TCE)	0.68
Vinyl Chloride	0.19 J

Sample Interval (ft el NAVD88)	0.27 - -1.73
Sample Date	9/29/2022
VOCs	
Chloroform	25
Cis-1,2-Dichloroethene	16
Tetrachloroethene (PCE)	24
Trichloroethene (TCE)	9.7
Vinyl Chloride	0.34 J

Sample Interval (ft el NAVD88)	-9 - -14			
Sample Date	02/13/2024	08/13/2024	11/22/2024	03/07/2025
VOCs				
Chloroform	<10 U	<25 U	<620 U	<120 U
Cis-1,2-Dichloroethene	**29**	<25 U	<620 U	<120 U
Tetrachloroethene (PCE)	1.2 J	<5 U	<120 U	<25 U
Trichloroethene (TCE)	1 J	<5 U	<120 U	<25 U
Vinyl Chloride	**17**	<10 U	<250 U	<50 U

Sample Interval (ft el NAVD88)	-16.18 - -21.18
Sample Date	12/28/2022
VOCs	
Chloroform	**7.4**
Cis-1,2-Dichloroethene	3.1
Tetrachloroethene (PCE)	0.57
Trichloroethene (TCE)	0.33 J
Vinyl Chloride	< 1 U

Sample Interval (ft el NAVD88)	-18 - -23		
Sample Date	02/13/2024	08/12/2024	11/20/2024
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	1.2 J	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	1.1
Trichloroethene (TCE)	<0.5 U	<0.5 U	0.35 J
Vinyl Chloride	1.2	0.36 J	0.46 J

Sample Interval (ft el NAVD88)	-28 - -33		
Sample Date	02/13/2024	08/15/2024	11/20/2024
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	1.2 J	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	0.67
Trichloroethene (TCE)	<0.5 U	0.18 J	0.18 J
Vinyl Chloride	1.1	0.38 J	0.5 J

Sample Interval (ft el NAVD88)	-38 - -45		
Sample Date	02/13/2024	08/14/2024	11/20/2024
VOCs			
Chloroform	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	0.8 J	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	<0.5 U	<0.5 U	0.63
Trichloroethene (TCE)	<0.5 U	<0.5 U	0.23 J
Vinyl Chloride	0.61 J	<1 U	0.33 J

Sample Interval (ft el NAVD88)	-43.43 - -45.43
Sample Date	9/29/2022
VOCs	
Chloroform	55
Cis-1,2-Dichloroethene	9.8
Tetrachloroethene (PCE)	< 0.5 U
Trichloroethene (TCE)	0.18 J
Vinyl Chloride	0.12 J

Sample Interval (ft el NAVD88)	-35 - -40
Sample Date	02/13/2024
VOCs	
Chloroform	<2.5 U
Cis-1,2-Dichloroethene	**20**
Tetrachloroethene (PCE)	0.28 J
Trichloroethene (TCE)	0.21 J
Vinyl Chloride	**27**

Sample Interval (ft el NAVD88)	7.17 - 5.17
Sample Date	9/29/2022
VOCs	
Chloroform	2.5 J
Cis-1,2-Dichloroethene	**390**
Tetrachloroethene (PCE)	**23**
Trichloroethene (TCE)	**90**
Vinyl Chloride	1.1 J

Sample Interval (ft el NAVD88)	8.67 - 3.67
Sample Date	12/20/2022
VOCs	
Chloroform	<5 U
Cis-1,2-Dichloroethene	**340**
Tetrachloroethene (PCE)	**43**
Trans-1,2-Dichloroethene	1.9 J
Trichloroethene (TCE)	**56**
Vinyl Chloride	0.64 J

Sample Interval (ft el NAVD88)	8 - 3		
Sample Date	02/13/2024	08/12/2024	11/22/2024
VOCs			
Chloroform	<12 U	<25 UJ	<100 U
Cis-1,2-Dichloroethene	**500**	**42 J**	<100 U
Tetrachloroethene (PCE)	**21**	<5 UJ	<20 U
Trichloroethene (TCE)	**21**	<5 UJ	<20 U
Vinyl Chloride	**46**	**4 J**	<40 U

Sample Interval (ft el NAVD88)	-2 - -7		
Sample Date	02/13/2024	08/13/2024	11/21/2024
VOCs			
Chloroform	<12 U	<5,000 U	3.8 J
Cis-1,2-Dichloroethene	**560**	<5,000 U	<12 U
Tetrachloroethene (PCE)	**25**	<1,000 U	<2.5 U
Trichloroethene (TCE)	**25**	<1,000 U	<2.5 U
Vinyl Chloride	**70**	<2,000 U	<5 U

Sample Interval (ft el NAVD88)	-3.83 - -8.83
Sample Date	12/21/2022
VOCs	
Chloroform	<12 U
Cis-1,2-Dichloroethene	**400**
Tetrachloroethene (PCE)	**50**
Trans-1,2-Dichloroethene	2 J
Trichloroethene (TCE)	**61**
Vinyl Chloride	0.71 J

Sample Interval (ft el NAVD88)	-4.83 - -6.83
Sample Date	9/29/2022
VOCs	
Chloroform	< 12 U
Cis-1,2-Dichloroethene	**480**
Tetrachloroethene (PCE)	**31**
Trichloroethene (TCE)	**110**
Vinyl Chloride	1.2 J

Sample Interval (ft el NAVD88)	-13.83 - -15.83
Sample Date	9/29/2022
VOCs	
Chloroform	< 5 U
Cis-1,2-Dichloroethene	**170**
Tetrachloroethene (PCE)	**12**
Trichloroethene (TCE)	**20**
Vinyl Chloride	1

Sample Interval (ft el NAVD88)	-32.66 - -37.66
Sample Date	12/21/2022
VOCs	
Chloroform	< 2.5 U
Cis-1,2-Dichloroethene	**160**
Tetrachloroethene (PCE)	2.5
Trichloroethene (TCE)	**16**
Vinyl Chloride	**4.4**

Sample Interval (ft el NAVD88)	-35.16 - -37.16
Sample Date	9/29/2022
VOCs	
Chloroform	< 5 U
Cis-1,2-Dichloroethene	**180**
Tetrachloroethene (PCE)	**9.4**
Trichloroethene (TCE)	**20**
Vinyl Chloride	1 J

Sample Interval (ft el NAVD88)	-41.66 - -43.66
Sample Date	9/29/2022
VOCs	
Chloroform	1.8 J
Cis-1,2-Dichloroethene	**100**
Tetrachloroethene (PCE)	2.1
Trichloroethene (TCE)	**8.2**
Vinyl Chloride	1

LEGEND:

- GROUNDWATER PRODUCING INTERVAL
- MINOR GROUNDWATER PRODUCING INTERVAL
- PACKER INTERVAL
- MONITORING ZONE
- CASING LENGTH
- PROPOSED PERFORMANCE MONITORING INTERVAL

EZVI

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

EVO ONLY

- SHALLOW BEDROCK INJECTION INTERVAL
- DEEP BEDROCK INJECTION INTERVAL

WELL KEY:

LMW-X

NOTES:

1. THE ELEVATIONS FOR THE TOP OF SLAB IS TAKEN FROM FO-100.0 NDATION PLAN BY MCNAMARA SALVIA, DATED 7 SEPTEMBER 2022.
2. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VE AL DATUM OF 1988, NAVD88, WHICH IS 1.1 FEET ABOVE THE NATIONA ODETIC VERTICAL DATUM OF 1929, NGVD29, PER THE UNITED STATES GEC C SURVEY, USGS.
3. BOREHOLE WATER PRODUCING LOGGING INTERVALS DERIVED FROM THE BOREHOLE GEOPHYSICAL LOGGING DATA REPORT PREPARED BY HAGER-RIGHTER GEOSCIENCE, INC. DATED JANUARY 2024.
4. ALL CURRENT AND HISTORICAL DATA ARE PRESENTED AT THE CURRENT WELL REINSTALLATION LOCATION.
5. ANALYTICAL RESULTS IN GRAY ARE FROM THE 2022 RI AND WERE PRESENTED IN THE MARCH 2023 EMULSIFIED ZERO-VALENT IRON REMEDIAL DESIGN. ANALYTICAL RESULTS IN BLACK ARE FROM THE FEBRUARY AND AUGUST 2024 PERFORMANCE GROUNDWATER MONITORING EVENTS.

SECTION B-B' EAST

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: N.T.S.

6 0 3 6
VERTICAL SCALE: 1 INCH = 6 FEET

Analyte	NYSDEC SGVs
VOCs	
Chloroform	7
Cis-1,2-Dichloroethene	5
Tetrachloroethene (PCE)	5
Trans-1,2-Dichloroethene	5
Trichloroethene (TCE)	5
Vinyl Chloride	2

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
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Parsippany, NJ 07054
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
1487 1ST AVENUE REDEVELOPMENT SITE
MANHATTAN NEW YORK

Drawing Title
POST-REMEDIATION CVOC GROUNDWATER ANALYTICAL RESULTS ON SUBSURFACE PROFILE B-B' EAST

Project No.	Drawing No.
100963701	3C
Date: 04/21/2025	
Drawn By: AR	
Checked By: CR	

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Filename: \\langan.com\data\PAR\data7\100963701\Project Data\ArcGIS\CAD\FG06-100963701-0201-BI201-0101_Monitoring_Report_04-2025.dwg Date: 4/21/2025 Time: 09:04 User: aruane Style Table: Langan.stb Layout: Figure 3C - Chlorinated VOC Analytical Results

LANGAN
PROJECT NO. 100963701

APPENDIX A

Laboratory Reports

ANALYTICAL REPORT

Lab Number:	L2512217
Client:	Langan Engineering & Environmental 300 Kimball Drive 4th Floor Parsippany, NJ 07054-2172
ATTN:	Jessica Friscia
Phone:	(973) 560-4900
Project Name:	1487 FIRST AVE
Project Number:	100963701
Report Date:	03/06/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2512217-01	LMW-8R-S_18.75	WATER	1487 FIRST AVE NY NY	03/05/25 10:00	03/05/25
L2512217-02	LMW-8R-D_59.75	WATER	1487 FIRST AVE NY NY	03/05/25 11:35	03/05/25
L2512217-03	LMW-8R-D_27.75	WATER	1487 FIRST AVE NY NY	03/05/25 12:30	03/05/25
L2512217-04	LMW-6R-S_16.75	WATER	1487 FIRST AVE NY NY	03/05/25 14:40	03/05/25
L2512217-05	TB_03052025	WATER	1487 FIRST AVE NY NY	03/05/25 00:00	03/05/25

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512217
Project Number:	100963701	**Report Date:**	03/06/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512217
Project Number:	100963701	**Report Date:**	03/06/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The Project Number was specified by the client.

Volatile Organics

L2512217-01, -02D, WG2037479-6 and WG2037479-7: The pH was greater than 2; however, the sample was analyzed within the method required holding time.

L2512217-02D: The sample has elevated detection limits due to the dilution required by the sample matrix (foam).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 03/06/25

ORGANICS

VOLATILES

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-01
Client ID: LMW-8R-S_18.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 10:00
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/06/25 11:03
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.18	J	ug/l	0.50	0.16	1
Toluene	1.5	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.53	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2512217

Project Number: 100963701 **Report Date:** 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-01 Date Collected: 03/05/25 10:00

Client ID: LMW-8R-S_18.75 Date Received: 03/05/25

Sample Location: 1487 FIRST AVE NY NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	180		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	8.7		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-01
Client ID: LMW-8R-S_18.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 10:00
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	103		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-02 D
Client ID: LMW-8R-D_59.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/05/25 11:35
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/06/25 14:47
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	ND		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	ND		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: 1487 FIRST AVE **Lab Number:** L2512217

Project Number: 100963701 **Report Date:** 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-02 D
Client ID: LMW-8R-D_59.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/05/25 11:35
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	3.3	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	ND		ug/l	50	14.	20
1,2-Dichloroethene, Total	ND		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	380		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	580		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: 1487 FIRST AVE **Lab Number:** L2512217

Project Number: 100963701 **Report Date:** 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-02 D
Client ID: LMW-8R-D_59.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/05/25 11:35
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-03
Client ID: LMW-8R-D_27.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 12:30
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/06/25 11:52
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	1.3		ug/l	0.50	0.16	1
Toluene	1.3	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.24	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2512217

Project Number: 100963701 **Report Date:** 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-03 Date Collected: 03/05/25 12:30

Client ID: LMW-8R-D_27.75 Date Received: 03/05/25

Sample Location: 1487 FIRST AVE NY NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.3	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.3	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	3.6	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	3.2	J	ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-03
Client ID: LMW-8R-D_27.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 12:30
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	105		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-04
Client ID: LMW-6R-S_16.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 14:40
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/06/25 11:28
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.47	J	ug/l	0.50	0.16	1
Toluene	9.3		ug/l	2.5	0.70	1
Ethylbenzene	1.1	J	ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.19	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2512217

Project Number: 100963701 **Report Date:** 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-04 Date Collected: 03/05/25 14:40

Client ID: LMW-6R-S_16.75 Date Received: 03/05/25

Sample Location: 1487 FIRST AVE NY NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	21		ug/l	5.0	1.5	1
Carbon disulfide	1.1	J	ug/l	5.0	1.0	1
2-Butanone	24		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	2.8	J	ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Lab Number: L2512217
Project Number: 100963701
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-04
Client ID: LMW-6R-S_16.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 14:40
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	106		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-05
Client ID: TB_03052025
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 00:00
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/06/25 09:07
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2512217

Project Number: 100963701 **Report Date:** 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-05 Date Collected: 03/05/25 00:00

Client ID: TB_03052025 Date Received: 03/05/25

Sample Location: 1487 FIRST AVE NY NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

SAMPLE RESULTS

Lab ID: L2512217-05
Client ID: TB_03052025
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/05/25 00:00
Date Received: 03/05/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	104		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/06/25 08:35
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-05 Batch: WG2037434-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/06/25 08:35
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-05 Batch: WG2037434-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/06/25 08:35
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-05 Batch: WG2037434-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	107		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/06/25 10:50
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG2037479-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/06/25 10:50
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG2037479-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/06/25 10:50
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG2037479-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	121		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-05 Batch: WG2037434-3 WG2037434-4								
Methylene chloride	110		92		70-130	18		20
1,1-Dichloroethane	110		96		70-130	14		20
Chloroform	110		97		70-130	13		20
Carbon tetrachloride	110		96		63-132	14		20
1,2-Dichloropropane	120		97		70-130	**21**	Q	20
Dibromochloromethane	100		86		63-130	15		20
1,1,2-Trichloroethane	100		85		70-130	16		20
Tetrachloroethene	120		96		70-130	**22**	Q	20
Chlorobenzene	100		87		75-130	14		20
Trichlorofluoromethane	81		68		62-150	17		20
1,2-Dichloroethane	110		96		70-130	14		20
1,1,1-Trichloroethane	110		93		67-130	17		20
Bromodichloromethane	110		94		67-130	16		20
trans-1,3-Dichloropropene	100		87		70-130	14		20
cis-1,3-Dichloropropene	110		92		70-130	18		20
1,1-Dichloropropene	110		90		70-130	20		20
Bromoform	99		80		54-136	**21**	Q	20
1,1,2,2-Tetrachloroethane	100		88		67-130	13		20
Benzene	110		90		70-130	20		20
Toluene	100		88		70-130	13		20
Ethylbenzene	100		85		70-130	16		20
Chloromethane	94		79		64-130	17		20
Bromomethane	64		54		39-139	17		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-05 Batch: WG2037434-3 WG2037434-4								
Vinyl chloride	89		76		55-140	16		20
Chloroethane	90		75		55-138	18		20
1,1-Dichloroethene	81		73		61-145	10		20
trans-1,2-Dichloroethene	110		93		70-130	17		20
Trichloroethene	110		92		70-130	18		20
1,2-Dichlorobenzene	100		86		70-130	15		20
1,3-Dichlorobenzene	110		86		70-130	**24**	Q	20
1,4-Dichlorobenzene	100		83		70-130	19		20
Methyl tert butyl ether	110		89		63-130	**21**	Q	20
p/m-Xylene	100		85		70-130	16		20
o-Xylene	100		80		70-130	**22**	Q	20
cis-1,2-Dichloroethene	110		93		70-130	17		20
Dibromomethane	100		90		70-130	11		20
1,2,3-Trichloropropane	100		87		64-130	14		20
Acrylonitrile	110		110		70-130	0		20
Styrene	90		80		70-130	12		20
Dichlorodifluoromethane	82		69		36-147	17		20
Acetone	100		110		58-148	10		20
Carbon disulfide	83		69		51-130	18		20
2-Butanone	120		110		63-138	9		20
Vinyl acetate	100		92		70-130	8		20
4-Methyl-2-pentanone	91		86		59-130	6		20
2-Hexanone	97		84		57-130	14		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-05 Batch: WG2037434-3 WG2037434-4								
Bromochloromethane	110		97		70-130	13		20
2,2-Dichloropropane	100		91		63-133	9		20
1,2-Dibromoethane	110		93		70-130	17		20
1,3-Dichloropropane	110		92		70-130	18		20
1,1,1,2-Tetrachloroethane	110		88		64-130	**22**	Q	20
Bromobenzene	110		89		70-130	**21**	Q	20
n-Butylbenzene	100		81		53-136	**21**	Q	20
sec-Butylbenzene	100		85		70-130	16		20
tert-Butylbenzene	110		87		70-130	**23**	Q	20
o-Chlorotoluene	110		92		70-130	18		20
p-Chlorotoluene	110		90		70-130	20		20
1,2-Dibromo-3-chloropropane	98		78		41-144	**23**	Q	20
Hexachlorobutadiene	120		99		63-130	19		20
Isopropylbenzene	110		86		70-130	**24**	Q	20
p-Isopropyltoluene	100		82		70-130	20		20
Naphthalene	97		83		70-130	16		20
n-Propylbenzene	110		86		69-130	**24**	Q	20
1,2,3-Trichlorobenzene	100		89		70-130	12		20
1,2,4-Trichlorobenzene	100		88		70-130	13		20
1,3,5-Trimethylbenzene	99		82		64-130	19		20
1,2,4-Trimethylbenzene	100		83		70-130	19		20
1,4-Dioxane	132		124		56-162	6		20
p-Diethylbenzene	100		78		70-130	**25**	Q	20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-05 Batch: WG2037434-3 WG2037434-4								
p-Ethyltoluene	100		86		70-130	15		20
1,2,4,5-Tetramethylbenzene	100		81		70-130	**21**	Q	20
Ethyl ether	89		76		59-134	16		20
trans-1,4-Dichloro-2-butene	100		85		70-130	16		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		109		70-130
Toluene-d8	101		102		70-130
4-Bromofluorobenzene	110		107		70-130
Dibromofluoromethane	96		102		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG2037479-3 WG2037479-4								
Methylene chloride	98		89		70-130	10		20
1,1-Dichloroethane	100		93		70-130	7		20
Chloroform	110		93		70-130	17		20
Carbon tetrachloride	97		77		63-132	**23**	Q	20
1,2-Dichloropropane	100		94		70-130	6		20
Dibromochloromethane	100		90		63-130	11		20
1,1,2-Trichloroethane	110		97		70-130	13		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	110		97		75-130	13		20
Trichlorofluoromethane	110		82		62-150	**29**	Q	20
1,2-Dichloroethane	110		90		70-130	20		20
1,1,1-Trichloroethane	100		87		67-130	14		20
Bromodichloromethane	100		88		67-130	13		20
trans-1,3-Dichloropropene	93		94		70-130	1		20
cis-1,3-Dichloropropene	94		81		70-130	15		20
1,1-Dichloropropene	100		87		70-130	14		20
Bromoform	85		85		54-136	0		20
1,1,2,2-Tetrachloroethane	96		98		67-130	2		20
Benzene	100		96		70-130	4		20
Toluene	100		110		70-130	10		20
Ethylbenzene	110		96		70-130	14		20
Chloromethane	88		67		64-130	**27**	Q	20
Bromomethane	88		80		39-139	10		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG2037479-3 WG2037479-4								
Vinyl chloride	96		71		55-140	**30**	Q	20
Chloroethane	130		100		55-138	**26**	Q	20
1,1-Dichloroethene	99		85		61-145	15		20
trans-1,2-Dichloroethene	100		92		70-130	8		20
Trichloroethene	100		90		70-130	11		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	110		98		70-130	12		20
1,4-Dichlorobenzene	110		96		70-130	14		20
Methyl tert butyl ether	100		93		63-130	7		20
p/m-Xylene	110		95		70-130	15		20
o-Xylene	110		100		70-130	10		20
cis-1,2-Dichloroethene	100		92		70-130	8		20
Dibromomethane	100		93		70-130	7		20
1,2,3-Trichloropropane	96		96		64-130	0		20
Acrylonitrile	110		93		70-130	17		20
Styrene	110		100		70-130	10		20
Dichlorodifluoromethane	83		60		36-147	**32**	Q	20
Acetone	100		82		58-148	20		20
Carbon disulfide	99		91		51-130	8		20
2-Butanone	120		97		63-138	**21**	Q	20
Vinyl acetate	110		94		70-130	16		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	99		90		57-130	10		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG2037479-3 WG2037479-4								
Bromochloromethane	110		97		70-130	13		20
2,2-Dichloropropane	110		94		63-133	16		20
1,2-Dibromoethane	110		96		70-130	14		20
1,3-Dichloropropane	110		96		70-130	14		20
1,1,1,2-Tetrachloroethane	100		94		64-130	6		20
Bromobenzene	97		98		70-130	1		20
n-Butylbenzene	110		96		53-136	14		20
sec-Butylbenzene	110		94		70-130	16		20
tert-Butylbenzene	110		95		70-130	15		20
o-Chlorotoluene	96		94		70-130	2		20
p-Chlorotoluene	96		96		70-130	0		20
1,2-Dibromo-3-chloropropane	90		84		41-144	7		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	95		94		70-130	1		20
p-Isopropyltoluene	110		95		70-130	15		20
Naphthalene	89		93		70-130	4		20
n-Propylbenzene	97		96		69-130	1		20
1,2,3-Trichlorobenzene	93		97		70-130	4		20
1,2,4-Trichlorobenzene	97		97		70-130	0		20
1,3,5-Trimethylbenzene	96		95		64-130	1		20
1,2,4-Trimethylbenzene	110		96		70-130	14		20
1,4-Dioxane	106		100		56-162	6		20
p-Diethylbenzene	100		94		70-130	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG2037479-3 WG2037479-4								
p-Ethyltoluene	94		93		70-130	1		20
1,2,4,5-Tetramethylbenzene	110		94		70-130	16		20
Ethyl ether	120		100		59-134	18		20
trans-1,4-Dichloro-2-butene	**44**	Q	**44**	Q	70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		99		70-130
Toluene-d8	100		119		70-130
4-Bromofluorobenzene	90		97		70-130
Dibromofluoromethane	102		100		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG2037479-6 WG2037479-7 QC Sample: L2512217-02 Client ID: LMW-8R-D_59.75												
Methylene chloride	ND	200	190	95		200	100		70-130	5		20
1,1-Dichloroethane	ND	200	210	105		210	105		70-130	0		20
Chloroform	ND	200	210	105		210	105		70-130	0		20
Carbon tetrachloride	ND	200	200	100		210	105		63-132	5		20
1,2-Dichloropropane	ND	200	200	100		210	105		70-130	5		20
Dibromochloromethane	ND	200	190	95		190	95		63-130	0		20
1,1,2-Trichloroethane	ND	200	210	105		210	105		70-130	0		20
Tetrachloroethene	ND	200	220	110		230	115		70-130	4		20
Chlorobenzene	ND	200	210	105		210	105		75-130	0		20
Trichlorofluoromethane	ND	200	220	110		220	110		62-150	0		20
1,2-Dichloroethane	ND	200	200	100		200	100		70-130	0		20
1,1,1-Trichloroethane	ND	200	210	105		210	105		67-130	0		20
Bromodichloromethane	ND	200	190	95		200	100		67-130	5		20
trans-1,3-Dichloropropene	ND	200	170	85		180	90		70-130	6		20
cis-1,3-Dichloropropene	ND	200	170	85		180	90		70-130	6		20
1,1-Dichloropropene	ND	200	210	105		220	110		70-130	5		20
Bromoform	ND	200	180	90		180	90		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	200	210	105		210	105		67-130	0		20
Benzene	ND	200	210	105		220	110		70-130	5		20
Toluene	ND	200	210	105		210	105		70-130	0		20
Ethylbenzene	ND	200	210	105		220	110		70-130	5		20
Chloromethane	ND	200	180	90		180	90		64-130	0		20
Bromomethane	ND	200	160	80		190	95		39-139	17		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG2037479-6 WG2037479-7 QC Sample: L2512217-02 Client ID: LMW-8R-D_59.75												
Vinyl chloride	ND	200	220	110		230	115		55-140	4		20
Chloroethane	ND	200	240	120		250	125		55-138	4		20
1,1-Dichloroethene	ND	200	210	105		220	110		61-145	5		20
trans-1,2-Dichloroethene	ND	200	210	105		210	105		70-130	0		20
Trichloroethene	ND	200	210	105		210	105		70-130	0		20
1,2-Dichlorobenzene	ND	200	210	105		210	105		70-130	0		20
1,3-Dichlorobenzene	ND	200	210	105		220	110		70-130	5		20
1,4-Dichlorobenzene	ND	200	210	105		210	105		70-130	0		20
Methyl tert butyl ether	ND	200	190	95		190	95		63-130	0		20
p/m-Xylene	ND	400	430	108		450	113		70-130	5		20
o-Xylene	ND	400	420	105		440	110		70-130	5		20
cis-1,2-Dichloroethene	ND	200	200	100		200	100		70-130	0		20
Dibromomethane	ND	200	200	100		200	100		70-130	0		20
1,2,3-Trichloropropane	ND	200	190	95		180	90		64-130	5		20
Acrylonitrile	ND	200	200	100		190	95		70-130	5		20
Styrene	ND	400	430	108		440	110		70-130	2		20
Dichlorodifluoromethane	ND	200	190	95		200	100		36-147	5		20
Acetone	380	200	550	85		500	60		58-148	10		20
Carbon disulfide	ND	200	220	110		220	110		51-130	0		20
2-Butanone	580	200	810	115		720	70		63-138	12		20
Vinyl acetate	ND	200	200	100		200	100		70-130	0		20
4-Methyl-2-pentanone	ND	200	180	90		190	95		59-130	5		20
2-Hexanone	ND	200	190	95		200	100		57-130	5		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG2037479-6 WG2037479-7 QC Sample: L2512217-02 Client ID: LMW-8R-D_59.75												
Bromochloromethane	ND	200	210	105		210	105		70-130	0		20
2,2-Dichloropropane	ND	200	230	115		240	120		63-133	4		20
1,2-Dibromoethane	ND	200	190	95		200	100		70-130	5		20
1,3-Dichloropropane	ND	200	200	100		200	100		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	200	200	100		200	100		64-130	0		20
Bromobenzene	ND	200	210	105		210	105		70-130	0		20
n-Butylbenzene	ND	200	230	115		240	120		53-136	4		20
sec-Butylbenzene	ND	200	220	110		230	115		70-130	4		20
tert-Butylbenzene	ND	200	210	105		220	110		70-130	5		20
o-Chlorotoluene	ND	200	210	105		210	105		70-130	0		20
p-Chlorotoluene	ND	200	210	105		220	110		70-130	5		20
1,2-Dibromo-3-chloropropane	ND	200	170	85		170	85		41-144	0		20
Hexachlorobutadiene	ND	200	220	110		220	110		63-130	0		20
Isopropylbenzene	ND	200	210	105		220	110		70-130	5		20
p-Isopropyltoluene	ND	200	220	110		220	110		70-130	0		20
Naphthalene	ND	200	170	85		180	90		70-130	6		20
n-Propylbenzene	ND	200	220	110		230	115		69-130	4		20
1,2,3-Trichlorobenzene	ND	200	190	95		210	105		70-130	10		20
1,2,4-Trichlorobenzene	ND	200	200	100		210	105		70-130	5		20
1,3,5-Trimethylbenzene	ND	200	210	105		220	110		64-130	5		20
1,2,4-Trimethylbenzene	ND	200	210	105		220	110		70-130	5		20
1,4-Dioxane	ND	10000	3900J	**39**	Q	7200	72		56-162	**59**	Q	20
p-Diethylbenzene	ND	200	210	105		220	110		70-130	5		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG2037479-6 WG2037479-7 QC Sample: L2512217-02 Client ID: LMW-8R-D_59.75												
p-Ethyltoluene	ND	200	210	105		220	110		70-130	5		20
1,2,4,5-Tetramethylbenzene	ND	200	200	100		200	100		70-130	0		20
Ethyl ether	ND	200	200	100		210	105		59-134	5		20
trans-1,4-Dichloro-2-butene	ND	200	84	**42**	Q	91	**46**	Q	70-130	8		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		100		70-130
4-Bromofluorobenzene	99		97		70-130
Dibromofluoromethane	102		102		70-130
Toluene-d8	101		102		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512217
Report Date: 03/06/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2512217-01A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-01B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-01C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02A1	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02A2	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02B1	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02B2	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02C1	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-02C2	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-03A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-03B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-03C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-04A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-04B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-04C	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-05A	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)
L2512217-05B	Vial HCl preserved	A	NA		2.7	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512217
Project Number:	100963701	**Report Date:**	03/06/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512217
Project Number:	100963701	**Report Date:**	03/06/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512217
Project Number:	100963701	**Report Date:**	03/06/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512217
Report Date: 03/06/25

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

L2512217
LANGAN – NJ

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 1 of 1

Date Rec'd in Lab: 3/6/25

Project Information

Project Name: 1487 First Ave
Project Location: 1487 First Ave NY NY
Project #
(Use Project name as Project #) ☐
Project Manager: Jessica Friscia
ALPHAQuote #:

Turn-Around Time

Standard ☒ RB Due Date:
Rush (only if pre approved) ☒ # of Days: 24hr TAT

Deliverables

☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

☒ Same as Client Info
PO #

Client Information

Client: LANGAN
Address: 300 Kimball Dr
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfriscia@langan.com

Regulatory Requirement

☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

VOCs

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments	Total # Bottles
12277-01	LMW-8R-S-18.75	3/5/25	1000	AQ	RB		3
-02	LMW-8R-D-59.75		1135			MS/MSD	9
-03	LMW-8R-P-27.75		1230				3
-04	LMW-6R-S-16.75		1440				3
-05	TB-03052025			AQ			2

Container Type ✓
Preservative B

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Rob Brandstetter	3/5/25 15:05	Will Pace	3/5/25 1505
Will Pace	3/5/25 1947	Anthony Green	MAR 05 2025 2045
Anthony Green	3/6/25 0430		3/6/25 0430

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2512654
Client:	Langan Engineering & Environmental 300 Kimball Drive 4th Floor Parsippany, NJ 07054-2172
ATTN:	Jessica Friscia
Phone:	(973) 560-4900
Project Name:	1487 FIRST AVE
Project Number:	100963701
Report Date:	03/07/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512654
Report Date: 03/07/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2512654-01	LMW-10R-S_24.75	WATER	1487 FIRST AVE NY NY	03/06/25 11:30	03/06/25
L2512654-02	DUP_20250306	WATER	1487 FIRST AVE NY NY	03/06/25 11:35	03/06/25

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512654
Project Number:	100963701	**Report Date:**	03/07/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512654
Project Number:	100963701	**Report Date:**	03/07/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The project number was specified by the client.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 03/07/25

ORGANICS

VOLATILES

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2512654-01
Client ID: LMW-10R-S_24.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/06/25 11:30
Date Received: 03/06/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/07/25 09:01
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.20	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.23	J	ug/l	0.50	0.16	1
Toluene	7.7		ug/l	2.5	0.70	1
Ethylbenzene	2.5		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	0.70	J	ug/l	2.5	0.70	1
Vinyl chloride	0.32	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2512654-01
Client ID: LMW-10R-S_24.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/06/25 11:30
Date Received: 03/06/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.33	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	1.6	J	ug/l	2.5	0.70	1
o-Xylene	0.78	J	ug/l	2.5	0.70	1
Xylenes, Total	2.4	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	0.84	J	ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.3		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	2.3	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	1.0	J	ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2512654-01
Client ID: LMW-10R-S_24.75
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/06/25 11:30
Date Received: 03/06/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	100		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2512654-02
Client ID: DUP_20250306
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/06/25 11:35
Date Received: 03/06/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/07/25 09:26
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.23	J	ug/l	0.50	0.16	1
Toluene	7.5		ug/l	2.5	0.70	1
Ethylbenzene	2.4	J	ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2512654

Project Number: 100963701 **Report Date:** 03/07/25

SAMPLE RESULTS

Lab ID: L2512654-02 Date Collected: 03/06/25 11:35

Client ID: DUP_20250306 Date Received: 03/06/25

Sample Location: 1487 FIRST AVE NY NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.22	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	1.3	J	ug/l	2.5	0.70	1
o-Xylene	0.80	J	ug/l	2.5	0.70	1
Xylenes, Total	2.1	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.1	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.1	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	0.83	J	ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.1		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	2.4	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Lab Number: L2512654
Project Number: 100963701
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2512654-02
Client ID: DUP_20250306
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/06/25 11:35
Date Received: 03/06/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	98		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/07/25 08:37
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG2037848-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/07/25 08:37
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG2037848-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/07/25 08:37
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG2037848-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512654
Report Date: 03/07/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG2037848-3 WG2037848-4								
Methylene chloride	100		91		70-130	9		20
1,1-Dichloroethane	110		95		70-130	15		20
Chloroform	110		94		70-130	16		20
Carbon tetrachloride	110		92		63-132	18		20
1,2-Dichloropropane	120		97		70-130	**21**	Q	20
Dibromochloromethane	110		90		63-130	20		20
1,1,2-Trichloroethane	100		92		70-130	8		20
Tetrachloroethene	120		99		70-130	19		20
Chlorobenzene	100		87		75-130	14		20
Trichlorofluoromethane	76		63		62-150	19		20
1,2-Dichloroethane	110		94		70-130	16		20
1,1,1-Trichloroethane	110		90		67-130	20		20
Bromodichloromethane	110		92		67-130	18		20
trans-1,3-Dichloropropene	110		89		70-130	**21**	Q	20
cis-1,3-Dichloropropene	110		96		70-130	14		20
1,1-Dichloropropene	110		90		70-130	20		20
Bromoform	100		86		54-136	15		20
1,1,2,2-Tetrachloroethane	100		93		67-130	7		20
Benzene	110		88		70-130	**22**	Q	20
Toluene	100		86		70-130	15		20
Ethylbenzene	100		85		70-130	16		20
Chloromethane	93		75		64-130	**21**	Q	20
Bromomethane	64		52		39-139	**21**	Q	20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512654
Report Date: 03/07/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG2037848-3 WG2037848-4								
Vinyl chloride	88		71		55-140	**21**	Q	20
Chloroethane	81		72		55-138	12		20
1,1-Dichloroethene	79		70		61-145	12		20
trans-1,2-Dichloroethene	110		93		70-130	17		20
Trichloroethene	110		90		70-130	20		20
1,2-Dichlorobenzene	110		91		70-130	19		20
1,3-Dichlorobenzene	110		90		70-130	20		20
1,4-Dichlorobenzene	100		88		70-130	13		20
Methyl tert butyl ether	110		94		63-130	16		20
p/m-Xylene	100		85		70-130	16		20
o-Xylene	100		85		70-130	16		20
cis-1,2-Dichloroethene	110		92		70-130	18		20
Dibromomethane	100		90		70-130	11		20
1,2,3-Trichloropropane	100		94		64-130	6		20
Acrylonitrile	110		100		70-130	10		20
Styrene	95		80		70-130	17		20
Dichlorodifluoromethane	76		65		36-147	16		20
Acetone	120		97		58-148	**21**	Q	20
Carbon disulfide	81		70		51-130	15		20
2-Butanone	**140**	Q	120		63-138	15		20
Vinyl acetate	110		94		70-130	16		20
4-Methyl-2-pentanone	96		94		59-130	2		20
2-Hexanone	100		96		57-130	4		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512654
Report Date: 03/07/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG2037848-3 WG2037848-4								
Bromochloromethane	110		94		70-130	16		20
2,2-Dichloropropane	110		91		63-133	19		20
1,2-Dibromoethane	110		97		70-130	13		20
1,3-Dichloropropane	110		95		70-130	15		20
1,1,1,2-Tetrachloroethane	110		96		64-130	14		20
Bromobenzene	110		94		70-130	16		20
n-Butylbenzene	99		82		53-136	19		20
sec-Butylbenzene	100		85		70-130	16		20
tert-Butylbenzene	110		91		70-130	19		20
o-Chlorotoluene	110		92		70-130	18		20
p-Chlorotoluene	120		95		70-130	**23**	Q	20
1,2-Dibromo-3-chloropropane	100		91		41-144	9		20
Hexachlorobutadiene	110		96		63-130	14		20
Isopropylbenzene	110		90		70-130	20		20
p-Isopropyltoluene	100		84		70-130	17		20
Naphthalene	100		90		70-130	11		20
n-Propylbenzene	110		89		69-130	**21**	Q	20
1,2,3-Trichlorobenzene	100		90		70-130	11		20
1,2,4-Trichlorobenzene	110		92		70-130	18		20
1,3,5-Trimethylbenzene	100		84		64-130	17		20
1,2,4-Trimethylbenzene	100		85		70-130	16		20
1,4-Dioxane	158		136		56-162	15		20
p-Diethylbenzene	100		80		70-130	**22**	Q	20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512654
Report Date: 03/07/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG2037848-3 WG2037848-4								
p-Ethyltoluene	110		89		70-130	**21**	Q	20
1,2,4,5-Tetramethylbenzene	100		82		70-130	20		20
Ethyl ether	86		76		59-134	12		20
trans-1,4-Dichloro-2-butene	97		96		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		107		70-130
Toluene-d8	103		101		70-130
4-Bromofluorobenzene	110		112		70-130
Dibromofluoromethane	99		100		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2512654
Report Date: 03/07/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2512654-01A	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2512654-01B	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2512654-01C	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2512654-02A	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2512654-02B	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2512654-02C	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512654
Project Number:	100963701	**Report Date:**	03/07/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512654
Project Number:	100963701	**Report Date:**	03/07/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2512654
Project Number:	100963701	**Report Date:**	03/07/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2512654
Report Date: 03/07/25

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 3/6/25

ALPHA Job #: L2512654

Client Information

Client: LANGAN
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfriscia@langan.com

Project Information

Project Name: 1487 First Ave
Project Location: 1487 First Ave NY NY
Project #
(Use Project name as Project #) ☐
Project Manager: Jessica Friscia
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☒ # of Days: 24 hr TAT

Deliverables

☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Billing Information

☒ Same as Client Info
PO #

Regulatory Requirement

☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

VOC

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	Total Bottle	Sample Specific Comments
12654-01	LMW-10R-S_24.75	3/6/25	1130	AQ	RB	X	3	
02	DUP-20250306	↓	1135	↓	↓	X	3	

RB

RB

Container Type: ✓
Preservative: B

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Rob Bagnato	3/6/25 1501	Roy Vogel Parsippany	3/6/25 1500
Roy Vogel Parsippany	3/6/25 1655		
	3/6/25 16:58		3/6/25 2120

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2513068
Client:	Langan Engineering & Environmental 300 Kimball Drive 4th Floor Parsippany, NJ 07054-2172
ATTN:	Jessica Friscia
Phone:	(973) 560-4900
Project Name:	1487 FIRST AVE
Project Number:	100963701
Report Date:	03/10/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2513068
Report Date: 03/10/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2513068-01	FB_20250307	WATER	1487 FIRST AVE NY NY	03/07/25 14:30	03/07/25
L2513068-02	LMW-7R-D_23.75	WATER	1487 FIRST AVE NY NY	03/07/25 08:15	03/07/25
L2513068-03	LMW-8RS_6.75	WATER	1487 FIRST AVE NY NY	03/07/25 12:55	03/07/25
L2513068-04	LMW-9RS_13.75	WATER	1487 FIRST AVE NY NY	03/07/25 15:00	03/07/25
L2513068-05	TB_20250307	WATER	1487 FIRST AVE NY NY	03/07/25 00:00	03/07/25

Project Name:	1487 FIRST AVE	**Lab Number:**	L2513068
Project Number:	100963701	**Report Date:**	03/10/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	1487 FIRST AVE	**Lab Number:**	L2513068
Project Number:	100963701	**Report Date:**	03/10/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The project number was specified by the client.

Volatile Organics

L2513068-02D: The pH was greater than 2; however, the sample was analyzed within the method required holding time.

L2513068-03D and -04D: The sample has elevated detection limits due to the dilution required by the sample matrix (foam).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 03/10/25

ORGANICS

VOLATILES

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-01
Client ID: FB_20250307
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 14:30
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/08/25 12:16
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-01
Client ID: FB_20250307
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/07/25 14:30
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-01
Client ID: FB_20250307
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/07/25 14:30
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-02 D
Client ID: LMW-7R-D_23.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 08:15
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/08/25 13:35
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	ND		ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.8	50
Dibromochloromethane	ND		ug/l	25	7.4	50
1,1,2-Trichloroethane	ND		ug/l	75	25.	50
Tetrachloroethene	ND		ug/l	25	9.0	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	ND		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
1,3-Dichloropropene, Total	ND		ug/l	25	7.2	50
1,1-Dichloropropene	ND		ug/l	120	35.	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	8.4	50
Benzene	ND		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	ND		ug/l	50	3.6	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	ND		ug/l	25	8.4	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50

Project Name: 1487 FIRST AVE **Lab Number:** L2513068

Project Number: 100963701 **Report Date:** 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-02 D Date Collected: 03/07/25 08:15

Client ID: LMW-7R-D_23.75 Date Received: 03/07/25

Sample Location: 1487 FIRST AVE NY NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	25	8.8	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
Methyl tert butyl ether	ND		ug/l	120	8.3	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
Xylenes, Total	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	ND		ug/l	120	35.	50
1,2-Dichloroethene, Total	ND		ug/l	120	35.	50
Dibromomethane	ND		ug/l	250	50.	50
1,2,3-Trichloropropane	ND		ug/l	120	35.	50
Acrylonitrile	ND		ug/l	250	75.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	1400		ug/l	250	73.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	5600		ug/l	250	97.	50
Vinyl acetate	ND		ug/l	250	50.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
2,2-Dichloropropane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,3-Dichloropropane	ND		ug/l	120	35.	50
1,1,1,2-Tetrachloroethane	ND		ug/l	120	35.	50
Bromobenzene	ND		ug/l	120	35.	50
n-Butylbenzene	ND		ug/l	120	35.	50
sec-Butylbenzene	ND		ug/l	120	35.	50
tert-Butylbenzene	ND		ug/l	120	35.	50
o-Chlorotoluene	ND		ug/l	120	35.	50
p-Chlorotoluene	ND		ug/l	120	35.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Hexachlorobutadiene	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
p-Isopropyltoluene	ND		ug/l	120	35.	50
Naphthalene	ND		ug/l	120	35.	50

Project Name: 1487 FIRST AVE **Lab Number:** L2513068

Project Number: 100963701 **Report Date:** 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-02 D
Client ID: LMW-7R-D_23.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 08:15
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
1,3,5-Trimethylbenzene	ND		ug/l	120	35.	50
1,2,4-Trimethylbenzene	ND		ug/l	120	35.	50
1,4-Dioxane	ND		ug/l	12000	3000	50
p-Diethylbenzene	ND		ug/l	100	35.	50
p-Ethyltoluene	ND		ug/l	100	35.	50
1,2,4,5-Tetramethylbenzene	ND		ug/l	100	27.	50
Ethyl ether	ND		ug/l	120	35.	50
trans-1,4-Dichloro-2-butene	ND		ug/l	120	35.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	104		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-03 D
Client ID: LMW-8RS_6.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 12:55
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/08/25 13:09
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	0.54	J	ug/l	1.2	0.40	2.5
Toluene	18		ug/l	6.2	1.8	2.5
Ethylbenzene	2.7	J	ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	ND		ug/l	2.5	0.18	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	ND		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5

Project Name: 1487 FIRST AVE **Lab Number:** L2513068

Project Number: 100963701 **Report Date:** 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-03 D
Client ID: LMW-8RS_6.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 12:55
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	0.42	2.5
p/m-Xylene	3.5	J	ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
Xylenes, Total	3.5	J	ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	ND		ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	9.5	J	ug/l	12	3.6	2.5
Carbon disulfide	5.4	J	ug/l	12	2.5	2.5
2-Butanone	15		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	2.6	J	ug/l	12	2.5	2.5
2-Hexanone	3.6	J	ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	ND		ug/l	6.2	1.8	2.5

Project Name: 1487 FIRST AVE **Lab Number:** L2513068

Project Number: 100963701 **Report Date:** 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-03 D
Client ID: LMW-8RS_6.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 12:55
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	ND		ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	ND		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-04 D
Client ID: LMW-9RS_13.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 15:00
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/08/25 14:02
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10

Project Name: 1487 FIRST AVE **Lab Number:** L2513068

Project Number: 100963701 **Report Date:** 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-04 D
Client ID: LMW-9RS_13.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 15:00
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	1.7	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	ND		ug/l	25	7.0	10
1,2-Dichloroethene, Total	ND		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	70		ug/l	50	15.	10
Carbon disulfide	14	J	ug/l	50	10.	10
2-Butanone	360		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	12	J	ug/l	50	10.	10
2-Hexanone	22	J	ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: 1487 FIRST AVE
Lab Number: L2513068
Project Number: 100963701
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-04 D
Client ID: LMW-9RS_13.75
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 15:00
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-05
Client ID: TB_20250307
Sample Location: 1487 FIRST AVE NY NY

Date Collected: 03/07/25 00:00
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/08/25 12:42
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE **Lab Number:** L2513068

Project Number: 100963701 **Report Date:** 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-05 Date Collected: 03/07/25 00:00

Client ID: TB_20250307 Date Received: 03/07/25

Sample Location: 1487 FIRST AVE NY NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

SAMPLE RESULTS

Lab ID: L2513068-05
Client ID: TB_20250307
Sample Location: 1487 FIRST AVE NY NY
Date Collected: 03/07/25 00:00
Date Received: 03/07/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/08/25 11:49
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG2038424-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/08/25 11:49
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG2038424-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/08/25 11:49
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG2038424-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2513068
Report Date: 03/10/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG2038424-3 WG2038424-4								
Methylene chloride	100		99		70-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	99		92		63-132	7		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	96		99		63-130	3		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	98		95		62-150	3		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	91		93		70-130	2		20
cis-1,3-Dichloropropene	93		92		70-130	1		20
1,1-Dichloropropene	100		98		70-130	2		20
Bromoform	92		96		54-136	4		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	110		110		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	86		83		64-130	4		20
Bromomethane	120		110		39-139	9		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2513068
Report Date: 03/10/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG2038424-3 WG2038424-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	110		105		70-130	5		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	99		100		64-130	1		20
Acrylonitrile	100		110		70-130	10		20
Styrene	110		110		70-130	0		20
Dichlorodifluoromethane	80		77		36-147	4		20
Acetone	120		96		58-148	**22**	Q	20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	110		110		63-138	0		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	95		100		59-130	5		20
2-Hexanone	91		89		57-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2513068
Report Date: 03/10/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG2038424-3 WG2038424-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	110		100		63-133	10		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	100		99		64-130	1		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	110		100		70-130	10		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	81		89		41-144	9		20
Hexachlorobutadiene	98		100		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	74		90		70-130	20		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	83		98		70-130	17		20
1,2,4-Trichlorobenzene	94		100		70-130	6		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	106		122		56-162	14		20
p-Diethylbenzene	100		100		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2513068
Report Date: 03/10/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG2038424-3 WG2038424-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		97		70-130	3		20
Ethyl ether	110		110		59-134	0		20
trans-1,4-Dichloro-2-butene	70		72		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	101		99		70-130
Dibromofluoromethane	101		102		70-130

Project Name: 1487 FIRST AVE
Project Number: 100963701

Lab Number: L2513068
Report Date: 03/10/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2513068-01A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-01B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-01C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-02A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-02B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-02C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-03A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-03B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-03C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-04A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-04B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-04C	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-05A	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)
L2513068-05B	Vial HCl preserved	A	NA		2.1	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	1487 FIRST AVE	**Lab Number:**	L2513068
Project Number:	100963701	**Report Date:**	03/10/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2513068
Project Number:	100963701	**Report Date:**	03/10/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	1487 FIRST AVE	**Lab Number:**	L2513068
Project Number:	100963701	**Report Date:**	03/10/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 1487 FIRST AVE
Project Number: 100963701
Lab Number: L2513068
Report Date: 03/10/25

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 03/07/25

ALPHA Job #: L2513068

Client Information
Client: LANGAN
Address: 300 Kimball Drive
Parsippany NJ 07054
Phone: 973-560-4900
Fax:
Email: jfriscia@langan.com

Project Information
Project Name: 1487 First Ave
Project Location: 1487 First Ave NYNY
Project #
(Use Project name as Project #) ☐
Project Manager: Jessica Friscia
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☑ # of Days: 24hr TAT

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Regulatory Requirement
☑ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	Sample Specific Comments	Total Bottle
L2513068-01	FB-20250307	3/7/25	1430	AQ	KN	X		3
-02	LMW-7R-D-23.75		0815		RB	X		3
RB	~~LMW-7R-S-16.75~~		~~1135~~					
-03	LMW-8R-S-6.75		1255			X		3
-04	LMW-9R-S-13.75		1500			X		3
-05	TB-20250307			AQ		X		3

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	3/7/25 1530		3/7/25 1530
	3/7/25 1810		3/7/25 1810
Paul Mazzella	3/7/25 2255	Paul Mazzella	3/7/25 2255

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX B

Data Usability Summary Reports

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

368 Ninth Avenue, 8th Floor New York, NY 10001 T: 609.282.8000
Mailing Address: 368 Ninth Avenue, 8th Floor New York, NY 10001-2727

To: Ashley Sandve, Langan Project Engineer

From: Krzysztof Trafalski, Langan Senior Staff Chemist

Date: March 24, 2025

Re: Data Usability Summary Report
For 1487 First Avenue Development
March 2025 Groundwater Samples
Langan Project No.: 100963701

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in March 2025 by Langan Engineering and Environmental Services at the 1487 First Avenue Development site. The samples were analyzed by Pace Analytical Services – Westborough, MA (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) by the method specified below.

- VOCs by SW-846 Method 8260D

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, level of data validation, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedures (SOPs) for Data Validation
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020)
- USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit

ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. Three (3) Sample Delivery Groups (SDGs), L2512217, L2512654, and L2513068, underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and our best professional judgment:

R – The sample results are unusable. The results are rejected because of serious deficiencies in meeting quality control criteria in accordance with the applicable validation guidelines. The analyte may or may not be present in the sample.

J – The analyte was positively identified but the associated numerical value is approximate.

UJ – The analyte was not detected at or above the method detection limit. The method detection limit may be imprecise because of potential low or indeterminate bias.

U – The analyte was not detected above the method detection limit, or the analyte detection is impacted by blank contamination and qualified as non-detect in accordance with the applicable validation guidelines.

If any validation qualifiers are assigned, these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified because of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified because of minor data-quality anomalies are usable, as qualified in Table 2 (attached).

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2512217

The TB (TB_03052025) exhibited a detection of acetone (1.7 ug/L). The associated detected results < 10X the blank concentration in samples LMW-8R-S_18.75, LMW-8R-D_59.75, LMW-8R-D_27.75, and LMW-6R-S_18.75 are qualified as U at the sample concentration because of potential blank contamination.

The LCS/LCSD for batch WG2037434 exhibited RPDs above the control limit for 1,1,1,2-tetrachloroethane (22%), 1,2,4,5-tetramethylbenzene (21%), 1,2-dibromo-3-chloropropane (23%), 1,2-dichloropropane (21%), 1,3-dichlorobenzene (24%), 1,4-diethyl benzene (25%), bromobenzene (21%), bromoform (21%), isopropylbenzene [cumene] (24%), n-butylbenzene (21%), n-propylbenzene (24%), o-xylene (1,2-dimethylbenzene) (22%), tert-butyl methyl ether (21%), tert-butylbenzene (23%), and tetrachloroethene [PCE] (22%). The associated results in samples LMW-8R-S_18.75, LMW-8R-D_27.75, and LMW-6R-S_18.75 are qualified as UJ because of potential indeterminate bias.

The LCS/LCSD for batch WG2037479 exhibited a percent recovery below the LCL for trans-1,4-dichloro-2-butene (44%, 44%). The associated result in sample LMW-8R-D_59.75 is qualified as UJ because of potential low bias.

The LCS/LCSD for batch WG2037479 exhibited RPDs above the control limit for carbon tetrachloride (23%), chloroethane (26%), chloromethane [methyl chloride] (27%), dichlorodifluoromethane (32%), methyl ethyl ketone [2-butanone] (21%), trichlorofluoromethane (29%), and vinyl chloride (30%). The associated results in sample LMW-8R-D_59.75 are qualified as UJ because of potential indeterminate bias.

L2512654

The LCS for batch WG2037848 exhibited a percent recovery above the UCL for methyl ethyl ketone [2-butanone] (140%). The associated results in samples LMW-10R-S_24.75 and DUP_20250306 are qualified as J because of potential high bias.

The LCS/LCSD for batch WG2037848 exhibited RPDs above the control limit for 1,2-dichloropropane (21%), 1,4-diethyl benzene (22%), 4-chlorotoluene (23%), 4-ethyltoluene (21%), acetone (21%), benzene (22%), bromomethane (21%), chloromethane [methyl chloride] (21%), n-propylbenzene (21%), trans-1,3-dichloropropene (21%), and vinyl chloride (21%). The associated results in samples LMW-10R-S_24.75 and DUP_20250306 are qualified as J or UJ because of potential indeterminate bias.

L2513068

The LCS/LCSD for batch WG2038424 exhibited a RPD above the control limit for acetone (22%). The associated results in samples LMW-7R-D_23.75, LMW-8R-S_6.75, and LMW-9R-S_13.75 are qualified as J because of potential indeterminate bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2512217

The MS and/or MSD performed on sample LMW-8R-D_59.75 exhibited percent recoveries below the LCL for 1,4-dioxane [p-dioxane] (MS = 39%) and trans-1,4-dichloro-2-butene (42%, 46%). Organic results are not qualified based on MS/MSD recoveries alone. No qualification is necessary.

The MS/MSD performed on sample LMW-8R-D_59.75 exhibited a RPD above the control limit for 1,4-dioxane [p-dioxane] (72%). Organic results are not qualified based on MS/MSD recoveries alone. No qualification is necessary.

FIELD DUPLICATE:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than ±X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 30% for groundwater. The following field duplicate and parent sample pairs were compared to and met the precision criteria:

- DUP_20250306 and LMW-10R-S_24.75

CONCLUSION:

Based on this evaluation, the laboratory appears to have followed the specified analytical methods except for errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Krzysztof Trafalski
Senior Staff Chemist

LANGAN

Technical Memorandum

300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901

To: Daniel Nierenberg, P.G. – NYSDEC
Johnathan Robinson – NYSDOH

From: Amanda Forsburg, Steven Ciambruschini – Langan

Info: Andy Zheng, Kyle Becker, Stephen Martinelli, Matt Feldman – CP VII 78th Street, LLC
Michael Bogin – Sive, Paget, & Riesel, PC
Ashley Sandve, Jessica Friscia – Langan

Date: 7 March 2025

Re: Soil Vapor Intrusion (SVI) Evaluation
1487 First Avenue Redevelopment Site
New York, New York
Langan Project No.: 100963701

This memorandum has been prepared at the request of NYSDEC and NYSDOH to document sub-slab site conditions and present the soil vapor intrusion evaluation required by the decision document for the 1487 First Avenue Redevelopment site.

Site Conditions

PVC sleeve penetrations were installed through the subcellar slab during foundation construction, which were intended to be completed as soil vapor monitoring points. Langan completed site visits in January and February 2025 to assess the vapor monitoring point sleeve locations. As shown in the attached photolog, vapor monitoring points could not be installed at the Site as groundwater was observed immediately below the slab at four of the proposed locations. The PVC sleeves were filled with hydraulic cement to prevent groundwater infiltration into the building.

Soil Vapor Intrusion Evaluation

An historical solvent tank was identified on the Sanborn Fire Insurance Maps in the northern portion of the site from 1951 to 2005. Subsequent testing of on-Site completed during the 2021/2022 Phase II Environmental Site Investigation (ESI) revealed impacts to soil, groundwater, and soil vapor at concentrations exceeding NYSDEC and NYSDOH standards. The concentrations of the chlorinated volatile organic compound (CVOC) tetrachloroethylene (PCE) and associated breakdown compounds detected in soil, groundwater, and soil vapor in the immediate vicinity of the former solvent tank during the Phase II ESI were indicative of a release from the former solvent tank.

PCE was detected above the Unrestricted Use Soil Cleanup Objectives (SCOs) and Protection of Groundwater SCOs in soil at the Site at one location in the immediate vicinity of the solvent tank during the Phase II ESI and PCE, trichloroethylene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride were detected in groundwater above the NYSDEC Ambient Water Quality Standards and Guidance Value (SGVs) during the Phase II ESI and 2022 Remedial Investigation (RI). Fifteen soil vapor samples were collected during the Phase II ESI and RI and analytical results revealed concentrations of cis-1,2-DCE, 1,1-DCE, TCE, and/or PCE above the monitoring and/or mitigation sub-slab screening threshold according to NYSDOH Soil Vapor Intrusion Guidance Matrices A and B in four soil vapor samples in the northeastern portion of the Site. Benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX) were also detected in all soil vapor samples collected. As the presence of petroleum-related VOCs was not detected at elevated concentrations in soil or groundwater at the Site and no historical source of these impacts has been identified, the presence of these compounds in soil vapor was attributed to an unknown off-Site source.

As part of the site remediation an approximately 30-foot-long-by-20-foot-wide area was excavated between 6 feet below street level (bsl) to the top of bedrock (approximately 18.5 feet bsl) for the removal of CVOCs in saturated soil in the contamination source area where the historical solvent tank was formerly located. Confirmation samples were collected from the base and the sidewalls of the CVOC source area remedial excavation from the native soil or weathered bedrock immediately above the bedrock interface. Based on the final confirmation sample analytical results, Track 1 Unrestricted Use SCOs were achieved at all excavation base and sidewall samples collected, with the exception of one sample. However, excavation for the entire Site was advanced to the bedrock interface. A total of approximately 9,696.28 tons of contaminated soil/fill were removed as part of the remedial action, including all soil with VOCs present at concentrations above Track 1 SCOs. As such, all soil related to the CVOC source area was removed from the Site.

An Emulsified Zero-Valent Iron (EZVI) injection remedy was performed in 2023 and a second, focused, EZVI injection was performed in 2024 to support the abiotic and biological degradation of CVOCs in groundwater. Three quarterly performance monitoring groundwater sampling events have been completed since the 2023 remedial injections (February, August, and November 2024). Maximum concentrations of PCE and TCE decreased by an order of magnitude following the 2023 EZVI injections and were not detected above laboratory reporting limits during either the August or November 2024 performance monitoring events following the May 2024 EZVI targeted injections.

There are no known potential pathways for soil vapor intrusion into the building through the newly constructed 12-inch building slab and foundation walls, which were constructed with an exterior waterproofing membrane. The new building is constructed immediately above bedrock and no

residual contaminated soil remains beneath the building, as all soil across the Site footprint was excavated as part of the completed remedial action and cellar construction advanced into bedrock. In addition, as discussed above, groundwater is present immediately below the subcellar slab elevation and on the exterior of the subcellar walls. As such, there is no potential for the production or accumulation of soil vapor between the water table and the base of the subcellar slab. Based on the soil and groundwater remedies implemented at the Site and this soil vapor intrusion evaluation, engineering controls are not necessary because on-site sources of contamination have been removed and the construction of the new building directly on top of rock and within the groundwater table limits the potential for soil vapor production and accumulation.

Soil vapor intrusion is not considered a concern for the new development due to the source removal, groundwater treatment, and construction of the new building directly on top of rock and within the groundwater table. Nevertheless, a soil vapor intrusion evaluation must be performed upon a change in use of the property that will result in occupancy of a previously unoccupied building or initial occupancy of a new building. The breadth of this evaluation will be determined based upon discussion with the NYSDEC and NYSDOH project managers. Based upon these discussions and agency requirements, a work plan may need to be developed that requires that sampling be performed. Upon completion of the evaluation, if an action is required, any actions taken or to be taken must be reflected in an updated Site Management Plan.

Attachment: Site Photographs

ATTACHMENT 1

Site Photographs

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Attachment 1
Photographic Log
1487 1st Avenue
New York, New York

Photo 1: View of 1.5-inch PVC sleeve location A. Upon exposing the sleeve, groundwater and reagent was observed rising from below the slab. 25 February 2025.

Photo 2: View of 1.5-inch PVC sleeve location A. Upon exposing the sleeve, groundwater and reagent was observed rising from below the slab. 25 February 2025.

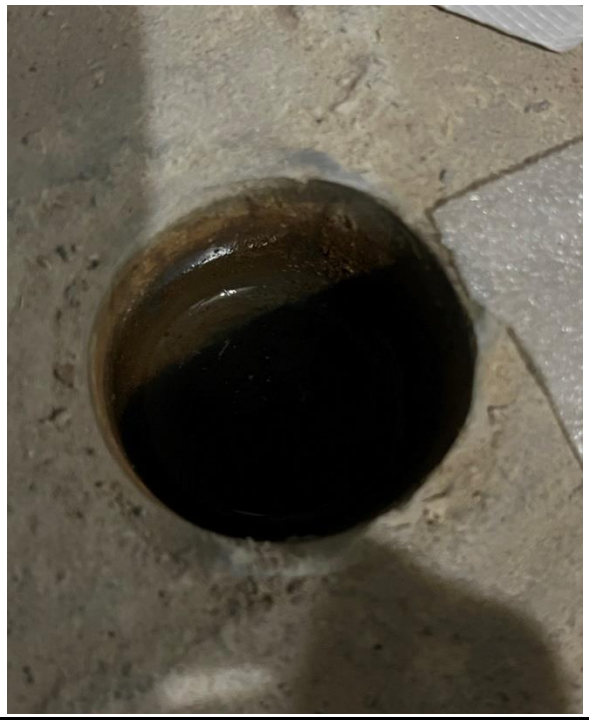

Photo 3: View of 1.5-inch PVC sleeve location B. Groundwater observed 1-inch below top of slab. 25 February 2025.

Photo 4: View of 1.5-inch PVC sleeve location B. Groundwater observed 1-inch below top of slab. 25 February 2025.

Photo 5: View of 1.5-inch PVC sleeve location C. Groundwater observed 6-inches below top of slab. 25 February 2025.

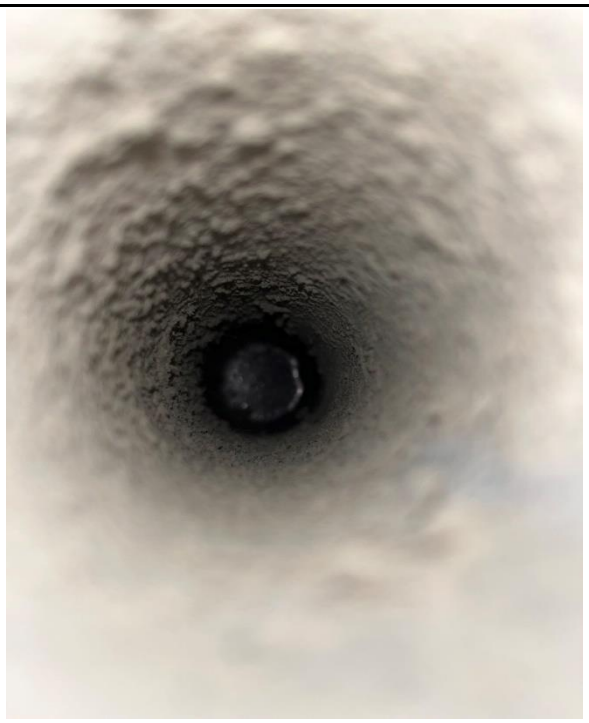

Photo 6: View of 1.5-inch PVC sleeve location C. Groundwater observed 6-inches below top of slab. 25 February 2025.

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Attachment 1
Photographic Log
1487 1st Avenue
New York, New York

Photo 7: View of 1.5-inch PVC sleeve location D. Groundwater observed immediately below top of slab. 25 February 2025.

APPENDIX C

NYSDEC Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor, Albany, NY 12233-7016
P: (518) 402-9543 | F: (518) 402-9722
www.dec.ny.gov

April 26, 2024

Amanda Forsburg
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
300 Kimball Drive, 4th Floor
Parsippany, NJ 07054

Re: Brownfield Cleanup Program
Site: 1487 1st Avenue Redevelopment Site
Site No: C231152
Location: 1487 1st Avenue, New York, NY 10075, New York County

Dear Amanda Forsburg,

Based on the review of the revised Groundwater Performance Monitoring Report & Injection Design dated April 24, 2024, comments provided by the New York State Department of Environmental (NYSDEC) and New York State Department of Health (NYSDOH) in a letter dated April 18, 2024, have been adequately addressed and the revised document is acceptable.

Please note that DER-10 Section 1.4 (c) requires that notice be made to NYSDEC a minimum of seven (7) calendar days prior to the actual start of any field activities associated with the remedial program, including those planned activities conducted during site management.

If you have any questions, please contact me at (518) 402-9554 or daniel.nierenberg@dec.ny.gov.

Sincerely,

Daniel R. Nierenberg, P.G.
Project Manager

ec: S. Quandt
NYSDOH – J. Robinson, S. McLaughlin

Jessica Friscia

From: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>
Sent: Friday, January 17, 2025 10:30 AM
To: Amanda Forsburg; Jessica Friscia
Cc: Robinson, Johnathan M (HEALTH); Quandt, Sarah M (DEC)
Subject: [External] RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

Hi Jessica,

The SMP should be updated to include the current groundwater sampling requirements for site management prior to PRR submission.

Dan

Daniel R. Nierenberg, P.G.
he/him/his
Remedial Bureau B, Section C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7016
Desk: (518) 402-9554/Cell: (518) 860-5496 | daniel.nierenberg@dec.ny.gov
www.dec.ny.gov | | |

From: Amanda Forsburg <aforsburg@Langan.com>
Sent: Friday, January 17, 2025 10:19 AM
To: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>; jfriscia@langan.com
Cc: Robinson, Johnathan M (HEALTH) <Johnathan.Robinson@health.ny.gov>; Quandt, Sarah M (DEC) <Sarah.Quandt@dec.ny.gov>
Subject: RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

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Hi Dan,

Thank you for the feedback.

Should we plan to submit a revised SMP with the PRR?

Amanda

Amanda Forsburg, CHMM
Associate Principal

LANGAN

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Mobile: 201.615.9726
File Sharing Link
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NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS PENNSYLVANIA VIRGINIA WASHINGTON, DC
OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA
ATHENS CALGARY DUBAI LONDON PANAMA

From: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>
Sent: Friday, January 17, 2025 9:32 AM
To: Jessica Friscia <JFriscia@Langan.com>
Cc: Amanda Forsburg <aforsburg@Langan.com>; Robinson, Johnathan M (HEALTH) <Johnathan.Robinson@health.ny.gov>; Quandt, Sarah M (DEC) <Sarah.Quandt@dec.ny.gov>
Subject: [External] RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

Good morning, Jessica,

The NYSDEC has reviewed the summary below and finds the proposed groundwater monitoring schedule changes acceptable. Please make sure these changes are appropriately documented in the next PRR and in the SMP.

Please let me know if you have any questions.

Thank you.
Dan

Daniel R. Nierenberg, P.G.
he/him/his
Remedial Bureau B, Section C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7016
Desk: (518) 402-9554/Cell: (518) 860-5496 | daniel.nierenberg@dec.ny.gov
www.dec.ny.gov |

From: Jessica Friscia <JFriscia@Langan.com>
Sent: Tuesday, January 14, 2025 5:57 PM
To: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>; aforsburg@langan.com
Subject: RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

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Good evening Dan,

The following summarizes the 1/10 call and the revised sampling program. We are scheduling the next round of sampling to begin on or about February 17th, and will let you know if that changes.

Groundwater Monitoring Program

The following 5 well intervals at the following 3 wells will be removed from the sampling program:

- LMW-10R-D [includes two intervals] based on a) the lack of CVOCs since the 2023 injections and b) stable concentrations of acetone and MEK below SGVs.
- LMW-9R-D [includes one interval] based on a) the lack of CVOCs since the 2023 injections and b) stable concentrations of acetone and MEK below SGVs.
- Two of the three LMW-6R-D intervals [el -18 to -23 and el -28 to -33] based on a) the lack of CVOCs since February 2024 and b) decreasing concentrations of acetone and MEK below SGVs.

The following 11 well intervals at the following 8 wells will remain in the sampling program for the February 2025 sampling event:

- The following, which were proposed for removal on 12/19 and determined to remain included on 1/10:
  - LMW-10R-S [includes one interval] to continue assessing acetone and MEK concentrations
  - One LMW-6R-D interval [el -38 to -45] to continue monitoring acetone concentrations
  - One LMW-8R-D interval [el -13 to -20] to obtain analytical results below the lab Reporting Limits and confirming that contamination is not present above the SGVs.
- The remaining intervals at LMW-6R-S/D, LMW-7R-S/D, LMW-8R-S/D, LMW-9R-S, and LMW-10R-S

Soil Vapor Intrusion Evaluation

Four of the five soil vapor points were observed to be filled with water during various observations between November and January 2025. We will assess the points again during the February groundwater sampling event. If the points continue to be inundated with water, which will prevent the collection of soil vapor samples, we will prepare a memorandum and accompanying photo log presenting the site conditions to DEC and DOH and proposing the preparation of a desktop soil vapor intrusion evaluation as an alternative to sample collection.

Thanks,
Jess

Jessica Friscia, PE (she/her)
Senior Project Engineer

LANGAN

Direct: 973.560.4488
Mobile: 201.314.7195
File Sharing Link
www.langan.com

NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS PENNSYLVANIA VIRGINIA WASHINGTON, DC
OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA
ATHENS CALGARY DUBAI LONDON PANAMA

From: Jessica Friscia
Sent: Friday, January 10, 2025 12:36 PM
To: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>; Amanda Forsburg <aforsburg@Langan.com>
Subject: RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

Hi Dan,

We also wanted to discuss the VMP locations with you. Please see a marked-up drawing with photos of these locations at the link below.

Thanks,
Jess

https://clients.langan.com/Sharing/filesharing/ViewPosted?transactionHash=545763977

Name	Type	Size
VMP Sleeve Observations (2025-01-02)	.pdf	12.04 MB

Jessica Friscia, PE (she/her)
Senior Project Engineer

LANGAN

Direct: 973.560.4488
Mobile: 201.314.7195
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NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS PENNSYLVANIA VIRGINIA WASHINGTON, DC
OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA
ATHENS CALGARY DUBAI LONDON PANAMA

From: Jessica Friscia
Sent: Monday, January 6, 2025 11:38 AM
To: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>; Amanda Forsburg <aforsburg@Langan.com>
Subject: RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

Good morning Dan,

Hope you had a lovely New Year! We wanted to check back in if by chance you had availability for this call earlier this week?

Thanks!
Jess

Jessica Friscia, PE (she/her)
Senior Project Engineer

LANGAN

Direct: 973.560.4488
Mobile: 201.314.7195
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OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA
ATHENS CALGARY DUBAI LONDON PANAMA

From: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>
Sent: Tuesday, December 24, 2024 9:02 AM
To: Amanda Forsburg <aforsburg@Langan.com>; Jessica Friscia <JFriscia@Langan.com>
Subject: [External] RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

Hi Amanda,

Understood. I'll send out an appointment for 1/10, and I'll keep you posted if anything open's up in the meantime.

Happy Holidays and Happy New Year!

Dan

Daniel R. Nierenberg, P.G.
he/him/his
Remedial Bureau B, Section C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7016
Desk: (518) 402-9554/Cell: (518) 860-5496 | daniel.nierenberg@dec.ny.gov
www.dec.ny.gov | | |

~* Please not that I will be out of the office December 25th through January 1st. I will be returning to the office on January 2nd. Happy Holidays and Happy New Year. *~

From: Amanda Forsburg <aforsburg@Langan.com>
Sent: Tuesday, December 24, 2024 8:57 AM
To: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>; jfriscia@langan.com
Subject: RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hi Dan,

Replying for Jessica, as I think she may be out today.

Yes, we are available 1:30/2 pm on 1/10.

If there's any way you can squeeze us in earlier, please let us know. The Volunteer is urgently trying to map a path forward to determine what areas of the cellar can be accessible to their tenants following TCO in January. We'll make ourselves available at your convenience.

Hope COC season is treating you well. Have a happy holiday!

Amanda

Amanda Forsburg, CHMM
Associate Principal

LANGAN

Direct: 973.560.4574
Mobile: 201.615.9726
File Sharing Link
www.langan.com

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ATHENS CALGARY DUBAI LONDON PANAMA

From: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>
Sent: Tuesday, December 24, 2024 8:43 AM
To: Jessica Friscia <JFriscia@Langan.com>
Cc: Amanda Forsburg <aforsburg@Langan.com>
Subject: [External] RE: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

Good morning, Jessica,

I can setup up a Webex meeting to discuss the site on January 10th. Are you available at 1:30/2pm?

Dan

Daniel R. Nierenberg, P.G.
he/him/his
Remedial Bureau B, Section C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7016
Desk: (518) 402-9554/Cell: (518) 860-5496 | daniel.nierenberg@dec.ny.gov
www.dec.ny.gov |

~* Please not that I will be out of the office December 25th through January 1st. I will be returning to the office on January 2nd. Happy Holidays and Happy New Year. *~

From: Jessica Friscia <JFriscia@Langan.com>
Sent: Thursday, December 19, 2024 5:28 PM
To: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>
Cc: Robinson, Johnathan M (HEALTH) <Johnathan.Robinson@health.ny.gov>; Quandt, Sarah M (DEC) <Sarah.Quandt@dec.ny.gov>; aforsburg@langan.com; Ashley Sandve <asandve@Langan.com>; Steve Ciambruschini <sciambruschini@Langan.com>; Karen Nespolini <knespolini@Langan.com>
Subject: C231152 - 1487 1st Avenue Redevelopment Site - November 2024 Results

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good evening Dan,

The third performance groundwater monitoring event occurred at the site from 20 to 25 November 2024. Please see the attached figure showing the November 2024 groundwater analytical results and the attached table providing the cumulative results since before the first injections.

Performance monitoring groundwater analytical results revealed no CVOCs above the SGVs in any of the ten wells sampled. The maximum concentrations of the COCs, PCE, TCE, cis-1,2-DCE, VC, and chloroform, have been successfully reduced. Based on these results and the stable or declining concentrations in the fermentation byproducts acetone and methyl ethyl ketone, the following modifications to the sampling program are proposed:

- Closure of LMW-10R-S and LMW-10R-D based on:
  - The lack of CVOCs since February 2024 in the shallow well and since the 2023 injections in the deep well;
  - Decreasing concentrations of acetone and MEK at LMW-10R-S since the August 2024 event; and,
  - Stable concentrations of acetone and MEK below SGVs at LMW-10R-D during all 3 performance monitoring events.
- Removal of LMW-6R-D and LMW-9R-D and one of the intervals at LMW-8R-D from the sampling program based on:
  - LMW-6R-D: lack of CVOCs since February 2024 and decreasing or stable acetone/MEK concentrations;
  - The el -13 - -20 interval at LMW-8R-D: lack of CVOCs since February 2024 and decreasing acetone/MEK concentrations; and,
  - LMW-9R-D: lack of CVOCs since the 2023 injections and stable concentrations of acetone and MEK below SGVs.

These wells and intervals are highlighted in yellow in the attached figure.

We would like to schedule a call to discuss these results and the proposed modifications as soon as you are available. We know this is a busy time of year for the Department. The client is hopeful to proceed with the well closures ahead of going for their TCO for their affordable housing building in late January.

Thanks,
Jess

Jessica Friscia, PE (she/her)
Senior Project Engineer

LANGAN

Direct: 973.560.4488
Mobile: 201.314.7195
File Sharing Link

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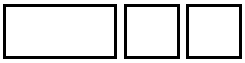

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Jessica Friscia

From: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>
Sent: Tuesday, July 8, 2025 12:59 PM
To: Jessica Friscia
Cc: Amanda Forsburg; Quandt, Sarah M (DEC); Robinson, Johnathan M (HEALTH)
Subject: RE: 1487 First Avenue (C231152) - PRR and Groundwater Performance Monitoring Report

Good afternoon, Jessica,

The NYSDEC and the NYSDOH have reviewed the above referenced PRR in association with the above referenced BCP site.

Please submit a final, certified PRR. Once received, the Department will issue a PRR acceptance letter.

Regarding the request to remove bedrock monitoring wells LMW-10R-S, LMW-8R-D (-13 to -20), and LMW-6R-S from the routine groundwater sampling schedule, the Department approves the request to remove the "downgradient" well 10R-S and as well as 8R-D (-13 to -20). 6R-S shall remain on the routine sampling schedule, since it is now considered the new "downgradient" well following the removal of 10R-S.

Additionally, can you resend the revised SMP via the NYSDEC Aspera file transfer system? It appears I did not download the document before the link expired.

Please let me know if you have any questions or comments.

Thank you very much.
Dan

Daniel R. Nierenberg, P.G.
he/him/his
Remedial Bureau B, Section C
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7016
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NEW YORK STATE | Department of Environmental Conservation

NYSDEC has a new File Transfer System. We no longer accept third-party links. You can send large files to me here:
https://mysend.ny.gov:443/nys/send/to/user/danielnierenbergdecnygov

---

From: Jessica Friscia <JFriscia@Langan.com>
Sent: Friday, May 30, 2025 6:32 PM
To: Nierenberg, Daniel R (DEC) <daniel.nierenberg@dec.ny.gov>
Cc: Robinson, Johnathan M (HEALTH) <Johnathan.Robinson@health.ny.gov>; Quandt, Sarah M (DEC) <Sarah.Quandt@dec.ny.gov>; aforsburg@langan.com; Ashley Sandve <asandve@Langan.com>; Steve Ciambruschini <sciambruschini@Langan.com>; Karen Nespolini <knespolini@Langan.com>; kbecker@carmelpartners.com; Stephen Martinelli <smartinelli@carmelpartners.com>; Andy Zheng <AZheng@CarmelPartners.com>;

mfeldman@carmelpartners.com; Maddie Bernadicou <MBernadicou@CarmelPartners.com>; 78THStreet <78THStreet@CarmelPartners.com>; Michael Bogin <mbogin@sprlaw.com>; Kevin Rogers <krogers@sprlaw.com>
Subject: 1487 First Avenue (C231152) - PRR and Groundwater Performance Monitoring Report

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Good evening Dan,

The following documents have been uploaded to your file transfer link:

- The PRR for 2023-2025. As this is the first PRR for this site, it is being submitted as a draft.
- The Groundwater Performance Monitoring Report, summarizing the March 2025 sampling event and analytical results.

Please confirm the upload of these files worked, and if not please use the link below to access these documents. The link will be active until 6/9. Both documents include sampling program modification recommendations for the Department's consideration.

The revised SMP will follow next week with the same recommendations. Please let us know if you have any questions or comments.

Thank you, and have a great weekend!

https://clients.langan.com/Sharing/filesharing/ViewPosted?transactionHash=-29952742

Name	Type	Size
1487 First Avenue - Periodic Review Report (DRAFT 2025-05-30)	.pdf	135.91 MB
1487 First Avenue - Periodic Review Report (DRAFT 2025-05-30)	.docx	136.81 KB
1487 1st Ave - Groundwater Monitoring Report (FINAL 2025-05-30)	.pdf	7.67 MB

Jessica Friscia, PE
Senior Project Engineer

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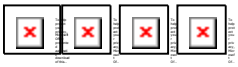

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APPENDIX D

Disposal Documentation

Please print or type
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone	4. Waste Tracking Number
			631-586-5900	NHWM222400

GENERATOR

5. Generator's Name and Mailing Address
CP-VII 78TH STREET OWNER, LLC
1487 FIRST AVENUE
NEW YORK, NY 10075
Generator's Phone:

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name
AARCO ENVIRONMENTAL SERVICES

U.S. EPA ID Number
NYR000107326

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
DALE TRANSFER CORPORATION
129 DALE STREET, WEST BABYLON NY 11704
631-393-2882
Facility's Phone:

U.S. EPA ID Number
N/A

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-REGULATED LIQUIDS (GROUNDWATER)	12	DM	6,000	P	
2.	NON-REGULATED MATERIAL (SOIL)	0	DM		P	
3.						
4.						

13. Special Handling Instructions and Additional Information
1. APPROVAL # 2022-749 (12 x 55g)
2. APPROVAL # 2022-750 (0 x 0)
AARCO WO# 222400 TRUCK# B457

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: X Tom Heroff of Lorsan as authorized agent of CPVII 78th Street Owner LLC
Signature: X
Month: 06 Day: 06 Year: 24

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Tushawn Davis
Signature:
Month: 06 Day: 06 Year: 24

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Armando Sanchez
Signature:
Month: 6 Day: 6 Year: 24

APPENDIX E

Site Inspection Form

SITE INSPECTION CHECKLIST

Site Name: 1487 First Avenue Redevelopment Site Location: New York, NY Project Number: 100963701

Inspector Name: Olivia Miller Date: 3/10/2025 Weather Conditions: Sunny, 55ºF

Reason for Inspection (i.e., routine, severe condition, etc.): Routine

Check one of the following:
(Y: Yes N: No N/A: Not Applicable)

		Y	N	N/A	Normal Situation	Remarks
	General					
1	What are the current site conditions?	-	-	-		Site appears to be in good condition. Building is being fit out.
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) complete and up to date?	☒				
	Environmental Easement					
3	Has site use (Restricted-Residential) remained the same?	☒				
4	Does it appear that all environmental easement restrictions have been followed?	☒				
	Building Slab					
5	Are there any indications of a breach in the building slab at the time of this inspection?		☒			
6	Are there any cracks in the building slabs?		☒			
7	Are there any cracks in the building walls?		☒			
8	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the building slab, on-site at the time of this inspection?		☒			10 monitoring well flushmounts are being installed in the sub-cellar that required coring the slab up to 3 inches down. The slab will be restored at these locations. Soil was not exposed during these activities.
9	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?					
	Bedrock Monitoring Wells					
10	Do the monitoring wells appear to be accessible and intact at the time of this inspection?	☒				
	Soil Vapor Monitoring Points					
11	Do the soil vapor monitoring points appear to be accessible and intact at the time of this inspection?			☒		Per the 2025 SVI Evaluation, vapor monitoring points could not be installed at the Site as groundwater was observed immediately below the slab at the proposed locations.

***** If the answer to any of the above questions indicate non-compliance with any Institutional Controls (ICs) for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.**

Additional remarks:

Minimum Inspection Schedule:
- Site-wide inspections will be conducted annually, per certification year, at a minimum.
- Additional inspections will also be conducted at times of severe weather condition events.
- All inspection events will use this checklist.

APPENDIX F

IC/EC Certification Form

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C231152**

Site Name 1487 1st Avenue Redevelopment Site

Site Address: 1487 1st Avenue Zip Code: 10075
City/Town: New York
County: New York
Site Acreage: 0.230

Reporting Period: December 27, 2023 to April 27, 2025

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☒	☐

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Unrestricted, Residential, Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C231152 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
1452-27	CP VII 78th Street Owner, LLC	Ground Water Use Restriction Site Management Plan Monitoring Plan IC/EC Plan

- groundwater Use restriction
- site management plan
- monitoring plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
1452-27	Monitoring Wells

- monitoring wells

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C231152

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Matthew Feldman (print name) at 510 Madison Avenue, 8th Floor, New York, NY 10022 (print business address),

am certifying as CP VII 78th Street Owner, LLC (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

8/21/2025
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jessica Friscia (print name) at Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 300 Kimball Drive, Parsippany, NJ 07054 (print business address),

am certifying as a Professional Engineer for the CP VII 78th Street Owner, LLC (Owner or Remedial Party)

Jessica Friscia

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

8/21/2025

Date